PLAN APPROVAL INFORMATION

RELATED INFORMATION	REQUIRED	NOT REQUIRED	COUNTY I.D. NUMBER	COMMENTS/SHEET NO.
1. CONCURRENT PROCESSING		X		
2. MODIFIED PROCESSING	X		6848-RGP-005	APPLICATION AND RGP APPROVED
3. MAXIMUM DENSITY ADJUSTMENTS BASED ON Z.O. 2-308		X		
4. AFFORDABLE DWELLING UNITS		X		
5. WORK FORCE UNITS	X			157 – SEE SHEET C01.101
6. R.P.A. DELINEATION		X		
7. FLOOD PLAIN STUDY		X		
8. DRAINAGE STUDY		X		
9. BATHYMETRIC SURVEY (SW-10)		X		
10. CHESAPEAKE BAY ACT EXCEPTION		X		
11. WATER QUALITY IMPACT ASSESSMENT		X		
12. SOILS REPORT	X		6848-SR-005/6	APPROVED 01/12 & 06/26, 2015-SEE SHEET C10.401
13. ONSITE EASEMENTS	X			SEE PLAT CHECK SHEET
14. OFFSITE EASEMENTS	X			SEE PLAT CHECK SHEET
15. NOTARIZED LETTERS OF PERMISSION	X			PERMISSION TO CONNECT TO SEWER – C10.401
16. ARCHITECTURAL REVIEW BOARD APPROVAL		X		
17. RETURN PLAN TO B.O.S. PRIOR TO APPR.		X		
18. RETURN PLAN TO P.C. PRIOR TO APPR.		X		
19. ADJACENT PROPERTY OWNER NOTICES	X			APPROVED 04/2015
20. OFFSITE UTILITY WORK NOTICES		X		
21. MAJOR UNDERGROUND UTILITY NOTICES		X		
22. REZONING/SPECIAL EXCEPTION/SPECIAL PERMIT APPROVAL	X		RZ 2009-HM-017	SEE SHEETS R01.101-R01.176; APPROVED 07/29/2014
23. B.O.S./B.Z.A. CLERK LETTER/RESOLUTION	X		PCA C-696-10	SEE SHEET C10.101
24. REZONING PROFFERS/CONDITIONS	X		GDP/FDP/RZ	SEE SHEETS C10.101-C10.114; APPROVED 07/29/2014
25. REZONING DEVELOPMENT PLAN	X		2009-HM-017	SEE SHEETS R01.101-R01.176; APPROVED 07/29/2014
26. B.Z.A. VARIANCE APPROVAL		X		
27. WETLANDS/WATERS OF THE U.S. PERMIT	X			DATE SENT TO ACOE: PERMIT RECEIVED:6/11/11PERMIT NO. WP4-08-0334
28. STATE REGULATED DAM PERMIT		X		PERMIT RECEIVED: PERMIT NO.
29. LOCATED IN DAM BREAK INUNDATION ZONE (STATE REGULATED DAMS) 2 EXTRA PLAN SETS REQUIRED		X		DAM NAME: DAM NO.:
30. FEMA LETTER OF MAP REVISION		X		DATE CLOMR RECEIVED:
31. VEGETATED ROOF NOTE		X		
32. OVERLAY DISTRICT INFORMATION	X			THIS SHEET
33. TREE BANKING		X		
34. TREE FUND		X		
35. GREEN PROJECT CERTIFICATION FOR GREEN PRIORITY PLAN REVIEW	X			SEE SHEET C10.301
36. STREET LIGHTS	X			SEE SHEETS C02.101-C02.104; C03.401-C03.405
MODIFICATIONS/WAIVERS				
OFF-SITE STORMWATER DETENTION	X		6848-WSWD-011	APPROVED (12/14/2014) – SEE SHEET C10.202
VDOT WAIVERS	X			SEE SHEET C10.205 – C10.207
REZONING & PCA APPROVED WAIVERS	X		RZ 2009-HM-107 PCA C-696-10	SEE SHEET C10.101 –C10.102
SWM AND ROAD GEOMETRY INTERPRETATION	X			SEE SHEET C10.203 – C10.204
PARKING REDUCTION	X		6848-PKS-002-1	APPROVED (09/22/2015) SEE SHEET C10.201

SOLID WASTE AND RECYCLING: ALL PROPERTIES ARE REQUIRED TO RECYCLE. DESIGNS FOR ALL PROPERTIES MUST PROVIDE ADEQUATE CONTAINERS/STRUCTURES FOR THE SEPARATE MANAGEMENT OF RECYCLABLES AND TRASH.

SINGLE-FAMILY DETACHED AND TOWNHOUSE DEVELOPMENTS

I CERTIFY THAT THE SITE DEPICTED ON THIS PLAN IS (CHECK APPLICABLE STATEMENT):
___ IN A SANITARY DISTRICT WHERE TRASH AND RECYCLING COLLECTION IS CONDUCTED BY FAIRFAX COUNTY AND THAT I HAVE INFORMED THE PROPERTY OWNER OF THIS CONDITION.
___ NOT IN A SANITARY DISTRICT AND TRASH AND RECYCLING COLLECTION WILL BE CONDUCTED BY A PRIVATE COMPANY.

NON-RESIDENTIAL PROPERTIES, INCLUDING BUSINESSES, SCHOOLS AND INSTITUTIONS, AND MULTI-FAMILY PROPERTIES, INCLUDING CONDOMINIUMS AND APARTMENTS.

I CERTIFY THAT (ALL STEPS MUST BE COMPLETED):
_X_ I HAVE COMPLETED A WASTE STREAM CALCULATION WORKSHEET FOR THIS PROPERTY.
_X_ I HAVE INDICATED ON THE PLAN THE LOCATION AND TYPE OF TRASH AND RECYCLING CONTAINERS AND STRUCTURES. SEE SHEET NUMBER _X_ IN ____EACH____BUILDING. ✱ C02.101-C09.103
_X_ THE TRASH AND RECYCLING MANAGEMENT CONTAINERS/STRUCTURES ON THIS PLAN ARE ADEQUATE TO MEET THE MINIMUM RECYCLING REQUIREMENT AS DESCRIBED ON THE WASTE STREAM CALCULATION WORKSHEET.

SANITARY SEWER INFORMATION

WASTEWATER TREATMENT PLANT BLUE PLAINS
___ THIS SITE IS SUBJECT TO _____ SANITARY SEWER REIMBURSEMENT CHARGES.
___ THIS SITE IS SERVED BY ONSITE SEWAGE TREATMENT SYSTEM(S).

INFORMATION REGARDING ACTIVITIES IN A RESOURCE PROTECTION AREA

ACTIVITY	YES/NO
CONSTRUCTION ACTIVITIES IN A RESOURCE PROTECTION AREA (IF YES, INDICATE TYPE BELOW)	NO
REDEVELOPMENT PRINCIPAL STRUCTURE	N/A
REDEVELOPMENT ACCESSORY STRUCTURE	N/A
PUBLIC ROADS	N/A
PRIVATE ROADS	N/A
DRIVEWAYS	N/A
STORMWATER OUTFALL	N/A
OTHER (INDICATE TYPE):	N/A

TREE PRESERVATION

TREE PRESERVATION TARGET DEVIATIONS OR MODIFICATIONS ARE BEING REQUESTED.

YES [X] NO [ ] N/A [ ]
*SEE SHEET C10.101

POTENTIAL FOR WETLANDS

IS THE DISTURBED AREA LOCATED IN A WETLANDS AREA DEPICTED ON THE NATIONAL WETLANDS INVENTORY MAP? YES[X] NO[ ]

IS THE DISTURBED AREA LOCATED IN AN ESTIMATED WETLANDS AREA DEPICTED ON THE COUNTY POTENTIAL WETLAND AREA MAP? YES [ ] NO [X]

IF YES, TO EITHER OF THE TWO QUESTIONS ABOVE, PROVIDE EVIDENCE OF APPROVED PERMIT OR VERIFICATION THAT NO PERMIT FROM THE ARMY CORPS OF ENGINEERS IS REQUIRED BEFORE PLAN IS APPROVED.

NOTES AND CONDITIONS

1. THE APPROVAL OF THESE PLANS SHALL IN NO WAY RELIEVE THE DEVELOPER OR HIS AGENT OF ANY LEGAL RESPONSIBILITIES WHICH MAY BE REQUIRED BY THE CODE OF VIRGINIA OR ANY ORDINANCE ENACTED BY THE COUNTY OF FAIRFAX.
2. THE DESIGN, CONSTRUCTION, FIELD PRACTICES, AND METHODS SHALL CONFORM TO THE REQUIREMENTS SET FORTH IN THE FAIRFAX COUNTY CODE AND IN THE PUBLIC FACILITIES MANUAL AS AMENDED. FAILURE TO COMPLY WITH THE FAIRFAX COUNTY CODE, THE PUBLIC FACILITIES MANUAL, THE APPROVED PLANS, AND THE PROVISIONS OF THE DEVELOPMENT AGREEMENT AND PERMIT SHALL BE DEEMED A VIOLATION.
3. WATER DISTRIBUTION NOTE: ALL FIRE PROTECTION SYSTEMS WHICH ARE INSTALLED IN COMPLIANCE WITH THESE PLANS AND COUNTY OF FAIRFAX ORDINANCES SHALL BE MAINTAINED IN AN OPERATIVE CONDITION AT ALL TIMES. WHEN NECESSARY TO TEMPORARILY REDUCE OR DISCONTINUE THE PROTECTION IN ORDER TO MAKE TESTS, REPAIRS, ALTERATIONS OR ADDITIONS, NOTIFY THE FAIRFAX COUNTY PUBLIC SAFETY COMMUNICATIONS CENTER AT 703-691-2131.
4. A PERMIT MUST BE OBTAINED FROM THE VIRGINIA DEPARTMENT OF TRANSPORTATION, NORTHERN VIRGINIA DISTRICT, BEFORE ANY CONSTRUCTION IS STARTED ON ANY EXISTING STATE ROUTE. CONTACT THE VIRGINIA DEPARTMENT OF TRANSPORTATION THREE WORKING DAYS BEFORE EXCAVATION IN ANY STATE RIGHT OF WAY AT 703-383-2888.
5. CONTRACTORS SHALL NOTIFY THE "MISS UTILITY" NOTIFICATION CENTER AT 1-800-552-7001 FOR ANY PROPOSED EXCAVATION, DEMOLITION, OR BLASTING AT LEAST TWO WORKING DAYS PRIOR TO COMMENCEMENT OF EXCAVATION DEMOLITION, OR BLASTING IN ACCORDANCE WITH THE VIRGINIA UNDERGROUND UTILITY DAMAGE PREVENTION ACT. IN ADDITION, NAMES AND TELEPHONE NUMBERS SHALL ALSO BE USED TO SERVE IN AN EMERGENCY CONDITION AS REQUIRED BY SECTION 63-2-2 OF THE FAIRFAX COUNTY CODE.
6. THE COUNTY INSPECTOR SHALL BE NOTIFIED WHEN ANY IMPROVEMENTS PERTINENT TO HIS INSPECTION DUTIES ARE BEING INSTALLED. SPECIFIC REQUIREMENTS ARE:
   A. THE COUNTY SITE INSPECTOR IS TO BE NOTIFIED AT LEAST 3 DAYS PRIOR TO START OF CONSTRUCTION.
   B. A MINIMUM OF 24 HOURS NOTICE IS REQUIRED WHEN REQUESTING RESIDENTIAL OR NON-RESIDENTIAL USE PERMITS.
   C. A MINIMUM OF 48 HOURS NOTICE IS REQUIRED WHEN REQUESTING TESTS PERTAINING TO SANITARY SEWER ACCEPTANCE.

PROFESSIONAL SEAL AND SIGNATURE

COMMONWEALTH OF VIRGINIA — CODY A. PENNETTI — No. 045500 — 2/25/12 — PROFESSIONAL ENGINEER

DATE _____ DATE DECEMBER 14, 2015 DATE _____

DESIGNATED PLANS EXAMINER (DPE) CERTIFICATE

1ST SUBMISSION REVIEWED & RECOMMENDED FOR SUBMISSION

DANIELA MEDEK
D.P.E. SIGNATURE & PRINTED NAME

DATE:_____ REG. NO.: 300

2ND SUBMISSION REVIEWED & RECOMMENDED FOR APPROVAL

ED LIMBRELI
D.P.E. SIGNATURE & PRINTED NAME

DATE: 12/16/2015 REG. NO.: 247

POST SUBMISSION CONFECENCE DATE: JULY 21, 2015

ZONING REQUIREMENTS

1) ZONING PRM (RZ 2009-HM-017)
2) AVERAGE LOT AREA N/A (SQ. FT.)
3) MIN. LOT AREA N/A (SQ. FT.)
4) MIN. LOT WIDTH N/A (FT.)
5) MAX. BUILDING HEIGHT OFFICE/RESIDENTIAL=180', HOTEL=120' (FT.)
6) NUMBER OF FLOORS OFFICE=13, RESIDENTIAL=16, HOTEL=12 (Commercial/Industrial ONLY)
7) MIN. YARD REQUIREMENTS: *AS SHOWN ON RZ 2009-HM-017 (SHEET R01.107)
   FRONT * (FT.) SIDE * (FT.) REAR * (FT.)
8) MAXIMUM FAR 3.00 (3.005 WITH BONUS) PER RZ
9) MAXIMUM DENSITY N/A (D.U./AC.)
10) OPEN SPACE REQUIRED 20 % 127,851 (SQ. FT.)
11) ANGLE OF BULK PLANE: FRONT N/A. SIDE N/A. REAR N/A.
    (DETAIL(S) ON SHEET **) **NO BULK PLANE FOR PRM
12) OVERLAY DISTRICT(S) ROUTE 28 TAX DISTRICT

SITE PLAN (SP) TABULATIONS

1) SITE AREA 14.68 (ACRES) 639,253 (SQ. FT.)
2) AREA OF STREET DEDICATION 106,574 (SQ. FT.)*SEE SHEET C01.301
3) USE MIXED (OFFICE, RETAIL, MULTI-FAMILY, HOTEL)
4) NUMBER OF LOTS N/A
5) AREA OF LOTS N/A (SQ. FT.)
6) DENSITY N/A (D.U./AC.)
7) EXISTING BUILDING GROSS FLOOR AREA 0 (SQ. FT.)
8) PROPOSED BUILDING GROSS FLOOR AREA 1,644,701 (SQ. FT.)
9) EXISTING BUILDING NET FLOOR AREA 0 (SQ. FT.)
10) PROPOSED BUILDING NET FLOOR AREA 1,315,760 (SQ. FT.)
11) TOTAL FLOOR AREA RATIO (FAR) FOR ENTIRE SITE 2.574
12) PROPOSED BUILDING HEIGHT 120'-180' (FT.)
13) PROPOSED NUMBER OF FLOORS 12-16 COMMERCIAL/INDUSTRIAL ONLY
14) TOTAL HANDICAPPED PARKING REQUIRED 36
15) TOTAL HANDICAPPED PARKING PROVIDED 40
16) TOTAL HANDICAPPED VAN SPACES REQUIRED 8
17) TOTAL HANDICAPPED VAN SPACES PROVIDED 28
18) TOTAL PARKING SPACES REQUIRED 2,947
19) TOTAL PARKING SPACES PROVIDED 3,250
20) LOADING SPACES REQUIRED PER CDP/FDP: 9
21) LOADING SPACES PROVIDED 9
22) OPEN SPACE PROVIDED 36 % 230,181 (SQ. FT.)

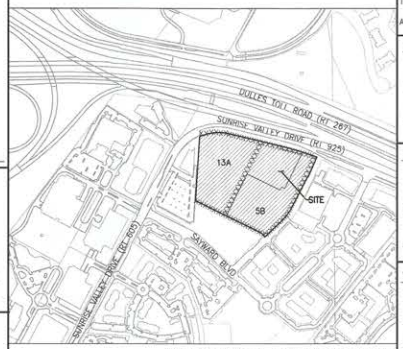
FIRE MARSHAL NOTES

AVAILABLE FIRE FLOW 2,575 GPM (GAL./MIN.)
SOURCE OF FIRE FLOW INFO. FAIRFAX WATER
TYPE OF CONSTRUCTION – USBC IA
USE GROUP CLASSIFICATION – USBC A-2, A-3, B, M, R-1, R-2, S-2
BUILDING HEIGHT OFFICE/RESIDENTIAL=180', HOTEL=120' * (FT.)*SHEETS C02.101-C02.104
BUILDING TO BE FULLY SPRINKLERED YES ☒ NO ☐

IF YES, CHECK APPROPRIATE STANDARD: NFPA 13 ☒ ; NFPA 13D ☐ ; NFPA 13R ☐
SEE PFM CHAPTER 9, PART 2 FOR FULL INFORMATION REQUIRED. FIRE FLOW REQUIREMENTS TO BE DETERMINED BY THE FIRE PREVENTION DIVISION.
[SEE PUBLIC WATER AGENCY NOTES ON SHEET C05.601]

VICINITY MAP

SCALE: 1" = 500'



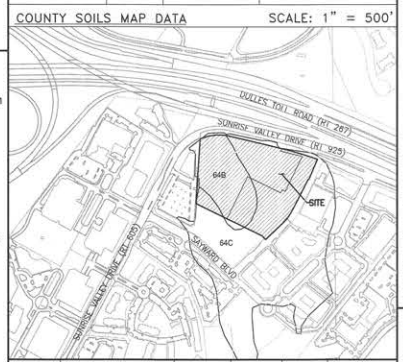
SIDEWALK MAINTENANCE: XXXX-VDOT, OOOO-FFX CO
TRAIL MAINTENANCE: OOOO-FFX CO
ALL OTHER WALKS/TRAILS TO BE OWNER MAINTAINED

TAX MAP REFERENCE NUMBER(S)

MAP PAGE #	DOUBLE CIRCLE #	BLOCK (SINGLE CIRCLE #)	LOT/PARCEL(S) #
15-2	1		13A
15-4	5		5B

COUNTY SOILS MAP DATA

SCALE: 1" = 500'



SOIL ID NUMBERS	SOIL SERIES NAME	FOUNDATION SUPPORT	SOIL DRAINAGE	EROSION POTENTIAL	PROBLEM CLASS
64B	JACKLAND AND HAYMARKET	POOR-P,C,B	POOR-P,C,S	MEDIUM	III
64C	JACKLAND AND HAYMARKET	POOR-P,C,B	POOR-P,C,S	MEDIUM	III
		SOILS REPORT APPROVED SEE SECTION B01-GEOTECHNICAL			

IS THE SITE LOCATED WITHIN NATURALLY OCCURRING ASBESTOS SOILS? YES☐ NO☒

AREAS THAT MAY CONTAIN NATURALLY OCCURRING ASBESTOS SOILS ARE LOCATED ON THE ORANGE SOILS TAX MAP GRIDS ON THE COUNTY WEBSITE. SPECIAL PRECAUTIONS REGARDING THESE SOILS OR FILL ORIGINATING FROM THESE SOILS ARE REQUIRED BY THE OCCUPATIONAL SAFETY AND HEALTH REGULATIONS ENFORCED BY THE VIRGINIA DEPARTMENT OF LABOR AND INDUSTRY AND SPECIAL GUIDANCE HAS BEEN ISSUED BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY.

STORMWATER INFORMATION

HIGH DENSITY POLYETHYLENE (HDPE) USED ON THIS PROJECT YES [X] NO [ ]
THE PLAN MEETS: TIME LIMITS ON APPLICABILITY OF APPROVED DESIGN CRITERIA [X]
SWM FACILITIES (PROPOSED ONLY) GRANDFATHERING CRITERIA [X]

VPDES REQUIRED YES [X] NO [ ]
VPDES PERMIT NO. (IF TIME LIMITS): _____
COUNTY STORMWATER PERMIT REQUIRED YES [X] NO [ ]
SWM FACILITIES DESIGNED USING: TECHNICAL CRITERIA 4 [ ] (NEW)
TECHNICAL CRITERIA 5 [X] (OLD)

FACILITY ID NO.	FACILITY TYPE	PURPOSE	AREA TREATED (ACRES)	LATITUDE (DECIMAL DEGREE)	LONGITUDE (DECIMAL DEGREE)	WATERSHED	RECEIVING WATERS	MAINTENANCE AGREEMENT Y/N	VAHU6 CODE	LENGTH/AREA OF FACILITY	UNIT (FT/SF)	NO. OF BLDG. SERVED (FOR ROOFTOP DISCONNECT)
A	BIORETENTION FILTER	BMP	0.45 AC	N38.573209	W77.250514	HORSEPEN CREEK	MERRYBROOK RUN	Y	PL18	5,850	SF	
B	STORMCEPTOR	BMP	2.09 AC	N38.573230	W77.250566	HORSEPEN CREEK	MERRYBROOK RUN	Y	PL18	20	SF	
C	RAINWATER HARVESTING	BMP	3.65 AC	N38.573703	W77.250762	HORSEPEN CREEK	MERRYBROOK RUN	Y	PL18	–	SF	
	*THESE SYSTEMS ARE PROVIDED TO MEET PROFFERED REQUIREMENTS, AND NOT INTENDED FOR REVIEW/APPROVAL. THE SITE STORMWATER QUALITY IS PROVIDED BY AN OFF-SITE REGIONAL DRY POND. OFF-SITE STORMWATER QUALITY IS PROVIDED THROUGH CREDIT PURCHASE.											

DISTURBED AREA (DA) WITHIN WATERSHED(S):
WATERSHED 1 HORSEPEN CREEK DA= 19.96 (ACRES) WATERSHED 2 _____ DA=_____ (ACRES) TOTAL DISTURBED AREA= 19.96 (ACRES)

ENGINEER'S/SURVEYOR'S CERTIFICATE:

THIS PROPERTY IS IN THE NAME OF NUGGET JOINT VENTURE, LC (ROCKS)
AS RECORDED IN DEED BOOK 9500 PAGE 1070 OF THE LAND RECORDS OF FAIRFAX COUNTY, VA.

OWNER INFORMATION

(X) OWNER ( ) TRUSTEE
( ) A CORPORATION (X) A PARTNERSHIP ( ) AN INDIVIDUAL

NUGGET JOINT VENTURE, LC — NAME
703-915-3383 — PHONE
1960 GALLOWS ROAD, SUITE 300, VIENNA, VA 22182 — ADDRESS
HELLYERM@CSROCKS.COM — EMAIL

DEVELOPER INFORMATION

(X) DEVELOPER ( ) CONTRACT OWNER ( ) LESSEE
( ) A CORPORATION ( ) A PARTNERSHIP (X) AN INDIVIDUAL

NUGGET JOINT VENTURE, LC — NAME
703-915-3383 — PHONE
1960 GALLOWS ROAD, SUITE 300, VIENNA, VA 22182 — ADDRESS
HELLYERM@CSROCKS.COM — EMAIL

WETLANDS PERMITS CERTIFICATION

I HEREBY CERTIFY THAT ALL WETLANDS PERMITS REQUIRED BY LAW WILL BE OBTAINED PRIOR TO COMMENCING WITH LAND DISTURBING ACTIVITIES.

SIGNATURE _____ NUGGET JOINT VENTURE, LC — OWNER/DEVELOPER NAME — MANAGER TITLE

NOTE: PERMITS MUST BE PRESENTED TO THE COUNTY INSPECTOR PRIOR TO LAND DISTURBANCE.

DATE	RECOMMEND APPROVAL (SIGNATURE & PRINTED NAME)
5/14/15	Aileen Sandiego (LD) — STREETLIGHT REVIEW – DPWES
5/12/15	Chris Finney (LD) — PUBLIC WATER AGENCY
4/29/15	Bob Berk (LD) — SANITARY SEWER REVIEW – DPWES
10/14/15	Keith Cline (LD) — URBAN FOREST MANAGEMENT REVIEW – DPWES
4/30/15	M. Parrish (LD) — FAIRFAX COUNTY FIRE MARSHAL
6/26/15	Noreen Maloney (LD)(24+CO.207) — FAIRFAX COUNTY HEALTH DEPARTMENT
12/22/15	Jonathan Sisa (LD) — VIRGINIA DEPARTMENT OF TRANSPORTATION
12/23/15	Yasir Pershin (LD) — GEOTECHNICAL REVIEW, DPWES
12/23/15	Sara O'Leary — STORMWATER REVIEW, DPWES
12/22/15	_____ — ENVIRONMENTAL REVIEW, DPWES

APPROVED

DATE 5/26/16 BY _____ DIRECTOR, SITE DEVELOPMENT & INSPECTIONS DIVISION, LDS, – DPWES

DIRECTOR, DEPT. OF PUBLIC WORKS AND ENVIRONMENTAL SERVICES

THIS PLAN SHALL EXPIRE WITHOUT NOTICE IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF THE COUNTY CODE. REVISIONS DO NOT EXTEND THE APPROVAL PERIOD. THE APPROVAL PERIOD IS INDEPENDENT OF THE AGREEMENT EXPIRATION DATE.

THIS APPROVAL IS NOT A COMMITMENT TO PROVIDE PUBLIC SANITARY SEWER

CERTIFICATE OF NO CHANGE (FOR SUBMISSION OTHER THAN THE FIRST)

I HEREBY CERTIFY THAT NO CHANGES HAVE BEEN MADE THAT WOULD AFFECT PRIOR APPROVAL BY THE

FIRE MARSHAL DATED 04/30/2015
WATER AUTHORITY DATED 05/12/2015
HEALTH DEPARTMENT DATED N/A
VDOT DATED 06/26/2015
DPWES-SAN. SEWER DATED 04/29/2015
DPWES-STREETLIGHTS DATED 05/04/2015
UFMD DATED 10/02/2015

SHEET INDEX

THE SHEET SET HAS BEEN CODIFIED BY SECTIONS NUMBERS.
REFER TO SHEET C01.001 FOR COMPLETE SHEET LIST.
SECTIONS INCLUDED ARE AS FOLLOWS:

SECTION NUMBER:

C01-GENERAL
C02-SITE PLAN
C03-ROAD DESIGN
C04-SANITARY SEWER
C05-FIRE & WATER
C06-STORM SEWER
C07-SWM
C08-E&S
C09-PARKING PLAN
C10-LETTERS
L01-LANDSCAPE
L02-TREE PRESEVATION
B01-GEOTECHNICAL
R01-ZONING
R02-INFORMATION ONLY

DESIGN ENGINEER / SURVEYOR
FIRM NAME: DEWBERRY CONSULTANTS LLC
ADDRESS: 8401 ARLINGTON BLVD FAIRFAX, VA 22031
PHONE NO: 703-849-0100 FAX NO: 703-849-0518
PROJ. MANAGER: CODY A. PENNETTI EMAIL: CPENNETTI@DEWBERRY.COM

INNOVATION CENTER SOUTH

SITE PLAN

SITE PLAN OR PUBLIC IMPROVEMENT PLAN COVERSHEET

SPRINGFIELD DISTRICT
FAIRFAX COUNTY, VIRGINIA

Date: 12/14/15 Revisions
Inserted Sheets C10.201, C10.202, C10.203, C10.204 & C10.401
Reviewer's Name: D. Leary

COUNTY NUMBER 6848-SP-014-2

PLAN REVIEWER _____

SHEET 1 OF 255

REVISED: 7/14

Issued For Construction
May 26, 2016

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PARKING REDUCTION	X		6848-PKS-002-1	APPROVED (09/22/2015) SEE SHEET C10.201

SOLID WASTE AND RECYCLING: ALL PROPERTIES ARE REQUIRED TO RECYCLE. DESIGNS FOR ALL PROPERTIES MUST PROVIDE ADEQUATE CONTAINERS/STRUCTURES FOR THE SEPARATE MANAGEMENT OF RECYCLABLES AND TRASH.

SINGLE-FAMILY DETACHED AND TOWNHOUSE DEVELOPMENTS

I CERTIFY THAT THE SITE DEPICTED ON THIS PLAN IS (CHECK APPLICABLE STATEMENT):

___ IN A SANITARY DISTRICT WHERE TRASH AND RECYCLING COLLECTION IS CONDUCTED BY FAIRFAX COUNTY AND THAT I HAVE INFORMED THE PROPERTY OWNER OF THIS CONDITION.

___ NOT IN A SANITARY DISTRICT AND TRASH AND RECYCLING COLLECTION WILL BE CONDUCTED BY A PRIVATE COMPANY.

NON-RESIDENTIAL PROPERTIES, INCLUDING BUSINESSES, SCHOOLS AND INSTITUTIONS, AND MULTI-FAMILY PROPERTIES, INCLUDING CONDOMINIUMS AND APARTMENTS.

I CERTIFY THAT (ALL STEPS MUST BE COMPLETED):

_X_ I HAVE COMPLETED A WASTE STREAM CALCULATION WORKSHEET FOR THIS PROPERTY.

_X_ I HAVE INDICATED ON THE PLAN THE LOCATION AND TYPE OF TRASH AND RECYCLING CONTAINERS AND STRUCTURES. SEE SHEET NUMBER _X_ IN ___EACH___BUILDING. X C02.101–C09.103

_X_ THE TRASH AND RECYCLING MANAGEMENT CONTAINERS/STRUCTURES ON THIS PLAN ARE ADEQUATE TO MEET THE MINIMUM RECYCLING REQUIREMENT AS DESCRIBED ON THE WASTE STREAM CALCULATION WORKSHEET.

SANITARY SEWER INFORMATION

WASTEWATER TREATMENT PLANT BLUE PLAINS

___ THIS SITE IS SUBJECT TO _____ SANITARY SEWER REIMBURSEMENT CHARGES.

___ THIS SITE IS SERVED BY ONSITE SEWAGE TREATMENT SYSTEM(S).

INFORMATION REGARDING ACTIVITIES IN A RESOURCE PROTECTION AREA

ACTIVITY	YES/NO
CONSTRUCTION ACTIVITIES IN A RESOURCE PROTECTION AREA (IF YES, INDICATE TYPE BELOW)	NO
REDEVELOPMENT PRINCIPAL STRUCTURE	N/A
REDEVELOPMENT ACCESSORY STRUCTURE	N/A
PUBLIC ROADS	N/A
PRIVATE ROADS	N/A
DRIVEWAYS	N/A
STORMWATER OUTFALL	N/A
OTHER (INDICATE TYPE):	N/A

TREE PRESERVATION

TREE PRESERVATION TARGET DEVIATIONS OR MODIFICATIONS ARE BEING REQUESTED.

YES [X] NO [ ] N/A [ ]

*SEE SHEET C10.101

POTENTIAL FOR WETLANDS

IS THE DISTURBED AREA LOCATED IN A WETLANDS AREA DEPICTED ON THE NATIONAL WETLANDS INVENTORY MAP? YES[X] NO[ ]

IS THE DISTURBED AREA LOCATED IN AN ESTIMATED WETLANDS AREA DEPICTED ON THE COUNTY POTENTIAL WETLAND AREA MAP? YES [ ] NO [X]

IF YES, TO EITHER OF THE TWO QUESTIONS ABOVE, PROVIDE EVIDENCE OF APPROVED PERMIT OR VERIFICATION THAT NO PERMIT FROM THE ARMY CORPS OF ENGINEERS IS REQUIRED BEFORE PLAN IS APPROVED.

NOTES AND CONDITIONS

1. THE APPROVAL OF THESE PLANS SHALL IN NO WAY RELIEVE THE DEVELOPER OR HIS AGENT OF ANY LEGAL RESPONSIBILITIES WHICH MAY BE REQUIRED BY THE CODE OF VIRGINIA OR ANY ORDINANCE ENACTED BY THE COUNTY OF FAIRFAX.
2. THE DESIGN, CONSTRUCTION, FIELD PRACTICES, AND METHODS SHALL CONFORM TO THE REQUIREMENTS SET FORTH IN THE FAIRFAX COUNTY CODE AND IN THE PUBLIC FACILITIES MANUAL AS AMENDED. FAILURE TO COMPLY WITH THE FAIRFAX COUNTY CODE, THE PUBLIC FACILITIES MANUAL, THE APPROVED PLANS, AND THE PROVISIONS OF THE DEVELOPMENT AGREEMENT AND PERMIT SHALL BE DEEMED A VIOLATION.
3. WATER DISTRIBUTION NOTE: ALL FIRE PROTECTION SYSTEMS WHICH ARE INSTALLED IN COMPLIANCE WITH THESE PLANS AND COUNTY OF FAIRFAX ORDINANCES SHALL BE MAINTAINED IN AN OPERATIVE CONDITION AT ALL TIMES. WHEN NECESSARY TO TEMPORARILY REDUCE OR DISCONTINUE THE PROTECTION IN ORDER TO MAKE TESTS, REPAIRS, ALTERATIONS OR ADDITIONS, NOTIFY THE FAIRFAX COUNTY PUBLIC SAFETY COMMUNICATIONS CENTER AT 703-691-2131.
4. A PERMIT MUST BE OBTAINED FROM THE VIRGINIA DEPARTMENT OF TRANSPORTATION, NORTHERN VIRGINIA DISTRICT, BEFORE ANY CONSTRUCTION IS STARTED ON ANY EXISTING STATE ROUTE. CONTACT THE VIRGINIA DEPARTMENT OF TRANSPORTATION THREE WORKING DAYS BEFORE EXCAVATION IN ANY STATE RIGHT OF WAY AT 703-383-2888.
5. CONTRACTORS SHALL NOTIFY THE "MISS UTILITY" NOTIFICATION CENTER AT 1-800-552-7001 FOR ANY PROPOSED EXCAVATION, DEMOLITION, OR BLASTING AT LEAST TWO WORKING DAYS PRIOR TO COMMENCEMENT OF EXCAVATION DEMOLITION, OR BLASTING IN ACCORDANCE WITH THE VIRGINIA UNDERGROUND UTILITY DAMAGE PREVENTION ACT. IN ADDITION, NAMES AND TELEPHONE NUMBERS SHALL ALSO BE USED TO SERVE IN AN EMERGENCY CONDITION AS REQUIRED BY SECTION 63-2-2 OF THE FAIRFAX COUNTY CODE.
6. THE COUNTY INSPECTOR SHALL BE NOTIFIED WHEN ANY IMPROVEMENTS PERTINENT TO HIS INSPECTION DUTIES ARE BEING INSTALLED. SPECIFIC REQUIREMENTS ARE:
   A. THE COUNTY SITE INSPECTOR IS TO BE NOTIFIED AT LEAST 3 DAYS PRIOR TO START OF CONSTRUCTION.
   B. A MINIMUM OF 24 HOURS NOTICE IS REQUIRED WHEN REQUESTING RESIDENTIAL OR NON-RESIDENTIAL USE PERMITS.
   C. A MINIMUM OF 48 HOURS NOTICE IS REQUIRED WHEN REQUESTING TESTS PERTAINING TO SANITARY SEWER ACCEPTANCE.

PROFESSIONAL SEAL AND SIGNATURE

COMMONWEALTH OF VIRGINIA — CODY A. PENNETTI — Lic. No. 048560 — PROFESSIONAL ENGINEER — 12/16/2015

DATE _____

PROFESSIONAL SEAL AND SIGNATURE

COMMONWEALTH OF VIRGINIA — Paul D. Agutter — Lic. No. 38105 — PROFESSIONAL ENGINEER — 12/18/15

DATE DECEMBER 14, 2015

PROFESSIONAL SEAL AND SIGNATURE

DATE _____

DESIGNATED PLANS EXAMINER (DPE) CERTIFICATE

1ST SUBMISSION REVIEWED & RECOMMENDED FOR SUBMISSION

DANIELA MEDEK
D.P.E. SIGNATURE & PRINTED NAME

DATE:_____ REG. NO.: 300

2ND SUBMISSION REVIEWED & RECOMMENDED FOR APPROVAL

ED UMBRELL
D.P.E. SIGNATURE & PRINTED NAME

DATE: 12/16/2015 REG. NO.: 247

POST SUBMISSION CONFECENCE DATE: JULY 21, 2015

ZONING REQUIREMENTS

1) ZONING PRM (RZ 2009-HM-017)
2) AVERAGE LOT AREA N/A (SQ. FT.)
3) MIN. LOT AREA N/A (SQ. FT.)
4) MIN. LOT WIDTH N/A (FT.)
5) MAX. BUILDING HEIGHT OFFICE/RESIDENTIAL=180', HOTEL=120' (FT.)
6) NUMBER OF FLOORS OFFICE=13, RESIDENTIAL=16, HOTEL=12 (Commercial/Industrial ONLY)
7) MIN. YARD REQUIREMENTS: *AS SHOWN ON RZ 2009-HM-017 (SHEET R01.107)
   FRONT * (FT.) SIDE * (FT.) REAR * (FT.)
8) MAXIMUM FAR 3.00 (3.005 WITH BONUS) PER RZ
9) MAXIMUM DENSITY N/A (D.U./AC.)
10) OPEN SPACE REQUIRED 20 % 127,851 (SQ. FT.)
11) ANGLE OF BULK PLANE: FRONT N/A SIDE N/A REAR N/A
    (DETAIL(S) ON SHEET **) **NO BULK PLANE FOR PRM
12) OVERLAY DISTRICT(S) ROUTE 28 TAX DISTRICT

SITE PLAN (SP) TABULATIONS

1) SITE AREA 14.68 (ACRES) 639,253 (SQ. FT.)
2) AREA OF STREET DEDICATION 106,574 (SQ. FT.)*SEE SHEET C01.301
3) USE MIXED (OFFICE, RETAIL, MULTI-FAMILY, HOTEL)
4) NUMBER OF LOTS N/A
5) AREA OF LOTS N/A (SQ. FT.)
6) DENSITY N/A (D.U./AC.)
7) EXISTING BUILDING GROSS FLOOR AREA 0 (SQ. FT.)
8) PROPOSED BUILDING GROSS FLOOR AREA 1,644,701 (SQ. FT.)
9) EXISTING BUILDING NET FLOOR AREA 0 (SQ. FT.)
10) PROPOSED BUILDING NET FLOOR AREA 1,315,760 (SQ. FT.)
11) TOTAL FLOOR AREA RATIO (FAR) FOR ENTIRE SITE 2.574
12) PROPOSED BUILDING HEIGHT 120'-180' (FT.)
13) PROPOSED NUMBER OF FLOORS 12-16 COMMERCIAL/INDUSTRIAL ONLY
14) TOTAL HANDICAPPED PARKING REQUIRED 36
15) TOTAL HANDICAPPED PARKING PROVIDED 40
16) TOTAL HANDICAPPED VAN SPACES REQUIRED 8
17) TOTAL HANDICAPPED VAN SPACES PROVIDED 28
18) TOTAL PARKING SPACES REQUIRED 2,947
19) TOTAL PARKING SPACES PROVIDED 3,250
20) LOADING SPACES REQUIRED PER CDP/FDP: 9
21) LOADING SPACES PROVIDED 9
22) OPEN SPACE PROVIDED 36 % 230,181 (SQ. FT.)

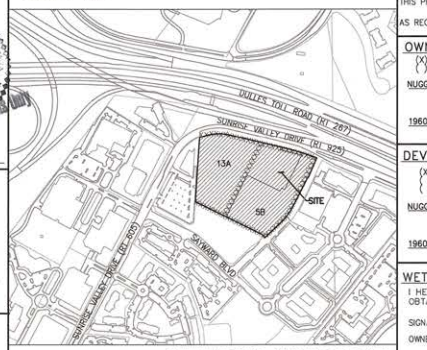
FIRE MARSHAL NOTES

AVAILABLE FIRE FLOW 2,575 GPM (GAL./MIN.)
SOURCE OF FIRE FLOW INFO. FAIRFAX WATER
TYPE OF CONSTRUCTION – USBC IA
USE GROUP CLASSIFICATION – USBC A-2, A-3, B, M, R-1, R-2, S-2
BUILDING HEIGHT OFFICE/RESIDENTIAL=180', HOTEL=120' * (FT.)*SHEETS C02.101–C02.104
BUILDING TO BE FULLY SPRINKLERED YES [X] NO [ ]

IF YES, CHECK APPROPRIATE STANDARD: NFPA 13 [X] ; NFPA 130 [ ] ; NFPA 13R [ ]
SEE PFM CHAPTER 9, PART 2 FOR FULL INFORMATION REQUIRED. FIRE FLOW REQUIREMENTS TO BE DETERMINED BY THE FIRE PREVENTION DIVISION.
[SEE PUBLIC WATER AGENCY NOTES ON SHEET C05.601]

VICINITY MAP

SCALE: 1" = 500'



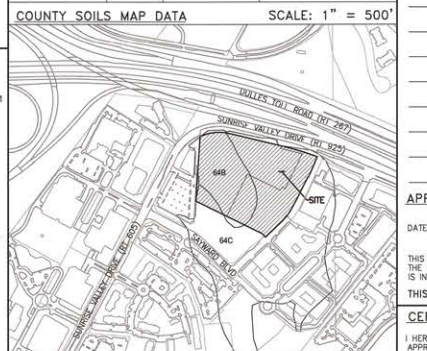
SIDEWALK MAINTENANCE: XXXX–VDOT, OOOO–FFX CO
TRAIL MAINTENANCE: OOOO–FFX CO
ALL OTHER WALKS/TRAILS TO BE OWNER MAINTAINED

TAX MAP REFERENCE NUMBER(S)

MAP PAGE #	DOUBLE CIRCLE #	BLOCK (SINGLE CIRCLE #)	LOT/PARCEL(S) #
15-2	1		13A
15-4	5		5B

COUNTY SOILS MAP DATA

SCALE: 1" = 500'



SOIL ID NUMBERS	SOIL SERIES NAME	FOUNDATION SUPPORT	SOIL DRAINAGE	EROSION POTENTIAL	PROBLEM CLASS
64B	JACKLAND AND HAYMARKET	POOR-P,C,B	POOR-P,C,S	MEDIUM	III
64C	JACKLAND AND HAYMARKET	POOR-P,C,B	POOR-P,C,S	MEDIUM	III
	SOILS REPORT APPROVED SEE SECTION B01–GEOTECHNICAL				

IS THE SITE LOCATED WITHIN NATURALLY OCCURRING ASBESTOS SOILS? YES[ ] NO[X]

AREAS THAT MAY CONTAIN NATURALLY OCCURRING ASBESTOS SOILS ARE LOCATED ON THE ORANGE SOILS TAX MAP GRIDS ON THE COUNTY WEBSITE. SPECIAL PRECAUTIONS REGARDING THESE SOILS OR FILL ORIGINATING FROM THESE SOILS ARE REQUIRED BY THE OCCUPATIONAL SAFETY AND HEALTH REGULATIONS ENFORCED BY THE VIRGINIA DEPARTMENT OF LABOR AND INDUSTRY AND SPECIAL GUIDANCE HAS BEEN ISSUED BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY.

STORMWATER INFORMATION

HIGH DENSITY POLYETHYLENE (HDPE) USED ON THIS PROJECT YES [X] NO [ ]

THE PLAN MEETS: TIME LIMITS ON APPLICABILITY OF APPROVED DESIGN CRITERIA [X]

SWM FACILITIES (PROPOSED ONLY) GRANDFATHERING CRITERIA [X]

VPDES REQUIRED YES [X] NO [ ]

VPDES PERMIT NO. (IF TIME LIMITS): _____

COUNTY STORMWATER PERMIT REQUIRED YES [X] NO [ ]

SWM FACILITIES DESIGNED USING: TECHNICAL CRITERIA 4 [ ] (NEW)
TECHNICAL CRITERIA 5 [X] (OLD)

FACILITY ID NO.	FACILITY TYPE	PURPOSE	AREA TREATED (ACRES)	LATITUDE (DECIMAL DEGREE)	LONGITUDE (DECIMAL DEGREE)	WATERSHED	RECEIVING WATERS	MAINTENANCE AGREEMENT Y/N	VAHU6 CODE	LENGTH/AREA OF FACILITY	UNIT (FT/SF)	NO. OF BLDG. SERVED (FOR ROOFTOP DISCONNECT)
A	BIORETENTION FILTER	BMP	0.45 AC	N38.573209	W77.250514	HORSEPEN CREEK	MERRYBROOK RUN	Y	PL18	5,850	SF	
B	STORMCEPTOR	BMP	2.09 AC	N38.573230	W77.250566	HORSEPEN CREEK	MERRYBROOK RUN	Y	PL18	20	SF	
C	RAINWATER HARVESTING	BMP	3.85 AC	N38.573703	W77.250782	HORSEPEN CREEK	MERRYBROOK RUN	Y	PL18	–	SF	
	*THESE SYSTEMS ARE PROVIDED TO MEET PROFFERED REQUIREMENTS, AND NOT INTENDED FOR REVIEW/APPROVAL. THE SITE STORMWATER QUALITY IS PROVIDED BY AN OFF-SITE REGIONAL DRY POND. OFF-SITE STORMWATER QUALITY IS PROVIDED THROUGH CREDIT PURCHASE.											

DISTURBED AREA (DA) WITHIN WATERSHED(S):

WATERSHED 1 HORSEPEN CREEK DA= 19.96 (ACRES) WATERSHED 2 _____ DA=_____ (ACRES) TOTAL DISTURBED AREA= 19.96 (ACRES)

ENGINEER'S/SURVEYOR'S CERTIFICATE:

THIS PROPERTY IS IN THE NAME OF NUGGET JOINT VENTURE, LC (ROCKS)

AS RECORDED IN DEED BOOK 9500 PAGE 1070 OF THE LAND RECORDS OF FAIRFAX COUNTY, VA.

OWNER INFORMATION

(X) OWNER ( ) CONTRACT OWNER ( ) LESSEE
( ) A CORPORATION ( ) A PARTNERSHIP (X) AN INDIVIDUAL

NUGGET JOINT VENTURE, LC (NAME)
703-915-3383 (PHONE)
1960 GALLOWS ROAD, SUITE 300, VIENNA, VA 22182 (ADDRESS)
HELLYERM@CSROCKS.COM (EMAIL)

DEVELOPER INFORMATION

(X) DEVELOPER ( ) CONTRACT OWNER ( ) LESSEE
( ) A CORPORATION ( ) A PARTNERSHIP (X) AN INDIVIDUAL

NUGGET JOINT VENTURE, LC (NAME)
703-915-3383 (PHONE)
1960 GALLOWS ROAD, SUITE 300, VIENNA, VA 22182 (ADDRESS)
HELLYERM@CSROCKS.COM (EMAIL)

WETLANDS PERMITS CERTIFICATION

I HEREBY CERTIFY THAT ALL WETLANDS PERMITS REQUIRED BY LAW WILL BE OBTAINED PRIOR TO COMMENCING WITH LAND DISTURBING ACTIVITIES.

SIGNATURE _____
OWNER/DEVELOPER NUGGET JOINT VENTURE, LC (NAME) JB MANAGER (TITLE)

NOTE: PERMITS MUST BE PRESENTED TO THE COUNTY INSPECTOR PRIOR TO LAND DISTURBANCE.

DATE	RECOMMEND APPROVAL (SIGNATURE & PRINTED NAME)
	STREETLIGHT REVIEW – DPWES
	PUBLIC WATER AGENCY
	SANITARY SEWER REVIEW – DPWES
	URBAN FOREST MANAGEMENT REVIEW – DPWES
	FAIRFAX COUNTY FIRE MARSHAL
	FAIRFAX COUNTY HEALTH DEPARTMENT
	VIRGINIA DEPARTMENT OF TRANSPORTATION
	GEOTECHNICAL REVIEW, DPWES
	STORMWATER REVIEW, DPWES
	PLAN REVIEWER – DPWES
	DIRECTOR, SITE DEVELOPMENT & INSPECTIONS DIVISION, LDS, – DPWES

APPROVED

DATE _____ BY _____
DIRECTOR, DEPT. OF PUBLIC WORKS AND ENVIRONMENTAL SERVICES

THIS PLAN SHALL EXPIRE WITHOUT NOTICE IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF THE COUNTY CODE. REVISIONS DO NOT EXTEND THE APPROVAL PERIOD. THE APPROVAL PERIOD IS INDEPENDENT OF THE AGREEMENT EXPIRATION DATE.

THIS APPROVAL IS NOT A COMMITMENT TO PROVIDE PUBLIC SANITARY SEWER

CERTIFICATE OF NO CHANGE (FOR SUBMISSION OTHER THAN THE FIRST)

I HEREBY CERTIFY THAT NO CHANGES HAVE BEEN MADE THAT WOULD AFFECT PRIOR APPROVAL BY THE:

FIRE MARSHAL DATED 04/30/2015
WATER AUTHORITY DATED 05/12/2015
HEALTH DEPARTMENT DATED N/A
VDOT DATED 06/26/2015
DPWES–SAN. SEWER DATED 04/29/2015
DPWES–STREETLIGHTS DATED 05/04/2015
UFMD DATED 10/02/2015

SHEET INDEX

THE SHEET SET HAS BEEN CODIFIED BY SECTIONS NUMBERS. REFER TO SHEET C01.001 FOR COMPLETE SHEET LIST. SECTIONS INCLUDED ARE AS FOLLOWS:

SECTION NUMBER:

C01–GENERAL
C02–SITE PLAN
C03–ROAD DESIGN
C04–SANITARY SEWER
C05–FIRE & WATER
C06–STORM SEWER
C07–SWM
C08–E&S
C09–PARKING PLAN
C10–LETTERS
L01–LANDSCAPE
L02–TREE PRESEVATION
B01–GEOTECHNICAL
R01–ZONING
R02–INFORMATION ONLY

DESIGN ENGINEER / SURVEYOR
FIRM NAME: DEMBERRY CONSULTANTS, LLC
ADDRESS: 8401 ARLINGTON BLVD
FAIRFAX VA, 22031
PHONE NO: 703-849-0100 FAX NO: 703-849-0518
PROJ. MANAGER: CODY A. PENNETTI EMAIL: CPENNETTI@DEMBERRY.COM

INNOVATION CENTER SOUTH

SITE PLAN

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SITE PLAN OR PUBLIC IMPROVEMENT PLAN COVERSHEET

COUNTY NUMBER 6848-SP-014-2

PLAN REVIEWER _____

SHEET 1 OF 252

REVISED: 7/14

PLAN APPROVAL INFORMATION

RELATED INFORMATION	REQUIRED	NOT REQUIRED	COUNTY I.D. NUMBER	COMMENTS/SHEET NO.
1. CONCURRENT PROCESSING		X		
2. MODIFIED PROCESSING	X		6848-RGP-005	APPLICATION AND RGP APPROVED
3. MAXIMUM DENSITY ADJUSTMENTS BASED ON Z.O. 2-308		X		
4. AFFORDABLE DWELLING UNITS		X		
5. WORK FORCE UNITS	X			157 - SEE SHEET C01.101
6. R.P.A. DELINEATION		X		
7. FLOOD PLAIN STUDY		X		
8. DRAINAGE STUDY		X		
9. BATHYMETRIC SURVEY (SW-10)		X		
10. CHESAPEAKE BAY ACT EXCEPTION		X		
11. WATER QUALITY IMPACT ASSESSMENT		X		
12. SOILS REPORT	X		6848-SR-005/6	APPROVED 01/12 & 06/26, 2015-SEE SHEET C10.401
13. ONSITE EASEMENTS	X			SEE PLAT CHECK SHEET
14. OFFSITE EASEMENTS	X			SEE PLAT CHECK SHEET
15. NOTARIZED LETTERS OF PERMISSION	X			PERMISSION TO CONNECT TO SEWER - C10.401
16. ARCHITECTURAL REVIEW BOARD APPROVAL		X		
17. RETURN PLAN TO B.O.S. PRIOR TO APPR.		X		
18. RETURN PLAN TO P.C. PRIOR TO APPR.		X		
19. ADJACENT PROPERTY OWNER NOTICES	X			APPROVED 04/2015
20. OFFSITE UTILITY WORK NOTICES		X		
21. MAJOR UNDERGROUND UTILITY NOTICES		X		
22. REZONING/SPECIAL EXCEPTION/SPECIAL PERMIT APPROVAL	X		RZ 2009-HM-017	SEE SHEETS R01.101-R01.176; APPROVED 07/29/2014
23. B.O.S./B.Z.A. CLERK LETTER/RESOLUTION	X		PCA C-696-10	SEE SHEET C10.101
24. REZONING PROFFERS/CONDITIONS	X		GDP/FDP/RZ	SEE SHEETS C10.101-C10.114; APPROVED 07/29/2014
25. REZONING DEVELOPMENT PLAN	X		2009-HM-017	SEE SHEETS R01.101-R01.176; APPROVED 07/29/2014
26. B.Z.A. VARIANCE APPROVAL		X		
27. WETLANDS/WATERS OF THE U.S. PERMIT	X			DATE SENT TO ACOE: PERMIT RECEIVED:6/11/11 PERMIT NO. WP4-08-0334
28. STATE REGULATED DAM PERMIT		X		PERMIT RECEIVED: PERMIT NO.
29. LOCATED IN DAM BREAK INUNDATION ZONE (STATE REGULATED DAMS) 2 EXTRA PLAN SETS REQUIRED		X		DAM NAME: DAM NO.:
30. FEMA LETTER OF MAP REVISION		X		DATE CLOMR RECEIVED:
31. VEGETATED ROOF NOTE		X		
32. OVERLAY DISTRICT INFORMATION	X			THIS SHEET
33. TREE BANKING		X		
34. TREE FUND		X		
35. GREEN PROJECT CERTIFICATION FOR GREEN PRIORITY PLAN REVIEW	X			SEE SHEET C10.301
36. STREET LIGHTS MODIFICATIONS/WAIVERS	X			SEE SHEETS C02.101-C02.104; C03.401-C03.405
OFF-SITE STORMWATER DETENTION	X		6848-WSWD-011	APPROVED (12/14/2014) - SEE SHEET C10.202
VDOT WAIVERS	X			SEE SHEET C10.205 - C10.207
REZONING & PCA APPROVED WAIVERS	X		RZ 2009-HM-107 PCA C-696-10	SEE SHEET C10.101 -C10.102
SWM AND ROAD GEOMETRY INTERPRETATION	X			SEE SHEET C10.203 - C10.204
PARKING REDUCTION	X		6848-PKS-002-1	APPROVED (09/22/2015) SEE SHEET C10.201

SOLID WASTE AND RECYCLING: ALL PROPERTIES ARE REQUIRED TO RECYCLE. DESIGNS FOR ALL PROPERTIES MUST PROVIDE ADEQUATE CONTAINERS/STRUCTURES FOR THE SEPARATE MANAGEMENT OF RECYCLABLES AND TRASH.

SINGLE-FAMILY DETACHED AND TOWNHOUSE DEVELOPMENTS

I CERTIFY THAT THE SITE DEPICTED ON THIS PLAN IS (CHECK APPLICABLE STATEMENT):
___ IN A SANITARY DISTRICT WHERE TRASH AND RECYCLING COLLECTION IS CONDUCTED BY FAIRFAX COUNTY AND THAT I HAVE INFORMED THE PROPERTY OWNER OF THIS CONDITION.
___ NOT IN A SANITARY DISTRICT AND TRASH AND RECYCLING COLLECTION WILL BE CONDUCTED BY A PRIVATE COMPANY.

NON-RESIDENTIAL PROPERTIES, INCLUDING BUSINESSES, SCHOOLS AND INSTITUTIONS, AND MULTI-FAMILY PROPERTIES, INCLUDING CONDOMINIUMS AND APARTMENTS.

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_X_ I HAVE COMPLETED A WASTE STREAM CALCULATION WORKSHEET FOR THIS PROPERTY.
_X_ I HAVE INDICATED ON THE PLAN THE LOCATION AND TYPE OF TRASH AND RECYCLING CONTAINERS AND STRUCTURES. SEE SHEET NUMBER _X_ IN ___ EACH ___ BUILDING. ✖ C02.101-C09.103
_X_ THE TRASH AND RECYCLING MANAGEMENT CONTAINERS/STRUCTURES ON THIS PLAN ARE ADEQUATE TO MEET THE MINIMUM RECYCLING REQUIREMENT AS DESCRIBED ON THE WASTE STREAM CALCULATION WORKSHEET.

SANITARY SEWER INFORMATION

WASTEWATER TREATMENT PLANT BLUE PLAINS
___ THIS SITE IS SUBJECT TO _____ SANITARY SEWER REIMBURSEMENT CHARGES.
___ THIS SITE IS SERVED BY ONSITE SEWAGE TREATMENT SYSTEM(S).

INFORMATION REGARDING ACTIVITIES IN A RESOURCE PROTECTION AREA

ACTIVITY	YES/NO
CONSTRUCTION ACTIVITIES IN A RESOURCE PROTECTION AREA (IF YES, INDICATE TYPE BELOW)	NO
REDEVELOPMENT PRINCIPAL STRUCTURE	N/A
REDEVELOPMENT ACCESSORY STRUCTURE	N/A
PUBLIC ROADS	N/A
PRIVATE ROADS	N/A
DRIVEWAYS	N/A
STORMWATER OUTFALL	N/A
OTHER (INDICATE TYPE):	N/A

TREE PRESERVATION

TREE PRESERVATION TARGET DEVIATIONS OR MODIFICATIONS ARE BEING REQUESTED.

YES ☒ NO ☐ N/A ☐

*SEE SHEET C10.101

POTENTIAL FOR WETLANDS

IS THE DISTURBED AREA LOCATED IN A WETLANDS AREA DEPICTED ON THE NATIONAL WETLANDS INVENTORY MAP? YES☒ NO☐

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4. A PERMIT MUST BE OBTAINED FROM THE VIRGINIA DEPARTMENT OF TRANSPORTATION, NORTHERN VIRGINIA DISTRICT, BEFORE ANY CONSTRUCTION IS STARTED ON ANY EXISTING STATE ROUTE. CONTACT THE VIRGINIA DEPARTMENT OF TRANSPORTATION THREE WORKING DAYS BEFORE EXCAVATION IN ANY STATE RIGHT OF WAY AT 703-383-2888.
5. CONTRACTORS SHALL NOTIFY THE "MISS UTILITY" NOTIFICATION CENTER AT 1-800-552-7001 FOR ANY PROPOSED EXCAVATION, DEMOLITION, OR BLASTING AT LEAST TWO WORKING DAYS PRIOR TO COMMENCEMENT OF EXCAVATION DEMOLITION, OR BLASTING IN ACCORDANCE WITH THE VIRGINIA UNDERGROUND UTILITY DAMAGE PREVENTION ACT. IN ADDITION, NAMES AND TELEPHONE NUMBERS SHALL ALSO BE USED TO SERVE IN AN EMERGENCY CONDITION AS REQUIRED BY SECTION 63-2-2 OF THE FAIRFAX COUNTY CODE.
6. THE COUNTY INSPECTOR SHALL BE NOTIFIED WHEN ANY IMPROVEMENTS PERTINENT TO HIS INSPECTION DUTIES ARE BEING INSTALLED. SPECIFIC REQUIREMENTS ARE:
   A. THE COUNTY SITE INSPECTOR IS TO BE NOTIFIED AT LEAST 3 DAYS PRIOR TO START OF CONSTRUCTION.
   B. A MINIMUM OF 24 HOURS NOTICE IS REQUIRED WHEN REQUESTING RESIDENTIAL OR NON-RESIDENTIAL USE PERMITS.
   C. A MINIMUM OF 48 HOURS NOTICE IS REQUIRED WHEN REQUESTING TESTS PERTAINING TO SANITARY SEWER ACCEPTANCE.

PROFESSIONAL SEAL AND SIGNATURE

COMMONWEALTH OF VIRGINIA — CODY A. VENNETTI — Lic. No. 048560 — 12/8/2015 — PROFESSIONAL ENGINEER

DATE _____

PROFESSIONAL SEAL AND SIGNATURE

COMMONWEALTH OF VIRGINIA — MARWAN B. SALEH — 043604 — Lic. No. 043604 — 12/15/15 — PROFESSIONAL ENGINEER

DATE DECEMBER 14, 2015

PROFESSIONAL SEAL AND SIGNATURE

DATE _____

DESIGNATED PLANS EXAMINER (DPE) CERTIFICATE

1ST SUBMISSION REVIEWED & RECOMMENDED FOR SUBMISSION

DANIELA MEDEK
D.P.E. SIGNATURE & PRINTED NAME
DATE: _____ REG. NO.: 300

2ND SUBMISSION REVIEWED & RECOMMENDED FOR APPROVAL

ED UMBRELL
D.P.E. SIGNATURE & PRINTED NAME
DATE: 12/15/2015 REG. NO.: 247

POST SUBMISSION CONFECENCE DATE: JULY 21, 2015

ZONING REQUIREMENTS

1) ZONING PRM (RZ 2009-HM-017)
2) AVERAGE LOT AREA N/A (SQ. FT.)
3) MIN. LOT AREA N/A (SQ. FT.)
4) MIN. LOT WIDTH N/A (FT.)
5) MAX. BUILDING HEIGHT OFFICE/RESIDENTIAL=180', HOTEL=120' (FT.)
6) NUMBER OF FLOORS OFFICE=13, RESIDENTIAL=16, HOTEL=12 (Commercial/Industrial ONLY)
7) MIN. YARD REQUIREMENTS: *AS SHOWN ON RZ 2009-HM-017 (SHEET R01.107)
   FRONT * (FT.) SIDE * (FT.) REAR * (FT.)
8) MAXIMUM FAR 3.00 (3.005 WITH BONUS) PER RZ
9) MAXIMUM DENSITY N/A (D.U./AC.)
10) OPEN SPACE REQUIRED 20 % 127,851 (SQ. FT.)
11) ANGLE OF BULK PLANE: FRONT N/A SIDE N/A REAR N/A
    (DETAIL(S) ON SHEET **) **NO BULK PLANE FOR PRM
12) OVERLAY DISTRICT(S) ROUTE 28 TAX DISTRICT

SITE PLAN (SP) TABULATIONS

1) SITE AREA 14.68 (ACRES) 639,253 (SQ. FT.)
2) AREA OF STREET DEDICATION 106,574 (SQ. FT.)*SEE SHEET C01.301
3) USE MIXED (OFFICE, RETAIL, MULTI-FAMILY, HOTEL)
4) NUMBER OF LOTS N/A
5) AREA OF LOTS N/A (SQ. FT.)
6) DENSITY N/A (D.U./AC.)
7) EXISTING BUILDING GROSS FLOOR AREA 0 (SQ. FT.)
8) PROPOSED BUILDING GROSS FLOOR AREA 1,644,701 (SQ. FT.)
9) EXISTING BUILDING NET FLOOR AREA 0 (SQ. FT.)
10) PROPOSED BUILDING NET FLOOR AREA 1,315,760 (SQ. FT.)
11) TOTAL FLOOR AREA RATIO (FAR) FOR ENTIRE SITE 2.574
12) PROPOSED BUILDING HEIGHT 120'-180' (FT.)
13) PROPOSED NUMBER OF FLOORS 12-16 COMMERCIAL/INDUSTRIAL ONLY
14) TOTAL HANDICAPPED PARKING REQUIRED 36
15) TOTAL HANDICAPPED PARKING PROVIDED 40
16) TOTAL HANDICAPPED VAN SPACES REQUIRED 8
17) TOTAL HANDICAPPED VAN SPACES PROVIDED 28
18) TOTAL PARKING SPACES REQUIRED 2,947
19) TOTAL PARKING SPACES PROVIDED 3,250
20) LOADING SPACES REQUIRED PER CDP/FDP: 9
21) LOADING SPACES PROVIDED 9
22) OPEN SPACE PROVIDED 36 % 230,181 (SQ. FT.)

FIRE MARSHAL NOTES

AVAILABLE FIRE FLOW 2,575 GPM (GAL./MIN.)
SOURCE OF FIRE FLOW INFO. FAIRFAX WATER
TYPE OF CONSTRUCTION - USBC IA
USE GROUP CLASSIFICATION - USBC A-2, A-3, B, M, R-1, R-2, S-2
BUILDING HEIGHT OFFICE/RESIDENTIAL=180', HOTEL=120' * (FT.)*SHEETS C02.101-C02.104
BUILDING TO BE FULLY SPRINKLERED YES ☒ NO ☐

IF YES, CHECK APPROPRIATE STANDARD: NFPA 13 ☒ ; NFPA 13D ☐ ; NFPA 13R ☐
SEE PFM CHAPTER 9, PART 2 FOR FULL INFORMATION REQUIRED. FIRE FLOW REQUIREMENTS TO BE DETERMINED BY THE FIRE PREVENTION DIVISION.
[SEE PUBLIC WATER AGENCY NOTES ON SHEET C05.601]

STORMWATER INFORMATION

HIGH DENSITY POLYETHYLENE (HDPE) USED ON THIS PROJECT YES ☒ NO ☐
THE PLAN MEETS: TIME LIMITS ON APPLICABILITY OF APPROVED DESIGN CRITERIA ☒
SWM FACILITIES (PROPOSED ONLY) GRANDFATHERING CRITERIA ☒

VPDES REQUIRED YES ☒ NO ☐
VPDES PERMIT NO. (IF TIME LIMITS): _____
COUNTY STORMWATER PERMIT REQUIRED YES ☒ NO ☐
SWM FACILITIES DESIGNED USING: TECHNICAL CRITERIA 4 ☐ (NEW)
TECHNICAL CRITERIA 5 ☒ (OLD)

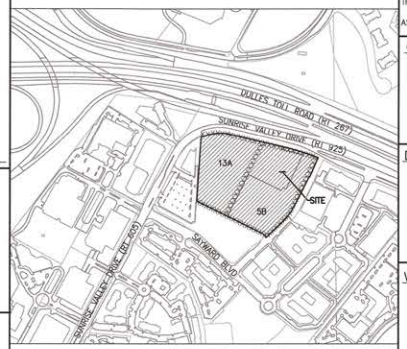
FACILITY ID NO.	FACILITY TYPE	PURPOSE	AREA TREATED (ACRES)	LATITUDE (DECIMAL DEGREE)	LONGITUDE (DECIMAL DEGREE)	WATERSHED	RECEIVING WATERS	MAINTENANCE AGREEMENT Y/N	VAHUB CODE	LENGTH/AREA OF FACILITY	UNIT (FT/SF)	NO. OF BLDG. SERVED (FOR ROOFTOP DISCONNECT)
A	BIORETENTION FILTER	BMP	0.45 AC	N38.573209	W77.250514	HORSEPEN CREEK	MERRYBROOK RUN	Y	PL18	5,850	SF	
B	STORMCEPTOR	BMP	2.09 AC	N38.573230	W77.250566	HORSEPEN CREEK	MERRYBROOK RUN	Y	PL18	20	SF	
C	RAINWATER HARVESTING	BMP	3.65 AC	N38.573703	W77.250762	HORSEPEN CREEK	MERRYBROOK RUN	Y	PL18	-	SF	

*THESE SYSTEMS ARE PROVIDED TO MEET PROFFERED REQUIREMENTS, AND NOT INTENDED FOR REVIEW/APPROVAL.
THE SITE STORMWATER QUALITY IS PROVIDED BY AN OFF-SITE REGIONAL DRY POND.
OFF-SITE STORMWATER QUALITY IS PROVIDED THROUGH CREDIT PURCHASE.

DISTURBED AREA (DA) WITHIN WATERSHED(S):
WATERSHED 1 HORSEPEN CREEK DA= 19.96 (ACRES) WATERSHED 2 _____ DA=_____ (ACRES) TOTAL DISTURBED AREA= 19.96 (ACRES)

VICINITY MAP

SCALE: 1" = 500'



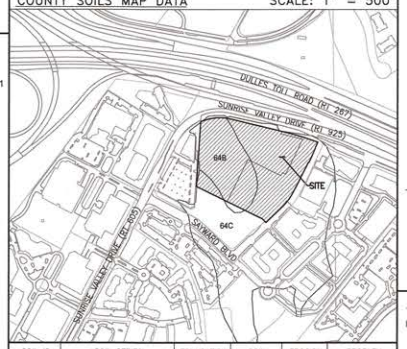
SIDEWALK MAINTENANCE: XXXX-VDOT, OOOO-FFX CO
TRAIL MAINTENANCE: OOOO-FFX CO
ALL OTHER WALKS/TRAILS TO BE OWNER MAINTAINED

TAX MAP REFERENCE NUMBER(S)

MAP PAGE #	DOUBLE CIRCLE #	BLOCK (SINGLE CIRCLE #)	LOT/PARCEL(S) #
15-2	1		13A
15-4	5		5B

COUNTY SOILS MAP DATA

SCALE: 1" = 500'



SOIL ID NUMBERS	SOIL SERIES NAME	FOUNDATION SUPPORT	SOIL DRAINAGE	EROSION POTENTIAL	PROBLEM CLASS
64B	JACKLAND AND HAYMARKET	POOR-P,C,B	POOR-P,C,S	MEDIUM	III
64C	JACKLAND AND HAYMARKET	POOR-P,C,B	POOR-P,C,S	MEDIUM	III
		SOILS REPORT APPROVED SEE SECTION B01-GEOTECHNICAL			

IS THE SITE LOCATED WITHIN NATURALLY OCCURRING ASBESTOS SOILS? YES☐ NO☒

AREAS THAT MAY CONTAIN NATURALLY OCCURRING ASBESTOS SOILS ARE LOCATED ON THE ORANGE SOILS TAX MAP GRIDS ON THE COUNTY WEBSITE. SPECIAL PRECAUTIONS REGARDING THESE SOILS OR FILL ORIGINATING FROM THESE SOILS ARE REQUIRED BY THE OCCUPATIONAL SAFETY AND HEALTH REGULATIONS ENFORCED BY THE VIRGINIA DEPARTMENT OF LABOR AND INDUSTRY AND SPECIAL GUIDANCE HAS BEEN ISSUED BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY.

ENGINEER'S/SURVEYOR'S CERTIFICATE:

THIS PROPERTY IS IN THE NAME OF NUGGET JOINT VENTURE, LC (ROCKS)
AS RECORDED IN DEED BOOK 9500 PAGE 1070 OF THE LAND RECORDS OF FAIRFAX COUNTY, VA.

OWNER INFORMATION

(X) OWNER ( ) TRUSTEE
(X) A CORPORATION ( ) A PARTNERSHIP ( ) AN INDIVIDUAL

NUGGET JOINT VENTURE, LC (NAME)
703-915-3383 (PHONE)
1960 GALLOWS ROAD, SUITE 300, VIENNA, VA 22182 (ADDRESS)
HELLYER@CSROCKS.COM (EMAIL)

DEVELOPER INFORMATION

(X) DEVELOPER ( ) CONTRACT OWNER ( ) LESSEE
(X) A CORPORATION ( ) A PARTNERSHIP ( ) AN INDIVIDUAL

NUGGET JOINT VENTURE, LC (NAME)
703-915-3383 (PHONE)
1960 GALLOWS ROAD, SUITE 300, VIENNA, VA 22182 (ADDRESS)
HELLYER@CSROCKS.COM (EMAIL)

WETLANDS PERMITS CERTIFICATION

I HEREBY CERTIFY THAT ALL WETLANDS PERMITS REQUIRED BY LAW WILL BE OBTAINED PRIOR TO COMMENCING WITH LAND DISTURBING ACTIVITIES.

SIGNATURE Nicholas J. Mahuder, IB MANAGER
OWNER/DEVELOPER NUGGET JOINT VENTURE, LC
NAME TITLE

NOTE: PERMITS MUST BE PRESENTED TO THE COUNTY INSPECTOR PRIOR TO LAND DISTURBANCE.

DATE	RECOMMEND APPROVAL (SIGNATURE & PRINTED NAME)
	STREETLIGHT REVIEW - DPWES
	PUBLIC WATER AGENCY
	SANITARY SEWER REVIEW - DPWES
	URBAN FOREST MANAGEMENT REVIEW - DPWES
	FAIRFAX COUNTY FIRE MARSHAL
	FAIRFAX COUNTY HEALTH DEPARTMENT
	VIRGINIA DEPARTMENT OF TRANSPORTATION
	GEOTECHNICAL REVIEW, DPWES
	STORMWATER REVIEW, DPWES
	PLAN REVIEWER - DPWES
	DIRECTOR, SITE DEVELOPMENT & INSPECTIONS DIVISION, LDS, - DPWES

APPROVED

DATE _____ BY _____
DIRECTOR, DEPT. OF PUBLIC WORKS AND ENVIRONMENTAL SERVICES

THIS PLAN SHALL EXPIRE WITHOUT NOTICE IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF THE COUNTY CODE. REVISIONS DO NOT EXTEND THE APPROVAL PERIOD. THE APPROVAL PERIOD IS INDEPENDENT OF THE AGREEMENT EXPIRATION DATE.

THIS APPROVAL IS NOT A COMMITMENT TO PROVIDE PUBLIC SANITARY SEWER

CERTIFICATE OF NO CHANGE (FOR SUBMISSION OTHER THAN THE FIRST)

I HEREBY CERTIFY THAT NO CHANGES HAVE BEEN MADE THAT WOULD AFFECT PRIOR APPROVAL BY THE

FIRE MARSHAL DATED 04/30/2015
WATER AUTHORITY DATED 05/12/2015
HEALTH DEPARTMENT DATED N/A
VDOT DATED 06/26/2015
DPWES-SAN. SEWER DATED 04/29/2015
DPWES-STREETLIGHTS DATED 05/04/2015
UFMD DATED 10/02/2015

SHEET INDEX

THE SHEET SET HAS BEEN CODIFIED BY SECTIONS NUMBERS.
REFER TO SHEET C01.001 FOR COMPLETE SHEET LIST.
SECTIONS INCLUDED ARE AS FOLLOWS:

SECTION NUMBER:

C01-GENERAL
C02-SITE PLAN
C03-ROAD DESIGN
C04-SANITARY SEWER
C05-FIRE & WATER
C06-STORM SEWER
C07-SWM
C08-E&S
C09-PARKING PLAN
C10-LETTERS
L01-LANDSCAPE
L02-TREE PRESEVATION
B01-GEOTECHNICAL
R01-ZONING
R02-INFORMATION ONLY

DESIGN ENGINEER / SURVEYOR
FIRM NAME: DEMBERRY CONSULTANTS, LLC
ADDRESS: 8401 ARLINGTON BLVD
FAIRFAX, VA 22031
PHONE NO: 703-849-0100 FAX NO: 703-849-0518
PROJ. MANAGER: CODY A. PENNETTI EMAIL: CPENNETTI@DEMBERRY.COM

SITE PLAN OR PUBLIC IMPROVEMENT PLAN COVERSHEET

INNOVATION CENTER SOUTH

SITE PLAN

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

COUNTY NUMBER 6848-SP-014-2

PLAN REVIEWER _____

SHEET 1 OF 252

REVISED: 7/14

PLAN APPROVAL INFORMATION

RELATED INFORMATION	REQUIRED	NOT REQUIRED	COUNTY I.D. NUMBER	COMMENTS/SHEET NO.
1. CONCURRENT PROCESSING		X		
2. MODIFIED PROCESSING	X			APPLICATION AND RGP TO BE SUBMITTED AFTER 1ST SUB
3. MAXIMUM DENSITY ADJUSTMENTS BASED ON Z.O. 2-308		X		
4. AFFORDABLE DWELLING UNITS		X		
5. WORK FORCE UNITS	X			157 – SEE SHEET C01.101
6. R.P.A. DELINEATION		X		
7. FLOOD PLAIN STUDY		X		
8. DRAINAGE STUDY		X		
9. BATHYMETRIC SURVEY (SW-10)		X		
10. CHESAPEAKE BAY ACT EXCEPTION		X		
11. WATER QUALITY IMPACT ASSESSMENT		X		
12. SOILS REPORT	X			TO BE SUBMITTED SEPARATELY-PRIOR TO 2ND SUBMISSION
13. ONSITE EASEMENTS	X			TO BE SUBMITTED SEPARATELY-PRIOR TO 2ND SUBMISSION
14. OFFSITE EASEMENTS	X			TO BE SUBMITTED SEPARATELY-PRIOR TO 2ND SUBMISSION
15. NOTARIZED LETTERS OF PERMISSION	X			TO BE SUBMITTED SEPARATELY-PRIOR TO 2ND SUBMISSION
16. ARCHITECTURAL REVIEW BOARD APPROVAL		X		
17. RETURN PLAN TO B.O.S. PRIOR TO APPR.		X		
18. RETURN PLAN TO P.C. PRIOR TO APPR.		X		
19. ADJACENT PROPERTY OWNER NOTICES	X			TO BE SUBMITTED SEPARATELY-PRIOR TO 2ND SUBMISSION
20. OFFSITE UTILITY WORK NOTICES		X		
21. MAJOR UNDERGROUND UTILITY NOTICES		X		
22. REZONING/SPECIAL EXCEPTION/SPECIAL PERMIT APPROVAL	X		RZ 2009-HM-017	SEE SHEETS R01.101-R01.176; APPROVED 07/29/2014
23. B.O.S./B.Z.A. CLERK LETTER/RESOLUTION	X		PCA C-696-10	SEE SHEET C10.101
24. REZONING PROFFERS/CONDITIONS	X		GDP/FDP/RZ	SEE SHEETS C10.101-C10.114; APPROVED 07/29/2014
25. REZONING DEVELOPMENT PLAN	X		2009-HM-017	SEE SHEETS R01.101-R01.176; APPROVED 07/29/2014
26. B.Z.A. VARIANCE APPROVAL		X		
27. WETLANDS/WATERS OF THE U.S. PERMIT	X			DATE SENT TO ACOE: PERMIT RECEIVED:6/11/11 PERMIT NO. WP4-08-0334
28. STATE REGULATED DAM PERMIT		X		PERMIT RECEIVED: PERMIT NO.
29. LOCATED IN DAM BREAK INUNDATION ZONE (STATE REGULATED DAMS) 2 EXTRA PLAN SETS REQUIRED		X		DAM NAME: DAM NO.:
30. FEMA LETTER OF MAP REVISION		X		DATE CLOMR RECEIVED:
31. VEGETATED ROOF NOTE		X		
32. OVERLAY DISTRICT INFORMATION	X			THIS SHEET
33. TREE BANKING		X		
34. TREE FUND		X		
35. GREEN PROJECT CERTIFICATION FOR GREEN PRIORITY PLAN REVIEW	X			SEE SHEET C10.301
36. STREET LIGHTS	X			SEE SHEETS C02.101–C02.104; C03.401–C03.405
MODIFICATIONS/WAIVERS				
U.G. STORMWATER FACILITY IN RESIDENTIAL	X		6848-WPFM-005	APPROVED (04/10/2014) – SEE SHEET C10.201
OFF-SITE STORMWATER DETENTION	X		6848-WPFM-006	REQUESTED – SEE SHEET C10.202

SOLID WASTE AND RECYCLING: ALL PROPERTIES ARE REQUIRED TO RECYCLE. DESIGNS FOR ALL PROPERTIES MUST PROVIDE ADEQUATE CONTAINERS/STRUCTURES FOR THE SEPARATE MANAGEMENT OF RECYCLABLES AND TRASH.

SINGLE-FAMILY DETACHED AND TOWNHOUSE DEVELOPMENTS

I CERTIFY THAT THE SITE DEPICTED ON THIS PLAN IS (CHECK APPLICABLE STATEMENT):

____ IN A SANITARY DISTRICT WHERE TRASH AND RECYCLING COLLECTION IS CONDUCTED BY FAIRFAX COUNTY AND THAT I HAVE INFORMED THE PROPERTY OWNER OF THIS CONDITION.

____ NOT IN A SANITARY DISTRICT AND TRASH AND RECYCLING COLLECTION WILL BE CONDUCTED BY A PRIVATE COMPANY.

NON-RESIDENTIAL PROPERTIES, INCLUDING BUSINESSES, SCHOOLS AND INSTITUTIONS, AND MULTI-FAMILY PROPERTIES, INCLUDING CONDOMINIUMS AND APARTMENTS.

I CERTIFY THAT (ALL STEPS MUST BE COMPLETED):

_X_ I HAVE COMPLETED A WASTE STREAM CALCULATION WORKSHEET FOR THIS PROPERTY.

_X_ I HAVE INDICATED ON THE PLAN THE LOCATION AND TYPE OF TRASH AND RECYCLING CONTAINERS AND STRUCTURES. SEE SHEET NUMBER _X_ IN ____EACH____BUILDING. ✖ C02.101–C09.103

_X_ THE TRASH AND RECYCLING MANAGEMENT CONTAINERS/STRUCTURES ON THIS PLAN ARE ADEQUATE TO MEET THE MINIMUM RECYCLING REQUIREMENT AS DESCRIBED ON THE WASTE STREAM CALCULATION WORKSHEET.

SANITARY SEWER INFORMATION

WASTEWATER TREATMENT PLANT BLUE PLAINS

____ THIS SITE IS SUBJECT TO _____ SANITARY SEWER REIMBURSEMENT CHARGES.

____ THIS SITE IS SERVED BY ONSITE SEWAGE TREATMENT SYSTEM(S).

INFORMATION REGARDING ACTIVITIES IN A RESOURCE PROTECTION AREA

ACTIVITY	YES/NO
CONSTRUCTION ACTIVITIES IN A RESOURCE PROTECTION AREA (IF YES, INDICATE TYPE BELOW)	NO
REDEVELOPMENT PRINCIPAL STRUCTURE	N/A
REDEVELOPMENT ACCESSORY STRUCTURE	N/A
PUBLIC ROADS	N/A
PRIVATE ROADS	N/A
DRIVEWAYS	N/A
STORMWATER OUTFALL	N/A
OTHER (INDICATE TYPE):	N/A

TREE PRESERVATION

TREE PRESERVATION TARGET DEVIATIONS OR MODIFICATIONS ARE BEING REQUESTED.

YES ☒ NO ☐ N/A ☐

*SEE SHEET C10.101

POTENTIAL FOR WETLANDS

IS THE DISTURBED AREA LOCATED IN A WETLANDS AREA DEPICTED ON THE NATIONAL WETLANDS INVENTORY MAP? YES☒ NO☐

IS THE DISTURBED AREA LOCATED IN AN ESTIMATED WETLANDS AREA DEPICTED ON THE COUNTY POTENTIAL WETLAND AREA MAP? YES☐ NO ☒

IF YES, TO EITHER OF THE TWO QUESTIONS ABOVE, PROVIDE EVIDENCE OF APPROVED PERMIT OR VERIFICATION THAT NO PERMIT FROM THE ARMY CORPS OF ENGINEERS IS REQUIRED BEFORE PLAN IS APPROVED.

NOTES AND CONDITIONS

1. THE APPROVAL OF THESE PLANS SHALL IN NO WAY RELIEVE THE DEVELOPER OR HIS AGENT OF ANY LEGAL RESPONSIBILITIES WHICH MAY BE REQUIRED BY THE CODE OF VIRGINIA OR ANY ORDINANCE ENACTED BY THE COUNTY OF FAIRFAX.
2. THE DESIGN, CONSTRUCTION, FIELD PRACTICES, AND METHODS SHALL CONFORM TO THE REQUIREMENTS SET FORTH IN THE FAIRFAX COUNTY CODE AND IN THE PUBLIC FACILITIES MANUAL AS AMENDED. FAILURE TO COMPLY WITH THE FAIRFAX COUNTY CODE, THE PUBLIC FACILITIES MANUAL, THE APPROVED PLANS, AND THE PROVISIONS OF THE DEVELOPMENT AGREEMENT AND PERMIT SHALL BE DEEMED A VIOLATION.
3. WATER DISTRIBUTION NOTE: ALL FIRE PROTECTION SYSTEMS WHICH ARE INSTALLED IN COMPLIANCE WITH THESE PLANS AND COUNTY OF FAIRFAX ORDINANCES SHALL BE MAINTAINED IN AN OPERATIVE CONDITION AT ALL TIMES. WHEN NECESSARY TO TEMPORARILY REDUCE OR DISCONTINUE THE PROTECTION IN ORDER TO MAKE TESTS, REPAIRS, ALTERATIONS OR ADDITIONS, NOTIFY THE FAIRFAX COUNTY PUBLIC SAFETY COMMUNICATIONS CENTER AT 703-691-2131.
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5. CONTRACTORS SHALL NOTIFY THE "MISS UTILITY" NOTIFICATION CENTER AT 1-800-552-7001 FOR ANY PROPOSED EXCAVATION, DEMOLITION, OR BLASTING AT LEAST TWO WORKING DAYS PRIOR TO COMMENCEMENT OF EXCAVATION DEMOLITION, OR BLASTING IN ACCORDANCE WITH THE VIRGINIA UNDERGROUND UTILITY DAMAGE PREVENTION ACT. IN ADDITION, NAMES AND TELEPHONE NUMBERS SHALL ALSO BE USED TO SERVE IN AN EMERGENCY CONDITION AS REQUIRED BY SECTION 63-2-2 OF THE FAIRFAX COUNTY CODE.
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PROFESSIONAL SEAL AND SIGNATURE

COMMONWEALTH OF VIRGINIA — CODY A. PENNETTI — Lic. No. 048560 — 2015-04-17 — PROFESSIONAL ENGINEER

DATE _____ DATE MAR. 26, 2015 DATE _____

DESIGNATED PLANS EXAMINER (DPE) CERTIFICATE

1ST SUBMISSION REVIEWED & RECOMMENDED FOR SUBMISSION	2ND SUBMISSION REVIEWED & RECOMMENDED FOR APPROVAL
DANIELA MEDEK	
D.P.E. SIGNATURE & PRINTED NAME	D.P.E. SIGNATURE & PRINTED NAME
DATE:_____ REG. NO.:300	DATE:_____ REG. NO.:_____

POST SUBMISSION CONFECENCE DATE: _____

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    (DETAIL(S) ON SHEET **) **NO BULK PLANE FOR PRM
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14) TOTAL HANDICAPPED PARKING REQUIRED 36
15) TOTAL HANDICAPPED PARKING PROVIDED 39
16) TOTAL HANDICAPPED VAN SPACES REQUIRED 8
17) TOTAL HANDICAPPED VAN SPACES PROVIDED 20
18) TOTAL PARKING SPACES REQUIRED 2,947
19) TOTAL PARKING SPACES PROVIDED 3,265
20) LOADING SPACES REQUIRED PER CDP/FDP: 9
21) LOADING SPACES PROVIDED 9
22) OPEN SPACE PROVIDED 35 % 225,096 (SQ. FT.)

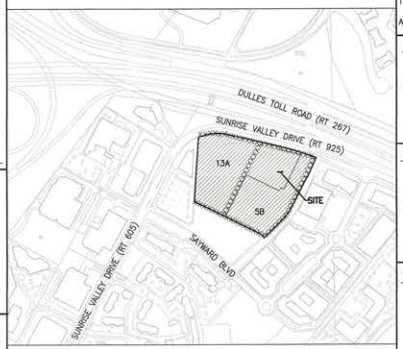
FIRE MARSHAL NOTES

AVAILABLE FIRE FLOW 2,575 GPM (GAL./MIN.)
SOURCE OF FIRE FLOW INFO. FAIRFAX WATER
TYPE OF CONSTRUCTION – USBC IA
USE GROUP CLASSIFICATION – USBC A-2, A-3, B, M, R-1, R-2, S-2
BUILDING HEIGHT OFFICE/RESIDENTIAL=180', HOTEL=120' * (FT.)*SHEETS C02.101–C02.104
BUILDING TO BE FULLY SPRINKLERED YES ☒ NO☐

IF YES, CHECK APPROPRIATE STANDARD: NFPA 13 ☒; NFPA 13D ☐; NFPA 13R ☐
SEE PFM CHAPTER 9, PART 2 FOR FULL INFORMATION REQUIRED. FIRE FLOW REQUIREMENTS TO BE DETERMINED BY THE FIRE PREVENTION DIVISION.
[SEE PUBLIC WATER AGENCY NOTES ON SHEET C05.601]

VICINITY MAP

SCALE: 1" = 500'



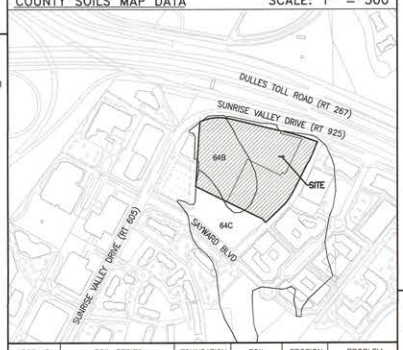
SIDEWALK MAINTENANCE: XXXX-VDOT, OOOO-FFX CO
TRAIL MAINTENANCE: OOOO-FFX CO
ALL OTHER WALKS/TRAILS TO BE OWNER MAINTAINED

TAX MAP REFERENCE NUMBER(S)

MAP PAGE #	DOUBLE CIRCLE #	BLOCK (SINGLE CIRCLE #)	LOT/PARCEL(S) #
15-2	1		13A
15-4	5		5B

COUNTY SOILS MAP DATA

SCALE: 1" = 500'



SOIL ID NUMBERS	SOIL SERIES NAME	FOUNDATION SUPPORT	SOIL DRAINAGE	EROSION POTENTIAL	PROBLEM CLASS
64B	JACKLAND AND HAYMARKET	POOR-P,C,B	POOR-P,C,S	MEDIUM	III
64C	JACKLAND AND HAYMARKET	POOR-P,C,B	POOR-P,C,S	MEDIUM	III
	SOILS REPORT REQUIRED				

IS THE SITE LOCATED WITHIN NATURALLY OCCURRING ASBESTOS SOILS? YES☐ NO☒

AREAS THAT MAY CONTAIN NATURALLY OCCURRING ASBESTOS SOILS ARE LOCATED ON THE ORANGE SOILS TAX MAP GRIDS ON THE COUNTY WEBSITE. SPECIAL PRECAUTIONS REGARDING THESE SOILS OR FILL ORIGINATING FROM THESE SOILS ARE REQUIRED BY THE OCCUPATIONAL SAFETY AND HEALTH REGULATIONS ENFORCED BY THE VIRGINIA DEPARTMENT OF LABOR AND INDUSTRY AND SPECIAL GUIDANCE HAS BEEN ISSUED BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY.

STORMWATER INFORMATION

HIGH DENSITY POLYETHYLENE (HDPE) USED ON THIS PROJECT YES ☒ NO ☐

THE PLAN MEETS: TIME LIMITS ON APPLICABILITY OF APPROVED DESIGN CRITERIA ☒

SWM FACILITIES (PROPOSED ONLY) GRANDFATHERING CRITERIA ☒

VPDES REQUIRED YES ☒ NO ☐

VPDES PERMIT NO. (IF TIME LIMITS): _____

COUNTY STORMWATER PERMIT REQUIRED YES ☒ NO ☐

SWM FACILITIES DESIGNED USING: TECHNICAL CRITERIA 4 ☐ (NEW)
TECHNICAL CRITERIA 5 ☒ (OLD)

FACILITY ID NO.	FACILITY TYPE	PURPOSE	AREA TREATED (ACRES)	LATITUDE (DECIMAL DEGREE)	LONGITUDE (DECIMAL DEGREE)	WATERSHED	RECEIVING WATERS	MAINTENANCE AGREEMENT Y/N	VAHU6 CODE	LENGTH/ AREA OF FACILITY	UNIT (FT/ SF)	NO. OF BLDG. SERVED (FOR ROOFTOP DISCONNECT)
A	BIORETENTION FILTER	BMP	2.54 AC	N38.573209	W77.250514	HORSEPEN CREEK	MERRYBROOK RUN	Y	PL18	5,850	SF	
B	STORMCEPTOR	BMP	2.54 AC	N38.573230	W77.250566	HORSEPEN CREEK	MERRYBROOK RUN	Y	PL18	20	SF	
C	RAINWATER HARVESTING	BMP	3.65 AC	N38.573703	W77.250762	HORSEPEN CREEK	MERRYBROOK RUN	Y	PL18	–	SF	

DISTURBED AREA (DA) WITHIN WATERSHED(S):

WATERSHED 1 HORSEPEN CREEK DA= 19.96 (ACRES) WATERSHED 2 _____ DA=_____ (ACRES) TOTAL DISTURBED AREA= 19.96 (ACRES)

ENGINEER'S/SURVEYOR'S CERTIFICATE:

THIS PROPERTY IS IN THE NAME OF NUGGET JOINT VENTURE, LC (ROCKS)

AS RECORDED IN DEED BOOK 9500 PAGE 1070 OF THE LAND RECORDS OF FAIRFAX COUNTY, VA.

OWNER INFORMATION

(X) OWNER ( ) TRUSTEE

( ) A CORPORATION ( ) A PARTNERSHIP (X) AN INDIVIDUAL

NUGGET JOINT VENTURE, LC (NAME) 703-915-3383 (PHONE)

1960 GALLOWS ROAD, SUITE 300, VIENNA, VA 22182 (ADDRESS) HELLYERM@CSCROCKS.COM (EMAIL)

DEVELOPER INFORMATION

(X) DEVELOPER ( ) CONTRACT OWNER ( ) LESSEE

( ) A CORPORATION ( ) A PARTNERSHIP (X) AN INDIVIDUAL

NUGGET JOINT VENTURE, LC (NAME) 703-915-3383 (PHONE)

1960 GALLOWS ROAD, SUITE 300, VIENNA, VA 22182 (ADDRESS) HELLYERM@CSCROCKS.COM (EMAIL)

WETLANDS PERMITS CERTIFICATION

I HEREBY CERTIFY THAT ALL WETLANDS PERMITS REQUIRED BY LAW WILL BE OBTAINED PRIOR TO COMMENCING WITH LAND DISTURBING ACTIVITIES.

SIGNATURE _____

OWNER/DEVELOPER NUGGET JOINT VENTURE, LC (NAME) MANAGER (TITLE)

NOTE: PERMITS MUST BE PRESENTED TO THE COUNTY INSPECTOR PRIOR TO LAND DISTURBANCE.

DATE	RECOMMEND APPROVAL (SIGNATURE & PRINTED NAME)
05/04/15	STREETLIGHT REVIEW – DPWES
	PUBLIC WATER AGENCY
	SANITARY SEWER REVIEW – DPWES
	URBAN FOREST MANAGEMENT REVIEW – DPWES
	FAIRFAX COUNTY FIRE MARSHAL
	FAIRFAX COUNTY HEALTH DEPARTMENT
	VIRGINIA DEPARTMENT OF TRANSPORTATION
	GEOTECHNICAL REVIEW, DPWES
	STORMWATER REVIEW, DPWES
	PLAN REVIEWER – DPWES
	DIRECTOR, SITE DEVELOPMENT & INSPECTIONS DIVISION, LDS, – DPWES

APPROVED

DATE _____ BY _____ DIRECTOR, DEPT. OF PUBLIC WORKS AND ENVIRONMENTAL SERVICES

THIS PLAN SHALL EXPIRE WITHOUT NOTICE IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF THE COUNTY CODE. REVISIONS DO NOT EXTEND THE APPROVAL PERIOD. THE APPROVAL PERIOD IS INDEPENDENT OF THE AGREEMENT EXPIRATION DATE.

THIS APPROVAL IS NOT A COMMITMENT TO PROVIDE PUBLIC SANITARY SEWER

CERTIFICATE OF NO CHANGE (FOR SUBMISSION OTHER THAN THE FIRST)

I HEREBY CERTIFY THAT NO CHANGES HAVE BEEN MADE THAT WOULD AFFECT PRIOR APPROVAL BY THE

FIRE MARSHAL DATED_____
WATER AUTHORITY DATED_____
HEALTH DEPARTMENT DATED_____
VDOT DATED_____
DPWES-SAN. SEWER DATED_____
DPWES-STREETLIGHTS DATED_____
UFMD DATED_____

SHEET INDEX

THE SHEET SET HAS BEEN CODIFIED BY SECTIONS NUMBERS. REFER TO SHEET C01.001 FOR COMPLETE SHEET LIST. SECTIONS INCLUDED ARE AS FOLLOWS:

SECTION NUMBER:

C01–GENERAL
C02–SITE PLAN
C03–ROAD DESIGN
C04–SANITARY SEWER
C05–FIRE & WATER
C06–STORM SEWER
C07–SWM
C08–E&S
C09–PARKING PLAN
C10–LETTERS
L01–LANDSCAPE
L02–TREE PRESEVATION
B01–GEOTECHNICAL
R01–ZONING
R02–REFERENCE

DESIGN ENGINEER / SURVEYOR
FIRM NAME: DEMBERRY CONSULTANTS LLC
ADDRESS: 8401 ARLINGTON BLVD FAIRFAX VA 22031 FAX NO: 703-849-0518
PHONE NO: 703-849-0100 PROJ. MANAGER: CODY A. PENNETTI EMAIL: CPENNETTI@DEMBERRY.COM

INNOVATION CENTER SOUTH

SITE PLAN

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SITE PLAN OR PUBLIC IMPROVEMENT PLAN COVERSHEET

COUNTY NUMBER 6848-SP-014-2

PLAN REVIEWER _____

SHEET 1 OF 229

REVISED: 7/14

PLAN APPROVAL INFORMATION

RELATED INFORMATION	REQUIRED	NOT REQUIRED	COUNTY I.D. NUMBER	COMMENTS/SHEET NO.
1. CONCURRENT PROCESSING		X		
2. MODIFIED PROCESSING	X			APPLICATION AND RGP TO BE SUBMITTED AFTER 1ST SUB
3. MAXIMUM DENSITY ADJUSTMENTS BASED ON Z.O. 2-308		X		
4. AFFORDABLE DWELLING UNITS		X		
5. WORK FORCE UNITS	X			157 – SEE SHEET C01.101
6. R.P.A. DELINEATION		X		
7. FLOOD PLAIN STUDY		X		
8. DRAINAGE STUDY		X		
9. BATHYMETRIC SURVEY (SW-10)		X		
10. CHESAPEAKE BAY ACT EXCEPTION		X		
11. WATER QUALITY IMPACT ASSESSMENT		X		
12. SOILS REPORT	X			TO BE SUBMITTED SEPARATELY–PRIOR TO 2ND SUBMISSION
13. ONSITE EASEMENTS	X			TO BE SUBMITTED SEPARATELY–PRIOR TO 2ND SUBMISSION
14. OFFSITE EASEMENTS	X			TO BE SUBMITTED SEPARATELY–PRIOR TO 2ND SUBMISSION
15. NOTARIZED LETTERS OF PERMISSION	X			TO BE SUBMITTED SEPARATELY–PRIOR TO 2ND SUBMISSION
16. ARCHITECTURAL REVIEW BOARD APPROVAL		X		
17. RETURN PLAN TO B.O.S. PRIOR TO APPR.		X		
18. RETURN PLAN TO P.C. PRIOR TO APPR.		X		
19. ADJACENT PROPERTY OWNER NOTICES	X			TO BE SUBMITTED SEPARATELY–PRIOR TO 2ND SUBMISSION
20. OFFSITE UTILITY WORK NOTICES		X		
21. MAJOR UNDERGROUND UTILITY NOTICES		X		
22. REZONING/SPECIAL EXCEPTION/SPECIAL PERMIT APPROVAL	X		RZ 2009-HM-017	SEE SHEETS R01.101–R01.176; APPROVED 07/29/2014
23. B.O.S./B.Z.A. CLERK LETTER/RESOLUTION	X		PCA C-696-10	SEE SHEET C10.101
24. REZONING PROFFERS/CONDITIONS	X		GDP/FDP/RZ	SEE SHEETS C10.101–C10.114; APPROVED 07/29/2014
25. REZONING DEVELOPMENT PLAN	X		2009-HM-017	SEE SHEETS R01.101–R01.176; APPROVED 07/29/2014
26. B.Z.A. VARIANCE APPROVAL		X		
27. WETLANDS/WATERS OF THE U.S. PERMIT	X			DATE SENT TO ACOE: PERMIT RECEIVED: 6/11/11 PERMIT NO. WP4-08-0334
28. STATE REGULATED DAM PERMIT		X		PERMIT RECEIVED: PERMIT NO.
29. LOCATED IN DAM BREAK INUNDATION ZONE (STATE REGULATED DAMS) 2 EXTRA PLAN SETS REQUIRED		X		DAM NAME: DAM NO.:
30. FEMA LETTER OF MAP REVISION		X		DATE CLOMR RECEIVED:
31. VEGETATED ROOF NOTE		X		
32. OVERLAY DISTRICT INFORMATION	X			THIS SHEET
33. TREE BANKING		X		
34. TREE FUND		X		
35. GREEN PROJECT CERTIFICATION FOR GREEN PRIORITY PLAN REVIEW	X			SEE SHEET C10.301
36. STREET LIGHTS	X			SEE SHEETS ###### – ###### C03.401–C03.405
MODIFICATIONS/WAIVERS				
U.G. STORMWATER FACILITY IN RESIDENTIAL	X		6848-WPFM-005	APPROVED (04/10/2014) – SEE SHEET C10.201
OFF-SITE STORMWATER DETENTION	X		6848-WPFM-006	REQUESTED – SEE SHEET C10.202

SOLID WASTE AND RECYCLING: ALL PROPERTIES ARE REQUIRED TO RECYCLE. DESIGNS FOR ALL PROPERTIES MUST PROVIDE ADEQUATE CONTAINERS/STRUCTURES FOR THE SEPARATE MANAGEMENT OF RECYCLABLES AND TRASH.

SINGLE-FAMILY DETACHED AND TOWNHOUSE DEVELOPMENTS

I CERTIFY THAT THE SITE DEPICTED ON THIS PLAN IS (CHECK APPLICABLE STATEMENT):
___ IN A SANITARY DISTRICT WHERE TRASH AND RECYCLING COLLECTION IS CONDUCTED BY FAIRFAX COUNTY AND THAT I HAVE INFORMED THE PROPERTY OWNER OF THIS CONDITION.
___ NOT IN A SANITARY DISTRICT AND TRASH AND RECYCLING COLLECTION WILL BE CONDUCTED BY A PRIVATE COMPANY.

NON-RESIDENTIAL PROPERTIES, INCLUDING BUSINESSES, SCHOOLS AND INSTITUTIONS, AND MULTI-FAMILY PROPERTIES, INCLUDING CONDOMINIUMS AND APARTMENTS.

I CERTIFY THAT (ALL STEPS MUST BE COMPLETED):
_X_ I HAVE COMPLETED A WASTE STREAM CALCULATION WORKSHEET FOR THIS PROPERTY.
_X_ I HAVE INDICATED ON THE PLAN THE LOCATION AND TYPE OF TRASH AND RECYCLING CONTAINERS AND STRUCTURES. SEE SHEET NUMBER _X_ IN ___EACH___BUILDING. X ###### C09.103
_X_ THE TRASH AND RECYCLING MANAGEMENT CONTAINERS/STRUCTURES ON THIS PLAN ARE ADEQUATE TO MEET THE MINIMUM RECYCLING REQUIREMENT AS DESCRIBED ON THE WASTE STREAM CALCULATION WORKSHEET.

SANITARY SEWER INFORMATION

WASTEWATER TREATMENT PLANT BLUE PLAINS
___ THIS SITE IS SUBJECT TO ___ SANITARY SEWER REIMBURSEMENT CHARGES.
___ THIS SITE IS SERVED BY ONSITE SEWAGE TREATMENT SYSTEM(S).

INFORMATION REGARDING ACTIVITIES IN A RESOURCE PROTECTION AREA

ACTIVITY	YES/NO
CONSTRUCTION ACTIVITIES IN A RESOURCE PROTECTION AREA (IF YES, INDICATE TYPE BELOW)	NO
REDEVELOPMENT PRINCIPAL STRUCTURE	N/A
REDEVELOPMENT ACCESSORY STRUCTURE	N/A
PUBLIC ROADS	N/A
PRIVATE ROADS	N/A
DRIVEWAYS	N/A
STORMWATER OUTFALL	N/A
OTHER (INDICATE TYPE):	N/A

TREE PRESERVATION

TREE PRESERVATION TARGET DEVIATIONS OR MODIFICATIONS ARE BEING REQUESTED.

YES [X] NO [ ] N/A [ ]
*SEE SHEET C10.101

POTENTIAL FOR WETLANDS

IS THE DISTURBED AREA LOCATED IN A WETLANDS AREA DEPICTED ON THE NATIONAL WETLANDS INVENTORY MAP? YES[X] NO[ ]

IS THE DISTURBED AREA LOCATED IN AN ESTIMATED WETLANDS AREA DEPICTED ON THE COUNTY POTENTIAL WETLAND AREA MAP? YES[ ] NO [X]

IF YES, TO EITHER OF THE TWO QUESTIONS ABOVE, PROVIDE EVIDENCE OF APPROVED PERMIT OR VERIFICATION THAT NO PERMIT FROM THE ARMY CORPS OF ENGINEERS IS REQUIRED BEFORE PLAN IS APPROVED.

NOTES AND CONDITIONS

1. THE APPROVAL OF THESE PLANS SHALL IN NO WAY RELIEVE THE DEVELOPER OR HIS AGENT OF ANY LEGAL RESPONSIBILITIES WHICH MAY BE REQUIRED BY THE CODE OF VIRGINIA OR ANY ORDINANCE ENACTED BY THE COUNTY OF FAIRFAX.
2. THE DESIGN, CONSTRUCTION, FIELD PRACTICES, AND METHODS SHALL CONFORM TO THE REQUIREMENTS SET FORTH IN THE FAIRFAX COUNTY CODE AND IN THE PUBLIC FACILITIES MANUAL AS AMENDED. FAILURE TO COMPLY WITH THE FAIRFAX COUNTY CODE, THE PUBLIC FACILITIES MANUAL, THE APPROVED PLANS, AND THE PROVISIONS OF THE DEVELOPMENT AGREEMENT AND PERMIT SHALL BE DEEMED A VIOLATION.
3. WATER DISTRIBUTION NOTE: ALL FIRE PROTECTION SYSTEMS WHICH ARE INSTALLED IN COMPLIANCE WITH THESE PLANS AND COUNTY OF FAIRFAX ORDINANCES SHALL BE MAINTAINED IN AN OPERATIVE CONDITION AT ALL TIMES. WHEN NECESSARY TO TEMPORARILY REDUCE OR DISCONTINUE THE PROTECTION IN ORDER TO MAKE TESTS, REPAIRS, ALTERATIONS OR ADDITIONS, NOTIFY THE FAIRFAX COUNTY PUBLIC SAFETY COMMUNICATIONS CENTER AT 703-691-2131.
4. A PERMIT MUST BE OBTAINED FROM THE VIRGINIA DEPARTMENT OF TRANSPORTATION, NORTHERN VIRGINIA DISTRICT, BEFORE ANY CONSTRUCTION IS STARTED ON ANY EXISTING STATE ROUTE. CONTACT THE VIRGINIA DEPARTMENT OF TRANSPORTATION THREE WORKING DAYS BEFORE EXCAVATION IN ANY STATE RIGHT OF WAY AT 703-383-2888.
5. CONTRACTORS SHALL NOTIFY THE "MISS UTILITY" NOTIFICATION CENTER AT 1-800-552-7001 FOR ANY PROPOSED EXCAVATION, DEMOLITION, OR BLASTING AT LEAST TWO WORKING DAYS PRIOR TO COMMENCEMENT OF EXCAVATION DEMOLITION, OR BLASTING IN ACCORDANCE WITH THE VIRGINIA UNDERGROUND UTILITY DAMAGE PREVENTION ACT. IN ADDITION, NAMES AND TELEPHONE NUMBERS SHALL ALSO BE USED TO SERVE IN AN EMERGENCY CONDITION AS REQUIRED BY SECTION 63-2-2 OF THE FAIRFAX COUNTY CODE.
6. THE COUNTY INSPECTOR SHALL BE NOTIFIED WHEN ANY IMPROVEMENTS PERTINENT TO HIS INSPECTION DUTIES ARE BEING INSTALLED. SPECIFIC REQUIREMENTS ARE:
   A. THE COUNTY SITE INSPECTOR IS TO BE NOTIFIED AT LEAST 3 DAYS PRIOR TO START OF CONSTRUCTION.
   B. A MINIMUM OF 24 HOURS NOTICE IS REQUIRED WHEN REQUESTING RESIDENTIAL OR NON-RESIDENTIAL USE PERMITS.
   C. A MINIMUM OF 48 HOURS NOTICE IS REQUIRED WHEN REQUESTING TESTS PERTAINING TO SANITARY SEWER ACCEPTANCE.

PROFESSIONAL SEAL AND SIGNATURE

COMMONWEALTH OF VIRGINIA
CODY A. PENNETTI
Lic. No. 048560
PROFESSIONAL ENGINEER
8-15-06

DATE _____

PROFESSIONAL SEAL AND SIGNATURE

DATE MAY 6, 2015

PROFESSIONAL SEAL AND SIGNATURE

DATE _____

DESIGNATED PLANS EXAMINER (DPE) CERTIFICATE

1ST SUBMISSION REVIEWED & RECOMMENDED FOR SUBMISSION	2ND SUBMISSION REVIEWED & RECOMMENDED FOR APPROVAL
DANIELA MEDEK	
D.P.E. SIGNATURE & PRINTED NAME	D.P.E. SIGNATURE & PRINTED NAME
DATE: _____ REG. NO.: 300	DATE: _____ REG. NO.: _____

POST SUBMISSION CONFECENCE DATE: _____

ZONING REQUIREMENTS

1) ZONING PRM (RZ 2009-HM-017)
2) AVERAGE LOT AREA N/A (SQ. FT.)
3) MIN. LOT AREA N/A (SQ. FT.)
4) MIN. LOT WIDTH N/A (FT.)
5) MAX. BUILDING HEIGHT OFFICE/RESIDENTIAL=180', HOTEL=120' (FT.)
6) NUMBER OF FLOORS OFFICE=13, RESIDENTIAL=16, HOTEL=12 (Commercial/Industrial ONLY)
7) MIN. YARD REQUIREMENTS: *AS SHOWN ON RZ 2009-HM-017 (SHEET R01.107)
   FRONT * (FT.) SIDE * (FT.) REAR * (FT.)
8) MAXIMUM FAR 3.00 (3.005 WITH BONUS) PER RZ
9) MAXIMUM DENSITY N/A (D.U./AC.)
10) OPEN SPACE REQUIRED 20 % 127,851 (SQ. FT.)
11) ANGLE OF BULK PLANE: FRONT N/A SIDE N/A REAR N/A
    (DETAIL(S) ON SHEET **) **NO BULK PLANE FOR PRM
12) OVERLAY DISTRICT(S) ROUTE 28 TAX DISTRICT

SITE PLAN (SP) TABULATIONS

1) SITE AREA 14.68 (ACRES) 639,253 (SQ. FT.)
2) AREA OF STREET DEDICATION 82,723 (SQ. FT.) *SEE SHEET C01.301
3) USE MIXED (OFFICE, RETAIL, MULTI-FAMILY, HOTEL)
4) NUMBER OF LOTS N/A
5) AREA OF LOTS N/A (SQ. FT.)
6) DENSITY N/A (D.U./AC.)
7) EXISTING BUILDING GROSS FLOOR AREA 0 (SQ. FT.)
8) PROPOSED BUILDING GROSS FLOOR AREA 1,644,701 (SQ. FT.)
9) EXISTING BUILDING NET FLOOR AREA 0 (SQ. FT.)
10) PROPOSED BUILDING NET FLOOR AREA 1,315,760 (SQ. FT.)
11) TOTAL FLOOR AREA RATIO (FAR) FOR ENTIRE SITE 2.574
12) PROPOSED BUILDING HEIGHT 120'-180' (FT.)
13) PROPOSED NUMBER OF FLOORS 12-16 COMMERCIAL/INDUSTRIAL ONLY
14) TOTAL HANDICAPPED PARKING REQUIRED 36
15) TOTAL HANDICAPPED PARKING PROVIDED 39
16) TOTAL HANDICAPPED VAN SPACES REQUIRED 8
17) TOTAL HANDICAPPED VAN SPACES PROVIDED 20
18) TOTAL PARKING SPACES REQUIRED 2,947
19) TOTAL PARKING SPACES PROVIDED 3,265
20) LOADING SPACES REQUIRED PER CDP/FDP: 9
21) LOADING SPACES PROVIDED 9
22) OPEN SPACE PROVIDED 35 % 225,096 (SQ. FT.)

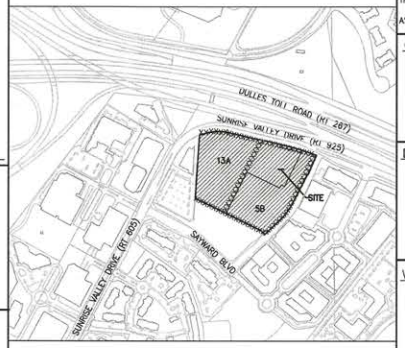
FIRE MARSHAL NOTES

AVAILABLE FIRE FLOW 2,575 GPM (GAL./MIN.)
SOURCE OF FIRE FLOW INFO. FAIRFAX WATER
TYPE OF CONSTRUCTION – USBC IA
USE GROUP CLASSIFICATION – USBC A-2, A-3, B, M, R-1, R-2, S-2
BUILDING HEIGHT OFFICE/RESIDENTIAL=180', HOTEL=120' * (FT.) *SHEETS C02.101–C02.104
BUILDING TO BE FULLY SPRINKLERED YES [X] NO [ ]

IF YES, CHECK APPROPRIATE STANDARD: NFPA 13 [X]; NFPA 13D [ ]; NFPA 13R [ ]
SEE PFM CHAPTER 9, PART 2 FOR FULL INFORMATION REQUIRED. FIRE FLOW REQUIREMENTS TO BE DETERMINED BY THE FIRE PREVENTION DIVISION.
[SEE PUBLIC WATER AGENCY NOTES ON SHEET C05.601]

VICINITY MAP

SCALE: 1" = 500'



SIDEWALK MAINTENANCE: XXXX-VDOT, 0000-FFX CO
TRAIL MAINTENANCE: 0000-FFX CO
ALL OTHER WALKS/TRAILS TO BE OWNER MAINTAINED

TAX MAP REFERENCE NUMBER(S)

MAP PAGE #	DOUBLE CIRCLE #	BLOCK (SINGLE CIRCLE #)	LOT/PARCEL(S) #
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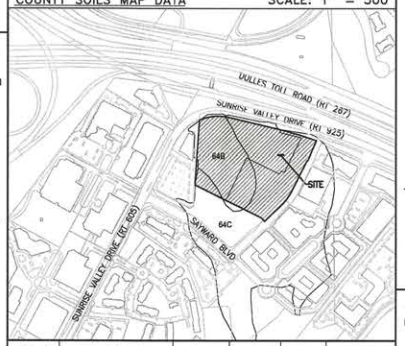
15-4	5		5B

COUNTY SOILS MAP DATA

SCALE: 1" = 500'



SOIL ID NUMBERS	SOIL SERIES NAME	FOUNDATION SUPPORT	SOIL DRAINAGE	EROSION POTENTIAL	PROBLEM CLASS
64B	JACKLAND AND HAYMARKET	POOR-P,C,B	POOR-P,C,S	MEDIUM	III
64C	JACKLAND AND HAYMARKET	POOR-P,C,B	POOR-P,C,S	MEDIUM	III
	SOILS REPORT REQUIRED				

IS THE SITE LOCATED WITHIN NATURALLY OCCURRING ASBESTOS SOILS? YES[ ] NO[X]

AREAS THAT MAY CONTAIN NATURALLY OCCURRING ASBESTOS SOILS ARE LOCATED ON THE ORANGE SOILS TAX MAP GRIDS ON THE COUNTY WEBSITE. SPECIAL PRECAUTIONS REGARDING THESE SOILS OR FILL ORIGINATING FROM THESE SOILS ARE REQUIRED BY THE OCCUPATIONAL SAFETY AND HEALTH REGULATIONS ENFORCED BY THE VIRGINIA DEPARTMENT OF LABOR AND INDUSTRY AND SPECIAL GUIDANCE HAS BEEN ISSUED BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY.

STORMWATER INFORMATION

HIGH DENSITY POLYETHYLENE (HDPE) USED ON THIS PROJECT YES [X] NO [ ]
THE PLAN MEETS: TIME LIMITS ON APPLICABILITY OF APPROVED DESIGN CRITERIA [X]
SWM FACILITIES (PROPOSED ONLY) GRANDFATHERING CRITERIA [X]

VPDES REQUIRED YES [X] NO [ ]
VPDES PERMIT NO. (IF TIME LIMITS): _____
COUNTY STORMWATER PERMIT REQUIRED YES [X] NO [ ]
SWM FACILITIES DESIGNED USING: TECHNICAL CRITERIA 4 [ ] (NEW)
TECHNICAL CRITERIA 5 [X] (OLD)

FACILITY ID NO.	FACILITY TYPE	PURPOSE	AREA TREATED (ACRES)	LATITUDE (DECIMAL DEGREE)	LONGITUDE (DECIMAL DEGREE)	WATERSHED	RECEIVING WATERS	MAINTENANCE AGREEMENT Y/N	VAHUC CODE	LENGTH/ AREA OF FACILITY	UNIT (FT/ SF)	NO. OF BLDG. SERVED (FOR ROOFTOP DISCONNECT)
A	BIORETENTION FILTER	BMP	2.54 AC	N38.573209	W77.250514	HORSEPEN CREEK	MERRYBROOK RUN	Y	PL18	5,850	SF	
B	STORMCEPTOR	BMP	2.54 AC	N38.573230	W77.250566	HORSEPEN CREEK	MERRYBROOK RUN	Y	PL18	20	SF	
C	RAINWATER HARVESTING	BMP	3.65 AC	N38.573703	W77.250762	HORSEPEN CREEK	MERRYBROOK RUN	Y	PL18	–	SF	

DISTURBED AREA (DA) WITHIN WATERSHED(S):
WATERSHED 1 HORSEPEN CREEK DA= 19.96 (ACRES) WATERSHED 2 _____ DA=_____ (ACRES) TOTAL DISTURBED AREA= 19.96 (ACRES)

ENGINEER'S/SURVEYOR'S CERTIFICATE:

THIS PROPERTY IS IN THE NAME OF NUGGET JOINT VENTURE, LC (ROCKS)
AS RECORDED IN DEED BOOK 9500 PAGE 1070 OF THE LAND RECORDS OF FAIRFAX COUNTY, VA.

OWNER INFORMATION

(X) OWNER ( ) TRUSTEE
(X) A CORPORATION ( ) A PARTNERSHIP ( ) AN INDIVIDUAL
NUGGET JOINT VENTURE, LC (NAME)
703-915-3383 (PHONE)
1960 GALLOWS ROAD, SUITE 300, VIENNA, VA 22182 (ADDRESS)
HELLYER@CSROCKS.COM (EMAIL)

DEVELOPER INFORMATION

(X) DEVELOPER ( ) CONTRACT OWNER ( ) LESSEE
(X) A CORPORATION ( ) A PARTNERSHIP ( ) AN INDIVIDUAL
NUGGET JOINT VENTURE, LC (NAME)
703-915-3383 (PHONE)
1960 GALLOWS ROAD, SUITE 300, VIENNA, VA 22182 (ADDRESS)
HELLYER@CSROCKS.COM (EMAIL)

WETLANDS PERMITS CERTIFICATION

I HEREBY CERTIFY THAT ALL WETLANDS PERMITS REQUIRED BY LAW WILL BE OBTAINED PRIOR TO COMMENCING WITH LAND DISTURBING ACTIVITIES.

SIGNATURE _____
OWNER/DEVELOPER NUGGET JOINT VENTURE LC (NAME) MANAGER (TITLE)

NOTE: PERMITS MUST BE PRESENTED TO THE COUNTY INSPECTOR PRIOR TO LAND DISTURBANCE.

DATE	RECOMMEND APPROVAL (SIGNATURE & PRINTED NAME)
	STREETLIGHT REVIEW – DPWES
05/12/15	CHRIS FISHER (AS NOTED C02.103, 104/C05.304, 306–308) PUBLIC WATER AGENCY
	SANITARY SEWER REVIEW – DPWES
	URBAN FOREST MANAGEMENT REVIEW – DPWES
	FAIRFAX COUNTY FIRE MARSHAL
	FAIRFAX COUNTY HEALTH DEPARTMENT
	VIRGINIA DEPARTMENT OF TRANSPORTATION
	GEOTECHNICAL REVIEW, DPWES
	STORMWATER REVIEW, DPWES
	PLAN REVIEWER – DPWES
	DIRECTOR, SITE DEVELOPMENT & INSPECTIONS DIVISION, LDS, – DPWES

APPROVED

DATE _____ BY _____ DIRECTOR, DEPT. OF PUBLIC WORKS AND ENVIRONMENTAL SERVICES

THIS PLAN SHALL EXPIRE WITHOUT NOTICE IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF THE COUNTY CODE. REVISIONS DO NOT EXTEND THE APPROVAL PERIOD. THE APPROVAL PERIOD IS INDEPENDENT OF THE AGREEMENT EXPIRATION DATE.

THIS APPROVAL IS NOT A COMMITMENT TO PROVIDE PUBLIC SANITARY SEWER

CERTIFICATE OF NO CHANGE (FOR SUBMISSION OTHER THAN THE FIRST)

I HEREBY CERTIFY THAT NO CHANGES HAVE BEEN MADE THAT WOULD AFFECT PRIOR APPROVAL BY THE

FIRE MARSHAL DATED _____
WATER AUTHORITY DATED _____
HEALTH DEPARTMENT DATED _____
VDOT DATED _____
DPWES–SAN. SEWER DATED _____
DPWES–STREETLIGHTS DATED _____
UFMD DATED _____

SHEET INDEX

THE SHEET SET HAS BEEN CODIFIED BY SECTIONS NUMBERS.
REFER TO SHEET C01.001 FOR COMPLETE SHEET LIST.
SECTIONS INCLUDED ARE AS FOLLOWS:

SECTION NUMBER:

C01–GENERAL
C02–SITE PLAN
C03–ROAD DESIGN
C04–SANITARY SEWER
C05–FIRE & WATER
C06–STORM SEWER
C07–SWM
C08–E&S
C09–PARKING PLAN
C10–LETTERS
L01–LANDSCAPE
L02–TREE PRESEVATION
B01–GEOTECHNICAL
R01–ZONING
R02–REFERENCE

DESIGN ENGINEER / SURVEYOR
FIRM NAME: DEWBERRY CONSULTANTS, LLC
ADDRESS: 8401 ARLINGTON BLVD
FAIRFAX, VA 22031
PHONE NO: 703-849-0518 FAX NO: 703-849-0100
PROJ. MANAGER: CODY A. PENNETTI EMAIL: CPENNETTI@DEWBERRY.COM

INNOVATION CENTER SOUTH
SITE PLAN
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SITE PLAN OR PUBLIC IMPROVEMENT PLAN COVERSHEET

COUNTY NUMBER 6848-SP-014-2

PLAN REVIEWER _____

SHEET 1 OF 229

REVISED: 7/14

PLAN APPROVAL INFORMATION

RELATED INFORMATION	REQUIRED	NOT REQUIRED	COUNTY I.D. NUMBER	COMMENTS/SHEET NO.
1. CONCURRENT PROCESSING		X		
2. MODIFIED PROCESSING	X			APPLICATION AND RGP TO BE SUBMITTED AFTER 1ST SUB
3. MAXIMUM DENSITY ADJUSTMENTS BASED ON Z.O. 2-308		X		
4. AFFORDABLE DWELLING UNITS		X		
5. WORK FORCE UNITS	X			157 – SEE SHEET C01.101
6. R.P.A. DELINEATION		X		
7. FLOOD PLAIN STUDY		X		
8. DRAINAGE STUDY		X		
9. BATHYMETRIC SURVEY (SW-10)		X		
10. CHESAPEAKE BAY ACT EXCEPTION		X		
11. WATER QUALITY IMPACT ASSESSMENT		X		
12. SOILS REPORT	X			TO BE SUBMITTED SEPARATELY–PRIOR TO 2ND SUBMISSION
13. ONSITE EASEMENTS	X			TO BE SUBMITTED SEPARATELY–PRIOR TO 2ND SUBMISSION
14. OFFSITE EASEMENTS	X			TO BE SUBMITTED SEPARATELY–PRIOR TO 2ND SUBMISSION
15. NOTARIZED LETTERS OF PERMISSION	X			TO BE SUBMITTED SEPARATELY–PRIOR TO 2ND SUBMISSION
16. ARCHITECTURAL REVIEW BOARD APPROVAL		X		
17. RETURN PLAN TO B.O.S. PRIOR TO APPR.		X		
18. RETURN PLAN TO P.C. PRIOR TO APPR.		X		
19. ADJACENT PROPERTY OWNER NOTICES	X			TO BE SUBMITTED SEPARATELY–PRIOR TO 2ND SUBMISSION
20. OFFSITE UTILITY WORK NOTICES		X		
21. MAJOR UNDERGROUND UTILITY NOTICES		X		
22. REZONING/SPECIAL EXCEPTION/SPECIAL PERMIT APPROVAL	X		RZ 2009-HM-017	SEE SHEETS R01.101–R01.176; APPROVED 07/29/2014
23. B.O.S./B.Z.A. CLERK LETTER/RESOLUTION	X		PCA C-696-10	SEE SHEET C10.101
24. REZONING PROFFERS/CONDITIONS	X		GDP/FDP/RZ	SEE SHEETS C10.101–C10.114; APPROVED 07/29/2014
25. REZONING DEVELOPMENT PLAN	X		2009-HM-017	SEE SHEETS R01.101–R01.176; APPROVED 07/29/2014
26. B.Z.A. VARIANCE APPROVAL		X		
27. WETLANDS/WATERS OF THE U.S. PERMIT	X			DATE SENT TO ACOE: PERMIT RECEIVED: 6/11/11 PERMIT NO. WP4-08-0334 PERMIT RECEIVED: PERMIT NO.
28. STATE REGULATED DAM PERMIT		X		
29. LOCATED IN DAM BREAK INUNDATION ZONE (STATE REGULATED DAMS) 2 EXTRA PLAN SETS REQUIRED		X		DAM NAME: DAM NO.:
30. FEMA LETTER OF MAP REVISION		X		DATE CLOMR RECEIVED:
31. VEGETATED ROOF NOTE		X		
32. OVERLAY DISTRICT INFORMATION	X			THIS SHEET
33. TREE BANKING		X		
34. TREE FUND		X		
35. GREEN PROJECT CERTIFICATION FOR GREEN PRIORITY PLAN REVIEW	X			SEE SHEET C10.301
36. STREET LIGHTS	X			SEE SHEETS C02.101–C02.104; C03.401–C03.405
MODIFICATIONS/WAIVERS				
U.G. STORMWATER FACILITY IN RESIDENTIAL	X		6848-WPFM-005	APPROVED (04/10/2014) – SEE SHEET C10.201
OFF-SITE STORMWATER DETENTION	X		6848-WPFM-006	REQUESTED – SEE SHEET C10.202

SOLID WASTE AND RECYCLING: ALL PROPERTIES ARE REQUIRED TO RECYCLE. DESIGNS FOR ALL PROPERTIES MUST PROVIDE ADEQUATE CONTAINERS/STRUCTURES FOR THE SEPARATE MANAGEMENT OF RECYCLABLES AND TRASH.

SINGLE-FAMILY DETACHED AND TOWNHOUSE DEVELOPMENTS

I CERTIFY THAT THE SITE DEPICTED ON THIS PLAN IS (CHECK APPLICABLE STATEMENT):

___ IN A SANITARY DISTRICT WHERE TRASH AND RECYCLING COLLECTION IS CONDUCTED BY FAIRFAX COUNTY AND THAT I HAVE INFORMED THE PROPERTY OWNER OF THIS CONDITION.

___ NOT IN A SANITARY DISTRICT AND TRASH AND RECYCLING COLLECTION WILL BE CONDUCTED BY A PRIVATE COMPANY.

NON-RESIDENTIAL PROPERTIES, INCLUDING BUSINESSES, SCHOOLS AND INSTITUTIONS, AND MULTI-FAMILY PROPERTIES, INCLUDING CONDOMINIUMS AND APARTMENTS.

I CERTIFY THAT (ALL STEPS MUST BE COMPLETED):

_X_ I HAVE COMPLETED A WASTE STREAM CALCULATION WORKSHEET FOR THIS PROPERTY;

_X_ I HAVE INDICATED ON THE PLAN THE LOCATION AND TYPE OF TRASH AND RECYCLING CONTAINERS AND STRUCTURES. SEE SHEET NUMBER _X_ IN ___EACH___BUILDING. ✱ C02.101–C09.103

_X_ THE TRASH AND RECYCLING MANAGEMENT CONTAINERS/STRUCTURES ON THIS PLAN ARE ADEQUATE TO MEET THE MINIMUM RECYCLING REQUIREMENT AS DESCRIBED ON THE WASTE STREAM CALCULATION WORKSHEET.

SANITARY SEWER INFORMATION

WASTEWATER TREATMENT PLANT BLUE PLAINS

___ THIS SITE IS SUBJECT TO _____ SANITARY SEWER REIMBURSEMENT CHARGES.

___ THIS SITE IS SERVED BY ONSITE SEWAGE TREATMENT SYSTEM(S).

INFORMATION REGARDING ACTIVITIES IN A RESOURCE PROTECTION AREA

ACTIVITY	YES/NO
CONSTRUCTION ACTIVITIES IN A RESOURCE PROTECTION AREA (IF YES, INDICATE TYPE BELOW)	NO
REDEVELOPMENT PRINCIPAL STRUCTURE	N/A
REDEVELOPMENT ACCESSORY STRUCTURE	N/A
PUBLIC ROADS	N/A
PRIVATE ROADS	N/A
DRIVEWAYS	N/A
STORMWATER OUTFALL	N/A
OTHER (INDICATE TYPE):	N/A

TREE PRESERVATION

TREE PRESERVATION TARGET DEVIATIONS OR MODIFICATIONS ARE BEING REQUESTED.

YES [X] NO [ ] N/A [ ]

*SEE SHEET C10.101

POTENTIAL FOR WETLANDS

IS THE DISTURBED AREA LOCATED IN A WETLANDS AREA DEPICTED ON THE NATIONAL WETLANDS INVENTORY MAP? YES[X] NO[ ]

IS THE DISTURBED AREA LOCATED IN AN ESTIMATED WETLANDS AREA DEPICTED ON THE COUNTY POTENTIAL WETLAND AREA MAP? YES [ ] NO [X]

IF YES, TO EITHER OF THE TWO QUESTIONS ABOVE, PROVIDE EVIDENCE OF APPROVED PERMIT OR VERIFICATION THAT NO PERMIT FROM THE ARMY CORPS OF ENGINEERS IS REQUIRED BEFORE PLAN IS APPROVED.

NOTES AND CONDITIONS

1. THE APPROVAL OF THESE PLANS SHALL IN NO WAY RELIEVE THE DEVELOPER OR HIS AGENT OF ANY LEGAL RESPONSIBILITIES WHICH MAY BE REQUIRED BY THE CODE OF VIRGINIA OR ANY ORDINANCE ENACTED BY THE COUNTY OF FAIRFAX.
2. THE DESIGN, CONSTRUCTION, FIELD PRACTICES, AND METHODS SHALL CONFORM TO THE REQUIREMENTS SET FORTH IN THE FAIRFAX COUNTY CODE AND IN THE PUBLIC FACILITIES MANUAL AS AMENDED. FAILURE TO COMPLY WITH THE FAIRFAX COUNTY CODE, THE PUBLIC FACILITIES MANUAL, THE APPROVED PLANS, AND THE PROVISIONS OF THE DEVELOPMENT AGREEMENT AND PERMIT SHALL BE DEEMED A VIOLATION.
3. WATER DISTRIBUTION NOTE: ALL FIRE PROTECTION SYSTEMS WHICH ARE INSTALLED IN COMPLIANCE WITH THESE PLANS AND COUNTY OF FAIRFAX ORDINANCES SHALL BE MAINTAINED IN AN OPERATIVE CONDITION AT ALL TIMES. WHEN NECESSARY TO TEMPORARILY REDUCE OR DISCONTINUE THE PROTECTION IN ORDER TO MAKE TESTS, REPAIRS, ALTERATIONS OR ADDITIONS, NOTIFY THE FAIRFAX COUNTY PUBLIC SAFETY COMMUNICATIONS CENTER AT 703-691-2131.
4. A PERMIT MUST BE OBTAINED FROM THE VIRGINIA DEPARTMENT OF TRANSPORTATION, NORTHERN VIRGINIA DISTRICT, BEFORE ANY CONSTRUCTION IS STARTED ON ANY EXISTING STATE ROUTE. CONTACT THE VIRGINIA DEPARTMENT OF TRANSPORTATION THREE WORKING DAYS BEFORE EXCAVATION IN ANY STATE RIGHT OF WAY AT 703-383-2888.
5. CONTRACTORS SHALL NOTIFY THE "MISS UTILITY" NOTIFICATION CENTER AT 1-800-552-7001 FOR ANY PROPOSED EXCAVATION, DEMOLITION, OR BLASTING AT LEAST TWO WORKING DAYS PRIOR TO COMMENCEMENT OF EXCAVATION DEMOLITION, OR BLASTING IN ACCORDANCE WITH THE VIRGINIA UNDERGROUND UTILITY DAMAGE PREVENTION ACT. IN ADDITION, NAMES AND TELEPHONE NUMBERS SHALL ALSO BE USED TO SERVE IN AN EMERGENCY CONDITION AS REQUIRED BY SECTION 63-2-2 OF THE FAIRFAX COUNTY CODE.
6. THE COUNTY INSPECTOR SHALL BE NOTIFIED WHEN ANY IMPROVEMENTS PERTINENT TO HIS INSPECTION DUTIES ARE BEING INSTALLED. SPECIFIC REQUIREMENTS ARE:
   A. THE COUNTY SITE INSPECTOR IS TO BE NOTIFIED AT LEAST 3 DAYS PRIOR TO START OF CONSTRUCTION.
   B. A MINIMUM OF 24 HOURS NOTICE IS REQUIRED WHEN REQUESTING RESIDENTIAL OR NON-RESIDENTIAL USE PERMITS.
   C. A MINIMUM OF 48 HOURS NOTICE IS REQUIRED WHEN REQUESTING TESTS PERTAINING TO SANITARY SEWER ACCEPTANCE.

PROFESSIONAL SEAL AND SIGNATURE

COMMONWEALTH OF VIRGINIA — CODY A. PENNETTI — Lic. No. 043850 — 2015-03-26 — PROFESSIONAL ENGINEER

DATE _____

PROFESSIONAL SEAL AND SIGNATURE

DATE MAR. 26, 2015

PROFESSIONAL SEAL AND SIGNATURE

DATE _____

DESIGNATED PLANS EXAMINER (DPE) CERTIFICATE

1ST SUBMISSION REVIEWED & RECOMMENDED FOR SUBMISSION

DANIELA MEDEK
D.P.E. SIGNATURE & PRINTED NAME

DATE: _____ REG. NO.: 300

2ND SUBMISSION REVIEWED & RECOMMENDED FOR APPROVAL

D.P.E. SIGNATURE & PRINTED NAME

DATE: _____ REG. NO: _____

POST SUBMISSION CONFECENCE DATE: _____

ZONING REQUIREMENTS

1) ZONING PRM (RZ 2009-HM-017)
2) AVERAGE LOT AREA N/A (SQ. FT.)
3) MIN. LOT AREA N/A (SQ. FT.)
4) MIN. LOT WIDTH N/A (FT.)
5) MAX. BUILDING HEIGHT OFFICE/RESIDENTIAL=180', HOTEL=120' (FT.)
6) NUMBER OF FLOORS OFFICE=13, RESIDENTIAL=16, HOTEL=12 (Commercial/Industrial ONLY)
7) MIN. YARD REQUIREMENTS: *AS SHOWN ON RZ 2009-HM-017 (SHEET R01.107)
   FRONT * (FT.) SIDE * (FT.) REAR * (FT.)
8) MAXIMUM FAR 3.00 (3.005 WITH BONUS) PER RZ
9) MAXIMUM DENSITY N/A (D.U./AC.)
10) OPEN SPACE REQUIRED 20 % 127,851 (SQ. FT.)
11) ANGLE OF BULK PLANE: FRONT N/A. SIDE N/A. REAR N/A.
    (DETAIL(S) ON SHEET **) **NO BULK PLANE FOR PRM
12) OVERLAY DISTRICT(S) ROUTE 28 TAX DISTRICT

SITE PLAN (SP) TABULATIONS

1) SITE AREA 14.68 (ACRES) 639,253 (SQ. FT.)
2) AREA OF STREET DEDICATION 82,723 (SQ. FT.) *SEE SHEET C01.301
3) USE MIXED (OFFICE, RETAIL, MULTI-FAMILY, HOTEL)
4) NUMBER OF LOTS N/A
5) AREA OF LOTS N/A (SQ. FT.)
6) DENSITY N/A (D.U./AC.)
7) EXISTING BUILDING GROSS FLOOR AREA 0 (SQ. FT.)
8) PROPOSED BUILDING GROSS FLOOR AREA 1,644,701 (SQ. FT.)
9) EXISTING BUILDING NET FLOOR AREA 0 (SQ. FT.)
10) PROPOSED BUILDING NET FLOOR AREA 1,315,760 (SQ. FT.)
11) TOTAL FLOOR AREA RATIO (FAR) FOR ENTIRE SITE 2.574
12) PROPOSED BUILDING HEIGHT 120'-180' (FT.)
13) PROPOSED NUMBER OF FLOORS 12-16 COMMERCIAL/INDUSTRIAL ONLY
14) TOTAL HANDICAPPED PARKING REQUIRED 36
15) TOTAL HANDICAPPED PARKING PROVIDED 39
16) TOTAL HANDICAPPED VAN SPACES REQUIRED 8
17) TOTAL HANDICAPPED VAN SPACES PROVIDED 20
18) TOTAL PARKING SPACES REQUIRED 2,947
19) TOTAL PARKING SPACES PROVIDED 3,265
20) LOADING SPACES REQUIRED PER CDP/FDP: 9
21) LOADING SPACES PROVIDED 9
22) OPEN SPACE PROVIDED 35 % 225,096 (SQ. FT.)

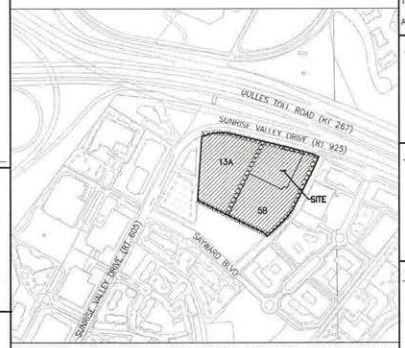
FIRE MARSHAL NOTES

AVAILABLE FIRE FLOW 2,575 GPM (GAL./MIN.)
SOURCE OF FIRE FLOW INFO. FAIRFAX WATER
TYPE OF CONSTRUCTION – USBC IA
USE GROUP CLASSIFICATION – USBC A-2, A-3, B, M, R-1, R-2, S-2
BUILDING HEIGHT OFFICE/RESIDENTIAL=180', HOTEL=120' * (FT.) *SHEETS C02.101–C02.104
BUILDING TO BE FULLY SPRINKLERED YES [X] NO [ ]

IF YES, CHECK APPROPRIATE STANDARD: NFPA 13 [X]; NFPA 13D [ ]; NFPA 13R [ ]
SEE PFM CHAPTER 9, PART 2 FOR FULL INFORMATION REQUIRED. FIRE FLOW REQUIREMENTS TO BE DETERMINED BY THE FIRE PREVENTION DIVISION.
[SEE PUBLIC WATER AGENCY NOTES ON SHEET C05.601]

VICINITY MAP

SCALE: 1" = 500'



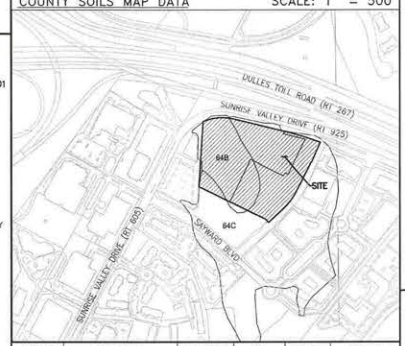
SIDEWALK MAINTENANCE: XXXX-VDOT, 0000-FFX CO
TRAIL MAINTENANCE: 0000-FFX CO
ALL OTHER WALKS/TRAILS TO BE OWNER MAINTAINED

TAX MAP REFERENCE NUMBER(S)

MAP PAGE #	DOUBLE CIRCLE #	BLOCK (SINGLE CIRCLE #)	LOT/PARCEL(S) #
15-2	1		13A
15-4	5		5B

COUNTY SOILS MAP DATA

SCALE: 1" = 500'



SOIL ID NUMBERS	SOIL SERIES NAME	FOUNDATION SUPPORT	SOIL DRAINAGE	EROSION POTENTIAL	PROBLEM CLASS
64B	JACKLAND AND HAYMARKET	POOR-P,C,B	POOR-P,C,S	MEDIUM	III
64C	JACKLAND AND HAYMARKET	POOR-P,C,B	POOR-P,C,S	MEDIUM	III
		SOILS REPORT REQUIRED			

IS THE SITE LOCATED WITHIN NATURALLY OCCURRING ASBESTOS SOILS? YES[ ] NO[X]

AREAS THAT MAY CONTAIN NATURALLY OCCURRING ASBESTOS SOILS ARE LOCATED ON THE ORANGE SOILS TAX MAP GRIDS ON THE COUNTY WEBSITE. SPECIAL PRECAUTIONS REGARDING THESE SOILS OR FILL ORIGINATING FROM THESE SOILS ARE REQUIRED BY THE OCCUPATIONAL SAFETY AND HEALTH REGULATIONS ENFORCED BY THE VIRGINIA DEPARTMENT OF LABOR AND INDUSTRY AND SPECIAL GUIDANCE HAS BEEN ISSUED BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY.

STORMWATER INFORMATION

HIGH DENSITY POLYETHYLENE (HDPE) USED ON THIS PROJECT YES [X] NO [ ]

THE PLAN MEETS: TIME LIMITS ON APPLICABILITY OF APPROVED DESIGN CRITERIA [X]

SWM FACILITIES (PROPOSED ONLY) GRANDFATHERING CRITERIA [X]

VPDES REQUIRED YES [X] NO [ ]

VPDES PERMIT NO. (IF TIME LIMITS): _____

COUNTY STORMWATER PERMIT REQUIRED YES [X] NO [ ]

SWM FACILITIES DESIGNED USING: TECHNICAL CRITERIA 4 [ ] (NEW)

TECHNICAL CRITERIA 5 [X] (OLD)

FACILITY ID NO.	FACILITY TYPE	PURPOSE	AREA TREATED (ACRES)	LATITUDE (DECIMAL DEGREE)	LONGITUDE (DECIMAL DEGREE)	WATERSHED	RECEIVING WATERS	MAINTENANCE AGREEMENT Y/N	VAHU6 CODE	LENGTH/AREA OF FACILITY	UNIT (FT/SF)	NO. OF BLDG. SERVED (FOR ROOFTOP DISCONNECT)
A	BIORETENTION FILTER	BMP	2.54 AC	N38.573209	W77.250514	HORSEPEN CREEK	MERRYBROOK RUN	Y	PL18	5,850	SF	
B	STORMCEPTOR	BMP	2.54 AC	N38.573230	W77.250566	HORSEPEN CREEK	MERRYBROOK RUN	Y	PL18	20	SF	
C	RAINWATER HARVESTING	BMP	3.65 AC	N38.573703	W77.250762	HORSEPEN CREEK	MERRYBROOK RUN	Y	PL18	–	SF	

DISTURBED AREA (DA) WITHIN WATERSHED(S):

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ENGINEER'S/SURVEYOR'S CERTIFICATE:

THIS PROPERTY IS IN THE NAME OF NUGGET JOINT VENTURE, LC (ROCKS)

AS RECORDED IN DEED BOOK 9500 PAGE 1070 OF THE LAND RECORDS OF FAIRFAX COUNTY, VA.

OWNER INFORMATION

{X} OWNER / { } TRUSTEE — (X) A CORPORATION / { } A PARTNERSHIP / { } AN INDIVIDUAL

NUGGET JOINT VENTURE, LC
NAME

703-915-3383
PHONE

1960 GALLOWS ROAD, SUITE 300, VIENNA, VA 22182
ADDRESS

HELLYERM@CSROCKS.COM
EMAIL

DEVELOPER INFORMATION

{X} DEVELOPER / { } CONTRACT OWNER / { } LESSEE — (X) A CORPORATION / { } A PARTNERSHIP / { } AN INDIVIDUAL

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1960 GALLOWS ROAD, SUITE 300, VIENNA, VA 22182
ADDRESS

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EMAIL

WETLANDS PERMITS CERTIFICATION

I HEREBY CERTIFY THAT ALL WETLANDS PERMITS REQUIRED BY LAW WILL BE OBTAINED PRIOR TO COMMENCING WITH LAND DISTURBING ACTIVITIES.

SIGNATURE Virginia Mullins, JR MANAGER

OWNER/DEVELOPER NUGGET JOINT VENTURE LC
NAME TITLE

NOTE: PERMITS MUST BE PRESENTED TO THE COUNTY INSPECTOR PRIOR TO LAND DISTURBANCE.

DATE	RECOMMEND APPROVAL (SIGNATURE & PRINTED NAME)
	STREETLIGHT REVIEW – DPWES
4/29/2015	PUBLIC WATER AGENCY SANITARY SEWER REVIEW – DPWES
	URBAN FOREST MANAGEMENT REVIEW – DPWES
	FAIRFAX COUNTY FIRE MARSHAL
	FAIRFAX COUNTY HEALTH DEPARTMENT
	VIRGINIA DEPARTMENT OF TRANSPORTATION
	GEOTECHNICAL REVIEW, DPWES
	STORMWATER REVIEW, DPWES
	PLAN REVIEWER – DPWES
	DIRECTOR, SITE DEVELOPMENT & INSPECTIONS DIVISION, LDS, – DPWES

APPROVED

DATE _____ BY _____ DIRECTOR, DEPT. OF PUBLIC WORKS AND ENVIRONMENTAL SERVICES

THIS PLAN SHALL EXPIRE WITHOUT NOTICE IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF THE COUNTY CODE. REVISIONS DO NOT EXTEND THE APPROVAL PERIOD. THE APPROVAL PERIOD IS INDEPENDENT OF THE AGREEMENT EXPIRATION DATE.

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CERTIFICATE OF NO CHANGE (FOR SUBMISSION OTHER THAN THE FIRST)

I HEREBY CERTIFY THAT NO CHANGES HAVE BEEN MADE THAT WOULD AFFECT PRIOR APPROVAL BY THE

FIRE MARSHAL DATED _____
WATER AUTHORITY DATED _____
HEALTH DEPARTMENT DATED _____
VDOT DATED _____
DPWES-SAN. SEWER DATED _____
DPWES-STREETLIGHTS DATED _____
UFMD DATED _____

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C09–PARKING PLAN
C10–LETTERS
L01–LANDSCAPE
L02–TREE PRESEVATION
B01–GEOTECHNICAL
R01–ZONING
R02–REFERENCE

DESIGN ENGINEER / SURVEYOR
FIRM NAME: DEWBERRY CONSULTANTS LLC
ADDRESS: 8401 ARLINGTON BLVD
FAIRFAX VA 22031
PHONE NO: 703-849-0100 FAX NO: 703-849-0518
PROJ. MANAGER: CODY A. PENNETTI EMAIL: CPENNETT@DEWBERRY.COM

INNOVATION CENTER SOUTH

SITE PLAN

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

RECEIVED
MAR 27 2015
DPWES/NTWD

COUNTY NUMBER
6848-SP-014-2

PLAN REVIEWER: _____

SHEET 1 OF 229

REVISED: 7/14

SITE PLAN OR PUBLIC IMPROVEMENT PLAN COVERSHEET

PLAN APPROVAL INFORMATION

RELATED INFORMATION	REQUIRED	NOT REQUIRED	COUNTY I.D. NUMBER	COMMENTS/SHEET NO.
1. CONCURRENT PROCESSING		X		
2. MODIFIED PROCESSING	X		6848-RGP-005	APPLICATION AND RGP APPROVED
3. MAXIMUM DENSITY ADJUSTMENTS BASED ON Z.O. 2-308		X		
4. AFFORDABLE DWELLING UNITS		X		
5. WORK FORCE UNITS	X			157 - SEE SHEET C01.101
6. R.P.A. DELINEATION		X		
7. FLOOD PLAIN STUDY		X		
8. DRAINAGE STUDY		X		
9. BATHYMETRIC SURVEY (SW-10)		X		
10. CHESAPEAKE BAY ACT EXCEPTION		X		
11. WATER QUALITY IMPACT ASSESSMENT		X		
12. SOILS REPORT	X		6848-SR-006/7	APPROVED-SEE SECTION B01-GEOTECHNICAL
13. ONSITE EASEMENTS	X			SEE PLAT CHECK SHEET
14. OFFSITE EASEMENTS	X			SEE PLAT CHECK SHEET
15. NOTARIZED LETTERS OF PERMISSION	X			PERMISSION TO CONNECT TO SEWER - C10.401
16. ARCHITECTURAL REVIEW BOARD APPROVAL		X		
17. RETURN PLAN TO B.O.S. PRIOR TO APPR.		X		
18. RETURN PLAN TO P.C. PRIOR TO APPR.		X		
19. ADJACENT PROPERTY OWNER NOTICES	X			SUBMITTED SEPARATELY
20. OFFSITE UTILITY WORK NOTICES		X		
21. MAJOR UNDERGROUND UTILITY NOTICES		X		
22. REZONING/SPECIAL EXCEPTION/SPECIAL PERMIT APPROVAL	X		RZ 2009-HM-017	SEE SHEETS R01.101-R01.176; APPROVED 07/29/2014
23. B.O.S./B.Z.A. CLERK LETTER/RESOLUTION	X		PCA C-696-10	SEE SHEET C10.101
24. REZONING PROFFERS/CONDITIONS	X		GDP/FDP/RZ	SEE SHEETS C10.101-C10.114; APPROVED 07/29/2014
25. REZONING DEVELOPMENT PLAN	X		2009-HM-017	SEE SHEETS R01.101-R01.176; APPROVED 07/29/2014
26. B.Z.A. VARIANCE APPROVAL		X		
27. WETLANDS/WATERS OF THE U.S. PERMIT	X			DATE SENT TO ACOE: PERMIT RECEIVED:6/11/11PERMIT NO. WP4-08-0334
28. STATE REGULATED DAM PERMIT		X		PERMIT RECEIVED: PERMIT NO.
29. LOCATED IN DAM BREAK INUNDATION ZONE (STATE REGULATED DAMS) 2 EXTRA PLAN SETS REQUIRED		X		DAM NAME: DAM NO.:
30. FEMA LETTER OF MAP REVISION		X		DATE CLOMR RECEIVED:
31. VEGETATED ROOF NOTE		X		
32. OVERLAY DISTRICT INFORMATION	X			THIS SHEET
33. TREE BANKING		X		
34. TREE FUND		X		
35. GREEN PROJECT CERTIFICATION FOR GREEN PRIORITY PLAN REVIEW	X			SEE SHEET C10.301
36. STREET LIGHTS	X			SEE SHEETS C02.101-C02.104; C03.401-C03.405
MODIFICATIONS/WAIVERS				
U.G. STORMWATER FACILITY IN RESIDENTIAL	X		6848-WPFM-005	APPROVED (04/10/2014) - SEE SHEET C10.201
OFF-SITE STORMWATER DETENTION	X		6848-WSWD-011	APPROVED (12/14/2014) - SEE SHEET C10.202
VDOT WAIVERS	X			SEE SHEET C10.205 - C10.207
VDOT APPROVAL	X			SEE SHEET C10.207
SWM AND ROAD GEOMETRY INTERPRETATION	X			SEE SHEET C10.203 - C10.204

SOLID WASTE AND RECYCLING: ALL PROPERTIES ARE REQUIRED TO RECYCLE. DESIGNS FOR ALL PROPERTIES MUST PROVIDE ADEQUATE CONTAINERS/STRUCTURES FOR THE SEPARATE MANAGEMENT OF RECYCLABLES AND TRASH.

SINGLE-FAMILY DETACHED AND TOWNHOUSE DEVELOPMENTS

I CERTIFY THAT THE SITE DEPICTED ON THIS PLAN IS (CHECK APPLICABLE STATEMENT):
____ IN A SANITARY DISTRICT WHERE TRASH AND RECYCLING COLLECTION IS CONDUCTED BY FAIRFAX COUNTY AND THAT I HAVE INFORMED THE PROPERTY OWNER OF THIS CONDITION.
____ NOT IN A SANITARY DISTRICT AND TRASH AND RECYCLING COLLECTION WILL BE CONDUCTED BY A PRIVATE COMPANY.

NON-RESIDENTIAL PROPERTIES, INCLUDING BUSINESSES, SCHOOLS AND INSTITUTIONS, AND MULTI-FAMILY PROPERTIES, INCLUDING CONDOMINIUMS AND APARTMENTS.

I CERTIFY THAT (ALL STEPS MUST BE COMPLETED):
_X_ I HAVE COMPLETED A WASTE STREAM CALCULATION WORKSHEET FOR THIS PROPERTY.
_X_ I HAVE INDICATED ON THE PLAN THE LOCATION AND TYPE OF TRASH AND RECYCLING CONTAINERS AND STRUCTURES. SEE SHEET NUMBER _X_ IN ___EACH___ BUILDING. * C02.101-C09.103
_X_ THE TRASH AND RECYCLING MANAGEMENT CONTAINERS/STRUCTURES ON THIS PLAN ARE ADEQUATE TO MEET THE MINIMUM RECYCLING REQUIREMENT AS DESCRIBED ON THE WASTE STREAM CALCULATION WORKSHEET.

SANITARY SEWER INFORMATION

WASTEWATER TREATMENT PLANT BLUE PLAINS
____ THIS SITE IS SUBJECT TO _____ SANITARY SEWER REIMBURSEMENT CHARGES.
____ THIS SITE IS SERVED BY ONSITE SEWAGE TREATMENT SYSTEM(S).

INFORMATION REGARDING ACTIVITIES IN A RESOURCE PROTECTION AREA

ACTIVITY	YES/NO
CONSTRUCTION ACTIVITIES IN A RESOURCE PROTECTION AREA (IF YES, INDICATE TYPE BELOW)	NO
REDEVELOPMENT PRINCIPAL STRUCTURE	N/A
REDEVELOPMENT ACCESSORY STRUCTURE	N/A
PUBLIC ROADS	N/A
PRIVATE ROADS	N/A
DRIVEWAYS	N/A
STORMWATER OUTFALL	N/A
OTHER (INDICATE TYPE):	N/A

TREE PRESERVATION

TREE PRESERVATION TARGET DEVIATIONS OR MODIFICATIONS ARE BEING REQUESTED.

YES [X] NO [ ] N/A [ ]

*SEE SHEET C10.101

POTENTIAL FOR WETLANDS

IS THE DISTURBED AREA LOCATED IN A WETLANDS AREA DEPICTED ON THE NATIONAL WETLANDS INVENTORY MAP? YES[X] NO[ ]

IS THE DISTURBED AREA LOCATED IN AN ESTIMATED WETLANDS AREA DEPICTED ON THE COUNTY POTENTIAL WETLAND AREA MAP? YES [ ] NO [X]

IF YES, TO EITHER OF THE TWO QUESTIONS ABOVE, PROVIDE EVIDENCE OF APPROVED PERMIT OR VERIFICATION THAT NO PERMIT FROM THE ARMY CORPS OF ENGINEERS IS REQUIRED BEFORE PLAN IS APPROVED.

NOTES AND CONDITIONS

1. THE APPROVAL OF THESE PLANS SHALL IN NO WAY RELIEVE THE DEVELOPER OR HIS AGENT OF ANY LEGAL RESPONSIBILITIES WHICH MAY BE REQUIRED BY THE CODE OF VIRGINIA OR ANY ORDINANCE ENACTED BY THE COUNTY OF FAIRFAX.
2. THE DESIGN, CONSTRUCTION, FIELD PRACTICES, AND METHODS SHALL CONFORM TO THE REQUIREMENTS SET FORTH IN THE FAIRFAX COUNTY CODE AND IN THE PUBLIC FACILITIES MANUAL AS AMENDED. FAILURE TO COMPLY WITH THE FAIRFAX COUNTY CODE, THE PUBLIC FACILITIES MANUAL, THE APPROVED PLANS, AND THE PROVISIONS OF THE DEVELOPMENT AGREEMENT AND PERMIT SHALL BE DEEMED A VIOLATION.
3. WATER DISTRIBUTION NOTE: ALL FIRE PROTECTION SYSTEMS WHICH ARE INSTALLED IN COMPLIANCE WITH THESE PLANS AND COUNTY OF FAIRFAX ORDINANCES SHALL BE MAINTAINED IN AN OPERATIVE CONDITION AT ALL TIMES. WHEN NECESSARY TO TEMPORARILY REDUCE OR DISCONTINUE THE PROTECTION IN ORDER TO MAKE TESTS, REPAIRS, ALTERATIONS OR ADDITIONS, NOTIFY THE FAIRFAX COUNTY PUBLIC SAFETY COMMUNICATIONS CENTER AT 703-691-2131.
4. A PERMIT MUST BE OBTAINED FROM THE VIRGINIA DEPARTMENT OF TRANSPORTATION, NORTHERN VIRGINIA DISTRICT, BEFORE ANY CONSTRUCTION IS STARTED ON ANY EXISTING STATE ROUTE. CONTACT THE VIRGINIA DEPARTMENT OF TRANSPORTATION THREE WORKING DAYS BEFORE EXCAVATION IN ANY STATE RIGHT OF WAY AT 703-383-2888.
5. CONTRACTORS SHALL NOTIFY THE "MISS UTILITY" NOTIFICATION CENTER AT 1-800-552-7001 FOR ANY PROPOSED EXCAVATION, DEMOLITION, OR BLASTING AT LEAST TWO WORKING DAYS PRIOR TO COMMENCEMENT OF EXCAVATION DEMOLITION, OR BLASTING IN ACCORDANCE WITH THE VIRGINIA UNDERGROUND UTILITY DAMAGE PREVENTION ACT. IN ADDITION, NAMES AND TELEPHONE NUMBERS SHALL ALSO BE USED TO SERVE IN AN EMERGENCY CONDITION AS REQUIRED BY SECTION 63-2-2 OF THE FAIRFAX COUNTY CODE.
6. THE COUNTY INSPECTOR SHALL BE NOTIFIED WHEN ANY IMPROVEMENTS PERTINENT TO HIS INSPECTION DUTIES ARE BEING INSTALLED. SPECIFIC REQUIREMENTS ARE:
   A. THE COUNTY SITE INSPECTOR IS TO BE NOTIFIED AT LEAST 3 DAYS PRIOR TO START OF CONSTRUCTION.
   B. A MINIMUM OF 24 HOURS NOTICE IS REQUIRED WHEN REQUESTING RESIDENTIAL OR NON-RESIDENTIAL USE PERMITS.
   C. A MINIMUM OF 48 HOURS NOTICE IS REQUIRED WHEN REQUESTING TESTS PERTAINING TO SANITARY SEWER ACCEPTANCE.

PROFESSIONAL SEAL AND SIGNATURE

COMMONWEALTH OF VIRGINIA — CURTIS C. SMITH, Lic. No. 038560 — 2015-09-18 — PROFESSIONAL ENGINEER

COMMONWEALTH OF VIRGINIA — ROBERT K. BOBILLIER, Lic. No. 001097 — 09/10/2015 — LAND SURVEYOR

DATE _____ DATE 2015-09-18 DATE _____

DESIGNATED PLANS EXAMINER (DPE) CERTIFICATE

1ST SUBMISSION REVIEWED & RECOMMENDED FOR SUBMISSION

DANIELA MEDEK
D.P.E. SIGNATURE & PRINTED NAME
DATE: _____ REG. NO.: 300

2ND SUBMISSION REVIEWED & RECOMMENDED FOR APPROVAL

EDWARD UMBELL
D.P.E. SIGNATURE & PRINTED NAME
DATE: 9/23/15 REG. NO.: 247

POST SUBMISSION CONFECENCE DATE: _____

ZONING REQUIREMENTS

1) ZONING PRM (RZ 2009-HM-017)
2) AVERAGE LOT AREA N/A (SQ. FT.)
3) MIN. LOT AREA N/A (SQ. FT.)
4) MIN. LOT WIDTH N/A (FT.)
5) MAX. BUILDING HEIGHT OFFICE/RESIDENTIAL=180', HOTEL=120' (FT.)
6) NUMBER OF FLOORS OFFICE=13, RESIDENTIAL=16, HOTEL=12 (Commercial/Industrial ONLY)
7) MIN. YARD REQUIREMENTS: *AS SHOWN ON RZ 2009-HM-017 (SHEET R01.107)
   FRONT * (FT.) SIDE * (FT.) REAR * (FT.)
8) MAXIMUM FAR 3.00 (3.005 WITH BONUS) PER RZ
9) MAXIMUM DENSITY N/A (D.U./AC.)
10) OPEN SPACE REQUIRED 20 % 127,851 (SQ. FT.)
11) ANGLE OF BULK PLANE: FRONT N/A. SIDE N/A. REAR N/A.
    (DETAIL(S) ON SHEET **) **NO BULK PLANE FOR PRM
12) OVERLAY DISTRICT(S) ROUTE 28 TAX DISTRICT

SITE PLAN (SP) TABULATIONS

1) SITE AREA 14.68 (ACRES) 639,253 (SQ. FT.)
2) AREA OF STREET DEDICATION 82,723 (SQ. FT.)*SEE SHEET C01.301
3) USE MIXED (OFFICE, RETAIL, MULTI-FAMILY, HOTEL)
4) NUMBER OF LOTS N/A
5) AREA OF LOTS N/A (SQ. FT.)
6) DENSITY N/A (D.U./AC.)
7) EXISTING BUILDING GROSS FLOOR AREA 0 (SQ. FT.)
8) PROPOSED BUILDING GROSS FLOOR AREA 1,644,701 (SQ. FT.)
9) EXISTING BUILDING NET FLOOR AREA 0 (SQ. FT.)
10) PROPOSED BUILDING NET FLOOR AREA 1,315,760 (SQ. FT.)
11) TOTAL FLOOR AREA RATIO (FAR) FOR ENTIRE SITE 2.574
12) PROPOSED BUILDING HEIGHT 120'-180' (FT.)
13) PROPOSED NUMBER OF FLOORS 12-16 COMMERCIAL/INDUSTRIAL ONLY
14) TOTAL HANDICAPPED PARKING REQUIRED 36
15) TOTAL HANDICAPPED PARKING PROVIDED 39
16) TOTAL HANDICAPPED VAN SPACES REQUIRED 8
17) TOTAL HANDICAPPED VAN SPACES PROVIDED 28
18) TOTAL PARKING SPACES REQUIRED 2,947
19) TOTAL PARKING SPACES PROVIDED 3247
20) LOADING SPACES REQUIRED PER COP/FDP: 9
21) LOADING SPACES PROVIDED 9
22) OPEN SPACE PROVIDED 35 % 225,096 (SQ. FT.)

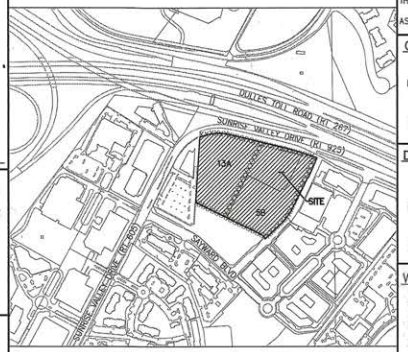
FIRE MARSHAL NOTES

AVAILABLE FIRE FLOW 2,575 GPM (GAL./MIN.)
SOURCE OF FIRE FLOW INFO. FAIRFAX WATER
TYPE OF CONSTRUCTION - USBC IA
USE GROUP CLASSIFICATION - USBC A-2, A-3, B, M, R-1, R-2, S-2
BUILDING HEIGHT OFFICE/RESIDENTIAL=180', HOTEL=120' * (FT.)*SHEETS C02.101-C02.104
BUILDING TO BE FULLY SPRINKLERED YES [X] NO [ ]

IF YES, CHECK APPROPRIATE STANDARD: NFPA 13 [X]; NFPA 130 [ ]; NFPA 13R [ ]
SEE PFM CHAPTER 9, PART 2 FOR FULL INFORMATION REQUIRED. FIRE FLOW REQUIREMENTS TO BE DETERMINED BY THE FIRE PREVENTION DIVISION.
[SEE PUBLIC WATER AGENCY NOTES ON SHEET C05.601]

VICINITY MAP

SCALE: 1" = 500'



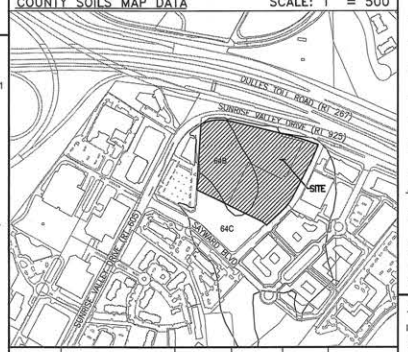
SIDEWALK MAINTENANCE: XXXX-VDOT, OOOO-FFX CO
TRAIL MAINTENANCE: OOOO-FFX CO
ALL OTHER WALKS/TRAILS TO BE OWNER MAINTAINED

TAX MAP REFERENCE NUMBER(S)

MAP PAGE #	DOUBLE CIRCLE #	BLOCK (SINGLE CIRCLE #)	LOT/PARCEL(S) #
15-2	1		13A
15-4	5		5B

COUNTY SOILS MAP DATA

SCALE: 1" = 500'



SOIL ID NUMBERS	SOIL SERIES NAME	FOUNDATION SUPPORT	SOIL DRAINAGE	EROSION POTENTIAL	PROBLEM CLASS
64B	JACKLAND AND HAYMARKET	POOR-P,C,B	POOR-P,C,S	MEDIUM	III
64C	JACKLAND AND HAYMARKET	POOR-P,C,B	POOR-P,C,S	MEDIUM	III
	SOILS REPORT APPROVED SEE SECTION B01-GEOTECHNICAL				

IS THE SITE LOCATED WITHIN NATURALLY OCCURRING ASBESTOS SOILS? YES[ ] NO[X]

AREAS THAT MAY CONTAIN NATURALLY OCCURRING ASBESTOS SOILS ARE LOCATED ON THE ORANGE SOILS TAX MAP GRIDS ON THE COUNTY WEBSITE. SPECIAL PRECAUTIONS REGARDING THESE SOILS OR FILL ORIGINATING FROM THESE SOILS ARE REQUIRED BY THE OCCUPATIONAL SAFETY AND HEALTH REGULATIONS ENFORCED BY THE VIRGINIA DEPARTMENT OF LABOR AND INDUSTRY AND SPECIAL GUIDANCE HAS BEEN ISSUED BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY.

STORMWATER INFORMATION

HIGH DENSITY POLYETHYLENE (HDPE) USED ON THIS PROJECT YES [X] NO [ ]
THE PLAN MEETS: TIME LIMITS ON APPLICABILITY OF APPROVED DESIGN CRITERIA [X]
SWM FACILITIES (PROPOSED ONLY) GRANDFATHERING CRITERIA [X]

VPDES REQUIRED YES [X] NO [ ]
VPDES PERMIT NO. (IF TIME LIMITS): _____
COUNTY STORMWATER PERMIT REQUIRED YES [X] NO [ ]
SWM FACILITIES DESIGNED USING: TECHNICAL CRITERIA 4 [ ] (NEW)
TECHNICAL CRITERIA 5 [X] (OLD)

FACILITY ID NO.	FACILITY TYPE	PURPOSE	AREA TREATED (ACRES)	LATITUDE (DECIMAL DEGREE)	LONGITUDE (DECIMAL DEGREE)	WATERSHED	RECEIVING WATERS	MAINTENANCE AGREEMENT Y/N	VAHU6 CODE	LENGTH/ AREA OF FACILITY	UNIT (FT/ SF)	NO. OF BLDG. SERVED (FOR ROOFTOP DISCONNECT)
A	BIORETENTION FILTER	BMP	0.45 AC	N38.573209	W77.250514	HORSEPEN CREEK	MERRYBROOK RUN	Y	PL18	5,850	SF	
B	STORMCEPTOR	BMP	2.09 AC	N38.573230	W77.250566	HORSEPEN CREEK	MERRYBROOK RUN	Y	PL18	20	SF	
C	RAINWATER HARVESTING	BMP	3.65 AC	N38.573703	W77.250762	HORSEPEN CREEK	MERRYBROOK RUN	Y	PL18	-	SF	
	THE STROWAMTER QUALITY IS PROVIDED BY AN OFF-SITE REGIONAL DRY POND. THESE SYSTEMS ARE PROVIDED TO MEET PROFFERED REQUIREMENTS, AND NOT INTENDED FOR REVIEW/APPROVAL.											

DISTURBED AREA (DA) WITHIN WATERSHED(S):
WATERSHED 1 HORSEPEN CREEK DA= 19.96 (ACRES) WATERSHED 2 _____ DA=_____ (ACRES) TOTAL DISTURBED AREA= 19.96 (ACRES)

ENGINEER'S/SURVEYOR'S CERTIFICATE:

THIS PROPERTY IS IN THE NAME OF NUGGET JOINT VENTURE, LC (ROCKS)
AS RECORDED IN DEED BOOK 9500 PAGE 1070 OF THE LAND RECORDS OF FAIRFAX COUNTY, VA.

OWNER INFORMATION

(X) OWNER ( ) TRUSTEE
(X) A CORPORATION ( ) A PARTNERSHIP ( ) AN INDIVIDUAL

NUGGET JOINT VENTURE, LC (NAME)
703-915-3383 (PHONE)
1960 GALLOWS ROAD, SUITE 300, VIENNA, VA 22182 (ADDRESS)
HELLYERM@BCSROCKS.COM (EMAIL)

DEVELOPER INFORMATION

(X) DEVELOPER ( ) CONTRACT OWNER ( ) LESSEE
(X) A CORPORATION ( ) A PARTNERSHIP ( ) AN INDIVIDUAL

NUGGET JOINT VENTURE, LC (NAME)
703-915-3383 (PHONE)
1960 GALLOWS ROAD, SUITE 300, VIENNA, VA 22182 (ADDRESS)
HELLYERM@BCSROCKS.COM (EMAIL)

WETLANDS PERMITS CERTIFICATION

I HEREBY CERTIFY THAT ALL WETLANDS PERMITS REQUIRED BY LAW WILL BE OBTAINED PRIOR TO COMMENCING WITH LAND-DISTURBING ACTIVITIES.

SIGNATURE [signature] Nicholas J. Bobillier, ITS Manager
OWNER/DEVELOPER NUGGET JOINT VENTURE, LC (NAME / TITLE)

NOTE: PERMITS MUST BE PRESENTED TO THE COUNTY INSPECTOR PRIOR TO LAND DISTURBANCE.

DATE	RECOMMEND APPROVAL (SIGNATURE & PRINTED NAME)
	STREETLIGHT REVIEW - DPWES
	PUBLIC WATER AGENCY
10/6/15	SANITARY SEWER REVIEW - DPWES
	URBAN FOREST MANAGEMENT REVIEW - DPWES
	FAIRFAX COUNTY FIRE MARSHAL
	FAIRFAX COUNTY HEALTH DEPARTMENT
	VIRGINIA DEPARTMENT OF TRANSPORTATION
	GEOTECHNICAL REVIEW, DPWES
	STORMWATER REVIEW, DPWES
	PLAN REVIEWER - DPWES
	DIRECTOR, SITE DEVELOPMENT & INSPECTIONS DIVISION, LDS, - DPWES

APPROVED

DATE _____ BY _____
DIRECTOR, DEPT. OF PUBLIC WORKS AND ENVIRONMENTAL SERVICES

THIS PLAN SHALL EXPIRE WITHOUT NOTICE IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF THE COUNTY CODE. REVISIONS DO NOT EXTEND THE APPROVAL PERIOD. THE APPROVAL PERIOD IS INDEPENDENT OF THE AGREEMENT EXPIRATION DATE.

THIS APPROVAL IS NOT A COMMITMENT TO PROVIDE PUBLIC SANITARY SEWER

CERTIFICATE OF NO CHANGE (FOR SUBMISSION OTHER THAN THE FIRST)

I HEREBY CERTIFY THAT NO CHANGES HAVE BEEN MADE THAT WOULD AFFECT PRIOR APPROVAL BY THE

FIRE MARSHAL DATED _____
WATER AUTHORITY DATED _____
HEALTH DEPARTMENT DATED _____
VDOT DATED _____
DPWES-SAN. SEWER DATED _____
DPWES-STREETLIGHTS DATED _____
UFMD DATED _____

SHEET INDEX

THE SHEET SET HAS BEEN CODIFIED BY SECTIONS NUMBERS. REFER TO SHEET C01.001 FOR COMPLETE SHEET LIST. SECTIONS INCLUDED ARE AS FOLLOWS:

SECTION NUMBER:

C01-GENERAL
C02-SITE PLAN
C03-ROAD DESIGN
C04-SANITARY SEWER
C05-FIRE & WATER
C06-STORM SEWER
C07-SWM
C08-E&S
C09-PARKING PLAN
C10-LETTERS
L01-LANDSCAPE
L02-TREE PRESEVATION
B01-GEOTECHNICAL
R01-ZONING

DESIGN ENGINEER / SURVEYOR
FIRM NAME: DEWBERRY CONSULTANTS LLC
ADDRESS: 8401 ARLINGTON BLVD FAIRFAX, VA 22031
PHONE NO: 703-849-0100 FAX NO: 703-849-0518
PROJ. MANAGER: CODY A. PERNETTI EMAIL: CPERNETTI@DEWBERRY.COM

SITE PLAN OR PUBLIC IMPROVEMENT PLAN COVERSHEET

INNOVATION CENTER SOUTH
SITE PLAN

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

COUNTY NUMBER 6848-SP-014-2

PLAN REVIEWER _____

SHEET 1 OF 244

REVISED: 7/14

PLAN APPROVAL INFORMATION

RELATED INFORMATION	REQUIRED	NOT REQUIRED	COUNTY I.D. NUMBER	COMMENTS/SHEET NO.
1. CONCURRENT PROCESSING		X		
2. MODIFIED PROCESSING	X			APPLICATION AND RGP TO BE SUBMITTED AFTER 1ST SUB
3. MAXIMUM DENSITY ADJUSTMENTS BASED ON Z.O. 2-308		X		
4. AFFORDABLE DWELLING UNITS		X		
5. WORK FORCE UNITS	X			157 – SEE SHEET C01.101
6. R.P.A. DELINEATION		X		
7. FLOOD PLAIN STUDY		X		
8. DRAINAGE STUDY		X		
9. BATHYMETRIC SURVEY (SW-10)		X		
10. CHESAPEAKE BAY ACT EXCEPTION		X		
11. WATER QUALITY IMPACT ASSESSMENT		X		
12. SOILS REPORT	X			TO BE SUBMITTED SEPARATELY–PRIOR TO 2ND SUBMISSION
13. ONSITE EASEMENTS	X			TO BE SUBMITTED SEPARATELY–PRIOR TO 2ND SUBMISSION
14. OFFSITE EASEMENTS	X			TO BE SUBMITTED SEPARATELY–PRIOR TO 2ND SUBMISSION
15. NOTARIZED LETTERS OF PERMISSION	X			TO BE SUBMITTED SEPARATELY–PRIOR TO 2ND SUBMISSION
16. ARCHITECTURAL REVIEW BOARD APPROVAL		X		
17. RETURN PLAN TO B.O.S. PRIOR TO APPR.		X		
18. RETURN PLAN TO P.C. PRIOR TO APPR.		X		
19. ADJACENT PROPERTY OWNER NOTICES	X			TO BE SUBMITTED SEPARATELY–PRIOR TO 2ND SUBMISSION
20. OFFSITE UTILITY WORK NOTICES		X		
21. MAJOR UNDERGROUND UTILITY NOTICES		X		
22. REZONING/SPECIAL EXCEPTION/SPECIAL PERMIT APPROVAL	X		RZ 2009-HM-017	SEE SHEETS R01.101–R01.176; APPROVED 07/29/2014
23. B.O.S./B.Z.A. CLERK LETTER/RESOLUTION	X		PCA C-696-10	SEE SHEET C10.101
24. REZONING PROFFERS/CONDITIONS	X		GDP/FDP/RZ	SEE SHEETS C10.101–C10.114; APPROVED 07/29/2014
25. REZONING DEVELOPMENT PLAN	X		2009-HM-017	SEE SHEETS R01.101–R01.176; APPROVED 07/29/2014
26. B.Z.A. VARIANCE APPROVAL		X		
27. WETLANDS/WATERS OF THE U.S. PERMIT	X			DATE SENT TO ACOE: PERMIT RECEIVED: 6/11/11 PERMIT NO. WP4-08-0334
28. STATE REGULATED DAM PERMIT		X		PERMIT RECEIVED: PERMIT NO.
29. LOCATED IN DAM BREAK INUNDATION ZONE (STATE REGULATED DAMS) 2 EXTRA PLAN SETS REQUIRED		X		DAM NAME: DAM NO.:
30. FEMA LETTER OF MAP REVISION		X		DATE CLOMR RECEIVED:
31. VEGETATED ROOF NOTE		X		
32. OVERLAY DISTRICT INFORMATION	X			THIS SHEET
33. TREE BANKING		X		
34. TREE FUND		X		
35. GREEN PROJECT CERTIFICATION FOR GREEN PRIORITY PLAN REVIEW	X			SEE SHEET C10.301
36. STREET LIGHTS	X			SEE SHEETS C02.101–C02.104; C03.401–C03.405
MODIFICATIONS/WAIVERS				
U.G. STORMWATER FACILITY IN RESIDENTIAL	X		6848-WPFM-005	APPROVED (04/10/2014) – SEE SHEET C10.201
OFF-SITE STORMWATER DETENTION	X		6848-WPFM-006	REQUESTED – SEE SHEET C10.202

SOLID WASTE AND RECYCLING: ALL PROPERTIES ARE REQUIRED TO RECYCLE. DESIGNS FOR ALL PROPERTIES MUST PROVIDE ADEQUATE CONTAINERS/STRUCTURES FOR THE SEPARATE MANAGEMENT OF RECYCLABLES AND TRASH.

SINGLE-FAMILY DETACHED AND TOWNHOUSE DEVELOPMENTS

I CERTIFY THAT THE SITE DEPICTED ON THIS PLAN IS (CHECK APPLICABLE STATEMENT):
___ IN A SANITARY DISTRICT WHERE TRASH AND RECYCLING COLLECTION IS CONDUCTED BY FAIRFAX COUNTY AND THAT I HAVE INFORMED THE PROPERTY OWNER OF THIS CONDITION.
___ NOT IN A SANITARY DISTRICT AND TRASH AND RECYCLING COLLECTION WILL BE CONDUCTED BY A PRIVATE COMPANY.

NON-RESIDENTIAL PROPERTIES, INCLUDING BUSINESSES, SCHOOLS AND INSTITUTIONS, AND MULTI-FAMILY PROPERTIES, INCLUDING CONDOMINIUMS AND APARTMENTS.

I CERTIFY THAT (ALL STEPS MUST BE COMPLETED):
X I HAVE COMPLETED A WASTE STREAM CALCULATION WORKSHEET FOR THIS PROPERTY.
X I HAVE INDICATED ON THE PLAN THE LOCATION AND TYPE OF TRASH AND RECYCLING CONTAINERS AND STRUCTURES. SEE SHEET NUMBER ✱ IN ___EACH___BUILDING. ✱ C02.101–C09.103
X THE TRASH AND RECYCLING MANAGEMENT CONTAINERS/STRUCTURES ON THIS PLAN ARE ADEQUATE TO MEET THE MINIMUM RECYCLING REQUIREMENT AS DESCRIBED ON THE WASTE STREAM CALCULATION WORKSHEET.

SANITARY SEWER INFORMATION

WASTEWATER TREATMENT PLANT BLUE PLAINS
___ THIS SITE IS SUBJECT TO ___ SANITARY SEWER REIMBURSEMENT CHARGES.
___ THIS SITE IS SERVED BY ONSITE SEWAGE TREATMENT SYSTEM(S).

INFORMATION REGARDING ACTIVITIES IN A RESOURCE PROTECTION AREA

ACTIVITY	YES/NO
CONSTRUCTION ACTIVITIES IN A RESOURCE PROTECTION AREA (IF YES, INDICATE TYPE BELOW)	NO
REDEVELOPMENT PRINCIPAL STRUCTURE	N/A
REDEVELOPMENT ACCESSORY STRUCTURE	N/A
PUBLIC ROADS	N/A
PRIVATE ROADS	N/A
DRIVEWAYS	N/A
STORMWATER OUTFALL	N/A
OTHER (INDICATE TYPE):	N/A

TREE PRESERVATION

TREE PRESERVATION TARGET DEVIATIONS OR MODIFICATIONS ARE BEING REQUESTED.

YES [X] NO ☐ N/A ☐
*SEE SHEET C10.101

POTENTIAL FOR WETLANDS

IS THE DISTURBED AREA LOCATED IN A WETLANDS AREA DEPICTED ON THE NATIONAL WETLANDS INVENTORY MAP? YES[X] NO☐

IS THE DISTURBED AREA LOCATED IN AN ESTIMATED WETLANDS AREA DEPICTED ON THE COUNTY POTENTIAL WETLAND AREA MAP? YES ☐ NO [X]

IF YES, TO EITHER OF THE TWO QUESTIONS ABOVE, PROVIDE EVIDENCE OF APPROVED PERMIT OR VERIFICATION THAT NO PERMIT FROM THE ARMY CORPS OF ENGINEERS IS REQUIRED BEFORE PLAN IS APPROVED.

NOTES AND CONDITIONS

1. THE APPROVAL OF THESE PLANS SHALL IN NO WAY RELIEVE THE DEVELOPER OR HIS AGENT OF ANY LEGAL RESPONSIBILITIES WHICH MAY BE REQUIRED BY THE CODE OF VIRGINIA OR ANY ORDINANCE ENACTED BY THE COUNTY OF FAIRFAX.
2. THE DESIGN, CONSTRUCTION, FIELD PRACTICES, AND METHODS SHALL CONFORM TO THE REQUIREMENTS SET FORTH IN THE FAIRFAX COUNTY CODE AND IN THE PUBLIC FACILITIES MANUAL AS AMENDED. FAILURE TO COMPLY WITH THE FAIRFAX COUNTY CODE, THE PUBLIC FACILITIES MANUAL, THE APPROVED PLANS, AND THE PROVISIONS OF THE DEVELOPMENT AGREEMENT AND PERMIT SHALL BE DEEMED A VIOLATION.
3. WATER DISTRIBUTION NOTE: ALL FIRE PROTECTION SYSTEMS WHICH ARE INSTALLED IN COMPLIANCE WITH THESE PLANS AND COUNTY OF FAIRFAX ORDINANCES SHALL BE MAINTAINED IN AN OPERATIVE CONDITION AT ALL TIMES. WHEN NECESSARY TO TEMPORARILY REDUCE OR DISCONTINUE THE PROTECTION IN ORDER TO MAKE TESTS, REPAIRS, ALTERATIONS OR ADDITIONS, NOTIFY THE FAIRFAX COUNTY PUBLIC SAFETY COMMUNICATIONS CENTER AT 703-691-2131.
4. A PERMIT MUST BE OBTAINED FROM THE VIRGINIA DEPARTMENT OF TRANSPORTATION, NORTHERN VIRGINIA DISTRICT, BEFORE ANY CONSTRUCTION IS STARTED ON ANY EXISTING STATE ROUTE. CONTACT THE VIRGINIA DEPARTMENT OF TRANSPORTATION THREE WORKING DAYS BEFORE EXCAVATION IN ANY STATE RIGHT OF WAY AT 703-383-2888.
5. CONTRACTORS SHALL NOTIFY THE "MISS UTILITY" NOTIFICATION CENTER AT 1-800-552-7001 FOR ANY PROPOSED EXCAVATION, DEMOLITION, OR BLASTING AT LEAST TWO WORKING DAYS PRIOR TO COMMENCEMENT OF EXCAVATION DEMOLITION, OR BLASTING IN ACCORDANCE WITH THE VIRGINIA UNDERGROUND UTILITY DAMAGE PREVENTION ACT. IN ADDITION, NAMES AND TELEPHONE NUMBERS SHALL ALSO BE USED TO SERVE IN AN EMERGENCY CONDITION AS REQUIRED BY SECTION 63-2-2 OF THE FAIRFAX COUNTY CODE.
6. THE COUNTY INSPECTOR SHALL BE NOTIFIED WHEN ANY IMPROVEMENTS PERTINENT TO HIS INSPECTION DUTIES ARE BEING INSTALLED. SPECIFIC REQUIREMENTS ARE:
   A. THE COUNTY SITE INSPECTOR IS TO BE NOTIFIED AT LEAST 3 DAYS PRIOR TO START OF CONSTRUCTION.
   B. A MINIMUM OF 24 HOURS NOTICE IS REQUIRED WHEN REQUESTING RESIDENTIAL OR NON-RESIDENTIAL USE PERMITS.
   C. A MINIMUM OF 48 HOURS NOTICE IS REQUIRED WHEN REQUESTING TESTS PERTAINING TO SANITARY SEWER ACCEPTANCE.

PROFESSIONAL SEAL AND SIGNATURE | PROFESSIONAL SEAL AND SIGNATURE | PROFESSIONAL SEAL AND SIGNATURE

COMMONWEALTH OF VIRGINIA — CODY A. PENNETTI — No. 048560 — PROFESSIONAL ENGINEER — 4/30/30

DATE ___ DATE MAR. 26, 2015 DATE ___

DESIGNATED PLANS EXAMINER (DPE) CERTIFICATE

1ST SUBMISSION REVIEWED & RECOMMENDED FOR SUBMISSION	2ND SUBMISSION REVIEWED & RECOMMENDED FOR APPROVAL
DANIEL A MEDEK	
D.P.E. SIGNATURE & PRINTED NAME	D.P.E. SIGNATURE & PRINTED NAME
DATE: ___ REG. NO.: 300	DATE: ___ REG. NO.: ___

POST SUBMISSION CONFECENCE DATE: ___

ZONING REQUIREMENTS

1) ZONING PRM (RZ 2009-HM-017)
2) AVERAGE LOT AREA N/A (SQ. FT.)
3) MIN. LOT AREA N/A (SQ. FT.)
4) MIN. LOT WIDTH N/A (FT.)
5) MAX. BUILDING HEIGHT OFFICE/RESIDENTIAL=180', HOTEL=120' (FT.)
6) NUMBER OF FLOORS OFFICE=13, RESIDENTIAL=16, HOTEL=12 (Commercial/Industrial ONLY)
7) MIN. YARD REQUIREMENTS: *AS SHOWN ON RZ 2009-HM-017 (SHEET R01.107)
   FRONT * (FT.) SIDE * (FT.) REAR * (FT.)
8) MAXIMUM FAR 3.00 (3.005 WITH BONUS) PER RZ
9) MAXIMUM DENSITY N/A (D.U./AC.)
10) OPEN SPACE REQUIRED 20 % 127,851 (SQ. FT.)
11) ANGLE OF BULK PLANE: FRONT N/A SIDE N/A REAR N/A
    (DETAIL(S) ON SHEET **) **NO BULK PLANE FOR PRM
12) OVERLAY DISTRICT(S) ROUTE 28 TAX DISTRICT

SITE PLAN (SP) TABULATIONS

1) SITE AREA 14.68 (ACRES) 639,253 (SQ. FT.)
2) AREA OF STREET DEDICATION 82,723 (SQ. FT.) *SEE SHEET C01.301
3) USE MIXED (OFFICE, RETAIL, MULTI-FAMILY, HOTEL)
4) NUMBER OF LOTS N/A
5) AREA OF LOTS N/A (SQ. FT.)
6) DENSITY N/A (D.U./AC.)
7) EXISTING BUILDING GROSS FLOOR AREA 0 (SQ. FT.)
8) PROPOSED BUILDING GROSS FLOOR AREA 1,644,701 (SQ. FT.)
9) EXISTING BUILDING NET FLOOR AREA 0 (SQ. FT.)
10) PROPOSED BUILDING NET FLOOR AREA 1,315,780 (SQ. FT.)
11) TOTAL FLOOR AREA RATIO (FAR) FOR ENTIRE SITE 2.574
12) PROPOSED BUILDING HEIGHT 120'-180' (FT.)
13) PROPOSED NUMBER OF FLOORS 12-16 COMMERCIAL/INDUSTRIAL ONLY
14) TOTAL HANDICAPPED PARKING REQUIRED 36
15) TOTAL HANDICAPPED PARKING PROVIDED 39
16) TOTAL HANDICAPPED VAN SPACES REQUIRED 8
17) TOTAL HANDICAPPED VAN SPACES PROVIDED 20
18) TOTAL PARKING SPACES REQUIRED 2,947
19) TOTAL PARKING SPACES PROVIDED 3,265
20) LOADING SPACES REQUIRED PER CDP/FDP: 9
21) LOADING SPACES PROVIDED 9
22) OPEN SPACE PROVIDED 35 % 225,096 (SQ. FT.)

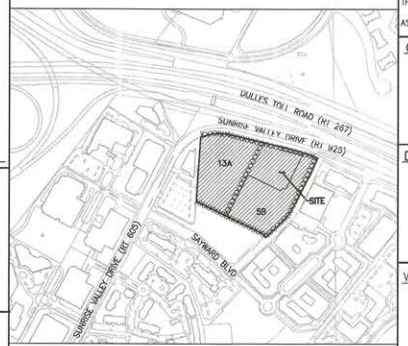
FIRE MARSHAL NOTES

AVAILABLE FIRE FLOW 2,575 GPM (GAL./MIN.)
SOURCE OF FIRE FLOW INFO. FAIRFAX WATER
TYPE OF CONSTRUCTION – USBC IA
USE GROUP CLASSIFICATION – USBC A-2, A-3, B, M, R-1, R-2, S-2
BUILDING HEIGHT OFFICE/RESIDENTIAL=180', HOTEL=120' * (FT.) *SHEETS C02.101–C02.104
BUILDING TO BE FULLY SPRINKLERED YES [X] NO ☐

IF YES, CHECK APPROPRIATE STANDARD: NFPA 13 [X]; NFPA 13D ☐; NFPA 13R ☐
SEE PFM CHAPTER 9, PART 2 FOR FULL INFORMATION REQUIRED. FIRE FLOW REQUIREMENTS TO BE DETERMINED BY THE FIRE PREVENTION DIVISION.
[SEE PUBLIC WATER AGENCY NOTES ON SHEET C05.601]

VICINITY MAP

SCALE: 1" = 500'



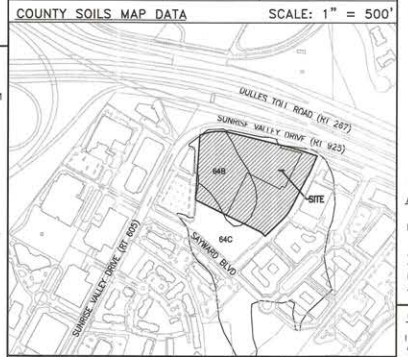
SIDEWALK MAINTENANCE: XXXX-VDOT, OOOO-FFX CO
TRAIL MAINTENANCE: OOOO-FFX CO
ALL OTHER WALKS/TRAILS TO BE OWNER MAINTAINED

TAX MAP REFERENCE NUMBER(S)

MAP PAGE #	DOUBLE CIRCLE #	BLOCK (SINGLE CIRCLE #)	LOT/PARCEL(S) #
15-2	1		13A
15-4	5		5B

COUNTY SOILS MAP DATA

SCALE: 1" = 500'



SOIL ID NUMBERS	SOIL SERIES NAME	FOUNDATION SUPPORT	SOIL DRAINAGE	EROSION POTENTIAL	PROBLEM CLASS
64B	JACKLAND AND HAYMARKET	POOR-P,C,B	POOR-P,C,S	MEDIUM	III
64C	JACKLAND AND HAYMARKET	POOR-P,C,B	POOR-P,C,S	MEDIUM	III
	SOILS REPORT REQUIRED				

IS THE SITE LOCATED WITHIN NATURALLY OCCURRING ASBESTOS SOILS? YES☐ NO[X]

AREAS THAT MAY CONTAIN NATURALLY OCCURRING ASBESTOS SOILS ARE LOCATED ON THE ORANGE SOILS TAX MAP GRIDS ON THE COUNTY WEBSITE. SPECIAL PRECAUTIONS REGARDING THESE SOILS OR FILL ORIGINATING FROM THESE SOILS ARE REQUIRED BY THE OCCUPATIONAL SAFETY AND HEALTH REGULATIONS ENFORCED BY THE VIRGINIA DEPARTMENT OF LABOR AND INDUSTRY AND SPECIAL GUIDANCE HAS BEEN ISSUED BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY.

STORMWATER INFORMATION

HIGH DENSITY POLYETHYLENE (HDPE) USED ON THIS PROJECT YES [X] NO ☐
THE PLAN MEETS: TIME LIMITS ON APPLICABILITY OF APPROVED DESIGN CRITERIA [X]
SWM FACILITIES (PROPOSED ONLY) GRANDFATHERING CRITERIA [X]

VPDES REQUIRED YES [X] NO ☐
VPDES PERMIT NO. (IF TIME LIMITS): ___
COUNTY STORMWATER PERMIT REQUIRED YES [X] NO ☐
SWM FACILITIES DESIGNED USING: TECHNICAL CRITERIA 4 ☐ (NEW)
TECHNICAL CRITERIA 5 [X] (OLD)

FACILITY ID NO.	FACILITY TYPE	PURPOSE	AREA TREATED (ACRES)	LATITUDE (DECIMAL DEGREE)	LONGITUDE (DECIMAL DEGREE)	WATERSHED	RECEIVING WATERS	MAINTENANCE AGREEMENT Y/N	VAHUS CODE	LENGTH/ AREA OF FACILITY	UNIT (FT/ SF)	NO. OF BLDG. SERVED (FOR ROOFTOP DISCONNECT)
A	BIORETENTION FILTER	BMP	2.54 AC	N38.573209	W77.250514	HORSEPEN CREEK	MERRYBROOK RUN	Y	PL18	5,850	SF	
B	STORMCEPTOR	BMP	2.54 AC	N38.573230	W77.250566	HORSEPEN CREEK	MERRYBROOK RUN	Y	PL18	20	SF	
C	RAINWATER HARVESTING	BMP	3.65 AC	N38.573703	W77.250762	HORSEPEN CREEK	MERRYBROOK RUN	Y	PL18	–	SF	

DISTURBED AREA (DA) WITHIN WATERSHED(S):
WATERSHED 1 HORSEPEN CREEK DA= 19.96 (ACRES) WATERSHED 2 ___ DA=___ (ACRES) TOTAL DISTURBED AREA= 19.96 (ACRES)

ENGINEER'S/SURVEYOR'S CERTIFICATE:

THIS PROPERTY IS IN THE NAME OF NUGGET JOINT VENTURE, LC (ROCKS)
AS RECORDED IN DEED BOOK 9500 PAGE 1070 OF THE LAND RECORDS OF FAIRFAX COUNTY, VA.

OWNER INFORMATION

(X) OWNER ( ) TRUSTEE
(X) A CORPORATION ( ) A PARTNERSHIP ( ) AN INDIVIDUAL
NUGGET JOINT VENTURE, LC (NAME)
703-915-3383 (PHONE)
1960 GALLOWS ROAD, SUITE 300, VIENNA, VA 22182 (ADDRESS)
HELLYER@BCSROCKS.COM (EMAIL)

DEVELOPER INFORMATION

(X) DEVELOPER ( ) CONTRACT OWNER ( ) LESSEE
(X) A CORPORATION ( ) A PARTNERSHIP ( ) AN INDIVIDUAL
NUGGET JOINT VENTURE, LC (NAME)
703-915-3383 (PHONE)
1960 GALLOWS ROAD, SUITE 300, VIENNA, VA 22182 (ADDRESS)
HELLYER@BCSROCKS.COM (EMAIL)

WETLANDS PERMITS CERTIFICATION

I HEREBY CERTIFY THAT ALL WETLANDS PERMITS REQUIRED BY LAW WILL BE OBTAINED PRIOR TO COMMENCING WITH LAND-DISTURBING ACTIVITIES.

SIGNATURE [signature], JB MANAGER
OWNER/DEVELOPER NUGGET JOINT VENTURE, LC
NAME TITLE

NOTE: PERMITS MUST BE PRESENTED TO THE COUNTY INSPECTOR PRIOR TO LAND DISTURBANCE.

DATE	RECOMMEND APPROVAL (SIGNATURE & PRINTED NAME)
	STREETLIGHT REVIEW – DPWES
	PUBLIC WATER AGENCY
	SANITARY SEWER REVIEW – DPWES
	URBAN FOREST MANAGEMENT REVIEW – DPWES #77334
4/30/15	H. PARNELL (C01.001, C01.101, C02.101-104, C02.201-204, C05.101 C05.305-308) FAIRFAX COUNTY FIRE MARSHAL
	FAIRFAX COUNTY HEALTH DEPARTMENT
	VIRGINIA DEPARTMENT OF TRANSPORTATION
	GEOTECHNICAL REVIEW, DPWES
	STORMWATER REVIEW, DPWES
	PLAN REVIEWER – DPWES
	DIRECTOR, SITE DEVELOPMENT & INSPECTIONS DIVISION, LDS, – DPWES

APPROVED

DATE ___ BY ___ DIRECTOR, DEPT. OF PUBLIC WORKS AND ENVIRONMENTAL SERVICES

THIS PLAN SHALL EXPIRE WITHOUT NOTICE IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF THE COUNTY CODE. REVISIONS DO NOT EXTEND THE APPROVAL PERIOD. THE APPROVAL PERIOD IS INDEPENDENT OF THE AGREEMENT EXPIRATION DATE.

THIS APPROVAL IS NOT A COMMITMENT TO PROVIDE PUBLIC SANITARY SEWER

CERTIFICATE OF NO CHANGE (FOR SUBMISSION OTHER THAN THE FIRST)

I HEREBY CERTIFY THAT NO CHANGES HAVE BEEN MADE THAT WOULD AFFECT PRIOR APPROVAL BY THE

FIRE MARSHAL DATED ___
WATER AUTHORITY DATED ___
HEALTH DEPARTMENT DATED ___
VDOT DATED ___
DPWES–SAN. SEWER DATED ___
DPWES–STREETLIGHTS DATED ___
UFMD DATED ___

SHEET INDEX

THE SHEET SET HAS BEEN CODIFIED BY SECTIONS NUMBERS REFER TO SHEET C01.001 FOR COMPLETE SHEET LIST. SECTIONS INCLUDED ARE AS FOLLOWS:

SECTION NUMBER:
C01–GENERAL
C02–SITE PLAN
C03–ROAD DESIGN
C04–SANITARY SEWER
C05–FIRE & WATER
C06–STORM SEWER
C07–SWM
C08–E&S
C09–PARKING PLAN
C10–LETTERS
L01–LANDSCAPE
L02–TREE PRESEVATION
B01–GEOTECHNICAL
R01–ZONING
R02–REFERENCE

Plans reviewed by Fire Marshal
Plans are:
[X] Approved as noted
[ ] Not approved, correct & resubmit
Date 4/30/15
By H. PARNELL

Construction of buildings shall require full compliance with fire protection & access requirements listed in the Public Facilities Manual & the Fire Prevention Code

Fire Marshal shall witness a flush of ALL underground fire service lines prior to the connection to any fire pump, sprinkler or standpipe system

Fire service lines shall be installed according to NFPA Stds. 13 & 24

FIRE MARSHAL FIELD INSPECTION NEEDED FOR FINAL APPROVAL

Office of the Fire Marshal
Fairfax County, Virginia
H. PARNELL 4/30/15

DESIGN ENGINEER / SURVEYOR
FIRM NAME: DEMBERRY CONSULTANTS LLC
ADDRESS: 8401 ARLINGTON BLVD FAIRFAX, VA 22031
PHONE NO: 703-849-0100 FAX NO. 703-849-0518
PROJ. MANAGER: CODY A. PENNETTI EMAIL: CPENNETTI@DEMBERRY.COM

INNOVATION CENTER SOUTH
SITE PLAN

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SITE PLAN OR PUBLIC IMPROVEMENT PLAN COVERSHEET

COUNTY NUMBER 6848-SP-014-2

PLAN REVIEWER ___

SHEET 1 OF 229

REVISED: 7/14

C01-GENERAL

Sheet Number	Sheet Title
00-000	COVER
C01.001	SHEET INDEX
C01.002	ABBREVIATIONS, NOTES, AND LEGEND
C01.101	OVERALL SITE PLAN & NARRATIVE
C01.201	EXISTING CONDITIONS & DEMOLITION PLAN
C01.301	PARCEL BOUNDARY & DEDICATION EXHIBIT

C02 - SITE PLAN

Sheet Number	Sheet Title
C02.101	UTILITY PLAN
C02.102	UTILITY PLAN
C02.103	UTILITY PLAN
C02.104	UTILITY PLAN
C02.201	GRADING PLAN
C02.202	GRADING PLAN
C02.203	GRADING PLAN
C02.204	GRADING PLAN
C02.601	SITE CONSTRUCTION DETAILS

C03-ROAD DESIGN

Sheet Number	Sheet Title
C03.201	SIGNAGE & PAVEMENT MARKING
C03.202	ALIGNMENT GEOMETRY
C03.301	ROAD PROFILE CARTA WAY
C03.302	ROAD PROFILE CARTA WAY
C03.303	ROAD PROFILE SUNRISE VALLEY DRIVE
C03.304	ROAD PROFILE SUNRISE VALLEY DRIVE
C03.305	ROAD PROFILE SUNRISE VALLEY DRIVE
C03.306	ROAD PROFILE MAGNA WAY
C03.307	ROAD PROFILE INNOVATION CENTER DRIVE
C03.308	ROAD PROFILE KING JOHN'S WAY
C03.309	ROAD PROFILE KING JOHN'S WAY
C03.310	ROAD PROFILE SAYWARD BLVD
C03.311	ROAD PROFILE SAYWARD BLVD
C03.401	TYPICAL ROAD SECTION - SUNRISE VALLEY
C03.402	TYPICAL ROAD SECTION - SUNRISE & ICD
C03.403	TYPICAL ROAD SECTION - CARTA WAY
C03.404	TYPICAL ROAD SECTION - KING JOHN'S WAY
C03.405	TYPICAL ROAD SECTION - MAGNA WAY
C03.601	ROAD DETAILS
C03.602	ROAD DETAILS
C03.603	ROAD DETAILS
C03.604	ROAD DETAILS ADA RAMPS
C03.605	ROAD DETAILS ADA RAMPS
C03.701	SIGHT DISTANCE
C03.702	SIGHT DISTANCE
C03.703	SIGHT DISTANCE
C03.704	SIGHT DISTANCE
C03.705	SIGHT DISTANCE
C03.706	SIGHT DISTANCE
C03.707	SIGHT DISTANCE
C03.900	OVERALL SITE TRAFFIC MOVEMENT
C03.901	INTERSECTION MOVEMENT
C03.902	INTERSECTION MOVEMENT
C03.903	INTERSECTION MOVEMENT
C03.904	INTERSECTION MOVEMENT
C03.905	INTERSECTION MOVEMENT

C04-SANITARY SEWER

Sheet Number	Sheet Title
C04.301	SANITARY SEWER PROFILES
C04.302	SANITARY SEWER PROFILES
C04.303	SANITARY SEWER PROFILES
C04.601	SANITARY SEWER DETAILS
C04.602	SANITARY SEWER DETAILS
C04.701	SANITARY NARRATIVE

C05-FIRE & WATER

Sheet Number	Sheet Title
C05.101	FIRE LANE MARKING PLAN
C05.301	WATER MAIN PROFILES
C05.302	WATER MAIN PROFILES
C05.303	WATER MAIN PROFILES
C05.304	WATER MAIN PROFILES
C05.305	WATER MAIN PROFILES
C05.306	WATER MAIN PROFILES
C05.307	WATER MAIN PROFILES
C05.308	WATER MAIN PROFILES
C05.601	WATER DETAILS
C05.602	WATER DETAILS

C06-STORM SEWER

Sheet Number	Sheet Title
C06.301	STORM SEWER PROFILES
C06.302	STORM SEWER PROFILES
C06.303	STORM SEWER PROFILES
C06.304	STORM SEWER PROFILES
C06.305	STORM SEWER PROFILES
C06.306	STORM SEWER PROFILES
C06.307	STORM SEWER PROFILES
C06.601	STORM DETAILS
C06.602	STORM DETAILS
C06.603	STORM DETAILS
C06.701	STORM SEWER COPMUTATIONS

C07-STORM WATER MANAGEMENT

Sheet Number	Sheet Title
C07.601	BIORETENTION FILTER DESIGN & DETAILS
C07.701	SWM NARRATIVE
C07.702	SWM PLAN SCHEMATIC
C07.703	SWM MAINTENANCE NARRATIVE
C07.704	RAINWATER HARVESTING SYSTEM NARRATIVE
C07.705	STORM OUTFALL NARRATIVE
C07.706	STORM OUTFALL COMPUTATIONS
C07.707	STORM OUTFALL COMPUTATIONS

C08-EROSION & SEDIMENT CONTROL

Sheet Number	Sheet Title
C08.101	PHASE 1 EROSION & SEDIMENT CONTROL PLAN
C08.201	PHASE 2 EROSION & SEDIMENT CONTROL PLAN
C08.301	PHASE 3 EROSION & SEDIMENT CONTROL PLAN
C08.501	E&S OUTFALL NARRATIVE
C08.502	E&S OUTFALL COMPUTATIONS
C08.601	EROSION & SEDIMENT CONTROL DETAILS
C08.602	EROSION & SEDIMENT CONTROL DETAILS
C08.603	EROSION & SEDIMENT CONTROL DETAILS
C08.701	EROSION & SEDIMENT CONTROL NARRATIVE
C08.702	E&S CONTROL PHASE 1 COMPUTATIONS
C08.703	E&S CONTROL PHASE 1 COMPUTATIONS
C08.704	E&S CONTROL PHASE 2 COMPUTATIONS

C09-PARKING PLAN

Sheet Number	Sheet Title
C09.101	PARKING PLAN LEVEL 2
C09.102	PARKING PLAN LEVEL 1
C09.103	PARKING PLAN LEVEL G
C09.104	PARKING PLAN LEVEL B1
C09.105	PARKING PLAN LEVEL B2
C09.106	PARKING PLAN LEVEL B3
C09.107	PARKING PLAN LEVEL B4
C09.601	PARKING PLAN DETAILS
C09.602	BIKE STORAGE ROOMS
C09.603	BIKE STORAGE ROOMS

C10-LETTERS

Sheet Number	Sheet Title
C10.101	PROFFER COMPLIANCE NARRATIVE
C10.102	PROFFER COMPLIANCE NARRATIVE
C10.103	PROFFER COMPLIANCE NARRATIVE
C10.104	PROFFER COMPLIANCE NARRATIVE
C10.105	PROFFER COMPLIANCE NARRATIVE
C10.106	PROFFER COMPLIANCE NARRATIVE
C10.107	PROFFER COMPLIANCE NARRATIVE
C10.108	PROFFER COMPLIANCE NARRATIVE
C10.109	PROFFER COMPLIANCE NARRATIVE
C10.110	PROFFER COMPLIANCE NARRATIVE
C10.111	PROFFER COMPLIANCE NARRATIVE
C10.112	PROFFER COMPLIANCE NARRATIVE
C10.113	PROFFER COMPLIANCE NARRATIVE
C10.114	DEVELOPMENT CONDITION COMPLIANCE
C10.201	WAIVERS
C10.202	WAIVERS
C10.203	WAIVERS & INTERPRETATIONS
C10.204	WAIVERS & INTERPRETATIONS
C10.205	WAIVERS
C10.206	WAIVERS
C10.207	WAIVERS
C10.301	LEED SITE CHECKLIST
C10.302	LEED SITE CHECKLIST
C10.401	LETTERS
C10.402	LETTERS
C10.403	LETTERS
C10.404	LETTERS

L01-LANDSCAPE PLAN

Sheet Number	Sheet Title
L01.001	COMPREHENSIVE LANDSCAPE PLAN
L01.101	HARDSCAPE PLAN
L01.102	HARDSCAPE PLAN
L01.103	HARDSCAPE PLAN
L01.104	HARDSCAPE PLAN
L01.111	VDOT LAYOUT PLAN
L01.112	VDOT LAYOUT PLAN
L01.113	VDOT LAYOUT PLAN
L01.114	VDOT LAYOUT PLAN
L01.201	LANDSCAPE PLAN
L02.202	LANDSCAPE PLAN
L02.203	LANDSCAPE PLAN
L02.204	LANDSCAPE PLAN
L01.301	TREE CANOPY COVERAGE PLAN
L01.302	TREE CANOPY COVERAGE PLAN
L01.303	TREE CANOPY COVERAGE PLAN
L01.304	TREE CANOPY COVERAGE PLAN
L01.401	CONCEPTUAL IRRIGATION PLAN
L01.501	CONSTRUCTION DETAILS
L01.502	CONSTRUCTION DETAILS
L01.601	PLANTING SCHEDULE
L01.701	PLANTING DETAILS
L01.702	PLANTING DETAILS
L01.703	PLANTING SPECIFICATIONS
L01.704	PLANTING SPECIFICATIONS
L01.801	SITE FURNISHINGS
L01.901	PARKING LOT LANDSCAPE
L01.902	LANDSCAPE SIGHT DISTANCE ANALYSIS

L02-TREE PRESERVATION

Sheet Number	Sheet Title
L02.101	TREE PRESERVATION PLAN
L02.601	TREE PRESERVATION DETAILS
L02.701	TREE PRESERVATION NARRATIVE

B01-GEOTECHNICAL

Sheet Number	Sheet Title
B01.101	GEOTECHNICAL REQUIREMENTS ICS SITE
B01.102	GEOTECHNICAL REQUIREMENTS ICS SITE
B01.201	GEOTECHNICAL REQUIREMENTS COUNTY SITE
B01.202	GEOTECHNICAL REQUIREMENTS COUNTY SITE
B01.203	GEOTECHNICAL REQUIREMENTS COUNTY SITE
B01.204	GEOTECHNICAL REQUIREMENTS COUNTY SITE

R01-ZONING

Sheet Number	Sheet Title
R01.101 - R01.176	REFERENCE ZONING - CDP/FDP

R02-INFORMATION ONLY

Sheet Number	Sheet Title
R02.101	FIRE MARSHALL COMMENTS
R02.102	FAIRFAX WATER COMMENTS
R02.103	FAIRFAX WATER COMMENTS
R02.104	FAIRFAX WATER COMMENTS
R02.105	FAIRFAX WATER COMMENTS
R02.106	FAIRFAX WATER COMMENTS

SHEET INDEX NOTES

THE INNOVATION CENTER SOUTH SITE PLAN IS ORGANIZED BY SECTIONS, AS LISTED BELOW. A COMPREHENSIVE SHEET INDEX IS LISTED ON THIS SHEET. THE NAMING AND NUMBERING CONVENTION FOLLOWS NATIONAL CAD STANDARDS FOR SHEET SET ORGANIZATION.

SECTION NUMBER:

C01-GENERAL
C02-SITE PLAN
C03-ROAD DESIGN
C04-SANITARY SEWER
C05-FIRE & WATER
C06-STORM SEWER
C07-SWM
C08-E&S
C09-PARKING PLAN
C10-LETTERS
L01-LANDSCAPE
L02-TREE PRESEVATION
B01-GEOTECHNICAL
R01-ZONING

THE PAGES OF EACH SECTION ARE CATEGORIZED BY 'SERIES' OF SIMILAR CONTENT*

SERIES IDENTIFIERS:

C##.0## - GENERAL SHEETS
C##.1## - PLAN VIEW SHEETS
C##.2## - PLAN VIEW SHEETS (ALTERNATE)
C##.3## - PROFILE VIEW SHEETS
C##.4## - SECTIONS
C##.5## - LARGE SCALE SHEETS
C##.6## - DETAILS AND NOTES
C##.7## - NARRATIVES AND TECHNICAL INFORMATION
C##.8## - LETTERS AND REPORTS
C##.9## - VISUALS, PHOTOS, ISOMETRICS

SECTIONS THAT HAVE BEEN RESERVED FOR NOTES, LETTERS OR SIMILAR CONTENT WILL GENERALLY USE A SEQUENTIAL SERIES NUMBERING SYSTEM IN LIEU OF A CATEGORICAL SERIES

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CODY A. POWELL
Lic. No. 048560
Exp. 12-31
PROFESSIONAL ENGINEER

KEY PLAN

SCALE NORTH

N/A

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY MLJ
APPROVED BY CAP
CHECKED BY CJD
DATE SEPTEMBER 2014

TITLE
SHEET INDEX

SP NO. #6848-SP-014

C01.001

SECTION NO. C01-GENERAL

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ABBREVIATIONS

A	A	AREA OR ARC
	AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
	AC	ACRE
	ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
	ARCH	ARCHITECTURAL
	ASPH	ASPHALT
	ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
B	BB	BOTTOM OF LINE
	BC	BOTTOM OF CURB
	BF	BASEMENT FLOOR
	BLDG	BUILDING
	BM	BENCHMARK
	BOV	BLOW OFF VALVE
	BRL	BUILDING RESTRICTION LINE
	BW	BOTTOM OF WALL
C	C	COEFFICIENT OF RUNOFF
	CATV	CABLE TELEVISION
	CB	CATCH BASIN OR CHORD BEARING
	CC	CENTER TO CENTER
	CFS (Q)	CUBIC FEET PER SECOND
	CH	CHORD
	CG	CURB AND GUTTER
	CIP	CAST IRON PIPE
	℄	CENTERLINE
	CMP	CORRUGATED METAL PIPE
	CONC	CONCRETE
	CO	CLEAN OUT
	CONT.	CONTINUATION
	CS	CURB STOP
	CT	COURT
	CN	(RUNOFF) CURVE NUMBER
D	d	DEPTH
	DA	DRAINAGE AREA
	DB	DEED BOOK
	DETL	DETAIL
	DI	DROP INLET
	DIP	DUCTILE IRON PIPE
	DM	DROP MANHOLE
	DR	DRIVE
	DWG	DRAWING
	D/W	DRIVE WAY
	△	DELTA
E	E	RATE OF SUPERELEVATION IN FEET PER FOOT
	EC	EROSION CONTROL
	ESMT	EASEMENT
	EG	EDGE OF GUTTER
	ELEV	ELEVATION
	EP	EDGE OF PAVEMENT
	ES	END SECTION
	EW	END WALL
	EX	EXISTING
	EXIST	EXISTING
	ELEC	ELECTRICAL
	EBL	EAST BOUND LANE
F	F	FIRE LINE
	FAR	FLOOR AREA RATIO
	FC	FACE OF CURB
	FDC	FIRE DEPARTMENT CONNECTION (SIAMESE)
	FW	FAIRFAX WATER
	FF	FIRST FLOOR
	FFE	FINISHED FLOOR ELEVATION
	FG	FINISHED GRADE
	FH	FIRE HYDRANT
	FP	FLOOD PLAIN
	FCPA	FAIRFAX COUNTY PARK AUTHORITY
	FOY	FOYER
	FPS	FEET PER SECOND
	FT	FEET
G	G	GAS
	GFA	GROSS FLOOR AREA
	Gr.	GRADE
	GR	GUARD RAIL
H	HC	HANDICAPPED PARKING SPACE
	HGL	HYDRAULIC GRADE LINE
	HP	HIGH POINT
	HR	HAND RAIL
	HT	HEIGHT
I	I	RAINFALL INTENSITY
	ID	INSIDE DIAMETER
	IN	INCH
	INV	INVERT
	IP	IRON PIPE
	IPF	IRON PIPE FOUND
	IPS	IRON PIPE SET
J	JB	JUNCTION BOX
K	K	SIGHT DISTANCE COEFFICIENT
L	L	LENGTH
	LAT	LATERAL
	LL	LOWER LEVEL
	LP	LOW POINT
	LS	LOADING SPACE
	LCG	LIMITS OF CLEARING & GRADING
M	M	MONUMENT FOUND
	MECH	MECHANICAL
	MH	MANHOLE
	MI	MILE
	MS	MEDIAN STRIP
	MSL	MEAN SEA LEVEL
	MIN	MINIMUM
	MAX	MAXIMUM
N	N/F	NOW OR FORMERLY
	NFA	NET FLOOR AREA
	NO., #	NUMBER
	NBL	NORTH BOUND LANE
O	OC	ON CENTER
	OD	OUTSIDE DIAMETER
	OH	OVERHEAD
P	P	PERIMETER
	PC	POINT OF CURVATURE
	PCC	POINT OF COMPOUND CURVES
	PCEP	POINT OF CURVE EDGE OF PAVEMENT
	PCTC	POINT OF CURVATURE TOP OF CURB
	PFM	PUBLIC FACILITIES MANUAL
	PG	PAGE
	PGL	POINT OF GRADE LINE
	PI	POINT OF INTERSECTION
	PL	PROPERTY LINE
	PRC	POINT OF REVERSE CURVES
	PRELIM	PRELIMINARY
	PROP, PR	PROPOSED
	PT	POINT OF TANGENCY
	PVC	POINT OF VERTICAL CURVATURE
	PVI	POINT OF VERTICAL INTERSECTION
	PVMT	PAVEMENT
	PVT	POINT OF VERTICAL TANGENT
	P&P	PLAN AND PROFILE
	PSI	POUNDS PER SQUARE INCH
Q	Q	AMOUNT OF RUNOFF
R	R	RADIUS
	RCP	REINFORCED CONCRETE PIPE
	RD	ROAD
	RESTR.	RESTRAINED (VALVE)
	RET	RETAINING
	REV	REVISION
	RR	RAILROAD
	RTE, RT	ROUTE
	R/W	RIGHT OF WAY
	RCP	ROUGH GRADING PLAN
	ROM	REMOTE OUTSIDE MONITOR
S	SAN	SANITARY
	SBL	SOUTH BOUND LANE
	SD	SIGHT DISTANCE
	SECT	SECTION
	SEW	SEWER
	SF	SQUARE FEET
	SP	SITE PLAN
	SPEC	SPECIFICATION
	STA	STATION
	STD	STANDARD
	STK	STACK
	STM	STORM
	SVC	SERVICE
	S/W	SIDE WALK
	Sx	CROSS SLOPE
T	T	TANGENT
	TB	TEST BORE
	TBR	TO BE REMOVED
	TC	TOP OF CURB
	TEL	TELEPHONE
	TP	TEST PIT
	TB	TOP OF BANK
	TW	TOP OF WALL
U	UD	UNDER DRAIN
	UG	UNDERGROUND
	UL	UPPER LEVEL
	UP	UTILITY POLE
V	V	VELOCITY
	VA	VAN ACCESSIBLE
	VDOT	VIRGINIA DEPARTMENT OF TRANSPORTATION
	VF	VERTICAL FOOT
W	W\M	WATER MAIN
	W\L	WATER LINE
	WBL	WEST BOUND LANE
	WSEL	WATER SURFACE ELEVATION
X		
Y	YI	YARD INLET
	YR	YEAR
Z	Z	SIDE SLOPES

LEGEND

ADDITIONAL LEGEND INFORMATION PROVIDED ON APPLICABLE SHEETS

PROPOSED IMPROVEMENTS BY OTHERS

EXISTING INTERMEDIATE CONTOUR — 86

EXISTING CONTOUR INDEX — 200

PROPOSED CONTOUR — 86

EXISTING EDGE OF PAVEMENT — EX. E.P.

PROPOSED EDGE OF PAVEMENT — PROP. E.P.

PROPOSED HEADER CURB

EXISTING CURB

PROPOSED CURB & GUTTER

PROPOSED CG-6 — CG-6

TRANSITION FROM CG-6 TO CG-6R — CG-6 CG-6R

EXISTING WATERLINE W/TEE — W W W

PROPOSED WATERLINE W/TEE

EXISTING TELEPHONE LINE — T T

PROPOSED TELEPHONE LINE — T

EXISTING STORM SEWER — EX. 15" RCP

PROPOSED STORM SEWER — 23 15" RCP 24

EXISTING SANITARY SEWER — SS SS

PROPOSED SANITARY SEWER — SS 4 SS

EXISTING ELECTRIC SERVICE — E E

PROPOSED ELECTRIC SERVICE — E

EXISTING GAS LINE — G

PROPOSED GAS LINE — G

PROPERTY LINE

EASEMENT LINE

CENTER LINE — 10+00 11+00

LIMITS OF CLEARING & GRADING

EXISTING SPOT ELEVATIONS — ×12.0

PROPOSED SPOT ELEVATION — +12.0

EXISTING TREE LINE

EXISTING TREE W/TRUNK DIAMETER — 12"DIA.

EXISTING TREE W/DRIPLINE

PROPOSED TREE

FLOW LINE OF SWALE

FENCE LINE

EXISTING UTILITY POLE

PROPOSED UTILITY POLE

EXISTING FIRE HYDRANT

PROPOSED FIRE HYDRANT

EXISTING WATER VALVE — W

PROPOSED WATER VALVE — W

WATER METER (SINGLE & DOUBLE)

STREET SIGN (SEE SIGNAGE PLAN)

PARKING INDICATOR INDICATES THE NUMBER OF PARKING SPACES — 9

TEST PIT

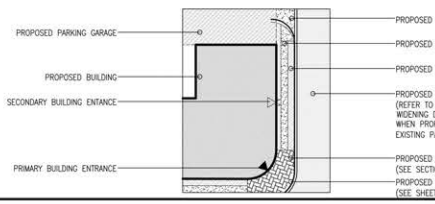
EXISTING STREET LIGHT

PROPOSED STREET LIGHT

PROPOSED TRAFFIC SIGNAL (APPROX. LOCATIONS)

PARKING GARAGE ACCESS — P

LOADING DOCK ACCESS — L



GENERAL NOTES

ADDITIONAL DESIGN AND CONSTRUCTION NOTES ARE PROVIDED IN APPLICABLE SECTIONS.

1. ALL CONSTRUCTION SHALL COINFORM TO FAIRFAX COUNTY AND VIRGINIA DEPARTMENT OF TRANSPORTATION STANDARDS AND SPECIFICATIONS.
2. WHEN DURING THE COURSE OF CONSTRUCTION, ANY OBJECT OF AN UNUSUAL NATURE IS ENCOUNTERED, THE CONTRACTOR SHALL CEASE WORK IN THAT AREA AND IMMEDIATELY NOTIFY THE PROPER AUTHORITY, FAIRFAX COUNTY AND/OR THE ARCHITECT/ENGINEER.
3. THE EXISTING UNDERGROUND UTILITIES SHOWN HEREON ARE BASED UPON AVAILABLE INFORMATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF ALL UTILITIES BEFORE COMMENCING WORK AND FOR ANY DAMAGES WHICH OCCUR BY HIS FAILURE TO LOCATE OR PRESERVE THESE UNDERGROUND UTILITIES. IF DURING CONSTRUCTION OPERATIONS THE CONTRACTOR SHOULD ENCOUNTER UTILITIES OTHER THAN IN THOSE SHOWN ON THE PLANS, HE SHALL IMMEDIATELY NOTIFY THE ENGINEER AND TAKE NECESSARY AND PROPER STEPS TO PROTECT THE FACILITY AND ASSURE THE CONTINUANCE OF SERVICE.
4. SOIL TESTS (CBR TEST PER VTM8) OF SUBGRADE MUST BE SUBMITTED FOR ACTUAL DETERMINATION OF SUBBASE THICKNESS PRIOR TO CONSTRUCTION.
5. ALL UTILITIES WHICH WILL BE PLACED UNDER EXISTING PUBLIC STREETS SHALL BE BORED OR JACKED, UNLESS PERMISSION TO OPEN CUT IS OBTAINED FROM VDOT.
6. CONTROLLED FILLS MUST BE COMPACTED TO 95% AS DETERMINED PER STANDARD PROCTOR AASHTO T-99 OR ASTM D 698, AS SHOWN IN THE GEOTECHNICAL REQUIREMENTS IN SECTION B01-GEOTECHNICAL. DENSITY MUST BE CERTIFIED BY A REGISTERED PROFESSIONAL ENGINEER AND THE RESULTS SUBMITTED TO FAIRFAX COUNTY PRIOR TO FOOTING CONSTRUCTION.
7. ALL FILL SOILS UNDER EXPANDED PAVED AREAS SHALL BE COMPACTED TO 95% OF THEORETICAL MAXIMUM DENSITY AS DETERMINED BY ASTM SPECIFICATION D-698 STANDARD PROCTOR METHOD, WITHIN + OR - 2% OF OPTIMUM MOISTURE FOR THE FULL WIDTH OF ANY DEDICATED RIGHT-OF-WAY AND ALL PARKING LOTS; PRIVATE STREETS; PARKING BAYS; CURB AND GUTTER; AND SIDEWALKS ADJACENT TO STREETS AND PARKING LOTS (NOT INTENDED TO INCLUDE LEADWALKS), WITH UPPER 1.0 FT. COMPACTED TO 100% OF THE MAXIMUM DRY DENSITY PER ASTM-D 698, AS SHOWN IN THE GEOTECHNICAL REQUIREMENTS SHOWN IN SECTION B01-GEOTECHNICAL.
8. ALL STREET CUT AND PATCH WORK IN PUBLIC RIGHT-OF-WAY REQUIRED FOR UTILITIES INSTALLATION SHALL BE PERFORMED IN STRICT ACCORDANCE WITH COUNTY AND VDOT STANDARDS AND SPECIFICATIONS.
9. A SMOOTH GRADE SHALL BE MAINTAINED FROM EDGE OF PAVEMENT OF EXISTING ROAD TO PROPOSED CURB AND GUTTER AND/OR PROPOSED PAVEMENT TO PRECLUDE THE FORMING OF FALSE GUTTERS AND/OR THE PONDING OF ANY WATER ON THE ROADWAY. REMOVE AND RECONSTRUCT EXISTING PAVEMENT AND/OR CURB AS DICTATED BY FIELD CONDITIONS TO PROVIDE POSITIVE DRAINAGE AT TIE-IN-POINTS.
10. PROPOSED SIDEWALKS MUST BE CONSTRUCTED WITH UD3 UNDERDRAINS WHEN LONGITUDINAL GRADES ARE 3% OR GREATER UNLESS SOIL TEST CONFIRM THAT THEY ARE NOT NEEDED IN ACCORDANCE WITH THE REQUIREMENTS OF THE VIRGINIA DEPARTMENT OF TRANSPORTATION (APPLIES TO SIDEWALK IN RIGHT-OF-WAY ONLY).
11. THE DEVELOPER WILL BE RESPONSIBLE FOR ANY DAMAGE TO THE EXISTING STREET AND UTILITIES WHICH OCCURS AS A RESULT OF HIS CONSTRUCTION PROJECT WITHIN OR CONTIGUOUS TO THE EXISTING RIGHT-OF-WAY.
12. COMPACTION OF BACKFILL IN UTILITY TRENCHES SHALL BE IN ACCORDANCE WITH FAIRFAX COUNTY & V.D.O.T. STANDARDS & SPECIFICATIONS.
13. TO THE BEST OF OUR KNOWLEDGE THERE ARE NO GRAVE SITES OR BURIAL PLOTS ON THIS PROPERTY.
14. THERE ARE NO DOWNSTREAM IMPOUNDMENTS IN THE INFLUENCE AREA OF THE PROPOSED DEVELOPMENT.
15. THIS PLAN COMPLIES FULLY WITH THE AMENDED CHESAPEAKE BAY PRESERVATION ORDINANCE PER THE JULY 7, 2003 BOARD POLICY FOR THE TREATMENT OF APPROVED AND PENDING PLANS OF DEVELOPMENT, WITH AN EFFECTIVE DATE OF NOVEMBER 18, 2003 AND WITH REVISIONS ADOPTED BY THE BOARD WITH AN EFFECTIVE DATE OF JULY 12, 2005.
16. THE DEVELOPER IS RESPONSIBLE FOR ALL TRAFFIC CONTROL. THE DEVELOPER SHALL SUBMIT A SIGNING, STRIPING AND/OR SIGNALIZATION PLAN TO THE VDOT LAND DEVELOPMENT SECTION A MINIMUM OF 30 DAYS PRIOR TO PERMIT APPLICATION. THE DEVELOPER SHALL NOT COMMENCE CONSTRUCTION OF ANY PAVEMENT COURSE WITHOUT AN APPROVED STRIPING PLAN.
17. THE PRIVATE STREETS AND/OR DRIVEWAYS IN THIS DEVELOPMENT DO NOT MEET THE STANDARDS NECESSARY FOR INCLUSIONS IN THE SYSTEM OF THE STATE HIGHWAYS AND WILL NOT BE MAINTAINED BY THE VIRGINIA DEPARTMENT OF TRANSPORTATION OR FAIRFAX COUNTY, AND ARE NOT ELIGIBLE FOR RURAL ADDITION FUNDS OR ANY OTHER FUNDS APPROPRIATED BY THE GENERAL ASSEMBLY OF VIRGINIA AND ALLOCATED BY THE COMMONWEALTH TRANSPORTATION BOARD.
18. ALL R/W DEDICATED TO PUBLIC USE SHALL BE CLEAR AND UNENCUMBERED.
19. ALL RETAINING WALLS 3' AND GREATER IN HEIGHT REQUIRE A SEPARATE BUILDING PERMIT.
20. ALL ROOF DRAINS AND NON-STANDARD PIPE WILL BE CONSTRUCTED UNDER A SEPARATE PLUMBING PERMIT PER IBC INTERNATIONAL PLUMBING CODE.
21. ALL EXTERIOR LIGHTING FIXTURES PROPOSED WITH THIS PLAN SHALL BE FULL CUT-OFF OR DIRECTIONALLY SHIELDED TYPES.
22. ALL ADA ACCESSIBILITY IMPROVEMENTS PROPOSED/SHOWN ON THIS PLAN, INCLUDING BUT NOT LIMITED TO PARKING SPACES, AISLES, ROUTES, AND SLOPES, COMPLY WITH THE 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN AND THE 2012 USBC.
23. ALL PARKING LOT LIGHTING, WITHIN SURFACE LOTS AND STRUCTURES, WILL BE REDUCED BY AT LEAST 50% WITHIN 30 MINUTES AFTER THE CLOSE OF BUSINESS OF BUSINESS ASSOCIATED WITH THE PARKING. ADDITIONALLY, ALL OUTDOOR LIGHTING PROVISIONS WITHIN PART 9 OF ARTICLE 14 OF THE FAIRFAX COUNTY ZONING ORDINANCE WILL BE MET

SURVEY NOTES

1. THE SITE SHOWN HERON IS REFERENCED TO THE VIRGINIA COORDINATE SYSTEM OF 1983 AS COMPUTED FROM FIELD RUN BOUNDARY AND HORIZONTAL AND VERTICAL CONTROL SURVEY THAT TIES THIS BOUNDARY TO THE FAIRFAX COUNTY MONUMENT GPS 93.
2. THE SITE SHOWN HERON IS REFERENCED TO THE NATIONAL VERTICAL DATUM 1929
3. BOUNDARY INFORMATION SHOWN HEREON, WITH A MAXIMUM PERMISSIBLE ERROR OF CLOSURE WITHIN THE LIMIT OF ONE (1) IN TWENTY THOUSAND (20,000), WAS COMPILED BY DEWBERRY CONSULTANTS LLC
4. EXISTING TOPOGRAPHIC AND PLANIMETRIC INFORMATION WAS COMPILED FROM PHOTOGRAMMETRIC MAPPING BY QUANTUM SPATIAL (OCTOBER 10, 2013, MARCH 2006 FOR WOODED AREAS) AND ACCUMARK (JULY 2015).
5. EXISTING STORM AND SANITARY UTILITY INFORMATION WAS COMPILED FROM FIELD SURVEY BY DEWBERRY CONSULTANTS LLC.
6. EXISTING NON-GRAVITY (ELECTRICAL, WATER, COMMUNICATION, GAS) UTILITY INFORMATION WAS COMPILED FROM FIELD DESIGNATION AND UTILITY RECORDS BY ACCUMARK (AUGUST 2014)

VDOT GENERAL NOTES

THIS SITE PLAN PROPOSES IMPROVEMENTS WITHIN THE VDOT RIGHT OF WAY, AND SITE IMPROVEMENTS CONNECTING TO THE VDOT RIGHT OF WAY. (REVISED 3/28/13)

1. THESE PLANS WERE PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF:
   - VDOT SECONDARY STREET ACCEPTANCE REQUIREMENTS (SSAR 24VAC-30-92 EFFECTIVE DECEMBER 31, 2011 AND VDOT ROAD DESIGN MANUAL APPENDIX B(1), SCHEMATIC STREET LAYOUT WITH PHASING DIAGRAM FOR STREET ACCEPTANCE ARE PROVIDED WITH THESE PLANS PER 24VAC30-92-60.
2. METHODS AND MATERIALS USED SHALL CONFORM TO CURRENT COUNTY/TOWN AND VDOT STANDARDS AND SPECIFICATIONS.
3. ALL UTILITIES, INCLUDING ALL POLES, ARE TO BE RELOCATED AT THE DEVELOPER'S EXPENSE, PRIOR TO CONSTRUCTION.
4. OPEN CUTTING OF PAVED OR SURFACE TREATED ROADS IS NOT PERMITTED. ALL UTILITIES WHICH WILL BE PLACED UNDER EXISTING STREETS ARE TO BE BORED OR JACKED. ANY EXCEPTIONS, DUE TO EXTENUATING CIRCUMSTANCES, ARE TO BE ADDRESSED AT THE PERMIT STAGE.
5. ANY TYPE OF REVERSE CURB (SPILL CURB, CG-6R, ETC.) AND TRANSITION TO THESE CURBS SHALL NOT BE USED WITH THE PUBLIC RIGHT OF WAY.
6. THE DEVELOPER IS RESPONSIBLE FOR ANY DAMAGE TO EXISTING ROADS AND UTILITIES WHICH OCCUR AS A RESULT OF PROJECT CONSTRUCTION WITHIN OR CONTIGUOUS TO EXISTING RIGHT OF WAY.
7. A SMOOTH GRADE SHALL BE MAINTAINED FROM THE CENTERLINE OF THE EXISTING ROAD TO THE PROPOSED EDGE OF PAVEMENT TO PRECLUDE THE FORMING OF FALSE GUTTERS AND/OR THE PONDING OF ANY WATER IN THE ROADWAY.
8. STANDARD GUARDRAILS AND/OR HANDRAILS SHALL BE INSTALLED AT HAZARDOUS LOCATIONS AS DESIGNATED DURING FIELD REVIEW BY THE COUNTY/TOWN INSPECTOR OR VDOT.
9. THE DEVELOPER IS RESPONSIBLE FOR ALL TRAFFIC CONTROL. THE DEVELOPER SHALL SUBMIT A SIGNING, STRIPING AND/OR SIGNALIZATION PLAN TO THE VDOT LAND DEVELOPMENT SECTION A MINIMUM OF THIRTY DAYS PRIOR TO PERMIT APPLICATION. THE DEVELOPER SHALL NOT COMMENCE CONSTRUCTION OF ANY PAVEMENT COURSE WITHOUT AN APPROVED STRIPING PLAN.
10. PAVEMENT DESIGN IS BASED ON AN ASSUMED CBR VALUE OF 10 (USE CBR VALUE OF 6 IN LOUDOUN CO). SOIL TESTS OF SUBGRADE MUST BE SUBMITTED FOR ACTUAL DETERMINATION OF REQUIRED THICKNESS OF THE PAVEMENT INCLUDING LAYERS OF ASPHALT AND SUBBASE PRIOR TO SUBBASE PLACEMENT.
11. ALL UNTREATED AGGREGATE USED IN BASE OR SUBBASE COURSES SHALL BE 21B, EXCEPT ON ROADS WITH ADT OF 1000 VPD OR LESS, WHERE 21A AGGREGATE MAY BE USED. WHEN 21B AGGREGATE IS USED, UD-4 UNDERDRAINS MUST BE PROVIDED.
12. A 4" (MIN.) LAYER OF STONE IS REQUIRED BENEATH CURB AND GUTTER (MAY BE SHOWN ON TYPICAL SECTION IN LIEU OF A NOTE).
13. ADDITIONAL DITCH LININGS OR SILTATION AND EROSION CONTROL MEASURES SHALL BE PROVIDED. AT THE DEVELOPER'S EXPENSE, AS DETERMINED NECESSARY BY VDOT AND/OR THE COUNTY/TOWN DURING FIELD REVIEW. ALL COSTS SHALL BE ASSUMED BY THE DEVELOPER.
14. THE ENTIRE SURFACE OF THE ROADWAY (OLD AND NEW PORTIONS) SHALL BE OVERLAID AND RE-STRIPED AS REQUIRED BY VDOT PERSONNEL. OVERLAY OF EXISTING PAVEMENT SHALL BE MINIMUM OF 1.25" DEPTH; ANY COSTS ASSOCIATED WITH PAVEMENT OVERLAY, OR THE MILLING OF EXISTING PAVEMENT TO OBTAIN REQUIRED DEPTH, SHALL BE ASSUMED BY THE DEVELOPER.
15. DEVELOPER IS RESPONSIBLE FOR DESIGN AND CONSTRUCTION OF ANY TRAFFIC SIGNAL INSTALLATION OR MODIFICATION WHICH WILL BE NECESSARY AS A RESULT OF DEVELOPMENT OF THIS SITE.
16. ALL RIGHT OF WAY DEDICATED TO PUBLIC USE SHALL BE CLEAR AND UNENCUMBERED.
17. THE COUNTY/TOWN SHALL OBTAIN A PERMIT FOR ALL SIDEWALKS WITHIN THE RIGHT OF WAY THAT DO NOT QUALIFY FOR VDOT MAINTENANCE.
18. TRAFFIC CONTROL DEVICES OR ADVISORY SIGNS, SUCH AS MULTIWAY STOPS, SPEED LIMITS, WATCH FOR CHILDREN, PEDESTRIAN TRAFFIC ETC., SHALL NOT BE INSTALLED UNLESS SPECIFICALLY SHOWN ON THESE PLANS OR A VDOT APPROVED PLAN REVISION. SPEED STUDY CERTIFIED BY PROFESSIONAL ENGINEER SHOULD BE SUBMITTED FOR VDOT APPROVAL PRIOR TO THE STREET ACCEPTANCE FOR ANY ROAD TO BE POSTED OTHER THAN THE STATUTORY SPEED LIMIT. SHOULD UNAPPROVED SIGNS BE NOTED AT THE TIME OF VDOT INSPECTION, THE ROAD ACCEPTANCE PROCESS SHALL BE TERMINATED IMMEDIATELY AND NOT RECOMMENCED UNTIL A DETERMINATION IS MADE REGARDING THE APPROVAL OF ANY ADDITIONAL SIGNS. IMMEDIATE REMOVAL OF SUCH SIGNS SHALL NOT NEGATE THE NEED FOR THE SUBMISSION OF A REVISION.
19. LANDSCAPING AND IRRIGATION SYSTEMS SHALL NOT BE INSTALLED WITHIN THE PUBLIC RIGHT OF WAY EXCEPT AS SHOWN ON THESE PLANS OR A VDOT APPROVED REVISION.
20. BEGINNING JULY 1, 2009 ALL LAND USE PERMIT APPLICATIONS ARE REQUIRED TO PROVIDE AT LEAST ONE (1) PERSON WHO, AT MINIMUM, IS VERIFIED BY VDOT IN BASIC WORK ZONE TRAFFIC CONTROL FOR ALL PERMITTED ACTIVITIES WITHIN STATE MAINTAINED RIGHT OF WAY WHICH INVOLVES INSTALLING, MAINTAINING, OR REMOVING WORK ZONE TRAFFIC CONTROL DEVICES. THIS PERSON SHALL BE RESPONSIBLE FOR THE PLACEMENT, MAINTENANCE AND REMOVAL OF ALL WORK ZONE TRAFFIC CONTROL DEVICES.

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA — COPY A. PINNER — No. 045160 — PROFESSIONAL ENGINEER

KEY PLAN

SCALE NORTH

N/A

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MLJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE

ABBREVIATIONS, NOTES, AND LEGEND

SP NO. #6848-SP-014

C01.002
(RGP SHEET 2)

SECTION NO. C01-GENERAL

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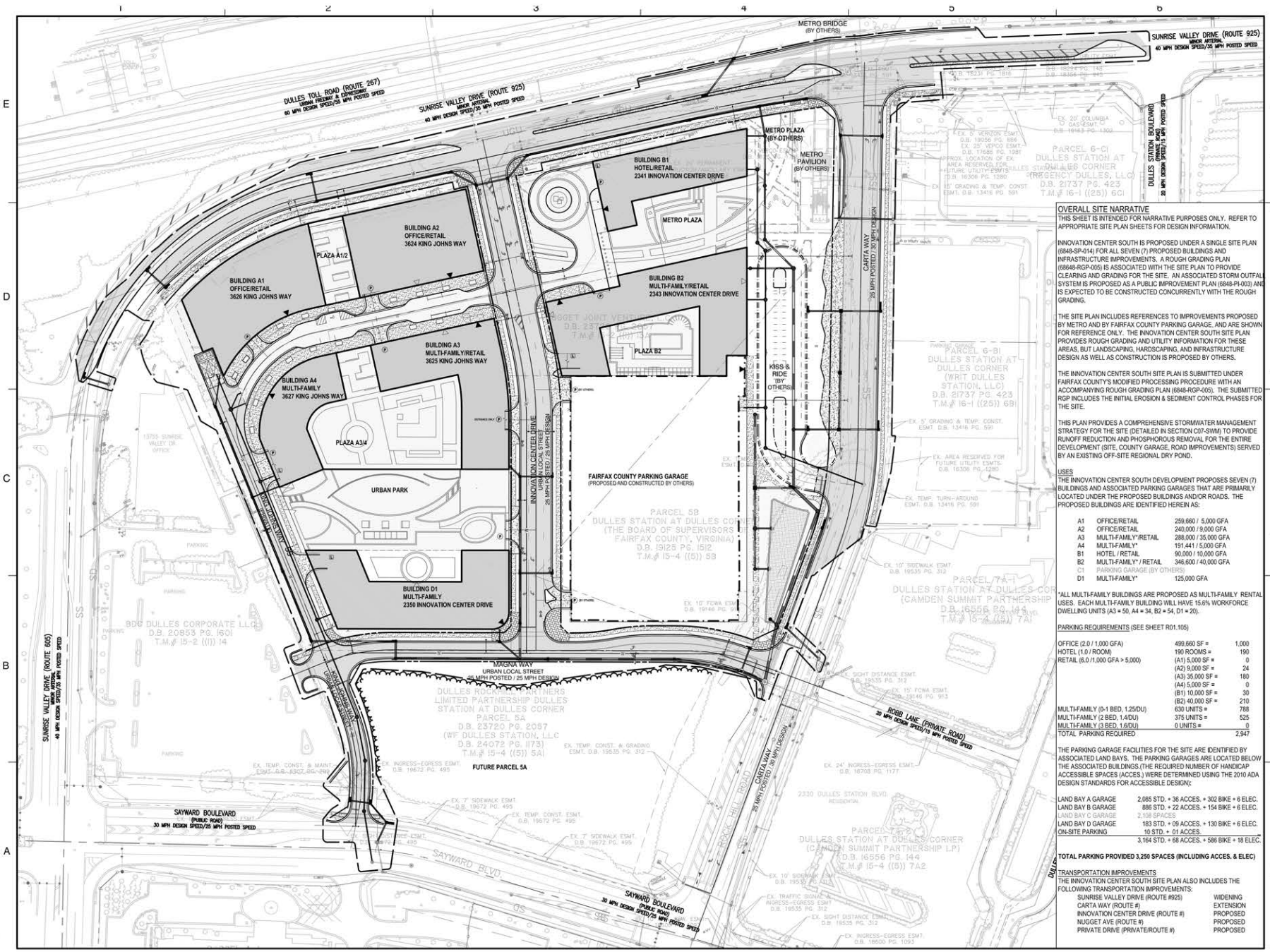


OVERALL SITE NARRATIVE

THIS SHEET IS INTENDED FOR NARRATIVE PURPOSES ONLY. REFER TO APPROPRIATE SITE PLAN SHEETS FOR DESIGN INFORMATION.

INNOVATION CENTER SOUTH IS PROPOSED UNDER A SINGLE SITE PLAN (6848-SP-014) FOR ALL SEVEN (7) PROPOSED BUILDINGS AND INFRASTRUCTURE IMPROVEMENTS. A ROUGH GRADING PLAN (6848-RGP-005) IS ASSOCIATED WITH THE SITE PLAN TO PROVIDE CLEARING AND GRADING FOR THE SITE. AN ASSOCIATED STORM OUTFALL SYSTEM IS PROPOSED AS A PUBLIC IMPROVEMENT PLAN (6848-PI-003) AND IS EXPECTED TO BE CONSTRUCTED CONCURRENTLY WITH THE ROUGH GRADING.

THE SITE PLAN INCLUDES REFERENCES TO IMPROVEMENTS PROPOSED BY METRO AND BY FAIRFAX COUNTY PARKING GARAGE, AND ARE SHOWN FOR REFERENCE ONLY. THE INNOVATION CENTER SOUTH SITE PLAN PROVIDES ROUGH GRADING AND UTILITY INFORMATION FOR THESE AREAS, BUT LANDSCAPING, HARDSCAPING, AND INFRASTRUCTURE DESIGN AS WELL AS CONSTRUCTION IS PROPOSED BY OTHERS.

THE INNOVATION CENTER SOUTH SITE PLAN IS SUBMITTED UNDER FAIRFAX COUNTY'S MODIFIED PROCESSING PROCEDURE WITH AN ACCOMPANYING ROUGH GRADING PLAN (6848-RGP-005). THE SUBMITTED RGP INCLUDES THE INITIAL EROSION & SEDIMENT CONTROL PHASES FOR THE SITE.

THIS PLAN PROVIDES A COMPREHENSIVE STORMWATER MANAGEMENT STRATEGY FOR THE SITE (DETAILED IN SECTION C07-SWM) TO PROVIDE RUNOFF REDUCTION AND PHOSPHOROUS REMOVAL FOR THE ENTIRE DEVELOPMENT (SITE, COUNTY GARAGE, ROAD IMPROVEMENTS) SERVED BY AN EXISTING OFF-SITE REGIONAL DRY POND.

USES

THE INNOVATION CENTER SOUTH DEVELOPMENT PROPOSES SEVEN (7) BUILDINGS AND ASSOCIATED PARKING GARAGES THAT ARE PRIMARILY LOCATED UNDER THE PROPOSED BUILDINGS AND/OR ROADS. THE PROPOSED BUILDINGS ARE IDENTIFIED HEREIN AS:

A1	OFFICE/RETAIL	259,660 / 5,000 GFA
A2	OFFICE/RETAIL	240,000 / 9,000 GFA
A3	MULTI-FAMILY*/RETAIL	288,000 / 35,000 GFA
A4	MULTI-FAMILY*	191,441 / 5,000 GFA
B1	HOTEL / RETAIL	90,000 / 10,000 GFA
B2	MULTI-FAMILY* / RETAIL	346,600 / 40,000 GFA
C1	PARKING GARAGE (BY OTHERS)	
D1	MULTI-FAMILY*	125,000 GFA

*ALL MULTI-FAMILY BUILDINGS ARE PROPOSED AS MULTI-FAMILY RENTAL USES. EACH MULTI-FAMILY BUILDING WILL HAVE 15.6% WORKFORCE DWELLING UNITS (A3 = 50, A4 = 34, B2 = 54, D1 = 20).

PARKING REQUIREMENTS (SEE SHEET R01.105)

OFFICE (2.0 / 1,000 GFA)	499,660 SF =	1,000
HOTEL (1.0 / ROOM)	190 ROOMS =	190
RETAIL (6.0 /1,000 GFA > 5,000)	(A1) 5,000 SF =	0
	(A2) 9,000 SF =	24
	(A3) 35,000 SF =	180
	(A4) 5,000 SF =	0
	(B1) 10,000 SF =	30
	(B2) 40,000 SF =	210
MULTI-FAMILY (0-1 BED, 1.25/DU)	630 UNITS =	788
MULTI-FAMILY (2 BED, 1.4/DU)	375 UNITS =	525
MULTI-FAMILY (3 BED, 1.6/DU)	0 UNITS =	0
TOTAL PARKING REQUIRED		2,947

THE PARKING GARAGE FACILITIES FOR THE SITE ARE IDENTIFIED BY ASSOCIATED LAND BAYS. THE PARKING GARAGES ARE LOCATED BELOW THE ASSOCIATED BUILDINGS.(THE REQUIRED NUMBER OF HANDICAP ACCESSIBLE SPACES (ACCES.) WERE DETERMINED USING THE 2010 ADA DESIGN STANDARDS FOR ACCESSIBLE DESIGN):

LAND BAY A GARAGE	2,085 STD. + 36 ACCES. + 302 BIKE + 6 ELEC.
LAND BAY B GARAGE	886 STD. + 22 ACCES. + 154 BIKE + 6 ELEC.
LAND BAY C GARAGE	2,108 SPACES
LAND BAY D GARAGE	183 STD. + 09 ACCES. + 130 BIKE + 6 ELEC.
ON-SITE PARKING	10 STD. + 01 ACCES.
	3,164 STD. + 68 ACCES. + 586 BIKE + 18 ELEC.

TOTAL PARKING PROVIDED 3,250 SPACES (INCLUDING ACCES. & ELEC)

TRANSPORTATION IMPROVEMENTS

THE INNOVATION CENTER SOUTH SITE PLAN ALSO INCLUDES THE FOLLOWING TRANSPORTATION IMPROVEMENTS:

SUNRISE VALLEY DRIVE (ROUTE #925)	WIDENING
CARTA WAY (ROUTE #)	EXTENSION
INNOVATION CENTER DRIVE (ROUTE #)	PROPOSED
NUGGET AVE (ROUTE #)	PROPOSED
PRIVATE DRIVE (PRIVATE/ROUTE #)	PROPOSED

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0118 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CHEY A. PRETTI
Lic. No. 045560
EXPIRES
PROFESSIONAL ENGINEER

KEY PLAN

SCALE
SCALE IN FEET
1" = 60'
1 INCH

NORTH
VCS-83

No.	DATE	BY	Description
REVISIONS			

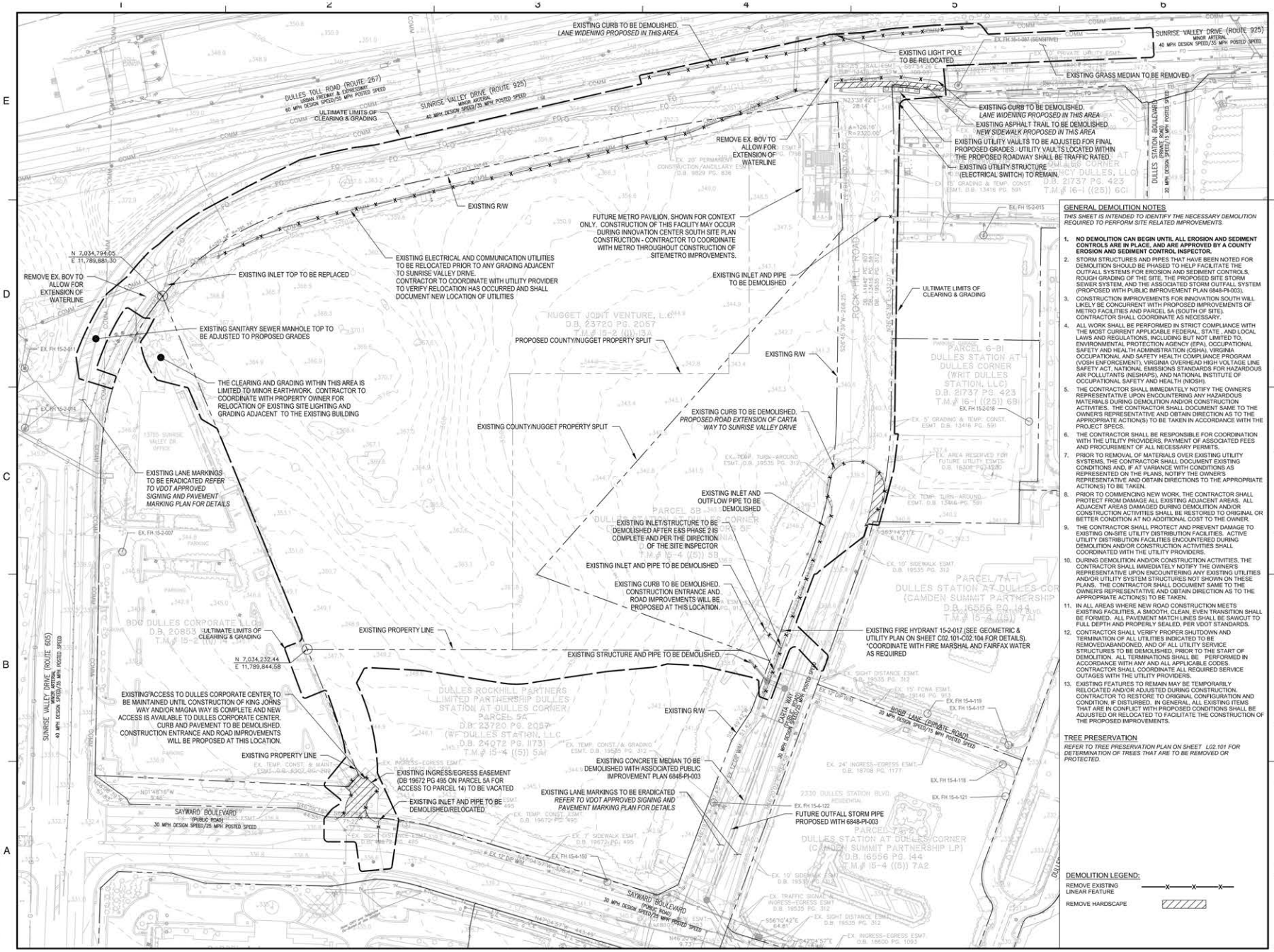
DRAWN BY	MLJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

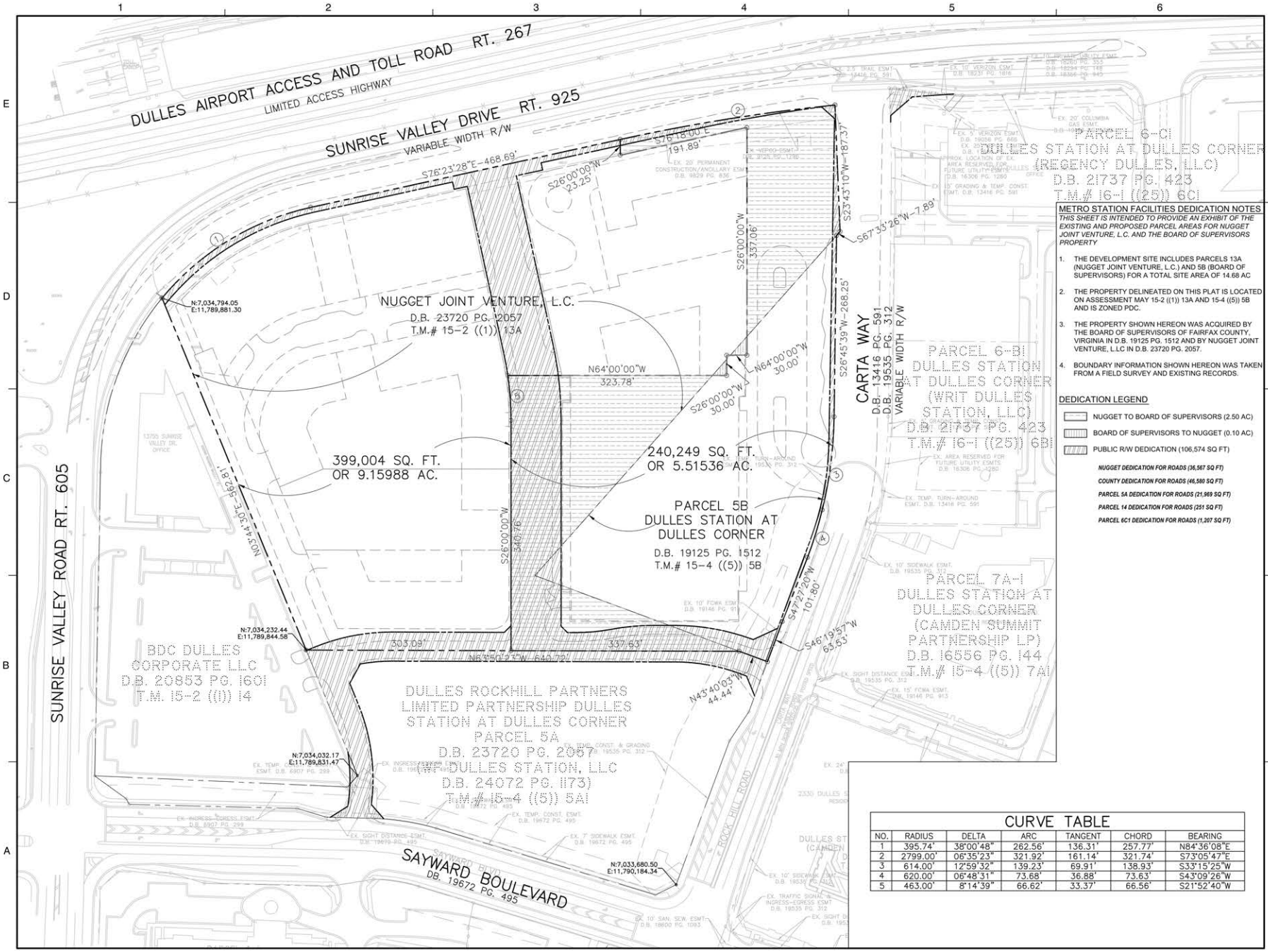
TITLE
OVERALL SITE PLAN & NARRATIVE

SP NO. #6848-SP-014

C01.101
(RGP SHEET 3)

SECTION NO. C01-GENERAL


EXISTING CURB TO BE DEMOLISHED. LANE WIDENING PROPOSED IN THIS AREA
EXISTING LIGHT POLE TO BE RELOCATED
SUNRISE VALLEY DRIVE (ROUTE 925) MINOR ARTERIAL 40 MPH DESIGN SPEED/35 MPH POSTED SPEED
EXISTING GRASS MEDIAN TO BE REMOVED
DULLES TOLL ROAD (ROUTE 267) URBAN FREEWAY & EXPRESSWAY 60 MPH DESIGN SPEED/55 MPH POSTED SPEED
ULTIMATE LIMITS OF CLEARING & GRADING
EXISTING CURB TO BE DEMOLISHED. LANE WIDENING PROPOSED IN THIS AREA
EXISTING ASPHALT TRAIL TO BE DEMOLISHED. NEW SIDEWALK PROPOSED IN THIS AREA
EXISTING UTILITY VAULTS TO BE ADJUSTED FOR FINAL PROPOSED GRADES. UTILITY VAULTS LOCATED WITHIN THE PROPOSED ROADWAY SHALL BE TRAFFIC RATED.
EXISTING UTILITY STRUCTURE (ELECTRICAL SWITCH) TO REMAIN.
REMOVE EX. BOV TO ALLOW FOR EXTENSION OF WATERLINE
EXISTING R/W
FUTURE METRO PAVILION. SHOWN FOR CONTEXT ONLY. CONSTRUCTION OF THIS FACILITY MAY OCCUR DURING INNOVATION CENTER SOUTH SITE PLAN CONSTRUCTION - CONTRACTOR TO COORDINATE WITH METRO THROUGHOUT CONSTRUCTION OF SITE/METRO IMPROVEMENTS.
EXISTING ELECTRICAL AND COMMUNICATION UTILITIES TO BE RELOCATED PRIOR TO ANY GRADING ADJACENT TO SUNRISE VALLEY DRIVE. CONTRACTOR TO COORDINATE WITH UTILITY PROVIDER TO VERIFY RELOCATION HAS OCCURRED AND SHALL DOCUMENT NEW LOCATION OF UTILITIES
N 7,034,794.05 E 11,789,881.30
REMOVE EX. BOV TO ALLOW FOR EXTENSION OF WATERLINE
EXISTING INLET TOP TO BE REPLACED
EXISTING INLET AND PIPE TO BE DEMOLISHED
ULTIMATE LIMITS OF CLEARING & GRADING
EXISTING SANITARY SEWER MANHOLE TOP TO BE ADJUSTED TO PROPOSED GRADES
PROPOSED COUNTY/NUGGET PROPERTY SPLIT
EXISTING R/W
THE CLEARING AND GRADING WITHIN THIS AREA IS LIMITED TO MINOR EARTHWORK. CONTRACTOR TO COORDINATE WITH PROPERTY OWNER FOR RELOCATION OF EXISTING SITE LIGHTING AND GRADING ADJACENT TO THE EXISTING BUILDING
EXISTING CURB TO BE DEMOLISHED. PROPOSED ROAD EXTENSION OF CARTA WAY TO SUNRISE VALLEY DRIVE
EXISTING COUNTY/NUGGET PROPERTY SPLIT
EXISTING LANE MARKINGS TO BE ERADICATED REFER TO VDOT APPROVED SIGNING AND PAVEMENT MARKING PLAN FOR DETAILS
EXISTING INLET AND OUTFLOW PIPE TO BE DEMOLISHED
EXISTING INLET/STRUCTURE TO BE DEMOLISHED AFTER E&S PHASE 2 IS COMPLETE AND PER THE DIRECTION OF THE SITE INSPECTOR
EXISTING INLET AND PIPE TO BE DEMOLISHED
EXISTING CURB TO BE DEMOLISHED. CONSTRUCTION ENTRANCE AND ROAD IMPROVEMENTS WILL BE PROPOSED AT THIS LOCATION.
EXISTING PROPERTY LINE
ULTIMATE LIMITS OF CLEARING & GRADING
EXISTING FIRE HYDRANT 15-2-017 (SEE GEOMETRIC & UTILITY PLAN ON SHEET C02.101-C02.104 FOR DETAILS). *COORDINATE WITH FIRE MARSHAL AND FAIRFAX WATER AS REQUIRED
EXISTING STRUCTURE AND PIPE TO BE DEMOLISHED.
N 7,034,232.44 E 11,789,844.58
EXISTING ACCESS TO DULLES CORPORATE CENTER TO BE MAINTAINED UNTIL CONSTRUCTION OF KING JOHNS WAY AND/OR MAGNA WAY IS COMPLETE AND NEW ACCESS IS AVAILABLE TO DULLES CORPORATE CENTER. CURB AND PAVEMENT TO BE DEMOLISHED. CONSTRUCTION ENTRANCE AND ROAD IMPROVEMENTS WILL BE PROPOSED AT THIS LOCATION.
EXISTING R/W
EXISTING PROPERTY LINE
EXISTING CONCRETE MEDIAN TO BE DEMOLISHED WITH ASSOCIATED PUBLIC IMPROVEMENT PLAN 6848-PI-003
EXISTING INGRESS/EGRESS EASEMENT (DB 19672 PG 495 ON PARCEL 5A FOR ACCESS TO PARCEL 14) TO BE VACATED
EXISTING INLET AND PIPE TO BE DEMOLISHED/RELOCATED
EXISTING LANE MARKINGS TO BE ERADICATED REFER TO VDOT APPROVED SIGNING AND PAVEMENT MARKING PLAN FOR DETAILS
FUTURE OUTFALL STORM PIPE PROPOSED WITH 6848-PI-003
SAYWARD BOULEVARD (PUBLIC ROAD) 30 MPH DESIGN SPEED/25 MPH POSTED SPEED
SUNRISE VALLEY DRIVE (ROUTE 605) MINOR ARTERIAL 40 MPH DESIGN SPEED/35 MPH POSTED SPEED
DULLES STATION BOULEVARD 20 MPH DESIGN SPEED/15 MPH POSTED SPEED
CARTA WAY PRIVATE 25 MPH POSTED SPEED
ROSSE LANE (PRIVATE ROAD) 20 MPH DESIGN SPEED/15 MPH POSTED SPEED
BDC DULLES CORPORATE LLC D.B. 20853 PG. 1
DULLES ROCKHILL PARTNERS LIMITED PARTNERSHIP DULLES STATION AT DULLES CORNER PARCEL 5A D.B. 23720 PG. 2057 (W/ DULLES STATION, LLC D.B. 24072 PG. 1173) T.M.# 15-4 ((5)) 5A
NUGGET JOINT VENTURE, L.C. D.B. 23720 PG. 2057 T.M.# 15-2 ((1)) 13A
PARCEL 6-B1 DULLES STATION AT DULLES CORNER (WRIT DULLES STATION, LLC) D.B. 21737 PG. 423 T.M.# 16-1 ((25)) 6B1
PARCEL 5B DULLES STATION AT DULLES CORNER (WRIT DULLES STATION, LLC) D.B. 21737 PG. 423 T.M.# 15-4 ((5)) 5B
PARCEL 7A-1 DULLES STATION AT DULLES CORNER (CAMDEN SUMMIT PARTNERSHIP LP) D.B. 16556 PG. 144 T.M.# 15-4 ((5)) 7A1
DULLES STATION AT DULLES CORNER (CAMDEN SUMMIT PARTNERSHIP LP) D.B. 16556 PG. 144 T.M.# 15-4 ((5)) 7A2
2330 DULLES STATION BLVD. RESIDENTIAL
13755 SUNRISE VALLEY DR. OFFICE
EX. FH 15-2-011
EX. FH 15-2-016
EX. FH 15-2-007
EX. FH 15-2-015
EX. FH 15-2-018
EX. FH 15-4-119
EX. FH 15-4-117
EX. FH 15-4-118
EX. FH 15-4-121
EX. FH 15-4-122
EX. FH 15-4-150
EX. 12" DIP WM
EX. 8" WM
EX. 20" PERMANENT CONSTRUCTION/ANCILLARY ESMT. D.B. 9859 PG. 836
EX. 5' GRADING & TEMP. CONST. ESMT. D.B. 13416 PG. 591
EX. TEMP. TURN-AROUND ESMT. D.B. 19535 PG. 312
EX. AREA RESERVED FOR FUTURE UTILITY ESMTS. D.B. 16556 PG. 142
EX. 10' SIDEWALK ESMT. D.B. 19535 PG. 312
EX. SIGHT DISTANCE ESMT. D.B. 19535 PG. 312
EX. 15' FCWA ESMT. D.B. 18146 PG. 99
EX. 24' INGRESS-EGRESS ESMT. D.B. 18708 PG. 1177
EX. TEMP. CONST./& GRADING ESMT. D.B. 19535 PG. 312
EX. INGRESS-EGRESS ESMT. D.B. 19672 PG. 495
EX. TEMP. CONST. ESMT. D.B. 19672 PG. 495
EX. 7' SIDEWALK ESMT. D.B. 19672 PG. 495
EX. 19' SIDEWALK ESMT. D.B. 19535 PG. 312
EX. TRAFFIC SIGNAL INGRESS-EGRESS ESMT. D.B. 19535 PG. 312
EX. SIGHT DISTANCE ESMT. D.B. 19535 PG. 312
EX. INGRESS-EGRESS ESMT. D.B. 18600 PG. 1093
EX. 10' WM
EX. 8" DIP WM
EX. 6" WM
EX. 8" SAN
EX. 15" RCP
EX. 18" RCP
EX. 24" RCP
EX. 30" RCP
EX. 36" RCP
EX. 42" RCP
EX. 48" RCP
EX. 54" RCP
EX. 60" RCP
EX. 66" RCP
EX. 72" RCP
EX. 78" RCP
EX. 84" RCP
EX. 90" RCP
EX.



METRO STATION FACILITIES DEDICATION NOTES

THIS SHEET IS INTENDED TO PROVIDE AN EXHIBIT OF THE EXISTING AND PROPOSED PARCEL AREAS FOR NUGGET JOINT VENTURE, L.C. AND THE BOARD OF SUPERVISORS PROPERTY

1. THE DEVELOPMENT SITE INCLUDES PARCELS 13A (NUGGET JOINT VENTURE, L.C.) AND 5B (BOARD OF SUPERVISORS) FOR A TOTAL SITE AREA OF 14.68 AC
2. THE PROPERTY DELINEATED ON THIS PLAT IS LOCATED ON ASSESSMENT MAY 15-2 ((1)) 13A AND 15-4 ((5)) 5B AND IS ZONED PDC.
3. THE PROPERTY SHOWN HEREON WAS ACQUIRED BY THE BOARD OF SUPERVISORS OF FAIRFAX COUNTY, VIRGINIA IN D.B. 19125 PG. 1512 AND BY NUGGET JOINT VENTURE, L.LC IN D.B. 23720 PG. 2057.
4. BOUNDARY INFORMATION SHOWN HEREON WAS TAKEN FROM A FIELD SURVEY AND EXISTING RECORDS.

DEDICATION LEGEND

- NUGGET TO BOARD OF SUPERVISORS (2.50 AC)
- BOARD OF SUPERVISORS TO NUGGET (0.10 AC)
- PUBLIC R/W DEDICATION (106,574 SQ FT)

NUGGET DEDICATION FOR ROADS (36,567 SQ FT)
COUNTY DEDICATION FOR ROADS (46,580 SQ FT)
PARCEL 5A DEDICATION FOR ROADS (21,969 SQ FT)
PARCEL 14 DEDICATION FOR ROADS (251 SQ FT)
PARCEL 6C1 DEDICATION FOR ROADS (1,207 SQ FT)

CURVE TABLE

NO.	RADIUS	DELTA	ARC	TANGENT	CHORD	BEARING
1	395.74'	38°00'48"	262.56'	136.31'	257.77'	N84°36'08"E
2	2799.00'	06°35'23"	321.92'	161.14'	321.74'	S73°05'47"E
3	614.00'	12°59'32"	139.23'	69.91'	138.93'	S33°15'25"W
4	620.00'	06°48'31"	73.68'	36.88'	73.63'	S43°09'26"W
5	463.00'	8°14'39"	66.62'	33.37'	66.56'	S21°52'40"W

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CODY A. PERNETT
Lic. No. 048300
PROFESSIONAL ENGINEER

KEY PLAN

SCALE NORTH

SCALE IN FEET
1" = 60'
1 INCH

VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MLJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE

PARCEL BOUNDARY & DEDICATION EXHIBIT

SP NO. #6848-SP-014

C01.301

(RGP SHEET 5)

SECTION NO. C01-GENERAL

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UTILITY PLAN NOTES

THIS SHEET IS INTENDED TO SHOW PROPOSED GEOMETRIC AND UTILITY DESIGN INFORMATION FOR THE SITE.

1. REFER TO SECTION C03-ROAD DESIGN FOR ROAD DESIGN AND GRADING INFORMATION OF SUNRISE VALLEY DRIVE, CARTA WAY, INNOVATION CENTER DRIVE, MAGNA WAY, AND KING JOHNS WAY.
2. REFER TO SHEET C03.201 FOR DIMENSIONING OF TURN LANES, TAPER LENGTHS, AND INTERSECTION SPACING.
3. UTILITY STRUCTURES AND LABELS ARE SHOWN ON THE UTILITY PLAN SHEETS FOR CONTEXT, REFER TO SHEETS C02.101-C02.104 FOR UTILITY DESIGN AND GRADING INFORMATION
4. REFER TO SECTION L01-LANDSCAPE FOR SITE HARDSCAPE MATERIALS AND DETAILS.
5. SEE LANDSCAPE SHEETS IN SECTION L01-LANDSCAPE FOR PLAZA DESIGN INFORMATION.
6. ROAD MARKINGS ARE PROVIDED FOR CONTEXT. CONTRACTOR SHALL USE SIGNAGE AND PAVEMENT MARKING PLAN APPROVED BY VDOT FOR CONSTRUCTION.
7. CONSTRUCTION OF PROPOSED TIE-INS TO FUTURE 8" WATER MAIN "M" CONTINGENT UPON APPROVAL OF WATER MAIN "M".
8. EXISTING DRY UTILITY INFRASTRUCTURE (FIBER, CATV, ELECTRIC, GAS) ALONG SUNRISE VALLEY DRIVE IS TO BE RELOCATED UNDER A SEPERATE PLAN THROUGH COORDINATION WITH UTILITY PROVIDERS. TEST PITS ARE IDENTIFIED AT THE CROSSING OF EXISTING UTILITIES AND THE UTILITIES PROPOSED WITH THIS SITE PLAN. CONTRACTOR SHALL COORDINATE WITH THE DRY UTILITY PROVIDERS PRIOR TO CONSTRUCTION.
9. ALL RESIDENTIAL BUILDINGS ARE RECOMMENDED TO HAVE EXTERIOR WALL CONSTRUCTION THAT MEETS A MINIMUM OF STC 39 AND THE ROOF AND EXTERIOR DOORS AND WINDOWS MEET A MINIMUM OF STC 30.

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0118 (FAX)

Issued For Construction
May 26, 2016

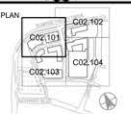
INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CHRISTOPHER A. PASTI
Lic. No. 045560
5-26-16
PROFESSIONAL ENGINEER

KEY PLAN



SCALE NORTH

SCALE IN FEET
1" = 30'
1 INCH

VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MCJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE

GEOMETRIC & UTILITY PLAN

SP NO. #6848-SP-014

C02.101

SECTION NO. C02-SITE PLAN

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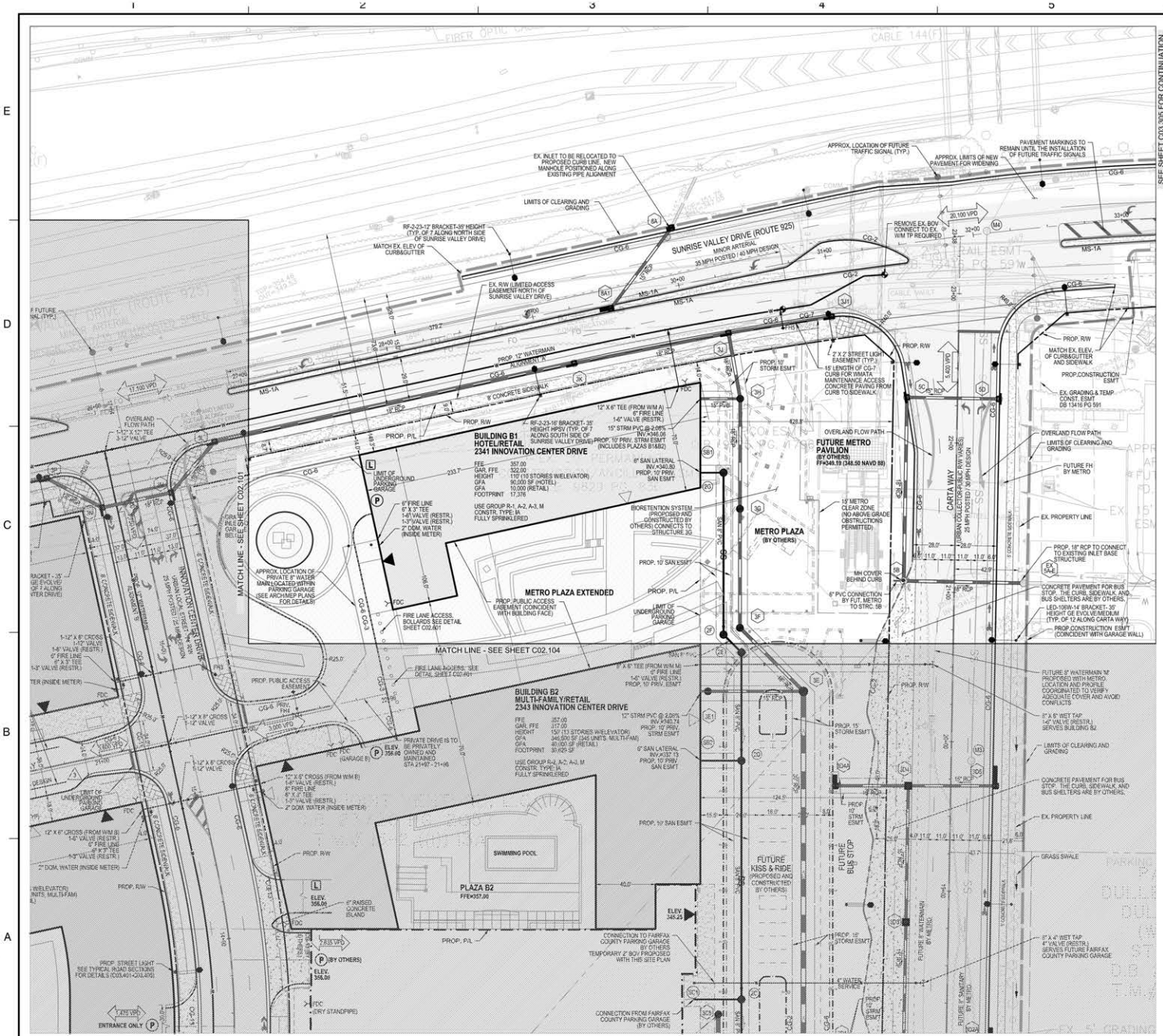
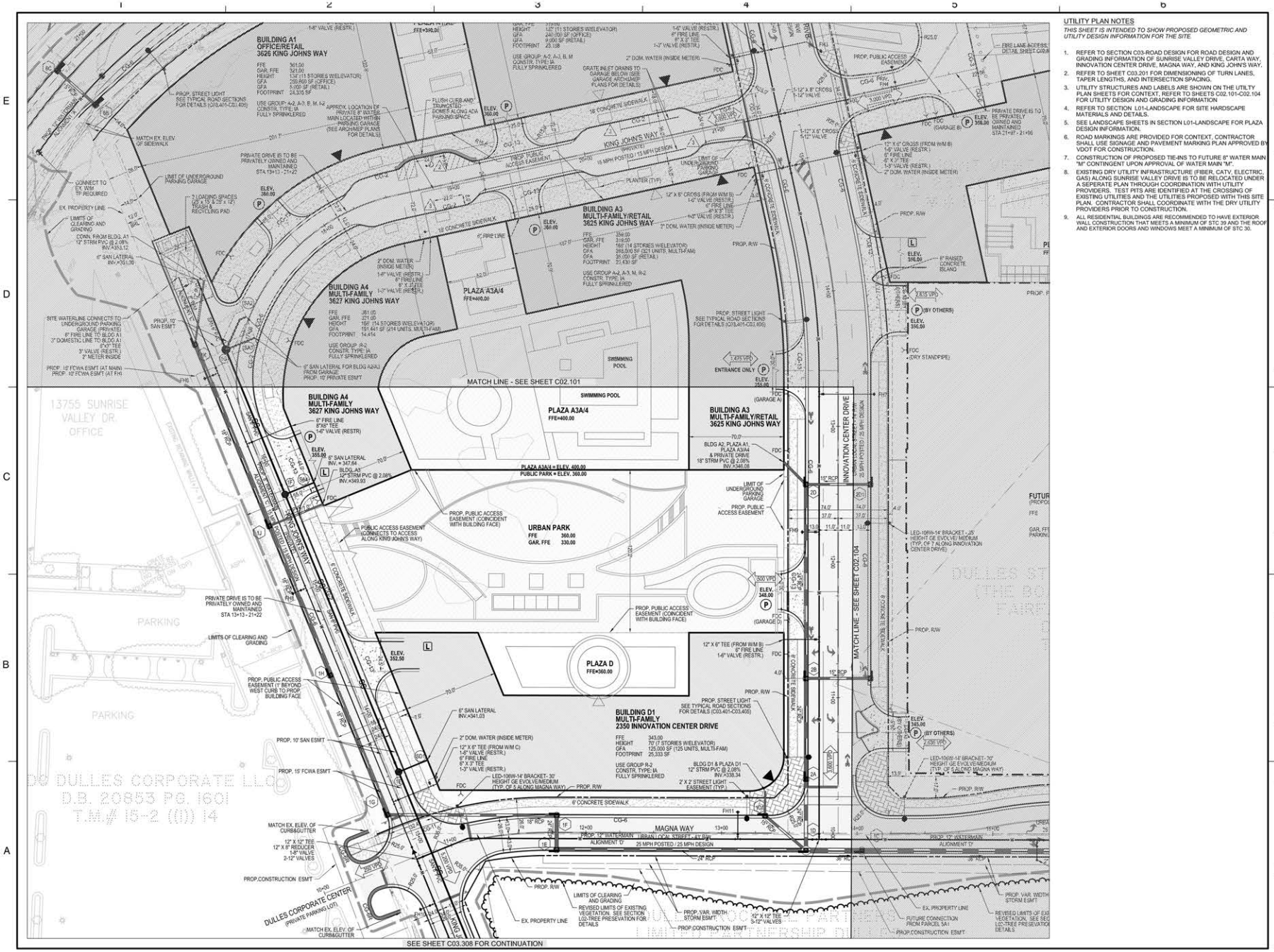

SUNRISE VALLEY DRIVE (ROUTE 925)
MINOR ARTERIAL
35 MPH POSTED / 40 MPH DESIGN
17,100 VPD
35,100 VPD
5,400 VPD
BUILDING B1
HOTEL/RETAIL
2341 INNOVATION CENTER DRIVE
FFE 357.00
GAR. FFE 322.00
HEIGHT 110' (10 STORIES W/ELEVATOR)
GFA 90,000 SF (HOTEL)
GFA 10,000 (RETAIL)
FOOTPRINT 17,376
USE GROUP R-1, A-2, A-3, M
CONSTR. TYPE: IA
FULLY SPRINKLERED
BUILDING B2
MULTI-FAMILY/RETAIL
2343 INNOVATION CENTER DRIVE
FFE 357.00
GAR. FFE 317.00
HEIGHT 150' (13 STORIES W/ELEVATOR)
GFA 340,500 SF (345 UNITS, MULTI-FAM)
GFA 40,000 SF (RETAIL)
FOOTPRINT 30,625 SF
USE GROUP R-2, A-2, A-3, M
CONSTR. TYPE: IA
FULLY SPRINKLERED
FUTURE METRO PAVILION
(BY OTHERS)
FF=249.19 (248.50 NAVD 88)
METRO PLAZA
(BY OTHERS)
METRO PLAZA EXTENDED
CARTA WAY
URBAN COLLECTOR/PUBLIC R/W VARIES)
25 MPH POSTED / 30 MPH DESIGN
INNOVATION CENTER DRIVE
(URBAN COLLECTOR/PUBLIC R/W VARIES)
25 MPH POSTED / 30 MPH DESIGN
PLAZA B2
FFE=357.00
SWIMMING POOL
FUTURE KISS & RIDE
(PROPOSED AND CONSTRUCTED BY OTHERS)
FUTURE BUS STOP
MATCH LINE - SEE SHEET C02.101
MATCH LINE - SEE SHEET C02.104
SEE SHEET C03.305 FOR CONTINUATION
PROP. 12" WATERMAIN ALIGNMENT 'A'
PROP. 10' STORM ESMT
PROP. 10' PRIV. STRM ESMT (INCLUDES PLAZAS B1&B2)
PROP. 10' PRIV. SAN ESMT
PROP. 10' SAN ESMT
PROP. P/L
PROP. R/W
LIMITS OF CLEARING AND GRADING
OVERLAND FLOW PATH
BIORETENTION SYSTEM (PROPOSED AND CONSTRUCTED BY OTHERS) CONNECTS TO STRUCTURE 3G
PROP. PUBLIC ACCESS EASEMENT (COINCIDENT WITH BUILDING FACE)
LIMIT OF UNDERGROUND PARKING GARAGE
FIRE LANE ACCESS, BOLLARDS SEE DETAIL SHEET C02.401
FIRE LANE AGGERS, SEE DETAIL SHEET C02.401
PRIVATE DRIVE IS TO BE PRIVATELY OWNED AND MAINTAINED
STA 21+97 - 21+06
8' CONCRETE SIDEWALK
6' CONCRETE SIDEWALK
PROP. STREET LIGHT SEE TYPICAL ROAD SECTIONS FOR DETAILS (C03.401-C03.405)
ENTRANCE ONLY
(DRY STANDPIPE)
CONNECTION TO FAIRFAX COUNTY PARKING GARAGE (BY OTHERS) TEMPORARY 2' BOV PROPOSED WITH THIS SITE PLAN
CONNECTION FROM FAIRFAX COUNTY PARKING GARAGE (BY OTHERS)
EX. INLET TO BE RELOCATED TO PROPOSED CURB LINE. NEW MANHOLE POSITIONED ALONG EXISTING PIPE ALIGNMENT
APPROX. LOCATION OF FUTURE TRAFFIC SIGNAL (TYP.)
APPROX. LIMITS OF NEW PAVEMENT FOR WIDENING
PAVEMENT MARKINGS TO REMAIN UNTIL THE INSTALLATION OF FUTURE TRAFFIC SIGNALS
REMOVE EX. BOV CONNECT TO EX. WM TP REQUIRED
EX. R/W (LIMITED ACCESS EASEMENT NORTH OF SUNRISE VALLEY DRIVE)
MATCH EX. ELEV. OF CURB&GUTTER
RF-2-23-12' BRACKET-35' HEIGHT (TYP. OF 7 ALONG NORTH SIDE OF SUNRISE VALLEY DRIVE)
RF-2-23-16' BRACKET - 35' HEIGHT HPSV (TYP. OF 7 ALONG SOUTH SIDE OF SUNRISE VALLEY DRIVE)
2' X 2' STREET LIGHT EASEMENT (TYP.)
15' LENGTH OF CG-7 CURB FOR WMATA MAINTENANCE ACCESS CONCRETE PAVING FROM CURB TO SIDEWALK
PROP.CONSTRUCTION ESMT
EX. GRADING & TEMP. CONST. ESMT DB 13416 PG 591
EX. PROPERTY LINE
FUTURE FH BY METRO
15' METRO CLEAR ZONE (NO ABOVE GRADE OBSTRUCTIONS PERMITTED)
MH COVER BEHIND CURB
6" PVC CONNECTION BY FUT. METRO TO STRC. 5B
PROP. 18" RCP TO CONNECT TO EXISTING INLET BASE STRUCTURE
CONCRETE PAVEMENT FOR BUS STOP. THE CURB, SIDEWALK, AND BUS SHELTERS ARE BY OTHERS.
LED-100W-14' BRACKET- 35' HEIGHT GE EVOLVE/MEDIUM (TYP. OF 12 ALONG CARTA WAY)
PROP.CONSTRUCTION ESMT (COINCIDENT WITH GARAGE WALL)
FUTURE 8" WATERMAIN 'M' PROPOSED WITH METRO. LOCATION AND PROFILE COORDINATED TO VERIFY ADEQUATE COVER AND AVOID CONFLICTS
8" X 6" WET TAP 1-6" VALVE (RESTR.) SERVES BUILDING B2
CONCRETE PAVEMENT FOR BUS STOP. THE CURB, SIDEWALK, AND BUS SHELTERS ARE BY OTHERS.
GRASS SWALE
8" X 4" WET TAP 4" VALVE (RESTR.) SERVES FUTURE FAIRFAX COUNTY PARKING GARAGE
FUTURE 8" WATERMAIN BY METRO
FUTURE 8" SANITARY BY METRO
4" WATER SERVICE
OVERLAND FLOW PATH
1-12" X 12" TEE
3-12" VALVE
6" FIRE LINE
6" X 3" TEE
1-6" VALVE (RESTR.)
1-3" VALVE (RESTR.)
2" DOM. WATER (INSIDE METER)
1-12" X 6" CROSS
1-12" VALVE
1-6" VALVE (RESTR.)
12" X 6" CROSS (FROM W/M B)
1-6" VALVE (RESTR.)
6" FIRE LINE
6" X 3" TEE
1-3" VALVE (RESTR.)
4-3" VALVE (RESTR.)
12" X 8" CROSS
1-12" X 8" CROSS (FROM W/M B)
1-6" VALVE (RESTR.)
6" FIRE LINE
6" X 3" TEE
1-3" VALVE (RESTR.)
4-3" VALVE (RESTR.)
1-12" X 8" CROSS
1-12" VALVE
12" X 6" CROSS (FROM W/M B)
1-6" VALVE (RESTR.)
6" FIRE LINE
6" X 3" TEE
1-3" VALVE (RESTR.)
4-3" VALVE (RESTR.)
2" DOM. WATER (INSIDE METER)
8" X 6" TEE (FROM W/M M)
6" FIRE LINE
1-6" VALVE (RESTR.)
PROP. 10' PRIV. ESMT
12" STRM PVC @ 2.00%
INV.=340.74
PROP. 10' PRIV. STRM ESMT
6" SAN LATERAL
INV.=337.13
PROP. 10' PRIV. SAN ESMT
12" X 6" TEE (FROM W/M A)
6" FIRE LINE
1-6" VALVE (RESTR.)
PROP. 10' PRIV. STRM ESMT
6" SAN LATERAL
INV.=340.80
PROP. 10' PRIV. SAN ESMT
15" STRM PVC @ 2.08%
INV.=348.06
PROP. 10' PRIV. STRM ESMT
(INCLUDES PLAZAS B1&B2)
PROP. 15" STORM ESMT
PROP. 10' STORM ESMT
PROP. 12' STORM ESMT
PROP. 18" STORM ESMT
PROP. 10' STORM ESMT
PROP. 12" STORM ESMT
PROP. 10' STORM ESMT
PROP. 10' SAN ESMT
PROP. 10' SAN ESMT
PROP. 10' SAN



UTILITY PLAN NOTES

THIS SHEET IS INTENDED TO SHOW PROPOSED GEOMETRIC AND UTILITY DESIGN INFORMATION FOR THE SITE.

1. REFER TO SECTION C03-ROAD DESIGN FOR ROAD DESIGN AND GRADING INFORMATION OF SUNRISE VALLEY DRIVE, CARTA WAY, INNOVATION CENTER DRIVE, MAGNA WAY, AND KING JOHNS WAY.
2. REFER TO SHEET C03.201 FOR DIMENSIONING OF TURN LANES, TAPER LENGTHS, AND INTERSECTION SPACING.
3. UTILITY STRUCTURES AND LABELS ARE SHOWN ON THE UTILITY PLAN SHEETS FOR CONTEXT, REFER TO SHEETS C02.101-C02.104 FOR UTILITY DESIGN AND GRADING INFORMATION
4. REFER TO SECTION L01-LANDSCAPE FOR SITE HARDSCAPE MATERIALS AND DETAILS.
5. SEE LANDSCAPE SHEETS IN SECTION L01-LANDSCAPE FOR PLAZA DESIGN INFORMATION.
6. ROAD MARKINGS ARE PROVIDED FOR CONTEXT. CONTRACTOR SHALL USE SIGNAGE AND PAVEMENT MARKING PLAN APPROVED BY VDOT FOR CONSTRUCTION.
7. CONSTRUCTION OF PROPOSED TIE-INS TO FUTURE 8" WATER MAIN "M" CONTINGENT UPON APPROVAL OF WATER MAIN "M".
8. EXISTING DRY UTILITY INFRASTRUCTURE (FIBER, CATV, ELECTRIC, GAS) ALONG SUNRISE VALLEY DRIVE IS TO BE RELOCATED UNDER A SEPERATE PLAN THROUGH COORDINATION WITH UTILITY PROVIDERS. TEST PITS ARE IDENTIFIED AT THE CROSSING OF EXISTING UTILITIES AND THE UTILITIES PROPOSED WITH THIS SITE PLAN. CONTRACTOR SHALL COORDINATE WITH THE DRY UTILITY PROVIDERS PRIOR TO CONSTRUCTION.
9. ALL RESIDENTIAL BUILDINGS ARE RECOMMENDED TO HAVE EXTERIOR WALL CONSTRUCTION THAT MEETS A MINIMUM OF STC 39 AND THE ROOF AND EXTERIOR DOORS AND WINDOWS MEET A MINIMUM OF STC 30.

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CHRISTOPHER A. PASTI
Lic. No. 045560
5-26-16
PROFESSIONAL ENGINEER

KEY PLAN

SCALE NORTH

SCALE IN FEET
1" = 30'
1 INCH

VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MCJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

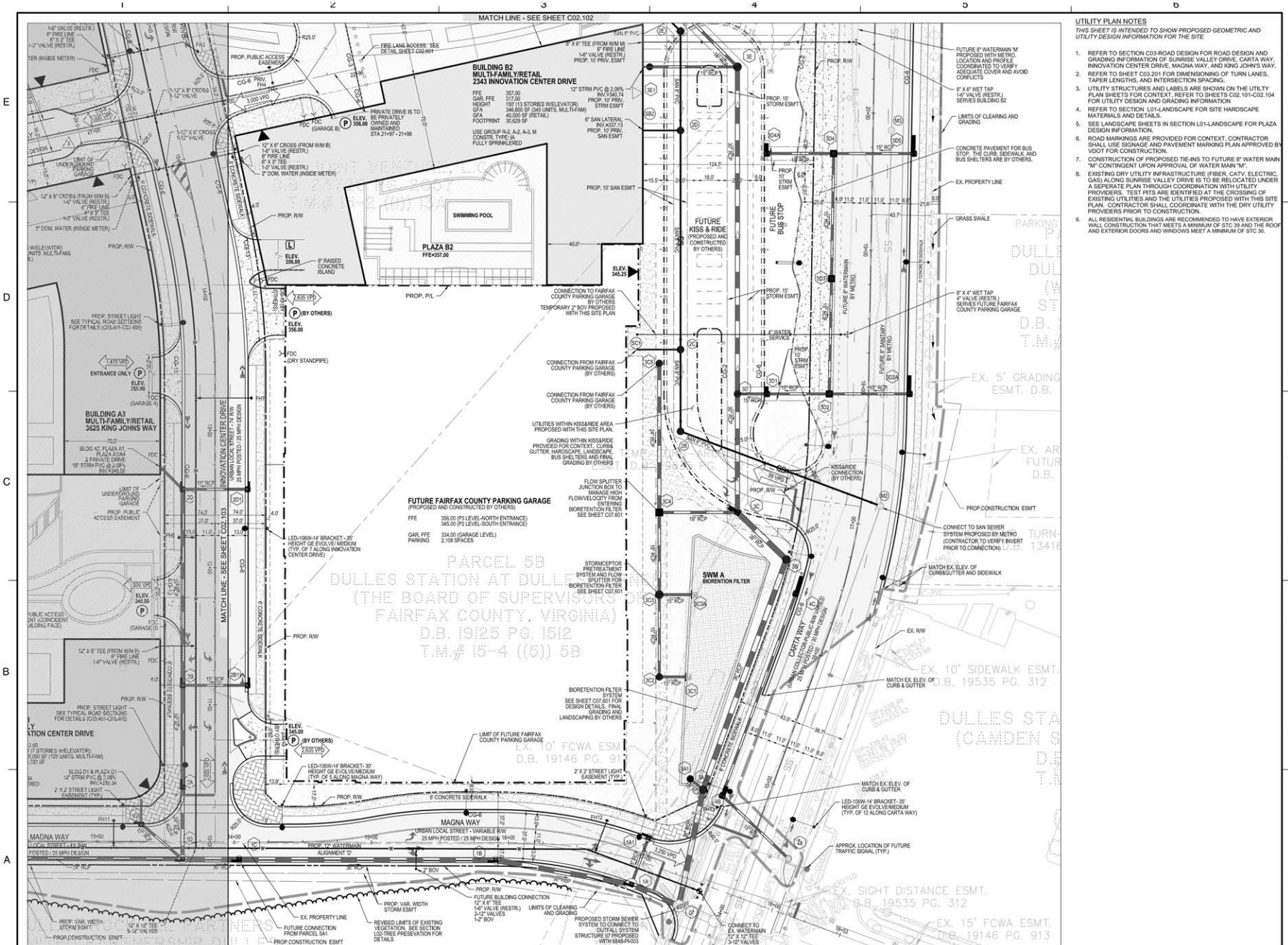
TITLE

GEOMETRIC & UTILITY PLAN

SP NO. #6848-SP-014

C02.103

SECTION NO. C02-SITE PLAN



UTILITY PLAN NOTES

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4. REFER TO SECTION L01-LANDSCAPE FOR SITE HARDSCAPE MATERIALS AND DETAILS.
5. SEE LANDSCAPE SHEETS IN SECTION L01-LANDSCAPE FOR PLAZA DESIGN INFORMATION.
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9. ALL RESIDENTIAL BUILDINGS ARE RECOMMENDED TO HAVE EXTERIOR WALL CONSTRUCTION THAT MEETS A MINIMUM OF STC 39 AND THE ROOF AND EXTERIOR DOORS AND WINDOWS MEET A MINIMUM OF STC 30.

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0118 (FAX)

Issued For Construction
May 26, 2016

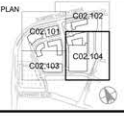
INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CHRISTOPHER A. PRESTI
Lic. No. 045560
5-26-16
PROFESSIONAL ENGINEER

KEY PLAN



SCALE NORTH

SCALE IN FEET
1" = 30'
1 INCH

VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MCJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE

GEOMETRIC & UTILITY PLAN

SP NO. #6848-SP-014

C02.104

SECTION NO. C02-SITE PLAN

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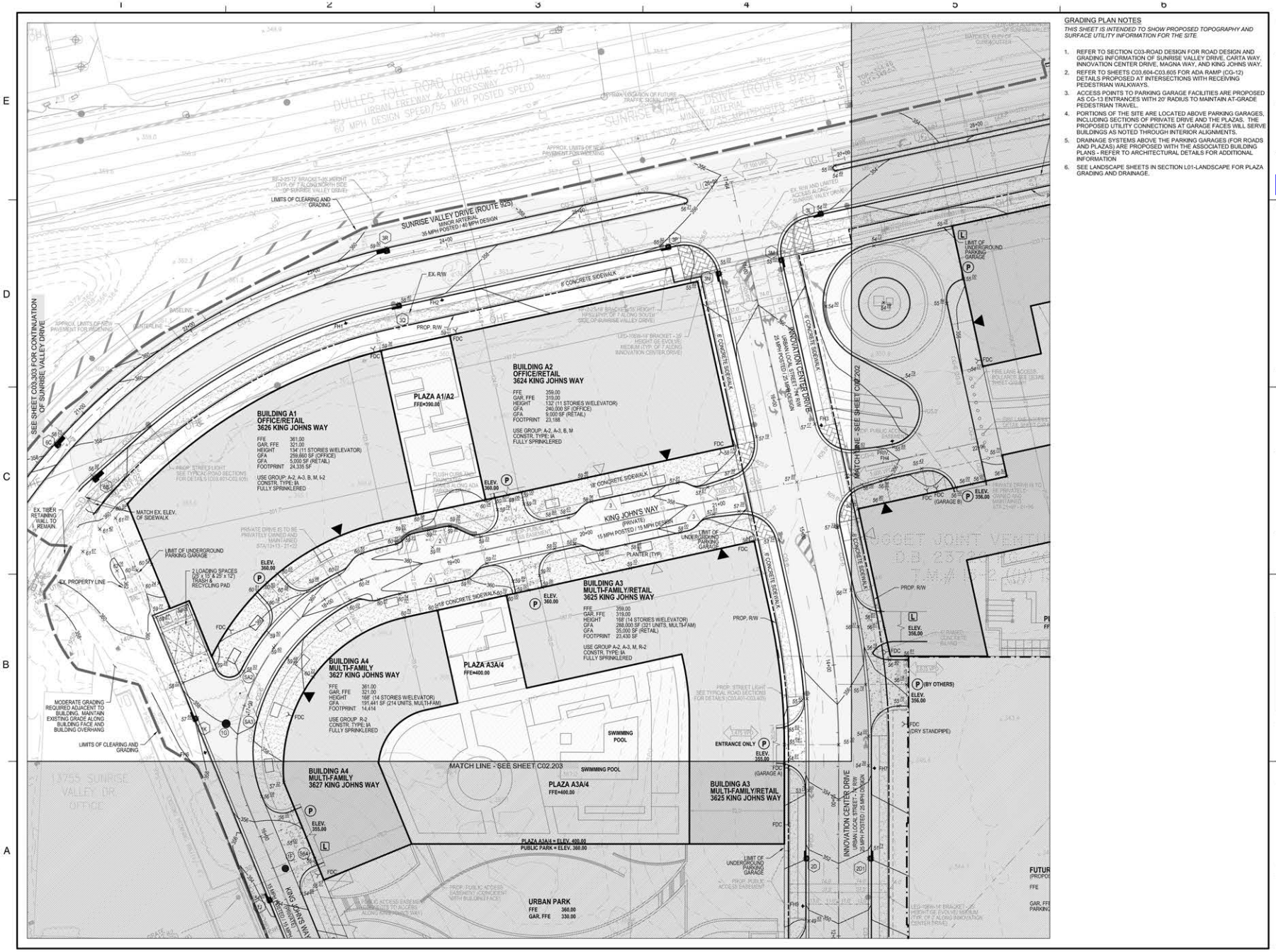


GRADING PLAN NOTES

THIS SHEET IS INTENDED TO SHOW PROPOSED TOPOGRAPHY AND SURFACE UTILITY INFORMATION FOR THE SITE.

1. REFER TO SECTION C03-ROAD DESIGN FOR ROAD DESIGN AND GRADING INFORMATION OF SUNRISE VALLEY DRIVE, CARTA WAY, INNOVATION CENTER DRIVE, MAGNA WAY, AND KING JOHNS WAY.
2. REFER TO SHEETS C03,604-C03,605 FOR ADA RAMP (CG-12) DETAILS PROPOSED AT INTERSECTIONS WITH RECEIVING PEDESTRIAN WAYS/WAYS.
3. ACCESS POINTS TO PARKING GARAGE FACILITIES ARE PROPOSED AS CG-13 ENTRANCES WITH 20' RADIUS TO MAINTAIN AT-GRADE PEDESTRIAN TRAVEL.
4. PORTIONS OF THE SITE ARE LOCATED ABOVE PARKING GARAGES, INCLUDING SECTIONS OF PRIVATE DRIVE AND THE PLAZAS. THE PROPOSED UTILITY CONNECTIONS AT GARAGE FACES WILL SERVE BUILDINGS AS NOTED THROUGH INTERIOR ALIGNMENTS.
5. DRAINAGE SYSTEMS ABOVE THE PARKING GARAGES (FOR ROADS AND PLAZAS) ARE PROPOSED WITH THE ASSOCIATED BUILDING PLANS - REFER TO ARCHITECTURAL DETAILS FOR ADDITIONAL INFORMATION
6. SEE LANDSCAPE SHEETS IN SECTION L01-LANDSCAPE FOR PLAZA GRADING AND DRAINAGE.

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0118 (FAX)

Issued For Construction
May 26, 2016

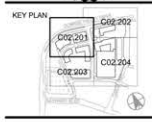
INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CHRISTY A. PRESTI
Lic. No. 045560
5-26-16
PROFESSIONAL ENGINEER

KEY PLAN



SCALE NORTH

SCALE IN FEET
1" = 30'
1 INCH

VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MCJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE
GRADING PLAN

SP NO. #6848-SP-014

C02.201

SECTION NO. C02-SITE PLAN

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GRADING PLAN NOTES

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1. REFER TO SECTION C03-ROAD DESIGN FOR ROAD DESIGN AND GRADING INFORMATION OF SUNRISE VALLEY DRIVE, CARTA WAY, INNOVATION CENTER DRIVE, MAGNA WAY, AND KING JOHNS WAY.
2. REFER TO SHEETS C03.604-C03.605 FOR ADA RAMP (CG-12) DETAILS PROPOSED AT INTERSECTIONS WITH RECEIVING PEDESTRIAN WALKWAYS.
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Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

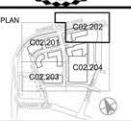
INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CHRISTOPHER A. PFEIFFER
Lic. No. 040597
PROFESSIONAL ENGINEER

KEY PLAN



SCALE NORTH

SCALE IN FEET
1" = 30'
1 INCH

VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MCJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE
GRADING PLAN

SP NO. #6848-SP-014

C02.202

SECTION NO. C02-SITE PLAN

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GRADING PLAN NOTES

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1. REFER TO SECTION C03-ROAD DESIGN FOR ROAD DESIGN AND GRADING INFORMATION OF SUNRISE VALLEY DRIVE, CARTA WAY, INNOVATION CENTER DRIVE, MAGNA WAY, AND KING JOHNS WAY.
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8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

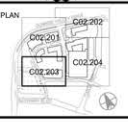
INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CARLA A. PRINCIPE
Lic. No. 040580
PROFESSIONAL ENGINEER

KEY PLAN



SCALE NORTH

SCALE IN FEET
1" = 30'
1 INCH

VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MCJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE
GRADING PLAN

SP NO. #6848-SP-014

C02.203

SECTION NO. C02-SITE PLAN

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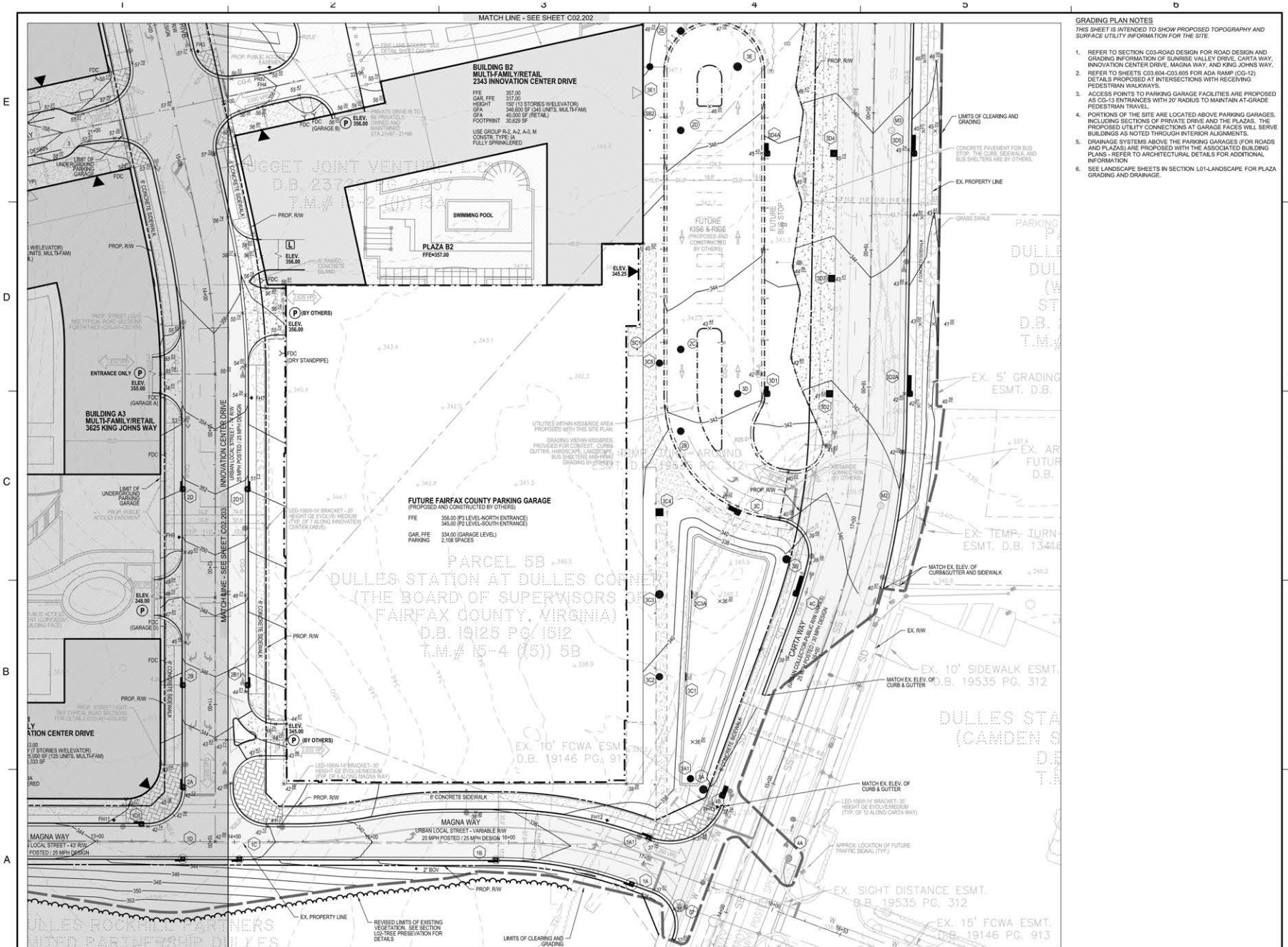

GRADING PLAN NOTES

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Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

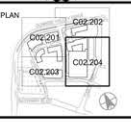
INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CARLA A. PHILLIPS
Lic. No. 040592
PROFESSIONAL ENGINEER

KEY PLAN



SCALE
SCALE IN FEET
1" = 30'
1 INCH

NORTH
VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MCJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE
GRADING PLAN

SP NO. #6848-SP-014

C02.204

SECTION NO. C02-SITE PLAN

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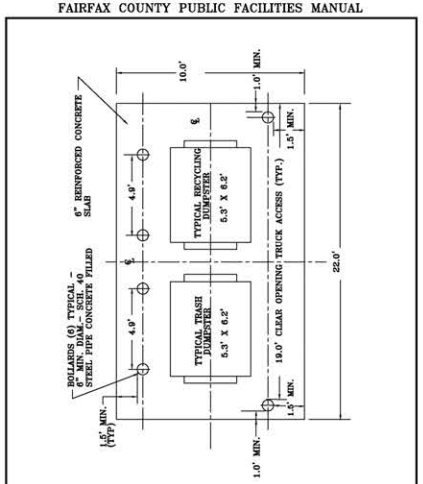
Mon, Nov 09 2015 - 8:49:24am

FAIRFAX COUNTY PUBLIC FACILITIES MANUAL



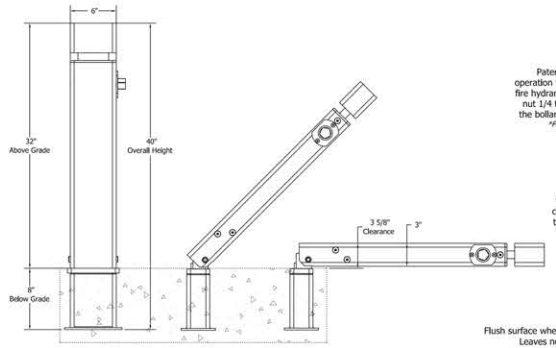
Ref. Sec. 10-0306.6	TYPICAL TRASH AND RECYCLING PAD	PLATE NO.	STD. NO.
Rev. 4-08, 2011 Regstat		33-10	DPW-15

COLLAPSIBLE BOLLARD DETAIL (MCSW-SS1-S MODEL IN RAL 7037 SILVER COLOR WITH P151 STEEL INSERT)
TO BE USED AT FIRE LANE ACCESS POINTS OF FIRE LANE BETWEEN BUILDINGS B1 AND B2.
SEE PLAN LOCATION DETAIL BELOW

MaxiForce™ Collapsible Bollard

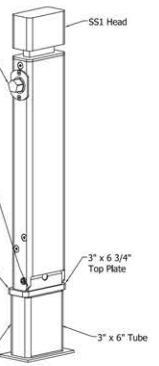
Standard Body, Wrench Operated, Standard Style 1 Head, Simple Base

AHJ approved in many cities / counties / campuses for use in fire lanes per International Fire Code (IFC) 503



Patented fire hydrant wrench operation works with any standard fire hydrant wrench by turning the nut 1/4 turn to unlock and lower the bollard. (1-3/8" nut standard)
**Free standard hydrant wrench included with each order*

Patented break-away design allows instant emergency access without a key. This unit can be pushed over with the bumper of a vehicle.



Flush surface when bollard is removed. Leaves no tripping hazard and won't catch snow plows or other maintenance equipment.

- Low Maintenance / Durable steel construction
- One year warranty / Protected by $1,000,000 in liability insurance
- No complex assembly required in the field
- Custom sizes, options, colors and finishes available upon request
- Finish options available (add code to the end of the model number)
  - Powder coated (PC)
  - Powder coated with DRYZINC primer (PCZ)
  - Hot dip galvanized (G)
  - Hot dip galvanized & powder coated (GPC)
- Reflective tape available upon request

Bollard Assy. Weight	Base Weight
58 lbs	14 lbs
Drawing Rev.	Created
1	11/2/2009

PROPRIETARY AND CONFIDENTIAL

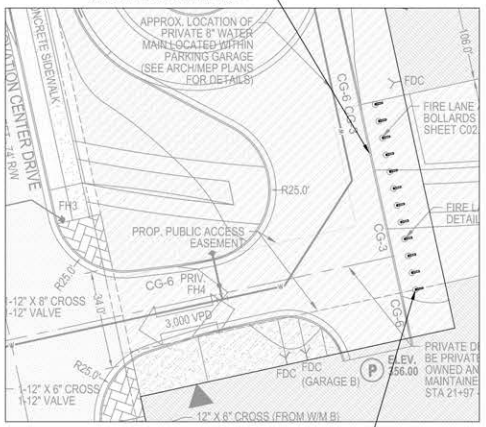
THIS DRAWING CONTAINS PROPRIETARY INFORMATION OF MAXIFORCE BOLLARDS, LLC. ANY USE OF THIS DRAWING OR THE INFORMATION CONTAINED HEREIN FOR OTHER THAN THE PURPOSE FOR WHICH THIS DRAWING IS FURNISHED IS FORBIDDEN.

MaxiForce™ Traffic Control Bollards
Columbia, SC 29170-1784
410-551-0688 (phone) - 410-552-9939 (fax)
www.maxiforcebollards.com - sales@maxiforcebollards.com

Model: MCSW-SS1-S

Size	File Name	MCSW-SS1-S		
C	Scale	NA	DO NOT SCALE DRAWING	Sheet 1 Of 1

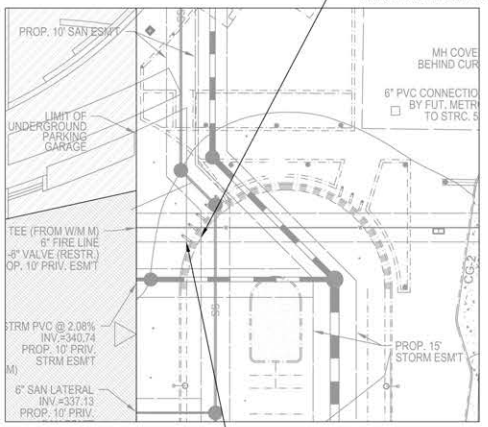
WESTERN BOLLARD LOCATION PLAN DETAIL



12 X MAXI-FORCE COLLAPSIBLE BOLLARD (COLLAPSES IN DIRECTION OF EMERGENCY VEHICLE TRAVEL). TO BE LOCATED 6' CENTER TO CENTER, 5' BEHIND CURB LINE

EASTERN BOLLARD LOCATION PLAN DETAIL (BY OTHERS)

DESIGNED AND CONSTRUCTED BY OTHERS - SHOWN FOR CONTEXT AND CONTINUATION OF EMERGENCY VEHICLE ACCESS ROUTE.



MAXI-FORCE COLLAPSIBLE BOLLARD (COLLAPSES IN DIRECTION OF EMERGENCY VEHICLE TRAVEL). TO BE LOCATED 6' CENTER TO CENTER

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

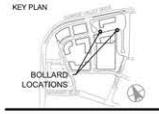
INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CODY A. PINKSTON
Lic. No. 045560
PROFESSIONAL ENGINEER

KEY PLAN



SCALE NORTH

SCALE IN FEET
1" = 20'
1 INCH

VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MLJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE

SITE CONSTRUCTION DETAILS

SP NO. #6848-SP-014

C02.601

SECTION NO. C02-SITE PLAN

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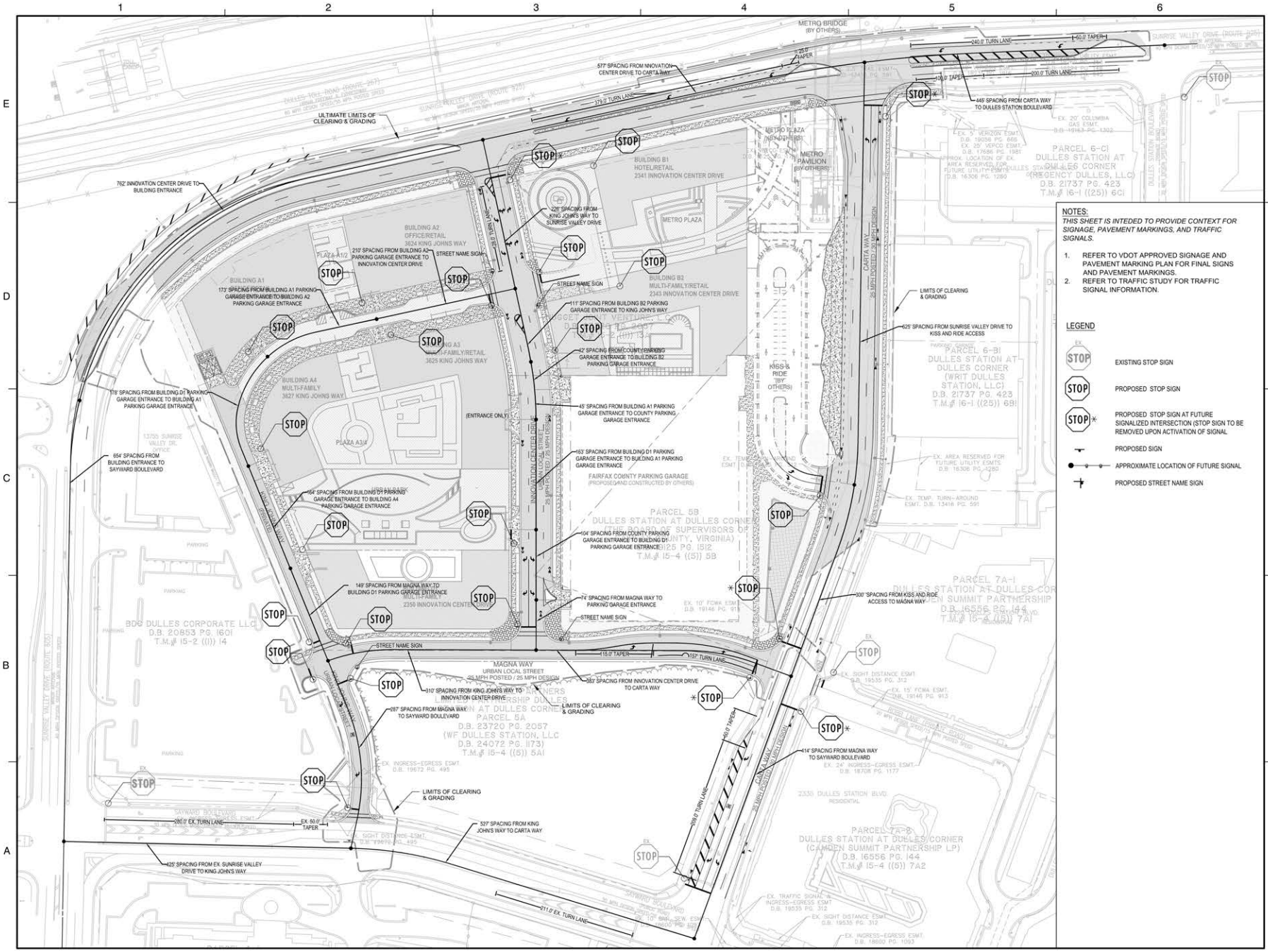
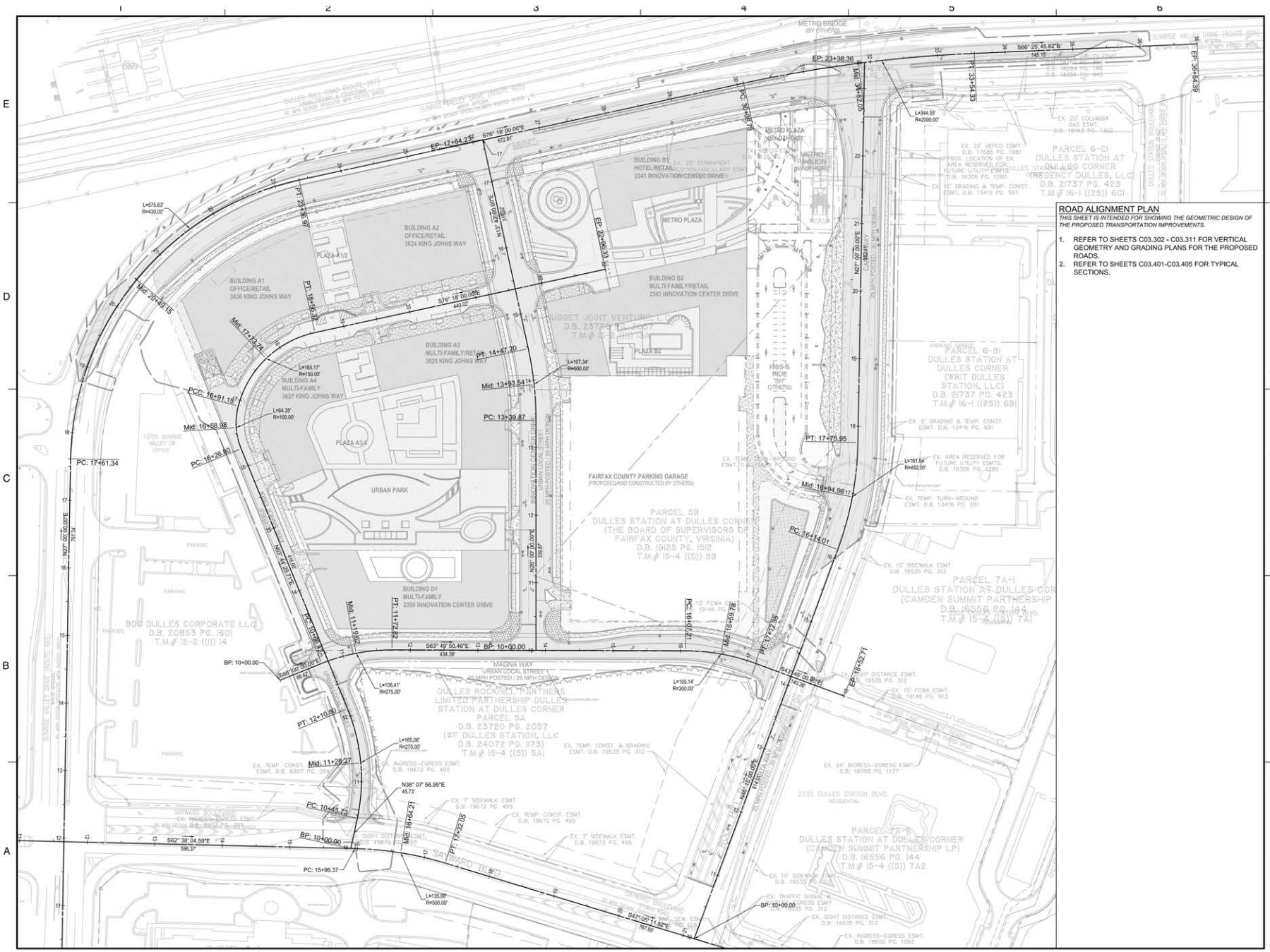
Wed, Oct 14, 2015 - 12:02:21pm


METRO BRIDGE (BY OTHERS)
ULTIMATE LIMITS OF CLEARING & GRADING
762' INNOVATION CENTER DRIVE TO BUILDING ENTRANCE
577' SPACING FROM INNOVATION CENTER DRIVE TO CARTA WAY
379.0' TURN LANE
25.0' TAPER
240.0' TURN LANE
60.0' TAPER
100.0' TAPER
300.0' TURN LANE
445' SPACING FROM CARTA WAY TO DULLES STATION BOULEVARD
SUNRISE VALLEY DRIVE (ROUTE 606)
DULLES TOLL ROAD (ROUTE 267)
BUILDING B1
HOTEL/RETAIL
2341 INNOVATION CENTER DRIVE
METRO PLAZA
METRO PAVILION (BY OTHERS)
BUILDING A2
OFFICE/RETAIL
3624 KING JOHNS WAY
PLAZA A1/2
210' SPACING FROM BUILDING A2 PARKING GARAGE ENTRANCE TO INNOVATION CENTER DRIVE
STREET NAME SIGN
BUILDING A1
173' SPACING FROM BUILDING A1 PARKING GARAGE ENTRANCE TO BUILDING A2 PARKING GARAGE ENTRANCE
226' SPACING FROM KING JOHN'S WAY TO SUNRISE VALLEY DRIVE
BUILDING B2
MULTI-FAMILY/RETAIL
2343 INNOVATION CENTER DRIVE
111' SPACING FROM BUILDING B2 PARKING GARAGE ENTRANCE TO KING JOHN'S WAY
42' SPACING FROM COUNTY PARKING GARAGE ENTRANCE TO BUILDING B2 PARKING GARAGE ENTRANCE
BUILDING A3
MULTI-FAMILY/RETAIL
3625 KING JOHNS WAY
BUILDING A4
MULTI-FAMILY
3627 KING JOHNS WAY
178' SPACING FROM BUILDING D2 PARKING GARAGE ENTRANCE TO BUILDING A1 PARKING GARAGE ENTRANCE
45' SPACING FROM BUILDING A1 PARKING GARAGE ENTRANCE TO COUNTY PARKING GARAGE ENTRANCE
(ENTRANCE ONLY)
654' SPACING FROM BUILDING ENTRANCE TO SAYWARD BOULEVARD
163' SPACING FROM BUILDING D1 PARKING GARAGE ENTRANCE TO BUILDING A1 PARKING GARAGE ENTRANCE
164' SPACING FROM BUILDING D1 PARKING GARAGE ENTRANCE TO BUILDING A4 PARKING GARAGE ENTRANCE
FAIRFAX COUNTY PARKING GARAGE
(PROPOSED AND CONSTRUCTED BY OTHERS)
104' SPACING FROM COUNTY PARKING GARAGE ENTRANCE TO BUILDING D1 PARKING GARAGE ENTRANCE
149' SPACING FROM MAGNA WAY TO BUILDING D1 PARKING GARAGE ENTRANCE
74' SPACING FROM MAGNA WAY TO PARKING GARAGE ENTRANCE
STREET NAME SIGN
MAGNA WAY
URBAN LOCAL STREET
25 MPH POSTED / 25 MPH DESIGN
115.0' TAPER
152' TURN LANE
267' SPACING FROM INNOVATION CENTER DRIVE TO CARTA WAY
310' SPACING FROM KING JOHN'S WAY TO INNOVATION CENTER DRIVE
287' SPACING FROM MAGNA WAY TO SAYWARD BOULEVARD
LIMITS OF CLEARING & GRADING
260.0' TAPER
414' SPACING FROM MAGNA WAY TO SAYWARD BOULEVARD
280.0' EX. TURN LANE
EX. 50.0' TAPER
527' SPACING FROM KING JOHN'S WAY TO CARTA WAY
425' SPACING FROM EX. SUNRISE VALLEY DRIVE TO KING JOHN'S WAY
211.0' EX. TURN LANE
CARTA WAY
25 MPH POSTED / 25 MPH DESIGN
LIMITS OF CLEARING & GRADING
625' SPACING FROM SUNRISE VALLEY DRIVE TO KISS AND RIDE ACCESS
KISS & RIDE (BY OTHERS)
300' SPACING FROM KISS AND RIDE ACCESS TO MAGNA WAY
PARCEL 6-C1
DULLES STATION AT DULLES CORNER
(REGENCY DULLES, LLC)
D.B. 21737 PG. 423
T.M.# 16-1 ((25)) 6C1
PARCEL 6-B1
DULLES STATION AT DULLES CORNER
(WRIT DULLES STATION, LLC)
D.B. 21737 PG. 423
T.M.# 16-1 ((25)) 6B1
PARCEL 5B
DULLES STATION AT DULLES CORNER
(THE BOARD OF SUPERVISORS OF FAIRFAX COUNTY, VIRGINIA)
D.B. 21825 PG. 1512
T.M.# 15-4 ((5)) 5B
PARCEL 7A-1
DULLES STATION AT DULLES CORNER
(CAMDEN SUMMIT PARTNERSHIP LP)
D.B. 16556 PG. 144
T.M.# 15-4 ((5)) 7A1
PARCEL 7A-2
DULLES STATION AT DULLES CORNER
(CAMDEN SUMMIT PARTNERSHIP LP)
D.B. 16556 PG. 144
T.M.# 15-4 ((5)) 7A2
PARCEL 5A
D.B. 23720 PG. 2057
(WF DULLES STATION, LLC
D.B. 24072 PG. 1173)
T.M.# 15-4 ((5)) 5A1
BDG DULLES CORPORATE LLC
D.B. 20853 PG. 1601
T.M.# 15-2 ((1)) 14
2350 INNOVATION CENTER DRIVE
13755 SUNRISE VALLEY DR.
OFFICE
2359 DULLES STATION BLVD.
RESIDENTIAL
FAIRFAX COUNTY PARKWAY (ROUTE 286)
EX. 5' VERIZON ESMT. D.B. 19058 PG. 668
EX. 25' VEPCO ESMT. D.B. 17586 PG. 1981
APPROX. LOCATION OF EX. AREA RESERVED FOR FUTURE UTILITY ESMTS. D.B. 16306 PG. 1280
EX. 20' COLUMBIA GAS ESMT. D.B. 19163 PG. 1302
EX. AREA RESERVED FOR FUTURE UTILITY ESMTS D.B. 16306 PG. 1280
EX. TEMP. TURN-AROUND ESMT. D.B. 13416 PG. 591
EX. 10' FCWA ESMT. D.B. 19146 PG. 913
EX. 15' FCWA ESMT. D.B. 19146 PG. 913
EX. SIGHT DISTANCE ESMT. D.B. 19535 PG. 312
EX. INGRESS-EGRESS ESMT. D.B. 19672 PG. 495
EX. INGRESS-EGRESS ESMT. D.B. 18708 PG. 1177
EX. INGRESS-EGRESS ESMT. D.B. 18600 PG. 1063
EX. TRAFFIC SIGNAL & INGRESS-EGRESS ESMT. D.B. 19535 PG. 312
EX. 10' BRK. SEW. ESMT. D.B. 19535 PG. 312
EX. 24' INGRESS-EGRESS ESMT. D.B. 19535 PG. 312
EX. 24' INGRESS-EGRESS ESMT. D.B. 19672 PG. 495



Dewberry
Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CAP
Lic. No. 048560
5/25/16
PROFESSIONAL ENGINEER

KEY PLAN

SCALE
SCALE IN FEET
1" = 60'
1 INCH

NORTH
VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MCJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE
ALIGNMENT GEOMETRY

SP NO. #6848-SP-014

C03.202

SECTION NO. C03-ROAD DESIGN

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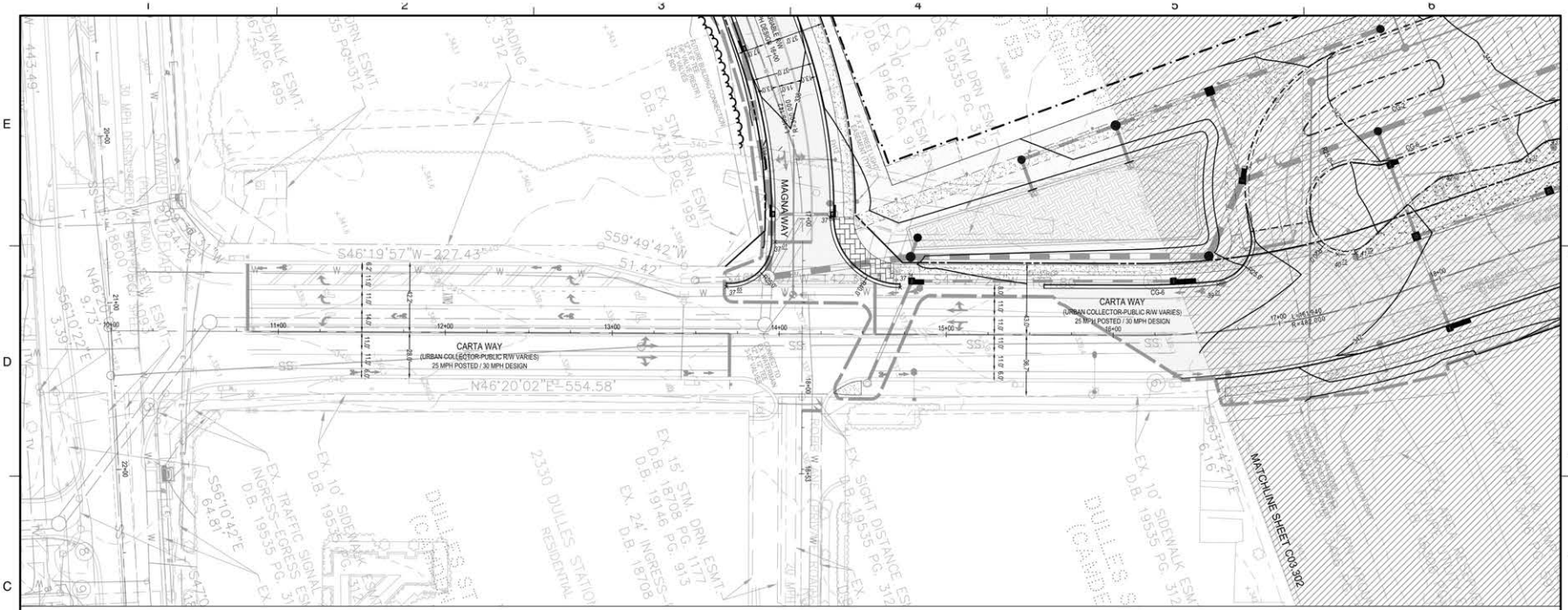
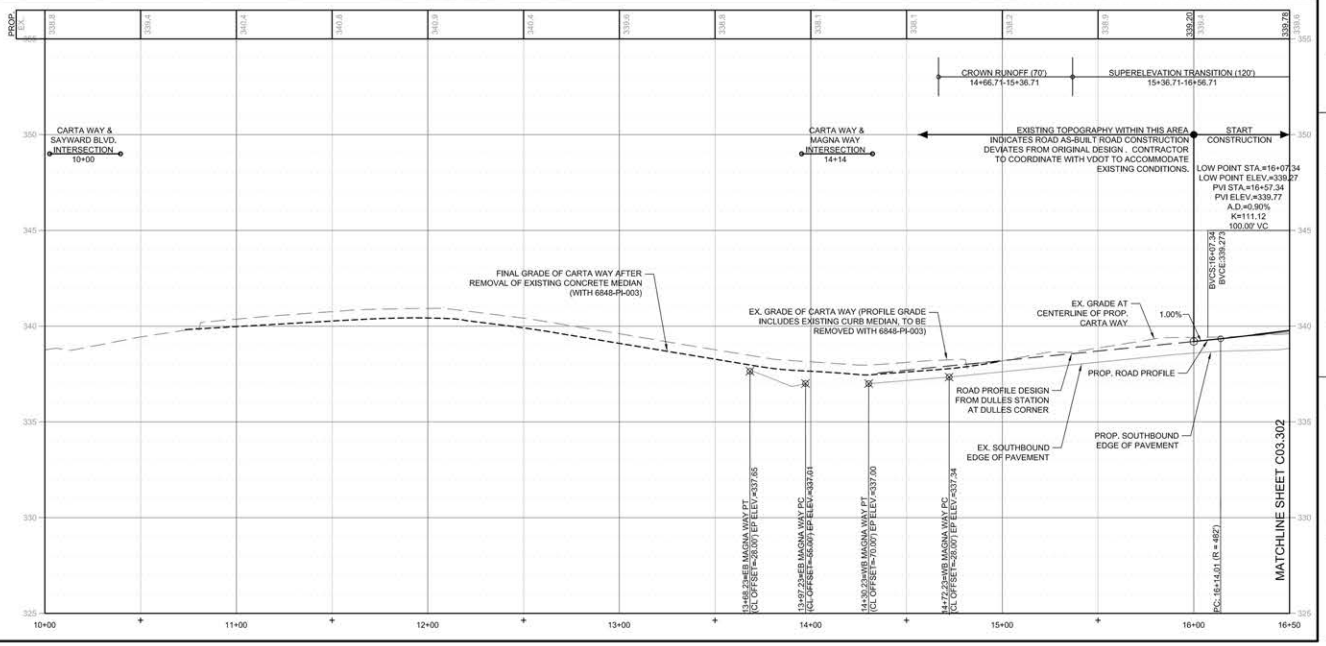


NOTE:
SUPER ELEVATION AND PROFILE GEOMETRY IS BASED ON THE APPROVED ROAD DESIGN OF CARTA WAY (PREVIOUSLY ROCK HILL ROAD) BY URBAN ENGINEERING AND ASSOCIATES (COUNTY PLAN DULLES STATION AT DULLES CORNER BUILDING J)

STATION/OFFSET LEGEND:

- NORTH/EASTBOUND
- SOUTH/WESTBOUND



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Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
Cary A. Pinkard
Lic. No. 048560
2015-10-14
PROFESSIONAL ENGINEER

KEY PLAN

SCALE
H: 1" = 30'
1 INCH
V: 1" = 3'
1 INCH

NORTH
VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

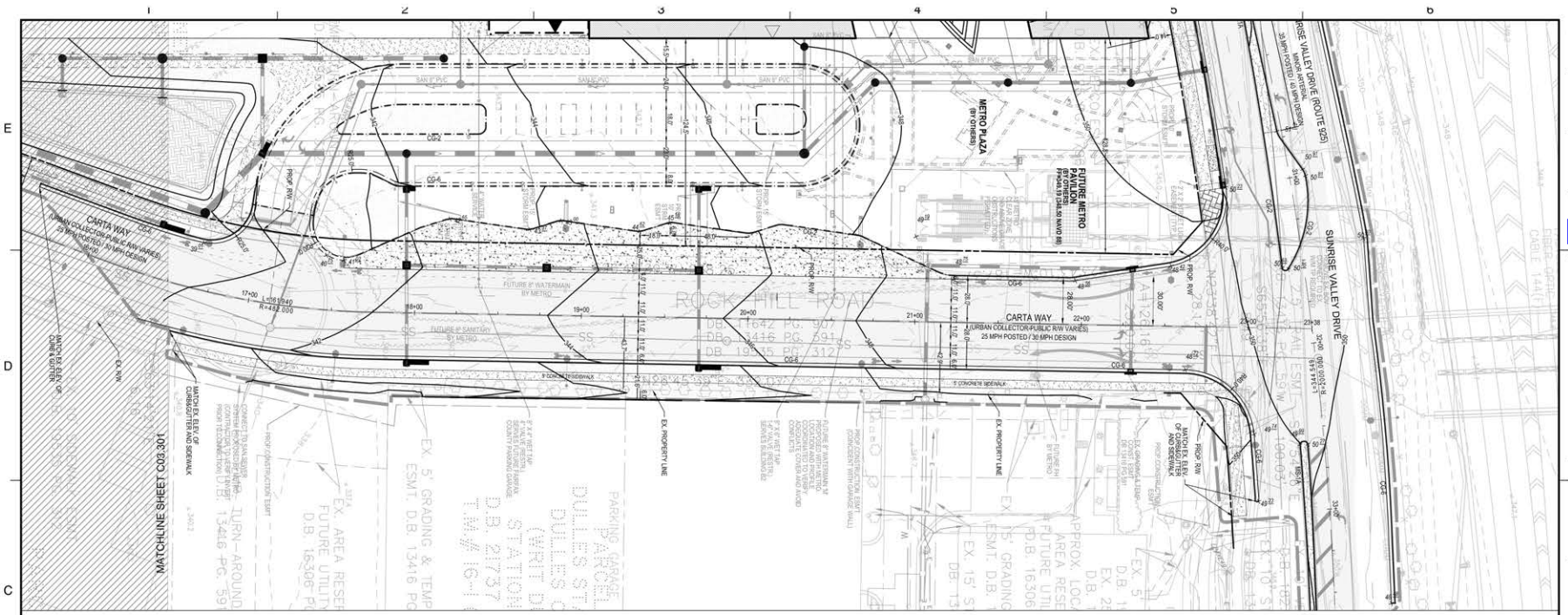
DRAWN BY	MCJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

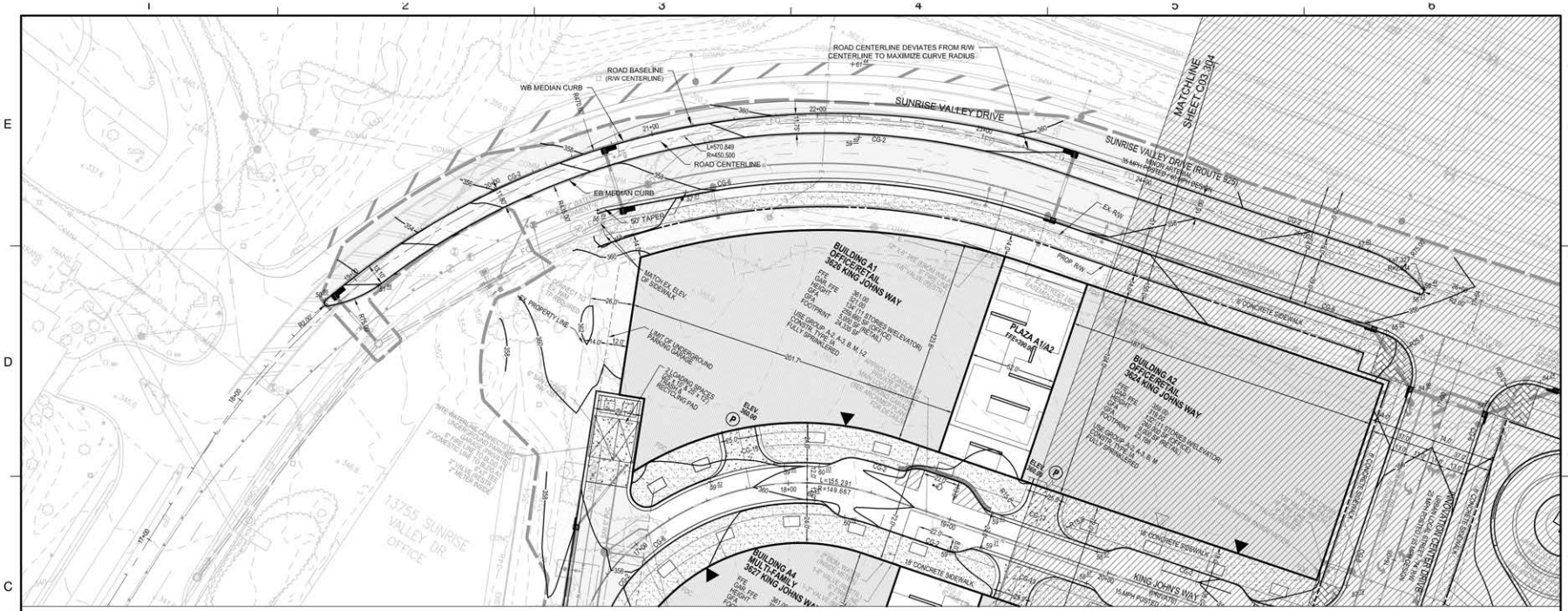
TITLE
ROAD PROFILE
CARTA WAY

SP NO. #6848-SP-014

C03.301

SECTION NO. C03-ROAD DESIGN

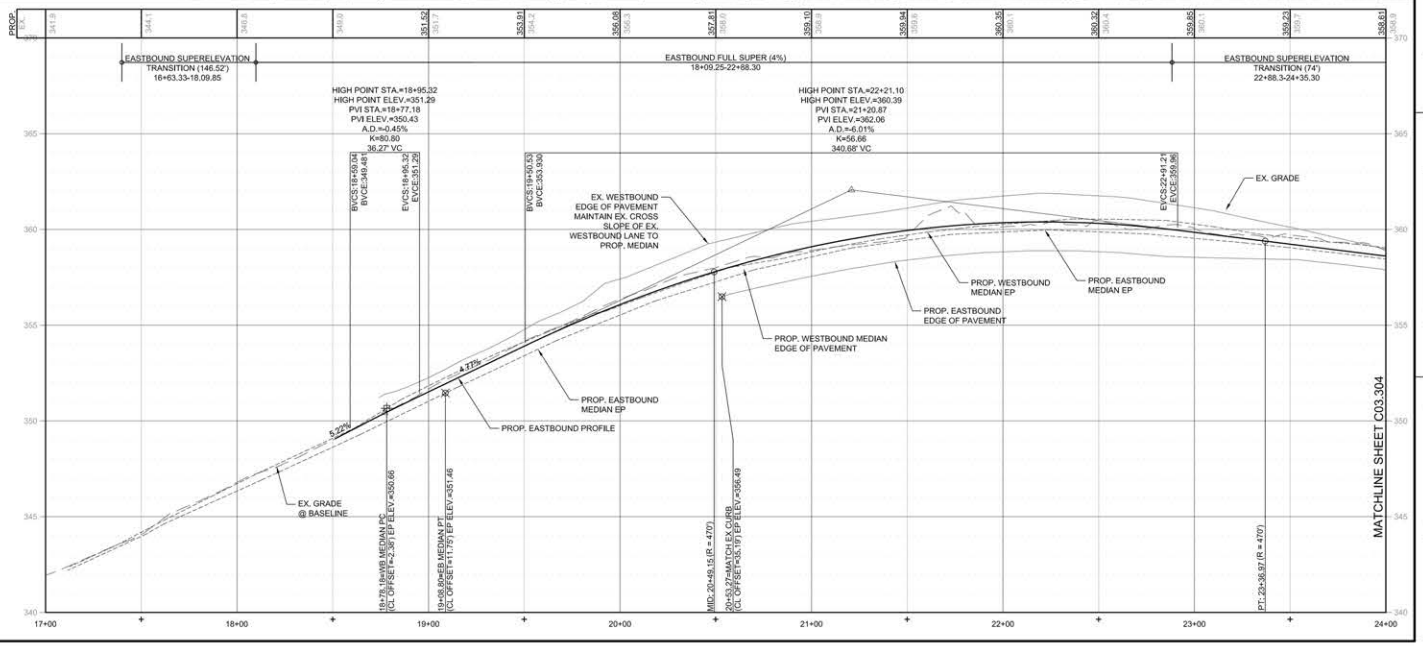

CARTA WAY
(URBAN COLLECTOR-PUBLIC R/W VARIES)
25 MPH POSTED / 30 MPH DESIGN
SUNRISE VALLEY DRIVE
SUNRISE VALLEY DRIVE (ROUTE 625)
35 MPH POSTED (40 MPH DESIGN)
METRO PLAZA (BY OTHERS)
FUTURE METRO PAVILION FFE=349.19 (348.50 NAVD 88)
MATCHLINE SHEET C03.301
EX. PROPERTY LINE
PROP. R/W
ROCK HILL ROAD
DULLES STATION
PARKING GARAGE
FUTURE UTILITY EASEMENT
EX. 5' GRADING & TEMP. ESMT. D.B. 13416 PG. 591
EX. 15' GRADING ESMT. D.B. 16306
APPROX. LOC. OF EX. AREA RESERVED FOR FUTURE UTILITY EASEMENT D.B. 16306
9' CONCRETE SIDEWALK
5' CONCRETE SIDEWALK
TURN-AROUND
PROP. CONSTRUCTION EASEMENT
EX. GRADING & TEMP. ESMT. D.B. 13416 PG. 591
EX. 5' GRADING & TEMP. ESMT. D.B. 13416 PG. 591
EX. 15' GRADING ESMT. D.B. 16306



NOTE:
SUPER ELEVATION AND PROFILE GEOMETRY IS BASED ON THE EXISTING ROAD DESIGN OF SUNRISE VALLEY DRIVE. WESTBOUND SUNRISE VALLEY DRIVE IS TO BE WIDENED BY MAINTAINING EXISTING CROSS SLOPE BASED ON CURRENT WESTBOUND CROSS SLOPE (PRIOR TO ROAD CROWN). EASTBOUND CROSS SLOPE BASED ON SUPER ELEVATION DESIGN INFORMATION SHOWN ON THESE PROFILES. PROFILE IS BASED ON ROAD BASELINE WHICH DEVIATES FROM ROAD CENTERLINE ALONG HORIZONTAL CURVE (19+00 - 23+25)

STATION/OFFSET LEGEND:

- NORTH/EASTBOUND
- SOUTH/WESTBOUND



Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0118 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CHEY A. CAPRETTI
Lic. No. 045560
PROFESSIONAL ENGINEER

KEY PLAN

SCALE
H: 1" = 30'
1 INCH
V: 1" = 3'
1 INCH

NORTH
VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MCJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE
ROAD PROFILE SUNRISE VALLEY DRIVE

SP NO. #6848-SP-014

C03.303

SECTION NO. C03-ROAD DESIGN

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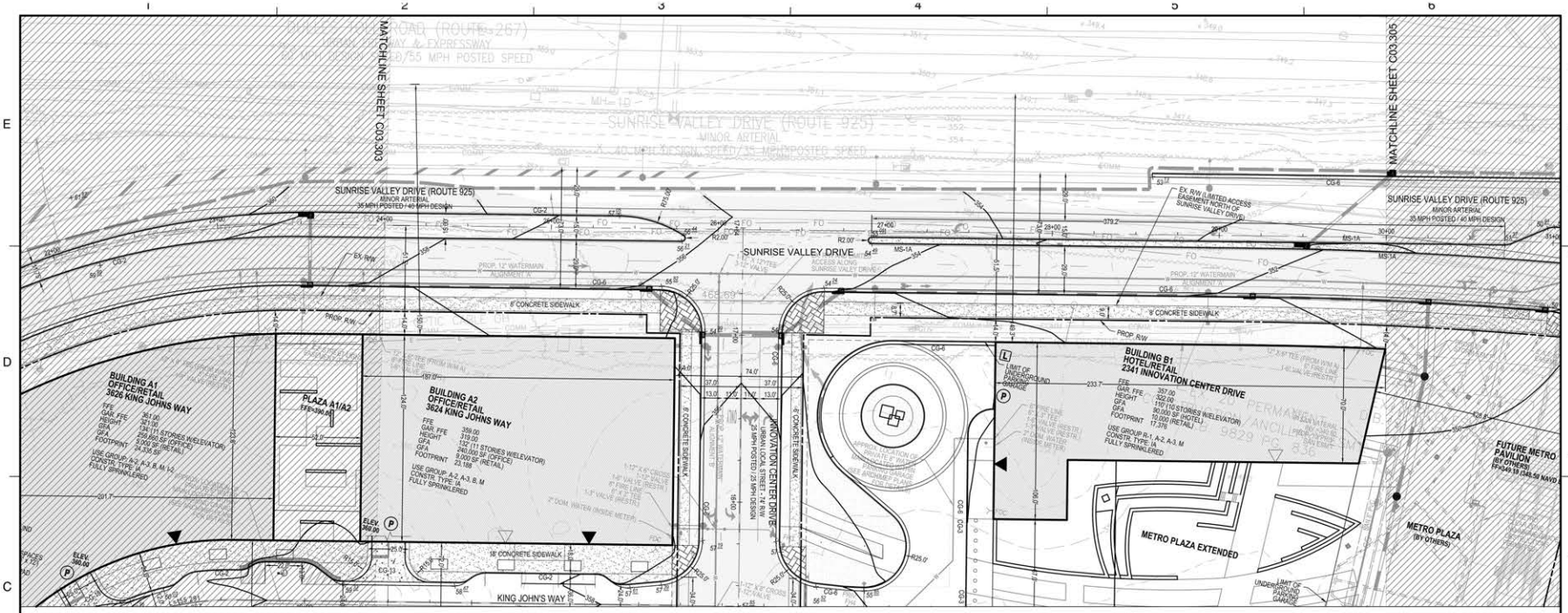
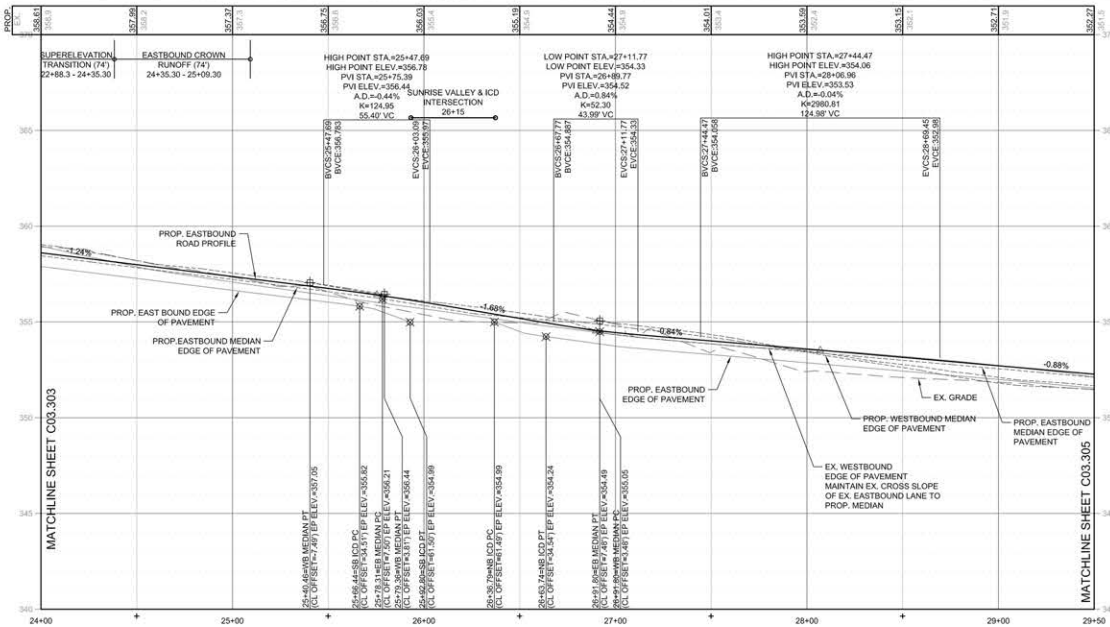


NOTE:
SUPER ELEVATION AND PROFILE GEOMETRY IS BASED ON THE EXISTING ROAD DESIGN OF SUNRISE VALLEY DRIVE. WESTBOUND SUNRISE VALLEY DRIVE IS TO BE WIDENED BY MAINTAINING EXISTING CROSS SLOPE BASED ON CURRENT WESTBOUND CROSS SLOPE (PRIOR TO ROAD CROWN). EASTBOUND CROSS SLOPE BASED ON SUPER ELEVATION DESIGN INFORMATION SHOWN ON THESE PROFILES. PROFILE IS BASED ON ROAD BASELINE WHICH DEVIATES FROM ROAD CENTERLINE ALONG HORIZONTAL CURVE (19+00 - 23+25)

STATION/OFFSET LEGEND:

NORTH/EASTBOUND

SOUTH/WESTBOUND



Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

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May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
Cory A. Pinkett
Lic. No. 043560
PROFESSIONAL ENGINEER

KEY PLAN

SCALE
H: 1" = 30'
1 INCH
V: 1" = 3'
1 INCH

NORTH
VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MCJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE
ROAD PROFILE SUNRISE VALLEY DRIVE

SP NO. #6848-SP-014

C03.304

SECTION NO. C03-ROAD DESIGN

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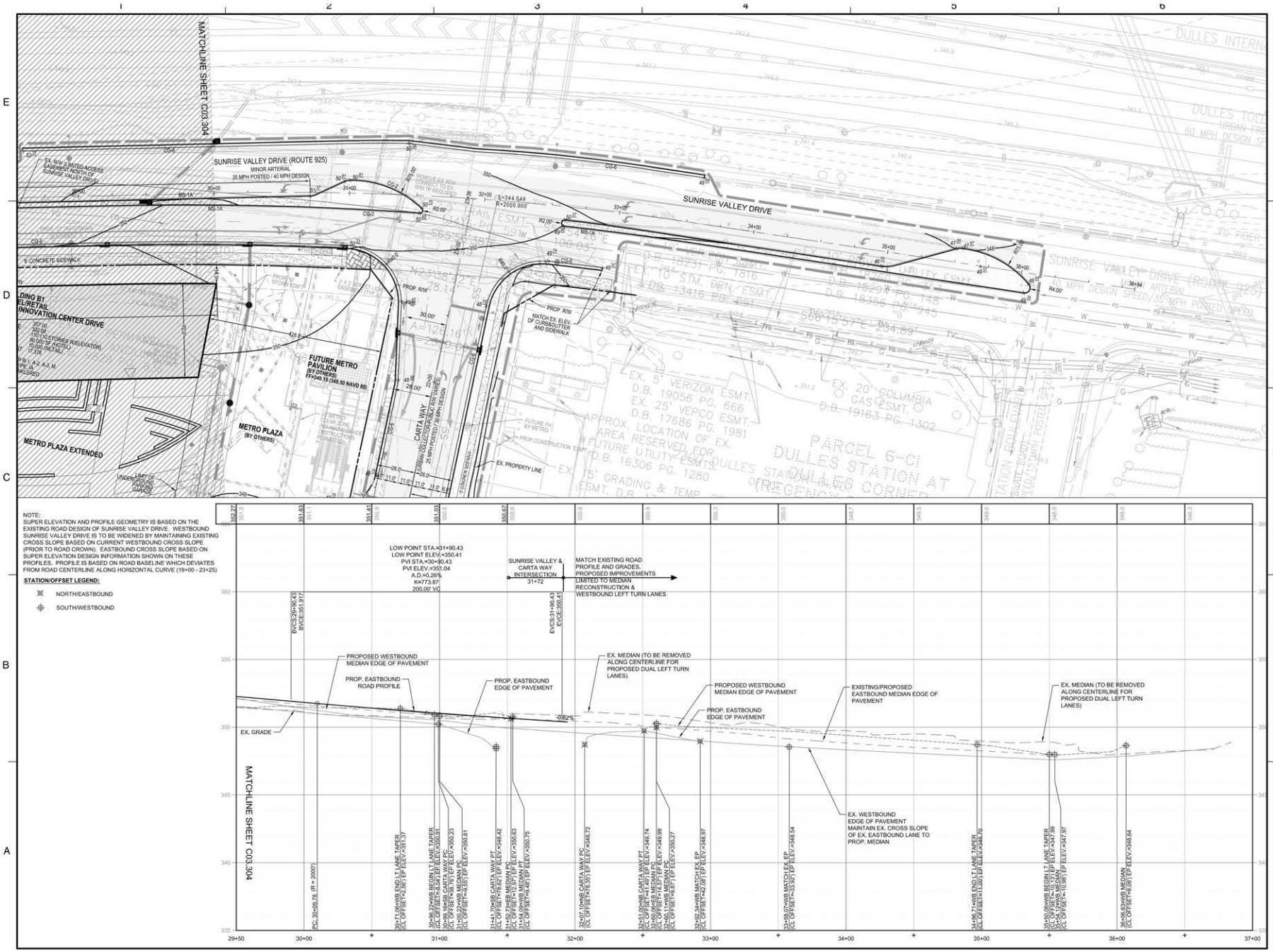

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
Cary A. Pinkard
Lic. No. 043560
PROFESSIONAL ENGINEER

KEY PLAN

SCALE
H: 1" = 30'
1 INCH
V: 1" = 3'
1 INCH

NORTH
VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MLJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE

ROAD PROFILE SUNRISE VALLEY DRIVE

SP NO. #6848-SP-014

C03.305

SECTION NO. C03-ROAD DESIGN

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Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL
COMMONWEALTH OF VIRGINIA
Cory A. Pasquet
Lic. No. 043560
PROFESSIONAL ENGINEER

KEY PLAN

SCALE
H: 1" = 30'
1 INCH
V: 1" = 3'
1 INCH

NORTH
VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MCJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE
ROAD PROFILE
MAGNA WAY

SP NO. #6848-SP-014

C03.306

SECTION NO. C03-ROAD DESIGN

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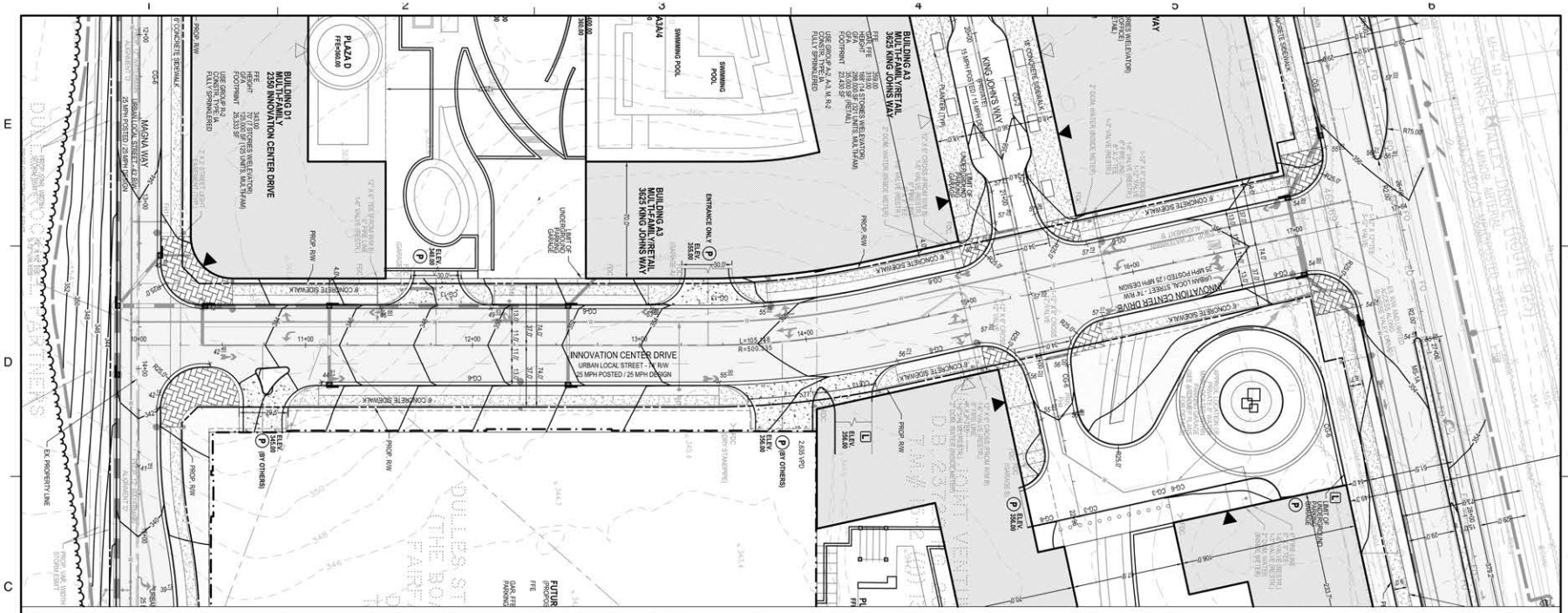

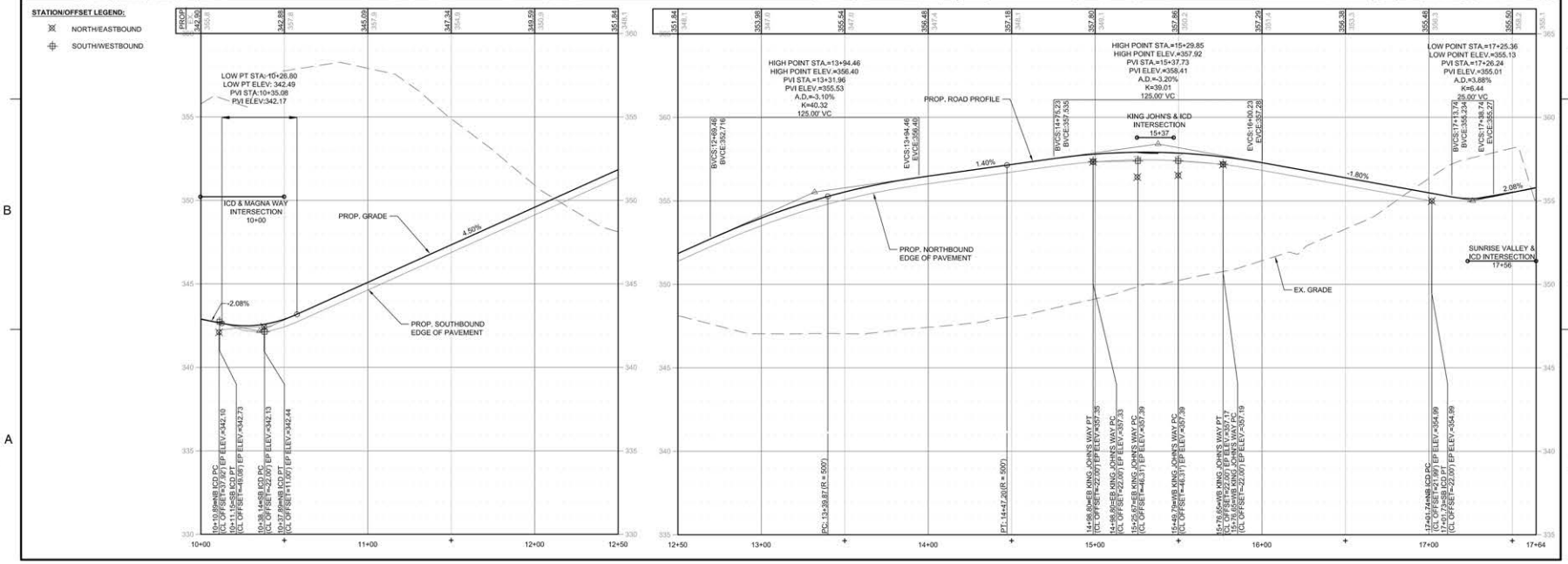

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CAP
Lic. No. 042500
EXPIRES: 4-30-16
PROFESSIONAL ENGINEER

KEY PLAN

SCALE
H: 1" = 30'
1 INCH
V: 1" = 3'
1 INCH

NORTH
VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MCJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE
ROAD PROFILE
INNOVATION CENTER DRIVE

SP NO. #6848-SP-014

C03.307

SECTION NO. C03-ROAD DESIGN

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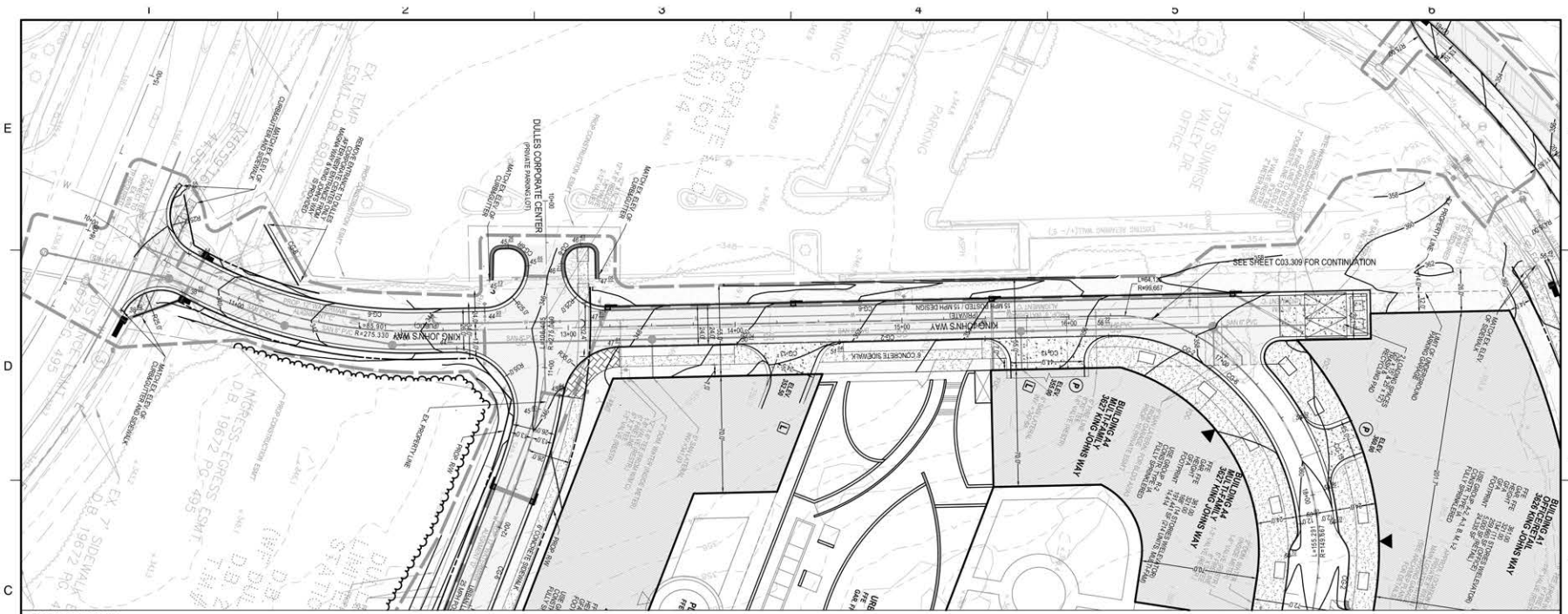
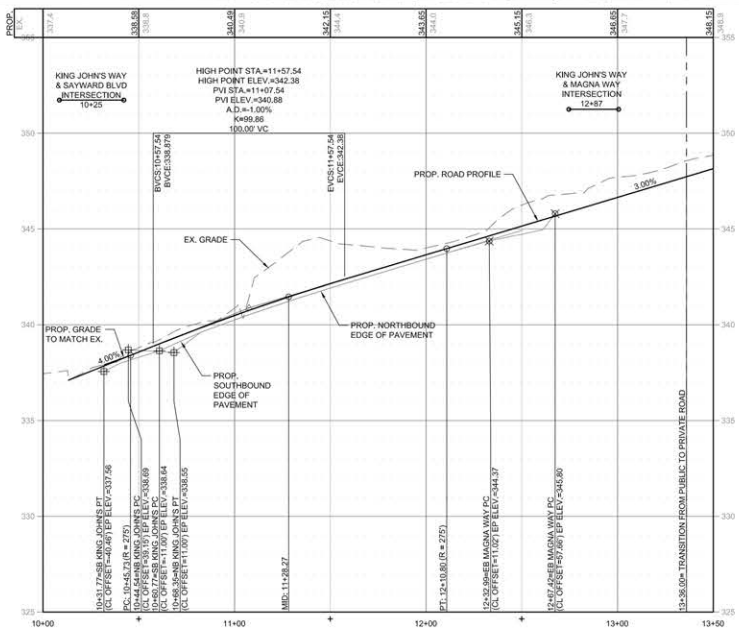
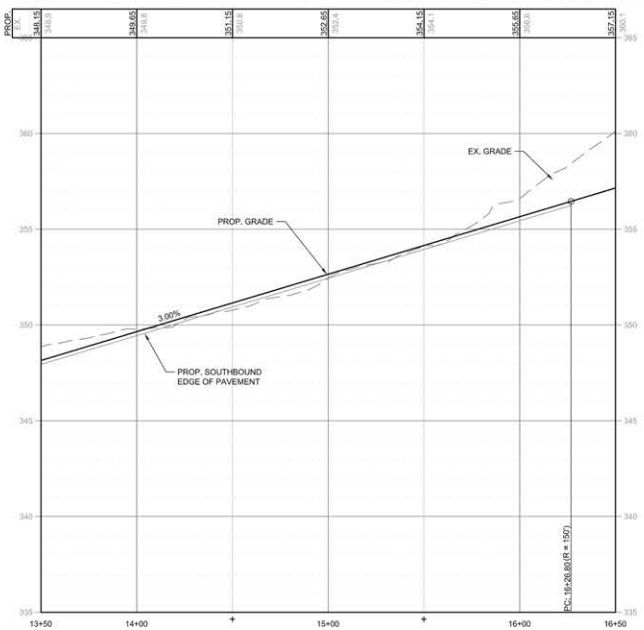


STATION/OFFSET LEGEND:

- NORTH/EASTBOUND
- SOUTH/WESTBOUND





MATCHLINE SHEET C03.309

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CHRISTY A. PERRETTI
Lic. No. 045560
PROFESSIONAL ENGINEER

KEY PLAN

SCALE
H: 1" = 30'
1 INCH
V: 1" = 3'
1 INCH

NORTH
VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MCJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE
ROAD PROFILE
KING JOHN'S WAY

SP NO. #6848-SP-014

C03.308

SECTION NO. C03-ROAD DESIGN

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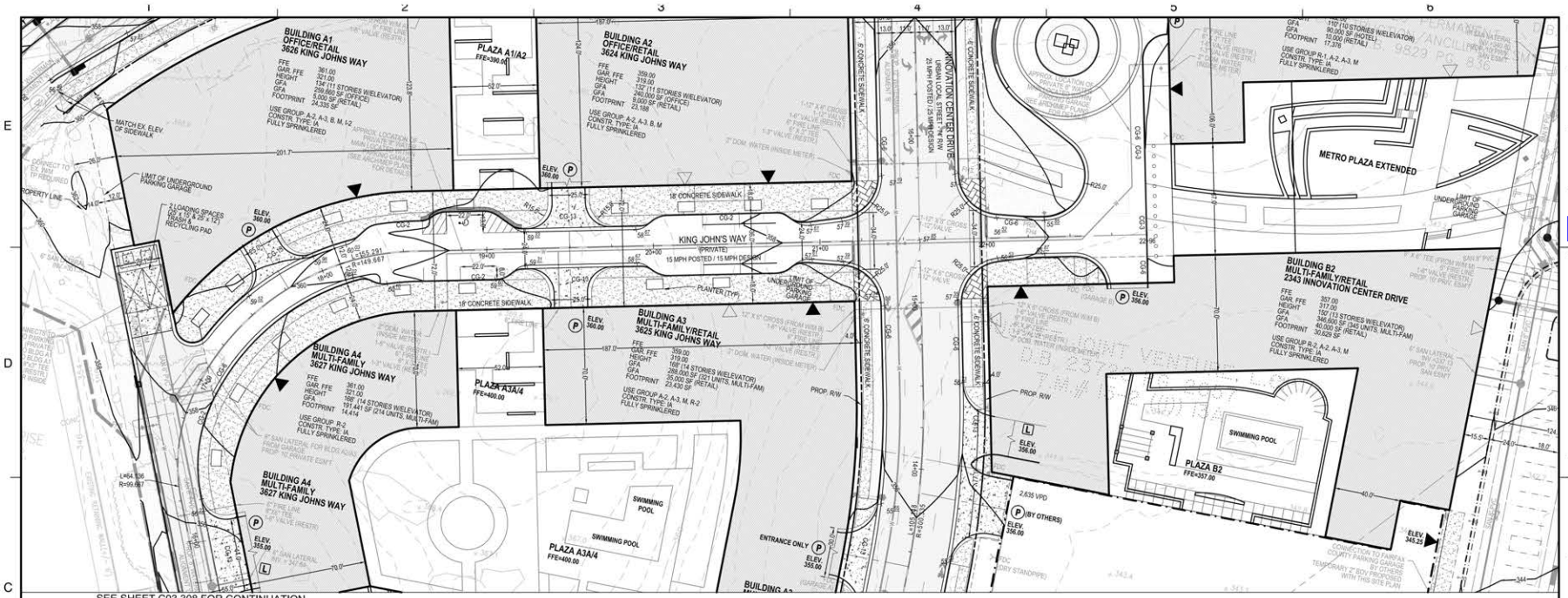
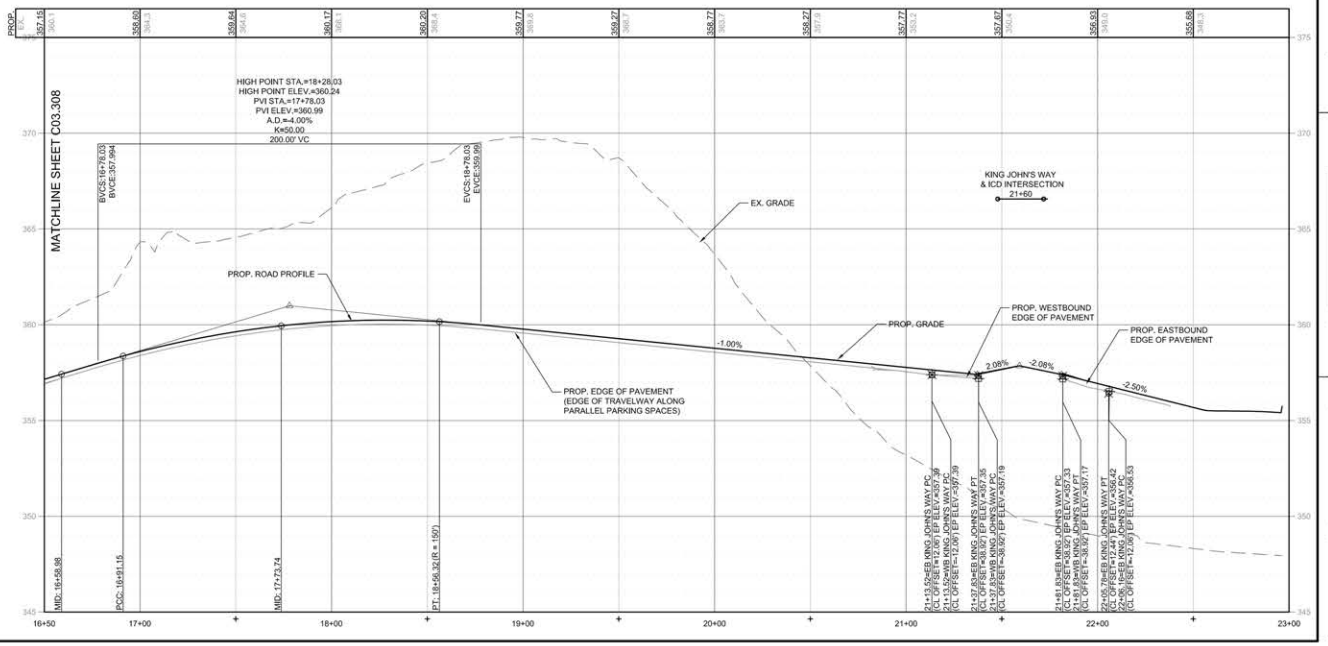


STATION/OFFSET LEGEND:

- NORTH/EASTBOUND
- SOUTH/WESTBOUND



Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0118 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CHRISTOPHER A. PRESTI
Lic. No. 045560
PROFESSIONAL ENGINEER

KEY PLAN

SCALE
H: 1" = 30'
1 INCH
V: 1" = 3'
1 INCH

NORTH
VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MCJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE
ROAD PROFILE
KING JOHN'S WAY

SP NO. #6848-SP-014

C03.309

SECTION NO. C03-ROAD DESIGN

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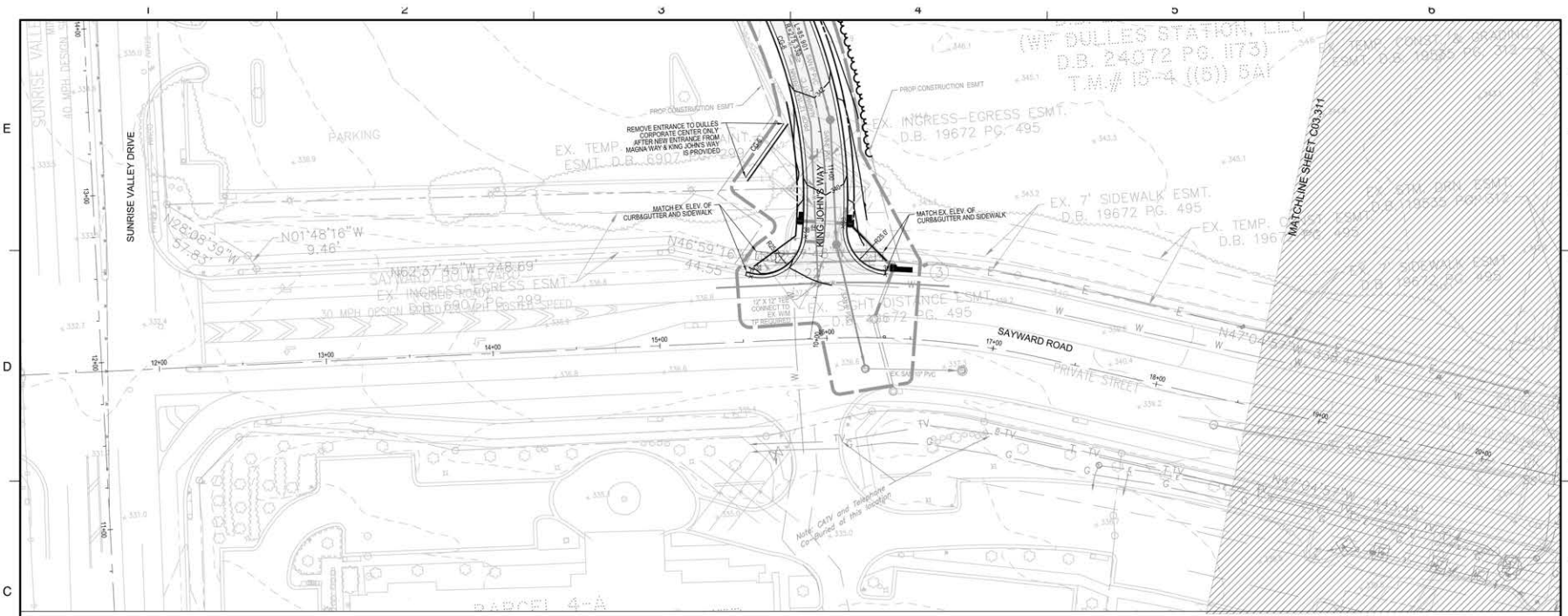
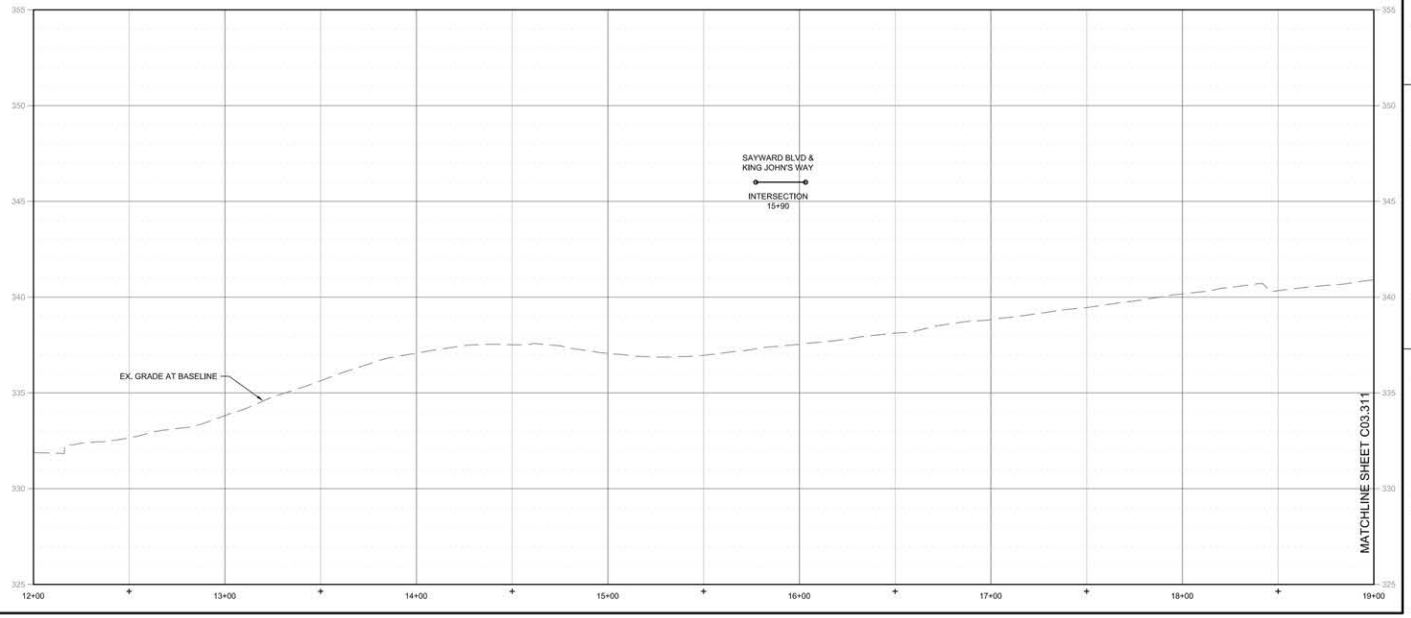


NOTE:
PROFILE FOR EXISTING SAYWARD ROAD IS SHOWN FOR REFERENCE ONLY PER FAIRFAX COUNTY PFM 7-0404.4.



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Wed, Oct 14 2015 - 9:56:20am

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CORY A. PANCOST
Lic. No. 048560
PROFESSIONAL ENGINEER

KEY PLAN

SCALE
H: 1" = 30'
1 INCH
V: 1" = 3'
1 INCH

NORTH
VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

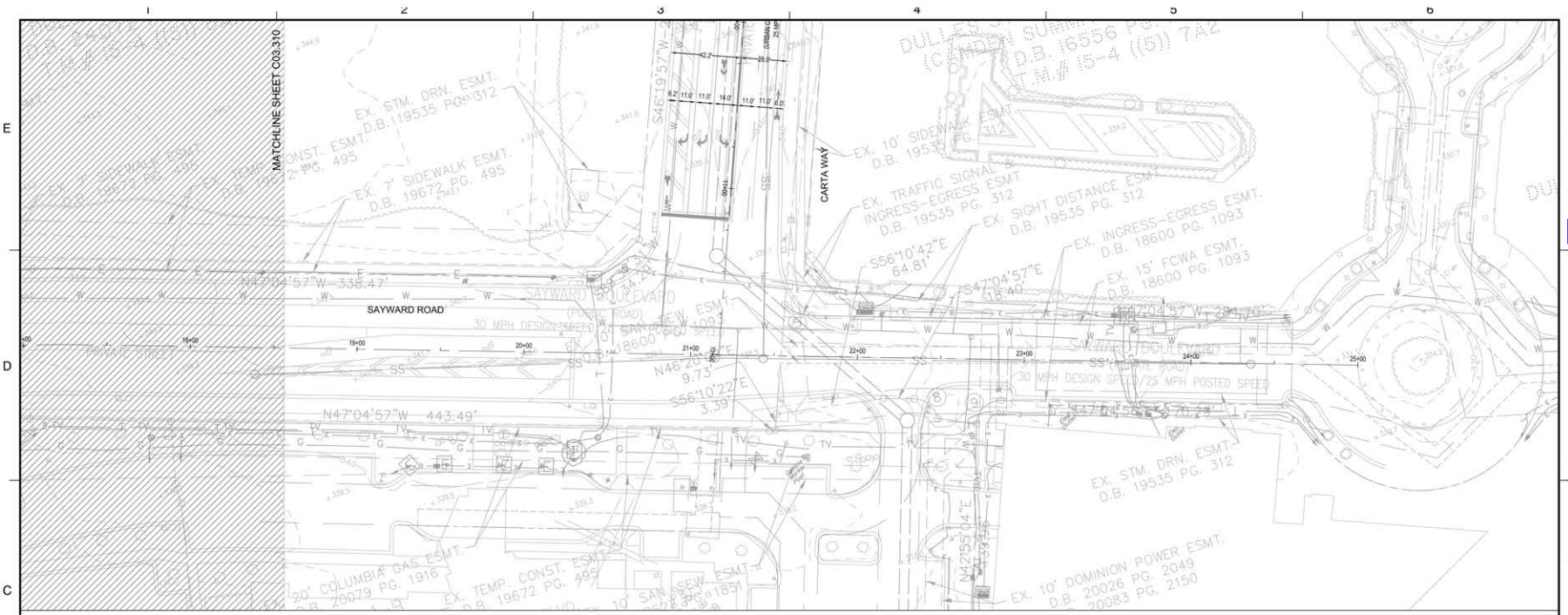
DRAWN BY	MJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE
ROAD PROFILE
SAYWARD BLVD

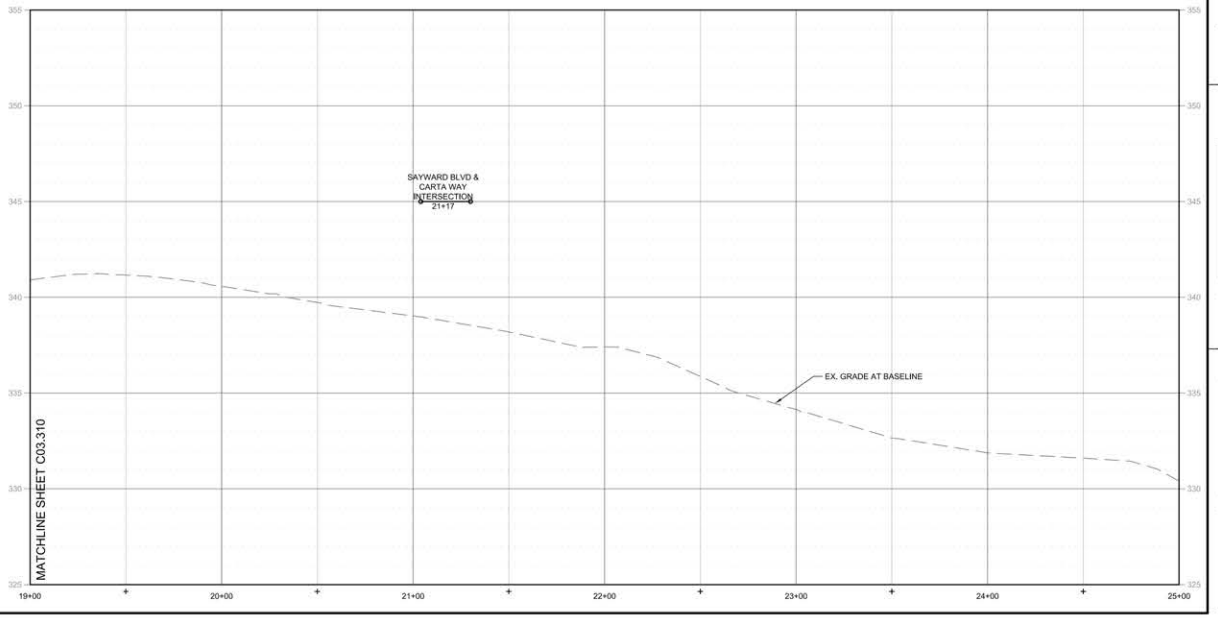
SP NO. #6848-SP-014

C03.310

SECTION NO. C03-ROAD DESIGN



NOTE:
PROFILE FOR EXISTING SAYWARD ROAD IS SHOWN FOR REFERENCE ONLY PER FAIRFAX COUNTY PFM 7-0404.4.



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Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CARY A. PHELPS
Lic. No. 048560
10-14-15
PROFESSIONAL ENGINEER

KEY PLAN

SCALE
H: 1" = 30'
1 INCH
V: 1" = 3'
1 INCH

NORTH
VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

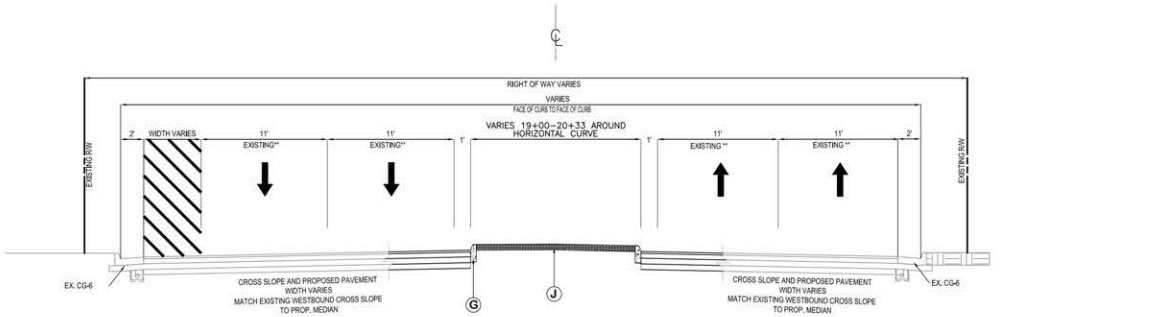
DRAWN BY	MLJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

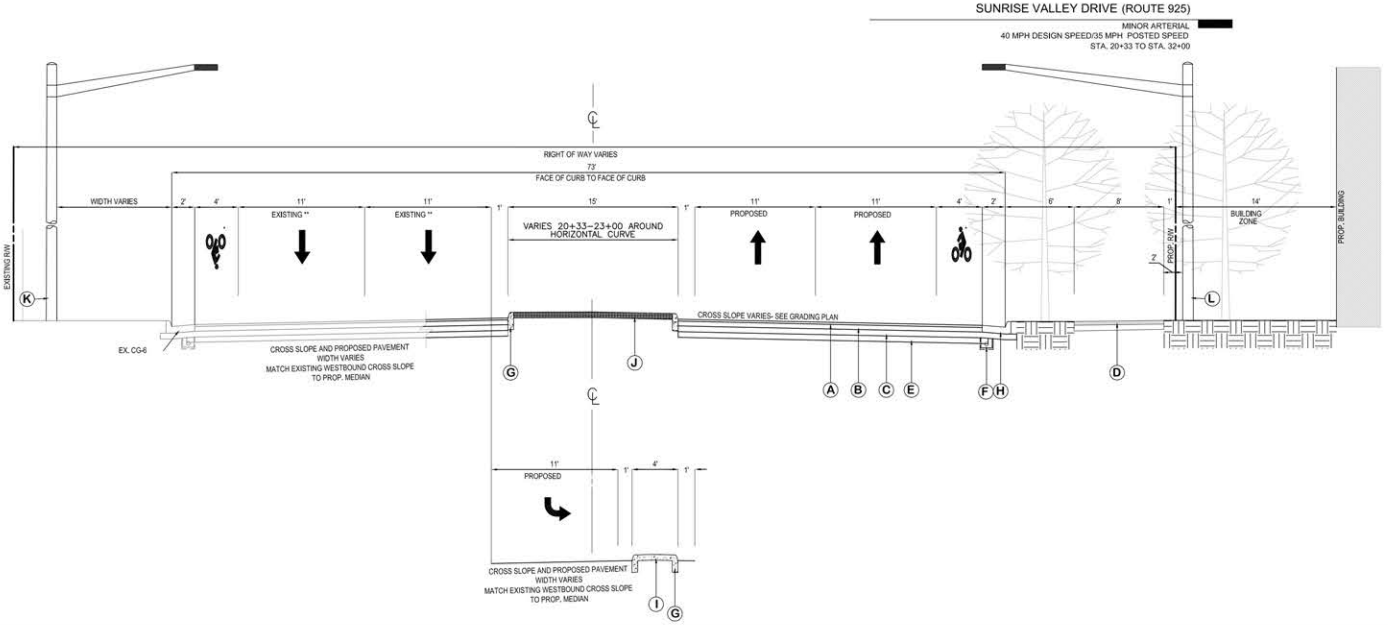
TITLE
ROAD PROFILE
SAYWARD BLVD

SP NO. #6848-SP-014

C03.311

SECTION NO. C03-ROAD DESIGN





LEGEND

- (A) 1.5", TYPE SM-9.5A SURFACE COURSE
- (B) 2.0", TYPE IM-19.0A INTERMEDIATE COURSE
- (C) 3.0", TYPE I BM-25.0 BASE COURSE
- (D) 4" 3000 PSI CONCRETE WITH 4" 21A STONE (UD-3 AS REQUIRED)
- (E) 9.0", TYPE I, No. 21 B AGGREGATE MATERIAL
- (F) UNDERDRAIN, VDOT STD, UD-4
- (G) CURB, CG-2
- (H) CURB AND GUTTER, STD, CG-6
- (I) CONCRETE MEDIAN- VDOT STD MS-1A
- (J) SEEDED GRASS MEDIAN
- (K) STANDARD CONCRETE LIGHT POLE RF-2-23-12 (35')
- (L) STANDARD CONCRETE LIGHT POLE RF-2-23-16 (35')

NOTES

1. VERIFY CBR PRIOR TO CONSTRUCTION.
2. SEE SIGNAGE AND PAVEMENT MARKING PLANS ON SHEET C03.201FOR ADDITIONAL CONTEXT. CONTRACTOR TO USE VDOT APPROVED SIGNAGE AND MARKING PLAN.
3. SEE ROAD PLAN AND PROFILE (SITE PLAN SECTION C03) FOR PROPOSED ROAD CROSS SLOPES AND LIGHT POLE LOCATIONS.
4. SEE ASPHALT PAVEMENT WIDENING DETAILS (VDOT STD. WP-2) ON SHEET C03.602 - ROAD DETAILS .
5. ALL TREES WITHIN R/W SHALL BE PRUNED TO 10' AND PLANTED AT 3' FROM BACK OF CURB

* BIKE LANE WIDTH PROVIDED, SEE SIGNAGE AND PAVEMENT MARKING PLANS .
** MATCH EXISTING PAVEMENT SECTION AND ELEVATIONS - NEW LANE CONFIGURATIONS PROPOSED.

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

KEY PLAN

SCALE NORTH

SCALE IN FEET
1" = 5'
1 INCH

NA
VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MCJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE

TYPICAL ROAD SECTION - SUNRISE VALLEY

SP NO. #6848-SP-014

C03.401

SECTION NO. C03-ROAD DESIGN

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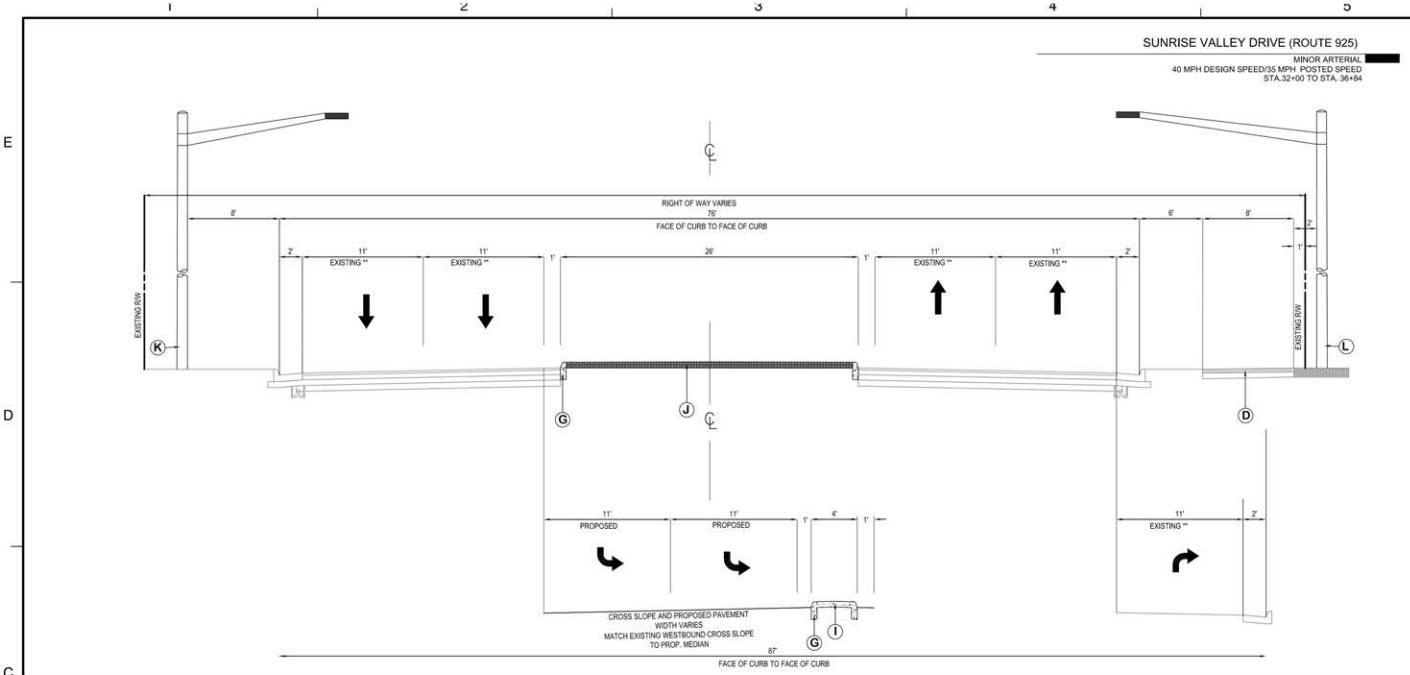

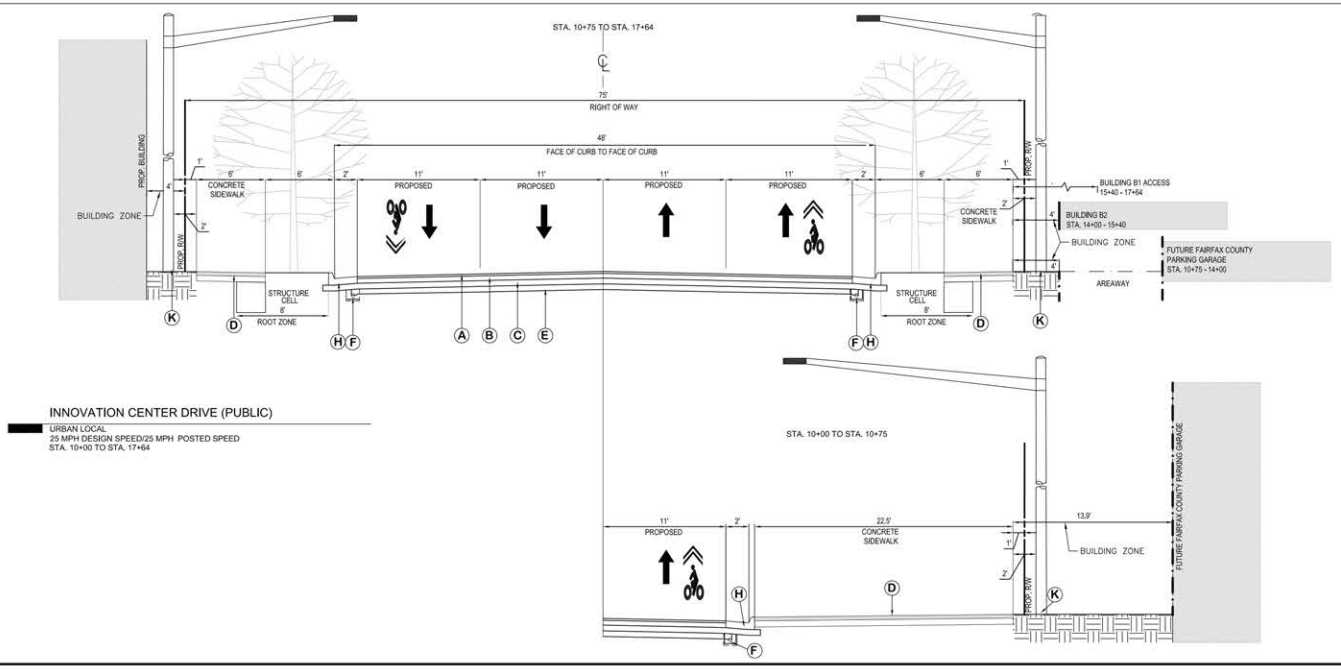

INNOVATION CENTER DRIVE (PUBLIC)

URBAN LOCAL
25 MPH DESIGN SPEED/25 MPH POSTED SPEED
STA. 10+00 TO STA. 17+64

LEGEND

- (A) 1.5", TYPE SM-9.5A SURFACE COURSE
- (B) 3.0", TYPE IM-19.0A INTERMEDIATE COURSE
- (C) 4.0", TYPE I BM-25.0 BASE COURSE
- (D) 4" 3000 PSI CONCRETE WITH 4" 21A STONE (UD-3 AS REQUIRED)
- (E) 9.0", TYPE I, No. 21 B AGGREGATE MATERIAL
- (F) UNDERDRAIN, VDOT STD. UD-4
- (G) CURB, CG-2
- (H) CURB AND GUTTER, STD. CG-6
- (I) CONCRETE MEDIAN- VDOT STD MS-1A
- (J) SEEDED GRASS MEDIAN
- (K) STANDARD CONCRETE LIGHT POLE RF-2-23-12 (35')
- (L) STANDARD CONCRETE LIGHT POLE RF-2-23-16 (35')

NOTES

1. VERIFY CBR PRIOR TO CONSTRUCTION.
2. SEE SIGNAGE AND PAVEMENT MARKING PLANS ON SHEET C03.201FOR ADDITIONAL CONTEXT. CONTRACTOR TO USE VDOT APPROVED SIGNAGE AND MARKING PLAN.
3. SEE ROAD PLAN AND PROFILE (SITE PLAN SECTION C03) FOR PROPOSED ROAD CROSS SLOPES AND LIGHT POLE LOCATIONS.
4. SEE ASPHALT PAVEMENT WIDENING DETAILS (VDOT STD. WP-2) ON SHEET C03.602 - ROAD DETAILS.
5. ALL TREES WITHIN R/W SHALL BE PRUNED TO 10' AND PLANTED AT 3' FROM BACK OF CURB

* BIKE LANE WIDTH PROVIDED, SEE SIGNAGE AND PAVEMENT MARKING PLANS .
** MATCH EXISTING PAVEMENT SECTION AND ELEVATIONS - NEW LANE CONFIGURATIONS PROPOSED.

LEGEND (INNOVATION CENTER DRIVE)

- (A) 1.5", TYPE SM-9.5A SURFACE COURSE
- (B) 3.0", TYPE IM-19.0A INTERMEDIATE COURSE
- (C) 4.0", TYPE I BM-25.0 BASE COURSE
- (D) 4" 3000 PSI CONCRETE WITH 4" 21A STONE (UD-3 AS REQUIRED)
- (E) 7.0", TYPE I, No. 21 B AGGREGATE MATERIAL
- (F) UNDERDRAIN, VDOT STD. UD-4
- (G) CURB, CG-2
- (H) CURB AND GUTTER, STD. CG-6
- (I) CONCRETE MEDIAN- VDOT STD MS-1A
- (J) SEEDED GRASS MEDIAN
- (K) ALUMINUM LIGHT POLE W/ L.E.D. FIXTURE #42209541-14(35')

NOTES

1. VERIFY CBR PRIOR TO CONSTRUCTION.
2. SEE SIGNAGE AND PAVEMENT MARKING PLANS ON SHEET C03.201FOR ADDITIONAL CONTEXT. CONTRACTOR TO USE VDOT APPROVED SIGNAGE AND MARKING PLAN.
3. SEE ROAD PLAN AND PROFILE (SITE PLAN SECTION C03) FOR PROPOSED ROAD CROSS SLOPES AND LIGHT POLE LOCATIONS.
4. SEE ASPHALT PAVEMENT WIDENING DETAILS (VDOT STD. WP-2) ON SHEET C03.602 - ROAD DETAILS.
5. SEE SHEET C03.603 - ROAD DETAILS FOR ALUMINUM LIGHT POLE W/ L.E.D. FIXTURE DETAIL.
6. ALL TREES WITHIN R/W SHALL BE PRUNED TO 10' AND PLANTED AT 3' FROM BACK OF CURB.
7. FOR ROOT ZONE STRUCTURE CELL SEE "LOAD BEARING PLANTER MODULE" DETAIL SHEET L01.702

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

KEY PLAN

SCALE NORTH

SCALE IN FEET
1" = 5'
1 INCH

NA
VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MLJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE

TYPICAL ROAD SECTION - SUNRISE & ICD

SP NO. #6848-SP-014

C03.402

SECTION NO. C03-ROAD DESIGN

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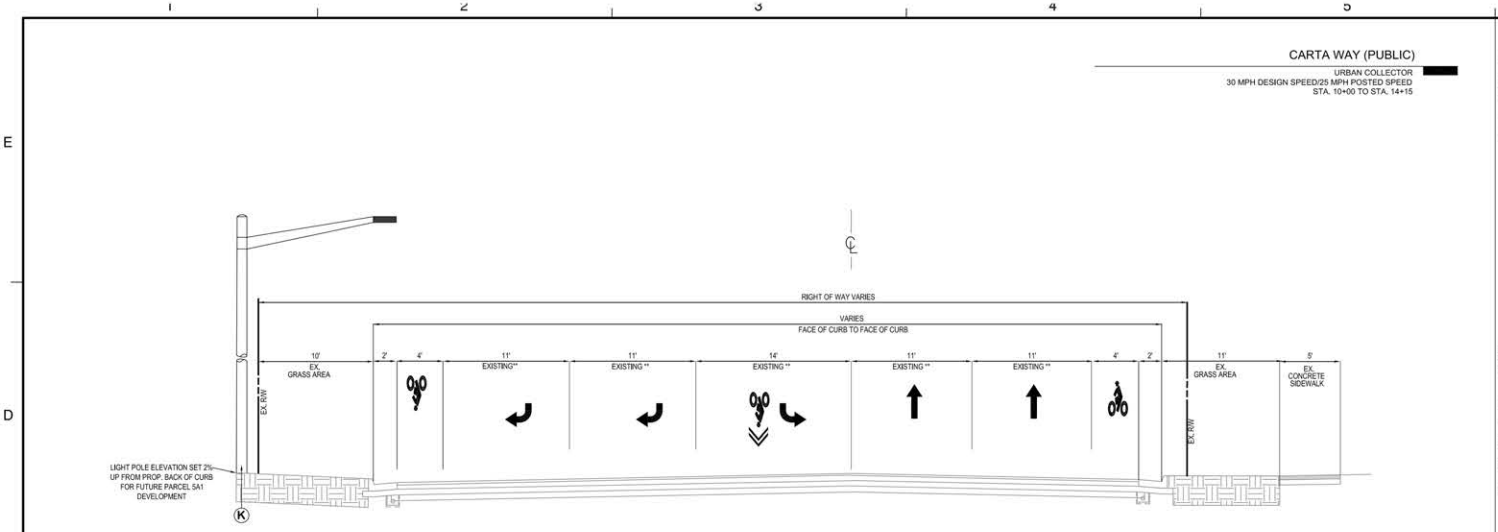

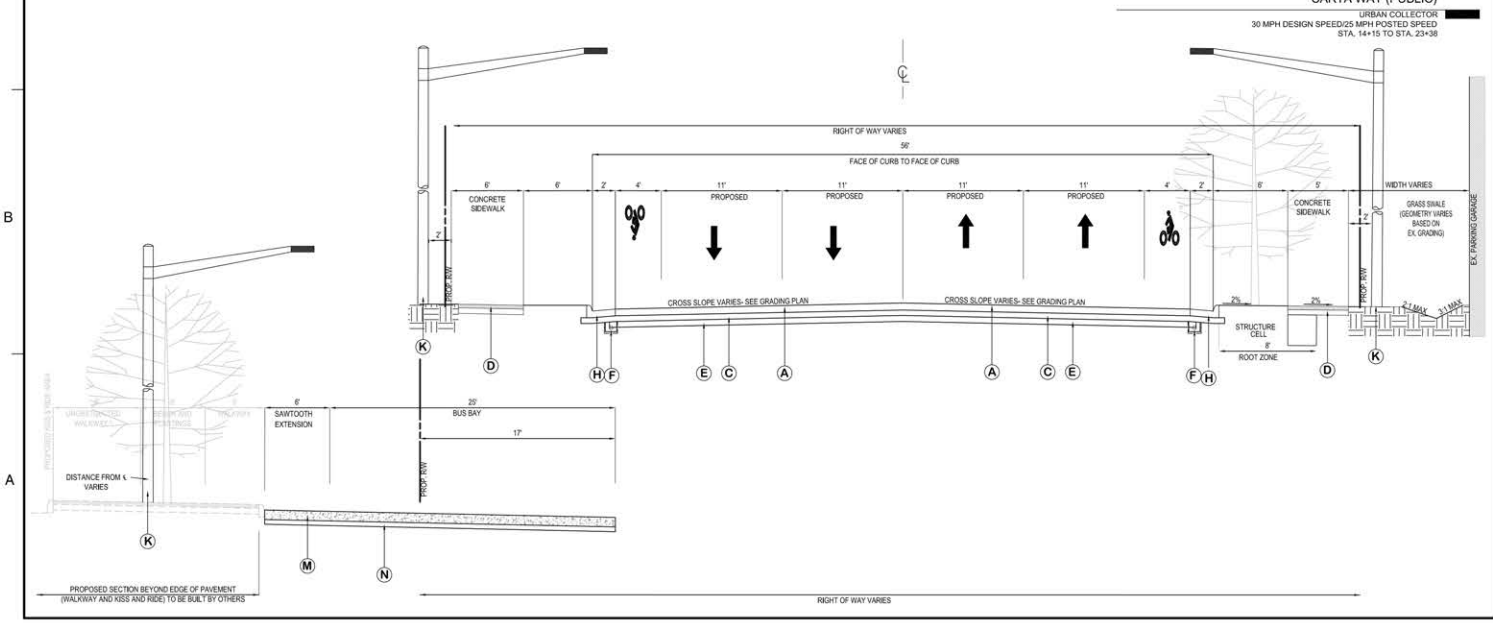

LEGEND

- (A) 1.5", TYPE SM-9.5A SURFACE COURSE
- (B) 2.0", TYPE IM-19.0A INTERMEDIATE COURSE
- (C) 4.0", TYPE I BM-25.0 BASE COURSE
- (D) 4" 3000 PSI CONCRETE WITH 4" 21A STONE (UD-3 AS REQUIRED)
- (E) 8.0", TYPE I, No. 21 B AGGREGATE MATERIAL
- (F) UNDERDRAIN, VDOT STD, UD-4
- (G) CURB, CG-2
- (H) CURB AND GUTTER, STD, CG-6
- (I) CONCRETE MEDIAN- VDOT STD MS-1A
- (J) SEEDED GRASS MEDIAN
- (K) ALUMINUM LIGHT POLE W/ L.E.D. FIXTURE #42209541-14(35')
- (L) ALUMINUM LIGHT POLE W/ L.E.D. FIXTURE #42209541-12(35')
- (M) 10" REINFORCED GENERAL USE CLASS 4,000 (MIX CLASS SG-1) CONCRETE PAVEMENT W/ WELDED WIRE FABRIC 6x6 - W4 X W4
- (N) SUB BASE COURSE COURSE, 5" - TYPE 1 SIZE NO. 21B

NOTES

1. VERIFY CBR PRIOR TO CONSTRUCTION.
2. SEE SIGNAGE AND PAVEMENT MARKING PLANS ON SHEET C03.201FOR ADDITIONAL CONTEXT. CONTRACTOR TO USE VDOT APPROVED SIGNAGE AND MARKING PLAN.
3. SEE ROAD PLAN AND PROFILE (SITE PLAN SECTION C03) FOR PROPOSED ROAD CROSS SLOPES AND LIGHT POLE LOCATIONS.
4. SEE ASPHALT PAVEMENT WIDENING DETAILS (VDOT STD, WP-2) ON SHEET C03.602 - ROAD DETAILS.
5. SEE SHEET C03.603 - ROAD DETAILS FOR ALUMINUM LIGHT POLE W/ L.E.D. FIXTURE DETAIL.
6. ALL TREES WITHIN R/W SHALL BE PRUNED TO 10' AND PLANTED AT 3' FROM BACK OF CURB
7. FOR ROOT ZONE STRUCTURE CELL SEE "LOAD BEARING PLANTER MODULE" DETAIL SHEET L01.702

* UNOBSTRUCTED WALKWAY WIDTH DETERMINED BY TABLE 2-1 OF THE STATION SITE AND ACCESS PLANNING MANUAL FOR 4 BUS BAYS
** MATCH EXISTING PAVEMENT SECTION AND ELEVATIONS - NEW LANE CONFIGURATIONS PROPOSED.

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
Corey A. Pagels
Lic. No. 048560
5-19-16
PROFESSIONAL ENGINEER

KEY PLAN

SCALE NORTH

SCALE IN FEET
1" = 5'
1 INCH

NA
VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MLJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE

TYPICAL ROAD SECTION - CARTA WAY

SP NO. #6848-SP-014

C03.403

SECTION NO. C03-ROAD DESIGN

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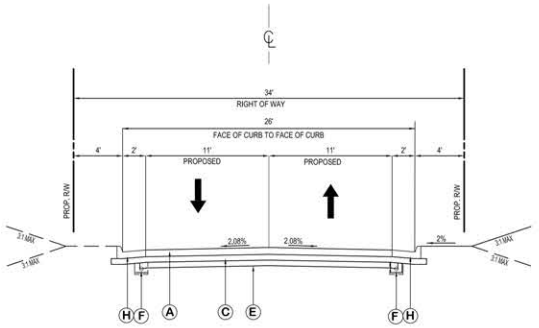
Wed, Oct 14, 2015 - 9:01:44am

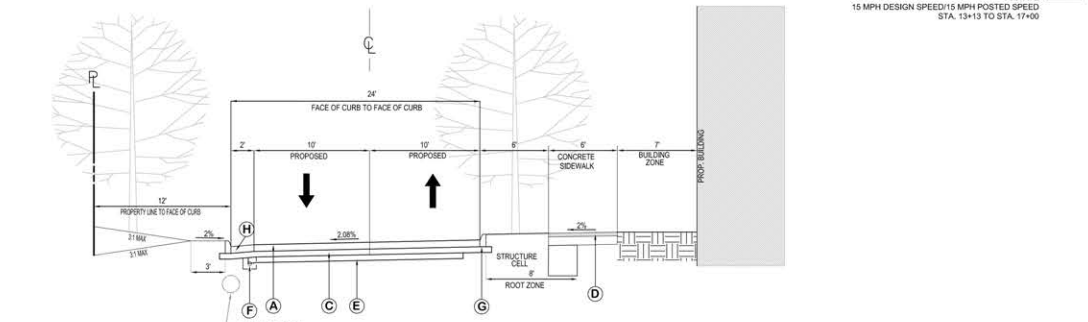
KING JOHN'S WAY (PUBLIC)

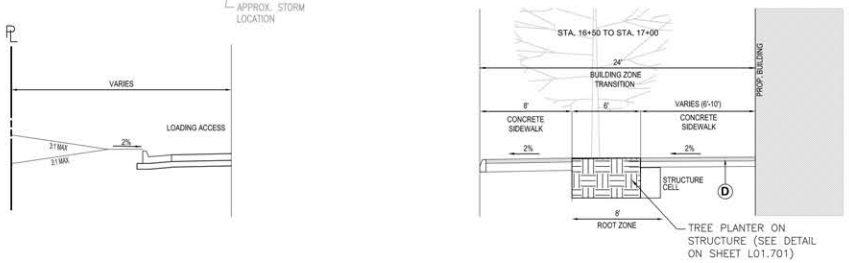
PUBLIC
15 MPH DESIGN SPEED/15 MPH POSTED SPEED
STA. 10+35 TO 13+13



KING JOHN'S WAY (PRIVATE)

PRIVATE
15 MPH DESIGN SPEED/15 MPH POSTED SPEED
STA. 13+13 TO STA. 17+00





LEGEND

- (A) 1.25", TYPE SM-9.5A SURFACE COURSE
- (B) 2.0", TYPE IM-19.0A INTERMEDIATE COURSE
- (C) 2.5", TYPE I BM-25.0 BASE COURSE
- (D) 4" 3000 PSI CONCRETE WITH 4" 21A STONE (UD-3 AS REQUIRED)
- (E) 6.0", TYPE I, No. 21 B AGGREGATE MATERIAL
- (F) UNDERDRAIN, VDOT STD. UD-4
- (G) CURB, CG-2
- (H) CURB AND GUTTER, STD. CG-6

NOTES

1. VERIFY CBR PRIOR TO CONSTRUCTION.
2. SEE SIGNAGE AND PAVEMENT MARKING PLANS ON SHEET C03.201FOR ADDITIONAL CONTEXT. CONTRACTOR TO USE VDOT APPROVED SIGNAGE AND MARKING PLAN.
3. SEE ROAD PLAN AND PROFILE (SITE PLAN SECTION C03) FOR PROPOSED ROAD CROSS SLOPES AND LIGHT POLE LOCATIONS.
4. SEE ASPHALT PAVEMENT WIDENING DETAILS (VDOT STD. WP-2) ON SHEET C03.602 - ROAD DETAILS.
5. SEE SHEET C03.603 - ROAD DETAILS FOR ALUMINUM LIGHT POLE W/ L.E.D. FIXTURE DETAIL.
6. ALL TREES WITHIN R/W SHALL BE PRUNED TO 10' AND PLANTED AT 3' FROM BACK OF CURB
7. FOR ROOT ZONE STRUCTURE CELL SEE "LOAD BEARING PLANTER MODULE" DETAIL SHEET L01.702

** MATCH EXISTING PAVEMENT SECTION AND ELEVATIONS - NEW LANE CONFIGURATIONS PROPOSED.

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

KEY PLAN

SCALE NORTH

SCALE IN FEET
1" = 5'
1 INCH

NA
VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MLJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE

TYPICAL ROAD SECTION - KING JOHN'S WAY

SP NO. #6848-SP-014

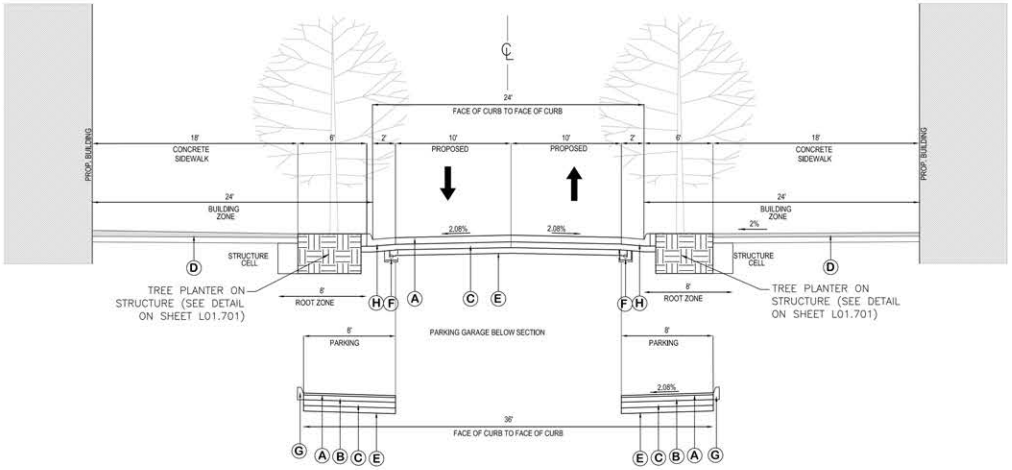
C03.404

SECTION NO. C03-ROAD DESIGN

P:\PROJECT\55057254_Innovation South\CAD\CIVIL-SITE\Sheets\SITE PLAN\RDWG TYPICAL SECTIONS.dwg
Mon, Dec 21, 2015 - 6:17:30pm

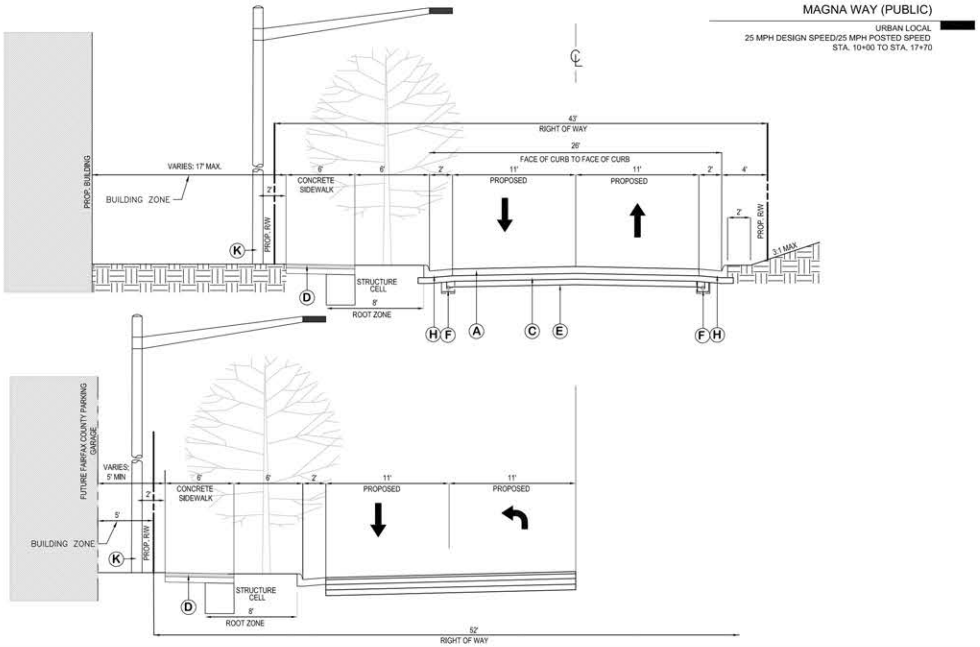
KING JOHN'S WAY (PRIVATE)

PRIVATE
15 MPH DESIGN SPEED/15 MPH POSTED SPEED
STA. 17+00 TO STA. 21+22



MAGNA WAY (PUBLIC)

URBAN LOCAL
25 MPH DESIGN SPEED/25 MPH POSTED SPEED
STA. 10+00 TO STA. 17+70



LEGEND

- (A) 1.25", TYPE SM-9.5A SURFACE COURSE
- (B) 2.0", TYPE IM-19.0A INTERMEDIATE COURSE
- (C) 2.5", TYPE I BM-25.0 BASE COURSE
- (D) 4" 3000 PSI CONCRETE WITH 4" 21A STONE (UD-3 AS REQUIRED)
- (E) 6.0", TYPE I, No. 21 B AGGREGATE MATERIAL
- (F) UNDERDRAIN, VDOT STD, UD-4
- (G) CURB, CG-2
- (H) CURB AND GUTTER, STD, CG-6
- (I) CONCRETE MEDIAN- VDOT STD MS-1A
- (J) SEEDED GRASS MEDIAN
- (K) ALUMINUM LIGHT POLE W/ L.E.D. FIXTURE #4220954 1-14(30')

NOTES

1. VERIFY CBR PRIOR TO CONSTRUCTION.
2. SEE SIGNAGE AND PAVEMENT MARKING PLANS ON SHEET C03.201FOR ADDITIONAL CONTEXT. CONTRACTOR TO USE VDOT APPROVED SIGNAGE AND MARKING PLAN.
3. SEE ROAD PLAN AND PROFILE (SITE PLAN SECTION C03) FOR PROPOSED ROAD CROSS SLOPES AND LIGHT POLE LOCATIONS.
4. SEE ASPHALT PAVEMENT WIDENING DETAILS (VDOT STD. WP-2) ON SHEET C03.602 - ROAD DETAILS.
5. SEE SHEET C03.603 - ROAD DETAILS FOR ALUMINUM LIGHT POLE W/ L.E.D. FIXTURE DETAIL.
6. ALL TREES WITHIN R/W SHALL BE PRUNED TO 10' AND PLANTED AT 3' FROM BACK OF CURB
7. FOR ROOT ZONE STRUCTURE CELL SEE "LOAD BEARING PLANTER MODULE" DETAIL SHEET L01.702

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

KEY PLAN

SCALE NORTH

SCALE IN FEET
1" = 5'
1 INCH

NA
VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MCJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE

TYPICAL ROAD SECTION - MAGNA WAY

SP NO. #6848-SP-014

C03.405

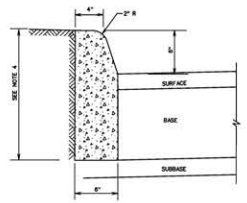
SECTION NO. C03-ROAD DESIGN

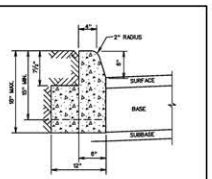
P:\PROJECT\50587254 Innovation South\CAD\CIVIL-SITE\Sheets\SITE PLAN\ROAD TYPICAL SECTIONS.dwg
Wed, Oct 14 2015 - 9:08:54am

CG-2

NOTES:

1. THIS ITEM MAY BE PRECAST OR CAST IN PLACE.
2. CONCRETE TO BE CLASS A3 IF CAST IN PLACE, 4000 PSI IF PRECAST.
3. CURB HAVING A RADIUS OF 300 FEET OR LESS (ALONG FACE OF CURB) WILL BE PAID FOR AS RADIAL CURB.
4. THE DEPTH OF CURB MAY BE REDUCED AS MUCH AS 2" (WITH CORRESPONDING INCREASE IN SLOPE) AT ITS OPTION IN ORDER THAT THE BOTTOM OF CURB WILL COINCIDE WITH THE TOP OF A COURSE OF THE PAVEMENT. SUBGRADE SHALL NOT BE LOWERED IN THE AREA BELOW CURB. NO ADJUSTMENT IN THE PAVE WIDTH IS TO BE MADE FOR A DECREASE OR AN INCREASE IN DEPTH.
5. CG-2 IS TO BE USED ON ROADWAYS MEETING THE REQUIREMENTS FOR CG-2 AS SHOWN IN APPENDIX A OF THE VDOT ROAD DESIGN MANUAL, IN THE SECTION ON GS URBAN STANDARDS.





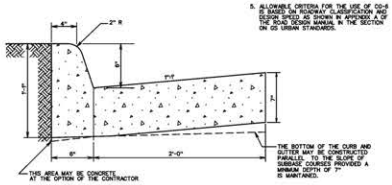
ACCEPTABLE ALTERNATIVE IF CURB IS EXTRUDED

SPECIFICATION REFERENCE	STANDARD 6" CURB	VDOT ROAD AND BRIDGE STANDARDS
105 502	VIRGINIA DEPARTMENT OF TRANSPORTATION	REVISION DATE: — SHEET 1 OF 1: 201.01

CG-6

NOTES:

1. THIS ITEM MAY BE PRECAST OR CAST IN PLACE.
2. CONCRETE TO BE CLASS A3 IF CAST IN PLACE, 4000 PSI IF PRECAST.
3. COMBINATION CURB & GUTTER HAVING A RADIUS OF 300 FEET OR LESS (ALONG FACE OF CURB) SHALL BE PAID FOR AS RADIAL COMBINATION CURB & GUTTER.
4. FOR USE WITH STABILIZED OPEN-GRADED DRAINAGE LAYER, THE BOTTOM OF THE CURB & GUTTER SHALL BE CONSTRUCTED PARALLEL TO THE SLOPE OF THE TOP SUBBASE COURSES AND TO THE DEPTH OF THE PAVEMENT.
5. ALLOWABLE CRITERIA FOR THE USE OF CG-6 IS BASED ON ROADWAY CLASSIFICATION AND DESIGN SPEED, AS SHOWN IN APPENDIX A OF THE ROAD DESIGN MANUAL IN THE SECTION ON GS URBAN STANDARDS.

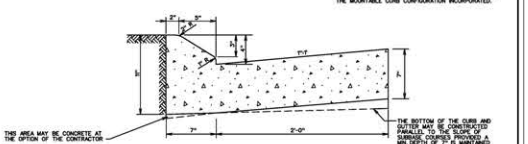


SPECIFICATION REFERENCE	COMBINATION 6" CURB AND GUTTER	VDOT ROAD AND BRIDGE STANDARDS
105 502	VIRGINIA DEPARTMENT OF TRANSPORTATION	REVISION DATE: — SHEET 1 OF 1: 201.03

CG-7

NOTES:

1. THIS ITEM MAY BE PRECAST OR CAST IN PLACE.
2. CONCRETE TO BE CLASS A3 IF CAST IN PLACE, 4000 PSI IF PRECAST.
3. COMBINATION CURB & GUTTER HAVING A RADIUS OF 300 FEET OR LESS (ALONG FACE OF CURB) SHALL BE PAID FOR AS RADIAL COMBINATION CURB & GUTTER.
4. FOR USE WITH STABILIZED OPEN-GRADED DRAINAGE LAYER, THE BOTTOM OF THE CURB AND GUTTER SHALL BE CONSTRUCTED PARALLEL TO THE SLOPE OF SUBBASE AND TO THE DEPTH OF THE PAVEMENT.
5. ALLOWABLE CRITERIA FOR THE USE OF CG-7 IS BASED ON ROADWAY CLASSIFICATION AND DESIGN SPEED, AS SHOWN IN APPENDIX A OF THE VDOT ROAD DESIGN MANUAL IN THE SECTION ON URBAN GS STANDARDS.
6. WHEN THIS STANDARD IS TO BE TIED INTO EXISTING SHRINKAGE CURB, THE TRANSITION IS TO BE MADE WITHIN 30'OF THE CHANGE IN STANDARDS CAN BE MADE AT REGULAR SPACINGS.
7. WHEN COMBINATION MOUNTABLE CURB AND GUTTER IS USED, THE STANDARD ENTRANCE GUTTERS OR STANDARD CONNECTION FOR STREET INTERSECTIONS ARE TO HAVE THE MOUNTABLE CURB CONFIGURATION INCORPORATED.

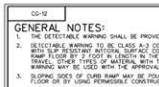


VDOT ROAD AND BRIDGE STANDARDS	COMBINATION 4" CURB AND GUTTER	SPECIFICATION REFERENCE
SHEET 1 OF 1: 201.04 — REVISION DATE: —	VIRGINIA DEPARTMENT OF TRANSPORTATION	105 502

CG-12

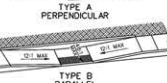
GENERAL NOTES:

1. THE DETECTABLE WARNING SHALL BE PROVIDED BY TRUNCATED DOMES.
2. DETECTABLE WARNING TO BE CLASS A-3 CONCRETE (CLASS A-4 IF PRECAST) WITH SLIP RESISTANT SURFACE COVERING THE FULL WIDTH OF THE RAMP, LANDING, OR BLENDED TRANSITION. IF CONCRETE IS NOT USED AS TRAVEL, OTHER TYPES OF MATERIAL WITH THE TRUNCATED DOMES DETECTABLE WARNING MAY BE USED WITH THE APPROVAL OF THE ENGINEER.
3. SLOPING SIDES OF CURB RAMP MAY BE POURED MONOLITHICALLY WITH RAMP, FLOOR OR BY USING PERMISSIBLE CONSTRUCTION JOINT WITH REQUIRED BARS.
4. IF RAMP FLOOR IS PRECAST, HOLES MUST BE PROVIDED FOR DOWEL BARS SO THAT ADJOINING FLARED SIDES CAN BE CAST IN PLACE AFTER PLACEMENT OF PRECAST RAMP FLOOR. PRECAST CONCRETE SHALL BE CLASS A-4.
5. REQUIRED BARS ARE TO BE NO. 3 X 1'-6" PLACED 1' CENTERS TO CENTER ALONG BOTH SIDES OF THE RAMP FLOOR, MID-DEPTH OF RAMP FLOOR. MINIMUM CONCRETE COVER 6".
6. CURB / CURB AND GUTTER SLOPE TRANSITIONS ADJACENT TO CURB RAMPS ARE INCLUDED IN PAYMENT FOR CURB / CURB AND GUTTER.
7. CURB RAMPS ARE TO BE LOCATED AS SHOWN ON THE PLANS, OR AS DIRECTED BY THE ENGINEER. THEY ARE TO BE PROVIDED AT INTERSECTIONS WHEREVER AN ACCESSIBLE ROUTE WITHIN THE RIGHT OF WAY OF A HIGHWAY FACILITY CROSSES A CURB REGARDLESS OF WHETHER SIDEWALK IS EXISTING, PROPOSED, OR NONEXISTENT. THEY MUST BE LOCATED WITHIN CROSSWALKS. CURB RAMPS SHALL BE LOCATED SO THAT THEY DO NOT CAUSE A PERSON TO BE LOCATED BEHIND VEHICLES TO STOP USES, EXISTING LIGHT POLES, FIRE HYDRANTS, DROP INLETS, ETC. ACCESSIBLE ROUTES PROVIDE A CONTINUOUS UNOBSTRUCTED PATH OF TRAVEL AND SLIP RESISTANT PATH FROM THE CURB RAMP TO ANY ACCESSIBLE FACILITY THAT CAN BE APPROACHED, ENTERED AND USED BY PEDESTRIANS.
8. RAMPS MAY BE PLACED ON RADIAL OR TANGENTIAL SECTIONS PROVIDED THAT THE CURB RAMP IS CENTERED ON THE CROSSWALK AND SIDEWALK AND THAT THE SLOPE AT THE BOTTOM OF THE CURB OPENING IS PERPENDICULAR TO THE CURB.
9. TYPICAL CONCRETE SIDEWALK IS 4" THICK. WHEN THE ENTRANCE RADII CANNOT ACCOMMODATE THE TURNING REQUIREMENTS OF ANTICIPATED HEAVY TRUCK TRAFFIC, REFER TO STANDARD CG-15, COMMERCIAL ENTRANCE HEAVY TRUCK TRAFFIC) FOR CONCRETE DEPTH.
10. WHEN CURB RAMPS ARE USED IN CONJUNCTION WITH A SHARED USE PATH, THE MINIMUM WIDTH SHALL BE THE WIDTH OF THE SHARED USE PATH.
11. WHEN ONLY ONE CURB RAMP IS PROVIDED FOR TWO CROSSINGS (DIAGONAL), A 4'x 4' LANDING AREA SHALL BE PROVIDED TO MANEUVER A WHEELCHAIR INTO THE CROSSWALK WITHOUT GOING INTO THE TRAVELWAY. THIS 4'x 4' LANDING AREA MAY INCLUDE THE GUTTER PAN.
12. WHERE CURB RAMPS ARE PROVIDED, A RADIAL SECTION OF CURB AT TANGENTIAL OR STRAIGHT CONNECTIONS THE DETECTABLE WARNING SURFACE SHALL HAVE A FACTORY RADIUS OR BE FIELD MODIFIED AS RECOMMENDED BY THE MANUFACTURER TO MATCH THE BACK OF CURB.



DETECTABLE WARNING INSTALLED ON A RADIUS

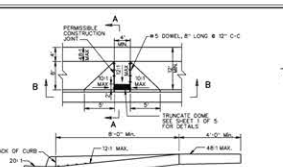
TRUNCATED DOME DETAIL



DETECTABLE WARNING DETAIL

VDOT ROAD AND BRIDGE STANDARDS	CG-12 DETECTABLE WARNING SURFACE (GENERAL NOTES)	SPECIFICATION REFERENCE
SHEET 1 OF 5: 203.05 — REVISION DATE: 7/11	VIRGINIA DEPARTMENT OF TRANSPORTATION	105 502

CG-12

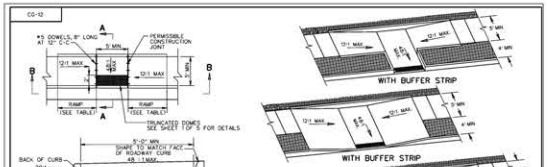


NOTES: FOR GENERAL NOTES ON THE DETECTABLE WARNING SURFACE, SEE SHEET 1 OF 5.

THIS DESIGN TO BE USED FOR CONSTRUCTION THAT INCORPORATES WIDER SIDEWALK, LANDING (4' WIDE) REQUIRED AT TOP OF CURB RAMP. MINIMUM CURB RAMP LENGTH 8 FEET FOR NEW CONSTRUCTION, 6 FEET FOR ALTERATIONS.

SPECIFICATION REFERENCE	CG-12 DETECTABLE WARNING SURFACE TYPE A (PERPENDICULAR) APPLICATION	VDOT ROAD AND BRIDGE STANDARDS
105 502	VIRGINIA DEPARTMENT OF TRANSPORTATION	REVISION DATE: 7/11 — SHEET 2 OF 5: 203.06

CG-12



NOTES: FOR GENERAL NOTES ON THE DETECTABLE WARNING SURFACE, SEE SHEET 1 OF 5.

THE REQUIRED LENGTH OF A PARALLEL RAMP IS LIMITED TO 15 FEET, REGARDLESS OF THE SLOPE.

TYPE B PARALLEL APPLICATION

ROADWAY GRADE IN PERCENT	MINIMUM RAMP LENGTH IN FEET: 4" CURB	6" CURB
0	4	6
1	5	7
2	6	8
3	7	9
4	8	10
5	10	13
6	11	15

VDOT ROAD AND BRIDGE STANDARDS	CG-12 DETECTABLE WARNING SURFACE TYPE B (PARALLEL) APPLICATION	SPECIFICATION REFERENCE
SHEET 3 OF 5: 203.07 — REVISION DATE: 7/11	VIRGINIA DEPARTMENT OF TRANSPORTATION	105 502

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

KEY PLAN

SCALE NORTH

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY MLJ
APPROVED BY CAP
CHECKED BY CJD
DATE SEPTEMBER 2014

TITLE
ROAD DETAILS

SP NO. #6848-SP-014

C03.601

SECTION NO. C03-ROAD DESIGN

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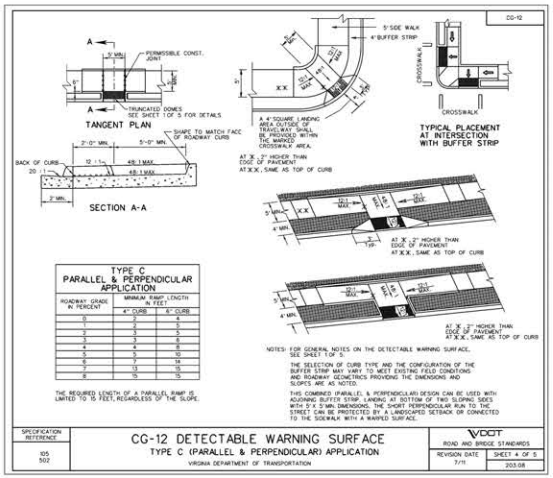
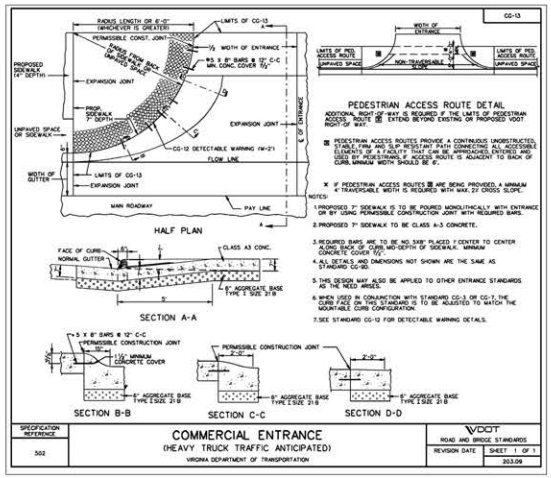
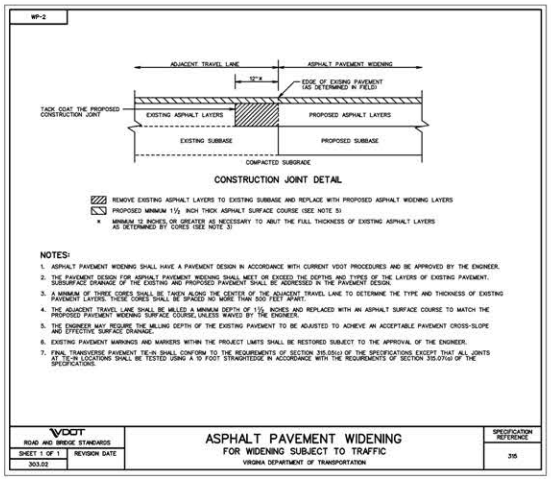
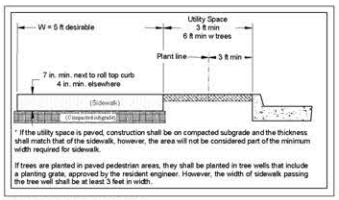
Wed, Oct 14, 2015 - 9:08:17am



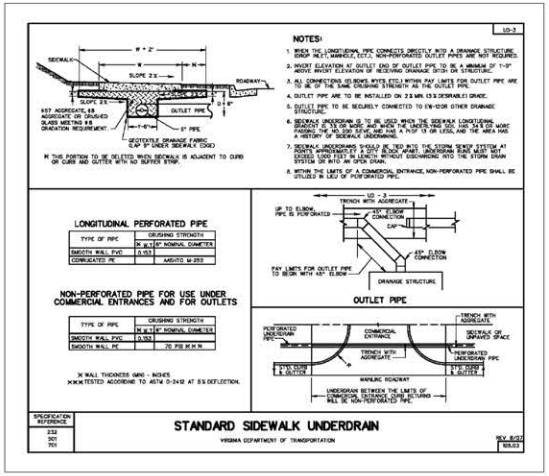


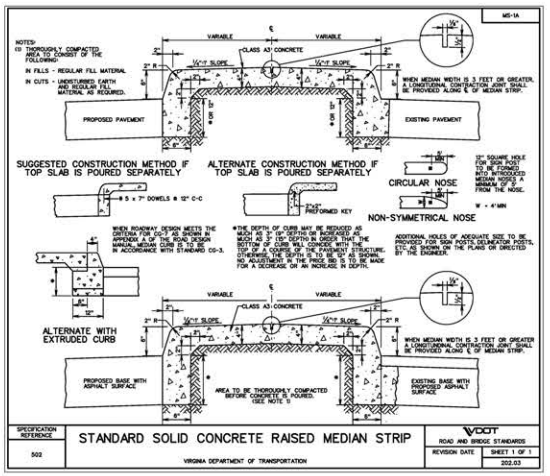




TYPICAL SIDEWALK SECTION

1. DETAIL PROVIDED ON THIS SHEET FOR THE SIDEWALK IS PROVIDED TO IDENTIFY THE SIDEWALK DEPTH ADJACENT TO MOUNTABLE CURB. REFER TO TYPICAL SECTIONS FOR DETAILS.





Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CAP A. PARKER
Lic. No. 043560
2015-10-14
PROFESSIONAL ENGINEER

KEY PLAN

SCALE NORTH

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY MCJ
APPROVED BY CAP
CHECKED BY CJD
DATE SEPTEMBER 2014

TITLE
ROAD DETAILS

SP NO. #6848-SP-014

C03.602

SECTION NO. C03-ROAD DESIGN

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Wed, Oct 14, 2015 - 8:56:28am

Pole - Smooth Round Tapered Aluminum

Smooth round tapered poles constructed of aluminum alloy with a satin ground finish for mast arm bracket mounted luminaires.

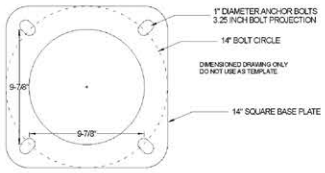
- Poles are base mounted for use with underground supply conductors only.
- Poles require customer provided pole foundation and anchor bolts.
- Single mast arm or two mast arms at 180 degrees.
- Available for use with:
  Enclosed Drop Lens Luminaire
  Enclosed Flat Lens Luminaire
  Ultra Flat Lens Luminaire

Pole Specifications:

Total Length (Feet)	Butt Diameter (inches)	Base Circle (inches)	Bolt Circle (inches)	Bolt Diameter (inches)	Bolt Projection (inches)	Tenon Size	Finish Color	WMIS CU Assembly	Pole Only Stock #
27.0	10.0	14.0	14 - 15	1.0	3.25	None	Satin Aluminum	PA27	50491500
32.0	10.0	14.0	14 - 15	1.0	3.25	None	Satin Aluminum	PA32	50491600
37.0	10.0	14.0	14 - 15	1.0	3.25	None	Satin Aluminum	PA37	50492100

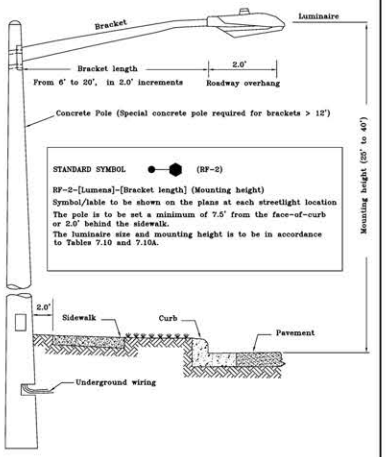
Mast Arms - Brackets:

Arm Length (Feet)	Arm End O.D. (inches)	Arm Rise (inches)	Material	Finish Color	Description	WMIS CU Assembly	Arm Only Stock #
6.0	2.0	30.0	Aluminum	Aluminum	Single member upswept mast arm	BKTMA6FT	66087300
8.0	2.0	42.0	Aluminum	Aluminum	Two member truss upswept mast arm	BKTMA8FT	66088200
10.0	2.0	42.0	Aluminum	Aluminum	Two member truss upswept mast arm	BKTMA10FT	660880
12.0	2.0	42.0	Aluminum	Aluminum	Two member truss upswept mast arm	BKTMA12FT	66089100



Many localities have restrictions on light distribution and placement of outdoor lighting equipment.
Consult with your local government before selecting outdoor lighting equipment.

FAIRFAX COUNTY PUBLIC FACILITIES MANUAL



Ref. Sec. 7-1004.02, 7-1004.7B, 7-1006.3	STANDARD ROADWAY FIXTURE COBRA HEAD STYLE FOR CURB AND GUTTER ROADS	PLATE NO.	STD. NO.
Rev. 1-00, 12-05, 2011 Reprint, 2-12		31-7	RF-2

LED Enclosed Flat

The LED Enclosed Flat luminaire provides a full cut-off distribution for lighting roadways and smaller parking areas.

- Cast aluminum housing with a grey paint finish.
- Flat glass lens with a asymetric medium Type III distribution directs more light to the roadway surface.
- White color light, 4000K CCT, 70 CRI, available in three lumen packages

Luminaires:

Lamp Type	Luminaire Watts	Luminaire Lumens	Billing Tier	Finish Color	Recommended Mounting Height	BUG Rating	WMIS CU	Luminaire Stock #
LED	54	4,000	T2	Grey	30 ft.	B1 - U0 - G1	LEN2FLED	42209539
LED	106	7,900	T4	Grey	30 ft.	B2 - U0 - G1	LEN4FLED	42209540
LED	244	18,100	T8	Grey	40 ft.	B3 - U0 - G2	LEN8FLED	42209541

Poles Available:

Smooth Round Tapered Concrete	- Standard
Smooth Round Tapered Heavy Duty Concrete	- Standard
Smooth Round Tapered Grey Composite	- Standard
Smooth Round Tapered Aluminum	- Standard
Smooth Round Tapered Aluminum Bridge	- Premium
Standard Wood	- Standard

Many localities have restrictions on light distribution and placement of outdoor lighting equipment.
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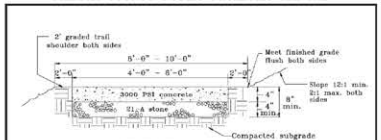
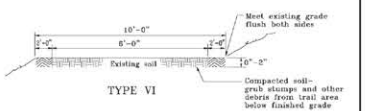
FAIRFAX COUNTY PUBLIC FACILITIES MANUAL



TYPE IV

Suitable for general pedestrian use. Unsuitable for bikeways. Acceptable for VDOT maintenance.

Subgrade for all sidewalks shall be compacted to minimum 95% density at optimum moisture to full width of R/W or easement in accordance with AASHTO T99.



TYPE VI

Suitable for equestrain use, hiking and all-terrain (mountain) bicycle use in low density areas. Construction of this section is subject to the approval of the Director.

Alignment of this trail should be such that there is minimum ground disturbance during clearing.

Ref. Sec. 8-0202.1B, 8-0203.1B	TRAIL CROSS-SECTIONS	PLATE NO.	STD. NO.
Rev. 1-00, 2011 Reprint		5-8	

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
Cary A. Pinkett
Lic. No. 043560
PROFESSIONAL ENGINEER

KEY PLAN

SCALE NORTH

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MLJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE
ROAD DETAILS

SP NO. #6848-SP-014

C03.603

SECTION NO. C03-ROAD DESIGN

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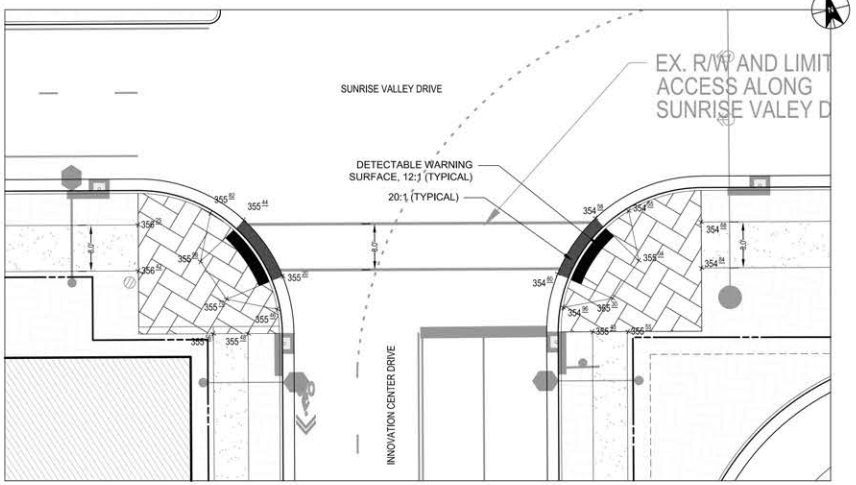
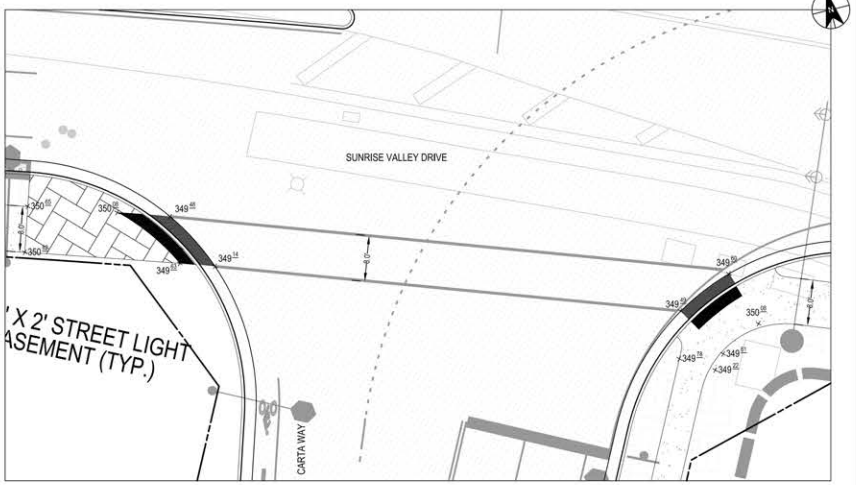
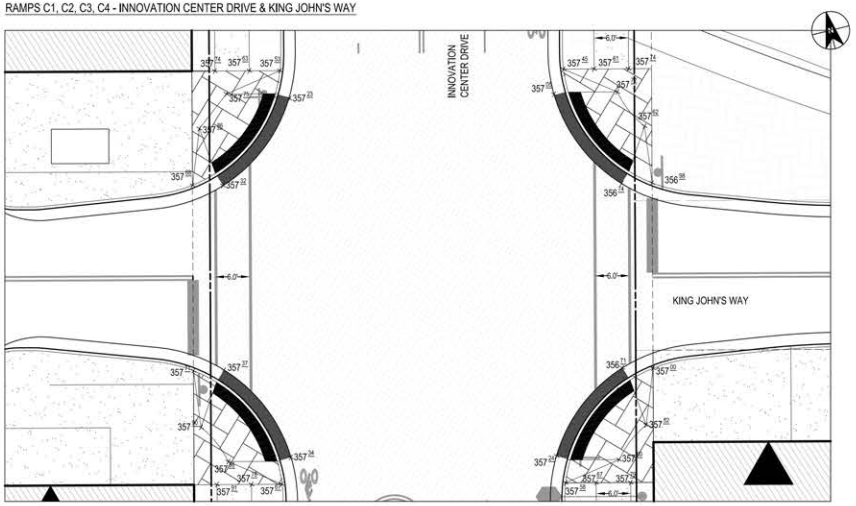
RAMPS A1 AND A2 - SUNRISE VALLEY DRIVE & INNOVATION CENTER DRIVE



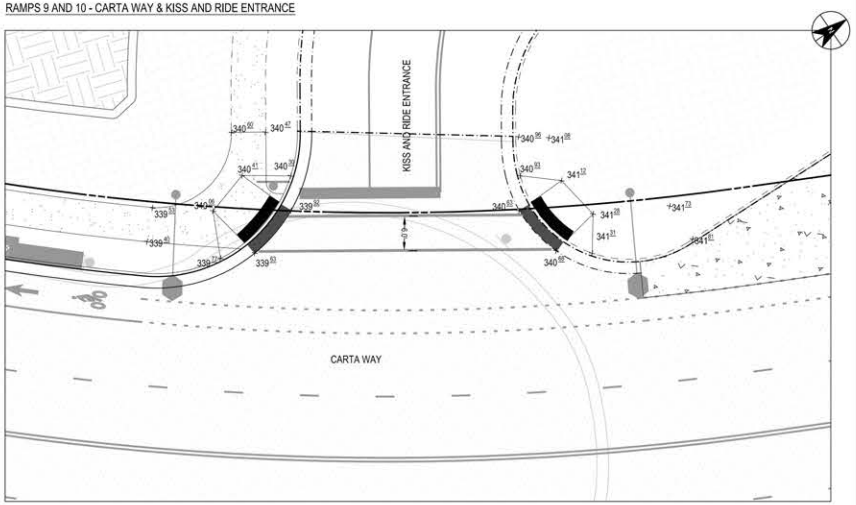
RAMPS B1 AND B2 - SUNRISE VALLEY DRIVE & CARTA WAY



RAMPS C1, C2, C3, C4 - INNOVATION CENTER DRIVE & KING JOHN'S WAY



RAMPS 9 AND 10 - CARTA WAY & KISS AND RIDE ENTRANCE



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Wed, Oct 14 2015 - 9:09:53am

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

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May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CAP
Lic. No. 043560
PROFESSIONAL ENGINEER

KEY PLAN

SCALE NORTH

SCALE IN FEET
1" = 10'
1 INCH

AS NOTED
VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MCJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

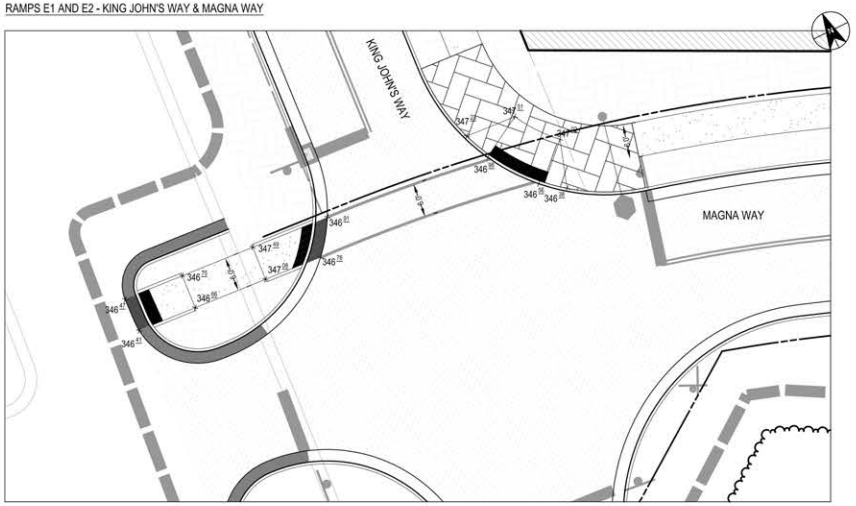
TITLE
ROAD DETAILS
ADA RAMPS

SP NO. #6848-SP-014

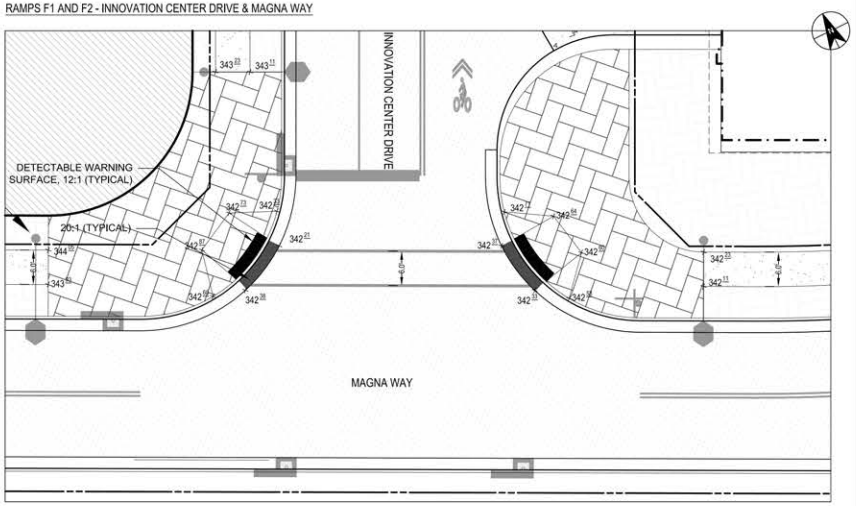
C03.604

SECTION NO. C03-ROAD DESIGN

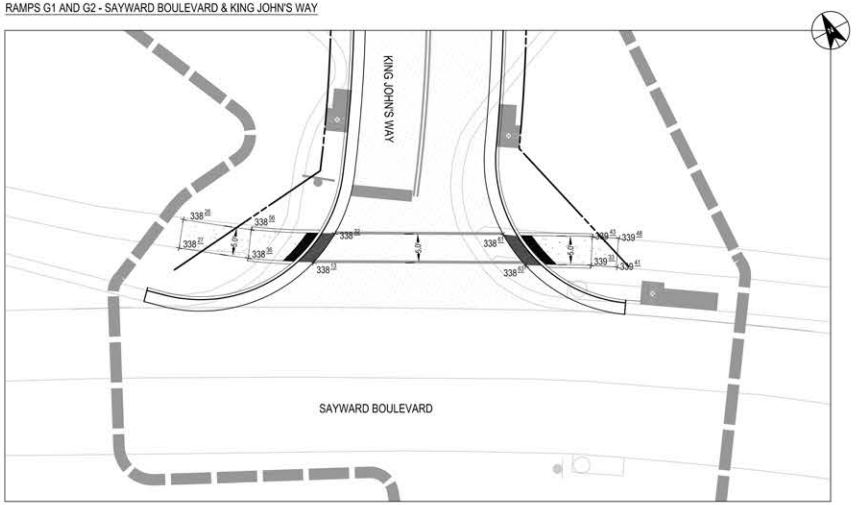
RAMPS E1 AND E2 - KING JOHN'S WAY & MAGNA WAY



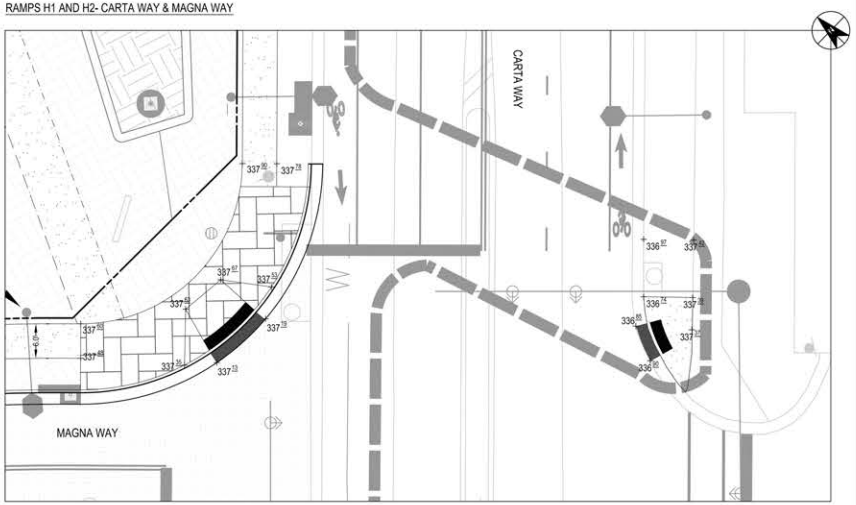
RAMPS F1 AND F2 - INNOVATION CENTER DRIVE & MAGNA WAY



RAMPS G1 AND G2 - SAYWARD BOULEVARD & KING JOHN'S WAY



RAMPS H1 AND H2- CARTA WAY & MAGNA WAY



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8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

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May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
GREGORY A. PHILLIPS
Lic. No. 043560
PROFESSIONAL ENGINEER

KEY PLAN

SCALE NORTH

SCALE IN FEET
1" = 10'
1 INCH

AS NOTED
VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY MCJ
APPROVED BY CAP
CHECKED BY CJD
DATE SEPTEMBER 2014

TITLE
ROAD DETAILS
ADA RAMPS

SP NO. #6848-SP-014

C03.605

SECTION NO. C03-ROAD DESIGN

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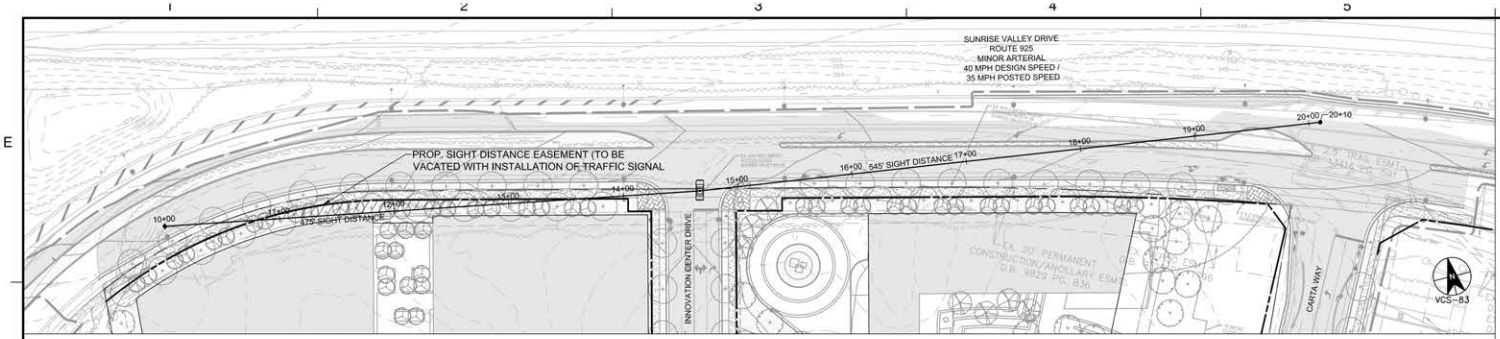

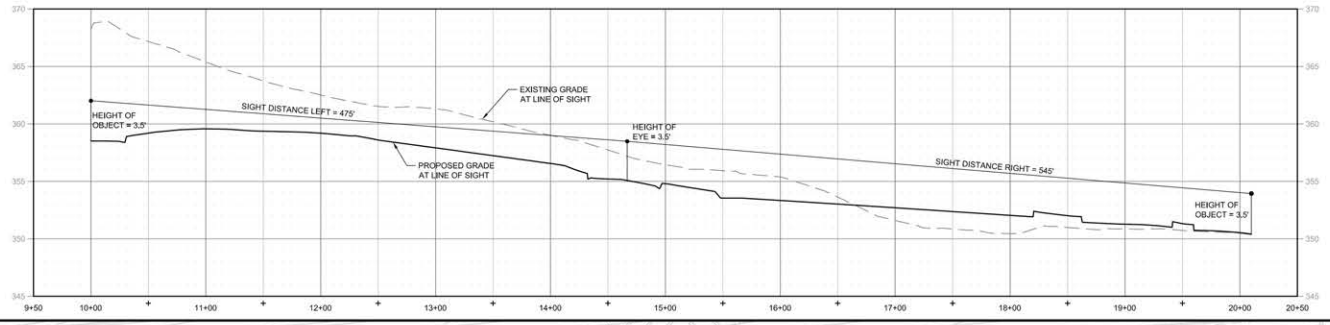

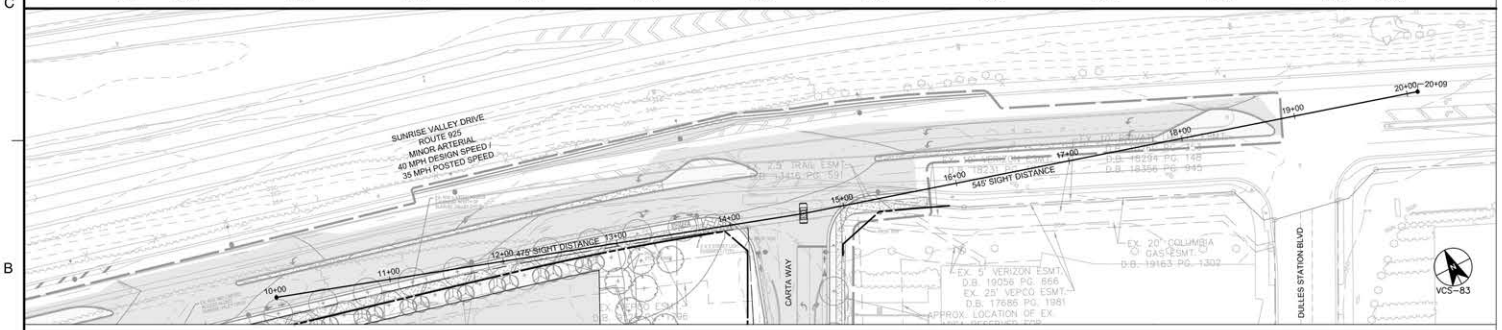

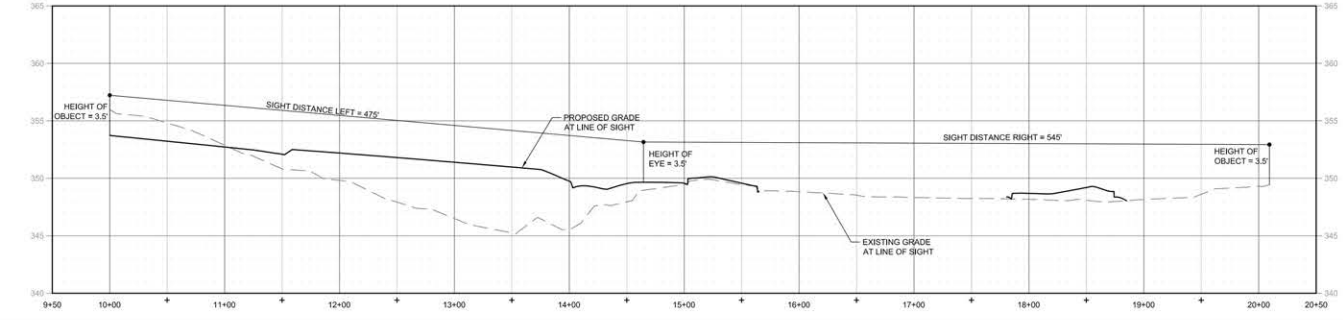

SIGHT DISTANCE ANALYSIS 1
SUNRISE VALLEY DRIVE & INNOVATION CENTER DRIVE

NOTE: THIS INTERSECTION MAY WARRANT A TRAFFIC SIGNAL. SIGHT DISTANCE SHOWN ON THIS SHEET IS INTENDED TO PROVIDE AN ANALYSIS OF AN UNSIGNALIZED INTERSECTION. LANDSCAPING ALONG PROPOSED SUNRISE VALLEY DRIVE (WEST OF INNOVATION CENTER DRIVE) SHALL NOT BE PLANTED UNTIL TRAFFIC SIGNAL IS OPERATIONAL AT THIS INTERSECTION.

SIGHT DISTANCE ANALYSIS 2
SUNRISE VALLEY DRIVE & CARTA WAY

NOTE: THIS INTERSECTION MAY WARRANT A TRAFFIC SIGNAL. SIGHT DISTANCE SHOWN ON THIS SHEET IS INTENDED TO PROVIDE AN ANALYSIS OF AN UNSIGNALIZED INTERSECTION. LANDSCAPING ALONG PROPOSED SUNRISE VALLEY DRIVE (WEST OF CARTA WAY) SHALL NOT BE PLANTED UNTIL TRAFFIC SIGNAL IS OPERATIONAL AT THIS INTERSECTION.

NOTE: THIS SHEET IS TO BE USED ONLY FOR REVIEWING ADEQUACY OF INTERSECTION SIGHT DISTANCE.

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Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

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May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CHRISTOPHER A. PASSEY
Lic. No. 048560
5/25/16
PROFESSIONAL ENGINEER

KEY PLAN

SCALE
H: 1" = 50'
1 INCH
V: 1" = 5'
1 INCH
NORTH
AS NOTED

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MGJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE
SIGHT DISTANCE

SP NO. #6848-SP-014

C03.701

SECTION NO. C03-ROAD DESIGN

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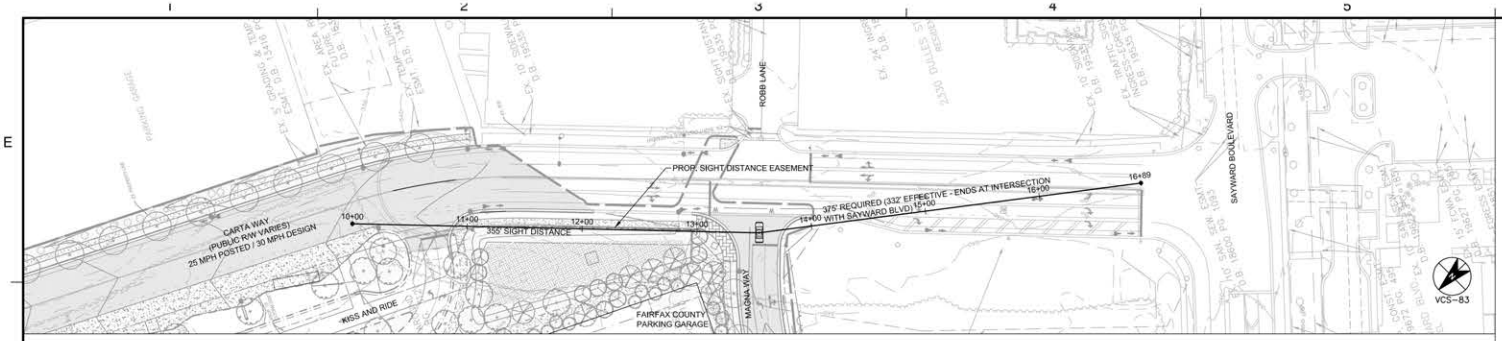

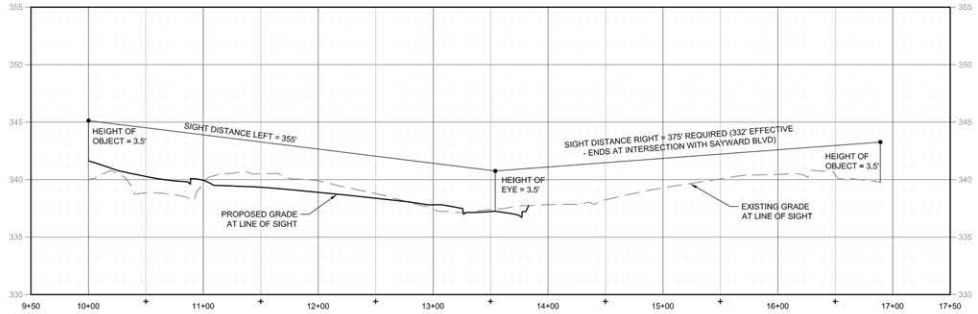

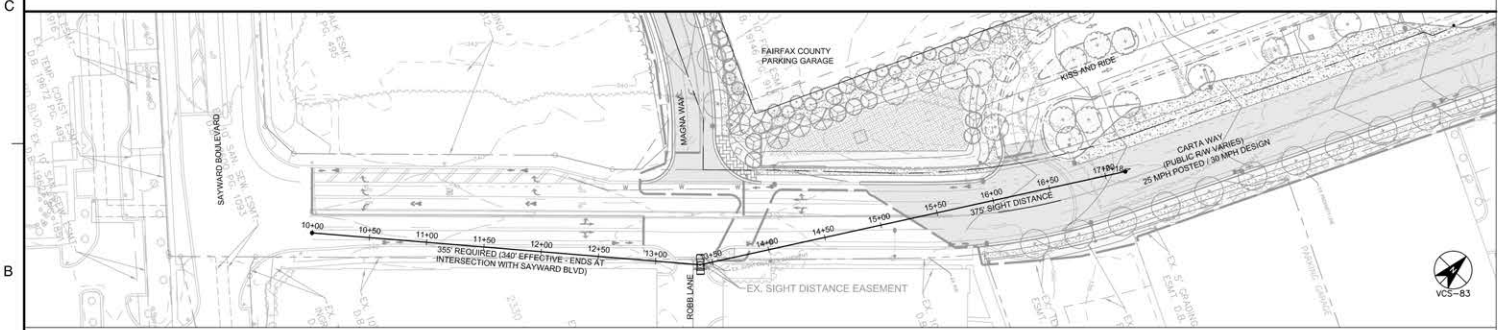

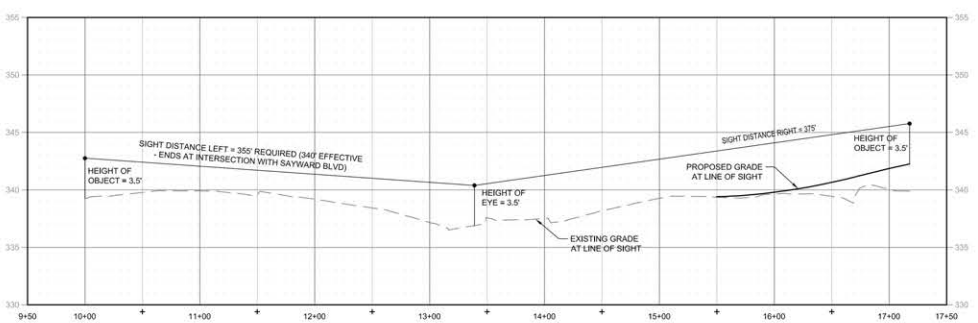

SIGHT DISTANCE ANALYSIS 3
CARTA WAY & MAGNA WAY

NOTE: THIS INTERSECTION MAY WARRANT A TRAFFIC SIGNAL. SIGHT DISTANCE SHOWN ON THIS SHEET IS INTENDED TO PROVIDE AN ANALYSIS OF AN UNSIGNALIZED INTERSECTION.

SIGHT DISTANCE ANALYSIS 4
CARTA WAY & ROBB LANE

NOTE: THIS INTERSECTION MAY WARRANT A TRAFFIC SIGNAL. SIGHT DISTANCE SHOWN ON THIS SHEET IS INTENDED TO PROVIDE AN ANALYSIS OF AN UNSIGNALIZED INTERSECTION.

NOTE: THIS SHEET IS TO BE USED ONLY FOR REVIEWING ADEQUACY OF INTERSECTION SIGHT DISTANCE.

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Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

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INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CAP
Lic. No. 043560
PROFESSIONAL ENGINEER

KEY PLAN

SCALE
H: 1" = 50'
1 INCH
V: 1" = 5'
1 INCH
NORTH
AS NOTED

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MCJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE
SIGHT DISTANCE

SP NO. #6848-SP-014

C03.702

SECTION NO. C03-ROAD DESIGN

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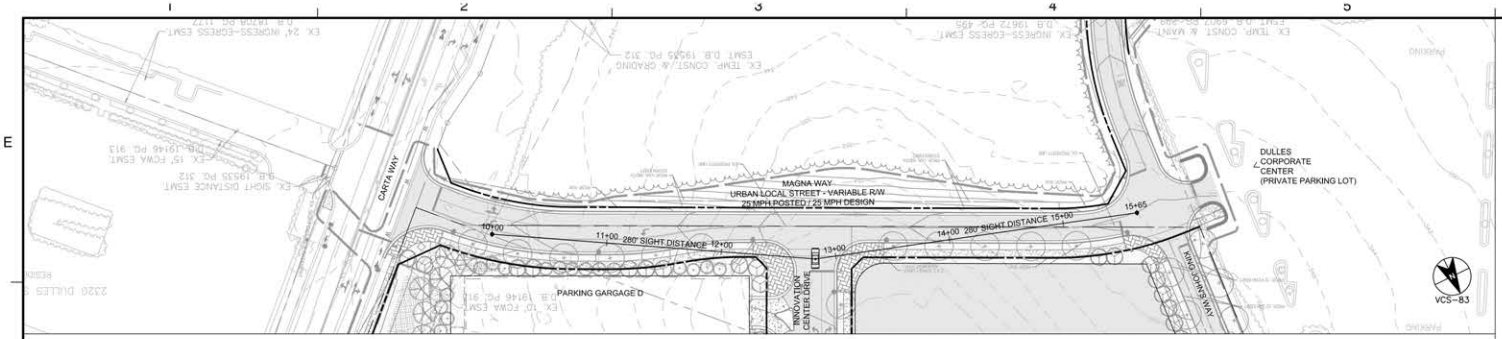
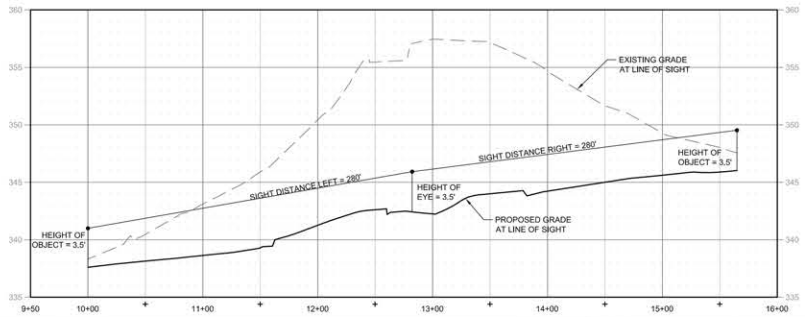
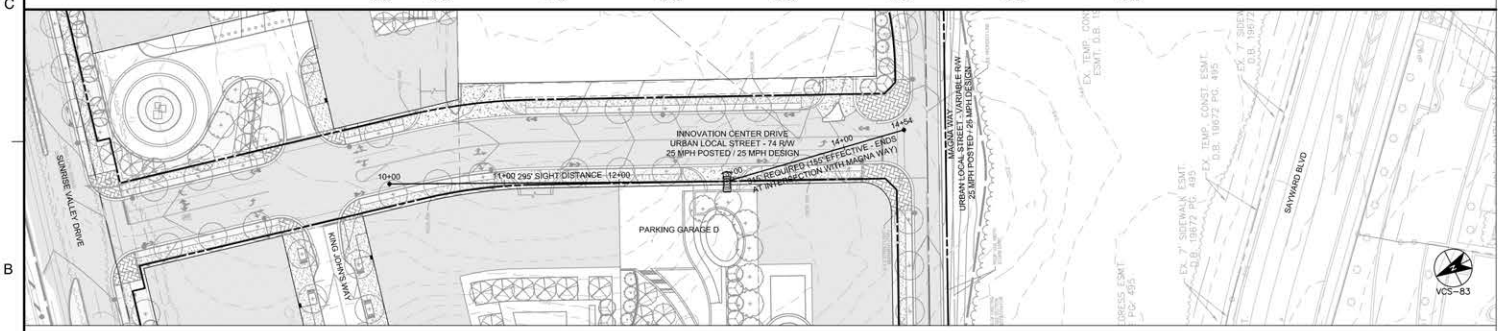
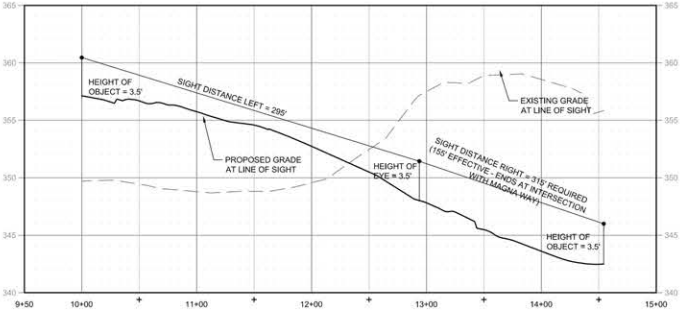




SIGHT DISTANCE ANALYSIS 5
MAGNA WAY
& INNOVATION CENTER DRIVE





SIGHT DISTANCE ANALYSIS 6
INNOVATION CENTER DRIVE
& GARAGE D

NOTE: THIS SHEET IS TO BE USED ONLY FOR REVIEWING ADEQUACY OF INTERSECTION SIGHT DISTANCE.

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

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May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

KEY PLAN

SCALE
H: 1" = 50'
1 INCH
V: 1" = 5'
1 INCH
NORTH
AS NOTED

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MJJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE
SIGHT DISTANCE

SP NO. #6848-SP-014

C03.703

SECTION NO. C03-ROAD DESIGN

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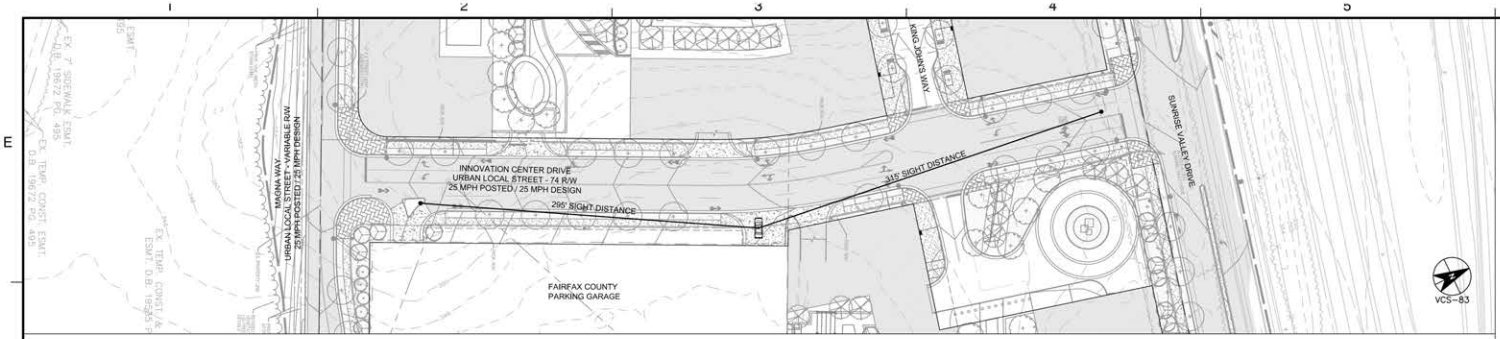
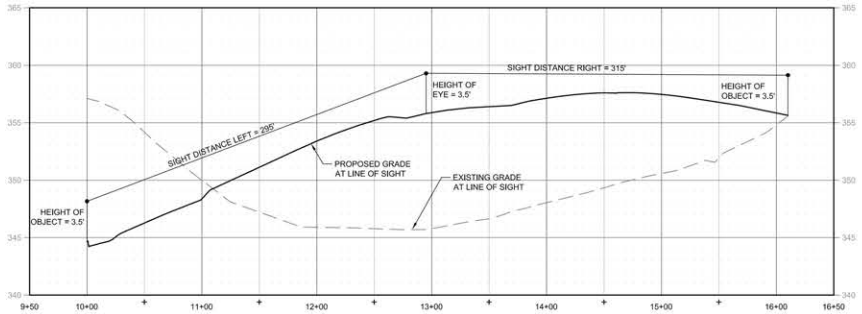
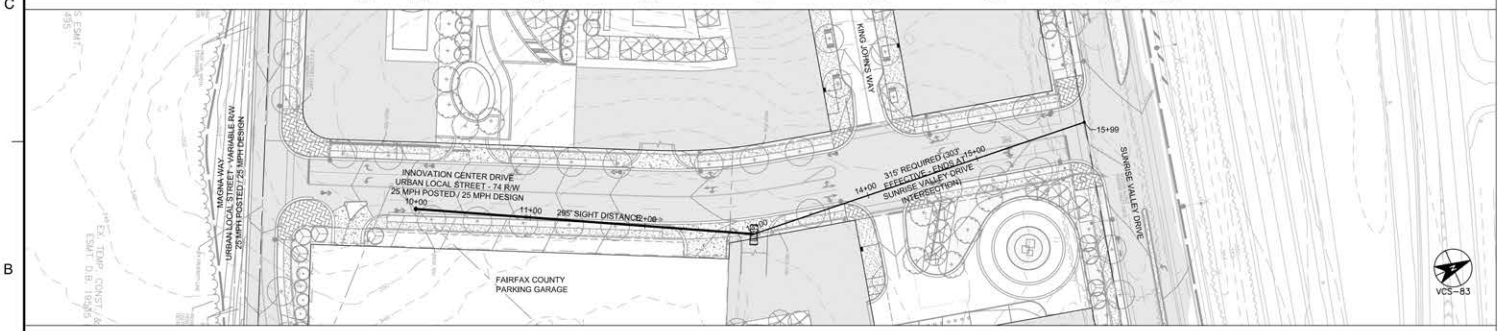
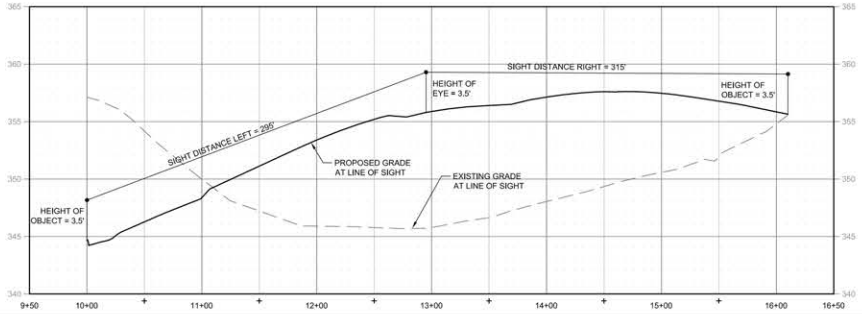




SIGHT DISTANCE ANALYSIS 7
INNOVATION CENTER DRIVE
& FAIRFAX COUNTY PARKING
GARAGE (NORTH ENTRANCE)





SIGHT DISTANCE ANALYSIS 8
INNOVATION CENTER DRIVE &
BUILDING B2

NOTE: THIS SHEET IS TO BE USED ONLY FOR REVIEWING ADEQUACY OF INTERSECTION SIGHT DISTANCE.

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Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

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May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CAP
Lic. No. 048560
PROFESSIONAL ENGINEER

KEY PLAN

SCALE
H: 1" = 50'
1 INCH
V: 1" = 5'
1 INCH
NORTH
AS NOTED

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY MCJ
APPROVED BY CAP
CHECKED BY CJD
DATE SEPTEMBER 2014

TITLE
SIGHT DISTANCE

SP NO. #6848-SP-014

C03.704

SECTION NO. C03-ROAD DESIGN

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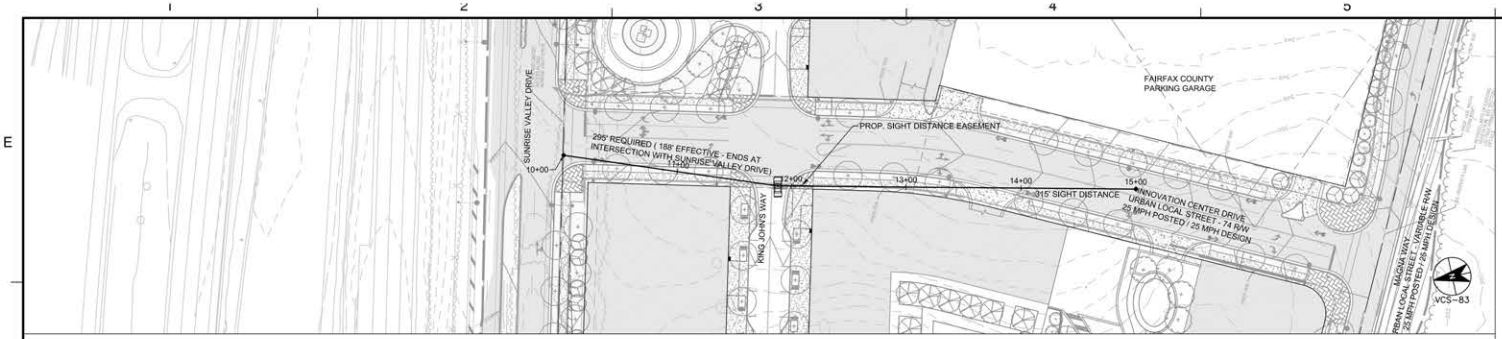
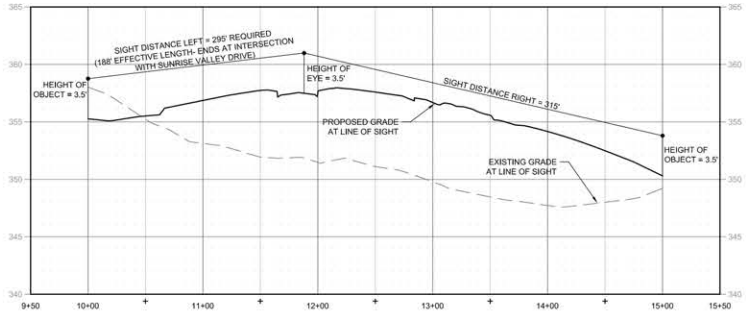
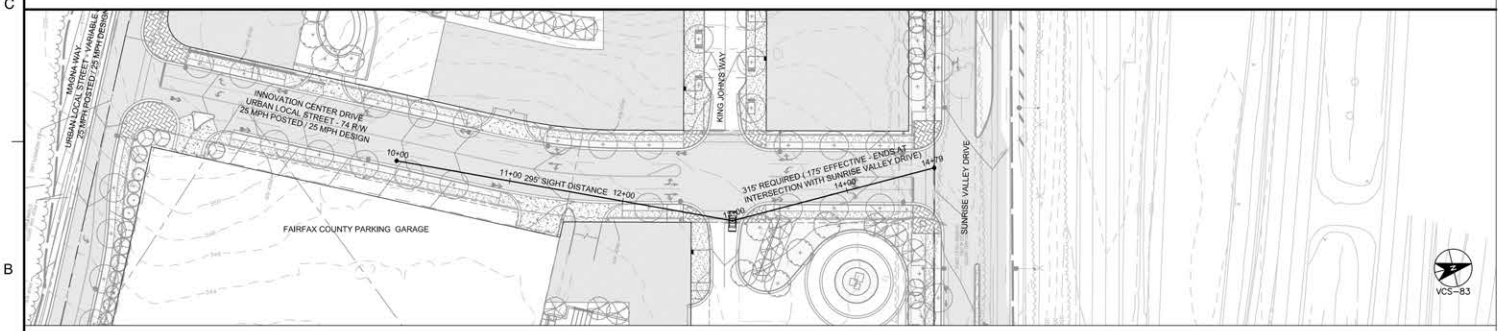
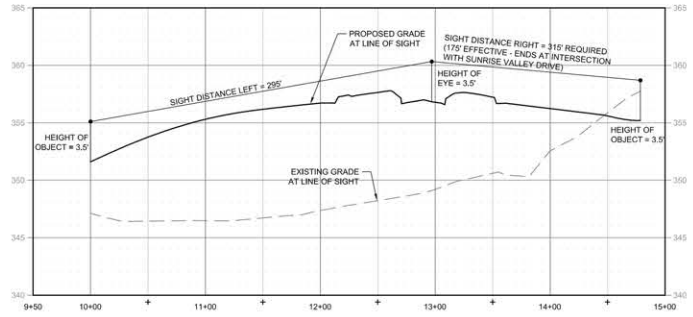




SIGHT DISTANCE ANALYSIS 9
INNOVATION CENTER DRIVE
& KING JOHN'S WAY





SIGHT DISTANCE ANALYSIS 10
INNOVATION CENTER DRIVE
& BUILDING B1

NOTE: THIS SHEET IS TO BE USED ONLY FOR REVIEWING ADEQUACY OF INTERSECTION SIGHT DISTANCE.

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Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
Cory A. Phillips
Lic. No. 048560
PROFESSIONAL ENGINEER

KEY PLAN

SCALE
H: 1" = 50'
1 INCH
V: 1" = 5'
1 INCH

NORTH
AS NOTED

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY MCJ
APPROVED BY CAP
CHECKED BY CJD
DATE SEPTEMBER 2014

TITLE
SIGHT DISTANCE

SP NO. #6848-SP-014

C03.705

SECTION NO. C03-ROAD DESIGN

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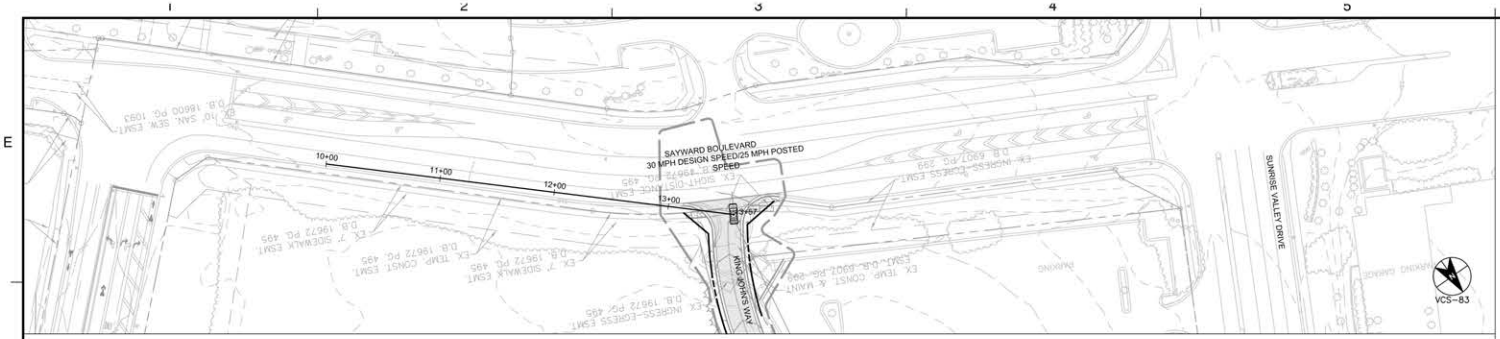
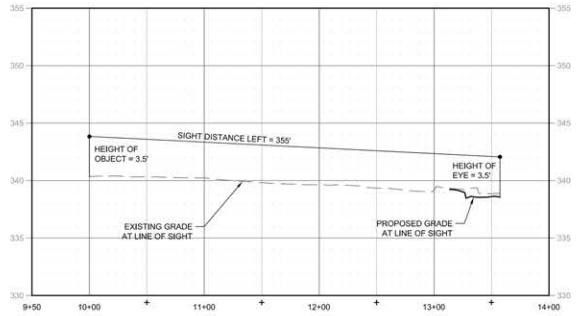
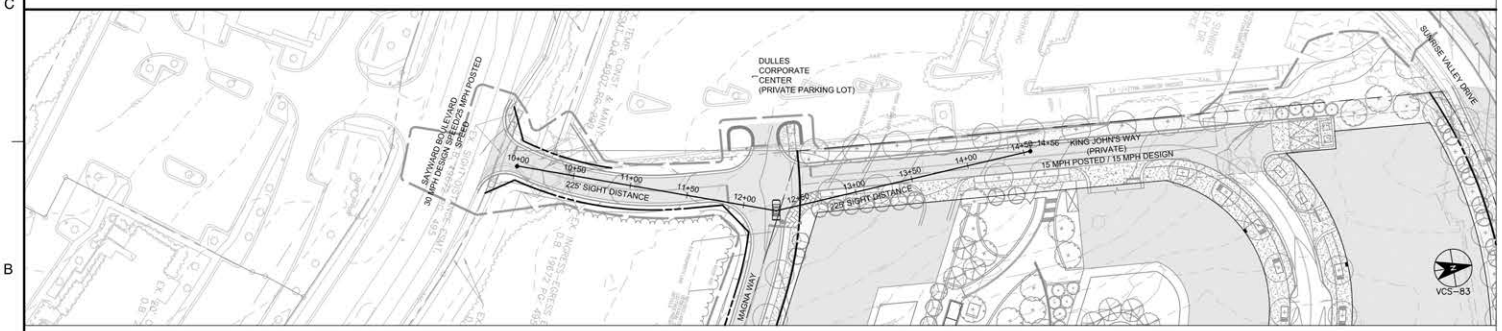
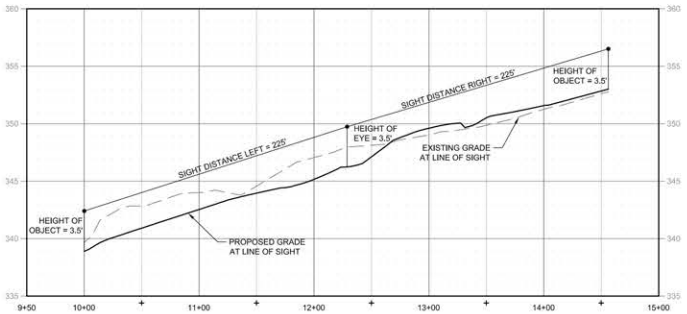




SIGHT DISTANCE ANALYSIS 11
SAYWARD BLVD & KING JOHN'S WAY





SIGHT DISTANCE ANALYSIS 12
MAGNA WAY & KING JOHN'S WAY

NOTE: THIS SHEET IS TO BE USED ONLY FOR REVIEWING ADEQUACY OF INTERSECTION SIGHT DISTANCE.

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Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

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May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CAP
Lic. No. 043560
PROFESSIONAL ENGINEER

KEY PLAN

SCALE
H: 1" = 50'
1 INCH
V: 1" = 5'
1 INCH

NORTH
AS NOTED

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MCJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE
SIGHT DISTANCE

SP NO. #6848-SP-014

C03.706

SECTION NO. C03-ROAD DESIGN

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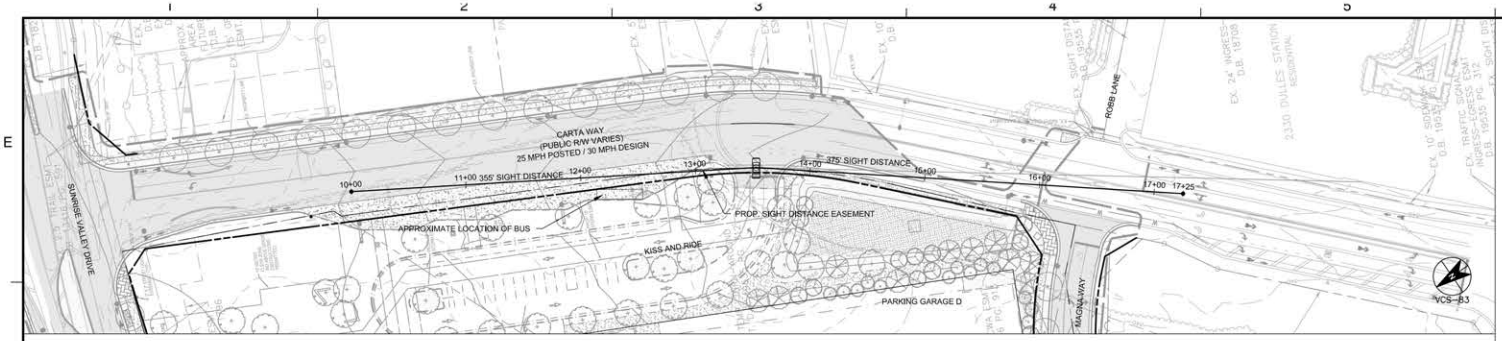

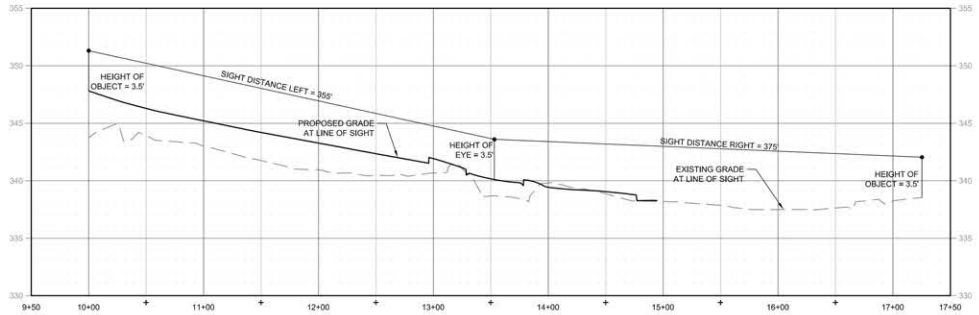

SIGHT DISTANCE ANALYSIS 13
CARTA WAY & KISS AND RIDE ACCESS

NOTE: THIS SHEET IS TO BE USED ONLY FOR REVIEWING ADEQUACY OF INTERSECTION SIGHT DISTANCE.

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
Carl A. Pinkos
Lic. No. 043560
PROFESSIONAL ENGINEER

KEY PLAN

SCALE
H: 1" = 50'
1 INCH
V: 1" = 5'
1 INCH

NORTH
AS NOTED

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE
SIGHT DISTANCE

SP NO. #6848-SP-014

C03.707

SECTION NO. C03-ROAD DESIGN

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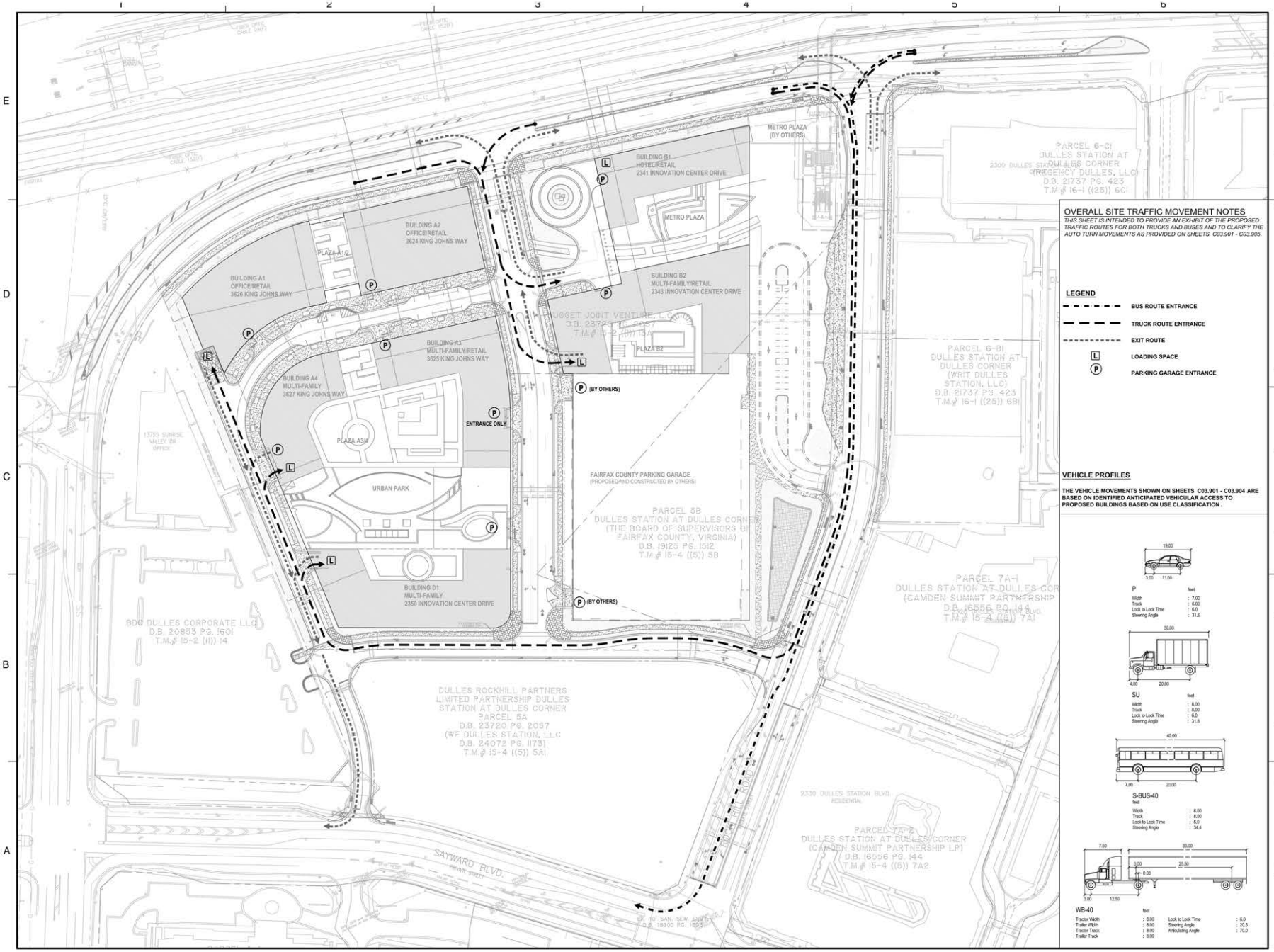

OVERALL SITE TRAFFIC MOVEMENT NOTES

THIS SHEET IS INTENDED TO PROVIDE AN EXHIBIT OF THE PROPOSED TRAFFIC ROUTES FOR BOTH TRUCKS AND BUSES AND TO CLARIFY THE AUTO TURN MOVEMENTS AS PROVIDED ON SHEETS C03.901 - C03.905.

LEGEND

- BUS ROUTE ENTRANCE
- TRUCK ROUTE ENTRANCE
- EXIT ROUTE
- (L) LOADING SPACE
- (P) PARKING GARAGE ENTRANCE

VEHICLE PROFILES

THE VEHICLE MOVEMENTS SHOWN ON SHEETS C03.901 - C03.904 ARE BASED ON IDENTIFIED ANTICIPATED VEHICULAR ACCESS TO PROPOSED BUILDINGS BASED ON USE CLASSIFICATION .

P — feet

Width	7.00
Track	6.00
Lock to Lock Time	6.0
Steering Angle	31.6

SU — feet

Width	8.00
Track	8.00
Lock to Lock Time	6.0
Steering Angle	31.8

S-BUS-40 — feet

Width	8.00
Track	8.00
Lock to Lock Time	6.0
Steering Angle	34.4

WB-40 — feet

Tractor Width	8.00	Lock to Lock Time	6.0
Trailer Width	8.00	Steering Angle	20.3
Tractor Track	8.00	Articulating Angle	70.0
Trailer Track	8.00		

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Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

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May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

KEY PLAN

SCALE — NORTH

SCALE IN FEET
1" = 60'
1 INCH

VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MCJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE

OVERALL SITE TRAFFIC MOVEMENT

SP NO. #6848-SP-014

C03.900

SECTION NO. C03-ROAD DESIGN

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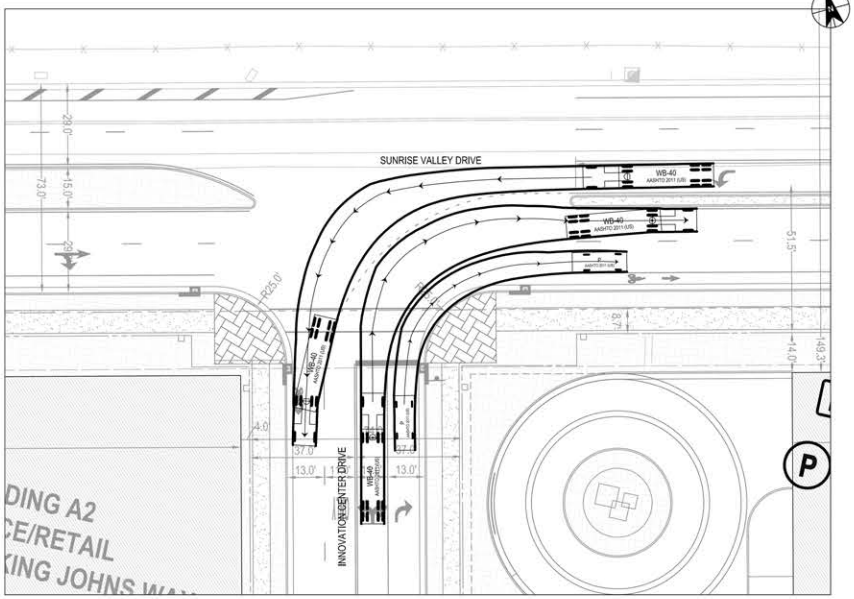
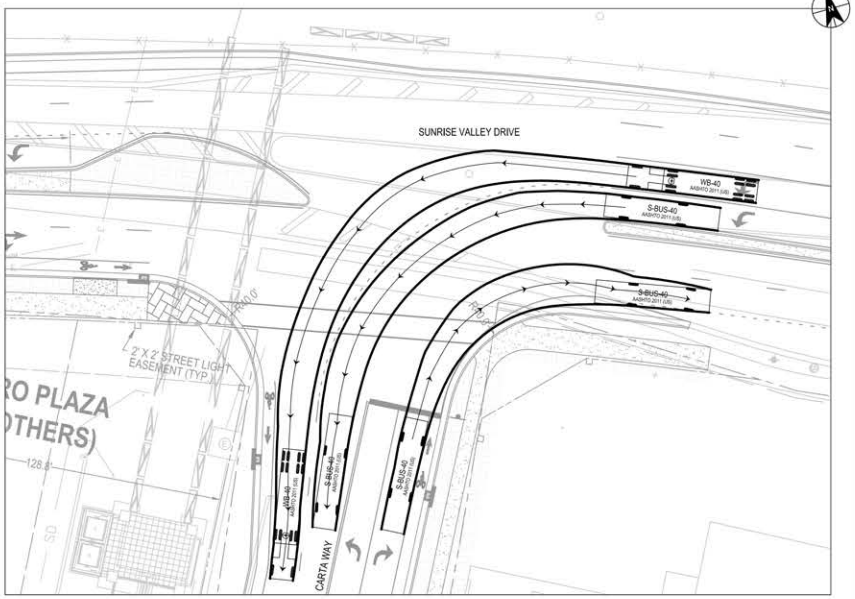
Wed, Oct 14, 2015 - 9:10:50am

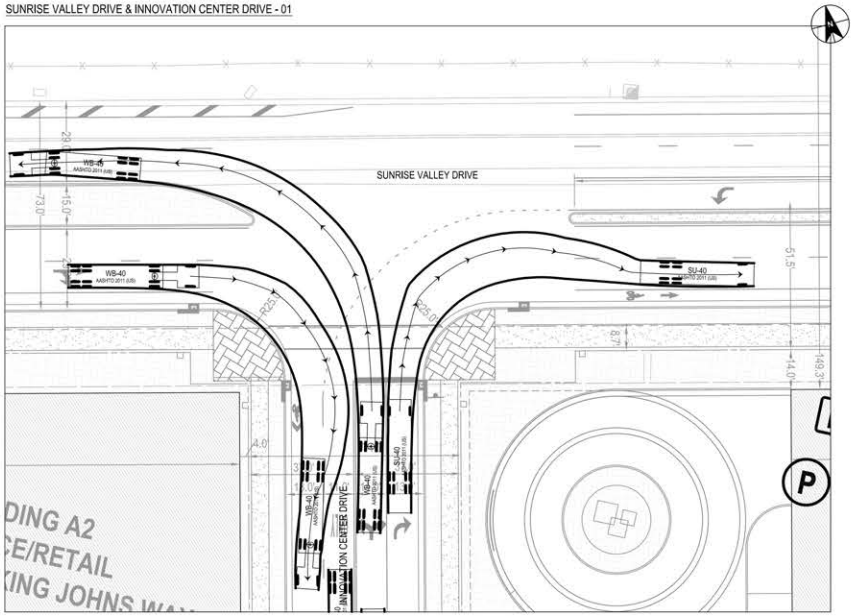
SUNRISE VALLEY DRIVE & INNOVATION CENTER DRIVE - 01



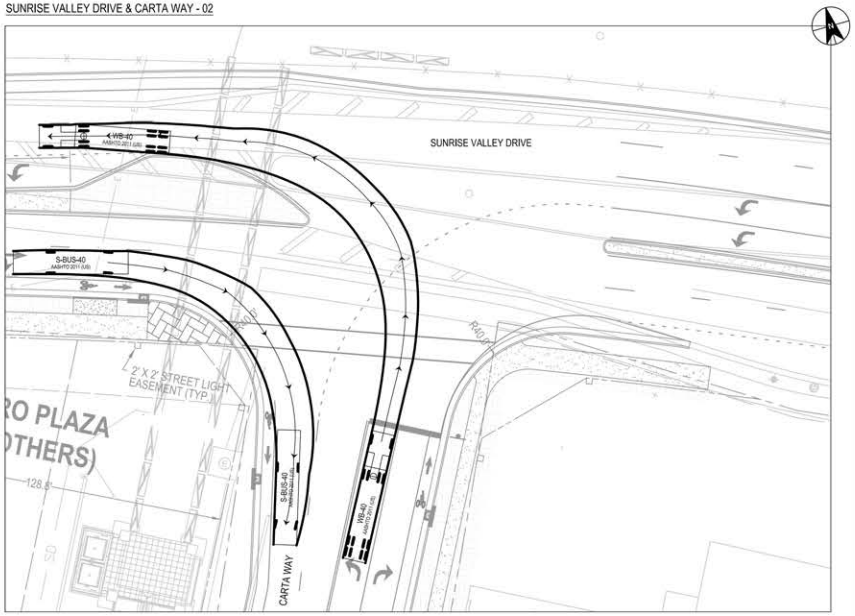
SUNRISE VALLEY DRIVE & CARTA WAY - 01



SUNRISE VALLEY DRIVE & INNOVATION CENTER DRIVE - 01



SUNRISE VALLEY DRIVE & CARTA WAY - 02



Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

KEY PLAN

SCALE NORTH

SCALE IN FEET
1" = 20'
1 INCH

AS NOTED
VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MLJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE
INTERSECTION MOVEMENT

SP NO. #6848-SP-014

C03.901

SECTION NO. C03-ROAD DESIGN

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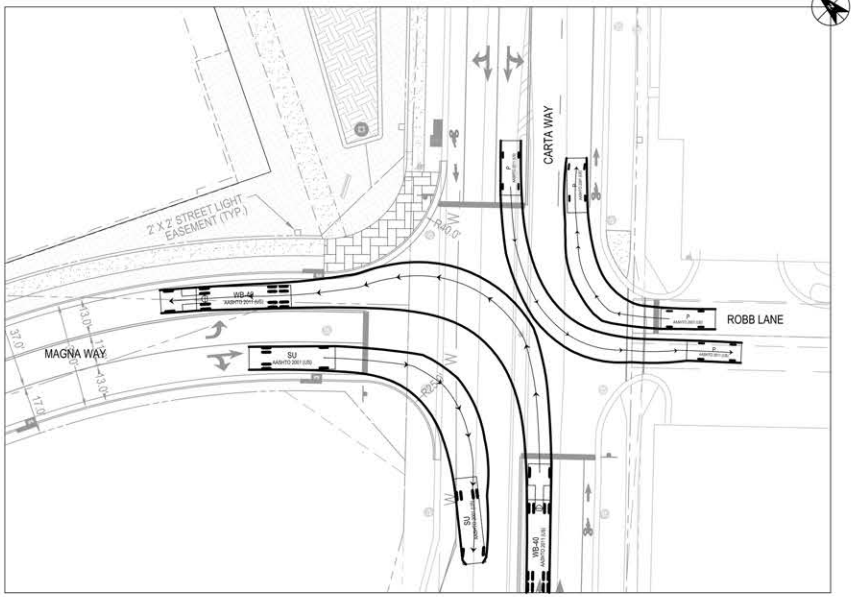
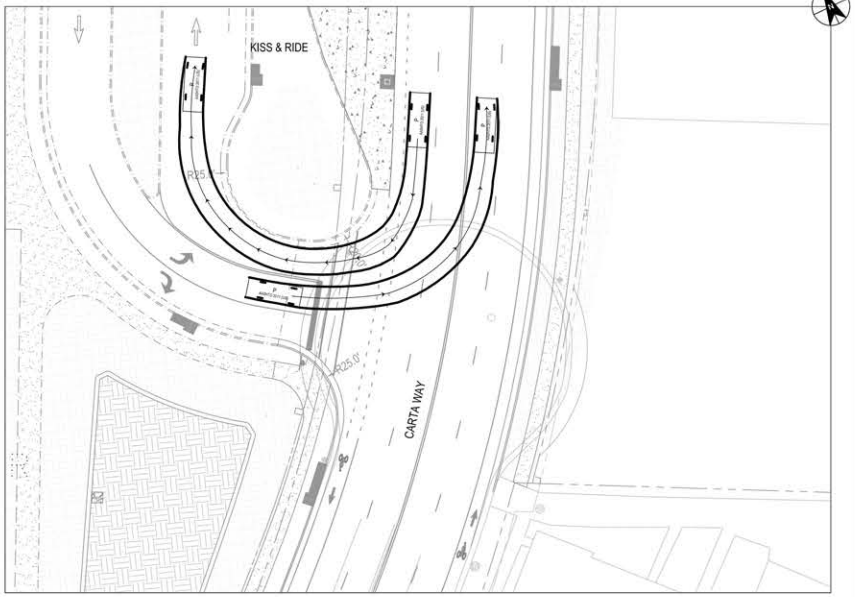
Wed, Oct 14 2015 - 01:23:50pm

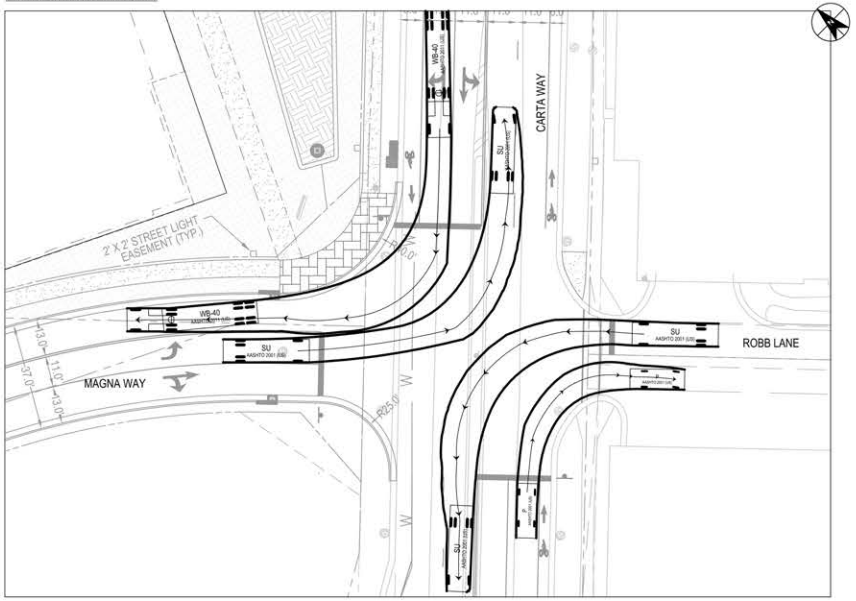
MAGNA WAY & CARTA WAY - 01



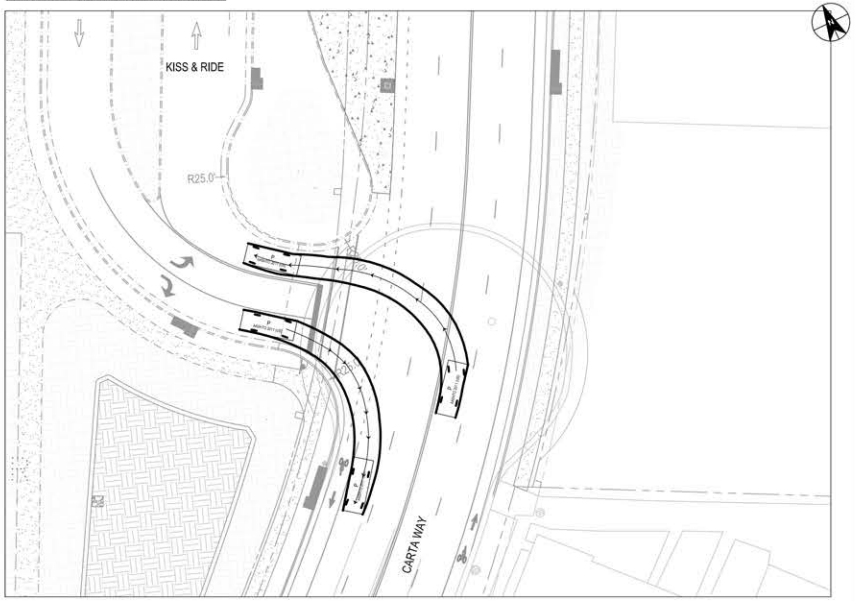
CARTA WAY & KISS AND RIDE ENTRANCE - 01



MAGNA WAY & CARTA WAY - 02



CARTA WAY & KISS AND RIDE ENTRANCE - 02



Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

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May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
COY A. PHILLIPS
Lic. No. 043560
PROFESSIONAL ENGINEER

KEY PLAN

SCALE NORTH

SCALE IN FEET
1" = 20'
1 INCH

AS NOTED
VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MCJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE
INTERSECTION MOVEMENT

SP NO. #6848-SP-014

C03.902

SECTION NO. C03-ROAD DESIGN

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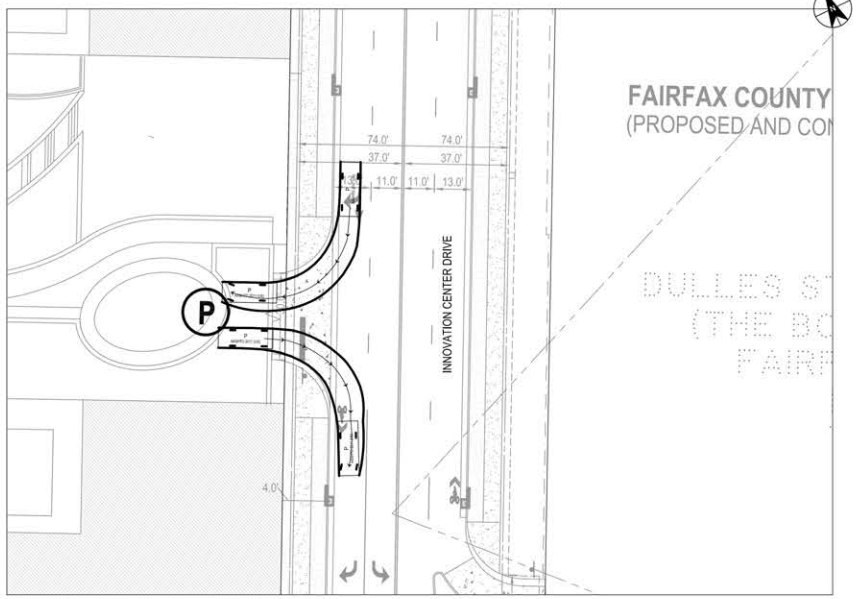
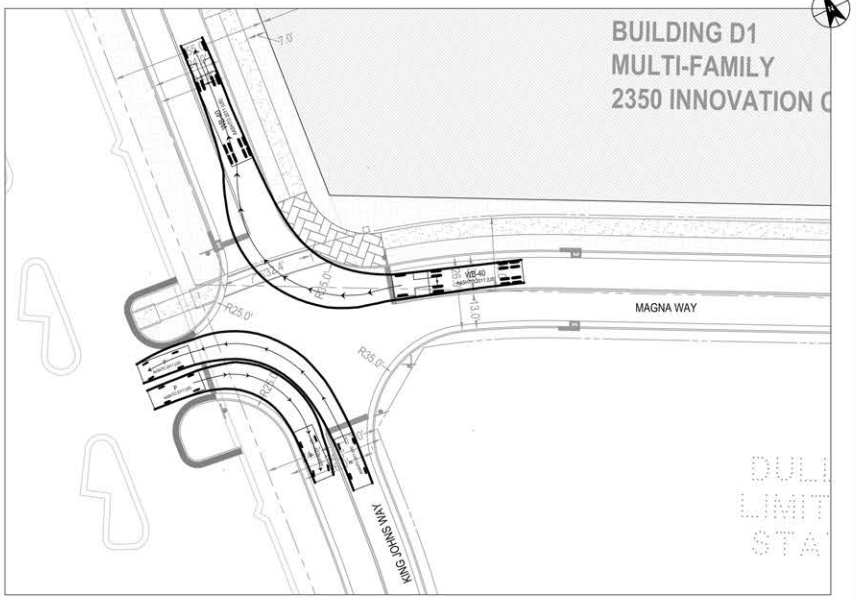
Wed, Oct 14 2015 - 01:47pm

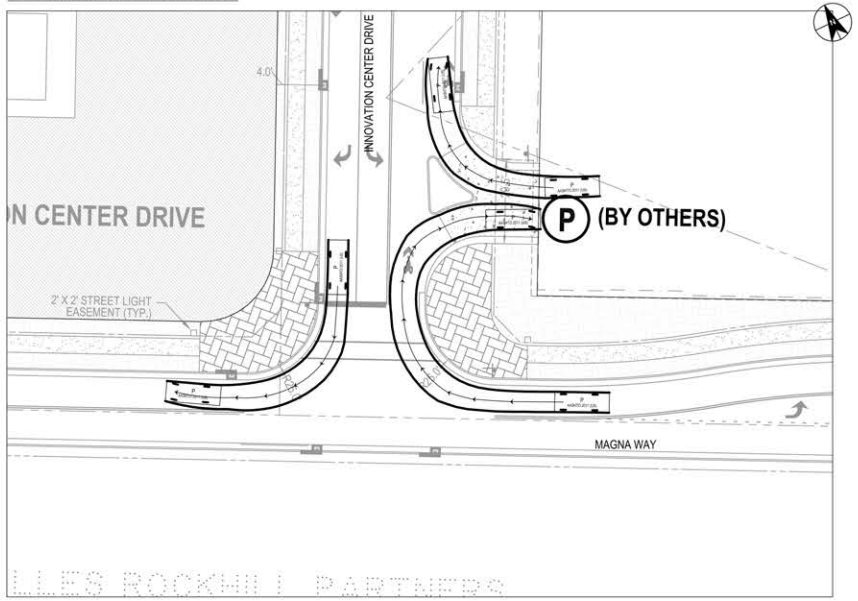
INNOVATION CENTER DRIVE & GARAGE ENTRANCE (BLDG A & D) - 01



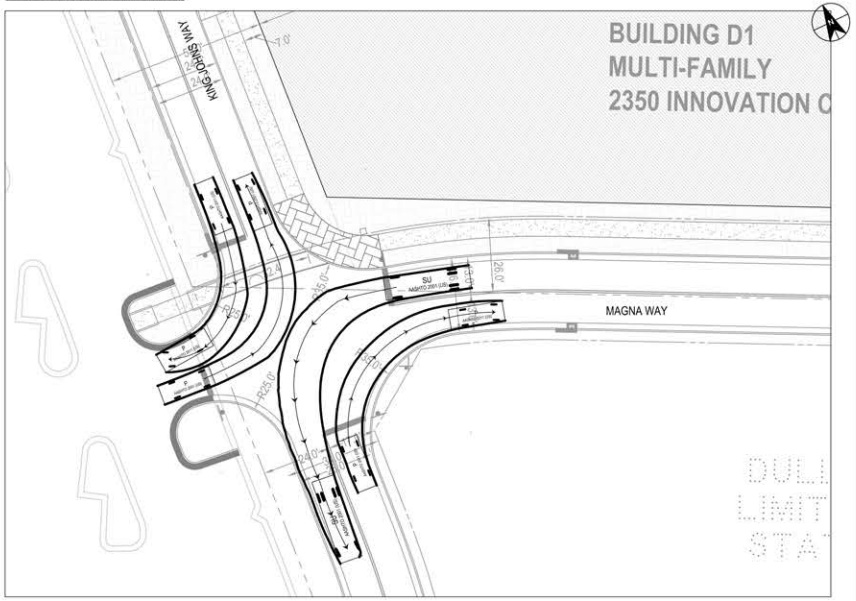
MAGNA WAY & KING JOHNS WAY - 01



MAGNA WAY & INNOVATION CENTER DRIVE - 01



MAGNA WAY & KING JOHNS WAY - 02



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Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
Coy A. Phillips
Lic. No. 048560
PROFESSIONAL ENGINEER

KEY PLAN

SCALE NORTH

SCALE IN FEET
1" = 20'
1 INCH

AS NOTED
VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY MLJ
APPROVED BY CAP
CHECKED BY CJD
DATE SEPTEMBER 2014

TITLE
INTERSECTION MOVEMENT

SP NO. #6848-SP-014

C03.903

SECTION NO. C03-ROAD DESIGN

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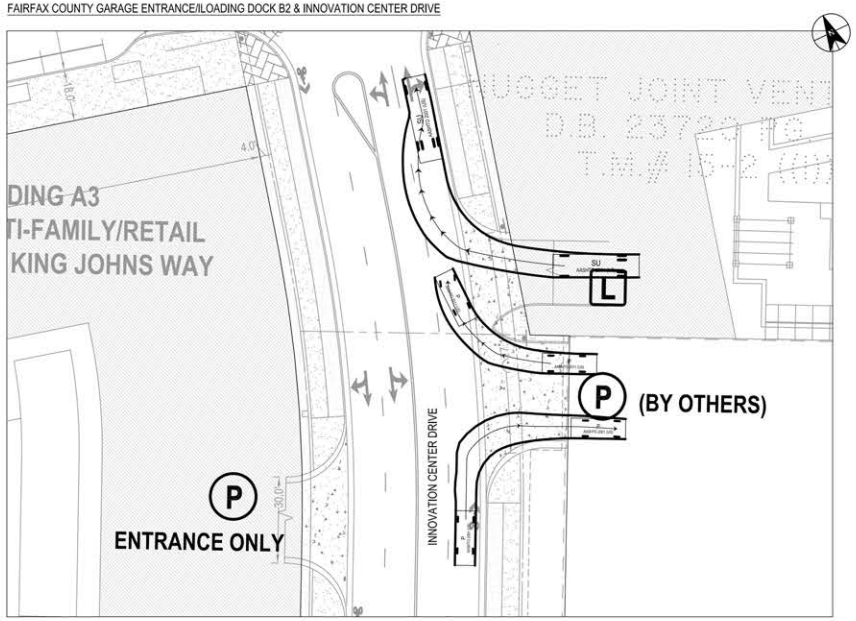
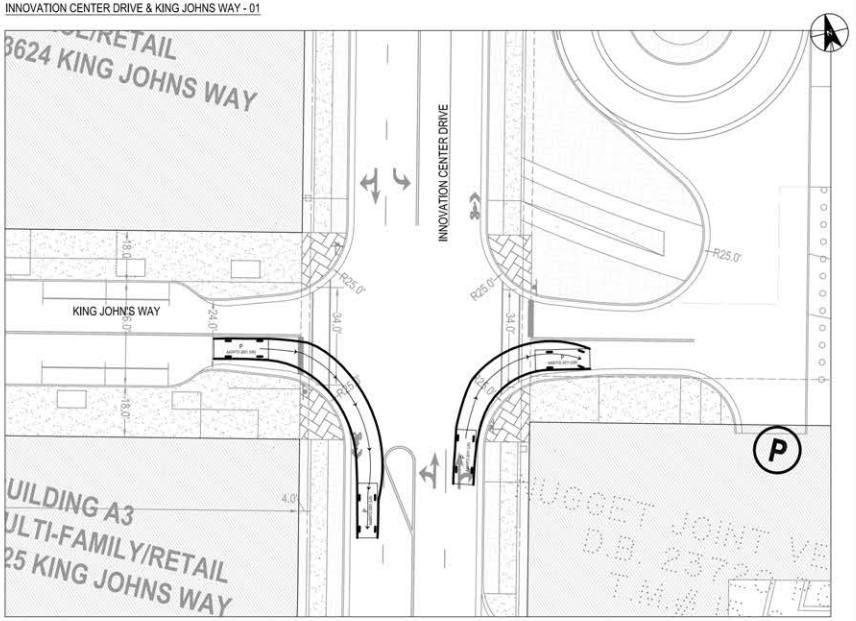
Wed, Oct 14 2015 - 9:14:42am

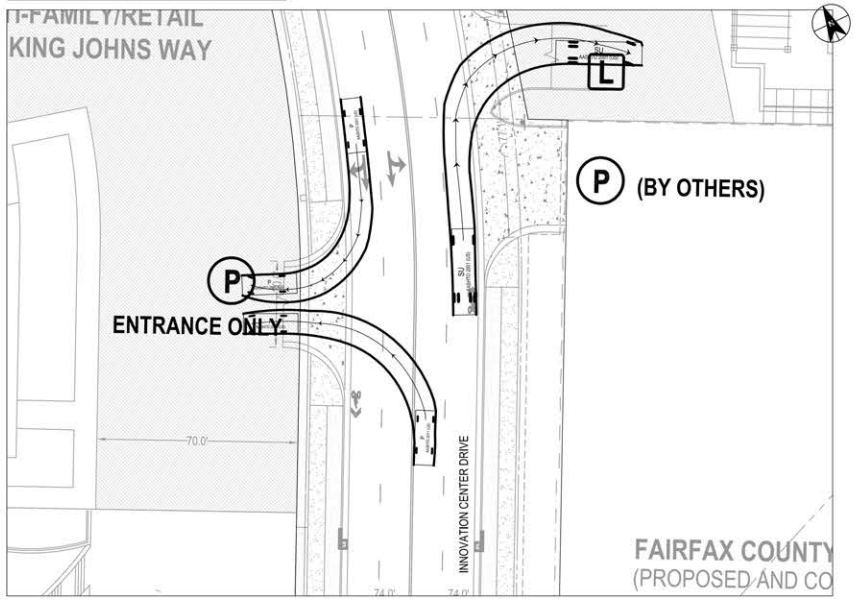
FAIRFAX COUNTY GARAGE ENTRANCE/ILOADING DOCK B2 & INNOVATION CENTER DRIVE



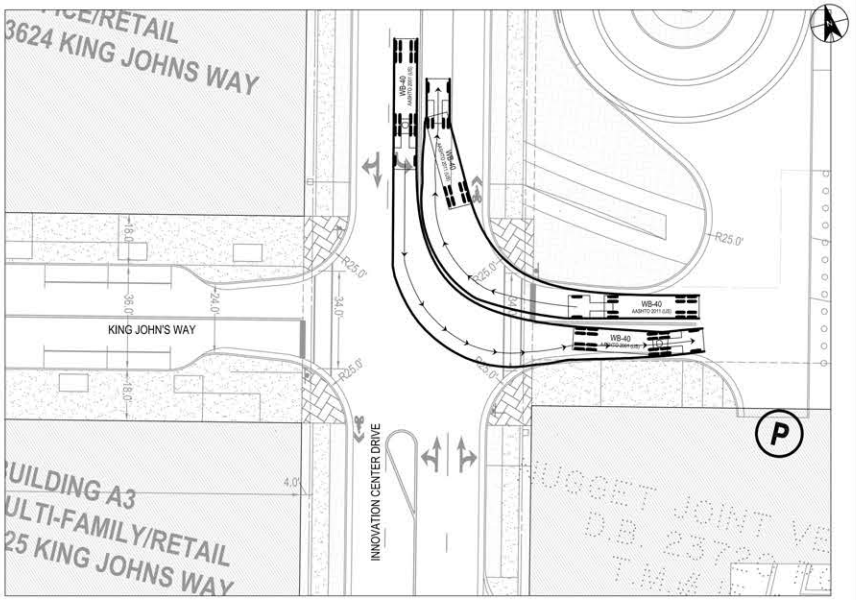
INNOVATION CENTER DRIVE & KING JOHNS WAY - 01



GARAGE ENTRANCE A3/B2 & INNOVATION CENTER DRIVE



INNOVATION CENTER DRIVE & KING JOHNS WAY - 02



Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CORY A. PINNELL
Lic. No. 048560
PROFESSIONAL ENGINEER

KEY PLAN

SCALE NORTH

SCALE IN FEET
1" = 20'
1 INCH

AS NOTED
VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MLJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE
INTERSECTION MOVEMENT

SP NO. #6848-SP-014

C03.904

SECTION NO. C03-ROAD DESIGN

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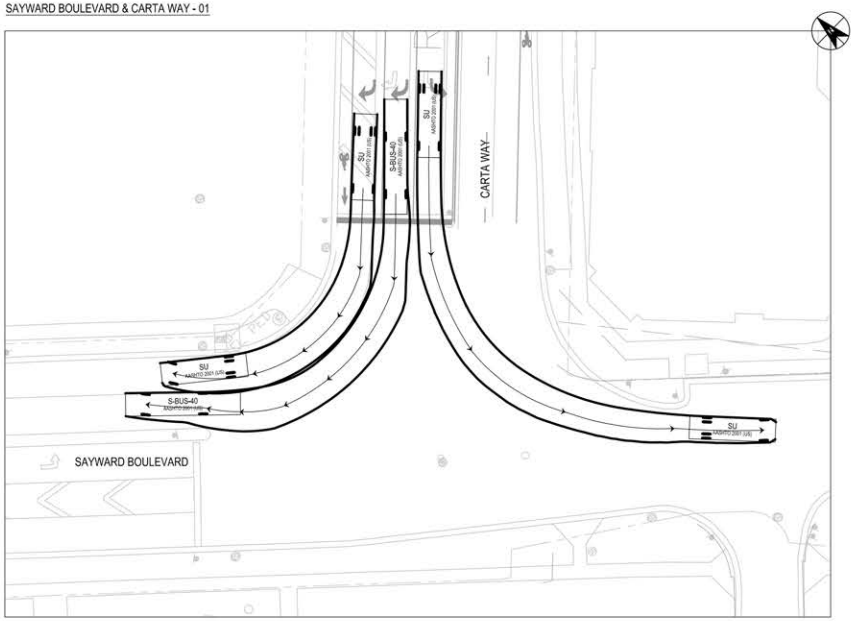
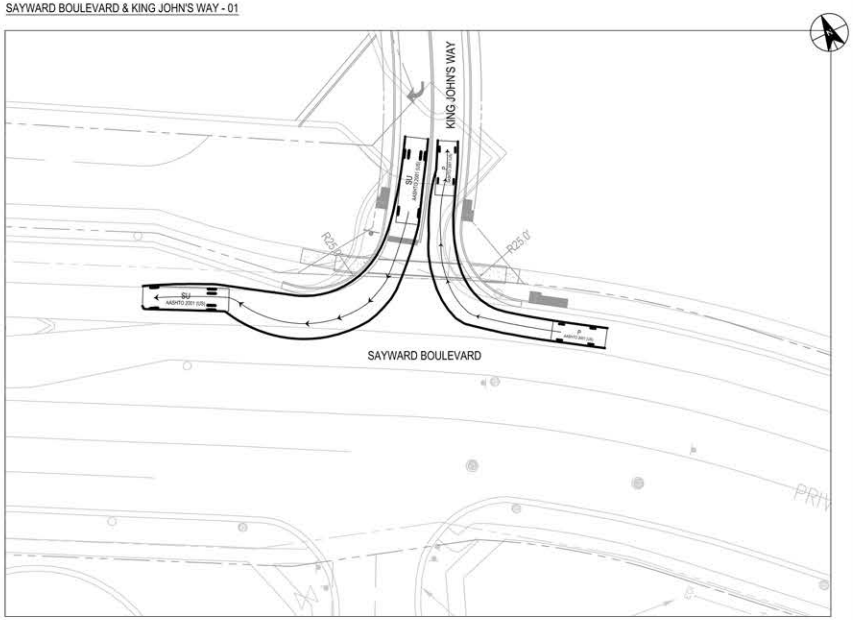
Wed, Oct 14 2015 - 01:10:53pm

SAYWARD BOULEVARD & CARTA WAY - 01



SAYWARD BOULEVARD & KING JOHN'S WAY - 01



Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

KEY PLAN

SCALE NORTH

SCALE IN FEET
1" = 20'
1 INCH

AS NOTED

VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MCJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE
INTERSECTION MOVEMENT

SP NO. #6848-SP-014

C03.905

SECTION NO. C03-ROAD DESIGN

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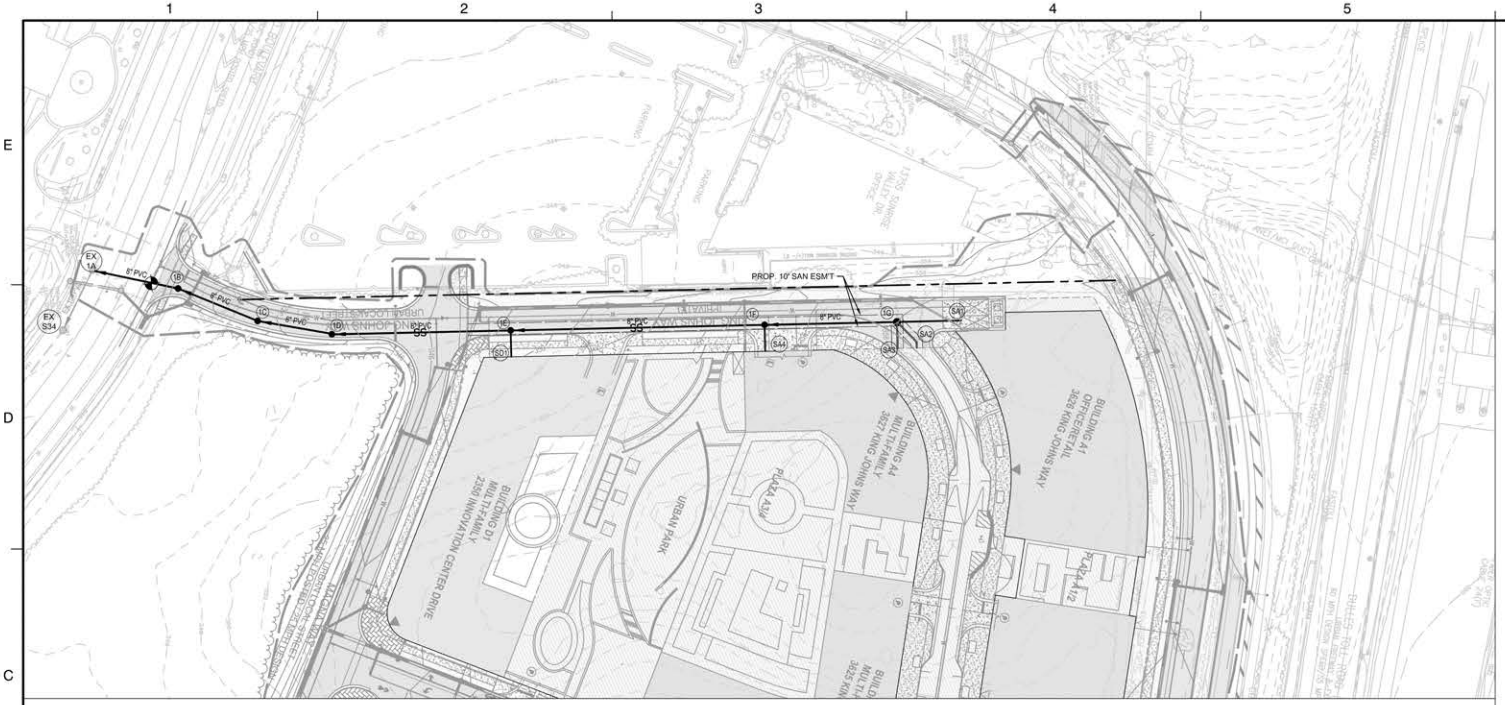
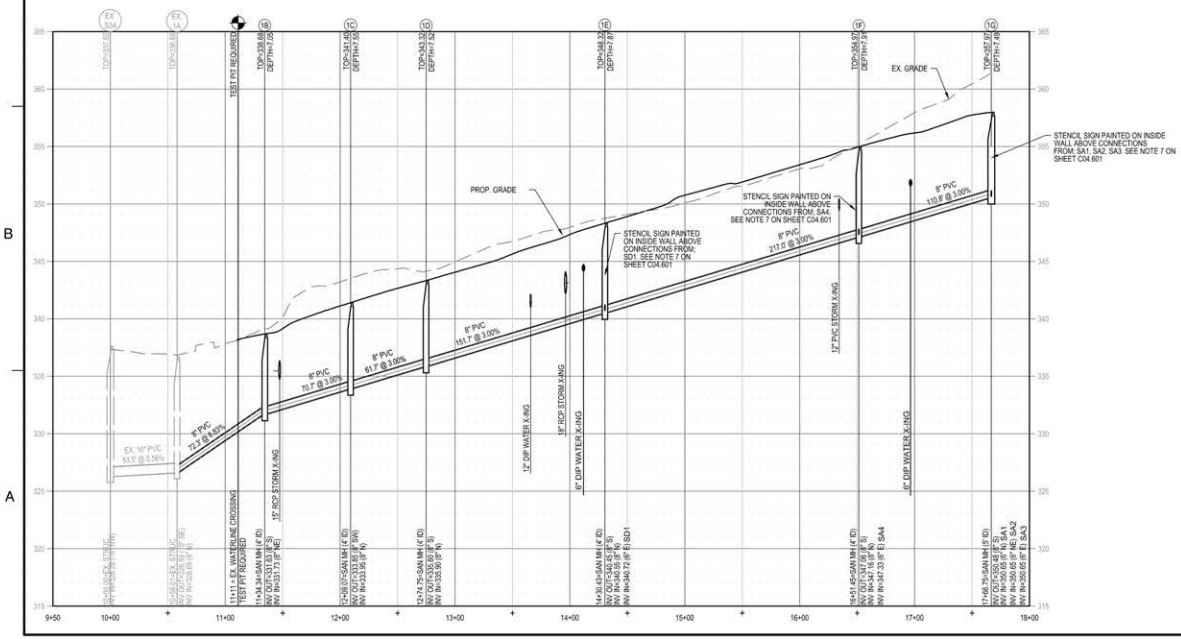
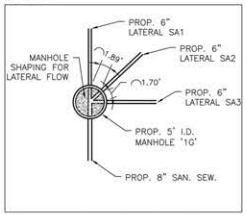
Wed, Oct 14 2015 - 01:53pm





PIPE TABLE			
PIPE BEGIN STRUCTURE	PIPE END STRUCTURE	LENGTH	BEARING
1A	S34	53.512'	S58° 52' 28.51"E
1B	1A	72.331'	S16° 52' 26.68"W
1C	1B	70.725'	S27° 09' 24.27"W
1D	1C	61.731'	S14° 54' 34.54"W
1E	1D	151.674'	S03° 44' 29.71"W
1F	1E	217.028'	S03° 44' 29.71"W
1G	1F	110.792'	S03° 44' 29.71"W
SA1	1G	47.264'	S03° 44' 29.71"W
SA2	1G	21.894'	S50° 39' 49.08"W
SA3	1G	15.251'	N86° 15' 30.29"W
SA4	1F	15.750'	N86° 15' 30.29"W
SD1	1E	15.750'	N86° 15' 30.29"W

SANITARY MANHOLE '1G' DETAIL
SCALE: 1" = 10'



Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

KEY PLAN

SCALE
H: 1" = 50'
1 INCH
V: 1" = 5'
1 INCH

NORTH
VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MLJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE
SANITARY SEWER PROFILES

SP NO. #6848-SP-014

C04.301

SECTION NO. C04-SANITARY SEWER

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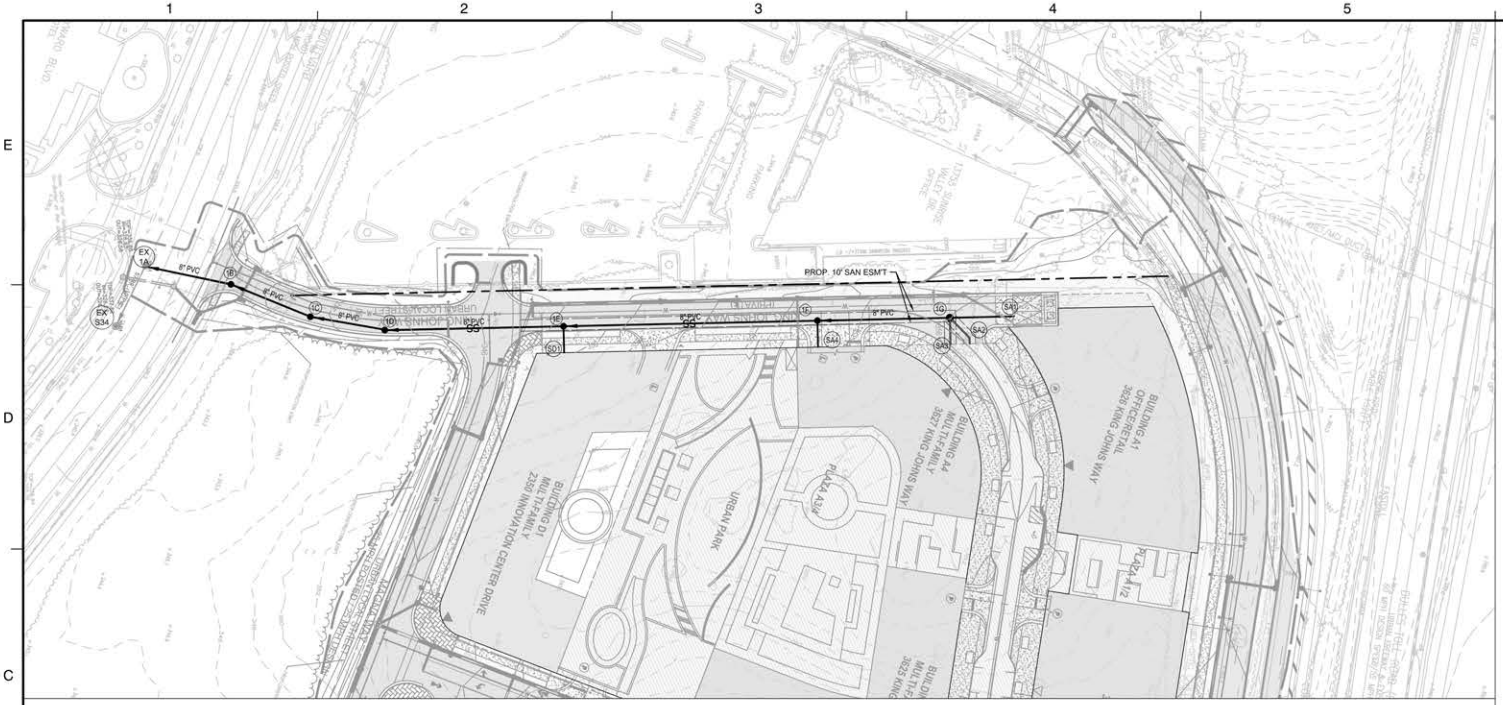
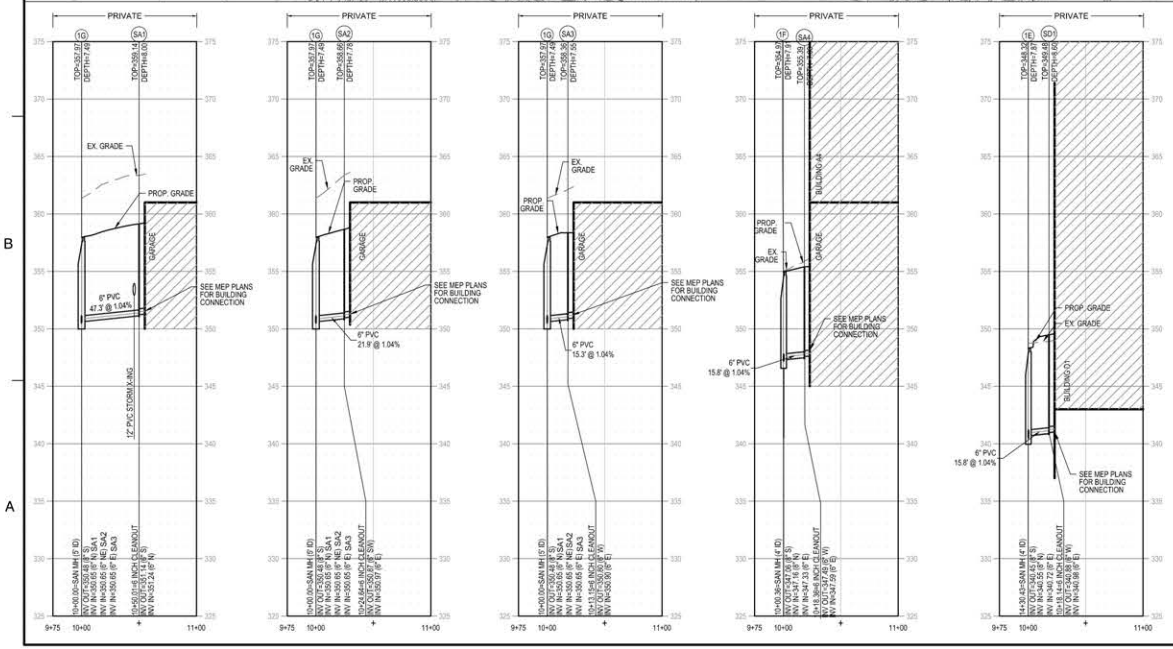


PIPE TABLE			
PIPE BEGIN STRUCTURE	PIPE END STRUCTURE	LENGTH	BEARING
M3	M2	274.002'	S27° 40' 47.30"W
M4	M3	354.795'	S27° 40' 47.30"W
S15	S16	276.215'	S50° 02' 33.93"E
S16	M0	28.677'	S47° 19' 58.14"E
SA1	1G	47.264'	S03° 44' 29.71"W
SA2	1G	21.894'	S50° 39' 49.08"W
SA3	1G	15.251'	N86° 15' 30.29"W
SA4	1F	15.750'	N86° 15' 30.29"W
SD1	1E	15.750'	N86° 15' 30.29"W



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703.849.0100 (PHONE)
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Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CODY A. PENNETTI
Lic. No. 045260
PROFESSIONAL ENGINEER
05-10-16

KEY PLAN

SCALE
H: 1" = 50'
1 INCH
V: 1" = 5'
1 INCH

NORTH
VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MLJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE
SANITARY SEWER PROFILES

SP NO. #6848-SP-014

C04.302

SECTION NO. C04-SANITARY SEWER

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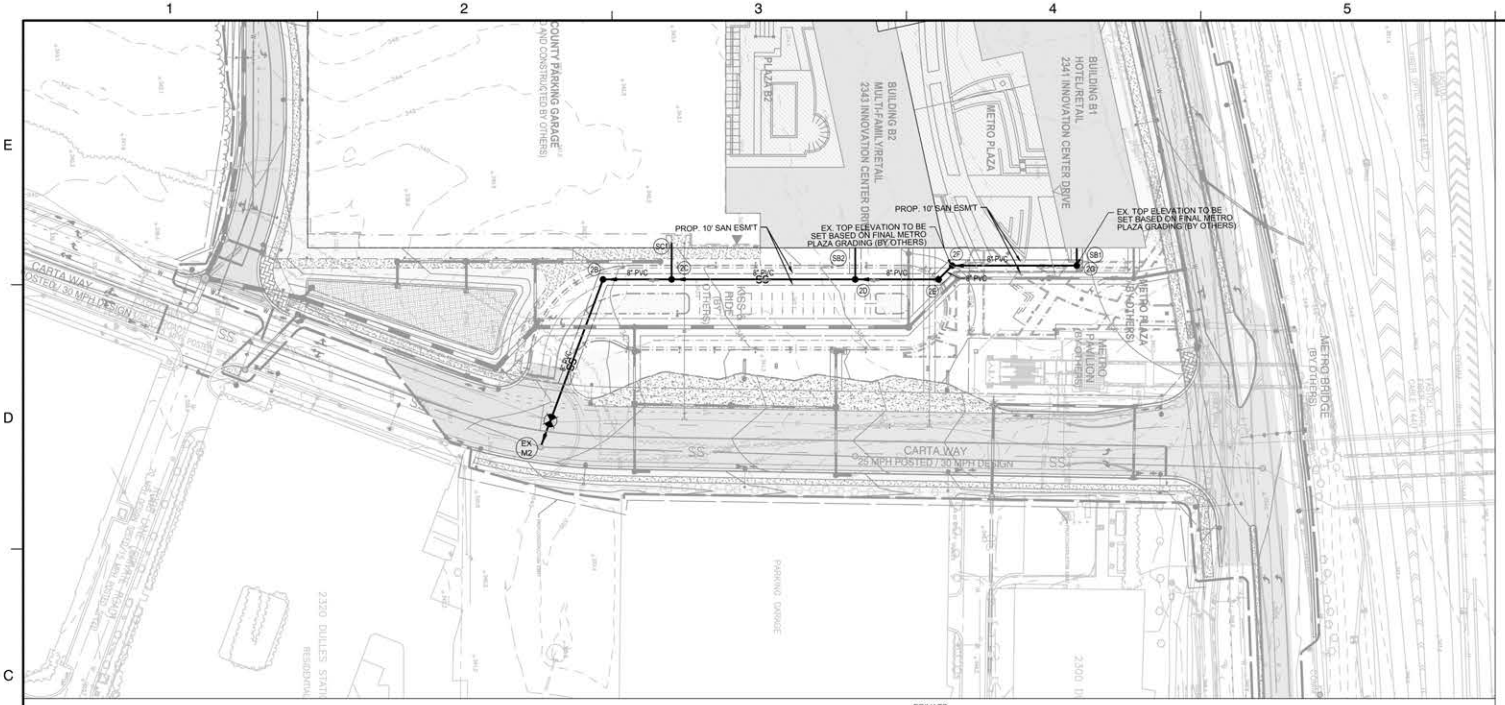
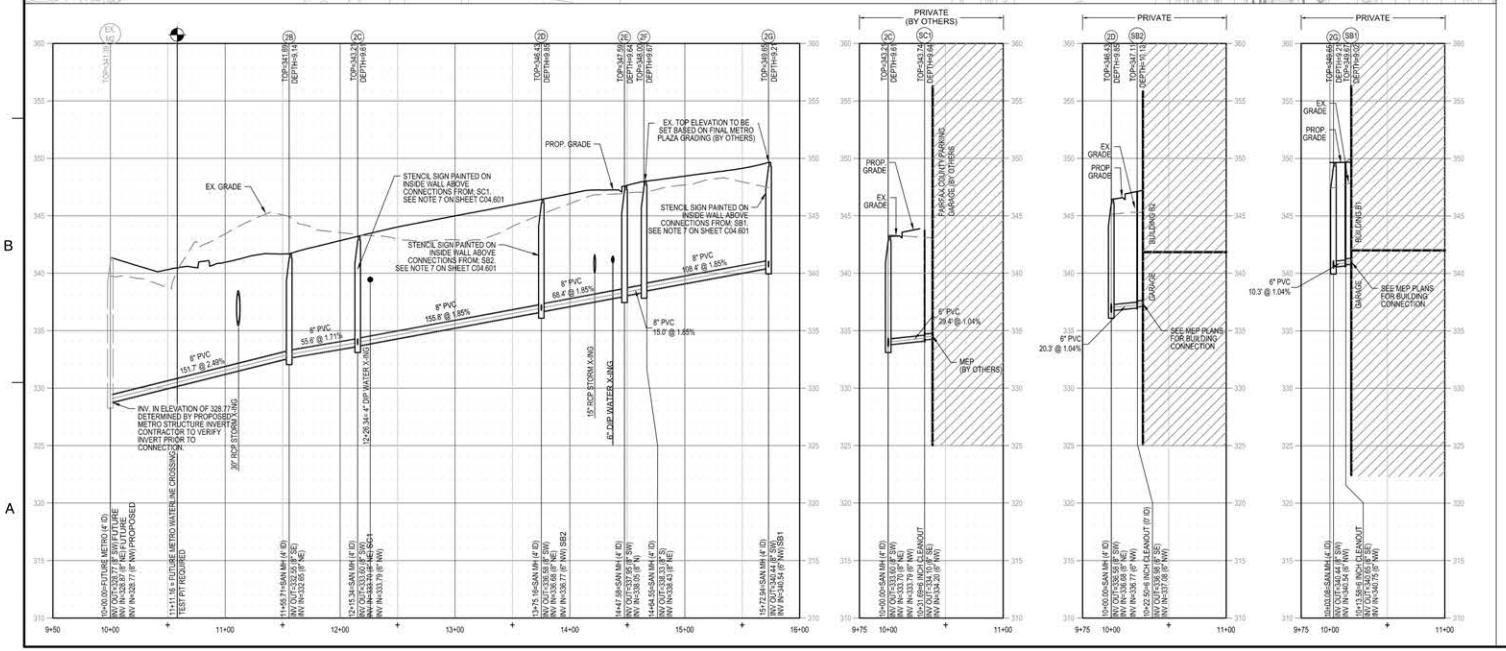
Fri, Oct 02 2015 - 8:47:26am





PIPE TABLE			
PIPE BEGIN STRUCTURE	PIPE END STRUCTURE	LENGTH	BEARING
2C	2B	55.636'	S26° 00' 00.00"W
2D	2C	155.817'	S26° 00' 00.00"W
2E	2D	68.404'	S26° 00' 00.00"W
2F	2E	14.964'	S19° 01' 14.90"E
2G	2F	108.393'	S26° 00' 00.00"W
SB1	2G	10.250'	S64° 08' 13.54"E
SB2	2D	20.250'	S64° 00' 00.00"E
SC1	2C	29.444'	S64° 00' 00.00"E
SD1	1E	15.750'	N86° 15' 30.29"W

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CODY A. PENNETTI
Lic. No. 045260
PROFESSIONAL ENGINEER
05-10-16

KEY PLAN

SCALE
H: 1" = 50'
1 INCH
V: 1" = 5'
1 INCH

NORTH
VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MLJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE
SANITARY SEWER PROFILES

SP NO. #6848-SP-014

C04.303

SECTION NO. C04-SANITARY SEWER

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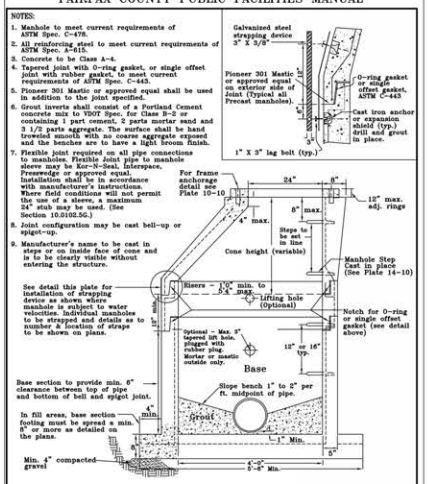
Fri, Oct 02 2015 - 8:49:07am

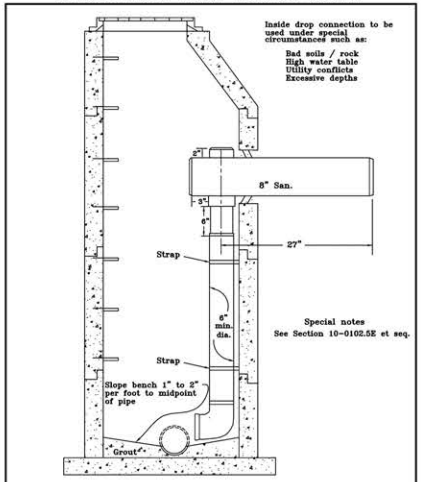
FAIRFAX COUNTY PUBLIC FACILITIES MANUAL

NOTES:
1. Manhole to meet current requirements of ASTM Spec. C-478.
2. All reinforcing steel to meet current requirements of ASTM Spec. A-615.
3. Concrete to be Class A-6.
4. Tapered joint with O-ring gasket, or single offset joint with rubber gasket, to meet current requirements of ASTM Spec. C-443.
5. Pioneer 301 Mastic or approved equal shall be used in addition to the joint specified.
6. Grout inverts shall consist of a Portland Cement concrete mix to VDOT Spec. for Class B-2 or containing 1 part cement, 2 parts mortar sand and 3 1/2 parts aggregate. The surface shall be hand troweled smooth with no coarse aggregate exposed and the benches are to have a light broom finish.
7. Flexible joint required on all pipe connections to manholes. Flexible joint pipe to manhole sleeve may be Kor-N-Seal, Interspace, Presswedge or approved equal. Installation shall be in accordance with manufacturer's instructions. Where field conditions will not permit the use of a sleeve, a maximum 24" stub may be used. (See Section 10.0102.5G.)
8. Joint configuration may be cast bell-up or spigot-up.
9. Manufacturer's name to be cast in steps or on inside face of cone and is to be clearly visible without entering the structure.



Ref. Sec. 10-0102.5D(7), Plate 4-10	TYPICAL 4'-0" ID PRECAST CONCRETE MANHOLE	PLATE NO.	STD. NO.
Rev. 1-00 , 2011 Reprint, 4-13		3-10	DPW-15

FAIRFAX COUNTY PUBLIC FACILITIES MANUAL



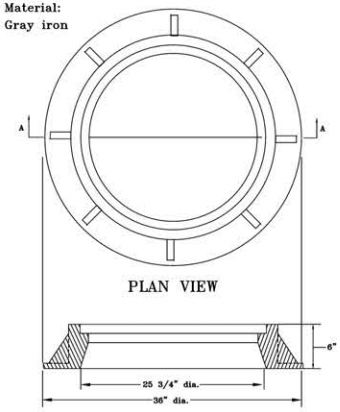
Ref. Sec. 10-0102.5E	TYPICAL 4' MANHOLE WITH INSIDE DROP CONNECTION	PLATE NO.	STD. NO.
Rev. 1-00, 2-07		15-10	DPW-25B

GENERAL SANITARY SEWER CONSTRUCTION NOTES

1. ALL SANITARY SEWER LATERAL MUST GRAVITY FLOW FROM LOWEST FLOOR TO BE SERVED TO SANITARY SEWER MAIN, NO PUMPING ALLOWED.
2. NO OTHER UTILITIES, CABLE BOXES, TREES, ETC. ARE ALLOWED IN SANITARY SEWER EASEMENTS.
3. A 1.5' MIN CLEARING BETWEEN SANITARY LATERALS AND WATERMAIN CROSSING OTHERWISE, USE D.I.P. FOR LATERALS.
4. ALL SANITARY SEWER LINES ARE TO BE 8" PVC, UNLESS OTHERWISE NOTED.
5. ALL SANITARY SEWER LATERALS TO BE 8" PVC, UNLESS OTHERWISE NOTED.
6. MANHOLES LOCATED IN FILL AREAS SHALL EXTEND INTO THE ORIGINAL GROUND, AND FILLED WITH CLASS A-3 CONCRETE TO THE INVERT ELEVATION & SHALL HAVE SHARED CONCRETE INVERTS IN CONFORMANCE WITH FAIRFAX COUNTY STANDARDS AND SPECIFICATIONS.
7. A STENCIL PAINTED SIGN SHOULD BE PLACED ON THE INSIDE WALL OF EACH MANHOLE OVER TOP OF WHERE A PRIVATE LATERAL ENTERS. THE SIGN SHALL SAY: "END COUNTY MAINTENANCE". STRUCTURES REQUIRING THIS TREATMENT HAVE BEEN SO NOTED ON PROFILES.
8. SANITARY SEWER PIPE IDENTIFIED AS "PVC" SHALL BE TYPE SDR-35.
9. SANITARY SEWER PIPE WITH LESS THAN 8' COVER SHALL BE DIP, CLASS 52.

FAIRFAX COUNTY PUBLIC FACILITIES MANUAL

Material:
Gray iron



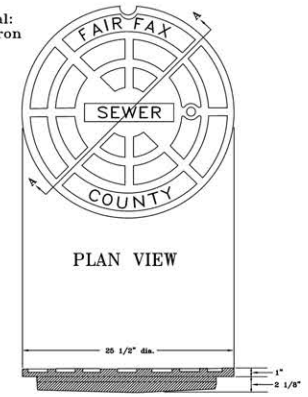
PLAN VIEW

SECTION A-A

Ref. Sec. 10-0102.5D(7) Ref. Plate 4-10	STANDARD ROADWAY FRAME	PLATE NO.	STD. NO.
Rev. 1-00		8-10	DPW-21

FAIRFAX COUNTY PUBLIC FACILITIES MANUAL

Material:
Gray iron



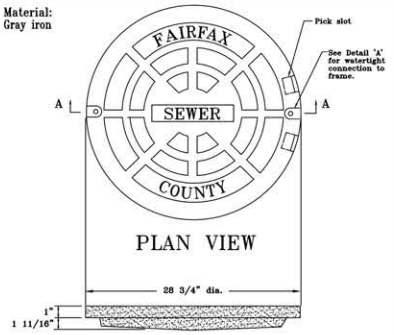
PLAN VIEW

SECTION A-A

Ref. Sec. 10-0102.5D(7) Ref. Plate 4-10	STANDARD ROADWAY MANHOLE COVER	PLATE NO.	STD. NO.
Rev. 1-00		9-10	DPW-21A

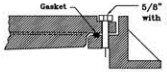
FAIRFAX COUNTY PUBLIC FACILITIES MANUAL

Material:
Gray iron



PLAN VIEW

SECTION A-A



DETAIL 'A'

Ref. Sec. 10-0102.5D(7), Plate 4-10	WATERTIGHT MANHOLE COVER	PLATE NO.	STD. NO.
Rev. 1-00, 2011 Reprint		11-10	DPW-23

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

KEY PLAN

SCALE NORTH

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY MLJ
APPROVED BY CAP
CHECKED BY CJD
DATE SEPTEMBER 2014

TITLE
SANITARY SEWER DETAILS

SP NO. #6848-SP-014

C04.601

SECTION NO. C04-SANITARY SEWER

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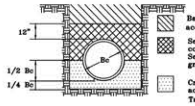
FAIRFAX COUNTY PUBLIC FACILITIES MANUAL

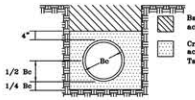


Backfill and compaction requirements in accordance with Section 10-0104.2I(13).

Select backfill – hand packed to 95% compaction in accordance with VDOT specs Sections 523.03, 302 and 303.10, max granular size 1".

Crushed stone VDOT size 57, 68, or 78 in accordance with VDOT specs Section 203. Table II-5

Ref. Secs. 6-1607.1B(2), 10-0103.7, Plate 20-10	TYPICAL TRENCH CONSTRUCTION PIPE BEDDING – ALTERNATE "A" (CONTRACTOR'S OPTION)	PLATE NO.	STD. NO.
Rev. 1-00, 2011 Reprint		18-10	DPW-6



Backfill and compaction requirements in accordance with Section 10-0104.2I(13)

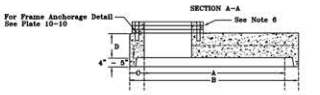
Crushed stone VDOT size 57, 68, or 78 in accordance with VDOT specs Section 203 Table II-5

NOTE 1: The width of the trench is to be as specified by the Engineer on the plans or as set forth in the Specs. Max. trench width and depth shall be as specified in Tables 10.4 and 10.5. Trenching methods must be in compliance with the Va. Department of Labor and Industry (VOSH) requirements.

NOTE 2: The pipe shall be bedded in carefully compacted granular material placed on a flat trench bottom. The granular material shall be crushed stone VDOT size 57, 68, or 78, in accordance with VDOT Spec. Section 203. The granular bedding shall have a min. thickness of 1/4 the outside pipe dia. (4" min.) and shall extend vertically in accordance with alternatives A or B. If the max. width of the trench at the top of the pipe exceeds those specified, granular bedding material will be brought to the top of the pipe for the full width of the trench. The remainder of the side fills and a min. depth of 12" over the top of the pipe shall be filled with carefully compacted material. Should the contractor elect to use larger stone to carry the water, the larger stone is to be placed beneath the specified amount of granular material. The larger stone is not in any way to affect the amount of granular material to be used.

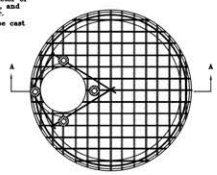
Ref. Sec. 6-1607.1B(2), 10-0103.7, 10-0104.2I(13), Plates 20-10, 23-10, 24-10	TYPICAL TRENCH CONSTRUCTION PIPE BEDDING – ALTERNATE "B" (CONTRACTOR'S OPTION)	PLATE NO.	STD. NO.
Rev. 1-00, 2011 Reprint		19-10	DPW-6

FAIRFAX COUNTY PUBLIC FACILITIES MANUAL



NOTES:
1. Concrete to be Class A-4.
2. All reinforcing steel to meet current requirements of ASTM Spec. A-615.
3. Manhole sections to meet current requirements of ASTM Spec. C-478.
4. Flat tops shall be used only when specifically required on the plans, or where there is a height or invert conflict, as determined by the contractor or the precast manufacturer, and approved by the inspector.
5. Joint configuration may be cast bell-up or spigot-up.
6. A max. adjustment of 12" on a manhole flat top is allowed.

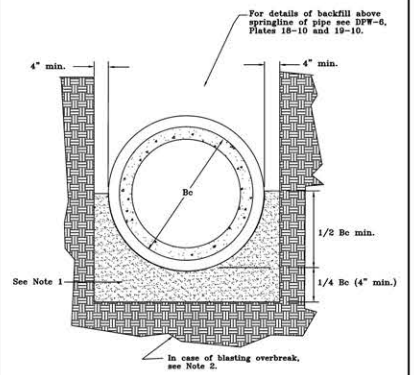
MANHOLE SIZE (in.)			
	4'-0"	5'-0"	6'-0"
A	48"	60"	72"
B	58"	70"	82"
C	6"	6"	7"
D	8"	8"	8"



TOP VIEW

Ref. Sec. 10-0102.5D(7), Plate 4-10	PRECAST CONCRETE MANHOLE FLAT TOP	PLATE NO.	STD. NO.
Rev. 1-00, 2011 Reprint		6-10	DPW-18

FAIRFAX COUNTY PUBLIC FACILITIES MANUAL



NOTES:
1. The compacted crushed stone is to be as described in Plates 18-10 and 19-10 of the specs.
2. Blasting overbreak to be removed and replaced with compacted crushed stone.

Ref. Sec. 10-0103.7	TYPICAL TRENCH IN ROCK	PLATE NO.	STD. NO.
Rev. 1-00, 2011 Reprint		20-10	DPW-7

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

KEY PLAN

SCALE NORTH

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY MLJ
APPROVED BY CAP
CHECKED BY CJD
DATE SEPTEMBER 2014

TITLE
SANITARY SEWER DETAILS

SP NO. #6848-SP-014

C04.602

SECTION NO. C04-SANITARY SEWER

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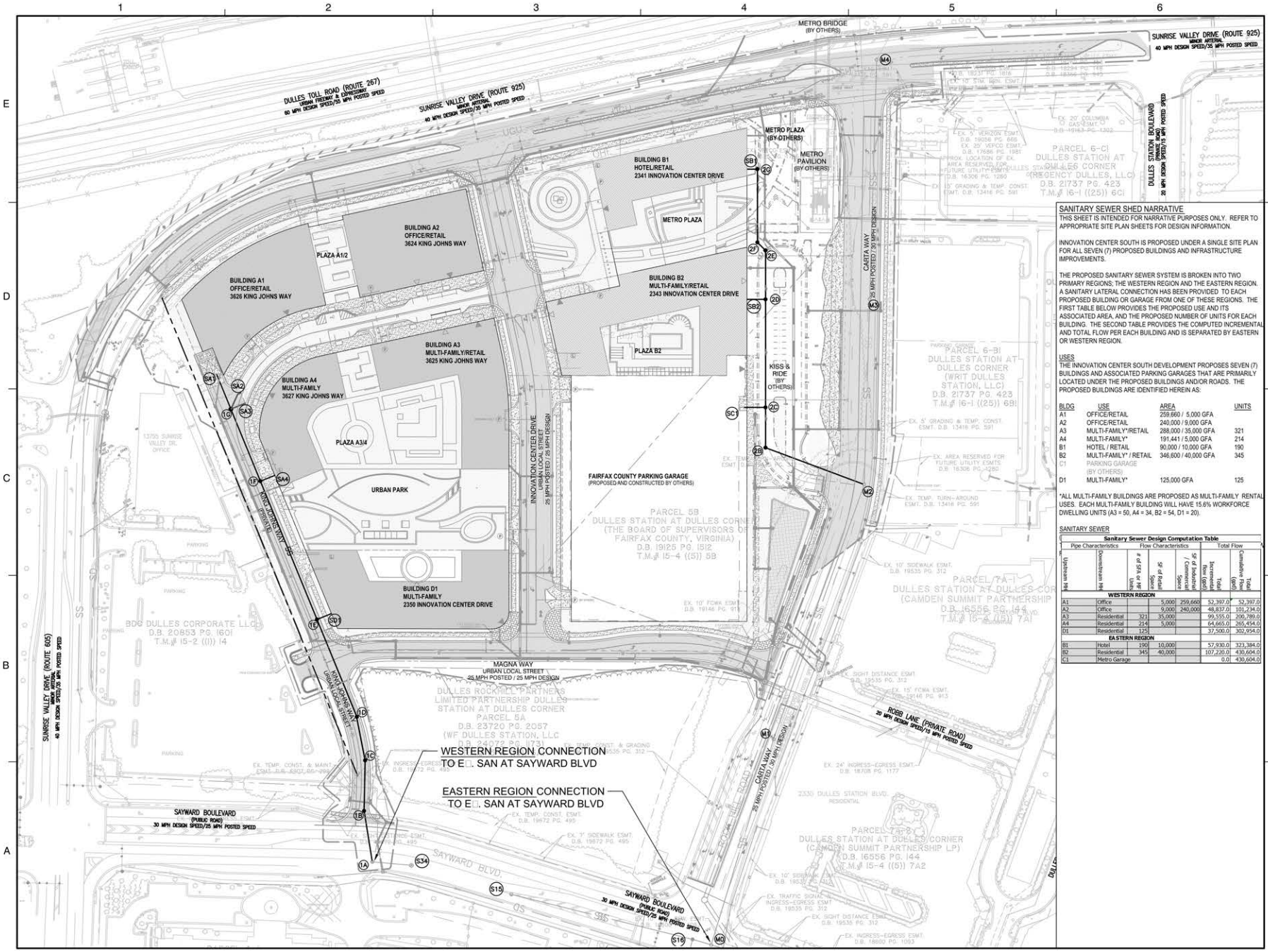

SANITARY SEWER SHED NARRATIVE

THIS SHEET IS INTENDED FOR NARRATIVE PURPOSES ONLY. REFER TO APPROPRIATE SITE PLAN SHEETS FOR DESIGN INFORMATION.

INNOVATION CENTER SOUTH IS PROPOSED UNDER A SINGLE SITE PLAN FOR ALL SEVEN (7) PROPOSED BUILDINGS AND INFRASTRUCTURE IMPROVEMENTS.

THE PROPOSED SANITARY SEWER SYSTEM IS BROKEN INTO TWO PRIMARY REGIONS; THE WESTERN REGION AND THE EASTERN REGION. A SANITARY LATERAL CONNECTION HAS BEEN PROVIDED TO EACH PROPOSED BUILDING OR GARAGE FROM ONE OF THESE REGIONS. THE FIRST TABLE BELOW PROVIDES THE PROPOSED USE AND ITS ASSOCIATED AREA, AND THE PROPOSED NUMBER OF UNITS FOR EACH BUILDING. THE SECOND TABLE PROVIDES THE COMPUTED INCREMENTAL AND TOTAL FLOW PER EACH BUILDING AND IS SEPARATED BY EASTERN OR WESTERN REGION.

USES

THE INNOVATION CENTER SOUTH DEVELOPMENT PROPOSES SEVEN (7) BUILDINGS AND ASSOCIATED PARKING GARAGES THAT ARE PRIMARILY LOCATED UNDER THE PROPOSED BUILDINGS AND/OR ROADS. THE PROPOSED BUILDINGS ARE IDENTIFIED HEREIN AS:

BLDG	USE	AREA	UNITS
A1	OFFICE/RETAIL	259,660 / 5,000 GFA	
A2	OFFICE/RETAIL	240,000 / 9,000 GFA	
A3	MULTI-FAMILY*/RETAIL	288,000 / 35,000 GFA	321
A4	MULTI-FAMILY*	191,441 / 5,000 GFA	214
B1	HOTEL / RETAIL	90,000 / 10,000 GFA	190
B2	MULTI-FAMILY* / RETAIL	346,600 / 40,000 GFA	345
C1	PARKING GARAGE (BY OTHERS)		
D1	MULTI-FAMILY*	125,000 GFA	125

*ALL MULTI-FAMILY BUILDINGS ARE PROPOSED AS MULTI-FAMILY RENTAL USES. EACH MULTI-FAMILY BUILDING WILL HAVE 15.6% WORKFORCE DWELLING UNITS (A3 = 50, A4 = 34, B2 = 54, D1 = 20).

SANITARY SEWER

Sanitary Sewer Design Computation Table

Manhole No.	Downstream MH	Pipe Characteristics: # of SFA or MF Units	Flow Characteristics: SF of Retail Space	Flow Characteristics: SF of Residential / Commercial Space	Total Flow: Incremental Total Flow (gpd)	Total Flow: Cumulative Total Flow (gpd)
WESTERN REGION						
A1	Office		5,000	259,660	52,397.0	52,397.0
A2	Office		9,000	240,000	48,837.0	101,234.0
A3	Residential	321	35,000		99,555.0	200,789.0
A4	Residential	214	5,000		64,665.0	265,454.0
D1	Residential	125			37,500.0	302,954.0
EASTERN REGION						
B1	Hotel	190	10,000		57,930.0	323,384.0
B2	Residential	345	40,000		107,220.0	430,604.0
C1	Metro Garage				0.0	430,604.0

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FAIRFAX, VA 22031
703.849.0100 (PHONE)
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INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CODY A. PENNETTI
Lic. No. 045860
PROFESSIONAL ENGINEER

KEY PLAN

SCALE NORTH

SCALE IN FEET
1" = 60'
1 INCH

VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MLJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE

SANITARY NARRATIVE

SP NO. #6848-SP-014

C04.701

SECTION NO. C04-SANITARY SEWER

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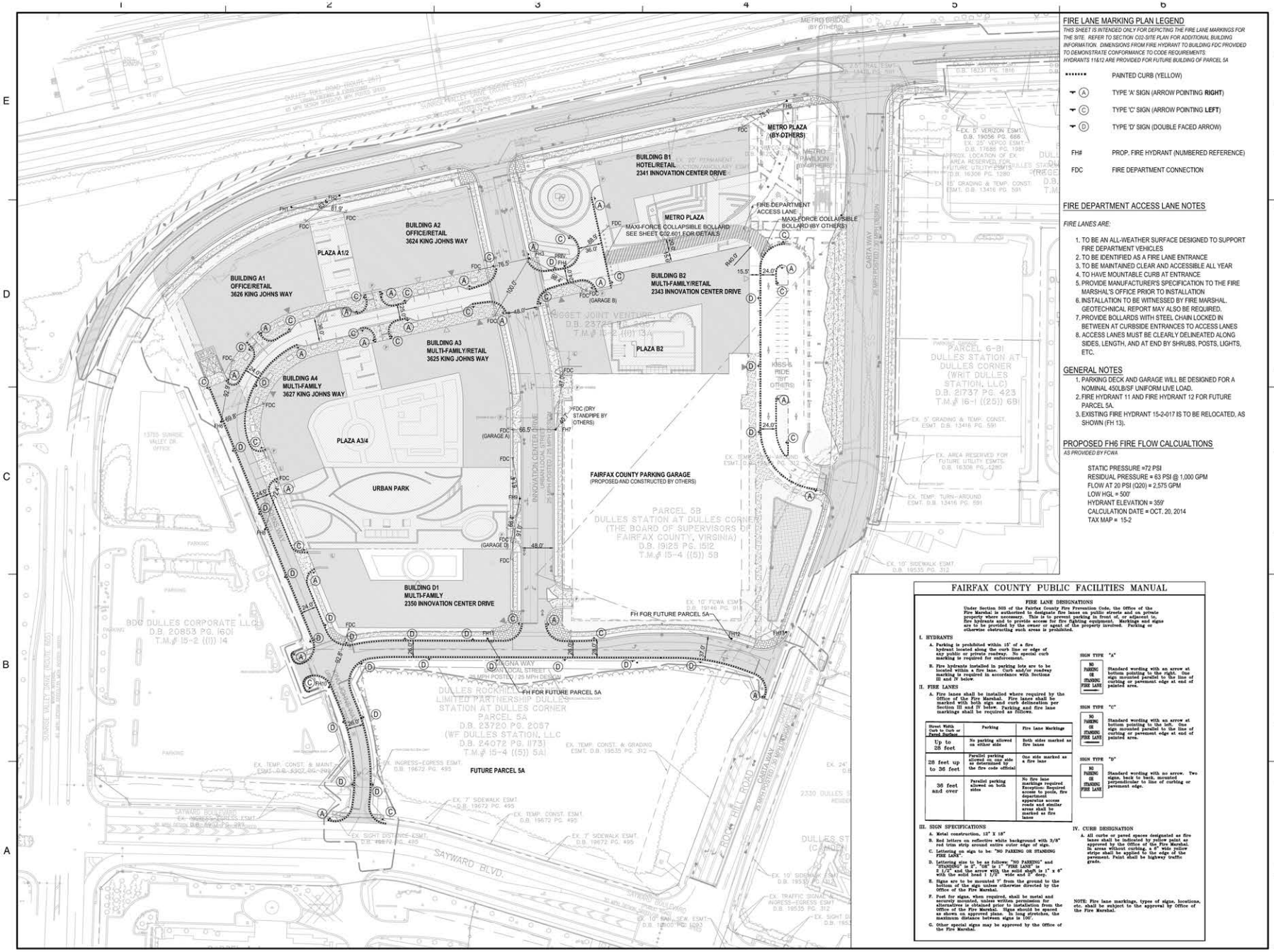
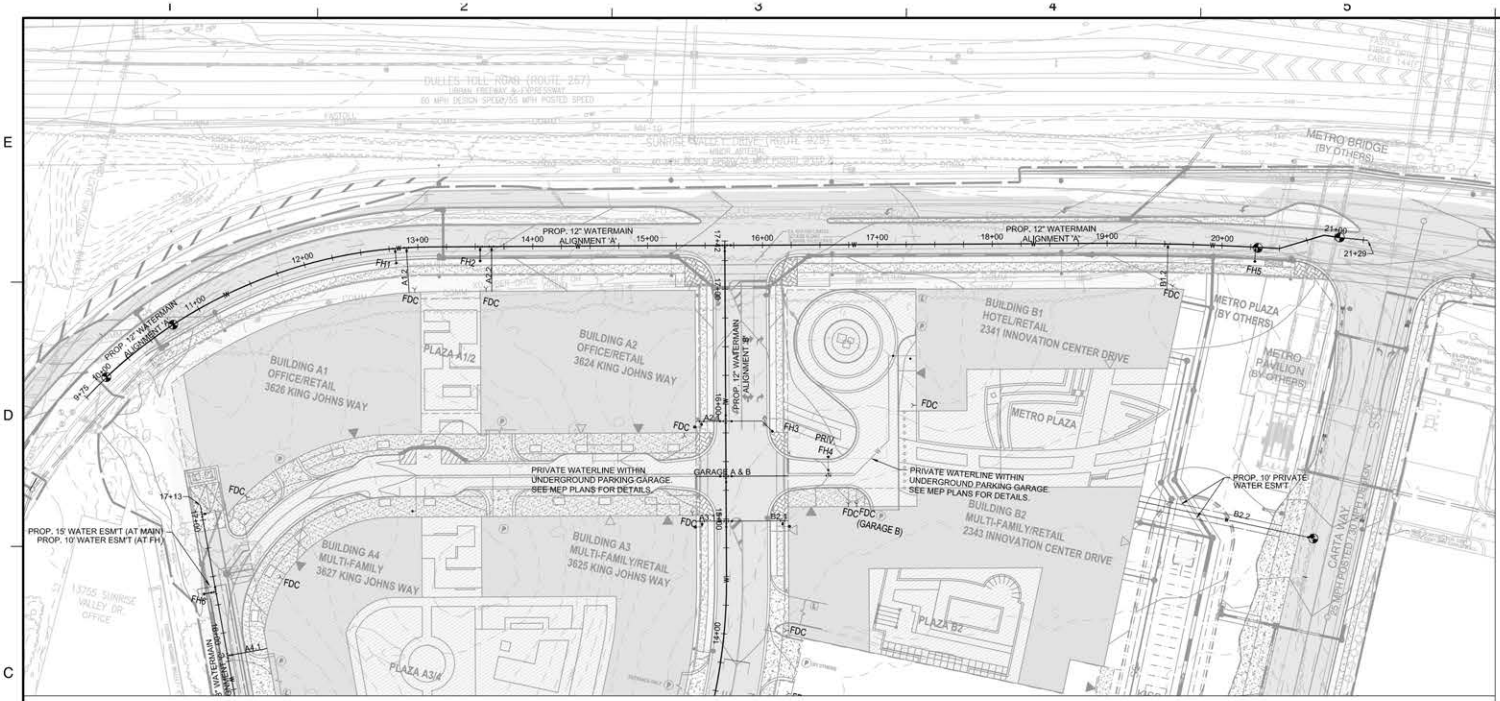
Fri, Oct 02 2015 - 8:50:45am


BUILDING B1
HOTEL/RETAIL
2341 INNOVATION CENTER DRIVE
METRO PLAZA
(BY OTHERS)
METRO PLAZA
FIRE DEPARTMENT ACCESS LANE
MAXI-FORCE COLLAPSIBLE BOLLARD (BY OTHERS)
MAXI-FORCE COLLAPSIBLE BOLLARD SEE SHEET C02.601 FOR DETAILS
BUILDING A2
OFFICE/RETAIL
3624 KING JOHNS WAY
PLAZA A1/2
BUILDING A1
OFFICE/RETAIL
3626 KING JOHNS WAY
BUILDING B2
MULTI-FAMILY/RETAIL
2343 INNOVATION CENTER DRIVE
BUILDING A3
MULTI-FAMILY/RETAIL
3625 KING JOHNS WAY
PLAZA B2
BUILDING A4
MULTI-FAMILY
3627 KING JOHNS WAY
PLAZA A3/4
FAIRFAX COUNTY PARKING GARAGE
(PROPOSED AND CONSTRUCTED BY OTHERS)
URBAN PARK
PARCEL 5B
DULLES STATION AT DULLES CORNER
(THE BOARD OF SUPERVISORS OF FAIRFAX COUNTY, VIRGINIA)
D.B. 19125 PG. 1512
T.M.# 15-4 ((5)) 5B
BUILDING D1
MULTI-FAMILY
2350 INNOVATION CENTER DRIVE
FH FOR FUTURE PARCEL 5A
FUTURE PARCEL 5A
INNOVATION CENTER SOUTH
URBAN LOCAL STREET
25 MPH POSTED / 25 MPH DESIGN
SAYWARD BLVD.
CARTA WAY
ROCK HILL ROAD
VIRGINIA
BDC DULLES CORPORATE LLC
D.B. 20853 PG. 1601
T.M.# 15-2 ((1)) 14
DULLES ROCKWELL LIMITED PARTNERSHIP DULLES STATION AT DULLES CORNER
PARCEL 5A
D.B. 23720 PG. 2057
(WF DULLES STATION, LLC
D.B. 24072 PG. 1173)
T.M.# 15-4 ((5)) 5A
PARCEL 6-B1
DULLES STATION AT DULLES CORNER
(WRIT DULLES STATION, LLC)
D.B. 21737 PG. 1423
T.M.# 16-1 ((25)) 6B1
KISS & RIDE (BY OTHERS)
METRO PAVILION (BY OTHERS)
METRO BRIDGE (BY OTHERS)
13755 SUNRISE VALLEY DR. OFFICE
EX. 5' VERIZON ESMT. D.B. 19056 PG. 666
EX. 25' VEPCO ESMT. D.B. 17686 PG. 1981
EX. 15' GRADING & TEMP. CONST. ESMT. D.B. 13416 PG. 591
EX. AREA RESERVED FOR FUTURE UTILITY ESMTS. D.B. 16308 PG. 1280
EX. TEMP. TURN-AROUND ESMT. D.B. 13416 PG. 591
EX. 10' SIDEWALK ESMT. D.B. 19535 PG. 312
EX. 10' FCWA ESMT. D.B. 19146 PG. 918
EX. TEMP. CONST. & GRADING ESMT. D.B. 19535 PG. 312
EX. TEMP. CONST. & MAINT. ESMT. D.B. 4357, PG. 282
EX. INGRESS-EGRESS ESMT. D.B. 19672 PG. 495
EX. 7' SIDEWALK ESMT. D.B. 19672 PG. 495
EX. TEMP. CONST. ESMT. D.B. 19672 PG. 495
EX. SIGHT DISTANCE ESMT. D.B. 19672 PG. 495
EX. 10' SAN. SEW. ESMT. D.B. 12000 PG. 1693
EX. TRAFFIC SIGNAL INGRESS-EGRESS ESMT. D.B. 19535 PG. 312
EX. 24' D
2330 DULLES
DULLES ST
(C.
FH1
FH2
FH3
FH4
FH5
FH6
FH7
FH8
FH9
FH10
FH11
FH12
FH13
FDC
PRV
(GARAGE A)
(GARAGE B)
(GARAGE D)
FDC (DRY STANDPIPE BY OTHERS)
81.9'
76.5'
100.0'
48.0'
36.0'
68.9'
69.8'
66.5'
91.4'
87.0'
82.8'
24.0'
15.5'
RAD.0'
90.9'
24.0'
24.0'
24.0



NOTES:

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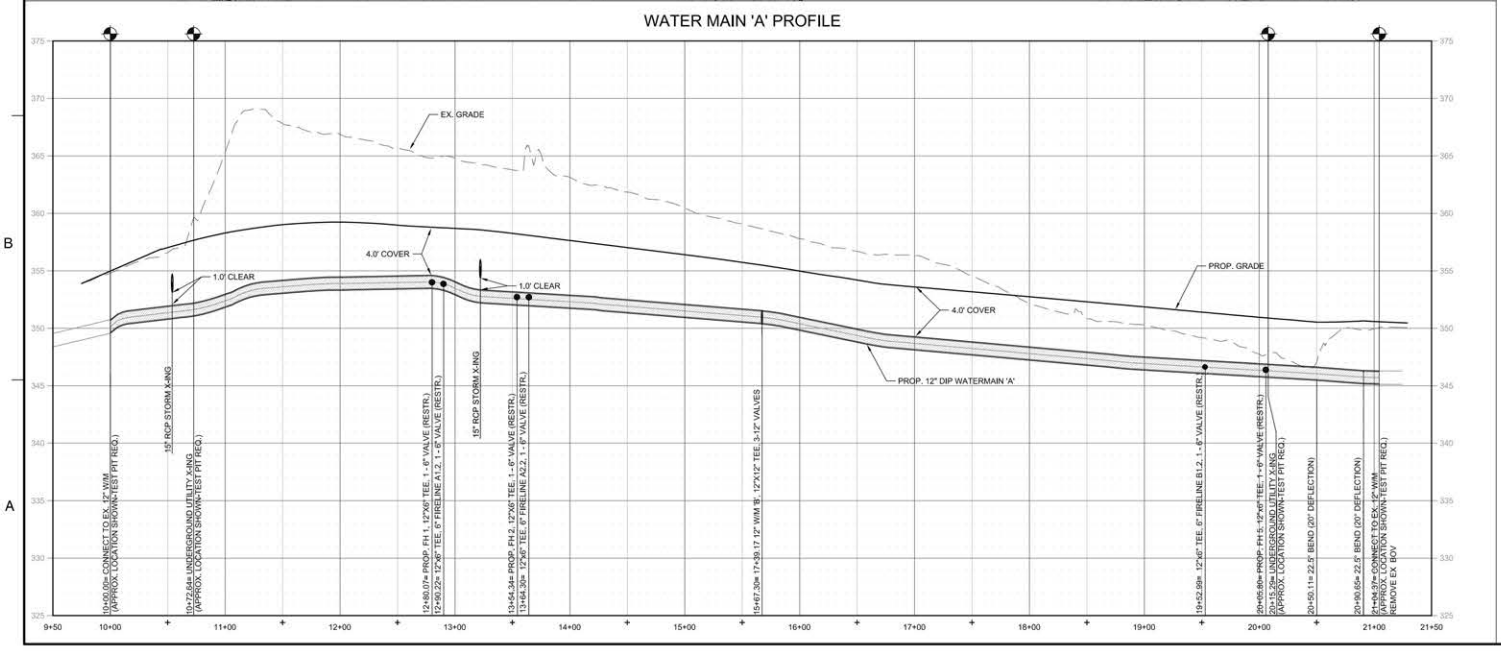

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CARL A. PUNG P.E.
Lic. No. 040502
PROFESSIONAL ENGINEER

KEY PLAN

SCALE
H: 1" = 50'
1 INCH
V: 1" = 5'
1 INCH

NORTH
VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MLJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE
WATER MAIN PROFILES

SP NO. #6848-SP-014

C05.301

SECTION NO. C05-FIRE & WATER

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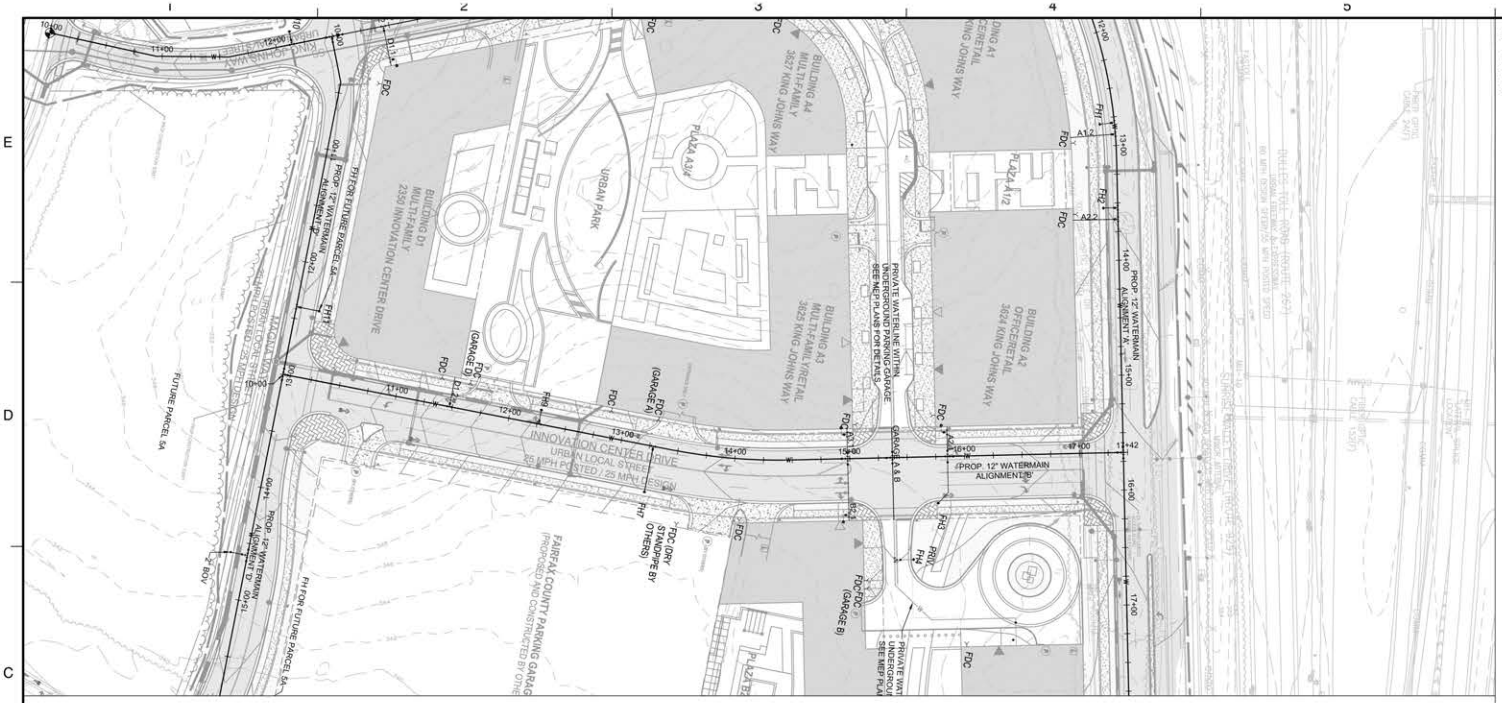

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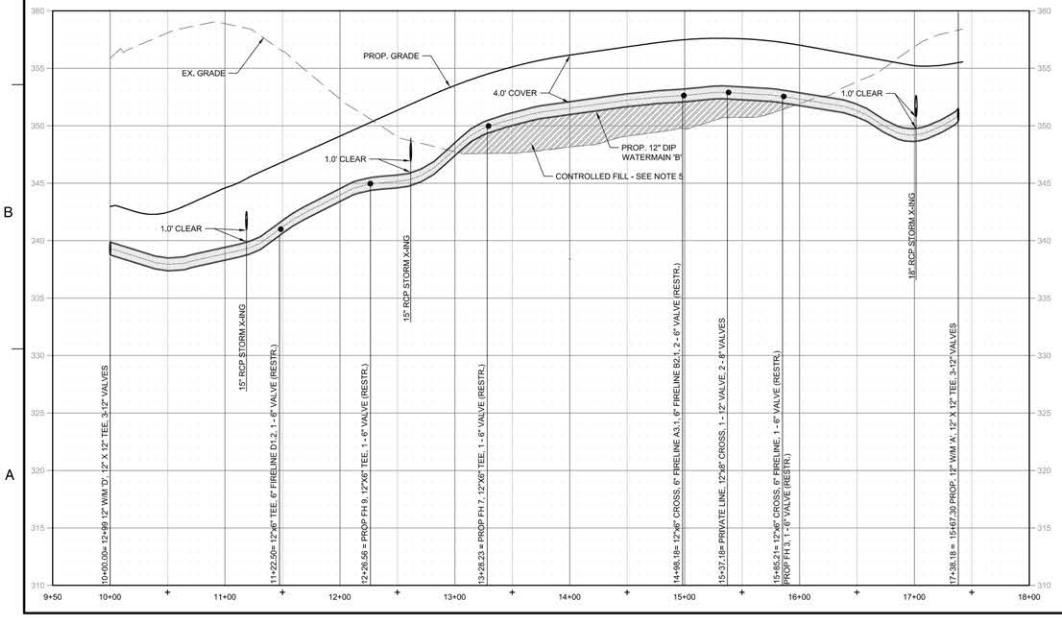
WATER MAIN 'B' PROFILE



Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

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INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CODY A. PUNSKE
No. 045160
PROFESSIONAL ENGINEER

KEY PLAN

SCALE
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1 INCH
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1 INCH

NORTH
VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE
WATER MAIN PROFILES

SP NO. #6848-SP-014

C05.302

SECTION NO. C05-FIRE & WATER

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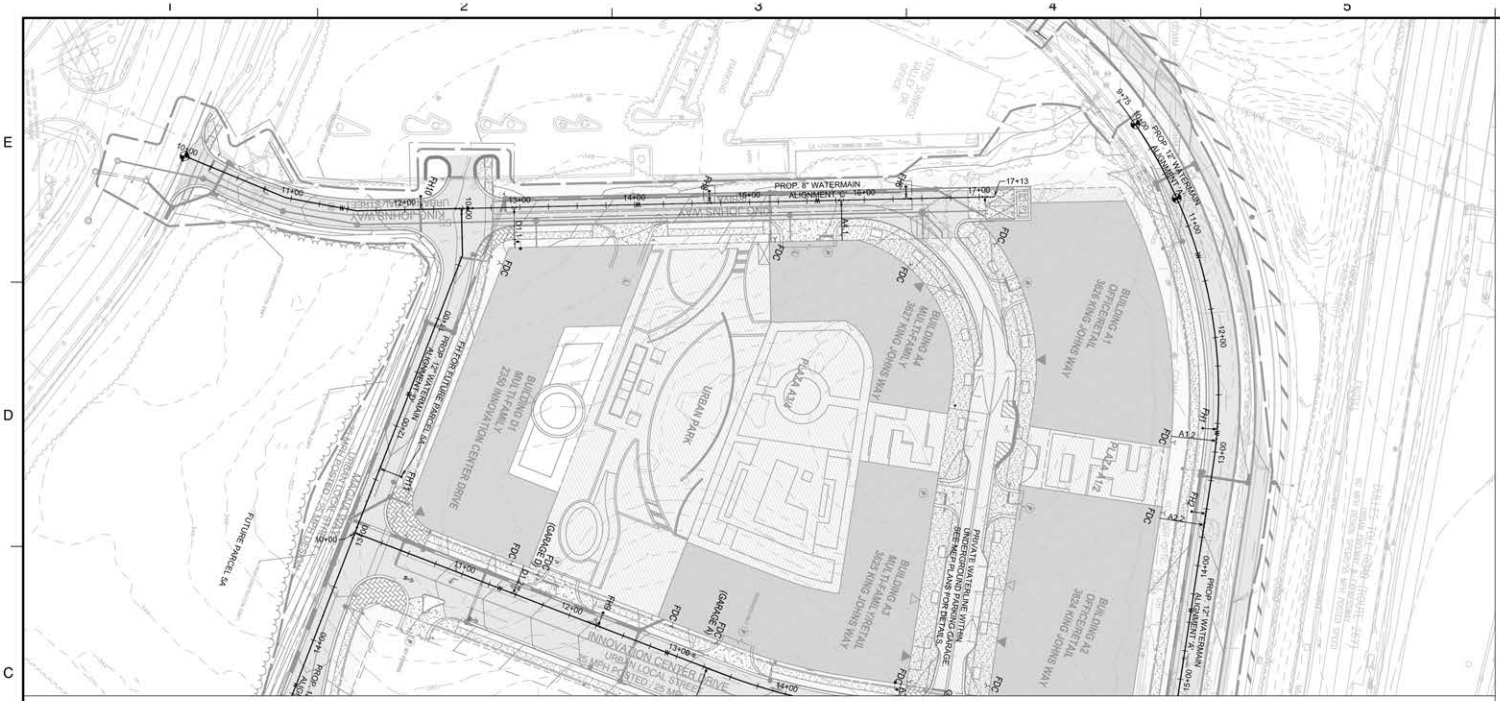

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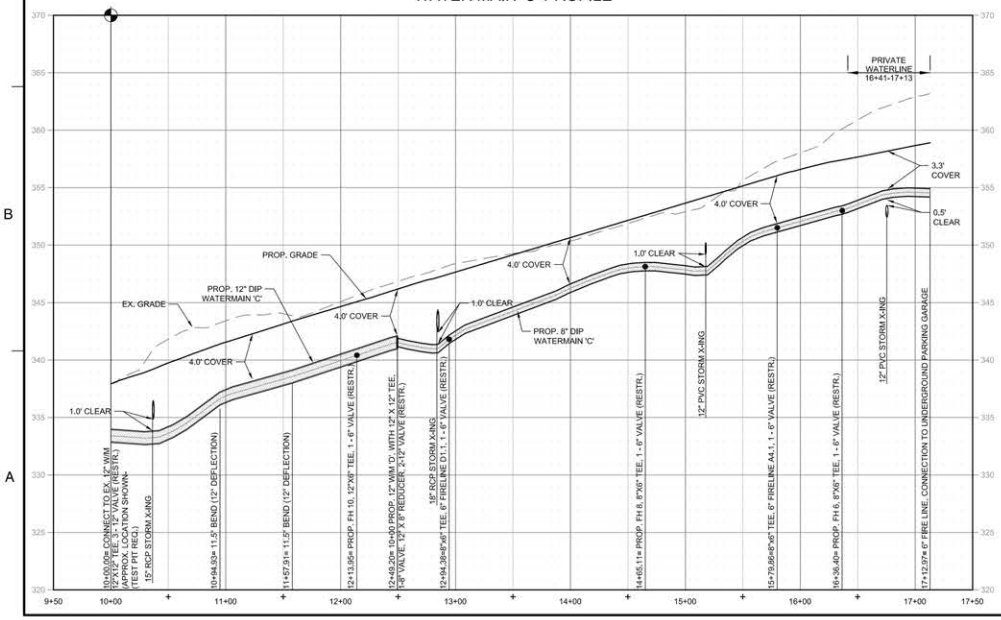
WATER MAIN 'C' PROFILE



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Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

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INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CODY A. PHINNEY
Lic. No. 045560
PROFESSIONAL ENGINEER

KEY PLAN

SCALE
H: 1" = 50'
1 INCH
V: 1" = 5'
1 INCH

NORTH
VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MCJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE
WATER MAIN PROFILES

SP NO. #6848-SP-014

C05.303

SECTION NO. C05-FIRE & WATER

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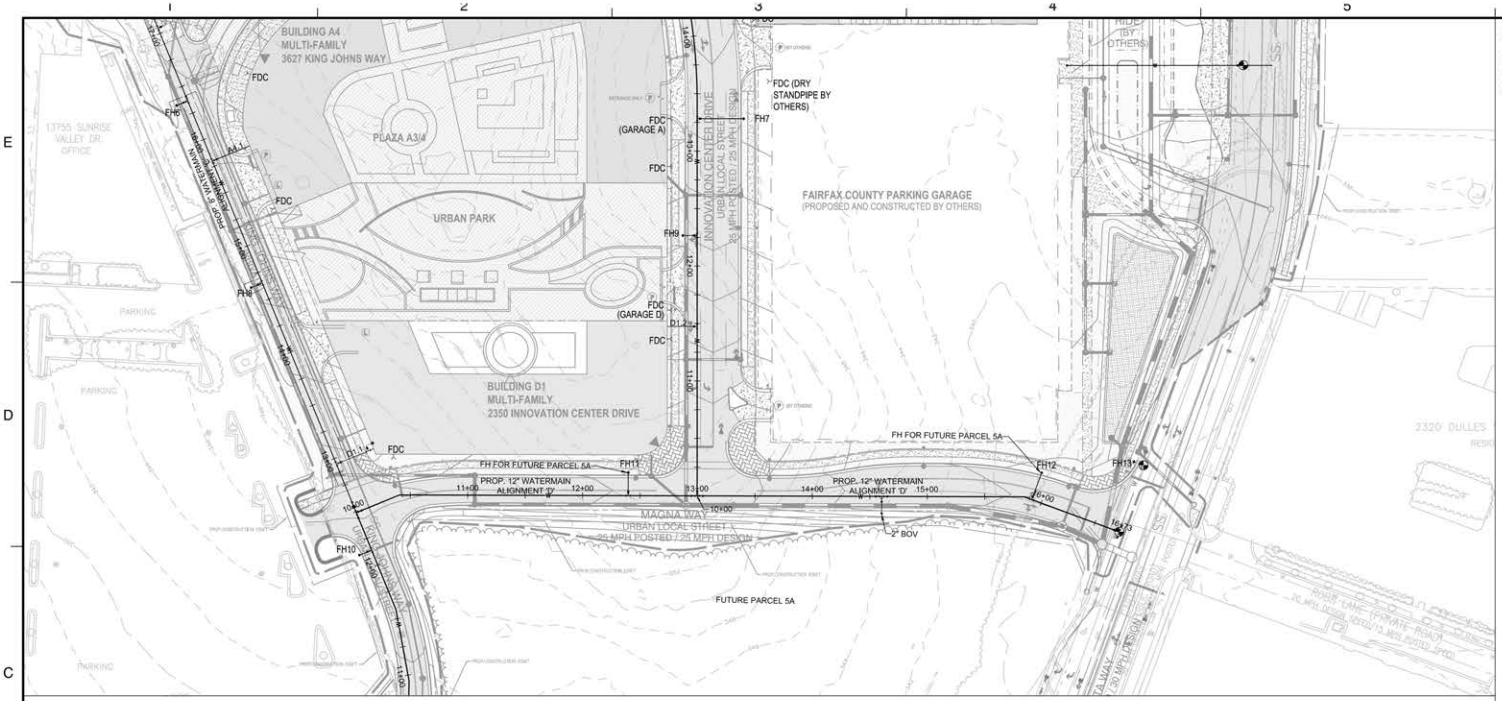

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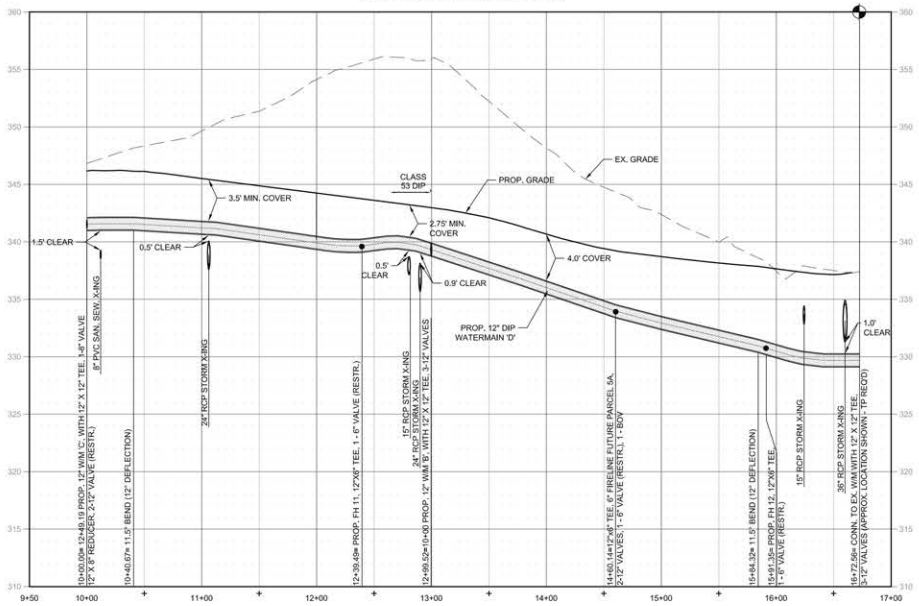
WATER MAIN 'D' PROFILE



Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

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INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CORY A. PINEGAR
No. 040560
PROFESSIONAL ENGINEER

KEY PLAN

SCALE
H: 1" = 50'
1 INCH
V: 1" = 5'
1 INCH

NORTH
VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MCJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE
WATER MAIN PROFILES

SP NO. #6848-SP-014

C05.304

SECTION NO. C05-FIRE & WATER

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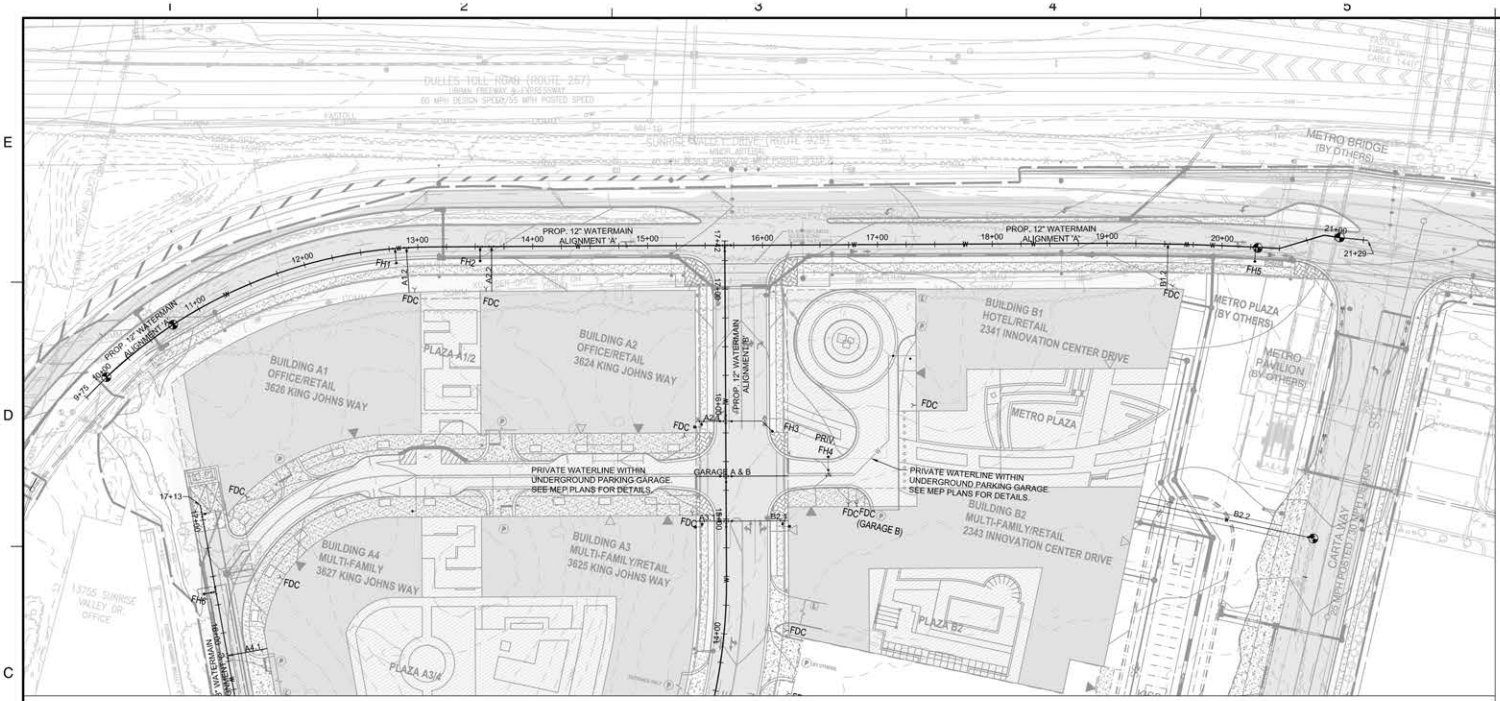

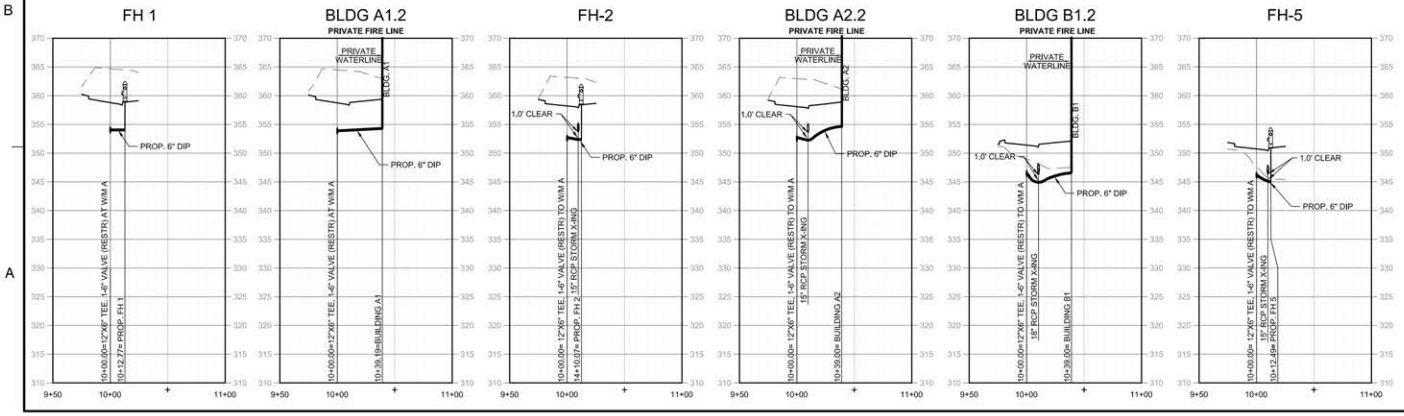

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Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

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May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CODY A. PINKSTON
Lic. No. 045160
PROFESSIONAL ENGINEER

KEY PLAN

SCALE
H: 1" = 50'
1 INCH
V: 1" = 10'
1 INCH

NORTH
VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MCJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE
WATER MAIN PROFILES

SP NO. #6848-SP-014

C05.305

SECTION NO. C05-FIRE & WATER

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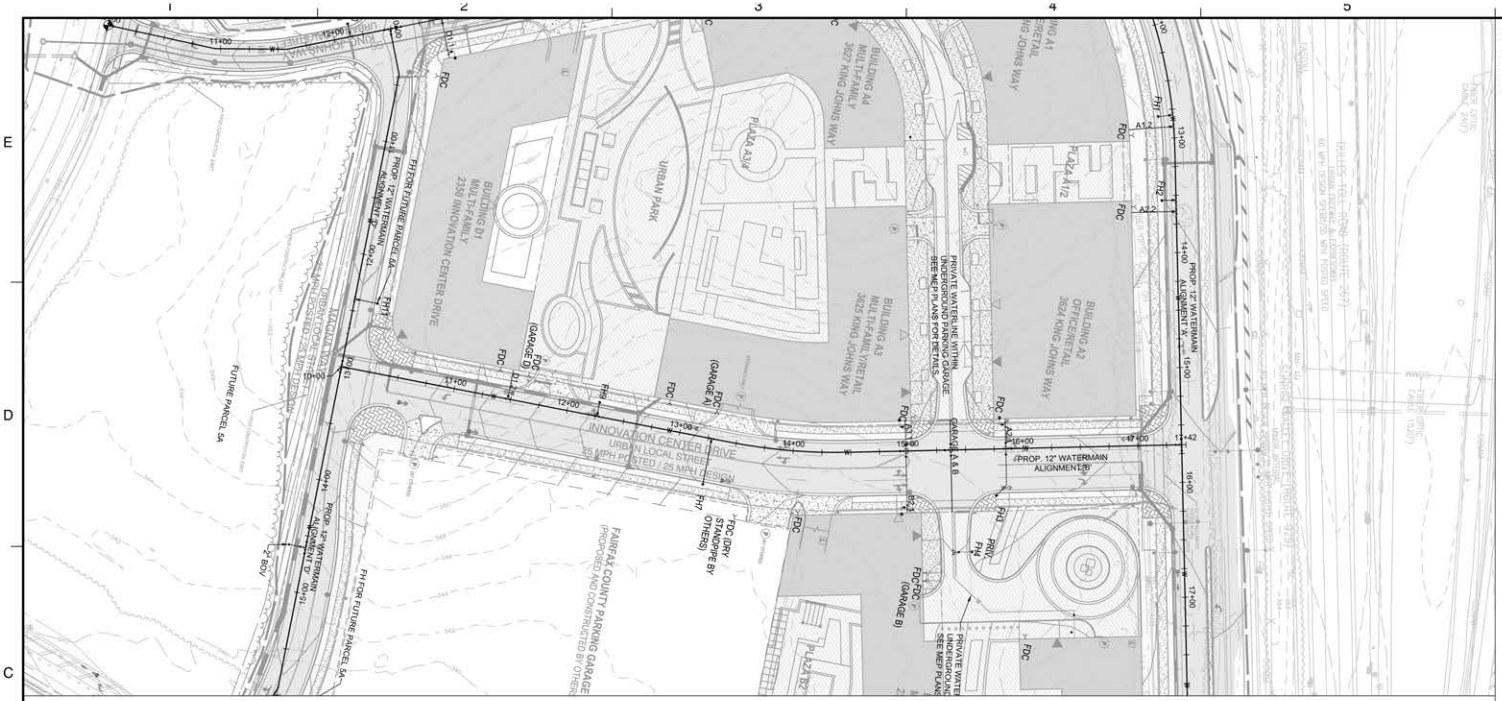

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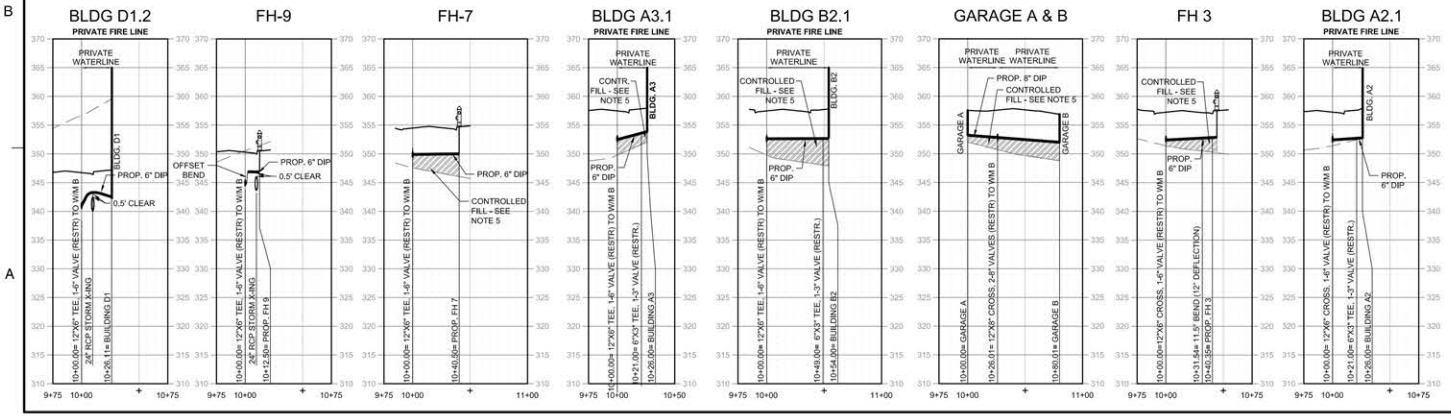

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Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

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May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

KEY PLAN

SCALE
H: 1" = 50'
1 INCH
V: 1" = 10'
1 INCH

NORTH
VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MLJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE
WATER MAIN PROFILES

SP NO. #6848-SP-014

C05.306

SECTION NO. C05-FIRE & WATER

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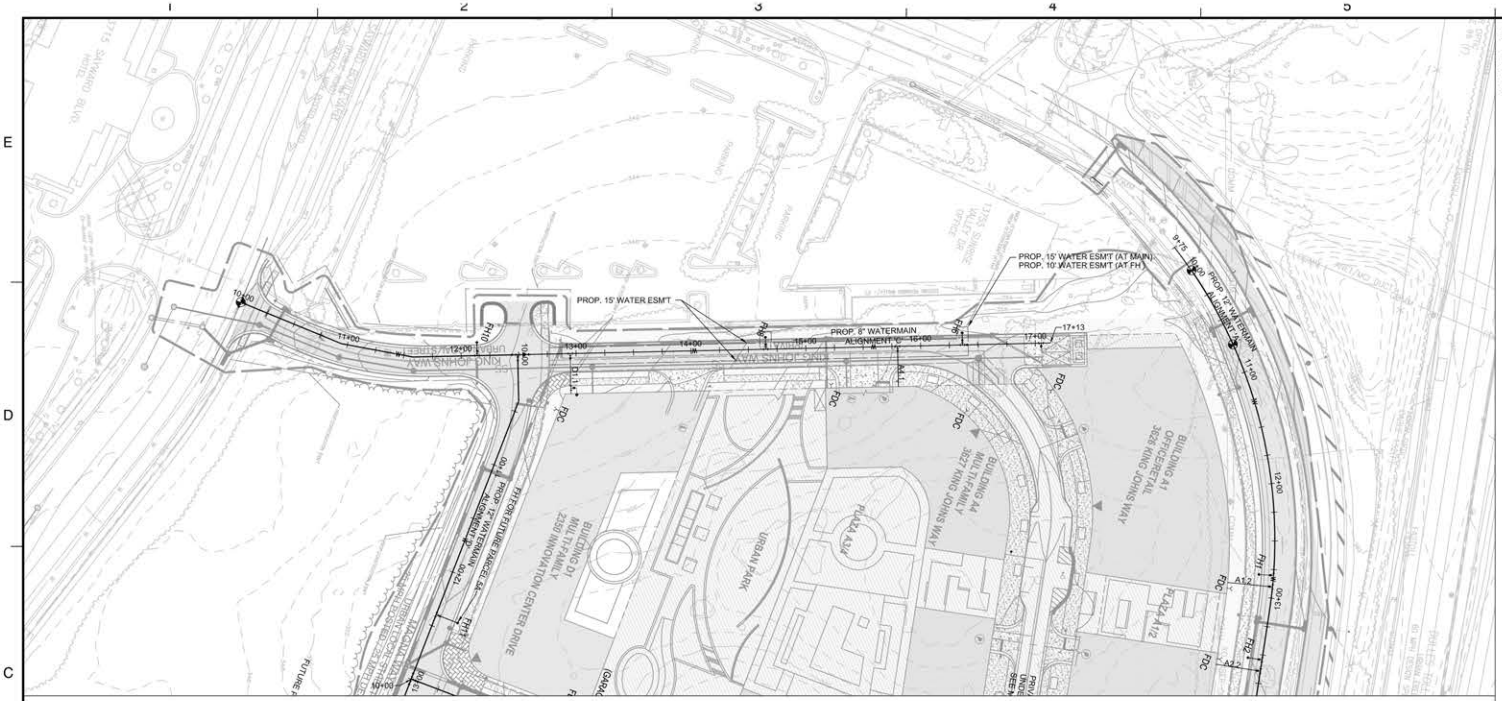

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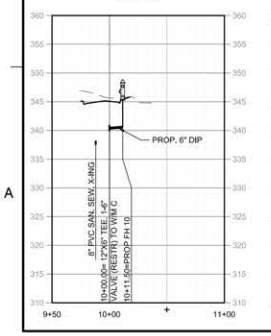
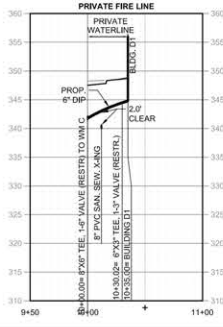
FH-10



BLDG D1.1

PRIVATE FIRE LINE



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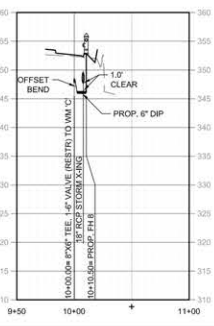

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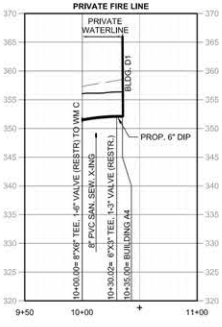
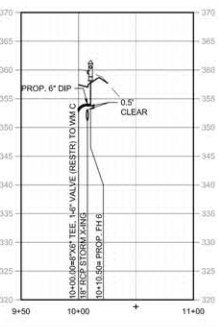
PRIVATE FIRE LINE



FH-6



Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

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May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CODY A. PHINNEY
Lic. No. 045560
PROFESSIONAL ENGINEER

KEY PLAN

SCALE
H: 1" = 50'
1 INCH
V: 1" = 10'
1 INCH

NORTH
VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MCJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE
WATER MAIN PROFILES

SP NO. #6848-SP-014

C05.307

SECTION NO. C05-FIRE & WATER

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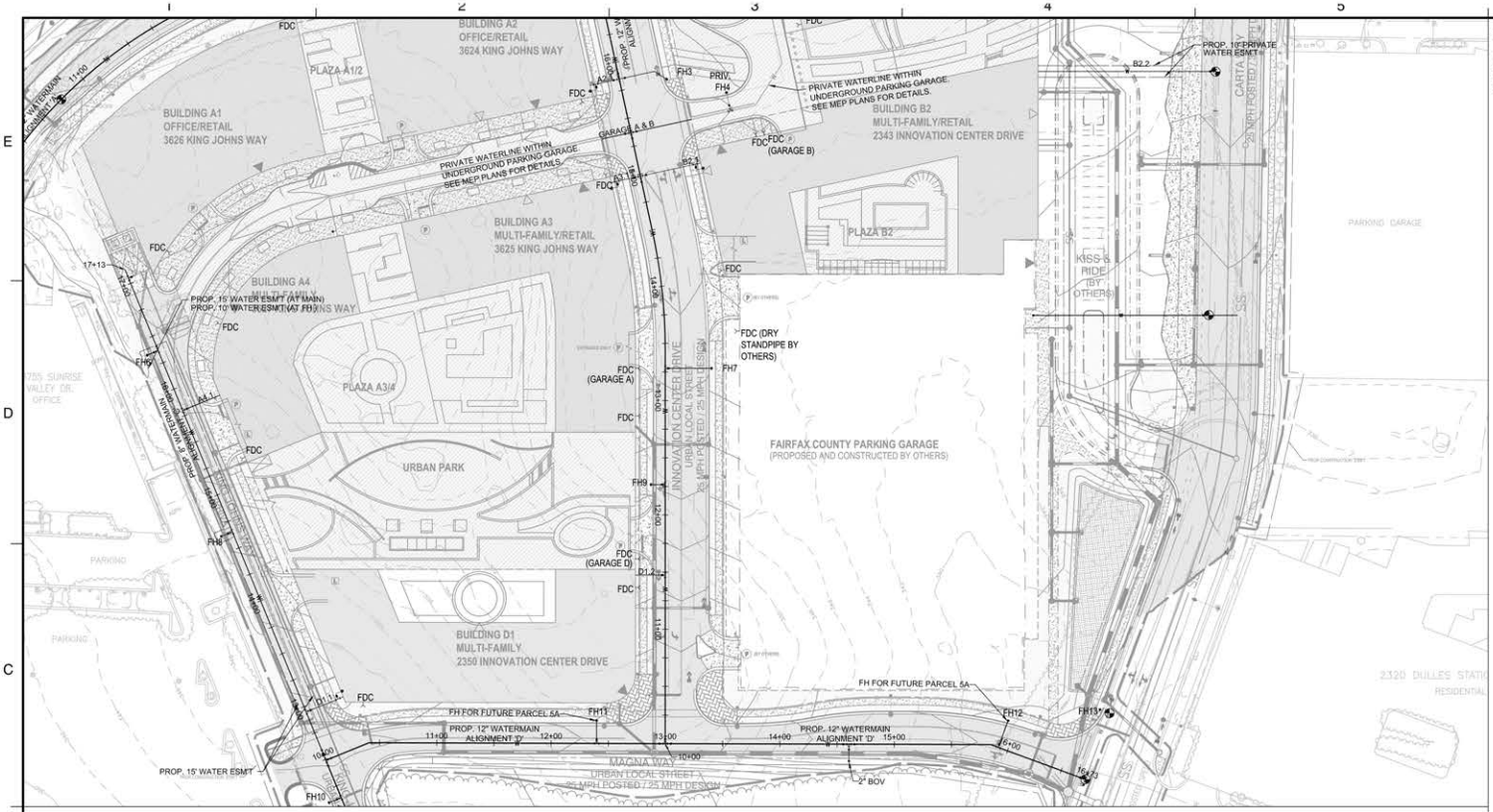

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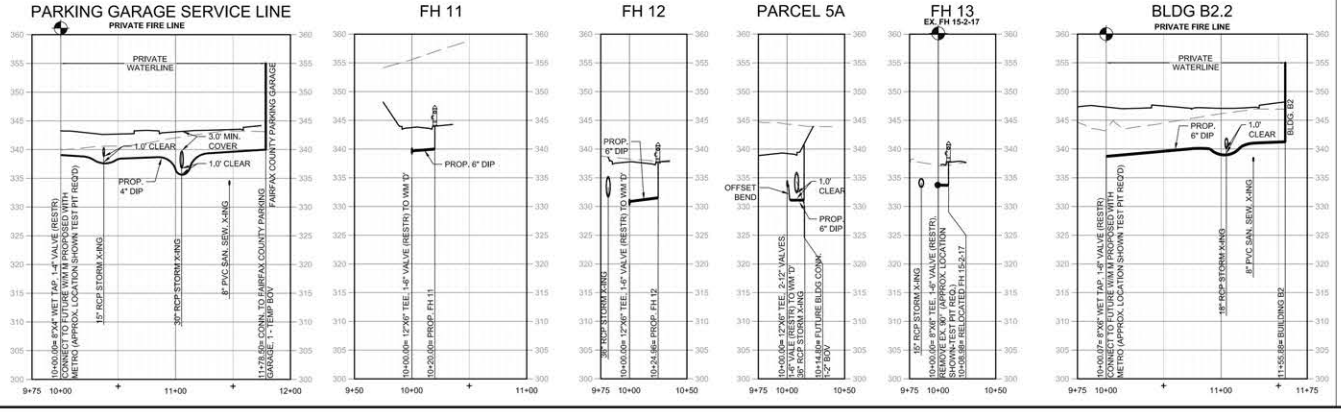

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8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
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May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA — CARLOS A. PINEDA — No. 040560 — PROFESSIONAL ENGINEER

KEY PLAN

SCALE
H: 1" = 50'
1 INCH
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1 INCH

NORTH
VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MCJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE
WATER MAIN PROFILES

SP NO. #6848-SP-014

C05.308

SECTION NO. C05-FIRE & WATER

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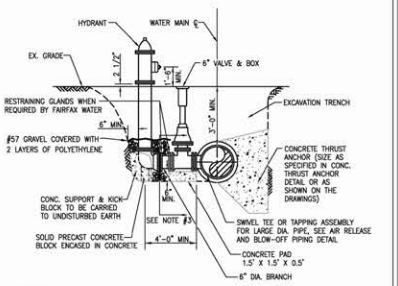
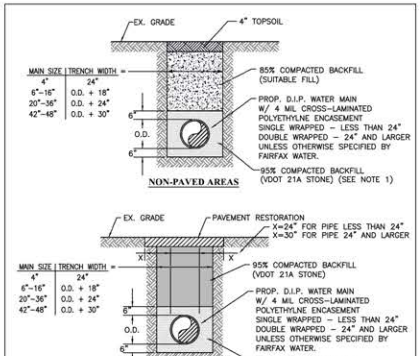


NOTES:
1. IF SWIVEL TEE IS NOT USED, VALVE MUST BE RESTRAINED TO TEE WITH RESTRAINING GLANDS BY CONTRACTOR.
2. HYDRANTS SHALL BE PAINTED AS FOLLOWS:
   - HYDRANT BARREL: SHERWIN-WILLIAMS SHER-CRYL HPA – SAFETY RED, GLOSS (#B66R300)
   - TOPS AND CAPS: SHERWIN-WILLIAMS BOND FLEX WB ACRYLIC – ALUMINUM, GLOSS (#97152200)
   - WHERE INDICATED BY FAIRFAX WATER, THE TOP SHALL BE PAINTED IN THE SAFETY RED AND THE BARREL AND CAPS SHALL BE PAINTED ALUMINUM IN LIEU OF THE ABOVE.
3. POLYETHYLENE PIPE WRAPPING TO CONTINUE UP TO 90 DEGREE BEND AT BASE OF HYDRANT.
4. FOR HYDRANT LOCATION IN REGARD TO FACE OF CURB, SEE FAIRFAX COUNTY PUBLIC FACILITIES MANUAL.

FAIRFAX WATER STANDARD DETAILS	SCALE: NOT TO SCALE
STANDARD HYDRANT INSTALLATION	DRAWING NO. 30
DATE: 4/14	Y:\design\cadtails\standard details\2014\FW DETAILS APRIL 2014.dwg



NOTES:
1. VDOT NO. 57 STONE SHALL BE USED AT CREEK CROSSINGS OR IN AREAS WHERE TRENCH CONTAINS GROUND WATER.
2. ALL PAVEMENT RESTORATION AND COMPACTED BACKFILL WITHIN VDOT ROW SHALL ADHERE TO ALL APPLICABLE VDOT SPECIFICATIONS.
3. RESTRAINED JOINT PIPE SHALL BE IDENTIFIED WITH MARKING TAPE PLACED 2 FEET ABOVE PIPE.
4. ALL WATER MAIN INSTALLATION IN AREAS WITH PROPOSED PAVING SHALL ADHERE TO APPROVED DEVELOPMENT PLAN.

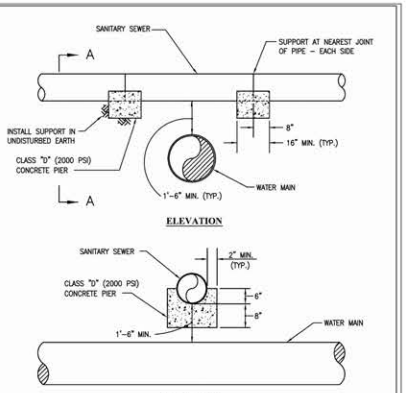
FAIRFAX WATER STANDARD DETAILS	SCALE: NOT TO SCALE
TRENCH – DUCTILE IRON PIPE	DRAWING NO. 12
DATE: 1/12	Y:\design\cadtails\standard details\2012\FW DETAILS JAN.dwg

FAIRFAX WATER -WATER CONSTRUCTION NOTES :

1. ALL WATER MAIN CONSTRUCTION, TESTING AND SAMPLING, SHALL COMPLY WITH THE REQUIREMENTS OF FAIRFAX WATER'S CONSTRUCTION PRACTICE MANUAL AND THE REQUIREMENTS OF THE FAIRFAX COUNTY PUBLIC FACILITIES MANUAL. ALL WATER MAIN, FITTINGS AND APPURTENANCES SHALL COMPLY WITH FAIRFAX WATER'S "APPROVED PRODUCTS LIST". THE CONSTRUCTION PRACTICE MANUAL AND APPROVED PRODUCTS LIST MAY BE FOUND ON THE FW WEB SITE AT WWW.FAIRFAXWATER.ORG.
2. THE DEVELOPER SHALL REQUEST INSPECTION BY FAIRFAX WATER THREE DAYS PRIOR TO COMMENCING CONSTRUCTION OF ANY WATER MAIN (PHONE NUMBER 703-289-6388 OR 6389).
3. NO WATER MAIN CONSTRUCTION IS PERMITTED OR VALVES OPERATED WITHOUT PRIOR NOTIFICATION OF FAIRFAX WATER (PHONE NUMBER 703-289-6388 OR 6389).
4. MAXIMUM WORKING PRESSURE SHALL BE 95 PSI.
5. THE DEVELOPER WILL BE RESPONSIBLE FOR ANY RELOCATION OR REMOVAL OF WATER MAINS AND APPURTENANCES DUE TO THE DEVELOPMENT OF THIS PROPERTY. SERVICE LINES WHICH WILL NO LONGER BE USED SHALL BE REMOVED AND DISCONNECTED AT THE WATER MAIN BY THE DEVELOPER, AND THE CORPORATION STOP SHUT-OFF AND CAPPED, OR REMOVED AND PLUGGED (WITH A TAPERED PLUG) AS DIRECTED BY THE FAIRFAX WATER INSPECTOR. THE DEVELOPER MAY ALSO BE REQUIRED TO USE ADDITIONAL PIPE RESTRAINT OR ALTERNATIVE CONSTRUCTION METHODS NOT SHOWN ON THE PLANS IF FIELD CONDITIONS WARRANT, AS DETERMINED BY THE FAIRFAX COUNTY WATER INSPECTOR.
6. ALL NEW AND EXISTING VALVE BOXES MUST BE FULLY ADJUSTED TO CONFORM TO THE FINAL ASPHALT GRADE. NO PAVING ADJUSTERS WILL BE PERMITTED.
7. ALL NEW D.I.P WATER MAIN SHALL BE WRAPPED WITH 4 MILLIMETER CROSS-LAMINATED POLYETHYLENE ENCASEMENT (SINGLE WRAPPED - LESS THAN 24", DOUBLE WRAPPED - 24" AND LARGER). THERE SHALL BE A 6 INCH ENVELOPE OF 21A SELECT FILL FOR ALL POLYETHYLENE WRAPPED WATER MAIN. SEE THE TRENCH DETAILS ON THE CURRENT VERSION OF FW STANDARD DETAILS. THESE DETAILS MAY BE FOUND ON THE FW WEB SITE AT WWW.FAIRFAXWATER.ORG.
8. WHEN CONNECTING TO AN EXISTING WATER MAIN, CONTRACTOR MUST EXCAVATE AND EXPOSE NEAREST VALVE IN THE PRESENCE OF A FAIRFAX COUNTY WATER INSPECTOR IN ORDER TO DETERMINE THE CONDITION OF ITS RESTRAINT. IF FW INSPECTOR DEEMS IT NECESSARY, CONTRACTOR MUST RESTRAIN TEH VALVE OR REPLACE THE RESTRAINT SYSTEM.
9. DURING WET TAP ISNTALLATIONS THE CONTRACTOR SHALL SAVE AND TAG THE COUPON EARLY SHOWING THE DATE, LOCATION, DIAMETER, AND PIPE MATERIAL. TEH TAGGED COUPON SHALL BE GIVEN TO FAIRFAX WATER'S INSPECTOR FOR FURTHER PROCESSING. IF ANY PIPE IS TO BE ABANDONED, PRIOR TO CAPPING THE MAIN, A SMALL SECTION OF PIPE SHALL BE REMOVED, TAGGED AS DESCRIBED ABOVE AND GIVEN TO THE FAIRFAX WATER INSPECTOR.
10. THE PROPERTY DESCRIBED ON THE PLAN IS LOCATED IN AN AREA WHERE THE WATER PRESSURE WILL EXCEED 80 P.S.I. IN ACCORDANCE WITH FAIRFAX WATER RULES AND REGULATIONS AND THE FAIRFAX COUNTY PLUMBING CODE, A PRESSURE REGULATION VALVE MUST BE INSTALLED BY THE PROPERTY OWNER IN THE BUILDING PLUMBING SYSTEM IN ORDER TO ELIMINATE WATER HAMMER AND UNNECESSARY WASTAGE OF WATER. PROVISIONS FOR THERMAL EXPANSION PROTECTION SHALL BE REQUIRED.
11. FIRE LINES SHALL BE PRIVATELY OWNED AND MAINTAINED BY THE PROPERTY OWNER. FAIRFAX WATER'S OWNERSHIP AND MAINTENANCE RESPONSIBILITY INCLUDES THE STOPS AT THE BRANCH VALVE AT FAIRFAX WATER'S MAIN IN THE RIGHT-OF-WAY OR EASEMENT.

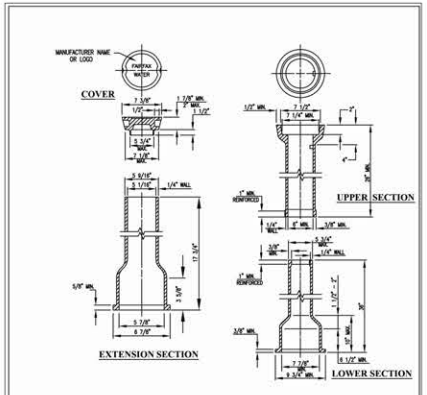
GENERAL WATER CONSTRUCTION NOTES:

1. ALL CONSTRUCTION SEQUENCING MUST BE COORDINATED AND APPROVED BY FAIRFAX WATER'S INSPECTOR TO MINIMIZE SERVICE DISRUPTIONS AND MAINTAIN ADEQUATE FIRE PROTECTION.
2. TEST PIT ALL WATERLINE CROSSINGS AS IDENTIFIED ON PLAN SHEETS AND STORM PROFILES SHEETS TO VERIFY DEPTHS AS DETERMINED FROM AS-BUILT RECORDS. INFORMATION TO BE COORDINATED WITH ENGINEER TO VERIFY DESIGN.
3. THE PROPOSED IMPROVEMENTS REQUIRE MODIFICATIONS TO EXISTING ACTIVE WATERLINES. TO THE EXTENT POSSIBLE SERVICE IS TO BE MAINTAINED DURING CONSTRUCTION OF WATERLINE IMPROVEMENTS.



NOTE:
SANITARY AND WATER MAIN PIPE JOINTS SHALL BE LOCATED EQUIDISTANT FROM CROSSING SO AS TO CENTER THE PIPE SECTIONS OVER THE CROSSING. NO JOINT SHALL BE LOCATED CLOSER THAN 4 FEET TO THE CROSSING.

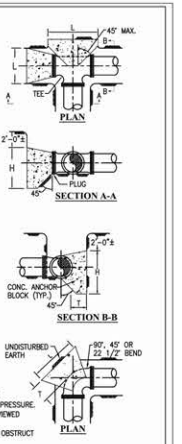
FAIRFAX WATER STANDARD DETAILS	SCALE: NOT TO SCALE
SANITARY SEWER PROTECTION WATER MAIN CROSSING UNDER SEWER	DRAWING NO. 17
DATE: 1/12	p:\design\cadtails\standard details\2010\FW DETAILS FEB10.dwg



NOTES:
1. THE MANUFACTURER IDENTIFICATION AND COUNTRY OF ORIGIN (IF OTHER THAN U.S.) SHALL BE CAST INTO ALL PARTS.
2. GUARD POSTS ARE NOT TO BE INSTALLED AT VALVES UNLESS INDICATED ON DRAWINGS, OR AS SPECIFIED BY FAIRFAX WATER.
3. VALVE BOX MUST MEET SPECIFICATIONS CONTAINED IN FAIRFAX WATER'S APPROVED PRODUCTS LIST.

FAIRFAX WATER STANDARD DETAILS	SCALE: NOT TO SCALE
VALVE BOX	DRAWING NO. 27
DATE: 1/12	Y:\design\cadtails\standard details\2012\FW DETAILS JAN.dwg

PIPE SIZE INCHES	DEGREE OF BEND (ø)	(1) WORKING PRESSURE 175 PSI L	H	T
6	90	3.0	2.0	1.25
	45	2.0	1.5	1.0
	22.5	1.5	1.0	1.0
8	90	4.0	2.5	1.75
	45	2.5	2.0	1.0
	22.5	2.0	1.5	1.0
12	90	5.5	4.0	2.25
	45	4.0	3.0	1.5
	22.5	3.0	2.0	1.0
16	90	7.5	5.0	3.25
	45	5.0	4.5	2.0
	11.25/22.5	4.0	3.0	1.5
20	90	9.5	6.0	4.0
	45	7.0	4.5	2.75
	11.25/22.5	5.5	3.0	2.0
24	90	13.0	6.5	5.5
	45	9.0	5.0	3.5
	11.25/22.5	6.0	4.0	2.0



NOTES:
1. MINIMUM CONCRETE ANCHOR BLOCK DIMENSIONS IN FEET.
2. PROVIDE FORM WORK FOR ALL CONCRETE.
3. CONCRETE SHALL BE CLASS D 2000 PSI.
4. THE ABOVE TABLE IS BASED ON 2000 PSF SOIL BEARING CAPACITY, R=2PA SIN (ø/2) AND FOR A TEST PRESSURE = 1.5 x WORKING PRESSURE.
5. ANCHOR BLOCK DESIGN FOR PIPE LARGER THAN 24" SHALL BE REVIEWED ON AN INDIVIDUAL BASIS BY FAIRFAX WATER.
6. WRAP FITTING WITH POLYETHYLENE SHEETING. CONCRETE MUST NOT OBSTRUCT ACCESS TO MECHANICAL JOINT ASSEMBLY.
7. CONCRETE ANCHOR BLOCK DIMENSIONS FOR TEES TO BE SAME AS FOR 90° BENDS.
8. HEIGHT OF CONCRETE ANCHOR BLOCK ABOVE PIPE CENTERLINE IS 1/3 THE H DIMENSION.
9. BLOCKING SHALL BACK TO UNDISTURBED EARTH.

FAIRFAX WATER STANDARD DETAILS	SCALE: NOT TO SCALE
CONCRETE THRUST ANCHORS	DRAWING NO. 23
DATE: 1/12	Y:\design\cadtails\standard details\2012\FW DETAILS JAN.dwg

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

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May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

KEY PLAN

SCALE NORTH

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MLJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE
WATER DETAILS

SP NO. #6848-SP-014

C05.601

SECTION NO. C05-FIRE & WATER

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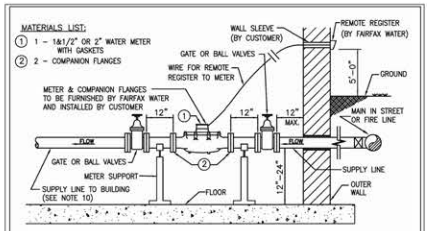

MATERIALS LIST:

1. 1 – 1&1/2" OR 2" WATER METER WITH GASKETS
2. 2 – COMPANION FLANGES

NOTES:

1. THE WATER METER SHALL BE INSTALLED IN AN ACCESSIBLE LOCATION. CRAWL SPACES ARE NOT ACCEPTABLE.
2. THE METER MUST BE INSTALLED NOT MORE THAN 2' ABOVE THE FLOOR, OR CLOSER THAN 1' TO ANY WALL OR OTHER FIXED OBJECT.
3. THE CUSTOMER MUST MAKE PROVISIONS FOR DISCHARGE OF A LARGE VOLUME OF WATER RESULTING FROM METER TESTING AND REPAIRS AS REQUIRED BY FAIRFAX WATER.
4. THE METER INSTALLATION WILL BE INSPECTED AND APPROVED BY FAIRFAX WATER. CALL 703-289-6402 FOR INSPECTION PRIOR TO PLACING LINE IN SERVICE.
5. IT IS THE CUSTOMER'S RESPONSIBILITY TO PREVENT THE METER FROM FREEZING.
6. SUPPORT IS REQUIRED FOR THE METER.
7. GATE OR BALL VALVES SHALL BE INSTALLED APPROXIMATELY 12 INCHES ON EITHER SIDE OF THE METER SETTING.
8. INCOMING LINE SIZE MUST BE THE SAME AS METER SIZE AT LEAST 3' BEFORE THE METER.
9. FAIRFAX WATER MAINTAINS THE METER AND REMOTE REGISTER ONLY.
10. BACKFLOW PREVENTION WILL BE REQUIRED IN ACCORDANCE WITH FAIRFAX COUNTY REGULATIONS.
11. A 3" MINIMUM GATE VALVE WITH A 2" OPERATING NUT MUST BE INSTALLED ON THE SERVICE LINE WHEN TAPPED OFF THE FIRE LINE.
12. NO TAPS, PRV'S, STRAINERS, OR BACKFLOW PREVENTION DEVICES ARE TO BE INSTALLED BEFORE THE METER.
13. FAIRFAX WATER TO SUPPLY ITEMS SHOWN IN MATERIALS LIST. ALL OTHER MATERIALS TO BE SUPPLIED BY THE CUSTOMER.
14. FAIRFAX WATER TO SUPPLY AND INSTALL REMOTE REGISTER. WIRE FOR REMOTE REGISTER TO BE FURNISHED BY FAIRFAX WATER AND INSTALLED BY CUSTOMER IF REQUIRED.

DATE: 1/12	FAIRFAX WATER STANDARD DETAILS	SCALE: NOT TO SCALE
	INTERIOR METER INSTALLATION 1 1/2" AND 2" METER SIZES	DRAWING NO. 7

Y:\design\padtails\standard details\2012\FW DETAILS JAN.dwg

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

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INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CODY A. PUNSKE
Lic. No. 045560
PROFESSIONAL ENGINEER

KEY PLAN

SCALE NORTH

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MCJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE
WATER DETAILS

SP NO. #6848-SP-014

C05.602

SECTION NO. C05-FIRE & WATER

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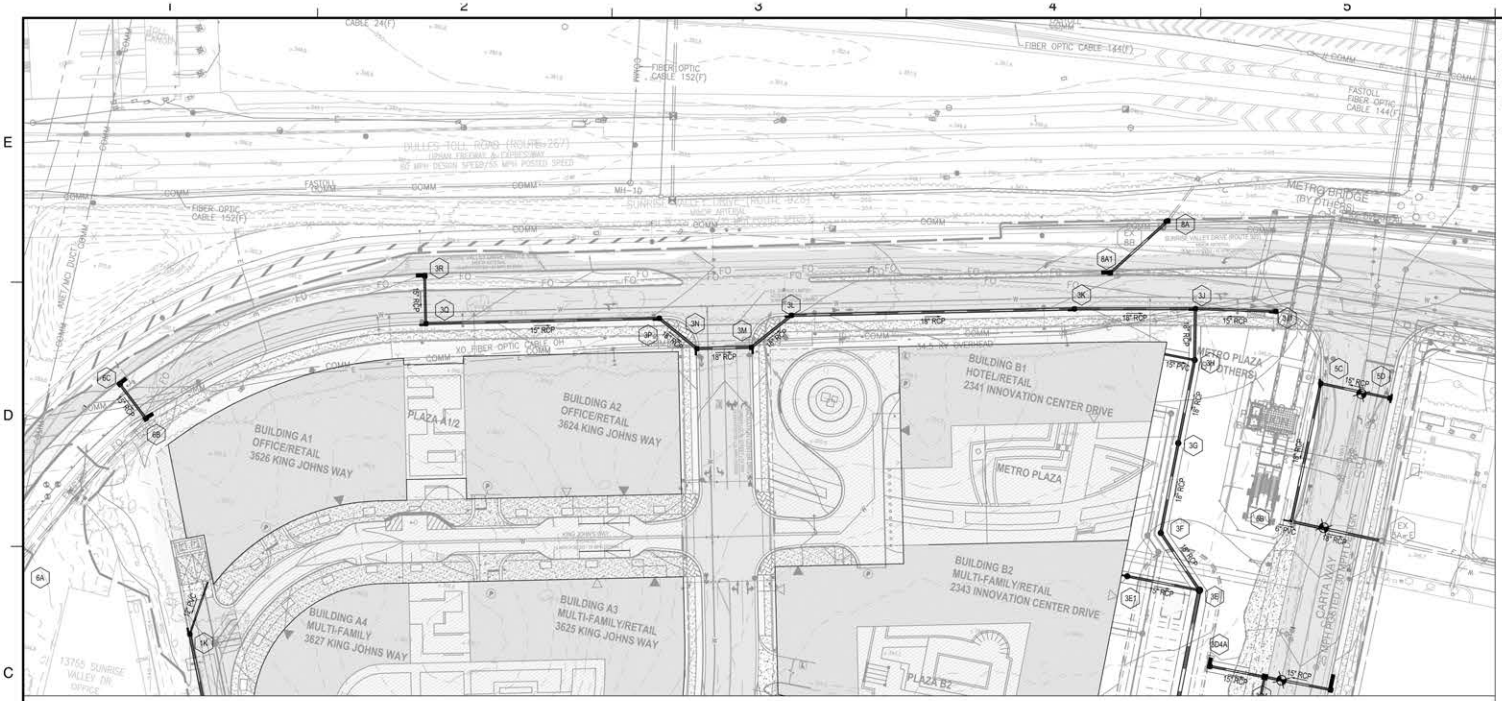

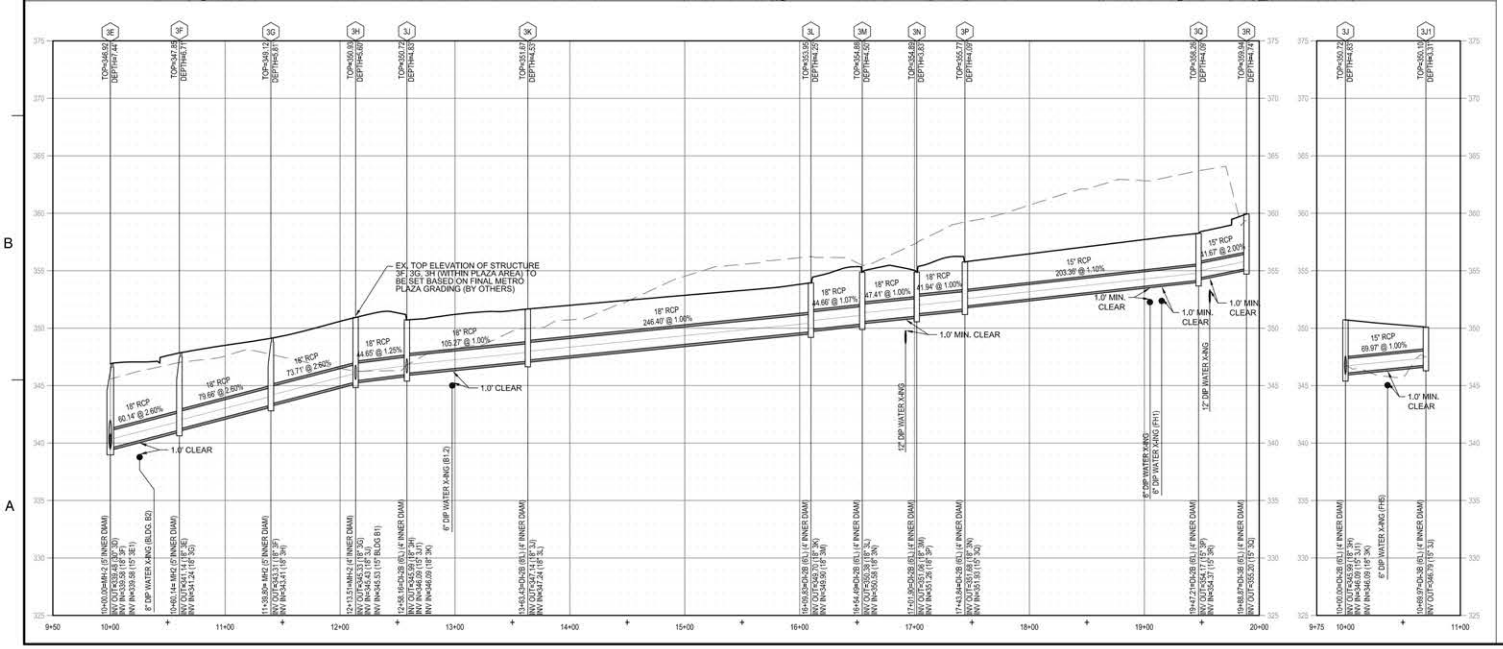

NOTES:

1. ALL PIPES SHALL BE CLASS III RCP.
2. REFER TO SHEETS C06.601-C06.602 FOR NOTES AND DETAILS.
3. REFER TO SHEET C06.701 FOR COMPUTATIONS.
4. DIRECTION OF D-2 GRATE IS TO BE SET PERPENDICULAR TO BIKE LANE TRAFFIC.
5. THE TOP ELEVATION IDENTIFIED FOR D1-2 STRUCTURES. REPRESENTS TOP OF GRATE, NOT TOP OF CURB.

STANDARD PROFILE SURFACE LEGEND:

EX. GRADE

PROP. GRADE

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

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INNOVATION CENTER SOUTH

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FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CHRISTOPHER A. PHILLIPS
Lic. No. 043560
PROFESSIONAL ENGINEER

KEY PLAN

SCALE
H: 1" = 50'
1 INCH
V: 1" = 5'
1 INCH

NORTH
VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MLJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE

STORM SEWER PROFILES

SP NO. #6848-SP-014

C06.301

SECTION NO. C06-STORM SEWER

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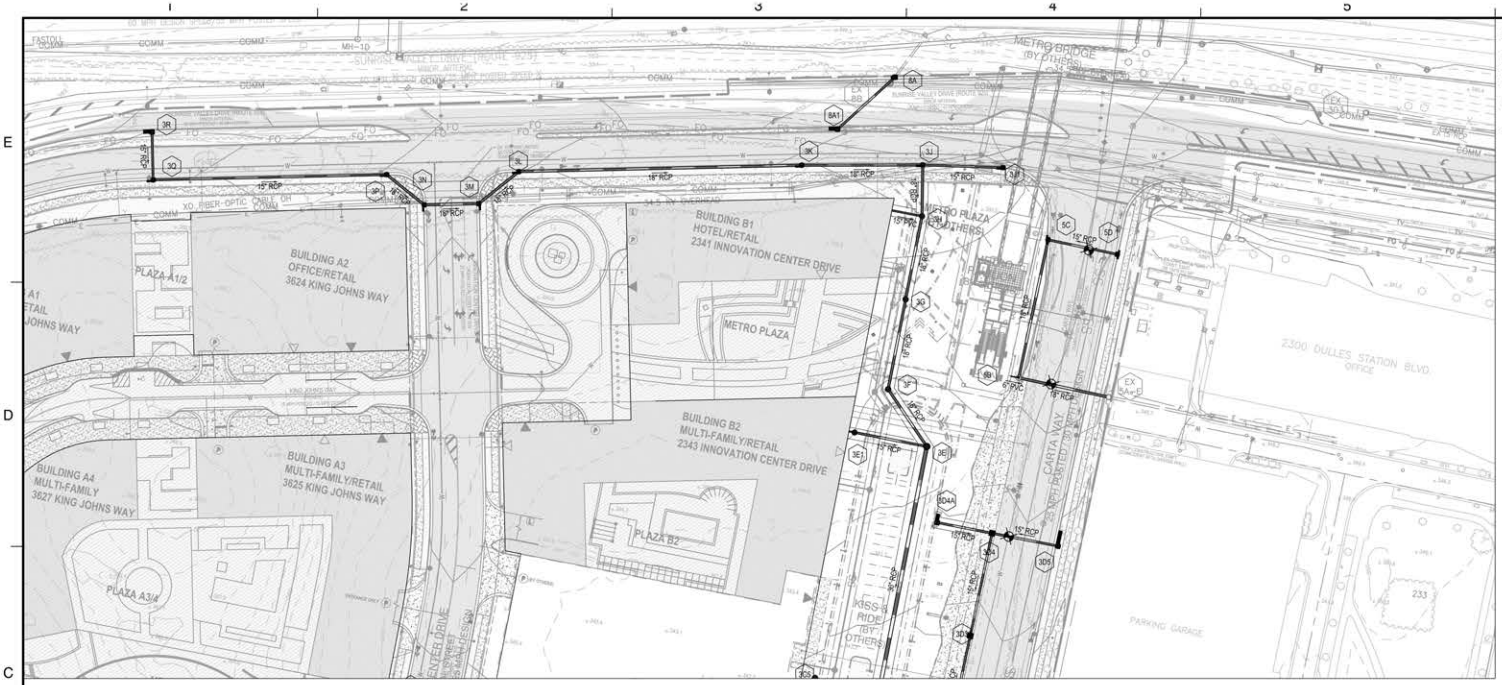
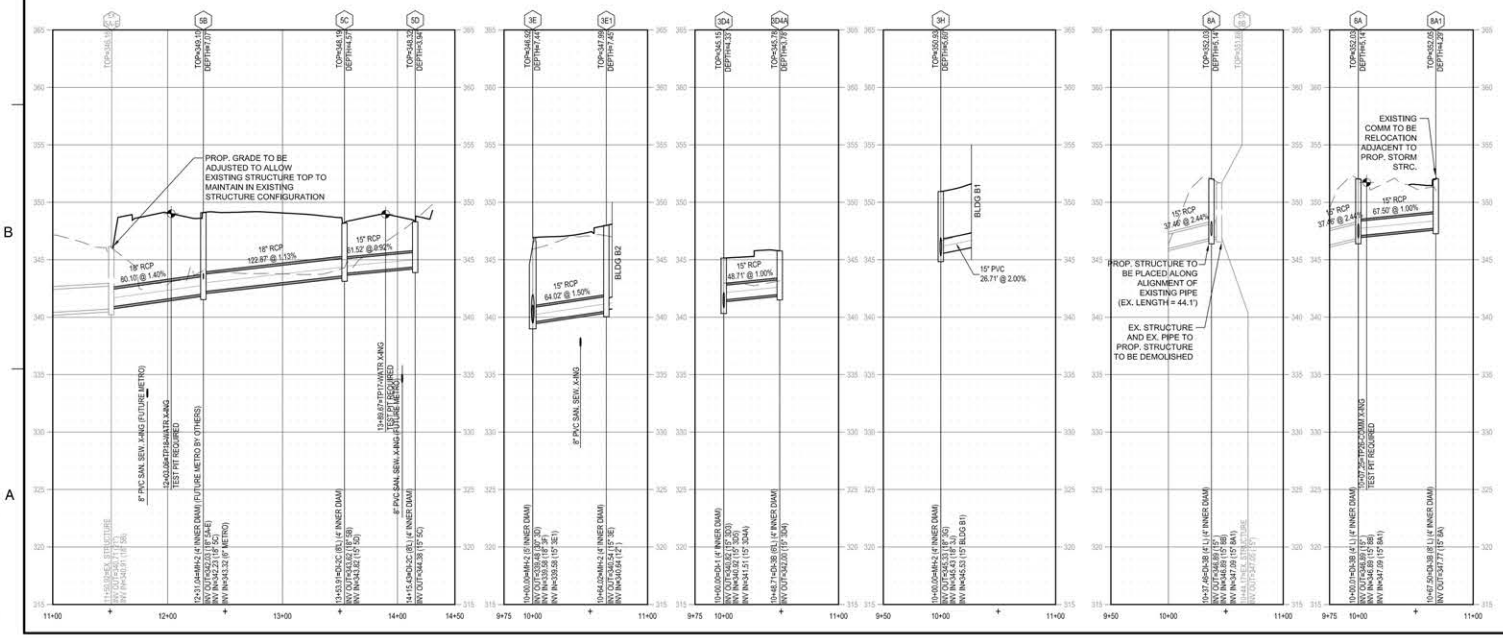


NOTES:

1. ALL PIPES SHALL BE CLASS III RCP.
2. REFER TO SHEETS C06.601-C06.602 FOR NOTES AND DETAILS.
3. REFER TO SHEET C06.701 FOR COMPUTATIONS.
4. DIRECTION OF D4-2 GRATE IS TO BE SET PERPENDICULAR TO BIKE LANE TRAFFIC.
5. THE TOP ELEVATION IDENTIFIED FOR D1-2 STRUCTURES. REPRESENTS TOP OF GRATE, NOT TOP OF CURB.

STANDARD PROFILE SURFACE LEGEND:



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Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

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INNOVATION CENTER SOUTH

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FAIRFAX COUNTY, VIRGINIA

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COMMONWEALTH OF VIRGINIA
CARY A. PHELPS
Lic. No. 040560
5/26/16
PROFESSIONAL ENGINEER

KEY PLAN

SCALE
H: 1" = 50'
1 INCH
V: 1" = 5'
1 INCH

NORTH
VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MCJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE
STORM SEWER PROFILES

SP NO. #6848-SP-014

C06.302

SECTION NO. C06-STORM SEWER

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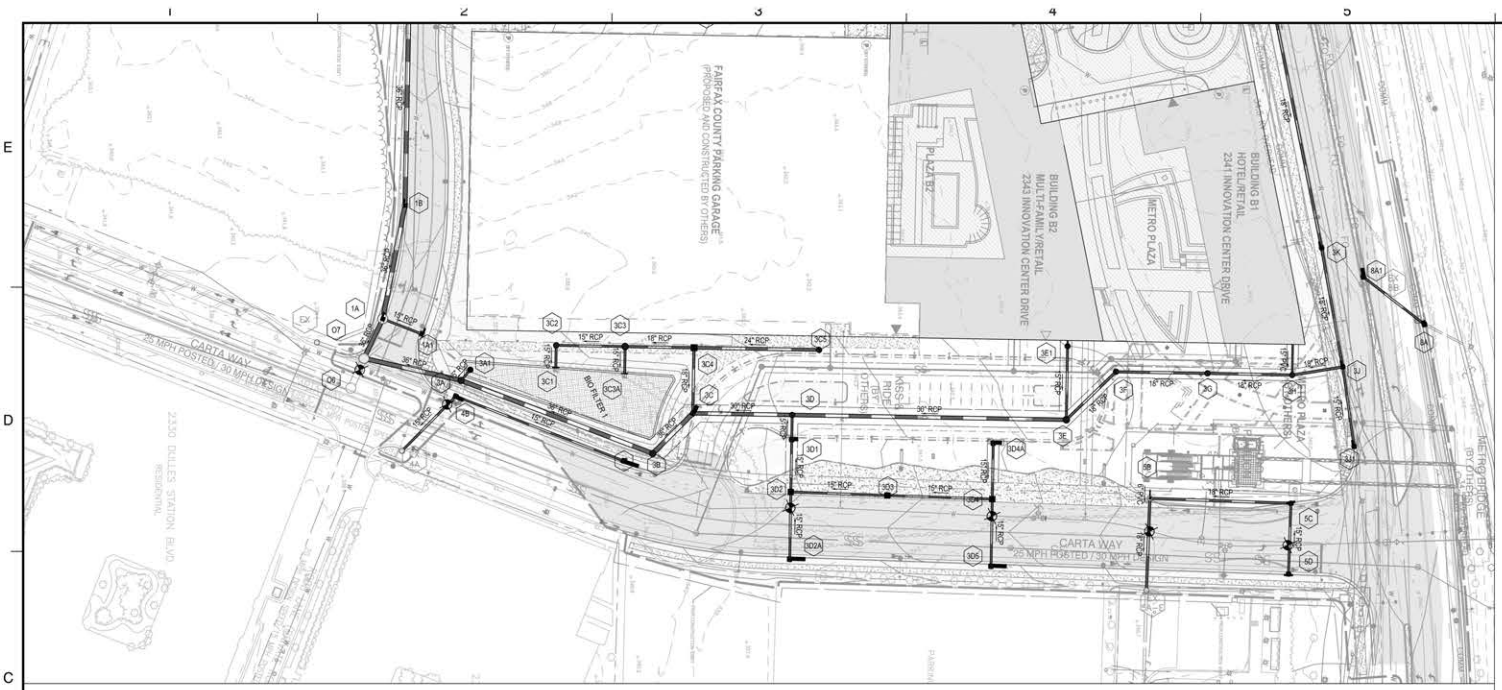

NOTES:

1. ALL PIPES SHALL BE CLASS III RCP.
2. REFER TO SHEETS C06.601-C06.602 FOR NOTES AND DETAILS.
3. REFER TO SHEET C06.701 FOR COMPUTATIONS.
4. DIRECTION OF DI-2 GRATE IS TO BE SET PERPENDICULAR TO BIKE LANE TRAFFIC.
5. THE TOP ELEVATION IDENTIFIED FOR DI-2 STRUCTURES REPRESENTS TOP OF GRATE, NOT TOP OF CURB.

STANDARD PROFILE SURFACE LEGEND:

EX. GRADE

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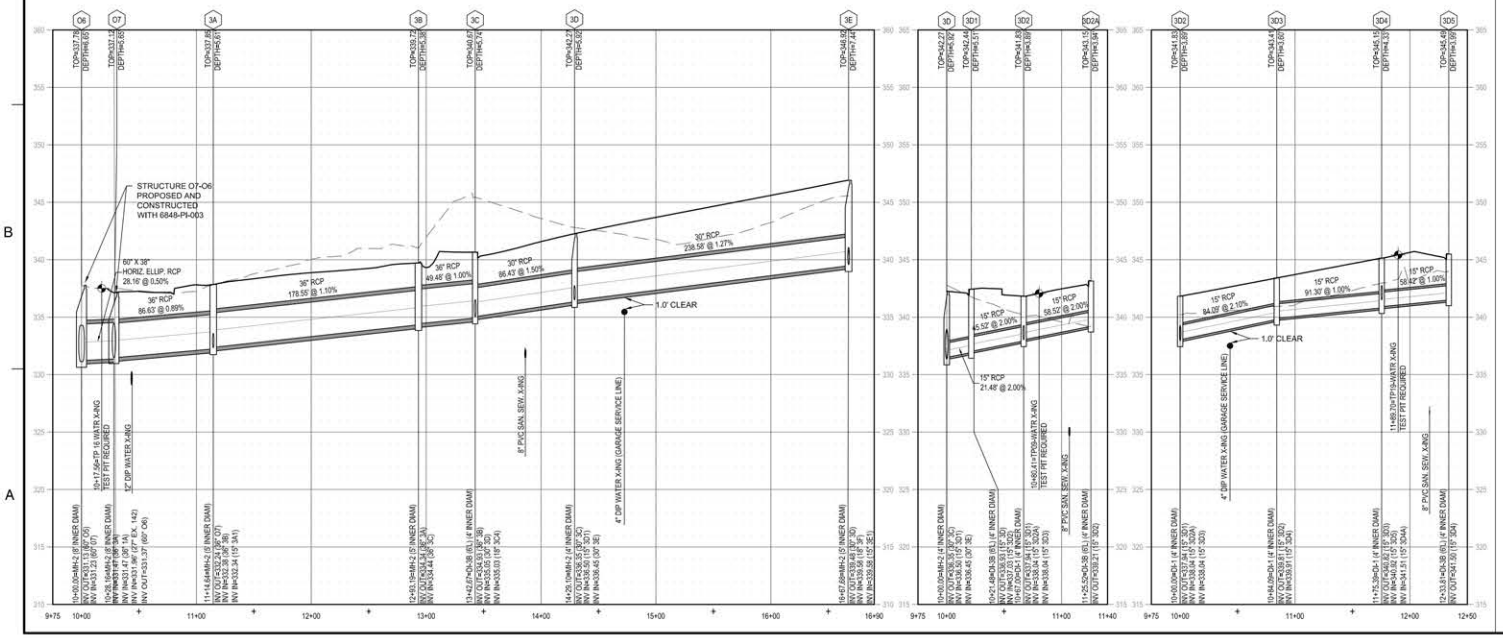

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Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

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DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

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COMMONWEALTH OF VIRGINIA
CAP
Cory A. Phillips
Lic. No. 043560
2015-10-14
PROFESSIONAL ENGINEER

KEY PLAN

SCALE
H: 1" = 50'
1 INCH
V: 1" = 5'
1 INCH

NORTH
VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MLJ
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CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE

STORM SEWER PROFILES

SP NO. #6848-SP-014

C06.303

SECTION NO. C06-STORM SEWER

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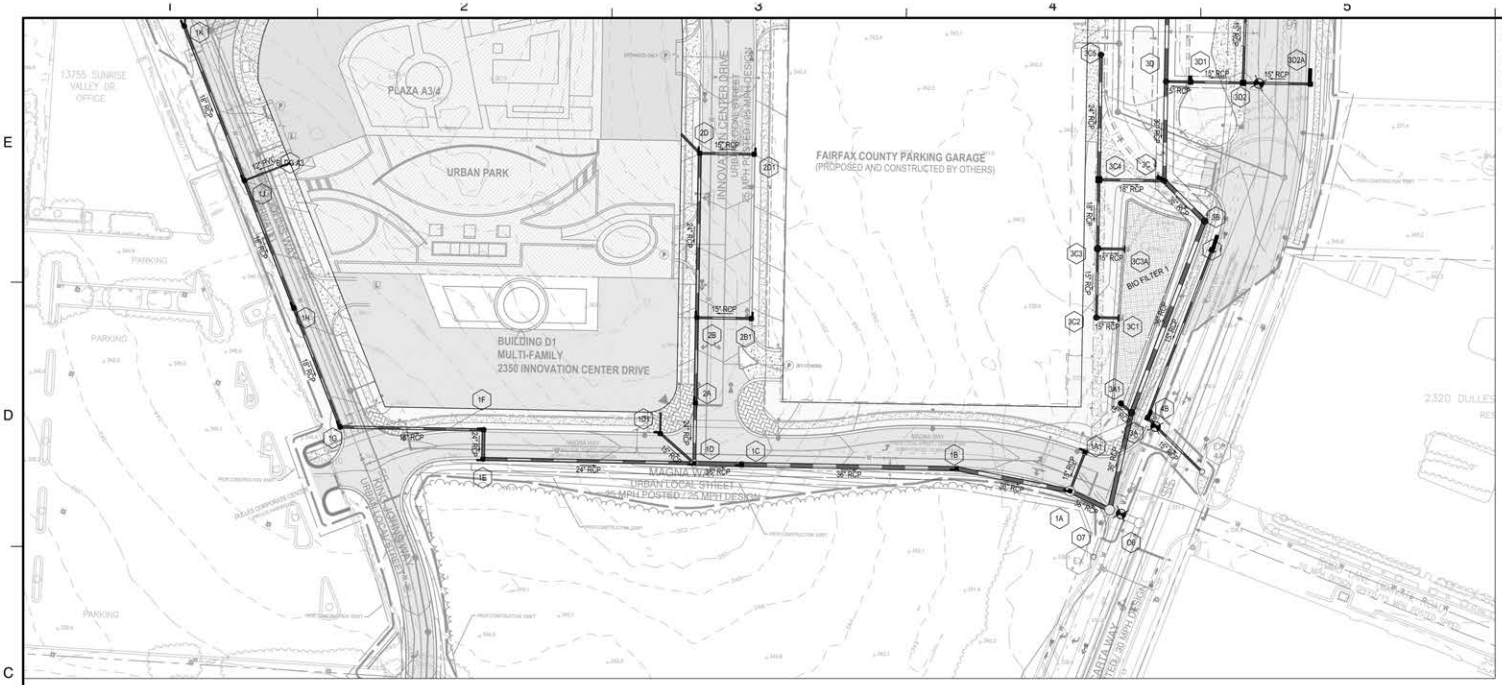
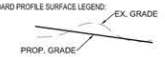
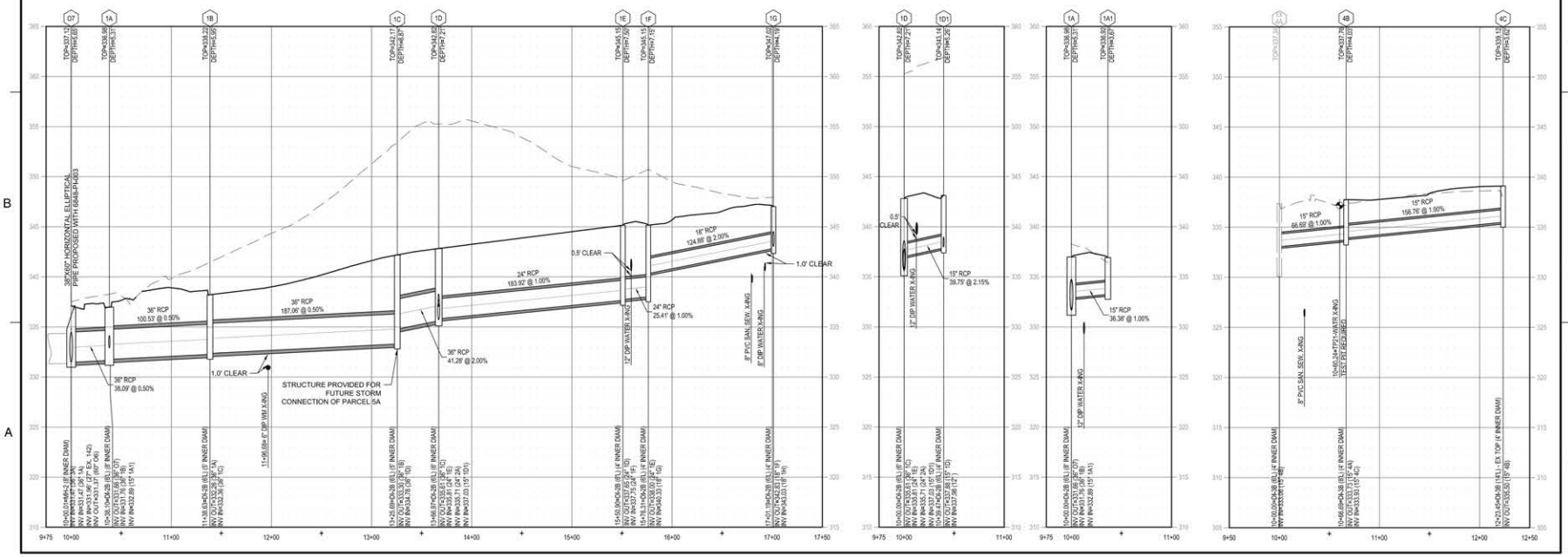


NOTES:

1. ALL PIPES SHALL BE CLASS III RCP.
2. REFER TO SHEETS C06.601-C06.602 FOR NOTES AND DETAILS.
3. REFER TO SHEET C06.701 FOR COMPUTATIONS.
4. DIRECTION OF D-2 GRATE IS TO BE SET PERPENDICULAR TO BIKE LANE TRAFFIC.
5. THE TOP ELEVATION IDENTIFIED FOR D1-2 STRUCTURES REPRESENTS TOP OF GRATE, NOT TOP OF CURB.

STANDARD PROFILE SURFACE LEGEND:





Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

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INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
Cary A. Shacter
Lic. No. 043560
PROFESSIONAL ENGINEER

KEY PLAN

SCALE
H: 1" = 50'
1 INCH
V: 1" = 5'
1 INCH

NORTH
VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MLJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE
STORM SEWER PROFILES

SP NO. #6848-SP-014

C06.304

SECTION NO. C06-STORM SEWER

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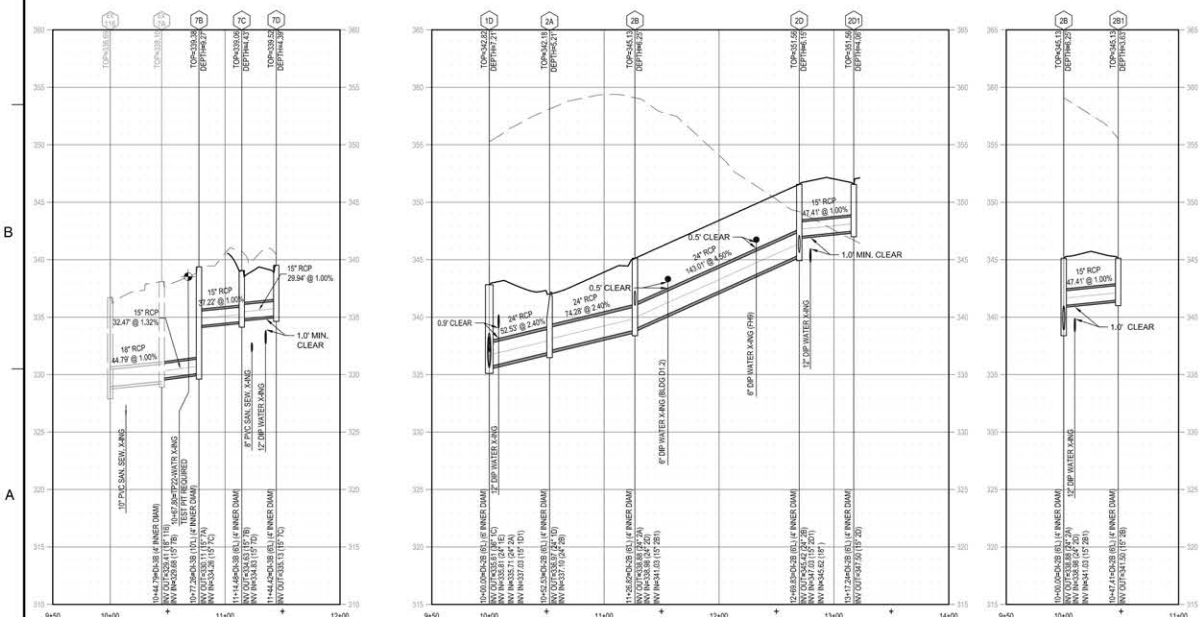
NOTES:

1. ALL PIPES SHALL BE CLASS III RCP.
2. REFER TO SHEETS C06.601-C06.602 FOR NOTES AND DETAILS.
3. REFER TO SHEET C06.701 FOR COMPUTATIONS.
4. DIRECTION OF D-2 GRATE IS TO BE SET PERPENDICULAR TO BIKE LANE TRAFFIC.
5. THE TOP ELEVATION IDENTIFIED FOR D1-2 STRUCTURES. REPRESENTS TOP OF GRATE, NOT TOP OF CURB.

STANDARD PROFILE SURFACE LEGEND:

EX. GRADE

PROP. GRADE



Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

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May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
Coy A. Phillips
Lic. No. 048560
2015-10-14
PROFESSIONAL ENGINEER

KEY PLAN

SCALE
H: 1" = 50'
1 INCH
V: 1" = 5'
1 INCH

NORTH
VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MJJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE
STORM SEWER PROFILES

SP NO. #6848-SP-014

C06.305

SECTION NO. C06-STORM SEWER

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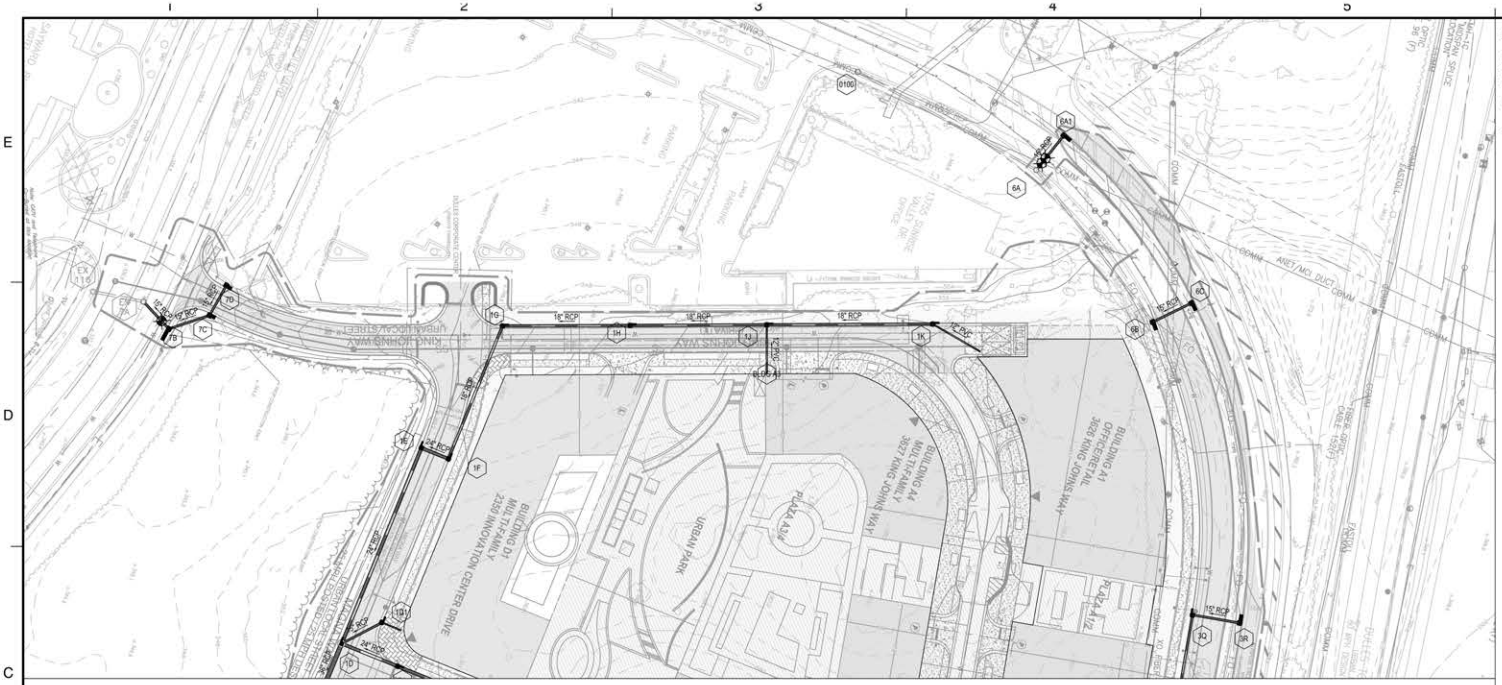

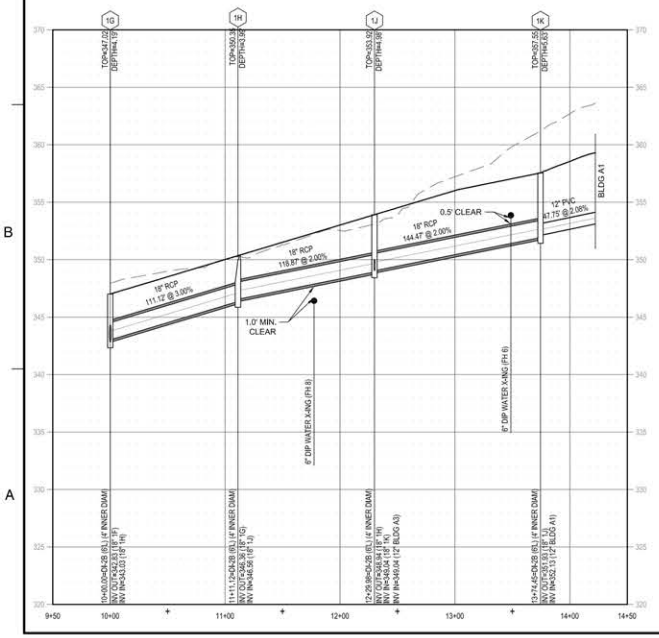

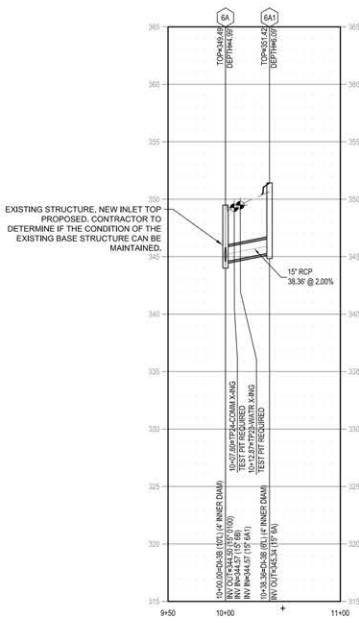

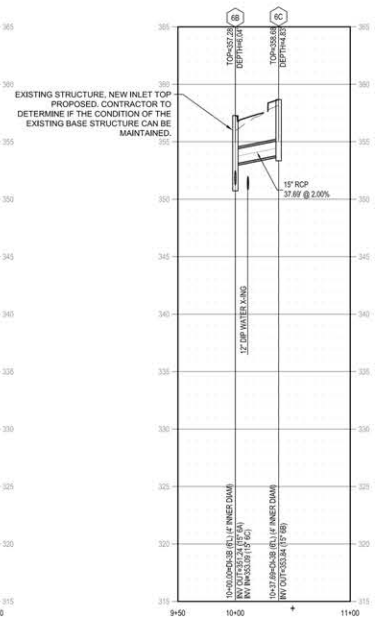

NOTES:

1. ALL PIPES SHALL BE CLASS III RCP.
2. REFER TO SHEETS C06.601-C06.602 FOR NOTES AND DETAILS.
3. REFER TO SHEET C06.701 FOR COMPUTATIONS.
4. DIRECTION OF D-2 GRATE IS TO BE SET PERPENDICULAR TO BIKE LANE TRAFFIC.
5. THE TOP ELEVATION IDENTIFIED FOR D1-2 STRUCTURES. REPRESENTS TOP OF GRATE, NOT TOP OF CURB.

STANDARD PROFILE SURFACE LEGEND:

EX. GRADE

PROP. GRADE

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

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May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
Cory A. Pinkett
Lic. No. 048560
PROFESSIONAL ENGINEER

KEY PLAN

SCALE
H: 1" = 50'
1 INCH
V: 1" = 5'
1 INCH

NORTH
VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MLJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE

STORM SEWER PROFILES

SP NO. #6848-SP-014

C06.306

SECTION NO. C06-STORM SEWER

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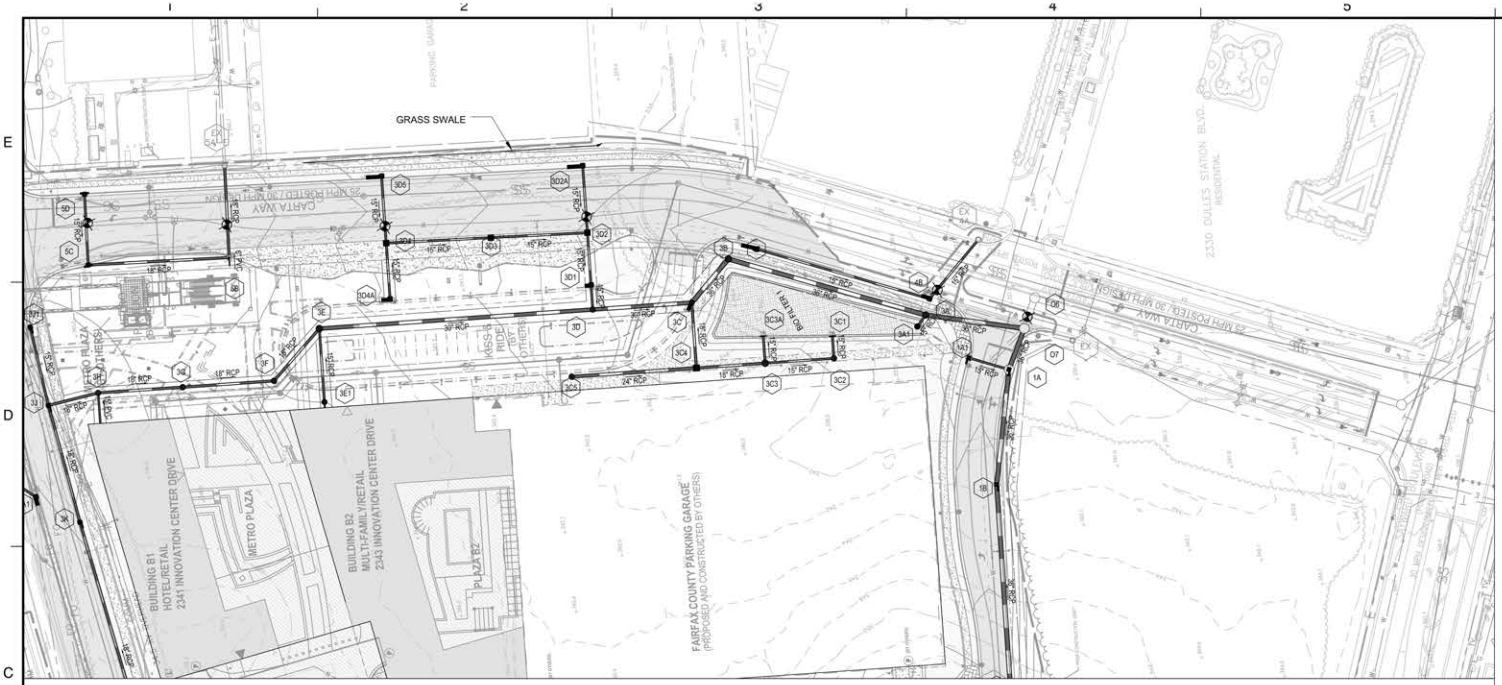
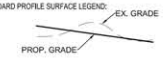
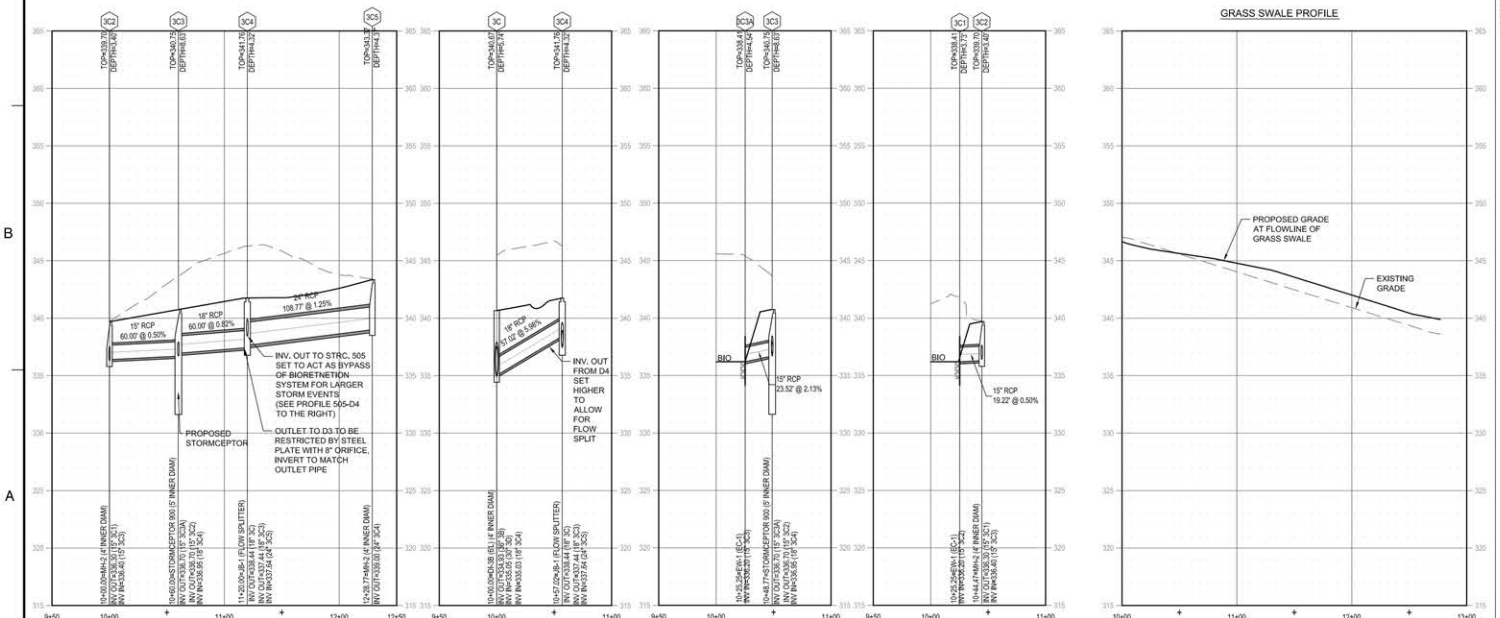


NOTES:

1. ALL PIPES SHALL BE CLASS III RCP.
2. REFER TO SHEETS C06.601-C06.602 FOR NOTES AND DETAILS.
3. REFER TO SHEET C06.701 FOR COMPUTATIONS.
4. DIRECTION OF D4-2 GRATE IS TO BE SET PERPENDICULAR TO BIKE LANE TRAFFIC.
5. THE TOP ELEVATION IDENTIFIED FOR D1-2 STRUCTURES. REPRESENTS TOP OF GRATE, NOT TOP OF CURB.

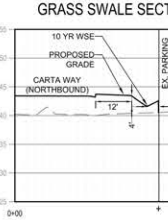
STANDARD PROFILE SURFACE LEGEND:





GRASS SWALE PROFILE

GRASS SWALE SECTION
CARTA WAY STATION 18+50
1" = 20' (1:1 RATIO)



MINIMUM SLOPE: 1.90%
SIDE SLOPES: 2:1 (LEFT); 3:1 (RIGHT)
MAX DISCHARGE: 0.85 CFS
NORMAL DEPTH: 0.39'
VELOCITY: 2.19 FT/S
FLOW TYPE: SUBCRITICAL

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

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May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

KEY PLAN

SCALE
H: 1" = 50'
1 INCH
V: 1" = 5'
1 INCH

NORTH
VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MLJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE
STORM SEWER PROFILES

SP NO. #6848-SP-014

C06.307

SECTION NO. C06-STORM SEWER

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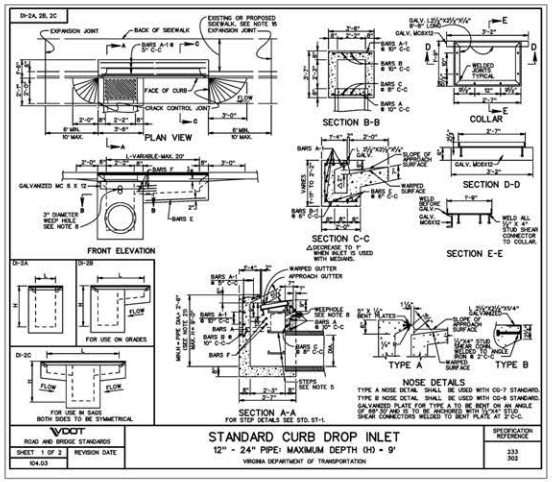

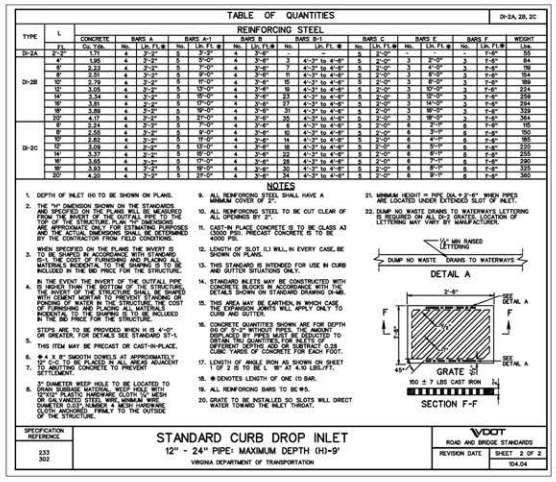

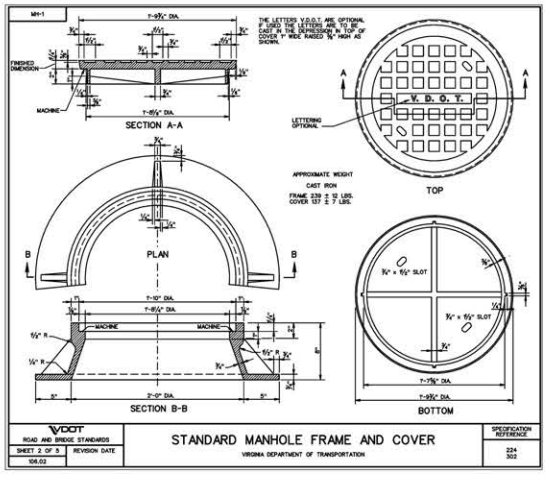

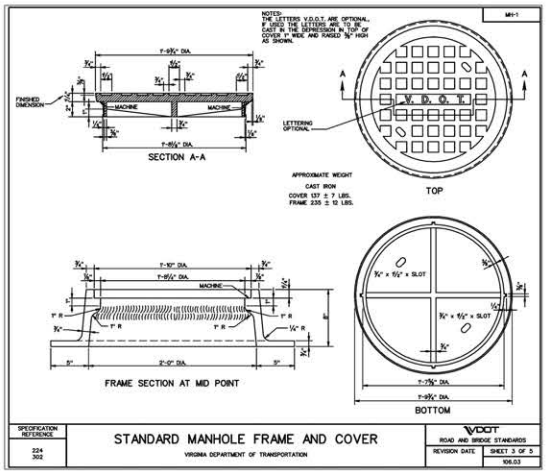

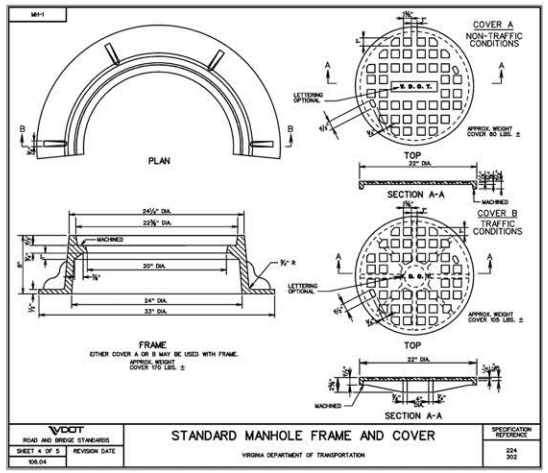

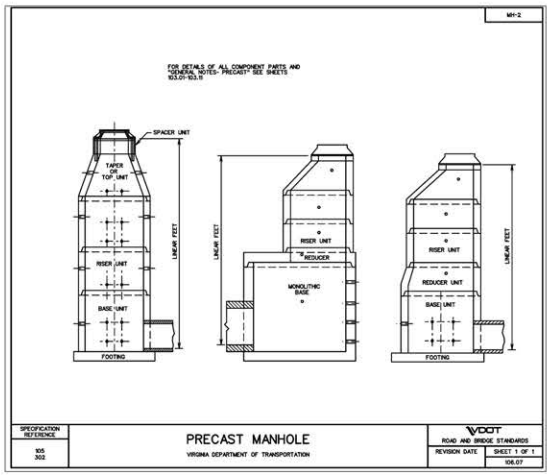

Dewberry
Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

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May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
Gary A. Pinkard
Lic. No. 043560
04-10-14
PROFESSIONAL ENGINEER

KEY PLAN

SCALE NORTH

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY MCJ
APPROVED BY CAP
CHECKED BY CJD
DATE SEPTEMBER 2014

TITLE
STORM DETAILS

SP NO. #6848-SP-014

C06.601

SECTION NO. C06-STORM SEWER

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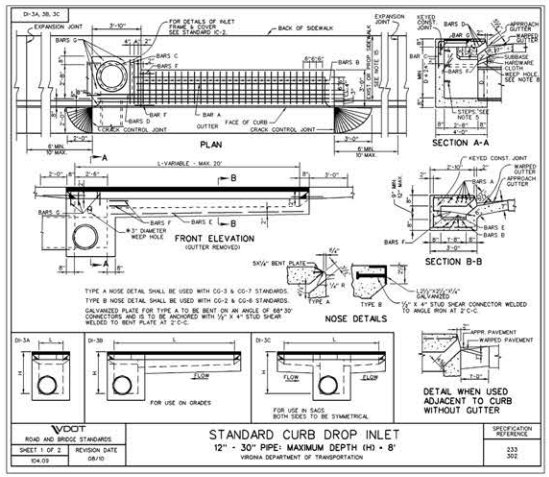

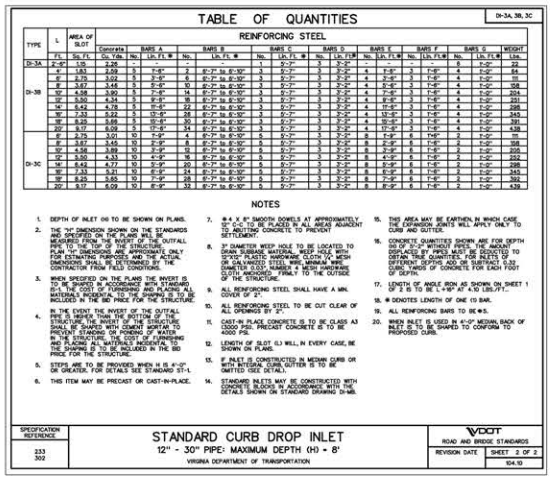

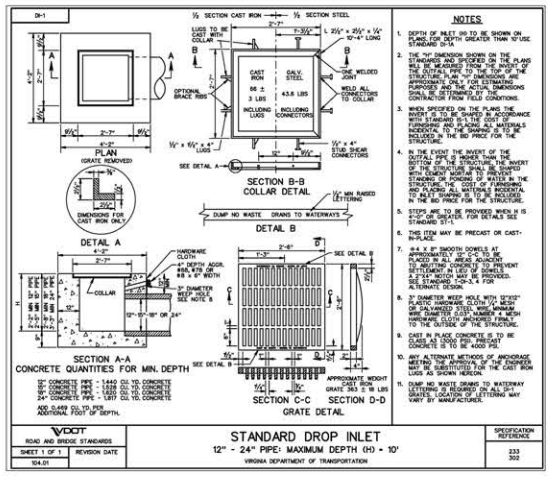

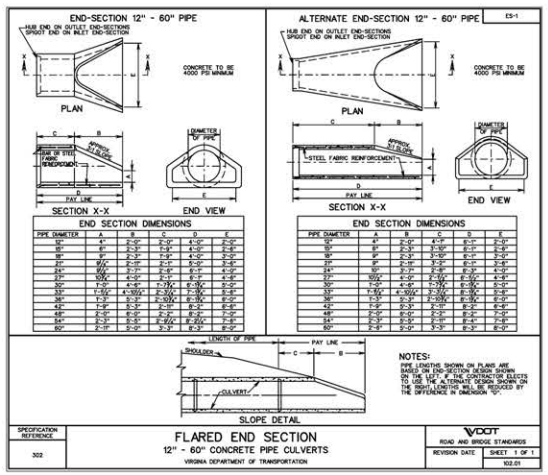

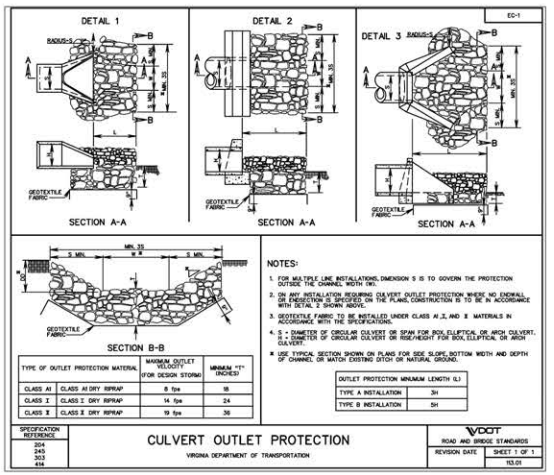

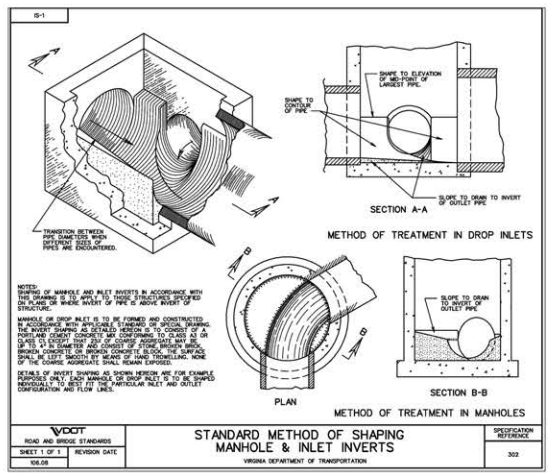

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

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May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
Gary A. Sinnett
Lic. No. 043560
4-10-14
PROFESSIONAL ENGINEER

KEY PLAN

SCALE NORTH

#

VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MLJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE
STORM DETAILS

SP NO. #6848-SP-014

C06.602

SECTION NO. C06-STORM SEWER

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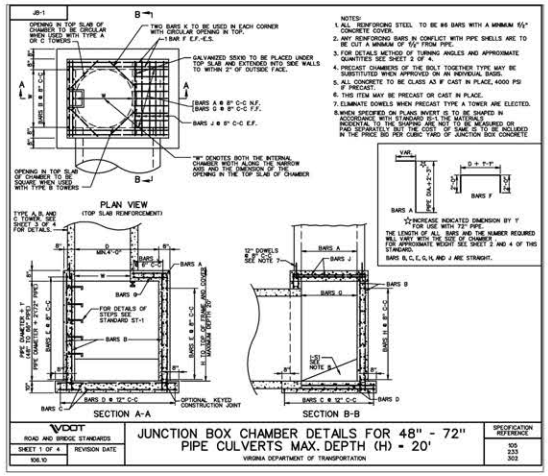
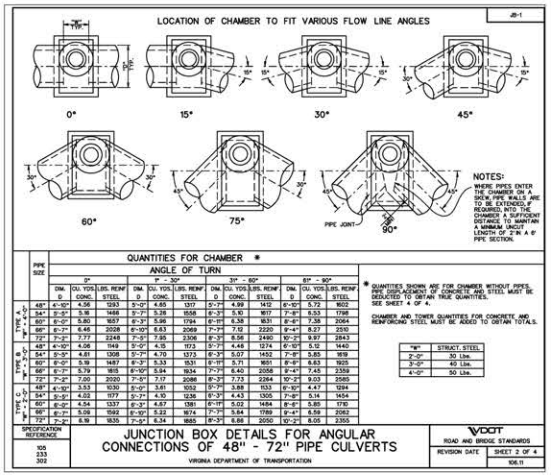




PIPE SIZE		0° - 30°			31° - 60°			61° - 90°		
		DIA. D	CU. YDS. CONC.	LBS. REINF STEEL	DIA. D	CU. YDS. CONC.	LBS. REINF STEEL	DIA. D	CU. YDS. CONC.	LBS. REINF STEEL
TYPE A	48"	4'-10"	4.56	1293	5'-0"	4.65	1317	5'-7"	4.99	1412
	54"	5'-5"	5.16	1468	5'-7"	5.28	1558	6'-3"	5.70	1617
	60"	6'-0"	5.80	1657	6'-3"	5.96	1794	6'-11"	6.38	1831
	66"	6'-7"	6.46	2028	6'-10"	6.63	2069	7'-7"	7.10	2220
	72"	7'-3"	7.77	2248	7'-5"	7.95	2308	8'-3"	8.56	2490
TYPE B OR C	48"	4'-10"	4.06	1149	5'-0"	4.15	1173	5'-7"	4.48	1274
	54"	5'-5"	4.61	1308	5'-7"	4.70	1373	6'-3"	5.07	1452
	60"	6'-0"	5.19	1487	6'-3"	5.33	1531	6'-11"	5.71	1651
	66"	6'-7"	5.79	1855	6'-10"	5.94	1934	7'-7"	6.40	2056
	72"	7'-3"	7.00	2020	7'-5"	7.17	2086	8'-3"	7.73	2284
TYPE C	48"	4'-10"	3.53	1030	5'-0"	3.61	1052	5'-7"	3.88	1133
	54"	5'-5"	4.02	1177	5'-7"	4.10	1236	6'-3"	4.43	1305
	60"	6'-0"	4.54	1337	6'-3"	4.67	1381	6'-11"	5.02	1484
	66"	6'-7"	5.09	1562	6'-10"	5.22	1674	7'-7"	5.64	1769
	72"	7'-3"	6.16	1835	7'-5"	6.34	1885	8'-3"	6.86	2050

* QUANTITIES SHOWN ARE FOR CHAMBER WITHOUT PIPE'S. PIPE CROSS-SECTION OF CONCRETE AND STEEL MUST BE DEDUCTED TO OBTAIN TRUE QUANTITIES. SEE SHEET 4 OF 4.

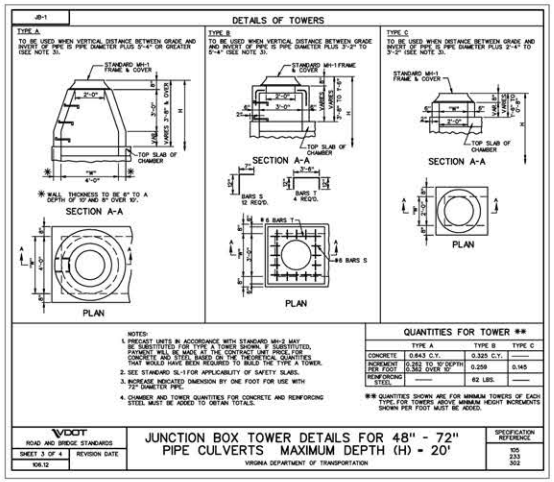
CHAMBER AND TOWER QUANTITIES FOR CONCRETE AND REINFORCING STEEL MUST BE ADDED TO OBTAIN TOTALS.

"H"	STRUCT. STEEL
2'-0"	30 Lbs.
3'-0"	40 Lbs.
4'-0"	50 Lbs.

SPECIFICATION REFERENCE: 105, 233, 302

JUNCTION BOX DETAILS FOR ANGULAR CONNECTIONS OF 48" - 72" PIPE CULVERTS

VDOT ROAD AND BRIDGE STANDARDS | SHEET 2 OF 4 | REVISION DATE | 106.11



	TYPE A	TYPE B	TYPE C
CONCRETE	0.643 C.Y.	0.325 C.Y.	——
INCREMENT PER FOOT	0.351 TO 10' DEPTH 0.382 OVER 10'	0.259	0.145
REINFORCING STEEL	——	62 LBS.	——

SPECIFICATION REFERENCE: 105, 233, 302

VDOT ROAD AND BRIDGE STANDARDS | SHEET 3 OF 4 | REVISION DATE | 106.12

JUNCTION BOX TOWER DETAILS FOR 48" - 72" PIPE CULVERTS MAXIMUM DEPTH (H) = 20'

VIRGINIA DEPARTMENT OF TRANSPORTATION

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

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INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
Carl A. Pinkert
Lic. No. 043560
PROFESSIONAL ENGINEER

KEY PLAN

SCALE

NORTH

VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MLJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE
STORM DETAILS

SP NO. #6848-SP-014

C06.603

SECTION NO. C06-STORM SEWER

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Wed, Oct 14, 2015 - 10:22:49am

SUBBASIN RUNOFF COMPUTATIONS (TR-20 HYDROLOGY)

Subbasin ID	Area (ac)	Weighted Curve Number	Total Rainfall (in)	Total Runoff (in)	Total Runoff Volume (ac-in)	Peak Runoff (cfs)	Time of Concentration (hh:mm:ss)
S_06A	0.18	96.00	4.87	4.40	0.79	1.02	0:05:00
S_1A	0.06	92.00	4.87	3.96	0.24	0.31	0:05:00
S_1A1	0.46	90.96	4.87	3.85	1.77	2.41	0:05:00
S_1B	0.18	86.00	4.87	3.35	0.60	0.84	0:05:00
S_1D	0.06	92.00	4.87	3.96	0.24	0.31	0:05:00
S_1D1	0.11	91.45	4.87	3.90	0.43	0.58	0:05:00
S_1E	0.18	86.00	4.87	3.35	0.60	0.84	0:05:00
S_1F	0.11	91.45	4.87	3.90	0.43	0.58	0:05:00
S_1G	0.15	95.60	4.87	4.36	0.65	0.83	0:05:00
S_1H	0.19	96.11	4.87	4.42	0.84	1.09	0:05:00
S_1J	0.33	95.27	4.87	4.32	1.43	1.87	0:05:00
S_1K	0.33	98.00	4.87	4.63	1.53	1.93	0:05:00
S_2A	0.14	96.71	4.87	4.48	0.63	0.81	0:05:00
S_2B	0.12	95.00	4.87	4.29	0.51	0.68	0:05:00
S_2B1	0.18	96.00	4.87	4.40	0.79	1.02	0:05:00
S_2D	0.24	95.75	4.87	4.38	1.05	1.38	0:05:00
S_2D1	0.29	95.52	4.87	4.35	1.26	1.63	0:05:00
S_302	0.39	96.15	4.87	4.42	1.72	2.22	0:05:00
S_303	0.47	96.85	4.87	4.50	2.12	2.68	0:05:00
S_3A	0.31	88.13	4.87	3.56	1.10	1.51	0:05:00
S_3C	0.50	96.20	4.87	4.43	2.21	2.84	0:05:00
S_3D1	0.29	97.38	4.87	4.56	1.32	1.66	0:05:00
S_3D2	0.14	98.00	4.87	4.63	0.65	0.81	0:05:00
S_3D2A	0.11	98.00	4.87	4.63	0.51	0.63	0:05:00
S_3D3	0.44	92.27	4.87	3.99	1.76	2.37	0:05:00
S_3D4	0.18	95.00	4.87	4.29	0.77	1.01	0:05:00
S_3D4A	0.29	97.38	4.87	4.56	1.32	1.66	0:05:00
S_3D5	0.10	98.00	4.87	4.63	0.46	0.59	0:05:00
S_3J	0.14	91.57	4.87	3.92	0.55	0.75	0:05:00
S_3J1	0.07	95.43	4.87	4.34	0.30	0.40	0:05:00
S_3K	0.32	91.81	4.87	3.94	1.26	1.70	0:05:00
S_3L	0.19	93.26	4.87	4.10	0.78	1.05	0:05:00
S_3M	0.15	95.60	4.87	4.36	0.65	0.83	0:05:00
S_3N	0.15	94.40	4.87	4.22	0.63	0.82	0:05:00
S_3P	0.35	89.26	4.87	3.67	1.29	1.78	0:05:00
S_3Q	0.15	89.60	4.87	3.71	0.56	0.75	0:05:00
S_3R	0.09	90.00	4.87	3.75	0.34	0.46	0:05:00
S_4B	0.28	98.00	4.87	4.63	1.30	1.63	0:05:00
S_4C	0.32	94.63	4.87	4.25	1.36	1.79	0:05:00
S_5C	0.41	94.05	4.87	4.19	1.72	2.27	0:05:00
S_5D	0.23	93.30	4.87	4.10	0.94	1.26	0:05:00
S_6A1	0.25	85.04	4.87	3.25	0.81	1.14	0:05:00
S_6B	0.23	89.39	4.87	3.69	0.85	1.17	0:05:00
S_6C	0.22	86.55	4.87	3.40	0.75	1.03	0:05:00
S_7B	1.15	84.54	4.87	3.26	3.68	5.17	0:05:00
S_7C	0.49	82.57	4.87	3.02	1.48	2.09	0:05:00
S_7D	0.10	90.80	4.87	3.83	0.38	0.53	0:05:00
S_8A	0.04	89.00	4.87	3.63	0.15	0.19	0:05:00
S_8A1	0.31	93.94	4.87	4.17	1.29	1.70	0:05:00
S_BLDG_A1	0.56	98.00	4.87	4.63	2.59	3.26	0:05:00
S_BLDG_A2	0.53	98.00	4.87	4.63	2.46	3.07	0:05:00
S_BLDG_A3	0.54	98.00	4.87	4.63	2.50	3.11	0:05:00
S_BLDG_A4	0.33	98.00	4.87	4.63	1.53	1.93	0:05:00
S_BLDG_B1	0.40	98.00	4.87	4.63	1.85	2.33	0:05:00
S_BLDG_B2	0.71	98.00	4.87	4.63	3.29	4.11	0:05:00
S_BLDG_D1	0.58	98.00	4.87	4.63	2.69	3.37	0:05:00
S_CWTF_GRG	2.54	95.80	4.87	4.38	11.13	14.41	0:05:00
S_METRO	0.13	98.00	4.87	4.63	0.60	0.74	0:05:00
S_PLAZA_A1	0.15	88.40	4.87	3.59	0.54	0.73	0:05:00
S_PLAZA_A3-A4	0.67	89.67	4.87	3.72	2.49	3.43	0:05:00
S_PLAZA_B1	0.95	91.75	4.87	3.94	3.74	5.04	0:05:00
S_PLAZA_B2	0.28	91.57	4.87	3.92	1.10	1.49	0:05:00
S_PLAZA_D	0.15	87.20	4.87	3.46	0.52	0.71	0:05:00
S_PRIV_DRIVE	0.48	98.00	4.87	4.63	2.22	2.78	0:05:00
S_PUBLIC_PARK	0.71	88.11	4.87	3.56	2.53	3.50	0:05:00

CLOSED CONDUIT COMPUTATIONS

From (Inlet) Node	To (Outlet) Node	Inlet Invert Elevation (ft)	Outlet Invert Elevation (ft)	Length (ft)	Average Slope (%)	Diameter or Height (in)	Manning's n Roughness	Peak Flow (cfs)	Design Flow Capacity (cfs)	Peak Flow/ Design Flow Ratio	Peak Flow Velocity (ft/sec)
O7	O6	331.4	331.2	28.2	0.50	38	0.0130	84.8	100.5	0.8	9.0
O6	O5	331.1	329.5	332.5	0.50	38	0.0130	84.6	100.7	0.8	9.1
O5	O4	329.4	328.6	150.8	0.50	38	0.0130	84.5	100.5	0.8	9.0
O4	O3	328.6	325.9	355.2	0.75	38	0.0130	84.3	123.3	0.7	10.6
O3	O2	325.7	323.5	121.9	1.74	38	0.0130	84.2	188.2	0.5	14.3
O2	O1	322.4	310.8	374.3	3.10	42	0.0130	84.3	177.1	0.5	18.2
O1	Pond	310.6	309.1	151.5	1.00	42	0.0130	84.1	98.2	0.9	11.5
8A1	8A	347.8	347.1	67.5	1.00	15	0.0130	1.2	6.5	0.2	4.0
8A	Manmade Channel	346.9	346.0	37.5	2.44	15	0.0130	1.9	10.1	0.2	6.3
7D	7C	335.1	334.8	29.9	1.00	15	0.0130	0.5	6.4	0.1	3.2
7C	7B	334.6	334.3	37.2	1.00	15	0.0130	2.0	6.4	0.3	4.6
7B	EX_7A	330.1	329.7	32.5	1.32	15	0.0130	6.6	7.4	0.9	6.8
6C	6B	353.8	353.1	37.7	2.00	18	0.0130	0.9	14.8	0.1	6.4
6B	6A	351.2	344.6	166.8	4.00	15	0.0130	1.9	12.9	0.2	7.6
6A1	6A	345.3	344.6	38.4	2.00	15	0.0130	1.3	9.1	0.1	5.3
6A	Existing Strc	344.5	333.6	177.6	6.11	15	0.0130	4.8	16.0	0.3	11.4
5D	5C	344.4	343.8	61.5	0.92	15	0.0130	1.3	6.2	0.2	4.0
5C	5B	343.6	342.2	122.9	1.13	18	0.0130	3.6	11.2	0.3	5.8
5B	5A	342.0	340.9	80.1	1.40	18	0.0130	4.3	12.4	0.3	6.8
5A	Existing Strc	340.7	339.8	153.0	0.58	24	0.0130	4.3	17.3	0.2	4.5
4C	4B	335.5	333.9	156.8	1.00	15	0.0130	2.8	6.5	0.4	5.1
4B	Existing Strc	333.7	333.1	66.7	1.00	15	0.0130	4.2	6.5	0.7	5.7
3R	3Q	355.2	354.4	41.7	2.00	15	0.0130	0.4	9.1	0.1	3.8
3Q	3P	354.2	351.9	203.4	1.10	15	0.0130	1.2	6.8	0.2	4.2
3P	3N	351.7	351.3	41.9	1.00	18	0.0130	2.7	10.5	0.4	4.9
3N	3M	351.1	350.6	47.4	1.00	18	0.0130	3.5	10.6	0.3	5.4
3M	3L	350.4	349.9	44.7	1.07	18	0.0130	4.3	10.9	0.4	5.8
3L	3K	349.7	347.2	246.4	1.00	18	0.0130	5.5	10.5	0.5	6.1
3K	3J	347.1	346.1	105.3	1.00	18	0.0130	7.1	10.5	0.7	6.4
3J1	3J	346.8	346.1	70.0	1.00	15	0.0130	0.4	6.5	0.1	2.9
3J	3H	346.0	345.4	44.7	1.25	18	0.0130	8.3	11.8	0.7	7.2
BLDG_D1	3H	346.1	345.5	26.7	2.00	15	0.0130	2.3	9.1	0.3	6.2
3H	3G	345.3	343.4	73.7	2.60	18	0.0130	15.5	17.0	0.9	10.9
3G	3F	343.3	341.2	79.7	2.60	18	0.0130	15.5	16.9	0.9	10.9
3F	3E	341.1	339.6	60.1	2.60	18	0.0130	15.5	16.9	0.9	10.9
3E1	3E	340.5	339.6	64.0	1.50	15	0.0130	5.6	7.9	0.7	7.0
3E	3D	339.5	336.5	238.6	1.27	30	0.0130	23.0	46.2	0.5	9.2
3D5	3D4	341.5	340.9	58.4	1.00	15	0.0130	0.6	6.5	0.1	3.3
3D4A	3D4	342.0	341.5	48.7	1.00	15	0.0130	1.3	6.5	0.2	4.1
3D4	3D3	340.8	339.9	91.3	1.00	15	0.0130	2.2	6.5	0.3	4.8
3D3	3D2	339.8	338.0	84.1	2.10	15	0.0130	3.5	9.4	0.4	7.1
3D2A	3D2	339.2	338.0	58.5	2.00	15	0.0130	0.6	9.1	0.1	4.2
3D2	3D1	337.9	337.0	45.5	2.00	15	0.0130	6.1	9.1	0.7	8.0
3D1	3D	336.9	336.5	21.5	2.00	15	0.0130	7.8	9.1	0.9	8.4
3D	3C	336.4	335.1	86.4	1.50	30	0.0130	28.7	50.3	0.6	10.6
3C6	3C5	339.5	339.0	20.0	2.50	18	0.0130	14.4	16.6	0.9	10.6
3C5	3C4	339.0	337.6	108.8	1.25	24	0.0130	14.4	25.3	0.6	8.3
3C4_2	3C	338.4	335.0	57.0	5.98	18	0.0130	10.0	25.7	0.4	21.4
3C4_1	3C3	337.4	337.0	60.0	0.82	18	0.0130	2.7	9.5	0.3	5.3
3C3	3C2	336.7	336.4	60.0	0.50	15	0.0130	1.3	4.6	0.3	4.4
3C3	SWMD	336.7	336.2	23.5	2.13	15	0.0130	1.4	9.4	0.2	5.5
3C2	SWMD	336.3	336.2	19.2	0.50	15	0.0130	1.3	4.7	0.3	3.2
3C	3B	334.9	334.4	49.5	1.00	36	0.0130	39.0	66.4	0.6	9.9
3B	3A	334.3	332.4	178.6	1.10	36	0.0130	38.8	69.9	0.6	10.2
3A1	3A	332.4	332.3	12.3	0.50	15	0.0130	2.5	4.5	0.6	3.8
3A	O7	332.2	331.5	86.6	0.89	36	0.0130	41.1	63.1	0.7	9.5
2D1	2D	347.5	347.0	47.4	1.00	15	0.0130	1.3	6.5	0.2	4.1
BLDG_A3	2D	345.8	345.6	10.0	2.00	24	0.0130	16.6	32.0	0.5	10.3
2D	2B	345.4	339.0	143.0	4.50	24	0.0130	19.8	48.4	0.4	14.5
2B1	2B	341.5	341.0	47.4	1.00	15	0.0130	1.3	6.4	0.2	4.1
2B	2A	338.9	337.1	74.3	2.40	24	0.0130	21.1	35.0	0.6	11.7
2A	1D	337.0	335.7	52.5	2.40	24	0.0130	21.8	35.0	0.6	11.8
BLDG_A1	1K	353.1	352.1	47.7	2.08	12	0.0130	3.3	5.1	0.6	11.8
1K	1J	351.9	349.0	144.5	2.00	18	0.0130	4.7	22.3	0.2	10.0
BLDG_A4	1J	349.9	349.0	42.7	2.08	12	0.0130	1.9	5.1	0.4	6.1
1J	1H	348.9	346.6	118.9	2.00	18	0.0130	8.5	14.9	0.6	8.7
1H	1G	346.4	343.0	111.1	3.00	18	0.0130	9.9	18.3	0.5	10.6
1G	1F	342.8	340.3	124.9	2.00	18	0.0130	10.8	14.9	0.7	9.2
1F	1E	338.0	337.8	25.4	1.00	24	0.0130	11.4	22.6	0.5	7.2
1E	1D	337.7	335.8	183.9	1.00	24	0.0130	12.1	22.6	0.5	7.4
BLDG_D	1D1	338.2	338.0	10.0	2.00	18	0.0150	4.1	12.9	0.3	6.5
1D1	1D	337.9	337.0	39.8	2.15	15	0.0130	4.6	9.5	0.5	7.7
1D	1C	335.6	334.8	41.3	2.00	30	0.0130	38.9	58.2	0.7	12.7
1C	1B	333.3	332.4	187.1	0.50	36	0.0130	38.8	47.3	0.8	7.5
1B	1A	332.3	331.8	100.5	0.50	36	0.0130	39.6	47.0	0.8	7.5
1A1	1A	333.3	332.9	36.4	1.00	15	0.0130	4.1	6.4	0.6	10.3
1A	O7	331.7	331.5	38.1	0.50	36	0.0130	43.2	47.4	0.9	7.6
06A	O7	332.6	332.4	22.5	0.80	18	0.0130	1.0	9.4	0.1	3.5
303	302	342.0	341.2	150.0	0.54	15	0.0130	1.8	4.8	0.4	3.8
302	301	341.1	339.8	150.3	0.81	18	0.0130	4.2	9.5	0.4	5.2
301	Existing Culvert	337.3	337.2	21.0	0.24	48	0.0130	4.9	70.1	0.1	3.2

EXISTING STORM SEWER ALONG SUNRISE VALLEY DRIVE, NORTH OF DULLES STATION BOULEVARD.

INLET COMPUTATIONS (4 IN/HR INTENSITY)

Element ID	Inlet Location	Catchbasin Invert Elevation (ft)	Max (Rim) Elevation (ft)	Peak Flow Intercepted by Inlet (cfs)	Peak Flow Bypassing Inlet (cfs)	Inlet Efficiency during Peak Flow (%)	Max Gutter Spread during Peak Flow (ft)	Max Gutter Water Elev. during Peak Flow (ft)
1A	On Sag	331.66	337.09	0.23	N/A	N/A	N/A	1.40	337.27
1A1	On Sag	331.98	337.05	1.83	N/A	N/A	N/A	1.02	338.97
1B	On Grade	332.26	338.21	0.70	0.70	0.00	100.00	3.86	338.41
1D	On Grade	335.61	342.82	0.23	0.23	0.00	100.00	1.28	342.90
1D1	On Grade	337.88	343.21	0.43	0.43	0.00	100.00	2.40	343.37
1E	On Grade	337.65	345.15	0.70	0.70	0.00	100.00	3.66	345.35
1F	On Grade	338.00	345.35	0.43	0.43	0.00	100.00	2.40	345.51
1G	On Grade	342.83	347.02	0.59	0.58	0.01	98.33	2.16	347.18
1H	On Grade	346.36	350.35	0.77	0.74	0.03	96.21	2.80	350.53
1J	On Grade	348.96	353.92	1.34	1.16	0.18	86.49	4.57	354.13
1K	On Grade	355.54	357.69	1.34	1.17	0.17	87.15	4.47	357.90
2A	On Grade	336.80	342.02	0.57	0.54	0.03	95.05	2.06	342.19
2B	On Grade	337.88	345.13	0.49	0.49	0.00	99.66	1.72	345.27
2B1	On Grade	341.50	345.13	0.72	0.68	0.05	93.69	2.26	345.29
2D	On Grade	345.52	351.56	0.98	0.88	0.10	90.06	2.88	351.74
2D1	On Grade	347.50	351.56	1.16	0.99	0.17	85.73	3.34	351.75
EX 301	On Sag	337.26	349.06	0.00	N/A	N/A	N/A	0.00	349.06
EX 302	On Grade	341.06	347.87	1.57	1.18	0.39	75.33	7.69	348.11
EX 303	On Grade	341.97	348.26	1.88	1.35	0.53	71.94	8.34	348.51
3C	On Grade	334.93	340.67	2.01	1.74	0.27	86.64	9.31	340.95
3D1	On Grade	336.50	342.44	1.16	1.04	0.12	89.44	15.30	342.64
3D2	N/A	337.94	341.83	0.57	0.19	0.38	33.17	13.14	341.86
3D2A	On Grade	339.21	343.15	0.44	0.44	0.00	100.00	1.87	343.30
3D3	N/A	339.81	343.41	1.76	0.48	1.28	27.33	28.31	343.49
3D4	N/A	340.82	345.15	0.72	0.24	0.48	33.17	16.65	345.19
3D4A	On Grade	342.00	345.77	1.16	1.04	0.12	89.44	15.30	345.98
3D5	On Grade	341.50	345.66	0.41	0.41	0.00	100.00	3.42	345.80
3J	On Grade	345.89	350.72	0.56	0.56	0.00	100.00	4.51	350.92
3J1	On Grade	346.79	350.10	0.28	0.28	0.00	100.00	1.40	350.20
3K	On Grade	347.14	352.04	1.28	1.28	0.00	100.00	5.75	352.28
3L	On Grade	349.70	354.14	0.77	0.77	0.00	99.51	4.38	354.34
3M	On Grade	350.38	354.88	0.59	0.59	0.00	99.62	2.62	355.06
3N	On Grade	351.06	354.85	0.59	0.59	0.00	99.62	2.61	355.02
3P	On Grade	351.68	355.93	1.39	1.30	0.09	93.53	7.28	356.17
3Q	On Grade	354.17	358.40	0.56	0.58	0.00	100.00	3.55	356.60
3R	On Grade	355.28	359.74	0.35	0.33	0.02	93.11	2.70	359.84
4B	On Grade	333.73	337.78	1.14	1.14	0.00	100.00	5.05	338.01
4C	On Grade	335.59	339.65	1.28	1.23	0.05	95.81	5.73	339.90
5C	On Sag	343.62	348.07	1.64	N/A	N/A	N/A	7.41	348.88
5D	On Sag	344.38	348.11	0.92	N/A	N/A	N/A	4.96	348.48
6A	On Grade	344.56	353.23	1.21	1.21	0.00	100.00	6.11	353.48
6A1	On Grade	345.04	347.77	0.97	0.97	0.00	100.00	5.35	348.01
6B	On Grade	351.24	356.95	0.91	0.87	0.04	95.35	2.66	357.14
6C	On Grade	355.04	358.75	0.85	0.74	0.12	86.41	3.95	358.90
7B	On Grade	330.11	339.11	4.46	3.86	0.60	86.59	6.54	339.46
7C	On Grade	334.63	340.02	1.89	1.31	0.58	69.47	4.47	340.24
7D	On Grade	335.13	339.57	0.41	0.40	0.01	97.95	1.63	339.70
8A	On Grade	346.89	351.71	0.15	0.14	0.01	94.88	0.69	351.76
8A1	On Grade	347.77	352.38	1.23	0.96	0.27	78.09	7.19	352.52

STORM SEWER COMPUTATION NOTES

THIS SHEET IS INTENDED TO PROVIDE HYDROLOGIC AND HYDRAULIC COMPUTATION INFORMATION

1. STORM EVENT MODEL IS DERIVED FROM NOAA DATA (VIENNA-TYSONS STATION) TO DEVELOP A 24 HOUR RAINFALL EVENT (4.87" TOTAL DEPTH).
   - 1.1. STORM EVENT FOR INLET COMPUTATIONS ARE BASED ON A CONSTANT 4" / HR INTENSITY
2. HYDROLOGIC COMPUTATIONS PROVIDED ARE BASED ON TR-20 METHODOLOGY
   - 2.1. IMPERVIOUS RUNOFF CURVE NUMBER = 98
   - 2.2. TURF RUNOFF CURVE NUMBER = 80
   - 2.3. PERMEABLE PAVER RUNOFF CURVE NUMBER = 80
3. HYDRAULIC COMPUTATIONS FOR THE CLOSED CONDUIT SYSTEM ACCOUNT FOR INLET SHAPING (0.5 X HEAD LOSS)
4. COMBINATION INLETS (DI-2) STRUCTURES ARE EVALUATED AS STANDARD CURB INLETS TO ASSIGNED A CLOGGED CONDITION FOR THE GRATE INLET
5. INLET COMPUTATIONS ASSUME 2" LOCAL DEPRESSION FOR INLETS LOCATED ON A CG-6, OR 1" LOCAL DEPRESSION FOR MEDIAN INLETS
6. THE MODEL EVALUATES THE SITE OUTFALL TO STRUCTURE O7 (PROPOSED WITH ASSOCIATED PUBLIC IMPROVEMENT PLAN 6848-PI-003), AND EVALUATES THE SYSTEM TO THE EXISTING REGIONAL DRY POND.
7. ADDITIONAL CAPACITY IN THE STORM SEWER SYSTEM IS PROVIDED ALONG MAGNA WAY AND WITHIN THE OUTFALL SYSTEM TO ACCOMMODATE THE FUTURE DEVELOPMENT OF THE PARCEL SOUTH OF INNOVATION CENTER (PARCEL 5A).
8. ROUTING IS ANALYZED THROUGH THE BIORETENTION SYSTEM FROM THE AVAILABLE STORAGE CONDITIONS CONTROLLED BY OVERFLOW WEIR/INLET.

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

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May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CHRISTOPHER A. PORRETT
Lic. No. 048560
Exp. 12-31
PROFESSIONAL ENGINEER

KEY PLAN

SCALE NORTH

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY MLJ
APPROVED BY CAP
CHECKED BY CJD
DATE SEPTEMBER 2014

TITLE
STORM SEWER COPMUTATIONS

SP NO. #6848-SP-014

C06.701

SECTION NO. C06-STORM SEWER

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Mon, Dec 21, 2015 - 11:33:30am

BIORETENTION FILTER MATERIAL SPECIFICATIONS

VA DEQ STORMWATER DESIGN SPECIFICATION NO. 9 **BIORETENTION**

Table 9.6. Bioretention Material Specifications

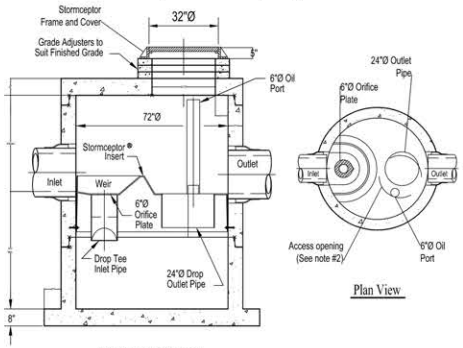
Material	Specification	Notes
Filter Media Composition	Filter Media to contain: • 85%–88% sand • 8%–12% soil fines • 3%–5% organic matter in the form of leaf compost	The volume of filter media based on 110% of the plan volume, to account for settling or compaction.
Filter Media Testing	P-Index range = 10-30; **OR** Between 7 and 21 mg/kg of P in the soil media. CECs greater than 10	The media must be procured from approved filter media vendors.
Mulch Layer	Use aged, shredded hardwood bark mulch	Lay a 2 to 3 inch layer on the surface of the filter bed.
Alternative Surface Cover	Use river stone or pea gravel, coir and jute matting, or turf cover.	Lay a 2 to 3 inch layer of to suppress weed growth.
Top Soil For Turf Cover	Loamy sand or sandy loam texture, with less than 5% clay content, pH corrected to between 6 and 7, and an organic matter content of at least 2%.	3 inch surface depth.
Geotextile/Liner	Use a non-woven geotextile fabric with a flow rate of > 110 gal./min./sq. ft. (e.g., Geotex 351 or equivalent)	Apply only to the sides and above the underdrain. For hotspots and certain karst sites only, use an appropriate liner on bottom.
Choking Layer	Lay a 2 to 4 inch layer of sand over a 2 inch layer of choker stone (typically #8 or #89 washed gravel), which is laid over the underdrain stone.	
Stone Jacket for Underdrain and/or Storage Layer	1 inch stone should be double-washed and clean and free of all fines (e.g., VDOT #57 stone).	12 inches for the underdrain; 12 to 18 inches for the stone storage layer, if needed
Underdrains, Cleanouts, and Observation Wells	Use 6 inch rigid schedule 40 PVC pipe (or equivalent corrugated HDPE for micro-bioretention), with 3/8-inch perforations at 6 inches on center; position each underdrain on a 1% or 2% slope located nor more than 20 feet from the next pipe.	Lay the perforated pipe under the length of the bioretention cell, and install non-perforated pipe as needed to connect with the storm drain system. Install T's and Y's as needed, depending on the underdrain configuration. Extend cleanout pipes to the surface with vented caps at the Ts and Ys.
Plant Materials	Plant one tree per 250 square feet (15 feet on-center, minimum 1 inch caliper). Shrubs a minimum of 30 inches high planted a minimum of 10 feet on-center. Plant ground cover plugs at 12 to 18 inches on-center; Plant container-grown plants at 18 to 24 inches on-center, depending on the initial plant size and how large it will grow.	Establish plant materials as specified in the landscaping plan and the recommended plant list. In general, plant spacing must be sufficient to ensure the plant material achieves 80% cover in the proposed planting areas within a 3-year period. If seed mixes are used, they should be from a qualified supplier, should be appropriate for stormwater basin applications, and should consist of native species (unless the seeding is to establish maintained turf).

Version 1.9, March 1, 2011 Page 31 of 54

STORMCEPTOR 900 DETAIL (BIORETENTION FILTER PRETREATMENT)

Rinker MATERIALS — Concrete Pipe Division

STC 900 Precast Concrete Stormceptor ®
(900 U.S. Gallon Capacity)



***CONTRACTOR TO COORDINATE SPLITTER DESIGN WITH STORMCEPTOR MANUFACTURER**

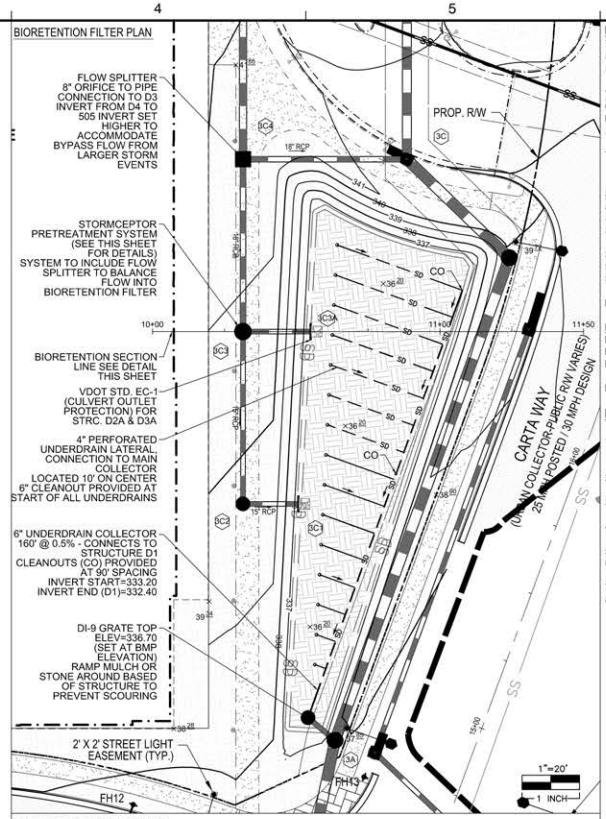
Notes:

1. The Use Of Flexible Connection is Recommended at The Inlet and Outlet Where Applicable.
2. The Cover Should be Positioned Over The Outlet Drop Pipe and The Oil Port.
3. The Stormceptor System is protected by one or more of the following U.S. Patents: #4985148, #5498331, #5725760, #5753115, #5849181, #6068765, #6371690.
4. Contact a Concrete Pipe Division representative for further details not listed on this drawing.

Stormceptor®

Rinker 028

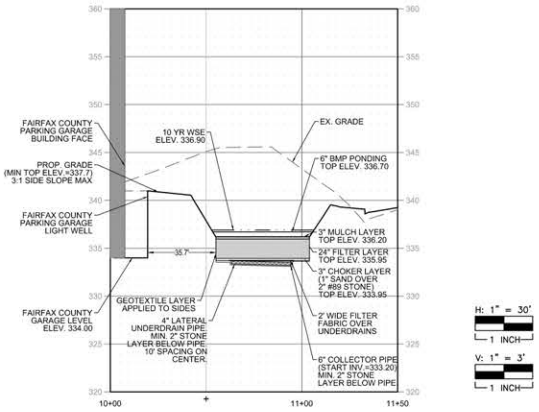
BIORETENTION FILTER PLAN



BIORETENTION FILTER SECTION

VERTICAL EXAGGERATION - 5X (FOR CONTEXT)
SEE MATERIAL SPECIFICATIONS ON THIS PAGE

BIORETENTION SECTION PROFILE



BIORETENTION FILTER - LEVEL 1 DESIGN COMPUTATIONS

THIS SYSTEM IS DESIGNED TO BE OFF-LINE (BYPASS OF HIGH FLOW/VOLUME STORM EVENTS) AND IS NOT DESIGNED FOR INFILTRATION.

TREATMENT AREA:

GRASS & PLANTING AREAS	0.31 AC TURF
FAIRFAX COUNTY PARKING GARAGE	2.09 AC IMPERVIOUS
ADJACENT (WEST) SIDEWALK	0.14 AC IMPERVIOUS

TOTAL: 2.54 ACRES => TREATMENT VOLUME =7,971 CF

SIZING:
REQUIRED SURFACE AREA DETERMINED BY EQUATION 9.3 FROM VA DEQ STORMWATER DESIGN SPEC NO. 9, WHICH ACCOUNTS FOR THE SYSTEM'S MEDIA VOID RATIOS

SURFACE AREA = Tv / STORAGE DEPTH
SURFACE AREA = 7,971 SF / 1.4 FT
SURFACE AREA = 5,694 SF

PROVIDED SURFACE AREA IS 5,850 > 5,694 REQUIRED

DRAIN TIME (PER PFM EQATION 6-1307.5B):
DRAIN TIME = [(7,971 CF)(2')] / [(1.5/12)(0.5 X 0.5 + 2') X 5,850]
DRAIN TIME = 15,942 / 1,645
DRAIN TIME = 9.7 HOURS

DRAIN TIME IS 9.7 HOURS < 24 HOURS MAX ALLOWED

BIORETENTION FILTER GENERAL NOTES

1. DESIGN FOR THE BIORETENTION FILTER IS INCLUDED WITH THIS SITE PLAN TO PROVIDE A COMPREHENSIVE STORMWATER MANAGEMENT PLAN FOR INNOVATION SOUTH.
2. CONSTRUCTION OF THE BIORETENTION SYSTEM IS TO BE COMPLETED BY OTHERS
3. THE SYSTEM IS DESIGNED TO BE OFF-LINE. A FLOW SPLITTER IS SHOWN AT STRUCTURE D4 TO ISOLATE BMP FLOWS.
4. PRETREATMENT IS PROVIDED BY STORMCEPTOR SYSTEM AT STRUCTURE D3
5. SEE LANDSCAPE PLAN FOR PLANTING DETAILS
6. REFER TO FAIRFAX COUNTY PFM SECTION 6-1307 FOR ADDITIONAL DETAILS AND SPECIFICATIONS
7. CLEANOUT TOP ELEVATION TO MATCH BMP ELEVATION (336.70)
8. CLEANOUTS PROVIDED AS NOTED AND AT THE ORIGIN OF EACH UNDERDRAIN SYSTEM.

THIS STORM WATER MANAGEMENT SYSTEM IS NOT INTENDED FOR COUNTY REVIEW AND PROVIDES SUPPLEMENTARY TREATMENT TO FURTHER ENHANCE THE SITE.
(SEE PROFFERS FOR MORE INFORMATION)

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CODY A. PENNETTI
Lic. No. 048560
PROFESSIONAL ENGINEER
Exp. 10-31-15

KEY PLAN

SCALE NORTH

AS NOTED

VCS–83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MLJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE
BIORETENTION FILTER DESIGN & DETAILS

SP NO. #6848–SP–014

C07.601

SECTION NO. C07-SWM

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Mon, Oct 05 2015 - 2:29:23pm

STORMWATER MANAGEMENT (SWM) PLAN NARRATIVE

The Innovation Center South project, as defined by the limits of clearing and grading (19.96 acres), is divided into two (2) SECTIONS for the purpose of evaluating/discussing water quality and water quantity compliance for this project:

SECTION 1: 18.07 ac of disturbed site area that drains to Fairfax County Regional Pond H-9. The calculated percent impervious for SECTION 1 is 81.3 %. As confirmed by DPWES and DPZ, SECTION 1 is grandfathered for SWM and BMP in Pond H-9 as the calculated percent impervious for SECTION 1 (81.3 %) is less than what was calculated when the Pond H-9 was designed (82.6 %).

SECTION 2: 1.89 ac of disturbed site area that does not drain to Fairfax County Regional Pond H-9. SECTION 2 is required to comply with Article 4 of the Fairfax County Stormwater Management Ordinance (SWMO).

FAIRFAX COUNTY REGIONAL POND - H-9

Fairfax County Regional Pond H-9 was designed by Urban Engineering & Associated, Inc (Urban) in 2007. It was constructed and as-built by 2010 (6848-PI-002-2, March 31 2004 Approval, Completed March 9 2011). The pond is an extended detention (ED) dry pond with a 48-hour drawdown time. It provides BMP and 2- and 10-year 24-hour detention for the 121.07 ac watershed it serves, which includes all 18.07 ac of SECTION 1 . The design land use assumed by Urban was roadway and business/commercial with an overall watershed weighted C-factor of 0.79. This equates to 82.6 percent impervious, which is demonstrated as follows:

For extended detention dry pond,

(4375 x C-factor) - 875 = 31.25 x %Imp (per chart A6-40 of NoVA BMP Handbook)
%Imp = [(4375 x 0.79) - 875] / 31.25 = 82.6 %

The design BMP volume calculated by Urban =	312,505.88 cf (sheet 17 of 31 of Urban as-built plan)
The design BMP volume provided by Urban =	319,505.88 cf (sheet 17 of 31 of Urban as-built plan)
As-built BMP volume =	387,169.92 cf (sheet 8 of 31 of Urban as-built plan)
Calculated rainfall depth treated by pond H-9 =	(387,169.92 cf x 12 in/ft) / (0.79 x 121.07 ac x 43560 sf/ac)
Calculated rainfall depth treated by pond H-9 =	1.12 inch > 1.0 inch

Water Quality (BMP)

SECTION 1
BMP for SECTION 1 will be provided by Fairfax County Regional Pond H-9. Bioretention and rainwater harvesting systems will be provided in locations shown on the site plan; however, these systems are not required in order to meet the BMP requirements for this project. These additional BMP's are provided only to meet proffer conditions and are grandfathered under previous storm requirements.

SECTION 2
BMP for SECTION 2 will be provided by purchasing 1.31 lbs of nutrient credits in accordance with SEC 124-4-5 (a)(3) of the Fairfax County SWMO (See this sheet Virginia Runoff Reduction worksheet). See letters on sheet C07.703 for proof of availability and purchase requirements.

Water Quantity (SWM)

Detention: 2- and 10-year 24-hour detention has been waived by Fairfax County for this site plan. A copy of approved Stormwater Detention Waiver #6848-WSWD-011-1 and associated compliance narrative is provided on sheet C10.202.

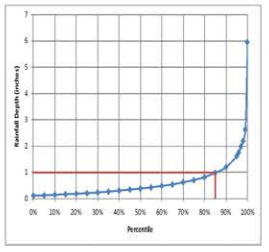
Outfall: Please refer to separate outfall narrative on sheet C07.705. All outfall systems inside their respective extents of review are manmade, which does not require use of the 1-year energy balance for complying with Channel Protection under Chapter 124-4-4(b).

SWM COMPLIANCE WITH COMPREHENSIVE PLAN

SECTION 1 development program reflected on this site plan meets the new requirements of the Comprehensive Plan by providing SWM practices that are sufficient to attain the Rainwater Management Credit as allowed as an alternative to items 1 and 2 on pages 18 and 19 of the Comprehensive Plan Text. Compliance with item 3 on page 19 of the Comprehensive Plan Text is achieved by SECTION 1 draining to Fairfax County Regional Pond H-9, which can treat up to 1.12 inches of rainfall (see calculations above). In addition, the proposed bioretention and rainwater harvesting systems also support compliance with item 3.

Option 2 of the Rainwater Management Credit is attained under path 2 for zero lot line projects with a minimum density of 1.5 FAR. This option requires that natural site hydrology processes be used to manage on-site runoff from the developed site property for the 85th percentile rainfall using LID infrastructure to the greatest extend practical. Based on an analysis of 30 years of rainfall data from Dulles International Airport, the calculated 85th percentile rainfall is 0.98 inch for Innovation Center South. Regional Pond H-9 can manage a target rainfall of up to 1.12 inches (see calculations under FAIRFAX COUNTY REGIONAL POND H-9), which is greater than the 85th percentile rainfall so this credit is achieved. Backup calculations for determining the 85th percentile rainfall are provided on this sheet.

Percentile	Rainfall
0%	0.11023622
5%	0.118110236
10%	0.141732283
15%	0.161417323
20%	0.181102362
25%	0.200787402
30%	0.228346457
35%	0.25984252
40%	0.299212598
45%	0.338582677
50%	0.375984252
55%	0.421259843
60%	0.480314961
65%	0.551496063
70%	0.618110236
75%	0.700787402
80%	0.811023622
85%	0.981014961
90%	1.188188976
95%	1.61023622
96%	1.753228346
97%	1.977755906
98%	2.187559055
99%	2.615944882
100%	5.940944882



Virginia Runoff Reduction Method ReDevelopment Worksheet - v2.8 - June 2014
To be used w/ 2011 BMP Standards and Specifications
Site Data

Project Name:	**INNOVATION CENTER SOUTH (OFFSITE COMPLIANCE AREA ONLY)**
Date:	**APRIL 9, 2015**

data input cells
calculation cells
constant values

Post-ReDevelopment Project & Land Cover Information

Total Disturbed Acreage 1.89

Constants

Annual Rainfall (inches)	43
Target Rainfall Event (inches)	1.00
Phosphorus EMC (mg/L)	0.26
Target Phosphorus Target Load (lb/acre/yr)	0.41
Pj	0.90

Nitrogen EMC (mg/L) 1.86

Pre-ReDevelopment Land Cover (acres)

	A soils	B Soils	C Soils	D Soils	Totals
Forest/Open Space (acres) -- undisturbed, protected forest/open space or reforested land	0.00	0.00	0.00	0.52	0.52
Managed Turf (acres) -- disturbed, graded for yards or other turf to be mowed/managed	0.00	0.00	0.00	0.34	0.34
Impervious Cover (acres)	0.00	0.00	0.00	1.03	1.03
				Total	1.89

Post-ReDevelopment Land Cover (acres)

	A soils	B Soils	C Soils	D Soils	Totals
Forest/Open Space (acres) -- undisturbed, protected forest/open space or reforested land	0.00	0.00	0.00	0.00	0.00
Managed Turf (acres) -- disturbed, graded for yards or other turf to be mowed/managed	0.00	0.00	0.00	0.41	0.41
Impervious Cover (acres)	0.00	0.00	0.00	1.48	1.48
				Total	1.89
Area Check	Okay	Okay	Okay	Okay	

Rv Coefficients

	A soils	B Soils	C Soils	D Soils
Forest/Open Space	0.02	0.03	0.04	0.05
Managed Turf	0.15	0.20	0.22	0.25
Impervious Cover	0.95	0.95	0.95	0.95

Land Cover Summary Pre-ReDevelopment	**Listed**	**Adjusted[1]**
Forest/Open Space Cover (acres)	0.52	0.07
Composite Rv(forest)	0.05	0.05
% Forest	28%	5%
Managed Turf Cover (acres)	0.34	0.34
Composite Rv(turf)	0.25	0.25
% Managed Turf	18%	24%
Impervious Cover (acres)	1.03	1.03
Rv(impervious)	0.95	0.95
% Impervious	54%	72%
Total Site Area (acres)	1.89	1.44
Site Rv	0.58	0.74
Pre-Development Treatment Volume (acre-ft)	0.0908	0.0889
Pre-Development Treatment Volume (cubic feet)	3,955	3,873
Pre-Development Load (TP) (lb/yr)	2.48	2.43

Land Cover Summary Post-ReDevelopment	
Forest/Open Space Cover (acres)	0.00
Composite Rv(forest)	0.00
% Forest	0%
Managed Turf Cover (acres)	0.41
Composite Rv(turf)	0.25
% Managed Turf	28%
ReDev. Impervious Cover (acres)	1.03
Rv(impervious)	0.95
% Impervious	72%
Total ReDev. Site Area (acres)	1.44
ReDev. Site Rv	0.75
Post-ReDevelopment Treatment Volume (acre-ft)	0.0901
Post-ReDevelopment Treatment Volume (cubic feet)	3,924
Post-ReDevelopment Load (TP) (lb/yr)	2.47

Land Cover Summary Post-ReDevelopment New Impervious	
New Impervious Cover (acres)	0.45
Rv(impervious)	0.95
% Impervious	100%
Total New Dev. Site Area (acres)	0.45
New Dev. Site Rv	0.95
Post-Development Treatment Volume (acre-ft)	0.0356
Post-Development Treatment Volume (cubic feet)	1,552
Post-Development Load (TP) (lb/yr)	0.98

[1]*Adjusted* **Land Cover Summary** reflects the pre redevelopment land cover minus the pervious land cover (forest/open space or managed turf) acreage proposed for new impervious cover. The adjusted total acreage is consistent with the Post Redevelopment acreage (minus the acreage of new impervious cover). The load reduction requriement for the new impervious cover to meet the new development load limit is computed in **Column I**.

Maximum % Reduction Required Below Pre-ReDevelopment Load	20%
TP Load Reduction Required for Redeveloped Area (lb/yr)	0.52
Total Load Reduction Required (lb/yr)	**1.31**
Pre-Development Load (TN) (lb/yr)	17.78
Post-Development Load (TN) (lb/yr)	24.61

TP Load Reduction Required for New Impervious Area (lb/yr)	0.79

Dewberry
Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL
COMMONWEALTH OF VIRGINIA
CORY A. PINNER
Lic. No. 045160
PROFESSIONAL ENGINEER

KEY PLAN

SCALE NORTH

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY TIB
APPROVED BY CAP
CHECKED BY SCC
DATE SEPTEMBER 2014

TITLE
SWM NARRATIVE

SP NO. #6848-SP-014

C07.701

SECTION NO. C07-SWM

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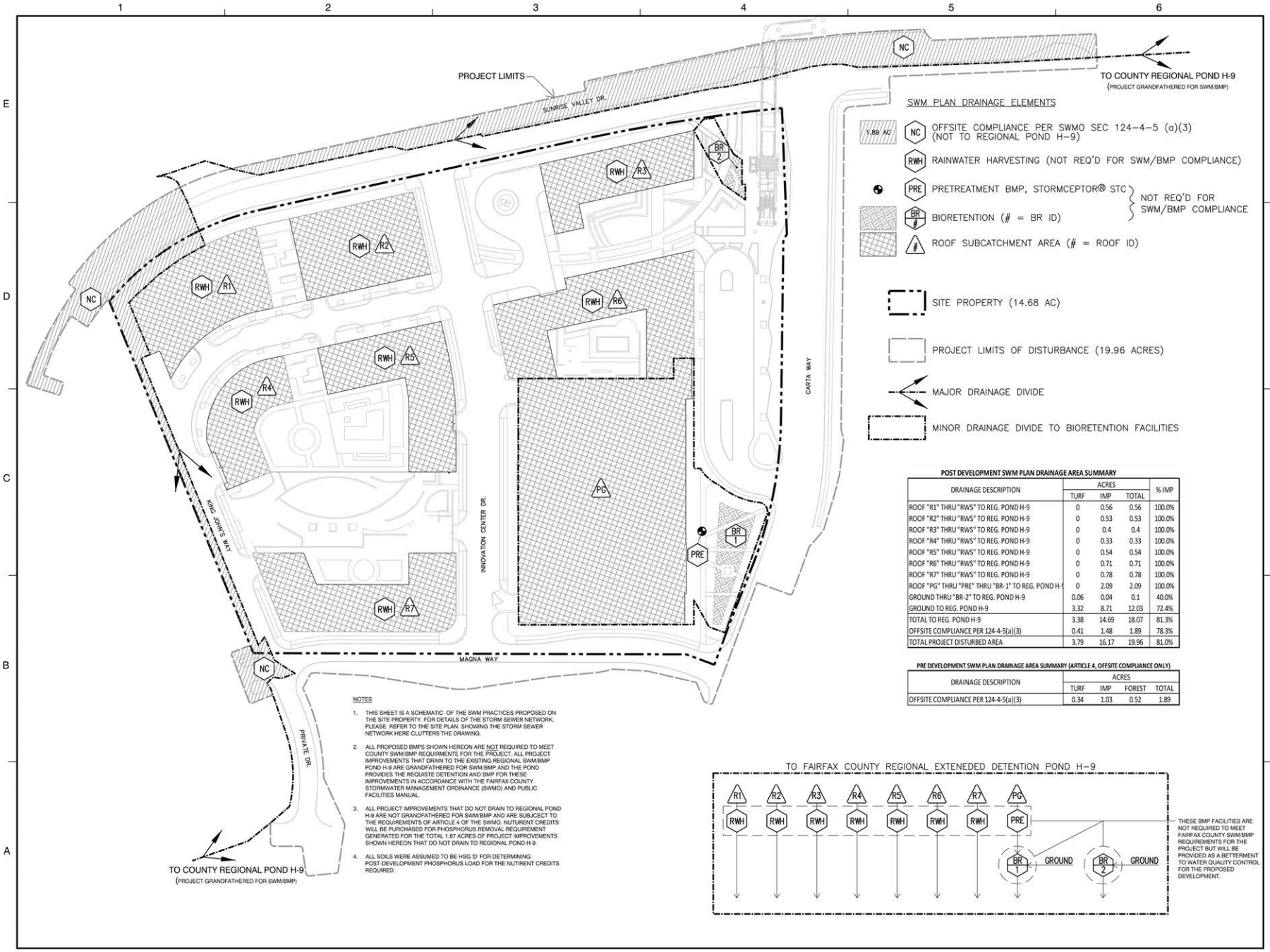

POST DEVELOPMENT SWM PLAN DRAINAGE AREA SUMMARY

DRAINAGE DESCRIPTION	ACRES			% IMP
	TURF	IMP	TOTAL	
ROOF "R1" THRU "RWS" TO REG. POND H-9	0	0.56	0.56	100.0%
ROOF "R2" THRU "RWS" TO REG. POND H-9	0	0.53	0.53	100.0%
ROOF "R3" THRU "RWS" TO REG. POND H-9	0	0.4	0.4	100.0%
ROOF "R4" THRU "RWS" TO REG. POND H-9	0	0.33	0.33	100.0%
ROOF "R5" THRU "RWS" TO REG. POND H-9	0	0.54	0.54	100.0%
ROOF "R6" THRU "RWS" TO REG. POND H-9	0	0.71	0.71	100.0%
ROOF "R7" THRU "RWS" TO REG. POND H-9	0	0.78	0.78	100.0%
ROOF "PG" THRU "PRE" THRU "BR-1" TO REG. POND H-9	0	2.09	2.09	100.0%
GROUND THRU "BR-2" TO REG. POND H-9	0.06	0.04	0.1	40.0%
GROUND TO REG. POND H-9	3.32	8.71	12.03	72.4%
TOTAL TO REG. POND H-9	3.38	14.69	18.07	81.3%
OFFSITE COMPLIANCE PER 124-4-5(a)(3)	0.41	1.48	1.89	78.3%
TOTAL PROJECT DISTURBED AREA	3.79	16.17	19.96	81.0%

PRE DEVELOPMENT SWM PLAN DRAINAGE AREA SUMMARY (ARTICLE 4, OFFSITE COMPLIANCE ONLY)

DRAINAGE DESCRIPTION	ACRES			
	TURF	IMP	FOREST	TOTAL
OFFSITE COMPLIANCE PER 124-4-5(a)(3)	0.34	1.03	0.52	1.89

NOTES

1. THIS SHEET IS A SCHEMATIC OF THE SWM PRACTICES PROPOSED ON THE SITE PROPERTY. FOR DETAILS OF THE STORM SEWER NETWORK, PLEASE REFER TO THE SITE PLAN. SHOWING THE STORM SEWER NETWORK HERE CLUTTERS THE DRAWING.
2. ALL PROPOSED BMPS SHOWN HEREON ARE NOT REQUIRED TO MEET COUNTY SWM/BMP REQUIRMENTE FOR THE PROJECT. ALL PROJECT IMPROVEMENTS THAT DRAIN TO THE EXISTING REGIONAL SWM/BMP POND H-9 ARE GRANDFATHERED FOR SWM/BMP AND THE POND PROVIDES THE REQUISTE DETENTION AND BMP FOR THESE IMPROVEMENTS IN ACCORDANCE WITH THE FAIRFAX COUNTY STORMWATER MANAGEMENT ORDINANCE (SWMO) AND PUBLIC FACILITIES MANUAL.
3. ALL PROJECT IMPROVEMENTS THAT DO NOT DRAIN TO REGIONAL POND H-9 ARE NOT GRANDFATHERED FOR SWM/BMP AND ARE SUBJECT TO THE REQUIREMENTS OF ARTICLE 4 OF THE SWMO. NUTURIENT CREDITS WILL BE PURCHASED FOR PHOSPHORUS REMOVAL REQUIREMENT GENERATED FOR THE TOTAL 1.87 ACRES OF PROJECT IMPROVEMENTS SHOWN HEREON THAT DO NOT DRAIN TO REGIONAL POND H-9.
4. ALL SOILS WERE ASSUMED TO BE HSG 'D' FOR DETERMINING POST-DEVELOPMENT PHOSPHORUS LOAD FOR THE NUTRIENT CREDITS REQUIRED.

Dewberry
Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL
COMMONWEALTH OF VIRGINIA
CODY A. PENNETT
Lic. No. 048560
PROFESSIONAL ENGINEER

KEY PLAN

SCALE NORTH
SCALE IN FEET
1" = 60'
1 INCH
VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY TIB
APPROVED BY CAP
CHECKED BY SCC
DATE SEPTEMBER 2014

TITLE
SWM PLAN SCHEMATIC

SP NO. #6848-SP-014

C07.702

SECTION NO. C07-SWM

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Mon, Oct 05 2015 - 2:29:46pm

NUTRIENT CREDIT AVAILABILITY LETTER

C.B.N.L.T.

"Tomorrow's Natural Resources Today"

Chesapeake Bay Nutrient Land Trust, LLC.

August 15, 2014

8401 Arlington Boulevard
Fairfax, VA
22031-4666

RE: CBNLT/Elk Run – Nutrient Credit Availability
Chesapeake Bay Nutrient Land Trust, LLC

Project Reference: Innovation Center South

Attention: Ms. Buck:

This letter is to confirm the availability of authorized Nutrient Credits at our Elk Run facility, which is registered with the Virginia Department of Environmental Quality (DEQ) under Certification # Potomac-003. These Nutrient Credits are generated and managed under the terms of the Banking Instrument known as the Elk Run Nutrient Reduction Implementation Plan (NRIP). The NRIP was authorized by the DEQ and the Virginia Department of Conservation and Recreation (DCR) on May 3, 2013.

The Elk Run project has been authorized to provide Nutrient Credits for use in the Potomac River watershed. These Credits are transferable to those entities regulated under DEQ's Stormwater Management Program in accordance with VA Code § 62.1-44.15:35. Currently our Elk Run facility has **68.39** pounds of Phosphorus Credits available for transfer.

If we can provide further assistance please feel free to contact our office.

Sincerely,

Chesapeake Bay Nutrient Land Trust, LLC

By Its Manager
EarthSource Solutions, Inc.

Casey J. Jensen

Casey J. Jensen
Sr. Project Manager / GIS Analyst

Chesapeake Bay Nutrient Land Trust, LLC. • 5735 S. Laburnum Avenue • Richmond, VA 23231 • P: 804.222.5114 • www.cbnlt.com

NUTRIENT CREDIT PRICING LETTER

C.B.N.L.T.

"Tomorrow's Natural Resources Today"

Chesapeake Bay Nutrient Land Trust, LLC.

August 15, 2014

8401 Arlington Boulevard
Fairfax, VA
22031-4666

RE: CBNLT/Elk Run – Nutrient Credit Pricing
Chesapeake Bay Nutrient Land Trust, LLC

Project Reference: Innovation Center South

Attention: Ms. Buck:

This letter is to confirm the pricing of authorized Nutrient Credits at our Elk Run facility located in Fauquier County. We appreciate the opportunity to assist you with your project. Currently our Nutrient Credit price is **$21,500** per pound of Phosphorus. This pricing is good for 90 days as of the date of this correspondence.

The purchase amount for your project would be:

- 1.5 pounds of Phosphorus Credits @ **$21,500** per Credit = **$32,250.00**

Please feel free to contact me if you have any questions.

Sincerely,

Chesapeake Bay Nutrient Land Trust, LLC

By Its Manager
EarthSource Solutions, Inc.

Casey J. Jensen

Casey J. Jensen
Sr. Project Manager / GIS Analyst

Chesapeake Bay Nutrient Land Trust, LLC. • 5735 S. Laburnum Avenue • Richmond, VA 23231 • P: 804.222.5114 • www.cbnlt.com

MAINTENANCE OF PROPOSED SWM PRACTICES

Rainwater Harvesting Systems

Rainwater harvesting system components should be inspected by the property owner in the Spring and the Fall each year. A comprehensive inspection by a qualified third party inspector should occur every third year. Maintenance requirements for rainwater harvesting systems vary depending on type and use. Maintenance shall be in accordance with the manufacturers requirements.

Bioretention Facility

First Year Maintenance Operations

Successful establishment of bioretention areas requires that the following tasks be undertaken in the first year following installation:

- initial inspections. For the first 6 months following construction, the site should be inspected at least twice after storm events that exceed 1/2 inch of rainfall.
- Spot Reseeding. Inspectors should look for bare or eroding areas in the contributing drainage area or around the bioretention area, and make sure they are immediately stabilized with grass cover.
- Fertilization. One-time, spot fertilization may be needed for initial plantings.
- Watering. Watering is needed once a week during the first 2 months, and then as needed during first growing season (April-October), depending on rainfall.
- Remove and replace dead plants. Since up to 10% of the plant stock may die off in the first year, construction contracts should include a care and replacement warranty to ensure that vegetation is properly established and survives during the first growing season following construction. The typical thresholds below which replacement is required are 85% survival of plant material and 100% survival of trees.

Inspections

It is highly recommended that a spring maintenance inspection and cleanup be conducted at each bioretention area. The following is a list of some of the key maintenance problems to look for:

- Check to see if 75% to 90% cover (mulch plus vegetative cover) has been achieved in the bed, and measure the depth of the remaining mulch.
- Check for sediment and/or trash buildup at Stormceptor® pre-treatment practice or on filter bed and remove it.
- Check for any winter- or salt-killed vegetation, and replace it with hardier species.
- Inspect bioretention side slopes and grass filter strips for evidence of any rill or gully erosion, and repair it.
- Check the bioretention bed for evidence of mulch flotation, excessive ponding, dead plants or concentrated flows, and take appropriate remedial action.
- Check inflow points for clogging, and remove any sediment.
- Look for any bare soil or sediment sources in the contributing drainage area, and stabilize them immediately.
- Check for clogged or slow-draining soil media, a crust formed on the top layer, inappropriate soil media, or other causes of insufficient filtering time, and restore proper filtration characteristics.

Example maintenance inspection checklists for Bioretention areas can be accessed in Appendix C of Chapter 9 of the Virginia Stormwater Management Handbook (2010).

Routine and Non Routine Maintenance Tasks

Maintenance of bioretention areas should be integrated into routine landscape maintenance tasks. If landscaping contractors will be expected to perform maintenance, their contracts should contain specifics on unique bioretention landscaping needs, such as maintaining elevation differences needed for ponding, proper mulching, sediment and trash removal, and limited use of fertilizers and pesticides. A customized maintenance schedule must be prepared for each bioretention facility, since the maintenance tasks will differ depending on the scale of bioretention, the landscaping template chosen, and the type of surface cover.

The most common non-routine maintenance problem involves standing water. If water remains on the surface for more than 48 hours after a storm, adjustments to the grading may be needed or underdrain repairs may be required. The surface of the filter bed should also be checked for accumulated sediment or a fine crust that builds up after the first several storm events. There are several methods that can be used to rehabilitate the filter (try the easiest things first, as listed below):

- Open the underdrain observation well or cleanout and pour in water to verify that the underdrains are functioning and not clogged or otherwise in need of repair. The purpose of this check is to see if there is standing water all the way down through the soil. If there is standing water on top, but not in the underdrain, then there is a clogged soil layer. If the underdrain and stand pipe indicates standing water, then the underdrain must be clogged and will need to be snaked.
- Remove accumulated sediment and till 2 to 3 inches of sand into the upper 8 to 12 inches of soil.
- Install sand wicks from 3 inches below the surface to the underdrain layer. This reduces the average concentration of fines in the media bed and promotes quicker drawdown times. Sand wicks can be installed by excavating or augering (using a tree auger or similar tool) down to the gravel storage zone to create vertical columns which are then filled with a clean open- graded coarse sand material (ASTM C-33 concrete sand or similar approved sand mix for bioretention media). A sufficient number of wick drains of sufficient dimension should be installed to meet the design dewatering time for the facility.
- Remove and replace some or all of the soil media.

Stormceptor® STC

Perform maintenance once the stored volume reaches 15 percent of the Stormceptor® capacity, or immediately in the event of a spill. Maintenance intervals vary depending on the application. Manufacturer recommends quarterly inspections during the first year of installation to accurately establish a maintenance schedule. Remove oil and sediment through the 24-inch diameter outlet-riser pipe. Alternatively, you may remove floatables and hydrocarbons through the 6-inch oil inspection port.

MAINTENANCE NARRATIVE NOTES:

1. THIS MAINTENANCE PLAN IS PROVIDED AS A CONDITION OF THE APPROVED WAIVER FOR PROVIDING UNDERGROUND BMP/SWM SYSTEMS WITHIN A RESIDENTIAL AREA, AS INCLUDED IN THIS SITE PLAN ON SHEET C10.201
2. OPERATIONS, INSPECTIONS, AND MAINTENANCE PROCEDURES ASSOCIATED WITH UNDERGROUND FACILITIES WILL BE INCLUDED AFTER INITIAL REVIEW OF THIS SITE PLAN.
3. AS REQUIRED, A FINANCIAL PLAN WILL BE PROVIDED PRIOR TO APPROVAL OF THE SITE PLAN.

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

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May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CODY A. PENNETTI
Lic. No. 048560
PROFESSIONAL ENGINEER
Exp. 10-31-15

KEY PLAN

SCALE NORTH

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY TIB
APPROVED BY CAP
CHECKED BY SCC
DATE SEPTEMBER 2014

TITLE

SWM MAINTENANCE NARRATIVE

SP NO. #6848-SP-014

C07.703

SECTION NO. C07-SWM

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RAINWATER HARVESTING SYSTEM (RWHS) NARRATIVE

NARRATIVE

LOCATIONS

ALL BUILDINGS PROPOSED IN THIS PLAN ARE DESIGNED WITH A RWHS TO SERVE A PORTION OF THE INDOOR FLUSHING DEMAND. SEE TABLE 1 THIS SHEET FOR ASSUMPTIONS AND COMPUTATIONAL SUMMARY. DEMAND HAS BEEN CALCULATED USING THE AMERICAN SOCIETY OF PLUMBING ENGINEERS (ASPE) PLUMBING ENGINEERING DESIGN HANDBOOK, VOLUME 2. OCCUPANCY RATES FOR RESIDENTIAL BUILDINGS WERE ESTIMATED BY ASSUMING AN AVERAGE OCCUPANCY OF 2 PERSONS PER UNIT. NON-RESIDENTIAL OCCUPANCY RATES WERE CALCULATED BY ESTIMATING THE AVERAGE NUMBER OF PEOPLE PER SQUARE FOOT OF FLOOR AREA FOR THE RESPECTIVE USAGE DESIGNATION.

ALL SYSTEMS HAVE BEEN DESIGNED TO OPERATE INDEPENDENTLY FROM EACH OTHER. BACK-UP WATER SUPPLY SHALL BE PROVIDED BY THE MUNICIPAL SYSTEM. OVERFLOW FROM THE CISTERNS WILL BE DISCHARGED TO THE STORM SEWER AT THE APPROXIMATE LOCATIONS/ELEVATIONS SHOWN ON THIS SHEET. FINAL LOCATIONS/ELEVATIONS OF STORM SEWER CONNECTIONS WILL BE DETERMINED IN THE ARCHITECTURAL/MEP PLANS.

THE PROPOSED ROOFTOPS ARE FLAT WITH APPROXIMATE ROOF DRAIN (RD) LOCATIONS AND SLOPE DIRECTION AS DEPICTED ON THIS SHEET. SEE TABLE 1 THIS SHEET FOR ROOF AREAS. REFER TO SITE PLAN AND KEY PLAN FOR BUILDING DESIGNATIONS. THE ROOF DRAINAGE SYSTEM RUNS INTERNAL TO THE BUILDINGS AND WILL BE DESIGNED AND DETAILED WITH THE ARCHITECTURAL/MEP PLANS.

ANTICIPATED ROOF MATERIAL	EDPM MEMBRANE
MINIMUM ROOF PITCH	0.5%
APPROXIMATE ROOF DRAIN SIZE	10" DIAMETER
MAXIMUM AREA TO ROOF DRAIN	4,800 SF

CISTERNS ARE TO BE LOCATED WITHIN THE ASSOCIATED BUILDING. CISTERN MATERIAL, DIMENSIONS, PRETREATMENT AND DISTRIBUTION SYSTEMS SHALL BE DETAILED ON BUILDING ARCHITECTURAL/MEP PLANS. CISTERN TREATMENT VOLUME SIZING IS DETERMINED BY THE VIRGINIA DEQ CISTERN DESIGN MS-EXCEL SPREADSHEET, V1.6, AS SHOWN ON SHEETS ####### THRU ####### AND SUMMARIZED IN TABLE 1 BELOW. REQUIRED TREATMENT VOLUME WAS DETERMINED BY APPROXIMATING THE INFLECTION POINT OF THE OVERFLOW FREQUENCY AND RUNOFF REDUCTION CURVES FOR EACH CISTERN (SEE SHEET ####### & #######). **CALCULATED TREATMENT VOLUME DOES NOT REFLECT ACTUAL CISTERN SIZE.** ACTUAL SIZE IS DEPENDENT ON LOW LEVEL VOLUME CUTOFF, WHICH IS DETERMINED BY PUMP SELECTION TO BE SPECIFIED IN ARCHITECTURAL/MEP PLANS. NO STORAGE VOLUME ABOVE THE TREATMENT VOLUME IS REQUIRED. EMERGENCY OVERFLOW SIZE/ELEVATION TO BE SPECIFIED IN ARCHITECTURAL/MEP PLANS.

TABLE 1: RAINWATER HARVESTING CISTERN DESIGN

BUILDING	ROOF AREA		OCCUPANCY			FLUSHING DEMAND*	TREATMENT VOLUME REQUIRED	RR CREDIT
	(AC)	(SF)	(# PEOPLE)	(HRS/DAY)	(DAYS/WEEK)	(GALLONS/DAY)	(1000 GALLONS)	(%)
OFFICE A1	0.555	24176	655	8	5	2333	25	76
OFFICE A2	0.532	23174	600	8	5	2138	25	76
RESIDENTIAL A3	0.540	23522	640	8	7	3072	20	81
RESIDENTIAL A4	0.331	14418	430	8	7	2064	15	82
HOTEL B1	0.400	17424	380	8	7	1824	20	81
RESIDENTIAL B2	0.706	30753	690	8	7	3312	30	80
RESIDENTIAL D1	0.580	25265	250	8	7	1200	30	69

*DEMAND FOR FLUSHING BASED ON AMERICAN SOCIETY OF PLUMBING ENGINEERS (ASPE) PLUMBING ENGINEERING DESIGN HANDBOOK, VOLUME 2.

THIS STORM WATER MANAGEMENT SYSTEM IS NOT INTENDED FOR COUNTY REVIEW AND PROVIDES SUPPLEMENTARY TREATMENT TO FURTHER ENHANCE THE SITE.
(SEE PROFFERS FOR MORE INFORMATION)

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

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KEY PLAN

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SCALE IN FEET
1" = 60'
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VCS-83

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REVISIONS

DRAWN BY	TIB
APPROVED BY	CAP
CHECKED BY	SCC
DATE	SEPTEMBER 2014

TITLE

RAINWATER HARVESTING SYSTEM NARRATIVE

SP NO. #6848-SP-014

C07.704

SECTION NO. C07-SWM

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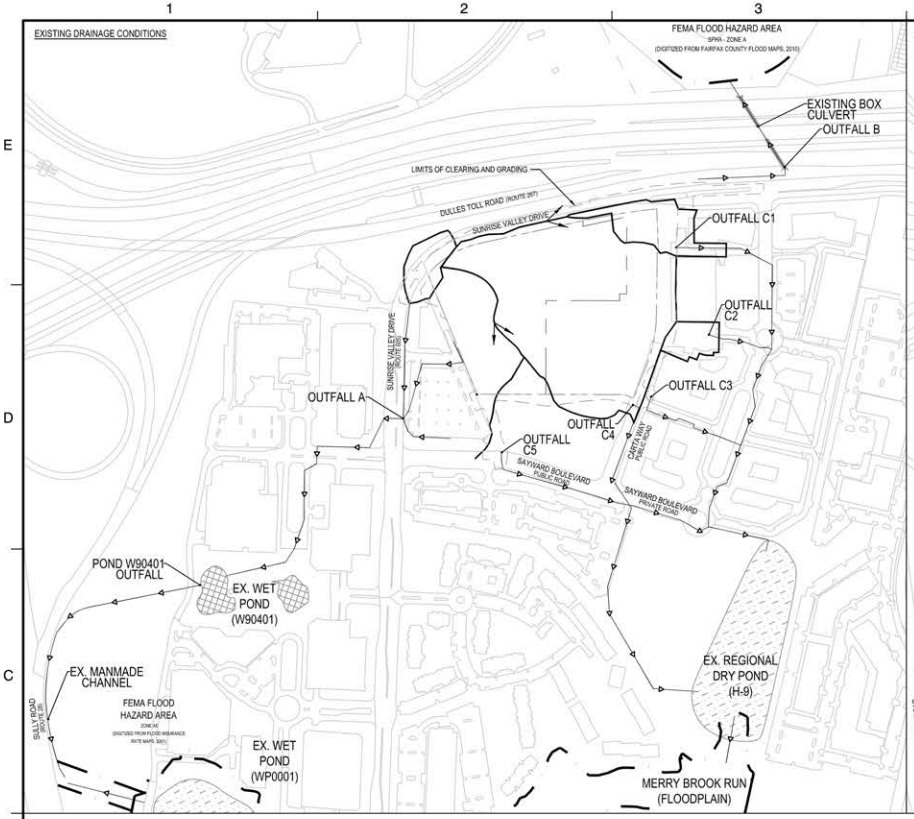

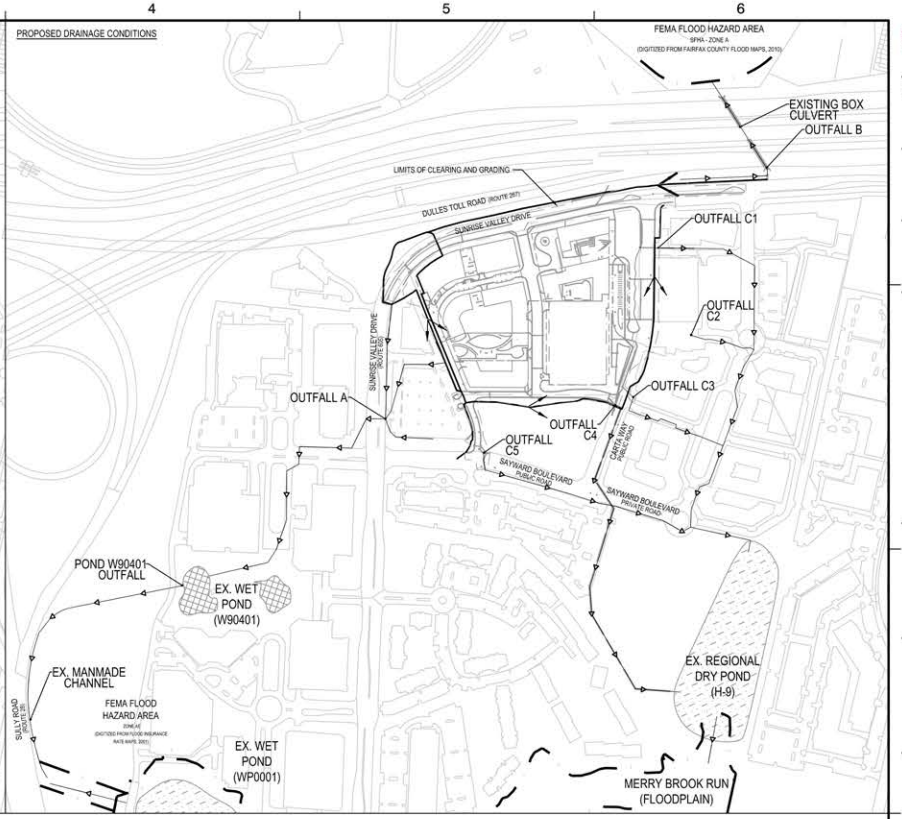

DENOTES MANMADE CONVEYANCE SYSTEM

OUTFALL POINT DRAINAGE DIVIDES

DISTURBED AREA

STORMWATER OUTFALL NARRATIVE

THIS SHEET IS FOR NARRATIVE PURPOSES ONLY.

THE NARRATIVE BELOW HAS BEEN FORMATTED TO FOLLOW THE FAIRFAX COUNTY STORMWATER MANAGEMENT PLAN COMPLETENESS CHECKLIST.

DEVELOPMENT AREAS LISTED FOR EACH OUTFALL ARE BASED ON NEW DEVELOPMENT WITHIN THE DRAINAGE AREA (CLEARING, GRADING, NEW IMPERVIOUS), AND DOES NOT INCORPORATE AREAS OF REPAIR WORK, SUCH AS MILL & OVERLAY OF AN EXISTING ROAD.

NOTE: PRELIMINARY OUTFALL ANALYSIS FOR THE SITE WAS COMPLETED DURING THE ZONING APPLICATION, AND INCLUDED IN THIS PLAN SET ON SHEETS R01.117-R01.135

1. OUTFALL DESCRIPTIONS

THE PROPOSED INNOVATION CENTER SOUTH SITE HAS 8 OUTFALL POINTS CATEGORIZED INTO 3 UNIQUE OUTFALLS (A, B, C);

OUTFALL A :
OUTFALLS WESTWARD TOWARDS ROUTE 28.
DEVELOPMENT AREA OF 0.62 ACRES
THE DEVELOPMENT AREA FLOWS TO EXISTING AND PROPOSED CURB INLETS AND IS THEN CONVEYED IN A CLOSED CONDUIT SYSTEM. THE RUNOFF IS CONVEYED THROUGH AN EXISTING WET POND (WP0401), DISCHARGED INTO A MANMADE CHANNEL ALONG ROUTE 28, AND THEN FLOWS TOWARDS A FEMA MAPPED FLOOD PLAIN.

OUTFALL B :
OUTFALLS NORTH, BENEATH DULLES TOLL ROAD
DEVELOPMENT AREA OF 0.23 ACRES
THIS LINEAR DEVELOPMENT AREA INCLUDES THE WIDENING OF SUNRISE VALLEY DRIVE AND IS CONVEYED THROUGH A CLOSED CONDUIT SYSTEM INTO A MANMADE CHANNEL THAT TRAVELS TO AN EXISTING BOX CULVERT ACROSS THE DULLES TOAD. NORTH OF THE DULLES ROLL ROAD THERE IS AN FEMA MAPPED FLOODPLAIN.

OUTFALL C :
OUTFALLS SOUTH EAST, TO EXISTING REGIONAL DRY POND
***OLD METHOD FOR ADEQUATE OUTFALL UTILIZED**
A SERIES OF CLOSED CONDUIT SYSTEMS (POINTS OF ORIGIN IDENTIFIED AS C1-C5) CONVEY STORMWATER FROM THE DEVELOPMENT SITE TO AN EXISTING REGIONAL DRY POND.

2. DOWNSTREAM RECEIVING WATER BODY DESCRIPTIONS

ALL OUTFALLS ARE RECEIVED BY MANMADE SEWER SYSTEMS, CHANNELS, BOX CULVERTS, STORMWATER MANAGEMENT SYSTEMS, AND ULTIMATELY FEMA FLOOD HAZARD AREAS.

3. MAJOR OUTFALL ELEMENTS DESCRIPTIONS

OUTFALL A : GRAPHICALLY SHOWN ON THIS SHEET, STORMWATER FROM THE SITE'S LIMITS OF CLEARING AND GRADING IS INTERCEPTED BY ROAD AND PARKING LOT INLETS, CONVEYED IN A CLOSED CONDUIT SYSTEM , AND DISCHARGES TO AN EXISTING WET POND, WHICH OUTFALLS TO A MANMADE CHANNEL ADJACENT TO ROUTE 28, AND IS THEN CONVEYED TOWARDS AN EXISTING FLOODPLAIN. THE CLOSED CONDUIT SYSTEMS WERE EVALUATED FOR CAPACITY, THE STORMWATER POND DESIGN INCLUDED THE DRAINAGE AREA AT A C FACTOR OF 0.85. THE MANMADE CHANNEL FROM THE STORMWATER POND DOES NOT SHOW SIGNS OF EROSION FROM THE POND OUTFALL TO THE FLOODPLAIN.

OUTFALL B : GRAPHICALLY SHOWN ON THIS SHEET, STORMWATER FROM THE SITE'S LIMITS OF CLEARING AND GRADING IS INTERCEPTED BY ROAD INLETS, CONVEYED IN A CLOSED CONDUIT SYSTEM, INTO A MANMADE CHANNEL WHICH FLOWS INTO A BOX CULVERT BELOW THE DULLES TOLL ROAD, AND IS CONVEYED TO A FEMA MAPPED FLOODPLAIN. THE CLOSED CONDUIT SYSTEMS WERE HYDRAULICALLY DESIGNED FOR THE SITE'S ULTIMATE (PROPOSED) 10 YEAR STORM RUNOFF CONDITIONS, AND WERE VERIFIED FOR CAPACITY.

OUTFALL C : GRAPHICALLY SHOWN, AND PROPOSED WITH THIS SITE PLAN, SITE STORMWATER IS INTERCEPTED BY INLETS AND CONVEYED THROUGH CLOSED CONDUIT SYSTEMS WITHIN THE INNOVATION CENTER SOUTH SITE AND THE DULLES STATION AT DULLES CORNER SITE TO CONVEY STORMWATER TO AN EXISTING REGIONAL DRY POND (H-9).

4. PRE & POST DEVELOPMENT DRAINAGE AREA MAPS

PROVIDED ON THIS SHEET

5. DOWNSTREAM REVIEW

ALL DOWNSTREAM SYSTEMS ARE MANMADE, AND HAVE BEEN DESIGNED TO ACCOMMODATE THE FINAL SITE CONDITIONS AS EVIDENCED BY OUTFALL ADEQUACY DETERMINATIONS OF THE ASSOCIATED SITE PLANS (OUTFALL A), DULLES STATION AT DULLES CORNER (OUTFALL B), AND PUBLIC IMPROVEMENT PLAN (OUTFALL C). COMKPUTATIONS TO VERIFY CAPACITY ARE SHOWN ON SHEETS C07.706 AND C07.707.

6. EXISTING SURROUNDING CONDITIONS DESCRIPTION

THE ADJACENT SURROUNDING CONDITIONS ARE URBAN MIXED USE DEVELOPMENTS (WEST/EAST), AN UNDEVELOPED SITE WITH PLANNED APARTMENTS (SOUTH), AND THE DULLES TOLL ROAD (NORTH). IT IS NOT ANTICIPATED THAT THE SITE'S STORMWATER WILL ADVERSELY IMPACT THE EXISTING ADJACENT PROPERTIES.

7. COMPUTATIONS

SEE SHEETS C07.706 AND C07.707 FOR COMPUTATIONS. THE OUTFALL CONVEYANCE SYSTEMS ARE COMPRISED OF MANMADE STORM SEWERS, WITH COMPUTATIONS PROVIDED WITH THE ASSOCIATED SITE PLANS (6848-SP-001, 6848-SP-002, SP-1158-2, AND THIS SITE PLAN). THE PROPOSED STORM SEWER SYSTEMS WITHIN THE INNOVATION CENTER SOUTH SITE HAVE BEEN ANALYZED FOR THE 10 YEAR STORM, WITH COMPUTATIONS SHOWN ON SHEET C06.701 OF THIS SITE PLAN. C

8. INADEQUATE DOWNSTREAM SYSTEMS

NOT APPLICABLE TO THIS SITE PLAN.

9. PREVENTION OF DOWNSTREAM FLOODING

NO EXISTING DOWNSTREAM STRUCTURES ARE IMPACTED BY THE 100 YEAR STORM, NOR WILL THEY BE IMPACTED AFTER DEVELOPMENT OF THE PROPOSED SITE.

10. OPINION OF OUTFALL ADEQUACY

IT IS OF THE OPINION OF THE SUBMITTING ENGINEER THAT THE ADEQUACY OF THE DOWNSTREAM DRAINAGE SYSTEMS IS MET. AS IDENTIFIED IN THE REFERENCED PLANS, THE PROPOSED DEVELOPMENT WAS ANTICIPATED IN THE DESIGN OF THE EXISTING CONVEYANCE AND DETENTION SYSTEMS AND EVALUATED FOR ADEQUACY FOR ALL OUTFALLS A, B, AND C. THE COMPUTATIONS AND ANALYSIS PROVIDED WITH THIS SITE PLAN DEMONSTRATES CONFORMANCE WITH THE ANTICIPATED DESIGN OF THE PROPOSED SITE.

11. CONTACT INFORMATION OF IMPACTED PROPERTIES

NO PROPERTIES ARE ADVERSELY IMPACTED BY THE PROPOSED DEVELOPMENT.

12. ASSOCIATED STORMWATER CONDITIONS AND PROFFERS

STORMWATER PROFFERS 53-56 FOR THE PROPOSED DEVELOPMENT HAVE BEEN REFERENCED ON SHEETS C10.101-C10.113 OF THIS SITE PLAN, INCLUDING THE APPROPRIATE PROFFER COMPLIANCE NARRATIVE. THE PROFFERS ARE GENERALLY APPLICABLE TO REDUCING STORMWATER VOLUME FROM THE SITE THROUGH SERIES OF LOW IMPACT DEVELOPMENT SYSTEMS.

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

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REVISIONS

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APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE
STORM OUTFALL NARRATIVE

SP NO. #6848-SP-014

C07.705

SECTION NO. C07-SWM

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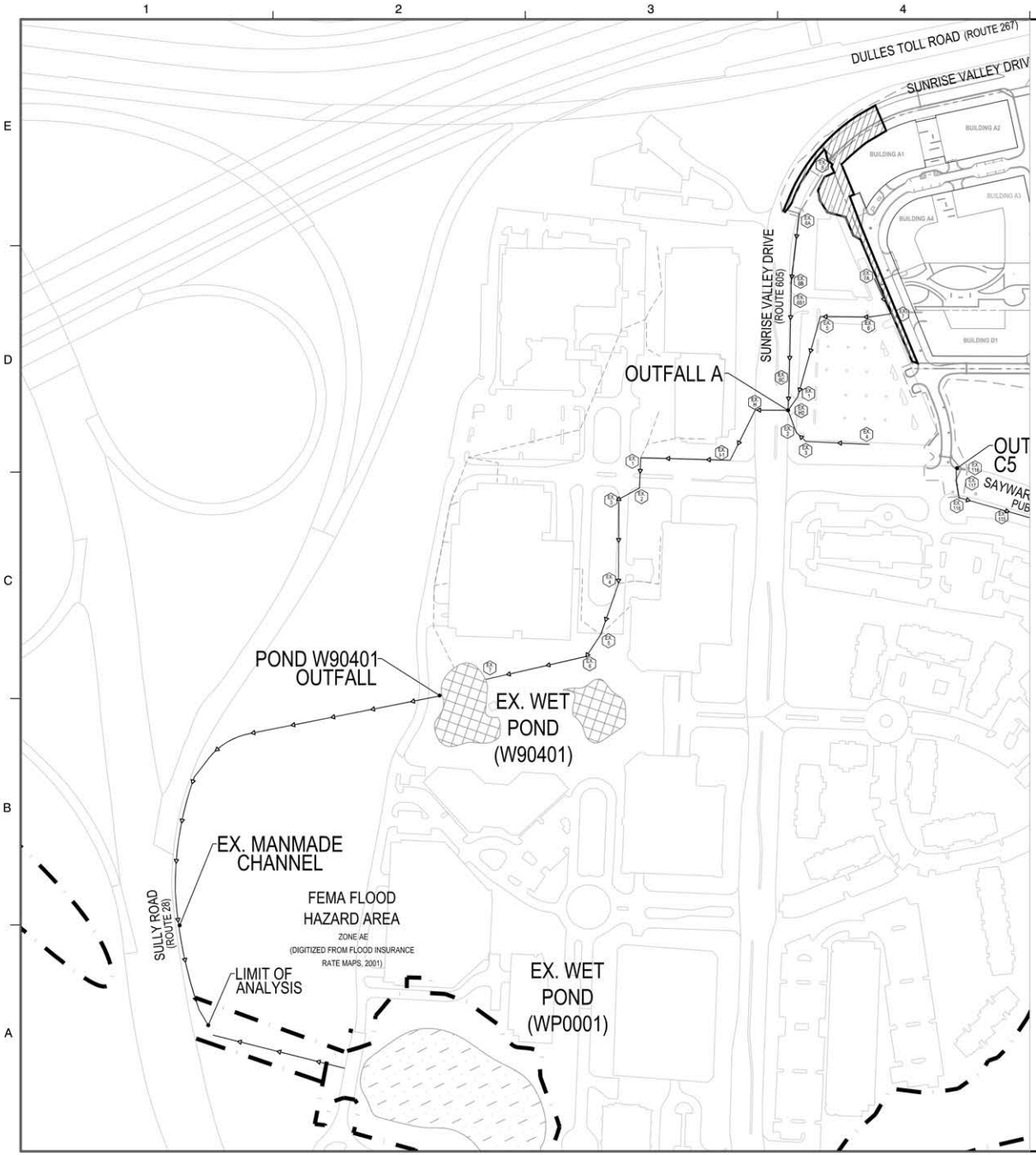

OUTFALL COMPUTATIONS

REFER TO SHEET C07.705 FOR OUTFALL NARRATIVE. THIS SHEET PROVIDES THE COMPUTATIONS TO DEMONSTRATE ADEQUACY OF THE OUTFALL FOR INNOVATION CENTER SOUTH. ANALYSIS IS BASED ON A 10 YEAR STORM EVENT - THERE ARE NO REDUCTIONS IN PEAK FLOW INCORPORATED FROM THE VARIOUS ON-SITE STORMWATER MANAGEMENT FACILITIES. OUTFALL PIPE CAPACITY COMPUTATIONS ARE BASED ON RATIONAL METHOD (WITH SOME INFORMATION OBTAINED FROM APPROVED SITE PLANS) AND THE RUNOFF COMPUTATIONS FROM THE SITE ARE BASED ON NRCS METHODOLOGY.

**OUTFALL ANALYSIS FOR OUTFALLS A AND B IS CONTINUED TO AN AREA OF AT LEAST 100 TIMES THE ORIGINAL DISTURBED AREA, OR MAPPED FLOODPLAIN.

OUTFALL A- PIPE FLOW FROM SUNRISE VALLEY DRIVE, NORTHEAST CORNER OF SITE, SHEET FLOW FROM WEST OF THE SITE

OUTFALL A - SUNRISE VALLEY DRIVE
LAND DISTURBANCE OF 0.49 ACRES
DRAINAGE FROM THE PROPOSED SUNRISE VALLEY DRIVE IMPROVEMENTS GENERALLY INCLUDE THE CONSTRUCTION OF A PROPOSED GRASS MEDIAN AND WIDENING OF THE EXISTING ROAD. THE DRAINAGE WITHIN THIS AREA IS CONVEYED THROUGH CLOSED CONDUIT SYSTEMS. THE PROPOSED LINEAR DEVELOPMENT IS MANAGED.

OUTFALL A - DULLES CORPORATE CENTER PARKING LOT
LAND DISTURBANCE OF 0.13 ACRES
DECREASE IN SHEET FLOW AREA (2.94 ACRES PRE, TO 0.13 ACRES POST) FROM EXISTING CONDITIONS. POST DEVELOPMENT CONDITIONS GENERALLY INCLUDE TURF AREA ON THE WESTERN SIDE OF THE SITE THAT DRAINS AS SHEET FLOW TOWARDS AN ADJACENT PROPERTY TO THE WEST, WHERE IT IS INTERCEPTED BY INLETS AND A CLOSED CONDUIT SYSTEM.

QUANTITY: A DETENTION WAIVER WAS APPROVED FOR THIS OUTFALL, AS PROVIDED ON SHEET C10.201.

CHANNEL PROTECTION: PROTECTION OF THE MANMADE CHANNEL HAS BEEN EVALUATED IN ACCORDANCE WITH 124-4-4(B)(1)A. THE CONVEYANCE SYSTEMS ARE GENERALLY COMPRISED OF CONCRETE PIPE TO THE EXISTING WET POND WP90401, AND A MANMADE OPEN CHANNEL WITH NO SIGNS OF EROSION.

FLOOD PROTECTION / LIMIT OF STUDY: THE LIMIT OF STUDY AND FLOOD PROTECTION FOR OUTFALL A IS PROVIDED IN ACCORDANCE WITH 124-4-4(C)(1) WITH THE DOWNSTREAM LIMIT OF ANALYSIS DEFINED BY THE FEMA FLOODPLAIN ADJACENT TO ROUTE 28. THE DEVELOPMENT AREA WITHIN OUTFALL A IS CONVEYED TO THE FLOODPLAIN THROUGH CLOSED CONDUIT SYSTEMS, AN EXISTING WET POND (WP90401), AND A MANMADE CHANNEL. THE MANMADE CHANNEL CONVEYS THE STORMWATER DISCHARGED FROM WP90401 TO A FEMA MAPPED FLOODPLAIN (FEMA MAP 51107C0385 D, ZONE A). THE ORIGINAL DESIGN OF THE WET POND WP90401 PROVIDES CAPACITY FOR THE DEVELOPMENT AREA (AS REFERENCED IN PLAN 6318-SP-002-3, SHEET 15) THE FLOODPLAIN STUDY (FPAL-1991-0007) FOR THE REFERENCED FLOODPLAIN HAS THE DEVELOPMENT AREA CLASSIFIED AS INDUSTRIAL USE. THE PROPOSED DEVELOPMENT CONDITION IS CONSISTENT WITH THE ORIGINAL FLOODPLAIN STUDY. THE FLOODPLAIN IS IDENTIFIED AS A POINT OF CONFLUENCE, AND IS NOT ADVERSELY IMPACTED WITH THE PROPOSED DEVELOPMENT.

COMPUTATIONS:
STRUCTURE IDS ARE BASED ON ORIGINAL SITE PLANS
CHANGE IN RUNOFF FLOW FROM EXISTING CONDITIONS = +0.8 CFS
DISTURBED AREA = 0.62 ACRES

FROM:	TO:	INCREMENTAL DRAINAGE AREA (acres)	RAINFALL (IN/HR)	EXISTING RUNOFF Q (cfs)	SLOPE	DIAMETER (inches)	EXISTING FULL FLOW CAPACITY (cfs)	AVAILABLE CAPACITY (cfs)	PROP. FINAL INCREMENTAL AREA (acres)	PROP. FINAL CUMULATIVE AREA (acres)	COMMENTS
EX. 7A	EX. 7	0.11	7.27	0.60					0.04	0.11	Concrete Channel
EX. 7	EX. 6	0.85	7.27	5.54	1.93%	15	9.65	4.11	0.77	0.96	
EX. 6	EX. 5	0.36	7.27	7.77	2.40%	15	10.76	2.99	0.06	1.32	
EX. 5	EX. 1	0.10	7.27	8.42	2.72%	15	11.46	3.04	0.10	1.42	
EX. 1	EX. H2	0.61	7.27	12.20	2.90%	18	19.44	7.24	0.61	2.03	
EX. 4	EX. 3	0.41	7.27	2.68	2.00%	15	9.83	7.15	0.35	0.35	
EX. 3	EX. 2	0.86	7.27	12.56	0.50%	24	17.21	4.65	0.61	1.46	
EX. 2	EX. H2	0.59	7.27	16.42	0.50%	30	31.20	14.78	0.38	1.84	
EX. 9	EX. 6A	0.43	7.27	1.84	6.60%	15	17.85	16.01	0.43	0.43	
EX. 6A	EX. 6B	0.54	7.27	4.28	6.60%	15	17.82	13.54	0.54	0.97	
EX. 6B	EX. 6B1	0.00	7.27	4.28	7.00%	15	18.37	14.09	0.00	0.97	
EX. 6B1	EX. 6C	0.47	7.27	6.81	1.60%	15	9.06	2.25	0.47	1.44	
EX. 6C	EX. H2	0.00	7.27	6.81	2.00%	15	9.92	3.11	0.00	1.44	
EX. H2	EX. H	0	5.45	26.56	1.29%	36	81.5	54.94	0	5.31	
EX. H	EX. I-1	0.80	7.27	39.50	2.58%	36	115.24	75.74	0.80	6.23	
EX. I-1	EX. 1	0.39	7.27	41.91	1.56%	36	89.61	47.70	1.20	7.43	
EX. 1	EX. 2	0.39	7.27	49.51	1.20%	42	110.00	60.49	0.39	9.02	
EX. 2	EX. 3	0.39	7.27	51.92	1.30%	42	115.00	63.08	0.39	9.41	
EX. 3	EX. 4	0.96	7.27	56.10	75.00%	48	125.00	68.90	0.96	10.37	
EX. 4	EX. 5	1.20	7.27	88.00	1.00%	48	145.00	57.00	2.03	12.40	
EX. 5	EX. 6	0.42	7.27	98.77	1.00%	48	145.00	46.23	1.32	13.72	
EX. 6	EX. 7 (pond)	0.00	7.27	100.23	1.00%	3836SO	145.00	44.77	0.40	14.12	

*DISCHARGE TO OPEN CHANNEL, CONVEYED TO FLOODPLAIN

CHANNEL FROM POND:
MINIMUM SLOPE: 1.25%
WEST SIDE SLOPE: 3:1
EAST SIDE SLOPES: 1:1
MANNING'S n = 0.045 (STREAM, WEEDY)
MAX DISCHARGE: 95 CFS (10 YR FROM POND)
CHANNEL DEPTH: 4'
NORMAL DEPTH: 3.1'
VELOCITY: 4.5 FT/S
FLOW TYPE: SUBCRITICAL

OUTFALL B- PIPE FLOW FROM SUNRISE VALLEY DRIVE, NORTHEAST CORNER OF SITE
CHANGE IN RUNOFF FLOW FROM EXISTING CONDITIONS = +0.25 CFS
DISTURBED AREA = 0.23 ACRES

OUTFALL B CONTAINS A DISTURBED AREA OF 0.23 ACRES, AS DENOTED ON THIS SHEET. DUE TO THE WIDENING OF SUNRISE VALLEY DRIVE. THE STORM CALCULATIONS FOR THIS AREA, VERIFYING CAPACITY, ARE PROVIDED ON SHEET C06.701. THE DISTURBED AREA OUTFALLS OFFSITE TO AN EXISTING CHANNEL BETWEEN SUNRISE VALLEY DRIVE AND THE DULLES TOLL ROAD, CONVEYS TO AN EXISTING CULVERT (UNDER THE DULLES TOLL ROAD), AND THEN TO AN EXISTING FLOODPLAIN. AS IDENTIFIED IN THE REFERENCED DULLES STATION PLAN, SP-115B-2 (DULLES STATION AT DULLES CORNER - BUILDING C, SHEET 17), THE PROPOSED IMPROVEMENTS WITHIN SUNRISE VALLEY DRIVE (REMOVING A PORTION OF THE EXISTING GRASS MEDIAN) WERE ANTICIPATED IN THE PREVIOUS PLAN (RUNOFF COEFFICIENT FOR SUNRISE VALLEY DRIVE WAS SHOWN AS 0.9, INDICATED A COMPLETELY IMPERVIOUS ROAD SURFACE). THE APPROVED DULLES STATION AT DULLES CORNER (6848-SP-002, COMPLETED 7/17/2009) DEMONSTRATED OUTFALL ADEQUACY THROUGH THE EXISTING BOX CULVERT. PEAK FLOW WITH THIS SITE PLAN DOES NOT INCREASE Q FROM THE ORIGINAL PLAN, AND THE COMPUTATIONS ARE STILL APPLICABLE.

QUANTITY: A DETENTION WAIVER WAS APPROVED FOR THIS OUTFALL, AS PROVIDED ON SHEET C10.201.

FLOOD PROTECTION / LIMIT OF STUDY: THE LIMIT OF STUDY AND FLOOD PROTECTION FOR OUTFALL B IS PROVIDED IN ACCORDANCE WITH 124-4-4(C)(1) WITH THE DOWNSTREAM LIMIT OF ANALYSIS DEFINED BY THE FEMA FLOODPLAIN NORTH OF THE DULLES TOLL ROAD. THE DEVELOPMENT AREA WITHIN OUTFALL B IS CONVEYED TO THE FLOODPLAIN THROUGH A CLOSED CONDUIT SYSTEM, A MANMADE ROADSIDE CHANNEL, AND AN EXISTING BOX CULVERT. THE EXISTING BOX CULVERT WAS ANALYZED WITH APPROVED SITE PLAN 6848-SP-002 , AND THE PROPOSED DEVELOPMENT IS IN CONFORMANCE WITH THE ANTICIPATED DEVELOPMENT SHOWN WITHIN THAT PLAN. THIS CONDITION DEMONSTRATES THAT THE ORIGINAL CULVERT ANALYSIS IS STILL APPLICABLE. THE BOX CULVERT CONVEYS THE STORMWATER TO A FEMA MAPPED FLOODPLAIN (FAIRFAX COUNTY FLOOD MAPS), LIMITS OF ANALYSIS.

DISTURBED AREA

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CODY A. PENNETT
Lic. No. 048560
PROFESSIONAL ENGINEER

KEY PLAN

SCALE NORTH

SCALE IN FEET
1" = 125'
1 INCH

VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY MLJ
APPROVED BY CAP
CHECKED BY CJD
DATE SEPTEMBER 2014

TITLE
STORM OUTFALL COMPUTATIONS

SP NO. #6848-SP-014

C07.706

SECTION NO. C07-SWM

P:\PROJECT\50687254 Innovation South\CAD\CIVIL-SITE\Sheets\SITE PLAN\STORM OUTFALL NARRATIVE.dwg
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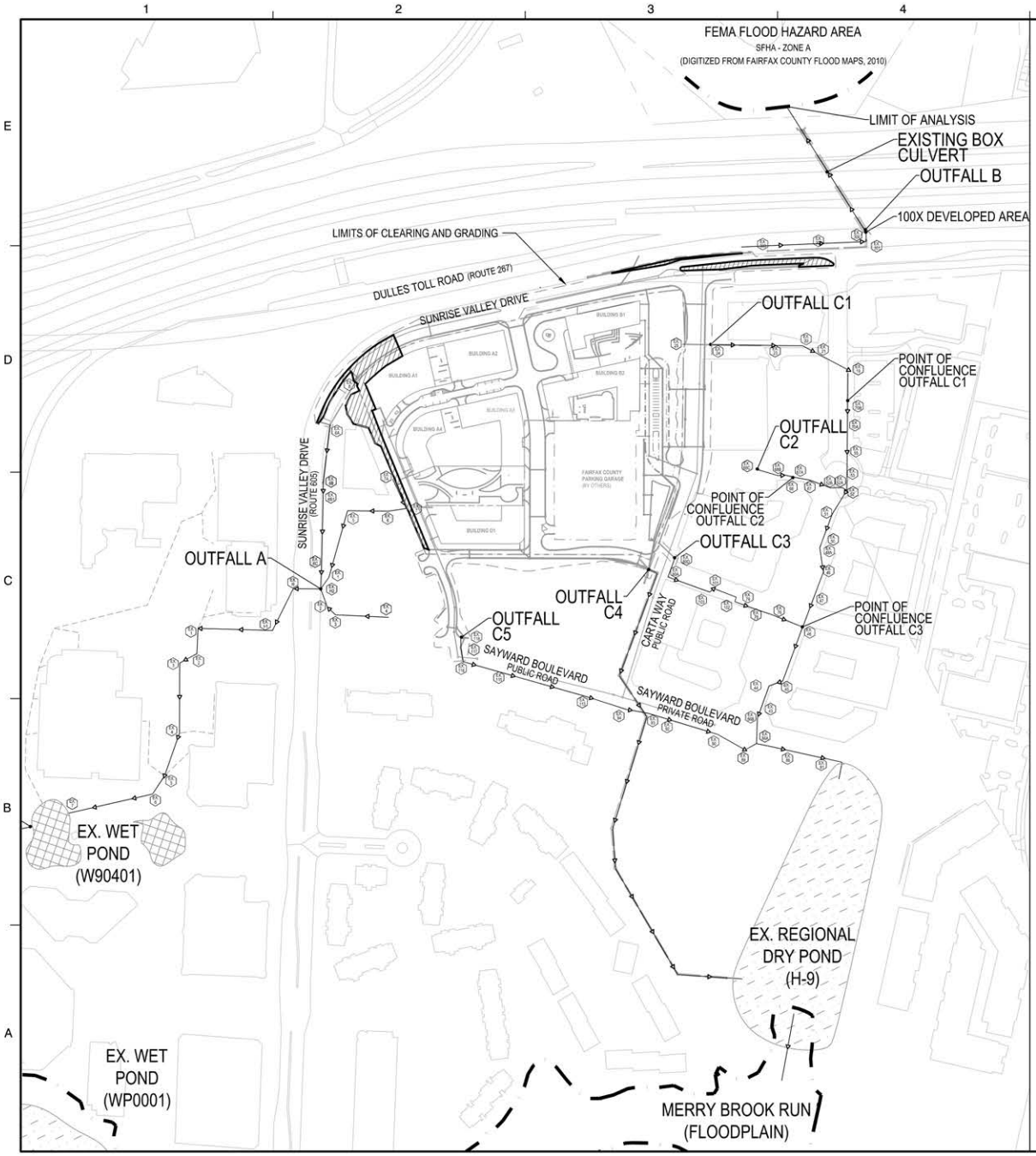

OUTFALL COMPUTATIONS

REFER TO SHEET C07.705 FOR OUTFALL NARRATIVE. THIS SHEET PROVIDES THE COMPUTATIONS TO DEMONSTRATE ADEQUACY OF THE OUTFALL FOR INNOVATION CENTER SOUTH. ANALYSIS IS BASED ON A 10 YEAR STORM EVENT - THERE ARE NO REDUCTIONS IN PEAK FLOW INCORPORATED FROM THE VARIOUS ON-SITE STORMWATER MANAGEMENT FACILITIES. OUTFALL PIPE CAPACITY COMPUTATIONS ARE BASED ON RATIONAL METHOD (WITH SOME INFORMATION OBTAINED FROM APPROVED SITE PLANS) AND THE RUNOFF COMPUTATIONS FROM THE SITE ARE BASED ON NRCS METHODOLOGY.

OUTFALL ANALYSIS FOR THIS OUTFALL IS BASED ON PFM 6-0203.2A (OLD REGULATIONS). THE DEVELOPMENT WITHIN THIS OUTFALL WAS INCLUDED IN THE DESIGN OF EXISTING REGIONAL POND H-9.

OUTFALL C1 - EXISTING STORM STRUCTURE AT NORTHEAST OF SITE

CHANGE IN RUNOFF FLOW FROM EXISTING CONDITIONS = -2.47 CFS

FROM	TO	EX. INCREMENTAL DRAINAGE AREA (acres)	RAINFALL (IN/HR)	EXISTING RUNOFF Q (cfs)	SLOPE	DIAMETER (inches)	EXISTING FULL FLOW CAPACITY (cfs)	AVAILABLE FULL FLOW CAPACITY (cfs)	PROP. FINAL INCREMENTAL AREA (acres)	PROP. FINAL CUMULATIVE AREA (acres)	COMMENTS
EX. 25	EX. 24	1.47	7.27	4.81	0.38%	21	10.51	5.70	0.77	0.77	
EX. 24	EX. 23	0.38	7.27	7.16	0.55%	24	18.05	10.89	0.38	1.15	
EX. 23	EX. 22	0.05	7.27	9.72	0.55%	24	18.05	8.33	0.05	1.54	
EX. 22	EX. 21	0.05	7.27	12.28	0.54%	27	24.71	12.43	0.05	1.93	
EX. 21	EX. 19	0.09	7.27	12.87	1.77%	27	44.32	31.45	0.09	2.02	
EX. 19	EX. 70B	0.00	7.27	31.79	0.91%	33	54.27	22.48	0.00	4.62	*POINT OF CONFLUENCE
EX. 70B	EX. 70A	0.00	7.27	39.19	0.0141	36	85.19	46.00	0.00	4.62	

AS IDENTIFIED IN THE TABLE ABOVE, THE POINT OF CONFLUENCE FOR OUTFALL C1 OCCURS AT STRUCTURE 19, WHEN AN ADDITIONAL 2.6 ACRES JOINS THE SYSTEM'S 2.02 ACRES, WHICH ACCOUNTS FOR AT LEAST 90% OF THE SYSTEM FLOW. ADEQUACY IS EVALUATED WITHIN THE CLOSED CONDUIT SYSTEM TO A POINT 150' BEYOND THE POINT OF CONFLUENCE, WITHIN THE EXISTING CLOSED CONDUIT SYSTEM. PER PFM REQUIREMENT 6-0203.2A, THE OUTFALL IS ADEQUATE IN THE OPINION OF THE ENGINEER.

OUTFALL C2 - EXISTING STORM STRUCTURE EAST OF SITE

CHANGE IN RUNOFF FLOW FROM EXISTING CONDITIONS = -1.23 CFS

FROM	TO	EX. INCREMENTAL DRAINAGE AREA (acres)	RAINFALL (IN/HR)	EXISTING RUNOFF Q (cfs)	SLOPE	DIAMETER (inches)	EXISTING FULL FLOW CAPACITY (cfs)*	AVAILABLE FULL FLOW CAPACITY (cfs)	PROP. FINAL INCREMENTAL AREA (acres)	PROP. FINAL CUMULATIVE AREA (acres)	COMMENTS
EX. 68C	EX. 68B	0.94	7.27	2.62	1.20%	15	7.61	4.99	0.98	0.98	
EX. 68B	EX. 68	0.00	7.27	6.25	1.85%	18	15.93	9.08	0.45	1.43	
EX. 68	EX. 67A	0.00	7.27	14.69	0.60%	27	25.80	11.11	1.39	2.82	*POINT OF CONFLUENCE
EX. 67A	EX. 67	0.32	7.27	16.87	0.50%	33	40.23	23.36	0.32	3.14	
EX. 67	EX. 52B	0.10	7.27	16.43	0.53%	33	40.63	24.20	0.10	3.24	

AS IDENTIFIED IN THE TABLE ABOVE, THE POINT OF CONFLUENCE FOR OUTFALL C2 OCCURS AT STRUCTURE 68, WHEN AN ADDITIONAL 1.39 ACRES JOINS THE SYSTEM'S 1.43 ACRES, WHICH ACCOUNTS FOR AT LEAST 90% OF THE SYSTEM FLOW. ADEQUACY IS EVALUATED WITHIN THE CLOSED CONDUIT SYSTEM TO A POINT 150' BEYOND THE POINT OF CONFLUENCE, WITHIN THE EXISTING CLOSED CONDUIT SYSTEM. PER PFM REQUIREMENT 6-0203.2A, THE OUTFALL IS ADEQUATE IN THE OPINION OF THE ENGINEER.

OUTFALL C3 - EXISTING STORM STRUCTURE, SOUTHEAST OF SITE

CHANGE IN RUNOFF FLOW FROM EXISTING CONDITIONS = -17.88 CFS

FROM	TO	EX. INCREMENTAL DRAINAGE AREA (acres)	RAINFALL (IN/HR)	EXISTING RUNOFF Q (cfs)	SLOPE	DIAMETER (inches)	EXISTING FULL FLOW CAPACITY (cfs)*	AVAILABLE CAPACITY (cfs)	PROP. FINAL INCREMENTAL AREA (acres)	PROP. FINAL CUMULATIVE AREA (acres)	COMMENTS
4A	EX 80A	0.08	7.27	8.36	0.74%	33	69.44	61.08	0.08	0.75	EX. 80D CONNICIDES WITH PROP. STC 4A
EX 80A	EX 103	0.00	7.27	9.50	0.93%	36	69.19	59.69	0.00	0.93	
EX 103	EX 101	0.30	7.27	14.66	1.83%	33	71.54	56.88	0.30	1.72	
EX 101	EX 102	0.00	7.27	14.66	1.10%	33	55.46	40.80	0.00	1.72	
EX 102	EX 79	0.00	7.27	18.59	2.13%	33	77.2	58.61	0.60	2.32	
EX 79	EX 78	0.09	7.27	21.43	0.93%	33	51	29.57	0.09	2.41	
EX 78	EX 76	0.09	7.27	37.30	0.96%	33	52.01	14.71	0.09	2.5	
EX 76	EX 46	0.00	7.27	40.52	0.60%	42	77.98	37.46	0.00	3.01	*POINT OF CONFLUENCE
EX 46	EX45	0	7.27	138.93	1.00%	54	211.53	72.60	0.00	15.61	

AS IDENTIFIED IN THE TABLE ABOVE, THE POINT OF CONFLUENCE FOR OUTFALL C3 OCCURS AT STRUCTURE46, WHEN AN ADDITIONAL12.6 ACRES JOINS THE SYSTEM'S 3.01 ACRES, WHICH ACCOUNTS FOR AT LEAST 90% OF THE SYSTEM FLOW. ADEQUACY IS EVALUATED WITHIN THE CLOSED CONDUIT SYSTEM TO A POINT 150' BEYOND THE POINT OF CONFLUENCE, WITHIN THE EXISTING CLOSED CONDUIT SYSTEM. PER PFM REQUIREMENT 6-0203.2A, THE OUTFALL IS ADEQUATE IN THE OPINION OF THE ENGINEER.

OUTFALL C4 - PROPOSED STORM SYSTEM

OUTFALL C4 HAS AN ASSOCIATED PUBLIC IMPROVEMENT PLAN 6848-PI-003 TO DEVELOP A CONVEYANCE SYSTEM FOR A MAJORITY OF THE INNOVATION CENTER SOUTH SITE. STORM SEWER COMPUTATIONS ARE PROVIDED WITH THE ASSOCIATED PUBLIC IMPROVEMENT PLAN 6848-PI-003).

CHANGE IN RUNOFF FLOW FROM EXISTING CONDITIONS = +0 CFS, AS DESIGNED WITH 6848-PI-003

FROM	TO	EX. INCREMENTAL DRAINAGE AREA (acres)	RAINFALL (IN/HR)	EXISTING RUNOFF Q (cfs)	SLOPE	DIAMETER (inches)	FULL FLOW CAPACITY (cfs)	AVAILABLE CAPACITY (cfs)	PROP. FINAL INCREMENTAL AREA (acres)	PROP. FINAL CUMULATIVE AREA (acres)	COMMENTS
O7	O6	13.60	7.27	83.70	0.50%	38.0	100.70	17.00	13.60	13.60	
O6	O5	0.00	7.27	83.27	0.50%	38.0	100.65	17.38	0.00	13.60	
O5	O4	0.00	7.27	82.99	0.50%	38.0	100.52	17.53	0.00	13.60	
O4	O3	0.00	7.27	82.79	0.75%	38.0	123.34	40.55	0.00	13.60	
O3	O2	0.00	7.27	82.68	1.74%	38.0	188.16	105.48	0.00	13.60	
O2	O1	0.00	7.27	82.53	3.20%	42.0	177.12	94.59	0.00	13.60	
O1	POND (H-9)	0.00	7.27	82.36	1.00%	42.0	98.23	15.87	0.00	13.60	*REGIONAL POND

AS IDENTIFIED IN THE TABLE ABOVE, THE POINT OF CONFLUENCE FOR OUTFALL C4 OCCURS AT THE EXISTING DRY POND H-9. ADEQUACY IS EVALUATED WITHIN THE CLOSED CONDUIT SYSTEM TO THIS POINT, WITHIN THE EXISTING CLOSED CONDUIT SYSTEM. PER PFM REQUIREMENT 6-0203.2A, THE OUTFALL IS ADEQUATE IN THE OPINION OF THE ENGINEER.

OUTFALL C5 - EXISTING STORM STRUCTURE AT SOUTHWEST CORNER OF SITE

CHANGE IN RUNOFF FLOW FROM EXISTING CONDITIONS =+1.48 CFS

FROM	TO	EX. INCREMENTAL DRAINAGE AREA (acres)	RAINFALL (IN/HR)	EXISTING RUNOFF Q (cfs)	SLOPE	DIAMETER (inches)	EXISTING FULL FLOW CAPACITY (cfs)	AVAILABLE CAPACITY (cfs)	PROP. FINAL INCREMENTAL AREA (acres)	PROP. FINAL CUMULATIVE AREA (acres)	COMMENTS
EX. 118	EX. 117	0.11	7.27	0.72	1.01%	18	11.36	10.64	1.74	1.74	
EX. 117	EX. 116	1.18	7.27	4.13	1.21%	18	12.43	8.28	1.18	2.92	
EX. 116	EX. 115	0.19	7.27	5.81	0.34%	24	14.19	8.38	0.85	3.77	
EX. 115	EX. 113	0.14	7.27	6.63	0.40%	24	15.39	8.76	0.14	3.91	
EX. 113	EX. 94	0.14	7.27	3.32	0.49%	24	17.03	13.71	0.14	4.35	
EX. 94	EX. 93	0.00	7.27	6.98	0.60%	24	18.85	11.87	0.00	5.53	
EX. 93	EX. 92	0.00	7.27	6.98	0.53%	24	17.55	10.57	0.00	5.53	
EX. 92	EX. 90	0.00	7.27	15.95	0.70%	27	27.87	11.92	0.00	6.97	
EX. 90	EX. 89	0.59	7.27	20.40	1.10%	27	34.94	14.54	0.59	7.69	
EX. 89	EX. 86A	0.00	7.27	20.40	1.81%	27	44.82	24.42	0.00	7.69	
EX 86A	EX 86	0.00	7.27	168.85	0.80%	54	176.28	7.43	0.00	20.29	
EX 86	EX 81	0.69	7.27	173.36	0.81%	54	177.28	3.92	0.69	20.98	
EX 81	POND (H-9)	0.34	7.27	175.47	1.04%	54	203.03	25.56	0.34	21.32	*REGIONAL POND

AS IDENTIFIED IN THE TABLES ABOVE, THE POINT OF CONFLUENCE FOR OUTFALL C3, C4, AND C5 OCCURS AT THE EXISTING DRY POND DESIGNED TO SERVE THE EXISTING OUTFALL PER APPROVED PLAN 6848-PI-002. ADEQUACY IS EVALUATED WITHIN THE CLOSED CONDUIT SYSTEM TO THIS OUTFALL POINT PER PFM REQUIREMENT 6-0203.2C. OUTFLOW FROM THE POND WILL DISCHARGE THROUGH THE DROP-INLET SPILLWAY AND INTO AN OPEN CHANNEL BEFORE DRAINING INTO MERRYBROOK RUN LOCATED APPROXIMATELY 90FT DOWNSTREAM OF THE SPILLWAY. THE OPEN CHANNEL DOWNSTREAM OF THE SPILLWAY IS MOSTLY ARMORED WITH RIP RAP AND BASED ON FIELD OBSERVATION IS IN STABLE CONDITION. THE DOWNSTREAM EXTENT OF REVIEW FOR OUTFALL EVALUATION IS A MERRYBROOK RUN WHERE THE TOTAL DRAINAGE AREA IS GREATER THAN ONE SQUARE MILE. THE OUTFALL IS ADEQUATE IN THE OPINION OF THE ENGINEER.

DISTURBED AREA

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CODY A. PENNETTI
Lic. No. 048560
PROFESSIONAL ENGINEER

KEY PLAN

SCALE NORTH

SCALE IN FEET
1" = 150'
1 INCH

VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MLJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE
STORM OUTFALL COMPUTATIONS

SP NO. #6848-SP-014

C07.707

SECTION NO. C07-SWM

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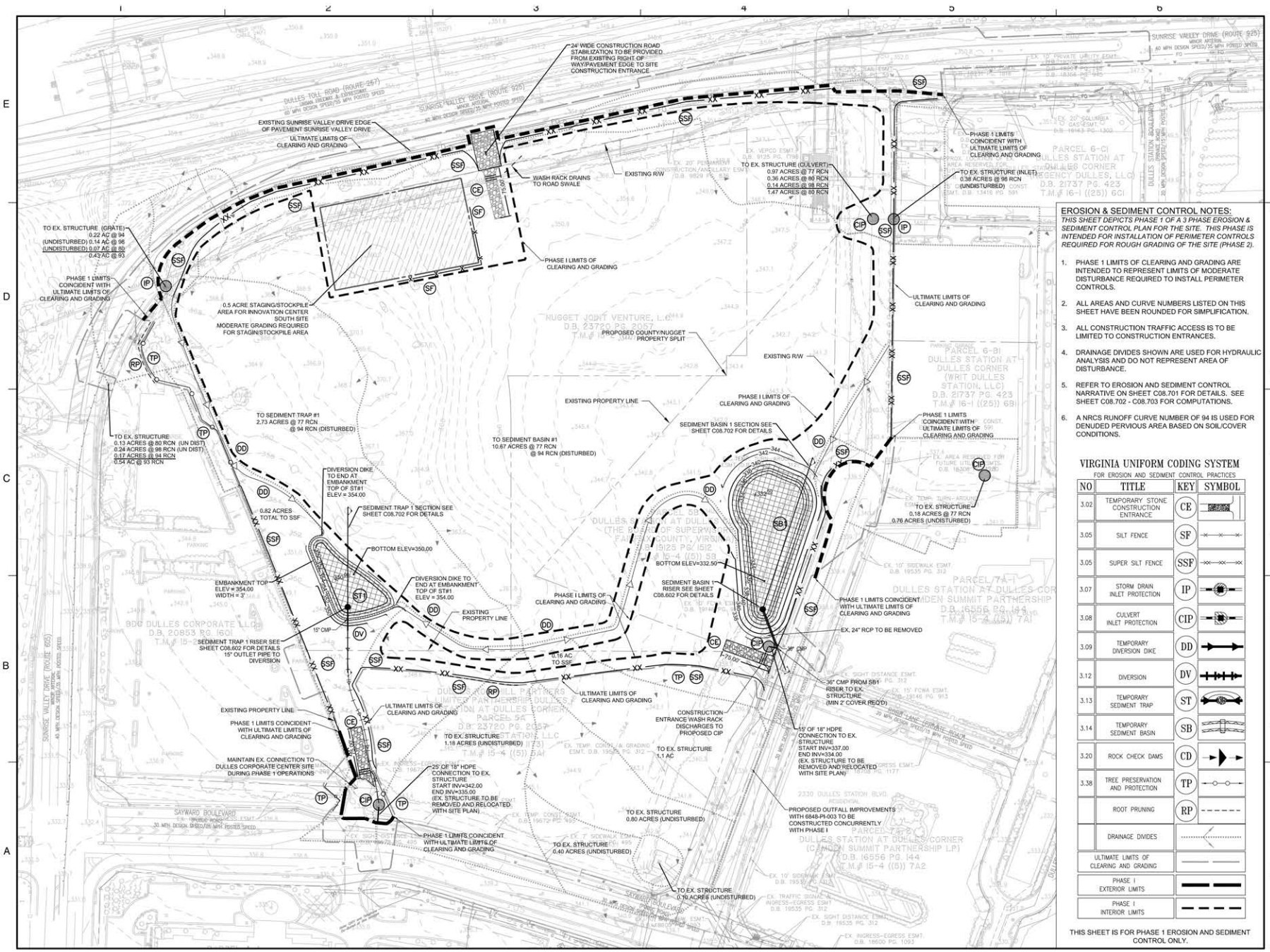


EROSION & SEDIMENT CONTROL NOTES:

THIS SHEET DEPICTS PHASE 1 OF A 3 PHASE EROSION & SEDIMENT CONTROL PLAN FOR THE SITE. THIS PHASE IS INTENDED FOR INSTALLATION OF PERIMETER CONTROLS REQUIRED FOR ROUGH GRADING OF THE SITE (PHASE 2).

1. PHASE 1 LIMITS OF CLEARING AND GRADING ARE INTENDED TO REPRESENT LIMITS OF MODERATE DISTURBANCE REQUIRED TO INSTALL PERIMETER CONTROLS.
2. ALL AREAS AND CURVE NUMBERS LISTED ON THIS SHEET HAVE BEEN ROUNDED FOR SIMPLIFICATION.
3. ALL CONSTRUCTION TRAFFIC ACCESS IS TO BE LIMITED TO CONSTRUCTION ENTRANCES.
4. DRAINAGE DIVIDES SHOWN ARE USED FOR HYDRAULIC ANALYSIS AND DO NOT REPRESENT AREA OF DISTURBANCE.
5. REFER TO EROSION AND SEDIMENT CONTROL NARRATIVE ON SHEET C08.701 FOR DETAILS. SEE SHEET C08.702 - C08.703 FOR COMPUTATIONS.
6. A NRCS RUNOFF CURVE NUMBER OF 94 IS USED FOR DENUDED PERVIOUS AREA BASED ON SOIL/COVER CONDITIONS.

VIRGINIA UNIFORM CODING SYSTEM

FOR EROSION AND SEDIMENT CONTROL PRACTICES

NO	TITLE	KEY	SYMBOL
3.02	TEMPORARY STONE CONSTRUCTION ENTRANCE	CE	
3.05	SILT FENCE	SF	
3.05	SUPER SILT FENCE	SSF	
3.07	STORM DRAIN INLET PROTECTION	IP	
3.08	CULVERT INLET PROTECTION	CIP	
3.09	TEMPORARY DIVERSION DIKE	DD	
3.12	DIVERSION	DV	
3.13	TEMPORARY SEDIMENT TRAP	ST	
3.14	TEMPORARY SEDIMENT BASIN	SB	
3.20	ROCK CHECK DAMS	CD	
3.38	TREE PRESERVATION AND PROTECTION	TP	
	ROOT PRUNING	RP	
	DRAINAGE DIVIDES		
	ULTIMATE LIMITS OF CLEARING AND GRADING		
	PHASE I EXTERIOR LIMITS		
	PHASE I INTERIOR LIMITS		

THIS SHEET IS FOR PHASE 1 EROSION AND SEDIMENT CONTROL ONLY.

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA — GREGORY A. PHILLIPS — Lic. No. 045560 — 5/26/16 — PROFESSIONAL ENGINEER

KEY PLAN

SCALE: SCALE IN FEET 1" = 60' — 1 INCH

NORTH: VCS-83

No.	DATE	BY	Description

REVISIONS

DRAWN BY	MLJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE

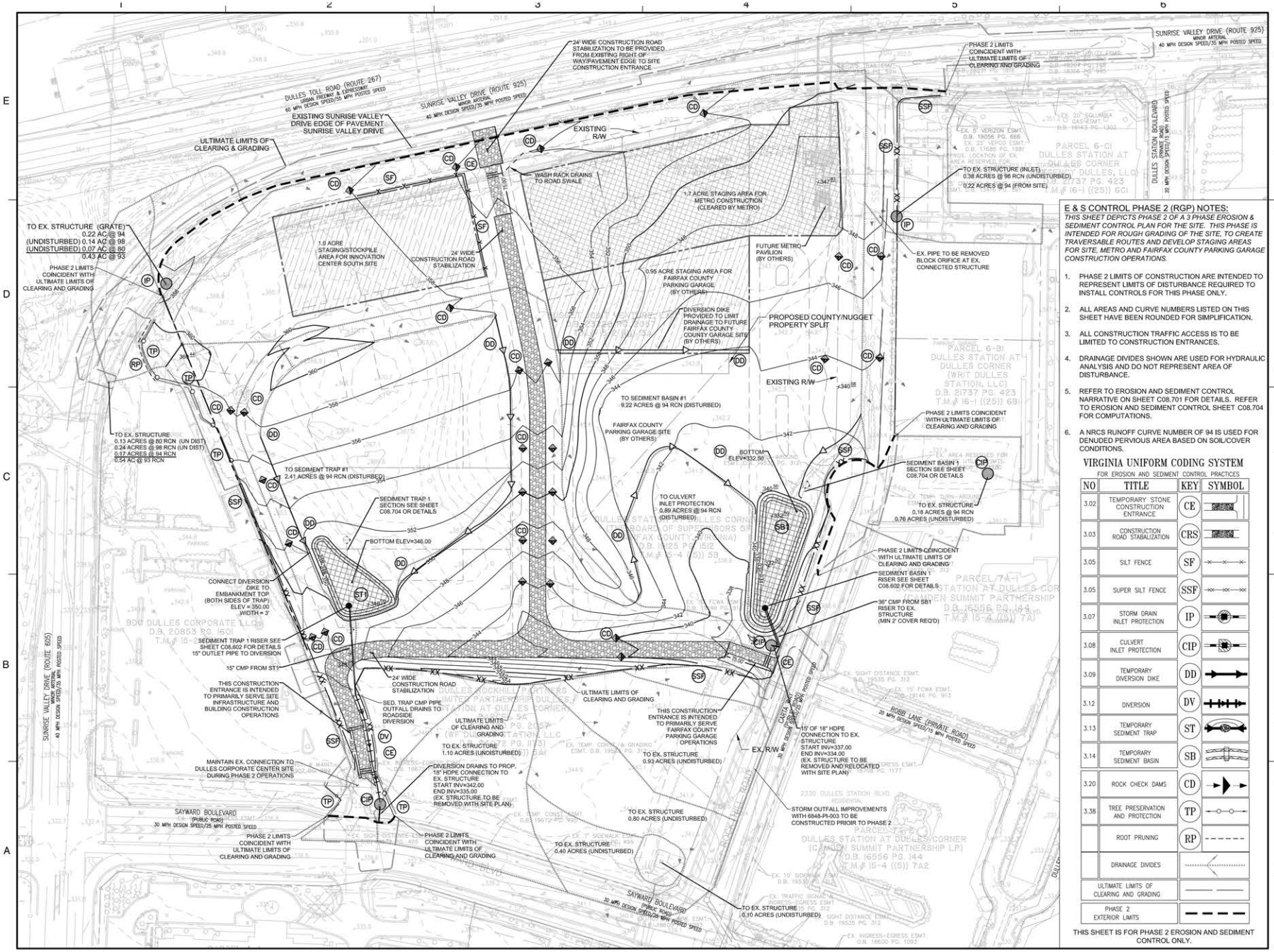
PHASE 1 EROSION & SEDIMENT CONTROL PLAN

SP NO. #6848-SP-014

C08.101

(RGP SHEET 6)

SECTION NO. C08-E&S



E & S CONTROL PHASE 2 (RGP) NOTES:

THIS SHEET DEPICTS PHASE 2 OF A 3 PHASE EROSION & SEDIMENT CONTROL PLAN FOR THE SITE. THIS PHASE IS INTENDED FOR ROUGH GRADING OF THE SITE, TO CREATE TRAVERSABLE ROUTES AND DEVELOP STAGING AREAS FOR SITE, METRO AND FAIRFAX COUNTY PARKING GARAGE CONSTRUCTION OPERATIONS.

1. PHASE 2 LIMITS OF CONSTRUCTION ARE INTENDED TO REPRESENT LIMITS OF DISTURBANCE REQUIRED TO INSTALL CONTROLS FOR THIS PHASE ONLY.
2. ALL AREAS AND CURVE NUMBERS LISTED ON THIS SHEET HAVE BEEN ROUNDED FOR SIMPLIFICATION.
3. ALL CONSTRUCTION TRAFFIC ACCESS IS TO BE LIMITED TO CONSTRUCTION ENTRANCES.
4. DRAINAGE DIVIDES SHOWN ARE USED FOR HYDRAULIC ANALYSIS AND DO NOT REPRESENT AREA OF DISTURBANCE.
5. REFER TO EROSION AND SEDIMENT CONTROL NARRATIVE ON SHEET C08.701 FOR DETAILS. REFER TO EROSION AND SEDIMENT CONTROL SHEET C08.704 FOR COMPUTATIONS.
6. A NRCS RUNOFF CURVE NUMBER OF 94 IS USED FOR DENUDED PERVIOUS AREA BASED ON SOIL/COVER CONDITIONS.

VIRGINIA UNIFORM CODING SYSTEM

FOR EROSION AND SEDIMENT CONTROL PRACTICES

NO	TITLE	KEY	SYMBOL
3.02	TEMPORARY STONE CONSTRUCTION ENTRANCE	CE	
3.03	CONSTRUCTION ROAD STABALIZATION	CRS	
3.05	SILT FENCE	SF	
3.05	SUPER SILT FENCE	SSF	
3.07	STORM DRAIN INLET PROTECTION	IP	
3.08	CULVERT INLET PROTECTION	CIP	
3.09	TEMPORARY DIVERSION DIKE	DD	
3.12	DIVERSION	DV	
3.13	TEMPORARY SEDIMENT TRAP	ST	
3.14	TEMPORARY SEDIMENT BASIN	SB	
3.20	ROCK CHECK DAMS	CD	
3.38	TREE PRESERVATION AND PROTECTION	TP	
	ROOT PRUNING	RP	
	DRAINAGE DIVIDES		
	ULTIMATE LIMITS OF CLEARING AND GRADING		
	PHASE 2 EXTERIOR LIMITS		

THIS SHEET IS FOR PHASE 2 EROSION AND SEDIMENT CONTROL ONLY.

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

KEY PLAN

SCALE NORTH

SCALE IN FEET
1" = 60'
1 INCH

VCS-83

No.	DATE	BY	Description

REVISIONS

DRAWN BY	MCJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE

PHASE 2 EROSION & SEDIMENT CONTROL PLAN

SP NO. #6848-SP-014

C08.201

(RGP SHEET 7)

SECTION NO. C08-E&S

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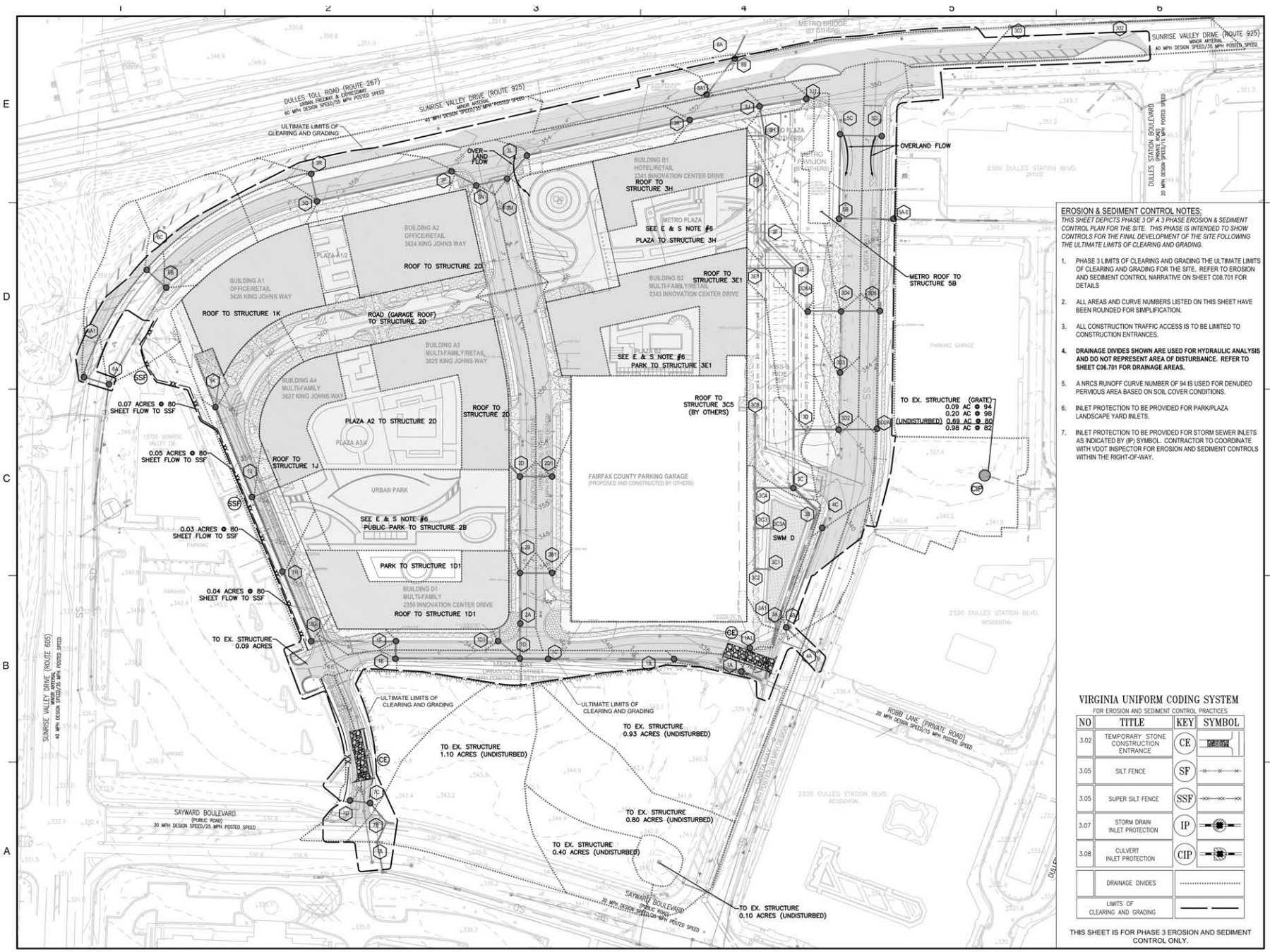


EROSION & SEDIMENT CONTROL NOTES:

THIS SHEET DEPICTS PHASE 3 OF A 3 PHASE EROSION & SEDIMENT CONTROL PLAN FOR THE SITE. THIS PHASE IS INTENDED TO SHOW CONTROLS FOR THE FINAL DEVELOPMENT OF THE SITE FOLLOWING THE ULTIMATE LIMITS OF CLEARING AND GRADING.

1. PHASE 3 LIMITS OF CLEARING AND GRADING THE ULTIMATE LIMITS OF CLEARING AND GRADING FOR THE SITE. REFER TO EROSION AND SEDIMENT CONTROL NARRATIVE ON SHEET C08.701 FOR DETAILS
2. ALL AREAS AND CURVE NUMBERS LISTED ON THIS SHEET HAVE BEEN ROUNDED FOR SIMPLIFICATION.
3. ALL CONSTRUCTION TRAFFIC ACCESS IS TO BE LIMITED TO CONSTRUCTION ENTRANCES.
4. **DRAINAGE DIVIDES SHOWN ARE USED FOR HYDRAULIC ANALYSIS AND DO NOT REPRESENT AREA OF DISTURBANCE. REFER TO SHEET C06.701 FOR DRAINAGE AREAS.**
5. A NRCS RUNOFF CURVE NUMBER OF 94 IS USED FOR DENUDED PERVIOUS AREA BASED ON SOIL COVER CONDITIONS.
6. INLET PROTECTION TO BE PROVIDED FOR PARK/PLAZA LANDSCAPE YARD INLETS.
7. INLET PROTECTION TO BE PROVIDED FOR STORM SEWER INLETS AS INDICATED BY (IP) SYMBOL. CONTRACTOR TO COORDINATE WITH VDOT INSPECTOR FOR EROSION AND SEDIMENT CONTROLS WITHIN THE RIGHT-OF-WAY.

VIRGINIA UNIFORM CODING SYSTEM

FOR EROSION AND SEDIMENT CONTROL PRACTICES

NO	TITLE	KEY	SYMBOL
3.02	TEMPORARY STONE CONSTRUCTION ENTRANCE	CE	
3.05	SILT FENCE	SF	
3.05	SUPER SILT FENCE	SSF	
3.07	STORM DRAIN INLET PROTECTION	IP	
3.08	CULVERT INLET PROTECTION	CIP	
	DRAINAGE DIVIDES		
	LIMITS OF CLEARING AND GRADING		

THIS SHEET IS FOR PHASE 3 EROSION AND SEDIMENT CONTROL ONLY.

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CHEV A. PRETI
Lic. No. 045560
8/26/16
PROFESSIONAL ENGINEER

KEY PLAN

SCALE NORTH

SCALE IN FEET
1" = 60'
1 INCH

VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MCJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

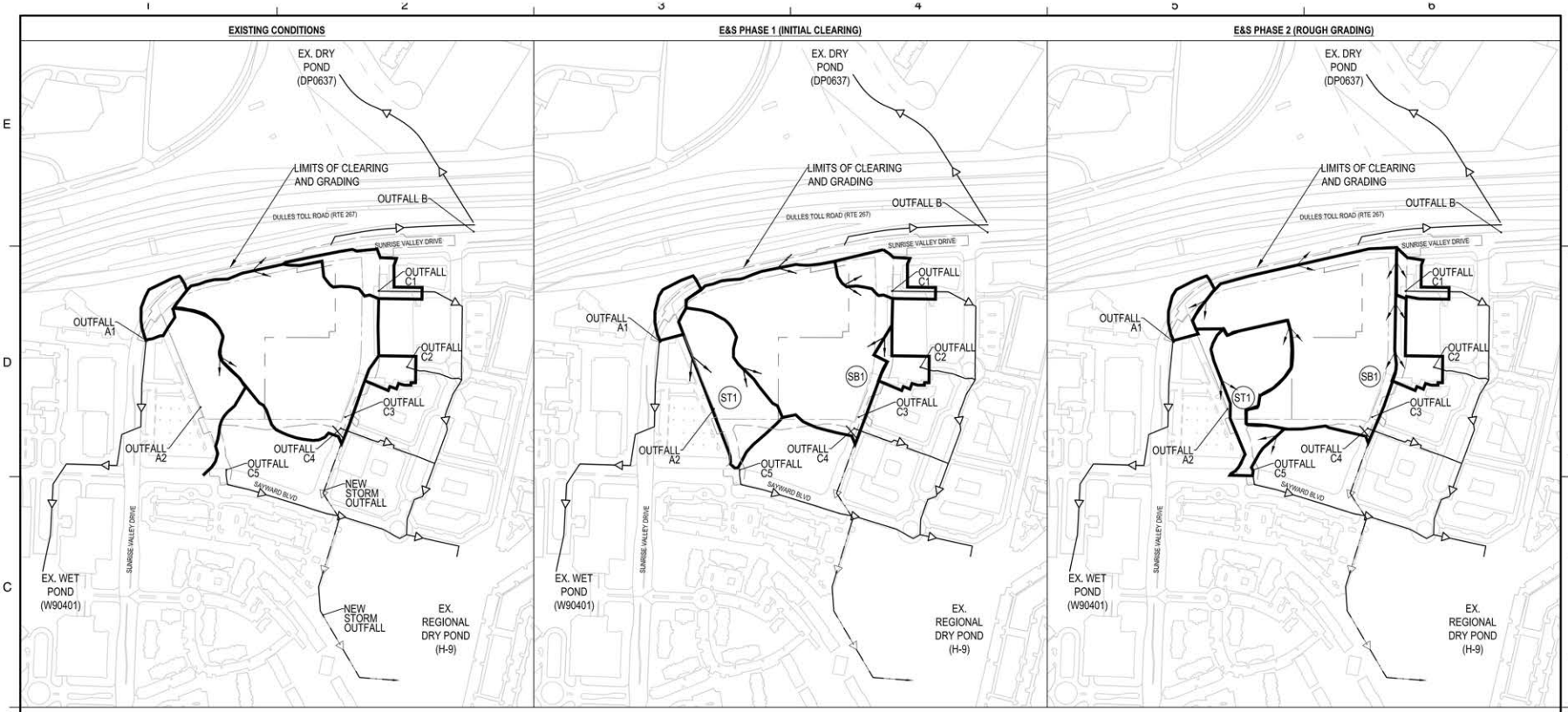
TITLE

PHASE 3 EROSION & SEDIMENT CONTROL PLAN

SP NO. #6848-SP-014

C08.301

SECTION NO. C08-E&S



RGP STORMWATER OUTFALL NARRATIVE

THIS SHEET IS FOR NARRATIVE PURPOSES ONLY, APPLICABLE TO INTERIM DEVELOPMENT CONDITIONS OF INNOVATION CENTER SOUTH THAT OCCUR DURING E&S PHASES 1&2 OF DEVELOPMENT.

THE NARRATIVE BELOW HAS BEEN FORMATTED TO FOLLOW THE FAIRFAX COUNTY STORMWATER MANAGEMENT PLAN COMPLETENESS CHECKLIST. OUTFALL COMPUTATIONS FOR THE CLOSED CONDUIT SYSTEMS TO THE EXTENT OF REVIEW (150' BEYOND THE POINT OF CONFLUENCE) ARE PROVIDED ON SHEET C08.502, WHICH DEMONSTRATES COMPLIANCE WITH THE 90% RULE OF THE FAIRFAX COUNTY PFM 6-0203.2A OR 360 ACRE DRAINAGE AREA PER PFM 6-0203.2C.

1. OUTFALL DESCRIPTIONS

THE PROPOSED INNOVATION CENTER SOUTH SITE HAS 11 OUTFALL POINTS CATEGORIZED INTO 3 UNIQUE OUTFALLS (A, B, & C);

OUTFALL A
OUTFALLS WESTWARD TO EXISTING DULLES CORNER WET POND (WP0401).

OUTFALL A1: A CLOSED CONDUIT SYSTEM AT THE NORTHWEST CORNER OF THE SITE, FROM SUNRISE VALLEY DRIVE TO THE EXISTING DULLES CORNER WET POND. SITE GRADING WITHIN THIS OUTFALL DRAINAGE AREA ADJUSTS THE TOTAL AREA AND RCN FOR THIS REGION OF OUTFALL A.

OUTFALL A2: SHEET FLOW FROM THE EXISTING INNOVATION CENTER SITE PLAN IS CONVEYED TO THE DULLES CORPORATE CENTER PARKING LOT. GRADING AND E&S CONTROL REDUCE THE SITE RUNOFF DURING PHASE 1 AND PHASE 2, AND REDIRECT IT TOWARDS A SEDIMENT TRAP THAT DISCHARGES TO OUTFALL C5.

OUTFALL B
NOT IMPACTED DURING PHASE 1 OR PHASE 2 OF THE SITE CONSTRUCTION - THIS OUTFALL IS COMPRISED OF MANMADE CLOSED AND OPEN CHANNEL SYSTEMS ALONG SUNRISE VALLEY DRIVE.

OUTFALL C:
A SERIES OF CLOSED CONDUIT SYSTEMS (POINTS OF ORIGIN IDENTIFIED AS C1-C5) CONVEY STORMWATER FROM THE DEVELOPMENT SITE TO AN EXISTING REGIONAL DRY POND. OUTFALLS C3 & C4 HAVE SIMILAR ORIGIN POINTS BUT ARE ONLY APPLICABLE TO PHASE 1 AND 2 RESPECTIVELY. OUTFALL C3 REPRESENTS THE CONDITION PRIOR TO CONSTRUCTION OF THE NEW STORM SEWER OUTFALL (ASSOCIATED WITH APPROVED 6848-PI-003), WHILE OUTFALL C4 REPRESENTS THE CONDITION AFTER COMPLETION OF THE STORM SEWER OUTFALL.

OUTFALL C1: A CLOSED CONDUIT SYSTEM FROM THE NORTHEAST CORNER OF DULLES STATION SITE. AN EXISTING CULVERT HEADWALL CAPTURES RUNOFF FROM INNOVATION CENTER SOUTH. DURING GRADING OPERATIONS OF PHASE 1, THE EXISTING DRAINAGE AREA WILL BE IMPACTED (CONVERTING THE RCN FROM 77 TO 94) AND WILL BE MANAGED BY SILT FENCE AND CULVERT INLET PROTECTION. THE CULVERT WILL BE REMOVED DURING GRADING OPERATIONS OF PHASE 2 AND THE DRAINAGE AREA WILL BE DECREASED WHEN CONVEYED TO THE EXISTING CURB INLET.

OUTFALL C2: AN EXISTING YARD INLET CAPTURES RUNOFF FROM THE EAST SIDE OF INNOVATION CENTER SOUTH. DURING GRADING OPERATIONS OF PHASE 1, THE EXISTING DRAINAGE AREA WILL BE IMPACTED (CONVERTING THE RCN FROM 77 TO 94) AND WILL BE MANAGED BY SILT FENCE AND CULVERT INLET PROTECTION. THE DRAINAGE AREA WILL BE REDUCED TO THIS OUTFALL POINT DURING GRADING OPERATIONS OF PHASE 2.

OUTFALL C3: PHASE 1 ONLY - AN EXISTING CULVERT HEADWALL CAPTURES RUNOFF FROM INNOVATION CENTER SOUTH. DURING INSTALLATION OF E&S CONTROLS (SEDIMENT BASIN 1) OF PHASE 1, THE EXISTING HEADWALL WILL BE REMOVED AND THE DRAINAGE AREA WILL BE DIRECTED TOWARDS A SEDIMENT BASIN WITH A PIPE OUTLET THAT CONNECTS DIRECTLY INTO THE CLOSED CONDUIT SYSTEM AND A NEW CONNECTION (CIP AND HDPE PIPE) TO AN EXISTING STORM STRUCTURE. THE SYSTEM WILL BE REDIRECTED TO OUTFALL C4 DURING PHASE 2.

OUTFALL C4: PHASE 2 ONLYE - A NEW STORM SEWER OUTFALL SYSTEM PROPOSED WITH THE ASSOCIATED PLAN, 6848-PI-003, THAT WILL ULTIMATELY CONVEY ALL OF INNOVATION CENTER SOUTH TO THE EXISTING REGIONAL DRY POND. CONSTRUCTION OF THE NEW STORM SEWER WILL BE CONCURRENT WITH PHASE 1, AND OPERATIONAL BY PHASE 2. THE SEDIMENT BASIN WILL BE DISCHARGED THROUGH A PIPE OUTLET INTO THE NEW STORM SEWER SYSTEM.

OUTFALL C5: EXISTING CURB INLETS ALONG SAYWARD BOULEVARD THAT CAPTURE ROAD DRAINAGE AND SHEET FLOW FROM THE NORTHERN AREAS (INNOVATION CENTER SOUTH AND PARCEL 5A). THIS SYSTEM WILL PROVIDE CONVEYANCE FROM THE SEDIMENT TRAP 1 DISCHARGE TO THE EXISTING REGIONAL DRY POND, WITH AN INCREASE IN DRAINAGE AREA DURING PHASE 1 AND PHASE 2 AND THE CONTROLLED RUNOFF IS REDIRECTED FROM SHEET FLOWING INTO THE DULLES CORPORATE CENTER PARKING LOT.

2. DOWNSTREAM RECEIVING WATER BODY DESCRIPTIONS

ALL OUTFALLS ARE RECEIVED BY MANMADE SEWER SYSTEMS, CHANNELS, AND ULTIMATELY STORMWATER MANAGEMENT SYSTEMS.

3. MAJOR OUTFALL ELEMENTS DESCRIPTIONS

OUTFALL A : GRAPHICALLY SHOWN ON THIS SHEET, STORMWATER FROM THE SITE'S LIMITS OF CLEARING AND GRADING IS INTERCEPTED BY ROAD AND PARKING LOT INLETS, CONVEYED IN A CLOSED CONDUIT SYSTEM , AND DISCHARGES TO AN EXISTING WET POND. THE CLOSED CONDUIT SYSTEMS WERE HYDRAULICALLY DESIGNED FOR THE SITE'S ULTIMATE (PROPOSED) 10 YEAR STORM RUNOFF CONDITIONS, AND ARE CONVEYED TO AN EXISTING STORMWATER MANAGEMENT SYSTEM.

OUTFALL B : NOT IMPACTED DURING PHASE 1 OR PHASE 2 OF THE E&S CONSTRUCTION - GRAPHICALLY SHOWN ON THIS SHEET, STORMWATER FROM THE SITE'S LIMITS OF CLEARING AND GRADING IS INTERCEPTED BY ROAD INLETS, CONVEYED IN A CLOSED CONDUIT SYSTEM , MANMADE CHANNEL, BOX CULVER BELOW THE TOLL ROAD, AND CONVEYED TO AN EXISTING DRY POND.

OUTFALL C : GRAPHICALLY SHOWN, SITE STORMWATER IS INTERCEPTED BY INLETS AND CONVEYED THROUGH CLOSED CONDUIT SYSTEMS WITHIN THE INNOVATION CENTER SOUTH SITE AND THE DULLES STATION AT DULLES CORNER SITE TO CONVEY STORMWATER TO AN EXISTING REGIONAL DRY POND.

4. PRE & POST DEVELOPMENT DRAINAGE AREA MAPS

PROVIDED ON THIS SHEET FOR EXISTING, E&S PHASE 1, AND E&S PHASE 2 CONDITIONS.

5. DOWNSTREAM REVIEW

ALL DOWNSTREAM SYSTEMS ARE MANMADE, AND HAVE BEEN DESIGNED TO ACCOMMODATE THE FINAL SITE CONDITIONS AS EVIDENCED BY OUTFALL ADEQUACY DETERMINATIONS OF THE ASSOCIATED DULLES CORPORATE CENTER (OUTFALL A), DULLES STATION AT DULLES CORNER (OUTFALL B), AND PUBLIC IMPROVEMENT PLAN (OUTFALL C).

6. EXISTING SURROUNDING CONDITIONS DESCRIPTION

THE ADJACENT SURROUNDING CONDITIONS ARE URBAN MIXED USE DEVELOPMENTS (WEST/EAST), AN UNDEVELOPED SITE (SOUTH), AND THE DULLES TOLL ROAD (NORTH). IT IS NOT ANTICIPATED THAT THE SITE'S STORMWATER WILL ADVERSELY IMPACT THE EXISTING ADJACENT PROPERTIES.

7. COMPUTATIONS

THE OUTFALL CONVEYANCE SYSTEMS ARE COMPRISED OF MANMADE STORM SEWERS, WITH COMPUTATIONS PROVIDED WITH THE ASSOCIATED SITE PLANS (6848-SP-001, 6848-SP-002, AND THIS SITE PLAN) . THE PROPOSED STORM SEWER SYSTEMS WITHIN THE INNOVATION CENTER SOUTH SITE HAVE BEEN ANALYZED FOR THE 2 YEAR STORM, WITH COMPUTATIONS SHOWN ON SHEET C08.502 OF THIS SITE PLAN.

8. INADEQUATE DOWNSTREAM SYSTEMS

NOT APPLICABLE TO THIS SITE PLAN

9. PREVENTION OF DOWNSTREAM FLOODING

NO EXISTING DOWNSTREAM STRUCTURES ARE IMPACTED BY THE 100 YEAR STORM, NOR WILL THEY BE IMPACTED AFTER DEVELOPMENT OF THE PROPOSED SITE.

10. OPINION OF OUTFALL ADEQUACY

IT IS OF THE OPINION OF THE SUBMITTING ENGINEER THAT THE ADEQUACY OF THE DOWNSTREAM DRAINAGE SYSTEMS IS MET. AS IDENTIFIED IN THE REFERENCED PLANS, THE PROPOSED DEVELOPMENT WAS ANTICIPATED IN THE DESIGN OF THE EXISTING CONVEYANCE AND DETENTION SYSTEMS AND EVALUATED FOR ADEQUACY FOR ALL OUTFALLS A, B, AND C.

11. CONTACT INFORMATION OF IMPACTED PROPERTIES

NO PROPERTIES ARE ADVERSELY IMPACTED BY THE PROPOSED DEVELOPMENT.

12. ASSOCIATED STORMWATER CONDITIONS AND PROFFERS

THE PRE-DEVELOPMENT SITE IS HEAVILY FORESTED, WITH STORMWATER RUNOFF CONVEYED FROM THE SITE AS SHEET FLOW INTO EXISTING STORM SEWER SYSTEMS. THE EXISTING STORM SEWER SYSTEMS WERE DEVELOPED WITH THE DULLES CORPORATE CENTER AND DULLES STATION AT DULLES CORNER SITE PLANS. AND THE SYSTEMS WERE DESIGNED TO ACCOMMODATE THE DEVELOPED (C FACTOR OF 0.9) CONDITIONS OF INNOVATION CENTER SOUTH. FOR THE OUTFALL POINT C4, A NEW CONVEYANCE SYSTEM WAS DESIGNED AND PROPOSED UNDER AN ASSOCIATED PUBLIC IMPROVEMENT PLAN, 6848-PI-003.

OUTFALL POINT DRAINAGE DIVIDES

DENOTES MANMADE CONVEYANCE SYSTEM

SB1 SEDIMENT BASIN 1

ST1 SEDIMENT TRAP 1

OUTFALL PHASING SUMMARY

Outfall	EXISTING			PHASE 1			PHASE 2		
	Acres	CN	Q	Ac	CN	Q	Ac	CN	Q
A1	1.03	87	3.1	0.97	93	3.7	0.97	93	3.7
A2	2.94	80	6.4	0.00	94	0.0	0.51	91	1.8
C1	1.47	80	3.2	1.47	94	5.8	0.60	97	2.5
C2	0.94	77	1.7	0.94	94	3.7	0.94	83	2.4
C3	12.90	77	23.8	13.10	94	29.1	0.00	0	0.0
C4	0.00	77	0.0	0.00	94	0.0	13.60	95	68.5
C5	1.18	77	2.2	4.10	94	5.4	3.75	94	5.3

*INDICATES THAT THE OUTFALL AREA INCLUDES A FORM OF ONSITE STORMWATER DETENTION, ACHIEVED THROUGH A SEDIMENT BASIN OR SEDIMENT TRAP PROPOSED WITH THE E&S PLANS.

NOTE THAT THESE VALUES WILL DEVIATE SLIGHTLY FROM THOSE SHOWN IN THE COMPUTATIONS ON SHEET C08.502, AS THESE RUNOFF VALUES WERE COMPUTED WITH NRCS METHODOLOGY AND THE OUTFALL COMPUTATIONS CONSIDER RATIONAL METHOD.

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
COLBY A. SWANSON
Lic. No. 048560
PROFESSIONAL ENGINEER

KEY PLAN

SCALE
SCALE IN FEET
1" = 250'
1 INCH

NORTH
VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY MLJ
APPROVED BY CAP
CHECKED BY CJD
DATE SEPTEMBER 2014

TITLE
E&S OUTFALL NARRATIVE

SP NO. #6848-SP-014

C08.501
(RGP SHEET 8)
SECTION NO. C08-E&S

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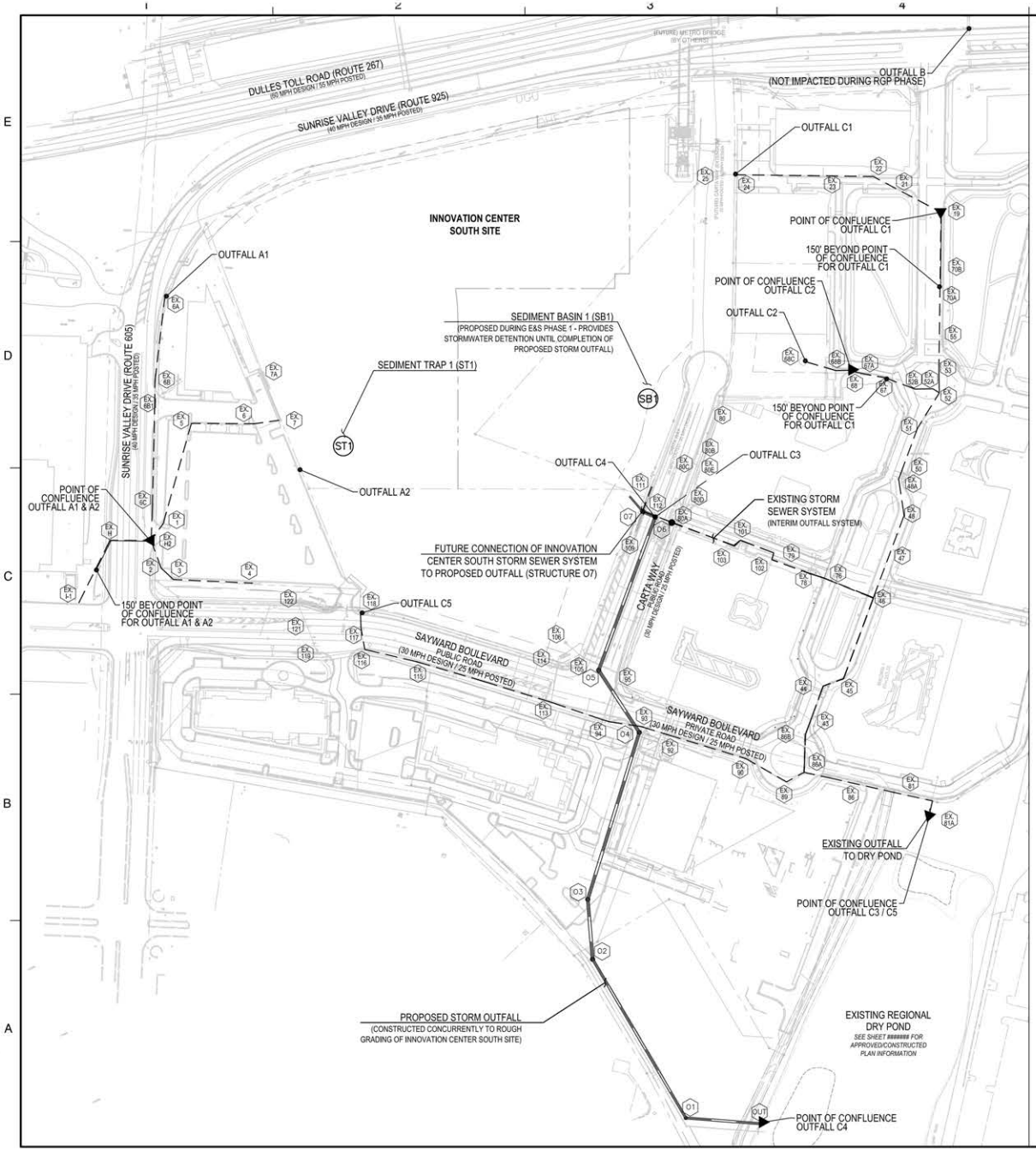

OUTFALL COMPUTATIONS

REFER TO SHEET C08.501 FOR OUTFALL NARRATIVE. THIS SHEET PROVIDES THE COMPUTATIONS TO DEMONSTRATE ADEQUACY OF THE OUTFALL FOR INNOVATION CENTER SOUTH DURING THE PHASE 1 & 2 OF EROSION & SEDIMENT CONTROL PLANS. ANALYSIS IS BASED ON A 2 YEAR STORM EVENT AND INCORPORATES THE DETENTION RECEIVED FROM THE PROPOSE SEDIMENT TRAP/BASIN. OUTFALL PIPE CAPACITY COMPUTATIONS ARE BASED ON RATIONAL METHOD (WITH SOME INFORMATION OBTAINED FROM APPROVED SITE PLANS OF DULLES STATION AT DULLES CORNER AND DULLES CORPORATE CENTER) AND THE RUNOFF COMPUTATIONS FROM THE SITE ARE BASED ON NRCS METHODOLOGY. COMPUTATIONS AND PIPE GEOMETRY ARE BASED ON DEWBERRY FIELD SURVEY AND APPROVED SITE PLANS TO DEVELOP A COMPREHENSIVE OUTFALL ANALYSIS FROM THE SITE. THE POINT OF CONFLUENCE WAS DETERMINED BASED ON THE LARGER OF THE PHASE I OR PHASE 2 DRAINAGE AREAS. COMPUTATIONS OBTAINED FROM SP #6848-SP-006 AS-BUILTS BY URBAN ENGINEERING & ASSOCIATES DATED NOV. 21, 2008, SP#9935-SP-01 BY URBAN ENGINEERING & ASSOCIATES DATED OCTOBER 29, 1999, SP#6848-002-1 BY URBAN ENGINEERING & ASSOCIATES DATED OCTOBER 28, 2008 (SEE SHEETS ####### - ####### FOR ORIGINAL COMPUTATIONS). COMPUTATIONS HAVE BEEN FORMATTED FOR THIS PLAN TO IDENTIFY THE CONDITIONS PROPOSED DURING THE ROUGH GRADING PLAN.

OUTFALL A1- PIPE FLOW FROM SUNRISE VALLEY DRIVE, NORTHWEST CORNER OF SITE

CHANGE IN RUNOFF FLOW FROM EXISTING CONDITIONS DURING E&S PHASE 1 = +0.62 CFS, PHASE 2 = +0.62 CFS

FROM	TO	EXISTING DRAINAGE AREA (acres)	RAINFALL (IN/HR)	EXISTING RUNOFF Q (cfs)	SLOPE	DIAMETER (inches)	EXISTING FULL FLOW CAPACITY (cfs)	AVAILABLE CAPACITY (cfs)	TOTAL AREA (acres)	TOTAL AREA - PHASE 1 (acres)	TOTAL AREA - PHASE 2 (acres)	COMMENTS
	6A	1.01	5.45	3.25					1.01	0.97	0.97	
6A	6B	0.47	5.45	4.84	6.60%	15	17.82	12.98	1.48	1.44	1.44	
6B	6B1	0.00	5.45	4.84	7.00%	15	18.37	13.53	1.48	1.44	1.44	
6B1	6C	0.47	5.45	6.73	1.60%	15	8.95	2.22	1.95	1.91	1.91	
6C	H2	0.00	5.45	6.73	2.00%	15	9.92	3.19	1.95	1.91	1.91	
H2	H	0.00	5.45	32.75	1.30%	36	81.50	48.75	**7.57**	7.53	7.53	*POINT OF CONFLUENCE
H	I-1	0.80	5.45	35.81	2.58%	36	115.24	79.43	8.37	8.33	8.33	*EXTENT OF REVIEW

AS IDENTIFIED IN THE TABLE ABOVE, THE POINT OF CONFLUENCE FOR OUTFALL A1 OCCURS AT STRUCTURE H, WHEN AN ADDITIONAL 5.62 ACRES JOINS THE SYSTEM'S 1.95 ACRES, WHICH ACCOUNTS FOR AT LEAST 90% OF THE SYSTEM FLOW. ADEQUACY IS EVALUATED WITHIN THE CLOSED CONDUIT SYSTEM TO A POINT 150' BEYOND THE POINT OF CONFLUENCE, WITHIN THE EXISTING CLOSED CONDUIT SYSTEM. PER PFM REQUIREMENT 6-0203.2A, THE OUTFALL IS ADEQUATE IN THE OPINION OF THE ENGINEER.

OUTFALL A2 - SHEET FLOW AT WEST SIDE OF SITE

CHANGE IN RUNOFF FLOW FROM EXISTING CONDITIONS DURING E&S PHASE 1 = -6.42 CFS, PHASE 2 = -4.59 CFS

FROM	TO	EXISTING DRAINAGE AREA	RAINFALL (IN/HR)	EXISTING RUNOFF Q (cfs)	SLOPE	DIAMETER (inches)	EXISTING FULL FLOW CAPACITY (cfs)	AVAILABLE CAPACITY (cfs)	TOTAL AREA (acres)	TOTAL AREA - PHASE 1 (acres)	TOTAL AREA - PHASE 2 (acres)	COMMENTS
7A	7	0.11	5.45	0.45					0.11	0.11	0.11	CONCRETE CHANNEL
7	6	1.47	5.45	6.86	1.90%	15	9.65	2.79	1.58	0.00	0.51	
6	5	0.36	5.45	8.53	2.40%	15	10.76	2.23	1.94	0.36	0.87	
5	1	0.10	5.45	9.02	2.70%	15	11.46	2.44	2.04	0.46	0.97	
1	H2	0.61	5.45	11.85	2.96%	18	19.44	7.59	2.65	1.07	1.58	
H2	H	0.00	5.45	32.74	1.30%	36	81.49	48.75	**7.57**	**5.99**	**6.50**	*POINT OF CONFLUENCE
H	I-1	0.80	5.45	35.79	2.58%	36	115.24	79.45	8.37	6.79	7.30	*EXTENT OF REVIEW

AS IDENTIFIED IN THE TABLE ABOVE, THE POINT OF CONFLUENCE FOR OUTFALL A2 OCCURS AT STRUCTURE H, WHEN AN ADDITIONAL4.92 ACRES JOINS THE SYSTEM'S 2.65 ACRES, WHICH ACCOUNTS FOR AT LEAST 90% OF THE SYSTEM FLOW. ADEQUACY IS EVALUATED WITHIN THE CLOSED CONDUIT SYSTEM TO A POINT 150' BEYOND THE POINT OF CONFLUENCE, WITHIN THE EXISTING CLOSED CONDUIT SYSTEM. PER PFM REQUIREMENT 6-0203.2A, THE OUTFALL IS ADEQUATE IN THE OPINION OF THE ENGINEER.

OUTFALL C1 - EXISTING STORM STRUCTURE AT NORTHEAST CORNER OF SITE

CHANGE IN RUNOFF FLOW FROM EXISTING CONDITIONS DURING E&S PHASE 1= +1.2 CFS; PHASE 2 = -0.97 CFS

FROM	TO	EXISTING DRAINAGE AREA (acres)	RAINFALL (IN/HR)	EXISTING RUNOFF Q (cfs)	SLOPE	DIAMETER (inches)	EXISTING FULL FLOW CAPACITY (cfs)	AVAILABLE CAPACITY (cfs)	TOTAL AREA (acres)	TOTAL AREA - PHASE 1 (acres)	TOTAL AREA - PHASE 2 (acres)	COMMENTS
25	24	1.47	5.45	3.61	0.38%	21	10.51	6.90	1.47	1.47	0.60	
24	23	0.38	5.45	5.37	0.55%	24	18.05	12.68	1.85	1.85	0.92	
23	22	0.05	5.45	7.29	0.55%	24	18.05	10.76	2.24	2.24	1.27	
22	21	0.05	5.45	9.21	0.54%	27	24.71	15.50	2.63	2.63	1.63	
21	19	0.09	5.45	9.65	1.77%	27	44.32	34.67	2.72	2.72	1.72	
19	70B	0.00	5.45	23.83	0.91%	33	54.27	30.44	5.32	5.32	4.31	*POINT OF CONFLUENCE
70B	70A	0.00	5.45	29.38	0.0141	36	85.19	55.81	5.32	5.32	4.31	*EXTENT OF REVIEW

AS IDENTIFIED IN THE TABLE ABOVE, THE POINT OF CONFLUENCE FOR OUTFALL C1 OCCURS AT STRUCTURE 19, WHEN AN ADDITIONAL 2.6 ACRES JOINS THE SYSTEM'S 2.72 ACRES, WHICH ACCOUNTS FOR AT LEAST 90% OF THE SYSTEM FLOW. ADEQUACY IS EVALUATED WITHIN THE CLOSED CONDUIT SYSTEM TO A POINT 150' BEYOND THE POINT OF CONFLUENCE, WITHIN THE EXISTING CLOSED CONDUIT SYSTEM. PER PFM REQUIREMENT 6-0203.2A, THE OUTFALL IS ADEQUATE IN THE OPINION OF THE ENGINEER.

OUTFALL C2 - EXISTING STORM STRUCTURE AT NORTHEAST OF SITE

CHANGE IN RUNOFF FLOW FROM EXISTING CONDITIONS DURING E&S PHASE 1 = +1.96CFS; PHASE 2 =+0.66 CFS

FROM	TO	EXISTING DRAINAGE AREA (acres)	RAINFALL (IN/HR)	EXISTING RUNOFF Q (cfs)	SLOPE	DIAMETER (inches)	EXISTING FULL FLOW CAPACITY (cfs)	AVAILABLE CAPACITY (cfs)	TOTAL AREA (acres)	TOTAL AREA - PHASE 1 (acres)	TOTAL AREA - PHASE 2 (acres)	COMMENTS
68C	68B	0.94	5.45	1.96	1.20%	15	7.61	5.65	0.94	0.94		
68B	68	0.00	5.45	4.69	1.85%	18	15.33	10.64	1.39	1.39	1.39	
68	67A	0.00	5.45	11.01	0.60%	27	25.80	14.79	2.78	2.78	2.78	*POINT OF CONFLUENCE
67A	67	0.32	5.45	12.64	0.50%	33	40.23	27.59	3.10	3.10	3.10	
67	52B	0.10	5.45	16.43	0.51%	33	40.63	24.20	3.20	3.20	3.20	*EXTENT OF REVIEW

AS IDENTIFIED IN THE TABLE ABOVE, THE POINT OF CONFLUENCE FOR OUTFALL C2 OCCURS AT STRUCTURE 68, WHEN AN ADDITIONAL1.39 ACRES JOINS THE SYSTEM'S 1.39 ACRES, WHICH ACCOUNTS FOR AT LEAST 90% OF THE SYSTEM FLOW. ADEQUACY IS EVALUATED WITHIN THE CLOSED CONDUIT SYSTEM TO A POINT 150' BEYOND THE POINT OF CONFLUENCE, WITHIN THE EXISTING CLOSED CONDUIT SYSTEM. PER PFM REQUIREMENT 6-0203.2A, THE OUTFALL IS ADEQUATE IN THE OPINION OF THE ENGINEER.

OUTFALL C3 - EXISTING STORM STRUCTURE, SEDIMENT BASIN 1 DISCHARGE POINT DURING E&S PHASE 1 ONLY

CHANGE IN RUNOFF FLOW FROM EXISTING CONDITIONS DURING E&S PHASE 1= +8.0 CFS; PHASE 2 = -21.09 CFS

FROM	TO	EXISTING DRAINAGE AREA (acres)	RAINFALL (IN/HR)	EXISTING RUNOFF Q (cfs)	SLOPE	DIAMETER (inches)	EXISTING FULL FLOW CAPACITY (cfs)*	AVAILABLE CAPACITY (cfs)	TOTAL AREA (ft/s)	TOTAL AREA - PHASE 1 (acres)	TOTAL AREA - PHASE 2 (acres)	COMMENTS
111	112	12.90	5.45	21.09	1.63%	33	72.63	51.54	25.80	26.00	12.90	
112	EX 80A	0.00	5.45	23.00	1.39%	36	84.58	61.58	26.26	26.46	13.65	
EX 80A	EX 103	0.00	5.45	27.82	0.93%	36	69.19	41.37	27.16	26.64	15.40	
EX 103	EX 101	0.30	5.45	29.30	1.83%	33	74.96	47.66	27.95	27.43	16.60	
EX 101	EX 102		5.45	24.69	1.10%	33	55.69	31.00	27.95	27.43	16.60	
EX 102	EX 79		5.45	24.69	2.13%	33	77.46	52.77	27.95	27.43	16.60	
EX 79	EX 78	0.09	5.45	27.20	0.93%	33	51	23.80	28.04	27.52	16.69	
EX 78	EX 76	0.09	5.45	27.96	0.96%	33	52.01	24.05	28.13	27.61	16.78	
EX 76	EX 46	0.00	5.45	30.36	0.60%	42	77.98	47.62	28.13	27.61	16.78	
EX 46	EX45	0.00	5.45	104.1495	1.00%	54	197.23	93.08	28.13	27.61	16.78	
EX 45	EX 44	0.45	5.45	108.673	1.01%	54	**197.94**	89.27	28.58	28.06	17.23	
EX 44	EX43	0.00	5.45	111.0165	1.10%	54	**206.88**	95.86	28.58	28.06	17.23	
EX 43	EX 86B	0.00	5.45	111.289	0.68%	54	**163.59**	52.30	28.58	28.06	17.23	
EX 86B	EX 86A	0.00	5.45	111.289	0.69%	54	**162.51**	51.22	28.58	28.06	17.23	
EX 86A	EX 86	0.00	5.45	129.274	0.80%	54	**176.28**	47.01	28.58	28.06	17.23	
EX 86	EX 81	0.69	5.45	132.653	0.81%	54	**177.28**	44.63	29.27	28.75	17.92	
EX 81	EX 81A	0.34	5.45	143.9345	1.04%	54	**201.03**	57.10	29.61	29.09	18.26	*EXTENT OF REVIEW

OUTFALL C4 - PROPOSED STORM SYSTEM, SEDIMENT BASIN 1 DISCHARGE POINT DURING E&S PHASE 2 ONLY

CHANGE IN RUNOFF FLOW FROM EXISTING CONDITIONS DURING E&S PHASE 1= +0 CFS; PHASE 2 =+68.5 CFS

FROM	TO	EXISTING DRAINAGE AREA (acres)	RAINFALL (IN/HR)	EXISTING RUNOFF Q (cfs)	SLOPE	DIAMETER (inches)	FULL FLOW CAPACITY (cfs)	AVAILABLE CAPACITY (cfs)	TOTAL AREA (ft/s)	TOTAL AREA - PHASE 1 (acres)	TOTAL AREA - PHASE 2 (acres)	COMMENTS
O7	O6	13.60	5.45	**83.70**	0.50%	38.0	100.70	100.70	13.60	0.00	13.60	
O6	O5	0.00	5.45	**83.27**	0.50%	38.0	100.65	100.65	13.60	0.00	13.60	
O5	O4	0.00	5.45	**82.99**	0.50%	38.0	100.52	100.52	13.60	0.00	13.60	
O4	O3	0.00	5.45	**82.79**	0.75%	38.0	123.34	123.34	13.60	0.00	13.60	
O3	O2	0.00	5.45	**82.68**	1.74%	38.0	188.16	188.16	13.60	0.00	13.60	
O2	O1	0.00	5.45	**82.53**	3.10%	42.0	177.12	177.12	13.60	0.00	13.60	
O1	OUTPOND	0.00	5.45	**82.36**	1.00%	42.0	98.23	98.23	13.60	0.00	13.60	*EXTENT OF REVIEW

OUTFALL C5 - EXISTING STORM STRUCTURE AT SOUTHWEST CORNER OF SITE

CHANGE IN RUNOFF FLOW FROM EXISTING CONDITIONS DURING E&S PHASE 1= +4.43CFS; PHASE 2 =+3.84 CFS

FROM	TO	EXISTING DRAINAGE AREA	RAINFALL (IN/HR)	EXISTING RUNOFF Q (cfs)	SLOPE	DIAMETER (inches)	EXISTING FULL FLOW CAPACITY (cfs)	AVAILABLE CAPACITY (cfs)	TOTAL AREA (acres)	TOTAL AREA - PHASE 1 (acres)	TOTAL AREA - PHASE 2 (acres)	COMMENTS
118	117	1.18	5.45	5.79	1.01%	18	11.36	5.57	1.18	4.10	3.75	
117	116	0.11	5.45	6.27	1.21%	18	12.43	6.16	1.29	4.21	3.86	
116	115	0.19	5.45	4.36	0.34%	24	14.19	9.83	2.14	5.06	4.71	
115	113	0.14	5.45	4.97	0.46%	24	15.39	10.42	2.28	5.20	4.85	
113	94	0.14	5.45	2.49	0.49%	24	17.03	14.54	2.72	5.64	5.29	
94	93	0.00	5.45	5.23	0.60%	24	18.85	13.62	3.90	6.82	6.47	
93	92	0.00	5.45	5.23	0.52%	24	17.55	12.32	3.90	6.82	6.47	
92	90	0.00	5.45	11.96	0.70%	27	27.87	15.91	5.34	8.26	7.91	
90	89	0.59	5.45	15.29	1.10%	27	34.94	19.65	6.06	8.98	8.54	
89	86A	0.00	5.45	15.29	1.81%	27	44.82	29.53	6.06	8.98	8.54	
EX 86A	EX 86	0.00	5.45	144.57	0.80%	54	176.28	31.71	22.12	24.52	13.25	
EX 86	EX 81	0.69	5.45	147.95	0.81%	54	177.28	29.33	22.81	25.21	13.94	
EX 81	EX 81A	0.34	5.45	149.53	1.04%	54	201.03	51.50	23.15	25.55	14.28	*EXTENT OF REVIEW

AS IDENTIFIED IN THE TABLE ABOVE, THE POINT OF CONFLUENCE FOR OUTFALL C3, C4, AND C5 OCCURS AT THE EXISTING DRY POND DESIGNED TO SERVE THE EXISTING OUTFALL PER APPROVED PLAN 6848-Pknown-002. ADEQUACY IS EVALUATED WITHIN THE CLOSED CONDUIT SYSTEM TO THIS OUTFALL POINT PER PFM REQUIREMENT 6-0203.2C. OUTFLOW FROM THE POND WILL DISCHARGE THROUGH THE DROP-INLET SPILLWAY AND INTO A SHORT OPEN CHANNEL BEFORE DRAINING INTO MERRYBROOK RUN LOCATED APPROXIMATELY 90FT DOWNSTREAM OF THE SPILLWAY. THE OPEN CHANNEL DOWNSTREAM OF THE SPILLWAY IS MOSTLY ARMORED WITH RIP RAP AND BASED ON FIELD OBSERVATION IS IN STABLE CONDITION. THE DOWNSTREAM EXTENT OF REVIEW FOR OUTFALL EVALUATION IS A MERRYBROOK RUN WHERE THE TOTAL DRAINAGE AREA IS GREATER THAN ONE SQUARE MILE. THE OUTFALL IS ADEQUATE IN THE OPINION OF THE ENGINEER.

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

KEY PLAN

SCALE NORTH

SCALE IN FEET
1" = 100'
1 INCH

VCS-83

No.	DATE	BY	Description
REVISIONS			

DRAWN BY	MLJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE
E&S OUTFALL COMPUTATIONS

SP NO. #6848-SP-014

C08.502
(RGP SHEET 9)
SECTION NO. C08-E&S

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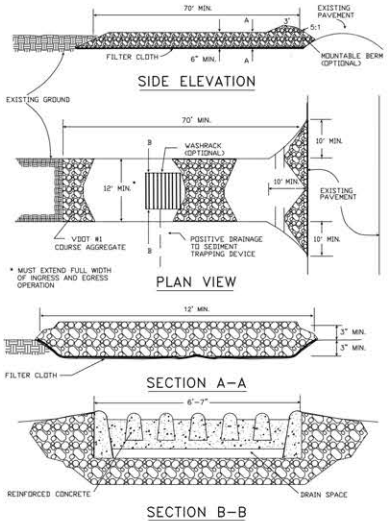
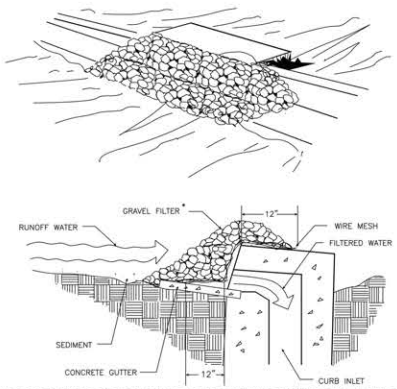
Tue, Nov 03 2015 - 2:23:58pm

STONE CONSTRUCTION ENTRANCE



SOURCE: ADAPTED from 1983 Maryland Standards for Soil erosion and Sediment Control, and Va. DSWC — Plate 3.02-1

GRAVEL CURB INLET SEDIMENT FILTER



*CONTRACTOR TO ENSURE THAT RUNOFF CAN ENTER THE CURB INLET. THIS MAY REQUIRE THAT THE GUTTER IS NOT INSTALLED ADJACENT TO THE INLET UNTIL THE SURFACE COURSE OF THE ROADWAY IS CONSTRUCTED.

SPECIFIC APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE AT CURB INLETS WHERE PONDING IN FRONT OF THE STRUCTURE IS NOT LIKELY TO CAUSE INCONVENIENCE OR DAMAGE TO ADJACENT STRUCTURES AND UNPROTECTED AREAS.

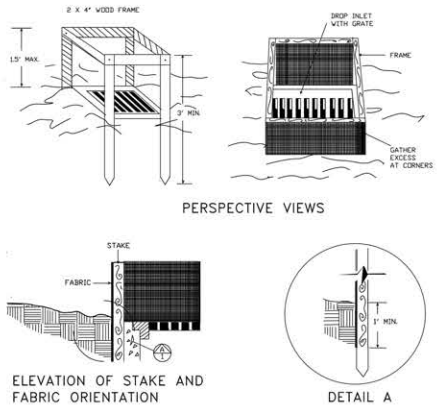
* GRAVEL SHALL BE VDOT #3, #357 OR 5 COARSE AGGREGATE.

SOURCE: VA. DSWC — PLATE 3.07-6

NOTES:

1. THE EROSION AND SEDIMENT CONTROL DETAILS SHOWN WITHIN THIS PLAN SET ARE INTENDED TO PROVIDE A REFERENCE TO THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH). THE GRAPHIC DETAILS PROVIDED HAVE BEEN EXTRACTED FROM THE VESCH. CONTRACTOR SHOULD VERIFY FAMILIARITY WITH THE VESCH AND THE TEXT ASSOCIATED WITH THE REFERENCED DETAILS.
2. REFER TO EROSION AND SEDIMENT CONTROL NARRATIVE FOR ADDITIONAL INFORMATION.
3. THE HEIGHT OF SILT FENCE SHALL BE AT LEAST 16 INCHES ABOVE THE EXISTING GROUND SURFACE AND SHALL NOT EXCEED 34 INCHES.
4. INLET PROTECTION IS TO BE PROVIDED IN ORDER TO ENSURE THAT FLOW WILL ENTER THE INLET DURING ROAD PAVING AND WHEN GUTTER PAN ELEVATION IS HIGHER THAN THE TEMPORARY ROAD SURFACE.

SILT FENCE DROP INLET PROTECTION

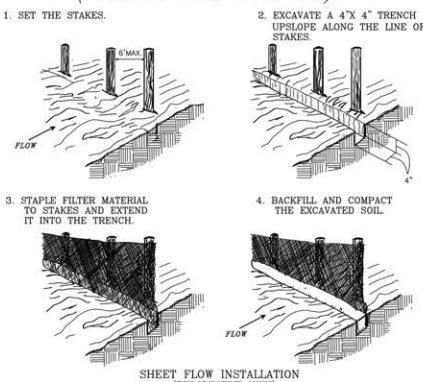


SPECIFIC APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE THE INLET DRAINS A RELATIVELY FLAT AREA (SLOPE NO GREATER THAN 5%) WHERE THE INLET SHEET OR OVERLAND FLOWS (NOT EXCEEDING 1 C.F.S.) ARE TYPICAL. THE METHOD SHALL NOT APPLY TO INLETS RECEIVING CONCENTRATED FLOWS, SUCH AS IN STREET OR HIGHWAY MEDIANS.

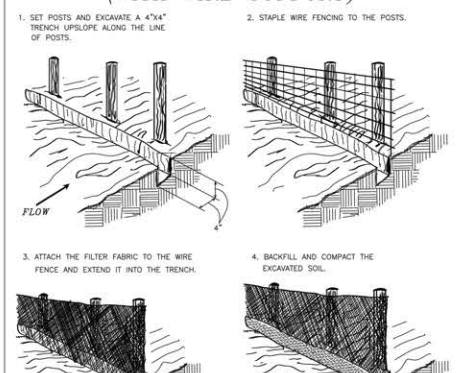
SOURCE: N.C. Erosion and Sediment Control Planning and Design Manual, 1988 — PLATE 3.07-1

CONSTRUCTION OF A SILT FENCE (WITHOUT WIRE SUPPORT)



SOURCE: Adapted from Installation of Straw and Fabric Filter Barriers for Sediment Control, VA. DSWC Sherwood and Wyant — PLATE 3.05-2

CONSTRUCTION OF A SILT FENCE (WITH WIRE SUPPORT)



SOURCE: Adapted from Installation of Straw and Fabric Filter Barriers for Sediment Control, Sherwood & Wyant — PLATE 3.05-1

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

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May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

KEY PLAN

SCALE NORTH

N/A

No.	DATE	BY	Description

REVISIONS

DRAWN BY	MCJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE

EROSION & SEDIMENT CONTROL DETAILS

SP NO. #6848-SP-014

C08.601
(RGP SHEET 10)
SECTION NO. C08-E&S

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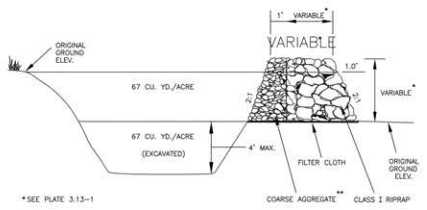
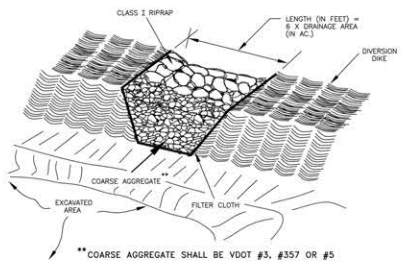
Tue, Nov 03 2015 - 14:23pm

*SEE PIPE OUTLET SEDIMENT TRAP DETAIL ON THIS SHEET - TO BE USED IN LIEU OF RIP-RAP OUTLET.

TEMPORARY SEDIMENT TRAP



CROSS SECTION OF OUTLET



**COARSE AGGREGATE SHALL BE VDOT #3, #357 OR #5

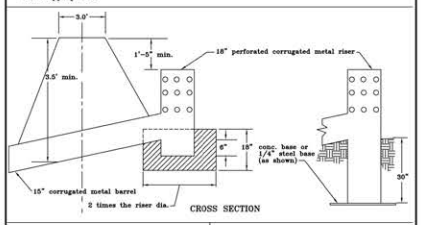
OUTLET (PERSPECTIVE VIEW)

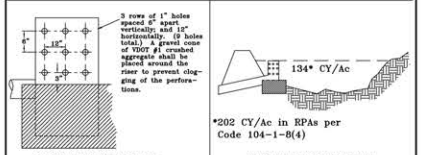
SOURCE: VA. DSWC

PLATE. 3.13-2

FAIRFAX COUNTY PUBLIC FACILITIES MANUAL

These are the recommended standard specifications for the pipe outlet sediment trap. The design engineer may alter the pipe and perforation sizes, provided engineering calculations can justify it. The desired drawdown times are a minimum of 4 hours and a maximum of 40 hours. The perforation size and spacing as indicated below represents approximately 17 hours of drawdown time. When selecting a drawdown time, the designer must consider the proximity to existing residences and the safety of small children; thus, a shorter drawdown time. For remote sites, a longer drawdown time would be more appropriate.



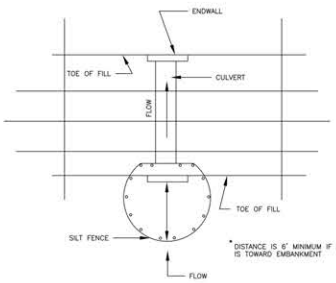


PERFORATED RISER DETAIL

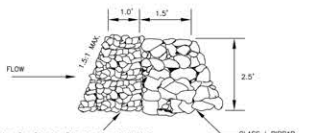
STORAGE VOLUME REQUIRED

Ref. Sec. 11-0109.7, 11-0110.3, 11-0110.3D	PIPE OUTLET SEDIMENT TRAP 1 TO 3 AC OF DRAINAGE AREA	PLATE NO. 2-11	STD. NO.
Rev. 1-00, 2011 Reprint			

SILT FENCE CULVERT INLET PROTECTION



*OPTIONAL STONE COMBINATION

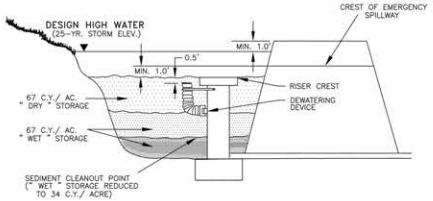


*VDOT #3, #357, #5, #56 OR #57 COARSE AGGREGATE TO REPLACE SILT FENCE IN " HORSESHOE " WHEN HIGH VELOCITY OF FLOW IS EXPECTED

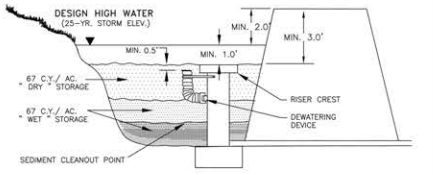
SOURCE: ADAPTED from VDOT Standard Sheets and Va. DSWC

PLATE. 3.08-1

SEDIMENT BASIN SCHEMATIC ELEVATIONS



DESIGN ELEVATIONS WITH EMERGENCY SPILLWAY



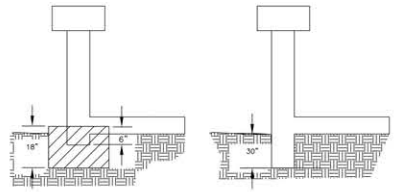
DESIGN ELEVATIONS WITHOUT EMERGENCY SPILLWAY

(RISER PASSES 25-YR. EVENT)

SOURCE: VA. DSWC

PLATE. 3.14-2

RISER PIPE BASE CONDITIONS



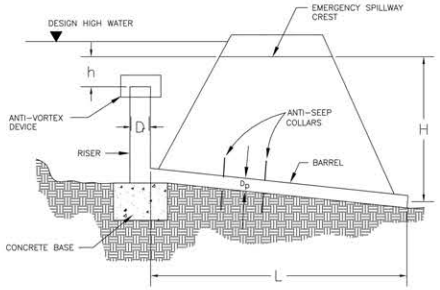
TYPICAL CONCRETE BASE

TYPICAL STEEL BASE

SOURCE: VA. DSWC

PLATE. 3.14-3

PRINCIPAL SPILLWAY DESIGN



H = HEAD ON PIPE THROUGH EMBANKMENT
h = HEAD OVER RISER CREST
L = LENGTH OF PIPE THROUGH EMBANKMENT
D_p = DIAMETER OF PIPE THROUGH EMBANKMENT
D_r = DIAMETER OF RISER

SOURCE: VA. DSWC

PLATE. 3.14-7

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

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May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CAP
COPY A SIGNED
Lic. No. 048560
5/26/16
PROFESSIONAL ENGINEER

KEY PLAN

SCALE NORTH

N/A

No.	DATE	BY	Description
REVISIONS			

DRAWN BY	MLJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE

EROSION & SEDIMENT CONTROL DETAILS

SP NO. #6848-SP-014

C08.602
(RGP SHEET 11)

SECTION NO. C08-E&S

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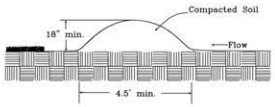
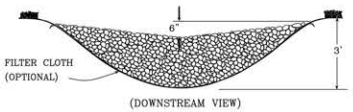
TEMPORARY DIVERSION DIKE



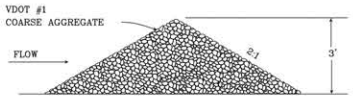
SOURCE: VA. DSWC PLATE 3.09-1

ROCK CHECK DAM

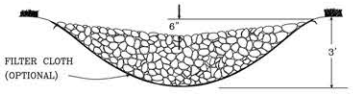
2 ACRES OR LESS OF DRAINAGE AREA:



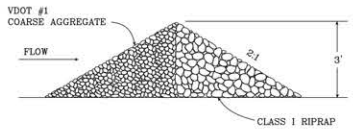
(DOWNSTREAM VIEW)



2-10 ACRES OF DRAINAGE AREA:

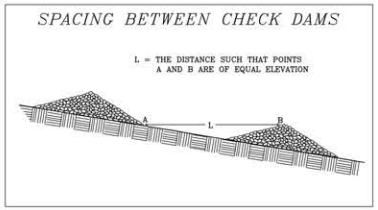


(DOWNSTREAM VIEW)



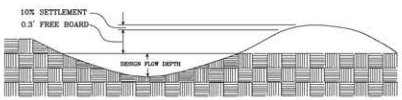
SOURCE: VA. DSWC PLATE. 3.20-1

SPACING BETWEEN CHECK DAMS

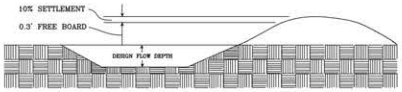


SOURCE: VA. DSWC PLATE. 3.20-2

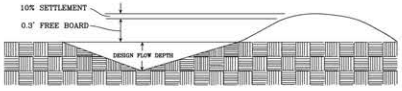
DIVERSIONS



TYPICAL PARABOLIC DIVERSION



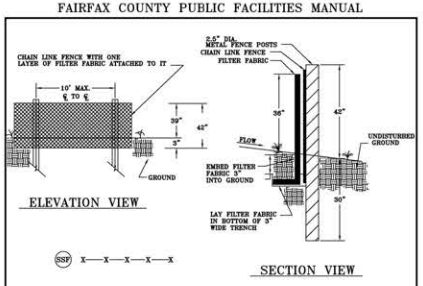
TYPICAL TRAPEZOIDAL DIVERSION



TYPICAL VEE-SHAPED DIVERSION

Source: Va. DSWC Plate 3.12-1

FAIRFAX COUNTY PUBLIC FACILITIES MANUAL



SUPER SILT FENCE
NO SCALE

FENCING

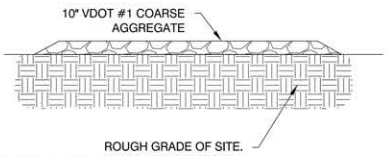
Chain link fence shall be 39" above grade with 3" embedded for a total fabric width of 42". The post shall be 42" above grade with 30" placed below grade (without concrete) for a total length of 72".

NOTES

1. Chain link fence shall be fastened securely to fence posts with wire ties.
2. Filter fabric shall be fastened securely to chain link fence with ties spaced horizontally 24" at the top and midsection.
3. Physical properties of the filter fabric shall conform to the latest edition of THE VIRGINIA EROSION & SEDIMENT CONTROL HANDBOOK.
4. When two sections of filter fabric adjoin each other, they shall be overlapped by 6".
5. Maintenance shall be performed as needed and material shall be removed when sediment build-up reaches 50% of the height of the super silt fence.

Ref. Sec. 11-0110.3, 11-0110.3J	SUPER SILT FENCE NO SCALE	PLATE NO.	STD. NO.
Rev. 1-00, 2011 Reprint		7-11	

3.03 CONSTRUCTION ROAD STABILIZATION



(NOT TO SCALE)

GRAPHIC PROVIDED FOR CONTEXT. DEPTH OF VDOT COARSE AGGREGATE MAY BE A MINIMUM OF 6" BUT IS REQUIRED TO BE 8-10" WHEN 'HEAVY DUTY' (DEFINED IN TABLE 3.02-A OF THE VAESCH) TRAFFIC IS ANTICIPATED. REFER TO VA EROSION AND SEDIMENT CONTROL HANDBOOK FOR ADDITIONAL INFORMATION.

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CHRISTOPHER A. PHILLIPS
Lic. No. 048560
PROFESSIONAL ENGINEER

KEY PLAN

SCALE NORTH

N/A

No.	DATE	BY	Description
REVISIONS			

DRAWN BY MLJ
APPROVED BY CAP
CHECKED BY CJD
DATE SEPTEMBER 2014

TITLE

EROSION & SEDIMENT CONTROL DETAILS

SP NO. #6848-SP-014

C08.603
(RGP SHEET 12)
SECTION NO. C08-E&S

P:\PROJECT\50587254 Innovation South\CAD\CIVIL-SITE\Sheets\SITE PLAN\EROSION AND SEDIMENT CONTROL DETAILS.dwg
Tue, Nov 03 2015 - 2:11:08pm

GENERAL LAND CONSERVATION NOTES
(FAIRFAX COUNTY PUBLIC FACILITIES MANUAL–SECTION 11)

11-0406.1 (38–93–PFM) NO DISTURBED AREA WHICH IS NOT ACTIVELY BEING WORKED SHALL REMAIN DENUDED FOR MORE THAN 14 CALENDAR DAYS UNLESS OTHERWISE AUTHOR–IZED BY THE DIRECTOR.

11-0406.2 ALL E&S CONTROL MEASURES APPROVED WITH THE PHASE I E&S CONTROL PLAN SHALL BE PLACED AS THE FIRST STEP IN GRADING.

11-0406.3 (38–93–PFM) ALL STORM AND SANITARY SEWER LINES NOT IN STREETS SHALL BE SEEDED AND MULCHED WITHIN 14 DAYS AFTER BACKFILL. NO MORE THAN 500' (150 M) SHALL BE OPEN AT ANY ONE TIME.

11-0406.4 (38–93–PFM) ELECTRIC POWER, TELEPHONE AND GAS SUPPLY TRENCHES SHALL BE COMPACTED, SEEDED AND MULCHED WITHIN 14 DAYS AFTER BACKFILL.

11-0406.5 (38–93–PFM) ALL TEMPORARY EARTH BERMS, DIVERSIONS AND SEDIMENT CONTROL DAMS SHALL BE SEEDED AND MULCHED FOR TEMPORARY VEGETATIVE COVER IMMEDIATELY (AS SOON AS POSSIBLE BUT NO LATER THAN 48 HR) AFTER COMPLETION OF GRADING. STRAW OR HAY MULCH IS REQUIRED. ALL SOIL STOCKPILES SHALL BE SEEDED AND MULCHED WITHIN 14 DAYS AFTER GRADING.

11-0406.6 DURING CONSTRUCTION, ALL STORM SEWER INLETS SHALL BE PROTECTED BY SEDIMENT TRAPS, MAIN–TAINED AND MODIFIED DURING CONSTRUCTION PROGRESS AS REQUIRED.

11-0406.7 ANY DISTURBED AREA NOT COVERED BY § 11–0406.1 AND NOT PAVED, SODDED OR BUILT UPON BY NOVEMBER 1, OR DISTURBED AFTER THAT DATE, SHALL BE MULCHED IMMEDIATELY WITH HAY OR STRAW MULCH AT THE RATE OF 2 TONS/ACRE (4483 KG/HA) AND OVER–SEEDED BY APRIL 15.

11-0406.8 AT THE COMPLETION OF ANY PROJECT CON–STRUCTION AND PRIOR TO BOND RELEASE, ALL TEMPORARY SEDIMENT CONTROLS SHALL BE REMOVED AND ALL DENUDED AREAS SHALL BE STABILIZED.

MINIMUM STANDARDS

MS–1. PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN 7 DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN 30 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE YEAR. (SEE TEMPORARY AND PERMANENT STABILIZATION ON THIS SHEET)

MS–2. DURING CONSTRUCTION OF THE PROJECT, SOIL STOCKPILES AND BORROW AREAS SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. THE APPLICANT IS RESPONSIBLE FOR THE TEMPORARY PROTECTION AND PERMANENT STABILIZATION OF ALL SOIL STOCKPILES ON SITE AS WELL AS BORROW AREAS AND SOIL INTENTIONALLY TRANSPORTED FROM THE PROJECT SITE.

MS–3. A PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED ON DENUDED AREAS NOT OTHERWISE PERMANENTLY STABILIZED. PERMANENT VEGETATION SHALL NOT BE CONSIDERED ESTABLISHED UNTIL A GROUND COVER IS ACHIEVED THAT IS UNIFORM, MATURE ENOUGH TO SURVIVE, AND WILL INHIBIT EROSION.

MS–4. SEDIMENT BASINS AND TRAPS, PERIMETER DIKES, SEDIMENT BARRIERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP IN LAND–DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UPSLOPE LAND DISTURBANCE TAKES PLACE.

MS–5. STABILIZATION MEASURES SHALL BE APPLIED TO EARTHEN STRUCTURES SUCH AS DAMS, DIKES, AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION.

MS–6. SEDIMENT TRAPS AND SEDIMENT BASINS SHALL BE DESIGNED AND CONSTRUCTED BASED UPON THE TOTAL DRAINAGE AREA TO BE SERVED BY THE TRAP OR BASIN.

A. THE MINIMUM STORAGE CAPACITY OF A SEDIMENT TRAP SHALL BE 134 CUBIC YARDS PER ACRE OF DRAINAGE AREA, AND THE TRAP SHALL ONLY CONTROL DRAINAGE AREAS LESS THAN THREE ACRES.

B. SURFACE RUNOFF FROM DRAINAGE AREAS GREATER THAN OR EQUAL TO THREE ACRES SHALL BE CONTROLLED BY SEDIMENT BASINS. THE MINIMUM STORAGE CAPACITY FOR A SEDIMENT BASIN SHALL BE 134 CUBIC YARDS PER ACRE OF DRAINAGE AREA. THE OUTFALL SYSTEM SHALL, AT A MINIMUM, MAINTAIN THE STRUCTURAL INTEGRITY OF THE BASIN DURING A TWENTY–FIVE YEAR STORM OF 24–HOUR DURATION. RUNOFF COEFFICIENTS USED IN RUNOFF CALCULATIONS SHALL APPLY TO A BARE EARTH CONDITION OR THOSE CONDITIONS EXPECTED TO EXIST WHILE THE SEDIMENT BASIN IS UTILIZED.

MS–7. CUT AND FILL SLOPES SHALL BE DESIGNED AND CONSTRUCTED IN A MANNER THAT WILL MINIMIZE EROSION. SLOPES THAT ARE FOUND TO BE ERODING EXCESSIVELY WITHIN ONE YEAR OF PERMANENT STABILIZATION SHALL BE PROVIDED WITH ADDITIONAL SLOPE STABILIZING MEASURES UNTIL THE PROBLEM IS CORRECTED.

MS–8. CONCENTRATED RUNOFF SHALL NOT FLOW DOWN CUT OR FILL SLOPES UNLESS CONTAINED WITHIN AN ADEQUATE TEMPORARY OR PERMANENT CHANNEL, FLUME, OR SLOPE DRAIN STRUCTURE.

MS–9. WHENEVER WATER SEEPS FROM A SLOPE FACE, ADEQUATE DRAINAGE OR OTHER PROTECTION SHALL BE PROVIDED.

MS–10. ALL STORM SEWER INLETS THAT ARE MADE OPERABLE DURING CONSTRUCTION SHALL BE PROTECTED SO THAT SEDIMENT–LADEN WATER CANNOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT.

MS–11. BEFORE NEWLY CONSTRUCTED STORMWATER CONVEYANCE CHANNELS OR PIPES ARE MADE OPERATIONAL, ADEQUATE OUTLET PROTECTION AND ANY REQUIRED TEMPORARY OR PERMANENT LINING SHALL BE INSTALLED IN BOTH THE CONVEYANCE CHANNEL AND RECEIVING CHANNEL.

MS–12. WHEN WORK IN A LIVE WATERCOURSE IS PERFORMED, PRECAUTIONS SHALL BE TAKEN TO MINIMIZE ENCROACHMENT, CONTROL SEDIMENT TRANSPORT, AND STABILIZE THE WORK AREA TO THE GREATEST POSSIBLE EXTENT DURING CONSTRUCTION. NON–ERODIBLE MATERIAL SHALL BE USED FOR THE CONSTRUCTION OF CAUSEWAYS AND COFFERDAMS. EARTHEN FILL MAY BE USED FOR THESE STRUCTURES IF ARMORED BY NON–ERODIBLE COVER MATERIALS.

MS–13. WHEN A LIVE WATERCOURSE MUST BE CROSSED BY CONSTRUCTION VEHICLES MORE THAN TWICE IN ANY SIX–MONTH PERIOD, A TEMPORARY VEHICULAR STREAM CROSSING CONSTRUCTED OF NON–ERODIBLE MATERIAL SHALL BE PROVIDED.

MS–14. ALL APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS PERTAINING TO WORKING IN OR CROSSING LIVE WATERCOURSES SHALL BE MET.

MS–15. THE BED AND BANKS OF A WATERCOURSE SHALL BE STABILIZED IMMEDIATELY AFTER WORK IN THE WATERCOURSE IS COMPLETED.

MS–16. UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING STANDARDS IN ADDITION TO OTHER APPLICABLE CRITERIA:

A. NO MORE THAN 500 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME.
B. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES.
C. EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF–SITE PROPERTY.
D. MATERIAL USED FOR BACKFILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ORDER TO MINIMIZE EROSION AND PROMOTE STABILIZATION. (GENERAL LAND CONSERVATION NOTE #4)
E. RE–STABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THESE REGULATIONS.
F. APPLICABLE SAFETY REGULATIONS SHALL BE COMPLIED WITH.

MS–17. WHERE CONSTRUCTION VEHICLE ACCESS ROUTES INTERSECT PAVED OR PUBLIC ROADS, PROVISIONS SHALL BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT BY VEHICULAR TRACKING ONTO THE PAVED SURFACE. WHERE SEDIMENT IS TRANSPORTED ONTO A PAVED OR PUBLIC ROAD SURFACE, THE ROAD SURFACE SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER. THIS PROVISION SHALL APPLY TO INDIVIDUAL DEVELOPMENT LOTS AS WELL AS TO LARGER LAND–DISTURBING ACTIVITIES.

MS–18. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION OR AFTER THE TEMPORARY MEASURES NO LONGER NEEDED, UNLESS OTHERWISE AUTHORIZED BY THE LOCAL PROGRAM. TRAPPED SEDIMENT AND DISTURBED SOIL AREAS RESULTING FROM THE DISPOSITION OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION AND SEDIMENTATION.

MS–19. PROPERTIES AND WATERWAYS DOWNSTREAM FROM DEVELOPMENT SITES SHALL BE PROTECTED FROM SEDIMENT DEPOSITION, EROSION, AND DAMAGE DUE TO INCREASES IN VOLUME, VELOCITY, AND PEAK FLOW RATES OF STORMWATER RUNOFF FOR THE STATED FREQUENCY STORM OF 24–HOUR DURATION IN ACCORDANCE WITH THE FOLLOWING STANDARDS AND CRITERIA:

A. CONCENTRATED STORMWATER RUNOFF LEAVING A DEVELOPMENT SITE SHALL BE DISCHARGED DIRECTLY INTO AN ADEQUATE NATURAL OR MAN–MADE RECEIVING CHANNEL, PIPE, OR STORM SEWER SYSTEM. FOR THOSE SITES WHERE RUNOFF IS DISCHARGED INTO A PIPE OR PIPE SYSTEM, DOWNSTREAM STABILITY ANALYSES AT THE OUTFALL OF THE PIPE OR PIPE SYSTEM SHALL BE PERFORMED.
B. ADEQUACY OF ALL CHANNELS AND PIPES SHALL BE VERIFIED IN THE FOLLOWING MANNER:
I. THE APPLICANT SHALL DEMONSTRATE THAT THE TOTAL DRAINAGE AREA TO THE POINT OF ANALYSIS WITHIN THE CHANNEL IS ONE HUNDRED TIMES GREATER THAN THE CONTRIBUTING DRAINAGE AREA OF THE PROJECT IN QUESTION; OR
II. (A) NATURAL CHANNELS SHALL BE ANALYZED BY THE USE OF A TWO–YEAR STORM TO VERIFY THAT STORMWATER WILL NOT OVERTOP CHANNEL BANKS NOR CAUSE EROSION OF CHANNEL BED OR BANKS; AND
(B) ALL PREVIOUSLY CONSTRUCTED MAN–MADE CHANNELS SHALL BE ANALYZED BY THE USE OF A TEN–YEAR STORM TO VERIFY THAT STORMWATER WILL NOT OVERTOP ITS BANKS AND BY THE USE OF A TEN–YEAR STORM TO DEMONSTRATE THAT STORMWATER WILL NOT CAUSE EROSION OF CHANNEL BED OR BANKS; AND
(C) PIPES AND STORM SEWER SYSTEMS SHALL BE ANALYZED BY THE USE OF A TEN–YEAR STORM TO VERIFY THAT STORMWATER WILL BE CONTAINED WITHIN THE PIPE OR SYSTEM.
C. IF EXISTING NATURAL RECEIVING CHANNELS OR PREVIOUSLY CONSTRUCTED MAN–MADE CHANNELS OR PIPES ARE NOT ADEQUATE, THE APPLICANT SHALL:
I. IMPROVE THE CHANNEL TO A CONDITION WHERE A TEN–YEAR STORM WILL NOT OVERTOP THE BANKS AND A TWO–YEAR STORM WILL NOT CAUSE EROSION TO THE CHANNEL BED OR BANKS; OR
II. IMPROVE THE PIPE OR PIPE SYSTEM TO A CONDITION WHERE THE TEN–YEAR STORM IS CONTAINED WITHIN THE APPURTENANCES; OR
III. DEVELOP A SITE DESIGN THAT WILL NOT CAUSE THE PRE–DEVELOPMENT PEAK RUNOFF RATE FROM A TWO–YEAR STORM TO INCREASE WHEN RUNOFF OUTFALLS INTO A NATURAL CHANNEL, OR WILL NOT CAUSE THE PRE–DEVELOPMENT PEAK RUNOFF RATE FROM A TEN–YEAR STORM TO INCREASE WHEN RUNOFF OUTFALLS INTO A MAN–MADE CHANNEL; OR
IV. PROVIDE A COMBINATION OF CHANNEL IMPROVEMENT, STORMWATER DETENTION, OR OTHER MEASURES TO PREVENT DOWNSTREAM EROSION SATISFACTORY TO THE PLAN–APPROVING AUTHORITY.
D. THE APPLICANT SHALL PROVIDE EVIDENCE OF PERMISSION TO MAKE THE IMPROVEMENTS.
E. ALL HYDROLOGIC ANALYSES SHALL BE BASED ON THE EXISTING WATERSHED CHARACTERISTICS AND THE ULTIMATE DEVELOPMENT OF THE SUBJECT PROJECT.
F. IF THE APPLICANT CHOOSES AN OPTION THAT INCLUDES STORMWATER DETENTION, HE SHALL OBTAIN APPROVAL FROM THE LOCALITY OF A PLAN FOR THE LONG–TERM MAINTENANCE REQUIREMENTS OF THE FACILITY AND DESIGNATE THE PERSON RESPONSIBLE FOR PERFORMING THE MAINTENANCE.
G. OUTFALL FROM A DETENTION FACILITY SHALL BE DISCHARGED TO A RECEIVING CHANNEL, AND ENERGY DISSIPATERS PLACED AT THE OUTFALL OF PIPES TO PREVENT EROSION FACILITIES AS NECESSARY TO PROVIDE A STABLE TRANSITION FROM THE FACILITY TO THE RECEIVING WATERS.
H. ALL ON–SITE CHANNELS MUST BE VERIFIED TO BE ADEQUATE.
I. INCREASED VOLUMES OF SHEET FLOWS CAUSING EROSION OR SEDIMENTATION ON ADJACENT PROPERTY SHALL BE DIVERTED TO A STABLE OUTLET, ADEQUATE CHANNEL, PIPE OR PIPE SYSTEM, OR TO A DETENTION FACILITY.
J. IN APPLYING THESE STORMWATER RUNOFF CRITERIA, INDIVIDUAL LOTS OR PARCELS IN A RESIDENTIAL, COMMERCIAL, OR INDUSTRIAL DEVELOPMENT SHALL NOT BE CONSIDERED TO BE SEPARATE DEVELOPMENT PROJECTS. INSTEAD, THE DEVELOPMENT AS A WHOLE SHALL BE TREATED AS A SINGLE PROJECT. HYDROLOGIC PARAMETERS THAT REFLECT THE ULTIMATE DEVELOPMENT STATE SHALL BE USED IN ALL ENGINEERING CALCULATIONS.
K. ALL MEASURES USED TO PROTECT PROPERTIES AND WATERWAYS SHALL BE EXECUTED IN A MANNER THAT MINIMIZES THE IMPACT ON THE PHYSICAL, CHEMICAL, AND BIOLOGICAL INTEGRITY OF RIVERS, STREAMS, AND OTHER STATE WATERS.

GENERAL EROSION AND SEDIMENT CONTROL NOTES (VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK – CHAPTER 6)

ES–1 UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND VIRGINIA REGULATIONS 4VAC50–30 EROSION AND SEDIMENT CONTROL REGULATIONS.

ES–2 THE PLAN APPROVING AUTHORITY MUST BE NOTIFIED ONE WEEK PRIOR TO THE PRE–CONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE PRE–CONSTRUCTION OF LAND–DISTURBING ACTIVITY, AND ONE WEEK PRIOR TO THE FINAL INSPECTION.

ES–3 ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CLEARING.

ES–4 A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.

ES–5 PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING, BUT NOT LIMITED TO, OFF–SITE BORROW OR WASTE AREAS), THE CONTRACTOR SHALL SUBMIT A SUPPLEMENTARY EROSION CONTROL PLAN TO THE OWNER FOR REVIEW AND APPROVAL BY THE PLAN APPROVING AUTHORITY.

ES–6 THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE PLAN APPROVING AUTHORITY.

ES–7 ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT AL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS ACHIEVED.

ES–8 DURING DEWATERING OPERATIONS, WATER WILL BE PUMPED INTO AN APPROVED FILTERING DEVICE.

ES–9 THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES PERIODICALLY AND AFTER EACH RUNOFF–PRODUCING RAINFALL EVENT. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY.

EROSION AND SEDIMENT CONTROL NARRATIVE

THIS DEVELOPMENT PROPOSES A 3 PHASE EROSION & SEDIMENT CONTROL PLAN, WITH PHASE 1 & 2 AS THE ROUGH GRADING PLAN.

PROJECT DESCRIPTION

THE PROPOSED DEVELOPMENT PROPOSES SEVEN (7) MIXED USE BUILDINGS, UNDERGROUND PARKING GARAGES, AND ASSOCIATED INFRASTRUCTURE IMPROVEMENTS. THE PROPOSED IMPROVEMENTS ASSOCIATED WITH THIS SITE PLAN ARE COORDINATED WITH FUTURE METRO AND FAIRFAX COUNTY PARKING GARAGE FACILITIES. THE PARCEL SITE IS 14.68 ACRES, WITH A TOTAL OF 19.96 ACRES DISTURBED TO PROVIDE SITE AND OFF–SITE IMPROVEMENTS.

EXISTING SITE CONDITION

THE EXISTING SITE IS VEGETATED WITH NO EXISTING SITE IMPROVEMENTS. THE SITE GENERALLY SLOPES FROM THE NORTH–WEST CORNER TO THE SOUTH–EAST, WHERE RUNOFF FROM THE SITE IS DIRECTED TO EXISTING CATCH BASINS, AND THEN CONVEYED THROUGH A CLOSED CONDUIT SYSTEM TO AN EXISTING REGIONAL DRY POND. SITE STORMWATER RUNOFF IS ALSO DIRECTED TO THE WEST, WHERE IT IS CONTROLLED BY STORM SEWER SYSTEMS FROM THE ADJACENT PROPERTY.

ADJACENT AREAS

NORTH: EXISTING SUNRISE VALLEY DRIVE, CURRENTLY A 2 LANE ROAD, PROPOSED TO BE WIDENED AS A 4 LANE DIVIDED ROAD.

SOUTH: EXISTING UNDEVELOPED SITE, PROPOSED TO ENCOMPASS HALF OF THE PROPOSED PUBLIC EAST–WEST ROAD. GRADING REQUIRED ON THE ADJACENT SITE TO ACCOMMODATE ROAD CONSTRUCTION

EAST: EXISTING DEVELOPED SITE, DULLES STATION AT DULLES CORNER. AN EXISTING ROAD, CARTA WAY, IS PROPOSED TO BE EXTENDED FROM THE SOUTH–EAST TO THE NORTH–EAST TO CONNECT TO SUNRISE VALLEY DRIVE.

WEST: EXISTING DEVELOPED SITE, DULLES CORPORATE CENTER. A CONNECTION FROM EAST–WEST ROAD WILL INTERSECT THE EXISTING SURFACE PARKING LOT. THE SITE PROPOSES GRADING ALONG THE WESTERN PROPERTY LINE, WHICH WILL BE CONTROLLED BY A STORM SEWER SYSTEM DESIGNED TO ACCOMMODATE THE EXISTING AND FINAL CONDITIONS.

OFF–SITE AREAS

TO ACCOMMODATE THE PROPOSED INFRASTRUCTURE IMPROVEMENTS, 5.28 ACRES WILL BE DISTURBED. THE IMPROVEMENTS ARE GENERALLY LIMITED TO ROAD CONSTRUCTION AND THE ASSOCIATED EARTHWORK AND UTILITIES.

CRITICAL AREAS

EXISTING CRITICAL SLOPES HAVE BEEN IDENTIFIED ON THE NORTH–WEST AREA OF THE SITE ALONG THE BOUNDARY WITH PARCEL 14. CRITICAL SLOPES IN THIS AREA ARE 10–15% AND ARE TO BE REMOVED WITHIN PHASE 2

SOIL DESCRIPTIONS

A SOILS MAP HAS BEEN PROVIDED ON THE COVER SHEET THAT IDENTIFIES EXISTING SOILS TO BE.

SOIL	NAME	EROSION POTENTIAL
64B	JACKLAND & HAYMARKET	MEDIUM
64C	JACKLAND & HAYMARKET	MEDIUM

FAIRFAX COUNTY SOIL DESCRIPTIONS HAVE BEEN PROVIDED ON THIS SHEET IN REFERENCE TO THE SOILS LOCATED WITHIN THE LIMITS OF CLEARING.

(64) JACKLAND AND HAYMARKET, VERY STONY – THIS SOIL GROUPING OCCURS ON BROAD FLAT UPLANDS OF THE PIEDMONT AND TRIASSIC BASIN IN AREAS OF IGNEOUS BEDROCK. A SILTY SURFACE LAYER OVERLIES A THICK, STICKY PLASTIC CLAY LAYER. LOAMY MATERIAL LIES BELOW THE CLAY. DEPTH TO THE WATER TABLE VARIES, BUT IN SPOTS A PERCHED WATER TABLE FORMS ON TOP OF THE CLAY BETWEEN 10 INCHES AND 2 FEET BELOW THE SURFACE. NUMEROUS SURFACE AND SHALLOW SUBSURFACE BOULDERS MAY BE PRESENT. PERMEABILITY IS VERY SLOW. FOUNDATION SUPPORT MAY BE POOR BECAUSE OF THE PLASTIC CLAY AND POTENTIAL PERCHED WATER TABLE. FOUNDATION FOOTERS SHOULD BE ANCHORED BELOW THE CLAY LAYER. FOUNDATION DRAINS AND WATERPROOFING ARE NEEDED TO ENSURE DRY BASEMENTS. SUITABILITY FOR SEPTIC DRAINFIELDS AND INFILTRATIONS TRENCHES IS POOR BECAUSE OF THE SLOW PERMEABILITY AND HIGH WATER TABLE. JACKLAND WAS FORMERLY MAPPED AS REDDELL. FIBROUS ASBESTOS MINERALS MAY OCCUR IN THE GREENSTONE BEDROCK. THESE FIBERS MAY BECOME AIRBORNE DURING EXCAVATION AND BLASTING OPERATIONS. WORKER PROTECTION AND DUST CONTROL MEASURES ARE REQUIRED IN SUCH INSTANCES. PLEASE REFER TO THE FAIRFAX COUNTY SOILS MAP TO IDENTIFY AFFECTED AREAS.

EROSION AND SEDIMENT CONTROL MEASURES

TEMPORARY CONSTRUCTION ENTRANCE – 3.02
TEMPORARY CONSTRUCTION ENTRANCES SHALL BE INSTALLED AS SHOWN ON THE PLAN. ALL CONSTRUCTION ENTRANCES WILL BE GRADED SUCH THAT NO SEDIMENT–LADEN RUNOFF LEAVES THE SITE

SILT FENCE/SUPER SILT FENCE BARRIER – 3.05
SILT FENCE SEDIMENT BARRIERS WILL BE INSTALLED DOWNSLOPE OF AREAS WITH MINIMAL GRADES TO FILTER SEDIMENT–LADEN SHEET FLOW AS INDICATED ON THE PLANS.

TREE PRESERVATION AND PROTECTION – 3.38
TREE PROTECTION SHALL BE PROVIDED AS SHOWN ON THE PLAN TO ENSURE SURVIVAL OF DESIRABLE TREES WHERE THEY WILL BE EFFECTIVE FOR EROSION AND SEDIMENT CONTROL. SEE SECTION L02–TREE PRESEVATION FOR TREE PRESERVATION PLAN.

STORM DRAIN & CULVER INLET PROTECTION – 3.07 & 3.08
ALL STORM SEWER INLETS AND CULVERTS SHALL BE PROTECTED DURING CONSTRUCTION. SEDIMENT–LADEN WATER SHALL BE FILTERED BEFORE ENTERING THE STORM SEWER INLETS AND CULVERTS.

TEMPORARY DIVERSION / DIKE – 3.09 / 3.12
DIVERSIONS AND DIVERSION DIKES WILL BE INSTALLED TO MANAGE THE DIRECTION OF STORMWATER RUNOFF TO DIRECT NATURAL STORMWATER RUNOFF TO EROSION AND SEDIMENT CONTROLS.

SEDIMENT TRAP / BASIN – 3.13 / 3.14
SEDIMENT TRAPS AND BASINS WILL BE INSTALLED TO MANAGE THE LARGER SITE DISTURBED AREAS. OUTFALL FROM THE TRAPS AND BASINS WILL BE CONTROLLED WITH RISER STRUCTURES AND CONVEYED TO EXISTING CLOSED CONDUIT SYSTEMS. THE EMBANKMENT SHALL BE SEEDED WITH TEMPORARY OR PERMANENT VEGETATION IMMEDIATELY AFTER INSTALLATION.

ROCK CHECK DAMS – 3.20
AS THE SITE IS DEVELOPED, THE ROCK CHECK DAMS WILL BE USED TO CONTROL THE CHANNELIZED STORMWATER CONVEYED ADJACENT TO PROPOSED ROADS

PHASING PLAN

THE INNOVATION CENTER SOUTH SITE A 3 PHASE EROSION AND SEDIMENT CONTROL PLAN. PHASE 1 PROVIDES PERIMETER CONTROLS, PHASE 2 IDENTIFIES THE ROUGH GRADING PLAN, AND PHASE 3 IDENTIFIES THE FINAL CONDITIONS.

PHASE 1 – INITIAL CLEARING AND GRADING 6848–(RGP)–005

CONSTRUCTION WILL BE SEQUENCED SO THAT GRADING OPERATIONS CAN BEGIN AND END AS QUICKLY AS POSSIBLE. THIS SITE IS UNDEVELOPED. EXISTING VEGETATION WITHIN CONSTRUCTION LIMITS SHALL COMPLY WITH TREE PRESERVATION PLANS IN SECTION L02–TREE PRESEVATION. PHASE 1 CONSTRUCTION LIMITS AS SHOWN ON THE PHASE 1 EROSION AND SEDIMENT CONTROL PLAN ARE INTENDED TO DELINEATE INSTALLATION OF PERIMETER CONTROLS ONLY. THE ASSOCIATED PUBLIC IMPROVEMENT PLAN 6848–PI–003 SHALL BE CONSTRUCTED CONCURRENTLY WITH PHASE I. SUBSEQUENT TO THE PHASE 1 INSTALLATION OF EROSION AND SEDIMENT CONTROLS, RELOCATION OF THE OVERHEAD UTILITY POLES ALONG SUNRISE VALLEY DRIVE WILL BE REQUIRED TO ALLOW FOR THE GRADING SHOWN IN PHASE 2. THE DRY UTILITY RELOCATIONS ARE DESIGNED UNDER A SEPARATE PERMIT WITH THE UTILITY PROVIDERS, BUT LAND DISTURBANCE FOR RELOCATION (UNDERGROUND CONDUITS AND DUCT BANKS) WILL BE PERMITTED UNDER THIS PLAN.

1. INSTALL TEMPORARY CONSTRUCTION ENTRANCES WITH WASH RACK AS SHOWN ON PLAN. MUD AND DEBRIS SHALL BE WASHED FROM ALL CONSTRUCTION VEHICLES AND EQUIPMENT BEFORE LEAVING THE SITE.
2. THIS SITE PLAN INCLUDES A TREE PRESERVATION PLAN WHICH SHALL BE FOLLOWED IN CONJUNCTION WITH THE EROSION AND SEDIMENT CONTROL PLANS
3. CLEAR ONLY THE AREAS AS SHOWN ON EROSION AND SEDIMENT CONTROL PHASE 1 PLAN FOR THE INSTALLATION OF PERIMETER CONTROLS TO INCLUDE INLET PROTECTION, SILT FENCE SUPER SILT FENCE, AND TREE PROTECTION FENCES.
4. CLEAR AND GRADE PROPOSED STAGING/STOCKPILE AREA.
5. CONSTRUCT THE PROPOSED SEDIMENT TRAP AND BASIN, INCLUDING THE RISER/OUTFALL STRUCTURES.
6. INSTALL DIVERSION DIKES TO DIRECT SITE RUNOFF TO THE SEDIMENT TRAP AND BASIN.

PHASE 2 – ROUGH GRADING 6848–(RGP)–005

PHASE 2 OF THE EROSION AND SEDIMENT CONTROL PROGRAM IS INTENDED TO PROVIDE FOR ROUGH GRADING OF THE SITE TO ESTABLISH BUILDING PADS, CONSTRUCTION STAGING AREAS, AND TRAVERSABLE ROUTES. THE TOTAL DISTURBED AREA WITHIN THIS PHASE (SOIP DISTURBANCE) IS 17.83 ACRES. THE ASSOCIATED PUBLIC IMPROVEMENT PLAN 6848–PI–003 MUST BE COMPLETE BEFORE THE BEGINNING OF THIS PHASE.

1. THE SEDIMENT TRAP AND BASIN FROM PHASE 1 ARE TO BE MODIFIED TO ACCOMMODATE THE GRADING OPERATIONS AS SHOWN IN PHASE 2.
   1.a. SEDIMENT TRAP 1 WILL MAINTAIN THE SAME SHAPE BUT SHALL BE INCREMENTALLY LOWERED BY A DEPTH OF 4' TO REFLECT THE REQUIRED GRADING IN PHASE 2. THE DEWATERING DEVICE AND RISER SHALL BE ADJUSTED ACCORDINGLY.
   1.b. THE STORM IMPROVEMENTS FROM PUBLIC IMPROVEMENT PLAN 6848–PI–003 WILL BE COMPLETE BEFORE THE SEDIMENT BASIN CAN BE MODIFIED AS THIS SEDIMENT BASIN 1 SHALL OUTFALL TO THIS STORM SYSTEM. SEDIMENT BASIN 1 WILL BE INCREMENTALLY FILLED IN WHILE MAINTAINING THE SAME SHAPE TO CREATE A SMALLER BASIN. THE BASE ELEVATION SHALL REMAIN THE SAME. THE DEWATERING DEVICE AND RISER SHALL BE ADJUSTED ACCORDINGLY. THE WEIR PROVIDED IN PHASE 1 SHOULD BE PATCHED.
2. ROUGH GRADING OF THE PROPOSED ROADS IS DESIGNED TO DEVELOP ROADSIDE CHANNELS, WHICH ARE TO BE MANAGED BY ROCK CHECK DAMS.

PHASE 3 – FINAL DEVELOPMENT 6848–(SP)–014

PHASE 3 OF THE EROSION AND SEDIMENT CONTROL PROGRAM IS INTENDED TO PROVIDE CONTROLS FOR THE FINAL CONSTRUCTION ACTIVITIES ASSOCIATED WITH SITE PLAN.

1. ONCE THE UTILITIES, CURB AND GUTTER AND THE ROADS ARE BROUGHT NEAR FINAL GRADE IN A MANNER SUCH THAT THE SEDIMENT TRAP AND BASIN FROM THE FINAL INLET PROTECTION DEVICES AND CONTROLS CAN BE INSTALLED. ADJUST THE SILT FENCE ACCORDINGLY TO ACCOMMODATE THE FINAL SITE GRADING (TO BE DETERMINED BY SITE CONDITIONS).
2. FILL SLOPE SURFACES SHALL BE LEFT IN ROUGHENED CONDITION TO REDUCE SHEET AND RILL EROSION OF THE SLOPES. THE CONTRACTOR SHALL REDIRECT CONCENTRATED FLOW AWAY FROM THE FILL SLOPES BY INSTALLING EARTH BERMS AND DIRECT THE RUN–OFF TO STABILIZED OUTLET.
3. FOR VEGETATIVE STABILIZATION OF ALL DENUDED AREAS SEE EROSION AND SEDIMENT CONTROL MAINTENANCE PROGRAM.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL PRACTICES.
5. AFTER ACHIEVING ADEQUATE STABILIZATION, THE TEMPORARY EROSION & SILTATION CONTROLS WILL BE CLEANED UP AND REMOVED AT THE DIRECTION OF THE SITE INSPECTOR.

MANAGEMENT STRATEGIES

IN GENERAL, MANAGEMENT STRATEGIES WILL FOLLOW THE PRESCRIBED STRATEGIES OUTLINED IN THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK. ADDITIONAL GUIDANCE IS PROVIDED FOR REFERENCE.

CONSTRUCTION ENTRANCE:
ALL CONSTRUCTION TRAFFIC ACCESS SHALL TO DISTURBED AREAS SHALL BE LIMITED TO THE CONSTRUCTION ENTRANCE(S)

THE CONSTRUCTION ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHT–OF–WAY, OR UNNECESSARILY THROUGHOUT THE SITE. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR THE WASHING AND REWORKING OF EXISTING STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEAN–OUT OF

PHASE 1 - SEDIMENT TRAP #1

DESIGN COMPUTATIONS

TREATMENT AREA	2.73 ACRES
WET STORAGE REQ	183 CY (67 CY/AC)
DRY STORAGE REQ	183 CY (67 CY/AC)
TRAP HEIGHT	4'
EMBANKMENT TOP WIDTH	3'

WATER SURFACE ELEVATION ROUTED THROUGH THE SYSTEM IS BASED ON A RUNOFF CURVE NUMBER (RCN) FOR DISTURBED 'D' CLASS SOILS, VALUE OF 94

PHASE 1 - SEDIMENT BASIN #1

DESIGN COMPUTATIONS
SEE SHEET C08.702 FOR ROUTING COMPUTATIONS

TREATMENT AREA	10.67 ACRES
WET STORAGE REQ	715 CY (67 CY/AC)
DRY STORAGE REQ	715 CY (67 CY/AC)
BASIN HEIGHT	7.7'
EMBANKMENT TOP WIDTH	6'

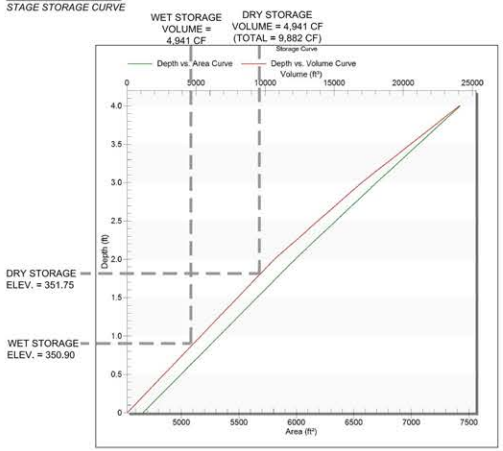
BASIN SHAPE
LENGTH-TO-WIDTH-RATIO = 3.45 (NO BAFFLES REQUIRED)

SEDIMENT CLEANOUT POINT = 333.30
DEWATERING DEVICE (FUNCTIONAL ANALYSIS FOR 6 HOUR DRAWDOWN SHOWN ON SHEET C08.703)
DIAMETER = 0.5'
INV. = 334.30
TOP = 335.65
RISER DIAMETER = 60"
CREST ELEV. = 338.00

WATER SURFACE ELEVATION ROUTED THROUGH THE SYSTEM IS BASED ON A RUNOFF CURVE NUMBER (RCN) FOR DISTURBED 'D' CLASS SOILS, VALUE OF 94.

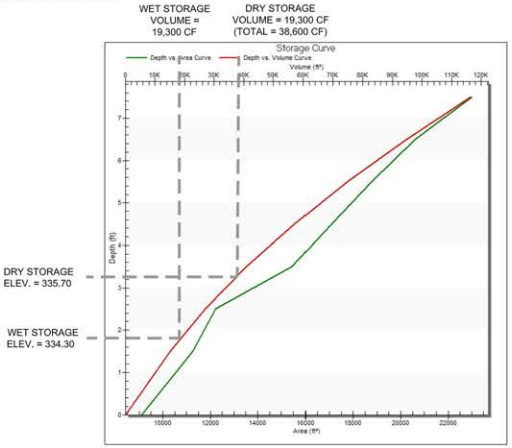
SEDIMENT TRAP #1

STAGE STORAGE CURVE



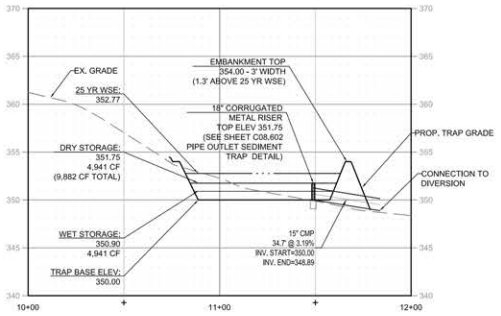
SEDIMENT BASIN #1

STAGE STORAGE CURVE



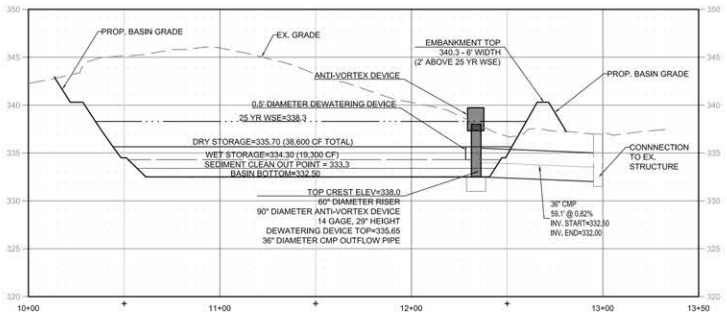
SEDIMENT TRAP #1 SECTION

VERTICAL EXAGGERATION = 5X (FOR CONTEXT)



SEDIMENT BASIN #1 SECTION

VERTICAL EXAGGERATION = 5X (FOR CONTEXT)



Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

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May 26, 2016

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DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CHRISTOPHER A. PHILLIPS
Lic. No. 048560
PROFESSIONAL ENGINEER

KEY PLAN

SCALE
H: 1" = 30'
1 INCH
V: 1" = 6'
1 INCH

NORTH

No.	DATE	BY	Description

REVISIONS

DRAWN BY	MLJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE

E&S CONTROL PHASE 1 COMPUTATIONS

SP NO. #6848-SP-014

C08.702

(RGP SHEET 14)

SECTION NO. C08-E&S

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Tue, Nov 03 2015 - 2:13:03 pm

SEDIMENT BASIN #1 ROUTING NARRATIVE & COMPUTATIONS (PHASE 1)

THIS MODEL IS DESIGNED TO ANALYZE SEDIMENT BASIN #1 FOR BOTH 10-YEAR AND 25-YEAR ANALYSIS DURING PHASE I. ANALYSIS DEMONSTRATES THAT THE PROVIDED OUTFALL WILL BE ADEQUATE WITH PROPOSED ON-SITE DETENTION PROPOSED WITH PHASE I.

STORM EVENT MODEL IS DERIVED FROM NOAA DATA (VIENNA-TYSONS STATION) TO DEVELOP A 24 HOUR RAINFALL EVENT (4.87" TOTAL DEPTH).

HYDROLOGIC COMPUTATIONS PROVIDED ARE BASED ON TR-20 METHODOLOGY (DISTURBED SOIL RUNOFF CURVE NUMBER = 94)

THE MODEL EVALUATES THE SITE OUTFALL TO STRUCTURE O7 (PROPOSED WITH 6848-PI-003) AND EVALUATES THE SYSTEM TO THE EXISTING REGIONAL DRY POND.

INPUT DATA

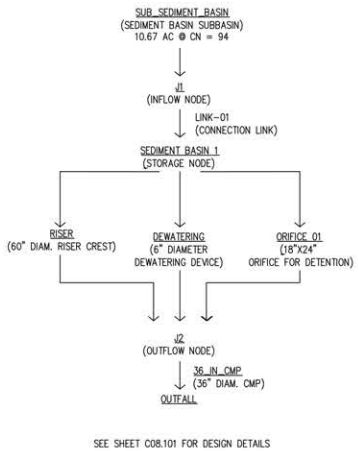
AUTODESK® STORM AND SANITARY ANALYSIS 2014 - VERSION 8.1.48 (BUILD 1)

```
*****************
ANALYSIS OPTIONS
*****************
FLOW UNITS ..................... CFS
SUBBASIN HYDROGRAPH METHOD. SCS TR-20
TIME OF CONCENTRATION..... USER-DEFINED
LINK ROUTING METHOD ..... KINEMATIC WAVE
STORAGE NODE EXFILTRATION.. NONE
REPORT TIME STEP ......... 00:05:00
```

```
***************
SUBBASIN SUMMARY
***************
SUBBASIN                TOTAL
                         AREA
ID                      ACRES
-----------------------------
SUB_SEDIMENT_BASIN       10.67
```

TOTAL DRAINAGE AREA TO SEDIMENT BASIN

ROUTING SCHEMATIC



SEE SHEET C08.101 FOR DESIGN DETAILS

10 YEAR ANALYSIS

DESIGN COMPUTATIONS

THE 10 YEAR ANALYSIS IS PROVIDED TO DEMONSTRATE DETENTION OF RUNOFF TO PREVENT FLOWS FROM EXCEEDING DOWNSTREAM CAPACITY OF THE EXISTING STORM OUTFALL.

UNCONTROLLED PEAK 10 YEAR FLOW

```
**********************
SUBBASIN RUNOFF SUMMARY
**********************
```

SUBBASIN ID	TOTAL PRECIP IN	TOTAL RUNOFF IN	PEAK RUNOFF CFS	WEIGHTED CURVE NUMBER	TIME OF CONCENTRATION DAYS HH:MM:SS
SUB_SEDIMENT_BASIN	4.87	4.18	58.97	94.000	0 00:05:00

```
****************
NODE FLOW SUMMARY
****************
```

NODE ID	ELEMENT TYPE	MAXIMUM LATERAL INFLOW CFS	PEAK INFLOW CFS	TIME OF PEAK INFLOW OCCURRENCE DAYS HH:MM	MAXIMUM FLOODING OVERFLOW CFS	TIME OF PEAK FLOODING OCCURRENCE DAYS HH:MM
J1	JUNCTION	57.53	58.97	0 12:05	0.00	
J2	JUNCTION	0.00	20.19	0 12:19	0.00	
OUTFALL	OUTFALL	0.00	20.19	0 12:19	0.00	
SEDIMENT_BASIN_1	STORAGE	0.00	57.53	0 12:05	0.00	

```
****************
LINK FLOW SUMMARY
****************
```

LINK ID	ELEMENT TYPE	TIME OF PEAK FLOW OCCURRENCE DAYS HH:MM	MAXIMUM VELOCITY ATTAINED FT/SEC	LENGTH FACTOR	PEAK FLOW DURING ANALYSIS CFS	DESIGN FLOW CAPACITY CFS	RATIO OF MAXIMUM /DESIGN FLOW	RATIO OF MAXIMUM FLOW DEPTH
36_IN_CMP	CONDUIT	0 12:19	3.73	1.00	20.47	32.72	0.63	0.57
LINK-01	DIRECT	0 12:05			57.53			
Detention_Weir	ORIFICE	0 12:19			18.41			
Dewatering	ORIFICE	0 12:19			1.78			0.00
Riser	ORIFICE	0 00:00			0.00			0.00

```
**********************
OUTFALL LOADING SUMMARY
**********************
```

OUTFALL NODE ID	FLOW FREQUENCY (%)	AVERAGE FLOW CFS	PEAK OUTFLOW CFS
OUTFALL	91.21	1.36	20.47

CONTROLLED PEAK 10 YEAR FLOW

25 YEAR ANALYSIS

DESIGN COMPUTATIONS

THE 25-YEAR ANALYSIS IS PROVIDED TO DEMONSTRATE THE MINIMUM DRAWDOWN OF 6 HOURS AS REQUIRED BY VESCH.

UNCONTROLLED PEAK 25 YEAR FLOW

```
**********************
SUBBASIN RUNOFF SUMMARY
**********************
```

SUBBASIN ID	TOTAL PRECIP IN	TOTAL RUNOFF IN	PEAK RUNOFF CFS	WEIGHTED CURVE NUMBER	TIME OF CONCENTRATION DAYS HH:MM:SS
SUB_SEDIMENT_BASIN	6.09	5.39	67.97	94.000	0 00:05:00

```
****************
NODE FLOW SUMMARY
****************
```

NODE ID	ELEMENT TYPE	MAXIMUM LATERAL INFLOW CFS	PEAK INFLOW CFS	TIME OF PEAK INFLOW OCCURRENCE DAYS HH:MM	MAXIMUM FLOODING OVERFLOW CFS	TIME OF PEAK FLOODING OCCURRENCE DAYS HH:MM
J1	JUNCTION	66.46	66.46	0 12:05	0.00	
J2	JUNCTION	0.00	29.79	0 12:15	0.00	
OUTFALL	OUTFALL	0.00	29.79	0 12:15	0.00	
SEDIMENT_BASIN_1	STORAGE	0.00	66.46	0 12:05	0.00	

```
****************
LINK FLOW SUMMARY
****************
```

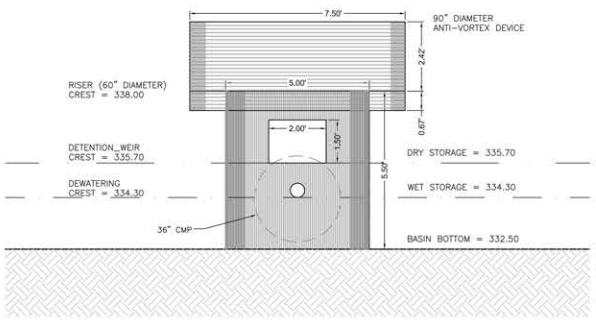
LINK ID	ELEMENT TYPE	TIME OF PEAK FLOW OCCURRENCE DAYS HH:MM	MAXIMUM VELOCITY ATTAINED FT/SEC	LENGTH FACTOR	PEAK FLOW DURING ANALYSIS CFS	DESIGN FLOW CAPACITY CFS	RATIO OF MAXIMUM /DESIGN FLOW	RATIO OF MAXIMUM FLOW DEPTH
36_IN_CMP	CONDUIT	0 12:25	5.28	1.00	32.12	32.72	0.98	0.80
LINK-01	DIRECT	0 12:05			66.46			
Detention_Weir	ORIFICE	0 12:25			20.57			
Dewatering	ORIFICE	0 12:25			1.88			0.00
Riser	ORIFICE	0 12:25			7.34			0.00

```
**********************
OUTFALL LOADING SUMMARY
**********************
```

OUTFALL NODE ID	FLOW FREQUENCY (%)	AVERAGE FLOW CFS	PEAK OUTFLOW CFS
OUTFALL	92.99	1.70	32.12

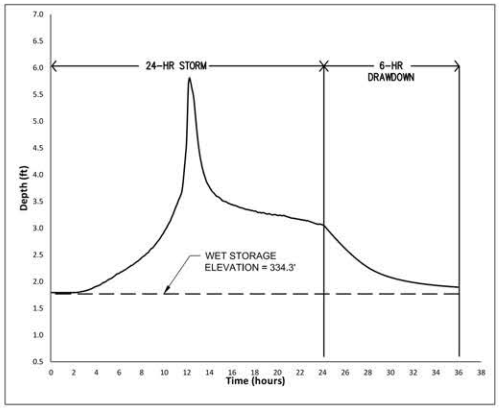
CONTROLLED PEAK 25 YEAR FLOW

RISER DESIGN



SEDIMENT BASIN #1

DRAWDOWN CURVE



Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

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CHRISTOPHER A. PFEIFFER
PROFESSIONAL ENGINEER

KEY PLAN

SCALE NORTH

No.	DATE	BY	Description
REVISIONS			

DRAWN BY	MLJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE

E&S CONTROL PHASE 1 COMPUTATIONS

SP NO. #6848-SP-014

C08.703
(RGP SHEET 15)
SECTION NO. C08-E&S

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SEDIMENT TRAP #1 - PHASE 2

DESIGN COMPUTATIONS

TREATMENT AREA	2.41 ACRES
WET STORAGE REQ	161 CY (67 CY/AC)
DRY STORAGE REQ	161 CY (67 CY/AC)
TRAP HEIGHT	4'
EMBANKMENT TOP WIDTH	3'

WATER SURFACE ELEVATION ROUTED THROUGH THE SYSTEM IS BASED ON A RUNOFF CURVE NUMBER (RCN) FOR DISTURBED 'D' CLASS SOILS, VALUE OF 94

SEDIMENT BASIN #1 - PHASE 2

DESIGN COMPUTATIONS

TREATMENT AREA	9.22 ACRES
WET STORAGE REQ	618 CY (67 CY/AC)
DRY STORAGE REQ	618 CY (67 CY/AC)
BASIN HEIGHT	8.0'
EMBANKMENT TOP WIDTH	6'

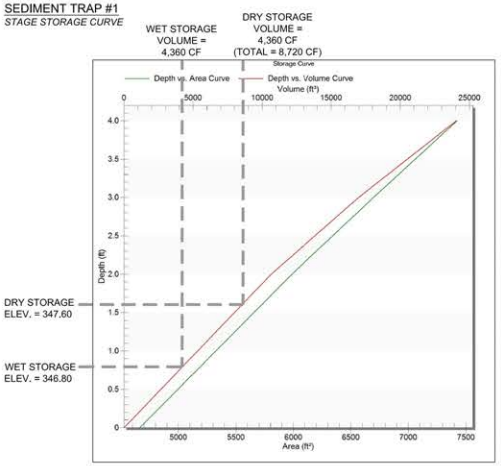
BASIN SHAPE
LENGTH-TO-WIDTH-RATIO = 3.1 (NO BAFFLES REQURIED)

SEDIMENT CLEANOUT POINT = 333.80
DEWATERING DEVICE
DIAMETER = 0.5'
INV. = 335.3
TOP = 336.9
RISER DIAMETER = 60"
CREST ELEV. = 337.40

WATER SURFACE ELEVATION ROUTED THROUGH THE SYSTEM IS BASED ON A RUNOFF CURVE NUMBER (RCN) FOR DISTURBED 'D' CLASS SOILS, VALUE OF 94.

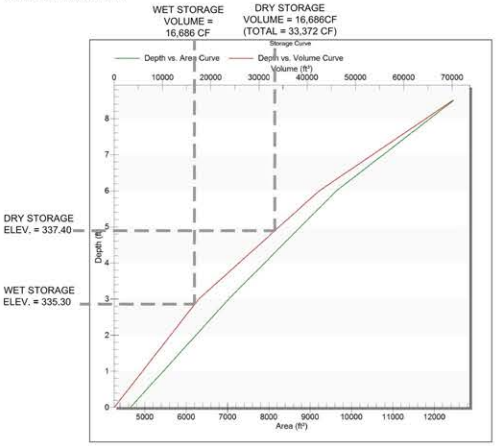
SEDIMENT TRAP #1

STAGE STORAGE CURVE



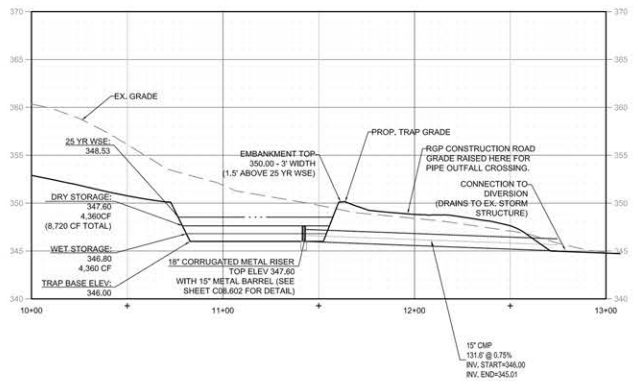
SEDIMENT BASIN #1

STAGE STORAGE CURVE



SEDIMENT TRAP #1 SECTION

VERTICAL EXAGGERATION = 5X (FOR CONTEXT)



SEDIMENT BASIN #1 SECTION

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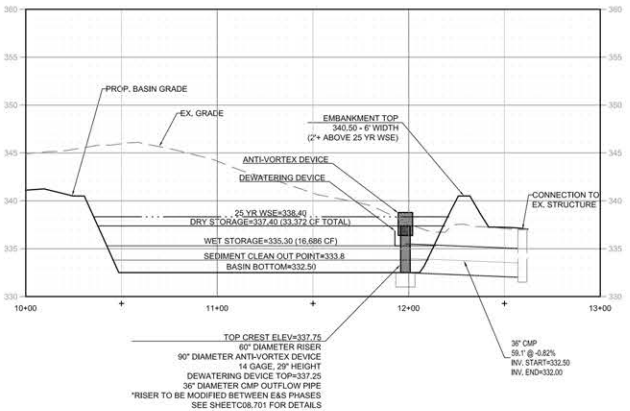

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Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

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PROFESSIONAL ENGINEER

KEY PLAN

SCALE
H: 1" = 30'
1 INCH
V: 1" = 6'
1 INCH

NORTH

No.	DATE	BY	Description

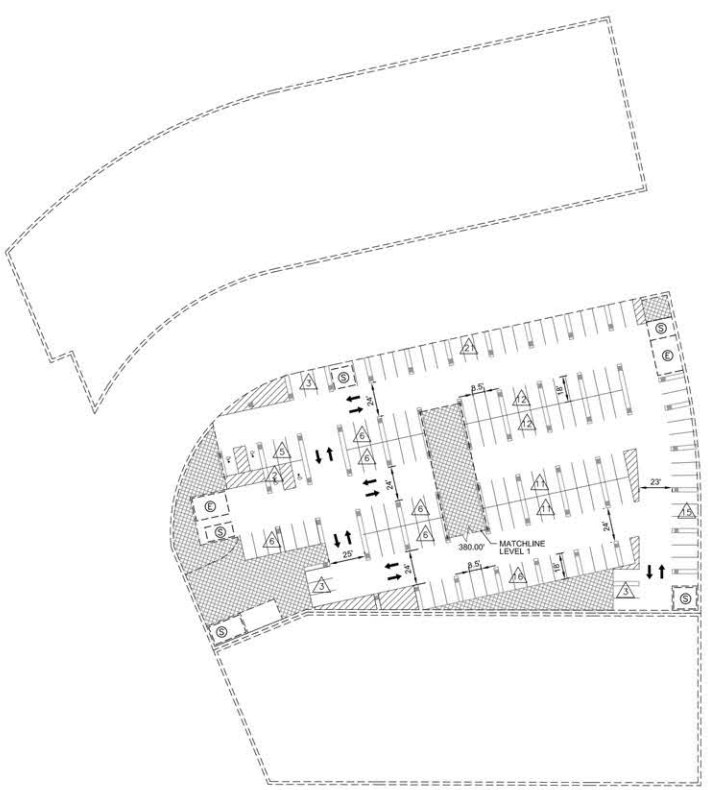
REVISIONS

DRAWN BY	MLJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE
E&S CONTROL PHASE 2 COMPUTATIONS

SP NO. #6848-SP-014

C08.704
(RGP SHEET 16)
SECTION NO. C08-E&S



NOTES:

1. PARKING LAYOUT IS PROVIDED TO DEPICT CONCEPTUAL LAYOUT – REFER TO ARCHITECTURAL PLANS FOR DETAILS. ANY ADDITION OR REMOVAL OF SPACES WILL NOT IMPACT THE SITE LAYOUT OR BUILDING FOOTPRINTS.
2. A TYPICAL PARKING STALL IS 8.5' WIDE AND 18' DEEP.
3. THE DRIVING ISLES ARE 23' WIDE, UNLESS NOTED OTHERWISE.
4. RAMPS ARE INDICATED BY > OR <
5. EACH ELECTRIC VEHICLE (EV) CHARGING STATION SERVICES TWO CARS.
6. BIKE SYMBOLS REPRESENT BIKE PARKING AREAS. A TYPICAL BIKE STALL FITTING TWO BIKES IS 3' WIDE AND 10' DEEP.
7. ALL ACCESSIBLE PARKING SPACES ARE 8.5' WIDE WITH 8.5' MARKED SPACE FOR VAN/CAR.
8. PARKING SPACE SIGNAGE WILL BE USED TO IDENTIFY USES FOR EACH PARKING SPACE.
9. PARKING DECKS AND GARAGES WILL BE DESIGNED FOR A NOMINAL 450LB/SF UNIFORM LIVE LOAD.

LEGEND:

- ACCESSIBLE PARKING SPACE
- NO PARKING STRIPING
- VOID SPACE AREAS
- EV CHARGING STATIONS
- FUTURE POTENTIAL EV CHARGING STATIONS
- BIKE PARKING
- (S) STAIR LOCATION
- (E) ELEVATOR LOCATION

LAND BAY A

	LEVEL	STANDARD	HANDICAP	EV	SPACES	BIKE
ABOVE GRADE	2	140	4		144	
	1	204	10		214	
	GROUND	109	14	6	129	302
BELOW GRADE	B1	408	2		410	
	B2	408	2		410	
	B3	408	2		410	
	B4	408	2		410	
	TOTAL	2085	36	6	2127	

LAND BAY B

	LEVEL	STANDARD	HANDICAP	EV	SPACES	BIKE
	GROUND					24
BELOW GRADE	B1	51	10	6	67	130
	B2	279	4		283	
	B3	277	4		281	
	B4	279	4		283	
	TOTAL	886	22	6	914	154

LAND BAY C

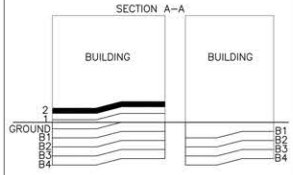
	LEVEL	SPACES
ABOVE GRADE	5	114
	4	259
	3	302
	2	302
	1	302
BELOW GRADE	GROUND	277
	B1	264
	B2	288
	TOTAL	2108

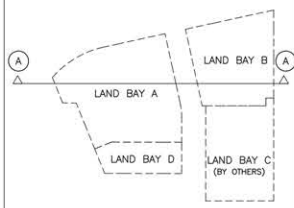
*LAND BAY C PARKING SPACES ARE PROPOSED BY OTHERS AND ARE SHOWN FOR REFERENCE ONLY.

LAND BAY D

	LEVEL	STANDARD	HANDICAP	EV	SPACES	BIKE
	GROUND					14
BELOW GRADE	B1	51	5	6	62	116
	B2	87	2		89	
	B3	45	2		47	
	TOTAL	183	9	6	198	130

SECTION A–A





PARKING SUMMARY (LANDBAY'S A, B, D & SURFACE)

STANDARD: 3164 SPACES
HANDICAP: 68 SPACES
ELECTRIC VEHICLE: 18 SPACES

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CODY A. PHINNEY
No. 045160
PROFESSIONAL ENGINEER

KEY PLAN

SCALE NORTH

SCALE IN FEET
1" = 40'
1 INCH

VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MCJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE

PARKING PLAN
LEVEL 2

SP NO. #6848–SP–014

C09.101

SECTION NO. C09-PARKING PLAN

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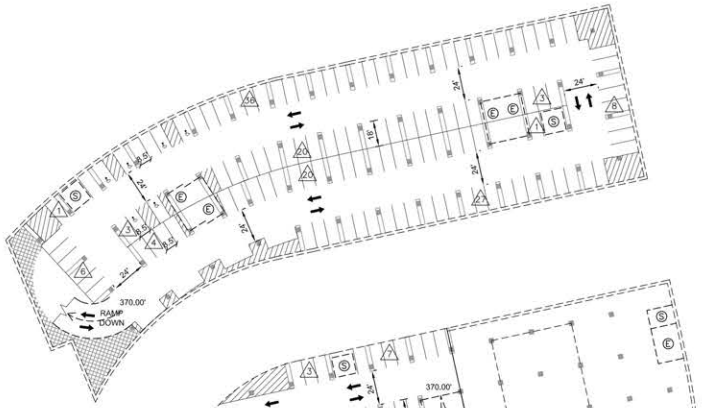

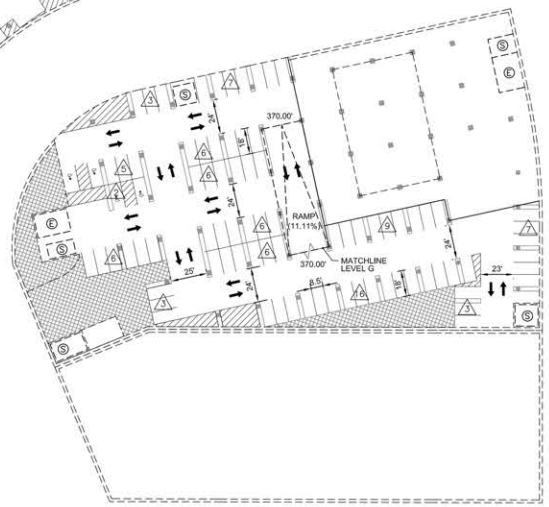

NOTES:

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8. PARKING SPACE SIGNAGE WILL BE USED TO IDENTIFY USES FOR EACH PARKING SPACE.
9. PARKING DECKS AND GARAGES WILL BE DESIGNED FOR A NOMINAL 450LB/SF UNIFORM LIVE LOAD.

LEGEND:

- ACCESSIBLE PARKING SPACE
- NO PARKING STRIPING
- VOID SPACE AREAS
- EV CHARGING STATIONS
- FUTURE POTENTIAL EV CHARGING STATIONS
- BIKE PARKING
- (S) STAIR LOCATION
- (E) ELEVATOR LOCATION

LAND BAY A

	LEVEL	STANDARD	HANDICAP	EV	SPACES	BIKE
ABOVE GRADE	2	140	4		144	
	1	204	10		214	
	GROUND	109	14	6	129	302
BELOW GRADE	B1	408	2		410	
	B2	408	2		410	
	B3	408	2		410	
	B4	408	2		410	
	TOTAL	2085	36	6	2127	

LAND BAY B

	LEVEL	STANDARD	HANDICAP	EV	SPACES	BIKE
	GROUND					24
BELOW GRADE	B1	51	10	6	67	130
	B2	279	4		283	
	B3	277	4		281	
	B4	279	4		283	
	TOTAL	886	22	6	914	154

LAND BAY C

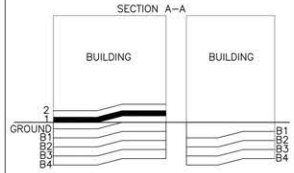
	LEVEL	SPACES
ABOVE GRADE	5	114
	4	259
	3	302
	2	302
	1	302
BELOW GRADE	GROUND	277
	B1	264
	B2	288
	TOTAL	2108

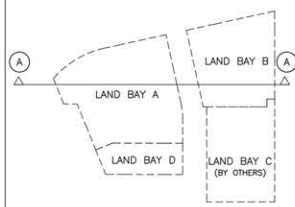
*LAND BAY C PARKING SPACES ARE PROPOSED BY OTHERS AND ARE SHOWN FOR REFERENCE ONLY.

LAND BAY D

	LEVEL	STANDARD	HANDICAP	EV	SPACES	BIKE
	GROUND					14
BELOW GRADE	B1	51	5	6	62	116
	B2	87	2		89	
	B3	45	2		47	
	TOTAL	183	9	6	198	130

SECTION A–A





PARKING SUMMARY (LANDBAY'S A, B, D & SURFACE)

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INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CODY A. PHINNEY
No. 045160
PROFESSIONAL ENGINEER

KEY PLAN

SCALE NORTH

SCALE IN FEET
1" = 40'
1 INCH

VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MCJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE
PARKING PLAN
LEVEL 1

SP NO. #6848–SP–014

C09.102

SECTION NO. C09-PARKING PLAN

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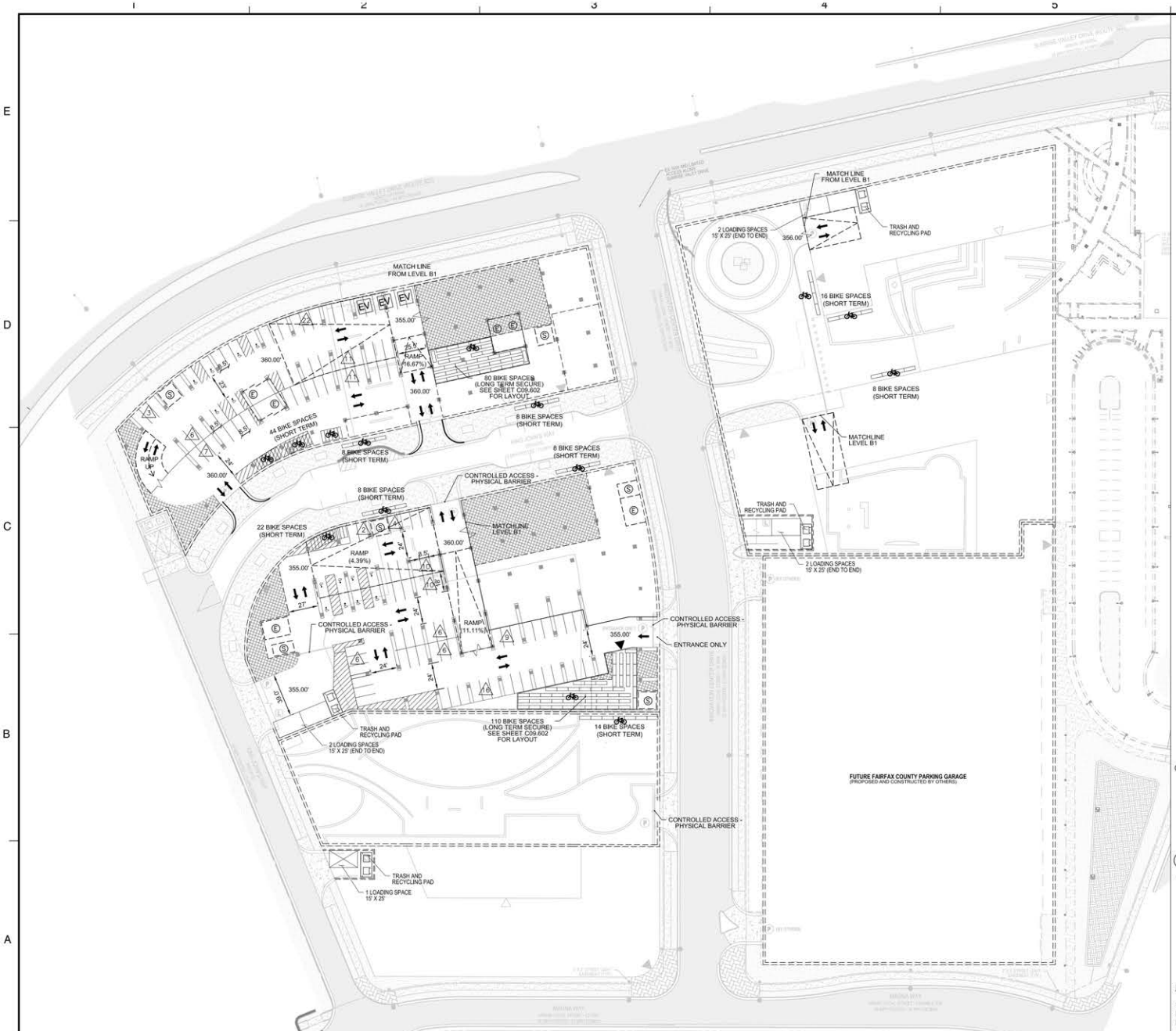

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LAND BAY A

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	1	204	10		214	
	GROUND	109	14	6	129	302
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	B2	408	2		410	
	B3	408	2		410	
	B4	408	2		410	
	TOTAL	2085	36	6	2127	

LAND BAY B

	LEVEL	STANDARD	HANDICAP	EV	SPACES	BIKE
	GROUND					24
BELOW GRADE	B1	51	10	6	67	130
	B2	279	4		283	
	B3	277	4		281	
	B4	279	4		283	
	TOTAL	886	22	6	914	154

LAND BAY C

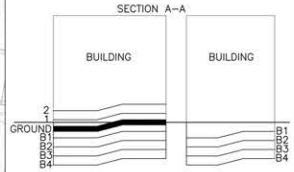
	LEVEL	SPACES
ABOVE GRADE	5	114
	4	259
	3	302
	2	302
	1	302
BELOW GRADE	GROUND	277
	B1	264
	B2	288
	TOTAL	2108

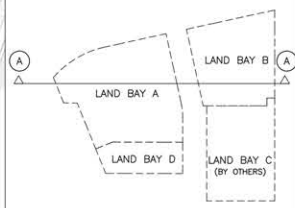
*LAND BAY C PARKING SPACES ARE PROPOSED BY OTHERS AND ARE SHOWN FOR REFERENCE ONLY.

LAND BAY D

	LEVEL	STANDARD	HANDICAP	EV	SPACES	BIKE
	GROUND					14
BELOW GRADE	B1	51	5	6	62	116
	B2	87	2		89	
	B3	45	2		47	
	TOTAL	183	9	6	198	130

SECTION A–A





PARKING SUMMARY (LANDBAY'S A, B, D & SURFACE)

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May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

KEY PLAN

SCALE NORTH

SCALE IN FEET
1" = 40'
1 INCH

VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MCJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE

PARKING PLAN LEVEL G

SP NO. #6848–SP–014

C09.103

SECTION NO. C09-PARKING PLAN

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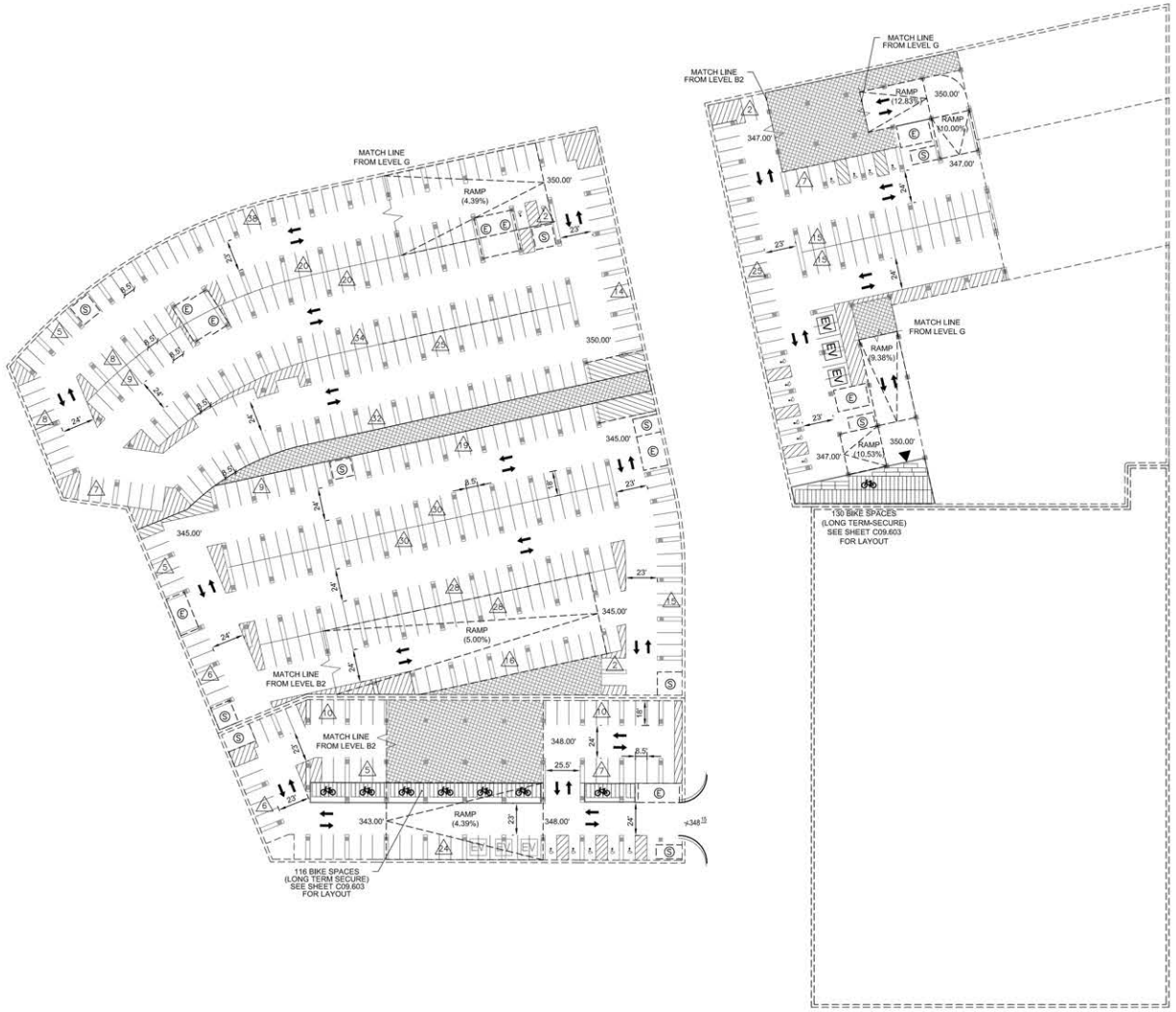

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LAND BAY A

	LEVEL	STANDARD	HANDICAP	EV	SPACES	BIKE
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	1	204	10		214	
	GROUND	109	14	6	129	302
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	B2	408	2		410	
	B3	408	2		410	
	B4	408	2		410	
	TOTAL	2085	36	6	2127	

LAND BAY B

	LEVEL	STANDARD	HANDICAP	EV	SPACES	BIKE
	GROUND					24
BELOW GRADE	B1	51	10	6	67	130
	B2	279	4		283	
	B3	277	4		281	
	B4	279	4		283	
	TOTAL	886	22	6	914	154

LAND BAY C

	LEVEL	SPACES
ABOVE GRADE	5	114
	4	259
	3	302
	2	302
	1	302
BELOW GRADE	GROUND	277
	B1	264
	B2	288
	TOTAL	2108

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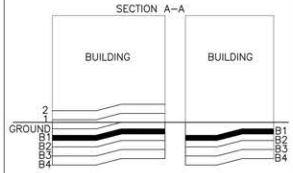
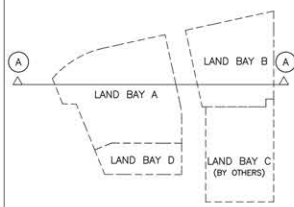
LAND BAY D

	LEVEL	STANDARD	HANDICAP	EV	SPACES	BIKE
	GROUND					14
BELOW GRADE	B1	51	5	6	62	116
	B2	87	2		89	
	B3	45	2		47	
	TOTAL	183	9	6	198	130

SECTION A–A





PARKING SUMMARY (LANDBAY'S A, B, D & SURFACE)

STANDARD: 3164 SPACES
HANDICAP: 68 SPACES
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Dewberry

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Issued For Construction
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INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CODY A. PARKER
Lic. No. 045160
PROFESSIONAL ENGINEER

KEY PLAN

SCALE NORTH

SCALE IN FEET
1" = 40'
1 INCH

VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MCJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE

PARKING PLAN LEVEL B1

SP NO. #6848-SP-014

C09.104

SECTION NO. C09-PARKING PLAN

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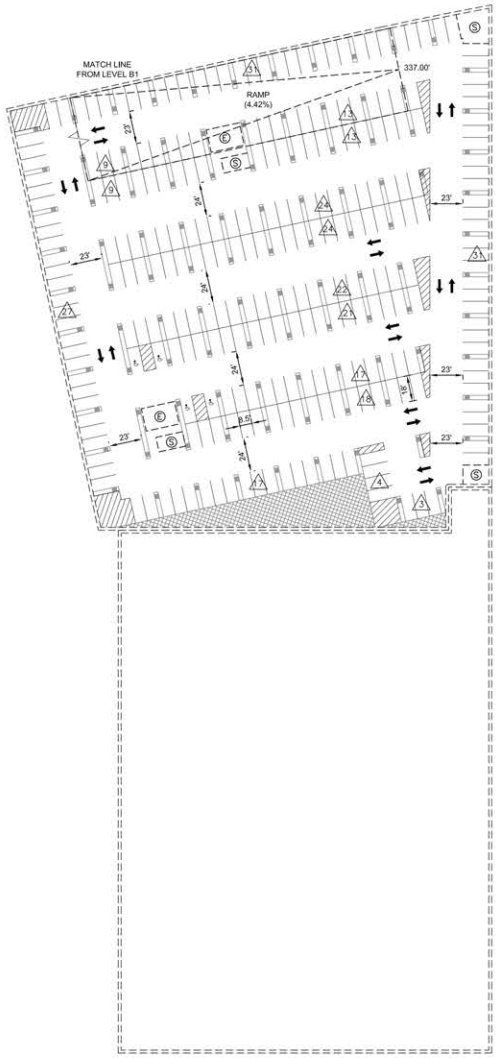

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	B3	408	2		410	
	B4	408	2		410	
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LAND BAY B

	LEVEL	STANDARD	HANDICAP	EV	SPACES	BIKE
	GROUND					24
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LAND BAY C

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LAND BAY D

	LEVEL	STANDARD	HANDICAP	EV	SPACES	BIKE
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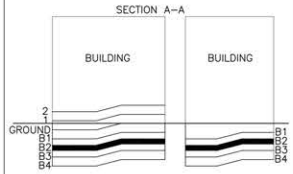
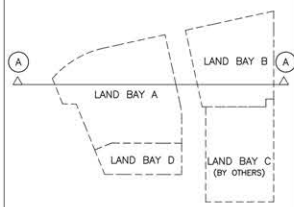
SECTION A–A





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DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CARY A. PLUNKETT
No. 045160
PROFESSIONAL ENGINEER

KEY PLAN

SCALE NORTH

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1 INCH

VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MGJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE

PARKING PLAN
LEVEL B2

SP NO. #6848-SP-014

C09.105

SECTION NO. C09-PARKING PLAN

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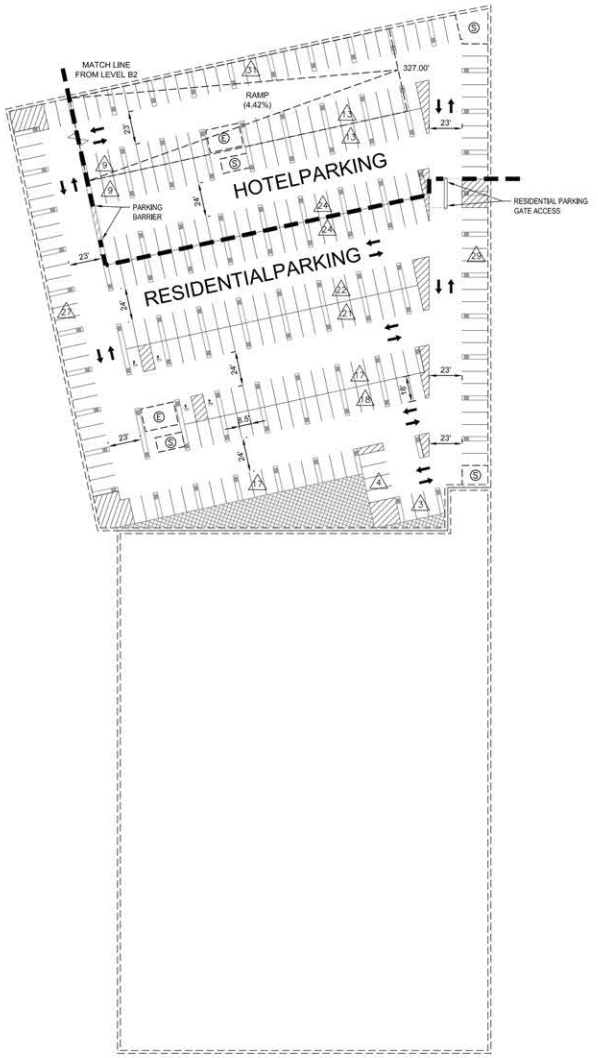

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	B4	408	2		410	
	TOTAL	2085	36	6	2127	

LAND BAY B

	LEVEL	STANDARD	HANDICAP	EV	SPACES	BIKE
	GROUND					24
BELOW GRADE	B1	51	10	6	67	130
	B2	279	4		283	
	B3	277	4		281	
	B4	279	4		283	
	TOTAL	886	22	6	914	154

LAND BAY C

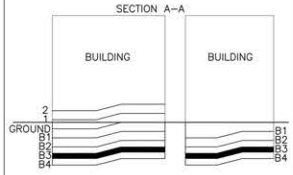
	LEVEL	SPACES
ABOVE GRADE	5	114
	4	259
	3	302
	2	302
	1	302
BELOW GRADE	GROUND	277
	B1	264
	B2	288
	TOTAL	2108

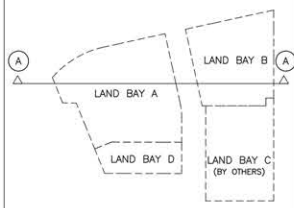
*LAND BAY C PARKING SPACES ARE PROPOSED BY OTHERS AND ARE SHOWN FOR REFERENCE ONLY.

LAND BAY D

	LEVEL	STANDARD	HANDICAP	EV	SPACES	BIKE
	GROUND					14
BELOW GRADE	B1	51	5	6	62	116
	B2	87	2		89	
	B3	45	2		47	
	TOTAL	183	9	6	198	130

SECTION A–A





PARKING SUMMARY (LANDBAY'S A, B, D & SURFACE)

STANDARD: 3164 SPACES
HANDICAP: 68 SPACES
ELECTRIC VEHICLE: 18 SPACES

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CARY A. PINNELL
Lic. No. 045160
PROFESSIONAL ENGINEER

KEY PLAN

SCALE NORTH

SCALE IN FEET
1" = 40'
1 INCH

VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MCJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

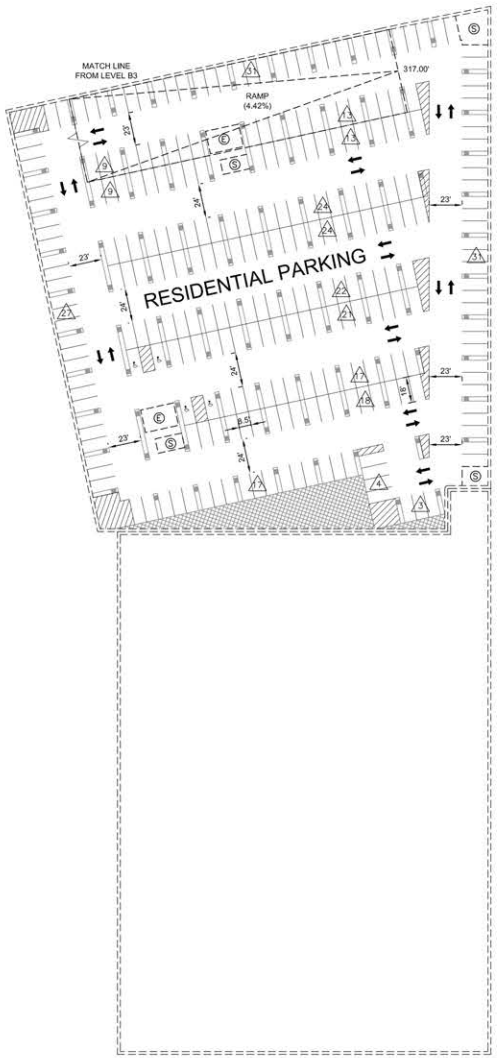
TITLE
PARKING PLAN
LEVEL B3

SP NO. #6848–SP–014

C09.106

SECTION NO. C09-PARKING PLAN

P:\PROJECT\50587254 Innovation South\CAD\CIVIL–SITE\Sheets\SITE PLAN\PARKING PLAN.dwg
Wed, Oct 14, 2015 - 12:44:48pm



NOTES:

1. PARKING LAYOUT IS PROVIDED TO DEPICT CONCEPTUAL LAYOUT – REFER TO ARCHITECTURAL PLANS FOR DETAILS. ANY ADDITION OR REMOVAL OF SPACES WILL NOT IMPACT THE SITE LAYOUT OR BUILDING FOOTPRINTS.
2. A TYPICAL PARKING STALL IS 8.5' WIDE AND 18' DEEP.
3. THE DRIVING ISLES ARE 23' WIDE, UNLESS NOTED OTHERWISE.
4. RAMPS ARE INDICATED BY > OR <.
5. EACH ELECTRIC VEHICLE (EV) CHARGING STATION SERVICES TWO CARS.
6. BIKE SYMBOLS REPRESENT BIKE PARKING AREAS. A TYPICAL BIKE STALL FITTING TWO BIKES IS 3' WIDE AND 10' DEEP.
7. ALL ACCESSIBLE PARKING SPACES ARE 8.5' WIDE WITH 8.5' MARKED SPACE FOR VAN/CAR.
8. PARKING SPACE SIGNAGE WILL BE USED TO IDENTIFY USES FOR EACH PARKING SPACE.
9. PARKING DECKS AND GARAGES WILL BE DESIGNED FOR A NOMINAL 450LB/SF UNIFORM LIVE LOAD.

LEGEND:

- ACCESSIBLE PARKING SPACE
- NO PARKING STRIPING
- VOID SPACE AREAS
- EV CHARGING STATIONS
- FUTURE POTENTIAL EV CHARGING STATIONS
- BIKE PARKING
- (S) STAIR LOCATION
- (E) ELEVATOR LOCATION

LAND BAY A

	LEVEL	STANDARD	HANDICAP	EV	SPACES	BIKE
ABOVE GRADE	2	140	4		144	
	1	204	10		214	
	GROUND	109	14	6	129	302
BELOW GRADE	B1	408	2		410	
	B2	408	2		410	
	B3	408	2		410	
	B4	408	2		410	
	TOTAL	2085	36	6	2127	

LAND BAY B

	LEVEL	STANDARD	HANDICAP	EV	SPACES	BIKE
	GROUND					24
BELOW GRADE	B1	51	10	6	67	130
	B2	279	4		283	
	B3	277	4		281	
	B4	279	4		283	
	TOTAL	886	22	6	914	154

LAND BAY C

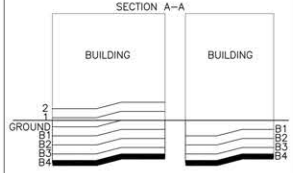
	LEVEL	SPACES
ABOVE GRADE	5	114
	4	259
	3	302
	2	302
	1	302
BELOW GRADE	GROUND	277
	B1	264
	B2	288
	TOTAL	2108

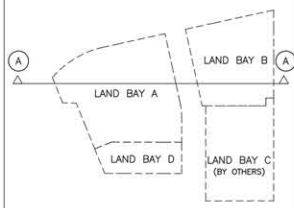
*LAND BAY C PARKING SPACES ARE PROPOSED BY OTHERS AND ARE SHOWN FOR REFERENCE ONLY.

LAND BAY D

	LEVEL	STANDARD	HANDICAP	EV	SPACES	BIKE
	GROUND					14
BELOW GRADE	B1	51	5	6	62	116
	B2	87	2		89	
	B3	45	2		47	
	TOTAL	183	9	6	198	130

SECTION A–A





PARKING SUMMARY (LANDBAY'S A, B, D & SURFACE)

STANDARD: 3164 SPACES
HANDICAP: 68 SPACES
ELECTRIC VEHICLE: 18 SPACES

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CODY A. PUNSKE
Lic. No. 045160
PROFESSIONAL ENGINEER

KEY PLAN

SCALE NORTH

SCALE IN FEET
1" = 40'
1 INCH

VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MJJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE

PARKING PLAN
LEVEL B4

SP NO. #6848–SP–014

C09.107

SECTION NO. C09-PARKING PLAN

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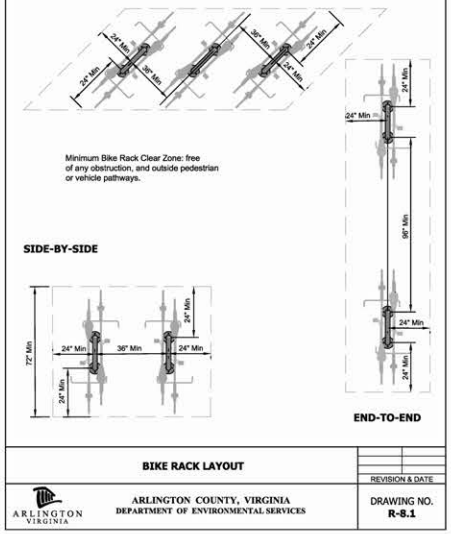
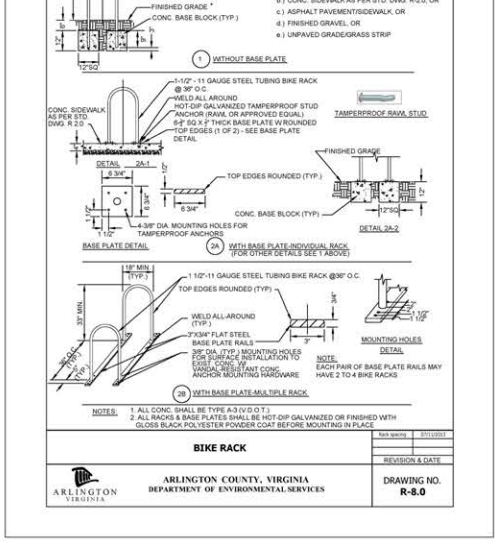
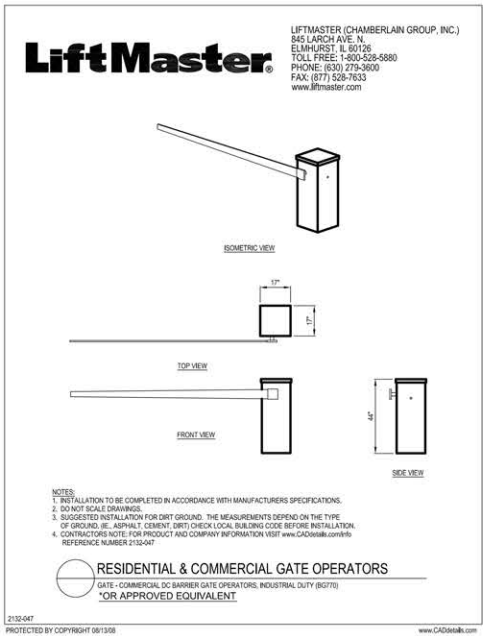




BIKE FACILITY NOTES

1. BIKE RACK DETAILS PROVIDED ARE BASED ON ARLINGTON COUNTY VIRGINIA STANDARD DETAILS, WHICH CONFORM WITH FAIRFAX COUNTY BIKE PARKING GUIDLINES. THESE DETAILS ARE PROVIDED IN ABSENCE OF FAIRFAX COUNTY DETAILS.



Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

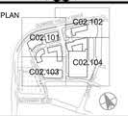
INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
COLBY A. PINNEY
Lic. No. 045560
PROFESSIONAL ENGINEER

KEY PLAN



SCALE NORTH

SCALE IN FEET
1" = 40'
1 INCH

VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY MCJ
APPROVED BY CAP
CHECKED BY CJD
DATE SEPTEMBER 2014

TITLE
PARKING PLAN DETAILS

SP NO. #6848-SP-014

C09.601

SECTION NO. C09-PARKING PLAN

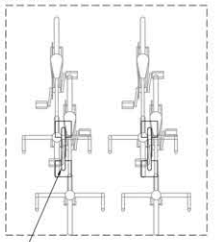
P:\PROJECT\50587254 Innovation South\CAD\CIVIL--SITE\Drawings\SITE PLAN\PARKING PLAN.dwg
Wed, Oct 14, 2015 - 12:42:58pm

BIKE FACILITY NOTES

THIS SHEET IS FOR BIKE PARKING LAYOUT ONLY.

1. BIKE RACKS SHOWN IN PLAN ARE BASED ON THE ARLINGTON COUNTY VIRGINIA STANDARD DETAILS, SEE SHEET C09.601 FOR DETAILS.
2. SEE ARCHITECTURAL PLANS FOR DETAILS.

STANDARD BIKE STORAGE



Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

KEY PLAN

SCALE NORTH

SCALE IN FEET
1" = 10'
1 INCH

VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MLJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE

BIKE STORAGE ROOMS

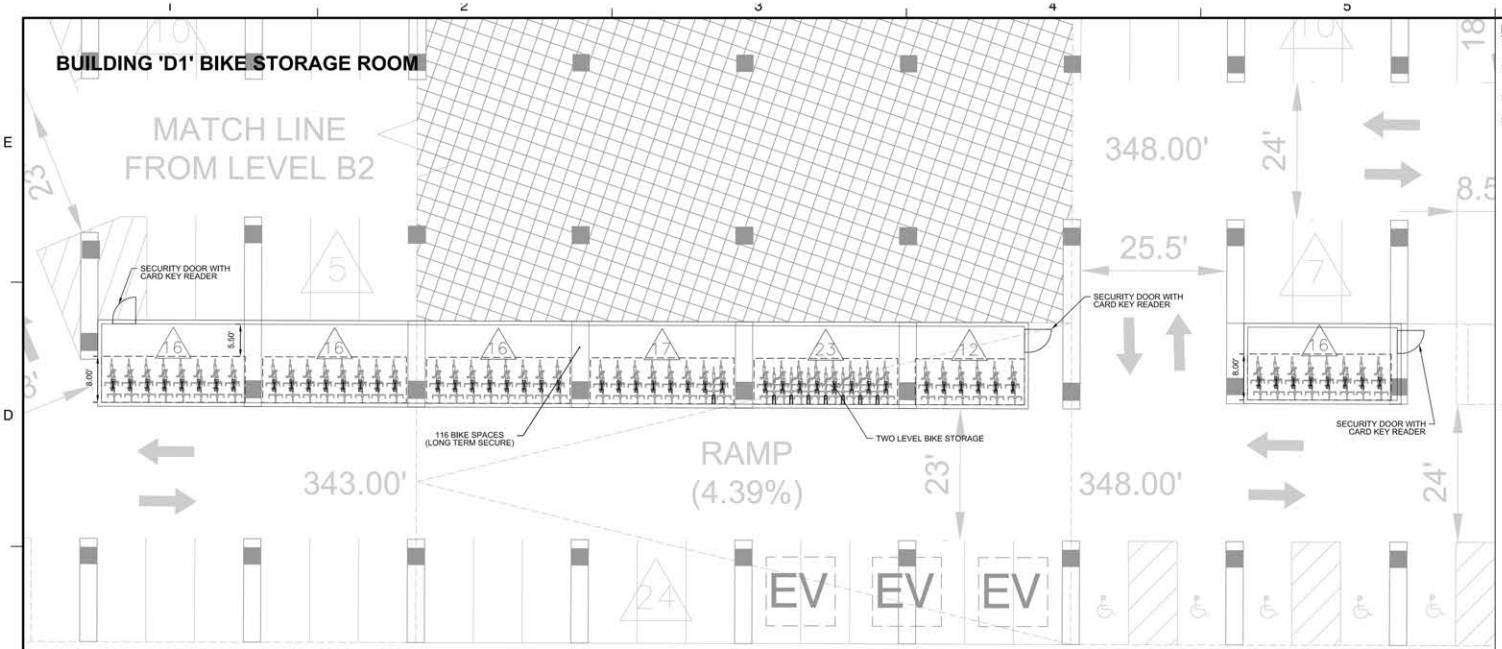
SP NO. #6848-SP-014

C09.602

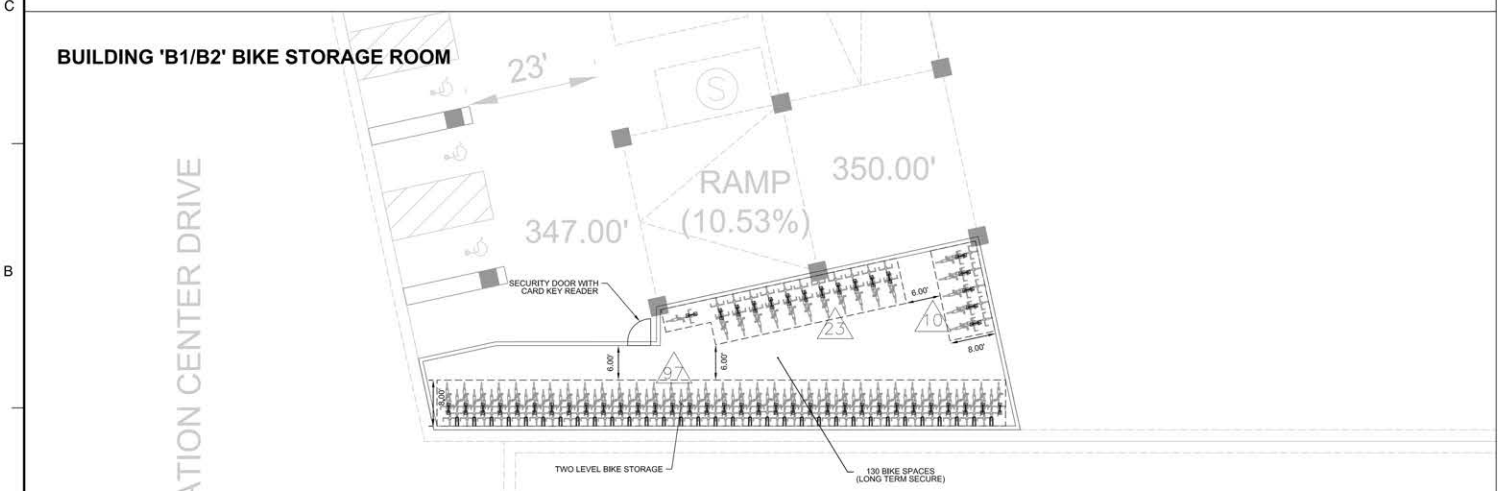
SECTION NO. C09-PARKING PLAN

P:\PROJECT\50587254 - Innovation South\CAD\CIVIL - SITE\Drawings\SITE PLAN\BIKE ROOMS.dwg
Wed, Oct 14, 2015 - 12:42:44pm

BUILDING 'D1' BIKE STORAGE ROOM



BUILDING 'B1/B2' BIKE STORAGE ROOM

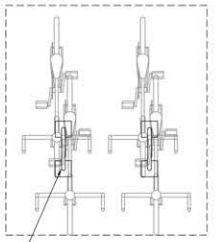


BIKE FACILITY NOTES

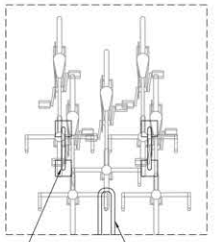
THIS SHEET IS FOR BIKE PARKING LAYOUT ONLY.

1. BIKE RACKS SHOWN IN PLAN ARE BASED ON THE ARLINGTON COUNTY VIRGINIA STANDARD DETAILS, SEE SHEET C09.601 FOR DETAILS.
2. SEE ARCHITECTURAL PLANS FOR DETAILS.

STANDARD BIKE STORAGE



TWO LEVEL BIKE STORAGE



Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

KEY PLAN

SCALE NORTH

SCALE IN FEET
1" = 10'
1 INCH

VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MLJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE

BIKE STORAGE ROOMS

SP NO. #6848-SP-014

C09.603

SECTION NO. C09-PARKING PLAN

P:\PROJECT\50587254 Innovation South\CAD\CIVIL - SITE\Drawing\SITE PLAN\BIKE ROOMS.dwg
Wed, Oct 14, 2015 - 12:43:53pm

County of Fairfax, Virginia

To protect and enrich the quality of life for the people, neighborhoods and diverse communities of Fairfax County

RECEIVED
SEP 03 2014
BY:.....

July 30, 2014

David S. Houston
Reed Smith LLP
3110 Fairview Park Drive, Suite 1400
Falls Church, VA 22042

RE: Proffered Condition Amendment Application PCA C-696-10
(Concurrent with Rezoning Application RZ 2009-HM-017)

Dear Mr. Houston:

Enclosed you will find a copy of an Ordinance adopted by the Board of Supervisors at a regular meeting held on July 29, 2014, approving Proffered Condition Amendment Application PCA C-696-10 in the name of Dulles Rockhill Partners Limited Partnership. The Board's action amends the proffers for Rezoning Application RZ C-696 previously approved for mixed use to delete approximately 22,272 square feet and include in concurrent Rezoning Application RZ 2009-HM-017. The subject property is located in the N.W. quadrant of the intersection of Sayward Boulevard and Dulles Station Boulevard on approximately 4.27 acres of land zoned PRM, [Tax Map 15-4 ((5)) 5A], in the Dranesville District.

The Board also:

- Modified the loading requirement in favor of the loading spaces depicted on the CDP/FDP.
- Directed the Director of DPWES to permit a deviation from the tree preservation target percentage in favor of the proposed landscaping shown on the CDP/FDP and as proffered.
- Modified the Use Limitations on Corner Lots in Section 2-505 of the Zoning Ordinance to permit the proposed building, landscaping and sign locations within the Zoning Ordinance sight triangles formed by the streets along the corner lot as shown on the CDP/FDP and as proffered.

Office of the Clerk to the Board of Supervisors
12000 Government Center Parkway, Suite 533
Fairfax, Virginia 22035
Phone: 703-324-3151 ♦ Fax: 703-324-3926 ♦ TTY: 703-324-3903
Email: clerktothebos@fairfaxcounty.gov
http://www.fairfaxcounty.gov/bosclerk

- Waived the Board of Supervisors' policy to permit the location of the underground stormwater management facilities in a residential area (PFM Section 6-0303.8), subject to Waiver #6848-WPFM 005-1 Conditions, dated April 10, 2014.
- Modified the peripheral lot landscaping and screening requirements in favor of that shown on the CDP/FDP as proffered and conditioned.
- Modified the private street limitations of Section 11-302 of the Fairfax County Zoning Ordinance.
- Modified PFM Standard 12-0702.1B2 to permit the reduction of the minimum planting width requirement from eight feet as shown on the CDP/FDP and described in the proffers.

Sincerely,

Catherine A. Chianese
Clerk to the Board of Supervisors

Cc: Chairman Sharon Bulova
Supervisor John Foust, Dranesville District
Tim Shirocky, Acting Director, Real Estate Division, Dept. of Tax Administration
Barbara C. Berlin, Director, Zoning Evaluation Division, DPZ
Diane Johnson-Quinn, Deputy Zoning Administrator, Dept. of Planning and Zoning
Michael Davis, Section Chief, Transportation Planning Division
Thomas Conry, Dept. Manager – GIS - Mapping/Overlay
Donald Stephens, Transportation Planning Division
Ken Williams, Plans & Document Control, ESRD, DPWES
Department of Highways-VDOT
Sandy Stallman, Park Planning Branch Manager, FCPA
Charlene Fuhrman-Schulz, Development Officer, DHCD/Design Development Division
Jill Cooper, Executive Director, Planning Commission
Ajay Rawat, Coordinator, Facilities Planning/Fairfax County Public Schools
Karyn Moreland, Chief Capital Projects Sections, Dept. of Transportation

At a regular meeting of the Board of Supervisors of Fairfax County, Virginia, held in the Board Auditorium in the Government Center at Fairfax, Virginia, on the 29th day of July, 2014, the following ordinance was adopted.

AN ORDINANCE AMENDING THE ZONING ORDINANCE
PROFFERED CONDITION AMENDMENT APPLICATION PCA C-696-10
(Concurrent with Rezoning Application RZ 2009-HM-017)

WHEREAS, Dulles Rockhill Partners Limited Partnership, filed in the proper form an application to amend the proffers for RZ C-696 hereinafter described, by amending conditions proffered and accepted pursuant to Virginia Code Ann. 15.2-2303(a), and

WHEREAS, at a duly called public hearing the Planning Commission considered the application and the propriety of amending the Zoning Ordinance in accordance therewith, and thereafter did submit to this Board its recommendation, and

WHEREAS, this Board has today held a duly called public hearing and after due consideration of the reports, recommendation, testimony and facts pertinent to the proposed amendment, the Board is of the opinion that the Ordinance should be amended,

NOW, THEREFORE, BE IT ORDAINED, that that certain parcel of land situated in the Dranesville District, and more particularly described as follows (see attached legal description):

Be, and hereby is further restricted by the amended conditions proffered and accepted pursuant to Virginia Code Ann., 15.2-2303(a), which conditions are incorporated into the Zoning Ordinance as it affects said parcel, and

BE IT FURTHER ENACTED, that the boundaries of the Zoning Map heretofore adopted as a part of the Zoning Ordinance be, and they hereby are, amended in accordance with this enactment, and that said zoning map shall annotate and incorporate by reference the additional conditions governing said parcels.

GIVEN under my hand this 29th day of July, 2014.

Catherine A. Chianese
Clerk to the Board of Supervisors

P:\PROJECT\05057254 Innovation South\CAD\CIVIL-SITE\Sheets\SITE PLAN\PROFFERS.dwg
Wed, Oct 14 2015 - 8:21:34am

Dewberry
Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
Cap A Chianese
Lic. No. 048560
2015-10-14
PROFESSIONAL ENGINEER

KEY PLAN

SCALE NORTH

N/A

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY MLJ
APPROVED BY CAP
CHECKED BY CJD
DATE SEPTEMBER 2014

TITLE

PROFFER COMPLIANCE NARRATIVE

SP NO. #6848-SP-014

C10.101
(RGP SHEET 17)
SECTION NO. C10-LETTERS

County of Fairfax, Virginia

To protect and enrich the quality of life for the people, neighborhoods and diverse communities of Fairfax County

July 30, 2014

RECEIVED
SEP 09 2014
BY: .....

David S. Houston
Reed Smith LLP
3110 Fairview Park Drive, Suite 1400
Falls Church, VA 22042

RE: Rezoning Application RZ 2009-HM-017
(Concurrent with Proffered Condition Amendment Application PCA C-696-10)

Dear Mr. Houston:

Enclosed you will find a copy of an Ordinance adopted by the Board of Supervisors at a regular meeting held on July 29, 2014, granting Rezoning Application RZ 2009-HM-017 in the name of the Nugget Joint Venture, L.C. The Board's action rezones certain property in the Dranesville District from the PDC and PRM Districts to the PRM District to permit mixed use transit oriented development with an overall Floor Area Ratio (FAR) of 3.01 including bonus density associated with ADU/WDU and a waiver #6848-WPFM-005-1 to permit the location of underground storm water management. The subject property is located on the S. side of Dulles Airport Access Road and W. side of Dulles Station Boulevard on approximately 14.68 acres of land, [Tax Map 15-2 ((1)) 13pt. and 15-4 ((5)) 5A pt. and 5B], subject to the proffers dated July 25, 2014.

Please note that on May 15, 2014, the Planning Commission approved Final Development Plan Application FDP 2009-HM-017.

The Board also:

- Modified the loading requirement in favor of the loading spaces depicted on the CDP/FDP.
- Directed the Director of DPWES to permit a deviation from the tree preservation target percentage in favor of the proposed landscaping shown on the CDP/FDP and as proffered.
- Modified the Use Limitations on Corner Lots in Section 2-505 of the Zoning Ordinance to permit the proposed building, landscaping and sign locations within the Zoning Ordinance sight triangles formed by the streets along the corner lot as shown on the CDP/FDP and as proffered.

Office of the Clerk to the Board of Supervisors
12000 Government Center Parkway, Suite 533
Fairfax, Virginia 22035
Phone: 703-324-3151 ♦ Fax: 703-324-3926 ♦ TTY: 703-324-3903
Email: clerktothebos@fairfaxcounty.gov
http://www.fairfaxcounty.gov/bosclerk

- Waived the Board of Supervisors' policy to permit the location of the underground stormwater management facilities in a residential area (PFM Section 6-0303.8), subject to Waiver #6848-WPFM 005-1 Conditions, dated April 10, 2014.
- Modified the peripheral lot landscaping and screening requirements in favor of that shown on the CDP/FDP as proffered and conditioned.
- Modified the private street limitations of Section 11-302 of the Fairfax County Zoning Ordinance.
- Modified PFM Standard 12-0702.1B2 to permit the reduction of the minimum planting width requirement from eight feet as shown on the CDP/FDP and described in the proffers.

Sincerely,

Catherine A. Chianese
Clerk to the Board of Supervisors

Cc: Chairman Sharon Bulova
Supervisor John Foust, Dranesville District
Tim Shirocky, Acting Director, Real Estate Division, Dept. of Tax Administration
Barbara Berlin, Director, Zoning Evaluation Division, DPZ
Diane Johnson-Quinn, Deputy Zoning Administrator, Dept. of Planning and Zoning
Thomas Conry, Dept. Manager – GIS - Mapping/Overlay
Michael Davis, Section Chief, Transportation Planning Division
Donald Stephens, Transportation Planning Division
Department of Highways-VDOT
Sandy Stallman, Park Planning Branch Manager, FCPA
Charlene Fuhrman-Schulz, Development Officer, DHCD/Design Development Division
Jill Cooper, Executive Director, Planning Commission
Ajay Rawat, Coordinator, Facilities Planning, Fairfax County Public Schools
Karyn Moreland, Chief Capital Projects Sections, Dept. of Transportation

At a regular meeting of the Board of Supervisors of Fairfax County, Virginia, held in the Board Auditorium in the Government Center at Fairfax, Virginia, on the 29th day of June, 2014, the following ordinance was adopted:

AN ORDINANCE AMENDING THE ZONING ORDINANCE
PROPOSAL NUMBER RZ 2009-HM-017
(Concurrent with Proffered Condition Amendment Application PCA C-696-10)

WHEREAS, Nugget Joint Venture, L.C., filed in the proper form an application requesting the zoning of a certain parcel of land herein after described, from the PDC and PRM District to the PRM District, and

WHEREAS, at a duly called public hearing the Planning Commission considered the application and the propriety of amending the Zoning Ordinance in accordance therewith, and thereafter did submit to this Board its recommendation, and

WHEREAS, this Board has today held a duly called public hearing and after due consideration of the reports, recommendation, testimony and facts pertinent to the proposed amendment, the Board is of the opinion that the Ordinance should be amended,

NOW, THEREFORE, BE IT ORDAINED, that that certain parcel of land situated in the Dranesville District, and more particularly described as follows (see attached legal description):

Be, and hereby is, zoned to the PRM District, and said property is subject to the use regulations of said PRM District, and further restricted by the conditions proffered and accepted pursuant to Va. Code Ann., 15.2-2303(a), which conditions are in addition to the Zoning Ordinance regulations applicable to said parcel, and

BE IT FURTHER ENACTED, that the boundaries of the Zoning Map heretofore adopted as a part of the Zoning Ordinance be, and they hereby are, amended in accordance with this enactment, and that said zoning map shall annotate and incorporate by reference the additional conditions governing said parcel.

GIVEN under my hand this 29th day of June, 2014.

Catherine A. Chianese
Clerk to the Board of Supervisors

Table of Contents

		Page
CONCEPTUAL DEVELOPMENT PLAN/FINAL DEVELOPMENT PLAN		2
1.	Substantial Conformance	2
2.	Elements of CDP	2
3.	Principal and Secondary Uses	2
4.	Modifications	2
5.	Maximum Density/ Bonus Density	2
6.	Phasing	3
7.	Density Credit	3
8.	Fire Marshal Coordination	4
PERMITTED USES		4
9.	Mix of Permitted Uses	4
10.	PRM "Temporary Uses" Permitted Without a Temporary Special Permit	4
11.	Festivals, Fairs or Similar Activities	5
12.	Unmanned Freestanding Automatic Teller Machines	5
13.	Retail Kiosks/Movable Carts/Mobile Vendors	6
14.	Cellar Space	6
TRANSPORTATION		6
15.	Grid of Streets	6
16.	Rights-of-Way	7
17.	Public Access Easements	8
18.	Transportation Phasing	8
19.	On-Site Road Improvements	8
20.	Traffic Signals	12
21.	Sight Lines	14
22.	Route 28 Station Transportation Fund	14
TRANSPORTATION DEMAND MANAGEMENT (excluding Metro Station Facilities)		14
23.	Dulles Area Transportation Association	14
24.	TDM Administrative Group	14
25.	Trip Reduction Objective	15
26.	TDM Program Components	15
27.	Process of Implementation	15
28.	TDM Program Manager	15
29.	TDM Work Plan (later the "Annual Report") and Annual Budget	15
30.	TDM Account	16
31.	TDM Remedy Fund	16
32.	TDM Incentive Fund	17
33.	Monitoring	17
34.	Remedies	17
35.	Additional Trip Counts	18
36.	Review of Trip Reduction Goals	18
37.	Continuing Implementation	18
38.	Notice to Owners	18
39.	Enforcement	18
BICYCLE FACILITIES		19
40.	Bicycle Parking and Storage	19
41.	Bicycle Lanes	19
PARKING (EXCLUDING METRO STATION FACILITIES)		19
42.	Parking Requirements	19
43.	On-Street Parking Spaces on the Private Drive	19
44.	Parking Restrictions	20
45.	Parking for Residential Uses	20
46.	Paid Parking for Non-Residential Uses	20
47.	Commercial Off-Street Parking	20
48.	Parking Controls	20
49.	Electrical Vehicle Charging Infrastructure	20
50.	Future Parking Reductions	21
51.	Parking During Construction	21
52.	Future Parking Rate Revisions in the Zoning Ordinance	21
STORMWATER MANAGEMENT AND BEST MANAGEMENT PRACTICES		21
53.	Storm Water Management Plan	21
DESIGN		23
54.	Design Guidelines	23
55.	Environmental Design Practices for Multi-Family Residential	23
56.	Environmental Design Practices for Non-Residential (including Office and Hotel, but excluding Metro Station Facilities)	24
57.	Environmental Design – General (Residential and Non-Residential, but excluding Metro Station Facilities)	25
58.	Additional Design	26
59.	Signage	26
60.	Lighting	27
61.	Telecommunications Equipment	27
62.	Building Heights	27
LANDSCAPING		27
63.	Limits of Clearing and Grading	27
64.	Landscaping	27
65.	Detailed Landscape Plans	28
66.	Alternative Planting Width Details	28
67.	Tree Replacement	29
68.	Open Space	29
69.	Utility Locations	29
70.	Parking Deck Landscaping and Amenities	29
PARKS AND RECREATIONAL FACILITIES		29
71.	Plazas	29
72.	Metro Plaza	30
73.	Urban Park	31
74.	Pocket Park	31
75.	Plaza Phasing	31
76.	Plaza Access Management Plan	31
77.	Means of Enforcing Restrictions	31
78.	Other Means of Minimizing Vehicular Use of the Plazas	32
79.	Signage	32
80.	Communications	32
81.	Deliveries	32
82.	Plaza Management Exceptions	32
83.	Amenities and Facilities for Residents	33
84.	Parks Contribution	33
SCHOOLS		33
85.	Public School Contribution	33
86.	Adjustments to School Contribution	33
WORKFORCE HOUSING		34
87.	ADUs	34

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
Guy A. Phillips
Lic. No. 048560
5-10-16
PROFESSIONAL ENGINEER

KEY PLAN

SCALE NORTH

N/A

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY MLJ
APPROVED BY CAP
CHECKED BY CJD
DATE SEPTEMBER 2014

TITLE

PROFFER COMPLIANCE NARRATIVE

SP NO. #6848-SP-014

C10.102

SECTION NO. C10-LETTERS

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Wed, Oct 14, 2015 - 8:21:48am

88. Workforce Dwelling Units ("WDUs") 34
89. Non-Residential Contribution for Workforce Housing 34
NOISE ATTENUATION FOR RESIDENTIAL USES 34
90. Noise Study 34
COMMUNITY ASSOCIATION 35
91. Establishment of COA 35
MISCELLANEOUS 36
92. Tax District Buyouts for Certain Residential Uses 36
93. Severability 36
94. Adjustment in Contribution Amounts 36
95. Site Excavation and Blasting 37
96. Construction Management 37
97. Universal Design 38
98. Zoning Administrator Consideration 38
99. Successors and Assigns 38
100. Counterparts 38

Board of Supervisors of Fairfax County;
Nugget Joint Venture, L.C.
RZ 2009-HM-017
Tax Map: 15-2((1)) Parcel 13 (pt.),
Tax Map: 15-4((5)) Parcel 5B and Parcel 5A (pt.)

PROFFER STATEMENT

July 25, 2014

Pursuant to Section 15.2-2303 (A) of the Code of Virginia (1950, as amended) ("Code of Virginia") and Section 18-204 of the Zoning Ordinance of Fairfax County (1978, as amended) ("Ordinance"), the applicant (as defined below) and title owners, for themselves and their successors and/or assigns (hereinafter collectively referred to as the "Applicant"), hereby proffer that the development of the parcels under consideration and shown on the Fairfax County 2014 Tax Maps as 15-2((1)) Parcel 13 (pt.), 15-4((5)) Parcel 5B and Parcel 5A (pt.) (collectively, the "Property") shall be in accordance with the following conditions ("Proffers") if, and only if, Rezoning/Final Development Plan Application RZ/FDP 2009-HM-017 ("Rezoning") is granted by the Board of Supervisors of Fairfax County, Virginia to the PRM District. In the event said application request is denied or the Board's approval is overturned by a court of competent jurisdiction, these proffers shall be null and void. Approval of this Rezoning application shall supersede and replace all prior approvals on the Property, and all proffers, conditions, and development plans associated therewith shall be null and void.

PREAMBLE – OVERVIEW OF PROPOSED DEVELOPMENT

Nugget Joint Venture, L.C. ("Nugget JV") is the owner of certain land located in Fairfax County, Virginia ("County"), consisting of approximately 11.65 acres and having a tax assessment number as 15-2((1)) Parcel 13 (pt.) ("Parcel 13") and 15-4((5)) Parcel 5A (pt.) ("Parcel 5A") (collectively, the "Nugget Parcel"). Fairfax County is the title owner of certain land located in the County, consisting of 3.03 acres and having a tax assessment number as 15-4((5)) Parcel 5B ("County Parcel") and has joined this application. The Nugget Parcel and the County Parcel are collectively 14.68 acres and are hereinafter referred to as the "Property." Nugget JV and the County are hereinafter referred to as the "Applicant". The Property currently consists of undeveloped land.

Phase II of the Dulles Corridor Metrorail Project contemplates that a new Metrorail station, to be named the Innovation Center Station ("Metro Station"), be constructed and placed in the median of the Dulles International Airport Access Highway/Dulles Toll Road ("Toll Road"). In connection with the construction of the Metro Station, a structured public parking garage containing approximately 2,108 spaces ("Parking Facilities"), a minimum of twenty-five (25) kiss and ride facilities ("Kiss and Ride Facilities"), four (4) bus bays ("Bus Bays"), and secure bicycle storage facilities and associated amenities for between 80 to 100 bicycles ("Bicycle Storage Facilities") will also be constructed. The Parking Facilities Kiss and Ride Facilities, Bus Bays and Bicycle Storage Facilities, together with the other elements comprising the Metro Station's Facilities are sometimes collectively referred to as the "Metro Station

Facilities." The Metro Station Facilities will be located on the Property to serve the Metro Station and will be owned, maintained and operated by the County.

Nugget JV and the County intend to enter into an Infrastructure Development Agreement, including a Proffer Allocation Agreement, after the approval of this Application (the "Development Agreement"), pursuant to which all improvements in these Proffers will be implemented and responsibility allocated and assigned according to the Development Agreement. Whenever herein a proffer establishes an obligation that applies to a specific Land Bay, then the term "Applicant" shall mean the owner undertaking such development according to the Development Agreement.

CONCEPTUAL DEVELOPMENT PLAN/FINAL DEVELOPMENT PLAN

1. Substantial Conformance. The Property shall be developed in substantial conformance with the Conceptual Development Plan ("CDP") and Final Development Plan ("FDP") entitled "Innovation Center South and the Innovation Center Station Garage" dated August 1, 2013 and revised through April 21, 2014, prepared by Dewberry Consultants LLC, consisting of 76 sheets. The CDP and the FDP are collectively referred to in these Proffers as "CDP/FDP."

2. Elements of CDP. Notwithstanding the fact that the CDP and FDP are presented on the same plan, the elements that are components of the CDP are limited to the points of perimeter access, the maximum number and type of dwelling units, the maximum square footage of non-residential uses, the minimum and maximum building heights, the minimum percent of open space, the location of the limits of clearing and grading, setbacks from peripheral lot lines and the general location and arrangement of the buildings and parking facilities, and only a future amendment to such elements shall require a subsequent Conceptual Development Plan Amendment ("CDPA") or Proffered Condition Amendment ("PCA"). The Applicant reserves the right to request a Final Development Plan Amendment ("FDPA") for elements other than CDP/FDP elements referenced above from the Planning Commission for all or a portion of the FDP in accordance with Section 16-402 of the Ordinance if such amendment is in accordance with these Proffers, as determined by the Fairfax County Zoning Administrator ("Zoning Administrator").

3. Principal and Secondary Uses. The principal uses on the Property shall be multi-family residential dwellings and public uses, as identified on the CDP/FDP, with secondary office, hotel, retail, service and other uses, including uses listed in the CDP/FDP notes and in Proffers 9 through 14 below, and may include accessory uses and/or accessory service uses as defined in the Ordinance.

4. Modifications. Minor modifications to the CDP/FDP may be permitted pursuant to Paragraph 4 of Section 16-403 of the Ordinance.

5. Maximum Density/ Bonus Density. The maximum gross floor area ("GFA") that may be constructed on the Property shall be 1,646,041 square feet, which is inclusive of potential bonus density associated with providing affordable or workforce housing. The Applicant reserves the right to construct a lesser amount of GFA. Any bonus density associated with the

provision of affordable or workforce dwelling units in accordance with Proffers 87 and 88 may be allocated to any use category, and, may be allocated to any building, subject to the Maximum Zoning Height (as defined in Proffer 62). GFA may be shifted among any of the buildings provided the maximum height shown for each building is not exceeded, the minimum height for each building is not reduced, the overall urban form and building type shown on the CDP/FDP are maintained, and such adjustments are consistent with these Proffers. The minimum and maximum building gross floor areas and building heights (stories) are stated on the Estimated Building Gross Floor Area Chart on Sheet A-100.

6. Phasing. The proposed development includes seven (7) buildings and the Metro Station Facilities structure (Building C1) in four (4) Land Bays (A, B, C and D), which are identified on the CDP/FDP as Buildings A1, A2, A3, A4, B1, B2 and D1. Development of each building may proceed in any order provided that each such building provides, at a minimum, the phasing conditions depicted for such building on the CDP and that all proffers that apply to such building are addressed with the development of that building.

A. The Applicant shall construct the grid of streets and provide pedestrian improvements, public parks, private amenities and public facilities on the Property in conjunction with the development of each individual building in accordance with the phasing sheet contained as Sheet C-8 in the CDP/FDP ("Phasing Plan") and as further described in these Proffers. In addition, interim uses and improvements as outlined in Proffers 10 and 72 and as may be determined at time of site plan approval shall be provided commensurate with the construction of each building in consultation with the Fairfax County Department of Transportation ("FCDOT"). Adjustments to the phasing may be approved with FDPA approvals without the requirement for a PCA or CDPA, provided the adjustments do not materially adversely affect the other phases and are in substantial conformance with the CDP.

B. For purposes of these Proffers, the term "construct" shall mean (A) in regard to road improvements, that a committed road improvement is substantially complete and is available for use by the public for travel, whether or not such improvement has been accepted for maintenance by the Virginia Department of Transportation ("VDOT"), and (B) in regard to parks and recreation facilities, that a committed publicly accessible park space or recreation facility improvement is substantially complete and open to use by the public for use in accordance with the Urban Parks Framework applied by the Fairfax County Park Authority ("FCPA").

7. Density Credit. The Applicant reserves intensity/density credit as may be permitted by the provisions of the Ordinance for all eligible dedications described herein or as may be required by the County, VDOT or any other public entity.

8. Fire Marshal Coordination. The Applicant has coordinated the layouts depicted on the CDP/FDP with the Fire Marshal. Further changes to the CDP and FDP may be permitted without the requirement for a PCA/CDPA or FDPA in response to the review of site plans by the Fire Marshal, including adjustments to the streetscape and perimeter building areas as necessary to allow for required emergency vehicle access, provided such modifications are made in consultation with the Fairfax County Department of Planning and Zoning ("DPZ"), FCDOT and the Urban Forest Management Division ("UFMD") of the Department of Public Works and Environmental Services ("DPWES") in substantial conformance with the CDP/FDP and these Proffers with the intent to provide the streetscape shown on the CDP/FDP. The overall tree canopy shown on the CDP/FDP shall not be reduced, but locations and tree types may be modified subject to UFMD review and approval and in accordance with the Design Guidelines, as described in Proffer 54 below and attached as Exhibit B.

PERMITTED USES

9. Mix of Permitted Uses.

A. The principal uses, which shall be permitted on the Property, are multi-family dwellings, public uses (such as the Metro Station Facilities) and all related facilities.

B. In addition to the principal uses, office, hotel, and retail sales and service establishments shall be permitted as secondary uses. All secondary uses listed in Section 6-403 of the Ordinance, however, shall also be permitted provided they are in substantial conformance with the CDP/FDP. For example, the CDP/FDP (Sheet C-4) includes an option to develop a child care center as part of this Rezoning. The child care center would include approximately 12,000 square feet of GFA, up to 150 children, approximately 35 employees, an outdoor play area of approximately 6,000 square feet, and would operate between the hours of 6:00 a.m. and 7:00 p.m. daily. Notwithstanding the above, no drive-through windows or facilities or any freestanding single occupant retail pad sites or buildings shall be developed.

C. The permitted principal and secondary uses shall not result in any additional buildings beyond those represented on the CDP/FDP. Notwithstanding, the Applicant reserves the right, however, to construct, place or install temporary or movable structures (including kiosks, carts, shipping containers, etc.) to establish Group 8 Temporary Uses, including the hosting of special events on the Plazas and construction and sales/marketing trailers on an interim basis, all without the necessity of an amendment to the CDP/FDP or Proffers, if such do not alter the limits of clearing and grading.

10. PRM "Temporary Uses" Permitted Without a Temporary Special Permit.

A. Festivals, fairs or similar activities, as defined in Proffer 11 below;

B. Farmers' markets;

PROFFER COMPLIANCE

CONCEPTUAL DEVELOPMENT PLAN / FINAL DEVELOPMENT PLAN

Proffer #	Response	Associated Plan/Page #	Comments
1	The Site Plan 6848-SP-014 has been designed in substantial conformance with the CDP/FDP.	C01.101	
2	The Site Plan 6848-SP-014 has been designed in substantial conformance with the CDP/FDP.	C01.101	
3	The principal and secondary uses indicated on Site Plan 6848-SP-014 have been designed in substantial conformance with the CDP/FDP.	C01.101	
4	Minor modifications have been made with Site Plan 6848-SP-014, specifically related to the final layout of the utility networks and the inclusion of East-West Road and the Private Drive extension to Sayward Boulevard. Additionally, based on coordination with VDOT and FCDOT on August 12, 2014 minor modifications have been made to the proposed lane markings to provide additional bike access routes through the site.	C01.101	
5	The density proposed with Site Plan 6848-SP-014 does not exceed the maximum GFA allowed (1,646,041 SF).	Cover Sheet	
6	The Site Plan 6848-SP-014 proposes all seven (7) buildings, as well as all associated infrastructure improvements as depicted in the CDP/FDP. A three (3) phase Erosion & Sediment Control plan has been developed to outline the phasing of the site.	C01.101; C08.701	
6A	The grid of streets is proposed with Site Plan 6848-SP-014, including the East-West Road and connection from the Private Drive & East-West Road intersection southerly to Sayward Boulevard	C01.101	
6B	The Site Plan 6848-SP-014 proposes full construction of all associated road improvements and park/plaza space as depicted on the CDP/FDP.	C01.101	
7	The density credit is acknowledged and accounted for in the FAR calculations for the site.	Cover Sheet	
8	The Applicant met with the Fire Marshal and staff on August 20, 2014 to discuss the design proposed with 6848-SP-014, and will continue to coordinate with the Fire Marshal through Site Plan approval and construction. The Site Plan was approved by the Fire Marshal on April 30, 2015.		

PERMITTED USES

Proffer #	Response	Associated Plan/Page #	Comments
9			
9A	The proposed principal uses are multi-family dwellings, public uses, and related facilities.	C01.101	
9B	The proposed secondary uses are office, hotel, and retail sales – no drive through windows or facilities of any freestanding single unit occupancy are proposed	C01.101	
9C	There have not been any additional buildings proposed beyond the seven (7) shown in the CDP/FDP. The applicant acknowledges the right to construct, place, or install temporary moveable structures and to host special events as indicated in the associated proffer.		
10A-G	The permitted temporary uses are acknowledged – these uses are not specifically identified in Site Plan 6848-SP-014		

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
Cary A. Cagle
Lic. No. 048560
6/26/16
PROFESSIONAL ENGINEER

KEY PLAN

SCALE NORTH

N/A

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY MLJ
APPROVED BY CAP
CHECKED BY CJD
DATE SEPTEMBER 2014

TITLE

PROFFER COMPLIANCE NARRATIVE

SP NO. #6848-SP-014

C10.103

SECTION NO. C10-LETTERS

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Wed, Oct 14, 2015 - 8:21:58am

C. Promotional activities of retail merchants, hotel operators and office tenants, both on an individual and collective basis;

D. Sales, marketing and rental offices;

E. Commercial or construction off-street surface parking spaces, construction staging areas and construction storage areas within Land Bays and building footprints prior to ultimate development;

F. Mobile food or retail sales carts, trucks or other vehicles (e.g., District Taco cart or London Fashion Bus) that would visit the Property at specific times during the day but would not park overnight; or

G. Pop-up retail uses established on a short term basis offering a variety of creative products or services, including, but not limited to, the retail sale of boutique and vintage clothing, cosmetics, home wares, accessories, flowers, gallery art, sports and team merchandise, seasonal items and other items or services promoting specific branding opportunities.

11. Festivals, Fairs or Similar Activities. The Applicant shall be permitted to provide festivals, fairs, contests, sports events, music, theatrical and other performances, public gathering functions or similar activities on the Property, subject to the limitations below, either in interim surface parking lots, within the Plazas (as defined in Proffer 71) or within other publically accessible privately owned open space as shown on the CDP/FDP. If not a Temporary Use as defined in Proffer 10 or a recurring event, then the Applicant shall coordinate with the Zoning Administrator regarding the issuance or approval of a temporary Special Permit as may be required under the Ordinance. All activities shall occur in accordance with the following provisions:

A. Maximum of 64 events per year;

B. May be provided with or without admission or other fees;

C. Sponsored by the Applicant, or their designee, a civic organization, public entity including the FCPA, local chamber of commerce, charitable organization, service club, non-profit or similar entity;

D. Complies with all Health Department regulations;

E. Shall not block or impede any fire lane or access to the Metro Station and the Metro Station Facilities; and

F. Shall conform to the standards contained in the Design Guidelines, as described in Proffer 54 below and attached as Exhibit B.

12. Unmanned Freestanding Automatic Teller Machines. The Applicant shall be permitted to install up to five (5) free-standing, unmanned bank teller ("ATM") or other automated machines such as ticket, parking or Metro card machines on the Property; the

footprint of each machine shall not exceed sixteen (16) square feet or any larger industry standard size in the event industry standard sizes change. The ATMs or other machines shall not be counted toward the maximum amount of retail or non-residential GFA permitted on the Property referenced above. ATMs and other machines may be located in kiosks or in a manner that does not interfere with pedestrian movements or safety. This limitation on free standing ATMs and other machines shall not preclude additional ATMs and other machines within buildings or on building facades.

13. Retail Kiosks/Movable Carts/Mobile Vendors. The Applicant shall be permitted to operate movable carts, which shall be defined as temporary, transportable kiosks or containers that (a) serve a retail purpose and/or (b) mobile food trucks or other retail sales vendors, provided the first ten (10) kiosks shall not be counted toward the maximum amount of retail or non-residential GFA permitted on the Property referenced below. Except during times that festivals, fairs or similar activities are being conducted, the maximum number of temporary, transportable kiosks shall not exceed fifteen (15) per Plaza at any given time. Each kiosk/cart shall be no more than 120 square feet. In addition, one newsstand shall be permitted to be up to 1,500 square feet maximum size, which, if not portable, shall, notwithstanding the first sentence of this Proffer 13, be counted against the maximum amount of retail or non-residential GFA permitted on the Property. The carts may be located within Plaza areas and parking areas, as determined by the Applicant, provided that, cumulatively, said carts do not negatively impact streetscape, do not interfere with pedestrian movements, safety or fire/emergency access, and conform to the standards set forth in the Design Guidelines, as described in Proffer 54 below and attached as Exhibit B.

14. Cellar Space. The Applicant reserves the right to utilize Cellar Space constructed as part of the proposed development for all Permitted Uses; provided, however, that the Applicant shall be required to provide parking for the Cellar Space in accordance with the requirements of Article 11 of the Ordinance, as qualified by these Proffers. Any Cellar Space in the buildings shall not contain habitable residential units.

TRANSPORTATION

15. Grid of Streets. With the development of each building within a Land Bay, the frontage improvements along the existing and/or proposed public and/or private streets abutting such building, as generally depicted on the CDP/FDP Phasing Plan, shall be constructed and open for use by the public. The functional classification of the roadways comprising the grid of streets on the Property is summarized below:

Street	Classification
Sunrise Valley Drive	Minor Arterial (Public)
Sayward Boulevard	Collector Street (Public)
Carta Way	Collector Street (Public)
North-South Road	Local Street (Public)

East-West Road	Local Street (Public)
Private Drive	Service Street (Private)

16. Rights-of-Way. The Applicant shall dedicate and convey in fee simple to the Board of Supervisors rights-of-way for each of the public streets listed in Proffer 15 above. Dedication shall include the area of the landscape amenity panel and sidewalk and shall occur at the time of site plan approval unless further qualified by these Proffers.

A. The Applicant shall work diligently with VDOT and FCDOT during the site plan approval processes to ensure that all proposed public streets and areas designated as landscape amenity panels/sidewalks can be accepted for public maintenance as part of VDOT's Secondary Street Acceptance Requirements ("SSAR"). The Applicant shall locate all electrical vaults outside any future right-of-way limits. The public maintenance provisions shall be subject to the following exceptions:

i. If at the time of site plan approval, it is determined that stormwater management facilities or other similar facilities are proposed to be located beneath the landscape amenity panel/sidewalk and such facility locations would prevent VDOT and/or the County from accepting the landscape amenity panel/sidewalk within the right-of-way, the Applicant shall then provide dedication 18 inches from the back of curb to 18 inches from the back of the opposing curb for the street section and shall grant a public sidewalk and utility easement in a form acceptable to the Office of the County Attorney over the area of the amenity panel/sidewalk. This easement shall allow for the installation of signage necessary for safety and operation of the street, as well as parking regulation equipment by VDOT and/or the County.

ii. If at the time of site plan approval it is unclear whether stormwater management facilities, electric vaults or other similar facilities proposed to be located beneath the landscape amenity panel/sidewalk would be acceptable to VDOT and/or the County, then the Applicant shall provide dedication 18 inches from the back of curb to 18 inches from the back of the opposing curb for the street section at the time of site plan approval and shall reserve for potential future dedication the landscape amenity panels and sidewalk areas. A temporary public access easement in a form acceptable to the Office of the County Attorney shall be recorded over the reserved landscape amenity panel/sidewalk until such time as those areas are dedicated. Conveyance of the amenity panel/sidewalk areas to the BOS shall then occur following

construction of the street and streetscape improvements and final street acceptance inspection by Fairfax County and/or VDOT.

iii. Should it be determined following final street acceptance inspection that the landscape amenity panel/sidewalk areas are not acceptable to VDOT to be included in the right-of-way as evidence by VDOT's written certification, then the reservation of potential future dedication of the landscape amenity panel/sidewalk areas shall be released and the Applicant shall grant a permanent public access and maintenance agreement in a form acceptable to the County Attorney over such areas. These easements shall allow for the installation of signage necessary for the safety and operation of the street, as well as parking regulation equipment by VDOT and/or the County. In such event, a PCA, CDPA and/or FDPA will not be required.

17. Public Access Easements. The Applicant shall grant public access easements over the travel ways on the Plazas (as defined in Proffer 71) for both vehicular and pedestrian traffic, as applicable, over the Private Drive, and over certain other portions of the Plazas for pedestrian traffic and public access, including access to the bridge connecting to the Metro Station. The easements shall also allow for the installation of signage necessary for safety and operation of the abutting streets.

With the development of Buildings A1, A2, A3, A4 and D1, the Private Drive as shown on the CDP/FDP in the Phasing Plan, shall be constructed and open for use by the public. The form of the public access easement shall be acceptable to the County Attorney. The public access easement shall expressly permit (i) the temporary closure of a portion of any of the Plazas in connection with construction and special events and otherwise as permitted or required pursuant to an approved Plaza Access Management Plan in accordance with Proffer 76 and (ii) the uses contemplated on the Plazas pursuant to these Proffers and the CDP/FDP, including such uses as special events, public art, outdoor seating (including outdoor seating associated with restaurants), kiosks, mobile food trucks, etc., provided at all times (including during periods of temporary closure) access to the Metro Station platform, the Metro Station Facilities and fire/emergency access is maintained. Any public access easements for pedestrian access that are underneath a building or garage shall be limited vertically in scope to the actual upper and lower area of such breezeway or similar pass through.

18. Transportation Phasing. The transportation improvements provided for in these Proffers shall be constructed in phases as set forth in Proffer 6 or as qualified in Proffer 19 below.

19. On-Site Road Improvements. All on-site public road improvements, on-site service streets together with appropriate/required pavement transitions shall be constructed with the development of individual buildings, and prior to issuance of the first RUP or Non-RUP for the subject new office, hotel, or residential building, or Metro Station Facility as applicable. The Applicant reserves the right, in its sole discretion, to complete such ultimate improvements and any of the other improvements described in this Proffer 19, as a single public improvement

project or in other separate segments, as long as at least the frontage improvements for each respective building and/or Metro Station Facility have been constructed prior to issuance of the first RUP or Non-RUP for that same new building and/or facility. The on-site road improvements shall generally consist of the following:

A. *Sunrise Valley Drive Frontage Improvements.* Sunrise Valley Drive shall be improved to provide for two (2) through lanes in each direction (eastbound and westbound), a raised concrete median, a four foot (4') wide on-road bike lane both eastbound and westbound (exclusive of the adjacent two foot (2') gutter pans), an eight foot (8') wide sidewalk on the south side of the alignment and a single exclusive westbound left-turn lane at the North-South Road as generally reflected in the CDP/FDP consistent with the Phasing Plan and based on a 40 mile per hour (mph) design speed. These roadway improvements to Sunrise Valley Drive, as generally described and referenced above, shall be provided prior to issuance of the first Non-RUP for the Metro Station Facilities, as generally shown on the CDP/FDP. Those streetscape improvements along Sunrise Valley Drive associated with Land Bays A and B shall be constructed commensurate with Buildings A1, A2 and B1, as further qualified by Proffer 21.

PROFFER COMPLIANCE

PERMITTED USES

Proffer #	Response	Associated Plan/Page #	Comments
11A-F	The permitted temporary uses are acknowledged – these uses are not specifically identified in Site Plan 6848-SP-014		
12	The permitted number and size of Automatic Teller Machines is acknowledged – the locations will be determined subsequent to Site Plan approval.		
13	The permitted temporary uses are acknowledged – these uses are not specifically identified in Site Plan 6848-SP-014		
14	There is no Cellar Space proposed with Site Plan 6848-SP-014		

TRANSPORTATION

Proffer #	Response	Associated Plan/Page #	Comments
15	All seven (7) Land Bays and buildings are proposed with Site Plan 6848-SP-014, and all required roadways are proposed with Site Plan 6848-SP-014, proposed with the classification identified in the associated proffer.	C02.101-C02.102; C03.401-C03.405	
16	The Right-of-Way identified in the Site Plan 6848-SP-014 includes the public streets, planting strip, sidewalk, and one (1) foot beyond the sidewalk – which will be dedicated and conveyed upon Site Plan approval.	C02.101-C02.102;	Post-approval conveyance
16A	The Applicant met with VDOT, FCDOT, and DPWES during the design of the Site Plan 6848-SP-014 on August 12, 2014 and continues to coordinate through Site Plan approval and construction. The Applicant continues to coordinate with Dominion VA Power to determine the location and design for electrical infrastructure, and does not propose any electrical vaults in the future right-of-way.		
16Ai	There are no stormwater management facilities proposed beneath the landscape amenity panel/sidewalk, and as such does not prevent VDOT and/or the County from accepting these areas. During a meeting with VDOT, FCDOT, and DPWES on August 12, 2014, it was indicated to the applicant that these facilities were not allowed within the right-of-way, and were therefore not proposed in these locations with Site Plan 6848-SP-014	C02.201-C02.204	To be revisited at Site Plan approval
16Aii	There are no stormwater management facilities, electrical vaults, or similar facilities proposed to be located under the landscape amenity panel/sidewalk with Site Plan 6848-SP-014	C02.201-C02.204	To be revisited at Site Plan approval
16Aiii	During final street acceptance, the Applicant will grant necessary easements, if required, as indicated in the associated proffer.		VDOT street acceptance
17	Public access easements have been proposed on the Plazas over the Private Drive, and over portion of the Plazas. The Private Drive as well as all seven (7) buildings are proposed with Site Plan 6848-SP-014. The Public Access Easements will be recorded to document the permitted conditions as identified in the associated proffer.	C02.201-C02.204	Post-approval conveyance
18	All transportation improvements depicted in the CDP/FDP have been proposed with Site Plan 6848-SP-014	C01.101	
19	All transportation improvements depicted in the CDP/FDP have been proposed with Site Plan 6848-SP-014. The Applicant acknowledges that the roads must be constructed prior to the issuance of the first RUP or Non-RUP for the subject buildings.	C01.101	
19A	Sunrise Valley Drive improvements have been proposed as depicted in the CDP/FDP. The typical road sections conforming to the required geometric design requirements are provided with Site Plan 6848-SP-014. As coordinated with VDOT and FCDOT, bike lanes widths and proposed lanes markings are shown with Site Plan 6848-SP-014, with an associated Pavement and Marking Plan to be submitted for approval to VDOT.	C03.401-C03.402	

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
Guy A. Cargill
Lic. No. 048560
6/26/16
PROFESSIONAL ENGINEER

KEY PLAN

SCALE NORTH

N/A

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY MLJ
APPROVED BY CAP
CHECKED BY CJD
DATE SEPTEMBER 2014

TITLE

PROFFER COMPLIANCE NARRATIVE

SP NO. #6848-SP-014

C10.104

SECTION NO. C10-LETTERS

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project or in other separate segments, as long as at least the frontage improvements for each respective building and/or Metro Station Facility have been constructed prior to issuance of the first RUP or Non-RUP for that same new building and/or facility. The on-site road improvements shall generally consist of the following:

A. *Sunrise Valley Drive Frontage Improvements.* Sunrise Valley Drive shall be improved to provide for two (2) through lanes in each direction (eastbound and westbound), a raised concrete median, a four foot (4') wide on-road bike lane both eastbound and westbound (exclusive of the adjacent two foot (2') gutter pans), an eight foot (8') wide sidewalk on the south side of the alignment and a single exclusive westbound left-turn lane at the North-South Road as generally reflected in the CDP/FDP consistent with the Phasing Plan and based on a 40 mile per hour (mph) design speed. These roadway improvements to Sunrise Valley Drive, as generally described and referenced above, shall be provided prior to issuance of the first Non-RUP for the Metro Station Facilities, as generally shown on the CDP/FDP. Those streetscape improvements along Sunrise Valley Drive associated with Land Bays A and B shall be constructed commensurate with Buildings A1, A2 and B1, as further qualified by Proffer 21.

B. *Carta Way Improvements.* Prior to the issuance of a Non-RUP for the Metro Station Facilities, Carta Way will be constructed from its current terminus north to intersect Sunrise Valley Drive as a four-lane, undivided roadway with sidewalks along both the east and west sides of Carta Way as generally depicted on the Phasing Plan of the CDP/FDP and based on a design speed of 30 mph. The final design and extent of these ultimate improvements to Carta Way as generally described and referenced below shall be determined prior to the submission of the site plan for the Metro Station Facilities.

i. The Applicant shall construct streetscape improvements on the east side of proposed Carta Way within the existing right-of-way which shall include a four foot (4') buffer strip and a five foot (5') wide sidewalk. Notwithstanding, at the time of final engineering and site plan approval for the Metro Station Facilities, the Applicant shall consider the feasibility of an alternative design for these streetscape improvements that meets VDOT's sidewalk standard but further minimizes or eliminates the need for a retaining wall (e.g., grade to the face of the existing parking garage).

ii. In conjunction with the Carta Way improvements described above, the Applicant shall design and construct a total of four (4) saw tooth Bus Bays with shelters along the west side of Carta Way between the entrance to the planned Kiss and Ride Facilities and Sunrise Valley Drive as shown on the CDP/FDP. The Bus Bay area shall be distinguished from the adjacent travel lanes associated with Carta Way through the use of concrete or other such differing materials. Prior to the submission of the first site plan for the Metro Station Facilities, the Applicant shall coordinate the final design of these bays and shelters with FCDOT.

C. *North-South Road.* Prior to the issuance of a Non-RUP for the Metro Station Facilities, a new North-South Road shall be constructed by the Applicant extending south from Sunrise Valley Drive to the new East-West Road. This new local road shall consist at a minimum of two (2) northbound lanes and two (2) southbound lanes, as well as construction of the streetscape along the Land Bay C frontage. The streetscape along the frontages of Land Bays A, B and D shall be constructed as shown on the CDP/FDP, as may be modified and/or as generally described below. The streetscape associated with each of Buildings A2, A3, B1, B2 or D1 building frontage will be constructed in conjunction with the individual building.

D. *East-West Road - Carta Way to North-South Road.* If not previously constructed by others, then prior to the issuance of a Non-RUP for the Metro Station Facilities, the Applicant shall construct or finish the construction of a new local street referred to as the East-West Road, as shown on the CDP/FDP, extending west from existing Carta Way to the North-South Road. Notwithstanding what is shown on the CDP/FDP, the area of right-of-way dedication along the Land Bay C frontage may be shifted to 18 inches behind the back of curb if needed to meet the tree canopy requirements. In such event, the Applicant shall provide a public access and maintenance easement, in a form acceptable to the County Attorney, over the streetscape (including the landscape amenity panel and sidewalk).

E. *East-West Road - North-South Road to Private Drive.* If not previously constructed by others, then prior to the issuance of the first Non-RUP for Building D1, the Applicant shall construct or finish the construction of another portion of a new local street known as the East-West Road from the North-South Road west to the Private Drive and then south to Sayward Boulevard as generally reflected in the CDP/FDP, and specifically in the Phasing Plan. Notwithstanding what is shown on the CDP/FDP, the area of right-of-way dedication along the Land Bay D frontage may be shifted to 18 inches behind the back of curb if needed to meet the tree canopy requirements. In such event, the Applicant shall provide a public access and maintenance easement, in a form acceptable to the County Attorney, over the streetscape (including the landscape amenity panel and sidewalk).

F. *Construction of East-West Road by Others.* In the event the East-West Road has been completely constructed by others prior to the submission of a site plan for the Metro Station Facilities, then the Applicant shall contribute to the County one-half of the hard and soft costs associated with the design and construction of said road as evidenced by invoices. The Applicant's intent for such contribution is that the monies shall be released by the County to the party responsible for the road's design and construction.

G. *Intersection Improvements.* The Applicant shall construct the following intersection improvements as described below and reflected in the CDP/FDP and on the Phasing Plan.

I. *Carta Way/East-West Road.* Prior to the issuance of the Non-RUP for the Metro Station Facilities, the Applicant shall construct the following improvements as described more fully below:

(1) Remove all or a portion of the raised median on Carta Way as may be recommended by VDOT in order to facilitate the connection of the new East-West Road;

(2) If the installation of a new signal has not been approved by VDOT for this intersection as more fully described in Proffer 20.C or VDOT determines sufficient sight distance is not available for vehicles exiting the East-West Road onto northbound Carta Way, then, in conjunction with the construction of the Metro Station Facilities and only if required by VDOT and FCDOT, the Applicant in the interim may stripe out a portion of the pavement along the western curb line on Carta Way south of the East-West Road in order to increase the sight distance for vehicles turning onto Carta Way from the East-West Road; and

(3) In the event VDOT and FCDOT require restriping of the pavement referenced in subparagraph (2), then the Applicant shall contribute to the County at the time of issuance of the Non-RUP for the Metro Facilities, the cost to restripe the pavement in the event VDOT approves a signal at this location in the future.

H. *VDOT Approval.* All public street improvements, lane use designations, signal installations, crosswalks and/or other pavement markings proposed herein and reflected on the CDP/FDP are subject to VDOT review and approval at the time of site plan. Any changes to the same identified at time of site plan submission, shall be coordinated with the FCDOT and DPZ and may not require a PCA/CDPA and/or FDPA.

I. *Supplemental Traffic Analyses.* At the time of site plan submission for each new building located within Land Bays A, B and D and subsequent to approval of this Rezoning, supplemental operational traffic analyses of the points of access to those Land Bays shall be provided if required by VDOT or FCDOT. For purposes of this Proffer, such analyses shall only be required if the building generates more than an additional 100 peak hour directional trips (either inbound or outbound) over that reflected in the *Innovation Center South Traffic Impact Analysis* prepared by Wells + Associates dated October 21, 2013, as revised through January 3, 2014 (the "Traffic Impact Analysis"). Such supplemental operational analyses shall be limited to an assessment of those driveways and/or intersections directly serving the particular building and Property. The Applicant shall identify such roadway improvements and/or transportation enhancements which may be needed to address the results of the operational analyses and shall discuss those results with FCDOT and VDOT to

determine what, if any, additional mitigation measures may be required to those intersections and/or driveways directly serving the Property.

J. *Installation of Streetscape and Pedestrian Improvements.*

i. Community Association Maintenance. The Applicant agrees, that (i) the Applicant or the Community Association contemplated in Proffer 91 herein shall maintain any of such improvements that are not in the public right-of-way and shall maintain such improvements that are in the public right-of-way that VDOT will not accept for maintenance (see Proffer 16) or (ii) for any improvements to be located in the public right-of-way, the Applicant will use materials acceptable to VDOT if VDOT will not consent to the maintenance of such elements by the Applicant. The Community Association documents shall disclose the existence of such maintenance obligations, if applicable.

ii. Streetscape and Pedestrian Improvements. Streetscape improvements and plantings shall be installed as indicated on the CDP/FDP prior to the final RUP and/or Non-RUP associated with the public improvement plan or site plan that includes such improvements. In addition to the provisions contained in Proffer 69 below for utilities, the Applicant reserves the right, in consultation with the Zoning Administrator, to shift the locations of the various streetscape elements to accommodate final architectural design, VDOT requirements, utilities and layout considerations, and sight distance requirements, provided that the tree canopy on CDP/FDP is maintained as reviewed and approved by UFMD.

K. *Metro Station Facilities Dedication.* The Applicant shall dedicate and convey in fee simple to the Board of Supervisors approximately 2.54 acres of Parcel 13 prior to the first site plan approval for the project, or sooner upon written request by the County. Such dedicated area shall be combined with Parcel 3B and used in conjunction with the development of the Metro Station Facilities, as and to the extent shown on Sheet A-100 of the CDP/FDP.

20. Traffic Signals.

A. As reflected in the Traffic Impact Analysis, the Applicant anticipates the installation of up to five (5) new traffic signals in the area surrounding and/or proximate to the Property. Towards that end, the Applicant shall complete and submit to VDOT and FCDOT warrant studies for the installation of these new traffic signals at the following locations:

i. Sunrise Valley Drive/North South Road

ii. Sunrise Valley Drive/Carta Way

iii. Sunrise Valley Drive/Sayward Boulevard

iv. Carta Way/East-West Road

PROFFER COMPLIANCE

TRANSPORTATION				
Proffer #	Response	Associated Plan/Page #	Comments
19B	Carta Way improvements have been proposed as generally depicted in the CDP/FDP. The typical road sections conforming to the required geometric design requirements are provided with Site Plan 6848-SP-014. The Applicant has coordinated the designs with the Metro Station Facility design team (via e-mail and PDF plans) on August 25, 2014.	C03.403	
19Bi	The typical road section for Carta Way proposes a five foot (5') wide sidewalk without a wall, and has coordinated with the structural engineer for the parking garage confirming that there is no concern with the proposed grading shown in the Site Plan 6848-SP-014.	C03.403	
19Bii	The Site Plan 6848-SP-014 proposes the construction of the four (4) required saw tooth Bus Bays – the associated Fairfax County Site Plan 6848-SP-014 proposed the construction of bus shelters. The saw tooth Bus Bays are proposed to be concrete to contrast with the asphalt pavement of Carta Way to provide a distinction. The Applicant has coordinated the design with FCDOT during a meeting on August 12, 2014 and will continue to coordinate with FCDOT through the Site Plan approval	C01.101	
19C	North-South Road (renamed as Innovation Center Drive) improvements have been proposed as depicted in the CDP/FDP. The typical road sections conforming to the required geometric design requirements are provided with Site Plan 6848-SP-014.	C04.402	
19D	East-West Road (Carta Way to North-South Road) improvements have been proposed with Site Plan 6848-SP-014 as generally depicted in the CDP/FDP, and in coordination with the adjacent property Applicant that had previously coordinated the design. The typical road sections conforming to the required geometric design requirements are provided with Site Plan 6848-SP-014.	C03.405	
19E	East-West Road (North-South Road to Private Drive) improvements have been proposed with Site Plan 6848-SP-014 as generally depicted in the CDP/FDP, and in coordination with the adjacent property Applicant that had previously coordinated the design. Additionally, the connection from the East-West Road & Private Drive intersection southerly to Sayward Boulevard is proposed with Site Plan 6848-SP-014. The typical road sections conforming to the required geometric design requirements are provided with Site Plan 6848-SP-014.	C03.405	
19F	East-West Road construction has been proposed by the Applicant with Site Plan 6848-SP-014	C03.405	
19G	-		
19Gi	Carta Way/East-West Road intersection (1) The existing concrete median is proposed to be removed with the associated Public Improvement plan 6848-PI-003 during the construction of the storm sewer outfall system within Carta Way. The road markings in this area are proposed to accommodate bike lanes as coordinated with VDOT and FCDOT (2) Adequate sight distance has been shown within Site Plan 6848-SP-014, and the western curb edge of Carta Way south of this intersection is shown to remain. (3) The Applicant will coordinate with VDOT and FCDOT during the approval process of Site Plan 6848-SP-014 to determine potential contributions.	(2)C03.702	(3) Potential contribution
19H	The applicant has coordinate with VDOT and obtained approval VDOT of the designs shown in Site Plan 6848-SP-014 on Jun 26, 2015		
19I	The Applicant will provide the supplemental operational traffic analyses of access points to the Land Bays if required by VDOT or FCDOT – during coordination with VDOT and FCDOT, this requirement has not been identified prior to first submission of Site Plan 6848-SP-014. The supplemental operation traffic analysis was not requested after the first submission of 6848-SP-014.		First Submission, as required by VDOT or FCDOT
19J	-		
19Ji	The Applicant or Community Association agrees to maintain improvements that are located outside of the public right-of-way, and will coordinate with VDOT for the maintenance agreements and acceptable improvements proposed within the right-of-way.		
19Jii	All streetscape and pedestrian improvements are proposed with Site Plan 6848-SP-014, and will be constructed with the associated building development prior to the associated final RUP and/or Non-RUP for the development. The Applicant will continue to coordinate with VDOT and UFMD regarding permissible streetscape.		Condition applies to final RUP and/or Non RUP
19K	The dedication and conveyance area is identified on Site Plan 6848-SP-014, and will be dedicated and conveyed prior to approval of the Site Plan, if not sooner requested by Fairfax County.		Conveyance prior to Site Plan approval
20	TRAFFIC SIGNALS		
20A	Traffic signal warrant studies will be submitted to VDOT and FCDOT for the intersections identified with the associated proffer, and will comply with the timing of submission as identified under Proffer 20B		

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
Cap A. Dewberry
Lic. No. 043560
PROFESSIONAL ENGINEER

KEY PLAN

SCALE NORTH

N/A

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY MLJ
APPROVED BY CAP
CHECKED BY CJD
DATE SEPTEMBER 2014

TITLE

PROFFER COMPLIANCE NARRATIVE

SP NO. #6848-SP-014

C10.105

SECTION NO. C10-LETTERS

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v. Carta Way/Sayward Boulevard

B. Warrant studies shall be completed and submitted in accordance with the submission of site plans as follows:

i. Within six (6) months after the issuance of the Non-RUP for the Metro Station Facilities.

ii. Prior to issuance of the first RUP or Non-RUP for the 2nd new building on the Property.

iii. Prior to issuance of the first RUP or Non-RUP for the 4th new building on the Property.

iv. No earlier than six (6) months after the issuance of the first RUP or Non-RUP for the last new building on the Property but in any event no later than bond release for the last new building.

v. The warrant studies shall include an assessment of then-existing traffic conditions associated with the completion of the building trigger (i.e., 2nd, 4th and last new building) as well as full build out.

C. If any signal location identified in Subparagraph A is deemed warranted by VDOT after having reviewed any warrant study completed in accordance with the timelines established in Subparagraph B and approved it for installation, then such traffic signal, including pedestrian enhancements and uninterrupted power supply systems ("UPS") (as may be required by VDOT,) shall be designed, equipped and installed by the Applicant. In such event, no further warrants shall be required for that individual location and this proffer is of no further force or effect.

D. If a signal is deemed not warranted by VDOT at any of the locations identified in Subparagraph A after having reviewed the triggered warrant study, then such location shall be reviewed again in accordance with the schedule outlined in Proffer 20.B.i through iii.

E. If a signal is deemed not warranted by VDOT at any of the locations identified in Subparagraph A at the time identified in Proffer 20.B.iv, then the Applicant shall contribute to the County, its PM peak hour pro-rata share (as v identified below) of the costs associated with the future installation of a signal as these locations by others:

i. Sunrise Valley Drive/North-South Road (33%);

ii. Sunrise Valley Drive/Carta Way (25%);

iii. Sunrise Valley Drive/Sayward Boulevard (20%);

iv. Carta Way/East-West Road (18%); and

v. Carta Way/Sayward Boulevard (21%).

The County, in its sole discretion, may use any such signal funds contributed by the Applicant in accordance with this Proffer for other transportation related improvements within close proximity to the Property.

21. Sight Lines. All sight lines at building entrances and street intersections shall comply with VDOT's Road Design Manual (Appendix F, Table 2-7) as generally depicted in the CDP/FDP and shall be refined at the time of applicable site plans. Notwithstanding the aforementioned, no building shall be constructed on Building Site A2 until such time as the appropriate intersection sight distance is provided from the North-South Road onto Sunrise Valley Drive as reflected on the CDP/FDP and as long as there are no impacts to the required streetscape as determined by DPZ.

22. Route 28 Station Transportation Fund. The Applicant shall make a one-time contribution to a fund established by the County for transportation improvements in the Route 28 Station area. Such contribution shall be paid in conjunction with the issuance of the first RUP or Non-RUP for each new building to be constructed on the Property at a rate to be established by the Board of Supervisors, but in any event no less than $7.05 per gross square foot of new commercial uses on the Property and $1,000.00 per new residential unit on the Property. The Applicant shall receive credit against the contributions referenced above for the following in-kind contributions:

A. The value of approximately 2.54 acres dedicated to the County for the construction of the Metro Station Facilities, as described more fully in Proffer 19.K based on the PRM zoning district valuation.

B. Costs incurred by the Applicant to reconstruct Sunrise Valley Drive along the full frontage of the Property which advance the improvement beyond those reasonably expected with Phase I of the project. These improvements are exclusive of streetscape improvements.

Notwithstanding the above, the total contribution due from the Applicant to the Route 28 Station Fund shall be deemed satisfied and provided in full by the provisions of those in-kind improvements listed above.

TRANSPORTATION DEMAND MANAGEMENT (excluding Metro Station Facilities)

23. Dulles Area Transportation Association. The Applicant shall join and participate in the Dulles Area Transportation Association ("DATA").

24. TDM Administrative Group. The Applicant shall establish a TDM Administrative Group ("AG") to fund, implement and administer the transportation demand management program ("TDM Program") for the Property as described more fully below. The AG shall include, at a minimum, one representative for each of Land Bays A through D. Prior to approval of the first site plan for new development on the Property, evidence shall be provided to FCDOT that the AG has been established.

25. Trip Reduction Objective. The objective of this TDM Program shall be to reduce the vehicle trips generated by the planned new office and residential uses (excluding hotel and secondary retail uses) during weekday peak hours in accordance with the County's TDM Guidelines for Fairfax County, dated January 1, 2013. The vehicle trip reduction goal for new office and residential uses to be constructed on the Property is forty-five percent (45%). To determine the maximum total peak hour trips expected to be generated by the Property, the Applicant shall multiply the total number of residential and vehicle trips that would be expected to be generated by the proposed office and residential uses as determined by the application of the Institute of Traffic Engineers, 9th Edition, Trip Generation rates and/or equations ("ITE Trip Generation") by the appropriate percentage goal; the product of which shall be referred to herein as the "Maximum Trips After Reduction." For purposes of this calculation, the maximum number of dwelling units proposed to be constructed on the Property is 925 (plus those additional units associated with bonus density) and the gross square footage of office area is 501,000, and these amounts shall be applied to the calculation described in the preceding sentence.

26. TDM Program Components. The TDM Program may include, but not necessarily be limited to, the following components:

A. Property-wide TDM Program Management;

B. Dissemination of County/Regional Program Information;

C. Live-Work-Play Marketing;

D. Bicycle facilities, as set forth in Proffer 40;

E. Regular monitoring/reporting; and/or

F. Parking Management.

27. Process of Implementation. The TDM Program shall be implemented as follows, provided that modifications, revisions, and supplements to the implementation process as set forth herein as coordinated with FCDOT can be made without requiring a PCA/CDPA and/or FDPA.

28. TDM Program Manager. The Applicant shall appoint and continuously employ, or cause to be employed, a TDM Program Manager ("TPM") for the Property. The TPM shall be appointed no later than sixty (60) days after the issuance of the first building permit for the first new office or residential building to be constructed on the Property. The TPM duties may be part of other duties associated with the appointee. The Applicant shall notify FCDOT and the District Supervisor in writing within ten (10) days of the appointment of the TPM. Thereafter, the Applicant (or AG as applicable) shall do the same within ten (10) days of any change in such appointment.

29. TDM Work Plan (later the "Annual Report") and Annual Budget. If not already effectuated for the then-current calendar year, the TPM shall prepare and submit to FCDOT an initial TDM Work Plan ("TDMWP") (and thereafter an Annual Report and Annual Budget as

described below) no later than 180 days after issuance of the first building permit associated with the first new residential or office building on the Property. The Annual Report shall include, at a minimum:

A. Details as to the start-up/on-going components of the TDM Program;

B. The budget needed to implement the TDM program ("TDM Budget") for the coming calendar year;

C. A determination of the applicable Maximum Trips After Reduction for the Property in accordance with the above; and

D. Provision of the specific details associated with the monitoring and reporting requirements of the TDM program in accordance with the TDM plan.

The initial Annual Report and subsequent Annual Report shall be reviewed by FCDOT. If FCDOT has not responded with any comments within sixty (60) days after submission, then the TDM Program shall be deemed approved, and the TDM Program shall be implemented. If FCDOT responds with comments on the TDM Program and/or TDM Budget, then the TPM will meet with FCDOT staff within fifteen (15) days of receipt of the County's comments. Thereafter, but in any event, no later than thirty (30) days after the meeting, the TPM shall submit such revisions to the TDM Program as discussed and agreed to with FCDOT and begin implementation of the approved program and fund the approved TDM Budget.

Thereafter, the TPM shall by no later than May 1st of each calendar year submit an Annual Report summarizing the results of the TDM Program and updating the TDM Program and TDM Budget for the coming calendar year. The Annual Reports shall be subject to the same review and approval process as described in this Proffer 29 for the initial submission.

30. TDM Account. If not previously established, the TPM shall establish a separate interest bearing account with a bank or other financial institution qualified to do business in Virginia ("TDM Account") within thirty (30) days after approval of the initial TDMWP and subsequent Annual Report and TDM Budget. All interest earned on the principal shall remain in the TDM Account and shall be used by the TPM for TDM purposes. The TDM Account shall be funded by the Applicant through the TPM. Funds in the TDM Account shall not be utilized for purposes other than to fund TDM strategies/programs and/or specific infrastructure needs as may be approved in consultation with FCDOT. Funding of the TDM Account shall be in accordance with the TDM Budget for the TDM Program elements to be implemented in such calendar year. The TPM shall provide written documentation to FCDOT demonstrating the establishment of the TDM Account within ten (10) days of its establishment. The TDM Account shall be replenished annually thereafter following the establishment of each year's TDM Annual Budget and submission of the Annual Report. The TDM Account shall be managed by the TPM.

31. TDM Remedy Fund. At the same time the TPM creates and funds the TDM Account, the TPM shall establish a separate interest bearing account (referred to as the "TDM Remedy Fund") with a bank or other financial institution qualified to do business in Virginia. Such funding of the TDM Remedy Fund shall be made one time at the rate of $0.20 per gross square foot of new office uses and $0.10 per gross square foot of new residential uses to be

PROFFER COMPLIANCE

TRANSPORTATION

Proffer #	Response	Assoc. Plan/Page #	Comments
20B	The Applicant will comply with the traffic signal warrant study submission as indicated.		Studies to be completed after issuance of County Garage Non-RUP
20C	The Applicant acknowledges the traffic signal warrant submission timeline and the responsibility for designing, equipping, and installing any traffic signals warranted by VDOT (including the uninterrupted power supply). Approximate locations of the potential traffic signals are shown on Site Plan 6848-SP-014 for context. A formal traffic signal plan will be submitted to VDOT as required.	C02.101-C02.104	
20D	The Applicant acknowledges the traffic signal warrant submission timeline and the responsibility for resubmission of signals that are not initially warranted.		
20E	The Applicant acknowledges the contribution that may be required for future installation of traffic signals, if not warranted by VDOT.		Potential financial contribution
21	All building entrances and street intersections within the public right-of-way have been evaluated to confirm adequate sight distance exists. The sight distance at North-South Road/Sunrise Valley Drive has been evaluated to verify that Building A2 does not conflict with the sight distance – a note has been added in this area regarding the need for the installation of a traffic signal prior to the installation of the landscaping along Sunrise Valley Drive.	C03.701-C03.707	X
22	The Applicant acknowledges the contribution requirements		

TRANSPORTATION DEMAND MANAGEMENT

Proffer #	Response	Assoc. Plan/Page #	Comments
23	The Applicant will join and participate in the Dulles Area Transportation Association.		
24	The Applicant will establish a TDM Administrative Group (AG), and will provide evidence to FCDOT prior to the approval of Site Plan 6848-SP-014		TDM Requirement
25	The TDM Program will include the information required under the associated proffer.		TDM Requirement
26	The TDM Program will include the information required under the associated proffer.		TDM Requirement
27	The TDM Program will be implemented as required		TDM Requirement
28	A TDM Program Manager will be appointed no later than sixty (60) says after the issuance of the first building permit, and the Applicant will notify FCDOT and the District Supervisor as required under the associated proffer.		TDM Requirement
29	The Applicant will notify the TPM and FCDOT of the TDMWP requirements.		TDM Requirement
30	The Applicant will notify the TPM of the TDM Account requirements.		TDM Requirement
31	The Applicant will notify the TPM of the TDM Remedy Fund requirements.		TDM Requirement

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
Cory A. Phillips
Lic. No. 048560
2015-10-14
PROFESSIONAL ENGINEER

KEY PLAN

SCALE NORTH

N/A

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY MLJ
APPROVED BY CAP
CHECKED BY CJD
DATE SEPTEMBER 2014

TITLE

PROFFER COMPLIANCE NARRATIVE

SP NO. #6848-SP-014

C10.106

SECTION NO. C10-LETTERS

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constructed on the Property. Funding shall be provided by the Applicant prior to the issuance of the first RUP for the first new residential or first Non-RUP for the first new office building constructed on the Property. This amount shall be adjusted annually as set forth in Proffer 94 below. Funds from the TDM Remedy Fund shall be drawn upon only for purposes of immediate need for TDM funding and may be drawn on prior to any TDM Budget adjustments as may be required.

32. TDM Incentive Fund. The "TDM Incentive Fund" is an account into which the Applicant through the TPM, shall deposit contributions to fund a multimodal incentive program for initial purchasers/lessees within the residential (non-hotel) component of the development. Such contributions shall be made one time at the rate of $0.02 per gross square foot of new residential and offices uses constructed on the Property and provided prior to the issuance of the first RUP or Non-RUP, as applicable. This amount shall be adjusted annually as set forth in Proffer 94 below. If funds remain after incentives are provided to initial purchasers/lessees, the Applicant shall continue to provide incentives until the fund is depleted.

33. Monitoring. The TPM shall verify that the proffered trip reduction goals are being met through the provision of person surveys, trip counts of residential uses and/or other such methods as may be reviewed and approved by FCDOT. Surveys shall be conducted and traffic counts collected for the Property beginning with the first January after issuance of the first initial RUP or Non-RUP for the first new building on the Property. Surveys shall be conducted every three (3) years and Vehicular Traffic Counts shall be collected annually until the results of three (3) consecutive annual traffic counts conducted upon Build Out (as defined herein) show that the applicable trip reduction goals for the Property have been met. For purposes of these TDM Proffers only, "Build Out" is defined as 100% of the new office and residential buildings on the Property, as reflected on the CDP/FDP, being constructed and each are at least 85% occupied. Any time during which Person Survey response rates do not reach 20%, FCDOT may request additional surveys be conducted the following year. At such time and notwithstanding Proffer 37 below, Person Surveys and Vehicular Traffic Counts shall thereafter be provided every five (5) years. Notwithstanding the aforementioned, at any time prior to or after Build Out, FCDOT may suspend such Vehicle Traffic Counts and/or Person Surveys if conditions warrant such without the need for a PCA.

34. Remedies. If the TDM Program monitoring reveals that the Maximum Trips After Reduction for the Property is exceeded, then the TPM shall meet and coordinate with FCDOT to address, develop and implement such remedial measures as may be, but not limited to those, identified in the TDM Plan and Annual Report.

A. Such remedial measures (each a "Remedy") shall be funded by the TDM Remedy Fund; the amount of additional monies to be expended annually on remedial measures shall be based on the following scale:

Trip Goals Exceeded	Remedy Expenditure
Up to 1%	No Remedy needed
1.1% to 3%	3% of Remedy Fund
3.1% to 6%	6% of Remedy Fund
6.1% to 10%	10% of Remedy Fund
Over 10%	15% of Remedy Fund

B. There is no requirement to replenish the TDM Remedy Fund at any time. Any cash left in the Remedy Fund shall be released to the Applicant once three (3) consecutive counts conducted upon Build Out show that the Maximum Trips After Reduction has not been exceeded.

35. Additional Trip Counts. If an Annual Report indicates that a change has occurred that is significant enough to reasonably call into question whether the applicable vehicle trip reduction goals continue to be met, then FCDOT may require the TPM to conduct additional Trip Counts within ninety (90) days to determine whether in fact such objectives are being met. If any such Trip Counts demonstrate that the applicable vehicle trip reduction goals are not being met, then the TPM shall meet with FCDOT to review the TDM strategies in place and to develop modifications to the TDM Plan to address the surplus of trips.

36. Review of Trip Reduction Goals. At any time and concurrent with remedial actions as outlined in Proffer 34, the Applicant may request that FCDOT review the vehicle trip reduction goals established for the Property and set a revised lower goal for the Property consistent with the results of such surveys and traffic counts provided for by this Proffer or consistent with future changes in County policy. In the event a revised lower goal is established for the Property, the Maximum Trips After Reduction shall be revised accordingly for the subsequent review period without the need for a PCA.

37. Continuing Implementation. The Applicant through the TPM shall bear sole responsibility for the implementation of the TDM Program and compliance with this Proffer. The Applicant through the TPM shall continue to administer the TDM Program in the ordinary course in accordance with this Proffer including submission of Annual Reports.

38. Notice to Owners. The current owner shall advise all successor owners and/or developers of their funding obligations pursuant to the requirements of this Proffer prior to purchase and the requirements of the TDM Program, including the annual contribution to the TDM Program (as provided herein), shall be included in all initial and subsequent purchase documents.

39. Enforcement. If the TPM fails to timely submit a report to FCDOT as required by this Proffer, the County will thereafter issue the TPM a written notice stating the TPM has violated the terms of this Proffer and providing the TPM with sixty (60) days within which to cure such violation. If after such sixty (60) day period the TPM has not submitted the delinquent report, then the Applicant shall be subject to a penalty of $75 per day until such time as the report is submitted to FCDOT. Such penalties shall be payable to the County and shall be used for transit, transportation, or congestion management improvements within the vicinity of the Property.

BICYCLE FACILITIES

40. Bicycle Parking and Storage. Bicycle racks and/or bike storage areas shall be provided within each Land Bay, with the specific amounts and locations finalized prior to site plan approval in consultation with the FCDOT Bicycle Coordinator or his designee. Bicycle racks located outside of buildings and inside parking garages shall be inverted U style racks or other design approved by FCDOT. The minimum number of bike parking/storage spaces provided for Land Bays A, B and D shall be as stated in the tabulation included as part of Sheet A-100 of the CDP/FDP. Signage shall be posted on the exterior side of buildings closest to entrances to bike parking/storage space and on certain permitted wayfinding signage to indicate bike parking/storage.

41. Bicycle Lanes. Subject to VDOT approval and in combination with the street and streetscape improvements identified in these Proffers, pavement and striping for an on-street bicycle lane along the Sunrise Valley Drive frontage of Land Bays A and B shall be provided as depicted on the CDP/FDP with the final dimension determined at prior to site plan approval and in consultation with the FCDOT Bicycle Coordinator or his designee. In addition, the Applicant shall designate the outside lane along northbound and southbound Carta Way with a sharrow (shared-lane marking) if requested by FCDOT and subject to VDOT approval.

PARKING (EXCLUDING METRO STATION FACILITIES)

42. Parking Requirements. Parking on the Property shall be provided in accordance with the parking requirements for the PRM District as set forth in Article 11 of the Zoning Ordinance, subject to the processing of the parking reduction(s) described in Proffer 50, and as shown on Sheet C-2b of the CDP/FDP. The exact number of parking spaces to be provided for each Land Bay shall be refined and determined at the time of site plan approval based on the specific uses of each Land Bay. If changes in the mix of uses or unit types result in parking greater than that anticipated on the CDP/FDP (e.g., bonus density developed), the additional parking spaces shall be accommodated within the proposed parking garages and other facilities, so long as the maximum height and footprints of the parking garages and other facilities do not increase from that shown on the CDP/FDP. As development and parking construction is phased, the Applicant reserves the right to provide parking in excess of the minimum required per Ordinance, provided that upon the completion of all buildings shown on the CDP/FDP, parking does not exceed the minimum number required by Article 11 of the Ordinance as it exists today.

43. On-Street Parking Spaces on the Private Drive. On-street parking may be provided along the Private Drive reflected on the CDP/FDP to meet the parking requirements of the Zoning Ordinance, so long as such spaces are striped and meet the dimension requirements of the PFM, subject to receiving approval of any necessary waivers and/or modifications. Parking spaces on the Private Drive that are included as required spaces shall not be restricted at any time. Parking on the Private Drive may be restricted through appropriate signage or such other means as determined appropriate by the Applicant as to respective Land Bays, and on-street parking along future public streets prior to dedication, that otherwise are not required to satisfy the parking requirements may be used as temporary or short term parking, car-sharing parking and/or similar uses.

44. Parking Restrictions. All Land Bays may provide gated/restricted parking within the parking garages and other facilities within the respective Land Bays. If gates are provided in any of the parking garages or other facilities, then such gates should be located to provide sufficient stacking capacity within the parking garage or facility to prevent vehicles from stacking onto public roads.

45. Parking for Residential Uses. If parking is to be assigned to specific dwelling units, not less than one space shall be assigned to each unit, including WDUs. Otherwise, dwelling units shall be offered exclusive of parking such that parking shall be available at a separate cost.

46. Paid Parking for Non-Residential Uses. The Applicant may charge for parking within Land Bays A or B, on a per space basis, at rates that the Applicant deems to be market-competitive.

47. Commercial Off-Street Parking.

A. Commercial off-street parking may be provided on an interim basis in new surface lots to be constructed on the Property without approval of an FDPA.

B. With approval of an FDPA, commercial off-street parking may be provided on an interim basis in new parking structures built to support the new on-site uses, which due to phasing may have excess parking capacity.

C. Prior to site plan approval or issuance of a Non-RUP for commercial off-street parking in new surface lots or garages (excluding the Metro Station Facilities on Land Bay C), the Applicant shall provide an operational traffic analysis ("Operational Analysis") of points of access to such parking facilities. Such Operational Analysis shall be limited to an assessment of those driveways serving the particular parking facilities (surface or structure) and any proposed access controls. The Applicant shall identify such improvements and/or transportation enhancements needed to address the results of the operational analyses and shall discuss those results with FCDOT and VDOT to determine what if any additional mitigation measures may be required. In no event, shall the Applicant be required to provide additional improvements to any but those intersection and/or driveways directly serving the commercial parking.

48. Parking Controls. The Applicant shall provide controlled access to the parking garages and other Facilities and shall ensure that the control equipment is capable of counting vehicles entering and exiting the garages (with the exception of the Metro Station Facilities on Land Bay C) and Facilities. Such controls shall direct vehicles to available spaces and shall be located so as to avoid vehicle stacking on the public streets.

49. Electrical Vehicle Charging Infrastructure. The Applicant shall provide a minimum of one recharging station that serves two (2) parking spaces for electric cars within each parking structure within the Property (excluding the Metro Station Facilities). The Applicant shall also provide either: (a) one or more than one additional recharging station(s) that each serves two (2) parking spaces for electric cars with the initial construction of at least one (1)

PROFFER COMPLIANCE

TRANSPORTATION DEMAND MANAGEMENT

Proffer #	Response	Assoc. Plan/Page #	Comments
32	The Applicant will notify the TPM of the TDM Incentive Fund system.		TDM Requirement
33	The Applicant will notify the TPM of the monitoring requirements and submission, review and approval requirements with FCDOT.		TDM Requirement
34	The Applicant will notify the TPM of the remedy requirements established by the associated proffer.		TDM Requirement
35	The Applicant will notify the TPM of the requirements established by the associated proffer.		TDM Requirement
36	The Applicant will notify the TPM of the potential for FCDOT review for potential adjustments in accordance with the associated proffer.		TDM Requirement
37	The Applicant will notify the TPM of the requirements established by the associated proffer.		TDM Requirement
38	The Applicant will notify the TPM of the obligations established by the associated proffer.		TDM Requirement
39	The Applicant will notify the TPM of the enforcement regulations established by the associated proffer.		TDM Requirement

BICYCLE FACILITIES

Proffer #	Response	Assoc. Plan/Page #	Comments
40	During initial coordination with the FCDOT Bicycle Coordinator (Adam Lind), the requirements and locations have been shown in Site Plan 6848-SP-014. The requirements for long term and short term bicycle parking has been provided by FCDOT, and required parking is generally located on the ground levels of the parking garages, with a series of short term parking spaces located throughout the site. The bicycle rack design is proposed as inverted U style. Associated architectural plans will identify indicated bike parking and wayfinding to be located on associated buildings.	C09.101-C09.107	Architectural plans reference (signage)
41	The bike lane width and marking is shown on Site Plan 6848-SP-014, indicating the bike lane widths and extents along Sunrise Valley Drive. Additionally, the design of Carta Way has been established to provide full bike lanes from Sunrise Valley Drive to Sayward Boulevard. The location/design of the bike lanes will be coordinated with VDOT and FCDOT throughout the approval of 6848-SP-014. As proposed by FCDOT, sharrow markings have been proposed no North-South Road.	C02.101-C02.104; C03.401-C03.405	
42	The parking tabulation provided with Site Plan 6848-SP-014 identifies the total required parking spaces based on the proposed uses, and the proposed number of parking spaces	C01.101	
43	On-Street parking spaces have been provided, as generally depicted in the CDP/FDP along Private Drive.	C02.101	
44	There are no parking restriction devices proposed for the parking garages with Site Plan 6848-SP-014		
45	Parking for residential units is proposed as 'open parking' with Site Plan 6848-SP-014		
46	A paid parking system is not proposed with the parking as shown on Site Plan 6848-SP-014		
47A-C	There is no interim surface parking lots proposed with Site Plan 6848-SP-014		
48	Parking control systems are detailed within the associated Architectural Building Plans, and will be in conformance with the associated proffer		Architectural plans reference

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
Cary A. Shiflett
Lic. No. 048560
PROFESSIONAL ENGINEER

KEY PLAN

SCALE NORTH

N/A

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY MLJ
APPROVED BY CAP
CHECKED BY CJD
DATE SEPTEMBER 2014

TITLE

PROFFER COMPLIANCE NARRATIVE

SP NO. #6848-SP-014

C10.107

SECTION NO. C10-LETTERS

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44. Parking Restrictions. All Land Bays may provide gated/restricted parking within the parking garages and other facilities within the respective Land Bays. If gates are provided in any of the parking garages or other facilities, then such gates should be located to provide sufficient stacking capacity within the parking garage or facility to prevent vehicles from stacking onto public roads.

45. Parking for Residential Uses. If parking is to be assigned to specific dwelling units, not less than one space shall be assigned to each unit, including WDUs. Otherwise, dwelling units shall be offered exclusive of parking such that parking shall be available at a separate cost.

46. Paid Parking for Non-Residential Uses. The Applicant may charge for parking within Land Bays A or B, on a per space basis, at rates that the Applicant deems to be market-competitive.

47. Commercial Off-Street Parking.

A. Commercial off-street parking may be provided on an interim basis in new surface lots to be constructed on the Property without approval of an FDPA.

B. With approval of an FDPA, commercial off-street parking may be provided on an interim basis in new parking structures built to support the new on-site uses, which due to phasing may have excess parking capacity.

C. Prior to site plan approval or issuance of a Non-RUP for commercial off-street parking in new surface lots or garages (excluding the Metro Station Facilities on Land Bay C), the Applicant shall provide an operational traffic analysis ("Operational Analysis") of points of access to such parking facilities. Such Operational Analysis shall be limited to an assessment of those driveways serving the particular parking facilities (surface or structure) and any proposed access controls. The Applicant shall identify such improvements and/or transportation enhancements needed to address the results of the operational analyses and shall discuss those results with FCDOT and VDOT to determine what if any additional mitigation measures may be required. In no event, shall the Applicant be required to provide additional improvements to any but those intersection and/or driveways directly serving the commercial parking.

48. Parking Controls. The Applicant shall provide controlled access to the parking garages and other Facilities and shall ensure that the control equipment is capable of counting vehicles entering and exiting the garages (with the exception of the Metro Station Facilities on Land Bay C) and Facilities. Such controls shall direct vehicles to available spaces and shall be located so as to avoid vehicle stacking on the public streets.

49. Electrical Vehicle Charging Infrastructure. The Applicant shall provide a minimum of one recharging station that serves two (2) parking spaces for electric cars within each parking structure within the Property (excluding the Metro Station Facilities). The Applicant shall also provide either: (a) one or more than one additional recharging station(s) that each serves two (2) parking spaces for electric cars with the initial construction of at least one (1)

parking structure within the Property or (b) space and infrastructure to accommodate additional electric vehicle-ready parking spaces in the office and residential parking structures within the Property. "Electric vehicle-ready" means the provision of space, conduit banks, conduits and access points allowing for the easy installation of electric vehicle charging stations in the future, space for potential future installation of increased transformer capacity, and space within the electrical room to accommodate future electric capacity, and does not include the installation of transformers, switches, wiring or charging stations. No earlier than five (5) years after completion of each building and parking structure, if the Applicant demonstrates to the satisfaction of the Zoning Administrator that a particular recharging station is being utilized less than twenty percent (20%) of the time during any 90-day period, the Applicant may remove or disable the charging station.

50. Future Parking Reductions. Notwithstanding Proffer 42 above, the Applicant shall submit and pursue approval of a parking reduction from the Board of Supervisors, as generally outlined on Sheet C-2b of the CDP/FDP, prior to site plan approval for the first new office or residential building on the Property. Thereafter, the Applicant may request approval of further parking reductions from the Board of Supervisors as such reductions are permitted by the Ordinance. Any modification to the parking requirement or layout resulting from a reduction approved by the County shall not require a PCA and/or CDPA/FDPA.

51. Parking During Construction. At time of each site plan following the establishment of the first use, the Applicant shall demonstrate how the parking requirement for the existing uses will be satisfied during construction, and the Applicant shall be permitted to use valet, stacked and off-site parking arrangements during such periods of construction, as reasonably approved by FCDOT and DPWES. The Applicant shall be permitted to provide parking on the Property in either surface parking lots or then-existing parking facilities that contain spaces above the required number to accommodate construction workers during the development of the project.

52. Future Parking Rate Revisions in the Zoning Ordinance. The Applicant reserves the right to provide parking at revised rates as may be permitted by a future amendment to the Zoning Ordinance. Optional use of revised rates shall not require a CDPA, PCA or FDPA, provided there is no increase in the size or height of above-grade parking structures and other facilities beyond minor adjustments to what is shown on the CDP/FDP.

STORMWATER MANAGEMENT AND BEST MANAGEMENT PRACTICES

53. Storm Water Management Plan. The Applicant's stormwater management facilities shall be designed in accordance with the Comprehensive Plan for the Property and with local and state laws. In addition, stormwater runoff associated with the development shall be addressed as shown on the CDP/FDP and consistent with SWM Waiver Request #6848-WPFM-005-1 conditions dated April 10, 2014 (or such conditions as may otherwise be imposed with any related waiver requests). The stormwater design shall seek to minimize the effect of the proposed impervious cover, including application of stormwater reuse, retention, detention, extended filtration and, where soils and infrastructure allow, infiltration to improve downstream waters. The stormwater management measures may be phased with development.

A. The Applicant will incorporate low impact development ("LID") techniques of stormwater management to reduce or delay runoff volumes entering the nearby regional stormwater pond facility and local streams (see Sheet C-9 of the CDP/FDP). These LID practices may include, but are not limited to, bioretention or biofiltration facilities (commonly known as rain gardens), vegetated swales, porous pavement, vegetated roofs, tree box filters and the collection and reuse of stormwater runoff. LID techniques of stormwater management shall be incorporated into the proposed street designs where allowed and practicable. Notwithstanding and in lieu of what is depicted on the CDP/FDP, the Applicant reserves the right to develop the surface of the Metro Plaza substantially in conformance with the conceptual drawing attached as Exhibit A. This drawing proposes to incorporate an alternative stormwater treatment method through the use of biofiltration. This alternative may be implemented as a partial or entire replacement of what is shown on the CDP/FDP for this area. Any alternative treatment methods used shall treat no less than the quantities of stormwater intended to be treated in the original design (as contemplated on the CDP/FDP).

B. The Applicant shall coordinate its stormwater management controls among adjacent and nearby developments to achieve stormwater management goals in an efficient manner. Stormwater management may be fulfilled or supplemented through the use of an off-site regional pond facility owned by the County, provided any improvements or upgrades that may be needed to accommodate the stormwater outfall from the Property are made prior to its actual use by the Applicant.

C. The Applicant shall design the stormwater management facilities in conformance with the recently adopted County Stormwater Management Ordinance and applicable recommendations contained in the Comprehensive Plan text for the Property. Two-year and ten-year 24 hour detention for the site will be provided in the regional pond, H-9. Runoff reduction practices will be used on-site to the maximum extent practical to manage runoff. These types of practices include, but are not limited to, bioretention, permeable pavement, disconnected impervious areas, soil amendments and/or rainwater harvesting from rooftops of proposed buildings.

D. Stormwater runoff associated with the development shall be controlled such that either: (a) the total phosphorus load for the property is no greater than what would be required for new development pursuant to State stormwater regulations or the County's stormwater management ordinance; or (b) an equivalent level of water quality control is provided.

E. The Applicant shall provide a stormwater management plan that will attain the Rainwater Management credit of the most current version of LEED-NC or LEED-CS rating system (or equivalent of this/these credit(s)) and as reviewed and approved by the EDRB during site plan review.

F. As an alternative to the minimum guidelines above, the Applicant may pursue stormwater management measures and/or downstream improvements to optimize site-specific stormwater management and stream protection/restoration

needs, consistent with any adopted watershed management plan(s) that is/are applicable to the Property.

G. Should the U.S. Environmental Protection Agency, the Commonwealth of Virginia, Fairfax County, or their designee, issue new or additional stormwater management requirements or regulations affecting the Property, the Applicant reserves the right to accommodate necessary changes to its stormwater facility designs without the requirement to amend the CDP/FDP or these Proffers, provided the facility design is substantially in conformance with the CDP/FDP.

DESIGN

54. Design Guidelines. The architectural guidelines for the Property with respect to building scale and massing, building siting, screening of parking structures, the design of the Plazas, and streetscape are set forth in the design guidelines attached as Exhibit B ("Design Guidelines"). The Design Guidelines are intended to be illustrative of the general quality and character of the development. Modifications to these elements as shown in the Design Guidelines shall not require an amendment to the Proffers or CDP/FDP, and are permitted provided the changes are in substantial conformance with the CDP elements and the general character and quality of the Design Guidelines, as determined by the Zoning Administrator, and provided that such changes are uniform throughout the Property so that the buildings and improvements within a block have a complimentary design theme. The foregoing is not intended to prohibit each building having its own distinctive architectural character.

55. Environmental Design Practices for Multi-Family Residential.

Target of LEED Certification or Equivalent.

A. The Applicant will include, as part of the site plan submission and building plan submission, a list of specific credits within the most current version at the time of the building's registration of the U.S. Green Building Council's Leadership in Energy and Environmental Design New Construction (LEED-NC) rating system, or at the Applicant's option, other equivalent rating system determined to be applicable to the building in consultation with the Environment and Development Review Branch ("EDRB") of DPZ. A LEED-accredited professional (LEED-AP) who is also a professional engineer or licensed architect will provide certification statements at both the time of site plan review and the time of building plan review confirming that the items on the list will meet at least the minimum number of credits necessary to attain LEED certification of the project.

B. Should the Applicant elect to use the LEED system in lieu of an equivalent program, the Applicant will designate the Chief of the EDRB of DPZ as a team member in the U.S. Green Building Council's ("USGBC") LEED Online system. This team member will have privileges to review the project status and monitor the progress of all documents submitted by the project team, but will not be

PROFFER COMPLIANCE

BICYCLE FACILITIES

Proffer #	Response	Assoc. Plan/Page #	Comments
49	All parking garages have at least one (1) electric vehicle charging station, and the parking garages include the necessary infrastructure to provide additional electric vehicle charging stations. The location of the electric vehicle parking spaces is shown with Site Plan 6848-SP-014, and details for the systems is provided with the Architectural Building Plans.	C09.101-C09.107	
50	A parking reduction study for the proposed uses/parking shown on 6848-SP-014 was approved on September 22, 2015. The approval letter is included on C10.201	C10.201	Prior to Site Plan approval condition
51	All buildings are proposed with Site Plan 6848-SP-014, and required parking is provided for each building based on the proposed use.		
52	The Applicant will monitor the parking rate requirements and will evaluate the need to modify the provided parking based on revised rates		

STORM WATER MANAGEMENT AND BEST MANAGEMENT PRACTICES

Proffer #	Response	Assoc. Plan/Page #	Comments
53	The SWM plan proposed with Site Plan 6848-SP-014 provides a comprehensive strategy for the site, and is in general conformance with the program identified in the CDP/FDP and approved Interpretation. The SWM Program includes seven (7) rainwater harvesting systems – one for each building, a bioretention filter with Stormceptor STC for pre-treatment, and conveyance to a regional stormwater management pond. Most of these systems operate in series to reduce runoff volume and remove phosphorus from stormwater runoff. All systems have been designed with Site Plan 6848-SP-014, while some systems will be constructed with the associated Fairfax County Parking Garage Site Plan (by others).	C07.701, C07.702, C07.04-C07.06	
53A	The proposed SWM Program includes several runoff reduction practices that delay and/or reduce the stormwater runoff from the site, including rainwater harvesting for all seven (7) buildings proposed and a bioretention filter.	C07.701, C07.702, C07.04-C07.06	
53B	The existing off-site regional pond (H-9) is incorporated into the SWM Program proposed with Site Plan 6848-SP-014. As described in the SWM Narrative, Pond H-9 is used to supplement water quality for the site as well as fulfill the 2- and 10-year 24-hour detention requirements. The outfall system designed to convey stormwater runoff from the site to Pond H-9 is proposed with an associated Public Improvement Plan 6848-PI-003. Other outfalls that leave the site are manmade systems and are determined to be adequate as described in the Outfall Narrative.	C07.701, C07.711, C10.202	
53C	The existing off-site regional pond (H-9) is incorporated into the SWM Program proposed with Site Plan 6848-SP-014 to provide the requisite 2- and 10-year 24-hour detention for the site. Additionally, the site includes several runoff reduction practices to manage stormwater runoff.	C07.701, C10.202	
53D	The SWM Program for the project has been designed in conformance with the Fairfax County SWM Ordinance and Comprehensive Plan – see SWM Narrative for discussion. Phosphorus load calculations have been provided to demonstrate compliance.	C07.701, C07.704 –C07.706 and C07.707-C07.710	
53E	The Rainwater Management credit will be achieved as discussed in the SWM Narrative.	C07.701	LEED
53F	The proposed SWM Program incorporates the guidelines given in proffers 53A – 53E above. As allowed, an alternative to optimize downstream site-specific SWM and stream restoration needs consistent with adopted watershed management plans has not been pursued.	Section C07	
53G	The Applicant will monitor the stormwater management requirements and regulations to determine if any accommodations will be required.		

DESIGN

Proffer #	Response	Assoc. Plan/Page #	Comments
54	The building layout is in general conformance with the CDP/FDP – additional architectural details for the buildings are provided with the Architectural Building Plans	C01.101	Architectural Plan Condition
55			
55A	A LEED checklist has been provided with Site Plan 6848-SP-014 and will be coordinated with the building design to identify applicable LEED credits	C10.301	LEED

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
Cory A. Pascal
Lic. No. 048560
PROFESSIONAL ENGINEER

KEY PLAN

SCALE NORTH

N/A

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY MLJ
APPROVED BY CAP
CHECKED BY CJD
DATE SEPTEMBER 2014

TITLE

PROFFER COMPLIANCE NARRATIVE

SP NO. #6848-SP-014

C10.108

SECTION NO. C10-LETTERS

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assigned responsibility for any LEED credits and will not be provided with the authority to modify any documentation or paperwork.

C. Prior to the building plan approval, the Applicant will submit documentation to the EDRB regarding the USGBC's preliminary review of design-oriented credits in the LEED program, should the Applicant elect to use the LEED system in lieu of an equivalent program. This documentation will demonstrate that the building is anticipated to attain a sufficient number of design-related credits that, along with the anticipated construction-related credits, will be sufficient to attain LEED Silver certification. Prior to release of the bond for the building, the Applicant shall provide documentation to the EDRB demonstrating the status of attainment of at least LEED certification from the USGBC for the building.

D. If the USGBC review of design-oriented credits indicates that the project is not anticipated to attain a sufficient number of design-related credits to support attainment of LEED Silver certification, the Applicant shall post a "green building escrow" in the form of cash or a letter of credit from a financial institution acceptable to DPWES as defined in the Public Facilities Manual, in the amount of $2.00 per gross square foot. This escrow will be in addition to and separate from other bond requirements and will be released upon demonstration of attainment of LEED certification or higher level of certification, by the USGBC, under the most current version at the time of the building's registration of the LEED-NC rating system or other LEED rating system determined, by the USGBC. The provision to the EDRB of documentation from the USGBC that the building has attained LEED certification will be sufficient to satisfy this commitment.

56. Environmental Design Practices for Non-Residential (including Office and Hotel, but excluding Metro Station Facilities).

Target of LEED Silver Certification or Equivalent.

A. The Applicant will include as part of each site plan and building plan submissions for any office or hotel building to be constructed on the Property, a list of specific credits within the most current version at the time of the building's registration of the U.S. Green Building Council's Leadership in Energy and Environmental Design - New Construction (LEED-NC) rating system, or, at the Applicant's option, another LEED rating system determined to be applicable to each new building by the USGBC and approved by the EDRB that the Applicant anticipates attaining. At least one principal participant of the Applicant's project team shall be a LEED Accredited Professional, who is also a professional engineer or licensed architect and will provide certification statements at both the time of site plan review and the time of building plan review confirming that the items on the list are expected to meet at least the minimum number of credits necessary to attain LEED Silver certification for each new non-residential building.

B. Prior to site plan approval, the Applicant will designate the Chief of the EDRB as a team member in the USGBC's LEED Online system. This team

member will have privileges to review the project status and monitor the progress of all documents submitted by the project team, but will not be assigned responsibility for any LEED credits and will not be provided with the authority to modify any documentation or paperwork.

C. Prior to building plan approval for each non-residential building to be constructed, the Applicant will submit documentation to the EDRB regarding the USGBC's preliminary review of design-oriented credits in the LEED program. This documentation will demonstrate that the building is anticipated to attain a sufficient number of design-related credits that, along with the anticipated construction-related credits, will be sufficient to attain LEED Gold certification. Prior to release of the bond for the respective building, the Applicant shall provide documentation to the EDRB demonstrating the status of attainment of LEED certification from the USGBC for the building to which the bond relates.

D. As an alternative to the actions outlined in, and in lieu of the requirements of, paragraphs (A) through (C) above, or if the USGBC's review of design-oriented credits indicates that the specific office building or hotel is not anticipated to attain a sufficient number of design-related credits, along with the anticipated construction-related credits, to support attainment of LEED Gold certification, prior to building plan approval, the Applicant shall post a "green building escrow" in the form of cash or a letter of credit from a financial institution acceptable to DPWES as defined in the Public Facilities Manual, in the amount of $2.00 per gross square foot for the respective building. This escrow will be in addition to and separate from other bond requirements and will be released upon demonstration of attainment of certification by the USGBC under the most current version of the LEED-NC rating system or, at the Applicant's option, other LEED rating system determined, by the USGBC, and approved by the EDRB, to be applicable to each building. The provision to the EDRB of documentation from the USGBC that such building has attained LEED Silver certification will be sufficient to satisfy this commitment.

57. Environmental Design – General (Residential and Non-Residential, but excluding Metro Station Facilities).

A. If the Applicant provides to the EDRB, within three (3) years after issuance of the final RUP/non-RUP for the building, documentation demonstrating that the LEED certification specified above in these Proffers for the particular type of building has not been attained, but that the building has been determined by the USGBC to fall within three (3) points of achieving attainment of such LEED certification, then fifty percent (50%) of the escrow will be released to the Applicant; the other fifty percent (50%) will be released to the County and will be posted to a fund within the County budget supporting implementation of County environmental initiatives.

B. If the Applicant fails to provide, within three (3) years after issuance of the final RUP/Non-RUP for a particular building, documentation to the EDRB

demonstrating attainment of the LEED certification specified above for the particular type of building, or provides to the EDRB documentation demonstrating that the particular building has fallen short of the specified LEED certification by greater than three (3) points, then the entirety of the escrow for that building will be released to the County and will be posted to a fund within the County budget supporting implementation of County environmental initiatives.

C. If the Applicant provides documentation from the USGBC demonstrating, to the satisfaction of the EDRB, that USGBC completion of the review of the required LEED certification application has been delayed through no fault of the Applicant, or the Applicant's contractors or subcontractors, then the time frame may be extended as determined appropriate by the Zoning Administrator, and no release of escrowed funds shall be made to the Applicant or to the County during the extension.

D. The Applicant further reserves the right to fulfill the requirements of these Environmental Design Practices Proffers through certification of any building by any reasonable alternative to the LEED program that offers similar objective third party review of "green building" or energy efficient measures, provided such alternative has been approved by the EDRB in advance. Under such alternatives, the process and procedures outlined above, may be modified to reflect the alternative program. Such alternative rating systems for a multi-family residential building may include, but shall not be limited to, the EarthCraft Program or the 2012 National Green Building Standards (NGBS) using the EnergyStar performance path. If an alternative rating systems is selected and approved by the EDRB, the Applicant shall demonstrate attainment of the selected certification from a rater recognized through the selected program prior to the issuance of the final RUP or Non-RUP.

58. Additional Design. All buildings and parking structures and the Metro Station Facilities where they front on the new North-South Road and the new East-West Road shall be architecturally finished (all four (4) sides) with compatible materials, detailing and features, provided such facades (including the facades of garages associated with a building) need not be identical. Garage facades shall be designed to screen the view of vehicles from the surrounding area and shall include materials consistent with those materials shown on the CDP/FDP and used on the associated building and/or incorporate innovative design techniques such as incorporation of public art, vegetative screens or other screening techniques, provided such facade treatments are consistent with the standards set forth in the Design Guidelines, and need not have facades identical to the associated building.

59. Signage. All signage provided on the Property shall comply with Article 12 of the Ordinance. All directional and way finding signage shall be consistent, both in terms of materials and design, throughout the development. The Applicant reserves the right to obtain approval of a Comprehensive Sign Plan ("CSP") at any time that would permit modifications to the provisions of Article 12 of the Ordinance without obtaining a PCA, CDPA or FDPA. The Applicant shall cooperate with the Washington Metropolitan Area Transit Authority ("WMATA") to identify locations for directional signage to the Metro Station platform and the Metro Station Facilities.

60. Lighting. All outdoor lighting fixtures shall be in accordance with the Performance Standards contained in Part 9 (Outdoor Lighting Standards) of Article 14 of the Ordinance. Fixtures used to illuminate streets, parking areas and walkways shall not exceed thirty (30) feet in height, measured from their base to the top of the light standard, shall be of low intensity design and shall utilize full cut-off fixtures which shall focus directly on the Property. All upper level parking deck lighting fixtures shall not exceed a height of seventeen (17) feet measured from their base to the top of the light standard and shall be uniform in design, whether temporary or permanent. Lighting within the private parking decks shall be installed between the ceiling beams to reduce glare unless such lighting is otherwise screened by the parking structure design. Notwithstanding the restrictions provided in the previous paragraph, the Applicant reserves the right to provide architectural lighting and other lighting associated with the buildings and Plazas consistent with the Design Guidelines, provided as Exhibit B attached hereto.

61. Telecommunications Equipment. Subject to applicable Ordinance requirements, telecommunications equipment may be placed on the proposed residential and non-residential buildings' rooftops. Any such facilities must be screened and/or setback sufficiently from the perimeter of the roof and penthouse such that they are not visible from the streets, forming the boundary of the Property, at street level. Other screening measures may be used such as including the facilities as part of the architecture of the buildings, utilizing compatible colors, or employing telecommunication screening material and flush mounted antennas. Telecommunications equipment may also be architecturally integrated onto the facades of the buildings where necessary to ensure on-street and/or open space coverage.

62. Building Heights. Building heights for each building shall not exceed the maximum or be less than the minimum building heights shown on Sheet A-100 of the CDP/FDP as "Maximum Height," "Minimum Height" and "Stories", except in connection with the use of residential bonus density which would permit additional building height to accommodate such residential bonus units. Building heights shall be exclusive of those structures that are excluded from the maximum height regulations as set forth in Section 2-506 of the Ordinance. All building penthouses/rooftop structures shall be integrated into the architecture of the building below and shall be consistent with the Design Guidelines, provided as Exhibit B attached hereto.

LANDSCAPING

63. Limits of Clearing and Grading. The Applicant shall conform to the limits of clearing and grading as shown on the CDP/FDP, subject to allowances provided in these Proffers and for the installation of fences, utilities (including storm water management and BMP facilities), public improvements (i.e., roads, streetscapes, entrances, sidewalks, degraded soil and slope conditions) and/or trails, which shall be located in the least disruptive manner necessary as determined by UFMD. A replanting plan shall be developed and implemented, subject to approval by UFMD, for any areas protected by the limits of clearing and grading that must be disturbed for such trails, utilities, roads or similar uses, if any such areas are identified at the time of site plan, as described herein.

64. Landscaping. The CDP/FDP includes a conceptual Landscape Plan commencing on Sheet L-1 of the CDP/FDP, consisting of overall plans and concepts for the Property. Actual

PROFFER COMPLIANCE

DESIGN

Proffer #	Response	Assoc. Plan/Page #	Comments
55B	The Applicant acknowledges the requirement to grant access to the Chief of EDRB as a team member to the LEED Online system		LEED
55C	The Applicant will provide the necessary documentation prior to building plan approval, and provided evidence of the status prior to release of bonds		Prior to building plan approval
55D	The Applicant acknowledges the potential monetary obligations		Potential monetary obligation
56	-		
56A	A LEED checklist has been provided with Site Plan 6848-SP-014 and will be coordinated with the building design to identify applicable LEED credits	C10.301	LEED
56B	The Applicant will provide the required LEED documentation prior to site plan approval, and ensure that the Chief of EDRB is identified as a team member.		Prior to SP Approval
56C	The Applicant will provide the required LEED documentation prior to site plan approval		Prior to Building Plan approval
56D	The Applicant acknowledges the potential monetary obligations		Potential monetary obligation
57	-		
57A	The Applicant acknowledges the potential monetary obligations		3 years after final RUP/non-RUP
57B	The Applicant acknowledges the potential monetary obligations		
57C	The Applicant acknowledges the potential for time delays beyond their control, and the ability provisions for delaying the application of the necessary information		
57D	The Applicant acknowledges the ability to evaluate an alternative to LEED, and may consider such alternatives as ISI Envision Rating system		
58	The building layout is in general conformance with the CDP/FDP – additional architectural details for the buildings are provided with the Architectural Building Plans	C201-C204	Architectural Plan Condition
59	A Comprehensive Sign Plan will be submitted separately, and will be coordinated with the site layout of Site Plan 6848-SP-014		Sign Package
60	Road lighting has been shown within Site Plan 6848-SP-014, depicting the use of Fairfax County standard street lights on the public roads, with a maximum height of thirty (30) feet and spacing that adheres to Fairfax County PFM guidelines – to be coordinated with Site lighting review. The lighting plans for buildings, parking garages, and accessory site facilities will be provided with the associated Architectural Building Plans	C101-C104; C03.401-C03.405	
61	The rooftop telecommunication equipment will be in conformance with the associated proffer – the Architectural Building Plans provide details for the telecommunication systems.		
62	The building heights, identified on the plan sheets of Site Plan 6848-SP-014 do not exceed the allowable building heights identified in the CDP/FDP	C201-C204	

LANDSCAPING

Proffer #	Response	Assoc. Plan/Page #	Comments
63	The limits of clearing and grading are in substantial conformance with the limits identified on the CDP/FDP, with the following modifications; (1) Expanded limits for the construction of East-West Road and associated utilities and earthwork, as it has not been previously construction. (2) Expanded limits for the construction of the road connection from East West Road and Private Drive intersection to Sayward Boulevard, including associated utilities and earthwork. (3) Expanded limits from the site to the existing regional dry pond (H-9) to provide an adequate outfall for the site, as identified in the associated Public Improvement Plan 6848-PI-003 A tree preservation plan is included in the Site Plan that provides recommendations for tree protection. After approval from UMFD, no areas were identified to need a replanting plan.	C201-C204	
64	A landscape plan, including specific species, locations, calculations, irrigation plans, and details have been provided for the entire site, and is included with Site Plan 6848-SP-014. The landscape plan has been coordinated with VDOT, FCDOT, and DPWES as required for Site Plan approval. The Engineer coordinated with the VDOT landscape reviewer for approval during VDOT review, and County Urban Forestry approved the Site Plan as well.	Section L01	

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
Guy A. Cap
Lic. No. 048560
6/26/16
PROFESSIONAL ENGINEER

KEY PLAN

SCALE NORTH

N/A

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY MLJ
APPROVED BY CAP
CHECKED BY CJD
DATE SEPTEMBER 2014

TITLE

PROFFER COMPLIANCE NARRATIVE

SP NO. #6848-SP-014

C10.109

SECTION NO. C10-LETTERS

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types, quantities and species of vegetation shall be determined pursuant to more detailed landscape plans submitted at the time of the first and all subsequent CDP/FDP, CDPA, FDPA and site plans. Landscaping may be modified during site plan review to allow for final engineering and design considerations, including, but not limited to, final utility locations, LID facilities, sight distance requirements and other applicable requirements, provided that such modifications are in substantial conformance with the CDP/FDP and subject to UFMD approval and are consistent with the Design Guidelines, provided as Exhibit B attached hereto.

65. Detailed Landscape Plans. As part of the site plan submission for each building on the Property, a detailed landscape plan shall be submitted to the UFMD for review and approval. The planting and landscaping materials shown on each detailed landscaping plan shall be in substantial conformance with those shown on the approved CDP/FDP, and shall include, among other things, irrigation information, design details for tree wells and other similar planting areas on structures and along streets, the composition of planting materials, methods for providing suspended pavement over tree root zones to prevent soil compaction, and methods for ensuring the viability of plantings on structures. Adjustments to the type and location of vegetation and the design of landscaped areas and streetscape improvements/plantings may be permitted in consultation with DPZ, and as approved by UFMD. The Applicant shall not plant any known invasive plant species at the Property.

66. Alternative Planting Width Details. Site plans submitted for the respective phases of development shall include a landscape plan for that phase of development in conformance with the CDP/FDP. Tree species and planting sites are set forth on the CDP/FDP, subject to revision as may be approved by the UFMD. Where minimum planting widths of 8-feet cannot be provided, the Applicant shall use structural cell technology, or other measures acceptable to and approved by UFMD, to satisfy the following specifications for all planting sites:

A. A minimum of four (4) feet open surface width and sixteen (16) square feet open surface area for Category III and Category IV trees, with the tree located in the center of the open area;

B. A minimum rooting area eight (8) feet wide (may be achieved with techniques to provide un-compacted soil below pavement), with no barrier to root growth within four (4) feet of the base of the tree;

C. Soil volume for Category III and Category IV trees shall be a minimum of 700 cubic feet for a single tree. For two (2) trees planted in a contiguous planting area, a total soil volume of at least 1,200 cubic feet shall be provided. For three (3) or more trees planted in a contiguous area, the soil volume shall equal at least 500 cubic feet per tree. A contiguous area shall be any area that provides root access and soil conditions favorable for root growth throughout the entire area;

D. Soil specifications in planting sites shall be provided in the planting notes to be included in all subsequent site plan submissions; and

E. It is expected that some street tree planting sites will be designed to accommodate bio-retention functions.

67. Tree Replacement. The Applicant shall replace any new tree that is planted on the Property and is counted toward meeting the overall tree canopy requirement, that is damaged, such that thirty percent (30%) or more of the crown is no longer viable, as a result of maintenance to the stormwater management facilities, or related underground infrastructure, with a tree of equal or greater size. The size of the replacement tree shall be based on the caliper size of the tree to be replaced as shown on the final site plan.

68. Open Space. Provision of publicly-accessible Plazas, park and open space areas shall be in substantial conformance with the concepts, locations and minimum acreages depicted on the CDP/FDP and as further defined in these Proffers and the Design Guidelines, and may be adjusted at the time of CDP/FDP and site plan approval to allow for final engineering and design considerations.

69. Utility Locations. Utilities, including, but not limited to water, electric, sanitary sewer and storm sewer utility lines, shall be installed within the street network to the maximum extent feasible as determined by DPWES or shall be placed in locations that do not conflict with the landscaped open space areas and streetscape elements shown on the CDP/FDP. If there is no other option, utilities may be placed within open space or streetscape areas provided that the long-term health of trees and other plantings is ensured by the provision of sufficient soil volume as shown on the CDP/FDP, as determined by the UFMD. Adjustments to the type and location of plantings shall be permitted to avoid conflicts with utilities and other site engineering considerations. If at the time of site plan approval, street trees shown on the CDP/FDP are in conflict with existing or proposed utilities and alternative locations for the street trees satisfactory to UFMD cannot be accommodated, the Applicant shall modify the location of utilities to ensure that the trees shown on the CDP/FDP can be provided.

70. Parking Deck Landscaping and Amenities. The Applicant shall provide planting areas, landscaping and amenities on the top level of any parking garages (where no additional structures are to be built above) as shown on the CDP/FDP in accordance with requirements of the Public Facilities Manual.

PARKS AND RECREATIONAL FACILITIES

71. Plazas. The Applicant shall provide plazas, urban parks and other publicly accessible areas (collectively referred to as the "Plazas") and associated amenities generally as depicted on Sheets L-1 and L-4 of the CDP/FDP and as described in the Design Guidelines. The exact elements that comprise such amenities shall be determined at time of site plan review for the first building adjacent to such amenities and such amenities shall be constructed in accordance with the Phasing Plan included in the CDP/FDP. Such amenities may include such furniture, fixtures and finishes consistent with the creation of a hardscape public park or gathering space and consistent with the Design Guidelines including, but not limited to, paving, furniture, screening walls, pedestrian ways, focal points, landscaping/planters, public art, and performance/demonstration space consistent with an urban park. Additional site amenities may be provided at time of site plan review provided they are consistent with the Design Guidelines.

Access and use of the Plazas by the public shall be authorized and regulated by the Plaza Access Management Plan described in Proffer 76 below. The Plazas shall be privately maintained.

72. Metro Plaza. The Applicant shall provide a street-level park of approximately 1.14 acres located adjacent to the Metro Station Facilities and consistent with the Design Guidelines.

A. The Applicant shall initially provide interim improvements (Phase 1) to the Metro Plaza, as shown on Sheet L-4A of the CDP/FDP to activate the Metro Plaza upon opening of the Metro Station. These interim improvements shall include an extensive walkway system and/or careful integration of paving surfaces and includes benches, seat walls, bike racks, picnic lawn areas, landscaping, garbage containers and mobile restrooms, and may also include provision of interim "place making" uses, such as pop-up retail or service uses (collectively, "Temporary Retail Use Establishments"), on the Property immediately adjacent to the Metro Plaza. Said Temporary Retail Use Establishments may be housed in temporary buildings such as storage/shipping containers, movable carts, kiosks or food trucks or similar retail sales or service vehicles, or a combination thereof. Any Temporary Retail Use Establishment shall be installed in conformance with the Design Guidelines and in the general location depicted on Sheet L-4A of the CDP/FDP. The minimum interim improvements shall consist of 5,000 square feet of land area and up to eight (8) different Temporary Retail Use Establishments.

B. Ultimately, the Applicant shall also provide permanent improvements to the Metro Plaza, including hardscaping, landscaping, bike racks and bench seating, a terraced lawn panel with stepped seating for people watching and viewing events and public art as a focal element, as conceptually shown on Sheet L-6A-1 of the CDP/FDP, contingent on agreements with WMATA and the County. Space and requisite utility connections in accordance with FCDOT specifications (electric and telecommunications) shall also be provided for a multi-modal commuter information kiosk; said kiosk to be provided by others. The Metro Plaza shall be constructed prior to the issuance of the initial RUP or Non-RUF for the Metro Station Facilities or Building B2, whichever shall occur first.

C. If approved as part of a Comprehensive Sign Plan for the Property, the Applicant may install a video display or provide a moveable screen on the façade of Building B2 facing the park or located in the plaza area animating the Metro Plaza. Details of the video wall or flexible screen (including size, content, lighting and sound) shall be provided in the Comprehensive Sign Plan application.

D. As noted in Proffer 53, Exhibit A provides an alternative stormwater treatment method for the Metro Plaza.

E. As depicted on Sheet C-4 of the CDP/FDP, there is an area in the Metro Plaza on the west, south and east sides of the Metro Station's pavilion that is marked as the "15' Metro Clear Zone." This area will be subject to additional engineering and improvement through a future Special Exception ("SE"), FDPA or

other zoning application for the Metro Station. The SE design shall be coordinated and consistent with the design shown on the CDP/FDP. The use of the 15' Metro Clear Zone is established by this Application.

73. Urban Park. The Applicant shall provide an Urban Park at street level from the west and accessible from the east of approximately 0.85 acres to be located adjacent and between Buildings A3, A4 and D1. The Urban Park shall include features such as, but not limited to, lawn panels, hardscape and landscape areas, bench seating, a bocce ball court, seating with engraved game boards (e.g., chess), children's play area, decorative screen wall and dog park as conceptually shown on Sheets L-6B-1 and L-6B-2 of the CDP/FDP and consistent with the Design Guidelines. More specific details shall be determined at time of site plan approval for the first of the buildings referenced in the first sentence above. The Urban Park shall be constructed prior to the issuance of the first RUP for such buildings. The Urban Park shall be privately maintained and shall be designed to coordinate with or connect to the private courtyards of the residential buildings.

74. Pocket Park. The Applicant shall provide a Pocket Park of approximately 0.32 acres designed for casual use by transit users and as a neighborhood park for demonstrating protection, preservation and sustainability of natural resources. The design shall include native planting, a wooden deck and boardwalk system over a bio-retention area, benches, educational and information kiosk, and an art feature display, as conceptually shown on Sheets L-4, L-6C-1, and L-9 (Views 3 and 4) of the CDP/FDP and consistent with the Design Guidelines. Further, an interpretative sign may be added subject to Article 12 of the Ordinance or a CSP. More specific details shall be determined at time of site plan approval for the Metro Station Facilities and construction of the Pocket Park shall occur prior to the issuance of the Non-RUP for the Metro Station Facilities. The Pocket Park shall be privately maintained.

75. Plaza Phasing. The Plazas shall be constructed in phases and as generally shown on the CDP/FDP and in conformance with the Design Guidelines attached as Exhibit B. The applicable phased portion shall be substantially completed, i.e., open to the public and available for its intended purpose, prior to the issuance of the Non-RUP for the Metro Station Facilities for the improvements shown to be constructed with the Metro Station Facilities. The general location of the pedestrian connections to each Plaza associated with a particular phase/building is as set forth in the CDP/FDP.

76. Plaza Access Management Plan. Prior to the issuance of the Non-RUP for the Metro Station Facilities, the Applicant will implement a Plaza Access Management Plan to grant public access and to provide safe access and use of each Plaza to all persons by seeking to minimize the number of vehicles on the Plazas while preserving vehicular access. The plan shall be submitted to FCDOT and the Zoning Administrator for approval consistent with the parameters set forth in this Proffer. The plan will be provided as a supplement to office and retail leases and to residential/rental materials and will be posted on the project's or property manager's website. The Plaza Access Management Plan will be included in the packages of informational materials referenced in the TDM Plan.

77. Means of Enforcing Restrictions. Restrictions on accessing the Plazas are to be enforced by the deployment of physical barriers and/or on-site personnel.

PROFFER COMPLIANCE

LANDSCAPING

Proffer #	Response	Assoc. Plan/Page #	Comments
65	A landscape plan, including specific species, locations, calculations, irrigation plans, and details have been provided for the entire site, and is included with Site Plan 6848-SP-014. The landscape plan will be coordinated with VDOT, FCDOT, and DPWES as required for Site Plan approval.	Section L01	
66	Site Plan 6848-SP-014 proposes the development of the entire site, including all landscaping. Soil volume calculations have been provided for all planting areas where minimum width of 8' cannot be provided.		
66A	The required width and area has been provided for Category III & IV trees, as shown on the Landscape Plan sheets of Site Plan 6848-SP-014	L01.301-L01-304	
66B	The minimum eight foot (8') width has been provided, and in areas where the planting strip is less than eight feet (8') wide, a detail has been provided to identify root zone growth areas below sidewalks	L01.702, Detail 5	
66C	The soil volume calculations have been provided on the Landscape Plan sheets of Site Plan 6848-SP-014 to demonstrate conformance with the associated proffer	L01.301-L01-304	
66D	The planting soil specifications have been provided on the Landscape Plan sheets of Site Plan 6848-SP-014		
66E	During a meeting with VDOT, FCDOT, and DPWES on August 12, 2014 the Applicant was informed by VDOT that stormwater management systems would not be allowed in the public right of way, preventing the ability allow for street tree plantings to be used for bioretention facilities.		
67	The Applicant will monitor the conditions of the planted trees and adhere to the requirements of the associated proffer		
68	The open space parks and plazas proposed with Site Plan 6848-SP-014 are in general conformance with the CDP/FDP	Section L01	
69	As shown in Site Plan 6848-SP-014, the water and sanitary utilities have been designed to allow for the alignments to stay within the street areas to maximize planting space. A majority of the storm sewer system has been designed with grate inlets to allow for the pipe network alignment to be set below curb/gutter lines. The Applicant is coordinating with dry utility (electric, gas, communication) service provider to establish routes and easement agreements to minimize impacts to planting areas.	C02-201-C02-204	
70	As shown in the Landscape Plan sheets of Site Plan 6848-SP-014, plantings and amenities have been proposed at the top levels of parking garages		

PARKS AND RECREATION

Proffer #	Response	Assoc. Plan/Page #	Comments
71	All Plazas are proposed with Site Plan 6848-SP-014 and are in general conformance with the CDP/FDP. Plaza access will be managed as described with the associated proffers	C01.101; Section L01	
72	The required area for the Metro Plaza has been proposed with Site Plan 6848-SP-014		
72A	As proposed with Site Plan 6848-SP-014, the current development strategy will include construction of all buildings and infrastructure identified in the CDP/FDP – the development strategy does not promote phased construction, as the development schedule anticipates construction within Land Bay B prior to the opening of Metro (June 2018).		
72B	The Metro Plaza improvements are proposed with Site Plan 6848-SP-014 and the associated Fairfax County Parking Garage Site Plan	Section L01	
72C	The Applicant acknowledges the ability to install a video if approved as part of the comprehensive sign package		Sign Package
72D	The Applicant acknowledges the alternative stormwater management treatment system, and will coordinate with DPWES on available and preferred options.		
72E	The improvements show in Site Plan 6848-SP-014 do not proposed any above-grade protrusions into the Metro Clear Zone. The requirements of the Metro's future Special Exception will be coordination into the design as required.	C01.101	
73	The Urban Park proposed with Site Plan 6848-SP-014 has been designed in substantial conformance with the CDP/FDP, and grading plans demonstrate the accessibility of the Urban Park.	C02.201-C02-204; Section L01	
74	The bioretention filter system proposed with Site Plan 6848-SP-014 has been designed to accommodate the features of the Pocket Park identified in the associated proffer. Details for the Pock Park are provided with the Fairfax County Parking Garage Site Plan.	C07.601	
75	As proposed with Site Plan 6848-SP-014, the current development strategy will include construction of all buildings and infrastructure identified in the CDP/FDP – the development strategy does not promote phased construction.	C01.101	
76	The Applicant will prepare a Plaza Access Management Plan and submit to FCDOT and the Zoning Administrator, and will be included in the TDM Plan.		Non-RUP
77	The Plazas with potential vehicular access are proposed with physical barriers	C02.102	

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

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May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
Guy A. Phillips
Lic. No. 048560
5-26-16
PROFESSIONAL ENGINEER

KEY PLAN

SCALE NORTH

N/A

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY MLJ
APPROVED BY CAP
CHECKED BY CJD
DATE SEPTEMBER 2014

TITLE

PROFFER COMPLIANCE NARRATIVE

SP NO. #6848-SP-014

C10.110

SECTION NO. C10-LETTERS

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A. Physical barriers will consist of any combination of the following (or new technology as it becomes available): removable bollards, retractable bollards, temporary barriers, stanchions and gates, as discussed and illustrated in the Design Guidelines.

B. On-site personnel will be deployed when access to any Plaza is restricted, except during times when it completely closed through the use of physical barriers (as described above). When deployed, the on-site personnel will be readily visible to those trying to access the particular Plaza. The on-site personnel will be provided heat/shelter, during times of inclement weather, to ensure that they are able to remain in appropriate position to manage traffic accessing the Plaza.

78. Other Means of Minimizing Vehicular Use of the Plazas. In addition to the foregoing restrictions on access, the Applicant may employ other means to minimize the number of vehicles on each Plaza, but such means shall be consistent with the Design Guidelines.

79. Signage. Signage will address Plaza access, as appropriate, will be easily seen and informative and will be consistent with the design in any subsequently-approved Comprehensive Sign Plan and the Design Guidelines.

80. Communications. Regular communications to residents and tenants regarding upcoming events and temporary closures will be provided via temporary signage, fliers, website postings, social media tools and other messaging tools.

81. Deliveries.

A. The Applicant shall endeavor to have all regularly scheduled deliveries directed to the designated service loading and receiving locations elsewhere on the project, and not in the Plazas.

B. Notwithstanding the above, the Applicant shall work with tenants, to the maximum extent practicable, to seek to ensure that the number of delivery trucks on any Plaza at any time shall be no more than three (3) and that deliveries shall not occur on the Metro Plaza during peak hour times for the Metrorail.

C. All office move-ins will be done through the garage loading docks.

82. Plaza Management Exceptions.

A. This will not preclude the Applicant from operating small service vehicles or passenger jitneys which would be appropriate on a sidewalk or surface other than a travel way in the ordinary course of property management, including without limitation to ferry users around the Plazas.

B. Subject to the requirements of any public access easement granted pursuant to Proffer 17, nothing in this Proffer, or the Plaza Access Management Plan will prohibit the Applicant from providing greater access restrictions or from closing

all or any portion of the Plaza on a temporary or periodic basis, provided that access to the Metro Station and the Metro Station Facilities shall not be closed.

83. Amenities and Facilities for Residents.

A. The Applicant shall provide, as part of any residential building, facilities designed to meet the onsite recreational needs of the future residents of such building, including, but not limited to exercise rooms, swimming pools, activity courts, club rooms, meeting rooms, media centers and cyber cafes.

B. Pursuant to Paragraph 2 of Section 6-110 and Paragraph 2 of Section 16-404 of the Ordinance regarding developed recreational facilities, the Applicant shall expend a minimum of $1,700.00 per market-rate residential unit on such recreation facilities. In the event the total cost of the recreational improvements constructed on the Property is demonstrated to be less than $1,700.00 per unit for a particular residential building, the Applicant shall provide the remainder in a cash contribution to the FCPA for the development of active recreational facilities in the vicinity of the Property prior to the issuance of the final RUP for the particular building.

84. Parks Contribution. Prior to the issuance of the first RUP for a multi-family residential building in the development, the Applicant shall contribute $500,000.00 to the Board of Supervisors to be used for park, trail and athletic field improvements in the vicinity of the Property, intended to serve the future residents, as determined by the Dranesville District Supervisor in consultation with the Fairfax County Park Authority. Prior to the issuance of the first Non-RUP for an office building in the development, the Applicant shall contribute $250,000.00 to the Board of Supervisors to be used for park, trail and athletic field improvements in the vicinity of the Property, intended to serve the future office tenants and employees, as determined by the Dranesville District Supervisor in consultation with the Fairfax County Park Authority. The two (2) public parks monetary contributions described above shall escalate from the date of the approval of this Application to the date of payment in accordance with Proffer 94.

SCHOOLS

85. Public School Contribution. Per the Residential Development Criteria Implementation Motion adopted by the Board of Supervisors on September 9, 2002, and Criterion effective January 7, 2003, as adjusted, the Applicant shall contribute $10,825.00 per expected new student (assuming a ratio of 0.106 students per residential unit) to the Fairfax County School Board to be utilized for capital improvements to schools that any students generated by the Property will attend. Such contribution shall be made prior to the issuance of the first RUP for each residential building and shall be based on the actual number of dwelling units built in each building.

86. Adjustments to School Contribution. If, prior to site plan approval for the respective residential buildings, the County should modify the accepted ratio of students per subject multi-family unit or the amount of the contribution per student, the amount of the

contribution shall be modified for that building to reflect the current ratio and/or contribution. If the County should decrease the ratio or contribution amount, the amount of the contribution shall be decreased to reflect the current ratio and/or contribution.

WORKFORCE HOUSING

87. ADUs. If required by the provisions of Part 8 of Article 2 of the Ordinance, Affordable Dwelling Units ("ADUs") shall be provided pursuant to said regulations unless modified by the ADU Advisory Board.

88. Workforce Dwelling Units ("WDUs"). The number of WDUs to be provided on the Property shall be equal to 15.6% of all dwelling units to be constructed on the Property. The WDUs shall be administered as set forth in the Board of Supervisors Workforce Dwelling Unit Administrative Guidelines adopted October 15, 2007.

89. Non-Residential Contribution for Workforce Housing. For all non-residential development, excluding commercial retail/services and public uses, the Applicant shall select, within its sole discretion, one of the following two options for contributing toward the provision of affordable and/or workforce housing within the greater Herndon and Dulles areas. These contributions shall be made to the Board of Supervisors, be deposited in a specific fund to be used solely for this purpose within the greater Herndon and Dulles areas, and shall be payable at the time of issuance of the initial Non-RUPs for office buildings or the hotel on the Property, excluding any ground floor retail/service uses and public uses; provided that if any ground floor retail/service use utilizes space above the ground floor (e.g., a two-level eating establishment), then such upper floor space shall also be excluded. The options shall consist of either (i) a one-time contribution of $3.00 for each square foot of GFA of office or hotel use, or (ii) an annual contribution of $0.25 for each square foot of GFA of new office or hotel use continuing for a total of sixteen (16) years. Should the Board of Supervisors adopt new policies for affordable housing contributions by non-residential developments in the greater Herndon and Dulles areas, the Applicant may, within its discretion, elect to comply with these policies in lieu of the contributions described herein without the necessity of a CDPA, PCA or FDPA.

NOISE ATTENUATION FOR RESIDENTIAL USES

90. Noise Study. The Applicant commits to meeting the Comprehensive Plan guidance which ensures that no new residential use shall be exposed to transportation generated noise levels in excess of 45 decibels for interior areas and 65 decibels for outdoor recreation areas. The Applicant shall provide an acoustical analysis which evaluates existing and future traffic and transit conditions and noise sources at least twenty-five (25) years into the future. If the noise study concludes that the new residential building will be affected by noise levels that require mitigation, then at the time of site plan submission, the Applicant shall submit a refined acoustical analysis. The refined acoustical analysis will incorporate findings from a building shell analysis based on the building plans to determine the appropriate noise attenuation measures. Such acoustical analysis shall be submitted to EDRB and DPWES for review. Based on the findings of that report, the Applicant shall show any noise impacted units on the site plan and shall provide the following noise attenuation measures, unless otherwise modified by the findings of the analysis.

A. In order to reduce interior noise to a level of approximately 45 dBA Ldn, dwelling units anticipated by the study to be impacted by traffic noise through windows and walls having levels projected to be greater than 70 dBA Ldn shall employ the following acoustical measures:

i. Exterior walls shall have a laboratory sound transmission class ("STC") rating of at least 45. Doors and glazing shall have a laboratory STC rating of at least 37 unless glazing constitutes more than 20% of any façade exposed to noise levels above 70 dBA Ldn. If glazing constitutes more than 20% of an exposed façade, then the glazing shall have a STC rating of up to 45 as dictated by the percent of glass.

ii. All surfaces shall be sealed and caulked in accordance with methods approved by the American Society for Testing and Materials ("ASTM") to minimize sound transmission.

B. In order to reduce interior noise to a level of approximately 45 dBA Ldn, dwelling units anticipated by the study to be impacted by highway noise having levels projected to be between 65 and 70 dBA Ldn, shall be constructed with the following acoustical measures:

i. Exterior walls should have a laboratory STC rating of at least 39. Doors and glazing shall have a laboratory STC rating of at least 28 unless glazing constitutes more than 20% of any façade exposed to noise levels of 65 to 70 dBA Ldn. If glazing constitutes more than 20% of an exposed façade, then the glazing shall have a STC rating of up to 39 as dictated by the percent of glass.

ii. All surfaces should be sealed and caulked in accordance with methods approved by the ASTM) to minimize sound transmission.

C. The Applicant shall provide noise attenuation measures as determined necessary from the acoustical analysis to ensure that traffic and transit related noise shall not exceed 65 decibels in the outdoor recreation areas.

D. Future residential tenants shall be provided full disclosure of the proximity to Dulles Airport and the potential of hearing airplane flyovers at this site even though the airplane noise levels do not exceed the noise threshold recommended by the FAA and the County.

COMMUNITY ASSOCIATION

91. Establishment of COA. Prior to issuance of the first RUP or Non-RUP for a new permanent building (excluding the Metro Station Facilities), the Applicant shall establish a "Community Association" in accordance with Virginia law. Such Community Association may consist of an umbrella owners association for the entire Property, as well as individual sub-associations or condominium owners' associations ("COAs") formed for specific buildings or groups of buildings. At a minimum, each COA, all owners of residential units (unless represented by and included in a COA) and the owners of each multi family, office and/or hotel

PROFFER COMPLIANCE

PARKS AND RECREATION

Proffer #	Response	Assoc. Plan/Page #	Comments
77A	The Metro Plaza, with potential vehicular access, is proposed to be controlled with bollards. The associated Site Plan (to be submitted by others) for the Fairfax County Parking Garage proposes bollards from the Kiss&Ride to the Metro Plaza.	C02.102	
77B	The Applicant acknowledges the requirement to assign on-site personnel to control access to Plaza areas when limited access to the Plazas are permitted		
78	The Applicant acknowledges the ability to minimize vehicular access by other means.		
79	A Comprehensive Sign Package will be designed developed and submitted to demonstrate conformance with the associated proffer		CSP
80	The Applicant will communicate with residents and tenants regarding upcoming events onsite		Post Construction
81	-		
81A	Loading docks and loading spaces have been provided as shown on Site Plan 6848-SP-014 (and in more detail for the interior loading spaces, as shown in the associated Architectural Building Plans – vehicle access to the Plazas will be restricted and managed		ABP Post Construction
81B	Vehicle access to the Plazas will be restricted and managed		Post Construction
81C	Loading docks and loading spaces have been provided as shown on Site Plan 6848-SP-014 (and in more detail for the interior loading spaces, as shown in the associated Architectural Building Plans		
82	-		
82A	The Applicant acknowledges the ability to operate small service vehicles within Plaza areas when appropriate		
82B	The Applicant acknowledges the authority to exercise the necessary access management to Plazas		Post Construction
83	-		
83A	The residential buildings will be designed to accommodate the required amenities – refer to the Architectural Building Plans for details and demonstrated conformance.		Architectural Plan Condition
83B	The Applicant will evaluate the costs for providing the required amenities, and evaluate the need to contribute a cash amount to FCPA after construction of the amenities has been completed, prior to the issuance of the final RUP		Post construction monetary contribution; RUP
84	The Applicant will contribute the required monetary amount to the FCPA, and will coordinate the necessary amount in accordance with Proffer 94		RUP; monetary contribution

SCHOOLS

Proffer #	Response	Assoc. Plan/Page #	Comments
85	The Applicant will contribute the required monetary amount to the Fairfax County School Board, and will determine the necessary amount based on the final number of residential units prior to the issuance of the first RUP of each residential building		RUP; monetary contribution
86	The Applicant will monitor the ratio requirements, and will adjust the monetary obligation accordingly		SP Approval; monetary contribution

WORKFORCE HOUSING

Proffer #	Response	Assoc. Plan/Page #	Comments
87	The proposed building design and construction type does not require ADUs		
88	Workforce Dwelling Units (WDUs) have been provided within the residential building (at least 15.6% of total units).	C01.101	
89	The Applicant acknowledges the financial contribution requirements		Issuance of initial Non-RUP

NOISE ATTENUTATION

Proffer #	Response	Assoc. Plan/Page #	Comments
90	The Applicant provided an acoustical analysis to EDRB and DPWES for review on July 24, 2015 (via email). Based on the findings of the analysis, a note has been added to Sheet C02.103 (note 9)	C02.103	
90A	The architectural plans will identify the required noise reduction measures		Architectural Plan Condition
90Ai	The architectural plans will identify the required noise reduction measures		Architectural Plan Condition
90Aii	The architectural plans will identify the required noise reduction measures		Architectural Plan Condition
90B	The architectural plans will identify the required noise reduction measures		Architectural Plan Condition
90Bi	The architectural plans will identify the required noise reduction measures		Architectural Plan Condition
90Bii	The architectural plans will identify the required noise reduction measures		Architectural Plan Condition
90C	The Applicant will provide noise reduction measures as required to ensure noise levels to not exceed 65 dB		
90D	The Applicant will inform residential tenant of the proximity to Dulles Airport and the potential airplane noise		

COMMUNITY ASSOCIATION

Proffer #	Response	Assoc. Plan/Page #	Comments
91	The Applicant will establish a Community Association in accordance with Virginia Law, and inform the COAs of the obligation to submit governance documents to the Office of the County Attorney		Prior to RUP or Non-RUP

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

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INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
Gary A. Sweet
Lic. No. 048560
6/26/16
PROFESSIONAL ENGINEER

KEY PLAN

SCALE NORTH

N/A

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY MLJ
APPROVED BY CAP
CHECKED BY CJD
DATE SEPTEMBER 2014

TITLE

PROFFER COMPLIANCE NARRATIVE

SP NO. #6848-SP-014

C10.111

SECTION NO. C10-LETTERS

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Wed, Oct 14, 2015 - 8:03:58am

building shall be members of the Community Association. The Community Association shall be responsible for the obligations specifically identified as its obligations in these Proffers, including, but not limited to, implementation of the TDM program, maintenance of the private streets (including the Private Drive) and pedestrian areas, maintenance of the publicly-accessible park areas, and notification obligations. Such governance documents shall be submitted to the Office of the County Attorney to ensure they provide for the various proffers and maintenance obligations not otherwise covered by separate agreement with the County or VDOT.

MISCELLANEOUS

92. Tax District Buyouts for Certain Residential Uses. Within sixty (60) days after the approval of the Rezoning application, the Applicant shall provide a written notice to the Director of the Real Estate Division of the Fairfax County Department of Tax Administration requesting a lump sum payment amount that represents the County's estimate of the present value of the future special improvements taxes that would have been payable to the Route 28 Highway Transportation Improvement Tax District ("Route 28 Tax District") attributable to the portion of the Property under the current PDC zoning classification and hereby rezoned to the PRM district to be developed for residential rental or condominium use. Such amount shall be determined in accordance with the formula and provisions as adopted by the Board of Supervisors for optional residential development within the Route 28 Tax District pursuant to Section 15.2-4608 of the Code of Virginia. After such payment, the portion of the Property used for residential uses shall not be subject to the applicable special improvement taxes for the Route 28 Tax District until and unless such land is thereafter developed with non-residential uses. Any special improvement taxes previously paid in the year the application is approved shall be credited towards the one-time payment on a prorated basis.

Further, at least sixty (60) days prior to recording any final residential condominium documents for portions of the Property located within the now existing Phase II Dulles Rail Transportation Improvement District (the "Phase II District"), the Applicant shall provide a written notice to the Director of the Real Estate Division of the Fairfax County Department of Tax Administration advising that the Applicant intends to record condominium documents for that portion of the Property. Prior to recording the condominium documents, the Applicant shall pay to the County a sum equal to the then-present value of Phase II District taxes based on the use of that portion of the Property subject to the condominium prior to this Rezoning that will be lost as a result of recording the condominium documents, in accordance with a formula approved by the Fairfax County Board of Supervisors.

93. Severability. Pursuant to Section 18-204 of the Ordinance, any portion of the Property may be the subject of a PCA, SE, Special Permit ("SP"), CSP or FDPA without joinder and/or consent of the title owner of the other portions of the Property, provided that such PCA, SE, SP, CSP or FDPA does not materially adversely affect the other phases. Previously approved zoning applications applicable to the balance of the Property that is not the subject of such a PCA, SE, SP, CSP or FDPA shall otherwise remain in full force and effect.

94. Adjustment in Contribution Amounts. All proffers specifying monetary contributions shall adjust on a yearly basis from the base year of 2014 and change effective each January 1 thereafter, based on changes in the Consumer Price Index for all urban consumers (not

seasonally adjusted) ("CPI-U") in effect in January of each year, as permitted by Section 15.2-2303.3 of the Code of Virginia.

95. Site Excavation and Blasting. If blasting is required on-site, the Applicant shall ensure that blasting is done pursuant to Fairfax County Fire Marshal requirements and all safety recommendations of the same, including without limitation, the use of blasting mats. In addition, the Applicant shall:

A. Retain a professional consultant to perform a pre-blast survey of each on-site and off-site building, to the extent that any of these buildings are located on the properties within two hundred and fifty (250) feet of the blast site;

B. Prior to any blasting being done, the Applicant shall provide written confirmation to DPWES that the pre-blast survey has been completed and provide a copy of the survey to Fairfax County upon request;

C. Require the blasting consultant to request access to any houses, wells, buildings, or swimming pools, by notification to the owners within two hundred and fifty (250) feet of the blast site. If permitted by the owner, determine the pre-blast conditions of these structures. The Applicant's consultant will be required to give a minimum of fourteen (14) days' notice of the scheduling of the pre-blast survey. The Applicant shall provide any property owners entitled to pre-blast inspections, the name, address and phone number of the blasting contractor's insurance carrier;

D. Require its consultant to place seismographic instruments prior to blasting to monitor shock waves. The Applicant shall provide seismographic monitoring records to County agencies upon their request;

E. Notify property owners within two hundred and fifty (250) feet of the blast site at least ten (10) days prior to blasting; no blasting shall occur until such notice has been given;

F. Upon receipt of a claim of actual damage resulting from said blasting, the Applicant shall cause its consultant to respond within five (5) days of meeting at the site of the alleged damage to confer with the property owner;

G. The Applicant will require blasting subcontractors to maintain necessary liability insurance to cover the costs of repairing any damages to structures, which are directly attributable to the blasting activity and shall take necessary action to resolve any valid claims in an expeditious matter; and

H. The consultant shall be required to provide as analysis of the potential for gas migration from the site to the Fire Marshal for review and approval prior to blasting. Appropriate gas migration mitigation and/or notification pursuant to County regulations shall be implemented.

96. Construction Management. The Applicant shall prepare and implement a construction management plan during construction of each phase, as appropriate, to provide safe

and efficient pedestrian and vehicle circulation at all times on the Property and on the public roadways adjoining the Property. The management plan shall identify anticipated construction entrances, construction staging areas (including one for the Metro Station), construction vehicle routes and procedures for coordination with FCDOT and/or VDOT concerning construction material deliveries, lane or street closures, or other construction related activities to minimize disturbance on the surrounding road network. Construction staging areas shall be screened and landscaped as depicted on Sheet L-4A of the CDP/FDP, provided that any interim screening shall not be located within any sight distance triangle. The management plan shall be prepared by a qualified professional and submitted for review and comment to VDOT, FCDOT and DPWES upon submission of the initial site plan for each building.

97. Universal Design. A minimum of one percent (1%) of the total multifamily dwelling units shall be designed and constructed to include a selection of universal design features and options, as determined by the Applicant, which may include, but shall not be limited to, seat areas in master bath showers, lever type door handles, slip resistant flooring, optional hand held shower heads, and optional front load washers and dryers.

98. Zoning Administrator Consideration. Notwithstanding the foregoing, upon demonstration that despite diligent efforts or due to factors beyond the Applicant's control, proffered improvements such as, but not limited to, transportation, publicly accessible park areas, athletic fields, trail connections, and offsite easements, have been delayed (due to, but not limited to, an inability to secure necessary permission for utility relocations, VDOT approval for traffic signals, necessary easements and/or site plan approval, etc.) beyond the timeframes specified, the Zoning Administrator may agree to a later date for completion of these Proffered improvement(s).

99. Successors and Assigns. These Proffers will bind and inure to the benefit of the Applicant and their successors and assigns. Each reference to "Applicant" in this Proffer statement shall include within its meaning and shall be binding upon Applicant' successor(s) in interest and/or the owners from time to time of any portion of the Property during the period of their ownership. Once portions of the Property are sold or otherwise transferred, the associated proffers become the obligation of the purchaser or other transferee and shall no longer be binding on the seller or other transferee. With respect to any portion of the Property subject to a COA, the COA shall have liability for performance of any applicable proffers, but not the individual condominium owners.

100. Counterparts. These Proffers may be executed in one or more counterparts, each of which when so executed shall be deemed an original and all of which when taken together shall constitute but one and the same instrument.

[Signatures on next page]

PROFFER COMPLIANCE

MISCELLANEOUS			
Proffer #	Response	Assoc. Plan/Page #	Comments
92	The Applicant will provide written notice to the Director of Real Estate division of Fairfax County Department of Tax Administration as required by the associated proffer		60 Days After Rezoning/ 60 days prior to Residential
93	The Applicant acknowledges that subject conditions. The Applicant acknowledges that portions of the site may be subject to a PCA, SE, SP, CSP or FDPA. At the time of submission for 6848-SP-014, the site is proposed under a single phase – if a PCA, SE, SP, CSP or FDPA is approved at any time, a site plan revision will be submitted to reflect any proposed changes.		
94	The Applicant acknowledges the potential for modification to monetary contributions		Monetary Contribution
95	If required, the Applicant will ensure blasting is done pursuant to Fairfax County Fire Marshal requirements		
95A	If required, a professional consultant will be retained to perform a pre-blast survey		Pre-Blast Survey
95B	The Applicant will provide a written conformation to DPWES that a pre-blast survey has been completed, if the survey is required		Prior to blasting
95C	If required, a professional consultant will be retained to perform a pre-blast survey, and will provide written noticed 14 days prior to the survey being performed		14 days prior to Pre-blast Survey
95D	If required, the consultant will informed of the seismographic instrumentation requirements		
95E	Notification will be provided to property owners as required, if required.		10 days prior to blasting
95F	Applicant will inform consultant of response requirement of 5 days if damage is reporting by blasting		
95G	The Applicant will inform the blasting contractors of liability insurance requirements		
95H	The Applicant will provide an analysis of potential gas migrations and coordinate with the Fire Marshal as required		
96	All seven (7) Land Bays and buildings are proposed with Site Plan 6848-SP-014, and all required roadways and associated infrastructure are proposed with Site Plan 6848-SP-014. The erosion and sediment control management for the proposed construction is provided with Site Plan 6848-SP-014 and identifies the location of construction entrances. As a single phase plan, the construction management will be limited to securing the site to prevent pedestrian or vehicular traffic that is not related to construction activities. If during the course of construction, the schedule of construction would allow for portions of the site to be open to the public prior to completing all construction activities, the Applicant will submit a construction management plan to VDOT, FCDOT, and DPWES. The Applicant will closely monitor the construction schedule and notify DPWES is this condition is required.	Section C08	Monitor construction schedule.
97	The required number of dwelling units will be designed and constructed to include a selection of universal design requirements		Architectural Plan Condition
98	The Applicant acknowledges the potential of factors beyond the Applicant's control impacting the construction of the proffered improvements in the timelines identified.		
99	The Applicant acknowledges the conditions. If portions of the site are leased or sold, the Applicant will notify the purchasers of the proffered conditions.		
100	The Applicant acknowledges the potential for execution in one or more counterparts		

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

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INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
Cary A. Pinkett
Lic. No. 048560
2015-10-14
PROFESSIONAL ENGINEER

KEY PLAN

SCALE NORTH

N/A

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY MLJ
APPROVED BY CAP
CHECKED BY CJD
DATE SEPTEMBER 2014

TITLE

PROFFER COMPLIANCE NARRATIVE

SP NO. #6848-SP-014

C10.112

SECTION NO. C10-LETTERS

P:\PROJECT\050724 Innovation South\CAD\Civil-SITE\Sheets\SITE PLAN\PROFFERS-2.dwg
Wed, Oct 14 2015 - 8:03:57am

Nugget Joint Venture, L.C.
RZ 2009-HM-017
Tax Map: 15-2((1)) Parcel (13 pt.),
Tax Map: 15-4((5)) Parcel 5B and Parcel 5A (pt.)

Signature Pages to Proffer Statement

TITLE OWNER OF TAX MAP NO. 15-2 ((1)) 13 (pt.) and 15-4 ((5)) 5A (pt.):

NUGGET JOINT VENTURE, L.C.

By: **ALLEN & ROCKS, INC.**, its manager

By: _____
Nicholas P. H. Rocks, President

Nugget Joint Venture, L.C.
RZ 2009-HM-017
Tax Map: 15-2((1)) Parcel 13 (pt.),
Tax Map: 15-4((5)) Parcel 5B and Parcel 5A (pt.)

Signature Pages to Proffer Statement

TITLE OWNER OF TAX MAP NO. 15-4 ((5)) 5B:

BOARD OF SUPERVISORS OF FAIRFAX COUNTY

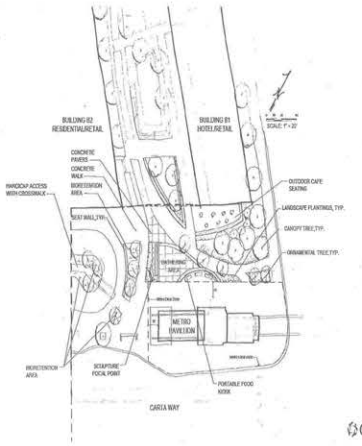
By: _____
Edward L. Long, Jr.

Its: County Executive

EXHIBITS

Exhibit A Metro Plaza Stormwater Management Alternative Plan

Exhibit B Design Guidelines



Gordon

*ALL DESIGN GUIDELINES OF EXHIBIT B CAN BE FOUND WITHIN THE STAFF REPORT.

APPENDIX 1

EXHIBIT B

ROCKS

PROPOSED DESIGN GUIDELINES FOR
INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE

dcs

Dewberry

APRIL 28, 2014

APRIL 28, 2014

PROPOSED DESIGN GUIDELINES FOR
INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE

TABLE OF CONTENTS	**1**
INTRODUCTION	**3**
DEVELOPMENT GOALS	**4**
DEVELOPMENT SUMMARY	**5**
FRAME WORK PLAN	**9**
CONNECTIVITY	11
DESIGN STANDARDS	**12**
OVERVIEW	12
TYPICAL ARCHITECTURAL ELEVATIONS	14
PLAZAS, OPEN SPACES AND FOCAL POINTS (General)	16
METRO PLAZA SPECIFIC GUIDELINES	18
METRO PLAZAPEDESTRIAN CIRCULATION	22
PHASE I INTERIM IMPROVEMENTS	**24**
POCKET PARK SPECIFIC GUIDELINES	26
URBAN PARK SPECIFIC GUIDELINES	28
STREETSCAPE / PEDESTRIAN WALKWAY DESIGN	30
PLANT MATERIALS	36
PUBLIC ART	37
BICYCLE ACCESS / PARKING	38
LIGHTING	39
CHARACTER OF BUILDINGS	**40**
SPECIFIC BUILDING TYPOLOGIES	42
Type 1 – Low Rise Residential (Six Floors or Less)	42
Type 2 – Mid to High Rise Residential (Seven Floors or More)	45
Type 3 – Commercial Office	46
Type 4 – Hotel	48
TYPE 5 - Garages	48
TEMPORARY RETAIL	49
AWNINGS & CANOPIES	50
BANNERS	51
SIGNAGE	52
MECHANICAL EQUIPMENT	53
FENCES, WALLS, & SECURITY GATES / BARRIERS	54
FLAG POLES & FLAGS	55

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2015

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
Gary A. Pinkard
Lic. No. 043560
PROFESSIONAL ENGINEER

KEY PLAN

SCALE NORTH

N/A

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MCJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE

PROFFER COMPLIANCE NARRATIVE

SP NO. #6848-SP-014

C10.113

SECTION NO. C10-LETTERS

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Wed, Oct 14 2015 - 8:26:44am

CONCEPTUAL DEVELOPMENT PLAN CONDITIONS

CDP 2009-HM-017

April 30, 2014

If it is the intent of the Board of Supervisors to approve Conceptual Development Plan CDP 2009-HM-017 for a transit-oriented mixed use development integrating Metro related facilities located at Tax Maps 15-2((1)) 13pt., 15-4((5)) 5B and 15-4 ((5)) 5A, staff recommends that the Board of Supervisors condition the approval by requiring conformance with the following development conditions.

1. Development of the property shall be in substantial conformance with the Conceptual Development Plan ("CDP") and Final Development Plan ("FDP") entitled "Innovation Center South and the Innovation Center Station Garage" dated August 1, 2013 and revised through April 21, 2014, prepared by Dewberry Consultants LLC.

2. The Metrorail facilities shall be subject to the Design Guidelines attached as Exhibit B of the proffers as they pertain to the provision of accessory uses, structures, public art and other amenities.

3. The 10-year tree canopy shall be met on-site during all construction phases in accordance with Section 12-0511 of the Public Facility Manual (PFM) and the Table 12.10 in the PFM (10-year Tree Calculation Worksheet Table), which allows for opportunities to receive additional canopy credits in exchange for the planting of trees in a manner that provide specific environmental and ecological benefits or for the use of species that are resistant to disease, pests, decay and the negative impacts imposed by harsh environmental conditions. At the time of site plan review, the appropriate canopy area multiplier and discrete area of canopy associated with trees planted for these purposes shall be clearly identified on the landscape plan plant schedule and the 10-year tree canopy calculations as shown on Table 12.10 of the PFM.

   In addition, no trees counted toward tree canopy shall be located in the VDOT right of way.

4. The Bio-Retention Street Trees shown on Sheets L-7b and L-7c shall not be located in the VDOT right of way.

5. In areas shown on the CDP/FDP that do not meet the Comprehensive Plan recommendations for street trees planted within a 6 foot landscape amenity between the street curb and the sidewalk (specifically the areas

on both sides of the North-South Road north of the Public Park and the area along the north side of the East-West Road), the applicant shall incorporate additional pedestrian enhancements during site plan review that include but are not limited to:

- Smaller category tree plantings (not counted toward the tree canopy requirements) that would be upright in nature and provide minimal shade,
- Street awnings with flower boxes or umbrellas for shade, shelter, and scaling elements,
- Seating Walls
- A mix of ground covers as indicated in Development Condition 3,
- climbing vines,
- Painted wall murals,
- Potted plants used to define zones and provide green material,
- Street furnishings with a combination of both fixed and moveable fixtures to allow users to create their own conversation zones, and
- Banners and flower pots on lamp posts

These features shall be reviewed and approved by Urban Forest Management (UFM), the Department of Transportation and the Department of Planning and Zoning prior to site plan approval.

6. The proposed landscaping and temporary fencing on the north side of the Construction Storage and Staging Areas shown on Sheet L-4A of the CDP/ FDP shall be out of the sight distance requirements along Sunrise Valley Drive. The Construction Storage and Staging Area located on the southwest corner of the site shall also be reduced in size to allow the planting of a row of evergreen trees along the East-West Road, similar to the tree plantings shown along Sunrise Valley Drive. These trees shall be located out of the sight distance requirements along the East-West Road in a manner to help screen construction activities from the adjacent properties to the south, as reviewed and approved by UFM.

The proposed conditions are staff recommendations and do not reflect the position of the Board of Supervisors unless and until adopted by that Board.

N:\ZED\Rezonings\RZ 2009-HM-017 Nugget and County\report\RZ 2009-HM-017 Nugget and County Report CDP Conditions.doc

DEVELOPMENT CONDITION COMPLIANCE

DEVELOPMENT CONDITIONS			
Development Cond. #	Response	Assoc. Plan/Page #	Comments
1	The Site Plan 6848-SP-014 has been designed in substantial conformance with the CDP/FDP.	C01.101	1
2	The proposed improvements associated with Site Plan 6848-SP-014 have been designed in conformance with the Design Guidelines document. The site related improvements have been proposed and identified with Site Plan 6848-SP-014.	Section L01	
3	The Site Plan 6848-SP-014 proposes all seven (7) buildings, associated infrastructure improvements, as well as the ultimate landscape plan for the Site as depicted in the CDP/FDP. Landscape canopy calculations have been provided with Site Plan 6848-SP-014 to verify the 10 year tree canopy is met with the proposed development.	L01.301-L01.304	
4	There are no stormwater management facilities proposed beneath the landscape amenity panel/sidewalk, and as such does not prevent VDOT and/or the County from accepting these areas. In concurrence with the associated Development Condition, during a meeting with VDOT, FCDOT, and DPWES on August 12, 2014, it was indicated to the applicant that these facilities were not allowed within the right-of-way, and were therefore not proposed in these locations with Site Plan 6848-SP-014.		
5	As discussed during a meeting with VDOT, FCDOT, and DPWES on August 12, 2014, it was indicated that the sight distance analysis had been performed based on proposed layout and grading, and with consideration given to the proposed landscaping on North-South road (Innovation Center Drive), the proposed landscaping would not prevent meeting adequate sight distance requirement. As proposed with Site Plan 6848-SP-014, trees will be located along the North-South road, with adequate spacing as well as clear zones from entrances (approximately 30'). For the landscaping along Sunrise Valley Drive, a sight distance analysis indicated that the dense vegetation may adversely impact sight distance until such time as a signals have been installed at the Sunrise Valley Drive and North-South Road / Carta Way intersections, as noted on the Site Plan 6848-SP-014	L01.301-L01.304; C03.701-C03.707	
6	The Site Plan 6848-SP-014 proposes all seven (7) buildings, associated infrastructure improvements, as well as the ultimate landscape plan for the Site as depicted in the CDP/FDP. The proposed construction plan anticipates the concurrent and sequential construction of the site, such that there will not be pronged exposure to potential construction storage or staging areas that would necessitate temporary landscaping.	L01.301-L01.304	

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CAP
Lic. No. 043560
PROFESSIONAL ENGINEER

KEY PLAN

SCALE NORTH

N/A

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY MLJ
APPROVED BY CAP
CHECKED BY CJD
DATE SEPTEMBER 2014

TITLE
DEVELOPMENT CONDITION COMPLIANCE

SP NO. #6848-SP-014

C10.114

SECTION NO. C10-LETTERS

P:\PROJECT\50587254 Innovation South\CAD\CIVIL-SITE\Sheets\SITE PLAN\PROFFERS-2.dwg
Wed, Oct 14 2015 - 8:21:10am

County of Fairfax, Virginia

To protect and enrich the quality of life for the people, neighborhoods and diverse communities of Fairfax County

September 22, 2015

Nugget Joint Venture, LC
1960 Gallows Road, Suite 300
Vienna, VA 22182

Subject: Parking Reduction for Innovation Center South, Parking Study #6848-PKS-002-1, Tax Map #015-4-05-0005B and 015-2-01-0013A, Dranesville District

Dear Sirs:

On September 22, 2015, the Fairfax County Board of Supervisors (Board) approved a parking reduction of 21 percent (up to 782 fewer parking spaces) for Innovation Center South pursuant to Paragraph 5, Section 11-102, of the Zoning Ordinance.

Please be advised that the approval conditions, shown within the enclosed Board item, must be included with all future parking tabulations and all site plans submitted to Fairfax County. Most importantly, Condition #10 requires that these conditions be recorded in the Fairfax County land records in a form acceptable to the County Attorney. Unless an extension is approved by the Board as allowed by Condition #11, this approval will expire without notice if the recordation does not take place within 6 months. If you need a sample agreement, you may contact Assistant County Attorney Hayden Codding at 703-324-2421.

If you have any questions or concerns, please contact Beth Forbes at 703-324-7180.

Sincerely,

Janet Leavitt

Jan Leavitt, P.E.
Chief
Site Code Research & Development Branch

Enclosure: Board Item -- Parking Reduction for Innovation Center South (No attachments)

cc: William F. Johnson, P.E., Wells & Associates, Inc.
John W. Foust, Supervisor, Dranesville District
Hayden Codding, Assistant County Attorney
Diane Johnson-Quinn, Deputy Zoning Administrator, Zoning Permit Review Branch, Department of Planning and Zoning
Beth Forbes, Engineer IV, Site Code Research & Development Branch, Department of Public Works and Environmental Services

Department of Public Works and Environmental Services
Land Development Services
12055 Government Center Parkway, Suite 444
Fairfax, Virginia 22035-5503
Phone 703-324-1780 • TTY 711 • FAX 703-653-6678
www.fairfaxcounty.gov

ACTION – 8

Approval of a Parking Reduction for Innovation Center South (Dranesville District)

ISSUE:
Board of Supervisors approval of a 21 percent reduction of the required parking (up to 782 fewer parking spaces) for the proposed uses for the Innovation Center South development, Tax Map Numbers 15-4-05-0005B and 15-2-01-0013A, Dranesville District.

RECOMMENDATION:
The County Executive recommends that the Board approve a parking reduction of 21 percent for the proposed uses at Innovation Center South pursuant to Paragraph 5, Section 11-102 of Chapter 112 (Zoning Ordinance) of *The Code of the County of Fairfax, Virginia* (Code), based on an analysis of the parking requirements for each use on the site, Parking Study #6848-PKS-002-1.

The County Executive further recommends that the Board approve the requested reduction subject to the following conditions:

1. A minimum of 1,313 garage parking spaces must be maintained at all times to serve up to 1,005 residential dwelling units. The parking spaces for residents shall be secured by controlled access within the parking garage. The site plan shall clearly identify how the parking spaces for residents will be secured for residential use only. The parking required for each dwelling unit shall be provided within the same building as the dwelling unit.

2. A minimum of 1,444 garage parking spaces must be maintained at all times to serve up to 499,660 gross square feet (GSF) of office uses and up to 104,000 GSF of retail uses. The garage parking for office uses shall be provided in the same building as the use. No spaces may be reserved with the exception of those required to be accessible or to be reserved for electric vehicle recharging.

3. A minimum of 190 garage parking spaces must be maintained at all times to serve the 190-room hotel. No spaces may be reserved with the exception of those either required to be accessible or to be reserved for electric vehicle recharging.

4. A minimum of 2947 parking spaces (excluding those in the Innovation Center South Metrorail parking garage) must be provided within the site at the completion of all buildings shown on the Conceptual Development Plan/Final Development Plan (CDP/FDP). The minimum number of parking spaces provided on each land bay must be based on the specific uses and must be

located on the same land bay as the uses for which they are accessory. A minimum of 1901 parking spaces must be provided in Land Bay A. A minimum of 882 parking spaces must be provided in Land Bay B. A minimum of 164 parking spaces must be provided in Land Bay D.

5. The Transportation Demand Management (TDM), Bicycle Facilities and Parking (excluding Metro Station Facilities) proffers that were approved in conjunction with the approval of the Nugget Joint Venture, L.C., rezoning case (RZ 2009-HM-017 approved July 29, 2014) shall be implemented notwithstanding the locations and functions of the access controls depicted on the conceptual parking plans submitted in support of this request.

6. The current owners, their successors, or assigns of the parcels identified as Fairfax County Tax Map Numbers 015-4-05-0005B and 015-2-01-0013A shall submit a parking space utilization study for review and approval by the Board at any time in the future that the Zoning Administrator so requests. Following review of that study, or if a study is not submitted within 90 days after its request, the Board, in its sole discretion, may rescind this parking reduction or require alternative measures to satisfy parking needs which may include compliance with the full parking requirements specified in Article 11 of the Zoning Ordinance.

7. All parking utilization studies prepared in response to a request by the Zoning Administrator shall be based on applicable requirements of the County Code and the Zoning Ordinance in effect at the time of its submission.

8. Parking of any additional use(s), or changes to the mix of uses or unit types, shall not be permitted without the submission of a new parking study prepared in accordance with the applicable requirements of the Zoning Ordinance and shall be subject to the Board's approval.

9. All parking shall comply with applicable requirements of Article 11 of the Zoning Ordinance and the Fairfax County Public Facilities Manual (PFM) including the provisions referencing accessibility improvements and the Virginia Uniform Statewide Building Code.

10. The conditions approved as part of this parking reduction shall be recorded in the Fairfax County land records in a form acceptable to the County Attorney.

11. The approval of this parking reduction shall expire 6 months after its approval date if Condition #10 has not been satisfied, unless an extension has been granted by the Board.

TIMING:
Board action is requested on September 22, 2015.

BACKGROUND:
On July 29, 2014, the Board approved RZ 2009-HM-017 for Nugget Joint Venture, LC (Developer). Pursuant to the proffer conditions, the Developer has requested a parking reduction for all of the uses on the site. The basis for the reduction is the proposed development's proximity to a planned mass transit station as authorized under Par. 5 of Zoning Ordinance § 11-102. Specifically, the subject 14.68-acre parcel is located within 1/4 miles of the entrance of the planned Innovation Center Metrorail Station (Metro Station) and immediately south of the Dulles Toll Road, as shown in Figure 3 of the attached study.

The mixed-use development is proposed to include up to 1,005 dwelling units in four buildings, up to 499,660 GSF of office uses in 2 buildings and a 190-room hotel for a total of seven buildings. Up to 104,000 GSF of retail uses could occupy the ground level of four of the seven buildings. Multi-level parking garages are proposed with each building. Up to 12 parking spaces are expected to be available along a private drive. Although not a part of the requested parking reduction, the 8-floor Innovation Center South Metrorail parking garage is planned immediately adjacent to the buildings to provide parking for the Metro Station. The applicant has proffered to construct certain improvements and those commitments have prompted the submission of the Site Plan which, per Proffer 50, has necessitated the submission of this request.

The applicant has proffered to limit the development's parking supply and to request a parking reduction. The minimum and maximum parking supply proffered are identified in Table 2 on Sheet C-2c of the CDP/FDP. A copy of the table is available in Attachment II.

The Developer has requested an overall parking reduction of 21 percent. Specific reductions for each use were identified in the request:

- An 18.1 percent reduction in the parking for the residential uses from 1.6 spaces per dwelling unit to 1.31 spaces per dwelling unit (296 fewer spaces). The requested parking supply (1,313 spaces) is based on the 630 studio and 1-bedroom units and 375 2-bedroom units. The Code would require a minimum of 1,608 spaces for the 1,005 dwelling units.
- A 23.1 percent reduction in the parking for the offices uses (300 fewer spaces). The requested parking supply (1,000 spaces) is based on 2.0 spaces per GSF. The Code would require a minimum 1,300 spaces for the 499,660 GSF of office uses.
- A 28.2 percent reduction in the parking for the retail uses (174 fewer spaces). The requested parking supply (444 spaces) is based on 6 spaces per each 1000 square feet of retail uses over the first 5,000 GSF in each building. The Code would require the entire 104,000 GSF of retail uses to be included in the parking supply calculations and require a minimum of 618 spaces.
- A 7.8 percent reduction of the minimum parking for the hotel (16 fewer spaces). The requested parking supply for the hotel (190 spaces) is based on 1 space per

each of the hotel's 190 rooms with no allowance for any accessory uses. The Code would require 1.08 spaces per room, a minimum of 206 spaces.

The parking reduction request proposes a parking supply within the range stipulated in the proffers. The parking study indicates that the proximity to the Metro Station and other transit services will support this parking reduction request. Specifically, the transit station is expected to reduce the demand for parking spaces; no adverse impact to either the site or the adjacent area is expected; and the transit station is scheduled for completion in same time frame as the development. Therefore, staff recommends approving a composite parking reduction of 21 percent for the uses on the site subject to the conditions listed above. This recommendation reflects a coordinated review by the Department of Transportation, Department of Planning and Zoning, Office of the County Attorney and the Department of Public Works and Environmental Services (DPWES).

FISCAL IMPACT:
None.

ENCLOSED DOCUMENTS:
Attachment I – Parking Study and parking reduction request (6848-PKS-002-1) dated January 15, 2015, from Brian J. Horan and William F. Johnson, P.E., Wells and Associates, without attachments
Attachment II – Parking Determination dated February 7, 2014, with Tables 1 and 2 dated March 28, 2014, as depicted on Sheet C-2c of RZ/FDP 2009-HM-017
Attachment III – Conceptual parking plans of the Innovation Center South parking garages by Dewberry Consultants, LLC, undated, as received on August 4, 2015

STAFF:
Robert A. Stalzer, Deputy County Executive
James W. Patteson, Director, DPWES
William D. Hicks, Director, Land Development Services, DPWES

PARKING REDUCTION WAIVER COMPLIANCE NARRATIVE

1. A MINIMUM OF 1,313 GARAGE PARKING SPACES WILL BE MAINTAINED WITH CONTROLLED ACCESS FOR THE PROPOSED 1,005 RESIDENTIAL DWELLING UNITS. THE PARKING FOR EACH DWELLING UNIT HAS BEEN PROVIDED WITH THE ASSOCIATED BUILDING PARKING GARAGE. REFER TO SHEET C01.101 FOR THE REQUIRED NUMBER OF PARKING SPACES PER RESIDENTIAL UNIT TYPE IN EACH BUILDING AS WELL AS THE PROVIDED PARKING FOR EACH BUILDING.
2. A MINIMUM OF 1,444 GARAGE PARKING SPACES WILL BE MAINTAINED FOR BOTH OFFICE AND RETAIL USES. THE PARKING FOR THE OFFICE USE HAS BEEN PROVIDED IN THE ASSOCIATED BUILDING PARKING GARAGE. REFER TO SHEET C01.101 FOR THE REQUIRED NUMBER OF PARKING SPACES PER EACH USE AND THE PARKING PROVIDED. SEE SECTION 09-PARKING PLAN, FOR THE DETAILED PARKING LAYOUT IDENTIFYING THAT NO SPACES HAVE BEEN MARKED 'RESERVED' WITH THE EXCEPTION OF THOSE FOR ACCESSIBLE OR ELECTRICAL VEHICLE CHARGING.
3. A MINIMUM OF 190 GARAGE PARKING SPACES WILL BE MAINTAINED FOR THE PROPOSED HOTEL, PROPOSED WITHIN THE PARKING GARAGE OF THE ASSOCIATED BUILDING. SHEET C01.101 FOR THE TABULATION OF REQUIRED AND PROPOSED PARKING OF THE HOTEL (BUILDING B1). SEE SECTION 09-PARKING PLAN, FOR THE DETAILED PARKING LAYOUT IDENTIFYING THAT NO SPACES HAVE BEEN MARKED 'RESERVED' WITH THE EXCEPTION OF THOSE FOR ACCESSIBLE OR ELECTRICAL VEHICLE CHARGING.
4. THE COUNTY PARKING GARAGE IS NOT PROPOSED WITH THIS SITE PLAN, BUT AVAILABLE INFORMATION INDICATES A COMBINED TOTAL OF 2,947 PARKING SPACES FOR ALL USES WILL BE MAINTAINED. THE TOTAL NUMBER OF SPACES PROVIDED FOR EACH LAND BAY IS PROVIDED ON SHEET C01.101 WHICH WILL EXCEED THE 2,947 PARKING SPACE REQUIREMENT, AND THE REQUIRED PHASING IS ACKNOWLEDGED. AS SHOWN ON SHEET C01.101, THE CUMULATIVE NUMBER OF PARKING SPACES FOR LAND BAYS A/B/D ARE PROVIDED AS 1901/882/164 - PROVIDING THE REQUIRED NUMBER OF SPACED.
5. THE APPROVED TDM, BICYCLE FACILITIES, AND PARKING PROFFERS HAVE BEEN ADDRESSED - REFER TO SHEETS C10.101-C10.113 FOR PROFFER COMPLIANCE NARRATIVE.
6. THE REQUIREMENTS FOR PARKING SPACE UTILIZATION REQUESTS IS ACKNOWLEDGED.
7. THE APPLICABILITY OF CURRENT CODES (AT THE TIME OF STUDY SUBMISSION) IS ACKNOWLEDGED.
8. THE REQUIREMENTS FOR A PARKING STUDY FOR ANY CHANGE IN USE OR UNITS IS ACKNOWLEDGED.
9. THE REQUIREMENT TO PROVIDE ACCESSIBLE PARKING BASED ON COUNTY ZONING AS WELL AS THE VIRGINIA UNIFORM STATEWIDE BUILDING CODE IS ACKNOWLEDGED, AND HAS BEEN ADHERED TO WITH THE PROPOSED USES, UNITS, AND PARKING.
10. THE PARKING REDUCTION HAS BEEN RECORDED UNDER DB 24331 PG 1338
11. THE EXPIRATION IS ACKNOWLEDGED - THE CONDITIONS HAVE BEEN RECORDED.

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
Lic. No. 040560
PROFESSIONAL ENGINEER

KEY PLAN

SCALE NORTH

N/A

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MLJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE

WAIVERS

SP NO. #6848-SP-014

C10.201

SECTION NO. C10-LETTERS

P:\PROJECTS\50587254_Innovation South\CAD\Civil - SITE\Drawings\SITE PLAN\WAIVERS.dwg
Tue, Nov 03 2015 - 11:53:58am

APPROVAL WAIVER FOR 2 AND 10 YEAR STROMWATER DETENTION

County of Fairfax, Virginia

To protect and enrich the quality of life for the people, neighborhoods and diverse communities of Fairfax County

DEC 0 2 2014

Scott Clarke, P.E.
Dewberry Consultants, LLC
8401 Arlington Boulevard
Fairfax, Virginia 22031

Subject: Innovation Center South, Project #6848-SP-014-1, Tax Map #015-2-01-0013, Dranesville District

Reference: Stormwater Detention Waiver #6848-WSWD-011-1

Dear Mr. Clarke:

A waiver of the County onsite stormwater detention requirements, Chapter 124, Section 124-4-4(d), for the subject project is hereby approved, subject to the following conditions:

1. A detailed analysis of each site outfall shall be incorporated into the subject plan to ensure that the channel protection and flood protection requirements of Chapter 124, Section 124-4-4, are met. In the analysis specifically include: the culvert under Rock Hill Road, and the house on Tax ID # 015-2-01-0004.
2. A copy of the agreements with the owners of the off-site ponds DP0637 and W90401 to use the pond for detention shall be included in the referenced plan.
3. In the event that any outfall channel shows signs of erosion due to development of the site, the project bond will not be released until the channel is adequately stabilized.

There is sufficient justification to approve this onsite stormwater waiver as conditioned, because the stormwater runoff from this project will be controlled by the regional stormwater management pond H-9, the existing wet pond W90401, and the existing dry pond DP0637.

This waiver in no way relieves you of any other County drainage requirement, including adequacy of outfall, channel protection, flood protection and pro-rata share payments.

This waiver shall automatically expire, without notice, 24 months after the date of this letter, unless the subject plan has been approved.

Please ensure that a copy of this letter is made a part of the subject plan.

Department of Public Works and Environmental Services
Land Development Services, Site Development and Inspections Division
12055 Government Center Parkway, Suite 535
Fairfax, Virginia 22035-5503
Phone 703-324-1720 • TTY 711 • FAX 703-653-1782

Scott Clarke, P.E.
Stormwater Detention Waiver #6848-WSWD-011-1
Page 2 of 2

If further assistance is desired, please contact Camylyn Lewis, Senior Engineer III (Stormwater), Site Development and Inspections Division (SDID), at 703-324-1720 (voice), 703-653-1782 (fax).

Sincerely,

Shahab Baig, P.E.
Chief, North Branch
SDID

CL/am

cc: Don Demetrius, Chief, Watershed Evaluation Branch, SPD, DPWES
Camylyn Lewis, Senior Engineer III (Stormwater), North Branch, SDID, LDS, DPWES
Waiver File

STORMWATER DETENTION WAIVER COMPLIANCE NARRATIVE

1. THE ADEQUATE OUTFALL ANALYSIS HAS BEEN UPDATED TO PROVIDE MORE DETAIL FOR THE ENTIRE EXTENT OF REVIEW, PER THE APPLICABLE REQUIREMENTS. NOTE THAT THE POINT OF CONFLUENCE FOR OUTFALL B ENDS AT THE BOX CULVERT ON THE SOUTH SIDE OF THE DULLES TOLL ROAD. WITH AN EXTENT OF REVIEW WITHIN THE CULVERT. THE OUTFALL ANALYSIS DOES NOT REQUIRE AN EXTENT OF REVIEW TO THE CULVERT UNDER ROCK HILL ROAD OR THE HOME ON TAX ID # 015-2-01-0004
2. ADDITIONAL ANALYSIS OF THE PROPOSED DEVELOPMENT AND DOWNSTREAM FACILITIES WAS PERFORMED AS PART OF THIS SITE PLAN PACKAGE. AS DISCUSSED AND AGREED UPON, THE DOWNSTREAM FACILITIES ARE NOT DESIGNED TO PROVIDE DETENTION FOR THE PROPOSED DEVELOPMENT AND A LETTER OF PERMISSION IS NOT APPLICABLE. THE DOWNSTREAM FACILITIES WERE DESIGNED TO PASS THE PEAK FLOW IN A DEVELOPED CONDITIONS (AS PROPOSED). THIS SITE PLAN IDENTIFIES THAT THE INCREASE IN RUNOFF FROM THE SUNRISE VALLEY DRIVE WIDENING/IMPROVEMENTS RESULTS IN LESS THAN 1 CFS OF ADDITIONAL FLOW (OUTFALLS A & B) - AND THE EXISTING OUTFALLS ARE ADEQUATE, AS IDENTIFIED IN THE ADEQUATE OUTFALL ANALYSIS OF THIS PLAN SET.
3. THE OUTFALLS HAVE BEEN EVALUATED AND DO NOT DISPLAY ANY SIGNS OF EROSION.

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
Cary A. Pinkett
Lic. No. 043560
PROFESSIONAL ENGINEER

KEY PLAN

SCALE N/A

NORTH

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY MLJ
APPROVED BY CAP
CHECKED BY CJD
DATE SEPTEMBER 2014

TITLE
WAIVERS

SP NO. #6848-SP-014

C10.202

SECTION NO. C10-LETTERS

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Wed, Oct 14, 2015 - 8:27:59am

INTERPRETATION APPROVAL LETTER FOR RZ/FDP 2009-HM-017

County of Fairfax, Virginia

To protect and enrich the quality of life for the people, neighborhoods and diverse communities of Fairfax County

February 12, 2015

Cody A. Pennetti
Dewberry Consultants, LLC
8401 Arlington Boulevard
Fairfax, VA 22031

Re: Interpretation for RZ/FDP 2009-HM-017, Nugget Joint Venture, LC, Tax Map 15-2((1)) 13pt.: Building Setbacks, Stormwater Management and Open space

Dear Mr. Pennetti:

This is in response to your letter dated January 23, 2015, requesting an interpretation of the proffers and the Conceptual Development Plan/Final Development Plan (CDP/FDP) accepted by the Board of Supervisors in conjunction with the approval of RZ 2009-HM-017. As I understand it, there are three separate questions regarding: 1) the stormwater management program as it relates to County regulations, 2) building setbacks from Sunrise Valley Drive right of way, and 3) open space calculations. This determination is based on your letter and attachments. Copies of your letters with relevant exhibits dated January 23, 2015 and prepared by Dewberry Consultants, LLC are enclosed.

On July 29, 2014, the Board of Supervisors rezoned 14.68 acres (Tax Maps 15-2((1)) 13 pt., 15-4((5)) 5B & 15-4 ((5)) 5A pt.) from the PDC and PRM Districts to the PRM District to permit transit-oriented mixed-use development near the future Innovation Center Metrorail Station in the Dranesville District. The proposed Transit-Oriented Development (TOD) consists of approximately 1.65 million square feet of residential, office, hotel, retail and public use development (including bonus density associated with the provision of workforce dwelling units).

On December 12, 2014, a prior determination was made that additional above grade parking and a slight decrease in the horizontal space between Buildings A1 and A2 was in substantial conformance with the proffers, and the CDP/FDP.

According to your letter, the property owner is seeking the following minor modifications to the approved CDP/FDP and proffers.

Department of Planning and Zoning
12055 Government Center Parkway, Suite 801
Fairfax, Virginia 22035-5509
Phone 703 324-1290
FAX 703 324-3924
www.fairfaxcounty.gov/dpz/

DEPARTMENT OF PLANNING & ZONING

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Integrity * Teamwork* Public Service

Cody A. Pennetti
Page 3

1) Stormwater Management: Sheets C-9 through C-30 indicate that stormwater management is provided by an existing regional pond constructed with Dulles Station (approved by site plan in SP 6848-PI-02-1). In addition to the regional pond, the approved CDP/FDP shows several on-site Best Management Practices (BMP) facilities, which include bio-retention facilities, permeable pavers, three underground sand filters and seven rainwater harvesting cisterns on-site designed to be in conformance with the recently adopted County Stormwater Management Ordinance. Your letter indicates that the Fairfax Department of Public Works and Environmental Services (DPWES) determined that the proposed stormwater management plan would be subject to the old Part II C technical criteria (Article 5 of the Stormwater Management Ordinance) for water flowing to the regional pond based on Guidance Memo No. 14-2014 from the Virginia Department of Environmental Quality Water Division instead of the new Part II-B technical criteria (Article 4 of the Stormwater Management Ordinance). You propose to amend the stormwater management plan in accordance with this determination and remove three underground sand filters, while maintaining the two bioretention systems (one in the Metro plaza and one at the southeast corner of the site) and the rainwater management practices specified on the CDP/FDP. Given that the underground sand filters, bioretential facilities and rainwater management practices are not needed to meet the old requirements and, as such, would be redundant systems, it is my determination that your proposal to eliminate the three underground sand filters from the development plan would be in substantial conformance with the proffers and the CDP/FDP, provided that 1) the implementation guidance in Guidance Memo 14-2014 relating to the DPWES determination is met during the site plan review process, and 2) any land developed areas not draining to the existing regional pond continue to be subject to the stormwater regulations in Part II-B technical criteria.

2) Building Setbacks from Sunrise Valley Drive: Sheet C-4 of the approved CDP/FDP depicts two office Buildings (A1 and A2) and a hotel Building (B1) on the northern portion of the site with building setbacks from the Sunrise Valley Drive right of way ranging from approximately 10 to 15 feet (from the west to the east sides of Innovation Drive). You propose to slightly revise the Sunrise Valley Drive alignment to meet Virginia Department of Transportation design guidelines and to create a parallel road to the building face alignment, which results in a constant 14 foot building setback from the right-of-way on both west and east sides of Innovation Drive. It is my determination that your proposal to provide a uniform building setback along Sunrise Valley Drive would be in substantial conformance with the proffers and the CDP/FDP, provided that the configurations of the on-road bike lane, street tree plantings, sidewalks and landscaping along the buildings (which are shown on the typical street sections and typical street tree details on the CDP/FDP and referenced in the proffers) are continued to be met during the site plan review process.

3) Open Space: Sheet C-2 of the approved CDP/FDP shows a minimum of 20 percent open space on the site at the completion of the project, which includes approximately 2.93 acres of public open space provided in a Metro Plaza on the northeast corner of the site,

Cody A. Pennetti
Page 3

an Urban Park located between Buildings A3 and A4 and D1 and a Pocket Park located on the southeast corner of the site. Sheet C-5 of the CDP/FDP further indicates that approximately 236,102 square feet of open space would be provided on the site, which would yield 36 percent open space (including public open space, private open space and sidewalks). Due to the final road geometries discussed in the previous determination, and additional right-of-way needed for traffic signals and adjustments made to the public bus stops to allow for on road bike lanes on Carta Way, you propose to reduce the overall open space from 236,106 square feet to 230,181 square feet (with the majority of the reduction caused by adjustments to the bus stop curb cuts) while still retaining 36 percent of the entire site as open space. Given that the additional right of way is needed for public use and that the open space areas provided in the Metro Plaza, Urban Parks and sidewalks will not change, and the fact the reduction still results in 36 percent open space of the entire site, it is my determination that your proposed reduction would be in substantial conformance with the proffers and the CDP/FDP, provided that the public open space shown in the Metro Plaza, Urban Park, and Pocket Parks on the CDP/FDP is maintained and that the streetscape leading to these parks is not reduced (except as specified in the previous determination regarding Sunrise Valley Drive during site plan review process).

These determinations have been made in my capacity as the duly authorized agent of the Zoning Administrator and only address the issues discussed herein.

If you have any questions regarding this interpretation, please contact William O'Donnell at (703) 324-1290.

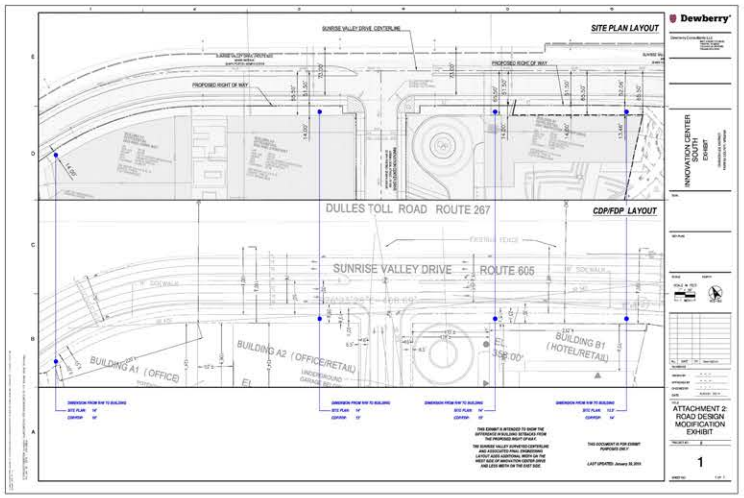
Sincerely,

Barbara C. Berlin, AICP, Director
Zoning Evaluation Division

G:\zedcom\ZED\Interpretations\Nugget Rocks - Road, SWM and Openspace\RZ 2009-HM-017 Nugget Rocks Interpretation Roads Setbacks Open space.doc

Attachments: A/S

cc: John Foust, Dranesville District
John C. Uhlfelder, Planning Commissioner, Mason District
Diane Johnson-Quinn, Deputy Zoning Administrator, Permit Review Branch, ZAD, DPZ
Ken Williams, Plan Control, Land Development Services, DPWES
Angela Rodeheaver, Section Chief for Site Analysis, DOT
Kevin Guinaw, Chief, Special Projects/Applications Management Branch, ZED, DPZ
File: RZ/FDP 2009-HM-017, PI 1501 004, Imaging



Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

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May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
Cody A. Pennetti
Lic. No. 043560
PROFESSIONAL ENGINEER

KEY PLAN

SCALE N/A

NORTH

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY MLJ
APPROVED BY CAP
CHECKED BY CJD
DATE SEPTEMBER 2014

TITLE
WAIVERS & INTERPRETATIONS

SP NO. #6848-SP-014

C10.203

SECTION NO. C10-LETTERS

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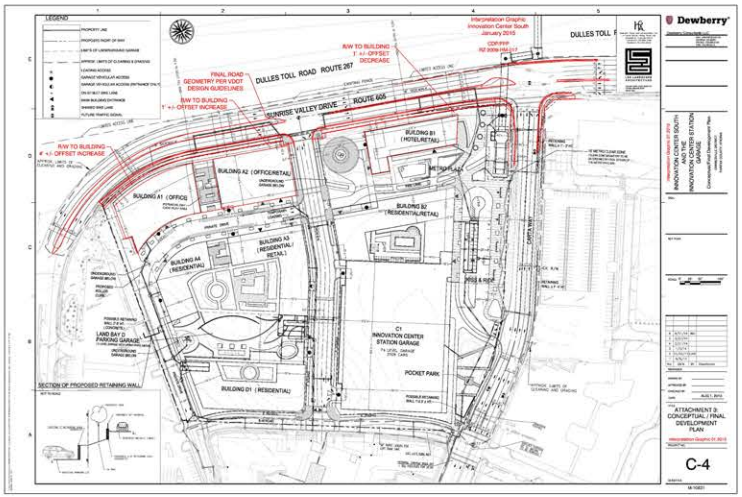
INTERPRETATION APPROVAL LETTER FOR RZ/FDP 2009-HM-017



Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

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May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CHRISTOPHER A. PFEIFFER
Lic. No. 043560
5/26/16
PROFESSIONAL ENGINEER

KEY PLAN

SCALE N/A

NORTH

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY MCJ
APPROVED BY CAP
CHECKED BY CJD
DATE SEPTEMBER 2014

TITLE
WAIVERS & INTERPRETATIONS

SP NO. #6848-SP-014

C10.204

SECTION NO. C10-LETTERS

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Wed, Oct 14 2015 - 8:28:53am

APPROVED VDOT WAIVER REQUESTS

LD-448
(8-16-12)

9_LD-448
RZ 2009-HM-017

Page 1 of 4

DEPARTMENT OF TRANSPORTATION
LOCATION AND DESIGN/STRUCTURE & BRIDGE
DESIGN WAIVER REQUEST

(See IIM-LD-227 for the definition of Design Waiver)

COMMONWEALTH OF VIRGINIA
WILLIAM F. JOHNSON
Lic. No. 043826
PROFESSIONAL ENGINEER
2-28-14

To: Stephen Bates, P.E.
District Location and Design Engineer
Date: February 28, 2014

From: William F. Johnson, P.E.
Project Designer (L&D or S&B)

State Project Number: N/A Federal Project Number: N/A

County/City: Fairfax County District: Northern Virginia Funding Source: Private

Project Description

From: Intersection of Future East-West Road and Carta Way
To: N/A
UPC: N/A

Functional Classification: Urban Collector (assumed) Minimum VDOT GS Standard: GS-7

Min. VDOT Standard: 100' Turn Lane Taper Min. AASHTO Standard: 100' Turn Lane Taper

A Design Waiver is requested for the following:

- ☐ Clear Zone
- ☐ Total Shoulder Width
- ☐ Paved Shoulders Width
- ☐ Curb and Gutter
- ☐ Minimum Radius
- ☐ Pedestrian Accessibility
- ☐ Compliance(See IIM-LD-55)
- ☐ Intersection Sight Distance
- ☐ Ditch Width
- ☐ Lane Tapers
- ☐ Buffer Strip Width
- ☐ Superelevation
- ☒ Other: Turn Lane Taper

Design Waiver request must address the following:

- Established design criteria versus proposed and existing criteria (including traffic data, design speed and posted speed)
- Reason the appropriate design criteria cannot be met
- Justification for the proposed criteria
- Any background information which documents, supports or justifies the request
- Any mitigation that will be provided to further support or justify the request
- Safety implications of the request
- Cost to meet standard versus project cost

Attach all supporting documentation to this exhibit including crash history (past three years).

LD-448
(8-16-12)

Page 2 of 4

Established design criteria versus proposed and existing criteria (including traffic data, design speed and posted speed)

Established Design Criteria: Carta Way (Not in System) is constructed as a four-lane, undivided roadway which terminates in a cul-de-sac north of Sayward Boulevard. Carta Way has not yet been accepted for public street maintenance; however, for purposes of planning and design, Carta Way is classified as an urban collector and carries a design speed of 30 miles per hour. The East-West Road is a planned local street that will be constructed in conjunction with the development of Innovation Center South (RZ 2009-HM-017) as part of an enhanced grid of streets that will serve the area immediately surrounding the future Innovation Center Metrorail station. The East-West Road has a design speed of 25 mph. As shown on the applicant's conceptual/final development plan (CDP/FDP), dated February 21, 2014 and provided herein as Attachment I, an eastbound left turn lane will be provided at the intersection of East-West Road/Carta Way. According to the VDOT Road Design Manual (RDM), a turn lane on such roadways with design speeds of 45 mph or less should have a taper length for deceleration of 100 feet for urban conditions. Under the guidance of the American Association of State Highway and Transportation Officials' (AASHTO) A Policy on Geometric Design of Highways and Streets (2011), the taper length for a single turn lane should be 100 feet.

Proposed Criteria: This design waiver request addresses the eastbound approach of the future East-West Road approaching the intersection of Carta Way. In conjunction with the pending Innovation Center South rezoning application, the East-West Road will be constructed as a new local street serving Innovation Center South. As shown on the applicant's CDP/FDP dated February 21, 2014, an eastbound left turn lane is proposed that would consist of 175 feet full-width with a 50 foot taper (see Attachment I).

The developer is proposing to provide a substandard taper in order to maximize the available full-width storage distance for the subject turn lane.

Existing Criteria: The intersection of East-West Road/Carta Way does not currently exist.

Reason the appropriate design criteria cannot be met

In conjunction with the pending rezoning application, a traffic impact analysis (TIA) was prepared and submitted for Innovation Center South (dated October 21, 2013 and revised through January 3, 2014). The study was subsequently accepted by VDOT on February 16, 2014. Although a turn lane taper of 100 feet could be provided for the subject turn bay, based on the results of the TIA (as detailed below), the applicant's consultants determined that the eastbound left turn lane at the future East-West Road and Carta Way intersection should be designed with the maximum amount of full-width storage that can be provided without encroaching into the upstream intersection with the future North-South Road in order to accommodate future forecasted queuing. Therefore, the applicant's CDP/FDP shows a left turn lane at the intersection with 175 feet of full-width and a 50 foot taper which will serve queues forecasted at the subject location under future build-out conditions.

Justification for the proposed criteria

As stated in the RDM, "in congested areas the taper length may be reduced to increase storage length. However, a design waiver shall be required." This waiver request is hereby submitted in

LD-448
(8-16-12)

Page 3 of 4

accordance with this provision in the RDM. The TIA, revised through January 3, 2014, provides an analysis of the subject intersection (intersection #4 in the report). Excerpts from the TIA are provided as Attachment II. The excerpts include the following:

- *Figure 6-1: Total Future (2020) Traffic Forecasts
- *Figure 6-2: Total Future (2020) Levels of Service
- *Table 6-2: Total Future (2020) Queues
- *Table 7-2: Comprehensive Plan Build-out (2030) Queues
- *Synchro Outputs

The peak 95th-percentile queue forecasted for the eastbound left turn movement is 70 feet under 2020 site build-out conditions (see Table 6-2). However, under future conditions assuming the build-out of the Comprehensive Plan for the Route 28 Station-South area, the 95th-percentile queue is forecasted to increase to 137 feet by 2030 (see Table 7-2). Therefore, VDOT advised that the subject turn lane should be designed to accommodate long term traffic growth in the area. The proposed reduction in the taper length from the standard will serve to maximize the available queuing distance which was identified as necessary in accordance with the applicant's TIS and supported by VDOT. Providing a standard taper while still maintaining adequate storage distance would cause the eastbound left turn lane to encroach beyond the upstream intersection of East-West Road/North-South Road as depicted on the CDP/FDP. Therefore, the design shows provides the most reasonable means to address future traffic demands within the roadway network constraints. As shown in Figure 6-2, the subject intersection is forecasted to operate at acceptable levels of service under future build-out conditions (LOS "D" or better) with the proposed intersection geometry.

Any background information which documents, supports, or justifies the request

A full size copy of the CDP/FDP, dated February 21, 2014, as currently submitted to Fairfax County, is provided herein as Attachment I. The CDP/FDP shows the intersection sight distance lines for each intersection. Excerpts from the applicant's TIA (deemed acceptable by VDOT on February 16, 2014) are provided as Attachment II.

Any mitigation that will be provided to further support or justify the request

The applicant has committed to ensuring that adequate sight distance be demonstrated at the intersection of East-West Road/Carta Way. A full size copy of the CDP/FDP which shows the intersection sight distance lines is provided in Attachment I.

Safety implications of the request

Since the intersection of East-West Road/Carta Way does not currently exist, a safety analysis of the proposed geometric condition cannot be conducted at this time. As stated above, the applicant has committed to ensuring that adequate sight distance be demonstrated at the intersection of East-West Road/Carta Way and that all roadways, both public and private, will be designed in accordance with the RDM or other applicable standards. Therefore, no adverse safety impacts are anticipated with this design waiver request.

Cost to meet standard versus project cost

The cost of providing the standard taper dimension is not necessarily a limiting factor for the overall development project. As stated previously, this waiver is requested in order to address

LD-448
(8-16-12)

Page 4 of 4

traffic operational conditions forecasted beyond the build-out of the subject development application.

Recommend for Approval by: _____ Date: _____

_____ Date: _____

Approved by: ~~Helen Cuervo~~ ~~Northern Virginia District Administrator~~ Date: 4-11-2014

CC:

LD-448
(8-16-12)

2_LD-448
RZ 2009-HM-017

Page 1 of 4

DEPARTMENT OF TRANSPORTATION
LOCATION AND DESIGN/STRUCTURE & BRIDGE
DESIGN WAIVER REQUEST

(See IIM-LD-227 for the definition of Design Waiver)

COMMONWEALTH OF VIRGINIA
WILLIAM F. JOHNSON
Lic. No. 043826
PROFESSIONAL ENGINEER
2-28-14

To: Stephen Bates, P.E.
District Location and Design Engineer
Date: February 28, 2014

From: William F. Johnson, P.E.
Project Designer (L&D or S&B)

State Project Number: N/A Federal Project Number: N/A

County/City: Fairfax County District: Northern Virginia Funding Source: Private

Project Description

From: Intersection of Sunrise Valley Drive (Route 925) and Future North-South Road
To: N/A
UPC: N/A

Functional Classification: Urban Collector Minimum VDOT GS Standard: GS-7

Min. VDOT Standard: 100' Turn Lane Taper Min. AASHTO Standard: 100' Turn Lane Taper

A Design Waiver is requested for the following:

- ☐ Clear Zone
- ☐ Total Shoulder Width
- ☐ Paved Shoulders Width
- ☐ Curb and Gutter
- ☐ Minimum Radius
- ☐ Pedestrian Accessibility
- ☐ Compliance(See IIM-LD-55)
- ☐ Intersection Sight Distance
- ☐ Ditch Width
- ☐ Lane Tapers
- ☐ Buffer Strip Width
- ☐ Superelevation
- ☒ Other: Turn Lane Taper

Design Waiver request must address the following:

- Established design criteria versus proposed and existing criteria (including traffic data, design speed and posted speed)
- Reason the appropriate design criteria cannot be met
- Justification for the proposed criteria
- Any background information which documents, supports or justifies the request
- Any mitigation that will be provided to further support or justify the request
- Safety implications of the request
- Cost to meet standard versus project cost

Attach all supporting documentation to this exhibit including crash history (past three years).

LD-448
(8-16-12)

Page 2 of 4

Established design criteria versus proposed and existing criteria (including traffic data, design speed and posted speed)

Established Design Criteria: Sunrise Valley Drive (Route 925) is constructed as a four-lane, median-divided roadway. Sunrise Valley Drive is classified by VDOT as an urban collector with a posted speed limit of 35 miles per hour (mph) and an assumed design speed of 40 mph. The latest VDOT published count for the roadway (2012) indicates that Sunrise Valley Drive carries 12,000 vehicles per day (vpd) between Coppermine Road (Route 665) and Centreville Road (Route 657). According to the VDOT Road Design Manual (RDM), a turn lane on such highways with design speeds of 45 mph or less should have a taper length for deceleration of 100 feet for urban conditions. Under the guidance of the American Association of State Highway and Transportation Officials' (AASHTO) A Policy on Geometric Design of Highways and Streets (2011), the taper length for a single turn lane should be 100 feet.

Proposed Criteria: This design waiver request addresses the westbound approach of Sunrise Valley Drive (Route 925) approaching the intersection of the future North-South Road. In conjunction with the pending Innovation Center South rezoning application (RZ 2009-HM-017), the North-South Road will be constructed as a new local street serving Innovation Center South. Innovation Center South is a proposed transit-oriented mixed-use development that would contain and support the future Innovation Center metrorail station transit facilities. As shown on the applicant's Conceptual/Final Development Plan (CDP/FDP) dated February 21, 2014, a westbound left turn lane is proposed that would consist of 425 feet full-width with a 25 foot taper (see Attachment I).

The developer is proposing to provide a substandard taper in order to maximize the available full-width storage distance for the subject turn lane.

Existing Criteria: The intersection of Sunrise Valley Drive/North-South Road does not currently exist.

Reason the appropriate design criteria cannot be met

In conjunction with the pending rezoning application, a traffic impact analysis (TIA) was prepared and submitted for Innovation Center South (dated October 21, 2013 and revised through January 3, 2014). The study was subsequently accepted by VDOT on February 16, 2014. Although a turn lane taper of 100 feet could be provided for the subject turn bay, based on the results of the TIA (as detailed below), the applicant's consultants determined that the westbound left turn lane at the future Sunrise Valley Drive and North-South Road intersection should be designed with the maximum amount of full-width storage that can be provided without encroaching into the upstream intersection with Carta Way in order to accommodate future forecasted queuing. Therefore, the applicant's CDP/FDP shows a left turn lane at the intersection with 425 feet of full-width and a 25 foot taper which will serve queues forecasted at the subject location under future build-out conditions.

Justification for the proposed criteria

As stated in the RDM, "in congested areas the taper length may be reduced to increase storage length. However, a design waiver shall be required." This waiver request is hereby submitted in accordance with this provision in the RDM. The TIA, revised through January 3, 2014, provides an analysis of the subject intersection (intersection #2 in the report). Excerpts from the TIA are

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
Coy A. Phillips
Lic. No. 043560
4-10-14
PROFESSIONAL ENGINEER

KEY PLAN

SCALE NORTH

N/A

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY MLJ
APPROVED BY CAP
CHECKED BY CJD
DATE SEPTEMBER 2014

TITLE

WAIVERS

SP NO. #6848-SP-014

C10.205

SECTION NO. C10-LETTERS

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Wed, Oct 14, 2015 - 8:24:44am

APPROVED VDOT WAIVER REQUESTS

LD-448
(8-16-12)

Page **3** of **4**

provided as Attachment II. The excerpts include the following:
*Figure 6-1: Total Future (2020) Traffic Forecasts
*Figure 6-2: Total Future (2020) Levels of Service
*Table 6-2: Total Future (2020) Queues
*Synchro Outputs

The peak 95th-percentile queue forecasted for the westbound left turn movement is 388 feet (see Table 6-2). The proposed reduction in the taper length from the standard will serve to maximize the available queuing distance which was identified as necessary in accordance with the applicant's TIS. Providing a standard taper while still maintaining adequate storage distance would cause the westbound left turn lane to encroach beyond the upstream intersection of Sunrise Valley Drive/Carta Way as depicted on the CDP/FDP. Therefore, the design shown provides the most reasonable means to address future traffic demands within the roadway network constraints. As shown in Figure 6-2, the subject intersection is forecasted to operate at acceptable levels of service under future build-out conditions (LOS "D" or better) with the proposed intersection geometry.

Any background information which documents, supports, or justifies the request

A full size copy of the CDP/FDP, dated February 21, 2014, as currently submitted to Fairfax County, is provided herein as Attachment I. The CDP/FDP shows the intersection sight distance lines for each intersection. Excerpts from the applicant's TIA (deemed acceptable by VDOT on February 16, 2014) are provided as Attachment II.

Any mitigation that will be provided to further support or justify the request

The applicant has committed to ensuring that adequate sight distance be demonstrated at the intersection of Sunrise Valley Drive/North-South Road. A full size copy of the CDP/FDP which shows the intersection sight distance lines is provided in Attachment I.

Safety implications of the request

Since the intersection of Sunrise Valley Drive/North-South Road does not currently exist, a safety analysis of the proposed geometric condition cannot be conducted at this time. As stated above, the applicant has committed to ensuring that adequate sight distance be demonstrated at the intersection of Sunrise Valley Drive/North-South Road and that all roadways, both public and private, will be designed in accordance with the RDM or other applicable standards. Therefore, no adverse safety impacts are anticipated with this design waiver request.

Cost to meet standard versus project cost

The cost of providing the standard taper dimension is not necessarily a limiting factor for the overall development project. As stated previously, this waiver is requested in order to address traffic operational conditions forecasted at build-out of the project.

Recommend for Approval by: _____ Date: _____

LD-448
(8-16-12)

Page **4** of **4**

Date: _____

Approved by: ~~Paul J. Krancevich~~ Date: 4-1-2014
~~Helen Cuervo~~
~~Northern Virginia District Administrator~~
Land Development Program Manager

CC:

LD-448
(8-16-12)

4_LD-448
RZ 2009-HM-017

Page **1** of **4**

DEPARTMENT OF TRANSPORTATION
LOCATION AND DESIGN/STRUCTURE & BRIDGE
DESIGN WAIVER REQUEST

(See IIM-LD-227 for the definition of Design Waiver)

To: Stephen Bates, P.E. Date: February 26, 2014 43826
District Location and Design Engineer
From: William F. Johnson, P.E.
Project Designer (L&D or S&B)

COMMONWEALTH OF VIRGINIA
CF WILLIAM F. JOHNSON
LICENSED PROFESSIONAL ENGINEER
2-28-14

State Project Number: N/A Federal Project Number: N/A

County/City: Fairfax County District: Northern Virginia Funding Source: Private

Project Description

From: Intersection of Sunrise Valley Drive (Route 925) and Future Carta Way UPC: N/A
To: N/A

Functional Classification: Urban Collector Minimum VDOT GS Standard: GS-7

Min. VDOT Standard: 100' Taper Min. AASHTO Standard: 100' Taper

A Design Waiver is requested for the following:

- ☐ Clear Zone
- ☐ Total Shoulder Width
- ☐ Paved Shoulders Width
- ☐ Curb and Gutter
- ☐ Minimum Radius
- ☐ Pedestrian Accessibility
- ☐ Compliance(See IIM-LD-55)
- ☐ Intersection Sight Distance
- ☐ Ditch Width
- ☐ Lane Tapers
- ☐ Buffer Strip Width
- ☐ Superelevation
- ☒ Other: Taper

Design Waiver request must address the following:

- Established design criteria versus proposed and existing criteria (including traffic data, design speed and posted speed)
- Reason the appropriate design criteria cannot be met
- Justification for the proposed criteria
- Any background information which documents, supports or justifies the request
- Any mitigation that will be provided to further support or justify the request
- Safety implications of the request
- Cost to meet standard versus project cost

Attach all supporting documentation to this exhibit including crash history (past three years).

Established design criteria versus proposed and existing criteria (including traffic data, design

LD-448
(8-16-12)

Page **2** of **4**

speed and posted speed)

Established Design Criteria: Sunrise Valley Drive (Route 925) is constructed as a four-lane, median-divided roadway. Sunrise Valley Drive is classified by VDOT as an urban collector with a posted speed limit of 35 miles per hour (mph) and an assumed design speed of 40 mph. The latest VDOT published count for the roadway (2012) indicates that Sunrise Valley Drive carries 12,000 vehicles per hour (vph) between Coppermine Road (Route 665) and Centreville Road (Route 657). According to the VDOT Road Design Manual (RDM), a turn lane on such highways with design speeds of 45 mph or less should have a taper length for deceleration of 100 feet for urban conditions. Under the guidance of the American Association of State Highway and Transportation Officials' (AASHTO) A Policy on Geometric Design of Highways and Streets (2011), the taper length for a single turn lane should be 100 feet.

Proposed Criteria: This design waiver request addresses the eastbound approach of Sunrise Valley Drive (Route 925) approaching the intersection of future Carta Way. Carta Way is to be extended north of its current terminus in association with the pending Innovation Center South rezoning application (RZ 2009-HM-017). Innovation Center South is a proposed transit-oriented mixed-use development that would contain and support the future Innovation Center Metrorail Station transit facilities. As shown on the applicant's Conceptual/Final Development Plan (CDP/FDP) dated February 21, 2014, a shared eastbound through-right lane is proposed to extend continuously to the Sunrise Valley Drive/Future North South Road intersection to the west (see Attachment I).

Existing Criteria: The intersection of Sunrise Valley/Carta Way does not currently exist.

Reason the appropriate design criteria cannot be met

In conjunction with the pending rezoning application, a traffic impact analysis (TIA) was prepared and submitted for Innovation Center South (dated October 21, 2013 and revised through January 3, 2014). Based on the results of that study, the applicant's consultants determined that the eastbound shared right-through turn lane at the future Sunrise Valley Drive and North-South Road intersection would operate at levels of service deemed acceptable by the County under future conditions. The study was subsequently accepted by VDOT on February 16, 2014. The provision of a turn lane taper would significantly impact the layout of the proposed site, including the location of the Metro transit facilities such as the bridge and pavilion, bus bays, kiss-and-ride lot, and parking garage. Placing a taper would force the location of these facilities further south which would necessitate a redesign of the site and result in a potential loss of density. Since the accepted traffic study did not indicate the need for a turn lane taper for acceptable operations, the applicant's CDP/FDP shows a shared through-right lane between the intersections of Sunrise Valley Drive/Future North-South Road and Sunrise Valley Drive/Carta Way.

Justification for the proposed criteria

As stated in the Fairfax County Comprehensive Plan text (excerpted from the staff report) for the Dulles Suburban Center, Land Unit A adopted by the Board of Supervisors on December 3, 2013 (Attachment II), "In planning the grid of streets, consideration should be given to avoiding intersections with acute or awkward angles; **minimizing exclusive turn lanes**; and designing block sizes generally within a 400 to 600 foot range." The TIA, revised through January 3, 2014, provides an analysis of the subject intersection (intersection #3 in the report). Excerpts from the TIA are provided as Attachment III. The excerpts include the following:

LD-448
(8-16-12)

Page **3** of **4**

*Figure 6-1: Total Future (2020) Traffic Forecasts
*Figure 6-2: Total Future (2020 Levels of Service
*Table 6-2: Total Future (2020) Queues
*Synchro Outputs

As shown in Figure 6-1, the subject right turn movement would experience, at most, 20 vehicles per hour, which would not significantly impede the mobility of eastbound through traffic. As such, the intersection is forecasted to perform at an acceptable level of service (LOS "B") under future conditions without a right-turn lane taper (Figure 6-2). The peak 95th-percentile queue for the eastbound direction is forecasted at 133 feet under future build-out conditions (Table 6-2), which can be accommodated within the intersection spacing provided. The peak median queue (50th-percentile) for the eastbound direction is forecasted at 71 feet.

Additionally, the proposed Comprehensive Plan text states, "The widening of roads by adding exclusive turn lanes and/or through lanes will not be desirable, in some cases, since it will increase street widths at intersections and therefore work against creating an attractive environment for pedestrians. In accordance with the vision increasing pedestrian walkability and safety, the addition of a right-turn lane taper can be avoided in this situation without negatively impacting the performance of the intersection.

The Comprehensive Plan conceptual grid of streets for this area also indicates that Sunrise Valley Drive may terminate west of the subject intersection in favor of a bridge over the Dulles Airport Access and Toll Road (DAATR). Once this termination occurs, traffic from the west along Sunrise Valley Drive will decrease significantly, thus negating the need for a turn lane treatment in the eastbound direction.

Furthermore, the addition of a right-turn taper at the Sunrise Valley Drive/Carta Way intersection may encroach into the future Metro bridge location over Sunrise Valley Drive. As the right-turning movements are projected to operate at an acceptable level of service, it is more advantageous to maximize the amount of pedestrian space immediately surrounding the station portal. Fairfax County staff has indicated that modifications to the planned Metro bridge and pavilion facilities will not be possible.

Any background information which documents, supports, or justifies the request

A full size copy of the CDP/FDP, dated February 21, 2014, as currently submitted to Fairfax County, is provided herein as Attachment I. The intersection sight distance lines are shown on the applicant's CDP/FDP (Attachment I). Excerpts from the applicant's TIA (deemed acceptable by VDOT on February 16, 2014) are provided as Attachment III.

Any mitigation that will be provided to further support or justify the request

The applicant has committed to ensuring that adequate sight distance be demonstrated at the intersection of Sunrise Valley Drive/Carta Way. The intersection sight distance lines are shown on the applicant's CDP/FDP (Attachment I).

Safety implications of the request

As the future intersection of Sunrise Valley Drive/Carta Way does not exist at this time, an accident summary does not exist for the intersection. An analysis of existing accident data against

LD-448
(8-16-12)

Page **4** of **4**

expected values would not be possible at this time. As stated above, the applicant has committed to ensuring that adequate sight distance be demonstrated at the intersection of Sunrise Valley Drive/Carta Way. The applicant's CDP/FDP provided in Attachment I demonstrates that intersection sight distance will be present at this location. Furthermore, the forecasted eastbound 95th-percentile queue of 133 feet under future build-out conditions can be accommodated within the intersection spacing provided. Therefore, queuing at the intersection will not result in a safety concern and impacts to through traffic mobility will be significantly limited.

Cost to meet standard versus project cost

The cost of providing the standard taper dimension is not necessarily a limiting factor for the overall development project, except that doing so would likely result in a significant redesign of the future Metro bridge over Sunrise Valley Drive, as well as other building footprints. Fairfax County staff has stated to the applicant and the applicant's consultants that any redesign of the Metro station infrastructure, including the Metro access bridge and pavilion, is not possible. As stated previously, this waiver is requested in order to address traffic operational conditions forecasted at build-out of the project.

Recommend for Approval by: _____ Date: _____

_____ Date: _____

Approved by: ~~Paul J. Krancevich~~ Date: 4-11-2011
~~Helen Cuervo~~
~~Northern Virginia District Administrator~~
Land Development Program Manager

CC:

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
Cary A. Cheatle
Lic. No. 048560
4-10-14
PROFESSIONAL ENGINEER

KEY PLAN

SCALE NORTH

N/A

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MLJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE

WAIVERS

SP NO. #6848-SP-014

C10.206

SECTION NO. C10-LETTERS

P:\PROJECT\...\Innovation South\CAD\CIVIL-SITE\Sheets\SITE PLAN\WAIVERS - VDOT.dwg
Wed, Oct 14 2015 - 8:23:53am

APPROVED VDOT WAIVER REQUESTS

LD-448
(8-16-12)

3_LD-448
RZ 2009-HM-017

Page 1 of 5

DEPARTMENT OF TRANSPORTATION
LOCATION AND DESIGN/STRUCTURE & BRIDGE
DESIGN WAIVER REQUEST

(See IIM-LD-227 for the definition of Design Waiver)

COMMONWEALTH OF VIRGINIA
WILLIAM F. JOHNSON
Lic. No. 043826
2-28-14
PROFESSIONAL ENGINEER

To: Stephen Bates, P.E. Date: February 28, 2014
District Location and Design Engineer
From: William F. Johnson, P.E.
Project Designer (L&D or S&B)

State Project Number: N/A Federal Project Number: N/A

County/City: Fairfax County District: Northern Virginia Funding Source: Private

Project Description

Intersection of Sunrise Valley Drive (Route
From: 925) and Future North-South Road UPC: N/A
To: N/A

Functional Classification: Urban Collector Minimum VDOT GS Standard: GS-7

Min. VDOT Standard: 100' Turn Lane and 100' Taper Min. AASHTO Standard: 275' Turn Lane (Deceleration) and 100' Taper

A Design Waiver is requested for the following:

- ☐ Clear Zone
- ☐ Total Shoulder Width
- ☐ Paved Shoulders Width
- ☐ Curb and Gutter
- ☐ Minimum Radius
- ☐ Pedestrian Accessibility
- ☐ Compliance(See IIM-LD-55)
- ☐ Intersection Sight Distance
- ☐ Ditch Width
- ☐ Lane Tapers
- ☐ Buffer Strip Width
- ☐ Superelevation
- ☒ Other: Elimination of RTL

Design Waiver request must address the following:

- Established design criteria versus proposed and existing criteria (including traffic data, design speed and posted speed)
- Reason the appropriate design criteria cannot be met
- Justification for the proposed criteria
- Any background information which documents, supports or justifies the request
- Any mitigation that will be provided to further support or justify the request
- Safety implications of the request
- Cost to meet standard versus project cost

Attach all supporting documentation to this exhibit including crash history (past three years).

LD-448
(8-16-12)

Page 2 of 5

Established design criteria versus proposed and existing criteria (including traffic data, design speed and posted speed)

Established Design Criteria: Sunrise Valley Drive (Route 925) is constructed as a four-lane, median-divided roadway. Sunrise Valley Drive is classified by VDOT as an urban collector with a posted speed limit of 35 miles per hour (mph) and an assumed design speed of 40 mph. The latest VDOT published count for the roadway (2012) indicates that Sunrise Valley Drive carries 12,000 vehicles per day (vpd) between Coppermine Road (Route 665) and Centreville Road (Route 657). According to the VDOT Road Design Manual (RDM), a turn lane on such highways with design speeds of 45 mph or less should provide a minimum 100 feet of storage and have a taper length for deceleration of 100 feet for urban conditions. Under the guidance of the American Association of State Highway and Transportation Officials' (AASHTO) A Policy on Geometric Design of Highways and Streets (2011), the deceleration length for a turn lane should be 275 feet and the taper length for a single turn lane should be 100 feet.

Proposed Criteria: This design waiver request addresses the eastbound approach of Sunrise Valley Drive (Route 925) approaching the intersection of future North-South Road. The North-South Road is a planned new street which would be constructed in conjunction with the pending Innovation Center South rezoning application (RZ 2009-HM-017). Innovation Center South is a proposed transit-oriented mixed-use development that would contain and support the future Innovation Center Metrorail Station transit facilities. As shown on the applicant's Conceptual/Final Development Plan (CDP/FDP) dated February 21, 2014, a shared eastbound through-right lane is proposed to extend continuously to the west (see Attachment I). Therefore, this waiver request addresses the proposed absence of an exclusive turn lane at this location.

Existing Criteria: The intersection of Sunrise Valley/North-South Road does not currently exist.

Reason the appropriate design criteria cannot be met

In conjunction with the pending rezoning application, a traffic impact analysis (TIA) was prepared and submitted for Innovation Center South (dated October 21, 2013 and revised through January 3, 2014). Based on the results of that study, the applicant's consultants determined that the eastbound shared right-through turn lane at the future Sunrise Valley Drive and North-South Road intersection would operate at levels of service deemed acceptable by the County under future conditions. The study was subsequently accepted by VDOT on February 16, 2014. The provision of a turn lane would significantly impact the layout of the proposed site, necessitating a redesign and resulting in a loss of developable density. Since the accepted traffic study did not indicate the need for a turn lane for acceptable operations, the applicant's CDP/FDP shows a shared through-right lane and exclusive through lane on the eastbound approach of the subject intersection.
Justification for the proposed criteria

As stated in the Fairfax County Comprehensive Plan text (excerpted from the staff report) for the Dulles Suburban Center, Land Unit A adopted by the Board of Supervisors on December 3, 2013 (Attachment II), "In planning the grid of streets, consideration should be given to avoiding intersections with acute or awkward angles; **minimizing exclusive turn lanes**; and designing block sizes generally within a 400 to 600 foot range." The TIA, revised through January 3, 2014, provides an analysis of the subject intersection (intersection #2 in the report). Excerpts from the TIA are provided as Attachment III. The excerpts include the following:

LD-448
(8-16-12)

Page 3 of 5

*Figure 6-1: Total Future (2020) Traffic Forecasts
*Figure 6-2: Total Future (2020) Levels of Service
*Table 6-2: Total Future (2020) Queues
*Synchro Outputs

As shown in Figure 6-1, the subject right turn movement would experience, at its peak, 294 vehicles per hour. However, the corresponding through volume is forecasted at 739 vehicles per hour which results in an approach total of 1,033 vehicles per hour. This approach volume can be accommodated with the two approach lanes proposed at the subject intersection. As such, the intersection is forecasted to perform at an acceptable level of service (LOS "D" or better) under future conditions without an exclusive right-turn lane (Figure 6-2). The peak 95th-percentile queue for the eastbound direction is forecasted at 551 feet under future build-out conditions (Table 6-2), which can be accommodated within the intersection spacing provided. The peak median queue (50th-percentile) for the eastbound direction is forecasted at 417 feet.

Additionally, the Comprehensive Plan text states, "The widening of roads by adding exclusive turn lanes and/or through lanes will not be desirable, in some cases, since it will increase street widths at intersections and therefore work against creating an attractive environment for pedestrians. In accordance with the vision increasing pedestrian walkability and safety, the addition of an exclusive right-turn lane can be avoided in this situation without negatively impacting the performance of the intersection. By accommodating a generous streetscape, the proposed plan meets the goals of the Comprehensive Plan and will encourage walking as a mode of travel. Additionally, the provision of an on-road bike lane along Sunrise Valley Drive will encourage bicycling as a mode of travel. Thus, the prioritization of these modes will serve to lessen the reliance of the vehicular roadway network.

The Comprehensive Plan conceptual grid of streets for this area also indicates that Sunrise Valley Drive may terminate west of the subject intersection in favor of a bridge over the Dulles Airport Access and Toll Road (DAATR). Once this termination occurs, traffic from the west along Sunrise Valley Drive will decrease significantly, thus negating the need for a turn lane treatment in the eastbound direction.

Any background information which documents, supports, or justifies the request

A full size copy of the CDP/FDP, dated February 21, 2014, as currently submitted to Fairfax County, is provided herein as Attachment I. The Comprehensive Plan text, as adopted by the Board on December 3, 2013 (excerpted from the staff report), is provided herein as Attachment II. Excerpts from the applicant's TIA (deemed acceptable by VDOT on February 16, 2014) are provided as Attachment III.

Any mitigation that will be provided to further support or justify the request

As elaborated elsewhere in this document, the current Comprehensive Plan discourages the construction of additional exclusive turn lanes within the Innovation Center station area. In lieu of constructing a right turn lane, the applicant is providing an enhanced, 18-foot minimum, streetscape along the site's Sunrise Valley Drive frontage, consistent with the Comprehensive Plan recommendations. The streetscape zone accommodates a landscape amenity panel, sidewalk, and building zone with the goal of encouraging walking as a viable mode of travel. Furthermore, the applicant is providing for a dedicated 6-foot on-road bike lane along Sunrise Valley Drive. The addition of a right-turn lane at this intersection may negatively interfere with the operation of the

LD-448
(8-16-12)

Page 4 of 5

future bike lane.

The applicant has committed to ensuring that adequate sight distance be demonstrated at the intersection of Sunrise Valley Drive/North-South Road. The intersection sight distance lines are shown on the CDP/FDP provided as Attachment I. Furthermore, stopping sight distance along Sunrise Valley Drive approaching the intersection will be provided so that drivers will clearly see the forecasted back-of-queue.

Safety implications of the request

Since the future intersection of Sunrise Valley Drive/North-South Road does not currently exist, an evaluation of historic accident records is not possible at this time. As stated above, the applicant has committed to ensuring that adequate intersection sight distance is provided at the intersection of Sunrise Valley Drive/North-South Road. Furthermore, the exclusion of a right-turn lane would serve to minimize the potential conflicts associated with the adjacent proposed on-road bike lane. A right-turn lane constructed at the intersection would create conflicts for bicyclists since right turning traffic would be required to weave over the bike lane. The plan, as proposed, eliminates those conflicts.

The applicant's CDP/FDP provided in Attachment I demonstrates that intersection sight distance will be present at this location. The forecasted eastbound 95th-percentile queue of 551 feet under future build-out conditions can be accommodated within the intersection spacing provided. Therefore, in concert with the provision of adequate stopping sight distance, queuing at the intersection will not result in a safety concern and impacts to through traffic mobility will be minimized.

Cost to meet standard versus project cost

The cost of providing the standard turn lane is not necessarily a limiting factor for the overall development project, except that doing so would potentially significantly impact the proposed site design including building footprints and overall densities. As stated previously, this waiver is requested in order to address traffic operational conditions forecasted at build-out of the project and to meet the goals and objectives of the Comprehensive Plan.

Recommend for Approval by: _____ Date: _____

_____ Date: _____

LD-448
(8-16-12)

Page 5 of 5

Approved by: ~~Helen Cuervo~~ Paul J. Kraucunas Date: 4-11-2014
~~Northern Virginia District Administrator~~
Land Development Program Manager

CC:

VDOT APPROVAL LETTER

June 26, 2015

Mr. Jack Weyant
Director, Land Development Services
Department of Public Works and Environmental Services
12055 Government Center Parkway, Suite 555
Fairfax, Virginia 22035-5503

Re: Innovation Center South
Fairfax County No.: 6848-SP-014-2

Dear Mr. Weyant:

We have reviewed the above referenced plan and have no objection to the approval.

For additional information please contact me at (703) 259-1772.

Sincerely,

Noreen H. Maloney
Transportation Engineer

cc: Fairfax Permits

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
Cary A. Chess
Lic. No. 048560
4-10-14
PROFESSIONAL ENGINEER

KEY PLAN

SCALE NORTH

N/A

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY MLJ
APPROVED BY CAP
CHECKED BY CJD
DATE SEPTEMBER 2014

TITLE
WAIVERS

SP NO. #6848-SP-014

C10.207

SECTION NO. C10-LETTERS

P:\PROJECT\...\Innovation South\CAD\Civil\~SITE\Sheets\SITE PLAN\WAIVERS - VDOT.dwg
Wed, Oct 14, 2015 - 8:23:37am

ENVIRONMENT DESIGN COMPLIANCE NOTES

THIS SHEET IS INTENDED TO PROVIDE A LIST OF POTENTIAL LEED CREDITS FOR THE DEVELOPMENT SITE IN ACCORDANCE WITH PROFFER 55. A.

1. ADDITIONAL INFORMATION TO BE SUBMITTED WITH FUTURE BUILDING PLANS.

Dewberry

Dewberry Consultants LLC
8401 Arlington Boulevard
Fairfax, VA 22031
703.849.0100
703.849.0118 fax
www.dewberry.com

August 20, 2015

Site Development and Inspections Division (SDID)
Fairfax County Department of Public Works and Environmental Services
Attn: Laura O'Leary, Engineer III
12055 Government Center Pkwy., Suite 535
Fairfax, Virginia 22035

RE: Rezoning Application RZ 2009-HM-017, Innovation Center South

Dear Ms. O'Leary,

At a regular meeting of the Board of Supervisors of Fairfax County, Virginia, held on July 29, 2014, the Board approved Rezoning Application RZ 2009-HM-017, subject to the proffers dated July 25, 2014. In accordance with proffer 55. A., a list of specific credits within the most current version of the U.S. Green Building Council's Leadership in Energy and Environmental Design New Construction (LEED-NC) rating system for Neighborhood Development has been prepared and included as part of the site plan submission. The list designates eligible and non-eligible credits that may be achieved through the formal certification process for the Smart Location and Linkage (SLL) and Neighborhood Pattern and Design (NPD) categories for the site plan design prepared to date. Additional credits for the project may be achieved when the design advances to preparation of the final building plans.

In accordance with proffer 55. A., the specific credit list for the SLL and NPD categories has been reviewed and prepared in consultation with Gary L. Gardner, Jr, a LEED-accredited professional (LEED-AP) and licensed Professional Engineer. Mr. Gardner's accreditation and licensure information is listed below.

Mr. Gary L. Gardner, Jr.
Professional Engineer, Virginia, #043072
LEED-AP, Credential ID 10024817-AP-BD+C

Sincerely,
Dewberry Consultants LLC

Cody A. Pennetti, P.E.
Associate

cc:
Mike Hellyer, ICS-CM LLC
Heather Diez, DPWES

LEED v4 for Neighborhood Development Plan
Project Checklist

Project Name: Innovation Center South
Date: August 2015

Yes	?	No			
11	2	0	**Smart Location & Linkage**		28
Y			Prereq	Smart Location	Required
Y			Prereq	Imperiled Species and Ecological Communities	Required
Y			Prereq	Wetlands and Water Body Conservation	Required
Y			Prereq	Agricultural Land Conservation	Required
Y			Prereq	Floodplain Avoidance	Required
1			Credit	Preferred Locations	10
		2	Credit	Brownfield Remediation	2
2	2		Credit	Access to Quality Transit	7
2			Credit	Bicycle Facilities	2
3			Credit	Housing and Jobs Proximity	3
		1	Credit	Steep Slope Protection	1
1			Credit	Site Design for Habitat or Wetland and Water Body Conservation	1
		1	Credit	Restoration of Habitat or Wetlands and Water Bodies	1
		1	Credit	Long-Term Conservation Management of Habitat or Wetlands and Water Bodies	1

16	11	0	**Neighborhood Pattern & Design**		41
Y			Prereq	Walkable Streets	Required
Y			Prereq	Compact Development	Required
Y			Prereq	Connected and Open Community	Required
1	3		Credit	Walkable Streets	6
4			Credit	Compact Development	6
1	2		Credit	Mixed-Use Neighborhoods	4
		4	Credit	Housing Types and Affordability	7
1			Credit	Reduced Parking Footprint	1
2			Credit	Connected and Open Community	2
1			Credit	Transit Facilities	1
	1		Credit	Transportation Demand Management	2
1			Credit	Access to Civic & Public Space	1
		1	Credit	Access to Recreation Facilities	1
	1		Credit	Visitability and Universal Design	1
1			Credit	Community Outreach and Involvement	2
	1		Credit	Local Food Production	1
2			Credit	Tree-Lined and Shaded Streetscapes	2
		1	Credit	Neighborhood Schools	1

1	0	0	**Green Infrastructure & Buildings**		21
Y			Prereq	Certified Green Building	Required
Y			Prereq	Minimum Building Energy Performance	Required
Y			Prereq	Indoor Water Use Reduction	Required
Y			Prereq	Construction Activity Pollution Prevention	Required
			Credit	Certified Green Buildings	5
			Credit	Optimize Building Energy Performance	2
			Credit	Indoor Water Use Reduction	1
			Credit	Outdoor Water Use Reduction	2
		0	Credit	Building Reuse	1
		0	Credit	Historic Resource Preservation and Adaptive Reuse	2
		0	Credit	Minimized Site Disturbance	1
			Credit	Rainwater Management	4
			Credit	Heat Island Reduction	1
			Credit	Solar Orientation	1
			Credit	Renewable Energy Production	3
			Credit	District Heating and Cooling	2
			Credit	Infrastructure Energy Efficiency	1
		0	Credit	Wastewater Management	2
		0	Credit	Recycled and Reused Infrastructure	1
			Credit	Solid Waste Management	1
			Credit	Light Pollution Reduction	1

0	0	0	**Innovation & Design Process**		6
			Credit	Innovation	5
			Credit	LEED® Accredited Professional	1

0	0	0	**Regional Priority Credits**		4
			Credit	Regional Priority Credit: Region Defined	1
			Credit	Regional Priority Credit: Region Defined	1
			Credit	Regional Priority Credit: Region Defined	1
			Credit	Regional Priority Credit: Region Defined	1

28	13	0	**Project Totals (Certification estimates)**	110

Certified: 40-49 points, Silver: 50-59 points, Gold: 60-79 points, Platinum: 80+ points

** SEE SHEET C10.302 FOR NARRATIVE.*

Dewberry®

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
Cody A. Pennetti
Lic. No. 043560
5/26/16
PROFESSIONAL ENGINEER

KEY PLAN

SCALE NORTH

N/A

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY MLJ
APPROVED BY CAP
CHECKED BY CJD
DATE SEPTEMBER 2014

TITLE

LEED SITE CHECKLIST

SP NO. #6848-SP-014

C10.301

SECTION NO. C10-LETTERS

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May 14 2015 - 8:53:00am

ENVIRONMENT DESIGN COMPLIANCE NOTES

THIS SHEET IS INTENDED TO PROVIDE A LIST OF POTENTIAL LEED CREDITS FOR THE DEVELOPMENT SITE IN ACCORDANCE WITH PROFFER 55. A.

1. ADDITIONAL INFORMATION TO BE SUBMITTED WITH FUTURE BUILDING PLANS.

Innovation Center South
LEED v4 for Neighborhood Development Plan

Smart Location & Linkage	Requirements	Points
Smart Location	• The project is served by existing water and wastewater infrastructure. • Option 3. Transit Corridor: All residential and nonresidential uses are within a half mile walking distance of the future Metro Silver Line, rapid transit rail, Innovation Center station. o Transit service is planned but not yet operational. Construction of the Metro Silver Line is underway and is scheduled to open in 2019. *http://www.dullesmetro.com/news-and-updates/press-releases/airports-authority-updates-status-of-silver-line-metrorail-construction-project/* o Fairfax County, the local government, has dedicated funding to build the parking structure with bus bays, a Kiss & Ride and a pedestrian connection for Metro Silver Line-Phase 2. It is estimated to be completed in Spring 2019. *http://www.fairfaxcounty.gov/dpwes/innovationcenterstationgarage/innovation-center-station-garage-info.htm* o Occupancy of the residential units is expected in 2020.	Required
Imperiled Species and Ecological Communities	• Case 1. Sites without Affected Species or Ecological Community: No such imperiled species or ecological communities have been found or have a high likelihood of occurring, to be verified by a biologist.	Required
Wetlands and Water Body Conservation	• Case 2. Sites with Sensitive Areas: Site wetland quality anticipated to be rated poor, to be verified by a wetland scientist.	Required
Agricultural Land Conservation	• Option 2. Sites Served by Transit: The project complies with SLL Prerequisite Smart Location, Option 3, Transit Corridor.	Required
Floodplain Avoidance	• Case 1. Sites without Flood Hazard Areas: The project is located on a site that is entirely outside any flood hazard area shown on a legally adopted flood hazard map. The property is in Zone X as referenced on the FEMA Flood Insurance Rate Map dated September 17, 2010 (51059C0110E).	Required
Preferred Locations	• Option 1. Location Type: The site is an infill site that is not a previously developed site.	3
Brownfield Remediation	• N/A	0
Access to Quality Transit	• Based on phase one Metro Silver Line trips, the planned Metro, meets 76 weekday trips and exceeds 50 weekend trips. Additional transit service trips may be included when bus service is brought to the Metro station and phase two of the Metro begins operation.	2 *
Bicycle Facilities	• Short term and long term bicycle parking is provided throughout the site. • Option 1. Bikable Location: The project boundary is within a ¼ mile of a Fairfax County recommended future bike lane. This connects to the future Innovation Center Metro Station. • Option 2. Bicycle Network: At least 50% of building entrances are located on the site's bicycle network. The site network includes wide sidewalks and bike striping in the roadway. This network connects to the regional bicycle network and the surrounding employment centers. o *http://www.fairfaxcounty.gov/fcdot/pdf/bike/northwest_quad.pdf*	2 *

**Additional points may be attainable based on final design of proposed buildings and operation of the site.*

Innovation Center South
LEED v4 for Neighborhood Development Plan

Housing and Jobs Proximity	• Option 1. Project with Affordable Residential Component: 58% of the project's total building floor area is residential and is within a half mile walking distance of existing full-time jobs. • Confirm that the site earns 2 or 3 points under NPD Credit Housing Types and Affordability, Option 2, Affordable Housing.	3 *
Steep Slope Protection	• N/A	0
Site Design for Habitat or Wetland and Water Body Conservation	• Case 1. Sites without Significant Habitat or Wetlands and Water Bodies: The project is located on a site that does not have suitable habitat, to be verified by a biologist.	1
Restoration of Habitat or Wetlands and Water Bodies	• N/A	0
Long-Term Conservation Management of Habitat or Wetlands and Water Bodies	• N/A	0

Neighborhood Pattern & Design	Requirements	Points
Walkable Streets	• All conditions have been met, based on current architectural plan estimates and assuming the circulation network applies to the project as a whole.	Required
Compact Development	• Case 1. Projects with Access to Quality Transit: The project meets or exceeds the 2-point threshold in SLL Credit Access to Quality Transit. • The residential components exceeds 12 dwelling units per acre. • The FAR for the entire site is 2.574.	Required
Connected and Open Community	• Case 2. Internal Connectivity: Project exceeds 140 connections per square mile of internal connectivity. Through-connections intersect or terminate at the project boundary at every 800 feet or less.	Required
Walkable Streets	• Achieved 6 items and earned 3 points, assuming right-of-ways and public access easement act as a property line. Future ground leases will subdivide the site. More points may be earned with final architectural plans. • Achieved: A, B, J, M, O, and P.	3 *
Compact Development	• Weighted score for the mix-used component: (Residential = 1,005 DU/14.68 AC = 68.4 DUA) and (Non-residential = 693,660 GFA/639,460.8 SF = 1.08 FAR). According to Table 1, 2 points are earned for non-residential and 6 points are earned for residential. Then using the weighted scores, 2pts*0.42 (i.e. 42% non-residential) + 6pts*0.58 (i.e. 58% residential) = 0.84+3.48 =4.32. Round down to get 4 points for this credit.	4 *
Mixed-Use Neighborhoods	• All dwelling units are within a ¼ mile walking distance of at least 7 uses. The 7 diverse uses are as follow: 2 for retail service, 2 for restaurant, 2 for public park, and 1 for child care. More points may be possible once tenants are confirmed on site.	1 *

**Additional points may be attainable based on final design of proposed buildings and operation of the site.*

Innovation Center South
LEED v4 for Neighborhood Development Plan

Housing Types and Affordability	• Option 1. Calculate Simpson Diversity Index for the area within a ¼ mile of the geographic center of the site once the final architecture is complete. • Option 2. Affordable Housing: 15.6% of the multi-family buildings are designated as workforce dwelling units. 3 points if the building is priced up to 60% AMI or 2 points if the building is prices up to 80% AMI.	*
Reduced Parking Footprint	• No off-street surface parking lots. Besides on-street parking, all parking is underground or under habitable building space.	1 *
Connected and Open Community	• Project exceeds 400 connections per square mile of internal connectivity. Through-connections intersect or terminate at the project boundary at every 400 feet or less.	2
Transit Facilities	• The Silver Line Metro Innovation Center Station is on the property. The bus facilities at the station are being funded by Fairfax County.	1
Transportation Demand Management	• Cannot determine until site is operational.	*
Access to Civic & Public Space	• All residential and nonresidential uses are within a ¼ mile walk of an open space. 35% of the property, 5.17 acres, are dedicated open spaces. There are several parks and plazas throughout the site.	1
Access to Recreation Facilities	• N/A	0
Visitability and Universal Design	• See architectural plans.	*
Community Outreach and Involvement	• Option 1. Community Outreach: Met with the community during zoning, and ongoing communication through website.	1
Local Food Production	• Cannot determine until site is operational.	*
Tree-Lined and Shaded Streetscapes	• Option 1. Tree-Lined Blocks: Trees are provided at intervals of no more than 50 feet along at least 60% of roadway. • Option 2. Shaded Sidewalks: Shade from trees cover at least 40% of sidewalks. • All landscape plans and tree details are from a registered landscape architect.	2
Neighborhood Schools	• N/A	0

Green Infrastructure & Buildings	Requirements	Points
Certified Green Building	• See architectural plans.	Required
Minimum Building Energy Performance	• See architectural plans.	Required
Indoor Water Use Reduction	• See architectural plans.	Required
Construction Activity Pollution Prevention	• See architectural plans.	Required
Certified Green Buildings	• See architectural plans.	*

**Additional points may be attainable based on final design of proposed buildings and operation of the site.*

Innovation Center South
LEED v4 for Neighborhood Development Plan

Optimize Building Energy Performance	• See architectural plans.	*
Indoor Water Use Reduction	• See architectural plans.	*
Outdoor Water Use Reduction	• See architectural plans.	*
Building Reuse	• N/A	0
Historic Resource Preservation and Adaptive Reuse	• N/A	0
Minimized Site Disturbance	• N/A	0
Rainwater Management	• See architectural plans.	*
Heat Island Reduction	• See architectural plans.	*
Solar Orientation	• See architectural plans.	*
Renewable Energy Production	• See architectural plans.	*
District Heating and Cooling	• See architectural plans.	*
Infrastructure Energy Efficiency	• Using LED street lights in this project instead of standard high pressure sodium lights	1
Wastewater Management	• N/A	0
Recycled and Reused Infrastructure	• N/A	0
Solid Waste Management	• See architectural plans.	*
Light Pollution Reduction	• See architectural plans.	*

Innovation & Design Process	Requirements	Points
Innovation		*
LEED® Accredited Professional		*

Regional Priority Credits	Requirements	Points
Regional Priority Credit: Region Defined		
Regional Priority Credit: Region Defined		
Regional Priority Credit: Region Defined		
Regional Priority Credit: Region Defined		

**Additional points may be attainable based on final design of proposed buildings and operation of the site.*

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
Gary A. Pagett
Lic. No. 048560
5/26/16
PROFESSIONAL ENGINEER

KEY PLAN

SCALE NORTH

N/A

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY MLJ
APPROVED BY CAP
CHECKED BY CJD
DATE SEPTEMBER 2014

TITLE

LEED SITE CHECKLIST

SP NO. #6848-SP-014

C10.302

SECTION NO. C10-LETTERS

P:\PROJECT\50587254_Innovation South\CAD\Civil-SITE\Sheets\SITE PLAN\LETTERS_LEED.dwg
Wed, Oct 14, 2015 - 8:58:17am

SOILS REPORT (6848-SR-006-1) APPROVAL LETTER

County of Fairfax, Virginia

To protect and enrich the quality of life for the people, neighborhoods and diverse communities of Fairfax County

JAN 0 9 2015

Paul D. Agutter, P.E.
ECS Mid-Atlantic, LLC
14026 Thunderbolt Place, Suite 100
Chantilly, VA 20151

Reference: Geotechnical Report for Innovation Center South –Public/Private Garage, Project #6848-SR-006-1, Tax Map #015-2 ((1) 001 013A and 015-4 ((5)) 005B, Dranesville District, Type: Mixed

Dear Mr. Agutter:

The referenced geotechnical report dated November 22, 2013, prepared on behalf of Fairfax County Dept. of Public Works and with your Project Number 01:21839, has been reviewed. The report was submitted to partially support the site plans prepared by Dewberry Consultants, LLC, and is determined to be generally acceptable as noted below:

1. You letter dated January 7, 2015 that incorporated responses to informal review comments shall become an addendum to the geotechnical report for the project.

2. Since the report may be used to partially support another site plan being prepared by William H. Gordon Associates, Inc., another addendum may need to be prepared to verify and update the current recommendations, as-needed, to partially support that plan also.

The recommendations and details of the approved report and addenda shall be shown as requirements on the final construction plan/s (Fairfax County Public Facilities Manual [PFM], Section 4-0401). Per the PFM, the geotechnical engineer shall review the final (revised) construction (site) plan/s, and state his opinion as to whether or not the plan/s have been prepared in accordance with the approved recommendations of the approved report and addenda.

The following requirements of Section 4-0502 of the PFM and Section 107-1-6 of The Code of the County of Fairfax, Virginia, shall be shown as a note on the approved plans:

1. All construction involving problem soil must be performed under the full-time inspection of the geotechnical engineer.

2. The geotechnical engineer shall furnish a written opinion to the County as to whether or not work has been performed in accordance with the approved plans prior to the issuance of any occupancy or use permit.

Department of Public Works and Environmental Services
Land Development Services, Site Development and Inspections Division
12055 Government Center Parkway, Suite 535
Fairfax, Virginia 22035-5503
Phone 703-324-1720 • TTY 703-324-1877 • FAX 703-324-8359

Paul D. Agutter, P.E.
Project #6848-SR-006-1, Tax Map #015-2 ((1) 001 013A and 015-4 ((5)) 005B
Page 2 of 2

3. Review and approval of plans, specifications and reports by the County, with or without recommendations by the Geotechnical Review Board, shall in no way relieve the developer of the responsibility for the design, construction and performance of the structures, pavement and slopes on the project and damage to surrounding properties.

If you have any questions, please contact me at 703-324-1720.

Sincerely,

Umakanthan Sivapalarasah, P.E.
Chief Geotechnical Engineer
Site Development and Inspections Division (SDID)

cc: Cody A. Pennetti, P.E., Dewberry
Heather Diez, P.E., Public Private Partnerships Branch, Building Design and Construction, Department of Public Works and Environmental Services, (DPWES)
Michael Hellyer, Rocks Engineering
Shahab Baig, P.E., Chief, North Branch, SDID, Land Development Services (LDS), DPWES
Geotechnical File

SOILS REPORT (6848-SR-005-2) APPROVAL LETTER

County of Fairfax, Virginia

To protect and enrich the quality of life for the people, neighborhoods and diverse communities of Fairfax County

06/26/2015

Marwan S. Iftaiha, P.E.
Soil Consultants Engineering, Inc.
9303 Center Street
Manassas, Virginia 20110-5547

Reference: Geotechnical Report for Innovation Center South (aka The Nugget Property), Project #6848-SR-005-2, Tax Map #015-2 ((1) 001 013A and 015-4 ((5)) 005B, Dranesville District, Type: Mixed

Dear Mr. Iftaiha:

The referenced geotechnical report dated August 31, 2009 (last revised May 31, 2015) prepared on behalf of Rocks Engineering with your Project Number C299/619V has been reviewed. The report was submitted to partially support the site plan prepared by Dewberry Consultants, LLC, and is determined to be generally acceptable as noted below:

1. Your letter dated June 24, 2015 that provided responses to informally-issued review comments shall become an addendum to the geotechnical report for the project.

The recommendations and details of the approved report and addendum shall be shown as requirements on the final construction plan/s (Fairfax County Public Facilities Manual [PFM], Section 4-0401). Per the PFM, the geotechnical engineer shall review the final (revised) construction (site) plan/s, and state his opinion as to whether or not the plan/s have been prepared in accordance with the approved recommendations of the approved report and addendum.

The following requirements of Section 4-0502 of the PFM and Section 107-1-6 of The Code of the County of Fairfax, Virginia, shall be shown as a note on the approved plans:

1. All construction involving problem soil must be performed under the full-time inspection of the geotechnical engineer.

2. The geotechnical engineer shall furnish a written opinion to the County as to whether or not work has been performed in accordance with the approved plans prior to the issuance of any occupancy or use permit.

3. Review and approval of plans, specifications and reports by the County, with or without recommendations by the Geotechnical Review Board, shall in no way relieve the developer of the

Department of Public Works and Environmental Services
Land Development Services, Site Development and Inspections Division
12055 Government Center Parkway, Suite 535
Fairfax, Virginia 22035-5503
Phone 703-324-1720 • TTY 703-324-1877 • FAX 703-653-1782

Marwan S. Iftaiha, P.E.
Project #6848-SR-005-2
Page 2 of 2

responsibility for the design, construction and performance of the structures, pavement and slopes on the project and damage to surrounding properties.

If you have any questions, please contact me at 703-324-1720.

Sincerely,

Umakanthan Sivapalarasah, P.E.
Chief Geotechnical Engineer
Site Development and Inspections Division (SDID)

cc: Cody A. Pennetti, P.E., Dewberry
Michael Hellyer, Rocks Engineering
Heather Diez, P.E., Public Private Partnerships Branch, Building Design and Construction Division, Department of Public Works and Environmental Services
Shahab Baig, P.E., Chief, North Branch, SDID, LDS, DPWES
Geotechnical File

LETTER OF PERMISSION FOR SANITARY SEWER CONNECTION AT EX. STRUCTURE 1A

Dulles Development, LLC

PO Box 830 | Middleburg, VA 20118-0830

January 20, 2015

Fairfax County
Environmental Site Review Division
Attn: Bo Balk
12055 Government Center Parkway
Suite 358
Fairfax, VA 22035

Re: Offsite Letter of Permission for Innovation Center South Site Plan 6848-SP-014

Dear Mr. Balk,

Nugget Joint Venture, L.C. ("Nugget") is currently processing the Innovation Center South Site Plan 6848-SP-014. The site plan includes the construction of a sanitary sewer lateral that will serve Nugget's proposed development to the north of Sayward Boulevard. Nugget's proposed sanitary lateral would connect to existing sanitary manhole (Ex. Z) within Sayward Boulevard.

Dulles Development, LLC is still the owner of the existing sanitary sewer system within the ROW of Sayward Blvd. since the County has not yet approved the as-builts for the Sayward Blvd site plan 6848-SP-08 Dulles Station at Dulles Corner Public Roadway. As such, Dulles Development, LLC hereby grants Nugget permission to connect to the existing sanitary sewer system within Sayward Boulevard as shown on site plan 6848-SP-014.

Should you have any question or concerns, please contact me directly at 703-475-3411.

Sincerely,

Ryan S. Whitter

SOILS REPORT NOTES

1. THIS PLAN SET HAS TWO ASSOCIATED SOILS REPORTS. AS NOTED ON SHEET C01-101, THE FAIRFAX COUNTY GARAGE FACILITY WILL BE CONSTRUCTED BY OTHERS, BUT THE CLEARING AND ROUGH GRADING WITHIN THE COUNTY SITE IS PROPOSED WITH THIS PLAN BY THE DEVELOPER ICS-CM. AS SUCH, THE REPORT/REQUIREMENTS PROVIDED BY ECS (6848-SR-006) ARE PROVIDED FOR THE COUNTY PORTION OF THE SITE WHILE THE REPORT/REQUIREMENTS BY SCE (6848-SR-005) ARE PROVIDED FOR THE REMAINDER OF THE SITE OWNED BY NUGGET/ROCKS. THE GEOTECHNICAL REQUIREMENTS FROM BOTH SCE AND ECS HAVE BEE PROVIDED IN SECTION B01-GEOTECHNICAL, AND THE APPROVAL LETTERS ARE PROVIDED ON THIS SHEET.

2. THE DEVELOPMENT IS SUBJECT TO THE NOTES AND REQUIREMENTS REFERENCED IN THE APPROVAL LETTERS ON THIS SHEET.

3. THE SEAL/SIGNATURE ASSOCIATED THE PLAN SHEETS OF THE GEOTECHNICAL REQUIREMENTS INDICATE THAT THE GEOTECHNICAL ENGINEER HAS CONFIRMED THE SITE PLAN IS DESIGNED IN CONFORMANCE WITH THE REQUIREMENTS.

SOILS REPORT CONDITIONS NARRATIVE

SOILS REPORT 6848-SR-005 (NUGGET/ROCKS SITE)
1. THE ADDENDUM FOR THIS SOILS REPORT, DATED JUNE24, 2015, HAS BEEN INCORPORATED INTO THE GEOTECHNICAL REQUIREMENTS AS PROVIDED ON SHEETS B01.101 - B01.102.

SOILS REPORT 6848-SR-006 (COUNTY GARAGE SITE)
1. THE ADDENDUM FOR THIS SOILS REPORT, DATED JANUARY 7, 2015, HAS BEEN INCORPORATED INTO THE GEOTECHNICAL REQUIREMENTS AS PROVIDED ON SHEETS B01.201 - B01.204.

2. THE GEOTECHNICAL REQUIREMENTS FOR THIS SOILS REPORT MAY REQUIRE AN ADDITIONAL ADDENDUM IN ORDER TO SUPPORT THE FINAL SITE PLAN AND STRUCTURAL DESIGN OF THE FAIRFAX COUNTY PARKING GARAGE, DEVELOPED PREPARED BY OTHERS (WILLIAM H. GORDON ASSOCIATES, INC.)

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CODY A. PENNETTI
Lic. No. 048560
Exp. 12/31/16
PROFESSIONAL ENGINEER

KEY PLAN

SCALE NORTH

N/A

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY MLJ
APPROVED BY CAP
CHECKED BY CJD
DATE SEPTEMBER 2014

TITLE
LETTERS

SP NO. #6848-SP-014

C10.401

SECTION NO. C10-LETTERS

P:\PROJECT\50057254 Innovation South\GAD\CIVIL-SITE\Sheets\SITE PLAN\LETTER OF PERMISSION.dwg
Fri, Dec 19 2015 - 9:58:56pm

LICENSE AGREEMENT
(Woodfield Property)

THIS LICENSE AGREEMENT ("**Agreement**") is made as of this 27th day of May, 2015 ("**Effective Date**") by and between WF DULLES STATION, LLC, a Delaware limited liability company ("**Licensor**") and ICS-CM LLC, a Virginia limited liability company ("**Licensee**").

RECITALS

R-1. Nugget Joint Venture, L.C., a Virginia limited liability company ("**Nugget**") is the owner of certain real property consisting of approximately 11.6 acres situate in Fairfax County, Virginia, and identified with tax map number 015-2-01-0013A ("**Nugget Property**") to be developed as Innovation Center South in accordance with the Proffers associated with RZ 2009-HM-017 as approved by the Board of Supervisors of Fairfax County ("**County**") on July 29, 2014 ("**Proffers**"), including the construction of the public parking garage ("**Parking Garage**") for the new metrorail station, to be named the Innovation Center Station ("**Metro Station**"), on County property adjacent to the Nugget Property.

R-2. Licensor is the owner of certain real property consisting of approximately 4.26 acres situate in Fairfax County Virginia, and identified with tax map number 015-4-05-0005A1 ("**Woodfield Property**").

R-3. In accordance with the Proffers, Nugget is constructing a public right of way and associated improvements and infrastructure located adjacent to the Woodfield Property and between the Nugget Property and the Woodfield Property ("**Road Construction**");

R-4. In accordance with the Proffers, Nugget is also constructing certain storm sewer outfall facilities related to improvements along Carta Way ("**Storm Sewer Construction**");

R-5. Licensee is the construction manager for Nugget and the County, and will be performing the Road Construction and the Storm Sewer Construction on behalf of Nugget.

R-6. To facilitate the Road Construction and Storm Sewer Construction, Licensor desires to grant irrevocable licenses to Licensee for the applicable License Term (defined below) and Licensee desires to accept each irrevocable license for the applicable License Term from Licensor to perform grading and construction work and other activities on, through and across the Woodfield Property in accordance with this Agreement.

AGREEMENT

NOW, THEREFORE, in consideration of the sum of Ten Dollars ($10.00) cash in hand paid and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Licensor and Licensee agree as follows.

1. Grant of License and Use.

1.1. Licensor hereby grants to Licensee, and Licensee hereby accepts from Licensor, for the applicable License Term an irrevocable license to perform grading and construction work and other activities on, through and across the Woodfield Property ("**RC License**") in the area labeled "LIMITS OF TEMPORARY CONSTRUCTION FOR ROAD GRADING" as shown more particularly on Exhibit A, attached hereto and incorporated herein by this reference with respect to the Road Construction ("**Road Construction License Area**").

1.2. Licensor hereby grants to Licensee, and Licensee hereby accepts from Licensor, for the applicable License Term an irrevocable license to enter onto the Woodfield Property for the purpose of staging of construction ("**Staging**"), storing and securing materials and equipment ("**Storing**") and performing certain construction work and other activities on, through and across the Woodfield Property ("**SSC License**" and collectively with the RC License, the "Licenses") in the area labeled "TEMPORARY STAGING AND STORAGE AREA FOR STORM SEWER OUTFALL CONSTRUCTION" as shown more particularly on Exhibit A, with respect to the Storm Sewer Construction ("**Storm Sewer Construction License Area**" and collectively with the Road Construction License Area, the "**License Areas**"). Each of the RC License and the SSC License may be referred to as a "License." Each of the License Areas may be referred to as a "License Area."

2. Terms of Use. Licensee's use of the License Areas is subject to the following terms and conditions.

2.1. Licensee and its employees, contractors (and their subcontractors) and agents (each a "**Licensee Party**" and collectively, the "**Licensee Parties**") shall have full and free use of the License Areas for the purposes named, and shall have all rights and privileges reasonably necessary to the enjoyment of the License Areas and exercise of the Licenses including the right of reasonable access to and from the rights-of-way and right to use adjoining land where necessary; *provided, however*, that this right to use adjoining land shall be exercised only during periods of actual surveying, construction or maintenance, and further, this right shall not be construed to allow Licensee to erect any building of a permanent nature on such adjoining land.

2.2. Licensee Parties shall have the right to trim, cut and remove trees, shrubbery, fences, structures or other obstructions or facilities in the License Areas deemed by it to interfere with the proper and efficient completion of the Road Construction or the Staging, Storing or Storm Sewer Construction, as applicable.

2.3. Licensor reserves the right to make any use of License Areas which may not be inconsistent with the Licenses herein conveyed, or interfere with the use of License Areas by any Licensee Party for the purposes named; *provided, however*, that during the term of each License, Licensor shall not erect any building or structure, including a fence, on the License Areas without the prior written approval of Licensee.

2.4. The Road Construction performed by the Licensee Parties in the Road Construction License Area shall be in accordance with the plans approved by the County, and in accordance with all present and future ordinances, laws, regulations and orders of the County.

2.5. The Road Construction performed by the Licensee Parties in the Road Construction License Area shall be done pursuant to necessary permits for such grading and construction issued by the appropriate County authorities.

2.6. The Storm Sewer Construction performed by the Licensee Parties in the Storm Sewer Construction License Area shall be in accordance with the plans approved by the County, and in accordance with all present and future ordinances, laws, regulations and orders of the County.

2.7. The Storm Sewer Construction performed by the Licensee Parties in the Storm Sewer Construction License Area shall be done pursuant to necessary permits for such construction issued by the appropriate County authorities.

2.8. Upon completion of the Storm Sewer Construction, the Licensee Parties shall remove all material and equipment staged, stored or otherwise placed on the Woodfield Property and shall restore the Storm Sewer Construction License Area, as reasonably possible, to its substantially original condition that existed prior to the entry of the Licensee Parties onto the Woodfield Property (excluding the actual Storm Sewer Construction).

2.9. Licensor shall not be considered a bailee of any material or equipment stored on the Woodfield Property by any Licensee Party, and shall not be responsible for the security of such property or for any loss or damage thereto. Licensee shall keep the Woodfield Property free from accumulation of waste materials or rubbish caused by construction activity and shall take commercially reasonable steps to secure Licensee's material and equipment at all times so as to minimize the potential for theft, vandalism, damage or destruction to the same.

3. Term of License.

3.1. The term of the RC License hereby granted shall commence on the Effective Date, and shall terminate on March 1, 2016, unless sooner terminated by the parties ("**RC License Term**"); *provided, however*, that if Licensee (or any Licensee Party) is delayed in performing any obligation hereunder for reasons beyond the reasonable control of Licensee or such Licensee Party, then the RC License Term shall be extended for the period of such delay not to exceed an additional thirty (30) days. Reasons beyond the control of Licensee shall include, without limitation, impossibility of performance, acts of God, fire, hurricane, casualty, earthquake, flood, explosion, riots, civil unrest, condemnation or acts of governmental agencies asserting jurisdiction over the Nugget Property or the Woodfield Property, and any other legally supportable justification under the laws of the Commonwealth of Virginia which would excuse Licensee from performance within the period allowed in this Agreement.

3.2. The term of the SSC License hereby granted shall commence on the Effective Date, and shall terminate on February 29, 2016, unless sooner terminated by the parties ("**SSC License Term**"); *provided, however*, that if Licensee (or any Licensee Party) is delayed in performing any obligation hereunder for reasons beyond the reasonable control of Licensee or such Licensee Party, then Licensor will not unreasonably withhold any extension of the termination of the SSC License Term.

3.3. Each of the RC License Term and the SSC License Term may be referred to individually as a "License Term."

4. Insurance; Indemnification.

4.1. Insurance. During any License Term, Licensee shall either procure and maintain or shall cause an applicable Licensee Party to procure and maintain in full force and effect general liability insurance against claims for personal and bodily injury, death or property damage occurring on or as a result of the use of the License Area in the amount of $1,000,000.00 per occurrence and $3,000,000.00 annual aggregate ("**Insurance**") on a claims occurrence basis, and Licensor shall be named as an additional insured under the Insurance. Within thirty (30) days after Licensor's request, Licensee shall deliver, or cause or the applicable Licensee Party to deliver, to Licensor a certificate of insurance evidencing the Insurance. The costs of procuring and maintaining the Insurance shall be borne solely by Licensee or the applicable Licensee Party.

4.2. Indemnification. Licensee hereby agrees to either indemnify, defend and hold harmless, or to cause the applicable Licensee Party to indemnify, defend and hold harmless, Licensor and its members, managers, directors, officers, agents and employees, from and against any and all claims, actions, liabilities, losses, damages, costs and expenses (including court costs and reasonable attorneys' fees) for injury to person or damage to property unrelated to the Road Construction which Licensor or other indemnified parties may incur as a result of the entry on the License Area.

5. Additional Licensee Obligation. During any License Term, Licensee shall timely pay or shall ensure that the applicable Licensee Party timely pays for all labor, services and material provided in connection with the Road Construction and/or the Storm Sewer Construction, and Licensee shall not permit to exist any recorded or unrecorded mechanics' materialmen's, laborers' or other lien upon all or any portion of the Woodfield Property for such Road Construction or the Storm Sewer Construction. Licensee shall either indemnify and hold harmless or shall cause the applicable Licensee Party to indemnify and hold harmless Licensor from and against any claims by such mechanics, materialmen, laborers or other lien claimant with respect to the Road Construction and the Storm Sewer Construction.

6. Assignment. Licensee may assign all or portions of the RC License or the SSC License to any Licensee Party, Nugget or the County.

7. Notices. All notices required herein shall be in writing and shall be served on the parties, either personally or by nationally recognized overnight delivery service, and all such notices

shall be deemed received upon delivery or if delivery is refused upon the date of attempted delivery. Notices are to be addressed as follows:

If to Licensor:

WF Dulles Station, LLC
c/o Woodfield Investment Company, LLC
6900 Wisconsin Avenue, Suite 303
Chevy Chase, MD 20815
Attn: Todd H. Jacobus

with a copy to:

Cooley LLP
One Freedom Square
Reston Town Center
11951 Freedom Drive
Reston, Virginia 20190-5656
Attn: Mark Looney, Esq.

If to Licensee:

ICS-CM LLC
1960 Gallows Road, Suite 300
Vienna, VA 22182
Attn: Nicholas P. H. Rocks

with copy to:

Reed Smith LLP
3110 Fairview Park Drive, Suite 1400
Falls Church, VA 22042
Attn: James C. Brennan, Esq.

8. Miscellaneous.

8.1. Attorneys' Fees. In the event that either party institutes any action or proceeding or asserts any counterclaim against the other party relating to the provisions of this Agreement, the non-prevailing party shall reimburse the prevailing party for its reasonable expenses of attorneys' fees, costs, expenses and disbursements incurred before, during and after trial and on appeal.

8.2. Entire Agreement; Amendments. This Agreement and the Exhibit hereto constitute the entire understanding and agreement of the parties hereto with respect to the subject matter hereof and supersede all prior understandings or agreements between the parties with

respect to the subject matter hereof. This Agreement may not be altered, modified, extended, revised or changed, nor may any party hereto be relieved of any of its liabilities or obligations hereunder, except by written instrument duly executed by each of the parties hereto.

8.3. Binding Effect. This Agreement shall be binding upon, and shall inure to the benefit of, the parties hereto, and their respective successors, assigns, heirs and legal representatives.

8.4. Construction. This Agreement shall not be construed more strictly against one party than against the other merely by virtue of the fact that it may have been prepared by counsel for one of the parties, it being recognized that both Licensor and Licensee have contributed substantially and materially to the preparation of this Agreement.

8.5. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original and all of which, when taken together, shall be deemed to be one Agreement. Signatures exchanged via electronic mail in PDF format shall be deemed originals.

8.6. Severability. If any term, provision or condition of the Agreement is found to be or is rendered invalid or unenforceable, it shall not affect the remaining terms, provisions and conditions of the Agreement, and such provision shall be enforced to the maximum extent permitted by applicable law and each and every other term, provision and condition of the Agreement shall be valid and enforceable to the fullest extent permitted by law.

8.7. No Third Party Beneficiary. This Agreement is not intended to give or confer any benefits, rights, privileges, claims, actions or remedies to any person or entity as a third party beneficiary under any statutes, laws, codes, ordinances, rules, regulations, orders, decrees or otherwise.

8.8. Governing Law. This Agreement shall be governed by and construed according to the laws of the Commonwealth of Virginia, without regard to any conflicts of laws principles or statutes that might otherwise apply.

8.9. Time of the Essence. The parties hereby acknowledge that timely completion of Road Construction is necessary to complete the Parking Garage in time for the opening of the Metro Station. Therefore, time is of the essence in this Agreement and the parties shall cooperate with one another to insure the timely completion of the Road Construction so as not to delay the opening of the Metro Station.

[remainder of page intentionally left blank]

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CODY A. PORRETT
Lic. No. 048560
Exp. 12-31
PROFESSIONAL ENGINEER

KEY PLAN

SCALE NORTH

N/A

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY MLJ
APPROVED BY CAP
CHECKED BY CJD
DATE SEPTEMBER 2014

TITLE
LETTERS

SP NO. #6848-SP-014

C10.402

SECTION NO. C10-LETTERS

P:\PROJECT\55687244 Innovation South\CAD\CIVIL-SITE\Sheets\SITE PLAN\LETTER OF PERMISSION.dwg
Mon, Dec 21, 2015 - 12:37:51pm

PARCEL 5A LETTER OF PERMISSION FOR GRADING AND TEMPORARY CONSTRUCITON

IN WITNESS WHEREOF, Licensee and Licensor have executed this Agreement as of the date first above written..

LICENSOR:

WF DULLES STATION LLC,
a Delaware limited liability company

By: Woodfield Investment Company, LLC
a _____ limited liability company,
Its Manager

By: _____
Name: Todd H. Fuccaro
Title: Member

LICENSEE:

ICS-CM LLC
a Virginia limited liability company

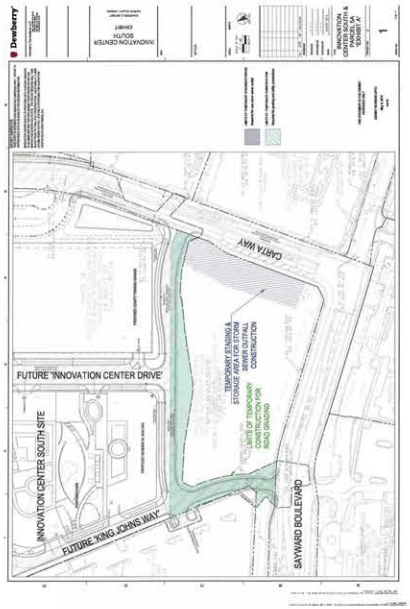
By: Rocks Engineering Co
a Maryland Corp
Its Manager

By: _____
Name: Nicholas P H Rocks
Title: Vice - President

- 7 -

116944461 v2

EXHIBIT A
Drawing showing License Areas



- 8 -

116944461 v2

PARCEL 14 LETTER OF PERMISSION FOR GRADING AND TEMPORARY CONSTRUCITON

LICENSE AGREEMENT
(Parcel 14)

THIS LICENSE AGREEMENT ("**Agreement**") is made as of this 3rd day of September, 2015 ("**Effective Date**") by and between BDC DULLES CORPORATE, LLC, a Virginia limited liability company ("**Licensor**") and ICS-CM LLC, a Virginia limited liability company ("**ICS**") and Nugget Joint Venture, L.C., a Virginia limited liability company ("**Nugget**") (ICS and Nugget, individually and collectively, "**Licensee**").

RECITALS

R-1. Nugget is the owner of certain real property consisting of approximately 11.6 acres situate in Fairfax County, Virginia, and identified with tax map number 015-2-01-0013A ("**Nugget Property**").

R-2. The Nugget Property, together with County property adjacent to the Nugget Property ("**County Property**"), is being developed as a project known as Innovation Center South in accordance with the Proffers associated with RZ 2009-HM-017 as approved by the Board of Supervisors of Fairfax County ("**County**") on July 29, 2014 (as may be amended, modified or interpreted, the "**Proffers**").

R-3. The County will be constructing a parking garage on the County Property ("**Parking Garage**") for the new metrorail station ("**Metro Station**").

R-4. Nugget and the County, through Licensee as the responsible constructing party, will be constructing, or causing the construction through a contractor ("**Contractor**"), certain infrastructure in accordance with that certain Infrastructure Development Agreement dated as of July 29, 2014 by and between Nugget and the County (as amended, the "**IDA**").

R-5. Licensor is the owner of certain real property consisting of approximately 4.26 acres situate in Fairfax County Virginia, and identified with tax map number 015-2-01-0014 ("**BDC Property**").

R-6. In accordance with the IDA, certain improvements are being made to Sunrise Valley Drive as contemplated by Proffer 19A of the Proffers ("**Road Construction**").

R-7. ICS will be performing, or contracting for the performance of with Contractor, the Road Construction.

R-8. Nugget desires to re-grade a portion of the Nugget Property and in connection therewith, to re-grade a portion of the BDC Property (collectively, the "Grading"). At the request of Nugget, Licensor has agreed to grant the License (defined below) to and for the benefit of Licensee for the License Term (defined below) and Licensee desires to accept such License for the License Term from Licensor to perform certain work and other activities on a portion of the BDC Property in accordance with this Agreement.

US_ACTIVE-122564108.6

AGREEMENT

NOW, THEREFORE, in consideration of the sum of Ten Dollars ($10.00) cash in hand paid and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Licensor and Licensee agree as follows:

1. Grant of License. Licensor hereby grants to Licensee (and its contractors (and their subcontractors), consultants and agents), and Licensee hereby accepts from Licensor, for the License Term an irrevocable license to enter on to the License Area (hereinafter defined) with persons, material and equipment and to perform certain construction work and other activities on, through and across the License Area to establish new grades and topographies ("**License**") in the Grading Area (hereinafter defined). The "**Grading Area**" shall mean that area labeled "APPROX. LIMITS OF GRADING" as shown more particularly on Exhibit A, attached hereto and incorporated herein by this reference. The License Area shall mean the Grading Area.

2. Terms of Use. Licensee's use of the License Area is subject to the following terms and conditions:

2.1. Licensee and its contractors (and their subcontractors), consultants and agents (each a "**Licensee Party**" and collectively, the "**Licensee Parties**") shall have full use of the License Area for the purposes named, and shall have all rights reasonably necessary to the use of the License Area and exercise of the License including the right of reasonable access to and from the rights-of-way; *provided, however*, that this right to use adjoining land shall be exercised only during periods of actual surveying, engineering, construction work or other necessary activity.

2.2. Licensee Parties shall have the right to trim, cut and remove trees, shrubbery and fences necessary to achieve the Grading.

2.3. Licensor reserves the right to make any use of License Area which may not be inconsistent with the License herein conveyed, or interfere with the use of License Area by any Licensee Party for the purposes named.

2.4. The Grading and related activities performed by the Licensee Parties in the License Area shall be at the sole cost of Licensee: (a) in accordance with the plans approved by the County; (b) in accordance with all ordinances, laws, regulations and orders of the County; and (c) done pursuant to necessary permits for grading and construction issued by the appropriate County authorities.

2.5. Licensee shall keep the BDC Property free from accumulation of waste materials or rubbish caused by such construction activity, and shall perform a daily clean-up of the License Area and of any trash or debris elsewhere on the BDC Property arising from Licensee's activities within or without the License Area, to the extent necessary. There shall be no staging of materials or equipment on the BDC Property

- 2 -

2.6. Immediately after completion of the Grading, Licensee shall restore the Licensed Area to substantially its condition prior to the land disturbance provided for in this Agreement, and shall re-seed the entire Graded Area (and any adjacent areas, as necessary), with the same type of grass as originally removed from the License Area.

2.7. Licensee shall be obligated to grade the Grading Area in accordance with the grading plan attached hereto as Exhibit A and shall not re-grade the Grading Area without simultaneously re-grading the adjacent areas on the Nugget Property, and visa versa.

2.8. Licensee shall grade in a manner so as to protect the irrigation system on the BDC Property and shall reconnect and re-install, as necessary, the same upon completion of the Grading. Licensee shall grade in a manner so as to protect any lighting installed on the BDC Property in the Grading Area and shall reconnect and re-install, as necessary, the same upon completion of the Grading.

2.9. Licensee shall access the License Area only in locations where the License Area adjoins the Nugget Property.

3. Term of License. The term of the License hereby granted shall commence on the Effective Date, and shall terminate on April 30, 2016, unless sooner terminated by the parties ("**License Term**"); *provided, however*, that if Licensee (or any Licensee Party) is delayed in performing any obligation hereunder for reasons beyond the reasonable control of Licensee or such Licensee Party, then the License Term shall be extended for the period of such delay not to exceed an additional thirty (30) days or such additional time approved by Licensor, which approval shall not be unreasonably withheld. Reasons beyond the control of Licensee shall include, without limitation, impossibility of performance, acts of God, fire, hurricane, casualty, earthquake, flood, explosion, riots, civil unrest, condemnation or acts of governmental agencies asserting jurisdiction over the Nugget Property, the County Property or the BDC Property (including delays from inspections, permits, etc.), and any other legally supportable justification which would excuse Licensee from performance within the period allowed in this Agreement.

4. Insurance; Indemnification.

4.1. Insurance. During the License Term, Licensee shall either procure and maintain, and shall cause any applicable Licensee Party who is accessing the License Area, to procure and maintain in full force and effect general liability insurance against claims for personal and bodily injury, death or property damage occurring on or as a result of the use of the License Area in the amount of $1,000,000.00 per occurrence and $3,000,000.00 annual aggregate ("**Insurance**") on an occurrence basis, and Licensor shall be named as an additional insured under the Insurance. Prior to any entrance on to the Licensed Area, and thereafter during the License Term prior to the expiration of the then applicable policy period, annually, Licensee and any applicable Licensee Party shall deliver to Licensor a certificate of insurance evidencing the Insurance and naming Licensor as an additional

- 3 -

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Mon, Dec 21, 2015 - 12:37:59pm

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CARY A. PERRETT
Lic. No. 048560
Exp. 12-31
PROFESSIONAL ENGINEER

KEY PLAN

SCALE NORTH

N/A

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY MLJ
APPROVED BY CAP
CHECKED BY CJD
DATE SEPTEMBER 2014

TITLE

LETTERS

SP NO. #6848-SP-014

C10.403

SECTION NO. C10-LETTERS

insured. The costs of procuring and maintaining the Insurance shall be borne solely by Licensee or the applicable Licensee Party.

4.2. Indemnification. Licensee hereby agrees to indemnify, defend and hold harmless (which may be accomplished by causing the applicable Licensee Party to indemnify, defend and hold harmless), Licensor and its members, managers, directors, officers, agents and employees, from and against any and all claims, actions, liabilities, losses, damages, costs and expenses (including court costs and reasonable attorneys' fees) arising out of or relating to any activities contemplated hereunder, including without limitation, the failure of Licensee to obtain any necessary permits or as a result of the entry on the License Area which Licensor or other indemnified parties may incur.

5. Additional Licensee Obligation. During the License Term, Licensee shall timely pay or shall ensure that the applicable Licensee Party timely pays for all labor, services and material provided in connection with the Grading, and Licensee shall not permit to exist any recorded or unrecorded mechanics' materialmen's, laborers' or other lien upon all or any portion of the BDC Property for such Grading. Licensee shall indemnify and hold harmless (which may be effected by causing the applicable Licensee Party to indemnify and hold harmless) Licensor from and against any claims by such mechanics, materialmen, laborers or other lien claimant with respect to the Grading.

6. Assignment. Licensee may not assign all or any portion of the License without the consent of Licensor, to be withheld in Licensor's reasonable discretion, except Licensee may assign its rights to the County without consent of Licensor as required by the IDA.

7. Notices. All notices required herein shall be in writing and shall be served on the parties, either personally or by nationally recognized overnight delivery service, and all such notices shall be deemed received upon delivery or if delivery is refused upon the date of attempted delivery. Notices are to be addressed as follows:

If to Licensor:

BDC Dulles Corporate LLC
c/o Bernstein Management Corporation
5301 Wisconsin Avenue, NW, Suite 600
Washington, DC 20015
Attn: Robert S. Sandler

and

BDC Dulles Corporate LLC
c/o Bernstein Management Corporation
5301 Wisconsin Avenue, NW, Suite 600
Washington, DC 20015
Attn: Charles T. Hathway

If to Licensee:

ICS-CM LLC
1960 Gallows Road, Suite 300
Vienna, VA 22182
Attn: Nicholas P. H. Rocks

and

Nugget Joint Venture, L.C.
1960 Gallows Road, Suite 300
Vienna, VA 22182
Attn: Nicholas P. H. Rocks

8. Miscellaneous.

8.1. Attorneys' Fees. In the event that either party institutes any action or proceeding or asserts any counterclaim against the other party relating to the provisions of this Agreement, the non-prevailing party shall reimburse the prevailing party for its reasonable expenses of attorneys' fees, costs, expenses and disbursements incurred before, during and after trial and on appeal.

8.2. Amendments. This Agreement may not be altered, modified, extended, revised or changed, nor may any party hereto be relieved of any of its liabilities or obligations hereunder, except by written instrument duly executed by each of the parties hereto.

8.3. Binding Effect. This Agreement shall be binding upon, and shall inure to the benefit of, the parties hereto, and their respective successors, assigns, heirs and legal representatives.

8.4. Construction. This Agreement shall not be construed more strictly against one party than against the other merely by virtue of the fact that it may have been prepared by counsel for one of the parties, it being recognized that both Licensor and Licensee have contributed substantially and materially to the preparation of this Agreement.

8.5. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original and all of which, when taken together, shall be deemed to be one Agreement. Signatures exchanged via electronic mail in PDF format shall be deemed originals.

8.6. Future Cooperation. Licensee has represented to Licensor that as of the Effective Date the site plan for the Nugget Property (6848 SP-014) (**"Site Plan"**) requires a public access easement along King John Way (**"King John Way Access Easement"**), a portion of which abuts the BDC Property directly adjacent to the 8 foot concrete sidewalk shown on the BDC Property

on Exhibit A (**"BDC Access Area"**). Licensee hereby agrees that if the Site Plan is revised such that the King John Way Access Easement no longer includes the BDC Access Area and the Site Plan is not simultaneously revised to provide access from the BDC Access Area to the King John Way Access Easement that is substantially similar to the access provided by such Site Plan, Licensee will grant a private pedestrian easement for the benefit of the BDC Property to provide substantially similar access from the BDC Access Area to the King John Way Access Easement.

8.7. Severability. If any term, provision or condition of the Agreement is found to be or is rendered invalid or unenforceable, it shall not affect the remaining terms, provisions and conditions of the Agreement, and such provision shall be enforced to the maximum extent permitted by applicable law and each and every other term, provision and condition of the Agreement shall be valid and enforceable to the fullest extent permitted by law.

8.8. No Third Party Beneficiary. This Agreement is not intended to give or confer any benefits, rights, privileges, claims, actions or remedies to any person or entity as a third party beneficiary under any statutes, laws, codes, ordinances, rules, regulations, orders, decrees or otherwise.

8.9. Governing Law. This Agreement shall be governed by and construed according to the laws of the Commonwealth of Virginia, without regard to any conflicts of laws principles or statutes that might otherwise apply.

8.10. Time of the Essence. Time is of the essence in this Agreement.

8.11. Joint and Several. The obligations of the parties constituting Licensee hereunder (i.e., Nugget and Contractor) are joint and several.

8.12. Waiver of Jury Trial. The parties hereto waive trial by jury in any action relating hereto.

8.13. Costs. Within ten (10) days of demand(s), as a material obligation hereunder, Licensee shall pay to Licensor Licensor's reasonable out of pocket costs for any engineering costs reasonably incurred in connection with the review of the Grading plans and the work contemplated by this Agreement.

[remainder of page intentionally left blank]

IN WITNESS WHEREOF, Licensee and Licensor have executed this Agreement as of the date first above written.

LICENSOR:

BDC DULLES CORPORATE LLC
a Virginia limited liability company

By: Bernstein Development Corporation
a District of Columbia corporation,
Its Manager

By: [signature]
Name: ROBERT S. SANDLER
Title: EVP

LICENSEE:

ICS-CM LLC
a Virginia limited liability company

By: Rocks Engineering Co.
a Maryland corporation
Its Manager

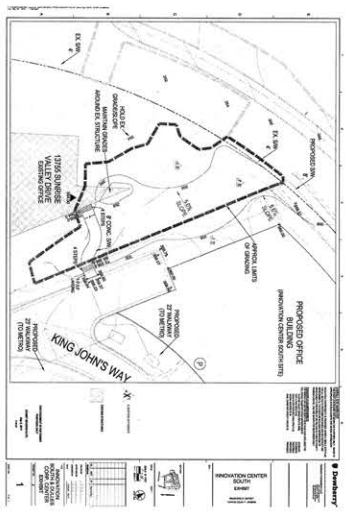
By: [signature]
Name: Michael R.F. Rocks
Title: Managing Director

NUGGET JOINT VENTURE, L.C.,
a Virginia limited liability company

By: [signature]
Name: Michael R.F. Rocks
Title: Managing Director of Allen & Rocks, Inc., its Manager

Rocks LicenseAgreement final9.3.15

EXHIBIT A
Drawing showing License Area



Dewberry
Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CODY A. PORRETT
Lic. No. 048560
Exp. 12-31
PROFESSIONAL ENGINEER

KEY PLAN

SCALE NORTH

N/A

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY MLJ
APPROVED BY CAP
CHECKED BY CJD
DATE SEPTEMBER 2014

TITLE
LETTERS

SP NO. #6848-SP-014

C10.404

SECTION NO. C10-LETTERS

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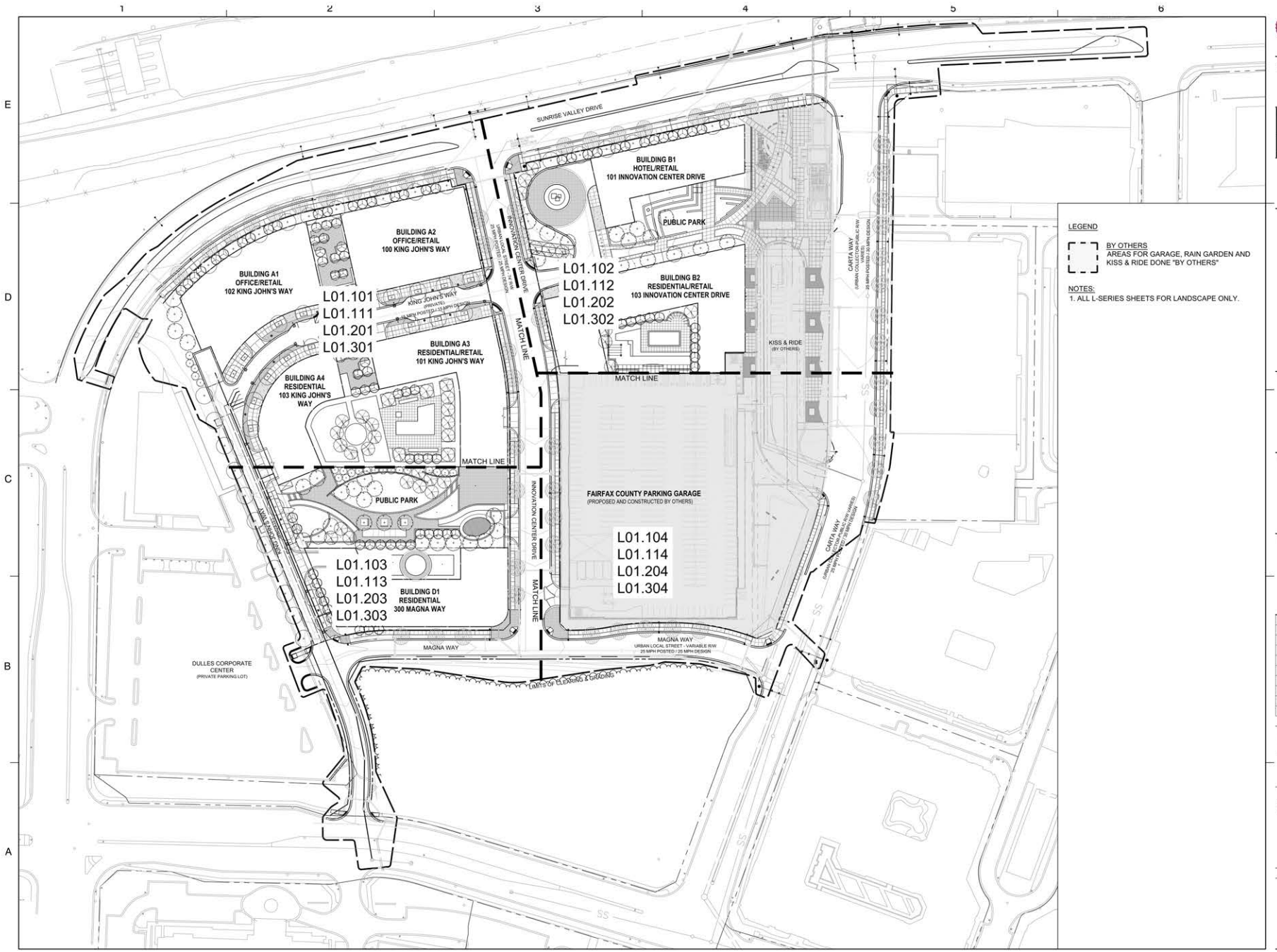


LEGEND

BY OTHERS
AREAS FOR GARAGE, RAIN GARDEN AND KISS & RIDE DONE "BY OTHERS"

NOTES:
1. ALL L-SERIES SHEETS FOR LANDSCAPE ONLY.

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

LSG LANDSCAPE ARCHITECTURE
1410 GALLOWS ROAD, SUITE 110
VIENNA, VIRGINIA 22182
703.821.2040

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
JEFFREY K. KEELING
Lic. No. 001087
5-15-15
LANDSCAPE ARCHITECT

KEY PLAN

SCALE NORTH

SCALE IN FEET
1" = 60'
1 INCH
VCS-83

No.	DATE	BY	Description
1	07/2015	SC	2ND SUBMISSION

REVISIONS

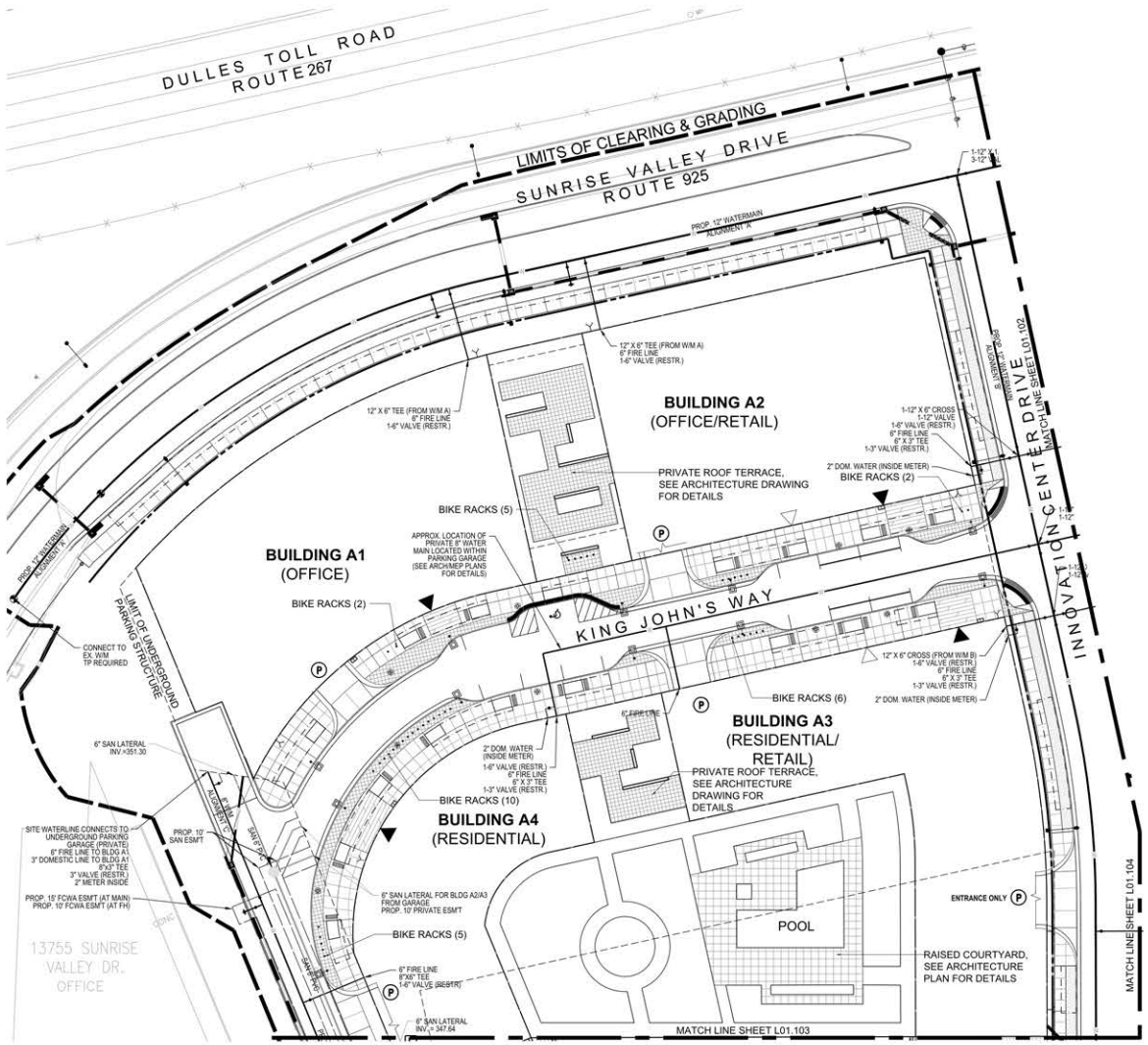
DRAWN BY
APPROVED BY
CHECKED BY
DATE

TITLE
COMPREHENSIVE LANDSCAPE PLAN

PROJECT NO.

L01.001

SECTION NO. L01 LANDSCAPE



LEGEND

- UNIT PAVERS
- SPECIAL PAVING
- SYNTHETIC TURF AT DOG PARK
- W-S ROAD STREET PLANTING
- TRASH RECEPTACLE
- BENCH
- PLANTING SOIL PANEL
- STREET LIGHT SEE CIVIL FOR DETAIL
- PRIVATE ROADWAY STREET LIGHT
- PRIVATE ROADWAY PEDESTRIAN LIGHT
- FIRE HYDRANT SEE CIVIL FOR DETAIL
- FDC SEE CIVIL FOR DETAIL
- MAIN BUILDING ENTRANCE
- BUILDING ENTRANCE
- LOADING ACCESS
- GARAGE VEHICULAR ACCESS

BY OTHERS
AREAS FOR GARAGE, RAIN GARDEN, KISS & RIDE DONE "BY OTHERS"

NOTES:
1. ALL L-SERIES SHEETS FOR LANDSCAPE ONLY.

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

LSG LANDSCAPE ARCHITECTURE
1818 GALLOWS ROAD, SUITE 110
VIENNA, VIRGINIA 22182
703-821-2000

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
JEFFREY K. KEELER
Lic. No. 001087
5-15-15
LANDSCAPE ARCHITECT

KEY PLAN

SCALE NORTH

SCALE IN FEET
1" = 30'
1 INCH

VCS-83

No.	DATE	BY	Description
1	07/2015	SC	2ND SUBMISSION

REVISIONS

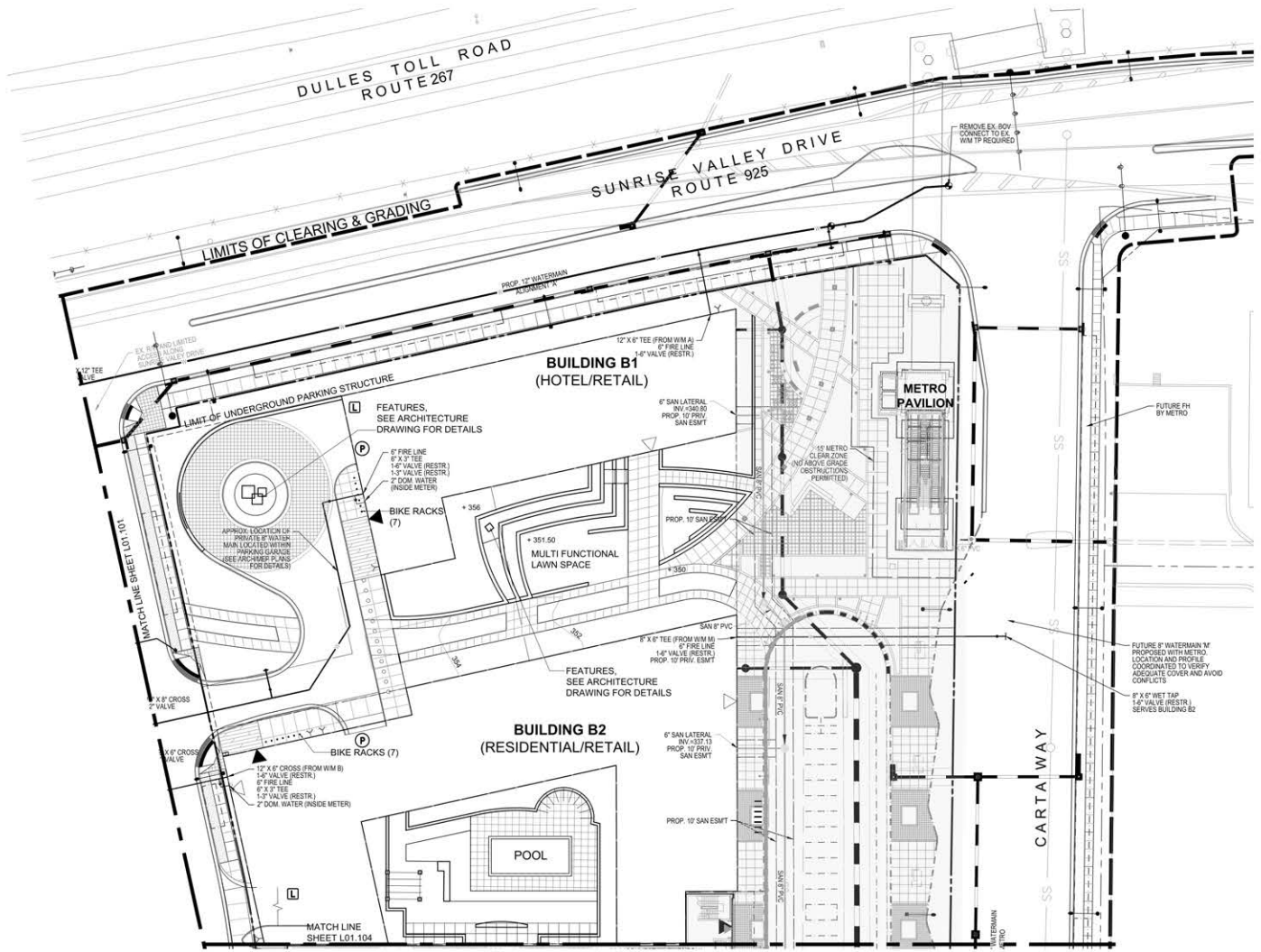
DRAWN BY
APPROVED BY
CHECKED BY
DATE

TITLE
HARDSCAPE PLAN

PROJECT NO.

L01.101

SECTION NO. L01 LANDSCAPE



LEGEND

- UNIT PAVERS
- SPECIAL PAVING
- SYNTHETIC TURF AT DOG PARK
- W-S ROAD STREET PLANTING
- TRASH RECEPTACLE
- BENCH
- PLANTING SOIL PANEL
- STREET LIGHT SEE CIVIL FOR DETAIL
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- PRIVATE ROADWAY PEDESTRIAN LIGHT
- FIRE HYDRANT SEE CIVIL FOR DETAIL
- FDC SEE CIVIL FOR DETAIL
- MAIN BUILDING ENTRANCE
- BUILDING ENTRANCE
- LOADING ACCESS
- GARAGE VEHICULAR ACCESS
- BY OTHERS AREAS FOR GARAGE, RAIN GARDEN, KISS & RIDE DONE "BY OTHERS"

NOTES:
1. ALL L-SERIES SHEETS FOR LANDSCAPE ONLY.

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

LSG LANDSCAPE ARCHITECTURE
1818 GALLOWS ROAD, SUITE 110
VIENNA, VIRGINIA 22182
703.821.2044

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
JEFFREY K. KEELER
Lic. No. 001087
5-15-15
LANDSCAPE ARCHITECT

KEY PLAN

SCALE NORTH

SCALE IN FEET
1" = 30'
1 INCH
VCS-83

No.	DATE	BY	Description
1	07/2015	SC	2ND SUBMISSION

REVISIONS

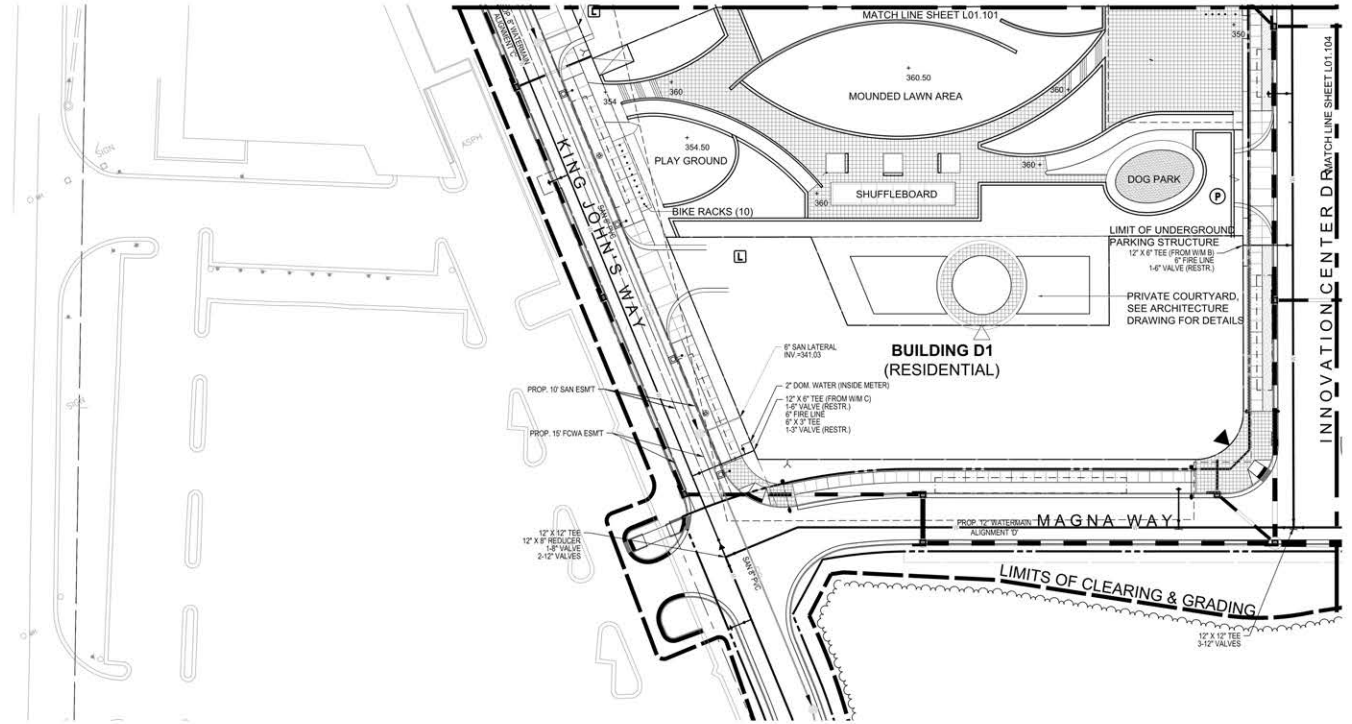
DRAWN BY
APPROVED BY
CHECKED BY
DATE

TITLE
HARDSCAPE PLAN

PROJECT NO.

L01.102

SECTION NO. L01 LANDSCAPE



LEGEND

- UNIT PAVERS
- SPECIAL PAVING
- SYNTHETIC TURF AT DOG PARK
- W-S ROAD STREET PLANTING
- TRASH RECEPTACLE
- BENCH
- PLANTING SOIL PANEL
- STREET LIGHT SEE CIVIL FOR DETAIL
- PRIVATE ROADWAY STREET LIGHT
- PRIVATE ROADWAY PEDESTRIAN LIGHT
- FIRE HYDRANT SEE CIVIL FOR DETAIL
- FDC SEE CIVIL FOR DETAIL
- MAIN BUILDING ENTRANCE
- BUILDING ENTRANCE
- LOADING ACCESS
- GARAGE VEHICULAR ACCESS

BY OTHERS
AREAS FOR GARAGE, RAIN GARDEN, KISS & RIDE DONE "BY OTHERS"

NOTES:
1. ALL L-SERIES SHEETS FOR LANDSCAPE ONLY.

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

LSG LANDSCAPE ARCHITECTURE
1910 GALLOWS ROAD, SUITE 110
VIENNA, VIRGINIA 22182
703.821.2044

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
JEFFREY K. KEESLER
Lic. No. 001087
5.15
LANDSCAPE ARCHITECT

KEY PLAN

SCALE NORTH

SCALE IN FEET
1" = 30'
1 INCH

VCS-83

No.	DATE	BY	Description
1	07/2015	SC	2ND SUBMISSION

REVISIONS

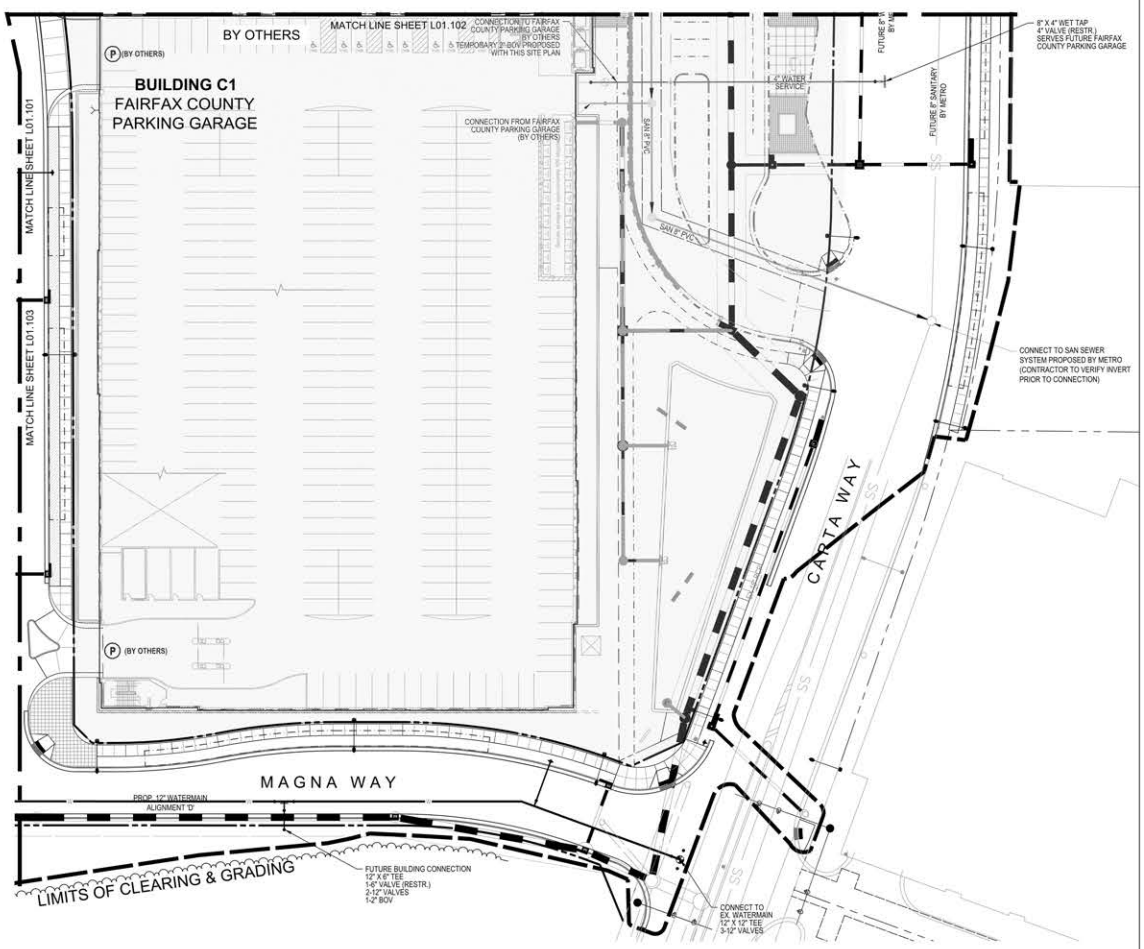
DRAWN BY
APPROVED BY
CHECKED BY
DATE

TITLE
HARDSCAPE PLAN

PROJECT NO.

L01.103

SECTION NO. L01 LANDSCAPE



LEGEND

- UNIT PAVERS
- SPECIAL PAVING
- SYNTHETIC TURF AT DOG PARK
- W-S ROAD STREET PLANTING
- TRASH RECEPTACLE
- BENCH
- PLANTING SOIL PANEL
- STREET LIGHT SEE CIVIL FOR DETAIL
- PRIVATE ROADWAY STREET LIGHT
- PRIVATE ROADWAY PEDESTRIAN LIGHT
- FIRE HYDRANT SEE CIVIL FOR DETAIL
- FDC SEE CIVIL FOR DETAIL
- MAIN BUILDING ENTRANCE
- BUILDING ENTRANCE
- LOADING ACCESS
- GARAGE VEHICULAR ACCESS

BY OTHERS
AREAS FOR GARAGE, RAIN GARDEN, KISS & RIDE DONE "BY OTHERS"

NOTES:
1. ALL L-SERIES SHEETS FOR LANDSCAPE ONLY.

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

LSG LANDSCAPE ARCHITECTURE
1414 DALLOWAY ROAD, SUITE 110
LEESBURG, VIRGINIA 22042
703.527.2040

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INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
JEFFREY K. KEELER
Lic. No. 001087
5-15-15
LANDSCAPE ARCHITECT

KEY PLAN

SCALE NORTH

SCALE IN FEET
1" = 30'
1 INCH

VCS-83

No.	DATE	BY	Description
1	07/2015	SC	2ND SUBMISSION

REVISIONS

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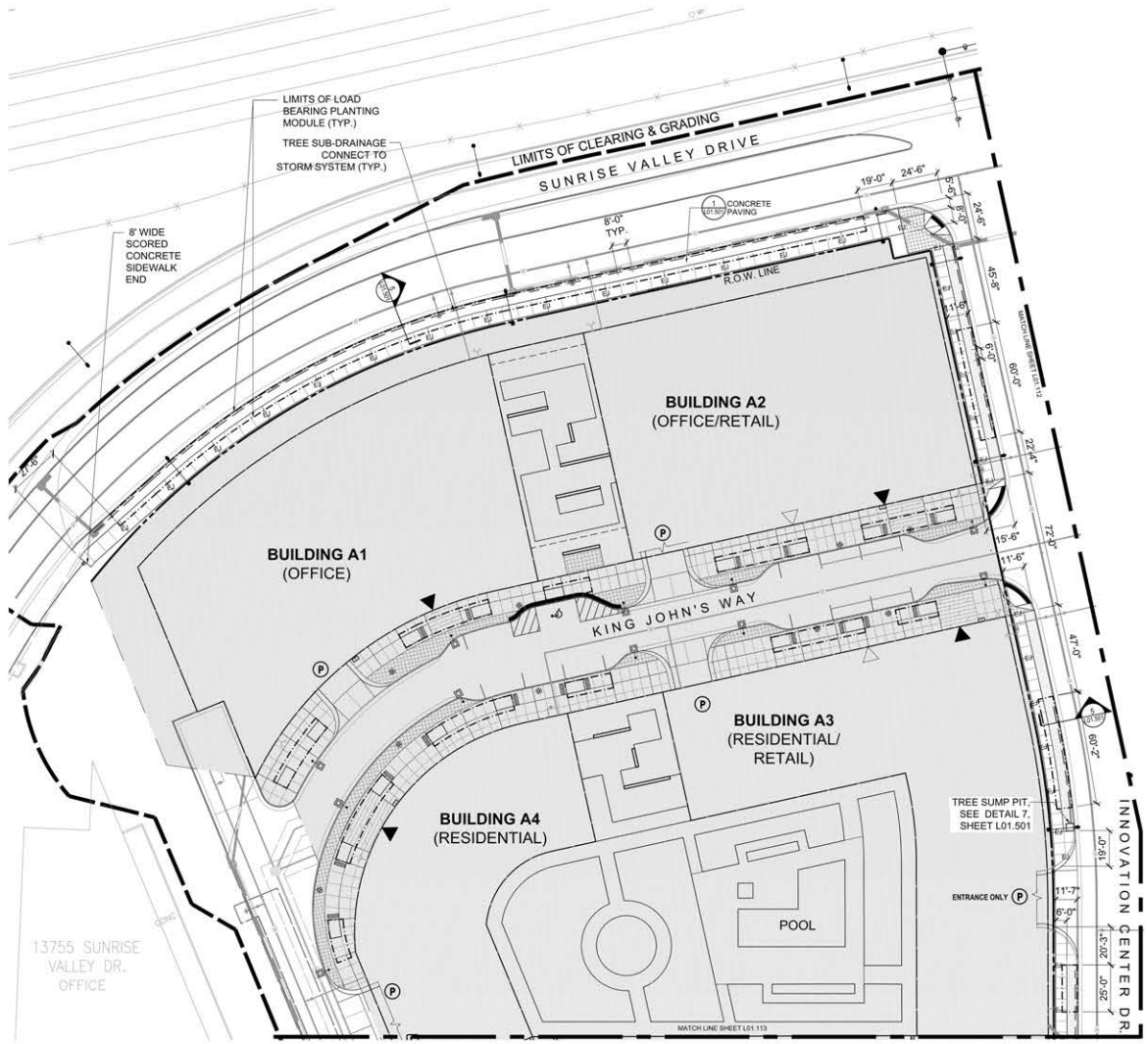
DATE

TITLE
HARDSCAPE PLAN

PROJECT NO.

L01.104

SECTION NO. L01 LANDSCAPE



LEGEND

- UNIT PAVERS
- SCORED CONCRETE SIDEWALK
- DETECTABLE PAVER
- PLANTING SOIL PANEL
- BIKE RACKS
- STREET LIGHT SEE CIVIL FOR DETAIL
- PRIVATE ROADWAY STREET LIGHT
- PRIVATE ROADWAY PEDESTRIAN LIGHT
- PRIVATE ROADWAY PEDESTRIAN LIGHT

SEE ARCHITECTURE DRAWINGS FOR DETAILS

BY OTHERS
AREAS FOR GARAGE, RAIN GARDEN, KISS & RIDE DONE "BY OTHERS"

NOTES:
1. ALL L-SERIES SHEETS FOR LANDSCAPE ONLY.

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

LSG LANDSCAPE ARCHITECTURE
1410 GALLOWS ROAD, SUITE 110
VIENNA, VIRGINIA 22182
703.821.2040

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INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

KEY PLAN

SCALE NORTH

SCALE IN FEET
1" = 30'
1 INCH

VCS-83

No.	DATE	BY	Description
1	07/2015	SC	2ND SUBMISSION

REVISIONS

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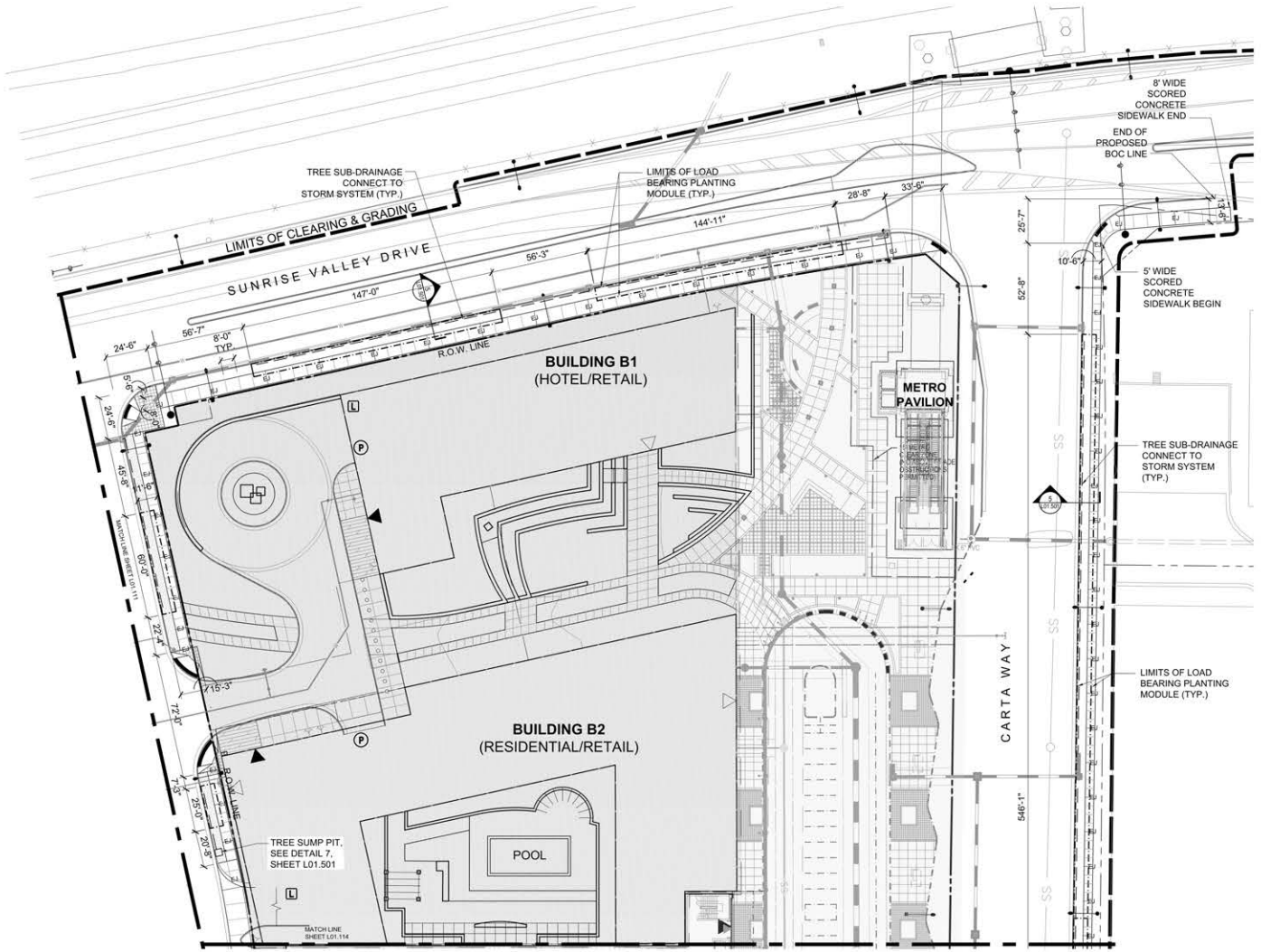
APPROVED BY
CHECKED BY
DATE

TITLE
VDOT: LAYOUT PLAN

PROJECT NO.

L01.111

SECTION NO. L01 LANDSCAPE



LEGEND

- UNIT PAVERS
- SCORED CONCRETE SIDEWALK
- DETECTABLE PAVER
- PLANTING SOIL PANEL
- BIKE RACKS
- STREET LIGHT SEE CIVIL FOR DETAIL
- PRIVATE ROADWAY STREET LIGHT
- PRIVATE ROADWAY PEDESTRIAN LIGHT
- PRIVATE ROADWAY PEDESTRIAN LIGHT

SEE ARCHITECTURE DRAWINGS FOR DETAILS

BY OTHERS
AREAS FOR GARAGE, RAIN GARDEN, KISS & RIDE DONE "BY OTHERS"

NOTES:
1. ALL L-SERIES SHEETS FOR LANDSCAPE ONLY.

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

LSG LANDSCAPE ARCHITECTURE
1919 GALLOWS ROAD, SUITE 110
VIENNA, VIRGINIA 22182
703.821.2040

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INNOVATION CENTER SOUTH

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FAIRFAX COUNTY, VIRGINIA

SEAL

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JEFFREY K. KEELER
Lic. No. 001087
5-15-15
LANDSCAPE ARCHITECT

KEY PLAN

SCALE NORTH

SCALE IN FEET
1" = 30'
1 INCH

VCS-83

No.	DATE	BY	Description
1	07/2015	SC	2ND SUBMISSION

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DATE

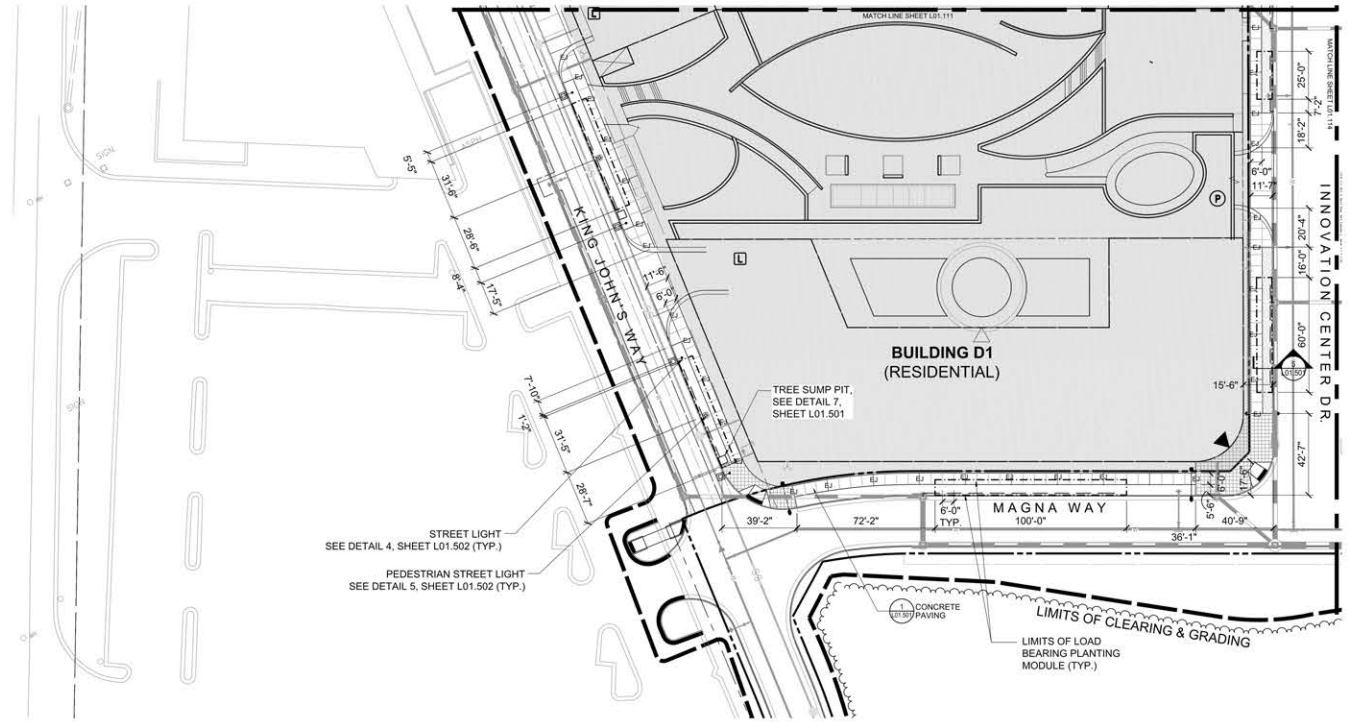
TITLE

VDOT: LAYOUT PLAN

PROJECT NO.

L01.112

SECTION NO. L01 LANDSCAPE



LEGEND

- UNIT PAVERS
- SCORED CONCRETE SIDEWALK
- DETECTABLE PAVER
- PLANTING SOIL PANEL
- BIKE RACKS
- STREET LIGHT SEE CIVIL FOR DETAIL
- PRIVATE ROADWAY STREET LIGHT
- PRIVATE ROADWAY PEDESTRIAN LIGHT
- PRIVATE ROADWAY PEDESTRIAN LIGHT

- SEE ARCHITECTURE DRAWINGS FOR DETAILS
- BY OTHERS
  AREAS FOR GARAGE, RAIN GARDEN, KISS & RIDE DONE "BY OTHERS"

NOTES:
1. ALL L-SERIES SHEETS FOR LANDSCAPE ONLY.

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Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

LSG LANDSCAPE ARCHITECTURE
1918 GALLOWS ROAD, SUITE 110
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INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

KEY PLAN

SCALE NORTH

SCALE IN FEET
1" = 30'
1 INCH

VCS-83

No.	DATE	BY	Description
1	07/2015	SC	2ND SUBMISSION

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APPROVED BY
CHECKED BY
DATE

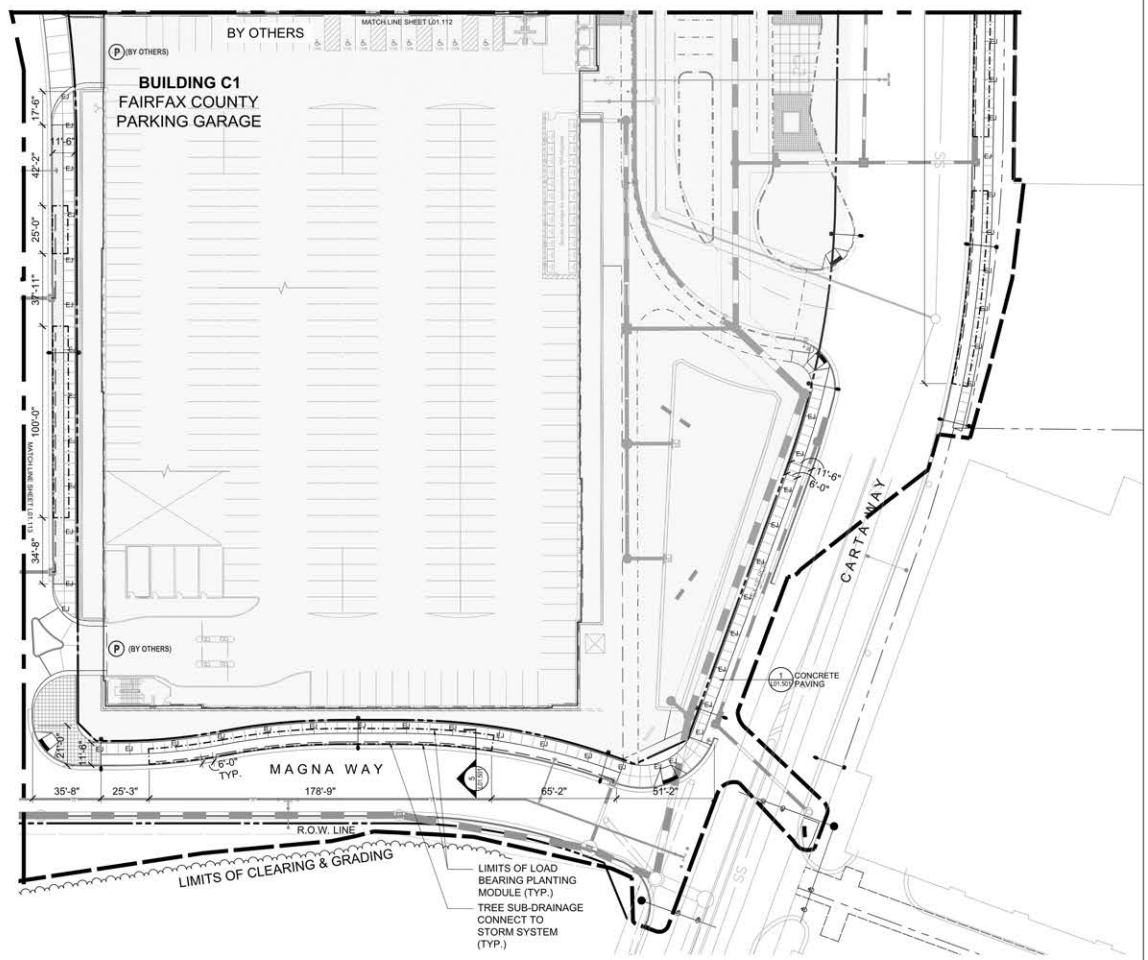
TITLE

VDOT:
LAYOUT PLAN

PROJECT NO.

L01.113

SECTION NO. L01 LANDSCAPE



LEGEND

- UNIT PAVERS
- SCORED CONCRETE SIDEWALK
- DETECTABLE PAVER
- PLANTING SOIL PANEL
- BIKE RACKS
- STREET LIGHT SEE CIVIL FOR DETAIL
- PRIVATE ROADWAY STREET LIGHT
- PRIVATE ROADWAY PEDESTRIAN LIGHT
- PRIVATE ROADWAY PEDESTRIAN LIGHT

SEE ARCHITECTURE DRAWINGS FOR DETAILS

BY OTHERS
AREAS FOR GARAGE, RAIN GARDEN, KISS & RIDE DONE "BY OTHERS"

NOTES:
1. ALL L-SERIES SHEETS FOR LANDSCAPE ONLY.

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

LSG LANDSCAPE ARCHITECTURE
1910 GALLOWS ROAD, SUITE 110
VIENNA, VIRGINIA 22182
703.821.2040

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INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

KEY PLAN

SCALE NORTH

SCALE IN FEET
1" = 30'
1 INCH

VCS-83

No.	DATE	BY	Description
1	07/2015	SC	2ND SUBMISSION

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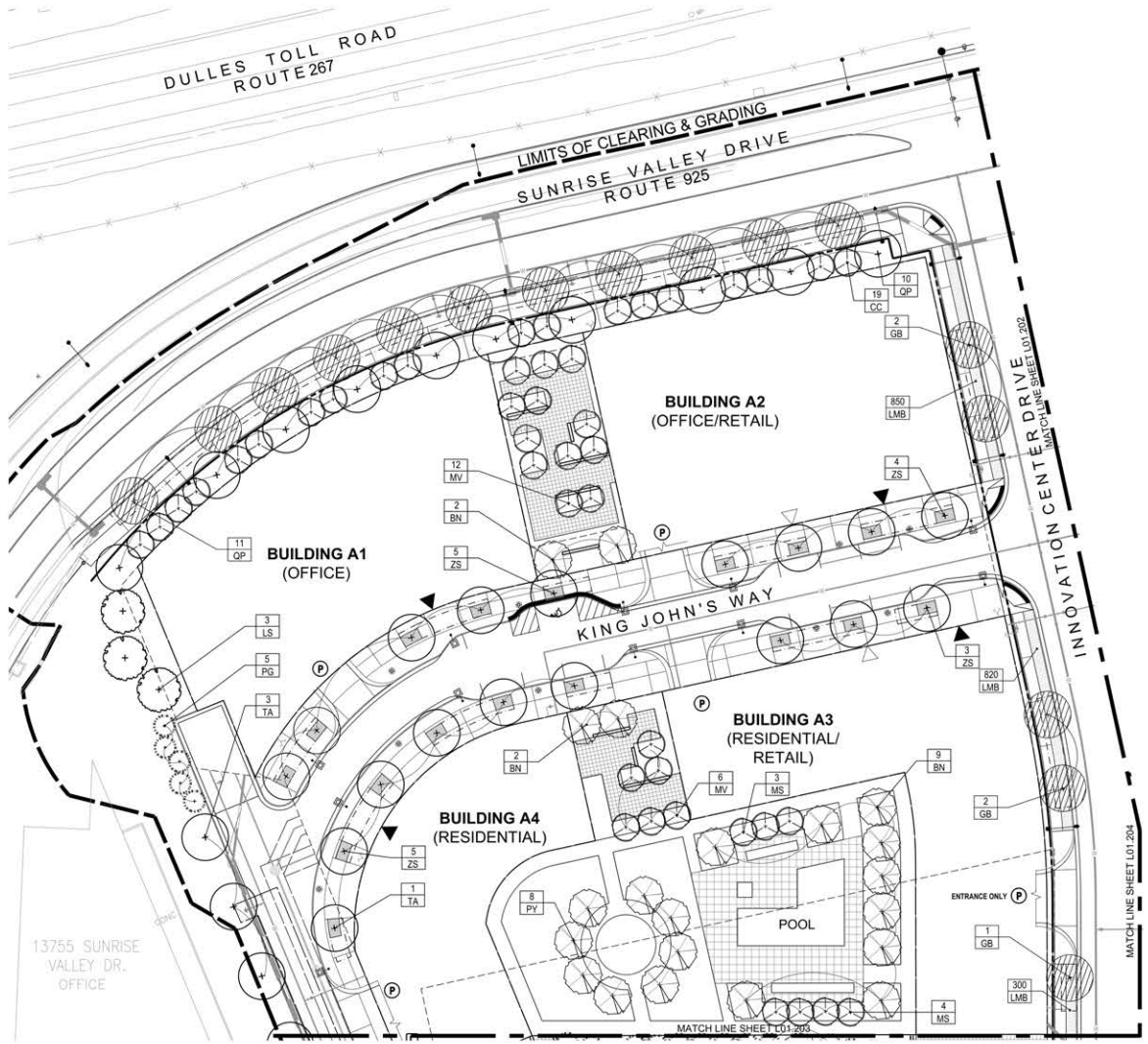
DATE

TITLE
VDOT:
LAYOUT PLAN

PROJECT NO.

L01.114

SECTION NO. L01 LANDSCAPE



LEGEND

- CATEGORY IV DECIDUOUS TREE
- CATEGORY IV DECIDUOUS TREE
- CATEGORY III DECIDUOUS TREE
- CATEGORY II DECIDUOUS TREE
- CATEGORY II EVERGREEN TREE
- VDOT RIGHT-OF-WAY TREE NOT COUNTED IN CANOPY COVERAGE
- PLANTING SOIL PANEL SEE DETAIL 5 / L01.702
- STREET LIGHT SEE CIVIL FOR DETAIL
- PRIVATE ROADWAY STREET LIGHT
- PRIVATE ROADWAY PEDESTRIAN LIGHT
- FDC SEE CIVIL FOR DETAIL
- FIRE HYDRANT SEE CIVIL FOR DETAIL
- MAIN BUILDING ENTRANCE
- BUILDING ENTRANCE
- LOADING ACCESS
- GARAGE VEHICULAR ACCESS
- BY OTHERS AREAS FOR GARAGE, RAIN GARDEN, KISS & RIDE DONE "BY OTHERS"

NOTES:

1. ALL L-SERIES SHEETS FOR LANDSCAPE DESIGN ONLY.
2. INTERIOR PARKING LOT LANDSCAPE TABULATION SEE CIVIL DRAWINGS.
3. ALL VDOT STREET TREES TO BE LIMBED UP 10' CLEAR TO MEET SIGHT DISTANCE REQUIREMENTS.
4. AT THE TIME OF THE INSTALLATION OF THE STRUCTURAL CELLS, STAFF FROM THE URBAN FOREST MANAGEMENT DIVISION WILL BE CONTACTED BY THE CONTRACTOR AND ALLOWED THE OPPORTUNITY TO INSPECT THE INSTALLATION OF THE STRUCTURAL CELLS. (PFM 12-0515.3)

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

LSG LANDSCAPE ARCHITECTURE
1410 GALLOWS ROAD, SUITE 110
VIENNA, VIRGINIA 22182
703.821.2040

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
JEFFREY K. KEELER
Lic. No. 001087
5-15-15
LANDSCAPE ARCHITECT

KEY PLAN

SCALE NORTH

SCALE IN FEET
1" = 30'
1 INCH
VCS-83

No.	DATE	BY	Description
1	07/2015	SC	2ND SUBMISSION

REVISIONS

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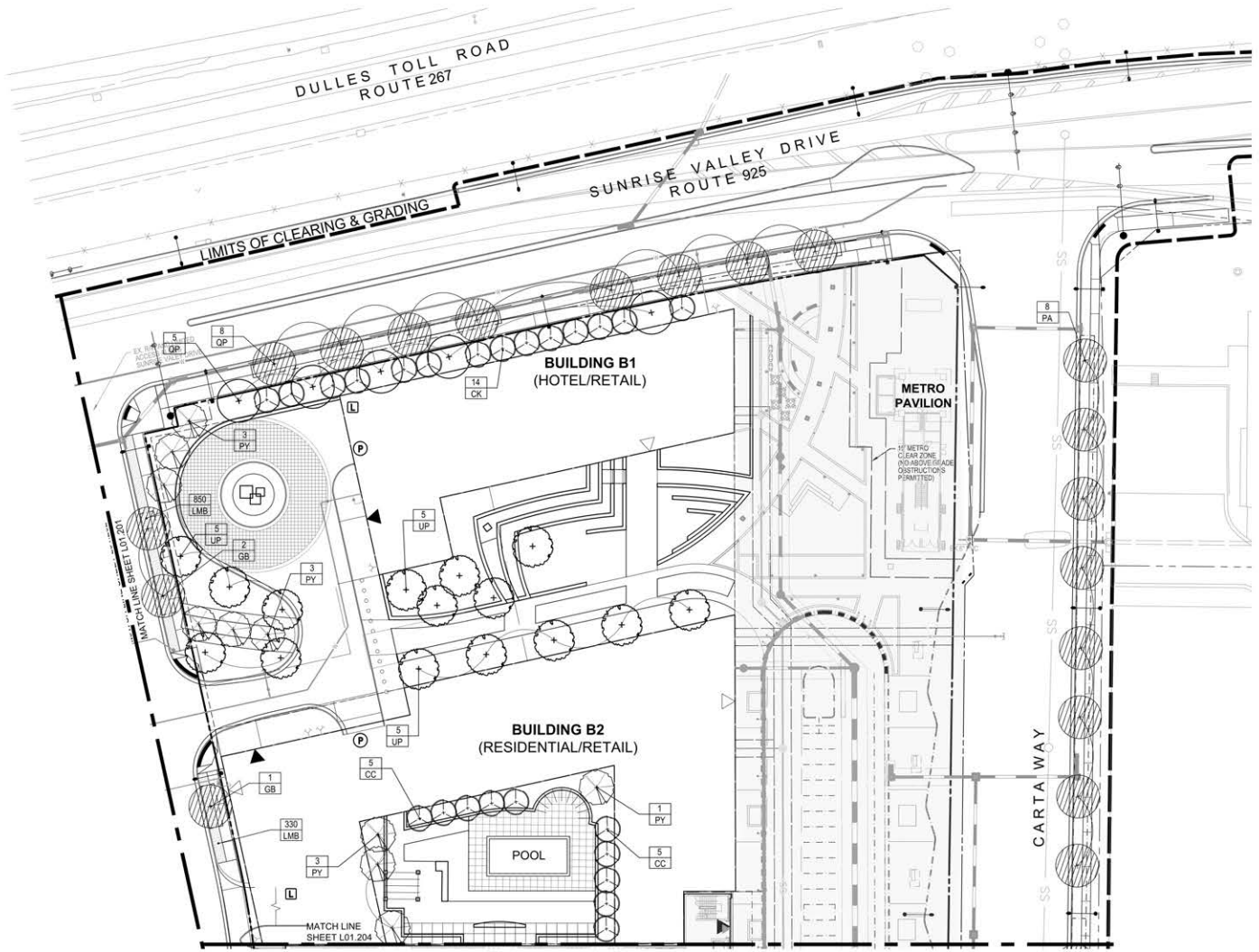
DATE

TITLE
LANDSCAPE PLAN

PROJECT NO.

L01.201

SECTION NO. L01 LANDSCAPE



LEGEND

- CATEGORY IV DECIDUOUS TREE
- CATEGORY IV DECIDUOUS TREE
- CATEGORY III DECIDUOUS TREE
- CATEGORY II DECIDUOUS TREE
- CATEGORY II EVERGREEN TREE
- VDOT RIGHT-OF-WAY TREE NOT COUNTED IN CANOPY COVERAGE
- PLANTING SOIL PANEL SEE DETAIL 5 / L01.702
- STREET LIGHT SEE CIVIL FOR DETAIL
- PRIVATE ROADWAY STREET LIGHT
- PRIVATE ROADWAY PEDESTRIAN LIGHT
- FDC SEE CIVIL FOR DETAIL
- FIRE HYDRANT SEE CIVIL FOR DETAIL
- MAIN BUILDING ENTRANCE
- BUILDING ENTRANCE
- LOADING ACCESS
- GARAGE VEHICULAR ACCESS
- BY OTHERS AREAS FOR GARAGE, RAIN GARDEN, KISS & RIDE DONE "BY OTHERS"

NOTES:

1. ALL L-SERIES SHEETS FOR LANDSCAPE DESIGN ONLY.
2. INTERIOR PARKING LOT LANDSCAPE TABULATION SEE CIVIL DRAWINGS.
3. ALL VDOT STREET TREES TO BE LIMBED UP 10' CLEAR TO MEET SIGHT DISTANCE REQUIREMENTS.
4. AT THE TIME OF THE INSTALLATION OF THE STRUCTURAL CELLS, STAFF FROM THE URBAN FOREST MANAGEMENT DIVISION WILL BE CONTACTED BY THE CONTRACTOR AND ALLOWED THE OPPORTUNITY TO INSPECT THE INSTALLATION OF THE STRUCTURAL CELLS. (PFM 12-0515.3)

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

LSG LANDSCAPE ARCHITECTURE
1410 GALLOWS ROAD, SUITE 110
VIENNA, VIRGINIA 22182
703.821.2040

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May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
JEFFREY K. KEELER
No. 001087
5-15-15
LANDSCAPE ARCHITECT

KEY PLAN

SCALE NORTH

SCALE IN FEET
1" = 30'
1 INCH

VCS-83

No.	DATE	BY	Description
1	07/2015	SC	2ND SUBMISSION

REVISIONS

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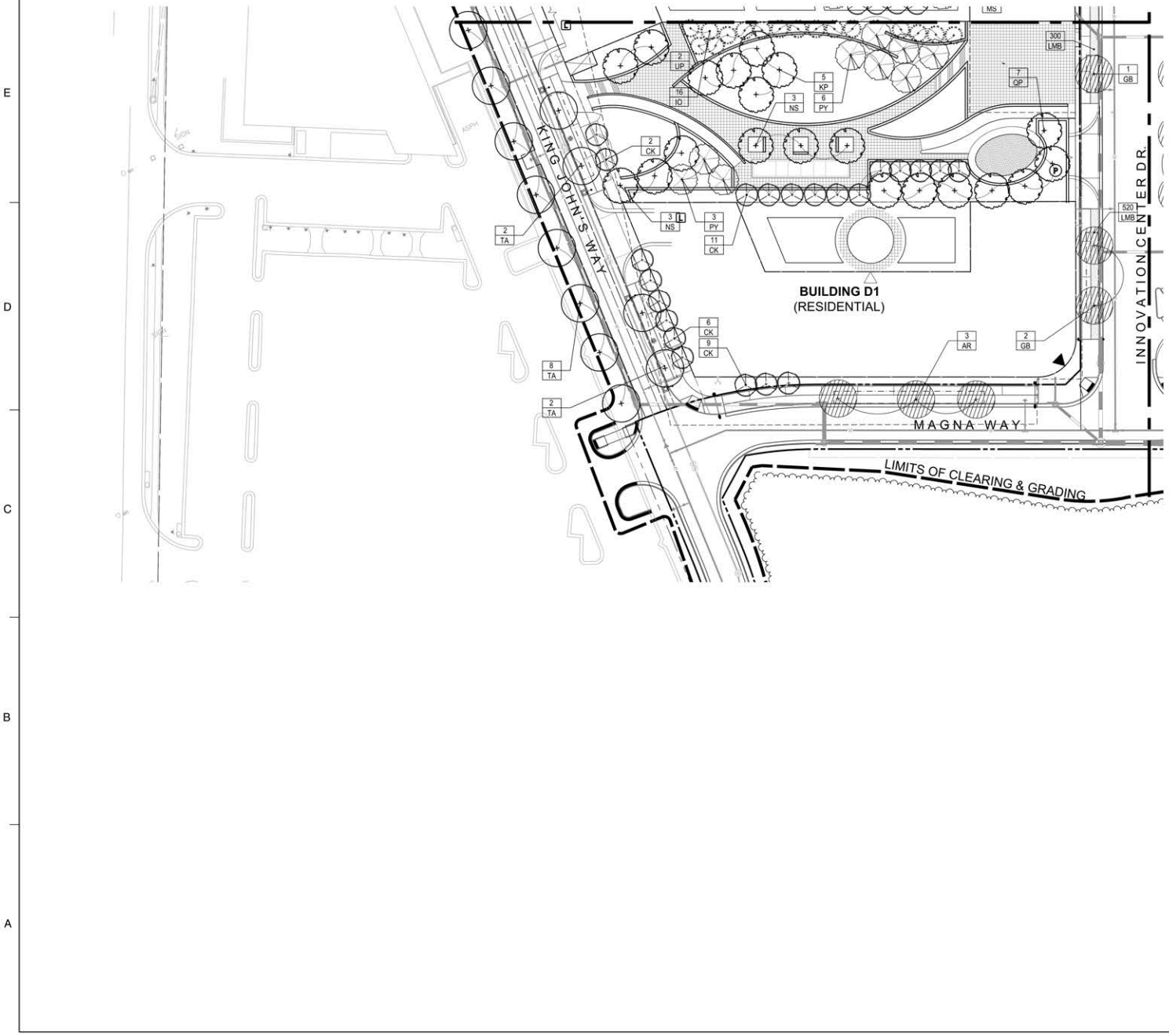
APPROVED BY
CHECKED BY
DATE

TITLE
LANDSCAPE PLAN

PROJECT NO.

L01.202

SECTION NO. L01 LANDSCAPE



LEGEND

- CATEGORY IV DECIDUOUS TREE
- CATEGORY IV DECIDUOUS TREE
- CATEGORY III DECIDUOUS TREE
- CATEGORY II DECIDUOUS TREE
- CATEGORY II EVERGREEN TREE
- VDOT RIGHT-OF-WAY TREE NOT COUNTED IN CANOPY COVERAGE
- PLANTING SOIL PANEL SEE DETAIL 5 / L01.702
- STREET LIGHT SEE CIVIL FOR DETAIL
- PRIVATE ROADWAY STREET LIGHT
- PRIVATE ROADWAY PEDESTRIAN LIGHT
- FDC SEE CIVIL FOR DETAIL
- FIRE HYDRANT SEE CIVIL FOR DETAIL
- MAIN BUILDING ENTRANCE
- BUILDING ENTRANCE
- LOADING ACCESS
- GARAGE VEHICULAR ACCESS
- BY OTHERS AREAS FOR GARAGE, RAIN GARDEN, KISS & RIDE DONE "BY OTHERS"

NOTES:

1. ALL L-SERIES SHEETS FOR LANDSCAPE DESIGN ONLY.
2. INTERIOR PARKING LOT LANDSCAPE TABULATION SEE CIVIL DRAWINGS.
3. ALL VDOT STREET TREES TO BE LIMBED UP 10' CLEAR TO MEET SIGHT DISTANCE REQUIREMENTS.
4. AT THE TIME OF THE INSTALLATION OF THE STRUCTURAL CELLS, STAFF FROM THE URBAN FOREST MANAGEMENT DIVISION WILL BE CONTACTED BY THE CONTRACTOR AND ALLOWED THE OPPORTUNITY TO INSPECT THE INSTALLATION OF THE STRUCTURAL CELLS. (PFM 12-0515.3)

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

LSG LANDSCAPE ARCHITECTURE
1818 GALLOWS ROAD, SUITE 110
VIENNA, VIRGINIA 22182
703-821-2040

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May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
ROBERT K. KEELER
Lic. No. 001087
5-15
LANDSCAPE ARCHITECT

KEY PLAN

SCALE NORTH

SCALE IN FEET
1" = 30'
1 INCH

VCS-83

No.	DATE	BY	Description
1	07/2015	SC	2ND SUBMISSION

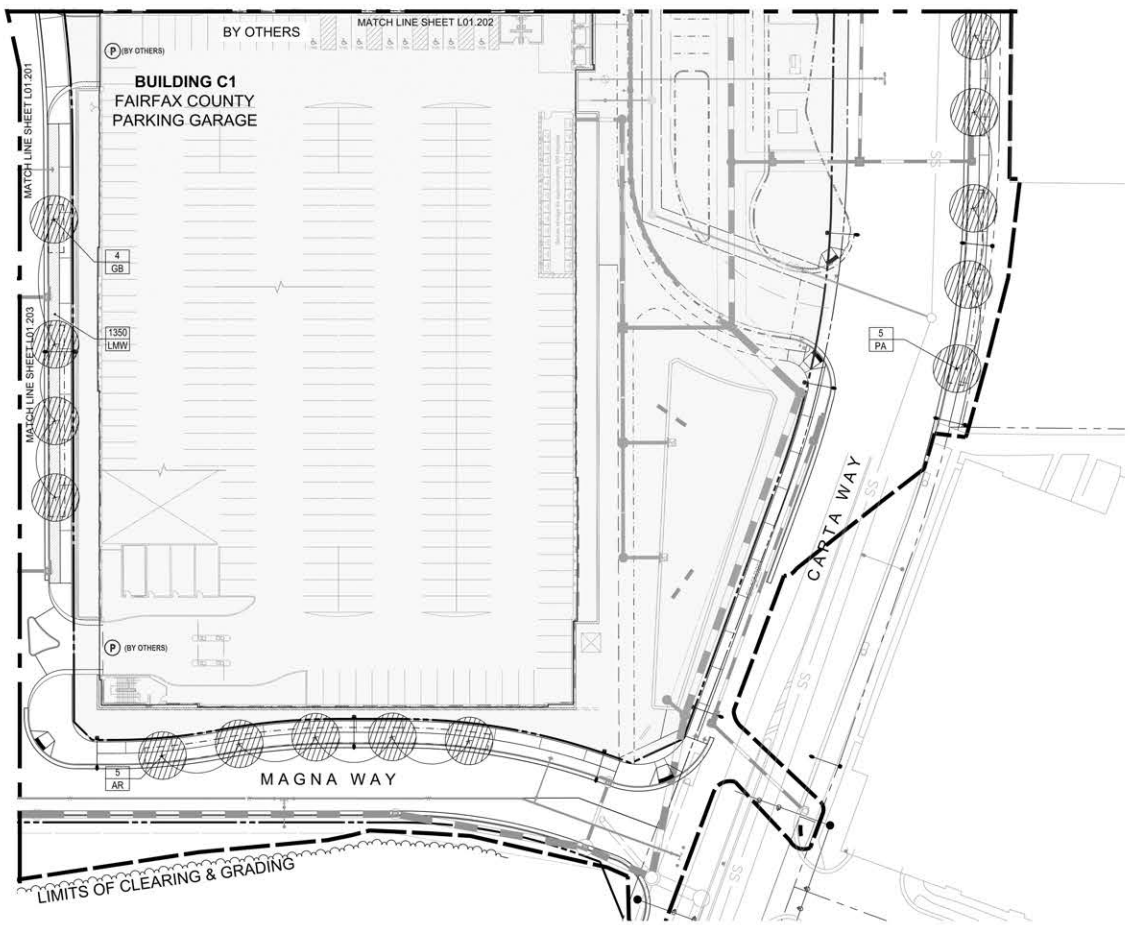
REVISIONS

DRAWN BY
APPROVED BY
CHECKED BY
DATE

TITLE
LANDSCAPE PLAN

PROJECT NO.
L01.203

SECTION NO. L01 LANDSCAPE



LEGEND

- CATEGORY IV DECIDUOUS TREE
- CATEGORY IV DECIDUOUS TREE
- CATEGORY III DECIDUOUS TREE
- CATEGORY II DECIDUOUS TREE
- CATEGORY II EVERGREEN TREE
- VDOT RIGHT-OF-WAY TREE NOT COUNTED IN CANOPY COVERAGE
- PLANTING SOIL PANEL SEE DETAIL 5 / L01.702
- STREET LIGHT SEE CIVIL FOR DETAIL
- PRIVATE ROADWAY STREET LIGHT
- PRIVATE ROADWAY PEDESTRIAN LIGHT
- FDC SEE CIVIL FOR DETAIL
- FIRE HYDRANT SEE CIVIL FOR DETAIL
- MAIN BUILDING ENTRANCE
- BUILDING ENTRANCE
- LOADING ACCESS
- GARAGE VEHICULAR ACCESS
- BY OTHERS AREAS FOR GARAGE, RAIN GARDEN, KISS & RIDE DONE "BY OTHERS"

NOTES:

1. ALL L-SERIES SHEETS FOR LANDSCAPE DESIGN ONLY.
2. INTERIOR PARKING LOT LANDSCAPE TABULATION SEE CIVIL DRAWINGS.
3. ALL VDOT STREET TREES TO BE LIMBED UP 10' CLEAR TO MEET SIGHT DISTANCE REQUIREMENTS.
4. AT THE TIME OF THE INSTALLATION OF THE STRUCTURAL CELLS, STAFF FROM THE URBAN FOREST MANAGEMENT DIVISION WILL BE CONTACTED BY THE CONTRACTOR AND ALLOWED THE OPPORTUNITY TO INSPECT THE INSTALLATION OF THE STRUCTURAL CELLS. (PFM 12-0515.3)

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

LSG LANDSCAPE ARCHITECTURE
1414 DALLOWS ROAD, SUITE 110
VIENNA, VIRGINIA 22182
703.821.2040

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INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
JEFFREY K. KEELER
Lic. No. 001087
5-15
LANDSCAPE ARCHITECT

KEY PLAN

SCALE NORTH

SCALE IN FEET
1" = 30'
1 INCH

VCS-83

No.	DATE	BY	Description
1	07/2015	SC	2ND SUBMISSION

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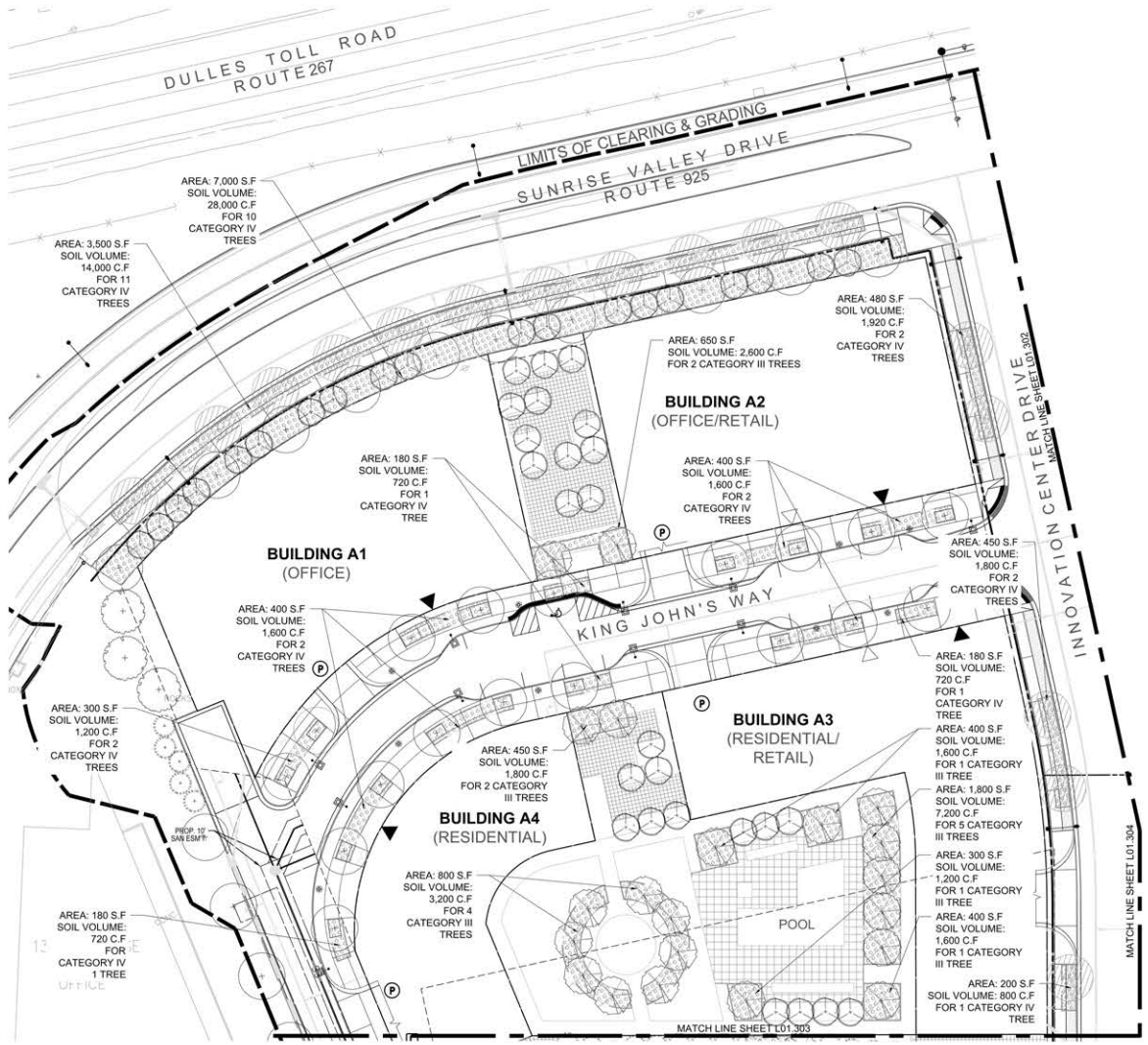
DRAWN BY
APPROVED BY
CHECKED BY
DATE

TITLE
LANDSCAPE PLAN

PROJECT NO.
L01.204

SECTION NO. L01 LANDSCAPE



LEGEND

- CATEGORY IV DECIDUOUS TREE
- CATEGORY IV DECIDUOUS TREE
- CATEGORY III DECIDUOUS TREE
- CATEGORY II DECIDUOUS TREE
- CATEGORY II EVERGREEN TREE
- VDOT RIGHT-OF-TREE NOT COUNTED IN CANOPY COVERAGE
- REQUIRED TREE SOIL VOLUME AREA
- MAIN BUILDING ENTRANCE
- BUILDING ENTRANCE
- LOADING ACCESS
- GARAGE VEHICULAR ACCESS
- BY OTHERS
  AREAS FOR GARAGE, RAIN GARDEN, KISS & RIDE DONE "BY OTHERS"

NOTES:
1. ALL L-SERIES SHEETS FOR LANDSCAPE ONLY

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

LSG LANDSCAPE ARCHITECTURE
1410 GALLOWS ROAD, SUITE 110
VIENNA, VIRGINIA 22182
703.821.2040

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May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
JEFFREY K. KEELER
Lic. No. 001087
5-15-15
LANDSCAPE ARCHITECT

KEY PLAN

SCALE NORTH

SCALE IN FEET
1" = 30'
1 INCH

VCS-83

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CHECKED BY
DATE

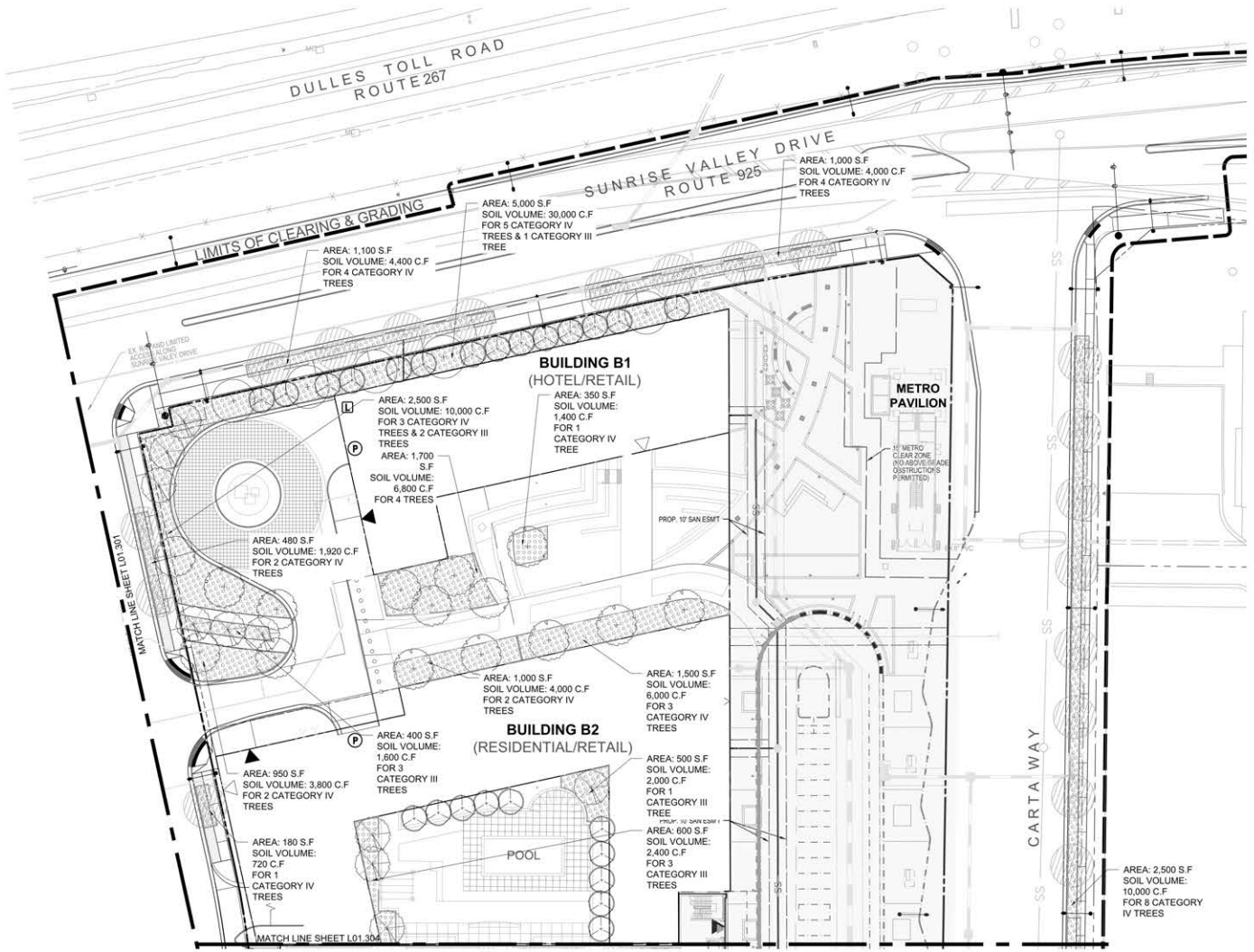
TITLE

SOIL VOLUME & PLANTING AREA

PROJECT NO.

L01.301

SECTION NO. L01 LANDSCAPE



LEGEND

- CATEGORY IV DECIDUOUS TREE
- CATEGORY IV DECIDUOUS TREE
- CATEGORY III DECIDUOUS TREE
- CATEGORY II DECIDUOUS TREE
- CATEGORY II EVERGREEN TREE
- VDOT RIGHT-OF-TREE NOT COUNTED IN CANOPY COVERAGE
- REQUIRED TREE SOIL VOLUME AREA
- MAIN BUILDING ENTRANCE
- BUILDING ENTRANCE
- LOADING ACCESS
- GARAGE VEHICULAR ACCESS
- BY OTHERS
  AREAS FOR GARAGE, RAIN GARDEN, KISS & RIDE DONE "BY OTHERS"

NOTES:
1. ALL L-SERIES SHEETS FOR LANDSCAPE ONLY

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

LSG LANDSCAPE ARCHITECTURE
1410 GALLOWS ROAD, SUITE 110
VIENNA, VIRGINIA 22182
703.821.2040

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
JEFFREY K. KEELER
Lic. No. 001087
5-15
LANDSCAPE ARCHITECT

KEY PLAN

SCALE NORTH

SCALE IN FEET
1" = 30'
1 INCH
VCS-83

No.	DATE	BY	Description
1	07/2015	SC	2ND SUBMISSION

REVISIONS

DRAWN BY
APPROVED BY
CHECKED BY
DATE

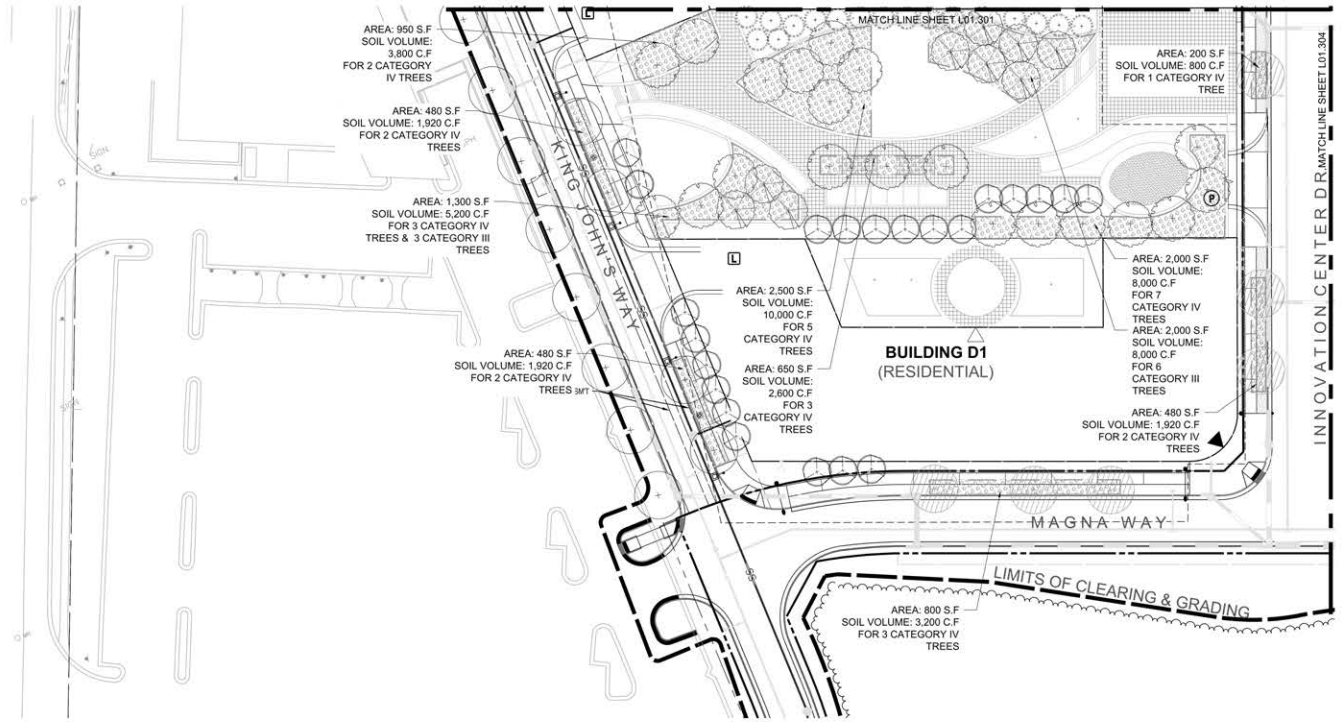
TITLE

SOIL VOLUME & PLANTING AREA

PROJECT NO.

L01.302

SECTION NO. L01 LANDSCAPE



LEGEND

- CATEGORY IV DECIDUOUS TREE
- CATEGORY IV DECIDUOUS TREE
- CATEGORY III DECIDUOUS TREE
- CATEGORY II DECIDUOUS TREE
- CATEGORY II EVERGREEN TREE
- VDOT RIGHT-OF-TREE NOT COUNTED IN CANOPY COVERAGE
- REQUIRED TREE SOIL VOLUME AREA
- MAIN BUILDING ENTRANCE
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- GARAGE VEHICULAR ACCESS
- BY OTHERS
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8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
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703-821-2040

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INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
JEFFREY K. KEELER
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5.15
LANDSCAPE ARCHITECT

KEY PLAN

SCALE NORTH

SCALE IN FEET
1" = 30'
1 INCH

VCS-83

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REVISIONS

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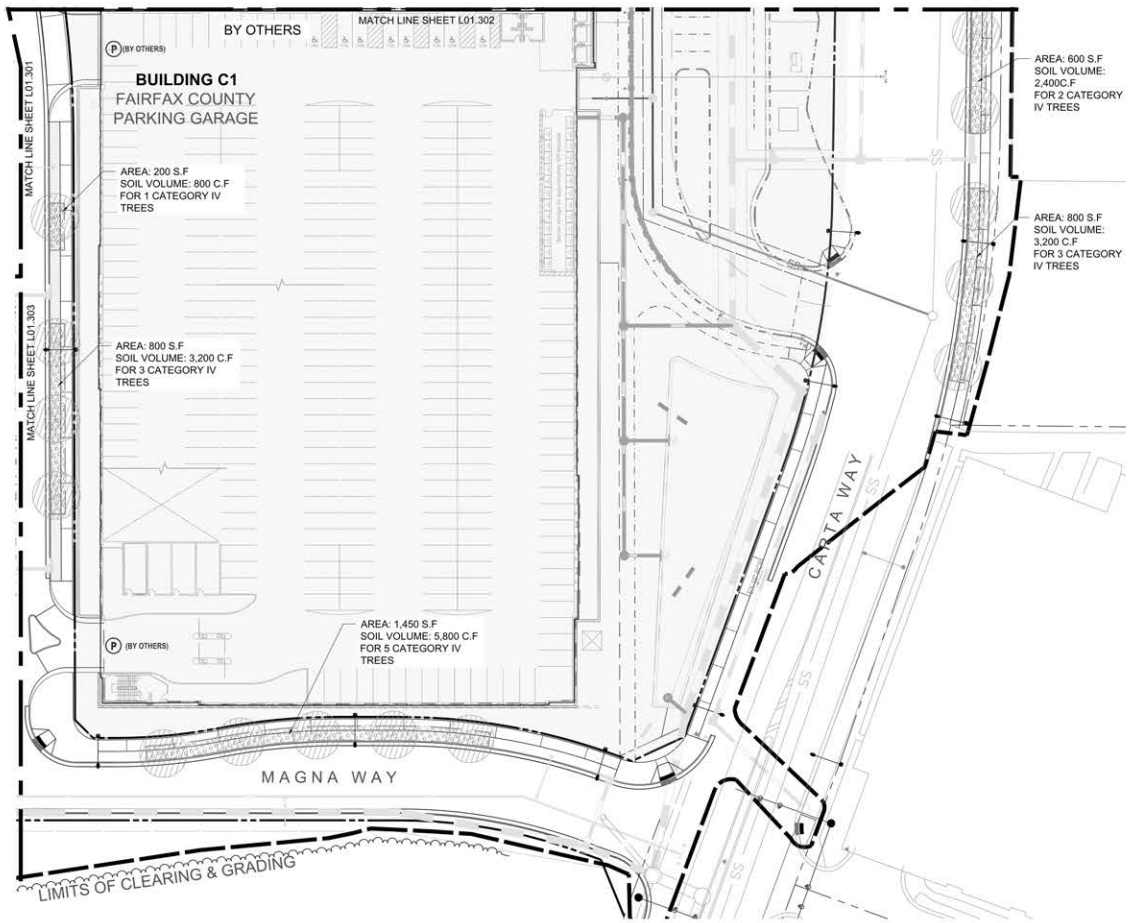
TITLE

SOIL VOLUME & PLANTING AREA

PROJECT NO.

L01.303

SECTION NO. L01 LANDSCAPE



LEGEND

- CATEGORY IV DECIDUOUS TREE
- CATEGORY IV DECIDUOUS TREE
- CATEGORY III DECIDUOUS TREE
- CATEGORY II DECIDUOUS TREE
- CATEGORY II EVERGREEN TREE
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- REQUIRED TREE SOIL VOLUME AREA
- MAIN BUILDING ENTRANCE
- BUILDING ENTRANCE
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- GARAGE VEHICULAR ACCESS
- BY OTHERS
  AREAS FOR GARAGE, RAIN GARDEN, KISS & RIDE DONE "BY OTHERS"

NOTES:
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Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

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703.821.2040

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May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
JEFFREY K. KEELER
Lic. No. 001087
5-15-15
LANDSCAPE ARCHITECT

KEY PLAN

SCALE NORTH

SCALE IN FEET
1" = 30'
1 INCH

VCS-83

No.	DATE	BY	Description
1	07/2015	SC	2ND SUBMISSION

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CHECKED BY
DATE

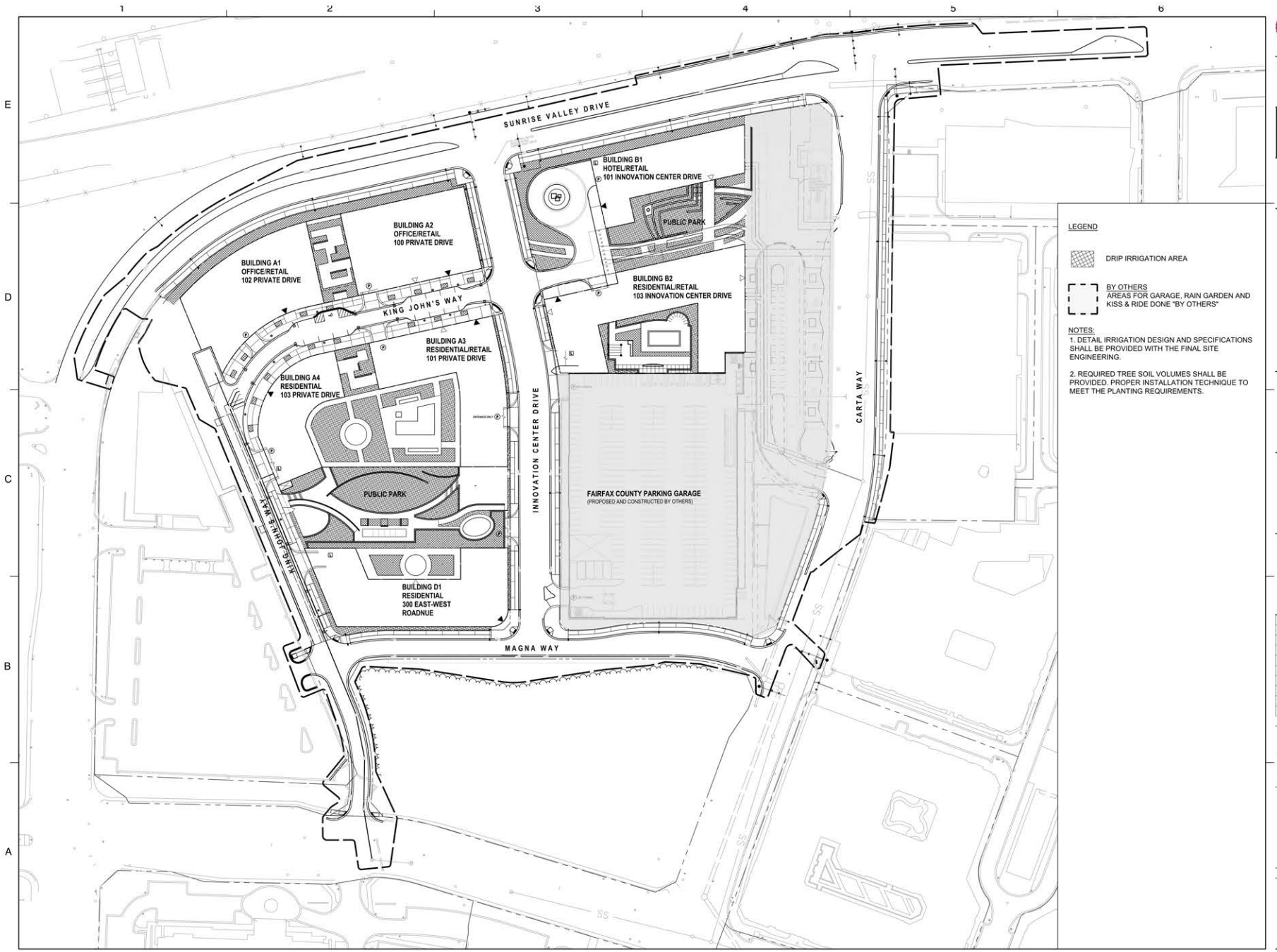
TITLE

SOIL VOLUME & PLANTING AREA

PROJECT NO.

L01.304

SECTION NO. L01 LANDSCAPE



LEGEND

DRIP IRRIGATION AREA

BY OTHERS
AREAS FOR GARAGE, RAIN GARDEN AND KISS & RIDE DONE "BY OTHERS"

NOTES:

1. DETAIL IRRIGATION DESIGN AND SPECIFICATIONS SHALL BE PROVIDED WITH THE FINAL SITE ENGINEERING.

2. REQUIRED TREE SOIL VOLUMES SHALL BE PROVIDED. PROPER INSTALLATION TECHNIQUE TO MEET THE PLANTING REQUIREMENTS.

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

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DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
JEFFREY K. KEELER
Lic. No. 001087
5-15
LANDSCAPE ARCHITECT

KEY PLAN

SCALE NORTH

SCALE IN FEET
1" = 60'
1 INCH

VCS-83

No.	DATE	BY	Description
1	07/2015	SC	2ND SUBMISSION

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DATE

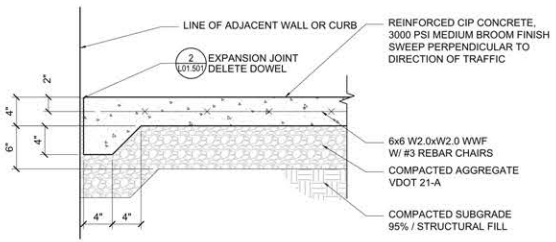
TITLE

CONCEPTUAL IRRIGATION PLAN

PROJECT NO.

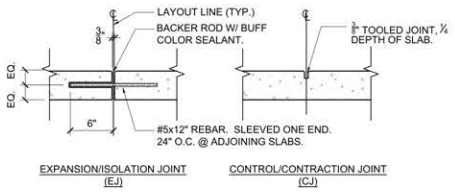
L01.401

SECTION NO. L01 LANDSCAPE



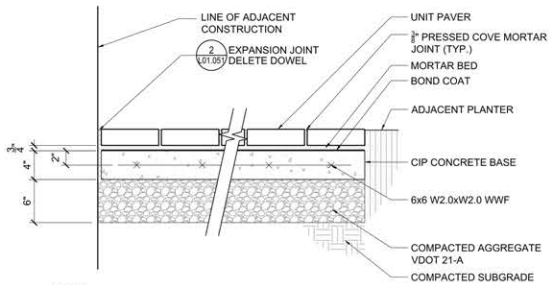
NOTES:
1. REFER TO 2/L05-2 FOR JOINT TYPES.

1 CONCRETE ON GRADE - PLAZA AREA
1 1/2" = 1'-0"



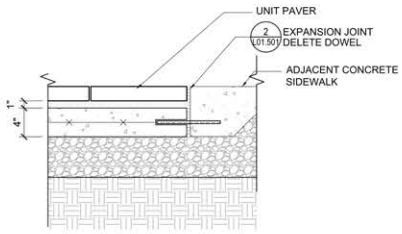
NOTES:
1. INSTALL CONTROL JOINTS, SEE PLANS FOR LOCATIONS.
2. INSTALL EXPANSION JOINTS, SEE PLANS FOR LOCATIONS, AND WHERE SLAB MEETS ANY ADJACENT STRUCTURE.
3. TOOL ALL EXPOSED EDGES W/ ¼" RADIUS.
4. RECESS EXPANSION JOINTS ¾" BELOW FINISH GRADE.
5. SAWCUT JOINTS ARE PROHIBITED.

2 CONCRETE JOINTING
1 1/2" = 1'-0"

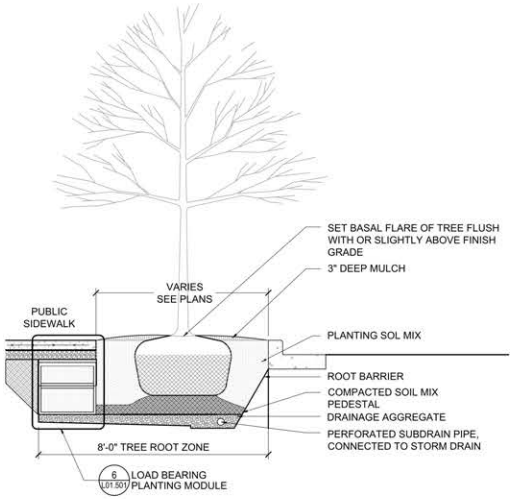


NOTES:
1. INSTALL JOINT MORTAR BY MEANS OF A GROUT BAG AND POINTING. FLOATING AND SCREEDING IS PROHIBITED.
2. INSTALL PAVER COURSES IN STRAIGHT LINES AND TRUE ARCS AND TANGENTS.
3. FOR ALL CUTS, REPLICATE EDGE CONDITION OF UNCUT UNIT.
4. INSTALL CUT UNITS MIN. 10 UNITS FROM ENDS OF COURSE. CUT UNITS LESS THAN ½ PAVER DIMENSION ARE PROHIBITED. REMOVE CUT UNIT AND 2 ADJACENT UNITS; INSTALL 3 EQUAL CUT UNITS.
5. FOR RADIAL COURSES, INSTALL SYMMETRICALLY CUT UNITS AT REGULAR INTERVALS. CUT EACH UNIT FOR SMALLER RADII AND AS DIRECTED BY ARCHITECT.

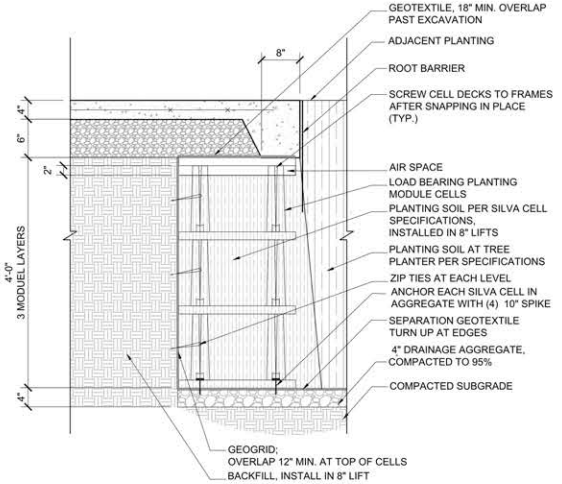
3 UNIT PAVING
1 1/2" = 1'-0"



4 UNIT PAVING @ CONCRETE SIDEWALK
1 1/2" = 1'-0"

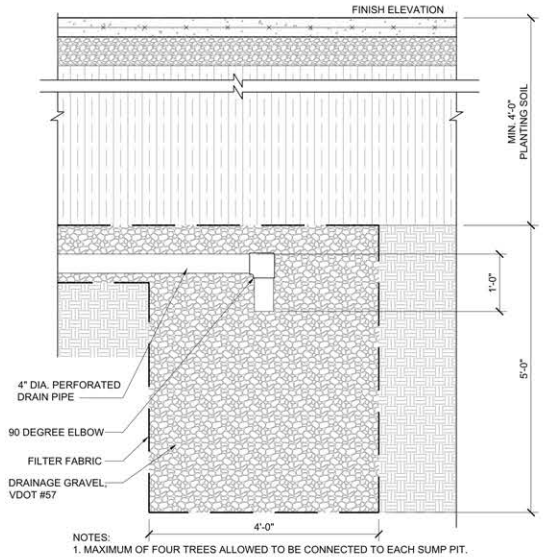


5 STREET TREE WITH LOAD BEARING MODULE
1/2" = 1'-0"



NOTES:
1. EDGE RESTRAINT: 2"x 2" GALVANIZED STEEL ANGLE, AFFIXED TO TOP OF SLAB W/ EXPANSION ANCHORS, MIN. 24" O.C.
2. SUBMIT SHOP DRAWING.

6 SIDEWALK ON LOAD BEARING PLANTING MODULE
1" = 1'-0"



NOTES:
1. MAXIMUM OF FOUR TREES ALLOWED TO BE CONNECTED TO EACH SUMP PIT.

7 SUMP PIT ALTERNATE DRAINAGE DETAIL
1" = 1'-0"

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

LSG LANDSCAPE ARCHITECTURE
1919 GALLOWS ROAD, SUITE 110
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703.821.2040

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INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
JEFFREY K. KEELER
Lic. No. 001087
10-15-15
LANDSCAPE ARCHITECT

KEY PLAN

SCALE NORTH

SCALE IN FEET
1" = AS SHOWN
1 INCH
VCS-83

No.	DATE	BY	Description
1	07/2015	SC	2ND SUBMISSION

REVISIONS

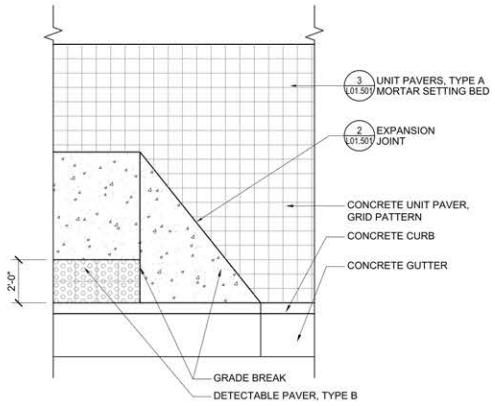
DRAWN BY
APPROVED BY
CHECKED BY
DATE

TITLE
CONSTRUCTION DETAILS

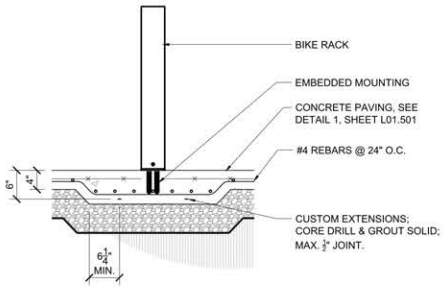
PROJECT NO.

L01.501

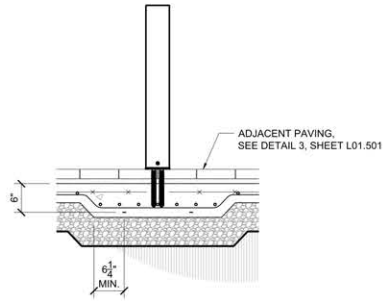
SECTION NO. L01 LANDSCAPE



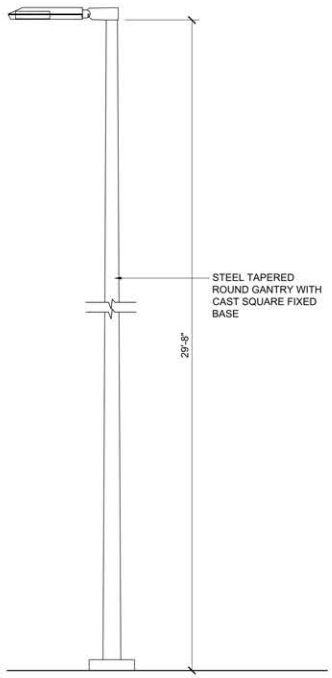
1 PAVING PATTERN - TYPICAL PLAN
3/8" = 1'-0"



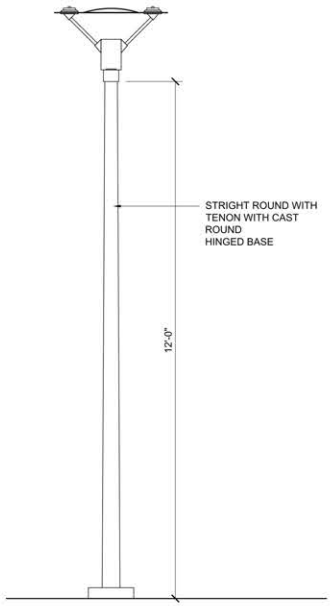
2 BICYCLE RACK ON CONCRETE PAVING
1" = 1'-0"



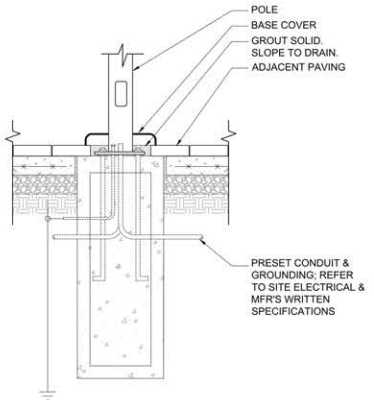
3 BICYCLE RACK ON UNIT PAVERS
1" = 1'-0"



4 PRIVATE STREET LIGHT
3/4" = 1'-0"



5 PEDESTRIAN LIGHT
3/4" = 1'-0"



NOTES:
1. THIS DETAIL IS FOR PAVEMENT CONDITIONS ADJACENT TO LIGHT POLE. FOOTING DESIGN BY OTHERS.
2. VERIFY FOOTING DIAMETER W/ LIGHT MRF. & STRUCTURAL REQUIREMENTS.
3. REFER TO SITE ELECTRICAL PLANS/SPECIFICATIONS & POLE MFR. FOR ADDITIONAL INFORMATION.

6 POLE LIGHT BASE
1" = 1'-0"

PRODUCT SCHEDULE

KEY	MATERIAL	MANUFACTURER	MODEL	FINISH	COLOR / TYPE	SIZE	REMARKS
TYPE A	UNIT PAVER	HANOVER ARCHITECTURAL PRODUCTS, 717-637-0500	PREST PAVERS	TUDOR	LIMESTONE GRAY	8" X 8" X 2"	
TYPE B	UNIT PAVER		DETECTABLE WARNING PAVERS	TUDOR	CHARCOAL	12" X 12" X 2"	
BIKE RACKS	CAST ALUMINUM	FORMS + SURFACES, 800-451-0410	CAPITAL BIKE RACK	POWDERCOATED	AKUMINUM TEXTURE		
ROOT BARRIER	POLYPROPYLENE	DEEPROOT, 415-781-9700	UB 24-2	N/A	N/A	24" X 24"	
LOAD BEARING MODULE			SILVA CELL	N/A	N/A	48" X 24" X 16"	REQ. SHOP DRAWINGS
STREET LIGHT	GALVANIZED STEEL	BEGA, 410-712-0239	9596LED	POLYESTER POWDER COAT	SILVER	29'-8" HEIGHT POLE	
PEDESTRIAN LIGHT			8309MH			12' HEIGHT POLE	

4 PRODUCT SCHEDULE

Dewberry

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DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
JANET K. KEELER
Lic. No. 001087
5-15-15
LANDSCAPE ARCHITECT

KEY PLAN

SCALE NORTH

SCALE IN FEET
1" = AS SHOWN
1 INCH
VCS-83

No.	DATE	BY	Description
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TITLE
CONSTRUCTION DETAILS

PROJECT NO.

L01.502

SECTION NO. L01 LANDSCAPE

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	TYPE	SPACING	REMARKS
VDOT RIGHT-OF-WAY TREES (NOT COUNTED IN CANOPY COVERAGE)							
QP	19	*Quercus phellos*	Willow Oak	3" cal.	B&B	SEE PLAN	10FT. LIMB-UP
PA	13	*Platanus acerifolia*	London Plane Tree				
AR	8	*Acer rubrum October Glory'*	October Glory Red Maple				
GB	15	*Ginkgo biloba*	Ginkgo				10FT. LIMB-UP. MALE ONLY

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	TYPE	SPACING	10-YR TREE COVER CANOPY S.F.	TREE CANOPY SUB-TOTAL S.F.	MULTIPLY	FINAL TREE CANOPY SUB-TOTAL S.F.
CATEGORY IV DECIDUOUS TREES										
QP	22	*Quercus phellos*	Willow Oak	3" cal.	B&B	SEE PLAN	250	5500	1.5 WILDLIFE	8250
TA	16	*Tilia americana*	American Linden					4000	1.5 AIR QUALITY	6000
ZS	17	*Zelkova serrata*	Japanese Zelkova					4250	1.5 AIR QUALITY	6375
LS	3	*Liquidambar styraciflua*	Sweetgum				125	375	-	375
UP	17	*Ulmus parvifolia*	Chinese Elm				250	4250	-	4250
										25250
CATEGORY III DECIDUOUS TREES										
BN	13	*Betula nigra*	River Birch	3" cal. MULTISTEM	B&B	SEE PLAN	175	2275	1.5 WILDLIFE	3412
NS	6	*Nyssa sylvatica*	Black Gum					1050	-	1050
KP	5	*Koelreuteria paniculata*	Golden Rain Tree					875	-	875
PY	27	*Prunus yeodoensis*	Yoshino Cherry					4725	-	4725
										10062
CATEGORY II DECIDUOUS TREES										
CC	29	*Cercis canadensis*	Eastern Redbud	3" cal. MULTISTEM	B&B	SEE PLAN	125	3625	-	3625
CK	42	*Cornus kousa* 'Stellar'	Kousa Dogwood Hybrid					5250	1.5 IMPROVED CULTIVARS	7875
MS	7	*Magnolia soulangiana*	Saucer Magnolia					875	-	875
MV	18	Magnolia virginiana	Sweetbay Magnolia					2250		2250
										14625
CATEGORY II EVERGREEN TREES										
IO	16	*Ilex opaca*	American Holly	10' ht.	B&B	SEE PLAN	125	2000	1.5 WILDLIFE	3000
PG	5	*Picea glauca*	White Spruce	10' ht.				625	-	625
										3625
IDENTIFY GROSS SITE AREA (SF)										639253
ADJUSTED GROSS SITE AREA (SF) SEE NOTE BELOW										**384473**
AREA OF 10-YEAR TREE CANOPY REQUIRED (10%)										**38447**
TOTAL TREE PROVIDED (SF)										53562
SHRUBS										
PZ		Prunus laurocerasus 'Zabelina'	zabelina cherry laurel	36" ht.	B&B	36" O.C.				
VDOT RIGHT-OF-WAY										
GROUND COVERS/PERENNIALS/ORNAMENTAL GRASSES										
LMB	5,320	Liriope muscari 'Big Blue'	Big blue lilyturf	GAL.	12" O.C.	CONT.				

NOTE:
1. AREA OF MAGNA WAY R/W DEDICATION: 7,070SF
2. AREA OF SUNRISE VALLEY R/W DEDICATION: 7,465SF
3. AREA NOT INCLUDED IN SITE PLAN: 240,245SF

TOTAL: 254,780SF

1 PLANT SCHEDULE

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
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LSG LANDSCAPE ARCHITECTURE
1934 GALLOWS ROAD, SUITE 110
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703.821.2041

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INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

KEY PLAN

SCALE NORTH

SCALE IN FEET
1" =
1 INCH

VCS-83

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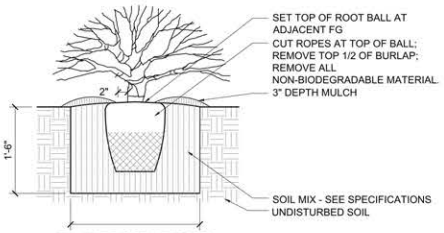
TITLE
PLANTING SCHEDULE

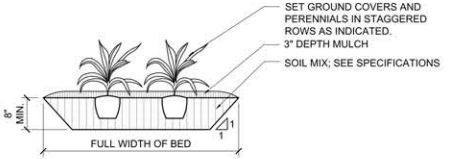
PROJECT NO.
L01.601

SECTION NO. L01 LANDSCAPE

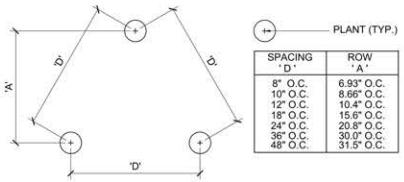


NOTES:
1. FOR CONTAINER-GROWN SHRUBS, REMOVE CONTAINER WITHOUT CRACKING ROOT BALL AND MAKE (3) 1" DEEP VERTICAL CUTS, EQUALLY SPACED ABOUT ROOT BALL.

1 SHRUB PLANTING
1" = 1'-0"

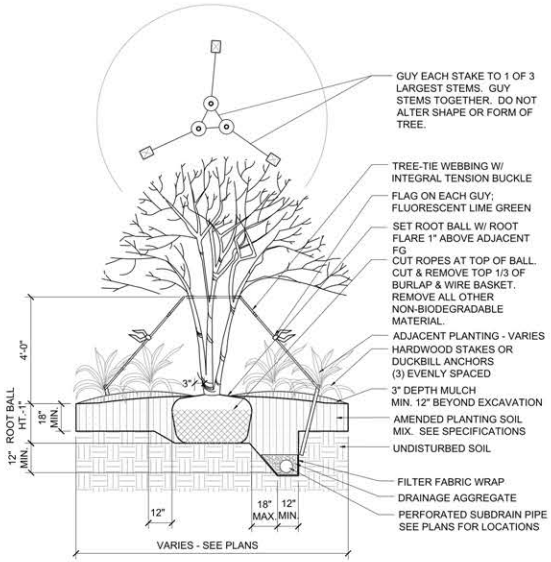


2 GROUND COVER PLANTING
1" = 1'-0"

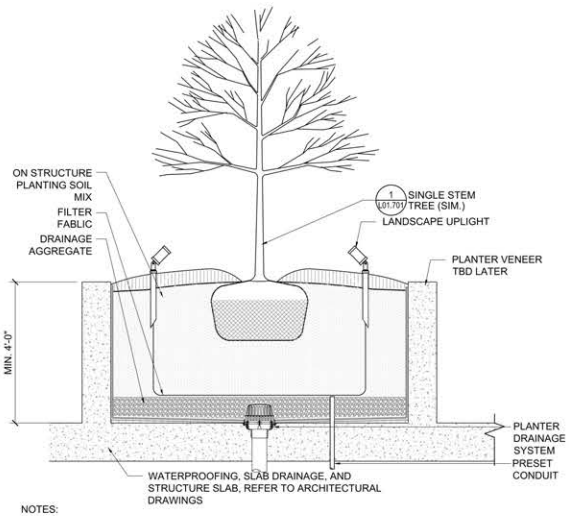


SPACING 'D'	ROW 'A'
8" O.C.	6.93" O.C.
10" O.C.	8.66" O.C.
12" O.C.	10.4" O.C.
18" O.C.	15.6" O.C.
24" O.C.	20.8" O.C.
36" O.C.	30.0" O.C.
48" O.C.	31.5" O.C.

3 GROUND COVER SPACING
1" = 1'-0"

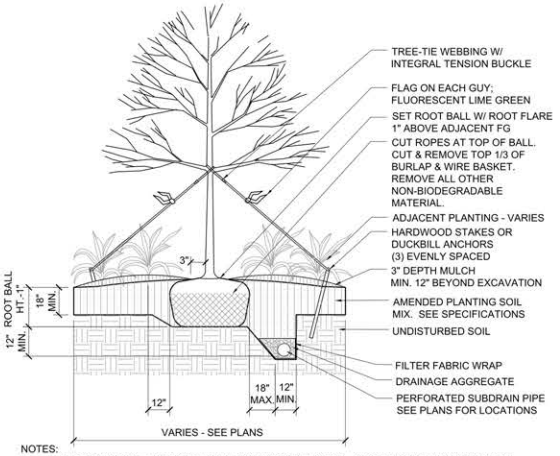


4 MULTI-STEM TREE PLANTING
1" = 1'-0"



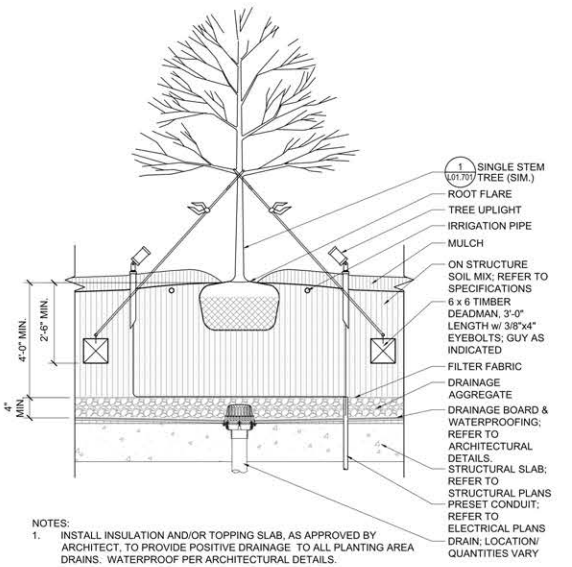
NOTES:
1. INSTALL INSULATION AND/OR TOPPING SLAB, AS APPROVED BY ARCHITECT, TO PROVIDE POSITIVE DRAINAGE TO ALL PLANTING AREA DRAINS. WATERPROOF PER ARCHITECTURAL DETAILS.
2. IRRIGATION SYSTEM SHALL BE PROVIDED FOR RAISED PLANTER
3. SEE CIVIL FOR ADJACENT CONDITION.

5 RAISED PLANTER ON STRUCTURE
1" = 1'-0"



NOTES:
1. FOR TREES MORE THAN 6" CALIPER, PROVIDE CABLE GUYS. PROVIDE TREE-TIE WEBBING AT CONTACT POINTS WITH TRUNK. PROVIDE (1) TURNBUCKLE PER GUY. ALLOW ENOUGH SLACK TO AVOID RIGID RESTRAINT OF TREE.

6 SINGLE-STEM TREE PLANTING
1" = 1'-0"



NOTES:
1. INSTALL INSULATION AND/OR TOPPING SLAB, AS APPROVED BY ARCHITECT, TO PROVIDE POSITIVE DRAINAGE TO ALL PLANTING AREA DRAINS. WATERPROOF PER ARCHITECTURAL DETAILS.

7 TREE PLANTING - ON STRUCTURE
1" = 1'-0"

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

LSG LANDSCAPE ARCHITECTURE
1910 GALLOWS ROAD, SUITE 110
VIENNA, VIRGINIA 22182
703.821.2040

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

KEY PLAN

SCALE NORTH

SCALE IN FEET
1" = AS SHOWN
1 INCH

VCS-83

No.	DATE	BY	Description
1	07/2015	SC	2ND SUBMISSION

REVISIONS

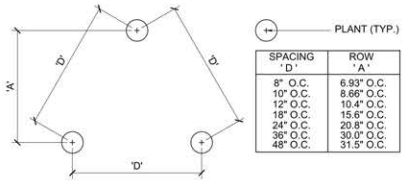
DRAWN BY
APPROVED BY
CHECKED BY
DATE

TITLE
PLANTING DETAILS

PROJECT NO.

L01.701

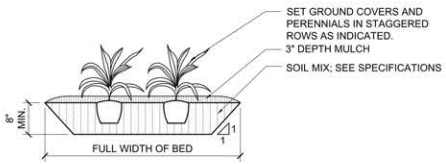
SECTION NO. L01 LANDSCAPE



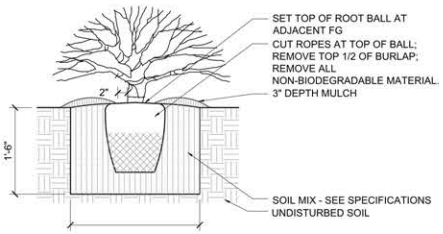
PLANT (TYP.)

SPACING 'D'	ROW 'A'
8" O.C.	6.93" O.C.
10" O.C.	8.66" O.C.
12" O.C.	10.4" O.C.
18" O.C.	15.6" O.C.
24" O.C.	20.8" O.C.
36" O.C.	30.0" O.C.
48" O.C.	31.5" O.C.

3 GROUND COVER SPACING
1" = 1'-0"

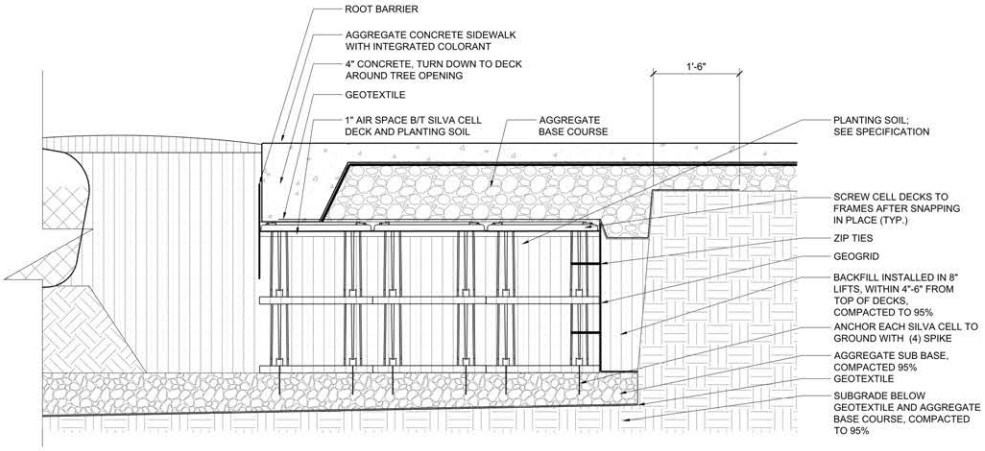


2 GROUND COVER PLANTING
1" = 1'-0"



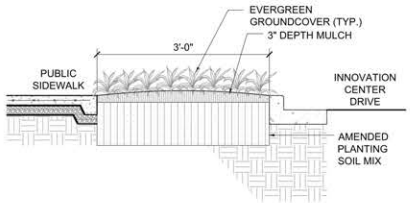
NOTES:
1. FOR CONTAINER-GROWN SHRUBS, REMOVE CONTAINER WITHOUT CRACKING ROOT BALL AND MAKE (3) 1" DEEP VERTICAL CUTS, EQUALLY SPACED ABOUT ROOT BALL.

1 SHRUB PLANTING
1" = 1'-0"

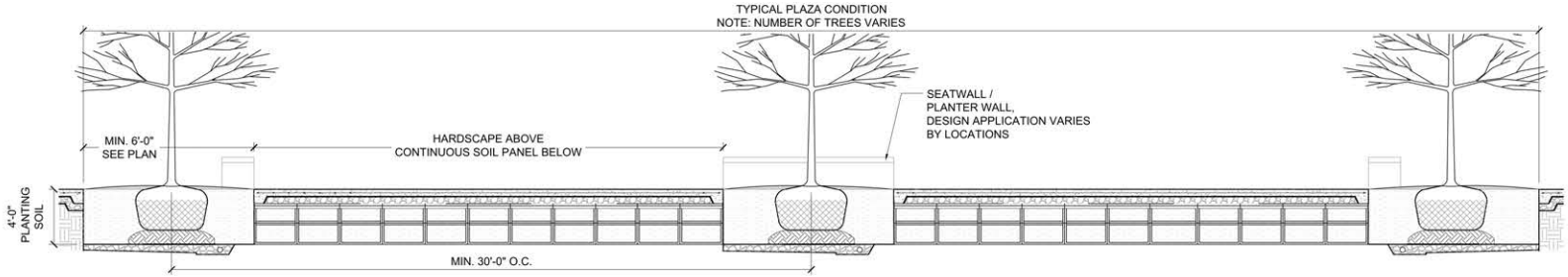


NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATION.

5 LOAD BEARING PLANTING MODULE
1" = 1'-0"



4 LANDSCAPE STRIP PLANTING
1" = 1'-0"



6 TYPICAL PLAZA TREE PIT
3/8" = 1'-0"

NOTE:
PLAZA HARDSCAPE CONDITION VARIES BY DESIGN IMPLEMENTATION, SEE PLAN FOR SITE CONDITIONS

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

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1818 GALLOWS ROAD, SUITE 110
VIENNA, VIRGINIA 22182
703.821.2000

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INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
JEFFREY K. KEELER
Lic. No. 001087
15
LANDSCAPE ARCHITECT

KEY PLAN

SCALE NORTH

SCALE IN FEET
1" = AS SHOWN
1 INCH
VCS-83

No.	DATE	BY	Description
1	07/2015	SC	2ND SUBMISSION

REVISIONS

DRAWN BY
APPROVED BY
CHECKED BY
DATE

TITLE
PLANTING DETAILS

PROJECT NO.

L01.702

SECTION NO. L01 LANDSCAPE

SECTION 32 93 00 - EXTERIOR PLANTS

PART 1 - GENERAL

1.1 SUBMITTALS
A. Product Data: For each type of product indicated.
B. Samples for Verification: For each of the following:
1. 1 lb. each of topsoil, soil mix(es), and organic compost materials, each in a labeled, clear, heavy-duty, sealed bag or rigid container.
C. Product Certificates: For each type of manufactured product, signed by product manufacturer, and complying with the following:
1. Manufacturer's certified analysis for standard products.
2. Analysis of other materials by a recognized laboratory made according to methods established by the Association of Official Analytical Chemists, where applicable.
D. Sources: Submit list of proposed sources and photos for pre-qualification review for all plant materials, including certificates of inspection of plant materials, as may be required by Federal, State, or other authorities to accompany shipments, and photographs of all proposed plant materials.
E. Qualification Data: For landscape Installer.
F. Material Test Reports: For existing surface soil, imported topsoil, and planting soil mixes, and prior to installation.
G. Percolation Test: For proposed new planting soil or existing stockpiled planting soil, and prior to installation, certifying that proposed soil has a proper water absorption rate.
H. Planting Schedule: Indicating anticipated planting dates for exterior plants.
I. Maintenance Instructions: Recommended procedures to be established by Owner for maintenance during a calendar year.

1.2 QUALITY ASSURANCE
A. Installer Qualifications: A qualified landscape installer of no less than 5 years experience on local projects of similar size and scope whose work has resulted in successful establishment of exterior plants.
1. Installer's Field Supervision: Require Installer to maintain an experienced full-time supervisor on Project site when exterior planting is in progress.
B. Soil-Testing Laboratory Qualifications: An independent laboratory, recognized by the State Department of Agriculture, with the experience and capability to conduct the testing indicated and that specializes in types of tests to be performed.
C. Soil Analyses: Furnish soil analyses of existing topsoil, imported topsoil, and native soil, as applicable, by a qualified soil-testing laboratory, stating percentages of organic matter; gradation of sand, silt, & clay content; cation exchange capacity; sodium absorption ratio; deleterious material; pH; and mineral and plant-nutrient content of topsoil.
1. Report suitability of topsoil for plant growth. State recommended quantities of nitrogen, phosphorus, potassium nutrients, & soil amendments to be added to produce a satisfactory topsoil.
2. Prior to mixing, prepare sample mix ratios for analysis, as above, for all planting soil mixes to be used on the site.
3. The following additional tests are required when the following conditions exist:
a. Sandy Soils: Boron test: 1-3 pounds/acre acceptable.
b. Hardwood forest soils or history of continuous hardwood bark mulching: Manganese test: 3-50 pounds/acre accpetable.
c. Seaside and bay side: Sodium test: 0-20 pounds/acre acceptable.
d. Imported soils, planting mixes: Mechanical analysis, including particle size analysis of sand fraction: Per soil analysis recommendation.
D. Percolation Test: Submit for each 200 CY of proposed new planting soil, or existing stockpiled planting soil, certifying that proposed soil has a proper water absorption rate.
1. Dig a rectangular pit 12" square by 18" deep and rapidly pour in water to a depth of 6 inches. Note time required for water to be completely absorbed.
2. Proposed planting soils having a water absorption rate faster than 18 minutes, or slower than 30 minutes are not acceptable.
E. Provide quality, size, genus, species, and variety of exterior plants indicated, complying with applicable requirements in ANSI Z60.1, "American Standard for Nursery Stock."
F. Tree and Shrub Measurements: Measure according to ANSI Z60.1 with branches and trunks or canes in their normal position. Do not prune to obtain required sizes. Take caliper measurements 6 inches (150 mm) above ground for trees up to 4-inch (100-mm) caliper size, and 12 inches (300 mm) above ground for larger sizes. Measure main body of tree or shrub for height and spread; do not measure branches or roots tip-to-tip. Measure following pruning, when pruning is required. When ranges are specified, provide minimum 50% of each respective plant size/type at the maximum size.
G. Observation: Architect may observe trees and shrubs either at place of growth or at site before planting for compliance with requirements for genus, species, variety, size, and quality. Architect retains right to observe trees and shrubs further for size and condition of balls and root systems, insects, injuries, and latent defects and to reject unsatisfactory or defective material at any time during progress of work. Remove rejected trees or shrubs immediately from Project site.
H. Source Limitations: All material of a specific size and cultivar shall be grown at the same nursery and in the same lot.
1. Notify Architect of sources of planting materials minimum 21 days in advance planned of delivery to site.
2. Trees may be obtained from up to three different locations, each within approximately 75 miles of the Washington, D.C. metropolitan area, unless otherwise approved by the Architect.
I. Pre-qualification of Materials:
1. Take photos at places of growth for pre-qualification review. Provide minimum 21 days prior to tree-tagging trips.
a. Provide representational photographs of each plant material type and size.
b. Provide additional photographs of each type and size of tree as follows:
1) Include a surveyor's rod or equivalent for scale.
2) Provide clear views of several tree canopies to demonstrate representational form, vigor, and health.
3) Provide clear views of several trunks to demonstrate representational form, health, and absence of scars and damages.
c. Architect may reject individual plants or suppliers on the basis of photographs and/or other conditions deemed pertinent by the Architect.
d. Do not dig or otherwise reserve other material prior to receiving Architect's approval of photo pre-qualification.
1) The Contractor shall be responsible for all costs related to material dug and/or reserved prior to the above.
J. Tagging: Following pre-qualification of materials, Architect will select and tag trees at places of growth prior to being prepared for transplanting.
1. Contractor shall verify adequate numbers of acceptable trees are available, as indicated in the List of Sources, for Architect's consideration prior to the tagging visit.
a. Contractor shall pay Architect's time & costs for tagging trip(s) if sufficient quantities & acceptable material, as defined by the Architect, are not available.
2. Architect may reject previously pre-qualified individual plants at any time that no longer meet specification for reasons of damage, infestation, mineral deficiency, chlorosis, necrosis, circling roots and/or unsatisfactory subsequent growth.
3. Do not dig or otherwise reserve trees prior to Architect's tagging.
a. The Contractor shall be responsible for all costs related to material dug and/or reserved prior to the above.

1.3 DELIVERY, STORAGE, AND HANDLING
A. Protect planting soil mix stockpiles after mixing from erosion, saturation, and weed growth.
B. Deliver exterior plants freshly dug. Immediately pack root system in wet straw, hay, or other suitable material to keep root system moist until planting.
C. Do not prune trees and shrubs before delivery, except as approved by Architect. Protect bark, branches, and root systems from sun scald, drying, sweating, whipping, and other handling and tying damage. Do not bend or bind-tie trees or shrubs in such a manner as to destroy their natural shape. Provide protective covering of exterior plants during delivery. Do not drop exterior plants during delivery.
D. Handle planting stock by root ball with a tree strap only. Handling by any other means including, but not limited to, jaws, chains, bars, trunk lift is prohibited.
E. Deliver exterior plants after preparations for planting have been completed and install immediately. Place trees upright immediately upon unloading; do not lay trees down at any time. If planting is delayed more than six hours after delivery, set exterior plants in shade, protect from weather and mechanical damage, and keep roots moist.
1. Heel-in bare-root stock. Soak roots in water for two hours if dried out.
2. Set balled stock on ground and cover ball with soil, peat moss, sawdust, or other acceptable material.
3. Do not remove container-grown stock from containers before time of planting.
4. Water root systems of exterior plants stored on-site with a fine-mist spray. Water as often as necessary to maintain root systems in a moist condition.

1.4 COORDINATION
A. Planting Restrictions: Plant during one of the following periods.
1. Deciduous Trees and Shrubs: March 1 - May 30 or September 15 - December 1. (Oak, tupelo and beech shall be planted only in the spring).
2. Evergreen Trees, Shrubs, Groundcover and Perennials: March 1 - May 15 or September 15 - November 15.
B. Weather Limitations: Proceed with planting only when existing and forecasted weather conditions permit.
C. Coordination with Lawns: Plant trees and shrubs after finish grades are established and before planting lawns, unless otherwise acceptable to Architect.
1. When planting trees and shrubs after lawns, protect lawn areas and promptly repair damage caused by planting operations.

1.6 WARRANTY
A. Special Warranty: Warrant exterior plants, for the warranty period indicated, against defects including death and unsatisfactory growth, except for defects resulting from lack of adequate maintenance, neglect, or abuse by Owner, or incidents that are beyond Contractor's control.
1. Warranty Period: One year from date of Project Turnover.
2. Contractor shall be responsible for complete and proper planting supports, installation layout, watering, fertilizing, and pest and pathogen control during warranty period.
3. Remove dead exterior plants immediately. Replace immediately unless required to plant in the succeeding planting season.
4. Replace exterior plants that are more than 25 percent dead or in an unhealthy condition at end of warranty period.
5. A limit of 1 replacement of each exterior plant will be required for accepted plant material, except for losses or replacements due to failure to comply with requirements.

1.6 MAINTENANCE
A. Maintain by pruning, cultivating, watering, weeding, fertilizing, mulching, tightening and repairing stakes and guy supports, and resetting to proper grades or vertical position, as required to establish healthy, viable plantings. Treat as required to keep free of insects and disease. Monitor for boring insects and signs of stress. Begin maintenance immediately after each area is planted and continue for not less than the following periods:
1. Maintenance Period: One year from date of Project Turnover.
B. Watering, General: Ensure that adequate moisture is provided to all plants.
1. Water thoroughly at time of planting.
2. Provide water weekly for a period of 1 month following planting. Provide a minimum of 1 inch of precipitation per week.
3. Provide water bi-weekly for 2 additional months.
4. If an automatic irrigation system is installed, adjust to provide adequate moisture to plant materials.
D. Fertilizer, General: Fertilize 60 days after Project Turnover.

PART 2 - PRODUCTS

2.1 TREE AND SHRUB MATERIAL
A. Furnish nursery-grown material complying with ANSI Z60.1, with healthy, well-developed root systems developed by transplanting or root pruning. Provide stock grown under climatic conditions similar to those in the locality of the Project for at least 2 years and grown in soil similar to the native soil into which the stock will be planted. Provide well-shaped, fully branched, exceptionally heavy, symmetrical, healthy, vigorous stock of uniform size and free of disease, insects, eggs, larvae, and defects such as knots, sun scald, injuries, abrasions, and disfigurement.
1. Trees with damaged, crooked, or multiple leaders; tight vertical branches where bark is squeezed between two branches or between branch and trunk; crossing trunks; cut-off limbs more than 3/4 inch (19 mm) in diameter; cracked root balls; stem-girdling roots are prohibited.
2. Trees with abrasion of the bark, sunscalds, disfiguring knots, or fresh cuts more than 1 inch in diameter, which have not completely callused, will be rejected.
3. Plants that do not possess an acceptable balance of height & spread and/or height & caliper, as defined by Architect, shall be rejected.
4. Collected Stock: Do not use plants harvested from the wild, native stands, an established landscape planting, or not grown in a nursery.
B. Provide trees & shrubs of sizes & grades complying with ANSI Z60.1. Larger sizes may be used if acceptable to Architect, with a proportionate increase in size of root balls.

2.2 SHADE AND FLOWERING TREES
A. Shade Trees: Single-stem trees with straight trunk, well-balanced crown, intact leader, of height & caliper indicated, complying with ANSI Z60.1.
1. Branching Height: One-half of tree height.
B. Small Upright Trees: Branched or pruned naturally according to species & type, with relationship of caliper, height, & branching according to ANSI Z60.1; as follows:
1. Stem Form: Single stem.
C. Multi-stem Trees: Branched or pruned naturally according to species & type, with relationship of caliper, height, & branching according to ANSI Z60.1; stem form as follows:
1. Stem Form: Clump.

2.3 DECIDUOUS SHRUBS
A. Form and Size: Deciduous shrubs with not less than the minimum number of canes required by & measured according to ANSI Z60.1 for type, shape, and height of shrub.

2.4 CONIFEROUS EVERGREENS
A. Form and Size: Specimen-quality, exceptionally heavy, tightly knit, symmetrically shaped coniferous evergreens and the following grade:
1. Heavy Grade: " XXX."

2.5 BROADLEAF EVERGREENS
A. Form and Size: Normal-quality, well-balanced, broadleaf evergreens, of type, height, spread, and shape required, complying with ANSI Z60.1.

2.6 GROUND COVER PLANTS
A. Ground Cover: Provide ground cover of species indicated, established and well rooted, and complying with ANSI Z60.1.

2.7 PLANTS
A. Annuals: Provide healthy, disease-free plants of species and variety shown or listed. Provide only plants that are acclimated to outdoor conditions before delivery and that are in bud, but not yet in bloom.
B. Perennials: Provide healthy, field-grown plants from a commercial nursery, of species and variety indicated, and complying with requirements in ANSI Z60.1.
C. Vines: Provide vines of species indicated complying with requirements in ANSI Z60.1 as follows:
1. Two-year plants with heavy, well-branched tops, with not less than 3 runners 18 inches (450 mm) or more in length, and with a vigorous well-developed root system.
D. Ornamental Grasses
1. Perennial grasses as required by and measured according to ANSI Z60.1 for type, shape, and height.

2.8 TOPSOIL
A. Topsoil: ASTM D 5268, pH range of 5.5 to 7, a minimum of 4 percent organic material content; free of stones 1 inch (25 mm) or larger in any dimension and other extraneous materials harmful to plant growth.
1. Topsoil Source: Reuse existing in-place surface and/or surface soil stockpiled on-site. Verify suitability of stockpiled surface soil to produce topsoil. Clean surface soil of roots, plants, sod, stones, clay lumps, and other extraneous materials harmful to plant growth.
a. Supplement with imported or manufactured topsoil when quantities are insufficient. Obtain topsoil from naturally well-drained construction or mining sites where topsoil occurs at least 4 inches (100 mm) deep; do not obtain from bogs or marshes.

2.9 INORGANIC SOIL AMENDMENTS
A. Lime: ASTM C 602, agricultural limestone containing a minimum 80 percent calcium carbonate equivalent and as follows:
1. Class: Class O, with a minimum 95 percent passing through No. 8 (2.36-mm) sieve and a minimum 55 percent passing through No. 60 (0.25-mm) sieve.
2. Provide lime in form of dolomitic limestone.
B. Agricultural Gypsum: Finely ground, 95% or more passing 1/4" sieve, containing a minimum of 90 percent calcium sulfate, derived from natural mined gypsum, hydrite and anhydrite. Recycled gypsum meeting this specification above is acceptable.
C. Sand: Clean, washed, natural or manufactured, free of toxic materials.

2.10 ORGANIC SOIL AMENDMENTS
A. Compost: Well-composted, stable, weed-free organic matter, pH range of 5.5 to 8; moisture content 35 to 55 percent by weight; 100 percent passing 1/2-inch sieve; soluble salt content of 5 to 10 decisiemens/m; not exceeding 0.5 percent inert contaminants and free of substances toxic to plantings; and as follows:
1. Organic Matter Content: 50 to 60 percent of dry weight.
2. Feedstock: Agricultural, food, or industrial residuals; biosolids; yard trimmings; or source-separated or compostable mixed solid waste.
3. Composted Sewage Sludge: Commercially available, high quality, environmentally safe, sterile, EPA-approved soil product for agronomic use; composed of lime-stabilized or naturally dewatered biosolids, combined with wood chips according to EPA standards, aerated and composted for 21 days, including 3 days at 131 degrees Fahrenheit, and screened through a ¾ inch screen. The product shall exhibit the following characteristics:
a. pH: 5.6-7.7; total ntrogen (N)1.2% available
Phosphoric Acid (P2O5)1% soluble
Potash (K2O) 0.25%
Micro-nutrient Content (Fe, Mn, S, Zn, Ni, Cu, B)
Low Cadmium Content
EPA Approval Pathogen Destruction
B. Wood Derivatives: Decomposed, nitrogen-treated sawdust, ground bark, or wood waste; of uniform texture, free of chips, stones, sticks, soil, or toxic materials.
C. Manure: Well-rotted, unleached, stable or cattle manure containing not more than 25 percent by volume of straw, sawdust, or other bedding materials; free of toxic substances, stones, sticks, soil, weed seed, and material harmful to plant growth.
D. Mycorrihizal Fungal Transplant Inoculant: Apply in accordance with manufacturer's recommended application rates.

2.11 FERTILIZER
A. Bonemeal: Commercial, raw or steamed, finely ground; a minimum of 4 percent nitrogen and 10 percent phosphoric acid.
B. Superphosphate: Commercial, phosphate mixture, soluble; a minimum of 20 percent available phosphoric acid.
C. Commercial Fertilizer: Commercial-grade complete fertilizer of neutral character, consisting of fast- and slow-release nitrogen, 50 percent derived from natural organic sources of urea formaldehyde, phosphorous, and potassium in the following composition:
1. Composition:
a. At time of planting: Nitrogen, phosphorous, potassium, and minor elements in amounts recommended in soil reports from a qualified soil-testing agency.
b. During Maintenance period: Commercial fertilizer for ornamental trees, shrubs and ground cover; 10-6-4; with full range of minor elements.
D. Slow-Release Fertilizer: Granular or pelleted fertilizer consisting of 50 percent water-insoluble nitrogen, phosphorus, and potassium in the following composition:
1. Composition: Nitrogen, phosphorous, and potassium in amounts recommended in soil reports from a qualified soil-testing agency.

2.12 MULCHES
A. Shredded hardwood: Free from deleterious materials and suitable as a top dressing of trees and shrubs.

2.13 STAKES AND GUYS
A. Upright and Guy Stakes: Rough-sawn, sound, new hardwood, redwood, or pressure-preservative-treated softwood, free of knots, holes, cross grain, and other defects, 2 by 2 inches (50 by 50 mm) by length indicated, pointed at one end.
B. Guy and Tie Wire: ASTM A 641/A 641M, Class 1, galvanized-steel wire, 2-strand, twisted, 0.106 inch (2.7 mm) in diameter.
C. Guy Cable: 5-strand, 3/16-inch- (4.8-mm-) diameter, galvanized-steel cable, with zinc-coated turnbuckles, a minimum of 3 inches (75 mm) long, with two 3/8-inch (10-mm) galvanized eyebolts.
D. Hose Chafing Guard: Reinforced rubber or plastic hose at least 1/2 inch (13 mm) in diameter, black, cut to lengths required to protect tree trunks from damage.
E. Flags: Standard surveyor's plastic flagging tape, white, 6 inches (150 mm) long.

2.14 MISCELLANEOUS PRODUCTS
A. Antidessicant: Water-insoluble emulsion, permeable moisture retarder, film forming, for trees and shrubs. Mix according to manufacturer's written instructions.

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703-821-2065

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

KEY PLAN

SCALE NORTH

SCALE IN FEET
1" = 1 INCH

VCS-83

No.	DATE	BY	Description
1	07/2015	SC	2ND SUBMISSION

REVISIONS

DRAWN BY
APPROVED BY
CHECKED BY
DATE

TITLE
PLANTING SPECIFICATIONS

PROJECT NO.
L01.703

SECTION NO. L01 LANDSCAPE

2.15 PLANTING SOIL MIX

A. BLEND PLANTING SOIL MIXES MECHANICALLY USING A COMMERCIAL MIXER OR SHREDDER. UNIFORMLY INCORPORATE INGREDIENTS. DO NOT ALLOW MIX TO BECOME CONTAMINATED WITH FOREIGN MATERIAL OR SATURATED.

B. PLANTING SOIL MIX: MIX TOPSOIL WITH THE FOLLOWING SOIL AMENDMENTS AND FERTILIZERS IN THE FOLLOWING QUANTITIES:

1. TREE PITS IN PAVED AREAS:
   a. 1/10 COMPOSTED SEWAGE SLUDGE.
   b. 1/10 pine bark fines.
   c. 1/5 coarse sand.
   d. 3/5 topsoil.
   e. Amendments required in soil analysis report.
2. Planting Beds:
   a. 1/3 topsoil.
   b. 1/3 excavated soil.
   c. 1/6 compost.
   d. 1/6 coarse sand.
   e. Amendments required in soil analysis report.
3. Container Planters on Grade:
   a. 1/3 topsoil.
   b. 1/3 coarse sand.
   c. 1/3 compost.
   d. Amendments required in soil analysis report.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine areas to receive exterior plants for compliance with requirements and conditions affecting acceptable installation and performance. Proceed with installation only after unsatisfactory conditions have been corrected. Commencement of Work constitutes acceptance of conditions and resulting affects and potential affects on plant health. Contractor shall be responsible for correcting, at his/her expense, all unsatisfactory and defective work.

3.2 PREPARATION

A. Notify Architect minimum 10 days prior to soil installation. Do not proceed with installation of soil materials until obtaining Architect's approval of Submittals including, but not limited to, soil analyses and percolation tests.

B. Protect structures, utilities, sidewalks, pavements, and other facilities, and lawns and existing exterior plants from damage caused by planting operations.

C. Provide erosion-control measures to prevent erosion & discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways.

D. Lay out individual tree and shrub locations and areas for multiple exterior plantings. Stake locations, outline areas, adjust locations when requested, and obtain Architect's acceptance of layout before planting. Provide minimum notice of 10 days. Make minor adjustments as directed.

E. Apply antidesiccant to trees and shrubs using power spray to provide an adequate film over trunks, branches, stems, twigs, and foliage to protect during handling.

1. If deciduous trees or shrubs are moved in full leaf, spray with antidessicant at nursery before moving and again two weeks after planting.

F. Exercise care during planting operations over structure and/or subsurface drainage to avoid damage to adjacent work. The Contractor is responsible for the cost of repairs of all damages caused by his/her forces. Should any damage occur during planting, immediately notify the Architect.

3.3 PLANTING BED ESTABLISHMENT

A. Loosen subgrade of planting beds to a minimum depth of 8 inches (200 mm). Remove stones larger than 1 inch (25 mm) in any dimension and sticks, roots, rubbish, and other extraneous matter and legally dispose of them off Owner's property.

1. Apply fertilizer directly to subgrade before loosening.
2. Apply Transplant Inoculant.
3. Thoroughly blend planting soil mix off-site before spreading or spread topsoil, apply soil amendments & fertilizer on surface, thoroughly blend planting soil mix.
   a. Delay mixing fertilizer with planting soil if planting will not proceed within a few days.
   b. Mix lime with dry soil before mixing fertilizer.
4. Spread planting soil mix to a depth of 4 inches (100 mm) but not less than required to meet finish grades after natural settlement. Do not spread if planting soil or subgrade is frozen, muddy, or excessively wet.
   a. Spread approximately one-half the thickness of planting soil mix over loosened subgrade. Mix thoroughly into top 4 inches (100 mm) of subgrade. Spread remainder of planting soil mix.

B. Finish Grading: Grade beds to a smooth, uniform surface plane with loose, uniformly fine texture. Roll & rake, remove ridges, fill depressions to meet finish grades.

C. Restore planting beds if eroded or otherwise disturbed after finish grading and before planting.

D. Bio-retention planting soil mix to be installed in accordance with Civil Plans and approved storm water management plans. Coordinate with General Contractor.

1. Incorporate soil amendments are required by topsoil analysis report.
2. Proceed with remaining elements of Plant Bed Establishment as above.

3.4 TREE AND SHRUB EXCAVATION

A. Prepare continuous tree and shrub planting beds that encompass multiple tree and shrub planting locations. Except for tree pits, set Limits of Planting Bed no closer 10 feet from any tree planting location and no closer than 30 inches from any shrub planting location. For tree pits, site Limits at the edge of adjacent paving or structure. Turn and amend existing soil within the Limits to a minimum depth of 18 inches throughout.

1. Planting in and/or near a Tree Protection Zone:
   a. Refer to Division 02 Section Tree Protection and Trimming for excavation restrictions and tree protection requirements.
   b. Reduce Limits of Planting Bed to 3 times the radius of each rootball.
2. Obstructions: Notify Architect if unexpected rock or obstructions detrimental to trees or shrubs are encountered in excavations.
   a. Hardpan Layer: Drill 6-inch- (150-mm-) diameter holes 5 feet (1.5 m) on center into free-draining strata or to a depth of 10 feet (3 m), whichever is less, and backfill with free-draining material.

B. Excavation:

1. Excavate circular pits with sides sloped inward. Trim base leaving center area raised slightly to support root ball and assist in drainage. Do not further disturb base. Scarify sides of plant pit smeared or smoothed during excavation.
   a. Excavate approximately one and one half times as wide as ball diameter for balled and burlapped, container-grown, and fabric bag-grown stock.
   b. Excavate at least 6 inches (150 mm) wider than root spread and deep enough to accommodate vertical roots for bare-root stock.
2. If subdrainage pipe is shown or required under planted areas, excavate to top of porous backfill. Do not damage fabric barrier(s).
3. Subsoil removed from excavations may be used as backfill.

C. Drainage: Notify Architect if subsoil conditions evidence unexpected water seepage or retention in tree or shrub pits.

D. Percolation test: Where no planting subdrainage system is indicated, immediately following rough grading and prior to planting, identify a typical planting location and excavate a tree pit. Fill with water to a depth of 12 inches. Report length of time for water to percolate completely into the soil. Within 6 hours, in the presence of the Architect, again fill the pit with water to a depth of 12 inches. If water does not completely percolate within 9 hours, submit a proposal for drainage system or soil penetrant. Do not proceed with planting until a determination is made by the Architect.

3.5 TREE AND SHRUB PLANTING

A. Set balled and burlapped stock plumb and in center of excavation with top of root ball 1 inch (25 mm) above adjacent finish grades.

1. To locate top of root collar, remove loose soil deposited on top of root ball during digging process.
2. Cut away and remove burlap and wire baskets from top third of root balls, but do not remove from under root balls. Remove pallets, if any, before setting.
3. Do not use planting stock if root ball is cracked or broken before or during planting operation.
4. Place planting soil mix around root ball in layers, tamping to settle mix and eliminate voids and air pockets. When pit is approximately one-half backfilled, water thoroughly before placing remainder of backfill. Repeat watering until no more water is absorbed. Water again after placing and tamping final layer of planting soil mix.

B. Set container-grown stock plumb and in center of pit or trench with top of root ball 1 inch (25 mm) above adjacent finish grades.

1. Carefully remove root ball from container without damaging root ball or plant.
2. Make 4 vertical cuts, 1 inch deep, evenly spaced about the root ball with a clean, sharp utility knife.
3. Place planting soil mix around root ball in layers, tamping to settle mix and eliminate voids and air pockets. When pit is approximately one-half backfilled, water thoroughly before placing remainder of backfill. Repeat watering until no more water is absorbed. Water again after placing and tamping final layer of planting soil mix.

C. Set fabric bag-grown stock plumb and in center of pit or trench with top of root ball 1 inch (25 mm) above adjacent finish grades.

1. Carefully remove root ball from fabric bag without damaging root ball or plant. Do not use stock if root ball is cracked or broken before or during planting operation.
2. Place planting soil mix around root ball in layers, tamping to settle mix and eliminate voids and air pockets. When pit is approximately one-half backfilled, water thoroughly before placing remainder of backfill. Repeat watering until no more water is absorbed. Water again after placing and tamping final layer of planting soil mix.

D. Set and support bare-root stock in center of pit or trench with root collar or trunk flare flush with adjacent finish grade. Spread roots without tangling or turning toward surface, and carefully work backfill around roots by hand. Puddle with water until backfill layers are completely saturated. Plumb before backfilling, and maintain plumb while working backfill around roots and placing layers above roots. Tamp final layer of backfill. Remove injured roots by cutting cleanly; do not break.

E. Organic Mulching: Apply 3-inch (75-mm) average thickness of organic mulch extending 12 inches (300 mm) beyond edge of planting pit or trench. Do not place mulch within 3 inches (75 mm) of trunks or stems.

3.6 TREE AND SHRUB PRUNING

A. Prune, thin, and shape trees and shrubs according to standard horticultural practice. Prune trees to retain required height and spread. Remove no more than 10 percent of top growth unless otherwise indicated by Architect, do not cut tree leaders; remove only injured or dead branches from flowering trees. Prune shrubs to retain natural character. Shrub sizes indicated are sizes after pruning.

3.7 GUYING AND STAKING

A. Upright Staking and Tying: Stake trees of 2- through 5-inch (50- through 125-mm) caliper. Stake trees of less than 2-inch (50-mm) caliper only as required to prevent wind tip-out. Use a minimum of 2 stakes of length required to penetrate at least 18 inches (450 mm) below bottom of backfilled excavation and to extend at least 72 inches (1830 mm) above grade. Set vertical stakes and space to avoid penetrating root balls or root masses. Support trees with two strands of tie wire encased in hose sections at contact points with tree trunk. Allow enough slack to avoid rigid restraint of tree. Use the number of stakes as follows:

1. Use 2 stakes for trees up to 12 feet (3.6 m) high and 2-1/2 inches (63 mm) or less in caliper; 3 stakes for trees less than 14 feet (4.2 m) high and up to 4 inches (100 mm) in caliper. Space stakes equally around trees.

B. Guying and Staking: Guy and stake trees exceeding 14 feet (4.2 m) in height and more than 3 inches (75 mm) in caliper, unless otherwise indicated. Securely attach no fewer than 3 guys to stakes 30 inches (760 mm) long, driven to grade.

1. For trees more than 6 inches (150 mm) in caliper, anchor guys to pressure-preservative-treated deadmen 8 inches (200 mm) in diameter and 48 inches (1200 mm) long buried at least 36 inches (900 mm) below grade. Provide turnbuckles for each guy wire and tighten securely.
2. Attach flags to each guy wire, 30 inches (760 mm) above finish grade.

3.8 PLANTERS

A. Planters: Place a layer of gravel at least 4 inches (100 mm) thick in bottom of planters, cover with nonwoven fabric, and fill with planter soil mix. Place soil in lightly compacted layers to an elevation of 1-1/2 inches (38 mm) below top of planter, allowing natural settlement.

3.9 GROUND COVER AND PLANT PLANTING

A. Dig holes large enough to allow spreading of roots, and backfill with planting soil. Work soil around roots to eliminate air pockets.

B. Water thoroughly after planting, taking care not to cover plant crowns with wet soil.

C. Protect plants from hot sun and wind; remove protection if plants show evidence of recovery from transplanting shock.

3.10 PLANTING BED MULCHING

A. Apply 3-inch (75-mm) average thickness of organic mulch, and finish level with adjacent finish grades. Do not place mulch against plant stems.

3.12 CLEANUP AND PROTECTION

A. Keep adjacent pavings and construction clean and work area in an orderly condition.

B. Protect exterior plants from damage. Maintain protection during installation and maintenance periods. Treat, repair, or replace damaged exterior planting.

3.13 DISPOSAL

A. Disposal: Remove surplus soil and waste material, including excess subsoil, unsuitable soil, trash, and debris, and legally dispose of them off Owner's property.

END OF SECTION 32 93 00

***NOTE:

PRIOR TO INSTALLATION OF PLANTS TO MEET THE REQUIREMENTS OF THE APPROVED LANDSCAPE PLAN, THE CONTRACTOR/DEVELOPER SHALL COORDINATE A PRE-INSTALLATION MEETING ON SITE WITH THE LANDSCAPE CONTRACTOR, LANDSCAPE ARCHITECT, PROJECT ARBORIST AND A REPRESENTATIVE FROM UFMD. ANY PROPOSED CHANGES TO THE LOCATION OF PLANTING, SIZE OF TREES/SHRUBS, AND ANY PROPOSED SUBSTITUTIONS FOR SPECIES SPECIFIED ON THE APPROVED PLAN SHALL BE REVIEWED AT THIS TIME AND MUST BE APPROVED PRIOR TO PLANTING. THE INSTALLATION OF LANDSCAPE PLANTS NOT SPECIFIED ON THE APPROVED PLAN, OR IN LOCATIONS THAT DIFFER FROM THAT SHOWN ON THE APPROVED LANDSCAPE PLAN AND NOT PREVIOUSLY REVIEWED AND APPROVED BY UFMD MAY REQUIRE A REVISION TO THE LANDSCAPE PLAN OR REMOVAL AND REPLACEMENT WITH APPROVED LANDSCAPE PLANTS PRIOR TO BOND RELEASE. UFMD SHALL BE CONTACTED A MINIMUM OF THREE DAYS PRIOR TO THE MEETING ON THE SITE. (PFM 12-0705)

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

LSG LANDSCAPE ARCHITECTURE
1919 GALLOWS ROAD, SUITE 110
VIENNA, VIRGINIA 22182
703-821-2065

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

KEY PLAN

SCALE NORTH

SCALE IN FEET
1" = 1 INCH

VCS-83

No.	DATE	BY	Description
1	07/2015	SC	2ND SUBMISSION

REVISIONS

DRAWN BY
APPROVED BY
CHECKED BY
DATE

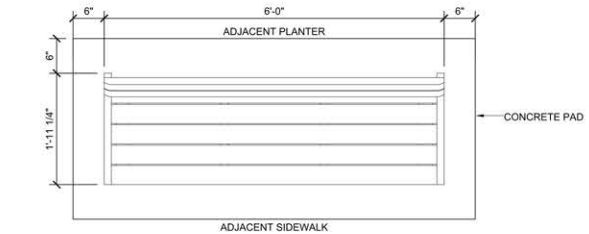
TITLE

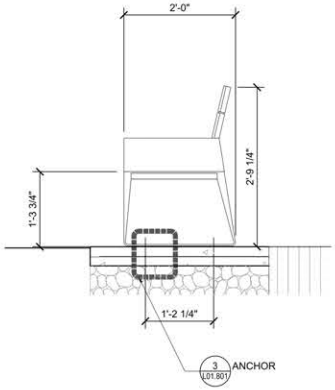
PLANTING SPECIFICATIONS

PROJECT NO.

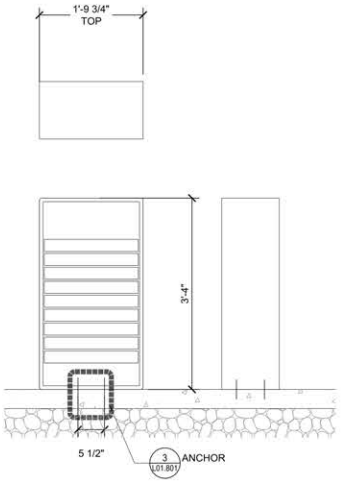
L01.704

SECTION NO. L01 LANDSCAPE

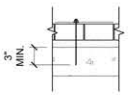




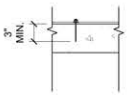
2 BENCH ON GRADE
1" = 1'-0"



1 LITTER RECEPTACLE
1" = 1'-0"



UNIT PAVING



CONCRETE PAVING

NOTE:
1. ALL HARDWARE TO BE STAINLESS STEEL. PAINT TO MATCH LEG.
2. PROVIDE (1) ANCHOR & WASHER PER ANCHOR HOLE, AS REQUIRED BY BENCH AND TRASH RECEPTACLE MFR; DROP-IN ANCHOR OR SLEEVE ANCHOR W/ ACORN NUT.

3 ANCHOR
1 1/2" = 1'-0"

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

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1919 GALLOWS ROAD, SUITE 110
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703-821-2065

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INNOVATION CENTER SOUTH
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

KEY PLAN

SCALE NORTH

SCALE IN FEET
1" = AS SHOWN
1 INCH
VCS-83

No.	DATE	BY	Description
1	07/2015	SC	2ND SUBMISSION

REVISIONS

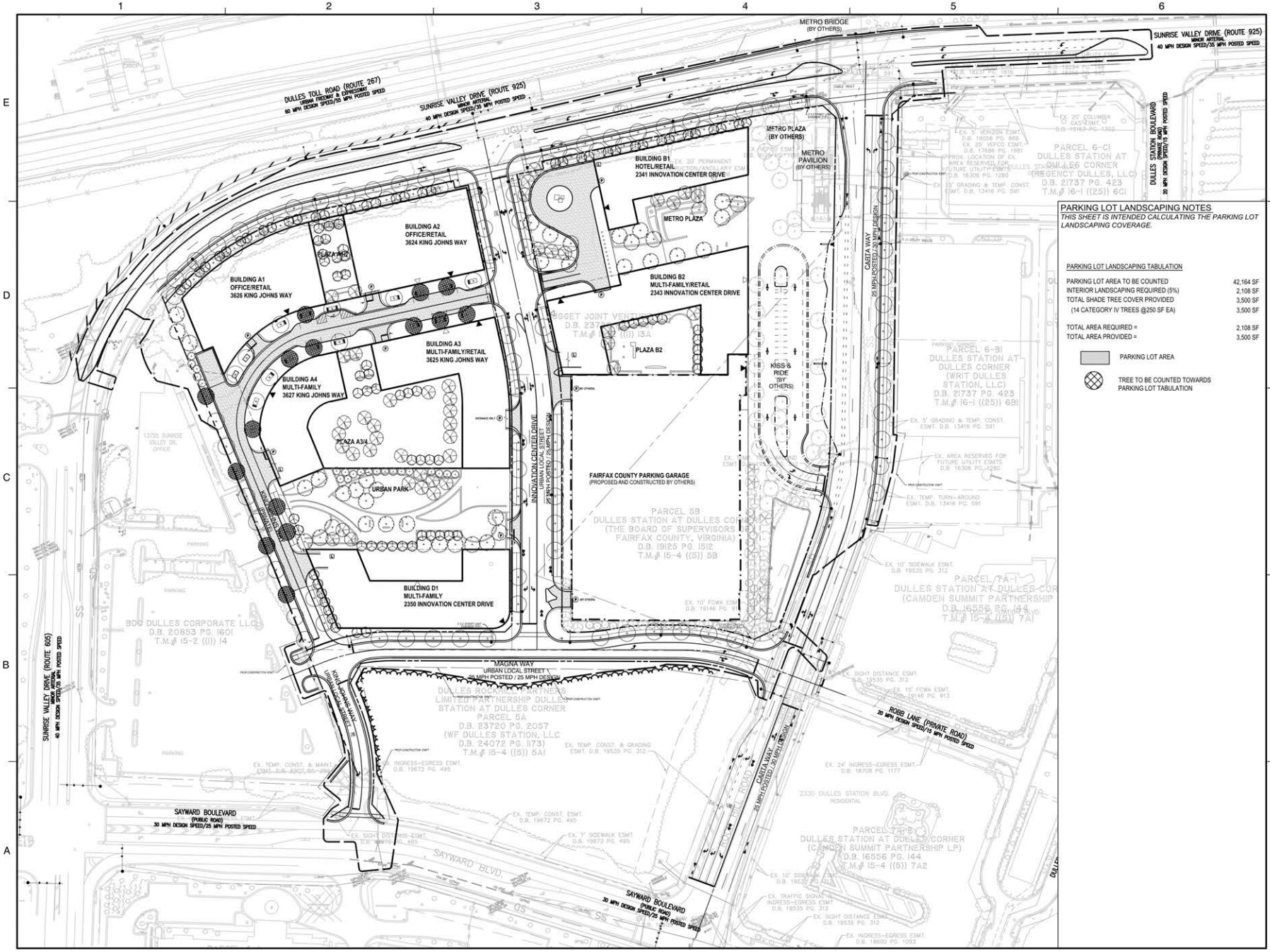
DRAWN BY
APPROVED BY
CHECKED BY
DATE

TITLE
SITE FURNISHING

PROJECT NO.

L01.801

SECTION NO. L01 LANDSCAPE



PARKING LOT LANDSCAPING NOTES

THIS SHEET IS INTENDED CALCULATING THE PARKING LOT LANDSCAPING COVERAGE.

PARKING LOT LANDSCAPING TABULATION

PARKING LOT AREA TO BE COUNTED	42,164 SF
INTERIOR LANDSCAPING REQUIRED (5%)	2,108 SF
TOTAL SHADE TREE COVER PROVIDED	3,500 SF
(14 CATEGORY IV TREES @250 SF EA)	3,500 SF
TOTAL AREA REQUIRED =	2,108 SF
TOTAL AREA PROVIDED =	3,500 SF

PARKING LOT AREA

TREE TO BE COUNTED TOWARDS PARKING LOT TABULATION

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

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INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CODY A. PENNETTI
Lic. No. 0405800
12/31/15
PROFESSIONAL ENGINEER

KEY PLAN

SCALE NORTH

SCALE IN FEET
1" = 60'
1 INCH

VCS-83

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MLJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE
PARKING LOT LANDSCAPE

SP NO. #6848-SP-014

L01.901

SECTION NO. L01-LANDSCAPE

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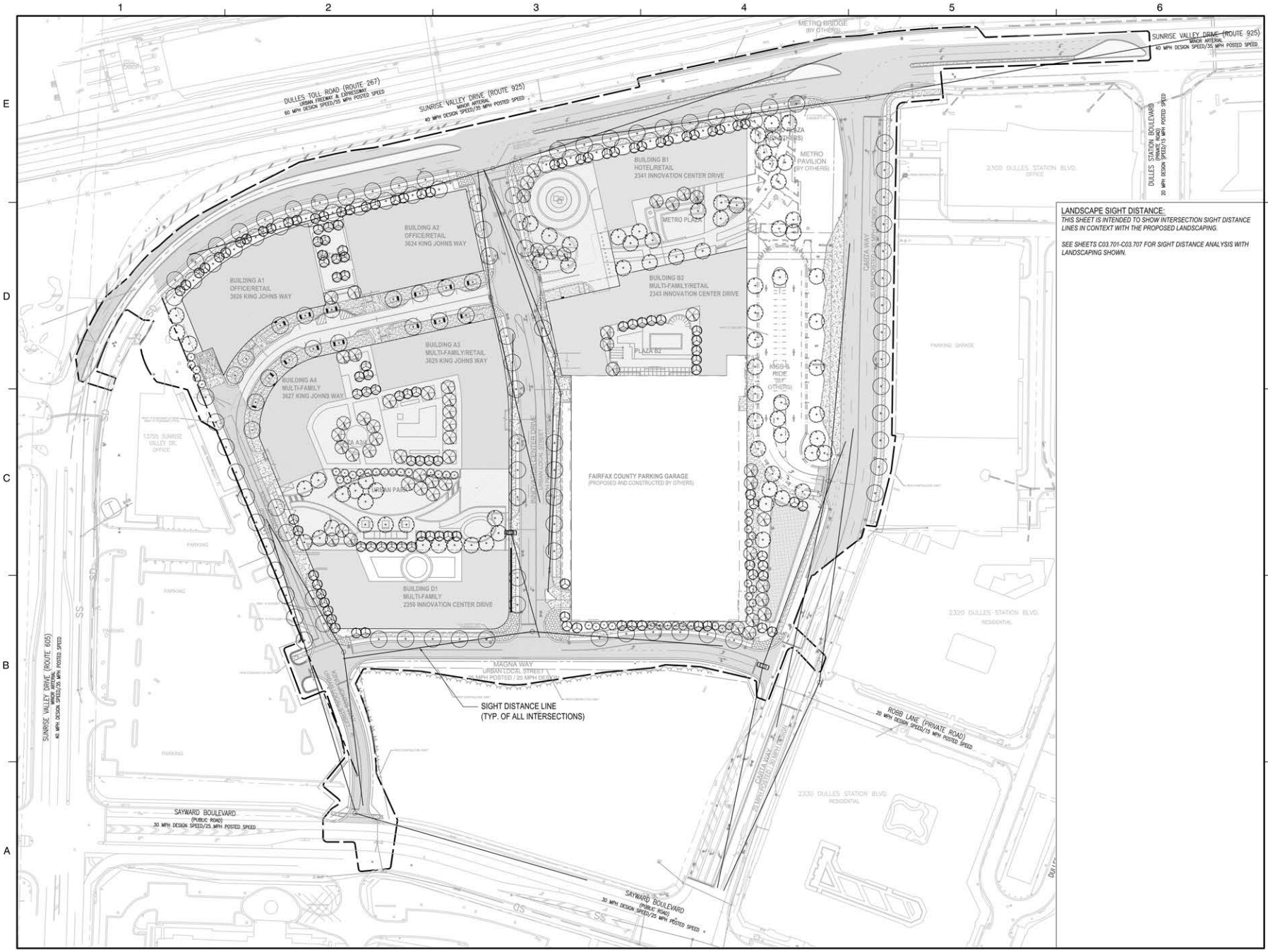

LANDSCAPE SIGHT DISTANCE:

THIS SHEET IS INTENDED TO SHOW INTERSECTION SIGHT DISTANCE LINES IN CONTEXT WITH THE PROPOSED LANDSCAPING.

SEE SHEETS C03.701-C03.707 FOR SIGHT DISTANCE ANALYSIS WITH LANDSCAPING SHOWN.

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

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INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CODY A. PENNETTI
Lic. No. 046360
10/5/15
PROFESSIONAL ENGINEER

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No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MLJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE

LANDSCAPE SIGHT DISTANCE ANALYSIS

SP NO. #6848-SP-014

L01.902

SECTION NO. L01-LANDSCAPE

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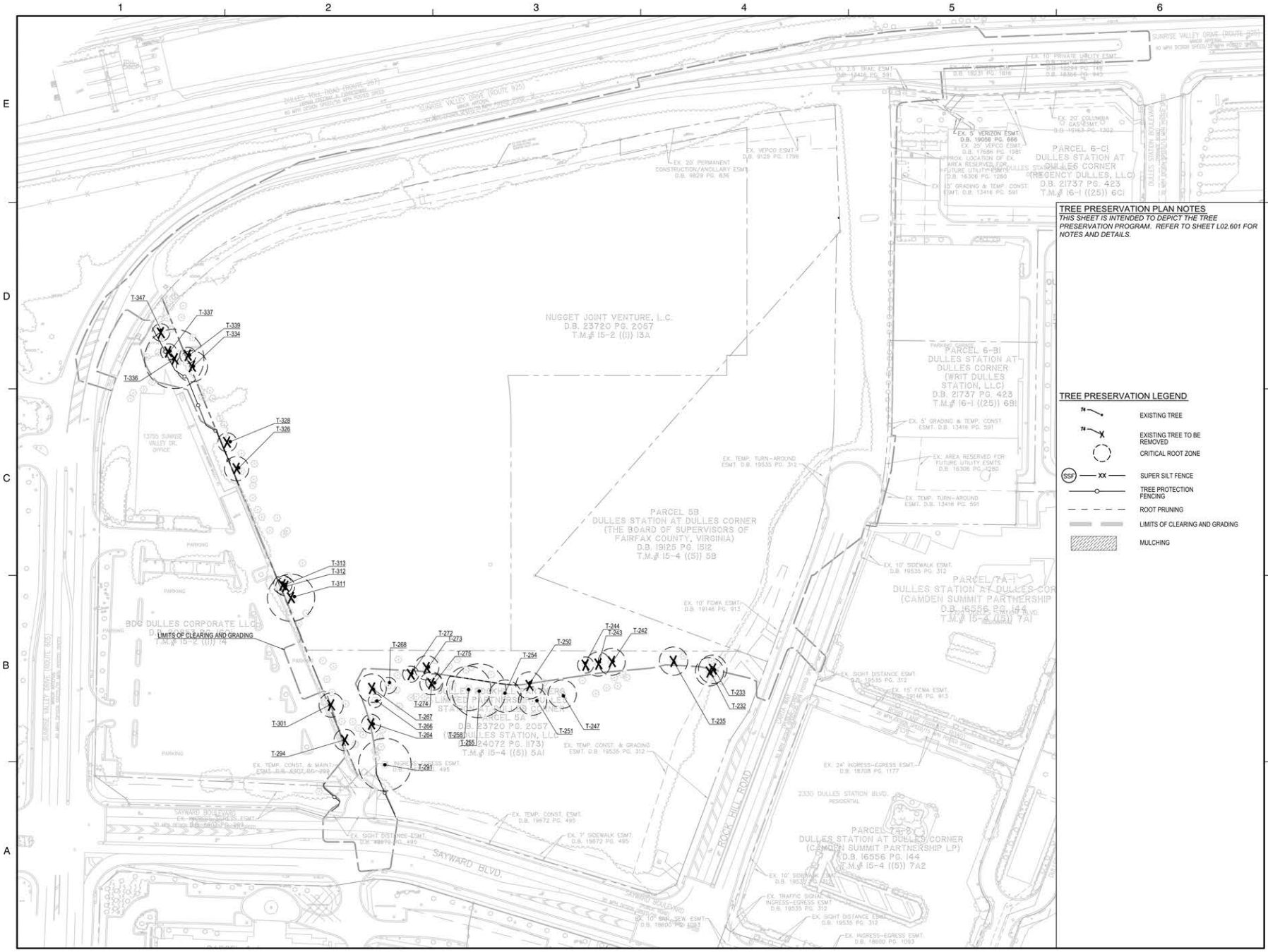

TREE PRESERVATION PLAN NOTES

THIS SHEET IS INTENDED TO DEPICT THE TREE PRESERVATION PROGRAM. REFER TO SHEET L02.601 FOR NOTES AND DETAILS.

TREE PRESERVATION LEGEND

- EXISTING TREE
- EXISTING TREE TO BE REMOVED
- CRITICAL ROOT ZONE
- SSF — XX — SUPER SILT FENCE
- TREE PROTECTION FENCING
- ROOT PRUNING
- LIMITS OF CLEARING AND GRADING
- MULCHING

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

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INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CODY A. PENNETTI
Lic. No. 045890
PROFESSIONAL ENGINEER

KEY PLAN

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No.	DATE	BY	Description

REVISIONS

DRAWN BY	MLJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE

TREE PRESERVATION PLAN

SP NO. #6848-SP-014

L02.101

(RGP SHEET 18)

SECTION NO. L02-TREE PRESEVATION

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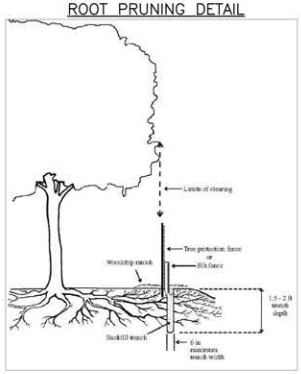
Fri, Oct 02 2015 - 9:43:00am

ROOT PRUNING DETAIL



TREE PRESERVATION AREA

KEEP OUT

OFF LIMITS TO CONSTRUCTION EQUIPMENT, MATERIALS, AND WORKERS

NO TOXIC MATERIALS SHALL BE STORED WITHIN 100 FEET OF THE TREE SAVE AREA

(CONTACT NAME AND PHONE NUMBERS)

PENALTIES FOR VIOLATIONS STRICTLY ENFORCED

SPECIFICATIONS:

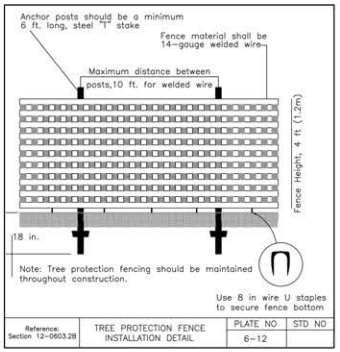
- DIMENSIONS:	LENGTH=17 INCHES WIDTH=11 INCHES	
- BACKGROUND/TEXT COLOR	RED/WHITE OR YELLOW/BLACK	
- MINIMUM LETTER SIZE:	LARGE TEXT SMALL TEXT	= 0.60" = 0.28"

- LETTERS ARE ALWAYS TO BE IN CAPITALS AND ALWAYS BOLD.

- TREE PRESERVATION AREA SIGN TO BE POSTED IN ENGLISH AND SPANISH

TREE PRESERVATION SIGN DETAIL

TREE PROTECTION FENCE DETAIL



Reference: Section 12-0603.2B	TREE PROTECTION FENCE INSTALLATION DETAIL	PLATE NO	STD NO
		6-12	

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

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INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CODY A. PENNETT
LIC. NO. 045260
PROFESSIONAL ENGINEER
05-10-16

KEY PLAN

SCALE NORTH

SCALE IN FEET
1" =
1 INCH

No.	DATE	BY	Description

REVISIONS

DRAWN BY	MLJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE

TREE PRESERVATION DETAILS

SP NO. #6848-SP-014

L02.601
(RGP SHEET 19)
SECTION NO. L02-TREE PRESEVATION

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Fri, Oct 02 2015 - 9:43:06am

TREE PRESERVATION NARRATIVE:

PRE- TO POST-CONSTRUCTION TREE PRESERVATION NOTES:

PRE-CONSTRUCTION REQUIREMENTS/TREATMENTS:

1. THE SERVICES OF A CERTIFIED ARBORIST SHALL BE OBTAINED TO ENSURE THE PROPER IMPLEMENTATION OF THE TREE PRESERVATION PLAN AND CONFORMANCE WITH THE TREE PRESERVATION PROFFERS, AND IS HERETO REFERRED TO AS THE 'PROJECT ARBORIST'.

2. ALL WORK SHALL MEET OR EXCEED INDUSTRY STANDARDS AS MOST RECENTLY PUBLISHED BY THE INTERNATIONAL SOCIETY OF ARBORICULTURE (ISA), THE AMERICAN NATIONAL STANDARDS INSTITUTE (ISA), OR THE TREE CARE INDUSTRY ASSOCIATION (TCIA). IF THESE STANDARDS DO NOT COVER A PRESCRIBED TREATMENT, THE WORK SHALL MEET THE STANDARDS APPROVED BY URBAN FOREST MANAGEMENT (UFM).

3. THE PROJECT ARBORIST OR LANDSCAPE ARCHITECT SHALL HAVE THE LIMITS OR CLEARING AND GRADING IN THE AREAS OF TREE PRESERVATION MARKED WITH A CONTINUOUS LINE OF FLAGGING PRIOR TO A WALK-THROUGH MEETING WITH UFM TO HELD PRIOR TO ANY CLEARING AND GRADING. DURING THE TREE PRESERVATION AREA WALK-THROUGH MEETING, THE ARBORIST OR LANDSCAPE ARCHITECT SHALL WALK SUCH LIMITS OF CLEARING AND GRADING WITH A UFM REPRESENTATIVE TO DETERMINE WHERE ADJUSTMENTS TO THE CLEARING LIMITS CAN BE MADE TO INCREASE THE AREA OF TREE PRESERVATION AND/OR INCREASE THE SURVIVABILITY OF THE TREES AT THE EDGE OF THE LIMITS OF CLEARING AND GRADING, AND SUCH ADJUSTMENT SHALL BE IMPLEMENTED; PROVIDED, HOWEVER, THAT NO ADJUSTMENT SHALL BE REQUIRED THAT WOULD AFFECT THE DESIGN AND/OR LOCATION OF THE PROPOSED IMPROVEMENTS.

4. THE LIMITS OF CLEARING AND GRADING SHALL BE CONFORMED TO AS SHOWN ON THE CDP/FDP, SUBJECT TO ALLOWANCES FOR THE INSTALLATION OF FENCES, UTILITIES, AND/OR TRAILS, WHICH SHALL BE LOCATED IN THE LEAST DISRUPTIVE MANNER NECESSARY AS DETERMINED BY THE UFMD.

5. ROOT PRUNING SHALL BE COMPLETED IN A SINGLE OPERATION WHERE INDICATED ON THIS PLAN. TRENCHES SHALL BE A MINIMUM 18 INCHES DEEP AND BACKFILLED IMMEDIATELY. IF TREE PROTECTION/SILT FENCE IS TO BE INSTALLED AT THE LIMITS, THE ROOT PRUNING TRENCH MAY BE USED FOR TREE PROTECTION/SILT FENCE INSTALLATION. THE ROOT PRUNING SHALL BE CONDUCTED WITH THE SUPERVISION OF A CERTIFIED ARBORIST, AND UFM SHALL BE INFORMED WHEN ALL ROOT PRUNING AND TREE PROTECTION FENCE INSTALLATION IS COMPLETE.

6. TREE PROTECTION/SILT FENCES SHALL BE INSTALLED AFTER THE TREE PRESERVATION WALK-THROUGH WITH UFM WHERE INDICATED ON THIS PLAN. THE INSTALLATION OF ALL TREE PROTECTION FENCING SHALL BE PERFORMED UNDER THE DIRECT SUPERVISION OF THE PROJECT ARBORIST, AND SHALL BE ACCOMPLISHED IN A MANNER THAT DOES NOT HARM EXISITING VEGETATION TO BE PRESERVED. AT LEAST TEN (10) DAYS PRIOR TO THE COMMENCEMENT OF ANY CLEARING AND GRADING ACTIVITIES ADJACENT TO THE TREE PRESERVATION DEVICES, THE UFMD SHALL BE NOTIFIED AND GIVEN THE OPPORTUNITY TO INSPECT THE SITE TO ENSURE THAT ALL TREE PROTECTION DEVICES HAVE BEEN CORRECTLY INSTALLED. IF IT IS DETERMINED THAT THE FENCING HAS NOT BEEN INSTALLED CORRECTLY, GRADING OR CONSTRUCTION ACTIVITIES SHALL OCCUR UNTIL THE FENCING IS INSTALLED CORRECTLY, AS DETERMINED BY THE UFMD. (SEE TREE PROTECTION FENCE DETAIL)

7. WOOD CHIPS OR OTHER SUITABLE MATERIAL SHALL BE PLACED IN THE TREE PRESERVATION AREAS 3 TO 4 INCHES DEEP WITHIN 5 FEET OF AREAS DISTURBED BY TRENCHING. ANY VARIETY OF HARDWOOD OR PINE MULCH CAN BE USED IN ADDITION TO ANY MULCH THAT HAS BEEN CHIPPED ONSITE FROM UNSAVED TREES OR DEAD LIMBS. ALL MULCH MUST BE PLACE BY HAND.

8. TREES LOCATED OUTSIDE THE LIMITS OF CLEARING AND WITHIN AREAS DESIGNATED TO BE PRESERVED THAT HAVE BEEN IDENTIFIED ON THIS PLAN AS "DEAD", "POOR CONDITION" OR "POTENTIAL HAZARD" SHALL BE EVALUATED BY URBAN FOREST MANAGEMENT (UFM) STAFF PRIOR TO OR DURING THE PRE-CONSTRUCTION WALK-THROUGH FOR REMOVAL DURING THE DEVELOPMENT SITE'S INITIAL LAND CLEARING OPERATIONS.

9. DURING ANY CLEARING OR TREE/VEGETATION REMOVAL IN AREAS ADJACENT TO THE TREE PRESERVATION AREAS, THE PROJECT ARBORIST SHALL BE PRESENT TO MONITOR THE PROCESS AND ENSURE THAT THE ACTIVITIES ARE CONDUCTED AS PROFFERED AND AS APPROVED BY THE URBAN FOREST MANAGEMENT DIVISION.

10. ALL FENCING SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION OF THE PROPOSED PHASE/ PROJECT. FENCING SHALL NOT BE REMOVED OR RELOCATED WITHOUT THE CONSENT OF THE DIRECCTOR UPON COMPLETION OF CONSTRUCTION.

11. "TREE PRESERVATION AREA" SIGNS ARE TO BE SECURED TO THE TREE PROTECTION FENCING NO MORE THAN 10-FEET APART. SIGNS SHALL BE RE-SECURED AS NEEDED THROUGHOUT CONSTRUCTION.

12. THE TREE PROTECTION SIGNS SHOULD BE POSTED IN ENGLISH AND SPANISH, AND READ "TREE PROTECTION ZONE – KEEP OUT – OFF LIMITS TO CONSTRUCTION EQUIPMENT, MATERIALS AND WORKERS." (SEE TREE PRESERVATION SIGN DETAIL)

DURING CONSTRUCTION REQUIREMENTS/ TREATMENTS:

13. UNDER NO CIRCUMSTANCES IS TRESPASS TO OCCUR WITHIN THE TREE PRESERVATION AREA WITHOUT THE CONSENT OF THE DIRECTOR. SHOULD DAMAGE OCCUR, EVERY EFFORT SHALL BE MADE TO HAVE A LICENSED ARBORIST ATTEMPT TO AMEND THE PROBLEM AS SOON AS POSSIBLE.

14. SHOULD ENTRY BE AUTHORIZED BY THE DIRECTOR, 3-4" OF MULCH SHALL BE PLACED WITHIN THE WORK AREA PRIOR TO ENTRY AND SHALL REMAIN IN PLACE THROUGHOUT CONSTRUCTION.

15. ALL REQUIRED PRUNING, BRACING, AND/ OR CABLING SHALL BE DONE IN ACCORDANCE WITH THE AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) A300-2000 PRUNING STANDARDS.

16. TREES TO BE REMOVED SHALL NOT BE FELLED, PUSHED, OR PULLED INTO THE TREE PRESERVATION AREA. TREES ON THE EDGE OF THE LIMITS OF CLEARING AND GRADING SHALL BE CUT DOWN BY HAND WITH A CHAIN SAW. REMAINING STUMPS OUTSIDE THE LIMITS OF CLEARING AND GRADING SHALL BE LEFT IN PLACE. REMAINING STUMPS INSIDE THE LIMITS OF CLEARING AND GRADING SHALL EITHER BE LEFT IN PLACE OR GROUND DOWN 12" DEEP FROM THE SOIL SURFACE WITH A STUMP GRINDER.

17. REMOVAL OF INDIVIDUAL TREES OR TREE PRESERVATION AREAS SHOWN ON THE APPROVED PLAN TO BE PRESERVED MUST BE PRE-APPROVED BY DIRECTOR.

18. NO TOXIC MATERIALS SHALL BE STORED WITHIN 100 FEET OF VEGETATION TO BE RETAINED.

POST-CONSTRUCTION REQUIREMENTS/ TREATMENTS:

19. AT THE END OF CONSTRUCTION, UFM SHALL BE NOTIFIED AND ALLOWED TO INSPECT THAT ALL WORK IS IN ACCORDANCE WITH THE APPROVED PLANS.

20. TOTAL COMPLETION OF THE SITE SHALL BE INDICATED BY CAREFUL REMOVAL OF ALL TREE PRESERVATION FENCING AND THE SPREADING OF EXISTING MULCH OVER THE REMAINDER OF THE ROOT SYSTEMS TO A DEPTH OF 1-2".

TREE INVENTORY

Tree Number	DBH	CRZ	Common Name	Scientific Name	Condition Rating	Remove	Treatment	Comments
T232	17	34	pignut hickory	*Carya glabra*	61	X		
T233	17	34	pignut hickory	*Carya glabra*	71	X		
T235	18	36	tulip poplar	*Liriodendron tulipifera*	75	X		
T242	18	36	chestnut oak	*Quercus prinus*	78	X		
T243	16	32	chestnut oak	*Quercus prinus*	80	X		
T244	12	24	pignut hickory	*Carya glabra*	78	X		
T247	20	40	tulip poplar	*Liriodendron tulipifera*	72			
T250	20	40	tulip poplar	*Liriodendron tulipifera*	70	X		
T251	21	42	tulip poplar	*Liriodendron tulipifera*	70			
T254	24	48	tulip poplar	*Liriodendron tulipifera*	70			
T255	40	80	tulip poplar	*Liriodendron tulipifera*	68			twin 20"/20"
T258	33	66	tulip poplar	*Liriodendron tulipifera*	65			twin 16"/17"
T264	14	28	red oak	*Quercus rubra*	72	X		
T266	12	24	pignut hickory	*Carya glabra*	70			
T267	21	na			0	X		dead tree
T268	12	24	tulip poplar	*Liriodendron tulipifera*	60			
T272	12	24	chestnut oak	*Quercus prinus*	62	X		
T273	18	36	white oak	*Quercus alba*	64	X		
T274	17	34	chestnut oak	*Quercus prinus*	0-10	X		remove by hand
T275	12	24	chestnut oak	*Quercus prinus*	60			
T291	39	78	tulip poplar	*Liriodendron tulipifera*	72			quad
T294	16	32	pignut hickory	*Carya glabra*	70	X		
T301	18	36	pin oak	*Quercus palustris*	68	X		
T311	34	68	tulip poplar	*Liriodendron tulipifera*	78	X		
T312	14	28	pignut hickory	*Carya glabra*	80	X		
T313	14	28	chestnut oak	*Quercus prinus*	75	X		
T326	18	36	white oak	*Quercus alba*	68	X		
T328	14	28	chestnut oak	*Quercus prinus*	75	X		
T334	23	46	chestnut oak	*Quercus prinus*	60	X		
T336	44	88	tulip poplar	*Liriodendron tulipifera*	76	X		
T337	12	24	pignut hickory	*Carya glabra*	72	X		
T339	12	24	pignut hickory	*Carya glabra*	0	X		dead
T347	13	26	white pine	*Pinus strobus*	70	X		

NOTES

1. TREE INVENTORY AND CONDITION EVALUATION PERFORMED BY JANICE M. CENA (MA-4469A) ON AUGUST 28, 2014.
2. CONDITION RATING BASED ON THE 9TH EDITION OF THE GUIDE FOR PLANT APPRAISAL, PUBLISHED BY THE ISA.
3. CRITICAL ROOT ZONE (CRZ) IS DEFINED AS 1 FOOT OF CRZ RADIUS FOR EVERY 1 INCH OF TRUNK DIAMETER.

TREE PRESERVATION TARGET CALCULATIONS AND STATEMENT		
A	Pre-development area of existing tree canopy (from Existing Vegetation Map) =	582,036 SF or 13.36 AC
B	Percentage of gross site area covered by existing tree canopy =	91%
C	Percentage of 10-year tree canopy required for site (see Table 12.4) =	10% of 639,253 SF = 63,925 SF
D	Percentage of the 10-year tree canopy requirement that should be met through tree preservation =	91% = 58,191 SF
E	Proposed percentage of canopy requirement that will be met through tree preservation =	0 SF
F	Has the Tree Preservation Target minimum been met?	NO
G	If No for line F, then a request to deviate from the Tree Preservation Target shall be provided on the plan that states one or more of the justifications listed in § 12-0508.3 along with a narrative that provides a site-specific explanation of why the Tree Preservation Target cannot be met. Provide sheet number where deviation request is located.	See sheet R01.110
H	If step G requires a narrative, it shall be prepared in accordance with § 12-0508.4	See sheet R01.110
I	Place this information prior to the 10-year Tree Canopy Calculations as per instructions in Table 12.10.	

NOTE: TREE PRESERVATION TARGET HAS NOT BEEN MET. SEE BOARD OF SUPERVISOR'S DIRECTION FOR APPROVAL OF DEVIATION ON SHEET C10.101

Table 12.10
10-year Tree Canopy Calculation Worksheet

A. Tree Preservation Target and Statement		
A1	SEE SHEET R01.110	
B. Tree Canopy Requirement		
B1	Identify gross site area =	639,253 SF
B2	Subtract area dedicated to parks, road frontage, etc, *see note below	254,780 SF
B3	Subtract area of exemptions =	0
B4	Adjusted gross site area (B1-B2) =	384,473 SF
B5	Identify site's zoning and/or use	PRM
B6	Percentage of 10-year tree canopy required =	10%
B7	Area of 10-year tree canopy required (B4 x B6) =	38,447 SF
B8	Modification of 10-year Tree Canopy Requirements requested?	NO
B9	If B8 is yes, then list plan sheet where modification request is located	
C. Tree Preservation		
C1	Tree Preservation Target Area =	58,191 SF
C2	Total canopy area meeting standards of 12-0400 =	0
C3	C2 x 1.25 =	0
C4	Total canopy area provided by unique or valuable forest or woodland communities =	0
C5	C4 x 1.5 =	0
C6	Total of canopy area provided by "Heritage," "Memorial," "Specimen," or "Street" trees =	0
C7	C6 x 1.5 to 3.0 =	0
C8	Canopy of trees within Resource Protection Areas and 100-year floodplains	0
C9	C8 x 1.0 =	0
C10	Total of C3, C5, C7 and C9 =	0
D. Tree Planting		
D1	Area of canopy to be met through tree planting with no multipliers =	18,650 SF
D2	Area of canopy planted for air quality benefits =	8,250 SF
D3	x 1.5 =	12,375 SF
D4	Area of canopy planted for energy conservation =	0
D5	x 1.5 =	0
D6	Area of canopy planted for water quality benefits =	0
D7	x 1.25 =	0
D8	Area of canopy planted for wildlife benefits =	9,775 SF
D9	x 1.5 =	14,662 SF
D10	Area of canopy provided by native trees =	0
D11	x 1.5 =	0
D12	Area of canopy provided by improved cultivars and varieties =	5,250 SF
D13	x 1.5 =	7,875 SF
D14	Area of canopy provided through tree seedlings =	0
	x 1.0 =	0
D15	Area of canopy provided through native shrubs or woody seed mix =	0
	x 1.0 =	0
D16	Percentage of D14 represented by D15 =	NA
D17	Total of canopy area provided through tree planting =	53,562 SF
D18	Is an offsite planting relief requested?	NO
D19	Tree Bank or Tree Fund?	NO
D20	Canopy area to be requested to be provided through offsite banking or tree fund	NA
D21	Amount to be deposited into the Tree Preservation and Planting Fund	NA
E. Total of 10-year Tree Canopy Provided		
E1	Total of canopy area provided through tree preservation (C10) =	0
E2	Total of canopy area provided through tree planting (D17) =	53,562 SF
E3	Total of canopy area provided through offsite mechanism (D19) =	0
E4	Total of 10-year Tree Canopy Provided =	53,562 SF

*NOTE:

1. AREA OF MAGNA WAY R/W DEDICATION= 7,070 SF
2. AREA OF SUNRISE VALLEY R/W DEDICATION= 7,465 SF
3. AREA NOT INCLUDED IN SITE PLAN= 240,245 SF

TOTAL: 254,780 SF

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CODY A. PENNETT
Lic. No. 048500
8/25-11-014
PROFESSIONAL ENGINEER

KEY PLAN

SCALE NORTH

SCALE IN FEET
1" =
1 INCH

No.	DATE	BY	Description
REVISIONS			

DRAWN BY MLJ
APPROVED BY CAP
CHECKED BY CJD
DATE SEPTEMBER 2014

TITLE

TREE PRESERVATION NARRATIVE

SP NO. #6848-SP-014

L02.701
(RGP SHEET 20)
SECTION NO. L02-TREE PRESEVATION

P:\PROJECT\50067214 Innovation South\CAD\CIVIL-SITE\Sheets\SITE PLAN\TREE PRESERVATION PLAN.dwg
Mon, Nov 09 2015 - 8:53:16am

GEOTECHNICAL REQUIREMENTS

NUGGET PROPERTY-INNOVATION SOUTH
FAIRFAX COUNTY, VIRGINIA
AUGUST 9, 2009 (1ST REVISION SEPTEMBER 10, 2014)
(2ND REVISION MAY 21, 2015) (FINAL REVISION DECEMBER 17, 2015)
SOIL CONSULTANTS ENGINEERING, INC.
9303 CENTER STREET, MANASSAS, VIRGINIA
PHONE: 703-366-3000
FAX: 703-366-3400
SCE PROJECT NO. C299/619V

The following recommendations pertain to the geotechnical aspects of the design and construction of the proposed Nugget development. These recommendations were developed based on subsurface conditions, the project characteristics described in this report, and the provided site plans. Should any of the project characteristics change or conditions differ from those described herein be encountered, we should be provided the opportunity to re-evaluate the requirements presented in this report. Further, we should review any changes made to current development, structural, and architectural plans in order to determine if any changes or modifications to the recommendations presented below, is necessary.

1. EARTHWORK

Before the start of any construction, all vegetation, topsoil, organic soils, soil mixed with roots or other deleterious materials, building remains, including foundations, slabs, existing utility lines, pavements, debris, septic tank and drainfields (if present) and backfill soil shall be removed from all building and pavement areas including at least 10 feet offsets outside all building and pavement lines. Soft, very wet and loose soils shall be removed. In fill areas, the stripped area shall be the greater of 10 feet or the height of the fill.

If the soil at the subgrade of an excavation becomes wet, due to surface or groundwater entering the excavation, the excavation shall be stopped. Dewatering measures shall be applied to lower the groundwater or prevent surface water from entering the excavation.

Excavation shall be resumed only after the geotechnical engineer or his qualified representative has confirmed that the groundwater level has been lowered at least 2 feet below the level of the planned excavation.

If softening of the subgrade occurs, or if water permeates into the excavation, it will be necessary to remove all the soft/excessively wet soils, and replace them with compacted controlled fill. When heavy construction equipment induces pumping, it may be necessary to construct a gravel mat on which to place the compacted controlled fill. The gravel mat shall consist of 0.5 to 2.0 feet of coarse aggregate (VDOT No 57) stone, as needed to achieve proper compaction, that is completely wrapped in a geotextile, such as Mirafi 140N. A stronger geotextile, such as Mirafi 500X, may be needed if ripping or tearing of the geotextile occurs.

Rock as defined by a rock drill and auger and split spoon refusal was encountered at depths that ranged from 1.7 to 49.0 feet below existing grades. Boulders may exist at this site. Diabase rock is often very hard.

Below the rock surface, rock excavation techniques, such as blasting, jack hammering, or ripping may be needed. Similar techniques may be needed to remove large boulders.

Compacted/controlled fill shall consist of clean Sandy SILT (ML), Silty SAND (SM), Clayey SAND (SC) or more granular material (per ASTM D-2487) containing no organic materials, roots, plastic silts or clays, deleterious materials, frozen soils or stones larger than 3 inches in size. The Liquid Limit and Plasticity Index of the fill material shall not exceed 40 and 15, respectively. The fill material shall be placed in layers of 8 inches. Each layer shall be compacted to a density of not less than 95 percent of the maximum density, according to ASTM D-698. The density of each layer of "engineered" fill shall be tested by the engineer's qualified technician. Additional fill shall be placed only after the test results show that the required compaction has been achieved.

Close control over the moisture content of the fill will be necessary to achieve the required compaction. The moisture content shall be within plus or minus 2 moisture percentage points of optimum. Soils that have a moisture content above this limit will require drying before being used as a backfill material. Material that is too dry will need additional water.

The backfill for utility trenches shall be placed using suitable materials under controlled conditions, and according to Fairfax County, and VDOT regulations. High plasticity soils (MH and CH) shall not be used as backfill of utility trenches.

To reduce the problems associated with groundwater and wet soils, and to minimize the amount of soil that becomes unsuitable due to high moisture, it would be advisable to construct this site during a dry season.

The sides of all excavations shall be sloped back or shall be supported according to County, Commonwealth, and Federal regulations.

2. FOUNDATIONS

The planned building shall be supported by standard spread footings (continuous wall or isolated column footings) or on driller piers founded on diabase rock. When the rock has no, or only a few fractures, (RQD of 90 or greater) an allowable bearing pressure of 50 tons per square foot (tsf) or less shall be used.

When supported on slightly fractured diabase rock, characterized by an RQD of 60% or greater, and allowable bearing pressure of 25 tons per square foot (tsf). The estimated settlement for these allowable bearing pressures is less than 0.5 inch. Piers shall be constructed under the full time inspection of the geotechnical engineer or his qualified representative. We feel that the above bearing values are conservative presumptive values.

Based upon our rock coring and our rock drill test holes, the following elevations are minimum elevations for the deep foundations/piers of each Land Bay

Land Bay A	Elevation 320 feet above sea level
Land Bay B	Elevation 317 feet above sea level
Land Bay D	Elevation 330 feet above sea level

The actual depth of the drilled piers and elevation of the footing subgrade will need to be determined at the time of construction. The geotechnical engineer or his qualified representative shall examine each pier or footing subgrade. The footings or piers will need to be extended until material with sufficient capacity is reached. It is recommended that rock cores be drilled at least 10 feet below the bottom of a representative number of piers or footings to check for fractures in the under-lying rock. RDQ of 60% or greater and 90% or greater shall be used for an allowable bearing pressure of 25 tons and 50 tons, respectively

Diabase rock is often a very hard material and is very difficult, time consuming, and expensive to drill or excavate. In some cases, air hammers may be needed in the drilled pier to advance the pier. Blasting should not be used near footings subgrades or in piers, as this technique may unduly fracture the rock. Drilling may be difficult even in fractured rock. It may be more economical to select the foundation dimensions based on a lower allowable bearing pressure than to incur the expense of excavation. Economics may govern the selection of the foundation sizes.

Spread footings on earthen material may be founded on low plastic stiff Sandy SILT (ML), Clayey SILT (ML), Clayey SAND (SC), Silty CLAY (CL), or Silty SAND (SM), or on compacted controlled fill.

Spread footings supported on firm soil materials shall be designed for an allowable bearing pressure of not greater than 2000 pounds per square foot (psf). On very dense sand or highly fractured rock, an allowable bearing value of not greater than 3000 pounds per square foot (psf) shall be used. No footing shall rest on existing fill, plastic or organic soil, or on frozen ground, or on loose, soft, medium soft soils, or borderline loose soils. The estimated settlement for foundations supported on soil materials is 1-inch total settlement and 0.75 inch differential settlement.

Exterior footings or piers shall extend to a depth of at least 2.5 feet (0.76 m) below the finished grades to prevent heave due to frost action. Interior footings founded on soil within a permanently heated building areas can be constructed at a depth of at least 2.0 feet below the floor slab, provided above freezing temperatures are always maintained, even during the construction period.

Interior footings founded on rock within a permanently heated building area can be placed at a convenient depth below the floor slab.

Loose, firm, and soft materials were observed in test borings. These materials may not have an allowable bearing pressure of 2000 psf. In these locations, the footing will need to be extended down to suitable bearing material. If deep materials with low allowable bearing pressure exist, then it shall be necessary to remove the low bearing materials, including offsets outside footing lines, and replace the excavated materials with compacted controlled fill or coarse aggregate (VDOT No 57 stone) that is surrounded by a geotextile such as AMOCO 2006 or equivalent. The offset distances shall equal the depth of the undercut.

To minimize the differential settlement for the buildings, it is strongly suggested that all critical building foundations be supported on rock. Ancillary structures and structures not sensitive to settlement may be supported on soil material.

Elastic silt (MH) and fat clay (CH) soils were observed in the test borings. When highly plastic fat clays (CH) or elastic silt (MH) soils are present below the footing subgrade, the footings shall be extended through these unsuitable soils. To be conservative, the footing shall be extended when the Liquid Limit and Plasticity Index of silt and clay soils exceed 40 and 15, respectively.

Clayey SAND (SC) soils with a significant quantity of highly plastic clay shall be carefully examined for shrink swell potential if encountered at a footing subgrade. The backfill placed between the concrete footings and the excavation shall be compacted and controlled.

As an alternative to extending the footings, the unsuitable soils can be removed, including offsets outside building or foundation lines, and replaced with suitable compacted controlled fill. The offset distances shall equal or exceed the depth of the undercut.

The concrete for footings shall be poured on the same day and as soon as possible after the excavation is completed. Allowing the excavation to stay open may cause its subgrade to become soft. The footing subgrade shall be inspected by the geotechnical engineer or his qualified representative.

When utility lines are closer than 15 feet to building lines, the foundation subgrade elevations shall be examined. Footings shall extend down to such a depth that the elevation difference between the invert of the underground utility pipe and the bottom of the footing next to it shall not be greater than half the clear horizontal distance between them. When the footing is supported on rock, the clear distance between the footing and utility, and the elevation difference, maybe equal.

Footings can then be stepped up at approximately 2:1 (horizontal:vertical) until the normal footing design grades are achieved. Steps in wall footings shall not be higher than 1.0 foot.

3. SLAB-ON-GRADE

The concrete floor shall be designed as a slab-on-grade ("floating" slab) and shall bear on at least a 12-inch thick layer of coarse aggregate (VDOT No 57), with an approved vapor barrier installed over the coarse aggregate. The aggregate layer shall be placed over stiff, low plastic, non-organic natural subgrade or on compacted and controlled fill. Soft and firm soils were observed at this site. Prior to placing the vapor barrier and aggregate, the slab subgrade shall be proof-rolled using the procedures described in the earthwork specifications. If pumping or rutting is observed, the soft, loose, or wet material shall be removed down to firm subgrade and replaced with compacted controlled material. If deep layers of soft, loose, or wet materials exist at the slab subgrade the geotechnical engineer shall be contacted for additional recommendations. Under parking garage slabs, we suggest that the subgrade be prepared in accordance with VDOT specifications.

If elastic SILT (MH) or fat CLAY (CH) with a Plasticity Index greater than 15 and a Liquid Limit greater than 40 are located within 2.0 feet of the slab subgrade, then the plastic soil shall be excavated to a depth of 2.0 feet below the slab subgrade. The excavated material shall be replaced with compacted controlled fill.

4. SITE GRADING

Very effective drainage of surface water is important. All ground surfaces shall slope away from the building areas to prevent ponding of water near the buildings.

Preferably the slopes in soil materials shall not exceed 3:1 (horizontal to vertical). Typical silt, sandy silt, and silt clay materials are highly erodible, and may be subject to local slumping, especially on the steeper slopes. Stabilization of the slope by the use of vegetation is recommended.

5. PAVEMENTS

Pavement subgrade shall consist of firm, natural, inorganic, and low plasticity soils; or engineered fill. The final pavement design shall be based on California Bearing Ratio (CBR) test results performed on actual subgrade material. An estimated CBR value of 3 to 5 percent may be used for preliminary design.

If highly plastic soils, (CH or MH) with Liquid Limits greater than 40 and a Plasticity Index greater than 15 are observed at the subgrade of a pavement, curb and gutter, or sidewalk, they shall be removed by at least 2 feet and replaced with compacted controlled fill.

6. BASEMENT WALLS

When foundation walls retain an unbalanced fill, the basement walls shall be designed to withstand the unbalanced lateral earth pressure forces. The backfill material against the basement wall shall consist of Sandy SILT (ML), Silty SAND (SM) or more granular materials. The Liquid Limit and Plastic Index of the backfill material shall be less than 40 and 15, respectively. In landscaped areas, the upper 1.5 feet of backfill shall consist of low plasticity Clayey SILT (ML) or Silty CLAY (CL), to seal the top and reduce the amount of surface water that can permeate through the backfill.

For SILT (ML) soils next to the wall, the lateral earth pressure shall be computed as an equivalent pressure of 60 psf per feet depth.

If sand soils (SM) are placed next to the wall then an equivalent fluid pressure of 45 psf per feet depth shall be used. The lateral effects of surcharge loads shall be computed using a factor of one-half.

Under pavement areas and sidewalks the basement backfill shall be placed as controlled fill to minimize settlements.

When backfilling against the walls, heavy compaction equipment shall be kept at least 5 feet from the walls. Only lightweight compaction equipment shall be used near the wall.

If plastic clay (CH) or elastic silt (MH) are present in the basement wall excavation, these material shall be removed at least 3 feet (measured horizontally) at the footing elevation, and then be slopes back at 1:1 (horizontal to vertical).

The quality and placement of the backfill material shall be observed by the geotechnical engineer, or his qualified representative. The basement wall shall be waterproofed according to County regulations.

7. FOUNDATION DRAINS

This requirement is for basements with finished floor elevations located at least 3 feet above the highest ground water elevation observed in our test borings. Exterior and interior foundation drains will be required around basement walls when floor slabs or part of slabs extend below finished exterior grades.

Foundation drains shall consist of a 4-inch diameter perforated flexible drain pipe that shall be installed with its invert 2 inches above footing subgrade. Foundation drains shall be underlain by at least 2 inches of coarse aggregate VDOT No 57 with the same aggregate placed over the exterior pipe a distance of at least 15 inches above the top of the footing. A 2-inch diameter pipe shall be placed in the footing at 8 feet spacing.

The top of the coarse aggregate may slope down at it's angle of repose from the wall. The coarse aggregate shall have a minimum height and width of 12 inches. Geotextile such as Mirafi 140N or its equivalent shall be used as a filter to separate the coarse aggregate from the soil. (See enclosed sketch for Foundation Drain Detail). A solid PVC pipe shall be extended from the foundation drains to the discharge point.

The foundation drainage system shall be discharged by gravity to either exterior grades, a storm drain system, or other appropriate locations.

If the system is discharged into a storm drain system, backflow interrupters are to be installed. An interior sump, equipped with an automatic sump pump shall only be used if discharge by gravity is not possible.

8. BUILDING UNDERDRAINS.

Based on our test borings it is possible that the lowest slab elevations could be below the observed groundwater levels. When this occurs a permanent dewatering system shall be installed to maintain groundwater levels at least below the slab elevation. For a preliminary planning a 12-inch minimum layer of gravel (VDOT No. 57, AASHTO M43 No. 57) shall be placed under the floor slab. Six (6) inch perforated diameter interior foundation drains shall be placed along the perimeter of the basement. Four (4) inch diameter perforated pipes shall be installed in the gravel mat. These pipes shall run from 6 inch diameter interior foundation drains towards a centrally located sump(s). The perforated drain pipe shall be placed in a grid pattern with a spacing not greater than 20 to 25 feet. The sump(s) shall have a diameter of at least 4 feet and shall extend below slab a distance of approximately at least 4 feet. The pump shall discharge to exterior grades, or to a storm sewer.

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL
COMMONWEALTH OF VIRGINIA
MARK J. LAMB
12/18/15
PROFESSIONAL ENGINEER

KEY PLAN

SCALE NORTH
N/A

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY MLJ
APPROVED BY CAP
CHECKED BY CJD
DATE SEPTEMBER 2014

TITLE
GEOTECHNICAL REQUIREMENTS ICS SITE

SP NO. #6848-SP-014

B01.101

SECTION NO. B01-GEOTECHNICAL

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On the exterior sides of the foundation wall a drainage board with a bentonite liner (such as manufactured by Mirafi) shall be placed full height on the exterior foundation wall and footing. The drainage board and clay liner shall also be placed on the inside of the foundation and shall continue on the underside of the slab a distance of at least 4 feet from the interior edge of the footing.

The bentonite and drainage board may be placed below the footing if this is acceptable to the product manufacture and structural engineer. The purpose of the bentonite liner and drainage board is to encapsulate the foundation. Exterior foundation drains shall be installed where possible.

When the foundation wall is constructed immediately adjacent to the sheeting and shoring the exterior foundation drain may be omitted. (See enclosed details).

It is advisable to use high capacity pumps such as two 250 gpm pumps installed in series for emergency conditions. With two pumps installed in series, one pump will begin to work if the first pump can not keep up with the flow, or if the first pump fails. The pumps shall have a backup generator or backup battery. For buildings located at higher elevations, it may be possible to drain ground water by gravity means.

The gravel under-drain and foundation drain recommendations given above are typical for Northern Virginia based on our experience with other sites. If the groundwater flow is actually very high and soil begins to flow into the excavation during construction, then it may be necessary to modify the typical recommendations.

9. BLASTING.

Pre-blast surveys and post blast surveys shall be performed on adjacent properties. This shall include site utilities such as storm drainage pipes and sanitary sewer pipes in the vicinity of the blasting. The use of a utility TV camera is recommended. The use of vibration monitoring along property lines shall be required. Vibration monitoring shall also be utilized on the closest adjacent buildings.

Blasting to achieve footing subgrades in not recommended. Blasting may cause fracturing of the underlying bedrock.

10. SEISMIC CLASSIFICATION

Based on the materials observed in the test borings, and section 1615.1 of the International Building Code (IBC) the site is assigned a seismic site classification of D for a stiff soil profile. When the footings are founded on diabase rock a seismic site classification B may be used.

11. INSPECTION.

A geotechnical engineer or his qualified representative shall be retained during construction to observe the demolition and removal of existing facilities, the material excavated, the proof-rolling of subgrades to receive fill, the fill placement, and the subgrades for foundations, slabs and pavements.

The Fairfax County Public Facilities Manual requires the following:

- All construction involving problem soil must be performed under the full-time inspection of the geotechnical engineer.
- The geotechnical engineer shall furnish a written opinion to the County as to whether or not work has been performed in accordance with approved plans and his recommendations for work in the vicinity of the units to be occupied prior to the issuance of residential or non-residential use permits.
- Review and approval of plans, specifications and reports by the County, with or without recommendations by the Geotechnical Review Board, shall in no way relieve the developer of the responsibility for the design, construction and performance of the structures, pavements and slopes on the project and damage to surrounding properties.

12. CONSTRUCTION MONITORING

We recommend that proof-rolling of subgrades to receive fill, fill placement, and all footing subgrades be monitored during construction. Because of our familiarity with the site conditions and the recommendations of this report, Soil Consultants can effectively perform the required construction monitoring services. We should be provided the opportunity to conduct the following services during the construction phase of the project:

- Full time observation of drill pier installation.
- Observe footing, pier, pavement and slab subgrades.
- Verify the suitability of off-site and on-site material for use as compacted/controlled fill beneath the structures by performing laboratory tests as required.
- Monitor, test, and approve subgrade and fill layers before, during and after fill placement.
- Perform at least one field density test for every 2500 square feet of fill placed to confirm that the required soil compaction has been achieved.
- Perform at least one field density test for each lift of fill placed for each 200 feet of utility trench, to confirm that required soil compaction has been achieved.
- Submit a daily field report for each day's work during construction summarizing the compaction
- Monitor concrete placement and perform laboratory compressive strength tests as required for compliance with project specifications.

We appreciate the opportunity of this assignment and shall welcome questions from designated users of this report if matters arise which require clarification.

For: SOIL CONSULTANTS

S. Timothy Gentry
Vice President

Marwan Iftaiha, P.E.
Senior Engineer

COMMONWEALTH OF VIRGINIA
MARWAN IFTAIHA
LIC. NO. 036287
PROFESSIONAL ENGINEER
12/13/15

REMARKS

The evaluations and recommendations of this report are based upon the observations of a limited number of test holes. Soil conditions often change from one point to another. Therefore, different conditions may be encountered during construction in areas outside the test locations. If conditions observed at the site during construction are different from those described in this report, we shall be immediately notified so that we may decide if such situations will require any changes in the geotechnical recommendations. Soil Consultants will not be responsible for any modification to or incorrect interpretation of its recommendations by others.

This report contains some general geotechnical engineering requirements that must be followed to provide suitable subgrades for building foundations, slabs and pavements. These requirements are based on preliminary information. When a final site plan, and architectural and structural drawings are available, Soil Consultants shall be authorized to review these plans, and to decide if any changes to the geotechnical requirements are necessary.

This report is intended for the use by the client and the client's design professionals in order to make site evaluations and to aid in the design of the project. This report may be made available to contractors. However, the report would be for their information only and it may not be sufficient to estimate costs and quantities. Our scope of services did not include environmental matters, wetlands, specific construction dewatering recommendations, slope stability analysis, storm water management and cost/quantity estimates.

QUALIFICATIONS

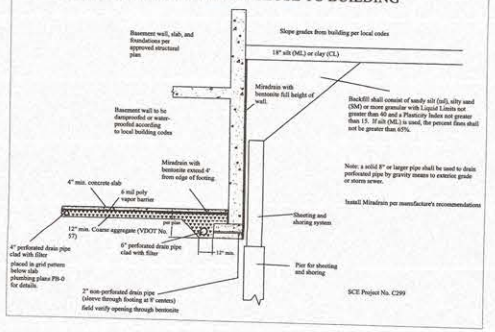
All conclusions and recommendations presented in this study are based upon the assumption that the soil conditions do not deviate appreciably from those revealed by the test borings and are subject to confirmation or revision upon our review of the final plans and specifications covering pertinent details of the proposed construction.

Since the soil conditions may vary substantially from those shown in the boring logs, any change in soil type during construction, or change in location plan and/or grades should be provided to us so that we may modify our conclusions and recommendations.

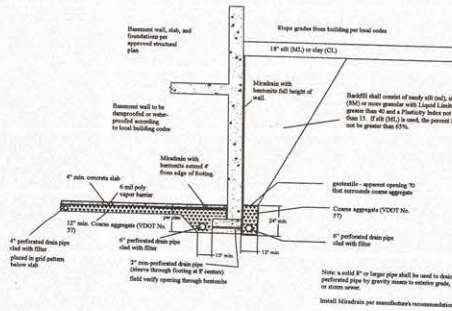
In conducting this investigation, our professional services have been performed, our findings obtained, and our recommendations made according to generally accepted engineering principles and practices. This warranty is instead of all other warranties either expressed or implied. Any conclusions or recommendations based on data contained in this report made by others are the responsibility of others.

SCE Project Number: C299/619V

NUGGET FOUNDATION DRAIN DETAIL FOR SHEETING AND SHORING CLOSE TO BUILDING



NUGGET TYPICAL FOUNDATION DRAIN DETAIL



GEOTECHNICAL CERTIFICATION

I HAVE REVIEWED THIS GRADING PLAN FOR THE CONSTRUCTION OF INNOVATION CENTER SOUTH PREPARED BY DEWBERRY CONSULTANTS, LLC., OUR GEOTECHNICAL REPORT DATED AUGUST 9TH, 2009, WITH LAST REVISION DECEMBER 17, 2015, AND OUR GEOTECHNICAL REQUIREMENTS REVISED DECEMBER 17, 2015. BASED ON THE REVIEW OF THE AFOREMENTIONED DOCUMENTS, IT IS OUR OPINION THAT THE GEOTECHNICAL REPORT AND GEOTECHNICAL REQUIREMENTS ON THE PLANS ARE STILL VALID AND APPLICABLE TO THE PLANNED CONSTRUCTION.

for: SOIL CONSULTANTS ENGINEERING, INC.

MARWAN IFTAIHA
SENIOR ENGINEER

COMMONWEALTH OF VIRGINIA
MARWAN IFTAIHA
LIC. NO. 036287
PROFESSIONAL ENGINEER
12/13/15

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

KEY PLAN

SCALE NORTH

N/A

No.	DATE	BY	Description
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SP NO. #6848-SP-014

B01.102

SECTION NO. B01-GEOTECHNICAL

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GEOTECHNICAL SPECIFICATIONS

Innovation Center Station – Route 28 Garage
Fairfax County, Virginia
ECS Project No. 01:21839
January 30, 2015
Revised December 17, 2015

The following geotechnical specifications have been developed from ECS Report of Subsurface Exploration and Geotechnical Engineering Analysis No. 01:21839, dated November 22, 2013 and Addendum Letter No. 1 dated January 7, 2015. Information regarding subsurface exploration procedures, soil conditions observed, and discussion of requirements shall be found in that report and letter.

Stripping Operations and Subgrade Preparation

1. The existing ground surface in the proposed structural area shall be stripped of all vegetation, rootmat, topsoil, and any soft or unsuitable materials from the proposed building, parking structures, and pavement areas.
2. Any existing fill soils encountered shall be removed completely in the proposed building areas. The stripping of the proposed garage areas shall be extended at least 10 feet, where possible, beyond the planned limits of the proposed building and pavements.
3. Stripping limits shall be extended an additional 1 foot for each foot of fill required at the building's exterior edge.
4. After stripping to the desired grade and prior to new fill placement, the exposed soils shall be carefully examined to identify any localized loose, yielding or otherwise unsuitable materials by an experienced Geotechnical Engineer or his authorized representative. Particular attention shall be given to those areas where highly plastic soils are encountered.
5. After examining the exposed soils, loose and yielding areas shall be identified by proofrolling with an approved piece of equipment, such as a loaded dump truck having an axle weight of at least 10 tons.
6. Any soft or unsuitable materials encountered during this proofrolling shall be removed and replaced with an approved backfill compacted to the criteria given below in the section entitled Fill Placement.
7. The preparation of fill subgrades, as well as the proposed building and roadway subgrades, shall be observed on a full-time basis. These observations shall be performed by an experienced geotechnical engineer, or his representative, to ensure that all unsuitable materials have been removed, and that the subgrade is suitable for support of the proposed construction and/or fills.
8. Soil bridging lifts shall not be used to span over soft fill subgrade soils within the expanded building limits. All soft areas shall be excavated and removed.
9. High plasticity soils, such as highly plastic clay (CH) which occurs throughout the site, shall not be suitable for reuse as engineered fill below the buildings and pavements. They shall be disposed of in non-structural areas.

Fill Placement

1. Upon achieving competent subgrade materials, the exposed soils shall be filled, where appropriate, to planned building subgrade levels with an approved controlled, compacted fill.
2. Fill materials shall consist of an approved material, free of organic matter, debris, and cobbles greater than 4 inches, and have a Liquid Limit and Plasticity Index less than 40 and 15, respectively.
3. These soils shall typically consist of SM, ML, SC (with less than 25% fines), CL, and combinations thereof that meet the previously stated soil indices.
4. Unacceptable fill materials include topsoil and organic materials (OH, OL), elastic silts (MH), and high plasticity clays (CH).
5. Under no circumstances shall MH or CH soils be used as fill material in proposed structural areas or pavement areas. Any such materials encountered and removed during grading operations shall be either stockpiled for later use in landscape fills, or placed in approved disposal areas either on-site or off-site.
6. Fill materials placed with the upper 3 feet of the finished building pad elevation shall have a maximum particle size of 3 inches.
7. The on-site materials shall be reused as engineered fill provided that they do not contain organics or foreign debris, are not highly plastic, are not environmentally impacted, and conform to the criteria outlined above.
8. Moisture adjustment shall be required to condition any suitable on-site material before its placement in new structural fill areas.
9. The planning of earthwork operations shall recognize and account for increased costs associated with manipulation of the on-site materials.
10. The suitability of soils for use as engineered fill shall be further evaluated in the field at the time of construction.
11. Prior to the commencement of fill operations and/or utilization of any off-site borrow materials, the Geotechnical Engineer shall be provided with representative samples in order to determine the material's suitability for use in a controlled compacted fill and to develop moisture-density relationships.
12. Fill materials shall be placed in lifts not exceeding 8-inches in loose thickness and moisture conditioned to within ±2 percentage points of the optimum moisture content.
13. Soil bridging lifts shall not be used.
14. Controlled fill soils shall be compacted to a minimum of 95% of the maximum dry density obtained in accordance with ASTM Specification D 698, Standard Proctor Method.
15. For fills greater than 8 feet in depth, the soils shall be compacted to 98% of the maximum dry density obtained in accordance with the aforementioned Proctor method.
16. The upper one foot of soil supporting slabs-on-grade, pavements, sidewalks, or gutters shall be compacted to a minimum of 100% of the maximum dry density obtained in accordance with ASTM Specification D 698, Standard Proctor Method.
17. Fill placed in non-structural areas shall be compacted to a minimum of 90% of the maximum dry density.
18. The expanded footprint of all proposed structures shall be well defined, including the limits of the fill zones at the time of fill placement.
19. Grade control shall be maintained throughout the filling operations.
20. All fill operations shall be observed on a full-time basis by a qualified soils technician to determine that minimum compaction requirements are being achieved.

21. All fill shall be periodically tested to document that compaction is being achieved. A sufficient number of tests shall be taken in each lift before the next lift is placed, on the order of at least one test per 2,500 square feet of area on each lift.
22. The elevation and location of the tests shall be clearly identified and recorded at the time of fill placement.
23. Compaction equipment suitable to the soil type used as fill shall be used to compact the fill material. Granular soils (Unified Soil Classification System SM or more granular) shall be compacted with a smooth drum vibratory roller or rubber tire compacted, and cohesive soils shall be compacted with a sheepsfoot roller.
24. All areas receiving fill shall be graded to facilitate positive drainage from building pad and pavement areas of any free water associated with precipitation and surface runoff.
25. Fill materials shall not be placed on frozen soils or frost-heaved soils and/or soils which have been recently subjected to precipitation.
26. All frozen soils shall be removed prior to continuation of fill operations. Borrow fill materials, if required, shall not contain frozen materials at the time of placement.
27. All frost-heaved soils shall be removed prior to placement of controlled, compacted fill, granular subbase materials, foundation or slab concrete, and asphalt pavement materials.
28. If any problems are encountered during the earthwork operations, or if site conditions deviate from those encountered during our subsurface exploration, the Geotechnical Engineer shall be notified immediately.

High Plasticity Soils

1. High plasticity soils encountered during construction at footings, pavement, and slab subgrades shall be undercut as discussed herein.
2. High plasticity soils shall not be utilized as engineered fill within the expanded building limits, irrespective of the total depth of fill.
3. If in-situ high plasticity soils are encountered within 2 feet below the foundation subgrade level and less than 4 feet below the finished exterior grade, the high plasticity soils shall be undercut to a depth of 4 feet below finished exterior grade, with footings located at that depth or extended through the highly plastic soils to non-expansive materials, whichever is less.
4. The use of gravel backfill below the footings shall not be permitted.
5. If high plasticity soils are encountered at or within 2 feet below the subgrades of slabs-on-grade, pavements, curb and gutter, sidewalks, and walkways, then they shall be undercut a minimum of 2 feet and shall be replaced with non-expansive structural fill, having a Liquid Limit and Plasticity Index less than 40 and 15, respectively.
6. An experienced geotechnical technician shall be utilized to identify high plasticity soils which require undercutting and/or replacement. Every effort shall be made to identify the location and extent of high plasticity soils.

Rock Excavation/Blasting Operations

1. Of paramount concern and a problem of significant potential cost is that of "overshooting" the rock during site preparation shall rock blasting be deemed necessary, especially within the sandstone/siltstone areas.

2. The charge patterns and depths shall be carefully selected, especially within the building areas to avoid overblasting.
3. Where overblasting occurs, the disturbed materials shall be removed and replaced with properly compacted fill or lean concrete depending on the recommended allowable bearing pressures.
4. The potential for blasting shall be recognized during both the design and construction phases.
5. The refusal depths of the borings shall be taken into consideration during the design of utility lines, such as sewer lines.
6. The geotechnical consultant shall meet with the grading contractor and any blasting specialists to review shot patterns and blasting procedures at the time of construction to minimize difficulties associated with overblasting.
7. If blasting is need, the owner shall perform a preconstruction survey on the existing adjacent buildings within 100 feet of the subject site prior to commencement of blasting operations.
8. A vibration monitoring program shall be implemented to monitor that vibration levels at the property lines are in general accordance with allowable tolerances established prior to commencement of blasting operations.

Construction Groundwater Control

1. Excavations performed at this site, especially those in or near existing drainage swales, generally encounter water flowing at the interface of the rock and the soil. These conditions shall be anticipated and shall be handled through the use of French drains installed on the uphill side of any excavations performed on site. In addition, French drains shall be installed in areas where springs develop. A typical French Drain Detail is attached.
2. Any utility installation that requires a gravity feed, such as sewer lines, shall be effectively converted into a drainage line to help assist in groundwater control during construction. Such lines shall not be relied on for pavement drainage unless constructed as permanent drains.
3. The surface of the site shall be kept properly graded in order to enhance drainage of the surface water away from the proposed building areas during the construction phase.

Foundation Recommendations

1. The parking garage over the diabase intrusion zone shall be supported on a deep foundation system consisting of drilled piers bearing on the rock layer.
2. Outside of the diabase intrusion zone, rock was encountered at elevations above planned finished floor. In these locations spread footings bearing directly on the rock shall be utilized to support the building. The combination deep and shallow foundations are discussed in the following sections.

Deep Foundations (Drilled Piers)

1. A drilled pier foundation system, consisting of high capacity augered caissons shall be utilized for the proposed structure within the diabase intrusion zone.
2. Drilled pier foundations shall be designed for an allowable bearing pressure of 100,000 psf (50 tsf) and shall extend to bear on competent rock.
3. Shafts shall be extended at least 2 pier diameters below the slab elevation. If rock is encountered less than 2 pier diameters, a shallow foundation shall be feasible. Please refer to the Alternative Foundation Location Diagram.
4. These piers shall be designed for end bearing only and no friction components are considered.
5. Competent rock shall be defined as those materials at a depth or elevation causing "refusal" to a modern caisson drill rig (LDH or larger) that continuously provides at least 100,000 ft-lbs of torque using continuous flight augers fitted with conical shaped carbide rock teeth (rock auger).
6. "Refusal" shall be defined as when the rate of advancement of the drill rig is less than 8 inches of auger advancement per 5 minutes of drilling at full down pressure.
7. All caisson bottoms and "rock-sockets" shall be observed and approved by a geotechnical engineer prior to concrete placement.
8. A minimum of 25 percent of all drilled shafts shall be investigated by a rock probe procedure extended to at least 2 times the caisson diameter or 5 feet below the bottom of the caisson.
9. An experienced geotechnical engineer or his authorized representative shall observe the performance of these probes by the contractor to determine the suitability of the rock below the caisson bearing elevation.
10. The initial caissons for each building shall all be checked using probe holes, with only minimum probe hole verification used in subsequent caissons after familiarity with the rock conditions is established by all parties working on the drilled pier system.
11. Drilled piers shall be lined and sized with a minimum diameter of 30 inches.
12. The contractor shall be required to provide all necessary equipment for ingress and egress as well as compliance with OSHA and VOSHA regulations.
13. Concrete shall be placed using a direct fall method, as long as the concrete is not allowed to strike the sides of the caisson liner, or any reinforcing steel.
14. In the upper 5 feet of the drilled pier, the use of vibratory equipment to further consolidate the concrete shall be required.
15. The concrete shall be placed using a "pour and pull" technique.
16. The depth of the concrete shall be monitored to ensure positive pressure of concrete as the liner is extracted and that the elevation of the concrete be maintained above the bottom of the liner until final extraction of the liner.
17. During placement operations, the elevation of the concrete shall be monitored. At no time shall the relative elevation of the concrete increase during extraction.
18. If any caisson shafts are contaminated in this method, then it shall be necessary to core drill the caisson, to determine shaft integrity.

Shallow Foundations Bearing on Rock

1. Where blasting is required or rock is encountered at shallow foundation bearing elevations, footings bearing on rock shall be designed for an allowable bearing pressure of 20,000 psf.
2. As noted in Addendum No. 1 dated January 7, 2015 shallow foundation shall be considered if rock is encountered less than 2 pier diameters below the slab elevation. Please refer to the Alternative Foundation Location Diagram.
3. The design of the adjacent footings shall require special consideration. Adjacent footings shall be located in such a way that stresses imposed by the new footings will not over stress each other.
4. The footings shall be located such that projection lines extended downward or upward from the new footing edges at a 45° angle will pass below the lower footing.
5. Continuous footings shall have a minimum width of 1.5 feet and isolated column footings shall have a minimum lateral dimension of 2.5 feet.
6. Footings shall be placed at a depth to provide adequate frost cover protection.
7. Footings and grade beams in heated and unheated areas shall be placed at a minimum depth of 2 feet and 2.5 feet below finished grade, respectively.
8. The suitability of footing subgrades and the bearing material assumed for the design shall be verified in the field.

Floor Slab Design

1. For the design and construction of any interior slabs-on-grade for the proposed structures, all existing topsoil, fill, rootmat, and any other soft or unsuitable materials shall be removed from these areas.
2. The stripped area shall be observed by an experienced soil technician during the time of construction in order to aid in locating all such unsuitable materials which shall be removed.
3. Where new fill material is required to reach the design floor slab subgrade elevation, an approved inorganic material, free of debris shall be used.
4. If highly plastic soils are encountered, the lowest floor slab subgrade of the proposed structures shall be prepared as outlined in the High Plasticity Soils section.
5. All fill shall be placed in lifts not exceeding 8 inches in loose thickness, moisture conditioned to within ±2% of the optimum moisture content, and compacted to a minimum of 95% of the maximum density obtained in accordance with ASTM Specification D-698, Standard Proctor Method.
6. Where floor slab loads in excess of 500 psf are anticipated, or where masonry partition walls will be supported directly on the floor slabs-on-grade, the fill material shall be compacted to a minimum of 100% of the above referenced ASTM Specification density.
7. The floor slab shall be isolated from the foundation footings.
8. Mesh reinforcement shall be included in the design of the floor slab. The mesh shall be in the top half of the slab.
9. Slabs-on-grade shall be underlain by a minimum of 4 inches of granular material having a maximum aggregate size of 1.5 inches and no more than 2% of fines passing the number 200 sieve (VDOT #57 stone or equivalent).
10. Prior to placing the granular material, the floor subgrade soil shall be properly compacted, proofrolled, and free of standing water, mud, and frozen soil.

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
Paul D Agutter
Lic. No. 28185
12/18/15

KEY PLAN

SCALE NORTH

N/A

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MLJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE
GEOTECHNICAL REQUIREMENTS COUNTY SITE

SP NO. #6848-SP-014

B01.201

SECTION NO. B01-GEOTECHNICAL

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11. Before the placement of concrete, a vapor barrier shall be placed on top of the granular material to provide additional moisture protection.
12. The floor slab stone shall be hydraulically connected to underground drain lines to remove any water that shall reach the floor slab stone.

Below Grade Walls

1. The below grade walls shall be designed to withstand lateral earth pressures and surcharge loads within a 45 degree slope from the base of the wall.
2. For below grade walls that are properly drained, a linearly increasing lateral "at-rest" earth pressure of 65 psf per vertical foot of wall shall be utilized if the on-site soils are used for the wall backfill. Please refer to the Lateral Earth Pressure Diagram.
3. If free draining granular materials (SP, SW, GP, GW) are used for wall backfill that are properly drained, a linearly increasing "at-rest" lateral earth pressure of 45 psf per vertical foot of wall shall be utilized.
4. If the 45 psf lateral earth pressure is to be used for design purposes, then the entire zone of influence for the below grade wall shall be backfilled with granular materials (SP, SW, GP, GW).
5. The wall design shall account for any surcharge loads within a 45° slope from the base of the wall.
6. Below grade walls shall be damp proofed and drained. Drainage of the wall backfill shall be achieved by use of granular backfill materials, or a suitable manmade drainage medium. Please refer to the Below-Grade Waterproofing and Underslab Drainage Diagram.
7. These materials shall be covered with a geotextile filter having an equivalent opening size (EOS) compatible with the particle size of the retained soils.
8. The material shall be placed in accordance with the manufacturer's recommendations and connected to the exterior perimeter drainage and discharged to a suitable outlet.
9. Where a space exists between the outside of the wall and the below grade space excavation, granular backfill shall be placed in lieu of manmade drainage materials.
10. Granular fill shall extend to a level of approximately two feet below the finished exterior grade. The remaining two feet shall consist of a clayey material to minimize the amount of surface water infiltration into the granular backfill.
11. The finished exterior ground surface adjacent to the below grade wall shall be properly graded to prevent ponding of water adjacent to the wall.
12. The granular backfill shall be in accordance with, and placed and compacted in accordance with the criteria in the Fill Placement section.
13. Heavy earthwork equipment shall maintain a minimum of 1 foot space per foot of vertical wall height away from the wall.
14. Lighter compaction equipment shall be used close to the below grade walls and the loose thickness of the lifts shall be reduced to no more than 6 inches.

Underslab Drainage

1. A permanent groundwater control system which shall include a perimeter drainage system draining to a sump for below grade space shall be utilized.

2. The system shall consist of perforated or porous wall, closed joint drain tiles located around the interior perimeter of the below grade areas, as close as feasible to the exterior wall, below the finished floor level.
3. Weep holes shall be placed at a spacing of no greater than 8 feet on center on all below grade walls.
4. The weep holes shall be a minimum of two inches in diameter, and shall freely drain from the exterior drainage medium to be collected by the interior perimeter drain line just inside the base of the wall.
5. The drain lines shall be surrounded by a minimum of six inches of gravel (#57 stone) or clean sand material having a gradation compatible with the size of the opening utilized in the drain lines and the surrounding soils to be retained.
6. The perimeter and underslab drain system for the proposed structures shall be designed to flow to a permanent sump(s) with a full duplex capability (i.e. two pumps per pit), with each individual pump rated at no less than 50 gallons per minute (gpm).
7. The contractor shall monitor the pumping rate of the construction dewatering system in order to verify that the permanent sump pump has been adequately sized.

Exterior Pavements Design Considerations

1. For the design and construction of exterior pavements, topsoil and any other soft or unsuitable materials such as highly plastic clays (CH) and elastic silt (MH) shall be removed from the area to be paved extending to a limit 5 feet beyond the back of curb or edge of shoulder.
2. The stripped surface shall be proofrolled and carefully observed at the time of construction in order to aid in identifying the localized soft or unsuitable materials, which shall be removed.
3. Guidelines set forth in the section entitled Earthwork Operations section of this report shall be followed.
4. Laboratory California Bearing Ratio (CBR) and Atterberg limit tests shall be performed on representative subgrade materials in the proposed pavement areas to verify final design of these pavements.
5. Pavement in trash pickup areas and at loading docks, if any, shall consist of a mesh reinforced concrete slab, over graded aggregate (VDOT 21-A) subbase to be designed by others.
6. Once pavement areas have been established to subgrade elevations, the placement of all pavement design elements shall be performed in a timely manner.
7. Good drainage shall be maintained throughout all new pavement sections during the construction phase.

Earth Retention System

1. A temporary support excavation system (SOE) shall be required in areas where there is insufficient space to lay back excavations.
2. A free draining system consisting of soldier piles and wood lagging shall be utilized. The system shall be braced externally using tiebacks, if possible.
3. Spacing of the soldier piles and braces shall be determined by a structural analysis.

4. The maximum center line to center line spacing of the soldier piles shall not exceed 10 feet. Wooden lagging shall have a minimum thickness of 3 inches.
5. The influence of any surcharge loads shall be considered in the design of the SOE. This shall consist of any additional lateral load transmitted by adjacent roadways and temporary construction loads.
6. In the areas where adjacent structures have footings which shall surcharge the earth retention system or deeper excavations, the lateral earth pressure shall increase.
7. The earth retention system designer shall specify a maximum allowable lateral movement of the system.
8. The contractor shall avoid stockpiling excavated materials or equipment immediately adjacent to the excavation walls.
9. Stockpiled materials shall be kept back from the excavation a minimum distance equal to 1/2 the excavation depth to limit surcharging the excavation walls. If this is impractical due to space constraints, the excavation walls shall be retained with bracing designed for the anticipated surcharge load.
10. The earth retention system design shall consider surcharge loads from cranes and other construction equipment during construction as well as buildings.
11. If tiebacks are used, a "performance test" shall be performed on 10% of randomly selected tiebacks (or a minimum of three tiebacks, whichever is greater).
12. The tieback capacity shall be considered adequate when a stable condition is obtained under a particular test load for a duration of 15 minutes.
13. Each tieback shall be "proof tested" to 120% of its design load.
14. In addition, each tieback shall be pretested to 120% of the design load and then backed off to 80% of the design load.
15. Public space permits shall be required for tiebacks that penetrate into public space.
16. In areas where tiebacks are not feasible, an internal bracing system of rakers shall be required.
17. Rakers shall be braced against toe blocks or other reaction points that have been designed to carry the load.
18. Temporary slopes shall be constructed no steeper than 2H:1V and maintained for no more than 90 days.
19. The slopes shall be protected from erosion since the soils are highly erodible.
20. Permanent slopes shall be constructed no steeper than 3H:1V.
21. The SOE design parameters shall be chosen by the specialty design/build contractor based upon their interpretation of the subsurface information and recommendations contained in this report, or with supplemental data the SOE contractor collects on their own.
22. The earth retention system shall be designed for both global stability as well as stability at the face of the excavation; minimum factor of safety for both overturning and sliding of 1.2.
23. The geotechnical engineer of record shall perform a review of the SOE designer's plans and calculations and to provide a letter of acceptance.
24. The SOE contractor and geotechnical engineer of record shall review the geotechnical design criteria of the SOE design prior to final plans and calculations, submitted for County review and approval.

Earth Retention System/Support of Excavation (SOE) Performance Requirements

The following specification shall be used in the construction documents associated with the earth retention system.

Part 1 – General

1. Contractor/Designer shall design and construct a temporary Support of Excavation (SOE) system sufficient to support the project's below grade construction.

Part 2 – Submittals

1. SOE design plans sealed by a licensed Professional Engineer for the jurisdiction the work is performed in.
2. All supporting calculations for the SOE design, including global stability calculations.
3. Subsurface data utilized for the SOE design.
4. The braced excavation contractor shall submit the anticipated movement amounts (vertically and laterally) of each portion of the excavation support system to the owner's engineering consultant. These anticipated movements will also serve as the basis for evaluating the performance of the excavation support system. If creep movements are anticipated, the contractor shall state the total expected magnitude and rate during the time frame the SOE system is required to support the excavation. The contractor's estimated excavation support movements shall be subject to review and acceptance by the owner's engineering consultant before they are used as the performance standard.
5. Jack calibration data for any equipment utilized to tension tieback anchors. Calibration records must be current within a 12 month period of the time of anchor stressing.
6. Proposed Performance Test Locations and elevations (for tieback anchors).
7. If not stated on the plans, the method of soldier pile installation.

Part 3 – Performance Requirements

1. The performance of the braced excavation system will be monitored (measured) by the owner's engineering consultants. These measurements will serve as the basis for determining the performance and adequacy of the excavation support system. The initial baseline measurements and periodic movement data will be provided to all parties involved in construction. The initial baseline measurements shall be obtained before significant portions of the below grade excavation work occur, and preferably before any excavation work begins. The contractor shall make his own independent measurements; however, the owner's engineering consultant's measurements will serve as the basis for performance evaluation.
2. If the movements of the excavation support system exceed the contractor's estimate, additional support for the excavation support system shall be provided by the contractor on an urgent basis, at no additional cost to the owner. If the excavation support system is creeping (inward or downward), and the owner's engineers projected estimate of total movement (within the performance time period of the excavation support system) exceeds the total movement estimates provided by the contractor, then additional support shall be added to the braced excavation system to halt the creeping, also on an urgent basis, at no additional cost to the owner.

Part 4 – Monitoring by Owner's Engineering Consultant

1. Prior to or very near the commencement of below grade excavation work, baseline data of the position of the SOE system will be obtained. Baseline measurements and subsequent movement evaluation will be performed with either total station, laser technology or optical surveying equipment. Total station technology is capable of making precise measurements of movement (±0.125 inches). Reflector "targets" will be attached to the SOE system by the Owner's Engineering Consultant, with the full cooperation and assistance of the SOE contractor. The Owner's Engineering Consultant, with the assistance of the SOE contractor, shall replace any previously established targets if they are damaged during construction.
2. Monitoring Frequency. The SOE monitoring frequency is as follows:
   - Twice weekly during excavation of below grade building levels
   - Twice weekly during construction of all below grade levels
   - Monitoring frequency will remain at twice per week until the structural engineer (SE) indicates that all below grade level walls and floors are constructed and capable of resisting the below grade soil and water pressures.
   - Monitoring ceases after below grade construction ends and SE indicates that all below grade level walls and floors are constructed and capable of resisting the below grade soil and water pressures.
3. Reporting.
   - The results of the monitoring readings will be transmitted verbally to either the general contractor's representative or the SOE contractor's representative during the field work. Any significant movements since the prior readings will be identified.
   - Written reports containing the monitoring data and corresponding graphical presentation of said data will be provided by the Engineer to all interested parties, electronically and in hardcopy form, or a weekly or twice monthly basis.

Temporary and Permanent Slopes

1. Temporary fill slopes constructed of on-site native residual soils shall be limited to a maximum gradient of approximately 2H:1V, and these slopes shall not remain post-construction.
2. The temporary slopes shall be thoroughly vegetated to help minimize erosion of the surficial soils.
3. Temporary excavation slopes cut in the native soils shall be no steeper than as indicated by OSHA and VOSHA protocol.
4. Permanent slopes constructed of native soils shall be 3H:1V or flatter with exception of slopes evaluated by the Geotechnical Engineer of Record (GER).
5. Gradients as steep as 2H:1V shall be achieved through the use of select aggregate or engineered rock fills, as well as through the installation of geosynthetics in native soils, but these must be evaluated and designed by the GER.
6. Small landscape berms not exceeding 4 feet shall be as steep as 1H:1V, but shall be compacted as structural fill and thoroughly vegetated immediately upon completion.

Construction Considerations

1. Foundation concrete shall be placed the same day that excavations are dug.
2. If the bearing soils are softened by surface water intrusion or exposure, the softened soils must be removed from the foundation excavation bottom immediately prior to placement of concrete.
3. If the excavation must remain open overnight, or if rainfall becomes imminent while the bearing soils are exposed, a 1- to 3-inch thick "mud mat" of "lean" concrete shall be placed on the bearing soils before the placement of reinforcing steel.
4. All fill operations shall be observed by a qualified soil technician to under the direction of a geotechnical engineer to determine if minimum compaction requirements are being met.
5. The Contractor shall provide and maintain good site drainage during earthwork operations to help maintain the integrity of the surficial soils.
6. All erosion and sedimentation shall be controlled in accordance with sound engineering practice and current County requirements.

General Notes

1. If the elevation, location, or configuration of the proposed building or pavement area changes from that evaluated in the geotechnical report, ECS shall be notified so that modifications to the geotechnical requirements and specifications shall be made, if necessary.
2. All construction involving problem soils shall be performed under the full-time inspection of the geotechnical engineer.
3. The geotechnical engineer shall furnish a written opinion to the County as to whether or not the work has been performed in accordance with the approved plans prior to the issuance of a non-residential use permit.
4. Review and approval of plans, specifications, and reports by the County, with or without requirements by the Geotechnical Review Board, shall in no way relieve the developer of the responsibility for the design, construction and performance of the structures, pavement and slopes on the project and damage to surrounding properties.

We hereby certify that we have reviewed the site plan drawings by Dewberry dated 12/14/15 and find them to be in general accordance with these Geotechnical Specifications. In addition, we hereby certify that these Geotechnical Specifications are in accordance with the Geotechnical Report.

Paul D. Agutter, P.E.

Paul D. Agutter
Lic. No. 38105
DATE 12/18/15

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Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

Paul D. Agutter
Lic. No. 38105
12/18/15

KEY PLAN

SCALE NORTH

N/A

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY MLJ
APPROVED BY CAP
CHECKED BY CJD
DATE SEPTEMBER 2014

TITLE
GEOTECHNICAL REQUIREMENTS COUNTY SITE

SP NO. #6848-SP-014

B01.202

SECTION NO. B01-GEOTECHNICAL

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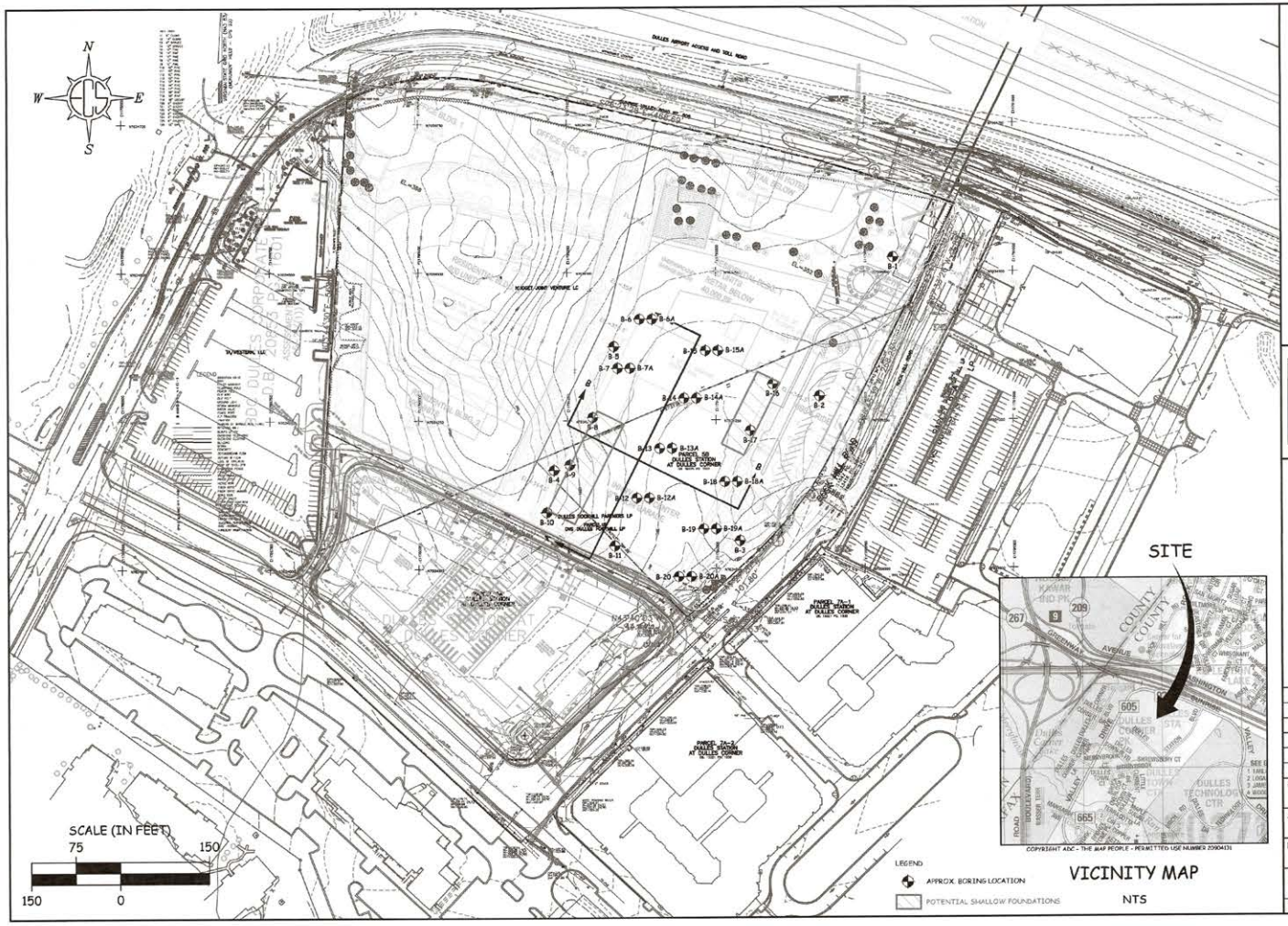

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INNOVATION CENTER STATION
ROUTE 28 GARAGE
HERNDON, VA

ECS

ALTERNATIVE FOUNDATION
LOCATION DIAGRAM
FAIRFAX COUNTY DPW

ECS REVISIONS
11-15-13

ENGINEER	DRAFTING
NCB	RAC

SCALE	1"=150'
PROJECT NO.	21839
SHEET	1 OF 3
DATE	10-18-13

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
Paul D. Agutter
Lic. No. 38105
12/18/15
PROFESSIONAL ENGINEER

KEY PLAN

SCALE NORTH

N/A

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

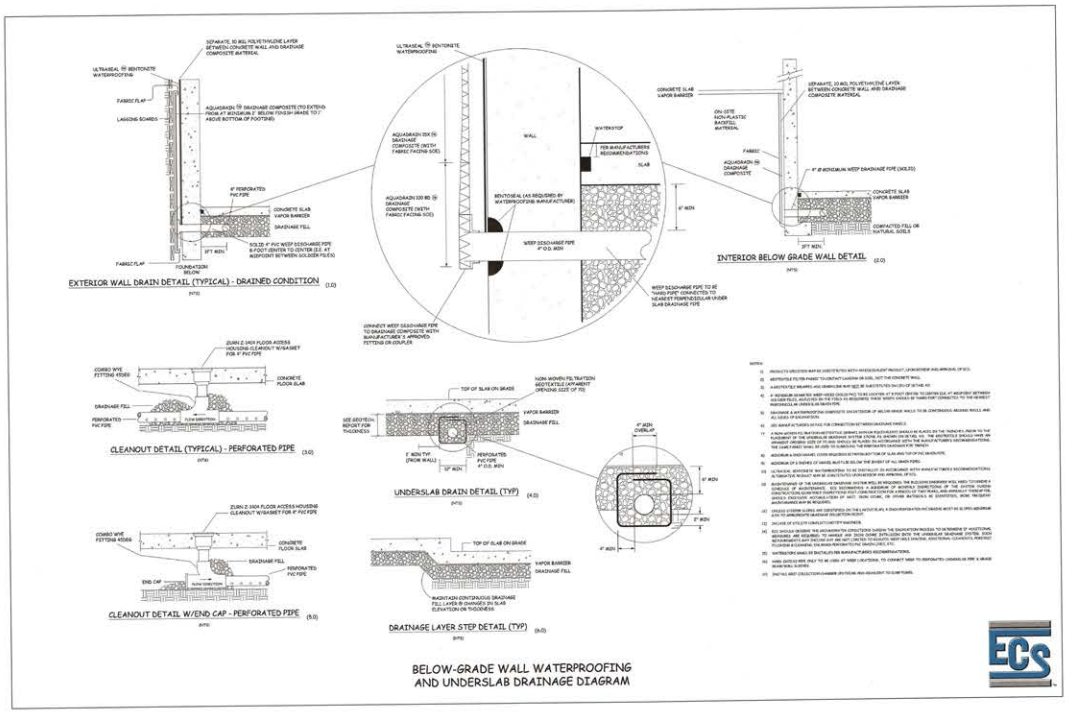
DRAWN BY	MLJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

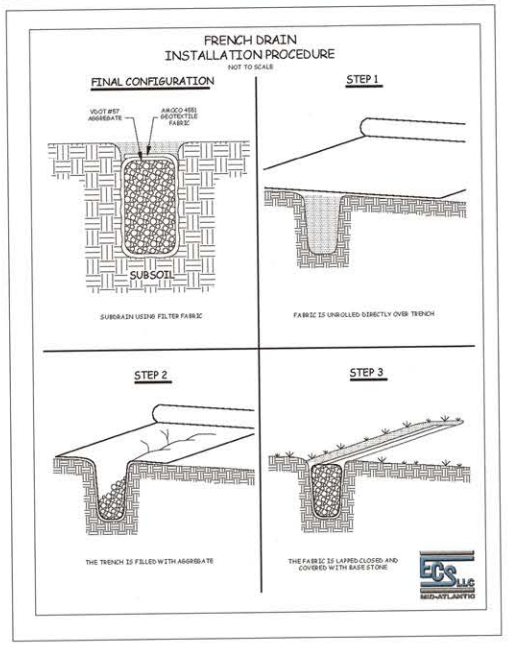
TITLE
GEOTECHNICAL REQUIREMENTS COUNTY SITE

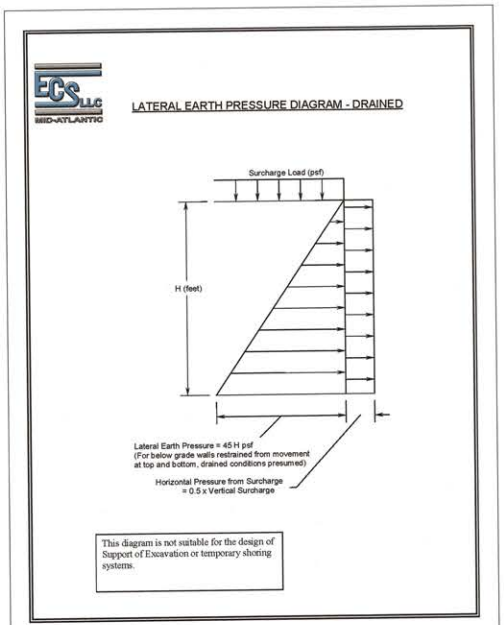
SP NO. #6848-SP-014

B01.203

SECTION NO. B01-GEOTECHNICAL







NOTES:

* NOTES ARE COPIED FROM SHEET ABOVE FOR LEGIBILITY ONLY

1. PRODUCTS SPECIFIED MAY BE SUBSTITUTED WITH AN EQUIVALENT PRODUCT, UPON REVIEW AND APPROVAL OF ECS.
2. GEOTEXTILE FILTER FABRIC TO CONTACT LAGGING OR SOIL, NOT THE CONCRETE WALL.
3. A GEOTEXTILE WRAPPED ADS DRAIN LINE MAY NOT BE SUBSTITUTED IN LIEU OF DETAIL 4.0.
4. 4" MINIMUM DIAMETER WEEP HOLES (SOLID PVC) TO BE LOCATED AT 8 FOOT CENTER TO CENTER (I.E. AT MIDPOINT BETWEEN SOLDIER PILES, ADJUSTED IN THE FIELD AS REQUIRED). THESE WEEPS SHOULD BE "HARD PIPE" CONNECTED TO THE NEAREST PERPINDICULAR UNDERSLAB DRAIN PIPE.
5. DRAINAGE & WATERPROOFING COMPOSITE ON EXTERIOR OF BELOW GRADE WALLS TO BE CONTINUOUS AROUND WALLS AND ALL SIDES OF EXCAVATION.
6. SEE MANUFACTURER'S DETAIL FOR CONNECTION BETWEEN DRAINAGE PANELS.
7. A NON-WOVEN FILTRATION GEOTEXTILE (MIRAFI 140N OR EQUIVALENT) SHOULD BE PLACED IN THE TRENCHES, PRIOR TO THE PLACEMENT OF THE UNDERSLAB DRAINAGE SYSTEM STONE AS SHOWN ON DETAIL 4.0. THE GEOTEXTILE SHOULD HAVE AN APPARENT OPENING SIZE OF 70 AND SHOULD BE PLACED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. THE SAME FABRIC SHALL BE USED TO SURROUND THE PERFORATED DRAINAGE PIPE TRENCH.
8. MINIMUM 6-INCH GRAVEL COVER REQUIRED BETWEEN BOTTOM OF SLAB AND TOP OF PVC DRAIN PIPE.
9. MINIMUM OF 2-INCHES OF GRAVEL MUST LIE BELOW THE INVERT OF ALL DRAIN PIPES.
10. WATERPROOFING TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. ALTERNATIVE PRODUCT MAY BE SUBSTITUTED UPON REVIEW AND APPROVAL OF ECS.
11. MAINTENANCE OF THE UNDERSLAB DRAINAGE SYSTEM WILL BE REQUIRED. THE BUILDING ENGINEER WILL NEED TO DERIVE A SCHEDULE OF MAINTENANCE. ECS RECOMMENDS A MINIMUM OF MONTHLY INSPECTIONS OF THE SYSTEM DURING CONSTRUCTION, QUARTERLY INSPECTIONS POST-CONSTRUCTION FOR A PERIOD OF TWO YEARS, AND ANNUALLY THEREAFTER. SHOULD EXCESSIVE ACCUMULATION OF GRIT, IRON OCHRE, OR OTHER MATERIALS BE IDENTIFIED, MORE FREQUENT MAINTANANCE MAY BE REQUIRED.
12. UNLESS STEEPER SLOPES ARE IDENTIFIED ON THE LAYOUT PLAN, 4-INCH PERFORATED PVC DRAINS MUST BE SLOPED MINIMUM 0.5% TO APPROPRIATE DRAINAGE COLLECTION POINT.
13. IN CASE OF UTILITY CONFLICTS NOTIFY ENGINEER.
14. ECS SHOULD OBSERVE THE GROUNDWATER CONDITIONS DURING THE EXCAVATION PROCESS TO DETERMINE IF ADDITIONAL MEASURES ARE REQUIRED TO HANDLE ANY IRON OCHRE INTRUSION INTO THE UNDERSLAB DRAINAGE SYSTEM. SUCH MEASUREMENTS MAY INCLUDE BUT ARE NOT LIMITED TO REDUCED WEEP HOLE SPACING, ADDITIONAL CLEANOUTS, PERIODIC FLUSHING & CLEANING, ENLARGED PERFORATED PVC DRAIN LINES, ETC.
15. WATERSTOPS SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.
16. HARD (SOLID) PIPE ONLY TO BE USED AT WEEP LOCATIONS, TO CONNECT WEEP TO PERFORATED UNDERSLAB PIPE & GRADE BEAM/WALL SLEEVES.
17. INSTALL GRIT COLLECTION CHAMBER UPSTREAM AND ADJACENT TO SUMP PUMPS.

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

Luke D. Agutter
Lic. No. 38105
12/8/15

KEY PLAN

SCALE NORTH

N/A

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY	MLJ
APPROVED BY	CAP
CHECKED BY	CJD
DATE	SEPTEMBER 2014

TITLE

GEOTECHNICAL REQUIREMENTS COUNTY SITE

SP NO. #6848-SP-014

B01.204

SECTION NO. B01-GEOTECHNICAL

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Fri, Nov 13, 2015 - 1:29:15pm

Innovation Center South and the Innovation Center Station Garage

Dranesville District Fairfax County, Virginia

CONCEPTUAL DEVELOPMENT PLAN / FINAL DEVELOPMENT PLAN RZ 2009-HM-017

Application No: RZ / FDP 2009-HM-017 Staff: WO'D

APPROVED DEVELOPMENT PLAN

(_SDP) (X DP) (X DP) (_PRC) (_PP) (_CP) (_SE) (_CSP) (_SP) (_VC)

SEE PROFFERS DATED: Jul 25, 2014

SEE CONDITIONS DATED:

Date of Final Approval: Jul 29, 2014 (X BOS) (_PC) (_BZA)

Comments: CDP Devel. Conds. Dated 4/30/2014

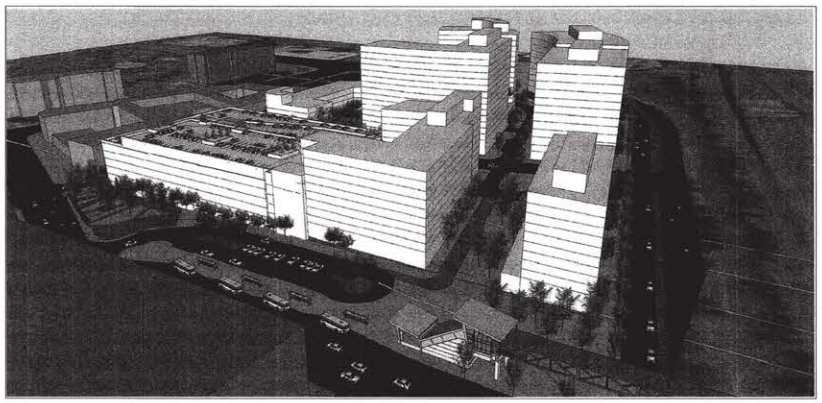
& ZONING

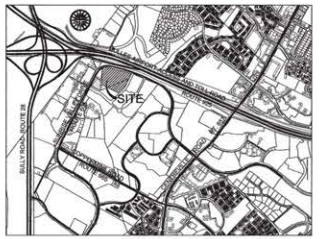
Sheet 1 of 76

APPLICANT:
Nugget Joint Venture L.C.
1960 Gallows Road Suite 300
Vienna, Virginia 22182

APPLICANT:
Fairfax County
12000 Government Center Parkway
Fairfax, Virginia 22035

APPLICANT:
Dulles Rockhill Partners Limited Partnership
455 Spring Park Place, Suite 100
Herndon, VA 20170





VICINITY MAP

SCALE 1" = 2000'

Sheet Index

C-1..... COVER SHEET
C-2..... NOTES / TABULATION
C-2a.... WAIVERS/MODIFICATIONS/SOILS MAP/ANGLE OF BULK PLANE
C-2b.... COMPREHENSIVE PLAN LAND UNIT AND LAND BAY EXHIBIT
C-2c.... PARKING SUMMARY
C-3..... EXISTING CONDITIONS
C-4..... CONCEPTUAL / FINAL DEVELOPMENT PLAN
C-5..... OPEN SPACE EXHIBIT
C-6..... EXISTING VEGETATION MAP
C-6a.... LANDSCAPE CALCULATIONS
C-7..... PROPOSED ROADS / R.O.W. PLAN
C-7a.... SIGHT DISTANCE PLAN
C-8..... PHASING PLAN
C-9..... STORMWATER MANAGEMENT PLAN
C-10.... PROJECT OUTFALL LIMITS
C-11.... STORMWATER MANAGEMENT PLAN
C-12.... VRR METHOD WORKSHEET SUMMARY
C-13.... REGIONAL POND APPROVED CALCULATIONS
C-14.... REGIONAL POND APPROVED CALCULATIONS
C-15.... REGIONAL POND APPROVED CALCULATIONS
C-16.... REGIONAL POND APPROVED CALCULATIONS
C-17.... REGIONAL POND APPROVED CALCULATIONS
C-18.... REGIONAL POND APPROVED CALCULATIONS
C-19.... REGIONAL POND APPROVED CALCULATIONS
C-20.... OUTFALL 1 APPROVED CALCULATIONS
C-21.... OUTFALL 1 APPROVED CALCULATIONS
C-22.... OUTFALL 1 APPROVED CALCULATIONS
C-23.... OUTFALL 1 APPROVED CALCULATIONS
C-24.... OUTFALL 1 APPROVED CALCULATIONS
C-25.... OUTFALL 2 APPROVED CALCULATIONS
C-26.... OUTFALL 2 APPROVED CALCULATIONS
C-27.... OUTFALL 2 APPROVED CALCULATIONS
C-28.... OUTFALL 2 APPROVED CALCULATIONS
C-29.... OUTFALL 2 APPROVED CALCULATIONS
C-30.... OUTFALL 2 APPROVED CALCULATIONS
L-1..... OVERALL LANDSCAPE PLAN
L-2..... HARDSCAPE PLAN
L-3..... PEDESTRIAN CIRCULATION PLAN
L-3a..... CONNECTIVITY PLAN
L-4..... ILLUSTRATIVE SITE PLAN
L-4a..... PHASE 1, INTERIM IMPROVEMENT
L-5a..... TYPICAL STREET SECTIONS
L-5b..... TYPICAL STREET SECTIONS
L-6a-1... METRO PLAZA ENLARGEMENT
L-6a-2.. METRO PLAZA SECTION
L-6b-1... URBAN PARK ENLARGEMENT
L-6b-2.. URBAN PARK SECTIONS
L-6c-1... POCKET PARK ENLARGEMENT & SECTION
L-7a..... TYPICAL STREET TREE DETAILS
L-7b..... TYPICAL RAIN GARDEN & TREE DETAILS
L-7c..... TREE DETAILS
L-7d..... PLANTING SPECIFICATIONS
L-7e..... PLANTING SPECIFICATIONS
L-8..... SITE FURNITURE AND MATERIAL IMAGES
L-9..... PERSPECTIVE VIEWS
A-100... OVERALL CDP/FDP SITE PLAN
A-101... RETAIL/FIRE LANE FLOOR PLANS
A-102... LAND BAY A PARKING PLANS
A-103... LAND BAYS B & D PARKING PLANS
A-104... METRO PARKING GARAGE PLANS
A-201... OVERALL FLOOR PLANS - EL. 320.00'
A-202... OVERALL FLOOR PLANS - EL. 330.00' & 340.00'
A-203... OVERALL FLOOR PLANS - EL. 350.00'
A-204... OVERALL FLOOR PLANS - EL. 360.00'
A-205... OVERALL FLOOR PLANS - EL. 375.00'
A-206... OVERALL FLOOR PLANS - EL. 385.00'
A-301... BUILDING SITE SECTIONS
A-310... BUILDING ELEVATIONS
A-311... BUILDING ELEVATIONS
A-312... BUILDING ELEVATIONS
A-401... MASSING MODELS
A-402... CONCEPTUAL RENDERING
A-403... CONCEPTUAL RENDERING
A-404... CONCEPTUAL RENDERING
A-405... CONCEPTUAL RENDERING
A-410... SHADOW STUDIES

Dewberry
Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

DCS DESIGN
DAVIS CARTER SCOTT

LSG LANDSCAPE ARCHITECTURE

Issued for Construction
May 29, 2014

SEAL

CODY A. PENNETTI
Lic. No. 045960
PROFESSIONAL ENGINEER
COMMONWEALTH OF VIRGINIA

SEAL

JOHN WILLIAM EWING
Lic. No. 9053
4/21/2014
PROFESSIONAL ENGINEER
COMMONWEALTH OF VIRGINIA

Rev. April 21, 2014
Rev. March 27, 2014
Rev. February 21, 2014
Rev. January 3, 2014
Rev. November 22, 2013
September 9, 2013*

August 1, 2013

R01.101

SECTION NO. M-10830 R01-ZONING

NOTES

1. THE PROPERTY THAT IS THE SUBJECT OF THIS REZONING, CONCEPTUAL DEVELOPMENT PLAN /FINAL DEVELOPMENT PLAN (RZ/CDP/FDP) IS PROPOSED TO BE ZONED TO THE PLANNED RESIDENTIAL MIXED USE DISTRICT (PRM) AND IS IDENTIFIED ON THE FAIRFAX COUNTY ZONING MAP AS 15-2 ((1)) 13 PART, 15-4 ((5)) 5B AND 15-4 ((5)) 5A PART. THE CDP/FDP LAND AREA CONTAINS APPROXIMATELY 14.68 ACRES. THE PROPERTY IS VACANT.

   THE PROPERTY IS ZONED TO THE PLANNED DEVELOPMENT COMMERCIAL (PDC) DISTRICT WHICH WAS ORIGINALLY APPROVED ON AUGUST 25, 1975 WITH THE APPROVAL OF REZONING APPLICATION C-698. THE ORIGINAL DEVELOPMENT PROGRAM WAS THE SUBJECT OF AMENDMENT ON AUGUST 2, 1993 WITH THE APPROVAL OF A PCA/CDPA/FDPA APPLICATION C-698.

2. THE CDP/FDP HAS BEEN FILED TO REZONE THE PROPERTY TO THE PLANNED RESIDENTIAL MIXED USE (PRM) DISTRICT IN ORDER TO REVISE THE DEVELOPMENT PROGRAM FOR THE SUBJECT PROPERTY THAT, AS NOTED ABOVE, WAS APPROVED BY PCA/CDPA/FDPA ON AUGUST 2, 1993. THE PROPOSED DEVELOPMENT PROGRAM WILL BE A TRANSIT-ORIENTED, MIXED USE PROJECT COMPRISED OF FOUR MULTI-FAMILY RESIDENTIAL BUILDINGS (UP TO 925 UNITS PLUS POTENTIAL BONUS DENSITY UNITS), A 190-ROOM HOTEL, TWO OFFICE BUILDINGS, STREET LEVEL RETAIL (SHOPPING CENTER) USES, TRANSIT PARKING FACILITIES, BUS BAYS, BICYCLE FACILITIES, AND A KISS & RIDE FACILITY.

   THE PROPOSED DEVELOPMENT PROGRAM WILL CONTAIN A TOTAL OF APPROXIMATELY 1,646,041 SQUARE FEET OF GROSS FLOOR AREA (INCLUDING BONUS DENSITY, WHICH WILL PROVIDE FOR A MORE INTENSE DEVELOPMENT PROGRAM ON THIS SITE WHICH IS LOCATED IMMEDIATELY ADJACENT TO THE PLANNED METRO RAIL STATION IN THE MEDIAN OF THE DULLES AIRPORT ACCESS ROAD. THE PROPOSED STATION IS REFERRED TO AS THE INNOVATION CENTER STATION.

   IT IS TO BE NOTED THAT THE PROPOSED DEVELOPMENT PROGRAM ACCOMMODATES THE THREE (3) ACRE PORTION OF THE SUBJECT PROPERTY THAT WAS PROFFERED TO BE DEDICATED FOR A TRANSPORTATION FACILITY WITH THE APPROVAL OF PCA C-698. IT IS NOTED THAT THIS THREE ACRE PORTION OF THE PROPERTY HAS BEEN RELOCATED SINCE THE APPROVAL OF PCA C-698.

3. THE BOUNDARY INFORMATION SHOWN ON THE GRAPHIC IS BY DEWBERRY CONSULTANTS LLC.

4. THE TOPOGRAPHY SHOWN ON THE GRAPHIC IS AT A CONTOUR INTERVAL OF TWO (2) FEET FROM A FIELD SURVEY BY DEWBERRY CONSULTANTS LLC.

5. NOTWITHSTANDING THE CDP AND FDP ARE PRESENTED TOGETHER ON THE SAME PLAN, IT SHALL BE UNDERSTOOD THAT THE CDP SHALL BE THE ENTIRE PLAN RELATIVE TO THE POINTS OF ACCESS, THE GENERAL LOCATION OF BUILDINGS, MAXIMUM NUMBER OF RESIDENTIAL UNITS, MAXIMUM SQUARE FOOTAGE OF NON-RESIDENTIAL USES, MINIMUM/MAXIMUM BUILDING HEIGHTS, ON-SITE CIRCULATION, AND COMMON OPEN SPACE AREAS, AND THAT THE DEVELOPER HAS THE OPTION TO REQUEST A FDPA IN THE FUTURE FROM THE PLANNING COMMISSION FOR ALL OR A PORTION OF THE PLAN IN ACCORDANCE WITH THE PROVISIONS SET FORTH IN SECT. 16-402 OF THE ZONING ORDINANCE.

6. TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO GRAVES LOCATED ON THE SUBJECT PROPERTY.

7. PUBLIC WATER AND SEWER ARE CURRENTLY AVAILABLE IN PROXIMITY TO THE SITE AND WILL BE EXTENDED ON SITE TO SERVE THE PROPOSED DEVELOPMENT PROGRAM.

8. THERE IS NO FLOODPLAIN DESIGNATED BY THE FEDERAL INSURANCE ADMINISTRATION, UNITED STATES GEOLOGICAL SURVEY OR FAIRFAX COUNTY, NO RESOURCE PROTECTION AREA (RPA), AND NO ENVIRONMENTAL QUALITY CORRIDOR (EQC) LOCATED ON THE SUBJECT PROPERTY.

9. TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO EXISTING UTILITY EASEMENTS HAVING A WIDTH OF TWENTY-FIVE (25) FEET OR MORE OR MAJOR UNDERGROUND UTILITY EASEMENTS LOCATED ON THE SUBJECT PROPERTY.

10. STORMWATER MANAGEMENT (SWM) AND BEST MANAGEMENT PRACTICES (BMPs) FOR THE PROPOSED DEVELOPMENT PROGRAM HAVE BEEN PROVIDED OFF SITE IN AN EXISTING REGIONAL POND LOCATED ON PARCEL 15-4 ((5)) 3.

11. THERE IS NO ANGLE OF BULK PLANE REQUIREMENT PRESCRIBED FOR THE PRM DISTRICT, HOWEVER, A GRAPHIC DEPICTION OF THE ANGLE OF BULK PLANE IS SHOWN ON SHEET C-2a. THE CONVENTIONAL ZONING DISTRICT THAT MOST CLOSELY CHARACTERIZES THE PROPOSED DEVELOPMENT IS THE R-30 DISTRICT. THE ANGLE OF BULK PLANE REQUIREMENTS FOR THE R-30 DISTRICT ARE PRESENTED FOR GENERAL CONFORMANCE BY THE PROPOSED DEVELOPMENT AT THE PRM PERIPHERAL BOUNDARY.

12. ALL REQUESTED WAIVERS AND MODIFICATIONS ARE LISTED ON SHEET C-2a.

13. PARKING SPACES FOR THE PROPOSED DEVELOPMENT PROGRAM ON THE SUBJECT PROPERTY WILL BE PROVIDED IN ACCORDANCE WITH THE PROVISIONS SET FORTH IN ARTICLE 11 OF THE ZONING ORDINANCE. AS REPRESENTED ON THE GRAPHIC AND IN THE TABULATION, A MAJORITY OF THE PARKING SPACES WILL BE PROVIDED IN AN UNDERGROUND OR STRUCTURAL GARAGE.

   THE APPLICANT SHALL REQUEST A FUTURE REDUCTION IN THE NUMBER OF REQUIRED PARKING SPACES AS MAY BE APPROVED BY THE BOARD OF SUPERVISORS IN ACCORDANCE WITH THE PROVISIONS SET FORTH IN PARS. 4, 5 AND/OR 27 OF SECT. 11-102 OF THE ZONING ORDINANCE (SEE SHEET C-2a), AND AS RECOMMENDED BY THE COMPREHENSIVE PLAN.

14. LOADING SPACES FOR THE PROPOSED DEVELOPMENT PROGRAM ON THE SUBJECT PROPERTY HAVE BEEN/WILL BE PROVIDED IN ACCORDANCE WITH THE PROVISIONS SET FORTH IN ARTICLE 11 OF THE ZONING ORDINANCE EXCEPT AS QUALIFIED AS FOLLOWS:

   AS REPRESENTED IN THE TABULATION AND ON THE GRAPHIC, ONLY NINE (9) LOADING SPACES ARE PLANNED FOR THE PROPOSED MIXED USE DEVELOPMENT PROGRAM. BY STRICT APPLICATION OF THE PROVISIONS OF ARTICLE 11 OF THE ZONING ORDINANCE, 45 LOADING SPACES ARE REQUIRED. EXPERIENCE HAS PROVEN THAT SUCH A STANDARD IS EXCESSIVE, AND REQUEST IS HEREBY MADE FOR THE BOARD OF SUPERVISORS TO APPROVE A MODIFICATION OF THIS STANDARD IN FAVOR OF THE NINE (9) PROPOSED LOADING SPACES.

15. CONSTRUCTION OF IMPROVEMENTS TO SUNRISE VALLEY DRIVE ACROSS THE FRONTAGE OF THE SUBJECT PROPERTY WILL BE PERFORMED AS REFERENCED IN THE PROFFERS AND CONSISTENT WITH THE PHASING PLAN (SHEET C-8) AND, AS PRESENTED IN NOTE 2 ABOVE, THE THREE (3±) ACRE PORTION OF THE SUBJECT PROPERTY THAT WAS PROFFERED TO BE DEDICATED FOR A TRANSPORTATION FACILITY WITH THE APPROVAL OF PCA C-698 WILL BE DEDICATED. THE LOCATION OF THE THREE ACRES IS IN A DIFFERENT LOCATION THAN THAT APPROVED WITH PCA C-698.

16. IN ADDITION, PAVEMENT WIDENING SUFFICIENT FOR ON-ROAD BICYCLE LANES WILL BE CONSTRUCTED ACROSS THE SUNRISE VALLEY DRIVE FRONTAGE OF THE PROPERTY IN ACCORDANCE WITH THE RECOMMENDATION SET FORTH IN THE COMPREHENSIVE PLAN. THESE DEDICATIONS/IMPROVEMENTS WILL BE PERFORMED IN CONJUNCTION WITH THE DEVELOPMENT OF THE SUBJECT PROPERTY.

17. ALL LANE MARKINGS, CROSSWALKS, ETC. ARE SUBJECT TO VDOT APPROVAL AT THE TIME OF SITE PLAN. ANY MODIFICATION/REVISIONS TO THE SAME CAN BE ACCOMMODATED IN CONSULTATION WITH FCDOT WITHOUT THE NEED FOR A PCA, CDPA AND/OR FDPA.

18. THE LIMITS OF CLEARING AND GRADING WILL BE CONFINED TO THE IMMEDIATE AREA OF THE PROPOSED DEVELOPMENT PROGRAM AS REPRESENTED ON THE GRAPHIC.

19. TO THE BEST OF OUR KNOWLEDGE AND BELIEF THE PROPOSED BUILDING PROGRAM WILL NOT GENERATE, UTILIZE, STORE, TREAT OR DISPOSE ANY HAZARDOUS OR TOXIC SUBSTANCES AS SET FORTH IN TITLE 40, CODE OF FEDERAL REGULATIONS PARTS 116 4, 302.4 AND 355; ANY HAZARDOUS WASTE AS SET FORTH IN COMMONWEALTH OF VIRGINIA/DEPARTMENT OF WASTE MANAGEMENT VR 672-10-1 - VIRGINIA HAZARDOUS WASTE MANAGEMENT REGULATIONS; AND/OR ANY PETROLEUM PRODUCTS AS DEFINED IN TITLE 40, CODE OF FEDERAL REGULATIONS PART 280. TO THE BEST OF OUR KNOWLEDGE AND BELIEF, THE SUBSTANCES THAT MAY BE UTILIZED, STORED AND DISPOSED OF IN CONJUNCTION WITH THE PROPOSED BUILDING PROGRAM AND/OR THE MAINTENANCE OF THE BUILDING PROGRAM AND GROUNDS WILL BE IN ACCORDANCE WITH SAID REGULATIONS.

20. AMENITIES IN THE FORM OF A FITNESS CENTER, SWIMMING POOL AND SPA ALL TO BE LOCATED WITHIN THE BUILDING FOOTPRINTS WILL BE PROVIDED FOR THE BENEFIT/ENJOYMENT OF THE RESIDENTS, TENANTS AND VISITORS OF THE PROPOSED MIXED USE DEVELOPMENT PROGRAM.

   AN URBAN METRO PLAZA IS PROPOSED ADJACENT TO THE METRO STATION FACILITIES.

21. THERE ARE NO SCENIC ASSETS LOCATED ON THE SITE. LASTLY, THERE ARE NO NATURAL FEATURES DESERVING OF PROTECTION OR PRESERVATION LOCATED ON THE SUBJECT PROPERTY. GIVEN THE LOCATION AND NATURE OF THE PROPOSED DEVELOPMENT PROGRAM ON THE PROPERTY, THERE WILL BE NO ADVERSE EFFECTS ON ADJACENT OR NEIGHBORING PROPERTIES.

22. THERE ARE NO EXISTING BUILDINGS LOCATED ON THE SUBJECT PROPERTY. THE ARCHITECTURE OF THE PROPOSED MIXED USE DEVELOPMENT PROGRAM AND RELATED PARKING STRUCTURE WILL BE DESIGNED TO COMPLEMENT AND BE HARMONIOUS WITH THE EXISTING AND PROPOSED BUILDINGS IN THE VICINITY OF THE SUBJECT PROPERTY.

23. THE EXACT LOCATIONS, SHAPES AND SIZES OF THE PROPOSED BUILDINGS AND RELATED PARKING STRUCTURE FOOTPRINT(S) SHOWN ON THE GRAPHIC ARE PRELIMINARY AND SCHEMATIC AND ARE NOT TO BE CONSIDERED FINAL. THEY ARE SUBJECT TO ADJUSTMENT AND REFINEMENT WITH FINAL ENGINEERING AND ARCHITECTURAL DESIGN SO LONG AS THEY REMAIN IN SUBSTANTIAL CONFORMANCE WITH THE REPRESENTATIONS ON THE FDP. THE TOTAL GROSS FLOOR AREA AND THE BUILDING HEIGHT PRESENTED IN THE TABULATION ARE TO BE CONSIDERED MAXIMUMS. THE OPEN SPACE AS REPRESENTED IN THE TABULATION AND THE DIMENSIONS TO THE PERIPHERAL LOT LINES OF THE PRM DISTRICT AS REPRESENTED ON THE GRAPHIC ARE TO BE CONSIDERED MINIMUMS WITH THE UNDERSTANDING THAT ALL DIMENSIONS SHOWN ON THE GRAPHIC ARE SUBJECT TO MINOR MODIFICATION IN ACCORDANCE WITH THE PROVISIONS SET FORTH IN SECT. 16-403 OF THE ZONING ORDINANCE.

   THE APPLICANT RESERVES THE RIGHT TO DEVELOP A LESSER AMOUNT OF GROSS FLOOR AREA FROM THE TOTAL REPRESENTED IN THE TABULATION AND THE BUILDING FOOTPRINT(S) AND ASSOCIATED PARKING WILL BE REDUCED/MODIFIED ACCORDINGLY.

   LASTLY, THE APPLICANT RESERVES THE RIGHT TO SHIFT UP TO 20,000 SQUARE FEET OF GROSS FLOOR AREA THAT IS REPRESENTED IN THE TABULATION FROM ONE BUILDING (USE) TO ANOTHER WITH THE UNDERSTANDING THAT THE RESULTANT BUILDING FOOTPRINTS WILL BE IN SUBSTANTIAL CONFORMANCE WITH THE FOOTPRINTS REPRESENTED ON THE GRAPHIC AND THE MAXIMUM COMBINED TOTAL NUMBER OF UNITS AND GROSS FLOOR AREA REPRESENTED IN THE TABULATION WILL NOT BE EXCEEDED.

24. THE FLOOR AREAS REPRESENTED IN THE TABULATION ARE GROSS FLOOR AREAS AS DEFINED IN THE FAIRFAX COUNTY ZONING ORDINANCE. IN ADDITION, IT IS UNDERSTOOD THAT THE BUILDINGS MAY HAVE CELLAR SPACE WHICH SPACE WILL BE EXCLUDED FOR OFF-STREET PARKING REQUIREMENTS IN ACCORDANCE WITH THE PROVISIONS SET FORTH IN PAR. 25 OF SECT. 11-102 OF THE ZONING ORDINANCE.

25. THE PROPOSED BUILDING(S) WILL LIKELY HAVE PENTHOUSES DESIGNED IN PART TO SHIELD THE MECHANICAL EQUIPMENT LOCATED ON THE ROOFS. THE HEIGHT AND ROOF AREA COVERAGE OF THE PENTHOUSES WILL BE IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF THE ZONING ORDINANCE; WILL BE COMPATIBLE WITH THE HEIGHT AND SCALE OF THE BUILDING(S); AND WILL BE CONSTRUCTED OF MATERIALS THAT ARE AN EXTENSION OF OR HARMONIOUS WITH THE ARCHITECTURAL MATERIALS OF THE MAIN BUILDING(S).

26. ALL SIGNS WILL BE PROVIDED IN ACCORDANCE WITH THE PROVISIONS SET FORTH IN ARTICLE 12 OF THE ZONING ORDINANCE.

27. ALL LIGHTING ON SITE WILL BE SHIELDED AND LOCATED IN SUCH A MANNER AS TO REDUCE GLARE ON ADJACENT PROPERTIES IN ACCORDANCE WITH THE STANDARDS SET FORTH IN ARTICLE 14 OF THE ZONING ORDINANCE.

28. INTENSITY (FAR) CREDIT FOR ANY DEDICATION OF LAND FOR PUBLIC USE THAT MAY BE REQUIRED SHALL BE RESERVED FOR THE SUBJECT PROPERTY IN ACCORDANCE WITH THE PROVISIONS SET FORTH IN PAR. 4 OF SECT. 2-308 OF THE ZONING ORDINANCE.

29. IT IS CURRENTLY ANTICIPATED THAT, SUBJECT TO MARKET CONDITIONS, THE PROPOSED DEVELOPMENT PROGRAM WILL COMMENCE AS SOON AS REQUISITE PLANS AND PERMITS ARE APPROVED. IT MAY OR MAY NOT BE CONSTRUCTED IN ONE CONTINUOUS PHASE.

30. TO THE BEST OF OUR KNOWLEDGE, THE PROPOSED DEVELOPMENT OF THE SUBJECT PROPERTY CONFORMS TO ALL CURRENT APPLICABLE LAND DEVELOPMENT ORDINANCES, REGULATIONS AND ADOPTED STANDARDS EXCEPT AS MAY BE QUALIFIED ABOVE OR IN THE LIST OF REQUESTED WAIVERS ON SHEET C-2a.

31. SURVEY VERTICAL CONTROL IS NGVD 1929 DATUM.

TABULATION

LAND AREA (639,318 SF)	14.68± AC*
PARCEL 13 (485,103± SF)	11.14± AC
PARCEL 5A (22,272± SF)	0.51± AC
PARCEL 5B (131,943± SF)	3.03± AC
EXISTING ZONING	PDC
PROPOSED ZONING	PRM
PROPOSED TOTAL GROSS FLOOR AREA - ULTIMATE DEVELOPMENT PROGRAM	1,646,041± SF*
OFFICE	501,000± SF
HOTEL	90,000± SF
RETAIL	84,000± SF
RESIDENTIAL	871,041± SF
BONUS DENSITY	100,000± SF
FLOOR AREA RATIO (FAR), PERMITTED UNDER PRM	3.0
FLOOR AREA RATIO, MAXIMUM INCLUSIVE OF BONUS DENSITY	3.005*
FLOOR AREA RATIO PROVIDED EXCLUDING BONUS DENSITY	2.82
MAXIMUM BUILDING HEIGHTS**	
OFFICE/RETAIL (13 FLOORS)	180± FT
HOTEL (12 FLOORS)	120± FT
RESIDENTIAL (16 FLOORS)	180± FT
PARKING SPACES REQUIRED	3,488
OFFICE	1299
499,660 SF (@ 2.6 PER 1,000 SF GFA)	
HOTEL	206
190 UNITS (@ 1 PER ROOM + 4 PER 50 ROOMS)	
RETAIL	503
84,000 SF (@1 PER 200 SF 1ST 1,000 SF, 6 PER 1,000 REMAINING SF)	
RESIDENTIAL (MULTIPLE FAMILY)	1480
925 DUs (@ 1.6 PER DWELLING UNIT)	
BONUS DENSITY-COMMERCIAL	120
-RESIDENTIAL	128
PARKING SPACES PROPOSED (INCLUDES 2108 SPACES FOR METRO)	5,844***
LOADING SPACES REQUIRED	45
LOADING SPACES PROPOSED	9****
OPEN SPACE REQUIRED/PROPOSED (20%)	2.93± AC

* THE PROPOSED TOTAL GROSS FLOOR AREA CALCULATION AND THE RESULTANT FLOOR AREA RATIO ARE BASED ON THE LAND AREA OF THE CURRENT PARCEL 13 (11.14± AC OR 485,100 SF), PARCEL 5A (0.51± AC OR 22,210 SF), PLUS THE LAND AREA OF THE ADJACENT RIGHT-OF-WAY THAT WAS DEDICATED FOR PUBLIC STREET PURPOSES BY A DEED OF DEDICATION DATED NOVEMBER 19, 1995 (40,850 SF). THIS COMBINED TOTAL LAND AREA IS 548,160 SF (485,100 SF + 22,210 SF + 40,850 SF) OR 12.58 ACRES. THE LAND AREA OF PARCEL 5B WAS NOT USED FOR THE FLOOR AREA RATIO AND RESULTANT GROSS FLOOR AREA CALCULATIONS

** EXCLUDES PENTHOUSE HEIGHT (SEE SHEET A-100)

*** SEE NOTE 13 AND SHEET (A-100).

**** SEE NOTE 14.

Dewberry

Dewberry Consultants LLC
8401 Arlington Boulevard
Fairfax, VA 22031-4666
703.849.0100
FAX 849.0118 fax
www.dewberry.com

January 3, 2014

Mr. James W. Patteson, Director
Fairfax County, Department of Public
Works and Environmental Services
Land Development Services
12055 Government Center Parkway
Fairfax, Virginia 22035-5504

RE: Innovation Center South and the Innovation Center Station Garage
CDP/FDP, RZ 2009-HM-017
Request for waiver of underground SWM/BMP facilities in a residential development

Dear Mr. Patteson:

On behalf of the Applicants of the above-reference rezoning application, and in accordance with Section 6-0303.8 of the Public Facilities Manual, Dewberry hereby requests a waiver from the Board of Supervisors for the use of underground SWM/BMP facilities in a residential development. A current version of the CDP/FDP is provided with this letter to support the waiver request.

As shown on the CDP/FDP, almost 70 percent of the 14.68 acre site consists of underground parking. Underground parking is required in order to service 2 residential/retail buildings, 2 residential buildings, 1 office/retail building, 1 office building, and 1 hotel/retail building. There is also 1 planned parking structure onsite with underground parking that will service future Innovation Center Metro Station.

Due to underground parking there is very limited space onsite to construct aboveground SWM/BMP facilities that can meet the water quality and water quantity requirements of the project. Requirements must comply with the Fairfax County Stormwater Management Ordinance and Dulles Suburban Center, Land Unit A, Proposed Comprehensive Plan Text. Compliance can only be met if underground SWM/BMP facilities are permitted for this development.

There are 1 underground sand filter facilities planned in areas located outside of underground parking structures. Sand filter chambers will be a minimum of 7 ft high and 10 ft wide. There are also a total of 7 rainwater harvesting cisterns (1 for each building); however, these are currently planned to be located internal to each building at locations to be determined by the Owner/Architect/Engineer. The approximate plan size and location of each sand filter is shown on the Stormwater Management Plan sheet in the CDP/FDP. The approximate size of each cistern (in gallons) is also shown. All onsite SWM/BMP facilities will be privately owned and maintained.

Access into the sand filter chambers will be from finished grade via 2 ft diameter manhole covers and 4 ft x 4 ft Bilco Doors or equivalent. Manhole covers will be in accordance with VDOT standards and specifications and Bilco Doors will remain locked at all times when not in use by the Owner. Access into cisterns will be via similar locked access holes and doors as appropriate in conformance with applicable building codes.

We trust this letter and attached CDP/FDP is sufficient to support this waiver request. Please note that the size and location of underground SWM/BMP facilities reflected in the CDP/FDP are preliminary and subject to final engineering and design at Site Plan. Should you have any questions or require additional information, please don't hesitate to contact me at (703) 849-0582, stlarke@dewberry.com or Bill Ewing at (703) 849-0248 bewing@dewberry.com. Thank you for your consideration of this request.

Sincerely,
Dewberry Consultants LLC

Scott Clarke, P.E.
Associate

Attachment: CDP/FDP of Innovation Center South and the Innovation Center Station Garage

Application No: RZ / FDP 2009-HM-017 Staff: WO'D

APPROVED DEVELOPMENT PLAN
(_GDP) (X CDP) (X FDP) (_PRC) (_DP) (_SP) (_SE) (_CSP) (_SP) (_VC)
SEE PROFFERS DATED: Jul 25, 2014
SEE CONDITIONS DATED:
Date of Final Approval: Jul 29, 2014 (XBOS) (_PC) (_BZA)
Comments: CDP/Devel. Conds. Dated 4/30/2014
ZONING
Sheet 2 of 76

Hanmer, Green and Abrahamson, Inc.
44 Canal Center Plaza, Suite 100
Alexandria, Virginia 22314
Telephone 703.836.7766
Facsimile 703.836.3042

LSG LANDSCAPE ARCHITECTURE
1915 GALLOWS ROAD, SUITE 110
VIENNA, VIRGINIA 22182
703.821.3040

TOTAL SITE LOADING SPACE TABULATION			
Building Type and Standard	GFA +/-SF	Required	Provided
1. Residential (Multiple Family), Standard G	951,041	11	4
2. Office, Standard C	499,660	26	2
3. Hotel, Standard F	90,000	2	1
4. Retail, Standard B	84,000	6	2
TOTAL	1,624,701	45	9
LAND BAY A - LOADING SPACE TABULATION			
Building Type and Standard	GFA +/-SF	Required	Provided
1. Residential (Multiple Family), Standard G	479,441	6	1
2. Office, Standard C	499,660	26	2
3. Hotel, Standard F	-	-	-
4. Retail, Standard B	34,000	3	1
TOTAL	1,013,101	35	4
LAND BAY B - LOADING SPACE TABULATION			
Building Type and Standard	GFA +/-SF	Required	Provided
1. Residential (Multiple Family), Standard G	266,600	4	1
2. Office, Standard C	-	-	-
3. Hotel, Standard F	90,000	2	1
4. Retail, Standard B	50,000	4	1
TOTAL	406,600	10	3
LAND BAY D - LOADING SPACE TABULATION			
Building Type and Standard	GFA +/-SF	Required	Provided
1. Residential (Multiple Family), Standard G	125,000	2	2
2. Office, Standard C	-	-	-
3. Hotel, Standard F	-	-	-
4. Retail, Standard B	-	-	-
TOTAL	125,000	2	2

Standard B: One (1) space for the first 10,000 square feet of gross floor area, plus one (1) space for each additional 15,000 square feet or major fraction thereof.
Standard C: One (1) space for the first 10,000 square feet of gross floor area, plus one (1) space for each additional 20,000 square feet or major fraction thereof.
Standard F: One (1) space for the first 10,000 square feet of gross floor area, plus one (1) space for each additional 100,000 square feet or major fraction thereof.
Standard G: One (1) space for the first 25,000 square feet of gross floor area, plus one (1) space for each additional 100,000 square feet or major fraction thereof.

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0519

DAVIS CARTER SCOTT DESIGN

ROCKS ENGINEERING

Issued For Construction

INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE
Conceptual/Final Development Plan
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL
COMMONWEALTH OF VIRGINIA
JOHN WILLIAM EWING
Lic. No. 0053
4/21/2014
PROFESSIONAL ENGINEER

KEY PLAN
COMMONWEALTH OF VIRGINIA
CODY A. PENNETT
Lic. No. 048960
PROFESSIONAL ENGINEER

SCALE
AS NOTED

No.	DATE	BY	Description
6	4/21/14	JMC	
5	3/27/14		
4	2/21/14		
3	1/3/14		
2	11/22/13	LNM	
1	9/9/13*		

REVISIONS

DRAWN BY JMC
APPROVED BY JWE
CHECKED BY
DATE AUG 1, 2013

TITLE
NOTES / TABULATION

PROJECT NO.

SHEET NO. C-2
R01.102

SECTION NO. M-1083 R01-ZONING

REQUESTED WAIVERS & MODIFICATIONS

FAIRFAX COUNTY ZONING ORDINANCE

Requirement	Requested Waiver or Modification
Zoning Ordinance; Article 2 - General	
Section 2-505	Modification of the use limitations on corner lots.
Paragraph 2 of Section 2-506	Waiver of the requirement that a parapet wall, cornice or similar projection may exceed the height limit established for a given zoning district by not more than three (3) feet, but such projection shall not extend more than three (3) feet above the roof level of any building.
Zoning Ordinance; Article 11 - Parking	
Section 11-201 and Section 11-203	Modification of the minimum required loading spaces for residential, office, retail and other uses to those shown on the CDP/FDP.
Paragraph 2 of Section 11-302	Waiver of the requirement that no private street in a residential development that is to be owned maintained by a non-profit organization shall exceed six hundred (600) feet in length.

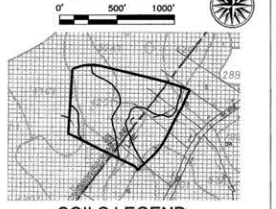
Requirement	Requested Waiver or Modification
Zoning Ordinance; Article 13 – Landscaping	
Section 13-400	Modification of the tree preservation target.
Zoning Ordinance; Article 16 - Site Plans	
Section 16-102	Modification of the landscaping and screening requirements around peripheral boundaries of the PRM District.
Zoning Ordinance; Article 16 - Site Plans	
Section 16-102	Modification of the landscaping and screening requirements around peripheral boundaries of the PRM District.
Section 16-404	Modification of the required recreational facilities.
Zoning Ordinance; Article 17 - Site Plans	
Paragraph 7 of Section 17-201	Waiver of the requirement to post no parking signs along traveltways or service drives no more than fifteen (15) meters apart.
Paragraphs 12 through 14 of Section 17-201	Waiver of the requirement to construct or install the following, but not limited to, loading, inter-parcel access, roadway frontage improvements, utility relocations, driveways, street lights or other improvements other than those identified on the CDP/FDP and in the proffers.

PUBLIC FACILITIES MANUAL

Requirement	Requested Waiver or Modification
Public Facilities Manual	
Paragraph 3 of Section 6-0301	Detention facilities must be provided in all storm drainage plans proposed for development in the County submitted for review and approval unless waived by the Director.
Paragraph 8 of Section 6-0303	Waiver to allow storm water management BMP facilities to be provided within underground systems in the residential portions of the development.
Paragraph 3F of Section 6-1306	Waiver of the requirement that all stormwater management and BMP facilities shall provide accessibility with an all-weather vehicular access way a minimum of twelve (12) feet in width.
Paragraphs 2E, 2F and 2G of Section 6-1307	Waiver of Paragraphs E through G which specify the setbacks and location of such systems.
Paragraph 4 of Section 7-0403	Waiver of the requirement that the minimum width of two-way commercial entrances including entrances to multifamily residential developments and private streets shall be a minimum of (thirty) 30 feet wide.
Paragraph 3 of Section 7-0403.4	Minimum width of 30 feet for private streets and commercial entrance connections to VDOT roadways
Paragraph 8 of Section 7-0802.2	Allow for projection of structural columns into stalls

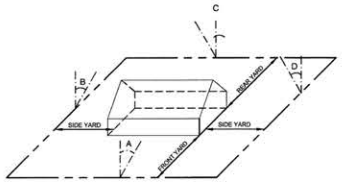
Requirement	Requested Waiver or Modification
Public Facilities Manual	
Requirement	**Requested Waiver or Modification**
Paragraph 2 of Section 7-0802	Modification of the parking geometric standards to allow projection of structural columns within parking structures into the required parking stall area. The parking stalls affected by such structural columns shall count toward the number of required parking spaces.
Section 12-0508	Modification of the Tree Preservation Target as permitted by deviations permitted in Section 12-0508.3A(1) and (3).
Paragraph 4E (5) of Section 12-0510	Modification of Section 12-0510.4E(5) to permit reduction of the minimum planting area, eight (8) feet, to a minimum of four (4) feet in order for trees to satisfy the tree cover requirement.
Section 12-0511	Modification of Section 12-0511 to permit the required tree canopy to be calculated on the overall development area.
Paragraph 8 of Section 12-0510.4E(5)	Reduction of minimum tree planting area from 8 feet to lesser amount to allow for tree to satisfy tree cover

SOILS MAP



SOILS LEGEND

41B1	ROCKY LAND - IREDELL
42C2	VERY ROCKY LAND - IREDELL
50B1	IREDELL-MECKLENBURG



FRONT YARD : ∠1 A 25° WITH A BUILDING HEIGHT OF 180', THE FRONT YARD = 54' BUT NOT LESS THAN 40'

SIDE YARD : ∠1 B NO REQUIREMENT

REAR YARD : ∠1 C 20° WITH A BUILDING HEIGHT OF 180', THE REAR YARD = 60' BUT NOT LESS THAN 25'

ANGLE OF BULK PLANE

MINIMUM REQUIRED YARD FOR BUILDING WITH 180' HEIGHT

NOTE:
THERE IS NO ANGLE OF BULK PLANE REQUIREMENT FOR THE PRM DISTRICT. THIS GRAPHIC DEPICTION IS OF THE R-30 DISTRICT CONSIDERATION OF THE PROPOSED BUILDINGS AT THE PERIPHERAL BOUNDARY LINES AND THE DESIGN STANDARD SET FORTH IN PAR. 1 OF SECTION 16-102 OF THE ZONING ORDINANCE.

Application No: RZ / FDP 2009-HM-017 Staff: WO'D

APPROVED DEVELOPMENT PLAN
(_GDP) (X DP) (X DP) (_PRC) (_DP) (_CP) (_SE) (_ESP) (_SP) (_VC)
SEE PROFFERS DATED: Jul 25, 2014
SEE CONDITIONS DATED:
Date of Final Approval: Jul 29, 2014 (X BOS) (_PC) (_BZA)
Comments: CDP/Devel. Conds. Dated 4/30/2014
& ZONING
Sheet 3 of 76

Hanmel, Green and Abrahamson, Inc.
44 Canal Center Plaza, Suite 100
Alexandria, Virginia 22314
Telephone 703.836.7760
Facsimile 703.836.3042

LSG LANDSCAPE ARCHITECTURE
1910 GALLOWS ROAD, SUITE 110
VIENNA, VIRGINIA 22182
703-821-2040

Dewberry
Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

dcs DAVIS CARTER SCOTT LTD DESIGN

ROCKS ENGINEERING & MANAGEMENT CORP.

Issued for Construction

INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE
Conceptual/Final Development Plan
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL
COMMONWEALTH OF VIRGINIA
JOHN WILLIAM EWING
Lic. No. 8053
4/21/2014
PROFESSIONAL ENGINEER

KEY PLAN
COMMONWEALTH OF VIRGINIA
CODY A. PENNETT
Lic. No. 048960
PROFESSIONAL ENGINEER

SCALE Not to Scale

No.	DATE	BY	Description
6	4/21/14	JMC	
5	3/27/14		
4	2/21/14		
3	1/3/14		
2	11/22/13	LNM	
1	9/9/13		

REVISIONS

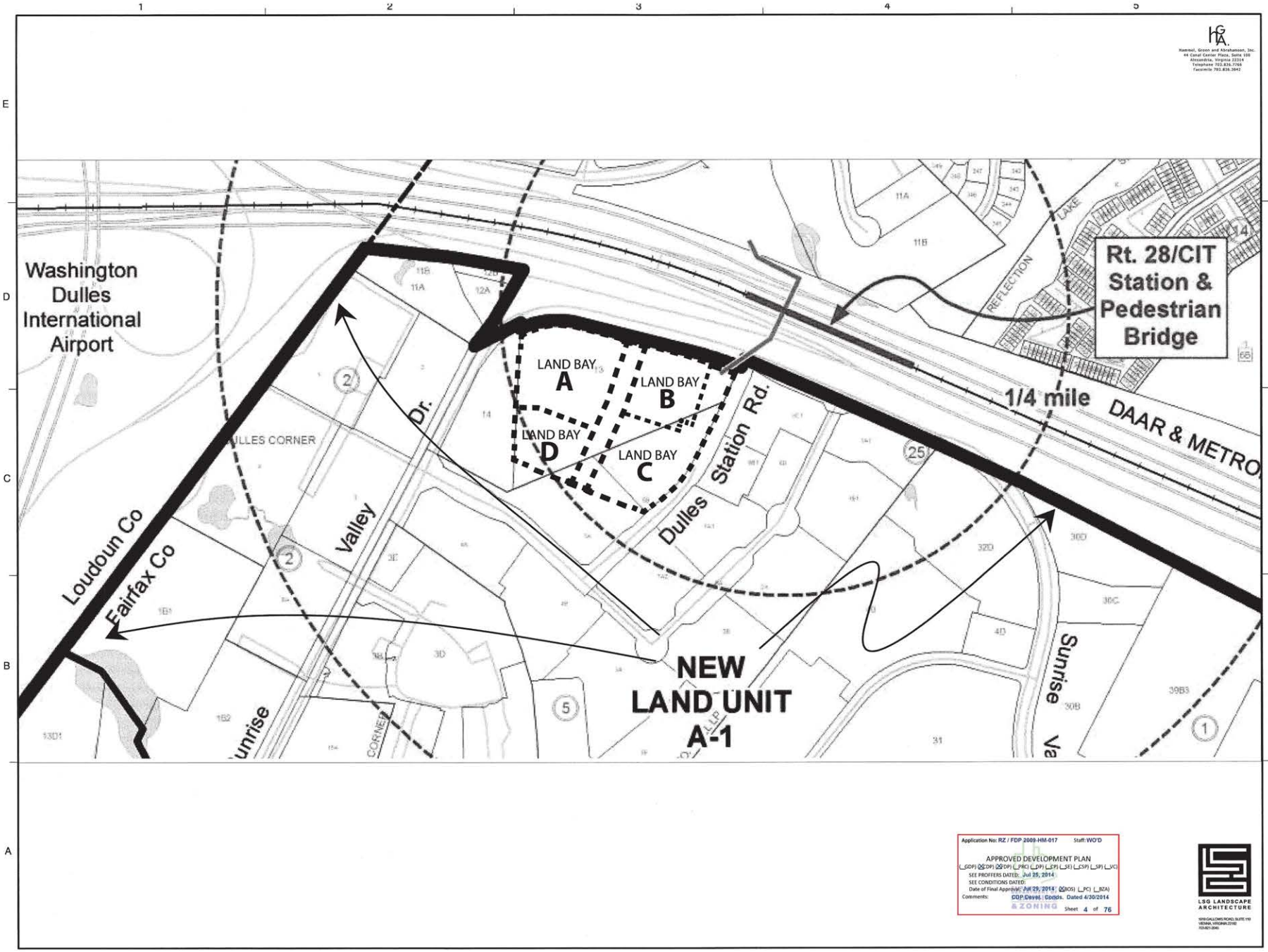
DRAWN BY JMC
APPROVED BY JWE
CHECKED BY
DATE AUG 1, 2013

TITLE
WAIVERS/MODIFICATIONS
SOILS MAP
ANGLE OF BULK PLANE

PROJECT NO.

C-2a
R01.103
SHEET NO.

SECTION NO. M-10831 R01-ZONING



Application No: RZ / FDP 2009-HM-017 Staff: WO'D

APPROVED DEVELOPMENT PLAN

(_GDP) (X CDP) (X DP) (_PRC) (_DP) (_CP) (_SE) (_STP) (_SP) (_VC)

SEE PROFFERS DATED: Jul 25, 2014

SEE CONDITIONS DATED:

Date of Final Approval: Jul 29, 2014 (X BOS) (_PC) (_BZA)

Comments: CDP/Devel. Conds. Dated 4/30/2014

& ZONING Sheet 4 of 76

Hanmel, Green and Abrahamson, Inc.
44 Canal Center Plaza, Suite 100
Alexandria, Virginia 22314
Telephone 703.836.7755
Facsimile 703.836.3042

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

dcs DAVIS CARTER SCOTT Ltd
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INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE

Conceptual/Final Development Plan

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
JOHN WILLIAM EWING
Lic. No. 0053
4/21/2014
PROFESSIONAL ENGINEER

KEY PLAN

COMMONWEALTH OF VIRGINIA
CODY A. PENNETTI
Lic. No. 048560
PROFESSIONAL ENGINEER

SCALE

Not to Scale

No.	DATE	BY	Description
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2	11/22/13	LNM	
1	9/9/13		

REVISIONS

DRAWN BY JMC
APPROVED BY JWE
CHECKED BY
DATE AUG 1, 2013

TITLE

COMPREHENSIVE PLAN LAND UNIT AND LAND BAY EXHIBIT

PROJECT NO.

C-2b

R01.104

SHEET NO.

SECTION NO. M-10831 R01-ZONING

LSG LANDSCAPE ARCHITECTURE
1910 GALLOWS ROAD, SUITE 110
VIENNA, VIRGINIA 22182
703-821-8040

WELLS + ASSOCIATES

1420 Spring Hill Road
Suite 610
Tysons, Virginia 22102
703-917-6620
703-917-0739 fax
www.wellsllc.com

MEMORANDUM

TO: William J. O'Donnell, Jr., AICP
Fairfax County Department of Planning & Zoning

FROM: Robin L. Antonucci
Kevin R. Fellin, P.E.

RE: RZ 2009-DR-017; Nugget Joint Venture, L.C.
2013 Tax Map(s): 15-2 ((1)) 13pt., 15-4 ((5)) 5Apt. and 5B

SUBJECT: Parking Determination

DATE: February 7, 2014

The purpose of this memorandum is to summarize the results of a preliminary parking assessment completed in conjunction with the above-referenced rezoning (RZ) application. On August 6, 2013, Nugget Joint Venture, L.C. filed an amendment to RZ 2009-DR-017 to reflect revisions associated with the development of a new, mixed-use, transit-oriented development (TOD) within ¼ mile of the planned Innovation Center Metrorail Station. The application would rezone the Property from the PDC (Planned Development Commercial) to the PRM (Planned Residential Mixed Use) zoning district.

The CDP/FDP (Conceptual/Final Development Plan) dated August 1, 2013, as revised January 3, 2014 and presented herein as Figure 1 reflects four land bays (A through D), which includes three residential buildings totaling 925 dwelling units with up to 84,000 gross square feet (GSF) of secondary retail uses, a 190-room hotel, two office buildings totaling 501,000 GSF and a 2,028-space Metrorail parking garage with related facilities. Parking for the development is provided in above/below grade, structured parking garages with limited curbside parking provided along the Private Drive for loading and short-term, high-turnover uses. Details with regard to the planned parking garages are depicted on Sheets A-101 through A-104.

The Applicant had initially committed to park the project in accordance with Article 11 of the County's Zoning Ordinance as shown on the CDP/FDP and reproduced herein as Table 1. As shown on Table 1, based on an application of the Ordinance rates for the proposed land uses, the project would require 3,492 parking spaces (excluding the 2,028 spaces associated with the Innovation Center South Metrorail Garage.) However, a recent amendment to the Comprehensive Plan (S07-III-UP2) approved by the Board of Supervisors on December 3, 2013 states the following:

> "For development within a half mile of the Metrorail station, a parking plan should be submitted along with a development application that demonstrates that the amount of parking that is provided is sized to support the development. Provisions for parking reductions and other incentives to lower parking should be utilized...Residential uses should take into account the number of bedrooms per unit when establishing the amount of parking to supply. All non-residential uses should reduce their parking supply below the Countywide minimum."

Subsequently, in draft proffers dated January 3, 2014, the Applicant committed to not exceed the *minimum* required parking under the Ordinance at completion and full occupancy in recognition of the recently adopted Plan amendment. The Applicant further reserved the right to seek a parking reduction prior to site plan approval for any building [on the subject property.]

In discussions with County Planning & Zoning staff during the course of reviewing the CDP/FDP and draft proffers, the need to further reduce parking was identified by both parties. To that end, a meeting was held with County staff (DPZ and the Department of Public Works & Environmental Services (DPWES)) on Wednesday, January 15th to discuss parking and the process for reducing parking as it pertains to the Innovation Center South development.

As stated above and shown on Table 1, a total of 3,492 spaces would be required to accommodate all of the on-site uses (excluding the Innovation Center South Metrorail Garage) under the requirements of Article 11. However, Article 11-101 also states the following:

> "Except as provided for in a Commercial Revitalization District, in any R, C or I district, all structures built and all uses established hereafter shall provide accessory off-street parking in accordance with the following regulations, and in the PDH, PDC, PRC and PRM Districts, the provisions of this Part shall have *general application* [emphasis added] as determined by the Director."

Given the Applicant has filed a request to rezone the property to the PRM District and in recognition of the Comprehensive Plan's intention to minimize/reduce reliance on the automobile, the Applicant sought the Zoning Administrator's (Ms. Leslie Johnson) opinion with regard to the intent of Section 101 and a definition of the term *general applicability*. Upon review and after much discussion, the following actions were recommended:

- Provide an option to the parking tabulation depicted on the CDP/FDP, which would summarize the parking reductions sought by the Applicant and include this new tabulation in the CDP/FDP as part of the *parking plan*;
- Provide a written justification for the reductions to be sought; and
- Strengthen the proffer commitments to reflect the application of a parking reduction request with the submission of any building site plan.

The Comprehensive Plan text for the Route 28 Station South and Tysons Corner areas provides parking rates for various land uses based on their proximity to planned Metrorail facilities, such as the Innovation Center Metrorail Station. According to the Comprehensive Plan for the Route 28 Station South transit areas, the maximum parking rate for office uses should be 2.1 spaces per 1,000 GSF when located within one quarter mile of a Metrorail station. Based on the Plan recommendation, a total of 1,053 spaces would be required to serve the planned office uses (or 250 spaces fewer than the Ordinance would require).

With regard to parking for the residential uses, Wells + Associates first reviewed the parking ratios established for TOD's in the Tysons Corner portion of Fairfax County. Based on extensive research, the County determined that parking in the TOD Districts [of Tysons] should follow the experience of successful TOD areas around the Country by limiting the amount of parking near transit station areas. As a result, the parking ratios for multifamily residential units are based on bedrooms with both a minimum and maximum rate provided. Within a quarter mile of a Metrorail station, the residential parking rates for multifamily units are as follows:

Number of Bedrooms	Minimum Rate	Maximum Rate
0 – 1 Bedroom	1.0	1.3
2 Bedrooms	1.0	1.6
3+ Bedrooms	1.0	1.9

These rates are slightly higher on average than other areas. For example, the Florida Department of Transportation has developed TOD Design Guidelines to assist localities in developing projects that are supportive of transit investment. Based on

those guidelines in an urban-general neighborhood within a half mile of a rail facility, the recommended maximum parking rate for residential uses is 1.5 spaces per unit. On average, this rate is less than the recommended rates for Tysons.

A review of a paper prepared by Jeffrey Tumlin and Adam Millard-Ball in 2006 for ITE (*Parking for Transit-Oriented Development)* cited changes to the Arlington Virginia zoning code in 2003 which employed parking maximums to encourage transit usage. The code distinguishes between shared and reserved spaces, which are discouraged. According to the code, residential units may be parked up to 2.0 spaces per unit and non-residential uses may be parked at up to 1.0 space per 1,000 GSF.

In the City of Alexandria, multifamily residential units (Section 8-200 (A) (2)) are typically parked at the following rates:

- One and three-tenths (1.30) spaces per unit up to and including one bedroom;
- One and three-quarters (1.75) spaces per unit for each two bedroom unit; and
- Two and two-tenths (2.20 spaces for each three bedroom unit or larger.

For retail and office uses, parking is to be provided based on the square footage per floor and the particular Parking District within the City in which the use is located. For example, ground floor retail uses in buildings with a 20,000 SF floor plate should be parked at rates between one space per 230 SF to 1.2 spaces per 230 SF. Offices uses should be parked at rates between one space per 450 SF to one space per 600 SF depending on the Parking District.

Section 8-400 of the City's Ordinance describes the King Street Transit Parking District and provides reduced parking rates for uses within the area defined by 8-400 (A). According to the Ordinance, parking for office, residential and hotel uses within this District shall be parked as follows:

- Office buildings, including commercial, government and professional, shall have one parking space for each 530 square feet of floor area; provided, however, that the required parking may be reduced to not less than one parking space for each 665 square feet of floor area when the applicant, at the time of site plan approval, demonstrates through a parking study to the planning commission, or to the city council that the off-street parking provided is adequate for the site, and that there will be no unreasonable adverse effect on the surrounding residential neighborhoods.

- Single-family, two-family, row or townhouse and multifamily dwellings shall have one parking space per dwelling unit.
- Hotels shall have 0.7 of a parking space for each guest room.

Based on a review of other area parking requirements in established transit corridors, as well as the work completed by FCDOT in support of the Tysons Corner initiatives, the Applicant proposes to park the Innovation Center South development as reflected on Table 2. By providing minimum and maximum ranges for the uses, the Applicant will be able to eliminate at least one below grade level (428 spaces) associated with the parking garage serving Land Bay A (see Sheet A-102 of the CDP/FDP). With the parking reductions proposed, the Applicant would provide a total of 2,701 to 3,243 structured spaces on the Property (exclusive of the Metrorail Garage.)

In summary, the Applicant seeks the Board of Supervisors approval of a reduction of the office uses from 2.6 per 1,000 SF to 2.1 per 1000 SF in conjunction with the rezoning. Additionally, the Applicant shall modify the draft proffers to commit to file a parking reduction request with the Department of Public Works & Environmental Services for the other non-residential and residential uses in conjunction with the submission of the first site plan for the first new building to be developed on the Property (exclusive of the Metrorail Garage) unless the Zoning Ordinance has been amended to reflect specific transit reductions for parking without the need to file a study.

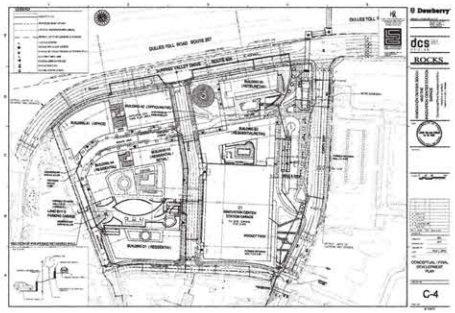
If you have any questions with regard to the above, please call or email me at RLAntonucci@mjwells.com or Kevin Fellin at KFellin@mjwells.com.

cc: Leslie Johnson, Fairfax County DPZ
Thomas Williamson, Fairfax County DPWES
Tony Rocks, Rocks Engineering
David Houston, Reed Smith
Elizabeth Ianetta, FCDOT

Note: The parking tabulations summarized on Tables 1 and 2 reflect the addition of bonus densities as permitted by the Comprehensive Plan.

Hammel, Green and Abrahamson, Inc.
44 Canal Center Plaza, Suite 100
Alexandria, Virginia 22314
Telephone 703.836.7766
Facsimile 703.836.3042

FIGURE 1



Application No: RZ / FDP 2009-HM-017 Staff: WO'D

APPROVED DEVELOPMENT PLAN
(_GDP) (X CDP) (X DP) (_PRC) (_PP) (_EP) (_SE) (_CSP) (_SP) (_VC)
SEE PROFFERS DATED: Jul 25, 2014
SEE CONDITIONS DATED:
Date of Final Approval: Jul 29, 2014 (XBOS) (_PC) (_BZA)
Comments: CDP Devel. Cond's. Dated 4/30/2014
& ZONING
Sheet 5 of 76

3/28/2014

Table 1
Innovation Center South
Article 11 – Zoning Ordinance Parking Summary (1)

Use	Land Bay-Building	Amount	Units	Article 11 - Ordinance Parking Rate	Required Spaces
OFFICE	A-1, A-2	499,660	GSF	2.6 Spaces/1,000 GSF	1,299
HOTEL	B-1	190	Rooms	1.08 Spaces/Room	205
RETAIL	A-2, A-3, B-1, B-2	84,000	GSF	1.0 Space/200 SF first 1,000 SF, 6.0 Spaces/1,000 SF remaining SF	503
RESIDENTIAL (MULTI-FAMILY)	A-3, A-4, B-2, D-1	925	DU	1.6 Spaces/DU	1,480
				Subtotal	3,488
				BONUS DENSITY (2)	
RETAIL	*A-1, A-2, A-3, A-4*	*20,000*	*GSF*	*6.0 Spaces/1,000 SF remaining SF (1.0 Space/200 SF for first 1,000 SF already accounted for in the above)*	*120*
RESIDENTIAL (MULTI-FAMILY)	*B-2*	*80*	*DU*	*1.6 Spaces/DU*	*128*
				Subtotal	*248*
				Total (with bonus density)	*3,736*

Notes:
(1) Obtained from Sheet C-2 of the "Innovation Center South and the Innovation Center Station Garage" CDP/FDP dated March 27, 2014.
(2) Parking and loading for WOUs and/or bonus density shall be addressed in the site plans and building plans for each building containing WOUs and/or bonus density square footage and shall be in accordance with the Zoning Ordinance, and subject to any proffers, development conditions, waivers, modifications or reductions approved by the County for the project. Applicant shall identify bonus density on any applicable site plan.

Table 2
Innovation Center South
Proposed "MAX" and "MIN" Parking Summary (1) (2)

Use	Land Bay-Building	Amount	Units	Proposed "MAX" and "MIN" Parking Rates (1)	Required Spaces
PROPOSED "MAX" PARKING REQUIREMENT					
OFFICE	A-1, A-2	499,660	GSF	2.1 Spaces/1,000 GSF	1,050
HOTEL	B-1	190	Rooms	1.08 Spaces/Room	206
RETAIL	A-2, A-3, B-1, B-2	84,000	GSF	1.0 Space/200 SF first 1,000 SF, 6.0 Spaces/1,000 SF remaining SF	503
RESIDENTIAL (MULTI-FAMILY)	A-3, A-4, B-2, D-1	649	DU (0-1 BR)	1.6 Spaces/DU	1,038
	A-3, A-4, B-2, D-1	276	DU (2 BR)	1.6 Spaces/DU	442
	---	0	DU (3+ BR)	1.9 Spaces/DU	0
				Subtotal	3,239
				BONUS DENSITY (3)	
RETAIL	*A-1, A-2, A-3, A-4*	*20,000*	*GSF*	*6.0 Spaces/1,000 SF remaining SF (1.0 Space/200 SF for first 1,000 SF already accounted for in the above)*	*120*
RESIDENTIAL (MULTI-FAMILY)	*B-2*	*56*	*DU (0-1 BR)*	*1.6 Spaces/DU*	*90*
	B-2	*24*	*DU (2 BR)*	*1.6 Spaces/DU*	*38*
				Subtotal	248
				Total Proposed "MAX" (with bonus density,	*3,487*
PROPOSED "MIN" PARKING REQUIREMENT					
OFFICE	A-1, A-2	499,660	GSF	2.0 Spaces/1,000 GSF	1,000
HOTEL	B-1	190	Rooms	1.0 Spaces/Room	190
RETAIL	A-2	4,000	GSF	Exclude first 5,000 SF per building, then 6.0 Spaces/1,000 SF remaining SF	0
	A-3	30,000	GSF	Exclude first 5,000 SF per building, then 6.0 Spaces/1,000 SF remaining SF	150
	B-1	10,000	GSF	Exclude first 5,000 SF per building, then 6.0 Spaces/1,000 SF remaining SF	30
	B-2	40,000	GSF	Exclude first 5,000 SF per building, then 6.0 Spaces/1,000 SF remaining SF	210
RESIDENTIAL (MULTI-FAMILY)	A-3, A-4, B-2, D-1	649	DU (0-1 BR)	1.25 Spaces/DU	812
	A-3, A-4, B-2, D-1	276	DU (2 BR)	1.4 Spaces/DU	387
	---	0	DU (3+ BR)	1.6 Spaces/DU	0
				Subtotal	2,779
				BONUS DENSITY (3)	
RETAIL	A-1	5,000	GSF	Exclude first 5,000 SF per building, then 6.0 Spaces/1,000 SF remaining SF	0
	A-2	5,000	GSF	Exclude first 1,000 SF, then 6.0 Spaces/1,000 SF for remaining 4,000 SF. 4,000 SF already excluded above for A-2.	24
	A-3	5,000	GSF	6.0 Spaces/1,000 SF for remaining 5,000 SF. First 5,000 SF per building already excluded above for A-3.	30
	A-4	5,000	GSF	Exclude first 5,000 SF per building, then 6.0 Spaces/1,000 SF remaining SF	0
RESIDENTIAL (MULTI-FAMILY)	*B-2*	*56*	*DU (0-1 BR)*	*1.25 Spaces/DU*	*70*
	B-2	*24*	*DU (2 BR)*	*1.4 Spaces/DU*	*34*
				Subtotal	158
				Total Proposed "MIN" (with bonus density,	*2,937*

Notes:
(1) Obtained from Sheet C-2 of the "Innovation Center South and the Innovation Center Station Garage" CDP/FDP dated March 27, 2014.
(2) The proposed "MAX" and "MIN" parking rates outlined above, including the exclusion of the first 5,000 SF of retail per building under the "MIN" calculation, can be changed to reflect revised rates associated with approval of a Zoning Ordinance Amendment.
(3) Parking and loading for WOUs and/or bonus density shall be addressed in the site plans and building plans for each building containing WOUs and/or bonus density square footage and shall be in accordance with the Zoning Ordinance, and subject to any proffers, development conditions, waivers, modifications or reductions approved by the County for the project. Applicant shall identify bonus density on any applicable site plan.

WELLS + ASSOCIATES

Dewberry
Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

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ENGINEERING
REAL ESTATE DEVELOPERS SINCE 1956

Issued For Construction
April 29, 2014

INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE
Conceptual/Final Development Plan
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL
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JOHN WILLIAM EWING
Lic. No. 8053
4/21/2014
PROFESSIONAL ENGINEER

KEY PLAN
COMMONWEALTH OF VIRGINIA
CODY A. PENNETT
Lic. No. 045960
PROFESSIONAL ENGINEER

SCALE
Not to Scale

No.	DATE	BY	Description
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3	1/3/14		
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1	9/9/13		

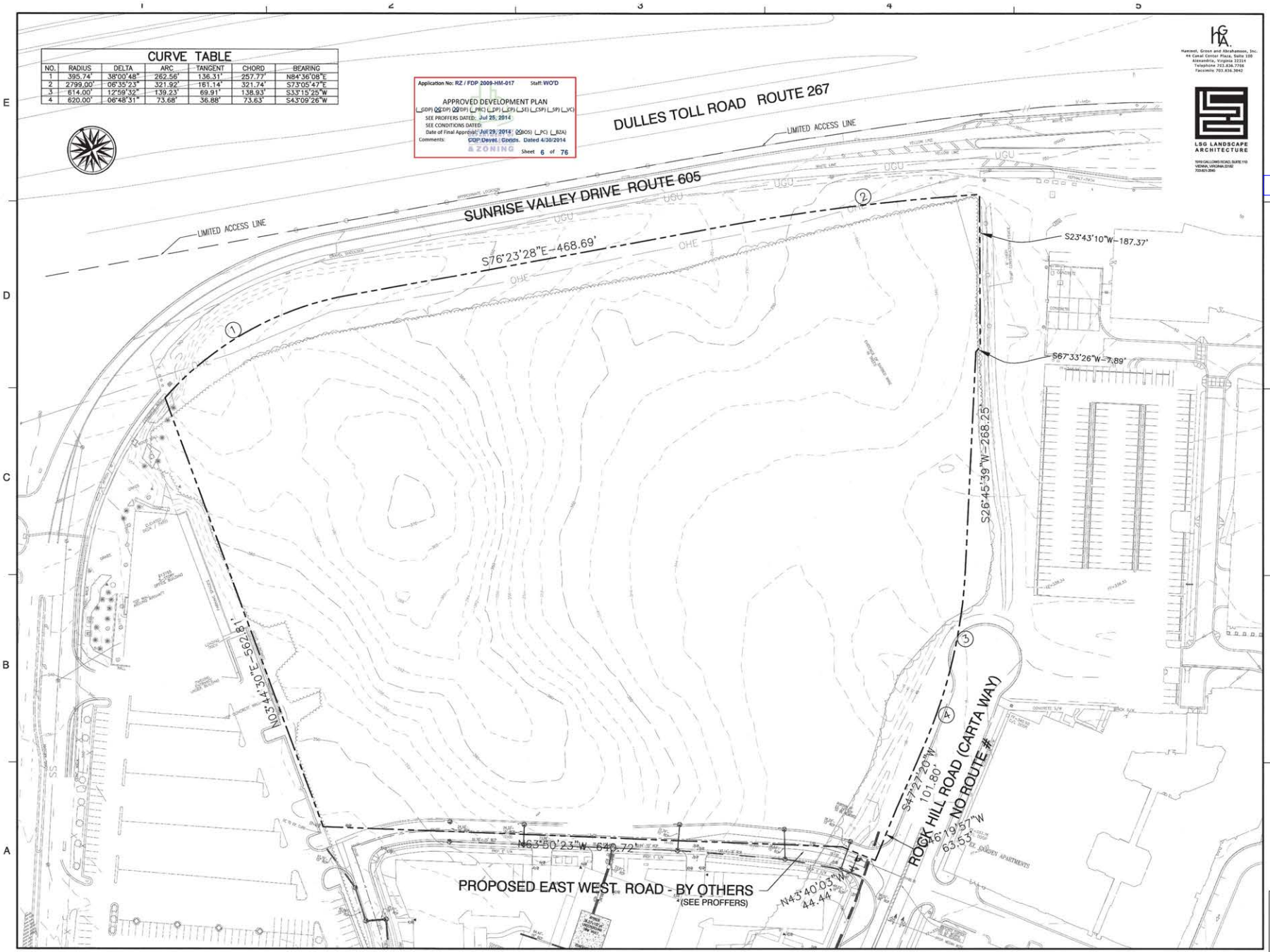
REVISIONS

DRAWN BY JMC
APPROVED BY JWE
CHECKED BY
DATE AUG 1, 2013

TITLE
PARKING SUMMARY

PROJECT NO.

SHEET NO. C-26
R01.105
SECTION NO. M-10831 R01-ZONING



Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

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Conceptual/Final Development Plan
DRANESVILLE DISTRICT
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SCALE 0' 25' 50' 100'

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REVISIONS

DRAWN BY
APPROVED BY
CHECKED BY
DATE

TITLE

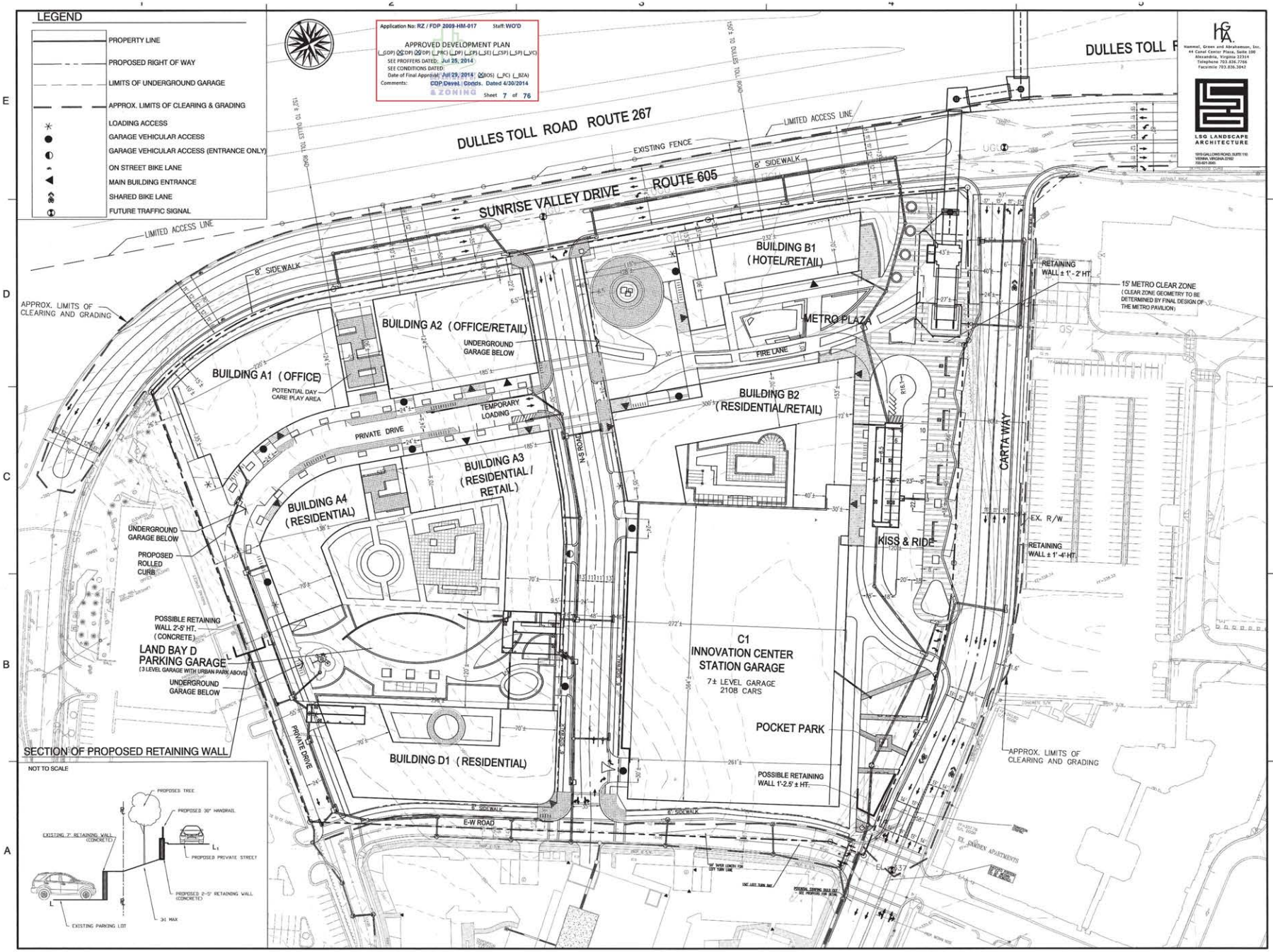
EXISTING CONDITIONS

PROJECT NO.

SHEET NO. C-3

R01.106

SECTION NO. M-1083 R01-ZONING



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LSG LANDSCAPE ARCHITECTURE
1515 GALLOWS ROAD, SUITE 110
VIENNA, VIRGINIA 22182
703-821-3565

Dewberry
Dewberry Consultants LLC
8401 ARLINGTON BLVD.
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FAIRFAX COUNTY, VIRGINIA

SEAL
COMMONWEALTH OF VIRGINIA
JOHN WILLIAM EWING
Lic. No. 0053
4/21/2014
PROFESSIONAL ENGINEER

KEY PLAN
COMMONWEALTH OF VIRGINIA
CODY A. PENNETT
Lic. No. 048560
4/21/2014
PROFESSIONAL ENGINEER

SCALE 0' 25' 50' 100'

No.	DATE	BY	Description
6	4/21/14	JMC	
5	3/27/14		
4	2/21/14		
3	1/3/14		
2	11/22/13	LNM	
1	9/9/13		

REVISIONS

DRAWN BY JMC
APPROVED BY JWE
CHECKED BY
DATE AUG 1, 2013

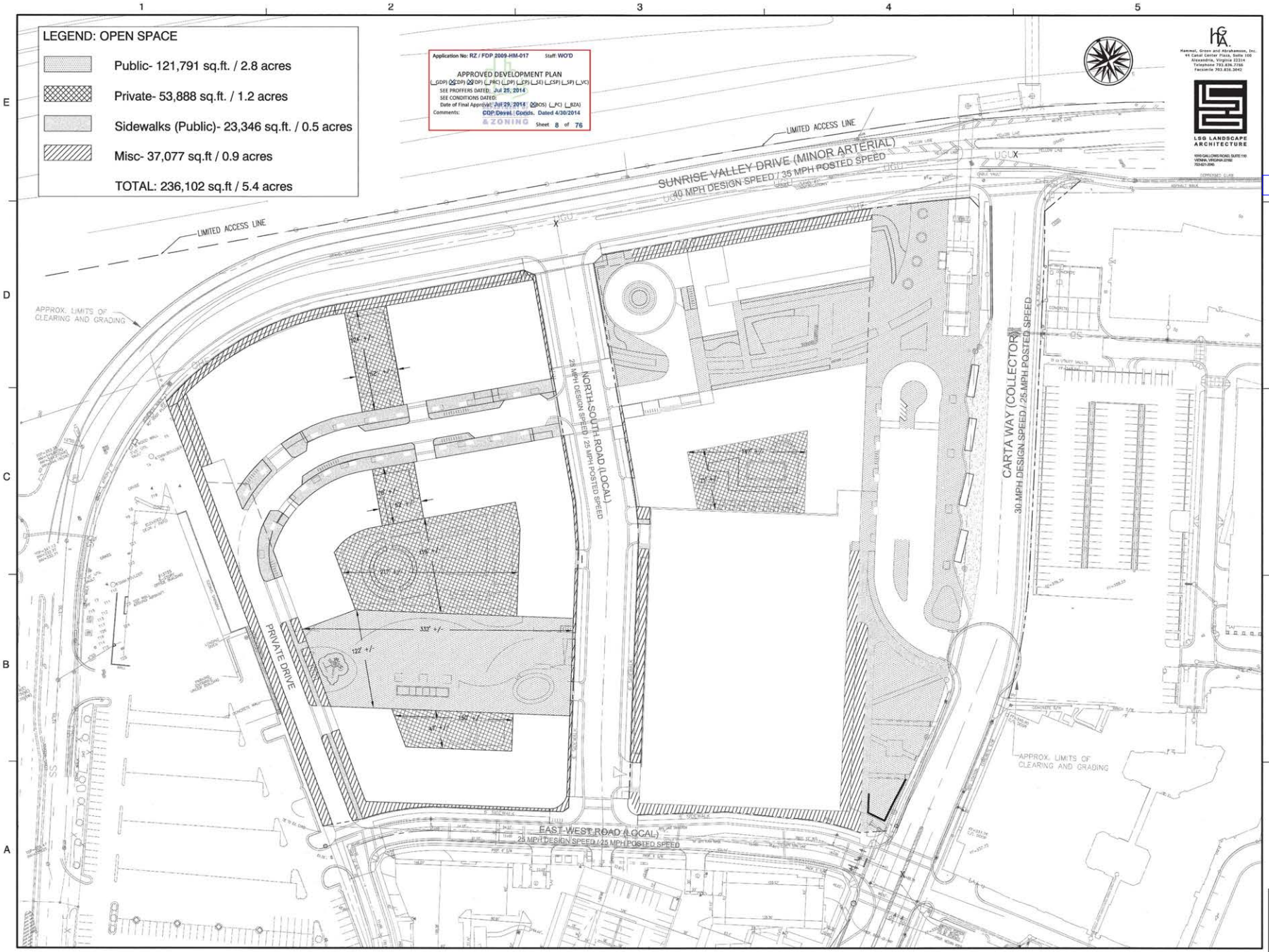
TITLE
CONCEPTUAL / FINAL DEVELOPMENT PLAN

PROJECT NO.

SHEET NO. C-4
R01.107

SECTION NO. M-10031 R01-ZONING

Q:\PROJECT\Reva Property\Submissions\CDP&FDPA_50-SCAD\Submissions\C-4 CFDP.dwg, 4/17/2014 11:58:39 AM, 1210-HP-DesignJet 1050C#4.pc3



Hammel, Green and Abrahamson, Inc.
44 Canal Center Plaza, Suite 100
Alexandria, Virginia 22314
Telephone 703.836.7766
Facsimile 703.836.3042

LGG LANDSCAPE ARCHITECTURE
1910 GALLOWS ROAD, SUITE 110
VIENNA, VIRGINIA 22182
703-821-3565

Dewberry
Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

dcs DAVIS CARTER SCOTT ltd DESIGN

ROCKS ENGINEERING

Issued for Construction

INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE
Conceptual/Final Development Plan
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL
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Lic. No. 8053
4/21/2014
PROFESSIONAL ENGINEER

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SCALE 0' 25' 50' 100'

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REVISIONS

DRAWN BY JMC
APPROVED BY JWE
CHECKED BY
DATE AUG 1, 2013

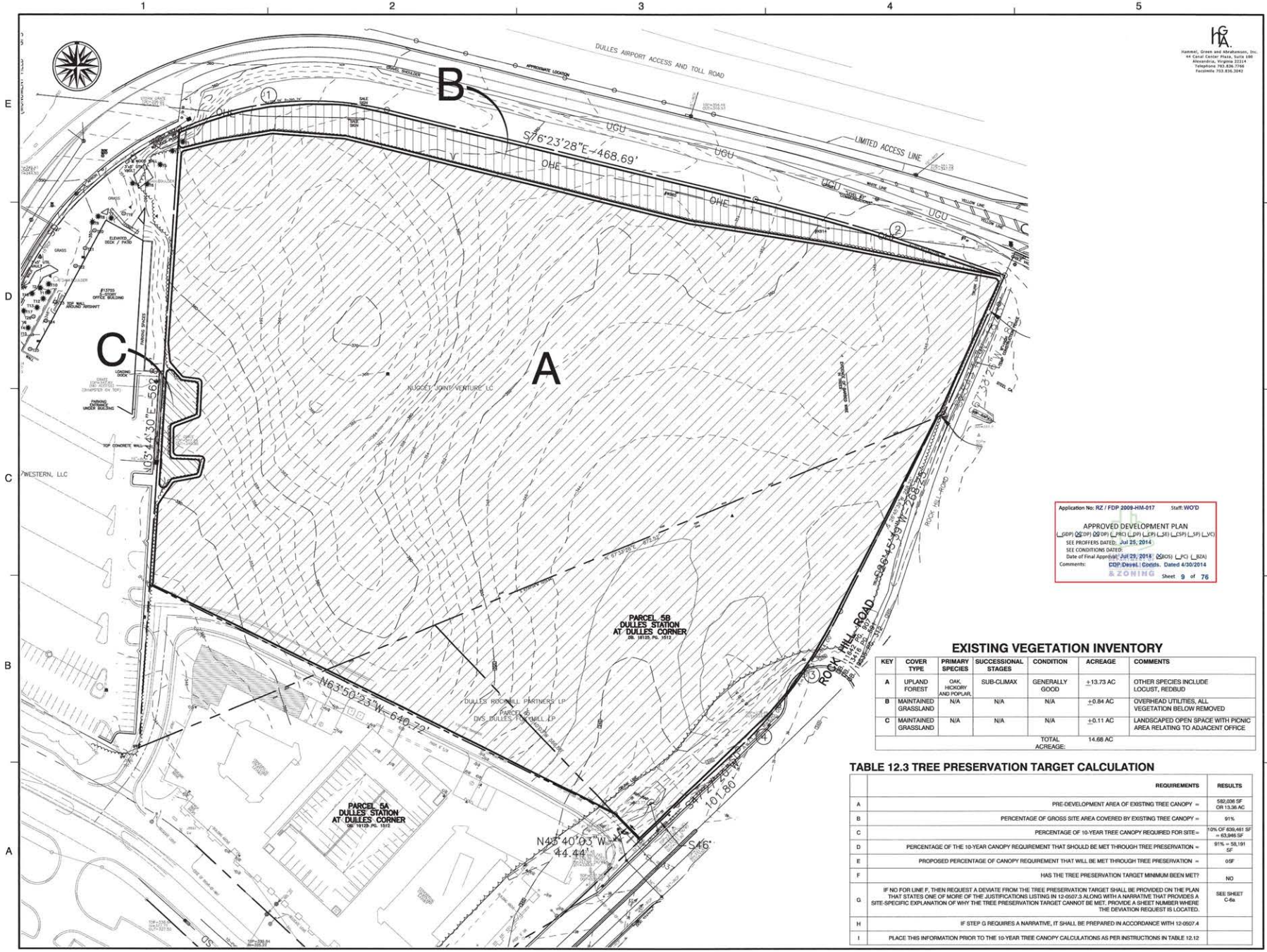
TITLE

OPEN SPACE EXHIBIT

PROJECT NO.

C.5
R01.108
SHEET NO.

SECTION NO. R01-ZONING



Application No: RZ / FDP 2009-HM-017 Staff: WO'D

APPROVED DEVELOPMENT PLAN

(_GDP) (X CDP) (X DP) (_PRC) (_DP) (_FP) (_SE) (_SP) (_SP) (_VC)

SEE PROFFERS DATED: Jul 25, 2014

SEE CONDITIONS DATED:

Date of Final Approval: Jul 25, 2014 (XBOS) (_PC) (_BZA)

Comments: CDP Devel. Conds. Dated 4/30/2014

& ZONING Sheet 9 of 76

EXISTING VEGETATION INVENTORY

KEY	COVER TYPE	PRIMARY SPECIES	SUCCESSIONAL STAGES	CONDITION	ACREAGE	COMMENTS
A	UPLAND FOREST	OAK, HICKORY AND POPLAR,	SUB-CLIMAX	GENERALLY GOOD	±13.73 AC	OTHER SPECIES INCLUDE LOCUST, REDBUD
B	MAINTAINED GRASSLAND	N/A	N/A	N/A	±0.84 AC	OVERHEAD UTILITIES, ALL VEGETATION BELOW REMOVED
C	MAINTAINED GRASSLAND	N/A	N/A	N/A	±0.11 AC	LANDSCAPED OPEN SPACE WITH PICNIC AREA RELATING TO ADJACENT OFFICE
				TOTAL ACREAGE:	14.68 AC	

TABLE 12.3 TREE PRESERVATION TARGET CALCULATION

	REQUIREMENTS	RESULTS
A	PRE-DEVELOPMENT AREA OF EXISTING TREE CANOPY =	582,036 SF OR 13.36 AC
B	PERCENTAGE OF GROSS SITE AREA COVERED BY EXISTING TREE CANOPY =	91%
C	PERCENTAGE OF 10-YEAR TREE CANOPY REQUIRED FOR SITE=	10% OF 639,461 SF = 63,946 SF
D	PERCENTAGE OF THE 10-YEAR CANOPY REQUIREMENT THAT SHOULD BE MET THROUGH TREE PRESERVATION =	91% = 58,191 SF
E	PROPOSED PERCENTAGE OF CANOPY REQUIREMENT THAT WILL BE MET THROUGH TREE PRESERVATION =	0SF
F	HAS THE TREE PRESERVATION TARGET MINIMUM BEEN MET?	NO
G	IF NO FOR LINE F, THEN REQUEST A DEVIATE FROM THE TREE PRESERVATION TARGET SHALL BE PROVIDED ON THE PLAN THAT STATES ONE OF MORE OF THE JUSTIFICATIONS LISTING IN 12-0507.3 ALONG WITH A NARRATIVE THAT PROVIDES A SITE-SPECIFIC EXPLANATION OF WHY THE TREE PRESERVATION TARGET CANNOT BE MET. PROVIDE A SHEET NUMBER WHERE THE DEVIATION REQUEST IS LOCATED.	SEE SHEET C-6a
H	IF STEP G REQUIRES A NARRATIVE, IT SHALL BE PREPARED IN ACCORDANCE WITH 12-0507.4	
I	PLACE THIS INFORMATION PRIOR TO THE 10-YEAR TREE CANOPY CALCULATIONS AS PER INSTRUCTIONS IN TABLE 12.12	

Hanmer, Green and Abrahamson, Inc.
44 Canal Center Plaza, Suite 100
Alexandria, Virginia 22314
Telephone 703.836.7766
Facsimile 703.836.3042

Dewberry
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8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0018

dcs DAVIS CARTER SCOTT Ltd DESIGN

Issued For Construction
Issued Date: 4/30/2014

ROCKS
REAL ESTATE DEVELOPERS SINCE 1956

INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE

Conceptual/Final Development Plan

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

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4/21/2014
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KEY PLAN

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Lic. No. 041992
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REVISIONS

DRAWN BY JMC
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CHECKED BY
DATE AUG 1, 2013

TITLE

EXISTING VEGETATION MAP

PROJECT NO.

C-6
R01.109
SHEET NO.

SECTION NO. M-10831 R01-ZONING

Dewberry

Dewberry Consultants LLC
8401 Arlington Boulevard
Fairfax, VA 22031-4666
703-849-0100
703. 849.0118 fax
www.dewberry.com

March 27, 2014

James Patteson, Director
Fairfax County Department of Public Works and Environmental Services
12055 Government Center Parkway
Suite 659
Fairfax VA 22035

RE: Request for a Tree Preservation Target Deviation
Tax Map 15-2 ((1)) 13 Part, 15-4 ((5)) 5B, and 15-4 ((5)) 5A Part

Dear Mr. Patteson:

May this letter serve as a request for a deviation from the Tree Preservation Target as provided for in the provisions set forth in Sect. 12-0508 of the Public Facilities Manual (PFM). The proposed development program at issue is located on the property referenced as 15-2 ((1)) 13 Part, 15-4 ((5)) 5B, and 15-4 ((5)) 5A Part. It is located south of Sunrise Valley Drive and includes the future Innovation Station which is part of the Phase II extension of the Silver Line. It is the subject of a rezoning application.

The property is currently zoned to the PDC District and is subject of a Conceptual/Final Development Plan to rezone the property to the PRM District, a copy of which is attached for your reference. The pending CDP/FDP proposes a development program to include a transit-oriented, mixed-use project comprised of four multi-family residential buildings, a hotel, two office buildings, street level retail, transit parking facilities and a Kiss and Ride facility.

Based on the provisions set forth in Sect. 12-0508 of the PFM and more particularly the calculations set forth in Table 12.3, copy attached, 63,946 square feet is the requisite Tree Preservation Target.

A deviation from the Tree Preservation Target requirement is requested, for as demonstrated by the attached copy of the proposed development program, the clearing and grading, and provision of utilities for the development program will preclude the accommodation of the Tree Preservation Target. It is our judgment that the proposed development program is a reasonable development program for the subject property which is zoned to the PRM District. In reference to this request, it is noted that the 10-year Tree Canopy Requirement of 10% will be met through the planting of trees on site.

We trust that this statement is sufficient to support our request for a deviation from the Tree Preservation Target for the development program proposed for the subject property. Should you have any questions or the need for additional information, please contact me at 703-849-0144 or jcena@dewberry.com.

Sincerely,

Janice M. Cena
Senior Landscape Architect
ISA Certified Arborist

PRELIMINARY INTERIOR PARKING LOT CALCULATIONS

PARKING LOT AREA	137,140 ± SF
LANDSCAPING REQUIRED (5%)	6,857 ± SF
LANDSCAPING PROVIDED (10%)	14,000 ± SF
• 31 CAT IV DECIDUOUS TREES @ 250 SF	
• 50 CAT II DECIDUOUS TREES @ 125 SF	

PRELIMINARY PERIPHERAL PARKING LOT CALCULATIONS

SOUTHERN PROPERTY BOUNDARY - APPROX 230 LF
REQUIRED: 1TREE / 40 LF = 6 TREES
PROVIDED: = 20 TREES

EASTERN PROPERTY BOUNDARY - APPROX 500 LF
REQUIRED: 1 TREE / 40 LF = 13 TREES
PROVIDED: = 16 TREES

Table 12.10 10-year Tree Canopy Calculation Worksheet

A. Tree Preservation Target and Statement		
	SEE SHEET C-6	
B. Tree Canopy Requirement		
B1	Identify gross site area =	639318 SF
B2	Subtract area dedicated to parks, road frontage, and	73,122 SF
B3	Subtract area of exemptions =	0
B4	Adjusted gross site area (B1-B2) =	566,196 SF
B5	Identify site's zoning and/or use	PRM
B6	Percentage of 10-year tree canopy required =	10%
B7	Area of 10-year tree canopy required (B4 x B6) =	56,620 SF
B8	Modification of 10-year Tree Canopy Requirements requested?	NO
B9	If B8 is yes, then list plan sheet where modification request is located	
C. Tree Preservation		
C1	Tree Preservation Target Area =	58,191 SF
C2	Total canopy area meeting standards of 12-0400 =	0
C3	C2 x 1.25 =	0
C4	Total canopy area provided by unique or valuable forest or woodland communities =	0
C5	C4 x 1.5 =	0
C6	Total of canopy area provided by "Heritage," "Memorial," "Specimen," or "Street" trees =	0
C7	C6 x 1.5 to 3.0 =	0
C8	Canopy of trees within Resource Protection Areas and 100-year floodplains	0
C9	C8 x 1.0 =	0
C10	Total of C3, C5, C7 and C9 =	0

D. Tree Planting

D1	Area of canopy to be met through tree planting (B7-C10) =	56,620 SF
D2	Area of canopy planted for air quality benefits =	23,600 SF
D3	x 1.5 =	35,400 SF
D4	Area of canopy planted for energy conservation =	0
D5	x 1.5 =	0
D6	Area of canopy planted for water quality benefits =	16,525 SF
D7	x 1.25 =	20,656 SF
D8	Area of canopy planted for wildlife benefits =	0
D9	x 1.5 =	0
D10	Area of canopy provided by native trees =	0
D11	x 1.5 =	0
D12	Area of canopy provided by improved cultivars and varieties =	4,000 SF
D13	x 1.5 =	6,000 SF
D14	Area of canopy provided through tree seedlings =	0
D15	x 1.0 =	0
	Area of canopy provided through native shrubs or woody seed mix =	0
D16	x 1.0 =	0
D17	Percentage of D14 represented by D15 =	NA
D18	Total of canopy area provided through tree planting =	94,069 SF
D19	Is an offsite planting relief requested?	NO
D20	Tree Bank or Tree Fund?	NO
D21	Canopy area to be requested to be provided through offsite banking or tree fund	NA
	Amount to be deposited into the Tree Preservation and Planting Fund	NA

E. Total of 10-year Tree Canopy Provided

E1	Total of canopy area provided through tree preservation (C10) =	0
E2	Total of canopy area provided through tree planting (D17) =	94,069 SF
E3	Total of canopy area provided through offsite mechanism (D19) =	0
E4	Total of 10-year Tree Canopy Provided =	94,069 SF

Application No: RZ / FDP 2009-HM-017 Staff: WO'D

APPROVED DEVELOPMENT PLAN
(_)DPD (X)CDP) (X)DP) (_)PRC) (_)PI) (_)EP) (_)SE) (_)SP) (_)SPI) (_)VC)
SEE PROFFERS DATED: Jul 25, 2014
SEE CONDITIONS DATED:
Date of Final Approval: Jul 29, 2014 (X)BOS) (_)PC) (_)BZA)
Comments: CDP/Devel. Cond's. Dated 4/30/2014
& ZONING
Sheet 10 of 76

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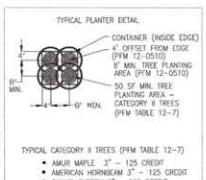
TYPICAL PLANTER DETAIL



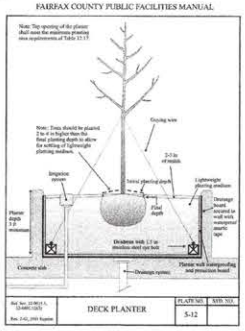
TYPICAL CATEGORY II TREES (PFM TABLE 12-7)

- AMUR MAPLE 3" – 125 CREDIT
- AMERICAN HORNBEAM 3" – 125 CREDIT
- OKAME CHERRY 3" – 125 CREDIT

GARAGE INTERIOR CREDITS REQUIRED: 4,790 SF
GARAGE TREES REQUIRED @125 EA. : 39
GARAGE TREES PROVIDED @125 EA. : 40*
PARKING SPACES LOST: 27

* 1 TREE DOES NOT SHADE GARAGE

FAIRFAX COUNTY PUBLIC FACILITIES MANUAL



Ref. Sec. 12-0511 1. (3) 600 (12) Rev. 2-02; 2005 Fairfax	DECK PLANTER	PLATE NO. 5-12	STD. NO.

DECK PLANTING DETAIL

Gordon

RECOMMENDED PLANTING MEDIUM COMPONENTS:

INTENSIVE LAYER – THIS LAYER SERVES AS THE TOP GROWING MEDIUM. RECOMMEND 12" DEPTH ROOFLITE INTENSIVE LAYER SOIL SPECIFICATION ON THIS SHEET (OR EQUIVALENT).

BASE LAYER – THIS LAYER PROVIDES A DEEPER ROOT ZONE. RECOMMEND 18" DEPTH ROOFLITE BASE LAYER SOIL SPECIFICATION ON THIS SHEET (OR EQUIVALENT).

FILTER LAYER – THIS LAYER SEPARATES THE BOTTOM LAYER FROM THE BASE LAYER. RECOMMEND FILTER FABRIC.

BOTTOM LAYER – THIS LAYER PROVIDES DRAINAGE SPACE. RECOMMEND 6" POROUS LIGHT AGGREGATE.

NOTE: LAYER DEPTHS BASED ON 3" DEPTH PLANTER. IF PLANTER DEPTH IS MORE, CONTACT SOIL MEDIUM MANUFACTURER FOR RECOMMENDATIONS.

rooflite® intensive

A growing medium for intensive green roof systems with a separate drainage course or a synthetic drainage layer. This growing medium is designed for rooftop gardens, urban farming and large containers or planters. rooflite® intensive is a precisely balanced blend of light weight mineral aggregates like HydRocks® or pumice and premium organic components like USDC STA approved compost complying with the following requirements:

Particle Size Distribution			
Proportion of sifting components < 0.063 mm	Mass %		≤ 10
Proportion of particles < 0.25 mm	60 mesh	Mass %	35 – 40
Proportion of particles < 1.00 mm	18 mesh	Mass %	25 – 60
Proportion of particles < 2.00 mm	10 mesh	Mass %	30 – 70
Proportion of particles < 3.20 mm	1/8 inch	Mass %	50 – 90
Proportion of particles < 6.30 mm	1/4 inch	Mass %	75 – 100
Proportion of particles < 9.50 mm	3/8 inch	Mass %	90 – 100
Proportion of particles < 12.50 mm	1/2 inch	Mass %	100
Density Measurements			
Bulk Density (dry weight basis)		g/cm³	0.70 – 0.85
Bulk Density (dry weight basis)		lb/ft³	44 – 53
Bulk Density (at max. water-holding capacity)		g/cm³	1.15 – 1.35
Bulk Density (at max. water-holding capacity)		lb/ft³	72 – 85
Water/Air Measurements			
Total Pore Volume		Vol. %	≥ 50
Maximum water-holding capacity		Vol. %	45 – 55
Air-filled porosity at max water-holding capacity		Vol. %	≥ 10
Water permeability (saturated hydraulic conductivity)		cm/sec	0.0005 – 0.05
Water permeability (saturated hydraulic conductivity)		in/min	0.0018 – 1.18
pH and Salt Content			
pH (in CaCl₂)			6.0 – 8.5
Soluble salts (water, 1:10, m:v)		g (KCl)/L	< 1.5
Organic Measurements			
Organic matter content		g/L	50 – 90
Nutrients			
Phosphorus, P2O5 (CAL)		mg/L	≤ 200
Potassium, K2O (CAL)		mg/L	≤ 700
Magnesium, Mg (CaCl2)		mg/L	≤ 200
Nitrate + Ammonium (CaCl2)		mg/L	≤ 80

All values are based on compacted materials according to laboratory standards and testing methods defined by the Forschungsgesellschaft Landschaftsentwicklung Landschaftsbau e.V. (FLL) Landscape Development and Landscaping Research Society. Guidelines for the Planning Construction and Maintenance of Green-Roofing. Green Roofing Guideline, 2008

rooflite® base layer

A growing medium optimized for the deeper root zone below a top layer of rooflite® intensive. This growing medium provides better aeration and less organic matter than rooflite® intensive. It is a precisely balanced blend of light weight mineral aggregates like HydRocks® or pumice and premium organic components like USCC STA approved compost complying with the following requirements:

Particle Size Distribution			
Proportion of sifting components < 0.063 mm		Mass %	≤ 15
Proportion of particles < 0.25 mm	60 mesh	Mass %	5 – 30
Proportion of particles < 1.00 mm	18 mesh	Mass %	10 – 50
Proportion of particles < 2.00 mm	10 mesh	Mass %	30 – 70
Proportion of particles < 3.20 mm	1/8 inch	Mass %	40 – 80
Proportion of particles < 6.30 mm	1/4 inch	Mass %	65 – 95
Proportion of particles < 9.50 mm	3/8 inch	Mass %	80 – 100
Proportion of particles < 12.50 mm	1/2 inch	Mass %	100
Density Measurements			
Bulk Density (dry weight basis)		g/cm³	0.70 – 0.85
Bulk Density (dry weight basis)		lb/ft³	44 – 53
Bulk Density (at max. water-holding capacity)		g/cm³	1.15 – 1.35
Bulk Density (at max. water-holding capacity)		lb/ft³	72 – 85
Water/Air Measurements			
Total Pore Volume		Vol. %	≥ 50
Maximum water-holding capacity		Vol. %	25 – 50
Air-filled porosity at max water-holding capacity		Vol. %	≥ 10
Water permeability (saturated hydraulic conductivity)		cm/sec	0.003 – 0.12
Water permeability (saturated hydraulic conductivity)		in/min	0.014 – 2.83
pH and Salt Content			
pH (in CaCl₂)			6.0 – 8.5
Soluble salts (water, 1:10, m:v)		g (KCl)/L	< 3.5
Organic Measurements			
Organic matter content		g/L	30 – 40
Nutrients			
Phosphorus, P2O5 (CAL)		mg/L	≤ 200
Potassium, K2O (CAL)		mg/L	≤ 700
Magnesium, Mg (CaCl2)		mg/L	≤ 200
Nitrate + Ammonium (CaCl2)		mg/L	≤ 80

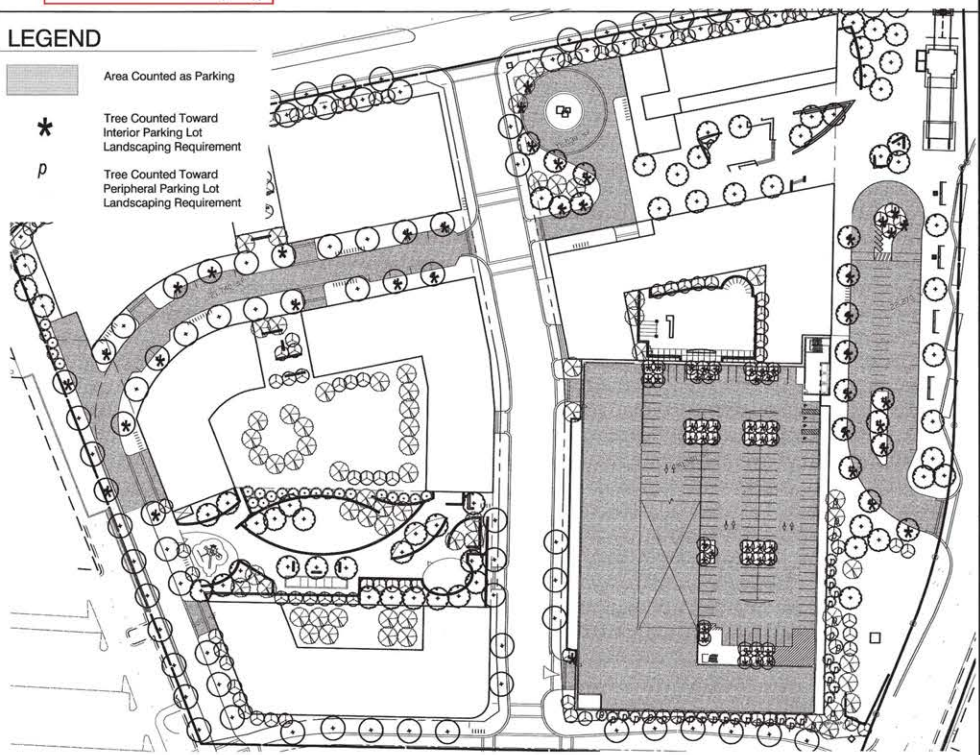
All values are based on compacted materials according to laboratory standards and testing methods defined by the Forschungsgesellschaft Landschaftsentwicklung Landschaftsbau e.V. (FLL) Landscape Development and Landscaping Research Society. Guidelines for the Planning Construction and Maintenance of Green-Roofing. Green Roofing Guideline, 2008

LEGEND

Area Counted as Parking

* Tree Counted Toward Interior Parking Lot Landscaping Requirement

p Tree Counted Toward Peripheral Parking Lot Landscaping Requirement



PARKING LOT LANDSCAPING CALCULATIONS-NOT TO SCALE

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

DAVIS CARTER SCOTT Ltd
dcs DESIGN

ROCKS ENGINEERING

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ENGINEERING PLANS AND TECHNICAL REPORTS
FINAL SUBMISSION FOR APPROVAL

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DATE AUG 1, 2013

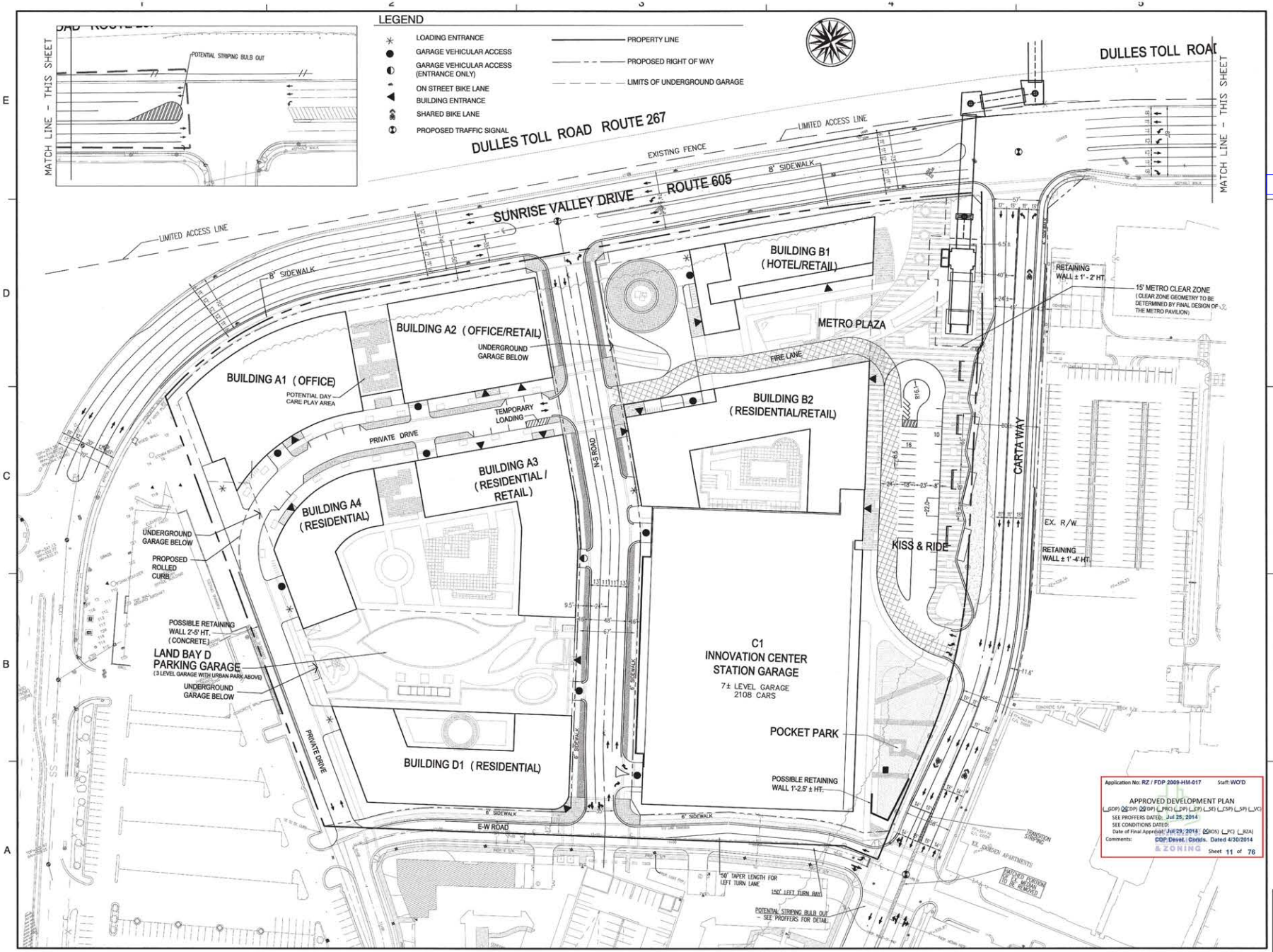
TITLE

Landscape Calculations

PROJECT NO.

C-6a
R01.110
SHEET NO.

SECTION NO. M-10831 R01-ZONING



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DCS DESIGN — DAVIS CARTER SCOTT ltd

ROCKS ENGINEERING

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Conceptual/Final Development Plan

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REVISIONS

DRAWN BY
APPROVED BY
CHECKED BY
DATE

TITLE

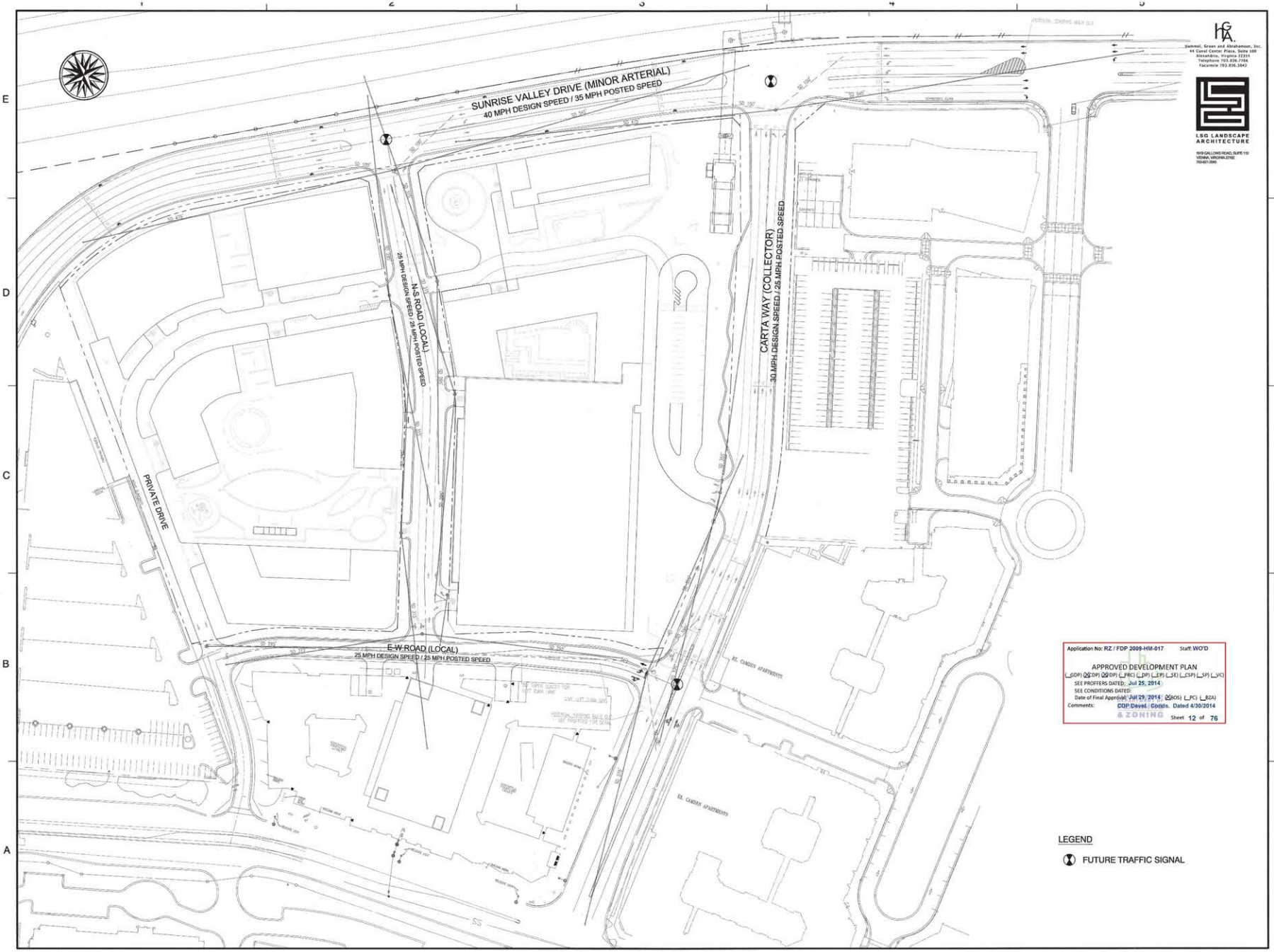
PROPOSED ROADS / R.O.W. PLAN

PROJECT NO.

R01.111

SHEET NO.

SECTION NO. R01-ZONING



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DESIGN

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FIRM LICENSED IN THE STATE OF MARYLAND
VA. STATE DEPT. OF ALT. FIRM 1358

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FAIRFAX COUNTY, VIRGINIA

SEAL
COMMONWEALTH OF VIRGINIA
JOHN WILLIAM EWING
Lic. No. 8053
4/21/2014
PROFESSIONAL ENGINEER

KEY PLAN
COMMONWEALTH OF VIRGINIA
CODY A. PENNETT
Lic. No. 048950
4/15-16/21
PROFESSIONAL ENGINEER

SCALE 0' 30' 60' 120'

No.	DATE	BY	Description
6	4/21/14	JMC	
5	3/27/14		
4	2/21/14		
3	1/3/14		
2	11/22/13	LNM	
1	9/9/13		

REVISIONS

DRAWN BY JMC
APPROVED BY JWE
CHECKED BY
DATE AUG 1, 2013

TITLE

SIGHT DISTANCE PLAN

PROJECT NO.

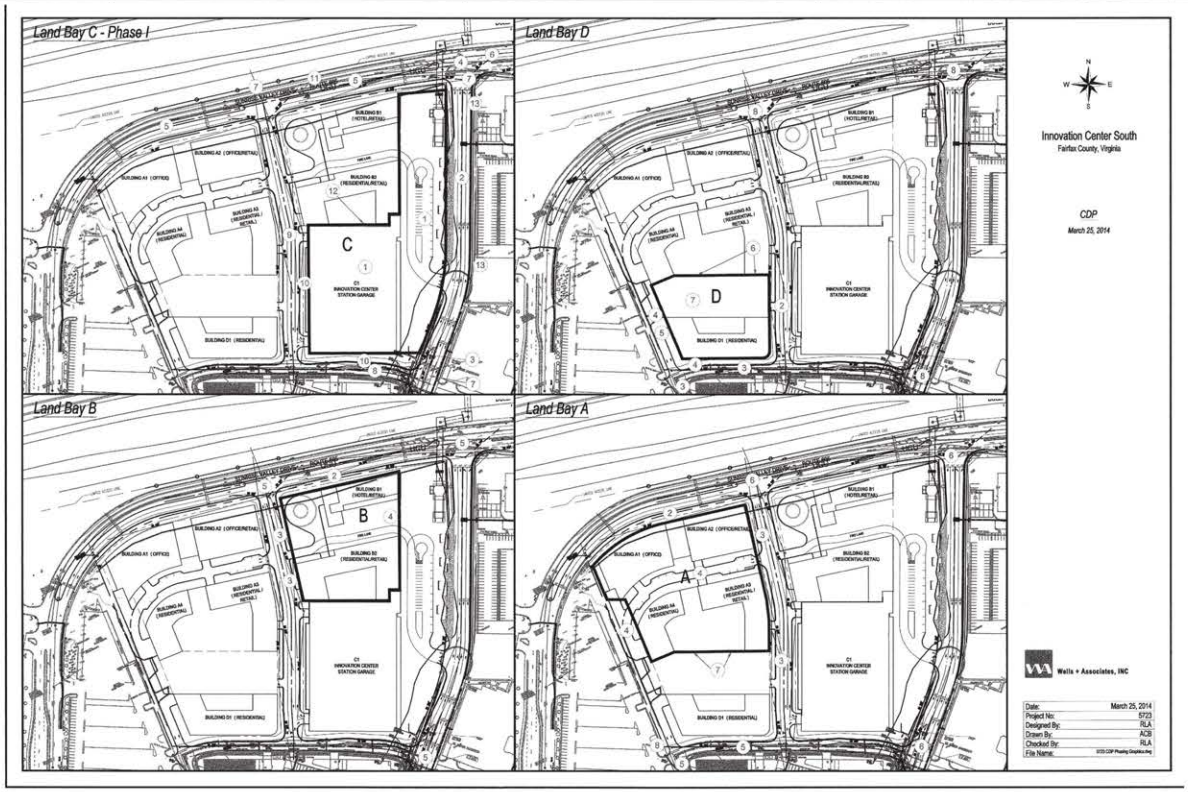
C-7a

R01.112

SHEET NO.

SECTION NO. R01-ZONING

M-10831



Land Bay C - Phase 1

Legend

1. Construct Innovation Center South Garage and related facilities (kiss-n-ride, bus bays, public spaces, etc.)
2. Construct Carta Way from current terminus north to Sunrise Valley Drive
3. Remove median on existing Carta Way at new East-West Road.
4. Construct Carta Way/Sunrise Valley Drive intersection as described in proffers.
5. Reconstruct Sunrise Valley Drive from westermost Property Line to Carta Way (excluding streetscape.)
6. Construct dual left-turn lanes westbound on Sunrise Valley Drive at Carta Way (including lane transitions as needed.)
7. Prepare traffic signal warrant studies as described in proffers. Install signal(s) based on results of study and if approved by VDOT.
8. Construct new East-West Road from Carta Way to new North South Road if not constructed by others as described in proffers.
9. Construct new North-South Road from new East-West Road north to Sunrise Valley Drive.
10. Construct streetscape along Innovation Center South Garage frontage on new East-West Road and new North-South Road.
11. Construct a left-turn lane on Sunrise Valley Drive at new North-South Road.
12. Interim treatment of exposed garage wall shall be provided as described in proffers
13. Construct 5 foot sidewalk along east side of Carta Way from current terminus north to Sunrise Valley Drive.

Land Bay B - Phasing

Legend

1. All Phase 1 improvements.
2. Construct streetscape improvements along Sunrise Valley Drive frontage
3. Construct streetscape improvements along new North-South Road.
4. Construct public plaza as described in proffers.
5. Prepare traffic signal warrant studies as described in proffers. Install signal(s) based on results of study and if approved by VDOT.

Land Bay D - Phasing

Legend

1. All Phase 1 improvements.
2. Construct streetscape on North-South Road along Building D-1 frontage.
3. Extend new East-West Road to Private Drive if not constructed by others as described in proffers.
4. Construct streetscape along Building D-1 frontage of new East-West Road and Private Drive.
5. Construct Private Drive from new East-West Road north to southernmost limit of Land Bay A.
6. Interim treatment of exposed garage wall shall be provided as described in proffers.
7. Construct urban park as described in proffers.
8. Prepare traffic signal warrant studies as described in proffers. Install signal(s) based on results of study and if approved by VDOT.

Land Bay A - Phasing[1]

Legend

1. All Phase 1 improvements.
2. Construct streetscape improvements along Sunrise Valley Drive only if signal is installed at intersection of North-South Road and Sunrise Valley Drive.
3. Construct new North-South Road streetscape along Land Bay A frontage.
4. Construct internal Private Drive from new North-South Road to new East-West Road including streetscape as described in proffers. Building D streetscape along new North-South Road and Private Drive not included.
5. Construct new East-West Road from new North-South Road west then south to Sunrise Valley Drive if not constructed by others as described in proffers.
6. Prepare traffic signal warrant studies as described in proffers. Install signal(s) based on results of study and as approved by VDOT.
7. Interim treatment of exposed garage wall shall be provided as described in proffers
8. Construct entrance to ATT from Private Drive as described in proffers.

[1] *Office Buildings A1 or A2 can only be constructed if a signal has been approved for installation at the intersection of Sunrise Valley Drive and North-South Road (see Proffers.)*

Application No: RZ / FDP 2009-HM-017 Staff: WO'D

APPROVED DEVELOPMENT PLAN
(_GDP) (X CDP) (X DP) (_PRC) (_PP) (_CP) (_SE) (_SP) (_SF) (_VC)
SEE PROFFERS DATED: Jul 25, 2014
SEE CONDITIONS DATED:
Date of Final Approval: Jul 29, 2014 (XBOS) (_PC) (_BZA)
Comments: CDP Devel. Cond's. Dated 4/30/2014
DEPARTMENT OF PLANNING & ZONING
Sheet 13 of 76

Hammel, Green and Abrahamson, Inc.
44 Canal Center Plaza, Suite 100
Alexandria, Virginia 22314
Telephone 703.836.7766
Facsimile 703.836.7042

LSG LANDSCAPE ARCHITECTURE
13910 GALLOWS ROAD, SUITE 110
VIENNA, VIRGINIA 22180
703-821-2040

Dewberry
Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

dcs DAVIS CARTER SCOTT Ltd.
DESIGN

ROCKS
REAL ESTATE CONSULTANTS SINCE 1956

Issued For Construction
May 29, 2014

INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE
Conceptual/Final Development Plan
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

KEY PLAN

SCALE Not to Scale

No.	DATE	BY	Description
6	4/21/14	JMC	
5	3/27/14		
4	2/21/14		
3	1/3/14		
2	11/22/13	LNM	
1	9/9/13*		

REVISIONS

DRAWN BY JMC
APPROVED BY JWE
CHECKED BY
DATE AUG 1, 2013

TITLE

PHASING PLAN

PROJECT NO.

C-8
R01.113
SHEET NO.

SECTION NO. M-10831 R01-ZONING

THIS SHEET FOR STORMWATER MANAGEMENT CONCEPT PURPOSES ONLY.

ALL ON-SITE SWM/BMP FACILITIES ARE TO BE PRIVATELY OWNED AND MAINTAINED

PRELIMINARY RAINWATER HARVESTING CISTERN DESIGN

Building	Roof Area		Occupancy			Flushing Demand*	Approximate Cistern Storage Required	RR Credit
	(ac)	(sf)	(# people)	(hrs/day)	(days/week)	(gallons/day)	(1000 gallons)	(%)
Office A1	0.597	26005	655	8	5	2333	40	77
Office A2	0.527	22956	600	8	5	2138	25	76
Residential A3	0.534	23261	640	8	7	3072	20	81
Residential A4	0.335	14593	430	8	7	2064	15	82
Hotel B1	0.361	15725	380	8	7	1824	15	81
Residential B2	0.697	30361	626	8	7	3005	30	80
Residential D1	0.573	24960	250	8	7	1200	25	68

*Gray water demand for flushing based on American Society of Plumbing Engineers (ASPE) Plumbing Engineering Design Handbook, Volume 2.

DULLES TOLL ROAD ROUTE 267

SUNRISE VALLEY DRIVE ROUTE 605

BLDG B1 (HOTEL/RETAIL)

OVERFLOW FROM CISTERN IN BLDG B1

TO OUTFALL 1 0.79 ACRES (STR 25 OF 6848-SAB-003-2)

BLDG A2 (OFFICE/RETAIL)

OVERFLOW FROM CISTERN IN BLDG A2

BLDG A1 (OFFICE)

OVERFLOW FROM CISTERN IN BLDG A1

BLDG B2 (RESIDENTIAL/RETAIL)

DRAINAGE FROM CISTERN OVERFLOW IN BLDG B2 AND FROM RAISED COURTYARD 1

RAISED COURTYARD 1

SAND FILTER #4 LVL 2 SPEC. #1

BLDG A3 (RESIDENTIAL/RETAIL)

CARTAWAY ROAD

BLDG A4 (RESIDENTIAL)

OVERFLOW FROM CISTERN IN BLDG A4

OVERFLOW FROM CISTERN IN BLDG A3

RAISED COURTYARD 2

C1 INNOVATION CENTER STATION GARAGE

DRAINAGE FROM RAISED COURTYARD 2, PUBLIC PLAZA AND COURTYARD AT BLDG D1

SAND FILTER #2 LVL 2 SPEC. #1

PUBLIC PLAZA

NEW N-S ROAD

C1 GARAGE ROOF TO BIORETENTION FILTER

PRETREATMENT WILL BE PROVIDED IN ACCORDANCE WITH SECTION 6.4 OF VA DEQ STORMWATER DESIGN SPEC. #9

BIORETENTION FILTER LEVEL 1 DESIGN, SPEC. #9 FILTER SURFACE AREA = 8,043 SF FILTER SURFACE EL. = 337.00 FT

TO OUTFALL 2 0.82 ACRES (JUST DOWNSTREAM OF STR 113 OF 6848-SAB-06-1)

SAND FILTER #3 LVL 2 SPEC. #2

COURTYARD

LOADING DOCK

OVERFLOW FROM CISTERN IN BLDG D1

BLDG D1 (RESIDENTIAL)

TO OUTFALL 3 7.44 ACRES

SITE (14.68 AC)

TO OUTFALL 5 1.93 ACRES

NEW E-W ROAD

TO OUTFALL 4 4.63 ACRES

PROPOSED DEVELOPMENT BY OTHERS "PARCEL 5A DULLES STATION AT DULLES CORNER"

EL CARIBE APARTMENTS

SWM PLAN LEGEND AND NOTES

PROP. STORM SEW. (THIS APPLICATION)

PROP. STORM SEW. (BY OTHERS, SEE NOTE 2) — SD

EX. STORM SEW.

PROP. PERMEABLE PAVEMENT (LVL 2, SPEC. #7)

DRAINAGE DIVIDE

NOTES:

1. PROPOSED STORM SEWER SYSTEMS SHOWN ARE APPROXIMATE AND SUBJECT TO ADJUSTMENTS AS NEEDED AT SITE PLAN.
2. PROPOSED STORM SEWER BY ADJACENT OWNER/ENGINEER ASSOCIATED WITH PROPOSED DEVELOPMENT PROGRAM TITLED, "PARCEL 5A DULLES STATION AT DULLES CORNER" BY DULLES ROCK HILL PARTNERS, LP. OWNER/ENGINEER FOR INNOVATION CENTER HAS BEEN AND WILL CONTINUE TO COORDINATE THIS STORM SEWER DESIGN WITH THE ADJACENT OWNER/ENGINEER AS APPROPRIATE TO ENSURE OUTFALL ADEQUACY DOWNSTREAM OF OUTFALLS 3, 4 AND 5 WILL BE PROVIDED IN CONFORMANCE WITH FAIRFAX COUNTY REQUIREMENTS.
3. OUTFALL ADEQUACY DOWNSTREAM OF OUTFALLS 1 AND 2 WERE APPROVED UNDER SITE PLANS 6848-SAB-003-2 AND 6848-SAB-06-1, RESPECTIVELY. COPIES OF COMPUTATIONS FROM THESE SITE PLANS HAVE BEEN PROVIDED IN THIS DEVELOPMENT PLAN FOR INFORMATION ONLY. THE PROPOSED DEVELOPMENT PROGRAM REDUCES THE APPROVED RUNOFF TO THESE OUTFALLS SO THESE OUTFALLS WILL REMAIN ADEQUATE.
4. BUILDINGS A1, A2, A3, A4, B1, B2 AND D1 WILL EACH HAVE A RAINWATER HARVESTING CISTERN INTERNAL TO THE BUILDING IN A LOCATION TO BE DETERMINED BY THE OWNER/ARCHITECT/ENGINEER. EACH CISTERN WILL HARVEST RAINWATER FROM THE ENTIRE ROOFTOP OF EACH BUILDING. PLEASE SEE THIS SHEET FOR THE APPROXIMATE CISTERN STORAGE REQUIRED FOR EACH BUILDING.
5. RAISED COURTYARD 2, PUBLIC PLAZA AND COURTYARD AT BLDG D1 IS TREATED AS SIMPLE DISCONNECTION OF IMPERVIOUS AREAS TO A/B SOILS IN ACCORDANCE WITH SPEC. #1 OF THE VIRGINIA BMP CLEARINGHOUSE. IN THESE AREAS TYPE A/B SOILS WILL BE PROVIDED.

Application No: RZ / FDP 2009-HM-017 Staff: WO'D

APPROVED DEVELOPMENT PLAN

(_)DPD (X)CDP (X)FDP (_)PRC (_)PI (_)SE (_)SEA (_)PI (_)VC)

SEE PROFFERS DATED: Jul 25, 2014

SEE CONDITIONS DATED:

Date of Final Approval: Jul 29, 2014 (X)BOS) (_)PC) (_)BZA)

Comments: CDP Devel. Cond's. Dated 4/30/2014

ZONING Sheet 14 of 75

Hammel, Green and Abrahamson, Inc.
44 Canal Center Plaza, Suite 105
Alexandria, Virginia 22314
Telephone 703.836.7766
Facsimile 703.836.3042

LSG LANDSCAPE ARCHITECTURE
1959 GALLOWS ROAD, SUITE 110
VIENNA, VIRGINIA 22182
703.821.3045

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

DCS DAVIS CARTER SCOTT DESIGN

ROCKS REAL ESTATE DIVERSIFICATION SINCE 1988

Issued For Construction May 26, 2014

INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE

Conceptual/Final Development Plan

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
JOHN WILLIAM EWING
Lic. No. 8053
3/27/2014
PROFESSIONAL ENGINEER

KEY PLAN

COMMONWEALTH OF VIRGINIA
CODY A. PENNETTI
Lic. No. 044560
PROFESSIONAL ENGINEER

SCALE

0' 25' 50' 100'

No.	DATE	BY	Description
5	3/27/14		
4	2/21/14		
3	1/3/14		
2	11/22/13	JJM	
1	9/9/13		

REVISIONS

DRAWN BY SCC
APPROVED BY JWE
CHECKED BY
DATE DEC 30, 2013

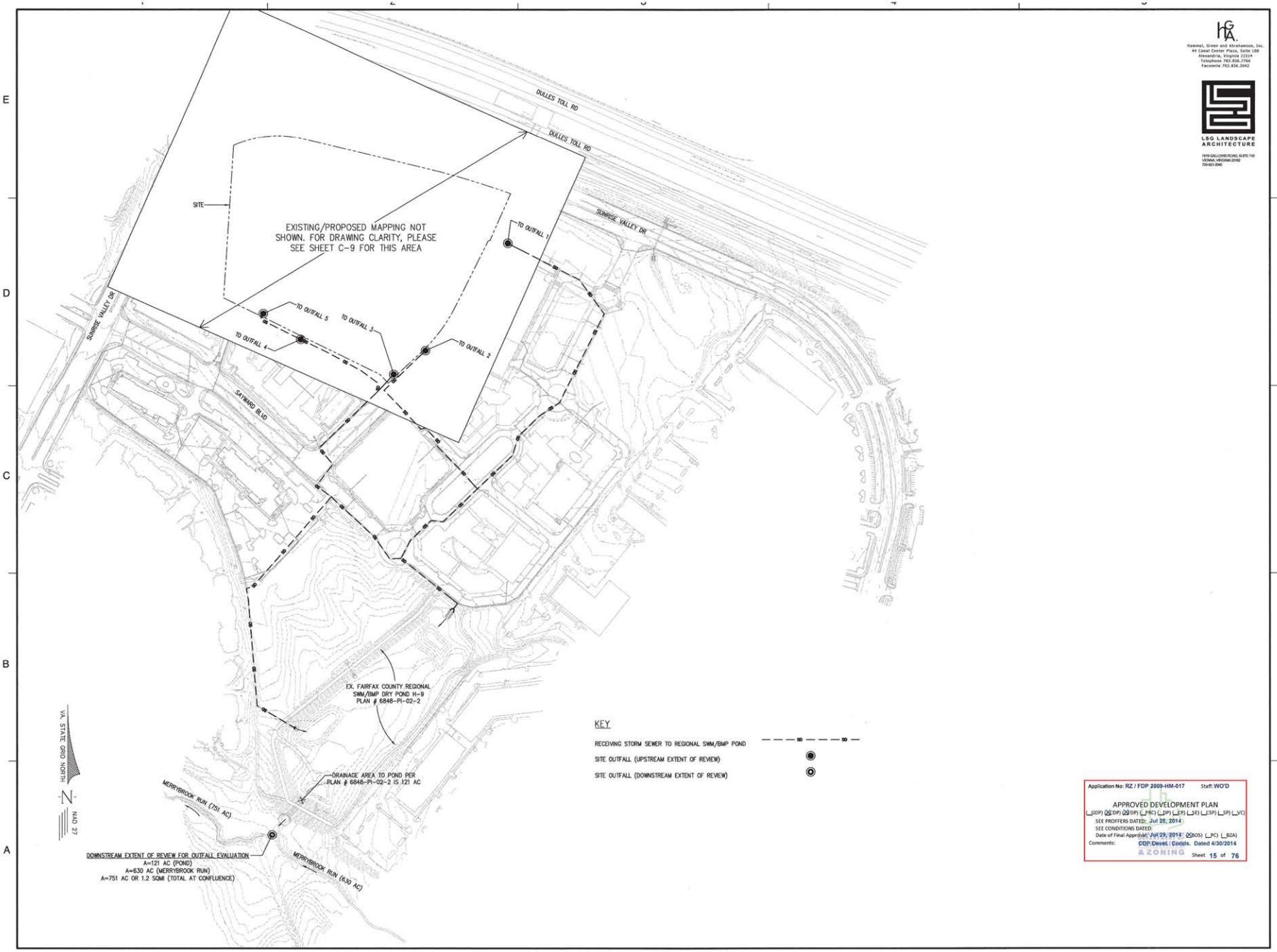
TITLE

STORMWATER MANAGEMENT PLAN

PROJECT NO.

C-9
R01.114
SHEET NO.

SECTION NO. R01-ZONING



Application No: RZ / FDP 2009-HM-017 Staff: WO'D

APPROVED DEVELOPMENT PLAN

(_)DP) (X)DP) (_)NC) (_)P) (_)F) (_)I) (_)SP) (_)SP) (_)VC)

SEE PROFFERS DATED: Jul 25, 2014

SEE CONDITIONS DATED:

Date of Final Approval: Jul 29, 2014 (X)BOS) (_)PC) (_)ZA)

Comments: CDP Devel. Condns. Dated 4/30/2014

Sheet 15 of 76

Hammel, Green and Abrahamson, Inc.
44 Canal Center Plaza, Suite 100
Alexandria, Virginia 22314
Telephone 703.836.7766
Facsimile 703.836.3042

LSG LANDSCAPE ARCHITECTURE
1919 GALLOWS ROAD, SUITE 110
VIENNA, VIRGINIA 22182
703-821-2040

Dewberry
Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

dcs DAVIS CARTER SCOTT DESIGN

ROCKS ENGINEERING

Issued For Construction
5/2/2014

INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE

Conceptual/Final Development Plan

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
JOHN WILLIAM EWING
Lic. No. 8053
3/27/2014
PROFESSIONAL ENGINEER

KEY PLAN

COMMONWEALTH OF VIRGINIA
CODY A. PENNETTI
Lic. No. 048580
PROFESSIONAL ENGINEER

SCALE

0' 75' 150' 300'

No.	DATE	BY	Description
5	3/27/14		
4	2/21/14		
3	1/3/14		
2	11/22/13	LNM	
1	9/9/13		

REVISIONS

DRAWN BY SCC
APPROVED BY JWE
CHECKED BY
DATE AUG 1, 2013

TITLE

PROJECT OUTFALL LIMITS

PROJECT NO.

C-10
SHEET NO.

R01.115
SECTION NO. M-10831 R01-ZONING

STORMWATER MANAGEMENT PLAN NARRATIVE

As requested by Staff, the Stormwater Management Plan for this development application has been prepared in accordance with applicable criteria under Article 4 of the Fairfax County Stormwater Management Ordinance (Rev 11/14/13) and Dulles Suburban Center, Land Unit A, Proposed Comprehensive Plan Text (10/17/13).

I. Site Area

The site area evaluated for Water Quality and Water Quantity is 14.68 ac. The site boundary is called out on Sheet C-9.

II. Water Quality

The proposed site is located on a wooded lot, and therefore qualifies as New Development, which requires the post-development phosphorus load from the site to be reduced to 0.41 lb/ac/yr.

The post-development site generates 27.34 lb/yr of phosphorus. A total phosphorus load reduction of 21.32 lb/yr is required in order to satisfy the removal requirement. Utilizing on-site BMP's to the maximum extent practical the phosphorus load reduction achieved on-site is 17.63 lb/yr. The remaining 3.68 lb/yr of phosphorus will be removed by Fairfax County's regional extended detention dry pond, H-9, located as shown on sheet C-10. Permission to use the regional pond for BMP and SWM has been requested as recommended by Staff. Please see part IV of this narrative for pro-rata share calculations demonstrating that the regional pond can remove the remaining 3.68 lb/yr of phosphorus from the site. On-site phosphorus removal requirements have been calculated using the Virginia Runoff Reduction (VRR) Method. A summary print of the VRR worksheet is provided on Sheet C-12.

All proposed on-site BMPs have been preliminary sized and sited using standards and specifications provided on the Virginia Stormwater BMP Clearinghouse Website and in accordance with applicable restrictions and conditions of proposed amendments to Chapter 6 (Storm Drainage) of the Public Facilities Manual (PFM).

A description of all planned on-site SWM/BMP facilities is shown on Sheet C-9 with a summary of each provided in Table 1 on this sheet. On-site LID practices include 7 rainwater harvesting cisterns (i.e. one for each planned building), permeable pavement blocks, disconnected impervious areas with soil amendments, and a bioretention facility located at the south-east corner of the site. Conventional practices include 3 on-site sand filters and use of the off-site regional extended detention dry pond (H-9).

III. Water Quantity

A. Description of outfall

There are 5 planned outfall locations where concentrated runoff leaves the site. These are shown on sheets C-9 and C-10. Downstream of the 5 outfalls, flow will be conveyed in closed storm sewer systems, which all daylight at the existing regional pond. There are no open channel between the site outfalls and the regional pond. The designed drainage area to the regional pond is 121 ac per approved plan 6848-PI-02-1. Outfow from the pond will discharge through the drop-inlet spillway and into a short open channel before draining into Merrybrook Run located approximately 90 ft downstream of the spillway. The open channel downstream of the spillway is mostly armored with rip rap and based on field observation is in stable condition. The downstream extent of review for outfall evaluation is at Merrybrook Run where the total drainage area is greater than 1 square mile.

B. How will outfall requirements be satisfied?

The receiving storm sewer systems downstream of outfalls 1 and 2 were approved under site plans 6848-SAB-003-2 and 6848-SAB-06-1, respectively. Storm sewer computations and profiles from these site plans have been made part of this CDP/FDP for information only. Runoff from the site to outfalls 1 and 2 is less than what was previously designed and approved so the receiving storm sewer systems will remain adequate.

The receiving storm sewer systems downstream of outfalls 3, 4 and 5 are being designed by the adjacent Owner/Engineer as part of the development program titled "Parcel 5A Dulles Station and Dulles Corner" by Dulles Rock Hill Partners, LP. The Owner/Engineer for this CDP/FDP has been and will continue to coordinate with the adjacent Owner/Engineer as appropriate to ensure the receiving storm sewer systems downstream of outfall 3, 4 and 5 will have sufficient capacity to convey the 10-year storm from the site in conformance Fairfax County Stormwater Management Ordinance requirements.

C. Detention

2- and 10-year, 24-hour detention for the site is provided by the existing regional pond. Permission to use the regional pond for detention has been requested as recommended by Staff. Please see part IV of this narrative for pro-rata share calculations demonstrating that the regional pond can provide the required 2- and 10-year detention for the site. As indicated by Staff, a waiver of on-site detention per PFM 6-0301.3 will be required at site plan to use the regional pond for detention.

IV. Regional Pond H-9

Water Quality

The following calculations demonstrate that the regional pond can provide the requisite 3.68 lb/yr of phosphorus removal from the site:

Total Phosphorus Load to Pond (TP) = P x Pj x {(Rd x Rv x A) /12} x C x 2.72 = 218 lb/yr

Where:
P = 43" (Average Annual Rainfall Depth or Virginia)
Pj = 0.90 (Fraction of rainfall events that produce runoff)
Rd = 1.0" (1" for water quality storm)
Rv = 0.79 (Runoff coefficient to pond from regional pond plan 6848-PI-02-1)
A = 121 ac (Drainage area to pond from regional pond plan 6848-PI-02-1)
C = 0.26 mg/l (Flow-weighted mean concentration of pollutant in urban runoff for TP)

Total Phosphorus Removed by Pond = TP x R.E. = 32.7 lb/yr

Where:
TP = 218 /b/yr
R.E. = 0.15 (Removal efficiency for extended detention dry pond is 15%)

Site Pro-Rata Fraction for Phosphorus Removed = $(Rv \times A)_{site}$ / (Rv x A) = 0.12

Where:
Rvsite = 0.80 (Runoff coefficient of site)
Asite = 14.68 ac (Area of site)

Site Pro-Rata Share of Phosphorus Removed by Pond = 32.7 lb/yr x 0.12 = 3.92 lb/yr

Because 3.92 lb/yr is greater than 3.68 lb/yr required, it has been demonstrated that the existing regional pond can provide the additional phosphorus removal to comply with the Fairfax County Stormwater Management Ordinance.

Water Quantity

The following calculations demonstrate that the regional pond can provide the requisite 2- and 10-year detention for the site:

Total 2-year detention available in pond = 300.85 cfs (in) – 19.59 cfs (out) = 281.26 cfs
Total 10-year detention available in pond = 539.55 cfs (in) – 121.53 cfs (out) = 418.02 cfs

Site Pro-Rata Fraction for Detention = $(Rv \times A)_{site}$ / (Rv x A) = 0.12

Site Pro-Rata Share of 2-year detention available in pond = 281.26 cfs x 0.12 = 33.75 cfs
Site Pro-Rata Share of 10-year detention available in pond = 418.02 cfs x 0.12 = 50.16 cfs

Site 2-year detention required = 45 cfs (post dev) – 20 cfs (pre dev) = 25 cfs
Site 10-year detention required = 78 cfs (post dev) – 45 cfs (pre dev) = 33 cfs

Where: **Site post dev flow based on Asite = 14.68ac; RCN=94; Tc=10 min**
Site pre dev flow based on Asite = 14.68ac; RCN=77; Tc=15 min
To be conservative RCN was not reduced for post dev conditions accounting for runoff reduction practices.

2-year site detention is available in pond because 33.75 cfs available > 25 cfs required.
10-year site detention is available in pond because 50.16 cfs available > 33 cfs required.

V. SWM/BMP Compliance with Comprehensive Plan

The development program will meet the new requirements of the Proposed Comprehensive Plan by providing stormwater measures that are sufficient to attain the Rainwater Management credit as allowed as an alternative to items 1 and 2 on pages 18 and 19 of the Proposed Comprehensive Plan Text. Compliance with Item 3 on page 19 of the Proposed Comprehensive Plan Text is achieved through use of Article 4 of the Fairfax County Stormwater Management Ordinance.

Option 2 of the Rainwater Management Credit will be attained under path 2 for zero lot line projects with a minimum density of 1.5 FAR. This option requires that natural site hydrology processes be used to manage on-site runoff from the developed site for the 85th percentile rainfall using LID infrastructure to the greatest extent practical. Based on an analysis of 30 years of rainfall data from Dulles Airport, the calculated 85th percentile rainfall is 0.98 inch. The Stormwater Management Ordinance, which serves as the basin of SWM design for this project, manages the 1.0 inch rainfall so this credit is achievable.

VI. Request for Waiver

In accordance with Section 6-0303.8 of the PFM, this development application will require a waiver from the Board of Supervisors for the use of underground SWM/BMP facilities in a residential development. The waiver request has been submitted under separate cover. The preliminary size and location of these underground facilities are shown on Sheet C-9. These facilities are proposed in order to meet the water quantity and water quality requirements of the Stormwater Management Ordinance and Comprehensive Plan. These facilities are located on-site and will be privately owned and maintained.

VII. Limitations

The type, size and location of all SWM/BMP practices reflected in this development plan are preliminary and subject to adjustments at final engineering and site plan as appropriate.

MINIMUM STORMWATER INFORMATION FOR REZONING, SPECIAL EXCEPTION, SPECIAL PERMIT AND DEVELOPMENT PLAN APPLICATIONS

The following information is required to be shown or provided in all zoning applications, or a waiver request of the submission requirement with justification shall be attached. Note: Waivers will be acted upon separately. Failure to adequately address the required submission information may result in a delay in processing this application.

This information is required under the following Zoning Ordinance paragraphs:
Special Permits (8-011 2J & 2L) — Special Exceptions (9-011 2J & 2L)
Cluster Subdivision (9-615 1G & 1N) — Commercial Revitalization Districts (9-622 2A (12) & (14))
Development Plans PRC District (16-302 3 & 4L) — PRC Plan (16-303 1E & 1O)
FDP P Districts (except PRC) (16-502 1F & 1Q) — Amendments (18-202 10F & 10I)

[X] 1. Plat is at a minimum scale of 1"=50' (unless it is depicted on one sheet with a minimum scale of 1"=100').

[X] 2. A graphic depicting the stormwater management facility(ies) and limits of clearing and grading accommodate the stormwater management facility(ies), storm drainage pipe systems and outlet protection, pond spillways, access roads, site outfalls, energy dissipation devices, and stream stabilization measures as shown on Sheet C-9, C-10

[X] 3. Provide:

Facility Name/ Type & No.	On-site area served (acres)	Off-site area served (acres)	Drainage area (acres)	Footprint area (sf)	Storage Volume (cf)	If pond, dam height (ft)
(e.g. W1 (WAVE, rain garden, underground vault, etc.)						
		(SEE TABLE 1 BELOW)				
Totals						

[X] 4. Onsite drainage channels, outfalls and pipe systems are shown on Sheet C-9, C-10
Pond inlet and oulet pipe systems are shown on Sheet C-9, C-10

[X] 5. Maintenance access (road) to stormwater management facility(ies) are shown on Sheet C-9, C-10
Type of maintenance access road surface noted on the plat is PAVED (asphalt, geoblock, gravel, etc.).

[X] 6. Landscaping and tree preservation shown in and near the stormwater management facility is shown on Sheet N/A, SEE LANDSCAPE SHEETS

[X] 7. A 'stormwater management narrative' which contains a description of how detention and best management practices requirements will be met is provided on Sheet C-9

[X] 8. A description of the existing conditions of each numbered site outfall extended downstream from the site to a point which is at least 100 times the site area or which has a drainage area of at least one square mile (640 acres) is provided on Sheet C-9

[X] 9. A description of how the outfall requirements, including contributing drainage areas of the Public Facilities Manual will be satisfied is provided on Sheet C-9

[X] 10. Existing topography with maximum contour intervals of two (2) feet and a note as to whether it is an air survey or field run is provided on Sheets C-2, C-3

[X] 11. A submission waiver is requested for USE OF UNDERGROUND SWM/BMP FACILITIES IN A RESIDENTIAL DEVELOPMENT

[X] 12. Stormwater management is not required because N/A

Application No: RZ / FDP 2009-HM-017 Staff: WO'D

APPROVED DEVELOPMENT PLAN
(_GDP) (X CDP) (X FDP) (_PRC) (_PP) (_FP) (_SE) (_CSP) (_SP) (_VC)
SEE PROFFERS DATED: Jul 25, 2014
SEE CONDITIONS DATED:
Date of Final Approval: Jul 29, 2014 (X BOS) (_PC) (_BZA)
Comments: CDP Devel. Cond's. Dated 4/30/2014
& ZONING Sheet 16 of 76

TABLE 1: PROPOSED BMP FACILITIES

FACILITY NAME/TYPE & NO.	ON-SITE AREA SERVED (ACRES)	OFF-SITE AREA SERVED (ACRES)	DRAINAGE AREA (ACRES)	FOOTPRINT AREA (SF)	STORAGE VOLUME (CF)**	IF POND, DAM HEIGHT (FT)
BIORETENTION (LEVEL 1) (SEE NOTE 1 BELOW)	2.66	0.00	2.66	6,045	8,461	N/A
PERMEABLE PAVERS (LEVEL 2)	0.55	0.00	0.55	23,960	1,897	N/A
DISCONNECTION TO A/B SOILS	0.53	0.00	0.53	N/A	1,828	N/A
SAND FILTER 1 (LEVEL 2)	2.81*	0.63	2.81*	4,110	12,153*	N/A
SAND FILTER 2 (LEVEL 2)	2.23*	0.00	2.23*	3,665	11,970*	N/A
SAND FILTER 3 (LEVEL 2)	0.71*	0.00	0.71*	1,585	2,520*	N/A
RAINWATER HARVESTING (CISTERN 1)	0.60	0.00	0.60	740	40,000 gal	N/A
RAINWATER HARVESTING (CISTERN 2)	0.53	0.00	0.53	475	25,000 gal	N/A
RAINWATER HARVESTING (CISTERN 3)	0.53	0.00	0.53	380	20,000 gal	N/A
RAINWATER HARVESTING (CISTERN 4)	0.34	0.00	0.34	300	15,000 gal	N/A
RAINWATER HARVESTING (CISTERN 5)	0.36	0.00	0.36	300	15,000 gal	N/A
RAINWATER HARVESTING (CISTERN 6)	0.70	0.00	0.70	560	30,000 gal	N/A
RAINWATER HARVESTING (CISTERN 7)	0.57	0.00	0.57	475	25,000 gal	N/A
REGIONAL POND H-9***	14.68	106.39	121.07	7.6 AC	53 AC-FT	20.44

* AREAS DO NOT INCLUDE DRAINAGE FROM UPSTREAM BMP'S
** TREATMENT VOLUME
*** THIS IS AN EXISTING FAIRFAX COUNTY REGIONAL SWM/BMP DRY POND FACILITY, PLAN #6848-PI-02-2.

NOTE 1: BIORETENTION LEVEL 1 MEANS THE FACILITY WILL CONTAIN UNDERDRAINS AND WILL NOT RELY ON INFILTRATION.

Hanmer, Green and Abrahamson, Inc.
#4 Canal Center Plaza, Suite 100
Alexandria, Virginia 22314
Telephone 703.836.7760
Facsimile 703.836.3042

LSG LANDSCAPE ARCHITECTURE
1919 GALLOWS ROAD, SUITE 110
VIENNA, VIRGINIA 22182
703-821-3345

Dewberry
Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

DCS DAVIS CARTER SCOTT Inc. DESIGN

ROCKS ENGINEERING

Insert For Construction
Approved Date: Jul 29, 2014

INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE
Conceptual/Final Development Plan
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL
COMMONWEALTH OF VIRGINIA
CODY WILLIAM EWING
Lic. No. 0053
3/27/2014
PROFESSIONAL ENGINEER

KEY PLAN
COMMONWEALTH OF VIRGINIA
CODY A. PONNETTI
Lic. No. 045960
PROFESSIONAL ENGINEER

SCALE

No.	DATE	BY	Description
5	3/27/14		
4	2/21/14		
3	1/3/14		
2	11/22/13	LNM	
1	9/9/13		

REVISIONS

DRAWN BY TIB
APPROVED BY JWE
CHECKED BY SCC
DATE JAN 3, 2014

TITLE
STORMWATER MANAGEMENT PLAN NARRATIVE

PROJECT NO.

C-11
SHEET NO.
R01.116
SECTION NO. M-1083 R01-ZONING

Virginia Runoff Reduction Method New Development Worksheet – v2.7 Revised April 2013

Site Data Summary

Total Rainfall = 43 inches

Site Land Cover Summary

	A Soils	B Soils	C Soils	D Soils	Total	% of Total
Forest (acres)	0.00	0.00	0.00	0.00	0.00	*0.00*
Turf (acres)	0.00	0.00	0.00	2.80	2.80	*19.01*
Impervious (acres)	0.00	0.00	0.00	11.88	11.88	*80.93*
					14.68	*100.00*

Site Rv	0.82
Post Development Treatment Volume (ft3)	43509
Post Development TP Load (lb/yr)	27.34
Post Development TN Load (lb/yr)	195.56
Total TP Load Reduction Required (lb/yr)	21.32

Total Runoff Volume Reduction (ft³)	14775
Total TP Load Reduction Achieved (lb/yr)	18
Total TN Load Reduction Achieved (lb/yr)	123.60
Adjusted Post Development TP Load (lb/yr)	9.70
Remaining Phosphorous Load Reduction (Lb/yr) Required	3.68

Drainage Area Summary

	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	Total
Forest (acres)	0.00	0.00	0.00	0.00	0.00	*0.00*
Turf (acres)	1.07	1.09	0.24	0.00	0.00	*2.40*
Impervious (acres)	5.78	3.31	1.41	0.00	0.00	*10.50*
						12.90

Drainage Area Compliance Summary

	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	Total
TP Load Red. (lb/yr)	8.81	6.19	2.63	0.00	0.00	*17.63*
TN Load Red. (lb/yr)	66.68	40.11	16.82	0.00	0.00	*123.60*

Drainage Area A Summary

Land Cover Summary

	A Soils	B Soils	C Soils	D Soils	Total	% of Total
Forest (acres)	0.00	0.00	0.00	0.00	0.00	*0.00*
Turf (acres)	0.00	0.00	0.00	1.07	1.07	*15.62*
Impervious (acres)	0.00	0.00	0.00	5.78	5.78	*84.38*
					6.85	

BMP Selections

Practice	Credit Area (acres)		Downstream Practice
2.h. To Rainwater Harvesting (Spec #6)	**impervious acres captured**	**1.06**	**11.b. Filtering Practice #2**
3.b. Permeable Pavement #2 (Spec #7)	**acres of permeable pavement**	**0.29**	**11.b. Filtering Practice #2**
6.a. Bioretention #1 or Urban Bioretention (Spec #9)	**Impervious:**	**2.38**	
	Turf (Pervious):	**0.28**	
11.b. Filtering Practice #2 (Spec #12)	**Impervious:**	**2.05**	
	Turf (Pervious):	**0.76**	

Total Impervious Cover Treated (acres)	5.78
Total Turf Area Treated (acres)	1.04
Total TP Load Reduction Achieved in D.A. A (lb/yr)	8.81
Total TN Load Reduction Achieved in D.A. A (lb/yr)	66.68

Drainage Area B Summary

Land Cover Summary

	A Soils	B Soils	C Soils	D Soils	Total	% of Total
Forest (acres)	0.00	0.00	0.00	0.00	0.00	*0.00*
Turf (acres)	0.00	0.00	0.00	1.09	1.09	*15.91*
Impervious (acres)	0.00	0.00	0.00	3.31	3.31	*48.32*
					4.40	

BMP Selections

Practice	Credit Area (acres)		Downstream Practice
2.a. Simple Disconnection to A/B Soils (Spec #1)	**Impervious acres disconnected**	**0.53**	**11.b. Filtering Practice #2**
2.h. To Rainwater Harvesting (Spec #6)	**Impervious acres captured**	**1.64**	**11.b. Filtering Practice #2**
11.b. Filtering Practice #2 (Spec #12)	**Impervious:**	**1.14**	
	Turf (Pervious):	**1.09**	

Total Impervious Cover Treated (acres)	3.31
Total Turf Area Treated (acres)	1.09
Total TP Load Reduction Achieved in D.A. B (lb/yr)	6.19
Total TN Load Reduction Achieved in D.A. B (lb/yr)	40.11

Drainage Area C Summary

Land Cover Summary

	A Soils	B Soils	C Soils	D Soils	Total	% of Total
Forest (acres)	0.00	0.00	0.00	0.00	0.00	*0.00*
Turf (acres)	0.00	0.00	0.00	0.24	0.24	*3.50*
Impervious (acres)	0.00	0.00	0.00	1.41	1.41	*20.58*
					1.65	

BMP Selections

Practice	Credit Area (acres)		Downstream Practice
2.h. To Rainwater Harvesting (Spec #6)	**impervious acres captured**	**0.94**	**11.b. Filtering Practice #2**
11.b. Filtering Practice #2 (Spec #12)	**Impervious:**	**0.47**	
	Turf (Pervious):	**0.24**	

Total Impervious Cover Treated (acres)	1.41
Total Turf Area Treated (acres)	0.24
Total TP Load Reduction Achieved in D.A. C (lb/yr)	2.63
Total TN Load Reduction Achieved in D.A. C (lb/yr)	16.82

Channel and Flood Protection

	Weighted *CN*	1-year storm Adjusted CN	2-year storm Adjusted *CN*	10-year storm Adjusted CN
Target Rainfall Event (in)		2.70	3.20	5.20
D.A. A CN	95	92	92	92
D.A. B CN	94	90	90	91
D.A. C CN	95	90	90	91

Application No: RZ / FDP 2009-HM-017 Staff: WO'D

APPROVED DEVELOPMENT PLAN

(_GDP) (X CDP) (X DP) (_PRC) (_DP) (_SE) (_CSP) (_SP) (_VC)

SEE PROFFERS DATED: Jul 25, 2014

SEE CONDITIONS DATED:

Date of Final Approval: Jul 29, 2014 (X BOS) (_PC) (_BZA)

Comments: CDP Devel. Condns. Dated 4/30/2014

DEPARTMENT OF PLANNING & ZONING

Sheet 17 of 76

Hanmer, Green and Abrahamson, Inc.
44 Canal Center Plaza, Suite 100
Alexandria, Virginia 22314
Telephone 703.836.7766
Facsimile 703.836.3042

LSG LANDSCAPE ARCHITECTURE
1910 GALLOWS ROAD, SUITE 110
VIENNA, VIRGINIA 22182
703-821-2040

Dewberry
Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

DCS DAVIS CARTER SCOTT ltd
DESIGN

ROCKS ENGINEERING
REAL ESTATE DEVELOPMENT

Issued For Construction

INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE

Conceptual/Final Development Plan

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
JOHN WILLIAM EWING
Lic. No. 8053
3/27/2014
PROFESSIONAL ENGINEER

KEY PLAN

COMMONWEALTH OF VIRGINIA
CODY A. PENNETT
Lic. No. 043960
PROFESSIONAL ENGINEER

SCALE

No.	DATE	BY	Description
5	3/27/14		
4	2/21/14		
3	1/3/14		
2	11/22/13	LNM	
1	9/9/13		

REVISIONS

DRAWN BY	TIB
APPROVED BY	JWE
CHECKED BY	SCC
DATE	JAN 3, 2014

TITLE

VRR METHOD WORKSHEET SUMMARY

PROJECT NO.

C-12

R01.117

SHEET NO.

SECTION NO. R01-ZONING

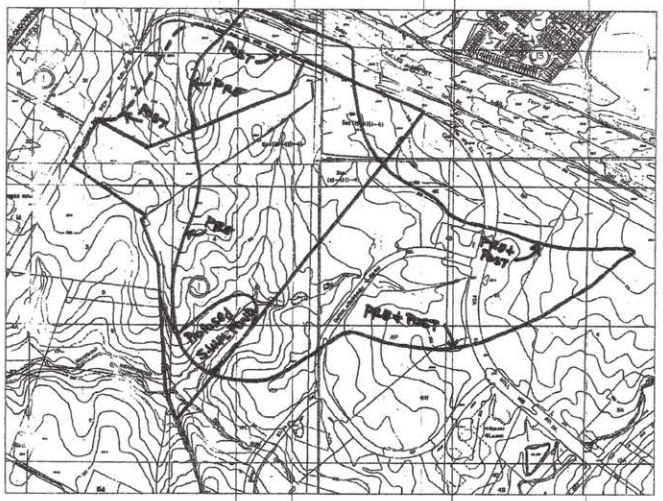
M-10831

HYDROLOGIC SOIL GROUPS & LAND USES

SCALE 1"=300'

DRAINAGE DIVIDE MAP

SCALE 1"=300'



NOTE: THE ABOVE MAP WAS OBTAINED USING FAIRFAX COUNTY TOPOGRAPHY

PRE-DEVELOPMENT LAND USE LEGEND:

WOODS-FAIR

POST-DEVELOPMENT LAND USE LEGEND:

NOTE: SEE EXPLANATION OF POST DEVELOPMENT LAND USE IN OUTFALL NARRATIVE

Application No: RZ / FDP 2008-HM-017 Staff: WO'D

APPROVED DEVELOPMENT PLAN

(_)GDP (X)CDP) (X)DP) (_)PRC) (_)PP) (_)PI) (_)SE) (_)SP) (_)VC)

SEE PROFFERS DATED: Jul 25, 2014

SEE CONDITIONS DATED:

Date of Final Approval: Jul 29, 2014 (X)BOS) (_)PC) (_)BZA)

Comments: CDP/Devel. Cond's. Dated 4/30/2014

&ZONING Sheet 18 of 76

Hanmet, Green and Abrahamson, Inc.
44 Canal Center Plaza, Suite 200
Alexandria, Virginia 22314
Telephone: 703.836.3652
Facsimile: 703.836.3653

No.	DATE	DESCRIPTION
		REVISIONS

PLAT DATES
03-27-90
07-06-90

URBAN ENGINEERING & ASSOC., INC.
CIVIL ENGINEERS • LANDSCAPE ARCHITECTS • LAND SURVEYORS
7712 LITTLE RIVER TURNPIKE (703) 642-8080
ANNANDALE, VIRGINIA 22003

DRAINAGE DIVIDE AND LAND & SOIL MAP
DULLES STATION AT DULLES CORNER
REGIONAL S.W.M. POND
HUNTER MILL DISTRICT
FAIRFAX COUNTY, VIRGINIA
DATE: MARCH, 2000
C.I. N/A
SCALE: AS NOTED

SHEET 4 OF 33
FILE No. SP-1158

FOR INFORMATION ONLY

Dewberry
Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

dcs DAVIS CARTER SCOTT Ltd
DESIGN

ROCKS
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INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE
Conceptual/Final Development Plan
DRANESVILLE DISTRICT
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SEAL
COMMONWEALTH OF VIRGINIA
JOHN WILLIAM EWING
Lic. No. 8053
3/27/2014
PROFESSIONAL ENGINEER

KEY PLAN
COMMONWEALTH OF VIRGINIA
CODY A. PENNETT
Lic. No. 045960
Jan. 19, 21
PROFESSIONAL ENGINEER

SCALE
NTS

No.	DATE	BY	Description
5	3/27/14		
4	2/21/14		
3	1/3/14		
2	11/22/13	LNM	
1	9/9/13		

REVISIONS

DRAWN BY
APPROVED BY
CHECKED BY
DATE

TITLE
REGIONAL POND APPROVED CALCULATIONS

PROJECT NO.

SHEET NO. C-13
R01.118

SECTION NO. M-1083 R01-ZONING

CURVE NUMBERS

PRE-DEVELOPMENT CONDITIONS

LAND USE	TOTAL AREA	SUB-AREA	SOIL TYPE	CN	CN * AREA
WOODS-FAIR	105.13	16.77	A	36	603.72
		74.80	B	60	4488.00
		13.71	C	73	1000.83
TOTALS	105.13	105.13			6092.55

CN (WEIGHTED) = TOTAL PRODUCT/TOTAL AREA = 57.9

ULTIMATE- DEVELOPMENT CONDITIONS

LAND USE	TOTAL AREA	SUB-AREA	SOIL TYPE	CN	CN * AREA
COMMERCIAL	58.53	6.58	A	89	585.87
		44.73	B	92	4115.16
		7.22	C	94	678.68
OPEN	1.85	1.85	B	92	134.55
COMMERCIAL	58.54	12.78	A	89	1,137.42
		34.84	B	92	3205.28
		10.72	C	94	1007.68
ROADWAY	2.15	0.29	A	98	28.42
		0.56	B	98	54.88
		1.30	ONLINE	98	127.40
TOTALS	121.07	121.07			11084.49

CN (WEIGHTED) = TOTAL PRODUCT/TOTAL AREA = 91.60

TIME OF CONCENTRATION

	SEGMENT ID	UNIT	PRESENT A-B	ULTIMATE A-B
SHEET FLOW			LIGHT BRUSH	LIGHT BRUSH
1 SURFACE DESCRIPTION (TABLE 3-1)			D1	D1
2 MANNING'S ROUGHNESS COEFF. n (TABLE 3-1)			.40	.40
3 FLOW LENGTH, L (TOTAL L < 300 ft)		ft	50	50
4 TWO-YR 24-HR RAINFALL, P		in	3.2	3.2
5 LAND SLOPE, s		ft/ft	0.0500	0.05
$6\ T_t = .007(nL)^{0.8}/P^{0.5}s^{0.4}$	COMPUTE	hr	0.069	0.06
SHALLOW CONCENTRATED FLOW	SEGMENT ID		B-C	B-C
7 SURFACE DESCRIPTION (PAVED OR UNPAVED)			UNPAVED	PAVED
8 FLOW LENGTH, L		ft	1020	850
9 WATERCOURSE SLOPE, s		ft/ft	0.0196	0.0235
10 AVERAGE VELOCITY, V (FIGURE 3-1)		ft/s	2.2	2.65
$11\ T = L/(3600V)$	COMPUTE T	hr	0.089	0.089
	SEGMENT ID		D-F	D-F
PIPE FLOW				ASSUME
12 CROSS SECTIONAL FLOW AREA, a		ft^2		
13 WETTED PERIMETER, pw		ft		
14 HYDRAULIC RADIUS, r = a/pw	COMPUTE r	ft		
15 CHANNEL SLOPE, s		ft/ft		
16 MANNING'S ROUGHNESS COEFF., n				
$17\ V = 1.49r^{2/3}s^{1/2}/n$	COMPUTE V	ft/s		5.0
18 FLOW LENGTH, L		ft		2700
$19\ T = L/(3600V)$	COMPUTE T	hr		0.15
CHANNEL FLOW	SEGMENT ID		C-F	C-F
20 CROSS SECTIONAL FLOW AREA, a		ft^2		
21 WETTED PERIMETER, pw		ft		
22 HYDRAULIC RADIUS, r = a/pw	COMPUTE r	ft		
23 CHANNEL SLOPE, s		ft/ft	0.021	0.021
24 MANNING'S ROUGHNESS COEFF., n				
$25\ V = 1.49r^{2/3}s^{1/2}/n$	COMPUTE V	ft/s	4.75	4.75
26 FLOW LENGTH, L		ft	2700	300
$27\ T = L/(3600V)$	COMPUTE T	hr	0.158	0.0176
28 WATERSHED OR SUBAREA, T	TOTAL T	hr	0.316	0.279

POST DEVELOPMENT-TR-20 INPUT/OUTPUT : 2,10,25 YEAR STORM

```
**********80-80 LIST OF INPUT DATA FOR TR-20 HYDROLOGY**********
JOB TR-20          FULLPRINT          SUMMARY   NOPLOTS
TITLE 001 Dulles Gateway
TITLE 002 POST-Development  2,10,25 Yr Storms
 3 STRUCT    01
 8                  297.80   0.0000   0.0000
 8                  298.00   0.6235   0.5020
 8                  300.00   2.0956   0.9035
 8                  302.00   2.6977   1.1067
 8                  304.00   3.5214   2.7050
 8                  306.00   4.0592   5.8972
 8                  307.05   4.3019   7.2925
 8                  308.00   8.1843   8.8080
 8                  309.45   19.561   13.964
 8                  310.00   28.008   16.921
 8                  311.12   121.37   22.960
 8                  312.00   167.73   24.789
 8                  312.19   184.43   25.590
 8                  313.00   456.75   29.653
 8                  314.00   983.31   34.841
 8                  316.00   2053.5   46.347
 8                  316.20   2067.6   47.651
 9 ENDTBL
 6 RUNOFF 1    01     1 D.1891          91.60     0.279          1 1 1  1
 6 RESVOR 2    01 1   2 297.80                                    1 1 1  1
 6 RUNOFF 1 002       3 0.0070          91.20     0.093          1 1 1  1
 6 ADDHYD 4 002   2 3 4
 7 ENDATA
 7 INCREM 6         0.10
 7 COMPUT 7    01 002                   3.20      1.0       2 2 01  02
 7 ENDCMP 1
 7 COMPUT 7    01 002                   5.25      1.0       2 2 01  10
 7 ENDCMP 1
 7 COMPUT 7    01 002                   6.00      1.0       2 2 01  25
 7 ENDCMP 2
 7 ENDJOB 2
g**********END OF 80-80 LIST**********

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
                  (A STAN(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
                   A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)
                                                                                                  PEAK DISCHARGE
SECTION/    STANDARD   RAIN  ANTEC  MAIN                PRECIPITATION                 RUNOFF
STRUCTURE   CONTROL    DRAINAGE TABLE MOIST TIME  ---------------------------------    AMOUNT  ELEVATION  TIME     RATE     RATE
ID          OPERATION  AREA     #     COND  INCREM BEGIN  AMOUNT  DURATION  AMOUNT   (FT)       (HR)     (CFS)    (CSM)
                       (SQ MI)                    (HR)   (IN)    (HR)      (IN)
  ALTERNATE  1  STORM  2
+
STRUCTURE  1  RUNOFF   .19   2     2     .10    .0    3.20    24.00     2.31     ---        12.06    300.85   1580.9
STRUCTURE  1  RESVOR   .19   2     2     .10    .0    3.20    24.00     1.69     309.43     13.52    19.59    103.8
XSECTION   2  RUNOFF   .01   2     2     .10    .0    3.20    24.00     2.24     ---        11.96    14.70    2126.6
XSECTION   2  ADDHYD   .20   2     2     .10    .0    3.20    24.00     1.71     ---        13.47    20.28    103.4
  ALTERNATE  1  STORM  10
+
STRUCTURE  1  RUNOFF   .19   2     2     .10    .0    5.25    24.00     4.29     ---        12.06    539.55   2853.2
STRUCTURE  1  RESVOR   .19   2     2     .10    .0    5.25    24.00     3.59     311.52     12.45    121.53   642.7
XSECTION   2  RUNOFF   .01   2     2     .10    .0    5.25    24.00     4.18     ---        11.96    26.24    3748.6
XSECTION   2  ADDHYD   .20   2     2     .10    .0    5.25    24.00     3.61     ---        12.45    123.99   632.3
  ALTERNATE  1  STORM  25
+
STRUCTURE  1  RUNOFF   .19   2     2     .10    .0    6.00    24.00     5.02     ---        12.06    626.07   3310.8
STRUCTURE  1  RESVOR   .19   2     2     .10    .0    6.00    24.00     4.31     312.10     12.39    185.14   979.1
XSECTION   2  RUNOFF   .01   2     2     .10    .0    6.00    24.00     4.91     ---        11.96    30.42    4345.1
XSECTION   2  ADDHYD   .20   2     2     .10    .0    6.00    24.00     4.33     ---        12.36    188.22   969.8

SUMMARY TABLE 3 - DISCHARGE (CFS) AT XSECTIONS AND STRUCTURES FOR ALL STORMS AND ALTERNATES
XSECTION/    DRAINAGE
STRUCTURE      AREA      STORM NUMBERS.....
  ID         (SQ MI)       2        10       25
0 STRUCTURE  1    .19
+
  ALTERNATE  1             19.59    121.53   185.14
0 XSECTION   2    .20
+
  ALTERNATE  1             20.28    123.99   188.22
1END OF  1 JOBS IN THIS RUN
```

POST DEVELOPMENT-TR-20 INPUT/OUTPUT : 100 AND 1.5*100 YEAR STORM

```
**********80-80 LIST OF INPUT DATA FOR TR-20 HYDROLOGY**********
JOB TR-20          FULLPRINT          SUMMARY   NOPLOTS
TITLE 001 Dulles Gateway
TITLE 002 POST-Development  100,1.5*100,2.5*100 Yr Storms
 3 STRUCT    01
 8                  312.19   0.0000   0.0000
 8                  313.00   166.21   29.650
 8                  314.00   535.20   34.841
 8                  316.00   1639.6   46.347
 8                  316.20   1650.8   47.651
 9 ENDTBL
 6 RUNOFF 1    01     1 D.1891          91.60     0.279          1 1 1  1
 6 RESVOR 2    01 1   2 312.19                                    1 1 1  1
 6 RUNOFF 1 002       3 0.0070          91.20     0.093          1 1 1  1
 6 ADDHYD 4 002   2 3 4
 7 ENDATA
 7 INCREM 6         0.10
 7 COMPUT 7    01 002                   7.30      1.0       2 2 01  99
 7 ENDCMP 1
 7 COMPUT 7    01 002                   10.95     1.0       2 2 01  15
 7 ENDCMP 1
 7 COMPUT 7    01 002                   18.25     1.0       2 2 01  25
 7 ENDCMP 1
 7 ENDJOB 2
g**********END OF 80-80 LIST**********

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
                  (A STAN(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
                   A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)
                                                                                                  PEAK DISCHARGE
SECTION/    STANDARD   RAIN  ANTEC  MAIN                PRECIPITATION                 RUNOFF
STRUCTURE   CONTROL    DRAINAGE TABLE MOIST TIME  ---------------------------------    AMOUNT  ELEVATION  TIME     RATE     RATE
ID          OPERATION  AREA     #     COND  INCREM BEGIN  AMOUNT  DURATION  AMOUNT   (FT)       (HR)     (CFS)    (CSM)
                       (SQ MI)                    (HR)   (IN)    (HR)      (IN)
  ALTERNATE  1  STORM  93
+
STRUCTURE  1  RUNOFF   .19   2     2     .10    .0    7.30    24.00     6.30     ---        12.06    775.18   4080.2
STRUCTURE  1  RESVOR   .19   2     2     .10    .0    7.30    24.00     5.28     312.97     12.46    158.85   836.3
XSECTION   2  RUNOFF   .01   2     2     .10    .0    7.30    24.00     6.17     ---        11.95    37.63    5375.1
XSECTION   2  ADDHYD   .20   2     2     .10    .0    7.30    24.00     6.28     ---        12.47    160.01   833.6
  ALTERNATE  1  STORM  15
+
STRUCTURE  1  RUNOFF   .19   2     2     .10    .0    10.95   24.00     9.92     ---        12.06    1169.66  6291.2
STRUCTURE  1  RESVOR   .19   2     2     .10    .0    10.95   24.00     8.89     314.28     12.24    715.35   3782.9
XSECTION   2  RUNOFF   .01   2     2     .10    .0    10.95   24.00     9.73     ---        11.95    57.65    8236.4
XSECTION   2  ADDHYD   .20   2     2     .10    .0    10.95   24.00     9.88     ---        12.24    723.07   3887.3
  ALTERNATE  1  STORM  25
+
STRUCTURE  1  RUNOFF   .19   2     2     .10    .0    18.25   24.00     17.19    ---        12.06    20[illegible]    10529.0
STRUCTURE  1  RESVOR   .19   2     2     .10    .0    18.25   24.00     17.12    315.67     12.16    1[illegible]     8577.7
XSECTION   2  RUNOFF   .01   2     2     .10    .0    18.25   24.00     16.97    ---        11.85    ---              13900.9
XSECTION   2  ADDHYD   .20   2     2     .10    .0    18.25   24.00     17.11    ---        12.16    1640.14          9363.8

SUMMARY TABLE 3 - DISCHARGE (CFS) AT XSECTIONS AND STRUCTURES FOR ALL STORMS AND ALTERNATES
XSECTION/    DRAINAGE
STRUCTURE      AREA      STORM NUMBERS.....
  ID         (SQ MI)      15       25       99
0 STRUCTURE  1    .19
+
  ALTERNATE  1             715.35   1622.05  199.85
0 XSECTION   2    .20
+
  ALTERNATE  1             723.07   1640.14  163.51
1END OF  1 JOBS IN THIS RUN
```

PRE DEVELOPMENT

```
**********80-80 LIST OF INPUT DATA FOR TR-20 HYDROLOGY**********
JOB TR-20          FULLPRINT          SUMMARY   NOPLOTS
TITLE 001 Dulles Gateway - Pre-Development
TITLE 002 2,10,25,100,1.5X100 Yr Storms
 8 RUNOFF 1 041          1 0.1624          67.90     0.316          1 1  1  1
 7 ENDATA
 7 INCREM 6         0.1
 7 COMPUT 7 041  041                      3.2       1.0       2 2  01  02
 7 ENDCMP 1
 7 COMPUT 7 041  041                      5.2       1.0       2 2  01  10
 7 ENDCMP 1
 7 COMPUT 7 041  041                      6.0       1.0       2 2  01  25
 7 ENDCMP 1
 7 COMPUT 7 041  041                      7.3       1.0       2 2  01  98
 7 ENDCMP 1
 7 COMPUT 7 041  041                      10.95     1.0       2 2  01  99
 7 ENDCMP 1
 7 ENDJOB 2
g**********END OF 80-80 LIST**********

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
                  (A STAN(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
                   A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)
                                                                                                  PEAK DISCHARGE
SECTION/    STANDARD   RAIN  ANTEC  MAIN                PRECIPITATION                 RUNOFF
STRUCTURE   CONTROL    DRAINAGE TABLE MOIST TIME  ---------------------------------    AMOUNT  ELEVATION  TIME     RATE     RATE
ID          OPERATION  AREA     #     COND  INCREM BEGIN  AMOUNT  DURATION  AMOUNT   (FT)       (HR)     (CFS)    (CSM)
                       (SQ MI)                    (HR)   (IN)    (HR)      (IN)
  ALTERNATE  1  STORM  2
+
XSECTION  41  RUNOFF   .16   2     2     .10    .0    3.20    24.00     .34      ---        12.17    20.89    127.4
  ALTERNATE  1  STORM  10
+
XSECTION  41  RUNOFF   .16   2     2     .10    .0    5.20    24.00     1.27     ---        12.12    127.99   784.4
  ALTERNATE  1  STORM  25
+
XSECTION  41  RUNOFF   .16   2     2     .10    .0    6.00    24.00     1.75     ---        12.11    182.34   1122.8
  ALTERNATE  1  STORM  98
+
XSECTION  41  RUNOFF   .16   2     2     .10    .0    7.30    24.00     2.80     ---        12.10    280.65   1726.1
  ALTERNATE  1  STORM  99
+
XSECTION  41  RUNOFF   .16   2     2     .10    .0    10.95   24.00     5.36     ---        12.09    592.76   3650.0
1
SUMMARY TABLE 3 - DISCHARGE (CFS) AT XSECTIONS AND STRUCTURES FOR ALL STORMS AND ALTERNATES
XSECTION/    DRAINAGE
STRUCTURE      AREA      STORM NUMBERS.....
  ID         (SQ MI)       2        10       25       98       99
0 XSECTION   41    .16
+
  ALTERNATE  1             20.89    127.99   182.34   280.65   592.76
1END OF  1 JOBS IN THIS RUN
```

SWM TABULATIONS REGIONAL DRY POND

I. DRAINAGE AREA
PRE =105.13
ULTIMATE =121.07

II. PRE DEVELOPED DISCHARGES (TR-20)
A. Q_2 = 20.69 CFS
B. Q_{10} = 127.39 CFS
C. Q_{25} = 182.34 CFS

III. POST DEVELOPED DISCHARGES (TR-20)
A. Q_2 = 20.28 CFS
B. Q_{10} = 123.99 CFS
C. Q_{25} = 188.22 CFS

IV. BMP VOLUME (DRY POND)
A. REQUIRED = 312,505.88 C.F.
A. PROVIDED = 318,505.88 C.F.

KEVIN P. O'CONNOR Lic. No. 1967 stalio LAND SURVEYOR

DENOTES AS-BUILT INFORMATION BY URBAN ENGINEERING & ASSOCIATES, INC.

THIS SHEET IS FOR INFORMATIONAL PURPOSES ONLY!

Application No: RZ / FDP 2009-HM-017 Staff: WO'D
APPROVED DEVELOPMENT PLAN
(_)DP) (X)DP) (_)PRC) (_)PI) (_)FI) (_)SE) (_)SP) (_)VC)
SEE PROFFERS DATED: Jul 25, 2014
SEE CONDITIONS DATED:
Date of Final Approval: Jul 29, 2014 (X)BOS) (_)PC) (_)BZA)
Comments: COP Devel. Cpnds. Dated 4/30/2014
& ZONING Sheet 19 of 76

FOR INFORMATION ONLY

Dewberry
Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

dcs DAVIS CARTER SCOTT LTD DESIGN

URBAN ENGINEERING & ASSOC., INC.
CIVIL ENGINEERS • LANDSCAPE ARCHITECTS • LAND SURVEYORS
7712 LITTLE RIVER TURNPIKE (703) 642-8080
ANNANDALE, VIRGINIA 22003

ROCKS
Issued For Construction

No.	DATE	DESCRIPTION
5	3/27/14	
4	2/21/14	
3	1/3/14	
2	11/22/13	LNM
1	9/9/13	

REVISIONS

DRAWN BY
APPROVED BY
CHECKED BY
DATE

TITLE
REGIONAL POND APPROVED CALCULATIONS

PROJECT NO.

C-14
R01.119
SHEET NO.

SECTION NO. M-10851 R01-ZONING

INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE
Conceptual/Final Development Plan
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

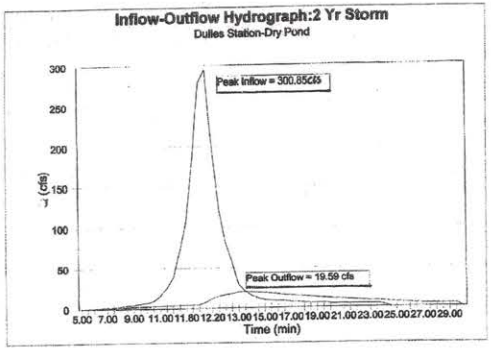
SEAL
COMMONWEALTH OF VIRGINIA
CJOHN WILLIAM EMING
Lic. No. 8053
3/27/14
PROFESSIONAL ENGINEER

KEY PLAN
COMMONWEALTH OF VIRGINIA
CODY A. PENNETT
Lic. No. 048960
3/27/14
PROFESSIONAL ENGINEER

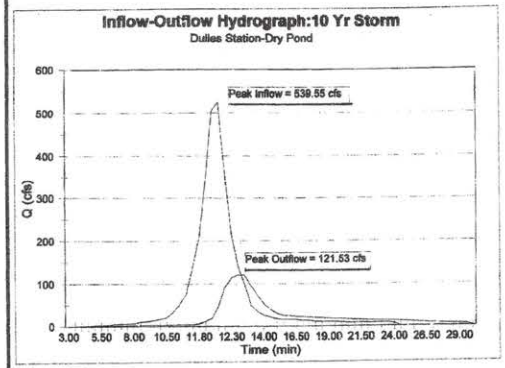
SCALE
NTS

CURVE NUMBERS, TIME OF CONCENTRATION, AND TR-20
DULLES STATION AT DULLES CORNER
REGIONAL S.W.M. POND
HUNTER MILL DISTRICT
FAIRFAX COUNTY, VIRGINIA
SITE AS-BUILT
DATE: MARCH, 2009
C1 N/A
SCALE N/A
SHEET 5 OF 66

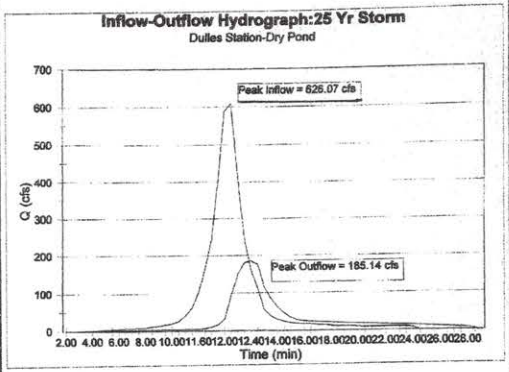
2-YEAR STORM



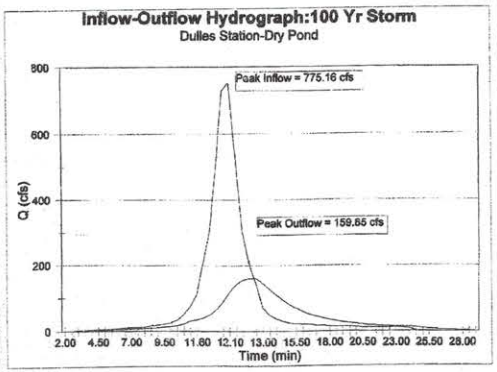
10-YEAR STORM



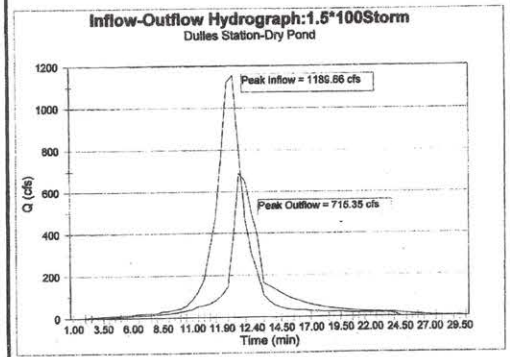
25-YEAR STORM



100-YEAR STORM



1.5 * 100-YEAR STORM



Application No: RZ / FDP 2009-HM-017 Staff: WO'D

APPROVED DEVELOPMENT PLAN

(_GDP) (X)DP) (X)DP) (_PRC) (_DP) (_CP) (_SE) (_CSP) (_SP) (_VC)

SEE PROFFERS DATED: Jul 25, 2014

SEE CONDITIONS DATED:

Date of Final Approval: Jul 29, 2014 (X)BOS) (_PC) (_BZA)

Comments: CDP Devel. Conds. Dated 4/30/2014

& ZONING Sheet 20 of 76

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KEVIN P. O'CONNOR Lic. No. 1982 5/27/10 LAND SURVEYOR

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CIVIL ENGINEERS • LANDSCAPE ARCHITECTS • LAND SURVEYORS
3211 JERMANTOWN ROAD, SUITE 700 FAIRFAX, VIRGINIA 22030 (703) 642-0600
ARLINGTON, VIRGINIA

INFLOW AND OUTFLOW HYDROGRAPHS
DULLES STATION AT DULLES CORNER
REGIONAL S.W.M. POND
HUNTER MILL DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: N/A C.I. N/A DATE: MARCH, 2009

SHEET 5A OF 12

FILE No. AS-1163

No.	DATE	BY	Description
5	3/27/14		
4	2/21/14		
3	1/3/14		
2	11/22/13	LNM	
1	9/9/13		

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APPROVED BY

CHECKED BY

DATE

TITLE

REGIONAL POND APPROVED CALCULATIONS

PROJECT NO.

C-15

R01.120

SHEET NO.

SECTION NO. M-1083 | R01-ZONING

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

dcs DAVIS CARTER SCOTT DESIGN

ROCKS

Issued For Construction
May 29, 2014

INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE
Conceptual/Final Development Plan
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

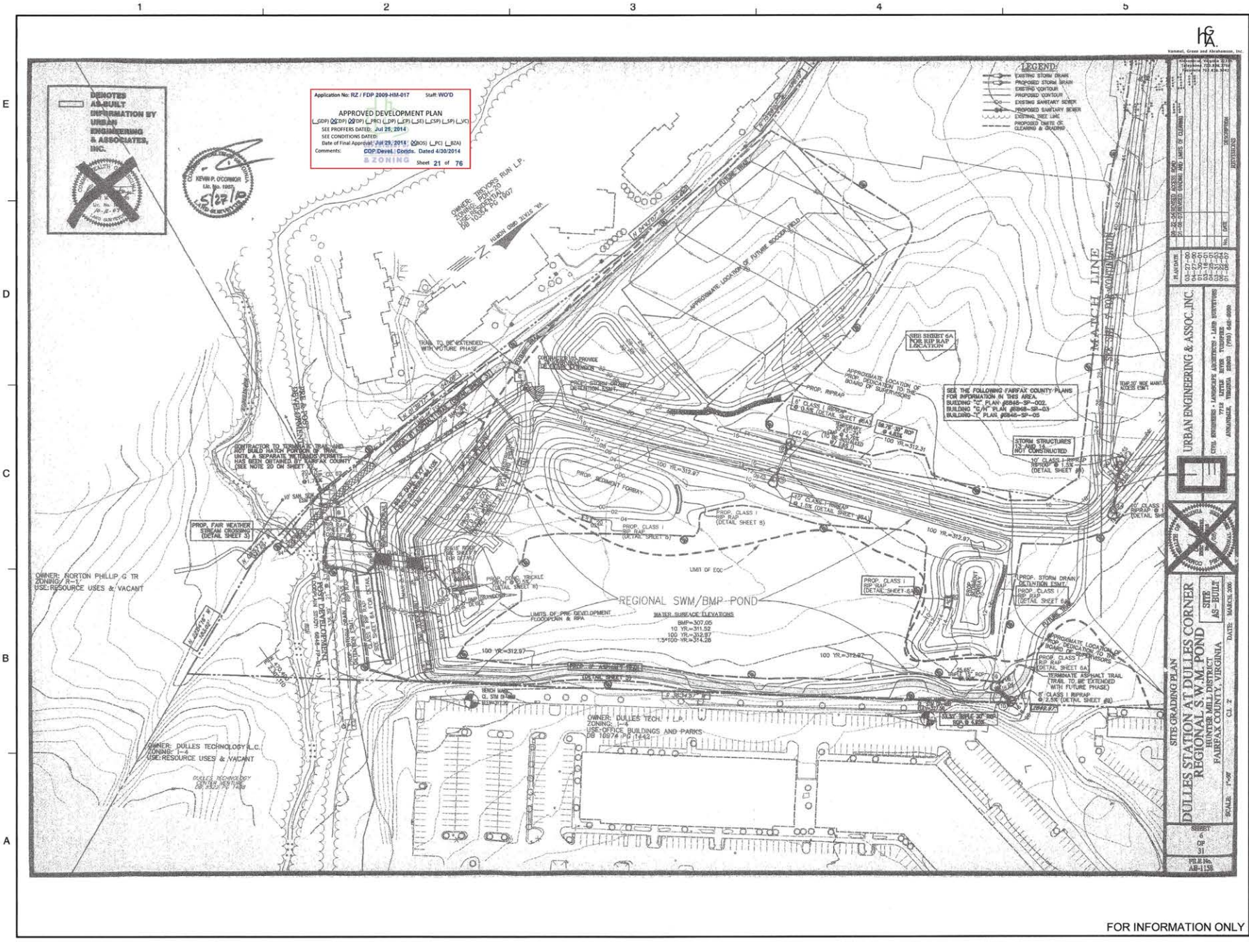
COMMONWEALTH OF VIRGINIA
JOSEPH WILLIAM EMMONS
Lic. No. 8053
3/27/14
PROFESSIONAL ENGINEER

KEY PLAN

COMMONWEALTH OF VIRGINIA
CODY A. PENNETT
Lic. No. 048960
PROFESSIONAL ENGINEER

SCALE

NTS



Hunnel, Greene and Abrahamson, Inc.

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

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ROCKS ENGINEERING

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INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE

Conceptual/Final Development Plan

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL
COMMONWEALTH OF VIRGINIA
JOHN WILLIAM EWING
Lic. No. 8053
PROFESSIONAL ENGINEER

KEY PLAN
COMMONWEALTH OF VIRGINIA
CODY A. PENNETT
Lic. No. 048960
PROFESSIONAL ENGINEER

SCALE
NTS

No.	DATE	BY	Description
5	3/27/14		
4	2/21/14		
3	1/3/14		
2	11/22/13	LNM	
1	9/9/13		

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CHECKED BY
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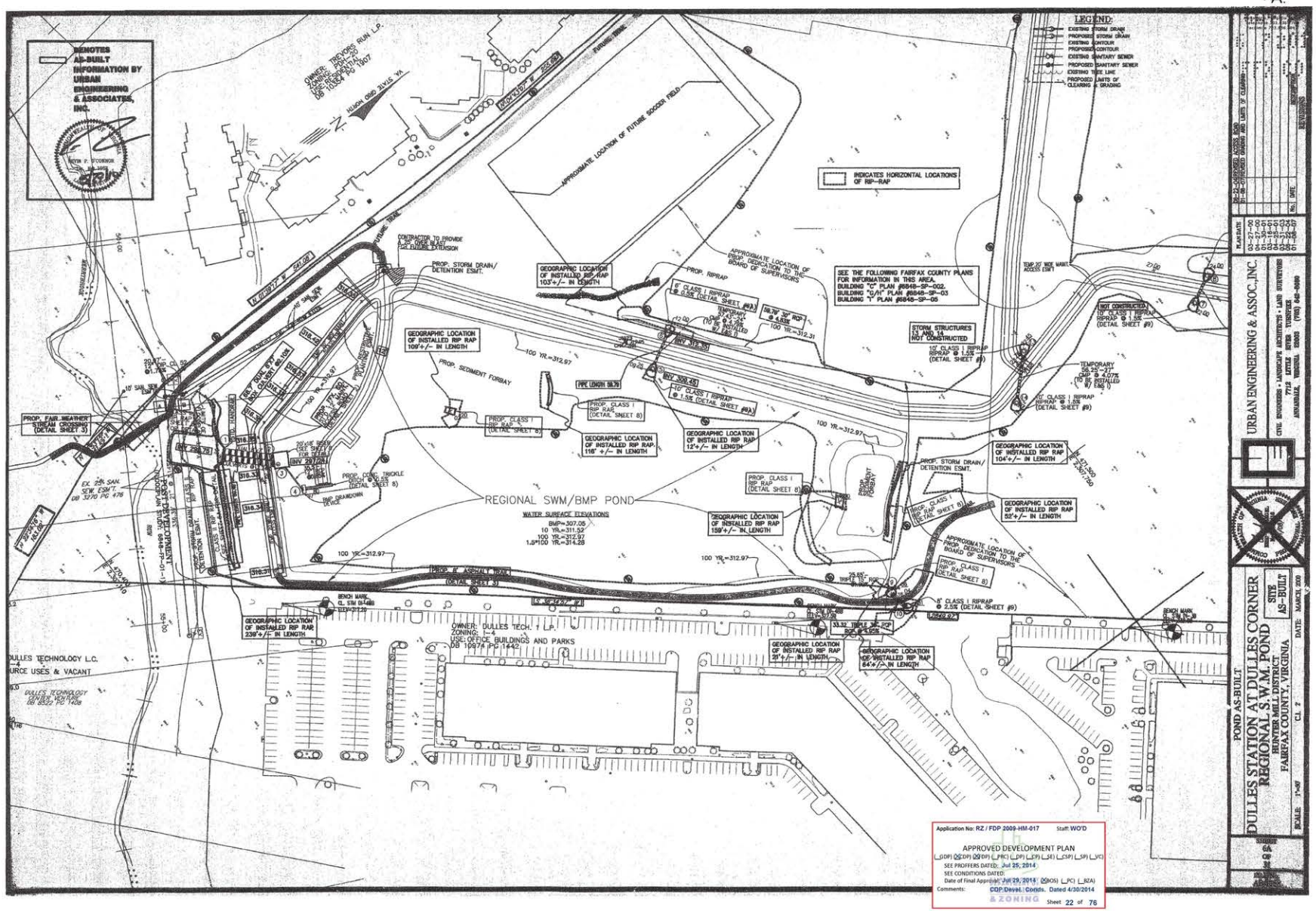
TITLE
REGIONAL POND APPROVED CALCULATIONS

PROJECT NO.

C-16
R01.121
SHEET NO.

SECTION NO. M-1083 R01-ZONING



Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

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ROCKS ENGINEERING

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May 29, 2014

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7712 LITTLE RIVER TURNPIKE ANNANDALE, VIRGINIA 22003 (703) 642-0900

INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE
Conceptual/Final Development Plan
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL
COMMONWEALTH OF VIRGINIA
CUONG WILLIAM EMINGER
Lic. No. 8053
3/27/14
PROFESSIONAL ENGINEER

KEY PLAN
COMMONWEALTH OF VIRGINIA
CODY A. PENNETT
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PROFESSIONAL ENGINEER

SCALE
NTS

No.	DATE	BY	Description
5	3/27/14		
4	2/21/14		
3	1/3/14		
2	11/22/13	LNM	
1	9/9/13		

REVISIONS

DRAWN BY
APPROVED BY
CHECKED BY
DATE

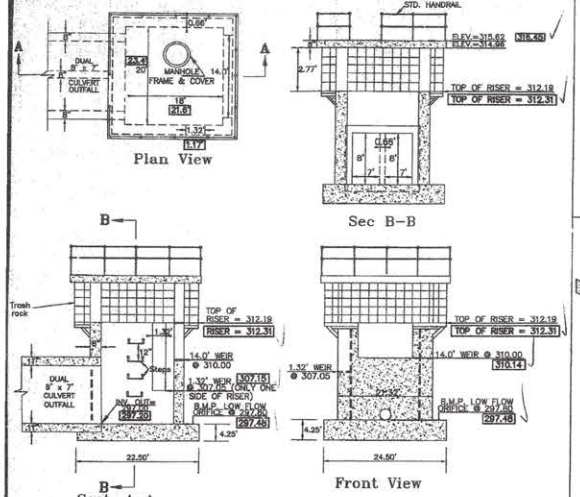
TITLE
REGIONAL POND APPROVED CALCULATIONS

PROJECT NO.

DULLES STATION AT DULLES CORNER
REGIONAL S.W.M. POND
REPUTED AS-BUILT
FAIRFAX COUNTY, VIRGINIA
POND AS-BUILT
SITE AS-BUILT
SCALE: 1"=50'
DATE: MARCH, 2009
CL 7
SHEET 6A OF 36

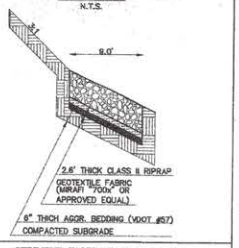
C-17
R01.122
SHEET NO.
SECTION NO. M-1083 R01-ZONING

SCHEMATIC DETAIL OF STANDARD CAST IN PLACE RECTANGULAR RISER AND TRASH RACK FOR DRY POND
N.T.S.

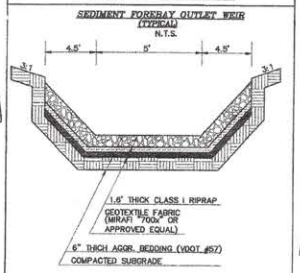


FILL WITH CLASS A-3 CONCRETE
TO MEET BOUYANCY REQUIREMENT:
VOLUME OF WATER= 20' * 18' * 14.38' = 5,177 FT^3
WEIGHT OF WATER=(5,177 FT^3) X (62.4LBS/FT.) = 323,032.32 LBS.
FACTOR OF SAFTEY=1.3 * 323,032.32 LBS = 419,942.02 LBS (WEIGHT OF CONCRETE REQUIRED)
VOLUME CONCRETE = 2,860.2 FT^3
WEIGHT OF CONCRETE=(2,860.2 FT.^{3}) (150 LBS/FT) = 429,036.4 LBS
429,036.4 LBS > 419,942.0 LBS
USE 4.25' BASE

DAM EMBANKMENT SLOPE PROTECTION AT TOE OF DAM
N.T.S.

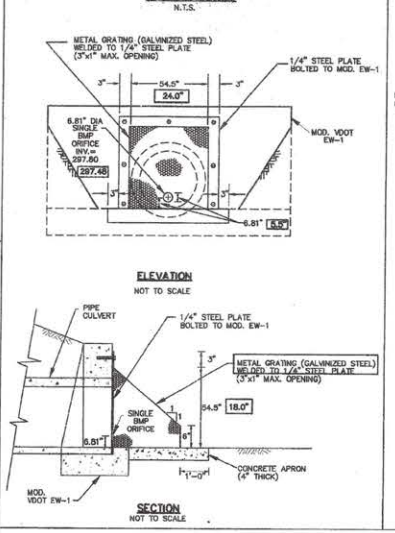


SEDIMENT FOREBAY OUTLET WEIR (TYPICAL)
N.T.S.

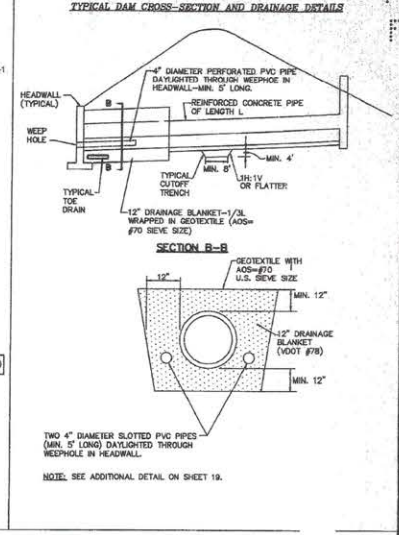


NOTES:
DESIGN OF THE RIP RAP FOR INFLOW TO THE SEDIMENT FOREBAYS SHALL BE 1.6' THICK CLASS I. WIDTH OF RIP RAP SHALL FOLLOW THAT OF SHEET 6.

BMP EXTENDED DRAWDOWN DEVICE (EXAMPLE DETAIL)
N.T.S.

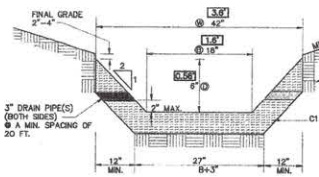


TYPICAL DAM CROSS-SECTION AND DRAINAGE DETAILS



NOTE: SEE ADDITIONAL DETAIL ON SHEET 19.

TRICKLE DITCH DETAIL
N.T.S.



W = Design width of conc. ditch should be based on the Manning = to the full capacity of the low flow orifice.
B = Design base width of conc ditch should be a min. of 18".
D = Design depth of conc. ditch should be a min. of 6"
B+3 = Bottom width of conc. ditch should be a min. size of 27".

Notes:
1. Appropriate transition secs. with a min length= to 3xW, shall be provided at the ends of the trickle ditch.
2. Curtain walls shall be provided at inlet areas where water flow is constant, & where the ditch transitions to the actual channel.
3. Min. ditch bottom grade is 0.5%

ASBUILT

ELEVATION (ft)	RISER	DISCHARGE 8'x7' CULVERT OUTFALL	TOTAL DISCHARGE (CFS)	VOLUME OF STORAGE (CF)
312.31	0.00	0.00	0.00	0.00
313.50	20.82	18.88	20.82	21,749.30
313.00	130.67	130.58	130.67	128,038.55
314.00	450.92	500.92	450.92	381,515.55
315.00	1005.91	1009.92	1005.91	846,467.00
316.00	1,616.12	1715.21	1,616.12	2,394,822.50
316.33	1,837.70	1938.51	1938.51	1,044,430.57

ELEVATION (ft)	DISCHARGE BMP LOW FLOW (CFS)	DISCHARGE 1.17' WEIR	DISCHARGE 14.0' WEIR	DISCHARGE 8'x7' CULVERT OUTFALL	RISER	TOTAL DISCHARGE (CFS)	VOLUME OF STORAGE (CF)
297.80	--			--		0	0.00
298.00	--			--		0	300.00
300.00	1.89			--		1.89	13,619.00
302.00	2.75			0.00		2.75	47,883.16
304.00	3.40			759.55		3.40	122,702.32
306.00	3.95	--		1,078.55		3.95	259,170.32
308.00	4.42	2.75		1,320.95		7.17	481,778.32
310.00	4.85	18.89	--	1,525.31		21.74	792,603.32
312.00	5.23	37.48	106.54	1,705.14		149.28	1,181,372.32
314.00	5.62	62.51	316.55	1,868.11	450.92	837.98	1,641,772.32
316.00	5.96	92.41	593.79	1,715.21	1,616.12	1,715.21	2,394,822.32
316.33	6.02	97.83	646.62	1,938.51	1,837.70	1,938.51	2,307,683.32

DULLES STATION DRY POND
ELEVATION VS. DISCHARGE AND STORAGE TABULATIONS
2 ,10 AND 25 YR STORMS.

ELEVATION (ft)	DISCHARGE BMP LOW FLOW (CFS)	DISCHARGE 1.32' WEIR	DISCHARGE 14.0' WEIR	DISCHARGE 8'x7' CULVERT OUTFALL	RISER	TOTAL DISCHARGE (CFS)	VOLUME OF STORAGE (CF)
297.80	0.00	--	--	0.00	0.00	0.00	0
298.00	0.62	--	--	0.00	0.00	0.62	87.1
300.00	2.08	--	--	0.00	0.00	2.08	13990.4
302.00	2.82	--	--	381.33	0.00	2.89	48827.8
304.00	3.52	--	--	882.67	0.00	8.59	117939.8
306.00	4.06	--	--	1143.98	0.00	4.06	240170.0
307.05	4.30	0.00	--	1270.45	0.00	4.30	315818.9
309.00	4.51	5.67	--	1374.89	0.00	9.18	393909.4
309.65	4.62	14.72	--	1320.53	0.00	15.55	608377.8
310.00	4.64	20.06	0.00	1572.35	0.00	25.09	999618.7
311.00	5.23	37.12	78.71	1707.05	0.00	121.97	987069.6
312.00	5.33	43.81	118.79	1747.46	0.00	167.74	1079808.8
312.19	5.36	45.15	126.12	1783.20	0.00	167.68	1110780.0
313.00	5.51	57.47	218.84	1828.78	166.81	447.43	1391771.8
314.00	5.69	72.58	336.50	1900.83	585.20	899.45	1817874.0
315.00	5.88	106.08	617.27	2065.51	1866.68	2059.51	2815276.8
316.00	6.05	109.80	646.90	2087.82	1800.64	2087.82	2076677.8

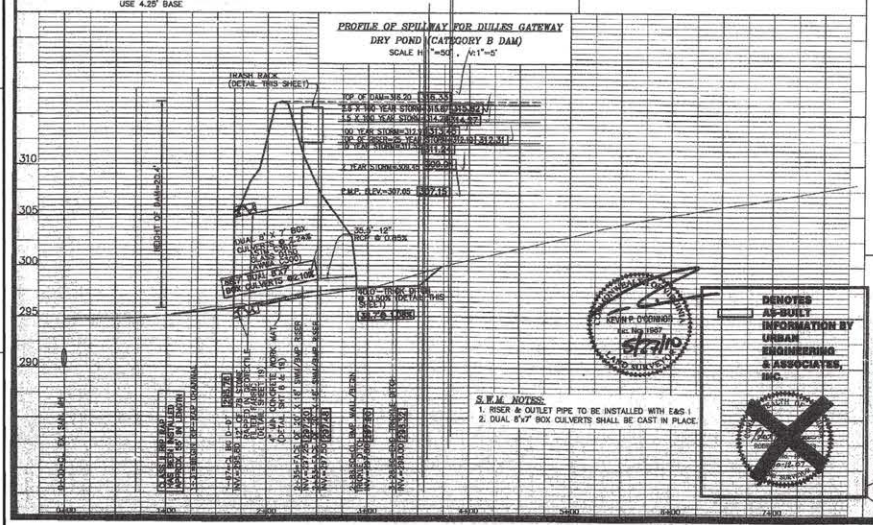
DULLES STATION DRY POND
ELEVATION VS. DISCHARGE AND STORAGE TABULATIONS
100 YR AND 1.5x100 YR STORMS.

ELEVATION (ft)	RISER	DISCHARGE 8'x7' CULVERT OUTFALL	TOTAL DISCHARGE (CFS)	VOLUME OF STORAGE (CF)
312.19	0.00	0.00	0.00	0.0
313.00	166.81	1828.78	166.81	1391771.8
314.00	585.20	1908.63	585.20	1817874.0
315.00	1866.60	2083.51	1866.60	2815276.8
316.00	1800.64	2087.82	1800.64	2076677.8

TRICKLE DITCH DESIGN

LOW FLOW ORIFICE FULL FLOW (cfs)	s (%)	n	DEPTH OF FLOW (ft)	VELOCITY (fps)
5.28	0.75%	0.013	0.25	5.78

PROFILE OF SPILLWAY FOR DULLES GATEWAY DRY POND (CATEGORY B DAM)
SCALE H: 1"=50', V: 1"=5'



S.W.M. NOTES:
1. RISER & OUTLET PIPE TO BE INSTALLED WITH E&S I.
2. DUAL 8'x7' BOX CULVERTS SHALL BE CAST IN PLACE.

DENOTES AS-BUILT INFORMATION BY URBAN ENGINEERING & ASSOCIATES, INC.

KEVIN P. O'DONNELL
No. 1987
LAND SURVEYOR

Application No: RZ / FDP 2009-HM-017 Staff: WO'D
APPROVED DEVELOPMENT PLAN
(_)DPA (X)DP (X)DP (_)PRC (_)PI (_)FI (_)SE (_)SPI (_)PI (_)VC)
SEE PROFFERS DATED: Jul 25, 2014
SEE CONDITIONS DATED:
Date of Final Approval: Jul 29, 2014 (X)BOS) (_)PC) (_)BZA)
Comments: COP Devel. Cnsts. Dated 4/30/2014
& ZONING
Sheet 23 of 76

FOR INFORMATION ONLY

Hammel, Green and Abrahamson, Inc.
44 Canal Center Plaza, Suite 100

Dewberry
Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

dcs DAVIS CARTER SCOTT DESIGN

ROCKS
Issued for Construction

No.	DATE	BY	Description
5	3/27/14		
4	2/21/14		
3	1/3/14		
2	11/22/13	LNM	
1	9/9/13		

REVISIONS

PLAN DATES
03-27-00
03-30-01
01-30-01
03-26-01

DESCRIPTION

URBAN ENGINEERING & ASSOC., INC.
CIVIL ENGINEERS • LANDSCAPE ARCHITECTS • LAND SURVEYORS
7712 LITTLE RIVER TURNPIKE
ANNANDALE, VIRGINIA 22003 (703) 642-0900

INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE
Conceptual/Final Development Plan
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL
COMMONWEALTH OF VIRGINIA
JOHN WILLIAM EWING
Lic. No. 8053
3/27/2014
PROFESSIONAL ENGINEER

KEY PLAN
COMMONWEALTH OF VIRGINIA
CODY A. PENNETT
Lic. No. 040960
PROFESSIONAL ENGINEER

SCALE
NTS

DRAWN BY
APPROVED BY
CHECKED BY
DATE

TITLE
REGIONAL POND APPROVED CALCULATIONS

PROJECT NO.

SHEET NO. C-18
R01.123
SECTION NO. M-1083 R01-ZONING

S.W.M. COMPUTATIONS AND DETAILS
DULLES STATION AT DULLES CORNER
REGIONAL S.W.M. POND
HUNTER MILL DISTRICT
FAIRFAX COUNTY, VIRGINIA
SCALE: AS NOTED
DATE: MARCH, 2000
AS-BUILT
SHEET 8 OF 34

BMP FACILITY DESIGN FORMAT

DULLES STATION AT DULLES CORNER Date: 02/22/00

Plan Number: Engineer CCT

Water Quality Control Narrative

SEE SHEET 2 FOR NARRATIVE

Watershed Data

Part 1 List All of the Subareas and "C" Factors Used in the BMP Computations.

Subarea Designation and Description (1)	"C" (2)	Acres (3)
ONSITE BUSINESS/COMMERCIAL TO DRY POND	0.80	116.67
ONSITE OPEN	0.30	1.95
ONSITE ROAD TO DRY POND	0.90	2.15

NOTES/CONDITIONS:

1. THE APPROVAL OF THESE PLANS SHALL IN NO WAY RELIEVE THE DEVELOPER OR HIS AGENT OF ANY LEGAL RESPONSIBILITIES WHICH MAY BE REQUIRED BY THE CODE OF VIRGINIA OR ANY ORDINANCE ENACTED BY THE COUNTY OF FAIRFAX.
2. THE DESIGN, CONSTRUCTION, FIELD PRACTICES, AND METHODS SHALL CONFORM TO THE REQUIREMENTS SET FORTH IN THE FAIRFAX COUNTY CODE AND IN THE PUBLIC FACILITIES MANUAL AS AMENDED. FAILURE TO COMPLY WITH THE FAIRFAX COUNTY CODE, THE PUBLIC FACILITIES MANUAL, THE APPROVED PLANS, THE PROVISIONS OF THE CONSTRUCTION AND ESCROW AGREEMENT PERMIT SHALL BE DEEMED A VIOLATION. THIS PLAN IS SUBJECT TO PROVISIONS OF THE CURRENT PUBLIC FACILITIES MANUAL.
3. WATER DISTRIBUTION NOTE:
   ALL FIRE PROTECTION SYSTEMS WHICH ARE INSTALLED IN COMPLIANCE WITH THESE PLANS AND COUNTY OF FAIRFAX ORDINANCES SHALL BE MAINTAINED IN AN OPERATIVE CONDITION AT ALL TIMES. WHEN NECESSARY TO TEMPORARILY REDUCE OR DISCONTINUE THE PROTECTION IN ORDER TO MAKE TESTS, REPAIRS, ALTERATIONS OR ADDITIONS, NOTIFY THE FAIRFAX COUNTY PUBLIC SAFETY COMMUNICATIONS CENTER AT 691-2131.
4. A PERMIT MUST BE OBTAINED FROM THE OFFICE OF THE RESIDENT ENGINEER, VIRGINIA DEPARTMENT OF TRANSPORTATION, FAIRFAX, VIRGINIA BEFORE ANY CONSTRUCTION IS STARTED ON ANY EXISTING STATE ROUTE.
5. NOTICE REQUIRED:
   CONTRACTORS SHALL NOTIFY THE "MISS UTILITY" NOTIFICATION CENTER OF PROPOSED EXCAVATION, DEMOLITION, OR BLASTING AT LEAST TWO WORKING DAYS PRIOR TO COMMENCEMENT OF EXCAVATION DEMOLITION, OR BLASTING IN ACCORDANCE WITH THE VIRGINIA UNDERGROUND UTILITY DAMAGE PREVENTATION ACT. IN ADDITION, NAMES AND TELEPHONE NUMBERS SHALL ALSO BE USED TO SERVE IN AN EMERGENCY CONDITION AS REQUIRED BY SECTION 63-2-1 OF THE FAIRFAX COUNTY CODE.

   CONTACT "MISS UTILITY" AT 1-800-257-7777

   5a. CONTACT THE VIRGINIA DEPARTMENT OF TRANSPORTATION TWO DAYS BEFORE EXCAVATION IN ANY STATE RIGHT OF WAY AT 359-1275.
6. COUNTY INSPECTOR SHALL BE NOTIFIED WHEN ANY IMPROVEMENTS PERTINENT TO HIS INSPECTION DUTIES ARE BEING INSTALLED. SPECIFIC REQUIREMENTS ARE:
   A. SITE INSPECTOR OR AREA SUPERVISOR IS TO BE NOTIFIED AT LEAST 3 DAYS PRIOR TO START OF CONSTRUCTION.
   B. A MINIMUM OF 24 HOURS NOTICE IS REQUIRED WHEN REQUESTING COMPACTION TESTS AND RESIDENTIAL OR NON-RESIDENTIAL USE PERMITS.
   C. A MINIMUM OF 48 HOURS NOTICE IS REQUIRED WHEN REQUESTING TESTS PERTAINING TO SANITARY SEWER ACCEPTANCE.
7. ALL SURFACED STREETS SHALL BE MAINTAINED IN A CLEAN CONDITION, FREE OF DUST, MUD OR SNOW AT ALL TIMES. THE DEVELOPER SHALL PROVIDE ADEQUATE MEANS TO CLEAN TRUCKS AND OTHER EQUIPMENT USING SURFACED STREETS.

FIRE MARSHAL NOTES

REQUIRED FIRE FLOW TO BE DETERMINED BY FIRE PREVENTION DIVISION.

AVAILABLE FIRE FLOW 2500 GPM
SOURCE OF FIRE FLOW INFO F.C.W.A.
TYPE OF CONSTRUCTION SEE SHEET 3
NUMBER OF STORIES SEE SHEET 3
USE GROUP CLASSIFICATION SEE SHEET 3
BUILDING TO BE FULLY SPRINKLED YES X NO ___

SEE FPM CHAPTER 6, PART 2 FOR FULL INFORMATION REQUIRED

*OFFICE ONLY CAREAGE IS AN OPEN STRUCTURE SEE SHEET #5 FOR BUILDING DATA

SOLID WASTE STATEMENT

REFUSE COLLECTION AGENCY PRIVATE AGENCY
TYPE & SIZE OF CONTAINERS OR EQUIPMENT 8 CU YD COMPACTOR
FREQUENCY OF COLLECTION TWICE A WEEK

RECYCLING SYSTEM PLAN STATEMENT

- ☐ PFM SECTION 10-407.1A
- ☒ PFM SECTION 10-407.1B
- ☐ PFM SECTION 10-407.1C
- ☐ NO STATEMENT REQUIRED PER PFM 10-0403

WATER AUTHORITY NOTES

1. ALL WATER CONSTRUCTION SHALL COMPLY WITH THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND PLANS OF THE FAIRFAX COUNTY WATER AUTHORITY AND WITH THE REQUIREMENTS OF THE FAIRFAX CO. PUBLIC FACILITIES MANUAL.
2. NO WATERMAIN VALVES ARE TO BE CLOSED PRIOR TO NOTIFICATION OF F.C.W.A. PH: 289-6398, OR 389.
3. THE DEVELOPER SHALL REQUEST INSPECTION BY THE PUBLIC WATER SUPPLY AGENCY 3 DAYS PRIOR TO COMMENCING CONSTRUCTION OF ANY WATERMAINS.
4. WORKING PRESSURE SHALL BE 95 PSI.
5. THE DEVELOPER WILL BE RESPONSIBLE FOR ANY RELOCATION OR REMOVAL OF WATERMAINS AND APPURTENANCES DUE TO THE DEVELOPMENT OF THIS PROPERTY.
6. THE PROPERTY DESCRIBED ON THIS PLAN IS LOCATED IN AN AREA WHERE THE WATER PRESSURE WILL EXCEED 85 P.S.I IN ACCORDANCE WITH F.C.W.A. RULES AND REGULATIONS AND THE FAIRFAX COUNTY PLUMBING CODE, A PRESSURE REGULATION VALVE MUST BE INSTALLED BY THE PROPERTY OWNER IN THE BUILDING PLUMBING SYSTEM IN ORDER TO ELIMINATE WATER HAMMER AND UNNECESSARY WASTAGE OF WATER.
7. PROVISION FOR THERMAL EXPANSION PROTECTION MAYBE REQUIRED.
8. INSIDE WATER METER SHALL BE LOCATED WITHIN A HEATED AREA

I HEREBY CERTIFY THAT NO OTHER CHANGES HAVE BEEN MADE ON THIS PLAN EXCEPT THOSE PREVIOUSLY APPROVED.

CERTIFYING ENGINEER — DATE 01/11/07

CERTIFICATE OF NO CHANGE

(FOR SUBMISSION OTHER THAN THE FIRST)

I HEREBY CERTIFY THAT NO CHANGES HAVE BEEN MADE THAT WOULD AFFECT THE PRIOR APPROVAL BY THE:

FIRE MARSHAL DATED	10/11/06
WATER AUTHORITY DATED	09/27/06
HEALTH DEPARTMENT DATED	N/A
VDOT DATED	01/22/07
STREET LIGHTS	01/24/01
SANITARY SEWER	01/24/01

SHEET INDEX

1. COVER SHEET
2.-3A. GENERAL NOTES AND MISCELLANEOUS DETAILS
4. OVERVIEW PLAN
~~5.-5A. CANOPY FLIGHT PLAN~~
7.-8. GEOMETRY PLAN
9.-10 GRADING PLAN
11. PLAN & PROFILE-FOX MILL ROAD
~~12.-13. CANOPY SERIES PLAN & PROFILE~~
14. WATERMAIN PROFILE AND FITTING SCHEDULE
15.-16. STORM DRAIN PROFILES
17. MISCELLANEOUS COMPUTATIONS
~~18.-19. EROSION & SEDIMENT CONTROL PHASE I~~
~~20.-21. EROSION & SEDIMENT CONTROL PHASE II~~
~~22. EROSION & SEDIMENT CONTROL NOTES AND DETAILS~~
~~23. EROSION & SEDIMENT CONTROL NOTES AND DETAILS~~
24. FIRELANE PLAN
~~25. LANDSCAPE PLAN~~
~~26. LANDSCAPE DETAILS~~
~~27. LANDSCAPE REQUIREMENTS PLAN~~
28. MISCELLANEOUS PROFILES
~~29. GEOTECHNICAL NOTES AND RECOMMENDATIONS~~
~~30.-31. MISCELLANEOUS DETAILS AND SPECIFICATIONS~~
~~32.-33. PROFFERS AND PROFFER ANALYSIS~~
~~34.-41. DEVELOPMENT PLAN~~

CURRENT/SUBSEQUENT INFORMATION REQUIRED PRIOR TO PLAN APPROVAL

INFORMATION	REQUIRED	NOT REQ	ID NUM	COMMENTS/SHEET NO
1. SPECIAL PERMIT		●		
2. SPECIAL EXCEPTION		●		
3. 40% DAY WAIVER/EXCEPTION		●		
4. SCREENING/BARRIER WDD/WAIVER		●		
5. STORM WATER DETENTION WAIVER		●		
6. MINOR SITE PLAN		●		
7. SUBDIVISION WAIVER		●		
8. SKORELS/TRAIL WAIVER		●		
9. ROAD WAIVERS WAIVER		●		
10. SERVICE DRIVE WAIVER		●		
11. FLOOD PLAIN STUDY		●		
12. DRAINAGE STUDY		●		
13. SOILS REPORT	●		6848-SR-02-2	SHEETS 28-28A
14. OFF SITE EASEMENTS		●		
15. ON SITE EASEMENTS	●			
16. LETTERS OF PERMISSION		★		
17. STREET LIGHTS	●			
18. SCREENING CASE	●		PCA/CDPA/FDPA-C-696-4	SEE LETTER ON SHEET 29
19. DEVELOPMENT PLAN/CDP/FDP	●			SEE SHEETS 33-41
20. PROFFERS	●			SEE SHEETS 30-32
21. CONDITIONS		●		
22. EPA DELINEATION		●		
23. WATER QUALITY IMPACT ASSMT		●		
24. CHES BAY ACT EXCEPTIONS		●		
25. WETLANDS PERMIT REQUIRED		●		
26. AFFORDABLE DWELLING UNITS		●		
27. ARCHITECTURAL REVIEW BOARD		●		
28. HOC VARIANCE		●		
29. BOS APPROVAL		●		
30. PLANNING COMMISSION APPROVAL		●		
31. PROPERTY OWNER NOTIFICATIONS	●			

MODIFIED PROCESSING APPROVED ☐

DEM REVIEW FEE COMPUTATION

PLAN TYPE	SUBDIVISION PLANS (SD)	SITE PLANS (SP)	PUBLIC IMPROVE.(PI)
BASE FEE	IF LESS THAN 10 LOTS $4000	BASE FEE=$4800	BASE FEE=$1725
	IF 10 LOTS OR MORE ADD $1500	ALL SITE PLANS EXCEPT THOSE NOTED BELOW ADD $40 PER ACRE (OR FRACTION THEREOF) OVER 120 ACRES	
	SUBTOTAL 1	15.97 X $ 800.32 = $ 19,018.24 SUBTOTAL 1	SUBTOTAL 1

COUNTY USE ONLY

FEES IN ADDITION TO BASE FEE

REZONING $1000			
SPECIAL EXCEPTION OR PERMIT $800			
VARIANCE $550			
UNIT FEE RELATED TO ZONING $1200	SUBTOTAL 2	SUBTOTAL 2	SUBTOTAL 2
PROFFER SUBTOTAL AREA $520		520	
NATURAL DRAINAGE DIST $320			
FLOOD PLAIN AREA $300			
SWM FACILITY (SD) $430			
SWM FACILITY (SP) $1150			
FEE RELATED TO DRAINAGE & SOILS	SUBTOTAL 3	SUBTOTAL 3 $520	SUBTOTAL 3

APPLIES TO PUBLIC IMPROVEMENT PLANS

IMPROVEMENTS OR FI PLANS			SUBTOTAL 4
SANITARY SEWER			ADD 1, 2, 3, & 4 (ABOVE)
STORM SEWER			
TRAILS			
SURVEYLOTS			
ROAD IMPROVEMENTS			
CHANNEL IMPROVEMENTS			
WATERLINE			

TOTAL REVIEW FEE PAYABLE UPON SUBMISSION	ADD 1, 2&3 ABOVE	$		ADD 1, 2&3 ABOVE $ 19,538.25		$			
INSERT FEE PER PAGE DUE PRIOR TO APPROVAL		1-A	$		A	$		A	$
		2	$		2	$		2	$
RESUBMISSION FEE DUE ON SUBMISSION	$200 PER SUBMISSION 2nd	3rd	$	$200 PER SUBMISSION 3rd+	3rd	$	SIZE OF GRID FEE	3rd	$
		4th	$		4th	$		4th	$

DATE | RECEIPT #

SITE TABULATIONS (SP PLANS)

1) AREA IN ACRES 15.97 AC 695,653.20 SF (DISTURBED ACRES)
2) AREA OF STREET DEDICATION 17,990.00 S.F.
3) USE OFFICE
4) NO OF LOTS N/A AREA OF LOTS N/A
5) EXISTING BUILDING GROSS FLOOR AREA N/A
6) EXISTING BUILDING NET FLOOR AREA N/A
7) PROPOSED BUILDING GROSS FLOOR AREA 198,989 SF
8) PROPOSED BUILDING NET FLOOR AREA 150,355 SF
9) TOTAL FLOOR AREA RATIO (FAR) FOR ENTIRE SITE 0.25
10) PROPOSED BUILDING HEIGHT 80 FT
11) TOTAL HANDICAPPED PARKING REQUIRED 23
12) TOTAL HANDICAPPED PARKING PROVIDED 30
13) TOTAL HANDICAPPED VAN SPACES REQUIRED 3
14) TOTAL HANDICAPPED VAN SPACES PROVIDED 4
15) LOADING SPACES REQUIRED 5
16) LOADING SPACES PROVIDED 5
17) TOTAL PARKING SPACES REQUIRED 487
18) TOTAL PARKING SPACES PROVIDED 1,353
19) OPEN SPACE REQUIRED SEE TABULATIONS SHEET #2
20) OPEN SPACE PROVIDED SEE TABULATIONS SHEET #2
21) DENSITY (LOTS PER ACRE) N/A

* SEE BUILDING DATA ON SHEET #2

ZONING REQUIREMENTS

1) ZONING POC
2) AVG LOT AREA N/A
3) MIN LOT AREA N/A
4) MIN LOT WIDTH N/A
5) MAX BUILDING HEIGHT 80 FT
6) MIN YARD REQUIREMENTS
   FRONT NONE SIDE 166.09 REAR 31° OR 51'
7) MAXIMUM FAR 1.85
8) MAXIMUM DENSITY N/A
9) OPEN SPACE REQUIRED 15%
10) ANGLE OF BULK PLANE 31° REAR (DETAIL ON PAGE #27.)
11) OVERLAY DISTRICT N/A

COMPUTATIONS FOR INTERIOR PARKING LOT LANDSCAPING

(20 OR MORE PARKING SPACES)

AREA OF PARKING LOT 51,800.31 SF
LANDSCAPING REQUIRED (5% OF ABOVE) 2,594.59 SF
LANDSCAPING PROVIDED ** SF

** SEE LETTER ON SHEET 29

SITE TABULATIONS (SP PLANS) — DEM INSPECTION FEE COMPUTATION

A BASE FEE: $514.00 PER DISTURBED ACRE(S) PER AGREEMENT MONTH (AND $500 MINIMUM BASE FEE=$1000) — (15.97 SF X (25.84 - 500.00)) = $514.00 (MIN. $500.00)

B STORM DRAINAGE: (CP)=0.00 LIN FT 100 LINEAR FEET (LF) PLUS $1.25 EACH ADDITIONAL (LF) OR FRACTION THEREOF — (3) 1689 LF - 100 LF x 1589 LF = $1.25 = $1986.25 + $64.20 = $2050.45

C STORMWATER MANAGEMENT FACILITIES: DETENTION PONDS(SP) GREATER THAN 6 FEET EMBANKMENT (FILL) OR 5 FEET OR LESS 9570 cu. — (5) 0 CMS SP) x $1,150.00 = 0.00; (6) 0 CMS SP) x $ 575.00 = 0.00

D DEDICATED STREETS: FEES UP TO 1ST 100 LINEAR FEET(LF) PLUS $3.00 EACH ADDITIONAL (LF) OR FRACTION THEREOF — (7) (LF) - 100 LF = x $3.25 = 812.50; 0.00

E PRIVATE STREETS AND OTHER PAVED AREAS: STREETS #660.40 FOR 1ST 100 LINEAR FEET(LF) PLUS $2.00 EACH ADDITIONAL (LF) FRACTION THEREOF — (8) 897 (LF) - 100 LF = x $2.70 = 2,100.60; 386.40; 2,812.00

F DRIVEWAY ENTRANCES: $60 EACH — (9) 2 (DEV) X $0.59 = 0.00; (10) 0 (DEV) X $60.00 = 0.00

G SIDEWALKS, PEDESTRIAN WALKWAYS, & TRAILS: $100 FOR 1ST 100 LINEAR FEET (LF) PLUS $0.50 FOR 1ST 100 LINEAR FEET (LF) PLUS $0.69 FOR ADDITIONAL (LF) OR FRACTION THEREOF — (11) 1,047 (LF) SIDEWALKS (LF) 0 TRAILS (LF) PATHS; (11)+(12) 1,047 - 100 LF = 947 x $0.69 = 653.43; (13) 2,404 - 100 LF = 2,304 x $2.59 = 5,967.36; 791.100

H SANITARY SEWER: $600.00 FOR THE 1ST 100 LINEAR FEET LF OF MAIN PLUS $0.00 FOR EACH ADDITIONAL LF OR FRACTION THEREOF — (13) 2,404 - 100 LF = 2,304 x $2.59 = 5,967.36; 812.80; 6,780.100

I GAS OR PLACE CULVERTS: FEE BASE ON PERCENT OF BOND AMOUNT($30) ($30 + 5.75% OF 1ST $50,000 OF (A)) + 2.85% EXC 100,000 OF (A)) + 1.15% EXC OF (A) ABOVE $200,000 — (14) A LINEAR OF A IN 2 X G 0.0075 = 0.00; B ____ LINEAR OF C IN 2 X 0.0085 = 0.00; C ____ LINEAR OF D IN 2 X 0.0085 = 0.00; ALL OTHER BONDED IMPROVEMENTS: $30 + 5.75% OF 1ST $50,000 OF (BA) + 2.85% EXC 100,000 + 1.15% EXC OF (BA) ABOVE $100,000 — (15) A LINEAR OF F IN 2 X 0.0085 = 0.00; B ____ LINEAR OF F IN 2 X 0.0075 = 0.00; C ____ x 0.0085 = 0.00; D ____ x 0.0085 = 0.00

TOTAL INSPECTION FEE (15) TOTAL ALL AMOUNTS IN THE 15 BOXES ONLY>> 15,429.00

IMPERVIOUS AREA ANALYSIS (ENGINEERS USE)

	DEVELOPMENT LEVEL PRE	POST	IMPERVIOUS AREA COMPUTATIONS PRE	POST
SITE AREA IN ACRES	A	A	15.97	15.97
COMPOSITE RATIONAL C FACTOR	C1	C2	0.35	0.44
FRACTIONAL IMPERVIOUSNESS	I1	I2	0.15	0.265
TOTAL IMPERVIOUSNESS ACRES	Ax1	Ax2	2.39	4.23

INCREASE IN IMPERVIOUS ACRES (Ax2)- (Ax1)=1.84 ACRES

PRO RATA SHARE ASSESSMENT AMOUNT $ ** (WATERSHED PRO X INCREASE IN IMPERVIOUS ACRES)

VICINITY MAP

SCALE 1"= 500

SEE SHEET 2 FOR VICINITY MAP

NOTES:
SIDEWALK MAINTENANCE: XXXX-VDOT, 0000-FFX CO
TRAIL MAINTENANCE: 0000-FFX CO
ALL OTHER WALKS/TRAILS TO BE OWNER MAINTAINED
(E ASPHALT TRAILS WITH PLAN ARE FAIRFAX COUNTY MAINTAINED)

SOILS MAP/DATA

SCALE 1"= 500

SEE SHEET 2 FOR SOILS MAP

Surveyor's As-Built Certificate

I, ROBERT M. FERGUS, HEREBY CERTIFY THAT THIS AS-BUILT SITE PLAN HAS BEEN PREPARED IN ACCORDANCE WITH CHAPTER 112, ARTICLE 11, PART 3, 17-301 OF THE ZONING ORDINANCE OF FAIRFAX COUNTY VIRGINIA. THIS AS-BUILT PLAN CONTAINS ALL INFORMATION REQUIRED BY AND CONFORMS WITH SECTION 17-301 AND REPRESENTS ACTUAL CONDITIONS ON THE SITE AS OF THE DATE BELOW FOR ONLY THOSE ITEMS REQUIRED BY THE RULES AND REGULATIONS ADOPTED BY THE COMMONWEALTH OF VIRGINIA BOARD OF ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS AND LANDSCAPE ARCHITECTS.

ROBERT M. FERGUS NO. 1627

5-20-08 DATE

COMMONWEALTH OF VIRGINIA — ROBERT M. FERGUS No. 1627 — LAND SURVEYOR

ALL THE STORM DRAIN/SANITARY SEWER STRUCTURES FALL WITHIN THEIR RESPECTIVE EASEMENT ARE RECORDED AS FOLLOWS DB. 13416 PG. 591 AND DB. 15321 PG. 1621

INDICATES AS-BUILT

SOIL ID NUMBERS	SERIES NAME	FOUNDATION SUPPORT	SUBSURFACE DRAINAGE	SLOPE STABILITY	ERODIBILITY	GEOTECHNICAL REPORT NEED

SEE SHEET 2 FOR SOILS DATA

SOILS WITH IDENTIFICATION NUMBERS 59, 66, 89, 141, 142, AND 152 MAY OVERLIE PARENT BEDROCK FORMATIONS WHICH HAVE BEEN FOUND TO CONTAIN NATURALLY OCCURRING ASBESTOS MINERALS. SPECIAL MINIMUM CONSTRUCTION MEASURES AND PRECAUTIONS ARE REQUIRED IN COMPLIANCE WITH HEALTH DEPARTMENT DIRECTIVES WITHIN THESE SOILS OR WITHIN FILL ORIGINATING FROM THESE SOILS.

TAX MAP REFERENCE NUMBER(S)

BASE #	DOUBLE CIRCLE #	LOT/PCL	BASE #	DOUBLE CIRCLE #	LOT/PCL
15-4	5	07A1			
		08A			
		07A2			
16-1	25	01			
		06A			

SANITARY TREATMENT PLANT BLUE PLAINS **
WATERSHED HORSEPEN CREEK

AGREEMENTS, PERMITS, ETC

DATE — CONSTRUCTION PERMIT RECEIVED
DATE # — SANITARY SEWER AGREEMENT
DATE — CONSERVATION ESCROW AGREEMENT RECEIVED
DATE — AGREEMENT AND BOND APPROVED
DATE — AGREEMENT EXPIRES
DATE — BALANCE OF FEE PAID

DISTURBED AREA (DA) WITHIN WATERSHEDS:
WATERSHED 1 HORSEPEN CREEK DA 10.54 AC
WATERSHED 2 DA
WATERSHED 3 DA
TOTAL DISTURBED AREA 10.54 AC

NUMBER OF AFFORDABLE DWELLING UNITS (ADU) N/A
NUMBER OF STORMWATER MANAGEMENT(SWM) FACILITIES N/A
DETENTION FACILITIES ID# N/A
SWM FACILITIES ID# N/A
PRIVATE SWM ID# N/A

**SANITARY SEWER NOTE:
THIS SITE IS SUBJECT TO DULLES CORNER SANITARY SEWER REIMBURSEMENT CHARGES.

ENGINEER'S/SURVEYOR'S CERTIFICATE:

THIS PROPERTY IS IN THE NAME OF DVS DULLES
AS RECORDED IN
DEED BOOK 13416 PAGE 0591 OF THE LAND RECORDS OF FAIRFAX COUNTY, VA
OF FAIRFAX COUNTY, VA

PROFESSIONAL SEAL AND SIGNATURE | PROFESSIONAL SEAL AND SIGNATURE | PROFESSIONAL SEAL AND SIGNATURE

COMMONWEALTH OF VIRGINIA — ERIC S. SIEGEL No. 019169 — PROFESSIONAL ENGINEER

DATE ___ DATE ___ DATE ___

I HEREBY CERTIFY THAT ALL WETLANDS PERMITS REQUIRED BY LAW WILL BE OBTAINED PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES.
By: ERIC S. SIEGEL, P.E.
Signature
Owner/Developer AGENT FOR THE DEVELOPER
Name Title

DESIGNATED PLANS EXAMINER CERTIFICATE

1st SUBMISSION REVIEWED & RECOMMENDED FOR SUBMISSION — DESIGNATED PLANS EXAMINER — DATE: ___ REG. NO.: ___

2nd SUBMISSION REVIEWED & RECOMMENDED FOR APPROVAL — DAVID T. McELHANEY, DESIGNATED PLANS EXAMINER — DATE: ___ REG. NO.: #19

DATE — RECOMMEND APPROVAL
FAIRFAX COUNTY DEPT OF PUBLIC WORKS (STREET LIGHTS)
PUBLIC WATER AGENCY
LIQUID WASTE DISPOSAL
SPECIAL PROJECTS BRANCH (GEOTECHNIC)
SPECIAL PROJECTS BRANCH (WATER QUALITY/E & S/ STORM DRAINAGE)
FAIRFAX COUNTY FIRE MARSHAL
NORTHERN VIRGINIA SOIL & WATER CONSERVATION DISTRICT
FAIRFAX COUNTY HEALTH DEPARTMENT
VIRGINIA DEPARTMENT OF TRANSPORTATION
PLAN REVIEWER-SITE REVIEW BRANCH
SITE REVIEW BRANCH CHIEF

APPROVED:
DATE ___ BY ___
DIRECTOR OF ENVIRONMENTAL MANAGEMENT; FAIRFAX COUNTY, VA

THIS PLAN SHALL EXPIRE WITHOUT NOTICE IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF THE COUNTY CODE. REVISIONS DO NOT EXTEND THE APPROVAL PERIOD. THE APPROVAL PERIOD IS INDEPENDENT OF THE AGREEMENT EXPIRATION DATE.

THIS APPROVAL IS NOT A COMMITMENT TO PROVIDE PUBLIC SANITARY SEWER

APPROVAL NOTES / CONDITIONS:

APPROVED
COUNTY OF FAIRFAX
LAND DEVELOPMENT SERVICES
ENVIRONMENTAL AND SITE REVIEW DIVISION
BY ___
DATE 9-5-14

CERTIFIED ARCHITECT ENGINEER OR SURVEYOR: URBAN ENGINEERING & ASSCC., INC.
NAME — PHONE
(X) OWNER ( ) TRUSTEE: DVS DULLES — ( ) A CORPORATION (X) A PARTNERSHIP ( ) AN INDIVIDUAL
NAME: 455 SPRING PARK PLACE, SUITE 100 HERNDON, VA 20170 — PHONE (703) 834-9700
(X) DEVELOPER ( ) CONTRACT OWNER ( ) LESSEE
ADDRESS AND ZIP CODE: DSV DULLES — ( ) A CORPORATION ( ) A PARTNERSHIP (X) AN INDIVIDUAL
NAME: 455 SPRING PARK PLACE, SUITE 100 HERNDON, VA 20170 — PHONE (703) 834-9700
ADDRESS AND ZIP CODE

Application No: RZ / FDP 2009-HM-017 Staff: WO'D

APPROVED DEVELOPMENT PLAN
(_SDP) (X DP) (_PRC) (_PP) (_EP) (_SE) (_CSP) (_SP) (_VC)
SEE PROFFERS DATED: Jul 25, 2014
SEE CONDITIONS DATED:
Date of Final Approval: Jul 29, 2014 (X BOS) (_PC) (_BZA)
Comments: CDP Devel. Conds. Dated 4/30/2014
& ZONING Sheet 25 of 76

FOR INFORMATION ONLY

SITE PLAN — SITE AS-BUILT
DULLES STATION AT DULLES CORNER — BUILDING C
PROJECT NAME — DISTRICT HUNTER MILL — FAIRFAX COUNTY, VIRGINIA

COUNTY NUMBER 6848-SP-002 — COUNTY REVIEWER — PLAN CONTROL SECTION

SHEET 1 OF 41
AB-1158-2
REVISED 5/1/08

Dewberry
Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

DAVIS CARTER SCOTT LTD
DESIGN

ROCKS
ENGINEERING

Issued For Construction
REAL KEY May 29, 2015 VIRGINIA SHADE TURF

INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE
Conceptual/Final Development Plan
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL
COMMONWEALTH OF VIRGINIA — JOHN WILLIAM EMINGER Lic. No. 8053 3/27/14 — PROFESSIONAL ENGINEER

KEY PLAN
COMMONWEALTH OF VIRGINIA — CODY A. PENNETT Lic. No. 048960 — PROFESSIONAL ENGINEER

SCALE
NTS

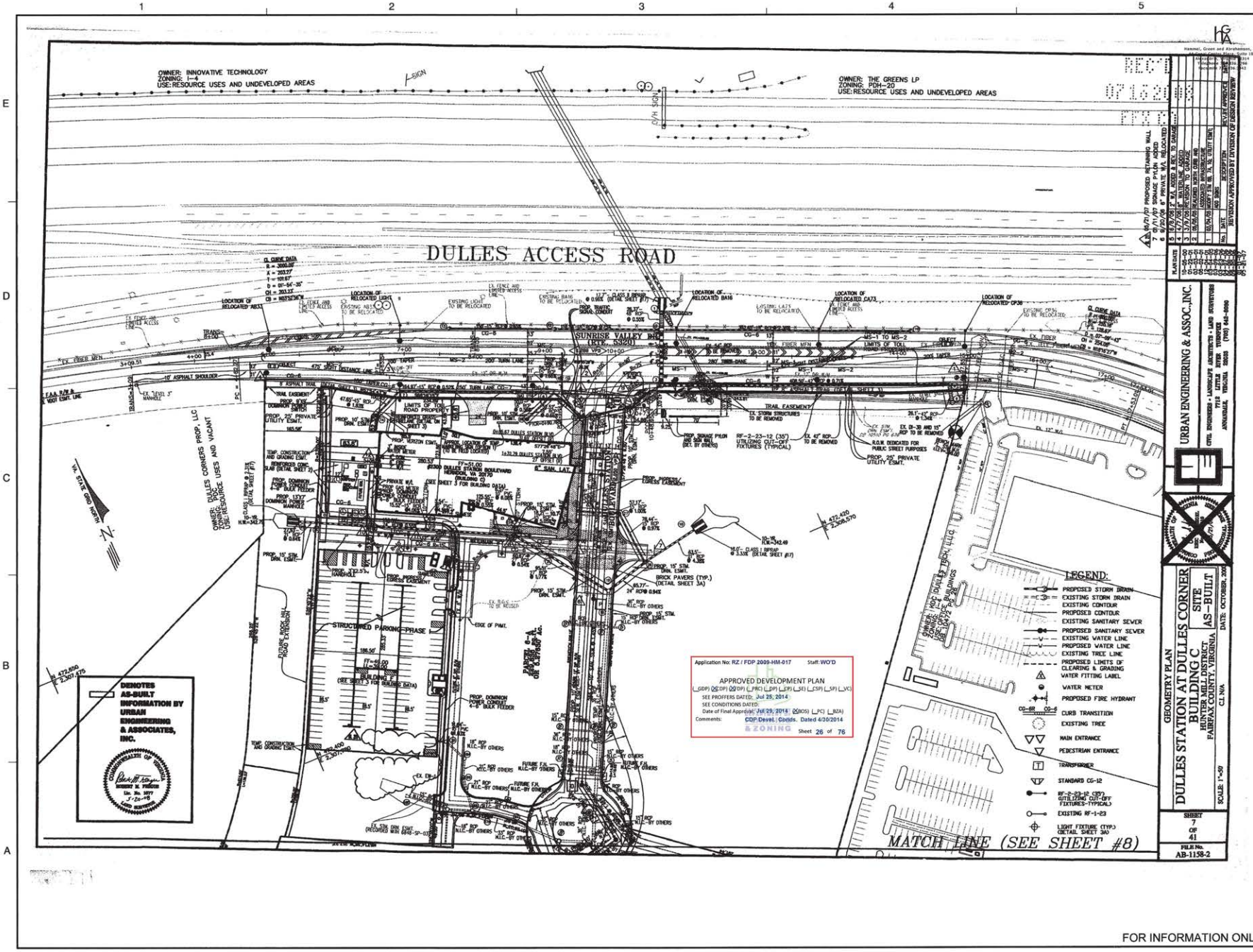
No.	DATE	BY	Description
5	3/27/14		
4	2/21/14		
3	1/3/14		
2	11/22/13	LNM	
1	9/9/13		

REVISIONS
DRAWN BY
APPROVED BY
CHECKED BY
DATE
TITLE

OUTFALL 1 APPROVED CALCULATIONS

PROJECT NO.

C-20
R01.125
SHEET NO.
SECTION NO. M-10831 R01-ZONING



Hanmi, Green and Abrahamson, Inc.

No.	DATE	DESCRIPTION
5	6/6/06	ST. XFA. ADDED & REV. TO GARAGE
4	4/7/06	8" WATERLINE ADDED
3	3/7/06	REVISION TO GARAGE
2	09/06/05	REVISION TO GARAGE ASSOCIATED W/RASKOB/JBG
1	03/04/05	ADDITIONAL SHEETS ADDED
No.	DATE	DESCRIPTION

REVISION APPROVED BY DIVISION OF DESIGN REVIEW

PLAN DATE
10-26-00

URBAN ENGINEERING & ASSOC., INC.
CIVIL ENGINEERS • LANDSCAPE ARCHITECTS • LAND SURVEYORS
7718 LITTLE RIVER TURNPIKE (703) 642-0900
ANNANDALE, VIRGINIA 22003

GEOMETRY PLAN
DULLES STATION AT DULLES CORNER
BUILDING C
HUNTER MILL DISTRICT, FAIRFAX COUNTY, VIRGINIA
SITE AS-BUILT
DATE: OCTOBER, 2005
SCALE: 1"=50'
C.I. N/A

SHEET 7 OF 41
FILE No. AB-1158-2

Dewberry
Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

dcs DESIGN DAVIS CARTER SCOTT Ltd

ROCKS ENGINEERING

Issued for Construction

INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE
Conceptual/Final Development Plan
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL
COMMONWEALTH OF VIRGINIA
CUOHN WILLIAM EWING
Lic. No. 8053
PROFESSIONAL ENGINEER

KEY PLAN
COMMONWEALTH OF VIRGINIA
CODY A. PENNETT
Lic. No. 045960
PROFESSIONAL ENGINEER

SCALE
NTS

No.	DATE	BY	Description
5	3/27/14		
4	2/21/14		
3	1/3/14		
2	11/22/13	LNM	
1	9/9/13		

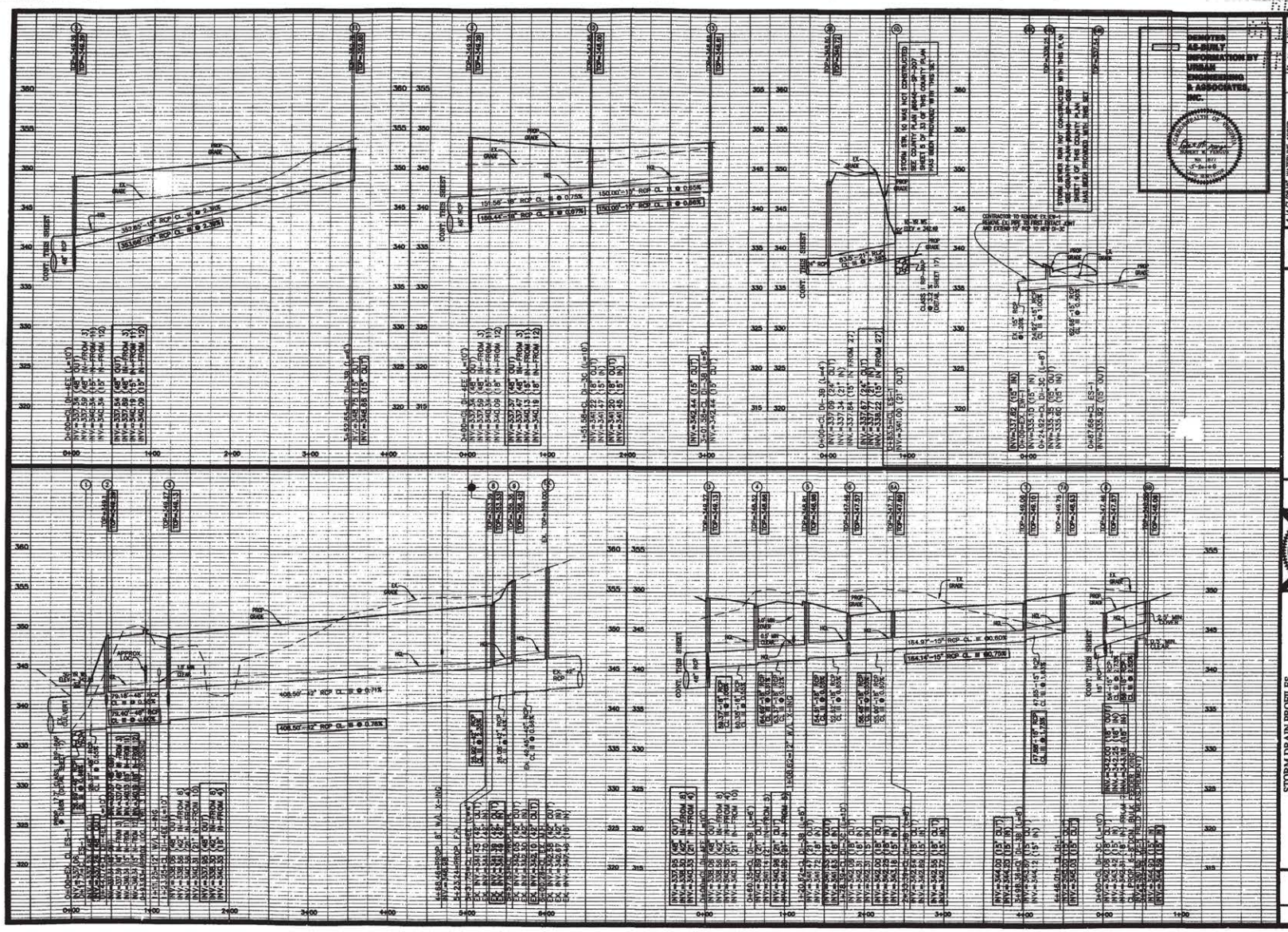
REVISIONS

DRAWN BY
APPROVED BY
CHECKED BY
DATE

TITLE
OUTFALL 1 APPROVED CALCULATIONS

PROJECT NO.

C-21
R01.126
SHEET NO.
SECTION NO. M-1083 R01-ZONING



Application No: RZ / FDP 2009-HM-017 Staff: WO'D

APPROVED DEVELOPMENT PLAN
(_GDP) (X)(CDP) (X)(DP) (_PRC) (_DP) (_EP) (_SE) (_CSP) (_SP) (_VC)
SEE PROFFERS DATED: Jul 25, 2014
SEE CONDITIONS DATED:
Date of Final Approval: Jul 29, 2014 (X)(BOS) (_PC) (_BZA)
Comments: CDP/Devel. Conds. Dated 4/30/2014

PLANNING & ZONING
Sheet 27 of 76

FOR INFORMATION ONLY

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

dcs DAVIS CARTER SCOTT DESIGN

ROCKS ENGINEERING

Issued For Construction
May 26, 2016

URBAN ENGINEERING & ASSOC., INC.
CIVIL ENGINEERS • LANDSCAPE ARCHITECTS • LAND SURVEYORS
7718 LITTLE RIVER TURNPIKE
ANNANDALE, VIRGINIA 22003 (703) 642-0900

No.	DATE	DESCRIPTION
4	4/7/08	8" WATERLINE ADDED
3	03/09/06	REVISED TO GARAGE
2	05/05/05	SCALED VERT. DIM. #60 ASSOCIATED BRENTWOOD
1	02/09/05	ADJUST FOR 96 TX 10

REVISION APPROVED BY DIVISION OF DESIGN SECTION

PLAN DATE

INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE
Conceptual/Final Development Plan
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL
COMMONWEALTH OF VIRGINIA
JOHN WILLIAM EWING
Lic. No. 8053
3/21/14
PROFESSIONAL ENGINEER

KEY PLAN
COMMONWEALTH OF VIRGINIA
CODY A. PENNETT
Lic. No. 048360
PROFESSIONAL ENGINEER

SCALE
NTS

No.	DATE	BY	Description
5	3/27/14		
4	2/21/14		
3	1/3/14		
2	11/22/13	LNM	
1	9/9/13		

REVISIONS

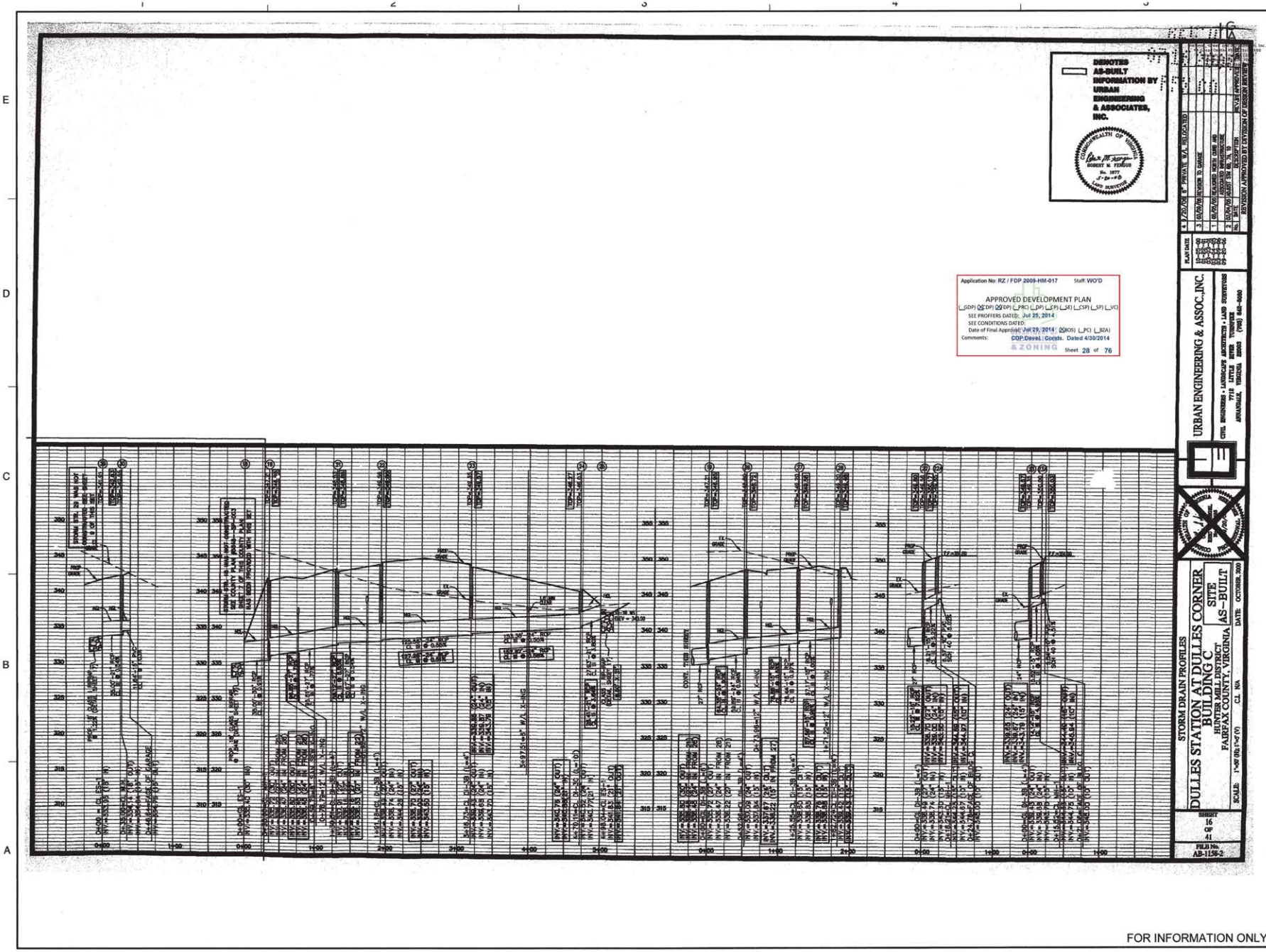
DRAWN BY
APPROVED BY
CHECKED BY
DATE

TITLE
OUTFALL 1 APPROVED CALCULATIONS

PROJECT NO.

C-22
R01.127
SHEET NO.

SECTION NO. M-1083 R01-ZONING



FOR INFORMATION ONLY

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

dcs DAVIS CARTER SCOTT Ltd DESIGN

ROCKS
REAL ESTATE CONSULTANTS SINCE 1974

Issued For Construction
May 29, 2015

INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE
Conceptual/Final Development Plan
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL
COMMONWEALTH OF VIRGINIA
JOHN WILLIAM EWING
Lic. No. 8053
3/27/14
PROFESSIONAL ENGINEER

KEY PLAN
COMMONWEALTH OF VIRGINIA
CODY A. PENNETT
Lic. No. 048960
PROFESSIONAL ENGINEER

SCALE
NTS

No.	DATE	BY	Description
5	3/27/14		
4	2/21/14		
3	1/3/14		
2	11/22/13	LNM	
1	9/9/13		

REVISIONS

DRAWN BY
APPROVED BY
CHECKED BY
DATE

TITLE
OUTFALL 1 APPROVED CALCULATIONS

PROJECT NO.

C-23
SHEET NO.
R01.128
SECTION NO. M-1083 R01-ZONING

STORM DRAIN COMPUTATIONS

STORM DRAIN COMPUTATIONS

FROM POINT	TO POINT	AREA DRAIN "A" ACRES	RUNOFF COEFF. C	C x A INCR.	ACCUM	INLET TIME MIN.	RAIN FALL IN/HR	RUNOFF Q CFS.	INVERT ELEVATION UPPER END	INVERT ELEVATION LOWER END	LENGTH FT.	SLOPE %	SIZE IN.	CAPACITY CFS.	VEL. F.P.S.	FLOW TIME MIN.	REMARKS
EX. 2 ⊕		9	9		0.00	9.39	5	7.27	68.1	342.58	342.3	42.45	0.66%	42	61.9	13.9	0.05	
	9	9	8	8	0.00	9.39	5	7.27	68.1	342.05	341.7	56.88	0.63%	42	116.9	12.6	0.07	
	8	3	0.86	0.9	0.25	9.48	5	7.27	68.5	341.45	338.56	488.5	0.71%	42	84.9	9.8	0.67	
	10	3	2.5	0.85	1.16	1.26	5	7.27	9.2	341.03	340.31	38.93	3.96%	21	31.4	11.3	0.06	
	7GA	7	6.81	0.95	0.12	0.12	5	7.27	0.9	345	344.82	48	1.83%	15	9.9	5.8	0.15	
	7SA		0.28	0.7	0.20	0.32	5	7.27	2.3	343.87	342.89	164.97	0.59%	15	5	4	0.69	
	6A	6	0.13	0.95	0.07	0.07	5	7.27	0.5	343.21	342.31	54.25	1.66%	15	0.8	4.7	0.19	
	6A	6	0.25	0.22	0.22	0.53	5	7.27	3.9	342.64	342.31	55	0.60%	18	8.2	4.1	0.22	
	6	5	0.28	0.9	0.25	0.85	5	7.27	6.2	342.86	341.72	92.58	1.23%	18	8.1	5	0.19	
	5	4	0.13	0.8	0.09	0.94	5	7.27	6.8	341.47	341.14	42.37	0.78%	21	11.8	5.3	0.2	
	4	3	0.14	0.9	0.13	1.26	5	7.27	7.7	340.89	340.56	60.35	0.55%	21	11.7	5.2	0.19	
	3	2	0.32	0.9	0.29	12.02	5	7.27	87.5	339.06	337.99	79.18	0.99%	48	106.8	9.5	0.15	
	13	10	0.29	0.9	0.26	0.26	5	7.27	1.9	342.44	341.47	190	0.65%	15	5.2	3.5	0.64	
	12	2	0.34	0.9	0.31	0.57	5	7.27	4.1	341.82	340.89	151.58	0.75%	18	9.1	5	0.5	
	11	2	0.17	0.9	0.15	0.15	5	7.27	1.1	348.75	348.34	352.63	0.26%	15	3.3	5.2	1.09	
	8	1	0.39	0.9	0.35	1.51	5	7.27	10.3	337.34	337.23	26.77	0.42%	48	84.9	9.6	0.03	
	20	24	2.59	0.45	1.17	1.17	5	7.27	8.5	341.83	348.77	27.93	3.86%	21	31	11	0.04	
	24	23	0.38	0.85	0.32	1.49	5	7.27	10.8	348.52	339.68	153.38	0.55%	24	16.9	5.7	0.45	
	BLDG. C	23A	0.34	0.9	0.31	0.31	5	7.27	2.2	345	344.75	9.54	4.51%	18	14.7	8.5	0.01	
	23A	23	0	0	0.00	0.31	5	7.27	2.2	344.33	343.7	10.52	4.86%	15	13.1	7.9	0.02	
	23	22	0.85	0.85	0.64	1.84	5	7.27	13.4	339.43	338.74	169.55	0.95%	24	16.9	5.9	0.29	
	BLDG. C	22A	0.34	0.9	0.31	0.31	5	7.27	2.2	345	344.67	6.57	5.02%	18	14.9	8.6	0.01	
	22A	22	0	0	0.00	0.31	5	7.27	2.2	344.28	343.2	10.81	5.92%	15	14.8	8.7	0.03	
	22	21	0.85	0.85	0.64	2.15	5	7.27	15.3	338.49	338.07	69.67	0.54%	27	22.9	6.2	0.16	
	21	19	0.69	0.9	0.58	2.27	5	7.27	16.5	337.91	336.22	95.51	1.77%	27	41.3	9.8	0.16	
	19	27	0.04	0.9	0.03	2.33	5	7.27	16.9	336.22	335.85	27.73	1.33%	27	36.1	9.2	0.05	
	27	26	0.83	0.9	0.83	0.86	5	7.27	6.2	338.6	337.84	78.44	0.97%	15	6.3	2.6	0.37	
	26	19	0.81	0.9	0.61	0.87	5	7.27	6.3	337.99	336.47	65.77	0.94%	24	22	2.9	0.37	
	19	18	0	0	0.00	2.34	5	7.27	17	335.72	335.1	39	1.59%	33	58.1	7.3	0.09	
	GAR.	30	1	0.9	0.90	0.9	5	7.27	6.5	334.76	334.64	11.64	1.03%	15	6.6	7.4	0.03	
	30	29	0.31	0.5	0.06	0.96	5	7.27	6.9	334.14	332.95	35	3.54%	21	11.7	5.1	0.11	

INLET COMPUTATIONS

	INLET TYPE																									

PLAN APPROVAL INFORMATION

RELATED INFORMATION	REQUIRED	NOT REQUIRED	COUNTY I.D. NUMBER	COMMENTS/SHEET NO.
1. CONCURRENT PROCESSING		●		
2. MODIFIED PROCESSING		●		
3. AFFORDABLE DWELLING UNITS		●		
4. B.Z.A. VARIATION		●		
5. FLOOD PLAIN STUDY		●		
6. DRAINAGE STUDY		●		
7. CHESAPEAKE BAY ACT EXCEPTION		●		
8. WATER QUALITY IMPACT ASSESSMENT		●		
9. SOILS REPORT APPROVAL	●			SHEET 21A; APPROVED ON 1/23/01
10. ONSITE EASEMENTS	●			SHEET 6
11. OFFSITE EASEMENTS		●		
12. NOTARIZED LETTERS OF PERMISSION		●		
13. ARCHITECTURAL REVIEW BOARD APPROVAL		●		
14. RETURN PLAN TO B.O.S. PRIOR TO APPR.		●		
15. RETURN PLAN TO P.C. PRIOR TO APPR.		●		
16. ADJACENT PROPERTY OWNER NOTIFICATIONS	●			
17. OFFSITE UTILITY WORK NOTICES		●		
18. MAJOR UNDERGROUND UTILITY NOTICES		●		
19. REZONING APPROVAL		●		
20. B.O.S. CLERK LETTER/RESOLUTION	●			SEE SHEET 22
21. REZONING PROFFERS/CONDITIONS	●		PCA/CPPA/FDPA-C-896-4	SEE SHEETS 23-25
22. REZONING DEVELOPMENT PLAN	●		PCA/CPPA/FDPA-C-896-2	SEE SHEETS 27-35
23. SPECIAL EXCEPTION FOR USE		●		
24. SPECIAL PERMIT FOR USE		●		
25. B.Z.A. VARIANCE APPROVAL		●		
26. B.Z.A. CLERK LETTER/RESOLUTION		●		
WAIVER 1: OFFSITE SWM	●		6848-WSHD-001-1	SEE SHEET #22A; APPROVED ON 3/28/05
WAIVER 2:				
WAIVER 3:				
MODIFICATION 1:				
MODIFICATION 2:				
MODIFICATION 3:				

PLAN REVIEW FEE COMPUTATION

PLAN TYPE	PUBLIC IMPROVEMENT PLANS (PI)	SUBDIVISION PLANS (SD)	SITE PLANS (SP)
BASE FEE	BASE FEE= $1,725 $1,725	IF LESS THAN 10 LOTS $4,300	$4,300 BASE FEE= $4,800 $4,800
		IF 10 LOTS OR MORE, ADD $1,500 $	PLUS $860 PER DISTURBED ACRE (OR $2,200 PER DISTURBED HECTARE) (amount of impervious area to waive waiver) 5.31 Ac. X $860 (OR ha X $2,200) $3,835.90
	SUBTOTAL 1	SUBTOTAL 1 $	SUBTOTAL (MAX. = $24,000) 1 $8,635.90
FEES IN ADDITION TO BASE FEE - APPLIES TO ALL PLAN TYPES			
RETAINING WALL $1,000			
SPECIAL EXCEPTION OR PERMIT $700			
VARIANCE $700			
MAX. FEE RELATED TO ZONING $1,700	SUBTOTAL 2 $	SUBTOTAL 2 $	SUBTOTAL 2 $
PROBLEM SOIL AREA $500			
NATURAL DRAINAGE WAY $350			
FLOOD PLAIN AREA $200			
SWM FACILITY (EA) $450			
BMP FACILITY (EA) $1,150			
FEE RELATED TO DRAINAGE & SOILS	SUBTOTAL 3 $	SUBTOTAL 3 $	SUBTOTAL 3 $520
IMPROVEMENTS ON PI PLANS (OR QNTY.(X) $60.58/ft QNTY.(m) $61.80/m)	FEE	*APPLIES ONLY TO PUBLIC IMPROVEMENTS PLANS*	
SANITARY SEWER			
STORM SEWER			
TRAILS			
SIDEWALKS			
ROAD IMPROVEMENTS			
CHANNEL IMPROVEMENTS			
WATERLINE			
SUBTOTAL 4 $			
TOTAL REVIEW FEE PAYABLE UPON SUBMISSION (ADD 1, 2, 3 & 4 ABOVE) $	ADD 1, 2 & 3 ABOVE $	ADD 1, 2 & 3 ABOVE $8,955.90	
INSERT FEE $60 PER PAGE A $	A $	A $	
DUE PRIOR TO APPROVAL B $	B $	B $	
RESUBMISSION FEE 3RD $	$2,300 PER 3RD $	$2,300 PER 3RD $	
DUE ON SUBMISSION SOIL OR ENVIRO. FEE 4TH $	SUBMISSION-2ND 4TH $	SUBMISSION-2ND 4TH $	

FOR COUNTY USE ONLY

APPROVAL NOTES/CONDITIONS:

AGREEMENTS, PERMITS, ETC

DATE _____ CONSTRUCTION PERMIT RECEIVED
_____ SANITARY SEWER AGREEMENT
DATE _____ CONSERVATION ESCROW AGREEMENT RECEIVED
DATE _____ AGREEMENT AND BOND APPROVED
DATE _____ AGREEMENT EXPIRES
DATE _____ BALANCE OF FEE PAID
NAME _____ RESPONSIBLE LAND DISTURBER (R.L.D.)
_____ R.L.D. CERTIFICATE NUMBER

NOTES AND CONDITIONS

1. THE APPROVAL OF THESE PLANS SHALL IN NO WAY RELIEVE THE DEVELOPER OR HIS AGENT OF ANY LEGAL RESPONSIBILITIES WHICH MAY BE REQUIRED BY THE CODE OF VIRGINIA OR ANY ORDINANCE ENACTED BY THE COUNTY OF FAIRFAX.

2. THE DESIGN, CONSTRUCTION, FIELD PRACTICES, AND METHODS SHALL CONFORM TO THE REQUIREMENTS SET FORTH IN THE FAIRFAX COUNTY CODE AND IN THE PUBLIC FACILITIES MANUAL AS AMENDED. FAILURE TO COMPLY WITH THE FAIRFAX COUNTY CODE, THE PUBLIC FACILITIES MANUAL, THE APPROVED PLANS, THE PROVISIONS OF THE CONSTRUCTION AND ESCROW AGREEMENT PERMIT SHALL BE DEEMED A VIOLATION.

3. WATER DISTRIBUTION NOTE: ALL FIRE PROTECTION SYSTEMS WHICH ARE INSTALLED IN COMPLIANCE WITH THESE PLANS AND COUNTY OF FAIRFAX ORDINANCES SHALL BE MAINTAINED IN AN OPERATIVE CONDITION AT ALL TIMES. WHEN NECESSARY TO TEMPORARILY REDUCE OR DISCONTINUE THE PROTECTION IN ORDER TO MAKE TESTS, REPAIRS, ALTERATIONS OR ADDITIONS, NOTIFY THE FAIRFAX COUNTY PUBLIC SAFETY COMMUNICATIONS CENTER AT 703-691-2131.

4. A PERMIT MUST BE OBTAINED FROM THE OFFICE OF THE RESIDENT ENGINEER, VIRGINIA DEPARTMENT OF TRANSPORTATION, NORTHERN VIRGINIA DISTRICT, BEFORE ANY CONSTRUCTION IS STARTED ON ANY EXISTING STATE ROUTE. CONTACT THE VIRGINIA DEPARTMENT OF TRANSPORTATION THREE WORKING DAYS BEFORE EXCAVATION IN ANY STATE RIGHT OF WAY AT 703-383-2268.

5. CONTRACTORS SHALL NOTIFY THE "MISS UTILITY" NOTIFICATION CENTER AT 1-800-552-7001 FOR ANY PROPOSED EXCAVATION, DEMOLITION, OR BLASTING AT LEAST TWO WORKING DAYS PRIOR TO COMMENCEMENT OF EXCAVATION DEMOLITION, OR BLASTING IN ACCORDANCE WITH THE VIRGINIA UNDERGROUND UTILITY DAMAGE PREVENTION ACT. IN ADDITION, NAMES AND TELEPHONE NUMBERS SHALL ALSO BE USED TO SERVE IN AN EMERGENCY CONDITION AS REQUIRED BY SECTION 63-2-2 OF THE FAIRFAX COUNTY CODE.

6. FOR SITES PROPOSING LAND DISTURBING ACTIVITIES OF ONE (1) ACRE OR MORE, THE CONSTRUCTION ACTIVITY OPERATOR MUST REGISTER WITH THE DEPARTMENT OF ENVIRONMENTAL QUALITY OF THE COMMONWEALTH OF VIRGINIA. THIS IS A REQUIREMENT OF THE VIRGINIA POLLUTANT DISCHARGE ELIMINATION SYSTEM (VPDES) GENERAL PERMIT FOR CONSTRUCTION ACTIVITIES.

7. THE COUNTY INSPECTOR SHALL BE NOTIFIED WHEN ANY IMPROVEMENTS PERTINENT TO HIS INSPECTION DUTIES ARE BEING INSTALLED. SPECIFIC REQUIREMENTS ARE:
   A. THE COUNTY SITE INSPECTOR IS TO BE NOTIFIED AT LEAST 3 DAYS PRIOR TO START OF CONSTRUCTION.
   B. A MINIMUM OF 24 HOURS NOTICE IS REQUIRED WHEN REQUESTING RESIDENTIAL OR NON-RESIDENTIAL USE PERMITS.
   C. A MINIMUM OF 48 HOURS NOTICE IS REQUIRED WHEN REQUESTING TESTS PERTAINING TO SANITARY SEWER ACCEPTANCE.

ZONING REQUIREMENTS

1) ZONING PDC (PLANNED DEVELOPMENT COMMERCIAL)*
2) AVERAGE LOT AREA N/A (sq.ft. or sq.m)
3) MIN. LOT AREA N/A (sq.ft. or sq.m)
4) MIN. LOT WIDTH N/A (ft. or m)
5) MAX. BUILDING HEIGHT 80' (ft. or m)
6) NUMBER OF FLOORS 6 (Commercial/Industrial ONLY)
7) MIN. YARD REQUIREMENTS: FRONT N/A (ft. or m) SIDE N/A (ft. or m) REAR N/A (ft. or m)
8) MAXIMUM FAR 0.99 (ENTIRE DEVELOPMENT)**
9) MAXIMUM DENSITY N/A (D.U./Ac. or D.U./ha)
10) OPEN SPACE REQUIRED 15 % 18,551.40 (sq.ft. or sq.m)
11) ANGLE OF BULK PLANE: FRONT N/A, SIDE N/A, REAR N/A (DETAIL(S) ON SHEET N/A)
12) OVERLAY DISTRICT(S): N/A

*SEE FDP/CDP ON SHEETS 27-34
**SEE PROFFERS SHEETS 23-25

SUBDIVISION PLAN (SD) TABULATIONS

1) SITE AREA _____ (Ac. or ha) (sq.ft. or sq.m)
2) NUMBER OF LOTS
3) AREA OF LOTS (sq.ft. or sq.m)
4) AVERAGE LOT AREA (sq.ft. or sq.m)
5) AREA OF PARCEL/OUTLOT (sq.ft. or sq.m)
6) AREA OF PARCEL/OUTLOT (sq.ft. or sq.m)
7) AREA OF PARCEL/OUTLOT (sq.ft. or sq.m)
8) AREA OF PARCEL/OUTLOT (sq.ft. or sq.m)
9) TOTAL AREA OF OPEN SPACE (sq.ft. or sq.m)
10) AREA OF STREET DEDICATION (sq.ft. or sq.m)
11) DENSITY (D.U./Ac. or D.U./ha)

SITE PLAN (SP) TABULATIONS

1) SITE AREA 9.89087 (Ac. or ha) 430,851 (sq.ft. or sq.m)
2) AREA OF STREET DEDICATION 71,203 (sq.ft. or sq.m)
3) USE RESIDENTIAL/MIXED USE
4) NUMBER OF LOTS 2
5) AREA OF LOTS 430,851 (sq.ft. or sq.m)
6) DENSITY N/A (D.U./Ac. or D.U./ha)
7) EXISTING BUILDING GROSS FLOOR AREA 0 (sq.ft. or sq.m)
8) PROPOSED BUILDING GROSS FLOOR AREA 246,879 (sq.ft. or sq.m)
9) EXISTING BUILDING NET FLOOR AREA 0 (sq.ft. or sq.m)
10) PROPOSED BUILDING NET FLOOR AREA 202,575 (sq.ft. or sq.m)
11) TOTAL FLOOR AREA RATIO (FAR) FOR ENTIRE SITE 0.52 (SEE F.A.R. MATRIX SHEET 3)
12) PROPOSED BUILDING HEIGHT 80 (ft. or m)
13) PROPOSED NUMBER OF FLOORS 4 (Commercial/Industrial ONLY)
13) TOTAL HANDICAPPED PARKING REQUIRED 8
14) TOTAL HANDICAPPED PARKING PROVIDED 9
15) TOTAL HANDICAPPED VAN SPACES REQUIRED 2
16) TOTAL HANDICAPPED VAN SPACES PROVIDED 3
17) TOTAL PARKING SPACES REQUIRED 355
18) TOTAL PARKING SPACES PROVIDED 355
19) LOADING SPACES REQUIRED 3 (REQ. APPROVED, SEE LETTER SHT 22A)
20) LOADING SPACES PROVIDED 3
21) OPEN SPACE PROVIDED 29.64 % 37,245 (sq.ft. or sq.m)

FIRE MARSHAL NOTES

AVAILABLE FIRE FLOW 2,700 (gal/min or liters/min)
SOURCE OF FIRE FLOW INFO. FAIRFAX WATER
TYPE OF CONSTRUCTION - IBC SEE SHEET 3
USE GROUP CLASSIFICATION - IBC SEE SHEET 3
BUILDING HEIGHT SEE SHEET 3 (ft. or m)
BUILDING TO BE FULLY SPRINKLERED YES ■ NO □
IF YES, CHECK APPROPRIATE STANDARD: NFPA 13 ■ ; NFPA 13D □ ; NFPA 13R □

SEE PFM CHAPTER 9, PART 2 FOR FULL INFORMATION REQUIRED. FIRE FLOW REQUIREMENTS TO BE DETERMINED BY THE FIRE PREVENTION DIVISION.

(SEE PUBLIC WATER AGENCY NOTES ON SHEET 3.)

SOLID WASTE STATEMENT

REFUSE COLLECTION AGENCY PRIVATE AGENCY
TYPE & SIZE OF CONTAINERS OR EQUIPMENT 6 CU YD COMPACTOR
FREQUENCY OF COLLECTION TWICE A WEEK

RECYCLING SYSTEM STATEMENT

□ PFM SECTION 10-407.1A
■ PFM SECTION 10-407.1B
□ PFM SECTION 10-407.1C
□ NO STATEMENT REQUIRED PER PFM 10-0403

SANITARY SEWER STATEMENT

WASTEWATER TREATMENT PLANT BLUE PLAINS
■ THIS SITE IS SUBJECT TO DULLES CORNER SANITARY SEWER REIMBURSEMENT CHARGES.
□ THIS SITE IS SERVED BY ONSITE SEWAGE TREATMENT SYSTEM(S).

STORMWATER STATEMENT

WATERSHED(S) HORSEPEN CREEK
□ THIS SITE IS LOCATED WITHIN THE W.S.P.O.D. (OCCOQUAN WATERSHED).
NUMBER OF STORMWATER DETENTION FACILITIES
NUMBER OF BMP FACILITIES
NUMBER OF PRIVATE STORMWATER MANAGEMENT FACILITIES
HIGH DENSITY POLYETHYLENE (HDPE) USED ON THIS PROJECT YES□ NO□

DISTURBED AREA (DA) WITHIN WATERSHED(S):
WATERSHED 1 HORSEPEN CREEK DA= 6.28 (Ac. or ha)
WATERSHED 2 DA= (Ac. or ha)
WATERSHED 3 DA= (Ac. or ha)
TOTAL DISTURBED AREA= 6.28 (Ac. or ha)

PROFESSIONAL SEAL AND SIGNATURE — DATE
PROFESSIONAL SEAL AND SIGNATURE — DATE
PROFESSIONAL SEAL AND SIGNATURE — DATE

DESIGNATED PLANS EXAMINER (DPE) CERTIFICATE

1ST SUBMISSION REVIEWED & RECOMMENDED FOR SUBMISSION	2ND SUBMISSION REVIEWED & RECOMMENDED FOR APPROVAL
MATTHEW KORTYOHANN, P.E. P.E. SIGNATURE & PRINTED NAME	MATTHEW KORTYOHANN, P.E. P.E. SIGNATURE & PRINTED NAME
DATE: REG. NO.: #250	DATE: REG. NO.: #250

VICINITY MAP

SCALE:

SEE SHEET 2 FOR VICINITY MAP

APPROVED
COUNTY OF FAIRFAX
LAND DEVELOPMENT SERVICES
ENVIRONMENTAL AND SITE REVIEW DIVISION
BY
DATE 01-29-08

SIDEWALK MAINTENANCE: XXXX-VDOT, OOOO-FFX CO
TRAIL MAINTENANCE: OOOO-FFX CO
ALL OTHER WALKS/TRAILS TO BE OWNER MAINTAINED

TAX MAP REFERENCE NUMBER(S)

MAP PAGE #	DOUBLE CIRCLE #	BLOCK (SINGLE CIRCLE #)	LOT/PARCEL(S) #
15-4	05		0007-A2
15-4	05		0008-A

Surveyor's As-Built Certificate

I, ROBERT M. FERGUS, HEREBY CERTIFY THAT THIS AS-BUILT SITE PLAN HAS BEEN PREPARED IN ACCORDANCE WITH CHAPTER 112, ARTICLE 17, PART 3, 17-309 OF THE ZONING ORDINANCE OF FAIRFAX COUNTY, VIRGINIA. THIS AS-BUILT PLAN CONTAINS ALL INFORMATION REQUIRED BY AND CONFORMS WITH SECTION 17-309 AND REPRESENTS ACTUAL CONDITIONS ON THE SITE AS OF THE DATE BELOW FOR ONLY THOSE ITEMS REQUIRED BY THE RULES AND REGULATIONS ADOPTED BY THE COMMONWEALTH OF VIRGINIA BOARD OF ARCHITECTS/PROFESSIONAL ENGINEERS, LAND SURVEYORS AND LANDSCAPE ARCHITECTS.

ROBERT M. FERGUS NO. 1867

COMMONWEALTH OF VIRGINIA — ROBERT M. FERGUS — No. 1867 — LAND SURVEYOR

11/21/08
DATE

ALL THE STORM DRAIN/SANITARY SEWER STRUCTURES FALL WITHIN THEIR RESPECTIVE EASEMENT AND ARE RECORDED AS FOLLOW: DB. 15321 PG. 1625, DB. 18000 PG. 1083 DB. 18709 PG. 1177, DB. 19146 PG. 913, DB. 19535 PG. 322.

INDICATES AS-BUILT

SOIL ID NUMBERS	SOIL SERIES NAME	FOUNDATION SUPPORT	SUBSURFACE DRAINAGE	SLOPE STABILITY	EROSIBILITY	PROBLEM CLASS

SEE SHEET 2 FOR SOILS DATA

SOILS WITH IDENTIFICATION NUMBERS 59, 66, 68, 141, 142, AND 152 MAY OVERLIE PARENT BEDROCK FORMATIONS WHICH HAVE BEEN FOUND TO CONTAIN NATURALLY OCCURRING ASBESTOS MINERALS. SPECIAL MINIMUM CONSTRUCTION MEASURES AND PRECAUTIONS ARE REQUIRED IN COMPLIANCE WITH HEALTH DEPARTMENT DIRECTIVES WITHIN THESE SOILS OR WITHIN FILL ORIGINATING FROM THESE SOILS.

A SOILS REPORT IS REQUIRED IF CONSTRUCTION IS PROPOSED IN AN "A" SOIL OR A DAM IS PROPOSED REQUIRING A REPORT PER PFM PLATE #04-6.

ENGINEER'S/SURVEYOR'S CERTIFICATE:

THIS PROPERTY IS IN THE NAME OF SUMMIT PROPERTIES PARTNERSHIP, L.P. (PARCEL 7-A2) & DULLES DEVELOPMENT LLC (PARCEL 8) AS RECORDED IN
DEED BOOK 18556 PAGE 0144 OF THE LAND RECORDS OF FAIRFAX COUNTY, VA.
18267 1714

OWNER INFORMATION

( ) OWNER ( ) TRUSTEE ( ) A CORPORATION ( ) A PARTNERSHIP (X) AN INDIVIDUAL

SUMMIT PROPERTIES PARTNERSHIP, L.P.
DULLES DEVELOPMENT LLC
NAME 703-656-3301 703-834-3700 PHONE
1420 SPRING HILL RD STE 400 MCLEAN, VA
455 SPRING PARK PL, SUITE 100 HERNDON, VA
ADDRESS

DEVELOPER INFORMATION

( ) DEVELOPER ( ) CONTRACT OWNER ( ) LESSEE ( ) A CORPORATION ( ) A PARTNERSHIP (X) AN INDIVIDUAL

CAMDEN SUMMIT PARTNERSHIP, L.P.
DULLES DEVELOPMENT LLC
NAME 703-656-3301 703-834-3700 PHONE
1420 SPRING HILL RD STE 400 MCLEAN, VA
455 SPRING PARK PL, SUITE 100 HERNDON, VA
ADDRESS

I HEREBY CERTIFY THAT ALL WETLANDS PERMITS REQUIRED BY LAW WILL BE OBTAINED PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES.

SIGNATURE
OWNER/DEVELOPER ERIC S. SIEGEL, P.E. AGENT FOR THE DEVELOPER
NAME TITLE

DATE	RECOMMEND APPROVAL (SIGNATURE & PRINTED NAME)
	STREETLIGHT SECTION, PLANNING & DESIGN DIVISION-DPWES
	PUBLIC WATER AGENCY
	SANITARY SEWER REVIEW, EFRD, OSDS – DPWES
	GEOTECHNICAL REVIEW, EFRD, OSDS – DPWES
	STORMWATER REVIEW, EFRD, OSDS – DPWES
	URBAN FORESTRY DIVISION, OSDS –
	FAIRFAX COUNTY FIRE MARSHAL
	FAIRFAX COUNTY HEALTH DEPARTMENT
	VIRGINIA DEPARTMENT OF TRANSPORTATION
	PLAN REVIEWER, ENVIRONMENTAL & FACILITIES REVIEW DIVISION, OSDS – DPWES
	DIRECTOR, ENVIRONMENTAL & FACILITIES REVIEW DIVISION, OSDS – DPWES

APPROVED

DATE _____ BY _____ DIRECTOR, DEPT. OF PUBLIC WORKS AND ENVIRONMENTAL SERVICES

THIS PLAN SHALL EXPIRE WITHOUT NOTICE IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF THE COUNTY CODE. REVISIONS DO NOT EXTEND THE APPROVAL PERIOD. THE APPROVAL PERIOD IS INDEPENDENT OF THE AGREEMENT EXPIRATION DATE.

THIS APPROVAL IS NOT A COMMITMENT TO PROVIDE PUBLIC SANITARY SEWER

CERTIFICATE OF NO CHANGE

(FOR SUBMISSION OTHER THAN THE FIRST)
I HEREBY CERTIFY THAT NO CHANGES HAVE BEEN MADE THAT WOULD AFFECT THE PRIOR APPROVAL BY THE

FIRE MARSHAL DATED 01-30-07
WATER AUTHORITY DATED 08-29-06
HEALTH DEPARTMENT DATED N/A
VDOT DATED
DPWES-WPMD (SAN. SEW.) DATED 12-11-06
DPWES-STREETLIGHTS DATED 11-20-06

SHEET INDEX

1. COVER SHEET
2-3A. GENERAL NOTES, DETAILS, AND CALCULATIONS
4. GARAGE LAYOUT
5. OVERVIEW PLAN
6. CONVEYANCE PLAN
7. GRADING PLAN
21. ~~SOIL AND GEOLOGIC RISK MAP~~
21A. ~~SOIL AND GEOLOGIC RISK MAP~~
~~FLOW DIAGRAMS - SHEET 1~~
~~FLOW DIAGRAMS - SHEET 2~~
~~ROAD PROFILES~~
~~ROAD PROFILES~~
8. SANITARY SEWER PLAN & PROFILE
9. STORM DRAIN PROFILES
~~WATERMAIN PROFILES~~
10-10B. STORM DRAIN COMPUTATIONS
~~SANITARY SEWER COMPUTATIONS~~
~~SANITARY SEWER COMPUTATIONS~~
~~CHANNEL & SEDIMENT CONTROL - PHASE I~~
~~CHANNEL & SEDIMENT CONTROL - PHASE II~~
~~STORM DRAIN AREA MAP~~
~~ULTIMATE DRAINAGE AREA MAP~~
~~CHANNEL & SEDIMENT CONTROL NOTES & DETAILS~~
~~STORMWATER PLAN~~
~~PROFILES - STORM AREA MAP~~
~~PRELIMINARY GRADING PLAN~~
~~PRELIMINARY PLAN~~
~~SCHEMATIC LANDSCAPE PLAN~~
~~LANDSCAPE NOTES, DETAILS & SPECIFICATIONS~~
~~SITE SWM AREA~~
21A. ~~GEOTECHNICAL NOTES, EXPLORATIONS~~
22-22B. ~~VARIANCE CORRESPONDENCE~~
23-25. ~~PROFFERED PROFFERS~~
26. ~~PROFFER WAIVER~~
27-35. ~~CONCEPTUAL DEVELOPMENT PLAN (CDP/FDP)~~
36-37. ~~FINAL DEVELOPMENT PLAN AMENDMENT~~

SHEET 1 OF 35
AS-1158-6
REVISED: 7/7/03

Application No: RZ / FDP 2009-HM-017 Staff: WO'D
APPROVED DEVELOPMENT PLAN
(_GDP) (X SDP) (X DP) (_PRC) (_DP) (_DP) (_SE) (_CSP) (_SP) (_VC)
SEE PROFFERS DATED: Jul 25, 2014
SEE CONDITIONS DATED:
Date of Final Approval: Jul 29, 2014 (X BOS) (_PC) (_BZA)
Comments: CDP/Devel. Conds. Dated 4/30/2014
& ZONING
Sheet 30 of 76

FOR INFORMATION ONLY

DULLES STATION AT DULLES CORNER
BUILDING J
SITE AS-BUILT
HUNTER MILL DISTRICT
FAIRFAX COUNTY, VIRGINIA

SITE PLAN NUMBER 6848-SP-06-1
COUNTY NUMBER 6848-SP-06-1

DESIGN ENGINEER / SURVEYOR: URBAN ENGINEERING & ASSOC., INC.
PROJ. MANAGER: ZAXTON G. TOOL, P.E. EMAIL:
PROJ. ENGINEER: [illegible]

Dewberry
Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

dcs DAVIS CARTER SCOTT ltd DESIGN

ROCKS ENGINEERING

Issued for Construction

INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE
Conceptual/Final Development Plan
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL
COMMONWEALTH OF VIRGINIA
JOHN WILLIAM EWING
Lic. No. 30353
3/27/14
PROFESSIONAL ENGINEER

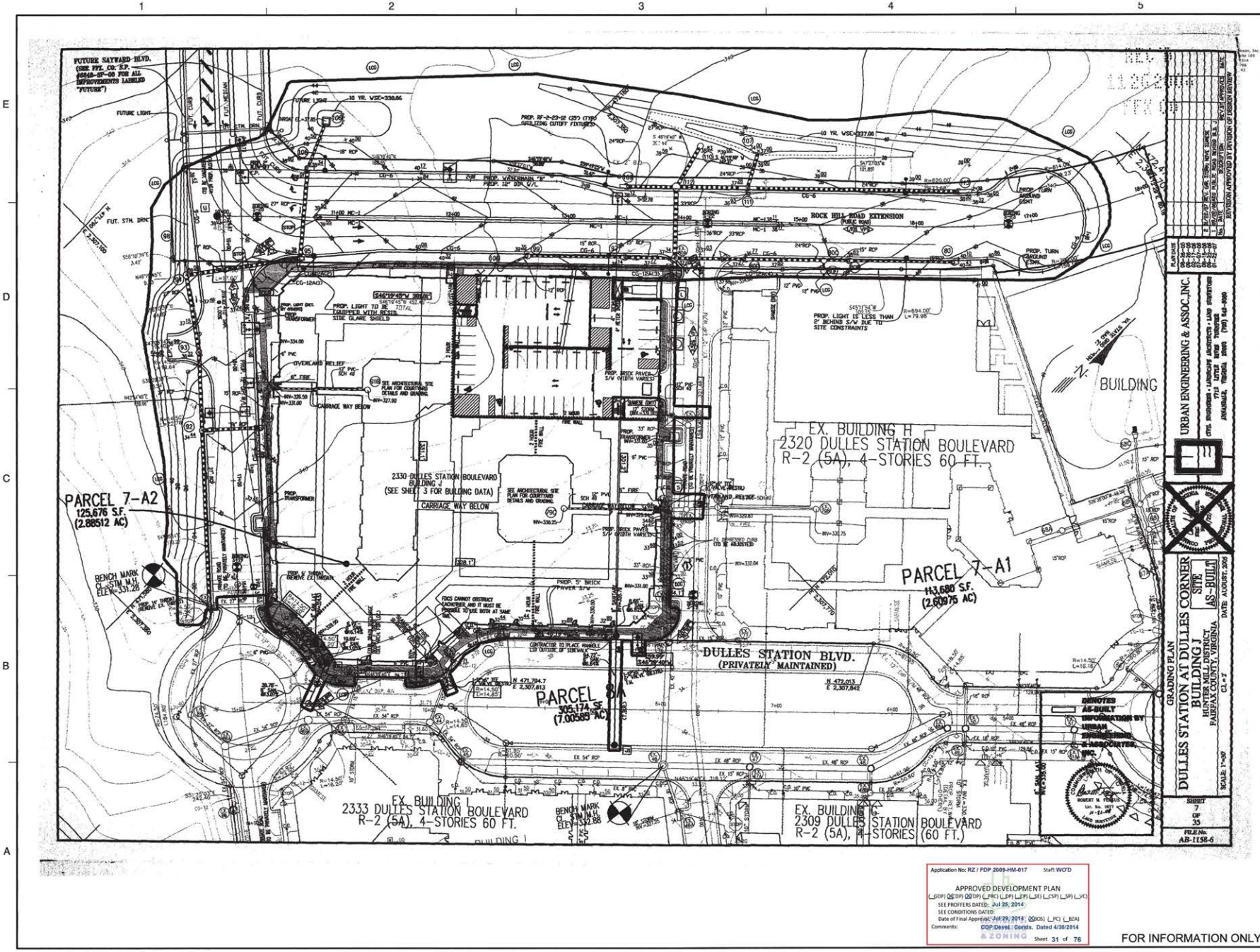
KEY PLAN
COMMONWEALTH OF VIRGINIA
CODY A. PENNETTI
Lic. No. 040960
GAS
PROFESSIONAL ENGINEER

SCALE
NTS

No.	DATE	BY	Description
5	3/27/14		
4	2/21/14		
3	1/3/14		
2	11/22/13	LNM	
1	9/9/13		

REVISIONS
DRAWN BY
APPROVED BY
CHECKED BY
DATE
TITLE
OUTFALL 2 APPROVED CALCULATIONS
PROJECT NO.

C-25
R01.130
SHEET NO.
SECTION NO. M-1083 R01-ZONING



Application No: RZ / FDP 2009-HM-017 Staff: WO'D

APPROVED DEVELOPMENT PLAN

(_GDP) (X)DP) (X)DP) (_PRO) (_LP) (_FP) (_EI) (_CSP) (_SP) (_VC)

SEE PROFFERS DATED: Jul 25, 2014

SEE CONDITIONS DATED:

Date of Final Approval: Jul 29, 2014 (X)BOS) (_PC) (_BZA)

Comments: CDP Devel. Cond's. Dated 4/30/2014

ZONING Sheet 31 of 76

FOR INFORMATION ONLY

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

DCS DESIGN DAVIS CARTER SCOTT

ROCKS

Issued for Construction

INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE

Conceptual/Final Development Plan

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
JOHN WILLIAM EWING
Lic. No. 8053
3/27/14
PROFESSIONAL ENGINEER

KEY PLAN

COMMONWEALTH OF VIRGINIA
CODY A. PENNETT
Lic. No. 040960
PROFESSIONAL ENGINEER

SCALE

NTS

No.	DATE	BY	Description
5	3/27/14		
4	2/21/14		
3	1/3/14		
2	11/22/13	LNM	
1	9/9/13		

REVISIONS

DRAWN BY

APPROVED BY

CHECKED BY

DATE

TITLE

OUTFALL 2
APPROVED
CALCULATIONS

PROJECT NO.

C-26

R01.131

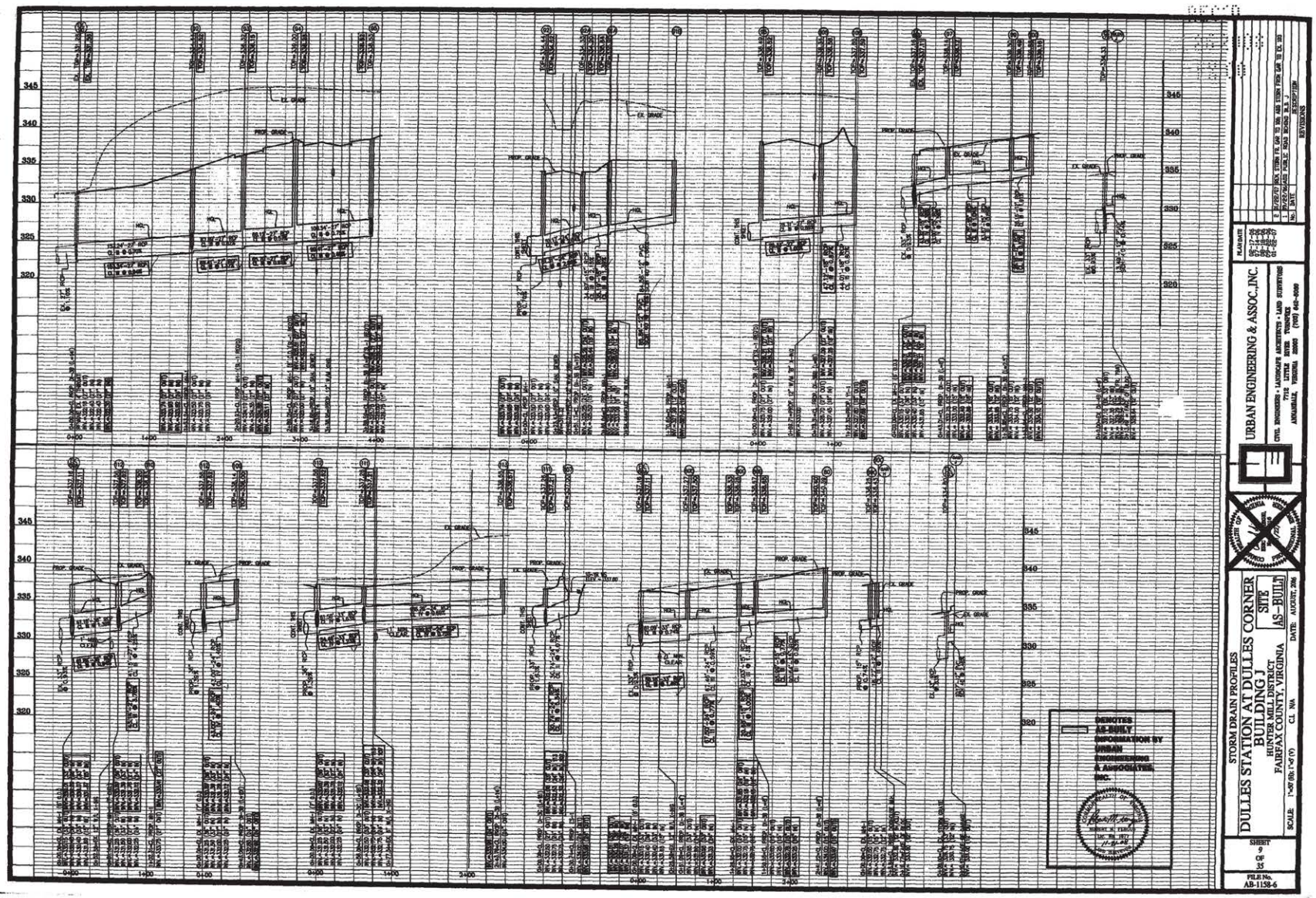
SHEET NO.

SECTION NO. M-10831R01-ZONING

GRADING PLAN
DULLES STATION AT DULLES CORNER SITE
BUILDING J
HUNTER MILL DISTRICT
FAIRFAX COUNTY, VIRGINIA
AS-BUILT
DATE: AUGUST, 2015
SCALE: 1"=50'
SHEET 7 OF 35
FILE No. AB-1158-6

ANNOTED AS-BUILT INFORMATION BY URBAN ENGINEERING & ASSOCIATES, INC.

URBAN ENGINEERING & ASSOC., INC.
CIVIL ENGINEERS • LANDSCAPE ARCHITECTS • LAND SURVEYORS
7712 LITTLE RIVER TURNPIKE
ANNANDALE, VIRGINIA 22003 (703) 642-8080



STORM DRAIN PROFILES
DULLES STATION AT DULLES CORNER BUILDING 1
HUNTER MILL DISTRICT
FAIRFAX COUNTY, VIRGINIA
SCALE: 1"=50' HOR. 1"=5' VER.
DATE: AUGUST, 2014
SITE AS-BUILT
SHEET 9 OF 35
FILE No. AB-1158-6

DENOTES AS-BUILT INFORMATION BY URBAN ENGINEERING & ASSOCIATES, INC.

URBAN ENGINEERING & ASSOC., INC.
CIVIL ENGINEERS - LANDSCAPE ARCHITECTS - LAND SURVEYORS
7712 LITTLE RIVER TURNPIKE
ANNANDALE, VIRGINIA 22003 (703) 642-0900

No.	DATE	BY	DESCRIPTION
1	9/9/13		ADD STORM FR. CAP TO TIE ADD STORM FROM CAP TO EX. MH
2	11/22/13	LNM	REVISE PUBLIC ROAD BOARD N.B.V.
3	1/3/14		
4	2/21/14		
5	3/27/14		

APPROVED DEVELOPMENT PLAN
(_GDP) (XCDP) (XDP) (_PRC) (_PI) (_PP) (_SE) (_SPI) (_SPP) (_VC)
SEE PROFFERS DATED: Jul 29, 2014
SEE CONDITIONS DATED:
Date of Final Approval: Jul 29, 2014 (XBOS) (_PC) (_BZA)
Comments: CDP Devel. Cond's. Dated 4/30/2014
& ZONING
Application No: RZ / FDP 2009-HM-017 Staff: WO'D
Sheet 32 of 76

FOR INFORMATION ONLY

Dewberry
Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

DCS DESIGN DAVIS CARTER SCOTT

Issued for Construction
REAL ESTATE DEVELOPERS SINCE 1936

INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE
Conceptual/Final Development Plan
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL
COMMONWEALTH OF VIRGINIA
JOHN WILLIAM EWING
Lic. No. 8053
3/27/14
PROFESSIONAL ENGINEER

KEY PLAN
COMMONWEALTH OF VIRGINIA
CODY A. PENNETT
Lic. No. 048960
PROFESSIONAL ENGINEER

SCALE
NTS

DRAWN BY
APPROVED BY
CHECKED BY
DATE

TITLE
OUTFALL 2 APPROVED CALCULATIONS

PROJECT NO.

C-27
R01.132
SHEET NO.
SECTION NO. R01-ZONING
M-10831

STORM DRAIN COMPUTATIONS

From Point	To Point	Drainage Area	'C' Factor	C x A Increment	C x A Conn.	Inlet Time Min.	Rain Fall In/Hr	Runoff Q C.F.S.	Invert Elev. Upper End	Invert Elev. Lower End	Length FT.	Slope %	Diameter IN.	Capacity Q C.F.S.	VEL. F.P.S.	Flow Time MIN.	Remarks
EX 25	EX 24	0.59	0.65	.117	.117	5.00	7.27	0.47	341.83	340.77	87.93	1.20%	21	36.95	10.97	0.04	
EX 24	EX 23	0.38	0.85	0.32	1.49	5.00	7.27	10.82	340.52	339.68	153.38	0.55%	24	16.79	5.68	0.45	
EX 23	EX 23A	0.34	0.90	0.31	0.31	5.00	7.27	2.22	345.00	344.75	5.34	4.53%	18	4.67	8.45	0.01	
EX 23A	EX 23	0.00	0.00	0.00	0.31	5.00	7.27	2.22	344.33	343.70	62.56	1.96%	15	13.85	7.93	0.03	
EX 23	EX 22	0.05	0.85	0.04	1.84	5.00	7.27	13.35	339.43	338.74	125.55	0.55%	24	16.82	5.94	0.35	
EX BLD C2	EX 22A	0.34	0.90	0.31	0.31	5.00	7.27	2.22	345.00	344.67	6.57	5.02%	18	4.92	8.88	0.01	
EX 22A	EX 22	0.00	0.00	0.00	0.31	5.00	7.27	2.22	344.25	343.39	18.01	4.78%	15	14.79	8.68	0.03	
EX 21A	EX 21	0.04	0.90	0.04	0.04	5.00	7.27	0.25	339.25	338.91	44.16	0.77%	15	3.68	2.36	0.31	
EX 22	EX 21	0.00	0.85	0.00	2.14	5.00	7.27	15.59	338.49	338.16	68.67	0.54%	27	29.98	6.19	0.16	
EX 21	EX 19	0.00	0.00	0.00	2.18	5.00	7.27	15.84	337.91	336.82	98.51	1.77%	27	41.38	9.78	0.16	
EX 28	EX 27	0.04	0.90	0.04	0.04	5.00	7.27	0.26	339.42	338.85	57.17	1.00%	15	5.47	2.58	0.37	
EX 27	EX 26	0.03	0.90	0.03	0.06	5.00	7.27	0.46	338.60	337.84	79.44	0.97%	15	5.38	3.01	0.43	
FUT A & E	EX 26	0.53	0.90	2.28	2.34	5.00	7.27	17.01	338.84	337.84	100.00	1.00%	24	82.68	7.92	0.21	
EX 26	EX 19	0.01	0.90	0.01	0.07	5.00	7.27	0.52	337.99	336.47	65.77	2.94%	24	82.68	12.90	0.37	
EX 19	70D	0.00	0.00	0.00	2.89	5.00	7.27	33.98	336.72	334.74	91.57	1.90%	36	96.19	18.00	0.07	
EX BLD J1	70D	0.37	0.90	0.33	0.33	5.00	7.27	2.42	338.62	338.55	4.55	1.55%	12	4.44	5.78	0.01	
EX 70D	EX 70B	0.00	0.00	0.00	0.33	5.00	7.27	2.42	338.30	336.88	63.16	2.30%	15	9.87	6.65	0.15	
EX 70E	EX 70B	0.52	0.90	0.47	0.47	5.00	7.27	3.40	336.75	336.24	16.65	3.06%	15	11.34	8.00	0.03	
EX 70B	EX 70A	0.00	0.00	0.00	5.39	5.00	7.27	39.20	334.49	332.39	148.99	1.41%	36	79.40	11.20	0.22	
EX 70C	EX 70A	0.40	0.90	0.36	0.36	5.00	7.27	2.62	334.49	333.86	16.71	3.77%	15	11.64	7.66	0.04	
EX BLD B2	EX 70C	0.43	0.90	0.39	0.39	5.00	7.27	2.81	336.96	336.68	7.30	3.70%	12	3.74	5.23	0.02	
EX 70C	EX 70A	0.00	0.90	0.00	0.39	5.00	7.27	2.81	336.63	335.89	68.06	1.09%	15	6.75	3.25	0.22	
EX 70A	EX 55	0.00	0.00	0.00	6.14	5.00	7.27	44.63	335.14	331.88	311.80	1.05%	36	47.39	7.62	0.11	
EX 54	EX 55	0.66	0.90	0.59	0.59	5.00	7.27	4.32	333.66	333.38	11.20	2.50%	15	7.18	6.07	0.03	
EX 70	EX 55	0.51	0.90	0.46	0.46	5.00	7.27	3.34	333.73	333.23	48.85	1.02%	18	10.66	5.33	0.15	
EX 70S	EX 53	0.00	0.00	0.00	7.19	5.00	7.27	52.29	331.88	330.65	69.04	0.51%	42	71.83	8.14	0.14	
EX 53A	EX 53	0.98	0.70	0.86	0.86	5.00	7.27	6.41	333.32	332.90	41.66	1.01%	15	6.51	2.95	0.23	
EX 53	EX 52	0.00	0.00	0.00	7.25	5.00	7.27	52.69	330.40	328.17	45.49	0.51%	42	71.73	8.15	0.09	
EX 68F C1	FX 30	0.10	0.90	0.09	0.09	5.00	7.27	0.66	334.76	334.68	11.64	1.37%	15	7.59	7.04	0.03	
EX 30	69A	0.00	0.00	0.00	0.09	5.00	7.27	0.66	334.35	334.10	25.18	0.71%	12	2.89	3.68	0.18	
EX 69A	EX 69	0.00	0.00	0.00	0.09	5.00	7.27	0.66	333.90	333.75	27.09	0.52%	21	11.42	2.98	0.09	
EX 69	EX 68	0.29	0.68	0.17	1.16	5.00	7.27	8.46	333.91	333.11	98.64	0.81%	21	14.38	4.19	0.14	
EX 68C	EX 68B	0.60	0.60	0.36	0.36	5.00	7.27	2.62	335.18	334.35	62.53	1.33%	15	7.79	5.34	0.20	
EX 68B	EX 68A	0.45	0.85	0.38	0.38	5.00	7.27	2.76	335.45	334.50	52.34	1.82%	12	3.66	5.13	0.17	
EX 68A	EX 68B	0.00	0.00	0.00	0.50	5.00	7.27	3.63	334.65	334.35	52.11	0.56%	15	4.91	4.38	0.20	
EX 68B	EX 68	0.00	0.00	0.00	0.86	5.00	7.27	6.25	334.10	333.45	130.43	0.50%	18	14.29	7.82	0.08	
EX 68	EX 67A	0.00	0.00	0.00	2.82	5.00	7.27	14.71	332.70	329.96	431.15	0.64%	27	84.13	6.37	0.06	
EX 67A	EX 67	0.32	0.60	0.19	2.82	5.00	7.27	16.11	332.00	331.88	39.70	0.30%	33	37.64	6.09	0.11	
EX 67	EX 52B	0.81	0.85	0.68	2.86	5.00	7.27	16.43	331.88	330.40	148.37	0.51%	33	37.94	6.16	0.19	
EX 66	EX 52B	0.37	0.80	0.30	0.30	5.00	7.27	2.15	333.34	332.99	54.12	1.83%	15	6.56	4.79	0.12	
EX 52B	EX 52A	0.00	0.00	0.00	2.56	5.00	7.27	18.58	330.73	330.55	36.00	0.50%	36	47.29	6.29	0.10	
EX 52A	EX 52	0.00	0.00	0.00	2.56	5.00	7.27	18.58	330.30	330.22	15.68	0.51%	36	47.77	6.33	0.04	
STM LAT1	EX 63E	0.07	0.90	0.06	0.06	5.00	7.27	0.46	336.82	334.68	103.00	2.08%	6	0.81	4.26	0.40	
BLDG G1	EX 63E	0.00	0.00	0.00	0.27	5.00	7.27	1.99	334.75	334.51	11.47	2.09%	12	5.17	6.15	0.03	
EX 63E	EX 63	0.00	0.00	0.00	0.86	5.00	7.27	6.46	333.90	333.38	58.00	0.90%	15	8.05	3.55	0.18	
STM LAT2	EX 63	0.04	0.90	0.04	0.04	5.00	7.27	0.26	334.85	333.45	88.00	0.11%	6	0.82	3.76	0.13	
EX 63	EX 63B	0.51	0.70	0.36	0.46	5.00	7.27	3.32	333.03	332.88	29.98	0.50%	18	7.46	4.10	0.12	
BLD G2	EX 63B	0.31	0.90	0.01	0.01	5.00	7.27	0.07	334.10	333.70	10.00	4.00%	4	0.98	3.27	0.05	
STM LAT3	EX 63B	0.04	0.90	0.04	0.04	5.00	7.27	0.26	334.82	333.37	31.00	2.10%	6	0.81	3.76	0.14	
EX 64	EX 63C	0.74	0.70	0.52	0.52	5.00	7.27	3.77	340.00	338.53	10.00	10.17%	15	16.51	11.83	0.03	
EX 65	EX 63C	0.41	0.70	0.29	0.29	5.00	7.27	2.09	338.55	337.68	33.42	2.60%	15	10.45	6.65	0.08	
EX 63C	EX 63B	0.22	0.70	0.15	0.96	5.00	7.27	6.97	332.30	332.59	66.18	0.51%	24	16.27	4.98	0.22	
EX 63B	EX 63A	0.00	0.00	0.00	1.45	5.00	7.27	10.55	332.34	332.02	62.22	0.51%	24	16.27	5.51	0.19	
EX 63A	EX 52	0.14	0.85	0.12	1.57	5.00	7.27	11.41	331.77	331.57	39.94	0.50%	24	16.05	5.25	0.12	
EX 52	EX 51	0.00	0.00	0.00	11.27	5.00	7.27	82.59	329.87	328.64	84.94	1.45%	48	102.48	9.07	0.16	
EX 51A	EX 51	0.28	0.85	0.24	0.24	5.00	7.27	1.73	331.83	331.69	13.58	1.02%	15	6.59	4.52	0.05	
EX 51	EX 50	0.00	0.00	0.00	11.61	5.00	7.27	84.42	328.39	327.91	94.87	0.51%	48	102.77	9.13	0.17	
EX 50A	EX 50	0.15	0.85	0.13	0.26	5.00	7.27	1.91	328.39	327.91	94.87	4.60%	18	22.68	7.78	0.08	
EX 49	EX 50	0.00	0.85	0.07	0.07	5.00	7.27	0.49	329.66	329.39	13.58	1.99%	18	14.85	3.88	0.6	
EX 50	EX 48A	0.00	0.00	0.00	11.94	5.00	7.27	86.82	326.57	326.47	15.77	0.63%	48	114.69	10.03	0.03	
EX 48A	EX 48	0.00	0.00	0.00	11.94	5.00	7.27	86.82	326.25	325.74	74.48	0.69%	48	115.63	10.10	0.12	
BLDG G3	EX 48B	0.00	0.00	0.00	0.54	5.00	7.27	3.94	329.68	329.58	8.50	1.22%	12	5.26	7.29	0.02	
STM LAT4	EX 48B	0.09	0.90	0.08	0.08	5.00	7.27	0.59	330.50	329.58	60.00	1.53%	12	5.76	3.98	0.25	
STM LAT5	EX 48B	0.07	0.90	0.06	0.06	5.00	7.27	0.46	332.00	330.33	80.17	2.08%	18	3.17	4.14	0.32	
EX 48B	EX 48	0.00	0.00	0.00	0.69	5.00	7.27	4.98	329.00	328.49	81.23	0.40%	15	10.84	8.17	0.24	
EX 48	EX 47	0.00	0.00	0.00	12.63	5.00	7.27	91.81	325.49	324.73	184.71	0.40%	48	144.23	12.16	0.14	
STM LAT6	EX 47A	0.01	0.90	0.01	0.01	5.00	7.27	0.07	328.08	327.63	21.80	2.06%	6	0.81	2.47	0.15	
STM LAT7	EX 47A	0.01	0.90	0.01	0.01	5.00	7.27	0.07	328.62	327.63	47.61	2.08%	6	0.81	2.48	0.32	
BLD G4	EX 47A	0.01	0.90	0.01	0.01	5.00	7.27	0.07	329.00	328.86	14.58	0.96%	4	0.56	2.96	0.06	
EX 47A	EX 47	0.28	0.85	0.24	0.25	5.00	7.27	1.86	327.21	326.94	13.58	1.99%	15	9.13	5.84	0.04	
EX 47	EX 46	0.00	0.00	0.00	12.88	5.00	7.27	93.67	324.19	323.44	74.86	1.00%	48	144.16	12.21	0.1	
EX 104	88	0.11	0.80	0.09	0.09	5.00	7.27	0.64	336.15	335.75	39.11	1.49%	18	2.69	4.04	0.12	
88	88B	0.52	0.90	0.62	0.71	5.00	7.27	5.17	334.00	333.25	90.64	0.83%	15	5.89	3.32	0.46	
88B	88C	0.89	0.85	0.08	0.18	5.00	7.27	1.33	333.00	332.75	22.02	1.13%	15	6.90	4.34	0.08	
Gar. 11	88C	0.53	0.90	0.48	0.48	5.00	7.27	3.47	333.00	332.75	7.33	1.49%	12	4.36	6.16	0.02	
88C	88D	0.00	0.00	0.00	0.48	5.00	7.27	3.47	332.89	332.75	9.84	1.49%	12	4.37	6.16	0.02	
88C	88D	0.00	0.00	0.00	0.66	5.00	7.27	4.79	332.89	331.66	67.46	0.59%	24	17.47	4.74	0.24	
88D	EX 88A	0.00	0.85	0.07	0.73	5.00	7.27	5.29	330.85	330.43	61.09	0.74%	27	45.51	5.12	0.20	
EX 88A	EX 103	0.00	0.00	0.00	3.81	5.00	7.27	27.73	330.15	328.89	135.68	0.93%	33	51.10	6.76	0.25	
98B	EX 103	0.49	0.90	0.44	0.44	5.00	7.27	3.21	330.75	330.17	21.43	2.40%	12	5.68	7.27	0.02	
EX 103	EX 101	0.30	0.90	0.27	4.53	5.00	7.27	32.98	328.75	328.45	16.38	1.83%	33	71.77	11.82	0.02	
EX 101	EX 102			0.00	4.53	5.00	7.27	32.98	328.35	327.55	72.53	1.10%	33	55.69	9.76	0.12	
EX 102	EX 79			0.00	4.53	5.00	7.27	32.98	327.50	327.28	14.86	2.12%	33	77.46	12.51	0.02	
EX 79B	EX 79A	0.37	0.85	0.31	0.31	5.00	7.27	2.59	330.75	330.68	84.75	0.79%	12	3.18	3.95	0.43	
EX 79A	EX 102	0.00	0.00	0.00	0.49	5.00	7.27	3.60	329.83	329.46	29.10	1.32%	15	7.52	6.06	0.07	
EX 79	EX 78	0.89	0.85	0.68	4.99	5.00	7.27	35.98	327.10	326.45	75.45	0.93%	33	51.68	5.33	0.13	
EX 78	EX 76	0.89	0.85	0.08	5.13	5.00	7.27	37.31	326.15	325.78	38.47	0.96%	33	52.31	5.52	0.07	
EX 77	EX 76	0.31	0.85	0.26	0.26	5.00	7.27	2.83	328.00	327.88	59.75	0.20%	15	3.04	2.98	0.17	
EX 76	EX 46	0.00	0.00	0.00	5.57	5.00	7.27	40.47	324.58	323.94	107.11	0.60%	42	77.98	8.10	0.20	
BLDG 15	EX 46A	0.10	0.90	0.09	0.09	5.00	7.27	0.65	327.25	326.91	11.41	2.98%	18	3.79	5.21	0.04	
BLDG G6	EX 46A	0.30	0.90	0.27	0.27	5.00	7.27	1.96	333.49	327.13	305.68	2.08%	18	3.17	5.12	0.83	
EX 46A	EX 46	0.35	0.85	0.30	0.66	5.00	7.27	4.78	326.25	325.94	42.43	0.73%	18	9.00	3.17	0.14	
EX 46	EX 45	0.00	0.00	0.00	19.11	5.00	7.27	138.92	322.94	321.19	174.98	1.00%	54	197.23	13.43	0.22	
BLDG 16	EX 45	0.56	0.85	0.48	0.48	5.00	7.27	3.36	329.50	329.40	188.43	0.05%	18	3.23	5.98	1.51	Capacity Exceeded
EX 45	EX 44	0.45	0.85	0.38	19.94	5.00	7.27	144.99	320.94	320.58	43.66	1.82%	54	197.94	13.59	0.05	
EX 44A	EX 44	0.50	0.65	0.43	0.43	5.00	7.27	3.09	323.85	323.25	58.83	1.83%	15	6.59	5.28	0.18	
EX 88	EX 43	0.10	0.50	0.05	0.05	5.00	7.27	0.36	320.59	320.68	41.34	1.98%	15	9.12	3.60	0.19	
EX 44	EX 43	0.00	0.00	0.00	20.37	5.00	7.27	148.08	320.25	319.44	73.56	1.10%	54	206.88	14.14	0.09	
EX 43	EX 86B	0.00	0.00	0.00	20.42	5.00	7.27	148.45	319.14	318.92	31.96	0.69%	54	163.59	11.65	0.05	
EX 86B	EX 86A	0.00	0.00	0.00	20.42	5.00	7.27	148.45	318.67	318.15	76.55	0.68%	54	162.51	11.58	0.11	
*																	
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STM LAT8	EX 75	0.11	0.90	0.10	0.10	5.00	7.27	0.72	337.15	333.25	187.54	2.08%	8	1.75	4.76	0.66	
EX 73	EX 74	0.25	0.85	0.22	0.32	5.00	7.27	2.33	332.38	330.83	134.38	1.15%	18	11.31	5.84	0.44	
G G4B1	EX 74A	0.54	0.90	0.49	0.49	5.00	7.27	3.53	332.84	331.90	8.59	1.52%	12	4.38	6.44	0.02	
BLD G5	EX 74A	0.02	0.90	0.02	0.02	5.00	7.27	0.13	333.65	332.49	55.96	2.08%	8	1.75	2.94	0.32	
EX 74A	EX 74	0.00	0.00	0.00	0.50	5.00	7.27	3.66	331.65	331.26	46.00	1.24%	15	7.21	5.90	0.13	
EX 74	EX 73	0.03	0.90	0.03	0.85	5.00	7.27	6.19	330.50	330.33	8.00	2.13%	21	11.98	7.35	0.02	
BLDG 11	EX 73	0.28	0.90	0.25	0.25	5.00	7.27	1.83	333.00	328.63	87.15	6.75%	10	1.98	3.97	1.33	
*																	
EX BA 01	EX CY 02	0.11	0.85	0.09	0.09	5.00	3.26	0.30	338.68	336.58	105.04	2.00%	6	0.81	1.58	1.06	
EX BA 02	EX CY 02-1	0.10	0.90	0.09	0.09	5.00	3.26	0.29	339.50	337.22	109.54	2.08%	6	0.81	1.52	1.20	
EX BA 03	EX CY 02-1	0.04	0.90	0.04	0.04	5.00	3.26	0.13	337.50	337.22	13.46	2.08%	6	0.80	0.61	0.39	
EX CY 02-1	EX CY 02	0.14	0.90	0.13	0.13	5.00	3.26	0.42	337.52	336.58	36.99	2.87%	6	0.81	2.13	0.24	
EX CY 02	BLDG G1	0.10	0.90	0.09	0.27	5.00	3.26	0.88	336.33	334.75	79.56	2.09%	10	3.18	2.83	0.44	
EX BA 02	EX CY 01-1	0.10	0.85	0.09	0.09	5.00	3.26	0.29	337.00	336.55	14.00	3.21%	6	0.97	1.44	0.16	
EX CY 01-1	EX CY 01-2	0.00	0.85	0.00	0.09	5.00	3.26	0.27	333.38	333.08	28.72	1.04%	8	1.24	1.06	0.45	
EX BA 11	EX CY 01-2	0.03	0.90	0.03	0.03	5.00	3.26	0.09	333.59	333.08	49.30	1.03%	6	0.57	0.46	1.80	
EX CY 01-2	EX CY 01-3	0.00	0.90	0.00	0.11	5.00	3.26	0.36	333.08	332.77	30.21	1.03%	8	1.23	1.40	0.36	
EX BA 12	EX CY 01-3	0.05	0.90	0.07	0.07	5.00	3.26	0.23	333.32	332.77	52.73	1.04%	6	0.57	1.22	0.72	
EX CY 01-3	EX CY 01	0.00	0.90	0.00	0.18	5.00	3.26	0.59	332.77	332.58	18.26	1.04%	8	1.24	2.27	0.13	
EX CY 01	EX CY 00-1	0.04	0.90	0.04	0.22	5.00	3.26	0.72	332.58	331.96	74.65	1.04%	8	1.24	2.74	0.45	

MATCHLINE SEE SHEET 10A

MATCHLINE SEE SHEET 10A

Application No: RZ / FDP 2009-HM-017 Staff: WO'D

APPROVED DEVELOPMENT PLAN

(_GDP) (X DP) (X DP) (_PRC) (_DP) (_FP) (_SE) (_CSP) (_SP) (_VC)

SEE PROFFERS DATED: Jul 26, 2014

SEE CONDITIONS DATED:

Date of Final Approval: Jul 29, 2014 (X BOS) (_PC) (_BZA)

Comments: COP Devel. Conds. Dated 4/30/2014

& ZONING Sheet 33 of 76

DENOTES AS-BUILT INFORMATION BY URBAN ENGINEERING & ASSOCIATES, INC.

COMMONWEALTH OF VIRGINIA ROBERT M. PENNETT Lic. No. 19711 11-21-08 PROFESSIONAL ENGINEER

THIS SHEET IS FOR INFORMATIONAL PURPOSES ONLY!

FOR INFORMATION ONLY

REVISIONS

No.	DATE	DESCRIPTION
1	09/07/07	SWM, STORM PIPE, SWM TBL, SWM TBL, STORM PIPE, SWM TBL, ESD, LOD
2	09/20/07	PUBLIC ROAD
3	09/20/07	ROAD
4	02-26-08	ROAD, BLD J
5	03-27-08	

PLAN DATE: 02-11-05

URBAN ENGINEERING & ASSOC., INC. CIVIL ENGINEERS • LANDSCAPE ARCHITECTS • LAND SURVEYORS 7716 LEESBURG PIKE, SUITE 200 FALLS CHURCH, VIRGINIA 22043 (703) 849-0600

STORM DRAIN COMPUTATIONS

DULLES STATION AT DULLES CORNER BUILDING J

HUNTER MILL DISTRICT FAIRFAX COUNTY, VIRGINIA

SCALE: N/A CL: N/A

SITE AS-BUILT

DATE: AUGUST, 2008

SHEET 10 OF 35

PEJB No. AB-1158-6

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

dcs DAVIS CARTER SCOTT DESIGN

Issued for Construction
MAY 28, 2014

INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE

Conceptual/Final Development Plan

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA JOHN WILLIAM EWING Lic. No. 8053 3/27/2014 PROFESSIONAL ENGINEER

KEY PLAN

COMMONWEALTH OF VIRGINIA CODY A. PENNETT Lic. No. 048960 PROFESSIONAL ENGINEER

SCALE

NTS

No.	DATE	BY	Description
5	3/27/14		
4	2/21/14		
3	1/3/14		
2	11/22/13	LNM	
1	9/9/13		

REVISIONS

DRAWN BY

APPROVED BY

CHECKED BY

DATE

TITLE

OUTFALL 2 APPROVED CALCULATIONS

PROJECT NO.

C-28

R01.133

SHEET NO.

SECTION NO. M-1083 R01-ZONING

STORM DRAIN COMPS CONT.

MATCHLINE																							
SEE SHEET 10	EX CY 01-2	EX CY 01-3	0.00	0.90	0.00	0.11	5.00	3.20	0.36	333.09	332.77	30.21	1.65%	6	1.23	1.40	0.36							MATCHLINE SEE SHEET 10
	EX 3A 18	EX CY 01-3	0.00	0.90	0.87	0.07	5.00	3.20	0.23	333.32	332.77	50.73	1.04%	6	1.57	1.22	0.72							
	EX CY 03-3	EX CY 01	0.00	0.90	1.00	0.10	5.00	3.20	0.59	332.77	332.73	3.99	1.00%	6	1.34	2.09	0.60							
	EX CY 01	EX CY 03-1	0.84	0.90	0.84	0.22	5.00	3.20	0.76	332.73	331.95	74.65	1.04%	6	1.24	2.74	0.45							
	*																							
	EX 3A 16	EX 3A 04	0.01	0.90	0.01	0.01	5.00	3.20	0.03	332.42	332.22	19.10	1.05%	6	0.58	0.15	2.09							
	EX 3A 04	EX CY 03-1	0.04	0.85	0.03	0.04	5.00	3.20	0.14	332.22	331.95	25.75	1.05%	6	1.24	0.54	0.86							
	EX CY 03-1	EX 3A 18	0.00	0.90	0.00	0.00	5.00	3.20	0.00	331.95	331.91	4.14	0.97%	6	1.24	0.00	0.00							
	EX 3A 18	EX 3A 05	0.05	0.90	0.05	0.31	5.00	3.20	0.99	331.91	331.79	11.47	1.03%	18	2.25	3.19	0.06							
	EX 3A 05	EX CY 03	0.07	0.85	0.06	0.37	5.00	3.20	1.19	331.79	331.22	54.91	1.04%	18	2.24	3.81	0.24							
	EX 3A 06	EX CY 03	0.03	0.85	0.03	0.02	5.00	3.20	0.08	331.69	331.22	43.80	1.05%	6	1.24	0.36	2.44							
	EX 3A 21	EX CY 03	0.14	0.90	0.13	0.13	5.00	3.20	0.40	332.01	331.22	75.96	1.04%	6	0.57	2.13	0.59							
	EX CY 03	BLDG G3	0.02	0.80	0.02	0.04	5.00	3.20	1.73	331.22	329.68	76.28	2.02%	12	1.20	4.91	0.25							
	*																							
	BLDG H 01	EX 29A	0.14	0.90	0.13	0.13	5.00	7.27	0.92	334.00	330.41	195.82	1.83%	8	1.64	3.57	0.92							
	BLDG N 02	EX 29A	0.86	0.90	0.85	0.85	5.00	7.27	6.12	331.00	330.58	17.99	2.44%	6	0.88	2.88	0.14							
	BLDG N 03	EX 76	0.85	0.90	0.85	0.85	5.00	7.27	6.33	331.00	327.58	98.83	3.48%	6	1.05	1.73	0.95							
	BLDG H 04	EX 77	0.14	0.90	0.13	0.13	5.00	7.27	0.92	332.00	328.75	136.36	3.10%	6	0.99	4.65	0.47							
	BLDG H 05	EX 29A	0.15	0.90	0.14	0.14	5.00	7.27	0.98	336.00	332.00	7.19	5.62%	6	1.33	5.19	0.23							
	BLDG H 06	EX 67	0.94	0.90	0.84	0.84	5.00	7.27	6.26	336.00	332.56	14.32	3.54%	6	1.96	1.38	0.17							
	BLDG H 07	EX 68A	0.86	0.90	0.85	0.85	5.00	7.27	6.39	337.50	336.75	46.28	1.95%	6	0.77	2.68	0.32							
	BLDG H 08	EX 68A	0.07	0.90	0.06	0.06	5.00	7.27	0.46	339.00	338.75	109.50	2.65%	6	0.81	2.42	0.73							
	EX 91	EX 90	0.13	0.85	0.11	1.12	5.00	7.27	8.12	327.38	326.43	31.17	1.11%	27	32.77	6.83	0.02							
	EX 90	EX 89	0.59	0.85	1.50	1.32	5.00	7.27	24.00	327.18	326.13	95.60	1.10%	27	32.54	8.95	0.18							
	EX 89	EX 86A	0.00	0.00	0.00	3.30	5.00	7.27	24.00	329.88	329.15	48.49	1.50%	27	41.74	10.86	0.06							
	EX 86A	EX 86	0.00	0.00	0.00	23.72	5.00	7.27	172.45	317.98	317.45	36.30	0.86%	54	176.28	12.43	0.07							
	EX 86	EX 81	0.69	0.90	0.62	16.74	5.00	7.27	176.96	317.23	315.50	218.30	0.81%	54	177.28	12.71	0.28							
	BLB 13	EX 93	0.19	0.90	0.17	0.17	5.00	7.27	1.24	322.08	318.64	198.39	2.13%	18	3.21	6.51	0.48							
	BLB 14	EX 93	0.42	0.90	0.38	0.38	5.00	7.27	2.75	322.55	318.64	198.52	2.05%	18	3.17	6.54	0.48							
	EX 93	EX 91	0.08	0.85	0.07	0.07	5.00	7.27	1.24	318.28	317.75	44.25	1.02%	15	6.53	4.15	0.18							
	STM LATB	EX 75	0.11	0.90	0.10	0.10	5.00	7.27	0.72	337.25	336.75	46.28	1.08%	6	1.75	4.76	0.64							
	EX 75	EX 74	0.26	0.85	0.22	1.32	5.00	7.27	2.33	337.25	336.65	124.38	1.12%	18	11.31	5.04	0.44							
	G GAR1	EX 74A	0.54	0.90	0.49	0.49	5.00	7.27	3.53	339.84	339.56	8.50	1.65%	12	4.58	6.44	0.82							
	BLB 05	EX 74A	0.02	0.90	0.02	0.02	5.00	7.27	0.13	339.65	339.15	55.90	0.89%	6	1.75	0.94	0.32							
	EX 74A	EX 74	0.08	0.65	0.05	0.55	5.00	7.27	3.66	331.65	331.08	46.00	1.24%	15	7.31	5.90	0.13							
	EX 74	EX 73	0.23	0.85	0.20	0.20	5.00	7.27	1.42	338.54	334.75	179.01	0.57%	21	11.98	3.35	0.69							
	BLBG 11	EX 73	0.28	0.90	0.25	0.25	5.00	7.27	1.83	336.63	334.75	157.15	0.73%	18	1.96	3.97	1.53							
	EX 73	EX 84	0.19	0.90	0.17	0.62	5.00	7.27	4.50	339.47	334.37	181.65	2.81%	21	25.62	8.24	0.37							
	EX 84	EX 83	0.22	0.90	0.20	0.82	5.00	7.27	5.94	341.12	339.49	98.36	1.79%	21	25.55	8.89	0.11							
	BLB 12	EX 83	0.06	0.90	0.05	0.05	5.00	7.27	1.13	341.49	341.39	209.20	1.05%	18	2.20	4.07	1.18							
	I GAR	EX 85	0.45	0.90	0.41	0.41	5.00	7.27	8.94	354.75	354.59	7.50	2.13%	18	3.21	6.67	0.02							
	EX 85	EX 83	0.08	0.00	0.00	0.56	5.00	7.27	4.08	354.50	354.39	79.21	1.39%	15	7.94	6.54	0.20							
	EX 83	EX 82	0.08	0.85	0.07	1.45	5.00	7.27	18.51	342.24	341.87	120.18	2.80%	21	26.60	10.41	0.19							
	EX 82	EX 81	0.19	0.85	0.16	1.61	5.00	7.27	11.68	338.68	337.08	59.34	2.73%	21	26.25	10.60	0.09							
	EX 81	EX 81A	0.34	0.85	0.29	64.43	5.00	7.27	194.99	339.25	338.08	24.65	1.64%	54	210.03	14.99	0.02							
	107	111	4.35	0.35	1.31	1.31	5.00	7.27	9.49	334.00	332.75	39.74	4.67%	24	45.74	11.49	0.04							
	110	112	0.00		0.00	0.00	5.00	7.27	0.00	333.75	332.08	41.15	4.05%	27	64.04	#N/A!	#N/A!	#N/A!	NO FLOW					
	113	111	2.39	0.40	0.96	0.96	5.00	7.27	6.95	334.00	332.75	182.26	0.69%	24	18.79	9.53	0.55							
	111	112	0.38	0.85	0.32	2.28	5.00	7.27	18.79	332.50	331.58	61.50	1.63%	33	67.62	9.74	0.11							
	109	112	0.46	0.75	0.35	0.35	5.00	7.27	2.51	332.25	332.25	43.00	1.40%	24	26.79	5.35	0.13							
	112	EX 89A	0.00		0.00	2.93	5.00	7.27	21.29	331.25	330.40	63.16	1.39%	36	78.84	9.47	0.11							
	108	99	0.00	0.00	0.00	0.00	5.00	7.27	0.00	334.50	334.00	26.16	1.91%	12	4.94	#N/A!	#N/A!	#N/A!	NO FLOW					
	99	97	0.09	0.90	0.00	0.00	5.00	7.27	8.59	333.75	333.00	83.87	0.89%	15	6.13	3.16	0.44							
	97	EX 89A	0.69	0.85	0.88	0.16	5.00	7.27	1.15	332.75	331.65	43.00	2.56%	15	18.36	5.56	0.13							
	CR7	79C	0.24	0.85	0.20	0.20	5.00	7.27	1.48	331.56	330.25	131.31	1.00%	18	2.55	4.91	0.45							
	CR8	79C	0.22	0.85	0.19	0.19	5.00	7.27	1.36	331.11	330.25	85.74	1.00%	6	1.43	4.67	0.31							
	79C	EX 79	0.00		0.00	0.39	5.00	7.27	2.84	330.25	329.54	95.54	0.74%	12	3.08	4.45	0.36							
	196	195	0.87	0.38	0.76	0.76	5.00	7.27	1.98	327.88	327.45	44.08	0.98%	18	9.39	4.66	0.18							
	195	95	0.13	0.85	0.11	0.87	5.00	7.27	6.70	326.70	326.00	78.31	0.89%	27	29.36	4.61	0.28							
	95	94	0.84	0.85	0.03	0.41	5.00	7.27	2.95	325.75	325.00	100.54	0.75%	27	25.82	4.43	0.38							
	94	93	0.00	0.85	0.00	0.41	5.00	7.27	2.95	324.75	324.25	68.12	0.73%	27	23.66	4.87	0.28							
	93	92	0.00	0.85	0.00	0.41	5.00	7.27	2.95	324.18	323.75	67.69	0.63%	27	22.33	3.89	0.29							
	CR1	CR6	0.10	0.85	0.15	0.15	5.00	7.27	1.11	329.51	328.11	146.00	1.88%	18	2.68	4.58	0.59							
	CR2	CR6	0.06	0.60	0.04	0.04	5.00	7.27	0.27	329.62	328.11	156.67	1.89%	6	0.67	3.51	0.78							
	CR3	CR5	0.18	0.85	0.15	0.15	5.00	7.27	1.11	329.73	328.50	136.88	0.90%	6	1.36	4.34	0.53							
	CR5	CR6			0.00	0.15	5.00	7.27	1.11	328.50	328.11	39.00	1.00%	6	1.43	4.53	0.14							
	CR6	91B			0.00	0.30	5.00	7.27	2.22	328.11	327.96	15.36	0.98%	18	2.57	5.31	0.07							
	CR4	91B	0.26	0.85	0.17	0.17	5.00	7.27	1.24	329.48	327.96	149.86	1.02%	6	1.43	4.62	0.54							
	91B	91A			0.00	0.48	5.00	7.27	3.46	327.96	326.58	84.56	1.64%	12	4.60	5.43	0.26							
	91A	92A	0.00	0.00	0.00	1.61	5.00	7.27	7.31	326.25	325.58	34.87	2.15%	15	9.50	8.54	0.07							
	92A	92	0.32	0.85	0.27	1.28	5.00	7.27	9.29	325.25	323.99	51.17	2.64%	24	36.84	9.77	0.09							
	92	EX 90	0.00	0.85	0.00	1.68	5.00	7.27	12.24	323.50	322.43	153.24	0.70%	27	25.55	4.43	0.49							
	BLBG J2	95	0.13	0.90	0.12	0.12	5.00	7.27	0.86	337.00	333.00	144.60	2.77%	6	0.94	5.41	0.45							
	BLBG J3	EX 91	0.07	0.90	0.07	0.07	5.00	7.27	0.48	334.00	333.00	84.62	1.18%	6	0.61	3.45	0.41							
	BLBG J4	EX 91	0.14	0.90	0.13	0.13	5.00	7.27	0.92	331.00	326.00	179.00	2.80%	6	0.94	5.47	0.54							
	BLBG J5	EX 91	0.07	0.90	0.06	0.06	5.00	7.27	0.43	328.00	327.80	59.67	1.68%	6	0.73	3.87	0.26							
	BLBG J6	EX 88	0.09	0.90	0.08	0.08	5.00	7.27	0.59	327.00	327.80	152.49	1.63%	6	0.72	4.09	0.59							
	BLBG J7	EX 88	0.17	0.90	0.15	0.15	5.00	7.27	0.72	330.00	329.60	114.22	1.75%	6	0.74	4.32	0.44							
	BLBG J8	EX 78	0.07	0.90	0.06	0.06	5.00	7.27	0.46	330.50	329.50	71.96	1.39%	6	0.66	3.64	0.33							
	BLBG J9	EX 79	0.07	0.90	0.06	0.06	5.00	7.27	0.46	330.00	331.21	87.00	0.93%	6	0.54	3.97	0.47							

INLET COMPUTATIONS

INLET NUMBER	INLET TYPE	LENGTH	STATION	BRANCH AREA	C	C x AC	x A	I	INTENSITY	Q INLET	Q CARRY OVER	Q TOTAL	S GUTTER	Sx CROSS SLOPE	T SPREAD	V	W/T	Sw	Sw/Sx	Eo	a	S'e	Se	Lt	P EFFECTIVE LENGTH	L/Lt	d	E	h	Q INT	d/H	Qb CARRY OVER	T SPREAD AT SAG	REMARKS
90A	BI-3B	18.0		0.32	0.85	0.27	0.27	7.27	1.98	0.00	1.98	0.0098	0.0205	2.81	2.00	1.00		0.0833	3.69	1.00	3.46	0.14	0.17	9.95		1.00		1.00		1.98		0.00		
EX 90	BI-3B	14.0		0.79	0.85	0.56	0.56	7.27	3.65	0.00	3.65	0.0125	0.0205	2.81	2.00	1.00		0.0833	4.68	1.00	3.56	0.15	0.17	18.10		1.79		1.00		3.65		0.00		
EX 91	BI-3B	6.0		0.13	0.85	0.11	0.11	7.27	0.80	0.00	0.80	0.0125	0.0205	2.81	2.00	1.00		0.0833	4.68	1.00	3.56	0.15	0.17	5.35		1.12		1.00		0.80		0.00		
95	BI-3B	6.0		0.04	0.85	0.03	0.03	4.00	0.14	0.00	0.14	0.0205	0.0208	1.37	2.00	1.71		0.0833	4.00	1.00	3.50	0.15	0.17	3.83		1.98		1.00		0.14		0.00		
97	BI-3B	6.0		0.09	0.85	0.08	0.08	4.00	0.31	0.05	0.36	0.0208	0.0208	1.84	2.00	1.68		0.0833	4.00	1.00	3.56	0.15	0.17	3.92		1.53		1.00		0.36		0.00		
99	BI-3B	2.5		0.09	0.90	0.08	0.08	4.00	0.32	0.00	0.32	0.0138	0.0208	1.78	2.00	1.12		0.0833	4.00	1.00	3.56	0.15	0.17	3.77		0.86	0.86	1.00		0.270		0.05		
80D	BI-3B	4		0.08	0.85	0.07	0.07	4.00	0.27	0.00	0.27	0.0208	0.0208	2.81	2.00	1.00		0.0833	4.00	1.00	3.56	0.15	0.17	1.96		2.04		1.00		0.27		0.00		
80B	BI-3B	4		0.09	0.85	0.08	0.08	4.00	0.31	0.00	0.31	0.0090	0.0011	1.64	2.00	1.20		0.0833	75.73	1.00	3.97	0.17	0.17	4.25		1.48		1.00		0.31		0.00		
80	BI-3B	5		0.02	0.90	0.02	0.02	4.00	0.07	0.00	0.07	0.0090	0.0231	0.95	2.00	2.10		0.0833	2.52	1.00	3.20	0.13	0.17	2.20		2.72		1.00		0.07		0.00		
103	BI-3B	14		0.29	0.75	0.22	0.22	4.00	0.82	0.00	0.82	0.0057	0.0270	2.81	2.00	1.00		0.0833	2.25	1.00	3.11	0.13	0.17	8.14		1.72		1.00		0.82		0.00		
109	BI-3B	18		0.46	0.75	0.35	0.35	4.00	1.26		1.26	0.0049	0.0208	2.81	2.00	1.00		0.0833	4.00	1.00	3.50	0.15	0.17	6.95		1.44		1.00		1.26		0.00		
105	BI-3B	8		0.13	0.85	0.11	0.11	4.00	0.44	0.00	0.44	0.0208	0.0208	1.82	2.00	1.10		0.0833	4.00	1.00	3.50	0.15	0.17	4.99		1.60		1.00		0.44		0.00		
111	BI-3C	16		0.59	0.90	0.69	0.69	5.56	3.99	0.00	3.99	0.0208	0.0208	2.81	2.00			0.0833	4.00							19.60	0.13		0.46		0.28		6.26	
186	YI-1	16		0.29	0.85	0.24	0.24	6.56	1.55	0.00	1.55			2.81																			4 THTS.
				0.87	0.30	0.26	0.26	7.27	1.90	0.00	1.90															S/L = 0.119		h = 0.5		H/h = 0.269		H = 9.135			

Application No: RZ / FDP 2009-HM-017 Staff: WO'D

APPROVED DEVELOPMENT PLAN

(_GDP) (XCDP) (XDP) (_PRC) (_PP) (_FP) (_SE) (_CSP) (_SP) (_VC)

SEE PROFFERS DATED: Jul 25, 2014

SEE CONDITIONS DATED:

Date of Final Approval: Jul 29, 2014 (XBOS) (_PC) (_BZA)

Comments: CDP/Devel. Condns. Dated 4/30/2014

DEPARTMENT OF PLANNING & ZONING

Sheet 34 of 76

DENOTES AS-BUILT INFORMATION BY URBAN ENGINEERING & ASSOCIATES, INC.

COMMONWEALTH OF VIRGINIA — ROBERT M. FINGER — Lic. No. 1977 — 11-21-09 — LAND SURVEYOR

THIS SHEET IS FOR INFORMATIONAL PURPOSES ONLY!

CULVERT DESIGN FORM

PROJECT : DULLES STATIO – BUILDING J

PROPOSED 24" RCP

STATION :

DESIGNER : RTC

HYDROLOGICAL DATA

METHOD : RATIONAL

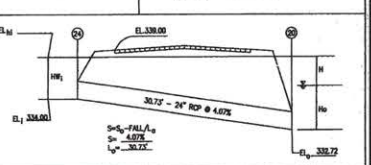
☐ DRAINAGE AREA : 4.35 AC ☐ STREAM SLOPE : —

☐ CHANNEL SHAPE : —

☐ ROUTING : — ☐ OTHER : —

DESIGN FLOWS/TAILWATER

R.I. (YEARS)	FLOW (cfs)	TW (ft)
Q10	9.49	—



CULVERT DESCRIPTION	TOTAL FLOW	FLOW PER BARREL	HEADWATER CALCULATIONS													
			INLET CONTROL					OUTLET CONTROL						CONVEYANCE ELEVATION	OUTLET VELOCITY	COMMENTS
MATERIAL–SHAPE–SIZE–ENTRANCE	Q (cfs)	Q / N (1)	HW / D (2)	HW_1	FALL (3)	El_{hl} (4)	TW (5)	t_c	$d_{cr}/2$ (6)	h_f (6)	k_e	H (7)	El_{ho} (8)			
STRUCTURE 107–24"RCP	9.49	9.49	0.85	1.7	0.00	335.7								335.7		

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

dcs DESIGN — DAVIS CARTER SCOTT

ROCKS — Issued for Construction — 11/26/2013 — REAL ESTATE DEVELOPERS SINCE 1956

No.	DATE	DESCRIPTION
2	11/26/13	ADD STORM PIPE CAP TO 24" RCP
1	09/09/13	ADD PUBLIC ROAD DEDICATION

PLAN DATE: 08-11-05, 09-29-06, 07-26-07

URBAN ENGINEERING & ASSOC., INC.
CIVIL ENGINEERS • LANDSCAPE ARCHITECTS • LAND SURVEYORS
10521 JUDICIAL DRIVE, SUITE 201, FAIRFAX, VIRGINIA 22030 (703) 691-3000
ARLINGTON, VIRGINIA

STORM DRAIN COMPUTATIONS
DULLES STATION AT DULLES CORNER
BUILDING J
HUNTER MILL DIST. JCT.
FAIRFAX COUNTY, VIRGINIA

SITE AS-BUILT

DATE: AUGUST, 2005

SCALE: N/A

C.L. N/A

SHEET 10A OF 35

FILE No. AB-1158-6

INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE

Conceptual/Final Development Plan

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA — JOHN WILLIAM EWING — Lic. No. 8053 — 3/27/14 — PROFESSIONAL ENGINEER

KEY PLAN

COMMONWEALTH OF VIRGINIA — CODY A. PENNETT — Lic. No. 040960 — PROFESSIONAL ENGINEER

SCALE

NTS

No.	DATE	BY	Description
5	3/27/14		
4	2/21/14		
3	1/3/14		
2	11/22/13	LNM	
1	9/9/13		

REVISIONS

DRAWN BY

APPROVED BY

CHECKED BY

DATE

TITLE

OUTFALL 2 APPROVED CALCULATIONS

PROJECT NO.

C-29

R01.134

SHEET NO.

SECTION NO. M-10831 R01-ZONING

FOR INFORMATION ONLY

HYDRAULIC GRADE LINE COMPUTATIONS

INLET STATION (1)	UPSTREAM INLET	Outlet Water Surface Elev. (2)	Do In (3)	Qo cfs (4)	Lo ft (5)	SFo % (6)	HF ft (7)	JUNCTION LOSS Vo (8)	Ho (9)	@ (10)	VI (11)	2ND (12)	VI²/2g	HI (13)	Angle (14)	Hd (15)	Ht (16)	1.3 x Ht (17)	0.5 x Ht (18)	FINAL H (19)	Inlet Water Surface Elev. (20)	RIM ELEV. (21)
																				Starting Elevation		321.52	
EX 81A		311.52	54	191.99	24.85	0.95	0.23	12.87	0.57					0.67		1.24	2.58	0.00	1.29	1.52	313.04	324.50
EX 81			21							11.68	4.86	56.75	0.37	0.13	66	0.21						
	EX 82		15							1.24	1.01	1.25	0.02	0.01	9	0.00						
	EX 93		54							176.96	11.19	1969.03	1.92	0.67	89	1.24						
	EX 86		54											0.64		0.00	1.12	0.00	0.56	2.25	321.35	328.33
EX 86		319.10	54	176.96	218.30	0.81	1.69	11.13	0.48													
	EX 86A		54							172.45	10.84	1869.84	1.83	0.67	0	0.89						
EX 86A		321.25	54	172.45	56.30	0.76	0.43	10.84	0.46					0.67		0.89	1.82	0.00	0.91	1.34	322.70	329.18
	EX 89		27							24.00	6.04	144.89	0.57	0.20	41	0.25						
	EX 86B		54							148.45	9.33	1385.57	1.35	0.47	80	0.89						
EX 86B		322.70	54	148.45	76.55	0.57	0.43	9.33	0.34					0.47		0.18	1.08	0.00	0.58	0.93	323.63	330.08
	EX 43		54							148.45	9.33	1385.57	1.35		18							
EX 43		323.63	54.00	148.45	31.96	0.57	0.18	9.33	0.34					0.47		0.00	0.81	1.05	0.53	0.71	324.34	330.67
	EX 44		54.00							148.00	9.31	1378.79	1.35	0.47	0.00	0.00						
	EX 88		15.00							0.36	0.30	0.11	0.00	0.00	75.37	0.00						
EX 88		324.34	15.00	0.36	41.34	0.00	0.00	0.30	0.00					0.00		0.00	0.00	0.00	0.00	0.00	324.34	330.87
	0									0.36	0.00	0.00	0.00		0.00							
EX 44		324.34	54.00	148.08	73.58	0.56	0.42	9.31	0.34					0.45		0.61	1.49	0.00	0.70	1.11	325.45	331.46
	EX 44A		15.00							3.09	2.52	7.78	0.10	0.03	70.23	0.06						
	EX 45		54.00							144.99	9.12	1321.85	1.29	0.45	50.32	0.61						
EX 45		325.45	54.00	144.99	43.66	0.54	0.24	9.12	0.32					0.41		0.56	1.38	1.69	0.84	1.08	326.53	331.20
	EX 46		54.00							138.92	8.73	1213.35	1.18	0.41	56.32	0.56						
	BLDG 16		10.00							2.30	6.05	13.94	0.57	0.20	5.32	0.02						
EX 46		326.53	54.00	138.92	174.90	0.50	0.87	8.73	0.30					0.30		0.19	0.79	1.03	0.51	1.30	327.91	332.98
	EX 76		42.00							48.47	4.21	178.22	0.27	0.10	90.00	0.19						
	EX 47		48.00							93.67	7.45	698.17	0.86	0.30	0.00	0.00						
	EX 46A		18.00							4.78	2.70	12.93	0.11	0.04	71.29	0.07						
EX 76		327.91	42	48.47	107.11	0.16	0.17	4.21	0.07					0.21		0.06	0.34	0.00	0.17	0.34	328.25	332.80
	EX 77		15							2.83	2.31	6.53	0.00	0.03	86	0.06						
	EX 78		33							37.31	6.28	234.36	0.61	0.21	0	0.00						
EX 77		328.25	15	2.83	59.75	0.19	0.11	2.31	0.02					0.00		0.00	0.02	0.00	0.01	0.12	328.38	333.74
	0									2.83	0.00	0.00	0.00		0							
EX 78		328.25	33	37.31	38.47	0.58	0.19	6.28	0.15					0.20		0.00	0.36	0.00	0.18	0.37	328.62	334.00
	EX 79		33							36.30	6.11	221.79	0.58		0							
EX 79		328.62	33	36.30	75.45	0.47	0.35	6.11	0.14					0.17		0.33	0.64	0.00	0.32	0.67	329.29	334.36
	EX 102		33							32.98	5.54	182.28	0.48		86							
EX 102		329.40	33	32.98	14.86	0.38	0.05	5.54	0.12					0.17		0.33	0.62	0.00	0.31	0.36	329.76	334.29
	EX 101		33							32.98	5.54	182.28	0.48	0.17	98	0.23						
	EX 79A		15							3.68	2.93	10.53	0.13	0.05	0	0.00						
EX 79A		330.46	15	3.68	67.12	0.31	0.08	2.93	0.03					0.09		0.00	0.03	0.00	0.02	0.18	330.56	335.50
	0									3.68	0.00	0.00	0.00		0							
EX 101		329.76	33	32.98	72.53	0.38	0.28	5.54	0.12					0.17		0.26	0.55	0.00	0.27	0.55	330.32	335.00
	EX 103		33							32.98	5.54	182.28	0.48		60							
EX 103		330.65	33	32.98	16.38	0.38	0.06	5.54	0.12					0.17		0.19	0.42	0.00	0.21	0.27	330.92	334.80
	GAR J		18							3.31	4.68	13.99	0.34	0.09	38	0.07						
	EX 99A		33							27.23	4.67	179.44	0.34	0.12	68	0.19						
EX 99A		331.09	33	27.73	195.68	0.27	0.37	4.67	0.00					0.05		0.18	0.23	0.00	0.12	0.49	331.58	337.16
	86B		33							5.29	0.89	4.71	0.01	0.00	0	0.00						
	97		15							1.15	0.93	1.07	0.01	0.00	90	0.01						
	112		36							21.29	3.91	64.15	0.14	0.05	90	0.18						
112		332.80	36	21.29	61.26	0.10	0.06	3.91	0.04					0.05		0.11	0.20	0.00	0.10	0.16	332.96	337.56
	199		24							2.51	0.80	2.20	0.01	0.00	90	0.01						
	111		33							18.79	3.16	59.42	0.16	0.05	90	0.11						
	110		27							0.00	0.00	0.00	0.00	0.00	11	0.00						
97		332.65	15	1.15	43.00	0.02	0.01	0.93	0.00					0.00		0.00	0.00	0.00	0.00	0.02	332.67	338.14
	99		15							0.59	0.48	0.28	0.00		8							
99		334.00	15	0.59	83.87	0.01	0.01	0.48	0.00					0.00		0.00	0.00	0.00	0.00	0.01	334.01	339.38
	100		12							0.00	0.00	0.00	0.00		25							
110		333.00	27	0.00	41.25	0.00	0.00	0.00	0.00					0.00		0.00	0.00	0.00	0.00	0.00	333.00	338.83
	0									0.00	0.00	0.00	0.00		0							
199		333.85	24	2.51	43.00	0.01	0.01	0.00	0.00					0.00		0.00	0.00	0.00	0.00	0.01	333.86	338.12
	0									2.51	0.00	0.00	0.00		0							
107		334.35	24	9.49	38.74	0.17	0.05	3.62	0.04					0.00		0.00	0.04	0.05	0.02	0.00	334.43	337.00
	0									9.49	0.00	0.00	0.00		0							
88D		332.66	33	5.29	61.09	0.01	0.01	0.89	0.00					0.01		0.00	0.02	0.02	0.01	0.02	332.68	337.27
	88C		24							4.79	1.53	7.32	0.04		0							
88C		333.20	24	4.79	67.46	0.04	0.03	1.53	0.01					0.11		0.21	0.33	0.00	0.16	0.19	333.39	337.91
	GAR H		18							3.47	4.42	15.31	0.30	0.11	90	0.21						
	88B		15							1.23	1.08	1.43	0.02	0.01	0	0.00						
GAR H		333.69	18	3.47	7.33	0.94	0.07	4.42	0.00					0.00		0.00	0.00	0.10	0.05	0.12	333.81	
	0									3.47	0.00	0.00	0.00		0							
88B		333.75	15	1.33	22.23	0.04	0.01	1.08	0.00					0.00		0.00	0.01	0.01	0.00	0.01	333.76	338.67
	88		15							0.77	0.63	0.48	0.01		6							
88		334.25	15	0.77	98.64	0.01	0.01	0.63	0.00					0.00		0.00	0.00	0.00	0.00	0.01	334.26	340.39
	0									0.77	0.00	0.00	0.00		0							
EX 89		320.78	27	24.00	40.40	0.60	0.24	6.04	0.14					0.20		0.30	0.64	0.00	0.32	0.56	323.26	330.00
	EX 90		27							24.00	6.04	144.89	0.57		58							
EX 90		323.26	27	24.00	95.60	0.60	0.57	6.04	0.14					0.05		0.04	0.23	0.00	0.12	0.69	323.95	331.28
	EX 91		27							8.32	2.04	16.57	0.06	0.02	77	0.04						
	92		27							12.24	3.08	37.67	0.15	0.05	15	0.01						
92		324.23	27	12.24	153.24	0.16	0.24	3.08	0.04					0.05		0.10	0.18	0.00	0.09	0.33	324.56	334.44
	92A		24							9.29	2.96	27.48	0.14	0.05	90	0.10						
	93		27							2.95	0.74	2.19	0.01	0.00	0	0.00						
93		325.55	27	2.95	67.69	0.01	0.01	0.74	0.00					0.00		0.00	0.01	0.00	0.00	0.01	325.56	336.32
	94		27							2.95	0.74	2.19	0.01		7							
94		326.15	27	2.95	68.12	0.01	0.01	0.74	0.00					0.00		0.01	0.01	0.00	0.01	0.01	326.16	338.00
	95		27							2.95	0.74	2.19	0.01		90							
95A		325.50	27	9.29	51.17	0.17	0.09	2.96	0.03					0.19		0.35	0.57	0.00	0.29	0.37	325.87	334.93
	91A		15							7.31	5.96	43.59	0.55		74							
91A		326.50	15	7.31	34.87	1.27	0.44	5.96	0.14					0.19		0.44	0.80	0.00	0.22	0.66	327.16	336.95
	91B		12							3.46	4.41	15.25	0.30		77							
95		326.80	27	2.95	160.54	0.01	0.01	0.74	0.00					0.00		0.00	0.01	0.00	0.00	0.01	326.81	338.30
	195		27							2.70	0.68	1.83	0.01		78							
195		327.80	27	2.70	78.31	0.01	0.01	0.68	0.00					0.01		0.00	0.01	0.01	0.01	0.01	327.81	338.40
	196		18							1.98	1.87	2.84	0.02		16							
196		328.65	18	1.98	44.81	0.03	0.01	1.87	0.00					0.00		0.00	0.00	0.01	0.00	0.02	328.67	337.85
	0									1.98	0.00	0.00	0.00		0							
111		333.78	33	18.79	61.50	0.13	0.08	3.16	0.04					0.05		0.00	0.17	0.00	0.08	0.16	333.86	337.26
	197		24							9.49	3.62	28.65	0.14	0.05	63	0.00						
	113		24							6.95	2.21	15.38	0.08	0.03	0	0.00						
113		334.35	24	6.95	182.26	0.09	0.17	2.21	0.02					0.00		0.00	0.02	0.00	0.01	0.18	334.53	338.35
	0									6.95	0.00	0.00	0.00		0							

RECD
11 26 20
TFR C

Application No: RZ / FDP 2009-HM-017 Staff: WO'D

APPROVED DEVELOPMENT PLAN
(_GDP) (X CDP) (X DP) (_PRC) (_DP) (_SP) (_SE) (_CSP) (_SP) (_VC)
SEE PROFFERS DATED: Jul 29, 2014
SEE CONDITIONS DATED:
Date of Final Approval: Jul 29, 2014 (X BOS) (_PC) (_BZA)
Comments: COP Devel. Cond's. Dated 4/30/2014
& ZONING Sheet 35 of 76

DENOTES AS-BUILT INFORMATION BY URBAN ENGINEERING & ASSOCIATES, INC.

COMMONWEALTH OF VIRGINIA
ROBERT M. FENCIK
Lic. No. 1877
11-12-20
LAND SURVEYOR

THIS SHEET IS FOR INFORMATIONAL PURPOSES ONLY!

FOR INFORMATION ONLY

No.	DATE	DESCRIPTION
1	11/26/20	REVISED STORM PIPE SIZE FROM 54IN TO 60IN
2	12/22/20	REVISED STORM PIPE SIZE FROM 60IN TO 66IN

PLAN DATES
08-26-13
12-20-13
1-14-14
01-22-27

URBAN ENGINEERING & ASSOC., INC.
CIVIL ENGINEERS • LANDSCAPE ARCHITECTS • LAND SURVEYORS
7712 LITTLE RIVER TURNPIKE
ANNANDALE, VIRGINIA 22003 (703) 642-0800

STORM DRAIN COMPUTATIONS
DULLES STATION AT DULLES CORNER
BUILDING J
HUNTER MILL DISTRICT
FAIRFAX COUNTY, VIRGINIA
SITE AS-BUILT
DATE: AUGUST, 2015
SCALE: N/A C.I. N/A

SHEET 10B OF 35
FILE No. AB-1158-6

Dewberry
Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

dcs DAVIS CARTER SCOTT ltd DESIGN

ROCKS ENGINEERING
Issued For Construction
Expiration Date: 11/30/2016
REAL ESTATE DEVELOPMENT CONSULTANTS

INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE
Conceptual/Final Development Plan
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL
COMMONWEALTH OF VIRGINIA
CUONG WILLIAM EMINGS
Lic. No. 8053
3/27/2014
PROFESSIONAL ENGINEER

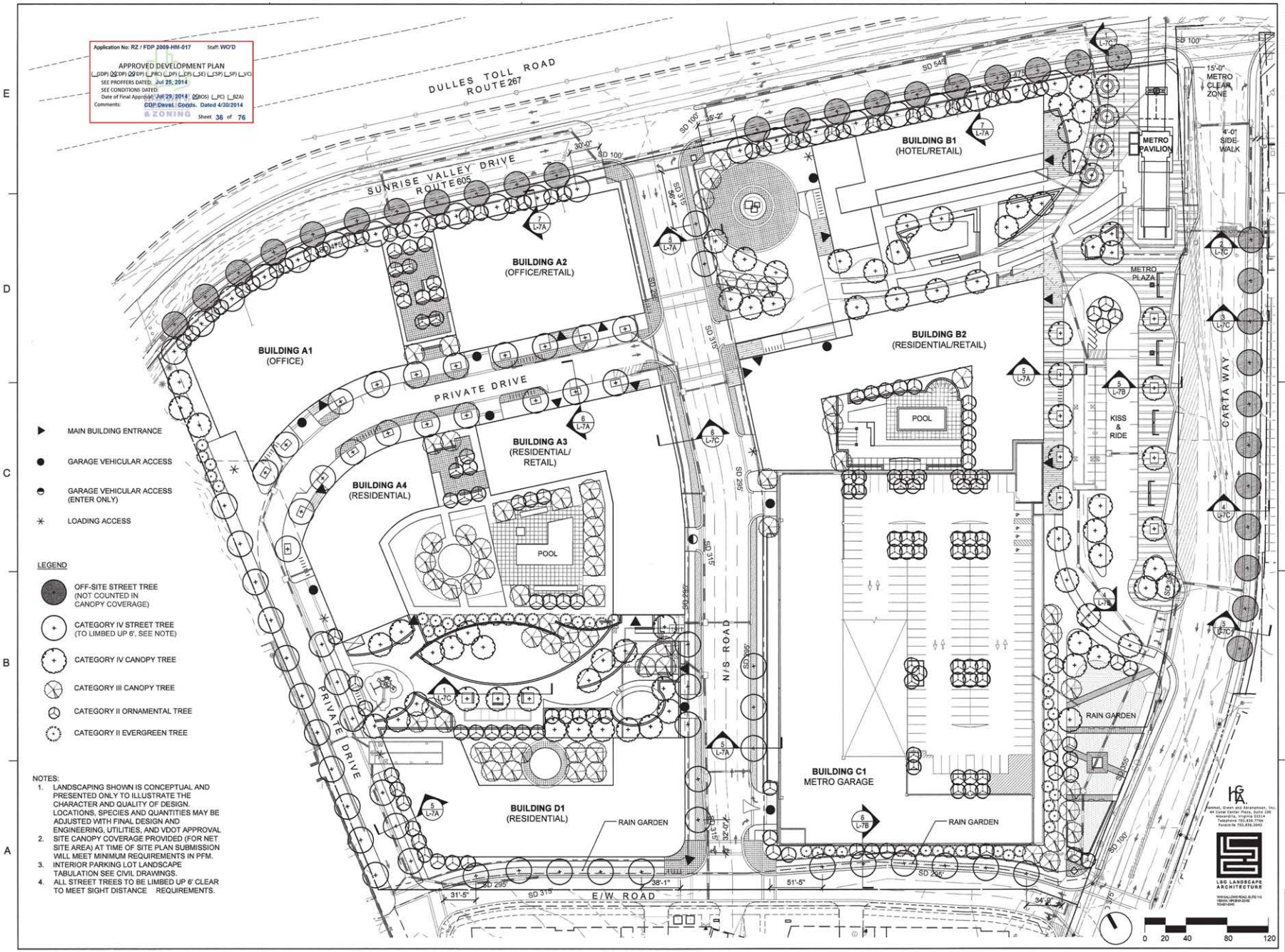
KEY PLAN
COMMONWEALTH OF VIRGINIA
CODY A. PENNETT
Lic. No. 048960
PROFESSIONAL ENGINEER

SCALE
NTS

No.	DATE	BY	Description
5	3/27/14		
4	2/21/14		
3	1/3/14		
2	11/22/13	LNM	
1	9/9/13		

REVISIONS
DRAWN BY
APPROVED BY
CHECKED BY
DATE
TITLE
OUTFALL 2 APPROVED CALCULATIONS

PROJECT NO.
C-30
R01.135
SHEET NO.
SECTION NO. M-1083 R01-ZONING



Dewberry
Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518
DAVIS CARTER SCOTT Ltd.
DESIGN

ROCKS ENGINEERING
Issued For Construction
REAL ESTATE DEVELOPMENT SINCE 1988

INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE
Conceptual/Final Development Plan
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL
COMMONWEALTH OF VIRGINIA
ROBERT K. ESSELBURN
Lic. No. 001067
LANDSCAPE ARCHITECT
4-21-14

KEY PLAN
COMMONWEALTH OF VIRGINIA
CODY A. PENNETTI
Lic. No. 048560
PROFESSIONAL ENGINEER
4-25-14

SCALE 1"=40'-0"

No.	DATE	BY	Description
6	04.21.14		CDP
5	03.27.14		CDP
4	02.21.14		CDP
3	01.03.14		CDP
2	11.22.13		CDP
1	9.09.13		CDP

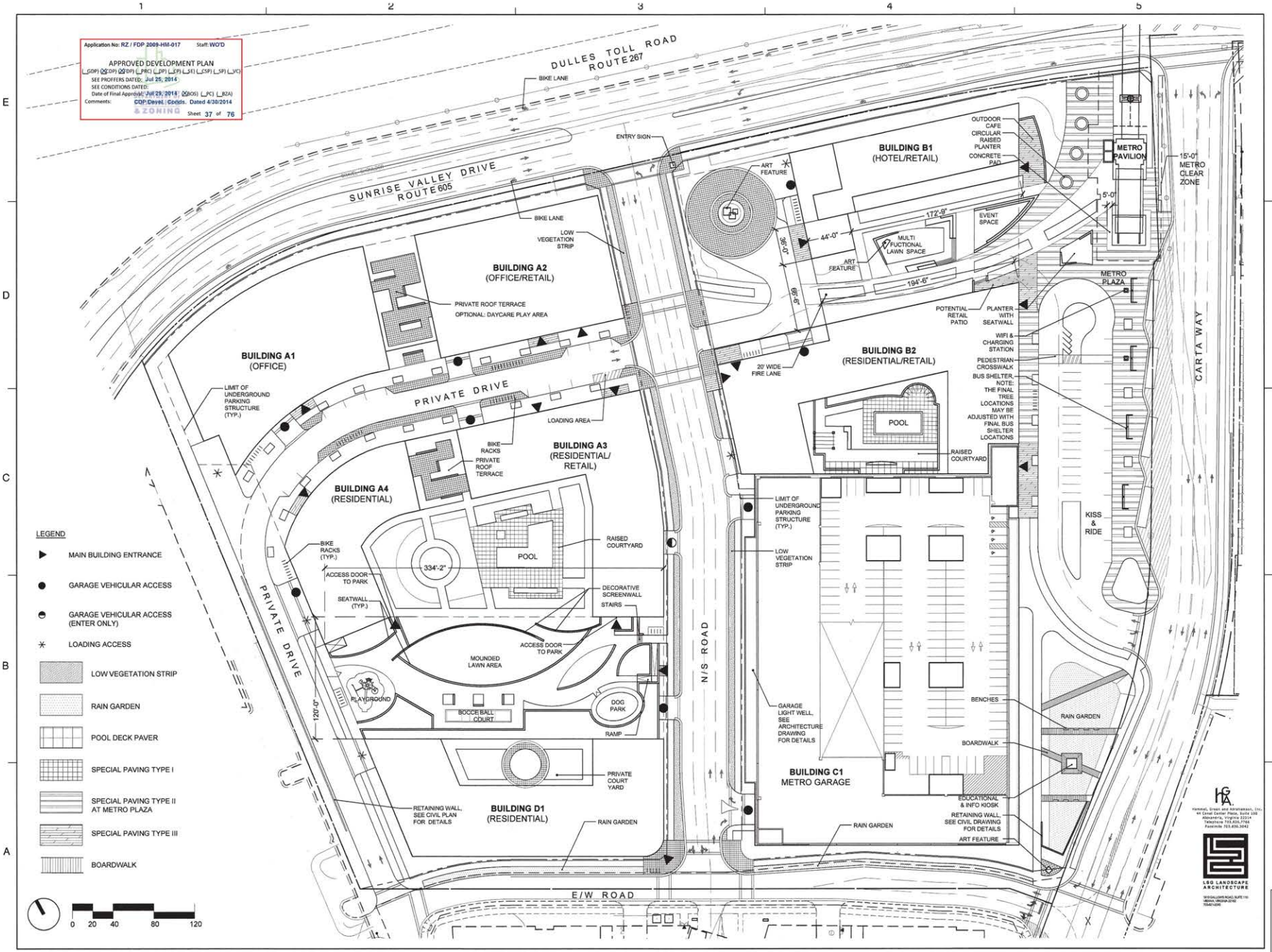
REVISIONS

DRAWN BY BC
APPROVED BY SC
CHECKED BY BE
DATE 09.06.2013

TITLE
OVERALL LANDSCAPE PLAN

PROJECT NO. 13046.00

R01.136
SHEET NO. L-1
SECTION NO. M-1083 R01-ZONING



Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

dcs DAVIS CARTER SCOTT ltd DESIGN

ROCKS
REAL ESTATE DEVELOPERS SINCE 1958

Issued For Construction

INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE
Conceptual/Final Development Plan
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL
ROBERT K. EGGELBURG
Lic. No. 001087
5-21-14
COMMONWEALTH OF VIRGINIA
LANDSCAPE ARCHITECT

KEY PLAN
CODY A. PENNETT
Lic. No. 043960
5-21-14
COMMONWEALTH OF VIRGINIA
PROFESSIONAL ENGINEER

SCALE 1"=40'-0"

No.	DATE	BY	Description
6	04.21.14		CDP
5	03.27.14		CDP
4	02.21.14		CDP
3	01.03.14		CDP
2	11.22.13		CDP
1	9.09.13		CDP

REVISIONS

DRAWN BY BC
APPROVED BY SC
CHECKED BY BE
DATE 09.06.2013

TITLE

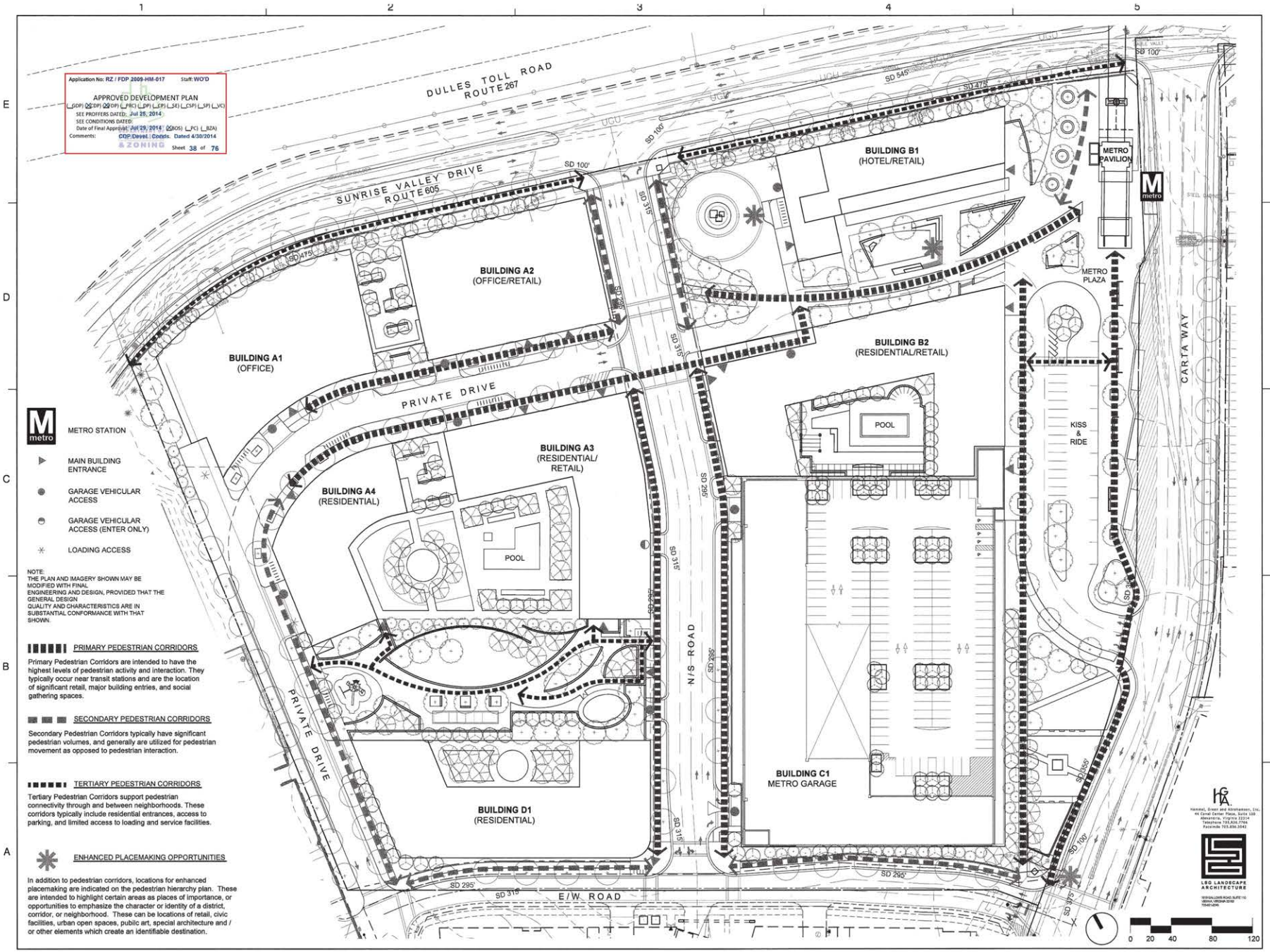
HARDSCAPE PLAN

PROJECT NO. 13046.00

R01.137
SHEET NO.
SECTION NO. R01-ZONING

Hanbal, Green and Associates, Inc.
44 Canal Center Plaza, Suite 100
Alexandria, Virginia 22314
Telephone 703.836.7743
Facsimile 703.836.7652

LSG LANDSCAPE ARCHITECTURE



Application No: RZ / FDP 2009-HM-017 Staff: WO'D

APPROVED DEVELOPMENT PLAN

(_GDP) (X CDP) (X DP) (_PRC) (_PP) (_PA) (_SE) (_CSP) (_SP) (_VC)

SEE PROFFERS DATED: Jul 25, 2014

SEE CONDITIONS DATED:

Date of Final Approval: Jul 29, 2014 (X BOS) (_PC) (_BZA)

Comments: CDP/Devel. Cond's. Dated 4/30/2014

&ZONING

Sheet 38 of 76

- METRO STATION
- MAIN BUILDING ENTRANCE
- GARAGE VEHICULAR ACCESS
- GARAGE VEHICULAR ACCESS (ENTER ONLY)
- LOADING ACCESS

NOTE:
THE PLAN AND IMAGERY SHOWN MAY BE MODIFIED WITH FINAL ENGINEERING AND DESIGN, PROVIDED THAT THE GENERAL DESIGN QUALITY AND CHARACTERISTICS ARE IN SUBSTANTIAL CONFORMANCE WITH THAT SHOWN.

PRIMARY PEDESTRIAN CORRIDORS

Primary Pedestrian Corridors are intended to have the highest levels of pedestrian activity and interaction. They typically occur near transit stations and are the location of significant retail, major building entries, and social gathering spaces.

SECONDARY PEDESTRIAN CORRIDORS

Secondary Pedestrian Corridors typically have significant pedestrian volumes, and generally are utilized for pedestrian movement as opposed to pedestrian interaction.

TERTIARY PEDESTRIAN CORRIDORS

Tertiary Pedestrian Corridors support pedestrian connectivity through and between neighborhoods. These corridors typically include residential entrances, access to parking, and limited access to loading and service facilities.

ENHANCED PLACEMAKING OPPORTUNITIES

In addition to pedestrian corridors, locations for enhanced placemaking are indicated on the pedestrian hierarchy plan. These are intended to highlight certain areas as places of importance, or opportunities to emphasize the character or identity of a district, corridor, or neighborhood. These can be locations of retail, civic facilities, urban open spaces, public art, special architecture and / or other elements which create an identifiable destination.

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

dcs DESIGN
DAVIS CARTER SCOTT LTD

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ENGINEERING AND SURVEY
REAL ESTATE DEVELOPERS SINCE 1958

Issued For Construction

INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE

Conceptual/Final Development Plan

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
ROBERT K. ESSELBURN
Lic. No. 001087
LANDSCAPE ARCHITECT
4-21-14

KEY PLAN

COMMONWEALTH OF VIRGINIA
CODY A. PENNETT
Lic. No. 048960
PROFESSIONAL ENGINEER
4-21-14

SCALE 1"=40'-0"

No.	DATE	BY	Description
6	04.21.14		CDP
5	03.27.14		CDP
4	02.21.14		CDP
3	01.03.14		CDP
2	11.22.13		CDP
1	9.09.13		CDP

REVISIONS

DRAWN BY	BC
APPROVED BY	SC
CHECKED BY	BE
DATE	09.06.2013

TITLE

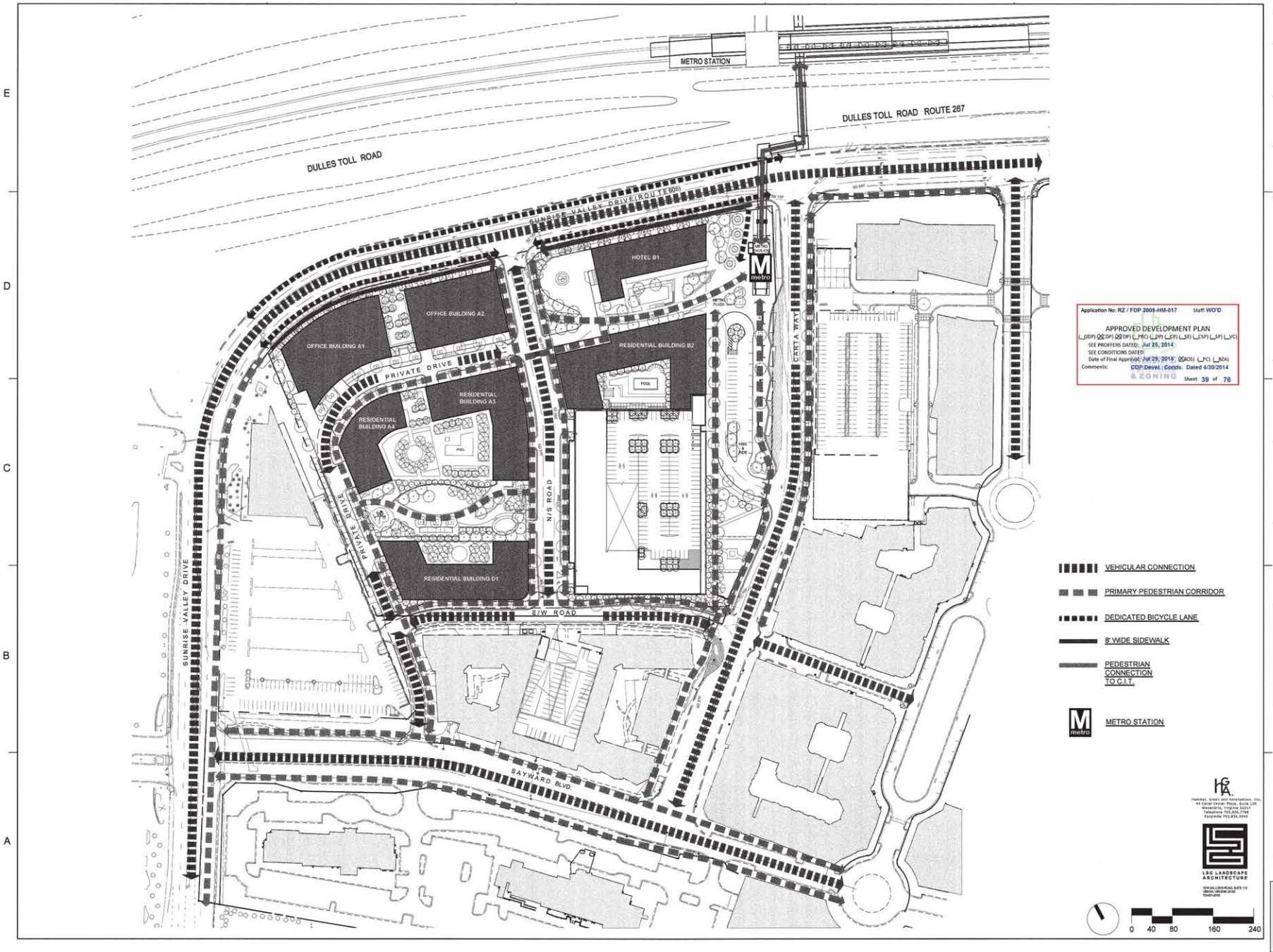
PEDESTRIAN CIRCULATION PLAN

PROJECT NO. 13046.00

R01.138

SHEET NO. L-3

SECTION NO. M-1083 R01-ZONING



Application No: RZ / FDP 2009-HM-017 Staff: WO'D

APPROVED DEVELOPMENT PLAN

(_GDP) (X)CDP) (X)DP) (_PRC) (_DPI) (_EPI) (_SE) (_CSP) (_SP) (_VC)

SEE PROFFERS DATED: Jul 25, 2014

SEE CONDITIONS DATED:

Date of Final Approval: Jul 29, 2014 (X)ROS) (_PC) (_BZA)

Comments: CDP/Devel. Condts. Dated 4/30/2014

ZONING Sheet 39 of 76

VEHICULAR CONNECTION

PRIMARY PEDESTRIAN CORRIDOR

DEDICATED BICYCLE LANE

8' WIDE SIDEWALK

PEDESTRIAN CONNECTION TO C.I.T.

METRO STATION

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Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

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INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE

Conceptual/Final Development Plan

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
ROBERT K. ESSELBURN
Reg. No. 001067
LANDSCAPE ARCHITECT

KEY PLAN

COMMONWEALTH OF VIRGINIA
CORY A. PERRETTE
Lic. No. 048960
PROFESSIONAL ENGINEER

SCALE 1"=40'-0"

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REVISIONS

DRAWN BY	BC
APPROVED BY	SC
CHECKED BY	BE
DATE	09.06.2013

TITLE

CONNECTIVITY PLAN

PROJECT NO. 13046.00

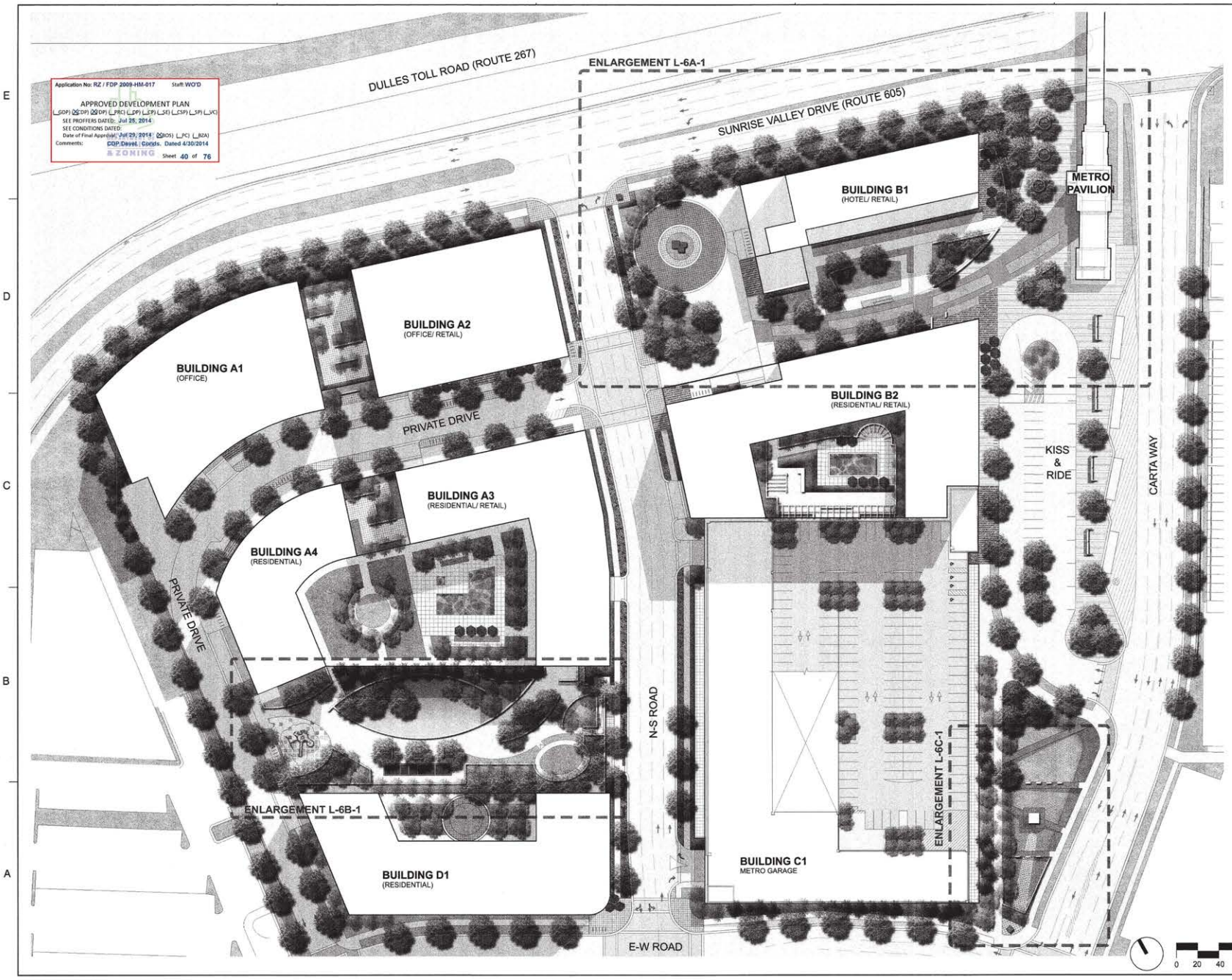
R01.139

SHEET NO. L-3A

SECTION NO. M-1083 R01-ZONING

Hanhart, Green and Abrahamson, Inc.
44 Canal Center Plaza, Suite 105
Alexandria, Virginia 22314
Telephone 703.836.2766
Facsimile 703.836.3043

LSG LANDSCAPE ARCHITECTURE



Application No: RZ / FDP 2009-HM-017 Staff: WO'D

APPROVED DEVELOPMENT PLAN
(_GDP) (⊠DP) (⊠DP) (_PRC) (_PP) (_PA) (_SE) (_CSP) (_SP) (_VC)
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ZONING Sheet 40 of 76

NOTES:

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2. FINAL PLANTING LOCATIONS ARE SUBJECT TO FINAL ENGINEERING, UTILITIES AND VDOT APPROVAL.

Hanmal, Green and Abrahamsen, Inc.
44 Canal Center Plaza, Suite 100
Alexandria, Virginia 22314
Telephone 703.836.7766
Facsimile 703.836.5042

LSG LANDSCAPE ARCHITECTURE

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

DAVIS CARTER SCOTT ltd
DESIGN

ROCKS
REAL ESTATE DEVELOPMENT CONSULTANTS
REAL ESTATE DEVELOPMENT SINCE 1898

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May 30, 2014

INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE

Conceptual/Final Development Plan
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL
COMMONWEALTH OF VIRGINIA
ROBERT K. ESSELBORN
Lic. No. 001087
LANDSCAPE ARCHITECT
5-21-14

KEY PLAN
COMMONWEALTH OF VIRGINIA
CODY A. PESNETTI
Lic. No. 048560
PROFESSIONAL ENGINEER
5-21-14

SCALE AS SHOWN

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1	9.09.13		CDP

REVISIONS

DRAWN BY BC
APPROVED BY SC
CHECKED BY BE
DATE 09.06.2013

TITLE

ILLUSTRATIVE SITE PLAN

PROJECT NO. 13046.00

R01.140
SHEET NO.

SECTION NO. M-1083 R01-ZONING

Application No: RZ / FDP 2009-HM-017 Staff: WO'D

APPROVED DEVELOPMENT PLAN
(_GDP) (X CDP) (X FDP) (_PRC) (_PP) (_CPP) (_SE) (_CSP) (_SP) (_VC)
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SEE CONDITIONS DATED:
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& ZONING
Sheet 41 of 76

DULLES TOLL ROAD (ROUTE 267)

SUNRISE VALLEY DRIVE (ROUTE 605)

SD 475

SD 545

PHASE 1 LIMIT

METRO PAVILION

20'-0"

M.W.A.A. STAGING AND STORAGE AREA

STAGING AND STORAGE AREA FOR SITE/UTILITY CONTRACTOR

STAGING AND STORAGE AREA FOR FAIRFAX COUNTY GARAGE

N-S ROAD

KISS & RIDE

CARTA WAY

BUILDING C1 METRO GARAGE

E-W ROAD

A. MOBILE RESTROOM
B. TEMPORARY SCORED CONCRETE PAVING
C. PICNIC LAWN AREA
D. FOOD TRUCK STATION
E. RETAIL CONTAINER 8' X 30' (5)
F. BENCHES & SEAT WALL
G. TEMPORARY FIELD FENCE (TYP.)
H. THREE RAIL FENCE (TYP.)
I. TEMPORARY EVERGREEN TREE BUFFER PLANTING (TYP.)
J. SEEDED LAWN (TYP.)

NOTES:
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0 20 40 80 120

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

DAVIS CARTER SCOTT Ltd
dcs DESIGN

ROCKS ENGINEERING COMPANY
REAL ESTATE DEVELOPMENT CONSULTANTS

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INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE

Conceptual/Final Development Plan

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
ROBERT K. ESSELBURN
Lic. No. 001087
4-21-14
LANDSCAPE ARCHITECT

KEY PLAN

CODY A. PENNETTI
Lic. No. 048560
4/21/14
COMMONWEALTH OF VIRGINIA
PROFESSIONAL ENGINEER

SCALE AS SHOWN

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1	9.09.13		CDP

REVISIONS

DRAWN BY BC
APPROVED BY SC
CHECKED BY BE
DATE 09.06.2013

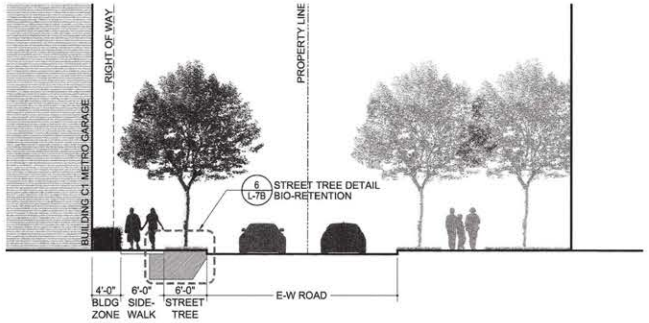
TITLE

PHASE 1 INTERIM IMPROVEMENT

PROJECT NO. 13046.00

R01.141
SHEET NO. L-4A

SECTION NO. M-1083 R01-ZONING



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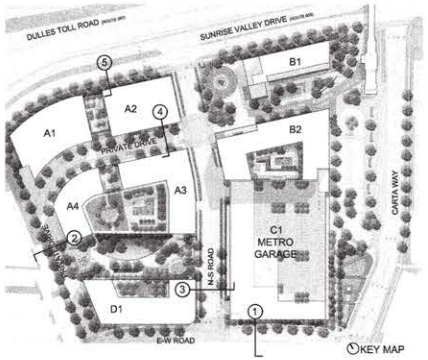

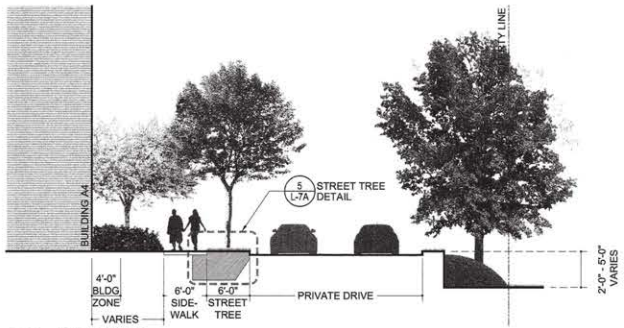

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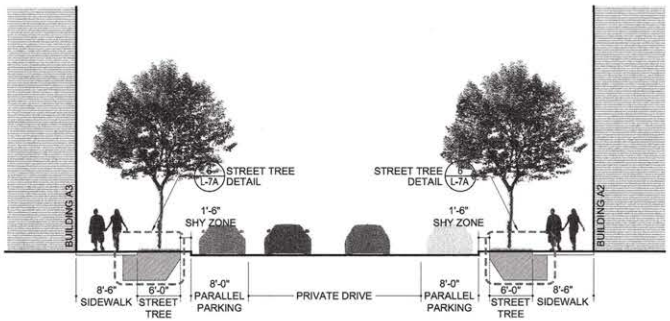
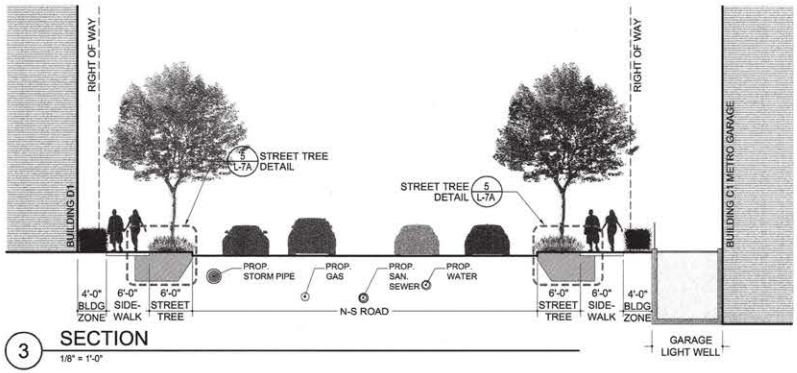


4 SECTION
1/8" = 1'-0"



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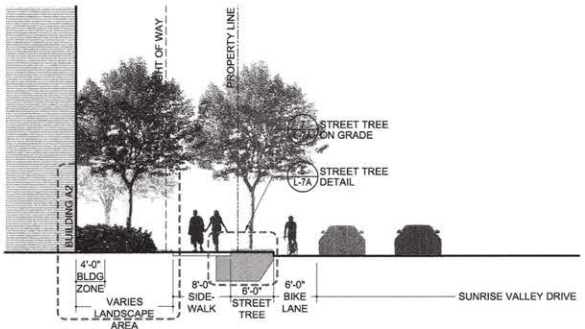

5 SECTION
1/8" = 1'-0"

Application No: RZ / FDP 2009-HM-017 Staff: WO'D

APPROVED DEVELOPMENT PLAN
(_CDP) (X DP) (X DP) (_PRC) (_SP) (_EP) (_SE) (_CSP) (_SP) (_VC)
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SEE CONDITIONS DATED:
Date of Final Approval: Jul 29, 2014 (X ROS) (_PC) (_BZA)
Comments: CDP Devel. Condns. Dated 4/30/2014
ZONING Sheet 42 of 76

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

DAVIS CARTER SCOTT Ltd
DESIGN

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REAL ESTATE SINCE THE WAY SINCE 1988

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INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE
Conceptual/Final Development Plan
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL
COMMONWEALTH OF VIRGINIA
ROBERT K. ESSELBURN
Reg. No. 001067
LANDSCAPE ARCHITECT

KEY PLAN
COMMONWEALTH OF VIRGINIA
CODY A. PENNETTI
Lic. No. 048560
PROFESSIONAL ENGINEER

SCALE AS SHOWN

No.	DATE	BY	Description
6	04.21.14		CDP
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1	9.09.13		CDP

REVISIONS

DRAWN BY BC
APPROVED BY SC
CHECKED BY BE
DATE 09.06.2013

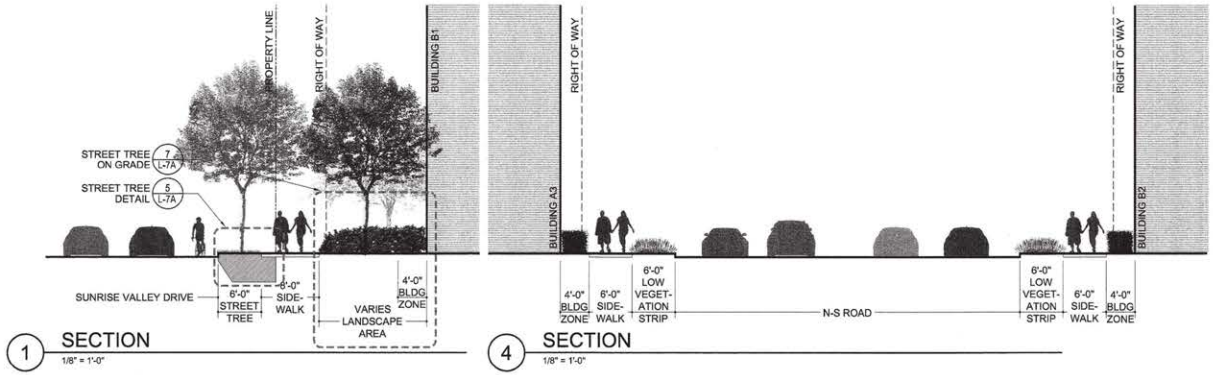
TITLE
TYPICAL STREET SECTIONS

PROJECT NO. 13046.00

R01.142
SHEET NO. L-5A
SECTION NO. R01-ZONING

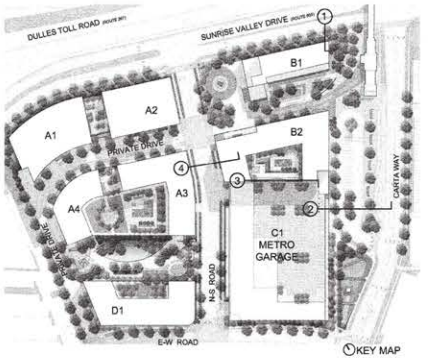
Hanmel, Green and Abrahamson, Inc.
44 Canal Center Plaza, Suite 100
Alexandria, Virginia 22314
Telephone 703.836.7766
Facsimile 703.836.5943

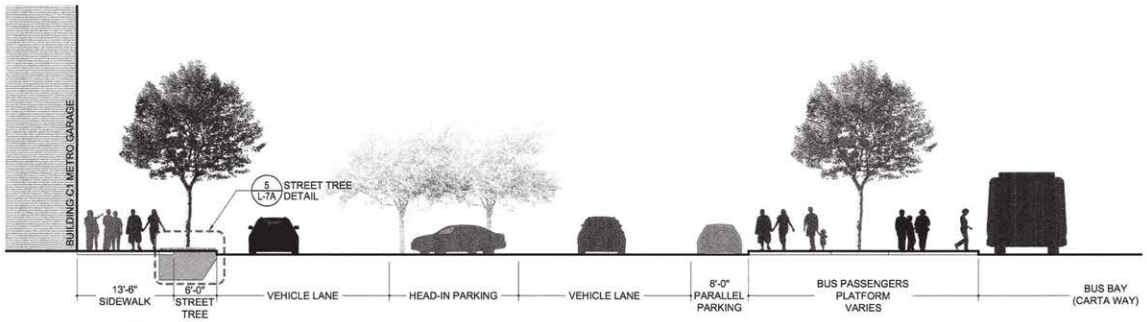
LGG LANDSCAPE ARCHITECTURE



1 SECTION
1/8" = 1'-0"

4 SECTION
1/8" = 1'-0"





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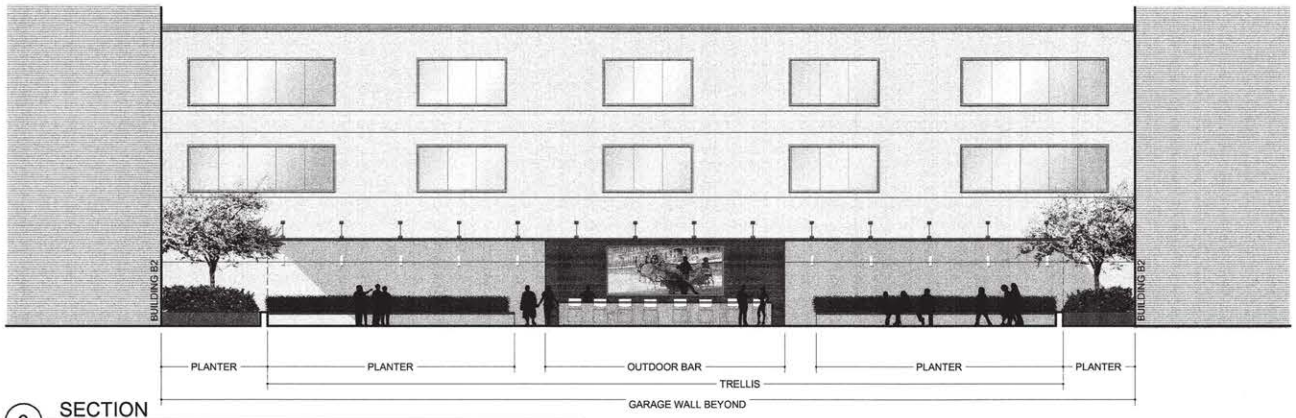

3 SECTION
1/8" = 1'-0"

Application No: RZ / FDP 2009-HM-017 Staff: WO'D

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& ZONING
Sheet 43 of 76

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

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ROCKS ENGINEERING

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INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE
Conceptual/Final Development Plan
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL
COMMONWEALTH OF VIRGINIA
ROBERT K. ESSELBURN
Reg. No. 001087
LANDSCAPE ARCHITECT

KEY PLAN
COMMONWEALTH OF VIRGINIA
CODY A. PENNETT
Lic. No. 048360
PROFESSIONAL ENGINEER

SCALE AS SHOWN

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REVISIONS

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DATE 09.06.2013

TITLE

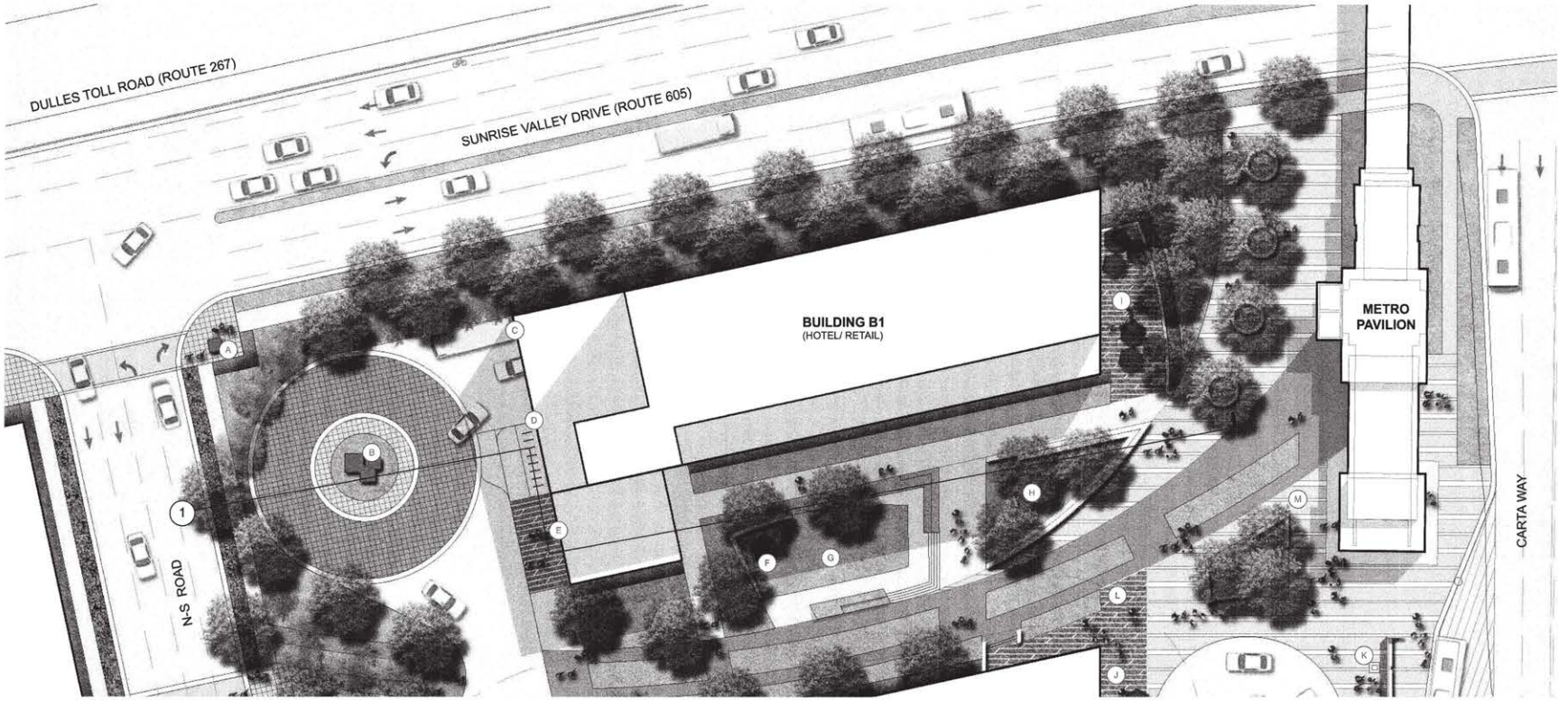
TYPICAL STREET SECTIONS

PROJECT NO. 13046.00

R01.143
SHEET NO. L-5B
SECTION NO. M-1083 R01-ZONING

Hanbal, Green and Abrahamsen, Inc.
44 Canal Center Plaza, Suite 100
Alexandria, Virginia 22314
Telephone 703.836.7768
Facsimile 703.836.2010

LSG LANDSCAPE ARCHITECTURE

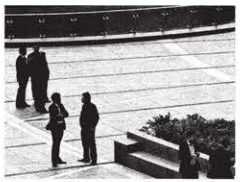


METRO PLAZA POTENTIAL ACTIVITIES

SERVE AS A MAJOR TRANSIT CORRIDOR AND UNIQUE PLACE-MAKING PLAZA FOR CIVIC GATHERING AND COMMERCIAL SUPPORT ACTIVITIES SUCH AS SEASONAL DECORATIONS & PROGRAMS.

- SCULPTURE DISPLAY
- PICNICKING AND GATHERING SPACE
- MULTI-PURPOSE LAWN USE
- OUTDOOR RETAIL AREA
- METRO BIKE STORAGE
- HOTEL ROUNDABOUT

A. SIGN
B. FOCAL POINT
C. LOADING AREA
D. GARAGE ENTRANCE
E. MAIN HOTEL ENTRANCE
F. ART FEATURE
G. MULTIFUNCTION LAWN
H. EVENT SPACE
I. OUTDOOR CAFE
J. RETAIL SPACE
K. WiFi BOOTH & CHARGING STATION
L. FIRE LANE
M. 15'-0" METRO CLEAR ZONE



Application No: RZ / FDP 2009-HM-017 Staff: WO'D

APPROVED DEVELOPMENT PLAN

(_GDP) (X)DP) (X)DP) (_PRC) (_DP) (_SP) (_SE) (_ESP) (_SP) (_VC)

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Date of Final Approval: Jul 25, 2014 (_POS) (_PC) (_RZA)

Comments: CDP/Devel. Conds. Dated 4/30/2014

DEPARTMENT OF PLANNING & ZONING

Sheet 44 of 76

0 10 20 40 60

NOTES:

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Hanmal, Gewirz and Abrahamsen, Inc.
44 Canal Center Plaza, Suite 100
Alexandria, Virginia 22314
Telephone 703.836.7766
Facsimile 703.836.5742

LSG LANDSCAPE ARCHITECTURE

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

dcs DESIGN DAVIS CARTER SCOTT Ltd

ROCKS ENGINEERING & SURVEYING, PLLC

Issued For Construction

INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE

Conceptual/Final Development Plan

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

KEY PLAN

SCALE AS SHOWN

No.	DATE	BY	Description
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REVISIONS

DRAWN BY BC
APPROVED BY SC
CHECKED BY BE
DATE 09.06.2013

TITLE

METRO PLAZA ENLARGEMENT

PROJECT NO. 13046.00

R01.144

SHEET NO. L-6A-1

SECTION NO. M-1083 R01-ZONING

Application No: RZ / FDP 2009-HM-017 Staff: WO'D

APPROVED DEVELOPMENT PLAN
(_CDP) (X DP) (X DP) (_PRC) (_PP) (_SE) (_CSE) (_SP) (_VC)
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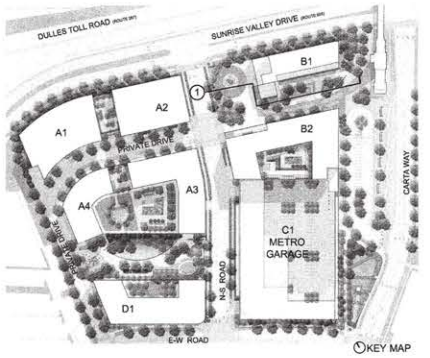
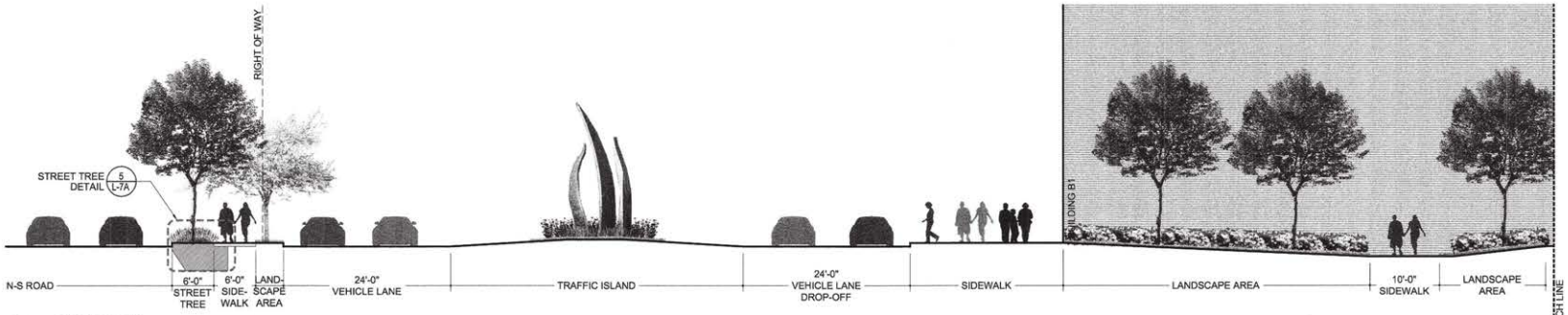
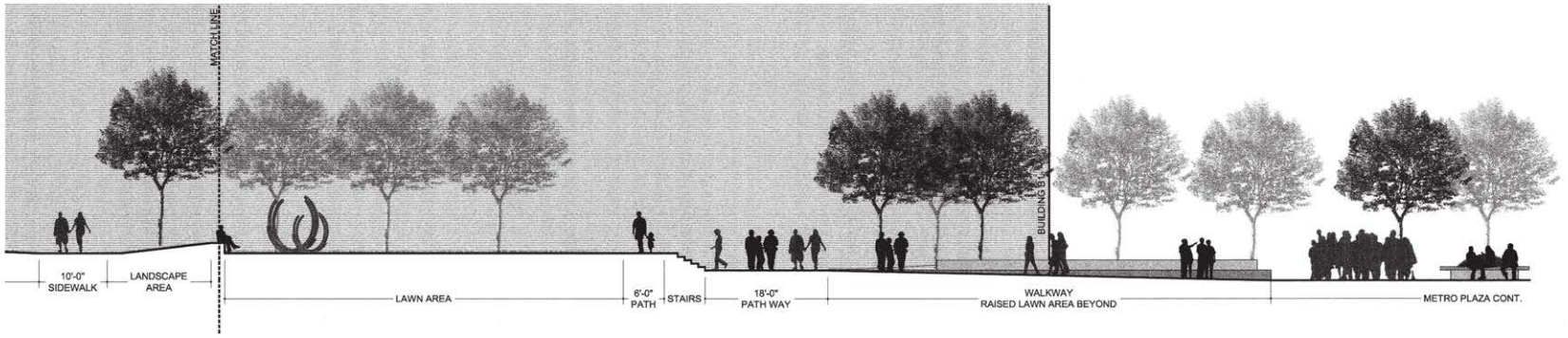
& ZONING Sheet 45 of 76





1 SECTION
1/8" = 1'-0"



Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

DAVIS CARTER SCOTT LTD
DESIGN

ROCKS
LAND PLANNING & REAL ESTATE DEVELOPMENT SINCE 1959

Issued For Construction

INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE
Conceptual/Final Development Plan
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL
COMMONWEALTH OF VIRGINIA
ROBERT K. ESSELBURN
Reg. No. 001087
LANDSCAPE ARCHITECT
4-21-14

KEY PLAN
COMMONWEALTH OF VIRGINIA
CODY A. PENNETTI
Lic. No. 048960
PROFESSIONAL ENGINEER
04-21-14

SCALE AS SHOWN

No.	DATE	BY	Description
6	04.21.14		CDP
5	03.27.14		CDP
4	02.21.14		CDP
3	01.03.14		CDP
2	11.22.13		CDP
1	9.09.13		CDP

REVISIONS

DRAWN BY BC
APPROVED BY SC
CHECKED BY BE
DATE 09.06.2013

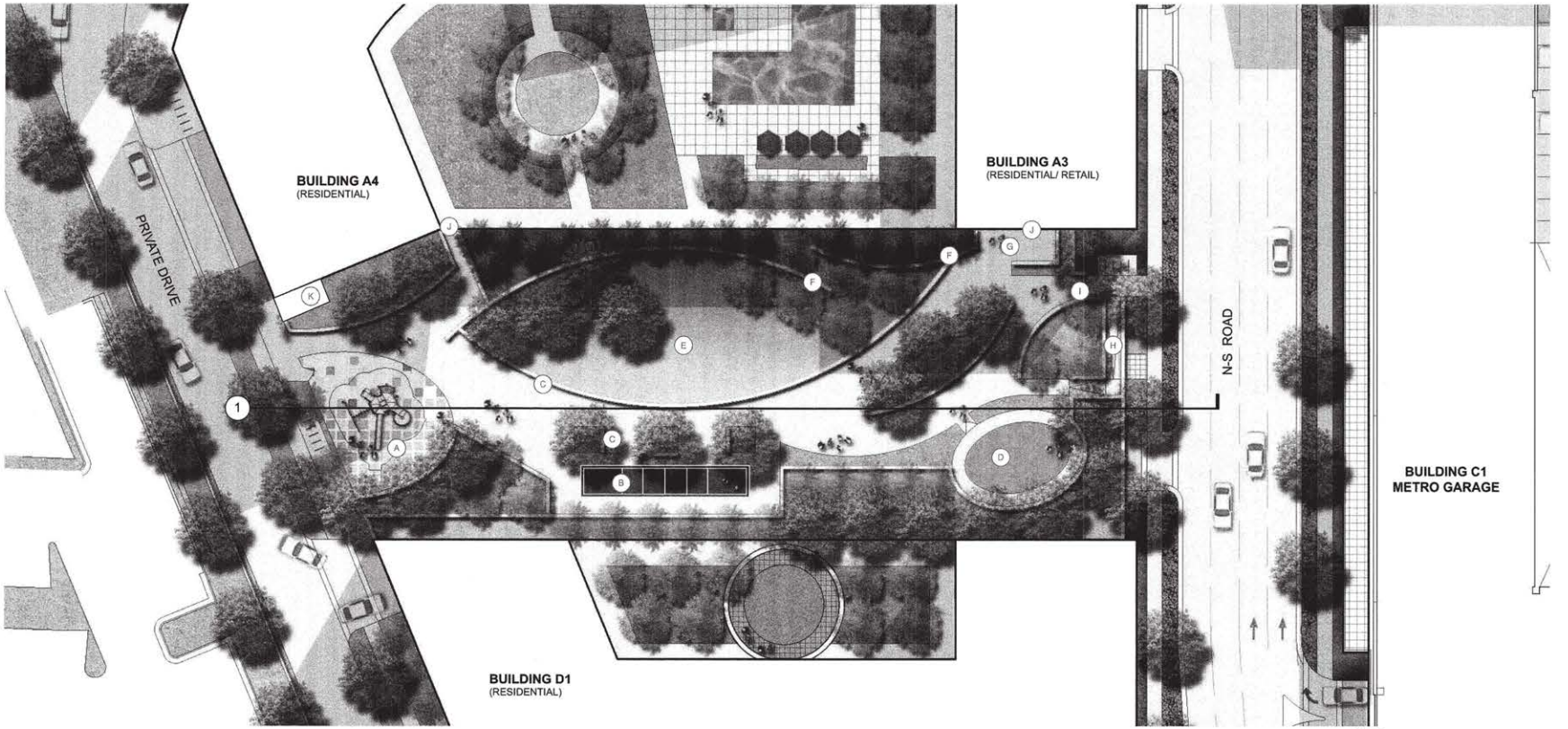
TITLE
METRO PLAZA SECTIONS

PROJECT NO. 13046.00

R01.145
SHEET NO. L-6A-2
SECTION NO. M-10639 R01-ZONING

Hanmal, Grant and Abrahamson, Inc.
44 Canal Center Plaza, Suite 100
Alexandria, Virginia 22314
Telephone 703.836.7766
Facsimile 703.836.5943

LSG LANDSCAPE ARCHITECTURE

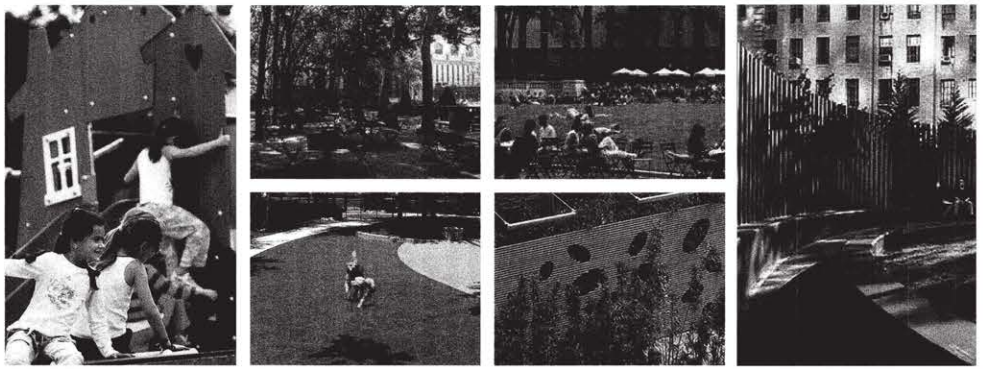


URBAN PARK

SMALL SCALE OPEN SPACE DESIGNED FOR CASUAL USE BY PEOPLE WORKING AND LIVING IN THE IMMEDIATE AREA. MULTI-PURPOSE LAWN AREA.

- AMPHITHEATER
- PLAYGROUND
- SEATING WITH ENGRAVED GAME BOARDS
- PICNIC AND GATHERING AREA

A. PLAYGROUND
B. BOCCE BALL COURT
C. SEATWALL / GAME BOARD
D. DOG PARK (ARTIFICIAL TURF)
E. MOUNDED LAWN AREA/ MULTIFUNCTION SPACE
F. DECORATIVE SCREEN WALL
G. PUBLIC PATIO SPACE
H. HANDICAP RAMP
I. STAIR
J. PARK ENTRANCE
K. ELEVATOR



0 10 20 40 60

NOTES:

1.THE PLAN AND IMAGERY SHOWN MAY BE MODIFIED WITH FINAL ENGINEERING AND DESIGN. PROVIDED THAT THE GENERAL DESIGN QUALITY AND CHARACTERISTICS ARE IN SUBSTANTIAL CONFORMANCE WITH THAT SHOWN.

2. FINAL PLANTING LOCATIONS ARE SUBJECT TO FINAL ENGINEERING, UTILITIES AND VDOT APPROVAL.

Application No: RZ / FDP 2009-HM-017 Staff: WO'D

APPROVED DEVELOPMENT PLAN
(_GDP) (X CDP) (X DP) (_PRC) (_DP) (_FP) (_SE) (_SP) (_VC)
SEE PROFFERS DATED: Jul 25, 2014
SEE CONDITIONS DATED:
Date of Final Approval: Jul 29, 2014 (X BOS) (_PC) (_BZA)
Comments: CDP Devel. Condns. Dated 4/30/2014
PLANNING & ZONING Sheet 46 of 76

Hanmel, Green and Abrahamsen, Inc.
44 Canal Center Plaza, Suite 100
Alexandria, Virginia 22314
Telephone 703.836.7766
Facsimile 703.836.5042

LSG LANDSCAPE ARCHITECTURE
10150 DAVIS CROSS ROAD, SUITE 110
VIENNA, VIRGINIA 22182
703-407-2676

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

DAVIS CARTER SCOTT Ltd
DESIGN

ROCKS
REAL ESTATE DEVELOPMENT SINCE 1956

Issued For Construction

INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE
Conceptual/Final Development Plan
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL
COMMONWEALTH OF VIRGINIA
ROBERT K. ESSELBURN
Lic. No. 001067
LANDSCAPE ARCHITECT
4-21-14

KEY PLAN
COMMONWEALTH OF VIRGINIA
CODY A. PENNETT
Lic. No. 048960
PROFESSIONAL ENGINEER
4-21-14

SCALE AS SHOWN

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2	11.22.13		CDP
1	9.09.13		CDP

REVISIONS

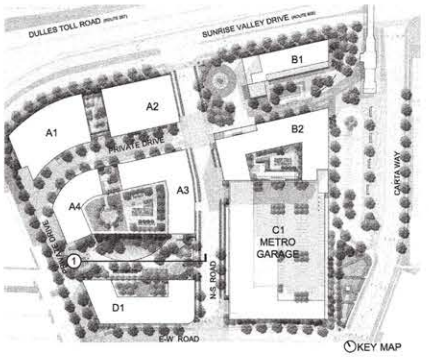
DRAWN BY BC
APPROVED BY SC
CHECKED BY BE
DATE 09.06.2013

TITLE

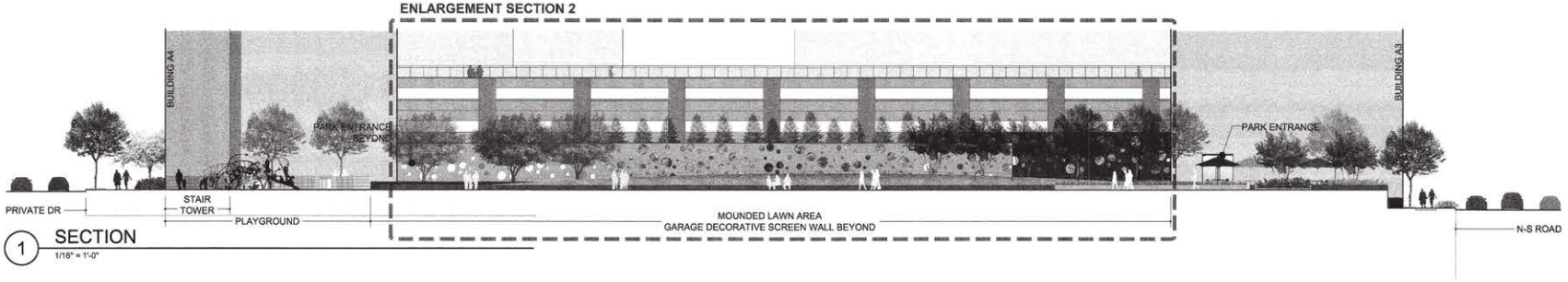
URBAN PARK ENLARGEMENT

PROJECT NO. 13046.00

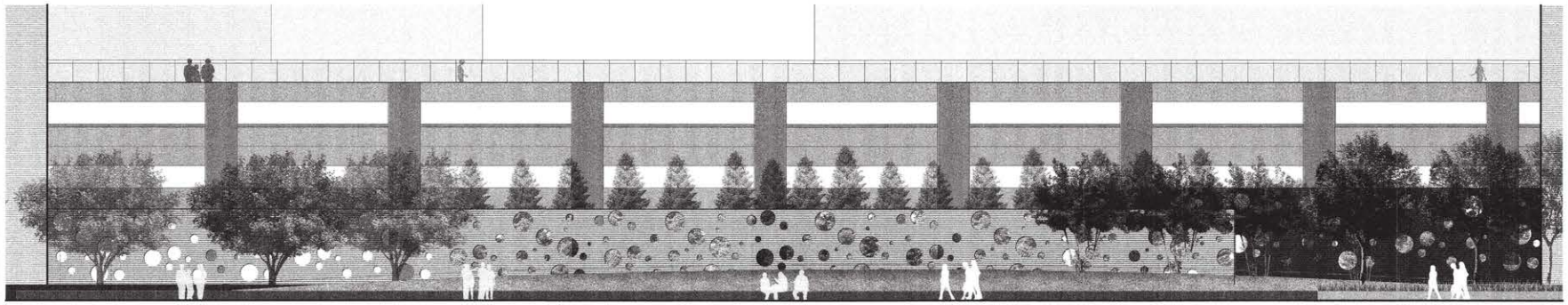
R01.146
SHEET NO. L-6B-1
SECTION NO. M-1083 R01-ZONING



ENLARGEMENT SECTION 2



1 SECTION
1/16" = 1'-0"



2 ENLARGEMENT SECTION
1/8" = 1'-0"

Application No: RZ / FDP 2009-HM-017 Staff: WO'D

APPROVED DEVELOPMENT PLAN
(_GDP) (X)DP) (_DPD) (_PRC) (_DP) (_FP) (_SE) (_CSP) (_SP) (_VC)
SEE PROFFERS DATED: Jul 25, 2014
SEE CONDITIONS DATED:
Date of Final Approval: Jul 29, 2014 (_BMOS) (_PC) (_BZA)
Comments: CDP Devel. Conds. Dated 4/30/2014
DEPARTMENT OF PLANNING & ZONING
Sheet 47 of 76

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

DAVIS CARTER SCOTT Ltd

ROCKS ENGINEERING

Issued For Construction

INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE
Conceptual/Final Development Plan
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL
ROBERT K. ESSELBURN
Reg. No. 001087
LANDSCAPE ARCHITECT
COMMONWEALTH OF VIRGINIA

KEY PLAN
CODY A. PENNETT
LIC. NO. 048960
PROFESSIONAL ENGINEER
COMMONWEALTH OF VIRGINIA

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2	11.22.13		CDP
1	9.09.13		CDP

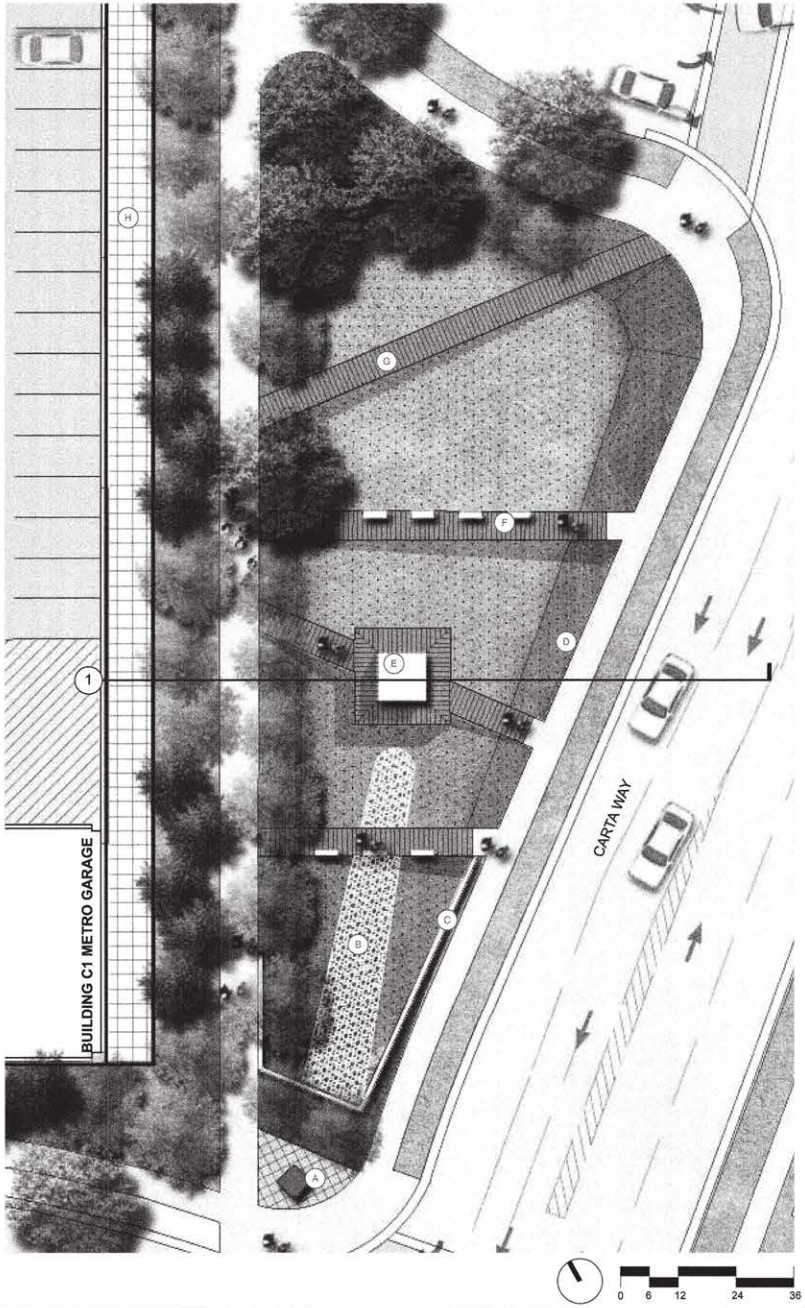
REVISIONS

DRAWN BY BC
APPROVED BY SC
CHECKED BY BE
DATE 09.06.2013

TITLE
URBAN PARK SECTIONS

PROJECT NO. 13046.00

R01.147
SHEET NO. L-6B-2
SECTION NO. M-1083 R01-ZONING



POCKET PARK

THE SMALL SCALE PARK SPACE PROVIDES A SERIES OF BOARDWALKS AND INFORMATION KIOSK AND AN ART FEATURE.

THE PLACE IS DESIGNED FOR CASUAL USE BY TRANSIT USERS AND IS SERVED AS A NEIGHBORHOOD PARK FOR DEMONSTRATING ON PROTECTION, PRESERVATION, AND STAINABILITY OF NATURAL RESOURCES.

BOARDWALK

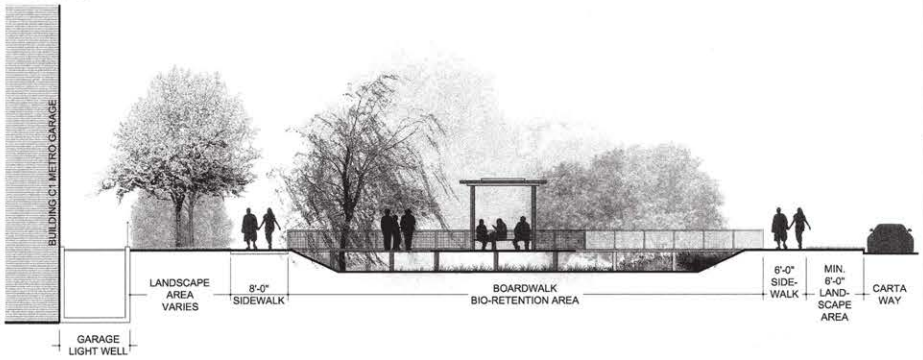
BENCHES

EDUCATIONAL AND INFORMATION KIOSK

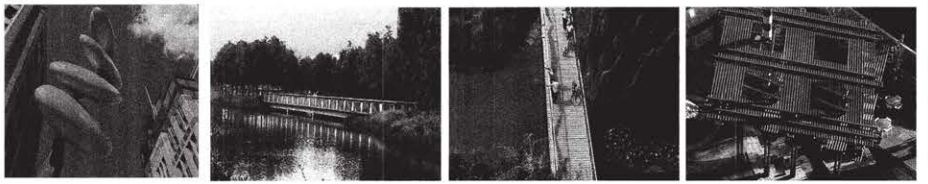
BIO-RETENTION FACILITY WITH NATURAL HABITAT

KINETIC ART

A. ART FEATURE
B. STORMWATER BASIN
C. RETAINING WALL
D. SLOPE VEGETATION
E. INFORMATION KIOSK
F. BENCH
G. BOARDWALK
H. LIGHT WELL



1 SECTION
1/8" = 1'-0"



Application No: RZ / FDP 2009-HM-017 Staff: WO'D

APPROVED DEVELOPMENT PLAN
(_)GDP (X)CDP (X)DPD (_)PRC (_)PI (_)SE (_)SPI (_)SPE (_)VC
SEE PROFFERS DATED: Jul 25, 2014
SEE CONDITIONS DATED:
Date of Final Approval: Jul 29, 2014 (X)BOS (_)PC (_)BZA
Comments: CDP/Devel. Cond's. Dated 4/30/2014
ZONING Sheet 48 of 76

NOTES:

1.THE PLAN AND IMAGERY SHOWN MAY BE MODIFIED WITH FINAL ENGINEERING AND DESIGN. PROVIDED THAT THE GENERAL DESIGN QUALITY AND CHARACTERISTICS ARE IN SUBSTANTIAL CONFORMANCE WITH THAT SHOWN.

2. FINAL PLANTING LOCATIONS ARE SUBJECT TO FINAL ENGINEERING, UTILITIES AND VDOT APPROVAL.

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

DAVIS CARTER SCOTT Ltd
DESIGN

ROCKS
ENGINEERING

Issued For Construction

INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE
Conceptual/Final Development Plan
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL
COMMONWEALTH OF VIRGINIA
ROBERT K. ESSELBURN
Lic. No. 001087
LANDSCAPE ARCHITECT
9-1-14

KEY PLAN
COMMONWEALTH OF VIRGINIA
CODY A. PENNETT
Lic. No. 048960
PROFESSIONAL ENGINEER
9-1-14

SCALE AS SHOWN

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1	9.09.13		CDP

REVISIONS

DRAWN BY	BC
APPROVED BY	SC
CHECKED BY	BE
DATE	09.06.2013

TITLE

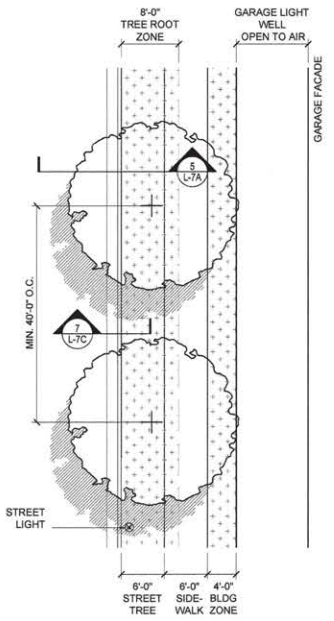
POCKET PARK ENLARGEMENT & SECTION

PROJECT NO. 13046.00

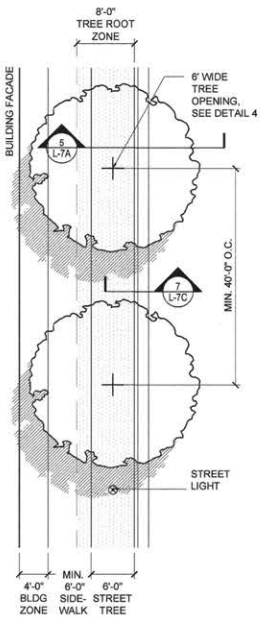
R01.148

SHEET NO. L-6C-1

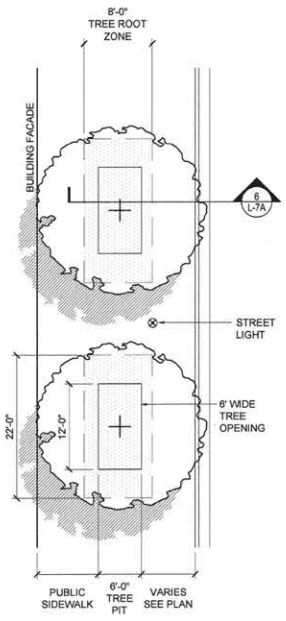
SECTION NO. M-1083 R01-ZONING



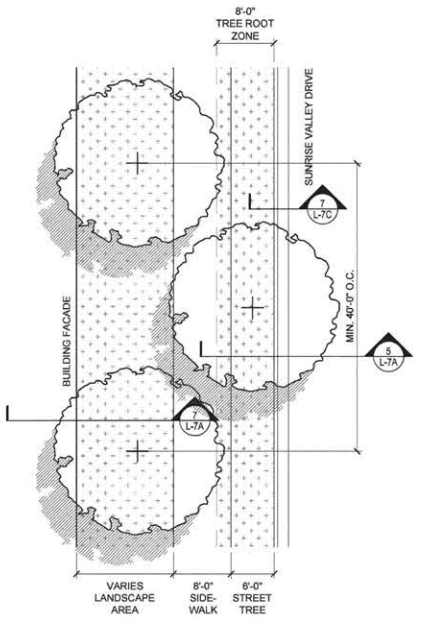
1 N-S ROAD STREET TREE
1/8" = 1'-0"



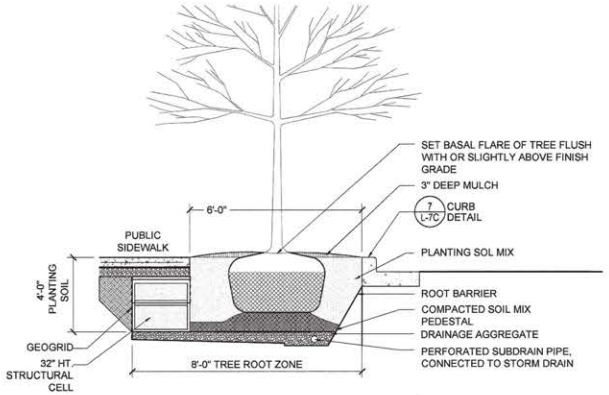
2 PRIVATE DRIVE STREET TREE
1/8" = 1'-0"



3 PRIVATE DRIVE TREE PIT
1/8" = 1'-0"

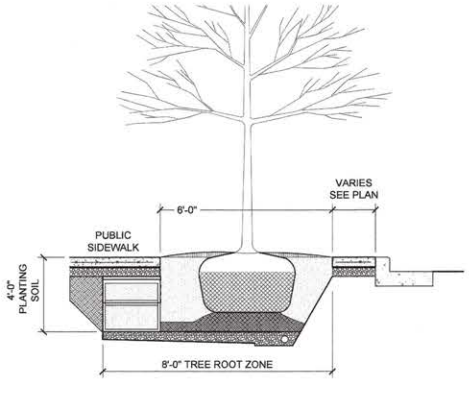


4 SUNRISE VALLEY DRIVE
1/8" = 1'-0"



5 STREET TREE WITH STRUCTURE CELL
1/2" = 1'-0"

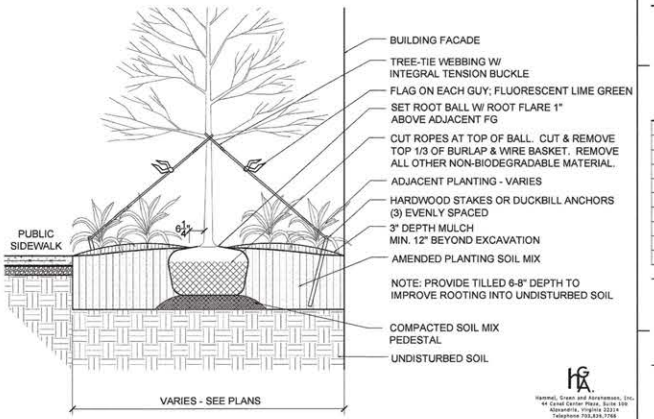
NOTE:
1. SOIL VOLUME FOR CATEGORY I, III AND IV TREES SHALL BE MINIMUM OF 700 CUBIC FEET PER SINGLE TREE.
2. FOR TWO TREES PLANTED IN A CONTIGUOUS PLANTING AREA, 1200 CUBIC FEET SOIL PER TREE SHALL BE PROVIDED.
3. FOR THREE OR MORE TREES PLANTED IN A CONTIGUOUS PLANTING AREA, 500 CUBIC FEET SOIL PER TREE.



6 STREET TREE WITH STRUCTURE CELL
1/2" = 1'-0"

NOTE:
SEE 5/L-7A FOR DETAILS.

NOTE:
SEE ARCHITECTURE DRAWINGS FOR STRUCTURE SLAB AND SUB-GRADE CONDITIONS.



7 STREET TREE ON GRADE
1/2" = 1'-0"

Application No: RZ / FDP 2009-HM-017 Staff: WO'D

APPROVED DEVELOPMENT PLAN
(_GDP) (XCDP) (XFDP) (_PRC) (_DP) (_EP) (_SE) (_CSP) (_VC)
SEE PROFFERS DATED: Jul 25, 2014
SEE CONDITIONS DATED:
Date of Final Approval: Jul 29, 2014 (XROS) (_PC) (_BZA)
Comments: CDP Devel. Conds. Dated 4/30/2014
& ZONING
Sheet 49 of 76

Hanmel, Green and Abrahamsen, Inc.
44 Canal Center Plaza, Suite 100
Alexandria, Virginia 22314
Telephone 703.836.7768
Facsimile 703.836.2042

LSG LANDSCAPE ARCHITECTURE
1914 GALLOWS ROAD, SUITE 110
VIENNA, VIRGINIA 22182
703.847.4266

NOTE:
1. SOIL VOLUME FOR CATEGORY I, III AND IV TREES SHALL BE MINIMUM OF 700 CUBIC FEET PER SINGLE TREE.
2. FOR TWO TREES PLANTED IN A CONTIGUOUS PLANTING AREA, 1200 CUBIC FEET SOIL PER TREE SHALL BE PROVIDED.
3. FOR THREE OR MORE TREES PLANTED IN A CONTIGUOUS PLANTING AREA, 500 CUBIC FEET SOIL PER TREE.

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

DAVIS CARTER SCOTT LTD
DCS DESIGN

ROCKS
ENGINEERING AND MANAGEMENT CORPORATION
REAL ESTATE ADVISORY SERVICES SINCE 1968

Issued For Construction

INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE
Conceptual/Final Development Plan
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

KEY PLAN

SCALE AS SHOWN

No.	DATE	BY	Description
6	04.21.14		CDP
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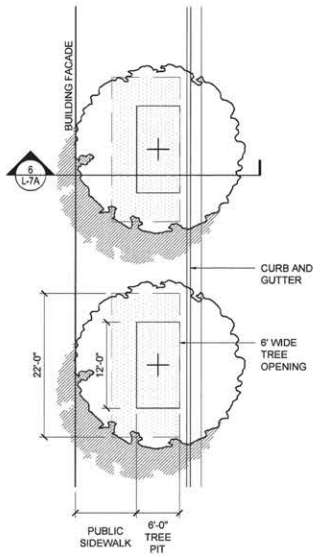
REVISIONS

DRAWN BY BC
APPROVED BY SC
CHECKED BY BE
DATE 09.06.2013
TITLE

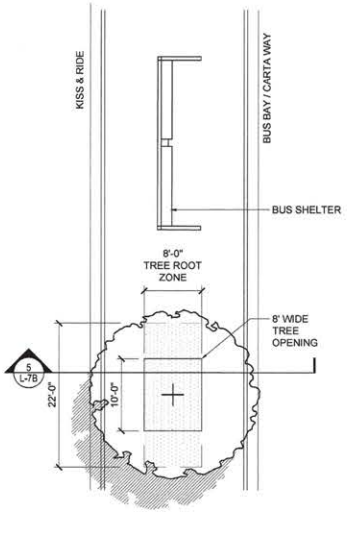
TYPICAL STREET TREE DETAILS

PROJECT NO. 13046.00

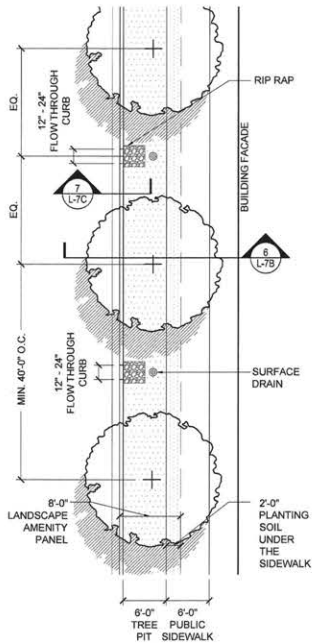
R01.149
SHEET NO. L-7A
SECTION NO. R01-ZONING
M-1083



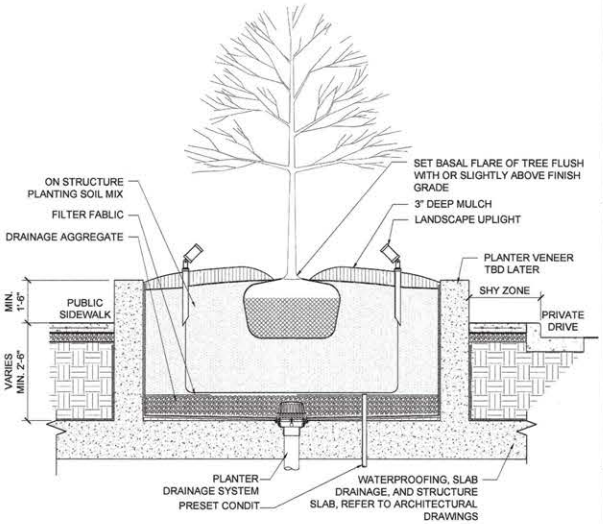
1 KISS AND RIDE TREE PIT
1/8" = 1'-0"



2 BUS BAY TREE PIT
1/8" = 1'-0"

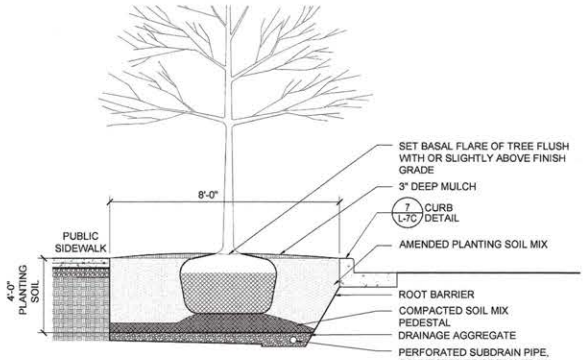


3 RAIN GAREN AT E-W ROAD
1/8" = 1'-0"



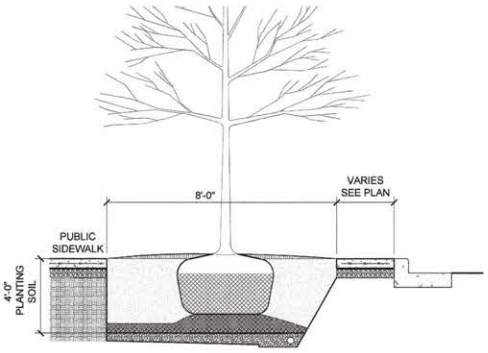
NOTES:
1. INSTALL INSULATION AND/OR TOPPING SLAB, AS APPROVED BY ARCHITECT, TO PROVIDE POSITIVE DRAINAGE TO ALL PLANTING AREA DRAINS. WATERPROOF PER ARCHITECTURAL DETAILS.
2. IRRIGATION SYSTEM SHALL BE PROVIDED FOR RAISED PLANTER

7 RAISED PLANTER @ PRIVATE DRIVE (OPTION)
1/2" = 1'-0"



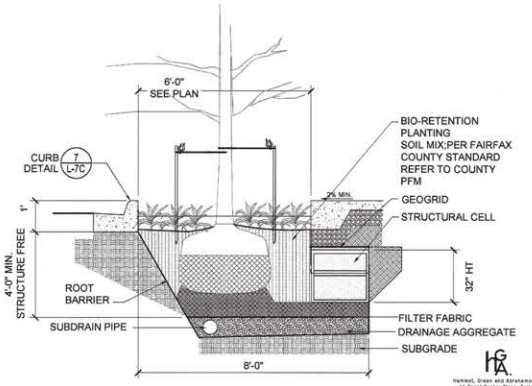
NOTE:
SIDEWALK AND CURB CONDITION VARIES BY LOCATIONS, SEE PLAN FOR SITE CONDITIONS

4 8'-0" WIDE TREE PIT
1/2" = 1'-0"



NOTE:
SEE 5/L-7A FOR DETAILS.

5 8'-0" WIDE TREE PIT
1/2" = 1'-0"



6 STREET TREE/ BIO-RETENTION
1/2" = 1'-0"

NOTE:
1. SOIL VOLUME FOR CATEGORY I, III AND IV TREES SHALL BE MINIMUM OF 700 CUBIC FEET PER SINGLE TREE.
2. FOR TWO TREES PLANTED IN A CONTIGUOUS PLANTING AREA, 1200 CUBIC FEET SOIL PER TREE SHALL BE PROVIDED.
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NOTE:
SEE ARCHITECTURE DRAWINGS FOR STRUCTURE SLAB AND SUB-GRADE CONDITIONS.

Application No: RZ / FDP 2009-HM-017 Staff: WO'D

APPROVED DEVELOPMENT PLAN
(_GDP) (X SDP) (X DP) (_PRC) (_PP) (_SE) (_CSP) (_SP) (_VC)
SEE PROFFERS DATED: Jul 25, 2014
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Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

DAVIS CARTER SCOTT Ltd
DESIGN

ROCKS
REAL ESTATE DEVELOPERS SINCE 1958

Issued For Construction

INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE
Conceptual/Final Development Plan
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL
COMMONWEALTH OF VIRGINIA
ROBERT K. ESSELBURN
LIC. No. 001067
LANDSCAPE ARCHITECT

KEY PLAN
COMMONWEALTH OF VIRGINIA
CODY A. PENNETT
LIC. No. 040980
PROFESSIONAL ENGINEER

SCALE AS SHOWN

No.	DATE	BY	Description
6	04.21.14		CDP
5	03.27.14		CDP
4	02.21.14		CDP
3	01.03.14		CDP
2	11.22.13		CDP
1	9.09.13		CDP

REVISIONS

DRAWN BY	BC
APPROVED BY	SC
CHECKED BY	BE
DATE	09.06.2013

TITLE

TYPICAL RAIN GARDEN & TREE DETAILS

PROJECT NO. 13046.00

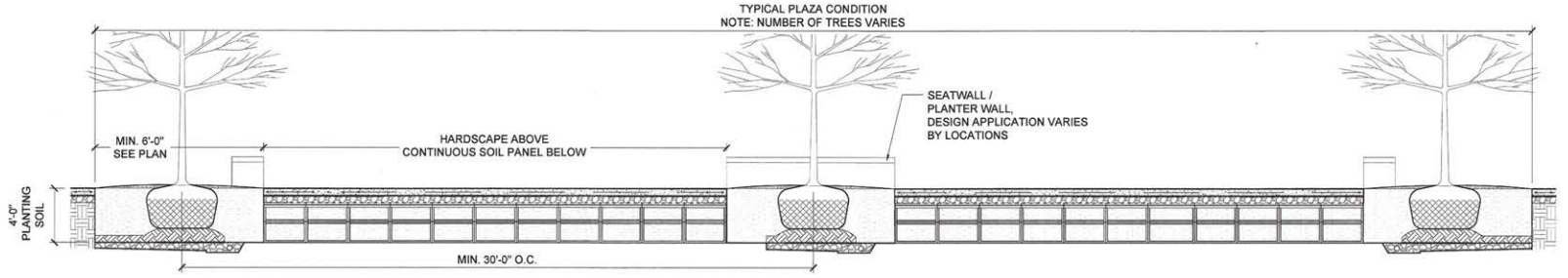
R01.150

SHEET NO. L-7B

SECTION NO. R01-ZONING

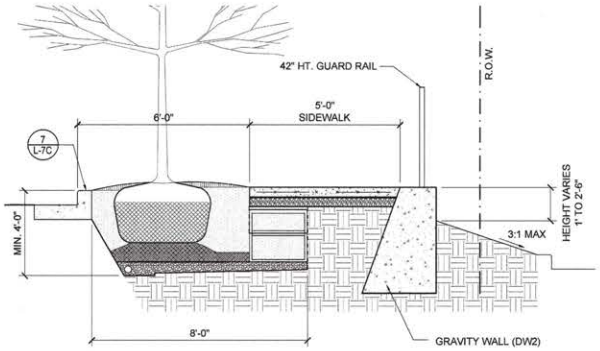
Hartman, Green and Abrahamsen, Inc.
44 Canal Center Plaza, Suite 100
Alexandria, Virginia 22314
Telephone 703.836.7760
Facsimile 703.836.5042

LSG LANDSCAPE ARCHITECTURE
1515 GALLOWS ROAD, SUITE 110
VIENNA, VIRGINIA 22182
703-821-2292

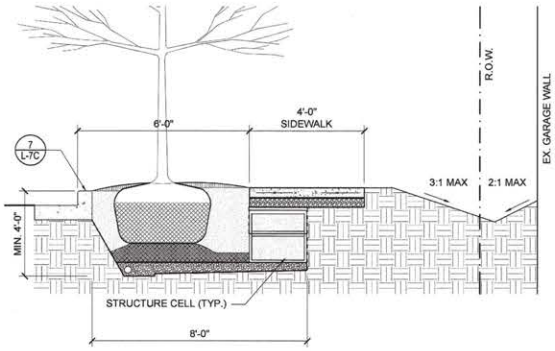


1 TYPICAL PLAZA TREE PIT
3/8" = 1'-0"

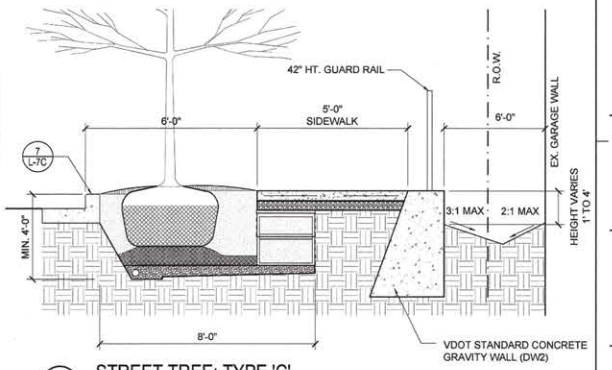
NOTE:
PLAZA HARDSCAPE CONDITION VARIES BY DESIGN IMPLEMENTATION, SEE PLAN FOR SITE CONDITIONS



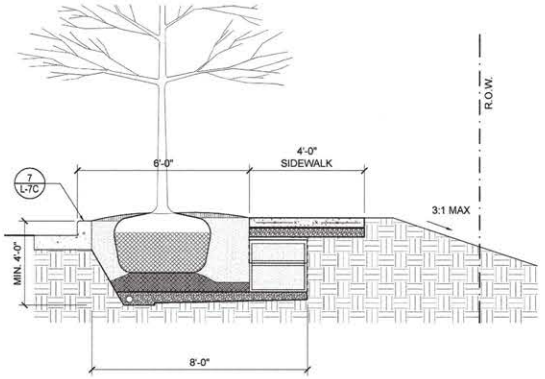
2 STREET TREE: TYPE 'A'
1/2" = 1'-0"



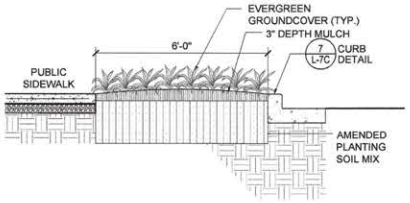
3 STREET TREE: TYPE 'B'
1/2" = 1'-0"



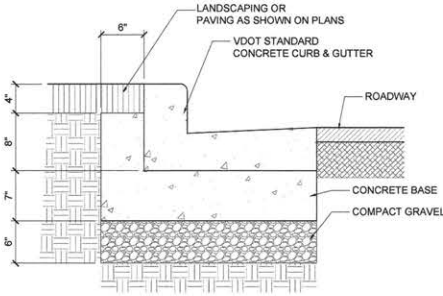
4 STREET TREE: TYPE 'C'
1/2" = 1'-0"



5 STREET TREE: TYPE 'D'
1/2" = 1'-0"



6 N-S ROAD STREET PLANTING
1/2" = 1'-0"



7 STREET CURB DETAIL
1 1/2" = 1'-0"

NOTE:
1. SOIL VOLUME FOR CATEGORY I, III AND IV TREES SHALL BE MINIMUM OF 700 CUBIC FEET PER SINGLE TREE.
2. FOR TWO TREES PLANTED IN A CONTIGUOUS PLANTING AREA, 1200 CUBIC FEET SOIL PER TREE SHALL BE PROVIDED.
3. FOR THREE OR MORE TREES PLANTED IN A CONTIGUOUS PLANTING AREA, 500 CUBIC FEET SOIL PER TREE.

NOTE:
SEE ARCHITECTURE DRAWINGS FOR STRUCTURE SLAB AND SUB-GRADE CONDITIONS.

Application No: RZ / FDP 2009-HM-017 Staff: WO'D

APPROVED DEVELOPMENT PLAN
(_GDP) (X CDP) (X DP) (_PRC) (_PP) (_PI) (_SE) (_SPI) (_SPI) (_VC)
SEE PROFFERS DATED: Jul 25, 2014
SEE CONDITIONS DATED:
Date of Final Approval: Jul 29, 2014 (XBOS) (_PC) (_BZA)
Comments: CDP Devel. Conds. Dated 4/30/2014

Dewberry

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ROCKS ENGINEERING

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FAIRFAX COUNTY, VIRGINIA

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ROBERT K. ESSELBURN
Reg. No. 001087
LANDSCAPE ARCHITECT
4-21-14

KEY PLAN
COMMONWEALTH OF VIRGINIA
CODY A. PENNETTI
Lic. No. 048960
PROFESSIONAL ENGINEER
4-21-14

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REVISIONS

DRAWN BY BC
APPROVED BY SC
CHECKED BY BE
DATE 09.06.2013
TITLE

TREE DETAILS

PROJECT NO. 13046.00

R01.151
SHEET NO. L-7C
SECTION NO. M-10837 R01-ZONING

Hanmel, Green and Abrahamsen, Inc.
44 Canal Center Plaza, Suite 100
Alexandria, Virginia 22314
Telephone 703.836.7766
Facsimile 703.836.5045

LSG LANDSCAPE ARCHITECTURE

SECTION 32 93 00 - EXTERIOR PLANTS

PART 1 - GENERAL

1.1 SUBMITTALS
A. Product Data: For each type of product indicated.
B. Samples for Verification: For each of the following:
1. 1 lb. each of topsoil, soil mix(es), and organic compost materials, each in a labeled, clear, heavy-duty, sealed bag or rigid container.
C. Product Certificates: For each type of manufactured product, signed by product manufacturer, and complying with the following:
1. Manufacturer's certified analysis for standard products.
2. Analysis of other materials by a recognized laboratory made according to methods established by the Association of Official Analytical Chemists, where applicable.
D. Sources: Submit list of proposed sources and photos for pre-qualification review for all plant materials, including certificates of inspection of plant materials, as may be required by Federal, State, or other authorities to accompany shipments, and photographs of all proposed plant materials.
E. Qualification Data: For landscape Installer.
F. Material Test Reports: For existing surface soil, imported topsoil, and planting soil mixes, and prior to installation.
G. Percolation Test: For proposed new planting soil or existing stockpiled planting soil, and prior to installation, certifying that proposed soil has a proper water absorption rate.
H. Planting Schedule: Indicating anticipated planting dates for exterior plants.
I. Maintenance Instructions: Recommended procedures to be established by Owner for maintenance during a calendar year.

1.2 QUALITY ASSURANCE
A. Installer Qualifications: A qualified landscape installer of no less than 5 years experience on local projects of similar size and scope whose work has resulted in successful establishment of exterior plants.
1. Installer's Field Supervision: Require Installer to maintain an experienced full-time supervisor on Project site when exterior planting is in progress.
B. Soil-Testing Laboratory Qualifications: An independent laboratory, recognized by the State Department of Agriculture, with the experience and capability to conduct the testing indicated and that specializes in types of tests to be performed.
C. Soil Analyses: Furnish soil analyses of existing topsoil, imported topsoil, and native soil, as applicable, by a qualified soil-testing laboratory, stating percentages of organic matter; gradation of sand, silt, & clay content; cation exchange capacity; sodium absorption ratio; deleterious material; pH; and mineral and plant-nutrient content of topsoil.
1. Report suitability of topsoil for plant growth. State recommended quantities of nitrogen, phosphorus, potassium nutrients, & soil amendments to be added to produce a satisfactory topsoil.
2. Prior to mixing, prepare sample mix ratios for analysis, as above, for all planting soil mixes to be used on the site.
3. The following additional tests are required when the following conditions exist:
a. Sandy Soils: Boron test: 1-3 pounds/acre acceptable.
b. Hardwood forest soils or history of continuous hardwood bark mulching: Manganese test: 3-50 pounds/acre acceptable.
c. Seaside and bay side: Sodium test: 0-20 pounds/acre acceptable.
d. Imported soils, planting mixes: Mechanical analysis, including particle size analysis of sand fraction: Per soil analysis recommendation.
D. Percolation Test: Submit for each 200 CY of proposed new planting soil, or existing stockpiled planting soil, certifying that proposed soil has a proper water absorption rate.
1. Dig a rectangular pit 12" square by 18" deep and rapidly pour in water to a depth of 6 inches. Note time required for water to be completely absorbed.
2. Proposed planting soils having a water absorption rate faster than 18 minutes, or slower than 30 minutes are not acceptable.
E. Provide quality, size, genus, species, and variety of exterior plants indicated, complying with applicable requirements in ANSI Z60.1, "American Standard for Nursery Stock."
F. Tree and Shrub Measurements: Measure according to ANSI Z60.1 with branches and trunks or canes in their normal position. Do not prune to obtain required sizes. Take caliper measurements 6 inches (150 mm) above ground for trees up to 4-inch (100-mm) caliper size, and 12 inches (300 mm) above ground for larger sizes. Measure main body of tree or shrub for height and spread; do not measure branches or roots tip-to-tip. Measure following pruning, when pruning is required. When ranges are specified, provide minimum 50% of each respective plant size/type at the maximum size.
G. Observation: Architect may observe trees and shrubs either at place of growth or at site before planting for compliance with requirements for genus, species, variety, size, and quality. Architect retains right to observe trees and shrubs further for size and condition of balls and root systems, insects, injuries, and latent defects and to reject unsatisfactory or defective material at any time during progress of work. Remove rejected trees or shrubs immediately from Project site.
H. Source Limitations: All material of a specific size and cultivar shall be grown at the same nursery and in the same lot.
1. Notify Architect of sources of planting materials minimum 21 days in advance planned of delivery to site.
2. Trees may be obtained from up to three different locations, each within approximately 75 miles of the Washington, D.C. metropolitan area, unless otherwise approved by the Architect.
I. Pre-qualification of Materials:
1. Take photos at places of growth for pre-qualification review. Provide minimum 21 days prior to tree-tagging trips.
a. Provide representational photographs of each plant material type and size.
b. Provide additional photographs of each type and size of tree as follows:
1) Include a surveyor's rod or equivalent for scale.
2) Provide clear views of several tree canopies to demonstrate representational form, vigor, and health.
3) Provide clear views of several trunks to demonstrate representational form, health, and absence of scars and damages.
c. Architect may reject individual plants or suppliers on the basis of photographs and/or other conditions deemed pertinent by the Architect.
d. Do not dig or otherwise reserve other material prior to receiving Architect's approval of photo pre-qualification.
1) The Contractor shall be responsible for all costs related to material dug and/or reserved prior to the above.
J. Tagging: Following pre-qualification of materials, Architect will select and tag trees at places of growth prior to being prepared for transplanting.
1. Contractor shall verify adequate numbers of acceptable trees are available, as indicated in the List of Sources, for Architect's consideration prior to the tagging visit.
a. Contractor shall pay Architect's time & costs for tagging trip(s) if sufficient quantities & acceptable material, as defined by the Architect, are not available.
2. Architect may reject previously pre-qualified individual plants at any time that no longer meet specification for reasons of damage, infestation, mineral deficiency, chlorosis, necrosis, circling roots and/or unsatisfactory subsequent growth.
3. Do not dig or otherwise reserve trees prior to Architect's tagging.
a. The Contractor shall be responsible for all costs related to material dug and/or reserved prior to the above.

1.3 DELIVERY, STORAGE, AND HANDLING
A. Protect planting soil mix stockpiles after mixing from erosion, saturation, and weed growth.
B. Deliver exterior plants freshly dug. Immediately pack root system in wet straw, hay, or other suitable material to keep root system moist until planting.
C. Do not prune trees and shrubs before delivery, except as approved by Architect. Protect bark, branches, and root systems from sun scald, drying, sweating, whipping, and other handling and tying damage. Do not bend or bind-tie trees or shrubs in such a manner as to destroy their natural shape. Provide protective covering of exterior plants during delivery. Do not drop exterior plants during delivery.
D. Handle planting stock by root ball with a tree strap only. Handling by any other means including, but not limited to, jaws, chains, bars, trunk lift is prohibited.
E. Deliver exterior plants after preparations for planting have been completed and install immediately. Place trees upright immediately upon unloading; do not lay trees down at any time. If planting is delayed more than six hours after delivery, set exterior plants in shade, protect from weather and mechanical damage, and keep roots moist.
1. Heel-in bare-root stock. Soak roots in water for two hours if dried out.
2. Set balled stock on ground and cover ball with soil, peat moss, sawdust, or other acceptable material.
3. Do not remove container-grown stock from containers before time of planting.
4. Water root systems of exterior plants stored on-site with a fine-mist spray. Water as often as necessary to maintain root systems in a moist condition.

1.4 COORDINATION
A. Planting Restrictions: Plant during one of the following periods.
1. Deciduous Trees and Shrubs: March 1 - May 30 or September 15 - December 1. (Oak, tupelo and beech shall be planted only in the spring).
2. Evergreen Trees, Shrubs, Groundcover and Perennials: March 1 - May 15 or September 15 - November 15.
B. Weather Limitations: Proceed with planting only when existing and forecasted weather conditions permit.
C. Coordination with Lawns: Plant trees and shrubs after finish grades are established and before planting lawns, unless otherwise acceptable to Architect.
1. When planting trees and shrubs after lawns, protect lawn areas and promptly repair damage caused by planting operations.

1.5 WARRANTY
A. Special Warranty: Warrant exterior plants, for the warranty period indicated, against defects including death and unsatisfactory growth, except for defects resulting from lack of adequate maintenance, neglect, or abuse by Owner, or incidents that are beyond Contractor's control.
1. Warranty Period: One year from date of Project Turnover.
2. Contractor shall be responsible for complete and proper planting supports, installation layout, watering, fertilizing, and pest and pathogen control during warranty period.
3. Remove dead exterior plants immediately. Replace immediately unless required to plant in the succeeding planting season.
4. Replace exterior plants that are more than 25 percent dead or in an unhealthy condition at end of warranty period.
5. A limit of 1 replacement of each exterior plant will be required for accepted plant material, except for losses or replacements due to failure to comply with requirements.

1.6 MAINTENANCE
A. Maintain by pruning, cultivating, watering, weeding, fertilizing, mulching, tightening and repairing stakes and guy supports, and resetting to proper grades or vertical position, as required to establish healthy, viable plantings. Treat as required to keep free of insects and disease. Monitor for boring insects and signs of stress. Begin maintenance immediately after each area is planted and continue for not less than the following periods:
1. Maintenance Period: One year from date of Project Turnover.
B. Watering, General: Ensure that adequate moisture is provided to all plants.
1. Water thoroughly at time of planting.
2. Provide water weekly for a period of 1 month following planting. Provide a minimum of 1 inch of precipitation per week.
3. Provide water bi-weekly for 2 additional months.
4. If an automatic irrigation system is installed, adjust to provide adequate moisture to plant materials.
D. Fertilizer, General: Fertilize 60 days after Project Turnover.

PART 2 - PRODUCTS

2.1 TREE AND SHRUB MATERIAL
A. Furnish nursery-grown material complying with ANSI Z60.1, with healthy, well-developed root systems developed by transplanting or root pruning. Provide stock grown under climatic conditions similar to those in the locality of the Project for at least 2 years and grown in soil similar to the native soil into which the stock will be planted. Provide well-shaped, fully branched, exceptionally heavy, symmetrical, healthy, vigorous stock of uniform size and free of disease, insects, eggs, larvae, and defects such as knots, sun scald, injuries, abrasions, and disfigurement.
1. Trees with damaged, crooked, or multiple leaders; tight vertical branches where bark is squeezed between two branches or between branch and trunk; crossing trunks; cut-off limbs more than 3/4 inch (19 mm) in diameter; cracked root balls; stem-girdling roots are prohibited.
2. Trees with abrasion of the bark, sunscalds, disfiguring knots, or fresh cuts more than 1 inch in diameter, which have not completely callused, will be rejected.
3. Plants that do not possess an acceptable balance of height & spread and/or height & caliper, as defined by Architect, shall be rejected.
4. Collected Stock: Do not use plants harvested from the wild, native stands, an established landscape planting, or not grown in a nursery.
B. Provide trees & shrubs of sizes & grades complying with ANSI Z60.1. Larger sizes may be used if acceptable to Architect, with a proportionate increase in size of root balls.

2.2 SHADE AND FLOWERING TREES
A. Shade Trees: Single-stem trees with straight trunk, well-balanced crown, intact leader, of height & caliper indicated, complying with ANSI Z60.1.
1. Branching Height: One-half of tree height.
B. Small Upright Trees: Branched or pruned naturally according to species & type, with relationship of caliper, height, & branching according to ANSI Z60.1; as follows:
1. Stem Form: Single stem.
C. Multi-stem Trees: Branched or pruned naturally according to species & type, with relationship of caliper, height, & branching according to ANSI Z60.1; stem form as follows:
1. Stem Form: Clump.

2.3 DECIDUOUS SHRUBS
A. Form and Size: Deciduous shrubs with not less than the minimum number of canes required by & measured according to ANSI Z60.1 for type, shape, and height of shrub.

2.4 CONIFEROUS EVERGREENS
A. Form and Size: Specimen-quality, exceptionally heavy, tightly knit, symmetrically shaped coniferous evergreens and the following grade:
1. Heavy Grade: " XXX."

2.5 BROADLEAF EVERGREENS
A. Form and Size: Normal-quality, well-balanced, broadleaf evergreens, of type, height, spread, and shape required, complying with ANSI Z60.1.

2.6 GROUND COVER PLANTS
A. Ground Cover: Provide ground cover of species indicated, established and well rooted, and complying with ANSI Z60.1.

2.7 PLANTS
A. Annuals: Provide healthy, disease-free plants of species and variety shown or listed. Provide only plants that are acclimated to outdoor conditions before delivery and that are in bud, but not yet in bloom.
B. Perennials: Provide healthy, field-grown plants from a commercial nursery, of species and variety indicated, and complying with requirements in ANSI Z60.1.
C. Vines: Provide vines of species indicated complying with requirements in ANSI Z60.1 as follows:
1. Two-year plants with heavy, well-branched tops, with not less than 3 runners 18 inches (450 mm) or more in length, and with a vigorous well-developed root system.
D. Ornamental Grasses
1. Perennial grasses as required by and measured according to ANSI Z60.1 for type, shape, and height.

2.8 TOPSOIL
A. Topsoil: ASTM D 5268, pH range of 5.5 to 7, a minimum of 4 percent organic material content; free of stones 1 inch (25 mm) or larger in any dimension and other extraneous materials harmful to plant growth.
1. Topsoil Source: Reuse existing in-place surface and/or surface soil stockpiled on-site. Verify suitability of stockpiled surface soil to produce topsoil. Clean surface soil of roots, plants, sod, stones, clay lumps, and other extraneous materials harmful to plant growth.
a. Supplement with imported or manufactured topsoil when quantities are insufficient. Obtain topsoil from naturally well-drained construction or mining sites where topsoil occurs at least 4 inches (100 mm) deep; do not obtain from bogs or marshes.

2.9 INORGANIC SOIL AMENDMENTS
A. Lime: ASTM C 602, agricultural limestone containing a minimum 80 percent calcium carbonate equivalent and as follows:
1. Class: Class O, with a minimum 95 percent passing through No. 8 (2.36-mm) sieve and a minimum 55 percent passing through No. 60 (0.25-mm) sieve.
2. Provide lime in form of dolomitic limestone.
B. Agricultural Gypsum: Finely ground, 95% or more passing 1/4" sieve, containing a minimum of 90 percent calcium sulfate, derived from natural mined gypsum, hydrite and anhydrite. Recycled gypsum meeting this specification above is acceptable.
C. Sand: Clean, washed, natural or manufactured, free of toxic materials.

2.10 ORGANIC SOIL AMENDMENTS
A. Compost: Well-composted, stable, weed-free organic matter, pH range of 5.5 to 8; moisture content 35 to 55 percent by weight, 100 percent passing 1/2-inch sieve; soluble salt content of 5 to 10 decisiemens/m; not exceeding 0.5 percent inert contaminants and free of substances toxic to plantings; and as follows:
1. Organic Matter Content: 50 to 60 percent of dry weight.
2. Feedstock: Agricultural, food, or industrial residuals; biosolids; yard trimmings; or source-separated or compostable mixed solid waste.
3. Composted Sewage Sludge: Commercially available, high quality, environmentally safe, sterile, EPA-approved soil product for agronomic use; composed of lime-stabilized or naturally dewatered biosolids, combined with wood chips according to EPA standards, aerated and composted for 21 days, including 3 days at 131 degrees Fahrenheit, and screened through a ⅜ inch screen. The product shall exhibit the following characteristics:
a. pH: 5.6-7.7; total nitrogen (N)1.2% available
Phosphoric Acid (P2O5)1% soluble
Potash (K2O) 0.25%
Micro-nutrient Content (Fe, Mn, S, Zn, Ni, Cu, B)
Low Cadmium Content
EPA Approval Pathogen Destruction
B. Wood Derivatives: Decomposed, nitrogen-treated sawdust, ground bark, or wood waste; of uniform texture, free of chips, stones, sticks, soil, or toxic materials.
C. Manure: Well-rotted, unleached, stable or cattle manure containing not more than 25 percent by volume of straw, sawdust, or other bedding materials; free of toxic substances, stones, sticks, soil, weed seed, and material harmful to plant growth.
D. Mycorrhizal Fungal Transplant Inoculant: Apply in accordance with manufacturer's recommended application rates.

2.11 FERTILIZER
A. Bonemeal: Commercial, raw or steamed, finely ground; a minimum of 4 percent nitrogen and 10 percent phosphoric acid.
B. Superphosphate: Commercial, phosphate mixture, soluble; a minimum of 20 percent available phosphoric acid.
C. Commercial Fertilizer: Commercial-grade complete fertilizer of neutral character, consisting of fast- and slow-release nitrogen, 50 percent derived from natural organic sources of urea formaldehyde, phosphorous, and potassium in the following composition:
1. Composition:
a. At time of planting: Nitrogen, phosphorous, potassium, and minor elements in amounts recommended in soil reports from a qualified soil-testing agency.
b. During Maintenance period: Commercial fertilizer for ornamental trees, shrubs and ground cover; 10-6-4; with full range of minor elements.
D. Slow-Release Fertilizer: Granular or pelleted fertilizer consisting of 50 percent water-insoluble nitrogen, phosphorus, and potassium in the following composition:
1. Composition: Nitrogen, phosphorous, and potassium in amounts recommended in soil reports from a qualified soil-testing agency.

2.12 MULCHES
A. Shredded hardwood: Free from deleterious materials and suitable as a top dressing of trees and shrubs.

2.13 STAKES AND GUYS
A. Upright and Guy Stakes: Rough-sawn, sound, new hardwood, redwood, or pressure-preservative-treated softwood, free of knots, holes,

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DEPARTMENT OF PLANNING & ZONING
Sheet 52 of 76

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44 Canal Center Plaza, Suite 330
Alexandria, Virginia 22314
Telephone 703.836.7749
Facsimile 703.836.7943

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VIENNA, VIRGINIA 22182
703-967-0996

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DAVIS CARTER SCOTT Ltd. DESIGN

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PROPERTIES
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DATE 09.06.2013
TITLE

PLANTING SPECIFICATIONS

PROJECT NO. 13046.00

R01.152
SHEET NO. L-7D
SECTION NO. R01-ZONING

THIS DRAWING AND THE DESIGN CONCEPTS CONTAINED HEREIN ARE AND SHALL REMAIN THE PROPERTY OF DEWBERRY CONSULTANTS LLC AND SHALL NOT BE USED IN WHOLE OR IN PART FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF DEWBERRY CONSULTANTS LLC. ©2013 DEWBERRY CONSULTANTS LLC

cross grain, and other defects, 2 by 2 inches (50 by 50 mm) by length indicated, pointed at one end.
B. Guy and Tie Wire: ASTM A 641/A 641M, Class 1, galvanized-steel wire, 2-strand, twisted, 0.106 inch (2.7 mm) in diameter.
C. Guy Cable: 5-strand, 3/16-inch- (4.8-mm-) diameter, galvanized-steel cable, with zinc-coated turnbuckles, a minimum of 3 inches (75 mm) long, with two 3/8-inch (10-mm) galvanized eyebolts.
D. Hose Chafing Guard: Reinforced rubber or plastic hose at least 1/2 inch (13 mm) in diameter, black, cut to lengths required to protect tree trunks from damage.
E. Flags: Standard surveyor's plastic flagging tape, white, 6 inches (150 mm) long.

2.14 MISCELLANEOUS PRODUCTS
A. Antidesiccant: Water-insoluble emulsion, permeable moisture retarder, film forming, for trees and shrubs. Mix according to manufacturer's written instructions.

2.15 PLANTING SOIL MIX
A. Blend planting soil mixes mechanically using a commercial mixer or shredder. Uniformly incorporate ingredients. Do not allow mix to become contaminated with foreign material or saturated.
B. Planting Soil Mix: Mix topsoil with the following soil amendments and fertilizers in the following quantities:
1. Tree Pits in Paved Areas:
a. 1/10 composted sewage sludge.
b. 1/10 pine bark fines.
c. 1/5 coarse sand.
d. 3/5 topsoil.
e. Amendments required in soil analysis report.
2. Planting Beds:
a. 1/3 topsoil.
b. 1/3 excavated soil.
c. 1/6 compost.
d. 1/6 coarse sand.
e. Amendments required in soil analysis report.
3. Container Planters on Grade:
a. 1/3 topsoil.
b. 1/3 coarse sand.
c. 1/3 compost.
d. Amendments required in soil analysis report.

PART 3 - EXECUTION

3.1 EXAMINATION
A. Examine areas to receive exterior plants for compliance with requirements and conditions affecting acceptable installation and performance. Proceed with installation only after unsatisfactory conditions have been corrected. Commencement of Work constitutes acceptance of conditions and resulting affects and potential affects on plant health. Contractor shall be responsible for correcting, at his/her expense, all unsatisfactory and defective work.

3.2 PREPARATION
A. Notify Architect minimum 10 days prior to soil installation. Do not proceed with installation of soil materials until obtaining Architect's approval of Submittals including, but not limited to, soil analyses and percolation tests.
B. Protect structures, utilities, sidewalks, pavements, and other facilities, and lawns and existing exterior plants from damage caused by planting operations.
C. Provide erosion-control measures to prevent erosion & discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways.
D. Lay out individual tree and shrub locations and areas for multiple exterior plantings. Stake locations, outline areas, adjust locations when requested, and obtain Architect's acceptance of layout before planting. Provide minimum notice of 10 days. Make minor adjustments as directed.
E. Apply antidesiccant to trees and shrubs using power spray to provide an adequate film over trunks, branches, stems, twigs, and foliage to protect during handling.
1. If deciduous trees or shrubs are moved in full leaf, spray with antidesiccant at nursery before moving and again two weeks after planting.
F. Exercise care during planting operations over structure and/or subsurface drainage to avoid damage to adjacent work. The Contractor is responsible for the cost of repairs of all damages caused by his/her forces. Should any damage occur during planting, immediately notify the Architect.

3.3 PLANTING BED ESTABLISHMENT
A. Loosen subgrade of planting beds to a minimum depth of 8 inches (200 mm). Remove stones larger than 1 inch (25 mm) in any dimension and sticks, roots, rubbish, and other extraneous matter and legally dispose of them off Owner's property.
1. Apply fertilizer directly to subgrade before loosening.
2. Apply Transplant Inoculant.
3. Thoroughly blend planting soil mix off-site before spreading or spread topsoil, apply soil amendments & fertilizer on surface, thoroughly blend planting soil mix.
a. Delay mixing fertilizer with planting soil if planting will not proceed within a few days.
b. Mix lime with dry soil before mixing fertilizer.
4. Spread planting soil mix to a depth of 4 inches (100 mm) but not less than required to meet finish grades after natural settlement. Do not spread if planting soil or subgrade is frozen, muddy, or excessively wet.
a. Spread approximately one-half the thickness of planting soil mix over loosened subgrade. Mix thoroughly into top 4 inches (100 mm) of subgrade. Spread remainder of planting soil mix.
B. Finish Grading: Grade beds to a smooth, uniform surface plane with loose, uniformly fine texture. Roll & rake, remove ridges, fill depressions to meet finish grades.
C. Restore planting beds if eroded or otherwise disturbed after finish grading and before planting.
D. Bio-retention planting soil mix to be installed in accordance with Civil Plans and approved storm water management plans. Coordinate with General Contractor.
1. Incorporate soil amendments are required by topsoil analysis report.
2. Proceed with remaining elements of Plant Bed Establishment as above.

3.4 TREE AND SHRUB EXCAVATION
A. Prepare continuous tree and shrub planting beds that encompass multiple tree and shrub planting locations. Except for tree pits, set Limits of Planting Bed no closer 10 feet from any tree planting location and no closer than 30 inches from any shrub planting location. For tree pits, site Limits at the edge of adjacent paving or structure. Turn and amend existing soil within the Limits to a minimum depth of 18 inches throughout.
1. Planting in and/or near a Tree Protection Zone:
a. Refer to Division 02 Section Tree Protection and Trimming for excavation restrictions and tree protection requirements.
b. Reduce Limits of Planting Bed to 3 times the radius of each rootball.
2. Obstructions: Notify Architect if unexpected rock or obstructions detrimental to trees or shrubs are encountered in excavations.
a. Hardpan Layer: Drill 6-inch- (150-mm-) diameter holes 5 feet (1.5 m) on center into tree-draining strata or to a depth of 10 feet (3 m), whichever is less, and backfill with free-draining material.
B. Excavation:
1. Excavate circular pits with sides sloped inward. Trim base leaving center area raised slightly to support root ball and assist in drainage. Do not further disturb base. Scarify sides of plant pit smeared or smoothed during excavation.
a. Excavate approximately one and one half times as wide as ball diameter for balled and burlapped, container-grown, and fabric bag-grown stock.
b. Excavate at least 6 inches (150 mm) wider than root spread and deep enough to accommodate vertical roots for bare-root stock.
2. If subdrainage pipe is shown or required under planted areas, excavate to top of porous backfill. Do not damage fabric barrier(s).
3. Subsoil removed from excavations may be used as backfill.
C. Drainage: Notify Architect if subsoil conditions evidence unexpected water seepage or retention in tree or shrub pits.
D. Percolation test: Where no planting subdrainage system is indicated, immediately following rough grading and prior to planting, identify a typical planting location and excavate a tree pit. Fill with water to a depth of 12 inches. Report length of time for water to percolate completely into the soil. Within 6 hours, in the presence of the Architect, again fill the pit with water to a depth of 12 inches. If water does not completely percolate within 9 hours, submit a proposal for drainage system or soil penetrant. Do not proceed with planting until a determination is made by the Architect.

3.5 TREE AND SHRUB PLANTING
A. Set balled and burlapped stock plumb and in center of excavation with top of root ball 1 inch (25 mm) above adjacent finish grades.
1. To locate top of root collar, remove loose soil deposited on top of root ball during digging process.
2. Cut away and remove burlap and wire baskets from top third of root balls, but do not remove from under root balls. Remove pallets, if any, before setting.
3. Do not use planting stock if root ball is cracked or broken before or during planting operation.
4. Place planting soil mix around root ball in layers, tamping to settle mix and eliminate voids and air pockets. When pit is approximately one-half backfilled, water thoroughly before placing remainder of backfill. Repeat watering until no more water is absorbed. Water again after placing and tamping final layer of planting soil mix.
B. Set container-grown stock plumb and in center of pit or trench with top of root ball 1 inch (25 mm) above adjacent finish grades.
1. Carefully remove root ball from container without damaging root ball or plant.
2. Make 4 vertical cuts, 1 inch deep, evenly spaced about the root ball with a clean, sharp utility knife.
3. Place planting soil mix around root ball in layers, tamping to settle mix and eliminate voids and air pockets. When pit is approximately one-half backfilled, water thoroughly before placing remainder of backfill. Repeat watering until no more water is absorbed. Water again after placing and tamping final layer of planting soil mix.
C. Set fabric bag-grown stock plumb and in center of pit or trench with top of root ball 1 inch (25 mm) above adjacent finish grades.
1. Carefully remove root ball from fabric bag without damaging root ball or plant. Do not use stock if root ball is cracked or broken before or during planting operation.
2. Place planting soil mix around root ball in layers, tamping to settle mix and eliminate voids and air pockets. When pit is approximately one-half backfilled, water thoroughly before placing remainder of backfill. Repeat watering until no more water is absorbed. Water again after placing and tamping final layer of planting soil mix.
D. Set and support bare-root stock in center of pit or trench with root collar or trunk flare flush with adjacent finish grade. Spread roots without tangling or turning toward surface, and carefully work backfill around roots by hand. Puddle with water until backfill layers are completely saturated. Plumb before backfilling, and maintain plumb while working backfill around roots and placing layers above roots. Tamp final layer of backfill. Remove injured roots by cutting cleanly; do not break.
E. Organic Mulching: Apply 3-inch (75-mm) average thickness of organic mulch extending 12 inches (300 mm) beyond edge of planting pit or trench. Do not place mulch within 3 inches (75 mm) of trunks or stems.

3.6 TREE AND SHRUB PRUNING
A. Prune, thin, and shape trees and shrubs according to standard horticultural practice. Prune trees to retain required height and spread. Remove no more than 10 percent of top growth unless otherwise indicated by Architect, do not cut tree leaders; remove only injured or dead branches from flowering trees. Prune shrubs to retain natural character. Shrub sizes indicated are sizes after pruning.

3.7 GUYING AND STAKING
A. Upright Staking and Tying: Stake trees of 2- through 5-inch (50- through 125-mm) caliper. Stake trees of less than 2-inch (50-mm) caliper only as required to prevent wind tip-out. Use a minimum of 2 stakes of length required to penetrate at least 18 inches (450 mm) below bottom of backfilled excavation and to extend at least 72 inches (1830 mm) above grade. Set vertical stakes and space to avoid penetrating root balls or root masses. Support trees with two strands of tie wire encased in hose sections at contact points with tree trunk. Allow enough slack to avoid rigid restraint of tree. Use the number of stakes as follows:
1. Use 2 stakes for trees up to 12 feet (3.6 m) high and 2-1/2 inches (63 mm) or less in caliper; 3 stakes for trees less than 14 feet (4.2 m) high and up to 4 inches (100 mm) in caliper. Space stakes equally around trees.
B. Guying and Staking: Guy and stake trees exceeding 14 feet (4.2 m) in height and more than 3 inches (75 mm) in caliper, unless otherwise indicated. Securely attach no fewer than 3 guys to stakes 30 inches (760 mm) long, driven to grade.
1. For trees more than 6 inches (150 mm) in caliper, anchor guys to pressure-preservative-treated deadmen 8 inches (200 mm) in diameter and 48 inches (1200 mm) long buried at least 36 inches (900 mm) below grade. Provide turnbuckles for each guy wire and tighten securely.
2. Attach flags to each guy wire, 30 inches (760 mm) above finish grade.

3.8 PLANTERS
A. Planters: Place a layer of gravel at least 4 inches (100 mm) thick in bottom of planters, cover with nonwoven fabric, and fill with planter soil mix. Place soil in lightly compacted layers to an elevation of 1-1/2 inches (38 mm) below top of planter, allowing natural settlement.

3.9 GROUND COVER AND PLANT PLANTING
A. Dig holes large enough to allow spreading of roots, and backfill with planting soil. Work soil around roots to eliminate air pockets.
B. Water thoroughly after planting, taking care not to cover plant crowns with wet soil.
C. Protect plants from hot sun and wind; remove protection if plants show evidence of recovery from transplanting shock.

3.10 PLANTING BED MULCHING
A. Apply 3-inch (75-mm) average thickness of organic mulch, and finish level with adjacent finish grades. Do not place mulch against plant stems.

3.12 CLEANUP AND PROTECTION
A. Keep adjacent pavings and construction clean and work area in an orderly condition.
B. Protect exterior plants from damage. Maintain protection during installation and maintenance periods. Treat, repair, or replace damaged exterior planting.

3.13 DISPOSAL
A. Disposal: Remove surplus soil and waste material, including excess subsoil, unsuitable soil, trash, and debris, and legally dispose of them off Owner's property.

END OF SECTION 32 93 00

TREE CANOPY CALCULATION TABLE

QTY.	BOTANICAL NAME	COMMON NAME	SIZE	TYPE	10-YR TREE COVER CANOPY	ENERGY CONSERVATION	WATER QUALITY	AIR QUALITY	IMPROVED CULTIVAR	SUB-TOTAL
STREET TREES (CATEGORY IV)										
25%	Platanus acerifolia	London Plane Tree	3" cal.	B&B	250					5000
25%	Quercus phellos	Willow Oak	3" cal.	B&B	250		1.25			6250
25%	Tilia americana	American Linden	3" cal.	B&B	250			1.5		7500
25%	Zelkova serrata	Japanese Zelkova	3" cal.	B&B	250			1.5		7125
79										**25,875**
CANOPY TREES (CATEGORY IV)										
20%	Acer rubrum October Glory'	October Glory Red Maple	3" cal.	B&B	250			1.5		6000
20%	Liquidambar styraciflua	Sweetgum	3" cal.	B&B	250					4000
20%	Quercus bicolor	Swamp White Oak	3" cal.	B&B	250		1.25			5000
20%	Ulmus parvifolia	Chinese Elm	3" cal.	B&B	250			1.5		6000
20%	Zelkova serrata	Japanese Zelkova	3" cal.	B&B	250			1.5		5625
79										**26,625**
CANOPY TREES (CATEGORY III)										
20%	Betula nigra	River Birch	3" cal.	B&B	175		1.25			2844
20%	Gleditsia triacanthos inermis	Honeylocust	3" cal.	B&B	175					2275
20%	Koelreuteria paniculata	Golden Rain Tree	3" cal.	B&B	175					2275
20%	Prunus yeodoensis	Yoshino Cherry	3" cal.	B&B	175					2275
20%	Tilia cordata	Little Leaf Linden	3" cal.	B&B	175			1.5		3150
64										**12,819**
ORNAMENTAL TREES (CATEGORY II)										
20%	Amelanchier arborea	Downey Serviceberry	3" cal.	B&B	125					4125
20%	Cercis canadensis	Eastern Redbud	3" cal.	B&B	125					4125
20%	Cornus kousa ' Stellar'	Kousa Dogwood Hybrid	3" cal.	B&B	125				1.5	6000
20%	Magnolia soulangiana	Saucer Magnolia	3" cal.	B&B	125					4000
20%	Magnolia virginiana	Sweetbay Magnolia	3" cal.	B&B	125		1.25			5156
163										**23,406**
EVERGREEN TREES (CATEGORY II)										
20%	Cryptomeria japonica	Japanese Cryptomeria	10' ht.	B&B	125					1125
20%	Cupressocyparis leylandii	Leyland Cypress	10' ht.	B&B	125					563
20%	Juniperus virginiana	Easter Red Cedar	10' ht.	B&B	125					1125
20%	Ilex opaca	American Holly	10' ht.	B&B	125		1.25			1406
20%	Picea glauca	White Spruce	10' ht.	B&B	125					1125
45										**5,344**
TOTAL CANOPY COVERAGE (SF)										**94,069**

GROSS SITE AREA (SF): 566,196

AREA OF 10-YEAR TREE CANOPY REQUIRED (10%): 56,620

TOTAL TREE PROVIDED (SF): 94,069

note:
final planting species, quantities, and locations are subject to change by detail site designs and site conditions
see detail tree canopy calculation sheet c-6a

Application No: RZ / FDP 2009-HM-017 Staff: WO'D

APPROVED DEVELOPMENT PLAN
(_GDP) (XCDP) (XDDP) (_PRC) (_DP) (_FP) (_SE) (_CSP) (_SP) (_VC)
SEE PROFFERS DATED: Jul 25, 2014
SEE CONDITIONS DATED:
Date of Final Approval: Jul 29, 2014 (XBOS) (_PC) (_BZA)
Comments: CDP/Devel. Conds. Dated 4/30/2014
& ZONING Sheet 53 of 76

Hanmal, Green and Abrahamsen, Inc.
44 Canal Center Plaza, Suite 100
Alexandria, Virginia 22314
Telephone 703.836.7766
Facsimile 703.836.3042

LSG LANDSCAPE ARCHITECTURE
1910 GALLOWS ROAD, SUITE 110
VIENNA, VIRGINIA 22182
703-821-2040

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

DCS DESIGN — DAVIS CARTER SCOTT LTD

ROCKS REAL ESTATE CORP. SINCE 1958

Revised For Construction
May 29, 2014

INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE
Conceptual/Final Development Plan
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
ROBERT K. ESSELBURN
Lic. No. 001067
5-21-14
LANDSCAPE ARCHITECT

KEY PLAN

COMMONWEALTH OF VIRGINIA
CINDY A. PENNETT
Lic. No. 048960
5-21-14
PROFESSIONAL ENGINEER

SCALE 1" = 50' or LOWN

No.	DATE	BY	Description
6	04.21.14		CDP
5	03.27.14		CDP
4	02.21.14		CDP
3	01.03.14		CDP
2	11.22.13		CDP
1	9.09.13		CDP

REVISIONS

DRAWN BY BC
APPROVED BY SC
CHECKED BY BE
DATE 09.06.2013
TITLE

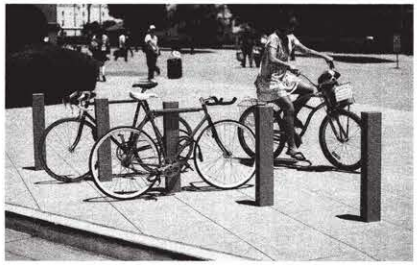
PLANTING SPECIFICATIONS

PROJECT NO. 13046.00

R01.153
SHEET NO. L-7E
SECTION NO. M-1083 R01-ZONING

1 PEDESTRIAN POLE LIGHT

2 STICK LIGHTING & BOLLARD

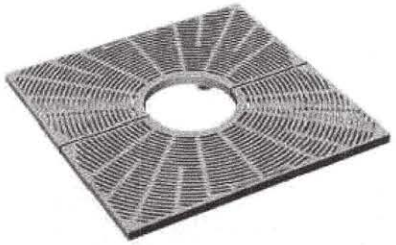


3 BIKE RACK

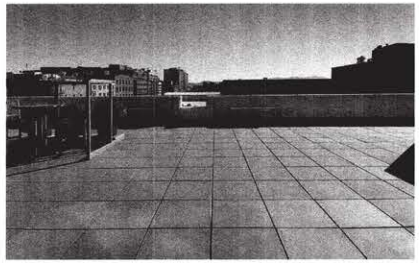
4 BENCH

5 TABLE AND CHAIRS

6 TRASH RECEPTACLE

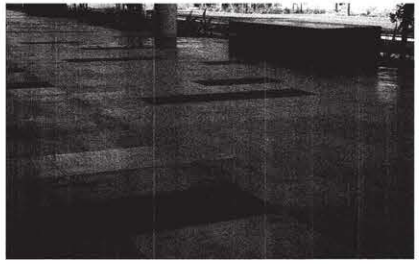


7 TREE GRATE



8 ROOF PAVERS

9 CONCRETE UNIT PAVING



10 STONE PAVING

Application No: RZ / FDP 2009-HM-017 Staff: WO'D

APPROVED DEVELOPMENT PLAN

(_GDP) (X DP) (X DP) (_PRC) (_DP) (_SP) (_SE) (_CSP) (_SP) (_VC)

SEE PROFFERS DATED: Jul 25, 2014

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Date of Final Approval: Jul 29, 2014 (XBOS) (_PC) (_BZA)

Comments: CDP/Devel. Cond's. Dated 4/30/2014

& ZONING Sheet 54 of 76

NOTE:
1. LIGHTING AND SITE FURNISHINGS ARE REPRESENTATIVE OF QUALITY AND MATERIALS. FINAL SELECTION SHALL BE MADE BY THE APPLICANT LATER.

2. SELECTION OF LIGHT FIXTURES FOR LIGHTING IN ROW SUBJECT TO CONFORMANCE WITH POWER COMPANY REQUIREMENTS.

Hanmel, Green and Abrahamson, Inc.
44 Canal Center Plaza, Suite 100
Alexandria, Virginia 22314
Telephone 703.836.7768
Facsimile 703.836.5040

LSG LANDSCAPE ARCHITECTURE
1979 GALLOWS ROAD, SUITE 110
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DAVIS CARTER SCOTT Ltd
DCS DESIGN

ROCKS ENGINEERING

Issued For Construction

INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE

Conceptual/Final Development Plan

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
ROBERT K. ESSELBURN
Reg. No. 001067
LANDSCAPE ARCHITECT
4-21-14

KEY PLAN

COMMONWEALTH OF VIRGINIA
CODY A. PENNETT
Lic. No. 048960
PROFESSIONAL ENGINEER
4-21-14

SCALE AS SHOWN

No.	DATE	BY	Description
6	04.21.14		CDP
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2	11.22.13		CDP
1	9.09.13		CDP

REVISIONS

DRAWN BY BC
APPROVED BY SC
CHECKED BY BE
DATE 09.06.2013

TITLE

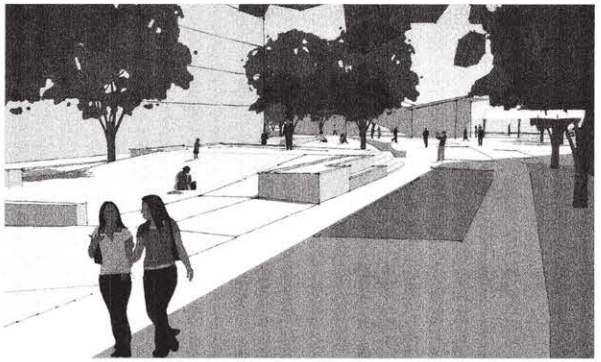
SITE FURNITURE AND MATERIAL IMAGES

PROJECT NO. 13046.00

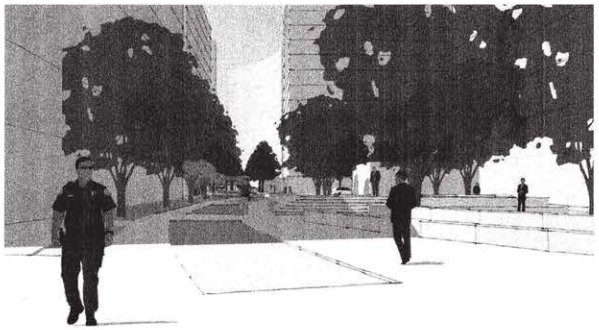
R01.154

SHEET NO. L-8

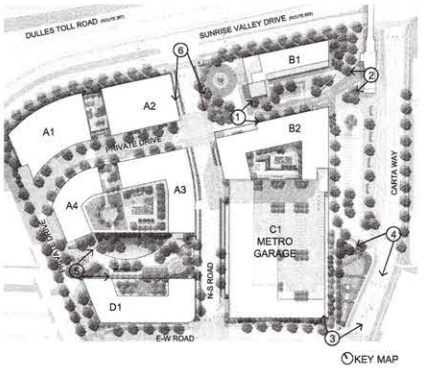
SECTION NO. M-10831 R01-ZONING



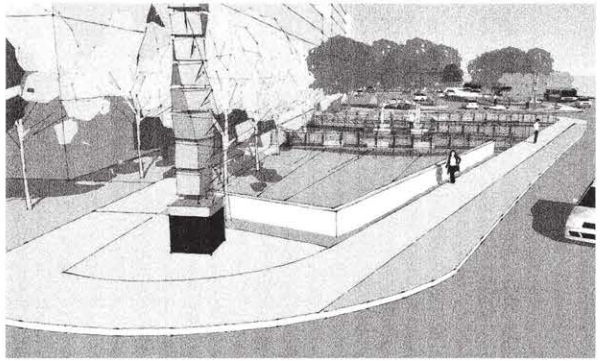
1 METRO PLAZA



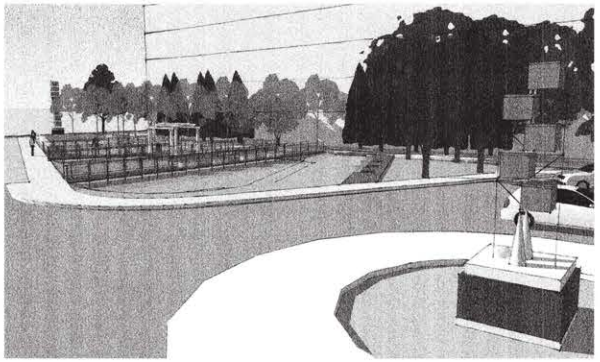
2 METRO PLAZA



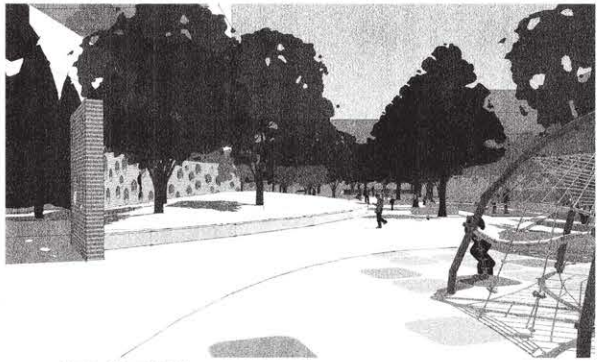
KEY MAP



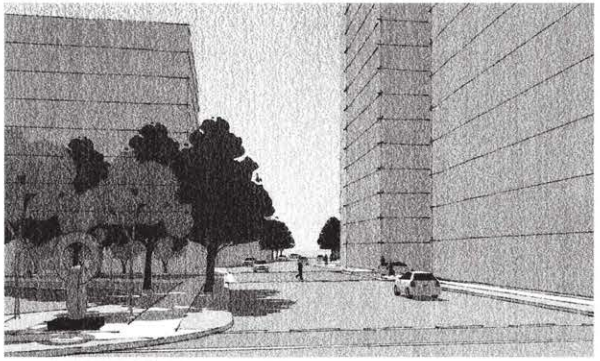
3 POCKET PARK



4 POCKET PARK



5 URBAN PARK



6 STREETSCAPE

Application No: RZ / FDP 2009-HM-017 Staff: WO'D

APPROVED DEVELOPMENT PLAN

(_GDP) (X CDP) (X DP) (_PRC) (_DP) (_EP) (_SE) (_CSP) (_SP) (_VC)

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& ZONING Sheet 55 of 76

Hanmel, Green and Abrahamsen, Inc.
44 Canal Center Plaza, Suite 100
Alexandria, Virginia 22314
Telephone 703.836.7766
Facsimile 703.836.3942

LSG LANDSCAPE ARCHITECTURE

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

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DESIGN

ROCKS
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Issued For Construction

INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE

Conceptual/Final Development Plan

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

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ROBERT K. ESSELBURN
Lic. No. 001087
PROFESSIONAL ENGINEER
LANDSCAPE ARCHITECT
6-1-14

KEY PLAN

COMMONWEALTH OF VIRGINIA
CODY A. PENNETT
Lic. No. 048960
PROFESSIONAL ENGINEER
6/5-05-14

SCALE NTS

No.	DATE	BY	Description
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4	02.21.14		CDP
3	01.03.14		CDP
2	11.22.13		CDP
1	9.09.13		CDP

REVISIONS

DRAWN BY BC
APPROVED BY SC
CHECKED BY BE
DATE 09.06.2013

TITLE

PERSPECTIVE VIEWS

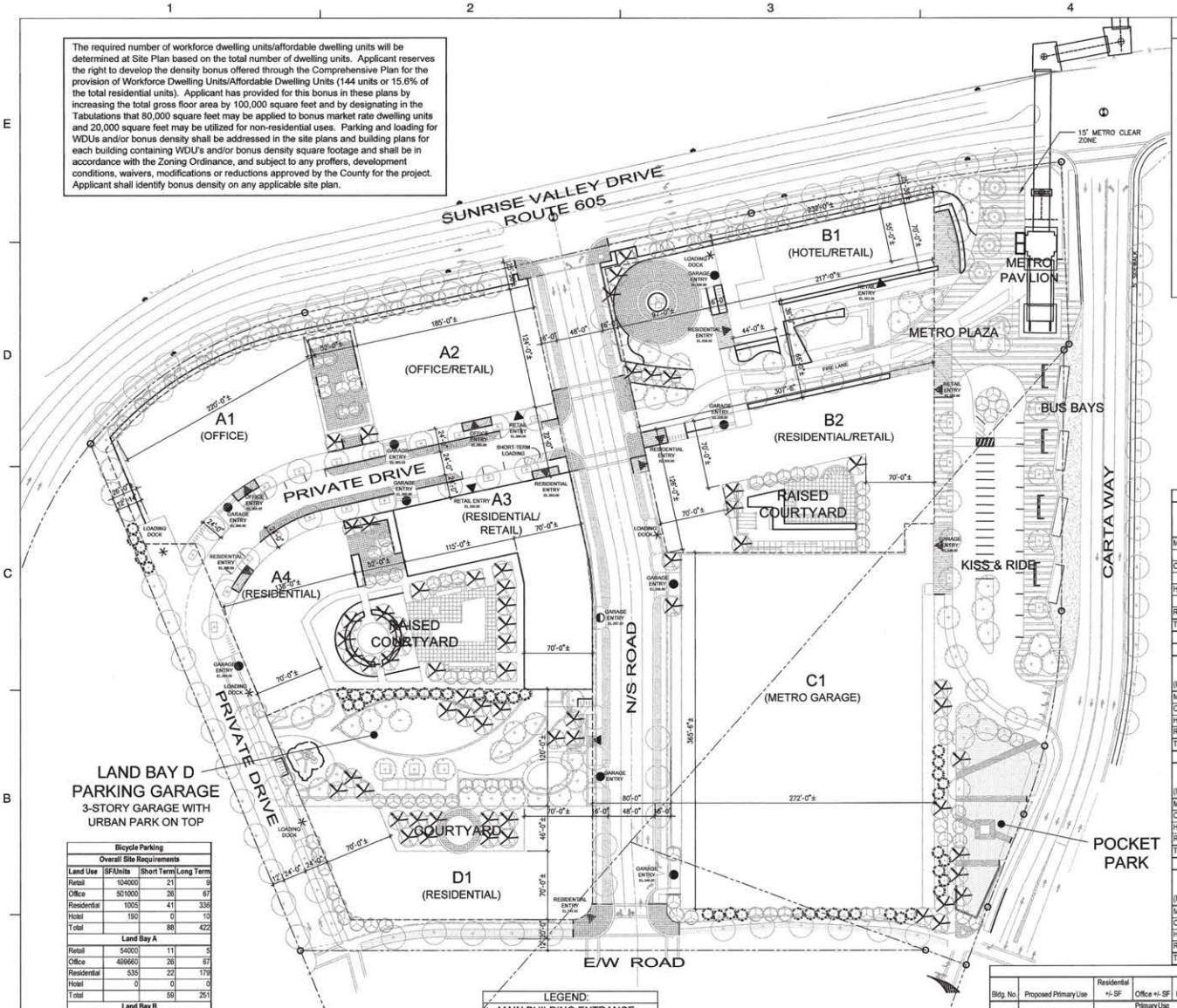
PROJECT NO. 13046.00

R01.155

SHEET NO. L-9

SECTION NO. M-10831 R01-ZONING

The required number of workforce dwelling units/affordable dwelling units will be determined at Site Plan based on the total number of dwelling units. Applicant reserves the right to develop the density bonus offered through the Comprehensive Plan for the provision of Workforce Dwelling Units/Affordable Dwelling Units (144 units or 15.6% of the total residential units). Applicant has provided for this bonus in these plans by increasing the total gross floor area by 100,000 square feet and by designating in the Tabulations that 80,000 square feet may be applied to bonus market rate dwelling units and 20,000 square feet may be utilized for non-residential uses. Parking and loading for WDUs and/or bonus density shall be addressed in the site plans and building plans for each building containing WDU's and/or bonus density square footage and shall be in accordance with the Zoning Ordinance, and subject to any proffers, development conditions, waivers, modifications or reductions approved by the County for the project. Applicant shall identify bonus density on any applicable site plan.



LAND BAY D
PARKING GARAGE
3-STORY GARAGE WITH
URBAN PARK ON TOP

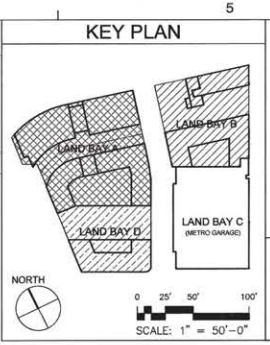
Bicycle Parking			
Overall Site Requirements			
Land Use	GFA/Units	Short Term	Long Term
Retail	104000	21	9
Office	501000	26	67
Residential	1005	41	336
Hotel	190	0	10
Total		88	422
Land Bay A			
Retail	54000	11	5
Office	499660	26	67
Residential	535	22	179
Hotel	0	0	0
Total		59	251
Land Bay B			
Retail	50000	10	4
Office	0	0	0
Residential	345	14	116
Hotel	190	0	10
Total		24	130
Land Bay D			
Retail	0	0	0
Office	0	0	0
Residential	125	6	42
Hotel	0	0	0
Total		6	42

LEGEND:
- ▶ MAIN BUILDING ENTRANCE
- ● GARAGE VEHICULAR ACCESS
- ◐ ONE-WAY VEHICULAR ACCESS
- ✳ LOADING ACCESS

OVERALL CDP/FDP SITE PLAN

1"=50'-0"
444_SITE-ANNO.dwg

KEY PLAN



NOTE:
LANDSCAPE PLAN IS ILLUSTRATIVE TO SHOW GENERAL INTENT AND CHARACTER OF PROPOSED DEVELOPMENT. ARCHITECTURAL FOOTPRINTS AND LANDSCAPE FEATURES MAY VARY WITH FINAL BUILDING DESIGN AND SITE PLAN.

Application No: RZ / FDP 2009-HM-017 Staff: WO'D

APPROVED DEVELOPMENT PLAN
(_GDP) (X DP) (X DP) (_PRC) (_DP) (_EP) (_SE) (_CSP) (_SP) (_VC)
SEE PROFFERS DATED: Jul 25, 2014
SEE CONDITIONS DATED:
Date of Final Approval: Jul 29, 2014 (_BOS) (_PC) (_BZA)
Comments: CDP Devel. Conds. Dated 4/30/2014
& ZONING
Sheet 56 of 76

TOTAL SITE PARKING TABULATIONS FOR LAND BAYS A, B, & D*

	GFA +/-SF	Approx. No. of Rooms/Units	Spaces Required	Spaces Provided
Multi-Family Residential @ 1.6 per Dwelling Unit	951,041	1,005	1,508	-
Office @ 2.6 per 1,000 SF GFA	499,660		1,299	-
Hotel @ 1 per Room + 4 per 50 Rooms	90,000	190	206	-
Retail @1 per 200 SF 1st 1,000 SF, 6 per 1,000 remaining SF	104,000		623	-
TOTAL	1,644,701	1,195	3,736	3,492

*For parking reduction, see sheet C-2C

LAND BAY A - PARKING TABULATIONS

(Includes Buildings A1, A2, A3 & A4)	GFA +/-SF	Approx. No. of Rooms/Units	Spaces Required	Spaces Provided
Multi-Family Residential @ 1.6 per Dwelling Unit	479,441	535	856	-
Office @ 2.6 per 1,000 SF GFA	499,660	-	1,299	-
Hotel @ 1 per Room + 4 per 50 Rooms	-	-	-	-
Retail @1 per 200 SF 1st 1,000 SF, 6 per 1,000 remaining SF	54,000	-	323	-
TOTAL	1,033,101	535	2,478	2,363

LAND BAY B - PARKING TABULATIONS

(Includes Buildings B1 & B2)	GFA +/-SF	Approx. No. of Rooms/Units	Spaces Required	Spaces Provided
Multi-Family Residential @ 1.6 per Dwelling Unit	346,800	345	552	-
Office @ 2.6 per 1,000 SF GFA	-	-	-	-
Hotel @ 1 per Room + 4 per 50 Rooms	90,000	-	206	-
Retail @1 per 200 SF 1st 1,000 SF, 6 per 1,000 remaining SF	50,000	-	299	-
TOTAL	486,800	345	1,057	929

LAND BAY D - PARKING TABULATIONS

(Includes Building D1)	GFA +/-SF	Approx. No. of Rooms/Units	Spaces Required	Spaces Provided
Multi-Family Residential @ 1.6 per Dwelling Unit	125,000	125	200	-
Office @ 2.6 per 1,000 SF GFA	-	-	-	-
Hotel @ 1 per Room + 4 per 50 Rooms	-	-	-	-
Retail @1 per 200 SF 1st 1,000 SF, 6 per 1,000 remaining SF	-	-	-	-
TOTAL	125,000	125	200	200

ESTIMATED BUILDING GROSS FLOOR AREA

Bldg. No.	Proposed Primary Use	Residential +/- SF	Office +/- SF	Hotel +/-SF	Retail +/-SF	Minimum Height +/-*	Maximum Height +/-*	Stories	Residential Units +/-	Hotel Units +/-	Minimum Area	Maximum Area
			Primary Use		Secondary Use							
A1	Office		259,660		5,000	120 FT	180 FT	10-13			201,000	339,000
A2	Office		240,000		9,000	120 FT	180 FT	10-13			185,000	312,000
A3	Residential	288,000			35,000	130 FT	180 FT	14-16	320		262,000	329,000
A4	Residential	191,441			5,000	130 FT	180 FT	14-16	215		188,000	219,000
B1	Hotel			90,000	10,000	100 FT	120 FT	10-12		190	75,000	108,000
B2	Residential	346,600			40,000	110 FT	150 FT	12-14	345		222,000	320,000
C1	Metro Garage		1,340									
D1	Residential	125,000				50 FT	70 FT	5-7	125		89,000	175,000
Total		951,041	501,000	90,000	104,000				1,005	190		
		57.78%	30.44%	5.47%	8.32%	* Exclusive of Penthouse heights (See A-301)						
Total GFA All Uses		1,646,041 +/-SF										

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

LSG LANDSCAPE ARCHITECTURE
1919 GALLOWS ROAD, SUITE 110
VIENNA, VIRGINIA 22182
703.671.1040

Hammel, Green and Abrahamson, Inc.
44 Canal Center Plaza, Suite 100
Alexandria, Virginia 22314
Telephone 703.836.7766
Facsimile 703.836.3042

DAVIS CARTER SCOTT DESIGN

Issued For Construction
May 14, 2014

ROOKS
REAL ESTATE DEVELOPERS SINCE 1958

INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE
Conceptual/Final Development Plan
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL
COMMONWEALTH OF VIRGINIA
JOSEPH STEVEN SAVILLE
No. 042661
ARCHITECT

KEY PLAN
COMMONWEALTH OF VIRGINIA
CORY A. PENNETT
LICENSE NO. 042661
PROFESSIONAL ENGINEER

SCALE

PRINT DATE 4/18/14, 8:58 am

No.	DATE	BY	Description
7	04/21/14		
6	03/27/14		
5	02/21/14		
4	01/03/14		
3	11/22/13		
2	9/25/13		
1	9/9/13		

REVISIONS

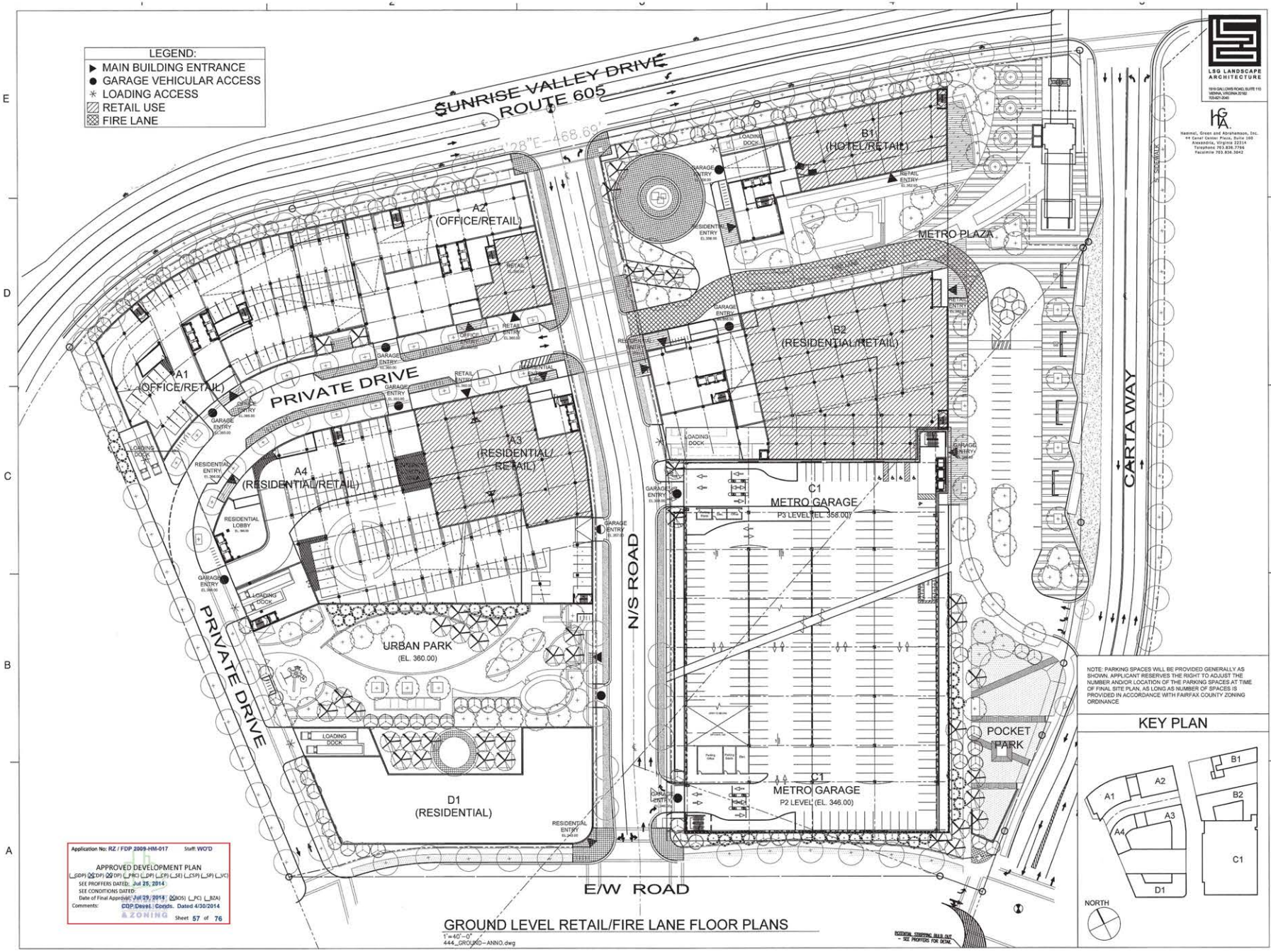
DRAWN BY CFC
APPROVED BY JSS
CHECKED BY JSS
DATE 04/21/14
TITLE

OVERALL CDP/FDP SITE PLAN

PROJECT NO. 305444.06

SHEET NO. A-100
SECTION NO. R01-ZONING

R01.156



GROUND LEVEL RETAIL/FIRE LANE FLOOR PLANS

1"=40'-0"

444_GROUND-ANNO.dwg

NOTE: PARKING SPACES WILL BE PROVIDED GENERALLY AS SHOWN. APPLICANT RESERVES THE RIGHT TO ADJUST THE NUMBER AND/OR LOCATION OF THE PARKING SPACES AT TIME OF FINAL SITE PLAN, AS LONG AS NUMBER OF SPACES IS PROVIDED IN ACCORDANCE WITH FAIRFAX COUNTY ZONING ORDINANCE

KEY PLAN

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

LSG LANDSCAPE ARCHITECTURE
1916 OAK LOWS ROAD, SUITE 110
VIENNA, VIRGINIA 20182
703-621-2040

Hanmai, Green and Abrahamson, Inc.
44 Canal Center Plaza, Suite 100
Alexandria, Virginia 22314
Telephone 703.836.7766
Facsimile 703.836.5042

DAVID CARTER SCOTT inc
DESIGN

ROCKS
REAL ESTATE DEVELOPMENT SINCE 1998

Issued For Construction
May 28, 2014

INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE
Conceptual/Final Development Plan
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
JOSEPH STEVEN SAVILLE
Lic. No. 12654
3/7/14
ARCHITECT

KEY PLAN

COMMONWEALTH OF VIRGINIA
CODY A. PENNETT
Lic. No. 045960
3/5-98-01
PROFESSIONAL ENGINEER

SCALE

No.	DATE	BY	Description
6	03/27/14		
5	02/21/14		
4	01/03/14		
3	11/22/13		
2	9/25/13		
1	9/9/13		

PRINT DATE 3/31/14, 7:17 am

REVISIONS

DRAWN BY CFC
APPROVED BY JSS
CHECKED BY JSS
DATE 02/21/14

TITLE

GROUND LEVEL

RETAIL/FIRE LANE FLOOR PLANS

PROJECT NO. 305444.06

SHEET NO. A-101

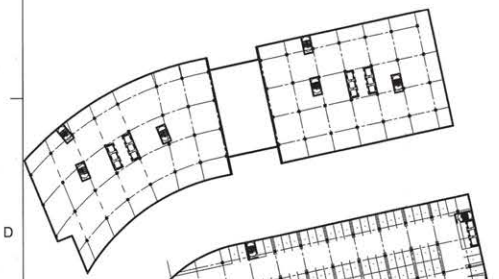
R01.157

SECTION NO. R01-ZONING

Application No: RZ / FDP 2009-HM-017 Staff: WO'D

APPROVED DEVELOPMENT PLAN
(_GDP) (X FDP) (X DP) (_PRC) (_DP) (_EP) (_SE) (_SPI) (_SP) (_VC)
SEE PROFFERS DATED: Jul 25, 2014
SEE CONDITIONS DATED:
Date of Final Approval: Jul 29, 2014 (X BOS) (_PC) (_BZA)
Comments: CDP Devel. Conds. Dated 4/30/2014
Sheet 58 of 76

PLANNING & ZONING



8 LAND BAY A
LEVEL 385 PARKING PLAN
1"=60'-0"
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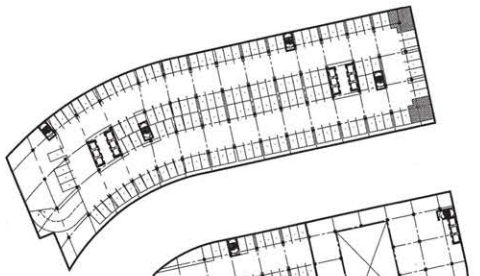
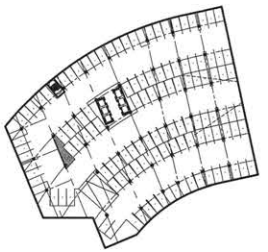


7 LAND BAY A
LEVEL 375 PARKING PLAN
1"=60'-0"
444_D1PKG-anno.dwg

6 LAND BAY A
LEVEL 360/365 PARKING PLAN
1"=60'-0"
444_D1PKG-anno.dwg



5 LAND BAY A
LEVEL 355 PARKING PLAN
1"=60'-0"
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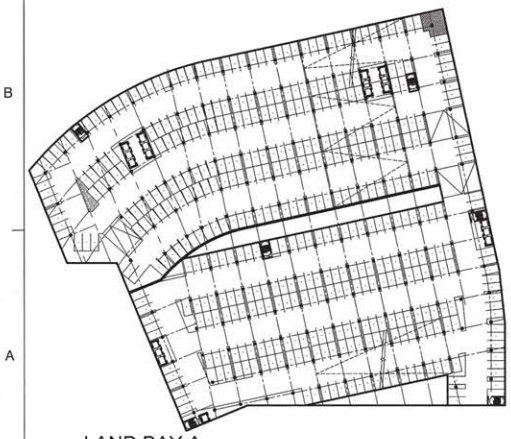
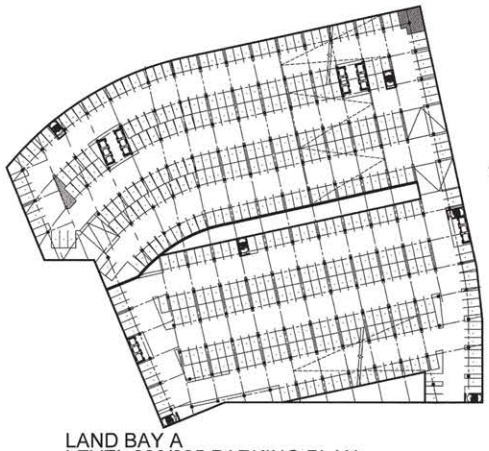
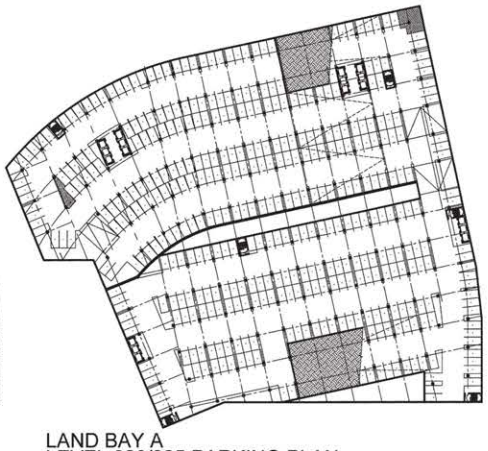


3 LAND BAY A
LEVELS 340/345 & 350/355 PARKING PLAN
1"=60'-0"
444_D1PKG-anno.dwg



2 LAND BAY A
LEVEL 330/335 PARKING PLAN
1"=60'-0"
444_D1PKG-anno.dwg

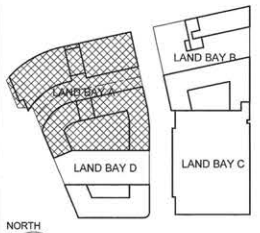


1 LAND BAY A
LEVEL 320/325 PARKING PLAN
1"=60'-0"
444_D1PKG-anno.dwg

PARKING SUMMARY					
LAND BAY A					
	Elevation	Standard	Handicap	Van	Spaces
Above Grade	385	157	4	0	161
	375	235	4	0	239
	360/365	156	4	6	166
	365	114	4	0	118
Below Grade	350/355	424	4	0	428
	340/345	424	4	0	428
	330/335	426	2	0	428
	320/325	393	2	0	395
	Total:	2,329	28	6	2,363

NOTE: PARKING SPACES WILL BE PROVIDED GENERALLY AS SHOWN. APPLICANT RESERVES THE RIGHT TO ADJUST THE NUMBER AND/OR LOCATION OF THE PARKING SPACES AT TIME OF FINAL SITE PLAN, AS LONG AS NUMBER OF SPACES IS PROVIDED IN ACCORDANCE WITH FAIRFAX COUNTY ZONING ORDINANCE.

KEY PLAN



LSG LANDSCAPE ARCHITECTURE
1919 GALLOWS ROAD, SUITE 110
VIENNA, VIRGINIA 22182
703-821-2040

HGA
Hammel, Green and Abrahamson, Inc
44 Canal Center Plaza, Suite 100
Alexandria, Virginia 22314
Telephone 703.836.7766
Facsimile 703.836.3642

Dewberry
Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

dcs DESIGN DAVIS CARTER SCOTT Ltd

ROCKS ENGINEERING COMPANY

Issued For Construction

INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE
Conceptual/Final Development Plan
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL
COMMONWEALTH OF VIRGINIA
JOSEPH STEVEN SAVILLE
Lic. No. 136541
3/27/14
ARCHITECT

KEY PLAN
COMMONWEALTH OF VIRGINIA
CODY A. PENNETT
Lic. No. 048960
3/27/14
PROFESSIONAL ENGINEER

SCALE

PRINT DATE 3/31/14, 6:57 am

No.	DATE	BY	Description
8	03/27/14		
5	02/21/14		
4	01/03/14		
3	11/22/13		
2	9/25/13		
1	9/9/13		

REVISIONS

DRAWN BY	CFC
APPROVED BY	JSS
CHECKED BY	JSS
DATE	02/21/14

TITLE

LAND BAY A
PARKING PLANS

PROJECT NO. 305444.06

A-102
R01.158
SHEET NO. OF
SECTION NO. R01-ZONING

NOTE: PARKING SPACES WILL BE PROVIDED GENERALLY AS SHOWN. APPLICANT RESERVES THE RIGHT TO ADJUST THE NUMBER AND/OR LOCATION OF THE PARKING SPACES AT TIME OF FINAL SITE PLAN, AS LONG AS NUMBER OF SPACES IS PROVIDED IN ACCORDANCE WITH FAIRFAX COUNTY ZONING ORDINANCE.

Application No: RZ / FDP 2009-HM-017 Staff: WO'D

APPROVED DEVELOPMENT PLAN
(_GDP) (X CDP) (X DP) (_PRC) (_DP) (_EP) (_SE) (_ESP) (_VC)
SEE PROFFERS DATED: Jul 25, 2014
SEE CONDITIONS DATED:
Date of Final Approval: Jul 29, 2014 (X BOS) (_PC) (_BZA)
Comments: CDP/Devel. Cond's. Dated 4/30/2014
ZONING
Sheet 59 of 76

LSG LANDSCAPE ARCHITECTURE
1918 GALLOWS ROAD, SUITE 110
VIENNA, VIRGINIA 22182
703-821-1245

Hammel, Green and Abrahamson, Inc.
44 Canal Center Plaza, Suite 100
Alexandria, Virginia 22314
Telephone 703.836.7766
Facsimile 703.836.3042

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

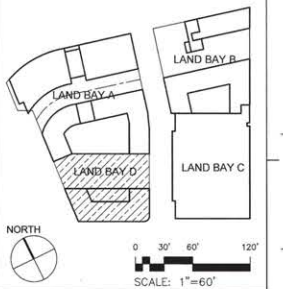
DCS DAVIS CARTER SCOTT Ltd. DESIGN

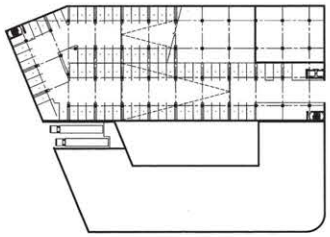
ROCKS ENGINEERING COMPANY

Issued For Construction

LAND BAY D					
	Elevation	Standard	Handicap	Van	Spaces
Below Grade	345/350	72	2	1	75
	335/340	96	2	0	98
	330	26	1	0	27
	Total:	194	5	1	200

KEY PLAN





5 LAND BAY D
LEVEL 345/350 PARKING PLAN
1"=60'-0"
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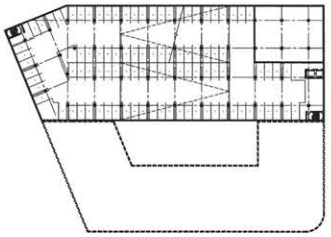

4 LAND BAY D
LEVEL 335/340 PARKING PLAN
1"=60'-0"
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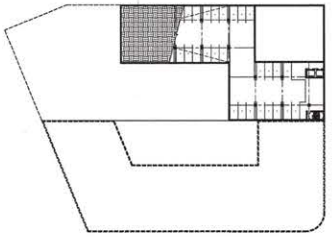
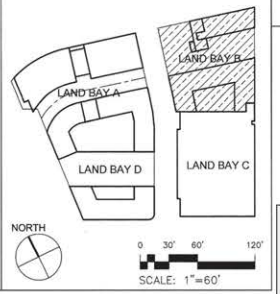
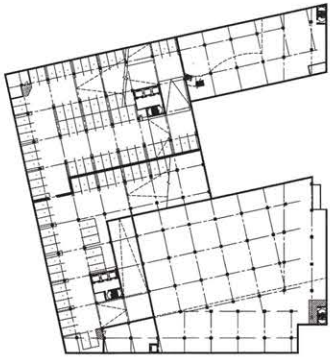


3 LAND BAY D
LEVEL 330 PARKING PLAN
1"=60'-0"
444_D1PKG-anno.dwg

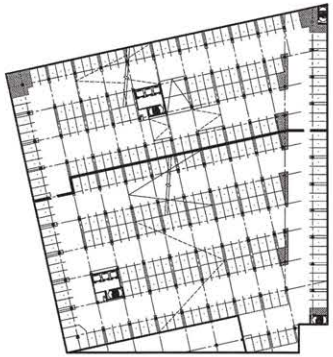
LAND BAY B					
	Elevation	Standard	Handicap	Van	Spaces
Below Grade	347	82	4	4	90
	337/342	280	4	0	284
	327/332	280	4	0	284
	317/322	268	3	0	271
	Total:	910	15	4	929

KEY PLAN

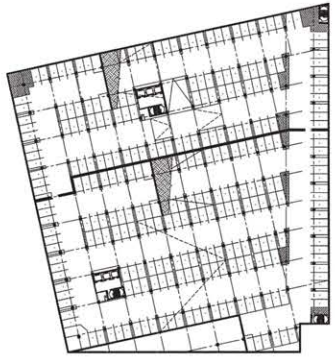




3 LAND BAY B
LEVEL 347 PARKING PLAN
1"=60'-0"
444_D1PKG-anno.dwg



2 LAND BAY B
LEVELS 327/332 & 337/342 PARKING PLAN
1"=60'-0"
444_D1PKG-anno.dwg



1 LAND BAY B
LEVEL 317/322 PARKING PLAN
1"=60'-0"
444_D1PKG-anno.dwg

INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE
Conceptual/Final Development Plan
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL
COMMONWEALTH OF VIRGINIA
JOSEPH STEVEN SAVILLE
Lic. No. 12684
3/27/14

KEY PLAN
COMMONWEALTH OF VIRGINIA
CODY A. PENNETT
Lic. No. 048960
PROFESSIONAL ENGINEER

SCALE

PRINT DATE 3/31/14, 6:58 am

No.	DATE	BY	Description
6	03/27/14		
5	02/21/14		
4	01/03/14		
3	11/22/13		
2	9/25/13		
1	9/9/13		

REVISIONS

DRAWN BY CFC
APPROVED BY JSS
CHECKED BY JSS
DATE 02/21/14

TITLE

LAND BAYS B & D
PARKING PLANS

PROJECT NO. 305444.06

A-102
R01.159
SHEET NO. OF
SECTION NO. R01-ZONING

OVERALL FLOOR PLANS AT ELEVATIONS 320.00'

1"=40'-0"

444_EL320'-ANNO.dwg

Application No: RZ / FDP 2009-HM-017 Staff: WO'D

APPROVED DEVELOPMENT PLAN

(_GDP) (X CDP) (X DP) (_PRC) (_PI) (_SE) (_CSP) (_SP) (_VC)

SEE PROFFERS DATED: Jul 25, 2014

SEE CONDITIONS DATED:

Date of Final Approval: Jul 29, 2014 (_POS) (_PC) (_BZA)

Comments: CDP Devel. Conds. Dated 4/30/2014

& ZONING Sheet 61 of 76

PARKING SUMMARY

LAND BAY A

	Elevation	Standard	Handicap	Van	Spaces
Above Grade	385	157	4	0	161
	375	235	4	0	239
	360/365	156	4	6	166
	355	114	4	0	118
Below Grade	350/355	424	4	0	428
	340/345	424	4	0	428
	330/335	426	2	0	428
	320/325	393	2	0	395
	Total:	2,329	28	6	2,363

LAND BAY B

	Elevation	Standard	Handicap	Van	Spaces
Below Grade	347	82	4	4	90
	337/342	280	4	0	284
	327/332	280	4	0	284
	317/322	268	3	0	271
	Total:	910	15	4	929

LAND BAY C

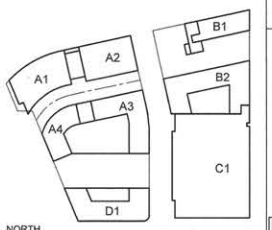
	Elevation	Standard	Handicap	Van	Spaces
Above Grade	418	110	4	0	114
	406	255	4	0	259
	394	298	4	0	302
	382	298	4	0	302
	370	298	4	0	302
Below Grade	358	272	3	2	277
	346	258	0	6	264
	334	285	3	0	288
	Total:	2074	26	8	2,108

LAND BAY D

	Elevation	Standard	Handicap	Van	Spaces
Below Grade	345/350	72	2	1	75
	335/340	96	2	0	98
	330	26	1	0	27
	Total:	194	5	1	200

NOTE: PARKING SPACES WILL BE PROVIDED GENERALLY AS SHOWN. APPLICANT RESERVES THE RIGHT TO ADJUST THE NUMBER AND/OR LOCATION OF THE PARKING SPACES AT TIME OF FINAL SITE PLAN, AS LONG AS NUMBER OF SPACES IS PROVIDED IN ACCORDANCE WITH FAIRFAX COUNTY ZONING ORDINANCE.

KEY PLAN



LSG LANDSCAPE ARCHITECTURE
1959 GALLOWS ROAD, SUITE 110
VIENNA, VIRGINIA 22182
703-821-2040

HGA
Hammer, Green and Abrahamson, Inc.
44 Canal Center Plaza, Suite 100
Alexandria, Virginia 22314
Telephone 703.836.7766
Facsimile 703.836.3042

Dewberry
Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

DCS DAVIS CARTER SCOTT Ltd
DESIGN

ROCKS
REAL ESTATE CONSULTANTS SINCE 1988

Issued for Construction
May 16, 2014

INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE

Conceptual/Final Development Plan

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
JOSEPH STEVEN SAVILLE
Lic. No. 12654
3/27/14
ARCHITECT

KEY PLAN

COMMONWEALTH OF VIRGINIA
CORY A. PENNETI
Lic. No. 048960
3-27-14
PROFESSIONAL ENGINEER

SCALE

PRINT DATE 3/31/14, 6:59 am

No.	DATE	BY	Description
6	03/27/14		
5	02/21/14		
4	01/03/14		
3	11/22/13		
2	9/25/13		
1	9/9/13		

REVISIONS

DRAWN BY	CFC
APPROVED BY	JSS
CHECKED BY	JSS
DATE	02/21/14

TITLE AT ELEV. 320.00'

OVERALL FLOOR PLANS

PROJECT NO. 305444.06

A-201

R01.160

SECTION NO. R01-ZONING

OVERALL FLOOR PLANS AT ELEVATIONS 320.00'

1"=40'-0"
444_EL320'-ANNO.dwg

PARKING SUMMARY

LAND BAY A

	Elevation	Standard	Handicap	Van	Spaces
Above Grade	385	157	4	0	161
	375	235	4	0	239
	360/365	156	4	6	166
	355	114	4	0	118
Below Grade	350/355	424	4	0	428
	340/345	424	4	0	428
	330/335	426	2	0	428
	320/325	393	2	0	395
	Total:	2,329	28	6	2,363

LAND BAY B

	Elevation	Standard	Handicap	Van	Spaces
Below Grade	347	82	4	4	90
	337/342	280	4	0	284
	327/332	280	4	0	284
	317/322	268	3	0	271
	Total:	910	15	4	929

LAND BAY C

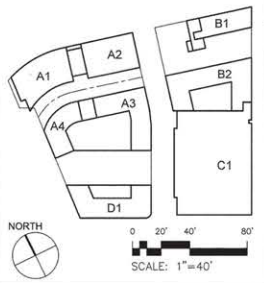
	Elevation	Standard	Handicap	Van	Spaces
Above Grade	418	110	4	0	114
	406	255	4	0	259
	394	298	4	0	302
	382	298	4	0	302
	370	298	4	0	302
Below Grade	358	272	3	2	277
	346	258	0	6	264
	334	285	3	0	288
	Total:	2074	26	8	2,108

LAND BAY D

	Elevation	Standard	Handicap	Van	Spaces
Below Grade	345/350	72	2	1	75
	335/340	96	2	0	98
	330	26	1	0	27
	Total:	194	5	1	200

NOTE: PARKING SPACES WILL BE PROVIDED GENERALLY AS SHOWN. APPLICANT RESERVES THE RIGHT TO ADJUST THE NUMBER AND/OR LOCATION OF THE PARKING SPACES AT TIME OF FINAL SITE PLAN, AS LONG AS NUMBER OF SPACES IS PROVIDED IN ACCORDANCE WITH FAIRFAX COUNTY ZONING ORDINANCE.

KEY PLAN



Application No: RZ / FDP 2009-HM-017 Staff: WO'D

APPROVED DEVELOPMENT PLAN
(_GDP) (X CDP) (X DP) (_PRC) (_PP) (_SE) (_CSP) (_SP) (_VC)
SEE PROFFERS DATED: Jul 25, 2014
SEE CONDITIONS DATED:
Date of Final Approval: Jul 29, 2014 (X DOS) (_PC) (_BZA)
Comments: CDP Devel. Conds. Dated 4/30/2014
& ZONING Sheet 61 of 76

LSG LANDSCAPE ARCHITECTURE
1959 GALLOWS ROAD, SUITE 110
VIENNA, VIRGINIA 22182
703-821-2040

HGA
Hammer, Green and Abrahamson, Inc.
44 Canal Center Plaza, Suite 100
Alexandria, Virginia 22314
Telephone 703.836.7766
Facsimile 703.836.3042

Dewberry
Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

DCS DAVIS CARTER SCOTT Ltd DESIGN

ROCKS REAL ESTATE CONSULTANTS SINCE 1958

Issued for Construction
May 16, 2016

INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE
Conceptual/Final Development Plan
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL
COMMONWEALTH OF VIRGINIA
JOSEPH STEVEN SAVILLE
Lic. No. 12654
3/27/14
ARCHITECT

KEY PLAN
COMMONWEALTH OF VIRGINIA
CORY A. PENNETTI
Lic. No. 045910
PROFESSIONAL ENGINEER
3/27/14

SCALE

PRINT DATE 3/31/14, 6:59 am

No.	DATE	BY	Description
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2	9/25/13		
1	9/9/13		

REVISIONS

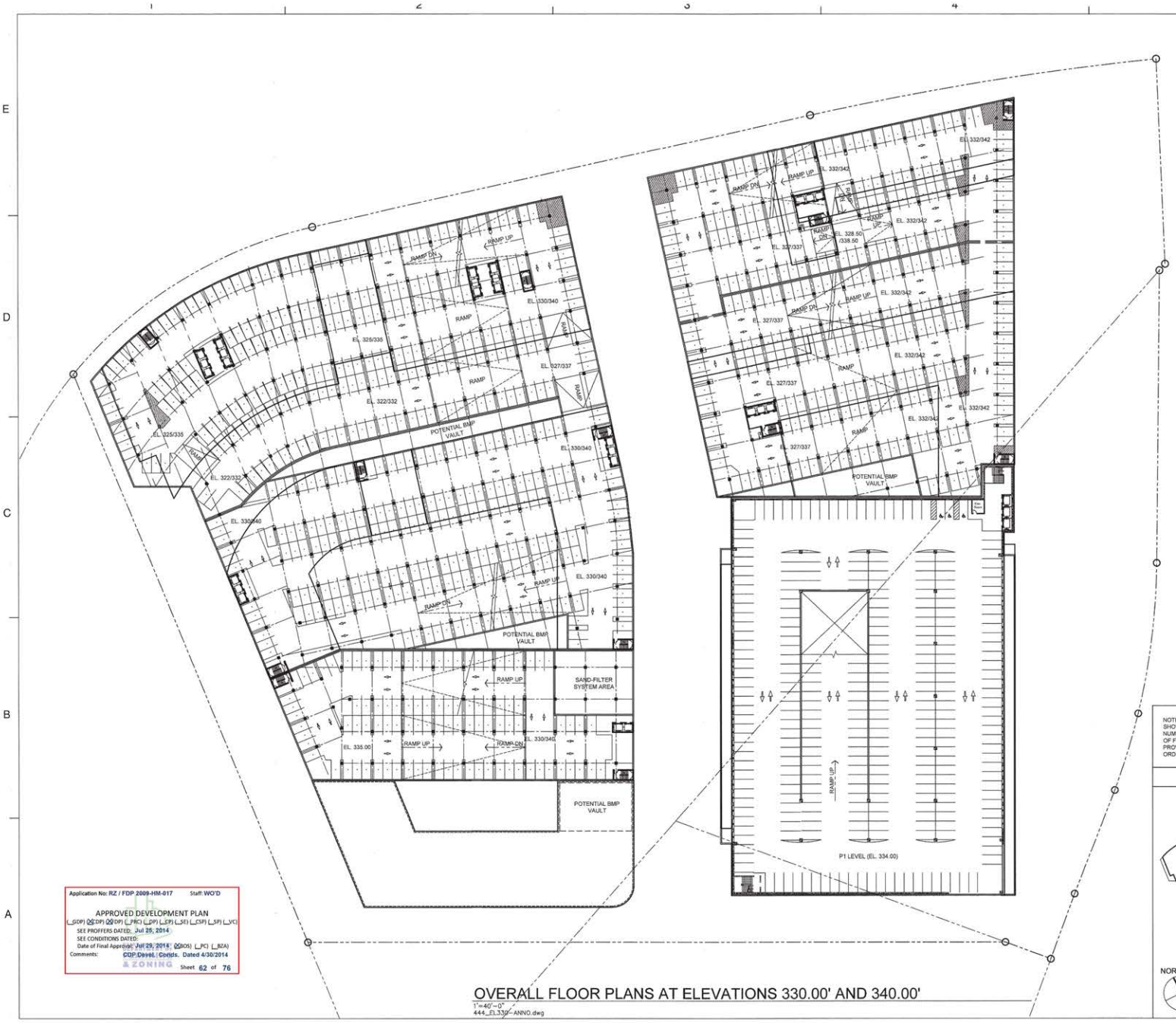
DRAWN BY	CFC
APPROVED BY	JSS
CHECKED BY	JSS
DATE	02/21/14

TITLE AT ELEV. 320.00'

OVERALL FLOOR PLANS

PROJECT NO. 305444.06

A-201
R01.161
SHEET NO.
SECTION NO. R01-ZONING



Application No: RZ / FDP 2009-HM-017 Staff: WO'D

APPROVED DEVELOPMENT PLAN
(_GDP) (X)DP) (_DPD) (_PRC) (_PI) (_LSI) (_DSI) (_SP) (_VC)
SEE PROFFERS DATED: Jul 25, 2014
SEE CONDITIONS DATED:
Date of Final Approval: Jul 29, 2014 (XBOS) (_PC) (_BZA)
Comments: CDP/Devel. Goods. Dated 4/30/2014

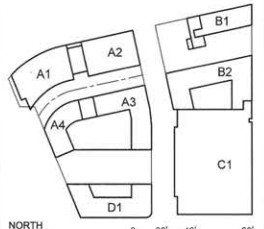
ZONING Sheet 62 of 76

OVERALL FLOOR PLANS AT ELEVATIONS 330.00' AND 340.00'
1"=40'-0"
444_EL330-ANNO.dwg

PARKING SUMMARY					
LAND BAY A					
	Elevation	Standard	Handicap	Van	Spaces
Above Grade	385	157	4	0	161
	375	235	4	0	239
	360/365	156	4	6	166
Below Grade	355	114	4	0	118
	350/355	424	4	0	428
	340/345	424	4	0	428
	330/335	426	2	0	428
	320/325	393	2	0	395
	Total:	2,329	28	6	2,363
LAND BAY B					
	Elevation	Standard	Handicap	Van	Spaces
Above Grade	347	82	4	4	90
	337/342	280	4	0	284
	327/332	280	4	0	284
Below Grade	317/322	268	3	0	271
	Total:	910	15	4	929
LAND BAY C					
	Elevation	Standard	Handicap	Van	Spaces
Above Grade	418	110	4	0	114
	406	255	4	0	259
	394	298	4	0	302
	382	298	4	0	302
	370	298	4	0	302
	358	272	3	2	277
Below Grade	346	258	0	6	264
	334	285	3	0	288
	Total:	2074	26	8	2,108
LAND BAY D					
	Elevation	Standard	Handicap	Van	Spaces
Below Grade	345/350	72	2	1	75
	335/340	96	2	0	98
	330	26	1	0	27
	Total:	194	5	1	200

NOTE: PARKING SPACES WILL BE PROVIDED GENERALLY AS SHOWN. APPLICANT RESERVES THE RIGHT TO ADJUST THE NUMBER AND/OR LOCATION OF THE PARKING SPACES AT TIME OF FINAL SITE PLAN, AS LONG AS NUMBER OF SPACES IS PROVIDED IN ACCORDANCE WITH FAIRFAX COUNTY ZONING ORDINANCE.

KEY PLAN



LSG LANDSCAPE ARCHITECTURE
1959 GALLOWS ROAD, SUITE 110
VIENNA, VIRGINIA 22182
703.821.2040

Hammel, Green and Abrahamson, Inc.
44 Canal Center Plaza, Suite 100
Alexandria, Virginia 22314
Telephone 703.836.7766
Facsimile 703.836.3042

Dewberry
Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

DCS DAVIS CARTER SCOTT LTD DESIGN

ROCKS ENGINEERING COMPANY

Issued For Construction

INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE
Conceptual/Final Development Plan
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
JOSEPH STEVEN SAVILLE
Lic. No. 12454
3/31/14
ARCHITECT

KEY PLAN

COMMONWEALTH OF VIRGINIA
CODY A. PENNETT
Lic. No. 048560
3/31/14
PROFESSIONAL ENGINEER

SCALE

PRINT DATE 3/31/14, 6:59 am

No.	DATE	BY	Description
6	03/27/14		
5	02/21/14		
4	01/03/14		
3	11/22/13		
2	9/25/13		
1	9/9/13		

REVISIONS

DRAWN BY	CFC
APPROVED BY	JSS
CHECKED BY	JSS
DATE	02/21/14

TITLE AT ELEV. 330.00' AND 340.00'

OVERALL FLOOR PLANS

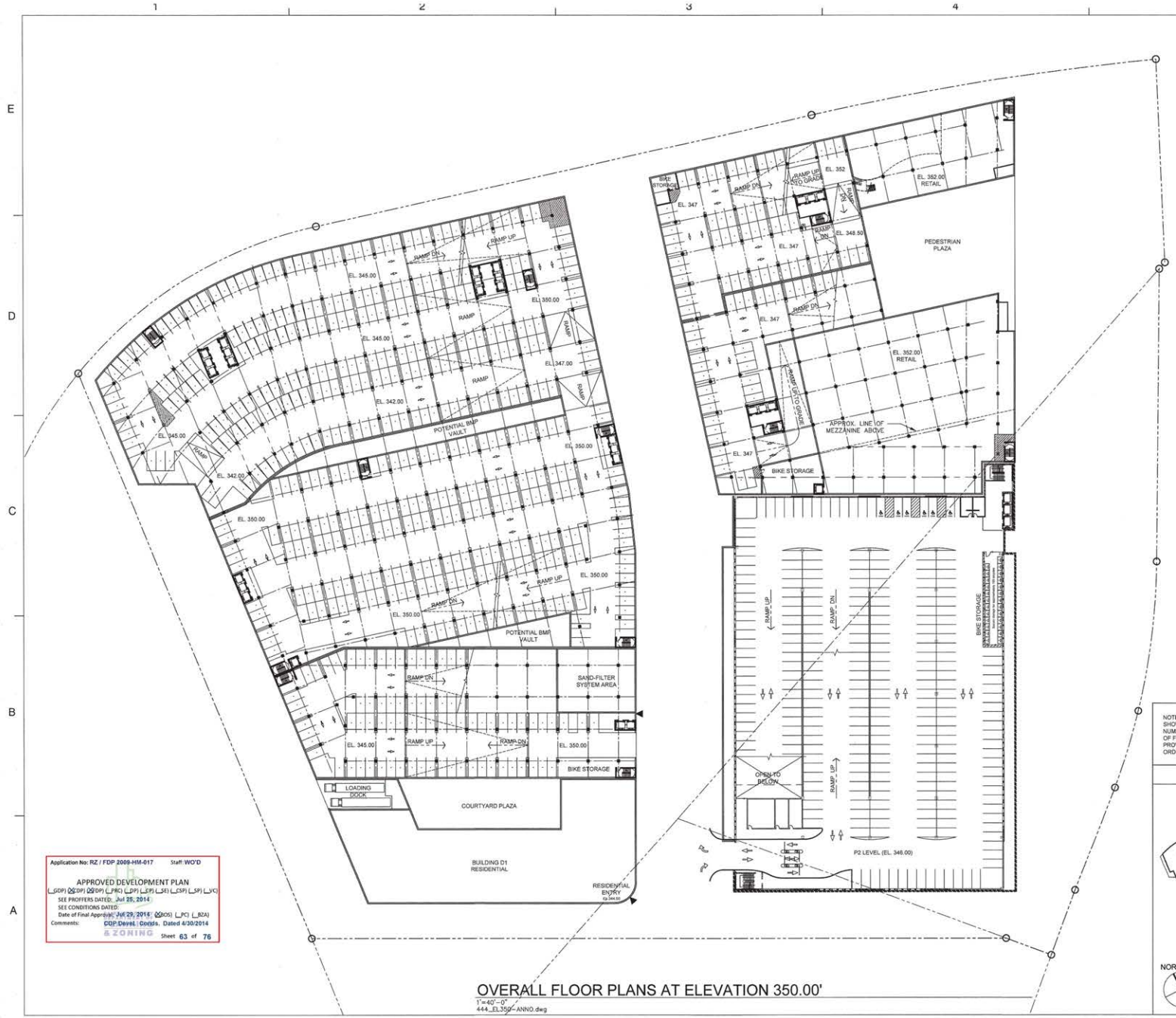
PROJECT NO. 305444.06

A-203

R01.162

SHEET NO.

SECTION NO. R01-ZONING



OVERALL FLOOR PLANS AT ELEVATION 350.00'

1"=40'-0"

444_EL350-ANN0.dwg

Application No: RZ / FDP 2009-HM-017 Staff: WO'D

APPROVED DEVELOPMENT PLAN

(_GDP) (X CDP) (X DP) (_PRC) (_DP) (_SP) (_SE) (_CSP) (_SP) (_VC)

SEE PROFFERS DATED: Jul 25, 2014

SEE CONDITIONS DATED:

Date of Final Approval: Jul 29, 2014 (X BOS) (_PC) (_BZA)

Comments: CDP Devel. Cond's. Dated 4/30/2014

& ZONING

Sheet 63 of 76

PARKING SUMMARY

LAND BAY A

	Elevation	Standard	Handicap	Van	Spaces
Above Grade	385	157	4	0	161
	375	235	4	0	239
	360/365	156	4	6	166
Below Grade	355	114	4	0	118
	350/355	424	4	0	428
	340/345	424	4	0	428
	330/335	426	2	0	428
	320/326	393	2	0	395
	Total:	2,329	28	6	2,363

LAND BAY B

	Elevation	Standard	Handicap	Van	Spaces
Below Grade	347	82	4	4	90
	337/342	280	4	0	284
	327/332	280	4	0	284
	317/322	268	3	0	271
	Total:	910	15	4	929

LAND BAY C

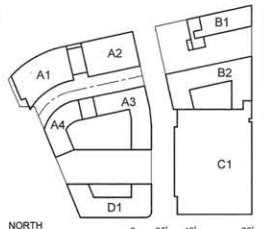
	Elevation	Standard	Handicap	Van	Spaces
Above Grade	418	110	4	0	114
	406	255	4	0	259
	394	298	4	0	302
	382	298	4	0	302
	370	298	4	0	302
	358	272	3	2	277
Below Grade	346	258	0	6	264
	334	285	3	0	288
	Total:	2074	26	8	2,108

LAND BAY D

	Elevation	Standard	Handicap	Van	Spaces
Below Grade	345/350	72	2	1	75
	335/340	96	2	0	98
	330	26	1	0	27
	Total:	194	5	1	200

NOTE: PARKING SPACES WILL BE PROVIDED GENERALLY AS SHOWN. APPLICANT RESERVES THE RIGHT TO ADJUST THE NUMBER AND/OR LOCATION OF THE PARKING SPACES AT TIME OF FINAL SITE PLAN, AS LONG AS NUMBER OF SPACES IS PROVIDED IN ACCORDANCE WITH FAIRFAX COUNTY ZONING ORDINANCE.

KEY PLAN



LSG LANDSCAPE ARCHITECTURE
1910 GALLOWS ROAD, SUITE 110
VIENNA, VIRGINIA 22182
703-821-2949

HGA
Hammel, Green and Abrahamson, Inc.
44 Canal Center Plaza, Suite 100
Alexandria, Virginia 22314
Telephone 703.836.7766
Facsimile 703.836.3042

Dewberry
Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

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ROCKS ENGINEERING COMPANY

Issued For Construction

INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE

Conceptual/Final Development Plan

DRANESVILLE DISTRICT

FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
JOSEPH STEVEN SAVILLE
Lic. No. 040211
3/27/14
ARCHITECT

KEY PLAN

COMMONWEALTH OF VIRGINIA
CODY A. PENNETT
Lic. No. 048960
3/27/14
PROFESSIONAL ENGINEER

SCALE

PRINT DATE 3/31/14, 7:00 am

No.	DATE	BY	Description
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5	02/21/14		
4	01/03/14		
3	11/22/13		
2	9/25/13		
1	9/9/13		

REVISIONS

DRAWN BY	CFC
APPROVED BY	JSS
CHECKED BY	JSS
DATE	02/21/14

TITLE AT ELEV. 350.00'

OVERALL FLOOR PLANS

PROJECT NO. 305444.06

A 203

R01.163

SHEET NO.

SECTION NO. R01-ZONING

OVERALL FLOOR PLANS AT ELEVATION 360.00'

1"=40'-0"

444_EL360 - ANNO.dwg

Application No: RZ / FDP 2009-HM-017 Staff: WO'D

APPROVED DEVELOPMENT PLAN

(_GDP) (X GDP) (X DP) (_PRC) (_DP) (_FP) (_SE) (_CSP) (_SP) (_VC)

SEE PROFFERS DATED: Jul 25, 2014

SEE CONDITIONS DATED:

Date of Final Approval: Jul 29, 2014 (X BOS) (_PC) (_BZA)

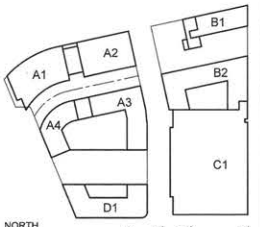
Comments: CDP/Devel. Cond's. Dated 4/30/2014

DPZ & ZONING Sheet 84 of 76

PARKING SUMMARY					
LAND BAY A					
	Elevation	Standard	Handicap	Van	Spaces
Above Grade	385	157	4	0	161
	375	235	4	0	239
	360/365	156	4	6	166
Below Grade	355	114	4	0	118
	350/355	424	4	0	428
	340/345	424	4	0	428
	330/335	426	2	0	428
	320/325	393	2	0	395
	Total:	2,329	28	6	2,363
LAND BAY B					
	Elevation	Standard	Handicap	Van	Spaces
Below Grade	347	82	4	4	90
	337/342	280	4	0	284
	327/332	280	4	0	284
	317/322	268	3	0	271
	Total:	910	15	4	929
LAND BAY C					
	Elevation	Standard	Handicap	Van	Spaces
Above Grade	418	110	4	0	114
	406	255	4	0	259
	394	298	4	0	302
	382	298	4	0	302
	370	298	4	0	302
	358	272	3	2	277
Below Grade	346	258	0	6	264
	334	285	3	0	288
	Total:	2074	26	8	2,108
LAND BAY D					
	Elevation	Standard	Handicap	Van	Spaces
Below Grade	345/350	72	2	1	75
	335/340	96	2	0	98
	330	26	1	0	27
	Total:	194	5	1	200

NOTE: PARKING SPACES WILL BE PROVIDED GENERALLY AS SHOWN. APPLICANT RESERVES THE RIGHT TO ADJUST THE NUMBER AND/OR LOCATION OF THE PARKING SPACES AT TIME OF FINAL SITE PLAN, AS LONG AS NUMBER OF SPACES IS PROVIDED IN ACCORDANCE WITH FAIRFAX COUNTY ZONING ORDINANCE

KEY PLAN



LSG LANDSCAPE ARCHITECTURE
1919 GALLOWS ROAD, SUITE 110
VIENNA, VIRGINIA 22182
703-821-3340

HGA
Hammel, Green and Abrahamson, Inc.
44 Canal Center Plaza, Suite 100
Alexandria, Virginia 22314
Telephone 703.836.7755
Facsimile 703.836.3042

Dewberry
Dewberry Consultants LLC
8401 ARLINGTON BLVD.
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PHONE: 703.849.0100
FAX: 703.849.0518

DCS DAVIS CARTER SCOTT LTD
DESIGN

ROCKS ENGINEERING COMPANY

Issued For Construction

INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE

Conceptual/Final Development Plan

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
JOSEPH STEVEN SAVILLE
Lic. No. 12654
3/21/14
ARCHITECT

KEY PLAN

COMMONWEALTH OF VIRGINIA
CODY A. PENNETT
Lic. No. 048960
3/21/14
PROFESSIONAL ENGINEER

SCALE

PRINT DATE 3/31/14, 7:00 am

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4	01/03/14		
3	11/22/13		
2	9/25/13		
1	9/9/13		

REVISIONS

DRAWN BY	CFC
APPROVED BY	JSS
CHECKED BY	JSS
DATE	02/21/14

TITLE AT ELEV. 360.00'

OVERALL FLOOR PLANS

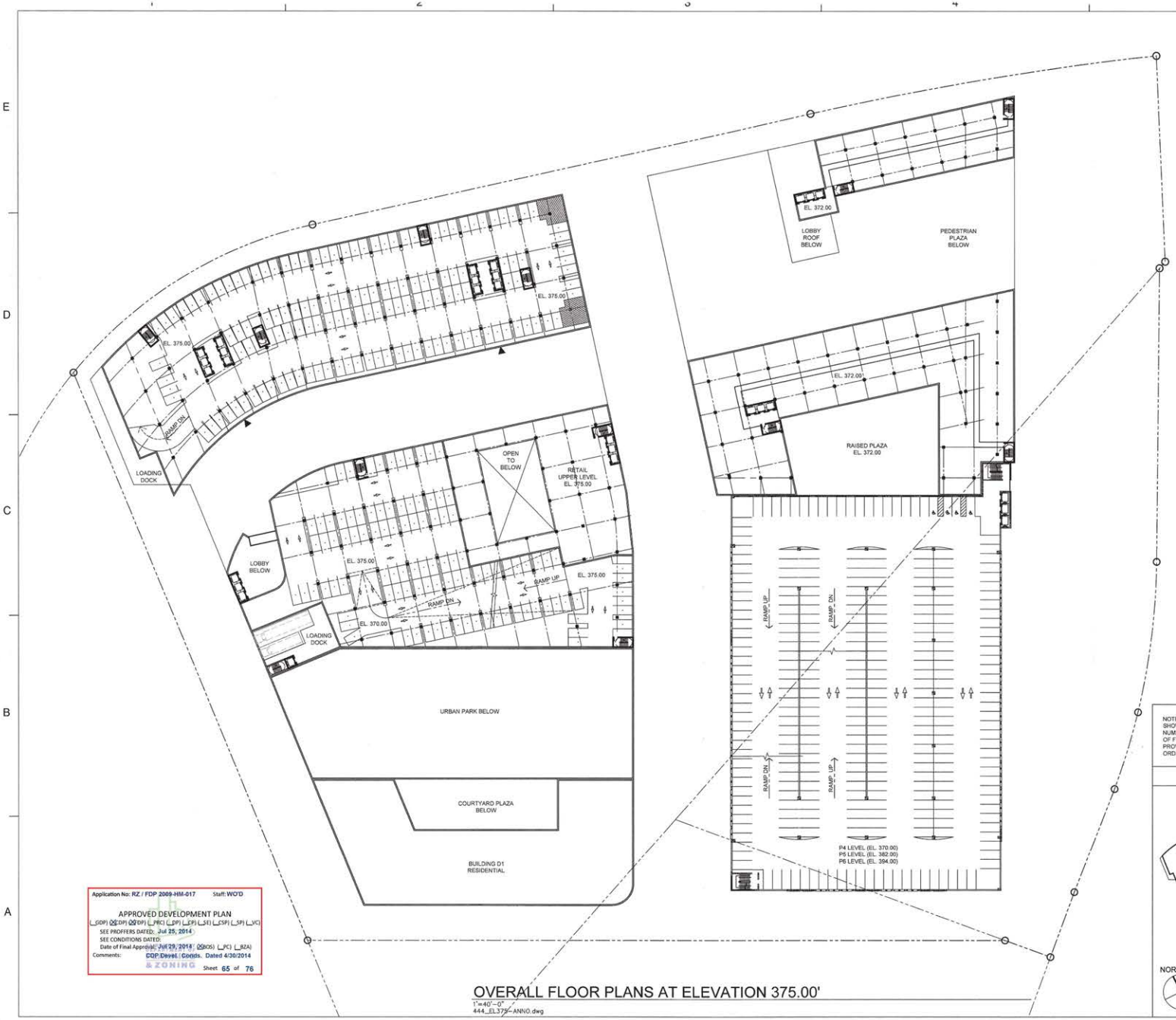
PROJECT NO. 305444.06

A-204

R01.164

SHEET NO. OF

SECTION NO. R01-ZONING



Application No: RZ / FDP 2009-HM-017 Staff: WO'D

APPROVED DEVELOPMENT PLAN

(_GDP) (XCDP) (XDP) (_PRC) (_PP) (_FP) (_SE) (_SP) (_VC)

SEE PROFFERS DATED: Jul 25, 2014

SEE CONDITIONS DATED:

Date of Final Approval: Jul 29, 2014 (XBOS) (_PC) (_BZA)

Comments: CDP/Devel. Conds. Dated 4/30/2014

Sheet 65 of 76

OVERALL FLOOR PLANS AT ELEVATION 375.00'

1"=40'-0"

444_EL375-ANN0.dwg

PARKING SUMMARY

LAND BAY A

	Elevation	Standard	Handicap	Van	Spaces
Above Grade	385	157	4	0	161
	375	235	4	0	239
	360/365	156	4	5	166
Below Grade	355	114	4	0	118
	350/355	424	4	0	428
	340/345	424	4	0	428
	330/335	426	2	0	428
	320/325	393	2	0	395
	Total:	2,329	28	5	2,363

LAND BAY B

	Elevation	Standard	Handicap	Van	Spaces
Below Grade	347	82	4	4	90
	337/342	280	4	0	284
	327/332	280	4	0	284
	317/322	268	3	0	271
	Total:	910	15	4	929

LAND BAY C

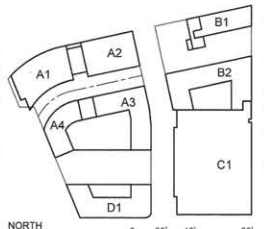
	Elevation	Standard	Handicap	Van	Spaces
Above Grade	418	110	4	0	114
	406	255	4	0	259
	394	298	4	0	302
	382	298	4	0	302
	370	298	4	0	302
	358	272	3	2	277
Below Grade	346	258	0	6	264
	334	285	3	0	288
	Total:	2074	26	8	2,108

LAND BAY D

	Elevation	Standard	Handicap	Van	Spaces
Below Grade	345/350	72	2	1	75
	335/340	96	2	0	98
	330	26	1	0	27
	Total:	194	5	1	200

NOTE: PARKING SPACES WILL BE PROVIDED GENERALLY AS SHOWN. APPLICANT RESERVES THE RIGHT TO ADJUST THE NUMBER AND/OR LOCATION OF THE PARKING SPACES AT TIME OF FINAL SITE PLAN, AS LONG AS NUMBER OF SPACES IS PROVIDED IN ACCORDANCE WITH FAIRFAX COUNTY ZONING ORDINANCE.

KEY PLAN



LSG LANDSCAPE ARCHITECTURE
1959 GALLOWS ROAD, SUITE 110
VIENNA, VIRGINIA 22182
703-821-2040

Hanmal, Green and Abrahamsen, Inc.
44 Canal Center Plaza, Suite 100
Alexandria, Virginia 22314
Telephone 703.836.7766
Facsimile 703.836.3042

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

DCS DESIGN — DAVIS CARTER SCOTT Ltd

ROCKS ENGINEERING COMPANY

Issued For Construction

INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE

Conceptual/Final Development Plan

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
JOSEPH STEVEN SAVILLE
Lic. No. 12654
3/27/14
ARCHITECT

KEY PLAN

COMMONWEALTH OF VIRGINIA
CODY A. PENNETT
Lic. No. 048560
3/27/14
PROFESSIONAL ENGINEER

SCALE

PRINT DATE 3/31/14, 7:00 am

No.	DATE	BY	Description
6	03/27/14		
5	02/21/14		
4	01/03/14		
3	11/22/13		
2	9/25/13		
1	9/9/13		

REVISIONS

DRAWN BY	CFC
APPROVED BY	JSS
CHECKED BY	JSS
DATE	02/21/14

TITLE AT ELEV. 375.00'

OVERALL FLOOR PLANS

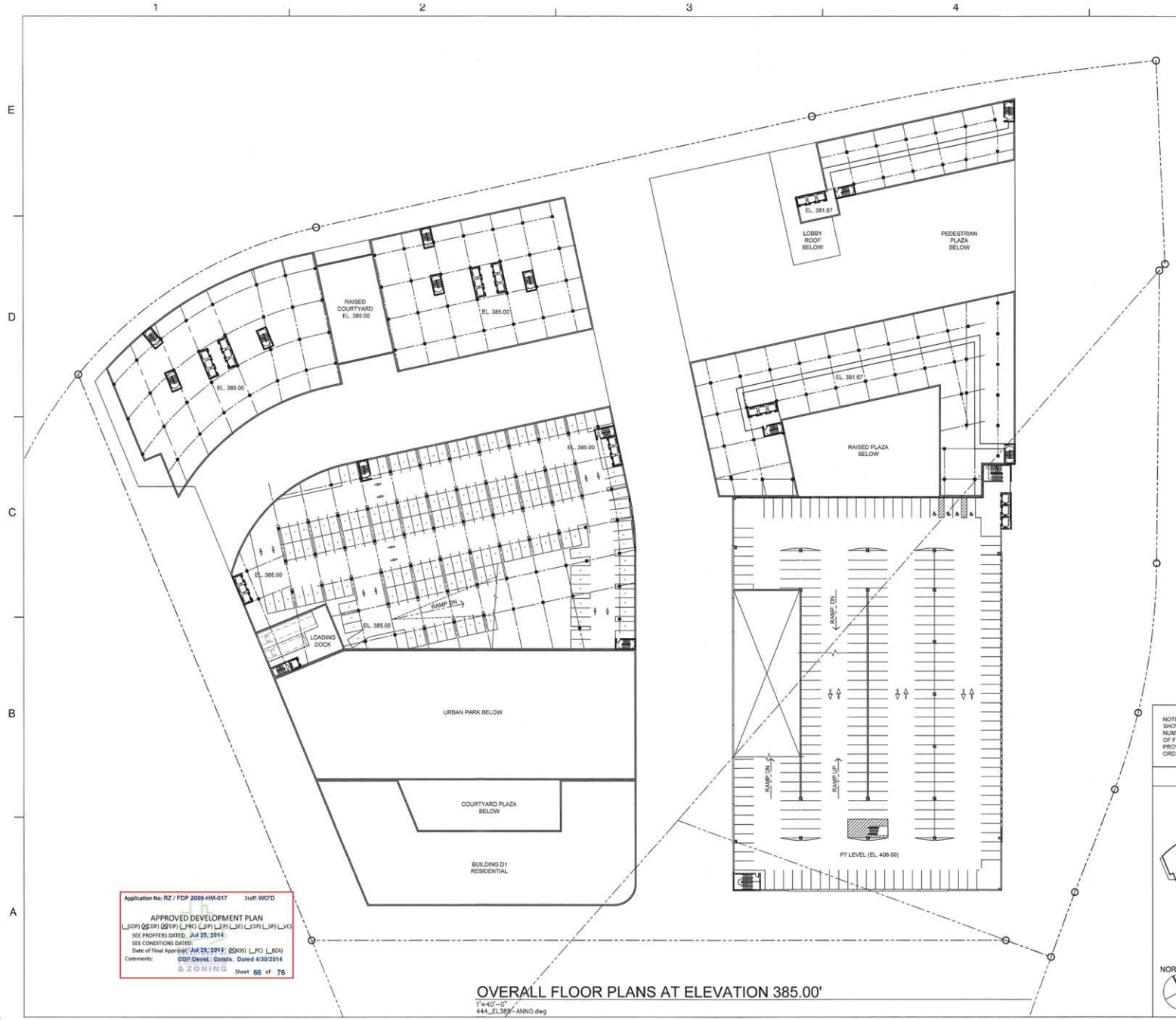
PROJECT NO. 305444.06

A-205

R01.165

SHEET NO. OF

SECTION NO.: R01-ZONING



Application No: RZ / FDP 2009-HM-017 Staff: WO'D

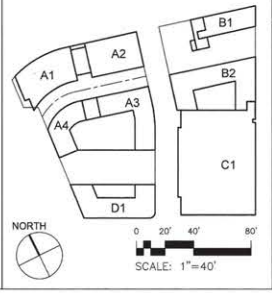
APPROVED DEVELOPMENT PLAN
(_GDP) (XSDP) (XDP) (_PRC) (_DP) (_FP) (_SE) (_CSP) (_SP) (_VC)
SEE PROFFERS DATED: Jul 25, 2014
SEE CONDITIONS DATED:
Date of Final Approval: Jul 25, 2014 (XBOS) (_PC) (_BZA)
Comments: CDP/Devel. Cnnds. Dated 4/30/2014
& ZONING
Sheet 66 of 76

OVERALL FLOOR PLANS AT ELEVATION 385.00'
1"=40'-0"
444_EL385_ANNO.dwg

PARKING SUMMARY					
LAND BAY A					
	Elevation	Standard	Handicap	Van	Spaces
Above Grade	385	157	4	0	161
	375	235	4	0	239
	360/365	156	4	6	166
Below Grade	355	114	4	0	118
	350/355	424	4	0	428
	340/345	424	4	0	428
	330/335	426	2	0	428
	320/325	393	2	0	395
	Total:	2,329	28	6	2,363
LAND BAY B					
	Elevation	Standard	Handicap	Van	Spaces
Below Grade	347	82	4	4	90
	337/342	280	4	0	284
	327/332	280	4	0	284
	317/322	268	3	0	271
	Total:	910	15	4	929
LAND BAY C					
	Elevation	Standard	Handicap	Van	Spaces
Above Grade	418	110	4	0	114
	406	255	4	0	259
	394	298	4	0	302
	382	298	4	0	302
	370	298	4	0	302
	358	272	3	2	277
Below Grade	346	258	0	6	264
	334	285	3	0	288
	Total:	2074	26	8	2,108
LAND BAY D					
	Elevation	Standard	Handicap	Van	Spaces
Below Grade	345/350	72	2	1	75
	335/340	96	2	0	98
	330	26	1	0	27
	Total:	194	5	1	200

NOTE: PARKING SPACES WILL BE PROVIDED GENERALLY AS SHOWN. APPLICANT RESERVES THE RIGHT TO ADJUST THE NUMBER AND/OR LOCATION OF THE PARKING SPACES AT TIME OF FINAL SITE PLAN, AS LONG AS NUMBER OF SPACES IS PROVIDED IN ACCORDANCE WITH FAIRFAX COUNTY ZONING ORDINANCE

KEY PLAN



LSG LANDSCAPE ARCHITECTURE
1919 GALLOWS ROAD, SUITE 110
VIENNA, VIRGINIA 22182
703-821-3345

Hunnicutt, Cronin and Abrahamsen, Inc.
44 Canal Center Plaza, Suite 100
Alexandria, Virginia 22314
Telephone 703.836.7768
Facsimile 703.836.3042

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

DAVIS CARTER SCOTT Ltd
DESIGN

ROCKS ENGINEERING COMPANY

Issued For Construction

INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE
Conceptual/Final Development Plan
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL
COMMONWEALTH OF VIRGINIA
JOSEPH STEVEN SAVILLE
Lic. No. 22651
3/27/14
ARCHITECT

KEY PLAN
COMMONWEALTH OF VIRGINIA
CODY A. PENNETT
Lic. No. 049560
3/27/14
PROFESSIONAL ENGINEER

SCALE

PRINT DATE 3/31/14, 7:00 am

No.	DATE	BY	Description
6	03/27/14		
5	02/21/14		
4	01/03/14		
3	11/22/13		
2	9/25/13		
1	9/9/13		

REVISIONS

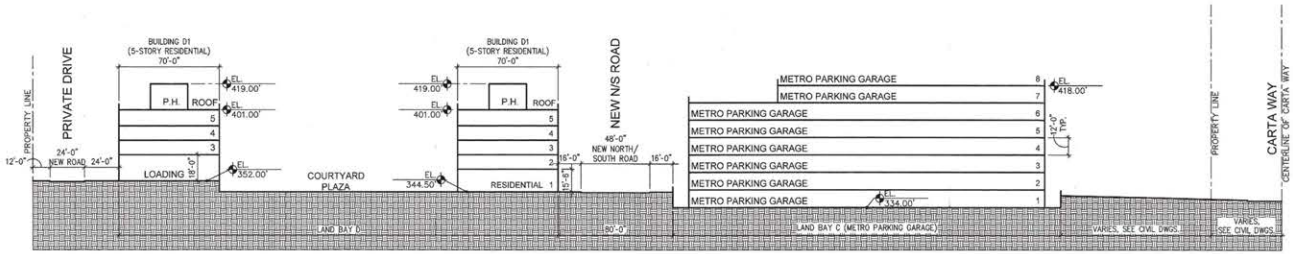
DRAWN BY CFC
APPROVED BY JSS
CHECKED BY JSS
DATE 02/21/14

TITLE AT ELEV. 385.00'

OVERALL FLOOR PLANS

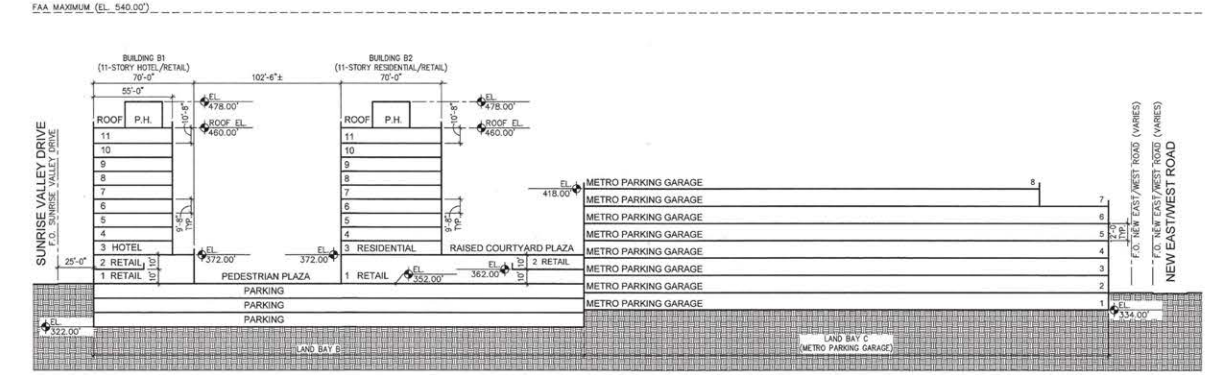
PROJECT NO. 305444.06

A-206
R01.166
SHEET NO.
SECTION NO. R01-ZONING



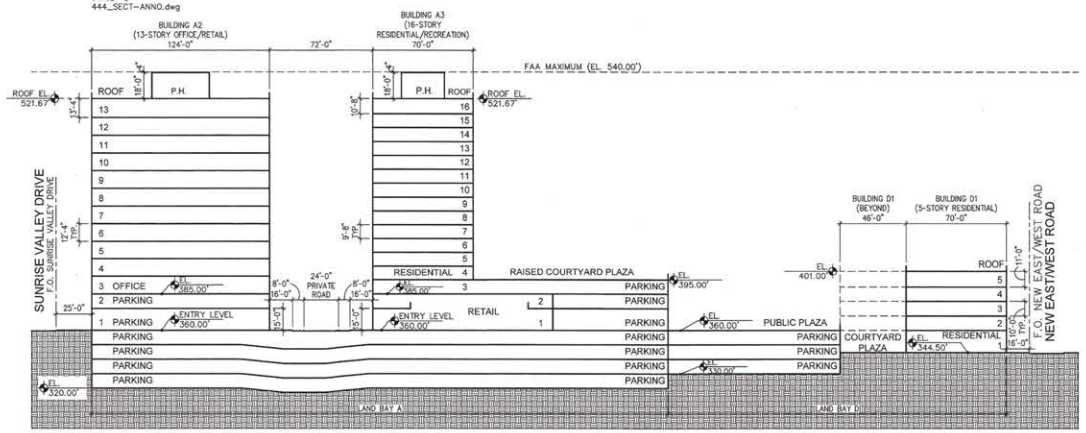
SECTION C-C : BUILDINGS D1 (RESIDENTIAL) & C1 (METRO GARAGE)

1"=40'-0"
444_SECT-ANNO.dwg



SECTION B-B : BUILDINGS B1 (HOTEL/RETAIL), B2 (RESIDENTIAL/RETAIL) & C1 (METRO GARAGE)

1"=40'-0"
444_SECT-ANNO.dwg



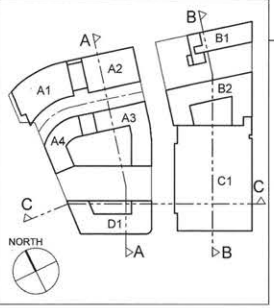
SECTION A-A : BUILDINGS A2 (OFFICE/RETAIL), A3 (RESIDENTIAL/RECREATION) & D1 (RESIDENTIAL)

1"=40'-0"
444_SECT-ANNO.dwg

0 20' 40' 80'
SCALE: 1"=40'

NOTE: THESE SECTIONS SHOWN HEREON ARE SCHEMATIC IN NATURE. THE APPLICANT RESERVES THE RIGHT TO ADJUST THE QUANTITY OF PARKING STORIES AND OCCUPIED STORIES WITH FINAL DESIGN PROVIDED THAT THE MAXIMUM AND MINIMUM HEIGHTS SPECIFIED ARE HONORED.

KEY PLAN



Application No: RZ / FDP 2009-HM-017 Staff: WO'D

APPROVED DEVELOPMENT PLAN
(_GDP) (X)DP) (X)DP) (_PRC) (_DP) (_EP) (_SE) (_CSP) (_SP) (_VC)
SEE PROFFERS DATED: Jul 25, 2014
SEE CONDITIONS DATED:
Date of Final Approval: Jul 29, 2014 (X)ROS) (_PC) (_BZA)
Comments: COP/Devel. Conds. Dated 4/30/2014
& ZONING
Sheet 67 of 76

LSG LANDSCAPE ARCHITECTURE
1919 GALLOWS ROAD, SUITE 110
VIENNA, VIRGINIA 22182
703-821-3245

HGA
Hammel, Green and Abrahamson, Inc.
44 Canal Center Plaza, Suite 100
Alexandria, Virginia 22314
Telephone 703.836.7746
Facsimile 703.836.3942

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

dcs DAVIS CARTER SCOTT Ltd DESIGN

ROCKS ENGINEERING COMPANY
Issued For Construction

INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE
Conceptual/Final Development Plan
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL
COMMONWEALTH OF VIRGINIA
JOSEPH STEVEN SAVILLE
Lic. No. 040211
3/27/14
ARCHITECT

KEY PLAN
COMMONWEALTH OF VIRGINIA
CODY A. PENNETT
Lic. No. 048960
PROFESSIONAL ENGINEER
3/27/14

SCALE

PRINT DATE 3/28/14, 12:46 pm

No.	DATE	BY	Description
6	03/27/14		
5	02/21/14		
4	01/03/14		
3	11/22/13		
2	9/25/13		
1	9/9/13		

REVISIONS

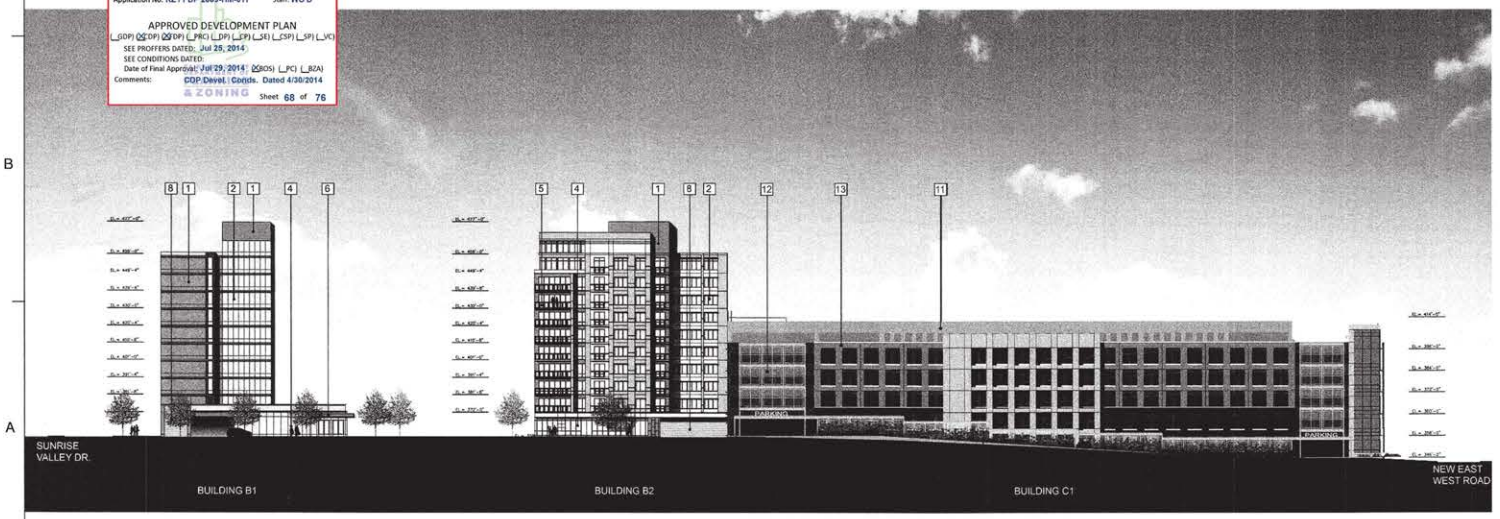
DRAWN BY	CFC
APPROVED BY	JSS
CHECKED BY	JSS
DATE	02/21/14
TITLE	

BUILDING SITE SECTIONS

PROJECT NO. 305444.06

A-301
R01.167
SHEET NO.
SECTION NO. R01-ZONING

2 BUILDING ELEVATIONS
1/32"=1'-0"



1 BUILDING ELEVATIONS
1/32"=1'-0"

Application No: RZ / FDP 2009-HM-017 Staff: WO'D

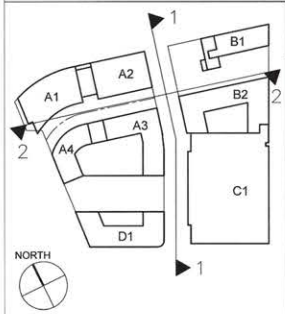
APPROVED DEVELOPMENT PLAN
(_GDP) (X DP) (X DP) (_PRC) (_DP) (_SP) (_34) (_SP) (_SP) (_VC)
SEE PROFFERS DATED: Jul 25, 2014
SEE CONDITIONS DATED:
Date of Final Approval: Jul 29, 2014 (XBOS) (_PC) (_BZA)
Comments: COP/Devel. Conds. Dated 4/30/2014

ZONING Sheet 68 of 76

LEGEND:

1 MASONRY / PRECAST
2 CLEAR GLASS
3 SPANDREL GLASS
4 ALUMINUM STOREFRONT
5 ARCHITECTURAL RAILING
6 METAL CANOPY
7 SIGNAGE
8 OVERHEAD DOOR
9 METAL TRELLIS
10 SYNTHETIC EIFS (STUCCO)
11 METAL PANELING
12 GALV. STEEL & METAL MESH SCREEN
13 STACKED PANEL SYSTEM - BRICK

KEY PLAN



LSG LANDSCAPE ARCHITECTURE
1919 GALLOWS ROAD, SUITE 110
VIENNA, VIRGINIA 22182
703-821-2040

HGA
Hammel, Green and Abrahamson, Inc.
44 Canal Center Plaza, Suite 100
Alexandria, Virginia 22314
Telephone 703.836.7756
Facsimile 703.836.3042

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

DCS DAVIS CARTER SCOTT Ltd
DESIGN

ROCKS
REAL ESTATE CONSULTANTS SINCE 1958

Issued For Construction
May 28, 2014

INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE
Conceptual/Final Development Plan
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

KEY PLAN

SCALE

PRINT DATE 3/28/14, 12:46 pm

No.	DATE	BY	Description
6	03/27/14		
5	02/21/14		
4	01/03/14		
3	11/22/13		
2	9/25/13		
1	9/9/13		

REVISIONS

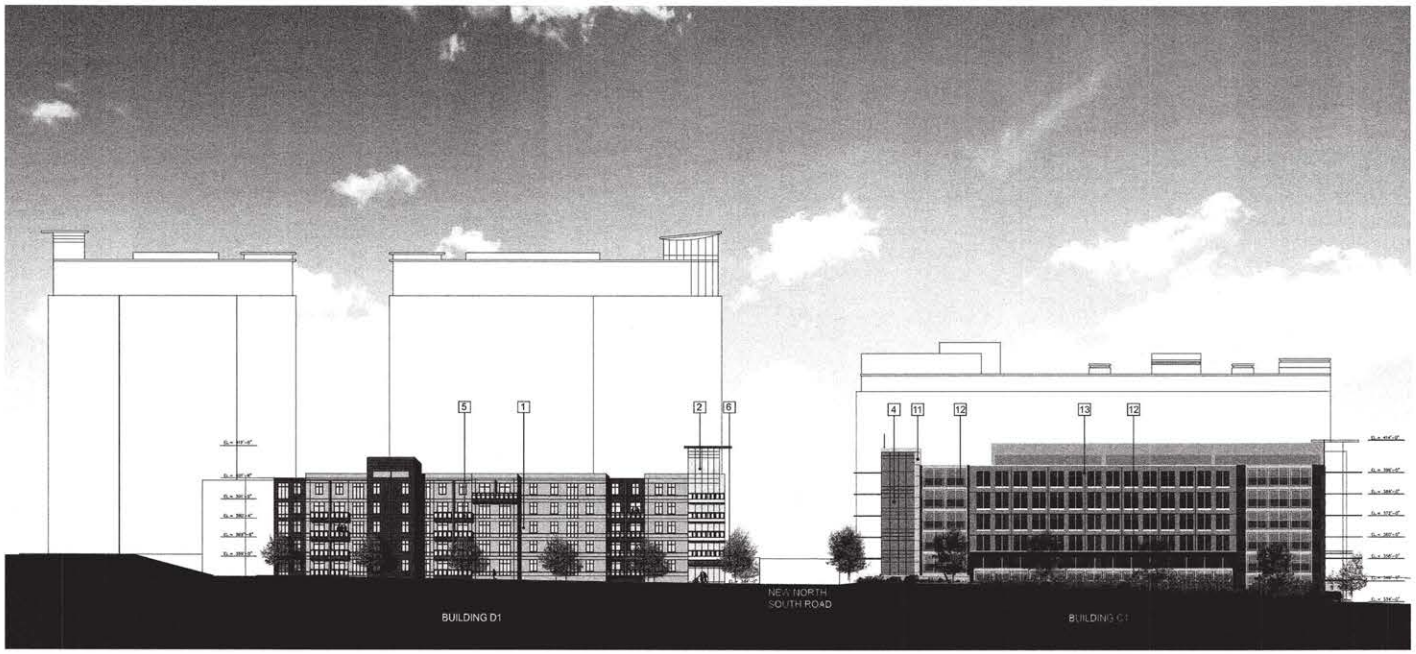
DRAWN BY CFC
APPROVED BY JSS
CHECKED BY JSS
DATE 02/21/14

TITLE

BUILDING ELEVATIONS

PROJECT NO. 305444.06

A 310
R01.168
SHEET NO. OF
SECTION NO. R01-ZONING



2 BUILDING ELEVATIONS
1/32"=1'-0"

Application No: RZ / FDP 2009-HM-017 Staff: WO'D

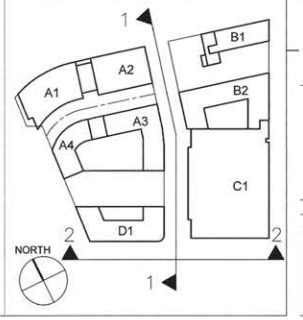
APPROVED DEVELOPMENT PLAN
(_GDP) (X)DP) (X)DP) (_PRC) (_DP) (_EP) (_SE) (_CSP) (_SP) (_VC)
SEE PROFFERS DATED: Jul 25, 2014
SEE CONDITIONS DATED:
Date of Final Approval: Jul 29, 2014 (X)OS) (_PC) (_BZA)
Comments: CDP Devel. Condts. Dated 4/30/2014
& ZONING
Sheet 69 of 76

1 BUILDING ELEVATIONS
1/32"=1'-0"

LEGEND:

1 MASONRY / PRECAST
2 CLEAR GLASS
3 SPANDREL GLASS
4 ALUMINUM STOREFRONT
5 ARCHITECTURAL RAILING
6 METAL CANOPY
7 SIGNAGE
8 OVERHEAD DOOR
9 METAL TRELLIS
10 SYNTHETIC EIFS (STUCCO)
11 METAL PANELING
12 GALV. STEEL & METAL MESH SCREEN
13 STACKED PANEL SYSTEM - BRICK

KEY PLAN



LSG LANDSCAPE ARCHITECTURE
1915 GALLOWS ROAD, SUITE 110
VIENNA, VIRGINIA 22182
703-821-3545

HGA
Hammel, Green and Abrahamson, Inc.
44 Canal Center Plaza, Suite 100
Alexandria, Virginia 22314
Telephone 703.836.7760
Facsimile 703.836.3042

Dewberry
Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

dcs DAVIS CARTER SCOTT Ltd
DESIGN

ROCKS
REAL ESTATE CONSULTING SINCE 1988

Issued For Commission Permit Application
May 28, 2014

INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE
Conceptual/Final Development Plan
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

KEY PLAN

SCALE

PRINT DATE 3/28/14, 12:47 pm

No.	DATE	BY	Description
6	03/27/14		
5	02/21/14		
4	01/03/14		
3	11/22/13		
2	9/25/13		
1	9/9/13		

REVISIONS

DRAWN BY CFC
APPROVED BY JSS
CHECKED BY JSS
DATE 02/21/14

TITLE

BUILDING ELEVATIONS

PROJECT NO. 305444.06

A311
R01.169
SHEET NO. OF
SECTION NO. R01-ZONING

LSG LANDSCAPE ARCHITECTURE
1979 GALLOWS ROAD, SUITE 110
VIENNA, VIRGINIA 22182
703-821-2045

Hammel, Green and Abrahamson, Inc.
44 Canal Center Plaza, Suite 100
Alexandria, Virginia 22314
Telephone 703.836.7766
Facsimile 703.836.3642

Dewberry
Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

DCS DAVIS CARTER SCOTT Ltd
DESIGN

ROCKS
ENGINEERING
REAL ESTATE DEVELOPMENT

Issued For Construction

Application No: RZ / FDP 2009-HM-017 Staff: WO'D

APPROVED DEVELOPMENT PLAN
(_GDP) (X DP) (X DP) (_PRC) (_DP) (_FP) (_S4) (_SP) (_SP) (_VC)
SEE PROFFERS DATED: Jul 25, 2014
SEE CONDITIONS DATED:
Date of Final Approval: Jul 29, 2014 (XBOS) (_PC) (_BZA)
Comments: COP/Devel. Conds. Dated 4/30/2014
DPZ & ZONING Sheet 70 of 76

INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE

Conceptual/Final Development Plan

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
JOSEPH STEVEN SAVILLE
Lic. No. 13647
3/27/14
ARCHITECT

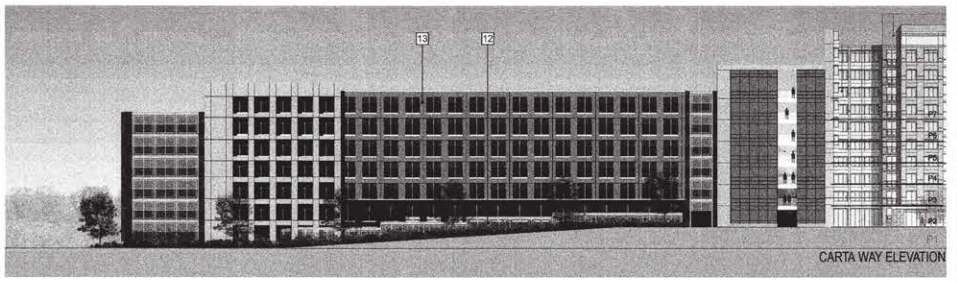
KEY PLAN

COMMONWEALTH OF VIRGINIA
CODY A. PENNETT
Lic. No. 048960
3/27/14
PROFESSIONAL ENGINEER

SCALE

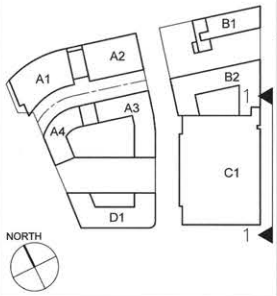
LEGEND:

1 MASONRY / PRECAST
2 CLEAR GLASS
3 SPANDREL GLASS
4 ALUMINUM STOREFRONT
5 ARCHITECTURAL RAILING
6 METAL CANOPY
7 SIGNAGE
8 OVERHEAD DOOR
9 METAL TRELLIS
10 SYNTHETIC EIFS (STUCCO)
11 METAL PANELING
12 GALV. STEEL & METAL MESH SCREEN
13 STACKED PANEL SYSTEM - BRICK



1 BUILDING ELEVATIONS
1/32"=1'-0"

KEY PLAN



PRINT DATE 3/28/14, 3:10 pm

No.	DATE	BY	Description
6	03/27/14		
5	02/21/14		
4	01/03/14		
3	11/22/13		
2	9/25/13		
1	9/9/13		

REVISIONS

DRAWN BY	CFC
APPROVED BY	JSS
CHECKED BY	JSS
DATE	02/21/14

TITLE

BUILDING ELEVATIONS

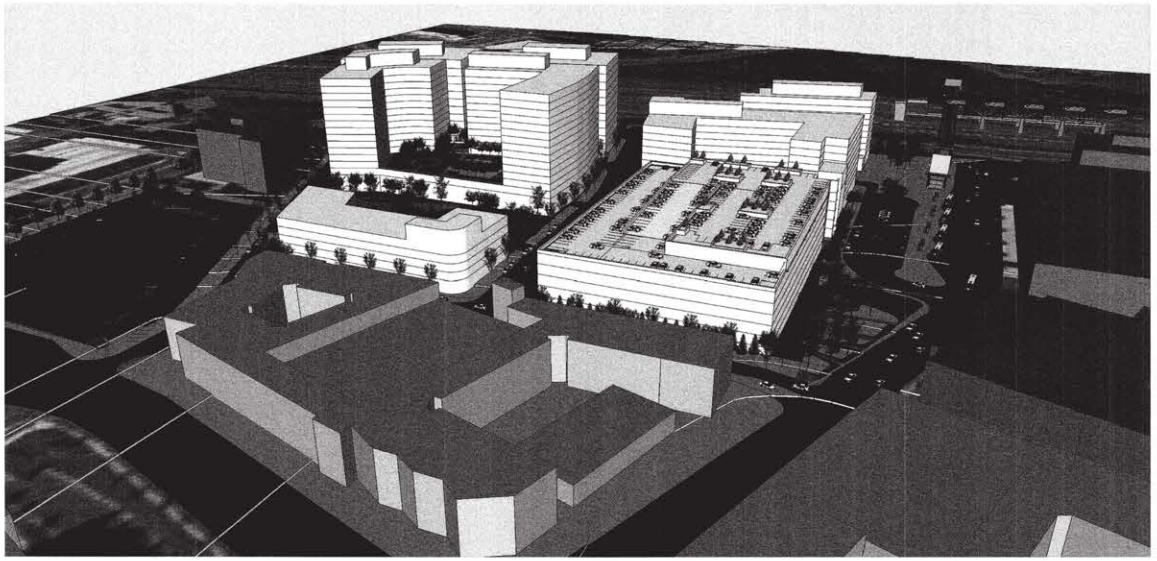
PROJECT NO. 305444.06

A-312

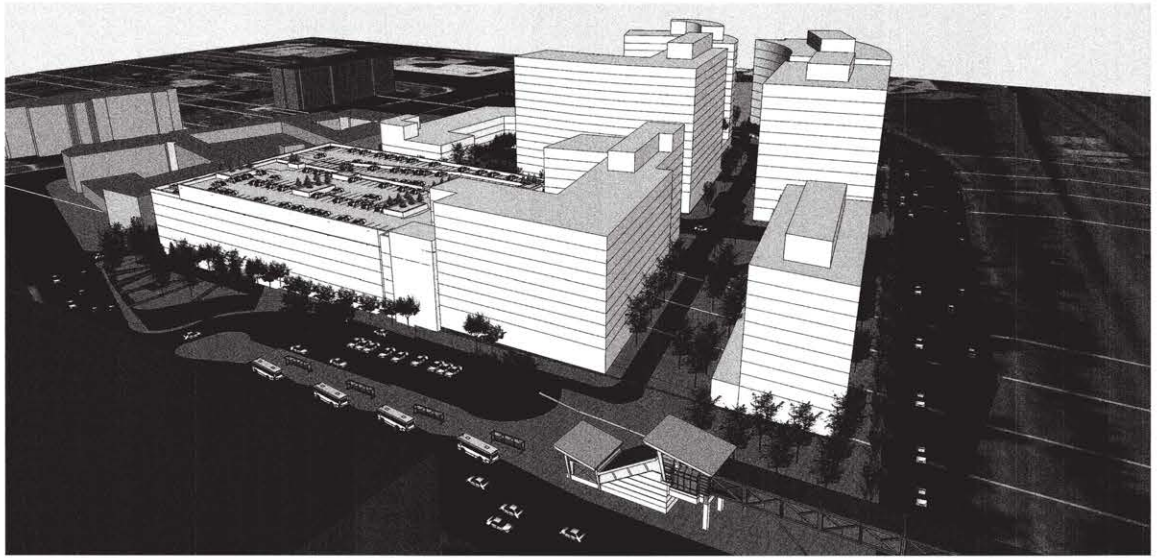
R01.170

SHEET NO. OF

SECTION NO. R01-ZONING



MASSING MODEL - FROM SOUTH



MASSING MODEL - FROM NORTHWEST

LSG LANDSCAPE ARCHITECTURE
1915 GALLOWS ROAD, SUITE 110
VIENNA, VIRGINIA 22182
703-821-2045

HHA
Hammel, Green and Abrahamson, Inc.
44 Canal Center Plaza, Suite 100
Alexandria, Virginia 22314
Telephone 703.836.3766
Facsimile 703.836.3042

Dewberry
Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

dcs DAVIS CARTER SCOTT LTD DESIGN

ROCKS
ENGINEERING AND PLANNING
REAL ESTATE DEVELOPMENT SERVICES

Issued For Construction
03-27-2014

INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE
Conceptual/Final Development Plan
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
JOSEPH STEVEN SAVILLE
Lic. No. 12659
3/27/14
ARCHITECT

KEY PLAN

COMMONWEALTH OF VIRGINIA
CODY A. PENNETT
Lic. No. 048960
3-27-14
PROFESSIONAL ENGINEER

SCALE

Application No: RZ / FDP 2009-HM-017 Staff: WO'D

APPROVED DEVELOPMENT PLAN
(_GDP) (X)DP) (X)DP) (_PRC) (_PP) (_EP) (_SE) (_CSP) (_SP) (_VC)
SEE PROFFERS DATED: Jul 25, 2014
SEE CONDITIONS DATED:
Date of Final Approval: Jul 29, 2014 (X)BOS) (_PC) (_BZA)
Comments: CDP/Devel. Cond's. Dated 4/30/2014
ZONING Sheet 71 of 76

PRINT DATE 3/29/14, 9:12 am

No.	DATE	BY	Description
6	03/27/14		
5	02/21/14		
4	01/03/14		
3	11/22/13		
2	9/25/13		
1	9/9/13		

REVISIONS

DRAWN BY CFC
APPROVED BY JSS
CHECKED BY JSS
DATE 02/21/14

TITLE

MASSING MODELS

PROJECT NO. 305444.06

A-401

R01.171

SHEET NO. OF

SECTION NO. R01-ZONING

CONCEPTUAL RENDERING- NORTHWEST

LSG LANDSCAPE ARCHITECTURE
1919 GALLOWS ROAD, SUITE 110
VIENNA, VIRGINIA 22182
703-821-3040

Hammel, Green and Abrahamson, Inc.
44 Canal Center Plaza, Suite 100
Alexandria, Virginia 22314
Telephone 703.836.7760
Facsimile 703.836.3043

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

DAVIS CARTER SCOTT Ltd
dcs DESIGN

ROCKS ENGINEERING

Application No: RZ / FDP 2009-HM-017 Staff: WO'D

APPROVED DEVELOPMENT PLAN
(_GDP) (XCDP) (XDP) (_PRC) (_PP) (_SP) (_SE) (_CSP) (_SPI) (_VC)
SEE PROFFERS DATED: Jul 25, 2014
SEE CONDITIONS DATED:
Date of Final Approval: Jul 29, 2014 (XBOS) (_PC) (_BZA)
Comments: CDP/Devel. Conds. Dated 4/30/2014
PLANNING & ZONING
Sheet 72 of 76

Issued For Construction
ENGINEERING PLAN REVIEW
FINAL REVIEW NOT REQUIRED

INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE
Conceptual/Final Development Plan
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL
COMMONWEALTH OF VIRGINIA
JOSEPH STEVEN SAVILLE
LICENSED
3/27/14
ARCHITECT

KEY PLAN
COMMONWEALTH OF VIRGINIA
CODY A. PENNETT
LIC. NO. 048560
PROFESSIONAL ENGINEER

SCALE

PRINT DATE 3/28/14, 12:47 pm

No.	DATE	BY	Description
6	03/27/14		
5	02/21/14		
4	01/03/14		
3	11/22/13		
2	9/25/13		
1	9/9/13		

REVISIONS

DRAWN BY CFC
APPROVED BY JSS
CHECKED BY JSS
DATE 02/21/14

TITLE

CONCEPTUAL RENDERING

PROJECT NO. 305444.06

A-402
R01.172
SHEET NO. OF
SECTION NO. R01-ZONING

CONCEPTUAL RENDERING- SOUTH

LSG LANDSCAPE ARCHITECTURE
999 GALLOWS ROAD, SUITE 110
VIENNA, VIRGINIA 22182
703/651-3040

Hunnel, Gross and Abrahamson, Inc.
44 Canal Center Plaza, Suite 100
Alexandria, Virginia 22314
Telephone 703.836.7766
Facsimile 703.836.3042

Application No: RZ / FDP 2009-HM-017 Staff: WO'D

APPROVED DEVELOPMENT PLAN
(_)GDP) (X)DP) (X)DP) (_)RC) (_)DP) (_)EP) (_)SE) (_)CSP) (_)SP) (_)PC)
SEE PROFFERS DATED: Jul 25, 2014
SEE CONDITIONS DATED:
Date of Final Approval: Jul 29, 2014 (X)BOS) (_)PC) (_)BZA)
Comments: CDP Devel. Conds. Dated 4/30/2014

ZONING Sheet 73 of 76

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

dcs DAVIS CARTER SCOTT Ltd DESIGN

ROCKS ENGINEERING
CIVIL & ENVIRONMENTAL
REAL ESTATE DEVELOPERS SINCE 1998

Tested for Construction

INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE
Conceptual/Final Development Plan
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL
COMMONWEALTH OF VIRGINIA
JOSEPH STEVEN SAVILLE
3/27/14
ARCHITECT

KEY PLAN
COMMONWEALTH OF VIRGINIA
CODY A. PENNETT
Lic. No. 046560
PROFESSIONAL ENGINEER

SCALE

PRINT DATE 3/28/14, 1:52 pm

No.	DATE	BY	Description
6	03/27/14		
5	02/21/14		
4	01/03/14		
3	11/22/13		
2	9/25/13		
1	9/9/13		

REVISIONS

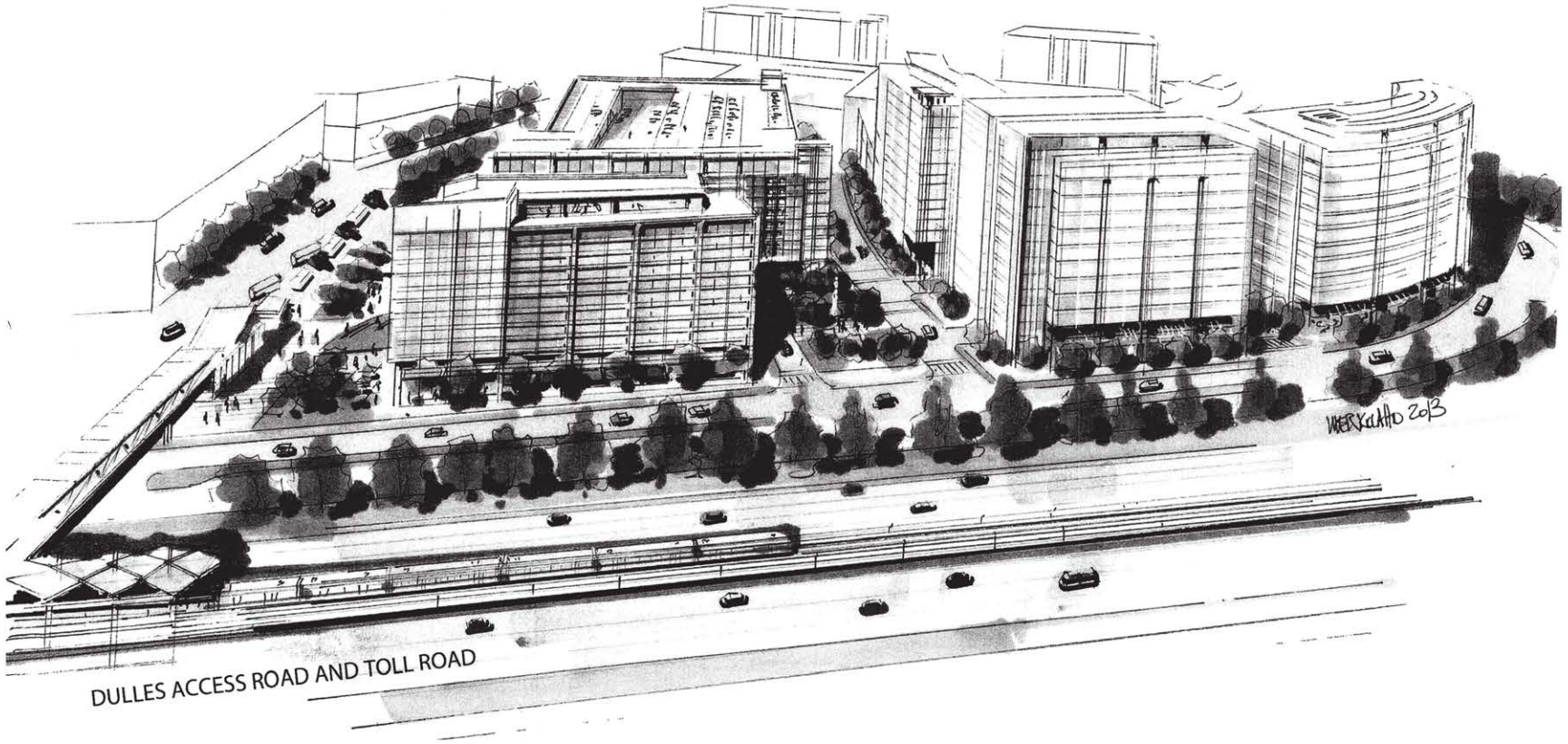
DRAWN BY	CFC
APPROVED BY	JSS
CHECKED BY	JSS
DATE	02/21/14

TITLE

CONCEPTUAL RENDERING

PROJECT NO. 305444.06

A-403
R01.173
SHEET NO. OF
SECTION NO. R01-ZONING



CONCEPTUAL RENDERING- SUNRISE VALLEY DRIVE

LSG LANDSCAPE ARCHITECTURE
1910 GALLOWS ROAD, SUITE 110
VIENNA, VIRGINIA 22182
703-821-2045

Hammat, Green and Abrahamson, Inc.
44 Canal Center Plaza, Suite 105
Alexandria, Virginia 22314
Telephone 703.836.7766
Facsimile 703.836.5042

Application No: RZ / FDP 2009-HM-017 Staff: WO'D

APPROVED DEVELOPMENT PLAN
(_GDP) (X)CDP) (X)DP) (_PRC) (_DP) (_FP) (_SE) (_SPI) (_SPI) (_VC)
SEE PROFFERS DATED: Jul 25, 2014
SEE CONDITIONS DATED:
Date of Final Approval: Jul 29, 2014 (X)BOS) (_PC) (_BZA)
Comments: CDP/Devel. Conds. Dated 4/30/2014
ZONING
Sheet 74 of 76

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0519

dcs DAVIS CARTER SCOTT Ltd DESIGN

ROCKS ENGINEERING COMPANY
REAL ESTATE DEVELOPMENT CONSULTANTS

Issued For Construction

INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE
Conceptual/Final Development Plan
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL
COMMONWEALTH OF VIRGINIA
JOSEPH STEVEN SAVILLE
Lic. No. 13639
ARCHITECT

KEY PLAN
COMMONWEALTH OF VIRGINIA
CODY A. PENNETT
Lic. No. 048960
PROFESSIONAL ENGINEER

SCALE

PRINT DATE 3/28/14, 12:47 pm

No.	DATE	BY	Description
6	03/27/14		
5	02/21/14		
4	01/03/14		
3	11/22/13		
2	9/25/13		
1	9/9/13		

REVISIONS

DRAWN BY CFC
APPROVED BY JSS
CHECKED BY JSS
DATE 02/21/14

TITLE

CONCEPTUAL RENDERING

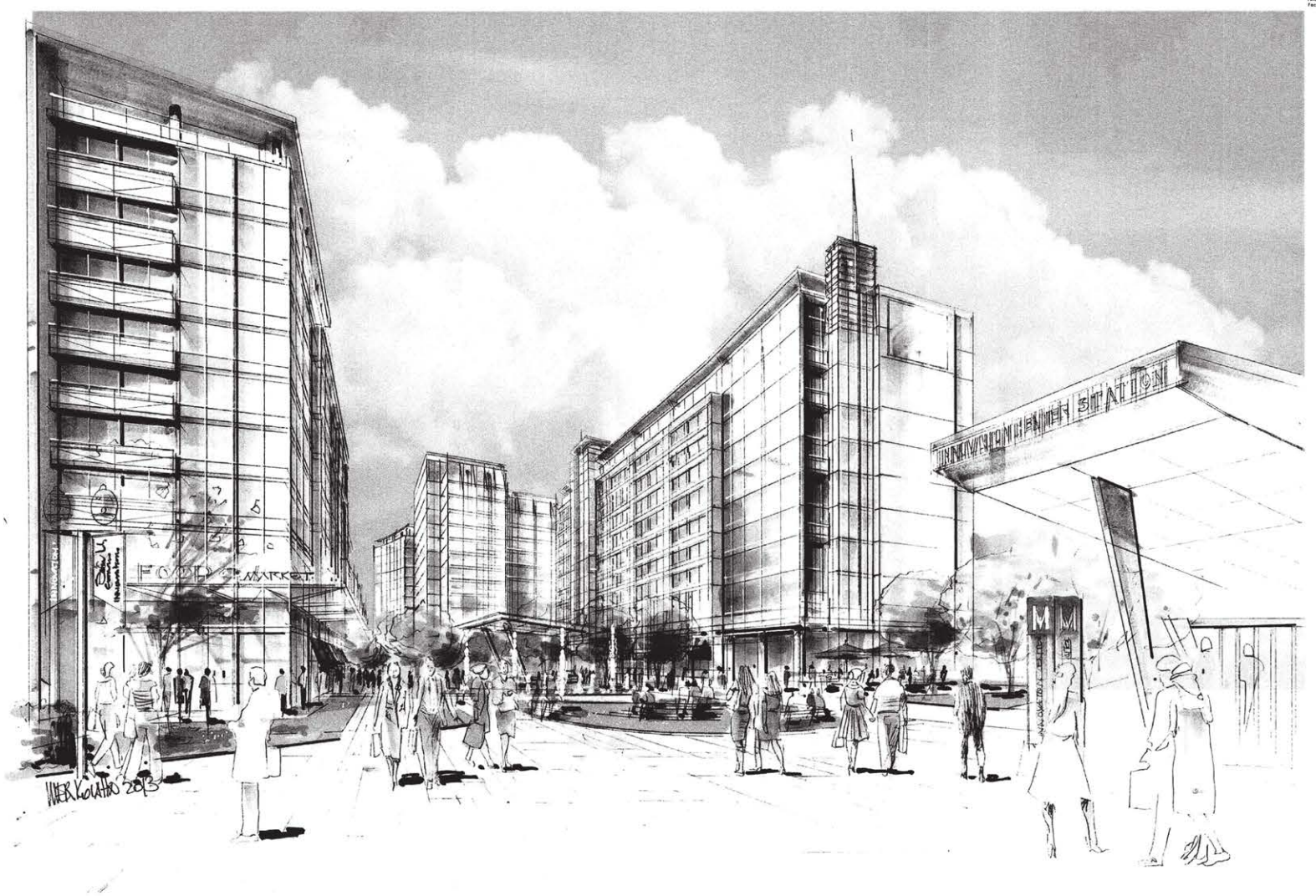
PROJECT NO. 305444.06

A-404

R01.174

SHEET NO. OF

SECTION NO.: R01-ZONING



CONCEPTUAL RENDERING- METRO PLAZA

Application No: RZ / FDP 2009-HM-017 Staff: WO'D

APPROVED DEVELOPMENT PLAN
(_GDP) (XCDP) (XFDP) (_PRC) (_DP) (_EP) (_SE) (_CSP) (_SP) (_VC)
SEE PROFFERS DATED: Jul 25, 2014
SEE CONDITIONS DATED:
Date of Final Approval: Jul 29, 2014 (XBOS) (_PC) (_BZA)
Comments: CDP/Devel. Conds. Dated 4/30/2014
& ZONING Sheet 75 of 76

LBG LANDSCAPE ARCHITECTURE
1919 GALLOWS ROAD, SUITE 110
VIENNA, VIRGINIA 22182
703-821-2045

HGA
Hammel, Green and Abrahamson, Inc.
44 Canal Center Plaza, Suite 100
Alexandria, Virginia 22314
Telephone 703.836.7766
Facsimile 703.836.7042

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

dcs DESIGN DAVIS CARTER SCOTT Ltd

ROCKS ENGINEERING COMPANY
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Issued For Construction

INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE
Conceptual/Final Development Plan
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL
COMMONWEALTH OF VIRGINIA
JOSEPH STEVEN SAVILLE
Lic. No. 42564
ARCHITECT
3/27/14

KEY PLAN
COMMONWEALTH OF VIRGINIA
CODY A. PENNETT
Lic. No. 048960
PROFESSIONAL ENGINEER
3-25-14

SCALE

PRINT DATE 3/28/14, 12:47 pm

No.	DATE	BY	Description
6	03/27/14		
5	02/21/14		
4	01/03/14		
3	11/22/13		
2	9/25/13		
1	9/9/13		

REVISIONS

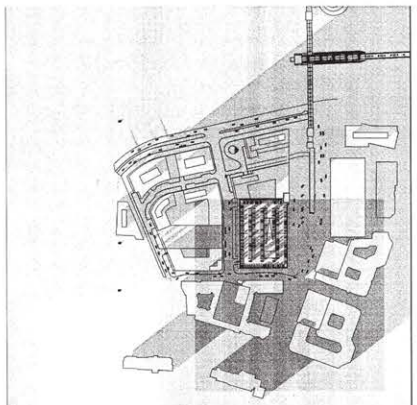
DRAWN BY CFC
APPROVED BY JSS
CHECKED BY JSS
DATE 02/21/14

TITLE

CONCEPTUAL RENDERING

PROJECT NO. 305444.06

SHEET NO. A-405 OF
R01.175
SECTION NO. R01-ZONING



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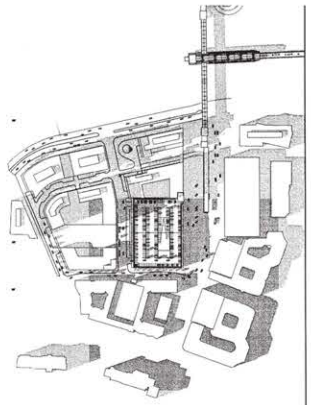

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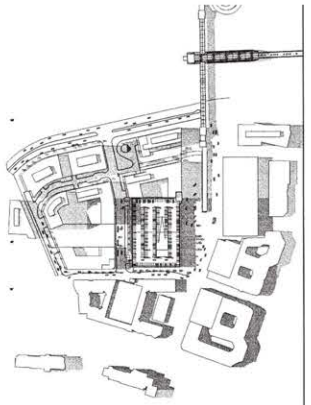

6 JUNE 21st @ 4:00 pm
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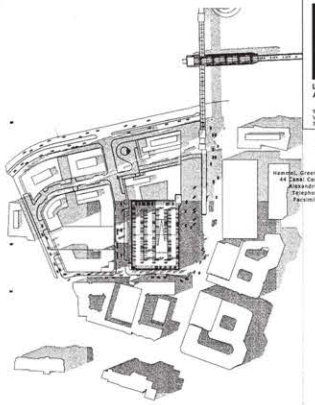

3 MARCH 20th @ 4:00 pm
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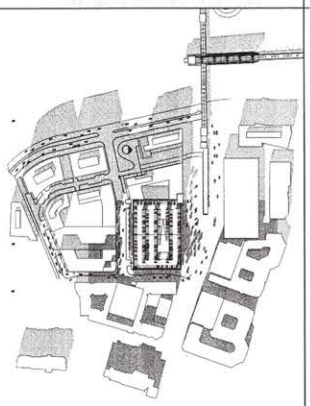

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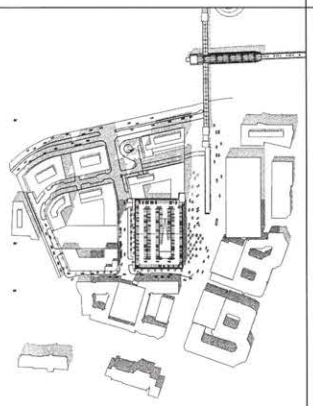

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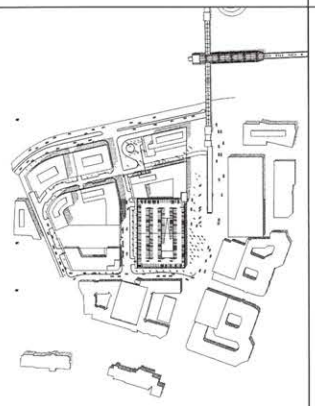

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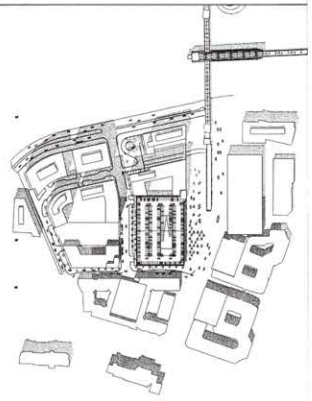

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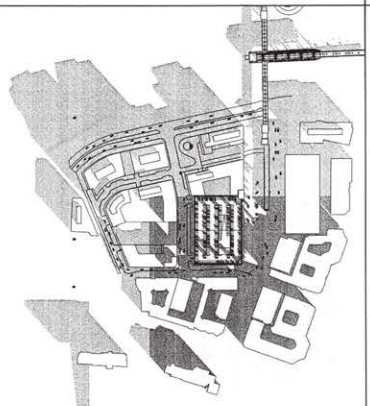
N.T.S.



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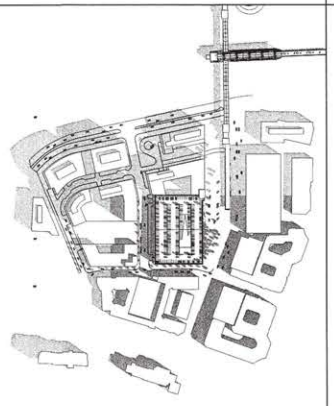
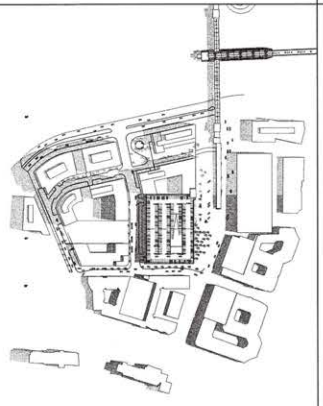
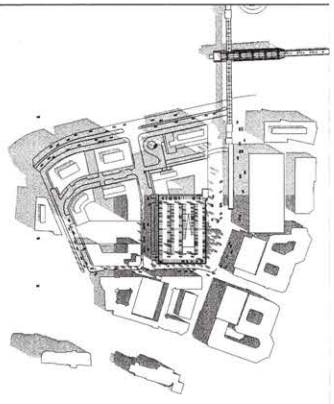


7 SEPTEMBER 22nd @ 9:00 am
N.T.S.



4 JUNE 21st @ 9:00 am
N.T.S.



1 MARCH 20th @ 9:00 am
N.T.S.

LSG LANDSCAPE ARCHITECTURE
1910 GALLOWS ROAD, SUITE 110
VIENNA, VIRGINIA 22182
703.821.2040

Hanmi, Green and Abrahamson, Inc.
44 Canal Center Plaza, Suite 100
Alexandria, Virginia 22314
Telephone 703.836.7766
Facsimile 703.836.3043

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

DCS DESIGN — DAVIS CARTER SCOTT ltd

BOCKS

Issued For Construction
Not Approved for Permit Use

INNOVATION CENTER SOUTH AND THE INNOVATION CENTER STATION GARAGE
Conceptual/Final Development Plan
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
JOSEPH STEVEN SAVILLE
Reg. No. 12654
3/27/14
ARCHITECT

KEY PLAN

Application No: RZ / FDP 2009-HM-0 Staff: WO'D

APPROVED DEVELOPM
(GDP) (SDP) (PDP) (PRC) (DP)
SEE PROFFERS DATED: Jul 25, 20
SEE CONDITIONS DATED:
Date of Final Approval: Jul 29, 2014
Comments: CDP Devel. Cnds. Dated 6/30/2014

COMMONWEALTH OF VIRGINIA
CODY A. PENNETT
Lic. No. 048960
PROFESSIONAL ENGINEER

DPZ & ZONING
Sheet 76 of 76

PRINT DATE 3/28/14, 12:48 pm

No.	DATE	BY	Description
6	03/27/14		
5	02/21/14		
4	01/03/14		
3	11/22/13		
2	9/25/13		
1	9/9/13		

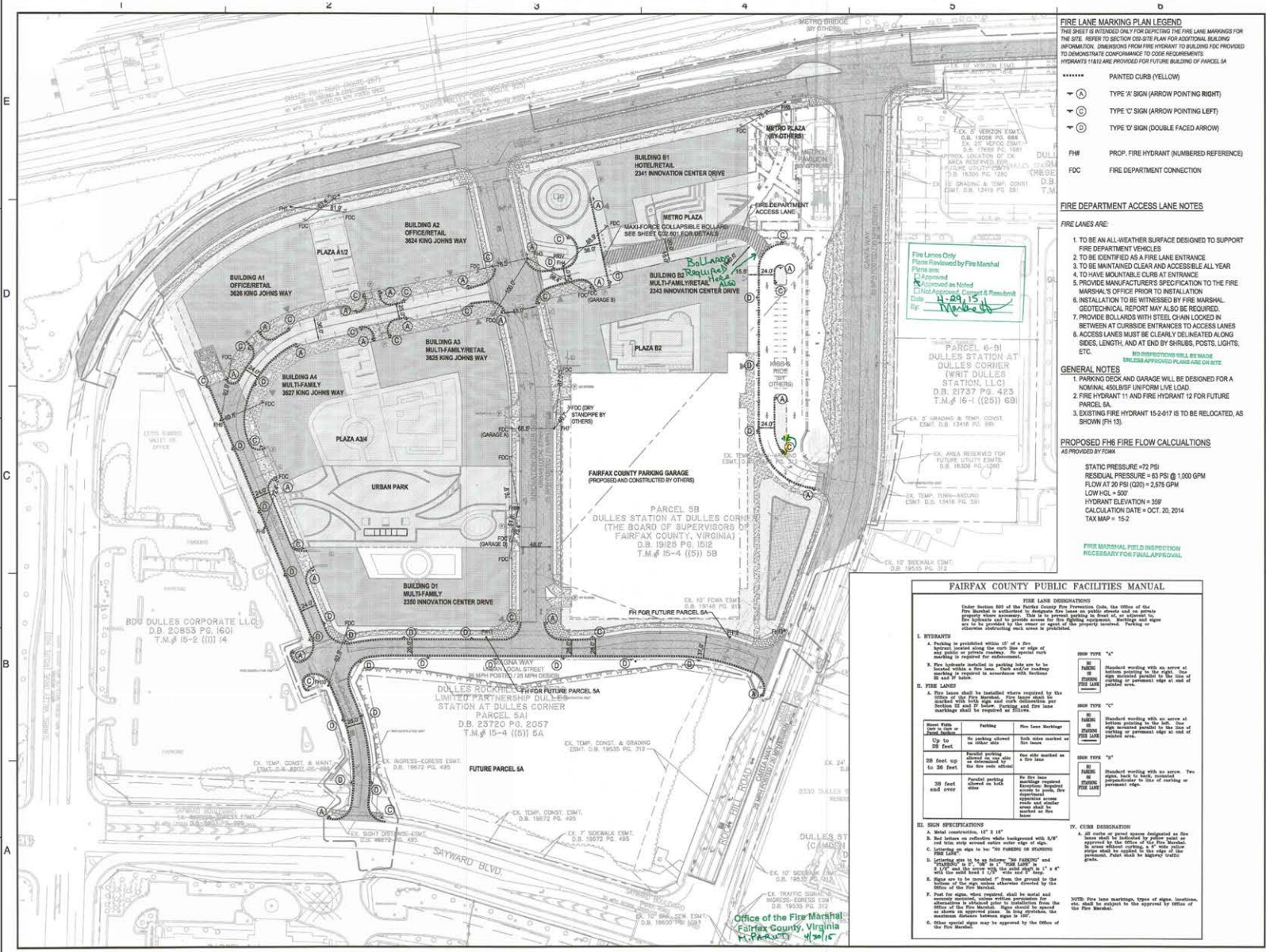
REVISIONS

DRAWN BY CFC
APPROVED BY JSS
CHECKED BY JSS
DATE 02/21/14
TITLE

SHADOW STUDIES

PROJECT NO. 305444.06

A-410
R01.176
SHEET NO. OF
SECTION NO. R01-ZONING



FIRE LANE MARKING PLAN LEGEND

THIS SHEET IS INTENDED ONLY FOR DEPICTING THE FIRE LANE MARKINGS FOR THE SITE. REFER TO SECTION C03-SITE PLAN FOR ADDITIONAL BUILDING INFORMATION. DIMENSIONS FROM FIRE HYDRANT TO BUILDING FDC PROVIDED TO DEMONSTRATE CONFORMANCE TO CODE REQUIREMENTS. HYDRANTS 11&12 ARE PROVIDED FOR FUTURE BUILDING OF PARCEL 5A

- ******* PAINTED CURB (YELLOW)
- (A) TYPE 'A' SIGN (ARROW POINTING **RIGHT**)
- (C) TYPE 'C' SIGN (ARROW POINTING **LEFT**)
- (D) TYPE 'D' SIGN (DOUBLE FACED ARROW)
- FH# PROP. FIRE HYDRANT (NUMBERED REFERENCE)
- FDC FIRE DEPARTMENT CONNECTION

FIRE DEPARTMENT ACCESS LANE NOTES

FIRE LANES ARE:

1. TO BE AN ALL-WEATHER SURFACE DESIGNED TO SUPPORT FIRE DEPARTMENT VEHICLES
2. TO BE IDENTIFIED AS A FIRE LANE ENTRANCE
3. TO BE MAINTAINED CLEAR AND ACCESSIBLE ALL YEAR
4. TO HAVE MOUNTABLE CURB AT ENTRANCE
5. PROVIDE MANUFACTURER'S SPECIFICATION TO THE FIRE MARSHAL'S OFFICE PRIOR TO INSTALLATION
6. INSTALLATION TO BE WITNESSED BY FIRE MARSHAL. GEOTECHNICAL REPORT MAY ALSO BE REQUIRED.
7. PROVIDE BOLLARDS WITH STEEL CHAIN LOCKED IN BETWEEN AT CURBSIDE ENTRANCES TO ACCESS LANES
8. ACCESS LANES MUST BE CLEARLY DELINEATED ALONG SIDES, LENGTH, AND AT END BY SHRUBS, POSTS, LIGHTS, ETC.

NO INSPECTIONS WILL BE MADE UNLESS APPROVED PLANS ARE ON SITE

GENERAL NOTES

1. PARKING DECK AND GARAGE WILL BE DESIGNED FOR A NOMINAL 40LB/SF UNIFORM LIVE LOAD
2. FIRE HYDRANT 11 AND FIRE HYDRANT 12 FOR FUTURE PARCEL 5A.
3. EXISTING FIRE HYDRANT 15-2-017 IS TO BE RELOCATED, AS SHOWN (FH 13).

PROPOSED FH6 FIRE FLOW CALCUALTIONS

AS PROVIDED BY FCWA

STATIC PRESSURE =72 PSI
RESIDUAL PRESSURE = 63 PSI @ 1,000 GPM
FLOW AT 20 PSI (Q20) = 2,575 GPM
LOW HGL = 500'
HYDRANT ELEVATION = 359'
CALCULATION DATE = OCT. 20, 2014
TAX MAP = 15-2

FIRE MARSHAL FIELD INSPECTION NECESSARY FOR FINAL APPROVAL

FAIRFAX COUNTY PUBLIC FACILITIES MANUAL

FIRE LANE DESIGNATIONS

Under Section 503 of the Fairfax County Fire Prevention Code, the Office of the Fire Marshal is authorized to designate fire lanes on public streets and on private property where necessary to assure the free movement of fire apparatus to fire hydrants and to provide access for fire fighting equipment. Markings and signs are to be provided by the owner or agent of the property involved. Parking or otherwise obstructing such areas is prohibited.

I. HYDRANTS

A. Parking is prohibited within 15' of a fire hydrant located along the curb line or edge of any public or private roadway. No special curb marking is required for enforcement.

B. Fire hydrants installed on parking lots are to be located within a fire lane. Curb and/or roadway marking is required in accordance with Sections III and IV below.

II. FIRE LANES

A. Fire lanes shall be installed where required by the Office of the Fire Marshal. Fire lanes shall be marked with both sign and curb delineation per Section III and IV below. Parking and fire lane markings shall be required as follows.

Street Width (Curb to Curb or Edge of Pavement)	Parking	Fire Lane Markings
Up to 25 feet	No parking allowed on either side	Both sides marked as fire lanes
26 feet up to 36 feet	Parallel parking allowed on one side as determined by the fire code official	One side marked as a fire lane
36 feet and over	Parallel parking allowed on both sides	No fire lane markings required Exception: Required access to pools, fire stations, apparatus access roads and similar areas shall be marked as fire lanes

III. SIGN SPECIFICATIONS

A. Metal constructed, 12" X 18"

B. Red letters on reflective white background with 3/8" red trim strip around entire outer edge of sign.

C. Lettering on sign to be: "NO PARKING OR STANDING FIRE LANE"

D. Lettering size to be as follows: "NO PARKING" and "STANDING" is 3", "OR" is 1" "FIRE LANE" is 2 1/2" and the arrow with the solid shaft is 1" x 6" with the head 1 1/2" wide and 3" deep.

E. Signs are to be mounted 7' from the ground to the bottom of the sign, unless otherwise directed by the Office of the Fire Marshal.

F. Post for signs, when required, shall be metal and securely anchored, unless written permission for alternatives is obtained prior to installation from the Office of the Fire Marshal. Signs should be spaced as shown on approved plans. In long stretches, the maximum distance between signs is 150'.

G. Other special signs may be approved by the Office of the Fire Marshal.

SIGN TYPE "A"

Standard wording with an arrow at bottom pointing to the right. One sign installed parallel to the line of curbing or pavement edge at end of painted area.

SIGN TYPE "C"

Standard wording with an arrow at bottom pointing to the left. One sign installed parallel to the line of curbing or pavement edge at end of painted area.

SIGN TYPE "D"

Standard wording with no arrow. Two signs, back to back, mounted perpendicular to line of curbing or pavement edge.

IV. CURB DESIGNATION

A. All curbs or paved spaces designated as fire lanes shall be painted by yellow paint or approved by the Office of the Fire Marshal. At areas without curbing, a 6" wide yellow stripe shall be applied to the edge of the pavement. Paint shall be highway traffic grade.

NOTE: Fire lane markings, types of signs, locations, etc. shall be subject to the approval by Office of the Fire Marshal.

THIS SHEET PROVIDED FOR INFORMATION PURPOSES ONLY

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

INNOVATION CENTER SOUTH
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL
COMMONWEALTH OF VIRGINIA
CODY A PENNETT
LIC. NO. 045860
PROFESSIONAL ENGINEER
11-19-15

KEY PLAN

SCALE NORTH

SCALE IN FEET
1" = 60'
1 INCH

VCS-83

No.	DATE	BY	Description
1	03/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY MLJ
APPROVED BY CAP
CHECKED BY CJD
DATE SEPTEMBER 2014

TITLE
FIRE LANE MARKING PLAN

Office of the Fire Marshal

SP NO. #6848-SP-014

C05.101

SECTION NO. C05-FIRE & WATER

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL
COMMONWEALTH OF VIRGINIA
CODY A PENNETT
LIC. NO. 045860
PROFESSIONAL ENGINEER
11-19-15

KEY PLAN

SCALE NORTH

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY MLJ
APPROVED BY CAP
CHECKED BY CJD
DATE SEPTEMBER 2014

TITLE
FIRE MARSHALL COMMENTS

SP NO. #6848-SP-014

R02.101

SECTION NO. R02-INFORMATION ONLY

P:\PROJECT\55067264 Innovation South\CAD\CIVIL-SITE\Sheets\SITE PLAN\APPENDIX R02.dwg
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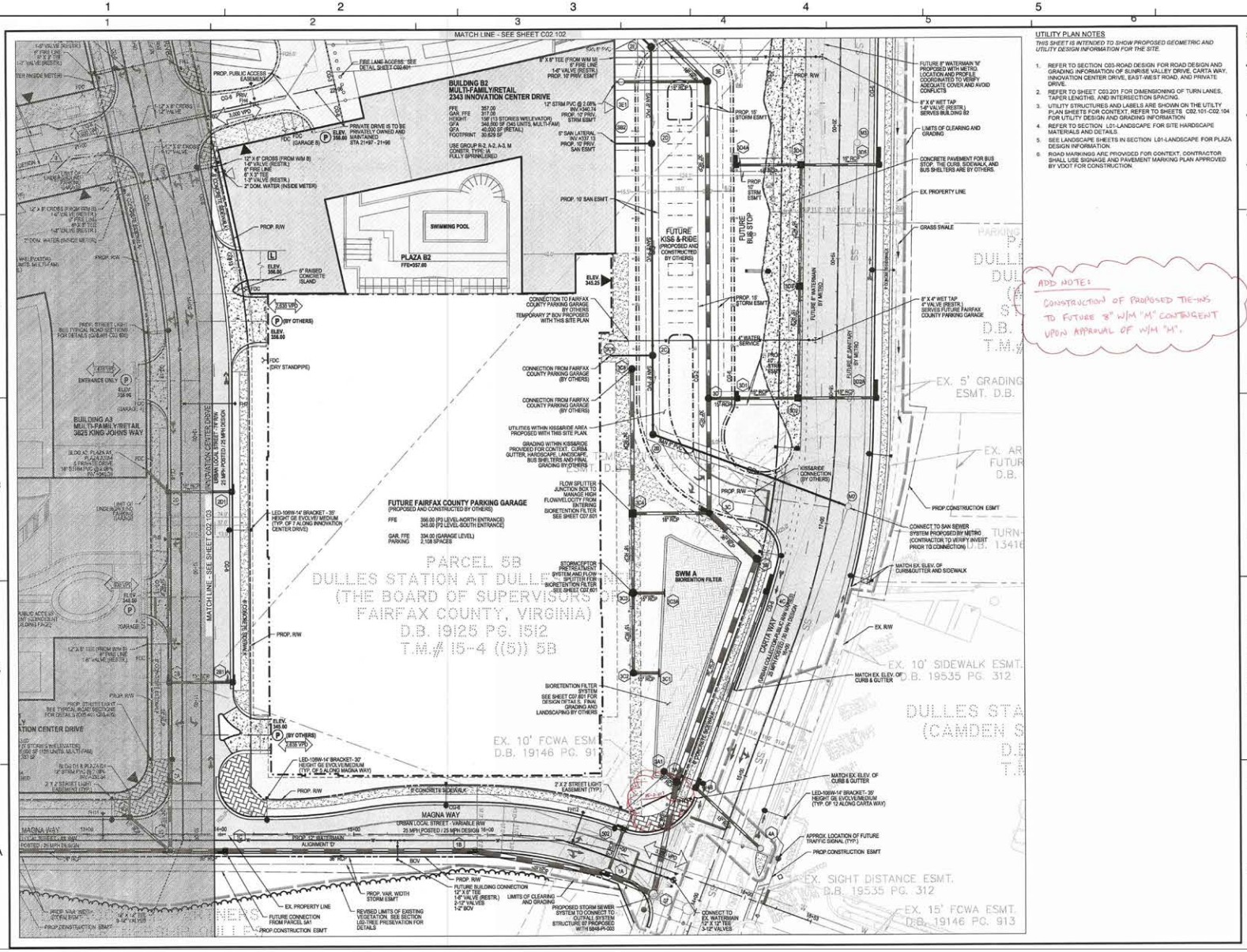


UTILITY PLAN NOTES

THIS SHEET IS INTENDED TO SHOW PROPOSED GEOMETRIC AND UTILITY DESIGN INFORMATION FOR THE SITE.

1. REFER TO SECTION C03-ROAD DESIGN FOR ROAD DESIGN AND GRADING INFORMATION OF SUNRISE VALLEY DRIVE, CARTA WAY, INNOVATION CENTER DRIVE, EAST-WEST ROAD, AND PRIVATE DRIVE.
2. REFER TO SHEET C03.201 FOR DIMENSIONING OF TURN LANES, TAPER LENGTHS, AND INTERSECTION SPACING.
3. UTILITY STRUCTURES AND LABELS ARE SHOWN ON THE UTILITY PLAN SHEETS FOR CONTEXT, REFER TO SHEETS C02.101-C02.104 FOR UTILITY DESIGN AND GRADING INFORMATION
4. REFER TO SECTION L01-LANDSCAPE FOR SITE HARDSCAPE MATERIALS AND DETAILS.
5. SEE LANDSCAPE SHEETS IN SECTION L01-LANDSCAPE FOR PLAZA DESIGN INFORMATION.
6. ROAD MARKINGS ARE PROVIDED FOR CONTEXT. CONTRACTOR SHALL USE SIGNAGE AND PAVEMENT MARKING PLAN APPROVED BY VDOT FOR CONSTRUCTION.

THIS SHEET PROVIDED FOR INFORMATION PURPOSES ONLY

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

INNOVATION CENTER SOUTH
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL
COMMONWEALTH OF VIRGINIA
CODY A. PENNETTI
LIC. NO. 045960
PROFESSIONAL ENGINEER

KEY PLAN

SCALE NORTH

SCALE IN FEET
1" = 30'
1 INCH

VCS-83

No.	DATE	BY	Description
1	03/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY MLJ
APPROVED BY CAP
CHECKED BY CJD
DATE SEPTEMBER 2014

TITLE
GEOMETRIC & UTILITY PLAN

SP NO. #6848-SP-014

C02.104

SECTION NO. C02-SITE PLAN

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL
COMMONWEALTH OF VIRGINIA
CODY A. PENNETTI
LIC. NO. 045960
PROFESSIONAL ENGINEER

KEY PLAN

SCALE NORTH

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY MLJ
APPROVED BY CAP
CHECKED BY CJD
DATE SEPTEMBER 2014

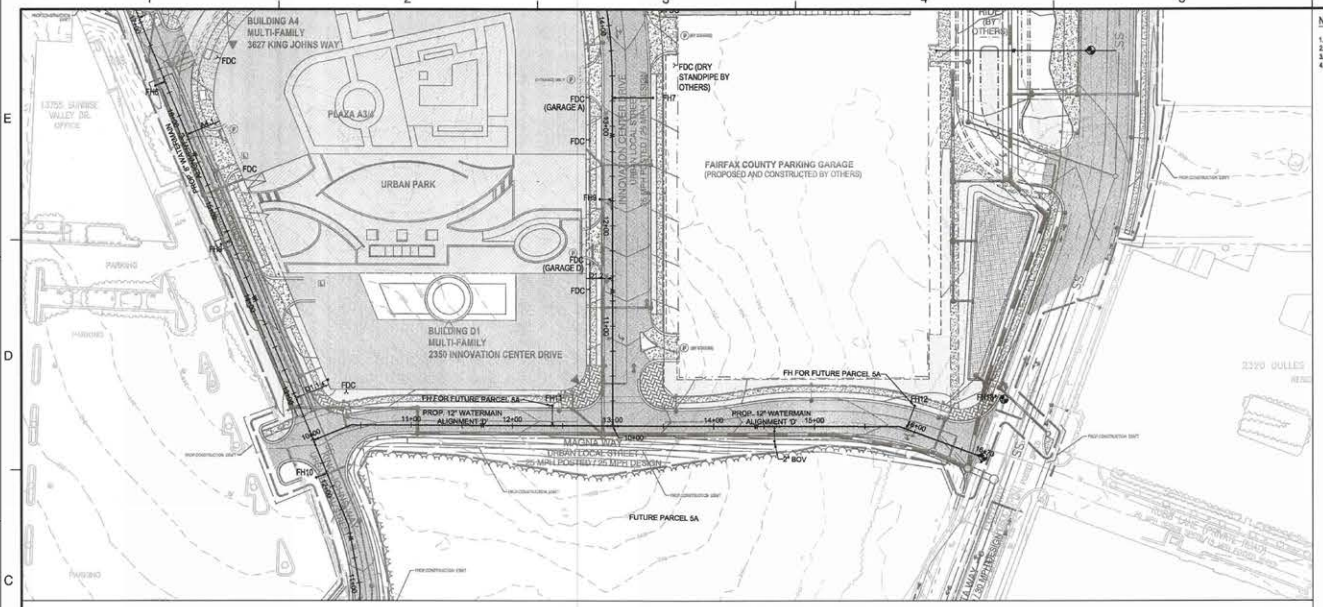
TITLE
FAIRFAX WATER COMMENTS

SP NO. #6848-SP-014

R02.102

SECTION NO. R02-INFORMATION ONLY

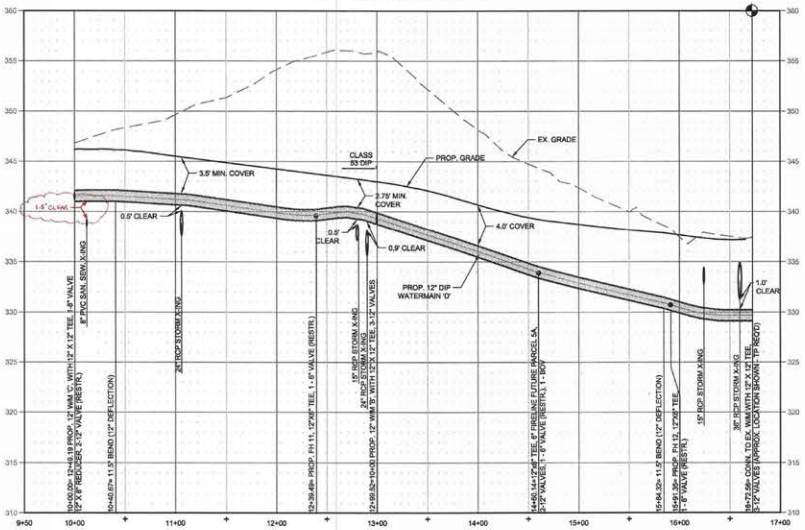
P:\PROJECT\55627\4 Innovation South\CAD\CIVIL - SITE\Sheets\SITE PLAN\APPENDIX R02.dwg
Fri, Oct 02 2015 - 9:01:24am



NOTES:

1. THIS SHEET IS PROVIDED FOR WATER PROFILE INFORMATION ONLY.
2. REFER TO SHEET C05.601-C05.602 FOR NOTES AND DETAILS.
3. FIRE LINE PROFILES ARE IDENTIFIED WITH BUILDING REFERENCE.
4. ALL PIPE SHALL BE CLASS 52 DIP UNLESS OTHERWISE NOTED.

WATER MAIN 'D' PROFILE



THIS SHEET PROVIDED FOR INFORMATION PURPOSES ONLY

Dewberry
Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

INNOVATION CENTER SOUTH
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL
COMMONWEALTH OF VIRGINIA
CODY A. PENNETTI
LIC. NO. 048360
PROFESSIONAL ENGINEER
DATE: 05-05-06

KEY PLAN

SCALE
H: 1" = 50'
1 INCH
V: 1" = 5'
1 INCH

NORTH
VCS-83

No.	DATE	BY	Description
1	03/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY: MLJ
APPROVED BY: CAP
CHECKED BY: CJD
DATE: SEPTEMBER 2014

TITLE
WATER MAIN PROFILES

SP NO. #6848-SP-014

C05.304

SECTION NO. C05-FIRE & WATER

Issued For Construction
May 26, 2016

Dewberry
Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

INNOVATION CENTER SOUTH
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL
COMMONWEALTH OF VIRGINIA
CODY A. PENNETTI
LIC. NO. 048360
PROFESSIONAL ENGINEER
DATE: 05-05-06

KEY PLAN

SCALE NORTH

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY: MLJ
APPROVED BY: CAP
CHECKED BY: CJD
DATE: SEPTEMBER 2014

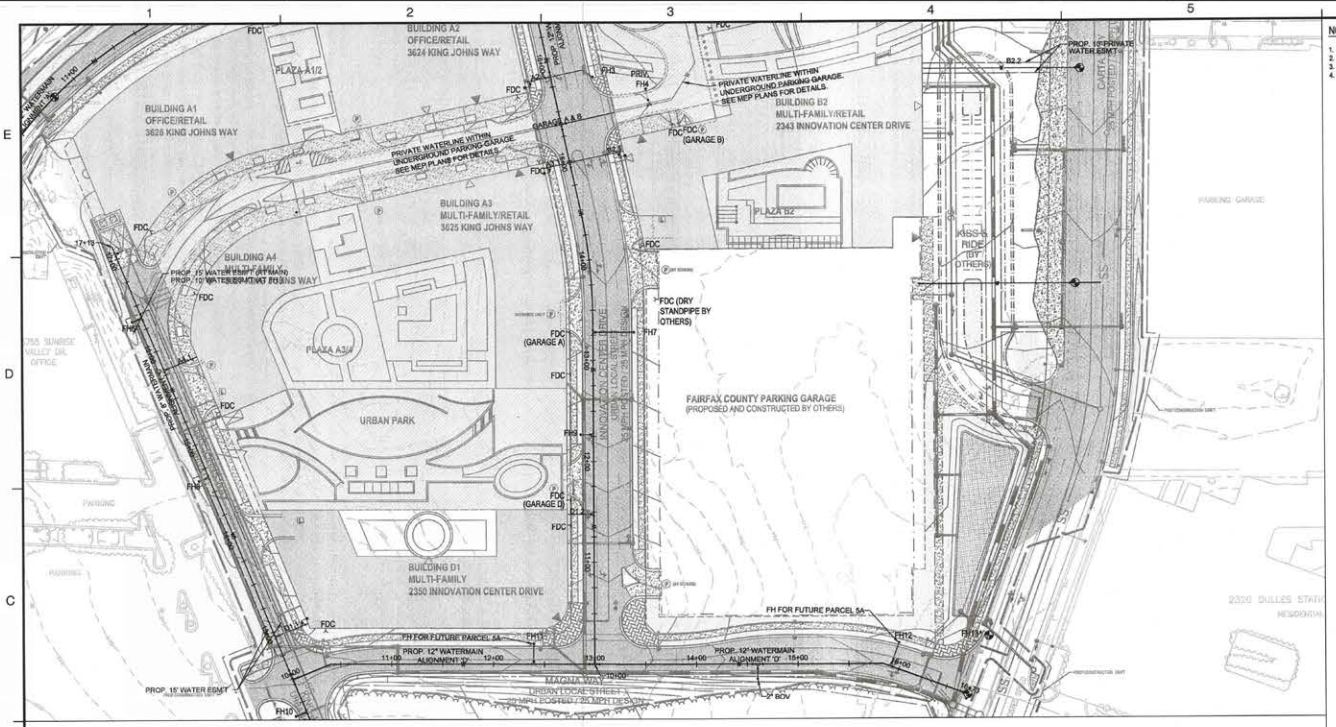
TITLE
FAIRFAX WATER COMMENTS

SP NO. #6848-SP-014

R02.103

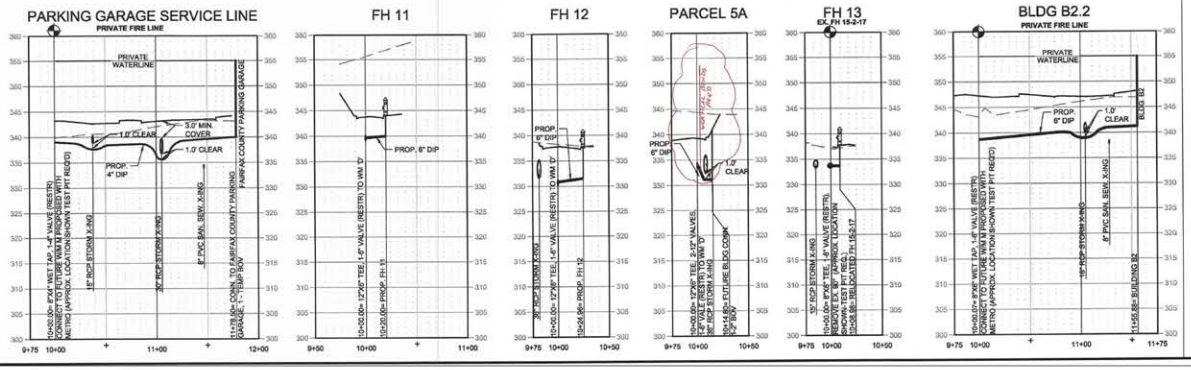
SECTION NO. R02-INFORMATION ONLY

P:\PROJECTS\56972\4 Innovation South\CAD\CIVIL-SITE\Sheets\SITE PLAN\APPENDIX R02.dwg
Fri, Oct 02 2015 - 9:51:29am



NOTES:

1. THIS SHEET IS PROVIDED FOR WATER PROFILE INFORMATION ONLY.
2. REFER TO SHEET C05.601-C05.602 FOR NOTES AND DETAILS.
3. FIRE LINE PROFILES ARE IDENTIFIED WITH BUILDING REFERENCE.
4. ALL PIPE SHALL BE CLASS 52 DIP UNLESS OTHERWISE NOTED.



THIS SHEET PROVIDED FOR INFORMATION PURPOSES ONLY

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CODY A PENNETT
LIC. NO. 040960
PROFESSIONAL ENGINEER

KEY PLAN

SCALE
H: 1" = 50'
1 INCH
V: 1" = 10'
1 INCH
NORTH
VCS-83

No.	DATE	BY	Description
1	03/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY MLJ
APPROVED BY CAP
CHECKED BY CJD
DATE SEPTEMBER 2014

TITLE
WATER MAIN PROFILES

SP NO. #6848-SP-014

C05.308

SECTION NO. C05-FIRE & WATER

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CODY A PENNETT
LIC. NO. 040960
PROFESSIONAL ENGINEER

KEY PLAN

SCALE NORTH

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY MLJ
APPROVED BY CAP
CHECKED BY CJD
DATE SEPTEMBER 2014

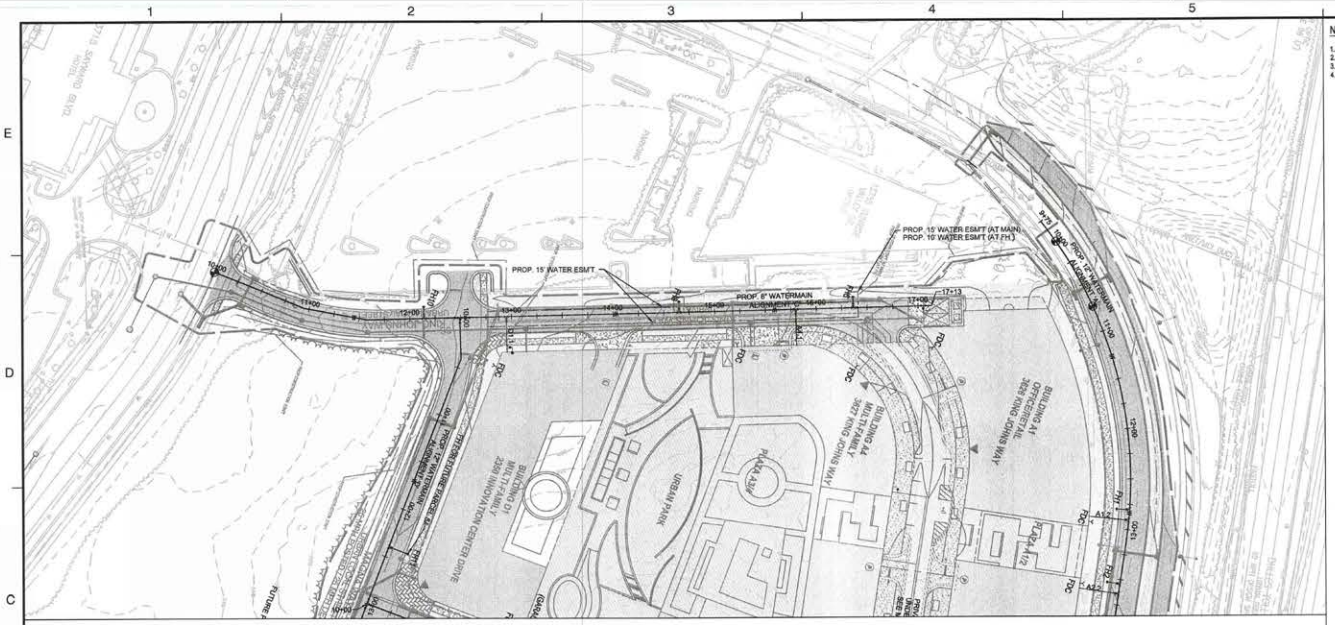
TITLE
FAIRFAX WATER COMMENTS

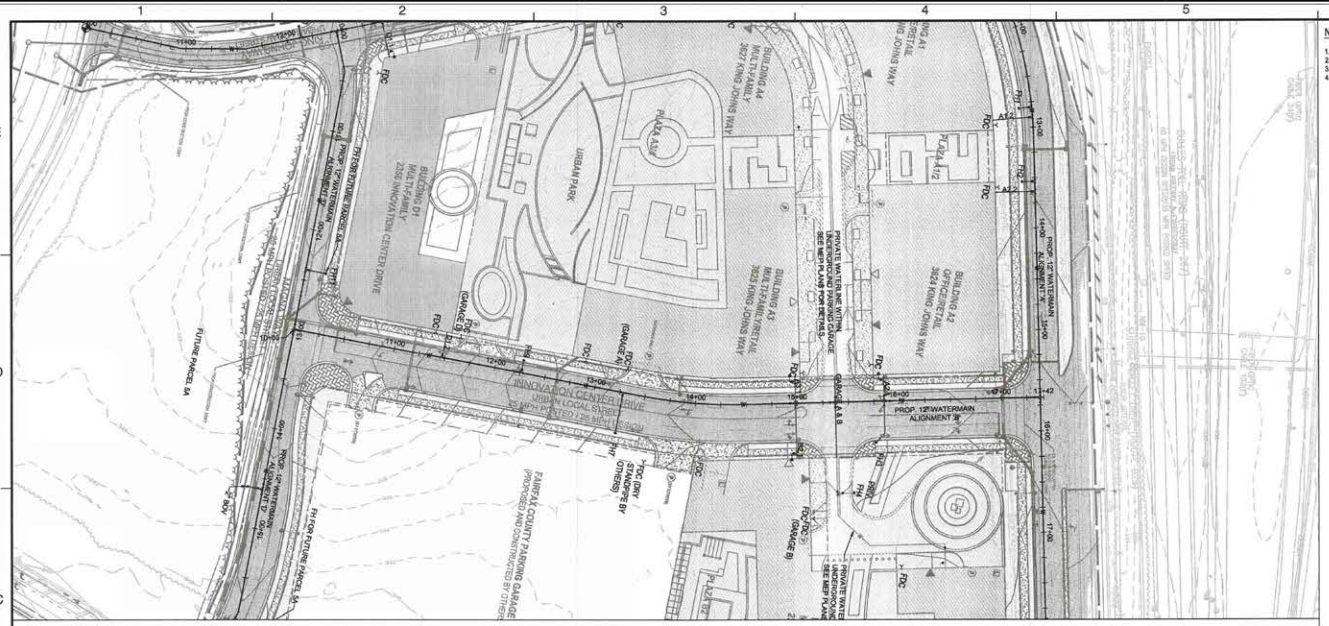
SP NO. #6848-SP-014

R02.104

SECTION NO. R02-INFORMATION ONLY

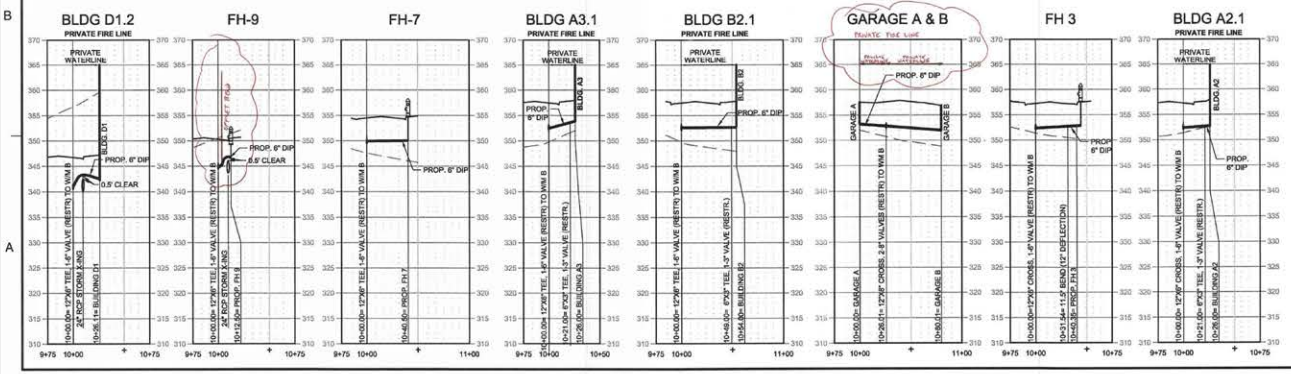
P:\PROJECT\55067254 Innovation South\CAD\CIVIL-SITE\Sheets\SITE PLAN\APPENDIX R02.dwg
Fri, Oct 02 2015 - 9:51:34am


PROP. 15' WATER ESMT
PROP. 6" WATERMAIN
PROP. 15' WATER ESMT (AT MAIN)
PROP. 15' WATER ESMT (AT FH.)
PROP. 12" WATERMAIN
BUILDING A4
BUILDING A1
BUILDING A2
BUILDING A3
BUILDING D1
BUILDING D2
URBAN PARK
PLAZA 2
PLAZA 1/2
INNOVATION CENTER DRIVE
JOHN MINOR DRIVE
FUTURE
PROP. 6" DIP
PROP. 8" DIP
PROP. 12" DIP
PROP. 16" DIP
PROP. 20" DIP
PROP. 24" DIP
PROP. 30" DIP
PROP. 36" DIP
PROP. 42" DIP
PROP. 48" DIP
PROP. 54" DIP
PROP. 60" DIP
PROP. 66" DIP
PROP. 72" DIP
PROP. 78" DIP
PROP. 84" DIP
PROP. 90" DIP
PROP. 96" DIP
PROP.



NOTES:

1. THIS SHEET IS PROVIDED FOR WATER PROFILE INFORMATION ONLY.
2. REFER TO SHEET C05.601-C05.602 FOR NOTES AND DETAILS.
3. FIRE LINE PROFILES ARE IDENTIFIED WITH BUILDING REFERENCE.
4. ALL PIPE SHALL BE CLASS 52 DIP UNLESS OTHERWISE NOTED.



THIS SHEET PROVIDED FOR INFORMATION PURPOSES ONLY

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CODY A. PENNETTI
LIC. NO. 040560
PROFESSIONAL ENGINEER
5-05-16

KEY PLAN

SCALE
H: 1" = 50'
1 INCH
V: 1" = 10'
1 INCH

NORTH
VCS-83

No.	DATE	BY	Description
1	03/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY MLJ
APPROVED BY CAP
CHECKED BY CJD
DATE SEPTEMBER 2014

TITLE
WATER MAIN PROFILES

SP NO. #6848-SP-014

C05.306

SECTION NO. C05-FIRE & WATER

Dewberry

Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
703.849.0100 (PHONE)
703.849.0518 (FAX)

Issued For Construction
May 26, 2016

INNOVATION CENTER SOUTH

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CODY A. PENNETTI
LIC. NO. 040560
PROFESSIONAL ENGINEER
5-05-16

KEY PLAN

SCALE NORTH

No.	DATE	BY	Description
1	08/2015	CAP	2ND SUBMISSION

REVISIONS

DRAWN BY MLJ
APPROVED BY CAP
CHECKED BY CJD
DATE SEPTEMBER 2014

TITLE
FAIRFAX WATER COMMENTS

SP NO. #6848-SP-014

R02.106

SECTION NO. R02-INFORMATION ONLY

P:\PROJECT\55067264 Innovation South\CAD\CIVIL-SITE\Sheets\SITE PLAN\APPENDIX R02.dwg
Fri, Oct 02 2015 - 9:51:44am

Issued For Construction
May 26, 2016

6848-SP-014

CURVE TABLE						
NO.	RADIUS	DELTA	ARC	TAN.	CHORD	CH. BEARING
1	395.74'	39°24'19"	272.17'	141.72'	266.84'	N45°53'34"E
2	258.00'	10°35'00"	47.66'	23.90'	47.59'	N22°24'38"E

THIS APPROVAL IS NOT A COMMITMENT TO PROVIDE PUBLIC SANITARY SEWER.

FINAL PLAT
RECOMMENDED FOR APPROVAL
FAIRFAX COUNTY
SITE REVIEW BRANCH CHIEF

DATE _____ HIS AGENT

APPROVED
FOR
BOARD OF SUPERVISORS
FAIRFAX COUNTY, VIRGINIA

DATE _____ DIRECTOR, PUBLIC WORKS & ENVIRONMENTAL SERVICES OR AGENT

APPROVAL VOID IF PLAT IS NOT OFFERED FOR RECORD ON OR BEFORE _____

APPROVED
COUNTY OF FAIRFAX
OFFICE OF SITE DEVELOPMENT SERVICES
SANITARY SEWER SECTION

By _____
Date _____

APPROVED
COUNTY OF FAIRFAX
OFFICE OF BUILDING CODE SERVICES
PERMITS DIVISION – SITE PERMISSION SECTION
STREET ADDRESS FUNCTION

By _____
Date _____

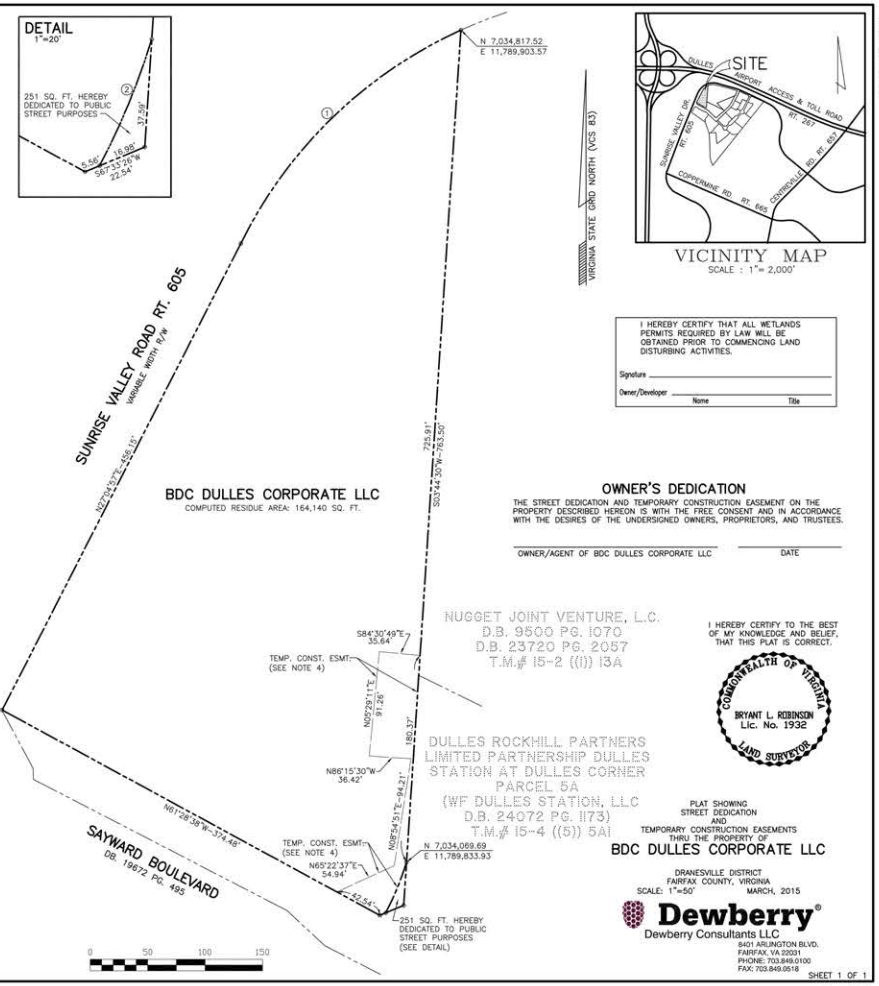
DEPARTMENT OF PUBLIC WORKS
AND ENVIRONMENTAL SERVICES
OFFICE OF SITE DEVELOPMENT SERVICES
Fairfax, Virginia

All street locations and/or easements conform to the requirements of this office and the necessary agreements or bonds have been received.

By _____ Date _____

NOTES:

1. THE PROPERTY DELINEATED ON THIS PLAT IS LOCATED ON ASSESSMENT MAP 15-2 ((1)) 14 AND IS ZONED C-3.
2. THE PROPERTY SHOWN HEREON WAS ACQUIRED BY BDC DULLES CORPORATE LLC IN D.B. 20853 PG. 1601.
3. BOUNDARY INFORMATION SHOWN HEREON WAS DERIVED FROM A BOUNDARY SURVEY PERFORMED BY THIS FIRM (DEWBERRY–FAIRFAX OFFICE) AND EXISTING RECORDS.
4. TEMPORARY CONSTRUCTION EASEMENT TO BE NULL AND VOID AT SUCH TIME AS CONSTRUCTION IS COMPLETED.
5. THIS PLAT COMPLIES FULLY WITH THE AMENDED CHESAPEAKE BAY PRESERVATION ORDINANCE, EFFECTIVE NOVEMBER 18, 2003.
6. ENGINEERING GEOLOGY AND/OR SOIL REPORTS HAVE BEEN REVIEWED AND APPROVED BY THE DIRECTOR OF THE DEPARTMENT OF PUBLIC WORKS AND ENVIRONMENTAL SERVICES FOR THE PROPERTY DESCRIBED HEREON AND ARE AVAILABLE FOR REVIEW AT THE DEPARTMENT OF PUBLIC WORKS AND ENVIRONMENTAL SERVICES. SITE CONDITIONS ARE OF SUCH A NATURE THAT LAND SLIPPAGE OR FOUNDATION PROBLEM POSSIBILITIES REQUIRED THE SUBMITTAL OF SOIL REPORTS. A COPY OF SAID REPORT IS AVAILABLE AT THE DEPARTMENT OF PUBLIC WORKS AND ENVIRONMENTAL SERVICES.
7. IN ACCORDANCE WITH THE PROVISIONS SET FORTH IN PAR. 4 OF SECT. 2-308 OF THE FAIRFAX COUNTY ZONING ORDINANCE, THE DENSITY/INTENSITY CREDIT FOR THE DEDICATED LAND AREA SHOWN HEREON IS HEREBY RESERVED AND ASSIGNED TO TAX MAP PARCEL 14.
8. THIS PLAT IS REFERENCED TO SITE PLAN NO. 6848-SP-014.



I HEREBY CERTIFY THAT ALL WETLANDS PERMITS REQUIRED BY LAW WILL BE OBTAINED PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES.

Signature _____

Owner/Developer _____
Name Title

OWNER'S DEDICATION

THE STREET DEDICATION AND TEMPORARY CONSTRUCTION EASEMENT ON THE PROPERTY DESCRIBED HEREON IS WITH THE FREE CONSENT AND IN ACCORDANCE WITH THE DESIRES OF THE UNDERSIGNED OWNERS, PROPRIETORS, AND TRUSTEES.

_____ _____
OWNER/AGENT OF BDC DULLES CORPORATE LLC DATE

I HEREBY CERTIFY TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT THIS PLAT IS CORRECT.

COMMONWEALTH OF VIRGINIA
BRYANT L. ROBINSON
Lic. No. 1932
LAND SURVEYOR

PLAT SHOWING
STREET DEDICATION
AND
TEMPORARY CONSTRUCTION EASEMENTS
THRU THE PROPERTY OF
BDC DULLES CORPORATE LLC

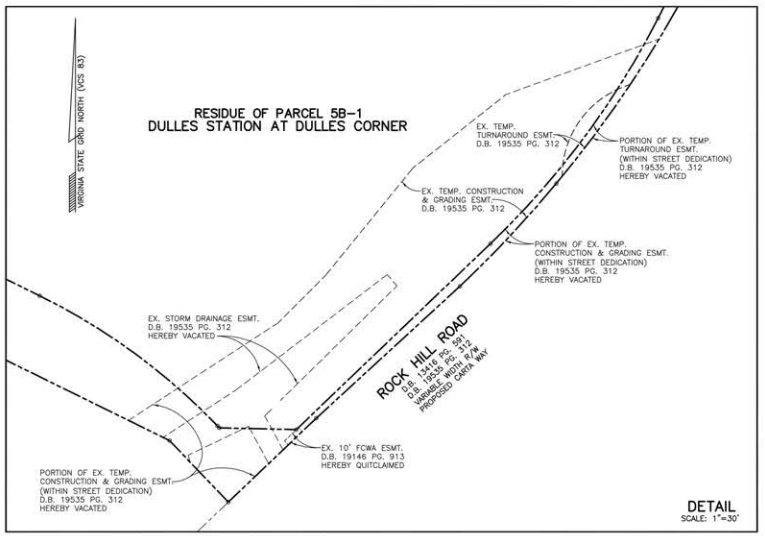
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA
SCALE: 1"=50' MARCH, 2015

Dewberry®
Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

SHEET 1 OF 1

RPA–5501

Issued For Construction
May 26, 2016



DETAIL
SCALE: 1"=30'

FINAL PLAT

RECOMMENDED FOR APPROVAL
FAIRFAX COUNTY
SITE REVIEW BRANCH CHIEF

DATE _____ FOR AGENT

APPROVED
FOR
BOARD OF SUPERVISORS
FAIRFAX COUNTY, VIRGINIA

DATE _____ DIRECTOR, PUBLIC WORKS & ENVIRONMENTAL SERVICES OR AGENT

APPROVAL VOID IF PLAT IS NOT OFFERED FOR RECORD ON OR BEFORE _____

APPROVED
COUNTY OF FAIRFAX
OFFICE OF SITE DEVELOPMENT SERVICES
SANITARY SEWER SECTION

By _____

Date _____

APPROVED
COUNTY OF FAIRFAX
OFFICE OF BUILDING CODE SERVICES
PERMITS DIVISION – SITE PERMISSION SECTION
STREET ADDRESS FUNCTION

By _____

Date _____

THIS APPROVAL IS NOT A COMMITMENT TO PROVIDE PUBLIC SANITARY SEWER.

VICINITY MAP
SCALE : 1"= 2,000'

DEPARTMENT OF PUBLIC WORKS
AND ENVIRONMENTAL SERVICES
OFFICE OF SITE DEVELOPMENT SERVICES
Fairfax, Virginia

All street locations and/or easements conform to the requirements of this office and the necessary agreements or bonds have been received.

By _____ Date _____

I HEREBY CERTIFY THAT ALL WETLANDS PERMITS REQUIRED BY LAW WILL BE OBTAINED PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES.

Signature _____

Owner/Developer _____
Name Title

OWNER'S DEDICATION

THE STREET DEDICATION AND VACATION AND DEDICATION OF VARIOUS EASEMENTS ON THE PROPERTY DESCRIBED HEREON IS WITH THE FREE CONSENT AND IN ACCORDANCE WITH THE DESIRES OF THE UNDERSIGNED OWNERS, PROPRIETORS, AND TRUSTEES.

_____ _____
OWNER/AGENT OF THE BOARD OF SUPERVISORS OF FAIRFAX COUNTY, VIRGINIA — DATE

NOTES:

1. THE PROPERTY DELINEATED ON THIS PLAT IS LOCATED ON ASSESSMENT MAP 15-4 ((5)) 5B1 AND IS ZONED PRM.

2. THE PROPERTY SHOWN HEREON WAS ACQUIRED BY THE BOARD OF SUPERVISORS OF FAIRFAX COUNTY, VIRGINIA IN D.B. PG.

3. BOUNDARY INFORMATION SHOWN HEREON WAS DERIVED FROM EXISTING RECORDS.

4. TEMPORARY CONSTRUCTION EASEMENT TO BE NULL AND VOID AT SUCH TIME AS CONSTRUCTION IS COMPLETED.

5. THIS PLAT COMPLIES FULLY WITH THE AMENDED CHESAPEAKE BAY PRESERVATION ORDINANCE, EFFECTIVE NOVEMBER 18, 2003.

6. ENGINEERING GEOLOGY AND/OR SOIL REPORTS HAVE BEEN REVIEWED AND APPROVED BY THE DIRECTOR OF THE DEPARTMENT OF PUBLIC WORKS AND ENVIRONMENTAL SERVICES FOR THE PROPERTY DESCRIBED HEREON AND ARE AVAILABLE FOR REVIEW AT THE DEPARTMENT OF PUBLIC WORKS AND ENVIRONMENTAL SERVICES. SITE CONDITIONS ARE OF SUCH A NATURE THAT LAND SLIPPAGE OR FOUNDATION PROBLEM POSSIBILITIES REQUIRED THE SUBMITTAL OF SOIL REPORTS. A COPY OF SAID REPORT IS AVAILABLE AT THE DEPARTMENT OF PUBLIC WORKS AND ENVIRONMENTAL SERVICES.

7. IN ACCORDANCE WITH THE PROVISIONS SET FORTH IN PAR. 4 OF SECT. 2-308 OF THE FAIRFAX COUNTY ZONING ORDINANCE, THE DENSITY/INTENSITY CREDIT FOR THE DEDICATED LAND AREA SHOWN HEREON IS HEREBY RESERVED AND ASSIGNED TO PARCEL 5B-1.

I HEREBY CERTIFY TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT THIS PLAT IS CORRECT.

COMMONWEALTH OF VIRGINIA
BRYANT L. ROBINSON
Lic. No. 1932
LAND SURVEYOR

PLAT SHOWING
STREET DEDICATION
AND
VACATION AND DEDICATION OF VARIOUS EASEMENTS
THRU

PARCEL 5B-1
DULLES STATION AT DULLES CORNER

D.B. PG.

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA
SCALE: AS SHOWN MAY, 2015

Dewberry®
Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

SHEET 1 OF 2

RPA-5507

P:\PROJECT\706-004\CAD\SURVEY\DWG\PLATS\RECORED\COUNTY ST DED PLAT (SHT 1).DWG

PLAT SHEET SIZE

Issued For Construction
May 26, 2016

6848-SP-014

FINAL PLAT

RECOMMENDED FOR APPROVAL
FAIRFAX COUNTY
SITE REVIEW BRANCH CHIEF

DATE _____ HIS AGENT _____

APPROVED
FOR
BOARD OF SUPERVISORS
FAIRFAX COUNTY, VIRGINIA

DATE _____ DIRECTOR, PUBLIC WORKS & ENVIRONMENTAL SERVICES OR AGENT

APPROVAL VOID IF PLAT IS NOT OFFERED FOR RECORD ON OR BEFORE _____

APPROVED
COUNTY OF FAIRFAX
OFFICE OF SITE DEVELOPMENT SERVICES
SANITARY SEWER SECTION

By _____

Date _____

APPROVED
COUNTY OF FAIRFAX
OFFICE OF BUILDING CODE SERVICES
PERMITS DIVISION – SITE PERMISSION SECTION
STREET ADDRESS FUNCTION

By _____

Date _____

THIS APPROVAL IS NOT A COMMITMENT TO PROVIDE PUBLIC SANITARY SEWER.

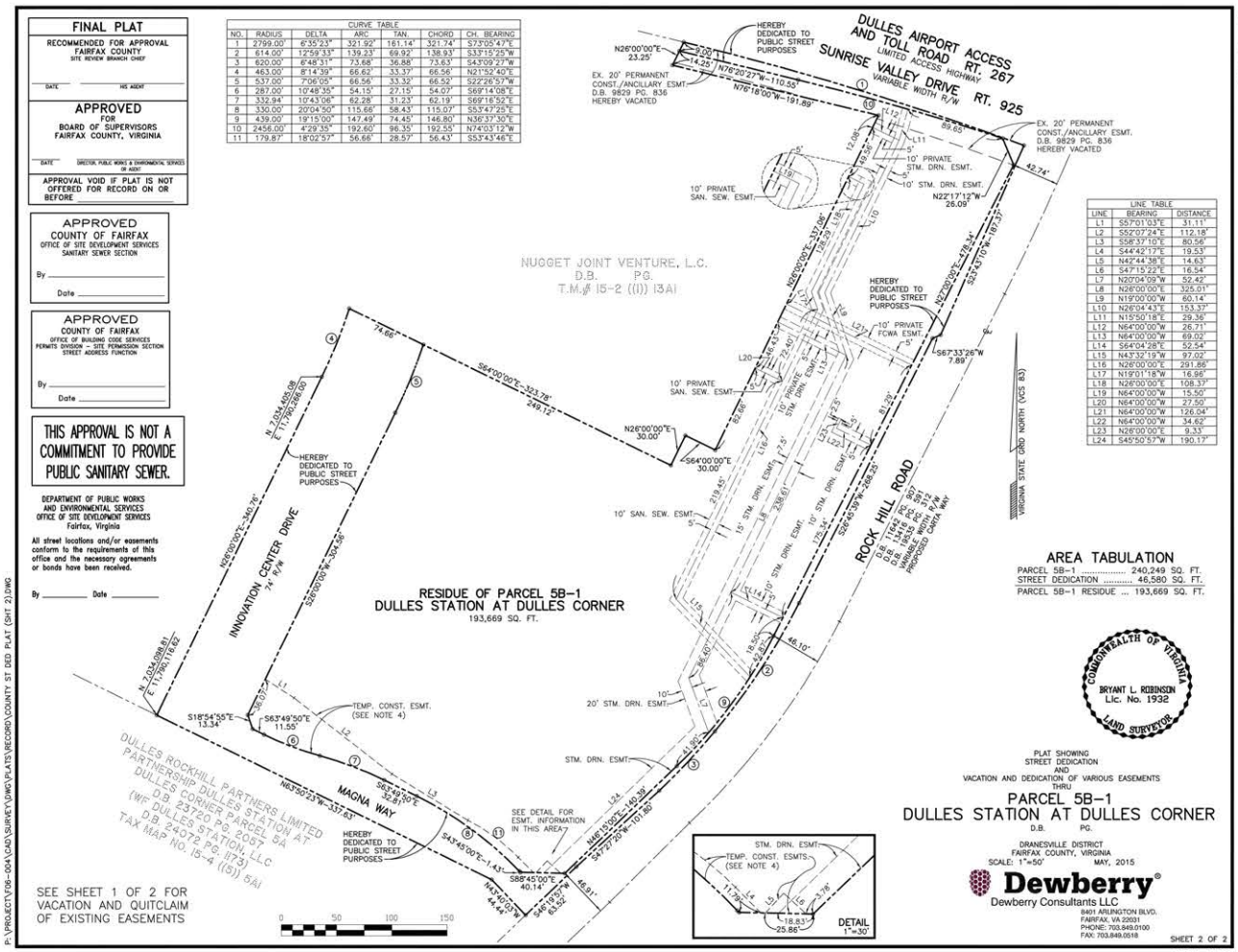
DEPARTMENT OF PUBLIC WORKS
AND ENVIRONMENTAL SERVICES
OFFICE OF SITE DEVELOPMENT SERVICES
Fairfax, Virginia

All street locations and/or easements conform to the requirements of this office and the necessary agreements or bonds have been received.

By _____ Date _____

CURVE TABLE						
NO.	RADIUS	DELTA	ARC	TAN.	CHORD	CH. BEARING
1	2799.00'	6°35'23"	321.92'	161.14'	321.74'	S73°05'47"E
2	614.00'	12°59'33"	139.23'	69.92'	138.93'	S33°15'25"W
3	620.00'	6°48'31"	73.68'	36.88'	73.63'	S43°09'27"W
4	463.00'	8°14'39"	66.62'	33.37'	66.56'	N21°52'40"E
5	537.00'	7°06'05"	66.56'	33.32'	66.52'	S22°26'57"W
6	287.00'	10°48'35"	54.15'	27.15'	54.07'	S69°14'08"E
7	332.94'	10°43'06"	62.28'	31.23'	62.19'	S69°16'52"E
8	330.00'	20°04'50"	115.66'	58.43'	115.07'	S53°47'25"E
9	439.00'	19°15'00"	147.49'	74.45'	146.80'	N36°37'30"E
10	2456.00'	4°29'35"	192.60'	96.35'	192.55'	N74°03'12"W
11	179.87'	18°02'57"	56.66'	28.57'	56.43'	S53°43'46"E

LINE TABLE		
LINE	BEARING	DISTANCE
L1	S57°01'03"E	31.11'
L2	S52°07'24"E	112.18'
L3	S58°37'10"E	80.56'
L4	S44°42'17"E	19.53'
L5	N42°44'38"E	14.63'
L6	S47°15'22"E	16.54'
L7	N20°04'09"W	52.42'
L8	N26°00'00"E	325.01'
L9	N19°00'00"W	60.14'
L10	N26°04'43"E	153.37'
L11	N15°50'18"E	29.36'
L12	N64°00'00"W	26.71'
L13	N64°00'00"W	69.03'
L14	S64°04'28"E	52.54'
L15	N43°32'19"W	97.02'
L16	N26°00'00"E	291.66'
L17	N19°01'18"W	16.96'
L18	N26°00'00"E	108.37'
L19	N64°00'00"W	15.50'
L20	N64°00'00"W	27.50'
L21	N64°00'00"W	126.04'
L22	N64°00'00"W	34.62'
L23	N26°00'00"E	9.33'
L24	S45°50'57"W	190.17'



AREA TABULATION
PARCEL 5B-1 ..... 240,249 SQ. FT.
STREET DEDICATION ..... 46,580 SQ. FT.
PARCEL 5B-1 RESIDUE ... 193,669 SQ. FT.

COMMONWEALTH OF VIRGINIA
BRYANT L. ROBINSON
Lic. No. 1932
LAND SURVEYOR

PLAT SHOWING
STREET DEDICATION
AND
VACATION AND DEDICATION OF VARIOUS EASEMENTS
THRU

PARCEL 5B-1
DULLES STATION AT DULLES CORNER

D.B. PG.

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA
SCALE: 1"=50' MAY, 2015

Dewberry
Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

SHEET 2 OF 2

P:\PROJECT\706-004\CAD\SURVEY\DWG\PLATS\RECORD\COUNTY ST DED PLAT (SHT 2).DWG

RPA-5507

Issued For Construction
May 26, 2016

6848-SP-014

FINAL PLAT

RECOMMENDED FOR APPROVAL
FAIRFAX COUNTY
SITE REVIEW BRANCH CHIEF

DATE _____ HIS AGENT _____

APPROVED
FOR
BOARD OF SUPERVISORS
FAIRFAX COUNTY, VIRGINIA

DATE _____ DIRECTOR, PUBLIC WORKS & ENVIRONMENTAL SERVICES OR AGENT _____

APPROVAL VOID IF PLAT IS NOT OFFERED FOR RECORD ON OR BEFORE _____

APPROVED
COUNTY OF FAIRFAX
OFFICE OF SITE DEVELOPMENT SERVICES
SANITARY SEWER SECTION

By _____

Date _____

APPROVED
COUNTY OF FAIRFAX
OFFICE OF BUILDING CODE SERVICES
PERMITS DIVISION – SITE PERMISSION SECTION
STREET ADDRESS FUNCTION

By _____

Date _____

I HEREBY CERTIFY THAT ALL WETLANDS PERMITS REQUIRED BY LAW WILL BE OBTAINED PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES.

Signature _____

Owner/Developer _____
Name Title

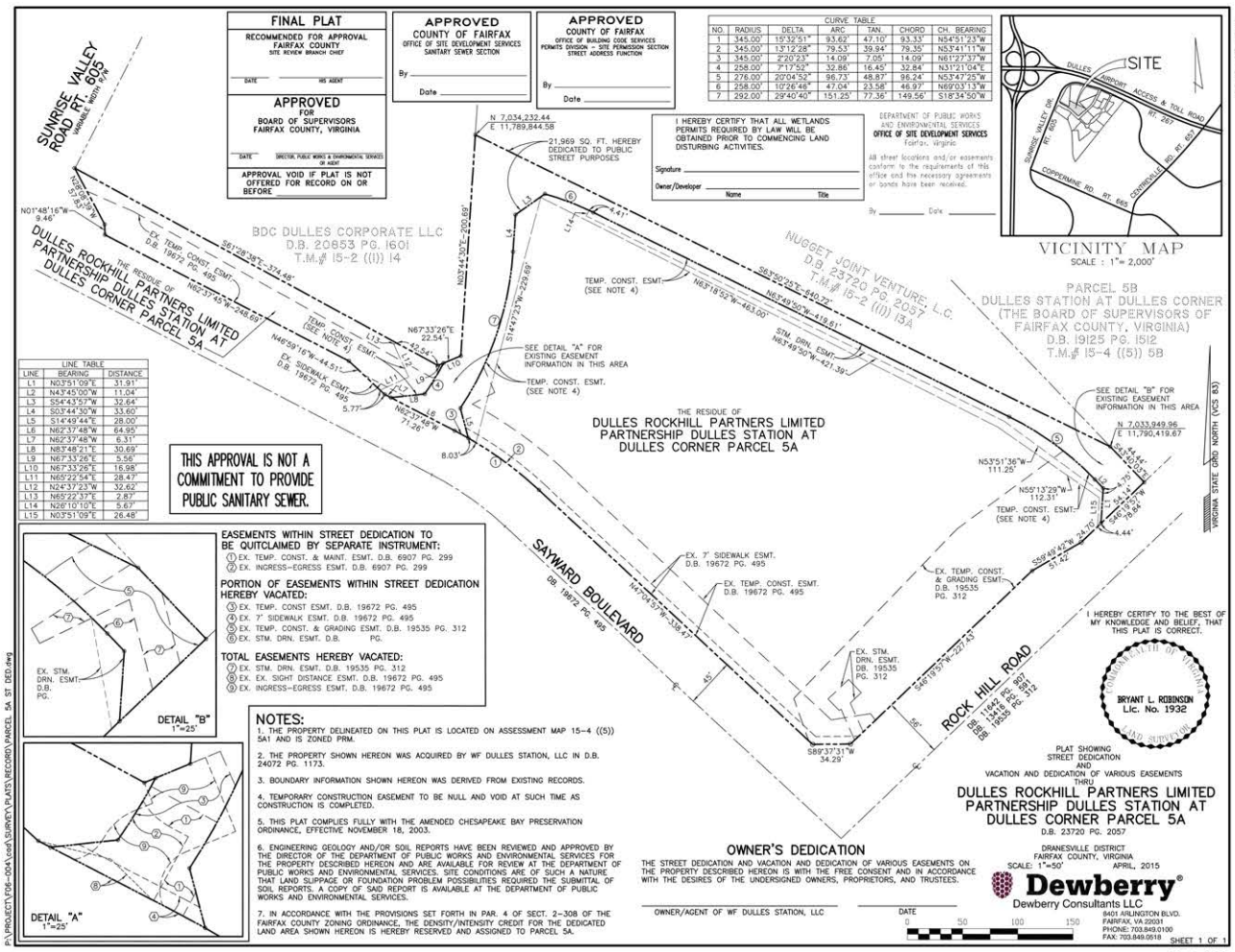
By _____ Date _____

DEPARTMENT OF PUBLIC WORKS AND ENVIRONMENTAL SERVICES
OFFICE OF SITE DEVELOPMENT SERVICES
Fairfax, Virginia

All street locations and/or easements conform to the requirements of this office and the necessary agreements or bonds have been received.

CURVE TABLE						
NO.	RADIUS	DELTA	ARC	TAN.	CHORD	CH. BEARING
1	345.00'	15°32'51"	93.62'	47.10'	93.33'	N54°51'23"W
2	345.00'	13°12'28"	79.53'	39.94'	79.35'	N53°41'11"W
3	345.00'	2°20'23"	14.09'	7.05'	14.09'	N61°27'37"W
4	258.00'	7°17'52"	32.86'	16.45'	32.84'	N31°21'04"E
5	276.00'	20°04'52"	96.73'	48.87'	96.24'	N53°47'25"W
6	258.00'	10°26'46"	47.04'	23.58'	46.97'	N69°03'13"W
7	292.00'	29°40'40"	151.25'	77.36'	149.56'	S18°34'50"W

VICINITY MAP
SCALE : 1"= 2,000'



LINE TABLE		
LINE	BEARING	DISTANCE
L1	N03°51'09"E	31.91'
L2	N43°45'00"W	11.04'
L3	S54°43'57"W	32.64'
L4	S03°44'30"W	33.60'
L5	S14°49'44"E	28.00'
L6	N62°37'48"W	64.95'
L7	N62°37'48"W	6.31'
L8	N83°48'21"E	30.69'
L9	N67°33'26"E	5.56'
L10	N67°33'26"E	16.98'
L11	N65°22'54"E	28.47'
L12	N24°37'23"W	32.62'
L13	N65°22'37"E	2.87'
L14	N28°10'10"E	5.67'
L15	N03°51'09"E	26.48'

THIS APPROVAL IS NOT A COMMITMENT TO PROVIDE PUBLIC SANITARY SEWER.

EASEMENTS WITHIN STREET DEDICATION TO BE QUITCLAIMED BY SEPARATE INSTRUMENT:
① EX. TEMP. CONST. & MAINT. ESMT. D.B. 6907 PG. 299
② EX. INGRESS-EGRESS ESMT. D.B. 6907 PG. 299

PORTION OF EASEMENTS WITHIN STREET DEDICATION HEREBY VACATED:
③ EX. TEMP. CONST ESMT. D.B. 19672 PG. 495
④ EX. 7' SIDEWALK ESMT. D.B. 19672 PG. 495
⑤ EX. TEMP. CONST. & GRADING ESMT. D.B. 19535 PG. 312
⑥ EX. STM. DRN. ESMT. D.B. PG.

TOTAL EASEMENTS HEREBY VACATED:
⑦ EX. STM. DRN. ESMT. D.B. 19535 PG. 312
⑧ EX. EX. SIGHT DISTANCE ESMT. D.B. 19672 PG. 495
⑨ EX. INGRESS-EGRESS ESMT. D.B. 19672 PG. 495

NOTES:

1. THE PROPERTY DELINEATED ON THIS PLAT IS LOCATED ON ASSESSMENT MAP 15-4 ((5)) 5A1 AND IS ZONED PRM.
2. THE PROPERTY SHOWN HEREON WAS ACQUIRED BY WF DULLES STATION, LLC IN D.B. 24072 PG. 1173.
3. BOUNDARY INFORMATION SHOWN HEREON WAS DERIVED FROM EXISTING RECORDS.
4. TEMPORARY CONSTRUCTION EASEMENT TO BE NULL AND VOID AT SUCH TIME AS CONSTRUCTION IS COMPLETED.
5. THIS PLAT COMPLIES FULLY WITH THE AMENDED CHESAPEAKE BAY PRESERVATION ORDINANCE, EFFECTIVE NOVEMBER 18, 2003.
6. ENGINEERING GEOLOGY AND/OR SOIL REPORTS HAVE BEEN REVIEWED AND APPROVED BY THE DIRECTOR OF THE DEPARTMENT OF PUBLIC WORKS AND ENVIRONMENTAL SERVICES FOR THE PROPERTY DESCRIBED HEREON AND ARE AVAILABLE FOR REVIEW AT THE DEPARTMENT OF PUBLIC WORKS AND ENVIRONMENTAL SERVICES. SITE CONDITIONS ARE OF SUCH A NATURE THAT LAND SLIPPAGE OR FOUNDATION PROBLEM POSSIBILITIES REQUIRED THE SUBMITTAL OF SOIL REPORTS. A COPY OF SAID REPORT IS AVAILABLE AT THE DEPARTMENT OF PUBLIC WORKS AND ENVIRONMENTAL SERVICES.
7. IN ACCORDANCE WITH THE PROVISIONS SET FORTH IN PAR. 4 OF SECT. 2-308 OF THE FAIRFAX COUNTY ZONING ORDINANCE, THE DENSITY/INTENSITY CREDIT FOR THE DEDICATED LAND AREA SHOWN HEREON IS HEREBY RESERVED AND ASSIGNED TO PARCEL 5A.

OWNER'S DEDICATION

THE STREET DEDICATION AND VACATION AND DEDICATION OF VARIOUS EASEMENTS ON THE PROPERTY DESCRIBED HEREON IS WITH THE FREE CONSENT AND IN ACCORDANCE WITH THE DESIRES OF THE UNDERSIGNED OWNERS, PROPRIETORS, AND TRUSTEES.

OWNER/AGENT OF WF DULLES STATION, LLC _____ DATE _____

I HEREBY CERTIFY TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT THIS PLAT IS CORRECT.

COMMONWEALTH OF VIRGINIA
BRYANT L. ROBINSON
Lic. No. 1932
LAND SURVEYOR

PLAT SHOWING
STREET DEDICATION
AND
VACATION AND DEDICATION OF VARIOUS EASEMENTS
THRU
DULLES ROCKHILL PARTNERS LIMITED PARTNERSHIP DULLES STATION AT DULLES CORNER PARCEL 5A
D.B. 23720 PG. 2057

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA
SCALE: 1"=50' APRIL, 2015

0 50 100 150

Dewberry®
Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

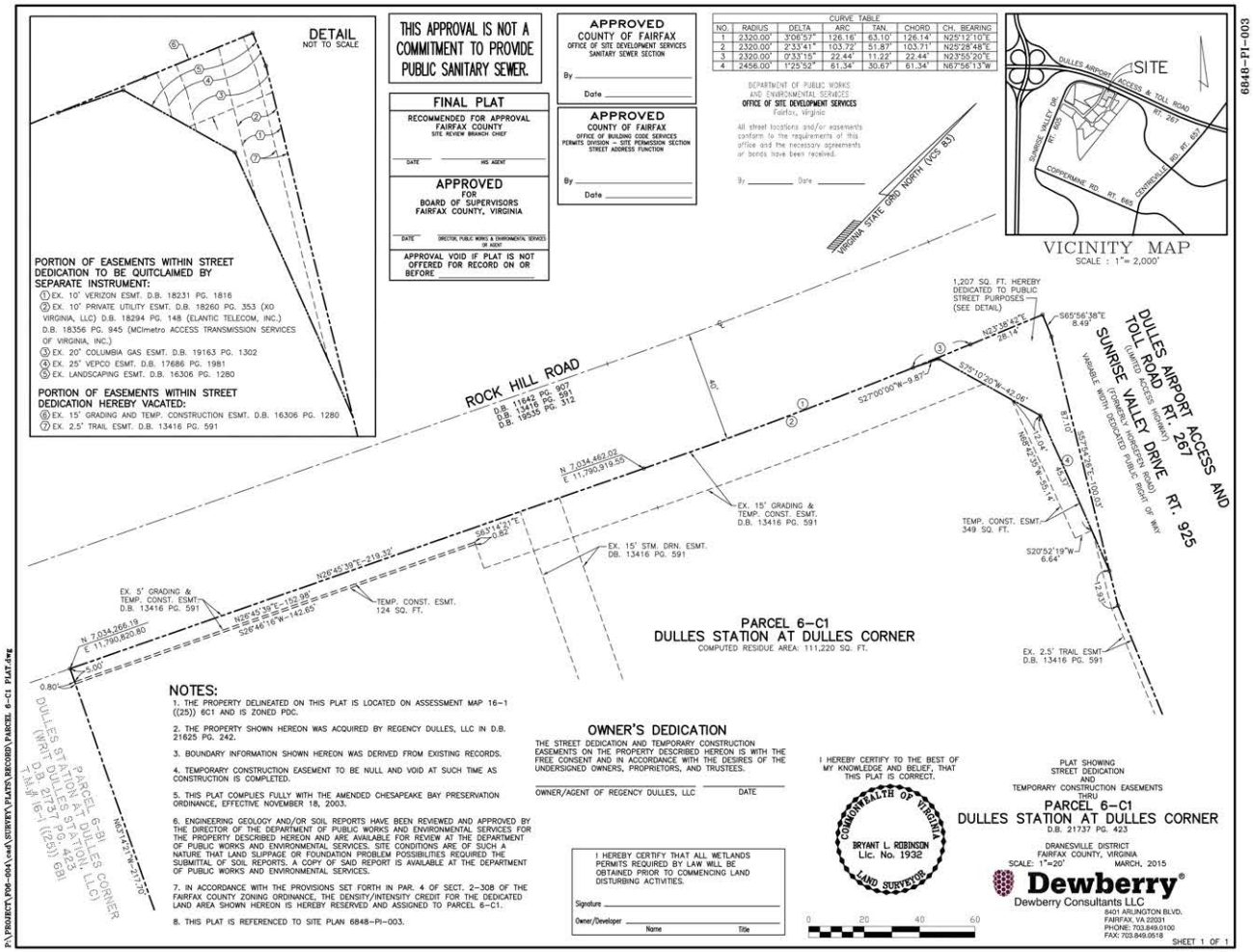
SHEET 1 OF 1

P:\PROJECTS\706-004\civil\SURVEY\PLATS\RECORD\PARCEL 5A ST DED.dwg

RPA-5500

Issued For Construction
May 26, 2016

6848-PI-003



NOTES:

1. THE PROPERTY DELINEATED ON THIS PLAT IS LOCATED ON ASSESSMENT MAP 16-1 ((25)) 6C1 AND IS ZONED PDC.
2. THE PROPERTY SHOWN HEREON WAS ACQUIRED BY REGENCY DULLES, LLC IN D.B. 21625 PG. 242.
3. BOUNDARY INFORMATION SHOWN HEREON WAS DERIVED FROM EXISTING RECORDS.
4. TEMPORARY CONSTRUCTION EASEMENT TO BE NULL AND VOID AT SUCH TIME AS CONSTRUCTION IS COMPLETED.
5. THIS PLAT COMPLIES FULLY WITH THE AMENDED CHESAPEAKE BAY PRESERVATION ORDINANCE, EFFECTIVE NOVEMBER 18, 2003.
6. ENGINEERING GEOLOGY AND/OR SOIL REPORTS HAVE BEEN REVIEWED AND APPROVED BY THE DIRECTOR OF THE DEPARTMENT OF PUBLIC WORKS AND ENVIRONMENTAL SERVICES FOR THE PROPERTY DESCRIBED HEREON AND ARE AVAILABLE FOR REVIEW AT THE DEPARTMENT OF PUBLIC WORKS AND ENVIRONMENTAL SERVICES. SITE CONDITIONS ARE OF SUCH A NATURE THAT LAND SLIPPAGE OR FOUNDATION PROBLEM POSSIBILITIES REQUIRED THE SUBMITTAL OF SOIL REPORTS. A COPY OF SAID REPORT IS AVAILABLE AT THE DEPARTMENT OF PUBLIC WORKS AND ENVIRONMENTAL SERVICES.
7. IN ACCORDANCE WITH THE PROVISIONS SET FORTH IN PAR. 4 OF SECT. 2-308 OF THE FAIRFAX COUNTY ZONING ORDINANCE, THE DENSITY/INTENSITY CREDIT FOR THE DEDICATED LAND AREA SHOWN HEREON IS HEREBY RESERVED AND ASSIGNED TO PARCEL 6-C1.
8. THIS PLAT IS REFERENCED TO SITE PLAN 6848-PI-003.

OWNER'S DEDICATION

THE STREET DEDICATION AND TEMPORARY CONSTRUCTION EASEMENTS ON THE PROPERTY DESCRIBED HEREON IS WITH THE FREE CONSENT AND IN ACCORDANCE WITH THE DESIRES OF THE UNDERSIGNED OWNERS, PROPRIETORS, AND TRUSTEES.

OWNER/AGENT OF REGENCY DULLES, LLC — DATE

I HEREBY CERTIFY THAT ALL WETLANDS PERMITS REQUIRED BY LAW WILL BE OBTAINED PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES.

Signature
Owner/Developer
Name — Title

I HEREBY CERTIFY TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT THIS PLAT IS CORRECT.

COMMONWEALTH OF VIRGINIA
BRYANT L. ROBINSON
Lic. No. 1932
LAND SURVEYOR

0 20 40 60

PLAT SHOWING
STREET DEDICATION
AND
TEMPORARY CONSTRUCTION EASEMENTS
THRU
PARCEL 6-C1
DULLES STATION AT DULLES CORNER
D.B. 21737 PG. 423

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA
SCALE: 1"=20'
MARCH, 2015

Dewberry
Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

SHEET 1 OF 1

RPA-5503

P:\PROJECTS\P08-004\civil\SURVEY\PLATS\RECORD\PARCEL 6-C1 PLAT.dwg

Issued For Construction
May 26, 2016

FINAL PLAT
RECOMMENDED FOR APPROVAL FAIRFAX COUNTY SITE REVIEW BRANCH CHIEF
DATE _____ HIS AGENT _____
APPROVED FOR BOARD OF SUPERVISORS FAIRFAX COUNTY, VIRGINIA
DATE _____ DIRECTOR, PUBLIC WORKS & ENVIRONMENTAL SERVICES OR AGENT _____
APPROVAL VOID IF PLAT IS NOT OFFERED FOR RECORD ON OR BEFORE _____

APPROVED
COUNTY OF FAIRFAX
OFFICE OF BUILDING CODE SERVICES
PERMITS DIVISION – SITE PERMISSION SECTION
STREET ADDRESS FUNCTION

By _____
Date _____

APPROVED
COUNTY OF FAIRFAX
OFFICE OF SITE DEVELOPMENT SERVICES
SANITARY SEWER SECTION

By _____
Date _____

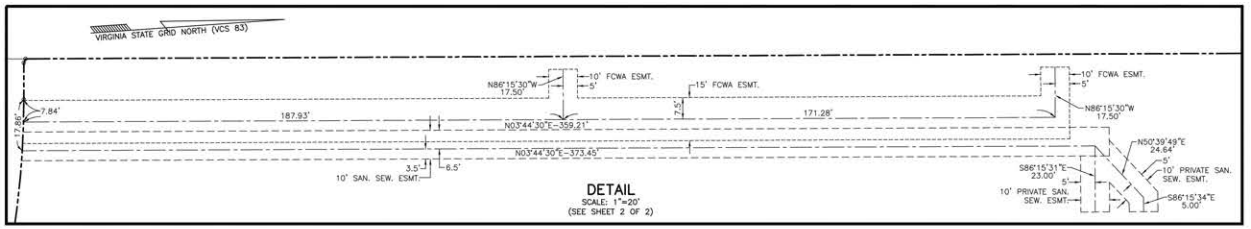
THIS APPROVAL IS NOT A COMMITMENT TO PROVIDE PUBLIC SANITARY SEWER.

DEPARTMENT OF PUBLIC WORKS
AND ENVIRONMENTAL SERVICES
OFFICE OF SITE DEVELOPMENT SERVICES
Fairfax, Virginia

All street locations and/or easements conform to the requirements of this office and the necessary agreements or bonds have been received.

By _____ Date _____

VICINITY MAP
SCALE : 1"= 2,000'



DETAIL
SCALE: 1"=20'
(SEE SHEET 2 OF 2)

NOTES:

1. THE PROPERTY DELINEATED ON THIS PLAT IS LOCATED ON ASSESSMENT MAP 15-2 ((1)) 13A1 AND IS ZONED PRM.
2. THE PROPERTY SHOWN HEREON WAS ACQUIRED BY NUGGET JOINT VENTURE, L.C. IN D.B. PG.
3. BOUNDARY INFORMATION SHOWN HEREON WAS DERIVED FROM EXISTING RECORDS.
4. TEMPORARY CONSTRUCTION EASEMENT TO BE NULL AND VOID AT SUCH TIME AS CONSTRUCTION IS COMPLETED.
5. THIS PLAT COMPLIES FULLY WITH THE AMENDED CHESAPEAKE BAY PRESERVATION ORDINANCE, EFFECTIVE NOVEMBER 18, 2003.
6. ENGINEERING GEOLOGY AND/OR SOIL REPORTS HAVE BEEN REVIEWED AND APPROVED BY THE DIRECTOR OF THE DEPARTMENT OF PUBLIC WORKS AND ENVIRONMENTAL SERVICES FOR THE PROPERTY DESCRIBED HEREON AND ARE AVAILABLE FOR REVIEW AT THE DEPARTMENT OF PUBLIC WORKS AND ENVIRONMENTAL SERVICES. SITE CONDITIONS ARE OF SUCH A NATURE THAT LAND SLIPPAGE OR FOUNDATION PROBLEM POSSIBILITIES REQUIRED THE SUBMITTAL OF SOIL REPORTS. A COPY OF SAID REPORT IS AVAILABLE AT THE DEPARTMENT OF PUBLIC WORKS AND ENVIRONMENTAL SERVICES.
7. IN ACCORDANCE WITH THE PROVISIONS SET FORTH IN PAR. 4 OF SECT. 2-308 OF THE FAIRFAX COUNTY ZONING ORDINANCE, THE DENSITY/INTENSITY CREDIT FOR THE DEDICATED LAND AREA SHOWN HEREON IS HEREBY RESERVED AND ASSIGNED TO TAX MAP PARCEL 13A1.
8. THE OWNER, ITS SUCCESSORS AND ASSIGNS, SHALL NOT PLACE ANY STRUCTURE, PLANT OR OBJECT WITHIN THIS EASEMENT THAT IS HIGHER THAN TWO FEET, AND AGREES TO CUT AND TRIM ALL PLANTS IN ORDER TO MAINTAIN THE HEIGHT LIMIT. THE FAIRFAX COUNTY BOARD OF SUPERVISORS RESERVES THE RIGHT TO MAINTAIN THE HEIGHT LIMIT IN THE EVENT THE OWNER FAILS TO DO SO.
9. THE PRIVATE STREETS AND/OR PIPESTEM DRIVEWAYS IN THIS DEVELOPMENT DO NOT MEET THE STANDARDS NECESSARY FOR INCLUSION IN THE SYSTEM OF STATE HIGHWAYS AND WILL NOT BE MAINTAINED BY THE VIRGINIA DEPARTMENT OF TRANSPORTATION OR FAIRFAX COUNTY, AND ARE NOT ELIGIBLE FOR RURAL ADDITION FUNDS OR ANY OTHER FUNDS APPROPRIATED BY THE GENERAL ASSEMBLY OF VIRGINIA AND ALLOCATED BY THE COMMONWEALTH TRANSPORTATION BOARD.

OWNER'S DEDICATION

THE STREET DEDICATION AND VACATION AND DEDICATION OF VARIOUS EASEMENTS ON THE PROPERTY DESCRIBED HEREON IS WITH THE FREE CONSENT AND IN ACCORDANCE WITH THE DESIRES OF THE UNDERSIGNED OWNERS, PROPRIETORS, AND TRUSTEES.

OWNER/AGENT OF NUGGET JOINT VENTURE, L.C. DATE

I HEREBY CERTIFY THAT ALL WETLANDS PERMITS REQUIRED BY LAW WILL BE OBTAINED PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES.

Signature _____

Owner/Developer _____
Name Title

I HEREBY CERTIFY TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT THIS PLAT IS CORRECT.

COMMONWEALTH OF VIRGINIA
BRYANT L. ROBINSON
Lic. No. 1932
LAND SURVEYOR

PLAT SHOWING
STREET DEDICATION
AND
VACATION AND DEDICATION OF VARIOUS EASEMENTS
THRU THE PROPERTY OF
NUGGET JOINT VENTURE, L.C.
D.B. PG.

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA
SCALE: 1"=50' MAY, 2015

Dewberry®
Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

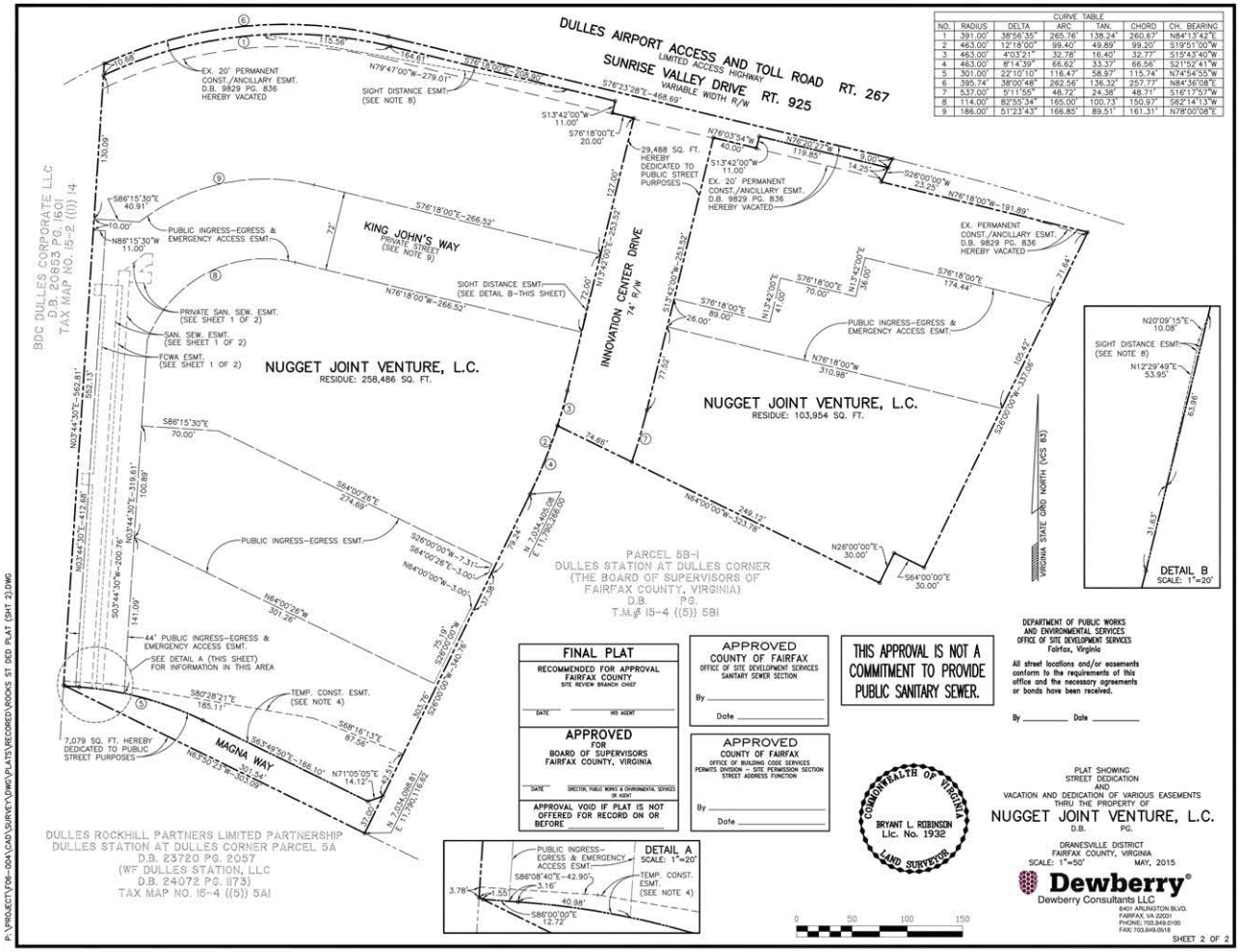
SHEET 1 OF 2

RPA-5508

P:\PROJECT\F06-004\CAD\SURVEY\PLATS\RECORD\ROCKS ST DED PLAT (SHT 1).DWG

RPA-SD-014

Issued For Construction
May 26, 2016



CURVE TABLE						
NO.	RADIUS	DELTA	ARC	TAN.	CHORD	CH. BEARING
1	391.00'	38°56'35"	265.76'	138.24'	260.67'	N84°13'42"E
2	463.00'	12°18'00"	99.40'	49.89'	99.20'	S19°51'00"W
3	463.00'	4°03'21"	32.78'	16.40'	32.77'	S15°43'40"W
4	463.00'	8°14'39"	66.62'	33.37'	66.56'	S21°52'41"W
5	301.00'	22°10'10"	116.47'	58.97'	115.74'	N74°54'55"W
6	395.74'	38°00'46"	262.56'	136.32'	257.77'	N84°36'08"E
7	537.00'	5°11'55"	48.72'	24.38'	48.71'	S16°17'57"W
8	114.00'	82°55'34"	165.00'	100.73'	150.97'	S62°14'13"W
9	186.00'	51°23'43"	166.85'	89.51'	161.31'	N78°00'08"E

RPA-5508

Issued For Construction
May 26, 2016

FINAL PLAT

RECOMMENDED FOR APPROVAL
FAIRFAX COUNTY
SITE REVIEW BRANCH CHIEF

DATE _____ HIS AGENT

APPROVED
FOR
BOARD OF SUPERVISORS
FAIRFAX COUNTY, VIRGINIA

DATE _____ DIRECTOR, PUBLIC WORKS & ENVIRONMENTAL SERVICES OR AGENT

APPROVAL VOID IF PLAT IS NOT OFFERED FOR RECORD ON OR BEFORE _____

APPROVED
COUNTY OF FAIRFAX
OFFICE OF BUILDING CODE SERVICES
PERMITS DIVISION – SITE PERMISSION SECTION
STREET ADDRESS FUNCTION

By _____

Date _____

APPROVED
COUNTY OF FAIRFAX
OFFICE OF SITE DEVELOPMENT SERVICES
SANITARY SEWER SECTION

By _____

Date _____

THIS APPROVAL IS NOT A COMMITMENT TO PROVIDE PUBLIC SANITARY SEWER.

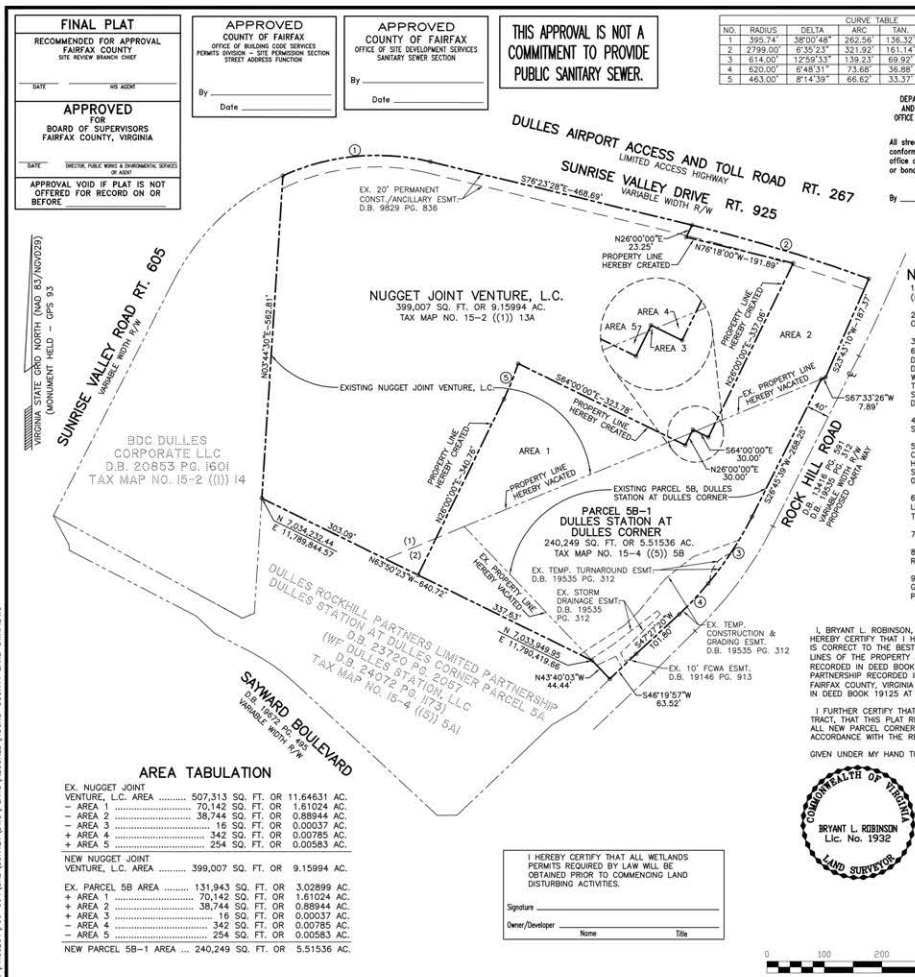
CURVE TABLE

NO.	RADIUS	DELTA	ARC	TAN.	CHORD	CH. BEARING
1	395.74'	38°00'48"	262.56'	136.32'	257.77'	N84°36'08"E
2	2799.00'	6°35'23"	321.92'	161.14'	321.74'	S73°05'47"E
3	614.00'	12°59'33"	139.23'	69.92'	138.93'	S33°15'25"W
4	620.00'	6°48'31"	73.68'	36.88'	73.63'	S43°09'27"W
5	463.00'	8°14'39"	66.62'	33.37'	66.56'	N21°52'40"E

DEPARTMENT OF PUBLIC WORKS AND ENVIRONMENTAL SERVICES
OFFICE OF SITE DEVELOPMENT SERVICES
Fairfax, Virginia

All street locations and/or easements conform to the requirements of this office and the necessary agreements or bonds have been received.

By _____ Date _____



VICINITY MAP
SCALE : 1"= 2,000'

NOTES:

1. THE PROPERTY DELINEATED ON THIS PLAT IS LOCATED ON ASSESSMENT MAP 15-2 ((1)) 13A AND 15-4 ((5)) 5B AND IS ZONED PRM.

2. THIS PLAT COMPLIES FULLY WITH THE AMENDED CHESAPEAKE BAY PRESERVATION ORDINANCE, EFFECTIVE NOVEMBER 18, 2003.

3. ENGINEERING GEOLOGY AND/OR SOIL REPORTS (6848-SR-005, APPROVED 6/26/15) HAVE BEEN REVIEWED AND APPROVED BY THE DIRECTOR OF THE DEPARTMENT OF PUBLIC WORKS AND ENVIRONMENTAL SERVICES FOR THE PROPERTY DESCRIBED HEREON AND ARE AVAILABLE FOR REVIEW AT THE DEPARTMENT OF PUBLIC WORKS AND ENVIRONMENTAL SERVICES. SITE CONDITIONS ARE OF SUCH A NATURE THAT LAND SLIPPAGE OR FOUNDATION PROBLEM POSSIBILITIES REQUIRED THE SUBMITTAL OF SOIL REPORTS. A COPY OF SAID REPORT IS AVAILABLE AT THE DEPARTMENT OF PUBLIC WORKS AND ENVIRONMENTAL SERVICES.

4. INDIVIDUAL PARCELS SHALL BE DEVELOPED IN ACCORDANCE WITH THE APPROVED STORMWATER MANAGEMENT PLAN FOR THE SUBDIVISION.

5. THE PLAT OF THE PROPERTY SHOWN HEREON IS REFERENCED TO THE VIRGINIA COORDINATE SYSTEM OF 1983 AS COMPUTED FROM A FIELD RUN BOUNDARY AND HORIZONTAL CONTROL SURVEY THAT TIES THIS BOUNDARY TO THE FAIRFAX COUNTY SURVEY MONUMENT GPS 93 PID HV9210 WHICH HAS A COMBINED SCALE FACTOR OF 0.99995721.

6. THE BOUNDARY SURVEY PERFORMED FOR THIS MINOR ADJUSTMENT OF PROPERTY LINES HAS A MAXIMUM ERROR OF CLOSURE WITHIN THE LIMIT OF ONE (1) IN TWENTY THOUSAND (20,000) AS SHOWN HEREON.

7. THIS PLAT IS REFERENCED TO SITE PLAN NO. 6848-SP-014.

8. ALL PREVIOUSLY RECORDED R/W, EASEMENTS OR OTHER INTEREST OF THE COUNTY REMAIN IN FULL FORCE AND EFFECT UNLESS OTHERWISE SHOWN ON THIS PLAT.

9. ANY FUTURE EASEMENT OR AUTHORIZATION FOR ELECTRIC, CABLE, TELEPHONE OR GAS SERVICES TO BE FURNISHED TO THE PROPERTY MUST COMPLY WITH THE PROVISION OF §15.2-2241(6) OF THE VIRGINIA CODE.

SURVEYOR'S CERTIFICATE

I, BRYANT L. ROBINSON, A DULY LICENSED LAND SURVEYOR IN THE COMMONWEALTH OF VIRGINIA, DO HEREBY CERTIFY THAT I HAVE CAREFULLY SURVEYED THE PROPERTY DELINEATED ON THIS PLAT AND THAT IT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF; THAT IT IS A MINOR ADJUSTMENT OF PROPERTY LINES OF THE PROPERTY ACQUIRED BY NUGGET JOINT VENTURE, L.C. FROM (1) G.W.H. VIRGINIA CORPORATION RECORDED IN DEED BOOK 9500 AT PAGE 1070 AND FROM (2) DULLES ROCKHILL PARTNERS LIMITED PARTNERSHIP RECORDED IN DEED BOOK 23720 AT PAGE 2057 AND BY THE BOARD OF SUPERVISORS OF FAIRFAX COUNTY, VIRGINIA (PARCEL 5B) FROM DULLES ROCKHILL PARTNERS LIMITED PARTNERSHIP RECORDED IN DEED BOOK 19125 AT PAGE 1512, ALL AMONG THE LAND RECORDS OF FAIRFAX COUNTY, VIRGINIA.

I FURTHER CERTIFY THAT THE LAND SHOWN HEREON LIES ENTIRELY WITHIN THE BOUNDS OF THE ORIGINAL TRACT, THAT THIS PLAT REPRESENTS AN ACCURATE SURVEY OF THE SAME, THAT IRON PIPES WILL BE SET AT ALL NEW PARCEL CORNERS, AND ALL COURSES ARE REFERENCED TO VIRGINIA STATE GRID NORTH IN ACCORDANCE WITH THE REQUIREMENTS OF THE FAIRFAX COUNTY SUBDIVISION ORDINANCE.

GIVEN UNDER MY HAND THIS 17TH DAY OF JUNE, 2015

COMMONWEALTH OF VIRGINIA
BRYANT L. ROBINSON
Lic. No. 1932
LAND SURVEYOR

AREA TABULATION

EX. NUGGET JOINT VENTURE, L.C. AREA	507,313 SQ. FT. OR	11.64631 AC.
– AREA 1	70,142 SQ. FT. OR	1.61024 AC.
– AREA 2	38,744 SQ. FT. OR	0.88944 AC.
– AREA 3	16 SQ. FT. OR	0.00037 AC.
+ AREA 4	342 SQ. FT. OR	0.00785 AC.
+ AREA 5	254 SQ. FT. OR	0.00583 AC.
NEW NUGGET JOINT VENTURE, L.C. AREA	399,007 SQ. FT. OR	9.15994 AC.
EX. PARCEL 5B AREA	131,943 SQ. FT. OR	3.02899 AC.
+ AREA 1	70,142 SQ. FT. OR	1.61024 AC.
+ AREA 2	38,744 SQ. FT. OR	0.88944 AC.
+ AREA 3	16 SQ. FT. OR	0.00037 AC.
– AREA 4	342 SQ. FT. OR	0.00785 AC.
– AREA 5	254 SQ. FT. OR	0.00583 AC.
NEW PARCEL 5B-1 AREA	240,249 SQ. FT. OR	5.51536 AC.

I HEREBY CERTIFY THAT ALL WETLANDS PERMITS REQUIRED BY LAW WILL BE OBTAINED PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES.

Signature _____

Owner/Developer _____
Name Title

PLAT SHOWING
MINOR ADJUSTMENT OF PROPERTY LINES
ON THE PROPERTY OF

NUGGET JOINT VENTURE, L.C.
D.B. 9500 PG. 1070
D.B. 23720 PG. 2057
AND ON
PARCEL 5B
DULLES STATION AT DULLES CORNER
D.B. 19125 PG. 1512

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA
SCALE: 1"=100' MAY, 2015

Dewberry®
Dewberry Consultants LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0518

SHEET 1 OF 1

P:\PROJECT\06-004\CAD\SURVEY\DWG\PLATS\RECORED\ROCKS-COUNTY LAND SWAP.DWG

PLAT CS 0769

RPA-5506