County of Fairfax, Virginia

To protect and enrich the quality of life for the people, neighborhoods and diverse communities of Fairfax County

December 4, 2013

Gregory A. Riegle
McGuire Woods LLP
1750 Tysons Boulevard, Suite 1800
Tysons Corner, VA 22102

RE: Rezoning Application RZ 2012-DR-016
(Concurrent with Proffered Condition Amendment Applications PCA C-698-3 and PCA C-696-9)

Dear Mr. Riegle:

Enclosed you will find a copy of an Ordinance adopted by the Board of Supervisors at a regular meeting held on December 3, 2013, granting Rezoning Application RZ 2012-DR-016 in the name of Dulles Rockhill Partners, LP and Nugget Joint Venture, LC. The Board's action rezones certain property in the Dranesville District from the PDC District to the PRM District to permit residential development with an overall density of 2.23 (including bonus density associated with WDU), approval of conceptual development plans and a waiver #6848-WPFM-004-1 to permit the location of underground storm water management facilities in a residential area. The subject property is located N. of Sayward Boulevard and W. of Dulles Station Boulevard on approximately 4.78 acres of land, [Tax Map 15-2 ((1)) 13 pt. and 15-4 ((5)) 5A], subject to the proffers dated November 19, 2013.

Please note that on November 21, 2013, the Planning Commission approved Final Development Plan Application FDP 2012-DR-016.

The Board also:

- Approved the concurrent Proffered Condition Amendment Applications PCA C-696-9 and PCA C-698-3
- Modified the loading space 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

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- 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.

- 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 004-1 Conditions, dated September 26, 2013.

Sincerely,

Catherine A. Chianese

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
Angela K. Rodeheaver, 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
Lee Ann Pender, Office of Capital Facilities/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 3rd day of December, 2013, the following ordinance was adopted:

AN ORDINANCE AMENDING THE ZONING ORDINANCE
PROPOSAL NUMBER RZ 2012-DR-016
(Concurrent with Proffered Condition Amendment Applications PCA C-698-3 and PCA C-696-9)

WHEREAS, Dulles Rockhill Partners, LP and Nugget Joint Venture, LC, filed in the proper form an application requesting the zoning of a certain parcel of land herein after described, from the PDC 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 3rd day of December, 2013.

Catherine A. Chianese
Clerk to the Board of Supervisors

PROFFERS
DULLES ROCKHILL
RZ/FDP 2012-DR-016

November 19, 2013

Pursuant to Section 15.2-2303 (A) of the Code of Virginia(1950, as amended) and Section 18 -204 of the Zoning Ordinance of Fairfax County (1978, as amended), the property owner/applicant, for itself and its 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 tax maps as Tax Map 15-2((1)) 13 pt.; 15-4 ((5)) 5A (collectively, the "Property") shall be in accordance with the following conditions if, and only if, Rezoning application RZ/FDP 2012-DR-016 is granted by the Board of Supervisors of Fairfax County, Virginia. 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 any prior zoning approval(s) on the Property, and all proffers, conditions, and development plans associated therewith shall be null and void.

PREAMBLE

1. Conceptual/ Final Development Plan. The Property shall be developed in substantial conformance with the Conceptual Development Plan ("CDP ") and Final Development Plan ("FDP ") entitled "Dulles Station at Dulles Corner Parcel 5A" dated December, 2011 and revised through October 7, 2013, prepared by Urban, Ltd., consisting of Sheets 1-41.

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 perimeter points of access, the location of the buildings and minimum amount and location of open space, uses, minimum and maximum number of dwelling units, minimum building heights, and minimum setbacks from the peripheral lot lines and a modification to such elements shall require a subsequent CDPA or Proffered Condition Amendment. The Applicant reserves the right to request a Final Development Plan Amendment (FDPA) for elements other than Conceptual Development Plan (CDP) elements from the Planning Commission for all or a portion of the FDP in accordance with Section 16-402 of the Zoning Ordinance if such an amendment is in accordance with these Proffers as determined by the Zoning Administrator.

3. Minor Modifications. Minor modifications to the CDP/FDP may be permitted when necessitated by sound engineering or that may become necessary as part of final site design or engineering, pursuant to Section 16-403(4) of the Zoning Ordinance. Minor modifications of building footprints may be permitted and the number of residential units (as defined herein) and corresponding adjustments

made in required parking and Workforce Dwelling Units ("WDUs") may be made, so long as (a) the provided open space is not reduced; (b) the building height is not increased; (c) the setbacks to the peripheral lot lines are not diminished; and (d) the development otherwise is in substantial conformance with the CDP/FDP as determined by the Zoning Administrator.

GENERAL

4. Proposed Development. Development on the Property shall include a maximum of 415,000 square feet of GFA, including Workforce Dwelling Units (WDUs). A maximum of 411 residential units (including WDUs) shall be constructed on the Property. Accessory uses and home occupations, including business centers inside the residential buildings are permitted. The Applicant reserves the right to construct service, resident amenity and storage uses in any cellar space. The cellar space shall not contain habitable residential units. Commuter parking for non-residents shall not be permitted. The Applicant further reserves the right to develop up to 10,000 square feet of ground floor retail use. Should the Applicant exercise this option for retail use, the Applicant further reserves the right, but not the obligation, to make adjustments to the development program, pursue both parking reductions, or shared parking arrangements, as outlined in Proffer 6 below, to ensure compliance with applicable parking requirements.

5. Building Height. The maximum building height shall be no greater than 90 feet as depicted on the CDP/FDP. Building height shall be measured in accordance with the provisions of the Fairfax County Zoning Ordinance and shall be exclusive of those structures that are excluded from the maximum height regulations as set forth in Section 2-506 of the Zoning Ordinance.

PARKING

6. Zoning Ordinance Requirements. Parking for the residential and/or retail uses shall be provided at the minimum parking requirements of the Fairfax County Zoning Ordinance in effect at the time of site plan approval of this rezoning application. If, prior to Site Plan Approval, the Fairfax County Zoning Ordinance requires a lower minimum parking requirement, or the Applicant obtains approval of a parking reduction, or a shared parking arrangement, the Applicant may then construct fewer spaces than that reflected on the CDP/FDP.

   If parking is to be assigned to specific dwelling units, not less than one space shall be assigned to each unit, including WDUs. All parking shall conform with the geometric requirements set forth in the Fairfax County Public Facilities Manual (PFM).

7. Bicycle Parking. The Applicant shall install bicycle racks and provide bike parking/storage facilities within the residential structure or parking structure. Such spaces shall be installed prior to the first RUP. At a minimum, there shall

be one (1) long term space for every three (3) multifamily residential units or portion thereof and one (1) short term space for every fifty (50) multifamily residential units. For the purpose of this Proffer, long term spaces may be provided in single or multiple bicycle storage lockers and short term spaces shall include bicycle racks provided in exterior spaces. The location and design of bicycle racks and storage rooms will be determined at site plan subject to the approval of FCDOT.

TRANSPORTATION

8. Configuration of Proffered Improvements. All street and roadway improvements as shown on the CDP/FDP shall be of a design and configuration approved by DPWES and VDOT, as applicable. Minor modifications may be made if determined to be in substantial conformance with that generally described in the CDP/FDP.

9. Construction of Street. Prior to the issuance of the first Residential Use Permit (RUP), "Public Road A and B" connecting to Sayward Boulevard and Carta Way respectively, shall be constructed in the configuration generally shown on the CDP/FDP and open to traffic, although official VDOT street acceptance shall not be a prerequisite for the issuance of the first or any subsequent RUPs.

At the time of site plan approval, the Applicant shall use its best and most reasonable efforts to maximize the length of the left turn lane from eastbound Public Road A to northbound Carta Way, provided that any such extension shall not disrupt or affect the landscape plan or building design or overall development program shown on the CDP/FDP.

The Applicant further reserves the right to construct the north side of Public Road A in an interim ditch section for the side of the street adjacent to the future parking garage, if determined applicable at site plan review by the Applicant in consultation with the County and other affected landowners.

Prior to site plan approval, the Applicant shall record a public access easement over these streets. Such easement shall provide for a general right of access and allow for future connections from adjacent properties. This easement shall be in a form approved by the County Attorney. Upon completion of these new public streets, Applicant shall dedicate these streets to The Board of Supervisors of Fairfax County so that these streets shall be publicly maintained.

9A. Traffic Signal. Prior to the issuance of the First Residential Use Permit, the Applicant shall ensure that a combined total sum of $250,000.00 is in escrow with Fairfax County for the funding of future traffic signals at the intersections of 1) Sunrise Valley Drive and Sayward Boulevard and 2) Sayward Boulevard and Carta Way, to be installed by others. This escrow obligation may be fulfilled through the use or application of funds already in escrow for such traffic signals pursuant to PCA C-696 and amendments thereto.

10. Off-Site Access Easement. To facilitate future access to planned public parking facilities at the metrorail station located north of site, the Applicant shall dedicate to the Board of Supervisors, a public access easement on the abutting off-site property to the north known as Tax Map 15-4((5)) 5A pt. The final location and configuration of this easement shall be determined in consultation with the Fairfax County Department of Transportation. This easement shall be of a form approved by the County Attorney. This dedication shall be made on demand by Fairfax County, but shall not be a pre-condition to site plan or building plan approval.

11. Off-Site Right-of-Way. The CDP/FDP reflects and contemplates off-site dedications of right-of-way by Fairfax County and others. The Applicant's obligation to construct the proffered improvements collectively the "Transportation Improvements" shall be contingent on the Applicant receiving any and all rights-of-way, easements and/or written consent necessary for the construction and public use of the Transportation Improvements from any property owner, utility companies, and/or any governmental agencies (collectively, the "Approving Parties"), which approval(s) shall be granted at no cost to the Applicant, except for typical administrative fees and costs associated with preparation, approval and recordation of deeds, plans and plats and any other nominal fees. During site plan review, the Applicant shall diligently pursue and make good faith efforts to secure any such necessary approvals from the Approving Parties. In the event the Applicant is unable to secure necessary approvals from the Approving Parties prior to the time of receiving site plan approval, the Applicant shall provide written documentation of such efforts to DPWES and the Zoning Administrator and escrow funds for the future construction of the Transportation Improvements in an amount determined by DPWES and the Zoning Administrator to be sufficient for future construction by others.

If the Transportation Improvements require dedications by others and the Applicant is unable to obtain the necessary dedication by others, then the Applicant shall request the Board of Supervisors to condemn the necessary land and/or easements. It is acknowledged such request to the Board of Supervisors will not be considered until it is forwarded in writing to the Division of Land Acquisition or other appropriate County official and is accompanied by: 1) plans, plats and profiles showing the necessary right-of-way and easements to be acquired and details of the proposed Transportation Improvements to be constructed on said area; 2) an independent, 3rd party appraisal of the value of the proposed condemnation, including all damages to the residue of the property; 3) a sixty (60) year title search certificate of the right-of-way to be acquired; and (4) a letter of credit in an amount equal to the appraised value of the property to be acquired and all damages to the residue which can be drawn upon by the County. The public improvement plans shall be submitted to FCDOT concurrent with the Applicant's submission of such plans to DPWES.

In the event the offsite right-of-way and/or easement described above cannot be acquired voluntarily, and Board of Supervisors elects not to condemn for such

right-of-way, then the Applicant shall, prior to issuance of the building permit for the Building triggering the particular improvement, escrow funds with DPWES in an amount equal to the cost of constructing the improvement, including but not limited to the cost of right-of-way acquisition and utility relocation. Such funds shall be for use by the Board of Supervisors and/or VDOT to complete such improvement in the future and the Applicant shall be relieved of its obligation to complete the improvement.

12. Transportation Improvement Timing. The Zoning Administrator may administratively approve a later date for completion of the Transportation Improvements without requiring a PCA upon demonstration by the Applicant that despite diligent efforts and due to factors beyond the Applicant's control, the required Transportation Improvements have been delayed.

13. Future ROW Reservation Along Sunrise Valley Drive. In order to accommodate the future Dulles Toll Road vehicular overpass, the Applicant shall reserve and dedicate, upon demand, in fee simple, from Fairfax County, up to fifteen (15) feet of additional right of way along the Sunrise Valley Drive frontage.

14. TDM Strategies.

A. Overview. Transportation demand management ("TDM") strategies, as detailed in a separate Transportation Demand Management plan (the "TDM Plan") which shall be approved by FCDOT, shall be utilized by the Applicant and/or its successors or assigns to reduce vehicular trips generated by residents and employees of the Application Property during peak hours.

B. TDM Plan. Mass transit, ride-sharing, and other transportation strategies shall be encouraged in order to reduce baseline trips generated from the Application Property during peak hours by a minimum of 18% prior to opening of the metrorail station located north of the Application Property and 35% following the opening of the same station. For purposes of this proffer, the baseline number of trips from which such reductions are measured shall be determined using the trip generation rates data published by the Institute of Transportation Engineers in the Trip Generation Manual, 8th Edition and as determined by FCDOT for the total number of residential dwelling units shown on the approved site plan during the highest peak hour period (AM or PM) of the adjacent street. Residents of the Application Property shall be advised of this transportation strategy. Transportation coordination duties shall be carried out by a designated Transportation Coordination (TC) which may include the Property Manager, or continuously employed assigns. The TC shall be appointed within 60 days of the first RUP.

C. TDM Plan Adoption. In order to meet the trip reduction goals set forth above, a TDM Plan shall be submitted to FCDOT for approval prior to site plan approval. The TDM Plan shall be adopted and implemented prior to the

issuance of the first RUP. The TDM Plan should outline the components of the TDM Plan and may be subsequently adjusted by mutual agreement between the Applicant and subsequent Condominium Owners Association (COA), as applicable) and FCDOT. All adjustments shall be approved by FCDOT and will not require a Proffered Condition Amendment ("PCA"). Any changes to the TDM Plan should be noted in the Annual Report described herein.

D. Transportation Coordinator Duties. One year following build-out of the Application Property and every three years thereafter or as requested by FCDOT in years when trip counts reveal that goals were not met, the Transportation Coordinator will administer a survey of residents on the Application Property. For purposes of this TDM proffer, build-out of the Application Property shall be deemed to occur upon the issuance of the last RUP for the residential building(s). The survey shall include, at a minimum, details regarding the number of times per week the resident commutes, the mode of transportation for commuting purposes, and his or her work destination and shall be approved by FCDOT prior to distribution.

E. Annual Report. One year following build-out of the Application Property, and annually thereafter, the effectiveness of the TDM strategies shall be evaluated and a budget for the upcoming year established, with both reported to FCDOT in an annual report (the "Annual Report"). The TC shall submit to FCDOT the Annual Report describing the previous year's TDM strategic efforts and the effectiveness of the TDM program in reaching trip reduction goals, including, as applicable, sample marketing materials, expenditures, and the result of traffic counts as outlined below. The Annual Report shall be submitted to FCDOT on a mutually agreed upon annual date in the first quarter of the applicable year, unless a later date is approved by the County. The TC shall coordinate draft survey materials and the methodology for conducting traffic counts with FCDOT prior to each year's count, as applicable. If FCDOT has not received the Annual Report by the required date, the Applicant or COA will be subject to a TDM Remedy Fund payment of $75 per day in arrears beginning with the first day of delinquency.

F. Incentive Fund. Within one year following the build out of the Applicant's property, there shall be TDM Incentive Fund established. The TDM Incentive Fund is an account into which the building owners, through the TC, shall deposit contributions to fund a multimodal incentive program for initial purchasers/lessees within the approved development. Such contributions shall be made one time on a building by building basis at the rate of $0.02 per gross square foot of development to be constructed on the Property and provided prior to the issuance of the first RUP. In addition to providing transit incentives, such contributions may also be used for enhancing/providing multimodal facilities within and proximate to the Property, to potentially include, but not be limited to a shuttle.

G. TDM Remedy Fund. The Applicant shall establish a separate, interest-bearing account referred to herein as the "TDM Remedy Fund." All interest earned on moneys deposited in the TDM Remedy Fund shall be added to the principal of the TDM Remedy Fund and used for TDM Remedy Fund purposes. Within thirty (30) days after the issuance of the last RUP for the Application Property, the Applicant shall contribute $.10 per square foot of residential to the TDM Remedy Fund. Moneys from the TDM Remedy Fund shall be drawn on by the Applicant/successor or COA only for purposes of immediate need of TDM funding and may be drawn upon prior to any TDM Budget adjustments. There shall be no requirement to replenish the TDM Remedy Fund at any time. In the event the Applicant transfers control of the property to a COA, any funds remaining in the Remedy Fund shall also be transferred to the COA for TDM purposes.

H. Monitoring. As part of the annual reporting process, the Owner of the Application Property shall measure actual trip generation of the Application Property in order to evaluate the success of meeting the trip reduction objectives set forth in subparagraph B., above.

(1) Peak hour vehicular traffic counts shall be conducted during the highest peak traffic period (AM or PM, whichever is highest) ("Peak Hour Trips") of the adjacent street, over two (2) days, within a maximum two (2) week period, at a time of year that reflects typical travel demand conditions (e.g., September to May - and not during holiday weeks, on Mondays or Fridays, or when public schools are not in session.)

Residents and employees shall not be notified in advance of the days or times that these counts will be taken.

The Applicant shall notify and get approval from FCDOT on the trip count methodology in advance of the dates that the counts are to be undertaken.

(2) The results of the trip generation analyses referenced in subparagraph H (1), above, shall be compared to the baseline trip generation referenced in subparagraph B., above, to determine if the proffered reduction of peak hour trips has been met.

(3) In the event the traffic counts reveal that the proffered peak hour trip reduction has been met, then the Applicant shall continue to implement the TDM strategies in place and no adjustments to the program or penalties are required.

(4) If the first time traffic counts that are conducted in accord with proffer subparagraph H (1), above, reveal that the baseline trip reduction has not been met, the TC shall request a meeting with

FCDOT within thirty (30) days after the completion of the traffic counts to review the results of that report and the TDM strategies then in place for the Application Property. The TC shall be responsible to design and implement a strategy that is intended to bring baseline peak hour trip reductions to the proffered percentage. The Applicant shall submit any revisions to the TDM Plan to FCDOT within thirty (30) days following this meeting.

(5) In the event that a subsequent (second) annual traffic count conducted in accord with proffer subparagraph H (1) above, reveals that the baseline trip reductions have not been met, then the TC shall draw upon the Remedy Fund based on the following scale:

Failure to Meet Trip Goals	Remedy Expenditure
1% - 3%	3% of Remedy Fund
3.1% - 6%	6% of Remedy Fund
6.1% - 10%	10% of Remedy Fund
Over 10%	15% of Remedy Fund

Monies from the Remedy Fund should be used to enhance the TDM program in order to meet the stated goals.

(6) If a following (third) annual traffic count conducted in accord with proffer subparagraph H (1) above, reveals that the baseline trip reduction has not been met, then the TDM Remedy Fund payment described in subparagraph H (5) above, shall again be drawn upon, and shall continue to be drawn upon each subsequent year that trip reduction goals are not met. Each year the trip counts reveal the goals were not met, the TC shall request a meeting with FCDOT within thirty (30) days after the completion of the Trip Counts to review the results of that report and the TDM strategies then in place for the Application Property, to discuss alternative strategies to meet the proffered reduction, to discuss the appropriateness of the proffered reduction, and/or to discuss setting an alternative peak hour trip reduction (that may be less than that required by these proffers). The TC shall submit any revisions to the TDM Plan and TDM Budget to FCDOT within thirty (30) days following this meeting. FCDOT shall approve any changes to the TDM Plan prior to its implementation and without the need for a PCA.

I. Ongoing Implementation. If three (3) consecutive annual trip counts conducted in accord with subparagraph H (1) above, reveal that the trip

reduction thresholds are met after build out of the Application Property as defined herein, then trip counts shall only be conducted biannually and only if requested by the County, or less (including elimination of this requirement) if it is determined by FCDOT that fewer counts are necessary to indicate continued compliance. Further, upon such event, only annual reports detailing the programmatic elements in place and yearly TDM expenditure assessment and/or survey results will be required.

(1) If subsequent trip counts reveal that the trip reduction thresholds are not being met, then the annual counts, surveys, reports and penalties shall again be required as described herein, until such time as three (3) consecutive annual trip counts reveal that the trip reduction thresholds are met.

(2) At such time as the applicable annual or bi-annual counts confirm that the trip reduction objectives are met for a period of four (4) consecutive years, and if FCDOT determines that such counts are no longer needed, any funds remaining in the Remedy Fund shall be released to the Applicant.

SITE DESIGN AND AMENITIES

15. Landscape Plan. The CDP/FDP includes a conceptual landscape plan for the Property and detail sheets illustrating the plantings and other features to be provided. As part of any site plan submission, the Applicant shall submit to Urban Forest Management Division (UFMD) of DPWES for review and approval a detailed landscape plan (the "Landscape Plan"), which shall be consistent with the quality and quantity of plantings and materials shown on the CDP/FDP. Adjustments to the type and location of vegetation and the design of landscaped areas and streetscape improvements/plantings shall be permitted in consultation with DPZ, and as approved by UFMD. The Applicant shall not plant any known invasive plant species at the Property.

    In addition to the new landscaping shown on the CDP/FDP, at the time of site plan approval, the Applicant shall. in consultation with UFMD, develop a tree preservation plan to reasonably preserve the existing trees located on the area of the site west of the approved building and extending parallel to Sayward Boulevard.

16. 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 Urban Forest Management Division. Where minimum planting widths of 8-feet cannot be provided, the Applicant shall use structural cell technology, or other measures acceptable to UFMD, to satisfy the following specifications for all planting sites:

- A minimum of 2.5 feet open surface width and 16 square feet open surface area for Category III and Category IV trees, with the tree located in the center of the open area;
- A minimum rooting area of 8-feet wide (may be achieved with techniques to provide un-compacted soil below pavement), with no barrier to root growth within 4-feet of the base of the tree;
- Soil volume for Category III and Category IV trees shall be a minimum of 700 cubic feet for a single tree. For two trees planted in a contiguous planting area, a total soil volume of at least 1200 cubic feet shall be provided. For three 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;
- Soil specifications in planting sites shall be provided in the planting notes to be included in all subsequent site plan submissions.

17. 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 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.

18. Utility Locations. Utilities, including, but not limited to water, 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 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 FDP can be provided.

19. Streetscaping. Streetscape improvements and plantings shall be provided as indicated on the CDP/FDP. Notwithstanding the foregoing, 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. If determined at Site Plan approval that the street tree location conflicts with sight distance requirements, the Applicant shall make efforts to gain approval of said trees by making minor adjustments to their

locations or by removing their lower branches in consultation with UFM. However, in the event VDOT does not approve such tree locations, the Applicant shall be permitted to delete the tree locations, without the need for an administrative approval from DPZ provided that the tree canopy requirements are still met.

20. Fire Marshall Coordination. The Applicant has coordinated the layouts depicted on the CDP with the Fire Marshall. Further changes to the CDP and future FDPs shall be permitted without the requirement for a CDPA in response to the review of site plans by the Fire Marshall, 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"), the Fairfax County Department of Transportation ("FCDOT") and UFM in substantial conformance with the CDP, future FDPs and these Proffers with the intent to provide the streetscape shown on the CDP/FDP.

21. Pedestrian/Bicycle Circulation. In combination with the streetscape improvements identified in these Proffers, the Applicant shall provide sidewalks as indicated on the CDP/FDP and crosswalks as determined necessary by FCDOT and/or VDOT during the site plan process. There shall be a public access easement over all sidewalk areas in a form approved by the County Attorney.

22. Amenities and Facilities for Residents. Pursuant to Paragraph 2 of Section 6- 409 of the Zoning Ordinance, the Applicant shall provide on-site recreational facilities for the future residents of the Property, including the following:

    A. A private exterior recreational area to be located within the building courtyard;

    B. Party Room with kitchen and bar with the potential integration of a theater for community gatherings;

    C. Fitness Center;

    D. Bicycle parking/storage facilities.

    In the event it is demonstrated that the creditable facilities, pursuant to Article 6 of the Zoning Ordinance, do not have sufficient value, at the time of the issuance of the first Residential Use Permit, the Applicant shall contribute funds in the amount needed to achieve the overall proffered amount of $1,700.00 per non-WDU residential unit to the Fairfax County Park Authority for off-site recreational facilities intended to serve the future residents, as determined by the Supervisor for the Dranesville District.

23. Lighting. Outdoor lighting shall comply with the Outdoor Lighting Standards of Section 14-900 of the Zoning Ordinance. Building mounted security lighting shall utilize full cut-off fixtures with shielding such that the lamp surface is not directly visible.

24. Signage. Signage for the Property shall be provided in accordance with the requirements of Article 12 of the Zoning Ordinance or pursuant to a Comprehensive Sign Plan approved by the Planning Commission. Under the Comprehensive Sign Plan option, free standing and/or building mounted signage identifying the development may be permitted.

25. Street Furniture. Prior to the issuance of the first RUP, the Applicant shall install a seating area in the "panhandle" portion of the Property that extends parallel to Sayward Boulevard.

PARKS AND RECREATION

26. Park Construction. Prior to the issuance of the first RUP the Applicant shall, in consultation with the Fairfax Park Authority (FCPA), invest up to the sum of 1.5 Million Dollars in the design and development of a community park facility for the approximately 2.6 acre area commonly known as the field portion of Tax Map 15-4 ((5)) 3B owned by The Board of Supervisors of Fairfax County Virginia and identified on the CDP/FDP as Offsite (Relative to Parcel 5A) Urban Park Land (hereinafter the "Community Park").

This 1.5 Million Dollar obligation is inclusive of: 1) those funds determined necessary by FCPA to compensate Fairfax County for the approximately 0.6 acres of required urban park land that the Applicant's Property does not have available to dedicate to FCPA ($780,000), and 2) those funds determined necessary by FCPA as the "fair share" contribution of $893 per resident at the Applicant's proposed multifamily building to offset the demand by this project's residents on area wide park facilities (approximately $720,000). This 1.5 Million Dollar obligation shall be deemed to fulfill all such requirements related to these standards and requirements.

The Community Park shall generally reflect the design and concepts shown on the drawing prepared by Studio 39, entitled Landscape Concept, dated November 29, 2012 and included for illustrative purposes as part of the record of this rezoning application. At a minimum, the Community Park shall contain play equipment designed to accommodate the needs of multiple age groups, a pathway or trail, and open play areas, as reviewed and approved by FCPA. The Applicant further agrees that it, or an assigned entity including, but not limited to, the Dulles Station Owners Association, shall be responsible for all post construction maintenance of the Community Park and shall enter into a separate maintenance agreement with the Board of Supervisors and FCPA prior to the issuance of the first RUP.

Concurrent with or prior to the submission of the site plan for the approved development, the Applicant shall submit a proposal for the development of the Community Park to the FCPA, which the FCPA shall respond to within sixty (60) calendar days. The proposal shall detail the proposed development program, construction timing, and all associated estimated costs including, but not limited to, the cost of site development, the purchase of necessary equipment, the installation of equipment, preparation of construction drawings, permitting fees, and all other associated hard or soft costs (collectively the "Community Park Costs"). This proposal shall be reviewed and either fully accepted or responded to in writing in a timely manner not to exceed sixty (60) calendar days by FCPA. To the extent FCPA's response requires revision to Applicant's Community Park development proposal, FCPA shall timely review and respond in writing to each subsequent Applicant proposal revision within sixty (60) calendar days of receipt or less. Applicant's park construction obligations shall be reflected on the site plan that includes the approved multi-family development.

The Community Park shall be developed and available for public use prior to the issuance of the first RUP. Upon completion of the park construction and the release of any applicable Performance Bonds, the Applicant shall document all Community Park Costs. In the event such Community Park Costs exceed the sum of 1.5 Million Dollars, the Applicant shall have no further obligation under this Proffer. In the event said final Community Park Costs are less than 1.5 Million Dollars, the difference between the documented Community Park Costs and the 1.5 Million Dollars figure shall be contributed to the FCPA for the development of additional park and recreation facilities and amenities in the vicinity of the application property.

ARCHITECTURAL DESIGN

27. Building Design and Materials. The general architectural design of the proposed building is shown on the CDP/FDP (the "Conceptual Elevations"). The Conceptual Elevations are conceptual in nature and may be modified by the Applicant as part of final engineering and building design, provided that such modifications provide a similar quality of design and are in general conformance with that shown. Building materials, as generally reflected on the Conceptual Elevations, shall be: brick, masonry, fiber cement panel, and metal, provided that final architectural details and accents may include other materials. No EIFS shall be used. Bay windows, balconies, awnings, and other architectural details may be provided as generally shown on the CDP/FDP.

28. LEED Certification, or Equivalent. 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 project's registration of the U.S. Green Building Council's Leadership in Energy and Environmental Design—for Homes Multifamily Mid-Rise (LEED®-for Homes Multifamily Mid-Rise) or LEED-NC rating system, or other equivalent rating system determined to be

applicable to the building in consultation with the Environment and Development Review Branch of the Department of Planning and Zoning. 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.

In addition, should the Applicant elect to use the LEED system in lieu of an equivalent program, the Applicant will designate the Chief of the Environment and Development Review Branch of the Department of Planning and Zoning 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.

Prior to the building plan approval, the Applicant will submit documentation to the Environment and Development Review Branch of DPZ regarding the U.S. Green Building Council's final design review 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 project, the Applicant shall provide documentation to the Environment and Development Review Branch of DPZ demonstrating the status of attainment of LEED certification from the U.S. Green Building Council for the building.

If the U.S. Green Building Council final design review 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 will 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/square foot of gross floor area). 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 U.S. Green Building Council, under the most current version at the time of the project's registration of the LEED- for Homes Multifamily Mid-Rise rating system or LEED-NC rating system, or other LEED rating system. The provision to the Environment and Development Review Branch of DPZ of documentation from the U.S. Green Building Council that the building has attained LEED certification will be sufficient to satisfy this commitment.

In the event that the USGBC does not review and return comments for all credits and prerequisites included in the response to the preliminary design review within twenty-five (25) business days of the submission of the response to the preliminary design review, or if the USGBC does not review and return comments for all credits and prerequisites submitted with the application for

design review within forty-five (45) business days of the submission of a completed application for design review, then a decision regarding the project's anticipated level of attainment will be made jointly by the Applicant's LEED-AP, who is also a professional engineer or licensed architect, and the Chief of the Environment and Development Review Branch of the Department of Planning and Zoning. This joint decision shall be made within twenty-five (25) business days after the USGBC review response deadlines contemplated earlier in this paragraph. If this joint decision determines that the project is anticipated to attain a sufficient number of design-related credits along with anticipated construction-related credits to attain LEED Silver certification, no escrow is required to be posted, and the building plan approval process shall move forward without delay. However, if this joint decision does not demonstrate a sufficient number of design-related credits along with anticipated construction-related credit to support attainment of LEED Silver certification, the Applicant will post, a "green building escrow" identical to the one described in the previous paragraph. If, during the joint decision process but before the final joint decision for either the preliminary or final design review has been made, the USGBC reviews and returns comments for the review at-hand, then that USGBC review will be used for purposes of determining the posting of the escrow and the joint decision will no longer be pursued. Prior to final bond release for the project, the Applicant shall provide the USGBC final design review, in addition to demonstrating the status of attainment of LEED certification from the U.S. Green Building Council for the building.

If the Applicant provides to the Environment and Development Review Branch of DPZ, within two years after issuance of the final RUP/non-RUP for the building, documentation demonstrating that LEED certification for the building has not been attained but that the building has been determined by the U.S. Green Building Council to fall within three points of attainment of LEED certification, 50% of the escrow will be released to the applicant; the other 50% will be released to Fairfax County and will be posted to a fund within the county budget supporting implementation of county environmental initiatives.

If the Applicant fails to provide, within two years after issuance of the final RUP/non-RUP for the building, documentation to the Environment and Development Review Branch of DPZ demonstrating attainment of LEED certification or demonstrating that the building has fallen short of LEED certification by less than three points, the entirety of the escrow for that building will be released to Fairfax County and will be posted to a fund within the County budget supporting implementation of county environmental initiatives.

If the Applicant provides documentation from the USGBC demonstrating, to the satisfaction of the Environment and Development Review Branch of DPZ, that USGBC completion of the review of the LEED certification application has been delayed through no fault of the Applicant, the Applicant's contractors or subcontractors, 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.

29. The Applicant further reserves the right to fulfill the requirements of this Proffer, subject to EDRB approval, through certification of the building by any reasonable residential alternative to the LEED program that offers similar objective third party review of "green building" or energy efficient measures. Under such alternatives, the process and procedures outlined above may be modified to reflect the alternative program. Such alternative residential rating systems may include, but shall not be limited to, EarthCraft or the 2012 National Green Building Standards (NGBS) using the EnergyStar Qualified Homes path for energy performance that may be implemented without an escrow. If one of the alternative residential rating systems listed herein is selected, 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. In the event certification is dependent on the past occupancy operation of the building, the Applicant shall demonstrate attainment of the selected certification prior to final bond release.

30. Noise. 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 courtyard areas. The Applicant shall provide to the Environment and Development Review Branch of DPZ and DPWES a noise study which evaluates existing and future traffic and transit noise levels projected at least twenty-five years into the future. If the noise study concludes that the new residential building will be affected by noise levels that require mitigation, then the Applicant shall submit an acoustical analysis. The acoustical analysis will incorporate findings based on the building plans to determine appropriate noise attenuation measures. Such acoustical analysis shall be submitted to the Environment and Development Review Branch of DPZ and DPWES at the time of site plan submission. Based on the findings of the acoustical analysis, the Applicant shall show any noise impacted units on an overall building floor plan and shall provide a description of the appropriate noise attenuation measures the Applicant intends to employ.

ENVIRONMENT

31. Stormwater Management.

A. As generally described on the CDP/FDP, required stormwater management shall be designed in a vault system such that the total volume runoff released, as well as the peak release rate for the one and two year 24 hour storm and the post development condition for the site is equal to or less than the total runoff volume and peak release rate in the existing condition for the same storm. In addition, stormwater runoff associated with the development shall be controlled (as shown on the CDP/FDP and consistent with SWM Waiver Request 6848 WPFM 004-01 conditions dated September 26, 2013 or such conditions as may otherwise be imposed with any related waiver requests)

such that the first one inch of rainfall is reused, infiltrated, or treated in a manner through which 80% of the average annual post development total suspended solids are removed or through which at least an equivalent level of water quality control is provided. As further described in the CDP/FDP, these requirements for stormwater management may be fulfilled or supplemented through the use of an off-site facility (namely the regional stormwater pond which the Applicant previously constructed and dedicated to the County which was explicitly designed to accommodate the stormwater outfall from the Property).

B. As an alternative to that outlined in Item A above, the Applicant reserves the right to pursue other alternative measures to meet applicable water quality and quantity requirements through measures that protect downstream receiving water by reducing stormwater runoff volume, and peak flows in a manner consistent with applicable watershed plan goals, provided that the design and location of the same are in substantial conformance with the CDP/FDP.

C. Should the U.S. Environmental Protection Agency, or its designee, or other appropriate governmental authorities issue new stormwater management regulations affecting the Property, the Applicant reserves the right to accommodate necessary changes to its stormwater facility designs without a requirement to amend the CDP/FDP or these proffers provided the facility design is substantially in conformance with the CDP/FDP.

AFFORDABLE HOUSING

32. Workforce Dwelling Units ("WDUs"). The number of WDUs to be provided on the Property shall be equal to 14.6% 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.

MISCELLANEOUS

33. Universal Design. A minimum of nine (9) total 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.

34. Public School Contribution. The Applicant shall contribute Four Hundred Seventy-One Thousand Nine Hundred Sixty Dollars ($471,960) to the Board of Supervisors for transfer to FCPS for capital improvements at those schools within the "pyramid" serving the Application Property. Such contributions shall be made prior to building plan approval for the Property and shall further be

adjusted on a pro rata basis if the number of units actually built is less than the maximum allowed under this rezoning.

35. Electrical Vehicle Charging. The Applicant shall provide one electric vehicle charging station. Such station shall be designed with ancillary wiring and infrastructure that will allow the number of stations to be increased if demand warrants.

36. Future Use of Eastern Triangle. With the exception of the proposed temporary construction and proposed permanent ingress/egress easement purposes and uses indicated in the CDP/FDP (which may commence immediately upon Fairfax County's acceptance of these Proffers), the property known as 15-4((5)) 5A pt. and identified on the CDP/FDP as "proposed reservation for future dedication to Nugget" shall not be developed until one of the following occurs: (a) incorporation of such property into a rezoning of adjacent land owned by Nugget Joint Venture LC and known as Tax Map 15-2((1)) 13; or (b) approval of a proffer condition amendment to otherwise establish use and density for this land area. The requirements of this proffer shall not preclude the construction of access to the property to the east and by the Fairfax County Board of Supervisors and known as Tax Map 15-4((05)) 5B.

37. Owners Association. Should the residential units be offered for individual sale, the Applicant shall cause the recordation of a declaration creating a condominium owners' association (referred to as the "COA"). The COA documents (including budgets provided in any offering or sale materials) shall disclose the various proffer and maintenance obligations set forth in these Proffers, or otherwise required, including but not limited to landscape maintenance and snow removal. Purchasers shall be advised in writing of these obligations, and other restrictions, prior to entering into a lease/contract of sale for units. If residential units are offered for individual sale, all WDUs shall be administered in accordance with the Board of Supervisors Workforce Dwelling Unit Administrative Guidelines adopted October 15, 2007.

38. Escalation in Contribution Amounts. All proffers specifying contribution amounts or budgets for operational expenses shall escalate 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"), both as permitted by Virginia State Code Section 15.2-2303.3.

39. Advance Density Credit. Advance density credit is reserved consistent with the provisions of the Fairfax County Zoning Ordinance for all eligible dedications described herein or as may be required by Fairfax County or VDOT.

40. Severability. Pursuant to Section 18-204 of the Zoning Ordinance, any portion of the Property may be the subject of a proffered condition amendment ("PCA"), Special Exception ("SE"), Special Permit ("SP"), Comprehensive Sign

Plan Amendment ("CSPA") or Final Development Plan Amendment ("FDPA") without joinder and/or consent of the owners of the other portions of the Property, provided that such PCA, SE, SP, CSPA 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, CSPA or FDPA shall otherwise remain in full force and effect.

41. 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's successor(s) in interest and/or developer(s) of the site or any portion of the site.

42. Public Art. The Applicant shall reserve a minimum of one location in outdoor common areas, that are accessible to the public, for the installation of "public art" on a permanent or rotational basis. For the purpose of this Proffer "Public Art" may include permanent or portable sculptures, murals, paintings or water features.

43. Counterparts. These Proffers may be executed in one or more counterparts, each of which when so executed and delivered shall be deemed an original, and all of which taken together shall constitute but one and the same instrument.

DULLES ROCKHILL PARTNERS LIMITED PARTNERSHIP

By: Crimson Development, Inc.
Its: General Partner

By: _____
R. Kevin Dougherty, President

TITLE OWNER OF TAX MAP
NO. 15-2 ((1)) 13 (pt.)

NUGGET JOINT VENTURE, L.C.

By: Allen & Rocks, Inc., Its Manager

By: _____
Samuel A. Rocks
Vice President & Secretary

CONCEPTUAL DEVELOPMENT PLAN CONDITIONS

CDP 2012-DR-016

January 14, 2014

1. As provided by law, within 60 days of 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 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(C) 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.

2. As provided by law, at least 60 days prior to recording residential condominium documents for the residential building, 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 Owners intend to record condominium documents for the residential building. Prior to recording the condominium documents, the Owners shall pay to Fairfax County a sum equal to the present value of the Dulles Rail Phase II Transportation Improvement District taxes that will be lost as a result of the parcel being removed from the tax district as required by Virginia Code Section 33.1 - 437.B. After such payment, the portion of the Property used for residential uses shall not be subject to the applicable special improvement taxes for the Dulles Rail Phase II Transportation Improvement 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.

PROFFER CONDITION AMENDMENT (PCA)
CONCEPTUAL DEVELOPMENT PLAN (CDP)/
FINAL DEVELOPMENT PLAN (FDP)/
FOR
DULLES STATION AT DULLES CORNER
PARCEL 5A
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

VICINITY MAP
SCALE: 1" = 2000'

APPLICANT/DEVELOPER
DULLES ROCKHILL PARTNERS, LP
c/o CRIMSON PARTNERS
455 SPRING PARK PLACE
SUITE 100
HERNDON, VA. 20170
(703) 834-9700
ATTN: RYAN WHITTIER

ATTORNEY
McGUIREWOODS
1750 TYSONS BOULEVARD
SUITE 1800
TYSONS CORNER, VA. 22102
(703) 712-5360
ATTN: GREG RIEGLE

ARCHITECT
RTKL
2101 L STREET NW
SUITE #200
WASHINGTON, DC 20037
(202) 912-8100
ATTN: NICK CORCORAN

LANDSCAPE ARCHITECT
STUDIO 39
6416 GROVEDALE DRIVE
SUITE 100-A
ALEXANDRIA, VA. 22310
(703) 719-6500
ATTN. JOE PLUMPE

ENGINEER
URBAN, LTD.
42000 TECHNOLOGY COURT
CHANTILLY, VA. 20151
(703) 642-2308
ATTN CLAYTON C. TOCK, P.E.

Sheet List Table

Sheet Number	Sheet Title
01	COVER SHEET
02	GENERAL NOTES & DETAILS
03	GENERAL NOTES & DETAILS
04	EXISTING CONDITIONS
05	EXISTING CONDITIONS
06	COPA - EXISTING TRAILS
07	CDP-FDP - GEOMETRY PLAN
08	CDP-FDP - GEOMETRY PLAN
09	CDP-FDP - GRADING PLAN
10	CDP-FDP - GRADING PLAN
11	OPEN SPACE EXHIBIT
12	PEDESTRIAN CIRCULATION PLAN
13	STORMWATER MANAGEMENT PLAN
14	STORMWATER MANAGEMENT COMPUTATIONS
15	OFFSITE STORMWATER MANAGEMENT PLAN
16	OFFSITE STORMWATER MANAGEMENT PLAN
17	STORMWATER MANAGEMENT REFERENCE SHEET
18	STORMWATER MANAGEMENT REFERENCE SHEET
19	STORMWATER MANAGEMENT REFERENCE SHEET
20	STORMWATER MANAGEMENT REFERENCE SHEET
21	STORMWATER MANAGEMENT REFERENCE SHEET
22	STORMWATER MANAGEMENT REFERENCE SHEET
23	OUTFALL ANALYSIS
24	OVERLAND RELIEF
25	SIGHT DISTANCE PROFILES
26	SIGHT DISTANCE PROFILES
27	SIGHT DISTANCE PROFILES
28	EXISTING VEGETATION MAP
29	LANDSCAPE PLAN & TREE CALCULATIONS
30	PLANTING DETAILS NOTES & SCHEDULE
31	CORRESPONDENCE
32	PROPERTY EXHIBIT - EXISTING PROPERTY
33	PROPERTY EXHIBIT - PROPOSED PROPERTY
34	PERSPECTIVE - SE EAST ELEVATION
35	PERSPECTIVE - SE SOUTH ELEVATION
36	PERSPECTIVE - GARAGE ELEVATION
37	CONCEPTUAL AMENITIES SHEET
38	LANDSCAPE CONCEPT
39	LANDSCAPE CONCEPT
40	LANDSCAPE CONCEPT
41	LANDSCAPE CONCEPT

No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
10-15-11
1-20-12
4-13-12
6-13-12
8-7-12
11-29-12
09-13-13
10-07-13

urban
Urban Ltd.
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www.urban.ltd.com
Planners/Engineers/Landscape Architects/Land Surveyors

COMMONWEALTH OF VIRGINIA
CLAYTON C. TOCK
Lic. No. 029790
PROFESSIONAL ENGINEER

COVER SHEET
DULLES STATION
PARCEL 5A
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA
SCALE: N/A
C1 = N/A
DATE: DEC. 2011

SHEET
01
OF
41

FILE No
SP-1158-12

GENERAL NOTES

1. THE PROPERTY IS IDENTIFIED AS FAIRFAX COUNTY TAX MAP NUMBER: 15-4-((5))-5A & 15-2-((01))-13(PART).
2. PARCEL 15-4-((5))-5A & 15-2-((01))-13(PART) ARE CURRENTLY ZONED PDC.
3. BOUNDARY AND TOPOGRAPHY INFORMATION HEREON IS BASED ON FIELD RUN SURVEY PREPARED BY URBAN LTD. AND IS REFERENCED HORIZONTALLY TO VAD 1983 AND VERTICALLY TO NAVD 1929
4. THE TOPOGRAPHY SHOWN HEREON IS AT A TWO-FOOT CONTOUR INTERVAL, COMPILED BY URBAN LTD
5. THE PROPERTY SHOWN ON THIS CDP/FDP IS LOCATED IN THE DRANESVILLE DISTRICT
6. THIS PROPOSED DEVELOPMENT IS IN CONFORMANCE WITH THE COMPREHENSIVE PLAN AND ALL APPLICABLE ORDINANCES, REGULATIONS AND ADOPTED CONDITIONS, EXCEPT AS NOTED HEREIN
7. THE SUBJECT PROPERTY HAS NO EXISTING FLOOD PLAINS OR RESOURCE PROTECTION AREAS
8. THIS SITE IS SERVED BY PUBLIC SEWER AND WATER
9. A WAIVER TO PROVIDE STORM WATER MANAGEMENT (SWM) AND BEST MANAGEMENT PRACTICES (BMP) IN AN OFFSITE POND IS HEREBY REQUESTED
10. UTILITY LOCATIONS SHOWN ARE APPROXIMATE. THE PROPOSED LOCATION IS SUBJECT TO CHANGE BASED ON FINAL DESIGN AND COORDINATION WITH PUBLIC WORKS
11. INDIVIDUAL UTILITY PLANS AND PROFILES WILL BE SUBMITTED DURING THE SITE PLAN STAGE FOR CONSTRUCTION PURPOSES.
12. THERE ARE NO KNOWN HAZARDOUS OR TOXIC SUBSTANCES ON THIS SITE PER THE GEOTECHNICAL STUDY
13. THERE ARE NO KNOWN BURIAL SITES OR EXISTING GRAVES FOUND ON THIS SITE.
14. ALL PUBLIC STREETS SHALL CONFORM TO FAIRFAX COUNTY AND/OR VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT) STANDARDS AND SPECIFICATIONS. UNLESS MODIFIED AS DESCRIBED IN GENERAL NOTE 6 ABOVE
15. IN ACCORDANCE WITH PARAGRAPH 5 OF SECTION 18-204 OF THE ZONING ORDINANCE, MINOR MODIFICATIONS TO THE SIZE, DIMENSIONS, FOOTPRINTS, AND LOCATION OF BUILDINGS, PARKING SPACES, GARAGES AND SIDEWALKS MAY OCCUR WITH FINAL ENGINEERING AND DESIGN.
16. THERE ARE NO DESIGNATED ENVIRONMENTAL QUALITY CORRIDORS (EQC) ON THE SUBJECT SITE PER THE COUNTY OF FAIRFAX MAPS.
17. THERE ARE NO SCENIC ASSETS OR NATURAL FEATURES ON THE SUBJECT SITE WHICH WOULD DESERVE PROTECTION OR PRESERVATION
18. THE DEVELOPMENT SCHEDULE AND PROPOSED SITE PLAN SUBMISSIONS SHALL BE DETERMINED BY THE APPLICANT BASED UPON MARKET CONDITIONS. THE DEVELOPMENT MAY BE PHASED.
19. NOTWITHSTANDING THAT WHICH IS SHOWN OR DESCRIBED ON THIS CDP/FDP, THE APPLICANT RESERVES THE RIGHT TO MAKE MINOR MODIFICATIONS TO THE LOCATION AND CONFIGURATION OF THE APPROVED DEVELOPMENT AND ALL COMPONENT PARTS OF THE SAME BASED ON FINAL ENGINEERING AND/OR REQUIREMENT IMPOSED IN CONNECTION WITH ANY POST ZONING APPROVALS, PROVIDED THE SAME ARE IN SUBSTANTIAL CONFORMANCE WITH THIS CDP/FDP.
20. DIMENSIONS AND SIZES AS SCALED ARE APPROXIMATE AND MAY VARY DEPENDING ON THE FINAL USE AND ARCHITECTURAL/ENGINEERING DESIGN DURING SITE PLANNING. THE FINAL DESIGN SHALL BE IN SUBSTANTIAL CONFORMANCE WITH THE CDP/FDP PLAN
21. NO ATTEMPT HAS BEEN MADE AS A PART OF THIS SURVEY TO OBTAIN OR SHOW DATA CONCERNING EXISTENCE, SIZE DEPTH, CONDITION, CAPACITY OR LOCATION OF ANY UTILITIES OR MUNICIPAL/PUBLIC SERVICE FACILITY. FOR INFORMATION REGARDING THESE UTILITIES OR FACILITIES CONTACT "MISS UTILITY" 1 (800) 357-7777
22. BUILDINGS WILL BE LOCATED APPROPRIATELY OUTSIDE THE REQUIRED SETBACKS AND BULK PLANE LIMITS.
23. THE FOLLOWING ARE THE OWNERS OF THE PARCELS INCLUDED IN THIS ZONING APPLICATION:

MAP # 15-X-((5))-5A	MAP # 15-2-((1))-13(PART)
DULLES ROCKHILL PARTNERS LP	NUGGET JOINT VENTURE
455 SPRING PARK PL	1960 GALLOWS RD
SUITE 100	SUITE 300
HERNDON, VA 20170	VIENNA, VA 22182

EXISTING APPROVED DULLES STATION ZONING DETAIL

DULLES STATION BUILDING DATA

LANDBAY	BUILDING	COMMERCIAL GROSS FLOOR AREA (SF)	RESIDENTIAL GROSS FLOOR AREA (SF)	OPEN SPACE (SF)	STATUS
I	BUILDING A	391,355*	0	78,799.70	APPROVED & BUILT
I	BUILDING B	348,735*	0	22,673.15	APPROVED & PROPOSED
I	BUILDING C	186,969*	0	37,599.55	APPROVED & BUILT
I	BUILDING D	352,941*	0	25,590.66	APPROVED & PROPOSED
LANDBAY I TOTAL		1,060,000	0	164,663.06	
II	BUILDING G	16,515*	310,173*	36,980.22	APPROVED & BUILT
II	BUILDING H	20,603*	363,676*	37,812.81	APPROVED & BUILT
II	BUILDING I	8,032*	226,610*	39,840.14	APPROVED & BUILT
II	BUILDING J	4,67E*	242,208*	30,945.79	APPROVED & BUILT
II	BUILDING K	9,060*	296,632*	84,149.81	APPROVED & BUILT
LANDBAY II TOTAL		58,88E	1,139,299	219,728.37	
III	Vacant	0	0	185,862.00	
LANDBAY III TOTAL		0	0	185,862.00	
IV	HOTEL #1	94,215*	0	48,560.03	APPROVED & BUILT
IV	HOTEL #2	92,620*	0	56,065.56	APPROVED & BUILT
LANDBAY IV TOTAL		186,835	0	104,625.59	
V	POND	0	0	312,564.06	APPROVED & BUILT
LANDBAY V TOTAL		0	0	512,564.06	
VI	DEDICATION AREA	0	0	0.00	
LANDBAY VI TOTAL		0	0	0.00	
DULLES STATION TOTAL		1,325,716	1,139,299	1,187,443.98	
TOTAL GROSS SQUARE FEET		2,465,015			
TOTAL SITE AREA (SF)		2,749,580.80			
ADJUSTED SITE AREA EXCLUDING LANDBAY III (SF)		2,563,718.80			
F.A.R. excluding Landbay III		0.9615	PROFFERED F.A.R.: 0.99		
Open Space excluding Landbay III		39.08%	PROFFERED OPEN SPACE: 23%		

* BUILDING GSF DATA HAS BEEN OBTAINED FROM APPROVED SITE PLANS

LANDBAY III (REZONING AREA)

	PARCEL	AREA
EXISTING SITE AREA	5A (TOTAL)	185,862 S.F. OR 4.2668 AC.
EXISTING SITE AREA TO REMAIN (TO BE REZONED PRM)	5A (PART)	163,590.93 S.F. OR 3.755 AC.
PORTION OF PARCEL 15-2-((01))-0013 TO PARCEL 5A (TO BE REZONED PRM)	0013 (PART)	22,271.07 SF OR 0.511 AC
ADJUSTED SITE AREA	5A	185,862.00 S.F. OR 4.2668 AC
EXISTING ZONING		PDC (OFFICE)
PROPOSED ZONING		PRM (MULTI-FAMILY)
EXISTING USE		VACANT LAND
PROPOSED USE		MULTI-FAMILY RESIDENTIAL/GARAGE PARKING

LANDBAY III-B (REZONING AREA)

	PARCEL	AREA
EXISTING SITE AREA TO BE RESERVED FOR FUTURE DEDICATION TO PARCEL 15-2-((01))-0013	5A (PART)	22,231.07 SF OR 0.511 AC
EXISTING ZONING		PDC (OFFICE)
PROPOSED ZONING		PRM
EXISTING USE		VACANT LAND
PROPOSED USE		VACANT LAND

AREA OF REZONING APPLICATION

	AREA	
LANDBAY III	185,862 S.F.	4.2668 Ac.
LANDBAY III-B	22,271.07 S.F.	0.511 Ac.
TOTAL AREA	208,133.07	4.7781 Ac

LANDBAY III (PCA AREA)

	PARCEL	AREA	DESCRIPTION
PORTION OF PARCEL 15-2-((1))-13 TO PARCEL 15-4-((5))-5A	0013 (PART)	22,271.07 SF OR 0.511 AC	AREA TO BE ADDED TO DULLES STATION (SUBJECT TO DULLES STATION PCA)
PORTION OF PARCEL 15-4-((5))-5A EXISTING SITE AREA TO REMAIN	0005A (PART)	163,590.93 S.F. OR 3.755 AC	AREA TO REMAIN WITHIN DULLES STATION (SUBJECT TO DULLES STATION PCA)
PORTION OF PARCEL 15-4-((5))-5A TO PARCEL 15-2-((1))-13	0005A (PART)	22,271.07 SF OR 0.511 AC	AREA TO BE REMOVED FROM DULLES STATION
ADJUSTED SITE AREA	0005A	185,862.00 S.F. OR 4.2668 AC	TOTAL AREA SUBJECT TO DULLES STATION PCA

NOTE: LANDBAY BREAKDOWN IS EXCLUSIVE OF RIGHT-OF-WAY DEDICATION

DULLES STATION EXISTING APPROVED ZONING PER: PCA C-696-6/FDPA C-696-3

	PROPOSED USE	LAND AREA ACRES	LAND AREA SQ. FT.	GROSS FLOOR AREA PROPOSED	PROPOSED F.A.R.
LAND BAY I	OFFICE	12.64	550,800	1,080,000.00	1.96
LAND BAY II	RESIDENTIAL	18.51	806,220.92	1,210,000.00	1.50
LAND BAY III	OFFICE	4.39	191,310	180,000.00	0.94
LAND BAY IV	HOTEL / OFFICE	7.45	324,43? 08	245,000.00	0.76
LAND BAY V	DEDICATION TO BOARD OF SUPERVISORS FOR REGIONAL S.W.M. POND & PARK	12.14	528,820	---------	
LAND BAY VI	DEDICATION TO BOARD OF SUPERVISORS FOR TRANSIT PARKING	3.02	131,551	---------	
OTHER	R.O.W., ETC	4.97	216,447.80	---------	
	TOTAL	63.12	2,749,580.8	2,715,000.00	0.99

DULLES STATION LANDBAY III EXISTING VS. PROPOSED ZONING COMPARISON

DULLES STATION BUILDING DATA

LANDBAY	BUILDING	COMMERCIAL GROSS FLOOR AREA (SF)	RESIDENTIAL GROSS FLOOR AREA (SF)	LAND AREA (SF)	FAR	NUMBER OF STORIES
III - APPROVED	BUILDING L	180,000	0	186,564	APPROVED FAR 0.96	6
III - PROPOSED	BUILDING L	0	415,000	185,862	PROPOSED FAR: 2.23	6

WAIVERS & MODIFICATIONS

MODIFICATIONS	DESCRIPTION
REDUCTION OF REQUIRED LOADING SPACES	LOADING SPACE MODIFICATION IS REQUESTED FOR REDUCTION IN LOADING SPACES REQUIRED IN SECTION 11-202.3 OF THE ZONING ORDINANCE
TREE PRESERVATION TARGET DEVIATION	PER SECTION 12-0508.3A(1) OF THE PFM TREE PRESERVATION TARGET WOULD PRECLUDE THE DEVELOPMENT OF USES OR DENSITIES OTHERWISE ALLOWED BY THE ZONING ORDINANCE
CORNER LOT	MODIFY SECTION 2-505 OF THE ZONING ORDINANCE FOR CORNER LOTS IN A P-DISTRICT
WAIVERS	DESCRIPTION
OFFSITE STORM WATER MANAGEMENT AND BEST MANAGEMENT PRACTICE	WAIVER IS REQUESTED FOR THE USE OF THE OFFSITE POND TO PROVIDE SWM AND BMP FOR THE SUBJECT SITE

LANDBAY III PARKING TABULATIONS:

REQUIRED PARKING:	RESIDENTIAL USE: 1.6 SPACE / UNIT** (1.6 SPACE / UNIT**) X (411 UNITS) = 657.6 SPACES
TOTAL REQUIRED PARKING	= 658 SPACES
PROVIDED PARKING:***	
RESIDENTIAL GARAGE PARKING PROVIDED	= 658 SPACES (1.6 SPACES/UNIT**)
REQUIRED LOADING:	RESIDENTIAL USE: 1 SPACE FOR FIRST 25,000 S.F + 1 SPACE/100,000 S.F 1 SPACE + 390,000 SF X 1 SPACE/100,000 S.F = 5 SPACES
TOTAL REQUIRED LOADING	= 5 SPACES (PER SECT 11-202.15)
PROVIDED LOADING	= 2 SPACES*

* LOADING SPACE MODIFICATION IS REQUESTED FOR REDUCTION IN LOADING SPACES REQUIRED IN SECTION 11-202.3 OF THE ZONING ORDINANCE. THE LOADING SPACE MODIFICATION IS IN CONFORMANCE WITH THE PREVIOUSLY APPROVED PCA C-696-06 FOR THE OTHER RESIDENTIAL BUILDINGS IN DULLES STATION

** IF PRIOR TO THE ISSUANCE OF THE FIRST RUP FOR THE BUILDING, THE FAIRFAX COUNTY ZONING ORDINANCE RECOMMENDS A LOWER MINIMUM PARKING SPACE TO DWELLING UNIT RATIO, OR IF FAIRFAX COUNTY OTHERWISE APPROVES A PARKING REDUCTION, APPLICANT MAY CONSTRUCT THE MINIMUM NUMBER OF RECOMMENDED SPACES AT THAT TIME, WHICH MAY BE LESS THAN 1.5 PARKING SPACES PER DWELLING UNIT

LANDBAY III ZONING TABULATIONS:

	ALLOWABLE/MINIMUM	PROPOSED-RESIDENTIAL
PROPOSED BUILDING SQUARE FOOTAGE	N/A	415,000
MINIMUM LOT AREA	NONE	4.26
MINIMUM LOT WIDTH	NONE	NONE
BUILDING HEIGHT	N/A	75' MAX (6 STORY RESIDENTIAL BUILDING) 90' MAX (5.5 STORY GARAGE)
FLOOR AREA RATIO (FAR)	2.4	2.23 (415,000/185,862)
DENSITY (DU/AC)	N/A	96.34 (411/4.266)
YARD REQUIREMENTS		
FRONT YARD	N/A	16.19' SAYWARD BLVD R.O.W. / 8.55' CARTA WAY R.O.W.
SIDE YARD	N/A	N/A
REAR YARD	N/A	16.37' PROP. WESTERN R.O.W. / 13.1' PROP. NORTHERN R.O.W.
LANDSCAPE OPEN SPACE**	20% (36,573 S.F.)	21.26% (38,529 S.F.)*
RECREATIONAL OPEN SPACE**		6.01% (11,172.5 S.F.)
PARCEL 5A URBAN PARK LAND**		14.72% (27,358.4 S.F.)

* LANDSCAPE OPEN SPACE IS INCLUSIVE OF RECREATIONAL OPEN SPACE
** SEE SHEET 11 FOR OPEN SPACE EXHIBIT

LEGEND:

- EXISTING WATER LINE
- PROPOSED WATER LINE
- EX. FIRE HYDRANT
- PROP. FIRE HYDRANT
- EXISTING WATER METER
- WM — PROPOSED WATER METER
- EXISTING WATER VALVE
- WV — PROPOSED WATER VALVE
- EXISTING STORM DRAIN
- PROPOSED STORM DRAIN
- EXISTING SANITARY SEWER
- PROPOSED SANITARY SEWER
- EXISTING GAS LINE
- PROPOSED GAS LINE
- EXISTING GAS VALVE
- PROPOSED GAS VALVE
- EXISTING OVERHEAD WIRE
- EXISTING LIGHTING
- PROPOSED LIGHTING
- EXISTING FENCE
- PROPOSED FENCE
- EXISTING TREE LINE
- EXISTING CONTOURS
- PROPOSED CONTOURS
- PROPOSED PHASE LINE
- PROPOSED LIMITS OF CLEARING & GRADING
- EXISTING WETLANDS
- PROP. RET. WALL
- EX. RET. WALL
- ROAD SIGN
- EX. POWER POLE
- EXISTING SPOT ELEVATION
- +25.50 — PROP. SPOT ELEVATION
- CG-6 CG-6R — SPILL AND TRANSITION CURB AND GUTTER
- PROPOSED CURB
- MAIN BUILDING ENTRANCE
- EX. STREET LIGHTS
- PROP. STREET LIGHTS
- PROPOSED CG-12
- EXISTING TREE
- PROPOSED TREE
- WATER FITTING IDENTIFIER
- LOADING AREA
- BENCHMARK
- TEST PIT REQUIRED
- PROJECTED TRAFFIC COUNT
- O.R. — OVERLAND RELIEF
- PROP — PROPOSED
- EX — EXISTING
- SF — SQUARE FEET
- GSF — GROSS SQUARE FEET
- NSF — NET SQUARE FEET
- TBR — TO BE REMOVED
- FF — FINISHED FLOOR
- V — VISITOR PARKING SPACE
- S, C, HC — STANDARD, COMPACT AND HANDICAP PARKING SPACE DESIGNATOR

REVISIONS

No.	DATE	DESCRIPTION

PLAN DATE: 12-13-11, 2-2-12, 4-20-12, 6-12-12, 7-19-12, 8-3-12, 11-29-12, 06-25-13, 08-19-13, 10-07-13

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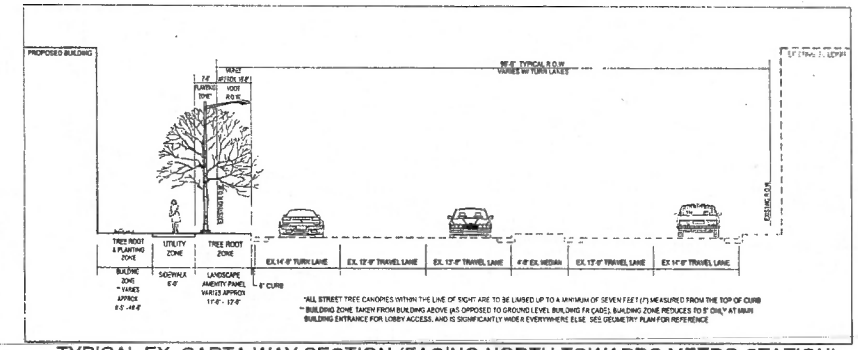
COMMONWEALTH OF VIRGINIA — CLAYTON C. TOCK — Lic. No. 036790 — 10/7/13 — PROFESSIONAL ENGINEER

GENERAL NOTES & DETAILS
DULLES STATION PARCEL 5A
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

DATE: DEC., 2011
C.I.= N/A
SCALE: AS NOTED

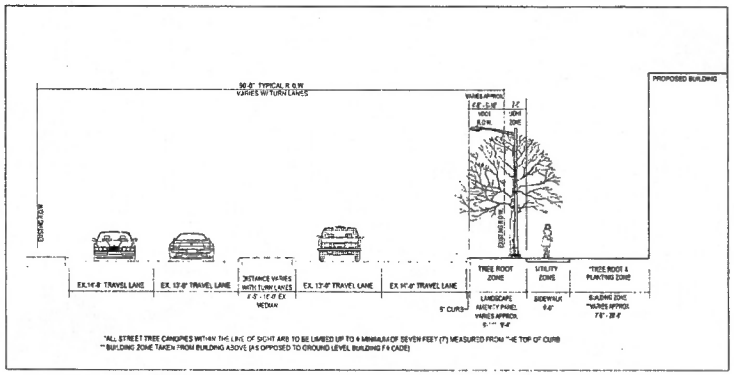
SHEET 02 OF 41

FILE No. SP-1158-12



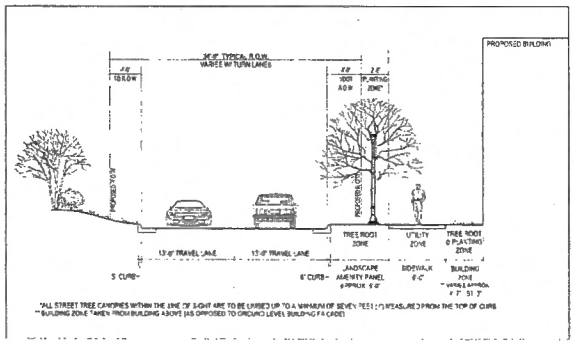
TYPICAL EX. CARTA WAY SECTION (FACING NORTH TOWARDS METRO STATION)

NTS



TYPICAL EX. SAYWARD BOULEVARD SECTION
(FACING WEST TOWARDS SUNRISE VALLEY DR)

NTS

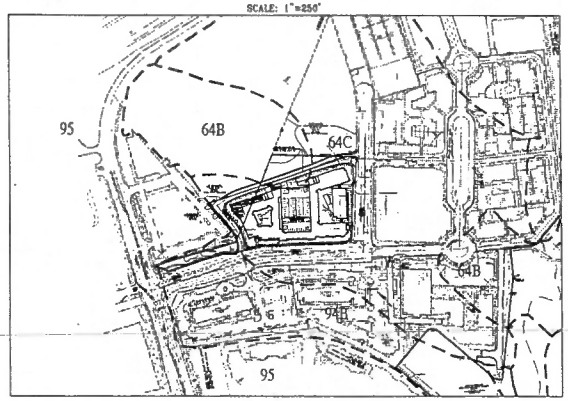


TYPICAL PUBLIC ROAD "A" & "B" SECTION

NTS

SOILS MAP

SCALE: 1"=250'

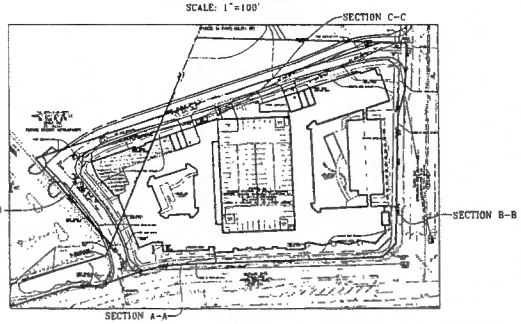


SOILS LEGEND

SOIL ID NUMBERS	SOIL SERIES NAME	FOUNDATION SUPPORT	SOIL DRAINAGE	EROSION POTENTIAL	PROBLEM CLASS
64B	JACKLAND & HAYMARKET SOILS, VERY STONY	POOR - P, C, B	POOR - P, C, S	MEDIUM	III
64C	JACKLAND & HAYMARKET SOILS, VERY STONY	POOR - P, C, B	POOR - P, C, S	MEDIUM	III
94B	SYCOLINE - KELLY COMPLEX	POOR - P, C, B	POOR - P, R, S, C	HIGH	III
95	URBAN LAND	N/A	N/A	N/A	N/A

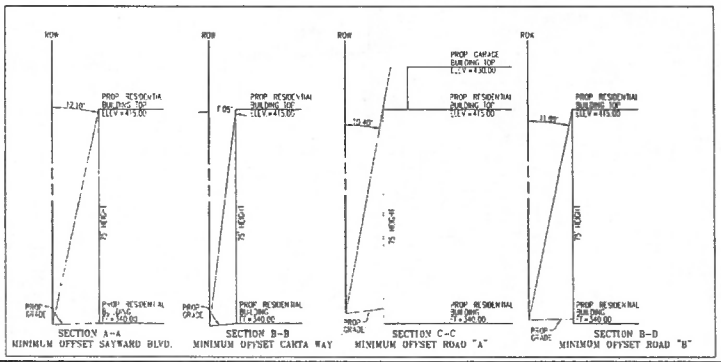
BULK PLAIN KEY MAP

SCALE: 1"=100'



BULK PLANE DIAGRAMS

SCALE: 1"=20'



NO.	DATE	REVISIONS DESCRIPTION
1	10-15-11	
2	2-2-12	
3	6-12-12	
4	7-9-12	
5	11-26-12	
6	08-29-13	
7	10-07-13	

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GENERAL NOTES & DETAILS

DULLES STATION
PARCEL 5A
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: AS INDICATED

DATE: DEC. 2011

C1 = N/A

SHEET
03
OF
41

FILE No.
SP-1158-12

T.M. #015-4-05-0005B
FAIRFAX COUNTY BOARD OF SUPERVISORS
DB. 19125 PG. 1512
ZONING: PDC
USE: VACANT

T.M. #015-2-01-0013
NUGGET JOINT VENTURE, L.C.
DB. 9500 PG. 1070
ZONING: PDC
USE: VACANT

T.M. #015-2-01-0014
BDC DULLES CORPORATE LLC
DB. 20853 PG. 1601
ZONING: C-3
USE: OFFICE

PARCEL 5A
DULLES STATION AT DULLES CORNER
OWNER: DULLES ROCKHILL PARTNERS LP.
T.M. #015-4-05-0005A
DB. 19872 PG. 495
AREA = 185,802 S.F. OR 4.2608 ACRES

SAYWARD BLVD.
PUBLIC ROAD
DESIGN SPEED 35 MPH
VARIES

CARTER WAY
(FORMERLY ROCK HILL ROAD)
DESIGN SPEED 30 MPH
VARIES

ROBB LANE

MATCHLINE
SEE SHEET 05

PARCEL 8
DB. 11642 PG. 967
DB. 13416 PG. 591

LA STATE GRID NORTH

No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
12-13-11
2-20-12
5-17-12
6-12-12
8-2-12
11-29-12
03-15-13
09-19-13
10-07-13

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COMMONWEALTH OF VIRGINIA
CLAYTON C. RICE
Lic. No. 024990
PROFESSIONAL ENGINEER

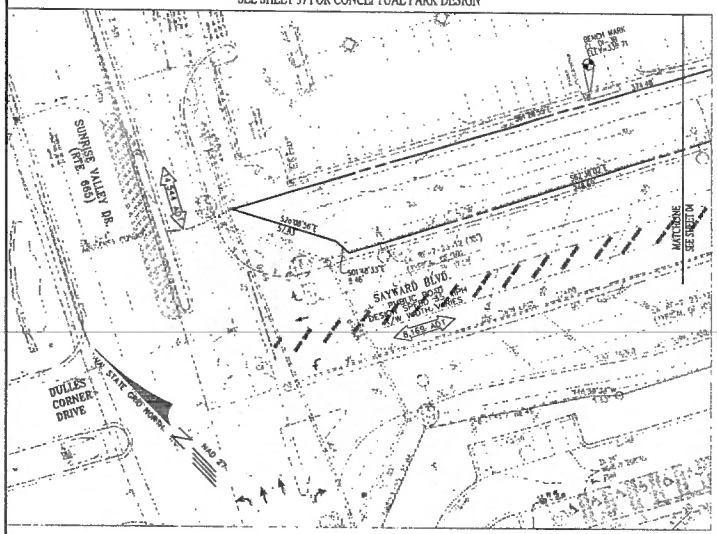
EXISTING CONDITIONS
DULLES STATION
PARCEL 5A
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: 1"=30'
C1-2
DATE: DEC. 2011

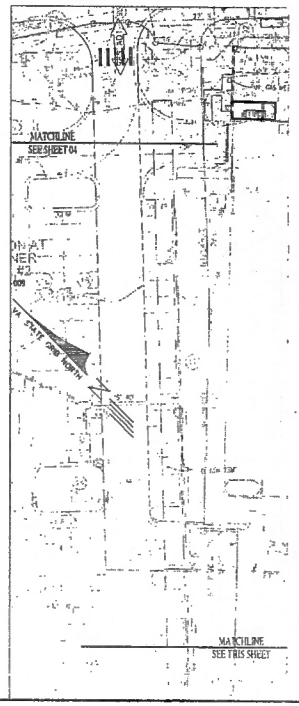
SHEET
04
OF
41

FILE No.
SP-1158-12

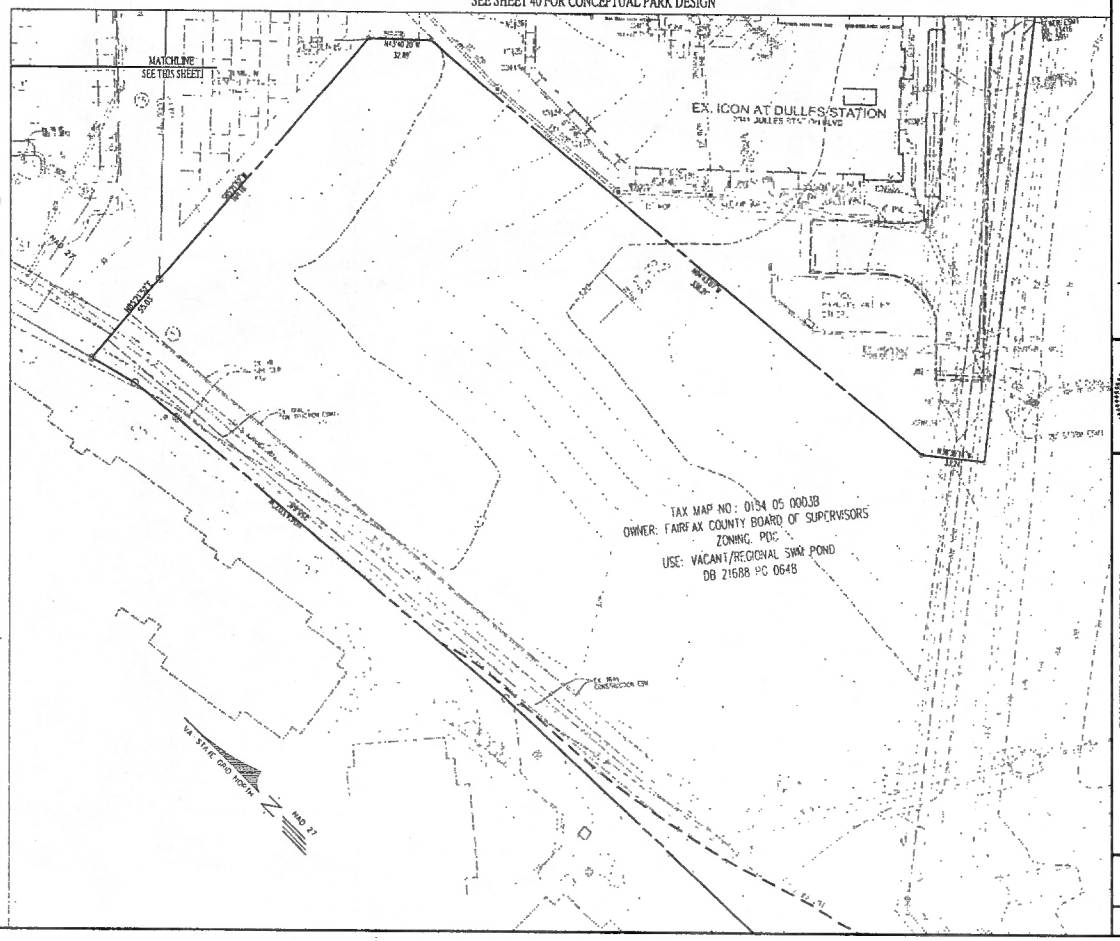
INSET - PROPOSED LINEAR PARK
SEE SHEET 37 FOR CONCEPTUAL PARK DESIGN



INSET - PROPOSED STORM DRAIN PIPES TO BE UP-SIZED
SEE SHEET 07 FOR CONTINUATION



INSET - PROPOSED COMMUNITY PARK & CONTINUATION OF STORM PIPES TO BE UP-SIZED
SEE SHEET 40 FOR CONCEPTUAL PARK DESIGN



No.	DATE	REVISIONS DESCRIPTION

PLAN DATE
12-13-11
2-2-12
6-25-12
7-18-12
7-25-12
11-29-12
08-23-13
09-13-13
10-07-13

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Tracers Engineers Landscape Architects Land Surveyors

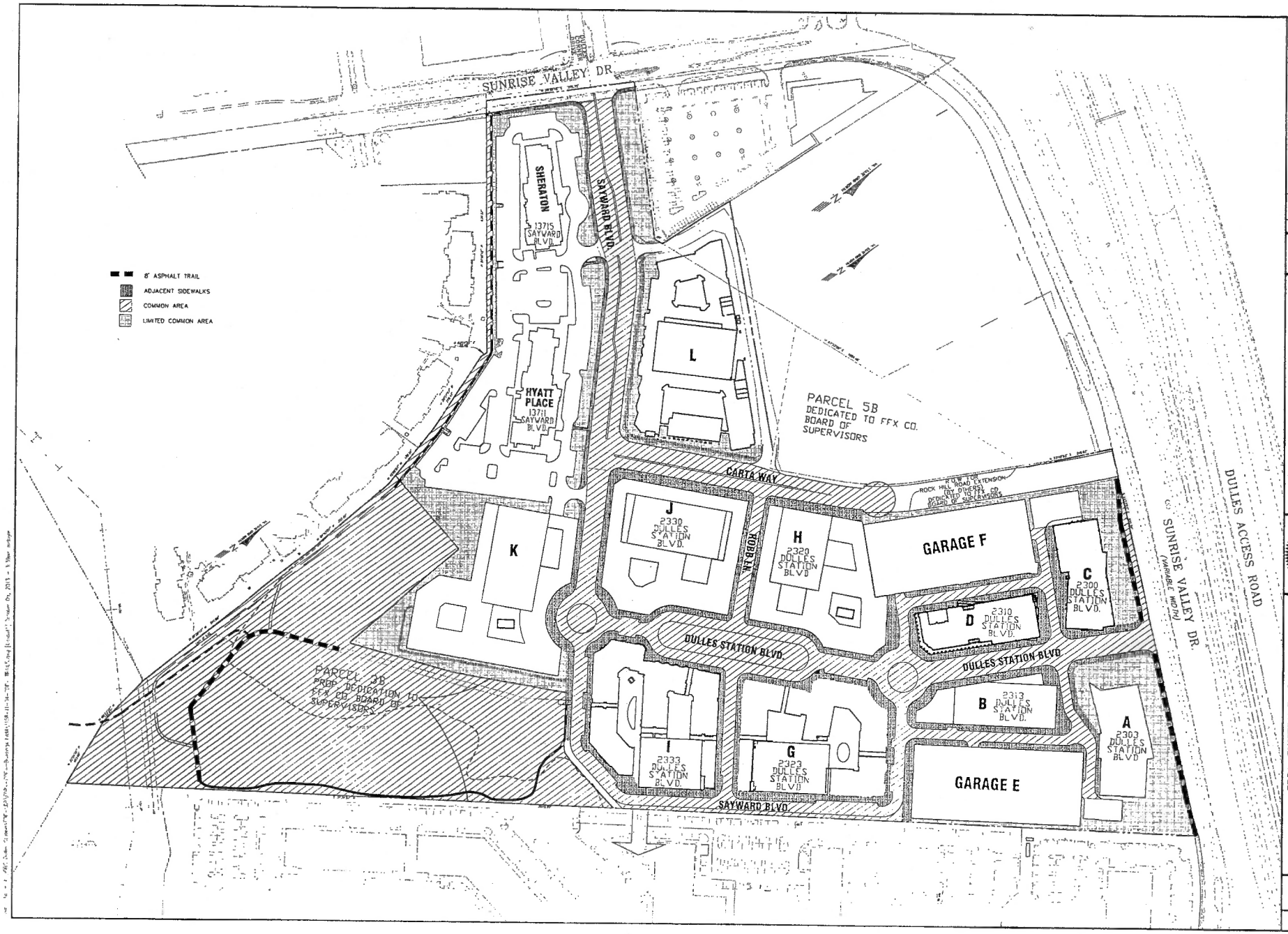
COMMONWEALTH OF VIRGINIA
Carlos E. Tosca
Lic. No. 028700
PROFESSIONAL ENGINEER

EXISTING CONDITIONS
DULLES STATION
PARCEL 5A
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: 1"=30'
C.I.#: 2
DATE: DEC. 2011

SHEET
05
OF
41

FILE No
SP-1158-12



No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
12-15-11
7-2-12
6-29-12
7-18-12
7-19-12
11-29-12
08-23-13
09-13-13
10-07-13

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COMMONWEALTH OF VIRGINIA
Clifton C. Tyler
Lic. No. 026790
PROFESSIONAL ENGINEER

CDPA - EXISTING TRAILS
DULLES STATION
PARCEL 5A
ORANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: 1"=100'
C1a-3'
DATE: DEC. 2011

SHEET
06
OF
41

FILE No
SP-1158-12

T.M. #015-4-05-0005B
FAIRFAX COUNTY BOARD OF SUPERVISORS
DB. 19125 PG 1512
ZONING: PDC
USE: VACANT
FUTURE METRO GARAGE (T.B.D.)

PROPOSED FUTURE ROAD BY OTHERS

FUTURE ROAD ALIGNMENT AND GEOMETRY SHOWN FOR INFORMATIONAL PURPOSES ONLY. ALIGNMENT AND GEOMETRY SUBJECT TO CHANGE PER FINAL DESIGN BY OTHERS.

T.M. #015-2-01-0013
NUGGET JOINT VENTURE, L.C.
DB. 9500 PG. 1070
ZONING: PDC
USE: VACANT
FUTURE NUGGET DEVELOPMENT

T.M. #015-2-01-0014
BDC DULLES CORPORATE LLC
DB. 20853 PG. 1601
ZONING: C-3
USE: OFFICE

PARCEL 5A
DULLES STATION AT DULLES CORNER
OWNER: DULLESROCKHILL PARTNERS LP
T.M. #015-4-05-0005A
DB. 19672 PG. 1495
AREA = 186,802 S.F. OR 4.2888 ACRES

CONCEPTUAL COURTYARD LAYOUT

EX. CAMEN APARTMENTS

ROBB LANE

CARTER WAY (FORMERLY HOCK HILL ROAD)

SAYWARD BLVD.

PARCEL 8
DB 11642 PG 907
DB 13416 PG 391

MATCHLINE SEE SHEET 06

REVISIONS		
No.	DATE	DESCRIPTION
1	12-12-11	
2	2-7-12	
3	3-9-12	
4	5-7-12	
5	11-26-12	
6	12-19-12	
7	03-19-13	
8	10-07-13	

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COMMONWEALTH OF VIRGINIA
LICENSED PROFESSIONAL ENGINEER

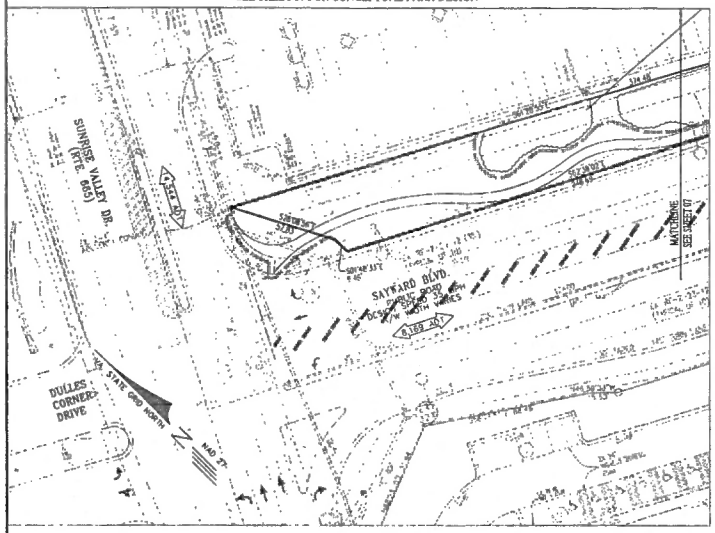
CDP-FDP - GEOMETRY PLAN
DULLES STATION
PARCEL 5A
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: 1"=30' | C.L.N/A | DATE: DEC. 2011

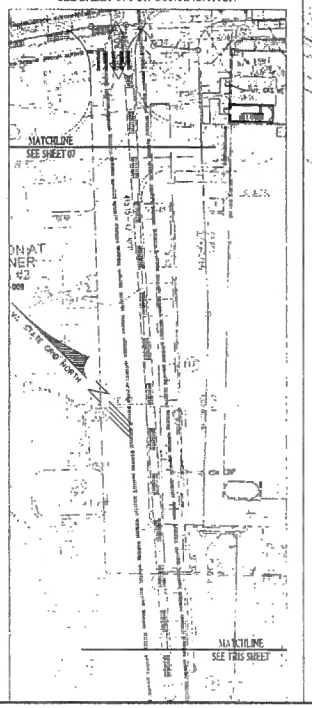
SHEET 07 OF 41

FILE No. SP-115K-12

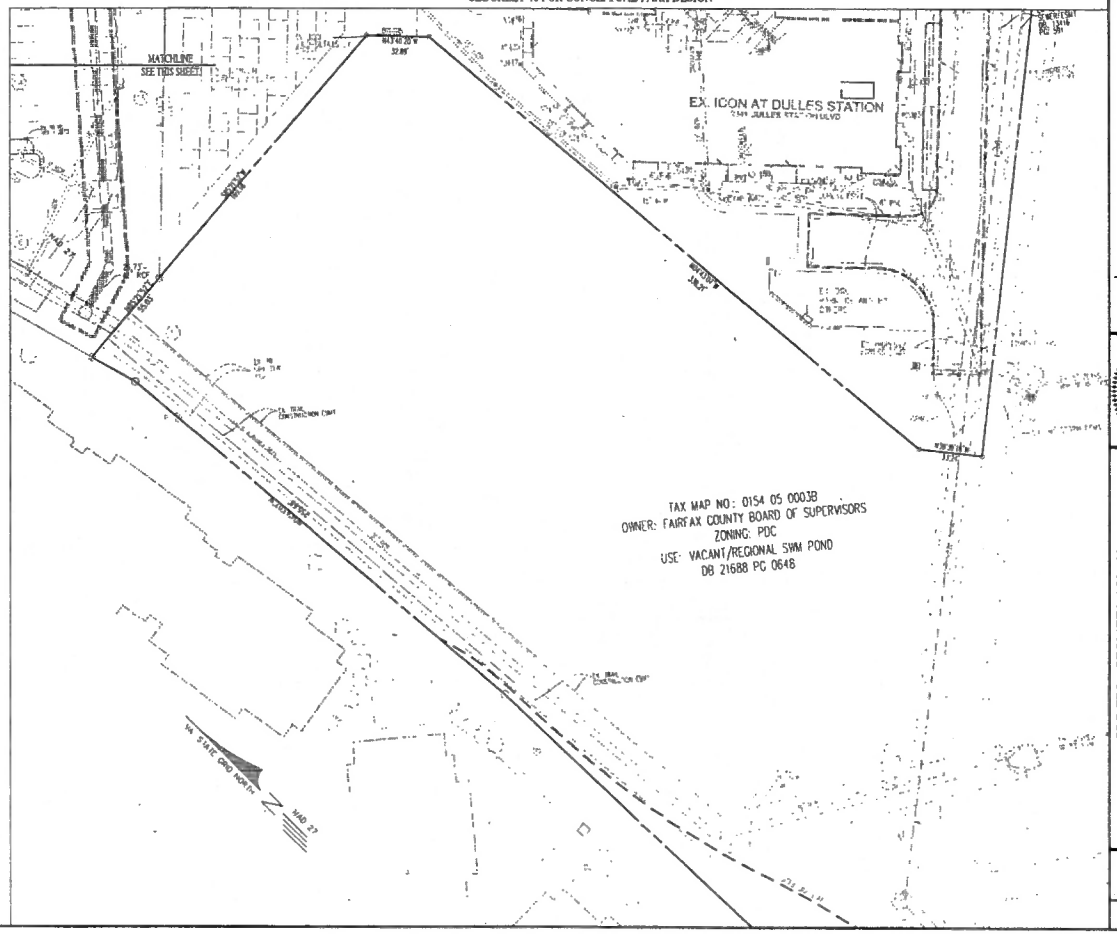
INSET - PROPOSED LINEAR PARK
SEE SHEET 37 FOR CONCEPTUAL PARK DESIGN



INSET - PROPOSED STORM DRAIN PIPES TO BE UP-SIZED
SEE SHEET 07 FOR CONTINUATION



INSET - PROPOSED COMMUNITY PARK & CONTINUATION OF STORM PIPES TO BE UP-SIZED
SEE SHEET 40 FOR CONCEPTUAL PARK DESIGN



No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
12-13-11
7-2-12
4-20-12
5-18-12
7-19-12
11-29-12
08-28-13
09-23-13
10-07-13

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COMMONWEALTH OF VIRGINIA
Lance C. Gaza
Lic. No. 028790
9/7/12
PROFESSIONAL ENGINEER

CDP-FDP - GEOMETRY PLAN

DULLES STATION
PARCEL 5A
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: 1"=50'
C.I.= N/A
DATE: DEC. 2011

SHEET
08
OF
41

FILE No
SP-1158-12

T.M. #015-4-05-0005B
FAIRFAX COUNTY BOARD OF SUPERVISORS
DB 19125 PG. 1512
ZONING: PDC
USE: VACANT
FUTURE METRO GARAGE (T.B.D.)

PROPOSED FUTURE ROAD BY OTHERS

PROPOSED RESERVATION FOR FUTURE DEDICATION TO NUGGET (PARCEL 5A PART) (22,271 SF)

FUTURE ROAD ALIGNMENT AND GEOMETRY SHOWN FOR INFORMATIONAL PURPOSES ONLY. ALIGNMENT AND GEOMETRY SUBJECT TO CHANGE PER FINAL DESIGN BY OTHERS.

PROPOSED FUTURE ROAD BY OTHERS

T.M. #015-2-01-0013
NUGGET JOINT VENTURE, LLC
DB. 9500 PG. 1070
ZONING: PDC
USE: VACANT
FUTURE NUGGET DEVELOPMENT

T.M. #015-7-01-0014
BDC DULLES CORPORATE LLC
DB. 20853 PG. 1601
ZONING: C-3
USE: OFFICE

PARCEL 5A
DULLES STATION AT DULLES CORNER
OWNER: DULLES ROCKHILL PARTNERS LP
T.M. #015-4-05-0005A
DB. 19672 PG. 1495
AREA = 196,862 S.F. OR 4.2008 ACRES

CONCEPTUAL COURTYARD LAYOUT

EX. CAMDEN APARTMENTS

ROBB LANE

CARTER WAY (FORMERLY ROCKHILL ROAD)

SAYWARD BLVD.

PARCEL 8
DB 11647 PG 907
DB 13416 PG 591

MATCHLINE SEE SHEET 10

REVISIONS		
NO.	DATE	DESCRIPTION
1	10-13-11	
2	2-10-12	
3	4-25-12	
4	5-15-12	
5	6-1-12	
6	8-3-12	
7	04-23-13	
8	06-25-13	
9	08-09-13	
10	10-09-13	

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COMMONWEALTH OF VIRGINIA
CLAYTON C. ROCK
LIC. NO. 2202
PROFESSIONAL ENGINEER

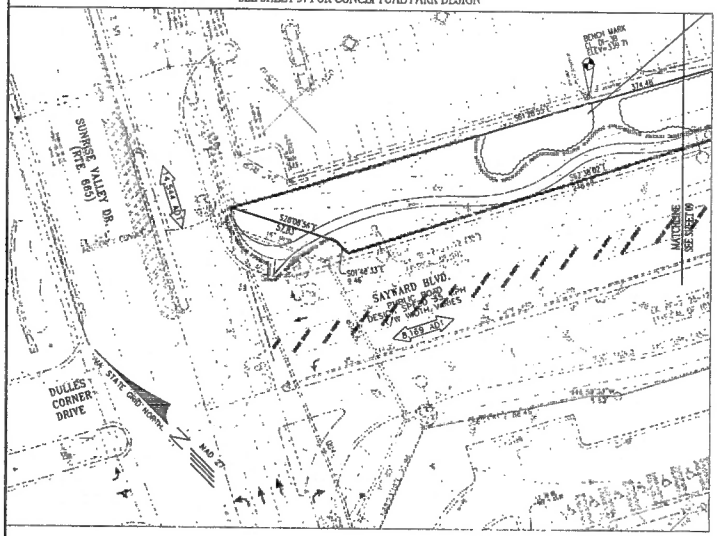
CDP-FDP - GRADING PLAN
DULLES STATION
PARCEL 5A
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: 1"=30' | DATE: DEC. 2011

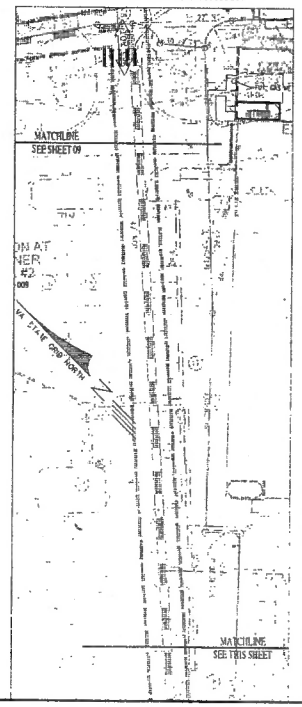
SHEET 09 OF 41

FILE No. SP-1158-12

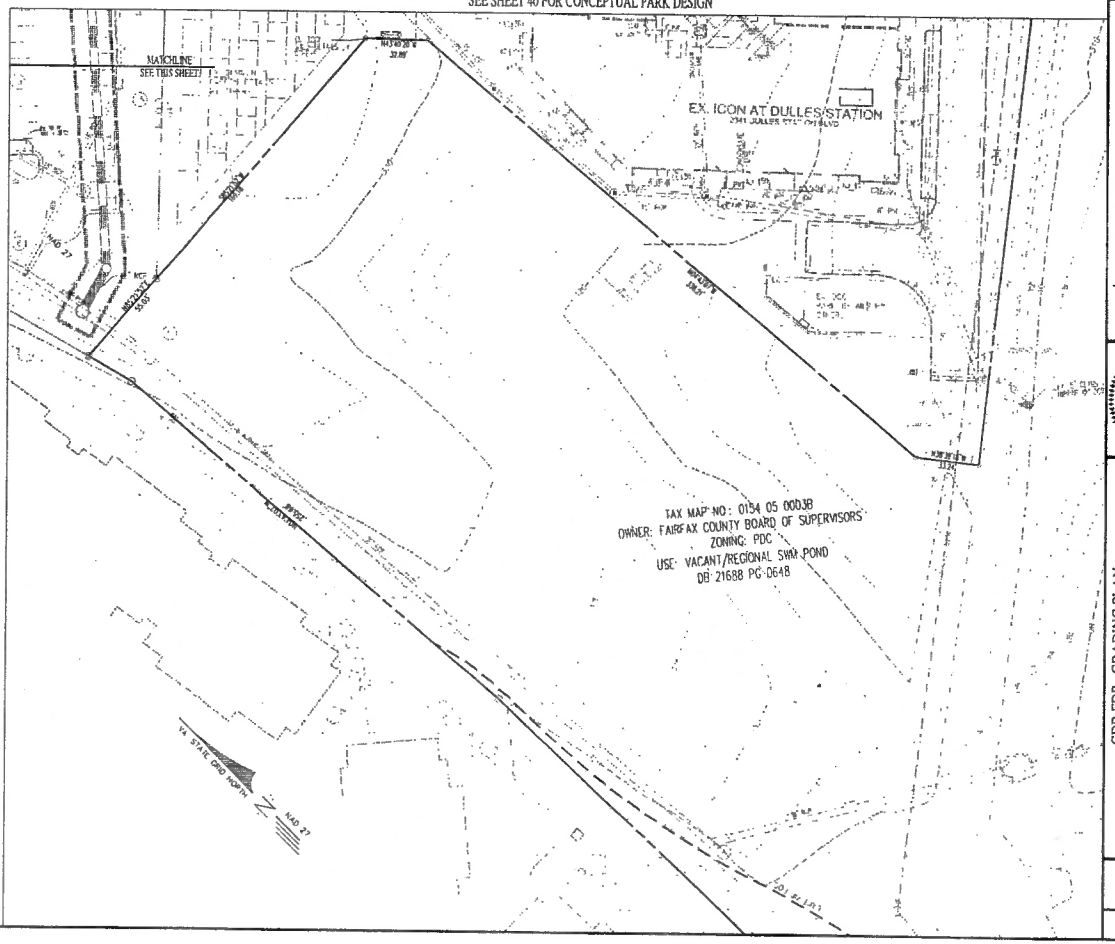
INSET - PROPOSED LINEAR PARK
SEE SHEET 37 FOR CONCEPTUAL PARK DESIGN



INSET - PROPOSED STORM DRAIN PIPES TO BE UP-SIZED
SEE SHEET 07 FOR CONTINUATION



INSET - PROPOSED COMMUNITY PARK & CONTINUATION OF STORM PIPES TO BE UP-SIZED
SEE SHEET 40 FOR CONCEPTUAL PARK DESIGN



No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
12-13-11
1-27-12
2-2-12
4-20-12
6-15-12
7-19-12
11-29-12
06-25-13
09-04-13
10-07-13

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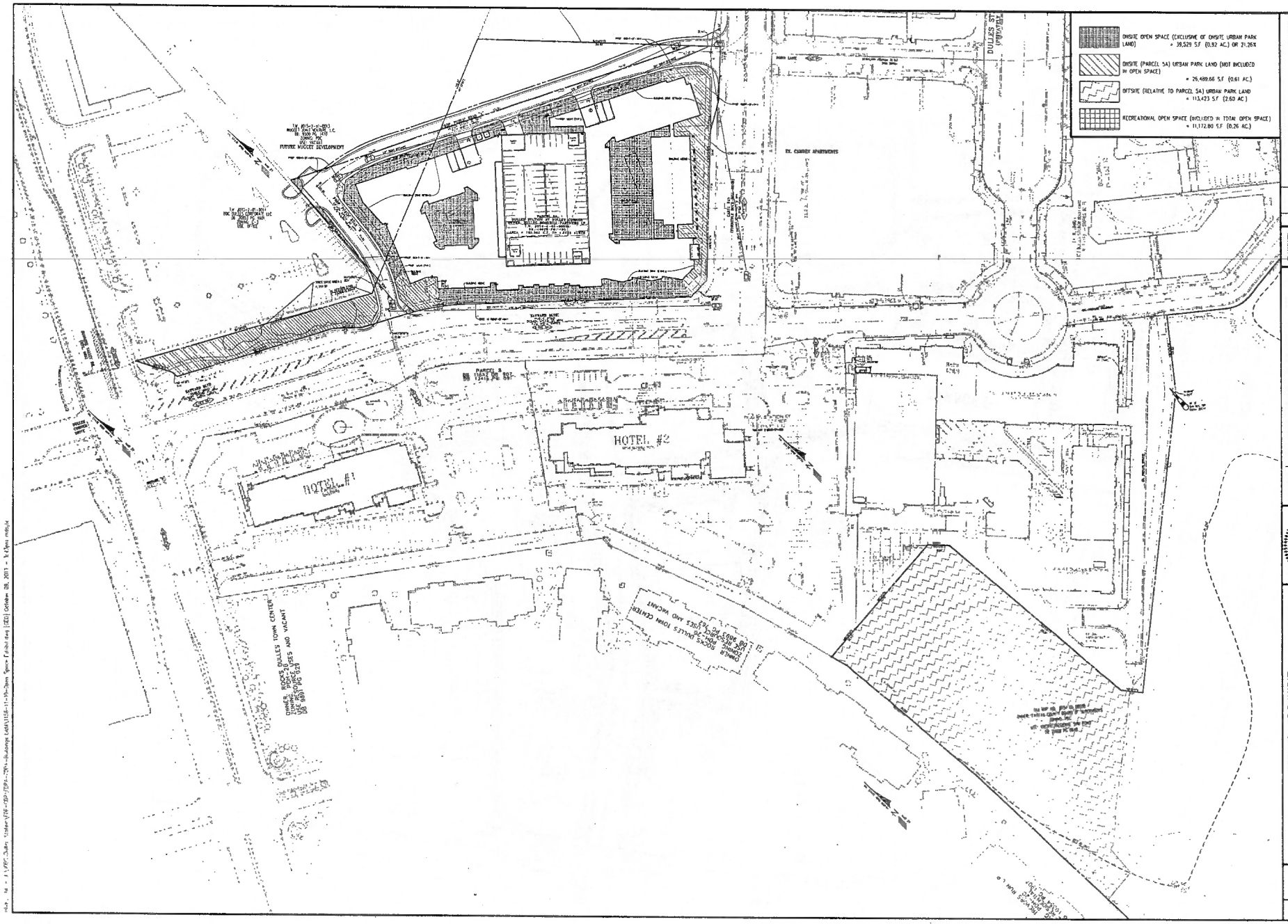
COMMONWEALTH OF VIRGINIA
CLAYTON C. FOX
LIC. NO. 029710
PROFESSIONAL ENGINEER

CDP-FDP - GRADING PLAN
DULLES STATION
PARCEL 5A
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: 1"=40' | C.L.= 1' | DATE: DEC. 2011

SHEET 10 OF 41

FILE No. SP-1158-12



No.	DATE	DESCRIPTION
		REVISIONS

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CLAYTON C. TRICK
LANDSCAPE ARCHITECT
PROFESSIONAL ENGINEER

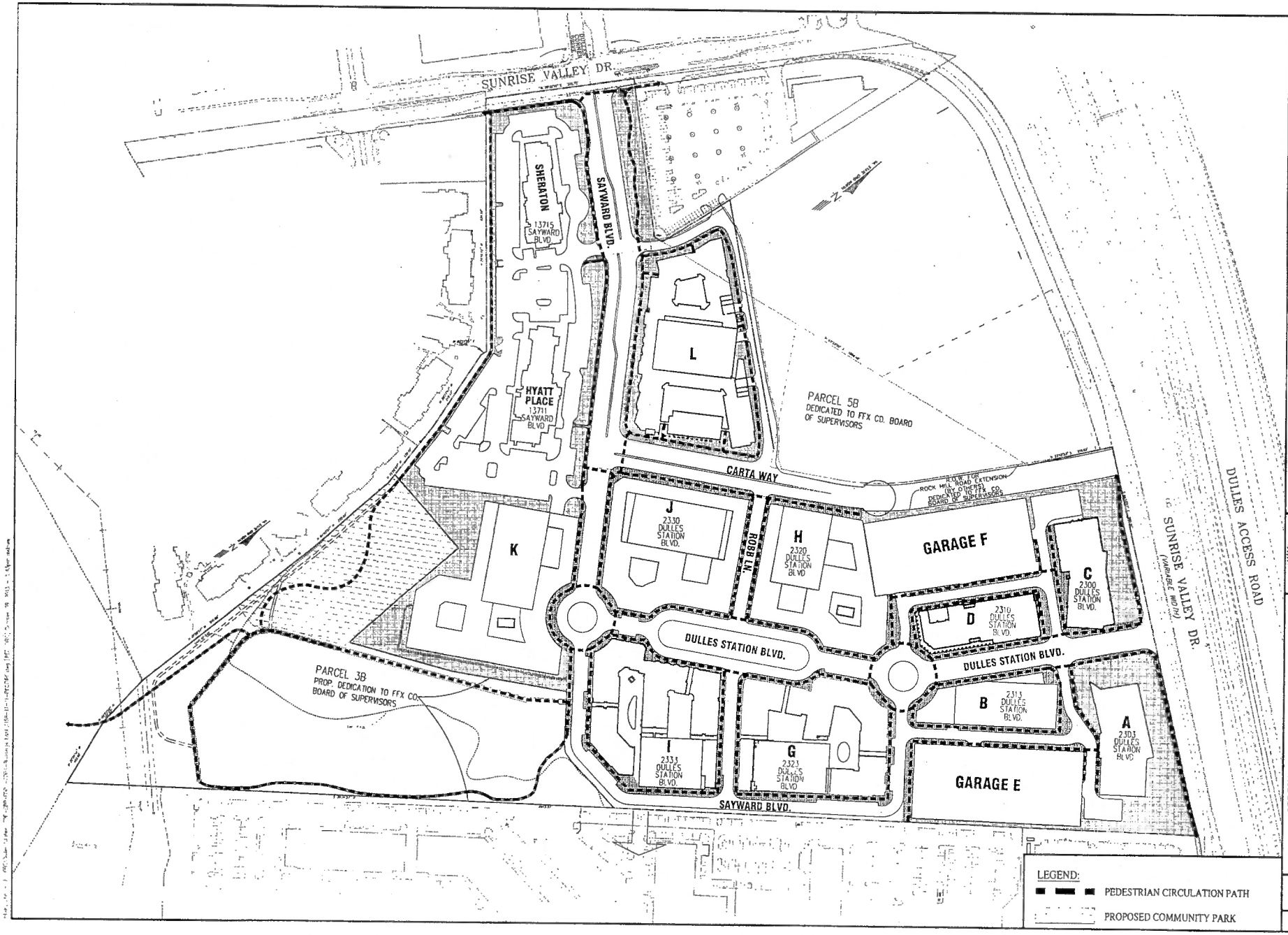
OPEN SPACE EXHIBIT

DULLES STATION
PARCEL 5A
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: 1"=50' | C.I.= N/A | DATE: DEC., 2011

SHEET 11 OF 41

FILE No SP-1158-12



No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
12-14-11
4-20-12
7-13-12
8-3-12
8-31-12
08-28-13
09-13-13
09-27-13

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COMMONWEALTH OF VIRGINIA
PROFESSIONAL ENGINEER

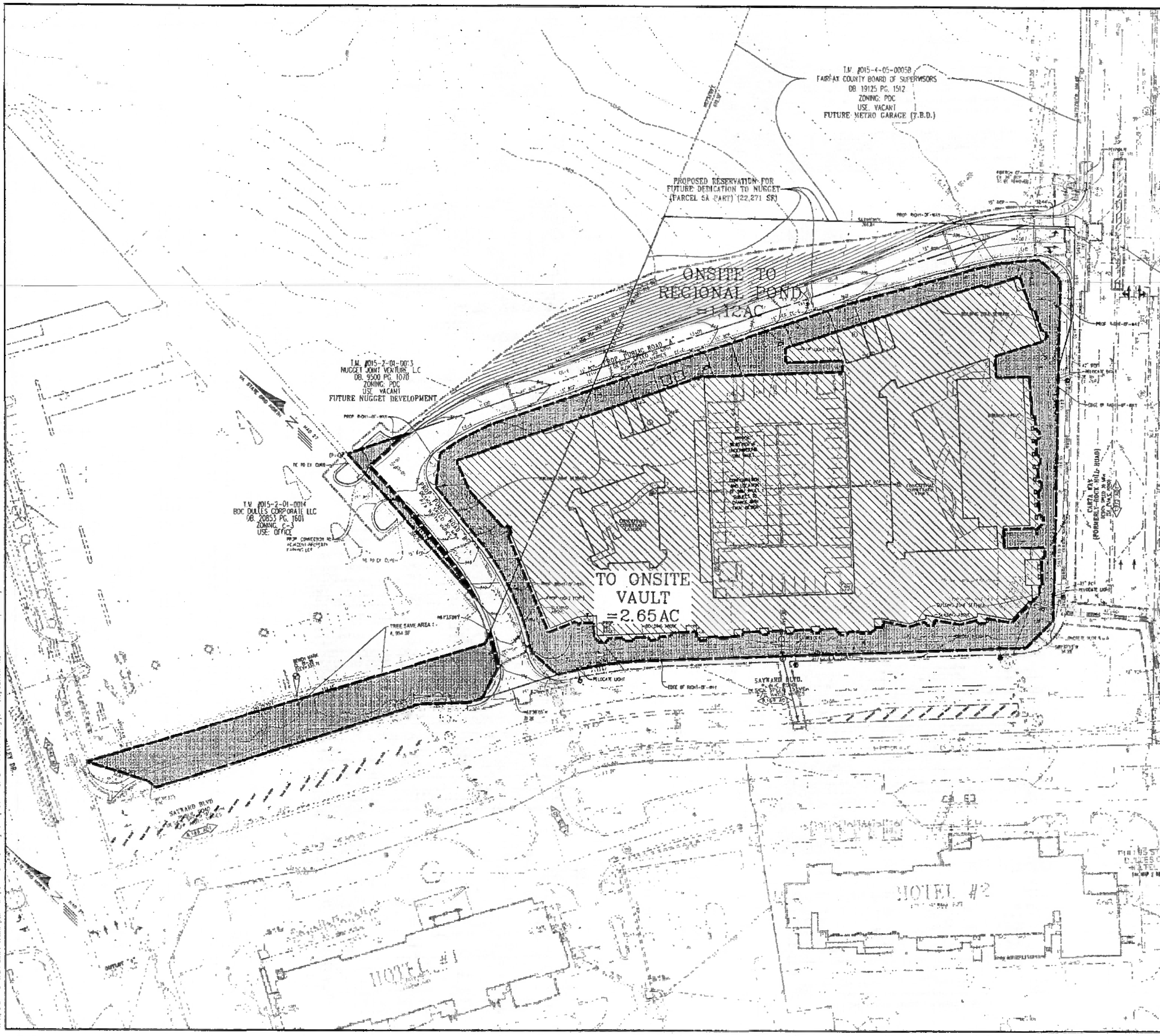
PEDESTRIAN CIRCULATION PLAN

DULLES STATION
PARCEL 5A
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: 1"=100'
C1-2
DATE: DEC. 2011

SHEET 12 OF 41

FILE No. SP-1158-12



S.W.M. NARRATIVE

OFFSITE SWM / BMP POND

THE SUBJECT SITE IS LOCATED ON FAIRFAX COUNTY TAX MAP 015-4-((5))-0005A AND A PORTION OF 015-2-((1))-0013. THE SITE WAS PART OF THE ORIGINAL DRAINAGE AREA FOR THE REGIONAL POND WHICH WAS BEEN CONSTRUCTED ON PARCEL 3 AS SHOWN IN THE EXHIBIT ON SHEET 19. A TOTAL OF 3.75 ACRES WILL BE COLLECTED IN THE CLOSED CONDUIT SYSTEM THROUGHOUT PARCEL 5A, AND CONVEYED TO THE EXISTING REGIONAL POND LOCATED ON PARCEL 3. THE CLOSED CONDUIT SYSTEM WITHIN PARCEL 5A WILL BE DESIGNED AND CONSTRUCTED UNDER A SITE PLAN FOR THE PROPOSED BUILDINGS. THE CLOSED CONDUIT SYSTEM WILL BE PIPED FROM PARCEL 5A, ACROSS SAYWARD BLVD., BEHIND BUILDING K, AND CONNECT TO THE EXISTING 30" RCP UNDER THE POND ACCESS ROAD. THE RUNOFF INTERCEPTED BY THESE INLETS IS CONVEYED WITH A CLOSED CONDUIT SYSTEM, WHICH ULTIMATELY DISCHARGES INTO THE POND VIA A 54" RCP. THE 54" RCP INLET PIPE WAS PROPOSED WITH 6848-SP-05.

THE EXISTING REGIONAL POND WAS DESIGNED UNDER FAIRFAX COUNTY PLAN NUMBER 6848-PI-02. THE POND WAS DESIGNED TO CONTROL A TOTAL DRAINAGE AREA OF 116.95 ACRES. THE POND WAS DESIGNED TO HANDLE THE INTENSIVE IMPERVIOUS AREA THAT THE SUBJECT PARCELS HAVE PROPOSED ALONG WITH THE OTHER DEVELOPMENT THROUGHOUT DULLES STATION. THIS IS EVIDENT BY THE CURVE NUMBER EVALUATION ON SHEET 5 OF 6848-PI-02. A CURVE NUMBER OF 57.9 WAS USED FOR EXISTING CONDITIONS, WHEREAS A 91.60 WAS USED FOR POST DEVELOPMENT CONDITIONS. THE PRE DEVELOPMENT 2, 10, AND 25 YEAR RUNOFFS FOR THE DRAINAGE DIVIDE ARE 20.69 CFS, 127.39 CFS, AND 182.34 CFS RESPECTIVELY. THE POST DEVELOPMENT 2, 10, AND 25 YEAR OUTFLOWS FROM THE POND ARE 20.20 CFS, 123.99 CFS, AND 188.22 CFS. THE 100-YEAR WATER SURFACE ELEVATION FOR THE EXISTING POND IS 312.97. THE OUTFLOW FROM THE POND IS CONTROLLED BY A COMBINED OUTFLOW STRUCTURE. THE OUTFLOW FROM THE POND IS CONVEYED TO HORSEPEN CREEK VIA DUAL 0'X7' BOX CULVERTS. THE OUTFLOW FROM THE BOX CULVERT ENTERS AN EXISTING FLOODPLAIN IN HORSEPEN CREEK, FOR WHICH A FLOODPLAIN STUDY WAS PERFORMED FOR THE PROPOSED IMPROVEMENTS (6848-FP-02). WE FEEL THE EXISTING POND SERVES AS AN ADEQUATE OUTFALL FOR THE SUBJECT SITE. SEE SHEET 17-22 FOR ADDITIONAL DETAILS REGARDING THE EXISTING REGIONAL POND AND ASSOCIATED CALCULATIONS.

S.W.M. NARRATIVE

ONSITE SWM VAULT

IN ADDITION TO THE MINIMUM REQUIREMENTS FOR SWM AND BMP'S PROVIDED BY THE EXISTING REGIONAL STORMWATER MANAGEMENT FACILITY, THE APPLICANT IS PROPOSING TO REDUCE THE PEAK RELEASE RATE AND VOLUME FOR THE 1 AND 2 YEAR, 24 HOUR STORM FROM THE POST DEVELOPED CONDITION TO BE EQUAL OR LESS THAN THE EXISTING CONDITION FOR THE SAME STORMS. THE APPLICANT IS ALSO PROPOSING TO CONTROL THE STORMWATER RUNOFF ASSOCIATED WITH THE DEVELOPMENT SUCH THAT THE FIRST ONE (1) INCH OF RAINFALL IS REUSED OR TREATED IN A MANNER THROUGH WHICH 80% OF THE AVERAGE ANNUAL POST-DEVELOPMENT TOTAL SUSPENDED SOLIDS ARE REMOVED. CALCULATIONS ARE PROVIDED FOR THESE REQUIREMENT SHEET 14.

NOTE:
THIS MAP AND THE DIVIDES AND AREAS SHOWN THEREIN SHOW THE RETENTION OF THE VOLUME OF THE 2 YEAR, 24 HOUR STORM AND THE FIRST 1" OF RUNOFF (SEE SUPPORTING COMPUTATIONS ON SHEET 14). THE 2 YEAR AND 10 YEAR STORMWATER RUNOFF QUANTITY AND QUALITY IS TREATED BY THE EXISTING REGIONAL POND ON PARCEL 3. THE REGIONAL POND WAS DESIGNED BASED ON THE FINAL BUILDOUT OF THE SUBJECT SITE. SEE THE SUPPORTING COMPUTATIONS ON SHEETS 15-22.

LEGEND:

- ONSITE CONTROLLED
- ONSITE UNCONTROLLED
- DRAINAGE DIVIDE

NO.	DATE	DESCRIPTION

REVISIONS

PLAN DATE
12-13-11
2-2-12
4-20-12
6-12-12
7-19-12
8-3-12
11-29-12
08-25-13
08-19-13
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COMMONWEALTH OF VIRGINIA
CLAYTON C. TOCK
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PROFESSIONAL ENGINEER

STORMWATER MANAGEMENT PLAN
DULLES STATION
PARCEL 5A
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: 1"=30' | C.I.=2' | DATE: DEC., 2011

SHEET 13 OF 41

FILE No. SP-1158-12

Catchment Detailed Report: Suberea 1

<General>			
ID	32	Notes	
Label	Subarea 1	Hyperlinks	<Collection: 0 items>
Runoff			
Runoff Method	Unit Hydrograph	SCS CN (Composite)	74.000
Loss Method	SCS CN	Unit Hydrograph Method	SCS Unit Hydrograph
Use Scaled Area?	False	Tc Input Type	Composite Tc
Area (User Defined)	4.270 acres	Time of Concentration (Composite)	0.100 hours
CN Input Type	Composite CN		

CN Area Collection

Description	CN	Area (acres)	Percent Connected Impervious Area (%)
Open space (Lawns parks etc.) - Good condition, grass cover > 75% - Soil C	74.000	4.270	0.0

Percent Unconnected Impervious Area (%): 0.0

Tc Data Collection			
User Defined Tc			
Time of Concentration	0.100 hours		
Unit Hydrograph (Advanced)			
SCS Unit Hydrograph Method	Default Curvilinear	Use Directly Connected Impervious Area	False
Flow (Base)	0.00 ft³/s	Calculation Increment (Catchment)	0.000 hours
Results (Computed)			
Computational Time Increment	0.013 hours	Time to Peak (Computed)	11.947 hours
Flow (Peak, Computed)	6.49 ft³/s		
Results (Interpolated)			
Flow (Peak Interpolated Output)	6.49 ft³/s	Time to Flow (Peak Interpolated Output)	11.950 hours
Volume	16,079.000 ft³		
Results (SCS Unit Hydrograph)			
Unit Hydrograph Shape Factor	483.432	Unit peak time, Tp	0.067 hours
K Factor	0.749	Unit receding limb, Tr	0.267 hours
Receding/Rising, Tr/Tp	1.670	Total unit time, Tb	0.333 hours
Unit peak, qp	48.38 ft³/s	Percent Volume under Rising Limb	37.5 %
Results			
Flow (Total)	0.00 ft³/s	Flow (Peak) + Flow (Base)	6.49 ft³/s
Results			
Cumulative Runoff Depth (Pervious)	1.0 in	Maximum Retention (Pervious)	3.5 in
Runoff Volume (Impervious)	0.000 ft³	Maximum Retention (Pervious, 20 percent)	0.7 in
Runoff Volume (Pervious)	16,082.385 ft³	Maximum Retention (Impervious)	(N/A) in
Cumulative Runoff Depth (Impervious)	0.0 in	Maximum Retention (Impervious, 20 percent)	(N/A) in

Catchment Detailed Report: Subarea 1

<General>			
ID	32	Notes	
Label	Subarea 1	Hyperlinks	<Collection: 0 items>
Runoff			
Runoff Method	Unit Hydrograph	SCS CN (Composite)	94.000
Loss Method	SCS CN	Unit Hydrograph Method	SCS Unit Hydrograph
Use Scaled Area?	False	Tc Input Type	Composite Tc
Area (User Defined)	4.270 acres	Time of Concentration (Composite)	0.100 hours
CN Input Type	Composite CN		

CN Area Collection

Description	CN	Area (acres)	Percent Connected Impervious Area (%)
Urban Districts - Commercial & Business - Soil C	94.000	4.270	0.0

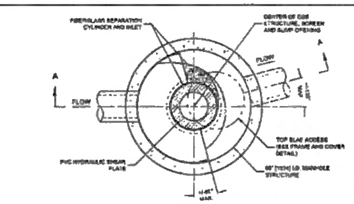
Percent Unconnected Impervious Area (%): 0.0

Tc Data Collection			
User Defined Tc			
Time of Concentration	0.100 hours		
Unit Hydrograph (Advanced)			
SCS Unit Hydrograph Method	Default Curvilinear	Use Directly Connected Impervious Area	False
Flow (Base)	0.00 ft³/s	Calculation Increment (Catchment)	0.000 hours
Results (Computed)			
Computational Time Increment	0.013 hours	Time to Peak (Computed)	11.933 hours
Flow (Peak, Computed)	15.74 ft³/s		
Results (Interpolated)			
Flow (Peak Interpolated Output)	15.28 ft³/s	Time to Flow (Peak Interpolated Output)	11.950 hours
Volume	39,429.000 ft³		
Results (SCS Unit Hydrograph)			
Unit Hydrograph Shape Factor	483.432	Unit peak time, Tp	0.067 hours
K Factor	0.749	Unit receding limb, Tr	0.267 hours
Receding/Rising, Tr/Tp	1.670	Total unit time, Tb	0.333 hours
Unit peak, qp	48.38 ft³/s	Percent Volume under Rising Limb	37.5 %
Results			
Flow (Total)	0.00 ft³/s	Flow (Peak) + Flow (Base)	15.74 ft³/s
Results			
Cumulative Runoff Depth (Pervious)	2.5 in	Maximum Retention (Pervious)	0.6 in
Runoff Volume (Impervious)	0.000 ft³	Maximum Retention (Pervious, 20 percent)	0.1 in
Runoff Volume (Pervious)	39,430.265 ft³	Maximum Retention (Impervious)	(N/A) in
Cumulative Runoff Depth (Impervious)	0.0 in	Maximum Retention (Impervious, 20 percent)	(N/A) in

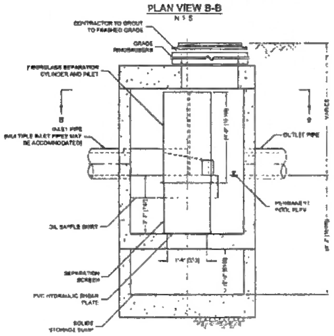
DETENTION VOLUME CALCULATIONS	
Required Detention for 1st One (1) inch of Rainfall	
Effective Site Area = 4.27 ac =	186,001.20 sf
1st one (1) inch of rainfall = (181,206.60 sf)(0.0833 ft) =	15,500.04 cf
Required Detention for 2-Year, 24 Hour Storm	
Pre-Development Runoff =	16,082.48 cf
Post-Development Runoff =	39,430.27 cf
Required Minimum Detention Volume =	23,347.87 cf
Proposed Detention Volume =	23,460.00 cf

TOTAL SUSPENDED SOLIDS (TSS) CALCULATIONS	
Onsite Detained Area for Reuse =	2.65 ac
TSS Removal Rate for Onsite Detention =	100 %
Onsite Undetained Area to Existing Regional Pond =	1.62 ac
TSS Removal Rate for Offsite Pond	50 %*
Total TSS Removal = = [(2.65 ac)(1.0) + (1.73 ac)(0.50)] / 4.35 ac =	81.03 %

* A TSS Removal of 50% has been taken from the latest addition of the LEED Reference Guide for Green Building and Construction based on the existing ponds storage volume, detention time, and pond shape



PLAN VIEW B-B
N.T.S



ELEVATION A-A
N.T.S

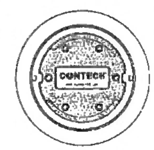
CDS

CDS2020-5-C DESIGN NOTES

CDS2020-5-C RATED TREATMENT CAPACITY IS 1.1 CFS [31 L/s], OR PER LOCAL REGULATIONS. MAXIMUM HYDRAULIC INTERNAL BYPASS CAPACITY IS 14.0 CFS [396 L/s]. IF THE SITE CONDITIONS EXCEED 14.0 CFS [396 L/s], AN UPSTREAM BYPASS STRUCTURE IS REQUIRED.

THE STANDARD CDS2020-5-C CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.

CONFIGURATION DESCRIPTION
GRATED INLET ONLY (NO INLET PIPE)
GRATED INLET WITH INLET PIPE OR PIPES
CURB INLET ONLY (NO INLET PIPE)
CURB INLET WITH INLET PIPE OR PIPES
SEPARATE OIL BAFFLE (SINGLE INLET PIPE REQUIRED FOR THIS CONFIGURATION)
SEDIMENT WEIR FOR NJDEP / NJCAT CONFORMING UNITS



FRAME AND COVER
(DIAMETER VARIES)
N.T.S

SITE SPECIFIC DATA REQUIREMENTS			
STRUCTURE ID			
WATER QUALITY FLOW RATE (CFS OR L/s)	*		
PEAK FLOW RATE (CFS OR L/s)	*		
RETURN PERIOD OF PEAK FLOW (YRS)	*		
SCREEN APERTURE (2400 OR 4700)	*		
PIPE DATA	I.E.	MATERIAL	DIAMETER
INLET PIPE 1	*	*	*
INLET PIPE 2	*	*	*
OUTLET PIPE	*	*	*
RIM ELEVATION	*		
ANTI-FLOTATION BALLAST		WIDTH	HEIGHT
		*	*
NOTES/SPECIAL REQUIREMENTS:			
* PER ENGINEER OF RECORD			

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
3. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.contechES.com
4. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
5. STRUCTURE SHALL MEET AASHTO HS20 AND CASTINGS SHALL MEET HS20 (AASHTO M 306) LOAD RATING, ASSUMING GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION.
6. PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.

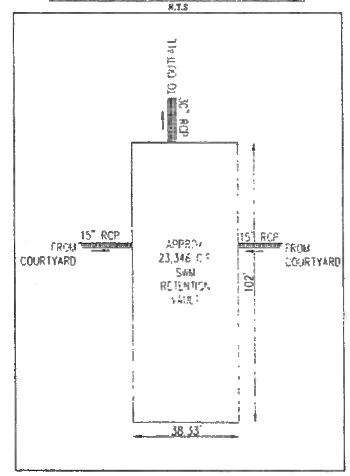
INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE (LIFTING CLUTCHES PROVIDED).
C. CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

CONTECH ENGINEERED SOLUTIONS LLC
www.contechES.com

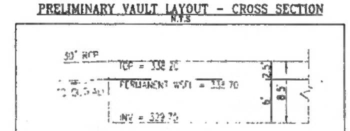
CDS2020-5-C
INLINE CDS
STANDARD DETAIL

NOTE: AT LEAST ONE CBS UNIT TO BE UTILIZED WITH THIS DEVELOPMENT

PRELIMINARY VAULT LAYOUT - PLAN VIEW
N.T.S



PRELIMINARY VAULT LAYOUT - CROSS SECTION
N.T.S



* PROPOSED UNDERGROUND RETENTION VAULT TO BE PLACED IN VOID SPACE BENEATH GARAGE RAMP. VAULT DIMENSIONS, ARCHITECTURAL DESIGN OF GARAGE RAMP AND FOOTPRINT AND LOCATION OF VAULT ARE SHOWN FOR PRELIMINARY PURPOSES AND ARE SUBJECT TO CHANGE WITH FINAL SITE PLAN SUBMISSION

No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE: 12-13-11, 2-2-12, 4-20-12, 6-12-12, 7-19-12, 8-3-12, 11-29-12, 06-25-13, 08-19-13, 10-07-13

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COMMONWEALTH OF VIRGINIA
CLAYTON C. TOCK
Lic. No. 026790
10/7/13
PROFESSIONAL ENGINEER

STORMWATER MANAGEMENT COMPUTATIONS
DULLES STATION PARCEL 5A
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: 1"=100' | C.I.= 2' | DATE: DEC., 2011

SHEET 14 OF 41

FILE No. SP-1158-12

urban

No.	DATE	DESCRIPTION
1	12-12-11	
2	1-2-12	
3	1-20-12	
4	2-6-12	
5	4-9-12	
6	11-26-12	
7	03-22-13	
8	06-07-13	

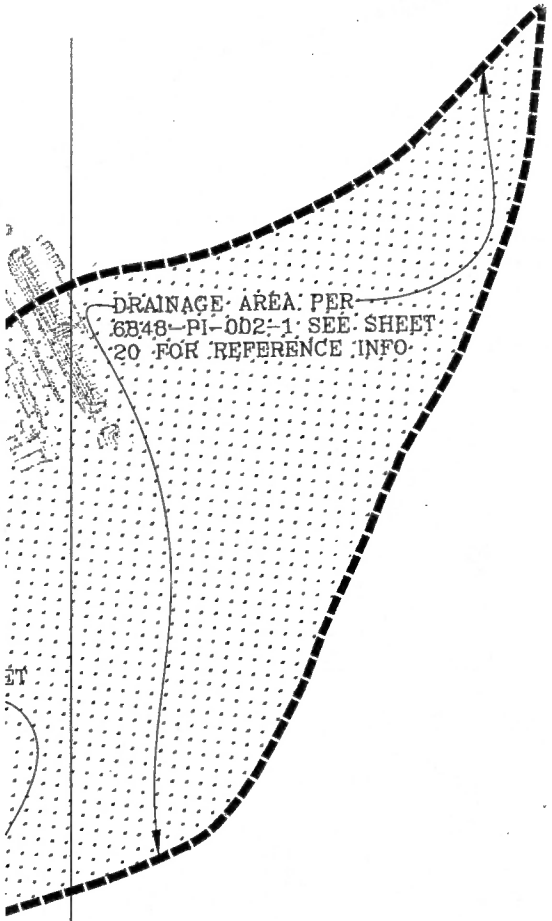
OFFSITE STORMWATER MANAGEMENT PLAN

DULLES STATION
PARCEL 5A
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: 1"=100' | C.I.= 2' | DATE: DEC. 2011

SHEET 15 OF 41

FILE No. SP-1158-12



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 (9-011 2J & 2L)	Special Exceptions (9-011 2J & 2L)
Cluster Subdivisions (9-615 1G & 1W)	Commercial Revitalization Districts (9-622 3A (12) & (14))
Development Plans PRC District (16-302 3 & 4L)	PRC Plan (16-303 1E & 1O)
PDH P Districts (except PRC) (16-302 1F & 1Q)	Amendments (16-302 1HF & 1HI)

☒ 1. Plat is at a minimum scale of 1"=50' (unless it is depicted on one sheet with a enlargement scale of 1"=100').

☒ 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 23.

☒ 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)
HIGGINS POND (#69)	4.27 AC	113.20 AC	117.47 AC	248,722 SF	248,722 SF	18.4
Totals						

☒ 4. Onsite drainage channels, outfalls and pipe systems are shown on Sheet ____. Pond inlet and outlet pipe systems are shown on Sheet 23.

☒ 5. Maintenance access (road) to stormwater management facility(ies) are shown on Sheet 23. Type of maintenance access road surface noted on the plan is 22 (asphalt, paddock, gravel, etc.)

☒ 6. Landscaping and tree preservation shown in and near the stormwater management facility is shown on Sheet 23.

☒ 7. A "stormwater management narrative" which contains a description of how detention and best management practices requirements will be met is provided on Sheet 23.

☒ 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 23.**

☒ 9. A description of how the outfall requirements, including contributing drainage areas of the Public Facilities Manual will be satisfied is provided on Sheet 23.

☒ 10. Existing topography with minimum contour intervals of two (2) feet and a note as to whether it is an air survey or field run is provided on Sheets 37 & 04.

☒ 11. A submission waiver is requested for: OFFSITE SWM WAIVER

☒ 12. Stormwater management is not required because: SWM PROVIDED IN OFFSITE REGIONAL POND

* ALL PLANTINGS WITHIN THE RPA LIMITS WERE SAVED DURING CONSTRUCTION.
** THE EXISTING POND OUTFALLS INTO THE EXISTING HORSEPEN FLOODPLAIN AT THE TIME WHEN THE POND WAS DESIGNED A FLOODPLAIN STUDY WAS PERFORMED TO DETERMINE IF THE OUTFLOW FROM THE POND WAS ACCEPTABLE TO DOWNSTREAM STRUCTURES. THE DOWNSTREAM ANALYSIS WAS PROVIDED WITH SP45-FP-01

LEGEND:

- ONSITE CONTROLLED BY REGIONAL POND ON PARCEL 3
- OFFSITE CONTROLLED BY REGIONAL POND ON PARCEL 3
- DRAINAGE DIVIDE

No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
12-3-11
1-12-12
4-20-12
6-29-12
7-18-12
11-26-12
08-29-13
09-13-13
10-07-13

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Planners Engineers Landscape Architects and Surveyors

COMMONWEALTH OF VIRGINIA
Charles E. Fosse
Lic. No. 028790
PROFESSIONAL ENGINEER

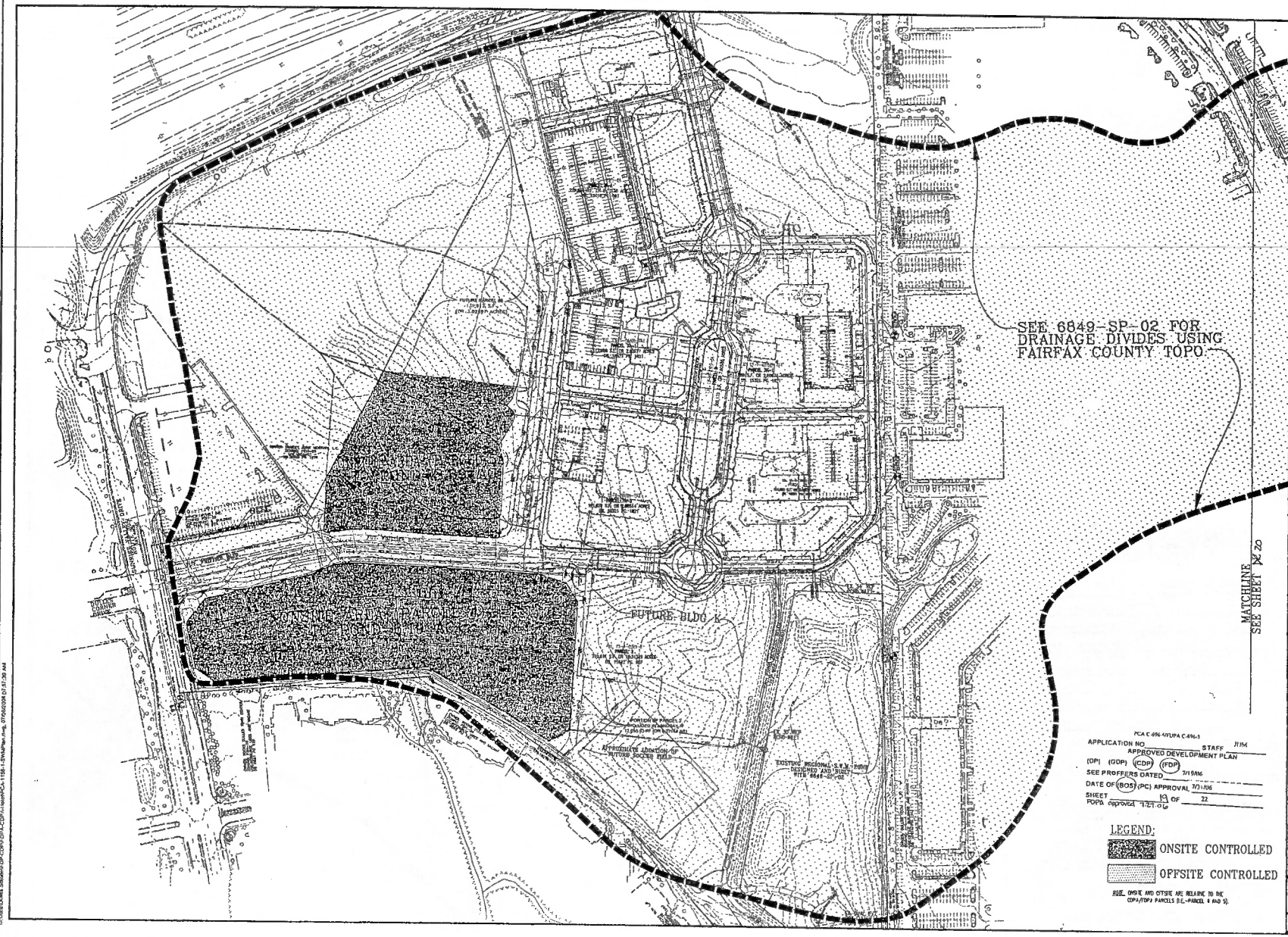
OFFSITE STORMWATER MANAGEMENT PLAN

DULLES STATION
PARCEL 5A
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

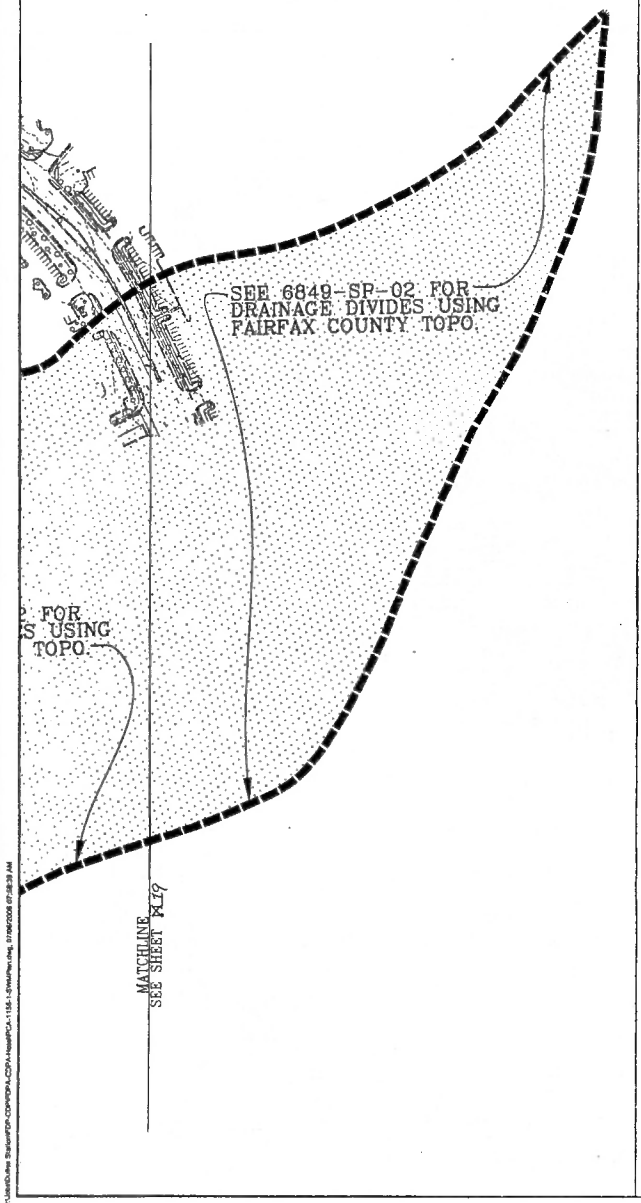
SCALE: 1"=100' | DATE: DEC. 2011

SHEET 16 OF 41

FILE No. SP-1158-12



REFERENCE APPROVED FAIRFAX COUNTY PLAN: PCA C696-6/FDPA C-696-3 (7/31/06) FOR INFORMATIONAL PURPOSES ONLY!!



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 written request of the submission requirement with justification that 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 (9-011 3J & 2L)
Special Exceptions (9-011 3J & 2L)
Cluster Subdivision (9-615 1G & 1M)
Commercial Revitalization Districts (9-623 3A (12) & (14))
Development Plans PRC Districts (16-302 3 & 4L)
PRC Plan (16-303 1E & 1G)
FDP P Districts (except PRC) (16-582 1F & 1G)
Amendments (18-202 10F & 10I)

☒ 1. Plat is at a minimum scale of 1"=50' (unless it is depicted on one sheet with a minimum scale of 1"=100').

☒ 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 2 & 3

☒ 3. Provide:

Facility Name/ Type & No.	On-site area served (acres)	Off-site area served (acres)	Drainage area (cores)	Peakpoint area (cf)	Storage Volume (cf)	If pond, dam height (ft)
REGIONAL POND (NO)	9.88 AC	107.87 AC	117.55 AC	243,777 CF	243,777 CF	18.0'
Totals	9.88 AC	107.87 AC	117.55 AC	243,777 CF	243,777 CF	18.0'

☒ 4. Details drainage channels, outlets and pipe systems are shown on Sheet 5 & 6/7
Pond inlet and outlet pipe systems are shown on Sheet 12

☒ 5. Maintenance access (ways) to stormwater management facility(ies) are shown on Sheet 12
Type of maintenance access road surface noted on the plat is 13 (asphalt, gravel, grass, etc.)

☒ 6. Landscaping and tree preservation shown to and near the stormwater management facility is shown on Sheet 12 *

☒ 7. A "stormwater management narrative" which contains a description of how detention and best management practices requirements will be met is provided on Sheet 12

☒ 8. A description of the existing conditions of each numbered site outlet extending 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 12 **

☒ 9. A description of how the outlet requirements, including contributing drainage areas of the Public Facilities Manual will be satisfied is provided on Sheet 12

☒ 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 Sheet 2 & 3

☐ 11. A subdivision waiver is requested for OFFSITE SWM WAIVER.

☒ 12. Stormwater management is not required because SWM PROVIDED IN OFFSITE REGIONAL POND.

* ALL PLANTINGS WITHIN THE RPA LIMITS WERE SAVED DURING CONSTRUCTION.

** THE EXISTING POND OUTFALLS INTO THE EXISTING HORSEPEN FLOODPLAIN. AT THE TIME WHEN THE POND WAS DESIGNED, A FLOODPLAIN STUDY WAS PERFORMED TO DEMONSTRATE THAT THE OUTFLOW FROM THE POND WAS ACCEPTABLE TO DOWNSTREAM STRUCTURES. THE DOWNSTREAM ANALYSIS WAS PROVIDED WITH 6849-FP-01.

S.W.M. NARRATIVE

THE SUBJECT SITE IS LOCATED ON FAIRFAX COUNTY TAX MAP 015-4-[53]-PARCELS 4 AND 5. THE SITE WAS PART OF THE ORIGINAL DRAINAGE AREA FOR THE REGIONAL POND WHICH WAS BEEN CONSTRUCTED ON PARCEL 3 AS SHOWN IN THE EXHIBIT ON SHEET 12. A TOTAL OF 9.88 ACRES WILL BE COLLECTED IN THE CLOSED CONDUIT SYSTEM THROUGHOUT PARCEL 4 AND 5, AND CONVEYED TO THE EXISTING REGIONAL POND LOCATED ON PARCEL 3. THE CLOSED CONDUIT SYSTEM WITHIN PARCEL 4 WILL BE DESIGNED AND CONSTRUCTED UNDER A SITE PLAN FOR THE PROPOSED BUILDINGS. THE CLOSE CONDUIT SYSTEM WILL BE PIPED FROM PARCEL 4, BEHIND BUILDING 4, AND CONNECT TO THE EXISTING 30" RCP UNDER THE POND ACCESS ROAD. THE RUNOFF FROM PARCEL 5 DRAINS TO YARD INLETS NORTH OF THE FUTURE WHITNEY BLVD AND WEST OF ROCK HILL EXTENSION. THE RUNOFF INTERCEPTED BY THESE INLETS IS CONVEYED WITH A CLOSED CONDUIT SYSTEM, WHICH ULTIMATELY DISCHARGES INTO THE POND VIA A 54" RCP. THE 54" RCP INLET PIPE WAS PROPOSED WITH 6849-SP-05.

THE EXISTING REGIONAL POND WAS DESIGNED UNDER FAIRFAX COUNTY PLAN NUMBER 6849-SP-02. THE POND WAS DESIGNED TO CONTROL A TOTAL DRAINAGE AREA OF 118.45 ACRES. THE POND WAS DESIGNED TO HANDLE THE INTENSIVE IMPERVIOUS AREA THAT THE SUBJECT PARCELS HAVE PROPOSED ALONG WITH THE OTHER DEVELOPMENT THROUGHOUT DULLES STATION. THIS IS EVIDENT BY THE CURVE NUMBER EVALUATION ON SHEET 5 OF 6849-SP-02. AN CURVE NUMBER OF 57.9 WAS USED FOR EXISTING CONDITIONS, WHERAS A 91.60 WAS USED FOR POST DEVELOPMENT CONDITIONS. THE PRE DEVELOPMENT 2, 10, AND 25 YEAR RUNOFFS FOR THE DRAINAGE DIVIDE ARE 20.69 CFS, 127.28 CFS, AND 302.34 CFS RESPECTIVELY. THE POST DEVELOPMENT 2, 10, AND 25 YEAR OUTFLOWS FROM THE POND ARE 30.26 CFS, 123.99 CFS, AND 188.23 CFS. THE 100-YEAR WATER SURFACE ELEVATION FOR THE EXISTING POND IS 313.61. THE OUTFLOW FROM THE POND IS CONTROLLED BY A COMBINED OUTFLOW STRUCTURE. THE OUTFLOW FROM THE POND IS CONVEYED TO HORSEPEN CREEK VIA DUAL 8'X7' BOX CULVERTS. THE OUTFLOW FROM THE BOX CULVERT ENTERS AN EXISTING FLOODPLAIN IN HORSEPEN CREEK, FOR WHICH A FLOODPLAIN STUDY WAS PERFORMED FOR THE PROPOSED IMPROVEMENTS (6848-FP-02). WE FEEL THE EXISTING POND SERVES AS AN ADEQUATE OUTFALL FOR THE SUBJECT SITE.

S.W.M. ANALYSIS

PARCEL 4 SITE AREA = 312,380 SF (OR 7.1712 AC)

ORIGINAL FDP APPLICATION:
PROP. IMPERVIOUS AREA = 291,586 SF.
WEIGHTED 'C' FACTOR = 0.72

ENCLOSED FDPA APPLICATION:
PROP. IMPERVIOUS AREA = 240,047 SF
WEIGHTED 'C' FACTOR = 0.77

SUMMARY:
THE ORIGINAL FDP HAD A TOTAL IMPERVIOUS AREA OF 291,586 SF. ON THE SUBJECT SITE. BASED ON A SITE AREA OF 312,380 S.F., THE SAID IMPERVIOUS AREA RESULTS IN A WEIGHTED 'C' FACTOR OF 0.72. THE PROPOSED APPLICATION INCREASES THE IMPERVIOUS AREA TO 240,047 S.F., WHICH IS A 15.458% INCREASE IN IMPERVIOUS AREA. WITH THE SAME SITE AREA OF 312,380 SF., THE IMPERVIOUS AREA OF 240,047 SF PROPOSED WITH THIS APPLICATION RESULTS IN A WEIGHTED 'C' FACTOR OF 0.77

THE FIRST PLAN SUBMITTED FOR THE DULLES STATION PROJECT WAS THE REGIONAL STORMWATER MANAGEMENT POND PLAN, 6848-PI-02. THE POST DEVELOPMENT DRAINAGE DIVIDE FOR THE POND ENCOMPASSED THE ENTIRE DULLES STATION DEVELOPMENT, AS SHOWN ON SHEET 12A. SINCE THE DRAINAGE AREA DRAINING TO THE POND REQUIRED THE USE OF TR-20 FOR THE POND ROUTING, THE 'C' FACTOR ANALYSIS OUTLINED ABOVE CAN'T BE DIRECTLY RELATED TO THE ROUTING OF THE POND. HOWEVER, AS SHOWN ON SHEET 12B, THE CURVE NUMBERS USED FOR THE POND ROUTING WERE CONSISTENT WITH CONVERTIAL DEVELOPMENT IN THE TR-55 MANUAL. A LAND-USE CLASSIFICATION OF CONVERTIAL/BUSINESS DEVELOPMENT HAS A 85% IMPERVIOUS AREA ASSOCIATED WITH THE DEVELOPMENT. BASED SOLEY ON THE PARCEL THE HOTEL RTS ON, THE PERCENT IMPERVIOUS AREA IS ONLY 76.9%. FURTHERMORE, THE OVERALL DULLES STATION DEVELOPMENT WILL HAVE FAR LESS THAN AN AVERAGE IMPERVIOUS AREA OF 85%. AS SUCH, THE POND IS OVERDESIGNED FOR THE INTENSITY OF THE DEVELOPMENT AT DULLES STATION. CONSEQUENTLY, THE SAID POND IS ABLE TO HANDLE THE 15% INCREASE IN IMPERVIOUS AREA ASSOCIATED WITH THE HOTEL FDPA.

PCA C-696-6/FDPA C-696-3

APPLICATION NO. _____ STAFF JDM

APPROVED DEVELOPMENT PLAN

(DP) (GDP) (CDP) (FDP) 7/19/06

SEE PROFFERS DATED _____

DATE OF (BOS) (PC) APPROVAL 7/31/06

SHEET 20 OF 22

FDPA APPROVED 7-21-06

No.	DATE	DESCRIPTION	BY	APPROVED	DATE
1	02-07-06	REVISION APPROVED BY DIVISION OF DESIGN REVIEW			
2	03-07-06				
3	05-08-06				
4	06-23-06				
5	07-21-06				

URBAN ENGINEERING & ASSOC., INC.
CIVIL ENGINEERS - LANDSCAPE ARCHITECTS - LAND SURVEYORS
7712 LITTLE RIVER TURNPIKE
ANNANDALE, VIRGINIA 22003 (703) 642-9080

STORMWATER MANAGEMENT PLAN
DULLES STATION AT DULLES CORNER
HOTELS
HUNTER MILL DISTRICT
FAIRFAX COUNTY, VIRGINIA
SCALE: 1"=100' C.I. = 2' DATE: FEB., 2006

SHEET 20 OF 22
FILE No. ZP-1158-1

No.	DATE	DESCRIPTION
1	12-13-11	
2	2-12-12	
3	6-29-12	
4	7-19-12	
5	11-29-12	
6	08-23-13	
7	09-27-13	
8	10-07-13	

REVISIONS

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Planners Engineers Landscape Architects Land Surveyors

COMMONWEALTH OF VIRGINIA
Lic. No. 029270
PROFESSIONAL ENGINEER

STORMWATER MANAGEMENT REFERENCE SHEET
DULLES STATION
PARCEL 5A
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA
SCALE: N/A C.I.= N/A DATE: DEC., 2011

SHEET 18 OF 41
FILE No. SP-1158-12

REFERENCE APPROVED FAIRFAX COUNTY PLAN: PCA C696-6/FDPA C-696-3 (7/31/06) FOR INFORMATIONAL PURPOSES ONLY!!

GENERAL NOTES

1. THE TAX MAP REFERENCE FOR THIS PARCEL IS 15-4-((1)), PARCELS 2&4
2. THESE PARCELS ARE CURRENTLY ZONED PDC.
3. THIS PLAN CONFORMS TO THE "CONCEPTUAL DEVELOPMENT PLAN, DULLES GATEWAY PLAZA" AS APPROVED BY THE FAIRFAX COUNTY PLANNING COMMISION. THESE PLANS ARE INCLUDED FOR REFERENCE WITHIN THIS SUBMISSION.
4. STORM WATER MANAGEMENT AND BEST MANAGEMENT PRACTICES FOR THIS SITE ARE PROVIDED ON SITE.
5. BOUNDARY AND TOPOGRAPHIC SURVAY DATA HAS BEEN PROVIDED BY CRIMSON PARTNERS HORIZONTAL GRID: VIRGINIA STATE GRID NORTH; VERTICAL DATUM: U.S.G.S. (NGVD).
6. AIR QUALITY PERMIT NOT REQUIRED PER STATE AIR POLLUTION CONTROL BOARD REGULATION ACOR VII, SECTION 2.706 (g)(2)(i).
7. VEGETATIVE COVER CONSISTS PARTIALLY OF MODERATELY DENSE HARDWOODS AND PINES WITH THE BALANCE OF THE SITE IN WEEDS AND SOME GRASS AREAS.
8. THE DISTURBANCE ASSOCIATED WITH THESE PROPOSED IMPROVEMENTS DOES NOT ENCROACH WITHIN ANY FAIRFAX COUNTY MAPPED RESOURCE PROTECTION AREAS.
9. FOR OUTFALL NARRATIVE, SEE THIS SHEET.
10. THESE PLANS SHOW THE APPROXIMATE LOCATION OF EXISTING UTILITIES. CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UNDERGROUND OR AERIAL UTILITIES BY CALLING "MISS UTILITY" 48 HOURS PRIOR TO BEGINNING ANY EXCAVATION OR CONSTRUCTION. IF THERE IS A CONFLICT WITH EXISTING UTILITIES, THE ENGINEER MUST BE CONTACTED IMMEDIATELY SO AS NOT TO IMPEDE CONSTRUCTION.
11. ALL FINISHED GRADING, SEEDING, SODDING OR PAVING SHALL BE DONE IN SUCH A MANNER TO PRECLUDE THE PONDING OF WATER ON THE SITE.
12. THE CONTRACTOR SHALL INSURE THAT ALL CONSTRUCTION CONFORMS WITH CURRENT FEDERAL, STATE AND LOCAL LAWS AND REGULATIONS, INCLUDING FEDERAL REGULATIONS CONTAINED WITHIN "THE AMERICANS WITH DISABILITIES ACT", ENACTED ON JULY 26, 1990 (AKA "ADA")
13. ALL EARTHWORK OPERATOINS SHALL CONFORM TO THE GEOTECHNICAL NOTES AND DETAILS INCLUDED HEREON.
14. THE SWM/BMP POND ARE TO BE PRIVATELY MAINTAINED.
15. THERE ARE NO GRAVE SITES KNOWN TO EXIST ON THIS SITE.
16. THE PURPOSE OF THIS PLAN IS TO CONSTRUCT A SWM/BMP POND AS CONSISTENT WITH THE APPROVED CONCEPTUAL DEVELOPMENT PLAN.
17. ALL OTHER PROFFERS (EXCLUDING THE CONSTRUCTION OF THE REGIONAL SWM/BMP POND) WILL BE ADDRESSED AT DURING THE CONSTRUCTION OF THE FIRST OCCUPIABLE BUILDING
18. TEMPORARY SOUTHEAST STORM DRAIN PIPE TO BE REMOVED DURING CONSTRUCTION OF BUILDING K AND NORTHWEST TEMPORARY STORM DRAIN PIPE TO BE REMOVED WITH THE CONSTRUCTION OF BUILDING D.
19. THE TRAIL AND SOCCER FIELD LABELED AS "FUTURE" WILL BE PROVIDED FUTURE PHASES OF THE DULLES STATION AT DULLES CORNER PROJECT.
20. THE ASPHALT TRAIL EXTENSION AND FAIR WEATHER CROSSING IN THE RPA/WETLAND AREA, AS SHOWN ON SHEET 6, WILL BE CONSTRUCTED BY THE OWNER AFTER THE REQUIRED WETLAND PERMIT IS OBTAINED FOR SUCH IN THE NAME OF FAIRFAX COUNTY. THE OWNER SHALL PREPARE AND SUBMIT THE WETLAND PERMIT APPLICATION ON BEHALF OF THE COUNTY. SHOULD THE PERMIT BE DENIED, THERE SHALL BE NO OBLIGATION ON THE PART OF THE OWNER TO CONSTRUCT SUCH TRAIL EXTENSION AND FAIR WEATHER CROSSING.

SWM/BMP & OUTFALL NARRATIVE

THIS SITE IS LOCATED ON TAX MAP ASSESSMENT NUMBER 15-4 ((1)), PARCELS 02 & 04. THE TOTAL SITE AREA BEING DISTURBED DURING THE CONSTRUCTION OF THIS REGIONAL POND IS 6.79 ACRES.

THE PROPOSED PROJECT HAS BEEN DESIGNED TO PROVIDE ADEQUATE ENGINEERED OVERLAND FLOW TO A PROPOSED REGIONAL S.W.M./B.M.P. POND. THE REGIONAL S.W.M./B.M.P. POND IS INDICATED AS H-9 IN THE FAIRFAX COUNTY POND INVENTORY. THE REQUIRED B.M.P. VOLUME FOR THIS POND IS 378,604 CUBIC FEET, WHICH IS OBTAINED AT A STAGE STORAGE ELEVATION OF 397.82. THE TOTAL PHOSPHORUS REMOVAL FOR THE SITE IS 50.4% (SEE BMP CALCS ON SHEET 17).

THE EMERGENCY AND PRINCIPLE SPILLWAY HAS BEEN DESIGNED TO ADEQUATELY OUTFALL INTO AN EXISTING FLOODPLAIN. THE PRINCIPLE SPILLWAY DISCHARGES INTO A BED & BANK OUTFALL DESIGNED WITH HEC14.

THIS POND PROVIDES B.M.P./S.W.M. FOR AN EXISTING DRAINAGE AREA OF 105.13 ACRES, BUT HAS BEEN DESIGNED TO ACCOMMODATE FUTURE DEVELOPMENT. A CONSERVATIVE ESTIMATE OF 138.84 ACRES WAS USED TO DESIGN THE POND. AS THE DRAINAGE DIVIDE MAP SHOWS ON SHEET 3, THIS ESTIMATE OF 138.94 ACRES PROVIDES CAPACITY FOR THE DULLES GATEWAY SITE AND FUTURE OFF-SITE DEVELOPMENT.

DUE TO SITE CONSTRAINTS AND HYDROLOGIC ISSUES, THE GRADING OF THE PROPOSED POND ENCROACHES INTO THE MERRYBROOK RUN FLOODPLAIN. AS A RESULT, A FLOODPLAIN STUDY HAS BEEN PREPARED AND IS CURRENTLY BEING REVIEWED BY FAIRFAX COUNTY. THE FAIRFAX COUNTY PLAN NUMBER FOR THE SAID FLOODPLAIN STUDY IS 6848-FP-01-1. AS THE FLOODPLAIN STUDY INDICATES, THE LOCATION OF THE PROPOSED POND DOES EFFECT THE EXISTING WATER SURFACE ELEVATION, HOWEVER THE INCREASE DOES NOT HAVE A SIGNIFICANT IMPACT ON THE SURROUNDING PARCELS.

IT IS THE OPINION OF URBAN ENGINEERING AND ASSOCIATES THAT THE SITE IS ADEQUATELY DRAINED ONSITE AND OUTFALLS ADEQUATELY OFFSITE IN AN ADEQUATE BED AND BANKS SYSTEM.

SIGNATURE ________ DATE 06/22/04

ERIC S. SIEGEL, P.E., PRINCIPAL

COMBINED SPILLWAY NARRATIVE

WE HEREBY REQUEST A WAIVER OF PUBLIC FACILITIES MANUAL SECTION 9-1604.8 TO ALLOW A COMBINED PRINCIPAL/EMERGENCY SPILLWAY FOR THE PROPOSED REGIONAL SWM/BMP POND PROPOSED IN THIS PLAN. OUR JUSTIFICATION FOR THE WAIVER IS AS FOLLOWS:

THE DEVELOPMENTS TO THE EAST WERE DESIGNED WITH THE ASSUMPTION THAT THE SAID POND IS GOING TO SERVE THEIR SITES. AS SUCH, THE PLACEMENT OF THE PROPOSED POND HAS TO BE IN THE MOST SOUTHEAST CORNER OF THE SITE. FROM A HYDROLOGIC AND ENGINEERING VIEWPOINT, THIS IS AN IDEAL LOCATION DUE TO THE RELATIVE ELEVATION OF THE POND TO THE EXISTING INFRASTRUCTURE. HOWEVER, PLACING THE POND IN THIS LOCATION ENCROACHES INTO AN EXISTING FLOODPLAIN AND RPA. ELIMINATING THE NEED TO PROVIDE A SEPARATE EMERGENCY SPILLWAY REDUCES THE OVERALL IMPACT ON THE FLOODPLAIN AND RPA.

IN ADDITION TO THE EXISTING FLOODPLAIN AND RPA, THERE IS ALSO AN EXISTING ENVIRONMENTAL QUALITY CORRIDOR (E.Q.C.) IN THE PROXIMITY OF THE PROPOSED POND. DUE TO THIS ENVIRONMENTALLY SENSITIVE AREA, GRADING OF THE POND, WITHIN THE E.Q.C., HAS BEEN MINIMIZED TO REDUCE THE AMOUNT OF DISTURBANCE TO THE E.Q.C. PROVIDING A COMBINATION PRINCIPAL/EMERGENCY SPILLWAY FURTHER REDUCES THE DISTURBANCE OF THE E.Q.C.

DURING THE REZONING OF THE PARCEL A PORTION OF THE SITE IS GOING TO BE DEDICATED TO THE PARK AUTHORITY (THE SOUTHWEST CORNER OF THE PROPERTY). THE PARK AUTHORITY IS PROPOSING A WALKWAY/TRAIL ON THE SOUTHWEST CORNER OF THE SITE. THIS IS THE SAME LOCATION WERE AN EMERGENCY SPILLWAY WOULD BE PROPOSED. FROM AN AESTHETICS AND SAFETY PERSPECTIVE, IT WOULD NOT BE DESIRABLE TO HAVE AN EMERGENCY SPILLWAY PLACED 5' FROM A WALKWAY.

THIS SITE HAS A SIGNIFICANT AMOUNT OF ROCK BELOW TOPSOIL. SINCE PLACEMENT OF EMERGENCY SPILLWAYS DICTATE THAT THERE MUST BE A CERTAIN LEVEL OF CUT, THERE WOULD BE A SUBSTANTIAL AMOUNT OF BLASTING. SINCE THIS IS AN ENVIRONMENTALLY SENSITIVE AREA, IT WOULD BE PREFERABLE TO MINIMIZE THE AMOUNT OF BLASTING. IMPLEMENTING A COMBINED SPILLWAY WOULD ELIMINATE THE BLASTING REQUIRED FOR AN EMERGENCY SPILLWAY

IT IS WITH THESE JUSTIFICATIONS THAT WE FORMALLY REQUESTED A COMBINED SPILLWAY WAIVER

ERIC S. SIEGEL, P.E., PRINCIPAL ________ DATE

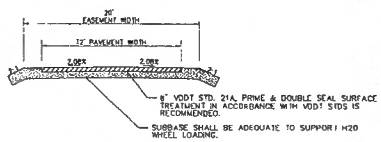
ROAD CONSTRUCTION NOTES

1. ALL CONSTRUCTION SHALL CONFORM TO CURRENT FAIRFAX COUNTY AND VDOT STANDARDS AND SPECIFICATIONS.
2. THE LOCATIONS OF EXISTING UTILITIES ON THESE DRAWINGS ARE GENERALLY APPROXIMATE. IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL UTILITIES WITHIN THE AREA OF CONSTRUCTION PRIOR TO COMMENCING WORK. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES IN THE AREA OF CONSTRUCTION PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL NOTIFY THE OWNER AND URBAN ENGINEERING & ASSOC. OF ANY POTENTIAL CONFLICTS PRIOR TO COMMENCING CONSTRUCTION.
3. THE CONTRACTOR SHALL CAREFULLY EXAMINE THE SITE AND MAKE ALL INSPECTIONS NECESSARY IN ORDER TO DETERMINE THE FULL EXTENT OF WORK REQUIRED TO MAKE THE COMPLETED WORK CONFORM TO THE DRAWINGS AND SPECIFICATIONS.
4. WHERE CONFLICTS REQUIRE RELOCATION OF EXISTING UTILITIES (i.e.: AT&T, MCI, C&P, VEPCO, MEDIA GENERAL) UTILITY COMPANIES WILL BE NOTIFIED.
5. ALL EXISTING SIGNS, FENCES, ETC. DISTURBED BY THIS CONSTRUCTION SHALL BE RELOCATED AS PER VDOT AND FFX. CO. REQUIREMENTS.
6. ALL EXISTING VDOT TRAFFIC CONTROL EQUIPMENT WILL BE RELOCATED BY THE CONTRACTOR AS NECESSARY PER VDOT REQUIREMENTS.
7. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO EXISTING ROADS AND UTILITIES WHICH OCCUR AS A RESULT OF PROJECT CONSTRUCTION WITHIN OR CONTIGUOUS TO THE SITE.
8. ANY EXISTING C&G AND PAVEMENT TO REMAIN THAT IS DAMAGED DURING CONSTRUCTION SHALL BE REPLACED/REPAIRED TO VDOT SATISFACTION. C&G TO BE SAW CUT, OTHERWISE REMOVE TO THE NEAREST JOINT.
9. A SMOOTH GRADE SHALL BE MAINTAINED FROM THE CENTERLINE OF THE EX. ROAD TO THE PROPOSED EDGE OF PAVEMENT TO PRECLUDE THE FORMING OF FALSE GUTTERS AND/OR PONDING OF ANY WATER IN THE ROADWAY
10. THE CONTRACTOR IS RESPONSIBLE FOR ALL PAVEMENT MARKINGS. THE CONTRACTOR SHALL OBTAIN VDOT APPROVAL PRIOR TO THE APPLICATION OF PAVEMENT MARKING.
11. FOR GRADING PLANS, SEE SHEETS 4 & 5.
12. THE CONTRACTOR SHALL CONTACT MISS UTILITY COMPANY REPRESENTATIVES, REVIEW TEST PIT DATA AND WHATEVER OTHER OPERATIONS AVAILABLE TO ENSURE ALL UTILITIES IN THE AREA OF CONSTRUCTION ARE SHOWN ON THE PLANS PRIOR TO CONSTRUCTION.

PAVEMENT DETAILS

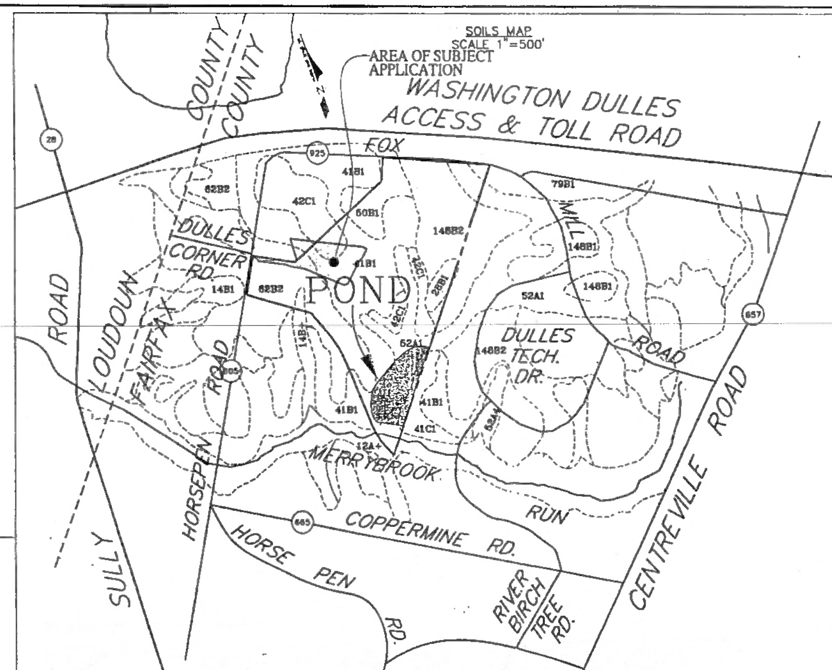
FOR GRADING PLAN SEE SHEETS 6&7

A TYPICAL SECTION FOR MAINTENANCE ACCESS ROAD



SOILS MAP

SCALE 1"=500'



SOIL ID NUMBERS	SERIES NAME	FOUNDATION SUPPORT	SUBSURFACE DRAINAGE	SLOPE STABILITY	ERODABILITY	GEOTECHNICAL REPORT REQ'D
12A+	ROWLAND	POOR	POOR	GOOD	LOW	A
148+	MANASSAS	FAIR	MARGINAL	GOOD	LOW	B
28B1	MONTALTO	GOOD	FAIR	GOOD	LOW	C
41B1	ROCKY LAND	MARGINAL	MARGINAL	GOOD	LOW	A
41C1	ROCKY LAND	MARGINAL	MARGINAL	FAIR	LOW	A
42C1	VERY ROCKY	MARGINAL	MARGINAL	FAIR	LOW	B
50B1	IREDELL-MECKLENBURG STONY	MARGINAL	MARGINAL	GOOD	LOW	A
52A1	ELBERT-IREDELL	POOR	POOR	GOOD	LOW	A
62B2	BRECKNOCK	GOOD	FAIR	GOOD	MODERATE	C
148B2	IREDELL-MECKLENBURG	POOR	MARGINAL	GOOD	MODERATE	A

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.

REVISIONS

No.	DATE	DESCRIPTION

PLAN DATE: 03-27-00, 01-30-01, 04-25-01, 06-22-04

URBAN ENGINEERING & ASSOC., INC.
CIVIL ENGINEERS · LANDSCAPE ARCHITECTS · LAND SURVEYORS
7712 LITTLE RIVER TURNPIKE
ANNANDALE, VIRGINIA 22003 (703) 642-8080

COMMONWEALTH OF VIRGINIA, ERIC S. SIEGEL, No. 024916, 6/22/04, PROFESSIONAL ENGINEER

GENERAL NOTES AND DETAILS
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, 2000

SHEET 2 OF 37
FILE No SP-1158

REVISIONS

No.	DATE	DESCRIPTION

PLAN DATE: 12-13-11, 2-2-12, 4-20-12, 6-12-12, 7-19-12, 8-3-12, 11-29-12, 08-23-13, 08-19-13, 10-07-13

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COMMONWEALTH OF VIRGINIA, CLAYTON C. TOCK, Lic. No. 038790, PROFESSIONAL ENGINEER

STORMWATER MANAGEMENT REFERENCE SHEET
DULLES STATION
PARCEL 5A
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA
SCALE: N/A C.I.=N/A DATE: DEC., 2011

SHEET 19 OF 41
FILE No SP-1158-12

REFERENCE APPROVED FAIRFAX COUNTY PLAN: 6848-PI-002-1 (3/31/04) FOR INFORMATIONAL PURPOSES ONLY!!

HYDROLOGIC SOIL GROUPS & LAND USES

SCALE 1"=300'

PRE-DEVELOPMENT LAND USE LEGEND:

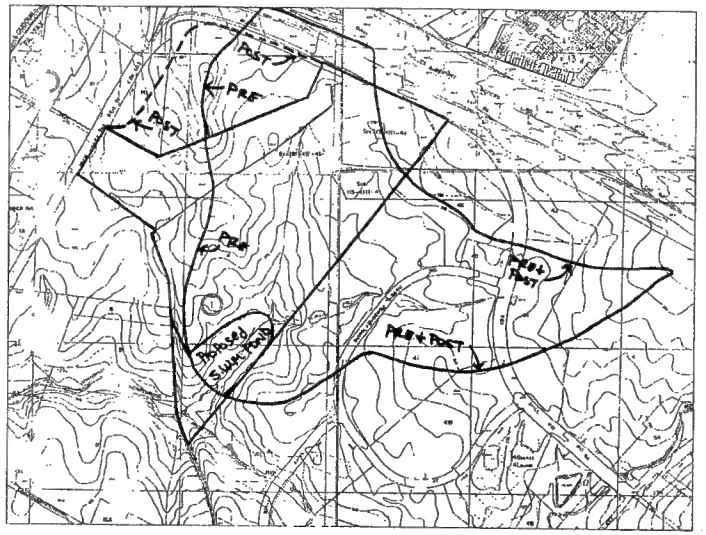
WOODS-FAIR

POST-DEVELOPMENT LAND USE LEGEND:

NOTE: SEE EXPLANATION OF POST DEVELOPMENT LAND USE IN OUTFALL NARRATIVE

DRAINAGE DIVIDE MAP

SCALE 1"=300'



NOTE: THE ABOVE MAP WAS OBTAINED USING FAIRFAX COUNTY TOPOGRAPHY

No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
03-27-00
09-08-00

No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
12-15-11
2-27-12
4-20-12
6-12-12
1-18-13
8-3-13
08-19-13
08-25-13
10-07-13

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DRAINAGE DIVIDE AND LAND & SOIL MAP

DULLES STATION AT DULLES CORNER
REGIONAL S.W.M. POND
HUNTER MILL DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: AS NOTED C.L. N/A DATE: MARCH 2000

SHEET 4 OF 5

FILE No. SP-1158

STORMWATER MANAGEMENT REFERENCE SHEET

DULLES STATION
PARCEL 5A
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: N/A C.L.=N/A DATE: DEC. 2011

SHEET 20 OF 41

FILE No. SP-1158-12

REFERENCE APPROVED FAIRFAX COUNTY PLAN: 6848-PI-002-1 (3/31/04) FOR INFORMATIONAL PURPOSES ONLY!!

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
		74.65	B	60	4479.00
		13.71	C	73	1000.83
TOTALS	105.13	105.13			6083.55

CN (WEIGHTED) = TOTAL PRODUCT/TOTAL AREA = 57.8

ULTIMATE- DEVELOPMENT CONDITIONS					
LAND USE	TOTAL AREA	SUB-AREA	SOIL TYPE	CN	CN × AREA
COMMERCIAL	58.63	6.58	A	89	585.62
		44.73	B	92	4115.16
		7.32	C	94	688.08
OPEN	1.85	1.85	B	69	134.55
COMMERCIAL	58.34	12.78	A	89	1137.42
		34.84	B	92	3205.28
		10.72	C	94	1007.68
ROADWAY	2.15	0.29	A	98	28.42
		0.50	B	98	49.00
		1.36	BLANK	98	133.28
TOTALS	121.07	121.07			11084.49

CN (WEIGHTED) = TOTAL PRODUCT/TOTAL AREA = 91.60

TIME OF CONCENTRATION

			PRESENT	ULTIMATE
SHEET FLOW	SEGMENT ID	UNIT	A-B	A-B
1 SURFACE DESCRIPTION (TABLE 3-1)			LIGHT BRUSH	LIGHT BRUSH
2 MANNING'S ROUGHNESS COEFF., n (TABLE 3-1)			0.1	0.1
3 FLOW LENGTH, L (TOTAL L < 300 FT)		ft	50	20
4 TWO-YR 24-HR RAINFALL, P		in	3.2	3.2
5 LAND SLOPE, s		ft/ft	0.0185	0.01
6 T = .0007(nL)^.8/P^.5s^.4	COMPUTE T	hr	0.069	0.04
SHALLOW CONCENTRATED FLOW	SEGMENT ID		B-C	B-C
7 SURFACE DESCRIPTION (PAVED OR UNPAVED)				
8 FLOW LENGTH, L		ft	1020	850
9 WATERCOURSE SLOPE, s		ft/ft	0.0395	0.0785
10 AVERAGE VELOCITY, V (FIGURE 3-1)		ft/s	3.2	2.85
11 T = L/(3600·V)	COMPUTE T	hr	0.089	0.089
PIPE FLOW	SEGMENT ID			D-E
12 CROSS SECTIONAL FLOW AREA, a		ft^2		ASSUME
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 = (1.49·r^(2/3)·s^(1/2))/n	COMPUTE V	ft/s		5.0
18 FLOW LENGTH, L		ft		2700
19 T = L/(3600·V)	COMPUTE T	hr		0.15
CHANNEL FLOW	SEGMENT ID		C-F	E-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 = (1.49·r^(2/3)·s^(1/2))/n	COMPUTE V	ft/s		
26 FLOW LENGTH, L		ft	4.75	4.75
27 T = L/(3600·V)	COMPUTE T	hr	2700	200
			0.158	0.0146
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                        267.80      0.0000       0.0000
 8                        298.80      0.6235       0.0020
 8                        300.80      2.0955       0.3035
 8                        302.80      2.5977       1.1067
 8                        304.00      3.5214       2.7050
 8                        306.00      4.0502       5.6972
 8                        307.05      4.3016       7.2525
 8                        308.00      8.1843       6.8063
 8                        308.45      19.551       13.964
 8                        310.00      25.005       15.921
 8                        311.52      121.37       22.680
 8                        312.00      107.73       24.789
 8                        312.19      164.43       25.500
 8                        313.80      458.75       29.655
 8                        314.80      983.31       34.841
 8                        316.80      2053.5       46.347
 8                        318.20      2087.6       47.651
 9 ENDTBL
 6 RUNOFF 1    01       1 0.1891      91.60        0.279
 6 RESVOR 2    01 1     2 287.80                              1 1 1 1   1
 6 RUNOFF 1 002         3 0.0070      91.20        0.083      1 1   1   1
 6 ADDHYD 4 002    2 3 6                                      1 1 1 1   1
   ENDATA
 7 INCREM 6              0.10
 7 COMPUT 7    01 002                 3.20         1.0        2 2  01  02
   ENDCMP 1
 7 COMPUT 7    01 002                 5.25         1.0        2 2  01  10
   ENDCMP 1
 7 COMPUT 7    01 002                 6.80         1.0        2 2  01  25
   ENDCMP 1
   ENDJOB 2
0*******************************END OF 80-80 LIST*******************************

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
                 (A STAR(*) 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.)
SECTION/    STANDARD                RAIN  ANTEC  MAIN           PRECIPITATION                                 PEAK DISCHARGE
STRUCTURE    CONTROL    DRAINAGE   TABLE  MOIST  TIME   ......................... RUNOFF  .........................................
  ID        OPERATION     AREA       #    COND  INCREM  BEGIN   AMOUNT  DURATION  AMOUNT   ELEVATION   TIME     RATE      RATE
                        (SQ MI)                  (HR)   (HR)     (IN)     (HR)     (IN)      (FT)      (HR)     (CFS)     (CSM)
   ALTERNATE     1    STORM    2
+
STRUCTURE  1  RUNOFF      .19      2     2     .10     .0     3.20    24.00     3.91      ---      12.08    300.85    1580.9
STRUCTURE  1  RESVOR      .19      2     2     .16     .0     3.20    24.00     1.69    309.45     13.52     18.59     103.6
XSECTION   2  RUNOFF      .01      2     2     .10     .0     3.20    24.00     2.24      ---      11.96     14.70    2106.6
XSECTION   2  ADDHYD      .20      2     2     .10     .0     3.26    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     .18     .0     5.25    24.00     3.58    311.52     12.45    121.53     642.7
XSECTION   2  RUNOFF      .01      2     2     .19     .0     5.25    24.80     4.18     - -       11.96     26.24    3748.8
XSECTION   2  ADDHYD      .20      2     2     .10     .0     5.25    24.00     8.81      ---      12.45    123.99     632.3
   ALTERNATE     1    STORM   25
+
STRUCTURE  1  RUNOFF      .19      2     2     .10     .0     6.80    24.00     5.02      ---      12.06    625.92    3316.8
STRUCTURE  1  RESVOR      .15      2     2     .10     .0     6.08    24.00     4.31    312.19     12.39    185.14     879.1
XSECTION   2  RUNOFF      .01      2     2     .10     .0     6.80    24.00     4.8t      ---      11.96     30.42    4348.1
XSECTION   2  ADDHYD      .20      2     2     .19     .9     9.00    24.00     4.33      ---      12.38    108.22     850.8

SUMMARY TABLE 3 - DISCHARGE (CFS) AT 3SECTIONS AND STRUCTURES FOR ALL STORMS AND ALTERNATES
 XSECTION/          DRAINAGE
 STRUCTURE            AREA        STORM NUMBERS..........
   ID               (SQ MI)          2          10         25
9 STRUCTURE   1        .19
+
   ALTERNATE     1                 19.59      121.53     153.14
0 XSECTION    2        .20
+
   ALTERNATE     1                 20.28      123.99     180.22
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*106,2.5*106 Yr Storms
 3 STRUCT      01
 8                        312.19      0.0000       0.0000
 8                        313.00      166.21       29.655
 8                        314.00      856.20       34.841
 8                        315.80      1695.6       46.347
 8                        316.20      1830.8       47.651
 9 ENDTBL
 6 RUNOFF 1    01       1 0.1891      91.60        0.279      1 1   1   1
 6 RESVOR 2    01 1     2 312.18                              1 1 1 1   1
 6 RUNOFF 1 002         3 0.0070      91.38        0.083      1 1   1   1
 6 ADDHYD 4 002    2 3 4                                      1 1 1 1   1
   ENDATA
 7 INCREM 6              0.10
 7 COMPUT 7    01 003                 7.30         1.0        2 2  01  98
   ENDCMP 1
 7 COMPUT 7    01 003                 10.95        1.0        2 2  01  15
   ENDCMP 1
 7 COMPUT 7    01 002                 18.75        1.0        2 2  01  25
   ENDCMP 1
   ENDJOB 2
0*******************************END OF 80-80 LIST*******************************
SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
                 (A STAR(*) 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.)
SECTION/    STANDARD                RAIN  ANTEC  MAIN           PRECIPITATION                                 PEAK DISCHARGE
STRUCTURE    CONTROL    DRAINAGE   TABLE  MOIST  TIME   ......................... RUNOFF  .........................................
  ID        OPERATION     AREA       #    COND  INCREM  BEGIN   AMOUNT  DURATION  AMOUNT   ELEVATION   TIME     RATE      RATE
                        (SQ MI)                  (HR)   (HR)     (IN)     (HR)     (IN)      (FT)      (HR)     (CFS)     (CSM)

   ALTERNATE     1    STORM   98
+
STRUCTURE  1  RUNOFF      .19      2     2     .10     .0     7.30    24.00     6.30      ---      12.06    775.18    4099.2
STRUCTURE  1  RESVOR      .19      2     2     .10     .8     7.30    24.00     6.28    312.97     12.48    158.85     845.3
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     6.25      ---      12.47    161.51     833.8
   ALTERNATE     1    STORM   15
+
STRUCTURE  1  RUNOFF      .19      2     2     .10     .0    10.95    24.00     8.82      ---      12.06   1189.66    6291.2
STRUCTURE  1  RESVOR      .19      2     2     .16     .9    10.95    24.00     9.89    314.20     12.24    715.35    3782.9
XSECTION   2  RUNOFF      .01      2     2     .16     .0    10.95    24.00     5.73      ---      11.95     57.65    8236.4
XSECTION   2  ADDHYD      .20      2     2     .19     .0    10.95    24.00     9.88      ---      12.24    723.02    3687.3
   ALTERNATE     1    STORM   25
+
STRUCTURE  1  RUNOFF      .13      2     2     .10     .0    18.35    24.00    12.19      ---      12.06   2009.95   10629.8
STRUCTURE  1  RESVOR      .16      2     3     .10     .0    18.25    24.00    17.12    319.87     12.18   1622.05    8577.7
XSECTION   2  RUNOFF      .01      2     2     .14     .0    18.25    24.00    16.81      ---      11.95     87.31   13900.9
XSECTION   2  ADDHYD      .20      2     2     .10     .0    18.25    24.00    17.11      ---      12.16   1640.14    8363.8
1
SUMMARY TABLE 3 - DISCHARGE (CFS) AT XSECTIONS AND STRUCTURES FOR ALL STORMS AND ALTERNATES
 XSECTION/          DRAINAGE
 STRUCTURE            AREA        STORM NUMBERS..........
   ID               (30 MI)         15         25         88
8 STRUCTURE   1        .19
+
   ALTERNATE     1                715.35     1622.05     158.85
0 XSECTION    2        .20
+
   ALTERNATE     1                723.37     1640.14     163.61
1END OF  1 JOBS IN THIS RUN
```

PRE DEVELOPMENT

```
*****************20-80 LIST OF INPUT DATA FOR TR-20 HYDROLOGY*****************

JOB TR-28                     FULLPRINT              SUMMARY   NOPLOTS
TITLE 801 Dulles Gateway - Pre-Development
YITLE 002 2,18,25,100,1.5A100 Yr Storms
 6 RUNOFF 1 041        1 0.1828      57.90       0.318        1 1  1  1
   ENDATA
 7 INCREM 8                6.1
 2 COMPUT 7 041   041                 3.2         1.0          2 2  01  02
   ENDCMP 1
 2 COMPUT 7 041   041                 5.2         1.0          2 2  01  19
   ENDCMP 1
 7 COMPUT 7 041   041                 0.0         1.9          2 2  01  28
   ENDCMP 1
 Y COMPUT 7 041   041                 2.3         1.0          2 2  01  98
   ENDCMP 1
 7 COMPUT 7 041   941                10.95        1.8          2 2  01  99
   ENDCMP 1
   ENDJOB 2
0*******************************END OF 80-80 LISY*******************************

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
                 (A STAR(*) AFTER THE PEAK DISCHARGE YIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
                  A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/    STANDARD               RAIN  ANTEC  MAIX         PRECIPITAZION                                  PEAK DISCHARGE
STRUCTURE    CONTROL   DRAINAGE   TABLE  MOIST  YIME  ......................... RUNOFF ..........................................
  50        OPERATION    AREA       #    COND  INCREM  BEGIN  AMOUNT  DURAYSON  AMOUNT   ELEVATION   TIME     RATE      RATE
                       (80 MI)                  (HR)   (HR)    (IN)    (HR)     (IN)      (FT)      (HR)     (CFS)     (CSM)

   ALTERNATE     1    STORM    2
+
XSECTION  41  RUNOFF     .19      2     2     .1C     .0     3.20    24.00     .34       ---      12.17     20.69     127.4
   ALTERNATE     1    STORM   10
+
XSECTION  41  RUNOFF     .16      2     2     .18     0      5.20    24.09    1.2Y       ---      12.12    127.39     784.4
   ALTERNATE     1    STORM   25
+
XSECTION  41  RUNOFF     .16      2     2     .10     .0     E.09    21.09    1.75       ---      12.11    102.34    1122.8
   ALTERNATE     1    STORM   98
+
XSECTION  41  RUNOFF     .16      2     2     .10     .0     7.30    24.80    2.60       ---      12.10    280.85    1728.1
   ALTERNATE     1    STORM   69
+
XSECTION  41  RUNOFF     1E       7     2     10      0     10.85    24.80    6.30       ---      12.09    592.76    3A50.0
1
SUMMARY TABLE 3 - DISCHARGE (CFS) AT XSECTIONS AND STRUCTURES FOR ALL STORMS AND ALTERNATES

XDECTION/           DRAINAGE
STRUCTURE             AREA       STORM NUMBERS . .
  10                (80 MI)         2        10        25        56        99

0 XSECTION   41        .18
+
  ALTERNATE      1                20 69    127 39    182 34    280.85    582 76
1END OF  1 JOBS 10 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 = 316,505.68 C.F.

REFERENCE APPROVED FAIRFAX COUNTY PLAN: 6848-PI-002-1 (3/31/04) FOR INFORMATIONAL PURPOSES ONLY!!

REVISIONS		
No.	DATE	DESCRIPTION

PLAN DATE: 03-27-00, 09-08-00, 01-30-01

URBAN ENGINEERING & ASSOC.,INC.
CIVIL ENGINEERS • LANDSCAPE ARCHITECTS • LAND SURVEYORS
7712 LITTLE RIVER TURNPIKE
ANNANDALE, VIRGINIA 22003 (703) 642-8080

CURVE NUMBERS, TIME OF CONCENTRATION, AND TR-20
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 2000
SHEET 5 OF 5
FILE No. SP-1158

REVISIONS		
No.	DATE	DESCRIPTION

PLAN DATE: 12-13-11, 2-2-12, 4-20-12, 6-12-12, 7-19-12, 8-3-12, 11-29-12, 06-25-13, 08-19-13, 10-07-13

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STORMWATER MANAGEMENT REFERENCE SHEET
DULLES STATION
PARCEL 5A
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA
SCALE: N/A   C.I.= N/A   DATE: DEC., 2011
SHEET 21 OF 41
FILE No. SP-1158-12

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	116.97
ONSITE OPEN	0.30	1.95
ONSITE ROAD TO DRY POND	0.90	2.15
	Total Area=	121.07

NOTE: "C" Factors developed using % Imperviousness for existing and proposed conditions. "C" Factors for future uses were developed using PFM Table 6.6.

Phosphorus Removal

Part 2 Compute the Weighted Average "C" Factor For the Site.

(A)Area of Site (a) 121.07 acres

(B)Subarea Designation and Description (1)	(2)	"C" (3)	x	Acres	=	Product (4)
ONSITE BUSINESS/COMMERCIAL TO DRY POND		0.80	x	116.97	=	93.58
ONSITE OPEN		0.30	x	1.95	=	0.59
ONSITE ROAD TO DRY POND		0.90	x	2.15	=	1.94
				TOTAL AREA = 121.07		96.11

(C)Weighted average "C" factor (b) / (a) (C)

96.11/121.07 0.79

Part 3 Compute the Total Phosphorus Removal for the Site.

Subarea Designation (1)	BMP Type (2)	Removal Eff.(%) (3)		Area Ratio (4)		"C" Factor Ratio (5)		Product (6)
ON BS/COM	DRY POND	50.0	x	0.97	x	1.012	=	48.082
ON POND	DRY POND	50.0	x	0.016	x	0.379	=	0.3032
ON ROAD	DRY POND	50.0	x	0.17	x	1.138	=	0.968

(A)Total Phosphorus Removal (a) Total 50.35%

Part 4 Determine Compliance with Phosphorus Removal Requirement.

(A)Select Requirement (a) 50%

Water Supply Overlay District (Occoquan) 50%
Chesapeake Bay Resource Preservation Area (New Develo 40%
Chesapeake Bay Resource Preservation Area (Redevelopment) %

[1-0.9 x ["I"pre / "I"post)] x 100

(B)If Line 3 (a) is greater than or equal to Line 4 (a), then the Phosphorus removal requirement is satisfied. Line 3 (a) Line 4 (a)

50.35% > 50% Requirement is Satisfied

Site Coverage

Part 5 Determine Compliance with Site Coverage Requirement.

Sum all the uncontrolled onsite areas and compute a weighted average "C" factor. Do not include qualifying open space.

Subgrade Designation (1)	"C" (2)	x	Acres (3)	=	Product (4)
—	—	x	—	=	—

(A)Total equivalent uncontrolled area (a) —

(B)Total uncontrolled area (b) —

(C)Weighted average "C" factor (b) / (a (c) —

(D)If Line 5 (b) < 20% of Line 2 (a), then the site coverage requirement is satisfied. Line 5 (c) is the equivalent offsite area for which coverage may be required.

100 x Line — / — = (d) —

Part 6 Determine the Offsite Areas for which Coverage is Required.

(A)For the offsite areas listed in Part 1 which flow to proposed onsite BMP's, compute the equivalent areas.

Subgrade Designation (1)	"C" (2)	x	Acres (3)	=	Product (4)
			Total = (a)		

If the equivalent offsite area, Line 6 (a), draining to all proposed BMP facilities is greater than the equivalent uncontrolled area of the site shown in Line 5 (a); then, the offsite area controlled by the proposed BMP facilities may be reduced until the two are equal. Otherwise, all uncontrolled offsite areas draining to the proposed BMP facilities must be included. All offsite areas thus reduced should be marked with an "*" whenever they appear in the computations.

Storage for SWM/BMP DRY POND

Part 7 Compute the Weighted Average "C" Factor for Each Proposed BMP

(A)List the areas to be controlled by BMP

Subarea Designation (1)	"C" (2)		Acres (3)		Product (4)
ONSITE TO DRY POND	0.79	x	121.07	=	95.64
		(a)	121.07	(b)	95.64

(C)Weighted average "C" factor (b) / (a) (c) 0.79

Part 8 Determine the Storage Required for SWM/BMP Ponds (Dry Pond)

(A)Extended Detention ( )
Chart A6-40 value for BMP storage per acre
[(4375 x "C") - 875] or [31.25 x % (a) 2581.2 cf / ac

Design 1 (48 hour drawdown)
Line 7 (a) 121.07 x 2,581.2 = 312,505.88 cf

Outlet Computations

Part 9 Determine the Required Orifice Size for Each Extended Detention Facility.

(A.1)BMP storage requirement (S) from Part 8. (a.1) 312,505.88 cf

(A.2)BMP storage provided (a.2) 319,505.88 cf

(B)Maximum Head (h) at the required BMP storage from the elevation-storage curve for the facility. (b) 8.25 ft

(C)Peak Outflow rate (Q) at the maximum head for a drawdown time of 48 hours [Q = S / (0.5 x 3600 x 48)]

1.16E-05 x 319,505.88 = (c) 3.706cfs

(D)Required Orifice Area line 9(C)/ [0.6 x (64.4 x h) to the0.5)

3.706/[0.6 * (64.4 * 8.25) to the 0.5] = 0.253 sq. ft.

(E)Diameter of a circular orifice

12 x 2.0 x [(line 9 (d) 0.253 / 3.1415927) to the 0.5) 6.81 Inches

B.M.P. COMPUTATIONS

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, 2000

SHEET 17 OF

FILE No. SP-1158

URBAN ENGINEERING & ASSOC., INC.

CIVIL ENGINEERS · LANDSCAPE ARCHITECTS · LAND SURVEYORS
7712 LITTLE RIVER TURNPIKE
ANNANDALE, VIRGINIA 22003 (703) 642-8850

PLAN DATE: 03-27-00, 06-08-00, 01-30-01

No. DATE DESCRIPTION REVISIONS

STORMWATER MANAGEMENT REFERENCE SHEET

DULLES STATION PARCEL 5A

DRANESVILLE DISTRICT

FAIRFAX COUNTY, VIRGINIA

SCALE: N/A CI = N/A DATE: DEC., 2011

SHEET 22 OF 41

FILE No SP-1158-12

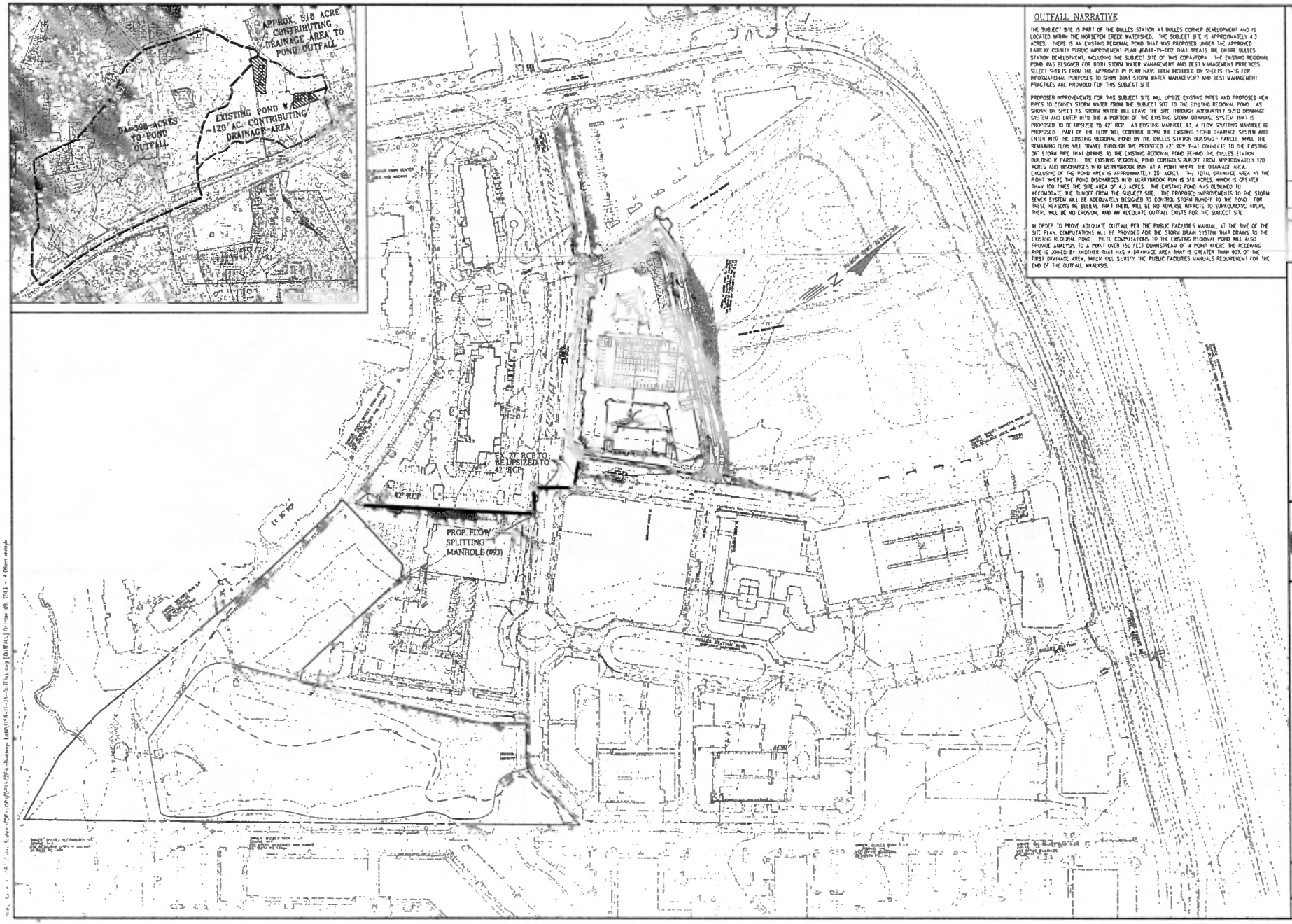
urban

Urban, Ltd.
4200 D TECHNOLOGY CT.
CHANTILLY, VA. 20151

PLAN DATE: 12-13-11, 2-2-12, 4-20-12, 6-12-12, 7-19-12, 8-3-12, 11-20-12, 06-25-13, 08-19-13, 10-07-13

No. DATE DESCRIPTION REVISIONS

REFERENCE APPROVED FAIRFAX COUNTY PLAN: 6848-PI-002-1 (3/31/04) FOR INFORMATIONAL PURPOSES ONLY!!



OUTFALL NARRATIVE

THE SUBJECT SITE IS PART OF THE DULLES STATION AT DULLES CORNER DEVELOPMENT AND IS LOCATED WITHIN THE HORSEPEN CREEK WATERSHED. THE SUBJECT SITE IS APPROXIMATELY 4.3 ACRES. THERE IS AN EXISTING REGIONAL POND THAT WAS PROPOSED UNDER THE APPROVED FAIRFAX COUNTY PUBLIC IMPROVEMENT PLAN #6848-PI-002 THAT TREATS THE ENTIRE DULLES STATION DEVELOPMENT, INCLUDING THE SUBJECT SITE OF THIS CDPA/FDPA. THE EXISTING REGIONAL POND WAS DESIGNED FOR BOTH STORM WATER MANAGEMENT AND BEST MANAGEMENT PRACTICES. SELECT SHEETS FROM THE APPROVED PI PLAN HAVE BEEN INCLUDED ON SHEETS 15-16 FOR INFORMATIONAL PURPOSES TO SHOW THAT STORM WATER MANAGEMENT AND BEST MANAGEMENT PRACTICES ARE PROVIDED FOR THIS SUBJECT SITE.

PROPOSED IMPROVEMENTS FOR THIS SUBJECT SITE WILL UPSIZE EXISTING PIPES AND PROPOSES NEW PIPES TO CONVEY STORM WATER FROM THE SUBJECT SITE TO THE EXISTING REGIONAL POND. AS SHOWN ON SHEET 23, STORM WATER WILL LEAVE THE SITE THROUGH ADEQUATELY SIZED DRAINAGE SYSTEM AND ENTER INTO THE A PORTION OF THE EXISTING STORM DRAINAGE SYSTEM THAT IS PROPOSED TO BE UPSIZED TO 42" RCP. AT EXISTING MANHOLE 93, A FLOW SPLITTING MANHOLE IS PROPOSED. PART OF THE FLOW WILL CONTINUE DOWN THE EXISTING STORM DRAINAGE SYSTEM AND ENTER INTO THE EXISTING REGIONAL POND BY THE DULLES STATION BUILDING - PARCEL, WHILE THE REMAINING FLOW WILL TRAVEL THROUGH THE PROPOSED 42" RCP THAT CONNECTS TO THE EXISTING 36" STORM PIPE THAT DRAINS TO THE EXISTING REGIONAL POND BEHIND THE DULLES STATION BUILDING K PARCEL. THE EXISTING REGIONAL POND CONTROLS RUNOFF FROM APPROXIMATELY 120 ACRES AND DISCHARGES INTO MERRYBROOK RUN AT A POINT WHERE THE DRAINAGE AREA, EXCLUSIVE OF THE POND AREA IS APPROXIMATELY 35+ ACRES. THE TOTAL DRAINAGE AREA AT THE POINT WHERE THE POND DISCHARGES INTO MERRYBROOK RUN IS 518 ACRES, WHICH IS GREATER THAN 100 TIMES THE SITE AREA OF 4.3 ACRES. THE EXISTING POND WAS DESIGNED TO ACCOMODATE THE RUNOFF FROM THE SUBJECT SITE. THE PROPOSED IMPROVEMENTS TO THE STORM SEWER SYSTEM WILL BE ADEQUATELY DESIGNED TO CONTROL STORM RUNOFF TO THE POND. FOR THESE REASONS WE BELIEVE THAT THERE WILL BE NO ADVERSE IMPACTS TO SURROUNDING AREAS, THERE WILL BE NO EROSION, AND AN ADEQUATE OUTFALL EXISTS FOR THE SUBJECT SITE.

IN ORDER TO PROVE ADEQUATE OUTFALL PER THE PUBLIC FACILITIES MANUAL, AT THE END OF THE SITE PLAN, COMPUTATIONS WILL BE PROVIDED FOR THE STORM DRAIN SYSTEM THAT DRAINS TO THE EXISTING REGIONAL POND. THESE COMPUTATIONS TO THE EXISTING REGIONAL POND WILL ALSO PROVIDE ANALYSIS TO A POINT OVER 150 FEET DOWNSTREAM OF A POINT WHERE THE RECEIVING PIPE IS JOINED BY ANOTHER THAT HAS A DRAINAGE AREA THAT IS GREATER THAN 80% OF THE FIRST DRAINAGE AREA, WHICH WILL SATISFY THE PUBLIC FACILITIES MANUALS REQUIREMENT FOR THE END OF THE OUTFALL ANALYSIS.

REVISIONS	
DATE	DESCRIPTION
12-1-11	
12-2-11	
12-5-11	
12-6-11	
12-7-11	
12-8-11	
12-9-11	
12-12-11	

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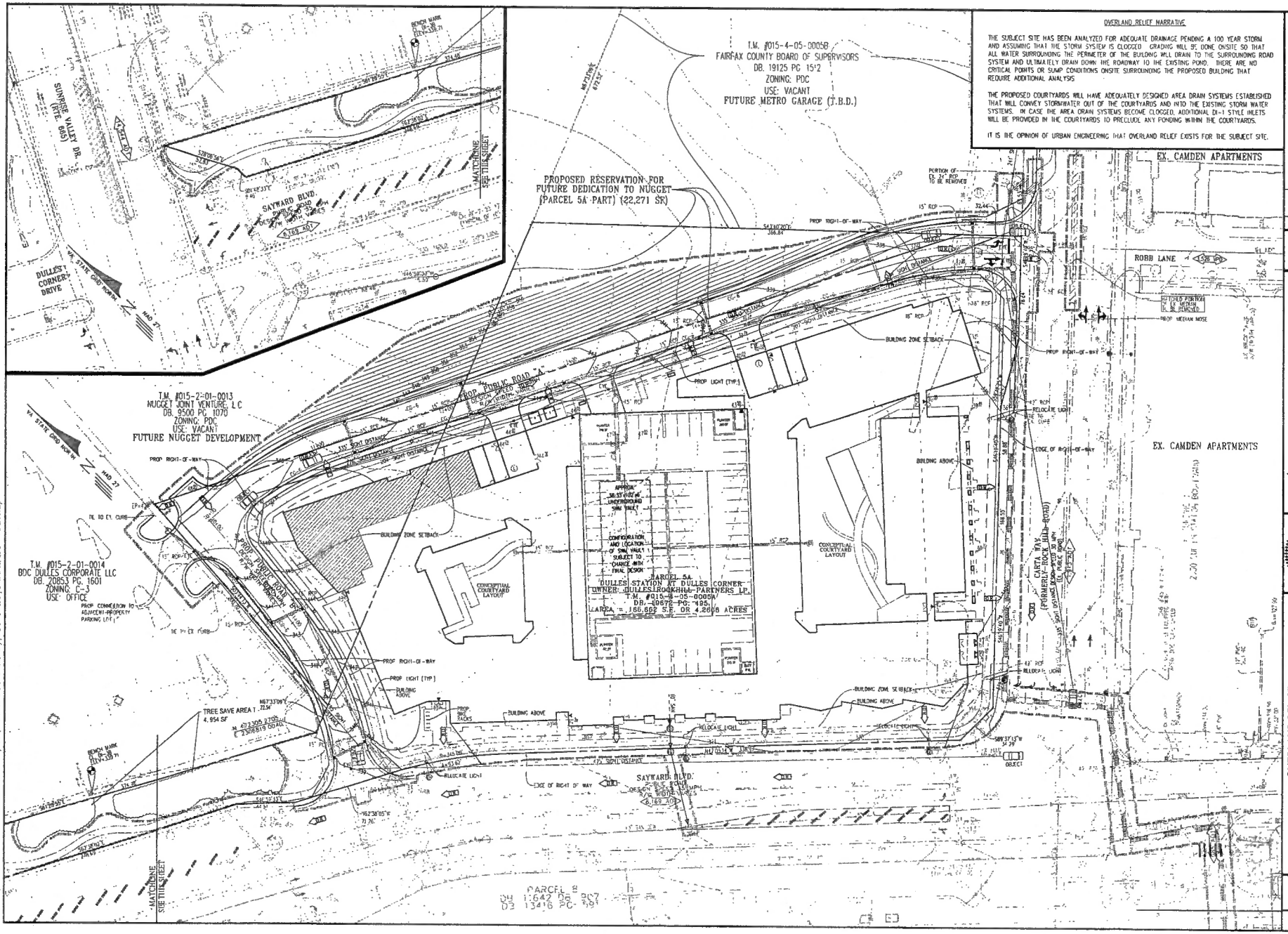
COMMONWEALTH OF VIRGINIA
Lic. No. 026790
12/7/12
PROFESSIONAL ENGINEER

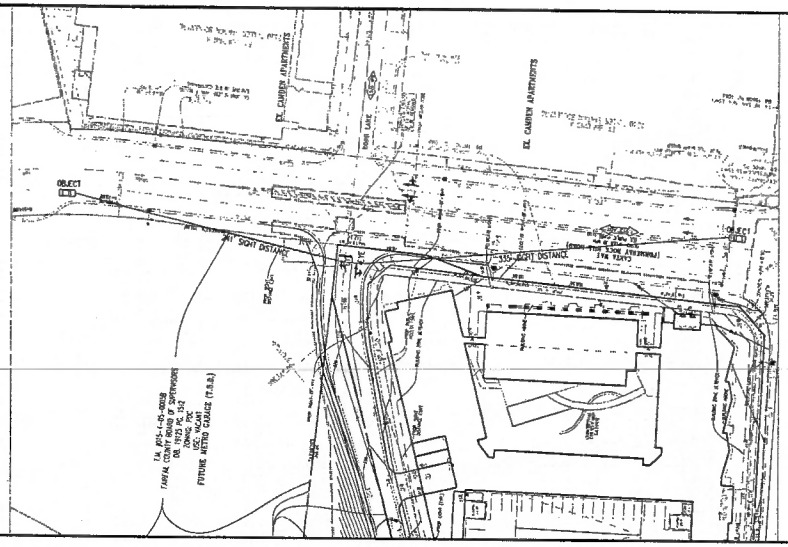
OUTFALL ANALYSIS
DULLES STATION
PARCEL 5A
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: 1"=100' (11"x17") C.I.=2' | DATE: DEC. 2011

SHEET 23 OF 41

SP-11-V-12


OVERLAND RELIEF NARRATIVE
THE SUBJECT SITE HAS BEEN ANALYZED FOR ADEQUATE DRAINAGE PENDING A 100 YEAR STORM AND ASSUMING THAT THE STORM SYSTEM IS CLOGGED. GRADING WILL BE DONE ONSITE SO THAT ALL WATER SURROUNDING THE PERIMETER OF THE BUILDING WILL DRAIN TO THE SURROUNDING ROAD SYSTEM AND ULTIMATELY DRAIN DOWN THE ROADWAY TO THE EXISTING POND. THERE ARE NO CRITICAL POINTS OR SUMP CONDITIONS ONSITE SURROUNDING THE PROPOSED BUILDING THAT REQUIRE ADDITIONAL ANALYSIS
THE PROPOSED COURTYARDS WILL HAVE ADEQUATELY DESIGNED AREA DRAIN SYSTEMS ESTABLISHED THAT WILL CONVEY STORMWATER OUT OF THE COURTYARDS AND INTO THE EXISTING STORM WATER SYSTEMS. IN CASE THE AREA DRAIN SYSTEMS BECOME CLOGGED, ADDITIONAL DI-1 STYLE INLETS WILL BE PROVIDED IN THE COURTYARDS TO PRECLUDE ANY PONDING WITHIN THE COURTYARDS.
IT IS THE OPINION OF URBAN ENGINEERING THAT OVERLAND RELIEF EXISTS FOR THE SUBJECT SITE.
T.M. #015-4-05-0005B
FAIRFAX COUNTY BOARD OF SUPERVISORS
DB. 19125 PG 1512
ZONING: PDC
USE: VACANT
FUTURE METRO GARAGE (T.B.D.)
PROPOSED RESERVATION FOR FUTURE DEDICATION TO NUGGET (PARCEL 5A PART) (22,271 SF)
EX. CAMDEN APARTMENTS
ROBB LANE
T.M. #015-2-01-0013
NUGGET JOINT VENTURE, LC
DB. 9500 PG. 1070
ZONING: PDC
USE: VACANT
FUTURE NUGGET DEVELOPMENT
T.M. #015-2-01-0014
BDC DULLES CORPORATE LLC
DB. 20853 PG. 1601
ZONING: C-3
USE: OFFICE
PROP PUBLIC ROAD "A"
PARCEL 5A
DULLES STATION AT DULLES CORNER
OWNER: DULLES ROCKHILL PARTNERS LP
T.M. #015-4-05-0005A
DB. 19672 PG. 1495
AREA = 186,602 S.F. OR 4.2868 ACRES
CONCEPTUAL COURTYARD LAYOUT
BUILDING ZONE SETBACK
BUILDING ABOVE
PROP RIGHT-OF-WAY
PROP LIGHT (TYP)
TREE SAVE AREA 1 - 22,54
4,954 SF
SAYWARD BLVD.
SUNRISE VALLEY DR. (RTE. 885)
DULLES CORNER DRIVE
VA STATE GRID NORTH
MAD 27
MATCHLINE SEE TITLE SHEET
PARCEL 8
DB 11642 PG 807
DB 13416 PG 891
EX. CAMDEN APARTMENTS
CURB & GUTTER (FORMERLY ROCK HILL ROAD)
RELOCATE LIGHT
EDGE OF RIGHT OF WAY
PROP MEDIAN NOSE
BENCH MARK
TIE TO EX. CURB
PROP CONNECTION TO ADJACENT PROPERTY PARKING LOT
PLAN DATE
12-21-11
2-29-12
4-20-12
5-18-12
7-25-12
08-23-13
09-25-13
10-07-13
REVISIONS
urban
Planners-Engineers-Landscape Architects-Land Surveyors
OVERLAND RELIEF
DULLES STATION
PARCEL 5A
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA
SCALE: 1"=30'
C.I.= 2'
DATE: DEC., 2011
SHEET 24 OF 41
FILE No. SP-1158-12



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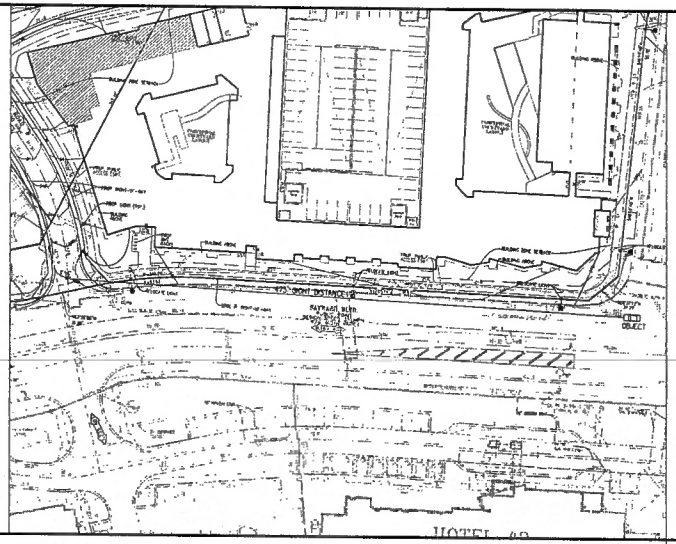

SAYWARD BLVD.
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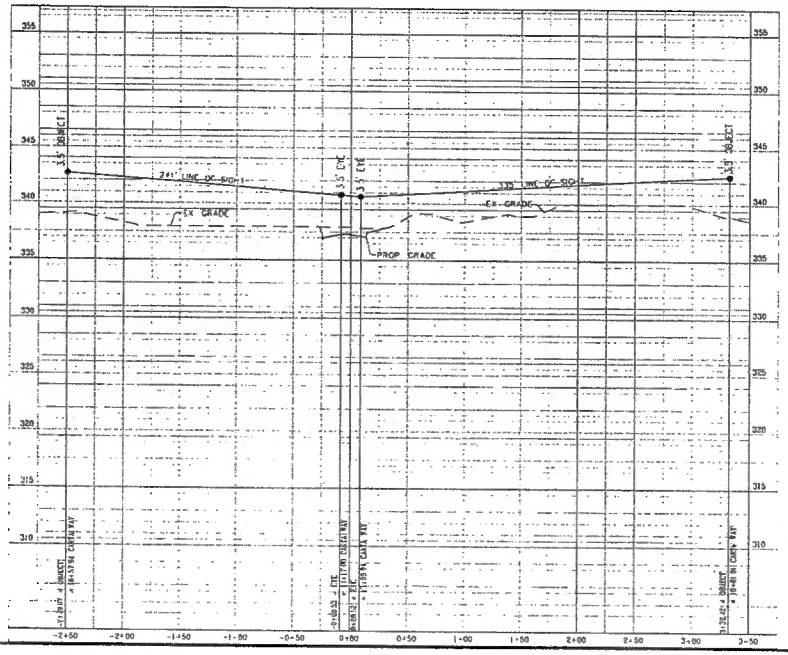
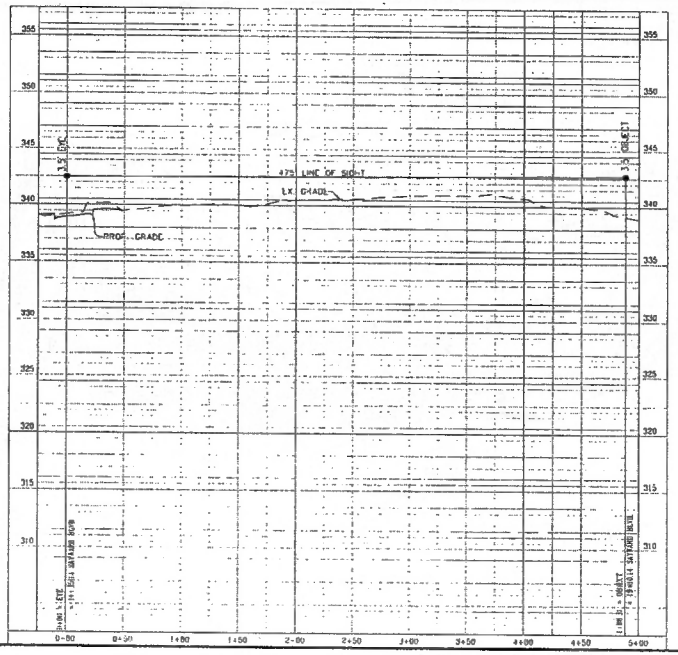
PROFILE VIEW
SCALE: H:1"=50'; V:1"=5'





REVISIONS

No.	DATE	DESCRIPTION
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3	4-20-12	
4	6-29-12	
5	7-19-12	
6	8-24-12	
7	11-29-12	
8	06-25-13	
9	09-13-13	
10	10-07-13	

PLAN DATE

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Clayton C. Tyler
Lic. No. 029978
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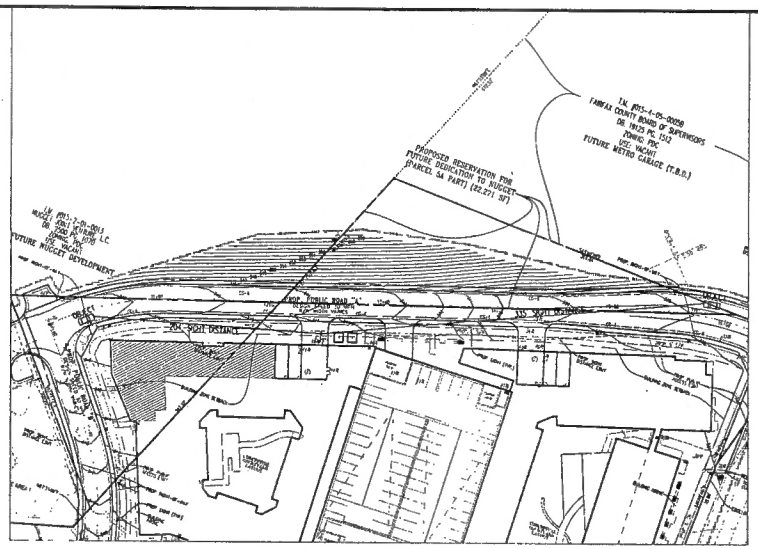
PROFESSIONAL ENGINEER

SIGHT DISTANCE PROFILES
DULLES STATION
PARCEL 5A
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: AS NOTED
C.L.# N/A
DATE: DEC., 2011

SHEET
25
of
41

FILE No.
SP-1158-12



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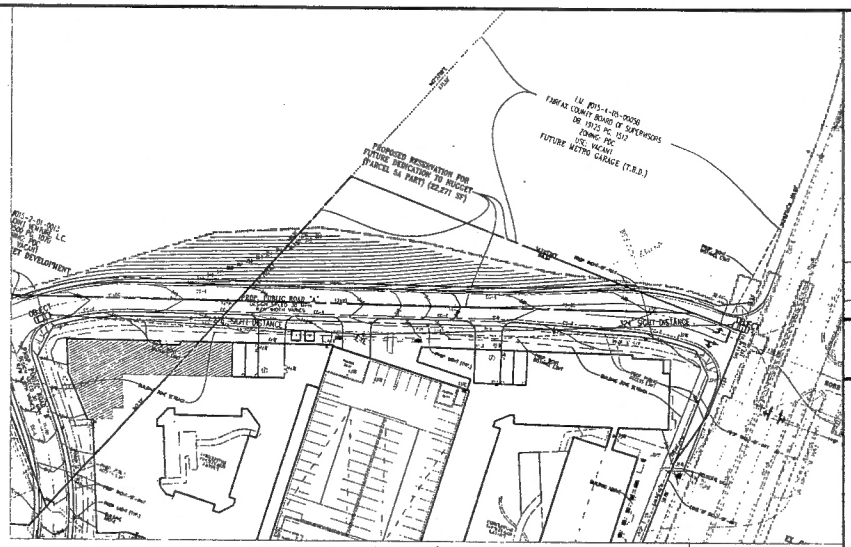
R/W WIDTH VARIES



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PROFILE VIEW
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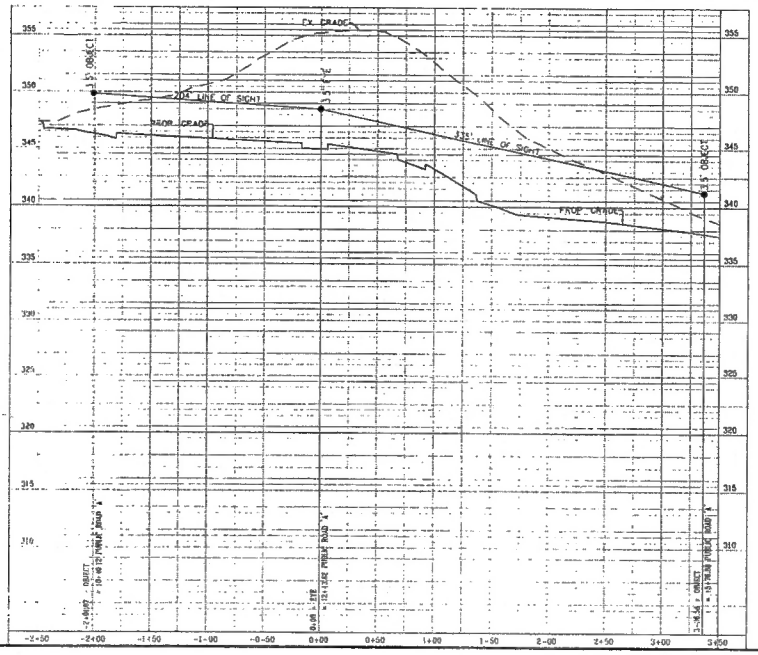

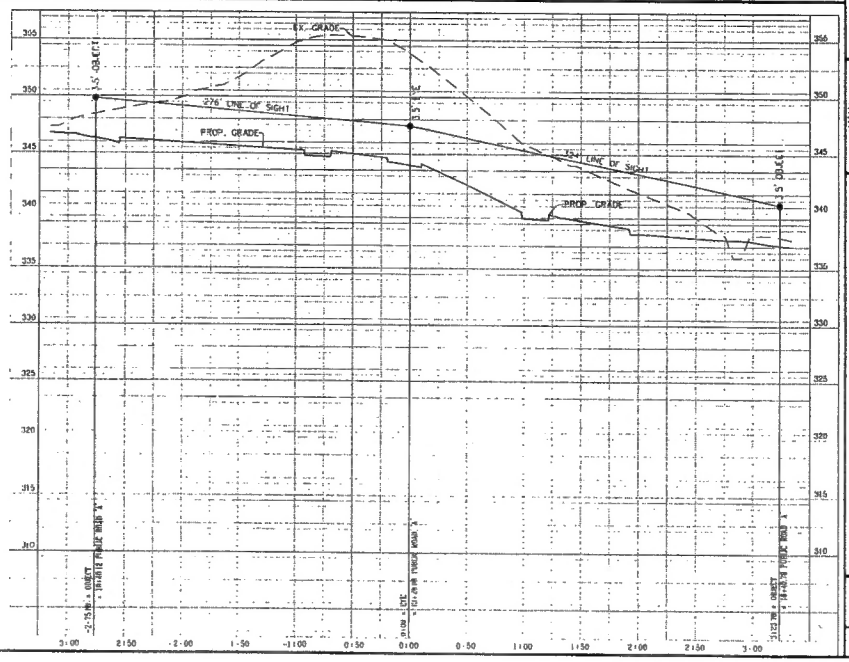

No.	DATE	DESCRIPTION

REVISIONS

PLAN DATE
12-13-11
2-2-12
4-25-12
6-29-12
7-19-12
8-13-12
11-29-12
08-23-13
09-13-13
10-07-13

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PROFESSIONAL ENGINEER

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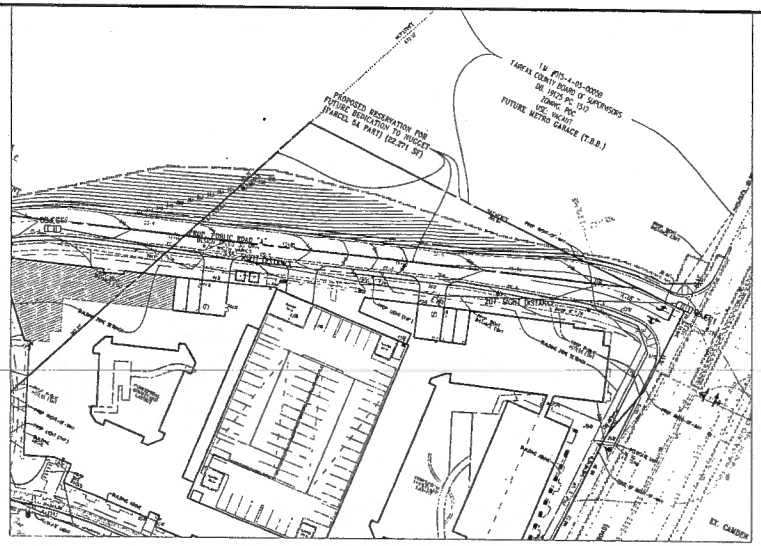
PARCEL 5A
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: AS NOTED
C.I.#: N/A
DATE: DEC., 2011

SHEET 26 OF 41

FILE No SP-1158-12



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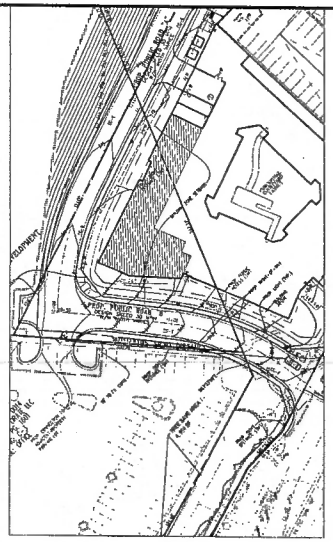

CORPORATE LLC ENTRANCE
DESIGN SPEED=30 MPH
R/W WIDTH VARIES

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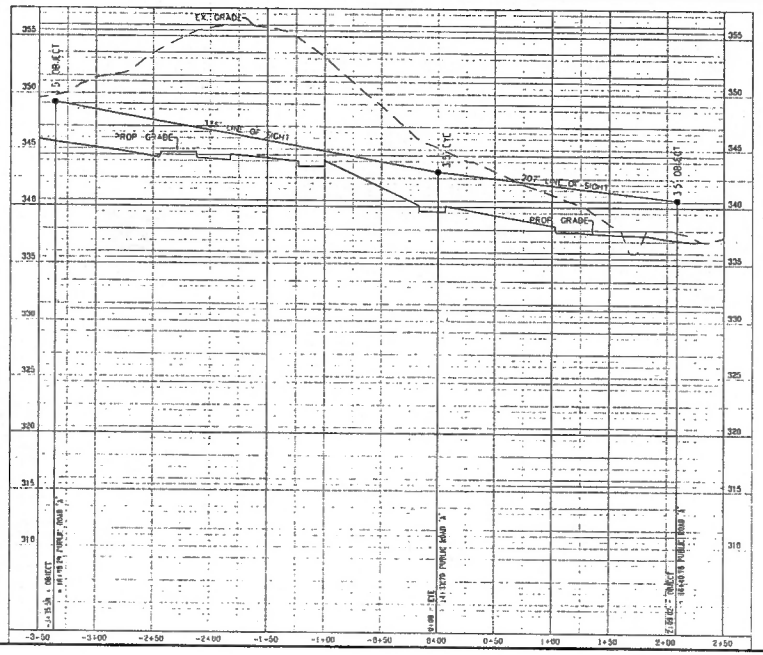
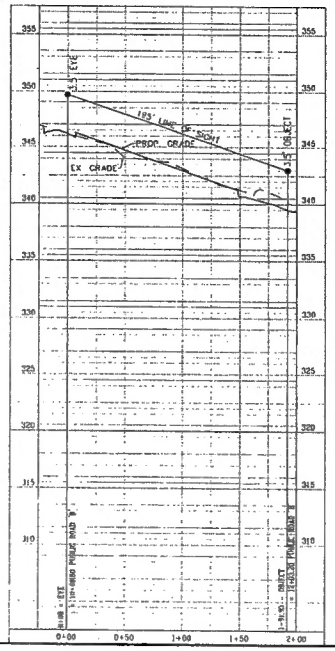
SCALE: 1"=50'

PROFILE VIEW
SCALE: H:1"=50'; V:1"=5'





No.	DATE	DESCRIPTION

REVISIONS

PLAN DATE
12-13-11
2-2-12
4-20-12
7-19-12
8-29-12
11-29-12
08-23-13
09-24-13
10-07-13

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COMMONWEALTH OF VIRGINIA
Gordon C. Beck
Lic No. 048700
12/17/12
REGISTERED PROFESSIONAL ENGINEER

SIGHT DISTANCE PROFILES
DULLES STATION
PARCEL 5A
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: AS NOTED C1 = N/A DATE: DEC. 2011

SHEET 27 OF 41

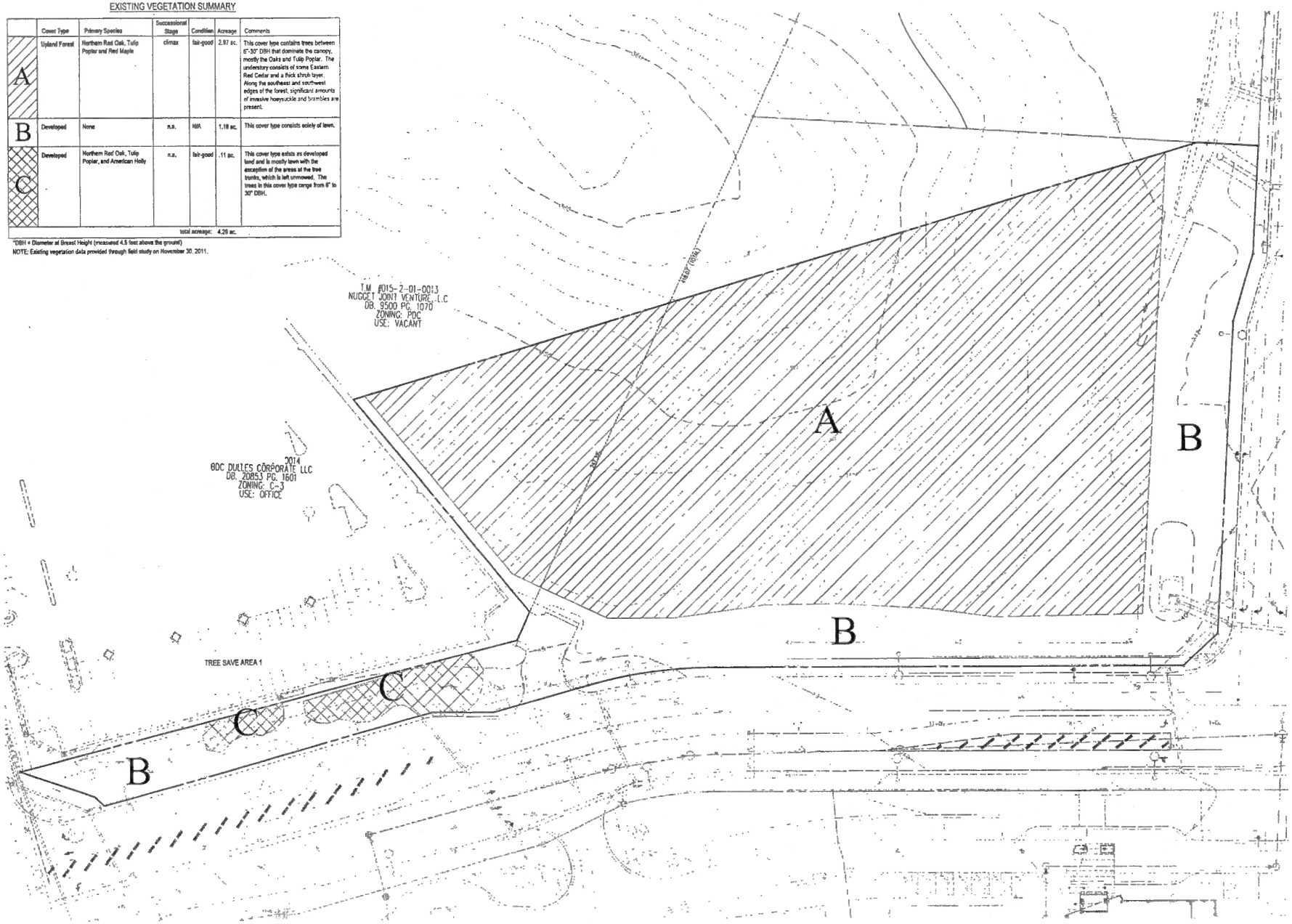
FILE No. SP-1158-12

EXISTING VEGETATION SUMMARY

	Cover Type	Primary Species	Successional Stage	Condition	Acreage	Comments
A	Upland Forest	Northern Red Oak, Tulip Poplar and Red Maple	climax	fair-good	2.97 ac.	This cover type contains trees between 6"-30" DBH that dominate the canopy, mostly the Oaks and Tulip Poplar. The understory consists of some Eastern Red Cedar and a thick shrub layer. Along the southeast and southwest edges of the forest, significant amounts of invasive honeysuckle and brambles are present.
B	Developed	None	n.a.	N/A	1.18 ac.	This cover type consists solely of lawn.
C	Developed	Northern Red Oak, Tulip Poplar, and American Holly	n.a.	fair-good	.11 ac.	This cover type exists as developed land and is mostly lawn with the exception of the areas at the tree trunks, which is left unmowed. The trees in this cover type range from 6" to 30" DBH.
				total acreage:	4.26 ac.	

*DBH = Diameter at Breast Height (measured 4.5 feet above the ground)

NOTE: Existing vegetation data provided through field study on November 30, 2011.



No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
12-15-11
4-2-12
5-25-12
6-15-12
8-8-12
11-29-12
06-13-13
08-19-13
10-07-13

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Planners Engineers Landscape Architects Land Surveyors

COMMONWEALTH OF VIRGINIA
Lic. No. 0.0807980
PROFESSIONAL ENGINEER

EXISTING VEGETATION MAP
DULLES STATION
PARCEL 5A
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: 1"=50'
C.I.= 2'
DATE: DEC., 2011

SHEET 28 OF 41

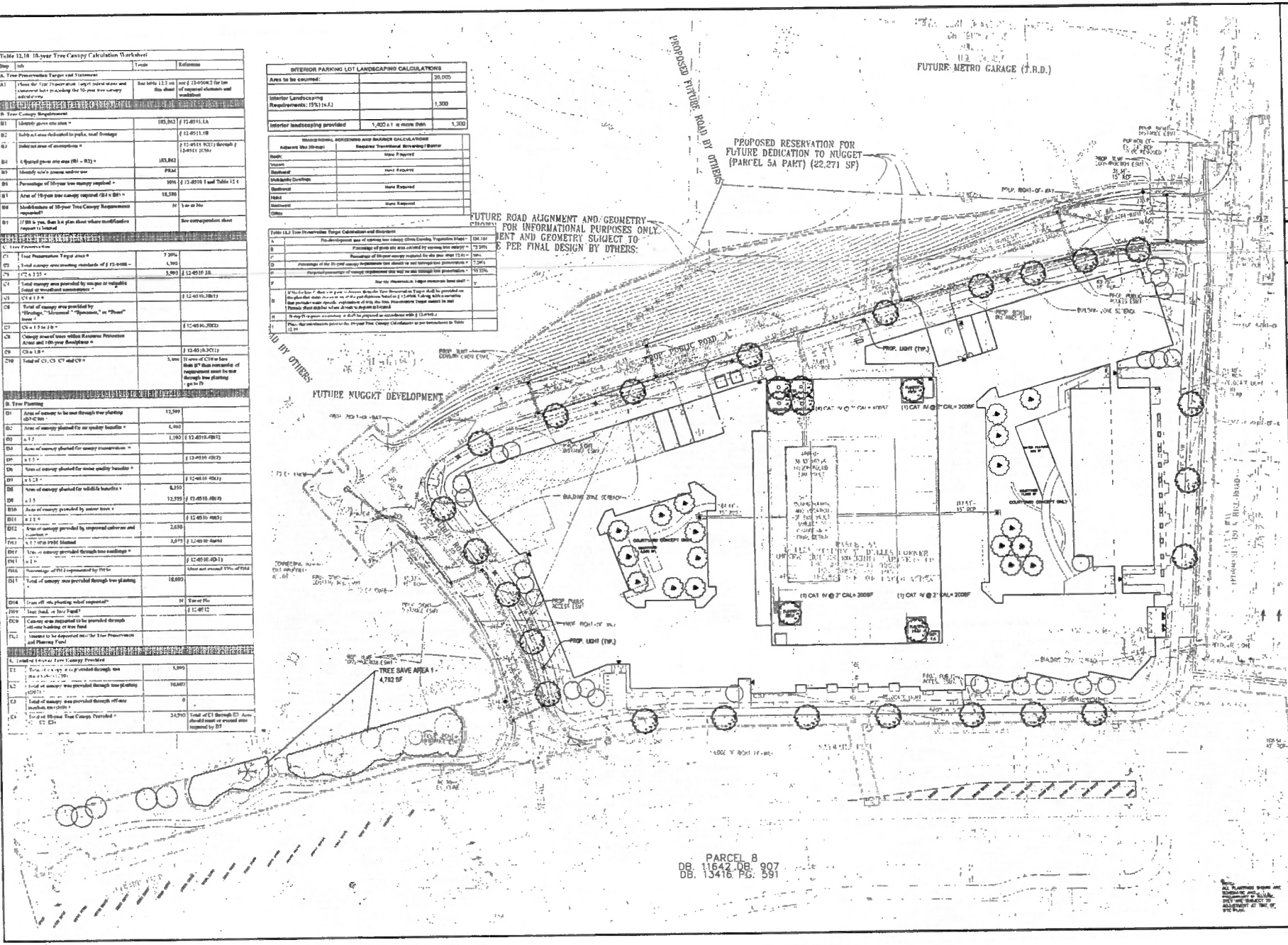
FILE No. SP-115R-12

Table 12.18 10-year Tree Canopy Calculation Worksheet			
Step	Info	Totals	References
A. Tree Preservation Target and Statement			
A1	Note the Tree Preservation Target (enter notes and numerical key in making the 10-year tree canopy calculation)	See table 12.3 on this sheet	see § 12-0506.2 for list of required elements and conditions
B. Tree Canopy Requirement			
B1	Identify gross site area *	185,862	§ 12-0511.11A
B2	Subtract area dedicated to parks, road frontage		§ 12-0511.11B
B3	Subtract area of exceptions *		§ 12-0511.11C(1) through § 12-0511.11C(6)
B4	A Net gross site area (B1 - B3) *	185,862	
B5	Identify site's zoning and/or use	PRM	
B6	Percentage of 10-year tree canopy required *	10%	§ 12-0510.1 and Table 12.4
B7	Area of 10-year tree canopy required (B4 x B6) =	18,586	
B8	Modification of 10-year Tree Canopy Requirement requested?	N	Yes or No
B9	If B8 is yes, then is a plan sheet where modification request is located		See correspondent sheet
C. Tree Preservation			
C1	Tree Preservation Target area *	7.20%	
C2	Total canopy area meeting standards of § 12-0506 =	4,392	
C3	C2 x 1.25 *	5,490	§ 12-0510.1B
C4	Total canopy area provided by on-site or valuable forest or woodland conservation *		
C5	C4 x 1.5 *		§ 12-0510.2B(1)
C6	Total of canopy area provided by "Heritage," "Memorial," "Specimen," or "Field" trees *		§ 12-0510.2B(2)
C7	C6 x 1.5 or 2.0 *		
C8	Canopy area of trees within Resource Protection Areas and 100-year floodplains *		§ 12-0510.2C(1)
C9	C8 x 2.0 *		
C10	Total of C1, C3, C5 and C9 =	5,490	If area of C10 is less than B7 then remainder of requirement must be met through tree planting - go to D
D. Tree Planting			
D1	Area of canopy to be met through tree planting (B7-C10) =	12,909	
D2	Area of canopy planted for air quality benefits *	1,400	
D3	x 0.5 *	1,100	§ 12-0510.4B(1)
D4	Area of canopy planted for canopy conservation *		
D5	x 1.5 *		§ 12-0510.4B(2)
D6	Area of canopy planted for water quality benefits *		
D7	x 1.25 *		§ 12-0510.4B(3)
D8	Area of canopy planted for wildlife benefits *	8,350	
D9	x 1.5	12,525	§ 12-0510.4B(4)
D10	Area of canopy provided by native trees *		
D11	x 2.0 *		§ 12-0510.4B(5)
D12	Area of canopy provided by improved cultivar and/or cultivar *	2,650	
D13	x 1.5 or 2.0 *	3,975	§ 12-0510.4B(6)
D14	Area of canopy provided through tree plantings *		
D15	x 1.5 *		§ 12-0510.4D(1)
D16	Percentage of D13 represented by D14		Must not exceed 25% of D14
D17	Total of canopy area provided through tree planting	18,600	
D18	Fees-in-lieu-of-site planting relief requested?	N	Yes or No
D19	Tree Bank or Tree Fund?		§ 12-0512
D20	Canopy area requested to be provided through off-site banking or tree fund		
D21	Amount to be deposited into the Tree Preservation and Planting Fund		
E. Total of 10-year Tree Canopy Provided			
E1	Total of canopy area provided through tree preservation (C10)	5,490	
E2	Total of canopy area provided through tree planting (D17)	18,600	
E3	Total of canopy area provided through off-site banking or tree fund *	0	
E4	Total of 10-year Tree Canopy Provided = (E1 + E2 + E3)	24,090	Total of E1 through E3. Area should meet or exceed area required by B7

INTERIOR PARKING LOT LANDSCAPING CALCULATIONS		
Area to be counted:		20,000
Interior Landscaping Requirements: (5%) (a.f.)		1,000
Interior landscaping provided	1,400 s.f. is more than	1,000

TRANSITIONAL SCREENING AND BARRIER CALCULATIONS	
Adjacent Use (Group)	Required Transitional Screening / Barrier
North:	None Required
Vacant	
Southeast	None Required
Multifamily Dwellings	
Southwest	None Required
Hotel	
Northwest	None Required
Office	

Table 12.3 Tree Preservation Target Calculation and Statement		
A	Pre-development area of existing tree canopy (from Existing Vegetation Map) =	104,164
B	Percentage of gross site area covered by existing tree canopy =	73.34%
C	Percentage of 10-year canopy required for site (see step D1) =	10%
D	Percentage of the 10-year canopy requirement that should be met through tree preservation =	7.20%
E	Percentage of canopy requirement that will be met through tree preservation =	73.33%
F	Are the conditions for large canopy trees met? =	Y
G	If the factor F does not equal "Y" then the gross site area shall be reduced to the plan that states the area or one of the predefinitions listed in § 12-0506. Taking into account the percent tree canopy, explanation of why the Tree Preservation Target cannot be met. Provide sheet number where details can be found in plan set.	
H	Map of canopy assessment is draft to be prepared in accordance with § 12-0505.2	
I	Plan for minimum fees-in-lieu 10-year Tree Canopy Calculations as per instructions in Table 12.19	



urban

LANDSCAPE PLAN & TREE CALCULATIONS
DULLES STATION
PARCEL 5A
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: 1"=30'
DATE: DEC., 2011

SHEET 29 OF 41

FILE No SP-1158-12

PLANTING SPECIFICATIONS

1 QUALITY ASSURANCE
A. Landscape planting and related work shall be performed by a firm with a minimum of five years experience specializing in the type and scale of work
B Applicable Specifications and Standards
Fairfax County Zoning Ordinance
American Joint Committee on Horticultural Nomenclature
American Standard for Nursery Stock, latest edition
American Association of Nurserymen Landscape Specification Guidelines for Baltimore-Washington Metropolitan Areas, latest edition, Landscape Contractors Association

2 SUBMITTALS Submit the following to the Owner's Representative prior to beginning work:
A Copies of manufacturer's data for all materials required
B Samples of required mulch material.
C Chemical and mechanical analysis and samples of all existing soil, topsoil, organic matter and soil mix to be used
D Planting schedule showing the times (earliest and latest) proposed for each type of plant specified, schedule each type of planting within the normal planting seasons for such work. Include requests for any proposed changes in the approved planting season and a list of proposed sources for all plant materials
E List of proposed sources for all plant material.

3. DELIVERY, HANDLING, AND STORAGE
A Deliver packaged materials in manufacturer's unopened containers or bundles fully identified with name, brand, type, weight, and analysis. Store packaged materials in such a manner as to prevent damage or intrusion of foreign matter
B Dig balled and burlapped (B& B) plants with firm, natural balls of earth, of a diameter not less than that shown on the plant list nor less than recommended by the American Standard for Nursery Stock, and of sufficient depth to include the fibrous and feeding roots. B&B plants will not be accepted if the ball is cracked or broken before or during planting operation
C Deliver trees and shrubs after preparations for planting have been completed. Do not bend, bind, or tie trees or shrubs in such a manner as to damage bark, break branches or destroy natural shape. If planting is delayed more than 6 hours after delivery, set trees and shrubs in shade, protect from weather and mechanical damage, and keep roots moist by covering bare root stock and covering plant balls with soil, peat moss or other acceptable material for balled stock. Plants shall be kept well watered and shall not remain unplanted for longer than ten (10) days after delivery
D Plants shall be lifted and handled from the bottom of the ball only
E. Do not remove container-grown stock from containers until planting time

4 DRAINAGE Before planting, determine that areas to receive plant material have adequate subdrainage
A The landscape contractor is responsible for drainage tests as necessary to identify any problems prior to beginning planting operations. Upon commencement of planting operations the landscape contractor assumes responsibility for soil conditions
B Dig planting pits to full depth and dimensions indicated on drawings
C At bottom of planting pit, excavate rectangular pit 12 inches by 12 inches by 18 inches deep. Quickly pour water into pit to a depth of 8 inches (approximately 3-3 3/4 gallon). Note time required for water to be completely absorbed. Divide time noted by 8 to achieve average rate of absorption for 1 inch of water. Where rate of absorption exceeds 60 minutes per inch, notify owner immediately for directions on how to proceed

5. PLANTING DATES. Planting shall be done only within the following dates except as approved by Owner
A Deciduous Trees and Shrubs: March 1 to May 31 and October 15 to December 15
B Evergreen Trees, Shrubs and Vines: March 1 to May 31 and September 1 to November 15
C All plant material shall be guaranteed by the Contractor for a period of 1 year from the date final acceptance to be in good, healthy and flourishing condition

6 MATERIALS FOR PLANTING
A Topsoil shall be a fertile, friable natural loam uniform in composition, free of stones, lumps, plants and their roots, debris and other extraneous matter over 1 inch in diameter, capable of sustaining vigorous plant growth. Soil shall be harvested at a single source from the O and/or A horizons of the soil profile
1) Topsoil shall have a pH range of 5.5 to 7.5
2) Topsoil shall contain 1.5-5% organic matter by dry weight
3) Soil Texture: sandy loam, sandy clay loam with the following particle size distribution
Gravel Less than 10%
Silt 15-30%
Clay 20-35%
Chemical Levels shall be
Magnesium Mg 100+ units
Phosphorus P205 150+ units
Potassium - K20 120+ units
4) Soluble Salt of Conductivity: Not to exceed 900 ppm/0.9 mmhos/cm (in soil), not to exceed 3000 ppm/2.5 mmhos/cm (in high organic mix)
5) Cation exchange capacity shall be a minimum of 6 meq/100g
B Clay Loam to Sandy Clay Loam Soil, shall be a fertile, friable natural loam, uniform in composition, free of stones, lumps, plants and their roots, debris and other extraneous matter over 1 inch in diameter, capable of sustaining vigorous plant growth.
1) Soil shall have a pH range of 5.5 to 6.5.
2) Soil shall contain 2-5% organic content by volume
3) Soil Texture: Clay loam to sandy clay loam with the following particle size distribution
Gravel Less than 10%
Sand 20-50%
Silt <35%%
Clay 20-40%
4) Chemical Levels shall be
Magnesium Mg 300+ units
Phosphorus P205 150+ units
Potassium K20 120+ units
5) Soluble Salt of Conductivity - Not to exceed 900 ppm/0.9 mmhos/cm (in soil), not to exceed 3000 ppm/2.5 mmhos/cm (in high organic mix)
6) Cation exchange capacity shall be 20-35 meq/100g
C Compost: Compost shall be mature, stable, weed free, and produced by aerobic decomposition of organic matter. Compost feedstock shall be plant matter, such as high lignin forestry products or yard waste (leaves, brush and yard trimmings).
1) The product must not contain any visible refuse or other physical contaminants, substances toxic to plants, or over 5% sand, silt, clay or rock material by dry weight
2) Compost shall be sampled and tested as required by the Seal of Testing Assurance Program of the United States Composting Council (USCC) and shall meet the physical requirements for compost as determined by USCC
3) The product shall present no objectionable odors. The product must meet all applicable USEPA CFR, Title 40, Part 503 Standards for Class A biosolids
4) The moisture level shall be such that no visible water or dust is produced when handling the material
D Composted Pine Bark Fines: Shall be approved composted, ground pine bark having no particle with a dimension greater than 3/4 mm. No more than 10% shall be wood
E Sand: Shall be quartz based sharp concrete sand, ASTM C-33 Fine Aggregate, with a Fines Modulus Index between 2.8 and 3.2
F Trace Elements: Shall be commercially available slow release materials containing zinc (Zn), Molybdenum (Mo), Copper (Cu), Boron (B), and Magnesium (Mn)
G Fertilizer: A commercial fertilizer for ornamental trees, shrubs and ground cover with an analysis of 10% Nitrogen, 6% Phosphorus and 4% Potassium shall be used. The fertilizer shall be granular with a minimum of 50% of the total Nitrogen in organic form. 14-14-14 Osmocote (or approved equal) shall be applied at a rate of 10 lbs. per square foot tilled to a depth of 6 inch, shall be used for perennials
H Soil Separator: Shall be rot resistant non-woven polypropylene filter fabric, water permeable and unaffected by freezing and thawing. Acceptable products include Mirafi 140N, Mirafi Civil Engineering Co., or Stabilenka Type T-80, American Enka Co., Enka, N.C.
I Planter Drainage Fabric: Shall be prefabricated planter drainage fabric Miradrain 9000, a composite system consisting of a Mirafi drainage fabric bonded to a three dimensional highly impact resistant plastic core. The core shall have the following attributes
1) Compressive Strength (ASTM D-1621), 15,000 – PSF
2) Overlaps: Shall be capable of mechanically interlocking so as to prevent separation of the overlaps during backfill

7 PLANT MATERIALS (Refer to the PLANT LIST on the drawings for specific types and quantities of plants)
A Plants shall be nursery grown in accordance with good horticultural practices. Plants shall either be obtained from local nurseries and/or others, which have soil (heavy clay) and climatic conditions similar to those in the locality of the project
B Plant material grown in sandy, well-drained soil will not be approved for this project. Plants shall be true to species and variety and unless specifically noted otherwise, all plants shall be of specimen quality, exceptionally heavy, symmetrical, tightly-knit plants, so trained or favored in their development and appearance as to be superior in form, number of branches, compactness and symmetry
C. Plants shall be sound, healthy and vigorous, well branched and densely foliated when in leaf, free of disease, insect pests, eggs or larvae and shall have healthy, well-developed root systems. They shall be free from physical damage or any conditions that would prevent thriving health and the desired appearance
D Trees, which have a damaged or crooked leader, or multiple leaders, unless specified in the plant list will be rejected. Trees with abrasion of the bark, sun scald, disfiguring knots, or pruning cuts more than 1 1/4 inch diameter which have not completely calloused, will be rejected
E Plants shall conform to measurements specified in the plant schedule except that plants larger than specified may be used if acceptable to the Landscape Architect or owner. Use of such plants shall not increase the contract price. If larger plants are accepted, the root ball shall be sized for the larger plant
F Caliper Measurement: Shall be taken at a point on the trunk 6 inches above natural ground line for trees up to 4 inches diameter, and at a point 12 inches above the natural ground line for trees over 4 inches diameter
G. Plants shall be measured when branches are in the normal position. Height and spread dimensions specified refer to the main body of the plant and not from branch tip to tip

8 SOIL MIXING PROCEDURES
A Topsoil used in amended mixes shall be screened or shredded prior to mixing in mixes. Maximum clod inclusion for soil mixes shall not exceed.

Clod size (largest dimension)	% of the soil mix volume
Less than 1"	Unlimited
1 to 3 inches	20%
3 to 5 inches	5%
>6 inches	Less than 2%

B. Source material and soil mix stockpiles shall be protected from rain by covering with filter cloth

9. INSPECTION.
A Examine the areas and conditions where soil mix is to be installed and notify the Architect of conditions detrimental to the proper and timely completion of the work. Do not proceed with the work until unsatisfactory conditions are corrected to permit proper installation of the work.
B. Cooperate with other Contractors and trades working in and adjacent to other work areas. Examine drawings which show development of entire project and become familiar with scope of other work required

10. SOIL INSTALLATION - GENERAL PROCEDURES
A If subgrade soil compaction exceeds 80%, existing soil shall be ripped to a depth of 12 inch to eliminate compaction which has taken place during construction. Prior to loosening of soil, Contractor must locate existing utilities and coordinate with Owner any underground electric lines, drainage pipes, conduits, etc
B. Prepare the subgrade by roughening the top 3" of the subsoil by dragging the teeth of a backhoe bucket across the surface.
C Begin soil installation as soon as subsoil is prepared. Use low impact equipment with track belts, large tires, or low tire pressure to lower compaction and soil damage during installation
D Monitor compaction during installation and loosen soils as needed if compaction exceeds 80%
E Install specified soil in 12"-18" thick lifts. Compact each lift sufficiently to reduce settling but not enough to prevent the movement of water and feeder roots through the soil. The soils in each lift should feel firm to the foot in all areas and make only slight heel prints.

11 INSTALLATION OF SOIL MIX FOR LAWN AREAS ON GRADE
A Soil Mix for Lawns on Grade shall consist of 10% compost and 50% topsoil, by volume. These materials must meet specifications described in Section 2.00.
B. Loosen subgrade lawn areas to a minimum of 3". Remove stones more than 1-1/2" in any dimension and sticks, roots, rubbish, and other extraneous matter. Limit preparation to areas which will be planted promptly after preparation
C Spread soil mix for lawn areas on grade to a minimum depth of 8" as required to meet grade and elevations shown on drawings, after lightly rolling and natural settlement. Allow for soil thickness in areas to be sodded

12 INSTALLATION OF SOIL MIX FOR TREE PITS ON GRADE
A Confirm that native subsoil drains at a rate of at least ½" per hour. If drainage is less than ½" per hour, provide subsurface drainage lines
B. Install 30-36" of Soil Mix for Tree Pit Backfill on Grade
1) Shall consist of clay loam to sandy clay loam soil, sand, and composted pine bark fines at a rate of 5.5:1 to 10.5:1.5 to achieve the following
(a) Clay content of Soil Mix shall be 10-20% of the soil mix, by volume
(b) Minimum amount of coarse to medium sand in the mix shall be 55%
(c) Minimum infiltration rate at 80-85% compaction shall be 1-3 inches per hour
A. Composted pine bark fines shall not exceed 10% of the total soil mix by volume
B. Till 6" of compost into the top 5" of the installed Soil Mix for Tree Pit Backfill on Grade

13 INSTALLATION OF SOIL MIX FOR MULCHED SHRUB AND PERENNIAL BEDS
A Confirm that native subsoil drains at a rate of at least ½" per hour. If drainage is less than ½" per hour, provide subsurface drainage lines
B Install 14" of Soil Mix for Mulched Shrub and Perennial Beds on Grade
1) Shall consist of clay loam to sandy clay loam soil, sand, and composted pine bark fines at a rate of 5.5:1 to 10.5:1.5 to achieve the following
(a) Clay content of Soil Mix shall be 10-20% of the soil mix, by volume
(b) Minimum amount of coarse to medium sand in the mix shall be 55%
(c) Minimum infiltration rate at 80-85% compaction shall be 1-3 inches per hour
2) Composted pine bark fines shall not exceed 10% of the total soil mix by volume
C Till 6" of compost into the top 5" of the installed Soil Mix for Tree Pit Backfill on Grade

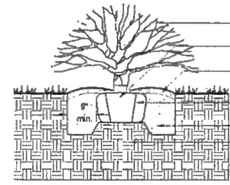
14 INSTALLATION OF SILVA CELL PLANTING SOIL MIX
A Soil Mix shall be installed per Manufacturer's recommendations
B. Planting Soil Mix shall consist of Topsoil, Compost, and coarse sand mixed to the following proportion

Material	% by volume
Compost	12-17%
Coarse Sand	35-50%
Topsoil	35-50%

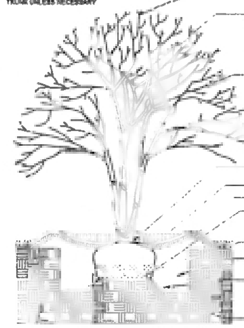
1) Ratio shall be adjusted to achieve a water permeability between 0.75 and 1.75 inches per hour when compacted to 80-85% of maximum dry density. The permeability of the allowable topsoil materials will vary the overall permeability of the final mix. Submit multiple mix ratios for permeability to establish the correct mix ratio for the available topsoil.
2) Final Mix shall have a pH between 5.5 and 6.5
3) Final mix shall have an organic matter content of between 3 and 5%

15 GENERAL PLANT INSTALLATION
A Excavation: Excavate all tree pits and planting areas to the width and depth shown in the planting details
B Center plant in pit and orient for the best visual effect. Set plants plumb and hold rigidly in position until soil has been tamped firmly around root ball
C Mulch within 48 hours after planting and after applying the pre-emergent herbicide, except ground cover areas (which shall have organic material placed before planting) with a 2" layer of mulch immediately after planting. All bed lines shall be cut with a smooth consistent edge to a minimum depth of 3 inches. Keep mulch out of the crowns of shrubs and off of buildings, sidewalks, light standards, and other structures
D All planting areas to conform to specified grades after full settlement has occurred and mulch has been applied. Provide saucers around tree pits as shown on planting details. Remove all tags, labels, strings, etc. from all plants.

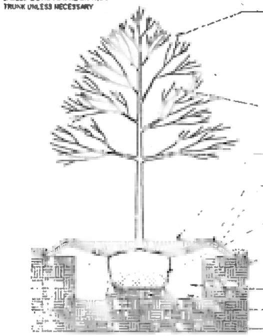
15 PERMANENT SEEDING OR SODDING FOR GRASS AREAS
A Lawn Seed or Sod varieties shall be an improved variety turf-type tall fescue blend. The landscape contractor shall select from varieties approved by the Maryland or Virginia Department of Agriculture
B Refer to the Virginia Erosion and Sediment Control Handbook for guidelines, specifications and installation techniques of seed and sod
C Maintenance shall begin immediately after each plant and lawn area is installed and shall continue until 90 days after final acceptance of the last section



1 TYP. B&B SHRUB PLANTING
NTS



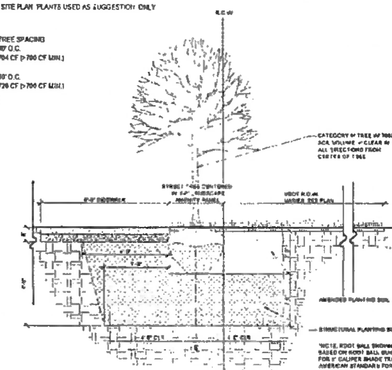
2 ORNAMENTAL TREE PLANTING
NTS



3 DECIDUOUS TREE PLANTING.
NTS

PLANT SCHEDULE						
Symbol	Botanical Name	Common Name	Size	Type	Remarks	Multiplier
	Cat. IV Deciduous Trees					
	Acer rubrum 'October Glory'	October Glory Red Maple	3" Cal	B & B	Uniform Branching Pattern	1.5 : Air Quality, Wildlife
	Liriodendron tulipifera	Tulip Poplar	3" Cal	B & B	Uniform Branching Pattern	1.5 Air Quality, Wildlife
	Plantanus x acerifolia 'Bloodgood'	London Planetree 'Bloodgood'	3" Cal	B & B	Uniform Branching Pattern	1.5 Improved Cultivar
	Quercus phellos	Willow Oak	3" Cal	B & B	Uniform Branching Pattern	1.5 Wildlife
	Tilia americana	American Linden	3" Cal	B & B	Uniform Branching Pattern	1.5 Air Quality, Wildlife
	Zelkova serrata	Japanese Zelkova	3" Cal	B & B	Uniform Branching Pattern	1.5 Air Quality
	Cat. IV Deciduous Trees					
	Acer rubrum 'October Glory'	October Glory Red Maple	2" Cal	B & B	Uniform Branching Pattern	1.5 Air Quality, Wildlife
	Liriodendron tulipifera	Tulip Poplar	2" Cal	B & B	Uniform Branching Pattern	1.5 Air Quality, Wildlife
	Plantanus x acerifolia 'Bloodgood'	London Planetree 'Bloodgood'	2" Cal	B & B	Uniform Branching Pattern	1.5 , Improved Cultivar
	Quercus phellos	Willow Oak	2" Cal	B & B	Uniform Branching Pattern	1.5 : Wildlife
	Tilia americana	American Linden	2" Cal	B & B	Uniform Branching Pattern	1.5 : Air Quality, Wildlife
	Zelkova serrata	Japanese Zelkova	2" Cal	B & B	Uniform Branching Pattern	1.5 Air Quality
	Cat. III Deciduous Trees					
	Betula nigra	River Birch	2" Cal	B & B	Uniform Branching Pattern	1.5 Wildlife
	Gymnocladus dioicus	Kentucky Coffee Tree	2" Cal	B & B	Uniform Branching Pattern	1.5 , Wildlife
	Celtis occidentalis	Hackberry	2" Cal	B & B	Uniform Branching Pattern	1.5 Wildlife
	Nyssa sylvatica	Black Gum	2" Cal	B & B	Uniform Branching Pattern	1.5 : Wildlife
	Tilia cordata	Little Leaf Linden	2" Cal	B & B	Uniform Branching Pattern	1.5 Air Quality
	Cat. II Deciduous Trees					
	Amelanchier arborea	Downy Serviceberry	2" Cal	B & B	Multi-stem, Min. 3 heavy stems	1.5 , Wildlife
	Carpinus caroliniana	American Hornbeam	2" Cal	B & B	Multi-stem, Min. 3 heavy stems	
	Chionanthus virginicus	Fringetree	2" Cal	B & B	Multi-stem, Min. 3 heavy stems	
	Cornus florida 'Appalachian Spring'	Flowering Dogwood 'Appalachian Spring'	2" Cal	B & B	Multi-stem, Min. 3 heavy stems	1.5 Improved Cultivar

* PLANT SCHEDULE SUBJECT TO CHANGE AT FINAL SITE PLAN. PLANTS USED AS SUGGESTION ONLY



4 STREET TREE
NTS

5 GARAGE PLANTER
NTS

REVISIONS
DATE
DESCRIPTION
12-13-11
2-2-12
4-20-12
6-12-12
7-19-12
8-3-12
11-28-12
10-07-13

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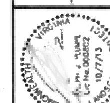

PLANTING DETAILS NOTES & SCHEDULE
DULLES STATION
PARCEL 5A
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: AS NOTED
C.I. = N/A
DATE: DEC., 2011

SHEET 38 OF 41

FILE No.
SP-1158-12

LANDSCAPE ARCHITECTURE | PLANNING | URBAN DESIGN | GRAPHIC DESIGN

August 15, 2013

Mr. Michael Knapp
Director, Urban Forestry Management
Land Development Services
Department of Public Works & Environmental Services
County of Fairfax
12055 Government Center Parkway, Suite 518
Fairfax, VA 22035

Re: Dulles Station at Dulles Corner Parcel 5A – Tree Preservation Deviation Request

Dear Mike,

This letter and attachments shall serve to reaffirm the request for a deviation of tree preservation target for the above noted project. The request is made pursuant to Section 12-508 of the Public Facilities Manual (PFM) and requests that the tree preservation target for the site be modified for portion of the site to be zoned PRM. Specifically the PRM portion of the site is requested to be 7.70% of the existing tree cover, whereas the target as calculated would be 3.72%

As a background, this is a 4.26 acre site at Dulles Corner Parcel 5A and is zoned PRM. The property is proposed to be redeveloped with multi family residential dwellings

Currently, the site has 134,164 square feet of existing tree canopy. Therefore, and in consideration of the foregoing, this request for a deviation of the tree preservation requirement is based on and justified by the following

- Meeting the tree preservation target would preclude development of the property as allowed by the underlying PRM zoning district
- Significant new plantings are to be utilized to meet the new cover requirements.

STUDIO39 LANDSCAPE ARCHITECTURE, PC. 6414 CROSVEDALE DR., SUITE 100-A ALEXANDRIA, VIRGINIA 22310
TEL: 703.719.6000 FAX: 703.719.6003 WEB: WWW.STUDIO39.COM

We trust that this information will be helpful in your review of this request and look forward to your favorable response. In the interim, please feel free to contact me, should you have any questions or need additional information.

Sincerely,

Lynn Helgason ASLA, RLA, LEED AP

STUDIO39 LANDSCAPE ARCHITECTURE, PC. 6414 CROSVEDALE DR., SUITE 100-A ALEXANDRIA, VIRGINIA 22310
TEL: 703.719.6000 FAX: 703.719.6003 WEB: WWW.STUDIO39.COM

urban.

PLANNERS
ENGINEERS
LANDSCAPE ARCHITECTS
LAND SURVEYORS

July 29, 2013

Bijan Sistani
Branch Chief
Fairfax County DPW&ES
Office of Site Development Services
12055 Government Center Parkway
Suite 535
Fairfax, Virginia 22035

Re: Dulles Station Building L
Waiver of Underground SWM in Residential Neighborhood
RZ 2012-DR-016, PCA C-698-09, and PCA C-698-3

Mr. Sistani

In conjunction with pending zoning application RZ 2012-DR-016, PCA C-698-09, and PCA C-698-3 we hereby request a waiver of Fairfax County Public Facilities Manual Section 6-0303.8, restricting the use of underground stormwater detention facilities for the proposed development on this site. The site is currently a vacant / wooded site. The pending applications will develop the site with a multi-family development with a parking structure.

Our justification for this waiver is as follows.

a) The below grade SWM facility is to be a cast-in place structure, located within the footprint of the garage. The structure will have a minimum clear height of 0". Further, adequate man-access utilizing manholes, Bilco doors or approved equals shall be provided based on the final design parameters at the time of final site plan. The underground SWM facility shall be provided at grade to the private drive aisle and parking stalls.

b) Based on Fairfax County unit prices, we estimate the cost of the vault to be approximately $400,000; which includes the vault construction, weir structure, bilco doors, and access manholes.

c) The routine maintenance is expected to cost about $3,000.00 per year. The replacement cost is the installation cost above. Over a budgeted 75 year lifespan of the facility this averages $6,133.33 per year for a total annual cost of

Urban, Ltd. 4200-D Technology Court Chantilly, Virginia 20151 PH 703.642.2306 FX 703.378.7988 www.urban-ltd.com
Annandale, VA Chantilly, VA Winchester, VA Wilmington, NC

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$9133.33. Split by the minimum # 411 residential units, the maintenance and future replacement costs for this SWM facility is roughly $14.92 per year

d) The preliminary stormwater layout plan is included with this request.

e) Two copies of the development plan are included with this request

f) A copy of the draft proffers are included with this request.

Based on the above information, we feel there is sufficient justification to approve this waiver request. Thank you for your time and attention to this matter. If you have any questions or concerns, please do not hesitate to call

Sincerely,

Urban, Ltd.

Clayton C. Tock, P.E
Associate

urban.

PLANNERS
ENGINEERS
LANDSCAPE ARCHITECTS
LAND SURVEYORS

June 25, 2013

Ken Williams
Fairfax County - Public Works and Environmental Services
12055 Government Center Parkway, Suite 507
Fairfax, VA 22035-5503

Re: On-site SWM and BMP Waiver
Dulles Station at Dulles Corner
Parcel 5A (Tax Map #16-4-((5))-5A)
Dranesville District

Dear Mr. Williams

This letter shall serve as a formal request to allow the use of an offsite regional stormwater management facility (Regional Pond H-9) under Section 6-0303.3 of the Fairfax County Public Facilities Manual and Best Management Practices for water treatment. The regional dry pond was designed under Fairfax County Plan Number 6848-PI-02 (approved on 5/31/04) to accommodate the entire Dulles Station Development and roughly 70 acres of offsite area. The regional dry pond was designed to satisfy the Stormwater Management (SWM) and Best Management Practice (BMP) requirements for the entire Dulles Station development, including the subject site, which is located on Fairfax County Tax Map #16-4((5))-5A. Reference sheets have been provided in the enclosed COP/FDP that show the drainage area to the existing pond with the area of the subject site shaded for illustrative purposes. The pre- and post-development Curve Number values that the pond has been designed for have also been provided which documents that the pond was designed to accommodate the amount of impervious proposed with the subject site.

In addition to the minimum requirements for Stormwater Management and Best Management Practices provided by the existing regional stormwater management facility, the applicant is proposing to reduce the peak release rate and volume for the 1 and 2 year, 24 hour storm from the post developed condition to be equal or less than the existing condition for the same storms. The applicant is also proposing to control the stormwater runoff associated with the development such that the first one (1) inch of rainfall is treated or treated in a manner through which 80% of the average annual post-development total suspended solids are removed

We believe that this is sufficient justification to permit the use of off-site SWM and BMP pond for the Stormwater Management and Best Management Practice needs of the above referenced project.

If you have any questions or concerns, please do not hesitate to call me at (703) 642-2306. We would welcome the opportunity to meet with you to discuss this request and the site plan if needed. Thank you for your time and consideration.

Sincerely,
URBAN, LTD.

Clayton Tock, P.E
Associate

Urban, Ltd. 4200-D Technology Court Chantilly, Virginia 20151 PH 703.642.2306 FX 703.378.7988 www.urban-ltd.com
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No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
12-13-11
2-2-12
4-12-12
6-12-12
7-9-12
9-14-12
11-29-12
03-15-13
08-19-13
10-07-13

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Urban, Ltd.
4200-D TECHNOLOGY CT.
CHANTILLY, VA. 20151
TEL: 703.378.2306
FAX: 703.378.7988
www.urban-ltd.com
Planners Engineers Landscape Architects Land Surveyors

COMMONWEALTH OF VIRGINIA
Clayton C. Tock
Lic. No. 028700
10/7/13
PROFESSIONAL ENGINEER

CORRESPONDENCE
DULLES STATION
PARCEL 5A
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: AS NOTED
DATE: DEC., 2011
C.I.= N/A

SHEET 31 OF 41

FILE No. SP-1158-12

T.M. #015-4-05-0005B
FAIRFAX COUNTY BOARD OF SUPERVISORS
DB 19125 PG 1512
ZONING: PDC
USE: VACANT

T.M. #015-2-01-0013
NUGGET JOINT VENTURE, L.C.
DB 0500 PG 1070
ZONING: PDC
USE: VACANT

T.M. #015-2-01-0014
BDC DULLES CORPORATE, LLC
DB. 20653 PG 1601
ZONING: C-3
USE: OFFICE

PARCEL 5A
DULLES STATION AT DULLES CORNER
OWNER: DULLES ROCKHILL PARTNERS LP.
T.M. #015-4-05-0005A
DB. 19672 PG. 495
AREA = 185,862 S.F. OR 4.2608 ACRES

SAYWARD BLVD.
PUBLIC ROAD
DESIGN SPEED 35 MPH
R/W WIDTH VARIES
(6.169 AC)

SUNRISE VALLEY DR.
(RTE. 665)

DULLES CORNER DRIVE

ROBB LANE

CARTA WAY
(FORMERLY: ROCK HILL ROAD)
DESIGN SPEED 30 MPH
(1.7982 AC)

MATCHLINE
SEE THIS SHEET

PARCEL 8
DB 11642 PG 907
DB 13216 PG 591

LEGEND:

EXISTING PROPERTY AREA: 185,861.91 S.F.

No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
12-13-11
2-2-12
4-25-12
5-9-12
7-9-12
11-29-12
08-23-13
09-06-13
10-07-13

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CIVIL ENGINEERS • LAND SURVEYORS
CHANTILLY, VA. 20151
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FAX. 703.642.9693
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Planners • Engineers • Landscape Architects • Land Surveyors

COMMONWEALTH OF VIRGINIA
CLAYTON C. TOCK
Lic. No. 028790
PROFESSIONAL ENGINEER

PROPERTY EXHIBIT - EXISTING PROPERTY
DULLES STATION
PARCEL 5A
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: 1"=30'
C.I.=N/A
DATE: DEC., 2011

SHEET
32
OF
41

FILE No
SP-1158-12

T.M. #015-4-05-0005B
FAIRFAX COUNTY BOARD OF SUPERVISORS
DB. 19125 PG. 1512
ZONING: POC
USE: VACANT
FUTURE METRO GARAGE (T.B.D.)

PROPOSED RESERVATION FOR FUTURE DEDICATION TO NUGGET (PARCEL 5A PART) (22,271 SF)

SUNRISE VALLEY DR. (RTE. 885)

DULLES CORNER DRIVE

SAYWARD BLVD.
PUBLIC ROAD
DESIGN SPEED 35 MPH
R/W WIDTH VARIES
(R-169-AD)

MATCHLINE SEE THIS SHEET

T.M. #015-2-01-0013
NUGGET JOINT VENTURE, L.C.
DB. 9500 PG. 1070
ZONING: POC
USE: VACANT
FUTURE NUGGET DEVELOPMENT

T.M. #015-2-01-0014
BOC DULLES CORPORATE LLC
DB. 20853 PG. 1601
ZONING: C-3
USE: OFFICE

PROPOSED NUGGET DEDICATION TO DULLES ROCKHILL (22,271 SF)

PARCEL 5A
DULLES STATION AT DULLES CORNER
OWNER: DULLES ROCKHILL PARTNERS LP.
T.M. #015-4-05-0005A
DB. 19625 PG. 195
AREA = 185,612 S.F. OR 4.608 ACRES

CARTA WAY
(FORMERLY "ROCK HILL ROAD")
DESIGN SPEED 30 MPH
(R-169-AD)

ROBB LANE

PARCEL 8
DB 11642 PG 907
DB 13416 PG 591

LEGEND:

- LAND BAY III (EXISTING TO REMAIN)
- LAND BAY III-B (TO BE RESERVED FOR FUTURE DEDICATION TO NUGGET PROPERTY)
- PORTION OF PARCEL 13 (TO BE DEDICATED TO DULLES ROCKHILL)
- PROPOSED R.O.W. DEDICATION (33,558.09 S.F.)

urban

PROPERTY EXHIBIT - PROPOSED PROPERTY
DULLES STATION
PARCEL 5A
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: 1"=80'
C.I = N/A
DATE: DEC. 2011

SHEET 3 OF 41

FILE No. SP-1158-12

DULLES STATION BUILDING L

DULLES ROCKHILL PARTNERS, LP

CONCEPTUAL VIEW FROM S.E. ALONG CARTA

FAIRFAX COUNTY, VA

JUNE 25, 2013

RTKL ASSOCIATES INC.
2101 L STREET NW
SUITE 200
WASHINGTON, DC 20037

PLAN DATE	DATE	DESCRIPTION
12-13-11		
2-2-12		
4-20-12		
6-29-12		
7-18-12		
11-29-12		
06-25-13		
10-07-13		

REVISIONS

Urban Ltd.
13873 PARK CENTER ROAD, CT.
CHANTILLY, VA. 20151
TEL. 703-41-2306
FAX. 703-817-7808
www.urban-ltd.com

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COMMONWEALTH OF VIRGINIA
CLAYTON C. PECK
Lic. No. 020790
10/17/13
PROFESSIONAL ENGINEER

PERSPECTIVE - SE EAST ELEVATION

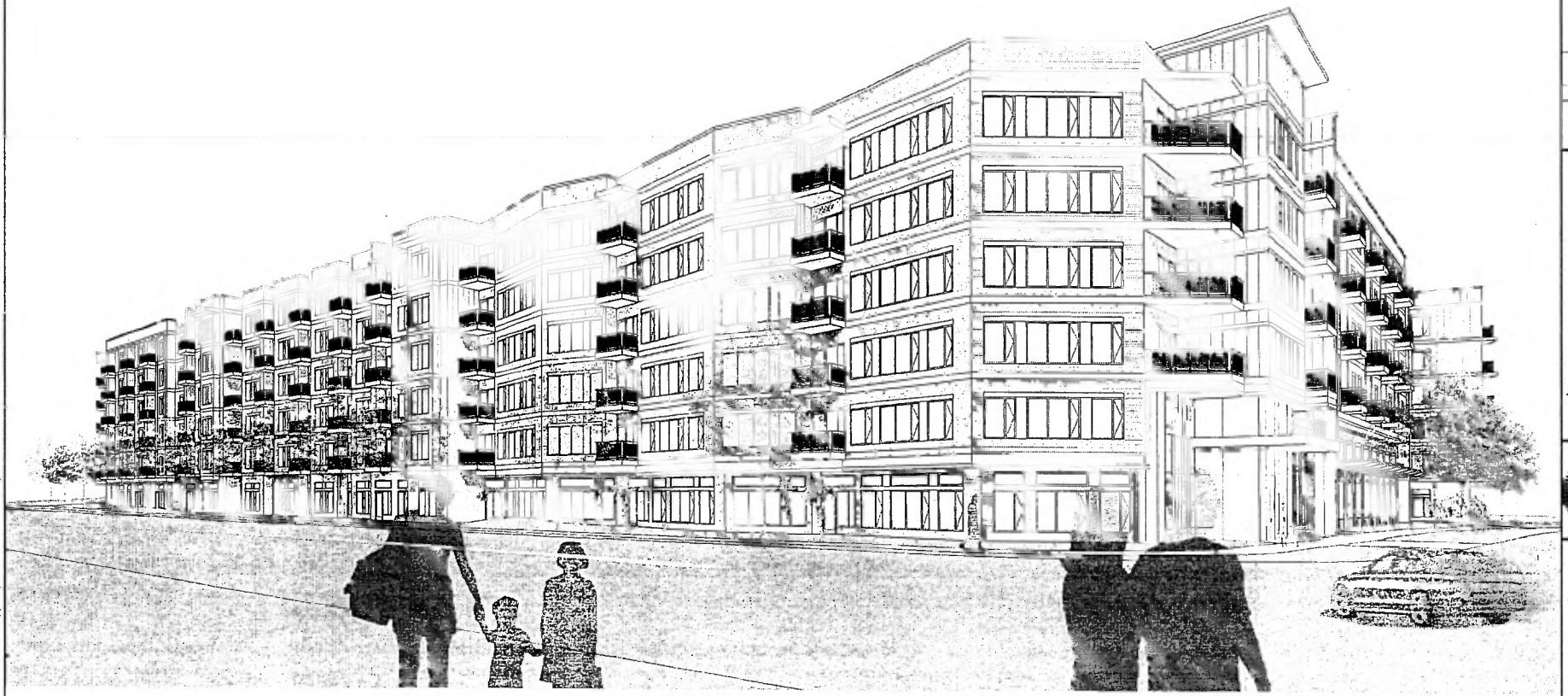
DULLES STATION
PARCEL 5A
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: AS NOTED | CL= N/A | DATE: DEC. 2011

SHEET 38 OF 41

FILE No. SP-1158-12

Urban Ltd. - J:\2085\Dulles Station\FDP-CDP\FDP4-CDP4-Buildings L&M\1158-11-4D-ELUSTRATIVE.dwg [ELUS] October 08, 2013 - 1:12pm mdoyle



DULLES STATION BUILDING L

DULLES ROCKHILL PARTNERS, LP

CONCEPTUAL VIEW FROM S.E. ALONG SAYWARD

FAIRFAX COUNTY, VA

JUNE 25, 2013

RTKL ASSOCIATES INC.
2101 L STREET NW
SUITE 200
WASHINGTON, DC 20037

DATE	DESCRIPTION
12-13-11	REVISIONS
2-2-12	
6-15-12	
4-15-13	
6-25-13	

PLAN DATE

Urban, Ltd.
8200 D TECHNOLOGY CT.
CHANTILLY, VA 20151
TEL 703.378.9800
FAX 703.378.9808
www.urban-ltd.com
Planners Engineers Landscape Architects Land Surveyors

COMMONWEALTH OF VIRGINIA
CLAYTON C. TOCK
Lic. No. 029790
PROFESSIONAL ENGINEER

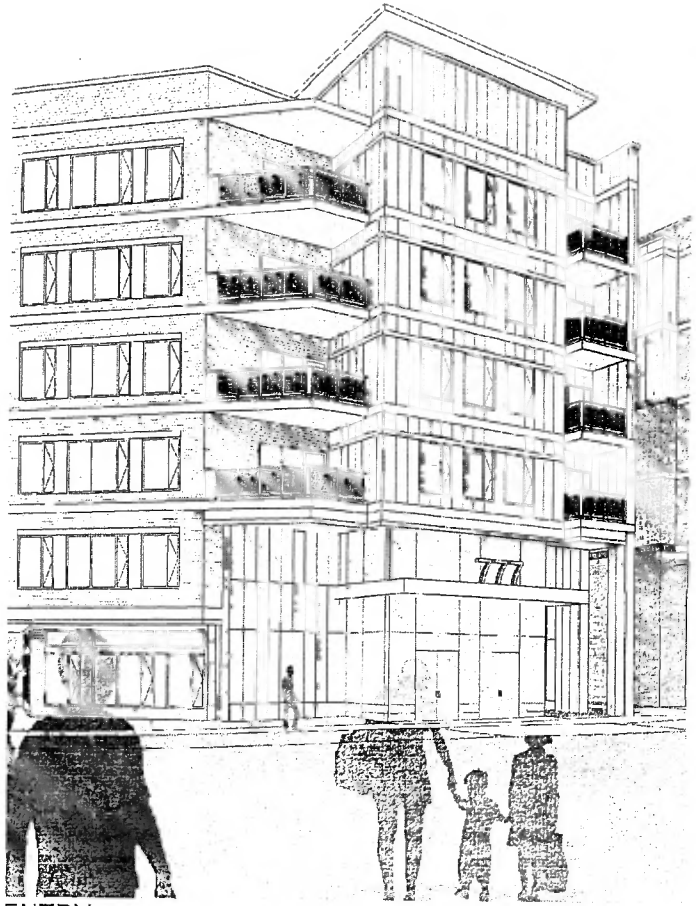
PERSPECTIVE - SE SOUTH ELEVATION

DULLES STATION
PARCEL 5A
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

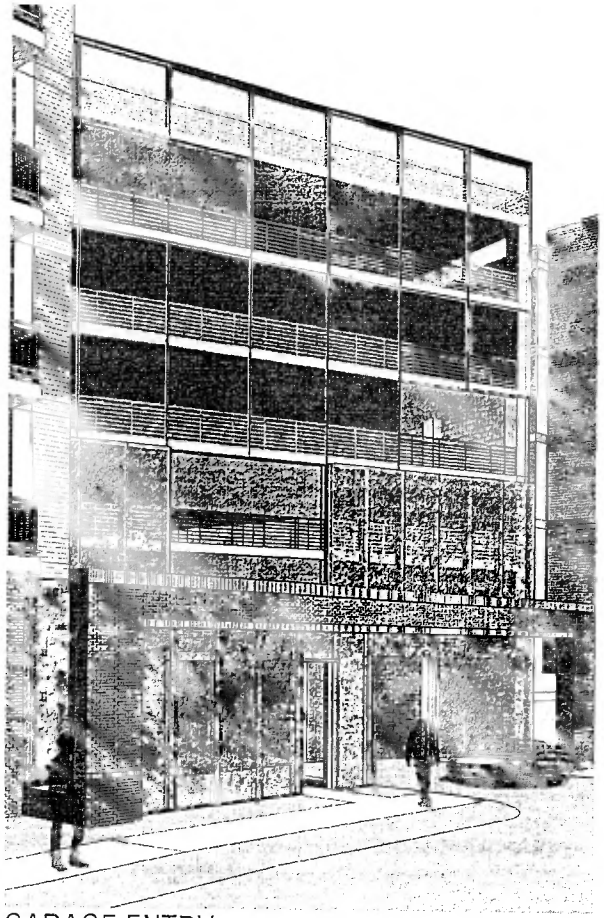
SCALE: AS NOTED C.L.=N/A DATE: DEC., 2011

FILE No
SP-1158-12

Urban, Ltd. - J:\JOBS\Dulles Station\FDP-CDP\FDPA-CDPA-Buildings L&M\1158-11-40-ILLUSTRATIVE.dwg [ILLUS2] October 09, 2013 - 1:23pm mdoyle



ENTRY



GARAGE ENTRY (GARAGE ROOF ELEVATION SHOWN REPRESENTATIVE OF REDUCED PARKING RATIO)
NOTE: GARAGE VOLUME DEPICTED ASSUMES APPROVAL OF PARKING REDUCTION.
COLORATION AND ORGANIZATION OF ELEMENTS IS CONCEPTUAL.

DULLES STATION BUILDING L

DULLES ROCKHILL PARTNERS, LP

CONCEPTUAL PARTIAL VIEWS

FAIRFAX COUNTY, VA
JUNE 25, 2013

RTKL ASSOCIATES INC.
2101 L STREET NW
SUITE 200
WASHINGTON, DC 20037

DATE	DESCRIPTION
7-13-11	REVISIONS
2-2-12	
4-20-12	
5-18-12	
7-19-12	
8-7-12	
11-5-12	
06-25-13	
08-05-13	
09-09-13	

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10560 MAIN STREET, SUITE 200
FAIRFAX, VA 22030
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FAX 703.591.7018
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COMMONWEALTH OF VIRGINIA
Clifton C. Fox
Lic. No. 026790
10/7/13
PROFESSIONAL ENGINEER

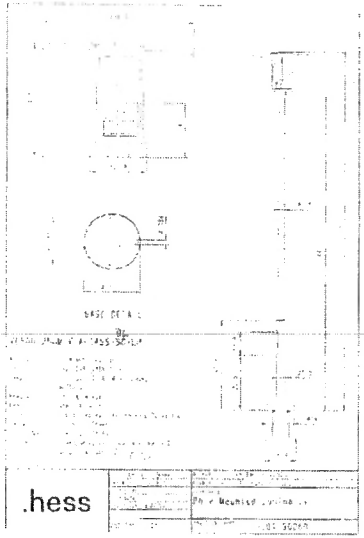
PERSPECTIVE - GARAGE ELEVATION
DULLES STATION
PARCEL 5A
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: AS NOTED | C.L.= N/A | DATE: DEC. 2011

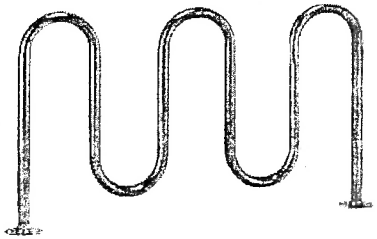
SHEET 36 OF 41

FILE No. SP-1158-12

Urban, Ltd. - J:\JOBS\Dulles Station\FDP-CDP\FDP4-CDP4-Buildings L&M\158-11- D-ILLUSTRATIVE.dwg [ILUS3] October 08, 2013 - 4:13pm mdoyle

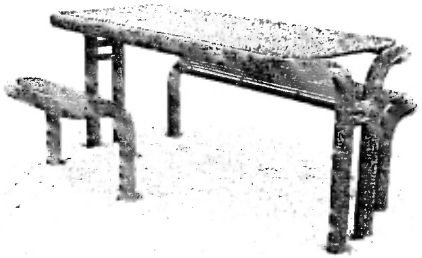


HESS LIGHTS TO BE UTILIZED ALONG ROAD "A" & ROAD "B"
(TYPICAL OF DULLES STATION)

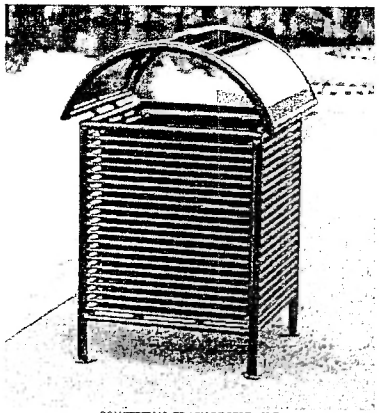


CONCEPTUAL BIKE RACK

CONCEPTUAL BACKLESS BENCH (TYPICAL OF DULLES STATION)



CONCEPTUAL PICNIC BENCH
(BLACK METAL)



CONCEPTUAL TRASH RECEPTACLE
(TYPICAL OF DULLES STATION)

NOTE: ALL AMENITIES SHOWN HEREIN ARE CONCEPTUAL.
AMENITIES ARE SUBJECT TO CHANGE WITH FINAL SITE PLAN.

PLAN DATE	DESCRIPTION
12-13-11	
2-2-12	
6-12-12	
8-16-12	
11-26-12	
08-05-13	
09-06-13	

REVISIONS

Urban Ltd.
43890 TECHNOLOGY CT.
CHANTILLY, VA 20151
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COMMONWEALTH OF VIRGINIA
CLAYTON C. TUCK
Lic No. 038790
11/7/13
PROFESSIONAL ENGINEER

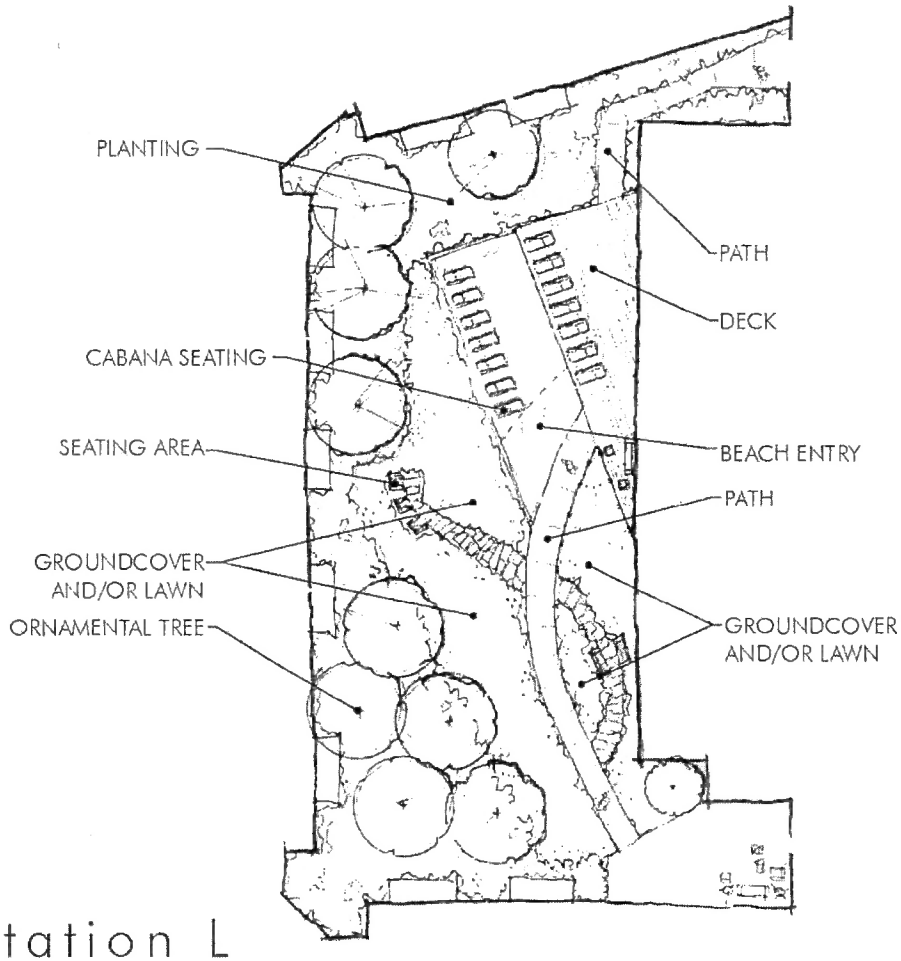
CONCEPTUAL AMENITIES SHEET

DULLES STATION
PARCEL 5A
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

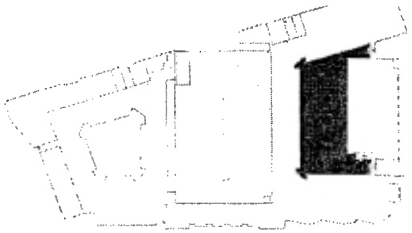
SCALE: AS NOTED | C.I.=N/A | DATE: DEC. 2011

FILE No.
SP-1158-12

10:9am, 13 - J:\JOBS\Dulles Station\FDP-CDP\FDP4-CDP4-Buildings LAW\158-11-02-ALLSTRAINE.dwg [BLUE5] October 09, 2013 - 1:13pm mdoyle



Water Feature : Approx 814 sf
Courtyard: Approx 11,000 sf



KEY PLAN

NORTH

Dulles Station L

East Courtyard Conceptual Design

June 21, 2013

STUDIO39 Landscape Architecture, P.C. 6516 Grovedale Dr. Suite 100-A Alexandria, Virginia 22310 703.719.6500

LANDSCAPE ARCHITECTURE PLANNING URBAN DESIGN GRAPHIC DESIGN

REVISIONS

DATE	DESCRIPTION
1-2-2012	
2-2-2012	
4-20-2012	
7-19-2012	
7-19-2012	
08-27-2012	
11-29-2012	
06-21-2013	
10-07-2013	

PLAN DATE

Urban, LLC
13000 TECHNOLOGY CT.
CHANTILLY, VA. 20151
TEL: 703.542.3286
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www.urban-llc.com
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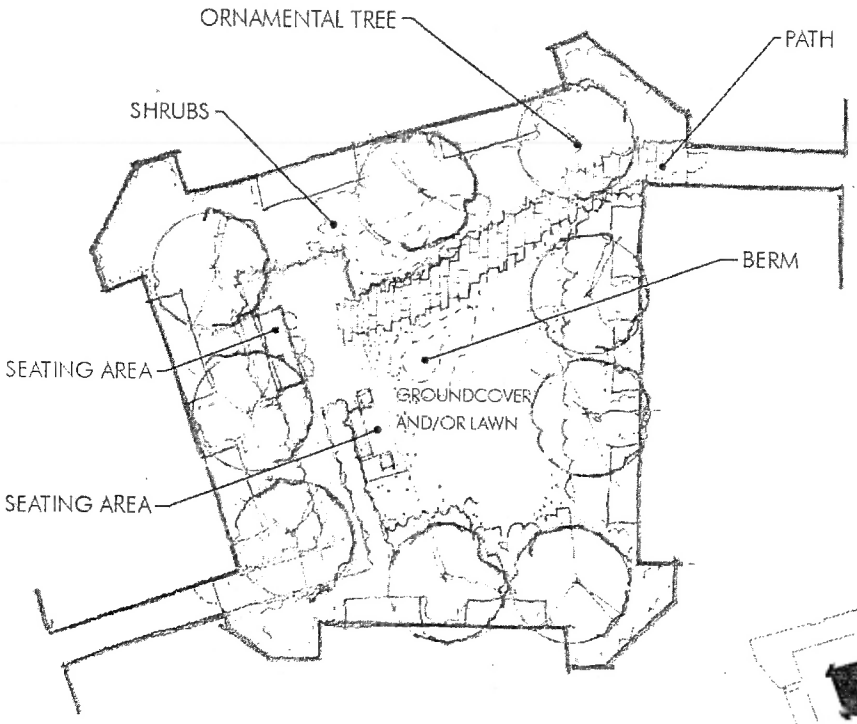
COMMONWEALTH OF VIRGINIA
Lic. No. 0207170
PROFESSIONAL ENGINEER

LANDSCAPE CONCEPT
DULLES STATION
PARCEL 5A
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

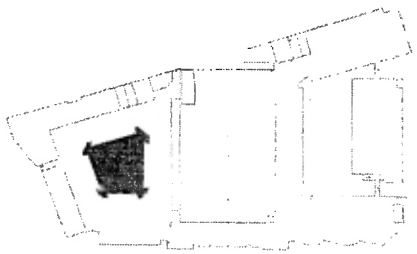
DATE: DEC. 2011
SCALE: AS NOTED
CL=N/A

SHEET 39 OF 41

FILE No
SP-1158-12



Courtyard: Approx 5,000 sf



KEY PLAN

NORTH

Dulles Station L

West Courtyard Conceptual Design

June 21, 2013

REVISIONS

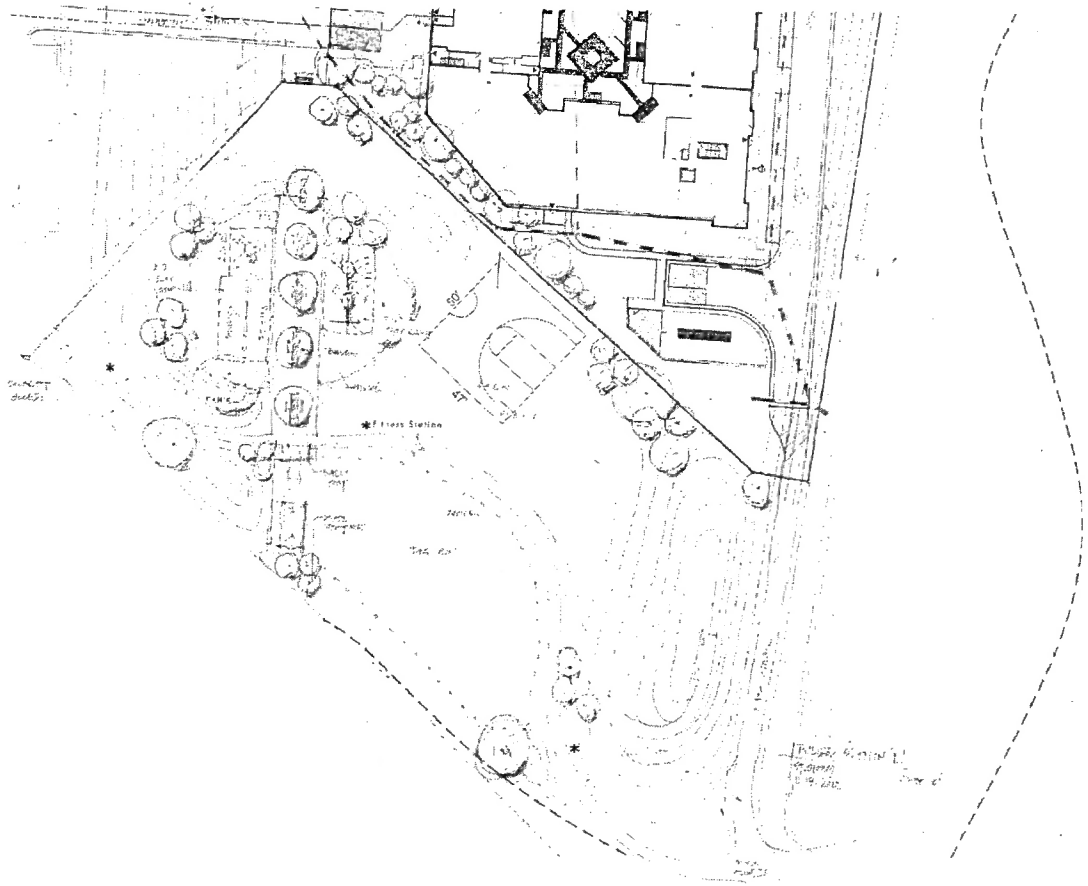
PLAT DATE

urban

LANDSCAPE CONCEPT
DULLES STATION
PARCEL 5A
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: AS NOTED C.L.= N/A DATE: DEC. 2011

FILE No. SP-1158-12



LANDSCAPE CONCEPT

FOR ILLUSTRATIVE PURPOSES ONLY

½ SIZE OUTDOOR BASKETBALL COURT

Scale: 1" = 20'-0"

0 10' 20' 40'

NORTH

STUDIO39 Landscape Architecture, PC. 6416 Grovedale Drive, Suite 100-A Alexandria, Virginia 22310 — 703.719.6500 www.studio39.com

LANDSCAPE ARCHITECTURE ■ PLANNING ■ URBAN DESIGN ■ GRAPHIC DESIGN

JUNE 30, 2015

NOTE: FINAL URBAN PARK DESIGN SUBJECT TO CHANGE WITH SITE PLAN. LAYOUT FOR CONCEPTUAL PURPOSES ONLY.

PLAN DATE	
12-3-11	
2-3-12	
4-13-12	
6-13-12	
7-9-12	
8-9-12	
11-29-12	
01-25-13	
06-07-13	
06-07-13	

No.	DATE	DESCRIPTION

REVISIONS

Urban, Ltd.
4200-D TECHNOLOGY CT.
CHANTILLY, VA. 20151
TEL: 703.378.1900
FAX: 703.378.1908
www.urban-ltd.com

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Planners Engineers Landscape Architects Land Surveyors

COMMONWEALTH OF VIRGINIA
CLIFTON C. FACK
Lic. No. 038788
6/30/15
PROFESSIONAL ENGINEER

LANDSCAPE CONCEPT

DULLES STATION
PARCEL 5A
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

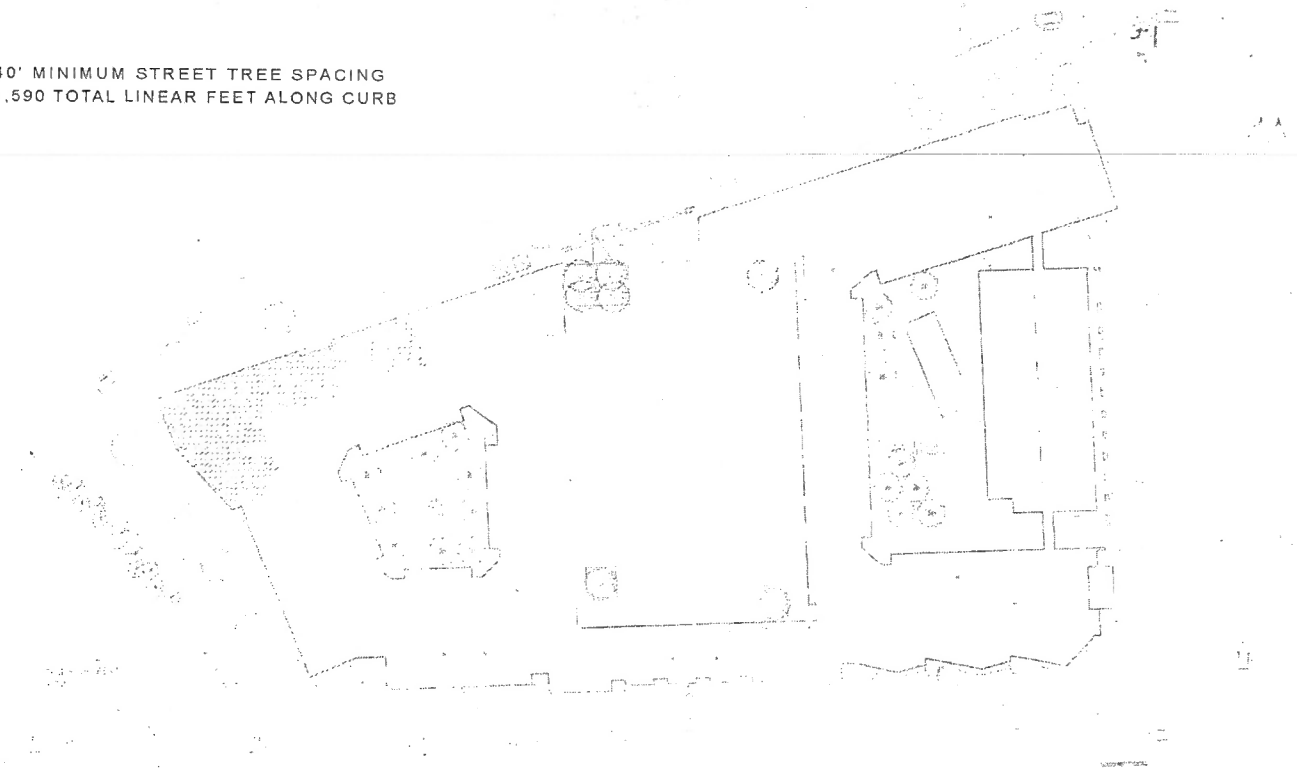
SCALE: AS NOTED C.I.= N/A DATE: DEC. 2011

SHEET 40 OF 41

FILE No. SP-1158-12

Urban, Ltd. - J:\2015\Dulles Station\PDP-CDP\PDP4 - CDP4-Buildings, L&M\158-11-40-ILLUSTRATIVE.dwg [ILLUST] October 09, 2013 - 4:13pm mdyke

40' MINIMUM STREET TREE SPACING
1,590 TOTAL LINEAR FEET ALONG CURB



Dulles Station L

FIRE (LADDER TRUCK) ACCESS PLAN

Scale: 1" = 30'-0"
0 15' 30' 60'
NORTH

JUNE 19, 2013

REVISIONS	PLAN DATE
1	12-13-11
2	2-2-12
3	4-12-12
4	7-16-12
5	11-9-12
6	11-28-12
7	04-15-13
8	06-19-13
9	10-07-13

urban
Urban Ltd.
13980 D Metrocenter Drive
Chantilly, VA 20151
Tel: 703.642.8206
Fax: 703.677.1886
www.urban-ltd.com
Planners • Engineers • Landscape Architects • Land Surveyors

COMMONWEALTH OF VIRGINIA
REGISTERED PROFESSIONAL ENGINEER
CLAYTON C. FOCK
Lic. No. 026798
6/19/13

LANDSCAPE CONCEPT
DULLES STATION
PARCEL 5A
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: AS NOTED
C.I.s: NA
DATE: DEC. 2011

SHEET
4L
of
4L

FILE No.
SP-1158-12

FDP 2012-DR-016
Zoning Application Closeout Summary Report

Printed: 2/7/2014

General Information

APPLICANT:	DULLES ROCKHILL PARTNERS, LP AND NUGGET JOINT VENTURE, LC
DECISION DATE:	11/21/2013
CRD:	NO
HEARING BODY:	PC
ACTION:	APPROVE
STAFF COORDINATOR:	WILLIAM ODONNELL
SUPERVISOR DISTRICT:	DRANESVILLE

DECISION SUMMARY:

ON NOVEMBER 21, 2013, THE PLANNING COMMISSION UNANIMOUSLY APPROVED FDP 2012-DR-016, ON A MOTION BY COMMISSIONER DONAHUE, SUBJECT TO THE BOARDS APPROVAL OF THE CONCURRENT REZONING APPLICATION.

APPLICATION DESCRIPTION:

MIXED USE

Zoning Information

Existing Zoning		Proposed Zoning		Approved Zoning	
DISTRICT	AREA	DISTRICT	AREA	DISTRICT	AREA
				PRM	4.78 ACRES

Tax Map Numbers

0154 ((05))( )0005 A 0152 ((01))( )0013

Approved Land Uses

Zoning District:

LAND USE	DU'S	RES LAND AREA	ADU'S	WDU'S	GFA	FAR	NRES LAND AREA
TOTALS							

Approved Waivers/Modifications

MODIFY LOADING SPACE REQUIREMENT

SEE FILE FOR ALL WAIVERS AND MODIFICATIONS

DEVIATION FROM TREE PRESERVATION TARGET PERCENTAGE

RZ 2012-DR-016
Zoning Application Closeout Summary Report

Printed: 2/7/2014

General Information

APPLICANT: DULLES ROCKHILL PARTNERS, LP AND NUGGET JOINT VENTURE, LC

DECISION DATE: 12/03/2013

CRD: NO

HEARING BODY: BOS

ACTION: APPROVE

STAFF COORDINATOR: WILLIAM ODONNELL

SUPERVISOR DISTRICT: DRANESVILLE

DECISION SUMMARY:

ON DECEMBER 3, 2014, THE BOARD UNANIMOUSLY APPROVED RZ2012-DR-016, ON A MOTION BY SUPERVISOR FOUST, SUBJECT TO PROFFERS DATED NOVEMBER 19, 2013.

APPLICATION DESCRIPTION:

MIXED USE

Zoning Information

Existing Zoning		Proposed Zoning		Approved Zoning	
DISTRICT	AREA	DISTRICT	AREA	DISTRICT	AREA
PDC	4.78 ACRES	PRM	4.78 ACRES	PRM	4.78 ACRES

Tax Map Numbers

0154 ((05))( )0005 A 0152 ((01))( )0013

Approved Land Uses

Zoning District: PRM

LAND USE	DU'S	RES LAND AREA	ADU'S	WDU'S	GFA	FAR	NRES LAND AREA
MFD	411	4.78 ACRES		61			
TOTALS	411	4.78 ACRES		61			

Approved Waivers/Modifications

MODIFY LOADING SPACE REQUIREMENT

SEE FILE FOR ALL WAIVERS AND MODIFICATIONS

DEVIATION FROM TREE PRESERVATION TARGET PERCENTAGE

Approved Proffers

PROFFER STATEMENT DATE: 11-19-2013

PROFFER	DUE	TRIG #	TRIG EVENT	CONTRIB AMT	EXPIR. DTE
SIGNAGE	01-01-0001	0	N/A	$0	01-01-0001
MINOR MODIFICATION	01-01-0001	0	N/A	$0	01-01-0001
HEIGHT - BUILDING / STRUCTURE	01-01-0001	0	N/A	$0	01-01-0001
TRANSPORTATION DEMAND MANAGEMENT PROGRAM (TDM)	01-01-0001	0	SITE PLAN	$0	01-01-0001
PEDESTRIAN IMPROVEMENTS (CROSSWALKS /BRIDGES /SIGNALS)	01-01-0001	0	SITE PLAN	$0	01-01-0001
ARCHITECTURE / BUILDING MATERIALS / COLORS	01-01-0001	0	SITE PLAN	$0	01-01-0001
USE RESTRICTIONS	01-01-0001	0	AT REDEVELPMNT	$0	01-01-0001
PROFFERED PLANS	01-01-0001	0	N/A	$0	01-01-0001
FLOOR AREA RATIO (FAR) / GROSS FLOOR AREA (GFA)	01-01-0001	0	N/A	$0	01-01-0001
LIGHTING / GLARE	01-01-0001	0	N/A	$0	01-01-0001
BEST MANAGEMENT PRACTICES (BMP)	01-01-0001	0	SITE PLAN	$0	01-01-0001
OFF-SITE CONTRIBUTION - RECREATION	01-01-0001	0	RUP	$1,500,000	01-01-0001
NOISE ATTENUATION (STUDY / WALL)	01-01-0001	0	SITE PLAN	$0	01-01-0001
OTHER - LAND USE	01-01-0001	0	N/A	$0	01-01-0001
ROAD PHASING	01-01-0001	0	SITE PLAN	$0	01-01-0001
ARCHITECTURE / GREEN BUILDING / LEEDS	01-01-0001	0	BLDG PRMT APRV	$0	01-01-0001
STORMWATER DETENTION - OFF-SITE	01-01-0001	0	SITE PLAN	$0	01-01-0001
BICYCLE RELATED FACILITIES	01-01-0001	0	RUP	$0	01-01-0001
PARKING	01-01-0001	0	N/A	$0	01-01-0001
LANDSCAPE PLAN REQUIRED	01-01-0001	0	SITE PLAN	$0	01-01-0001
TRAFFIC SIGNAL / TIMING	01-01-0001	0	RUP	$0	01-01-0001
ANCILLARY EASEMENTS - TRANSPORTATION	01-01-0001	0	RUP	$0	01-01-0001
WORKFORCE HOUSING	01-01-0001	0	N/A	$0	01-01-0001
RIGHT OF WAY - DEDICATION	01-01-0001	0	BLDG PRMT APRV	$0	01-01-0001
RECREATION FACILITIES	01-01-0001	0	SITE PLAN	$0	01-01-0001
STREETSCAPE	01-01-0001	0	SITE PLAN	$0	01-01-0001

Approved Development Conditions

DEVELOPMENT CONDITION STATEMENT DATE: 01-14-2014

DEVELOPMENT CONDITION	DUE	TRIG #	TRIG EVENT	CONTRIB	EXPIR DTE
OTHER - GENERAL	01-01-0001	0	ON DEMAND	0	01-01-0001

COUNTY OF FAIRFAX
Department of Planning and Zoning
Zoning Evaluation Division
12055 Government Center Parkway, Suite 801
Fairfax, VA 22035 (703) 324-1290, TTY 711
www.fairfaxcounty.gov/dpz/zoning/applications

APPLICATION No: RZ/FDP 2012-DR-016
Concurrent w/ PCA 696-9
PCAC-698 (Assigned by staff)

RECEIVED
Department of Planning & Zoning
AUG 06 2012
Zoning Evaluation Division

APPLICATION FOR A REZONING
(PLEASE TYPE or PRINT IN BLACK INK)

PETITION

TO: THE BOARD OF SUPERVISORS OF FAIRFAX COUNTY, VIRGINIA

I (We), Dulles Rockhill Partners, LP and Nugget Joint Venture, LC, the applicant (s) petition you to adopt an ordinance amending the Zoning Map of Fairfax County, Virginia, by reclassifying from the PDC District to the PRM District the property described below and outlined in red on the Zoning Section Sheet(s) accompanying and made part of this application.

APPLICATION TYPE(S):	PCA ( )	CDP (X)	FDP (X)	CDPA ( )	FDPA ( )

LEGAL DESCRIPTION:

See attached				
Lot(s)	Block(s)	Subdivision	Deed Book	Page No.

TAX MAP DESCRIPTION:

15	4	5	5A	4.2668
15	2	1	13 (pt.)	0.511
				4.7781 4.780
Map No.	Double Circle No.	Single Circle No.	Parcel(s)/Lot(s) No.	Total Acreage

POSTAL ADDRESS OF PROPERTY:

N/A

ADVERTISING DISCRIPTION: (Example - North side of Lee Highway approx. 1000 feet west of its intersection with Newgate Blvd.)

North of Sayward Blvd. and west of Dulles Station Blvd. (also known as Carta Way)

PRESENT USE: Vacant **PROPOSED USE:** Multi-family

MAGISTERIAL DISTRICT: Dranesville **OVERLAY DISTRICT (S):**

The name(s) and address(s) of owner(s) of record shall provided on the affidavit form attached and made part of this application. The undersigned has the power to authorize and does hereby authorize Fairfax County staff representative on official business to enter on the subject property as necessary to process the application.

Gregory A. Riegle, Esquire, Agent
Type or Print Name

Signature of Applicant or Agent

McGuireWoods LLP
1750 Tysons Boulevard, Suite 1800
Address Tysons Corner, VA 22102

(Work) 703-712-5360 **(Mobile)**
Telephone Number

Please provide name and telephone number of contact if different from above:

DO NOT WRITE BELOW THIS SPACE

RZ 2011-0312
FDP 2012-0192

Date application accepted: 8/17/12

Fee Paid $34,005.00

Virginia Ruffner