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Development Review Comments

Revised April 25, 2023
PAM2023-00147
Submission Review Comments
15815 Shady Grove Rd – Shady Grove Innovation District

The following are Development Review comments from City of Rockville staff related to the project submission.

Reviewing Staff

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PDS Comments

Development & Zoning (LA)

1. The purpose of a Pre-Application Meeting (PAM) with the Development Review Committee (DRC) is not to approve/disapprove aspects of a development plan. It is a meeting that provides an early opportunity for City Staff to give general advice to an applicant in the preparation of a site plan, project plan, or special exception, to discuss the application process and schedule going forward, and to address any concerns raised by the community. Staff strives to identify major issues but does not perform a full and complete review for compliance with all aspects of the code, which is done at the application phase.
2. The subject site is currently designated Office, Commercial, and Residential Mix (OCRM) by the Comprehensive Plan and is zoned MXE (Mixed-Use Employment).
   a. Construction of an office/lab building (research and development use), a multiple-unit dwelling building, and an interim surface parking lot is proposed.
   b. Per Sec. 25.13.03 these are permitted uses in the MXE zone.
3. Note that the property formerly addressed as 4 Choke Cherry Rd is now addressed as 15815 Shady Grove Ave.
4. The application materials indicate that this application is the first phase of a multi-phase development, but no information about future phases was provided with the PAM submittal. These notes are limited to the review of Phase 1 plans.
5. Previous approvals:
   a. USE1980-00196: Approval of the development of Lot 8, including four, two-story research and development/office buildings containing a total of 209,232 square feet of gross floor area and 754 parking spaces. This approval will need to be amended to reflect site revisions proposed by this application.
   b. PJT2017-00007: Approval of a project plan for Lots 5, 6, 7, and 8 of the Danac Technological Park plat (the "Lantian" plan) by Resolution No. 7B-19. This application approved up to 1,336 apartment units, up to 330 townhouses, up to 390,000 square feet of commercial/hotel/institutional uses, and up to 170,000 square feet of retail uses. As noted below, most of the provisions of the approved project plan do not apply to this site plan application.
6. The subject site (Phase 1) consists of Lots 5, 6 and a portion of Lot 8 of the Danac Technological Park plat. Development of Lots 5, 6, 7 and 8 of the Danac Technological Park plat is subject to an approved Project Plan (PJT2017-00118), which the applicant is not proposing to implement. Per the provisions of Sec.

25.07.16, the applicant is pursuing approval of an alternate site plan for development that is inconsistent with the approved Project Plan, but "draws down" on the public facility capacity approved by the Project Plan. Once this alternate site plan is approved, the project plan must be amended to be consistent with the alternate site plan.

7. Per Sec. 25.07.02, the proposed development appears to have a point valuation of 13:
   a. Tract size of 5.1 acres or greater (12.37 acres) = 4
   b. 151 or greater dwelling units (330 dus) = 4
   c. More than 100,001 square feet of non-residential space (160,000) = 4
   d. Residential Impact Area of ~3%= 1[1]
   e. Traffic Impact of fewer than 30 trips (when compared to previous development, and as approved per PJT2017-00118) = 0
   f. Points Total = 13
8. Land Use Planning Process:
   a. City staff requests concurrent submittal of all required applications to streamline the evaluation and review process and allow a comprehensive review of the development.
   b. A Level 2 Site Plan application is required for a development with a point valuation of 13 per Sec. 25.14.07.f (Site Plan Required) and Article 7 (Procedures for Site Plans and Project Plans, Special Exception and other permits). This application will need to demonstrate conformance with the approval criteria of Sec. 25.14.16.
   c. Based on the review of the submitted PAM materials, the following additional information must be provided with the Level 2 Site Plan application to verify compliance with Article 20 Adequate Public Facilities Ordinance (APFO), which include but are not limited to roads and public transportation facilities, sewerage and water service, and schools per Sec. 25.20.02.c:
      i. Conceptual Lotting Plan indicating current and proposed property and tract boundaries (note that a Level 2 Site Plan does not act as a preliminary plan; either a project plan application or a preliminary plan application must be submitted if 4 or more lots are proposed or if the subdivision will create a public street or streets, as is required here).
      ii. A plan demonstrating how roads will terminate where the full road is not proposed to be constructed by Phase 1 (all of the north/south streets and the east end of Progress Street)

[1] Estimated using GIS

iii. Phasing plan for vehicular access, pedestrian access, construction access, staging, and parking.

iv. Conceptual Dry Utility Plan approved by utility companies and DPW to verify adequate space to accommodate all required utilities.

d. Following approval of the Level 2 Site Plan application, a "signature set" will be required for final approval.

e. A Preliminary Plan application will be required to create the public streets as required by DPW. This application can be submitted concurrently with the Level 2 Site Plan application and staff requests that it is.

f. An amendment to USE1980-00196 to reflect changes proposed to Lot 8 to accommodate the Phase 1 development. The applicant is responsible for determining whether this is a minor or major amendment per Sec. 25.05.07.

g. A Final Record Plat must be submitted and recorded prior to issuance of site or building permits.

h. As noted in #3 above, the approved Project Plan must be amended prior to submittal of site plans for future phases. This application requires submittal of the following:

i. A valid approved Natural Resources Inventory (NRI) and Forest Stand Delineation (FSD) plan as set forth in the City's Environmental Guidelines. An NRI/FSD has been completed for the site (FTPO #2016-00013, approved May 12, 2022) and is valid for five years from the date of approval. The approved FTPO is included for convenience.

ii. Evaluation for eligibility for historic designation. This evaluation was completed in June 2019 and can be used for the Project Plan submittal. The completed evaluation is included for convenience.

9. Land Use Review Timelines:

a. Level 2 Site Plan: initial submittal review is 6 weeks; subsequent reviews are 3-4 weeks; final submittal due 5 weeks before the initial Planning Commission hearing. This application is separate from the Preliminary Plan application but can be submitted and reviewed concurrently.

b. Preliminary Plan: initial submittal review is 3 weeks; subsequent reviews are 2 weeks; final submittal due 5 weeks before the initial Planning Commission hearing. This application is separate from the Level 2 Site Plan application but can be submitted and reviewed concurrently.

c. Level 2 Site Plan Signature Set: initial submittal review is 2 weeks; subsequent reviews are 1-2 weeks.

d. Final Record Plat: initial submittal review is 4 weeks; subsequent reviews are 1-2 weeks; final submittal due 5 weeks before the initial Planning Commission hearing.

e. Total typical review timeline is highly variable depending on applicant submittal timelines and responsiveness to City comments and requests.

10. The provisions of Sec. 25.13.06 – Additional Design Guidelines will apply to the proposed development and compliance will be evaluated during site plan review and building permit review. Some initial comments are provided below:

    a. The proposed office site plan does not appear to comply with guidelines related to visibility to visitors or to engage the transit plaza or Shady Grove Ave street frontage. These transitions will be important for future BRT riders and employees/residents of the developers.

    b. See markups on Architectural and Landscape plans.

11. The provisions of Sec. 25.13.07 – Special design regulations for specific mixed-use zones will apply to the proposed development and compliance will be evaluated during site plan review and building permit review.

    a. There is no master plan applicable to the site, and no major pedestrian spines abut the site.

    b. See markups on Architectural and Landscape plans.

12. The surface parking lot is identified as "temporary" on the plans. Sec. 25.09.04 establishes provisions for temporary uses. Generally, temporary uses are in place for 30 days with limited opportunity for extension. The proposed parking lot does not fall within the temporary uses described by the Zoning Ordinance, and it will be considered permanent for the purposes of City review.

13. A zoning text amendment (TXT2023-00261) would approve changes to Sec. 25.06.05 Administrative Adjustments to allow administrative adjustments to parking drive aisle widths and parking space dimensions in non-residential zones, among other standards. This application is scheduled for a Mayor and Council hearing on May 15, 2023.

    a. The submitted project plans incorporate a reduced parking drive aisle width and the applicant has indicated that an adjustment to the parking space dimensions will also be sought. The applicant will need to demonstrate compliance with the approval criteria of proposed Sec. 25.06.05 at the time of Site Plan submittal to support the waiver request(s).

    b. Staff notes that the proposed Phase 1 site plan, as presented, represents a typical suburban development type and provides more parking than is required by the City's zoning ordinance. Though staff understands that future buildings are proposed for the area east of the office building and on the surface parking lot,

that future development is not discussed or shown in the submitted PAM application materials. The applicant will need to demonstrate that there is good cause for the request and show how the requested reduction in parking aisle width and parking space dimensions is not in conflict with the purpose of the zoning ordinance.

14. Montgomery County Transportation and the Maryland -National Capitol Parks and Planning Commission have provided comments, which are provided for your information. Continued coordination with the County (Transportation and DOT) will be needed to verify the Shady Grove Ave cross-section and requirements for the BRT alignment.
15. The applicant has requested confirmation that the zoning ordinance allows vehicles to back into on-site loading spaces from the right-of-way. For the loading space, Sec. 25.16.04.b of the code is silent on backing in to parking or loading facilities from the right-of-way, but is clear that backing out is prohibited: "Off-street parking and loading facilities that make it necessary for vehicles to back out directly into a public road are prohibited…"

    Sec. 25.16.06.h requires that "Loading space shall be located so that trucks will not obstruct pedestrian or vehicle traffic movement or project into any public right [1] of-way." The loading space must be designed to meet this requirement based on the expected size of delivery vehicles.

    DPW has expressed concerns about the proposed approach to loading. See plan markups for DPW comments.
16. See plan markups for additional comments.

Comprehensive Planning (JL)

1. This application is compliant with the City's Comprehensive Plan. The application is located within Planning Area 16 (King Farm and Shady Grove). Several elements of the project application are compliant with goals, policies, and actions outlined in the Planning Area 16, Land Use, Economic Development, and Transportation chapters of the Comprehensive Plan. These compatibilities are:
    a. "Support the implementation of the Corridor Cities Transitway, on Shady Grove Road." page 395
    b. "Enhance the streetscape for people walking, rolling and biking along major roads in and around the planning area, with critical focus on improving safety along MD-355, to incorporate the principles of complete streets, as outlined in the Transportation Element, including wider sidewalks, bikeway facilities, such greenway features as linear parks, benches, and landscaping, and other active transportation amenities." page 395

c. "Ensure that any new development or redevelopment provides park space to meet the needs of existing and new residents, in accordance with the City's park proximity standard." page 395
d. "Continue to develop new walkable and bikeable, mixed-use activity centers on available land, primarily commercial sites deemed ready for conversion" page 35
e. "Encourage and support office clusters in areas with good regional access... This Plan expects that Rockville will remain a major employment center while continuing to allow some mixing of uses within office clusters in order to provide support with amenities and, where relevant, nearby residences." page 41
f. "Preserve areas for service industrial, research & development, and high intensity recreation uses, while also allowing property near Metro to transition to a wider mix of uses." page 43
g. "Actively support Rockville as a center for innovative technologies, creative industries life sciences, advanced research, and cybersecurity." page 178
h. "Activate, promote, and grow Rockville's commercial destinations and urban mixed-use centers." page 183
i. "Promote walking, rolling, and bicycling modes with new and upgraded facilities" page 56
j. "Support implementation of the Corridor Cities Transitway (CCT) in coordination with MDOT MTA and in consultation with the King Farm Community and the City of Rockville. While the final alignment has yet to be determined by MDOT MTA, the City's preference is for a route along Shady Grove Road instead of King Farm Boulevard." page 67
k. "Design new neighborhoods and major developments with internally connected streets and ensure connectivity to the broader roadway network." page 81

2. The Comprehensive Plan also notes that "the intersection of Choke Cherry Road and Shady Grove Road is regularly listed as one of the top ten congested intersections in the county on Montgomery County government's Mobility Assessment Report" (page 391). Please refer to the comments made by Traffic and Transportation.

Forestry (SR)

1. See plan markups for comments.

Fire Marshall (CB)

1. See plan markups for comments.

Building (CD)

1. Alterations to sites shall comply with all scoping requirements of the 2010 ADA, Chapter 2.
2. Where parking spaces are provided, the minimum number of accessible parking spaces shall be in accordance with Table 208.2 of the 2010 ADA. Where more than one parking facility is provided on the site, the minimum number of accessible parking spaces shall be calculated for each facility.
3. For every six, or fraction of six, parking spaces required to be accessible, at least 1 space shall meet the requirements for an accessible van space.

DPW Comments

Engineering (SM)

1. Progress Street and Discovery Street must be public streets. See DPW markups for details.
2. See plan markups for additional comments.

Traffic and Transportation (AWL/FM)

1. Though the subject application is not subject to compliance with the approved project plan, the development proposes to "draw down" on the development and infrastructure capacity approved by this application, including transportation impacts. The transportation impacts of Phase 1 were limited to no more than 644 (273+371) AM, 1,327 (265+1062) PM, and 1,042 (79+963) Saturday peak hour trips. The impacts of Phase 1 of the Project Plan were based on 183,798 square feet of existing office space to remain plus 70,000 square feet of commercial retail, 220 multi-family units, and 120 single-family attached dwelling units.
2. The proposed development includes 330 multi-family units and 160,000 square feet of office uses. Per the submitted Scoping Intake Form provided with the PAM submittal using the latest ITE trip generation rates, the proposed development will result in 301 AM, 288 PM, and 163 Saturday peak hour trips, which is within the range approved for Phase 1 of the approved project plan. The scoping intake form needs to be revised and resubmitted to reflect the Phase 1 Site Plan, as well as full build out reserved capacities, reduced by the proposed trip rates from the proposed site plan development.
3. See plan markups for additional comments.

HCD Comments

Housing (PT)

1. Residential units constructed on this site must comply with the standards and requirements of the Rockville Moderately Priced Dwelling Unit Chapter 13.5 of the Rockville City Code.
2. The applicant is required to provide 15% of the total units as MPDU.
3. Staff want the applicant to identify the location of MPDU units, which must be distributed throughout the building in all sections and levels of the building, so as not to locate all the affordable units in one section of the building.
4. The MPDUs should be indistinguishable from the market rate units.
5. The MPDUs must be offered an income tiered at an income range between 30% and 80% of AMI for a blended rate of 60% of AMI.
6. The applicant must provide the list of all the MPDU units
7. The staff would like to propose that the applicant must designate a few ADA/UFAS(accessible) units within the MPDU.
8. Before applying of any building permits, the Applicant must execute and record an MPDU Rental Offering Agreement and Declaration of Covenants and Restrictions in a form approved by the Mayor and Council and the Office of the City Attorney.

RPD Comments

Recreation and Parks (CH)

1. Publicly Accessible Art in Private Development ordinance will apply to this project. See link to ordinance manual: http://rockvillemd.gov/DocumentCenter/View/3333 Fees are calculated prior to building permit issuance.
2. RPD is not supportive of the proposed Public Use Space concept, which consists of primarily of disconnected plazas separated from the proposed residential uses by a full block surface parking lot. Consistent with the Rockville 2040 Comprehensive Plan, the Recreation and Parks Strategic Pan, and the Parks, Recreation and Open Space (PROS) Plan:
    a. Provide a centrally located park of at least one acre with amenities such as walking path, playground equipment, pavilion, etc.
    b. Provide a pedestrian/bicycle connection from development to Mattie J. T. Stepanek Park, prefer a connection on the east side of the property.
3. A proposed text amendment (TXT2023-00262) would establish parkland acquisition and impact fee requirements for new developments larger than 5 acres. Depending on when this amendment is adopted, the proposed development may be subject to these new requirements. The most recent draft amendments can be viewed here.

Note: At the time of the next submittal, the applicant will need to provide a point-by-point response letter noting how the staff review comments have been addressed. Comments provided in letter format can be addressed letter format. Comments provided in the plans should be addressed via plan markups rather than letter format. See attached example.

Per DPW comments, Progress Street and Discovery Street must be public streets. Creation of public streets requires a major subdivision (Prelim Plan and Final Plat)

Provide a parcel/lot plan including the information required by Sec. 25.21.08.

provide phasing plan showing sequence of plats and infrastructure (Sec. 25.07.06.c)

Site plan must show grading and tie out conditions on adjacent properties

Add marked crosswalks to all crossings at all intersections within the project limits.

Add sharrow pavement markings on the center of lanes on all roadways.

Show SD easement. SD & easement cannot go through existing wall & loading dock

assuming connections to adjacent parcels isn't proposed/required, provide barricade at dead ends and protect sidewalk crossings

SD within W&S easement

As DPW eluded to, the dam/pond must be constructed in such a way that it complies with requirements related to trees and their roots, on the adjacent City property, which is encumbered with a FCE. Removal/impacts of any trees/vegetation on City property is not permitted.

cul-de-sac must meet DPW standard, including sidewalk

align intersection

These legs of intersections need align

align intersection

Delete apron or curb cut if this is not being developed at this time.

Ensure this is an apron rather than street cut. Typical for all entrances to parking lot and buildings.

Identify location of future BRT stop

10' landscape buffer is required. This may be met with BIO so long as appropriately planted

9' width required

identify curve radius

Must provide a 10' buffer per Landscape/Screening /Lighting Manual

SD flow arrow in opposite direction

Add highly visible crosswalk with RRFB as this will be a prominent crossing point between the new development and the existing Upper Rock development.

Dedicate all land areas necessary for the ultimate construction of Choke Cherry Road to a business district type 1 roadway.

Show and label these areas for public right of way dedication on plan and road sections.

LABEL PUE AND DETERMINE WIDTH.

These line types are not on the legend. What do they signify?

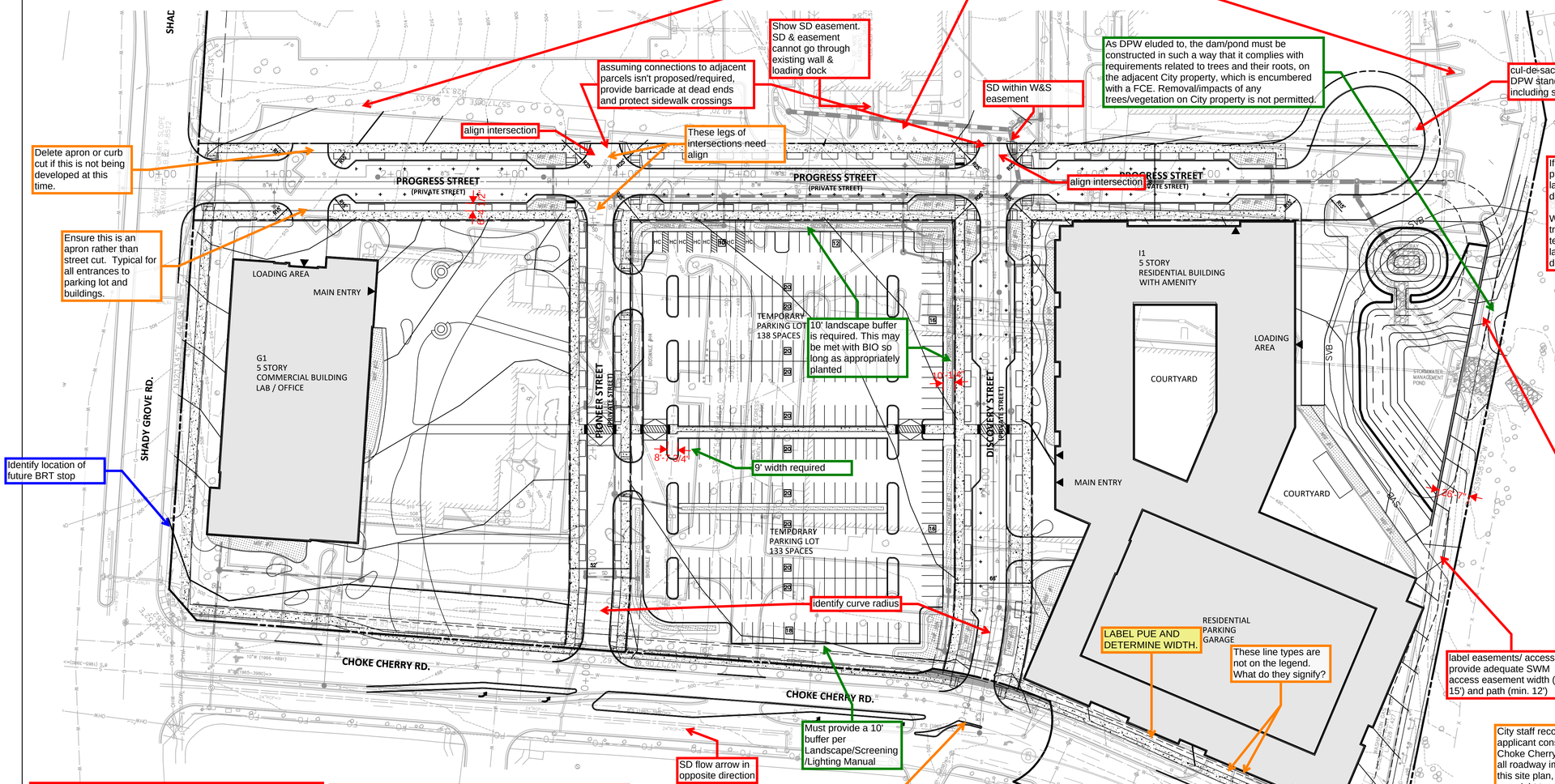
If the sidewalk on Choke Cherry is going to be reduced to 8 feet wide, there needs to be a 2 foot easement behind it per requirements section 21-60 (b)

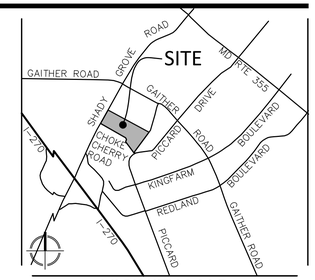
Show ROW and PUE. continue 8' proposed sidewalk to the existing ramp within ROW

label easements/ access. provide adequate SWM access easement width (min. 15') and path (min. 12')

City staff recommends that the applicant construct the ultimate Choke Cherry section including all roadway improvements with this site plan, except for the new new right turn lane at Shady Grove, to avoid any disturbance through future construction to the newly built sidewalk, utilities, or any other improvements.

Any improvements constructed with this site plan, or its proposed grading scheme, cannot preclude the ultimate construction of a business district type 1 road or any other master plan facilities.





VICINITY MAP
SCALE: 1" = 2000'

If adjoining property is not subdivided, provision must be made for the projection of proposed roads by continuing the full widths of rights-of-way laid out for the roads to the boundaries of the subdivision. This provision does not prevent the establishment of culs-de-sac within the subdivision.

Where the preliminary plan and final plan submitted include only part of the tract owned by the subdivider, the Commission may require a sketch of the tentative road system for all or any part of the unsubdivided contiguous land, supported by such other data as the Commission may reasonably determine to be necessary. (Sec. 25.21.16)

Embankment proximity to Forest Conservation Easement.

MD-378 - Trees and Shrubs
Non-Roadway Embankments
Trees and/or shrubs will not be allowed on any embankment, will not be allowed within the buffer zone (15 feet from the toe of the dam), and will not be allowed within a 25-foot radius around the inlet structure.

MDE-Chapter 3
Pond Buffers and Setbacks
Woody vegetation may not be planted on nor allowed to grow within 15 feet of the toe of the embankment and 25 feet of the principal spillway structure.

Montgomery County - Landscape Guidelines
No trees or shrubs will be allowed anywhere on the embankment, within 15 ft. of either toe of the embankment, or within 25 ft. of the riser

Previous DAM Safety Guidance on weir wall/embankment
Please USACE's 'GUILDELINES FOR LANDSCAPE PLANTING AND VEGETATION MANAGEMENT AT FLOODWALLS, LEVEES, AND EMBANKMENT DAMS'. The figure requests a 'root free' zone of 8 feet from the downstream side of the toe drain. Dam Safety is requesting a 15 foot 'no tree' zone from the downstream side of the toe drain or the footer if there is no toe drain. Please see Policy Memorandum #1: Maintenance and Repair: Trees and Woody Vegetation. The 15 foot 'no tree' zone extends 7 feet past the 'no root' zone specified in USACE's landscaping document. Woody vegetation can be planted on the downstream side of the 15 foot no clear zone. Dam Safety considers the earth fill on the downstream side of the concrete weir wall as part of the embankment.

See MDE wall design requirements.

WSSC Typical Comments

WSSC easements must be free and clear of other utilities, including storm drain systems, ESD devices, gas, electric, telephone, CATV, etc., with the exception of allowed crossings designed in accordance with the WSSC 2017 Pipeline Design Manual. Landscaping and Hardscaping are also not allowed without approval. Under certain conditions (and by special request) the items listed above may be permitted within the WSSC easement.

WSSCs minimum easement width for a normal (14-inch diameter or less) pipeline (water or sewer at normal depth) is 20-feet. When both water and sewer (normal diameter and depth) are installed in the same easement, the minimum width is 30-feet. Installation of deep or large water/sewer will require additional easement width.

The minimum horizontal clearance from a building to the outside diameter of a WSSC pipeline is 15-feet. The minimum spacing between adjacent buildings with both water and sewer lines between them must be 40-feet. In some cases where connections, fire hydrants, or deep water/sewer lines are involved, additional easement width is required.

Balconies or other building appurtenances must not encroach within WSSC easements. Water/Sewer pipeline alignment should maintain a minimum 5-foot horizontal clearance from storm-drain pipeline/structures and other utilities.

Provide adequate SD & SWM easement widths. Easement widths should be able to provide enough space to construct, maintain, and vehicle access. Widths must be able to meet OSHA excavation requirements.

Provide adequate easement widths for W&S, SD, and SWM. Easement widths should be able to provide enough space to construct, maintain, and vehicle access. Widths must be able to meet OSHA excavation requirements.

ADA accessible on-street parking should be based on the total marked spaces on a block perimeter. 1-25 spaces require 1 accessible parking space, per PROWAG R-214

Dry Utilities:

Provide layout per ordinance 25.17.03a. All underground lines and cables shall be placed in a public utility easement, or otherwise on private property. No utilities may be placed in the public right-of-way or on City property without the express written permission of the City, and subject to such terms and conditions that the City may require.

Dry utilities may cross the ROW perpendicular.
Applicant shall submit a conceptual dry utility plan that will be required to be approved by both the utility companies and DPW at Site Plan.

PLAN LEGEND

- PROPERTY LINES
- EXISTING EDGE OF PAVEMENT
- EXISTING FENCE LINE
- EXISTING NATURAL GAS CONDUIT
- EXISTING OVERHEAD WIRES
- EXISTING TELEPHONE CONDUIT
- EXISTING SANITARY SEWER CONDUIT
- EXISTING STORM DRAIN CONDUIT
- EXISTING WATER CONDUIT
- LIMITS OF DISTURBANCE
- EXISTING STREAM VALLEY BUFFER
- EXISTING GUY POLE
- EXISTING GAS VALVE
- EXISTING LIGHT POLE
- EXISTING PHONE PEDESTAL
- EXISTING PHONE MANHOLE
- EXISTING UTILITY POLE
- EXISTING STORM DRAIN MANHOLE
- EXISTING ELECTRICAL JUNCTION BOX
- EXISTING ELECTRICAL MANHOLE
- EXISTING FIRE DEPARTMENT CONNECTION
- EXISTING FIRE HYDRANT
- PROPOSED STORMWATER MANAGEMENT BIO
- EXISTING BOLLARD
- EXISTING SIGN POST
- EXISTING WOOD POST
- EXISTING CURB INLET
- EXISTING CONCRETE
- EXISTING SANITARY MANHOLE
- EXISTING TRAFFIC SIGNAL POLE
- EXISTING TREE
- EXISTING CABLE TELEVISION PEDESTAL
- EXISTING UNKNOWN UTILITY MANHOLE
- EXISTING WATER METER
- EXISTING WATER MANHOLE
- EXISTING WATER VALVE
- DOOR LOCATION
- EXISTING GAS MANHOLE

"FOR LOCATION OF UTILITIES CALL 8-1-1 or 1-800-257-7777 OR LOG ON TO www.call811.com or http://www.missutility.net 48 HOURS IN ADVANCE OF ANY WORK IN THIS VICINITY"

The excavator must notify all public utility companies with underground facilities in the area of proposed excavation and have those facilities located by the utility companies prior to commencing excavation. The excavator is responsible for compliance with requirements of Chapter 36A of the Montgomery County Code.

NORTH

50 25 0 50 100 150
SCALE: 1"=50'

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Our Site Set on the Future.

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BXP SHADY GROVE LOT 6 LLC
BXP SHADY GROVE LOT 8 LLC
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SHADY GROVE INNOVATION DISTRICT PHASE 1

4TH ELECTION DISTRICT
MONTGOMERY COUNTY, MARYLAND
WSSC GRID: 221NW09
TAX MAP: FS562 & FS62

PRE-APPLICATION OVERALL PLAN

PROFESSIONAL SEAL

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DRAWN BY: EJS
DESIGNED BY: MBG
DATE ISSUED: 01/06/23

VIKA PROJECT 50554G

DRAWING NO.

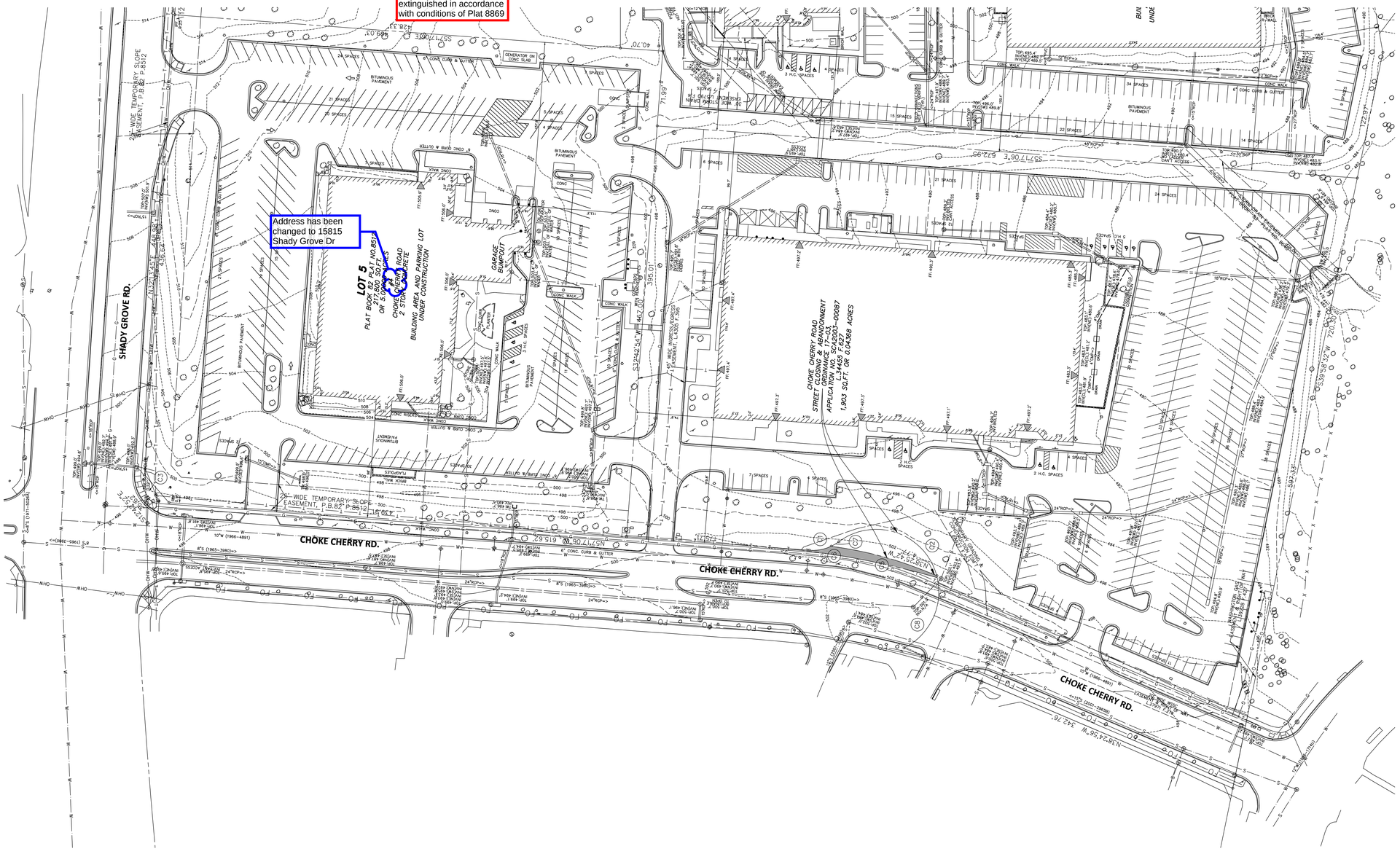
SHEET NO. PSP-2

LAYOUT: PSP-2, Plotted By: schlatter

Extinguishment of existing easements must be evidenced by recordation of a deed of termination or abandonment in the Montgomery County Land Records. Extinguishment of any easement granted to the City must be approved by the Mayor and Council of Rockville, and prior to recordation, any deed of abandonment or termination of an easement granted to the City must be reviewed and approved by DPW and must be in a form approved by the Office of the City Attorney

verify 75' drainage easement (not shown) was extinguished in accordance with conditions of Plat 8869

Address has been changed to 15815 Shady Grove Dr



PLAN LEGEND

	PROPERTY LINES
CTV	EXISTING CABLE TELEVISION CONDUIT
E	EXISTING ELECTRICAL CONDUIT
	EXISTING EDGE OF PAVEMENT
X	EXISTING FENCE LINE
G	EXISTING NATURAL GAS CONDUIT
OHW	EXISTING OVERHEAD WIRES
T	EXISTING TELEPHONE CONDUIT
	EXISTING PUBLIC UTILITIES EASEMENTS
S	EXISTING SANITARY SEWER CONDUIT
SD	EXISTING STORM DRAIN CONDUIT
W	EXISTING WATER CONDUIT
	EXISTING ZONE LIMITS
LOD	LIMITS OF DISTURBANCE
	PROPOSED SPILL CURB
E	PROPOSED ELECTRICAL CONDUIT
SVB	EXISTING STREAM VALLEY BUFFER

Show on existing conditions plan - not currently visible

	EXISTING GUY POLE
	EXISTING GAS VALVE
	EXISTING LIGHT POLE
PHN PED	EXISTING PHONE PEDESTAL
	EXISTING PHONE MANHOLE
	EXISTING UTILITY POLE
	EXISTING PARKING LABEL
	EXISTING SANITARY CLEANOUT
	EXISTING STORM DRAIN MANHOLE
JCB	EXISTING ELECTRICAL JUNCTION BOX
	EXISTING ELECTRICAL MANHOLE
	EXISTING FIRE DEPARTMENT CONNECTION
	EXISTING FIRE HYDRANT
	PROPOSED GREEN AREA

BOL	EXISTING BOLLARD
	EXISTING SIGN POST
MP	EXISTING WOOD POST
	EXISTING INLETS
	EXISTING CURB INLET
CONC.	EXISTING CONCRETE
	EXISTING SANITARY MANHOLE
	EXISTING TRAFFIC CONTROL BOX
	EXISTING TRAFFIC SIGNAL POLE
	EXISTING TREE
CATV PED	EXISTING CABLE TELEVISION PEDESTAL
MH	EXISTING UNKNOWN UTILITY MANHOLE
	EXISTING WATER METER
	EXISTING WATER MANHOLE
	EXISTING WATER VALVE

	DOOR LOCATION
	EXISTING GAS MANHOLE
C&G	EXISTING CURB AND GUTTER
BLDG.	EXISTING BUILDING
STY.	EXISTING STORY
TRV.	EXISTING ELECTRICAL TRANSFORMER
ASPH.	EXISTING ASPHALT
ESMT.	EXISTING EASEMENT
RCP	EXISTING REINFORCED CONCRETE PIPE
CMP	EXISTING CORRUGATED METAL PIPE
BRL	EXISTING BUILDING RESTRICTION LINE
R/W	EXISTING RIGHT-OF-WAY

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NORTH

50 25 0 50 100 150

SCALE: 1"=50'

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20251 Century Blvd., Suite 400
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301.916.4100 | vika.com

Our Site Set on the Future.

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SUITE 200W
WASHINGTON DC, 20037
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SHADY GROVE INNOVATION DISTRICT PHASE 1

4TH ELECTION DISTRICT
MONTGOMERY COUNTY, MARYLAND
WSSC GRID: 221NW09
TAX MAP: FS562 & FS62

PRE-APPLICATION EXISTING CONDITIONS PLAN

PROFESSIONAL SEAL

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DESIGNED BY: MBG
DATE ISSUED: 01/06/23

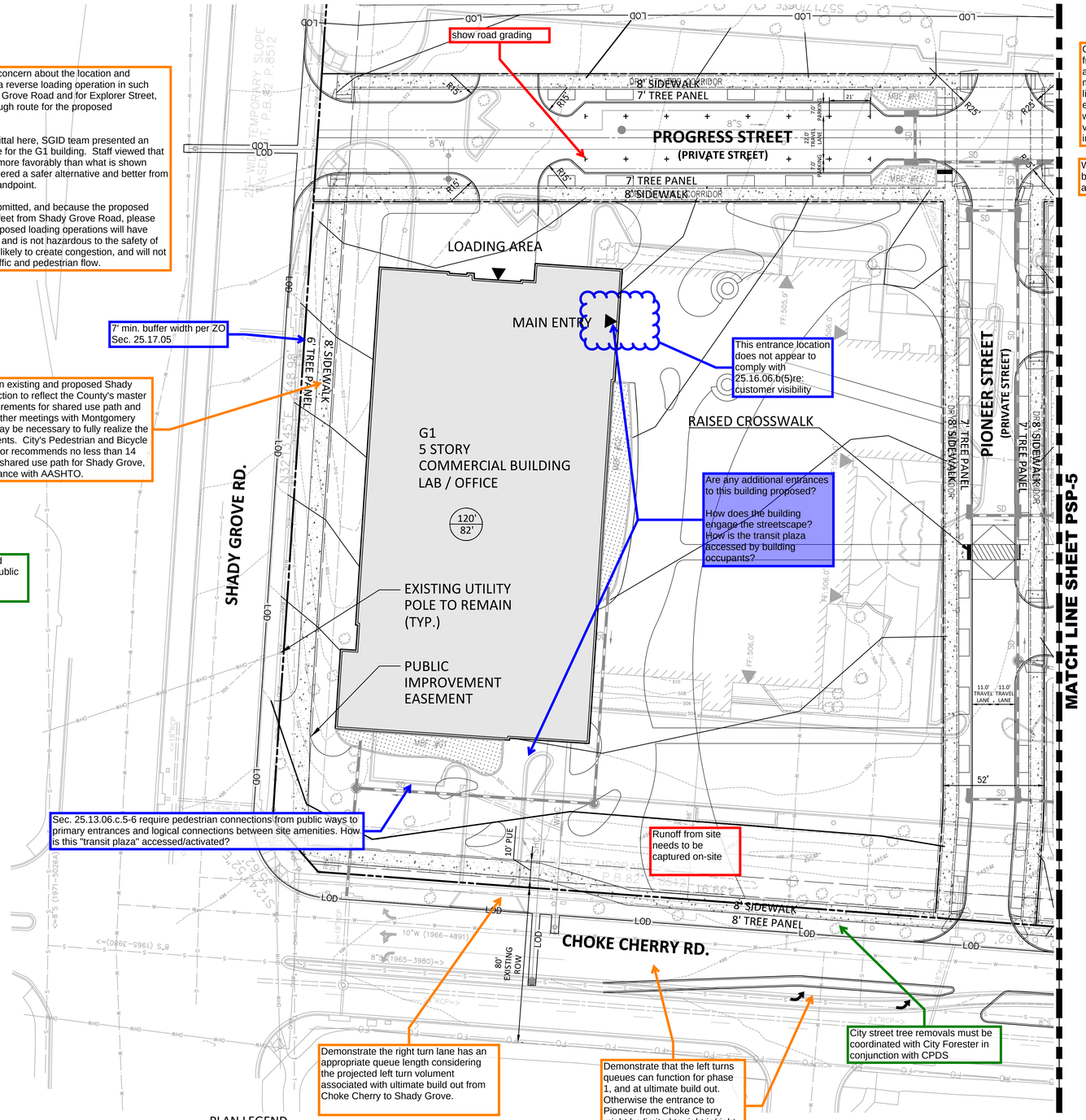
VIKA PROJECT: 50554G

DRAWING NO.

SHEET NO. PSP-3

LAYOUT: PSP-3, Plotted By: schlatter

Z:\50500-50000\50554\CAD\PHASE 1\PRELIMINARY\LOT SHEETS\50554100_P_PHI_PAM EXCOND.dwg - Friday, March 17, 2023 4:25:07 PM



Staff and MCDOT have concern about the location and operational impact from a reverse loading operation in such close proximity to Shady Grove Road and for Explorer Street, as a potential major through route for the proposed development.

Subsequent to the submittal here, SGID team presented an alternate loading scheme for the G1 building. Staff viewed that alternate loading option more favorably than what is shown here because it is considered a safer alternative and better from a roadway operations standpoint.

When the site plan is submitted, and because the proposed loading is less than 150 feet from Shady Grove Road, please demonstrate that the proposed loading operations will have adequate sight distance, and is not hazardous to the safety of all roadway users, is not likely to create congestion, and will not unduly inhibit surface traffic and pedestrian flow.

7' min. buffer width per ZO Sec. 25.17.05

Provide an existing and proposed Shady Grove section to reflect the County's master plan requirements for shared use path and BRT. Further meetings with Montgomery County may be necessary to fully realize the requirements. City's Pedestrian and Bicycle Coordinator recommends no less than 14 foot wide shared use path for Shady Grove, in accordance with AASHTO.

ZO 25.21.21 requires street trees are planted every 40' of newly subdivided lot fronting a public right-of-way. Those street trees must be coordinated with City Forester and CPDS.

Sec. 25.13.06.c.5-6 require pedestrian connections from public ways to primary entrances and logical connections between site amenities. How is this "transit plaza" accessed/activated?

This entrance location does not appear to comply with 25.16.06.b(5)re: customer visibility

Are any additional entrances to this building proposed?

How does the building engage the streetscape? How is the transit plaza accessed by building occupants?

Runoff from site needs to be captured on-site

Demonstrate the right turn lane has an appropriate queue length considering the projected left turn volument associated with ultimate build out from Choke Cherry to Shady Grove.

Demonstrate that the left turns queues can function for phase 1, and at ultimate build out. Otherwise the entrance to Pioneer from Choke Cherry might be limited to right in/right out.

City street tree removals must be coordinated with City Forester in conjunction with CPDS

Clearly identify how pedestrians coming from Progress Street, Pioneer Street, and Choke Cherry Road can access the main entry for the building. With the linework proposed overlaid on the existing, it is difficult to tell what is walkable and what type of surface it is versus what is landscaped or not intended to be a pedestrian walkway.

What is the plan for bike parking for this building. Show the short term location, and describe the long term location.

PLAN LEGEND

	PROPERTY LINES
	EXISTING EDGE OF PAVEMENT
X X X X	EXISTING FENCE LINE
G G G	EXISTING NATURAL GAS CONDUIT
OHW OHW OHW	EXISTING OVERHEAD WIRES
T T T	EXISTING TELEPHONE CONDUIT
S S S	EXISTING SANITARY SEWER CONDUIT
SD SD SD	EXISTING STORM DRAIN CONDUIT
W W W	EXISTING WATER CONDUIT
LOD	LIMITS OF DISTURBANCE
SVB SVB	EXISTING STREAM VALLEY BUFFER
120' / 75'	BUILDING HEIGHT ALLOWED / BUILDING HEIGHT ILLUSTRATED
	EXISTING GUY POLE
	EXISTING LIGHT POLE
	EXISTING PHONE PEDESTAL
	EXISTING PHONE MANHOLE
	EXISTING UTILITY POLE
	EXISTING STORM DRAIN MANHOLE
	EXISTING ELECTRICAL JUNCTION BOX
	EXISTING ELECTRICAL MANHOLE
	EXISTING FIRE DEPARTMENT CONNECTION
	EXISTING FIRE HYDRANT
	PROPOSED STORMWATER MANAGEMENT BIO
	EXISTING BOLLARD
	EXISTING SIGN POST
	EXISTING WOOD POST
	EXISTING CURB INLET
CONC.	EXISTING CONCRETE
	EXISTING SANITARY MANHOLE
	EXISTING TRAFFIC SIGNAL POLE
	EXISTING TREE
	EXISTING CABLE TELEVISION PEDESTAL
MHY	EXISTING UNKNOWN UTILITY MANHOLE
	EXISTING WATER METER
	EXISTING WATER MANHOLE
	EXISTING WATER VALVE
	DOOR LOCATION
	EXISTING GAS MANHOLE

NORTH

30 15 0 30 60 90

SCALE: 1"=30'

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SHADY GROVE INNOVATION DISTRICT PHASE 1

4TH ELECTION DISTRICT
MONTGOMERY COUNTY, MARYLAND
WSSC GRID: 221NW09
TAX MAP: FS562 & FS62

PRE-APPLICATION SITE PLAN

PROFESSIONAL SEAL

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DESIGNED BY: MBG
DATE ISSUED: 01/06/23
VIKA PROJECT 50554G
DRAWING NO.
SHEET NO. PSP-4

LAYOUT: PSP-4, Plotted By: schlatter

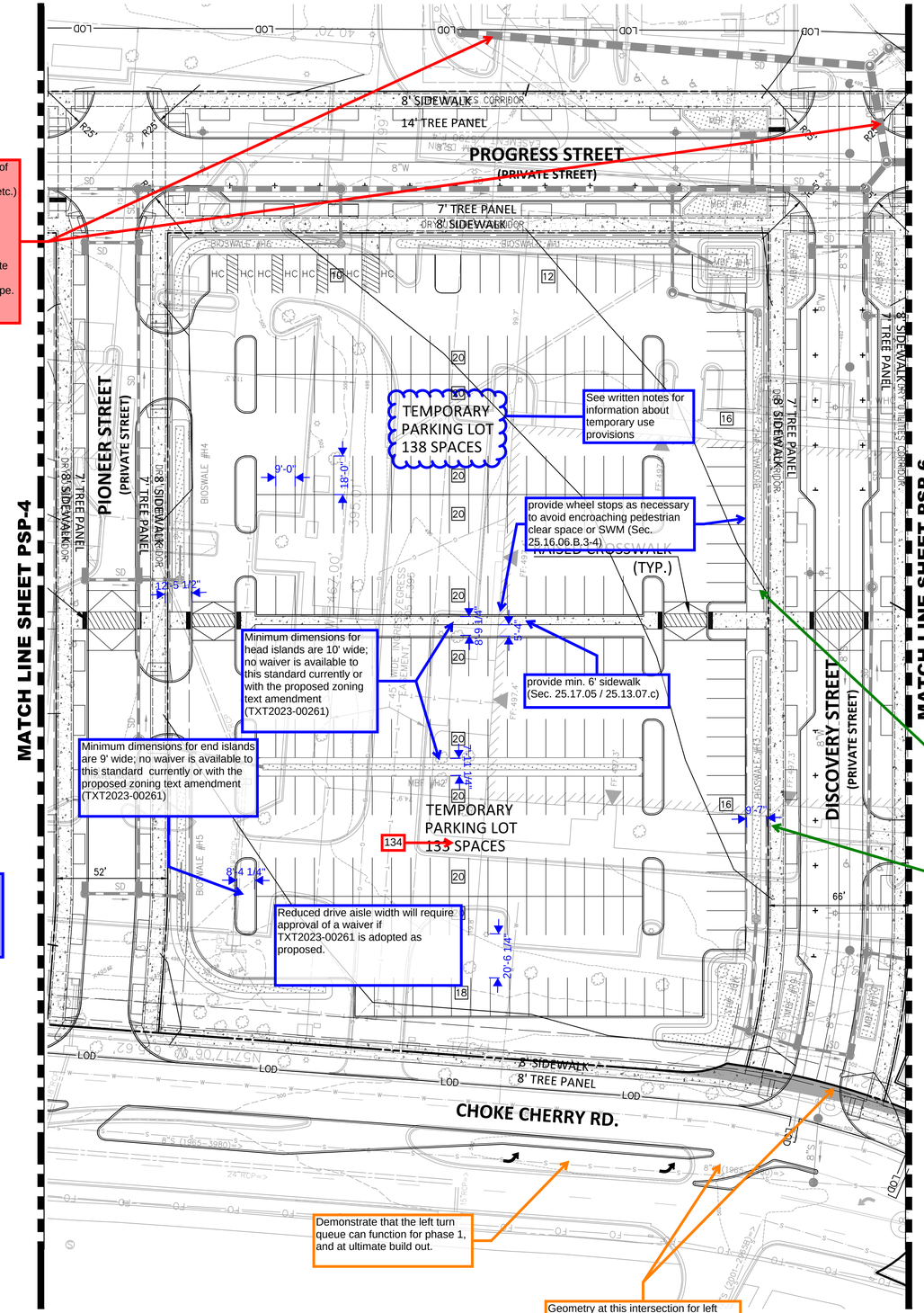
Y:\50501-51000\50554\CAD\PHASE 1\PRELIMINARY\PLOT SHEETS\50554100_PSP_PRL_MM SP.dwg - Friday, March 17, 2023 3:38:37 PM

There is a concern for private streets that all of the various utility easements (WSSC, Washington Gas, Pepco, Verizon, Comcast etc.) will not all fit and could prevent street trees. Dry utilities need to be placed within the sidewalk or PUE. Private Utilities cannot be placed within ROW.

Existing SD easement running through the site is 30' & 35'.
Buildings should be placed a min. 15' from pipe.

recommend providing lighting (could be temporary) for parking and pedestrian walkways through and around lot

Are these portions of the parking lot intended to operate independently? This appears to be one parking lot with 272 spaces. Please clarify.



Staff recommends using one space as a bike parking corral in this lot. It can even be covered.

Demonstrate that the left turn queue can function for phase 1, and at ultimate build out.

Geometry at this intersection for left turns from Choke Cherry to Discovery does not appear to line up appropriately. Demonstrate safe movements and realign the new road connection to align appropriately or the median for safe movements.

PLAN LEGEND

- PROPERTY LINES
- EXISTING EDGE OF PAVEMENT
- EXISTING FENCE LINE
- EXISTING NATURAL GAS CONDUIT
- EXISTING OVERHEAD WIRES
- EXISTING TELEPHONE CONDUIT
- EXISTING SANITARY SEWER CONDUIT
- EXISTING STORM DRAIN CONDUIT
- EXISTING WATER CONDUIT
- LIMITS OF DISTURBANCE
- EXISTING STREAM VALLEY BUFFER
- EXISTING GUY POLE
- EXISTING GAS VALVE
- EXISTING LIGHT POLE
- EXISTING PHONE PEDESTAL
- EXISTING PHONE MANHOLE
- EXISTING UTILITY POLE
- EXISTING STORM DRAIN MANHOLE
- EXISTING ELECTRICAL JUNCTION BOX
- EXISTING ELECTRICAL MANHOLE
- EXISTING FIRE DEPARTMENT CONNECTION
- EXISTING FIRE HYDRANT
- PROPOSED STORMWATER MANAGEMENT BIO
- EXISTING BOLLARD
- EXISTING SIGN POST
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- EXISTING CURB INLET
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- EXISTING TRAFFIC SIGNAL POLE
- EXISTING TREE
- EXISTING CABLE TELEVISION PEDESTAL
- EXISTING UNKNOWN UTILITY MANHOLE
- EXISTING WATER METER
- EXISTING WATER MANHOLE
- EXISTING WATER VALVE
- DOOR LOCATION
- EXISTING GAS MANHOLE

NORTH

30 15 0 30 60 90

SCALE: 1"=30'

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LAYOUT: PSP-5, Plotted By: schlatter

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SHADY GROVE INNOVATION DISTRICT PHASE 1

4TH ELECTION DISTRICT
MONTGOMERY COUNTY, MARYLAND
WSSC GRID: 221NW09
TAX MAP: FS562 & FS62

PRE-APPLICATION SITE PLAN

PROFESSIONAL SEAL

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DRAWN BY: EJS
DESIGNED BY: MBG
DATE ISSUED: 01/06/23

VIKA PROJECT: 50554G

DRAWING NO.

SHEET NO. PSP-5

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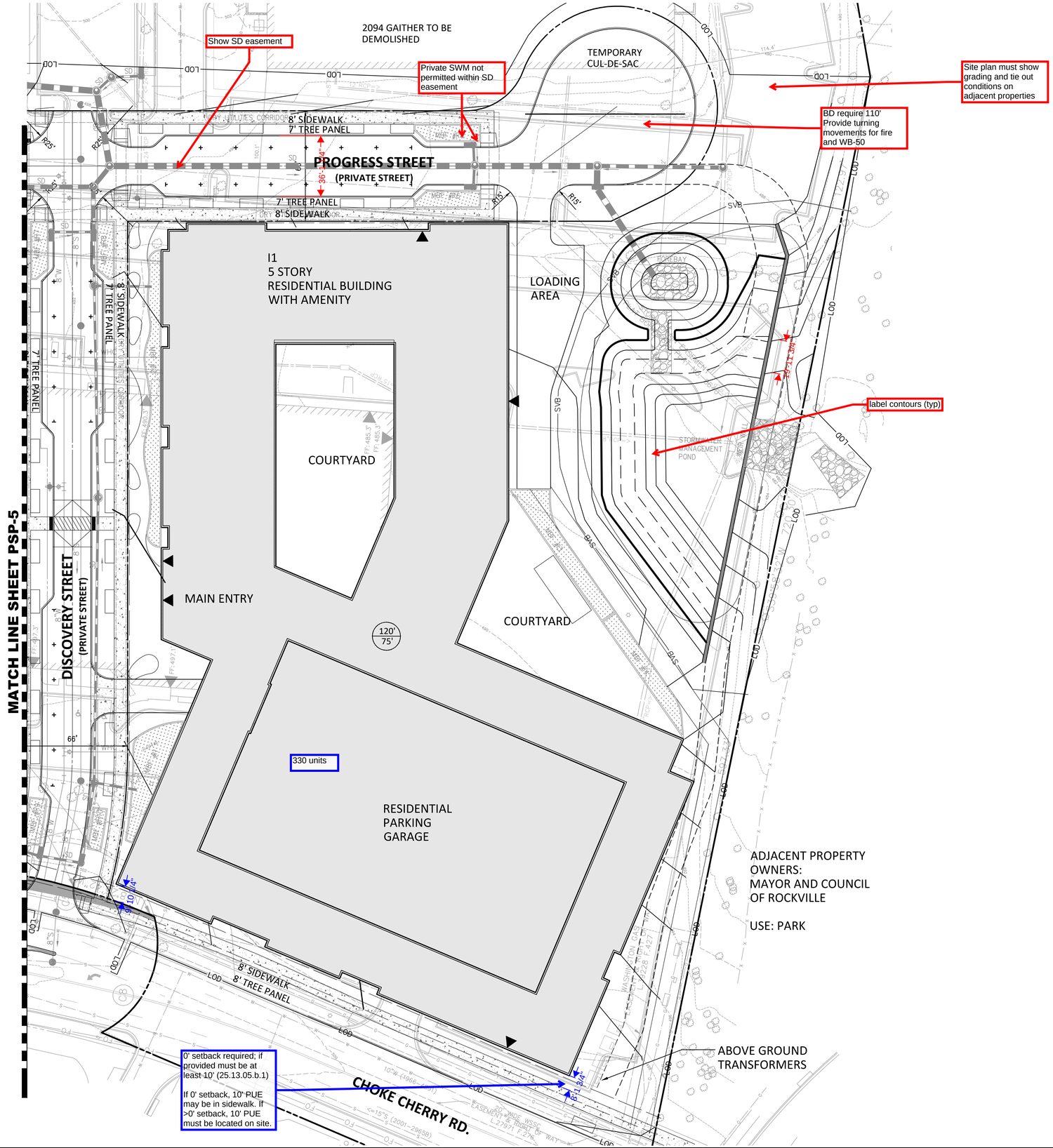

Please indicate plan for bike parking in support of this building.

PLAN LEGEND

- PROPERTY LINES
- EXISTING EDGE OF PAVEMENT
- EXISTING FENCE LINE
- EXISTING NATURAL GAS CONDUIT
- EXISTING OVERHEAD WIRES
- EXISTING TELEPHONE CONDUIT
- EXISTING SANITARY SEWER CONDUIT
- EXISTING STORM DRAIN CONDUIT
- EXISTING WATER CONDUIT
- LIMITS OF DISTURBANCE
- EXISTING STREAM VALLEY BUFFER
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- EXISTING TREE
- EXISTING CABLE TELEVISION PEDESTAL
- EXISTING UNKNOWN UTILITY MANHOLE
- EXISTING WATER METER
- EXISTING WATER MANHOLE
- EXISTING WATER VALVE
- DOOR LOCATION
- EXISTING GAS MANHOLE
- 120'/75' BUILDING HEIGHT ALLOWED / BUILDING HEIGHT ILLUSTRATED

NORTH

30 15 0 30 60 90

SCALE: 1"=30'

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DESIGNED BY: MBG
DATE ISSUED: 01/06/23

VIKA PROJECT: 50554G

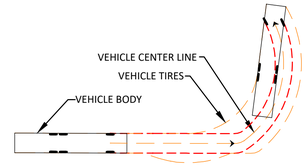
DRAWING NO.

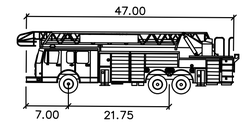
SHEET NO. PSP-6

LAYOUT: PSP-6, Plotted By: schlatter

LEGEND

- MAIN ENTRANCE
- WATER LINE AND FITTING (10"W)
- FIRE DEPARTMENT CONNECTION
- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- BUILDING HEIGHT ALLOWED / BUILDING HEIGHT ILLUSTRATED (120' / 75')
- CONCEPTUAL DOORWAY LOCATION
- FIRE TRUCK MOVEMENT (AT 729 TRUCK)
- FIRE ACCESS PATH
- EXISTING TRAFFIC SIGNAL

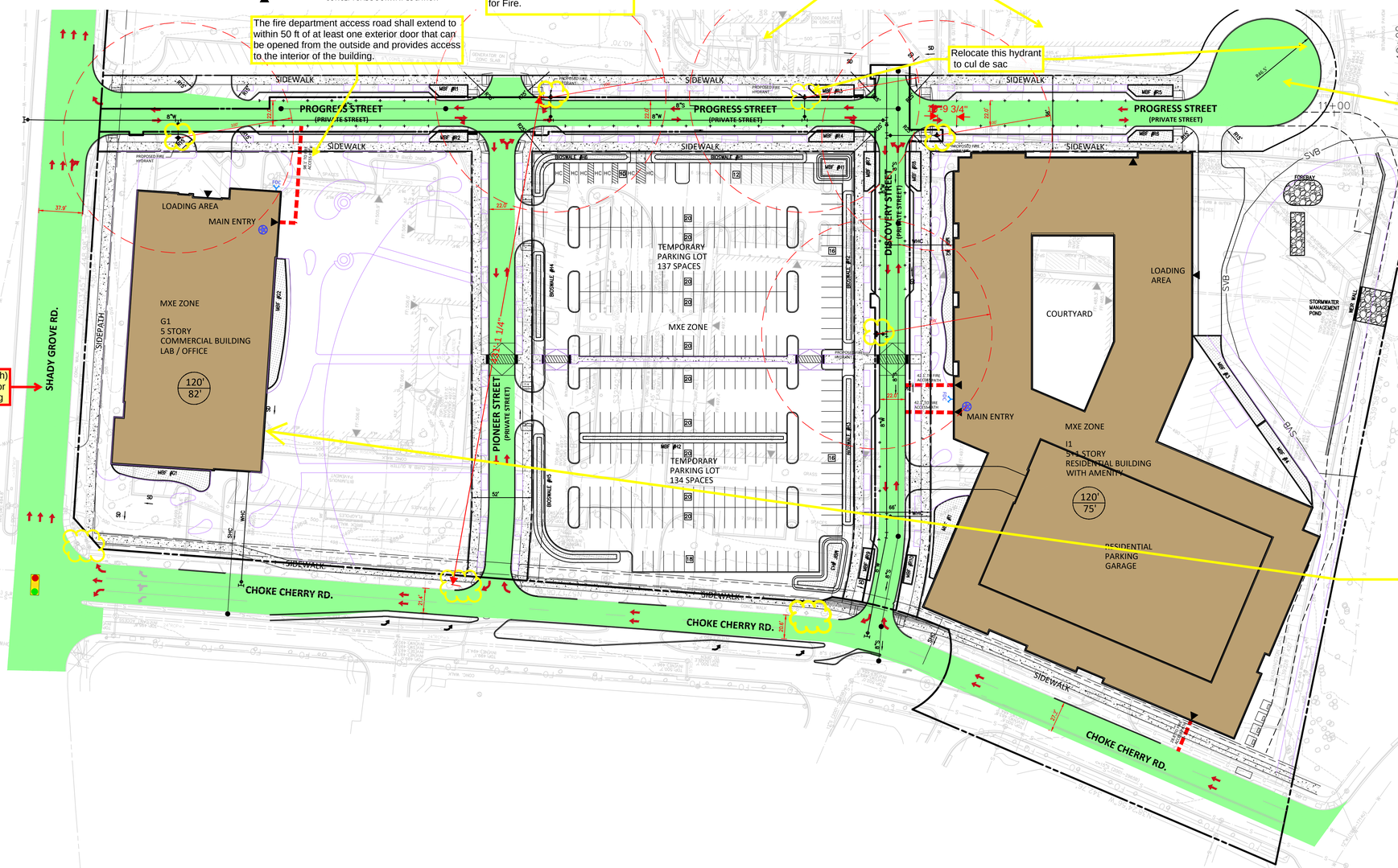




AT29 feet

Width	: 8.25
Track	: 8.25
Lock to Lock Time	: 6.00
Steering Angle	: 33.20

VICINITY MAP
SCALE: 1" = 2000'



Submit a Fire Protection Site Plan with the following details;

Show the location of existing hydrants (Choke cherry and Shady Grove road and existing on-site to remain.

CoR Chapter 9, 18.5.1.7.1 Fire hydrant spacing may be increased to 500 ft. (153 m) for structures protected throughout by an approved automatic sprinkler system, in accordance with Section 9.7 of NFPA 101, Life Safety Code, 2018 Edition.

CoR, Chapter 9, 18.2.3.2.1 A fire department access road shall extend to within 50 ft. (15 m) of at least one (1) exterior door acceptable to the AHJ that can be opened from the outside and that provides access to the interior of the building. (Existing Office/Lab)

Provide fire department personnel walking path around each structure.

Show the location the fire department key access Box.

CoR, Chapter 9, 18.2.3.5.3.1 Cul-de-sacs used to provide a dead end apparatus turn-around shall not be less than 90-ft. (27.43 m) in diameter at the closed end.

Provide a turning template for the cul-de-sac

Show the location for 2 remote FDC for Existing Lab Building.

Show the location of existing hydrants (Choke cherry and Shady Grove road and existing onsite to remain.

"FOR LOCATION OF UTILITIES CALL 8-1-1 or 1-800-257-7777 OR LOG ON TO www.call811.com or http://www.missutility.net 48 HOURS IN ADVANCE OF ANY WORK IN THIS VICINITY"

The excavator must notify all public utility companies with underground facilities in the area of proposed excavation and have those facilities located by the utility companies prior to commencing excavation. The excavator is responsible for compliance with requirements of Chapter 36A of the Montgomery County Code.

LAYOUT: PSP-11, Plotted By: schlatter

VIKA MARYLAND, LLC
20251 Century Blvd., Suite 400
Germantown, MD 20874
301.916.4100 | vika.com

Our Site Set on the Future.

PREPARED FOR:
BXP SHADY GROVE LOT 5 LLC
BXP SHADY GROVE LOT 6 LLC
BXP SHADY GROVE LOT 8 LLC
2200 PENNSYLVANIA AVENUE, NW
SUITE 200W
WASHINGTON DC, 20037
301-704-5447
CJ OVERLY
COVERLY@BXP.COM

DESIGN CONSULTANTS

PLANNER, CIVIL ENGINEER
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CONTACT: JOANNE TRUMBO

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CONTACT: DAN AVRIT

ATTORNEY
MILES & STOCKBRIDGE
11 N WASHINGTON STREET
SUITE 700
ROCKVILLE, MD 20850
301.517.4813
CONTACT: SCOTT WALLACE

SHADY GROVE INNOVATION DISTRICT PHASE 1

4TH ELECTION DISTRICT
MONTGOMERY COUNTY, MARYLAND
WSSC GRID: 221NW09
TAX MAP: FS562 & FS62

PRE-APPLICATION FIRE PROTECTION PLAN

PROFESSIONAL SEAL

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DRAWN BY: EJS
DESIGNED BY: MBG
DATE ISSUED: 01/06/23
VIKA PROJECT: 50554G
DRAWING NO.
SHEET NO. PSP-7

NORTH

50 25 0 50 100 150
SCALE: 1"=50'

R:\50501-51000\50554\2020\PHASE 1\PRELIMINARY\PLAN SHEETS\50554100_PSP_PHASE 1_PRELIMINARY PLAN SHEET.dwg – Friday, March 17, 2023 4:10:00 PM

LEGEND

- Phase One Limits
- Surrounding Buildings
- Proposed Building
- 120' / 78' Building Height Allowed / Building Height Illustrated
- Conceptual Doorway Location
- Public Open Space
- Public Use Space

No lotting plan submitted; verify the lot area and what it is based on for SPR submittal.

Project description indicates that the open area provided is for the entire development. Note that each phase will need to meet the Open Area and Public Use Space requirement.

Open Space Area per 24.1.1.06

	Required	Proposed
Open Area (% of Net Lot Area)	20%	20%
Open Space Area SF	107,138	110,000
Public Use Space SF (5% of Open Space Area)	5%	5%
Open Area/Public Use Space SF	26,784	27,000

This area doesn't seem very desirable/functional as public use space. Provide more information about how it will be accessed/used/interact with the BRT stop

VICINITY MAP
SCALE: 1" = 2000'

PLAN LEGEND

- PROPERTY LINES
- EXISTING EDGE OF PAVEMENT
- EXISTING FENCE LINE
- EXISTING NATURAL GAS CONDUIT
- EXISTING OVERHEAD WIRES
- EXISTING TELEPHONE CONDUIT
- EXISTING SANITARY SEWER CONDUIT
- EXISTING STORM DRAIN CONDUIT
- EXISTING WATER CONDUIT
- LIMITS OF DISTURBANCE
- EXISTING STREAM VALLEY BUFFER
- EXISTING GUY POLE
- EXISTING GAS VALVE
- EXISTING LIGHT POLE
- EXISTING PHONE PEDESTAL
- EXISTING PHONE MANHOLE
- EXISTING UTILITY POLE
- EXISTING STORM DRAIN MANHOLE
- EXISTING ELECTRICAL JUNCTION BOX
- EXISTING ELECTRICAL MANHOLE
- EXISTING FIRE DEPARTMENT CONNECTION
- EXISTING FIRE HYDRANT
- PROPOSED STORMWATER MANAGEMENT BIO
- EXISTING BOLLARD
- EXISTING SIGN POST
- EXISTING WOOD POST
- EXISTING CURB INLET
- EXISTING CONCRETE
- EXISTING SANITARY MANHOLE
- EXISTING TRAFFIC SIGNAL POLE
- EXISTING TREE
- EXISTING CABLE TELEVISION PEDESTAL
- EXISTING UNKNOWN UTILITY MANHOLE
- EXISTING WATER METER
- EXISTING WATER MANHOLE
- EXISTING WATER VALVE
- DOOR LOCATION
- EXISTING GAS MANHOLE

"FOR LOCATION OF UTILITIES CALL 8-1-1 or 1-800-257-7777 OR LOG ON TO www.call811.com or http://www.missutility.net 48 HOURS IN ADVANCE OF ANY WORK IN THIS VICINITY"

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SHADY GROVE INNOVATION DISTRICT PHASE 1

4TH ELECTION DISTRICT
MONTGOMERY COUNTY, MARYLAND
WSSC GRID: 221NW09
TAX MAP: FS562 & FS62

PRE-APPLICATION OPEN SPACE PLAN

PROFESSIONAL SEAL

NORTH

50 25 0 50 100 150
SCALE: 1"=50'

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DRAWN BY: EJS
DESIGNED BY: MBG
DATE ISSUED: 01/06/23

VIKA PROJECT: 50554G

DRAWING NO.

SHEET NO. PSP-8

LAYOUT: PSP-10, Plotted By: schlatter

Friday, March 17, 2023 3:55:43 PM

PAM COMBINED DRAWINGS.pdf Markup Summary

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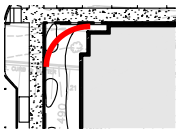

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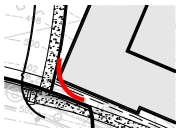

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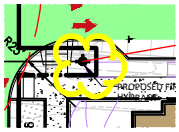

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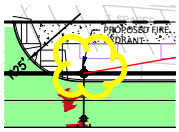

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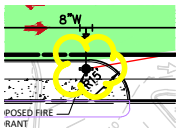

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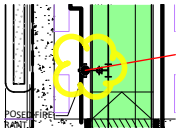

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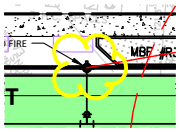

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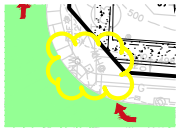

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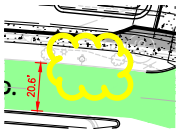

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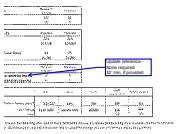
Internal Discussion - Callout (8)



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Page Label: [1] COVER SHEET
Author: jlapping
Date: 3/28/2023 3:16:56 PM
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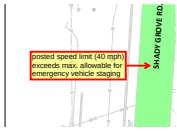
Update reference - None required.
10' min. if provided



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Page Label: [1] PSP-11
Author: smurphy
Date: 3/28/2023 11:55:14 AM
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Layer: DPW Engineering
Space:

posted speed limit (40 mph) exceeds max. allowable for emergency vehicle staging

Subject: Internal Discussion - Callout
Page Label: [1] 50554100_P_PH1_PAM SP-PSP-4
Author: smurphy
Date: 4/14/2023 3:46:00 PM
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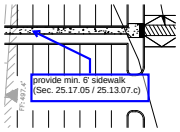
Space:

7' min. buffer width per ZO Sec. 25.17.05



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Author: smurphy
Date: 3/28/2023 3:26:49 PM
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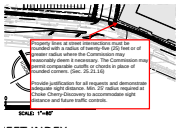
provide min. 6' sidewalk (Sec. 25.17.05 / 25.13.07.c)



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Page Label: [1] COVER SHEET
Author: jlapping
Date: 4/20/2023 1:47:53 PM
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Property lines at street intersections must be rounded with a radius of twenty-five (25) feet or of greater radius where the Commission may reasonably deem it necessary. The Commission may permit comparable cutoffs or chords in place of rounded corners. (Sec. 25.21.16)

Provide justification for all requests and demonstrate adequate sight distance. Min. 25' radius required at Choke Cherry-Discovery to accommodate sight distance and future traffic controls.

Subject: Internal Discussion - Callout
Page Label: [1] PSP-11
Author: jlapping
Date: 4/20/2023 10:48:16 AM
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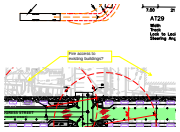
The fire department access road shall extend to within 50 ft of at least one exterior door that can be opened from the outside and provides access to the interior of the building.



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Page Label: [1] PSP-11
Author: jlapping
Date: 4/12/2023 11:54:00 AM
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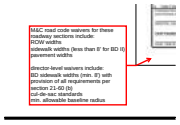
Space:

Fire access to existing buildings?



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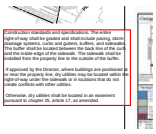
Page Label: [1] COVER SHEET
Author: aluetkemeier
Date: 4/21/2023 10:47:03 AM
Status:
Color: ■
Layer: DPW Engineering
Space:

M&C road code waivers for these roadway sections include:
ROW widths
sidewalk widths (less than 8' for BD II)
pavement widths

director-level waivers include:
BD sidewalk widths (min. 8') with provision of all requirements per section 21-60 (b)
cul-de-sac standards
min. allowable baseline radius

Internal Discussion - Text Box (4)



Subject: Internal Discussion - Text Box
Page Label: [1] COVER SHEET
Author: jlapping
Date: 4/20/2023 10:23:08 AM
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Construction standards and specifications. The entire right-of-way shall be graded and shall include paving, storm drainage systems, curbs and gutters, buffers, and sidewalks. The buffer shall be located between the back line of the curb and the inside edge of the sidewalk. The sidewalk shall be installed from the property line to the outside of the buffer.

If approved by the Director, where buildings are positioned at or near the property line, dry utilities may be located within the right-of-way under the sidewalk or in locations that do not create conflicts with other utilities.

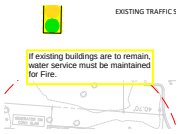
Otherwise, dry utilities shall be located in an easement pursuant to chapter 25, article 17, as amended.

Subject: Internal Discussion - Text Box
Page Label: [1] COVER SHEET
Author: jlapping
Date: 4/21/2023 10:47:13 AM
Status:
Color: ■
Layer: DPW Engineering
Space:

Sec. 25.21.18. - Easements and rights-of-way.

a.Easements or rights-of-way across lots must not be less than ten (10) feet in width, or of such greater width as may reasonably be required by the Commission.

c.The public utility improvements (water, sewer and storm drains) must comply with the Department of Public Works Standard Details for Construction for City Utility Easements or other applicable Washington Suburban Sanitary Commission (WSSC) and Montgomery County standards.



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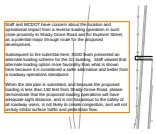
If existing buildings are to remain, water service must be maintained for Fire.



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Author: aluetkemeier
Date: 4/19/2023 3:01:05 PM
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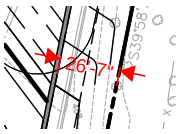
Staff and MCDOT have concern about the location and operational impact from a reverse loading operation in such close proximity to Shady Grove Road and for Explorer Street, as a potential major through route for the proposed development.

Subsequent to the submittal here, SGID team presented an alternate loading scheme for the G1 building. Staff viewed that alternate loading option more favorably than what is shown here because it is considered a safer alternative and better from a roadway operations standpoint.

When the site plan is submitted, and because the proposed loading is less than 150 feet from Shady Grove Road, please demonstrate that the proposed loading operations will have adequate sight distance, and is not hazardous to the safety of all roadway users, is not likely to create congestion, and will not unduly inhibit surface traffic and pedestrian flow.

Length Measurement (23)



Subject: Length Measurement
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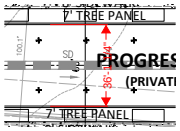
Author: jlapping
Date: 3/22/2023 8:30:09 AM
Status:
Color:
Layer:
Space:

26'-7"



Subject: Length Measurement
Page Label: [3] 50554100_P_PH1_PAM SP-PSP-6
Author: jlapping
Date: 3/22/2023 8:36:24 AM
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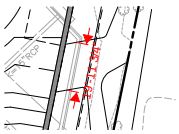
Color:
Layer:
Space:

36'-1 1/4"



Subject: Length Measurement
Page Label: [3] 50554100_P_PH1_PAM SP-PSP-6
Author: jlapping
Date: 3/22/2023 8:37:56 AM
Status:
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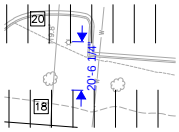
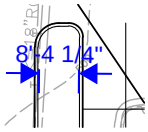
Layer:
Space:

19'-11 3/4"



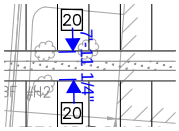
Subject: Length Measurement
Page Label: [2] 50554100_P_PH1_PAM SP-PSP-5
Author: lalligood
Date: 3/27/2023 4:43:11 PM
Status:
Color:
Layer:
Space:

20'-6 1/4"



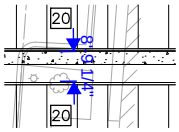
Subject: Length Measurement
Page Label: [2] 50554100_P_PH1_PAM SP-PSP-5
Author: lalligood
Date: 3/27/2023 4:43:02 PM
Status:
Color:
Layer:
Space:

8'-4 1/4"



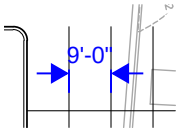
Subject: Length Measurement
Page Label: [2] 50554100_P_PH1_PAM SP-PSP-5
Author: lalligood
Date: 3/27/2023 4:42:51 PM
Status:
Color:
Layer:
Space:

7'-11 1/4"



Subject: Length Measurement
Page Label: [2] 50554100_P_PH1_PAM SP-PSP-5
Author: lalligood
Date: 3/27/2023 4:42:51 PM
Status:
Color:
Layer:
Space:

8'-9 1/4"



Subject: Length Measurement
Page Label: [2] 50554100_P_PH1_PAM SP-PSP-5
Author: lalligood
Date: 3/27/2023 4:42:36 PM
Status:
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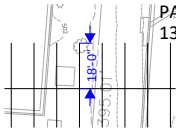
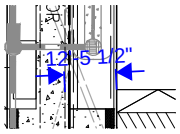
Layer:
Space:

9'-0"



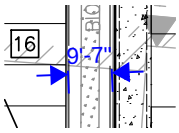
Subject: Length Measurement
Page Label: [2] 50554100_P_PH1_PAM SP-PSP-5
Author: lalligood
Date: 3/27/2023 4:42:36 PM
Status:
Color:
Layer:
Space:

18'-0"



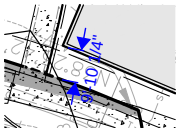
Subject: Length Measurement
Page Label: [2] 50554100_P_PH1_PAM SP-PSP-5
Author: lalligood
Date: 3/27/2023 4:42:36 PM
Status:
Color:
Layer:
Space:

12'-5 1/2"



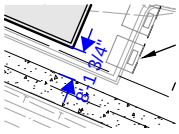
Subject: Length Measurement
Page Label: [2] 50554100_P_PH1_PAM SP-PSP-5
Author: lalligood
Date: 3/27/2023 4:42:15 PM
Status:
Color:
Layer:
Space:

9'-7"



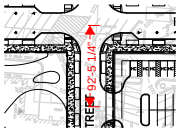
Subject: Length Measurement
Page Label: [3] 50554100_P_PH1_PAM SP-PSP-6
Author: lalligood
Date: 3/27/2023 4:45:18 PM
Status:
Color:
Layer:
Space:

9'-10 1/4"



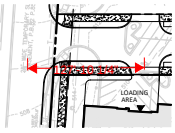
Subject: Length Measurement
Page Label: [3] 50554100_P_PH1_PAM SP-PSP-6
Author: lalligood
Date: 3/27/2023 4:45:32 PM
Status:
Color:
Layer:
Space:

8'-1 3/4"



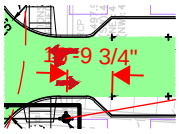
Subject: Length Measurement
Page Label: [1] COVER SHEET
Author: jlapping
Date: 3/28/2023 7:57:47 AM
Status:
Color:
Layer:
Space:

92'-5 1/4"



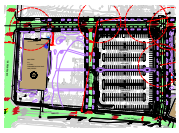
Subject: Length Measurement
Page Label: [1] COVER SHEET
Author: jlapping
Date: 3/28/2023 7:58:23 AM
Status:
Color:
Layer:
Space:

127'-10 1/4"



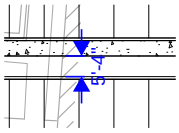
Subject: Length Measurement
Page Label: [1] PSP-11
Author: jlapping
Date: 4/3/2023 2:00:29 PM
Status:
Color:
Layer:
Space:

16'-9 3/4"



Subject: Length Measurement
Page Label: [1] PSP-11
Author: Rockvilleuser
Date: 4/12/2023 11:56:10 AM
Status:
Color:
Layer:
Space:

431'-1 1/4"



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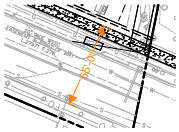
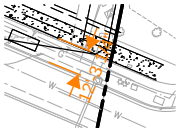
Page Label: [2] 50554100_P_PH1_PAM SP-PSP-5
Author: lalligood
Date: 4/14/2023 3:59:36 PM
Status:
Color:
Layer:
Space:

5'-4"



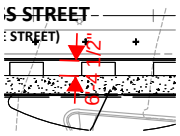
Subject: Length Measurement
Page Label: [1] PSP-2
Author: aluetkemeier
Date: 4/19/2023 5:00:37 PM
Status:
Color:
Layer: Traffic & Transportation
Space:

65'-0"



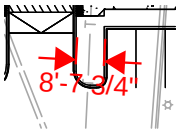
Subject: Length Measurement
Page Label: [1] PSP-2
Author: aluetkemeier
Date: 4/19/2023 5:01:02 PM
Status:
Color:
Layer: Traffic & Transportation
Space:

12'-3 1/4"



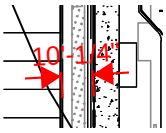
Subject: Length Measurement
Page Label: [1] PSP-2
Author: Rockvilleuser
Date: 4/20/2023 7:46:41 AM
Status:
Color:
Layer:
Space:

6'-4 1/2"



Subject: Length Measurement
Page Label: [1] PSP-2
Author: Rockvilleuser
Date: 4/20/2023 7:49:18 AM
Status:
Color:
Layer:
Space:

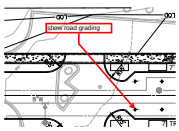
8'-7 3/4"



Subject: Length Measurement
Page Label: [1] PSP-2
Author: Rockvilleuser
Date: 4/20/2023 7:56:29 AM
Status:
Color:
Layer:
Space:

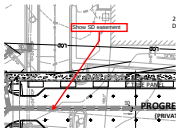
10'-1/4"

New Comment - Callout (49)



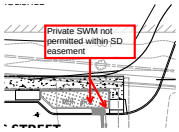
Subject: New Comment - Callout
Page Label: [1] 50554100_P_PH1_PAM SP-PSP-4
Author: jlapping
Date: 3/22/2023 8:30:49 AM
Status:
Color:
Layer: DPW Engineering
Space:

show road grading



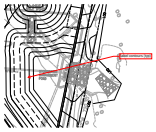
Subject: New Comment - Callout
Page Label: [3] 50554100_P_PH1_PAM SP-PSP-6
Author: jlapping
Date: 3/22/2023 8:35:36 AM
Status:
Color: ■
Layer: DPW Engineering
Space:

Show SD easement



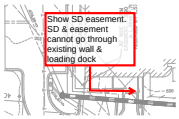
Subject: New Comment - Callout
Page Label: [3] 50554100_P_PH1_PAM SP-PSP-6
Author: jlapping
Date: 3/22/2023 8:37:15 AM
Status:
Color: ■
Layer: DPW Engineering
Space:

Private SWM not permitted within SD easement



Subject: New Comment - Callout
Page Label: [3] 50554100_P_PH1_PAM SP-PSP-6
Author: jlapping
Date: 3/27/2023 2:07:04 PM
Status:
Color: ■
Layer: DPW Engineering
Space:

label contours (typ)



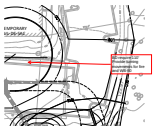
Subject: New Comment - Callout
Page Label: [1] PSP-2
Author: jlapping
Date: 3/22/2023 1:38:58 PM
Status:
Color: ■
Layer: DPW Engineering
Space:

Show SD easement. SD & easement cannot go through existing wall & loading dock

---

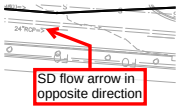
Subject: New Comment - Callout
Page Label: [1] PSP-2
Author: jlapping
Date: 3/22/2023 1:39:30 PM
Status:
Color: ■
Layer: DPW Engineering
Space:

SD within W&S easement



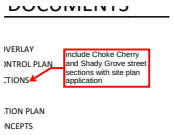
Subject: New Comment - Callout
Page Label: [3] 50554100_P_PH1_PAM SP-PSP-6
Author: jlapping
Date: 4/3/2023 2:02:58 PM
Status:
Color: ■
Layer: DPW Engineering
Space:

BD require 110'
Provide turning movements for fire and WB-50



Subject: New Comment - Callout
Page Label: [1] PSP-2
Author: smurphy
Date: 3/27/2023 2:01:01 PM
Status:
Color: ■
Layer: DPW Engineering
Space:

SD flow arrow in opposite direction



Subject: New Comment - Callout
Page Label: [1] COVER SHEET
Author: smurphy
Date: 4/21/2023 10:43:50 AM
Status:
Color: ■
Layer: DPW Engineering
Space:

include Choke Cherry and Shady Grove street sections with site plan application

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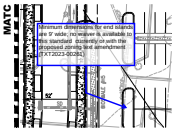
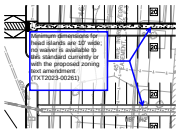


Subject: New Comment - Callout
Page Label: [2] 50554100_P_PH1_PAM SP-PSP-5
Author: lalligood
Date: 4/21/2023 11:15:01 AM
Status:
Color: ■
Layer: Planning
Space:

Minimum dimensions for end islands are 9' wide; no waiver is available to this standard currently or with the proposed zoning text amendment (TXT2023-00261)



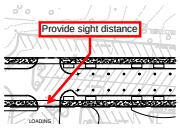
Subject: New Comment - Callout
Page Label: [2] 50554100_P_PH1_PAM SP-PSP-5
Author: lalligood
Date: 4/21/2023 11:15:16 AM
Status:
Color: ■
Layer: Planning
Space:

Minimum dimensions for head islands are 10' wide; no waiver is available to this standard currently or with the proposed zoning text amendment (TXT2023-00261)

Subject: New Comment - Callout
Page Label: [3] 50554100_P_PH1_PAM SP-PSP-6
Author: lalligood
Date: 4/14/2023 4:02:05 PM
Status:
Color: ■
Layer: Planning
Space:

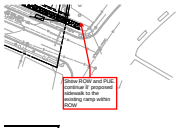
0' setback required; if provided must be at least 10' (25.13.05.b.1)

If 0' setback, 10' PUE may be in sidewalk. If >0' setback, 10' PUE must be located on site.



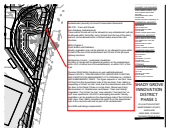
Subject: New Comment - Callout
Page Label: [1] COVER SHEET
Author: jlapping
Date: 4/20/2023 1:50:26 PM
Status:
Color: ■
Layer: DPW Engineering
Space:

Provide sight distance



Subject: New Comment - Callout
Page Label: [1] PSP-2
Author: jlapping
Date: 4/19/2023 4:58:14 PM
Status:
Color: ■
Layer: DPW Engineering
Space:

Show ROW and PUE. continue 8' proposed sidewalk to the existing ramp within ROW



Subject: New Comment - Callout
Page Label: [1] PSP-2
Author: jlapping
Date: 3/28/2023 8:40:43 AM
Status:
Color: ■
Layer: DPW Engineering
Space:

Embankment proximity to Forest Conservation Easement.

MD-378 - Trees and Shrubs
Non-Roadway Embankments
Trees and/or shrubs will not be allowed on any embankment, will not be allowed within the buffer zone (15 feet from the toe of the dam), and will not be allowed within a 25-foot radius around the inlet structure.

MDE-Chapter 3
Pond Buffers and Setbacks
Woody vegetation may not be planted on nor allowed to grow within 15 feet of the toe of the embankment and 25 feet of the principal spillway structure.

Montgomery County - Landscape Guidelines
No trees or shrubs will be allowed anywhere on the embankment, within 15 ft. of either toe of the embankment, or within 25 ft. of the riser

Previous DAM Safety Guidance on weir wall/embankment
Please USACE's 'GUILDELINES FOR LANDSCAPE PLANTING AND VEGETATION MANAGEMENT AT FLOODWALLS, LEVEES, AND EMBANKMENT DAMS'. The figure requests a 'root free' zone of 8 feet from the downstream side of the toe drain. Dam Safety is requesting a 15 foot 'no tree' zone from the downstream side of the toe drain or the footer if there is no toe drain. Please see Policy Memorandum #1: Maintenance and Repair: Trees and Woody Vegetation. The 15 foot 'no tree' zone extends 7 feet past the 'no root' zone specified in USACE's landscaping document. Woody vegetation can be planted on the downstream side of the 15 foot no clear zone. Dam Safety considers the earth fill on the downstream side of the concrete weir wall as part of the embankment.

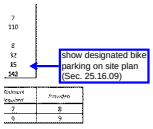
See MDE wall design requirements.

Subject: New Comment - Callout
Page Label: [1] PSP-2
Author: smurphy
Date: 3/28/2023 10:58:19 AM
Status:
Color: ■
Layer: DPW Engineering
Space:

label easements/ access. provide adequate SWM access easement width (min. 15') and path (min. 12')

Subject: New Comment - Callout
Page Label: [2] 50554100_P_PH1_PAM SP-PSP-5
Author: smurphy
Date: 3/28/2023 11:02:43 AM
Status:
Color: ■
Layer: DPW Engineering
Space:

134

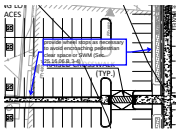


Subject: New Comment - Callout
Page Label: [1] COVER SHEET
Author: smurphy
Date: 4/14/2023 2:45:14 PM
Status:
Color: ■
Layer: DPW Engineering
Space:

show designated bike parking on site plan (Sec. 25.16.09)

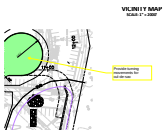
Subject: New Comment - Callout
Page Label: [1] PSP-3
Author: lalligood
Date: 3/28/2023 3:19:28 PM
Status:
Color: ■
Layer: Planning
Space:

Show on existing conditions plan - not currently visible



Subject: New Comment - Callout
Page Label: [2] 50554100_P_PH1_PAM SP-PSP-5
Author: smurphy
Date: 4/14/2023 4:00:44 AM
Status:
Color: ■
Layer: DPW Engineering
Space:

provide wheel stops as necessary to avoid encroaching pedestrian clear space or SWM (Sec. 25.16.06.B.3-4)



Subject: New Comment - Callout
Page Label: [1] PSP-11
Author: jlapping
Date: 4/12/2023 11:44:47 AM
Status:
Color: ■
Layer: DPW Engineering
Space:

Provide turning movements for cul-de-sac

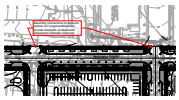
Subject: New Comment - Callout
Page Label: [3] 50554100_P_PH1_PAM SP-PSP-6
Author: jlapping
Date: 4/3/2023 2:04:15 PM
Status:
Color: ■
Layer: DPW Engineering
Space:

Site plan must show grading and tie out conditions on adjacent properties

Subject: New Comment - Callout
Page Label: [1] PSP-2
Author: jlapping
Date: 4/3/2023 2:05:04 PM
Status:
Color: ■
Layer: DPW Engineering
Space:

Site plan must show grading and tie out conditions on adjacent properties

---



Subject: New Comment - Callout
Page Label: [1] PSP-2
Author: smurphy
Date: 4/19/2023 2:31:58 PM
Status:
Color: ■
Layer: DPW Engineering
Space:

assuming connections to adjacent parcels isn't proposed/required, provide barricade at dead ends and protect sidewalk crossings

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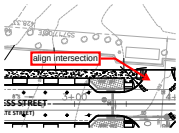
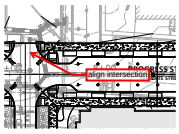


Subject: New Comment - Callout
Page Label: [1] PSP-2
Author: smurphy
Date: 4/10/2023 11:15:33 AM
Status:
Color: ■
Layer: DPW Engineering
Space:

align intersection

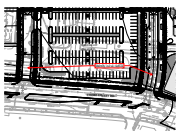


Subject: New Comment - Callout
Page Label: [1] PSP-2
Author: smurphy
Date: 4/10/2023 11:15:51 AM
Status:
Color: ■
Layer: DPW Engineering
Space:

align intersection

Subject: New Comment - Callout
Page Label: [1] PSP-2
Author: smurphy
Date: 4/10/2023 11:18:13 AM
Status:
Color: ■
Layer: DPW Engineering
Space:

cul-de-sac must meet DPW standard, including sidewalk

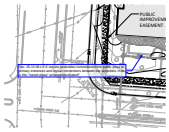


Subject: New Comment - Callout
Page Label: [1] PSP-2
Author: smurphy
Date: 4/11/2023 11:40:45 AM
Status:
Color: ■
Layer: DPW Engineering
Space:

identify curve radius

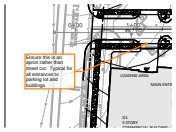
Subject: New Comment - Callout
Page Label: [1] COVER SHEET
Author: lalligood
Date: 4/21/2023 11:10:58 AM
Status:
Color: ■
Layer: Planning
Space:

See notes on parking plan



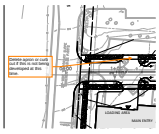
Subject: New Comment - Callout
Page Label: [1] 50554100_P_PH1_PAM SP-PSP-4
Author: lalligood
Date: 4/14/2023 3:50:13 PM
Status:
Color: ■
Layer: Planning
Space:

Sec. 25.13.06.c.5-6 require pedestrian connections from public ways to primary entrances and logical connections between site amenities. How is this "transit plaza" accessed/activated?



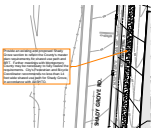
Subject: New Comment - Callout
Page Label: [1] PSP-2
Author: aluetkemeier
Date: 4/19/2023 2:32:31 PM
Status:
Color: ■
Layer: Traffic & Transportation
Space:

Ensure this is an apron rather than street cut. Typical for all entrances to parking lot and buildings.



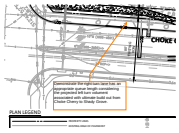
Subject: New Comment - Callout
Page Label: [1] PSP-2
Author: aluetkemeier
Date: 4/19/2023 2:31:47 PM
Status:
Color: ■
Layer: Traffic & Transportation
Space:

Delete apron or curb cut if this is not being developed at this time.



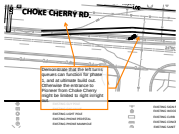
Subject: New Comment - Callout
Page Label: [1] 50554100_P_PH1_PAM SP-PSP-4
Author: aluetkemeier
Date: 4/21/2023 11:02:17 AM
Status:
Color: ■
Layer: Traffic & Transportation
Space:

Provide an existing and proposed Shady Grove section to reflect the County's master plan requirements for shared use path and BRT. Further meetings with Montgomery County may be necessary to fully realize the requirements. City's Pedestrian and Bicycle Coordinator recommends no less than 14 foot wide shared use path for Shady Grove, in accordance with AASHTO.



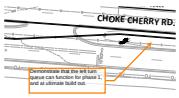
Subject: New Comment - Callout
Page Label: [1] 50554100_P_PH1_PAM SP-PSP-4
Author: aluetkemeier
Date: 4/19/2023 4:30:38 PM
Status:
Color: ■
Layer: Traffic & Transportation
Space:

Demonstrate the right turn lane has an appropriate queue length considering the projected left turn volument associated with ultimate build out from Choke Cherry to Shady Grove.



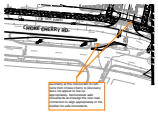
Subject: New Comment - Callout
Page Label: [1] 50554100_P_PH1_PAM SP-PSP-4
Author: aluetkemeier
Date: 4/19/2023 4:35:31 PM
Status:
Color: ■
Layer: Traffic & Transportation
Space:

Demonstrate that the left turns queues can function for phase 1, and at ultimate build out. Otherwise the entrance to Pioneer from Choke Cherry might be limited to right in/right out.



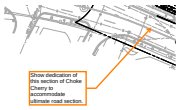
Subject: New Comment - Callout
Page Label: [2] 50554100_P_PH1_PAM SP-PSP-5
Author: aluetkemeier
Date: 4/19/2023 4:36:57 PM
Status:
Color: ■
Layer: Traffic & Transportation
Space:

Demonstrate that the left turn queue can function for phase 1, and at ultimate build out.



Subject: New Comment - Callout
Page Label: [2] 50554100_P_PH1_PAM SP-PSP-5
Author: aluetkemeier
Date: 4/21/2023 10:58:52 AM
Status:
Color: ■
Layer: Traffic & Transportation
Space:

Geometry at this intersection for left turns from Choke Cherry to Discovery does not appear to line up appropriately. Demonstrate safe movements and realign the new road connection to align appropriately or the median for safe movements.



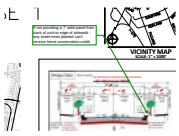
Subject: New Comment - Callout
Page Label: [1] PSP-2
Author: aluetkemeier
Date: 4/19/2023 5:06:09 PM
Status:
Color: ■
Layer: Traffic & Transportation
Space:

Show dedication of this section of Choke Cherry to accommodate ultimate road section.

Subject: New Comment - Callout
Page Label: [1] COVER SHEET
Author: Rockvilleuser
Date: 4/20/2023 7:44:56 AM
Status:
Color: ■
Layer: Forestry
Space:

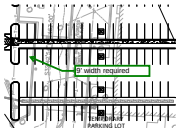
If not providing a 7' wide panel from back of curb to edge of sidewalk - any street trees planted can't receive forest conservation credit

---



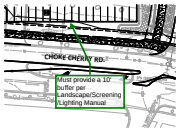
Subject: New Comment - Callout
Page Label: [1] COVER SHEET
Author: Rockvilleuser
Date: 4/20/2023 7:47:43 AM
Status:
Color: ■
Layer: Forestry
Space:

If not providing a 7' wide panel from back of curb to edge of sidewalk - any street trees planted can't receive forest conservation credit



Subject: New Comment - Callout
Page Label: [1] PSP-2
Author: Rockvilleuser
Date: 4/20/2023 7:53:09 AM
Status:
Color: ■
Layer: Forestry
Space:

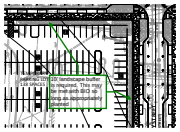
9' width required



Subject: New Comment - Callout
Page Label: [1] PSP-2
Author: Rockvilleuser
Date: 4/20/2023 8:04:24 AM
Status:
Color: ■
Layer: Forestry
Space:

Must provide a 10' buffer per Landscape/Screening/Lighting Manual

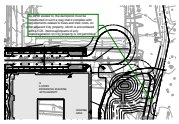
---



Subject: New Comment - Callout
Page Label: [1] PSP-2
Author: Rockvilleuser
Date: 4/20/2023 8:02:48 AM
Status:
Color: ■
Layer: Forestry
Space:

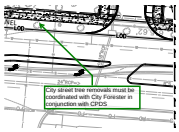
10' landscape buffer is required. This may be met with BIO so long as appropriately planted

---



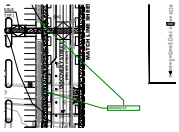
Subject: New Comment - Callout
Page Label: [1] PSP-2
Author: Rockvilleuser
Date: 4/20/2023 8:09:59 AM
Status:
Color: ■
Layer: Forestry
Space:

As DPW eluded to, the dam/pond must be constructed in such a way that it complies with requirements related to trees and their roots, on the adjacent City property, which is encumbered with a FCE. Removal/impacts of any trees/vegetation on City property is not permitted.



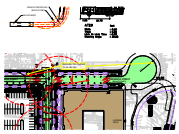
Subject: New Comment - Callout
Page Label: [1] 50554100_P_PH1_PAM SP-PSP-4
Author: Rockvilleuser
Date: 4/20/2023 8:18:16 AM
Status:
Color: ■
Layer: Forestry
Space:

City street tree removals must be coordinated with City Forester in conjunction with CPDS



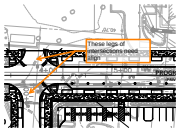
Subject: New Comment - Callout
Page Label: [2] 50554100_P_PH1_PAM SP-PSP-5
Author: Rockvilleuser
Date: 4/20/2023 8:36:59 AM
Status:
Color: ■
Layer: Forestry
Space:

should be 10'



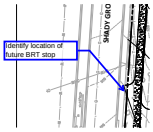
Subject: New Comment - Callout
Page Label: [1] PSP-11
Author: Rockvilleuser
Date: 4/20/2023 10:44:02 AM
Status:
Color:
Layer: Fire Marshal
Space:

Relocate this hydrant to cul de sac



Subject: New Comment - Callout
Page Label: [1] PSP-2
Author: aluetkemeier
Date: 4/21/2023 10:48:56 AM
Status:
Color:
Layer: Traffic & Transportation
Space:

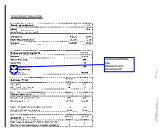
These legs of intersections need align



Subject: New Comment - Callout
Page Label: [1] PSP-2
Author: lalligood
Date: 4/21/2023 11:36:39 AM
Status:
Color:
Layer: Planning
Space:

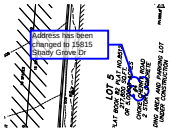
Identify location of future BRT stop

New Comment - Cloud w/ Callout (4)



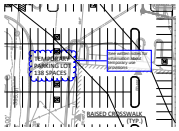
Subject: New Comment - Cloud w/ Callout
Page Label: [1] COVER SHEET
Author: lalligood
Date: 3/27/2023 4:23:10 PM
Status:
Color:
Layer: Planning
Space:

Commercial/Office Use
Research and Development



Subject: New Comment - Cloud w/ Callout
Page Label: [1] PSP-3
Author: lalligood
Date: 4/14/2023 3:45:06 PM
Status:
Color:
Layer: Planning
Space:

Address has been changed to 15815 Shady Grove Dr



Subject: New Comment - Cloud w/ Callout
Page Label: [2] 50554100_P_PH1_PAM SP-PSP-5
Author: lalligood
Date: 4/14/2023 3:57:41 PM
Status:
Color:
Layer: Planning
Space:

See written notes for information about temporary use provisions

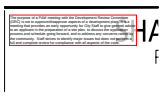
Subject: New Comment - Cloud w/ Callout
Page Label: [1] COVER SHEET
Author: lalligood
Date: 4/21/2023 11:11:01 AM
Status:
Color:
Layer: Planning
Space:

See request for preliminary/lotting plan

New Comment - Text Box (33)

Subject: New Comment - Text Box
Page Label: [1] COVER SHEET
Author: jlapping
Date: 4/20/2023 1:57:45 PM
Status:
Color:
Layer: DPW Engineering
Space:

The Grade Establishment for the proposed roads (entire site) must be submitted for review with the Site Plan submission and must be conceptually approved prior to the Site Plan approval. (Sec. 25.21.16.6)



Subject: New Comment - Text Box
Page Label: [1] COVER SHEET
Author: jlapping
Date: 3/22/2023 1:29:52 PM
Status:
Color:
Layer: DPW Engineering
Space:

The purpose of a PAM meeting with the Development Review Committee (DRC) is not to approve/disapprove aspects of a development plan. It is a meeting that provides an early opportunity for City Staff to give general advice to an applicant in the preparation of a site plan, to discuss the application process and schedule going forward, and to address any concerns raised by the community. Staff strives to identify major issues but does not perform a full and complete review for compliance with all aspects of the code.

Subject: New Comment - Text Box
Page Label: [1] COVER SHEET
Author: jlapping
Date: 4/14/2023 2:44:59 PM
Status:
Color:
Layer: DPW Engineering
Space:

Applicant should respond to City comments directly on plan. See example provided with DRC notes.

Subject: New Comment - Text Box
Page Label: [1] COVER SHEET
Author: jlapping
Date: 4/11/2023 10:32:47 AM
Status:
Color:
Layer: DPW Engineering
Space:

Provide exhibits demonstrating minimum turning radius and sight distance analysis for all driveways and intersections

Subject: New Comment - Text Box
Page Label: [1] COVER SHEET
Author: jlapping
Date: 4/20/2023 1:43:26 PM
Status:
Color:
Layer: DPW Engineering
Space:

WSSC
HPA and Government Review will be required as part of the Site Plan process.

Subject: New Comment - Text Box
Page Label: [1] COVER SHEET
Author: jlapping
Date: 4/20/2023 1:57:47 PM
Status:
Color: ■
Layer: DPW Engineering
Space:

Preliminary Sediment Control Plan must be approved prior to Site Plan approval. Submit application with applicable fees.

Subject: New Comment - Text Box
Page Label: [1] COVER SHEET
Author: jlapping
Date: 4/20/2023 1:49:21 PM
Status:
Color: ■
Layer: DPW Engineering
Space:

SWM:
•Pre-App SWM Concept must be approved prior to submission of the Site Plan.
•The Pre-App SWM Approval letter will establish percent of ESD required and safe conveyance analysis (pond).

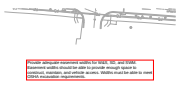
•Development Stormwater Management Concept must be approved prior to Site Plan approval.

Subject: New Comment - Text Box
Page Label: [1] PSP-2
Author: jlapping
Date: 4/21/2023 11:37:03 AM
Status:
Color: ■
Layer: DPW Engineering
Space:

Provide adequate SD & SWM easement widths. Easement widths should be able to provide enough space to construct, maintain, and vehicle access. Widths must be able to meet OSHA excavation requirements.

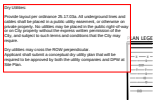
Subject: New Comment - Text Box
Page Label: [1] PSP-2
Author: jlapping
Date: 4/21/2023 11:37:08 AM
Status:
Color: ■
Layer: DPW Engineering
Space:

ADA accessible on-street parking should be based on the total marked spaces on a block perimeter. 1-25 spaces require 1 accessible parking space, per PROWAG R-214



Subject: New Comment - Text Box
Page Label: [1] PSP-2
Author: jlapping
Date: 4/21/2023 11:37:06 AM
Status:
Color: ■
Layer:
Space:

Provide adequate easement widths for W&S, SD, and SWM. Easement widths should be able to provide enough space to construct, maintain, and vehicle access. Widths must be able to meet OSHA excavation requirements.



Subject: New Comment - Text Box
Page Label: [1] PSP-2
Author: jlapping
Date: 4/21/2023 11:37:13 AM
Status:
Color: ■
Layer: DPW Engineering
Space:

Dry Utilities:

Provide layout per ordinance 25.17.03a. All underground lines and cables shall be placed in a public utility easement, or otherwise on private property. No utilities may be placed in the public right-of-way or on City property without the express written permission of the City, and subject to such terms and conditions that the City may require.

Dry utilities may cross the ROW perpendicular. Applicant shall submit a conceptual dry utility plan that will be required to be approved by both the utility companies and DPW at Site Plan.

Subject: New Comment - Text Box
Page Label: [1] PSP-2
Author: jlapping
Date: 4/20/2023 1:51:23 PM
Status:
Color: ■
Layer: DPW Engineering
Space:

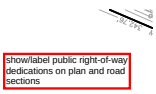
WSSC Typical Comments

WSSC easements must be free and clear of other utilities, including storm drain systems, ESD devices, gas, electric, telephone, CATV, etc., with the exception of allowed crossings designed in accordance with the WSSC 2017 Pipeline Design Manual. Landscaping and Hardscaping are also not allowed without approval. Under certain conditions (and by special request) the items listed above may be permitted within the WSSC easement.

WSSCs minimum easement width for a normal (14-inch diameter or less) pipeline (water or sewer at normal depth) is 20-feet. When both water and sewer (normal diameter and depth) are installed in the same easement, the minimum width is 30-feet. Installation of deep or large water/sewer will require additional easement width.

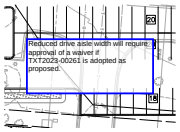
The minimum horizontal clearance from a building to the outside diameter of a WSSC pipeline is 15-feet. The minimum spacing between adjacent buildings with both water and sewer lines between them must be 40-feet. In some cases where connections, fire hydrants, or deep water/sewer lines are involved, additional easement width is required.

Balconies or other building appurtenances must not encroach within WSSC easements. Water/Sewer pipeline alignment should maintain a minimum 5-foot horizontal clearance from storm-drain pipeline/structures and other utilities.



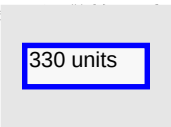
Subject: New Comment - Text Box
Page Label: [1] PSP-2
Author: smurphy
Date: 3/27/2023 2:02:44 PM
Status:
Color: ■
Layer: DPW Engineering
Space:

show/label public right-of-way dedications on plan and road sections



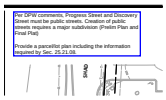
Subject: New Comment - Text Box
Page Label: [2] 50554100_P_PH1_PAM SP-PSP-5
Author: lalligood
Date: 4/21/2023 11:15:58 AM
Status:
Color: ■
Layer: Planning
Space:

Reduced drive aisle width will require approval of a waiver if TXT2023-00261 is adopted as proposed.



Subject: New Comment - Text Box
Page Label: [3] 50554100_P_PH1_PAM SP-PSP-6
Author: lalligood
Date: 3/27/2023 4:47:30 PM
Status:
Color: ■
Layer: Planning
Space:

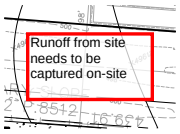
330 units



Subject: New Comment - Text Box
Page Label: [1] PSP-2
Author: lalligood
Date: 4/21/2023 11:12:56 AM
Status:
Color: ■
Layer: Planning
Space:

Per DPW comments, Progress Street and Discovery Street must be public streets. Creation of public streets requires a major subdivision (Prelim Plan and Final Plat)

Provide a parcel/lot plan including the information required by Sec. 25.21.08.



Subject: New Comment - Text Box
Page Label: [1] 50554100_P_PH1_PAM SP-PSP-4
Author: jlapping
Date: 4/3/2023 1:45:50 PM
Status:
Color: ■
Layer: DPW Engineering
Space:

Runoff from site needs to be captured on-site

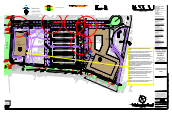
Subject: New Comment - Text Box
Page Label: [1] PSP-2
Author: smurphy
Date: 4/21/2023 11:13:01 AM
Status:
Color: ■
Layer: DPW Engineering
Space:

provide phasing plan showing sequence of plats and infrastructure (Sec. 25.07.06.c)

Subject: New Comment - Text Box
Page Label: [1] PSP-2
Author: smurphy
Date: 4/4/2023 10:55:37 AM
Status:
Color: ■
Layer: DPW Engineering
Space:

If adjoining property is not subdivided, provision must be made for the projection of proposed roads by continuing the full widths of rights-of-way laid out for the roads to the boundaries of the subdivision. This provision does not prevent the establishment of culs-de-sac within the subdivision.

Where the preliminary plan and final plan submitted include only part of the tract owned by the subdivider, the Commission may require a sketch of the tentative road system for all or any part of the unsubdivided contiguous land, supported by such other data as the Commission may reasonably determine to be necessary. (Sec. 25.21.16)



Subject: New Comment - Text Box
Page Label: [1] PSP-11
Author: Rockvilleuser
Date: 4/20/2023 10:47:05 AM
Status:
Color: ■
Layer: Fire Marshal
Space:

Submit a Fire Protection Site Plan with the following details;

Show the location of existing hydrants (Choke cherry and Shady Grove road and existing on-site to remain.

CoR Chapter 9, 18.5.1.7.1 Fire hydrant spacing may be increased to 500 ft. (153 m) for structures protected throughout by an approved automatic sprinkler system, in accordance
with Section 9.7 of NFPA 101, Life Safety Code, 2018 Edition.

CoR, Chapter 9, 18.2.3.2.1 A fire department access road shall extend to within 50 ft. (15 m) of at least one (1) exterior door acceptable to the AHJ that can be opened from the outside and that provides access to the interior of the building. (Existing Office/Lab)

Provide fire department personnel walking path around each structure.

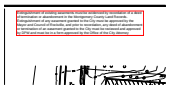
Show the location the fire department key access Box.

CoR, Chapter 9, 18.2.3.5.3.1 Cul-de-sacs used to provide a dead end apparatus turn-around shall not be less than 90-ft. (27.43 m) in diameter at the closed end.

Provide a turning template for the cul-de-sac

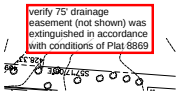
Show the location for 2 remote FDC for Existing Lab Building.

Show the location of existing hydrants (Choke cherry and Shady Grove road and existing onsite to remain.



Subject: New Comment - Text Box
Page Label: [1] PSP-3
Author: smurphy
Date: 4/20/2023 10:24:52 AM
Status:
Color: ■
Layer: DPW Engineering
Space:

Extinguishment of existing easements must be evidenced by recordation of a deed of termination or abandonment in the Montgomery County Land Records. Extinguishment of any easement granted to the City must be approved by the Mayor and Council of Rockville, and prior to recordation, any deed of abandonment or termination of an easement granted to the City must be reviewed and approved by DPW and must be in a form approved by the Office of the City Attorney



Subject: New Comment - Text Box
Page Label: [1] PSP-3
Author: smurphy
Date: 4/17/2023 2:28:10 PM
Status:
Color: ■
Layer: DPW Engineering
Space:

verify 75' drainage easement (not shown) was extinguished in accordance with conditions of Plat 8869

Add marked crosswalks to all crossings at all intersections within the project limits.

Subject: New Comment - Text Box
Page Label: [1] PSP-2
Author: aluetkemeier
Date: 4/19/2023 11:22:12 AM
Status:
Color: ■
Layer: Traffic & Transportation
Space:

Add marked crosswalks to all crossings at all intersections within the project limits.

Staff recommends using one space as a bike parking corral in this lot. It can even be covered.

Subject: New Comment - Text Box
Page Label: [2] 50554100_P_PH1_PAM SP-PSP-5
Author: aluetkemeier
Date: 4/18/2023 9:15:55 AM
Status:
Color: ■
Layer: Traffic & Transportation
Space:

Staff recommends using one space as a bike parking corral in this lot. It can even be covered.

Clearly identify how pedestrians coming from Progress Street, Pioneer Street, and Choke Cherry Road can access the main entry for the building. With the linework proposed overlaid on the existing, it is difficult to tell what is walkable and what type of surface it is versus what is landscaped or not intended to be a pedestrian walkway.

Subject: New Comment - Text Box
Page Label: [1] 50554100_P_PH1_PAM SP-PSP-4
Author: aluetkemeier
Date: 4/18/2023 9:20:38 AM
Status:
Color: ■
Layer: Traffic & Transportation
Space:

Clearly identify how pedestrians coming from Progress Street, Pioneer Street, and Choke Cherry Road can access the main entry for the building. With the linework proposed overlaid on the existing, it is difficult to tell what is walkable and what type of surface it is versus what is landscaped or not intended to be a pedestrian walkway.

What is the plan for bike parking for this building. Show the short term location, and describe the long term location.

Subject: New Comment - Text Box
Page Label: [1] 50554100_P_PH1_PAM SP-PSP-4
Author: aluetkemeier
Date: 4/18/2023 9:19:45 AM
Status:
Color: ■
Layer: Traffic & Transportation
Space:

What is the plan for bike parking for this building. Show the short term location, and describe the long term location.

Please indicate plan for bike parking in support of this building.

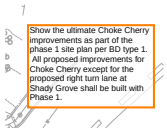
Subject: New Comment - Text Box
Page Label: [3] 50554100_P_PH1_PAM SP-PSP-6
Author: aluetkemeier
Date: 4/18/2023 9:22:08 AM
Status:
Color: ■
Layer: Traffic & Transportation
Space:

Please indicate plan for bike parking in support of this building.

Add sharrow pavement markings on the center of lanes on all roadways.

Subject: New Comment - Text Box
Page Label: [1] PSP-2
Author: aluetkemeier
Date: 4/18/2023 9:23:17 AM
Status:
Color: ■
Layer: Traffic & Transportation
Space:

Add sharrow pavement markings on the center of lanes on all roadways.



Subject: New Comment - Text Box
Page Label: [1] PSP-2
Author: aluetkemeier
Date: 4/19/2023 5:04:20 PM
Status:
Color: ■
Layer: Traffic & Transportation
Space:

Show the ultimate Choke Cherry improvements as part of the phase 1 site plan per BD type 1. All proposed improvements for Choke Cherry except for the proposed right turn lane at Shady Grove shall be built with Phase 1.

Subject: New Comment - Text Box
Page Label: [1] 50554100_P_PH1_PAM SP-PSP-4
Author: Rockvilleuser
Date: 4/20/2023 8:21:54 AM
Status:
Color: ■
Layer: Forestry
Space:

ZO 25.21.21 requires street trees are planted every 40' of newly subdivided lot fronting a public right-of-way. Those street trees must be coordinated with City Forester and CPDS.

Subject: New Comment - Text Box
Page Label: [1] COVER SHEET
Author: jlapping
Date: 4/20/2023 1:43:32 PM
Status:
Color: ■
Layer: DPW Engineering
Space:

A Water & Sewer Authorization application & review fee is also required from the City

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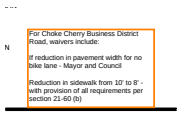
Subject: New Comment - Text Box
Page Label: [1] COVER SHEET
Author: jlapping
Date: 4/20/2023 1:57:43 PM
Status:
Color: ■
Layer: DPW Engineering
Space:

•Safe Conveyance Study must be approved prior to site plan approval. The Pre-App SWM Approval letter will establish the study points of the safe conveyance analysis. However, this analysis may be concurrent with the Development SWM Concept.

MCDOT will be required to review Safe Conveyance connections to storm drain in Shady Grove Rd.



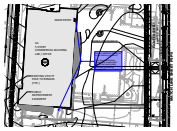
Subject: New Comment - Text Box
Page Label: [1] COVER SHEET
Author: aluetkemeier
Date: 4/21/2023 10:45:41 AM
Status:
Color: ■
Layer: Traffic & Transportation
Space:

For Choke Cherry Business District Road, waivers include:

If reduction in pavement width for no bike lane - Mayor and Council

Reduction in sidewalk from 10' to 8' - with provision of all requirements per section 21-60 (b)

Question - Callout (1)

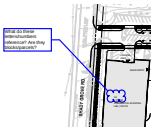


Subject: Question - Callout
Page Label: [1] 50554100_P_PH1_PAM SP-PSP-4
Author: lalligood
Date: 4/14/2023 3:51:25 PM
Status:
Color: ■
Layer: Planning
Space:

Are any additional entrances to this building proposed?

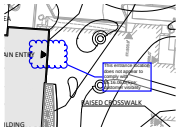
How does the building engage the streetscape? How is the transit plaza accessed by building occupants?

Question - Cloud w/ Callout (4)



Subject: Question - Cloud w/ Callout
Page Label: [1] COVER SHEET
Author: lalligood
Date: 4/14/2023 2:44:36 PM
Status:
Color:
Layer: Planning
Space:

What do these letters/numbers reference? Are they blocks/parcels?



Subject: Question - Cloud w/ Callout
Page Label: [1] 50554100_P_PH1_PAM SP-PSP-4
Author: lalligood
Date: 4/14/2023 3:46:37 PM
Status:
Color:
Layer: Planning
Space:

This entrance location does not appear to comply with 25.16.06.b(5)re: customer visibility

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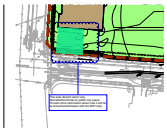

Subject: Question - Cloud w/ Callout
Page Label: [1] PSP-10
Author: lalligood
Date: 4/21/2023 11:16:42 AM
Status:
Color:
Layer: Planning
Space:

This area doesn't seem very desirable/functional as public use space. Provide more information about how it will be accessed/used/interact with the BRT stop

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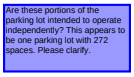
Subject: Question - Cloud w/ Callout
Page Label: [1] PSP-10
Author: lalligood
Date: 4/21/2023 11:16:59 AM
Status:
Color:
Layer: Planning
Space:

No lotting plan submitted; verify the lot area and what it is based on for SPR submittal.

Project description indicates that the open area provided is for the entire development. Note that each phase will need to meet the Open Area and Public Use Space requirement.

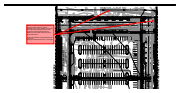
Question - Text Box (1)



Subject: Question - Text Box
Page Label: [2] 50554100_P_PH1_PAM SP-PSP-5
Author: lalligood
Date: 3/28/2023 3:21:23 PM
Status:
Color:
Layer: Planning
Space:

Are these portions of the parking lot intended to operate independently? This appears to be one parking lot with 272 spaces. Please clarify.

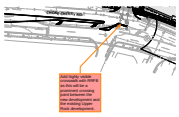
Repeat Comment - Callout (2)



Subject: Repeat Comment - Callout
Page Label: [2] 50554100_P_PH1_PAM SP-PSP-5
Author: jlapping
Date: 3/22/2023 1:50:42 PM
Status:
Color:
Layer: DPW Engineering
Space:

There is a concern for private streets that all of the various utility easements (WSSC, Washington Gas, Pepco, Verizon, Comcast etc.) will not all fit and could prevent street trees.
Dry utilities need to be placed within the sidewalk or PUE. Private Utilities cannot be placed within ROW.

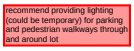
Existing SD easement running through the site is 30' & 35'.
Buildings should be placed a min. 15' from pipe.



Subject: Repeat Comment - Callout
Page Label: [1] PSP-2
Author: aluetkemeier
Date: 4/18/2023 9:12:49 AM
Status:
Color: ■
Layer: Traffic & Transportation
Space:

Add highly visible crosswalk with RRFB as this will be a prominent crossing point between the new development and the existing Upper Rock development.

Repeat Comment - Text Box (2)



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Page Label: [2] 50554100_P_PH1_PAM SP-PSP-5
Author: smurphy
Date: 3/28/2023 11:19:29 AM
Status:
Color: ■
Layer: DPW Engineering
Space:

recommend providing lighting (could be temporary) for parking and pedestrian walkways through and around lot

Subject: Repeat Comment - Text Box
Page Label: [1] COVER SHEET
Author: smurphy
Date: 4/20/2023 10:38:39 AM
Status:
Color:
Layer: DPW Engineering
Space:

Progress and Discovery Streets

Progress & Discovery to be public streets:
1. Mixed use with residential components should be on public roads.
2. Both private and public roads are subject to Chapter 21 of the city code. Design standards should be consistent.
3. Loading must be provided on site per Chapter 25 regardless of private vs. public road.
4. Roadway network will connect to other public arterial roadways, and will likely include additional users.
5. Expectation for this development area is that the streets are public based on the prior approval of the project plan.
6. Both public streets, and private streets with easements, require permits for any roadway closures or temporary parking prohibitions for loading operations.
7. City staff agrees to be as flexible as the code will allow for property lines at intersections (truncations and curved property lines) assuming they demonstrate adequate site distance and space for infrastructure

Overall comment - Staff can support the waivers as listed below if it can be demonstrated that all utilities can fit within the proposed ROW.

Discussion of waivers requested for Progress and Discovery:

1. Staff will support a reduction in sidewalk width from 10 foot, which is the typical business district standard, to 8 foot. This is contingent upon no proposed retail uses are proposed, and that the applicant can demonstrate that all dry utilities can fit under the public sidewalk (or within a 10' PUE if the road is private). Private utilities must be provided on site.
   a) Discovery will have mixed uses including residential, and sidewalks should match the existing widths in Upper Rock across Choke Cherry. Discovery will provide a key connection between the Upper Rock development and destinations in King Farm like Mattie Stepanek Park.
   b) Progress should match the Discovery section and will provide access to a future BRT station on Shady Grove Road.
2. Staff will support a reduction in the pavement width from 38 to 36 feet by reducing the 12 foot travel lanes to 11 feet wide.
3. Applicant will need to demonstrate adequate turning movements, safe pedestrian movements, and that sight distances can work. Past experience with this condition has caused issues at final engineering.

Pioneer

Overall comment - Recommend consolidating lots and not naming these streets so they are not subject to Chapter 21. Named roads subject to Chapter 21, need to be in accordance with Business District 2 with waivers, and the requests are in excess of any precedent.

Community Planning &
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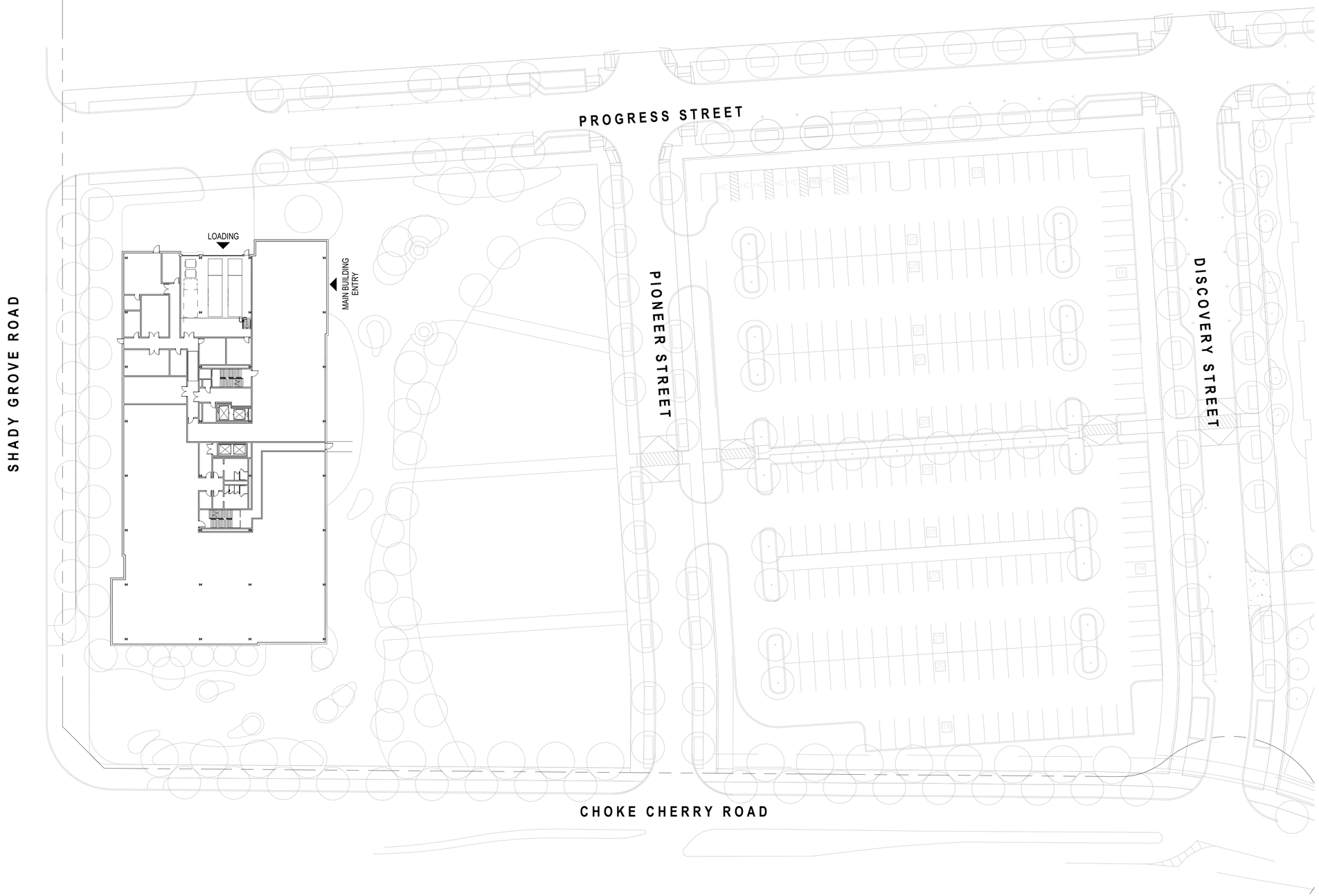
03/21/2023



1 SITE PLAN PRESENTATION PROPOSED
SCALE: 1" = 30'-0"

bxp

BXP SHADY GROVE LOT 5 LLC BXP SHADY GROVE LOT 6 LLC

15815 Shady Grove Road

Rockville, MD 20850

Gensler

2020 K Street NW
Suite 200
Washington, DC 20006
United States

Tel 202.721.5200
Fax 202.872.8587

BR+A Consulting Engineers
1595 Spring Hill Road
Suite 610
Vienna, VA 22182
Tel 571.297.2772

Thornton Tomasetti
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Tel 202.580.6300

MCLA Lighting Design
1000 Potomac Street NW
Suite 121
Washington, DC 20007
Tel 202.298.8062

Landscape Architect
101 N Union St
Suite 320
Alexandria VA 22314
Tel 703.548.5010

△ Date	Description
03.17.23	PRE-APPLICATION SITE PLAN

ARCHITECTURAL PROFESSIONAL CERTIFICATION
I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.
NAME: THERESA MARIE SHEILS
LICENSE NUMBER: 13368
EXPIRATION DATE: 01.27.2023

Seal / Signature

NOT FOR CONSTRUCTION

Project Name
SGID G1 Lab Building

Project Number
009.0136.000

Description
SITE PLAN - LEVEL 01

Scale
1" = 30'-0"

A-LAB-01

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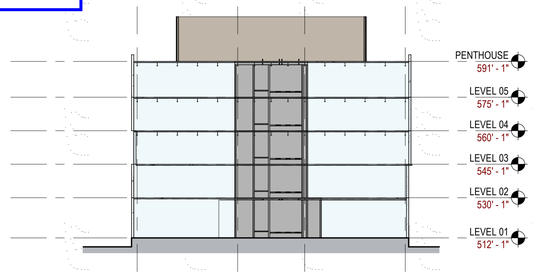
3/16/2023 5:00:02 PM Autodesk Docs://009.0136.000 - SGID G1 Office and Lab/Architecture - 009.0136.000 - SGID G1 Office.rvt

Building elevations will be evaluated for compliance with 25.13.06 and 25.13.07 at the time of Site Plan review. See written notes for details.

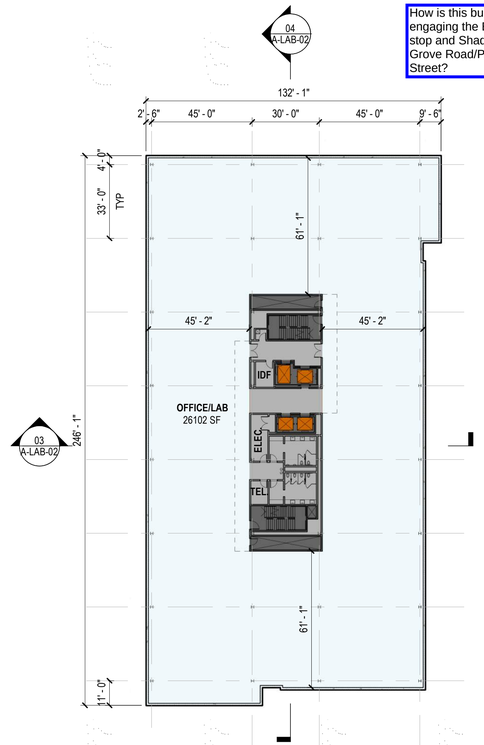


03 BUILDING SECTION - EAST WEST

SCALE: 1/32" = 1'-0"

04 BUILDING SECTION - NORTH SOUTH

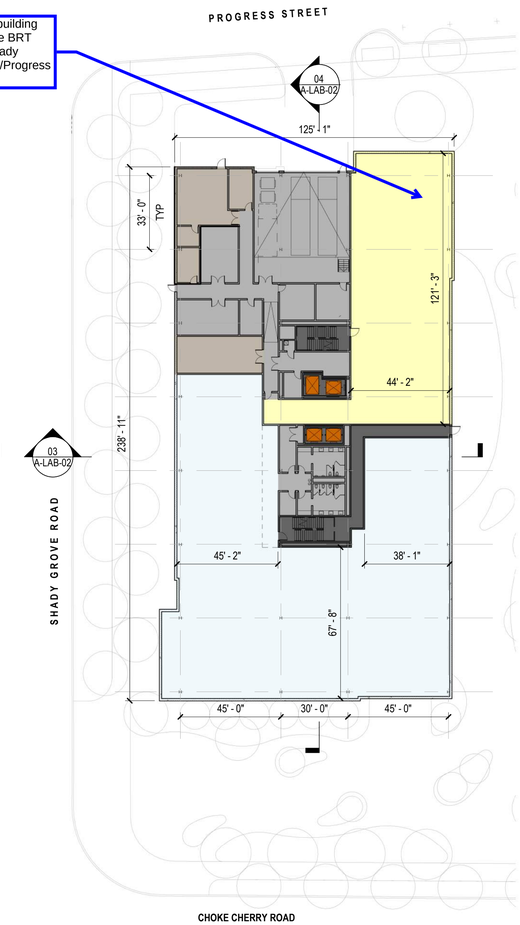
SCALE: 1/32" = 1'-0"



02 PLAN - TYPICAL

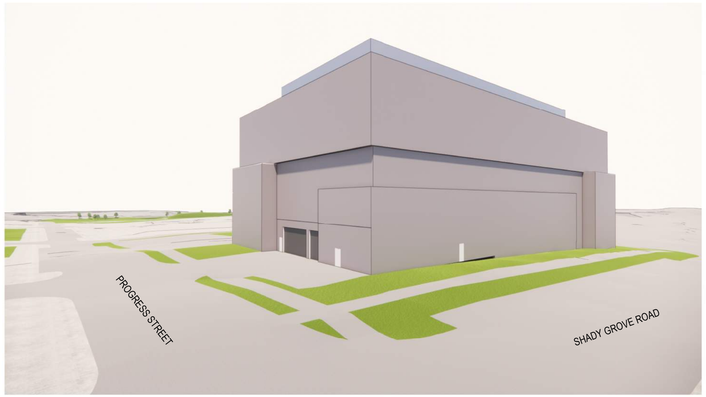
SCALE: 1/32" = 1'-0"

How is this building engaging the BRT stop and Shady Grove Road/Progress Street?



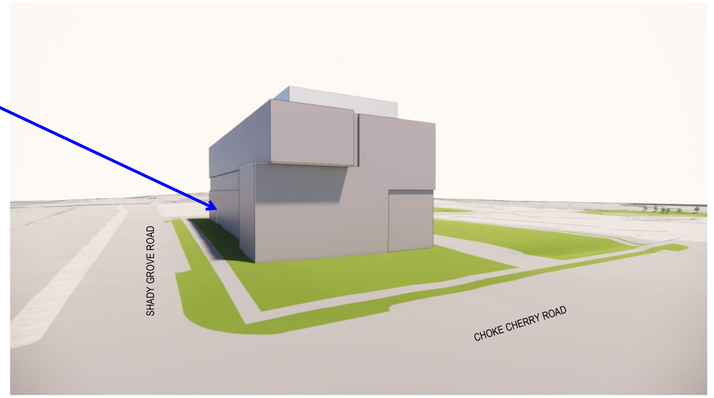
01 PLAN - LEVEL 01

SCALE: 1/32" = 1'-0"



PERSPECTIVE - SHADY GROVE RD. AND PROGRESS ST.

Treatment of this facade will be critical



PERSPECTIVE - SHADY GROVE AND CHOKE CHERRY

LEGEND

- OFFICE
- LOBBY
- POTENTIAL AMENITY
- CORE
- MECHANICAL
- ELEVATOR

Community Planning & Development Services Received 03/21/2023

bxp

BXP SHADY GROVE LOT 5 LLC BXP SHADY GROVE LOT 6 LLC

15815 Shady Grove Road

Rockville, MD 20850

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2020 K Street NW
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Landscape Architect
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Date	Description
03.17.23	PRE-APPLICATION SITE PLAN

ARCHITECTURAL PROFESSIONAL CERTIFICATION
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LICENSE NUMBER: 13368
EXPIRATION DATE: 01.27.2023

Seal / Signature

NOT FOR CONSTRUCTION

Project Name
SGID G1 Lab Building

Project Number
009.0136.000

Description
PLANS

Scale
As indicated

A-LAB-02

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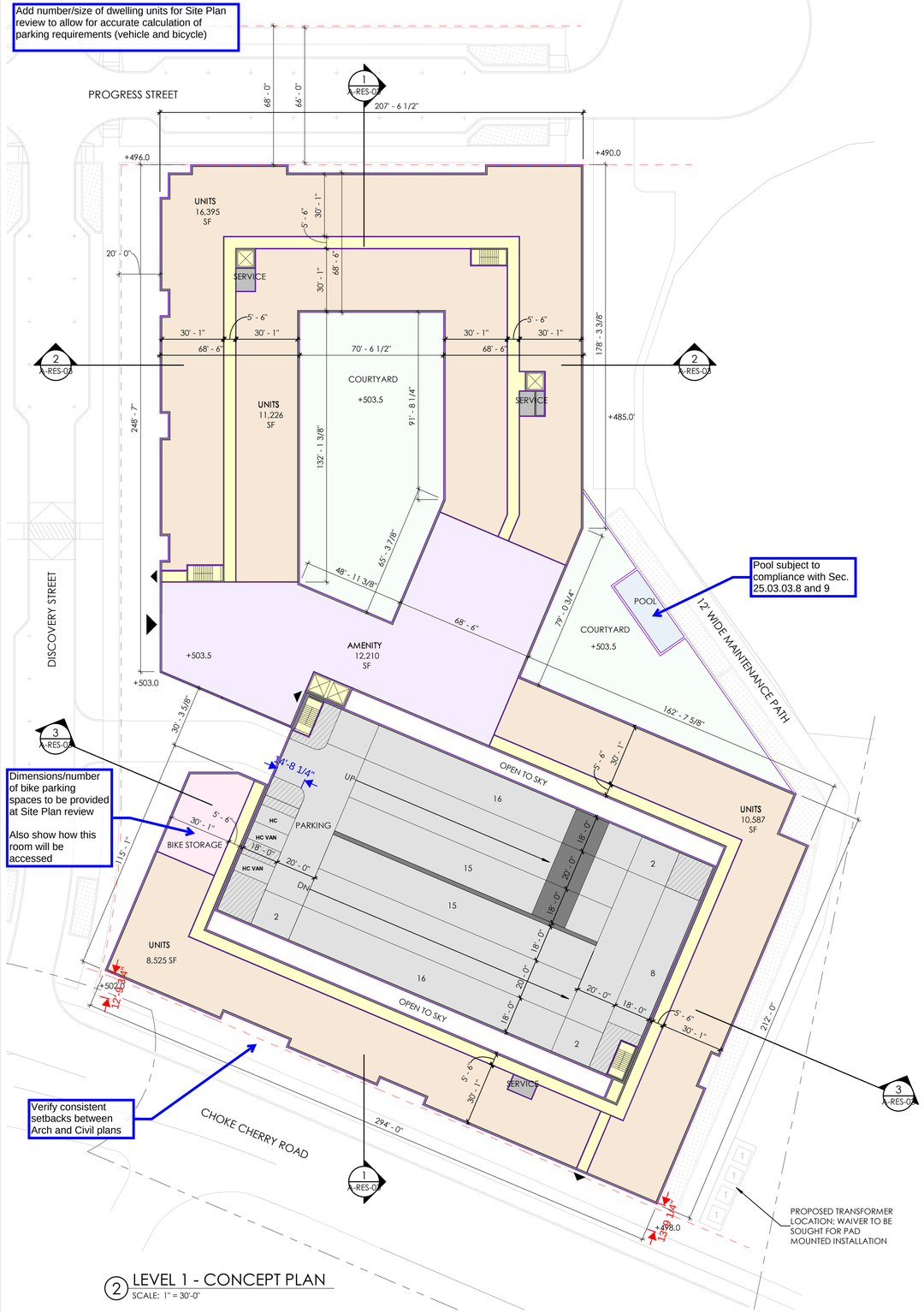
3/16/2023 5:00:14 PM Autodesk Docs://009.0136.000 - SGID G1 Office and Lab/Architecture - 009.0136.000 - SGID G1 Office.rvt

Building elevations will be evaluated for compliance with 25.13.06 and 25.13.07 at the time of Site Plan review. See written notes for details.

Add number/size of dwelling units for Site Plan review to allow for accurate calculation of parking requirements (vehicle and bicycle)

Community Planning & Development Services Received 03/21/2023



Pool subject to compliance with Sec. 25.03.03.8 and 9

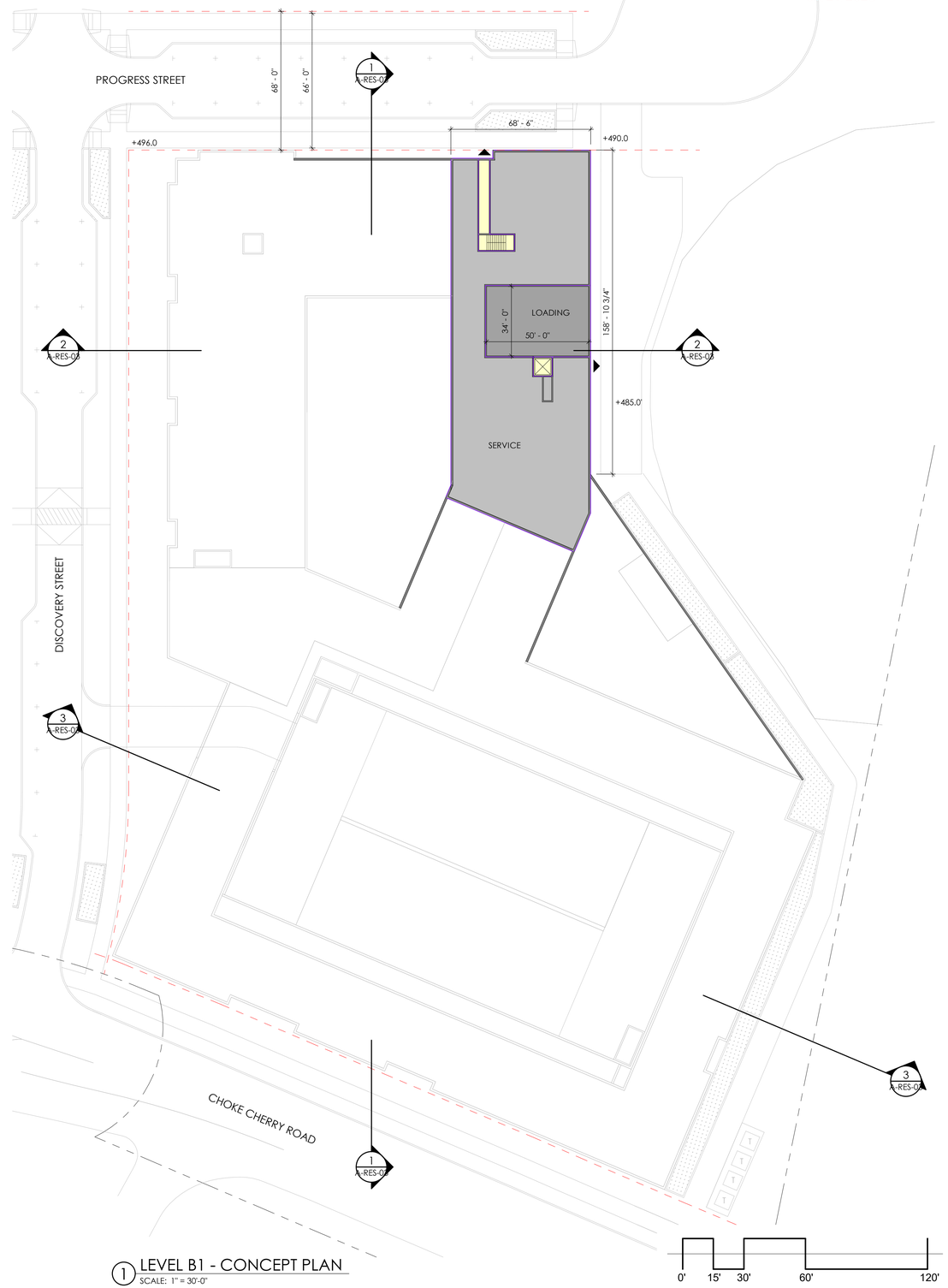
Dimensions/number of bike parking spaces to be provided at Site Plan review

Also show how this room will be accessed

Verify consistent setbacks between Arch and Civil plans

2 LEVEL 1 - CONCEPT PLAN

SCALE: 1" = 30'-0"



1 LEVEL B1 - CONCEPT PLAN

SCALE: 1" = 30'-0"

WDG

WDG ARCHITECTURE, PLLC
1025 CONNECTICUT AVENUE NW
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www.wdgarch.com

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LANDSCAPE ARCHITECT
Parker Rodriguez

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ROCKVILLE, MD 20850

BXP SHADY GROVE LOT 6 LLC
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Washington, DC 20037
202-585-0800

Pre-Application Submission	03.17.2023	#

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WDG PROJECT NO: WA22029

FLOOR PLANS

SCALE: 1" = 30'-0"

A-RES-01

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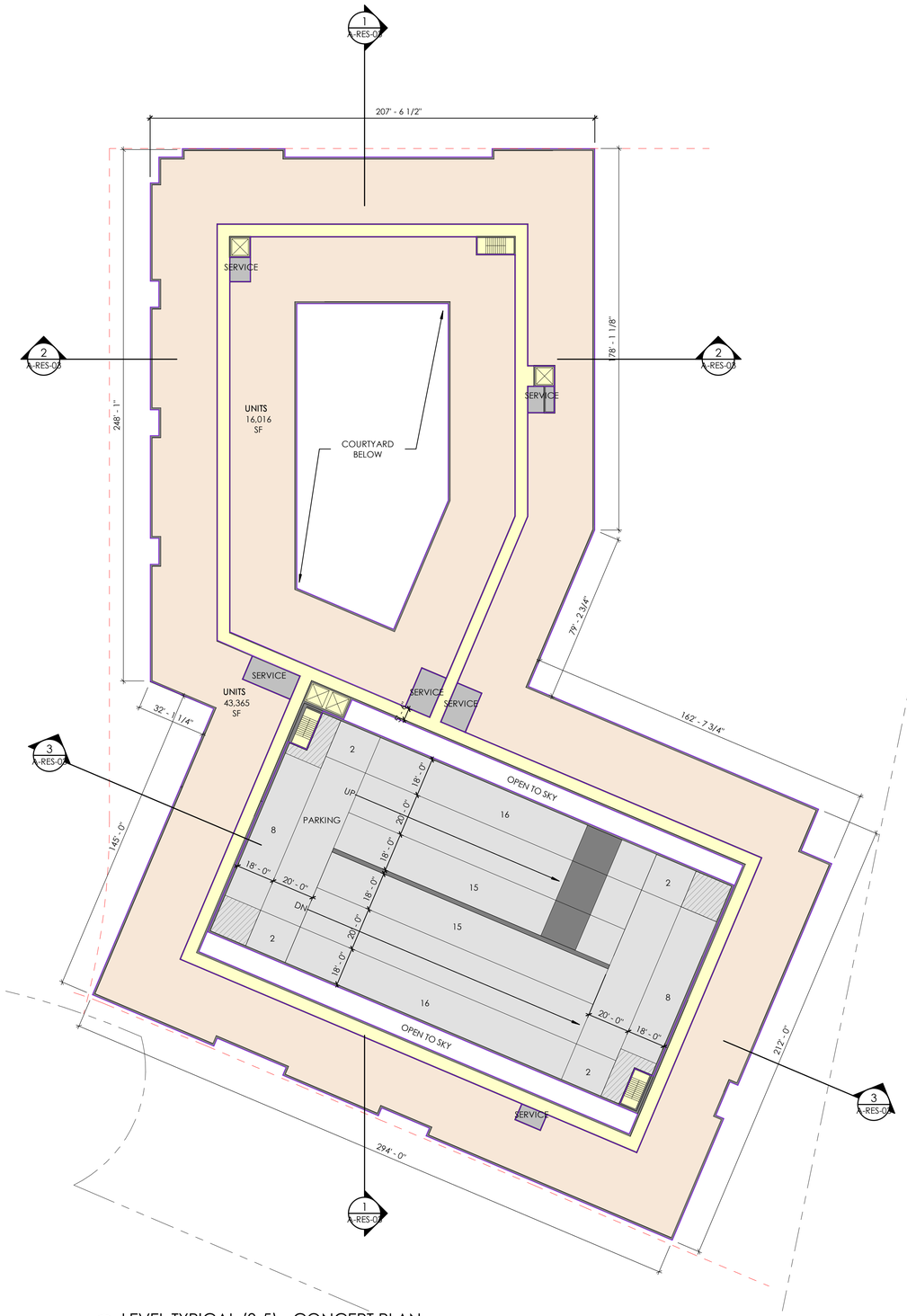

2 LEVEL TYPICAL (3-5) - CONCEPT PLAN
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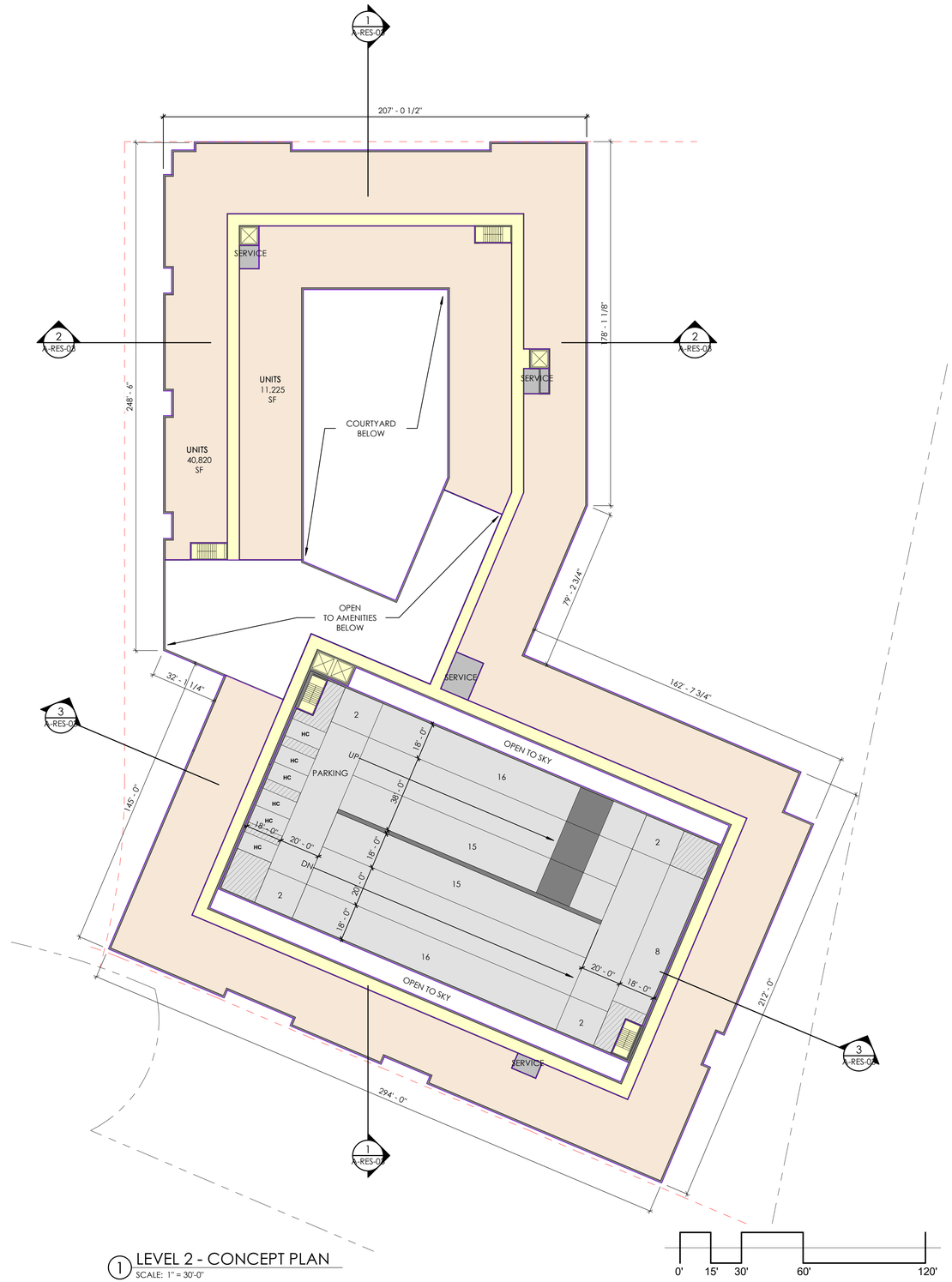

1 LEVEL 2 - CONCEPT PLAN
SCALE: 1" = 30'-0"

0' 15' 30' 60' 120'

WDG

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LOT 6 LLC
2200 Pennsylvania Ave, NW
Washington, DC 20037
202-585-0800

Pre-Application Submission	03.17.2023	1

PROFESSIONAL SEAL

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WDG PROJECT NO:
WA22029

FLOOR PLANS

SCALE: 1" = 30'-0"

A-RES-02

Community Planning &
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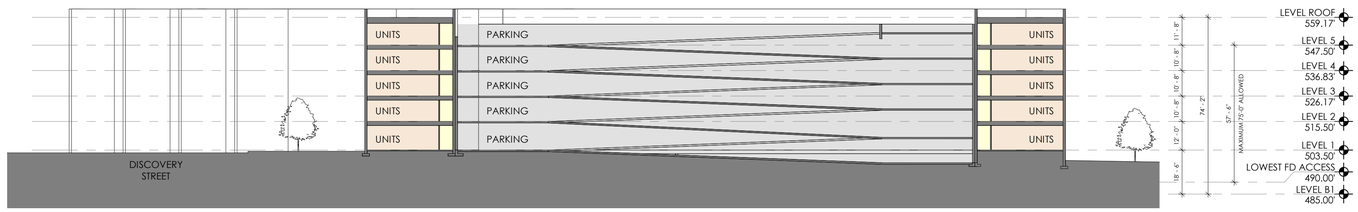
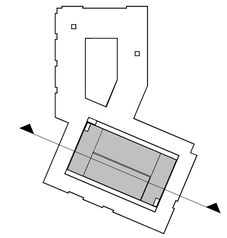
03/21/2023





3 SECTION C
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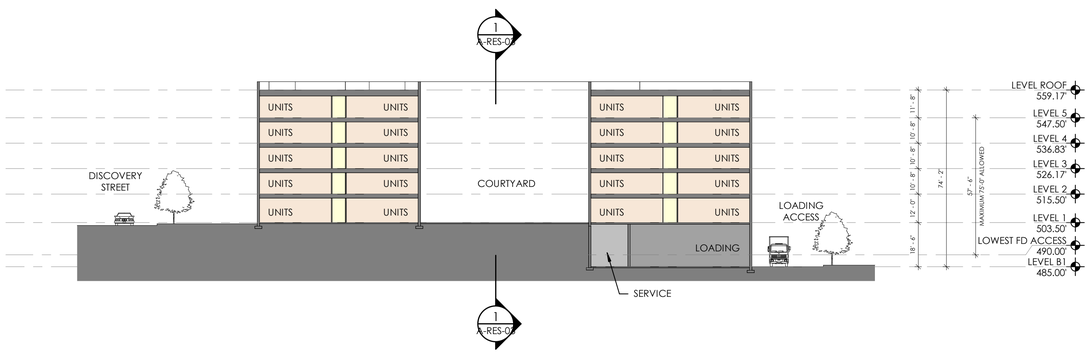

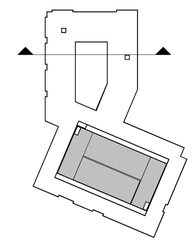

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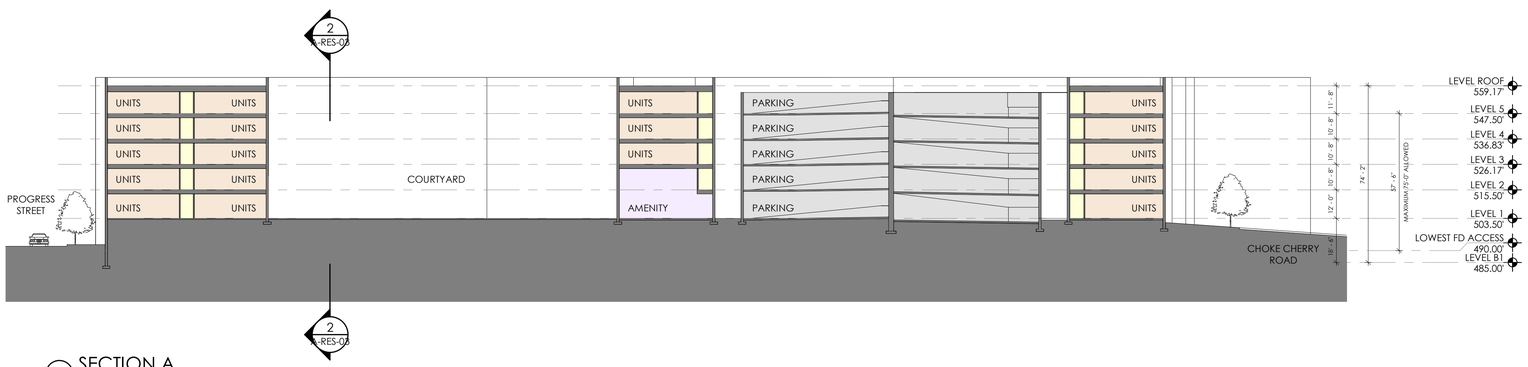

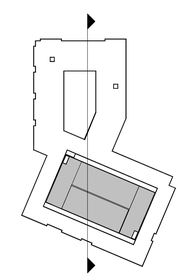

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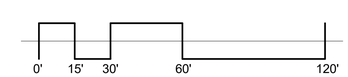

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BXP SHADY GROVE
LOT 6 LLC
2200 Pennsylvania Ave, NW
Washington, DC 20037
202-585-0800

Pre-Application Submission	03.17.2023

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WDG PROJECT NO:
WA22029

BUILDING SECTIONS

SCALE: As indicated

A-RES-03

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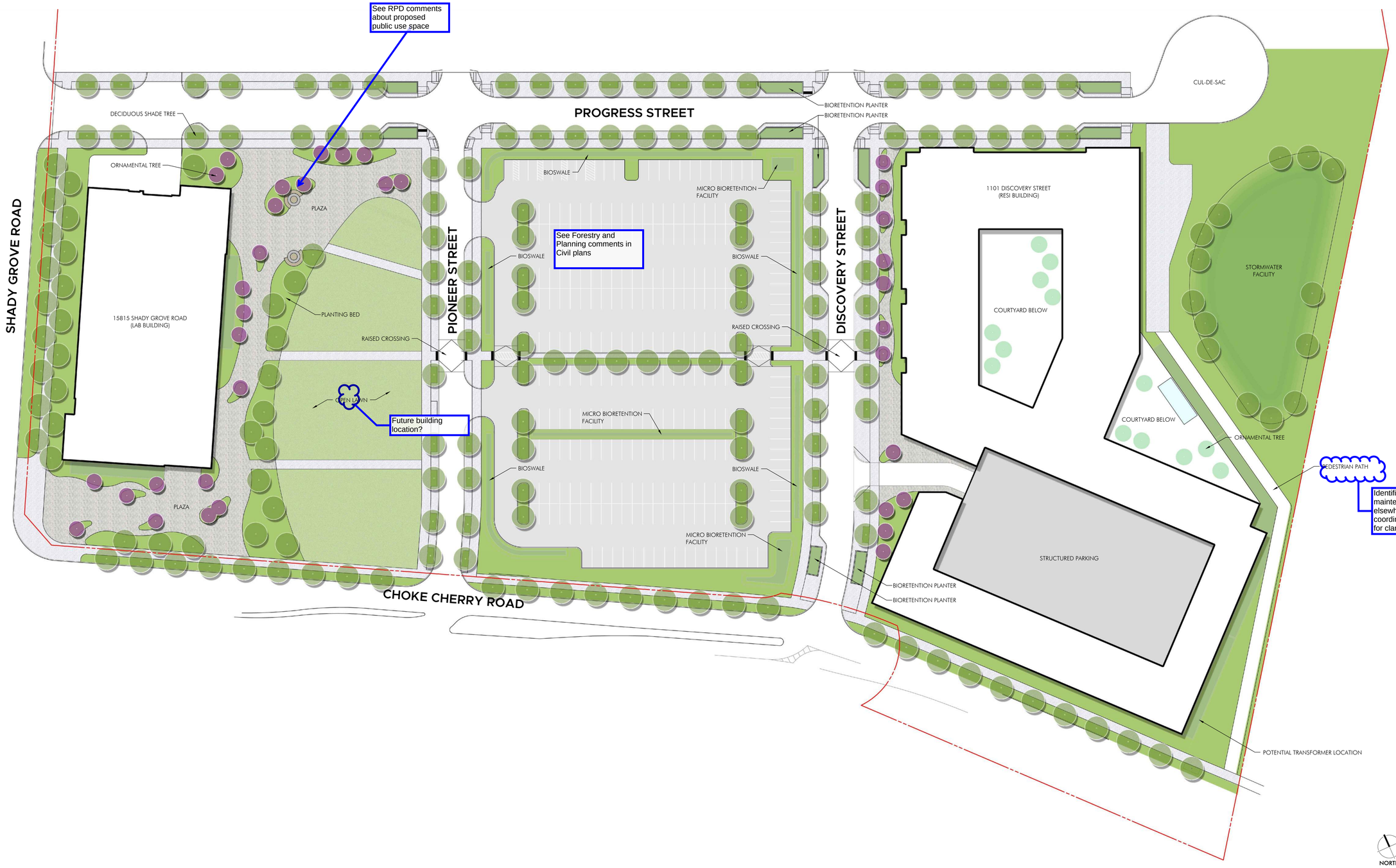

01 ILLUSTRATIVE LANDSCAPE PLAN
1"=40'-0"

BXP
SHADY GROVE

15815 Shady Grove Road
Rockville, MD 20850

LANDSCAPE ARCHITECT
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Alexandria VA 22314
703.548.5010

ARCHITECT
Gensler
2020 K Street, Suite 200
Washington, DC 2006
202.721.5200

ARCHITECT
WDG Architecture, PLLC
1025 Connecticut Ave NW, Suite 300
Washington, DC 20036
202.857.8300

CIVIL ENGINEER
VIKA Maryland, LLC
20251 Century Blvd, Suite 400
Germantown, MD 20874
301.916.4100

DESIGNED BY XX
DRAWN BY XX
CHECKED BY XX

REVISIONS

PAM SUBMISSION	3.17.2023

ILLUSTRATIVE LANDSCAPE PLAN

L-01

A Site Plan cannot be approved until the Department has approved the Preliminary Erosion and Sediment Control Plan.

PAM SEDIMENT AND EROSION CONTROL

SHADY GROVE INNOVATION DISTRICT - PHASE-1

4TH ELECTION DISTRICT ROCKVILLE MONTGOMERY COUNTY, MARYLAND

SCP2023-00013

GENERAL SEQUENCE OF CONSTRUCTION

GENERAL NOTES:

1) Comply with the City of Rockville's Standard Erosion and Sediment Control Notes
2) City Inspectors reserve the right to request additional measures not included on plans.
3) Changes to the approved plans require written approval from DPW Engineering and may require an approved `redlined' plan revisions before proceeding.

PROJECT SEQUENCE OF CONSTRUCTION

1. PRIOR TO CLEARING OF TREES, INSTALLING SEDIMENT CONTROL MEASURES, OR GRADING, A PRECONSTRUCTION MEETING MUST BE CONDUCTED ON-SITE .

PRE-CONSTRUCTION MEETING:

The following items must be completed prior to the pre-construction meeting:

- Limits of Disturbance (LOD) and tree protection measures to be marked/staked out in the field
- Permittee must contact MISS UTILITY at 811, (800) 257-7777, or www.missutility.net for marking of existing utilities. MISS UTILITY requires two full business days' notice. Existing utilities must be marked prior to the pre-construction meeting.

A pre-construction meeting must be conducted on-site with the following representatives: Minimum notice of 48 hours must be provided prior to meeting.

- City of Rockville Sediment and Erosion Control Inspector: Arthur Simpson @ 240-314-8879
- City of Rockville Construction Inspector: ~~Michael Hershelman @ 240-314-8543~~ Michael Hershelman @ 240-314-8543
- City Stormwater Management Inspector: Ethan Chappell @ 240-314-8541
- City of Rockville Forestry Inspector: Natasha Shangold 240-314-8205
- Any of Agency Issuing a Permit
- Permittee, Owner, or Owners Representative
- General Contractor
- Site Engineer

The following items must be discussed, as needed, during the pre-construction meeting:

- Haul routes and maintenance of traffic
- Existing SWM facilities downstream of project
- SWM Construction Inspection and As-built process (see SWM plan)
- Water system shut downs

SITE PREPARATION:

1) With approval from the City of Rockville Sediment Control, Construction, and Forestry Inspectors, install tree protection measures, stabilized construction entrances with wash racks, pump and filter bags systems, perimeter controls, including super silt fence, At-Grade Inlet Protections, Standard Inlet Protections, and curb inlet protection where indicated on plan. Contractor shall coordinate with the City or Rockville and WSSC as necessary to obtain and install a temporary metered water connection for cleaning construction vehicles at the stabilized construction entrance wash rack locations.

2) With Step 1 above completed obtain approval from the City of Rockville SEC Inspector to proceed with additional construction activities.

WSSC plumbing permit. Disconnections will require PWK (for ROW work) and WSSC permits

3) Prior to commencing Stage 1 work below, water and sewer disconnections to the existing building shall be completed per PWK permit. Until on-site water supply from a fire hydrant is available, water supply to wash rack, dust control, concrete washout, etc. shall be from a portable water tank, 600 gallon capacity minimum. Once fire hydrants are active, contractor is to comply with WSSC requirements for temporary metered use of hydrants.

2. PHASE 1: INSTALLATION OF SEDIMENT TRAP #1 AND SEDIMENT CONTROL DEVICES (SEE SHEETS CSEC-3)

1) SEDIMENT CONTROL DEVICES TO BE MAINTAINED THROUGHOUT DURATION OF CONSTRUCTION (ALL STAGES) UNLESS SPECIFIED OTHERWISE. LOCATIONS OF SEDIMENT CONTROL DEVICES MAY BE ADJUSTED IN THE FIELD WITH PERMISSION FROM THE COR SEC INSPECTOR.

2) INSTALL PROPOSED STABILIZED CONSTRUCTION ENTRANCES WITH TRUCK WASH RACKS AT THE LOCATIONS INDICATED.

3) INSTALL PERIMETER SILT FENCE AS NECESSARY TO ALLOW ADEQUATE DRAINAGE TO FUTURE SEDIMENT TRAP.

silt fence is not an acceptable water conveyance measure

4) CLEAR AND GRADE FOR INSTALLATION OF SEDIMENT TRAP.

5) INSTALLATION OF TRAP #1 (SEDIMENT TRAP ST-1)MAY BEGIN WITH PERMISSION FROM THE COR SEC INSPECTOR:
COMMENCE GRADING OF TRAP. SOIL DISTURBANCE SHALL BE LIMITED TO THE SEDIMENT TRAP EXCAVATION INCLUDING EMBANKMENT, STOCKPILE AREA AND STORM DRAIN CONNECTION AREAS.
INSTALL RIP-RAP OUTLET AND DEWATERING DEVICE PER APPROVED PLANS AND CONNECT THE DEWATERING DEVICE TO EXISTING STORM DRAIN SYSTEM.
- INSTALL PIPE SLOPE DRAINS.
- INSTALL BAFFLES.

pipe outlet. provide rip rap for pipe slope drains

6) WITH WRITTEN PERMISSION FROM THE COR SEC INSPECTOR PROCEED WITH SEDIMENT CONTROL PHASE 2.

3. STAGE 2: INSTALLATION OF SEDIMENT BASIN #1 (SEE SHEETS CSEC-4):

1) ROUGH GRADE ONLY AS NECESSARY TO START INSTALLATION OF TEMPORARY STORM DRAIN SYSTEMS AND RIP-RAP OUTFALL PROTECTION AS SHOWN ON PLAN. THIS STORM DRAIN SYSTEM WILL SERVE AS TEMPORARY OUTFALL WHILE BASIN #1 IS BEING INSTALLED AND STABILIZED PRIOR TO PUTTING BASIN #1 IN SERVICE. INSTALLATION SHALL BE IN ACCORDANCE WITH THE APPROVED PUBLIC WORKS PERMIT (PWK 2023-XXXXX).

retaining wall construction prior to basin #1 installation

2) INSTALLATION OF BASIN #1 (SEDIMENT BASIN) MAY BEGIN WITH PERMISSION FROM THE COR SEC INSPECTOR:
- SOIL DISTURBANCE SHALL BE LIMITED TO THE SEDIMENT BASIN EXCAVATION INCLUDING EMBANKMENT, STOCKPILE AREA AND STORM DRAIN CONNECTION AREAS.
- INSTALL AND CONNECT RISER.
- INSTALL BAFFLE BOARDS.
- INSTALL PIPE SLOPE DRAINS .

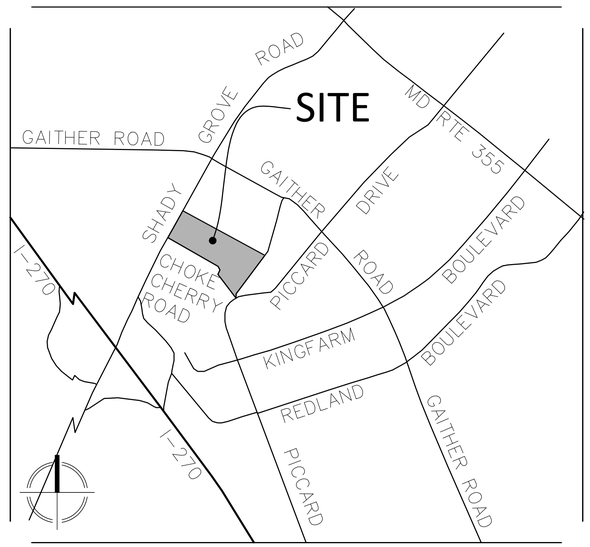
3) WITH WRITTEN APPROVAL OF THE COR SEC INSPECTOR, BEGIN THE FULL SITE DEMOLITION, INCLUDING BUT NOT LIMITED TO, TREE CLEARING AND GRUBBING, BUILDING AND FOUNDATION, PAVEMENT, UTILITIES, AND ALL EXISTING SITE IMPROVEMENTS (UNLESS SPECIFICALLY IDENTIFIED AS TO REMAIN ON THIS SHEET OR ELSEWHERE IN THE CONTRACT DOCUMENTS). BEGIN ROUGH GRADING. ALL EXCAVATED MATERIALS MUST BE TEMPORARILY STOCKED ON-SITE IN THE STOCKPILE AREA IDENTIFIED ON THE PLANS OR HAULED OFF OFF-SITE TO AN APPROVED LOCATION WITH AN ACTIVE SEDIMENT CONTROL PERMIT.

identify stockpile areas on plan

NOT FOR CONSTRUCTION

"FOR LOCATION OF UTILITIES CALL 8-1-1 or 1-800-257-7777 OR LOG ON TO www.call811.com or http://www.missutility.net 48 HOURS IN ADVANCE OF ANY WORK IN THIS VICINITY"

The excavator must notify all public utility companies with underground facilities in the area of proposed excavation and have those facilities located by the utility companies prior to commencing excavation. The excavator is responsible for compliance with requirements of Chapter 36A of the Montgomery County Code.



VICINITY MAP

SCALE: 1" = 2000'

SHEET INDEX

CSEC 1 OF 4	CSEC COVER SHEET
CSEC 2 OF 4	CSEC NOTES
CSEC 3 OF 4	CSEC PLAN PHASE-1
CSEC 4 OF 4	CSEC PLAN PHASE-2

Preliminary Erosion and Sediment Control Plan. At a minimum, this plan must contain the following:
a. All items show on NRI/FSD.
b. Proposed Development Project including buildings, conceptual utilities, paving
and other improvements shown and labeled.
c. Conceptual SWM System (to match the Development SWM Concept) shown and
labeled.
d. Conceptual Storm Drainage System shown and labeled.
e. Conceptual Grading at a minimum two-foot contour interval.
f. Spot elevations sufficient to support drainage patterns.
g. Conceptual interim Grading, where the project is sequenced or as applicable.
h. Grading Units delineated and labeled, where applicable.
1. Limits of Disturbance delineated and labeled.
J. Existing and proposed drainage divides and Drainage Areas to the Site.
k. Initial, interim and final phasing identified and delineated.
1. Legend.
m. Conceptual temporary and permanent Easements, permission and dedications
shown and labeled.
n. Conceptual Sediment Control measures shown, labeled and preliminarily sized.
o. A narrative describing how Erosion and Sediment Control will be integrated into
the SWM strategy using Environmental Site Design (ESD) to protect natural
resources and minimize Erosion.
p. A copy of the approved NRI/FSD.

OWNER / APPLICANT:
BXP SHADY GROVE LOT 5 LLC
2200 PENNSYLVANIA AVENUE, NW
SUITE 200
WASHINGTON, DC, 20037
PH: 301.704.5447
CONTACT: CJ OVERLY
e-mail: coerly@bxp.com

ENGINEER / PLANNER / LANDSCAPE ARCHITECT:
VIKA MARYLAND, LLC
20251 CENTURY BOULEVARD
SUITE 400
GERMANTOWN, MD 20874
PH: 301.916.4100
CONTACT: LAURENT MOUNAUD
e-mail: mounaud@vika.com

Design and Quantities Certification

I hereby certify that this plan has been prepared in accordance with the latest Maryland Standards and Specifications for Soil Erosion and Sediment Control and the Ordinance of the Rockville City Code. The estimated total amount of excavation and fill has been computed to be _____ cubic yards of excavation and _____ cubic yards of fill and the total area to be disturbed as shown on these plans has been determined to be _____ square feet of which _____ is on-site and _____ is in the adjacent right-of-way. The impervious area subject to Stormwater Management shown on this plan is _____ acres of which _____ is on-site and _____ is in the adjacent right-of-way.

Signature: _____
Printed name and title: LAURENT MOUNAUD, P.E. ASSOSCIATE
Date: 12/20/2022
Maryland Registration number: 36749

*QUANTITIES PROVIDED ARE FOR PERMITTING PURPOSES AND ARE NOT TO BE USED BY CONTRACTOR IN QUANTITY ESTIMATES OR FOR BIDDING PURPOSES.

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Germantown, MD 20874
301.916.4100 | vika.com
Our Site Set on the Future.

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SHADY GROVE INNOVATION DISTRICT PHASE 1

4TH ELECTION DISTRICT
MONTGOMERY COUNTY, MARYLAND
WSSC GRID: 221NW09
TAX MAP: FS562 & FS62

SEDIMENT AND EROSION CONTROL COVER SHEET

PROFESSIONAL SEAL
STATE OF MARYLAND — MICHAEL B. GOODMAN — No. 27721 — PROFESSIONAL ENGINEER

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
ENGINEER'S NAME: Michael B. Goodman, P.E.
LICENSE No.: 27721
EXPIRATION DATE: July 19, 2024

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DRAWN BY: _____
DESIGNED BY: _____
DATE ISSUED: _____

VIKA PROJECT: VM50554
DRAWING NO.: CSEC-1

SHEET NO.

S:\50001-51000\50554\50554\dwg\VM50554_SHEETS\50554-000-CSEC-1.dwg ~ Friday, March 17, 2023 3:43:31 PM

LAYOUT: CSEC-1, Plotted By: Kadri

WSSC NOTES FOR WORK PERFORMED IN THE VICINITY OF EXISTING PCCP WATER MAINS

SPECIAL CONSTRUCTION REQUIREMENTS FOR WORK PERFORMED IN THE VICINTIY OF EXISTING PCCP WATER MAINS: February 2021 version

1. Construction vehicles generating live loads greater than AASHTO HS20 (approx. 40,000 lbs or greater), and any vibratory roller compaction equipment, shall not be permitted within 10 feet clear of the outer edge of ex. PCCP water main unless approved by WSSC.
2. The Contractor shall submit construction vehicle specifications for all vehicles proposed for use closer than 10 feet clear, or if proposed to cross ex. PCCP water mains, to the WSSC Project Manager/contact person for approval prior to commencing work. Any vehicle not previously identified during the design review of these plans will require an additional loading analysis

No PCCP pipes in the area

3. If necessary, hardwood timber mats of appropriate size and thickness (sufficient to fit the largest construction vehicle proposed and 2 foot thick) shall be placed over the existing PCCP main to allow WSSC approved construction vehicle traffic to cross over the pipeline and safely distribute live loads.
4. Stockpiling of soil or other material is not permitted within 10 feet clear of the edge of the ROW of the ex. mains, to prevent ROW encroachment.
5. The Contractor shall locate and stakeout the ex. PCCP water mains and edge of the ROW and maintain the markers during construction. Unless otherwise approved by WSSC Project Manager/ contact person, construction vehicles are not permitted within 10 feet clear of ex. PCCP water main at any time, when less than 6 feet of cover exists over the main. The Contractor is responsible for identifying areas where less than 6 feet of cover exists over the mains during construction via vacuum test pitting.
6. All backfill and compaction over the ex. PCCP mains, at any depth of cover, shall be performed manually and/or with vehicles positioned a minimum of 10 feet clear of the outer edge of the main.
7. All rocks, broken pavement, curbing and other debris having any dimension greater than 3 inches shall be removed from above and around the main(s) prior to placing and compacting fill, sub grade material or paving over the main (including pipe bedding).
8. The Contractor shall notify the appropriate Pipeline Construction Division Inspector assigned to the project at least 72 hours in advance of any grading or paving in the vicinity of the ex. PCCP mains. All grading and paving over the mains shall be coordinated and performed under the supervision of a WSSC Inspector.
9. The Contractor shall use special care while performing work in the vicinity of the ex. PCCP water mains and shall strictly adhere to these special construction requirements. The Contractor is responsible for any damage and/or replacement required as a result of his work over the mains at no additional cost to WSSC.
10. If shutdown and de-watering of the ex. PCCP water main is required, coordination with Systems Control Division (SCD) is mandatory. A minimum of 60 days advance notice to SCD is required to coordinate water main shutdown, de-pressurization, and de-watering of ex. PCCP water mains and removal of the Acoustic Fiber Optic (AFO) monitoring cable. SCD shall perform the shutdown scheduling and the Utility Services Department shall execute the shutdown, de-pressurization and de-watering.
11. Test pits to verify the horizontal and vertical alignment of the PCCP mains shall be via vacuum test pitting rather than open-cut trenching on live PCCP mains. Vacuum test pitting is performed only to the crown of the existing PCCP water mains. Backfill the vacuum test pit immediately after the pertinent information is gathered. Any damage to the ex. water main coating resulting from the Contractor's operations shall be repaired at the Contractor's expense. Damage and repairs shall be inspected by WSSC Engineers and/or the pipe manufacturer's technical field representative, and be repaired accordingly prior to backfilling.
12. During backfilling, compacted CR-6 or #57 stone shall be used to 12 inches above the crown of the PCCP main. The remaining excavation shall be backfilled and compacted with suitable material in accordance with Standard Specification Section 02315.

NOTIFICATIONS:

1. The Contractor shall coordinate with the appropriate Pipeline Construction Division Inspector assigned to the project. Notifications are required at a minimum of 60 days in advance of work to arrange shutdown and inspection of the ex. PCCP water mains.
2. The Contractor and/or the appropriate Pipeline Construction Division Inspector shall contact Karen Wright, Systems Control Division – Division Manager, at 301-206-8416 a minimum of 60 days in advance of work to coordinate the shutdown and de-watering of the ex. PCCP water mains.
3. The Contractor and/or the appropriate Pipeline Construction Division Inspector shall notify Arturo Acevedo at 301-206-8478 of the Water/Wastewater Systems Assessment Division 60 days in advance of work to coordinate the removal and replacement of any PCCP pipe sections. Further coordination is required to remove and reinstall the Acoustic Fiber Optic (AFO) monitoring system within the PCCP pipeline. Coordination includes planning with the Inspection Consultant(s), WSSC Water/Wastewater Systems Assessment Division, and WSSC Utility Services Team staff. The PCCP main may have an AFO monitoring cable installed inside, and this cable must not be cut or damaged. The Water/Wastewater Systems Assessment Division must be notified 60 days in advance of work to coordinate and plan the AFO cable removal prior to removing any pipe sections and to coordinate reinstallation of the cable following the pipe replacement. If the PCCP pipeline does not have an AFO monitoring system installed, 60-day advance notification is still required to coordinate the removal & replacement of any PCCP pipe sections, to document the external conditions, and to collect samples of the pipe section for forensic analysis.

Include City of Rockville General Notes, Erosion and Sediment Control Notes, and Geotechnical Notes

STANDARDS AND SPECIFICATIONS FOR TOPSOIL

DEFINITION

PLACEMENT OF TOPSOIL OVER A PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION.

PURPOSE

TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH. SOILS OF CONCERN HAVE LOW MOISTURE CONTENT, LOW NUTRIENT LEVELS, LOW PH, MATERIALS TOXIC TO PLANTS, AND/OR UNACCEPTABLE SOIL GRADATION.

CONDITIONS WHERE PRACTICE APPLIES

THIS PRACTICE IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES. FOR THE PURPOSE OF THESE STANDARDS AND SPECIFICATIONS, AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND DESIGN FOR ADEQUATE STABILIZATION. AREAS HAVING SLOPES STEEPER THAN 2:1 SHALL HAVE THE APPROPRIATE STABILIZATION SHOWN ON THE PLANS.

CONSTRUCTION AND MATERIAL SPECIFICATIONS

TOPSOIL SALVAGED FROM THE EXISTING SITE MAY BE USED PROVIDED THAT IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS.

TOPSOIL SPECIFICATIONS - SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING:

1. TOPSOIL SHALL BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, LOAMY SAND. OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY DPS. REGARDLESS, TOPSOIL SHALL NOT BE A MIXTURE OF CONTRASTING TEXTURED SUBSOILS, AND SHALL CONTAIN LESS THAN 5 % BY VOLUME OF CINDERS, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1 1/2 " IN DIAMETER.

THE SUBSOIL SHALL BE TILLED TO A MINIMUM DEPTH OF 6 INCHES BEFORE PLACEMENT OF TOPSOIL.

WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, GROUND LIMESTONE SHALL BE SPREAD AT THE RATE OF 4-8 TONS/ACRE (200-400 LBS PER 1000 SQ FT) PRIOR TO THE PLACEMENT OF TOPSOIL. LIME SHALL BE DISTRIBUTED UNIFORMLY OVER DESIGNATED AREAS AND WORKED INTO THE SOIL.

TOPSOIL SHALL BE TESTED AND AMENDED AS PER SOIL TEST RECOMMENDATIONS.

TOPSOIL APPLICATION.

1. WHEN TOPSOILING, MAINTAIN NEEDED EROSION AND SEDIMENT CONTROL PRACTICES.
2. TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED IN A 4-8 INCH LAYER AND LIGHTLY COMPACTED TO A MINIMUM THICKNESS OF 4 INCHES. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS SHALL BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.
3. TOPSOIL SHALL NOT BE PLACED WHILE THE TOPSOIL IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDBED PREPARATION.

TEMPORARY SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE REDISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.

SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS:APPLY 60 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ FT).

SEEDING: FOR PERIODS MARCH 1 THRU APRIL 30 AND FROM AUGUST 15 THRU NOVEMBER 15, SEED WITH 2 1/2 BUSHEL PER ACRE OF ANNUAL RYE 3.2 LBS/1000 SQ FT). FOR THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 3 LBS PER ACRE OF WEEPING LOVEGRASS (.07 LBS/1000 SQ FT). FOR THE PERIOD NOVEMBER 16 THRU FEBRUARY 28, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SOD.

MULCHING: APPLY 1 1/2 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQ FT) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GAL PER ACRE (5 GAL/1000 SQ FT) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FT OR HIGHER, USE 348 GAL PER ACRE (8 GAL/1000 SQ FT) FOR ANCHORING.

REFER TO THE 2011 MARYLAND STANDARDS AND SPECIFICATION FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.

PERMANENT SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCES WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED.

SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ON OF THE FOLLOWING SCHEDULES:

1) PREFERRED - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQUARE FT) AND 600 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ FT) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS PER ACRE 30-0-0 UREAFORM FERTILIZER (9 LBS/1000 SQ FT).

2) ACCEPTABLE - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQ FT) AND 1000 LBS PER ACRE 10-10-10 FERTILIZER (23 LBS/1000 SQ FT) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL.

SEEDING: FOR THE PERIODS MARCH 1 THRU APRIL 30, AND AUGUST 1 THRU OCTOBER 15, SEED WITH 60 LBS PER ACRE (1.4 LBS/1000 SQ FT) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 1 THRU JULY 31, SEED WITH 60 LBS KENTUCKY 31 TALL FESCUE PER ACRE AND 2 LBS PER ACRE (.05 LBS/1000 SQ FT) OFF WEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 THRU FEBRUARY 28, PROTECT SITE BY: OPTION (1) 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OPTION (2) USE SOD. OPTION (3) SEED WITH 60 LBS/ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS/ACRE WELL ANCHORED STRAW.

MULCHING: APPLY 1 1/2 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQ FT) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GALLONS PER ACRE (5 GAL/1000 SQ FT) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL/1000 SQ FT) FOR ANCHORING.

MAINTENANCE: INSPECT ALL SEEDED AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS, AND RESEEDINGS.

NOT FOR CONSTRUCTION

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SHADY GROVE INNOVATION DISTRICT PHASE 1

4TH ELECTION DISTRICT
MONTGOMERY COUNTY, MARYLAND
WSSC GRID: 221NW09
TAX MAP: FS562 & FS62

SEDIMENT AND EROSION CONTROL NOTES

PROFESSIONAL SEAL

STATE OF MARYLAND — MICHAEL B. GOODMAN — No. 27721 — PROFESSIONAL ENGINEER

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
ENGINEER'S NAME: Michael B. Goodman, P.E.
LICENSE No.: 27721
EXPIRATION DATE: July 19, 2024

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DRAWN BY: _____
DESIGNED BY: _____
DATE ISSUED: _____

VIKA PROJECT VM50554
DRAWING NO. CSEC-2

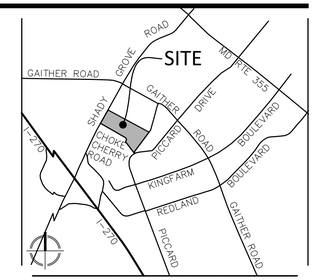
SHEET NO.

LAYOUT: CSEC-2, Plotted By: Kadri

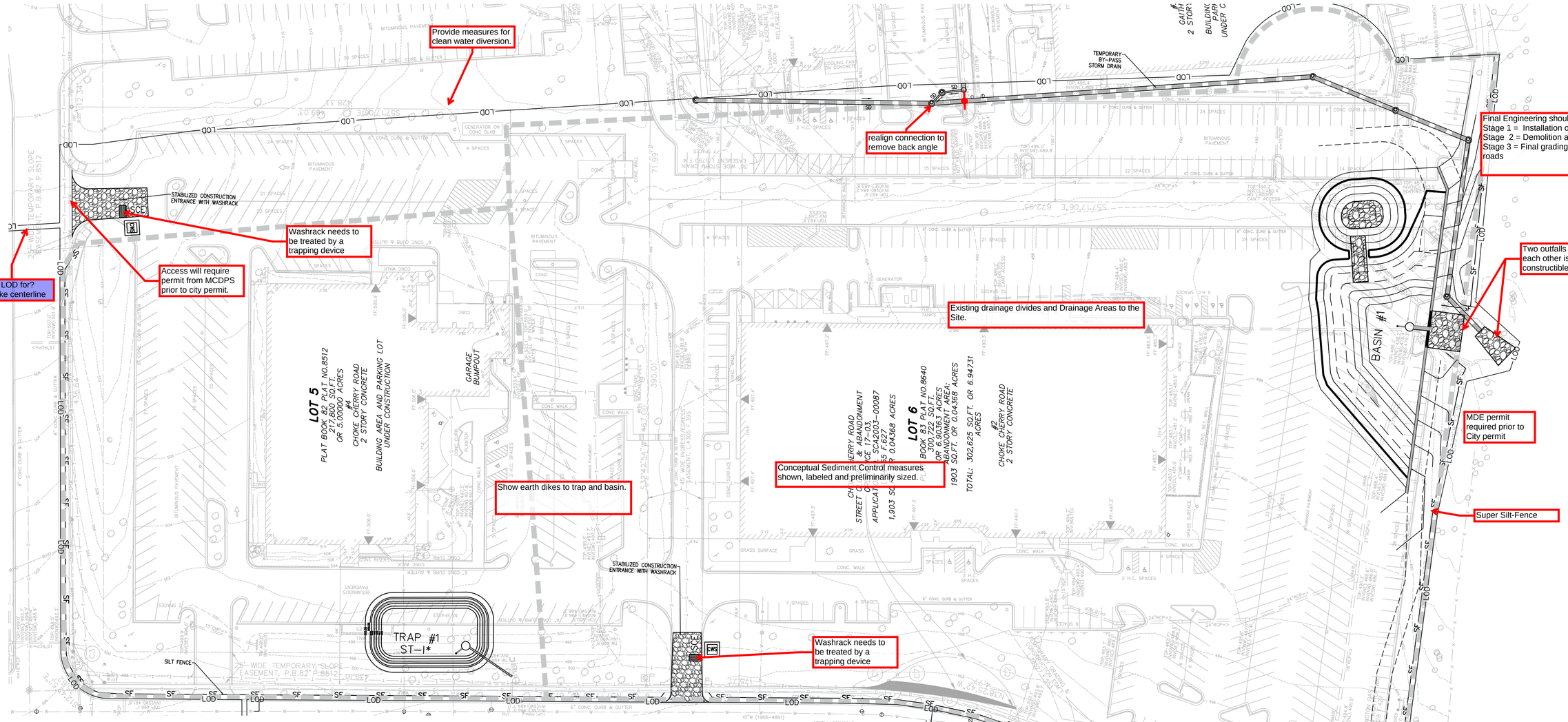
Friday, March 17, 2023 3:42 PM

LEGEND

EX. 10' CONTOUR	350
EX. 2' CONTOUR	348
TEMP. 10' CONTOUR	350
TEMP. 2' CONTOUR	348
PR. 10' CONTOUR	350
PR. 2' CONTOUR	348
100YR FLOODPLAIN	100YR
WETLAND	WET
WETLAND BUFFER	WB
STREAM CENTERLINE	
TOP OF BANK	TOB
STREAM VALLEY BUFFER	SB
LIMITS OF DISTURBANCE	LOD
SILT FENCE	SF
EARTH DIKE	ED-A1
PIPE SLOPE DRAIN	PSD-18
SOILS BOUNDARY	Zs
CONSTRUCTION FENCE	
EX. TREE CANOPY	
SILT FENCE	SF
SUPER SILT FENCE	SSF
CURB INLET PROTECTION	CIP
AT GRADE INLET PROTECTION	AGIP
EX. DRAINAGE DIVIDE	
PROP. DRAINAGE DIVIDE	
STABILIZED CONSTRUCTION ENTRANCE W/ WASH RACK	
CONCRETE WASHOUT STRUCTURE	CWS
RIP-RAP OUTLET PROTECTION	



VICINITY MAP
SCALE: 1" = 2000'



40 20 0 40 80 120
SCALE: 1"=40'

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301.517.4813
CONTACT: SCOTT WALLACE

Final Engineering should be setup in stages.
Stage 1 = Installation of Basin (pond) & Trap
Stage 2 = Demolition and rough grading
Stage 3 = Final grading and installation of utilities & roads

SHADY GROVE INNOVATION DISTRICT PHASE 1

4TH ELECTION DISTRICT
MONTGOMERY COUNTY, MARYLAND
WSSC GRID: 221NW09
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SEDIMENT AND EROSION CONTROL PHASE-1

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LICENSE No.: 27721
EXPIRATION DATE: July 19, 2024

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DRAWN BY: _____
DESIGNED BY: _____
DATE ISSUED: _____

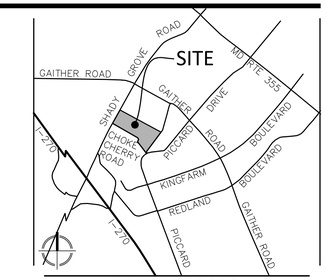
VIKA PROJECT: VM50554
DRAWING NO.: CSEC-3
SHEET NO.

LAYOUT: CSEC-3, Plotted By: Kodirl

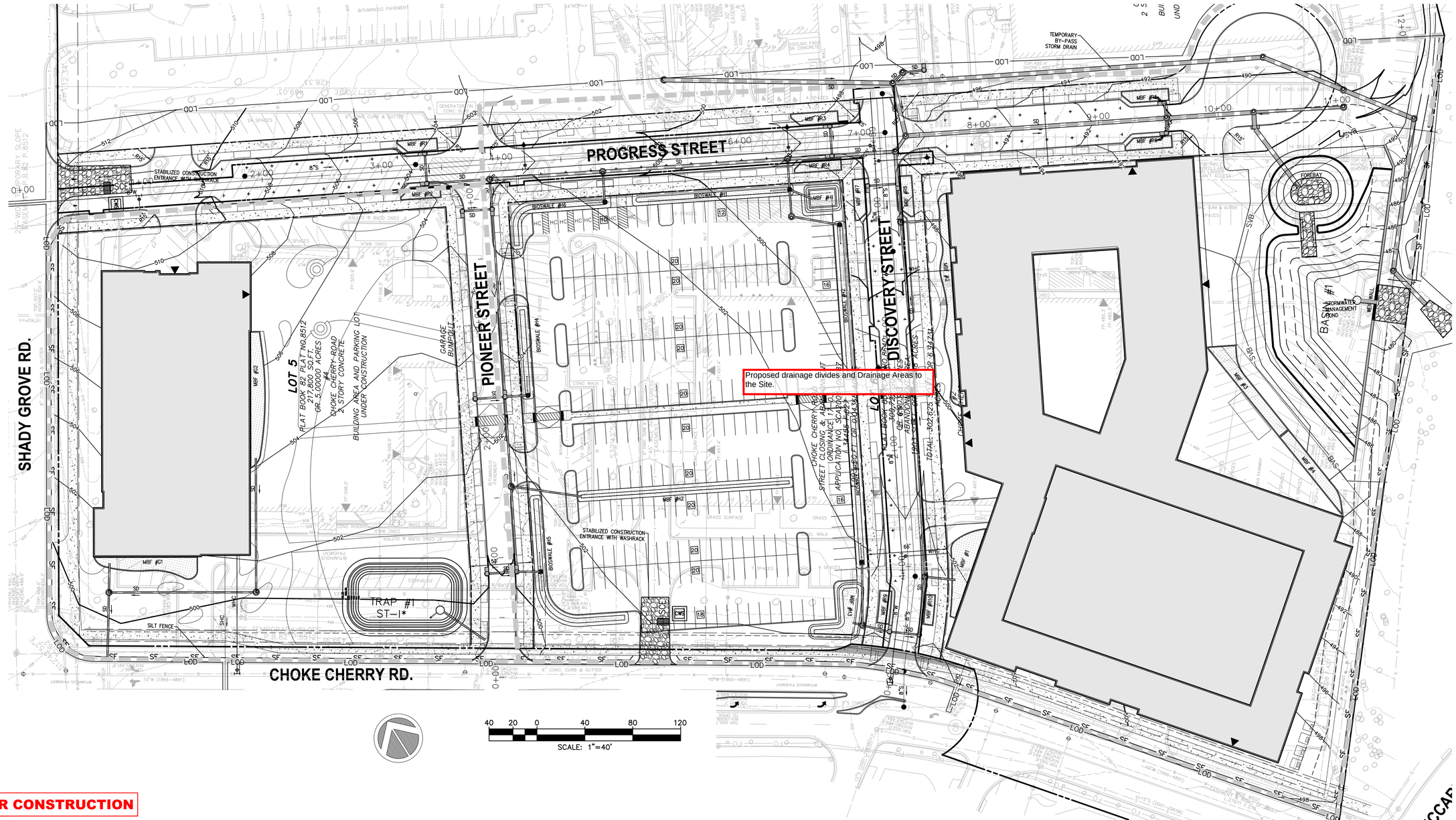
\\50505-510001\50554\CADD\PHASE 1\PRELIMINARY\01 SHEETS\50554500-JP_PHT_CSEC.dwg – Friday, March 17, 2023 3:42:22 PM

LEGEND

EX. 10' CONTOUR	350
EX. 2' CONTOUR	348
TEMP. 10' CONTOUR	350
TEMP. 2' CONTOUR	348
PR. 10' CONTOUR	350
PR. 2' CONTOUR	348
100YR FLOODPLAIN	100YR
WETLAND	WET
WETLAND BUFFER	WB
STREAM CENTERLINE	
TOP OF BANK	TOB
STREAM VALLEY BUFFER	SB
LIMITS OF DISTURBANCE	LOD
SILT FENCE	SF
EARTH DIKE	ED-A1
PIPE SLOPE DRAIN	PSD-18
SOILS BOUNDARY	Zs
CONSTRUCTION FENCE	x
EX. TREE CANOPY	
SILT FENCE	SF
SUPER SILT FENCE	SSF
CURB INLET PROTECTION	CIP
AT GRADE INLET PROTECTION	AGIP
EX. DRAINAGE DIVIDE	
PROP. DRAINAGE DIVIDE	
STABILIZED CONSTRUCTION ENTRANCE W/ WASH RACK	
CONCRETE WASHOUT STRUCTURE	CWS
RIP-RAP OUTLET PROTECTION	



VICINITY MAP
SCALE: 1" = 2000'



40 20 0 40 80 120
SCALE: 1"=40'

NOT FOR CONSTRUCTION

"FOR LOCATION OF UTILITIES CALL
8-1-1 or 1-800-257-7777 OR LOG ON TO
www.call811.com or http://www.missutility.net
48 HOURS IN ADVANCE OF ANY
WORK IN THIS VICINITY"

The excavator must notify all public utility companies with underground facilities in the area of proposed excavation and have those facilities located by the utility companies prior to commencing excavation. The excavator is responsible for compliance with requirements of Chapter 36A of the Montgomery County Code.

VIKA MARYLAND, LLC
20251 Century Blvd., Suite 400
Germantown, MD 20874
301.916.4100 | vika.com

Our Site Set on the Future.

PREPARED FOR:
BXP SHADY GROVE LOT 5 LLC
BXP SHADY GROVE LOT 6 LLC
BXP SHADY GROVE LOT 8 LLC
2200 PENNSYLVANIA AVENUE, NW
SUITE 200W
WASHINGTON DC, 20037
301-704-5447
CJ OVERLY
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ROCKVILLE, MD 20850
301.517.4813
CONTACT: SCOTT WALLACE

SHADY GROVE INNOVATION DISTRICT PHASE 1

4TH ELECTION DISTRICT
MONTGOMERY COUNTY, MARYLAND
WSSC GRID: 221NW09
TAX MAP: FS562 & FS62

SEDIMENT AND EROSION CONTROL PHASE-2

PROFESSIONAL SEAL
STATE OF MARYLAND
MICHAEL B. GOODMAN
No. 27721
PROFESSIONAL ENGINEER

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
ENGINEER'S NAME: Michael B. Goodman, P.E.
LICENSE No.: 27721
EXPIRATION DATE: July 19, 2024

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DRAWN BY:
DESIGNED BY:
DATE ISSUED:

VIKA PROJECT: VM50554

DRAWING NO.: CSEC-4

SHEET NO.

LAYOUT: CSEC-4, Plotted By: Kadri

S:\50001-51000\50554\CAD\PRIVATE\TEMPLATE\VM-LOT SHEETS\50554-00-LP_PH1-CSEC.dwg - Friday, March 17, 2023 4:10:40 PM

PROVIDE APPLICATION

ENGINEERS ✪ PLANNERS ✪ LANDSCAPE ARCHITECTS ✪ SURVEYORS ✪ 3D LASER SCANNING

SHADY GROVE INNOVATION DISTRICT – PHASE 1

VIKA #VM50554G

SMC2023-00008

PRE APPLICATION STORMWATER MANAGEMENT CONCEPT REPORT

APRIL 2023

Prepared for:
BXP SHADYGROVE LOT 5 LLC
2200 Pennsylvania Avenue, NW
Suite 200, Washington, DC, 20037
Contact: CJ Overly
email: coverly@bxp.com

STATE OF MARYLAND
LAURENT C. MOUNAUD
No. 36749
PROFESSIONAL ENGINEER
03/29/2023

Prepared by:
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20251 Century Boulevard
Suite 400
Germantown, Maryland 20874
Tel: (301) 916-4100
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I. OVERVIEW

A. Existing Conditions

The Shady Grove Innovation District (SGID) Phase 1 site, is located at 15815 Shady Grove Road. The site area is approximately 12.13 acres and is currently developed with two 2-story buildings with surface parking lot and an existing private road and sidewalks. A vicinity map is provided in Appendix A1.

The site spans two watersheds:

- Muddy Branch Watershed: Outfall to an existing storm drain system on Choke Cherry Road to the South West of the project area
- Watts Branch Watershed: outfall to an existing stream channel to the south east or the project area.

why don't these areas match?

Based on the USDA NRCS Web Soil Survey, the soil designation for 85.6% of the site is "400-Urban Land"(HSG D) and 14.4% is "6A" (HSGC/D). A copy of the USDA Soil Survey is provided in Appendix A2. The property is in the Potomac River Montgomery County Watershed (02 14202). The property is currently zoned as MXE.

Of the existing 12.7 acres of property, the existing impervious area is approximately 9.73 acres, or 77% impervious. Therefore, the poposed development does qualify as a "redevelopment" according to Chapter 19, Article I, Sec.19-2 of the City of Rockville Ordinance.

Per Chapter 19, Article IV, Section 19-43 of the City of Rockville Ordinance, this project will be required to meet following minimum ciriteria:

- Water Quality Volume (WQv) encompassing Recharge Volume (Rev)
- Channel Protection Volume (Cpv)
- Overbank Flood Protection Volume (Qp10)

~~Environmental Site Design (ESD) treatment practices must be used to treat runoff from one (1) inch of rainfall on all new development projects.~~ For redevelopment projects, the City may permit to treat less than the 1" of rainfall, if it can be demonstrated to the department's satisfaction that treatment at this level is not feasible.

B. Proposed Conditions

three (or more)?

The proposed development will consist of removing the two existing buildings with associated surface parking lots and constructing one 5-story office/lab building, and one 6-story residential building (with parking garage) and a surface parking lot. An effort has been made to maintain the existing drainage patterns with most of the site draining to the Watts Branch Water shed.

C. Stormwater Management Requirements

The stormwater measures chosen for this development are consistent with the City's stormwater management requirements and the MDE Manual. Taken from Chapter 19, Section 19-43, the minimum stormwater management criteria are as follows:

(a) Except as otherwise provided, the basic design criteria, methodologies and construction specifications, subject to the approval of the Department and MDE, will be those of the Design Manual.

(b) SWM systems for development projects covered by this chapter must meet the minimum requirements, specifications and methodologies set forth in this article, the regulations, the Design Manual and Department guidance. At a minimum, SWM control must be provided on-site for:

(1) Water quality volume (WQ_v) encompassing the recharge volume (Re_v).

(2) Channel protection volume (Cp_v).

(3) Overbank flood protection volume (Qp_{10}).

(4) Extreme flood control (Q_f) only in cases where the Department determines that this level of control is necessary for the protection of property, existing buildings or other critical structures.

(c) ESD treatment practices must be used to treat runoff from one (1) inch of rainfall on all new development projects.

(d) Redevelopment projects may be permitted by the City to treat less than one (1) inch of rainfall, if it can be demonstrated to the Department's satisfaction that treatment at this level is not feasible.

(e) Cp_v controls will be considered to be met when a development project's ESD measures are designed according to the reduced runoff curve method in the Design Manual.

(f) When a development project's target rainfall is not fully controlled utilizing ESD measures, then any remaining WQ_v and Cp_v requirements must be met according to the priorities listed in section 19-44.

(g) The Department may, on a case-by-case basis, modify the minimum SWM criteria, requirements, specifications or methodologies to address environmental, hydrologic, hydraulic, topographic or other technical conditions or limitations.

? CLARIFY

Part a is being met by the proposed ESD stormwater management facilities for this re-development including open space/ planter box micro-bioretention and bio swale facilities.

Parts b 1-2 met on site but are not fully met for the 30' right of way frontages.

Part b3 proposed development decreases impervious area in post development conditions, hence overbank flood protection should not be necessary.

Qp10 is required to be addressed

Part b4 would only be required should the Department determine them to be required.

is this correct?

As noted in the introduction, the existing site, 12.13 acres is 9.34 acres impervious, or 77% impervious, thus meeting the definition of re-development. The total impervious coverage on the subject property in proposed condition is 66% which automatic disturbance at over 5,000 sf, therefore the project site is subject Stormwater Management Act of 2007, which requires managing stomwat "Environment Site Design to the Maximum Extent Practicable" (ESD to the

CLARIFY - EITHER SEPARATE ON-SITE FROM ADJACENT ROW OR ADD HOW ADJACENT ROW SWM IS ADDRESSED.

Part (e) is being met for the site but not for the 30' right of way frontage.

The project proposes On-Site ESD measures utilizing micro-bioretentions extended detention Pond per part c1 as the first priority. These practice based on the available space, drainage patterns associated with the propo and physical constraints (utility separation, roadway green space widths, etc.). On-site ESD measures have been proposed to maximum extent practicable. Additional measures to increase the ESD on-site could be studied, including enhanced micro-bioretention sections upon completion of soil boring tests to confirm percolation results will allow infiltration.

The techniques to provide the maximum ESD treatment took the highest priority, followed by structural supplementation to maximize the volume treated. The site layout incorporates areas scattered about which are used to provide micro-bioretention facilities so that the water can be captured as close to the source as possible. Measures that were considered and not selected include the following:

1. Alternate Surfaces - Porous Concrete Sidewalks: Porous concrete sidewalks were considered at various locations throughout the site however, were omitted due to the following reasons:
    a. Maintenance is of concern during winter months.
    b. Dry utilities to run under sidewalks.
2. Alternate Surfaces – Reinforced Turf: Site constraints of roadway widths, and site access (entrances to buildings) resulted in no feasible areas for reinforced turf.
3. Non-Structural Practices – Runoff Disconnects and Sheetflow to conservation Areas: The site's urban to suburban layout with developed areas to all sides made runoff disconnects and sheetflow infeasible.
4. Microscale Practices – Rainwater Harvesting, Submerged Gravel Wetlands, Dry Wells, and Rain Gardens: The required irrigation volumes compared to the collected rainwater would not balance out during the year so this facility was deemed infeasible. There are no known high groundwater issues on the site, resulting in a lack of use for submerged gravel wetlands. The site layout with a single large building and the soild type does not work for dry wells and rain gardens.
5. Filtration / Infiltration – Bio-Retention and Swales: Bio-retention ans Swales practices were vetted and proposed throughout the site where feasible.

consider or provide justification for green roof

II. PROPOSED STORMWATER MANAGEMENT

The land disturbance within the Project Site has been determined to be greater than 50% of the site. In accordance with the City's Code, Stormwater Management is required to be provided for all existing, new and replacement impervious surfaces within the Project Site.

In accordance with the code, the Stormwater Management concept for the project utilizes Environmental Site Design (ESD) to the Maximum Extent Practicable (MEP).

A. ESD requirements

The stormwater plan's Project Site area is approximately 12.13 acres. The target PE was calculated following the methods described in the July 2010 supplement to the MDE Manual and is based on the site area and the proposed impervious cover. **The required Pe was determined to be <u>1.8"</u>** based on the site soil classifications. Per MD SWM Design Manual Chapter 5, SWM must be provided for the re-development within the entire site area, including all impervious area previously existing on the site that does not have SWM to current standards, when the development project disturbs 50% or more of the total site area. The required Total ESDv was calculated by applying the required Pe to each "Block" (G, H,I and Private Roads). Block G in proposed conditions is the only block discharging to the Muddy Branch Watershed.

<u>Muddy Branch Watershed:</u>

Block G Total Area = 2.74 Acres % Impervious = 50% ESDv Req= 8,934 cuft

Total Muddy Branch ESDv Required = 8,934 cuft

Total Muddy Branch ESDv Provided = 4,963 cuft

Pe Achieved = 1.1"

<u>Watts Branch Watershed</u>

Block H Total Area = 2.46 Acres % Impervious = 79% ESDv Req = 12,245 cuft

Block I Total Area = 4.15 Acres % Impervious = 69% ESDv Req = 26,285 cuft

Private Streets Total Area = 2.78 Acres % Impervious = 68% ESDv Req = 11,989 cuft

Total Watts Branch ESDv Required = 50,519 cuft

Total Wastt Branch ESDv Provided = 24,211 cuft

Pe Achieved = 1.0"

show provided for Block H, I & streets

<u>Stormwater Management for adjacent Right of Way:</u>

Choke Cherry Road: Stormwater management for Choke Cherry is currently provided within existing regional ponds. The Western portion of the road drains to the Shady Grove Research and Development Pond, and the eastern portion drains to the Piccard Pond on the King Farm Development.

Shady Grove Road: Stormwater Management for the portion of Shady Grove fronting the project site is currently provided within the Shady Grove Research and Development Pond.

Total Project ESDv Required = 59,453 cuft

Total Project ESDv Provided = 29,174 cuft

This project cannot receive credit for off-site ponds. Request a monetary contribution. Justification can be regional pond

B. ESD to the MEP

<u>Muddy Branch Watershed:</u>

At the concept level the target Pe is 1.8". Implementing ESD to the MEP while planning for

future phases (i.e. future parking garage on Block G which will have its own ESD facilities), and exhausting all options, a Pe of 1.1" that treats proposed impervious areas is provided.

In addition to these proposed ESD facilities, and having decreased the percent imperviousness, it is proposed to rely on the existing regional pond for Shady Grove Research and Development Park to provide required remaining treatment.

This proje
receive cr
off-site po
Request a
contributio
Justificatio
regional p

Watts Branch Watershed:

At the concept level the target Pe is 1.8". Implementing ESD to the MEP and exhausting all options, a Pe of 1.0" that treats proposed impervious areas is provided.

In addition to these proposed ESD facilities, and having decreased the percent imperviousness, it is proposed to treat the remaining volume with an onsite structural facility (Extended Detention Pond).

C. Structural Facilities Measures

Muddy Branch Watershed:

It is proposed to rely on the existing regional pond for Shady Grove Research and Development Park to provide required treatment for the remaining 3,265 cuft. This existing regional pond for currently satifies SWM requirements for this portion of our project site and was designed to provides water quality, recharge, channel protection and 10-yr flood control.

DPW does not support. Pond should treat entire DA to outfall (Lots 7 and 8 should eventually drain to and be treated by pond)

Watts Branch Watershed:

It is proposed to treat the remaining volume with an onsite Extended Detention Pond to provide the remaining Cpv. For this proposed concept, the remaining Cpv was calculated by computing the difference between the ESDv required and the ESDv provided since the achieve Pe=1". All existing offsite drainage area is proposed to bypass the pond via a relocated stormdrain and new storm drain outfall.

Total Watts Branch ESDv Required = 50,519 cuft
Less Total Watts Branch ESDv Provided = 24,211 cuft
Total Cpv to be provided in the Pond = 26,308 cuft
Forebay Volumen to be min. 10% of volume = 2630.8 cuft

Pond to provide WQv and Cpv for entire DA.

D. Maintenance of Natural Flow Patterns

Drainage divides and street grades were asjusted to mimic existing devides to the maximum extent practicable.

Provide overall dmaps for existing and proposed

E. Impervious Area

The proposed development decreases impervious area .

F. Integration of Erosion and Sediment Control

The area within the Limits of Disturbance drains to existing storm drain. In the initial phase of construction, Super Silt fence will be installed along the downstream side of the property and inlet protections will be installed on all existing inlets. The offsite drainage area will be re-routed via a relocated public storm drain pipe. A sediment basin will be installed in the area of the proposed extended detention pond and will be used during construction for all drainage going to the Watts Branch watershed. A sediment trap will be installed for all drainage going to the Muddy Branch watershed.

G. Quantity Control Management

Additional Water Quantity requirements for the Muddy Branch Watershed is met within the existing Shady Grove Research and Development Park Regional Pond.

For the project site area draining to the Watts Branch Watershed, the remaining volume of Stormwater Management requirements will be met by an onsite detention pond. This onsite detention pond is proposed to be oversized to allow for future phases of development. All existing offsite drainage area is proposed to bypass the pond via a relocated stormdrain and new storm drain outfall.

Initial research and past approvals reveal that there are no stormwater quantity issues at those two outfalls. In addition, our proposed development reduces impervious cover in proposed conditions and therefore overbank flood protection (Qp10) should not be necessary.

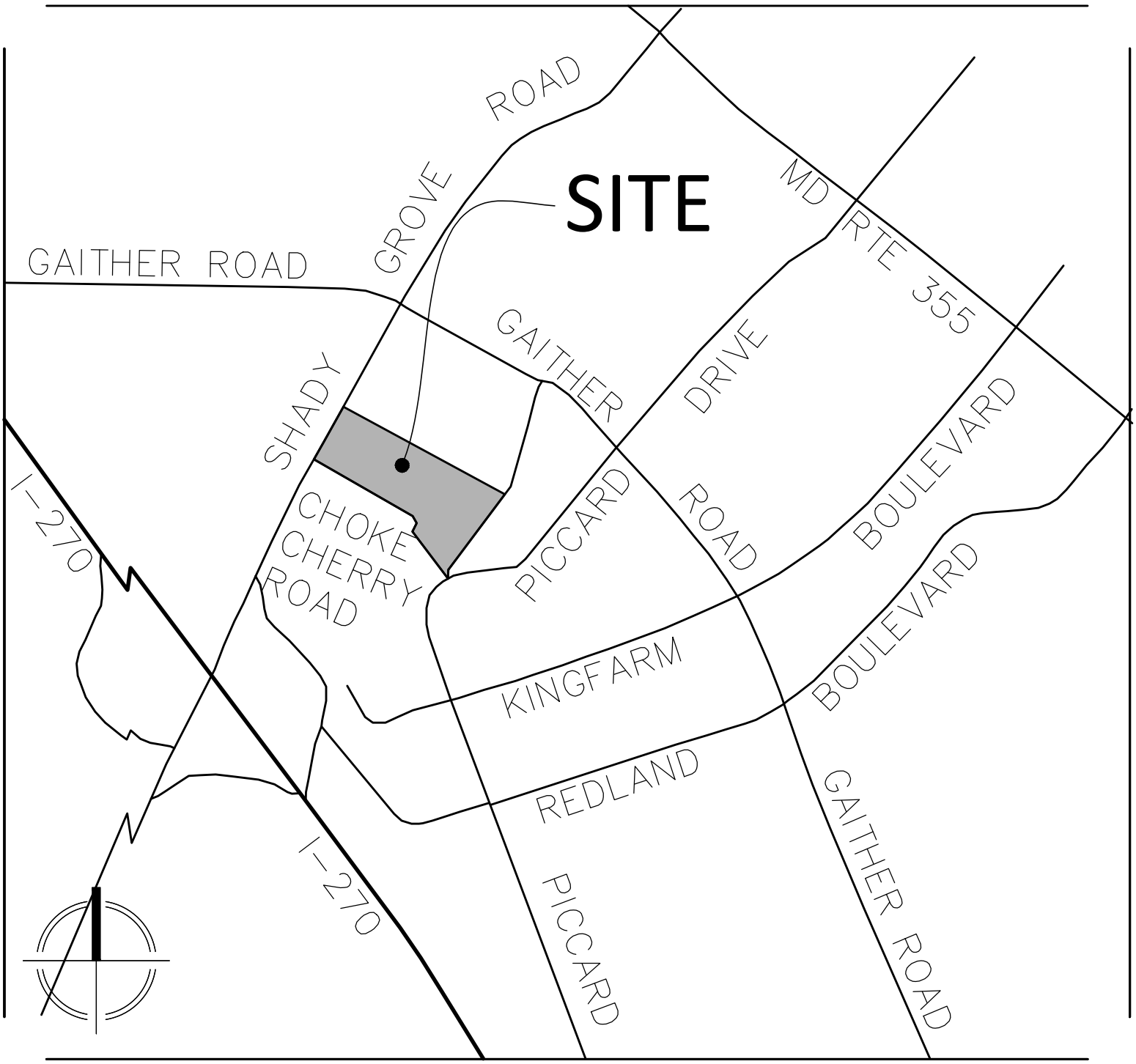
A downstream analysis will be provided at the Development SWM concept stage to demonstrate safe conveyance and no negative impact to the downstream 100 year floodplain. It is anticipate that some minor stream restoration may be required at the Muddy Branch Outfall.

III. CONCLUSION

All stormwater management requirements will be met by providing ESD to the MEP, achieving the minimum required Pe=1” for redevelopment projects. Additional required Cpv volume will be provided by existing regional facilities and a proposed onsite structural facility, over sized to provide stormwater management for future phases of development for the Shady Grove Innovation District.

APPENDIX A
MAPS

A1. VICINITY MAP



VICINITY MAP

SCALE: 1" = 1000'

A2. SOILS MAP

United States Department of Agriculture

NRCS

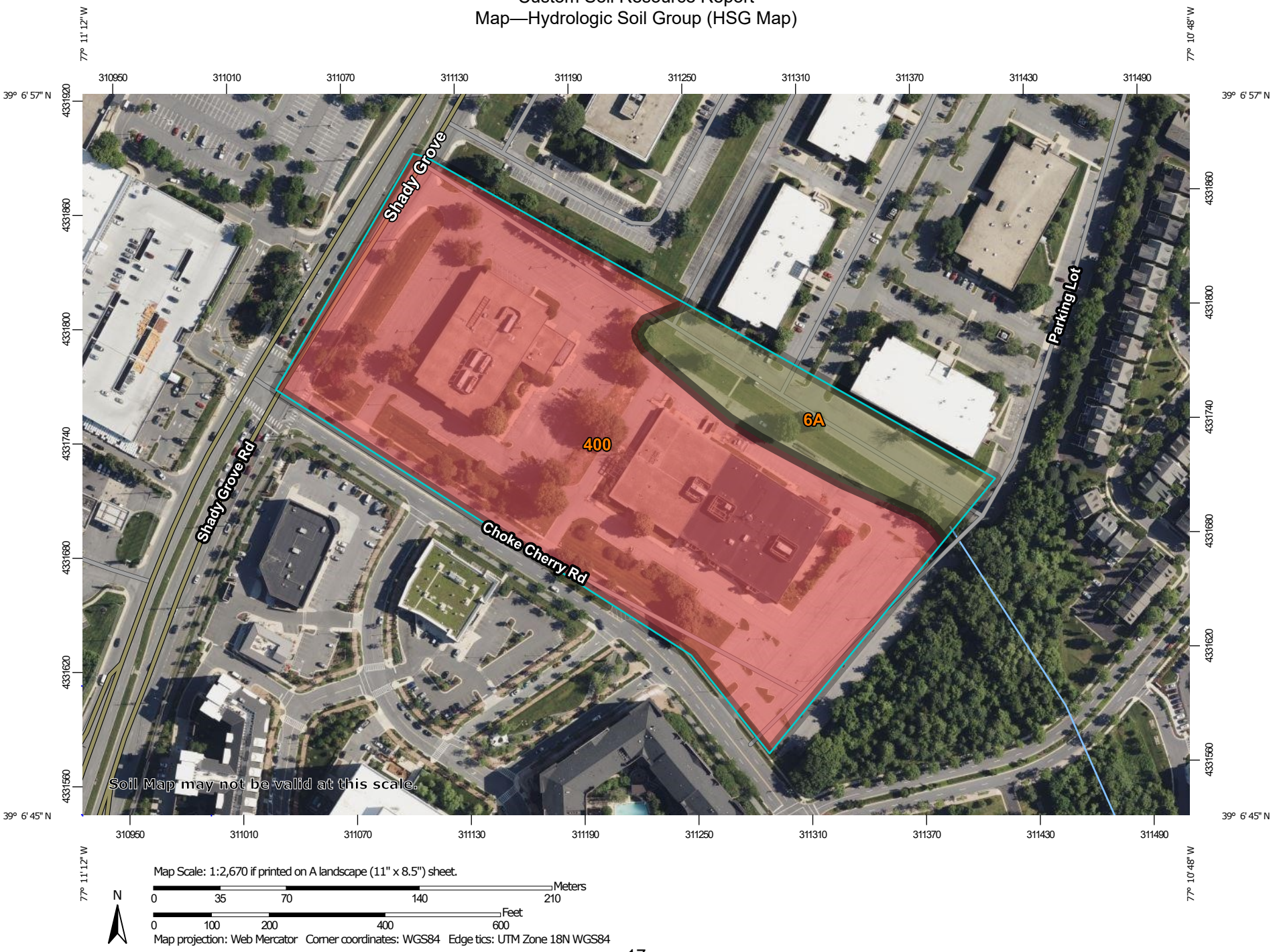
Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Montgomery County, Maryland

March 22, 2023

Custom Soil Resource Report
Map—Hydrologic Soil Group (HSG Map)



Map Scale: 1:2,670 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 35 70 140 210

Feet: 0 100 200 400 600

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features

Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Montgomery County, Maryland
Survey Area Data: Version 18, Sep 14, 2022

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 20, 2021—Jun 18, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—Hydrologic Soil Group (HSG Map)

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
6A	Baile silt loam, 0 to 3 percent slopes	C/D	1.9	14.4%
400	Urban land	D	11.2	85.6%
Totals for Area of Interest			**13.1**	**100.0%**

Rating Options—Hydrologic Soil Group (HSG Map)

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

APPENDIX B
COMPUTATIONS

B1. OVERALL PE REQUIRED COMPUTATIONS

Project Name:	SGID Phase 1	**Computed By:**	NEK
Project No.:	VM50554G	**Checked By:**	LGM
Date:	March 17, 2023		

Pe COMPUTATION FOR PROJECT SITE AREA (PROPERTY BOUNDARY INCLUDING UNDISTURBED AREA)

Total Area	528,383	sq. ft	**12.13**	acres	INPUT
Impervious Area	406,850	sq. ft	**9.34**	acres	
Green Area	121,532	sq. ft	**2.79**	acres	**OUTPUT**

ESDv Sizing Criteria Per MD SWM Design Manual Chapter 5, Section 5.2:

I (percent impervious cover)	77	percent	Soil Hydrologic Group:	**D**
Rv = (0.05 * (0.009 * (I)))	0.7430			

Rainfall Target (P_E) Determination per Table 5.3, MDE SWM Manual

Required P_E per ESDv Criteria = 1.80 inches

B2. BLOCK G COMPUTATIONS

Project Name:	SGID	**Computed By:**	NEK
Project No.:	VM50554G	**Checked By:**	LGM
Date:	March 22, 2023		

PROJECT SITE INFORMATION

Total Area	119,483	sq. ft	2.74	acres		INPUT
Impervious Area	59,538	sq. ft	1.37	acres		
Green Area	59,945	sq. ft	1.38	acres		OUTPUT

ESDv Sizing Criteria Per MD SWM Design Manual Chapter 5, Section 5.2:

I (percent impervious cover)	50	percent	Soil Hydrologic Group:
Rv = (0.05 + (0.009 * (I)))	0.4985		

Rainfall Target (P_E) Determination per Table 5.2, MDE SWM Manual

Required P_E per ESDv Criteria =	1.80	inches	
ESDv = (P_E x Rv x A) / 12	0.20509	acre-ft	Section 5.5.2 of MD SWM Design Manual (Page 5.18)
cubic-feet = ESDv * 43560 ft^2/acre	8934	cubic feet of Required ESDv	
ESD_{MIN} = (P_E x Rv x A) / 12	0.11394	acre-ft	Section 5.5.2 of MD SWM Design Manual (Page 5.18)
cubic-feet = ESDv * 43560 ft^2/acre	4963	cubic feet	

where PE = 1"

Maximum Amount of Runoff that can be captured by facility(VOL_{MAX}):

VOL_{MAX} = (2.6 x Rv x A) / 12	12904	cubic feet	Section 5.5.2 of MD SWM Design Manual (Page 5.18)
ESDV PROVIDED	5678	CF	
P_E (Achieved) = [(12 x ESDV) / (Rv x A)]	1.10	inches	By ESD Facility
WQv TO SWM POND	3255	CF	

Runoff Calculation Per Urban Hydrology for Small Watersheds (TR-55) Chapter 2:

1-YR Design Storm=	2.60	inches, 1-YR design Storm

Project Name:	SGID	**Computed By:**	NEK
Project No.:	VM50554G	**Checked By:**	
Date:	March 22, 2023		

MICRO BIO-RETENTION-G1 (MBF)

Total Area	13,407	sq. ft	0.31	acres	INPUT
Impervious Area	13,407	sq. ft	0.31	acres	
Green Area	0	sq. ft	0.00	acres	OUTPUT

ESDv Sizing Criteria Per MD SWM Design Manual Chapter 5, Section 5.2:

I (percent impervious cover)	100	percent	
Rv = (0.05 + (0.009 * (I)))	0.95		
Required Rainfall Target (P_E) Information			
Required P_E per ESDv Criteria =	1.00	inches	1.8
ESDv = (P_E x Rv x A) / 12	0.02454	acre-ft	Section 5.2.2 of MD SWM Design Manual (Page 5.18)
ESDv required=	**1069**	cubic feet	

Maximum Amount of Runoff that can be captured by facility(VOL_{MAX}):

VOL_{MAX} = (2.6 x Rv x A) / 12 **2779** cubic feet Section 5.2.2 of MD SWM Design Manual (Page 5.18)

950.00 cubic-feet of Volume Provided Above Filter

V_{BF} = V.R. x D_{BF} x A_{BF} = **1710** cubic-feet of Volume Provided Below Filter

Where V_{BF} is the volume within the Bio-Filter; V.R. is the void ration; D_{BF} is the filter depth; A_{BF} is the filter footprint area

D_{BF} = 4.5 feet **2660** **Total Storage Provided by Bio-Filter**

Storage above the surface of the biofilter and Footprint Size

ELEV FT	AREA SQ FT	AREA SQ FT	H FT	VOL CU FT	TOT VOL CU FT	TOT VOL AC-FT	TOT VOL CU YD
0.00	950						
		950.0	1.00				
1.00	950			950	**950.00**	0.02181	35.2

Underdrain Pipe Design Criteria:

Provide a minimum amount of underdrain (in linear feet) equal to or greater than 5% of footprint size. If two or more lines of underdrain, underdrain shall be a minimum of 5 feet apart measured from centerline of each.

Required Linear Feet	**48**
Provided Linear Feet	48

Surface Area Design Criteria

The surface area of micro-bioretention practices shall be at least 2% of the contributing drainage area.

Required Biofilter Footprint	**268**
Provided Biofilter Footprint	950

show PE achieved (all sheets)

Project Name:	SGID	**Computed By:**	NEK
Project No.:	VM50554G	**Checked By:**	
Date:	March 15, 2023		

MICRO BIO-RETENTION-G2 (MBF)

Total Area	16,817	sq. ft	0.39	acres	INPUT
Impervious Area	16,817	sq. ft	0.39	acres	
Green Area	0	sq. ft	0.00	acres	OUTPUT

ESDv Sizing Criteria Per MD SWM Design Manual Chapter 5, Section 5.2:

I (percent impervious cover)	100	percent	
Rv = (0.05 + (0.009 * (I)))	0.95		
Required Rainfall Target (P_E) Information			
Required P_E per ESDv Criteria =	1.80	inches	
ESDv = (P_E x Rv x A) / 12	0.05558	acre-ft	Section 5.2.2 of MD SWM Design Manual (Page 5.18)
ESDv required=	**2421**	cubic feet	

Maximum Amount of Runoff that can be captured by facility(VOL_{MAX}):

VOL_{MAX} = (2.6 x Rv x A) / 12 **3497** cubic feet Section 5.2.2 of MD SWM Design Manual (Page 5.18)

1078.00 cubic-feet of Volume Provided Above Filter

V_{BF} = V.R. x D_{BF} x A_{BF} = **1940.4** cubic-feet of Volume Provided Below Filter

Where V_{BF} is the volume within the Bio-Filter; V.R. is the void ration; D_{BF} is the filter depth; A_{BF} is the filter footprint area

D_{BF} = 4.5 feet **3018** **Total Storage Provided by Bio-Filter**

Storage above the surface of the biofilter and Footprint Size

ELEV FT	AREA SQ FT	AREA SQ FT	H FT	VOL CU FT	TOT VOL CU FT	TOT VOL AC-FT	TOT VOL CU YD
0.00	1,078						
		1078.0	1.00				
1.00	1,078			1078	**1078.00**	0.02475	39.9

Underdrain Pipe Design Criteria:

Provide a minimum amount of underdrain (in linear feet) equal to or greater than 5% of footprint size. If two or more lines of underdrain, underdrain shall be a minimum of 5 feet apart measured from centerline of each.

Required Linear Feet	**54**
Provided Linear Feet	54

Surface Area Design Criteria

The surface area of micro-bioretention practices shall be at least 2% of the contributing drainage area.

Required Biofilter Footprint	**336**
Provided Biofilter Footprint	1,078

Block G ESDv SUMMARY

Project Site Area:	119,483	sf
Total Required ESDv:	8,934	cf
ESDv Min (1") :	4,963	cf

	Volume Provided in ESD Facility	
8" Green Roof	0	cf
Micro-Bioretention	5,678	cf
Permeable Pavement	0	cf
Total ESDv Provided	5,678	cf
Pe Achieved	1.10	in
Remaining ESDv to be Waived/Treated Structurally:	3,255	cf

Provide ESD to MEP for all impervious area within Block G. Not just rooftop

Provide justification why green roof and permeable paving cannot be provided

B3. BLOCK H COMPUTATIONS

Project Name:	SGID	**Computed By:**	NEK
Project No.:	VM50554G	**Checked By:**	LGM
Date:	March 22, 2023		

PROJECT SITE INFORMATION

Total Area	107,204	sq. ft	**2.46**	acres	INPUT
Impervious Area	84,748	sq. ft	**1.95**	acres	
Green Area	22,456	sq. ft	**0.52**	acres	**OUTPUT**

ESDv Sizing Criteria Per MD SWM Design Manual Chapter 5, Section 5.2:

I (percent impervious cover)	79	percent	Soil Hydrologic Group:
Rv = (0.05 + (0.009 * (I)))	0.7615		

Rainfall Target (P_E) Determination per Table 5.2, MDE SWM Manual

Required P_E per ESDv Criteria =	1.80	inches	
ESDv = (P_E x Rv x A) / 12	0.28111	acre-ft	Section 5.5.2 of MD SWM Design Manual (Page 5.18)
cubic-feet = ESDv * 43560 ft^2/acre	**12245**	cubic feet of Required ESDv	
ESD_{MIN} = (P_E x Rv x A) / 12	0.15617	acre-ft	Section 5.5.2 of MD SWM Design Manual (Page 5.18)
cubic-feet = ESDv * 43560 ft^2/acre	**6803**	cubic feet	

where PE = 1"

Maximum Amount of Runoff that can be captured by facility(VOL_{MAX}):

VOL_{MAX} = (2.6 x Rv x A) / 12	**17687**	cubic feet	Section 5.5.2 of MD SWM Design Manual (Page 5.18)
ESDV PROVIDED	**6814**	CF	
P_E (Achieved) = [(12 x ESDV) / (Rv x A)]	**1.00**	inches	
WQv TO SWM POND	**5431**	CF	

Runoff Calculation Per Urban Hydrology for Small Watersheds (TR-55) Chapter 2:

1-YR Design Storm=	**2.60**	inches, 1-YR design Storm

Project Name:	SGID	**Computed By:**	NEK
Project No.:	VM50554G	**Checked By:**	
Date:	March 22, 2023		

BIO SWALE - BS-1 VOLUMETRIC

Total Area *	20,642	sq. ft	0.47	acres	INPUT
Impervious Area	17,502	sq. ft	0.40	acres	
Green Area	3,140	sq. ft	0.07	acres	OUTPUT

ESDv Sizing Criteria Per MD SWM Design Manual Chapter 5, Section 5.2:

I (percent impervious cover)	85	percent	
Rv = (0.05 + (0.009 * (I)))	0.82		
Required Rainfall Target (P_E) Information			
Required P_E per ESDv Criteria =	1.00	inches	1.8
ESDv = (P_E x Rv x A) / 12	0.03192	acre-ft	Section 5.2.2 of MD SWM Design Manual (Page 5.18)
ESDv required=	1390	cubic feet	

Maximum Amount of Runoff that can be captured by facility(VOL_{MAX}):

VOL_{MAX} = (2.6 x Rv x A) / 12 3615 cubic feet Section 5.2.2 of MD SWM Design Manual (Page 5.18)

V_{BF} = V.R. x D_{BF} x A_{BF} = 672 cubic-feet of Volume Provided Below Filter

Where V_{BF} is the volume within the Bio-Filter; V.R. is the void ration; D_{BF} is the filter depth; A_{BF} is the filter footprint area

D_{BF} = 3.5 feet 672 **Total Storage Provided by Bio-Filter**

Bio Swale Footprint Size

Bio Swale Length	120	feet
Bio Swale Width	4	feet
Bio Swale Surface Area	480	sq.ft.

show required footprint (all bioswales)

The surface area (Af) of the swale bottom shall be at
least 2% of the contributing drainage area,
The channel slope shall be less than or equal to 4.0%.
o The maximum flow velocity for the ESDv shall be less than or equal to 1.0 fps.
o Swales shall be designed to safely convey the 10-year, 24-hour storm at a non-erosive
velocity with at least six inches of freeboard.
o Channel side slopes shall be 3:1 or flatter.

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Project Name:	SGID	**Computed By:**	NEK
Project No.:	VM50554G	**Checked By:**	
Date:	March 22, 2023		

BIO SWALE - BS-2 VOLUMETRIC

Total Area	11,204	sq. ft	**0.26**	acres	INPUT
Impervious Area	9,234	sq. ft	**0.21**	acres	
Green Area	1,970	sq. ft	**0.05**	acres	**OUTPUT**

ESDv Sizing Criteria Per MD SWM Design Manual Chapter 5, Section 5.2:

I (percent impervious cover)	81	percent
Rv = (0.05 + (0.009 * (I)))	0.78	
Required Rainfall Target (P_E) Information		
Required P_E per ESDv Criteria =	1.00	inches
ESDv = (P_E x Rv x A) / 12	0.01688	acre-ft
ESDv required=	**735**	cubic feet

Section 5.2.2 of MD SWM Design Manual (Page 5.18)

Maximum Amount of Runoff that can be captured by facility(VOL_{MAX}):

VOL_{MAX} = (2.6 x Rv x A) / 12 **1912** cubic feet Section 5.2.2 of MD SWM Design Manual (Page 5.18)

V_{BF} = V.R. x D_{BF} x A_{BF} = **711** cubic-feet of Volume Provided Below Filter

Where V_{BF} is the volume within the Bio-Filter; V.R. is the void ration; D_{BF} is the filter depth; A_{BF} is the filter footprint area

D_{BF} = 3.5 feet **711** **Total Storage Provided by Bio-Filter**

Bio Swale Footprint Size

Bio Swale Length	127	feet
Bio Swale Width	4	feet
Bio Swale Surface Area	508	sq.ft.

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Project Name:	SGID	**Computed By:**	NEK
Project No.:	VM50554G	**Checked By:**	
Date:	March 22, 2023		

BIO SWALE - BS-3 VOLUMETRIC

Total Area	7,091	sq. ft	**0.16**	acres	INPUT
Impervious Area	4,970	sq. ft	**0.11**	acres	
Green Area	2,121	sq. ft	**0.05**	acres	**OUTPUT**

ESDv Sizing Criteria Per MD SWM Design Manual Chapter 5, Section 5.2:

I (percent impervious cover)	69	percent
Rv = (0.05 + (0.009 * (I)))	0.67	
Required Rainfall Target (P_E) Information		
Required P_E per ESDv Criteria =	1.00	inches
ESDv = (P_E x Rv x A) / 12	0.00895	acre-ft Section 5.2.2 of MD SWM Design Manual (Page 5.18)
ESDv required=	**390**	cubic feet

Maximum Amount of Runoff that can be captured by facility(VOL_{MAX}):

VOL_{MAX} = (2.6 x Rv x A) / 12 **1013** cubic feet Section 5.2.2 of MD SWM Design Manual (Page 5.18)

V_{BF} = V.R. x D_{BF} x A_{BF} = **694** cubic-feet of Volume Provided Below Filter

Where V_{BF} is the volume within the Bio-Filter; V.R. is the void ration; D_{BF} is the filter depth; A_{BF} is the filter footprint area

D_{BF} = 3.5 feet **694** **Total Storage Provided by Bio-Filter**

Bio Swale Footprint Size

Bio Swale Length	124	feet
Bio Swale Width	4	feet
Bio Swale Surface Area	496	sq.ft.

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Project Name:	SGID	**Computed By:**	NEK
Project No.:	VM50554G	**Checked By:**	
Date:	March 22, 2023		

BIO SWALE - BS-4 VOLUMETRIC

Total Area	3,355	sq. ft	**0.08**	acres	INPUT
Impervious Area	2,047	sq. ft	**0.05**	acres	
Green Area	1,308	sq. ft	**0.03**	acres	**OUTPUT**

ESDv Sizing Criteria Per MD SWM Design Manual Chapter 5, Section 5.2:

I (percent impervious cover)	63	percent
Rv = (0.05 + (0.009 * (I)))	0.62	
Required Rainfall Target (P_E) Information		
Required P_E per ESDv Criteria =	1.00	inches
ESDv = (P_E x Rv x A) / 12	0.00411	acre-ft Section 5.2.2 of MD SWM Design Manual (Page 5.18)
ESDv required=	**179**	cubic feet

Maximum Amount of Runoff that can be captured by facility(VOL_{MAX}):

VOL_{MAX} = (2.6 x Rv x A) / 12 **466** cubic feet Section 5.2.2 of MD SWM Design Manual (Page 5.18)

V_{BF} = V.R. x D_{BF} x A_{BF} = **398** cubic-feet of Volume Provided Below Filter

Where V_{BF} is the volume within the Bio-Filter; V.R. is the void ration; D_{BF} is the filter depth; A_{BF} is the filter footprint area

D_{BF} = 3.5 feet **398** **Total Storage Provided by Bio-Filter**

Bio Swale Footprint Size

Bio Swale Length	71	feet
Bio Swale Width	4	feet
Bio Swale Surface Area	284	sq.ft.

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Project Name:	SGID	**Computed By:**	NEK
Project No.:	VM50554G	**Checked By:**	
Date:	March 22, 2023		

BIO SWALE - BS-5

Total Area	8,012	sq. ft	**0.18**	acres	INPUT
Impervious Area	5,587	sq. ft	**0.13**	acres	
Green Area	2,425	sq. ft	**0.06**	acres	**OUTPUT**

ESDv Sizing Criteria Per MD SWM Design Manual Chapter 5, Section 5.2:

I (percent impervious cover)	72	percent
Rv = (0.05 + (0.009 * (I)))	0.70	
Required Rainfall Target (P_E) Information		
Required P_E per ESDv Criteria =	1.00	inches
ESDv = (P_E x Rv x A) / 12	0.01047	acre-ft Section 5.2.2 of MD SWM Design Manual (Page 5.18)
ESDv required=	**456**	cubic feet

Maximum Amount of Runoff that can be captured by facility(VOL_{MAX}):

VOL_{MAX} = (2.6 x Rv x A) / 12 **1186** cubic feet Section 5.2.2 of MD SWM Design Manual (Page 5.18)

V_{BF} = V.R. x D_{BF} x A_{BF} = **885** cubic-feet of Volume Provided Below Filter

Where V_{BF} is the volume within the Bio-Filter; V.R. is the void ration; D_{BF} is the filter depth; A_{BF} is the filter footprint area

D_{BF} = 3.5 feet **885** **Total Storage Provided by Bio-Filter**

Bio Swale Footprint Size

Bio Swale Length	158	feet
Bio Swale Width	4	feet
Bio Swale Surface Area	632	sq.ft.

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Project Name:	SGID	**Computed By:**	NEK
Project No.:	VM50554G	**Checked By:**	
Date:	March 22, 2023		

BIO SWALE - BS-6 VOLUMETRIC

Total Area *	20,642	sq. ft	**0.47**	acres	INPUT
Impervious Area	17,502	sq. ft	**0.40**	acres	
Green Area	3,140	sq. ft	**0.07**	acres	**OUTPUT**

ESDv Sizing Criteria Per MD SWM Design Manual Chapter 5, Section 5.2:

I (percent impervious cover)	85	percent
Rv = (0.05 + (0.009 * (I)))	0.82	
Required Rainfall Target (P_E) Information		
Required P_E per ESDv Criteria =	1.00	inches
ESDv = (P_E x Rv x A) / 12	0.03192	acre-ft
ESDv required=	**1390**	cubic feet

Section 5.2.2 of MD SWM Design Manual (Page 5.18)

Maximum Amount of Runoff that can be captured by facility(VOL_{MAX}):

VOL_{MAX} = (2.6 x Rv x A) / 12 **3615** cubic feet Section 5.2.2 of MD SWM Design Manual (Page 5.18)

V_{BF} = V.R. x D_{BF} x A_{BF} = **504** cubic-feet of Volume Provided Below Filter

Where V_{BF} is the volume within the Bio-Filter; V.R. is the void ration; D_{BF} is the filter depth; A_{BF} is the filter footprint area

D_{BF} = 3.5 feet **504** **Total Storage Provided by Bio-Filter**

Bio Swale Footprint Size

Bio Swale Length	90	feet
Bio Swale Width	4	feet
Bio Swale Surface Area	360	sq.ft.

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Project Name:	SGID	**Computed By:**	NEK
Project No.:	VM50554G	**Checked By:**	
Date:	March 22, 2023		

MICRO BIO-RETENTION-H1 (MBF)

Total Area	12,992	sq. ft	**0.30**	acres		INPUT
Impervious Area	11,632	sq. ft	**0.27**	acres		
Green Area	1,360	sq. ft	**0.03**	acres		**OUTPUT**

ESDv Sizing Criteria Per MD SWM Design Manual Chapter 5, Section 5.2:

I (percent impervious cover)	90	percent	
Rv = (0.05 + (0.009 * (I)))	0.86		
Required Rainfall Target (P_E) Information			
Required P_E per ESDv Criteria =	1.80	inches	
ESDv = (P_E x Rv x A) / 12	0.03870	acre-ft	Section 5.2.2 of MD SWM Design Manual (Page 5.18)
ESDv required=	**1686**	cubic feet	

Maximum Amount of Runoff that can be captured by facility(VOL_{MAX}):

VOL_{MAX} = (2.6 x Rv x A) / 12	**2435**	cubic feet	Section 5.2.2 of MD SWM Design Manual (Page 5.18)
	310.00	cubic-feet	of Volume Provided Above Filter
V_{BF} = V.R. x D_{BF} x A_{BF} =	**468**	cubic-feet	of Volume Provided Below Filter

Where V_{BF} is the volume within the Bio-Filter; V.R. is the void ration; D_{BF} is the filter depth; A_{BF} is the filter footprint area

D_{BF} = 4.5 feet **778** **Total Storage Provided by Bio-Filter**

Storage above the surface of the biofilter and Footprint Size

ELEV FT	AREA SQ FT	AREA SQ FT	H FT	VOL CU FT	TOT VOL CU FT	TOT VOL AC-FT	TOT VOL CU YD
0.00	260						
		310.0	1.00				
1.00	360			310	**310.00**	0.00712	11.5

Underdrain Pipe Design Criteria:

Provide a minimum amount of underdrain (in linear feet) equal to or greater than 5% of footprint size. If two or more lines of underdrain, underdrain shall be a minimum of 5 feet apart measured from centerline of each.

Required Linear Feet	**18**
Provided Linear Feet	50

Surface Area Design Criteria

The surface area of micro-bioretention practices shall be at least 2% of the contributing drainage area.

Required Biofilter Footprint	**259**
Provided Biofilter Footprint	260

Project Name:		**Computed By:**	
Project No.:		**Checked By:**	
Date:			

MICRO BIO-RETENTION-H2 (MBF)

Total Area	20,000	sq. ft	**0.46**	acres		INPUT
Impervious Area	17,364	sq. ft	**0.40**	acres		
Green Area	2,636	sq. ft	**0.06**	acres		**OUTPUT**

ESDv Sizing Criteria Per MD SWM Design Manual Chapter 5, Section 5.2:

I (percent impervious cover)	87	percent	
Rv = (0.05 + (0.009 * (I)))	0.83		
Required Rainfall Target (P_E) Information			
Required P_E per ESDv Criteria =	1.80	inches	
ESDv = (P_E x Rv x A) / 12	0.05748	acre-ft	Section 5.2.2 of MD SWM Design Manual (Page 5.18)
ESDv required=	**2504**	cubic feet	

Maximum Amount of Runoff that can be captured by facility(VOL_{MAX}):

VOL_{MAX} = (2.6 x Rv x A) / 12	**3616**	cubic feet	Section 5.2.2 of MD SWM Design Manual (Page 5.18)

	330.00	cubic-feet of Volume Provided Above Filter
V_{BF} = V.R. x D_{BF} x A_{BF} =	**756**	cubic-feet of Volume Provided Below Filter

Where V_{BF} is the volume within the Bio-Filter; V.R. is the void ration; D_{BF} is the filter depth; A_{BF} is the filter footprint area

D_{BF} = 4.5 feet **1086** **Total Storage Provided by Bio-Filter**

Storage above the surface of the biofilter and Footprint Size

ELEV FT	AREA SQ FT	AREA SQ FT	H FT	VOL CU FT	TOT VOL CU FT	TOT VOL AC-FT	TOT VOL CU YD
0.00	420						
		660.0	0.50				
0.50	900			330	**330.00**	0.00758	12.2

Underdrain Pipe Design Criteria:

Provide a minimum amount of underdrain (in linear feet) equal to or greater than 5% of footprint size. If two or more lines of underdrain, underdrain shall be a minimum of 5 feet apart measured from centerline of each.

Required Linear Feet	**45**
Provided Linear Feet	50

Surface Area Design Criteria

The surface area of micro-bioretention practices shall be at least 2% of the contributing drainage area.

Required Biofilter Footprint	**400**
Provided Biofilter Footprint	420

Project Name:		**Computed By:**	
Project No.:		**Checked By:**	
Date:			

MICRO BIO-RETENTION-H3 (MBF)

Total Area	14,285	sq. ft	**0.33**	acres		INPUT
Impervious Area	12,188	sq. ft	**0.28**	acres		
Green Area	2,097	sq. ft	**0.05**	acres		**OUTPUT**

ESDv Sizing Criteria Per MD SWM Design Manual Chapter 5, Section 5.2:

I (percent impervious cover)	85	percent	
Rv = (0.05 + (0.009 * (I)))	0.82		
Required Rainfall Target (P_E) Information			
Required P_E per ESDv Criteria =	1.80	inches	
ESDv = (P_E x Rv x A) / 12	0.04034	acre-ft	Section 5.2.2 of MD SWM Design Manual (Page 5.18)
ESDv required=	**1757**	cubic feet	

Maximum Amount of Runoff that can be captured by facility(VOL_{MAX}):

VOL_{MAX} = (2.6 x Rv x A) / 12	**2538**	cubic feet	Section 5.2.2 of MD SWM Design Manual (Page 5.18)

	510.00	cubic-feet of Volume Provided Above Filter
V_{BF} = V.R. x D_{BF} x A_{BF} =	**576**	cubic-feet of Volume Provided Below Filter

Where V_{BF} is the volume within the Bio-Filter; V.R. is the void ration; D_{BF} is the filter depth; A_{BF} is the filter footprint area

D_{BF} = 4.5 feet **1086** **Total Storage Provided by Bio-Filter**

Storage above the surface of the biofilter and Footprint Size

ELEV FT	AREA SQ FT	AREA SQ FT	H FT	VOL CU FT	TOT VOL CU FT	TOT VOL AC-FT	TOT VOL CU YD
0.00	320						
		510.0	1.00				
1.00	700			510	**510.00**	0.01171	18.9

Underdrain Pipe Design Criteria:

Provide a minimum amount of underdrain (in linear feet) equal to or greater than 5% of footprint size. If two or more lines of underdrain, underdrain shall be a minimum of 5 feet apart measured from centerline of each.

Required Linear Feet	**35**
Provided Linear Feet	166

Surface Area Design Criteria

The surface area of micro-bioretention practices shall be at least 2% of the contributing drainage area.

Required Biofilter Footprint	**285**
Provided Biofilter Footprint	320

ESDv SUMMARY

Project Site Area:	107,204	sf
Total Required ESDv:	12,245	cf
ESDv Min (1") :	6,803	cf

	Volume Provided in ESD Facility	
Micro-Bioretention	2,950	cf
BioSwale	3,864	cf
Total ESDv Provided	6,814	cf
Pe Achieved	1.00	in
Remaining ESDv to be Waived/Treated Structurally:	5,431	cf

Provide justification why permeable paving cannot be provided

B4. BLOCK I COMPUTATIONS

Project Name:	SGID	**Computed By:**	NEK
Project No.:	VM50554G	**Checked By:**	LGM
Date:	March 22, 2023		

PROJECT SITE INFORMATION

Total Area	180,580	sq. ft	**4.15**	acres	INPUT
Impervious Area	124,761	sq. ft	**2.86**	acres	
Green Area	55,819	sq. ft	**1.28**	acres	**OUTPUT**

ESDv Sizing Criteria Per MD SWM Design Manual Chapter 5, Section 5.2:

I (percent impervious cover)	69	percent	Soil Hydrologic Group:	**B/C/D**
Rv = (0.05 + (0.009 * (I)))	0.6718			

Rainfall Target (P_E) Determination per Table 5.2, MDE SWM Manual

Required P_E per ESDv Criteria =	1.80	inches	
ESDv = (P_E x Rv x A) / 12	0.41775	acre-ft	Section 5.5.2 of MD SWM Design Manual (Page 5.18)
cubic-feet = ESDv * 43560 ft^2/acre	**18197**	cubic feet of Required ESDv	
ESD_{MIN} = (P_E x Rv x A) / 12	0.23208	acre-ft	Section 5.5.2 of MD SWM Design Manual (Page 5.18)
cubic-feet = ESDv * 43560 ft^2/acre	**10109**	cubic feet	

where PE = 1"

Maximum Amount of Runoff that can be captured by facility(VOL_{MAX}):

VOL_{MAX} = (2.6 x Rv x A) / 12	**26285**	cubic feet	Section 5.5.2 of MD SWM Design Manual (Page 5.18)
ESDV PROVIDED	**10595**	CF	
P_E (Achieved) = [(12 x ESDV) / (Rv x A)]	**1.00**	inches	
WQv TO SWM POND	**7602**	CF	

Runoff Calculation Per Urban Hydrology for Small Watersheds (TR-55) Chapter 2:

1-YR Design Storm=	**2.60**	inches, 1-YR design Storm

Project Name:	SGAP	**Computed By:**	NEK
Project No.:	VM50554G	**Checked By:**	LGM
Date:	March 22, 2023		

MICRO BIO-RETENTION-I1 (MBF)

Total Area	20,000	sq. ft	**0.46**	acres	INPUT
Impervious Area	20,000	sq. ft	**0.46**	acres	
Green Area	0	sq. ft	**0.00**	acres	**OUTPUT**

ESDv Sizing Criteria Per MD SWM Design Manual Chapter 5, Section 5.2:

I (percent impervious cover)	100	percent	
Rv = (0.05 + (0.009 * (I)))	0.95		
Required Rainfall Target (P_E) Information			
Required P_E per ESDv Criteria =	1.80	inches	
ESDv = (P_E x Rv x A) / 12	0.06555	acre-ft	Section 5.2.2 of MD SWM Design Manual (Page 5.18)
ESDv required=	**2855**	cubic feet	

Maximum Amount of Runoff that can be captured by facility(VOL_{MAX}):

VOL_{MAX} = (2.6 x Rv x A) / 12 **4124** cubic feet Section 5.2.2 of MD SWM Design Manual (Page 5.18)

1000.00 cubic-feet of Volume Provided Above Filter

V_{BF} = V.R. x D_{BF} x A_{BF} = **1800** cubic-feet of Volume Provided Below Filter

Where V_{BF} is the volume within the Bio-Filter; V.R. is the void ration; D_{BF} is the filter depth; A_{BF} is the filter footprint area

D_{BF} = 4.5 feet **2800** **Total Storage Provided by Bio-Filter**

Storage above the surface of the biofilter and Footprint Size

ELEV FT	AREA SQ FT	AREA SQ FT	H FT	VOL CU FT	TOT VOL CU FT	TOT VOL AC-FT	TOT VOL CU YD
0.00	1,000						
		1000.0	1.00				
1.00	1,000			1000	**1000.00**	0.02296	37.0

Underdrain Pipe Design Criteria:

Provide a minimum amount of underdrain (in linear feet) equal to or greater than 5% of footprint size. If two or more lines of underdrain, underdrain shall be a minimum of 5 feet apart measured from centerline of each.

Required Linear Feet	**50**
Provided Linear Feet	30

Surface Area Design Criteria

The surface area of micro-bioretention practices shall be at least 2% of the contributing drainage area.

Required Biofilter Footprint	**400**
Provided Biofilter Footprint	1,000

Project Name:	SGAP	**Computed By:**	NEK
Project No.:	VM50554G	**Checked By:**	LGM
Date:	March 22, 2023		

MICRO BIO-RETENTION-I2 (MBF)

Total Area	20,000	sq. ft	**0.46**	acres	INPUT
Impervious Area	20,000	sq. ft	**0.46**	acres	
Green Area	0	sq. ft	**0.00**	acres	**OUTPUT**

ESDv Sizing Criteria Per MD SWM Design Manual Chapter 5, Section 5.2:

I (percent impervious cover)	100	percent	
Rv = (0.05 + (0.009 * (I)))	0.95		
Required Rainfall Target (P_E) Information			
Required P_E per ESDv Criteria =	1.80	inches	
ESDv = (P_E x Rv x A) / 12	0.06555	acre-ft	Section 5.2.2 of MD SWM Design Manual (Page 5.18)
ESDv required=	**2855**	cubic feet	

Maximum Amount of Runoff that can be captured by facility(VOL_{MAX}):

VOL_{MAX} = (2.6 x Rv x A) / 12 **4124** cubic feet Section 5.2.2 of MD SWM Design Manual (Page 5.18)

1187.00 cubic-feet of Volume Provided Above Filter

V_{BF} = V.R. x D_{BF} x A_{BF} = **2136.6** cubic-feet of Volume Provided Below Filter

Where V_{BF} is the volume within the Bio-Filter; V.R. is the void ration; D_{BF} is the filter depth; A_{BF} is the filter footprint area

D_{BF} = 4.5 feet **3324** **Total Storage Provided by Bio-Filter**

Storage above the surface of the biofilter and Footprint Size

ELEV FT	AREA SQ FT	AREA SQ FT	H FT	VOL CU FT	TOT VOL CU FT	TOT VOL AC-FT	TOT VOL CU YD
0.00	1,187						
		1187.0	1.00				
1.00	1,187			1187	**1187.00**	0.02725	44.0

Underdrain Pipe Design Criteria:

Provide a minimum amount of underdrain (in linear feet) equal to or greater than 5% of footprint size. If two or more lines of underdrain, underdrain shall be a minimum of 5 feet apart measured from centerline of each.

Required Linear Feet	**59**
Provided Linear Feet	30

Surface Area Design Criteria

The surface area of micro-bioretention practices shall be at least 2% of the contributing drainage area.

Required Biofilter Footprint	**400**
Provided Biofilter Footprint	1,187

Project Name:	SGAP	**Computed By:**	NEK
Project No.:	VM50554G	**Checked By:**	LGM
Date:	March 22, 2023		

MICRO BIO-RETENTION-I2 (MBF)

Total Area	20,000	sq. ft	**0.46**	acres	INPUT
Impervious Area	20,000	sq. ft	**0.46**	acres	
Green Area	0	sq. ft	**0.00**	acres	**OUTPUT**

ESDv Sizing Criteria Per MD SWM Design Manual Chapter 5, Section 5.2:

I (percent impervious cover)	100	percent	
Rv = (0.05 + (0.009 * (I)))	0.95		
Required Rainfall Target (P_E) Information			
Required P_E per ESDv Criteria =	1.80	inches	
ESDv = (P_E x Rv x A) / 12	0.06555	acre-ft	Section 5.2.2 of MD SWM Design Manual (Page 5.18)
ESDv required=	**2855**	cubic feet	

Maximum Amount of Runoff that can be captured by facility(VOL_{MAX}):

VOL_{MAX} = (2.6 x Rv x A) / 12 **4124** cubic feet Section 5.2.2 of MD SWM Design Manual (Page 5.18)

935.00 cubic-feet of Volume Provided Above Filter

V_{BF} = V.R. x D_{BF} x A_{BF} = **1683** cubic-feet of Volume Provided Below Filter

Where V_{BF} is the volume within the Bio-Filter; V.R. is the void ration; D_{BF} is the filter depth; A_{BF} is the filter footprint area

D_{BF} = 4.5 feet **2618** **Total Storage Provided by Bio-Filter**

Storage above the surface of the biofilter and Footprint Size

ELEV FT	AREA SQ FT	AREA SQ FT	H FT	VOL CU FT	TOT VOL CU FT	TOT VOL AC-FT	TOT VOL CU YD
0.00	935						
		935.0	1.00				
1.00	935			935	**935.00**	0.02146	34.6

Underdrain Pipe Design Criteria:

Provide a minimum amount of underdrain (in linear feet) equal to or greater than 5% of footprint size. If two or more lines of underdrain, underdrain shall be a minimum of 5 feet apart measured from centerline of each.

Required Linear Feet	**47**
Provided Linear Feet	30

Surface Area Design Criteria

The surface area of micro-bioretention practices shall be at least 2% of the contributing drainage area.

Required Biofilter Footprint	**400**
Provided Biofilter Footprint	935

Project Name:	SGAP	**Computed By:**	NEK
Project No.:	VM50554G	**Checked By:**	LGM
Date:	March 22, 2023		

MICRO BIO-RETENTION-I2 (MBF)

Total Area	20,000	sq. ft	**0.46**	acres	INPUT
Impervious Area	20,000	sq. ft	**0.46**	acres	
Green Area	0	sq. ft	**0.00**	acres	**OUTPUT**

ESDv Sizing Criteria Per MD SWM Design Manual Chapter 5, Section 5.2:

I (percent impervious cover)	100	percent	
Rv = (0.05 + (0.009 * (I)))	0.95		
Required Rainfall Target (P_E) Information			
Required P_E per ESDv Criteria =	1.80	inches	
ESDv = (P_E x Rv x A) / 12	0.06555	acre-ft	Section 5.2.2 of MD SWM Design Manual (Page 5.18)
ESDv required=	**2855**	cubic feet	

Maximum Amount of Runoff that can be captured by facility(VOL_{MAX}):

VOL_{MAX} = (2.6 x Rv x A) / 12 **4124** cubic feet Section 5.2.2 of MD SWM Design Manual (Page 5.18)

	662.00	cubic-feet of Volume Provided Above Filter
V_{BF} = V.R. x D_{BF} x A_{BF} =	**1191.6**	cubic-feet of Volume Provided Below Filter

Where V_{BF} is the volume within the Bio-Filter; V.R. is the void ration; D_{BF} is the filter depth; A_{BF} is the filter footprint area

D_{BF} = 4.5 feet **1854** **Total Storage Provided by Bio-Filter**

Storage above the surface of the biofilter and Footprint Size

ELEV FT	AREA SQ FT	AREA SQ FT	H FT	VOL CU FT	TOT VOL CU FT	TOT VOL AC-FT	TOT VOL CU YD
0.00	662						
		662.0	1.00				
1.00	662			662	**662.00**	0.01520	24.5

Underdrain Pipe Design Criteria:

Provide a minimum amount of underdrain (in linear feet) equal to or greater than 5% of footprint size. If two or more lines of underdrain, underdrain shall be a minimum of 5 feet apart measured from centerline of each.

Required Linear Feet	**33**
Provided Linear Feet	30

Surface Area Design Criteria

The surface area of micro-bioretention practices shall be at least 2% of the contributing drainage area.

Required Biofilter Footprint	**400**
Provided Biofilter Footprint	662

ESDv SUMMARY

Project Site Area:	180,580	sf
Total Required ESDv:	18,197	cf
ESDv Min (1") :	10,109	cf

	Volume Provided in ESD Facility	
Micro-Bioretention	10,595	cf
Total ESDv Provided	10,595	cf
Pe Achieved	1.00	in
Remaining ESDv to be Waived/Treated Structurally:	7,602	cf

Provide justification why green roof and permeable paving cannot be provided

B5. PRIVATE ROADS COMPUTATIONS

Project Name:	SGID	**Computed By:**	NEK
Project No.:	VM50603A	**Checked By:**	LGM
Date:	March 22, 2023		

PROJECT SITE INFORMATION

Total Area	121,294	sq. ft	**2.78**	acres	INPUT
Impervious Area	82,070	sq. ft	**1.88**	acres	
Green Area	28,700	sq. ft	**0.66**	acres	**OUTPUT**

ESDv Sizing Criteria Per MD SWM Design Manual Chapter 5, Section 5.2:

I (percent impervious cover)	68	percent	Soil Hydrologic Group:	**B/C/D**
Rv = (0.05 + (0.009 * (I)))	0.6590			

Rainfall Target (P_E) Determination per Table 5.2, MDE SWM Manual

Required P_E per ESDv Criteria =	1.80	inches	
ESDv = (P_E x Rv x A) / 12	0.27523	acre-ft	Section 5.5.2 of MD SWM Design Manual (Page 5.18)
cubic-feet = ESDv * 43560 ft^2/acre	**11989**	cubic feet of Required ESDv	
ESD_{MIN} = (P_E x Rv x A) / 12	0.15291	acre-ft	Section 5.5.2 of MD SWM Design Manual (Page 5.18)
cubic-feet = ESDv * 43560 ft^2/acre	**6661**	cubic feet	

where PE = 1"

Maximum Amount of Runoff that can be captured by facility(VOL_{MAX}):

VOL_{MAX} = (2.6 x Rv x A) / 12	**17318**	cubic feet	Section 5.5.2 of MD SWM Design Manual (Page 5.18)
ESDV PROVIDED	**6802**	CF	
P_E (Achieved) = [(12 x ESDV) / (Rv x A)]	**1.00**	inches	
WQv TO SWM POND	**5187**	CF	

Runoff Calculation Per Urban Hydrology for Small Watersheds (TR-55) Chapter 2:

1-YR Design Storm=	**2.60**	inches, 1-YR design Storm

Project Name:	SGID	**Computed By:**	NEK
Project No.:	VM50554G	**Checked By:**	LGM
Date:	March 22, 2023		

MICRO BIO-RETENTION-R1 (MBF)

Total Area	9,828	sq. ft	**0.23**	acres	INPUT
Impervious Area	8,280	sq. ft	**0.19**	acres	
Green Area	1,548	sq. ft	**0.04**	acres	**OUTPUT**

ESDv Sizing Criteria Per MD SWM Design Manual Chapter 5, Section 5.2:

I (percent impervious cover)	83	percent	
Rv = (0.05 + (0.009 * (I)))	0.80		
Required Rainfall Target (P_E) Information			
Required P_E per ESDv Criteria =	1.80	inches	
ESDv = (P_E x Rv x A) / 12	0.02750	acre-ft	Section 5.2.2 of MD SWM Design Manual (Page 5.18)
ESDv required=	**1198**	cubic feet	

Maximum Amount of Runoff that can be captured by facility(VOL_{MAX}):

VOL_{MAX} = (2.6 x Rv x A) / 12 **1730** cubic feet Section 5.2.2 of MD SWM Design Manual (Page 5.18)

	267.00	cubic-feet of Volume Provided Above Filter
V_{BF} = V.R. x D_{BF} x A_{BF} =	**320.4**	cubic-feet of Volume Provided Below Filter

Where V_{BF} is the volume within the Bio-Filter; V.R. is the void ration; D_{BF} is the filter depth; A_{BF} is the filter footprint area

D_{BF} = 3.0 feet **587** **Total Storage Provided by Bio-Filter**

Storage above the surface of the biofilter and Footprint Size

ELEV FT	AREA SQ FT	AREA SQ FT	H FT	VOL CU FT	TOT VOL CU FT	TOT VOL AC-FT	TOT VOL CU YD
0.00	267						
		267.0	1.00				
1.00	267			267	**267.00**	0.00613	9.9

Underdrain Pipe Design Criteria:

Provide a minimum amount of underdrain (in linear feet) equal to or greater than 5% of footprint size. If two or more lines of underdrain, underdrain shall be a minimum of 5 feet apart measured from centerline of each.

Required Linear Feet	**13**
Provided Linear Feet	30

ESD measure need to provide a min. 1" of treatment

Surface Area Design Criteria

The surface area of micro-bioretention practices shall be at least 2% of the contributing drainage area.

Required Biofilter Footprint	**196**
Provided Biofilter Footprint	267

Project Name:	SGID	**Computed By:**	NEK
Project No.:	VM50554G	**Checked By:**	LGM
Date:	March 22, 2023		

MICRO BIO-RETENTION-R2 (MBF)

Total Area	10,643	sq. ft	**0.24**	acres	INPUT
Impervious Area	7,298	sq. ft	**0.17**	acres	
Green Area	3,345	sq. ft	**0.08**	acres	**OUTPUT**

ESDv Sizing Criteria Per MD SWM Design Manual Chapter 5, Section 5.2:

I (percent impervious cover)	71	percent	
Rv = (0.05 + (0.009 * (I)))	0.69		
Required Rainfall Target (P_E) Information			
Required P_E per ESDv Criteria =	1.80	inches	
ESDv = (P_E x Rv x A) / 12	0.02480	acre-ft	Section 5.2.2 of MD SWM Design Manual (Page 5.18)
ESDv required=	**1080**	cubic feet	

Maximum Amount of Runoff that can be captured by facility(VOL_{MAX}):

VOL_{MAX} = (2.6 x Rv x A) / 12 **1561** cubic feet Section 5.2.2 of MD SWM Design Manual (Page 5.18)

329.00 cubic-feet of Volume Provided Above Filter

V_{BF} = V.R. x D_{BF} x A_{BF} = **394.8** cubic-feet of Volume Provided Below Filter

Where V_{BF} is the volume within the Bio-Filter; V.R. is the void ration; D_{BF} is the filter depth; A_{BF} is the filter footprint area

D_{BF} = 3.0 feet **724** **Total Storage Provided by Bio-Filter**

Storage above the surface of the biofilter and Footprint Size

ELEV FT	AREA SQ FT	AREA SQ FT	H FT	VOL CU FT	TOT VOL CU FT	TOT VOL AC-FT	TOT VOL CU YD
0.00	329						
		329.0	1.00				
1.00	329			329	**329.00**	0.00755	12.2

Underdrain Pipe Design Criteria:

Provide a minimum amount of underdrain (in linear feet) equal to or greater than 5% of footprint size. If two or more lines of underdrain, underdrain shall be a minimum of 5 feet apart measured from centerline of each.

Required Linear Feet	**16**
Provided Linear Feet	30

Surface Area Design Criteria

The surface area of micro-bioretention practices shall be at least 2% of the contributing drainage area.

Required Biofilter Footprint	**212**
Provided Biofilter Footprint	329

Project Name:	SGID	**Computed By:**	NEK
Project No.:	VM50554G	**Checked By:**	LGM
Date:	March 22, 2023		

MICRO BIO-RETENTION-R3 (MBF)

Total Area	10,656	sq. ft	**0.24**	acres	INPUT
Impervious Area	7,220	sq. ft	**0.17**	acres	
Green Area	3,436	sq. ft	**0.08**	acres	**OUTPUT**

ESDv Sizing Criteria Per MD SWM Design Manual Chapter 5, Section 5.2:

I (percent impervious cover)	71	percent	
Rv = (0.05 + (0.009 * (I)))	0.69		
Required Rainfall Target (P_E) Information			
Required P_E per ESDv Criteria =	1.80	inches	
ESDv = (P_E x Rv x A) / 12	0.02480	acre-ft	Section 5.2.2 of MD SWM Design Manual (Page 5.18)
ESDv required=	**1080**	cubic feet	

Maximum Amount of Runoff that can be captured by facility(VOL_{MAX}):

VOL_{MAX} = (2.6 x Rv x A) / 12	**1561**	cubic feet	Section 5.2.2 of MD SWM Design Manual (Page 5.18)

	329.00	cubic-feet of Volume Provided Above Filter
V_{BF} = V.R. x D_{BF} x A_{BF} =	**460.6**	cubic-feet of Volume Provided Below Filter

Where V_{BF} is the volume within the Bio-Filter; V.R. is the void ration; D_{BF} is the filter depth; A_{BF} is the filter footprint area

D_{BF} = 3.5 feet **790** **Total Storage Provided by Bio-Filter**

Storage above the surface of the biofilter and Footprint Size

ELEV FT	AREA SQ FT	AREA SQ FT	H FT	VOL CU FT	TOT VOL CU FT	TOT VOL AC-FT	TOT VOL CU YD
0.00	329						
		329.0	1.00				
1.00	329			329	**329.00**	0.00755	12.2

Underdrain Pipe Design Criteria:

Provide a minimum amount of underdrain (in linear feet) equal to or greater than 5% of footprint size. If two or more lines of underdrain, underdrain shall be a minimum of 5 feet apart measured from centerline of each.

Required Linear Feet	**16**
Provided Linear Feet	30

Surface Area Design Criteria

The surface area of micro-bioretention practices shall be at least 2% of the contributing drainage area.

Required Biofilter Footprint	**213**
Provided Biofilter Footprint	329

Project Name:	SGID	**Computed By:**	NEK
Project No.:	VM50554G	**Checked By:**	LGM
Date:	March 22, 2023		

MICRO BIO-RETENTION-R4 (MBF)

Total Area	10,398	sq. ft	**0.24**	acres	INPUT
Impervious Area	8,050	sq. ft	**0.18**	acres	
Green Area	2,348	sq. ft	**0.05**	acres	**OUTPUT**

ESDv Sizing Criteria Per MD SWM Design Manual Chapter 5, Section 5.2:

I (percent impervious cover)	75	percent	
Rv = (0.05 + (0.009 * (I)))	0.73		
Required Rainfall Target (P_E) Information			
Required P_E per ESDv Criteria =	1.80	inches	
ESDv = (P_E x Rv x A) / 12	0.02610	acre-ft	Section 5.2.2 of MD SWM Design Manual (Page 5.18)
ESDv required=	**1137**	cubic feet	

Maximum Amount of Runoff that can be captured by facility(VOL_{MAX}):

VOL_{MAX} = (2.6 x Rv x A) / 12 **1642** cubic feet Section 5.2.2 of MD SWM Design Manual (Page 5.18)

329.00 cubic-feet of Volume Provided Above Filter

V_{BF} = V.R. x D_{BF} x A_{BF} = **460.6** cubic-feet of Volume Provided Below Filter

Where V_{BF} is the volume within the Bio-Filter; V.R. is the void ration; D_{BF} is the filter depth; A_{BF} is the filter footprint area

D_{BF} = 3.5 feet **790** **Total Storage Provided by Bio-Filter**

Storage above the surface of the biofilter and Footprint Size

ELEV FT	AREA SQ FT	AREA SQ FT	H FT	VOL CU FT	TOT VOL CU FT	TOT VOL AC-FT	TOT VOL CU YD
0.00	329						
		329.0	1.00				
1.00	329			329	**329.00**	0.00755	12.2

Underdrain Pipe Design Criteria:

Provide a minimum amount of underdrain (in linear feet) equal to or greater than 5% of footprint size. If two or more lines of underdrain, underdrain shall be a minimum of 5 feet apart measured from centerline of each.

Required Linear Feet	**16**
Provided Linear Feet	30

Surface Area Design Criteria

The surface area of micro-bioretention practices shall be at least 2% of the contributing drainage area.

Required Biofilter Footprint	**207**
Provided Biofilter Footprint	329

Project Name:	SGID	**Computed By:**	NEK
Project No.:	VM50554G	**Checked By:**	LGM
Date:	March 22, 2023		

MICRO BIO-RETENTION-R5 (MBF)

Total Area	8,687	sq. ft	**0.20**	acres	INPUT
Impervious Area	7,367	sq. ft	**0.17**	acres	
Green Area	1,320	sq. ft	**0.03**	acres	**OUTPUT**

ESDv Sizing Criteria Per MD SWM Design Manual Chapter 5, Section 5.2:

I (percent impervious cover)	85	percent	
Rv = (0.05 + (0.009 * (I)))	0.82		
Required Rainfall Target (P_E) Information			
Required P_E per ESDv Criteria =	1.80	inches	
ESDv = (P_E x Rv x A) / 12	0.02445	acre-ft	Section 5.2.2 of MD SWM Design Manual (Page 5.18)
ESDv required=	**1065**	cubic feet	

Maximum Amount of Runoff that can be captured by facility(VOL_{MAX}):

VOL_{MAX} = (2.6 x Rv x A) / 12	**1538**	cubic feet	Section 5.2.2 of MD SWM Design Manual (Page 5.18)
	329.00	cubic-feet of Volume Provided Above Filter	
V_{BF} = V.R. x D_{BF} x A_{BF} =	**460.6**	cubic-feet of Volume Provided Below Filter	

Where V_{BF} is the volume within the Bio-Filter; V.R. is the void ration; D_{BF} is the filter depth; A_{BF} is the filter footprint area

D_{BF} = 3.5 feet **790** **Total Storage Provided by Bio-Filter**

Storage above the surface of the biofilter and Footprint Size

ELEV FT	AREA SQ FT	AREA SQ FT	H FT	VOL CU FT	TOT VOL CU FT	TOT VOL AC-FT	TOT VOL CU YD
0.00	329						
		329.0	1.00				
1.00	329			329	**329.00**	0.00755	12.2

Underdrain Pipe Design Criteria:

Provide a minimum amount of underdrain (in linear feet) equal to or greater than 5% of footprint size. If two or more lines of underdrain, underdrain shall be a minimum of 5 feet apart measured from centerline of each.

Required Linear Feet	**16**
Provided Linear Feet	30

Surface Area Design Criteria

The surface area of micro-bioretention practices shall be at least 2% of the contributing drainage area.

Required Biofilter Footprint	**173**
Provided Biofilter Footprint	329

Project Name:	SGID	**Computed By:**	NEK
Project No.:	VM50554G	**Checked By:**	LGM
Date:	March 22, 2023		

MICRO BIO-RETENTION-R6 (MBF)

Total Area	8,519	sq. ft	**0.20**	acres		INPUT
Impervious Area	7,119	sq. ft	**0.16**	acres		
Green Area	1,400	sq. ft	**0.03**	acres		**OUTPUT**

ESDv Sizing Criteria Per MD SWM Design Manual Chapter 5, Section 5.2:

I (percent impervious cover)	80	percent	
Rv = (0.05 + (0.009 * (I)))	0.77		
Required Rainfall Target (P_E) Information			
Required P_E per ESDv Criteria =	1.80	inches	
ESDv = (P_E x Rv x A) / 12	0.02310	acre-ft	Section 5.2.2 of MD SWM Design Manual (Page 5.18)
ESDv required=	**1006**	cubic feet	

Maximum Amount of Runoff that can be captured by facility(VOL_{MAX}):

VOL_{MAX} = (2.6 x Rv x A) / 12 **1453** cubic feet Section 5.2.2 of MD SWM Design Manual (Page 5.18)

329.00 cubic-feet of Volume Provided Above Filter

V_{BF} = V.R. x D_{BF} x A_{BF} = **460.6** cubic-feet of Volume Provided Below Filter

Where V_{BF} is the volume within the Bio-Filter; V.R. is the void ration; D_{BF} is the filter depth; A_{BF} is the filter footprint area

D_{BF} = 3.5 feet **790** **Total Storage Provided by Bio-Filter**

Storage above the surface of the biofilter and Footprint Size

ELEV FT	AREA SQ FT	AREA SQ FT	H FT	VOL CU FT	TOT VOL CU FT	TOT VOL AC-FT	TOT VOL CU YD
0.00	329						
		329.0	1.00				
1.00	329			329	**329.00**	0.00755	12.2

Underdrain Pipe Design Criteria:

Provide a minimum amount of underdrain (in linear feet) equal to or greater than 5% of footprint size. If two or more lines of underdrain, underdrain shall be a minimum of 5 feet apart measured from centerline of each.

Required Linear Feet	**16**
Provided Linear Feet	30

Surface Area Design Criteria

The surface area of micro-bioretention practices shall be at least 2% of the contributing drainage area.

Required Biofilter Footprint	**170**
Provided Biofilter Footprint	329

Project Name:	SGID	**Computed By:**	NEK
Project No.:	VM50554G	**Checked By:**	LGM
Date:	March 22, 2023		

MICRO BIO-RETENTION-R7 (MBF)

Total Area	5,934	sq. ft	**0.14**	acres	INPUT
Impervious Area	4,598	sq. ft	**0.11**	acres	
Green Area	1,336	sq. ft	**0.03**	acres	**OUTPUT**

ESDv Sizing Criteria Per MD SWM Design Manual Chapter 5, Section 5.2:

I (percent impervious cover)	79	percent	
Rv = (0.05 + (0.009 * (I)))	0.76		
Required Rainfall Target (P_E) Information			
Required P_E per ESDv Criteria =	1.80	inches	
ESDv = (P_E x Rv x A) / 12	0.01598	acre-ft	Section 5.2.2 of MD SWM Design Manual (Page 5.18)
ESDv required=	**696**	cubic feet	

Maximum Amount of Runoff that can be captured by facility(VOL_{MAX}):

VOL_{MAX} = (2.6 x Rv x A) / 12 **1006** cubic feet Section 5.2.2 of MD SWM Design Manual (Page 5.18)

293.00 cubic-feet of Volume Provided Above Filter

V_{BF} = V.R. x D_{BF} x A_{BF} = **410.2** cubic-feet of Volume Provided Below Filter

Where V_{BF} is the volume within the Bio-Filter; V.R. is the void ration; D_{BF} is the filter depth; A_{BF} is the filter footprint area

D_{BF} = 3.5 feet **703** **Total Storage Provided by Bio-Filter**

Storage above the surface of the biofilter and Footprint Size

ELEV FT	AREA SQ FT	AREA SQ FT	H FT	VOL CU FT	TOT VOL CU FT	TOT VOL AC-FT	TOT VOL CU YD
0.00	293						
		293.0	1.00				
1.00	293			293	**293.00**	0.00673	10.9

Underdrain Pipe Design Criteria:

Provide a minimum amount of underdrain (in linear feet) equal to or greater than 5% of footprint size. If two or more lines of underdrain, underdrain shall be a minimum of 5 feet apart measured from centerline of each.

Required Linear Feet	**15**
Provided Linear Feet	30

Surface Area Design Criteria

The surface area of micro-bioretention practices shall be at least 2% of the contributing drainage area.

Required Biofilter Footprint	**118**
Provided Biofilter Footprint	293

Project Name:	SGID	**Computed By:**	NEK
Project No.:	VM50554G	**Checked By:**	LGM
Date:	March 22, 2023		

MICRO BIO-RETENTION-R8 (MBF)

Total Area	6,003	sq. ft	**0.14**	acres	INPUT
Impervious Area	4,667	sq. ft	**0.11**	acres	
Green Area	1,336	sq. ft	**0.03**	acres	**OUTPUT**

ESDv Sizing Criteria Per MD SWM Design Manual Chapter 5, Section 5.2:

I (percent impervious cover)	79	percent	
Rv = (0.05 + (0.009 * (I)))	0.76		
Required Rainfall Target (P_E) Information			
Required P_E per ESDv Criteria =	1.80	inches	
ESDv = (P_E x Rv x A) / 12	0.01598	acre-ft	Section 5.2.2 of MD SWM Design Manual (Page 5.18)
ESDv required=	**696**	cubic feet	

Maximum Amount of Runoff that can be captured by facility(VOL_{MAX}):

VOL_{MAX} = (2.6 x Rv x A) / 12 **1006** cubic feet Section 5.2.2 of MD SWM Design Manual (Page 5.18)

293.00 cubic-feet of Volume Provided Above Filter

V_{BF} = V.R. x D_{BF} x A_{BF} = **410.2** cubic-feet of Volume Provided Below Filter

Where V_{BF} is the volume within the Bio-Filter; V.R. is the void ration; D_{BF} is the filter depth; A_{BF} is the filter footprint area

D_{BF} = 3.5 feet **703** **Total Storage Provided by Bio-Filter**

Storage above the surface of the biofilter and Footprint Size

ELEV FT	AREA SQ FT	AREA SQ FT	H FT	VOL CU FT	TOT VOL CU FT	TOT VOL AC-FT	TOT VOL CU YD
0.00	293						
		293.0	1.00				
1.00	293			293	**293.00**	0.00673	10.9

Underdrain Pipe Design Criteria:

Provide a minimum amount of underdrain (in linear feet) equal to or greater than 5% of footprint size. If two or more lines of underdrain, underdrain shall be a minimum of 5 feet apart measured from centerline of each.

Required Linear Feet	**15**
Provided Linear Feet	30

Surface Area Design Criteria

The surface area of micro-bioretention practices shall be at least 2% of the contributing drainage area.

Required Biofilter Footprint	**120**
Provided Biofilter Footprint	293

Project Name:	SGID	**Computed By:**	NEK
Project No.:	VM50554G	**Checked By:**	LGM
Date:	March 22, 2023		

MICRO BIO-RETENTION-R9 (MBF)

Total Area	6,221	sq. ft	**0.14**	acres	INPUT
Impervious Area	4,656	sq. ft	**0.11**	acres	
Green Area	1,565	sq. ft	**0.04**	acres	**OUTPUT**

ESDv Sizing Criteria Per MD SWM Design Manual Chapter 5, Section 5.2:

I (percent impervious cover)	79	percent	
Rv = (0.05 + (0.009 * (I)))	0.76		
Required Rainfall Target (P_E) Information			
Required P_E per ESDv Criteria =	1.80	inches	
ESDv = (P_E x Rv x A) / 12	0.01598	acre-ft	Section 5.2.2 of MD SWM Design Manual (Page 5.18)
ESDv required=	**696**	cubic feet	

Maximum Amount of Runoff that can be captured by facility(VOL_{MAX}):

VOL_{MAX} = (2.6 x Rv x A) / 12 **1006** cubic feet Section 5.2.2 of MD SWM Design Manual (Page 5.18)

250.00 cubic-feet of Volume Provided Above Filter

V_{BF} = V.R. x D_{BF} x A_{BF} = **300** cubic-feet of Volume Provided Below Filter

Where V_{BF} is the volume within the Bio-Filter; V.R. is the void ration; D_{BF} is the filter depth; A_{BF} is the filter footprint area

D_{BF} = 3.0 feet **550** **Total Storage Provided by Bio-Filter**

Storage above the surface of the biofilter and Footprint Size

ELEV FT	AREA SQ FT	AREA SQ FT	H FT	VOL CU FT	TOT VOL CU FT	TOT VOL AC-FT	TOT VOL CU YD
0.00	250						
		250.0	1.00				
1.00	250			250	**250.00**	0.00574	9.3

Underdrain Pipe Design Criteria:

Provide a minimum amount of underdrain (in linear feet) equal to or greater than 5% of footprint size. If two or more lines of underdrain, underdrain shall be a minimum of 5 feet apart measured from centerline of each.

Required Linear Feet	**13**
Provided Linear Feet	30

Surface Area Design Criteria

The surface area of micro-bioretention practices shall be at least 2% of the contributing drainage area.

Required Biofilter Footprint	**124**
Provided Biofilter Footprint	250

Project Name:	SGID	**Computed By:**	NEK
Project No.:	VM50554G	**Checked By:**	LGM
Date:	March 22, 2023		

MICRO BIO-RETENTION-R10 (MBF)

Total Area	6,170	sq. ft	**0.14**	acres	INPUT
Impervious Area	4,605	sq. ft	**0.11**	acres	
Green Area	1,565	sq. ft	**0.04**	acres	**OUTPUT**

ESDv Sizing Criteria Per MD SWM Design Manual Chapter 5, Section 5.2:

I (percent impervious cover)	79	percent	
Rv = (0.05 + (0.009 * (I)))	0.76		
Required Rainfall Target (P_E) Information			
Required P_E per ESDv Criteria =	1.80	inches	
ESDv = (P_E x Rv x A) / 12	0.01598	acre-ft	Section 5.2.2 of MD SWM Design Manual (Page 5.18)
ESDv required=	**696**	cubic feet	

Maximum Amount of Runoff that can be captured by facility(VOL_{MAX}):

VOL_{MAX} = (2.6 x Rv x A) / 12 **1006** cubic feet Section 5.2.2 of MD SWM Design Manual (Page 5.18)

171.00 cubic-feet of Volume Provided Above Filter

V_{BF} = V.R. x D_{BF} x A_{BF} = **205.2** cubic-feet of Volume Provided Below Filter

Where V_{BF} is the volume within the Bio-Filter; V.R. is the void ration; D_{BF} is the filter depth; A_{BF} is the filter footprint area

D_{BF} = 3.0 feet **376** **Total Storage Provided by Bio-Filter**

Storage above the surface of the biofilter and Footprint Size

ELEV FT	AREA SQ FT	AREA SQ FT	H FT	VOL CU FT	TOT VOL CU FT	TOT VOL AC-FT	TOT VOL CU YD
0.00	171						
		171.0	1.00				
1.00	171			171	**171.00**	0.00393	6.3

Underdrain Pipe Design Criteria:

Provide a minimum amount of underdrain (in linear feet) equal to or greater than 5% of footprint size. If two or more lines of underdrain, underdrain shall be a minimum of 5 feet apart measured from centerline of each.

Required Linear Feet	**9**
Provided Linear Feet	30

Surface Area Design Criteria

The surface area of micro-bioretention practices shall be at least 2% of the contributing drainage area.

Required Biofilter Footprint	**123**
Provided Biofilter Footprint	171

ESDv SUMMARY

Project Site Area:	121,294	sf
Total Required ESDv:	11,989	cf
ESDv Min (1") :	6,661	cf

	Volume Provided in ESD Facility	
Micro-Bioretention	6,802	cf
Total ESDv Provided	6,802	cf
Pe Achieved	1.00	in
Remaining ESDv to be Waived/Treated Structurally:	5,329	cf

Provide justification why green roof and permeable paving cannot be provided

B6. STORMWATER MANAGEMENT POND STAGE STORAGE COMPUTATIONS

Provide comps for Cpv & Wqv

ENGINEERS ✪ PLANNERS ✪ LANDSCAPE ARCHITECTS ✪ SURVEYORS ✪ 3D LASER SCANNING

Project Name:	SGID	**Computed By:**	JSL
Project No.:	VM50554A	**Checked By:**	
Date:	3/29/2023	**Sht. No.:**	1 OF 1

INPUT | **OUTPUT**

Study Point: Pond #1 Stage Storage **Perm Pool Elev.:**

STAGE/STORAGE COMPUTATIONS

480.00	204	△	△	0	0	0.00000	**0**	
482.00	661	433	2.00	865	**865**	0.01986	**865**	
484.00	1,343	1,002	2.00	2,004	**2,869**	0.06586	**2,869**	2630 cuft required
484.50	1,549	1,446	0.50	723	**3,592**	0.08246	**3,592**	

ENGINEERS ◦ PLANNERS ◦ LANDSCAPE ARCHITECTS ◦ SURVEYORS ◦ 3D LASER SCANNING

Project Name:	SGID	**Computed By:**	JSL
Project No.:	VM50554A	**Checked By:**	
Date:	3/7/2023	**Sht. No.:**	1 OF 1

INPUT | **OUTPUT**

Study Point: Pond Stage Storage **Perm Pool Elev.:**

STAGE/STORAGE COMPUTATIONS

476.50	3,408	△	△	0	0	0.00000	**0**	
478.00	4,459	3,934	1.50	5,900	**5,900**	0.13545	**5,900**	Phase 1
480.00	5,461	4,960	2.00	9,920	**15,820**	0.36318	**15,820**	Required
483.70	6,939	6,200	3.70	22,940	**38,760**	0.88981	**38,760**	26308 cuft
484.20	8,963	7,951	0.50	3,976	**42,736**	0.98108	**42,736**	
486.00	10,410	9,687	1.80	17,436	**60,171**	1.38135	**60,171**	
488.00	12,378	11,394	2.00	22,788	**82,959**	1.90449	**82,959**	
490.00	19,000	15,689	2.00	31,378	**114,337**	2.62483	**114,337**	

B7. OVERALL SUMMARY TABLES

Provide a beginning of report

Pre-Application Concept Summary Table
SMC#2023-#####
Type of Concept: Pre-Application Stormwater Concept
COR: PAM2023-#####
Property Address: 15815 Shady Grove Road, Rockville, MD 20850
Property Legal Description: Danac Technological Park
Property Size(ac./sqft): 12.13 Ac / 528,383 Sqft
Total Concept Area (ac./sqft): 12.13 Ac. / 528,383 sqft
Zoning: MXE
Watershed and Stream Class: Muddy Branch and Watts Branch to Potomac Direct
Special Protection Area: Yes
100-Yr Floodplain: Yes
Target PE / Proposed PE: 1.80" / 1.00"
Target ESDV / Proposed ESDV: 59,453 Cuft / 29,174Cuft
ESD Measures: Microbioretention, Bio Swales
Structural Storage Required / Provided: 26,308 Cuft / 26,308 Cuft
Structural Measures: Portion of Proposed SWM Pond

Incomplete submission.

Plan must show dry utilities

WSSC Typical Comment:
WSSC easements must be free and clear of other utilities, including storm drain systems, ESD devices, gas, electric, telephone, CATV, etc., with the exception of allowed crossings designed in accordance with the WSSC 2017 Pipeline Design Manual. Landscaping and Hardscaping are also not allowed without approval. Under certain conditions (and by special request) the items listed above may be permitted within the WSSC easement.

Construction standards and specifications. The entire right-of-way shall be graded and shall include paving, storm drainage systems, curbs and gutters, buffers, and sidewalks. The buffer shall be located between the back line of the curb and the inside edge of the sidewalk. The sidewalk shall be installed from the property line to the outside of the buffer.

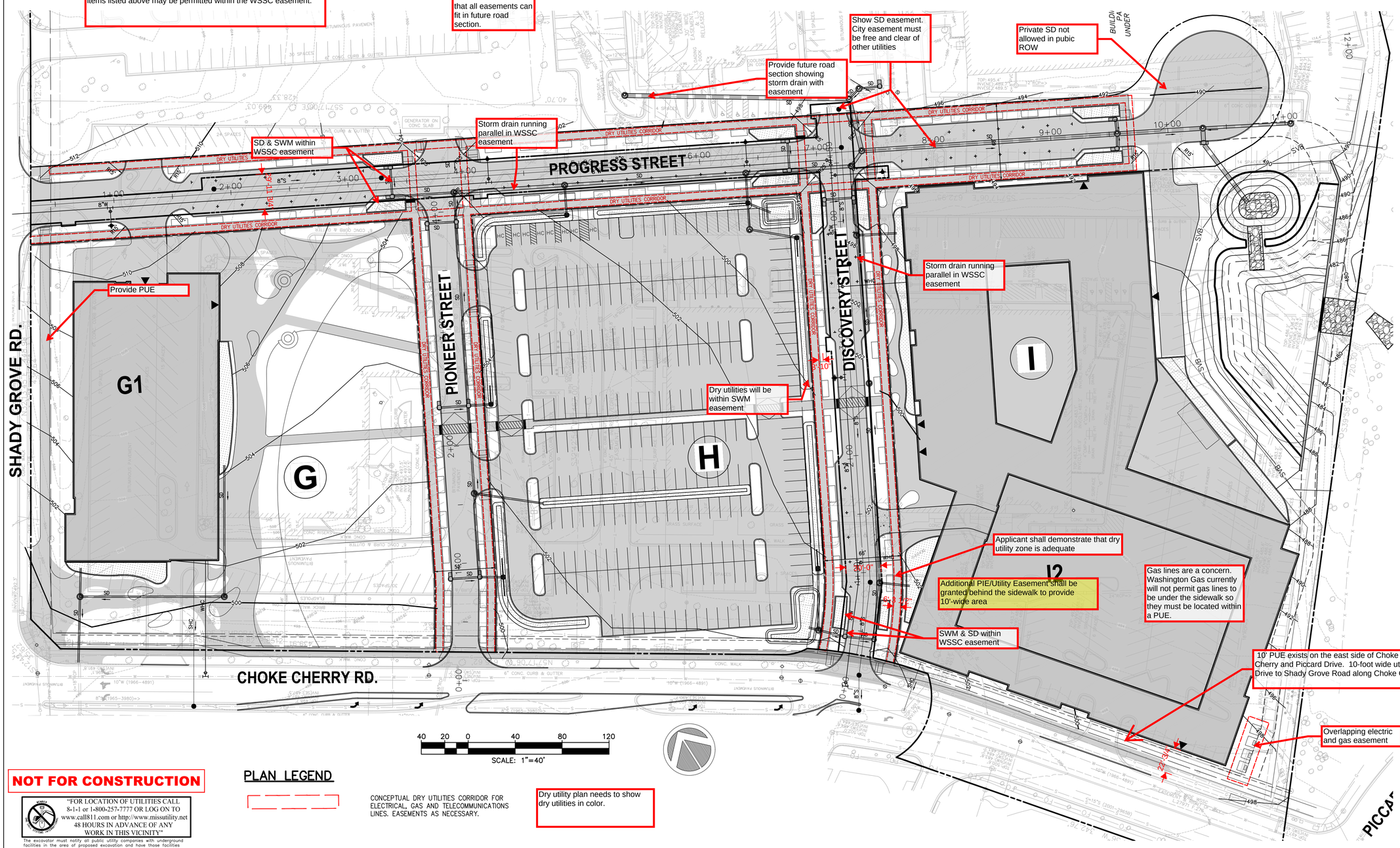
If approved by the Director, where buildings are positioned at or near the property line, dry utilities may be located within the right-of-way under the sidewalk or in locations that do not create conflicts with other utilities.

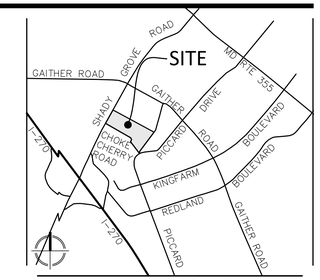
Otherwise, dry utilities shall be located in an easement pursuant to chapter 25, article 17, as amended.

Sec. 25.21.18. - Easements and rights-of-way.

a.Easements or rights-of-way across lots must not be less than ten (10) feet in width, or of such greater width as may reasonably be required by the Commission.

c.The public utility improvements (water, sewer and storm drains) must comply with the Department of Public Works Standard Details for Construction for City Utility Easements or other applicable Washington Suburban Sanitary Commission (WSSC) and Montgomery County standards.





VICINITY MAP
SCALE: 1" = 2000'

NOT FOR CONSTRUCTION

"FOR LOCATION OF UTILITIES CALL 8-1-1 or 1-800-257-7777 OR LOG ON TO www.call811.com or http://www.missutility.net 48 HOURS IN ADVANCE OF ANY WORK IN THIS VICINITY"

The excavator must notify all public utility companies with underground facilities in the area of proposed excavation and have those facilities located by the utility companies prior to commencing excavation. The excavator is responsible for compliance with requirements of Chapter 36A of the Montgomery County Code.

PLAN LEGEND

CONCEPTUAL DRY UTILITIES CORRIDOR FOR ELECTRICAL, GAS AND TELECOMMUNICATIONS LINES. EASEMENTS AS NECESSARY.

Dry utility plan needs to show dry utilities in color.

LAYOUT: DUE-1, Plotted By: Mounaud

VIKA MARYLAND, LLC
20251 Century Blvd., Suite 400
Germantown, MD 20874
301.916.4100 | vika.com

Our Site Set on the Future.

PREPARED FOR:
BXP SHADY GROVE LOT 5 LLC
BXP SHADY GROVE LOT 6 LLC
BXP SHADY GROVE LOT 8 LLC
2200 PENNSYLVANIA AVENUE, NW
SUITE 200W
WASHINGTON DC, 20037
301-704-5447
CJ OVERLY
COVERLY@BXP.COM

DESIGN CONSULTANTS

PLANNER, CIVIL ENGINEER
VIKA MARYLAND, LLC
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SUITE 400
GERMANTOWN MD, 20874
301.916.4100
CONTACT: MICHAEL GOODMAN, PE

COMMERCIAL ARCHITECT
GENSLER
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202.776.7669
CONTACT: DREW NAPOLITANO

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WDG ARCHITECTURE
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ATTORNEY
MILES & STOCKBRIDGE
11 N WASHINGTON STREET
SUITE 700
ROCKVILLE, MD 20850
301.517.4813
CONTACT: SCOTT WALLACE

SHADY GROVE INNOVATION DISTRICT PHASE 1

4TH ELECTION DISTRICT
MONTGOMERY COUNTY, MARYLAND
WSSC GRID: 221NW09
TAX MAP: FS562 & FS62

PRE APPLICATION DRY UTILITIES CORRIDOR EXHIBIT

PROFESSIONAL SEAL
STATE OF MARYLAND — MICHAEL B. GOODMAN — No. 27721 — PROFESSIONAL ENGINEER

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
ENGINEER'S NAME: Michael B. Goodman, P.E.
LICENSE No.: 27721
EXPIRATION DATE: July 19, 2024

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DRAWN BY: _____
DESIGNED BY: _____
DATE ISSUED: _____

VIKA PROJECT
DRAWING NO.
SHEET NO. DUE-1

V:\2050\-50\000\50562\CADD\PHASE 1\PRELIMINARY\SHEETS\50562000_P_PHT_DUE.dwg - Friday, March 17, 2023 4:55:16 PM

PRELIMINARY FOREST CONSERVATION PLAN
SHADY GROVE INNOVATION DISTRICT PHASE 1

FCP WORKSHEET

SGID - Phase 1

NET TRACT AREA:

A. Total tract area ...	12.37
B. Deductions (land dedication not in construction on this plan, other deductions - specify)	0.00
C. Net Tract Area .....=	12.37

LAND USE CATEGORY:

ZONING: Place a "1" under the column corresponding to the correct zone of the site	R-400, R-200	R-90, R-75, R-60, R-150	RMD10, RMD15, RMD25	IL, I-H, RPR, RPC, MXT, MXC, MXNC, MXB, MXE, MXCD, MXTD, PD	Park
Zone: (choose only one)	0	0	0	1	0

D. Afforestation Threshold ...	15%	x C =	1.86
E. Conservation Threshold ...	15%	x C =	1.86

EXISTING FOREST COVER:

F. Existing forest cover (within net tract) (Existing easement).....=	0.00
G. Area of forest above conservation threshold .....=	0.00

BREAK EVEN POINT:

H. Breakeven Point (amount of forest retained so that no mitigation is required)....=	0.00
I. Clearing permitted without mitigation .....=	0.00

PROPOSED FOREST CLEARING:

J. Total area of forest to be cleared .....=	0.00
K. Total area of forest to be retained .....=	0.00

PLANTING REQUIREMENTS:

L. Reforestation for clearing above conservation threshold .....=	0.00
M. Reforestation for clearing below conservation threshold ....=	0.00
N. Credit for retention above conservation threshold .....=	0.00
P. Total reforestation required .....=	0.00
Q. Total afforestation required .....=	1.86
R. Total planting requirement .....=	1.86

MINIMUM TREE COVER

MINIMUM TREE COVER			
TRACT AREA SF	ZONING	MTC REQURED %	MTC SF REQUIRED
538,747	MXE	15	80,812

PROPOSED PLANTING TABLE

Street trees receiving afforestation credit must be planted in 7' wide lawns

FTPO TREE CREDIT CHART- NEW PLANTINGS

QUANTITY	TREE TYPE	COMMON NAME	SIZE (LG SHADE, MD SHADE, SM EVG)	ROOT BALL TYPE	SIZE: CAL/HT	LANDSCAPING NO CREDIT	LANDSCAPING MTC CREDIT ONLY	SSG. TREE REPLACEMENT CREDIT (OFF-SITE)	SSG. TREE REPLACEMENT CREDIT (ON-SITE)	STREET TREE NO CREDIT	STREET TREE FCC CREDIT (ON-SITE)*	FC CREDIT	FC CREDIT (200 OR 400 SF X FCC QUANTITY)	MTC CREDIT (200 OR 400 SF X MTC QUANTITY)
	STREET TREES (NOT TO EXCEED 25% OF TOTAL REQUIREMENT)													
19	*Choke Cherry Road -Shade Tree*	TBD	LG SHADE	B&B	2.5"	0	0	0	0	0	19	0	7600	7600
	STREET TREES													
19	*Pioneer Street-Shade Tree*	TBD	LG SHADE	B&B	2.5"	0	0	0	0	0	0	19	7600	7600
37	*Progress Street- Shade Tree*	TBD	LG SHADE	B&B	2.5"	5	0	0	0	0	0	32	12800	12800
19	*Discovery Street-Shade Tree*	TBD	LG SHADE	B&B	7-8'	0	0	0	0	0	0	19	7600	7600
	ON-SITE TREES													
Block G														
45	*Shade Trees*	TBD	LG SHADE	B&B	2.5"	0	0	0	0	0	0	45	18000	18000
11	*Ornamental Trees*	TBD	ORN	B&B	2.5"	6	0	0	0	0	0	5	1000	1000
11	*Large Evergreen Trees*	TBD	LG EVG	B&B	2.5"	0	0	0	0	0	0	11	4400	4400
0	*Small Evergreen Trees*	TBD	SM EVG	B&B	2.5"	0	0	0	0	0	0	0	0	0
Block H														
34	*Shade Trees*	TBD	LG SHADE	B&B	2.5"	0	0	0	0	0	0	34	13600	13600
0	*Ornamental Trees*	TBD	ORN	B&B	2.5"	0	0	0	0	0	0	0	0	0
0	*Large Evergreen Trees*	TBD	LG EVG	B&B	2.5"	0	0	0	0	0	0	0	0	0
0	*Small Evergreen Trees*	TBD	SM EVG	B&B	2.5"	0	0	0	0	0	0	0	0	0
Block I														
17	*Shade Trees*	TBD	LG SHADE	B&B	2.5"	0	0	0	0	0	0	17	6800	6800
12	*Ornamental Trees*	TBD	ORN	B&B	2.5"	4	0	0	0	0	0	8	1600	1600
0	*Large Evergreen Trees*	TBD	LG EVG	B&B	2.5"	0	0	0	0	0	0	0	0	0
0	*Small Evergreen Trees*	TBD	SM EVG	B&B	2.5"	0	0	0	0	0	0	0	0	0
					TOTALS	15	0	0	0	0	0	190	81000	81000
					REQUIREMENTS	N/A		121					80,812	80,812

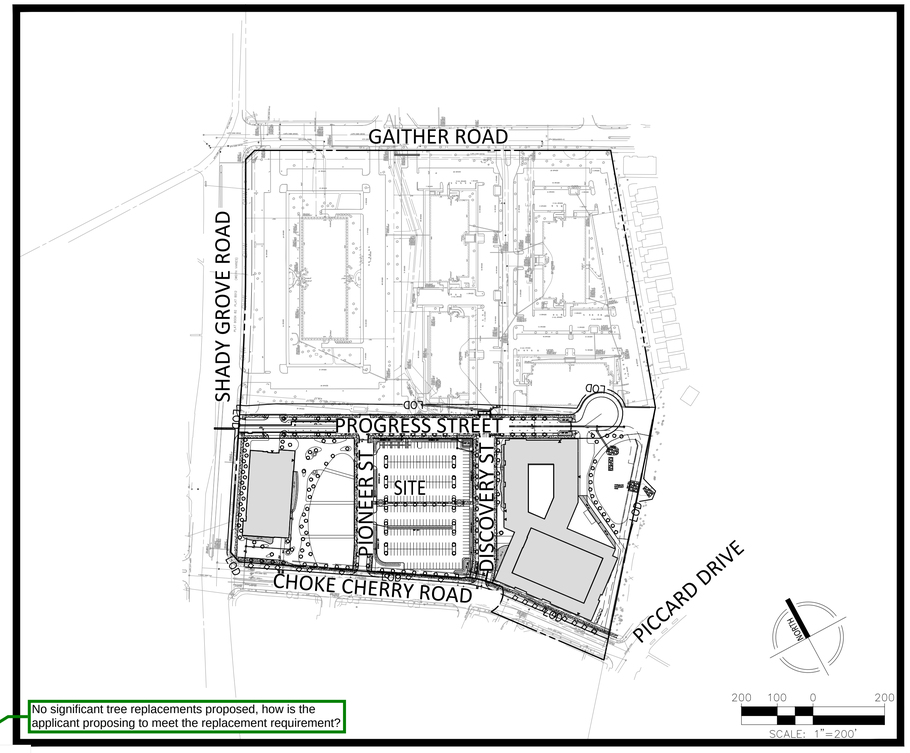
as depicted, 28,000 sf exceeds allotted 25% credit opportunity

2.5" caliper

why are "off-site" replacements shown?

Are these street trees?

No significant tree replacements proposed, how is the applicant proposing to meet the replacement requirement?



LOCAL VICINITY MAP

SOILS TABLE

MAP UNIT SYMBOL	MAP UNIT NAME	K FACTOR/ WHOLE	DRAINAGE CLASS	HIGH ERODIBILITY (Y/N)*	HYDRIC INCLUSION %	HYRDOLOGIC SOIL GROUP
2B	Glenelg silt loam, 3 to 8 % slopes	0.37	Well Drained	NO	0	C
6A	Baile Silt Loam, 0 to 3 percent slopes	0.43	Poorly Drained	NO	0	C/D
400	Urban Land	No Rating	No Rating	NO	0	D

LEGEND

SUBJECT PROPERTY
PHASE 1 BOUNDARY
ADJACENT PROPERTY/LOT LINES
550 EX. 10' CONTOUR
548 EX. 2' CONTOUR
550 PROPOSED 10' CONTOUR
548 PROPOSED 2' CONTOUR
EXISTING CURB & GUTTER
PROPOSED CURB & GUTTER
LOD LOD LIMITS OF DISTURBANCE
PROPOSED SIDEWALK

PROPOSED BIORETENTION
EXISTING TREE CANOPY (NOT FOREST)
8"S PROPOSED SEWER
8"W PROPOSED WATER
15" RCP PROPOSED STORM DRAIN

EXISTING TREE CANOPY (NOT FOREST)
EXISTING TREE < 24"DBH
EXISTING TREE TO BE REMOVED
STREET TREE CREDIT
FOREST CONSERVATION CREDIT

EXISTING SPECIMEN TREE 30" OR GREATER DBH W/CRZ SHOWN
22 EXISTING SIGNIFICANT TREE 12"-29.9" DBH W/CRZ SHOWN
X TREE TO BE REMOVED

NOT FOR CONSTRUCTION

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SHEET INDEX

PFCP-1 FOREST CONSERVATION PLAN COVER
PFCP-2 FOREST CONSERVATION PLAN
PFCP-3 FOREST CONSERVATION PLAN
PFCP-4 FOREST CONSERVATION PLAN
PFCP-5 FOREST CONSERVATION PLAN
PFCP-6 TREE REMOVAL PLAN
PFCP-7 FOREST CONSERVATION TREE LIST

GENERAL NOTES:

1. GROSS TRACT AREA: 31.10 ACRES.
2. THE SUBJECT PROPERTY IS ZONED MXE AND LOCATED IN TAX MAPS FS562 & FS62.
3. THE SITE DRAINS TO THE WATTS BRANCH WATERSHED AND MUDDY BRANCH WATERSHED.
4. ON FLOOD INSURANCE RATE MAP NO. 24031C03331D, WITH A DATE OF IDENTIFICATION OF 9/29/2006, IN MONTGOMERY COUNTY, STATE OF MARYLAND. THERE IS NO 100-YEAR FLOODPLAIN ON THE PROPERTY.
5. A PERENNIAL STREAM DAYLIGHTS AT A STORM DRAIN OUTFALL ALONG THE EASTERN BOUNDARY OF THE SITE. THIS WAS OBSERVED ON FIELD INVESTIGATION AND SHOWN ON (HTTP://MDE.MARYLAND.GOV/PROGRAMS/WATER/TMDL/
6. PER U.S.FISH & WILDLIFE SERVICES' NATIONAL WETLANDS INVENTORY ON-LINE MAPPER (HTTP://WWW.FWS.GOV/WETLANDS/DATA/ MAPPER.HTML), MARYLAND'S ENVIRONMENTAL RESOURCES AND LAND INFORMATION NETWORK (MERLIN) (HTTP://WWW. MDMERLIN.NET/), AND FIELD VERIFICATION, THERE ARE NO WETLANDS OR THEIR ASSOCIATED BUFFERS LOCATED ON THE SUBJECT PROPERTY OR WITHIN THE REMAINDER OF THE NRI STUDY AREA. ACCESSED ON OCTOBER 22, 2021.
7. THE WILDLIFE AND HERITAGE DIVISION OF THE MD DNR HAS BEEN CONTACTED VIA LETTER ON 10/28/21 TO CONFIRM IF THERE ARE FEDERAL OR STATE RECORD OF RARE, THREATENED OR ENDANGERED SPECIES WITHIN THE NRI STUDY AREA. NO RARE, THREATENED OR ENDANGERED SPECIES WERE NOTED DURING THE FIELD WORK.
8. A 'D' TAPE WAS USED TO MEASURE THE TREES.
9. THERE ARE NO STATE/COUNTY CHAMPION TREES LOCATED ON-SITE.
10. THERE ARE NO EXISTING BUILDINGS WITHIN THE INVENTORY AREA IDENTIFIED IN THE CITY OF ROCKVILLE HISTORIC BUILDINGS CATALOGUE MAP. THE CITY OF ROCKVILLE ONLINE GIS DATA WAS ACCESSED ON OCTOBER 28, 2021.
11. FIELD WORK WAS CONDUCTED BY VIKA MARYLAND, LLC STAFF, DOUGLAS KOESER, RLA, ISA, ON OCTOBER 14, 2021.
12. NON NATIVE INVASIVE PLANT MATERIAL, INCLUDING TREE OF HEAVEN, WAS OBSERVED ON-SITE.
13. NRI/FSD FTP2016-00013 WAS APPROVED 4/14/2021.
14. EXISTING BUILDINGS ON THE PROPERTY PROPOSED FOR DEMOLITION ARE SUBJECT TO ZONING ORDINANCE SEC. 25. 07.02.4, HISTORIC REVIEW.

Please submit PFCP to cpds@rockvillemd.gov with application, checklist, and all required documents for processing

Site is subject to FTP2016-00013, which has an approved PFCP. This PFCP will amend that.

RESOURCE DATA TABLE

RESOURCE DATA TABLE (INFORMATION TO BE SHOWN IS SQUARE FEET)	TOTAL AREA	IMPACTED AREA	NOT IMPACTED	AFFORESTATION OR REFORESTATION	CLEARED FOREST
PRIORITY FOREST	0	0	0	0	**0**
NON-PRIOIRTY FOREST	0	0	0	0	**0**
FORESTED WETLAND	0	0	0	0	**0**
NON-FORESTED WETLAND	0	0	0	0	
FORESTED FLOODPLAIN	0	0	0	0	**0**
NON-FORESTED FLOODPLAIN	0	0	0	0	
FORESTED STREAM VALLEY BUFFER	0	0	0	0	**0**
NON-FORESTED STREAM VALLEY	0	0	0	0	

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SHADY GROVE INNOVATION DISTRICT PHASE 1

4TH ELECTION DISTRICT
MONTGOMERY COUNTY, MARYLAND
WSSC GRID: 221NW09
TAX MAP: FS562 & FS62

PRELIMINARY FOREST CONSERVATION PLAN

PROFESSIONAL SEAL

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LICENSE NUMBER: 3312
EXPIRATION DATE: SEPTEMBER 7, 2024

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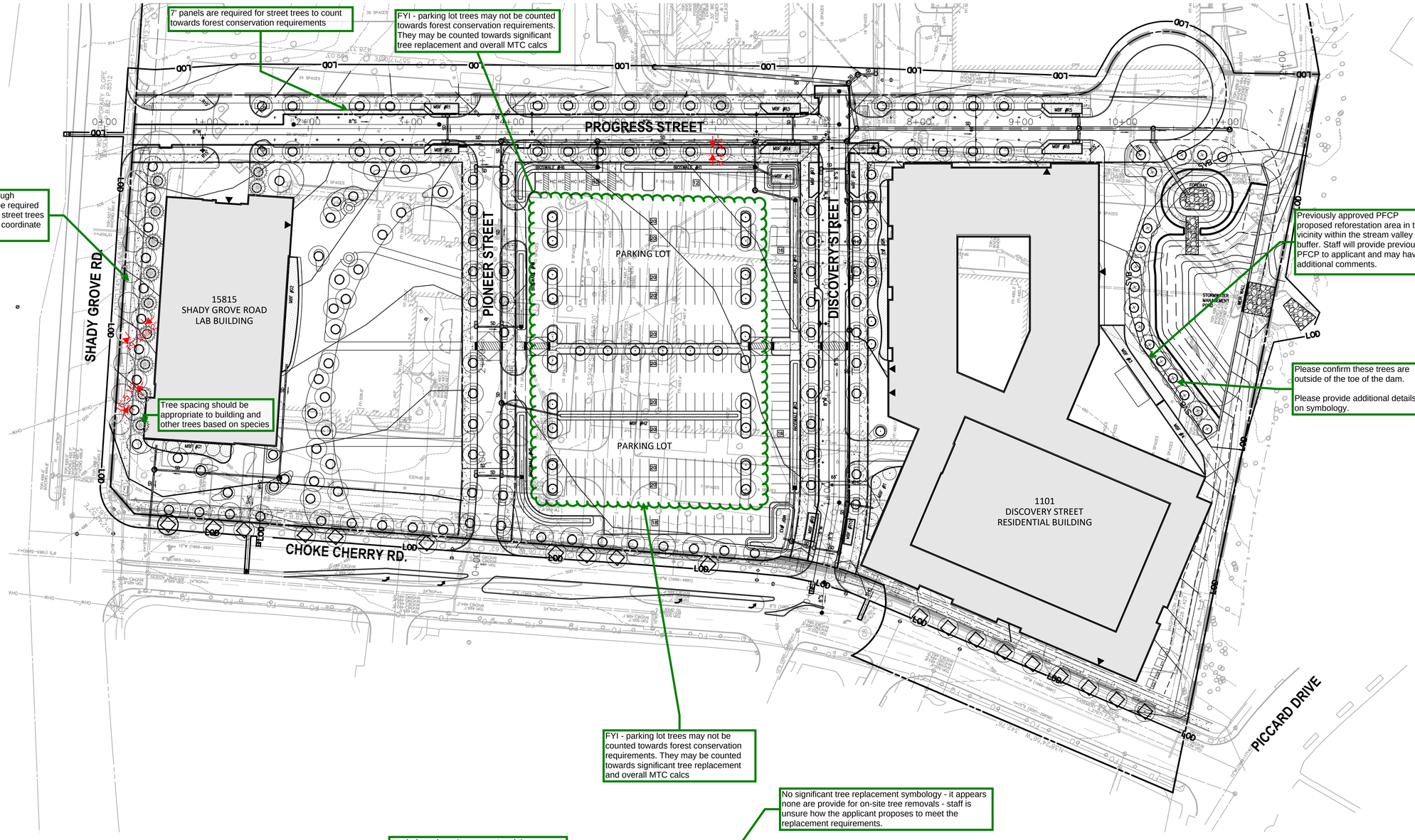
DESIGNED BY: MBG
DATE ISSUED: 01/20/23
VIKA PROJECT: 50554A
DRAWING NO.: PFCP-1
SHEET NO.

\\MD-GOVPC.vika.com\data\M\50550\50554A\00\Phase 1\PRELIMINARY\00-01_SHEETS\50554A00_P_PH1_PFCP.dwg – Friday, March 17, 2023 4:18:56 PM

LAYOUT: PFCP-1, Plotted By: stebblns



No significant tree replacement symbology - it appears none are provide for on-site tree removals - staff is unsure how the applicant proposes to meet the replacement requirements.

symbology doesn't represent real time symbols on the plan

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HUNON

50 25 0 50 100 150

SCALE: 1"=50'

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LAYOUT: PFCP-2, Plotted By: stebbins

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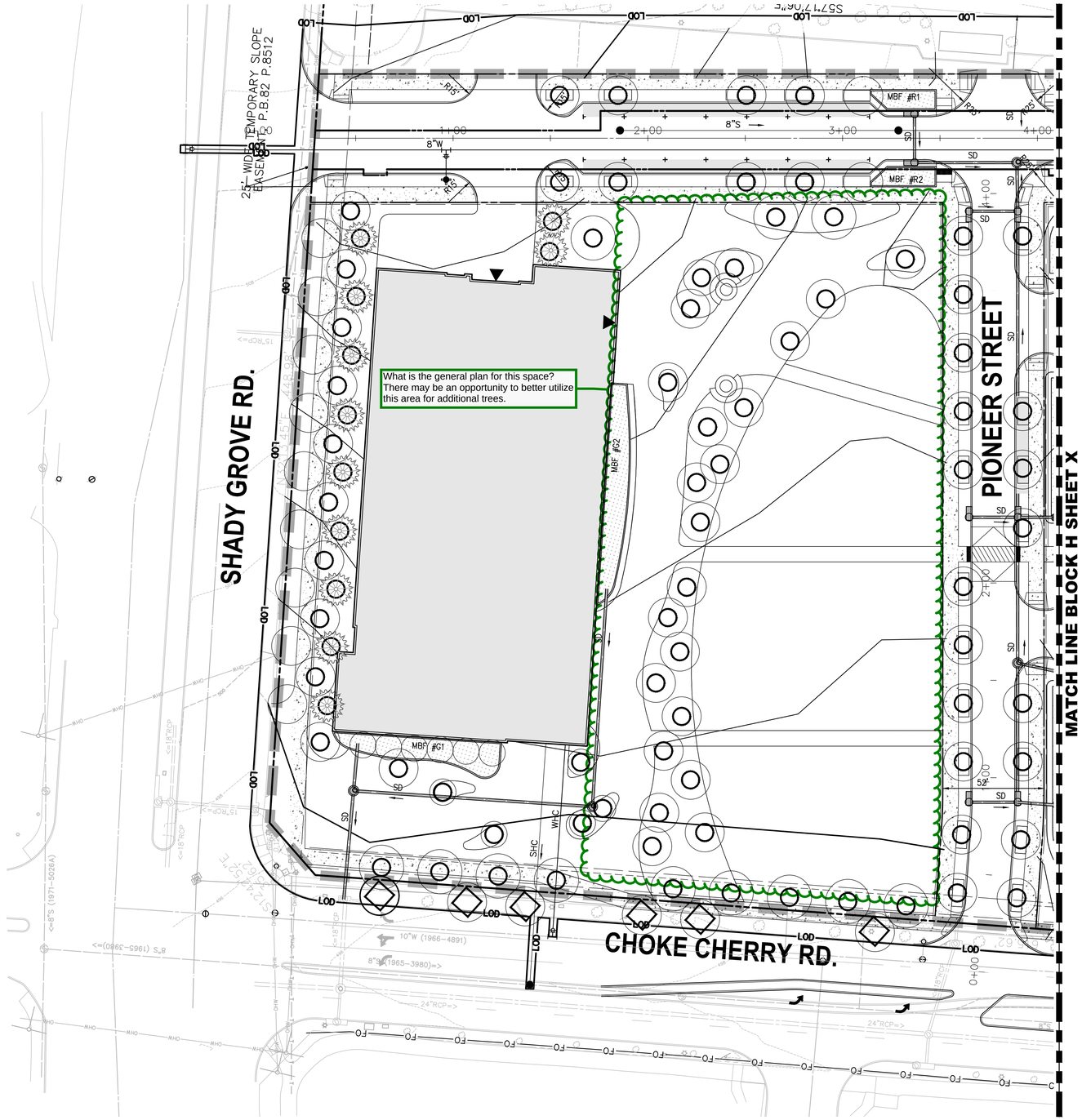
DESIGNED BY: MBG
DATE ISSUED: 01/20/23

VIKA PROJECT: 50554A

DRAWING NO.: PFCP-2

SHEET NO.

Plot Date: Friday, March 17, 2023 4:18:07 PM



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NORTH

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SCALE: 1"=30'

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DESIGNED BY:	MBG
DATE ISSUED:	01/20/23
VIKA PROJECT	50554A
DRAWING NO.	PFCP-3

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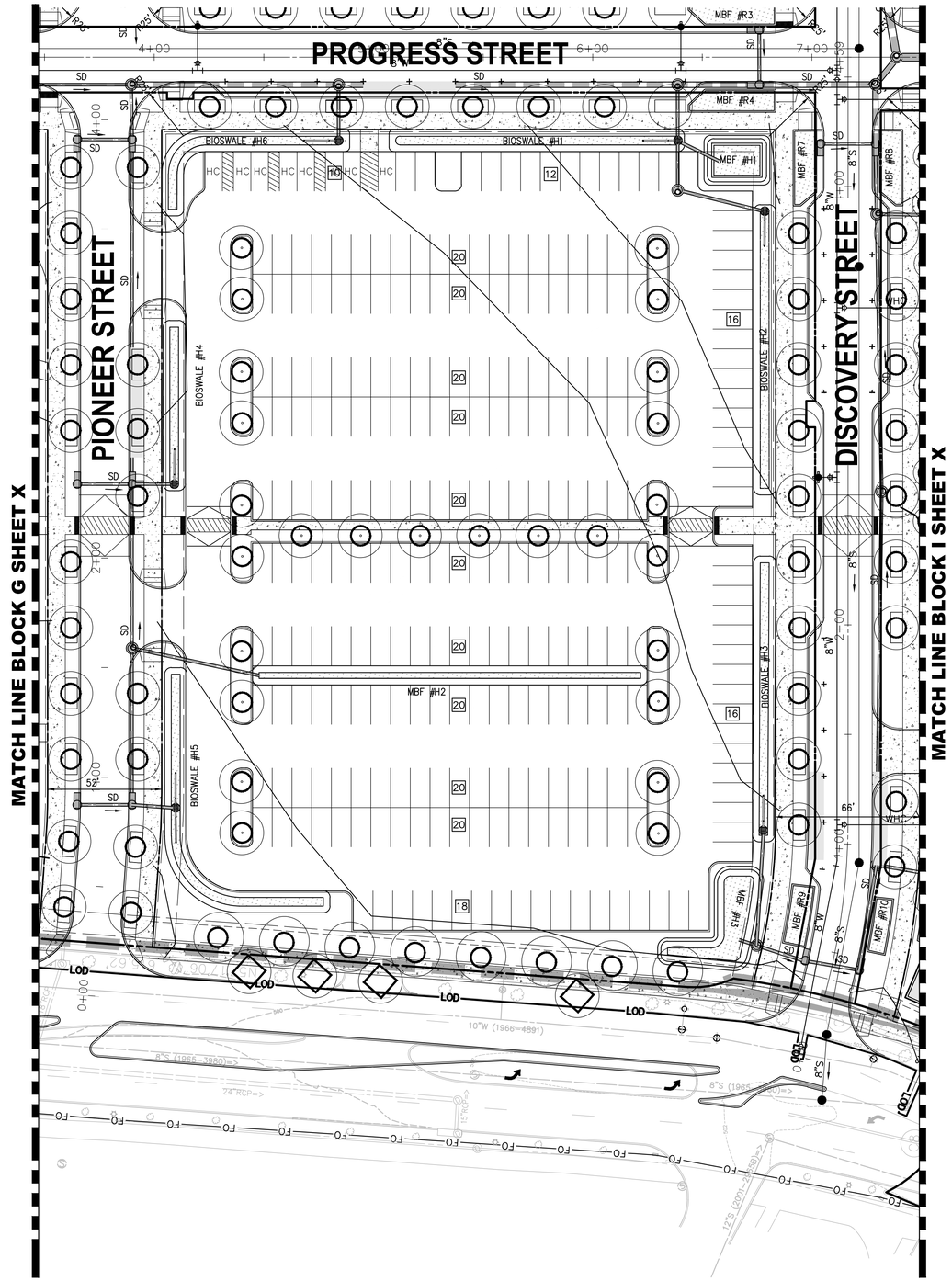

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NORTH

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SCALE: 1"=30'

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PRELIMINARY FOREST CONSERVATION PLAN 30' SCALE

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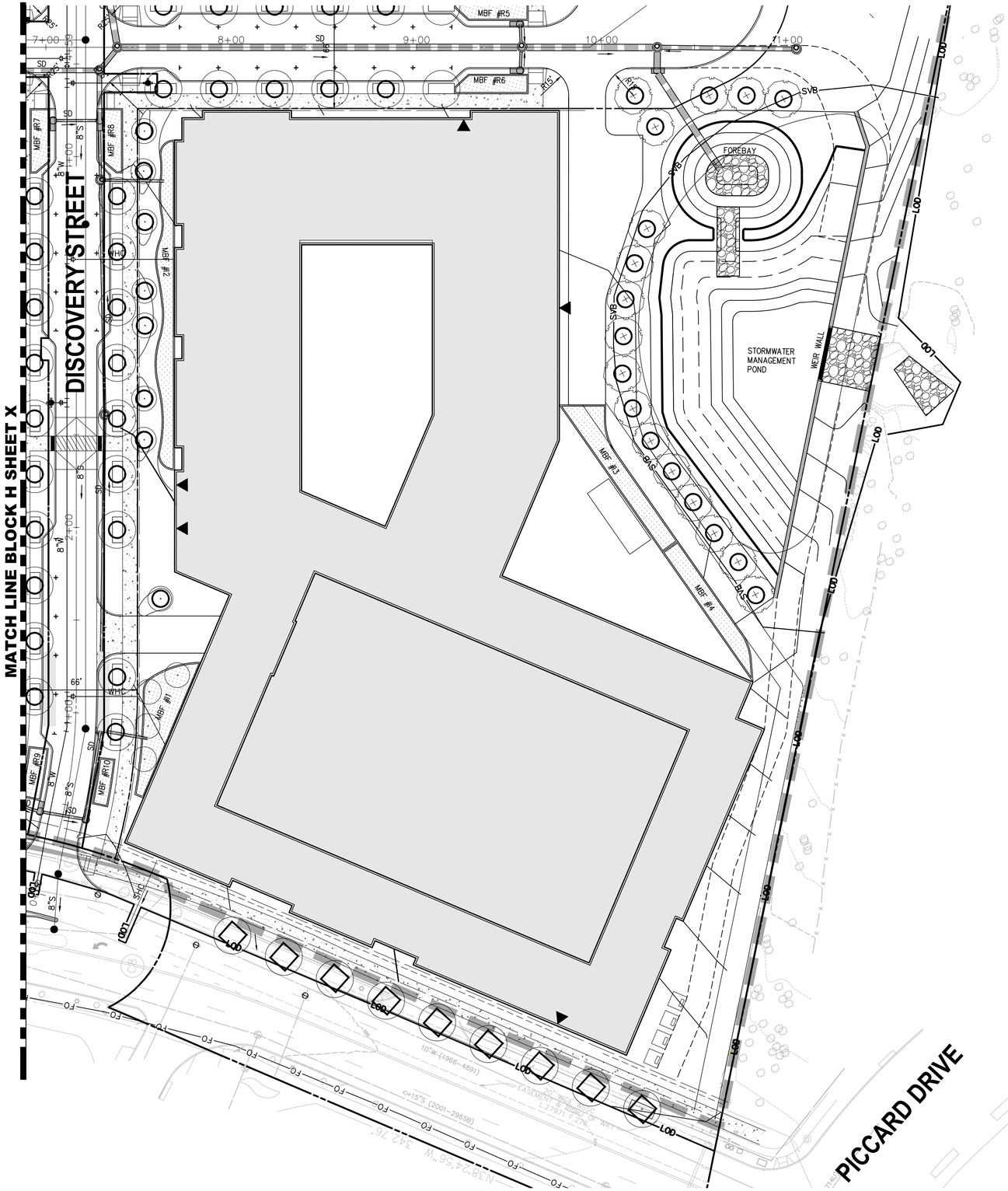
DESIGNED BY: MBG
DATE ISSUED: 01/20/23

VIKA PROJECT 50554A

DRAWING NO. PFCP-4

SHEET NO.

LAYOUT: PFCP-4, Plotted By: stebbins



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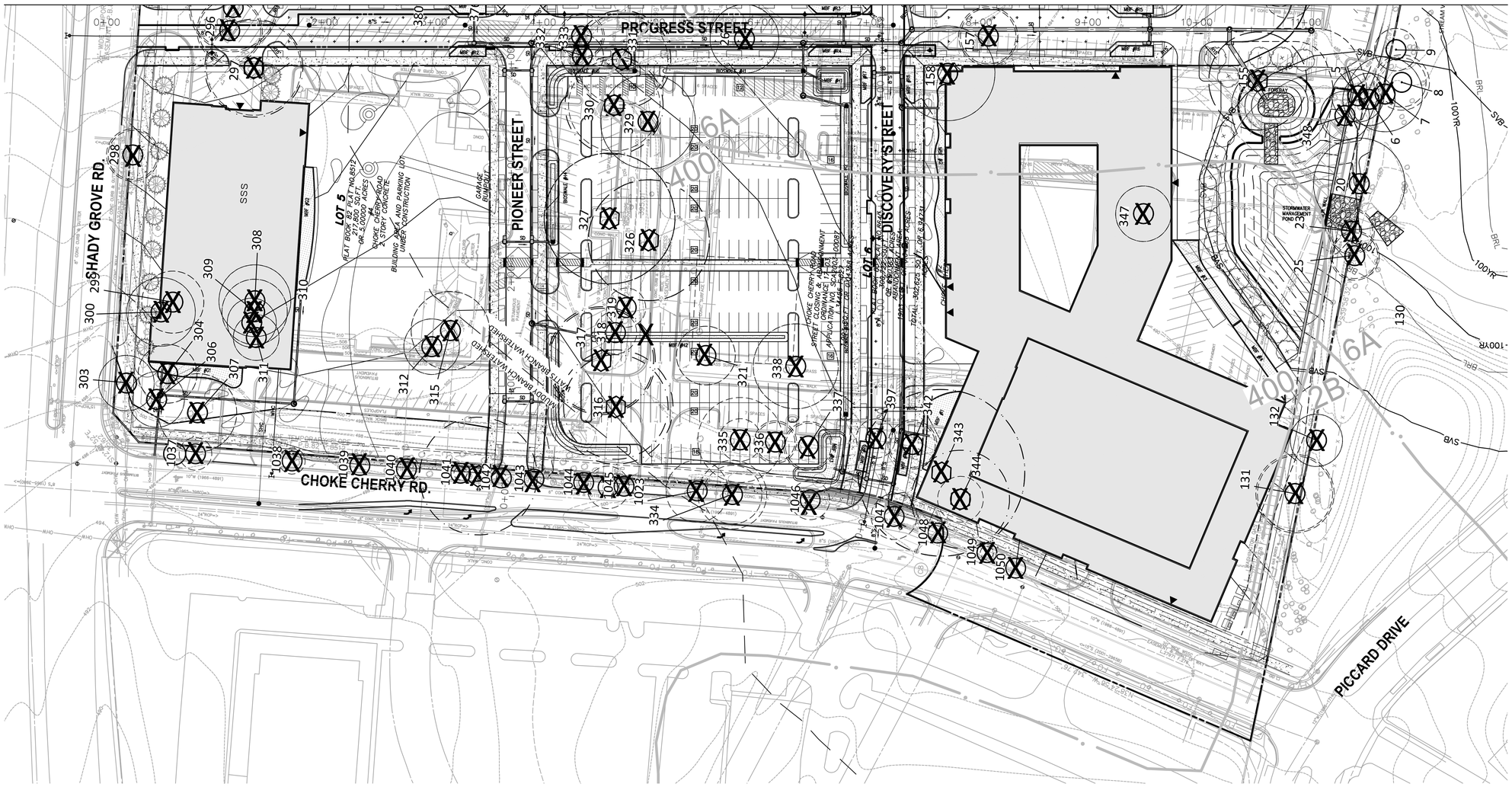
DRAWN BY: EJS
DESIGNED BY: MBG
DATE ISSUED: 01/20/23

VIKA PROJECT: 50554A

DRAWING NO.: PFCP-5

SHEET NO.

LAYOUT: PFCP-5, Plotted By: stebbins



VICINITY MAP
SCALE: 1" = 2000'

LEGEND

- LIMITS OF SUBJECT PROPERTY
- ADJACENT PROPERTY LINES
- STREAM VALLEY BUFFER
- STREAM
- SOIL BOUNDARY & TYPE (2B / 400)
- EXISTING TREE CANOPY
- EX. WATER LINE
- EX. CABLE TV CONDUIT
- EX. ELECTRICAL CONDUIT
- EX. EDGE OF PAVEMENT
- EX. FENCE LINE
- EX. NATURAL GAS CONDUIT
- EX. OVERHEAD WIRES
- EX. FIBEROPTIC CONDUIT
- EX. TELEPHONE/COMM. CONDUIT
- EX. PUBLIC UTILITIES EASEMENTS
- EX. SANITARY SEWER
- EX. STORM DRAIN
- EX. SPECIMEN TREE ≥ 30" DBH AND CRITICAL ROOT ZONE
- EX. SIGNIFICANT TREE ≥ 12"-29.9" DBH AND CRITICAL ROOT ZONE
- X — TREE TO BE REMOVED

NORTH

50 25 0 50 100 150
SCALE: 1"=50'

NOT FOR CONSTRUCTION

"FOR LOCATION OF UTILITIES CALL 8-1-1 or 1-800-257-7777 OR LOG ON TO www.call811.com or http://www.missutility.net 48 HOURS IN ADVANCE OF ANY WORK IN THIS VICINITY"

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Our Site Set on the Future.

PREPARED FOR:
BXP SHADY GROVE LOT 5 LLC
BXP SHADY GROVE LOT 6 LLC
BXP SHADY GROVE LOT 8 LLC
2200 PENNSYLVANIA AVENUE, NW
SUITE 200W
WASHINGTON DC, 20037
301-704-5447
CJ OVERLY
COVERLY@BXP.COM

DESIGN CONSULTANTS

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ROCKVILLE, MD 20850
301.517.4813
CONTACT: SCOTT WALLACE

SHADY GROVE INNOVATION DISTRICT PHASE 1

4TH ELECTION DISTRICT
MONTGOMERY COUNTY, MARYLAND
WSSC GRID: 221NW09
TAX MAP: FS562 & FS62

PRELIMINARY FOREST CONSERVATION PLAN TREE REMOVAL

PROFESSIONAL SEAL
STATE OF MARYLAND — MICHAEL B. GOODMAN — No. 27721 — PROFESSIONAL ENGINEER

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED, REGISTERED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.
NAME: CHANDA BEAUFORT, RLA
LICENSE NUMBER: 3312
EXPIRATION DATE: SEPTEMBER 7, 2024

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DRAWN BY:	EJS
DESIGNED BY:	MBG
DATE ISSUED:	01/20/23
VIKA PROJECT	50554A
DRAWING NO.	PFCP-6
SHEET NO.	

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LAYOUT: PFCP-6, Plotted By: stebbins

2 Choke Cherry #50554C

PROPOSED TREE SUMMARY CHART

#	COMMON NAME	BOTANICAL NAME	DBH	Area CRZ	CTLA %	COR CTLA %	Remarks	PREVIOUS FTP PLAN #	PREV.CREDIT	DISPOSITION	OWED	REPLACEMENT TREES REQD.	CREDIT TYPE	MAXIMUM CREDIT AMOUNT
LANDSCAPE SETTING >/= 12" DBH (NO EXISTING CREDIT) - LOT 5														
295	Willow Oak	Quercus phellos	27	5153	69					Remove		3	LG SHADE	N/A
296	Willow Oak	Quercus phellos	20	2827	53					Remove		2	LG SHADE	N/A
297	Willow Oak	Quercus phellos	30	6362	50					Remove		6	LG SHADE	N/A
299	White Pine	Pinus strobus	19	2552	69					Remove		2	LG EVG	N/A
300	White Pine	Pinus strobus	21	3117	75					Remove		2	LG EVG	N/A
304	White Pine	Pinus strobus	18	2290	81					Remove		1	LG SHADE	N/A
306	Japanese Maple	Acer palmatum	17	2043	72		MS. 7", 8", 13"			Remove		1	LG SHADE	N/A
307	European Beech	Fagus sylvatica	24	4072	25					Remove		2	LG SHADE	N/A
308	Willow Oak	Quercus phellos	22	3421	47					Remove		2	LG SHADE	N/A
309	Willow Oak	Quercus phellos	20	2827	66					Remove		2	LG SHADE	N/A
310	Willow Oak	Quercus phellos	15	1590	63					Remove		1	LG SHADE	N/A
311	Willow Oak	Quercus phellos	14	1385	50					Remove		1	LG SHADE	N/A
312	American Holly	Ilex opaca	17	2043	66					Remove		1	LG EVG	N/A
313	American Holly	Ilex opaca	15	1590	66					Remove		1	LG EVG	N/A
314	American Holly	Ilex opaca	13	1195	66					Remove		1	LG SHADE	N/A
315	Sugar Maple	Acer saccharum	24	4072	78					Remove		2	LG SHADE	N/A
316	Willow Oak	Quercus phellos	35	8659	81					Remove		6	LG SHADE	N/A
317	Willow Oak	Quercus phellos	33	7698	78					Remove		6	LG SHADE	N/A
327	Willow Oak	Quercus phellos	40	11310	59					Remove		6	LG SHADE	N/A
330	Willow Oak	Quercus phellos	30	6362	50					Remove		6	LG SHADE	N/A
331	Willow Oak	Quercus phellos	30	6362	66					Remove		6	LG SHADE	N/A
332	Willow Oak	Quercus phellos	13	1195	53					Remove		1	LG SHADE	N/A
333	Willow Oak	Quercus phellos	14	1385	47					Remove		1	LG EVG	N/A
376	White Pine	Pinus strobus	17	2043	72					Remove		1	LG EVG	N/A
378	White Pine	Pinus strobus	23	3739	81					Remove		2	LG SHADE	N/A
380	White Pine	Pinus strobus	18	2290	69					Remove		1	LG SHADE	N/A
381	White Pine	Pinus strobus	20	2827	63					Remove		2	LG SHADE	N/A
382	White Pine	Pinus strobus	15	1590	72					Remove		1	LG SHADE	N/A
384	White Pine	Pinus strobus	28	5542	72					Remove		3	LG SHADE	N/A
388	Saucer Magnolia	Magnolia x soulangiana	12	1018	69					Remove		1	LG SHADE	N/A
LANDSCAPE SETTING >/= 12" DBH (NO EXISTING CREDIT) - LOT 6														
5	Black Gum	Nyssa sylvatica	16	1810	75					Remove		1	LG SHADE	N/A
6	Black Gum	Nyssa sylvatica	16	1810	75					Remove		1	LG SHADE	N/A
7	Red Maple	Acer rubrum	23	3739	81					Remove		2	LG SHADE	N/A
20	Red Maple	Acer rubrum	28	5542	69					Remove		3	LG SHADE	N/A
23	White Mulberry	Morus alba	13	1195	75					Remove		1	LG SHADE	N/A
25	White Mulberry	Morus alba	14	1385	78					Remove		1	LG SHADE	N/A
129	Tree of Heaven	Ailanthus altissima	20	2827	88					Remove		2	LG SHADE	N/A
130	Tree of Heaven	Ailanthus altissima	15	1590	88					Remove		1	LG SHADE	N/A
131	White Mulberry	Morus alba	24	4072	81					Remove		2	LG SHADE	N/A
132	White Mulberry	Morus alba	16	1810	84					Remove		1	LG SHADE	N/A
158	Willow Oak	Quercus phellos	29	5945	88					Remove		3	LG SHADE	N/A
320	Kwanzan Cherry	Prunus serrulata 'Kwanzan'	13	1195	69					Remove		1	LG SHADE	N/A
321	Kwanzan Cherry	Prunus serrulata 'Kwanzan'	18	2290	25					Remove		1	LG SHADE	N/A
326	Willow Oak	Quercus phellos	37	9677	75					Remove		6	LG SHADE	N/A
329	Japanese Black Pine	Pinus thunbergii	29	5945	78					Remove		3	LG SHADE	N/A
335	Kwanzan Cherry	Prunus serrulata 'Kwanzan'	13	1195	38		MS. 3", 4", 4", 4", 4", 5", 5", 6"			Remove		1	LG SHADE	N/A
336	Hawtorn spp.	Crataegus spp.	12	1018	69		MS. 4", 5", 5", 6". 7"			Remove		1	LG SHADE	N/A
337	Hawtorn spp.	Crataegus spp.	14	1385	69		MS. 6", 7", 8", 8"			Remove		1	LG SHADE	N/A
338	Littleleaf Linden	Tilia cordata	26	4778	81					Remove		3	LG SHADE	N/A
342	Flowering dogwood	Cornus florida	15	1590	63					Remove		1	LG SHADE	N/A
343	Littleleaf Linden	Tilia cordata	51	18385	63					Remove		6	LG SHADE	N/A
344	Littleleaf Linden	Tilia cordata	27	5153	72		MS. 10", 12", 22"			Remove		3	LG SHADE	N/A
347	Japanese Maple	Acer palmatum	17	2043	84		MS. 5", 7", 7", 8", 10"			Remove		1	LG SHADE	N/A
348	Red Maple	Acer rubrum	15	1590	56					Remove		1	LG SHADE	N/A
385	Saucer Magnolia	Magnolia x soulangiana	14	1385	63		MS. 6", 6", 6", 7", 7"			Remove		1	LG SHADE	N/A
Total for Phase 1												121		0
STREET TREES														
38	Kwanzan Cherry	Prunus serrulata 'Kwanzan'	22	3421	78					Remove		2	LG SHADE	N/A
45	Kwanzan Cherry	Prunus serrulata 'Kwanzan'	15	1590	53					Remove		1	LG SHADE	N/A
254	Red Maple	Acer rubrum	17	2043	61					Remove		1	LG SHADE	N/A
261	Red Maple	Acer rubrum	17	2043	61					Remove		1	LG SHADE	N/A
298	Red Maple	Acer rubrum	16	1810	63					Remove		1	LG SHADE	N/A
303	Red Maple	Acer rubrum	17	2043	66					Remove		1	LG SHADE	N/A
334	Kwanzan Cherry	Prunus serrulata 'Kwanzan'	21	3117	75		MS. 9", 10", 11", 12"			Remove		2	LG SHADE	N/A
1023	Kwanzan Cherry	Prunus serrulata 'Kwanzan'	19	2552	75		MS. 15", 11"			Remove		2	LG SHADE	N/A
1037	Prunus sp.	Prunus sp.	22	3421	69		MS. 1.5", 2", 4.5", 5.7"			Remove		2	LG SHADE	N/A
1038	Prunus sp.	Prunus sp.	24	4072	75		MS. 2.6", 3.5", 3.5"			Remove		2	LG SHADE	N/A
1039	Prunus sp.	Prunus sp.	23	3739	72		MS. 1.5", 2", 3", 3.5"			Remove		2	LG SHADE	N/A
1040	Prunus sp.	Prunus sp.	24	4072	75		MS. 3", 3.5", 4"			Remove		2	LG SHADE	N/A
1041	Prunus sp.	Prunus sp.	26	4778	81					Remove		3	LG SHADE	N/A
1042	Prunus sp.	Prunus sp.	29	5945	91					Remove		3	LG SHADE	N/A
1043	Prunus sp.	Prunus sp.	27	5153	84		MS. 1", 2", 2.5" 3", 4"			Remove		3	LG SHADE	N/A
1044	Prunus sp.	Prunus sp.	29	5945	91					Remove		3	LG SHADE	N/A
1045	Prunus sp.	Prunus sp.	30	6362	94					Remove		6	LG SHADE	N/A
1046	Prunus sp.	Prunus sp.	22	3421	69					Remove		2	LG SHADE	N/A
1047	Prunus sp.	Prunus sp.	24	4072	75					Remove		2	LG SHADE	N/A
1048	Prunus sp.	Prunus sp.	17	2043	53					Remove		1	LG SHADE	N/A
1049	Prunus sp.	Prunus sp.	20	2827	63		MS. 1.5", 1.5", 2", 2", 2"			Remove		2	LG SHADE	N/A
1050	Prunus sp.	Prunus sp.	21	3117	66		MS. 1", 2", 2", 3", 5", 5"			Remove		2	LG SHADE	N/A

Staff notes the applicant is proposing to remove all on-site trees.

Please provide the reasoning for this?

There are several high quality specimen trees which may be considered "priority" for retention which would require appropriate justification per the criteria in the FTPO.

How are the significant replacement trees being provided? They must be planted in addition to any trees utilized to meet forest conservation requirements.

Street tree removals must be approved by the City Forester and CPDS in the context of a development approval. The Cherry trees along Choke Cherry are high quality trees.

NOT FOR CONSTRUCTION

"FOR LOCATION OF UTILITIES CALL 8-1-1 or 1-800-257-7777 OR LOG ON TO www.call811.com or http://www.missutility.net 48 HOURS IN ADVANCE OF ANY WORK IN THIS VICINITY"

The excavator must notify all public utility companies with underground facilities in the area of proposed excavation and have those facilities located by the utility companies prior to commencing excavation. The excavator is responsible for compliance with requirements of Chapter 36A of the Montgomery County Code.

LAYOUT: PFCP-7, Plotted By: stebbins

VIKA MARYLAND, LLC
20251 Century Blvd., Suite 400
Germantown, MD 20874
301.916.4100 | vika.com

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PREPARED FOR:
BXP SHADY GROVE LOT 5 LLC
BXP SHADY GROVE LOT 6 LLC
BXP SHADY GROVE LOT 8 LLC
2200 PENNSYLVANIA AVENUE, NW
SUITE 200W
WASHINGTON DC, 20037
301-704-5447
CJ OVERLY
COVERLY@BXP.COM

DESIGN CONSULTANTS

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LANDSCAPE ARCHITECT
PARKERRODRIGUEZ
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703.548.5010
CONTACT: DAN AVRIT

ATTORNEY
MILES & STOCKBRIDGE
11 N WASHINGTON STREET
SUITE 700
ROCKVILLE, MD 20850
301.517.4813
CONTACT: SCOTT WALLACE

SHADY GROVE INNOVATION DISTRICT PHASE 1

4TH ELECTION DISTRICT
MONTGOMERY COUNTY, MARYLAND
WSSC GRID: 221NW09
TAX MAP: FS562 & FS62

PRELIMINARY FOREST CONSERVATION TREE LIST

PROFESSIONAL SEAL

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED, REGISTERED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.
NAME: CHANDA BEAUFORT, RLA
LICENSE NUMBER: 3312
EXPIRATION DATE: SEPTEMBER 7, 2024

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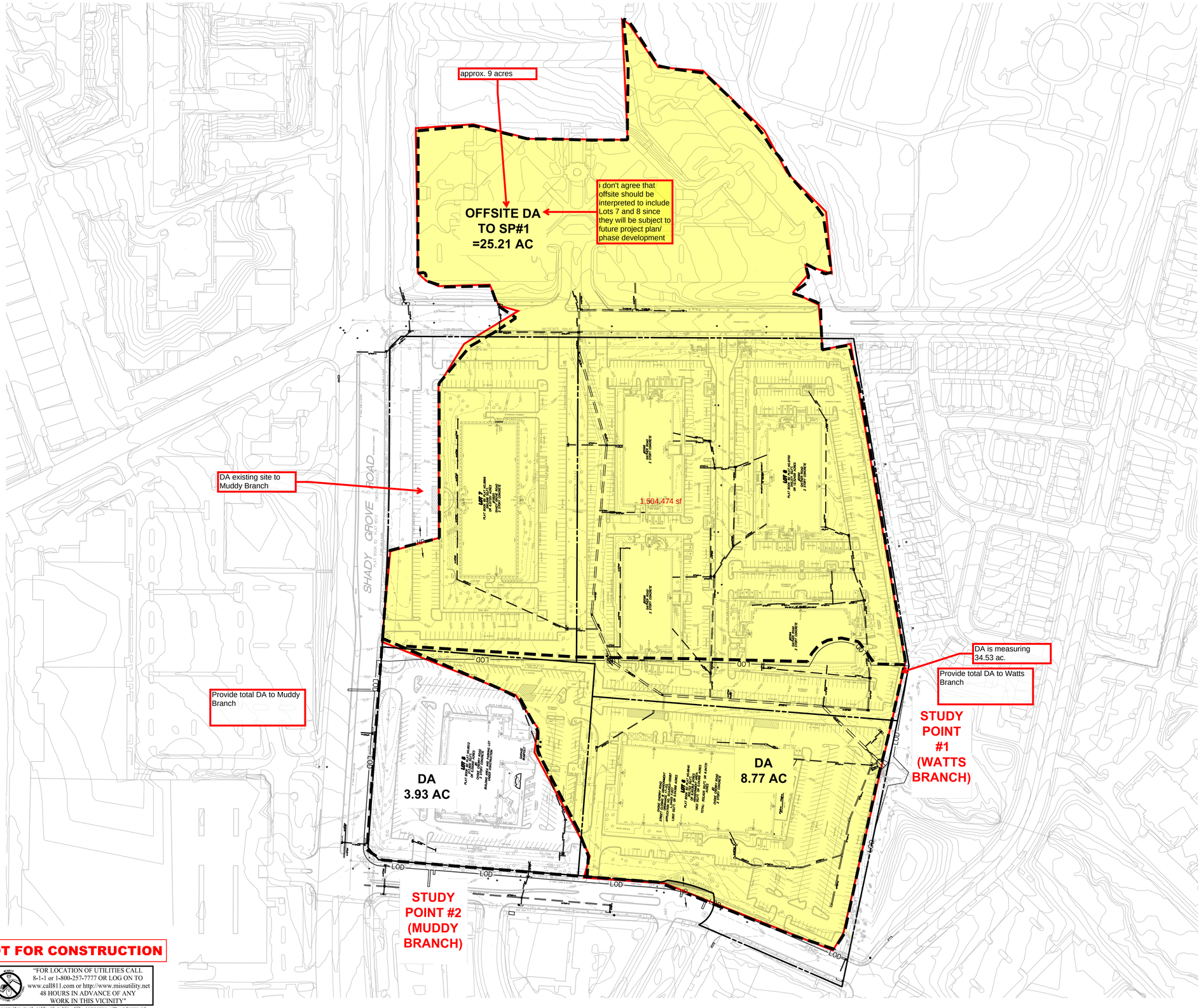
DRAWN BY: EJS
DESIGNED BY: MBG
DATE ISSUED: 01/20/23

VIKA PROJECT 50554A

DRAWING NO. PFCP-7

SHEET NO.

\\MD-SHS-FS02\vika.com\vpn\shs\50554\01-SITE\02-DWG\MARYLAND\PLAN SET\PFCP\PFCP-7.dwg ~ Friday, March 17, 2023 4:28:35 PM



VICINITY MAP
SCALE: 1" = 2000'

Provide proposed DA Map

LEGEND

— — — —	EXISTING DRAINAGE AREA
LP=322	LOW PONT
HP=338	HIGH POINT

100 50 0 100 200 300
SCALE: 1"=100'

NOT FOR CONSTRUCTION

"FOR LOCATION OF UTILITIES CALL 8-1-1 or 1-800-257-7777 OR LOG ON TO www.call811.com or http://www.missutility.net 48 HOURS IN ADVANCE OF ANY WORK IN THIS VICINITY"

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DESIGN CONSULTANTS

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ATTORNEY
MILES & STOCKBRIDGE
11 N WASHINGTON STREET
SUITE 700
ROCKVILLE, MD 20850
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CONTACT: SCOTT WALLACE

SHADY GROVE INNOVATION DISTRICT PHASE 1

4TH ELECTION DISTRICT
MONTGOMERY COUNTY, MARYLAND
WSSC GRID: 221NW09
TAX MAP: FS562 & FS62

OVERALL DRAINAGE AREA MAP AND STUDY POINTS

PROFESSIONAL SEAL
STATE OF MARYLAND
MICHAEL B. GOODMAN
No. 27721
PROFESSIONAL ENGINEER

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
ENGINEER'S NAME: Michael B. Goodman, P.E.
LICENSE No.: 27721
EXPIRATION DATE: July 19, 2024

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DRAWN BY: _____
DESIGNED BY: _____
DATE ISSUED: _____

VIKA PROJECT
DRAWING NO.
SHEET NO. 1 OF 1

LAYOUT: DAMAP, Plotted By: Mounaud

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PRE-APPLICATION STORMWATER MANAGEMENT CONCEPT

SMC#: SMC2023-XXXX

SMC2023-00008

UTILIZE COR BASHEET PER CHECKLIST

UTILIZE COR BASHEET PER CHECKLIST

PROVDE ALL PLANS (OFF-SITE D.A.M., FORESTRY OVERLAY, ETC.) AS SEPARATE PLANS. NUBMER SHEETS ACCORDINGLY

SHADY GROVE INNOVATION DISTRICT - PHASE-1

4TH ELECTION DISTRICT ROCKVILLE MONTGOMERY COUNTY, MARYLAND

A Pre-Application SWM Concept will not be approved until the NRI/FSD is approved

Pre-Application SWM Concept approval is required before an Applicant can submit a Development SWM Concept

A Site Plan cannot be submitted until the Pre-Application SWM Concept is approved

The Pre-App SWM Approval letter will establish percent of ESD required and safe conveyance analysis (pond)

INCOMPLETE SWM SUBMISSION was submitted with Site Plan on 3/17.

Acceptable submission was submitted on 4/4

Items must be provided in next submission:

On-Site Drainage Area Map. In lieu of a separate plan, the drainage divides, areas and sizes can be shown on the Pre-Application SWM Concept Plan

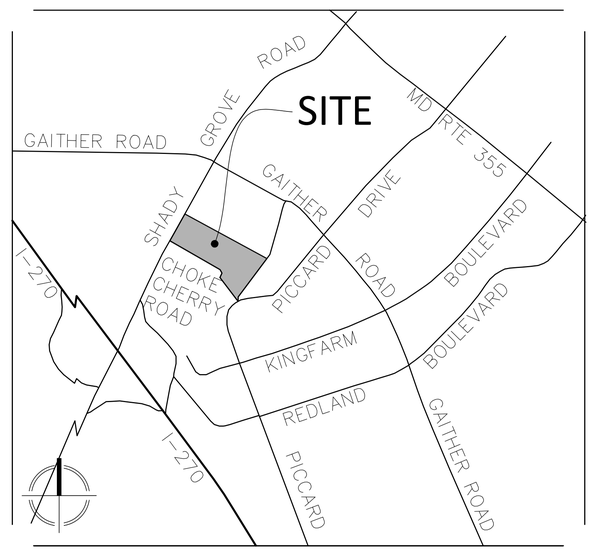
Off-Site Drainage Area Map

Copy of the adjacent and downstream notification list.

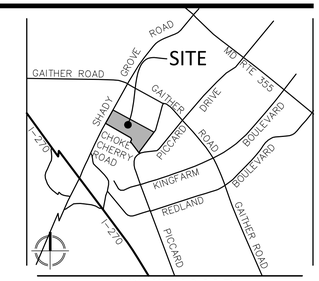
Geotechnical Report with borings and testing as required by the Department

refer to SWM Concept Plan Review checklist for submittal and plan requirements

include SWM summary table and SWM comps with resubmission package (provided 4/4/23)



VICINITY MAP
SCALE: 1" = 1000'



VICINITY MAP
SCALE: 1" = 2000'

VIKA MARYLAND, LLC
20251 Century Blvd., Suite 400
Germantown, MD 20874
301.916.4100 | vika.com
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PREPARED FOR:
BXP SHADY GROVE LOT 5 LLC
BXP SHADY GROVE LOT 6 LLC
BXP SHADY GROVE LOT 8 LLC
2200 PENNSYLVANIA AVENUE, NW
SUITE 200W
WASHINGTON DC, 20037
301-704-5447
CJ OVERLY
COVERLY@BXP.COM

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CONTACT: MICHAEL GOODMAN, PE

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CONTACT: DREW NAPOLITANO

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WDG ARCHITECTURE
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SUITE 300
WASHINGTON, DC 20036
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CONTACT: JOANNE TRUMBO

LANDSCAPE ARCHITECT
PARKERRODRIGUEZ
101 N UNION ST
SUITE 320
ALEXANDRIA, VA 22314
703.548.5010
CONTACT: DAN AVRIT

ATTORNEY
MILES & STOCKBRIDGE
11 N WASHINGTON STREET
SUITE 700
ROCKVILLE, MD 20850
301.517.4813
CONTACT: SCOTT WALLACE

OWNER / APPLICANT:
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CONTACT: CJ OVERLY
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ENGINEER / PLANNER / LANDSCAPE ARCHITECT:
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GERMANTOWN, MD 20874
PH: 301.916.4100
CONTACT: LAURENT MOUNAUD
e-mail: mounaud@vika.com

SHADY GROVE INNOVATION DISTRICT PHASE 1
4TH ELECTION DISTRICT
MONTGOMERY COUNTY, MARYLAND
WSSC GRID: 221NW09
TAX MAP: FS562 & FS62

PRE APPLICATION CONCEPT STORMWATER MANAGEMENT COVER SHEET

STORMWATER MANAGEMENT CONCEPT GENERAL NOTES

1. ALL STORM DRAIN PIPES PROPOSED ARE EITHER REINFORCED CONCRETE PIPE (RCP), HIGH PERFORMANCE POLYPROPYLENE (HP) OR POLYVINYL CHLORIDE (PVC).
2. STORM DRAIN PIPE SIZES SHOWN ARE ESTIMATED AND ARE SUBJECT TO CHANGE DURING FINAL ENGINEERING DESIGN.
3. QUANTITY AND LOCATION OF ENVIRONMENTALLY SENSITIVE DESIGN (ESD) MEASURES ARE SUBJECT TO CHANGE DURING FINAL ENGINEERING DESIGN.
4. ALL WATER AND SEWER LINES SHOWN ARE APPROXIMATE AND ARE SUBJECT TO CHANGE UPON FINAL ENGINEERING DESIGN.
5. ALL UTILITY LAYOUTS SHOWN ON THIS CONCEPT PLAN ARE SUBJECT TO ADJUSTMENT IN LOCATION, SIZE AND CONFIGURATION DURING FINAL ENGINEERING TO ACCOMMODATE LOCATIONS OF TREES, DRY UTILITIES, STREET LIGHTS AND OTHER CONFLICTING FEATURES. LAYOUTS SHOWN HEREON ARE CONCEPTUAL AND NOT INTENDED TO REFLECT FINAL LOCATION OF THESE UTILITIES.

SHEET INDEX

SWC 1 OF 3 PRE-APPLICATION STORMWATER MANAGEMENT CONCEPT COVER SHEET
SWC 2 OF 3 PRE-APPLICATION STORMWATER MANAGEMENT CONCEPT PLAN
SWC 3 OF 3 PRE-APPLICATION STORMWATER MANAGEMENT DETAILS

Pre-Application Concept Summary Table
SMC#2023-##### SMC2023-00008
Type of Concept: Pre-Application Stormwater Concept
COR: PAM2023-#####
Property Address: 15815 Shady Grove Road, Rockville, MD 20850
Property Legal Description: Danac Technological Park
Property Size(ac./sqft): 12.13 Ac / 528,383 Sqft
Total Concept Area (ac./sqft): 12.13 Ac. / 528,383 sqft
Zoning: MXE
Watershed and Stream Class: Muddy Branch and Watts Branch to Potomac Direct
Special Protection Area: Yes
100-Yr Floodplain: Yes
Target PE / Proposed PE: 1.80" / 1.00"
Target ESDV / Proposed ESDV: 59,453 Cuft / 29,174Cuft
ESD Measures: Microbioretention, Bio Swales
Structural Storage Required / Provided: 26,308 Cuft / 26,308 Cuft
Structural Measures: Portion of Proposed SWM Pond

Copied to plan on 4/4/23

DPW does not support the pond if it is not providing treatment for the entire DA and the ultimate development.

NOTE: THIS PLAN IS FOR STORMWATER MANAGEMENT ONLY

NOT FOR CONSTRUCTION

"FOR LOCATION OF UTILITIES CALL 8-1-1 or 1-800-257-7777 OR LOG ON TO www.call811.com or http://www.missutility.net 48 HOURS IN ADVANCE OF ANY WORK IN THIS VICINITY"

The excavator must notify all public utility companies with underground facilities in the area of proposed excavation and have those facilities located by the utility companies prior to commencing excavation. The excavator is responsible for compliance with requirements of Chapter 36A of the Montgomery County Code.

PROFESSIONAL SEAL

STATE OF MARYLAND — MICHAEL B. GOODMAN — No. 27721 — PROFESSIONAL ENGINEER

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
ENGINEER'S NAME: Michael B. Goodman, P.E.
LICENSE No.: 27721
EXPIRATION DATE: July 19, 2024

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DRAWN BY: _____
DESIGNED BY: _____
DATE ISSUED: _____

VIKA PROJECT
DRAWING NO.
SHEET NO. SWC-1

LAYOUT: SWC-1, Plotted By: Kadiri

P:\35051-51\00\35051-51-SHADY GROVE LOT 1-PHASE 1\DRAWINGS\SHEETS\35051-51-00-SWM-SHEET-PAM-C3D.dwg – Friday, March 17, 2023 3:35:31 PM

Provide summary table for each block

City follows MCDPS WRTP-8
Safe Placement of Surface Fed SWM Practices

ESD facilities must provide a min. 1' of treatment

EXPLAIN WHY DIVIDE IS NOT AT FLOWLINE (AT A MINIMUM)

SWM within WSSC easement

show/label all proposed easements, include PUEs, W&S and SWM (typ)

ESD measures within Public ROW will require fence of sufficient height. Facilities within ROW cannot have drop from top of wall to the surface of the facility greater than 24"

LABEL C&G OR EDGE OF PAVEMENT. ADJUST DIVIDE ACCORDINGLY

ALL SWM FACILITIES LABELS SHOULD BE LEGIBLE

DPW does not support the pond if it is not providing treatment for the entire DA and the ultimate development.

Bypass SD noted in SWM Report is not shown on the plan. DPW does not support parallel storm drains lines and multiple outfalls.

See site plan markup for pond comments

Maintenance access from public right-of-way or publicly traveled road (e.g. private road in a townhouse project): minimum width 12-feet, no steeper than 10% (15% if mechanically stabilized). Provide standard driveway apron at access point to facilities located in greenspace.

Provide area for maintenance vehicles to turn around

Maintenance Easement (Shall include riser structure, embankment, outfall, 100-year ponding area, access, , adjacent property as necessary. Show easement on plan view. Minimum 10-foot clearance around the facility

Slopes – No steeper than 3:1 anywhere around the pond (except where natural topography is preserved or for the downstream toe of a dam used as a public roadway). Slopes above the permanent pool of a wet pond no steeper than 4:1, 3:1 with safety bench*, or 2:1 if natural topography is preserved and a safety bench* is provided.

*Bench must be a minimum of 15-feet wide and 1-foot above the permanent pool elevation or at the extended detention pool elevation, if provided.

show storm drain outfalls

label total and impervious drainage areas, ESDv required, ponding storage depth, ESDv provided, and top of media elevation

DA labels for facilities receiving rooftop drainage should match on plans, comps and SWM System Summary Table

provide sufficient information to support the vertical aspects of the SWM System, including existing and proposed inverts at critical locations

Provide justification why green roof and permeable paving cannot be provided

Provide standard driveway apron at access point

THIS AREA DRAINS TOWARDS BLDG?

consider treating additional DA in ESD (typ)

REMOVE # SYMBOL (ALL)

VERIFY ROOF PLAN SUPPORTS THESE DIVIDES

Access path from public right-of-way is a minimum width 12-feet. Easement needs to be wider to include path

dry utilities shown to encroach SWM easement (typ)

DAs don't match grading

head islands must be min. 10' wide. consider relocating MBF-H2 to middle island to consolidate area

City follows MCDPS WRTP-8
Safe Placement of Surface Fed SWM Practices

if bioswale design is kept (rather than changing to MBF) the overflow structure should be located at the downstream side of the facility and wheel stops should be provided at the parking edge (typ)

Treat impervious area on site

- roof downspout shall not be located within 5' of cleanout or overflow structure.
- roof downspout invert shall be no greater than 3" above top of mulch
- surge stone shall be located at each roof downspout location

WHAT IS THIS LINE?

plan currently proposes to increase DA to Watts Branch

Runoff from site needs to be captured on-site. Cannot drain into ROW

C&G will prevent bioswales from receiving sheetflow along their entire length and will function more like a standard MBF with curb cut inlets (typ)

note USDA soil types and HSG on plan

SWM easement widths must be able to provide enough space for construction, maintenance and vehicle access

label survey datum. provide two benchmarks with location, elevation and description

Show area not treated

SCALE: 1"=40'

STORMWATER MANAGEMENT LEGEND

PROPOSED MICRO-BIOFILTRATION PLANTER BOX

PROPOSED SWM MAINTENANCE EASEMENT

PROPOSED DRAINAGE DIVIDE

SB-1 / 2UB — SOIL LABEL

NOT FOR CONSTRUCTION

"FOR LOCATION OF UTILITIES CALL 8-1-1 or 1-800-257-7777 OR LOG ON TO www.call811.com or http://www.missutility.net 48 HOURS IN ADVANCE OF ANY WORK IN THIS VICINITY"

The excavator must notify all public utility companies with underground facilities in the area of proposed excavation and have those facilities located by the utility companies prior to commencing excavation. The excavator is responsible for compliance with requirements of Chapter 36A of the Montgomery County Code.

LAYOUT: SWC-2, Plotted By: Kadiri

VICINITY MAP
SCALE: 1" = 2000'

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Germantown, MD 20874
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CONTACT: DREW NAPOLITANO

RESIDENTIAL ARCHITECT
WDG ARCHITECTURE

LANDSCAPE ARCHITECT

PHASE 1

4TH ELECTION DISTRICT
MONTGOMERY COUNTY, MARYLAND
WSSC GRID: 221NW09
TAX MAP: FS562 & FS62

PRE APPLICATION CONCEPT STORMWATER MANAGEMENT PLAN

PROFESSIONAL SEAL
STATE OF MARYLAND — MICHAEL B. GOODMAN — No. 27721 — PROFESSIONAL ENGINEER

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. ENGINEER'S NAME: Michael B. Goodman, P.E. LICENSE No.: 27721
EXPIRATION DATE: July 19, 2024

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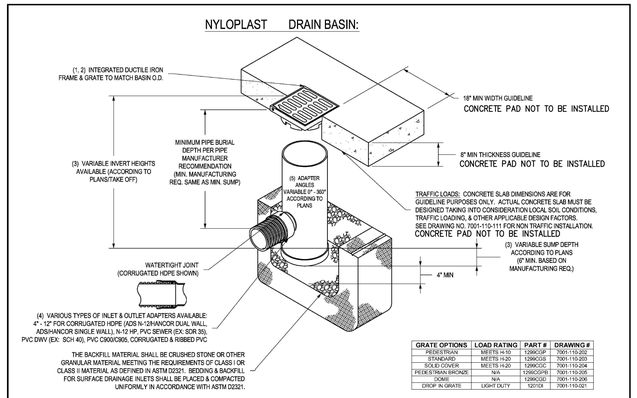
DRAWN BY: _____
DESIGNED BY: _____
DATE ISSUED: _____

VIKA PROJECT
DRAWING NO.
SHEET NO. SWC-2

Friday, March 17, 2023 3:36:12 PM



GRATE OPTIONS	LOAD RATING	PART #	DRAWING #
PEDESTRIAN	MEETS H-10	1296CGSF	7001-110-202
STANDARD	MEETS H-20	1296CGSS	7001-110-203
SOLID COVER	MEETS H-20	1296CGCC	7001-110-204
PEDESTRIAN BRONZE	N/A	1296CGPB	7001-110-205
DOME	N/A	1296CGD	7001-110-206
DROP IN GRATE	LIGHT DUTY	52/128	7001-110-021

1 - GRATES/SOLID COVER SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05, WITH THE EXCEPTION OF THE BRONZE GRATE.
2 - FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05
3 - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-065
4 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP, & PVC SEWER.
5 - ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.

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DRAWN BY	EBC	MATERIAL	
DATE	03-29-06		
REVISED BY	CCA	PROJECT NO./NAME	
DATE	06-27-13		
DWG SIZE	A	SCALE 1:20	SHEET 1 OF 1

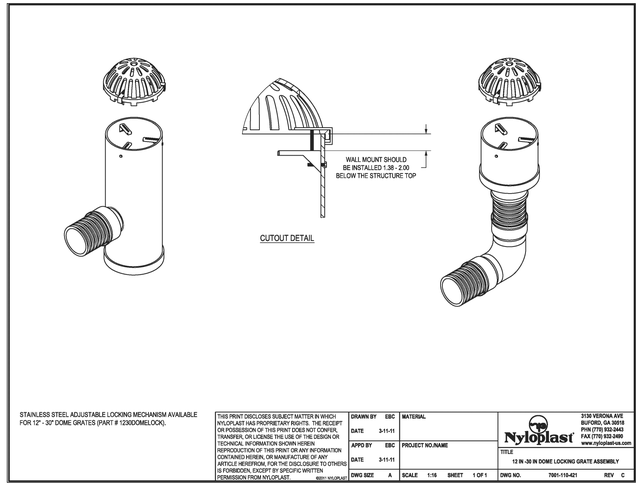
Nyloplast
3130 VERONA AVE
BUFORD, GA 30518
PHN (770) 932-2443
FAX (770) 932-2490
www.nyloplast-us.com

TITLE 12 IN DRAIN BASIN QUICK SPEC INSTALLATION DETAIL

DWG NO. 7001-110-189 REV D

8201-10 (R1) (R1)

MICRO-BIOFILTER DRAIN BASIN



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DATE	3-11-11		
APPD BY	EBC	PROJECT NO./NAME	
DATE	3-11-11		
DWG SIZE	A	SCALE 1:16	SHEET 1 OF 1

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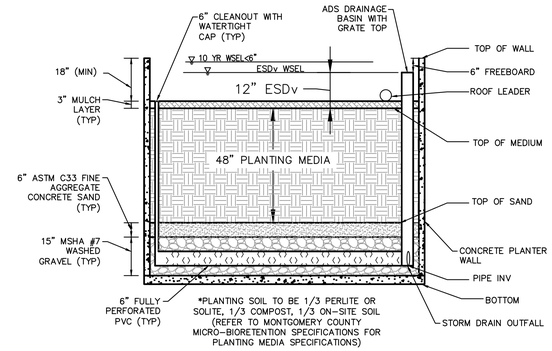
FAX (770) 932-2490
www.nyloplast-us.com

TITLE 12 IN -30 IN DOME LOCKING GRATE ASSEMBLY

DWG NO. 7001-110-421 REV C

8201-10 (R1) (R1)

MICRO-BIOFILTER DRAIN BASIN GRATE ASSEMBLY

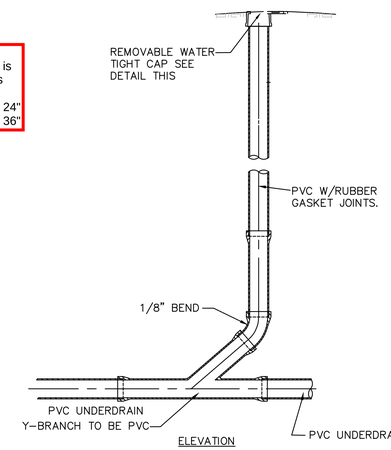


MICRO-BIORETENTION PLANTER BOX TYPICAL SECTION

N.T.S

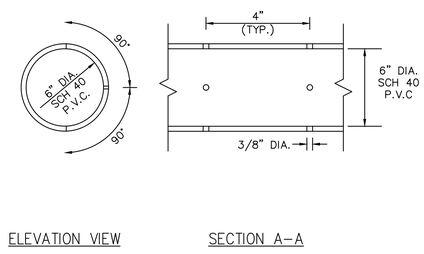
Follow safe placement design guidelines for SWM facilities adjacent pedestrian uses (MCDPS, WRTP-8). Fall protection is required if distance from top of wall to top of planting media is greater than a 24" vertical drop.
a. 18" safety fence to be used if vertical drop is greater than 24"
b. 42" safety fence to be used if vertical drop is greater than 36"

provide typical section of bioswales, graded micro-bioretention facilities, and curb openings



TYPICAL MICRO-BIOFILTER CLEANOUT DETAIL

NOT TO SCALE



NOTE: PERFORATIONS WILL BE 3/8" DIAMETER AT 4" ON CENTER EVERY 90°

P.V.C PERFORATION DETAIL

N.T.S.

Department of Permitting Services
Land Development Division
255 Rockville Pike, 2nd Floor
Rockville, MD 20850-4166
Phone: 311 in Montgomery County or (240)-777-0311
Fax (240)-777-6339
http://www.montgomerycountymd.gov/permittingservices/

DPS

BIO SWALE (BS)

The Bio Swale methods described in the following section are based on the Bio Swale design found in Chapter 5 of the Maryland Storm Water Design Manual and the ESD Process & Computations Supplement dated July 2010. Where deemed appropriate, the design specifications have been modified by the Montgomery County Department of Permitting Services (DPS).

A. Facility Description

A Bio Swale is a channel that provides conveyance, water quality treatment and flow attenuation of stormwater runoff. Pollutant removal is achieved through vegetative filtering, sedimentation, biological uptake, and infiltration. Principal components of the system include: a) vegetated surface, b) a 2-foot planting media layer, c) a 6 inch thick sand layer, and d) a 12-inch gravel underdrain layer. The facilities should be heavily vegetated with appropriate grasses, and may also be landscaped to enhance their function and appearance.

B. System Design Considerations

1. Applicability

Bio Swales are appropriate for new and redevelopment applications. Because they incorporate an underdrain system, they are acceptable in fill soils. They may be used in public and private rights-of-way, and in other areas where swales would generally be incorporated into the project design.

2. Conveyance

Wherever practical, Bio Swales should be designed to receive flow along their entire length via sheet flow. They may be designed as treatment for piped flow or for other areas of concentrated flow when necessary and when safe inflow characteristics are employed. Overflow inlets should be installed as necessary.

The channel slope shall be between 1% and 4.0%. Maximum ESD flow velocity for the 1-year storm (2.6 inches) may not exceed 1.0 fps. Flow rate shall be calculated per Appendix D.10 of the 2000 Maryland Stormwater Design Manual. Channel side slopes may not exceed 3:1.

3. Groundwater

Bio Swales shall not be located where the water table is within 2 feet of the bottom of the facility. If the 2 ft. clearance requirement cannot be met, an alternative stormwater practice must be proposed.

4. Setbacks

Bio Swales shall be located at least 30 feet from water supply wells and 25 feet from septic systems. Practices should be located down gradient and setback at least 10 feet from building foundations.

5. Gravel Layer

The gravel layer must meet MSHA size #7 (Table 901A), and shall be 12-inckes in depth. No geotextile or filter fabric is allowed to be placed horizontally anywhere within the filter media, except at driveway crossings, as shown in the typical section.

6. Sand Bed

A minimum 6-inch fine aggregate sand layer shall be provided below the planting media. ASTM C33 or AASHTO M6 Fine Aggregate Concrete Sand is required per Montgomery County sand specifications.

7. Planting Medium

The planting media shall be 24" thick and shall consist of 1/3 perlite or Solite, 1/3 compost and 1/3 topsoil. The perlite shall be coarse grade horticultural perlite. The compost shall be high grade compost free of stones and partially composted woody material. The topsoil shall meet the following minimum criteria: contain no more than 10% clay, 10-25% silts and 60-75% sand. The soil shall be free of stones, stumps, roots or other similar objects larger than 2 inches. The first layer of the planting medium shall be lightly tilled to mix it into the sand layer, so as not to create a definitive boundary. The planting material shall be flooded after placement. Any settlement that occurs shall be filled back to the design elevation.

8. Mulch

When vegetated with grass, the Bio swale does not require a mulch layer. A typical location for a grassed Bio Swale would be in a public right-of-way. When the Bio Swale is landscaped with vegetation other than grass, a mulch layer is required. The surface mulch layer will consist of standard double shredded aged hardwood mulch. The mulch should be applied uniformly to a depth of 3 inches. Yearly replenishing may be necessary. Pine bark is not acceptable.

9. Plant Materials

Plants, through their pollutant uptake and evapo-transpiration of stormwater runoff, play a key role in the overall effectiveness of the Bio Swale. As mentioned above, the Bio Swale may be planted in turf grass where it is appropriate to do so, such as along roadways where visibility is a concern and where active landscape maintenance is unlikely. In cases where the Bio Swale is proposed to be landscaped in materials other than grass, tree, shrub and herbaceous plantings may be used. Both the number and type of tree and shrub plantings for the system may vary, especially where aesthetics or other considerations are critical to site development. While native plants are encouraged, they are not always appropriate in all situations. While no hard planting rule exists, the plants should be a mix of trees, shrubs and herbaceous materials. However, there should be 2 to 3 shrubs planted per tree and herbaceous plantings shall make up 40% of the total number of plants. Trees shall be a minimum of 1 ½ in. caliper, shrubs shall be minimum 2 gal. size and herbaceous plants shall be a minimum 1 gal size. Mature plant canopy should cover 85% of the Bio Swale. Alternative planting schemes, including use of ornamental grasses, may be considered in some situations, so long as the planting plan is designed by a Registered Landscape Architect registered in the State of Maryland, however lawn grasses are not appropriate for these facilities. All plantings shall be in accordance with the Montgomery County landscape guidelines. All landscape plans must be sealed by a registered landscape architect. Since the plants are an integral part of the Bio Swale system, no changes to the approved landscape plan will be allowed unless an alternate plant list, prepared by a registered landscape architect, has been approved by DPS prior to installation. Since plant availability can change, DPS suggests including an alternate plant list on the landscaping plans.

C. Specifications and Details

1. Sizing

The Bio Swale shall be sized to capture and store 100% of the target treatment volume within the filter media (planting medium, sand, and underdrain stone). Surface ponding may not be calculated for swales since swales do not pond water, they convey it away. The surface of the Bio Swale shall be 2 to 8 feet in width. Planting medium shall be 24 inches deep. The width of the filter medium shall not be greater than the bottom width of the swale. Subsurface storage provided beyond the limits of the swale surface, or storage provided in excess of that required to treat the runoff for the 1 year, 24-hour design storm shall not be counted towards
the total ESDv provided. The total storage provided in the facility shall be computed as the storage provided in the filter medium, sand and underdrain stone layers. Computations shall account for the porosity (n = 0.40) of the filter media.

Bio Swales may not be "enhanced" by placing additional stone storage below the 12-inch stone underdrain layer.

2. Inflow Design Criteria

Runoff shall enter the Bio Swale in a non-erosive manner (less than 2 fps). Inflow may be via sheet flow, depressed curbs with wheel stops, curb cuts, level spreaders, over grass, or other acceptable conveyance methods.

3. Overflow Design Criteria

Safe conveyance of the developed 10-year storm through the Bio Swale must be demonstrated. Overflow inlets may be installed as required. The invert of the inlet shall be 6 inches above the elevation of the flow directed to encourage filtration of flows, and a berm will be required to be installed behind the inlet. Berms or check dams are not allowed elsewhere in the swale. All underdrains must outfall to safe, stable locations. Overflow devices must not feed into perforated or slotted pipe sections or into the stone underdrain layer.

4. Underdrain Pipe

Underdrain piping is only required where inlets are installed to intercept flow, such as at locations along a swale where the allowable velocity in the channel is exceeded, or at the downstream end of a facility where it becomes necessary to outlet the underdrain stone to grade. At these locations, a 10-foot section of perforated underdrain must be installed which will drain directly into the inlet.

The underdrain pipe consists of 6-inch diameter schedule 40 or stronger perforated PVC pipe at 0.00% slope. The underdrain pipe will be placed within the gravel layer. A minimum of three inches of gravel must be placed under the pipe, with a minimum of 3 inches of gravel over the pipe. Perforations must be 3/8 inch in diameter and must be located 4 inches on center, every 90 degrees around the pipe. Perforated pipe must begin at least 12" inside the filter media. Filter fabric must **not** be wrapped around the underdrain pipe. An acceptable alternative to perforated pipe is 6" diameter schedule 40 slotted PVC pipe with 0.125 inch slots. Slots shall be 0.125 inches wide and a minimum of 1.9 inches in length, with a minimum of 4 slots per row and 4 rows per linear foot of pipe.

Access for cleaning all underdrain piping is needed. Watertight clean-outs for each pipe shall be level with the surface of the media. All cleanouts shall have a removable waterproof cap. Cleanouts must be capped immediately after filter media is in place.

The stone layer must run the length of the swale, including under driveway crossings.

NOT FOR CONSTRUCTION

"FOR LOCATION OF UTILITIES CALL 8-1-1 or 1-800-257-7777 OR LOG ON TO www.call811.com or http://www.missutility.net 48 HOURS IN ADVANCE OF ANY WORK IN THIS VICINITY"

The excavator must notify all public utility companies with underground facilities in the area of proposed excavation and have these facilities located by the utility companies prior to commencing excavation. The excavator is responsible for compliance with requirements of Chapter 36A of the Montgomery County Code.

LAYOUT: SWC-3, Plotted By: Kodiri

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Germantown, MD 20874
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Our Site Set on the Future.

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BXP SHADY GROVE LOT 6 LLC
BXP SHADY GROVE LOT 8 LLC
2200 PENNSYLVANIA AVENUE, NW
SUITE 200W
WASHINGTON DC, 20037
301-704-5447
CJ OVERLY
COVERLY@BXP.COM

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ALEXANDRIA, VA 22314
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301.517.4813
CONTACT: SCOTT WALLACE

SHADY GROVE INNOVATION DISTRICT PHASE 1

4TH ELECTION DISTRICT
MONTGOMERY COUNTY, MARYLAND
WSSC GRID: 221NW09
TAX MAP: FS562 & FS62

PRE APPLICATION CONCEPT STORMWATER MANAGEMENT DETAILS

PROFESSIONAL SEAL
STATE OF MARYLAND
MICHAEL B. GOODMAN
No. 27721
PROFESSIONAL ENGINEER

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
ENGINEER'S NAME: Michael B. Goodman, P.E.
LICENSE No.: 27721
EXPIRATION DATE: July 19, 2024

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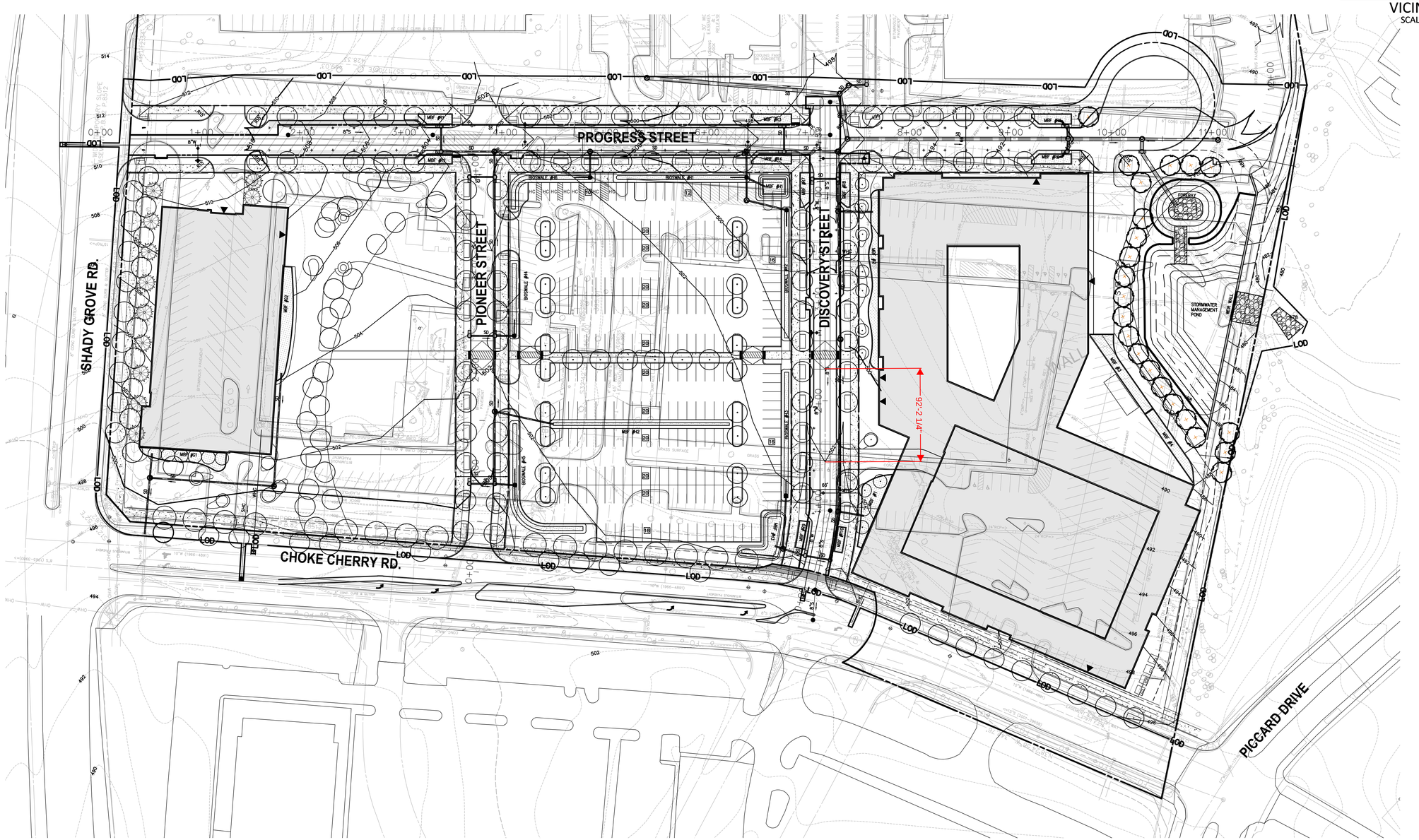
DESIGNED BY: _____
DATE ISSUED: _____

VIKA PROJECT
DRAWING NO.
SHEET NO. SWC-3

S:\50501-51000\50545\CAD\PHASE 1\PRELIMINARY\PLOT SHEETS\50545000_P_PHT_PMP_CSWM.dwg -- Friday, March 17, 2023 3:36:41 PM

E-FILE STAMP


PROGRESS STREET
PIONEER STREET
DISCOVERY STREET
SHADY GROVE RD.
CHOKE CHERRY RD.
PICCARD DRIVE
BIOSWALE #1
BIOSWALE #2
BIOSWALE #3
BIOSWALE #4
BIOSWALE #5
BIOSWALE #6
MBF #1
MBF #2
MBF #3
MBF #4
MBF #5
MBF #6
MBF #7
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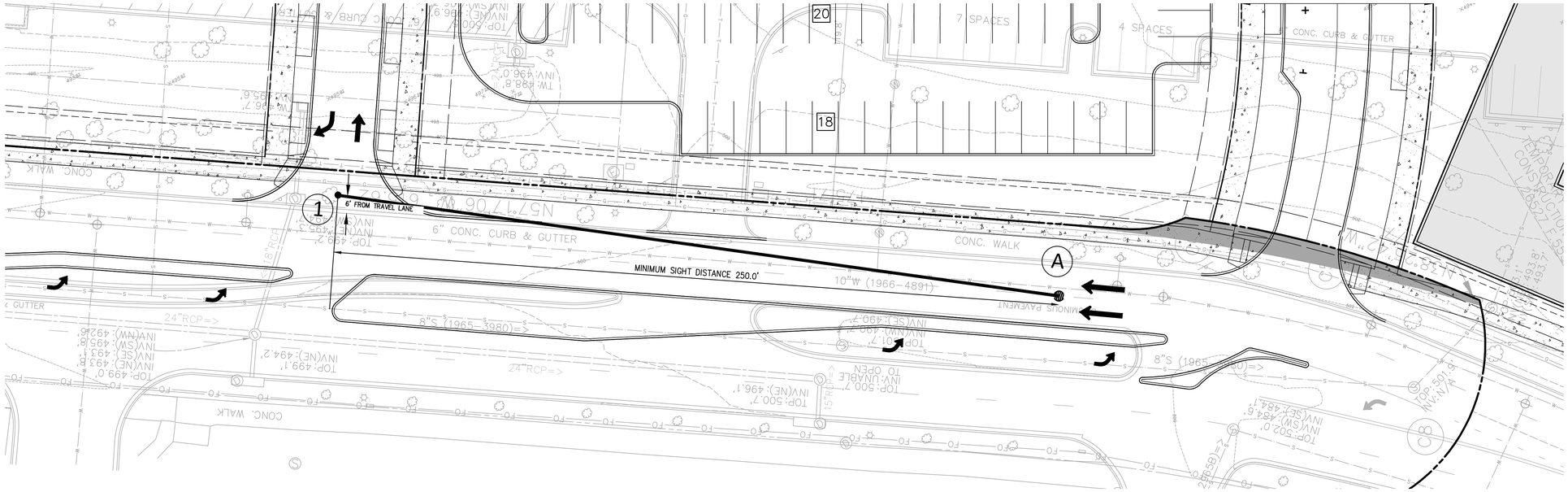
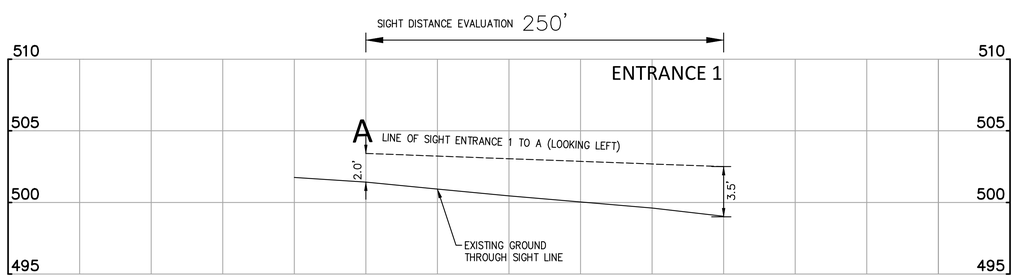
MBF #19
MBF #20
MBF

CHOKE CHERRY ROAD

(POSTED SPEED LIMIT 30MPH)



Provide sight distance for all building entrances



STUDY POINT #1 STOPPING SIGHT DISTANCE PROFILE

SCALE: HORIZ. 1" = 50' VERT. 1" = 5'

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MONTGOMERY COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION
DEPARTMENT OF PERMITTING SERVICES

SIGHT DISTANCE EVALUATION

Facility/Subdivision Name: Shady Grove Innovation District
Preliminary Plan Number: 1-
Street Name: Choke Cherry Road
Master Plan Road Classification: Primary Industrial
Posted Speed Limit: 30 mph
Street/Driveway #1 (Pioneer Street)
Street/Driveway #2 (_____)

Sight Distance (feet)	OK?	Sight Distance (feet)	OK?
Right		Right	
Left 250	YES	Left	

Comments:

Comments:

GUIDELINES

Classification or Posted Speed (use higher value)		Required Sight Distance in Each Direction*
Tertiary	25 mph	150'
Secondary	30	200'
Business	30	200'
Primary	35	250'
Arterial	40 (45)	325' 400'
Major	50 (55)	475' 550'

*Source: AASHTO

Sight distance is measured from an eye height of 3.5' at a point on the centerline of the driveway (or side street) 6' back from the face of curb or edge of traveled way of the intersecting roadway where a point 2.75' above the road surface is visible. (See attached drawing)

ENGINEER/ SURVEYOR CERTIFICATE

I hereby certify that this information is accurate and was collected in accordance with these guidelines.

Signature Date

PLS/P.E. MD Reg. No.

Montgomery County Review:

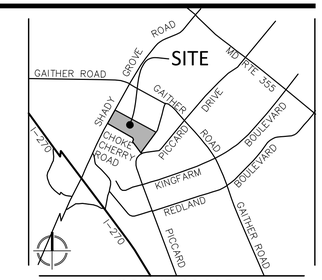
☐ Approved

☐ Disapproved:

By: _____

Date: _____

Form Reformatted: March, 2000



VICINITY MAP
SCALE: 1" = 2000'

NORTH

20 10 0 20 40 60
SCALE: 1"=20'

LEGEND

- ENTRANCE
- INCOMING DRIVER
- LINE OF SIGHT
- MAXIMUM SIGHT DISTANCE
- REQUIRED MINIMUM SIGHT DISTANCE

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SHADY GROVE INNOVATION DISTRICT PHASE 1

4TH ELECTION DISTRICT
MONTGOMERY COUNTY, MARYLAND
WSSC GRID: 221NW09
TAX MAP: FS562 & FS62

PRE-APPLICATION SIGHT DISTANCE EVALUATION ENTRANCE 1

PROFESSIONAL SEAL

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DRAWN BY: EJS
DESIGNED BY: MBG
DATE ISSUED: 01/06/23

VIKA PROJECT 50554G

DRAWING NO.

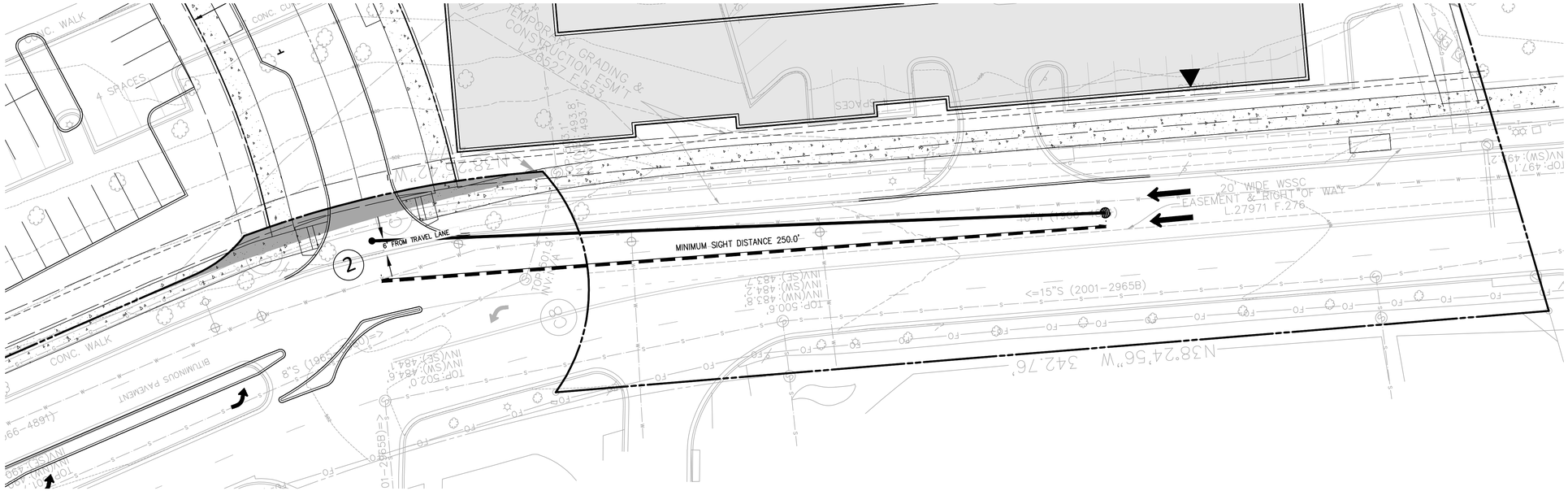
SHEET NO.

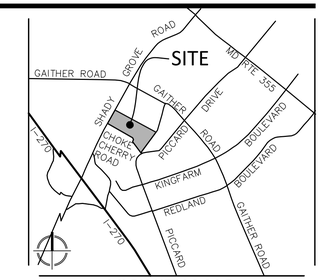
\\50554G-SHADY GROVE INNOVATION DISTRICT\PHASE 1\DRAWINGS\LOT SHEETS\50554100_P_PHI_PAW_SIGHT DISTANCE.dwg – Friday, March 17, 2023 4:06:06 PM

LAYOUT: Entrance 1, Plotted By: Kadiri

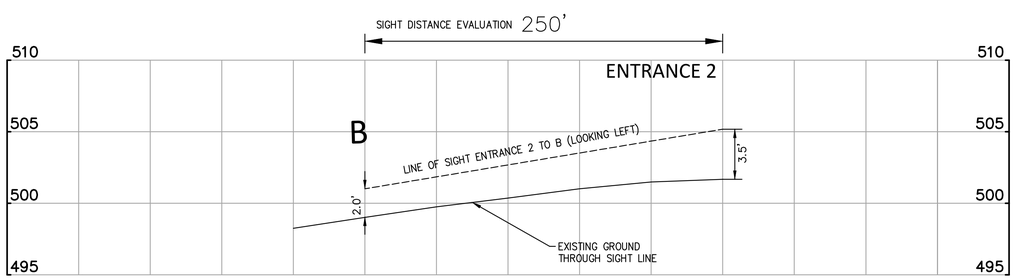
CHOKE CHERRY ROAD

(POSTED SPEED LIMIT 30MPH)





VICINITY MAP
SCALE: 1" = 2000'



STUDY POINT #2 STOPPING SIGHT DISTANCE PROFILE

SCALE: HORIZ. 1" = 50' VERT. 1" = 5'

20 10 0 20 40 60

SCALE: 1"=20'

LEGEND

- ENTRANCE
- INCOMING DRIVER
- LINE OF SIGHT
- MAXIMUM SIGHT DISTANCE
- REQUIRED MINIMUM SIGHT DISTANCE

MONTGOMERY COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION
DEPARTMENT OF PERMITTING SERVICES

SIGHT DISTANCE EVALUATION

Facility/Subdivision Name: Shady Grove Innovation District
Preliminary Plan Number: 1-
Street Name: Choke Cherry Road
Master Plan Road Classification: Primary Industrial
Posted Speed Limit: 30 mph
Street/Driveway #1 (Discovery Street)
Street/Driveway #2 ( )

Sight Distance (feet)	OK?	Sight Distance (feet)	OK?
Right		Right	
Left 250	YES	Left	

Comments:

Comments:

GUIDELINES

Classification or Posted Speed (use higher value)	Required Sight Distance in Each Direction*
Tertiary - 25 mph	150'
Secondary - 30	200'
Business - 30	200'
Primary - 35	250'
Arterial - 40	325'
(45)	400'
Major - 50	475'
(55)	550'

*Source: AASHTO

Sight distance is measured from an eye height of 3.5' at a point on the centerline of the driveway (or side street) 6' back from the face of curb or edge of traveled way of the intersecting roadway where a point 2.75' above the road surface is visible. (See attached drawing)

ENGINEER/ SURVEYOR CERTIFICATE

I hereby certify that this information is accurate and was collected in accordance with these guidelines.

Signature Date

PLS/P.E. MD Reg. No.

Montgomery County Review:

☐ Approved

☐ Disapproved:

By:

Date:

Form Reformatted: March, 2000

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SHADY GROVE INNOVATION DISTRICT PHASE 1

4TH ELECTION DISTRICT
MONTGOMERY COUNTY, MARYLAND
WSSC GRID: 221NW09
TAX MAP: FS562 & FS62

PRE-APPLICATION SIGHT DISTANCE EVALUATION ENTRANCE 2

PROFESSIONAL SEAL

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DRAWN BY: EJS
DESIGNED BY: MBG
DATE ISSUED: 01/06/23

VIKA PROJECT 50554G

DRAWING NO.

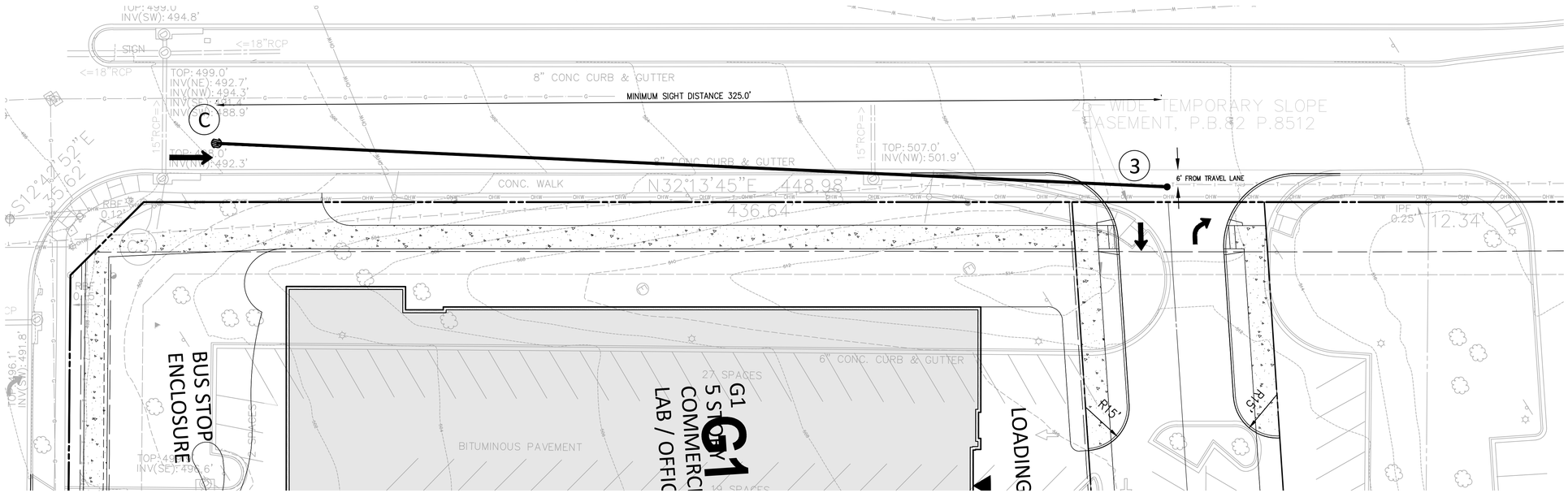
SHEET NO.

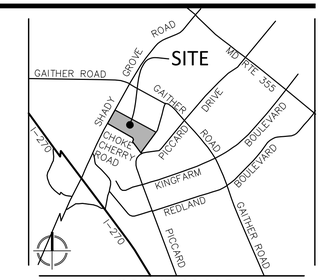
V:\50554G\01001-05050\SITE\SHADY GROVE INNOVATION DISTRICT PHASE 1 SIGHT DISTANCE.dwg - Friday, March 17, 2023 4:06:40 PM

LAYOUT: Entrance 2, Plotted By: Kadiri

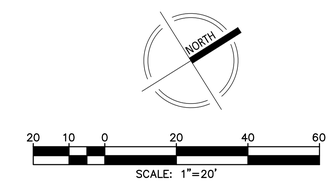
SHADY GROVE ROAD

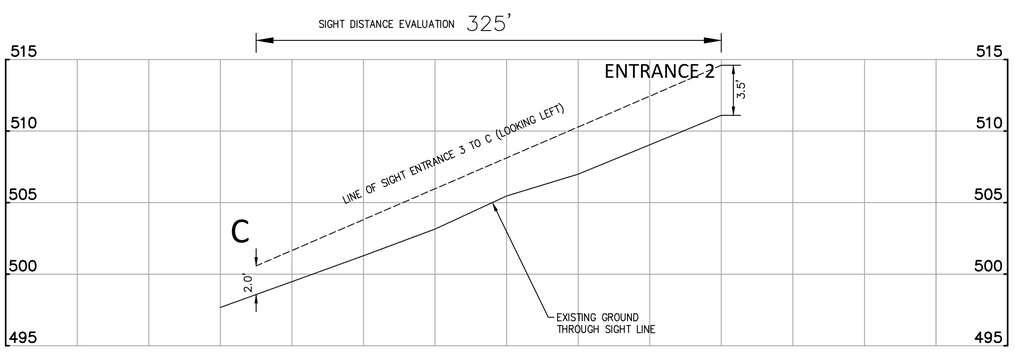
(POSTED SPEED LIMIT 40MPH)





VICINITY MAP
SCALE: 1" = 2000'





STUDY POINT #3 STOPPING SIGHT DISTANCE PROFILE

SCALE: HORIZ. 1" = 50' VERT. 1" = 5'

MONTGOMERY COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION
DEPARTMENT OF PERMITTING SERVICES

SIGHT DISTANCE EVALUATION

Facility/Subdivision Name: Shady Grove Innovation District Preliminary Plan Number: 1-

Street Name: Shady Grove Road Master Plan Road Classification: Arterial

Posted Speed Limit: 40 mph

Street/Driveway #1 (Progress Street) Street/Driveway #2 (_____)

Sight Distance (feet)		OK?	Sight Distance (feet)		OK?
Right			Right		
Left	325	YES	Left		

Comments: Comments:

GUIDELINES

Classification or Posted Speed (use higher value)		Required Sight Distance in Each Direction*
Tertiary	25 mph	150'
Secondary	30	200'
Business	30	200'
Primary	35	250'
Arterial	40	325'
	(45)	400'
Major	50	475'
	(55)	550'

*Source: AASHTO

Sight distance is measured from an eye height of 3.5' at a point on the centerline of the driveway (or side street) 6' back from the face of curb or edge of traveled way of the intersecting roadway where a point 2.75' above the road surface is visible. (See attached drawing)

ENGINEER/ SURVEYOR CERTIFICATE

I hereby certify that this information is accurate and was collected in accordance with these guidelines.

Signature Date

PLS/P.E. MD Reg. No.

Montgomery County Review:

☐ Approved

☐ Disapproved:

By: _____

Date: _____

Form Reformatted: March, 2000

LEGEND

- ENTRANCE
- INCOMING DRIVER
- LINE OF SIGHT
- MAXIMUM SIGHT DISTANCE
- REQUIRED MINIMUM SIGHT DISTANCE

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LAYOUT: Entrance 3, Plotted By: Kodiri

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Our Site Set on the Future.

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SHADY GROVE INNOVATION DISTRICT PHASE 1

4TH ELECTION DISTRICT
MONTGOMERY COUNTY, MARYLAND
WSSC GRID: 221NW09
TAX MAP: FS562 & FS62

PRE-APPLICATION SIGHT DISTANCE EVALUATION ENTRANCE 3

PROFESSIONAL SEAL

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DESIGNED BY: MBG
DATE ISSUED: 01/06/23

VIKA PROJECT 50554G

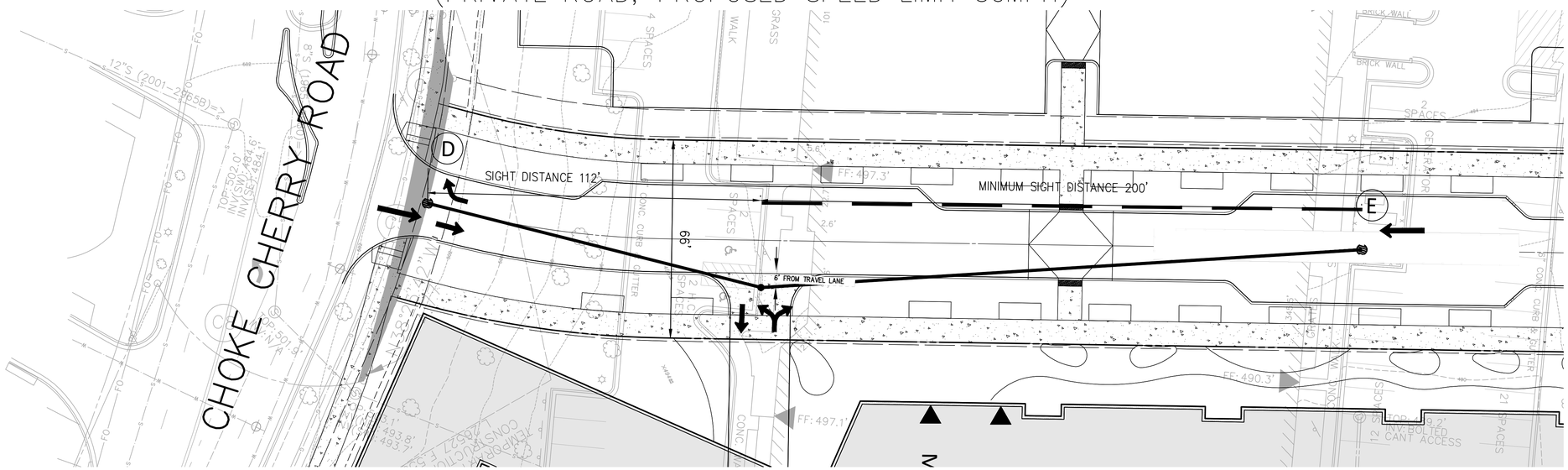
DRAWING NO.

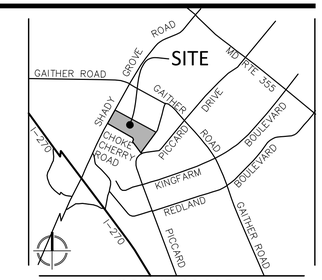
SHEET NO.

J:\50501-50100\50554\CADD\MARYLAND\SHEETS\50554100_P_PRE_PAP_SIGHT DISTANCE.dwg -- Friday, March 17, 2023 4:07:21 PM

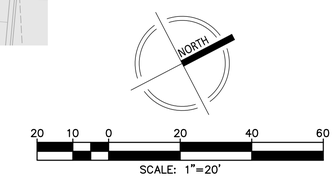
DISCOVERY STREET

(PRIVATE ROAD; PROPOSED SPEED LIMIT 30MPH)



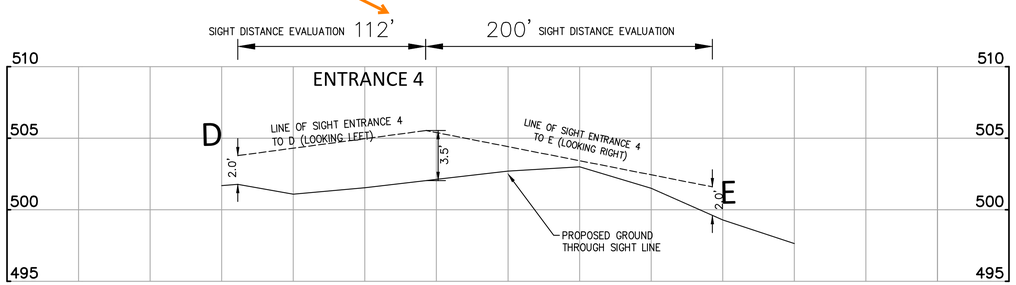


VICINITY MAP
SCALE: 1" = 2000'



SCALE: 1"=20'

This does not meet the required 200 feet. Justify how this meets the requirement for safe sight distance.



STUDY POINT #4 STOPPING SIGHT DISTANCE PROFILE

SCALE: HORIZ. 1" = 50' VERT. 1" = 5'

Discovery is BD-2 road

MONTGOMERY COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION
DEPARTMENT OF PERMITTING SERVICES

SIGHT DISTANCE EVALUATION

Facility/Subdivision Name: Shady Grove Innovation District
Preliminary Plan Number: 1-
Street Name: Discovery Street
Master Plan Road Classification: Secondary
Posted Speed Limit: 30 mph
Street/Driveway #1 (Discovery Street)
Street/Driveway #2 ( )

Sight Distance (feet)	OK?	Sight Distance (feet)	OK?
Right 200	YES	Right	
Left 112	YES	Left	

Comments: Left site distance has clear view of intersection.
Comments:

GUIDELINES

Classification or Posted Speed (use higher value)		Required Sight Distance in Each Direction*
Tertiary -	25 mph	150'
Secondary -	30	200'
Business -	30	200'
Primary -	35	250'
Arterial -	40	325'
	(45)	400'
Major -	50	475'
	(55)	550'

*Source: AASHTO

Sight distance is measured from an eye height of 3.5' at a point on the centerline of the driveway (or side street) 6' back from the face of curb or edge of traveled way of the intersecting roadway where a point 2.75' above the road surface is visible. (See attached drawing)

ENGINEER/ SURVEYOR CERTIFICATE

I hereby certify that this information is accurate and was collected in accordance with these guidelines.

Signature Date

PLS/P.E. MD Reg. No.

Montgomery County Review:
☐ Approved
☐ Disapproved:
By:
Date:

Form Reformatted: March, 2000

LEGEND

- ● ENTRANCE
- ⊘ INCOMING DRIVER
- LINE OF SIGHT
- MAXIMUM SIGHT DISTANCE
- REQUIRED MINIMUM SIGHT DISTANCE

"FOR LOCATION OF UTILITIES CALL 8-1-1 or 1-800-257-7777 OR LOG ON TO www.call811.com or http://www.missutility.net 48 HOURS IN ADVANCE OF ANY WORK IN THIS VICINITY"

The excavator must notify all public utility companies with underground facilities in the area of proposed excavation and have those facilities located by the utility companies prior to commencing excavation. The excavator is responsible for compliance with requirements of Chapter 36A of the Montgomery County Code.

LAYOUT: Entrance 4, Plotted By: Kadiri

VIKA MARYLAND, LLC
20251 Century Blvd., Suite 400
Germantown, MD 20874
301.916.4100 | vika.com
Our Site Set on the Future.

PREPARED FOR:
BXP SHADY GROVE LOT 5 LLC
BXP SHADY GROVE LOT 6 LLC
BXP SHADY GROVE LOT 8 LLC
2200 PENNSYLVANIA AVENUE, NW
SUITE 200W
WASHINGTON DC, 20037
301-704-5447
CJ OVERLY
COVERLY@BXP.COM

DESIGN CONSULTANTS

PLANNER, CIVIL ENGINEER
VIKA MARYLAND, LLC
20251 CENTURY BOULEVARD
SUITE 400
GERMANTOWN MD, 20874
301.916.4100
CONTACT: MICHAEL GOODMAN, PE

COMMERCIAL ARCHITECT
GENSLER
2020 K STREET NW
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202.776.7669
CONTACT: DREW NAPOLITANO

RESIDENTIAL ARCHITECT
WDG ARCHITECTURE
1025 CONNECTICUT AVE, NW
SUITE 300
WASHINGTON, DC 20036
202.857.8300
CONTACT: JOANNE TRUMBO

LANDSCAPE ARCHITECT
PARKERRODRIGUEZ
101 N UNION ST
SUITE 320
ALEXANDRIA, VA 22314
703.548.5010
CONTACT: DAN AVRIT

ATTORNEY
MILES & STOCKBRIDGE
11 N WASHINGTON STREET
SUITE 700
ROCKVILLE, MD 20850
301.517.4813
CONTACT: SCOTT WALLACE

SHADY GROVE INNOVATION DISTRICT PHASE 1

4TH ELECTION DISTRICT
MONTGOMERY COUNTY, MARYLAND
WSSC GRID: 221NW09
TAX MAP: FS562 & FS62

PRE-APPLICATION SIGHT DISTANCE EVALUATION ENTRANCE 4

PROFESSIONAL SEAL

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DRAWN BY: EJS
DESIGNED BY: MBG
DATE ISSUED: 01/06/23

VIKA PROJECT 50554G

DRAWING NO.

SHEET NO.

Friday, March 17, 2023 4:28:08 PM

From: Smith, Parker <Parker.Smith@montgomeryplanning.org>
Sent: Tuesday, April 11, 2023 9:14 AM
To: Li Alligood
Cc: Folden, Matthew; Brockmyer, Richard; Yearwood, Nkosi
Subject: RE: Twinbrook Place PAM Application
Attachments: Shady Grove Innovation District.docx; Twinbrook Place.docx

WARNING - External email. Exercise caution.

Hello Li,

Please see our review comments for the Shady Grove Innovation District and Twinbrook Place applications in the documents attached.

Thanks,

Parker Smith
Planner II
Montgomery County Planning Department
2425 Reedie Drive, Floor 14, Wheaton, MD 20902
parker.smith@montgomeryplanning.org
301-495-1327

From: Li Alligood <lalligood@rockvillemd.gov>
Sent: Monday, April 10, 2023 2:49 PM
To: Torma, Rebecca <Rebecca.Torma-Kim@montgomerycountymd.gov>; Folden, Matthew <matthew.folden@montgomeryplanning.org>
Cc: John Foreman <jforeman@rockvillemd.gov>; Shaun Ryan <sryan@rockvillemd.gov>
Subject: RE: Twinbrook Place PAM Application

[EXTERNAL EMAIL] Exercise caution when opening attachments, clicking links, or responding.

Hello Matt and Rebecca,

Checking in to see if you have any questions or comments about the provided materials.

Thank you!

Li Alligood, AICP, LEED AP ND
(she/her/hers)
Deputy Zoning Manager
240-314-8223
lalligood@rockvillemd.gov

Master Plan Comments

Shady Grove Innovation District

The proposed Shady Grove Innovation District is within the Rockville city limits. The 2021 *Shady Grove Sector Plan Minor Master Plan Amendment* acknowledges the municipal limits of Rockville, Gaithersburg and the Town of Washington Grove. No land use recommendations are made in this Sector Plan for independent municipalities.

Shady Grove Road is a major highway with a varied right-of-way between 120 and 150 feet. A portion of the roadway is within the Vision Zero's High Injury Network (HIN), but the proposed development area is not part of the HIN.

The 2018 Bicycle Master Plan recommends a sidepath along the southern portion of Shady Grove Road, including the frontage of this development. The minimum width of a sidepath is typically 10 feet. The proposed development is in the Greater Shady Grove Transportation Management District (TMD); therefore, it should contribute to furthering the TMD goals.

Recommendations

- Widen the sidewalk along Shady Grove Road from eight feet to 10 feet to implement the sidepath recommendation in the Bicycle Master Plan.
- This development should participate in the achieving Greater Shady Grove Transportation Management District goals.

Transportation Review Comments

- Develop a 16' sidepath on the east side of the road which is identified as part of the Life Sciences Center to Shady Grove Metro Breezeway Network. This would include 11' for a 2-way bikeway and 5' for pedestrians.
- Other frontage improvement recommendations based on the Complete Streets Guide for the Boulevard road type.
    - Provide an 8' street buffer between the travel lanes and the Breezeway
- Consider protected intersections at the intersections of Shady Grove Road and Choke Cherry Road and Shady Grove Road and Gaither Road. Protected Intersections are the default intersection treatment for intersections with separated bike lanes at one or more approaches. If a protected intersection is infeasible, bike boxes and two-stage turn queue boxes are ways to modify intersections to accommodate specific turning movements in the interim.

From: Torma, Rebecca <Rebecca.Torma-Kim@montgomerycountymd.gov>
Sent: Tuesday, March 21, 2023 12:26 PM
To: Folden, Matthew <matthew.folden@montgomeryplanning.org>
Cc: John Foreman <jforeman@rockvillemd.gov>; Shaun Ryan <sryan@rockvillemd.gov>; Li Alligood <lalligood@rockvillemd.gov>
Subject: FW: Twinbrook Place PAM Application

WARNING - External email. Exercise caution.

Good afternoon Matt,

Please see the email below from City of Rockville.

*********Please see the link below for new application process************
https://www.montgomerycountymd.gov/dot-dir/Resources/Files/DevRevApplication.pdf

Rebecca Torma | Manager, Development Review
Director's Office | Department of Transportation
101 Monroe Street
10th Floor
Rockville MD 20850
(240) 777-2118 (work)
(240) 383-5252 (cell)
Rebecca.torma@montgomerycountymd.gov

From: Li Alligood <lalligood@rockvillemd.gov>
Sent: Tuesday, March 21, 2023 12:20 PM
To: Reed, Patrick <patrick.reed@montgomeryplanning.org>; Torma, Rebecca <Rebecca.Torma-Kim@montgomerycountymd.gov>
Cc: John Foreman <jforeman@rockvillemd.gov>; Shaun Ryan <sryan@rockvillemd.gov>
Subject: FW: Twinbrook Place PAM Application

[EXTERNAL EMAIL]

Hello Patrick and Rebecca,

We have received the attached materials for a conversation of the existing building at 12501 Ardennes Ave from office to residential uses. I am routing to you both because it is located adjacent to County roadways.

Our internal comments are due on April 12; if you could provide any comments by that date I would appreciate it.

Feel free to contact me with any questions.

Best,

Li Alligood, AICP, LEED AP ND
Principal Planner
240-314-8223
lalligood@rockvillemd.gov

From: Jane Przygocki <JPrzygocki@solteszco.com>
Sent: Friday, March 10, 2023 5:21 PM
To: cpds <CPDS@rockvillemd.gov>
Cc: Michael Collier <mcollier@uniwestco.com>; Patricia A. Harris (paharris@lerchearly.com) <paharris@lerchearly.com>; Timothy Hoffman <THoffman@solteszco.com>; Phil Isaja <pisaja@solteszco.com>
Subject: Twinbrook Place PAM Application

WARNING - External email. Exercise caution.

Good Afternoon,
On behalf of our client, Uniwest Management, Inc., we hereby submit the attached documents for review under the PAM (Pre-Application Meeting) process.
Fees will be submitted directly to the City offices upon notification of receipt of this application.

Thank you for your consideration.
Kind regards,

Jane Przygocki, AICP, ASLA
Technical Director

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https://www.montgomerycountymd.gov/cybersecurity

DAM SAFETY

POLICY MEMORANDUM #1

TO: Dam Owners, Operators, and Engineers

FROM: Sediment, Stormwater, and Dam Safety Program
Water and Science Administration

DATE: February 25, 2019

SUBJECT: Maintenance and Repair: Trees and Woody Vegetation

Policy Statement

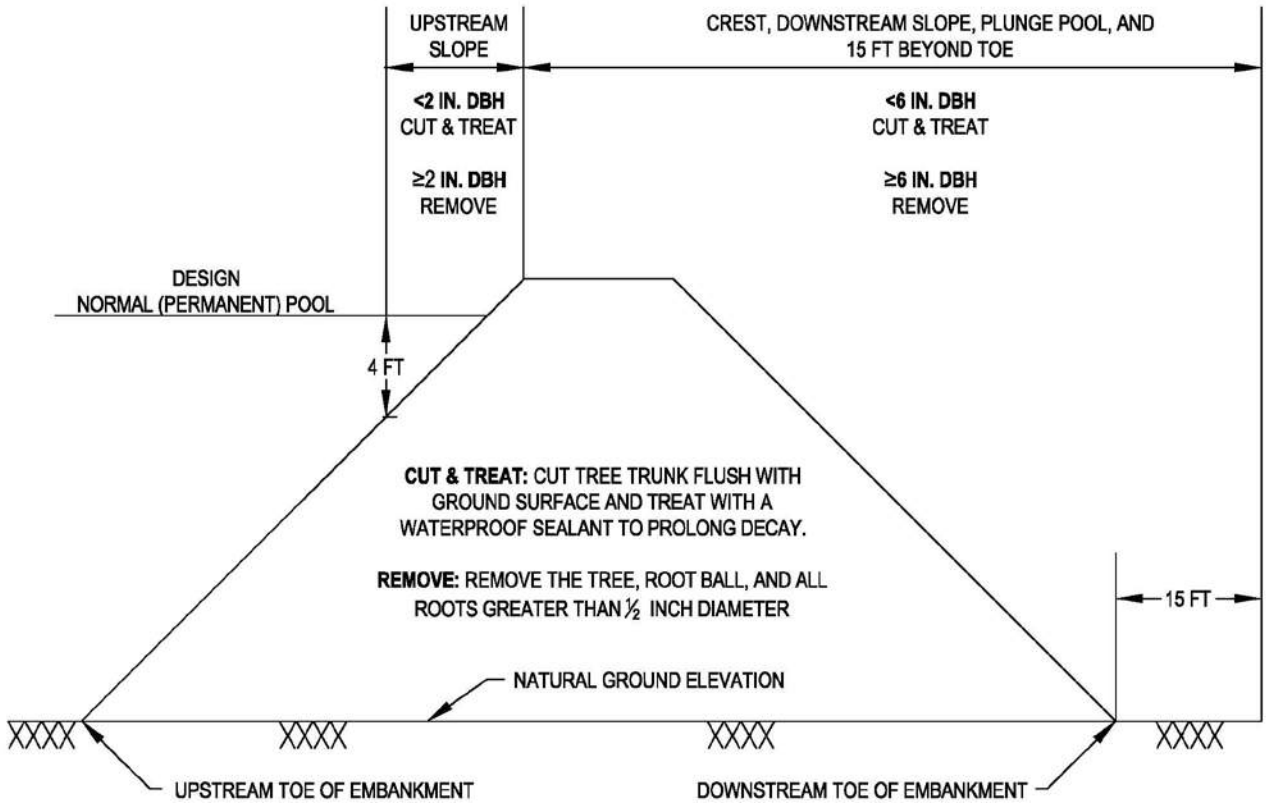
It is the policy of the Maryland Department of the Environment (the Department) that trees and other woody vegetation shall not be permitted to grow on or near dams or their appurtenant works. Prompt removal of woody vegetation in accordance with this policy is required of all dam owners in the State of Maryland.

Background

The growth of trees and woody vegetation negatively affects the integrity of the dam structure. Extensive root systems can weaken and loosen the soil matrix and provide seepage pathways for water. Trees that blow down or fall over can leave large holes in the embankment that can lead to increased erosion, loss of freeboard, and even failure of the dam. Brush obscures the surface and limits visual inspection, provides a haven for burrowing animals, and retards growth of non-woody vegetation. Tree and brush growth adjacent to concrete walls and structures may eventually cause damage and must be removed.

Removal of Trees and Woody Vegetation

Dam owners must maintain all areas of the dam free from trees and woody vegetation. These include areas within 15 feet of the upstream and downstream toe of embankment; within a 25-foot radius of the control structure; and within 15 feet of the abutment contacts, outlet, spillway area, and plunge pool. In emergency/auxiliary spillway channels, trees and woody vegetation must be removed in the zone extending 15 feet (horizontal) from the bottom edge of the spillway channel, or to a point two (2) feet above the water surface elevation in the channel during the design storm, whichever is greater. Where trees and woody vegetation exist in these areas, the extent of remedial activities (flush cut or full removal) will depend on the location and size of the tree, as presented in Figure 1. Removal of the stump and root ball and placement of controlled embankment fill material must be performed in accordance with detail TR-1 “Removal of Woody Vegetation on Dams”.



Notes:

1. Diameter at breast height (DBH) refers to the tree trunk diameter measured at 4.5 feet above the ground.
2. For dams with no permanent pool, tree cutting and root removal shall extend 15 feet beyond the toe of the upstream slope.
3. Trees within the 25-foot "no-tree" zone around spillways, but greater than 15 feet from the upstream slope shall be removed or cut flush to the ground and treated regardless of DBH.

Figure 1: Tree Cutting and Removal Zones

Removal of the stump and roots of a tree and placement of embankment fill may require a permit from the Department's Dam Safety Division for any dam listed on the Maryland Dam Inventory. For low hazard dams not on the Dam Inventory, approval may be required from the appropriate approval authority (the local Soil Conservation District, the Department's Plan Review Division, or other delegated entity). It is important to note that in many cases wet pool elevations will need to be drawn down prior to vegetation removal. Where a significant portion of the embankment will be disturbed due to the removal of a large number of trees, or where the removal of the trees may impact the spillway, internal drains and filters, the impervious core, or other dam appurtenances, special details must be provided by a Maryland registered professional engineer for review by the appropriate approval authority.

Restoration of Disturbed Areas

Following tree removal activities, a dense cover of low-growing grassy vegetation must be established where the earth has been disturbed or in areas of sparse ground cover. Grassy vegetation is recommended because it will provide protection from surface erosion, but its root structure does not penetrate the embankment so deeply as to weaken the dam structure. Deeper-rooted grasses should be planted in vegetated earth spillways. Seeding should be accomplished between optimum planting dates. Seeding late in the year may result in winterkill of young seedlings. The following spring an inspection of the seeded area should be made to determine if plant survival is satisfactory.

Before seeding, topsoil, fertilizer, and lime must be applied. Application rates will vary with soil type and condition, and can be determined by having the soil tested. The fertilizer and lime should be raked, disked or harrowed into the soil to a depth of not less than four (4) inches. Periodic fertilization is necessary to maintain vigorous vegetation. Immediately following seeding, the area should be mulched.

Recommended seeding mixtures, planting dates, and fertilizer application rates for dams are provided in Appendix B-4-5, "Standards and Specifications for Permanent Stabilization" in the *2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control*.

Plantings on Roadway Dams

The Department allows a limited exception to this policy for planting of certain trees or similar woody vegetation along the crest of roadway embankments used as dry stormwater management structures (i.e., those structures that act as dams, rather than culverts). While planting trees on roadway embankments is discouraged, the following conditions must be met to allow limited woody vegetation plantings:

1. The structure shall have no permanent wet pool.
2. The dam shall be classified as low hazard only.
3. The structure shall have a minimum of three (3) feet of freeboard between the peak 100-year water surface elevation (WSEL) and the lowest point on the crest of the dam.
4. The width of the dam embankment measured three (3) feet above the peak 100-year WSEL shall be no less than 50 feet.
5. Woody vegetation planting is acceptable only on the top of the dam along the edge of the roadway.
6. Woody vegetation planting shall not be permitted on the side slopes.
7. Woody vegetation planting is not permitted within 15 feet from the spillway, toe, or abutments of the dam.
8. Planting may consist only of trees or shrubs with a shallow root system (less than three (3) feet depth) when mature. A landscape plan showing the type and location of plantings shall be submitted for review and approval by the appropriate authority. The plan shall be prepared by a Maryland registered landscape architect with a note certifying that the proposed plantings have a shallow root system.

Sheri Freedman

Subject: FW: The Grove

From: Kelly Flint -MDE- <kelly.flint@maryland.gov>
Sent: Friday, November 15, 2019 6:25 AM
To: Jim Soltesz, P.E. <jsoltesz@solteszco.com>
Cc: Mike E. Wagner, PE <MEWagner@solteszco.com>; Hal Van Aller -MDE- <hal.vanaller@maryland.gov>
Subject: Re: The Grove

Hi Jim and Mike - Please see the guidance below for designing the wall. Let me know if you have additional questions. Thanks, Kelly

Some notes for design:

- Wall design should include ACI-350 requirements in addition to ACI-318
- Joints should have waterstops
- Assume full uplift pressure on wall base (assume drain will clog/fail)
- Wall should have a toe drain or other means to relieve uplift pressure
- Weir outfall must be stable for design storm outflow (assuming Q100 at the moment)
- Wall design must consider overturning and sliding, as well as bearing pressure
- Soil parameters for wall design should consider at-rest soil pressures
- "No woody vegetation" zone extends 15 ft from downstream extents of wall footing. If drain is located beyond wall footing, 15 ft is from the drain envelope.

Load cases:

1: Water at max elevation for design storm. No soil resisting (aka no passive, unless provided by key that is protected by concrete footing from scour)

2: No water in pond. Saturated soils on downstream slope (forces acting towards pond)

NOTE: If woody free zones mentioned above are followed, the wind loads from trees wouldn't play a role.

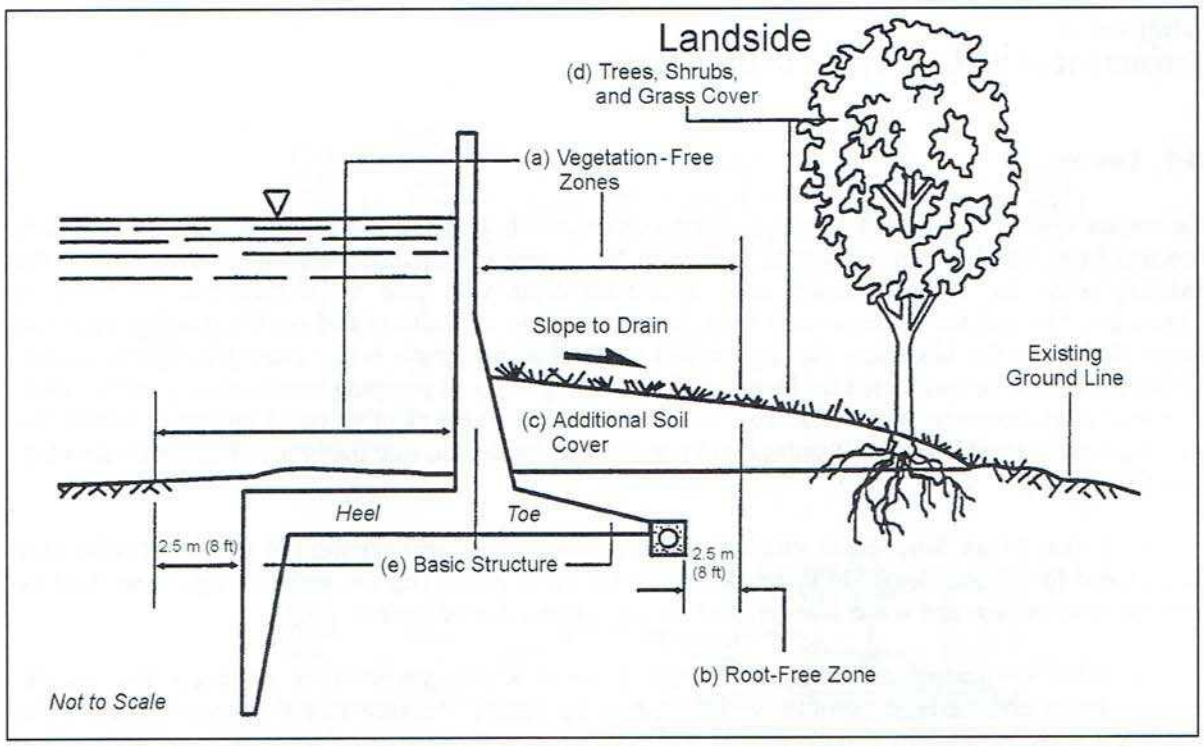


Figure 3-1. Inverted T-type floodwall showing (a) vegetation-free zone, (b) root-free zone (vertical joint occurring at section), (c) additional soil cover, (d) landscape planting of trees, shrubs, and grass, and (e) basic structure

b. Cantilever I-type sheet piling floodwall. Landscape planting at this type of wall should be designed similarly to that for the T-type wall. Vegetation- and root-free zones should be established for the structure, similar to those for T-type walls. A typical section of an I-type wall is shown in Figure 3-2.

3-3. Embankment Dams

Two general types of dams to be considered are earth dams and rock-fill dams. Usually, dams are constructed in rural areas and seldom encroach on urban areas. Where it is desirable to restore or enhance the damsite with tree and shrub plantings, these plantings should be designed to blend the structures with the natural surroundings. Restoration of borrow areas or other areas disturbed during construction should be considered in landscape planning.

a. Earth dams. Landscape planting will be confined to areas adjacent to the dam embankment. Because of the need for access at the downstream toe area by maintenance and construction equipment during periods of flooding, a 15-m (50-ft) vegetation-free zone will be maintained immediately downstream of the toe of the dam in the floodplain and on the abutments.

b. Rock-fill dams. Planting can be considered for all adjacent areas to blend the dam into the surroundings.

Figure 2 illustrates acceptable and unacceptable applications of this policy exemption.

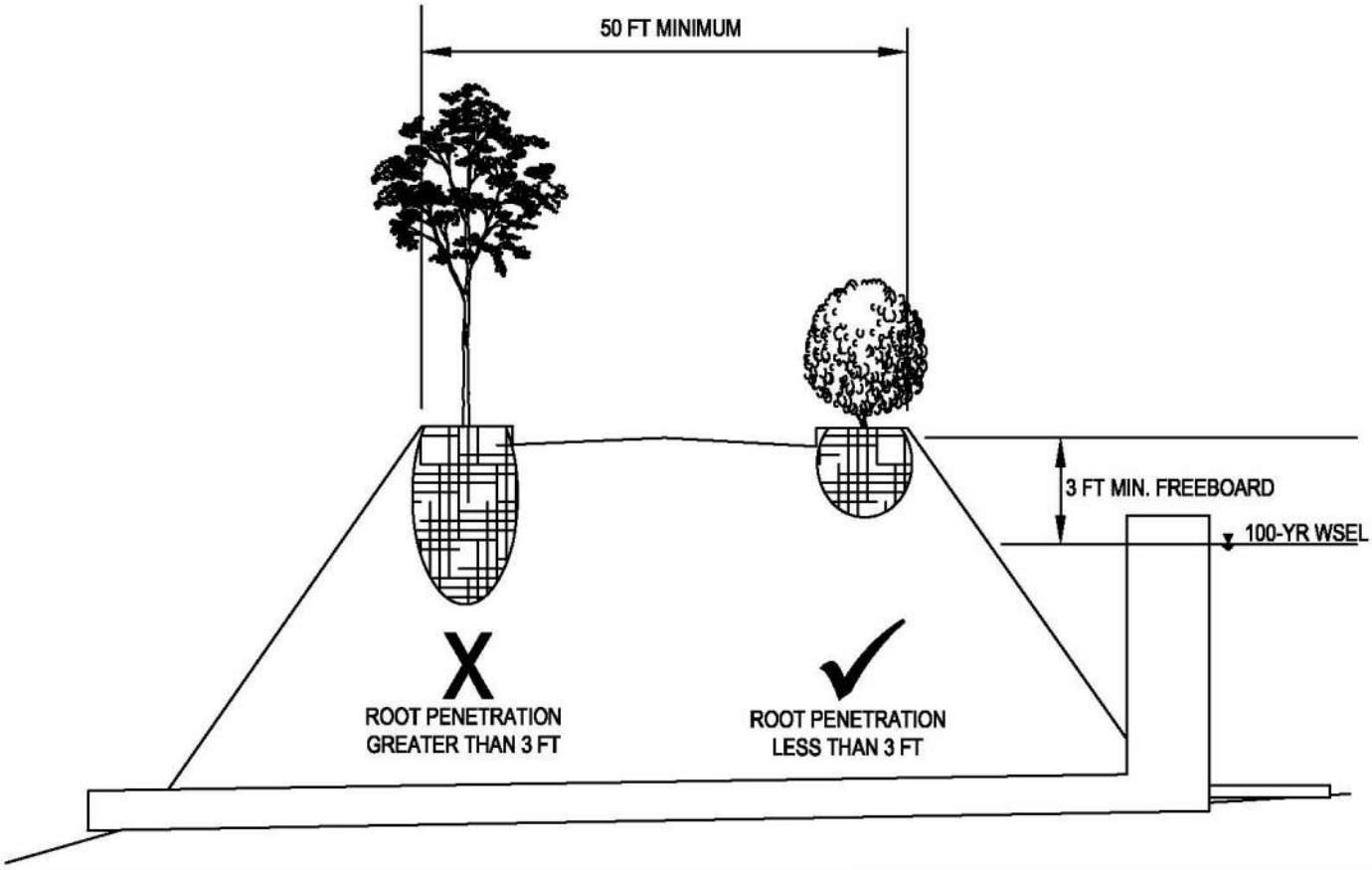
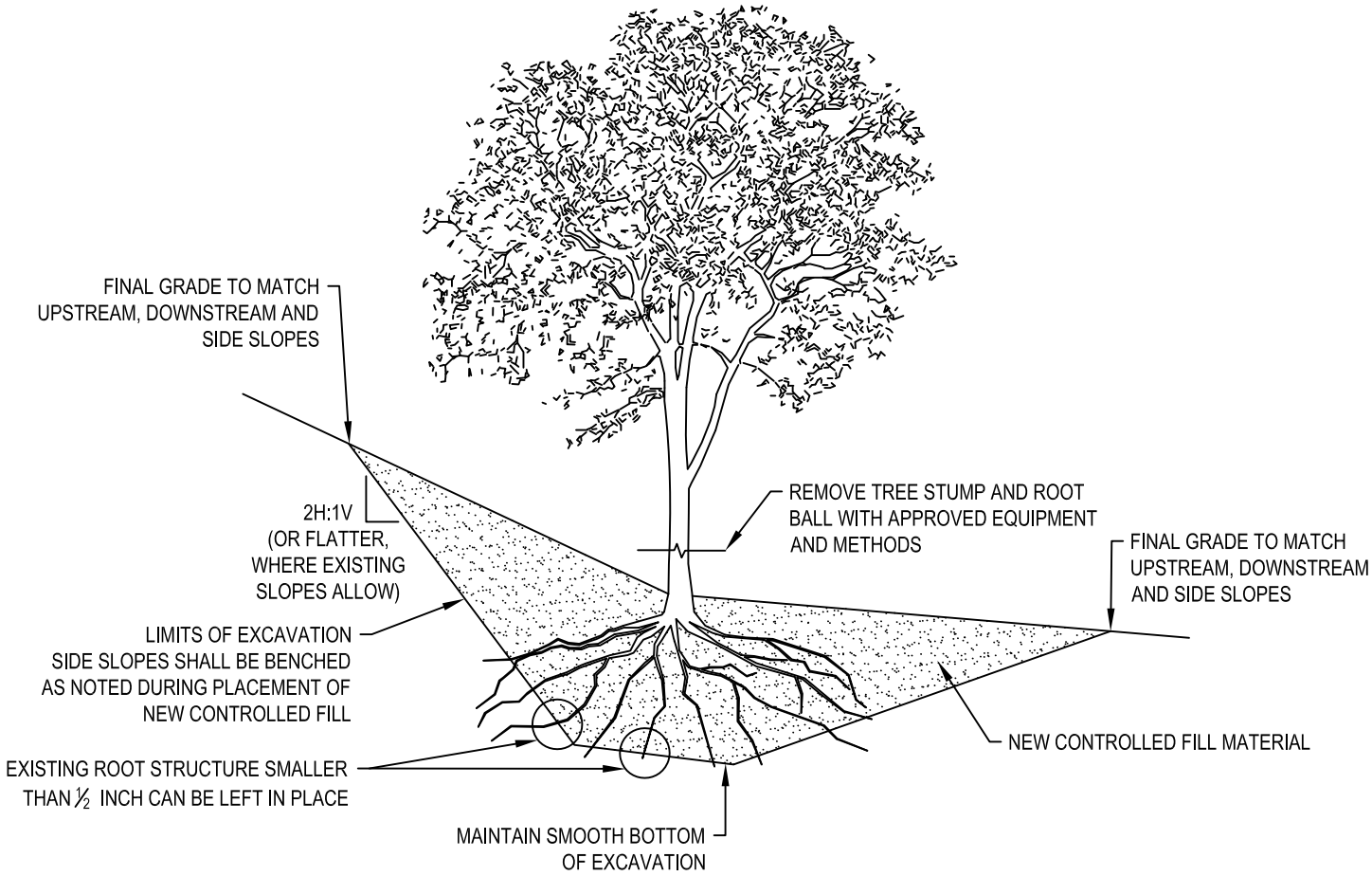


Figure 2: Plantings on Dams Used as Roadway

Additional Information

For additional information on this subject, refer to "Technical Manual for Dam Owners – Impacts of Plants on Earthen Dams", Chapter 5 – Controlling Tree and Woody Vegetation Growth (FEMA 534/ September 2005).

Questions about this policy or other items relating to ponds and dams can be directed to the Chief of the Dam Safety Division at 410-537-3538.



NOTES:

1. TREE STUMP REMOVAL ON OR WITHIN 15 FEET OF A DAM SHALL BE COMPLETED IN STRICT ACCORDANCE WITH THE DETAIL AND UNDER THE SUPERVISION OF A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF MARYLAND EXPERIENCED IN DAM DESIGN AND CONSTRUCTION.
2. POOL LEVELS SHALL BE DRAWN DOWN AND MAINTAINED TO AN ELEVATION EQUAL TO OR LOWER THAN THE ANTICIPATED ELEVATION AT THE BOTTOM OF EXCAVATION OR TO THE BOTTOM OF THE POND PRIOR TO MAKING ANY EXCAVATIONS TO REMOVE STUMPS AND ROOTS.
3. A QUALIFIED PROFESSIONAL ENGINEER, OR THEIR REPRESENTATIVE, MUST BE ON-SITE FULL-TIME DURING STUMP REMOVAL.TREE STUMP EXCAVATIONS SHALL BE BACKFILLED AND APPROVED PRIOR TO BEGINNING ADDITIONAL REMOVALS AND EXCAVATIONS.
4. TREE STUMPS SHALL BE REMOVED TO A DEPTH SUCH THAT NO ROOT STRUCTURE LARGER THAN ½ INCH DIAMETER IS LEFT IN PLACE. THE ENGINEER SUPERVISING THE WORK MAY EXERCISE JUDGEMENT WHERE TAP ROOTS EXTEND TO SIGNIFICANT DEPTHS BELOW EXISTING GRADES.
5. THE EXCAVATION SHALL EXTEND TO THE DEPTH WHERE SUITABLE AND STABLE SOILS ARE ENCOUNTERED. THE EXCAVATION SHALL BE AS SMALL AS POSSIBLE. THE BOTTOM OF THE EXCAVATION SHALL BE AS FLAT AS POSSIBLE. ALL LOOSE SOIL SHALL BE REMOVED FROM THE EXCAVATION.
6. EXCAVATIONS SHALL NOT EXTEND TO DEPTHS GREATER THAN FOUR (4) FEET BELOW EXISTING GRADES, MEASURED FROM THE HIGHEST UPSTREAM POINT OF THE EXCAVATION, UNLESS APPROVED BY THE ENGINEER. EXCAVATIONS SHALL BE MADE IN ACCORDANCE WITH ALL APPLICABLE OSHA EXCAVATION AND TRENCHING SAFETY REQUIREMENTS.
7. ALL NEW CONTROLLED FILL SHALL BE FREE OF ROOTS, STUMPS, WOOD, RUBBISH, STONES GREATER THAN SIX (6) INCHES, FROZEN OR OTHER OBJECTIONABLE MATERIALS. FILL SHALL CONFORM TO UNIFIED SOIL CLASSIFICATION GC, SC, CH OR CL AND SHALL HAVE AT LEAST 30% PASSING THE #200 SIEVE. FILL SHALL BE PLACED IN LIFTS NO GREATER THAN EIGHT (8) INCHES LOOSE THICKNESS AND COMPACTED TO A MINIMUM OF 95% MAXIMUM DRY DENSITY (ASTM D698, STANDARD PROCTOR) WITH A MOISTURE CONTENT WITHIN +/- 2% OF THE OPTIMUM .
8. IN GENERAL, ALL SLOPING EXCAVATIONS CREATED FROM THE REMOVAL AND EXCAVATION PROCESS SHOULD BE NO STEEPER THAN 2 HORIZONTAL TO 1 VERTICAL (2:1), WHERE PRACTICABLE, AND SHALL BE BENCHED OR NOTCHED SO THAT A SMOOTH SLOPING INTERFACE BETWEEN EXISTING GROUND AND NEW FILL IS NOT PRESENT.
9. NO DEBRIS GENERATED FROM THE STUMP REMOVAL SHALL REMAIN ON, OR WITHIN 15 FEET OF THE DAM EMBANKMENT FOLLOWING THE COMPLETION OF WORK. DEBRIS MUST BE DISPOSED OF IN A MANNER CONSISTENT WITH ALL LOCAL AND STATE REGULATIONS.
10. IF WATER IS ENCOUNTERED IN THE TREE STUMP CAVITY AND/OR EXCAVATION, A PERMANENT FILTER DRAIN MAY BE REQUIRED TO CONTROL SEEPAGE. IMMEDIATELY BACKFILL THE EXCAVATION WITH FINE AGGREGATE MEETING THE REQUIREMENTS OF SECTION 901, AGGREGATES OF THE MARYLAND DEPARTMENT OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATION, 2017 STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, THEN CONTACT THE MDE DAM SAFETY DIVISION FOR FURTHER GUIDANCE.
11. THIS DETAIL DOES NOT APPLY WHERE EXCAVATIONS TO REMOVE TREE STUMPS MAY INTERCEPT OR DAMAGE EXISTING FILTERS, INTERNAL DRAINS, IMPERVIOUS CORES, SPILLWAY CONDUITS OR SIMILAR DAM ELEMENTS, FOR WHICH PROJECT SPECIFIC DETAILS SHALL BE DEVELOPED FOR REVIEW BY THE APPROPRIATE APPROVAL AUTHORITY.

Maryland Department of the Environment

DETAIL TR–1: REMOVAL OF WOODY VEGETATION ON DAMS

APPROVED: FEBRUARY 2019, REV.1

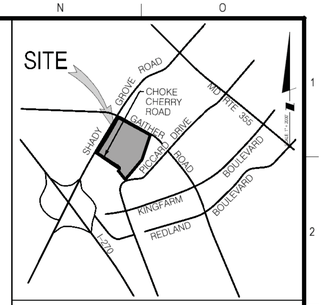
WATER AND SCIENCE ADMINISTRATION
SEDIMENT, STORMWATER, AND DAM SAFETY PROGRAM

Approved Preliminary FCP
City of Rockville
FTPO # 2016 - 00013
Page(s) 1 of 5
Authorized Signature 4/24/19
Date

PRELIMINARY FOREST CONSERVATION PLAN FOR PROJECT PLAN SUBMITTAL

SHADY GROVE NEIGHBORHOOD CENTER

SHADY GROVE ROAD, ROCKVILLE, MARYLAND 20850



VICINITY MAP
SCALE: 1" = 2000'

CITY FORESTER CHART

Tree Type	Number of 200 SF	Number of 400 SF	Square footage	Total Reqired
CRZ Credit	N/A	N/A	800	
FC reforestation Planting area	N/A	N/A	28,750	
FC trees (excluding street trees)	76	122	64,000	
FC street trees (no credit for Shady Grove trees in ROW)	0	82	32,800	
Total FC Credit			126,350	103,673
Replacement trees	45	5	-	112
Street trees NOT FC credit	0	62	N/A	N/A
Non credited trees Not on Private Residential Property	22	0	-	24,800
Non credited trees ON Private Residential Property	0	0	0	0
MTC	129	223	29,550	135,472

MINIMUM TREE COVER			
TRACT AREA SF	ZONING	MTC REQURED %	MTC SF REQUIRED
1354716	MXE	10	135471.6

MINIMUM TREE COVER			
TRACT AREA SF	ZONING	MTC REQURED %	MTC SF REQUIRED
1354716	MXE	10	135471.6
TREEE COVER PROVIDED SF	**NUMBER OF TREES**	**SF CREDIT PER TREE**	**TOTAL SF CREDIT**
FORESTED AREA	N/A	N/A	**28750**
EXISTING LANDSCAPE TREES	1	25% OF CRZ	**800**
LARGE SHADE TREES	209	400	83600
LARGE EVERGREEN	14	400	5600
SMALL SHADE/ORNAMENTAL	129	200	25800
SMALL EVERGREEN	0	200	0
		TOTAL SF	144550

GENERAL NOTE

This plan is conceptual only and final building locations, dimensions, heights, uses, and density will be determined at time of site plan(s), subject to approval by the City. Accordingly, the placement, species, and/or size of trees outlined on this plan may change as individual site plans and are reviewed and approved by the City. The minimum numbers defined shall not decrease. Final forest conservation plans may also be phased to reflect the site plan modifications subject to the requirements below. At the time of site plan(s) and final forest conservation plan(s), individual trees will be identified as satisfying afforestation, significant tree replacement, and minimum tree cover requirements. The location, species, and/or size of the trees will be specified as required by City regulations. Newly planted forest defined by square footage measurement will be considered for afforestation credit and minimum tree cover, but not be considered as credit toward significant tree replacement.

For the overall project Applicant shall provide a minimum of 51% of the required 4.67 acres of afforestation on site. The applicant may pay a fee in lieu, at the square footage rate in effect at the time of payment to the City, of up to 49% of the overall project's required afforestation (2.29 acres) off-site.

The total required number of significant tree replacement trees for the overall site is 172. A minimum of 112 trees will be planted on site as replacement trees for the existing significant trees. The applicant may pay a fee in lieu, at the per tree rate in effect at the time of payment to the City, for the up to 60 trees..

Applicant may reduce the minimum tree coverage required to 10% of the net tract area of 30.44 acres, subject to dedication in fee simple of 5% of the tract area as deemed by the city as useable public parkland. Planting within the 5% dedication area may also be used to be satisfy afforestation, significant tree replacement, and minimum tree cover requirements.

The afforestation, significant tree replacement, and minimum tree cover requirements, as outlined above, are based on the overall site. It is understood that multiple site plans and phased final forest conservation plans will be filed to implement the project and will identify whether on-site trees located within the boundaries of the site plan are to be considered significant replacement trees or trees used for afforestation credit. It is also understood that phased individual site plans may not stand on their own to satisfy the minimum and maximum requirements established for the overall site. These changes shall be shown on each phased final forest conservation plan. Fee in lieu payments may be phased with each site plan and final forest conservation plan, as defined int PFCP approval letter included in this plan set.

APPLICANT
GROVE ROCKVILLE 31, II, III, IV, LLC
C/O LANTIAN DEVELOPMENT LLC
4341 MONTGOMERY AVENUE
BETHESDA, MD 20814
PHONE: 301-388-5600
ATTN: ROBERT ELLIOTT

ATTORNEY
LINOWES AND BLOCHER LLP
7200 WISCONSIN AVENUE, SUITE 800
BETHESDA, MARYLAND 20814
PHONE: 301-654-0504
ATTN: BARBARA A. SEARS

ARCHITECT
TORTI GALLAS AND PARTNERS, INC.
1300 SPRING STREET, 4TH FLOOR
SILVER SPRING, MD 20910
PHONE: 301-588-4800
ATTN: ROBERT S. GOODILL

CIVIL ENGINEER
SOLTESZ, INC.
2 RESEARCH PLACE, SUITE 100
ROCKVILLE, MD 20850
PHONE: 301-948-2750
ATTN: DAN PINO

OVERALL PLAN
1"=200'

PRELIMINARY FOREST CONSERVATION SUMMARY

Acreage of tract	31.10 ac.	1,354,716 sf.
Acreage of tract remain in agricultural use	0.00 ac.	0.00 sf.
Acreage of road and utility ROW's which will not be improved as part of the development application	0.00 ac.	0.00 sf.
Acreage of stream valley buffer	0.80 ac	34,667 sf.
Acreage of 100-year floodplain	0.00 ac	0.00 sf.
Acreage of total existing forest	0.00 ac	0.00 sf.
Acreage of total forest retention	0.00 ac	0.00 sf.
Acreage of total forest cleared	0.00 ac	0.00 sf.
Acreage of afforestation	0.34ac	14,619 sf.

PLAN LIST

1. COVER SHEET
2. PRELIMINARY FOREST CONSERVATION PLAN
3. PRELIMINARY FOREST CONSERVATION PLAN
4. NOTES & DETAILS
5. PFCP APPROVAL SHEET

GENERAL NOTES

1. This property is zoned: MXE
2. The total tract area is 31.10 acres
3. The property is fully developed and includes covered with buildings, pavement, landscaped areas, and lawn.
4. There is no forest on the property.
5. The site is within both Watts Branch watershed and Muddy Branch watershed.
6. There are no wetlands on the property. A perennial stream daylights at a storm drain outfall along the eastern boundary of the site.
7. There is no 100-year floodplain on the property.
8. See soil table for soil descriptions and classifications.
9. No steep slopes exist on the site.
10. There are no hydric soils, erodible soils on slopes of 15% or greater, or soils with structural limitations as defined by NRCS.
11. The NRI/FSD plan information is from field investigations during the months of September and October 2015 by Soltesz, Inc., Field data was supplemented on February 1, 2016.
12. There are no champion trees on the property.
13. No rare, threatened, or endangered species were observed during the field investigations. No State or Federal records for RTE species were determined to exist for the property, according to a letter from Maryland DNR Wildlife and Heritage Service, dated September 24, 2015.
14. The site is adjacent to a passive recreation area.
15. The site is not within the designated City of Rockville Historic District and does not contain buildings or structures in the City of Rockville Historic Building Catalog.
16. The site is not a known archeological site.
17. All significant trees (12" and greater DBH) on the property were field surveyed by Soltesz, Inc.

CITY OF ROCKVILLE FOREST CONSERVATION WORKSHEET
Shady Grove Town Center

NET TRACT AREA:						
A. Total tract area ...						31.10
B. Deductions (land dedication not in construction on this plan, other deductions - specify)						0.00
C. Net Tract Area ....=						31.10
LAND USE CATEGORY:						
ZONING: Place a "1" under the column corresponding to the correct zone of the site	R-400, R-200	R-90, R-75, R-60, R-150	RMD10, RMD15, RMD25	I-L, I-H, RPR, RPC, MXT, MXC, MXNC, MXB, MXE, MXCD, MXTD	Park	
Zone: (choose only one)	0	0	0	1	0	
D. Afforestation Threshold ...				15%	x F =	4.67
E. Conservation Threshold ...				15%	x F =	4.67
EXISTING FOREST COVER:						
F. Existing forest cover (within net tract) ....=						0.00
G. Area of forest above conservation threshold ....=						0.00
BREAK EVEN POINT:						
H. Breakeven Point (amount of forest retained so that no mitigation is required) ...=						0.00
I. Clearing permitted without mitigation ....=						0.00
PROPOSED FOREST CLEARING:						
J. Total area of forest to be cleared ....=						0.00
K. Total area of forest to be retained ....=						0.00
PLANTING REQUIREMENTS:						
L. Reforestation for clearing above conservation threshold ....=						0.00
M. Reforestation for clearing below conservation threshold ....=						0.00
N. Credit for retention above conservation threshold ....=						0.00
P. Total reforestation required ....=						0.00
Q. Total afforestation required ....=						4.67
R. Total planting requirement ....=						4.67

COVER SHEET

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Lanham
Waldorf
Leonardtown
Frederick
Soltesz DC, LLC
www.solteszco.com

NO.	REVISIONS	BY	DATE
1	PROJECT PLAN RESUBMISSION	AZ	09/28/2018

DATE: MAY, 2018 | CAD STANDARDS VERSION: V8 - 2000
DESIGNED: SOLTESZ | TECHNICIAN: AZ | CHECKED: DEP

MISS UTILITY NOTE

INFORMATION CONCERNING EXISTING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS. THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION AND ELEVATION OF ALL EXISTING UTILITIES AND UTILITY CROSSINGS BY DIGGING TEST PITS BY HAND. WELL IN ADVANCE OF THE START OF EXCAVATION. CONTACT "MISS UTILITY" AT 1-800-257-7777, 48 HOURS PRIOR TO THE START OF EXCAVATION. IF CLEARANCES ARE LESS THAN SHOWN ON THIS PLAN OR TWELVE (12) INCHES, WHICHEVER IS LESS, CONTACT THE ENGINEER AND THE UTILITY COMPANY BEFORE PROCEEDING WITH CONSTRUCTION. CLEARANCES LESS THAN NOTED MAY REQUIRE REVISIONS TO THIS PLAN.

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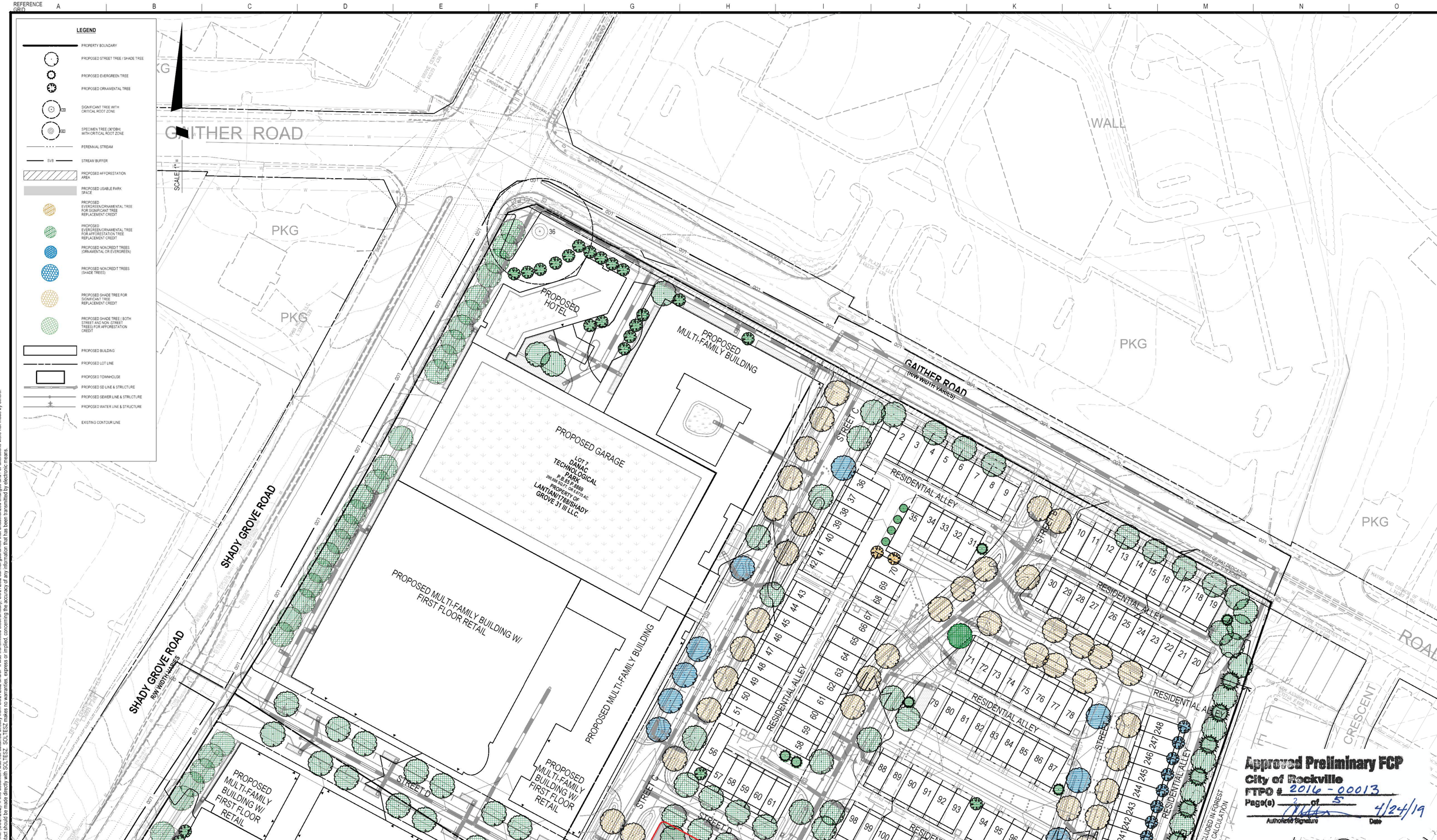
C/O LANTIAN DEVELOPMENT LLC
4341 MONTGOMERY AVENUE
BETHESDA, MD 20814
PHONE: 301-388-5600
ATTN: ROBERT ELLIOTT

MAP 5164	GRID A2, B2
TAX MAP FS 62	ZONING CATEGORY MXE
WSSC 200' SHEET 221 NW 9	
SITE DATUM HORIZONTAL: NAD 83/91 VERTICAL: NGVD 29	

STATE OF MARYLAND DANIEL H. PARK 3994 LANDSCAPE ARCHITECT

PRELIMINARY FOREST CONSERVATION PLAN
SHADY GROVE NEIGHBORHOOD CENTER
DANAC TECHNOLOGICAL PARK
CITY OF ROCKVILLE, MONTGOMERY COUNTY, MARYLAND

1" = 200'
SHEET 1 OF 5
PROJECT NO. 3559-02-00



Approved Preliminary FCP
City of Rockville
FTPO # 2016 - 00013
Page(s) 2 of 5
Authorized Signature Date 4/24/19

PRELIMINARY FOREST CONSERVATION PLAN

PRELIMINARY FOREST CONSERVATION PLAN
SHADY GROVE NEIGHBORHOOD CENTER
DANAC TECHNOLOGICAL PARK

CITY OF ROCKVILLE, MONTGOMERY COUNTY, MARYLAND

1" = 50'

SHEET 2 OF 5

PROJECT NO. 3559-02-00

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TAX MAP FS 62	ZONING CATEGORY MXE
WSSC 200' SHEET 221 NW 9	
SITE DATUM HORIZONTAL: NAD 83/91 VERTICAL: NGVD 29	

STATE OF MARYLAND — DANIEL H. PARK — 3894 — LANDSCAPE ARCHITECT

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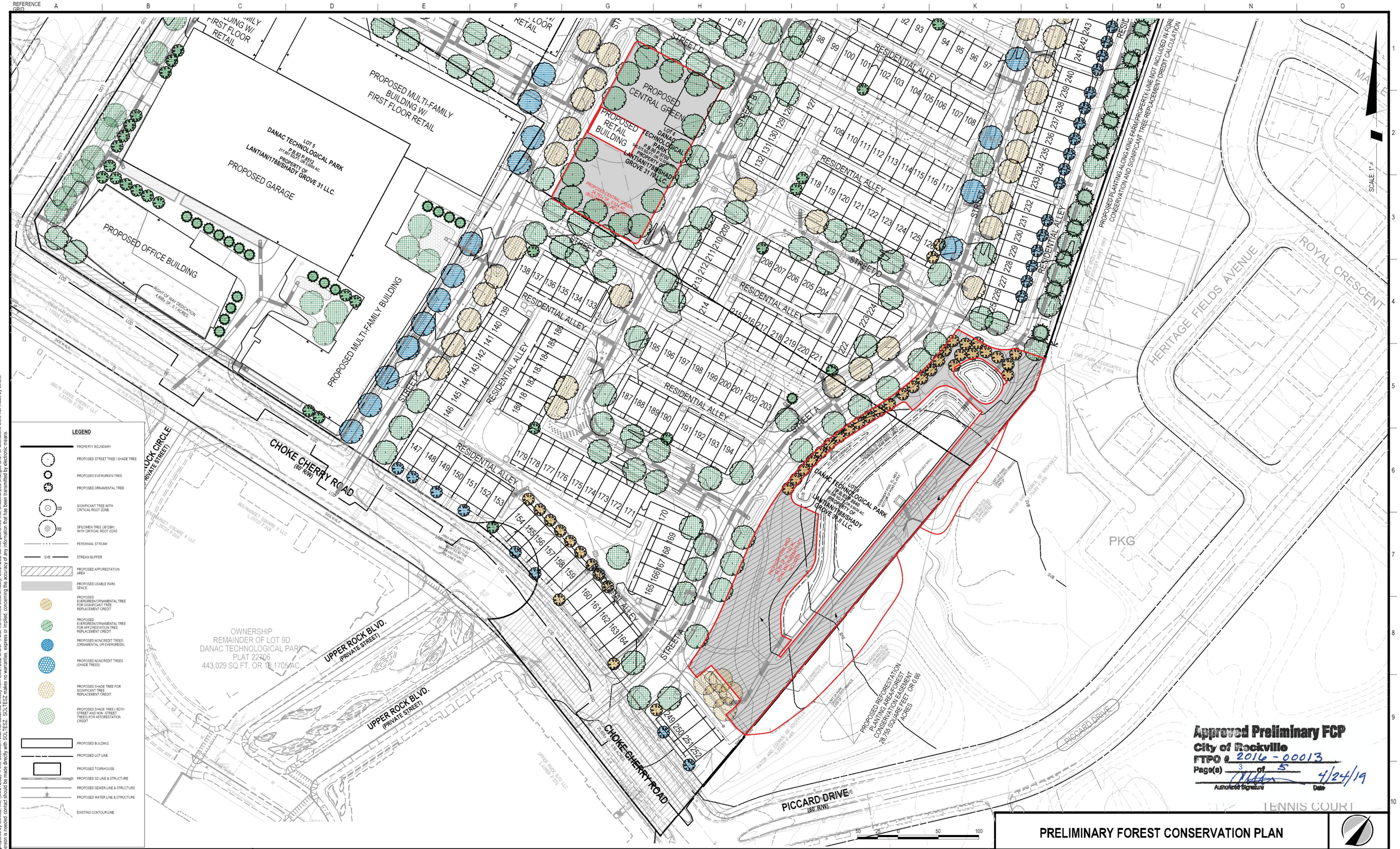

LEGEND

- PROPERTY BOUNDARY
- PROPOSED STREET TREE / SHADE TREE
- PROPOSED EVERGREEN TREE
- PROPOSED ORNAMENTAL TREE
- SIGNIFICANT TREE WITH CRITICAL ROOT ZONE
- SPECIMEN TREE (30"DBH) WITH CRITICAL ROOT ZONE
- PERENNIAL STREAM
- SVB — STREAM BUFFER
- PROPOSED AFFORESTATION AREA
- PROPOSED USABLE PARK SPACE
- PROPOSED EVERGREEN/ORNAMENTAL TREE FOR SIGNIFICANT TREE REPLACEMENT CREDIT
- PROPOSED EVERGREEN/ORNAMENTAL TREE FOR AFFORESTATION TREE REPLACEMENT CREDIT
- PROPOSED NONCREDIT TREES (ORNAMENTAL OR EVERGREEN)
- PROPOSED NONCREDIT TREES (SHADE TREES)
- PROPOSED SHADE TREE FOR SIGNIFICANT TREE REPLACEMENT CREDIT
- PROPOSED SHADE TREE (BOTH STREET AND NON -STREET TREES) FOR AFFORESTATION CREDIT
- PROPOSED BUILDING
- PROPOSED LOT LINE
- PROPOSED TOWNHOUSE
- PROPOSED SD LINE & STRUCTURE
- PROPOSED SEWER LINE & STRUCTURE
- PROPOSED WATER LINE & STRUCTURE
- EXISTING CONTOUR LINE

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MAP 5164 GRID A2, B2

TAX MAP	ZONING CATEGORY
FS 62	MXE
WSSC 200' SHEET	
221 NW 9	

SITE DATUM
HORIZONTAL: NAD 83/91
VERTICAL: NGVD 29

STATE OF MARYLAND — DANIEL H. PARK — 3894 — LANDSCAPE ARCHITECT

PRELIMINARY FOREST CONSERVATION PLAN

PRELIMINARY FOREST CONSERVATION PLAN
SHADY GROVE NEIGHBORHOOD CENTER
DANAC TECHNOLOGICAL PARK

CITY OF ROCKVILLE, MONTGOMERY COUNTY, MARYLAND

1" = 50'

SHEET 3 OF 5

PROJECT NO. 3559-02-00

Q:\35590200\PREL\Prel_FCP\Prel_FCP_03.sht Scale= 50.0000 ft / in. User= ZNiazi PLTdrv= PDF_Grey_150.pltcfg Pentbl= TEXT_SUB.tbl 4/24/2019 2:57:47 PM

SIGNIFICANT TREE SUMMARY CHART

NRI/FSD						PFCP/FCP				
#	SCIENTIFIC NAME	COMMON NAME	DBH	Remarks	PREVIOUS FTP PLAN #	DISPOSITION (SAVE/REMOVE)	CRZ CREDIT OWED	REPLACEMENT TREES REQD.	CREDIT FOR CRZ?	Proposed Credit (1/4 of CRZ area max)
FOREST SETTING (NO EXISTING CREDIT) CRZ-1"DBH=1'RADUS, SIGNIFICANT>/= 24"DBH										
	NO FOREST					Remove		N/A	No	0
							TOTAL:	0		0
LANDSCAPE SETTING (NO EXISTING CREDIT) CRZ-1"DBH=1.5'RADIUS, SIGNIFICANT>/= 12"DBH										
5	Black Gum	Nyssa sylvatica	15			Remove		1	No	0
6	Black Gum	Nyssa sylvatica	15			Remove		1	No	0
7	Red Maple	Acer rubrum	22			Remove		2	No	0
20	Red Maple	Acer rubrum	28	No replacement required per COR		Remove		N/A	No	0
23	White Mulberry	Morus alba	12	No replacement required per COR		Remove		N/A	No	0
25	White Mulberry	Morus alba	13	No replacement required per COR		Remove		N/A	No	0
26	Green Ash	Fraxinus pennsylvanica	21	No replacement required per COR		Remove		N/A	No	0
36	Black Oak	Quercus velutina	42			Save		0	Yes	800
37	Black Walnut	Juglans nigra	23			Remove		2	No	0
40	Norway Spruce	Picea abies	17			Remove		1	No	0
42	Honey Locust	Gleditsia triacanthos	23			Remove		2	No	0
43	White Pine	Pinus strobus	26	No replacement required per COR		Remove		N/A	No	0
46	Green Ash	Fraxinus pennsylvanica	15	No replacement required per COR		Remove		N/A	No	0
47	Green Ash	Fraxinus pennsylvanica	15	No replacement required per COR		Remove		N/A	No	0
49	Green Ash	Fraxinus pennsylvanica	16	No replacement required per COR		Remove		N/A	No	0
50	Green Ash	Fraxinus pennsylvanica	14	No replacement required per COR		Remove		N/A	No	0
52	Green Ash	Fraxinus pennsylvanica	20	No replacement required per COR		Remove		N/A	No	0
53	Japanese Black Pine	Pinus thunbergii	15			Remove		1	No	0
55	Japanese Black Pine	Pinus thunbergii	14			Remove		1	No	0
56	Japanese Black Pine	Pinus thunbergii	13			Remove		1	No	0
57	Japanese Black Pine	Pinus thunbergii	14			Remove		1	No	0
58	Green Ash	Fraxinus pennsylvanica	20	No replacement required per COR		Remove		N/A	No	0
59	Green Ash	Fraxinus pennsylvanica	17	No replacement required per COR		Remove		N/A	No	0
69	Golden Rain Tree	Koelreuteria paniculata	17			Remove		1	No	0
79	Black Walnut	Juglans nigra	15			Remove		1	No	0
80	Black Walnut	Juglans nigra	19			Remove		2	No	0
81	Honey Locust	Gleditsia triacanthos	12			Remove		1	No	0
84	Red Maple	Acer rubrum	16	No replacement required per COR		Remove		N/A	No	0
85	Red Maple	Acer rubrum	12	No replacement required per COR		Remove		N/A	No	0
87	Red Maple	Acer rubrum	13	No replacement required per COR		Remove		N/A	No	0
88	Red Maple	Acer rubrum	18			Remove		1	No	0
89	Red Maple	Acer rubrum	13			Remove		1	No	0
90	Red Maple	Acer rubrum	12			Remove		1	No	0
92	Red Maple	Acer rubrum	17	No replacement required per COR		Remove		N/A	No	0
93	Red Maple	Acer rubrum	15			Remove		1	No	0
95	Eastern Arborvitae	Thuja occidentalis	14	No replacement required per COR		Remove		N/A	No	0
96	Eastern Arborvitae	Thuja occidentalis	13	No replacement required per COR		Remove		N/A	No	0
129	Tree of Heaven	Ailanthus altissima	19	No replacement required per COR		Remove		N/A	No	0
130	Tree of Heaven	Ailanthus altissima	14	No replacement required per COR		Remove		N/A	No	0
131	White Mulberry	Morus alba	23	No replacement required per COR		Remove		N/A	No	0
132	White Mulberry	Morus alba	15	No replacement required per COR		Remove		N/A	No	0
134	American Holly	Ilex opaca	12			Remove		1	No	0
135	Honey Locust	Gleditsia triacanthos	21			Remove		2	No	0
139	Red Maple	Acer rubrum	15	No replacement required per COR		Remove		N/A	No	0
140	Red Maple	Acer rubrum	16	No replacement required per COR		Remove		N/A	No	0
149	Red Maple	Acer rubrum	17			Remove		1	No	0
151	Red Maple	Acer rubrum	16			Remove		1	No	0
152	Red Maple	Acer rubrum	17	No replacement required per COR		Remove		N/A	No	0
154	Green Ash	Fraxinus pennsylvanica	15	No replacement required per COR		Remove		N/A	No	0
155	Basswood	Tilia americana	29	No replacement required per COR		Remove		N/A	No	0
156	Green Ash	Fraxinus pennsylvanica	22	No replacement required per COR		Remove		N/A	No	0
157	Red Maple	Acer rubrum	17	No replacement required per COR		Remove		N/A	No	0
158	Willow Oak	Quercus phellos	29			Remove		3	No	0
161	Red Maple	Acer rubrum	14	No replacement required per COR		Remove		N/A	No	0
164	Red Maple	Acer rubrum	15			Remove		1	No	0
166	Eastern Arborvitae	Thuja occidentalis	16			Remove		1	No	0
167	Southern Magnolia	Magnolia grandiflora	13			Remove		1	No	0
168	Southern Magnolia	Magnolia grandiflora	12			Remove		1	No	0
171	Red Maple	Acer rubrum	12			Remove		1	No	0
172	Southern Magnolia	Magnolia grandiflora	12			Remove		1	No	0
173	Red Maple	Acer rubrum	14	No replacement required per COR		Remove		N/A	No	0
175	Red Maple	Acer rubrum	12			Remove		1	No	0
176	Red Maple	Acer rubrum	14			Remove		1	No	0
177	Southern Magnolia	Magnolia grandiflora	14			Remove		1	No	0
178	Southern Magnolia	Magnolia grandiflora	13			Remove		1	No	0
179	Red Maple	Acer rubrum	13			Remove		1	No	0
181	Red Maple	Acer rubrum	14	No replacement required per COR		Remove		N/A	No	0
185	Red Maple	Acer rubrum	12			Remove		1	No	0
186	Red Maple	Acer rubrum	12			Remove		1	No	0
189	Southern Magnolia	Magnolia grandiflora	13			Remove		1	No	0
191	Green Ash	Fraxinus pennsylvanica	20	No replacement required per COR		Remove		N/A	No	0
192	Green Ash	Fraxinus pennsylvanica	13	No replacement required per COR		Remove		N/A	No	0
193	Green Ash	Fraxinus pennsylvanica	14	No replacement required per COR		Remove		N/A	No	0
194	Kwanzan Cherry	Prunus serrulata 'Kwanzan'	20	No replacement required per COR		Remove		N/A	No	0
195	Kwanzan Cherry	Prunus serrulata 'Kwanzan'	16	No replacement required per COR		Remove		N/A	No	0
196	Kwanzan Cherry	Prunus serrulata 'Kwanzan'	17	No replacement required per COR		Remove		N/A	No	0
197	Red Maple	Acer rubrum	18	No replacement required per COR		Remove		N/A	No	0
198	Red Maple	Acer rubrum	17			Remove		1	No	0
199	Red Maple	Acer rubrum	13			Remove		1	No	0
200	Red Maple	Acer rubrum	13			Remove		1	No	0
252	Norway Spruce	Picea abies	14			Remove		1	No	0
253	Norway Spruce	Picea abies	15			Remove		1	No	0
255	White Oak	Quercus alba	33			Remove		6	No	0
256	White Oak	Quercus alba	43			Remove		6	No	0
257	Black Oak	Quercus velutina	35			Remove		6	No	0
258	Norway Spruce	Picea abies	15			Remove		1	No	0
259	Norway Spruce	Picea abies	17			Remove		1	No	0
260	Norway Spruce	Picea abies	18			Remove		1	No	0
263	Red Oak	Quercus rubra	21			Remove		2	No	0
264	Red Oak	Quercus rubra	22			Remove		2	No	0
265	Red Oak	Quercus rubra	14			Remove		1	No	0
266	Norway Spruce	Picea abies	15			Remove		1	No	0
267	Norway Spruce	Picea abies	13			Remove		1	No	0
268	Norway Spruce	Picea abies	17			Remove		1	No	0
272	Norway Spruce	Picea abies	12			Remove		1	No	0
273	Norway Spruce	Picea abies	17			Remove		1	No	0
275	Norway Spruce	Picea abies	13			Remove		1	No	0
276	Norway Spruce	Picea abies	12			Remove		1	No	0
277	Kwanzan Cherry	Prunus serrulata 'Kwanzan'	21	No replacement required per COR		Remove		N/A	No	0
278	Kwanzan Cherry	Prunus serrulata 'Kwanzan'	21	No replacement required per COR		Remove		N/A	No	0
279	Black Gum	Nyssa sylvatica	44			Remove		6	No	0
280	Kwanzan Cherry	Prunus serrulata 'Kwanzan'	17			Remove		1	No	0
281	Kwanzan Cherry	Prunus serrulata 'Kwanzan'	18	No replacement required per COR		Remove		N/A	No	0
282	Kwanzan Cherry	Prunus serrulata 'Kwanzan'	15	No replacement required per COR		Remove		N/A	No	0
283	Norway Spruce	Picea abies	16			Remove		1	No	0
284	Norway Spruce	Picea abies	14			Remove		1	No	0
285	Norway Spruce	Picea abies	16			Remove		1	No	0
286	Norway Spruce	Picea abies	17			Remove		1	No	0
289	Norway Spruce	Picea abies	12			Remove		1	No	0
295	Willow Oak	Quercus phellos	26			Remove		3	No	0
296	Willow Oak	Quercus phellos	19	No replacement required per COR		Remove		N/A	No	0
297	Willow Oak	Quercus phellos	29	No replacement required per COR		Remove		N/A	No	0
299	White Pine	Pinus strobus	19	No replacement required per COR		Remove		N/A	No	0
300	White Pine	Pinus strobus	17			Remove		1	No	0
301	White Pine	Pinus strobus	17			Remove		1	No	0
302	White Pine	Pinus strobus	18	No replacement required per COR		Remove		N/A	No	0
304	White Pine	Pinus strobus	16			Remove		1	No	0
305	White Pine	Pinus strobus	18			Remove		1	No	0
306	Japanese Maple	Acer palmatum	16			Remove		1	No	0
307	European Beech	Fagus sylvatica	13	No replacement required per COR		Remove		N/A	No	0
308	Willow Oak	Quercus phellos	22			Remove		2	No	0
309	Willow Oak	Quercus phellos	19			Remove		2	No	0
310	Willow Oak	Quercus phellos	15			Remove		1	No	0
311	Willow Oak	Quercus phellos	14	No replacement required per COR		Remove		N/A	No	0
312	American Holly	Ilex opaca	14	No replacement required per COR		Remove		N/A	No	0
315	Sugar Maple	Acer saccharum	22			Remove		2	No	0
316	Willow Oak	Quercus phellos	32			Remove		6	No	0
317	Willow oak	Quercus phellos	32			Remove		6	No	0
318	Crabapple	Malus sp.	13			Remove		1	No	0
319	Crabapple	Malus sp.	12			Remove		1	No	0
320	Crabapple	Malus sp.	13	No replacement required per COR		Remove		N/A	No	0
321	Kwanzan Cherry	Prunus serrulata 'Kwanzan'	18			Remove		1	No	0
323	Kwanzan Cherry	Prunus serrulata 'Kwanzan'	17	No replacement required per COR		Remove		N/A	No	0
325	Littleleaf Linden	Tilia cordata	20	No replacement required per COR		Remove		N/A	No	0
326	Willow Oak	Quercus phellos	35			Remove		6	No	0
327	Willow Oak	Quercus phellos	39			Remove		6	No	0
329	Japanese Black Pine	Pinus thunbergii	28			Remove		3	No	0
330	Willow Oak	Quercus phellos	28			Remove		3	No	0
331	Willow Oak	Quercus phellos	28			Remove		3	No	0
332	Willow Oak	Quercus phellos	13	No replacement required per COR		Remove		N/A	No	0
333	Willow Oak	Quercus phellos	13	No replacement required per COR		Remove		N/A	No	0
335	Kwanzan Cherry	Prunus serrulata 'Kwanzan'	26	No replacement required per COR		Remove		N/A	No	0
336	Hawthorn	Crataegus spp	13			Remove		1	No	0
337	Hawthorn	Crataegus spp	15			Remove		1	No	0
338	Littleleaf Linden	Tilia cordata	22			Remove		2	No	0
339	Flowering Dogwood	Cornus florida	14	No replacement required per COR		Remove		N/A	No	0
341	Flowering Dogwood	Cornus florida	16	No replacement required per COR		Remove		N/A	No	0
342	Flowering Dogwood	Cornus florida	14	No replacement required per COR		Remove		N/A	No	0
343	Littleleaf Linden	Tilia cordata	31	No replacement required per COR		Remove		N/A	No	0
344	Littleleaf Linden	Tilia cordata	19			Remove		2	No	0
347	Japanese Maple	Acer palmatum	16			Remove		1	No	0
348	Red Maple	Acer rubrum	14	No replacement required per COR		Remove		N/A	No	0
358	Red Maple	Acer rubrum	17	No replacement required per COR		Remove		N/A	No	0
361	Honey Locust	Gleditsia triacanthos	17			Remove		1	No	0
362	Honey Locust	Gleditsia triacanthos	18			Remove		1	No	0
364	Kwanzan Cherry	Prunus serrulata 'Kwanzan'	21			Remove		2	No	0
365	Kwanzan Cherry	Prunus serrulata 'Kwanzan'	15			Remove		1	No	0
366	Kwanzan Cherry	Prunus serrulata 'Kwanzan'	21	No replacement required per COR		Remove		N/A	No	0
368	Green Ash	Fraxinus pennsylvanica	28	No replacement required per COR		Remove		N/A	No	0
369	White Pine	Pinus strobus	23			Remove		2	No	0
370	White Pine	Pinus strobus	14			Remove		1	No	0
371	Green Ash	Fraxinus pennsylvanica	24	No replacement required per COR		Remove		N/A	No	0
372	Green Ash	Fraxinus pennsylvanica	24	No replacement required per COR		Remove		N/A	No	0
373	White Pine	Pinus strobus	12	No replacement required per COR		Remove		N/A	No	0
374	White Pine	Pinus strobus	20			Remove		2	No	0
376	White Pine	Pinus strobus	16			Remove		1	No	0
378	White Pine	Pinus strobus	19			Remove		2	No	0
380	White Pine	Pinus strobus	17			Remove		1	No	0
381	White Pine	Pinus strobus	18			Remove		1	No	0
382	White Pine	Pinus strobus	14			Remove		1	No	0
384	White Pine	Pinus strobus	26	No replacement required per COR		Remove		N/A	No	0
385	Saucer Magnolia	Magnolia x soulangiana	17	No replacement required per COR		Remove		N/A	No	0
388	Saucer Magnolia	Magnolia x soulangiana	12	No replacement required per COR		Remove		N/A	No	0
389	Red Maple	Acer rubrum	18			Remove		1	No	0
390	Norway Spruce	Picea abies	16			Remove		1	No	0
391	Flowering Dogwood	Cornus florida	16	No replacement required per COR		Remove		N/A	No	0
392	Kousa Dogwood	Cornus kousa	15			Remove		1	No	0
393	Kousa Dogwood	Cornus kousa	15			Remove		1	No	0
							TOTAL:	172	No	800
6-11" DBH TREES (NO EXISTING CREDIT) CRZ-PER LOCATION AS ABOVE; REQURIED FOR FCP, OPTIONAL FOR NRI										
22	White Mulberry	Morus alba	9			Remove		N/A	No	0
27	Blue Atlas Cedar	Cedrus atlaNOtica 'Glauca'	6			Remove		N/A	No	0
31	Littleleaf Linden	Tilia cordata	7			Remove		N/A	No	0
39	Flowering Dogwood	Cornus florida	11			Remove		N/A	No	0
41	Red Oak	Quercus rubra	7			Remove		N/A	No	0
44	White Pine	Pinus strobus	11			Remove		N/A	No	0
54	Japanese Black Pine	Pinus thunbergii	11			Remove		N/A	No	0
60	Kousa Dogwood	Cornus kousa	10			Remove		N/A	No	0
63	Littleleaf Linden	Tilia cordata	7			Remove		N/A	No	0
64	Littleleaf Linden	Tilia cordata	8			Remove		N/A	No	0
65	Littleleaf Linden	Tilia cordata	7			Remove		N/A	No	0
66	Sweet Gum	Liquidambar styraciflua	7			Remove		N/A	No	0
67	European Beech	Fagus sylvatica	9			Remove		N/A	No	0
68	Sweet Gum	Liquidambar styraciflua	9			Remove		N/A	No	0
70	European Beech	Fagus sylvatica	8			Remove		N/A	No	0
71	Sweet Gum	Liquidambar styraciflua	8			Remove		N/A	No	0
73	Sweet Gum	Liquidambar styraciflua	8			Remove		N/A	No	0
74	European Beech	Fagus sylvatica	8			Remove		N/A	No	0
76	Sweet Gum	Liquidambar styraciflua	9			Remove		N/A	No	0
77	AmericaNO Beech	Fagus grandifolia	8			Remove		N/A	No	0
78	Sweet Gum	Liquidambar styraciflua	6			Remove		N/A	No	0
82	Black WalNOut	Juglans nigra	7			Remove		N/A	No	0
83	Red Maple	Acer rubrum	9			Remove		N/A	No	0
86	Colorado Spruce	Picea puNOgeNOs	10			Remove		N/A	No	0
91	Red Maple	Acer rubrum	11			Remove		N/A	No	0
94	Red Maple	Acer rubrum	11			Remove		N/A	No	0
97	Eastern Arborvitae	Thuga occidentalis	9			Remove		N/A	No	0
98	Eastern Arborvitae	Thuga occidentalis	9			Remove		N/A	No	0
99	Eastern Arborvitae	Thuga occidentalis	11			Remove		N/A	No	0
100	AmericaNO Holly	Ilex opaca	8			Remove		N/A	No	0
105	Sweet Gum	Liquidambar styraciflua	7			Remove		N/A	No	0
109	Sweet Gum	Liquidambar styraciflua	9			Remove		N/A	No	0
116	Black WalNOut	Juglans nigra	7			Remove		N/A	No	0
123	Black WalNOut	Juglans nigra	8			Remove		N/A	No	0
133	AmericaNO Holly	Ilex opaca	9			Remove		N/A	No	0
136	AmericaNO Holly	Ilex opaca	8			Remove		N/A	No	0
137	AmericaNO Holly	Ilex opaca	8			Remove		N/A	No	0
138	AmericaNO Holly	Ilex opaca	10			Remove		N/A	No	0
141	Eastern Arborvitae	Thuga occidentalis	7			Remove		N/A	No	0
142	Eastern Arborvitae	Thuga occidentalis	9			Remove		N/A	No	0
143	Eastern Arborvitae	Thuga occidentalis	9			Remove		N/A	No	0
144	Eastern Arborvitae	Thuga occidentalis	8			Remove		N/A	No	0
145	Eastern Arborvitae	Thuga occidentalis	8			Remove		N/A	No	0
147	Eastern Arborvitae	Thuga occidentalis	9			Remove		N/A	No	0
148	Eastern Arborvitae	Thuga occidentalis	10			Remove		N/A	No	0
150	English Hawthorn	Crataegus laevigata	11			Remove		N/A	No	0
153	Red Maple	Acer rubrum	9			Remove		N/A	No	0
159	Red Maple	Acer rubrum	10			Remove		N/A	No	0
160	Red Maple	Acer rubrum	9			Remove		N/A	No	0
162	Red Maple	Acer rubrum	9			Remove		N/A	No	0
163	Red Maple	Acer rubrum	11			Remove		N/A	No	0
165	Red Maple	Acer rubrum	9			Remove		N/A	No	0
170	Red Maple	Acer rubrum	10			Remove		N/A	No	0
174	Red Maple	Acer rubrum	11			Remove		N/A	No	0
180	Red Maple	Acer rubrum	11			Remove		N/A	No	0
182	Red Maple	Acer rubrum	8			Remove		N/A	No	0
183	Red Maple	Acer rubrum	11			Remove		N/A	No	0
184	Red Maple	Acer rubrum	11			Remove		N/A	No	0
187	Red Maple	Acer rubrum	10			Remove		N/A	No	0
188	Southern Magnolia	Magnolia grandiflora	11			Remove		N/A	No	0
190	Southern Magnolia	Magnolia grandiflora	8			Remove		N/A	No	0
269	Norway Spruce	Picea abies	11			Remove		N/A	No	0
270	EasterN Arborvitae	Thuga occidentalis	7			Remove		N/A	No	0
271	Eastern Arborvitae	Thuga occidentalis	9			Remove		N/A	No	0
274	Norway Spruce	Picea abies	9			Remove		N/A	No	0
287	Norway Spruce	Ilex opaca	6			Remove		N/A	No	0
288	Norway Spruce	Picea abies	11			Remove		N/A	No	0
290	Flowering Dogwood	Cornus florida	11			Remove		N/A	No	0
291	Flowering Dogwood	Cornus florida	11			Remove		N/A	No	0
292	Flowering Dogwood	Cornus florida	7			Remove		N/A	No	0
293	Flowering Dogwood	Cornus florida	9			Remove		N/A	No	0
313	AmericaND Holly	Ilex opaca	10			Remove		N/A	No	0
314	AmericaND Holly	Ilex opaca	10			Remove		N/A	No	0
322	Kwanzan Cherry	Pruns serrulata 'Kwanzan"	11			Remove		N/A	No	0
324	Kwanzan Cherry	Prunus serrulata 'Kwanzan"	7			Remove		N/A	No	0
328	JapaNOese Black PINOe	Pinus thunbergii	9			Remove		N/A	No	0
340	Flowering Dogwood	Cornus florida	9			Remove		N/A	No	0
345	Flowering Dogwood	Cornus florida	9			Remove		N/A	No	0
346	Flowering Dogwood	Cornus florida	11			Remove		N/A	No	0
359	American Holly	Ilex opaca	8			Remove		N/A	No	0
360	American Holly	Ilex opaca	6			Remove		N/A	No	0
363	AmericaND Holly	Ilex opaca	7			Remove		N/A	No	0
367	American Holly	Ilex opaca	8			Remove		N/A	No	0
375	Red Oak	Quercus rubra	11			Remove		N/A	No	0
377	White Pine	PINOus strobus	11			Remove		N/A	No	0
379	White Pine	PINOus strobus	11			Remove		N/A	No	0
383	White Pine	PINOus strobus	8			Remove		N/A	No	0
386	Saucer Magnolia	Magnolia x soulangiana	11			Remove		N/A	No	0
387	Saucer Magnolia	Magnolia x soulangiana	10			Remove		N/A	No	0
*146	Eastern Arborvitae	Thuga occidentalis	9			Remove		N/A	No	0
								TOTAL:		0
OFFSITE (NO EXISTING CREDIT)										
8	Red Maple	Acer rubrum	15	Tree to be replaced during park improvements		Remove		N/A		
9	White Mulberry	Morus alba	12	Tree to be replaced during park improvements		Remove		N/A		
21	Black Cherry	PruNOus serotiNOa	9	Tree to be replaced during park improvements		Remove		N/A		
24	White Mulberry	Morus alba	12	Tree to be replaced during park improvements		Remove		N/A		
STREET TREES OF ANY SIZE CRZ-1"DBH=1.5'RADIUS STREET TREES MAY HAVE PRIOR FCP CREDIT (Tree number must include F if previous FCP credit was assigned)										
38	Kwanzan Cherry	Prunus serrulata 'Kwanzan'	20			Remove	N/A	1		#REF!
45	Kwanzan Cherry	Prunus serrulata 'Kwanzan'	14			Remove	N/A	1		
48	Kwazan Cherry	Prunus serrulata 'Kwanzan'	10			Remove	N/A	1		
51	Kwazan Cherry	Prunus serrulata 'Kwanzan'	11			Remove	N/A	1		
254	Red Maple	Acer rubrum	17			Remove	N/A	1		
261	Red Maple	Acer rubrum	17			Remove	N/A	1		
262	Red Maple	Acer rubrum	10			Remove	N/A	1		
298	Red Maple	Acer rubrum	15			Remove	N/A	1		
303	Red Maple	Acer rubrum	17			Remove	N/A	1		
334	Kwanzan Cherry	Prunus serrulata 'Kwanzan'	18			Remove	N/A	1		
1007	Kwanzan Cherry	Prunus serrulata 'Kwanzan'	36			Remove	N/A	1		
1017	Kwanzan Cherry	Prunus serrulata 'Kwanzan'	13			Remove	N/A	1		
1023	Kwanzan Cherry	Prunus serrulata 'Kwanzan'	16			Remove	N/A	1		
						TOTAL PREVIOUS CREDIT:		13		
PREVIOUS FOREST CONSERVATION CREDIT (Tree number must include F)										
	none n/a					Remove	N/A	N/A		N/A
						TOTAL PREVIOUS CREDIT: Required to replace:		0		N/A
PREVIOUS SIGNIFICANT TREE REPLACEMENT CREDIT (Tree Number must include S) REPLACED AT 1 TO 1										
	none n/a							N/A		
						TOTAL PREVIOUS CREDIT:		0		

TOTAL PREVIOUS FC CREDIT	N/A
TOTAL PREVIOUS FC CREDIT- PROPOSED REMOVAL	0
TOTAL PREVIOUS FC CREDIT- MISSING	0
MAXIUM CRZ FC CREDIT AVAILABLE	800
TOTAL FC CREDIT REPLACEMENT REQUIRED	N/A
TOTAL SIG TREE REPACEMENTS REQD	172

"Trees exempted by City of Rockville for replacement requirement based on tree health or hazardous condition, or to comply with project-specific city standards in alignment with MTC reduction allowance."

Approved Preliminary FCP
City of Rockville
FTPO # 2016-00013
Page(s) 4 of 5
Authorized Signature 4/24/19 Date

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Soltesz DC, LLC

NO.	REVISIONS	BY	DATE
1	PROJECT PLAN RESUBMISSION	AZ	09/28/2018

DATE: MAY, 2018 | CAD STANDARDS VERSION: V8 - 2000
DESIGNED: SOLTESZ | TECHNICIAN: AZ | CHECKED: DEP

MISS UTILITY NOTE

INFORMATION CONCERNING EXISTING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS. THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION AND ELEVATION OF ALL EXISTING UTILITIES AND UTILITY CROSSINGS BY DIGGING TEST PITS BY HAND, WELL IN ADVANCE OF THE START OF EXCAVATION. CONTACT "MISS UTILITY" AT 1-800-257-7777, 48 HOURS PRIOR TO THE START OF EXCAVATION. IF CLEARANCES ARE LESS THAN SHOWN ON THIS PLAN OR TWELVE (12) INCHES, WHICHEVER IS LESS, CONTACT THE ENGINEER AND THE UTILITY COMPANY BEFORE PROCEEDING WITH CONSTRUCTION. CLEARANCES LESS THAN NOTED MAY REQUIRE REVISIONS TO THIS PLAN.

OWNER/DEVELOPER/APPLICANT

GROVE ROCKVILLE 31, II, III, IV, LLC
C/O LANTIAN DEVELOPMENT LLC
4341 MONTGOMERY AVENUE
BETHESDA, MD 20814
PHONE: 301-388-5600
ATTN: ROBERT ELLIOTT

MAP 5164 GRID A2, B2
TAX MAP FS 62 | ZONING CATEGORY: MXE
WSSC 200' SHEET 221 NW 9
SITE DATUM
HORIZONTAL: NAD 83/91
VERTICAL: NGVD 29

STATE OF MARYLAND — DANIEL H. PARK — 3894 — LANDSCAPE ARCHITECT

SIGNIFICANT TREE CHART

PRELIMINARY FOREST CONSERVATION PLAN
SHADY GROVE NEIGHBORHOOD CENTER
DANAC TECHNOLOGICAL PARK

CITY OF ROCKVILLE, MONTGOMERY COUNTY, MARYLAND

GRAPHIC SCALE 1" = AS SHOWN
SHEET 4 OF 5
PROJECT NO. 3559-02-00

Q:\35590200\PRELI\Prel_FCP\Prel_FCP_04.sht Scale= 1.0000 ft / in. User= ZNiazi PLTdrv= PDF_Grey_150.pltcfg Pentbl= TEXT_SUB.tbl 4/24/2019 2:43:11 PM

REFERENCE GRID A B C D E F G H I J K L M N O

City of Rockville
Get into It

111 Maryland Avenue | Rockville, Maryland 20850-2364 | 240-314-5000
www.rockvillemd.gov

April 24, 2019

Mr. Bob Elliott
Chief Executive Officer
Lantian Development LLC
4341 Montgomery Avenue
Bethesda, MD 20814

Re: Shady Grove Neighborhood Center Preliminary Forest Conservation Plan FTP2016-00013

Dear Mr. Elliott,

This letter replaces the previous comments issued by the City on November 16, 2018.

The Preliminary Forest Conservation Plan (PFCP) received on April 24th, 2019, in conjunction with the Project Plan application PIT2017-00007 titled "Shady Grove Neighborhood Center" has been conditionally approved by the Community Planning and Development Services Department. The following requests associated with the PFCP have been approved by the City Forester: Fee in Lieu for afforestation and significant tree replacement. The PFCP conditional approval is granted based on the following requirements:

- The City of Rockville Mayor and Council approves a project plan for the project.
- The applicant completes the required items listed under the "Forestry Permit" section in this letter.

Under Section 10.5-13(c)(4) of the Forest and Tree Preservation Ordinance (FTPO), the approved PFCP "shall remain in effect, and shall serve as the basis for the Final Forest Conservation Plan(s) with respect to forest and tree retention for the duration of the validity period of the underlying approval, unless the City Forester determines that site conditions have changed to the point where the preliminary approval is no longer accurate."

In accordance with Section 10.5-13(d)(2) of the FTPO, "a Final Forest Conservation Plan may be submitted for a portion of the area covered by an approved Preliminary Forest Conservation Plan." Multiple site plans and phased final forestation plans ("FFCPs") may be filed to implement the project plan and will identify whether on-site trees located within the boundaries of the site plan are to be considered significant replacement trees or trees used for afforestation credit. These designations shall be shown on each FFCP. It is understood that phased individual site plans may not stand on their own to satisfy the minimum and maximum requirements established for the overall site as provided below.

Mayor Bridget Donnell Newman | Councilmembers Beryl L. Feinberg, Virginia D. Onley, Julie Palakovich Carr, Mark Pierzchala
City Manager Robert DiSpirito | City Clerk/Director of Council Operations Kathleen Cornwell | City Attorney Debra Yerg Dworet

FOREST AND TREE PRESERVATION ORDINANCE (FTPO) REQUIREMENTS
The proposed project plan submission to the City for redevelopment of an existing office park to a mixed-use neighborhood center requires compliance with the City of Rockville's FTPO. The City Forester's office approved a Natural Resources Inventory Forest Stand Delineation plan on April 15, 2016.

Forest Conservation
The forest conservation requirement for this project is based on the following:

- Tract area: 31.1 acres
- Site zoning: MXE
- Existing forest: 0 acres
- Afforestation required: 4.67 acres.
- In accordance with Section 10.5-24 of the FTPO, the plan preparer has submitted written justification to pay fee-in-lieu. The project is approved for fee-in-lieu payment for up to 2.29 acres of the 4.67-acre afforestation requirement. The City Forester's office has reviewed the request in conjunction with the plan submission and found that the project satisfies the justification criteria based on the following limitations:
  - Right-of-way dedication for Gaither Road
  - Right-of-way dedication for Choke Cherry
  - Other City development standards:
    - A PIE along Gaither and Choke Cherry.
    - Area for a stormwater management pond which treats offsite stormwater.
    - Area required to accommodate ESD stormwater management devices.

Based on the above planting space limitations and certain miscalculations on the part of the City, which are detailed below, the project meets the criteria for a fee-in-lieu payment equal up to 2.29 acres of afforestation, or 49% of the total site. The site plan(s) and FFCP submitted with each site plan may modify the credit designations of the trees shown on the approved PFCP so long as the cumulative total for the fee-in-lieu of afforestation does not exceed a maximum of 49% of the afforestation requirement for the overall site, or 2.29 acres.

During the development review process, the City made certain miscalculations and conveyed inaccurate information to the applicant. The miscalculations were discovered after the City conditionally approved the PFCP on November 16, 2018. Based on this fact, this project will receive an additional 19% fee-in-lieu allowance (up to 49%) due to the miscalculation by the City. The amount of fee-in-lieu allowed for this project is substantially greater than any other approved fee-in-lieu payment. Past practice of the City has been to allow a fee-in-lieu for no more than 30% of an overall site area. This project will receive up to 49% fee-in-lieu. While the City is deviating from its precedent for this development project, the City is only doing so because of the miscalculation. The fee-in-lieu approval for this development project will not be considered as contributing to precedent when reviewing future projects that may be similar.

The fee-in-lieu for afforestation may be paid in installments during the build out of the project. The monetary contribution to be paid for each installment will be determined at the time of each site plan. Each respective installment payment will be based on the proportional amount of square footage of land area being developed with each site plan, regardless of the amount of forestry planting to be installed with the specific phase. The amount of each respective installment payment will be calculated in accordance with the rates in effect in the Forest Conservation Manual at the time the site plan is approved. At each site plan, the respective payment due must be paid prior to the issuance of any forestry permit. At the final phase, if the applicant provides a site plan that requires less fee-in-lieu than the maximum determined at PFCP, the payment for the final phase will receive the adjustment.

Previously Approved Forest Conservation Plan
The site is not subject to a previous approved Forest Conservation Plan.

Minimum Tree Cover
The minimum tree cover requirement in the MXE zone will be either 15%, or may be reduced to 10% with the dedication of 5% of usable park space to the City. The project is proposing to meet the 10% (3.11 acres) requirement with the dedication of two parks as currently shown on the project plan, totaling 5% or (1.56 acres) of the tract area. The Director of Recreation and Parks will make the determination if the 1.56 acres of parkland is usable. Planting within the 5% dedication area may be used to satisfy afforestation, significant replacement tree, and minimum tree cover requirements. Pursuant to Section 10.5-22(d)(3), any such tree plantings must be approved by the City Forester.

A usable park space exhibit must be approved by the Director of Parks and Recreation prior to approval of the first site plan and associated FFCP. The following information must be detailed on the usable park space exhibit:

- Park amenity features including, but not limited to path location will be graphically defined. Conceptual amenity features to be determined by the City.
- A note on the plan stating that steep slopes have been taken out of the usable park space. The City defines steep slopes as 25% and greater for elements environmental features mapping purposes. This definition is not applicable when determining usable park space. Steepness maximums for recreation uses are determined by the Director of Parks and Recreation and generally will be less steep.
- Topography for the entire usable park space area, including below the pond retaining wall.
- Topography for the impacted area of city parkland abutting the proposed park space on its southern boundary.
- All contours are labeled.
- Slope ranges on the exhibit will be identified, as directed by City staff.
- Safety bench will be labeled.
- Fringe planting area above the permanent pond elevation will be delineated.

Significant Trees/Specimen Trees
Significant trees are defined as trees located outside of a forest and being 12" DBH (diameter at breast height) and trees located within a forest and being 24" DBH and greater. Specimen trees are defined as trees with a diameter equal to or greater than 30" DBH or trees that are 75% of the diameter of the state champion tree of that species. Removal of significant trees requires written justification approved by the City Forester in accordance with Section 10.5-21(c) of the FTPO. The site contains 178 significant trees, of which 10 trees are also considered specimen trees.

Significant trees:
The project proposes to remove all trees within the site except for one 36" black oak located at the corner of Shady Grove Road and Gaither Road. The replacement requirement is 172 trees.

In accordance with Section 10.5-24 of the FTPO, the applicant has submitted written justification to pay fee-in-lieu for significant replacement trees. Based on the justification, the project meets the criteria for a fee-in-lieu payment for up to 60 significant replacement trees. The Project requires 172 significant replacement trees. The remaining 112 significant replacement trees must be planted within the project boundaries in locations in accordance with City standards. The fee-in-lieu for significant tree replacement may be paid in installments during the build out of the project. The monetary contribution to be paid for each installment will be determined at the time of each site plan. Each respective installment payment will be based on the proportional amount of square footage of area being developed with each site plan, regardless of the amount of significant tree replacement planting to be installed with the specific phase. The amount of each respective installment payment will be calculated in accordance with the rates in effect in the Forest Conservation Manual at the time the site plan is approved. At each site plan, the respective payment due must be paid prior to the issuance of any forestry permit. At the final phase, if the applicant provides a site plan that requires less fee-in-lieu than the maximum determined at PFCP, the payment for the final phase will receive the adjustment.

Specimen trees:
In accordance with Section 10.5-2 (e) of the FTPO, the plan preparer has submitted written justification by letter dated May 15, 2018 to remove 9 specimen trees. Replacement requirements are included in the 172 significant replacement calculation. The City Forester's office has reviewed the request in conjunction with the plan submission and found that the project meets the justification criteria for the following trees:

- Site access:
  - Trees 316, 317, 327 and 326 for "Other City developmental standards."
  - Tree 343 due to ADA access and sewer requirements.
  - Trees 255, 256 and 257, due to stormwater management requirements.
- Site conditions:
  - Tree 279 due to site conditions-proximity of tree to existing building and location of tree on steep slope.

Street Trees
The project has frontage on Gaither and Choke Cherry Roads, which are City of Rockville rights-of-way, and Shady Grove Road, which is a Montgomery County right-of-way. Street trees removed within the City's rights-of-way are required to be replaced at 1:1 and shall be shown on both the Final FCP and the street tree and lighting plan and will be in addition to new street tree planting proposed in rights-of-way. The applicant is required to obtain permits from Montgomery County and Maryland DNR for removal of trees within the Shady Grove Road right-of-way. Replacement or new street trees may also be a requirement of the county.

Conditions of Approval for Final Forest Conservation Plans
A Final Forest Conservation Plan must be reviewed and approved by the City with each site plan submission and prior to release of any Building, Forestry and DPW permit associated with each site plan submission. The Final FCP shall be generally consistent with the PFCP and approval letter, and provide tree plantings consistent with outlined requirements.

Final FCP and site plan must comply with FTPO and Zoning Ordinance. In addition to compliance with applicable codes, the following specific directives must be followed:

1. Use City provided tree tables and current City FTPO notes and details.
2. Provide a 7-foot tree lawn with street tree planting along Choke Cherry Road.
3. Provide a tree lawn with street tree planting along Gaither Road which is consistent with the King Farm section for Gaither Road.
4. The plan must be designed to accommodate shade tree planting within the newly designed rights-of-way along both sides of all new streets.
5. Street trees must be in a 7-foot wide tree lawn and a minimum of 3 feet from back of curb.
6. No afforestation credit will be given to trees within public or private SWM facilities.

g. Afforestation trees cannot be planted in SWM facilities. Significant Replacement (SRT) trees may be planted in SWM facilities as follows:
   i. In stormwater conveyance swales SRT can be planted on the side slopes provided they meet the minimum distance from underdrain pipes stated above.
   ii. In bioretention basins SRT can be planted on the side slopes provided they are at least one foot above the ponding depth and they meet the minimum distance from underdrain pipes stated above.
   iii. Credit will not be given for trees planted in hard sided bioretention SWM facilities.

This PFCP conditional approval does not infer or supersede other required project approvals and is contingent upon meeting all other City requirements including, but not limited to, stormwater management, erosion and sediment control, water and sewer, traffic and transportation, and zoning and building codes.

Sincerely,

Andie Murtha
Principal Planner- Urban Forestry and Landscape Architecture

cc:
Ricky Barker, Director, Planning & Development
Tim Chesnutt, Director of Recreation and Parks
Steve Mader, Superintendent of Parks and Facilities
Wayne Noll, City Forester
Daniel Park
Bobby Ray, Planning Supervisor
Barbara Sears
James Soltesz
Jim Wasilak, Chief of Zoning
Dave Waterman, Senior Civil Engineer
Mark Wessel, Engineering Supervisor
Brian Wilson, Principal Planner
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Page 6 of 6

Approved Preliminary FCP
City of Rockville
FTPO # 2016-00013
Page(s) 5 of 5
Authorized Signature 4/24/19
Date

PFCP APPROVAL SHEET

PRELIMINARY FOREST CONSERVATION PLAN
SHADY GROVE NEIGHBORHOOD CENTER
DANAC TECHNOLOGICAL PARK
CITY OF ROCKVILLE, MONTGOMERY COUNTY, MARYLAND

1" = AS SHOWN
SHEET 5 OF 5
PROJECT NO. 3559-02-00

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NO.	REVISIONS	BY	DATE
1	PROJECT PLAN RESUBMISSION	AZ	09/28/2018

DATE: MAY, 2018 | CAD STANDARDS VERSION: V8 - 2000
DESIGNED: SOLTESZ | TECHNICIAN: AZ | CHECKED: DEP

MISS UTILITY NOTE
INFORMATION CONCERNING EXISTING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS. THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION AND ELEVATION OF ALL EXISTING UTILITIES AND UTILITY CROSSINGS BY DIGGING TEST PITS BY HAND, WELL IN ADVANCE OF THE START OF EXCAVATION. CONTACT "MISS UTILITY" AT 1-800-257-7777, 48 HOURS PRIOR TO THE START OF EXCAVATION. IF CLEARANCES ARE LESS THAN SHOWN ON THIS PLAN OR TWELVE (12) INCHES, WHICHEVER IS LESS, CONTACT THE ENGINEER AND THE UTILITY COMPANY BEFORE PROCEEDING WITH CONSTRUCTION. CLEARANCES LESS THAN NOTED MAY REQUIRE REVISIONS TO THIS PLAN.

OWNER/DEVELOPER/APPLICANT
GROVE ROCKVILLE 31, II, III, IV, LLC
C/O LANTIAN DEVELOPMENT LLC
4341 MONTGOMERY AVENUE
BETHESDA, MD 20814
PHONE: 301-388-5600
ATTN: ROBERT ELLIOTT

MAP 5164 GRID A2, B2
TAX MAP FS 62 | ZONING CATEGORY MXE
WSSC 200' SHEET 221 NW 9
SITE DATUM HORIZONTAL: NAD 83/91 VERTICAL: NGVD 29

STATE OF MARYLAND DANIEL H. PARK LICENSE NO. 3894 LANDSCAPE ARCHITECT

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JULY 12, 2019

EVALUATION OF HISTORIC SIGNIFICANCE (FOR DEMOLITION)

FOR THE CITY OF ROCKVILLE DEPARTMENT OF COMMUNITY PLANNING AND DEVELOPMENT SERVICES

PREPARED FOR

LANTIAN DEVELOPMENT
4341 MONTGOMERY AVENUE
BETHESDA, MD 20814

R. CHRISTOPHER GOODWIN & ASSOCIATES, INC.
241 EAST FOURTH STREET, SUITE 100 ▪ FREDERICK, MD 21701

Evaluation of Historic Significance (for Demolition)

for the City of Rockville
Department of Community Planning and Development Services

Kathryn M. Kuranda, M.Arch.Hist.
Principal Investigator

by

Samuel Young, B.F.A.

R. Christopher Goodwin & Associates, Inc.
241 E. Fourth Street, Suite 100
Frederick, Maryland 21701

July 2019

for

Lantian Development
4341 Montgomery Avenue
Bethesda, MD 20814

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Appendix A: Photographs, June 2019

Appendix B: Locator Map

I. Introduction

Lantian Development currently is proposing to redevelop the area containing seven buildings in Rockville, Montgomery County, Maryland, and is pursuing demolition approval through the City of Rockville's Department of Community Planning and Development Services. The seven buildings proposed for redevelopment are:

- 2 and 4 Choke Cherry Road,
- 15825 Shady Grove Road, and
- 2092, 2094, 2096, and 2098 Gaither Road.

These buildings were constructed between 1967 and 1985 on Lots 5, 6, 7, and 8 in the area initially developed as the Danac Technological Park.

The following historic resources report was prepared by R. Christopher Goodwin & Associates, Inc. on behalf of the current owner, Lantian Development. This report provides technical detailed building descriptions, archival data, and building evaluations for all seven buildings applying the City of Rockville Historic Designation Commission Criteria (Section 25.14.01 of the Zoning Ordinance).

II. Methodology

The investigation of the seven buildings was completed through a progressive program of archival research, site investigation, and data analysis. The buildings were assessed within the historic context of architecture of the recent past.

Archival repositories were reviewed for previously compiled documentation on the buildings. These included the Maryland Inventory of Historic Properties (MIHP) maintained by the Maryland Historical Trust (MHT), and information compiled by Peerless Rockville Historic Preservation, Ltd, the local historic preservation advocacy group. The 2011 *Historic Buildings Catalog* produced by the City of Rockville provided a selective overview of historic structures and cultural resources inventory. The catalog was reviewed for architectural trends and buildings identified as significant in Rockville during the modern period. Staff reports to the Rockville Historic District Commission (HDC) on comparable projects also were reviewed to identify City preservation priorities and the application of designation criteria to resources from the recent past. Historic preservation regulatory requirements were reviewed related City of Rockville approvals.

RCG&A conducted field investigations in June 2019 to field verify and to compile data on the current appearance of the buildings sufficient to support their accurate description. . The architectural field survey was supplemented with digital photography. Archival and field data for each of the seven buildings were analyzed for significance and integrity in accordance with the evaluation criteria of the City of Rockville (Section 25.14.01 of the Zoning Ordinance).

This report is formatted according to City of Rockville HDC guidelines for Evaluation of Significance (for demolition) applications. HDC Staff Reports were used as a reference guide. All work was completed by architectural historians who meet, or exceed, the Secretary of the Interior's professional qualifications in the disciplines of history and architectural history.

III. Historical Overview of Project Area

For the majority of the City of Rockville's history, development was concentrated in the vicinity of the downtown core. Rockville was transformed during the post-World War II period into a modern city due to an influx of industries to the area (McGuckian 2001:155). Spatial constraints and concern over the potential for Soviet attack on Washington D.C. during the 1950s and 1960s contributed to the relocation of federal agencies to rural and suburban areas of the capital region. Due to its proximity to the nation's capital, Montgomery County was a favored site for the relocation of federal agencies, as well as for private sector science and technology corporations supporting federal agencies through federal contracts. The construction of I-270 in 1957 provided easier access to the county and further supported research and development as prominent industries in the area (Kelly 2015:102-103).

The 1960 Master Plan for the City of Rockville recognized the trend and encouraged development of research-based companies along I-270 and along Research Boulevard. Both these arteries geographically are close to the current project area. The 1970 Master Plan further advocated for tech development in this area. Land use planning encouraged the establishment of light industry, industrial parks, and shopping malls, and amenities to support these planning objectives (Lachin 2012:46).

Fostered by the City of Rockville's favorable planning policies, industrial and commercial development dominated land use within the City from 1960 to 1970. Between 1960 and 1980, large office buildings were constructed on Piccard Drive and Shady Grove Road due to their proximity to the highway (McGuckian 2001:163-166). The housing market expanded to support corporate expansion (Kelly 2015:103). Rockville experienced substantial growth between 1961 and 1984 as approximately twenty thousand new residents were added to the population and three thousand acres of land were annexed into the City. The current project area was part of the 1980 annexation (McGuckian 2001:173, 200).

The buildings located within the project area were built as leasable space and were part of the Danac Technological Park. The Danac Corporation subdivided the property into lots and completed construction of the buildings over several years. The buildings were designed individually rather than as an integrated complex, and the architects were chosen by the Danac Corporation. Some tenants were identified in the original building plans, such as Hewlett Packard at 2 and 4 Choke Cherry Road; all buildings were intended for lease to long-term tenants. The buildings have housed a variety of occupants over the years and research did not identify important historical associations with specific companies or corporations.

IV. Previous Investigations

None of the seven buildings under investigation were previously documented in the Maryland Inventory of Historic Properties (MIHP), nor have any of the buildings within the Danac Technological Park property previously have been designated as historic by the City of Rockville HDC. No sites, buildings, structures, or other objects within the project area are listed in or have been determined eligible for listing in the National Register of Historic Places. None of the buildings within the project area are included in the *Historic Buildings Catalog* (2011) compiled by the City of Rockville. Though not comprehensive, this catalog identifies built resources "that either have already received historic designation or appear to possess sufficient architectural integrity to be considered for designation" (City of Rockville 2011).

Interest in resources from the recent past, a period defined from the 1940s through the 1980s, has increased within the City of Rockville since 2004. In that year, Peerless Rockville Historic Preservation, Ltd. began a survey of buildings constructed between the 1950s and 1984 in the City of Rockville (Lachin 2012:6). The findings of this investigation are presented in the book *Rockville's Recent Past*. This study provided

an overview of mid-twentieth century development and architectural styles in the City. Examples of typical property types were identified by associated uses, such as religion, education, residential, commercial, institutional public service, health care, science, and technology. Selected architects working in the City post-1950 also were profiled (Lachin 2012). No recommendations concerning historic designations were developed in the Peerless Rockville publication, nor were any of the seven buildings included.

The building located at 5 Choke Cherry Road was evaluated for historic significance in December 2014 by the HDC. This structure was associated with the Danac Technological Park and designed by John H. Sullivan, the architect for several buildings in the complex. The staff report found that 5 Choke Cherry Road failed to meet the adopted criteria as the building was not "exceptional in its design," did "not possess a high level of artistic value," and did not "exemplify the cultural economic, industrial, social, political, archeological or historic heritage or development of the City, County State, or Nation." It specifically was noted that the building was not among the buildings identified in the 2011 *Historic Buildings Catalog.* In 2017, the building was demolished for residential development. (City of Rockville 2014).

V. Technical Building Descriptions and Discussion

The buildings at 2092, 2094, 2096, and 2098 Gaither Road; 15825 Shady Grove Road; and, 2 and 4 Choke Cherry Road are located in the north corner of the current boundary of the City of Rockville. The group of buildings is adjacent to both interstate highways I-270 and I-370. The buildings at 15825 Shady Grove Road and 4 Choke Cherry Road front onto Shady Grove Road, while the four Gaither Road buildings and 2 Choke Cherry Road are accessed from side streets. Dense, one- to two-story commercial development is located west of Shady Grove Road and includes a gas station, a Home Depot store, an Office Depot, a bank, and a strip mall with restaurants. A ca. 1997 multi-story office is located on the north side of Gaither Road. A contemporary townhouse development is located east of 2092, 2094, 2096, and 2098 Gaither Road. The land south of Choke Cherry Road consists of a CVS Pharmacy, MOM's Organic Market, and series of apartment and condominium buildings.

<u>15825 Shady Grove Road</u>
The building located at 15825 Shady Grove Road was constructed in 1968 by Rockville-based architect Donald N. Coupard & Associates. Many tenants occupied the offices within the building over time, including the Montgomery County court system. The building occupies the corner lot at the intersection of Gaither Road and Shady Grove Road. The building faces west to front onto Shady Grove Road, which is the western boundary of the City of Rockville. Vehicular access to the building is from both Shady Grove and Gaither roads. The two-story building, originally constructed as a Research Center for Danac Real Estate Investment Corporation, occupies a rectangular footprint that is surrounded by grass, trees, and ornamental plantings. A concrete sidewalk is located along the edge of the landscaped area adjacent to the building. Parking lots with double rows of parking spaces surround the entire building. A 65-ft buffer containing grass and dispersed trees with an exterior concrete sidewalk lines the Gaither Road frontage, while a similar buffer measuring approximately 52-ft lines the Shady Grove Road frontage. A 42-ft buffer containing grass and dispersed trees separates 15825 Shady Grove Road from Oak Grove Corporate Park on the east. A similar buffer measuring 40 to 50-ft wide separates 15825 Shady Grove Road from 4 Choke Cherry Road. Single metal street lights with conical glass tops are dispersed throughout the parking areas.

Containing elements of the New Formalism Style, the low-scale building is constructed of pre-cast, aggregate concrete panels that feature evenly spaced, curved-concrete buttresses (Figure 1). Each elevation contains vertical bands of metal-frame windows spaced between the concrete panels. The original building plan was designed as a double pavilion with an internal forecourt, opening from the façade center. The open courtyard was capped by an arched, glass atrium constructed of a bolted metal frame in 1984 (Figure 2). As originally designed, the sloped, semi-circular pathway with a metal railing leads to a bridge that crosses

to the primary entry. A smaller version of the arched vestibule also was added to the exterior of the rear entry in 1984 (Figure 3).

The main entry fronts onto Shady Grove Road. The building is accessed from the front parking lot by a semi-circular pathway with a metal railing leading to a bridge that crosses to what originally was an open courtyard, paved with squares of concrete. The courtyard currently is covered with a glass atrium constructed of a bolted metal frame that contains glass panels. The atrium was designed by Dewberry and Davis and added in 1984. The entries to the building are contained within a projecting arched vestibule. The entries are two sets of paired glass doors set in metal frames with curved metal handles. The first floor on this elevation fronts onto a landscaped earthen berm. Access to the lower level is through a glass wall containing glass doors in metal frames flanked by fixed glass panels.

The east elevation features a smaller version of the arched vestibule that contains a single set of paired glass doors set in metal frames with curved metal handles. This vestibule also was added in 1984. The secondary entry also is landscaped with a semi-circular pathway with metal railings. The pathway enframes a semi-circular flower bed with ornamental plantings. The north elevation contains a loading dock with a metal overhead door. A single metal door with a large glass light is located next to the loading dock. The loading dock is accessed by a short paved driveway. A similar loading dock and doorway are located on the south elevation.

Architect: Donald N. Coupard (1926-2008)
Donald Norbert Coupard gained his BArch from Catholic University before becoming a practicing architect in Maryland (Kelly 2015:180). In 1960, he designed a City Hall for Rockville; it was their first municipal building. The design of the building was said to "symbolize the modern City of Rockville" (McGuckian 2001:159). Coupard also was involved in the urban renewal project for the commercial city center of Rockville, initiated in 1961. Alongside other architects such as Robert L. Geddes and Arthur Cotton Moore, he contributed to this federally-funded initiative that focused on adding parking and replacing outdated facilities with new office buildings and amenities (McGuckian 2001:180). Coupard went on to build various facilities for industrial and high-tech corporations. The initial International Business Machines (IBM) Rockville headquarters in Gaithersburg was designed by Coupard in 1966. From 1967 to 1968, he designed the second complex for Vitro Corporation of America, Montgomery County's largest employer at the time, located in Aspen Hill. Coupard received an American Institute of Architects (AIA) Potomac Valley 25-Year Design Award for a parking garage in downtown Rockville in 1970. He continued to practice in the area until his retirement in 1989 (Kelly 2015:107, 113, 180).

<u>2 Choke Cherry Road</u>
The buildings at 2 and 4 Choke Cherry Road were constructed as part of the Danac Technological Park. Both buildings originally were constructed for the Hewlett Packard regional offices by Rockville architects Sullivan & Associates. The two buildings share an internal network of roads and parking lots. After Hewlett Packard moved, the buildings served a wide variety of tenants.

The building at 2 Choke Cherry Road occupies a rectangular footprint and was constructed in two phases (Figures 4-5). The one-story west end of the building was completed in 1967. The original drawings indicate that a later addition was anticipated.

The west end of the building is constructed of concrete masonry units and faced with light colored, running-bond brick. The exterior walls terminate in a cornice consisting of bands of dark colored brick soldier courses. The flat roof has built-up roofing and a parapet with metal coping. The original design of the south elevation had an asymmetrical, seven-bay façade that once contained the off-center, recessed, main entry to the building, six bays of recessed, narrow, fixed-sash windows, and areas of brickwork. The main entry currently is located in the west elevation. Large, square, dark-tinted fixed windows have been added into

the five bays of recessed brickwork. The west elevation contains the current main entry that is sheltered by a metal shed-roof porch supported by metal posts. The entry contains a set of paired glass doors in metal frames. Four large, fixed windows are located north of the doorway. The north elevation contains four bays of overhead garage doors.

The two-story addition on the east end of the building was constructed in 1979. This addition more than doubled the space of the original building. The addition was constructed of concrete block and faced with similar brick work and colors used in the original building. The current entries on the east end are recessed glass doors set in banks of fixed glass windows. One entry is sheltered by a metal-frame with a glass roof. The second entry is sheltered by a concrete roof. The south elevation of the east end has large expanses of fixed-light, dark tinted windows set in metal frames. Two bands of metal-frame, fixed-sash windows occupy the east end of the addition. The north elevation of the east addition contains a loading dock and five fixed-light windows on the lower level. The upper story contains sixteen narrow, fixed-light windows. Additional fixed-glass windows are located near the center of the north elevation.

The building at 2 Choke Cherry Road has an approximately 50-ft buffer of grass and dispersed small trees with a concrete sidewalk fronting along Choke Cherry Road. Narrow areas of grass and ornamental plantings are visible on the west, south, and east sides of the building. A concrete sidewalk spans the south edge of the green area in front of the building. Parking areas surround the building, but the majority of the parking area is located on the east side of the building. Metal street lights are dispersed throughout the parking areas.

4 Choke Cherry Road

The two-story, L-shaped building at 4 Choke Cherry Road was completed in 1973 (Figures 6-7). The building is accessed from both Choke Cherry Road and Shady Grove Road. Minimal plantings surround the building. Concrete sidewalks are located along the east elevation and portions of the north and south elevations of the building. A landscaped area with a semi-circular pathway, flower beds, hedges, and crepe myrtle trees is located at the southeast corner of the building. Wide parking lots surround the building. Buffers measuring approximately 50 feet containing grass and dispersed small-scale trees line Choke Cherry and Shady Grove Roads. Three flagpoles are installed near the front entry on Choke Cherry Road. Metal street lights are dispersed throughout the parking areas.

The two story building is constructed of concrete masonry units and faced with dark, all stretcher-bond brick on the first level. The second level is faced with grooved aggregate concrete panels with recessed belt courses. A wide brick pillar is located near the center of the south elevation. The brick pillar is capped with seven rows of soldier coursing. The corners of the building are indented and feature all stretcher bond brick walls capped with seven rows of soldier coursing. The building terminates in a flat roof finished with built-up aggregate, featuring a parapet with metal coping. The building's second story projects over the first story on the south, west, and north elevations. The lower levels on the south and north elevations are blind. The uppers levels on the south, and north elevations feature a band of dark glazed, large, fixed-sash windows in metal frames. The west and east elevations features bands of similar windows on both the lower and upper levels. The main entry is located off-center on the south elevation, east of a wide brick pillar. The recessed doorway is accessed by a flight of four concrete steps flanked by brick walls. The entry contains a pair of dark glazed glass doors in metal frames with fixed glass panels and transom. A secondary entry is located on the north elevation and contains a single glass door in a metal frame. Two single glass doors provide access to the landscaped area at the southeast corner of the building. The east elevation contains another secondary, recessed entrance adjacent to the projecting ell containing a loading dock (facing the north elevation).

A one-story ell projects from the northeast corner of the building. The ell contains the loading dock that has three recessed bays of overhead garage doors and a single metal door on the north elevation. The south

elevation of the loading dock is a blind all stretcher brick wall capped with grooved concrete panels. The easternmost bay contains a car wash and was added during the 1990s. The addition is faced in dark, all stretcher bond brick with seven rows of soldier coursing at the below the flat roof. Overhead garage doors occupy the north and south ends of the addition.

Architect: John H. Sullivan Jr. (1925-2014)
Like Coupard, John H. Sullivan also received his BArch from Catholic University in 1950. Sullivan created his firm, Sullivan & Associates, in 1957. The headquarters designed by Sullivan for the National Sand & Gravel and Ready Mixed Concrete Associations in Silver Spring, Maryland, in 1964 has been noted as a primary example of the Brutalism style in Montgomery County. This design also was awarded an AIA Potomac Valley design award in 1964 (Kelly 2015:166, 194). Other examples of his work in the area include the Aspen Hill Library (1967) and the Rockville Municipal Swim Center (1968). Sullivan received an award for his design of the Humble Car Care Center in 1970, later demolished for Metro construction during the 1980s. Throughout the Washington metropolitan area, Sullivan built public buildings of various functions including many noted bank buildings. Though the application is not highlighted in the design of the building at 4 Choke Cherry Road, Peerless Rockville specifically praises Sullivan's application of brickwork to achieve textural focus (Lachin 2012:59).

<u>2092, 2094, 2096, and 2098 Gaither Road</u>
The complex of four buildings at 2092, 2094, 2096, and 2098 Gaither Road, currently known as the Oak Grove Corporate Park, was also constructed for the Danac Technological Park designed by Andrew V. Donnally & Associates from 1981 to 1985. The four buildings share a common access road from Gaither Road. An approximately 60-ft buffer containing grass and trees lines the south side of Gaither Road. Each building is surrounded by a narrow area of green grass and concrete sidewalks on each side. Interior roads and connecting parking lots provide access to all four buildings in the complex. The complex is edged by grass buffers that separate it from 15825 Shady Grove Road and 2 Choke Cherry Road. Metal street lights are dispersed throughout the complex. The original drawings designated the buildings as Buildings 1-4. The drawings indicated 2092 Gaither Road as Building 1; 2098 Gaither Road as Building 2; 2096 Gaither Road as Building 3; and 2094 Gaither Road as Building 4.

The four buildings were constructed in quick succession over four years and exhibit a similar overall form and appearance. Each building features many of the same elements of structure and design. All have the same basic footprint and are oriented similarly, except Building 4, which is rotated 90 degrees to face the side of Building 1. The four buildings are two stories and were constructed of concrete block with brick facing. Two buildings (Buildings 1 and 3) feature dark brown brick facing, while the other two buildings (Buildings 2 and 4) have tan brick facing. All four buildings terminate in flat roofs with low parapets and metal coping. The central front entrances differ slightly in form. Ornamentation used on each of these buildings includes stucco panels above (tinted) first and second-story ribbon windows, a recessed primary entry with skylight, and rounded bay sections on both side elevations. Solar gray insulated glass was used throughout each of these buildings. The side elevations of all four buildings contain rounded brick bays with a secondary entrance and a loading dock with metal overhead doors. Features such as the primary entrances differ slightly among the buildings.

Though these four buildings are similar in overall shape and similar in size, they each feature slight differences in form and ornamentation (Figures 8-11). Building 1 (2092 Gaither Road), built in 1981, does not have a brick soldier course like some of the other buildings in this group. The façade (west elevation) contains a central, recessed entry with six steps and three sets of metal railings leading to the entrance. The entry has central, paired glass doors in metal frames covered by an arched glass roof bolted into the brick walls. On the north and south elevations, handicap accesses with glass doors in metal surrounds are adjacent to the brick bays. The entries are topped with glass upper sections and curved glass tops. The rear (east

elevation) has a central glass door under an awning to mark the entrance to the TLC Family Hearing Center. Two off-center, two-story, thin, brick sections break up the elevation.

Building 2 (2098 Gaither Road) was constructed in 1982 and features all-stretcher, tan brick facing and a tan soldier course under the second-story windows. Soldier courses can also be seen along the parapet, topped with metal coping. Each corner of the façade (east elevation) features round, concrete columns. The recessed entry is flanked by these columns on the first and second stories, spanning the height of each ribbon of windows. The second-story columns support the brick-faced wall and end in stucco sills. The glass entry vestibule projects from the recessed area and is flanked by rounded, concrete pilasters and terminates in a concrete lintel. A glass, shed-roof tops the glass-walled vestibule. Six concrete steps with low, brick walls and metal railings lead to the entrance.

Building 3 (2096 Gaither Road) was built in 1984 and is faced with stretcher-bonded dark brick and small accents of indented, black brick soldier courses can be seen on each elevation. These thin soldier courses are typically located in the small section between ribbon windows or spanning from a corner of an elevation to a window. The façade (east elevation) contains the main entry, slightly recessed with metal framed glass doors, flanked by fixed glass panels and transoms. The entry is sheltered by a glass shed-roof. Four concrete steps with metal railings lead to the entrance. At both ends of the elevation, two-story glass sections are flanked by rounded corners. The north elevation contains a handicap access adjacent to the brick bay and loading dock. The glass, metal-framed door next to the brick bay on the west elevation is topped by glass upper sections. The rear (west elevation) does not have an entrance and has four spans of ribbon windows on each story.

Building 4 (2094 Gaither Road), constructed in 1985, has tan, stretcher-bonded brick facing and has no accented coursing on the exterior. This building faces north towards the side of Building 1, breaking the pattern of the adjacent facing buildings. The ends of the façade (north elevation) have cutaway corners at the first and second stories, with a projecting wall in between, creating a projecting cube shape over the cutaway. The façade features a central, recessed primary entry topped by a glass shed-roof. The entry consists of paired glass doors surrounded by glass panels and topped with transoms; all within metal frames. Leading to the entrance are four concrete steps flanked by concrete walls and metal railings. The west elevation feature a handicap access adjacent to the brick bay. The rear elevation does not contain an entrance and has three spans of ribbon windows on each story.

VI. Building Evaluations

<u>15825 Shady Grove Road (built 1968)</u>

City of Rockville, Maryland, Historic Designation Criteria

Historic Significance

a. Represents the development, heritage, or cultural characteristics of the City; or

While the building is part of the development of the I-270 corridor for high-tech industries that occurred during the 1960s and 1970s, this area was not directly related to the City until its annexation in 1980. While generally associated with the overall regional trend of post-World War II development, the building was not associated with Rockville at the time of its construction. Therefore, this area and any development prior to 1980 did not have a direct relationship to the history and development of the City.

b. Is the site of an important event in Rockville's history; or

Archival research, including a review of newspaper archives and local historical literature, has not identified an important event associated with this building.

c. Is identified with a person or group of persons who influenced the City's history; or

Archival research was undertaken to identify whether a person or group of persons who influenced the City's history is associated with the building. A review of newspaper archives, land records, and deeds revealed the building has no known association with any persons important to the City.

d. Exemplified the cultural, economic, industrial, social, political, archaeological, or historical heritage of the City.

As cited above, the building does not exemplify the cultural, economic, industrial, social, political, archeological, or historical heritage of the City.

Architectural, Design and Landscape Significance

a. Embodies distinctive characteristics of a type, period or method of construction; or

Though not included in the *Historic Buildings Catalog* (2011), this building is a lesser example of the corporate offices introduced to the area during the late 1960s. The first corporate office park was created in 1951 in Mountain Brook, Alabama. Simply coined *The Office Park*, a term that eventually would embody the suburban design, each office lot was defined by a building of no more than two-stories, and covering no more than 25 per cent of the parcel, surrounded by parking. Strips of landscape edged each building, lined the principal roadway, and covered the slopes to enclose each office lot. Developers expected office parks to be built incrementally over a number of years or decades (Mozingo 2011:159-161). While this building reflects a type of construction and style (New Formalism) through the use of the pre-cast concrete walls and buttresses and the vertical shafts of windows, it fails to embody the full range of distinctive characteristics commonly found in the New Formalism style and office park design of the era.

b. Represents the work of a master architect, craftsman, or builder; or

The architect, Donald N. Coupard, has been identified by Peerless Rockville Historic Preservation Ltd. as a prolific modern architect within Rockville in initial efforts to meet the City's goals for recognition of the recent past. However, the architect's full body of work has not be assessed, and the building located at 15825 Shady Grove Road was not identified as a representative design of the architect by Peerless Rockville Historic Preservation Ltd. or in the *Historic Buildings Catalog* (2011).

c. Possesses a style or elements distinctive to the region or City; or

The building exhibits elements of the New Formalism Style, as identified in the *Historic Buildings Catalog* (2011) for the City. The catalog defines the character-defining features of the style as a rectangular form with a flat roof, vertical window shafts, and classically-inspired elements. Additional features common to the style include raised entry, smooth wall surfaces, and formal landscapes including the use of pools or sculptural elements within a central plaza (Whiffen 1981:120). While the building occupies an irregular form, certain elements, including classically-inspired, curved buttresses, adhere to common features of the New Formalism style. However, the building's integrity has been compromised by the 1984 atrium additions to the central façade and primary entrance of the building. Furthermore, the building lacks a formal landscape component and a pastoral element commonly found in office parks of the time period. Lastly, the building is not included in the *Historic Buildings Catalog* (2011) as exemplary of the New Formalism style in the City.

d. Represents a significant architectural, design, or landscape entity in the City; or

While the building does contain features of the New Formalism Style, in the use of curved concrete buttresses, a flat roof, and vertical window shafts, the building does not represent a design or entity distinctive to Rockville.

e. Represents an established visual features of the neighborhood or City because of its physical characteristics or landscape components.

While the Danac Technological Park is predominantly obscured from the road, this building rests along on the main thoroughfare of Shady Grove Road. A number of mature pine and deciduous trees are sparsely lined between the building and thoroughfare, partially obscuring the New Formalism elements of the building, though highlighting the compromising 1984 atrium addition. This portion of Shady Grove Road is primarily populated with pharmacies, commercial shopping centers, and recent residential construction. This building is not part of an established visual feature of the neighborhood or City.

<u>2 Choke Cherry Road (built 1967)</u>

City of Rockville, MD, Historic Designation Criteria

Historic Significance

a. Represents the development, heritage, or cultural characteristics of the City; or

While the building is part of the development of the I-270 corridor for high-tech industries that occurred during the 1960s and 1970s, this area was not directly related to the City until its annexation in 1980. Therefore, this area and any development prior to 1980 did not have a direct relationship to the history and development of the City.

b. Is the site of an important event in Rockville's history; or

Archival research, including a review of newspaper archives and local historical literature, has not identified an important event associated with this building.

c. Is identified with a person or group of persons who influenced the City's history; or

Archival research was undertaken to identify whether a person or group of persons who influenced the City's history is associated with the building. A review of newspaper archives, land records, and deeds revealed the building has no known association with any persons important to the City.

d. Exemplified the cultural, economic, industrial, social, political, archaeological, or historical heritage of the City.

As cited above, the building does not exemplify the cultural, economic, industrial, social, political, archeological, or historical heritage of the City.

Architectural, Design and Landscape Significance

a. Embodies distinctive characteristics of a type, period or method of construction; or

The building was not included in the *Historic Buildings Catalog* (2011), yet it is an example of a light industrial building dating from the late 1960s. Light industrial buildings are designed to accommodate structure working environments with a heavy reliance on machinery and technology. Typical features of the design include square are rectangular building footprints, loading docks, and higher window and door openings. This design was not highlighted in the *Historic Buildings Catalog* (2011) as important to the recent past of the City. Furthermore, the building does not retain sufficient integrity of design, materials, or workmanship through the substantial 1979 addition, altered entries, and window additions. The original form of the building has been compromised over time and the loss of original materials is significant.

b. Represents the work of a master architect, craftsman, or builder; or

The architect, John H. Sullivan Jr., has been identified by Peerless Rockville Historic Preservation Ltd. as a prolific modern architect within Rockville in initial efforts to meet the City's goals for recognition of the recent past. However, the architect's full body of work has not be assessed, and the building located at 2 Choke Cherry Road was not identified as a representative design of the architect by Peerless Rockville Historic Preservation Ltd. or in the *Historic Buildings Catalog* (2011).

c. Possesses a style or elements distinctive to the region or City; or

Though the building is an example of a light industrial building, it is not a recognized architectural style or type. Therefore, it does not exhibit elements of a specific style, or a style that is distinctive to the City.

d. Represents a significant architectural, design, or landscape entity in the City; or

The substantially modified, utilitarian building does not exhibit any elements of architectural design that is significant to the City.

e. Represents an established visual features of the neighborhood or City because of its physical characteristics or landscape components.

The location of the building is recessed from the thoroughfare of Shady Grove Road and rests at the far end of a side road. Therefore, the building does not represent a significant entity within the City.

<u>4 Choke Cherry Road (built 1973)</u>

City of Rockville, MD, Historic Designation Criteria

Historic Significance

a. Represents the development, heritage, or cultural characteristics of the City; or

While the building is part of the development of the I-270 corridor for high-tech industries that occurred during the 1960s and 1970s, this area was not directly related to the City until its annexation in 1980. Therefore, this area and any development prior to 1980 did not have a direct relationship to the history and development of the City.

b. Is the site of an important event in Rockville's history; or

Archival research, including a review of newspaper archives and local historical literature, has not identified an important event associated with this building.

c. Is identified with a person or group of persons who influenced the City's history; or

Archival research was undertaken to identify whether a person or group of persons who influenced the City’s history is associated with the building. A review of newspaper archives, land records, and deeds revealed the building has no known association with any persons important to the City.

d. Exemplified the cultural, economic, industrial, social, political, archaeological, or historical heritage of the City.

As cited above, the building does not exemplify the cultural, economic, industrial, social, political, archeological, or historical heritage of the City.

Architectural, Design and Landscape Significance

a. Embodies distinctive characteristics of a type, period or method of construction; or

The building was not included in the *Historic Buildings Catalog* (2011) and does not embody a specific architectural style or type. Furthermore, the building does not embody a specific period of time or method of construction.

b. Represents the work of a master architect, craftsman, or builder; or

The architect, John H. Sullivan Jr., has been identified by Peerless Rockville Historic Preservation Ltd. as a prolific modern architect within Rockville in initial efforts to meet the City’s goals for recognition of the recent past. However, the architect’s full body of work has not be assessed, and the building located at 4 Choke Cherry Road was not identified as a representative design of the architect by Peerless Rockville Historic Preservation Ltd. or in the *Historic Buildings Catalog* (2011).

c. Possesses a style or elements distinctive to the region or City; or

The building does not exhibit elements of a specific style, or a style that is distinctive to the City.

d. Represents a significant architectural, design, or landscape entity in the City; or

The building features light elements of 1970s corporate, yet does not exhibit any elements of architectural design that is significant to the City.

e. Represents an established visual features of the neighborhood or City because of its physical characteristics or landscape components.

Its corner location on Choke Cherry and Shady Grove Roads makes the building visible despite the majority of buildings in the Danac Technological Park are set back. However, vegetation lining the thoroughfare partially obscures the building. Furthermore, this portion of Shady Grove Road is primarily populated with pharmacies, commercial shopping centers, and recent residential construction. This building is not part of an established visual feature of the neighborhood or City.

<u>2092, 2094, 2096, and 2098 Gaither Road (built 1981-1985)</u>

City of Rockville, MD, Historic Designation Criteria

Historic Significance

a. Represents the development, heritage, or cultural characteristics of the City; or

The group of buildings does not contribute to the cultural heritage of the City. While these buildings were constructed after the area was annexed to the City of Rockville, they lack an architectural style and have not been highlighted by Peerless Rockville Historic Preservation Ltd. or in the *Historic Buildings Catalog* (2011) as representative of City development, heritage, or cultural characteristics.

b. Is the site of an important event in Rockville's history; or

Archival research, including a review of newspaper archives and local historical literature, has not identified an important event associated with this building.

c. Is identified with a person or group of persons who influenced the City's history; or

Archival research was undertaken to identify whether a person or group of persons who influenced the City’s history is associated with the building. A review of newspaper archives, land records, and deeds revealed the building has no known association with any persons important to the City.

d. Exemplified the cultural, economic, industrial, social, political, archaeological, or historical heritage of the City.

As cited above, the group of buildings does not exemplify the cultural, economic, industrial, social, political, archeological, or historical heritage of the City.

Architectural, Design and Landscape Significance

a. Embodies distinctive characteristics of a type, period or method of construction; or

No distinctive characteristics were found in these buildings of a type, period or method of construction. The buildings lack ornamentation and do not adhere to the guidelines of any architectural style or type.

b. Represents the work of a master architect, craftsman, or builder; or

Andrew V. Donnally & Associates has not been identified locally or nationally as a master. The firm is not highlighted by Peerless Rockville Historic Preservation Ltd. or in the *Historic Buildings Catalog* (2011). Additional archival research, including local newspaper archives and American Institute of Architects (AIA) did not yield information identifying the firm, locally or nationally, as a master.

c. Possesses a style or elements distinctive to the region or City; or

The building does not exhibit elements of a specific style, or a style that is distinctive to the City.

d. Represents a significant architectural, design, or landscape entity in the City; or

The architectural design of the group of buildings has not been highlighted as significant to the City of Rockville as they lack a formal architectural style or type.

e. Represents an established visual features of the neighborhood or City because of its physical characteristics or landscape components.

These buildings are set back from the main thoroughfare (Shady Grove Road) on a side street (Gaither Road). The surrounding area is populated with new construction in the form of residential apartment complexes and commercial shopping centers. The buildings at Gaither Road are not established visual features of the neighborhood or City.

VII. Summary and Conclusion

The seven buildings collectively have not been designated as historic properties by the City of Rockville HDC nor have they been listed in the National Register of Historic Places. The collection of seven buildings, as a whole, does not represent a cohesive, recognizable entity necessary for a historic district. Because the buildings are not linked to each other by an interior road system, three separate groupings of buildings are created and the pastoral, interlocked campus representative of office parks during the 1960s and 1970s is not intact. The buildings were constructed during three periods (1967-73, 1968, and 1981-85) by different architects, resulting in dissimilar building types, styles, materials, and forms. Only one building, 15825 Shady Grove Road, can be attributed to a formal architectural style: New Formalism. While the building contains elements of the style, primarily the classically-inspired, curved buttresses, it fails to fully embody New Formalism and has further been altered through the 1984 addition of a glass atrium to the façade and rear entrances. Due to the continual turnover of leases among the seven buildings, no strong connection was established between the companies occupying the buildings and the history of Rockville. Therefore, no important events in the history of Rockville can be linked to the seven buildings.

The seven buildings, evaluated individually and as a whole, do not possess sufficient significance and/or integrity under the HDC criteria: 15825 Shady Grove Road, 2 and 4 Choke Cherry Road; and 2092, 2094, 2096, and 2098 Gaither Road. Review of staff reports suggest that designation for recent past built resources is focused on sites recorded in the 2011 *Historic Buildings Catalog*.

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Appendix A: Photographs

Figure 1: 15825 Shady Grove Road façade (June 2019)

Figure 2: 15825 Shady Grove Road atrium detail (June 2019)

Figure 3: 15825 Shady Grove Road rear elevation (June 2019)

Figure 4: 2 Choke Cherry Road façade (June 2019)

Figure 5: 2 Choke Cherry Road façade (June 2019)

Figure 6: 4 Choke Cherry Road façade (June 2019)

Figure 7: 4 Choke Cherry Road west elevation (June 2019)

Figure 8: 2096 Gaither Road façade (June 2019)

Figure 9: 2094 Gaither Road side elevation (June 2019)

Figure 10: 2092 Gaither Road façade (June 2019)

Figure 11: 2098 Gaither Road façade (June 2019)

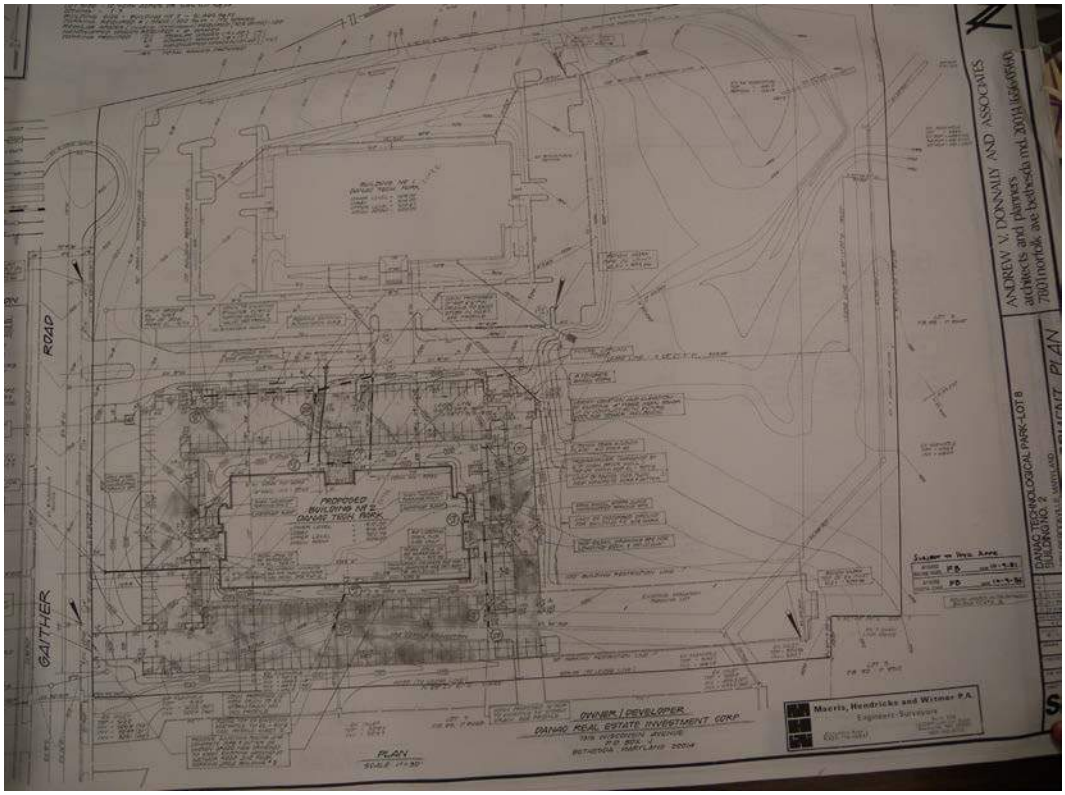
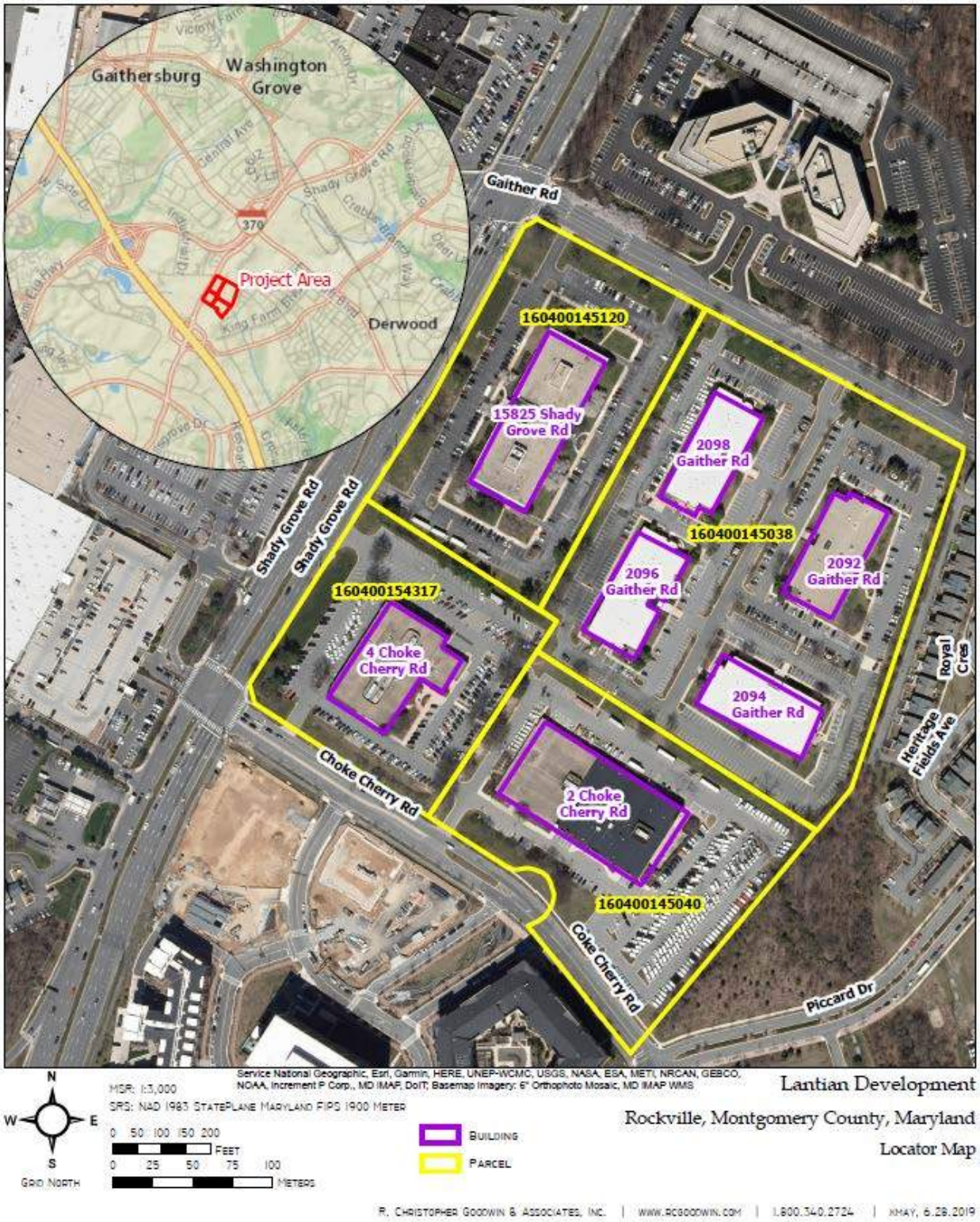


Figure 12: 15825 Shady Grove and 2092 Gaither Road Original Footprints (courtesy of Chris Ogle)

Figure 13: View from 4 Cherry Choke Road looking southeast (May 2017)

Figure 14: View from 15825 Shady Grove Road looking west (May 2017)

Appendix B: Locator Map



EXAMPLE DRC RESPONSE

Planning and Development Services
Received
12/6/2021
STP2022-00434

[redacted]

[redacted]

LIDL & THE HENSON AT SHADY GROVE
SITE PLAN STP2022-00434 - DRC COMMENTS 09-28-2021

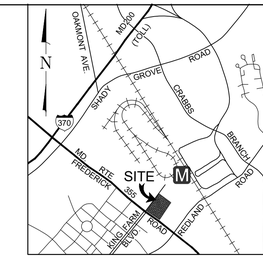
Agency-Contact	Sheet	COMMENT	RESPONSE
PDS Comments Development & Zoning Reviewer - Sachin Kalbag,	STP2022-00434 - Lidl Development Review Comments	Secure all necessary approval from WMATA and Montgomery County for any property affected but outside city limits.	Approval from Montgomery County DOT with regards to the secondary access to The Henson is included with this resubmission. WMATA approval is pending and in process.
PDS Comments Development & Zoning Reviewer - Sachin Kalbag,	STP2022-00434 - Lidl Development Review Comments	Please clarify if this project will be phased and whether the housing or grocery store will be built first.	The two projects will be constructed at the same time, and most of the construction activity will overlap. Lidl will be a shorter construction duration, so their building construction will start after the Henson. However, based on DPW sediment control comments, we are now introducing a first "phase" where the site will be demolished and excavation/rough grading and underground utility work will commence.
PDS Comments Development & Zoning Reviewer - Sachin Kalbag,	STP2022-00434 - Lidl Development Review Comments	The “art wall” concept was discussed as an alternative to the mixed-use configuration with structured parking along Frederick Road that would shield views to the surface parking with enough architectural substance in terms of materiality, modulation, height, incorporating art elements, and potentially lighting, and would function as a street wall designed at a pedestrian scale. Best practice examples were provided. We discussed how the “art wall” could be integrated with the intersection of Metro Access Road and Frederick Road, reinforcing the gateway into Rockville concept. City Staff thought this approach was worth investigating and represented a good compromise benefiting Lidl. As you know, development sites adjacent to Metro stations tend to be exclusively mixed-use compact developments with full-block street frontages and encapsulated parking. Not enough information was provided with the submittal to make substantial and meaningful comments. An off-the-shelf panel is not going satisfy what is essentially replacing a mixed-use development with 70-percent street frontage that would be more appropriate for the site. City staff is willing work with the applicant to achieve the objectives of a street frontage along Frederick Road that is designed with the architectural materiality, modulation, height that creates an exciting street frontage and gateway into Rockville and the Shady Grove Metro Station. Let’s make this happen!	As a result of our follow up meetings, we have enhanced the public art and screening elements along the entirety of the Lidl / MD-355 frontage. An additional seat wall with elements honoring Josiah Henson and the "walk to freedom" have been added, along with opportunities at the prominent corners for public art features, which will be coordinated with the City's Art in Public Spaces team. We have also incorporated opportunities for a mural (subject to City signage ordinance compliance) with up lighting along the side of the store that faces Metro Access Road. There was a request from staff to consider an overhead vertical element in the area of the metal panels, similar in height to the building canopy. However, we are unable to accommodate such a feature as it would interfere with necessary trees along this interface with the parking lot. We strongly believe that this heavy landscaping in connection with the panels, will provide an inviting linear open space while also providing a significant visual barrier from the parking facility.
PDS Comments Development & Zoning Reviewer - Sachin Kalbag,	STP2022-00434 - Lidl Development Review Comments	While there have been improvements to the intersection of Metro Access Drive and Frederick Road intersection, the gateway into Rockville and Shady Grove Metro, there needs to be a vertical element that reinforces the intersection and entrance into the Shady Grove Metro Station, as well as Metro wayfinding and potential integration of the art element into this area.	

PDS Comments Development & Zoning Reviewer - Sachin Kalbag,	STP2022-00434 - Lidl Development Review Comments	Ensure the Lidl street elevation along Metro Access Road will not convey a "back-of-house" exterior appearance with materials that are lower in quality than the front entrance. EIFS is typically a lower quality material used in spec driven development products. Like other Lidl projects in mixed-use transit centers, consider metal paneling, or more substantial architectural finishes (such as pre-cast, architectural concrete) or even art elements. City staff will provide examples.	
PDS Comments Development & Zoning Reviewer - Sachin Kalbag,	STP2022-00434 - Lidl Development Review Comments	The Site Plan indicates 329 parking stalls are provided, and 420 stalls are required per Sec. 25.16.03 parking, which is nearly 20-percent below the requirement. Before we can consider a parking waiver, please provide of breakdown of parking for the grocery store and housing project so that staff can make the findings.	See footnote #2 in the project data table on sheet SP-2.01 and justification provided in Statement of Justification.
PDS Comments Development & Zoning Reviewer - Sachin Kalbag,	STP2022-00434 - Lidl Development Review Comments	As noted in the forestry comments, the mature trees along Metro Access are in good condition and should be saved if at all possible. Also, as noted in the Traffic and Transportation comments, there is a need for additional pedestrian accommodation along Metro Access. Considering the conflicting priorities in this location, and the multiple agencies involved, staff commits to coordinate with other agencies on potential solutions.	After consultation with an arborist, It has been deemed infeasible to save the trees along this road while accommodating the pedestrian improvements. The steep gradient immediately next to the trees would require significant grading to install a sidewalk, which would remove large portions of the root structure. In coordination with WMATA we will be planting replacement trees and have also widened the sidewalk to the maximum feasible width of 8 feet.
PDS Comments Development & Zoning Reviewer - Sachin Kalbag,	STP2022-00434 - Lidl Development Review Comments	Provide more information regarding the garage screen treatment along ground level street frontage of the residential building	The screening that clads the openings of the garage along the street frontage is a horizontally finned metal louver that provides 100% visual screening and blocks vehicle lights while still allowing natural air-flow
PDS Comments Development & Zoning Reviewer - Sachin Kalbag,	STP2022-00434 - Lidl Development Review Comments	Shadow ordinance – check narrative	As shown on the submitted shadow study, The Henson will cast no shadows on the nearby Bainbridge building for nine months of the year, from February 15 to November 15. On December 21, however, The Henson will cast a shadow twenty feet high on one corner of the Bainbridge from 10:00 to 10:45 a.m. This shadow is likely smaller than the shadows cast on the Bainbridge by the mature street trees located along the Metro access road. This minimal shadow intrusion should not prevent approval of a project that will advance important City and regional goals by providing nearly 200 units of affordable housing, mixed-use activation of a transit-served location on a major pedestrian thoroughfare, and significant improvements to pedestrian/bike facilities.
Forestry Reviewer - Shaun Ryan	STP2022-00434 - Lidl Development Review Comments	See Plan Mark-up Attachment	See Plan mark-up for responses.
Fire Reviewer - Charles Biggus	STP2022-00434 - Lidl Development Review Comments	Please indicate the location of fire department key access box for each structure	Plans revised as requested.
Fire Reviewer - Charles Biggus	STP2022-00434 - Lidl Development Review Comments	The existing hydrant located on Frederick Avenue is located in a high speed (40 mph) roadway, which exceeds the 35 mph recommended speed limit for fire department access roads and would place fire department personnel in jeopardy.	Comment acknowledged.

Fire Reviewer - Charles Biggus	STP2022-00434 - Lidl Development Review Comments	We recommend relocating the fire department connection (FDC) for the Lidl site to within 100 ft. of the hydrant adjacent to the residential complex or leave it where located on the Lidl site and add an additional hydrant in the parking lot adjacent to the Lidl site within 100 ft. of the FDC.	FDC has been relocated as requested.
Fire Reviewer - Charles Biggus	STP2022-00434 - Lidl Development Review Comments	The Fire flow calculations/data will be a condition of building plan submission.	Comment acknowledged.
DPW Engineering Comments - Adeyemi Ojumu	STP2022-00434 - Lidl Development Review Comments Site Plan (STP2022-00434)	WSSC will need to sign off on both 1) HPA and 2) government review. Rockville staff will send to them, but the applicant will need to pay that fee as well as City fees.	Comment acknowledged.
DPW Engineering Comments - Adeyemi Ojumu	STP2022-00434 - Lidl Development Review Comments Site Plan (STP2022-00434)	WMATA JDAC process will be required for adjacent construction and storm drain analysis	Comment acknowledged.
DPW Engineering Comments - Adeyemi Ojumu	STP2022-00434 - Lidl Development Review Comments - Site Plan (STP2022-00434)	See PDF Markup for additional comments	See PDF markups for responses.
DPW Engineering Comments - Adeyemi Ojumu	STP2022-00434 - Lidl Development Review Comments -Development Stormwater Management Concept Plan (SMC2021-00006)	See PDF markups on Development Stormwater Management Concept Plan	See PDF markups for responses.
DPW Engineering Comments - Adeyemi Ojumu	STP2022-00434 - Lidl Development Review Comments - Safe Conveyance Study	See PDF markups on Safe Conveyance Study	See PDF markups for responses.
DPW Engineering Comments - Adeyemi Ojumu	STP2022-00434 - Lidl Development Review Comments - Preliminary Sediment Control Plan (SCP2022-00006)	See PDF markups on Preliminary Sediment Control Plan	See PDF markups for responses.
Traffic and Transportation - Andrew Luetkemeier or Faramarz Mokhtari,	STP2022-00434 - Lidl Development Review Comments	See Plan Mark-up Attachment for site specific comments.	See PDF markups for responses.
Traffic and Transportation - Andrew Luetkemeier or Faramarz Mokhtari,	STP2022-00434 - Lidl Development Review Comments	The access to the proposed dumpster to the residential building must be from internal roadways in such a way that does not interfere with the proposed main access from the Metro Access Road.	Front-loading trash trucks will stop on the side of the Metro Access Road entrance for two to three minutes three times a week. They will be supervised by building maintenance staff. This minor inconvenience to other site users is mitigated by the width of the access drive, which can accommodate a standard trash truck and two cars passing one another. The applicant notes that this is not the main entrance to the site; the main entrance is and will remain on Route 355.
Traffic and Transportation - Andrew Luetkemeier or Faramarz Mokhtari,	STP2022-00434 - Lidl Development Review Comments	Transportation Report is still under review by staff. Comments will be shared with the project traffic consultant once prepared.	Comment acknowledged.

Dept. of Housing and Community Development (HCD) - Punam Thukral	STP2022-00434 - Lidl Development Review Comments	Staff believes this a tax credit project.	Comment acknowledged.
Dept. of Housing and Community Development (HCD) - Punam Thukral	STP2022-00434 - Lidl Development Review Comments	The applicant should increase the units at 30% and 50%.	This is not feasible for this project.
Dept. of Housing and Community Development (HCD) - Punam Thukral	STP2022-00434 - Lidl Development Review Comments	Staff proposes 30% of the units at 30% AMI, 30% of the units at 50% AMI, 40% of the units at 60% AMI	This is not feasible for this project.

LIDL & THE HENSON
AT SHADY GROVE METRO
STP#2021XXXX



VICINITY MAP
SCALE: 1"=2000'

Planning & Development Services
Received
August 20, 2021

SEE FIRE MARSHAL REVIEW COMMENTS

added per request

Please indicate the location of fire department key access box for each structure.

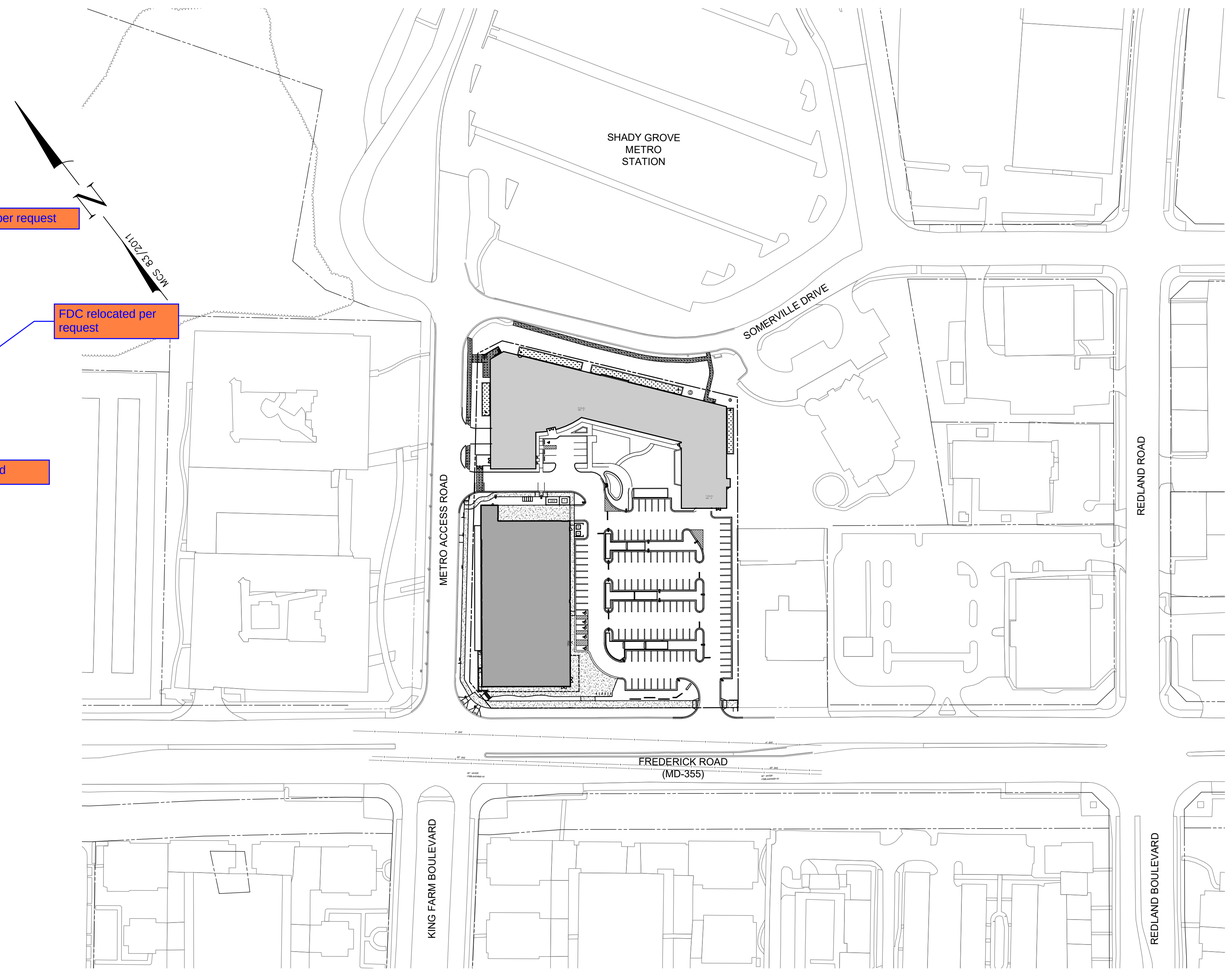
The existing hydrant located on Frederick Avenue is located in a high speed (40 mph) roadway, which exceeds the 35 mph recommended speed limit for fire department access roads and would place fire department personnel in jeopardy.

FDC relocated per request

We recommend relocating the fire department connection (FDC) for the Lidl site to within 100 ft. of the hydrant adjacent to the residential complex or leave it where located on the Lidl site and add an additional hydrant in the parking lot adjacent to the Lidl site within 100 ft. of the FDC.

The Fire flow calculations/data will be a condition of building plan submission.

acknowledged



SURROUNDING AREA MAP

GRAPHIC SCALE
(IN FEET)
1 inch = 100 ft.
100 0 50 100 200

SHEET INDEX

OVERALL
SP-0.01 COVER SHEET
SP-1.01 EXISTING CONDITIONS PLAN
SP-2.01 OVERALL SITE PLAN
SP-2.02 OPEN SPACE EXHIBIT

LIDL SITE
SP-2.11 SITE PLAN
LS-2.11 LANDSCAPE PLAN
LS-2.12 LANDSCAPE DETAILS
A-100 BUILDING FLOOR PLAN
A-200 BUILDING ELEVATIONS

HENSON SITE
SP2.21 SITE PLAN
LS-2.21 LANDSCAPE PLAN
LS-2.22 LANDSCAPE DETAILS
LS-2.23 HARDSCAPE PLAN
LS-2.24 HARDSCAPE DETAILS
A0.1 LOWER PARKING FLOOR PLAN
A0.2 GROUND LEVEL PARKING FLOOR PLAN
A0.3 FLOOR 1 PLAN
A0.4 FLOOR 2 PLAN
A0.5 FLOOR 3 PLAN
A0.6 FLOOR 4 PLAN
A0.7 FLOOR 5 PLAN
A0.8 FLOOR 6 PLAN
A0.9 ROOF/PENTHOUSE PLAN
A.10 BUILDING ELEVATIONS
A.11 BUILDING ELEVATIONS
A.12 BUILDING ELEVATIONS

PROJECT TEAM

LIDL US, LLC
3500 S. CLARK STREET
ARLINGTON, VA 22202

REVISIONS

NO.	DESCRIPTION	DATE

TAX MAP GS12 WSSC 221NW08

PLAT 20049

9TH ELECTION DISTRICT
MONTGOMERY COUNTY
MARYLAND

PARCEL N
DERWOOD

LIDL & THE HENSON
AT SHADY GROVE METRO

PROJ. MGR	PGL
DRAWN BY	PGL
SCALE	1"= 100'
DATE	08.20.2021

SITE PLAN COVER SHEET

SP-0.01

PROJECT NO.	96.419.21
SHEET NO.	1 OF 1

I:\96419\DWG\CS_21_01.dwg COVER, 8/20/2021 1:21:49 PM, lanepge, Copyright © 2021 Macris, Hendricks & Glascock, P.A., Copyright © 2021 Macris, Hendricks & Glascock, P.A.

We are working with WMATA to identify and provide for improvements within their ROW, including provisions for future street lights

Recommend improved ramps and crossings along logical pedestrian path to metro station.

We are working with WMATA to identify and provide for improvements within their ROW

We undesrstand that City has defrred this to WMATA. WMATA sought MCDOT's opinion. MCDOT is okay with the second curb cut, if the garage entrance is right-in right-out

Staff continues to recommend single access point onto Metro Access Road

Staff continues to strongly recommend the provision of streetlights along the entire frontage of the Metro Access Road.

The applicant proposes a new six foot wide sidewalk and the elimination of the trees along the metro access road. DPW staff recommends retaining the mature trees, adding a 10 foot wide sidewalk that is buffered, with provision of bicycle accommodations along the Metro Access Road frontage.

Retaining the existing trees has been deemed infeasible with any sidewalk relocation due to the gradient on which the existing trees sit. In coordination with WMATA we are now showing an 8 ft sidewalk, which is the max that cam be accommodated.

Staff recommends a single entrance on the Metro Access Road, but if a second entrance is permitted by the approving authority, a right-in right-out access with commercial apron must be provided

Right-in right-out is entrance will be provided

Staff recommends commercial apron be installed for any driveway from the Metro Access Road.

due to anticipated delivery truck movements for Lidl (see exhibit) we believe an intersection style entrance will work better to avoid corner cutting.

City does not agree with trash pickup operation slated for this location. What does the different hatching across the driveway represent?

The trash will be picked up 3 days per week typically. This process will only take 2-3 minutes, all of which will be supervised by maintenance staff. There will be little time or opportunity for traffic to be blocked in our drive aisles. Front-loading trash tracks will ensure that trucks stop within the site, without blocking the sidewalk or the access road.
The hatch is for the concrete pad across the driveway

Several parking spaces in one of these two locations will need to be allocated for short term drop off/pick up with signage.

Noted. Signage will be provided.

Pipe from existing inlet should be extended past sidewalk

Pipe will be extended in proposed condition

Planning & Development Services
Received
August 20, 2021

DPW Engineering Comments
Site Plan (STP2022-00434)
• WSSC will need to sign off on both 1) HPA and 2) government review. Rockville staff will send to them, but the applicant will need to pay that fee as well as City fees.
• Provide Letter of Findings from WSSC HPA Approval
• WMATA JDAC process will be required for adjacent construction and storm drain analysis
• See this PDF markup for additional comments

Development Stormwater Management Concept Plan (SMC2021-00006)
• See PDF markups on Development Stormwater Management Concept Plan

Safe Conveyance Study
• See PDF markups on Safe Conveyance Study Plan

Preliminary Sediment Control Plan (SCP2022-00006)
• See PDF markups on Preliminary Sediment Control Plan

acknowledged

refer to comment responses on those markups

Applicant must abandon easement for existing on-site stormwater vault must be abandonded

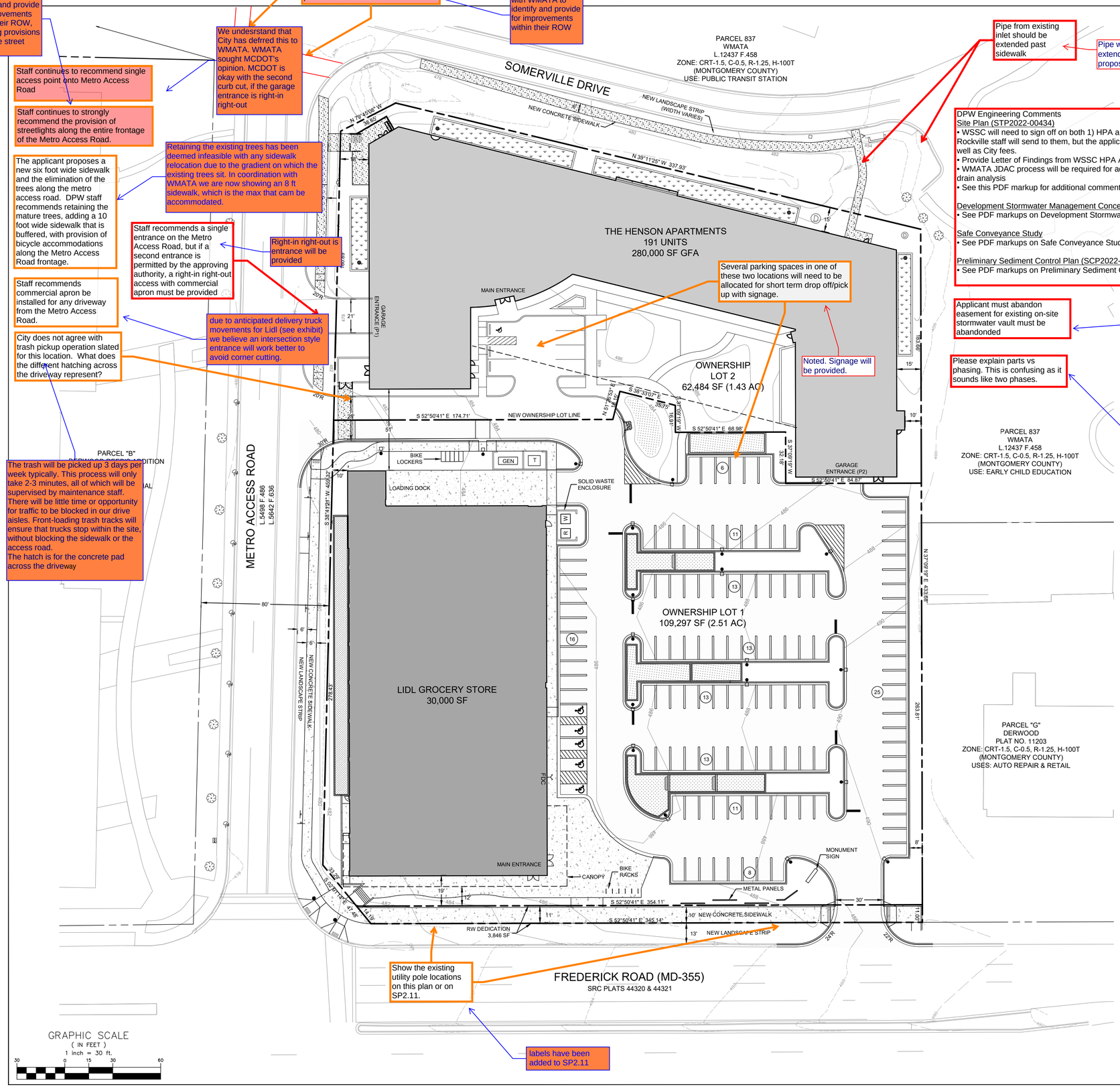
acknowledged. this will be done at the permit stage per standard procedures

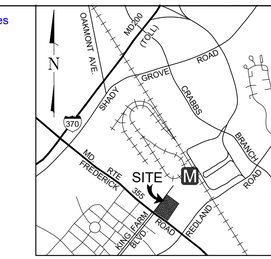
Please explain parts vs phasing. This is confusing as it sounds like two phases.

The two projects will be constructed at the same time. We had used "parts" and not phases because most of the construction activity will overlap. The only difference being that Lidl will be a shorter construction duration, so their building construction will start after the Henson. However, based on DPW sediment control comments, we are now introducing a first "phase" where the site will be demolished and excavation/rough grading and underground utility work will commence.

Show the existing utility pole locations on this plan or on SP2.11.

labels have been added to SP2.11





VICINITY MAP
SCALE: 1"=2000'

SITE DATA

PROJECT PROPERTY:	DERWOOD - PARCEL N PLAT #20049
PROPERTY ADDRESS:	15931 FREDERICK ROAD ROCKVILLE, MD
PROPERTY AREA:	175,627 SF (4.03 AC)
PROPERTY OWNER:	355 PARTNERS, LLC C/O GOODMAN & MCALLISTER CPA 15245 SHADY GROVE ROAD, #305 ROCKVILLE, MD 20850
CONTRACT PURCHASER:	LIDL US OPERATIONS, LLC 3500 S. CLARK STREET ARLINGTON, VA 22202
TAX ID NUMBER:	09-03146564
ZONING CLASSIFICATION:	MXTD - MIXED-USE TRANSIT DISTRICT
EXISTING SITE AREA:	175,627 SF
NEW R/W DEDICATION:	3,846 SF
NEW LOT AREA:	171,781 SF
EXISTING GFA:	9,000 SF (TO BE REMOVED)
EXISTING USE :	MOTOR VEHICLE SALES
NEW GFA:	310,000 SF
PROPOSED USES:	RETAIL SALES (30,000 SF) MULTI-FAMILY RESIDENTIAL (191 UNITS, 280,000 SF)
PREVIOUS APPROVALS:	ANNEXATION (ANX2015-00145) SITE PLAN (STP2016-00267)

DEVELOPMENT STANDARDS - MXTD ZONE

	PERMITTED/REQUIRED	PROVIDED
MAXIMUM BUILDING HEIGHT 25.13.05 (b)	120 FT	85 FT
MINIMUM LOT WIDTH AT FRONT LOT LINE: 25.13.05 (b)	10 FT	354 FT
MINIMUM OPEN AREA 25.13.05 (B)	15% (25,767 SF)	24% (41,400 SF)
MINIMUM PUBLIC USE SPACE 25.13.05 (B)	10% (10,930 SF) [5]	11% (12,668 SF) [5]
PUBLIC RIGHT-OF-WAY ABUTTING SETBACK: 25.13.05 (b)	NONE REQUIRED 10 FT. MIN. IF PROVIDED	12 FT
MINIMUM SIDE YARD SETBACK (NON-RESIDENTIAL): 25.13.05 (b)	NONE REQUIRED 10 FT. MIN. IF PROVIDED	10 FT
MINIMUM REAR YARD SETBACK (NON-RESIDENTIAL): 25.13.05 (b)	NONE REQUIRED 10 FT. MIN. IF PROVIDED	15 FT
NUMBER OF AUTO SPACES REQUIRED: 25.16.03	407 SPACES [1]	309 SPACES [2]
NUMBER OF BICYCLE SPACES REQUIRED - SHORT TERM: 26.16.03	16 SPACES [1]	18 SPACES [3]
NUMBER OF BICYCLE SPACES REQUIRED - LONG TERM: 26.16.03	69 SPACES [1]	71 SPACES [4]

SITE PLAN NOTES

1. SEE VEHICLE AND BICYCLE PARKING BREAKDOWN, THIS SHEET.
2. AS PART OF THE PROJECT, A PARKING REDUCTION IN ACCORDANCE WITH 25.16.03.h.1.(a) IS REQUESTED. THE PARKING PROVIDED INCLUDES 129 SPACES ON THE LIDL SITE AND 180 SPACES ON THE HENSON SITE.
3. SHORT TERM BICYCLE PARKING INCLUDES 12 SPACES AT THE FRONT OF THE LIDL STORE AND 6 SPACES AT THE FRONT OF THE HENSON BUILDING.
4. LONG TERM BICYCLE PARKING INCLUDES 5 LOCKERS ON THE LIDL SITE AND 66 SPACES PROVIDED WITHIN THE HENSON PARKING GARAGE.
5. PUBLIC USE SPACE IS NOT REQUIRED ON THE RESIDENTIAL PORTION OF THE SITE, PURSUANT TO THE EXEMPTION FOR AFFORDABLE HOUSING UNDER 27.17.01.E. THEREFORE THE PUBLIC USE SPACE REQUIREMENT AND AMOUNT PROVIDED ARE BASED ON THE 109,297 SF (2.51 AC) LIDL PORTION OF THE SITE ONLY.

The minimum is 6 for LIDL, no proration.

VEHICLE PARKING CALCULATIONS (MAXIMUM REQUIRED)

USE	DENSITY	METRIC	REQUIREMENT
RESIDENTIAL DWELLING, MULTIPLE UNIT (1BR)	60 UNITS	1.0/UNIT	60.0
RESIDENTIAL DWELLING, MULTIPLE UNIT (≥2BR)	131 UNITS	1.5/UNIT	196.5
RETAIL SALES (< 30,000 SF)	30,000 SF	1.0/200 SF	150.0
TOTAL (ROUNDED)			407 SPACES

BICYCLE PARKING CALCULATIONS - SHORT TERM (MINIMUM)

USE	DENSITY	METRIC	REQUIREMENT
RESIDENTIAL DWELLING, MULTIPLE UNIT	191 UNITS	1.0/50 UNIT	3.8
RETAIL (< 30,000 SF)	30,000 SF	2.00/5,000 SF	12.0
TOTAL (ROUNDED)			16 SPACES

BICYCLE PARKING CALCULATIONS - LONG TERM (MINIMUM)

USE	DENSITY	METRIC	REQUIREMENT
RESIDENTIAL DWELLING, MULTIPLE UNIT	191 UNITS	1.0/3 UNIT	63.7
RETAIL (< 30,000 SF)	30,000 SF	2.00/12,000 SF	5.0
TOTAL (ROUNDED)			69 SPACES

Change to 4

Change to 64

Change to 6, no proration.

Change to 70

GENERAL NOTES

1. THE EXISTING CONDITIONS AND PROPERTY BOUNDARY SHOWN ARE TAKEN FROM AN ALTA & TOPOGRAPHIC SURVEYS PREPARED BY MHG, LAST UPDATED IN APRIL OF 2020.
2. EXISTING UTILITIES SHOWN ARE BASED ON VISIBLE SURVEYED APPURTENANCES, MARKINGS BY MISS UTILITY ,ACCESSIBLE STRUCTURES AND PLANS OF RECORD.
3. THE PROPERTY IS WITHIN THE ROCK CREEK WATERSHED.
4. THE PROPERTY DOES NOT CONTAIN "WATERS OF THE UNITED STATES", WETLANDS, STREAMS, SEEPS, SPRINGS, FLOODPLAINS OR THEIR ASSOCIATED BUFFERS.
5. THE PROPERTY IS NOT IDENTIFIED IN THE CITY OF ROCKVILLE'S HISTORIC BUILDINGS INDEX.
6. A NATURAL RESOURCES INVENTORY / FOREST STAND DELINEATION (NRI/FSD) FOR THIS PROPERTY WAS APPROVED ON AUGUST 3, 2020 UNDER FTPO#2020-00014
7. ALL NEW UTILITIES SHOWN ARE CONCEPTUAL AND SUBJECT TO CHANGE WITH DESIGN PROGRESSION.
8. THE PROPERTY IS WITHIN THE WSSC WATER AND SEWER SERVICE AREA.
9. REFER TO THE ZONING DATA TABLE FOR DEVELOPMENT STANDARDS.

[redacted]

LIDL US, LLC
3500 S. CLARK STREET
ARLINGTON, VA 22202
[redacted]

REVISIONS

NO.	DESCRIPTION	DATE

plans revised as requested

TAX MAP GS12 WSSC 221NW08

PLAT 20049

9TH ELECTION DISTRICT
MONTGOMERY COUNTY
MARYLAND

PARCEL N
DERWOOD

LIDL & THE HENSON
AT SHADY GROVE METRO

PROJ. MGR	PGL
	KH
SCALE	1"= 30'
	08.20.2021

PRE-APPLICATION
SITE PLAN

SP-2.01

PROJECT NO. 96.419.21

SHEET NO. 1 OF 1

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Planning & Development Services
Received
August 20, 2021

ex conditions linework proposed for removal removed as requested

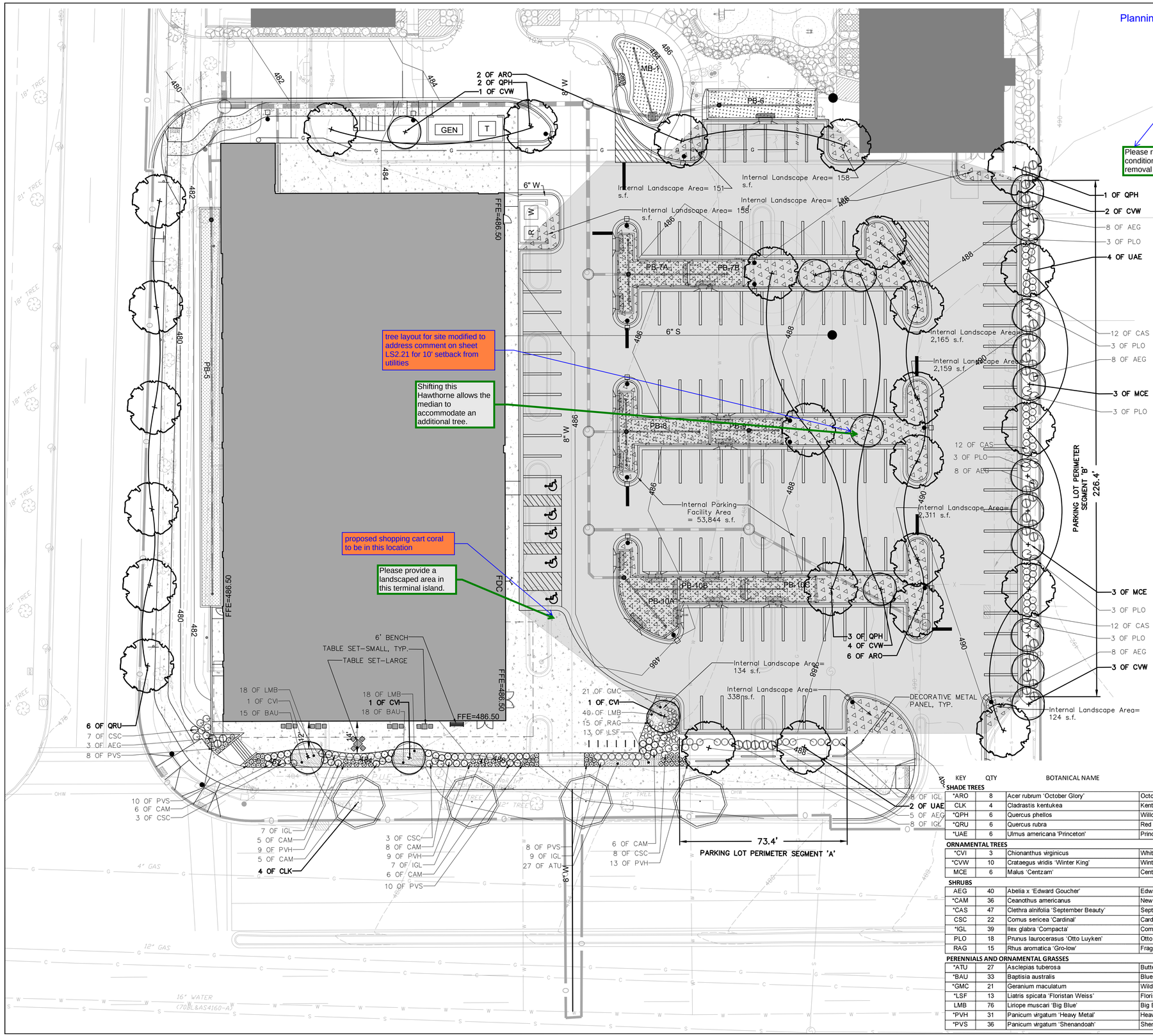
Please remove existing conditions linework proposed for removal from this sheet.

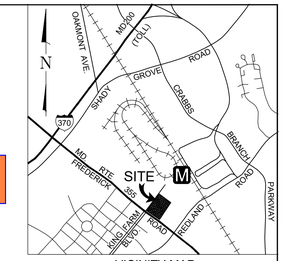
tree layout for site modified to address comment on sheet LS2.21 for 10' setback from utilities

Shifting this Hawthorne allows the median to accommodate an additional tree.

proposed shopping cart coral to be in this location

Please provide a landscaped area in this terminal island.





VICINITY MAP
SCALE: 1"=2000'

LEGEND

- PROPOSED SHADE TREES
- PROPOSED ORNAMENTAL TREES
- PROPOSED SHRUBS
- GROUNDCOVER / HERBACEOUS PLANTINGS
- EXISTING TREES
- PROPOSED INTERNAL PARKING FACILITY AREA
- PROPOSED INTERNAL LANDSCAPED AREA

NATIVE PLANT COUNTS
Total Shade Trees: 30
Native Shade Trees: 26
Percent Native: 87%

Total Ornamental Trees: 19
Native Trees: 13
Percent Native: 68%

Total Number of Shrubs: 217
Native Shrubs: 122
Percent Native: 56%

PLANT LIST

KEY	QTY	BOTANICAL NAME	COMMON NAME	CAL	HGT	ROOT	SPACING	NOTES
SHADE TREES								
*ARO	8	Acer rubrum 'October Glory'	October Glory Red Maple	2-2½"			B&B	
CLK	4	Cladrastis kentukea	Kentucky Yellowwood	2-2½"			B&B	
*QPH	6	Quercus phellos	Willow Oak	2-2½"			B&B	
*QRU	6	Quercus rubra	Red Oak	2-2½"			B&B	
*UAE	6	Ulmus americana 'Princeton'	Princeton Elm	2-2½"			B&B	
ORNAMENTAL TREES								
*CVI	3	Chionanthus virginicus	White Fringetree		6-8'		B&B	
*CVW	10	Crataegus viridis 'Winter King'	Winter King Hawthorn		6-8'		B&B	
MCE	6	Malus 'Centzam'	Centurion Crabapple		6-8'		B&B	
SHRUBS								
AEG	40	Abelia x 'Edward Goucher'	Edward Goucher Abelia		24-30"		#3 Cont.	36" o.c.
*CAM	36	Ceanothus americanus	New Jersey Tea		24-30"		#3 Cont.	36" o.c.
*CAS	47	Clethra alnifolia 'September Beauty'	September Beauty Summersweet		24-30"		#3 Cont.	36" o.c.
CSC	22	Cornus sericea 'Cardinal'	Cardinal Red Twig Dogwood		24-30"		#3 Cont.	36" o.c.
*IGL	39	Ilex glabra 'Compacta'	Compact Inkberry		24-30"		#3 Cont.	36" o.c.
PLO	18	Prunus laurocerasus 'Otto Luyken'	Otto Luyken Cherry laurel		30-36"		#5 Cont.	48" o.c.
RAG	15	Rhus aromatica 'Gro-low'	Fragrant Sumac		8-12"		#3 Cont.	48" o.c.
PERENNIALS AND ORNAMENTAL GRASSES								
*ATU	27	Asclepias tuberosa	Butterfly Weed			#1 Cont.	12" o.c.	
*BAU	33	Baptisia australis	Blue False Indigo			#1 Cont.	24" o.c.	
*GMC	21	Geranium maculatum	Wild Geranium			#1 Cont.	18" o.c.	
*LSF	13	Liatris spicata 'Floristan Weiss'	Floristan Gayfeather			#1 Cont.	18" o.c.	
LMB	76	Liriope muscari 'Big Blue'	Big Blue Lilyturf			4" Pots	12" o.c.	
*PVH	31	Panicum virgatum 'Heavy Metal'	Heavy Metal Switchgrass			#1 Cont.	AS SHOWN	
*PVS	36	Panicum virgatum 'Shenandoah'	Shenandoah Switchgrass			#1 Cont.	AS SHOWN	

[redacted]

LIDL US, LLC
3500 S. CLARK STREET
ARLINGTON, VA 22202
[redacted]

REVISIONS

NO.	DESCRIPTION	DATE

TAX MAP GS12 WSSC 221NW08

PLAT 20049

9TH ELECTION DISTRICT
MONTGOMERY COUNTY
MARYLAND

PARCEL N
DERWOOD

LIDL &
FOUNDATION HOUSING

PROJ. MGR	PGL
DRAWN BY	JC
SCALE	1"= 20'
DATE	08.20.2021

LIDL LANDSCAPE PLAN

LS-2.11

PROJECT NO.	96.419.21
SHEET NO.	1 OF 2

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REFERENCE GRID: A B C D E F G H I J K L M N O

sheet created for Lidl site

Please provide a sheet with color coded utilities and proposed and existing easements.

A color-coded utilities sheet with proposed and existing easement and utilities will be in the next submission

Various trees on the site are planted within 10' of utilities such as water and sewer lines (some highlighted on PFCP). Please shift to allow for 10' setback.

Trees or utilities will be shifted to allowed a 10' setback from utilities line.

Please remove existing conditions linework proposed for removal from this sheet.

Existing conditions that is being removed will no longer show.

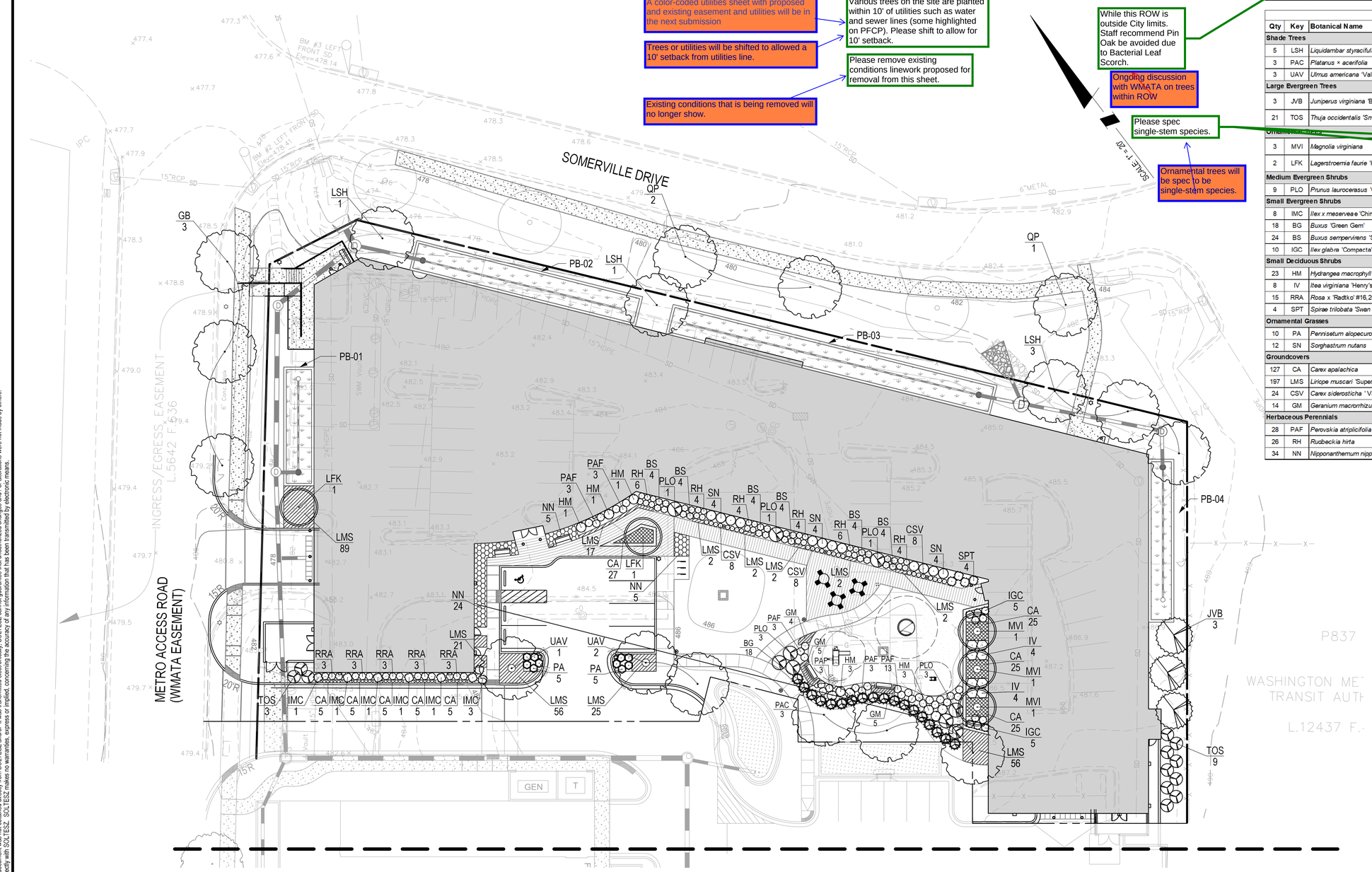
Planning & Development Services
Received
August 20, 2021

While this ROW is outside City limits, Staff recommend Pin Oak be avoided due to Bacterial Leaf Scorch.

Ongoing discussion with WMATA on trees within ROW

Please spec single-stem species.

Ornamental trees will be spec to be single-stem species.



Off-Site WMATA Right-of-Way Plant Schedule

Qty	Key	Botanical Name	Common Name	Size	Spacing	Type	Remarks
Shade Trees							
3	GB	*Ginkgo biloba* 'Autumn Gold'	Autumn Gold Ginkgo	2 1/2" Cal.	As Shown	B&B	Full, Well Branched
2	QP	*Quercus palustris*	Pin Oak	2 1/2" Cal.	As Shown	B&B	Full, Well Branched

Foundation Housing - Plant Schedule

Qty	Key	Botanical Name	Common Name	Size	Spacing	Type	Remarks
Shade Trees							
5	LSH	*Liquidambar styraciflua* 'Happel'	Happidaze Sweet Gum	2 1/2" Cal.	As Shown	B&B	Full, Well Branched
3	PAC	*Platanus × acerifolia*	London Plane Tree	2 1/2" Cal.	As Shown	B&B	Full, Well Branched
3	UAV	*Ulmus americana* 'Valley Forge'	Valley Forge American Elm	2 1/2" Cal.	As Shown	B&B	Full, Well Branched
Large Evergreen Trees							
3	JVB	*Juniperus virginiana* 'Burkii'	Burk Red Cedar	10' Ht.	As Shown	B&B	Full, To the Ground, Well Balanced
21	TOS	*Thuja occidentalis 'Smaragd'*	Emerald Green Arborvitae	10' ht.	As Shown	B&B	Full, To the Ground, Well Balanced
Ornamental Trees							
3	MVI	*Magnolia virginiana*	Sweetbay Magnolia	10' Ht.	As Shown	B&B	Multistem, Full, Well Balance
2	LFK	*Lagerstroemia faurie* 'Kiowa'	Kiowa Crape Myrtle	10' Ht.	As Shown	B&B	Multistem, Full, Well Balance
Medium Evergreen Shrubs							
9	PLO	*Prunus laurocerasus* 'Otto Luyken'	Otto Luyken Cherry Laurel	30" Ht.	48" O.C.	Cont.	Full, Dense
Small Evergreen Shrubs							
8	IMC	*Ilex x meserveae* 'China Girl'	China Girl Holly	30" Ht.	30" O.C.	Cont.	Full, Dense
18	BG	*Buxus* 'Green Gem'	Green Gem Boxwood	24" ht.	30" O.C.	Cont.	Dense, Full
24	BS	*Buxus sempervirens* 'Suffruticosa'	Dwarf English Boxwood	12" ht.	24" O.C.	Cont.	Dense, Full
10	IGC	*Ilex glabra* 'Compacta'	Inkberry Holly	30" Ht.	48" O.C.	Cont.	Dense, Full
Small Deciduous Shrubs							
23	HM	*Hydrangea macrophylla* 'Pia'	Bigleaf Hydrangea	30" Ht.	30" O.C.	Cont.	Full, Dense
8	IV	*Itea virginiana* 'Henry's Garnet'	Viginia Sweetspire	24" Ht.	30" O.C.	Cont.	Full, Dense
15	RRA	*Rosa* x 'Radtko' #16,203	Double Knock Out Rose	18" Ht.	24" O.C.	Cont.	Full, Dense
4	SPT	*Spiraea trilobata 'Swan Lake'*	Treelobe Spirea	18" Ht.	24" O.C.	Cont.	Full, Dense
Ornamental Grasses							
10	PA	*Pennisetum alopecuroides* 'Hameln'	Dwarf Fountain Grass	1 Gal	24" O.C.	Cont.	Dense, Full, Mature
12	SN	*Sorghastrum nutans*	Indian Grass	3 Gal	36" O.C.	Cont.	Dense, Full, Mature
Groundcovers							
127	CA	*Carex apalachica*	Apalachian Sedge	1 gal	18" O.C.	Cont.	Full, Mature
197	LMS	*Liriope muscari* 'Super Blue'	Super Blue Lily Turf	1 gal	18" O.C.	Cont.	Full, Mature
24	CSV	*Carex siderosticha* ' Variegata'	Broad-leaved Sedge	1 Gal	18" O.C.	Cont.	Full, Mature
14	GM	*Geranium macrorrhizum' Bevan's Variety'*	Bigroot Geranium	1 Gal	24" O.C.	Cont.	Dense, Full, Mature
Herbaceous Perennials							
28	PAF	*Perovskia atriplicifolia 'Filigran'*	Russion Sage	1 Gal	30" O.C.	Cont.	Dense, Full, Mature
26	RH	*Rudbeckia hirta*	Black-Eyed Susan	1 Gal	24" O.C.	Cont.	Dense, Full, Mature
34	NN	*Nipponanthemum nipponicum*	Montauk Daisy	1 Gal	36" O.C.	Cont.	Dense, Full, Mature

LEGEND

- BOUNDARY LINES
- OWNERSHIP LINE
- PROPOSED SHADE TREES
- PROPOSED EVERGREEN TREES
- PROPOSED ORNAMENTAL TREES
- EXISTING TREES TO REMAIN
- PROPOSED DECIDUOUS SHRUBS
- PROPOSED EVERGREEN SHRUBS
- PROPOSED GRASSES
- PROPOSED PERENNIAL & GROUNDCOVERS
- PROPOSED BENCH
- PROPOSED PLAY EQUIPMENT
- PROPOSED LIGHT
- PROPOSED SWM PLANTING (SEE SHEET LS-2.26)

20 10 0 20 40

[redacted]

NO.	REVISIONS	BY	DATE

DATE: JULY 2021 | CAD STANDARDS VERSION: V8 - NCS
DESIGNED: NC | TECHNICIAN: NC | CHECKED: DP

MISS UTILITY NOTE

INFORMATION CONCERNING EXISTING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS. THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION AND ELEVATION OF ALL EXISTING UTILITIES AND UTILITY CROSSINGS BY DIGGING TEST PITS BY HAND, WELL IN ADVANCE OF THE START OF EXCAVATION. CONTACT "MISS UTILITY" AT 1-800-257-7777, 48 HOURS PRIOR TO THE START OF EXCAVATION. IF CLEARANCES ARE LESS THAN SHOWN ON THIS PLAN OR TWELVE (12) INCHES, WHICHEVER IS LESS, CONTACT THE ENGINEER AND THE UTILITY COMPANY BEFORE PROCEEDING WITH CONSTRUCTION. CLEARANCES LESS THAN NOTED MAY REQUIRE REVISIONS TO THIS PLAN.

[redacted]

MAP ____ GRID ____

TAX MAP	ZONING CATEGORY:
GS 12	MXTD
WSSC 200' SHEET	
221NW08	
SITE DATUM	
HORIZONTAL: NAD 83/91	
VERTICAL: NGVD 29	

[redacted]

LANDSCAPE PLAN

[redacted]

LANDSCAPE AND LIGHTING PLAN

THE HENSON AT SHADY GROVE

15931 FREDERICK ROAD, DERWOOD MD 20855

NAME (XXxx) ELECTION DISTRICT, MONTGOMERY COUNTY, MARYLAND

one inch
1" = 20'

SHEET LS-2.21

PROJECT NO. 4131-00-00

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Planning & Development Services
Received
August 20, 2021

Existing conditions that is being removed will no longer show.

SCALE 1" = 20'

SOMERVILLE DRIVE

METRO ACCESS ROAD
(WMATA EASEMENT)

INGRESS/EGRESS EASEMENT
L.5642 F.36

WASHINGTON METRO
TRANSIT AUTH
L.12437 F.

P837

1 LS-2.24 DOWNLIGHT, TYP.
2 LS-2.24 WALL MOUNT LIGHTS, TYP.
3 LS-2.24 POLE LIGHTS, TYP.
4 LS-2.24 BOLLARD LIGHTS, TYP.
5 LS-2.24 BENCH, TYP.
6 LS-2.24 TRASH RECEPTACLE, TYP.
7 LS-2.24 BIKE RACKS
8 LS-2.24 PLANTER WALL
9 LS-2.24 UNIT PAVERS ON STRUCTURE
10 LS-2.24 PICNIC TABLE, TYP.
11 LS-2.24 CONCRETE PAVING ON STRUCTURE
12 LS-2.24 PLAY EQUIPMENT I
13 LS-2.24 RUBBERIZED SURFACE
8 LS-2.24 PLANTER WALL
14 LS-2.24 PLAY EQUIPMENT I
1 LS-2.25 PLAY EQUIPMENT III

GEN
T

20 10 0 20 40

[redacted]

NO.	REVISIONS	BY	DATE

DATE: JULY 2021 | CAD STANDARDS VERSION: V8 - NCS
DESIGNED: NC | TECHNICIAN: NC | CHECKED: DP

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[redacted]

MAP ____ GRID ____

TAX MAP	ZONING CATEGORY:
GS 12	MXTD
WSSC 200' SHEET	
221NW08	
SITE DATUM	
HORIZONTAL: NAD 83/91	
VERTICAL: NGVD 29	

[redacted]

HARDSCAPE PLAN

LANDSCAPE AND LIGHTING PLAN
THE HENSON AT SHADY GROVE

15931 FREDERICK ROAD, DERWOOD MD 20855

NAME (XXxx) ELECTION DISTRICT, MONTGOMERY COUNTY, MARYLAND

[redacted]

ONE INCH
1" = 20'

SHEET LS-2.23

PROJECT NO.
4131-00-00

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Q:\41310000\Planning\Pref\Sheet_Files\Landscape Plan\LS-2.23_Hardscape Plan.sht Scale= 20.0000 sf / in. User= NCollier PLTdrv= PDF_Grey_150.pltcfg Pentbl= TEXT_SUB.tbl 8/19/2021 4:48:31 PM

Planning & Development Services
Received
August 20, 2021

Provided

Please provide a sheet with color coded utilities and proposed and existing easements.

The applicant has utilized this sheet as an "existing conditions" sheet and a proposed sheet. Please separate the two for ease of review.
*Please provide an existing conditions sheet with removals.
*Please provide a proposed sheet that has all existing conditions to be removed, removed.

Sheet 2 added to separate proposed plantings and existing features.

Staff has significant concerns with the removal of the Willow Oaks within the Shady Grove ROW. These trees are in excellent condition and provide functional/aesthetic value for the site. Has the applicant coordinated with WMATA and Montgomery County regarding the removal of these trees in the ROW? This ROW appears to be outside City limits (in MOCO).

Staff advocates the applicant consult with an Arborist to determine if there are any creative solutions to preserve the mature Willow Oaks within the right-of-way.

These trees are on WMATA property and not in county ROW. After consultation with an arborist, It has been determined to be infeasible to save these trees while accommodating the pedestrian improvements. WMATA has been coordinated with.

Off-site Property is owned by WMATA and is being coordinated with replacements to be provided per City mitigation standards

The applicant is showing tree removals on the adjacent property.

Has this been coordinated with the adjacent property owner? Will replacements be provided?

This area is on top of a structural slab for an underground parking garage. we have included large raised planters to accommodate some additional trees.

10' utility setback

Not utility. Linework corrected

SWM sheets show an inlet - is there any available planting space for credit trees setback from inlet?

10' setback to utility lines.

Trees or utilities will be shifted to allowed 10' setback from utilities lines.

Staff has concerns regarding 6' spacing to structure. Has applicant considered a columnar evergreen species in these locations?

Additional room provided

TPF should be located on the subject property line, not the adjacent private property. Please revise.

tree fence shown adjacent to LOD for legibility. Note added under tree fence detail sheet 3

spacing not met

tree layout for site modified

table updated. DNR Roadside Tree Permit will be provided once obtained

Shown as "save" in table but depicted as removals. Please reconcile.

Please provide a roadside tree permit from SHA (once obtained) for the removal of trees in the SHA ROW.

10' setback to sewer line.

tree layout for site modified allowing for 10' setback

tree layout for site modified

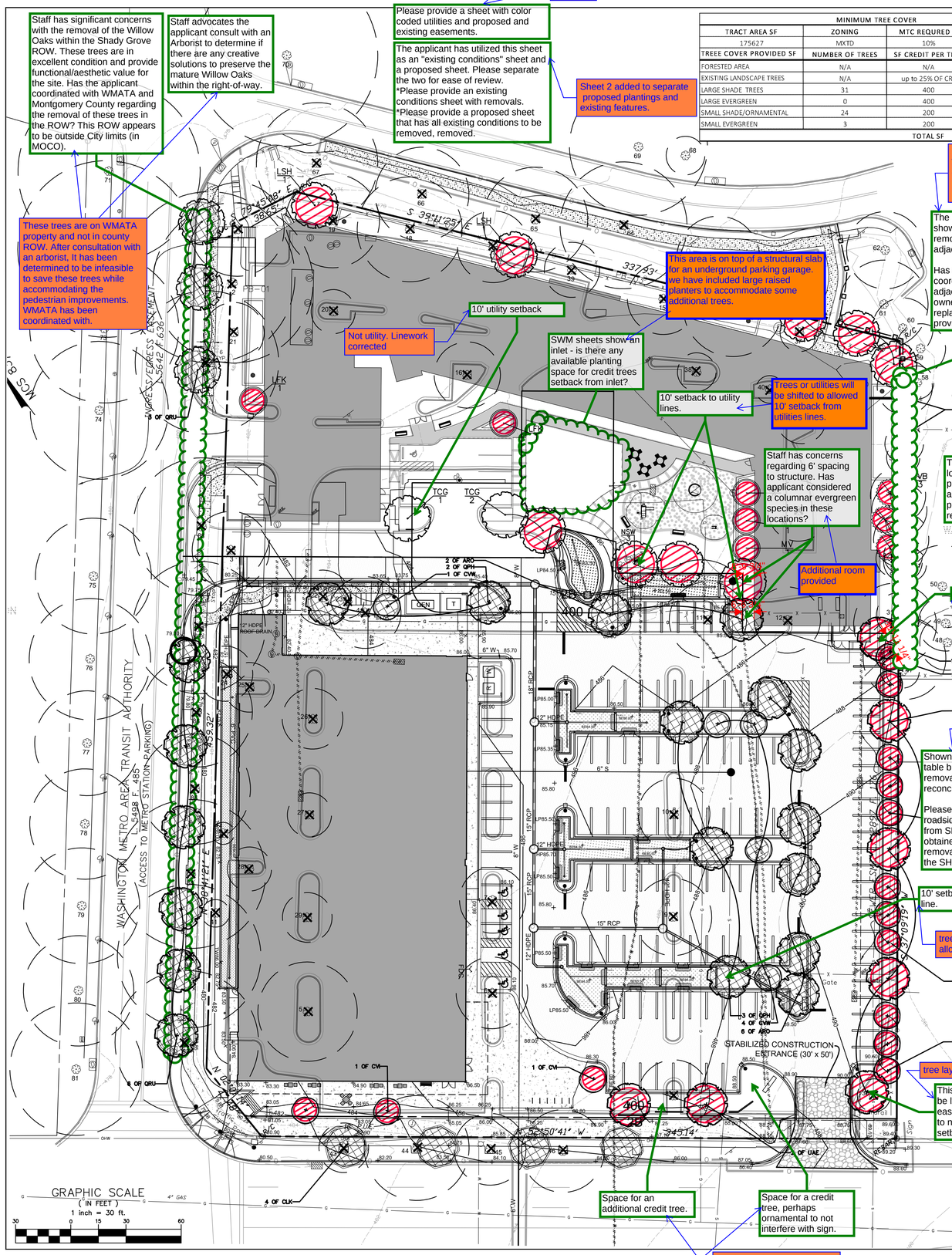
tree layout for site modified

This tree appears to be located in a sewer easement in addition to not meeting 10' setback to sewer line.

Space for an additional credit tree.

Space for a credit tree, perhaps ornamental to not interfere with sign.

tree layout for site modified



MINIMUM TREE COVER			
TRACT AREA SF	ZONING	MTC REQURED %	MTC SF REQUIRED
175627	MXTD	10%	17562.7
TREEE COVER PROVIDED SF	NUMBER OF TREES	SF CREDIT PER TREE	TOTAL SF CREDIT
FORESTED AREA	N/A	N/A	N/A
EXISTING LANDSCAPE TREES	N/A	up to 25% OF CRZ	N/A
LARGE SHADE TREES	31	400	12400
LARGE EVERGREEN	0	400	0
SMALL SHADE/ORNAMENTAL	24	200	4800
SMALL EVERGREEN	3	200	600
		TOTAL SF	17800

CITY OF ROCKVILLE FOREST CONSERVATION WORKSHEET February 2010

NET TRACT AREA:

A. Total tract area ...		4.03
B. Deductions (land dedication not in construction on this plan, other deductions - specify)		0.00
C. Net Tract Area .....=		4.03

LAND USE CATEGORY:

ZONING:	R-400, R-200	R-90, R-75, R-60, R-150	RMD10, RMD15, RMD25	I-L, I-H, RPR, RPC, MXT, MXC, MXNC, MXB, MXE, MXCD, MXTD	Park
Place a "1" under the appropriate corresponding column to correct for the zoning of the site	0	0	0	1	0

(choose only one)

D. Afforestation Threshold ...	15%	x F =	0.60
E. Conservation Threshold ...	15%	x F =	0.60

EXISTING FOREST COVER:

F. Existing forest cover (within net tract) .....=	0.00
G. Area of forest above conservation threshold .....=	0.00

BREAK EVEN POINT:

H. Breakeven Point (amount of forest retained so that no mitigation is required)....=	0.00
I. Clearing permitted without mitigation .....=	0.00

PROPOSED FOREST CLEARING:

J. Total area of forest to be cleared .....=	0.00
K. Total area of forest to be retained .....=	0.00

PLANTING REQUIREMENTS:

...e conservation threshold .....=	0.00
...ow conservation threshold ....=	0.00
...servation threshold .....=	0.00
P. Total reforestation required .....=	0.00
Q. Total afforestation required .....=	0.60
R. Total planting requirement .....=	0.60

Noted: request letter to be provided

Under Review

Updated

0.60 ACRE (26,136 S.F.) FC REQUIREMENT MET AS FOLLOWS:
10,800 S.F. ON-SITE INDIVIDUAL TREE CREDIT
15,336 S.F. FEE IN LIEU @ $5 PER S.F. = $76680

65 REPLACEMENT TREES REQUIRED
33 PLANTED
32 TO BE MET VIA FEE IN LIEU @ $1500 PER TREE = $48,000

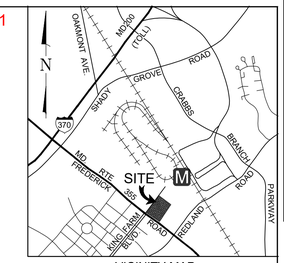
Please update these numbers considering trees outside City limits aren't accounted in this FCP

SIGNIFICANT TREE SUMMARY CHART

	SCIENTIFIC NAME	COMMON NAME	DBH	Area CRZ	CTLA %	CGR CTLA %	Remarks		DISPOSITION (SAVE/REMOVE)	% CRZ "IMPACT"	REPLACEMENT REQD.	CREDIT FOR CRZT	Proposed Cover (Shade/Ornamental/Evergreen max)
	LANDSCAPE SETTING (NO EXISTING CREDIT) CRZ:1"DBH=1.5'RADIUS, SIGNIFICANT>/= 11"DBH												
1	Zelkova serrata	Zelkova	17	2042	91				Remove		1		N/A
2	Robinia pseudoacacia	Black Locust	29	3942	44		19-14 16-7 Hazard	Fallen	Remove		0		N/A
3	Zelkova serrata	Zelkova	14	1385	91				Remove		1		N/A
4	Lagerstroemia indica	Crape myrtle	13	1154	88				Remove		1		N/A
5	Quercus phellos	Willow Oak	18	2289	91				Remove		1		N/A
6	Gleditsia triacanthos	Honey Locust	13	1154	69				Remove		1		N/A
7	Gleditsia triacanthos	Honey Locust	12	1017	72				Remove		1		N/A
8	Gleditsia triacanthos	Honey Locust	13	1154	75				Remove		1		N/A
9	Gleditsia triacanthos	Honey Locust	14	1385	72				Remove		1		N/A
10	Gleditsia triacanthos	Honey Locust	13	1154	72				Remove		1		N/A
11	Fraxinus pennsylvanica	Green Ash	14	1385	23				Remove		1		N/A
12	Fraxinus pennsylvanica	Green Ash	12	1017	25				Remove		1		N/A
13	Fraxinus pennsylvanica	Green Ash	15	1590	0		Dead		Remove		0		N/A
14	Fraxinus pennsylvanica	Green Ash	18	2289	0		Dead		Remove		0		N/A
15	Fraxinus pennsylvanica	Green Ash	13	1154	50				Remove		1		N/A
16	Zelkova serrata	Zelkova	12	1017	73				Remove		1		N/A
17	Zelkova serrata	Zelkova	13	1154	41				Remove		1		N/A
18	Zelkova serrata	Zelkova	19	2550	78				Remove		2		N/A
19	Zelkova serrata	Zelkova	17	2042	84				Remove		2		N/A
				0							TOTAL	17	0
	(EXISTING CREDIT) CRZ PER LOCATION AS ABOVE, REQUIRED FOR FCP, OPTIONAL FOR NR)												
20	Zelkova serrata	Zelkova	8	452	75				Remove		N/A		N/A
21	Zelkova serrata	Zelkova	11	855	91				Remove		N/A		N/A
22	Lagerstroemia indica	Crape myrtle	10	707	81				Remove		N/A		N/A
23	Lagerstroemia indica	Crape myrtle	6	254	63				Remove		N/A		N/A
24	Zelkova serrata	Zelkova	10	707	88				Remove		N/A		N/A
25	Gleditsia triacanthos	Honey Locust	9	572	75				Remove		N/A		N/A
26	Gleditsia triacanthos	Honey Locust	11	855	84				Remove		N/A		N/A
27	Gleditsia triacanthos	Honey Locust	8	452	78				Remove		N/A		N/A
28	Gleditsia triacanthos	Honey Locust	8	452	84				Remove		N/A		N/A
29	Gleditsia triacanthos	Honey Locust	9	572	0		Dead		Remove		N/A		N/A
30	Cornus kousa	Kousa Dogwood	6	254	88				Remove		N/A		N/A
31	Callery pear	Bradford Pear	8	452	78				Remove		N/A		N/A
32	Fraxinus pennsylvanica	Green Ash	7	346	0		Dead		Remove		N/A		N/A
33	Prunus serotina	Black Cherry	10	707	78				Remove		N/A		N/A
34	Prunus serotina	Black Cherry	10	707	78				Remove		N/A		N/A
35	Fraxinus pennsylvanica	Green Ash	11	855	53				Remove		N/A		N/A
36	Fraxinus pennsylvanica	Green Ash	9	572	0		Dead		Remove		N/A		N/A
37	Fraxinus pennsylvanica	Green Ash	7	346	41				Remove		N/A		N/A
38	Fraxinus pennsylvanica	Green Ash	7	346	0		Dead		Remove		N/A		N/A
39	Zelkova serrata	Zelkova	7	707	38				Remove		N/A		N/A
											TOTAL		0
	>6" DBH TREES (NO EXISTING CREDIT) CRZ PER LOCATION AS ABOVE, OPTIONAL FOR NR)												
40	Fraxinus pennsylvanica	Green Ash	5	177			Dead		Remove		0		N/A
41	Gleditsia triacanthos	Honey Locust	5	177	84				Remove		0		N/A
42	Gleditsia triacanthos	Honey Locust	4	113	84				Remove		0		N/A
											0		N/A
	STREET TREES OF ANY SIZE CRZ:1"DBH=1.5'RADIUS STREET TREES MAY HAVE PRIOR FCP CREDIT (Tree number must include F if previous FCP credit was assigned)												
43	Callery pear	Bradford Pear	9	572	75				Save		1		
44	Callery pear	Bradford Pear	10	2550	65				Save		1		
45	Callery pear	Bradford Pear	13	1154	65				Save		1		
46	Callery pear	Bradford Pear	15	1590	72				Save		1		
											4		
	(NO EXISTING CREDIT)												
47	Juglans nigra	Black Walnut	6	254	41				Save		0		
48	Pinus strobus	White Pine	10	707	0		Dead		Save		0		
49	Pinus strobus	White Pine	10	707	69				Save		0		
50	Pinus strobus	White Pine	15	1590	84				Save		0		
51	Morus alba	White Mulberry	6	254	91				Save		0		
52	Prunus serotina	Black Cherry	7	346	84				Remove		N/A		
53	Prunus serotina	Black Cherry	7	346	78				Remove		N/A		
54	Prunus serotina	Black Cherry	10	707	78				Remove		N/A		
55	Prunus serotina	Black Cherry	6	254	88				Remove		N/A		
56	Prunus serotina	Black Cherry	7	346	75				Remove		N/A		
57	Juglans nigra	Black Walnut	10	707	84				Remove		N/A		
58	Juglans nigra	Black Walnut	6	254	97				Save		0		
59	Acer rubrum	Red Maple	9	572	97				Save		0		
60	Acer rubrum	Red Maple	11	855	97				Save		0		
61	Acer rubrum	Red Maple	16	1800	91				Save		0		
62	Prunus serrulata	Japanese Cherry	14	1385	91				Save		0		
63	Pinus strobus	White Pine	15	1590	88				Remove		1		
64	Acer rubrum	Red Maple	23	3739	81				Remove		2		
65	Pinus strobus	White Pine	19	2550	91				Remove		1		
66	Pinus strobus	White Pine	17	2042	88				Remove		1		
67	Quercus rubra	Red Oak	22	3410	81				Remove		2		
68	Acer rubrum	Red Maple	7	346	59				Save		0		
69	Quercus bicolor	Swamp White Oak	23	4410	81				Save		0		
70	Quercus phellos	Willow Oak	33	7854	94				Save		0		
71	Quercus phellos	Willow Oak	33	7854	94				Save		0		
72	Quercus phellos	Willow Oak	32	7235	84				Save		0		
73	Quercus phellos	Willow Oak	27	5150	94				Save		0		
74	Quercus phellos	Willow Oak	23	4416	97				Save		0		
75	Quercus phellos	Willow Oak	21	3142	97				Save		0		
76	Quercus phellos	Willow Oak	22	3410	97				Save		0		
77	Quercus phellos	Willow Oak	19	2550	91				Save		0		
78	Quercus phellos	Willow Oak	20	2826	97				Save		0		
79	Quercus phellos	Willow Oak	21	3142	97				Save		0		
80	Quercus phellos	Willow Oak	20	2826	97				Save		0		
81	Quercus phellos	Willow Oak	24	4909	97				Save		0		
82	Quercus phellos	Willow Oak	26	4776	84				Remove		3		
83	Quercus phellos	Willow Oak	26	4776	84				Remove		3		
84	Quercus phellos	Willow Oak	27	5150	84				Remove		3		
85	Quercus phellos	Willow Oak	20	2826	81				Remove		2		
86	Quercus phellos	Willow Oak	20	2826	91				Remove		2		
87	Quercus phellos	Willow Oak	24	4909	81				Remove		2		
88	Quercus phellos	Willow Oak	25	4416	84				Remove		3		
89	Quercus phellos	Willow Oak	26	4776	88				Remove		3		
90	Quercus phellos	Willow Oak	31	6785	91				Remove		6		
91	Juglans nigra	Black Walnut	15	1590	63				Remove		1		
92	Prunus serotina	Black Cherry	4	113	94				Save		0		
				0							TOTAL	44	N/A
									MAXIMUM CRZ FC CREDIT AVAILABLE				N/A
									TOTAL SIG TREE REPLACEMENTS REQD				65

Please add a note that these trees are in MOCO ROW and thus replacements are coordinated with MOCO. Please remove the replacements from this chart as the trees don't fall within City jurisdiction.

These trees should be located under the street tree section on this table.



VICINITY MAP
SCALE: 1"=2000'

LEGEND

- Significant Tree
- Critical Root Zone
- Light Post
- Sanitary Sewer
- Storm Drain
- Water Line
- Gas
- Contour
- PROPERTY BOUNDARY
- Curb & Gutter
- Concrete
- Sign
- Limits of Disturbance
- Fire Hydrant
- Overhead Wire
- Fence
- Guardrail
- Tree to be removed
- Tree protection fence and root pruning
- Proposed Ornamental tree
- Proposed Small Evergreen tree
- Proposed Shade tree
- Proposed Forest Conservation Credit (400 s.f. & 200 s.f.)
- Proposed Replacement tree

Please provide written justification via a letter with the next submittal. Please revise the replacement tree numbers to exclude trees outside City limits (MOCO ROW).

JUSTIFICATION FOR FEE-IN-LIEU TO be provided MENT

The balance of the afforestation requirement (15,336 s.f.) and the balance of the replacement tree requirements (32 trees) is to be met with the payment of a fee-in-lieu. Currently, the site is almost entirely covered by pavement and existing buildings. The project includes the removal of an existing automobile dealership building, construction of a new grocery store, surface parking with provisions for stormwater treatment facilities, and a residential building. The proposed buildings both meet Code requirements and also provide the parking facilities required. The proposed project includes the addition of green space within the parking areas, in the courtyard of the residential building and along the property boundaries. The areas within the parking lot are not eligible for forest conservation credit, only replacement credit. The extensive stormwater management requirements across the site minimize the planting areas available for credit in the parking lot islands. In addition, the sidewalk on WMATA property is being required to be expanded resulting in a large number of tree replacements. These trees are off-site and account for a significant part of the replacements required. The parking, stormwater, and sidewalk requirements create a scenario where it would be not feasible to meet the needs of the development and meet all of the forest conservation requirements on-site, creating the need for fee-in-lieu. The minimum tree credit requirement has been met on-site.

FRANK C. JOHNSON
08/06/2021
DATE
RECOGNIZED AS QUALIFIED PROFESSIONAL BY MD DEPT. OF NATURAL RESOURCES
COMAR 08.19.06.01

Qualified Professional Certification
I hereby certify that the information shown hereon is correct and that this plan has been prepared in accordance with the requirements of the existing state and county forest conservation legislation.

LIDL US, LLC
3500 S. CLARK STREET
ARLINGTON, VA 22202

REVISIONS		
NO.	DESCRIPTION	DATE

TAX MAP GS12 WSSC 221NW08

PLAT 20049

9TH ELECTION DISTRICT
MONTGOMERY COUNTY
MARYLAND

PARCEL N DERWOOD

LIDL & FOUNDATION HOUSING

PROJ. MGR	PGL
DRAWN BY	FCJ
SCALE	1"= 30'
DATE	07.21.2021

PRELIMINARY FOREST CONSERVATION PLAN

L1.01

PROJECT NO.	96.419.21
SHEET NO.	1 OF 2

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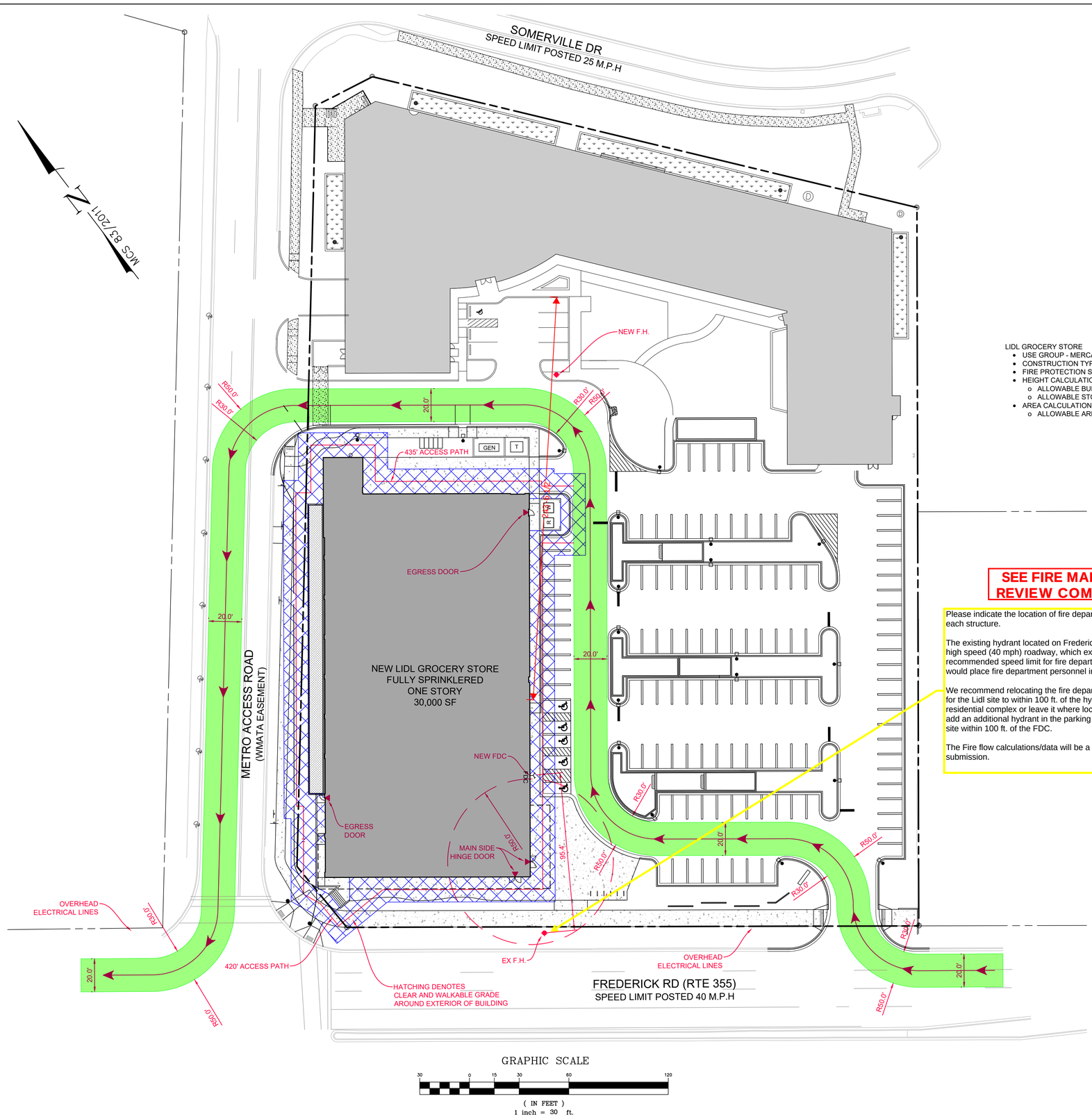
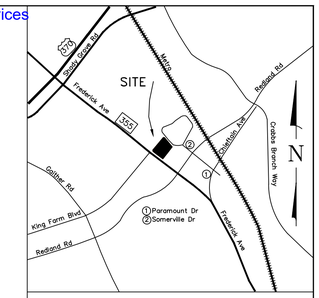
Planning & Development Services
Received
August 20, 2021



GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.



VICINITY MAP
SCALE 1" = 2,000'

LEGEND

- FIRE DEPARTMENT ACCESS PATH
- 15' CLEAR AND WALKABLE GRADE AROUND BUILDING
- MAIN EXTERIOR DOORS
- FIRE ACCESS PATH

BUILDING CODE SUMMARY

LIDL GROCERY STORE
- USE GROUP - MERCANTILE "M"
- CONSTRUCTION TYPE - II-B
- FIRE PROTECTION SYSTEMS - AUTOMATIC SPRINKLER PER NFPA 13
- HEIGHT CALCULATIONS (PER TABLE 504.3 & 504.4)
  - ALLOWABLE BUILDING HEIGHT - 75' (PROPOSED 30')
  - ALLOWABLE STORIES ABOVE GRADE - 3 (PROPOSED 1)
- AREA CALCULATIONS - (PER TABLE 506.2)
  - ALLOWABLE AREA (AT) 50,000 SF (PROPOSED 30,000 SF)

SEE FIRE MARSHAL REVIEW COMMENTS

Please indicate the location of fire department key access box for each structure.

The existing hydrant located on Frederick Avenue is located in a high speed (40 mph) roadway, which exceeds the 35 mph recommended speed limit for fire department access roads and would place fire department personnel in jeopardy.

We recommend relocating the fire department connection (FDC) for the Lidl site to within 100 ft. of the hydrant adjacent to the residential complex or leave it where located on the Lidl site and add an additional hydrant in the parking lot adjacent to the Lidl site within 100 ft. of the FDC.

The Fire flow calculations/data will be a condition of building plan submission.

added per request

FDC relocated per request

acknowledged

WSSC WATER
DELIVERING THE ESSENTIAL

COMMISSIONERS
Chris Lawson, Chair
T. Eloise Foster, Vice Chair
Fausto R. Bayonet
Keith E. Bell
Howard A. Denis
Sandra L. Thompson
GENERAL MANAGER
Carla A. Reid

CUSTOMER INFORMATION

FLOW TEST PREPARED FOR:	MHG
CONTACT PERSON	Patrick G. La Vay, P.E.
ADDRESS:	9220 Wightman Rd.S/120,Montgomery Village,MD 20886
TELE. #	301-670-0840
FAX #	n/a
EMAIL:	plavay@mhgpa.com

FIRE FLOW TEST INFORMATION

TEST LOCATION	TEST DATE	TIME OF TEST	200-FT Zn	MAP PAGE	GRID #
15931 Frederick Rd	4/26/21	10:38AM	219NW10	M5164	C02

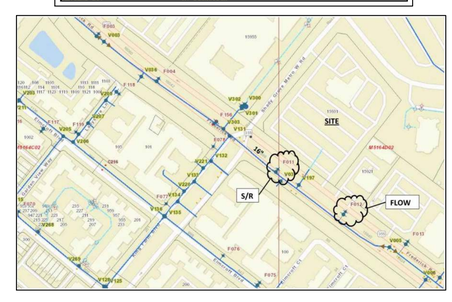
FLOW TEST RESULTS

TEST HYDRANT (SAR) No.	F011
FLOW HYDRANT (FLOW) No.	F012
ELEVATION @SAR HYDRANT (FT)	484
ELEVATION @FLOW HYDRANT (FT)	493
ZONE:	685
LAG:	621
STATIC	71
RESID	63
PITOT FLOW (GPM)	2273
MAIN LINE SIZE (IN)	16
RATED CAPACITY AT 20 PSI IN GPM	12212

* Test Results Adjusted to LRG Condition

*Adjusted Residual Pressure W/PITOT FLOW	57	(PSI)
*Adjusted Residual Pressure W/1000 GPM	52	(PSI)
*Adjusted Residual Pressure W/1500 GPM	48	(PSI)

TEST CONDUCTED BY: B. Bazemore,M. Duckworth
REVIEWED BY: M. Duckworth



[redacted]

LIDL US, LLC
3500 S. CLARK STREET
ARLINGTON, VA 22202
[redacted]

REVISIONS

NO.	DESCRIPTION	DATE

TAX MAP GS12 WSSC 221NW08

PLAT 20049

9TH ELECTION DISTRICT
MONTGOMERY COUNTY
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PARCEL N
DERWOOD

LIDL &
FOUNDATION HOUSING

PROJ. MGR	PGL
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FIRE APPARATUS ACCESS PLAN

PROJECT NO.	96.419.21
SHEET NO.	1 OF 1

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