

DEPARTMENT OF PLANNING AND ZONING VALDIS LAZDINS, DIRECTOR

TECHNICAL STAFF REPORT

Planning Board Meeting of July 6, 2017

Case No./Petitioner: SDP-17-042, Howard Research and Development Company

Project Name: Downtown Columbia, Crescent Neighborhood, Parcel B

<u>DPZ Planner:</u> Jill Manion-Farrar, Planning Supervisor

(410) 313-2350, jfarrar@howardcountymd.gov

Request: To approve a long-term, but temporary, 181 space surface parking lot to serve

Merriweather Post Pavilion and surrounding development in the Crescent

Neighborhood Area 1, until such time Parcel B is redeveloped.

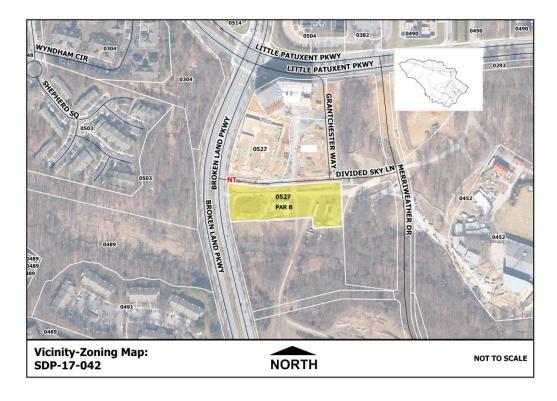
Location: Southeast corner of the Broken Land Parkway/Divided Sky Intersection on Tax Map

36, Parcel 527, Parcel B in Downtown Columbia, Crescent Neighborhood, Area 1.

DPZ

Recommendation: Approval, subject to complying with remaining Subdivision Review Committee (SRC)

agency comments and any conditions issued by the Planning Board.



Vicinal Properties:

North: Divided Sky Lane. Crescent Neighborhood Parcels A-1 through A-3 are on the opposite side of the road, which include two multistory mixed used office-retail buildings, a multi-deck parking garage, and a pedestrian plaza (one mixed use building and the plaza are still under construction).

<u>South:</u> Open Space Lot 2, owned by the Columbia Association. Downtown Environmental restoration is ongoing.

East: Open Space Lot 2 and Open Space Lot 8, owned by the Columbia Association.

West: Broken Land Parkway. On the opposite side is a residential condominium development.

<u>Neighborhood:</u> The Crescent Neighborhood is described both as a "mixed-use live-work neighborhood" and an employment center in the Downtown Columbia Plan. The Crescent Neighborhood Design Guidelines envision it as an "urban live/work neighborhood overlooking Merriweather-Symphony Woods" that is defined by tall buildings set amongst environmentally sensitive lands.

I. Background

A. Relevant Site History:

Parcels B is part of Crescent Neighborhood Area 1, as shown on the Amended Final Development Plan (FDP-DC-Crescent-1A) for Downtown Revitalization. This site was previously graded and maintained as a turf and gravel parking area for the Merriweather Post Pavilion. Currently, the site is a staging area for development on Crescent Parcel A-1 through A-3. The recent file history follows:

- FDP-DC-Crescent-1 encompasses most the land within the Crescent Neighborhood and includes: four designated development areas, roads that expand the overall Downtown road network, and land designated for environmental restoration and Downtown Parkland. The Crescent Neighborhood Concept Plan, the Crescent Neighborhood Design Guidelines, and the Crescent Neighborhood Implementation Plan were included in the FDP submittal, which was reviewed and approved March 19, 2015, by the Planning Board. The decision and order was signed by the Planning Board April 16, 2015, and the plans and documents were recorded July 2, 2015.
- F-15-106 was submitted July 2, 2015, to subdivide Parcel 527 into buildable parcels (including Parcel B) and open space lots and to construct a portion of the future Merriweather Drive and the future extended Hickory Ridge Road. The plan was deemed technically complete March 23, 2016, and road construction drawings received signature approval August 3, 2016. The developer's agreement established a September 19, 2016, deadline for completion and a plat original recordation date of November 18, 2016.
- FDP-DC-Crescent-1A is an amendment to the previously approved FDP for Phase 1 of the Crescent Neighborhood, which identifies the final street and block structure for Area 3. It was approved by Planning Board September 15, 2016, and the Decision and Order was signed October 14, 2016, and recorded February 24, 2017.
- **ECP-17-027**, the environmental concept plan received signature approval February 6, 2017.

B. Posting:

The property was properly posted and electronic notification has been provided to all required parties, as verified by DPZ on or before June 22, 2017, per Section 125.0.G. of the Howard County Zoning Regulations.

C. Regulatory Compliance:

Site Development Plans for Downtown Revitalization in the Crescent Neighborhood are subject to the following:

- The Downtown Columbia Plan
- The Zoning Regulations
- Downtown-Wide Design Guidelines
- The Adequate Public Facilities Act
- FDP-DC-Crescent-1A (Plat #24102-24110)
- Crescent Neighborhood Design Guidelines (Liber 16305 Folio 415)
- Crescent Neighborhood Concept Plan (Plat #23397-23402)
- Crescent Neighborhood Implementation Plan (Liber 16306, Folio 1)

In addition, the petitioner met the following pre-submission requirements:

- A Pre-Submission Community Meeting was held November 15, 2016, in accordance with Section 125.0.H.1.a. of the Zoning Regulations and Section 16.128(b)-(g), of the Subdivision and Land Development Regulations.
- The Design Advisory Panel (DAP) held a meeting January 11, 2017, to review the design of the temporary Parcel B parking lot and based their recommendations on the approved Neighborhood Specific Design Guidelines, in accordance with Section 125.0.H.1.b. of the Zoning Regulations and Title 16, Subtitle 15 of the County Code. Per Section 16.1504(f) of the Howard County Code, the Planning Board may consider the DAP's recommendations when making a final decision for Site Development Plan approval for Downtown Revitalization. See Attachment B for a summary of recommendations and the applicant's response to the recommendations.

D. Definitions:

Downtown Columbia Definitions: Please refer to the attached definitions (**Attachment 'C')** of terms relating to Downtown Columbia revitalization, as excerpted from Section 103.0.A.38-60 of the Zoning Regulations as needed.

Crescent Neighborhood Definitions: See also Section 7.0 ("Definitions") of The Crescent Neighborhood Design Guidelines.

II. Description of the Site Development Plan Proposal

Site Improvements: The applicant seeks to construct a long-term, temporary surface parking lot for 188 spaces. It will serve the Merriweather Post Pavilion and surrounding development in the Crescent Neighborhood, Area 1 and remain until Parcel B is redeveloped.

Environmental Concerns: There are no forests, wetlands, wetland buffers, streams, stream buffers, steep slopes (25% or greater), erodible soils or 100-year floodplain on Parcel B.

Stormwater Management: This Site Development Plan proposes a submerged gravel wetland to filter and manage stormwater for the entire site, per the 2010 Stormwater Management Act.

Roads: While no roads are proposed, the road construction drawings, filed as F-15-098, will be redlined to provide a mid-block crosswalk to the plaza on Parcels A-2 and A-3. The parking lot will be accessed from Divided Sky Lane.

Pedestrian and Bicycle Connectivity: The existing eight-foot-wide sidewalk along the entire Divided Sky Lane frontage (per F-15-098) is for pedestrian and bicycle use, per FDP-DC-Crescent-1A, which remains in place with this proposal. Crosswalks are provided at the intersection of Grantchester Way and Divided Sky Lane. A mid-block crossing is proposed to connect the plaza on Parcels A-2 and A-3 with the parking lot and a pedestrian way that bisects the parking lot and connects to a future trail on Open Space Lot 2.

Building Height: Buildings are not proposed.

Forest Conservation: The property is exempt from Section 16.1200 of the Howard County Code for Forest Conservation because the property is zoned NT and the preliminary plan was approved prior to 12/31/92, per Section 16.1202(b)(1)(iv).

Setback Requirements: There are no setbacks for surface parking lots or general uses in the Crescent Neighborhood Design Guidelines. Adequate room is provided to accommodate streetscape requirements per the guidelines.

Landscaping: Microbioretention planters are located along Divided Sky Lane, per F-15-098. In addition, an evergreen shrub hedge (Yew) is proposed along the parking lot perimeter facing Divided Sky Lane and Broken Land Parkway. Shade trees (Zelkova) and ornamental trees (Crape Myrtle) are provided in parking lot islands. Additional shade trees are proposed between the parking lot and Broken Land Parkway. DPZ recommends adding 1 to 2 shade trees to the rear to better shade the parking lot; especially the longest expanse without a landscape island.

Parking: This 181-space parking lot does not provide any *required* parking; rather it addresses the applicant's commitment to offset any Merriweather Post Pavilion parking lost due to redevelopment in the Crescent Neighborhood. Prior to redevelopment, most the concert venue parking had been provided here. While development on Parcels A-1 through A-3 may utilize the proposed lot on weekdays, all its *required* parking has been accommodated by the existing parking garage.

III. Planning Board Review and Approval Criteria

In accordance with Section 125.0.H.3 of the Howard County Zoning Regulations, the Planning Board is to evaluate and approve, approve with conditions, or deny a Site Development Plan that proposes Downtown Revitalization based on whether the petition satisfies the following:

A. The development conforms with the adopted Downtown Columbia Plan.

The Downtown Columbia Plan envisions the Crescent Neighborhood as a mixed-use, live-work neighborhood, and employment center. This temporary surface parking lot will help alleviate any displaced Merriweather Post Pavilion parking; however, over the time, Parcel B will be redeveloped with mixed land uses.

<u>Downtown Phasing</u> – There is no building construction to trigger Downtown Revitalization Phasing.

CEPPAs: There is no building construction to trigger CEPPA requirements.

B. The development implements and conforms to the approved Final Development Plan or Final Development Plan Amendment including all applicable Final Development Plan approval criteria and conditions.

The Final Development Plan envisioned commercial or residential development on Parcel B, which will occur in the long-term. In the short-term, the applicant is seeking a surface parking lot in anticipation of the Merriweather Post Pavilion's 2018 concert season and for adjacent development.

Concerns about mitigating the loss of Merriweather Post Pavilion parking were expressed during the review of the Crescent Final Development Plan FDP-DC-Crescent-1. This temporary surface parking lot will provide some of the lost Merriweather Post Pavilion parking until a structure is available to fulfill all parking obligations.

C. The development is well-organized in terms of location of buildings and structures, downtown community commons, landscaping, pedestrian and vehicular circulation systems and other Downtown Revitalization features.

The 181 space parking lot provides landscaped islands that break up the expanse of pavement and provide shade. Access to the parking lot is adequate and proposed directly opposite Grantchester Way, forming a full intersection. A pedestrian path will connect to the trail to the south with a sidewalk along Divided Sky Lane and the plaza across the road.

D. If the development provides Downtown Community Commons and/or Downtown Parkland, they are reasonable and appropriate given the location, scale and anticipated intensity of adjacent uses in accordance with the Downtown Columbia Plan.

While Downtown Community Commons or Downtown Parkland are currently not proposed on Parcel B, a pedestrian path that bisects the parking lot and connects with the plaza to the north of Divided Sky Way is. This path will also connect to a future path on Open Space Lot 2 that will be constructed to fulfill Downtown Community Commons requirements for the Crescent Neighborhood.

E. The maximum permitted building heights will conform to the Final Development Plan.

Not applicable: no buildings are proposed.

F. The development satisfies the Downtown Public Art Program approved with the Final Development Plan or Final Development Plan Amendment approval.

Public art is not required.

G. The Site Development Plan satisfies the affordable housing requirements in accordance with the Final Development Plan.

This SDP does not propose housing so there is no affordable housing obligation.

H. The development satisfies the Adequate Public Facilities Ordinance, if applicable.

SCHOOLS: NA – Housing is not proposed.

ROADS: NA – No additional trips will be generated.

I. The development indicates the manner in which any land intended for common or quasipublic use, but not proposed to be in public ownership, will be held, owned and maintained in perpetuity for the indicated purposes.

There are no Downtown Community Commons or improvements for common or quasi-public uses.

J. The petition is accompanied by documentation demonstrating membership in the Downtown Columbia Partnership including the required annual charges.

Commercial uses are not proposed, therefore, a contribution to the Downtown Partnership is not required.

SRC Action: The Subdivision Review Committee recommended approval, subject to the technical

comments the June 13, 2017, letter.

Recommendation: Approval, subject to complying with the remaining Subdivision Review Committee

(SRC) agency comments and any conditions by the Planning Board.

This file is available for public review <u>by appointment</u> at the Department of Planning and Zoning's public service counter, Monday through Thursday, 8:00 a.m. to 5:00 p.m. and Friday from 8:00 a.m. to 3:00 p.m.

Idis Lazdins, Director Date

Department of Planning and Zoning

Staff Report Prepared by: Jill Manion-Farrar

T:\Shared\DLD- Division of Land Development\Subdivision and Development Plan Review Records\Site Development Plan (SDP)\SDP-17-042 Downtown Columbia Crescent Neighborhood\Technical Staff Report.doc

ATTACHMENT A REMAINING SRC COMMENTS



HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

3430 Courthouse Drive

Ellicott City, Maryland 21043

410-313-2350

Voice/Relay

Valdis Lazdins, Director

FAX 410-313-3467

June 13, 2017

Bill Rowe The Howard Research and Development Corporation 10480 Little Patuxent Parkway Suite 400 Columbia, MD 21044

RE:

SDP-17-042, Downtown Columbia, Crescent

Neighborhood Phase 1, Area 1, Parcel B,

Temporary Parking Lot

Dear Mr. Rowe:

The Subdivision Review Committee has determined that the above referenced plan may be approved, subject to the attached comments and plan markups and comments previously transmitted in our letter of April 19, 2017, and approval by the Howard County Planning Board. The plan is scheduled for presentation to the Planning Board at its meeting on July 6, 2017, beginning at 7:00 p.m., in the Banneker Room, located in the George Howard Building, 3430 Court House Drive, Ellicott City, Maryland. It is required that you and/or your consultant be present to answer any questions which the Board may ask about your plan and that a colored copy of the site plan, landscape plan and building architectural elevation plan be provided for presentation to the Board. A laptop, with a projector, is located in the Board meeting room and are available for your use. Please bring a flash drive if you would like to make a PowerPoint presentation. Please be advised that for any SDP project requesting approval for a variance or an adjustment to bulk requirements, the applicant must be prepared to fully explain and justify their request before the Planning Board.

Per Section 125.0.G of the Howard County Zoning Regulations, this property must be posted two weeks prior to the meeting date (on or before June 13, 2017). Please contact Carol Stirn to arrange to pick up the sign(s) (410-313-4351). Each sign is \$25.00. In addition, you are required to electronically notify all Columbia Village Boards, the Columbia Association, Howard County Council members and any pre-submission meeting attendees who provided e-mail addresses at the meeting. This must also be completed within two weeks prior to the meeting (on or before June 22, 2017) and proof must be provided that electronic notification was submitted to all required parties within the required time period.

The following materials are necessary for preparation of the DPZ staff report and power point presentation for the Planning Board. They must be submitted to Jill Manion-Farrar by **July 19, 2017**.

- A. A digital reduction of the overall SDP plan sheet at a size of 8½" x 14" or 11" x 17" to serve as an attachment at the end of the staff report and for the power point presentation. The plan attachments can be in a PDF format. The Planning Board wants to be able to read the general notes and tabulation charts on the plan.
- B. A digital reduction of the proposed plan exhibits that you will be presenting to the Planning Board

such as a color illustration of the landscape plan and the architectural elevation plan from the builder to serve as an attachment at the end of the staff report and for the power point presentation.

- C. A digital reduction of the 'Site Overview Plan' for use as a vicinity map. The reduction needs to be at a size of approximately 5" x 6" and the streets and other information must be as readable as possible at that scale. The vicinity map needs to be in a JPEG format.
- D. The above digital reductions can be emailed to jfarrar@howardcountymd.gov.
- E. Provide 5 complete paper sets of the SDP drawings for use by the Planning Board members at a sheet size of 11" x 17" or "24" x 36".

It is the responsibility of the applicant or applicant's agent to perform the required posting of the property. The cost of the poster is \$25.00 each. A 'Certification of Posting' will be provided with the poster(s) and is to be signed by the applicant or applicant's agent and delivered back to this Division after the poster(s) are in place. The poster(s) are available for pick-up at DPZ and **must be erected on-site on or before June 22, 2017** and maintained at least fifteen (15) successive days immediately preceding the Planning Board public meeting and are to remain in place for a period of three (3) days after the meeting. The Department of Planning and Zoning will confirm the posting of the property and may inspect the property periodically.

If you have any questions, please contact Jill Manion-Farrar at (410) 313-2350 or email at ifarrar@howardcountymd.gov.

Sincerely.

Kent Sheubrooks, Chief

Division of Land Development

KS/JMF Attachment:

GLW



Current Project - Project Markups Listing

SDP-17-042

File Name	Markup Name	Markup Text	Markup Date
Sheet_03.pdf	dilp-jim	Provide details which include spot elevations and dimension to show that the accessible route to the on site accessible route is code compliant. This area was never considered an accessible route from parking.	06/06/2017
Sheet_09.pdf	DLD_Jill	Please ensure the final tree placement within the islands will not obstruct views for vehicles backing out of adjacent spaces.	06/02/2017
Sheet_09.pdf	DLD_Jill	Reflect flush curb on this drawing for accuracy, and remove the parking line from across the pathway in the middle parking bay. Use hatch to show pathway paving.	06/02/2017
Sheet_09.pdf	DLD_Jill	Please see Sheet 2 for landscape island alternative compliance comment.	06/02/2017
Sheet_09.pdf	DLD_Jill	At least one tree is recommended along this perimeter to shade this wide expanse of pavement.	06/02/2017
Sheet_02.pdf	DLD_Jill	Label eastern most bench.	06/02/2017
Sheet_02.pdf	DLD_Jill	Please submit a letter of permission for off-site disturbances, which is required prior to plan approval.	06/02/2017
Sheet_02.pdf	DLD_Jill	Most landscape islands are less than 12'. Provide an alternative compliance list of landscaping standards that indicate that adequate planting space is provided for the selected plant materials and the that placement avoids conflicts with car doors. This should be signed off by a registered landscape architect.	06/02/2017
Sheet_02.pdf	DLD_Jill	Please provide a cut sheet on Sheet 10 of the lighting pole and fixture.	06/02/2017
Sheet_02.pdf	DLD_Jill	Please clearly delineate and label the priate SWM easements that will be recorded on Open Space Lot 2 (currently under Os Only review).	06/02/2017
Sheet_01.pdf	DLD_Jill	Please add the conditions of approval back into this note (if any).	06/02/2017
Sheet_01.pdf	DLD_Jill	Please identify the Liber/Folio for the Merriweather Parking.Provide the information shared in the response on the plan. Please note that SDPs offer both required and provided spaces for uses. If the lot is to be specifically used for a	06/02/2017
		building, it should be noted on the plan.	
Sheet_01.pdf	DLD_Jill	Planning Board Approval is required.	06/02/2017
Sheet_01.pdf	DLD_Jill	Add the plat number on the Permit Block.	06/02/2017



Current Project - Project Markups Listing

Sheet_01.pdf	DLD_Jill	At least one tree was requested along the rear perimeter	06/02/2017
Sneet_v1.pui	טבט_יווו	to shade the expanse of pavement along that edge (2-3 preferred along that entire pavement edge). Please adjust surety to accomodate any additional trees.	00,02,2017
Sheet_01.pdf	DLD_Jill	O's Only Plat for private SWM easements on OS Lot 2 must be recorded prior to signature approval of the SDP.	06/02/2017
Sheet_10.pdf	bmuldoon	Curb ramp standard specifications from the Howard County Design Manual should be perpendicular or parallel (R-4.05 or R-4.06). Additional detail is available from the US Access Board (such as double perpendicular).	06/01/2017
Sheet_03.pdf	DLD_Jill	Please remove the old alignment linework over the driveway.	06/01/2017
Sheet_03.pdf	DLD_Jill	Even though the parking goes over the minimum required for this development, if the plan is providing additional parking to be used by a specific building, the entire ADA route should be shown. Confirm with DILP what is required.	06/01/2017
Sheet_03.pdf	DLD_Jill	Remove the parking path from across the pathway.	06/01/2017
Sheet_02.pdf	Traffic-Ray Mercado	Why is this mid-block crosswalk needed when there is a crosswalk to the east 140 feet away at the entrance to the parking lot? Crosswalks should be placed at intersections where pedestrians are expected.	05/19/2017
Sheet_02.pdf	Traffic-Ray Mercado	Is the east crossing really needed? Can we just have one crossing to concentrate pedestrians? What is to the south that requires that there be a crossing here?	05/19/2017
Sheet_01.pdf	DED-HEATHER	THIS CHART SHOULD CONTAIN THE OVERALL PE FOR THE SITE. REDEVLOPMENT ESDV REQUIRED, THE FURTHER DEVELOPMENT ESDV REQUIRED, THE TOTAL AND THE PROVIDED MUCH LIKE SHEET 36 OF THE SWM REPORT.	05/16/2017
Sheet_07.pdf	DED-HEATHER	PLEASE REVISE PER COMMENTS ON SHEET 1. THE CHART ONLY NEEDS TO BE SHOWN IN ONE LOCATION.	05/16/2017

ATTACHMENT B DAP RECOMMENDATIONS and APPLICANT RESPONSES FOR PLANNING BOARD CONSIDERATION

Crescent Area 1 Parcel B Interim Lot Design Advisory Panel 2017-1-11 Review (17-01)



Ref#	Design Advisory Panel Recommendation	Response by Applicant – 1/30/17	DPZ Director's Endorsement
1.	That the applicant simplify the edge of the lot towards Broken Land Parkway. Simplify the aisle movements and parking. Redistribute trees throughout the parking lot to break up the continuous asphalt. Vote: 6-0	This recommendation is well received and appreciated. The western portion of the parking lot has been simplified as illustrated below. One of the central islands has also been widened to accommodate a second tree in order to provide more greenery in the center of the lot. Although not depicted on the enclosed rendering, in accordance with the support expressed by the Panel, compact spaces may also be included in the final design. (see figure 1 provided by applicant)	Accept DAP Recommendation Accept Architect's Response 1-3-11
2.	That the applicant provide a bench or two along Divided Sky Lane for a place to sit down and add some pedestrian features to the northern edge of the parking area. Vote: 6-0	Several benches will be placed along the south side of Divided Sky Lane as recommended. Potential locations are illustrated below. Options for different pedestrian features along the northern edge of the parking area will be explored as the project continues into the final design stages. (see figure 2 provided by applicant)	Accept DAP Recommendation Accept Architect's Response V 1-31-17

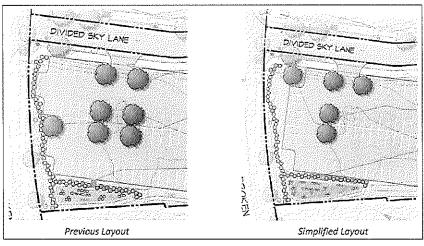


Figure 1

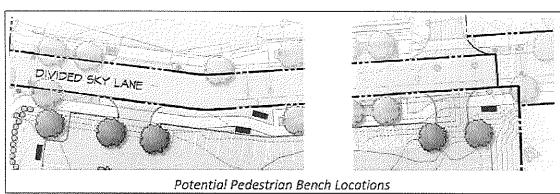


Figure 2

Attachment 'C' Relevant Definitions Relating to Downtown Columbia Revitalization For SDP-17-042

Site Development Plans for Downtown Columbia Revitalization

(Excerpted from Section 103.0.A. of the Zoning Regulations)

[Council Bill 59-2009 (ZRA-113) Effective April 6, 2010]

<u>Downtown CEPPA Implementation Chart</u>: The chart and associated text and flexibility provisions contained in the Downtown Columbia Plan which identify the phasing for Downtown Community Enhancements, Programs and Public Amenities.

<u>Downtown Columbia</u>: The following recorded Final Development Plan Phases: Phase 4, Phase 4-A-5, Phase 21, Phase 47-A-7, Phase 52, Phase 62-A-1, Phase 95, Phase 101-A, Phase 105, Phase 111-A-1, Phase 115, Phase 121, Phase 122-A, Phase 139-A-3, Phase 140-A-1, Phase 192-A, Phase 211, Phase 217-A-1, Phase 219, Phase 234, and the area within the described limits included in exhibit A of the Appendix in these regulations.

<u>Downtown Columbia Plan</u>: The General Plan Amendment for Downtown Columbia approved by County Council Bill No. 58-2009.

<u>Downtown Community Commons</u>: Amenity spaces such as plazas, promenades, greens, gardens, squares and other pedestrian-oriented areas, whether publicly or privately owned, that are intended for community interaction and may include spaces for seating, walking, eating, gathering, fountains, public art, way-finding signage, kiosks, or other similar public amenities. Downtown Community Commons can also include walkways that are designed to enhance and be an integral part of the adjacent amenity space, but shall not include any drive lane for vehicular traffic such as private streets, alleys and public roadways for automotive use. Downtown Community Commons must be generally accessible by the public without charge. Included in this category are Downtown Neighborhood Squares. Downtown Community Commons may be integrated into or developed as a part of other uses and may include underground parking, utilities and other infrastructure supporting downtown revitalization.

<u>Downtown Community Enhancements, Programs and Public Amenities (CEPPA)</u>: The specific feasibility studies, improvement and management organizations, environmental enhancement programs, and physical improvements identified in the Downtown CEPPA implementation chart contained in the Downtown Columbia Plan.

<u>Downtown Environmental Restoration</u>: Projects within Downtown Columbia that are identified in Columbia Towncenter Merriweather and Crescent Environmental Enhancements Study or Best Management Practices for Symphony Stream and Lake Kittamaqundi Watersheds involving forest restoration and enhancement, reforestation and afforestation, wetland enhancement, and stream restoration activities.

<u>Downtown Mixed-Use</u>: A land-use designation that permits any use or combination of uses permitted under Section 125.A.9.B., including supporting infrastructure, such as utilities, public and private roadways, multi-modal circulation systems adjacent to public and private roadways, surface parking lots, parking structures, and underground parking.

<u>Downtown Neighborhood Concept Plan</u>: A concept plan showing an individual neighborhood identified in the Downtown Columbia Plan that depicts a general layout for proposed public and private streets, block sizes and configurations, maximum building heights and proposed Downtown Community Commons as context for the evaluation of the Final Development Plans.

<u>Downtown Neighborhood Design Guidelines</u>: Urban design guidelines for an individual neighborhood identified in the Downtown Columbia Plan.

<u>Downtown Parkland</u>: An area generally accessible by the public without charge for active and/or passive recreation purposes which consists primarily of vegetated areas with a natural character, more formal lawns, gardens and walks, pedestrian connections, minor active structured recreation uses such as urban playgrounds, public art, fountains and minimal structures such as cafes and outdoor dining areas, gazebos, pavilions, outdoor stages, and kiosks.

<u>Downtown Public Art</u>: Original outdoor artwork which is accessible to the public.

<u>Downtown Revitalization</u>: A form of development required in Downtown Columbia after April 6, 2010 in compliance with the applicable provisions of Section 125 that must conform with the recommendations of the Downtown Columbia Plan.

<u>Downtown Revitalization Phasing Plan</u>: A phasing plan included in the Downtown Columbia Plan identifying additional development rights by phase for Downtown Revitalization.

Additional definitions pertinent to The Crescent Neighborhood can be found on pages 173-178 (Chapter 7) of The Crescent Neighborhood Design Guidelines

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
- . THE CONTRACTOR SHALL NOTIFY THE BUREAU OF ENSINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST 48 HOURS PRIOR TO THE START OF WORK.
- 3. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT I-800-251-TTTT AT LEAST 48-HOURS PRIOR TO ANY EXCAVATION WORK,
- 4. THE CONTRACTOR SHALL NOTIFY THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS BUREAU OF UTILITIES AT (410) 313-4400 AT LEAST 48 HOURS FRIOR TO ANY EXCAVATION WORK.

PRO ECT BACKGROUND.

2. NOUSEL INFLORMMENT

LOCATION TAY MAP 36

ZONING-PROPERTY IS ZONE NEW TOWN PER THE 2019 COMPREHENSIVE ZONING PLAN AND IS DESIGNATED AS DOWNTOWN MIXED USE AREA

ADDITIONALLY, THE PROJECT AREA IS SUBJECT TO THE DOWNTOWN COLUMBIA PLAN - A GENERAL PLAN AMENOMENT EFFECTIVE ARRIL 6,

2010.

ELECTION DISTRICT. FIFTH ELECTION DISTRICT

AREA OF BILLDARIC STORM STATE OF THE ACRES OF THE TOWN AMERICAN STATE OF THE STATE OF THE

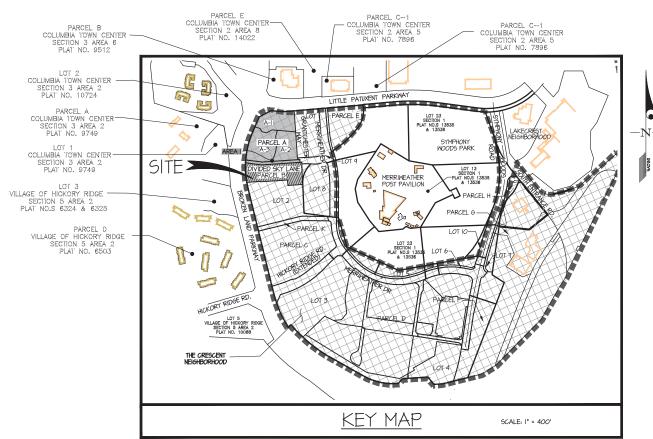
- . TOPOGRAPHIC AERIAL SURVEY WAS PERFORMED ON MARCH 2001 BY MCKENZIE SNYDER AND TOPOGRAPHIC FIELD SURVEY ON AUGUST, 2011 BY GUTSCHICK, LITTLE AND MEBER.
- COORDINATES ARE BASED ON NAD '83 MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATION NUMBERS; 36AA AND 30GA.
-). THE EXISTING UTILITIES SHOWN HEREIN MERE DERIVED FROM AVAILABLE PUBLIC RECORDS AND FIELD LOCATIONS BY GUTSCHICK LITTLE & WEBER, P.A. THE CONTRACTOR MUST DIG TEST PITS BY HAND AT ALL UTILITY CROSSINGS AND CONNECTION POINTS TO VERIFY EXACT LOCATION.
- 1. SPOT ELEVATIONS SHOWN FOR CURB ARE BOTTON OF CURB INLESS OTHERWISE NOTED.

 O. ALL PLAN DIMENSIONS ARE TO THE FACE OF BUILDING OR CURB INLESS OTHERWISE NOTED, DIMENSIONS ARE MEASURED PERPENDICULAR OR RADIAL BETHERN THE PROJECT NUESS OTHERWISE.
- . THERE ARE NO KNOWN GRAVE SITES, CEMETERIES, FLOOD PLAINS OR WETLANDS ON SITE. WETLANDS AND FLOODPLAIN ARE PRESENT ADJACENT TO THIS SITE BUT ARE NOT BEING DISTURBED UNDER THIS PLAN. 12. CURB RADII ARE AS NOTED ON SHEET 2.
- 13. A TRAFFIC IMPACT STUDY IS NOT REQUIRED FOR THIS SITE PLAN AS NO BUILDINGS ARE PROPOSED, THEREFORE NO ADDITIONAL TRAFFIC WILL BE GENERATED.
- 4. THE PROJECT IS EXEMPT FROM FOREST CONSERVATION REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE SECTION 16.1202(B)(I)(IV)
 (PUD INITH A POP APPROVED PRIOR TO 12/3/M2).
- 5. THE CONTRACTOR SHALL TEST PIT ALL EXISTING UTILITIES AT LEAST (5) DAYS PRIOR TO STARTING ANY WORK SHOWN ON THESE DRAWINGS AND NOTIFY THE ENGINEER OF ANY COMPLICITS.
- NOTIFE THE DESIRECT OF AN LOWELLD'S ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAN UNINTERRIPTED SERVICE. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S SEPPINEE. DISTRING UTILITIES ARE SHOWN BASED ON THE BEST AVAILABLE INFORMATION.
- T. NOTE: IN CASE OF DISCREPANCIES BETWEEN THE PLAT AND THE PLANS, THE PLAT SHALL GOVERN.
- 5. ALL CUIDOOR LIGHTING SHALL BE ORIENTED TO DIRECT LIGHT INVARDS AND DOWNNARDS ON-SITE AWAY FROM ALL ADJOINING PUBLIC ROADS AND IN ACCORDANCE WITH SECTION 134 OF THE HOWARD COUNTY ZONING REGULATIONS.
- 4. THE LANDSCAPE PLAN WAS PREPARED ACCORDING TO THE ALTERNATIVE COMPLIANCE SECTION OF THE LANDSCAPE MANUAL, THE LANDSCAPE PLANS HAVE BEEN PREPARED BY A REGISTERED LANDSCAPE ARCHITECT AND IS CERTIFIED TO MEET THE DESIGN INTENT OF THE CRESCENT NEIGHBORHOOD DESIGN GUIDELINES.
- IO.THIG PROPERTY IS SUBLECT TO THE CRESCENT NEIGHBORNOOD SPECIFIC DESIGN GUIDELINES (NSDG), RECORDED IN L. 16305, F. 415, THE CRESCENT NEIGHBORNOOD SPECIFIC IMPLEMENTATION PLAN (NSIP), RECORDED IN L. 16306, F. I., THE CRESCENT NEIGHBORNOOD CONCEPT PLAN (NCP) RECORDED AS PLAT NOS, 2394T THRU 23402 AND THE CRESCENT FINAL DEVELOPMENT PLAN (FDP-DC-CRESCENT-I), RECORDED AS PLAT NOS, 23403 THRU 23404.
- 2). Surety for the required landscaping in the amount of 46/190 shall be posted with the developer's agreements, landscaping within the stormwater management facilities will be assessed as part of the department of public works bio-retention surety. 22.AT THE TIME OF SDP APPROVAL, THE SITE IS UNDER PHASE I OF THE DOWNTOWN REVITALIZATION PHASING PROGRESSION.
- 23.THERE ARE HIGHLY ERODIBLE SOILS ON SITE. MORE STRINGENT SEEDING AND STABILIZATION METHODS MAY BE EXPECTED. SOIL TABLE PROVIDED ON SHEET 5.
- VAREQUIREMENTS FOR SECTION 16.144(b)4(g) HAVE BEEN MAIVED FOR AREAS I AND 2, DEFINED AS PARCELS A-C ON THE FINAL DEVELOPMENT PLAN BY MAIVER NP-15-144 GRANTED BY THE DIRECTOR OF THE DEPARTMENT OF PLANNING AND ZONING.
- 25,DESIGN MANUAL MAVERS FOR THIS SITE CONSIST OF A WAIVER OF VOL. 3-SECTION 2.9.C--OFF-STREET PARKING LOTS AND VOL. 3-SECTION 2.5.B.4.--CURB FILLET DESIGN, SUBMITTED ON MARCH 1, 2017 AND APPROVED ON MARCH 21, 2017.
- 27. DOWNTOWN COMMUNITY COMMONS REQUIREMENTS FOR THIS PARCEL WERE SATISFIED BY SDP-15-066. ADDITIONAL OR ALTERNATIVE DOWNTOWN
 COMMUNITY COMMONS MAY BE CONSIDERED WITH FUTURE REDEVELOPMENT.
- IB STORMMATER MANAGEMENT FOR THIS SITE IS PROVIDED IN ACCORDANCE WITH CHAPTER 5 OF THE MDE STORMMATER MANAGEMENT DESIGN MANUAL, VOLUMES I AND 2 FOR THIS SITE A SUBMERCED GRAME. METLAND M-3 FACILITY HAS BEEN PROPOSED. A PEVALUE OF 260° MAS CALCULATED AS THE TARGET FOR HIS SITE. HE SUBMERCED GRAME, METLAND MLL BEPRIVATIET VONDEN DAN PRIVATELY MANITAINED.
- 24.GENERAL TRAFFIC CONTROL NOTES;
 241. THE RI-1 (STOP) SIGN AND THE STREET NAME SIGN (SNS) ASSEMBLY FOR THIS DEVELOPMENT MUST BE INSTALLED BEFORE THE BASE PAVING IS
- 241. THE EM (NOTOP) SIGN AND THE STREET NAME SIGN (SMS) ASSEMBLY FOR THIS DEVELOMENT MUST BE INDIVIDUAL OF ALL THE TRAFFIC COMITION. DEVICES SHOWN ON THE PLANS ARE APPROXIMATE AND MOST BE FIELD APPROVED BY HOWARD COMINY TRAFFIC DIMISION (MICH 293-2430) FORCE TO THE INSTALLATION OF AN OF THE TRAFFIC CONTROL DEVICES AND THEIR LOCATIONS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "MARYLADO MANUAL ON INFORM TRAFFIC CONTROL DEVICES" MANUAL ON INFORM TRAFFIC CONTROL DEVICES "MANUAL" CONTROL DEVICES" MANUAL ON INFORM TRAFFIC CONTROL DEVICES "MONUTOD).

 244. ALL SIGN POSITS USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE CONTY RIGHT-OF-MAY SHALL BE MONITED ON A 2" GALVANIZED STEEL, PERSFORATED, SOLANCE THIS SELECT (22 GALVANIZED STEEL, PERSFORATED, SOLANCE THIS SELECT (22 GALVANIZED STEEL, PERSFORATED, SOLANCE THIS SELECT (22 GALVANIZED STEEL, POLE CAP SHALL BE MONITED ON TOP OF EACH FOR.
- IO.A PRE-SUBMISSION COMMUNITY MEETING FOR THIS PROPERTY WAS HELD ON NOVEMBER 15, 2016.
- II. PARCEL B IS INCLUDED MITHIN THE PARKING EASEMENT AGREEMENT RECORDED AMONG THE LAND RECORDS IN BOOK 17281 AT PAGE ISI AND IS AVAILABLE PRIOR TO ITS REDEVELOPMENT TOWARDS THE 5000 TOTAL PARKING SPACES REQUIRED FOR MERRIKHEATHER EVENTS BEGINNING WITH THE 2018 SEASON AVAILABILITY OF SPACES WILL BE DETERMINED PREJUNIT TO THE DOWNTOWN REVITALIZATION SAMED PARKING METHODOLOGY THE 181 SPACES ARE BEING PROVIDED ABOVE AND BEYOND REQUIREMENTS FOR IJE BY BUILDING TENANTS.

SITE DEVELOPMENT PLAN DOWNTOWN COLUMBIA CRESCENT NEIGHBORHOOD

PARCEL B TEMPORARY PARKING LOT



HC CONTROL STATIONS

30GA 36AA NORTHING: 566,053,5414 NORTHING: 562,804,8531 EASTING: 1,352,171,5301 EASTING: 1,344,406,170 ELEVATION: 394,8716 ELEVATION: 394,8716 (LATEST ADJ. NOV. 2008) (LATEST ADJ. NOV. 2008)

SITE MERRIVEATHER VICINITY MAP SCALE: 1" = 2,000

ADC MAP PAGE 33, GRID AI

- . GENERAL SITE DATA
 A. TOTAL PROJECT AREA: 1.99 AC,
 B. LIMIT OF DISTURBED AREA: 2.04 AC,
 C. PRESENT ZONING: NT (FDP DC-CRESCENT-IA)
 D. PROPOSED USE OF SITE: INTERIM PARKING LOT
- PARKING REQUIREMENTS, THERE ARE NO REQUIREMENTS FOR PARKING AS THERE ARE NO BUILDINGS BEING PROPOSED ON THIS SITE PLAN.
- 3. PARKING PROVIDED:

SHEET INDEX

- COVER SHEET SITE DEVELOPMENT PLAN
- SITE DEVELOPMENT PLAN
 GRADINE PLAN
 GEDIMENT CONTROL PLAN
 SEDIMENT CONTROL NOTES & DETAILS
 STORM DRAIN PROFILES
 STORM DRAIN PROFILES
 STORMWATER HAWAGEMENT PLAN
 STORMWATER HAWAGEMENT NOTES & DETAILS
 LANDSCAFE FLAN
 SITE DETAILS

APPROVED PLANNING BOARD OF HOWARD COUNTY

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONI Chief Division of Land Development Chief, Development Engineering Division

ESDV SUMMARY TABLE

FACILITY	DRAINAGE AREA (SF)	ESDv (CF) (Pe=2.60")	ESDv (CF) (Pe=1.00")	ESDV PROVIDED (CF)
SGW-I	71,470	12,453	4,790	10,052
		TOTAL ESDV	PROVIDED:	10,052
		TOTAL ESDV	REQUIRED:	9,484
				,

PERMIT INFORMATION CHART SECTION/AREA PARCEL SUBDIVISION NAME: DOWNTOWN COLUMBIA N/A PARCEL B PLAT No. PARCEL 527 ZONE NT TAX MAP ELEC. DIST. CENSUS TRACT BLOCK 6054 WATER CODE: E3I SEWER CODE: 5521000

GLWGUTSCHICK LITTLE & WEBER, PA. CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSHILE OFFICE PARK
BURTONSHILE, WATLAND 2056
TEL: 301-421-4024 BALT: 410-580-1820 DC/W. 301-989-2524 FAX: 301-421-4186

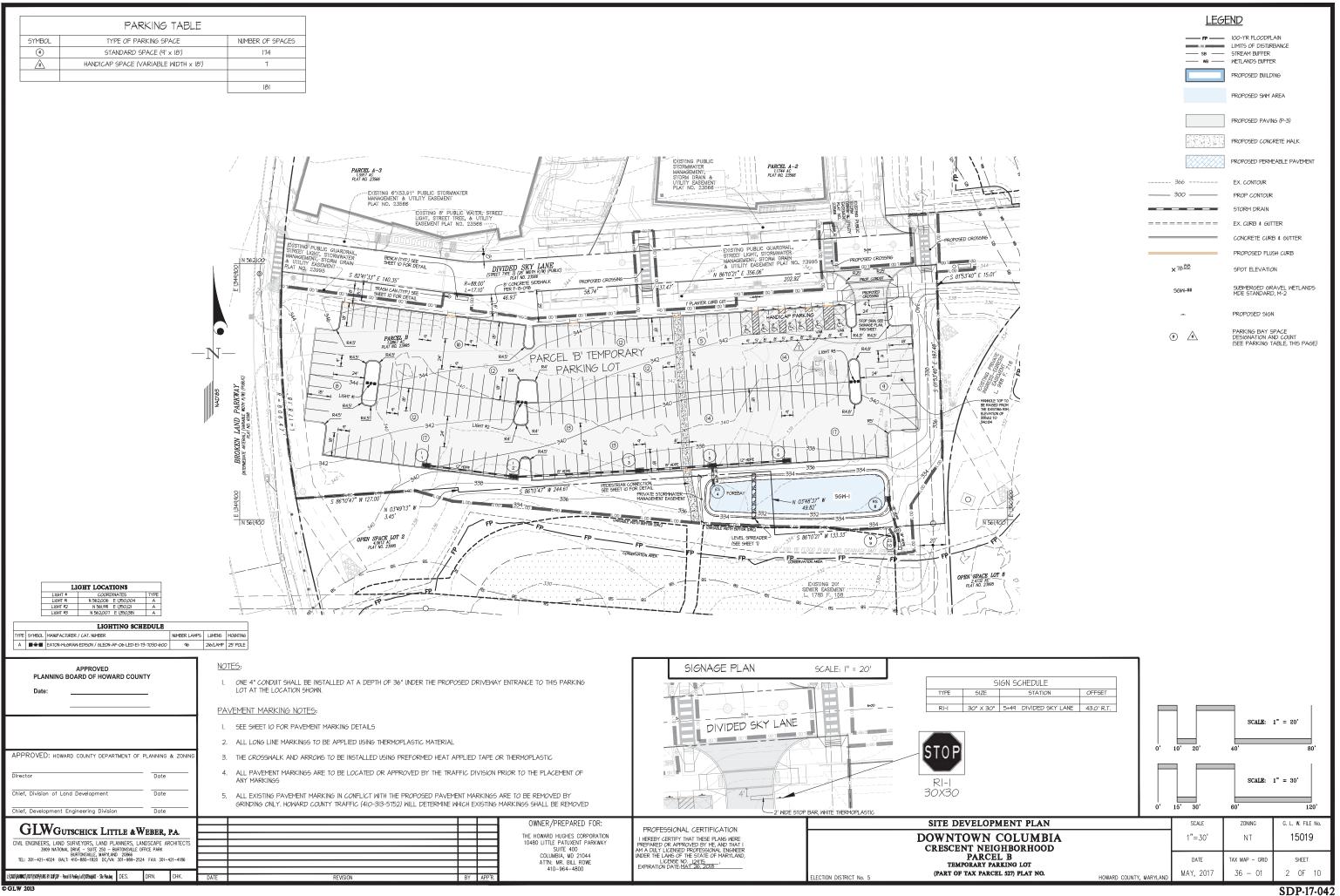
L:\CXIO/QRAMINS\\TXXXY\FUNKS BY CUI\SSP - Parcel B Parking Lel\SSTBadphill - Cover Sheelding | DIES. NB | DRN. JH | CHK.

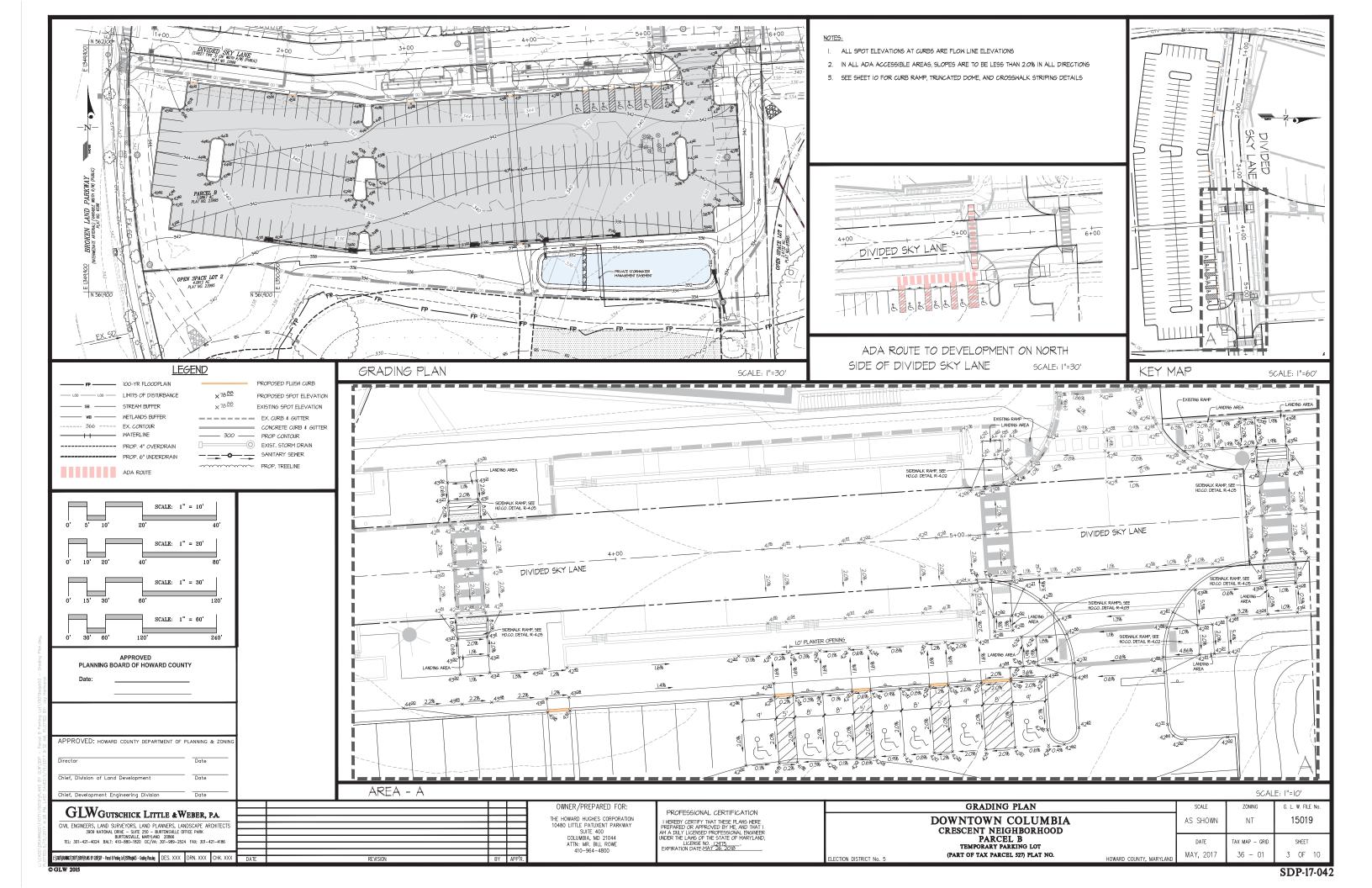
OWNER/PREPARED FOR: THE HOWARD HUGHES CORPORATION 10480 LITTLE PATUXENT PARKWAY
SUITE 400
COLUMBIA, MD 21044
ATTN: MR. BILL ROWE 410-964-4800

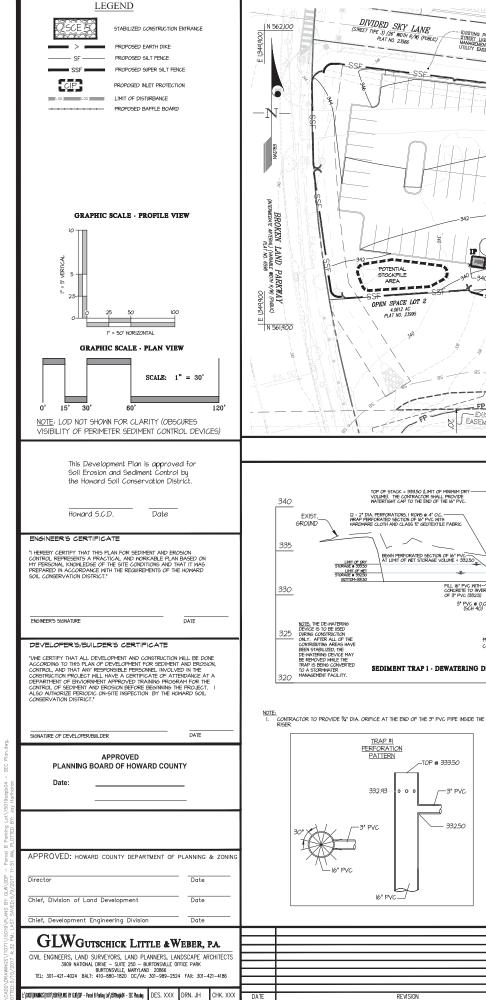
PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 12975 EXPIRATION DATE: MAY 26, 2018

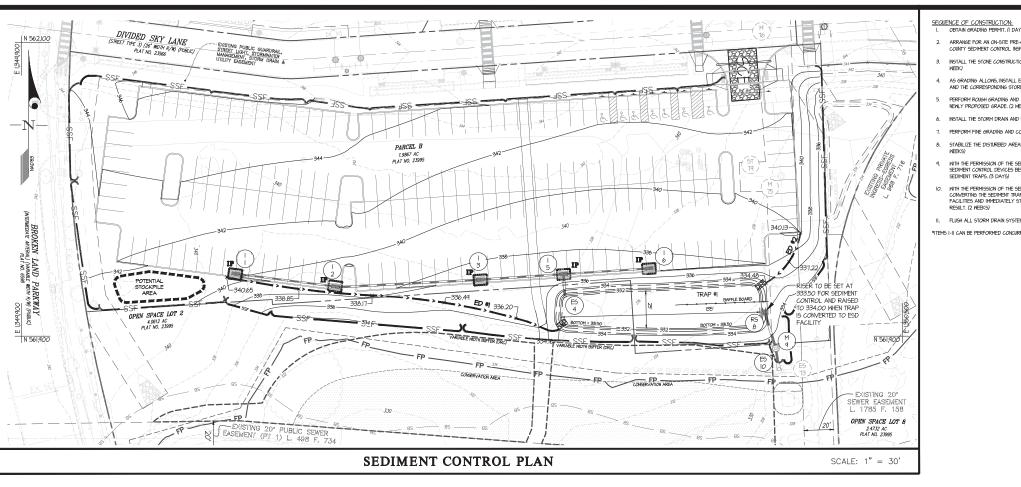
CRESCENT NEIGHBORHOOD PARCEL B TEMPORARY PARKING LOT

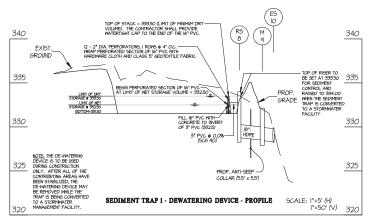
COVER SHEET G. L. W. FILE No. SCALE **ZONING** DOWNTOWN COLUMBIA NT 15019 AS SHOWN TAX MAP - GRID SHEET DATE (PART OF TAX PARCEL 527) PLAT NO. 36 - 01 1 OF 10 MAY, 2017











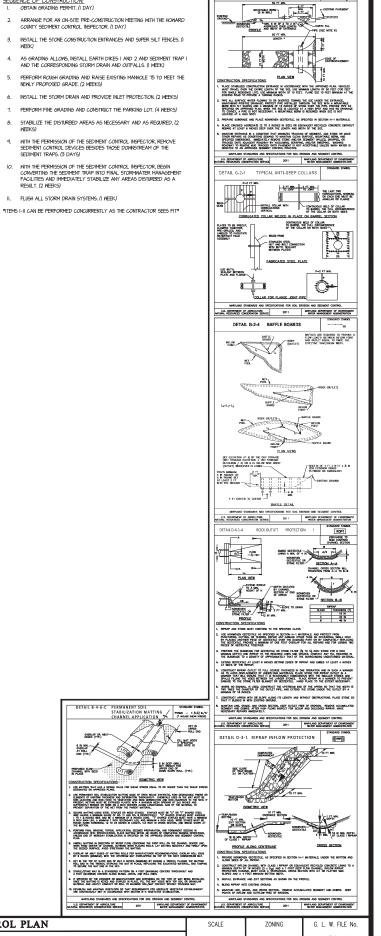
-TOP @ 333.50

/--3" PV

33250

332.93

1		EARTH DIRE	25	
No.	MAXIMUM DRAINAGE AREA	AVG. SLOPE	TREATMENT	SHEAR STRESS AT OUTLET
ED #I	0.92 AC.	3.5%	A-2	8.42 LB/FT ²
ED #2	O.II AC.	11.7%	A-2	2.8I LB/FT ²
	LE BOARD CO			
SED	IMENT TRAP	TRAP #I		
	AREA	4,652 SQ. FT.		





OWNER / PREPARED FOR:

THE HOWARD HUGHES CORPORATION

10480 LITTLE PATUXENT PARKWAY
SUITE 400
COLUMBIA, MD 21044
ATTN: MR. BILL ROWE

410-964-4800

PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL RESINEER UNDER THE LAMS OF THE STATE OF MARYLAND, LICENSE NO. 124T5

EXPIRATION DATE: MAT 26, 2016

DOWNTOWN COLUMBIA CRESCENT NEIGHBORHOOD PARCEL B TEMPORARY PARKING LOT (PART OF TAX PARCEL 527) PLAT NO.

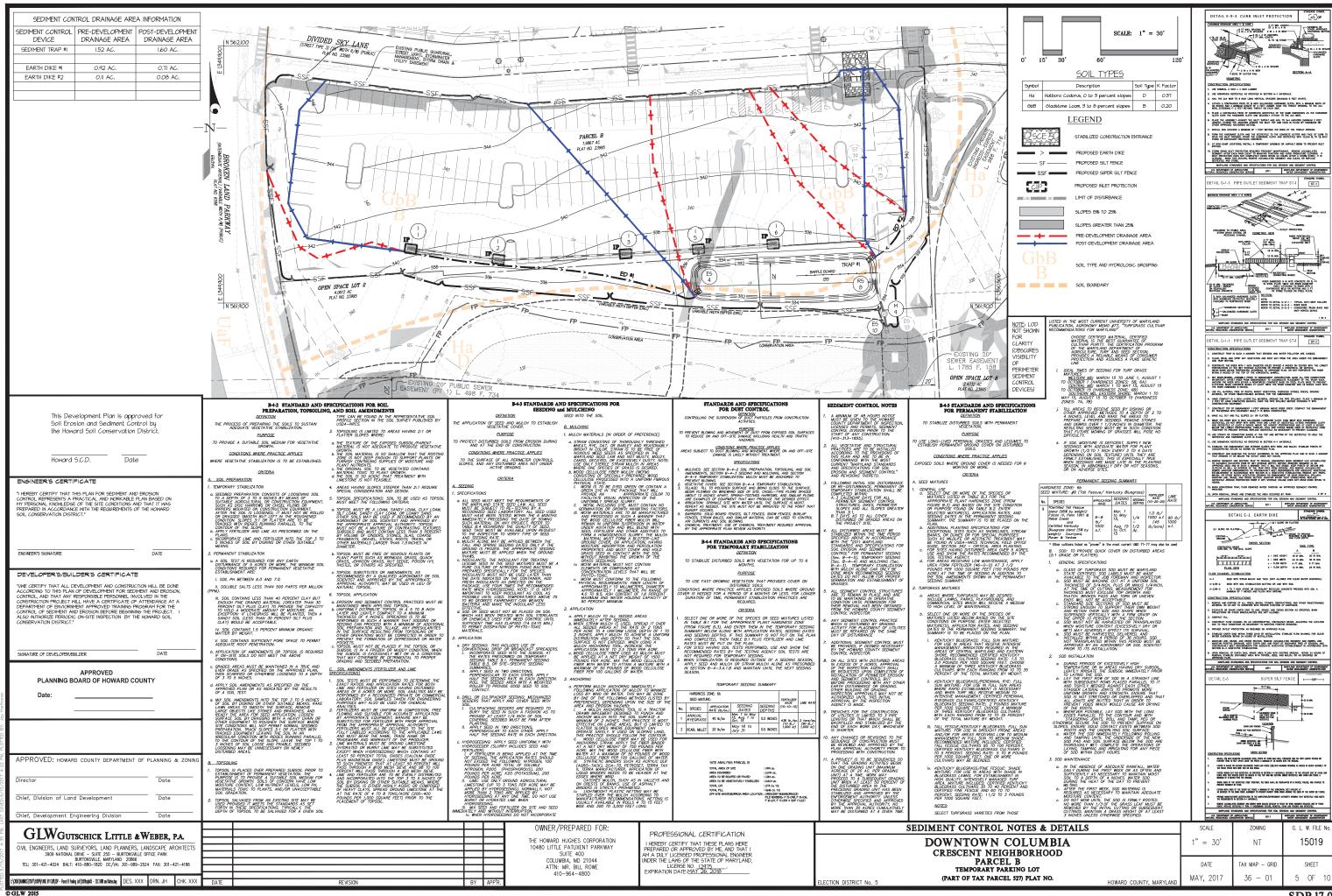
SEDIMENT CONTROL PLAN 1" = 30'DATE MAY, 2017

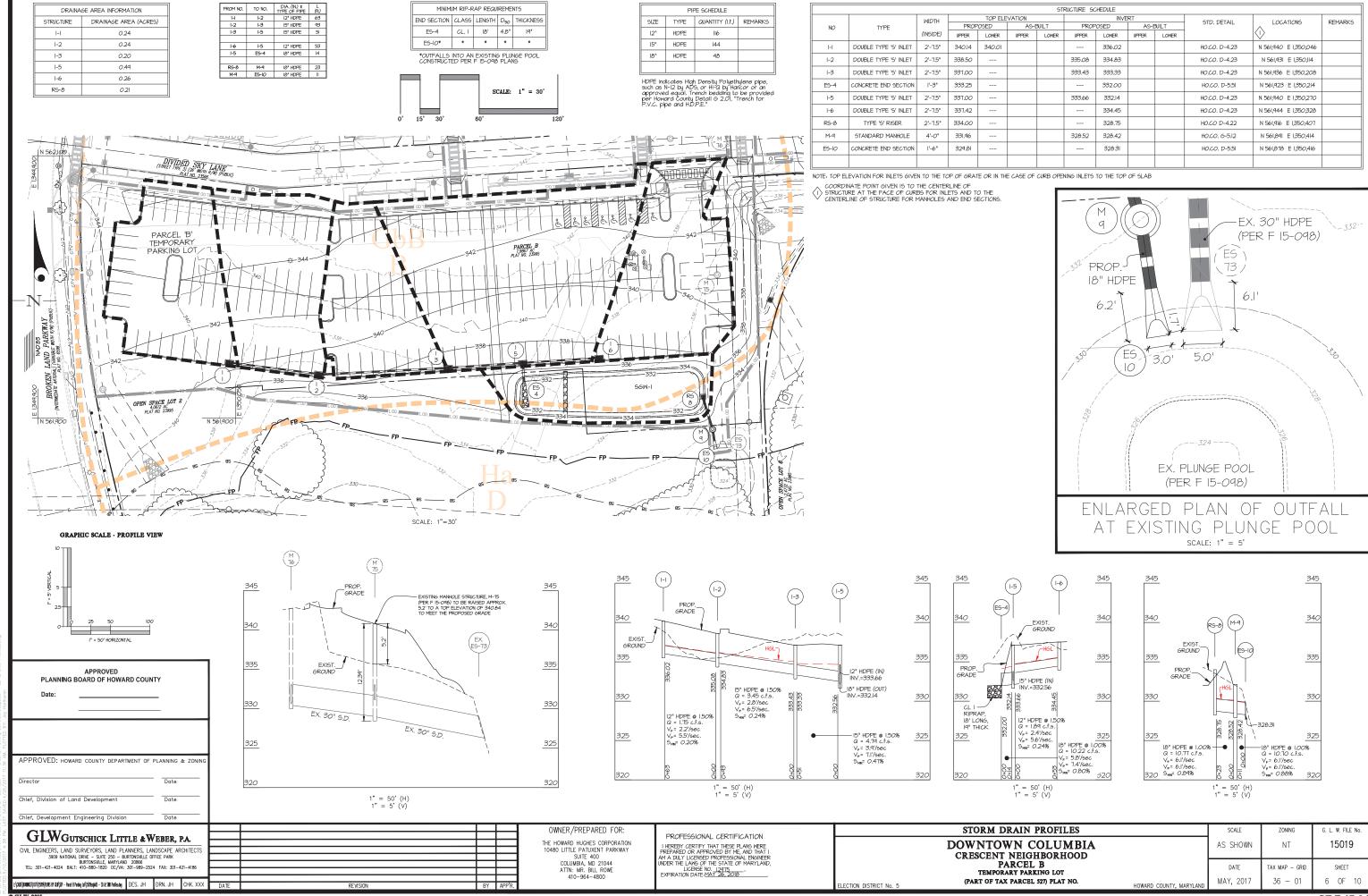
ON MACE WITH BEED

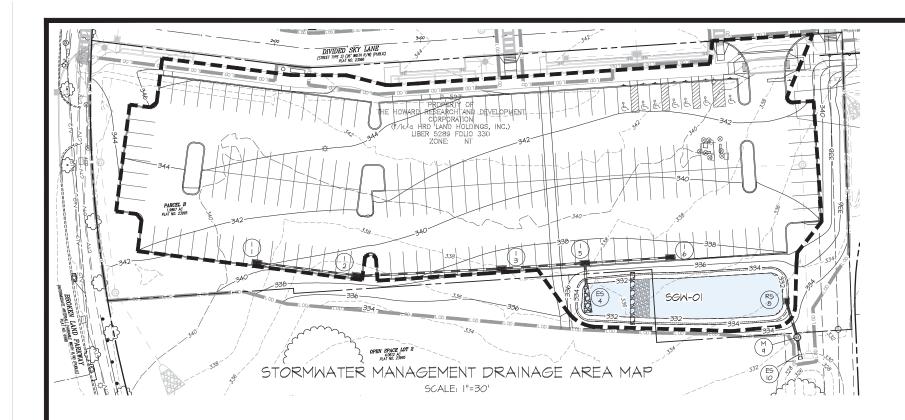
ISOMETRIC WEW

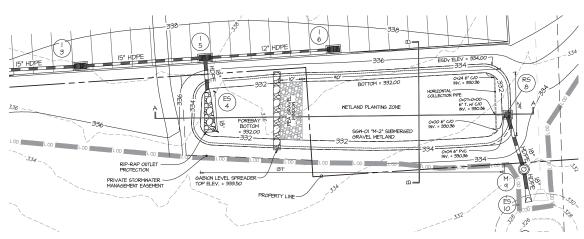
COUNTY SEDIMENT CONTROL INSPECTOR. (I DAY)

II. FLUSH ALL STORM DRAIN SYSTEMS. (I WEEK)









SUBMERGED GRAVEL WETLAND (SGW-OI)

SCALE: I"=20'

			OVERFLOW IMARY TABLE
SIZE (INCHES)	TYPE	QUANTITY (L.F.)	REMARKS
6	SLOTTED PVC	28	COLLECTION PIPE - SCHEDULE 40

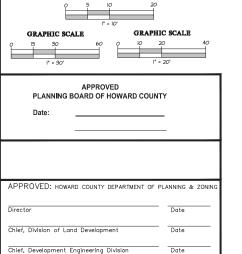
S6M-OI
TYPE (FRR MDE): SUBMERGED GRAVEL METLAND (M2)
NON - MDE 318 FACILITY
TOTAL DRAINAGE AREA TO FACILITY = TI,4TO SF
FOREBAY ESDV = 1,245 CUI-FT (@3333.5)
FONDING/GRAVILE ESDV = 8,057 CUI-FT (@334.00)
TOTAL ESDV PROVIDED = 10,052 CUI-FT

LOW-FLOW OUTFALL: SLOTTED 6" PVC UNDERDRAIN BOTTOM OF FACILITY = 332.00 HIGH-FLOW OUTFALL: RS-8 ('S' INLET, TOP = 334.00)

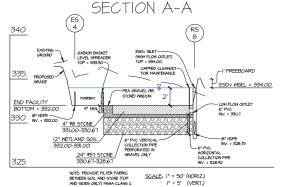
ESDY SUMMARY TABLE

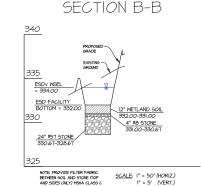
FACILITY	DRAINAGE AREA (SF)	ESDv (CF) (Pe=2.60")	ESDv (CF) (Pe=1.00")	ESDV PROVIDED (CF)
SGW-I	71,470	12,453	4,790	10,052
		TOTAL ESDV	PROVIDED:	10,052
		TOTAL ESDV	REQUIRED:	9,484

NOTE: DEVELOPMENTS IN DOWNTOWN COLUMBIA ARE SUBJECT TO REDEVELOPMENT ESD CRITERIA



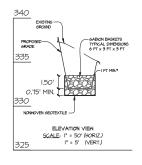
GRAPHIC SCALE





GABION LEVEL SPREADER DETAIL AND CONSTRUCTION SPECIFICATIONS

GABION LEVEL SPREADER



*ONE BASKET OR MULTIPLE MATTRESSES NEED TO EXTEND FROM THE GABION/EARTH INTERSECTION (TIE IN) TO A MINIMUM I FOOT BEYOND THE TIE IN.

CONSTRUCTION SPECIFICATIONS:

- I. PROVIDE STORAGE VOLUME AS SPECIFIED ON APPROVED PLANS
- 2. USE BASKETS MADE OF II GAUGE WIRE OR HEAVIER
- 3. USE NONWOVEN GEOTEXTILE AS SPECIFIED IN THE MD STANDARD AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL MANUAL, SECTION H-I MATERIALS
- 4. INSTALL GABIONS IN ACCODANCE WITH MANUFACTURER RECOMMENDATIONS
- 5. EMBED THE GABIONS INTO THE SOIL A MINIMUM OF 9 INCHES, PROVIDE NONWOVEN GEOTEXTILE UNDER ALL GABIONS
- 6. FILL GABION BASKETS WITH CLEAN 4 TO 7 INCH STONE OR EQUIVALENT RECYCLED CONCRETE WITHOUT REBAR OR WIRE MESH
- REMOVE SEDIMENT WHEN IT HAS ACCUMULATED TO WITHIN 12 INCHES OF THE TOP OF THE GABIONS AND REPLACE THE GEOTEXTILE AND STONE FACING WHEN THE STRUCTURE CEASES TO FUNCTION. MAINTAIN THE LINE, GRADE AND CROSS SECTION

GLWGUTSCHICK LITTLI CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANN 3909 NATIONAL DRIVE - SUITE 250 - BURTO BURTONSVILLE, MARYLAND 2: TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-

M,	CIW					OWNER/PREPARED FOR:
4	GLWGutschick Little &Weber, p.a.	_		_	\vdash	THE HOWARD HUGHES CORPORATION
4	CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS					10480 LITTLE PATUXENT PARKWAY
5	3909 NATIONAL DRIVE — SUITE 250 — BURTONSVILLE OFFICE PARK BURTONSVILLE, MARYLAND 20866					SUITE 400
2	TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186			_	-	COLUMBIA, MD 21044 ATTN: MR. BILL ROWE
5		_		-	Н	410-964-4800
5	L:\CNOV\RNAMAS\\ninn\rangles\r	DATE	REVISION	BY	APP'R.	

PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL RESINEER UNDER THE LAMS OF THE STATE OF MARYLAND, LICENSE NO. 124T5

EXPIRATION DATE: MAT 26, 2016

		2110 011000 020		
STORMWATER MANAGEMEN	T PLAN	SCALE	ZONING	G. L. W. FILE
DOWNTOWN COLUM		AS SHOWN	NT	15019
PARCEL B TEMPORARY PARKING LOT		DATE	TAX MAP - GRID	SHEET
(PART OF TAX PARCEL 527) PLAT 1	NO. HOWARD COUNTY, MARYLAND	MAY, 2017	36 – 01	7 OF 1

OPERATION AND MAINTENANCE SCHEDULE FOR

PRIVATELY OWNED AND MAINTAINED SUBMERGED GRAVEL WETLANDS (M-2)

- A. DURING THE FIRST YEAR OF OPERATION, THE OWNER SHALL INSPECT THE FACILITY AFTER EVERY HEAVY STORM AND REPLACE
- THE OWNER SHALL REMOVE SEDIMENT ACCUMULATED IN THE PRETREATMENT AREAS AS
- SIGNS OF UNEVEN FLOW WITHIN THE WETLAND MAY MEAN THAT THE GRAVEL OR UNDERDRAIN IS CLOGGED. THE GRAVEL OR UNDERDRAIN SHALL BE REMOVED, CLEANED, AND REPLACED,
- D. THE OWNER SHALL ENSURE A DENSE STAND OF WETLAND VEGETATION IS MAINTAINED THROUGH THE LIFE OF THE FACILITY AND REPLACE VEGETATION AS NEEDED
- THE OWNER SHALL ENSURE THE INLETS AND OUTLETS TO EACH GRAVEL WETLAND CELL ARE FREE FROM DEBRIS.
- F. THE OWNER SHALL REPAIR EROSION AT INFLOW POINTS AND ENSURE FLOW SPLITTERS ARE FUNCTIONAL TO PREVENT STORM WATER FROM BYPASSING THE FACILITY.

GENERAL NOTES

I. MATERIAL SPECIFICATIONS:

THE ALLOWABLE MATERIALS TO BE USED IN THESE MICRO-BIORETENTION PRACTICES ARE DETAILED IN TABLE B.4.I.

2. PLANTING SOIL:
THE SOIL SHALL BE A UNIFORM MIX, FREE OF STONES, STIMPS, ROOTS OR OTHER SIMILAR OBJECTS LARGER THAN TWO INCHES, NO
OTHER MATERIALS OR SUBSTANCES SHALL BE MIXED OR DUMPED WITHIN THE MICRO-BIORETENTION PRACTICE THAT MAY BE HARMFUL
TO PLANT GROWTH, OR PROVE A HINDRANCE TO THE PLANTING OR MAINTENANCE OPERATIONS. THE PLANTING SOIL SHALL BE FREE OF
BERNIUDA GRASS, QUACKGRASS, JOHNSON GRASS, OR OTHER NOXIOUS MEEDS AS SPECIFIED UNDER COMAR 15.08.01.05.

THE PLANTING SOIL SHALL BE TESTED AND SHALL MEET THE FOLLOWING CRITERIA.

SOIL COMPONENT - LOAMY SAND OR SANDY LOAM (USDA SOIL TEXTURAL CLASSIFICATION)

ORGANIC CONTENT - MIN. 10% BY DRY WEIGHT (ASTM D 214). IN GENERAL, THIS CAN BE MET WITH A MIXTURE OF LOAMY SAND (60-65%)
AND COMPOST (35-40%) OR SANDY LOAM (30%), COARSE SAND (30%), AND COMPOST (40%).
CLAY CONTENT - MEDIA SHALL HAVE A CLAY CONTENT OF LESS THAN 5%

PH RANGE - SHOULD BE BETWEEN 5.5-7.0. AMENDMENTS (E.G., LIME, IRON SULFATE PLUS SULFUR) MAY BE MIXED INTO THE SOIL TO

THERE SHALL BE AT LEAST ONE SOIL TEST PER PROJECT. EACH TEST SHALL CONSIST OF BOTH THE STANDARD SOIL TEST FOR PH, AND ADDITIONAL TESTS OF ORGANIC MATTER, AND SOLUBLE SALTS. A TEXTURAL ANALYSIS SHALL BE PERFORMED FOR EACH LOCATION WHERE THE TOPSOIL WAS EXCAVATED.

3. COMPACTION:
IT IS YER! IMPORTANT TO MINIMIZE COMPACTION OF BOTH THE BASE OF THE BIORETENTION PRACTICES AND THE REQUIRED BACKFILL.
MHEN POSSIBLE, USE EXCAVATION HOES TO REMOVE ORIGINAL SOIL. IF PRACTICES ARE EXCAVATED USING A LOADER, THE
CONTRACTOR SHOULD USE MIDE TRACK OR MARSH TRACK EQUIPMENT, OR LIGHT EQUIPMENT MITH TURET TYPE THESE. USE OF EQUIPMENT
MITH MARRON TRACKS OR NARROM TRESS, RUBBERT RIFES MITH LARGE LUGS, OR HIGH PRESSURE THESE MILL CAUSE EXCESSIVE
COMPACTION RESULTING IN REDUCED INFILTRATION RATES AND IS NOT ACCEPTABLE. COMPACTION WILL SIGNIFICANTLY CONTRIBUTE TO DESIGN FAILURE

COMPACTION CAN BE ALLEVIATED AT THE BASE OF THE BIORETENTION FACILITY BY USING A PRIMARY TILLING OPERATION SUCH AS A CHISEL PLON, RIPPER, OR SUBSOILER, THESE TILLING OPERATIONS ARE TO REFRACTURE THE SOIL PROFILE THROUGH THE 12 INCH COMPACTION ZONE, SUBSTITUTE METHODS MUST BE APPOVED BY THE ENGINEER, ROTOTILLERS TYPICALLY DO NOT TILL DEEP ENOUGH TO REDUCE THE EFFECTS OF COMPACTION FROM HEAVY EQUIPMENT.

ROTOTILL 2 TO 3 INCHES OF SAND INTO THE BASE OF THE BIORETENTION FACILITY BEFORE BACKFILLING THE OPTIONAL SAND LAYER. PUMP ANY PONDED WATER BEFORE PREPARING (ROTOTILLING) BASE

WHEN BACKELLING THE TOPSOIL OVER THE SAND LAYER FIRST PLACE 3 TO 4 INCHES OF TOPSOIL OVER THE SAND THEN ROTOTILL THE SAND/TOPSOIL TO CREATE A GRADATION ZONE. BACKFILL THE REMAINDER OF THE TOPSOIL TO FINAL GRADE

WHEN BACKFILLING THE BIORETENTION FACILITY, PLACE SOIL IN LIFTS 12" TO 18". DO NOT USE HEAVY EQUIPMENT WITHIN THE BIORETENTION BASIN, HEAVY EQUIPMENT CAN BE USED AROUND THE PERIMETER OF THE BASIN TO SUPPLY SOILS AND SAND. GRADE BIORETENTION MATERIALS WITH LIGHT EQUIPMENT SUCH AS A COMPACT LOADER OR A DOZER/LOADER WITH MARSH TRACKS.

4. PLANT MATERIAL: SEE PLANT LIST TABLES, SHEET 4.

5 PLANT INSTALLATION MILCH SHOULD BE PLACED TO A UNEORM THICKNESS OF 2" TO 3" SHREDDED HARDWOOD MILCH IS THE ONLY ACCEPTED MILCH PINE MILCH AND WOOD CHIPS HILL FLOAT AND MOVE TO THE PERINETER OF THE BIORETIENTION AREA DURING A STORM EVENT AND ARE NOT ACCEPTABLE SHREDDED MILCH MUST BE WELL AGED (6 TO 12 MONTHS) FOR ACCEPTANCE.

ROOT STOCK OF THE PLANT MATERIAL SHALL BE KEPT MOIST DURING TRANSPORT AND ON-SITE STORAGE. THE PLANT ROOT BALL SHOULD BE PLANTED 50 1/6TH OF THE BALL IS ABOVE FINAL GRADE SURFACE. THE DIAMETER OF THE PLANTING PIT SHALL BE AT LEAST SIX INCHES LARGER THAN THE DIAMETER OF THE PLANTING BALL. SET AND MAINTAIN THE PLANT STRAIGHT DURING THE ENTIRE PLANTING PROCESS. THOROUGHLY WATER GROUND BED COVER AFTER INSTALLATION.

TREES SHALL BE BRACED USING 2" BY 2" STAKES ONLY AS NECESSARY AND FOR THE FIRST GROWING SEASON ONLY, STAKES ARE TO BE

GRASSES AND LEGIME SEED SHOULD BE DRILLED INTO THE SOIL TO A DEPTH OF AT LEAST ONE INCH, GRASS AND LEGIME PLIGS SHALL BE PLANTED FOLLOWING THE NON-GRASS GROUND COVER PLANTING SPECIFICATIONS.

THE TOPSOIL SPECIFICATIONS PROVIDE ENCIGH ORGANIC MATERIAL TO ADEQUATELY SUPPLY NUTRIENTS FROM NATURAL CYCLING. THE PRIMARY FUNCTION OF THE BIORETENTION STRUCTURE IS TO IMPROVE WATER QUALITY. ADDING FERTILIZERS DEFEATS, OR AT A MINIMM, IMPEDES THIS GOAL, ONLY ADD TESTILIZER IF WOOD CHIPS OR MULCH ARE USED TO AMEND THE SOIL. ROTOTILL UREA FERTILIZER AT A RATE OF 2 POUNDS FER IOOD SOAMER FEET.

6 UNDERDRAINS

UNDERDRAIN ARE TO BE PLACED ON A 3"-0" MIDE SECTION OF FILTER CLOTH, PIPE IS PLACED NEXT, FOLLOWED BY THE GRAVEL BEDDING. THE ENDS OF UNDERDRAIN PIPES NOT TERMINATING IN AN OBSERVATION WELL SHALL BE CAPPED.

THE MAIN COLLECTOR PIPE FOR UNDERDRAIN SYSTEMS SHALL BE CONSTRUCTED AT A MINIMIM SLOPE OF 0.5%, OBSERVATION WELLS AND/OR CLEAN-OUT PIPES MUST BE PROVIDED (ONE MINIMUM PER EVERY 1000 SQUARE FEET OF SURFACE AREA).

APPENDIX B.I.I. - SUPPLEMENTAL POND SPECIFICATIONS (NON-378)

SUPPLEMENTAL STORMWATER PONDS AND WETLAND SPECIFICATIONS (NON-378)

THESE NOTES AND SPECIFICATIONS ARE IN ADDITION TO THE MD-378 SPECIFICATIONS. IF THERE IS ANY QUESTIONS AS TO THE APPLICABILITY, THE MD-378 SPECIFICATIONS SUPERCEDE

- I. IT IS PREFERRED TO USE THE SAME MATERIAL. IN THE EMBANKMENT AS IS BEING INSTALLED FOR THE CORE TRENCH. IF THIS IS NOT POSSIBLE BECAUSE THE APPROPRIATE MATERIAL IS NOT AVAILABLE, A DAM CORE WITH A SHALL MAY BE USED. THE CROSS-SECTION OF THE STORMWATER FACILITY SHOULD SHOW THE LIMITS OF THE DAM CORE (IP TO IO-YEAR MATER SUPFACE LEVATION) AS NELL AS THE ACCEPTABLE MATERIALS FOR THE SHELL. THE SHAPE OF THE DAM CORE AND THE MATERIAL TO BE USED IN THE SHELL SHOULD BE PROVIDED BY THE GEOTECHNICAL ENGINEER.
- 2. IF THE COMPACTION TESTS FOR THE SITE IMPROVEMENTS IS USING MODIFIED PROCTOR (AASHTO T-180), THEN TO IF THE COMPACTION TESTS FOR THE STIE IMPROVEMENTS IS USING MODIFIED PROCICIAL (AASHTO 1-180), THEN TO MAINTAIN ON-STIE CONSISTENCY, THE MODIFIED PROCITOR MAY BE USED IN LIEU OF A STANDARD PROCITOR (AASHTO 1-40). THE MINIMAM PERSITY USING THE MODIFIED PROCITOR TEST METHOD SHALL BE AT LEAST 92% OF THE MAXIMAM POR PENSITY WITH A MODIFIED CONTENT OF 23% OF THE OFFIRM. THE MINIMAM PERSITS DENSITY USING THE STANDARD PROCITOR TEST METHOD SHALL BE AT LEAST 95% OF THE MAXIMAM DRY DENSITY WITH A MODIFIED. CONTENT OF ±2% OF THE OPTIMUM
- FOR ALL STORMMATER MANAGEMENT FACILITIES, A GEOTECHNICAL ENGINEER OR THEIR REPRESENTATIVE MUST BE
 PRESENT TO VERIFY COMPACTION IN ACCORDANCE WITH THE SELECTED TEST METHOD. THIS INFORMATION NEEDS TO
 BE PROVIDED IN A REPORT TO THE DESIGN ENGINEER, SO THAT CERTIFICATION OF THE CONSTRUCTION OF THE
 FACILITY, IN ACCORDANCE WITH MD-318 SPECIFICATIONS, CAN BE MADE.
- 4. A 4-INCH LAYER OF TOPSOIL SHALL BE PLACED ON ALL DISTURBED AREAS OF THE DAM EMBANKMENT. SEEDING, LIMING, FERTILIZING, MULCHING, ETC. SHALL BE IN ACCORDANCE WITH MARYLAND SOIL CONSERVATION SERVICE MD-342 OR THE 1944 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL BROSION AND SEDIMENT CONTROL PERMANENT SEEDING, SECTION IN CHAPTER 20. THE PIRPOSE OF THE TOPSOIL IS TO ESTABLISH A GOOD GROWTH. OF GRASS, WHICH IS NOT ALWAYS POSSIBLE WITH SOME OF THE MATERIALS THAT MAY BE PLACED FOR THE
- GEOTEXTILE PLACED BENEATH RIP-RAP SHALL BE CLASS "C" GEOTEXTILE OR BETTER (SEE SECTION 24.0, MATERIAL SPECIFICATIONS, 1944 STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL (MDE, 1944).
 SOME ACCEPTABLE GEOTEXTILES THAT MEET THE CLASS "C" CRITERIA INCLIDE.

CARTHAGE EX-709 GEOLON NTO

THIS IS ONLY A PARTIAL LISTING OF AVAILABLE GEOTEXTILES BASED ON INFORMATION PROVIDED BY THE MANAFACTURES OF THE 1991 SPECIFIER'S GUIDE DATED DECEMBER 1996. IT IS THE RESPONSIBILITY OF THE ENGINEER TO VERIFY THE ADEQUACY OF THE MATERIAL, AS THERE ARE CHANGES IN THE MANAFACTURING PROCESS AND THE TYPE OF FABRIC USED, WHICH MAY AFFECT THE CONTINUED ACCEPTANCE.

6. A RULE OF THUMB TO DETERMINE WHEN AN EXCAVATED POND MAY NEED TO BE CONSIDERED AN EMBANKMENT POND IS AS TOLLOWS: PROVIDE GALQUIATION OF IOH + 20 FEET = L. WHERE H HEIGHT FROM POND BOTTOM TO TOP OF DAM. IF THE

PROJECTION OF L, DOWNSTREAM IS A HORIZONTAL LINE FROM THE UPSTREAM TOE OF SLOPE IS BELOW EXISTING GROUND, THE POND CAN BE CONSIDERED AN EXCAVATED POND. IN ADDITION, THE EXISTING GROUND SLOPE, DOWNSTREAM OF THE TOE, MUST BE LESS THAN 10%.

- THE DESIGN ENGINEER AND GEOTECHINCAL ENGINEER SHOULD MAKE THE DETERMINATION THAT THE SETTLEMENT OF THE POND WILL NOT CAUSE EXCESSIVE JOINT EXTENSION. FOR FURTHER INFORMATION ON JOINT ANALYSIS, SEE NRCE PUBLICATION TR-18.
- 6. FILL PLACEMENT SHALL NOT EXCEED A MAXIMUM 8-INCH. EACH LIFT SHALL BE CONTINUOUS FOR THE ENTIRE LENGTH OF THE EMBANSMENT.
- 9. THE EMBANKMENT FILL SHALL NOT BE PLACED HIGHER THAN THE CENTERLINE OF THE PRINCIPAL SPILLWAY UNTIL AFTER THE PRINCIPAL SPILLWAY HAS BEEN INSTALLED. IF THE EMBANKMENT NEEDS TO BE EXCAVATED TO INSTALL THE PRINCIPAL SPILLWAY, THE SIDE SLOPE SHALL BE NO LESS THAN 2:1
- IO. THE SIDE SLOPES OF A CUT TO REPAIR A DAM, INSTALL A PRINCIPAL SPILLWAY FOR AN EXCAVATED POND, OR OTHER REPAIR WORK, SHALL BE NO LESS THAN 2:1.

Material	Specification	Size	Notes
Plantings	See Appendix A. Table A.4	NA	Plantings are site-specific
Planting soil [2.5' to 4' deep]	Sand 35 - 60% silt 30 - 55% day 10 - 25%	N/A	USDA soil types loamy sand, sandy loam or loam.
Mulch	Shredded hardwood		Aged 6 months, minimum.
Pea gravel diaphragm and curtain deain	Pea gravel: ASTM-D-448 consumental stone: washed cobbles	pen gravel. No. 6 stone. 2" to 5"	
Geotesiale	Class "C" - apparent opening size (ASTM-D-4751), grabtensile strength (ASTM-D4632), puncture resistance(ASTM-D-4833)	NA	For use as necessary beneath underdrains only.
Underdrain gravel	AASHTO M-43	0.375° to 0.75°	
Underdrain piping	F 758, Type P5 28 or AASHTO M-278	4" to 6" rigid schedule 40 PVC or SDR35	3.8" perf. @ 6" on center, 4 holes per row; minimum of 3" of gravel over pipes; not necessary underneath pipes.
Poured in place concrete (if required)	MSHA Mix No. 3; Fr = \$500ps @ 20 days, normal weight, sie-estrained, reinforcing to meet ASTM-615-60	NA	Os-tier testing of poured tie place course required 26 day strength and shump test, at course design (cast in-place or pre-cast) on twing personally approved State of the counterforth requires design featuring sense in control and approved by a prefessional mentural regimen licensed in the State of Mary land-design to include meeting ACT Code 2018/19, we write to long IFL 100 or IFL 2013 allowable barboreal londing IFL 100 or IFL 2013 allowable barboreal londing (IBL 100 or IFL 2013 allowable barboreal londing IBL 100 or IFL 2013 allowable londing IBL

APPROVED PLANNING BOARD OF HOWARD O	OUNTY
Date:	
APPROVED: HOWARD COUNTY DEPARTMEN	F OF PLANNING & ZONING
APPROVED: HOWARD COUNTY DEPARTMEN	F OF PLANNING & ZONING Date

GLWGUTSCHICK LITTLE & WEBER, P.A.

CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS 3909 NATIONAL DRIVE - SUITE 250 - BURTONSWILLE OFFICE PARK BURTONSWILLE MARTLAND 20866 TEL: 301-421-4024 BALT: 410-880-1820 IC/V/s: 301-989-2524 FAX: 301-421-4186

L:\Com/(pow/mas/s/11171\)ssray(P.was at 10x1/sp2 - Pared 8 Paring Let\(Strise(mb) - SW Daleslang\) DES. XXX DRN. XXX CHK. XXX DATE

OWNER / PREPARED FOR: THE HOWARD HUGHES CORPORATION 10480 LITTLE PATUXENT PARKWAY
SUITE 400
COLUMBIA, MD 21044
ATTN: MR. BILL ROWE 410-964-4800

PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. <u>12975</u> EXPIRATION DATE:MAY 26, 2018

DOWNTOWN COLUMBIA CRESCENT NEIGHBORHOOD PARCEL B TEMPORARY PARKING LOT (PART OF TAX PARCEL 527) PLAT NO

STORMWATER MANAGEMENT NOTES & DETAILS SCALE **ZONING** G. L. W. FILE No. 15019 SHEET TAX MAP - GRID DATE MAY, 2017 36 - 018 OF 10 HOWARD COUNTY, MARYL

