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#### 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

#### TECHNICAL STAFF REPORT

Planning Board Meeting of August 18, 2016

Jill Manion-Farrar, Staff Planner Phone: 410-313-4338

Email: jfarrar@howardcountymd.gov

Case No. /Petitioner and Owner:

SDP-15-068, Howard Hughes Corporation

**Project Name:** 

Downtown Columbia, Crescent Neighborhood, Parcel A-1 through A-3 and Future Parcel E, updated – Major Plan Revision (Parcel A-2)

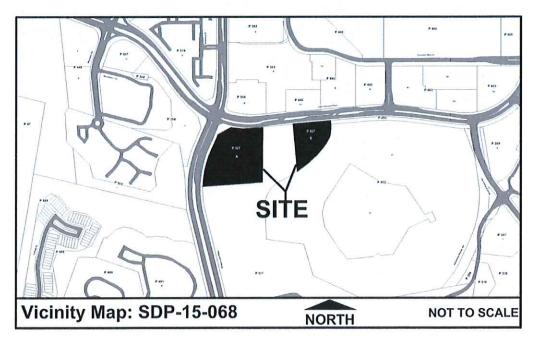
Request:

For the Planning Board to approve a Major Plan Redline Revision to SDP-15-068, a Site Development Plan for Downtown Revitalization, "Crescent Neighborhood Area 1, Parcels A-1 thru A-3 (Block C.1.1) and Parcel E (Block C.4)", in accordance with Section 125.0.G. of the Howard County Zoning Regulations. The purpose of this Major Plan Redline Revision is to show the final footprint and plan details for a proposed mixed use office/retail building on Parcel A-3. The Site Development Plan (SDP) encompasses a plan submission area of 6.32 acres. Parcel A-2 will be improved with 114,129 SF of office and 15,456 SF of retail (including restaurant) for a total building square footage of 129,585 SF. The updated site development plan also revises Parcel A-1 square footage and minor details to reflect the final building plans, and adds Downtown Community Commons to the site. The total cumulative development permitted on the site development plan is 322,036 SF of office, 5,093 SF of retail and 19,679 SF of restaurant. No changes are proposed to the temporary 162 space surface parking lot on future Parcel E, which partially offsets the loss of Merriweather Post Pavilion parking due to development on Parcels A-1, A-2, and A-3.

In accordance with Sections 125.0.G. of the Howard County Zoning Regulations, the Planning Board shall evaluate and approve, approve with conditions, or disapprove the Site Development Plan at a Public Meeting.

#### Recommendation:

The Department of Planning and Zoning recommends approval of a major revision to SDP-15-068, "Downtown Columbia, Crescent Neighborhood Parcel A-1 thru A-3 and Parcel E. It finalizes details for Building B and the Downtown Community Commons proposed at this site, as well as reflects final building details for Building A-1, subject to adequately addressing all the conditions of approval listed in Attachment A. A note must be provided on the plan addressing how land intended for common or quasi-public use will be held, owned, and maintained in perpetuity.



#### Location:

The subject parcels A-1 thru A-3 are identified as part of Parcel 527, Parcels A-1 and A-3 on Tax Map 36 and are located at the southeast corner of the Broken Land Parkway/Little Patuxent Parkway intersection. Future Parcel E is identified as part of Parcel 527 on Tax Map 36 and is located on the south side of Little Patuxent Parkway, just west of the existing private drive to Symphony Woods and Merriweather Post Pavilion. All parcels are zoned New Town (NT) and are designated as Downtown Mixed Use area per the Downtown Columbia Plan. The remainder of Parcel 527 is proposed to be subdivided with F-15-106, which includes Future Parcel E, and is tentatively approved. Parcel A-2 is the southeast parcel and sits at the intersection of Divided Sky Lane and Grantchester Way.

#### **Vicinal Properties:**

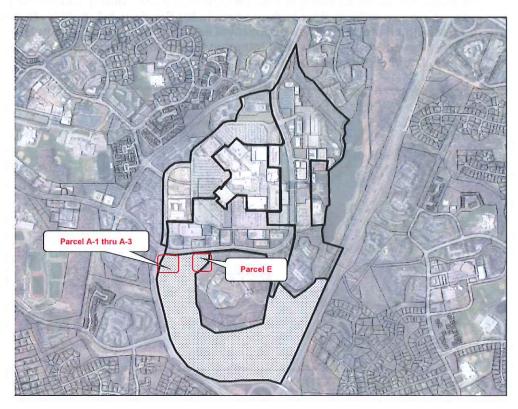
North: Both Parcel A (A-1 through A-3) and Parcel E are bordered to the north by Little Patuxent Parkway. Office buildings and parking structures, part of a set of properties collectively known as Columbia Corporate Center, are on the opposite side of Little Patuxent Parkway. Parcel A-2 is bounded on the north by Parcel A-1.

<u>South:</u> Parcels A-1 through A-3 are bordered to the south by undeveloped land in the Crescent Neighborhood. Some of this land includes existing parking fields serving Merriweather Post Pavilion (locations of future development), as well as areas that contain environmental features. These features will be part of environmental restoration efforts for the neighborhood. Parcel E is bordered on the south by a private drive into the Symphony Woods and Merriweather Post Pavilion properties. Parcel A-2 is bounded on the south by Divided Sky Lane.

<u>East:</u> Parcel A is bordered by undisturbed land that will be part of the planned environmental restoration for the neighborhood. Parcel E is bounded to the east by Symphony Woods. Parcel A-2 is bounded on the east by Grantchester Way and undisturbed land.

<u>West:</u> Parcel A is bordered on the west by Broken Land Parkway. On the opposite side is a residential condominium development. Parcel E is bounded by undeveloped land that will be used for the future Crescent Road A (a.k.a. Merriweather Drive) and land that will be part of the planned environmental restoration for the neighborhood. Parcel A-2 is bounded to the west by a plaza and the Parcel A-3 garage.

<u>Neighborhood:</u> The Downtown Columbia Plan describes the Crescent Neighborhood as a "mixed-use live-work neighborhood", as well as an employment center. 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 lower lying, environmentally sensitive lands.



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#### I. General Information:

#### A. Relevant Site History:

Parcels A-1, A-2, and A-3 are part of Crescent Neighborhood Area 1, as shown on Final Development Plan (FDP-DC-Crescent-1) for Downtown Revitalization. When this site development plan was originally approved the sites were wooded and did not contain environmentally sensitive features. The sites have since been graded and are under construction. The recent history is as follows:

- FDP-DC-Crescent-1 encompasses the majority of land within the Crescent Neighborhood and includes four designated development areas, a network of roads that expand the overall Downtown road network, and a network of 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 as part of the FDP package, which was reviewed and approved by the Planning Board on March 19, 2015. The Decision and Order was signed on April 16, 2015. The plans and documents were recorded on July 2, 2015. (An amendment to this FDP, FDP-DC-Crescent-1A, is currently in process, but there are no changes that would impact this site development plan).
- An Environmental Concept Plan (ECP-15-074) for Crescent Neighborhood Parcels A and E was signed approved on September 18, 2015.
- F-15-098 was submitted on May 21, 2015 for the subdivision of Parcels 527 to create Parcels A-1, A-2, and A-3. It also allowed the construction of Divided Sky Lane and a portion of Merriweather Drive, connecting to Little Patuxent Parkway. The road construction drawings were signed December 9, 2015 and the plat was recorded December 17, 2015.
- SDP-15-068 was submitted for review May 27, 2015. The plan was deemed approvable as of September 29, 2015 and received Planning Board approval on October 15, 2015. The originals were signed December 18, 2015.
- F-15-106 was submitted July 2, 2015 to subdivide the remainder of Parcel 527 into buildable parcels (including Parcel E) and open space lots. It also allowed the construction of a portion of future Merriweather Drive and the future Hickory Ridge Road extended. The plan was deemed technically complete on March 23, 2016. The road construction drawings were approved August 3, 2016. The developer's agreement must be completed by September 19, 2016 and the plat originals must be submitted for recordation by November 18, 2016.
- WP-16-024 was submitted August 21, 2015 to waive Section 16.119(f)(1) of the Subdivision and Land Development Regulations. This would allow a private commercial driveway to access an arterial road. The Subdivision Review Committee has submitted comments and DPZ is drafting a report recommending approval to the Planning Director. The justification is that access to this driveway would be limited to trash pickup and deliveries and there would not be a potential for cutthrough traffic. SRC comments on the SDP include approval subject to the approval of this waiver petition.
- A Redline Revision/Major Plan Revision request to SDP-15-068 (the subject plan) was submitted on May 16, 2016 and was deemed approvable July 18, 2016, subject to Planning Board Approval and addressing agency comments (See Attachment A).

#### B. Posting:

Per Section 125.0.G. of the Howard County Zoning Regulations, the property must be posted a minimum two weeks prior to the public meeting. The subject property was properly posted with two official Planning Board meeting notices. These signs were posted beginning on or before August 4, 2016. In addition, electronic notifications regarding the public meeting were sent to each Columbia Village Board, the Columbia Association, Howard County Council members, and pre-submission meeting attendees who provided email addresses.

#### C. Regulatory Compliance:

Site Development Plans are subject to the following items:

(1) The Downtown Columbia Plan: Council Bill No. 58-2009, which approved an amendment to the Page 3 of 17

Howard County General Plan.

- (2) <u>The Zoning Regulations:</u> including sections enacted as part of an amendment to the Zoning Regulations as Council Bill No. 59-2009 (ZRA 113).
- (3) <u>Downtown-Wide Design Guidelines</u> passed as Council Resolution 138-2010.
- (4) The Adequate Public Facilities Act amended for Downtown Columbia as Council Bill 47-2010.
- (5) The Sign Ordinance amended for Downtown Columbia as Council Bill 56-2010.

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

- (6) A Pre-Submission Community Meeting was held on March 26, 2015 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. Building B was included as part of the concept plan described during this meeting and shown on the submitted and a placeholder was included on the current approved plan. The tentative square footage was also approved. Therefore, no new pre-submission community meeting is required.
- (7) The Design Advisory Panel (DAP) reviewed Parcel A-2/Building B based on the approved Neighborhood Specific Design Guidelines on March 9, 2016. This was 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 DAP 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 for the recommendations.

#### D. Definitions:

**Downtown Columbia Definitions**: Please refer to the attached definitions (**Attachment 'D')** 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. <u>Description of the Site Development Plan Proposal:</u>

**Site Improvements**: This Site Development Plan (SDP) encompasses 6.32 acres of which 5.71 acres will be disturbed. When the original SDP was approved on December 2015 Parcel A-2 was reserved for a future office building. It required additional DAP and staff review and Planning Board approval. This Major Plan Redline Revision proposes a 129,585 SF, 6 story office building with retail and restaurant uses. The developer estimates 114,129 SF of office, 4,031 SF of retail, and 11,425 SF of restaurant uses. The cumulative development permitted per the revised SDP is 322,036 SF of office, 5,093 SF of retail, and 19,679 SF of restaurant uses. These cumulative totals account for a more precise calculation of uses for Building A-1, as reflected on the construction plans. With the construction of the new building an internal plaza (a Downtown Community Commons) will be constructed between Building B and the garage. Building B also has an upper level terrace that is part of the Commons. There are no changes to the Parcel E parking lot, as shown on the previously approved SDP.

**Environmental Concerns:** There are no current environmental concerns. When the original SDP was approved Parcels A and Parcel E were fully wooded, but did not contain wetlands, wetland buffers, streams, stream buffers, steep slopes (25% or greater), erodible soils, or a 100-year floodplain. Parcels A-1 and A-3 are currently under construction, and Parcel A-2 has been graded.

**Stormwater Management:** A combination of techniques will serve to adequately filter and manage stormwater per the 2010 Stormwater Management Act. The Site Development Plan proposes various types of Environmental Site Design (ESD) practices to address stormwater management. The plan utilizes micro-bioretention facilities, pervious pavement, a green roof on Building B, and an underground rain harvesting system.

The underground rain harvesting system will collect water from the Building A roof, pipe it to a Stormceptor filtering device where it will be pretreated, and then it will be stored in a cistern under the loading area on the west side of the building. The water will be released into a seepage berm that will enhance the wetlands on the west side of the parcel.

Micro-bioretention facilities along the east side of the parking garage will treat rainwater from the garage, allowing it to infiltrate. Under-drained ESD facilities and pervious pavers in the pedestrian plaza will address larger storms. The green roof on Building B will also directly treat stormwater and underdrains will collect it and then direct it to a storm drain.

Roads: In addition to Broken Land Parkway and Little Patuxent Parkway, the site is served by three new roads currently under construction. These were approved through Final Plan F-15-098 and the original SDP-15-068. Merriweather Drive (off-site of this SDP) is a major neighborhood avenue (Avenue Type 3 per the Crescent Neighborhood Design Guidelines) at the boundary of the Crescent and Merriweather-Symphony Woods Neighborhoods. Divided Sky Lane is a public road (Street Type 3 per the Crescent Neighborhood Design Guidelines) located along the southern boundary of Parcels A-2 and A-3. It connects Broken Land Parkway and Merriweather Drive. A private road, Grantchester Way, is being constructed as part of this SDP along the east side of Parcels A-1 and A-3. It is the east frontage street for the new building and goes from Little Patuxent Parkway south to intersect with Divided Sky Lane.

The intersection of Broken Land Parkway and Divided Sky Lane, as well as the intersection of Little Patuxent Parkway and Merriweather Drive, will only allow right in/right out turns. Access to the parking garage and Building A will be via Divided Sky Lane and an internal driveway from Grantchester Way. The intersection at Little Patuxent Parkway and Grantchester Way will be right-in only. Cars exiting from the parking garage to Grantchester Way will have to travel south to Divided Sky Lane. Cars exiting the parking garage at the Divided Sky Lane may travel west to Broken Land Parkway or east to Grantchester Way or Merriweather Drive.

Pedestrian and Bicycle Connections: The pedestrian and bicycle connections shown on the approved site development plan remain. This updated plan also shows a new north-south pedestrian connection through the central plaza, along with a meandering boardwalk, located above a microbioretention facility, which provides handicap access. The existing sidewalk along Broken Land Parkway is currently being widened to 6' to comply with the Crescent Neighborhood Design Guidelines and a 6' sidewalk is proposed on the west side of Grantchester Way. The Downtown Multi-use Pathway fronts both Parcels A and E.

Divided Sky Way is identified as a primary bicycle connection in the Crescent Neighborhood Design Guidelines and FDP-DC-Crescent-1. There will be an 8' sidewalk on the south side of Divided Sky Lane to accommodate bicycles, which will also have full use of a street lane. An 8' sidewalk on the north side of this road will accommodate larger crowds during events at Merriweather Post Pavilion.

**Building Height:** Per FDP-DC-Crescent-1, the <u>maximum</u> building height for Parcels A-1 thru A-3 is 15 stories or 170'. The proposed mixed use office/retail building on Parcel A-2 is proposed with 6 stories and a mean height of 85'. No changes are proposed for the Parcel A-1 and A-3 buildings currently under construction.

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

**Setback Requirements:** While there are no setback requirements, the Crescent Neighborhood Design Guidelines recommend a 15-25' setback from a public or private right of way, which the proposed building meets.

Landscaping: There are no major changes to landscaping based on the approved plan. However, some microbioretention planters along the plaza side of Building B will be removed because the footprint of the building has increased. A hedge located between the Building A terrace and the Downtown Multiuse Pathway will also be removed and replaced with a 3 ½ stone veneer wall (depicted in an elevation on Sheet 37 of the proposed revised plan).

Parking: A Parking Needs Analysis, based on Section 133.0.E.3 of the Zoning Regulations (Downtown Revitalization Trip Reduction), was updated to reflect changes in Building B uses and the size of Building A. According to the updated study, 1,102 automobile parking spaces are required for both buildings. The SDP

proposes 1,127 credited automobile parking spaces within the parking garage and 7 on-street parking spaces on the north side of Divided Sky Lane. The total parking supply is therefore 1,134 credited parking spaces. Adequate handicap accessible parking spaces are also being provided and bike racks are proposed at the front and rear of the building and within the garage, per the currently approved plan.

The proposed development displaces approximately 500 parking spaces currently available for Merriweather Post Pavilion patrons. Per FDP-DC-Crescent-1, all displaced Merriweather Post Pavilion parking due to development of the Crescent Neighborhood must be mitigated:

"Mitigation for Merriweather Post Pavilion parking lot to development pursuant to this FDP must be specified with the site development plan that shows the demolition of the existing parking. For each SDP proposing demolition of existing parking, the petitioner must submit a parking analysis to demonstrate the proposed mitigation will either (i) replace within existing or proposed parking area(s) located within Downtown any demolished parking calculated on a shared parking basis; or (ii) propose other mitigation, which could include parking management practices, that will mitigate the loss of the demolished spaces. As with past practices, large festival events may include parking outside the Downtown area."

To partially meet this requirement, a temporary surface parking lot containing 162 spaces is proposed on Parcel E. There is also excess capacity in existing garages on the north side of Little Patuxent Parkway to accommodate any remaining displaced spaces. Temporary easements are recorded in the Land Records of Howard County to ensure there is no net loss of parking spaces during construction. The parking garage still under construction will be utilized for Merriweather Post Pavilion event parking when finished; accommodating about 805 parking spaces for events.

- 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 criteria:
  - A. The development conforms with the adopted Downtown Columbia Plan.

The proposed development conforms to the Downtown Columbia Plan when considering all of the conformance criteria. Conformance is specifically addressed in Section 125.0.A.2.b of the Zoning Regulations:

"When a provision in this section requires that an action "will conform", "conform with", "conforms with" or "conforms to", the Downtown Columbia Plan or any part of the plan, the action being taken shall further, and not be contrary to, the following items in the Downtown Columbia Plan:

- (1) Policies;
- (2) Timing and implementation of the plan;
- (3) Timing of development;
- (4) Development patterns
- (5) Land uses; and
- (6) Densities and intensities."

The Downtown Columbia Plan envisioned the Crescent Neighborhood as a mixed-use, live-work neighborhood, and employment center. It was to be densely built and located adjacent to environmentally sensitive areas. This revised SDP completes the vision of the previously approved plan with a second mixed use office building within the heart of Downtown. It complements the existing office buildings on the north side of Little Patuxent Parkway. The proposed development also includes a Downtown Community Commons at its center, which provides a quasi-public open space, as envisioned in the Downtown Columbia Plan.

<u>Downtown Phasing</u> - This proposal falls within the Phase I threshold of the Downtown Revitalization Phasing Plan. It states that Downtown Columbia cannot proceed to Phase II until there are between 656-2,296 new residential units, between 100-640 new hotel rooms, between 1 million to 1.5 sf of new office and conference space and between 300,000-676,466 sf of new retail space (See chart below).

With this proposed Revised Site Development Plan, 817 residential units, 322,036 SF of office, and 100,503 SF of retail (including the restaurant) would be approved for development under Downtown

Revitalization provisions or constructed. To date, a hotel has not been proposed for Downtown.

Existing and approved development in Downtown does not exceed the maximum limits for any use categories for Phase 1.

		PHASEI			PHASE II CUMMULATIVE			PHASE III COMPLETION			TOTAL		
Use Type		Min		Max	Use Type		Min	D	Max	Use Type U	Up To		
	Units	SF	Units	SF		Units	SF	Units	SF		Units	SF	
Retail		300,000		676,446	Retail		429,270		1,100,000	Retail		820,730	1,250,000
Office/Conf*		1,000,000		1,513,991	Office/Conf*		1,868,956		2,756,375	Office/ Conf*		2,431,044	4,300,000
Hotel Rms**	100		640		Hotel Rms**	200***		540***		Hotel Rms**	440		640
Residential**	656		2,296		Residential**	1,442		4,700		Residential**	4,058		5,500

(\*, \*\*, \*\*\*: See Page 73 of Downtown Columbia Plan for Chart and Notes)

CEPPAs: DPZ has also evaluated the SDP for conformance with all applicable Community Enhancements, Program and Public Amenities (CEPPA) Requirements. See the attached CEPPA Conformance Chart (Attachment C). The development proposed with this SDP approaches, but does not exceed the 1,300,000 SF threshold for CEPPAs #14-16. Therefore Building B does not trigger these CEPPAs requirements.

	CEPPA Trac	Block	Square Footage
	Parcel/Project	DIOCK	Square Footage
Project Approved - Is	sued Building Permits		
SDP-13-007	Parcel D/Metropolitan	W-1	454,328
SDP-13-016	Mall	M-1	33,289
SDP-14-024	Parcel C-2/Warfield	W-2	247,903
	Parcel C-1/Warfield	W-5	188,765
SDP-15-068	Parcel A-1/Crescent/Bldg A	C-1.1	217,223 SF
		SUBTOTAL	1,141,508 SF
Project Approved - P	ending Building Permits		
None			0 SF
		SUBTOTAL	0 SF
Projects Approved -	No Pending Permits		
None			0
		SUBTOTAL	0 SF
New Projects			
SDP-15-068	Parcel A-2/Crescent/Bldg B	C.1.1	129,585 SF
		SUBTOTAL	129,585 SF

### 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 (FDP-DC-Crescent-1) proposes a mix of land uses throughout the neighborhood. This SDP is proposed within Area 1, as shown on the FDP. The SDP proposes 322,036 SF of office and 24,722 SF of retail/restaurant uses on Parcels A-1 and A-2. While primarily an office development, the SDP does propose some street-level retail and restaurant uses.

The FDP indicated that there would be approximately 600,000 sf of office and 25,000 sf of retail/restaurant uses and 250 hotel rooms in Area 1 (although that amount could change). The proposed development is consistent with the FDP in terms of land uses and their proposed size. While additional development may be envisioned for Parcel B within Area 1 there are currently no plans in process.

#### FDP BLOCK DEVELOPMENT CHART

PARCEL			Uses									
			Retail/	Cultural/	Cultural/	Hotel		Residential*		Total Development (GFA in SF)		
Parcel	Area (SF)	Area (Acre)	Restaurant (SF)	Office (SF)	Community (SF)	Rooms	GFA (SF)	DU	GFA (SF)	Demolition	New	Net New
A & B (Area 1) (Blocks C 1.1 & C 1.2)	264,874	6.08	25,000	600,000	0	250	150,000	0	0	0	775,000	775,000
C (Area 2) (Blocks C 2.1 & C 2.2)	187,056	4.29	30,000	300,000	0	0	0	500	590,000	0	920,000	920,000
D (Area 3) (Blocks C 3.1 thru C 3.7)	930,880	21.37	252,000	400,000	225,000	0	0	1,800	2,124,000	0	3,001,000	3,001,000
E (Area 4) (Block C 4)	97,197	2.23	6,500	175,000	0	0	0	0	0	0	181,500	181,500
Crescent Total This FDP	1,480,007	33.98	313,500	1,475,000	225,000	250	150,000	2,300	2,714,000	0	4,877,500	4,877,500

Conditions of approval for FDP-DC-Crescent-1 are in Attachment E. One condition requests an open recreation area in the undeveloped parts of the neighborhood, such as Area 1. An open, un-programmed recreation area is not shown on this SDP, but there is potential for one as part of a future SDP for Parcel B. However, DPZ recommends that any future un-programmed amenity areas be located near future residential uses.

The FDP identifies part of Parcel A, the corner of Broken Land Parkway and Little Patuxent Parkway, as a location for a signature building. This remains unchanged and was addressed in the approved SDP.

Mitigating the loss of Merriweather Post Pavilion parking was a concern discussed during Crescent Final Development Plan FDP-DC-Crescent-1; however, all displaced parking has been adequately accounted for with this site plan. Section II shows that the loss of 500 parking spaces has been partially offset with a 162 space temporary surface lot on Parcel E. Additional parking to offset losses is in the Columbia Corporate Center parking garages, north of Little Patuxent Parkway. These are to be used during the 2016 concert season. Once completed, the parking garage associated with this development will be used for Merriweather Post Pavilion parking, providing an estimated 805 spaces for concerts. It is targeted to be available for the 2017 concert season.

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.

Both Building A and the parking garage are oriented externally and introduce an urban edge to Broken Land and Little Patuxent Parkways. The siting of Building B also provides a consistent building orientation around an interior community space; while the retail/restaurant uses help activate it. The central north/south orientation of the community space helps establish a critical circulation link between Parcel A and adjoining parcels to the south and east. This is consistent with the goals of the Crescent Neighborhood Design Guidelines neighborhood concept. It calls for pedestrian links between development areas that are separated by preserved environmental features. The development makes good use of landscaping as part of stormwater management, which is incorporated throughout the site and augments the overall design.

Pedestrian circulation is provided along the periphery and internal to site, as described in Section II. The sidewalk to the south (on the north side of Divided Sky Lane) will be 8' wide to accommodate larger crowds walking to Merriweather Post Pavilion events. Bicyclists may choose to use Divided Sky Lane, but they can also use an 8' wide multi-use sidewalk. It is proposed on the south side of the road to accommodate cyclists who may be intimidated by traffic to and from the parking garage. Bicycle racks are provided in the plaza, in front of the buildings, and in the garage.

As a condition of approval DPZ recommends that the maintenance agreement for the Downtown Multi-use Pathway be amended. It should require the building owner to maintain that portion of the pathway in front of the building on Parcel A-1, along Little Patuxent Parkway. An Amended Maintenance Agreement is currently under review and should be executed prior to signature approval of the revised plan.

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.

A minimum 14,000 SF of Downtown Community Commons is required in Area 1 per FDP-DC-Crescent-1. This SDP proposes a 20,000 SF internal, terraced plaza as Downtown Community Commons. The large microbioretention facility on the east side of the parking garage has been retrofitted with an ADA compliant boardwalk that links the lower and upper ends of the site. The plaza includes an upper level terrace that is incorporated into the design of Building B. This commons will be activated with seating and open air dining. The heavily landscaped microbioretention will provide a respite for office workers and other visitors to the Downtown area, and is appropriate solution. The FDP and the approved Crescent Neighborhood Documents envision this as one of several public spaces throughout the neighborhood that will be loosely connected by pathways through environmental areas.

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

Per the Downtown Columbia Plan, the Crescent Neighborhood Design Guidelines, and FDP-DC-Crescent-1, the maximum building height is 15 stories or 170'. At 6 stories and 85', the proposed building meets that requirement.

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

Per Section 125.0.A.9.f.2.of the Howard County Zoning Regulations, 1% of the building construction costs (or a fee-in-lieu) must be allocated to public art. To address this, the developer has identified public art on the west façade of the parking garage. However, it is unclear if this satisfies the 1% cost requirement associated with both buildings. DPZ has not yet received construction costs for either Building A or the proposed art. A condition of approval should require additional locations identified for art should the current proposal be inadequate. DPZ further recommends that public art be considered for the east façade of the garage. This would help enhance the plaza and soften the harsh concrete.

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

This SDP does not propose housing; however, per CEPPA #27, it is subject to an annual assessment for the Downtown Columbia Community Housing Fund.

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

**SCHOOLS**: NA – housing is not proposed.

ROADS: In accordance with the Adequate Public Facilities Ordinance (Title 16, Subtitle 11 of the Howard County Code), this development was tested for adequate transportation facilities based on an updated traffic analysis. Transportation improvements are coordinated with the construction of both public and private roads, as described in Section II of this report. With the proposed network in place (Grantchester Way, Divided Sky Lane, and Merriweather Drive between Little Patuxent Parkway and Diamond Avenue) and in the context of the existing road network, the traffic study found the proposed development to be in compliance with the Downtown Columbia provisions of the Adequate Public Facility Ordinance and the SRC concurred.

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

The developer proposes that all common facilities located within Parcel A and the private street accessing Parcel A will be maintained by the property owner. DPZ will require a note on the plan to address the ownership, operation, and maintenance of the Downtown Community Commons, the private road (Grantchester Way), and sidewalks along the right-of-way, as identified on the plan.

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

The SDP contains a note indicating the property owner will participate in the Downtown Columbia Partnership

and pay the charges assessed for each square foot of gross leasable retail space to the Downtown Columbia Partnership per CEPPA #25 and #27. See General Note #43 on Sheet 1.

**SRC Action:** The Subdivision Review Committee has recommended approval subject to the technical comments issued in the letter dated July 18, 2016.

Please note that this file SDP-15-068 is available for public review by appointment at the Department of Planning and Zoning public service counter, Monday through Friday, 8:00 a.m.-5:00 p.m.

#### Recommendation:

The Department of Planning and Zoning recommends approval of this major revision to SDP-15-068, "Downtown Columbia, Crescent Neighborhood Parcel A-1 thru A-3 and Parcel E. It finalizes the details of Building B and the Downtown Community Commons proposed at this site and reflects final building details for Building A; subject to adequately addressing all the conditions of approval listed in Attachment A and providing a note on the plan addressing how land intended for common or quasi-public use will be held, owned, and maintained in perpetuity.

Valdis Lazdins, Director Department of Planning and Zoning Date

Staff Report Prepared by: Jill Manion-Farrar

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Attachment A
Recommended Conditions of Approval
Major Redline Plan Revision to SDP-15-068, Crescent Parcels A-1 thru A-3 and Future Parcel E

#### SPEED MEMO HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING DEVELOPMENT ENGINEERING DIVISION (410) 313-2420

То:	3909 Nation	an Little & Weber, P.A. nal Drive, Suite 250 , Maryland 20866	R	Date: July 19, 2016 eviewer: Heather Pandullo of sheets revised: 58(35rev,23add)
Subj	s <del></del>	POSED SITE DEVELOP	MENT PLAN REVI	SION
SDF	P-15-068 —	Downtown Columbia –	Crescent Area –	Parcel A
		the following changes on sheet(s) $\underline{1}$		development submitted with a letter dated 26-28,32-35 will be replacement sheets, 36-58
Revis	se site for Buil	ding B.		
	X	THE REVISIONS ARE	APPROVED, SUB	JECT TO THE FOLLOWING:
	ALL CH	ANGES MUST BE DON	NE IN BLACK INK	ON THE ORIGINALS.
Bikes 7/18/2 and re DPZ/I	hare Station". 2016. Revise sl number sheets OVD: Approve	Please revise the floor use area neet numbers on all sheets for a	s for A-2 as shown on the total of 58 sheets. On shoring Board Approval. Pl	tation" to read "Concrete Pad for Future e attached markup provided by email on neet 1 please remove 37A from the index anning Board is scheduled for August
*		*		X Attached Plans
MEMO IDENTI (410) 3	on file with Large AND PRIOR T IFYING THE CHA 13-2073. A distr	e Format Imaging Services located O ANY SUBSEQUENT CHANGE: ANGES. Arrangements to make the	at 3430 Courthouse Drive., S REQUESTED. A DATE ase changes can be made by eet is required at the time the	AL APPROVED SITE DEVELOPMENT PLAN WITHIN ONE WEEK OF RECEIPT OF THIS D NOTE MUST BE MADE ON THE PLAN contacting Large Format Imaging Services at ese changes are made to the originals. Make lion Division).
CG;	DILP/plan attach CID/plan attache DLD (2)/transmitt Zoning/transmitta File/plan attache	d alonly alonly d	Jim Witmer Development Eng	ineering Division
SF .	(To	"SELF" be filled out at the time originals	CERTIFICATION"	ese approved changes)
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"On	(Date)	1,	(Employee Name)	Certify that I have met all the conditions
Of appr	oval noted abov	(Firm Name) e, and I have made onlý those rev	isions approved."	20 thy that I have not all the conditions

H:\Heather Pandullo\COMMENTS\REDLINES\SDP\sdp-15-068-approved.doc



### HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING 3430 Courthouse Drive ■ Ellicott City, Maryland 21043 № 410-313-2350

Valdis Lazdins, Director

www.howardcountymd.gov FAX 410-313-3467 TDD 410-313-2323

July 18, 2016

Jay Hariharan Gutschick Little & Weber, P.A. 3909 National Drive, Suite 250 Burtonsville Office Park Burtonsville, MD 20866

RE:

Downtown Columbia, Crescent Area, Parcel A

SDP-15-068

Redline Revision - Substitute Originals Sheets 1-5,7,9,11-24,26-28,32-35,35-58

Dear Mr. Hariharan,

In response to your request to revise an existing site development plan by submitting replacement or additional sheet original mylars; the Division of Land Development will process the submission of the following:

- . 1. A completed "Site Development Plan Redline Mylar Submission" application for SDP replacement sheets.
- 2. A letter describing the purpose of the revised site development plan.
- 3. An original mylar(s) containing the project engineer's original seal and signature, a purpose statement added to the site plan sheet and the fitle block amended to indicate "Revised Site Development Plan".
- 4. Payment to the *Director of Finance* of a processing fee based upon \$100.00 per replacement or additional sheet and a distribution fee of \$3.00 per replacement or additional sheet. Please note, this fee does not include money for sheets changed by hand.
- 5. A copy of the executed Declaration of Covenants, Developer's Agreement or Advanced Deposit Order.
- 6. One copy of this letter.
- 45-Day deadline to submit the replacement or additional sheets (on or before September 1, 2016)

When the above is accepted, the site plans will be circulated for signature approval. Please contact Ms. Carol Stirn of the Department of Planning and Zoning at (410) 313-2350 to schedule an appointment to submit the revised SDP for signature approval. If you have any questions, please contact Jill Manion-Farrar at (410) 313-2350 or by email at jfarrar@howardcountymd.gov. If you have any questions regarding the "Red-Line Revision" please contact Heather Pandullo at (410) 313-2350 or by email at hpandullo@howardcountymd.gov.

Sincerely,

Jim Witmer

Development Engineering Division

cc: Jill Manion-Farrar; Department of Planning & Zoning Bob Ensor, Howard Soil Conservation District

Jim Hobson, Department of Inspection, License & Permits

Phyllis Watson, Real Estate Services Division, Department of Public Works

- 1. VEREIVE VIIL 2/11/1
  - A. TOTAL PROJECT AREA: 275,504 SQUARE FEET OR 6.32 AC.

207,907.

- B. LIMIT OF DISTURBED AREA: 248,728 SQUARE FEET OR 5.71 AC.
- C. PRESENT ZONING: NT (FDP DC-CRESCENT-1)
- D. PROPOSED USE OF SITE: OFFICE/COMMERCIAL, RETAIL, RESTAURANT, PARKING STRUCTURE
- F. FLOOR SPACE:

^	
12	
121	

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	<u>.</u>	_
1	1	

TOTAL:

LEVEL	RETAIL/ REST. (SF)	OFFICE (SF)
I	9,316	17,392
2-8		26,503
ROOF		4,994

9316

.

A-2

LEVEL	RETAIL/ REST. (SF)	OFFICE (SF)	
B	9,050 6,406	6,814 !4,137	
4 2-3 \$ 5	~~~	23,52*	*660 SF FLOOR SLAB OPENING
TOTAL:	15,822	114,129	23152
Γ DATA	نسا	\	Roof: 570

15,456

2. PĂRCEL 'A-I' AND 'A-2' DEVELOPMENT DATA A. OFFICE

I. A-I: PROPOSED OFFICE: 207,907 sf 2. A-2: PROPOSED OFFICE: 114,129 sf

TOTAL PROPOSED OFFICE: 322,036 sf

B. RETAIL (LOCATED ON THE FIRST FLOOR)

- 1. A-I: PROPOSED RETAIL: 1,062 SF 2. A-2: PROPOSED RETAIL: 4,031 SF TOTAL PROPOSED RETAIL: 5,093 SF
- C. RESTAURANT (LOCATED ON THE FIRST FLOOR)
  1. A-I: PROPOSED RESTAURANT: 8,254 sf
  - 2. A-2: PROPOSED RESTAURANT: 11,425 sf TOTAL PROPOSED RESTAURANT: 19,679 sf

3



2. SIT: 3. BU

4. BU

5. G

## DEPARTMENT OF PLANNING AND ZONING DIVISION OF LAND DEVELOPMENT REDLINE COMMENTS

July 18, 2016

RE: SDP-15-068, Crescent Parcel A, Building A-2, "Two Merriweather" (previously Building B)

The purpose of this redline is to revise the plans to reflect finalized details of Building B, including an expanded footprint and a revision of proposed uses (SF). This redlined SDP is required to go to Planning Board.

DLD believes the revised plans adequate address comments so that this project can be scheduled for Planning Board. This plan is scheduled for August 18. However, please respond to the comments below prior to the Planning Board meeting (preferable by July 28):

- 1. Thank you for the updates to the building square footages. There are some inconsistencies between plans, and between the chart on the plan and the tabulation on the plan (and in the reports) that must be corrected for Building A-2 (previously Building B). Please correct.
  - a. The chart provides 366 SF more in retail/restaurant in Building A-2. The tabulation matches what is provided in the parking and traffic studies and in the building drawings (15,456 SF) so it is assumed that is the correct square footage.
  - b. DPZ consulted with DILP regarding latest building square footage of Building A-2. Please make the changes to the office tabulation in the chart to floors 2-3 and 5 are 23,152 SF and the roof at 570 SF.
  - c. Continue to reflect any changes to the building use square footage as the plans progress.
- 2. Traffic and Parking Study: The parking is adequate with the provided use configuration. However, please make these updates to the study:
  - a. Please update the Traffic and Parking studies to match the final use tabulations on the site plan
  - b. Page 4, under the background information, it is stated that a 20% capture rate for peak weekend restaurant uses was assumed during the Merriweather Post Pavilion operating season. Provide additional information regarding what population is captured and what the effects on parking were. These details could not be gleaned from the tables on the report.
  - c. Update the Merriweather Parking Chart in Sheet 1 as needed if use square footage changes in the future
- 3. Thank you for the information on the loading area layout. Is there any chance that tenants will have deliveries received in trucks larger than box trucks or will they be required to receive deliveries in box trucks per tenant agreements? If the former, what options are available so as to not impede traffic circulation on public or private roads? Please respond to this issue ahead of Planning Board.
- 4. Update Note 35 on Sheet 1 to indicate how public art obligation for Building B may be addressed. Please see comments from DCCP regarding additional consideration for treatment on the east façade of the garage facing the amenity area, and consider the use of public art to address.
- 5. Please provide an updated timeline regarding fulfilling the public art requirements for Building A, including (but not limited to) a goal date for a contract between the artist and the development, the scope of work, and the projected date that the art will be installed.

- 6. Sheets 20 and 22: Upon further review with this resubmission, there is concern that the extension of plaza pavement into the sidewalk area would cause the 8' pedestrian sidewalk to get lost in the plaza it meanders around the planters. There is also concern that concourse furniture might bleed too close to the pedestrian zone. Therefore, we believe the Downtown Community Commons should end with the buildings and microbioretention, and the sidewalk concrete should be continuous across the plaza. Please see DCCP comments for further guidance. Update the Downtown Community Commons square footage accordingly.
- 7. Please add this following note on Sheets 20 and 22 of the plan: "There shall be a continuous and predictable 4 foot minimum clear pedestrian zone along the terrace patio. Furniture is to be by future tenant and may vary from current layout."
- 8. Sheet 22 Seatwall placeholder. Please indicate when a detail may be provided on the seat wall.
- 9. It is our understanding that the developer is reviewing the document regarding the revised pathway maintenance agreement sent to Howard Hughes Corporation in December 2015 due to the enhanced features of this plaza and pathway materials in front of Building A. Please provide a status update on the developer's review and response to this document. Please be advised that DPZ reserves the right to withhold final approval of this plan until agreement is reached on the revised maintenance parameters for this section of the pathway.
- 10. Sheet 37 While considerably shorter than initially scaled, DLD continues to have some concerns regarding the length of the 150' wall that have no vegetation to soften the façade of this prominently located building right along the multiuse pathway. DLD encourages designers to continue to consider ways to soften the building frontage and the wall at this location, not just from the road but from the multi-use pathway.
- 11. DPZ staff much preferred the streamlined cable boardwalk railing over the current proposed wood rail. The cables provided a more urban and open feel. Is there a reason that the wood system the cables?

**JMF** 



Subject:

Downtown Columbia, Crescent Neighborhood - June 27, 2016 Submission II

SDP-15-068 Redline Amendment

To:

Chad Edmondson, Chief

Division of Engineering Development

Through:

Kristin O'Connor, Chief

Division of Comprehensive and Community Planning

From:

Randy Clay, AICP, Planner 2

Division of Comprehensive and Community Planning

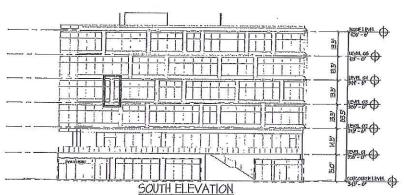
Date:

July 18, 2016

The Division of Comprehensive and Community Planning (DCCP) has reviewed the redline amendment for SDP-15-068 based on the approved Crescent Neighborhood Documents for the site. Based on its review, DCCP requests approval with the following conditions. Conditions for consideration by the Planning Board are noted. We thank you for the opportunity and are available to answer further questions, if needed.

#### 1. Building B South Elevation, Sheet 4:

 a. Per DAP response, the applicant is to remove/relocate the remaining vertical precast fin identified.



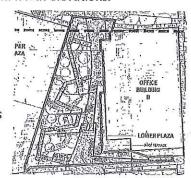
#### 2. Parking Garage Public Art:

- a. The tentative schedule provided by

  Cochran Studio indicates art selection for the west and north elevation by March 2016. Provide an updated project schedule based on the tentative Use and Occupancy timeline for Building A and garage.
- b. CONDITION OF APPROVAL: Provide additional measures to mitigate the visual impacts of the garage's east elevation on the central amenity space, Building A and Building B. Per the Design Guidelines, parking decks exposed to the public realm shall be screened with walls, architectural detailing, green screens or landscaping. The Planning Board is requested to consider introducing additional screening consistent with guideline standards, including in the form of public art similar to the west and north elevations.

#### 3. Community Commons, Sheet 20, L-101:

a. Although the walkway along the central, southern edge of the site include amenity area hardscape, it is not integral to the amenity area itself and primarily serves block circulation functions. Revise the delineated area for consistency with the diagram provided and revise the Community Commons calculation to 20,000 sf.



## ATTACHMENT B DAP RECOMMENDATIONS and APPLICANT RESPONSES FOR PLANNING BOARD CONSIDERATION

Gensler Meeting Notes

Due I e e 4		Project Number	
Project	m 16 1 11 11 11 10 0 5	Project number	10 (552 000
	Two Merriweather #16-05		19.6553.000
Meeting Location		Meeting Date	
☐ Via Telephone	George Howard Building	and/or Time	7:30-8:30 PM
	3430 Court House Drive, Ellicott City, MD 21043		3/9/2016
Meeting Subject		Meeting Number	
	Design Advisory Panel (DAP) Meeting Summary		01
	Response		
	Response	File	
			1MN
		This is page	11411.4
		inio to page	1 of 5
Present			1 01 5
resent	The Howard Hughes Corporation: John DeWolf, Gabe	Chung Bill Row	e Todd Brown
			e, rodd Brown
	DPZ Staff: Kristin O'Connor, Randy Clay, Lisa Kenne		
	Panel Members: Don Taylor, Phil Engelke, Bob Gorm	an, Sujit Mishra, J	ulie Wilson
	GLW: Natalya Basumallick		
	Gensler: Ronit Shafrir, Christopher Ireland, David Dyn	nond	
Distribution	Gensier. Rome Sharin, Simistophier installa, 24114 25		
	Peter Stubb / Gensler, Connie Fan, Amol Deshpande /	LSG	
	reter study / Gensier, Connie Pan, Amoi Deshpande /	Date Issued	
Prepared by		Date 1550eu	2/25/2016
	David Dymond		3/25/2016

Gensler will rely on these notes as the approved record of matters discussed and conclusions reached during this meeting unless written notice to the contrary is received by Gensler within seven calendar days of the issue date of these meeting notes.

Discussion

Action / Decisions Pending / Follow up

#### **RECOMMENDATIONS / AGENDA**

	otion	Motion By	Design Team Response
1		Don Taylor	During the DAP presentation, David Dymond expressed that the intent of the precast spandrel termination on the southwest corner was to imply the slab edge diving behind the curtainwall and resurfacing on the south façade as if penetrating through the building. After further investigation, the design team realized the rendering was not properly representing that relationship and the south curtainwall does appear to stop abruptly. The design team agrees with the motion and believes that by correcting the spandrel location, the transition around the corner will be smoother. In addition, the design team is studying removing and/or relocating some of the vertical fins at the southwest corner to further ease the transition. Please see Reference image 1 below.
2	"As you get further into design development of the open space, the bio-swale area and stair, that you consider some additional seating areas that punch out from the central stairway landings or lower level, to create an opportunity for people to sit within the landscape and to think about what the	Bob Gorman	The design team is studying an enlarged boardwalk at the south termination with additional seating opportunities. The team believes this additional gathering should be of the boardwalk material rather than extending the plaza into the bio-retention area due to the goal of reducing the bio-retention as little as possible. The team is studying the articulation of the

1 East Pratt Street Suite 202

\lgenslcr.ad\projects\19\19.6553.000\documentation\5 - design & specifications\5sd - schematic design, test fit\20160309 - dap presentation\20160322 two merriweather\_dap responses.docx Maryland 21202 Tel: 410.539.8776 Fax: 410.539.8741 Baltimore

Pr	oject						
	Two Merriweather #16-05		19.6553,000				
M	7:30-8:30 PM		This is page 2 of 5				
	3/9/2016						
DI	scussion		Action / Decisions Pending / Follow up				
	(Continued) landscape materials are and how you might mitigate the one wall, if there is an opportunity to do that." Seconded DAP Vice Chair Don Taylor.		(Continued) wall of concern as well as extending the vegetation vertically along the surface. Please see <b>Reference Image 2</b> below.				
3	"The applicant think about the main entrance and how it's related to the main plaza, and how it's more focused, and then study more the solar orientation and how it's affecting the overall glass façade." Seconded by DAP member Bob Gorman.	Sujit Mishra v	The design team agrees with the intent of the comment and will continue to study solutions to respect alignments, ground floor sightlines, and plaza relationships to the main entrance. The team will balance these factors with the functional requirements of the lobby and the leasable space. The design intent is to create a 3-dimensional and multi-directional public and retail experience  The design team is performing an energy model in Revit in collaboration w/ Autodesk to study energy, day lighting, and solar performances that will assist us in informing the façade development.				
4	"That as you're developing your wayfinding strategy you consider a 360 approach, that maybe not today, but very quickly, people will be coming into this project from all sides and i would be good to consider that now." Seconded by DAP member Julie Wilson.	Phil Engelke	The design team agrees with the comment and will address the 360 degree nature of the future pedestrian route – particularly at the intersection of Divided Sky Lane and Grantchester Way and the entrance to the roundabout. See <b>Reference Image 4</b> .				

#### Gensler

Project		Project Number
	Two Merriweather #16-05	19.6553.000
Meeting Date		This is page
	7:30-8:30 PM	3 of 5
	3/9/2016	
Discussion		Action / Decisions Pending / Follow up
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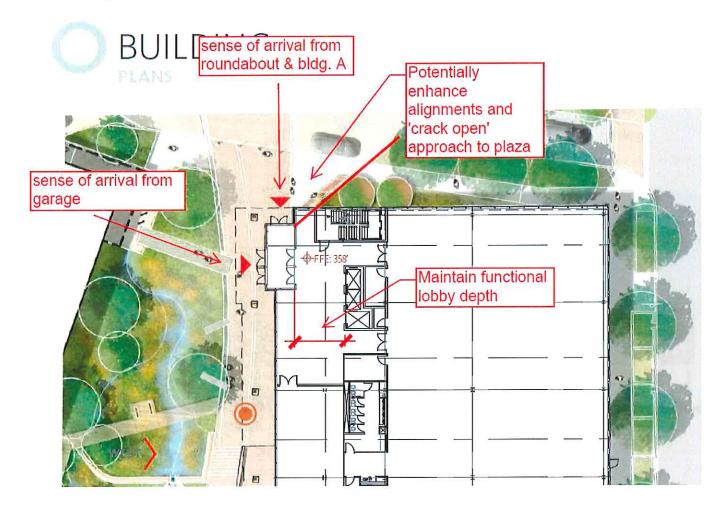
#### Gensler

Project		Project Number
	Two Merriweather #16-05	19.6553.000
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	3/9/2016	
Discussion		Action / Decisions Pending / Follow up



#### Gensler

Project		Project Number
	Two Merriweather #16-05	19.6553.000
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#### Gensler

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	7:30-8:30 PM	6 of 5
	3/9/2016	
Discussion		Action / Decisions Pending / Follow up



#### Attachment C CEPPA Status Summary SDP-15-068, Crescent Parcels A-1 thru A-3

1	HHC completed at its evenence an environmental accomment of the three cub watershode of	Complete
Ţ.	HHC completed at its expense an environmental assessment of the three sub-watersheds of Symphony Stream, Wilde Lake and Lake Kittamaqundi located upstream of the Merriweather & Crescent Environmental Enhancements Study area.	Complete
2	HHC will commission at HHC's expense (i) the preparation of the Land Framework component of the Downtown Columbia Sustainability Program and (ii) a detailed outline for the Community Framework component of the Sustainability Program.	Complete
3	HHC will commission at HHC's expense in consultation with Howard County a study evaluating a new Downtown Columbia Route 29 interchange between Route 175 and Broken Land Parkway and options for a connection over Route 29 connecting Downtown Columbia to Oakland Mills, including potential bicycle, transit and multimodal improvements.	Complete
4	HHC will prepare at its expense Downtown-wide Design Guidelines.	Complete
PRIOF	TO APPROVAL OF THE FIRST FINAL DEVELOPMENT PLAN	1
5	HHC will commission at HHC's expense and in consultation with Howard County one or more feasibility studies for the following: (i) a new Broken Land Parkway/Route 29 north/south collector road connection to Little Patuxent Parkway and (ii) a new Downtown transit center and Downtown Circulator Shuttle.	Complete
6	HHC and Howard County will jointly determine the functions, organizational structure, implementation phasing schedule consistent with the redevelopment phasing schedule, potential funding sources and projected funding needs of the Downtown Columbia Partnership, prior to HHC's establishment of this Partnership. As such, at least fifty percent (50%) of the revenue collected pursuant to CEPPA No. 25 shall be utilized for the implementation of transportation initiatives in the shuttle feasibility study or other direct transit services downtown.	Complete
	TO APPROVAL OF THE FIRST SITE DEVELOPMENT PLAN	
7	HHC will submit a phasing schedule for implementation of the restoration work on HHC's property and a Site Development Plan for the first phase of the environmental restoration work as described in CEPPA No. 15.	Complete
8	HHC, in collaboration with the County, will establish the Downtown Arts and Culture Commission, an independent nonprofit organization, to promote and support Merriweather Post Pavilion's revitalization in accordance with this Plan and the development of Downtown Columbia as an artistic and cultural center.	Complete
PRIOF	TO ISSUANCE OF THE FIRST BUILDING PERMIT	
9	To facilitate the renovation of the Banneker Fire Station, HHC and the County shall cooperate to identify a site for the development of a temporary fire station while the Banneker Fire station is being renovated.	Complete
	ISSUANCE OF THE FIRST BUILDING PERMIT	
10	HHC shall contribute \$1.5 million in initial funding for the Downtown Columbia Community Housing Fund. Payment will be contingent upon the expiration of all applicable appeal periods associated with each building permit without an appeal being filed, or if an appeal is filed upon the issuance of a final decision of the courts upholding the issuance of the permit.	Complete
JPON	ISSUANCE OF THE BUILDING PERMIT FOR THE 400 <sup>th</sup> RESIDENTIAL UNIT	
11	HHC shall contribute \$1.5 million in additional funding for the Downtown Columbia Community Housing Fund. Payment will be contingent upon the expiration of all applicable appeal periods associated with each building permit without an appeal being filed, or if an appeal is filed upon the issuance of a final decision of the courts upholding the issuance of the permit.	Complete
DIOF	TO ISSUANCE OF A BUILDING PERMIT FOR THE 500,000 <sup>th</sup> SF OF DEVELOPMENT	
12	HHC will complete at its expense the pedestrian and bicycle pathway from the Howard County General Hospital to Blandair Park. In addition, HHC along with the County and community will develop a scope of work for renovation of the existing Route 29 pedestrian bridge. HHC will contribute up to \$500,000 towards the implementation of the selected improvements.	Completed by Bond per Alternative Compliance approved on 8/20/15; pathway construction in progress

13	HHC will enter into and record in the land records of Howard County, Maryland, a declaration of restrictive covenants that shall prohibit the demolition or major exterior alteration of the former Rouse Company Headquarters building.	Complete
PRIOR	TO ISSUANCE OF A BUILDING PERMIT FOR THE 1,300,000 <sup>th</sup> SF OF DEVELOPMENT	
14	HHC in cooperation with Howard Transit shall identify a location in Downtown Columbia for a new Howard County Transit Center and shall provide a location either by fee transfer at no cost or a long-term lease for a nominal sum subject to all applicable laws and regulations.	PENDING – no site identified to date
15	HHC will complete environmental restoration projects in the Merriweather-Symphony Woods and Crescent areas.	PENDING – Revised timing approved with FDP- DC-Crescent-1 to time completion of sections of environmental restoration with grading of development areas in the Crescent. Neighborhood. Restoration Plans
		have been approved with F-15-106.
16	HHC will complete Phase I of the Merriweather Post Pavilion redevelopment program.  TO APPROVAL OF THE SITE DEVELOPMENT PLAN FOR THE 1,375 <sup>th</sup> NEW RESIDENTIAL U	Complete
17	HHC shall, if deemed necessary by the Board of Education, reserve an adequate school site or provide an equivalent location within Downtown Columbia.	PENDING
	TO ISSUANCE OF A BUILDING PERMIT FOR THE 2,600,000 <sup>th</sup> SF OF DEVELOPMENT	DENDINO
18	HHC will construct at its expense, the Wilde Lake to Downtown Columbia pedestrian and bicycle pathway.	PENDING
19	HHC will construct at its expense the Lakefront Terrace (steps to the Lake) amenity space and pedestrian promenade.	PENDING
20	HHC will complete Phase II of Merriweather Post Pavilion redevelopment program.	PENDING – under construction
	TO ISSUANCE OF A BUILDING PERMIT FOR THE 3,900,000 <sup>th</sup> SF OF DEVELOPMENT	
21	HHC will complete Phase III of Merriweather Post Pavilion redevelopment program.	PENDING
22	At least one Downtown Neighborhood Square shall be completed and deeded to Howard County for public land.	PENDING
	TO ISSUANCE OF A BUILDING PERMIT FOR THE 5,000,000 <sup>th</sup> SF OF DEVELOPMENT	1
23	HHC will provide \$1,000,000 towards the initial funding of a Downtown Circulator Shuttle.	PENDING
24	Transfer of Merriweather Post Pavilion to the Downtown Arts and Culture Commission for zero dollar consideration.	PENDING
PRIOR '	TO THE APPROVAL OF EACH FINAL DEVELOPMENT PLAN	
25	Each owner of property developed with commercial uses shall pay an annual fee of twenty-five cents (\$0.25) per square foot of Gross Leasable Area for office and retail uses and twenty-five cents (\$0.25) per square foot of net floor area for hotels to the Downtown Columbia Partnership.	On-going
	SSUANCE OF ANY BUILDING PERMIT FOR A BUILDING CONTAINING DWELLING UNITS	
26	To fulfill an affordable housing obligation, each developer will pay a per unit fee to the DCCHF in the following amounts: \$2,000/unit for each unit up to and including the 1,500th unit; \$7,000/unit for each unit between the 1,501th unit up to and including the 3,500th unit; \$9,000/unit for each unit between the 3,501st unit up to and including the 5,500th unit.	On-going
ADDITIO	ONAL CEPPA CONTRIBUTION	
27	Each owner of property developed with commercial uses pursuant to the Downtown Revitalization Zoning Regulations shall provide an annual payment to the DCCHF in the amount of five cents (\$0.05) per square foot of Gross Leasable Area for office and retail uses, and five cents (\$0.05) per square foot of net floor area for hotels. The payment will be made annually by the property owner, with the initial payment being made prior to the issuance of an occupancy permit for net new commercial development on the property. The amount of the charge will be subject to annual adjustment based on a builder's index, land value, or other index provided in the implementing legislation.	On-going

## Attachment 'D' Relevant Definitions Relating to Downtown Columbia Revitalization For SDP-15-068

#### 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 Arts, Cultural and Community Use</u>: Land areas, uses and facilities established for cultural, civic, recreation, educational, environmental, entertainment or community use or benefit, whether or not enclosed and whether publicly or privately owned or operated for profit, including, but not limited to, libraries, fire stations, schools, museums, galleries, artistic work, and transit facilities. Eating, seating and gathering areas that are accessory to these uses are permitted.

<u>Downtown Arts and Entertainment Park:</u> A contiguous area including a large outdoor amphitheater which may be surrounded by a variety of smaller indoor or outdoor artistic and performance spaces, museums, galleries and similar cultural or educational uses in a park-like setting. Ancillary uses such as food vendors, gift shops, small restaurants and 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 are also permitted.

<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, Phase111-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 Environmentally Sensitive Land Area</u>: An area within Downtown Columbia meeting the definition in the Howard County Land Development Regulations of either a floodplain, steep slope, stream or wetland buffers.

<u>Downtown Maximum Building Height Plan</u>: The plan which graphically represents the maximum building height requirements for all Downtown revitalization, as depicted in the Downtown Columbia Plan.

<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 Neighborhood Square</u>: An outdoor amenity space comprised of not less than 25,000 contiguous square feet, exclusive of bike paths and required sidewalks that might be located along its perimeter. A Downtown Neighborhood Square may be covered or partially covered.

<u>Downtown Net New</u>: As applicable, the number of dwellings, hotel and motel rooms, and the amount of gross floor area of commercial office and commercial retail uses that are permitted under the Downtown Revitalization Approval Process after April 6, 2010 in excess of the number of dwellings, hotel and motel rooms, and gross floor area of commercial office and commercial retail uses that are shown on a Site Development Plan for property located within Downtown Columbia that was approved prior to April 6, 2010.

<u>Downtown Open Space Preservation Plan</u>: A plan included in the Downtown Columbia Plan delineating all land in Downtown Columbia designated as open space on a Final Development Plan recorded prior to April 6, 2010 that is required to retain its existing character as: Downtown Environmentally Sensitive Land; Downtown Parkland; Downtown Community Commons; or a Downtown Arts and Entertainment park, as specified in Section 125.A.9.H.

<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 Primary Amenity Space Framework Diagram</u>: A plan and associated text included in the Downtown Columbia Plan depicting existing and proposed primary amenity and natural spaces in Downtown Columbia.

Downtown Public Art: 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.

<u>Downtown Signature Building</u>: An existing or proposed structure which requires premiere attention to its architectural design because of its cultural significance or prominent location in relationship to the public realm, such as its position on a street or open space, or as the terminus of a vista.

<u>Downtown-wide Design Guidelines</u>: General urban design guidelines for Downtown Revitalization adopted by the Howard County Council.

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

## ATTACHMENT E SDP-15-068-Crescent Parcel A and E FDP-DC-Crescent-1 – Adopted Conditions of Approval for consideration with Criteria B

- 1. The Petitioner must adequately address all remaining technical comments provided by the Subdivision Review Committee in the letter dated February 20, 2015.
- 2. The Petitioner must incorporate the changes to the Neighborhood Boundary on the Neighborhood Concept Plan and Final Development Plan and to the Downtown Community Commons calculations on the Neighborhood Concept Plan as shown on Exhibits 6 and 7.
- 3. The Petitioner must change the language of Merriweather Post Pavilion parking note on Sheet 1 of the Final Development Plan from "on- or off-site" to "within Downtown".
- 4. Consideration would be given as the site plans (sic. site development plans) for particularly Area 1 but even the other (sic. development) areas would be looked at in more detail with the idea that there needs to be some kind of a more open area that is less structured that would provide some opportunities for some unstructured recreation.
- 5. The Petitioner should work to address the off-site forest restoration (SS-S5) as soon as possible.

#### GENERAL NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MEHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY THE BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST 48 HOURS PRIOR TO THE START OF NORK.
- 8. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT I-800-25T-TTTT AT LEAST 48-HOURS PRIOR TO ANY EXCAVATION WORK.
- . PROJECT BACKGROUND:
- LOCATION: TAX MP 36

  ZOMINS-PROFERTY IS ZOBED NEN TOWN PER THE 2018 COMPREDIBITY E ZOMING-PLAN AND IS

  DESIGNATED AS DONNTOWN MXDD LEE AREA. ADDITIONALLY, THE PROJECT AREA IS

  SIBJECT TO THE DONNTOWN COLUMBA PLAN A GENERAL PLAN AMENOMENT EFFECTIVE

  APRIL 6, 2010.

  ELECTION DISTRICT. FIFTH ELECTION DISTRICT

  RECORD PLAN TWO: 25865-25866

  DESTRUCTION PROFECTION PROFESSION 1, ECP 15-074, F 15-0748

- TOPOGRAPHIC AERIAL SURVEY WAS PERFORMED ON MARCH 2001 BY MCKENZIE SNYDER AND TOPOGRAPHIC FIELD SURVEY ON AUGUST, 2011 BY GUTSCHICK, LITTLE AND WEBER,
- , 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 DY GUTSCHICK LITTLE IN HEBBR, PA. THE CONTRACTOR MIST DIG TEST PITS BY HAND AT ALL UTILITY GROSSINGS AND CONNECTION POINTS TO VERIFY EXACT LOCATION.
- . SPOT ELEVATIONS SHOWN FOR CURB ARE BOTTOM OF CURB UNLESS OTHERWISE NOTED
- . ALL PLAN DIMENSIONS ARE TO THE FACE OF BUILDING OR CURB UNLESS OTHERINSE NOTED. DIMENSIONS ARE MEASURED PERFENDICULAR OR RADIAL BETWEEN ITEMS UNLESS NOTED OTHERWISE
- . THERE ARE NO KNOWN GRAVE SITES, CEMETERIES, FLOOD PLAINS OR NETLANDS ON SITE. WETLANDS AND FLOODPLAIN ARE PRESENT ADJACENT TO THIS SITE BUT ARE NOT BEING DISTURBED UNDER THIS PLAIN
- 3 WATER SERVICE IS PUBLIC (CONTR #24-4426-D)
- SEMER SERVICE IS PUBLIC (CONTR. #24-4928-D).
- TRAFFIC IMPACT STUDY: BASED ON WELLS & ASSOCIATES AUGUST 26, 2015 CRESCENT NEIGHBORHOOD AREA I TRAFFIC IMPACT STUDY AND UPDATED PER ADDENDUM DATED. JUNE 24.
- THE PROJECT IS EXEMPT FROM FOREST CONSERVATION REQUIREMENTS OF SECTION 16J200 OF THE HOWARD COUNTY CODE SECTION 16J202(B)(I)(IV) (PUD INTH A POP APPROVED PRIOR TO 12/31/42).
- I. 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 CONFLICTS.
- APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE ESISTING UTILITIES AND PARNITAIN INNERSPIPED SERVICE. AND PANAGE MICRIED DIE OLOMIRACTIONS OPERATION SHALL BE REPAIRED INHEDIATELY AT THE CONTRACTOR'S EXPENSE, EXISTING UTILITIES ARE SHOWN BASED ON THE BEST AVAILABLE INFORMATION. I, NOTE: IN CASE OF DISCREPANCIES BETWEEN THE PLAT AND THE PLANS, THE PLAT SHALL GOVERN
- O. ALL OUTDOOR LIGHTING SHALL BE ORIENTED TO DIRECT LIGHT INVARDS AND DOWNVARDS ON-SITE AWAY FROM ALL ADJOINING PUBLIC ROADS AND IN ACCORDANCE WITH SECTION 134 OF THE HOWARD CAINTY ZOWNS BEFULL ATOMS. THE LANDSCARE PLAN WAS PREPARED ACCORDING TO THE ALTERNATIVE COMPLIANCE SECTION OF THE LANDSCARE MANUAL THE LANDSCARE PLANS HAVE BEEN PREPARED BY A REGISTERED LANDSCAPE ARCHITECT AND IS CERTIFIED TO MEET THE DESIGN INTENT OF THE CRESCENT NEIGHOORNOOD DESIGN GUIDELINES.
- 2. THE MINIMA BUILDING SETBACKS RESTRICTIONS FROM PROPERTY LINES AND PUBLIC ROAD RIGHTS OF HAY ARE TO BE IN ACCORDANCE WITH FDP-DC-CRESCENT-I AND CRESCENT NEIGHBORNICOD DESIGN GUDELINES.
- 3. THE PROPOSED BUILDINGS WILL HAVE AN AUTOMATIC FIRE SUPPRESSION SPRINKLER SYSTEM.
- MATHIS PROPERTY IS SUBJECT TO THE CRESCENT NEIGHBORNOOD SPECIFIC DESIGN GUIDELINES (NSDG), RECORDED IN L. 1830; F. 45; THE CRESCENT NEIGHBORNOOD SPECIFIC IMPLIBENTATION PLAN (NSIE), RECORDED IN L. 1830; F. THE CRESCENT MISSERSHOOD CONCEPT FLAN (NCP) RECORDED AS PLAN NOS, 2394T INSI 23402 AND THE CRESCENT FINAL DEVELOPMENT FLAN (TUPP-DC-CRESCENT)—RECORDED AS PLAN 105; 2300 THR 12340).

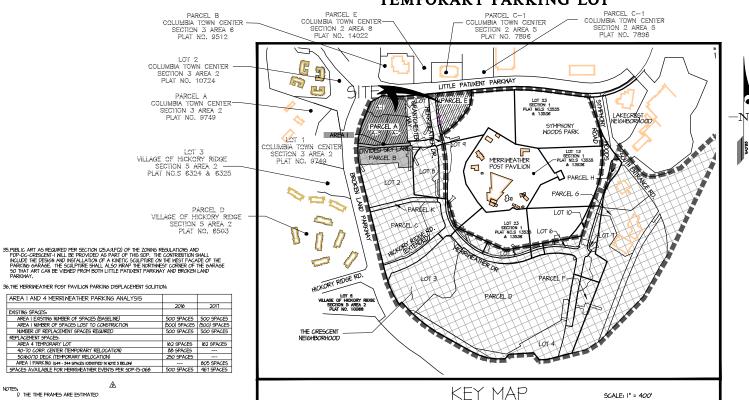
  5. BULLIONS 'A' OF THIS PROJECT IS REGISTERED WITH THE GREEN BUILDING CERTIFICATION INSTITUTE FOR LEED CERTIFICATION, PROJECT OF THE STRENG THE ST
- FOR LED CERTIFICATION, PROJECT ID. BIOCOCOSTINA.

  FOR DISCOSPINAL SERVINE SINCE PROVIDED INTH A OREAGE INTERCEPTOR, MANTEMATER DRAINS CONTRAINES CONCENTRATIONS OF FAITS, OILS AND GREAGES HIST DESIGNATED FROM OTHER SOURCES OF MASTEMATER AND SHALL PASS HIGHLIGH A OREAGE INTERCEPTOR PRIOR TO ENTER SOURCES OF MASTEMATER AND SHALL PASS HIGHLIGH A OREAGE INTERCEPTOR FROM THE STREAM OF THE SOURCE OF MASTEMATER FROM REST ROOMS AND GARDAGE GRINDERS SHALL PROVIDED THE SHALL PROVIDED THE SHALL PROVIDED THE SHALL PROVIDED THE SHALL BE FLACED IN AN AREA ACCESSIBLE FOR CLEANING THE OREAGE INTERCEPTORS HALL BE FLACED IN AN AREA ACCESSIBLE FOR CLEANING THE OREAGE INTERCEPTORS HALL BE FLACED IN AN AREA ACCESSIBLE FOR CLEANING THE OREAGE INTERCEPTORS HALL BE FLACED IN AND SHALL HAVE A NIMINAL SHALL BE FOR CALLED THE OWNER OF THE SHALL BE FLACED IN AN AREA ACCESSIBLE FOR CLEANING THE OREAGE INTERCEPTOR HALL PROVIDED THE OWNER OF THE SHALL BE FLACED IN AN AREA ACCESSIBLE FOR CLEANING THE OREAGE INTERCEPTOR HALL PROVIDED THE OWNER OF THE SHALL BE PROVIDED THE OWNER OF THE SHALL PROVIDED THE OWNER OF THE SHALL PROVIDED THE OWNER OF THE SHALL PROVIDED THE AND THE SHALL PROVIDED THE AND THE AND THE SHALL PROVIDED THE AND THE AND THE AND THE SHALL PROVIDED THE SHAL
- . Surety for the regulard landscaping in the amount of \$13,700 shall be posted with the developer's agreements, landscaping within the Micro-Bioretention facilities will faf ED-ELIOPERS AGENETIS L'ALOSCAPINS MININ TIE MICCO-BIOCETÈTICO FACLITIES MILL DE AGESSEDO DA PATO DI TE DEPRANDIT OF PIAI DE MONS BIO-DETETION (SIETY). THERE MILL DE 20 STREET TREES PLANTED IN THE BROCCHI L'AND PARCINAY AND LITTLE PATIVISHT PARKINAY RIGHTS-OF-MAY AND THE 4800 PER TREE SURETY MILL DE POSTED MITH THE COST ESTIMATE MITH THE DPM DEVELOPERS AGENCIEN.
- OHALTH DEPARTMENT APPROVAL OF THIS SITE DEVELOPMENT PLAN (SOP) DOES NOT ENGAGE APPROVAL OF BUILDING FEMAL APPLICATIONS ASSOCIATED WITH THIS PLAN FRRIT PLANS FOR CRITIAN FACALITIES TO BE CORRECTED WITH THIS DESCRIPED OF THIS SOP PLANS FOR CRITIAN FACALITIES OF THIS SOP PLANS FOR THIS DESCRIPED OF THIS SOP PLANS FOR THIS DESCRIPED OF THIS SOP PLANS FOR THIS PLANS FO
- AT THE TIME OF SOP APPROVAL, THE SITE IS UNDER PHASE I OF THE DOWNTOWN REVITALIZATION PROSPESSION.
- I, THERE ARE HIGHLY ERODIBLE SOILS ON SITE, MORE STRINGENT SEEDING AND STABILIZATION METHODS MAY BE EXPECTED. SOIL TABLE PROVIDED ON SHEET 9.
- REQUIREMENTS FOR SECTION (6.144(b))(g) HAVE BEEN WAIVED FOR AREAS I AND 2, DEFINED AS PARCELS A-C ON THE FINAL DEVELOPMENT PLAN BY WAIVER WP-15-144 GRANTED BY THE DIRECTOR OF THE DEPARTMENT OF ANNUAL AND ZONIVAL.

	PROVED D OF HOWARD COUNTY
Date:	
APPROVED: FOR PUBLIC HOWARD COL	WATER & SEWERAGE SYSTEM INTY HEALTH DEPARTMENT
County Health Officer	Date
APPROVED: HOWARD CO	UNTY DEPARTMENT OF PLANNING &
Director	Date
Chief, Division of Land Dev	relopment Date

#### SITE DEVELOPMENT PLAN DOWNTOWN COLUMBIA CRESCENT NEIGHBORHOOD

PARCELS 'A-1', 'A-2', 'A-3', AND PARCEL 'E' MIXED USE GREEN OFFICE, RETAIL AND RESTAURANT BUILDINGS AND TEMPORARY PARKING LOT



Community Enha	ancements, Programs and Public Amenities (CEPPAs) Tracking Table	
Dawntown Colu	mbia Plan	
latisfied		
CHPPA	Trigger	Nativis
1	Prior to Submission of First FDP	Satisfied
2	Prior to Submission of First FDP	Satisfied
3	Prior to Submission of First FDP	Satisfied
4	Prior to Submission of First FDP	Satisfied
5	Prior to Approval of First FDP	Satisfied
6	Prior to Approval of First FDP	Satisfied
7	Prior to Approval of First SDP	Satisfied
8	Prior to Approval of First SDP	Satisfied
9	Prior to the Issuance of the First Building Permit	Satisfied, See FDP-DC-CRESCENT-1
10	Upon Issuance of the First Building Permit	Satisfied
11	Upon Issuance of the Building Permit for the 400th Residential Unit	N/A
12	Prior to Issuance of a Building Permit for the 500,000th SF of Development (Pathway SDP only)	Completed by Bond per Alternative Compliance approved on 8/20/15
13	Prior to Issuance of a Building Permit for the 500,000th SF of Development	Satisfied
uture CEPPA	s	
14	Prior to Issuance of a Building Permit for the 1,300,000th SF of Development	See FDP-DC-CRESCENT-1
15	Prior to Issuance of a Building Permit for the 1,300,000th SF of Development	See FDP-DC-CRESCENT-1
16	Prior to Issuance of a Building Permit for the 1,300,000th SF of Development	Complete
17	Upon Issuance of the Building Permit for the 1,375th Residential Unit	N/A
18	Prior to Issuance of a Building Permit for the 2,600,000th SF of Development	N/A
19	Prior to Issuance of a Building Permit for the 2,600,000th SF of Development	N/A
20	Prior to Issuance of a Building Permit for the 2,600,000th SF of Development	N/A
21	Prior to Issuance of a Building Permit for the 3,900,000th SF of Development	N/A
22	Prior to Issuance of a Building Permit for the 3,900,000th SF of Development	N/A
23	Prior to Issuance of a Building Permit for the 5,000,000th SF of Development	N/A
24	Prior to Issuance of a Building Permit for the 5,000,000th SF of Development	N/A
25*	Prior to Approval of First FDP	First payment amount determined at certificate of occupancy issuance
26**	Upon Issuance of Any Building Permit for a Building Containing Dwelling Units	N/A
27**	Additional CEPPA Contribution	Final amount determined at certificate of occupancy issuance
	is escalated with the Consumer Price Index for All Urban Consumers (CPI U) for the Weshington Baltimare Area, published by Bare	· · ·
'Actual amount	t is escalated with the Engineering News-Record Building Cost Index, beginning April 6, 2011 and adjusting annually,	

#### HC CONTROL STATIONS

30GA NORTHING: 566,053.5919 EASTING: 1,352,117.5901 ELEVATION: 393,4510 (LATEST ADJ. NOV. 2008) 30GA NORTHING: 562,804,8531 EASTING: 1,349,06110 ELEVATION: 393,4510 (LATEST ADJ. NOV. 2008)

SENERAL SITE DATA

A. TOTAL PROJECT AREA, 275504 SQUARE FIET OR 6,82 AC.

B. LIMIT OF DISTURBED AREA, 246,728 SQUARE FIET OR 5,11 AC.

C. PRESENT ZONINS, NT (PID PC-CRESCENT-1)

D. PROPOSED USE OF 9115. OFFICE/COMMERCIAL, RETAL, RESTAURANT, PARKINS STRICTURE

PARKINS STRICTURE

RETAIL/ REST. OFFICE (SF)

2. PARCEL 'A-I' AND 'A-2' DEVELOPMENT DATA A. OFFICE

LA-1: PROPOSED OFFICE: 201/901 sf 2. A-2: PROPOSED OFFICE: 114/24 sf TOTAL PROPOSED OFFICE: 322/036 sf

B. RETAIL (LOCATED ON THE FIRST FLOOR)
I, A-I: PROPOSED RETAIL: I,062 of
2. A-2: PROPOSED KETAIL: 4,031 of
TOTAL PROPOSED RETAIL: 5,043 of

C. RESTAIRANT (LOCATED ON THE FIRST FLOOR)
I. A-I: PROPOSED RESTAIRANT: 8,254 sf
2. A-2: PROPOSED RESTAIRANT: 11,425 sf
TOTAL PROPOSED RESTAIRANT: 11,425 sf

FSTIMATED PARKING DEMAND

RETAIL

OFFICE:

LEVEL 2

LEVEL 3

LEVEL 5

LEVEL 6

LEVEL 8

LEVEL 9

NOTE:

PURPOSE NOTE: THE REVISIONS MADE TO THIS SHEET REFLECT CHANGES RESULTING FROM THE EXPANSION OF

THE BUILDING 'B' FOOTPRINT AND DESIGN. THIS PLAN

SUPERCEDES THE PLAN SIGNED ON 12/18/2015.

TOTAL PARKING STRUCTURE SPACES:

SEE FINAL PLANS (F 15-098) FOR ADDITIONAL INFORMATION ON IMPROVEMENTS TO THE ADJACENT ROADWAYS.

TOTAL ON STREET SPACES (DIVIDED SKY LN). IT PARALLEL PARKING SPACES

ADDITIONAL NON-CREDITED SPACES (NOT COUNTED TOWARD GRAND TOTAL), IS

GRAND TOTAL PARKING SPACES PROVIDED: 1,134 SPACES

CEPPA Status as at November IO. 2015.

CEPPA II - Not Applicable.

CEPPA 26 - Not Applicable.

CEPPAs I-IC, I3 and I6 - Satisfied. Per PDP-DC-Crescent-I a final determinate of the fire station site (CEPPA 4) must be made prior to approval of the first SDP within Crescert Area 2 (not here applicable).

CEPPA 12 - Alternative timing approved by Flaming Board decision obtaid August 21, 2015. The 4500,000 aved for the Route 24 pedestrian bridge must be neverted by the County.

CEPPA 14 - At this time it is believed the most likely location for a new transit center will be within the Symphony Overlook

CEPPA 15 - Alternative timing approved in FDP-DC-Cre

CEPPA 17-24 - Should not be triggered by this SCP.

CEPPAs 25 - 27 - Pauments will be made as required.

CUMULATIVE TRIP GENERATION

45DP-15-068 - BUILDING A 351 30 \*SDP-15-068 - BUILDING B 240 211 \*\*TOTAL 591 514 RESTAURANT

D. INFORMATION FOR CUMULATIVE DOWNTOWN TRACKING CHART USE:

RETALL/RESTAURANT: 24,T12 gross square feet OFFICE: 322,036 gross square feet TOTALS: 346,808 gross square feet

 PARKING REQUIREMENTS: IN ACCORDANCE WITH SECTION 193.E.3 SHARED PARKING METHODOLOGY AND PARKING RATIOS. A SHARED PARKING ANALYSIS MAS INCLUDED WITH THIS SDP AND THE MAXIMUM MONTHLY PARKING DEMAND IS SUMMARIZED BELOW. MONTH, DECEMBER FEAK PERIOD, 2 PM WEEKDAY, 8 PM WEEKEND

() ESTIMATED PARKING DEMAND IS FOR BOTH PARKEL A-I AND PARKEL A-2 DEVELOPMENT 2) FINAL PARKING REGUIREMENTS WILL BE DETERMINED AT TIME OF OCCUPANCY PERMIT(S) BASED ON SECURIO USES AND SCAMPE FOOTAGE.

4,316 --

TOTAL: 4,316

17,392 26,503 4,994

201,901

LEVEL

A-2

LEVEL RETAIL/ REST. OFFICE (SF)

I/O2 SPACES (2 PM NEEKDAY) 4I1 SPACES (8 PM NEEKEND)

125 SPACES TOTAL (4 STD. HANDICAP SPACES) (6 VAN HANDICAP SPACES) (4 LOW EMISSIONS SPACES)

129 SPACES TOTAL (2 STD. HANDICAP SPACES) (6 LOW EMISSIONS SPACES)

I3I SPACES TOTAL (2 STD. HANDICAP SPACES, (4 LOW EMISSIONS SPACES, (12 COMPACT SPACES)

131 SPACES TOTAL (2 STD. HANDICAP SPACES) (4 LOW EMISSIONS SPACES) (12 COMPACT SPACES)

6,814 14,137 23,152\* 23,152

\*660 SF FLOOR SLAB OPENING

VICINITY MAP

ADC MAP PAGE 33, GRID AI

#### SHEET INDEX A

COVER SHEET SITE DEVELOPMENT PLAN - PARCEL A BUILDING PLANS & ELEVATIONS - I BUILDING PLANS & ELEVATIONS - II GRADING PLAN - PARCEL A SITE DEVELOPMENT FAN. - PARCEL A
BILLIONS PLANS I ELEVATIONS - I
BILLIONS PLANS I ELEVATIONS PLANS - PARCEL E
BILLIONS PLANS I ELEVATIONS PLANS - PARCEL E
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BENERAL SOTES, I MANTENANCE SCHEDULES - I
BENERAL SCHEDULES - I
BENERAL SOTES, I MANTENANCE SCHEDULES - I
BENERAL SCHEDULES - I
BENERAL

CUMULATIVE DOWNTOWN COMMUNITY COMMONS TRACKING CHART FDP-DC-CRESCENT-I owntown Community Commons (DCC) Requirement: 149,909 SF SDP No. Parcel DGC Area Provided (SF) Surplus by Parcel (SF) 5DP 15-068 A-IA-2A-3 20,000 🛦

> ADDRESS CHART BUILDING A (A-I) 10980 GRANTCHESTER WAY BUILDING B (A-2) 10960 GRANTCHESTER WAY PARKING GARAGE (A-3 10970 GRANTCHESTER WAY

TOTAL BICYCLE PARKING "SPACES" PROVIDED ON THE SITE AND IN THE GARAGE. 36 (14 ON THE SITE 24 IN PARKING GARAGE)/6ADDITIONAL SPACES TO BE PROVIDED HITH BUILDING B" CONSTRUCTION. PERMIT INFORMATION CHART SECTION/AREA PARCEL SUBDIVISION NAME: DOWNTOWN COLUMBIA PARCELS A-IA-2A-2 CENSUS TRACT LAT No. PARCEL ZONE TAX MAP BLOCK ELEC, DIST, 527 6054

SEWER CODE:

REVISED COVER SHEET DOWNTOWN COLUMBIA CRESCENT NEIGHBORHOOD

SCALE 70NING G. L. W. FILE No. NT 15019 AS SHOWN PARCELS A-1, A-2, & A-3, AND PARCEL E
MIXED USE GREEN OFFICE, RETAIL, AND RESTAURANT BUILDINGS AND TEMPORARY PARKING LOT DATE TAX MAP - GRID SHEET 1 OF 58 (PART OF TAX PARCEL 527) PLAT NO. 23565-23566 JUNE, 2016 36 - 01HOWARD COUNTY, MARYLAND LECTION DISTRICT No. 5

WATER CODE:

#### THE TIME FRAMES ARE ESTIMATED

2) REPLACE/ENT PARKING IN 40-10 CORPORATE CENTER, 50/60/10 DECK AND AREA 4 MAY BY RELCCARED MINNIE MISTING OR PROPOSED PARKING AREA(S) LOCATED MINIM DOMITORM, SEE HOWARD COUNTY LAND RECORDS LIBER 16604, FOLIO 51 AND LIBER 16645, FOLIO 466 FOR MINICATION EXEMPLIST DETAILS. miligation easement details. 3) Estimated Parking Demand is for Both Parcel A-1 and Parcel A-2 Development

Æ

- Final parking requirements will be determined at time of occupancy permit(s) based on specific uses and square footage.
- USES AND SUBMICE FOUNDE.

  5. AREA I PRINCIPIE INCLUDES 1/49 TOTAL SPACES (1/21 STANDARD GARAGE SPACES, IS NON-STANDARD GARAGE SPACES, AND 1 SUBFACE-PARKING SPACES). INE CHART ABOVE REFLECTS THE FOLLOWING REDUCTIONS TO THE AVAILABLE PRINCIPS OF STANDARDER POST SPACHOLY CONCENT PARKING:

  3.23 SPACES FOR THE STIMATION RESERVED RESIDIARINT PARKING (REFLECTS A 208 CAPTURE RATE)

  11 SPACES FOR THE STIMATION RESERVED RESIDIARINT PARKING (REFLECTS A 208 CAPTURE RATE)
- 31. THE DIO CONDITIONS MET MITH THIS SOP. REGARDING THE DIO CONCLUSIONS OF THE LAW (LISTED ON PAGE 22 OF THE DIO), TIENS 4.45 ARE RELEVANT TO THIS SITE. ITEM 4. ACKNOWLEDGE). PER THE DECIGION AND PORTER OF PH 412, PLANING BOARD REQUESTED THAT AN O'REN AREA WITH LESS STRUCHARD ANHITIES OF PROVIDED WITHIN THE CRESCOIL THAT AND PAGE AND THE CONTROL OF THE CONTROL ON THE CONTROL OF THE CONTROL ON THE CONTROL OF THE CONTROL ON THE CONTROL ON
- 38.DESKIN MANAL WAVERS FOR THIS SITE CONSIST OF A MAVER OF VOL. 3-SECTION 24C--OFF-STREET PARKING LOTS AND VOL. 3-SECTION 25BA.-CURB FILLET DESKIN, SIBMITTED ON JLY, 2, DOS AND APPROVED ON SEPTIMENTS AND ON WITH THE CONTRIBOR OF APPROVAL AS FOLLOWS, PROVINE 25PT RADIOS FILLETS AT CONNECTIONS OF PROVINE ROADS TO PIBLIC ROADS OF ROBLES AND SET RADIOS FILLETS AT CONNECTIONS OF PIBLIC ROADS TO PIBLIC ROADS.
- 34.THE PROPOSED BUILDING HEIGHT OF BUILDING 'A' IS 8 STORIES, II6 FEET. THE PROPOSED MAX HEIGHT OF BUILDING 'B' IS 6 STORIES, 85 FEET. THE MAXIMM HEIGHT OF BUILDINGS ALLOWED FOR THIS PROJECT PER GUIDELINES IS 6 STORIES AND IOT FEET. 40. BUILDING OWNER TO COORDINATE TRASH PICK UP TO THE BUILDINGS, BUILDING 'A' HAS DEDICATED SERVICE AREAS ON THE EAST AND WEST SIDES OF THE BUILDING, BUILDING BY HAS DEDICATED SERVICE AREA ON THE EAST SIDE OF THE BUILDING.
- 4I. PLEASE REFER TO F-15-048 FOR SIGHT DISTANCE ANALYSIS OF THE INTERSECTION OF DIVIDED SKY LANE AND BROCKEN LAND PARKWAY. NO SIGHT DISTANCE ANALYSIS IS NEEDED FOR THE ENTRANCE OFF OF LITTLE PATURENT PARKWAY. ONTO GANTICHESTER WAY AS THAT ENTRANCE RIGHT-IN ONLY MITH NO TURN ONTO LITTLE PATURENT PARKWAY.
- 42. SITE AREA FALLS WITHIN HOWARD COUNTY SCD SOIL MAP #18
- 43. PAYMENTS REQUIRED BY CEPPAS #25 AND #27 ARE TO BE MADE UNDER THIS SDE
- 44.A MAIVER PETITION, MP-16-024, TO SECTION 16.119(f)(1) OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS, WAS SUBMITTED ON AUGUST 21, 2015 TO ALL OW A PRIVATE DEVELOPMENT REGULATIONS, WAS SUMMITTED ON AUGUST 21, 2005 TO ALLOM A PROVATE COMPRENAL DRIVENAY OF THE ACCESS TO THIS DRIVENAY MILL BE LIMITED TO TRASH PICKUP AND DELIVERIES AND THERE MILL NOT BE A POTISHTIAL FOR CUIT-THROUGH TRAFFIC, THE MANYER PETITION HAS APPROVED ON COTOBER 7, 2015.
- 45. DOWNTOWN COMMUNITY COMMONS TO BE PROVIDED WITH THIS SOP IS 21,650 SQUARE FEET.

~		ADDED D.C.C. CHART; REVISED TRAFFIC AND PARKING DATA; REVISED BUILDING G.S.F. INFORMATION;
GLWGUTSCHICK LITTLE & WEBER, PA.		REVISED DOWNTOWN COMMUNITY COMMONS AREA; REVISED CEPPA NOTE 14; REVISED SHEET INDEX; REVISED
OLIV GUISCHICK LITTLE & WEBER, FA.		TOTAL SHEET COUNT
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS		
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK		
BURTONSVILLE, MARYLAND 20866 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186		
IEL 301-421-4024 BALI. 410-000-1020 DC/YA. 301-303-2324 FAA. 301-421-4100		

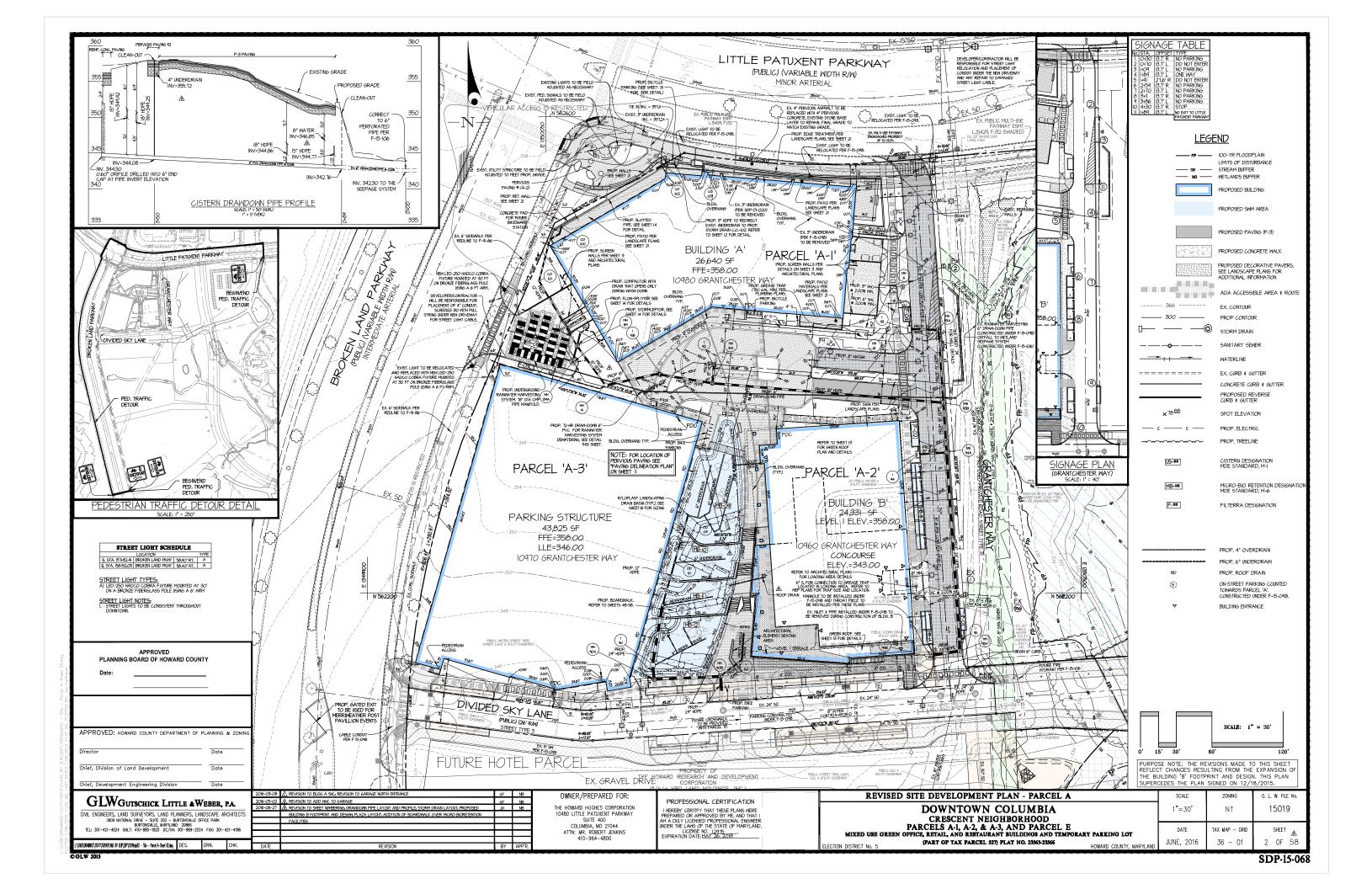
#### OWNER/PREPARED FOR:

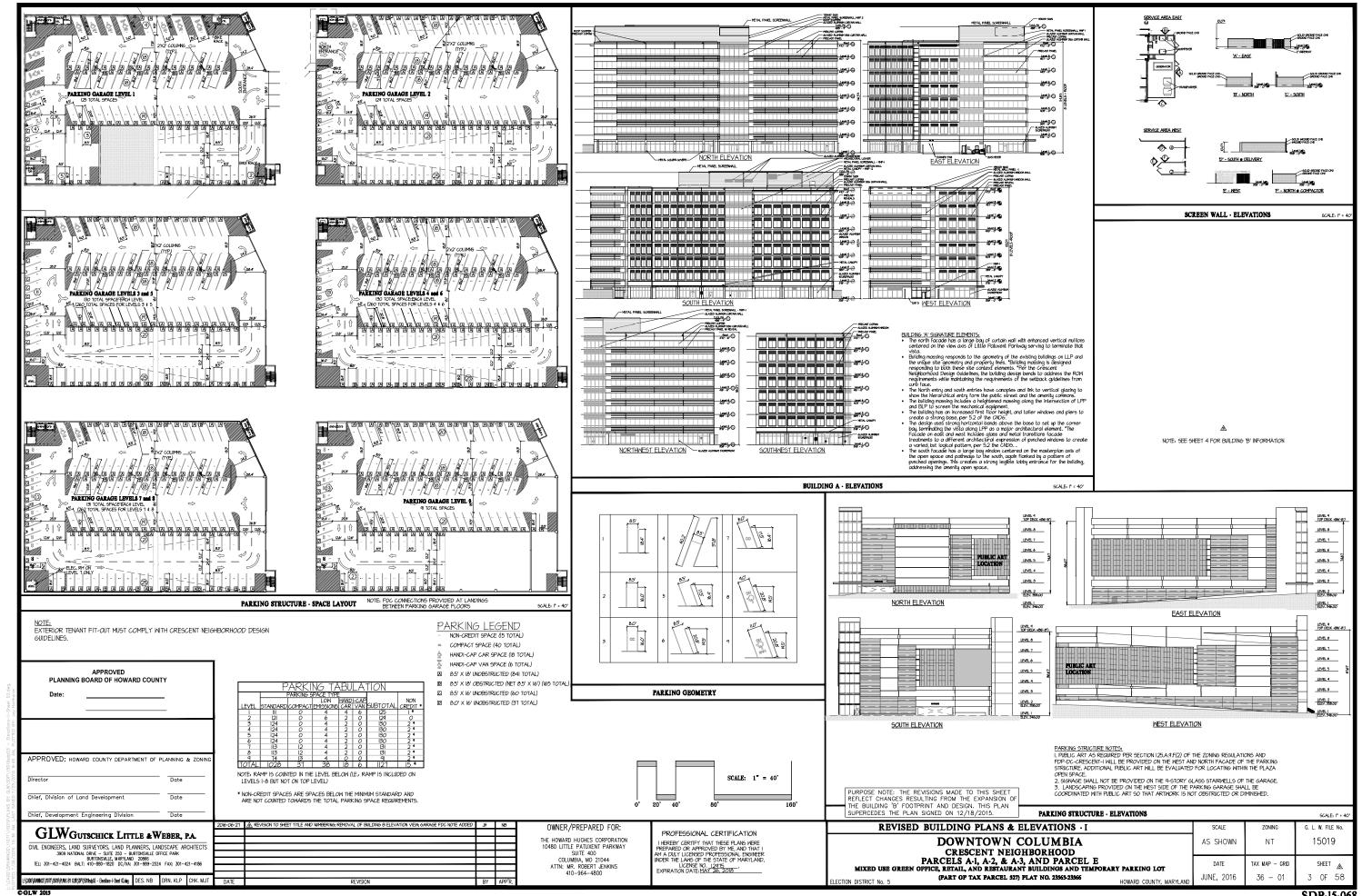
10480 LITTLE PATILIZENT PARKWAY SHITE 400 COLLIMBIA MD 21044

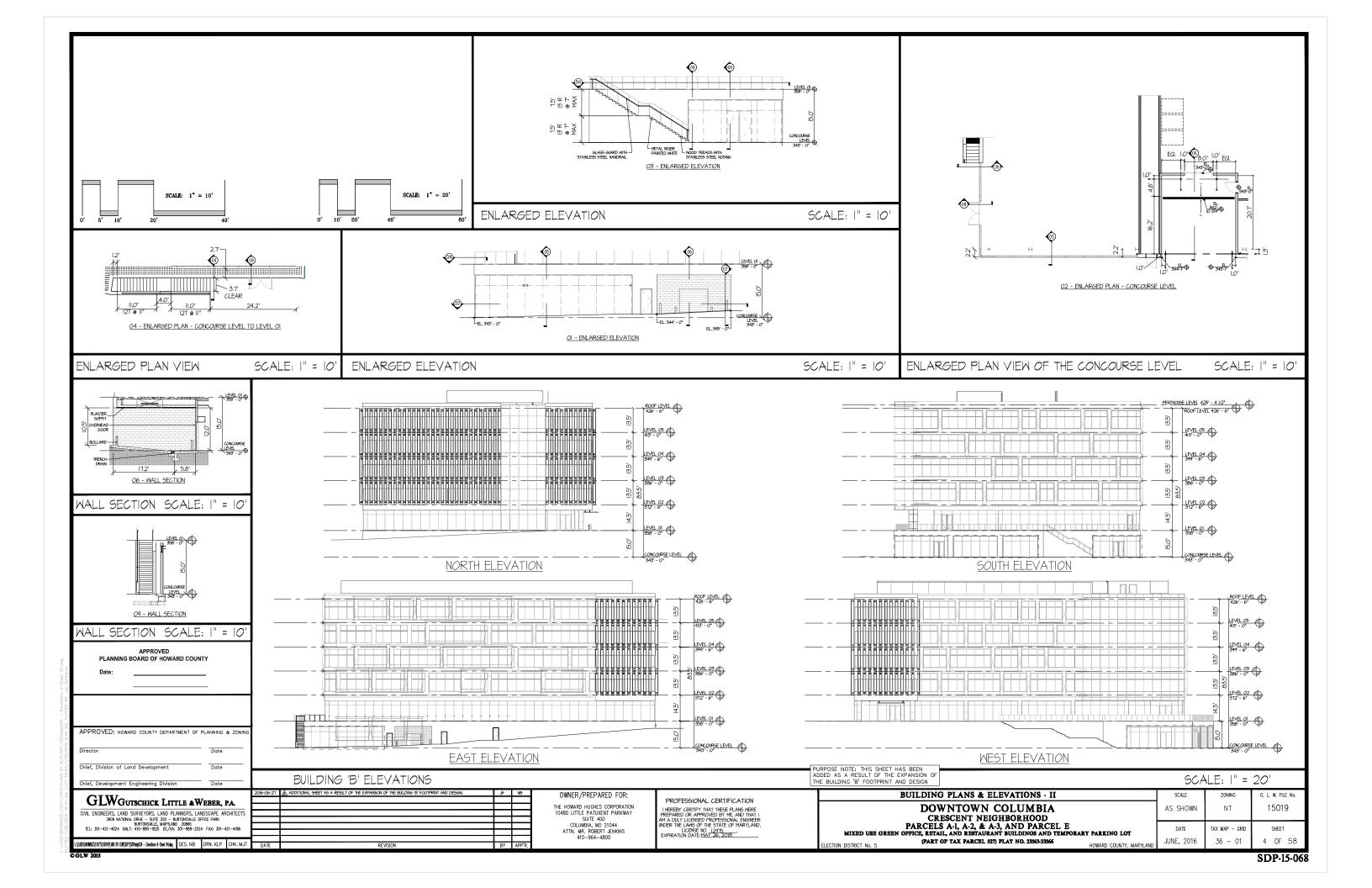
PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE PLANS MERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 12975 EXPIRATION DATE MAY 26, 2018

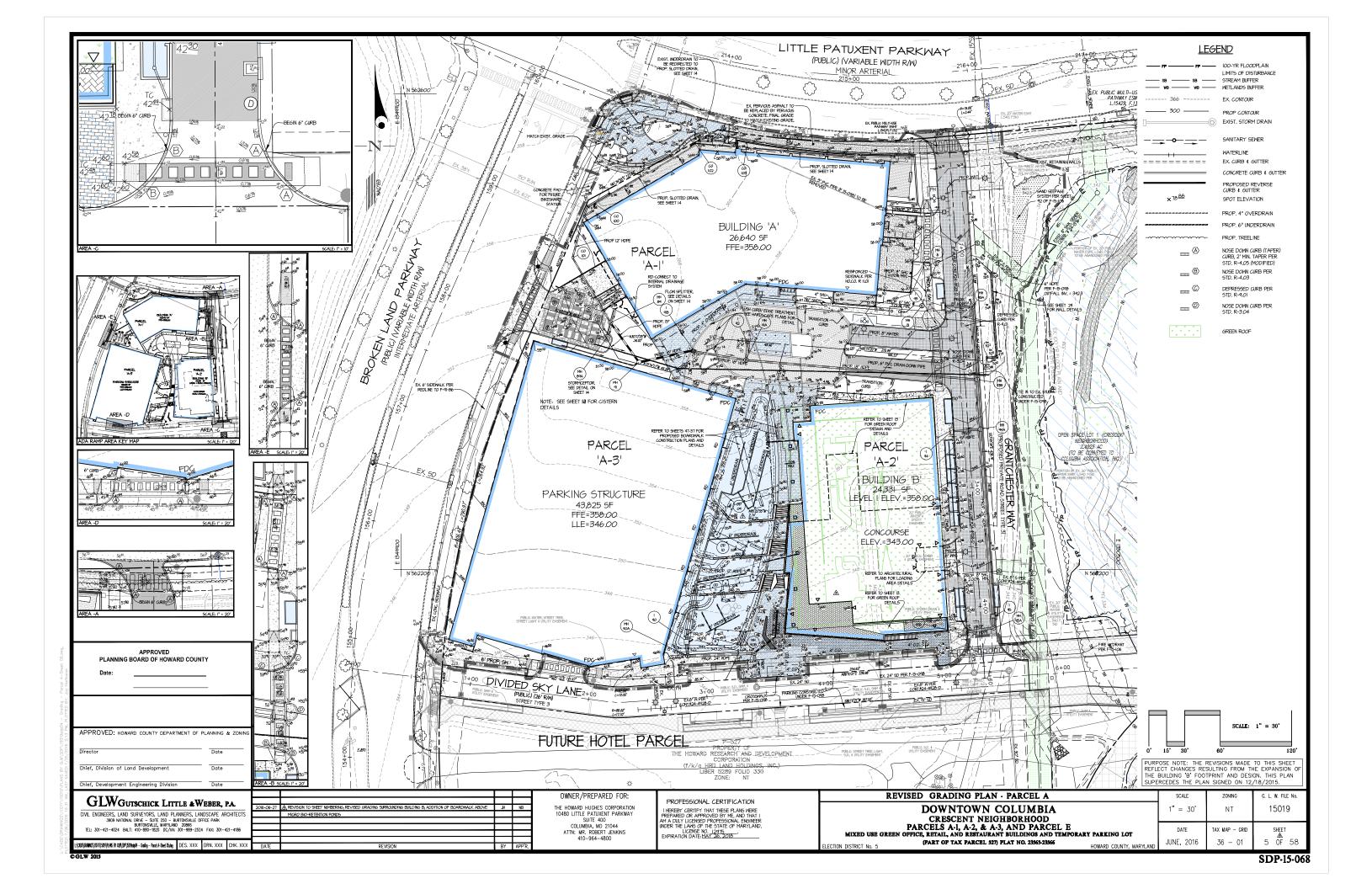
L'(XADO)(RRANNISS)(NOT)(ISKN9)PLANS BY (XIN)SDP(ISKN9446K) - Civer Sheet-Sheet (ILding | DES. NB | DRN. JH | CHK. | DATE REVISION

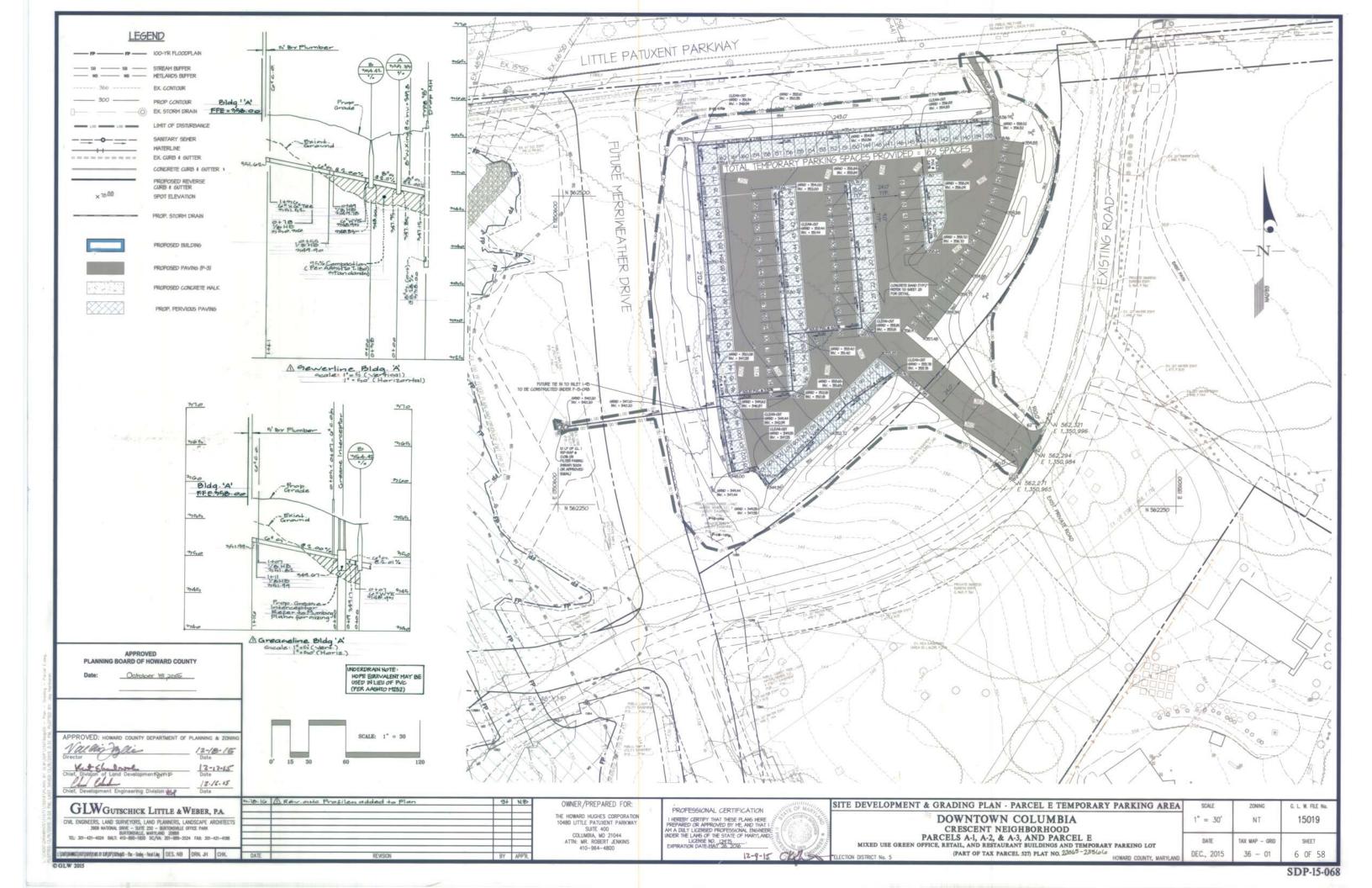
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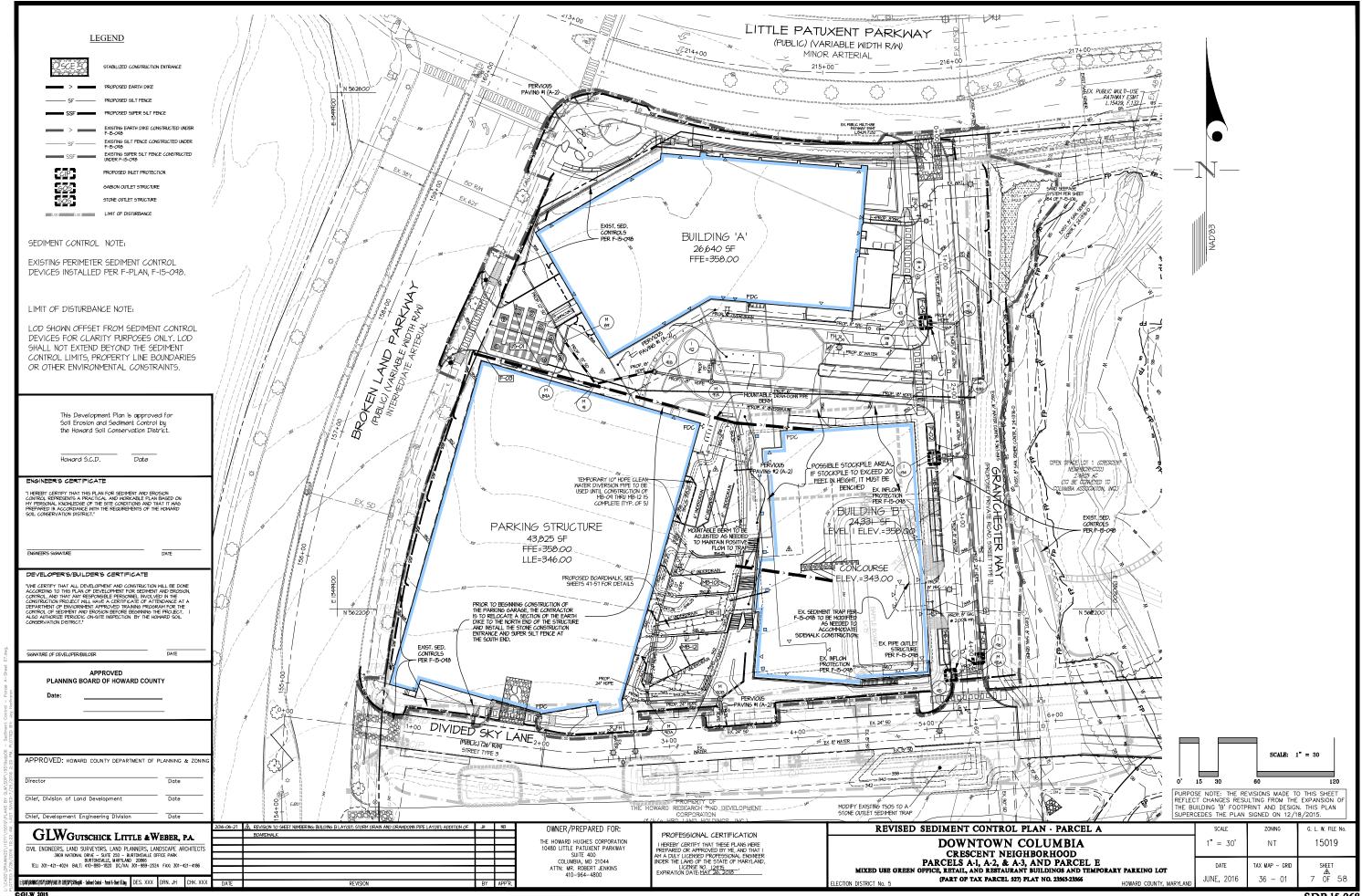


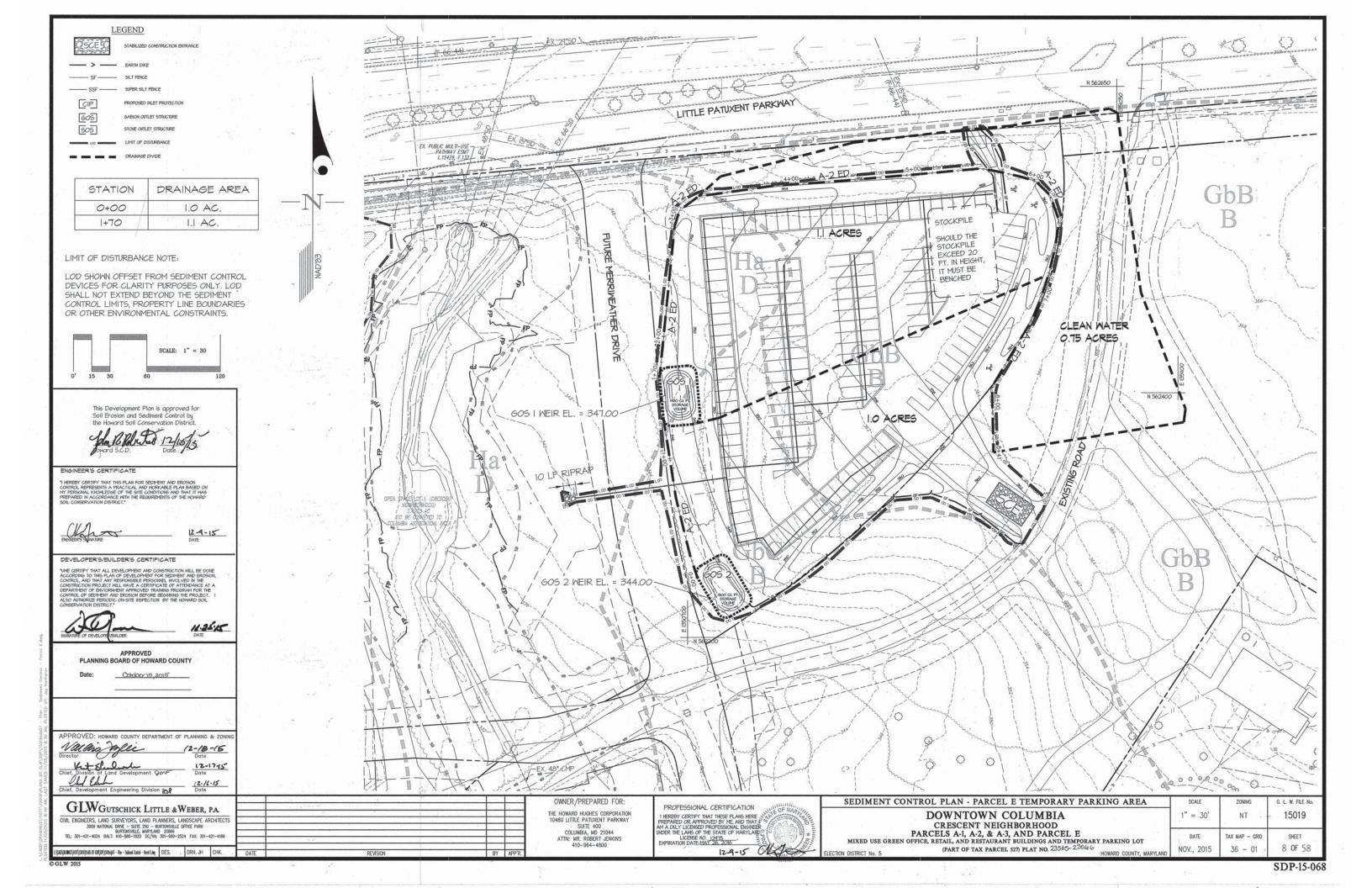












#### B42 STANDARD AND SPECIFICATIONS FOR SOIL PREPARATION, TOPSOILING, AND SOIL AMENDMENTS B-4-3 STANDARDS AND SPECIFICATIONS FOR SEEDING and MULCHING OCCURRENCE B-4-4 STANDARDS AND SPECIFICATIONS FOR TEMPORARY STABILIZATION B4-5 STANDARDS AND SPECIFICATION POR PERMANENT STABILIZATION DETAIL E-9-3 CURB INLET PROTECTION DETAIL E-1 SILT FENCE AND THE PARTY OF T 6 FT MAY. SINITER TO CENTER DEVICE POST LENGTH DEVICE MIN. 16 IN 1810 DECOMO THE PROCESS OF PREPARING THE SOILS TO SUSTAIN ADEQUATE VEGETATIVE STABILIZATION. HE APPLICATION OF SEED AND MULCH TO ESTABLISH VEGETATIVE COVER. O STABILIZE DISTURBED SOILS WITH VEGETATION FOR UP TO 6 TO STABILIZE DISTURBED SOILS WITH PERMANENT VEGETATION. ISTRUCTION SPECIFICATIONS PURPOSE USE WOOD POSTS IN X 1% $\pm \lambda_1$ INCH (MINIMUM) SQUARE CUT OF SOUND QUALITY HARDWOOD. AS AN ALTOWARTHE TO WOODEN POST USE STANDARD "1" OR "U" SECTION STEEL POSTS WERHING HOT LESS THAN I POUND PER JUHEAR FOOT. GENERAL ITEMS TO BE PERFORMED IN THE AREA OF PARCELS A1-A3 PURPOSE TO USE LONG-LIVED PERENNIAL GRASSES AND LEGUMES TO ESTABLISH PERMANENT GROUND COVER ON DISTURBED SOILS. 16 IN MIN. HEIGHT OF MOVEN SUT FILM GEOTEXTILE INSTALLTHE STONE CONSTRUCTION ENTRANCE OFF OF LITTLE PATURENT PARKWAY. ILL DAY OWNERCITOR STO INSECT THESE OWNER CONTROL WEASURES INSTALLED UNDER PLEYORS AND MAKE ANY WICESSAY PERFAILS. IS, WE'VER. TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH. PROTECT DISTURBED SOILS FROM EROSION DURING AND AT THE TO USE FAST GROWING VEGETATION THAT PROVIDES COVER ON COUNTRONS WHERE PRACTICE APPLIES EMPOSED SOLS. WHERE GROWING COVER IS NEEDED FOR A PERIOD OF & MOWITHS OR LESS. FOR LONGED DURATION OF TIME, PERMANENT STABULZATION PRACTICES ARE DURATION OF TIME, PERMANENT STABULZATION PRACTICES ARE USE WOVEN SLIT FEM GEORETHE AS SPECIFED IN SECTION H-1 WATERIALS AND FASTEN GEOTEX SECURELY TO UPSLOPE SEE OF FENCE POSTS MITH MIRE TIES OR STAFLES AT TOP AND MD-SECTION. CONDITIONS WHERE PRACTICE APPLIES WHERE VEGETATIVE STABILIZATION IS TO BE ESTABLISHED. CONDITIONS WHERE PRACTICE APPLIES NIO GROUND CONDITIONS WHERE PRACTICE APPLIES EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR 6 MONTHS OF PROVIDE MANUFACTURER CERTIFICATION TO THE AUTHORIZED REPRESENTATIVE OF THE INSPECTION/EMPOREMENT AUTHORITY SHOWING THAT THE GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS. CONSTRUCTION ITEMS FOR IMPROVEMENTS TO PARCEL A: LAND A: 3 TO THE SURFACE OF ALL PERIMETER CONTROLS, SLOPES, AND ANY DISTURBED AREA NOT UNDER ACTIVE GRADING. N. N. IN. TIME TO CONTINUE NOW STATE NAME OF CONTINUE NAM L EMBED GEOTEXTILE A MINIMUM OF 8 INCHES VERTICALLY INTO THE ORGANO, BACKFILL AND COMPACT THE SOIL ON BOTH SDES OF FABRIC. MINIST TWO SECTIONS OF GEOTEXTILE ADJOIN: OVERLAP, TINST, AND STAPLE TO POST IN ACCORDANCE WITH THIS DETAIL. SELECT ONE OF MORE OF THE SPECES OF SEED MATURES LISTED IN TABLE 8.1 FOR THE APPROPRIATE PLANT HAROMESS ZONE (FORM FORM \$2.) AND DIVITE THAN THE THE MORNESS ZONE (FORM FORM \$2.) AND DIVITE THAN THE THE SPECIAL DAY AND ALONE WITH APPRICATION BATES, SEEDING DATES AND CAMPLEST THE THAN THE BET HAVE BETWEEN THE AND ALONE AND CAMPLEST THE THE THAN THE BETWEEN THE SEED AND THE PLANT CAMPLEST DATES BY THE THE STROMEST, USE AND SHOW THE MOST RECORDER FOR THE PLANT SHOWN AGAINST SOIL TOSTS WE NOT RECORDED FOR THE PLANT SEEDING. OF A SEEDING BESON, WE SEED THE THE SEEDING SHOWN THE THE SEEDING SHOWN ALLOT OF STROME MUCH ALONE STRESSWEEN IN SECTION BY SEEDING. CRITERIA SED MITMES GENERAL USE OF MICE OF THE SECRET OF MITMES LETTER IN SELECT SLIFE OF THE APPROPRIATE CLANT MEDIUMS SETTEM FROM FOUR BLAD MAD BASED ON THE SET CONDITION OF PUMPOSE FOUND ON THAT BLAD STITES SELECTED METHORS (S), APPLICATION THE SUMMER'S TO BE FARGED ON THE FAM. DAY, AND THE SELECT ON THE FAM. AND THE SELECT ON THE FAM. AND THE SELECT ON THE FAM. AND THE SELECT OF THE SELECT ON THE SELECT OF THE SELECT ON THE SELEC . TEMPORARY STABILIZATION EXTEND BOTH ENDS OF THE SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE AT 46 DEGREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENGS TO THE TELLY. A STEEDER PROPARION CONSISTS OF LOOSENING SOR TO A DEPTH OF 3 TO SETUPLE PROPARION CONSISTS OF LOOSENING SOR TO A DEPTH OF 3 TO EXCHANGED, TO LOOSENING SOR OFFICE PROPARION CONTROL OF LOOSENING SOR OFFICE PROPARION AFTER PROPARION OF LOOSENING TO LOOSE SPECIFICATIONS PINCE POST DRIVEN NOTO HE GROUND DRAIM. BEGIN THE CONSTRUCTION OF BUILDING W. REMOVE ACCUMULATED SEGMENT AND DEBRIS WHEN BULGES DEVELOP IN SILT FENCE OR WHEN SEDMENT REACHES 25% OF FENCE HEIGHT, REPLACE GEOTEXTILE IF TOWN, IF UNDERWINNING OCCURS, RENSTALL FRIED. NOTE: IF THE CONTEACTOR SHOULD DECIDE TO BUILD THE PARKING STRUCTURE ATTHESA METIME AS BUILDING 'A'. THE POLLOWING ITEMS NEED TO BE PERFORMED: EMBED GEOTEXTILE MN, OF 8 IN VERTICALLY NTO THE GROUND, BACKFILL AND COMPACT THE SOL ON REALIZATION AND THE STATE OF THE PROPOSITION AND THE PROPOSITION A REGUEST TO THE RISPECTOR TO LEAFT THE OF SEED AND SECTION AS IN SECTION . ATTACH A CONTINUOUS PIECE OF \$ INCH CALVANZED HARDMARE CLOTH, WITH A MINIMUM WIDTH OF 30 INCHES AND A MINIMUM LENGTH OF 4 FEET LONGER THAN THE THROAT OPENING, TO THE 2544 WERE, EXTENDED IT 2 FEET DEVINED THROAT ON EACH SECT 2. PERMANENT STABILIZATION STEP 2 . A SOIL TEST IS REQUIRED FOR ANY EARTH DISTURBANCE OF 5 ACRES OR MORE, THE MINIMUM SOIL CONDITIONS REQUIRED FOR PERMANENT VEGETATIVE FOTABILISHEDIT ABE. PLACE A CONTINUOUS PIECE OF NONROWIN GENTEXTLE OF THE SAME DIMENSIONS AS THE HARD , PLACE THE ASSEMBLY AGAINST THE INLET THROAT AND HAIL TO 2x4 ANCHORS (NAINIUM 2 FEET LENGTH), EXCEND THE ANCHORS ACROSS THE INLET TOP AND HOLD IN PLACE BY SANDBAGS OR OTHER APPROXID ANCHORING METRICO. CONSTRUCTION TIMES FOR IMPROVEMENTS TO PARCEL A-2 HARDINESS ZONE: 6b SEED MIXTURE: NOTE: CONSTRUCTION OF BUILDING IS AND SURROUNDING AREA CAN ARTHR | HARDES 7086 69 | STD MATINGS II. SOLUBLE SALTS LESS THAN 500 PARTS PER MILLION (PPM). CHANGE BATH DER INTER ASSOCIA BUILDING BY, ALONG GENTIORITE WAY, AND WOTH OF THE FARMUS STRUCTURE. IN THE STRUCTURE OF THE ST II. SULCONIANS LESS THAN 300 PRECENT CLAY BUT ENOUGH FINE GRANED MATERIAL (GREATER HAM 30 PERCENT SLT PLUS CLAY) TO PROVIDE THE AMARITHM CREATER HAM 30 PERCENT SLT PLUS CLAY) TO PROVIDE THE AMARITHM SULPH AND STATE AMOUNT OF MOSTURE AND EXCEPTION: FOR PRECENT SLT PLUS CLAY THE MEDIT SHE ACCEPTION. FOR PRECENT SLT PLUS CLAY THE MEDIT SHE ACCEPTIBALE. AREAS WHERE TURFGRASS MAY BE DESIRED INCLUDE LAWNS, PARKS, PLAYGROUNDS, AND COMMERCIAL SITES WHICH WILL RECEIVE A MEDIUM TO HIGH LEVEL OF MAINTENANCE. , FORM THE HARDWARE CLOTH AND THE GEDTEXTILE TO THE CONCRETE GUTTER AND FACE OF CURB TO SPAN THE NILET OPENING, COVER THE HARDWARE CLOTH AND GEOTEXTILE WITH CLEAN ½ TO 1½ NICH STORE OF CRUINALENT RECYCLED CONCRETE. FINAL CONFIGURATION SELECT ONE OR MORE OF THE SPECIES OR MOTURES LISTED BELOW BASED ON THE SITE CONDITIONS OR PURPOSE. ENTER SELECTED MOTURE(S), POPULCATION RATES, AND SEEDING DATES IN THE PERMANENT SEEDING SUMMARY, THE SUMMARY IS TO BE PLACED ON THE PLAN. EFFECTIVE. 1 SOD OR SEED MUST NOT BE PLACED ON SOL WHICH HAS BEEN TREATED WITH SOL STRENLANTS OR CHEMICALS USED FOR WEED CONTROL UNTIL SUFFICIENT TIME HAS ELAPSED DAYS MINL) TO PERMIT DISSIPATION OF PHYTO-TOMIC MATERIALS. O. STORM DRAIN INLET PROTECTION REQUIRES PREQUENT MAINTENANCE. REMOVE ACCUMULATED SEDIMENT AFTER EACH RAIN EVENT TO MAINTAIN FUNCTION AND AVOID PREMATURE CLOGGING, INLET PROTICION DOES NOT COMPRETELY DRAIN WIRTH AS A MUNIC AFTER A STORM (ANT.) IT IS CLOGGIC. WHEN THES OCCURS, REMOVE ACCUMULATED REDMENT AND CLEAK, OR REPLACE JONING TWO ADJACENT SILT FENCE SECTIONS (TOP VIEW) IV. SOIL CONTAINS 1.5 PERCENT MINIMUM ORGANIC MATTER BY WEIGHT V. SOIL CONTAINS SUFFICIENT PORE SPACE TO PERMIT ADEQUATE ROOT PLACED ON THE PLAN. I. KENTILORY BUEGRASS. FULL SIAN MATURE: FOR USE IN AREAS THAT RECOYE. INTENSIVE MANAGEMENT, IRRIGATION RECURED IN THE AREAS OF CENTRAL MARKAND AND EASTERN SIGHE. RECOMMENDED CRITICAL MARKAND AND EASTERN SIGHE. RECOMMENDED CRITICAL MARKAND AND EASTERN SIGHE. RECOMMENDED CRITICAL MARKAND AND EASTERN SIGHE SIG DETAILS, IS WEEDS, COMPLETE CONFIDENCIAL ON OF BUILDING, 19, AND ANY RE MAINING FAVING AND STEE WORK AS A REAS ARE STARLING TO AND PREMISSION IS ORTHING FROM THE SECOND FOT CONTROL RESPICTOR, THE SECONDARY CONTROL DURING SON IS REMOVED. THE CONTRACTOR IS TO IMMEDIATELY STABLING ANY ARE THAT ARE SOTTURED AS A RESULT, IN WEST. b. APPLICATION OF AMENDMENTS OR TOPSOIL IS REQUIRED IF ON-SITE SOILS DO NOT MEET THE ABOVE CONDITIONS. SEDIMENT CONTROL NOTES APPLICATION OF SECURITY OF CONVENTIONAL DROP OF SET SEEDING SIES INCLUDES USE OF CONVENTIONAL DROP OF SET OF CONVENTIONAL DROP OF SECURITY U.S. REPARTMENT DY ADRICULTURE 2011 MARTILAND DEPARTMENT OF DIVIDIONENT MATER MANAGEMENT ADMINISTRATION A MINIMUM OF 48 HOURS NOTICE MUST BE CIVEN TO THE HOWA COUNTY DEPARTMENT OF INSPECTION, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION. (410—313—1855). TGOS GRADED AREAS MUST BE MAINTAINED IN A TRUE AND EVEN GRADE AS SPECIFIED ON THE APPROVED PLAN, THEN SCARIFIED OR OTHERWISE LOOSENED TO A DEPTH OF 3 TO 5 INCHES. TO OF ALLOYSEE DESCRIPTION TO SEE THE DESCRIP 3/16/8002 de 3/2 21 SLOFE OF RATION DISTINGUISH OF RATION GROUND THOSE OF RATION THOSE OF RATIO ALL VECETATIVE AND STRUCTURAL PRACTICES ARE TO BE NO STALLED ACCORDING OF THE PROVISIONS OF THIS PLAN AND NEED TO STANDARDS AND SECRETARIONS FOR SOIL EROSION AND SECRIFICATIONS FOR SOIL EROSION AND SECRIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL." AND REVISIONS THERETO. d. APPLY SOIL AMENDMENTS AS SPECIFIED ON THE APPROVED PLAN OR AS INDICATED BY THE RESULTS OF A SOIL TEST. I. KENTUCKY BLUEGRASS/PERENNIAL RYE: FULL SUN MIXTURE: FOR USE IN FULL SUN AREAS WHERE RAPID ESTABLISHMENT IS NECESSARY AND WHEN TURE WILL RECOVE MEDIUM TO INTENSIVE MANAGEMENT. CERTIFED PERENNIAL RYEGRASS AU SOL ANDIMENTS WITH THE TOP 150 MICHES OF SAL BY DESIGNED OR BUT SOLD AND THE TOP 150 MICHES OF SAL BY DESIGNED OR READ OF LARGE OBJECTS LIKE STOWES AND BRAINCHES, AND READY THE AREA OF SEEL AND PROJECT SALE OF MICHES AND READY THE AREA CONDITIONS WILL NOT PEPTER HORALL SEEDED PREPARATION. THACK SLOPES ALL OF LATER WITH THACKES CONDINIONS WILL NOT PEPTER HORALL SEEDED PREPARATION. THACK SLOPES ALL OF LATER WITH THACKES CONDINIONS WILL NOT PEPTER HORALL SEEDED PREPARATION. THACK SLOPES AND THE SIGNED AREAS. INTENSIVE MANAGEMENT. "CERTIFIED PERSINAL PREPARSS OU TUNNS YEERINGDE KENTUCKY BLUECHASS SEIDING AATE: 2 OF THREE KENTUCKY BLUECHASS WITH ASSEMBLE ARTHUR ARTHUR FOR THE SENTENCE AND THE SENTENCE AND THE SENTENCE BLUECHASS OUT THAS WITH EAST WITH ASSEMBLE ARTHUR BY MEGIAT. 5. DRILL OR CUIFACKE. SEEDING, MECHANIZED SEEDERS THAT APPLY AND COVER SEED WITH 500. CULTIPACKING SEEDERS HAR REQUIRED TO BURY THE SEED IN SUCH A FASSION AS TO PROVIDE AT LEAST 1/4 WICH DRIVEN SEEDERS WIST BE FIRM AFFER FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, FREMANENT OR TEMPORARY STABULZATION SHALL BE CONTROL MINIMALINADO AVAS FOR ALL PREMIETER SEMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN \$1, OTHER DISTURBED OR GRADED AREAS ON THE PROJECT STE. CROSS SECTION CONTINUOUS GRADE CAR MIN, TO TOK MAX, SLOPE III. TALL FESUE/KENTUCKY BUUGGRASS FULL SUM MIXTURE: FOR USE IN DROUGHT PROBE MEELS MID OFF FOR AREAS RECEIVING LOW TO MEDIUM MAMAGEMENT IN FULL SUN TO MEDIUM SHADE, RECOMMENDED MIXTURE INCLUDES, CENTRIED TALL FESUE RECOMMENDED MIXTURE INCLUDES, CENTRIED TALL FESUE BULGGRASS COLL THANS OF 10°F SPECIALY SECUENCE FATE: 8 TO 8 POUNDS FOR TOOD SOUARE FEET. ONE OR MORE CULTURARS MAY BE BLEDDED. FRONDE TRANSITION LENGTH AND HEIGHT AS SPECIFIED ON FLAN. HEIGHT OF TRANSITION EARTH DO MUST DECELD 4 INCH MINIMUM FREEDOMED ABOVE TOP OF CABION AND EXTEND AT THIS ELEVATION LINTLE, IT INTERCOPTS THE TOP OF ADJACEMENT BUILD. PLANTING. APPLY SEED IN TWO DIRECTIONS, PERPENDICULAR TO OTHER, APPLY HALF THE SEEDING RATE IN EACH DIRECTION. \*ONE BASKET OR MULTIFLE MATTRESSES NEED TO EXTEND FROM THE INTERSECTION (TIE IN) TO A MINIMUM I FOOT BEYOND THE TIE IN. WIDE POSITIVE DRAMAGE ALONG EARTH DIKE TO DABION CUTLET STRUCTURE. DIRECTION. LI VIPOSEEDING. APPLY SEED UNFORMEN WITH HUROSEEDER (SLURRY INCLUSES SEED AND FERTLESS). LI VIPOSEEDING APPLY SEED UNIT OF THE THE OF SEEDING, THE APPLICATION OF RESEARCH OF FEVER THE APPLICATION OF RESEARCH OF THE APPLICATION O . TOPSOILING TOPSOIL IS PLACED OVER PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION. THE PURPOSE IS TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWNIF SOILS OF CONCERN HAVE LOW MOSTURE CONTENT, LOW NUTRENT LEVELS, LOW PH, MATERIALS TOMIC TO PLANTS, AND/OR UNCECTPIBLE SOIL GRADATION. IN. KENTLICKY BLUEGRASS/FINE FESCUE: SHADE MIXTURE: FOR USE IN AREAS WITH SHADE IN BLUEGRASS LAWIS, FOR ESTABLISHMENT IN HIGH OUALITY, INTENSIVELY MANAGED TURE AREA, MIXTURE INCLIDES, CERTIFIED KENTLICKY BLUEGRASS CULTIVARS 30 TO 40 PERCENT AND CENTRIED THE FESCUE CULTIVARS 30 TO 40 PERCENT AND CENTRIED THE FESCUE FESCUE STATES OF THE PROPERTY OF T A-1 SEE WITH STRAM MAJCH AND TACK, (NOT ALLOWED FOR CLAR WATER OVERSION.) A-2/8-2 SEED WITH SOIL STRBUZATION MATTING OR LINE WITH SOID. A-3/8-3 MINIMAL OF 7 NICHS STOR LINE (DUIVALENT RECIVILED CONCRETE PRESSED INTO SOIL A TOPSOL SALVACED FROM AN EXISTING SITE MAY BE USED PROVIDED IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS, TYPICALLY THE DEPTH OF TOPSOL TO BE SALVACED FOR A GIVEN SOL TYPE CAN BE FOUND IN THE REPRESENTATIVE SOIL PROPILE SECTION IN THE SOIL SURVEY PUBLISHED BY USDA—MINES. 1. PROVINCE STRUKEN, CULLURE AS SUPCIFED ON APPROVIDE PAUNS. C. UIE MANGETHE MORE OF IT MANIEW RISK ON ENHANDS. C. UIE MANGETHE MORE OF IT MANIEW RISK ON ENHANDS. AL RISKLIL AURISON AND KRYCHE MONOFLANDST GESTERLIST, AS SPECIFED IN SECTION H-1 MATERIAL. B. BRIEDLA SERVICE AND ACCORDANCE WITH MAUNTANIERS SECONOMINECATIONS. C. BRIEDLA SERVICE AND CONTENTE SERVICE RISK OF SECONOMINECATIONS. C. BRIEDLA SERVICE ALL AURISONS. C. STORMAN SERVICE AND CONTENT SERVICE RISK OF SERVICE PROVINCE MONOFILE SERVICE AND CONTENT SERVICE AND CONTENT SERVICE MONOFILE SERVICE AND CONTENT SERVICE SERVICE AND CONTE ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTINATED FROM THOMAS COUNTY SEDIMENT CONTROL INSPECTIOR. NOTES: TOPSOILING IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE SELECT TURFORASS VARIETIES FROM THOSE LISTED IN THE MOST CURRENT UNIVERSITY OF MARYLAND PUBLICATION, AGROVOMY MEMO #77. "TURFORASS CULTIVAR RECOMMENDATIONS FOR MARYLAND." PLACE WOVEN MODIFIED HE FACE OF COMMITTEE ON PETIES HE FACE OF COMMITTEE ON PETIES HE FACE OF COMMITTEE ON PETIES HE FACE OF COMMITTEE ON PARTY AND HER CREST-REFER TO GP 16-039 FOR PARCEL 'E' . REMOVE AND DISPOSE OF ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTIONABL MALERIAL SO AS NOT TO INTERFERE MIT PROPER FUNCTION OF EARTHORE. ENCAVATE OR SHAPE EARTH DAYE TO LINE, GRACE, AND CROSS SECTION AS SPECIFED, BANK PROJECTIONS OR OTHER RESOLUTIONS ARE NOT ALLOWED. a. HE TEXTURE OF THE EPIDSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO SUBSOIL PARENT MATERIAL IS NOT ADEQUATE TO THE SUBSOIL OF THAT THE RODINING ZONE IS NOT DEEP ROUGHT TO SUPPORT PLANTS OF PURPOSE OF MINISTER OF THE SUBSOIL AND PLANT MUTRENTS. STE ANALYSS / VARCELS TOTAL MANALYSS / VARCELS B. FUL CARGOS BASSETS WITH CLEAN 4 TO 7 INCH STONE OR EQUIVALENT RECYCLED CONCRETE WITH REBAR OR WHE MEDIA. 7. MANE: THE WER CREST OF THE CARGON OUTLET STRUCTURE 9 INCHES LOWER THAN THE TOP OF T ADJACENT CRESIONS. SEQUENCE OF CONSTRUCTION 4 TO 7 IN STONE— WATER PLOW CHOOSE CERTIFIED MATERIAL, CERTIFIED MATERIAL IS THE BEST GUARANTEE OF CULTIVAR PURITY. THE CERTIFICATION PROGRAM OF THE MARYLAND DEPARTMENT OF AGRICULTURE, TURF AND SEED SECTION, PROVIDES A RELIBLE MEANS OF CONSUMER PROTECTION AND ASSURES A PURE CENTIC LINE MULCH MATERIALS (IN ORDER OF PREFERENCE) GROWTH. d. THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE. ATTACH WOVEN MONOFLAMENT GEOTEXTILE TO THE UPSTREAM FACE OF GABION BASKETS AND CO ORACE VOLUME - EXCHANGE IN MACHINE IN MOTION OF BOTTOM STRAW CONSTRUCT OF THOOLOGY THRESHD WHEAT, RYE. ON THE BASET AND THE STRAW THE STRAW ON THE BASET AND THE STRAW THE STRAW MARY AND SELL LAW AND DO THUST, MOUT, CARED, THE BEGAND, OR EXCESSIVELY DUST, MOUT, CARED, THE BEGAND, OR EXCESSIVELY DUST, MOUTE USE GAY STRAW BEGAND, OR EXCESSIVELY DUST, MOUTE USE GAY STRAW BEGAND, OR EXCESSIVELY DUST, MOUTE USE GAY STRAW BEGAND, OR STRAW THE ONE SPECIES OF ORASIS TO BESTREED. . PROVIDE CUTLET PROTECTION AS REQUIRED ON APPROVED PLAN. STABLUZ EARTH DRE WITHIN THREE DAYS OF INSTALLATION, STABLUZE FLOW CHANNEL FOR CLEARING THE HOUSE OF INSTALLATION. I. REMONE SEXIMENT WHEN IT HAS ACCUMULATED TO WITHIN 12 INCHES OF THE WER CREST, REPLACE GEODETILE AND STONE FACING WHEN STRUCTURE CEASES TO FUNCTION, MAINTAIN LINE, GRADE, AND CROSS SEXIMENT. AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND DESIGN. DARRO WORM MONORA MOTO CONTROL TO CONTROL OF THE A PER DEAL THES OF SEEDING FOR THIS CASES WITHES MESTERY WITH MESTERY AND MARCH 15 THE MODEL 1 TO OCTOBER 1 (MARCHESS ZONES: 98, 6A) TO MAY 15, AUGUST 15 TO OCTOBER 15 (MARCHESS ZONES) AND MARCH 1 TO MAY 15, AUGUST 15 TO OCTOBER 15 (MARCHESS ZONES: 7A, 78) TO TO THE 15 (MARCHESS ZONES: 7A, 78) ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE MANTAIN LINE, GRADE, AND CROSS SECTION, REDAYS, ACCURALATES SEQUENT AND DEBUSS, AND AMANTAIN POSTION EPIRAMSE, LINEY EARTH SILE AND POST OF DESCRIPTION FREE OF RESIDENT, AND CONTRIBUTELY, MEET REQUIREMENTS FOR ADEQUATE VEDETAINS ESTABLISHMENT IN ACCORDANCE WIT SECTION 6-4 VEGETATIVE STRABLISHMENT. TOPSOIL SPECIFICATIONS: SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING CRITERIA: DECEMBER OF ENCESSIES OUTST. NOTE, USE ONLY STREET. STANS JULION A MEAS MERCE ON SPECIES OF ORASS IS STORY OF THE STANS This Development Plan is approved for Soil Erosion and Sediment Control by COSSIC MAST RE A LOW SANDY LOW SLAY LOW SIT TOWN SANDY CON TOWN SANDY CONTROL OF COMMENCED BY AN AGRICUMENT OF SAR SAND APPROVED BY THE APPROVAMENT OF SAND SAND APPROVED BY THE APPROVAMENT TO SAND MAST NOT BE A MATTIME OF CONTROL OF SAND APPROVAMENT OF THE APPROVAMENT OF THE APPROVAMENT OF THE SAND APPROVAMENT OF THE SAND APPROVAMENT OF THE SAND APPROVAMENT OF THE APPROVA ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR UPON REMOVAL OF EARTH DIKE, GRADE AREA FLUSH WITH EXISTING GROUND. WITHIN 24 HOURS OF REMOVAL STABLIZE DISTURBED AREA WITH TOPSOR, SEED, AND MULCH, OR AS SPECIFED ON APPROVED PLAN. 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DETAIL E-3 SUPER SILT Howard S.C.D. Date RODINAY TO FT MM TOPSOL SUBSTITUTES OR AMENDMENTS, AS RECOMMENDED BY A QUALIFIED AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY, MAY BE USED IN LIEU OF NATURAL TOPSOIL. 10 /T M/K ENGINEER'S CERTIFICATE A CHOSON, MAP SEMMENT CONTROL PRACTICES MUST BE MANTANED WHEN B. DINFORMLY DISTRIBUTE TOPOSIO, IN A 5 TO B NOM LAYER AND LIGHTLY COMPACT TO A MANIMAL PROCESSES of A NOVES SPECIALDING IS TO BEED WITH A MANIMAL OF ADDITIONAL SIG. PREPARATION AND TRACES, ANY WITE CLAIMFEST OF THE SEMMENT OF SEMMENT OF THE PROCESSES OF THE PROC AUTHORITY POWER TO PROCEEDING WITH CONSTRUCTION. 2. 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PLACE NONMOVEN GEDITATILE, AS SPECIFED IN SECTION H-1 MATERIALS, OVER THE EARTH MOUND PRIOR TO PLACING STONE. PLACE CRUSHED AGGREGATE (2 TO 3 NOHES IN SIZE) OR EQUIVALENT RECYCLED CONCRETE (WITHOUT REDWAY) AT LEAST 6 INCHES DEEP OVER THE LENGTH AND WENTH OF THE SEC. AMERICAN MILCH ANCHORING IMMEDIATELY FOLLOWING PROJUCTION OF WILCH TO IMMIDIZE LOSS BY MOD OR WILCH THIS MAY ARE DODGE BY ONC OF THE TOLINHON METHODS OF THE PROJUCTION OF THE SEC OF THE AREA AND EMBOSION HAZING THOROUS FOR THE SEC OF THE AMERICAN ANCHORING TOOL IS A THACTOR DAMM OF THE SEC OF THE AMERICAN SECOND THE SEC OF THE PROJUCTION OF THE SECOND OF THE SPECIFICATIONS FASTION ROYEN SUIT FIRM GEOTECHIL AS SPECEPEO IN SECTION HI-1 MATERIALS, SEGURELY TO THE UPSIGHE SOC OF CHAIN LINK FERCE WITH THE SPACED DERTY IN HOMES AT THE TOP AND MO SECTION, DIRECT CRITICAL AND CHAIN LINK FEMCE A WHIMMAN OF A BIOLIST MED IN CRITICAL. 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PROVIDE MANUFACTURER CERTIFICATION TO THE INSPECTION/INFORCEMENT AUTHORITY SHOWING THAT CERTIFICIAL USED MEETS MAPILMO STANDARDS MID SPECIFICATIONS FOR SOL EROSON AND SEDIMENT CONTROL. 10. SERVINDENT OF ASSOCIATIVE AND STANDARDS MID SPECIFICATIONS FOR SOL EROSON AND SEDIMENT CONTROL. 10. SERVINDENT OF ASSOCIATIVE AND SERVINDENT OF ASSOCIATIVE SERVIND SERVINDENT SERVINDENT OF ASSOCIATIVE SERVIND SERVINDENT OF ASSOCIATION SERVINDENT OF ASSOCIATION SERVINDENT ASSOCIATION SER REMOVE ACCURACY SERVENT AND DEBYS WITH BULGES DEVICED IN FINCE OF WHICH SEDWENT REACHES 25% OF FENCE HOSPI REPLACE COLORIZATE F TORK IT MORPHISMS COLORS, REACHING, DAVID LINK RENCHS AND GEORETILE. 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THE WESTER TO PRESENT YOUR SHAPE WILLIE CAUSE ARE! THE STATE OF THE S SOIL TYPES ENGINEER'S CERTIFICATE "I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON WY PERSONAL KNOWLEDGE OF THE SITE CONUTIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT." Symbol Description Soil Type K Factor SIGNATURE OF DEVELOPER/BUILDER DATE Ha Hatboro Codorus, O to 3 percent slopes D 0.37 Gladstone Loam, 3 to 8 percent slopes B GbC Gladstone Loam, 8 to 15 percent slapes B 0.20 APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONI THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT. 1/3 OF THE GRASS LEAF MUST BE REMOVED BY THE INITIAL CUTTING OR SUBSECUENT CUTTINGS. MAINTAIN A GRASS HEIGHT OF AT LEAST 1 INCHES UNLESS OTHERWAST SPECIFIC. Director DATE HOWARD S.C.D. PURPOSE NOTE: THE REVISIONS MADE TO THIS SHEET REFLECT CHANGES RESULTING FROM THE EXPANSION OF Chief, Division of Land Development THE BUILDING 'B' FOOTPRINT AND DESIGN. THIS PLAN SUPERCEDES THE PLAN SIGNED ON 12/18/2015. Chief, Development Engineering Division REVISED SEDIMENT CONTROL NOTES & DETAILS OWNER/PREPARED FOR: SCALE GLWGUTSCHICK LITTLE & WEBER, PA PROFESSIONAL CERTIFICATION DOWNTOWN COLUMBIA AS SHOWN I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER INDER THE LANS OF THE STATE OF MARYLAND, CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS 3909 NATIONAL DRIVE – SUITE 250 – BURTONSVILLE DEFICE PARK 10480 LITTLE PATILIZENT PARKWAY SHITE 400 CRESCENT NEIGHBORHOOD PARCELS A-1, A-2, & A-3, AND PARCEL E MIXED USE GREEN OFFICE, RETAIL, AND RESTAURANT BUILDINGS AND TEMPORARY PARKING LOT BURTONSVILLE, MARYLAND 20866 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186 DATE LICENSE NO. 12975 EXPIRATION DATE:MAY 26, 2018 (PART OF TAX PARCEL 527) PLAT NO. 23563-23566 JUNE, 2016 E-(ANDA) (ANAMAS) (NYT) (SATE) (ANS NY SUT) (SATE) (SATE) (SATE) - Sediment Control-Steel (Ruboy DES. DRN. JH CHK.

G. L. W. FILE No.

15019

SHEET

**70NING** 

NT

TAX MAP - GRID

36 - 01

HOWARD COUNTY, MARYLAND

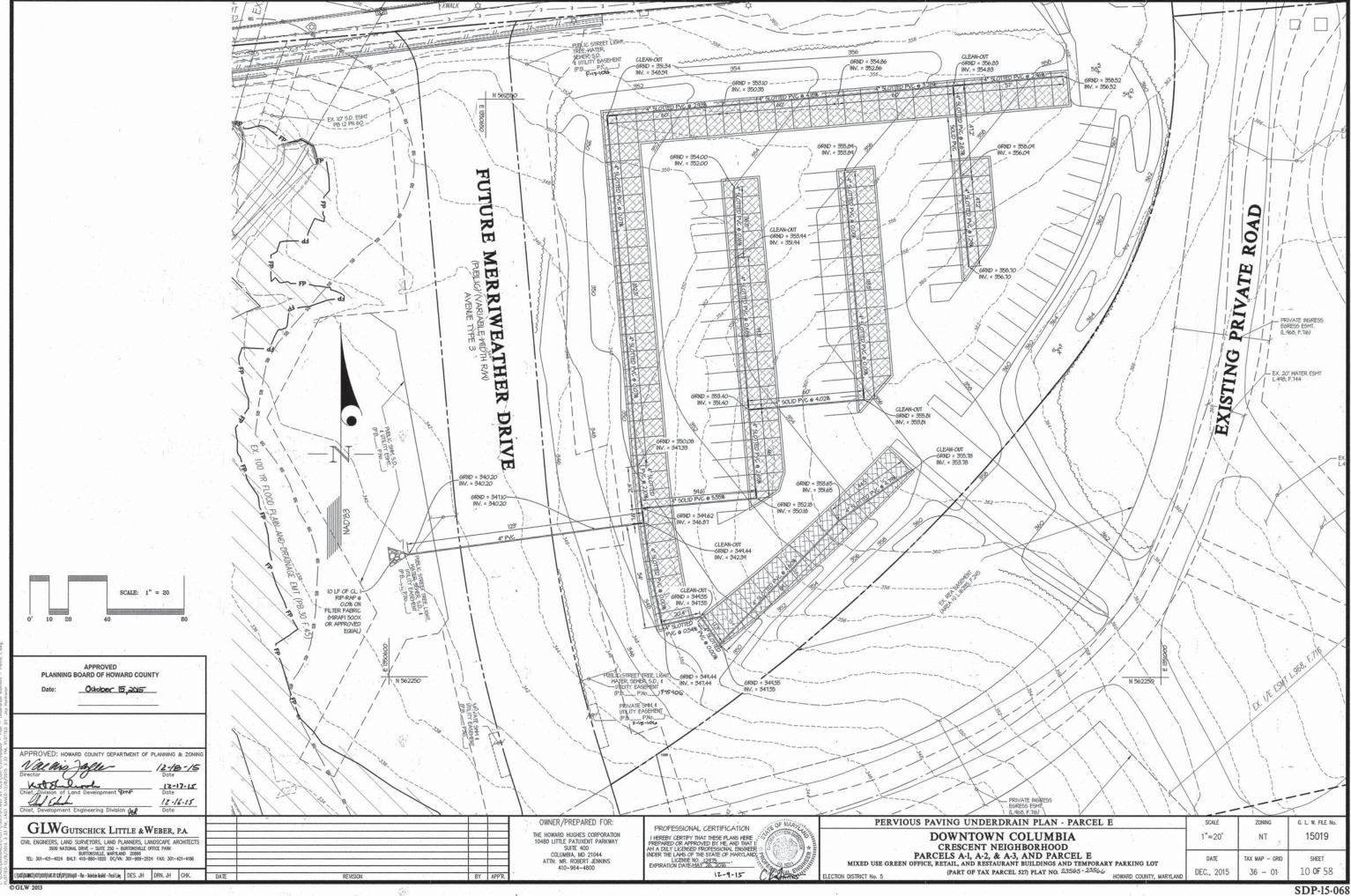
FCTION DISTRICT No. 5

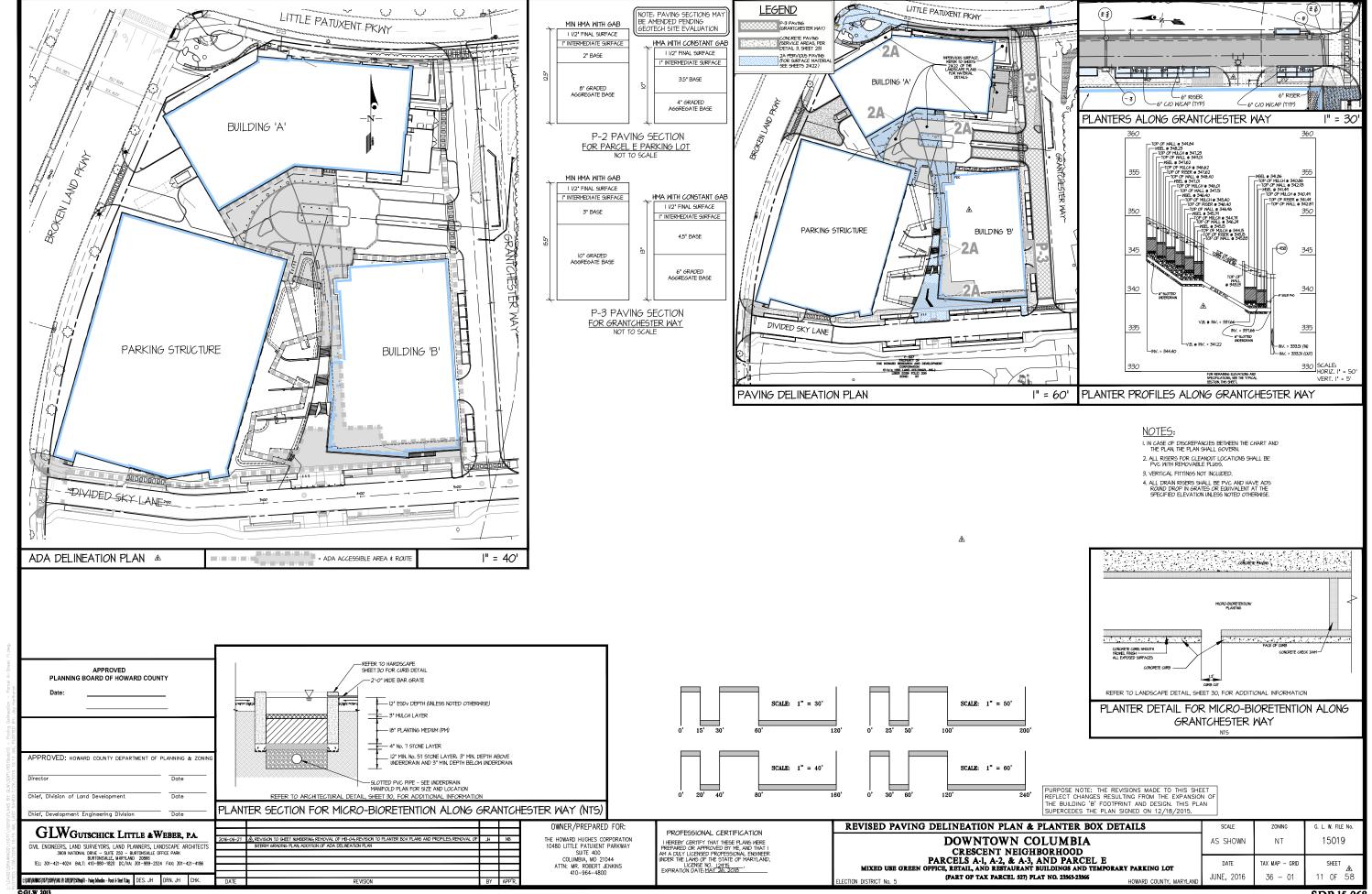
ITS DRIVEN TO INCH MINIMUM INTO GROUND NO MORE THAN 6 FEET APA

EARTH DIKE TRANSITION

STANDARD SYMBOL

P.AN.MEN





#### SPECIFICATIONS FOR BIORETENTION

#### Material Specifications

The allowable materials to be used in bioretention area are detailed in Table B.3.2.

The soil shall be a uniform mix free of stones, stumps, roots or other similar objects larger than two inches. No other materials or substances shall be mixed or dumped within the bioretention area that may be harmful to plant growth, or prove a hindrance to the planting or maintenance operations. The planting soil shall be free of Bermuda grass, Quackgrass, Johnson grass, or other noxious weeds as specified under COMAR 15.08.01.05.

The planting soil shall be tested and shall meet the following criteria:
pH range 5.2 - 7.0
organic matter 15 - 496 (by weight)
magnesium 35 lo/ac
phosphorus phosphorus (potoshim - P205) 75 lo/ac
potassium (potoshim - R20) 85 lib/ac solibile salts not to exceed 500 ppm

All bioretention areas shall have a minimum of one test. Each test shall consist of both the standard soil test for pH, phosphorus, and potassium and additional tests of organic matter, and soluble salts. A textural analysis is required from the site stockpilled topsoil. If topsoil is imported, then a texture analysis shall be performed for each location where the top soil was excavated.

Since different labs calibrate their testing equipment differently, all testing results shall come from the same testing

Should the pH fall out of the acceptable range, it may be modified (higher) with lime or (lower) with iron sulfate plus

It is very important to minimize compaction of both the base of the bioretention area and the required backfill. When possible, use excavation hoes to remove original soil. If bioretention areas are excavated using a loader, the contractor should use wilde track or marsh track equipment, or light equipment with turf type tires. Use of equipment with narrow tracks or narrow tires, rubber tires with large lugs, or high pressure tires will cause excessive compaction resulting in reduced infiltration rates and is not acceptable. Compaction will significantly contribute to

Compaction can be alleviated at the base of the bioretention facility by using a primary tilling operation such as a chisel plow, ripper, or subsoiler. These tilling operations are to refracture the soil profile through the 12 inch compaction zone. Substitute methods must be approved 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 backfilling 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.

Recommended plant material for bioretention areas can be found in Appendix A, Section A.2.3.

shall be planted following the non-grass ground cover planting specifications.

Mulch should be placed to a uniform thickness of 2" to 3". Shredded hardwood mulch is the only accepted mulch. Pine mulch and wood chips will float and move to the perimeter of the bioretention area during a storm event and are not acceptable. Shredded mulch 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 so 1/28th 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 nater ground bed cover after installation.

ees shall be braced using 2" by 2" stakes only as necessary and for the first growing season only. Stakes are to be equally spaced on the outside of the tree ball. Grasses and legume seed should be drilled into the soil to a depth of at least one inch. Grass and legume plugs

The topsoil specifications provide enough organic material to adequately supply nytrients from natural cycling. The primary function of the bioretention structure is to improve water quality. Adding fertilizers defeats, or at a minimum, impedes this goal. Only add fertilizer if wood chips or mulch are used to amend the soil. Rototill urea fertilizer at a rate of 2 pounds per 1000 square feet.

Underdrains are to be placed on a 3'-0" wide section of filter cloth. Pipe is placed next, followed by the grave bedding. The ends of underdrain pipes not terminating in an observation well shall be capped.

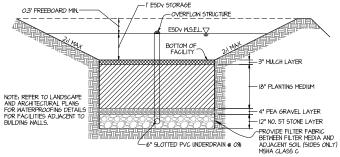
The main collector pipe for underdrain systems shall be constructed at a minimum slope of 0.5%. Observation wells and/or clean-out pipes must be provided (one minimum per every 1000 square feet of surface area).

The bioretention facility may not be constructed until all contributing drainage area has been stabilized



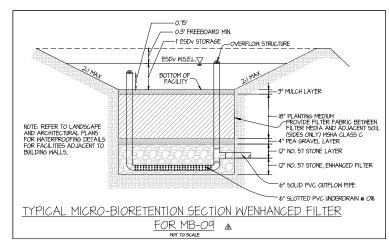
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE — SUITE 250 — BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20866
TEL: 301-421-4024 BALT: 410-850-1820 DC/VIX 301-893-2524 FAX: 301-421-4186

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# TYPICAL MICRO-BIORETENTION SECTION

<u>FOR MB-10, MB-11 & MB-12</u>



# OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED FILTERRA DEVICES

Activation

A Activation of the Filterro™ unit is performed ONLY by the Supplier, Purchaser is responsible for Filterro™ linet protection and sidesequent, clean out cost. This process cannot commence until the project site is fully sidelitized and cleaned fluil landscaping grass cover, final pointing and street sweeping, completed, negating the chance of costerious to materials contaminating the Filterro™ system. Core shall be taken during contribution and to damage the protective throat and to plates. B. Activation includes the following complete plates. B. Activation includes the following complete plates. B.

Mointenance A. Each correctly installed Filterra<sup>TM</sup> unit is to be maintained by the Supplier, or a Supplier approved contractor for a minimum period of I year. The cost of this service is to be included in the price of each Filterra<sup>TM</sup> unit. Extended maintenance contracts are available at extra cost upon request.

B. Annual maintenance consists of a maximum of (2) scheduled visits. The visits an scheduled seasonally the spring visit aims to clean up after winter loads including salts and sands. The fall visit helps the system by removing excessive leaflitter.

- Sales And School. The Tail visit helps the system by removing excessive earthwest.

  C. Each inglitenance visit consists of the following lacks.

  I. Filterna<sup>Th</sup> unit hespection

  3. Filter media evoluction and rectorage as necessary

  5. Filter media evoluction and rectorage as necessary

  6. Perposal of all maintenance refuse Items

  6. Disposal of all maintenance refuse Items

  7. Maintenance records updated and stored (reports available upon request)

  D. The beginning and ending data of Supplier's obligation to maintain the installed sighten shall be determined by the Supplier of the thre the superior is activated. Cheese must promptly notify the Supplier of any barriage to the plantist), which correlated to in thegol plant of the biornelations.

PURPOSE NOTE: THE REVISIONS MADE TO THIS SHEET REFLECT CHANGES RESULTING FROM THE EXPANSION OF THE BUILDING 'B' FOOTPRINT AND DESIGN. THIS PLAN SUPERCEDES THE PLAN SIGNED ON 12/18/2015.

# OWNER/PREPARED FOR:

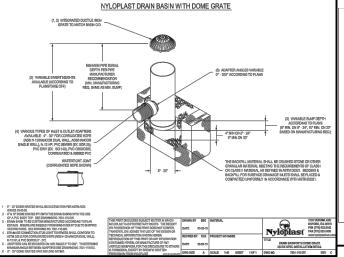
THE HOWARD HUGHES CORPORATION 10480 LITTLE PATILIZENT PARKWAY SHITE 400 COLLIMBIA MD 21044

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

# 12' LANE 12' LANE 2:I MAX. PROP. GRADE LINE (P.G.L.) . c R SIDEWALK PLANTING ZONE -NATIDAL ADEA

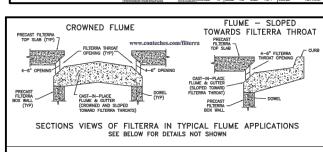
# DOWNTOWN COLUMBIA TYPICAL PRIVATE ROAD SECTION

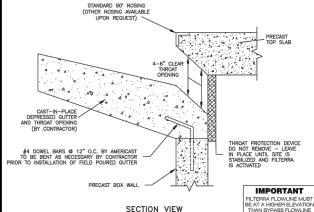
# TABLE B.3. 151, Type PS 28 or AASHTO MA278 38" per f @ 6" on conter, 4 holes per rev minimum of 3" of gravel over pipes; not minimum of 3" of gree de our pipes, not ne crassay valent much pages. On aus stating a figurated sun-piece consequenced dis suprempt send always state, as required dis suprempt send always state, as the sun of the sun o eracking. Sand substitutions such as Diabase are Gray sone 410 are not accordable. No



## IOPERATION AND MAINTENANCE SCHEDULE FOR LANDSCAPE INFILTRATION (M-3) MICRO-BIORETENTION (M-6), RAIN GARDENS (M-7), BIORETENTION SWALE (M-8), ENHANCED FILTERS (M-9)]

- The Owner shall maintain the plant material, mulch layer and soil layer annually Maintenance of mulch and soil is limited to correcting areas of erosion or wash out. Any mulch replacement shall be done in the spring. Plant material shall be checked for disease and insect infestation and maintenance will address dead material and pruning. Acceptable replacement plant material is limited to the following: 2000 Maryland Stormwater Design Manual Volume II. Table A.4.1 and 2.
- The Owner shall perform a plant in the spring and in the fall of each year. During the inspection, the Owner shall remove dead and diseased vegetation considered beyond treatment, replace dead plant material with acceptable replacement plant material, treat diseased trees and shrubs, and replace all deficient stakes and
- The Owner shall inspect the mulch each spring. The mulch shall be replaced every two to three years. The previous mulch layer shall be removed before the new layer is applied.
- The Owner shall correct soil erosion on an as needed basis, with a minimum of once per month and after each heavy storm ...





STANDARD FILTERRA THROAT OPENING DIFICATIONS OF DRAWINGS ARE ONLY PERMITTED WRITTEN AUTHORIZATION FROM FILTERRA DATE: 02-26-09 DWG: CGT-5 FILTERRA® THROAT OPENING ilterra

AND GUTTER OR FLUME DETAIL

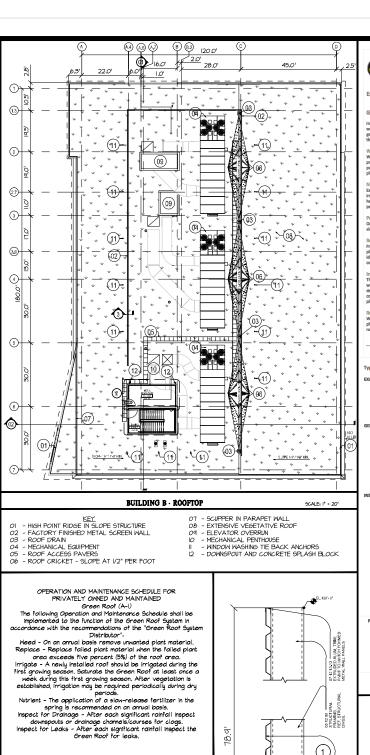
FILTERRA MEDIA \_ FRONT FACE \_ OF CURB **PLAN VIEW** SCHEDULI CLEANOUT COVE — 9º MULCH LAVE DIMENTATION \* MODIFIED SEDIMENTATION CHAMBER ELEVATION VIEW

r~	ANIADEL DEL INS	, OLL SINGUIOR	T INDLE ON S				
	UNIT DESIGNATION	INSIDE VAULT DIMENSIONS	FILTERRA TREATMENT AREA	MAXIMUM DRAINAGE AREA TREATED (SF)	WQv STORAGE CAPACITY (CF)	WQv CREDIT PROVIDED (CI	
	FTSC 6" x 4"	12' x 4'	6" x 4"	5,216	103	412	
	FTSC 8' x 4'	16' x 4'	8' x 4'	7,141	141	564	
	FTSC 6' x 6'	12° x 6°	6' x 6'	7,847	155	620	
	FTSC 8' x 6'	16" x 6"	8' x 6'	10,734	212	848	7
	FTSC 10' x 6'	19' x 6'	10° x 6°	12,638	250	1,000	7
	FTSC 10' x 8'	20' x 8'	10' x 8'	18,178	360	1,440	
	FTSC 11' x 8'	22' x 8'	11' x 8'	20,000	398	1,592	
	MET. 2. STORAG	E CAPACITY ASSUMES	40% VOIDS IN UNDER	WQv AND FILTER SURFA	VOIDS IN MULCH AND	MEDIA.	- (20) Filtorra
	SIZING IF	F DEPTH IS NOT 3.83'. A	ACCEPTABLE DEPTH IS	3.33' MIN. TO 5.00' MAX	RIM TO INVERT OUT.	U	

CONTECH

SEDIMENTATION CHAMBER

REVISED SWM DETAILS NOTES AND MAINTENANCE SCHEDULES - I SCALE 70NING G. L. W. FILE No. DOWNTOWN COLUMBIA 15019 AS SHOWN NT CRESCENT NEIGHBORHOOD PARCELS A-1, A-2, & A-3, AND PARCEL E
MIXED USE GREEN OFFICE, RETAIL, AND RESTAURANT BUILDINGS AND TEMPORARY PARKING LOT SHEET 🛦 DATE TAX MAP - GRID 12 OF 58 (PART OF TAX PARCEL 527) PLAT NO. 23565-23566 JUNE, 2016 36 - 01 HOWARD COUNTY, MARYLAND FCTION DISTRICT No. 5



APPROVED PLANNING BOARD OF HOWARD COUNTY ROOF LEVE APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONI

Date

Date

3 SECTION @ SCREENWALL



wites weed growth and contributes to nutrient-laden storm water discharges. We monitor soil conditions and plan eaith to determine if/when additional nutrient is needed. When appropriate we adjust for pH and nutrients usin

time to time, some mortality will occur. We will attempt to supplement bare spots with additional cutti

rigipulon in energia for impaction is a function of soil type, soil depth, and plant selection. For the typical extensive roof cover, we encourage deep root growth during the grow-in plants. This promotes resilience in the plants; they become more rought tolerant. In most cases, irrigation of extensive not covers is unnecessary and undesirable. He startme anothers are stop, we may identify a need for irrigation, which would full outside of routine maintenance. For intensive entodors are unatured federated more to execute out and would be articulated in cultival installational consistence.

IS table records of the ongoing health of your roof. After each maintenance visit, we will phic report that summarizes conditions on the roof. It is our intention to keep you l litions. We welcome feedback and suggestions for ways that we can better serve you.

# enclines and the second second

Until the first layer covering the roofing membrane has been installed, limit traffic over the working an

Until the risk piece covering the perioding membrane has been installed, but trainic over the working area to the second process of the process of the perioding area of the process of the process of the perioding area of the manufacturer. Protect perioding system Manufacturer. Protect perioding system Manufacturer. Protect perioding or particle board over 1 inch sheets of installation, or draining area to the province of the footing System Manufacturer.

Protect all one of the protective material shapping of the Roofing System Manufacturer.

Protect all one of faither from the roof disnange. Maintainin overlaps, folds, turn-ups, and turn-downs by methods which will not disnaing the roof grayer.

LIATION

Protection Layer: Install in a continuous layer over all horizontal and vertical surfaces to receive vagetated nor Covering, Including against base flashings and roof penetrations. Overlap seams 4 to inches. Keep underlings usafrace clane of a deribt user plorestonic layer is securely in-place. All rayers: Startings at low points of the roof, Install in a continuous layer. Overlap seams in a shiple formation to direct water within the water entending layer over their all layer tower off drains, but prevent users in the water restantion layer serving into the air layer. Ensure that at layer proven undestructed flow to not off shalls in all too factorions.

unobstructed flow to roof drains in all locations.

Institutal all layer below drain access chambers, scopper access chambers and edging to allow free flow of water to roof drains.

Caldings, Install edging where indicated, Secure until permanently fallalisated in place.

Caldings, Install edging where indicated, Secure until permanently fallalisated in place.

Caldings, Install edging where indicated scumbers, suppose occass chambers, damage conduit and other drainings accessories per drawings. Ensure unobstructed flow to roof drains. Secure until permanently fallalisated in-places.

permanently hallasted in-place. Water Retention and Drainage Layer: Install with hand-tight Joints. Ensure unobstructed flow of wate retention layer to roof drains in all locations. Filter Fabric: Install in continuous layers directly over water retention layer. Overlap joints at least 6

Filter Fairric: Install in conflinious layers directly over vester retention layer. Overlap joints at least 6 inches. Trum up filter fairs against edges so that granuler media is contained.

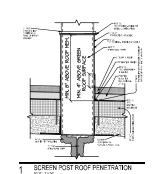
Nutrient Zone Layer and Weed Suppressing Layer: Place media to the specified depth allowing for compaction. Do not suddenly increase the lead to the roof during media installation. Place media in a single filt end allow to strate in two we diptinct layers.

ISGAI perms is accumentation.

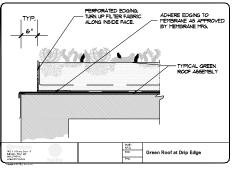
Journal of the proved Submittals.

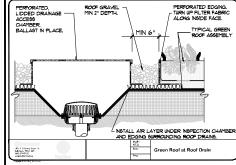
Hant plugs at a uniform density of 1000 plugs per 1000 square feet.

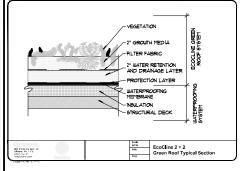
Jupplement plugs with cuttings to achieve the specified vegatative c

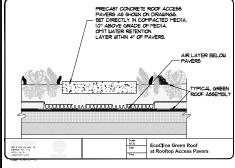


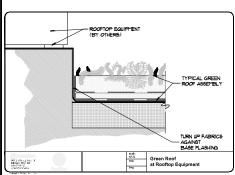
PURPOSE NOTE: THIS SHEET HAS BEEN ADDED AS A RESULT OF THE EXPANSION OF THE BUILDING 'B' FOOTPRINT AND DESIGN











SECTION OT 53 64 HIGH PERFORMANCE VEGETATED ROOF COVERING

PART I: GENERAL I.O. RELATED DOCUMENTS

Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division I Specification Sections, apply to this Section

Section.

Related requirements specified elsewhere include:

Roofing system: Division 07 Section 07 54 23

2. Leak detection: Division 07 Section "Membrane

2. SUMMAKY This Section Includes a complete extensive vegetated noof covering system, as shown on the Drokvings and described herein. The complete vegetated noof covering system includes all layers and associated accessories placed over the top of footing membrane in areas designated to receive a vegetated noof covering.

Typical Profile consists of, from top to bottom:

Typical Profile consists of, from top to bot foroath and Retamtion Assembly a. Plants b. Blodegradable sind pretection c. I-Inch thick seed-suppressing layer d. I-Inch thick surfamt zone layer e. Pilzer tabric f. 2-Inch tabk water retention layer Membrone Protection Layers g. Geotocktile Protection layer Membrone Protection Layer Membrone Protection Cayers

g. Section in Problems and informers. j. Roofing membrane (Division 07 Section 07 54 23) ction includes the following vegetated roof covering acc

This Section Inclinates are used in Edging 2. Drainage Accessories 5. Roof Groze 4. Roortop Access Powers 4. Roortop Access Powers 5. This Section Includes warrantly of the Vagetative Roof Covering.

D. This Section includes warranty of the Vegetative Root Covering.

1.02, PERIORMANICE REQUIREMENTS.
Vegetated root covering system shall.

1. Retain at least 15 gallone of apharad water per square foot.

2. Weigh not more than 2T lise per square foot, fully saturated.

3. Comply with ANSI VF-1 and ANSP/SFR RP-14.

4. Support a peremital plant indisacape.

5. Provide effluent drainage of moisture that is in access of moisture required for the vigerous growth of the insocial vegetation.

6. Protect roofing malardials from demage caused by experient outline violation.

# 1,04. DEFINITIONS

24. DET-INI LATE

Standard Definitions

Captured Noter: Nater that is retained within the vegetated root
acreeing selem ofter new water additions have coosed and that comot
accept his guiden makes through overprintion or place to proper selecaptured the selement of t

Inches on more. Semi-intensive Planting, vegetated noof covering with a total thickness of greater than 6 inches tot less than 12 Inches.

Vegetative Coverage, Coverage of the roof area by any part of living and rooted vegetation, as measured vertically from the tips of vegetation and ring the period of greatest growth (typically May and unless for existensive and the period of the coverage to great the period of the coverage to great the period of practest growth of the coverage to great the period of pracests growth and at least seventy periods (10%) of the nutrient zone modula area contains living root mass during periods of dominancy.

dommany.

Vegetabad Roof Covering: System of living plants, hetalled in a growing medium with drainings system over an rooting system. Vegetabad root in rooting system, vegetabad root in routing system and required for compatibility with the rooting system, Vegetabad root covering system may also include accessories size has sedging root grovel, access powers, draining access charmers, or interpretations.

gravel, access pavers, drainage access chambers, or sind profection.

8. Veopstade dighem installer, company that installs the veopstaded roof covering system. The Veopstaded System installer may be the same company as the Roofing installer. Company that provides and warrants the roof the completed Veopstaded Roof Covering system.

10. Roofing installer: Company that installs the building roofing system.

11. Roofing Provider. Company that provides and warrants the building roofing system.

"noting system.

OS. RETREBUCES

A. The following standards are applicable to this section.

A. The following standards are applicable to this section.

I. ANSI/OFF II. External Fire Design Standard for Vegetative Roots

2. ANSI/OFFIC REP-II. VR-II. Procedure for investigating Resistance to Root
Revietation on Vegetative Roots

5. ANSI/OFFIC REP-II kind Design Standard for Vegetative Rooting Systems

4. ANSI/OFFIC REP-II kind Design Standard for Vegetative Rooting Systems

4. ANSI/OFFIC REP-II kind Design Standard for Vegetative Rooting Systems

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4. ANSI/OFFIC REP-II kind Design Standard for Vegetative Rooting Systems

4. ANSI/OFFIC REP-II kind Systems

4. ANSI/OFFIC REP-II kind

Source Limitations: Obtain the entire vegetated roof covering from the Vegetated System Provider.

system;

Provide full-time site supervision during all phases of installation; Site Supervisor must have a minimum of bride (3) years documented experience supervisor must have a minimum of bride (3) years documented experience supervisor must be able to commission effectively with Your Architect sport report must be able to Commission effectively with Your Architect and Installation areas; Site Supervisor must be a full-time employee of Vegatated splaten installer;

Vegetated System initialier.

Tests for media shall be conducted by an independent laboratory with experience in testing of green roof media.

Pre-Combruston Meeting. At least one week prior to the commencement of work described under this section, the Roofing Installer, Vegetated System Installer and Vegetated System Installer and Vegetated System Provider shall meet with the appendication to discuss project sequence procedures for methods for professing the work, and review completed when the complicities with the specifications.

LOT. SLEMITTALS
A Qualification Data of Vagetated System Installer, including resumes of key personnel assigned to this project. Include certification issued by the Vagetated System Provider. Product Data for the vegetated roof covering provided via a single full-system submittal prepared by the Vegetated System Provider. Include MSDS sheets for all materials.

all materials.

Shop Drawings showing balled profile conditions and thicknesses, conditions at terminations, framsitions, penetrations, roof drains, supports, or other unusual or project-specific facilis. Shop Drawings shall bear the approval of the Vegiciated System Provider and Roofing Provider.

Samples: Samples (3) sets of samples indicated below.

2. Provide three (3) sets of samples and specified profile, assemble to the full depth specified. Assemble in a clear container at least 2 inches vide. Accessories: Six-inch linear samples of edging and other linear accessories. Six-inch by six-inch samples of any nonlinear accessor

Marranty: Sample warranty, Include with the sample warranty options for the Owner to extend the terms of the warranty. Include details of warranty phase Stewardship program.

LEED Sizemitales:

1. Product Data for Credit MRC4. For products having recycled content, decumeration indicating percentages by serget of post-downers and open product indicating parts of post-downers and open product indicating parts of post-for each product braining recycled content.

2. Product Data for Credit MRC5. Documentation of percentages of materials of each product produced villing 500 miles of the project site.

Marranty Submittals: Stewardship reports, media tests and other was submittals per Part 3 of this Section. I.O.B. DELIVERY, HANDLING AND STORAGE

A. Deliver plants to the jobstic in undamaged boxes or pallets that are clearly marked with the project name, contraction name, Vegetative System Provider's name, and plant species included.

store plants in a sur-lit but shaded outdoor area. Irrigate as needed and in accordance with directions of the rursery, install plants within 24 hours of recept or unpackage and care for before installation.

receipt or urpackage and care for before installation. Each delivery of bulk indentions shall be accompaned by a delivery ticket inducting the specific product delivered, veletit of delivery, name and address of manifecture or piece or ording shippor, receiptent, date and thin end delivery, or manifecture or or piece or ording shippor, receiptent, date and thin end delivery, bulk indirections on a large or in a deficialist, and the stage of minimize contamination, protect from wead seed infliction, and maintain in a dry condition. Nation rolled and sheet agode in manifecturers original packaging, store in a safe and secure location with itstallation.

E. Palletize and cover powers and masonry materials; store in a safe and secure location until installation.

I.O.R. PROLECT CONDITIONS

A Prootier Twin Indiations. Proceed with histaliation only when existing and forecasted seather conditions permit work to be performed when optimum fesults may be obtained. Apply products during forwable seather conditions according to Vegetated System Providers witten instructions and warrows; requirements, to not joint herbaceous materials when planting media temperatures are below freezing or when the or sent is present.

Provide a Single Source Vegetated System Norranty, issued by the Vegetated System Provider direct to the Owner. "Warranty shall include all coverages listed believe: peiox. Terms: All terms begin Immediately upon Installation and continue through Substantial Completion. Terms Istéd below are terms which commence upon Substantial Completion.

Not insmitted personal to the geor 
 Supern learnarity. The geor 
 Supern learnarity. Therefore geore 
 Noterity of Morantily. Therefore, geore 
 Noterity of Morantily. Therefore, geore 
 Noterity of Morantily. Vegetated System Provider agrees to repair or replac portions of the vegetated foot covering system that fall in workmankip within specified workmankip period.

System Narranty. Vogetated System Provider agrees to repair or replace portions of the Vogetated roof covering system that fall in materials within specified warranty period.

specified warranty period.

Fellines include but are not limited to

a. Loss of system permedellity or arainage capacity

b. Development of conditions detrimental to plant growth

c. Cracked an dishintegration of powers due to freeze-than cypling

2. Limitations: Term of power varanty is limited to ten (foll years.

Overburden Removal and Replacement informatily. Vagatatata System Provider
agrees to remove and replace performs or vegletacted not a overline in order to
allow access to the Robriting Netherrome in noder that others may access and

on the control of the Con

werrung penoa.

A required, on up to four (4) separate occurrences, remove and replace up to thenti-five square foot (25 SF) sections of vegetated roof covering in areas where leaks or membrane failures are suspected or detected.

detected.

ant Performance: Vegetoted System Provider shall act as Steward of the system of covering system dis described in Part 3.

Vegetotive Coverage:

a. Achieve full vegetotive coverage within 24 months of Substantial Completion.

b. Maintain full vegetative coverage for the duration of the warranty period. Replace or supplement plants in areas that do not achieve the specified coverages within the ventratil period. Immediately remove dead plants and replace as soon as growing conditions permit.

Failures Include, but are not limited to, death and unsatisfactory growth except for defects resulting from abuse or incidents that are beigand Vegetated System Provider's control.

PART 2: PRODUCTS 201. CONTINOUS YEEETATED ROOF COVERING SYSTEM
A Subject to compliance with requirements, provide one of the following:
5. EcoCline by Furbish (Furbish project #\_\_\_\_\_\_).
4. Or Approved Equivalent.

2.02. PLANTS
A Species:
I. Include at least T of the following, and per approved submittals:

"icide at least 1 of the following and per approved sylmittals.
Allim cerum.
Allim schoengprasum
Allim schoengprasum
Allim schoengprasum
Allim sensecens sep, nontanum var, glaukum
Delosperma capper!
Delosperma cutigarum
Diarthus carthelianorum
Phodinus takiseimanis i Soliden Carpet!
Sedem acre
Sedem alzon Eupharbiolade!
Sedem album
Sedem album Murale!
Sedem highritim Timmergrunchen'
Sedem kamtechatikum
Sedem kamtechatikum
Sedem pulichellim

Sedum pulchellum Sedum reflexum 'Blue Spruce' Sedum rupestre 'Angelina' Sedum sieboldiii Secture successions of the secture section of the secture section of the section

Cuthings.

Sedim specifies or other approved specifies that develop aerial roots that ill impallity noct malful into growing media.

Length At least 0.15-hiches.

Not in bloom.

A thorvested on-demand.

Seedi.

C. Seed.

Provide clean dry Sedum seed for vide-leaf sedums not suitable for cathege.

White seeds with fine sand to allow even soving at a rate of 1/8 oz. of seed per Gallon of sand.

3. Sow seed at a rate of 1 oz. seed per 1000 SF of coverage.

Oraank Tackifian

1. Maiorvali
2. Nead-Suppressing Loyer: An engineered aggregate material designed to provide inchanced for plant roads and molifian d high percentage of macropan space with regulty durder in roads and molifian d high percentage of macropan space with regulty durder in road to inhinitive generalisation of well of the regular design of the roads of the regular design designed to provide anchorage for plant roads, finding a residualistic design des provides availables des designed de

Mineral Material: >90% post-industrial or demolition product crushed brick. Less than 2% of mass shall contain particle sizes smaller than 0.25

mn.

2. Organic Nederial: IOO's post-holestrial pine thes, Organic noterial shall zone lagers. She value of combride seed-superdesing and nativest zone lagers.

D. Filter Fabric (Separation Fabric). Root-permodule, non-veve negotaxtile which is used to contain granular media lagers, lient to biological degradation and resistant to induffully occurring orbiticals, alchied and Zolda.

ii. vi resistance at occ nourse 70%. ASTM DAUSS Water Retention Layer. A layer of root-permedale synthetic material engineered to retain over 60% of its volume in captured water. VV Resistant, inert to biological degradation and resistant to naturally occurring chemicals, alkalis and acids.

Able to Althristand construction impacts and post-construction warranty phase pedestrian impact while retaining at least 45% of its retention capabilities.

2.04. MEMBRANE PROTECTION LAYERS
B. depleaktile Protection Febre. Layer of non-novien geotextile designed to prevent reconstruction diamage to inferriging layers during or after construction.
I. Noterviol. Tolgroppiere
2. Recycled Content: >440, post-teathyloi. 940, post-teathyloi. 2.05. ACCESSORIES

A. Edging
 I. Material: Formed Aluminum

Recycled Content: >=40% Size: As shown on the drawings

Substances with order traverage
 Configuration: L-shaped
 Not littlehases. It is gauge (0.050 inches)
 Provide drainage openings to allow water to freely flow to roof drains.
 Roofing Grovel: % to I-I/2" stone
 Locally generated, no deterrors materials
 Organic impurities. None
 Profitule size Distribution

th C% .

Roof Drain and Supper Access Chambers: Open-ended box or cylinder that covers draits and/or suppers and freelij comit water of its base, and shich incovers draits and/or suppers and realing lamit water of its base, and shich incovers.

In Material is gauge cluminum.

I. Material is gauge cluminum.

S. Racyleid content: >>405

S. Colon Mill Thish

Holght Some as profile thickness, plus one hich

S. Length II inches (naminal)

T. Open area: at loast 6 square inches per lineal toot of tace

6. PAVISS Rootlop Access Pavers: Pavers set within vegetated roof covering, I. Material: Hydraulically pressed preceds concrete 2. Color: Manifacturer's standard gray 3. Neight: 20-25 loser 4. Face State: 24-Inches by 24-Inches (nominal). Bevel top edges 3/16 Inch.

Tribichesis: 2 Inches (norminal)
Tribichesis: 2 Inches (norminal)
Absorption: Not greater than 5 percent per ASTM C I4O
Compressive Strength: >= 7.500 psi (52 MPa) minimum when tested according to ASTM C I4O

ASTM C I4O

No breakage and maximum I percent mass loss when tested for freeze-than resistance according to ASTM C 67.

PART 3: EXECUTION SOI, EXAMINATION
A Examine the completed rooting system for compliance with drawings, installation tolerances, and other conditions differenting performance.

B. Confirm that Roofing Provider has tested roofing system and found it to be free of leaks prior to commencing installation. Notify the Architect immediately if any conditions are present that may be detrimental to the performance of the Work. Proceed only after unsatisfactory conditions have been corrected.

3.02. GENERAL install vegetated roof covering system in accordance with approved submittals and the Contract Documents.

B. Until the first layer covering the roofing membrane has been installed, limit trafficover the working area to assential personnel only.

One to knowing area to assessing personen any.

Protect heavily traveled areas (e.g., corrisons for transporting media to the working areas) in a manner approvided by the Rooring System Provider.

Protect by down areas using protection facini, C2-inth pilysood or particle board over I-inth sheets of Insulation, or similar protective material approved the Rooring System Provider. the Rooting System Province.
E. Protect all laose-laid fabrics from wind damage. Maintain overlaps, folds, turn-ups, and turn-downs by methods which will not damage the rooting system.

um-ups, and sur-downs by methods which all first damage the notifing system.
3.05. MEMBRANE PROTECTION LAYERS AND ACCESSORY INSTALLATION.
A Protection Lager, install in a continuous lager over all horizontal and vertical
and roof penetrations. Overlap scars 4 to 8 inches. Keep underlying surface
clean of all decirs until protection lager is securely implaced.
B. Edging, install edging where indicated, Secure until permanently ballasted in
place.

proces.

C. Drainago Accessories: Place drain access chambers and other drainage accessories per drainings. Ensure unobstructed flow to roof drains. Secure unit permanently oblicited in Process.

D. Roof Graviel: Install to thickness shown on drawings. Do not suddenly increase the load to the roof during gravel installation.

3.04. VEGETATIVE ROOF COVERING INSTALLATION

 A. Water Retention Layer: Install with hand-tight joints, Ensure unobstructed flow water retention layer to roof drains in all locations. water retention lagifs to noof drafter in all Exations.

Pillar Pilotris Install in control super almostly over water retention lager.

Overlop pints at least 6 inches. Thin up filler fathic against adges so that
ground begins a controller and superior controller and an example of the controller and a controlle

75. YLANTING install plants and seed in accordance with accepted harticultural practice, warrantly requirements, the Contract Documents, the approved Submittals and when seasonally appropriate.

Apply seed at specified rate with approved sond cornier using a mechanical spreader. Seed will be installed by the Vegetative System Provider, before cittings are installed.

Littings are installed.

Install cuttings to achieve the specified vegetative coverages. Cuttings will be installed by the Vegetative System Provider of the seed has been applied, install bloogeractive in the reaction over the arther portion of the System Provider all the seed of the System Provider will restall temporary agray irrelation as needed during the first growing seed, or Vegetative System Provider will remove irregation within one year of the System Provider will remove irregation within one year of the System Provider will remove irregation within one year of the System Provider will remove irregation within one year of the System Provider will remove irregation within one year of the System Provider will remove irregation within one year of the System Provider will remove irregation within one year of the System Provider will remove irregation within one year of the System Provider will remove irregation within one year of the System Provider will remove irregation within one year of the System Provider will remove in the System Provider will remove the Sys

3.06. PLANT PERFORMANCE MARRANTY (STEMARDSHIP)
 A General. During Stemandship period, care for plantings by cultivating, needing, plantings. In the planting of the plantings of the plan

re project site.

As voluntaer plant species emerge, disting/ish between desirable species and seads.

Desirable plant species hcluide.

Plants bits combinate toward a low-maintenance, continues and upon-round vegetative cover that is predominatly personnel in facture, but which may accommodate some arrual plants.

Plants that grove and special of a pace that does not diminish species diversity and that does not require excessive maintenance.

Meeds include:

Nedes include:
 Nearby which are aggreesively spreading or very fast-growing that, if not removed world desidealize the place committed to produce of the product o

Remove weeds and facilitate growth of desirable species. Supplement desirable species as needed.

desirable species an needed."

In mores where the avisiting plant polette is not performing optimally, determine the record for plant performance, and suggests planting danges and performance in the planting of the planting danges and performance of suggests planting danges and performance or disease. Use interpreted pest management practices wherever possible to infinite the use of pestilides and reduce forcards, Tradhenias lecked projected controls such as testing of the folloge, mechanical controls such as feeting of the folloge, mechanical controls such as Serialos acrossity and public the folloge mechanical controls such as Serialos acrossity and public the folloge.

strops, and biological control agents.

9. Replace growing medium that becomes displaced or enoded because of settling wind or wider sour, or other processes.

1. Inspect root drains. Remove debris to ensure root drains are not obstructed.

7. Test media annually for nutrient levels, salt levels, pit and other conditions as necessary. Mantain a permanent log of all test results, include all vegetative root aradis. There that that results, salt, organic nature, and perhaps the supplementation of the second production of the second production

supplicement or fishel media as necessory. Review the Roofing Providers's warrouty and assist the Owner in compliance with said warranty. Do not use any indered or perform any work which kould compromise any saidily generated as or perform any work which kould compromise any saidily generated separation to Owner after social selected by with Include their residue, agrinqui pictic coverage, problem areas or detrimental conditions encountered, and proposed solutions for problems.

SCALE 70NING G. L. W. FILE No. NT 15019 AS SHOWN DATE TAX MAP - GRID SHEET

OWNER/PREPARED FOR: THE HOWARD HUGHES CORPORATION 10480 LITTLE PATILIZENT PARKWAY SHITE 400 COLLIMBIA MD 21044

ATTN: MR. ROBERT JENKINS 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 ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 12975 EXPIRATION DATE:MAY 26, 2018

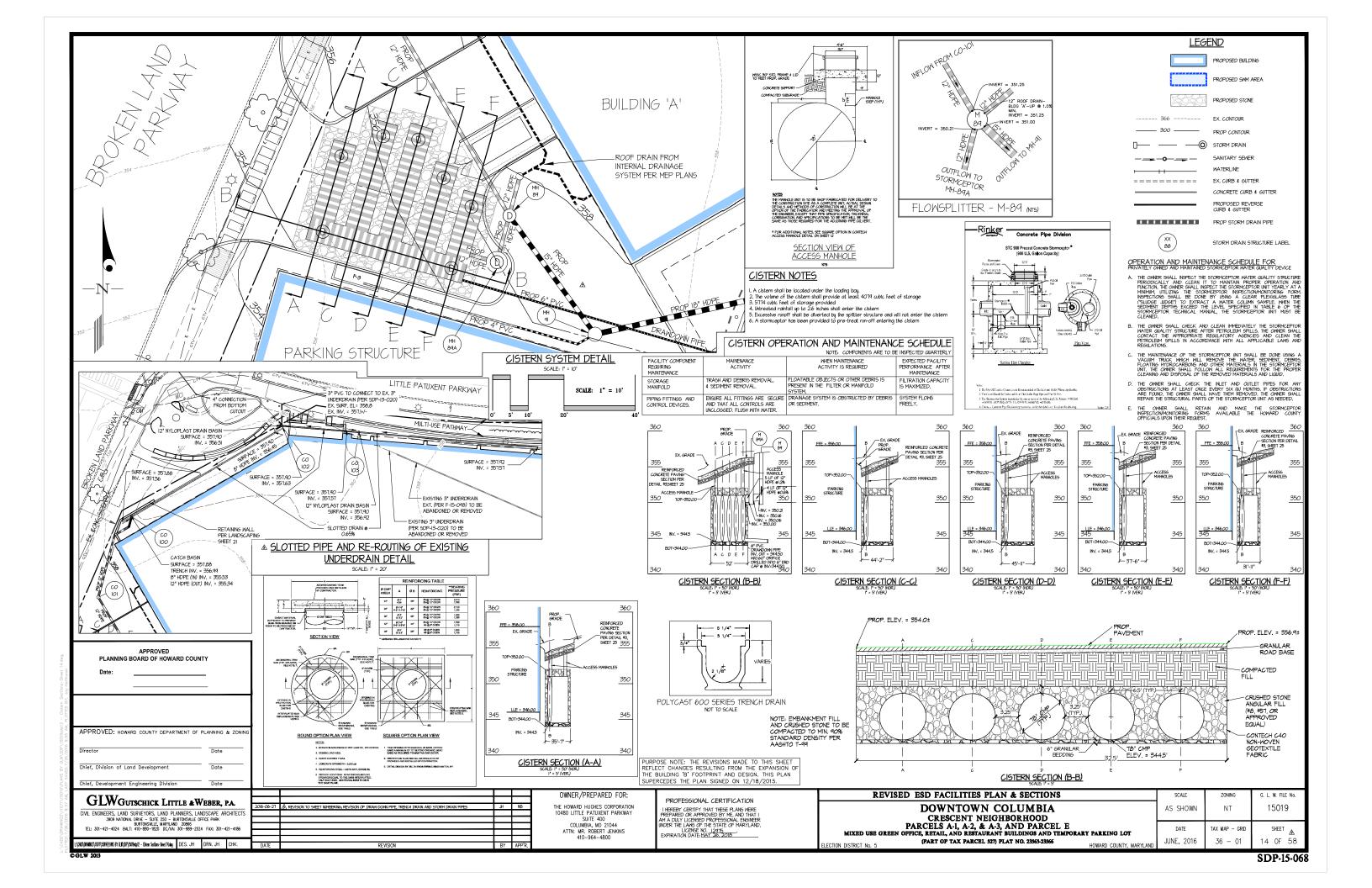
DOWNTOWN COLUMBIA CRESCENT NEIGHBORHOOD PARCELS A-1, A-2, & A-3, AND PARCEL E
MIXED USE GREEN OFFICE, RETAIL, AND RESTAURANT BUILDINGS AND TEMPORARY PARKING LOT

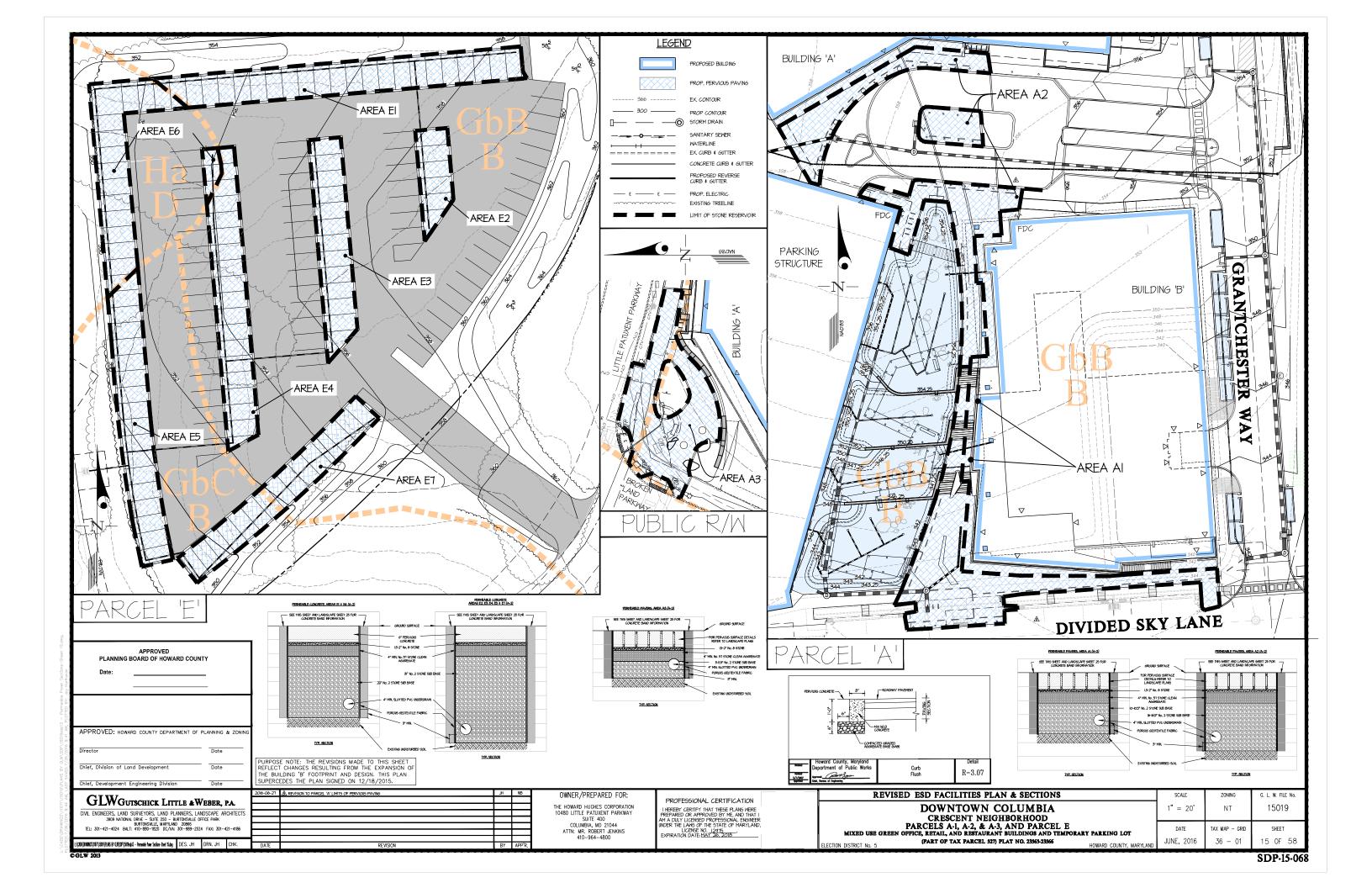
SWM DETAILS NOTES AND MAINTENANCE SCHEDULES - II JUNE, 2016 13 OF 58 (PART OF TAX PARCEL 527) PLAT NO. 23563-23566 36 - 01 HOWARD COUNTY, MARYLAND LECTION DISTRICT No. 5

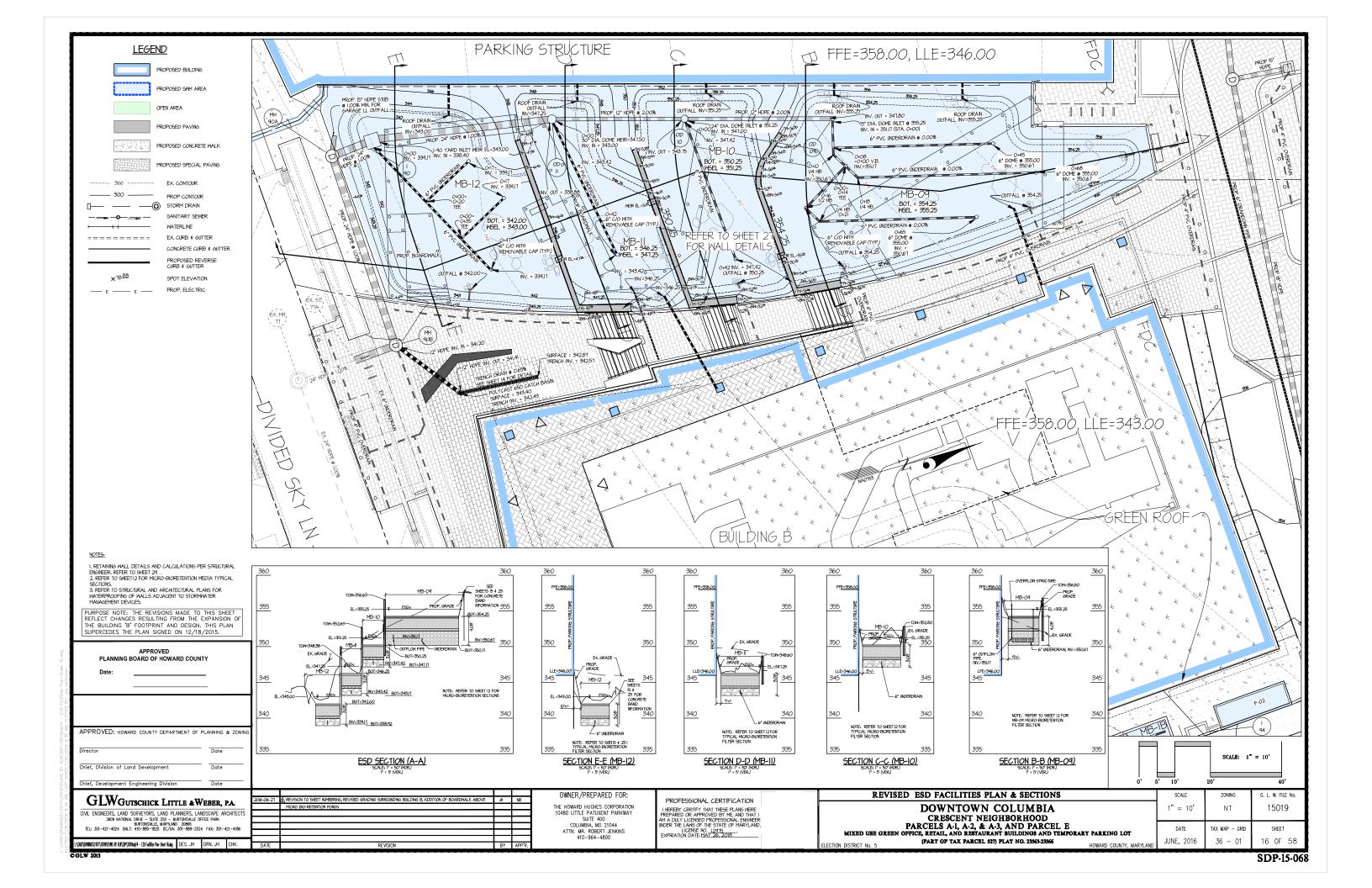
Chief Development Engineering Division

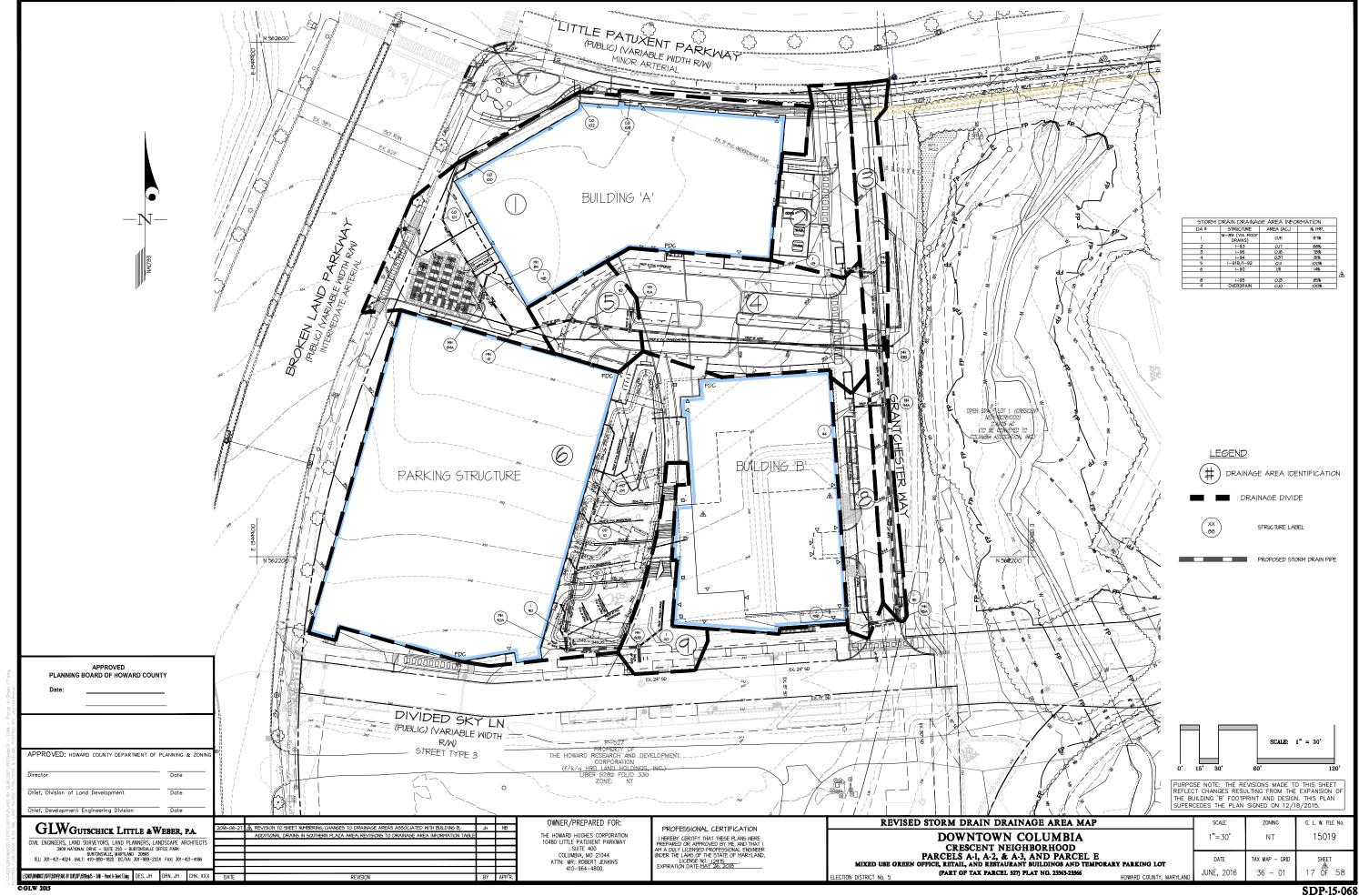
GLWGUTSCHICK LITTLE & WEBER, PA

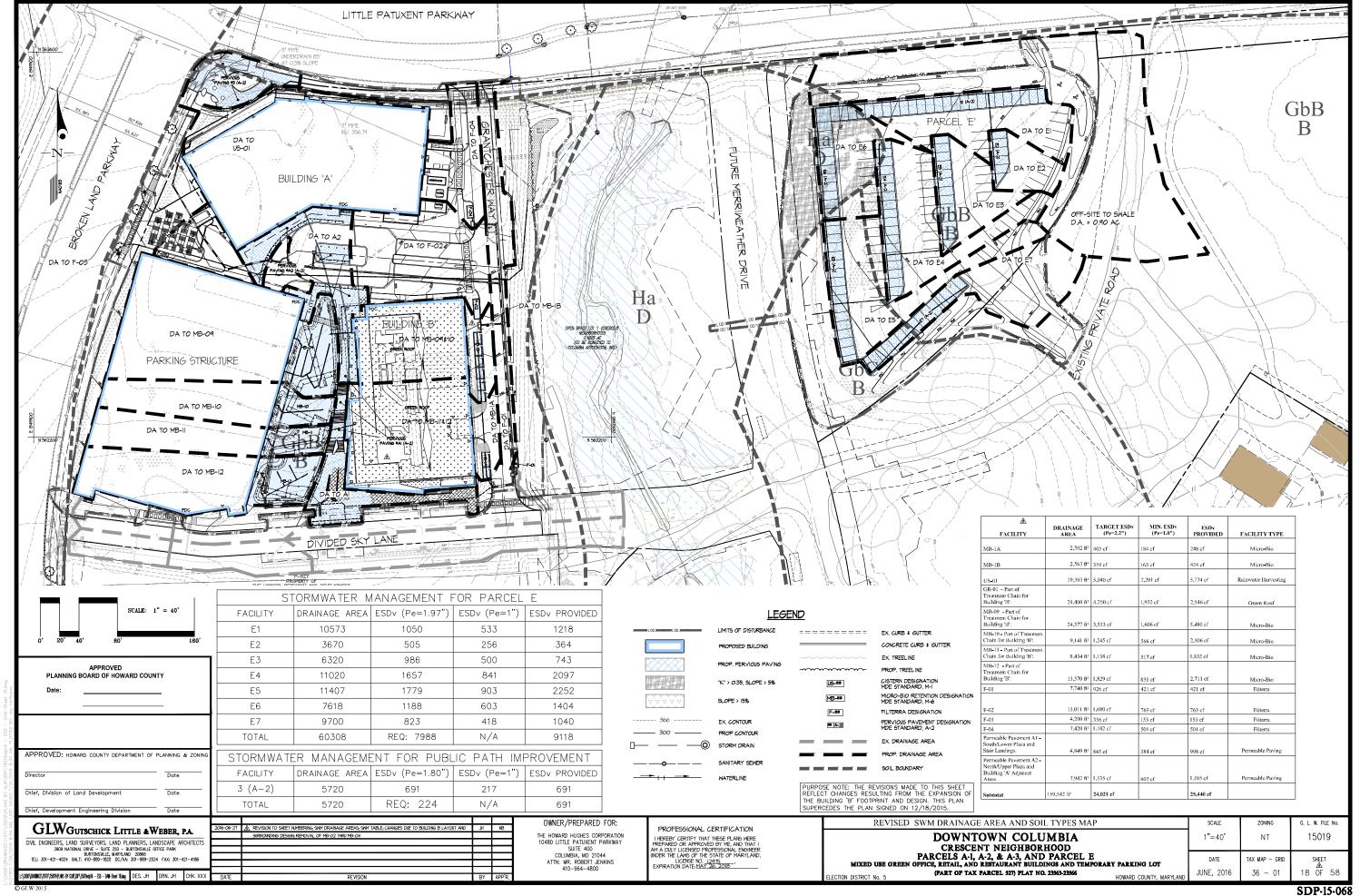
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE — SUITE 250 — BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20866
TEL: 301-421-4024 BALT: 410-850-1820 DC/VIX 301-893-2524 FAX: 301-421-4186

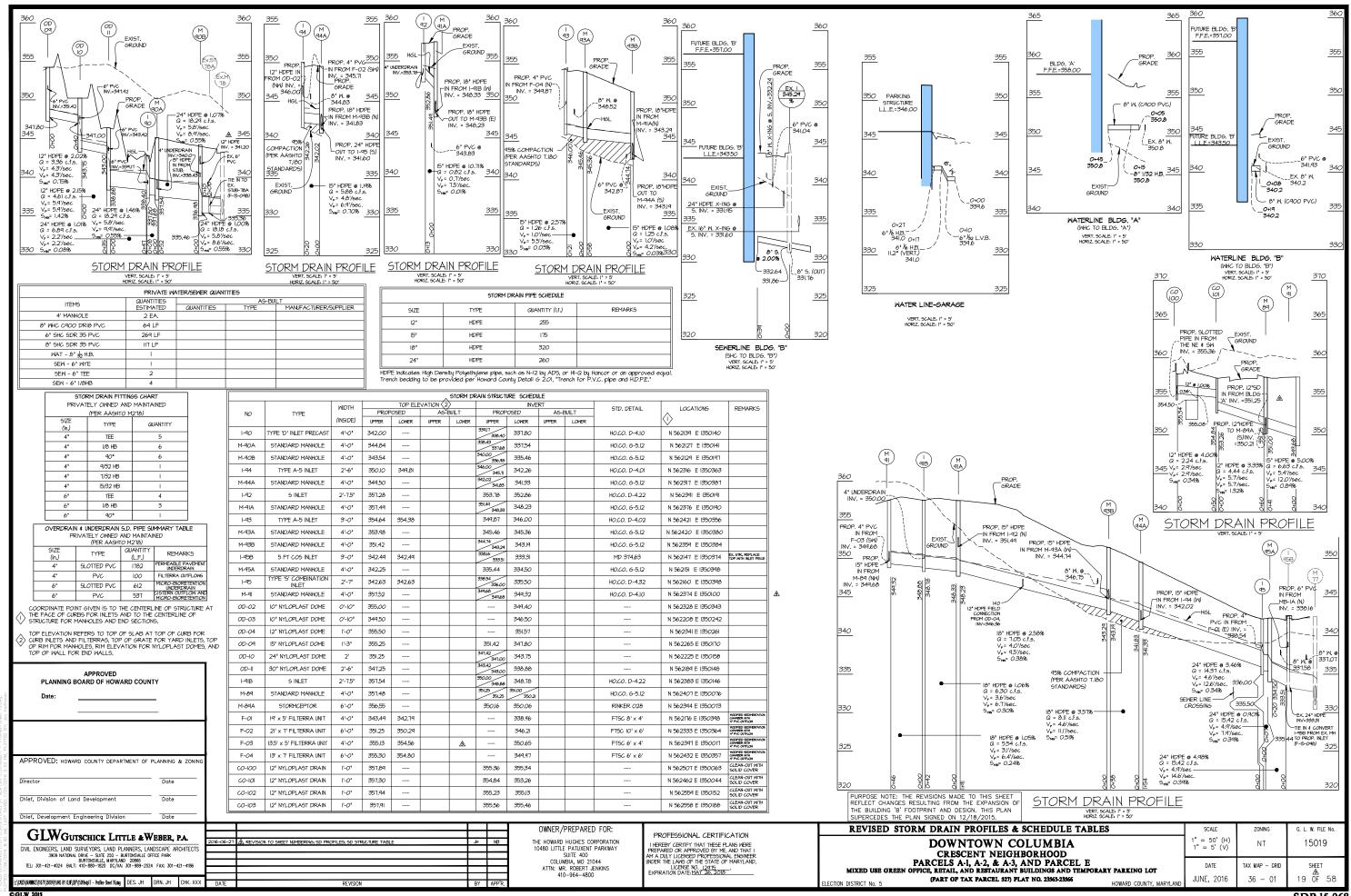












# LITTLE PATUXENT PARKWAY (PUBLIC) (VARIABLE WIDTH R/W) MINOR ARTERIAL 215+00 EX. PUBLIC MULTI-US PATHWAY EST L.15429, F.1 R=19.00" contrati BUILDING 'A' 26,640 SF OP 12" HOPE FFE=358.00 STA. 0+93 PARCEL 'A-I RETAINING WALL STA. 0+00 5625 x WALL LOCATION PLAN 1" = 30'

# **SPECIFICATIONS** MODULAR CONCRETE BLOCK RETAINING WALL

### 1.01 DESCRIPTION

- A. WORK SHALL CONSIST OF FURNISHING AND CONSTRUCTION OF A MODULAR RETAINING WALL SYSTEM IN ACCORDANCE WITH THESE SPECIFICATIONS AND IN REASONABLY CLOSE CONFORMITY WITH THE LINES, GRADES, DESIGN, AND DIMENSIONS SHOWN ON THE

#### 1 02 DELIVERY STORAGE AND HANDLING

- CONTRACTOR SHALL CHECK ALL MATERIALS UPON DELIVERY TO ASSURE THAT THE PROPER TYPE, GRADE, COLOR, AND CERTIFICATION HAS BEEN RECEIVED.
- B. CONTRACTOR SHALL PROTECT ALL MATERIALS FROM DAMAGE DUE TO JOB SITE CONDITIONS AND IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. DAMAGED MATERIALS SHALL NOT BE INCORPORATED INTO THE WORK.

#### PART 2: PRODUCTS

#### 2.01 MODULAR CONCRETE RETAINING WALL UNITS

- A. MODULAR CONCRETE UNITS SHALL CONFORM TO THE FOLLOWING ARCHITECTURAL REQUIREMENTS:
- FACE COLOR COLOR MAY BE SPECIFIED BY THE OWNER. FACE FINISH - SCULPTURED ROCK FACE IN ANGULAR TRI-PLANER OR FLAT CONFIGURATION. OTHER FACE FINISHES WILL NOT BE ALLOWED WITHOUT WRITTEN APPROVAL OF OWNER.
- BOND CONFIGURATION RUNNING WITH BONDS NOMINALLY LOCATED AT MIDPOINT VERTICALLY ADJACENT UNITS, IN BOTH STRAIGHT AND CURVED ALIGNMENTS. EXPOSED SURFACES OF UNITS SHALL BE FREE OF CHIPS
- CRACKS OR OTHER IMPERFECTIONS WHEN VIEWED A DISTANCE OF 10 FEET UNDER DIFFUSED LIGHTING B. MODULAR CONCRETE MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF ASTM C1372 - STANDARD SPECIFICATIONS FOR SEGMENTAL RETAINING WALL UNITS.
- C. MODULAR CONCRETE UNITS SHALL CONFORM TO THE FOLLOWING STRUCTURAL AND GEOMETRIC REQUIREMENTS MEASURED IN ACCORDANCE WITH APPROPRIATE REFERENCES:

COMPRESSIVE STRENGTH = 3000 PSI MINIMUM; ABSORPTION = 8% MAXIMUM (6% IN NORTHERN STATES) FOR STANDARD WEIGHT AGGREGATES;

DIMENSIONAL TOLERANCES = ±1/8" FROM NOMINAL UNIT DIMENSIONS NOT INCLUDING ROUGH SPLIT FACE, ±1/16" UNIT HEIGHT - TOP AND BOTTOM PLANES; UNIT SIZE - 8" (H) X 18" (W) X 12" (D) MINIMUM;

# UNIT WEIGHT - 75 LBS/UNIT MINIMUM FOR STANDARD WEIGHT AGGREGATES;

- INTER-UNIT SHEAR STRENGTH 1000 PLF MINIMUM AT 2 PSI NORMAL PRESSURE; AT 2 PSI NORMAL FORCE. GEOGRID/UNIT PEAK CONNECTION STRENGTH - 1000 PLF
- D. MODULAR CONCRETE UNITS SHALL CONFORM TO THE FOLLOWING CONSTRUCTABILITY REQUIREMENTS: (IF APPLICABLE)
- VERTICAL SETBACK = 1/8"± PER COURSE (NEAR VERTICAL) OR 1"+ PER COURSE PER THE DESIGN; ALIGNMENT AND GRID POSITIONING MECHANISM FIBERGLASS PINS, TWO PER UNIT MINIMUM;

MAXIMUM HORIZONTAL GAP BETWEEN ERECTED UNITS SHALL BE - 1/2 INCH.

#### 2.02 SHEAR CONNECTORS (IF APPLICABLE)

A. SHEAR CONNECTORS SHALL BE 1/2 INCH DIAMETER THERMOSET ISOPTHALIC POLYESTER RESIN-PROTRUDED FIBERGLASS REINFORCEMENT RODS OR EQUIVALENT TO PROVIDE CONNECTION BETWEEN VERTICALLY AND HORIZONTALLY ADJACENT UNITS. STRENGTH OF SHEAR CONNECTORS BETWEEN VERTICAL ADJACENT UNITS SHALD SHALD SHALD SHEAR OF THE SHEAR CONNECTORS SHALL BE AGAPABLE OF HOLDING THE GEOGRID IN THE PROPER DESIGN FOSTION FILE GEOGRID IN THE PROPER DESIGN POSITION DURING GRID PRE-TENSIONING AND BACKFILLING.

#### 2 03 BASE LEVELING PAD MATERIAL

MATERIAL SHALL CONSIST OF A COMPACTED #57 CRUSHED STONE BASE AS SHOWN ON THE CONSTRUCTION DPAUMINGS

#### 2.04 UNIT DRAINAGE FILL

A. UNIT DRAINAGE FILL SHALL CONSIST OF #57CRUSHED STONE

#### 2.05 REINFORCED BACKFILL

A. REINFORCED BACKFILL SHALL TYPE SM, BE FREE OF DEBRIS AND MEET THE FOLLOWING GRADATION TESTED IN ACCORDANCE WITH ASTM D-422 AND MEET OTHER PROPERTIES SHOWN ON THE PLAN:

SIEVE SIZE	PERCENT PASSING
2 INCH	100-75
3/4 INCH	100-75
NO. 40	0-60
NO. 200	0-35

PLASTICITY INDEX (PI) <10 AND LIQUID LIMIT <35 PER ASTM D-4318.

3. MATERIAL CAN BE SITE EXCAVATED SOILS WHERE THE ABOVE REQUIREMENTS CAN BE MET. UNSUITABLE SOILS FOR BACKFILL (HIGH PLASTIC CLAYS OR ORGANIC SOILS) SHALL NOT BE USED IN THE REINFORCED SOIL MASS.

#### 2.06 GEOGRID SOIL REINFORCEMENT

A. GEOSYNTHETIC REINFORCEMENT SHALL CONSIST OF GEOGRIDS MANUFACTURED SPECIFICALLY FOR SOIL

# REINFORCEMENT APPLICATIONS AND SHALL BE MANUFACTURED FROM HIGH TENACITY POLYESTER YARN.

#### PART 3 EXECUTION

CONTRACTOR SHALL EXCAVATE TO THE LINES AND GRADES SHOWN ON THE CONSTRUCTION DRAWINGS. OWNER'S REPRESENTATIVE SHALL BE RESPONSIBLE FOR INSPECTING AND APPROVING THE EXCAVATION PRIOR TO PLACEMENT OF LEVELING MATERIAL OR FILL SOILS.

#### 3.02 BASE LEVELING PAD

- A. LEVELING PAD MATERIAL SHALL BE PLACED TO THE LINES AND GRADES SHOWN ON THE CONSTRUCTION DRAWINGS TO A MINIMUM THICKNESS OF 6 INCHES AND EXTEND LATERALLY A MINIMUM OF 6" IN FRONT AND BEHIND THE MODULAR WALL UNIT.
- LEVELING PAD SHALL BE PREPARED TO INSURE FULL CONTACT TO THE BASE SURFACE OF THE CONCRETE UNITS.

## 3.03 MODULAR UNIT INSTALLATION

- FIRST COURSE OF UNITS SHALL BE PLACED ON THE LEVELING PAD AT THE APPROPRIATE LINE AND GRADE ALIGNMENT AND LEVEL SHALL BE CHECKED IN ALL DIRECTIONS AND INSURE THAT ALL UNITS ARE IN FULL CONTACT WITH THE BASE AND PROPERLY SEATED.
- B. PLACE THE FRONT OF UNITS SIDE-BY-SIDE. DO NOT LEAVE GAPS BETWEEN ADJACENT UNITS. LAYOUT OF CORNERS AND CURVES SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- INSTALL SHEAR/CONNECTING DEVICES PER MANUFACTURER'S RECOMMENDATIONS.
- PLACE AND COMPACT DRAINAGE FILL WITHIN AND BEHIND WALL UNITS. PLACE AND COMPACT BACKFILL SOIL BEHIND DRAINAGE FILL. FOLLOW WALL ERECTION AND DRAINAGE FILL CLOSELY WITH STRUCTURE BACKFILL.
- MAXIMUM STACKED VERTICAL HEIGHT OF WALL UNITS, PRIOR TO UNIT DRAINAGE FILL AND BACKFILL PLACEMENT AND COMPACTION, SHALL NOT EXCEED THREE COURSES.

#### 3.04 STRUCTURAL GEOGRID INSTALLATION

- GEOGRID SHALL BE ORIENTED WITH THE HIGHEST STRENGTH AXIS PERPENDICULAR TO THE WALL ALIGNMENT.
- GEOGRID REINFORCEMENT SHALL BE PLACED AT THE STRENGTHS, LENGTHS, AND ELEVATIONS SHOWN ON THE CONSTRUCTION DESIGN DRAWINGS OR AS DIRECTED BY THE ENGINEER.
- THE GEOGRID SHALL BE LAID HORIZONTALLY ON COMPACTED BACKFILL AND ATTACHED TO THE MODULAR WALL UNITS. PLACE THE NEXT COURSE OF MODULAR CONCRETE UNITS OVER THE GEOGRID. THE GEOGRID SHALL BE PULLED TAUT. AND ANCHORED PRIOR TO BACKFILL PLACEMENT ON THE GEOGRID.

D. GEOGRID REINFORCEMENTS SHALL BE CONTINUOUS
THROUGHOUT THEIR EMBEDMENT LEMOTHS AND PLACED
SIDE-BY-SIDE TO PROVIDE 100% COVERAGE AT EACH
LEVEL. SPLICED CONNECTIONS BETWEEN SHORTER
PIECES OF GEOGRID OR GAPS BETWEEN ADJACENT
PIECES OF GEOGRID ARE NOT PERMITTED.

#### 3.05 REINFORCED BACKFILL PLACEMENT

- A. REINFORCED BACKFILL SHALL BE PLACED, SPREAD, AND COMPACTED IN SUCH A MANNER THAT MINIMIZES THE DEVELOPMENT OF SLACK IN THE GEOGRID AND INSTALLATION DAMAGE.
- REINFORCED BACKFILL SHALL BE PLACED AND COMPACTED IN LIFTS NOT TO EXCEED 6 INCHES WHERE HAND COMPACTION IS USED, OR 8 10 INCHES WHERE HEAVY COMPACTION EQUIPMENT IS USED. LIFT THICKNESS SHALL BE DECREASED TO A CHIEVE THE REQUIRED DENSITY AS REQUIRED.
- REINFORCED BACKFILL SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY AS DETERMINED BY ASTM D698. THE MOISTURE CONTENT OF THE BACKFILL MATERIAL PRIOR TO AND DURING COMPACTION SHALL BE UNIFORMLY DISTRIBUTED THROUGHOUT EACH LAYER AND SHALL BE + 3% TO 3% OF OPTIMUM.
- D. ONLY LIGHTWEIGHT HAND-OPERATED EQUIPMENT SHALL BE ALLOWED WITHIN 3 FEET FROM THE TAIL OF THE MODULAR CONCRETE UNIT.
- E. TRACKED CONSTRUCTION EQUIPMENT SHALL NOT BE OPERATED DIRECTLY UPON THE GEOGRID REINFORCEMENT. A MINIMUM FILL THICKNESS OF 6 INCHES IS REQUIRED PRIOR TO OPERATION OF TRACKED VEHICLES OVER THE GEOGRID. TRACKED VEHICLE TURNING SHOULD BE KEPT TO A MINIMUM TO PREVENT TRACKS FROM DISPLACING THE FILL AND DAMAGING THE
- RUBBER TIRED EQUIPMENT MAY PASS OVER GEOGRID REINFORCEMENT AT SLOW SPEEDS, LESS THAN 10 MPH. SUDDEN BRAKING AND SHARP TURNING SHALL BE AVOIDED.
- G. AT THE END OF EACH DAY'S OPERATION. THE
  CONTRACTOR SHALL SLOPE THE LAST IFFTOF
  FOR THE CONTRACTOR SHALL SLOPE THE LAST IFFTOF
  FOR THE CONTRACTOR SHALL NOT ALLOW SURFACE RUNOFF FROM
  ADJACENT AREAS TO BETTER THE WALL CONSTRUCTION

#### 3.06 CAP INSTALLATION

A. CAP UNITS SHALL BE GLUED TO UNDERLYING UNITS WITH AN ALL-WEATHER ADHESIVE RECOMMENDED BY THE MANUFACTURER.

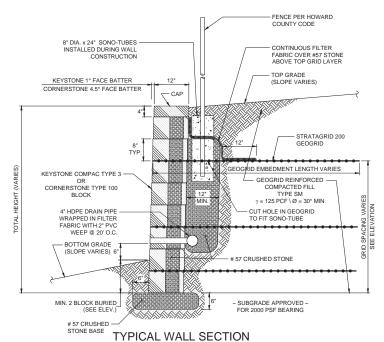
# 3.07 FIELD QUALITY CONTROL

- A. THE OWNER SHALL ENGAGE INSPECTION AND TESTING SERVICES, INCLUDING INDEPENDENT LABORATORIES, TO PROVIDE QUALITY ASSURANCE AND TESTING SERVICES DURING CONSTRUCTION.
- B. AS MINIMUM, QUALITY ASSURANCE TESTING SHOULD INCLUDE FOUNDATION SOIL INSPECTION, SOIL AND MICHAEL STREET, AND OBSERVATION OF CONSTRUCTION FOR GENERAL COMPLIANCE WITH DESIGN DRAWNINGS AND SPECIFICATIONS.

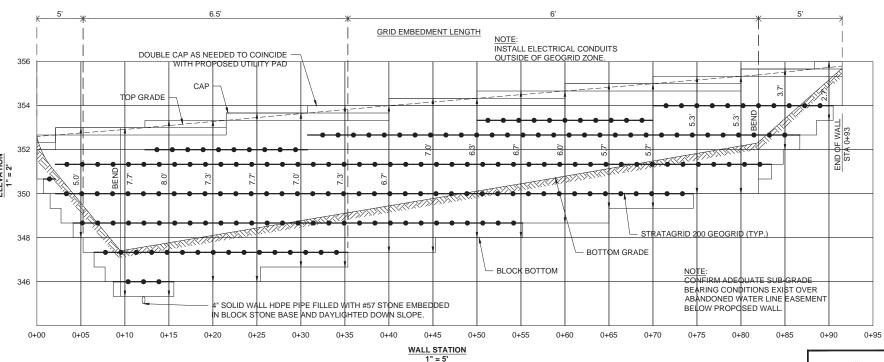
## **HOWARD COUNTY NOTES:**

- 1. NO TREES SHALL BE PLANTED WITHIN 10 FEET OF THE TOP OF THE RETAINING WALL.
- RETAINING WALLS SHALL ONLY BE CONSTRUCTED UNDER THE OBSERVATION OF A REGISTERED PROFESSIONAL ENGINEER AND A (NICET, WACEL, OR EQUIVALENT) CERTIFIED SOILS TECHNICIAN .
- 3 THE REQUIRED BEARING PRESSURE BENEATH THE WALL THE REQUIRED BEARING PRESSURE BENEATH THE WALL SYSTEM SHALL BE VERIFIED IN THE FIELD BY A CERTIFIED SOILS TECHNICIAN. TESTING DOCUMENTATION MUST BE PROVIDED TO THE HOWARD COUNTY INSPECTOR PRIOR TO START OF CONSTRUCTION. THE REQUIRED BEARING TEST SHALL BE THE DYNAMIC CONE PENETROMETER TEST ASTM STP-399.
- THE SUITABILITY OF FILL MATERIAL SHALL BE CONFIRMED BY THE ON-SITE SOILS TECHNICIAN. EACH 8' LIFT MUST BE COMPACTED TO A MINIMUM OF 95% STANDARD PROCTOR DENSITY AND THE TESTING REPORT SHALL BE MADE AVAILABLE TO THE HOWARD COUNTY INSPECTOR UPON COMPLETION OF CONSTRUCTION.
- 5. WALLS SHALL NOT BE CONSTRUCTED ON UNCERTIFIED
- WALLS SHALL NOT BE CONSTRUCTED WITHIN A HOWARD COUNTY RIGHT-OF-WAY OR EASEMENT.





N.T.S.



WALL ELEVATION

PROFESSIONAL CERTIFICATION HEREBY CERTIFY THAT THESE PLAN VERE PREPARED OR APPROVED BY M AND THAT I AM A DULY LICENSED ROFESSIONAL ENGINEER UNDER TH I AWS OF THE STATE OF MARYLAND LICENSE NO. 14434, EXPIRATION DATE: 05/13/1

NT

SCALE

AS SHOWN

DATE

JUNE, 2016

HCEA JOB NO.

**ENGINEERING ASSOCIATES** 

entyal (W Hojed File) (MK) Danhan Chlaric Green Half (Arisiny and Beign Dumine) (Arean) Baldang DES. HM DRN. HM CHK. RWS DATE

OWNER/PREPARED FOR:

COLUMBIA, MD 21044 ATTN: MR. ROBERT JENKINS 410-964-4800

WALL DETAILS - ||| DOWNTOWN COLUMBIA

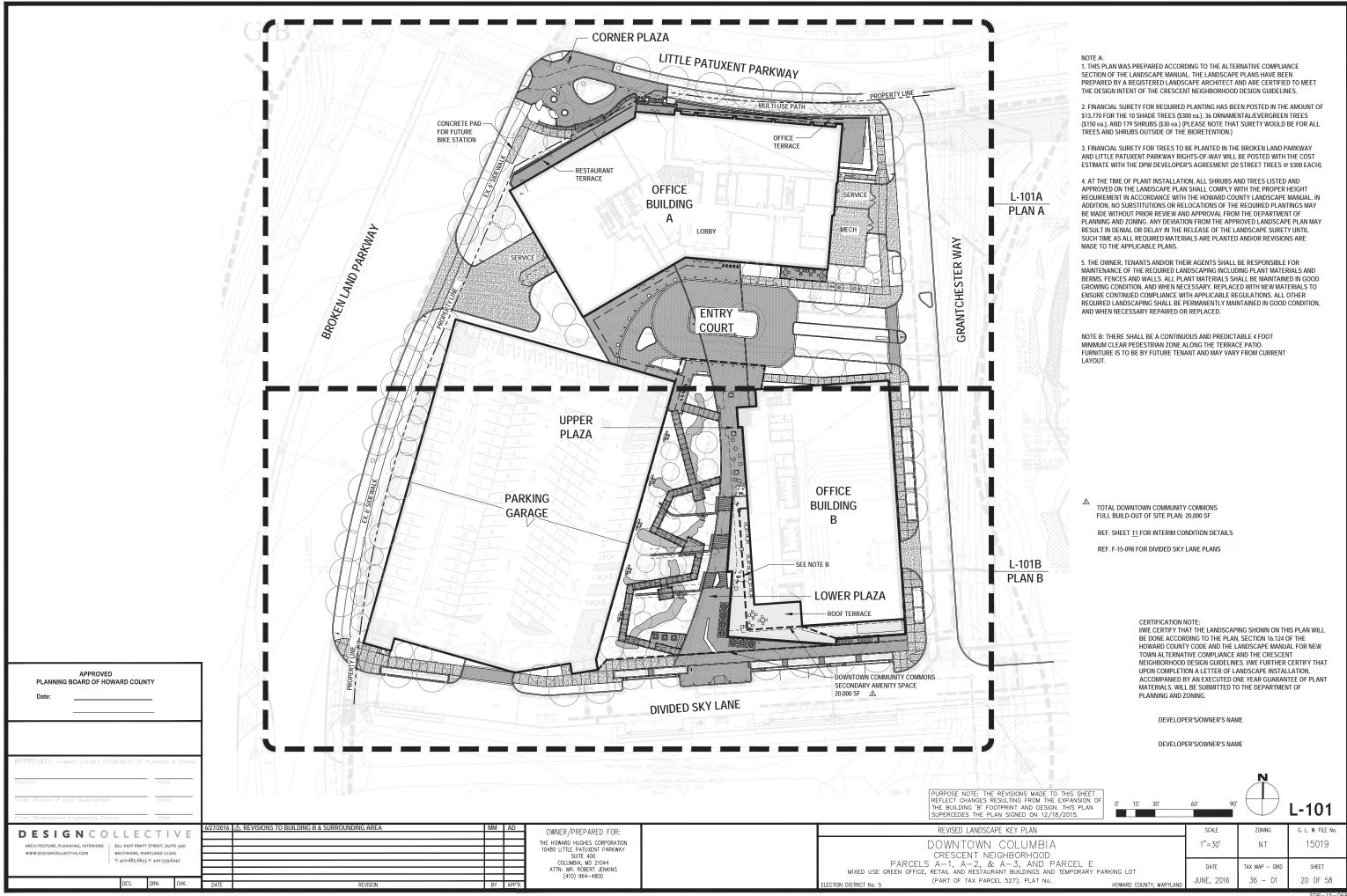
CRESCENT NEIGHBORHOOD

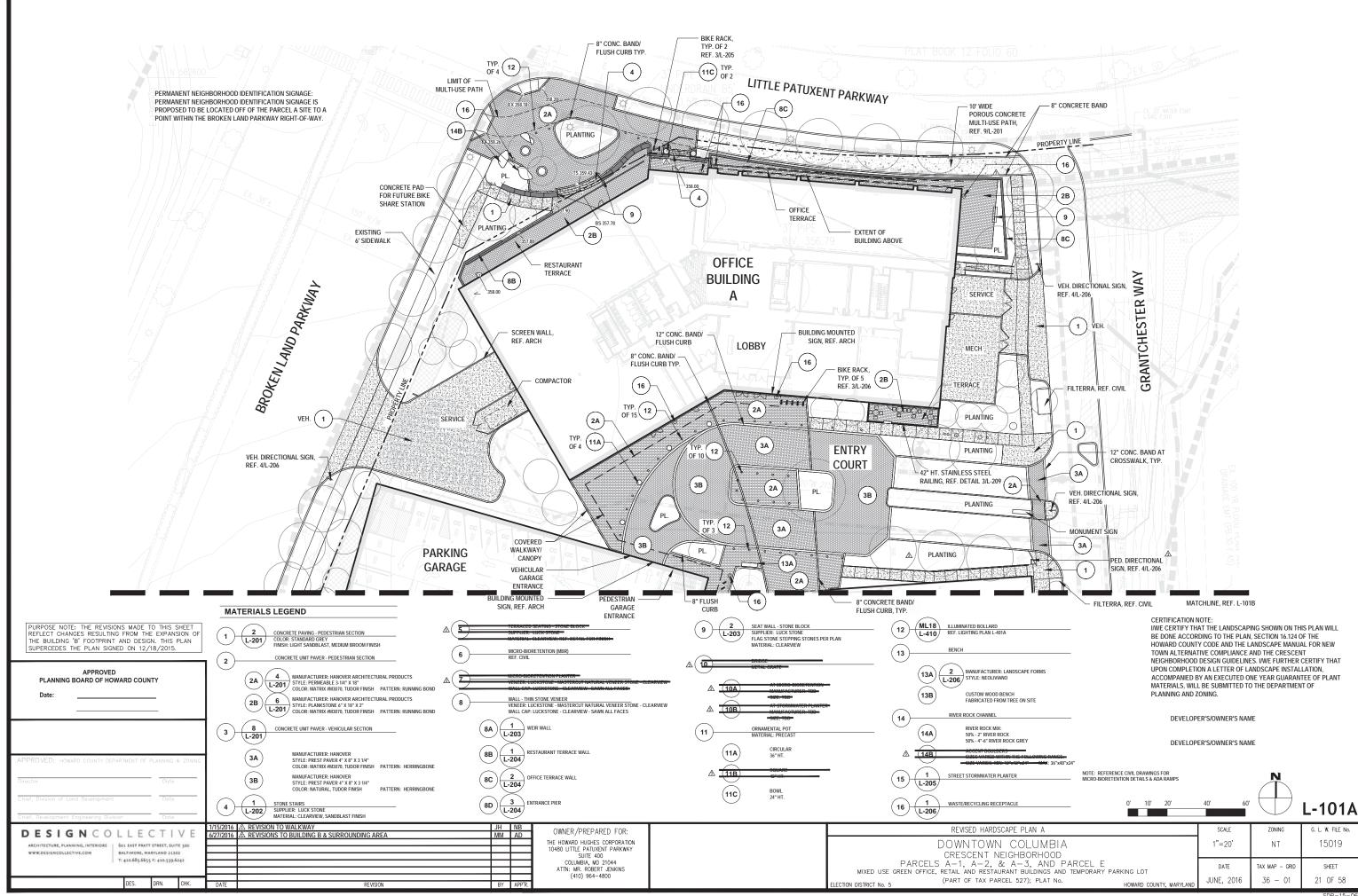
PARCELS A-1, A-2, & A-3, AND PARCEL E

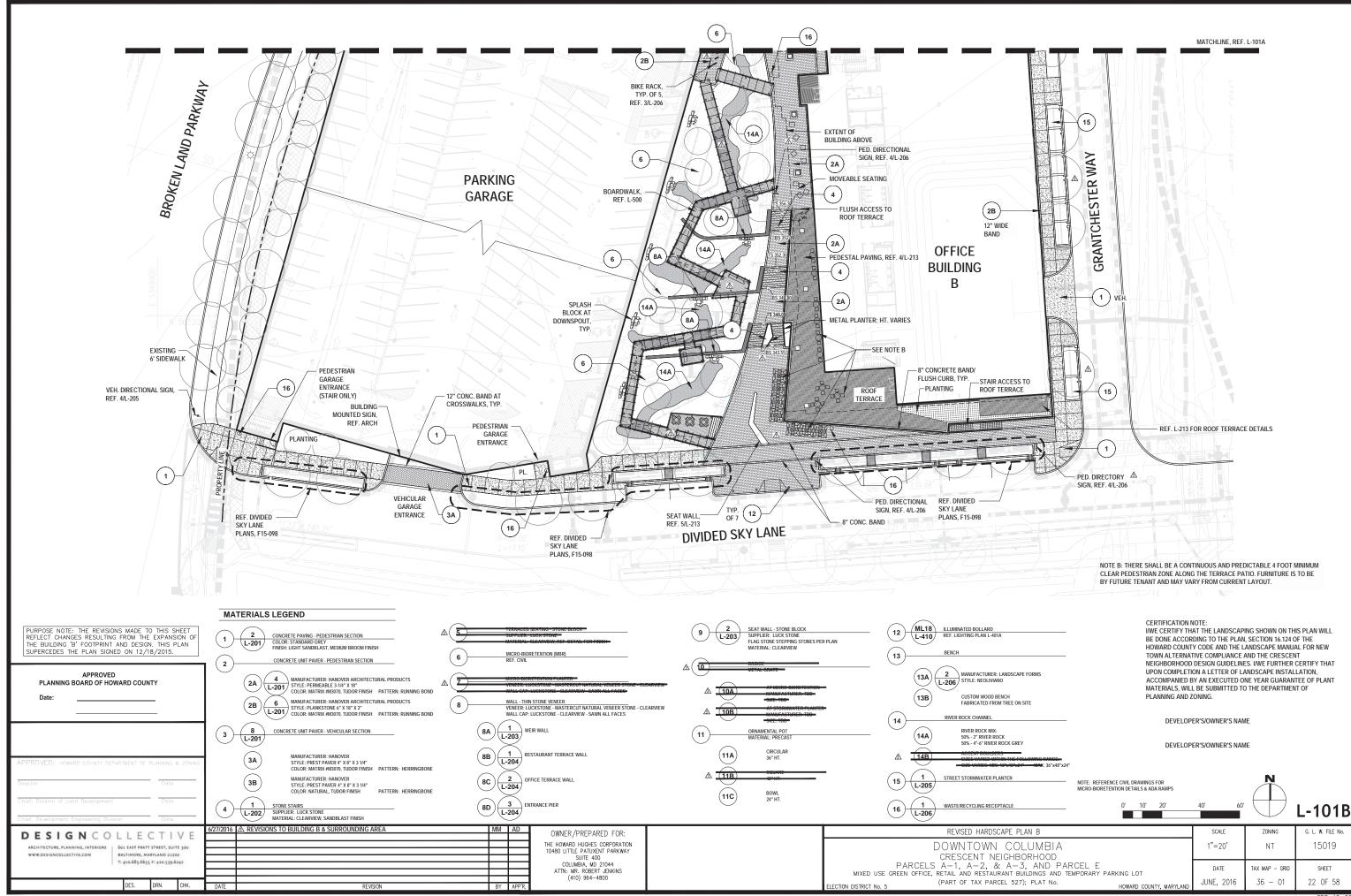
MIXED USE GREEN OFFICE, RETAIL, AND RESTAURANT BUILDINGS AND TEMPORARY PARKING LOT (PART OF TAX PARCEL 527); PLAT NO. 23565-23566
HOWARD COUNTY, MARYLAND LECTION DISTRICT No. 5

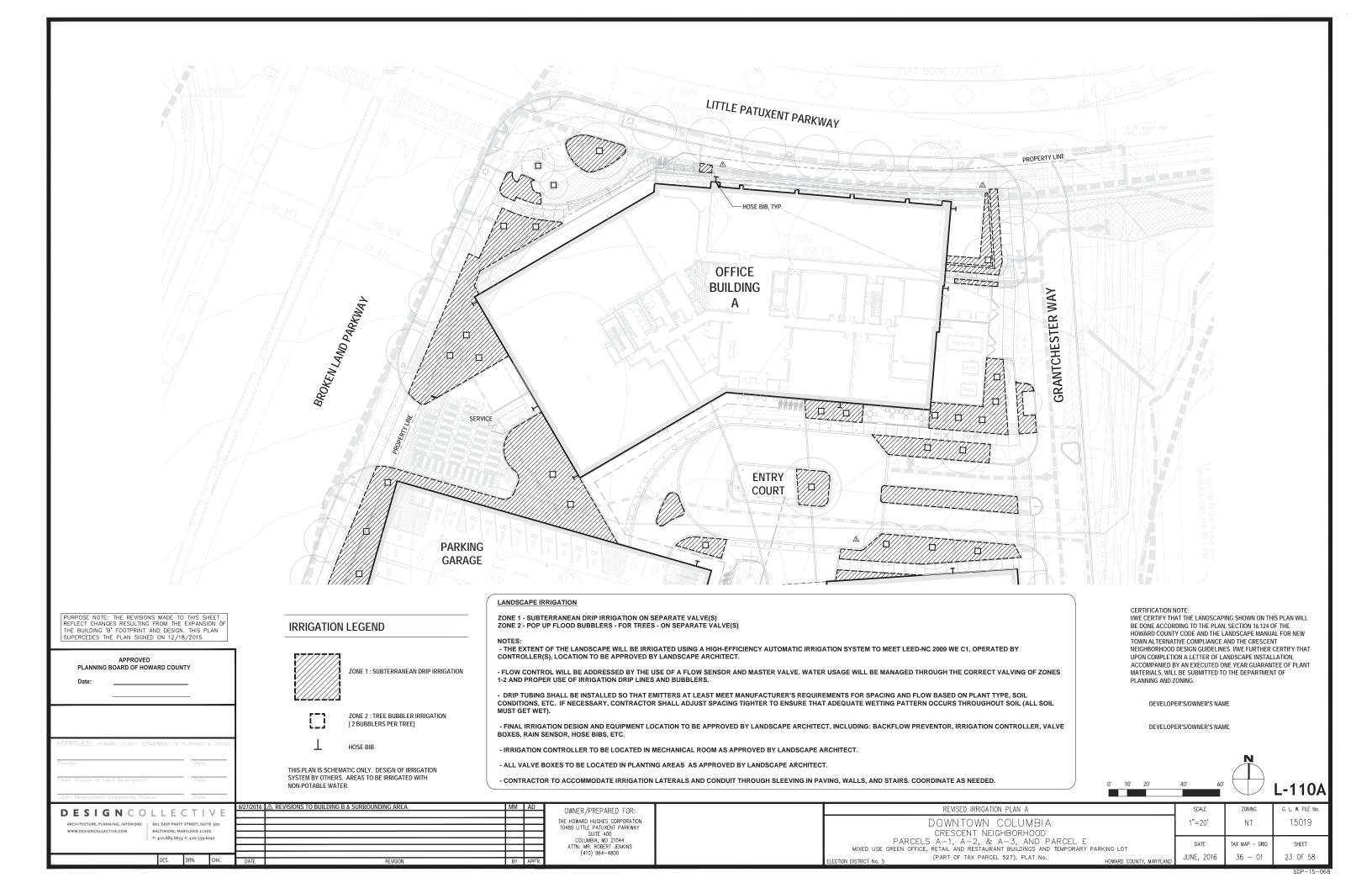
TAX MAP - GRIF SHFFT 29 OF 58

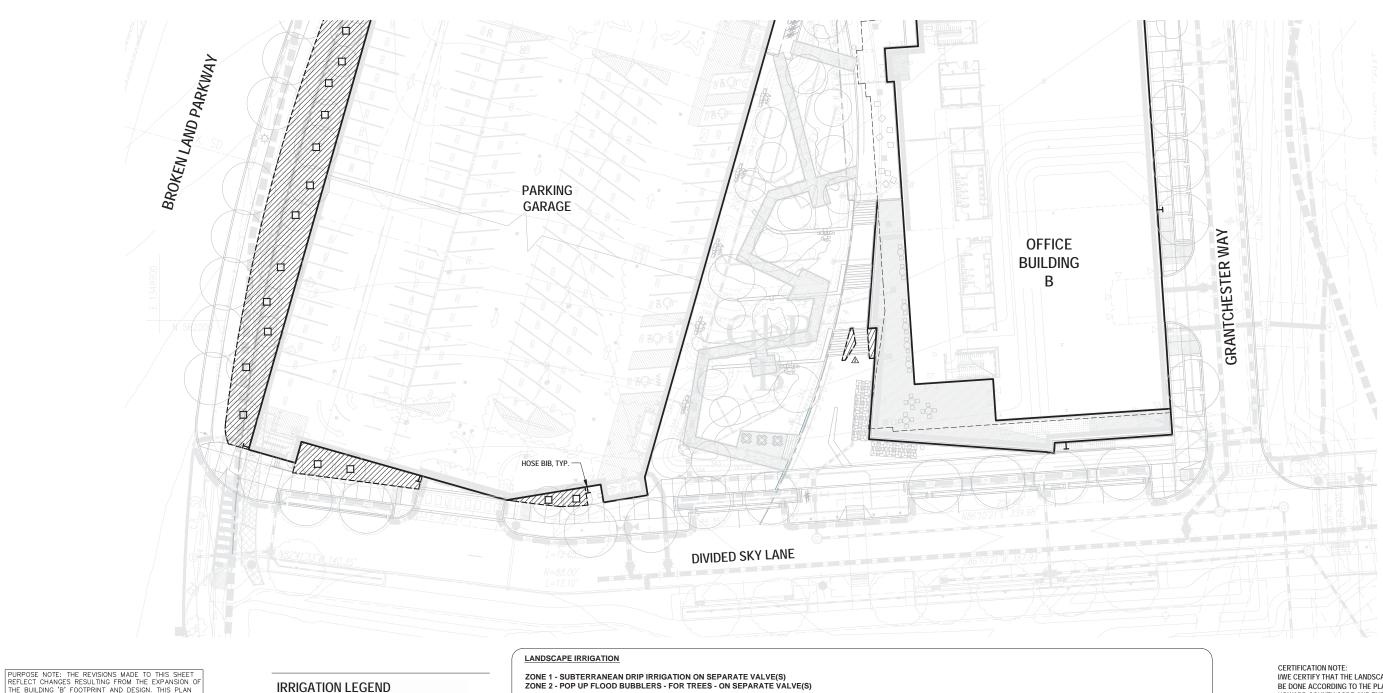
15065-F











PURPOSE NOTE: THE REVISIONS MADE TO THIS SHEET REFLECT CHANGES RESULTING FROM THE EXPANSION OF THE BUILDING 'B' FOOTPRINT AND DESIGN. THIS PLAN

# PLANNING BOARD OF HOWARD COUNTY



ZONE 1: SUBTERRANEAN DRIP IRRIGATION



ZONE 2 : TREE BUBBLER IRRIGATION [ 2 BUBBLERS PER TREE]



HOSE BIB

THIS PLAN IS SCHEMATIC ONLY. DESIGN OF IRRIGATION SYSTEM BY OTHERS. AREAS TO BE IRRIGATED WITH NON-POTABLE WATER.

- THE EXTENT OF THE LANDSCAPE WILL BE IRRIGATED USING A HIGH-EFFICIENCY AUTOMATIC IRRIGATION SYSTEM TO MEET LEED-NC 2009 WE C1, OPERATED BY CONTROLLER(S), LOCATION TO BE APPROVED BY LANDSCAPE ARCHITECT.

- FLOW CONTROL WILL BE ADDRESSED BY THE USE OF A FLOW SENSOR AND MASTER VALVE. WATER USAGE WILL BE MANAGED THROUGH THE CORRECT VALVING OF ZONES 1-2 AND PROPER USE OF IRRIGATION DRIP LINES AND BUBBLERS.
- DRIP TUBING SHALL BE INSTALLED SO THAT EMITTERS AT LEAST MEET MANUFACTURER'S REQUIREMENTS FOR SPACING AND FLOW BASED ON PLANT TYPE, SOIL CONDITIONS, ETC. IF NECESSARY, CONTRACTOR SHALL ADJUST SPACING TIGHTER TO ENSURE THAT ADEQUATE WETTING PATTERN OCCURS THROUGHOUT SOIL (ALL SOIL
- FINAL IRRIGATION DESIGN AND EQUIPMENT LOCATION TO BE APPROVED BY LANDSCAPE ARCHITECT, INCLUDING: BACKFLOW PREVENTOR, IRRIGATION CONTROLLER, VALVE BOXES, RAIN SENSOR, HOSE BIBS, ETC.
- IRRIGATION CONTROLLER TO BE LOCATED IN MECHANICAL ROOM AS APPROVED BY LANDSCAPE ARCHITECT.
- ALL VALVE BOXES TO BE LOCATED IN PLANTING AREAS AS APPROVED BY LANDSCAPE ARCHITECT.
- CONTRACTOR TO ACCOMMODATE IRRIGATION LATERALS AND CONDUIT THROUGH SLEEVING IN PAVING, WALLS, AND STAIRS, COORDINATE AS NEEDED.

I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL FOR NEW TOWN ALTERNATIVE COMPLIANCE AND THE CRESCENT NEIGHBORHOOD DESIGN GUIDELINES. I/WE FURTHER CERTIFY THAT UPON COMPLETION A LETTER OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

DEVELOPER'S/OWNER'S NAME

DEVELOPER'S/OWNER'S NAME



DESIGNCOLLECTIVE 601 EAST PRATT STREET, SUITE 300

T: 410.685.6655 F: 410.539.6242

OWNER/PREPARED FOR: THE HOWARD HUGHES CORPORATION INE HOWARD HOGHES CORPORATION
10480 LITTLE PATUXENT PARKWAY
SUITE 400
COLUMBIA, MD 21044
ATTN: MR. ROBERT JENKINS
(410) 964–4800

REVISED IRRIGATION PLAN E DOWNTOWN COLUMBIA CRESCENT NEIGHBORHOOD

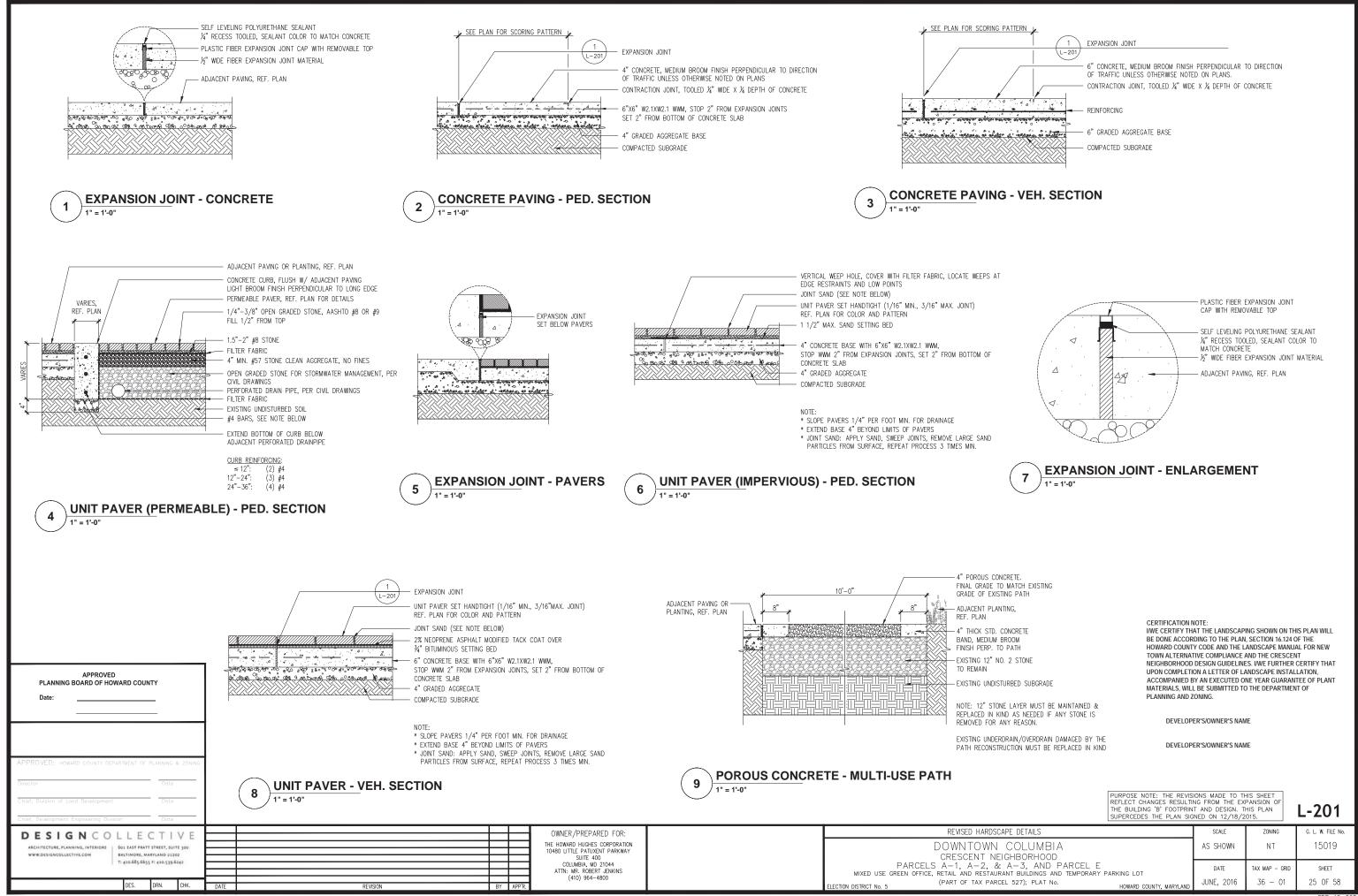
PARCELS A-1, A-2, & A-3, AND PARCEL E

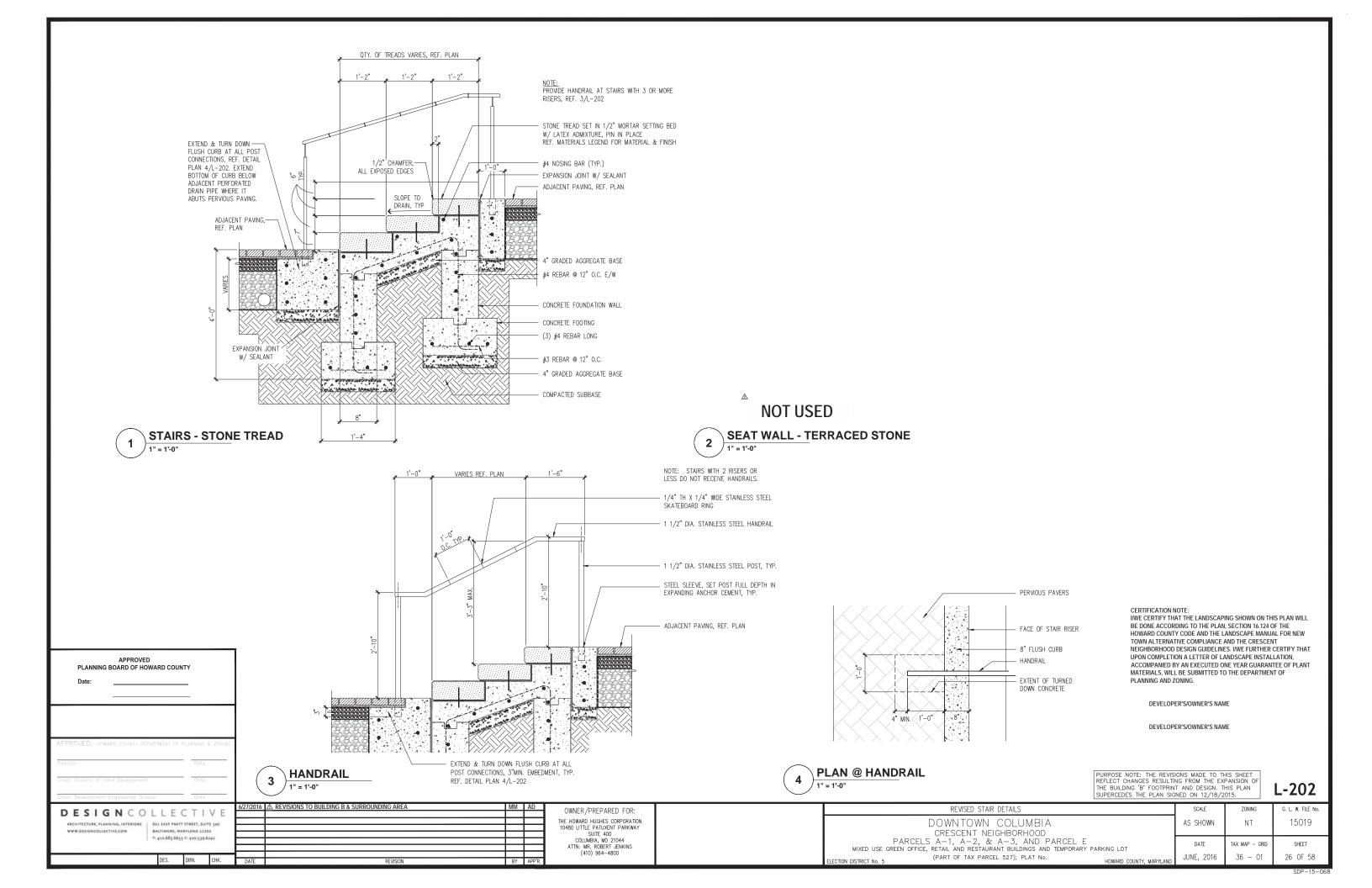
MIXED USE GREEN OFFICE, RETAIL AND RESTAURANT BUILDINGS AND TEMPORARY PARKING LOT TAX MAP - GRIE JUNE, 2016 (PART OF TAX PARCEL 527); PLAT No. ECTION DISTRICT No. 5 HOWARD COUNTY, MARYLAND

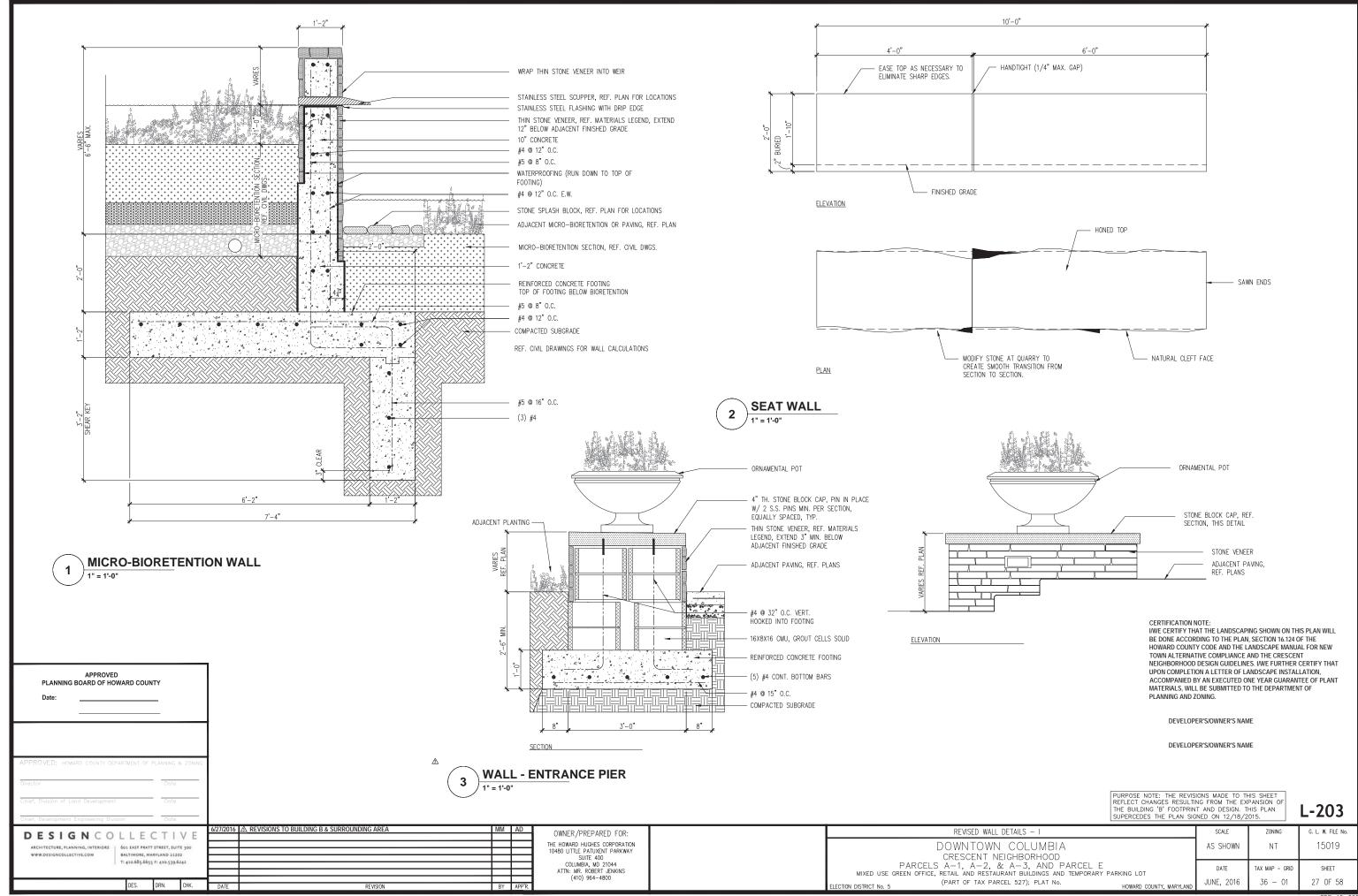
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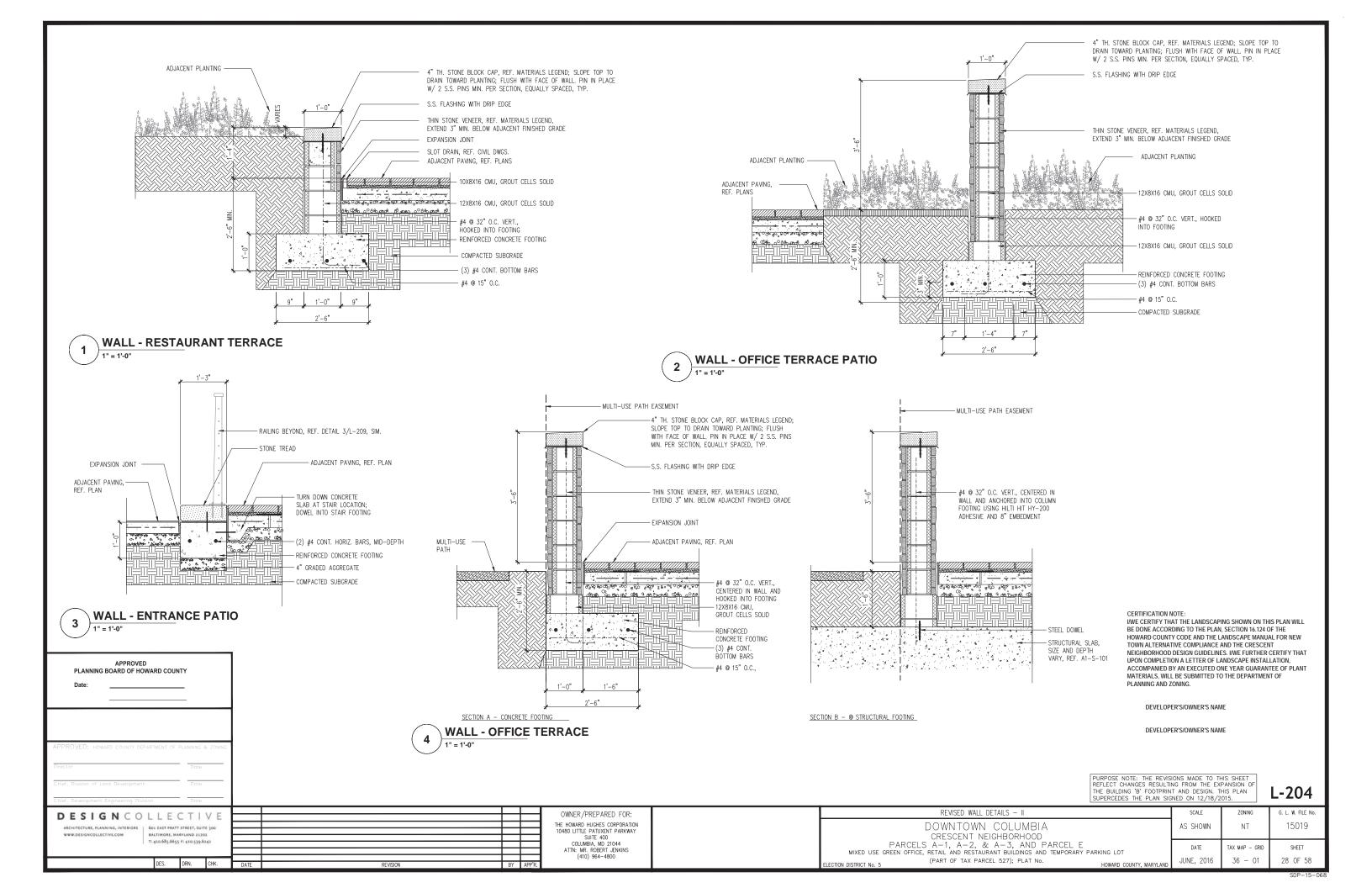
SHEET

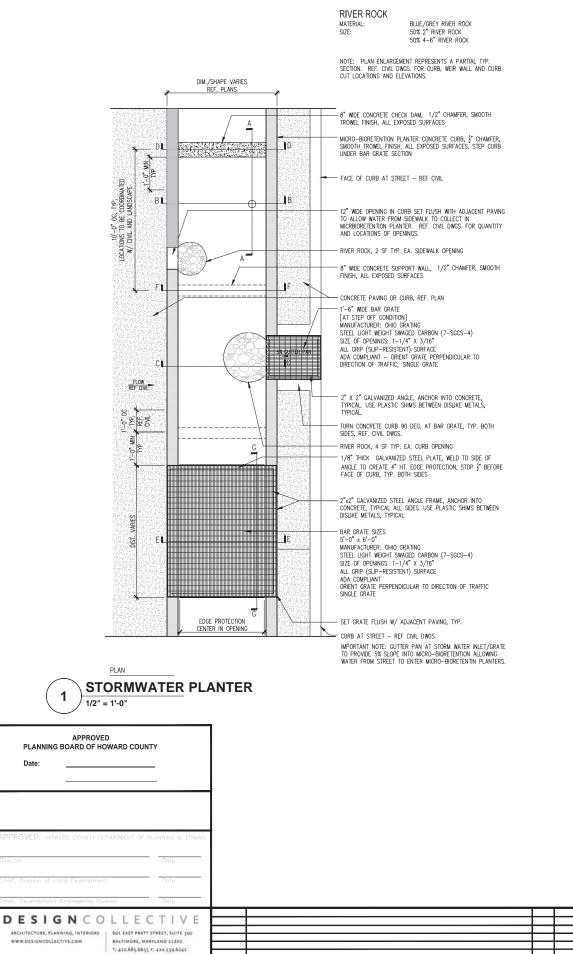
24 OF 58



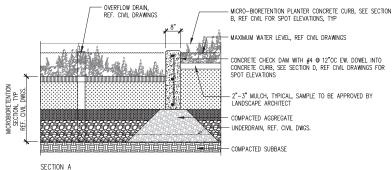


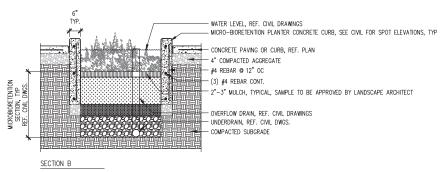


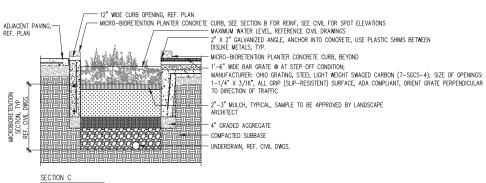




DES. DRN. CHK.





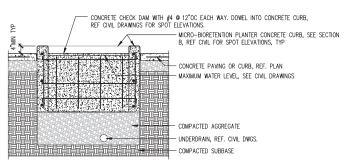


OWNER/PREPARED FOR:

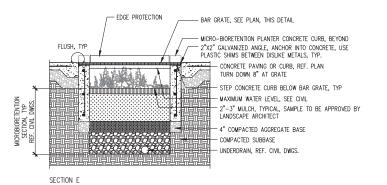
THE HOWARD HUGHES CORPORATION

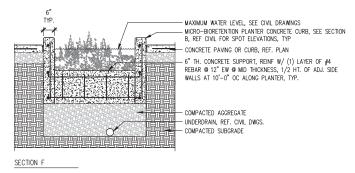
10480 LITTLE PATUXENT PARKWAY SUITE 400

COLUMBIA, MD 21044 ATTN: MR. ROBERT JENKINS (410) 964-4800



SECTION D





VARIES, SEE 1/L305

EDGE PROTECTION

2" X 2" GALVANIZED ANGLE, ANCHOR INTO CONCRETE, USE PLASTIC SHIMS BETWEEN DISLIKE METALS, WELD CONTINUOUS, TYP.

BAR GRATE, SIZE VARIES PER PLAN

CERTIFICATION NOTE:

IWE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL FOR NEW TOWN ALTERNATIVE COMPLIANCE AND THE CRESCENT NEIGHBORHOOD DESIGN GUIDELINES. IWE FURTHER CERTIFY THAT UPON COMPLETION A LETTER OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

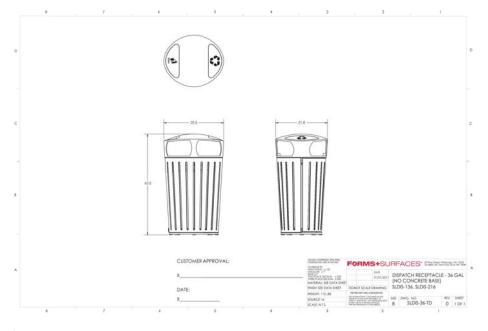
DEVELOPER'S/OWNER'S NAME

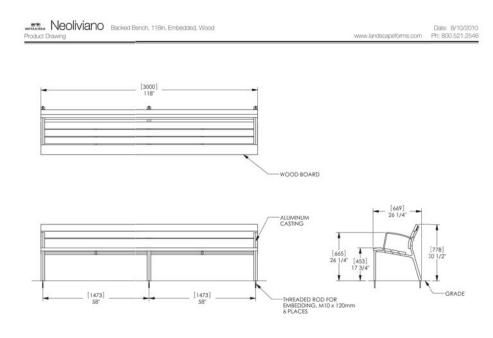
DEVELOPER'S/OWNER'S NAME

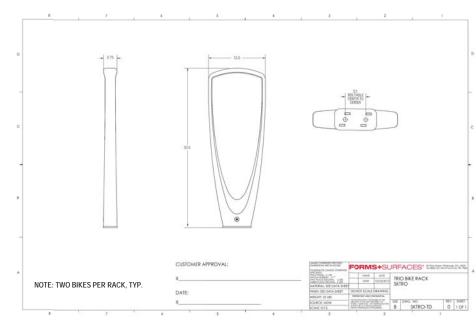
PURPOSE NOTE: THE REVISIONS MADE TO THIS SHEET REFLECT CHANGES RESULTING FROM THE EXPANSION OF THE BUILDING 'B' FOOTPRINT AND DESIGN. THIS PLAN SUPERCEDES THE PLAN SIGNED ON 12/18/2015.

L-205

REVISED STREETSCAPE DETAILS	SCALE	ZONING	G. L. W. FILE No.
DOWNTOWN COLUMBIA CRESCENT NEIGHBORHOOD	AS SHOWN	NT	15019
PARCELS A $-1$ , A $-2$ , & A $-3$ , AND PARCEL E mixed use green office, retail and restaurant buildings and temporary parking lot	DATE	TAX MAP - GRID	SHEET
ELECTION DISTRICT No. 5 (PART OF TAX PARCEL 527); PLAT No. HOWARD COUNTY, MARYLAND	JUNE, 2016	36 – 01	30 OF 58



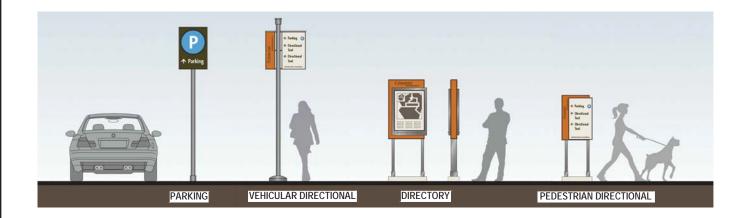




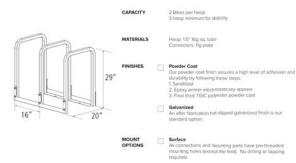
WASTE/RECYCLING RECEPTACLE

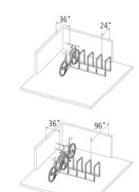
STREET BENCH

**BIKE RACK - SITE** 











CERTIFICATION NOTE: IWE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL FOR NEW TOWN ALTERNATIVE COMPLIANCE AND THE CRESCENT NEIGHBORHOOD DESIGN GUIDELINES. IWE FURTHER CERTIFY THAT UPON COMPLETION A LETTER OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF

DEVELOPER'S/OWNER'S NAME

DEVELOPER'S/OWNER'S NAME

PURPOSE NOTE: THIS SHEET HAS BEEN ADDED AS A RESULT OF THE EXPANSION OF THE BUILDING 'B' FOOTPRINT AND DESIGN"

PLANNING AND ZONING.

L-206

NT

TAX MAP - GRID

G. L. W. FILE No.

15019

SHEET

D E S I G N C O L L E C T I V E ARCHITECTURE, PLANNING, INTERIORS | 601 EAST PRATT STREET, SUITE 300 BALTIMORE, MARYLAND 21202 T: 410.685.6655 F: 410.539.6242

SIGNAGE

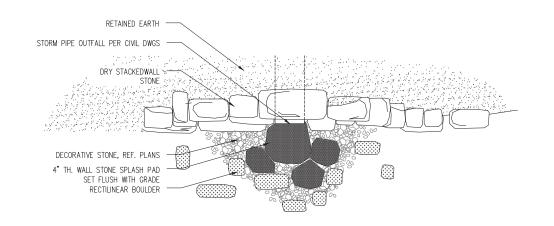
APPROVED
PLANNING BOARD OF HOWARD COUNTY

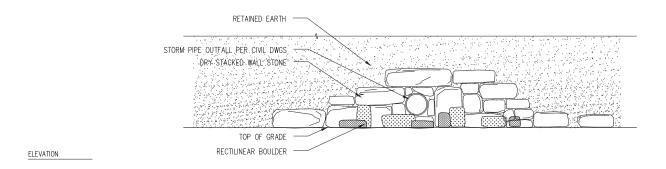
DES. DRN. CHK.

OWNER/PREPARED FOR: THE HOWARD HUGHES CORPORATION 10480 LITTLE PATUXENT PARKWAY SUITE 400 COLUMBIA, MD 21044 ATTN: MR. ROBERT JENKINS (410) 964–4800

SITE FURNISHING DETAILS DOWNTOWN COLUMBIA
CRESCENT NEIGHBORHOOD
PARCELS A-1, A-2, & A-3, AND PARCEL E
MIXED USE GREEN OFFICE, RETAIL AND RESTAURANT BUILDINGS AND TEMPORARY PARKING LOT AS SHOWN (PART OF TAX PARCEL 527); PLAT No. JUNE, 2016 FCTION DISTRICT No. 5 HOWARD COUNTY, MARYLAND

31 OF 58





DRY STACKED WALL STONE STORM PIPE OUTFALL, STOP PIPE 6" MIN. FROM FACE OF WALL, COORDINATE WITH CIVIL DWGS 4" THICK WALL STONE SPLASH PAD DECORATIVE STONE, REF. PLANS BOTTOM OF MICRO-BIORETENTION 6" COMPACTED CR-6 BASE SECTION

# DOWNSPOUT RIPRAP LEGEND:

STONE SALVAGED FROM ADJACENT SITE EXCAVATION; TO BE HAND SELECTED BY LANDSCAPE ARCHITECT

DRY STACKED, ROUGH CUT, DIMENSIONAL OF VARYING SIZES MIN: 6"X12"X12", MAX. 12"X24"X36"

½" MORTAR JOINTS FLUSH IN FIELD.

DIMENSIONS: MIN: 6"X12"X12", MAX. 12"X24"X36" NOTES:

A) LANDSCAPE ARCHITECT TO APPROVE SHOP DRAWINGS

B) LANDSCAPE ARCHITECT TO RECEIVE AND APPROVE STONE SAMPLES

DOWNSPOUT OUTFALL RIPRAP 1/2" = 1'-0"

HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL FOR NEW TOWN ALTERNATIVE COMPLIANCE AND THE CRESCENT NEIGHBORHOOD DESIGN GUIDELINES. I/WE FURTHER CERTIFY THAT UPON COMPLETION A LETTER OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE

DEVELOPER'S/OWNER'S NAME

DEVELOPER'S/OWNER'S NAME

PURPOSE NOTE: THIS SHEET HAS BEEN ADDED AS A RESULT OF THE EXPANSION OF THE BUILDING 'B' FOOTPRINT AND DESIGN"

CERTIFICATION NOTE:

L-207

G. L. W. FILE No.

15019

SHEET

32 OF 58

Chief,	, De	velo	ome	nt E	ngine	ering	Divi	sion				D	nte			
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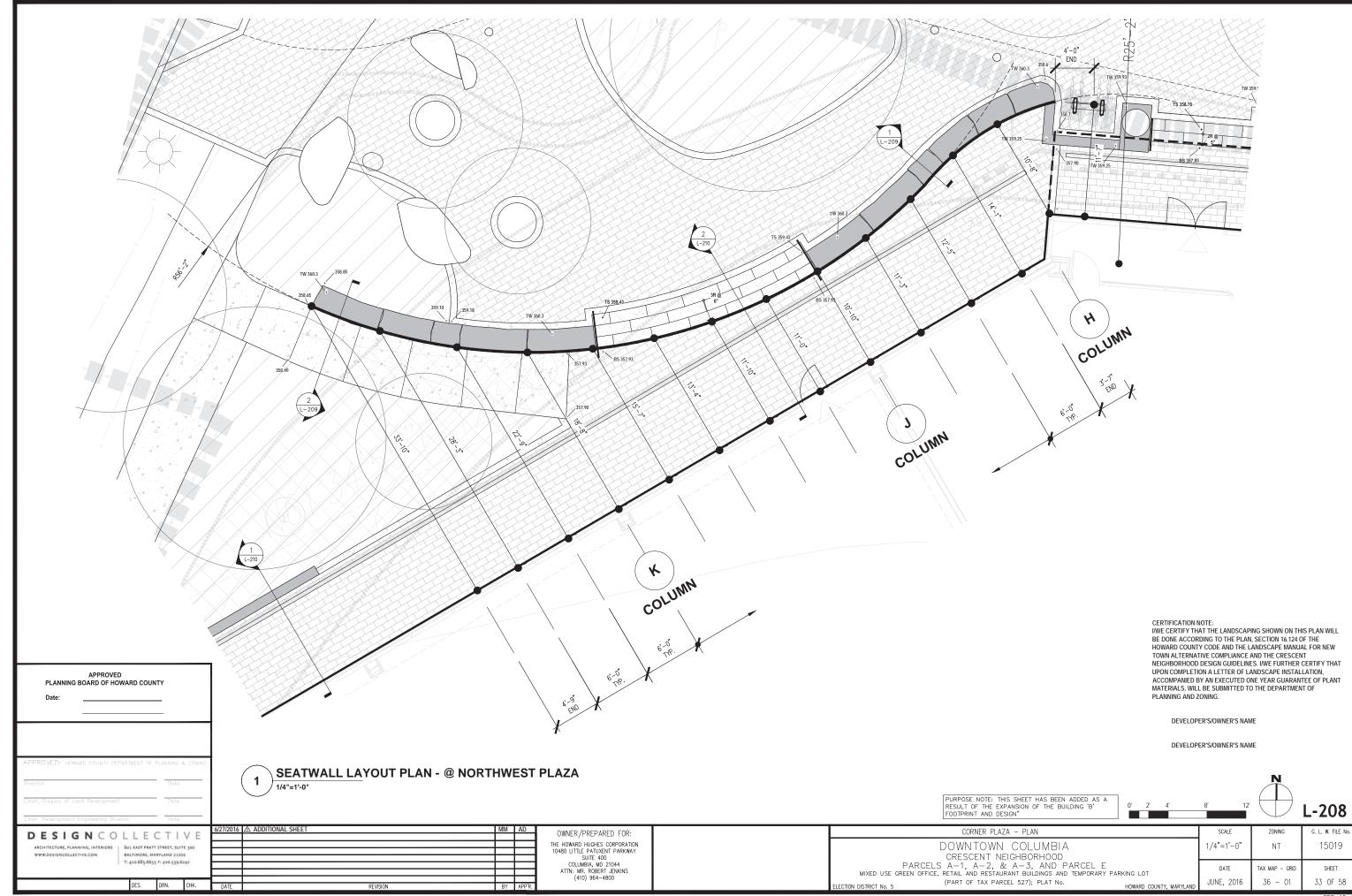
APPROVED

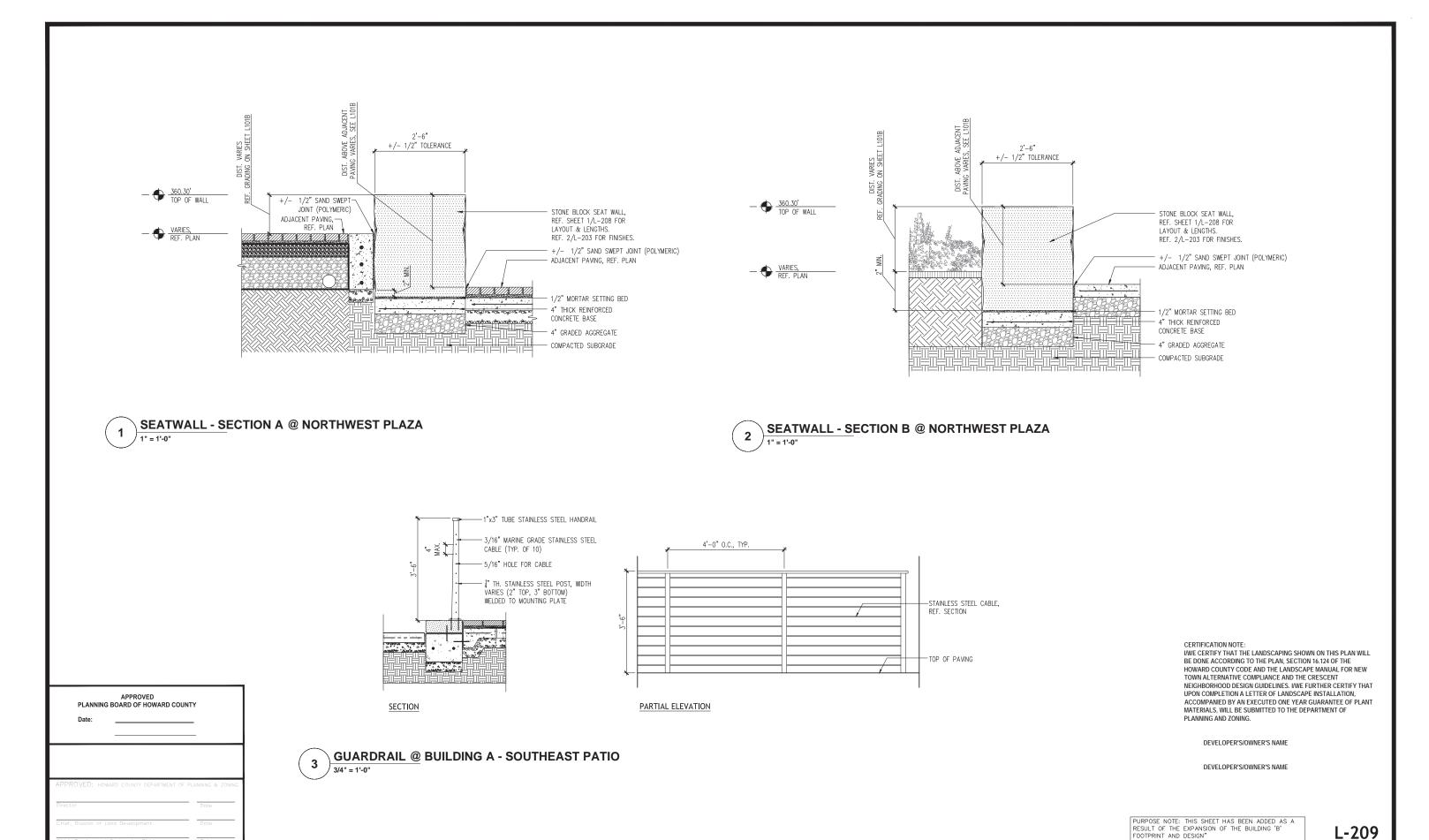
PLANNING BOARD OF HOWARD COUNTY

	6/27/2016	⚠ ADDITIONAL SHEET	MM	AD	
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102				oxdot	1
6242				$\overline{}$	
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CHK.	DATE	REVISION	BY	APP'R.	1
	DATE	REVISION	ы	ALL IV.	

OWNER/PREPARED FOR: THE HOWARD HUGHES CORPORATION 10480 LITTLE PATUXENT PARKWAY SUITE 400 COLUMBIA, MD 21044 ATTN: MR. ROBERT JENKINS (410) 964–4800

DRAINAGE DETAILS SCALE 70NING DOWNTOWN COLUMBIA
CRESCENT NEIGHBORHOOD
PARCELS A-1, A-2, & A-3, AND PARCEL E
MIXED USE GREEN OFFICE, RETAIL AND RESTAURANT BUILDINGS AND TEMPORARY PARKING LOT AS SHOWN DATE TAX MAP - GRID (PART OF TAX PARCEL 527); PLAT No. 36 - 01 JUNE, 2016





OWNER/PREPARED FOR:

THE HOWARD HUGHES CORPORATION

IHE HOWARD HUGHES CORPORATION
10480 LITTLE PATUXENT PARKWAY
SUITE 400
COLUMBIA, MD 21044
ATTN: MR. ROBERT JENKINS
(410) 964-4800

6/27/2016 🛕 ADDITIONAL SHEET

DESIGNCOLLECTIVE

ARCHITECTURE, PLANNING, INTERIORS | 601 EAST PRATT STREET, SUITE 300

BALTIMORE, MARYLAND 21202 T: 410.685.6655 F: 410.539.6242

DES. DRN. CHK.

SDP\_15\_06

G. L. W. FILE No.

15019

SHEET

34 OF 58

70NING

TAX MAP — GRID 36 — 01

SCALE

AS SHOWN

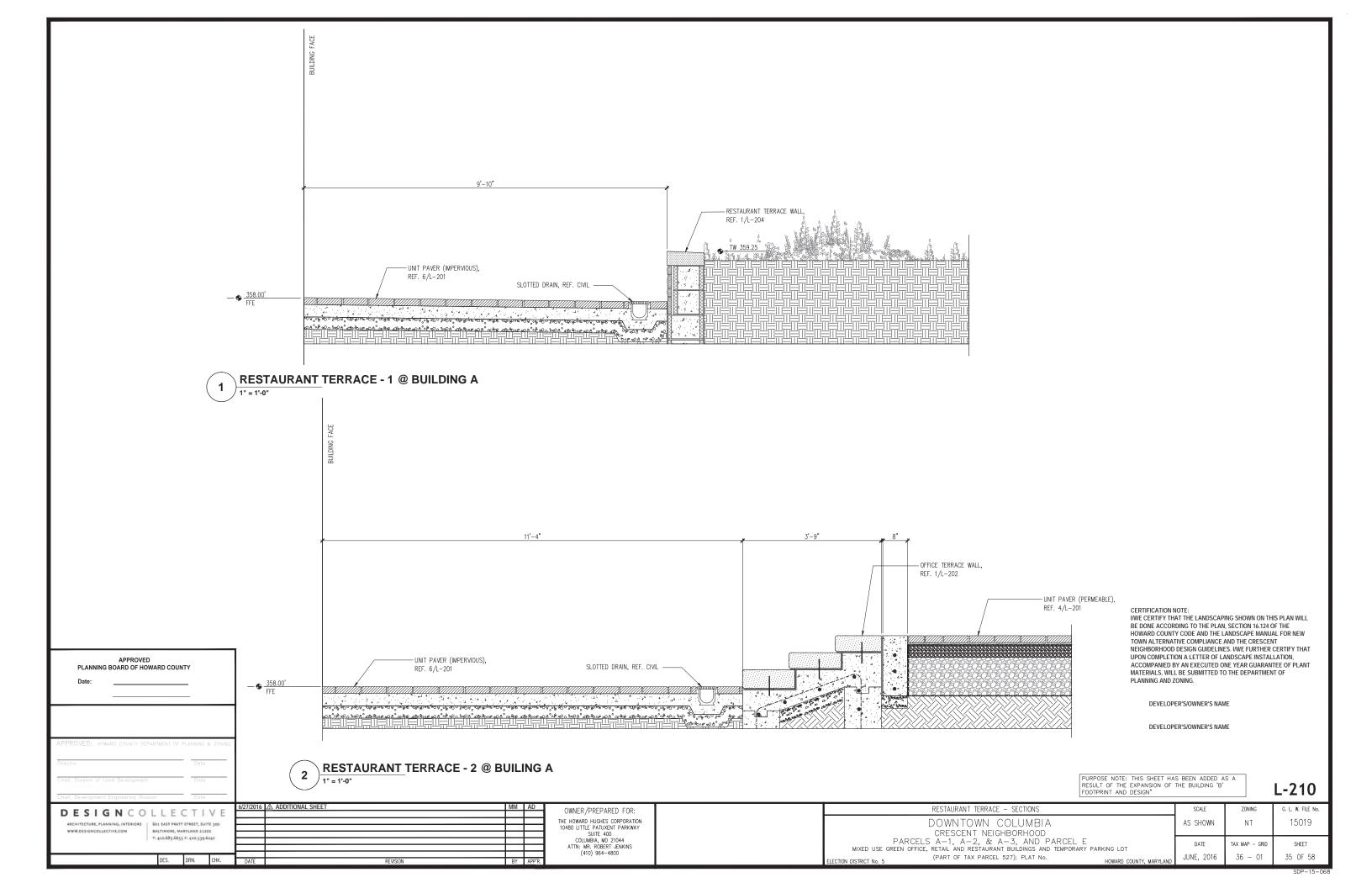
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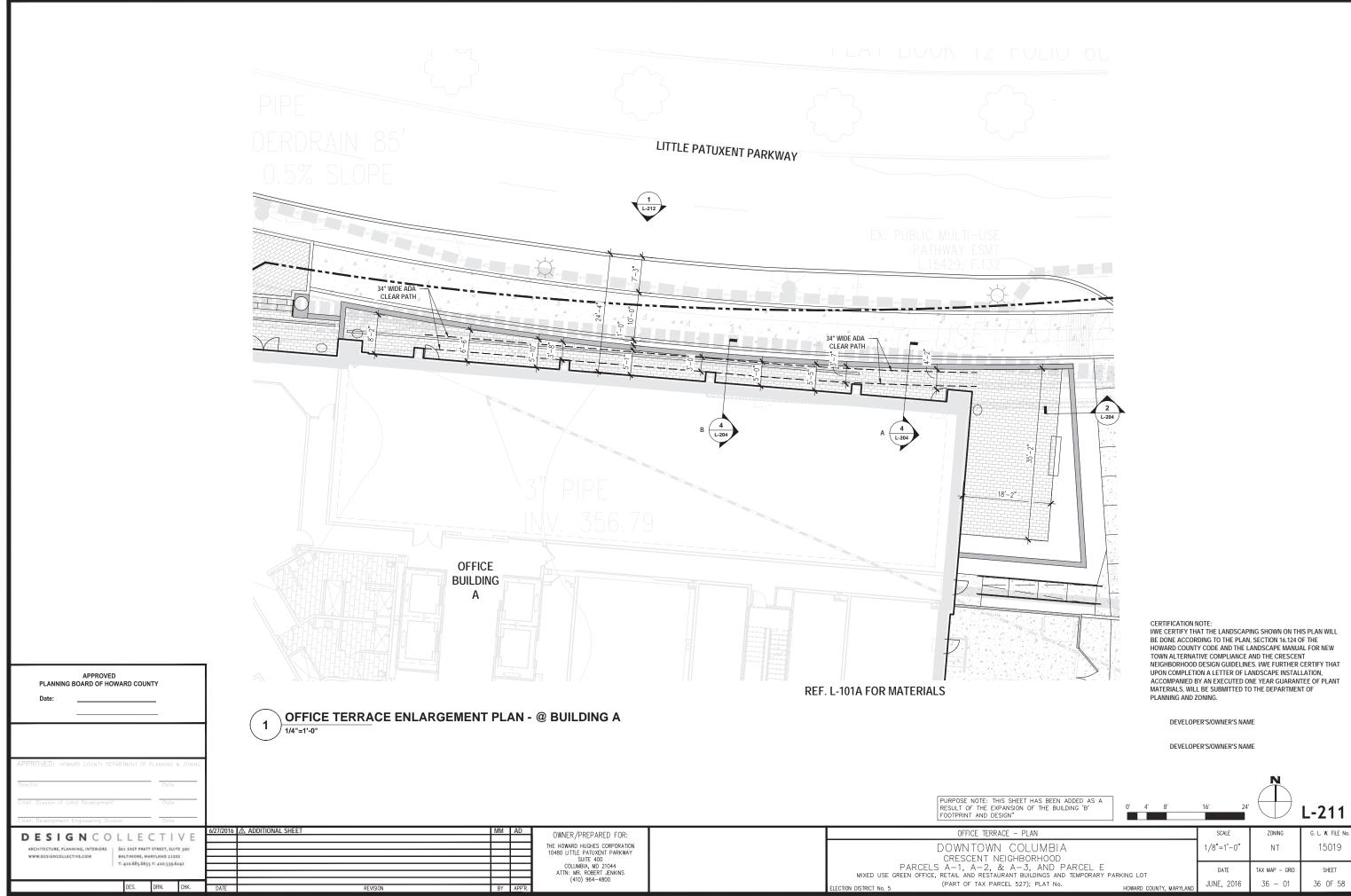
JUNE, 2016

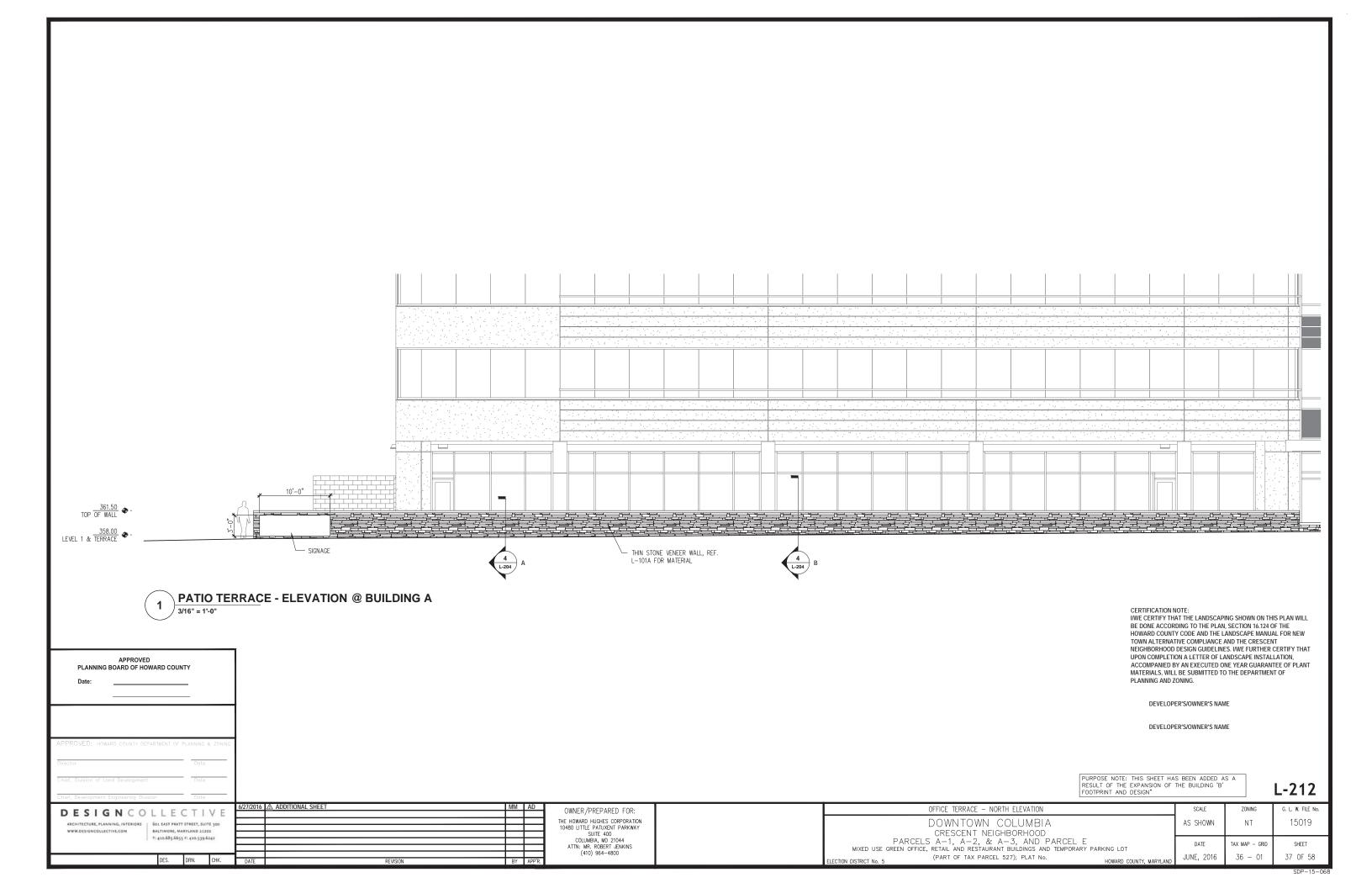
CORNER PLAZA - DETAILS

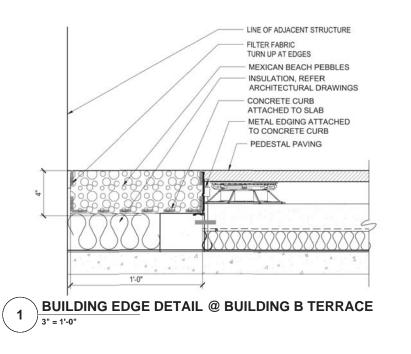
DOWNTOWN COLUMBIA
CRESCENT NEIGHBORHOOD
PARCELS A-1, A-2, & A-3, AND PARCEL E
MIXED USE GREEN OFFICE, RETAIL AND RESTAURANT BUILDINGS AND TEMPORARY PARKING LOT

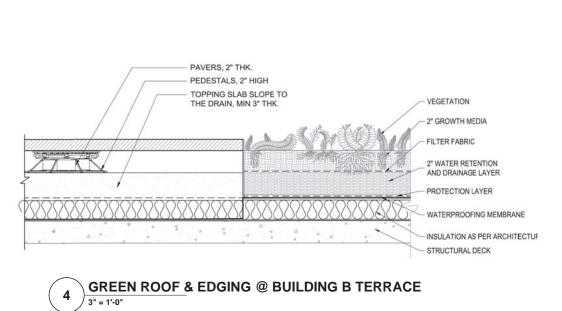
(PART OF TAX PARCEL 527); PLAT No.

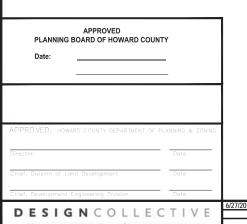


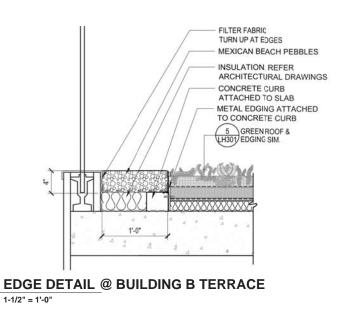


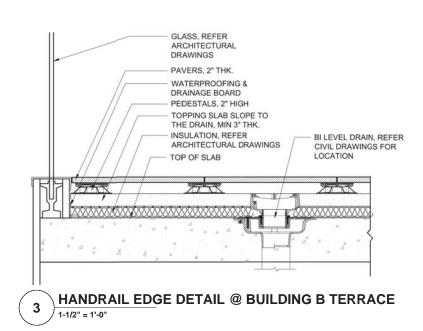


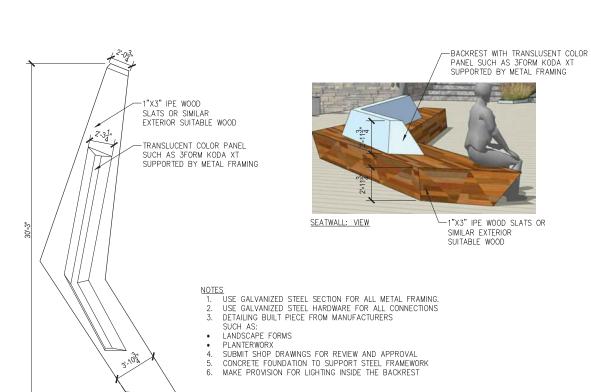












CERTIFICATION NOTE: I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL FOR NEW TOWN ALTERNATIVE COMPLIANCE AND THE CRESCENT NEIGHBORHOOD DESIGN GUIDELINES. I/WE FURTHER CERTIFY THAT UPON COMPLETION A LETTER OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

DEVELOPER'S/OWNER'S NAME

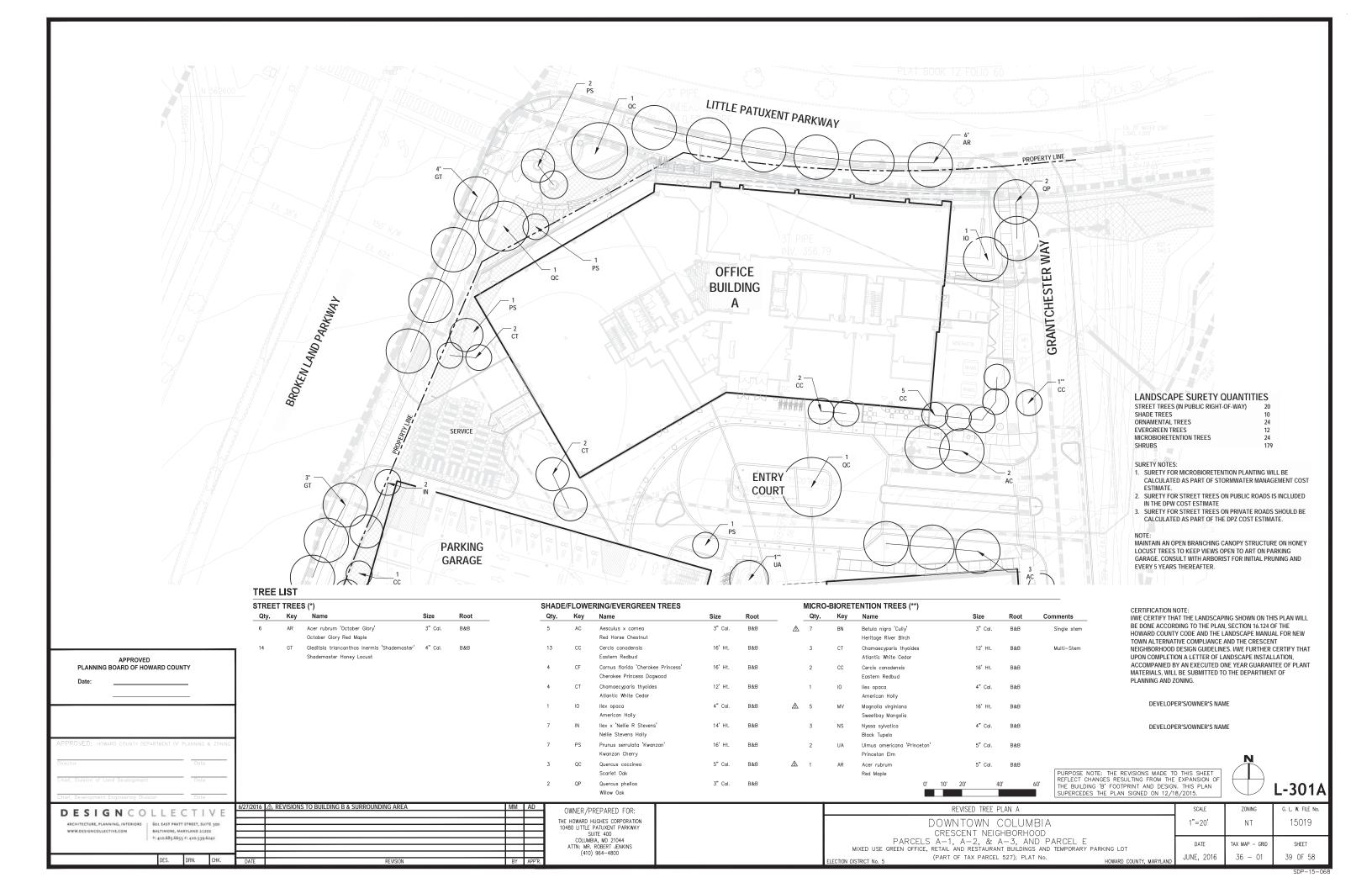
DEVELOPER'S/OWNER'S NAME

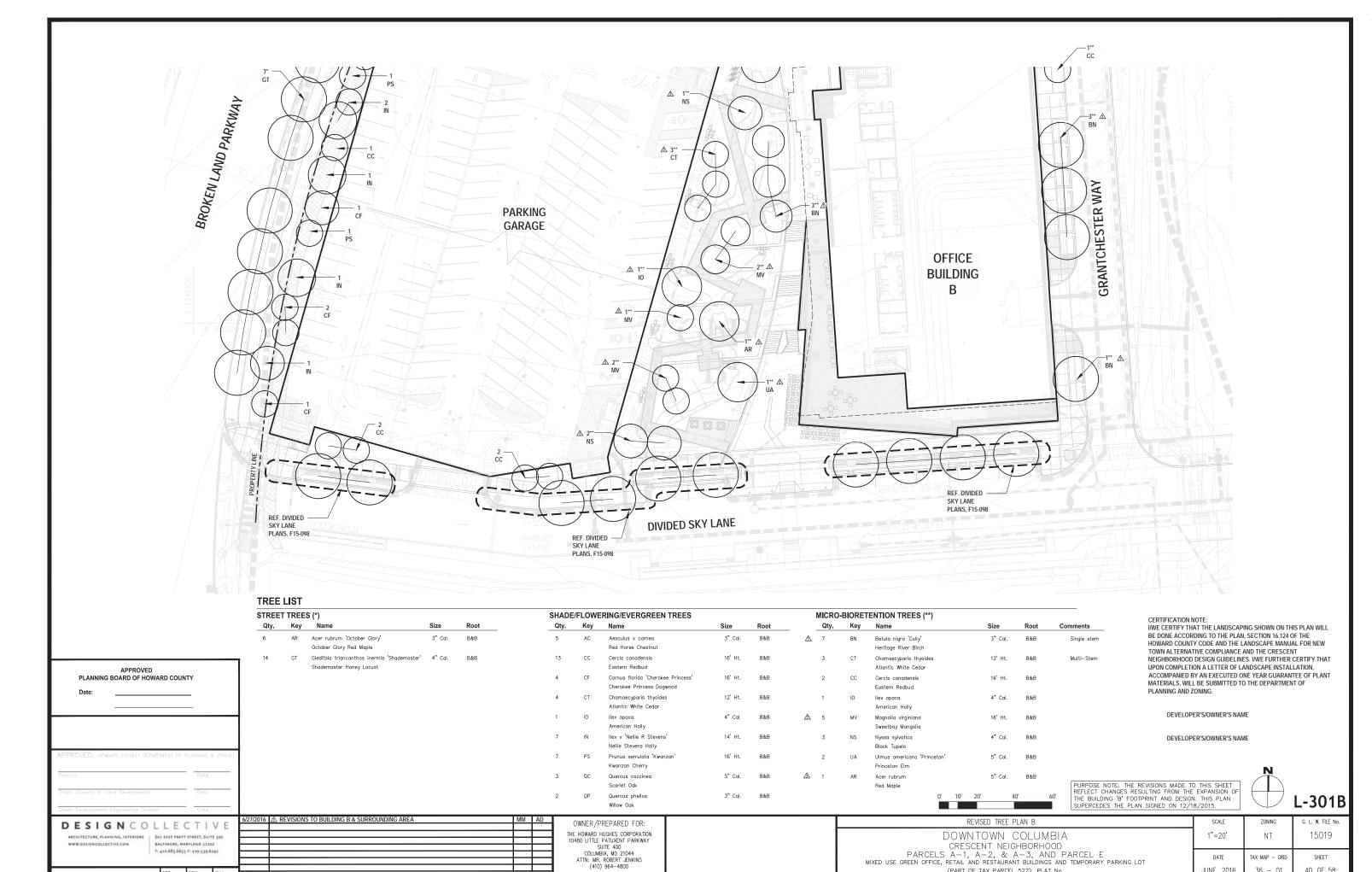
**SEATWALL @ LOWER PLAZA** 1/4" = 1'-0"

PURPOSE NOTE: THIS SHEET HAS BEEN ADDED AS A RESULT OF THE EXPANSION OF THE BUILDING 'B'

1\_212

Chief, Development Engineering Division Date			FOOTPRINT AND DESIGN"	L-Z 13
D E S I G N C O L L E C T I V E	6/27/2016 🛕 ADDITIONAL SHEET MM AD	OWNER/PREPARED FOR:	ROOF TERRACE — DETAILS SCALE ZONING	G. L. W. FILE No.
ARCHITECTURE, PLANNING, INTERIORS 601 EAST PRATT STREET, SUITE 300 WWW.DESIGNCOLLECTIVE.COM BALTIMORE, MARYLAND 21202		THE HOWARD HUGHES CORPORATION 10480 LITTLE PATUXENT PARKWAY SUITF 400	DOWNTOWN COLUMBIA  CRESCENT NEIGHBORHOOD  AS SHOWN NT	15019
T: 410.685.6655 F: 410.539.6242	2242	SUITE 400 COLUMBIA, MD 21044 ATTN: MR. ROBERT JENKINS (410) 964—4800	PARCELS A $-1$ , A $-2$ , & A $-3$ , AND PARCEL E DATE TAX MAP - GRID MIXED USE GREEN OFFICE, RETAIL AND RESTAURANT BUILDINGS AND TEMPORARY PARKING LOT	SHEET
DES. DRN. CHK.	DATE REVISION BY APP'R.	(110) 331 1330	ELECTION DISTRICT No. 5 (PART OF TAX PARCEL 527); PLAT No. HOWARD COUNTY, MARYLAND JUNE, 2016 36 - 01	38 OF 58





DES. DRN. CHK.

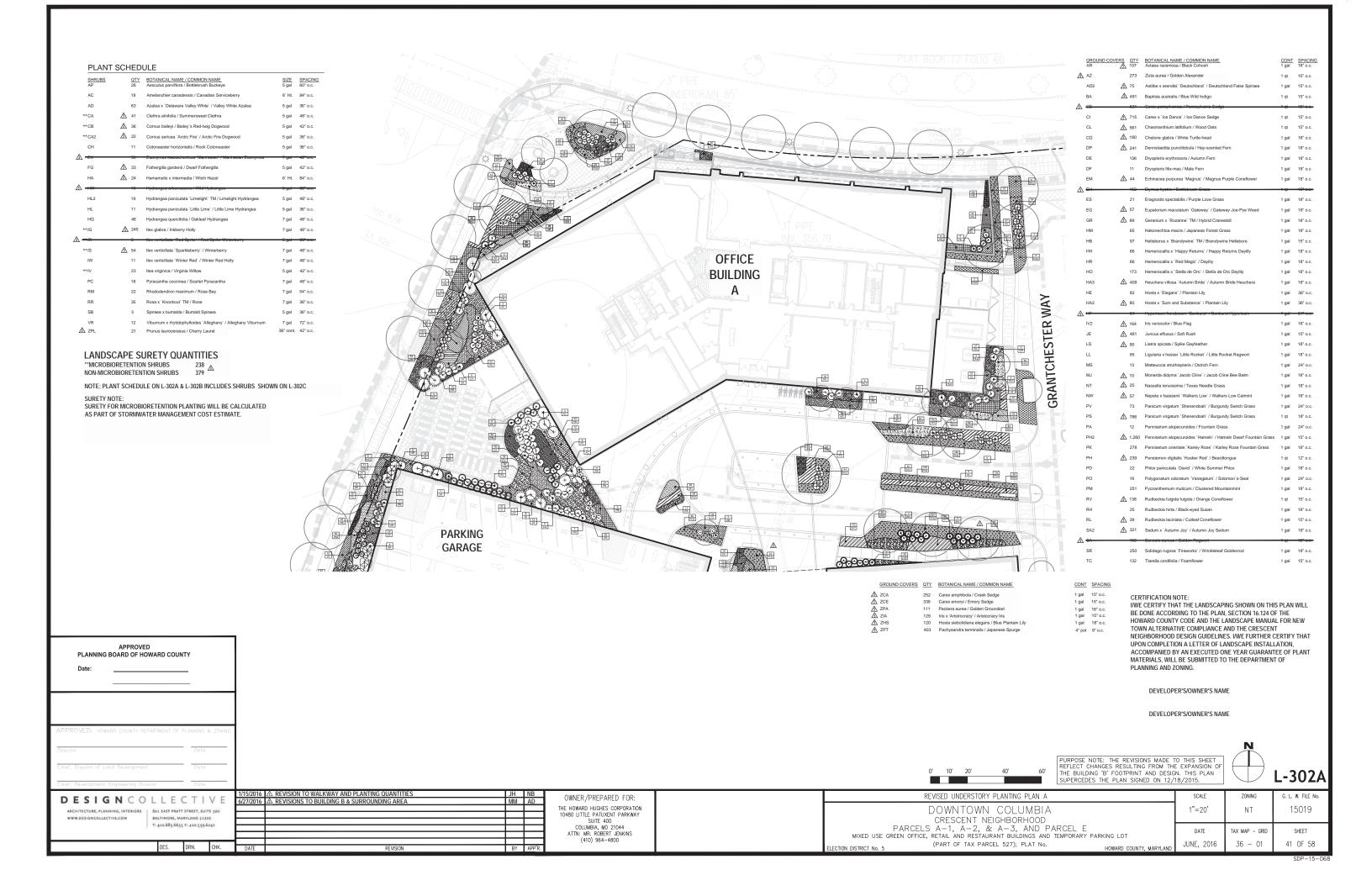
JUNE, 2016

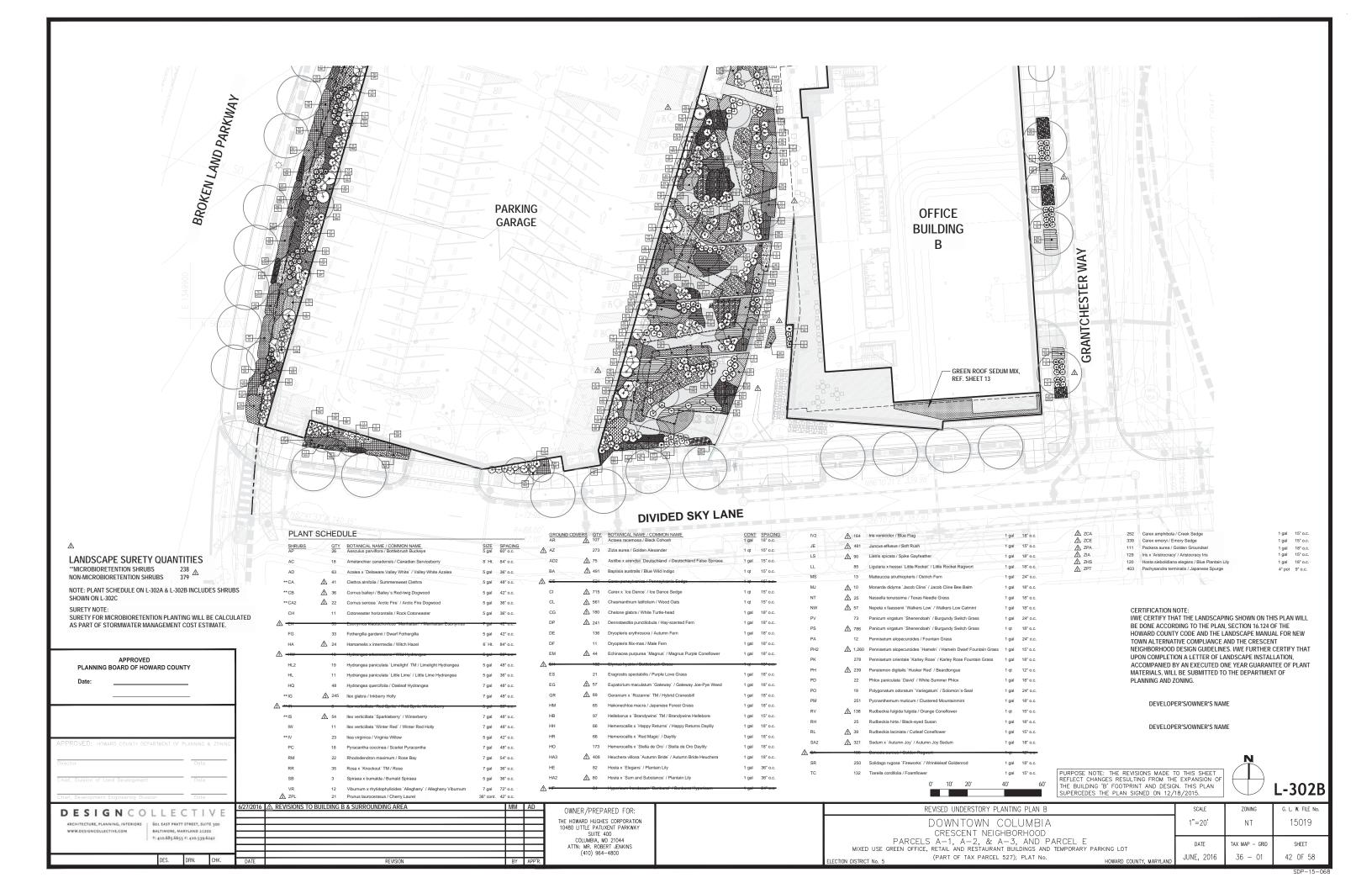
HOWARD COUNTY, MARYLAND

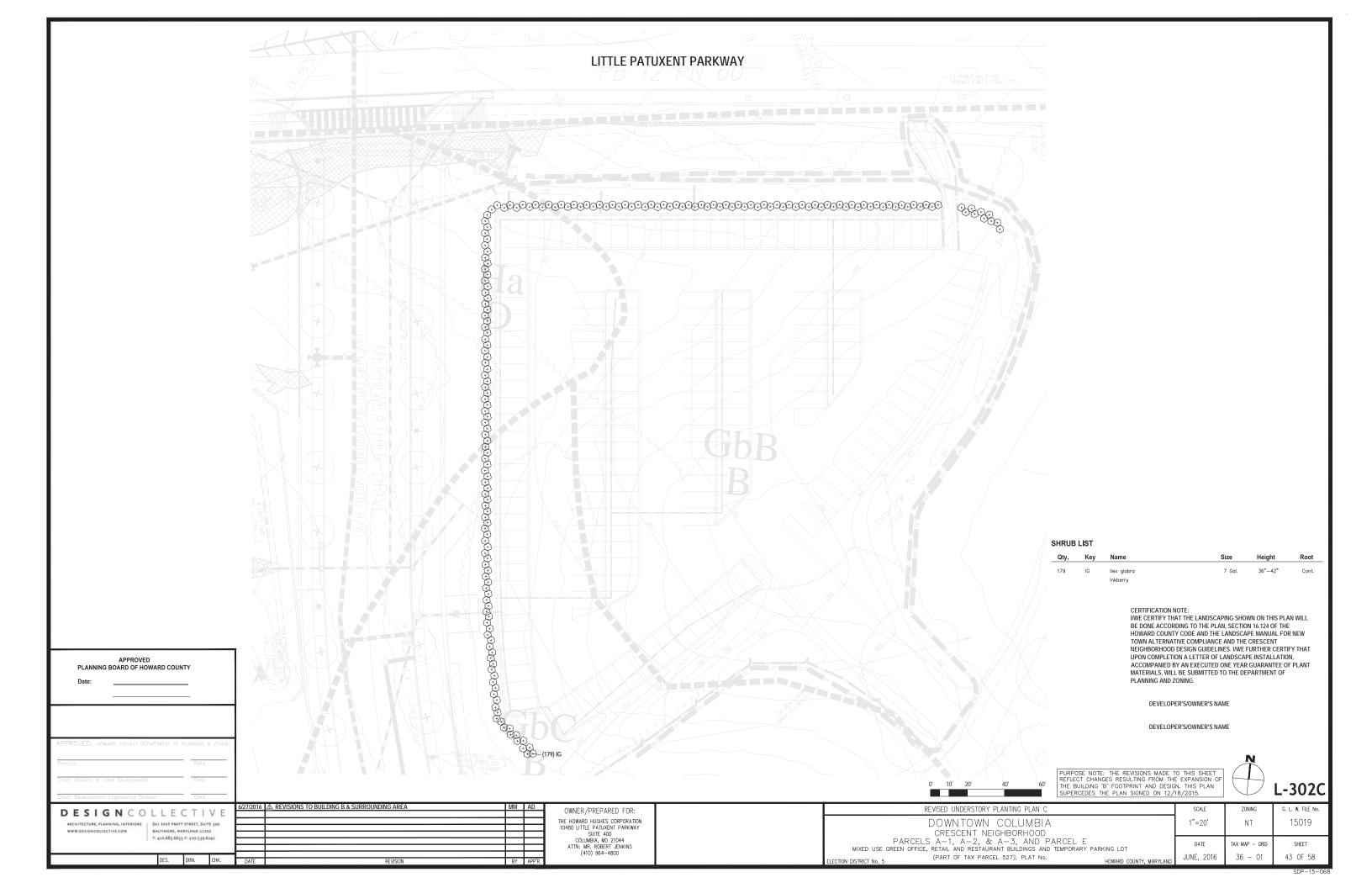
36 - 01

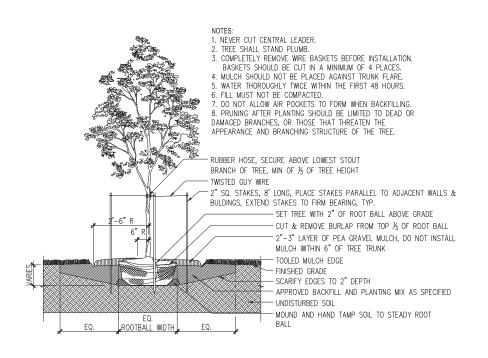
(PART OF TAX PARCEL 527); PLAT No.

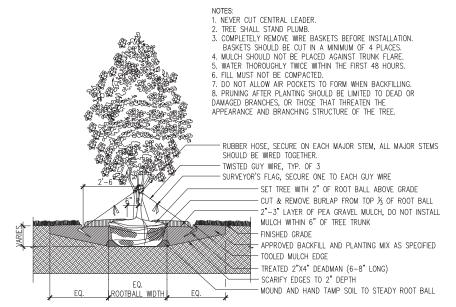
LECTION DISTRICT No. 5

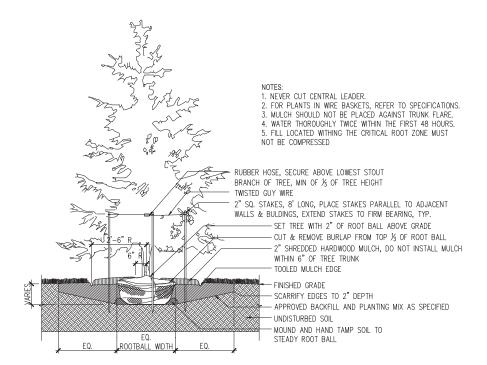








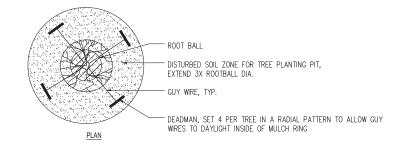


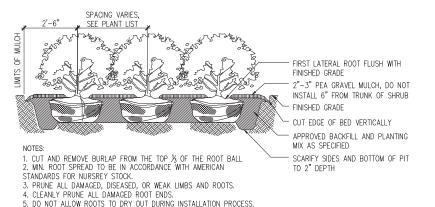


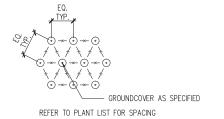


















CERTIFICATION NOTE:
INVE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL
BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE
HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL FOR NEW
TOWN ALTERNATIVE COMPLIANCE AND THE CRESCENT
NEIGHBORHOOD DESIGN GUIDELINES. INVE FURTHER CERTIFY THAT
UPON COMPLETION A LETTER OF LANDSCAPE INSTALLATION,
ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT
MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF
PLANNING AND ZONING.

DEVELOPER'S/OWNER'S NAME

DEVELOPER'S/OWNER'S NAME

PURPOSE NOTE: THE REVISIONS MADE TO THIS SHEET REFLECT CHANGES RESULTING FROM THE EXPANSION OF THE BUILDING 'B' FOOTPRINT AND DESIGN. THIS PLAN SUPERCEDES THE PLAN SIGNED ON 12/18/2015.

L-310

Chief, Development Engineering Divi	ision Date
DESIGNCO  ARCHITECTURE, PLANNING, INTERIORS  WWW.DESIGNCOLLECTIVE.COM	601 EAST FRATT STREET, SUITE 300 BALTIMORE, MARYLAND 21202 T: 410.685.6655 F: 410.539.6242

PLANNING BOARD OF HOWARD COUNTY

LECTIVE

6/27/2016 A REVISIONS TO BUILDING B & SURROUNDING AREA

MM AD

10 LAST PART STREET, SUITE 300

ALTIMOSE, MARKAND 212022

1410.685.6655 F: 410.539.6242

DES. DRN. CHK. DATE REVISION BY APP'R.

OWNER/PREPARED FOR:
THE HOWARD HUGHES CORPORATION
10480 LITTLE PATUXENT PARKWAY
SUITE 400
COLUMBIA, MD 21044
ATIN: MR. ROBERT JENKINS
(410) 964-4800

REVISED PLANTING DETAILS

DOWNTOWN COLUMBIA
CRESCENT NEIGHBORHOOD
PARCELS A-1, A-2, & A-3, AND PARCEL E
MIXED USE GREEN OFFICE, RETAIL AND RESTAURANT BUILDINGS AND TEMPORARY PARKING LOT

LECTION DISTRICT NO. 5 (PART OF TAX PARCEL 527); PLAT NO.

HOWARD COUNTY, MARYLAND

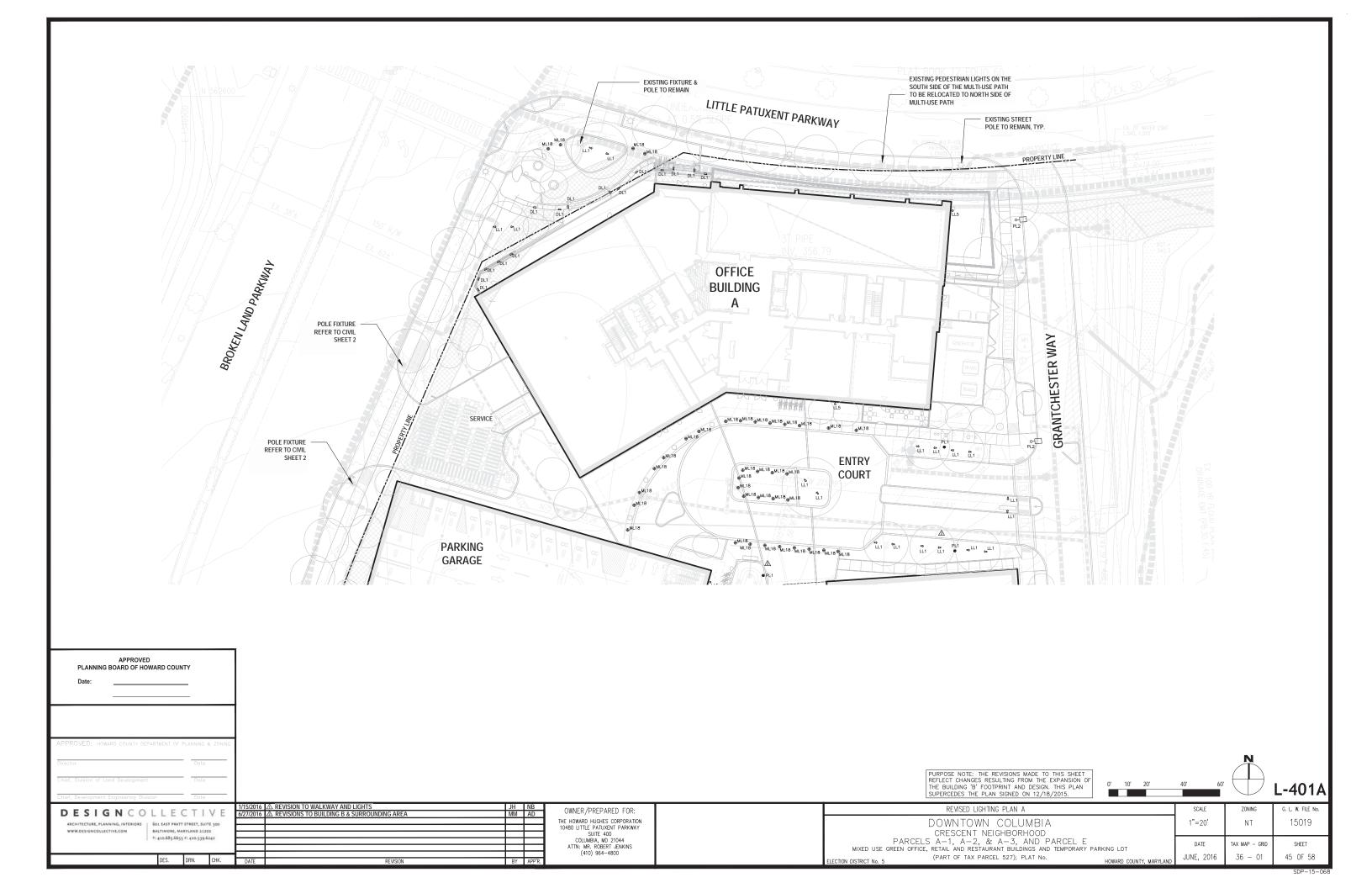
SCALE

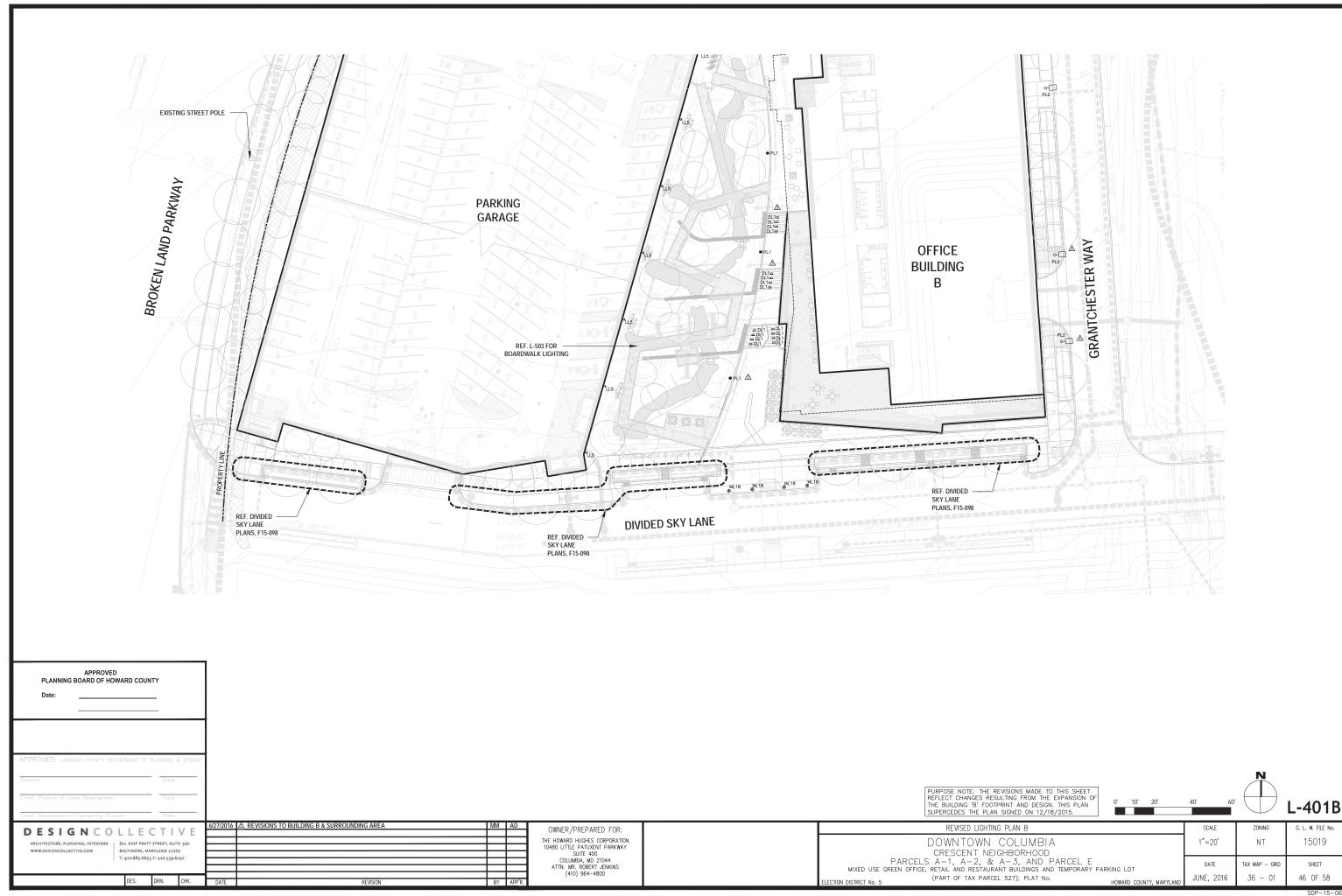
ZONING
CS. L. W. FILE NO.
AS SHOWN
NT
15019

TAX MAP - GRID
SHEET

JUNE, 2016
36 - 01
44 OF 58

DP-15-068





#### LIGHTING FIXTURE SCHEDULE DESCRIPTION LAMPING LOAD VOLTS MANUFACTURER CATALOG NUMBER QTY. LAMP DESIGNATION DL1 WALL LED STEPLIGHT MOUNTED IN WALL 31 3000K WHITE LED 1323LED=(FINISH ASLED-3023-12V-L3-F0-SH0-C2-STD + GROUND MOUNTING ACCESSORY + REMOTE LOW-VOLTAGE TRANSFORMER LED GROUND MOUNTED UPLIGHT 3000K WHITE LED LL5 WALL LED ROOF MOUNTED FLOODLIGHT FOR MOONLIGHT EFFEC 8 3000K WHITE LED 120-277 HYDREI TPS1-18LED-WHT30K-MVOLT-MFL-YM-(ACCESSORIES)-GS-LP-(FINISH) 22 120-277 LOUIS POULSEN FLINDT BOLLARD - LED ML18 BOLLARD LED ROAD AND SIDEWALK BOLLARD A 41 4000K WHITE LED LED PEDESTRIAN POLE MOUNTED AREA LIGH LED ROADWAY POLE MOUNTED AREA LIGHT PHILIPS GARDOO

### GENERAL NOTES:

- ALL LIGHTING FIXTURES, LAMPS AND RELATED DEVICES FURNISHED UNDER THIS CONTRACT SHALL CARRY THE APPROVAL LABEL OF UL OR ETL FOR THE SPECIFIC APPLICATION IN WHICH THEY ARE USED.
- THE STATEMENT "FINISH TO BE SELECTED BY DESIGN PROFESSIONAL" SHALL BE INTERPRETED TO MEAN THAT THE FINISH OF THE LUMINAIRE SHALL MATCH THE APPEARANCE OF A PAINT CHIP, COLOR NUMBER, OR METAL SWATCH FURNISHED BY THE DESIGN PROFESSIONAL DURING THE SUBMITTAL REVEW PROCESS.
- . WHITE LE.D.'S SHALL MEET, AT A MINIMUM, CHROWATCHY STANDARDS SET BY ANS/NEMA/ANSLC 079.377-2011. LE.D. LUMEN MANITEMANCE SHALL BE MEASURED IN ACCORDANCE WITH IESNA LM-80 STANDARDS. PHOTOMETRIC TESTING FOR SOLID STATE LUMINAMES SHALL BE IN ACCORDANCE WITH IESNA LM-79 STANDARDS.
- 4. UNLESS OTHERWISE NOTED, LAMP DESIGNATIONS ARE FOR LAMPS BY OSRAM/SYLVANIA
- CONTRACTOR SHALL SELECT, FURNISH AND INSTALL THE CORRECT SIZE OF SECONDARY WIRING FROM REMOTE TRANSFORMERS AND/OR REMOTE BALLASTS AS REQUIRED TO KEEP VOLTAGE DROP IN THE SECONDARY WIRING BELLOW 3% OF RATED VOLTAGE.
- ALL L.E.D. LAMPS SHALL BE BURNED CONTINUOUSLY FOR 100 HOURS AT FULL OUTPUT PRIOR TO FOCUSING OF FIXTURES AND COMMISSIONING OF CONTROL SYSTEMS.
- PRIOR TO FOCUSION OF PRIORES AND COMMISSIONING OF CONTROL STSEAS.

  S. CONTRACTOR SHALL PROVIDE LABOR AND EQUIPMENT FOR FOCUSING OF ADJUSTABLE FIXTURES AND PRESETTING OF LIGHTING CONTROL SYSTEMS. FOCUSING AND PRESETTING SHALL BE CODE IN THE PRESENCE OF THE DESIGN PROFESSIONAL. CONTRACTOR SHALL FOCUS LIGHTING AFTER DARK IF DIRECTED BY THE OWNER'S REPRESENTATIVE. UNLESS OTHERWISE NOTICE, CONTROLOR SHALL PROVIDE AT LEST ONE DAY OF A FACTORY—THANKE AND CERTIFIED TENCIONAL TO PROVIDE MARRAYIN'S TAST UP AND PROGRAMMING FOR ALL LIGHTING CONTROL. SYSTEMS AND PROGRAMMAGE LIGHTING FATHERS.
- 9. CONTRACTOR SHALL PROVIDE THE FOLLOWING WITH THEIR BID:
- A. THE UNIT PRICE, WITHOUT LAMP, FOR EACH LIGHTING FITURE TYPE LISTED WITHIN THE LIGHTING FIXTURE SCHEDULE. THE UNIT PRICE SHALL BE FOR ONE OF THE LISTED MANUFACTURER'S FOR THAT PARTICULAR FIXTURE. THE MANUFACTURER SHALL BE DENTIFIED. SUBSTITUTIONS FOR FIXTURES PROVIDED BY MANUFACTURERS NOT LISTED IN THE SCHEDULE ARE NOT ACCEPTABLE. SEE BELLOW FOR FOURIEMENTS ASSOCIATED IN THE STORAGE OF THE PROPERTY OF THE TOTAL QUANTITY OF EACH TRUTHE TYPE WITH THE EXTENDED COST FOR THAT QUANTITY.
- IN THE SCHEDULE ARE NO MOVER INSTANCE. WE WITH SUBMITTING LIGHTING FIXTURE SUBSTITUTIONS

  B. THE TOTAL QUANTITY OF EACH FIXTURE TYPE WITH QUANTITY.

  C. THE UNIT PRICE, TYPE, AND QUANTITY OF LAMPS.

- WITHIN 21 DAYS OF CONTRACT AWARD, THE CONTRACTOR SHALL FURNISH SUBMITTALS FOR ALL SPECIFIED LIGHTING FIXTURES FOR REVIEW BY THE DESIGN PROFESSIONAL THE SUBMITTALS SHALL INCLIDE LUMNIFIES CATALOG CLITS, SUBMITTAL SHEETS, OR MANUFACTURERS SHOP DRAWINGS INDICATING THE FOLLOWING:
- MANUFACTURER'S NAME AND COMPLETE CATALOG NUMBER FIXTURE PROTOMETRY CATALOG NUMBER FIXTURE PROTOMETRIC TEST DATA FROM AN INDEPENDENT TEST LABORATORY FIXTURE ACCESSORIES, COMPONENTS, AND HARDWARE WHEN SPECIFIED LABORATORY FIXTURE ACCESSORIES, COMPONENTS, AND HARDWARE WHEN SPECIFIED LABORATORY, ARTICL LIFE, COLOR TEMPERATURE, COLOR RENDERING INDEX AND BEAM SPREAD AS APPLICABLE BALLAST TYPE AND FIXTURE VOLTAGE

- LIGHTING FIXTURE SUBSTITUTION REQUESTS MUST BE SENT TO AND RECEIVED BY THE LIGHTING DESIGNER FOR REVIEW 14 DAYS PRIOR TO BID DATE. FAILURE TO SUBMIT WITHIN THIS DEADLINE SHALL CONSTITUTE A GUARANTE THAT THE SPECIFIED FIXTURES WILL BE SUPPLIED. THE SUBMITTAL SHALL INCLUDE THE FOLLOWING:

- SUPPLIED. THE SUBMITIAL SHALL INCLUDE THE FOLLOWING:

  A. SIX HARD COPIES OF THE SUBMITIALS REQUIRED ABOVE FOR BOTH THE SPECIFIED PIXTURE AND THE PROPOSED SUBSTITUTION FOR THE PROPOSED SUBSTITUTION SHOWS THAT THE SCHEDULE WITHOUT THE APPROVAL OF THE PROPOSED SUBSTITUTION SHAND. THAT THE PROPOSED SUBSTITUTION CONFRONS OF THE PROPOSED SUBSTITUTION SHAND. THAT THE PROPOSED SUBSTITUTION CONFRONS OF THE PROPOSED SUBSTITUTION SHAND. THAT THE PROPOSED SUBSTITUTION FOR THE PROPOSED SUBSTITUTION SHAPER OF THE PROPOSED SUBSTITUTION STATEM OR EQUIPMENT THAT MAY RESULT FROM THE PROPOSED SUBSTITUTION FAIL BE DESIGNED AND CONSTRUCTED AT THE CONTRACTOR'S SCREENES.

  F. CONTRACTOR'S WAVER OF ROGHTS TO ADDITIONAL PARMAND OR TIME THAT MAY BECOME HAS MADE OF THE PROPOSED SUBSTITUTION FAIL OF PROPOSED SUBSTITUTION FAIL OF THE SPECIFIED FOR THE SPECIFIED FIXTURE AND FOR THE PROPOSED SUBSTITUTION FAIL OF THE SPECIFIED FIXTURE AND FOR THE PROPOSED SUBSTITUTION FAIL OF SECRED SHAPE SPECIFIED FIXTURE SHAPE SHAPE SPECIFIED FIXTURE SHAPE SHAPE SHAPE SHAPE SPECIFIED FIXTURE SHAPE S

THE LIGHTING DESIGNER SHALL BE REIMBURSED BY THE CONTRACTOR FOR ALL OF THE DESIGNER'S TIME ASSOCIATED WITH THE REVIEW OF THE PROPOSED FIXTURE SUBSTITUTIONS). PAYMENT SHALL BE MADE IN ADVANCE OF THE REVIEW, BASED ON THE DESIGNER'S STRANGE OF THE REQUIRED TIME. THE PAYMENT SHALL BE BASED ON THE DESIGNER'S STRANGE OF THE REQUIRED TIME. THE PAYMENT SHALL BE BASED ON THE DESIGNER'S STRANGE HOUSE.

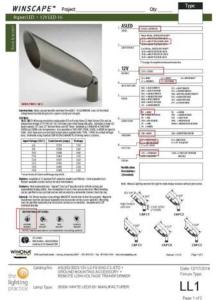
### SELECT DEFINITIONS:

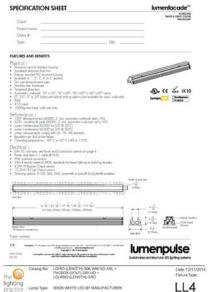
- CORRELATED COLOR TEMPERATURE (CCT): THE ABSOLUTE TEMPERATURE, MEASURED IN DEGREES KELVIN, OF A BLACKBODY RADIATOR HAVING CHROMATICITY RESEMBLING THAT AN ELECTRIC LOLIFT SOURCE, FOR LED SOURCES CCT SHALL NOT DEVAILE FROM THE REFERENCE COLOR TEMPERATURE BY NO MORE THAN THREE MACADAM ELLIPSES, AS DEFINED BY NEWAM/NSI/S/NISC CS.9.377—2011
- COLOR RENDERING INDEX (CRI): MEASURE OF COLOR SHIFT OBJECTS UNDERGO WHEN LLUMMVEED BY ANY ELECTRIC. LIGHT SOURCE OF COMMARED WITH THE COLOR OF THE SAME LIGHT SOURCE AND COMMAND WITH COLOR OF THE SAME VALUES FOR LECTRIC LIGHT SOURCES ANGLE FOR MEMORATERY 20 (LOW PRESSURE SOURLY) TO 99 (PALOCEN). CRI VALUES FOR LED SOURCES SHALL BE MEASURED AFTER SOOD HOURS AND SHALL NOT DEVAITE MORE THAN 3 POINTS FROM THE RATED VALUE.
- LED LIGHT ENGINE: THE COMBINED LED LIGHT SOURCE AND ITS ASSOCIATED ELECTRONIC DRIVER. THE LED LIGHT ENGINE MAY HAVE AN INTEGRAL DRIVER OR THE DRIVER MAY BE HOUSED IN A SEPARATE ENCLOSURE.
- LED DRIVER: CONTROL DEVICE THAT MAINTAINS CONSTANT AMOUNT OF CURRENT TO THE LEL LIGHT SOURCE. LED DRIVERS GENERALLY OPERATE AT 12VDC OR 24VDC, SOME DRIVERS ARE DESIGNED TO ACCEPT BRANCH CIRCUIT VOLTAGE RANGING FROM 120VAC THROUGH 277VAC OR MAY REQUIRE A SEPARATE TRANSFORMER.
- DIMINING: THE REDUCTION OF LIGHT INTENSITY OF A LIGHT SOURCE. ALL SOURCES SHALL HAVE A SMOOTH, FLICKER-FREE AND CONTINUOUS DIMINING CURVE FROM FULL-OFF TO 1000% OUTPUT, LED SOURCES MAY BE DIMINED OF TITHER CONSTANT CURRENT REDUCTION (CCR) OR BY PULSE WIDTH MODULATION (PWIM) DIMINING FOR CONSTANT CURRENT DRIVER
- RATED LUMEN MAINTENANCE LIFE: THE ELAPSED OPERATING TIME OVER WHICH AN LED LIGHT SOURCE WILL MAINTAIN THE PERCENTAGE OF ITS INITIAL LUMEN OUTPUT LIVE INTENTION LUMEN AND THE LUMEN AND THE LOTE THE AND THE METERS OF THE LO

ONLY. TO BE COORDINATED WITH LIGHTING DESIGNER TBD.

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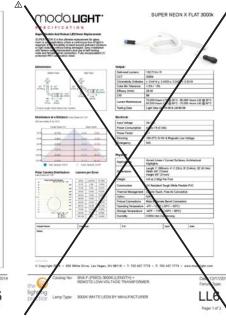


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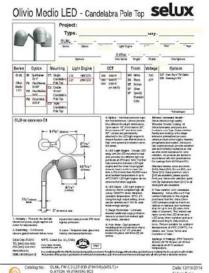
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FCTION DISTRICT No. 5

APPROVED PLANNING BOARD OF HOWARD COUNTY D E S I G N C O L L E C T I V E

BALTIMORE, MARYLAND 21202

T: 410.685.6655 F: 410.539.6242

DES. DRN. CHK.

ARCHITECTURE, PLANNING, INTERIORS | 601 EAST PRATT STREET, SUITE 300

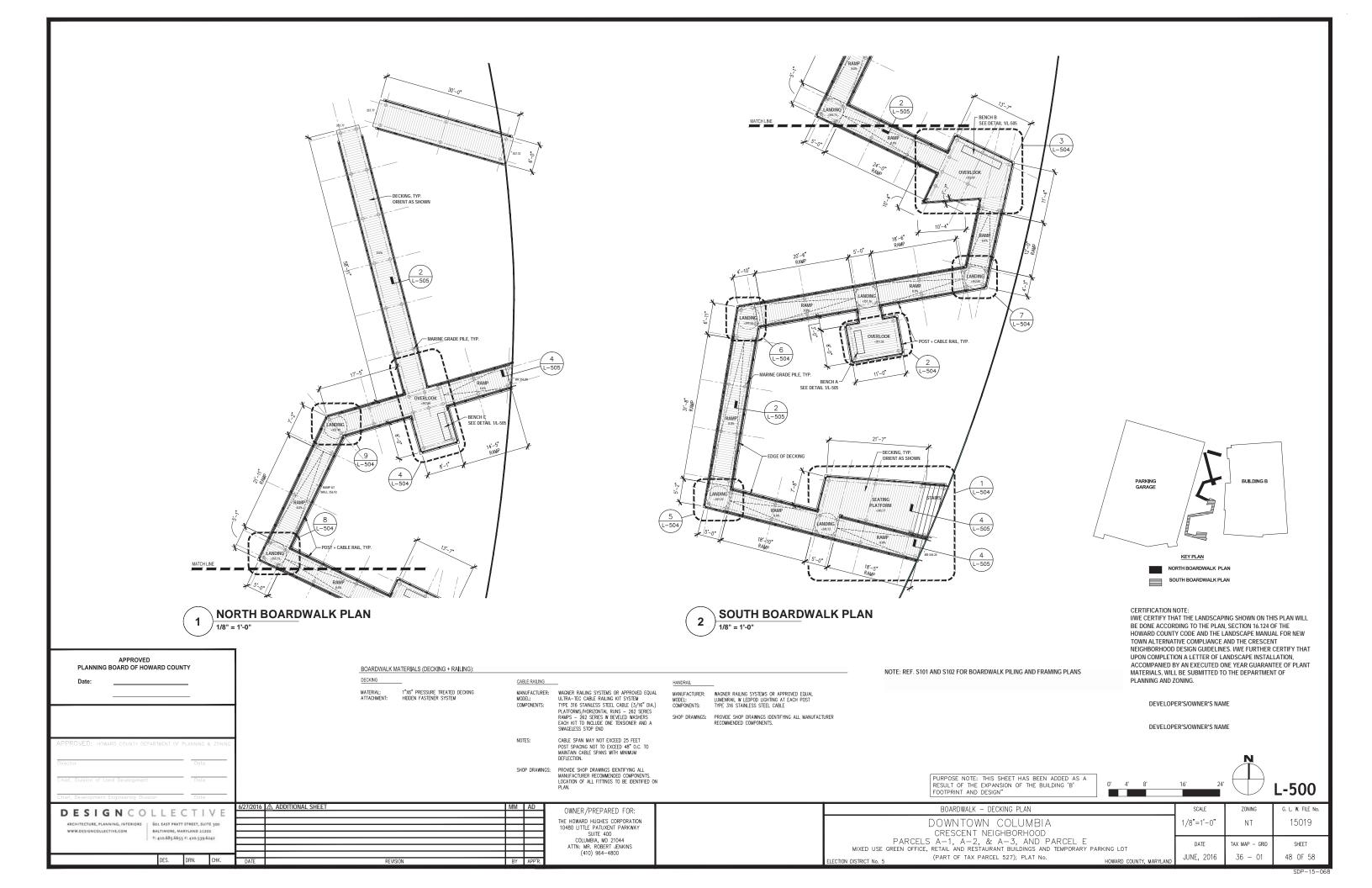
6/27/2016 A REVISIONS TO BUILDING B & SURROUNDING AREA

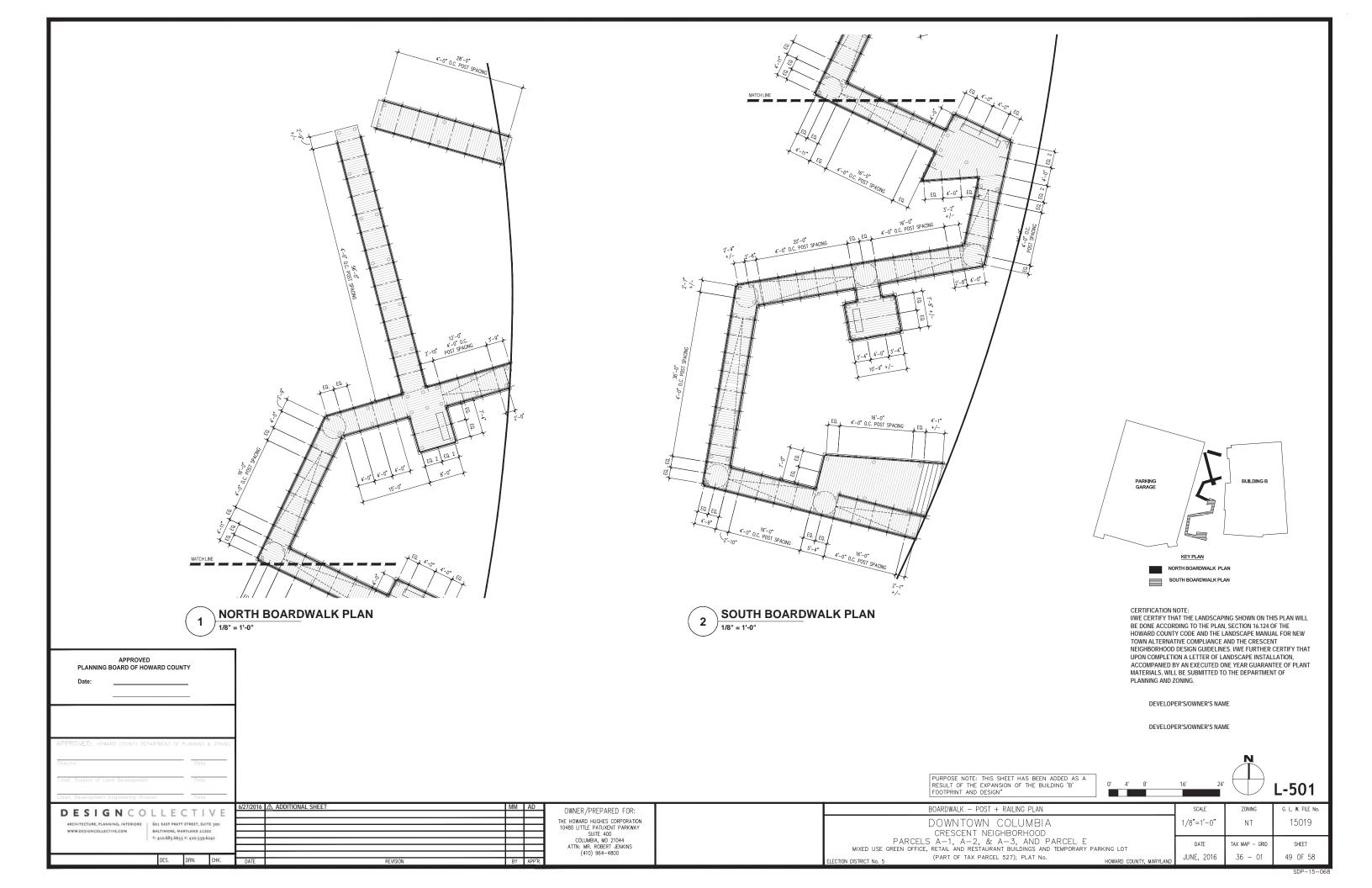
OWNER/PREPARED FOR: THE HOWARD HUGHES CORPORATION 10480 LITTLE PATUXENT PARKWAY SUITE 400 COLUMBIA, MD 21044 ATTN: MR. ROBERT JENKINS (410) 964-4800

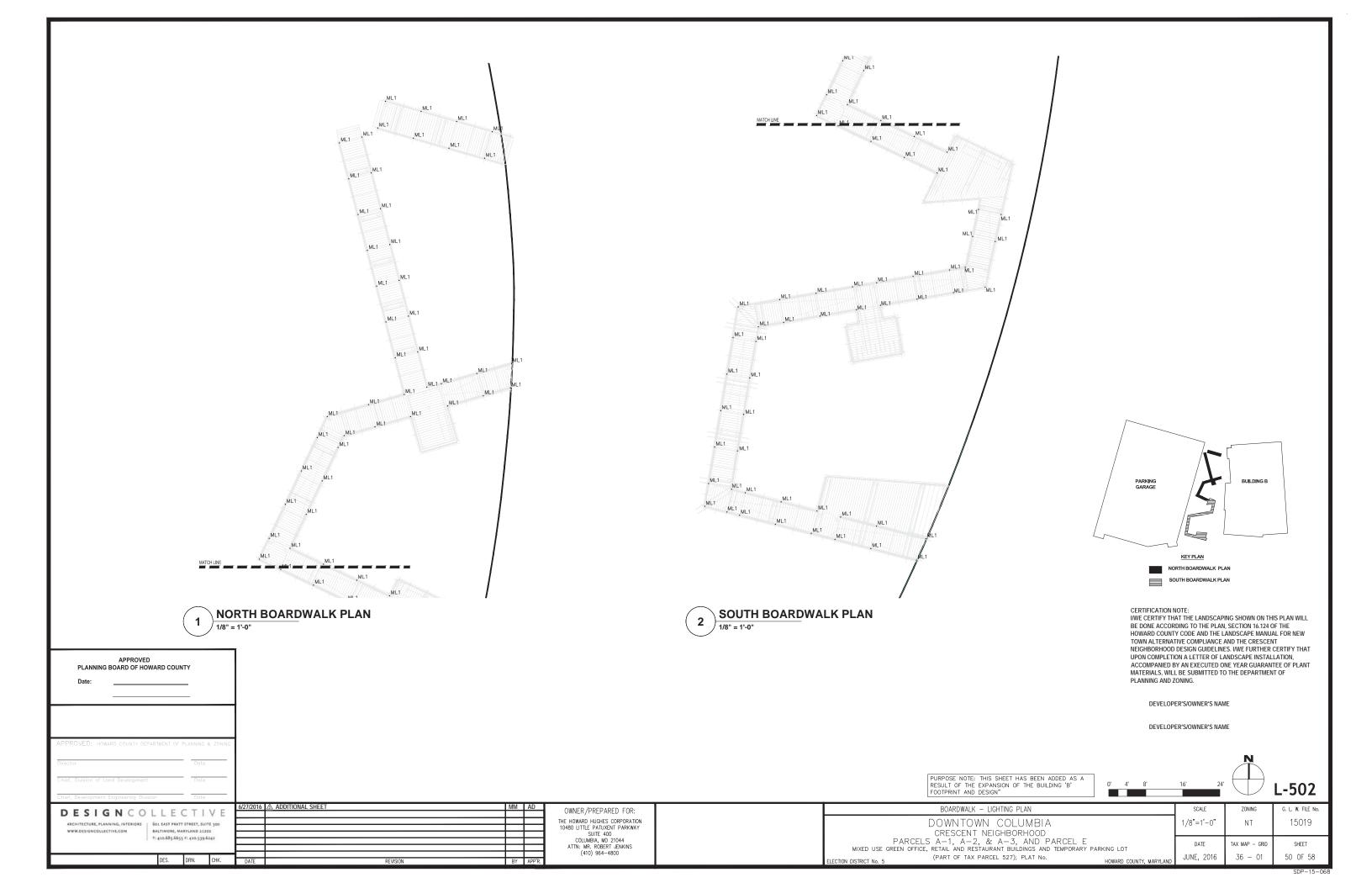
PRODUCT SPECIFICATION

PURPOSE NOTE: THE REVISIONS MADE TO THIS SHEET REFLECT CHANGES RESULTING FROM THE EXPANSION OF THE BUILDING 'B' FOOTPRINT AND DESIGN. THIS PLAN SUPERCEDES THE PLAN SIGNED ON 12/18/2015.

L-410 REVISED LIGHTING FIXTURE SCHEDULE G. L. W. FILE No SCALE 15019 DOWNTOWN COLUMBIA NT CRESCENT NEIGHBORHOOD PARCELS A-1, A-2, & A-3, AND PARCEL E MIXED USE GREEN OFFICE, RETAIL AND RESTAURANT BUILDINGS AND TEMPORARY PARKING LOT TAX MAP - GRID SHEET JUNE, 2016 36 - 0147 OF 58 (PART OF TAX PARCEL 527); PLAT No. HOWARD COUNTY, MARYLAND







	HUGHES	S BOARDWALK (LAND			TLP PROJECT XXXXXX.00	NUMBER	₹:	TLP ISSUE DATE: 05/03/16
LIGHT	ING FIX	TURE SCHEDULE						
TYPE	MTG.	DESCRIPTION	LAMPING		WATTAGE	VOLTS	MANUFACTURER	CATALOG NUMBER
			QTY.	LAMP DESIGNATION	PER FIXTURE			
ML1	SURF	LED RALING LIGHT SYSTEM, 1.66 OR 1.90 INCH ADA-GONPLIANT DAMFERY & LENGTH AS SHOWN DAY ARROYS AND	-	LEDS BY MANUFACTURER	1.5		WAGNER	LULP-[RAIL SIZE]-30K-S-[RAIL WALL THICKNESS]-[VOLT]
		OF 50,000 HOURS, 3,000K CCT, 80+ CRI,						

# GENERAL NOTES:

- ALL LIGHTING FIXTURES, LAMPS AND RELATED DEVICES FURNISHED UNDER THIS CONTRACT SHALL CARRY THE APPROVAL LABEL OF UL OR ETL FOR THE SPECIFIC APPLICATION IN WHICH THEY ARE USED.
- THE STATEMENT "FINISH TO BE SELECTED BY DESIGN PROFESSIONAL" SHALL BE INTERPRETED TO MEAN THAT THE FINISH OF THE LUMINAIRE SHALL MATCH THE APPEARANCE OF A PAINT CHIP, COLOR NUMBER, OR METAL SWATCH FURNISHED BY THE DESIGN PROFESSIONAL DURING THE SUBMITTAL REVIEW PROCESS.
- WHITE L.E.D.'S SHALL MEET, AT A MINIMUM, CHROMATICITY STANDARDS SET B' ANSI/NEMA/ANSIG C79.377-2011. L.E.D. LUMEN MAINTENANCE SHALL BE MEASURED IN ACCORDANCE WITH LESNA LM-80 STANDARDS. PHOTOMETRIC TESTING FOR SOLID STATE LUMINAIRES SHALL BE IN ACCORDANCE WITH LESNA LM-79 STANDARDS.
- 4. CONTRACTOR SHALL CONFIRM FIXTURE VOLTAGES, CEILING TRIMS, AND MOUNTING HARDWARE ARE COMPATIBLE WITH THEIR APPLICATION AS DETERMINED BY THE DESIGN PROFESSIONAL PRIOR TO ORDERING FIXTURES.
- CONTRACTOR SHALL SELECT, FURNISH AND INSTALL THE CORRECT SIZE OF SECONDARY WIRING FROM REMOTE TRANSFORMERS AND/OR REMOTE BALLASTS AS REQUIRED TO KEEP VOLTAGE DROP IN THE SECONDARY WIRING BELOW 3% OF RATED VOLTAGE.
- CONTRACTOR SHALL PROVIDE LABOR AND EQUIPMENT FOR FOCUSING OF ADJUSTABLE FIXTURES AND PRESETTING OF LIGHTING CONTROL SYSTEMS. FOCUSING AND PRESETTING SHALL BE DONE IN THE PRESENCE OF THE DESIGN PROFESSIONAL. CONTRACTOR SHALL FOCUS LIGHTING AFTER DARK IF DIRECTED BY THE OWNER'S REPRESENTATIVE. UNLESS OTHERWISE NOTED, CONTRACTOR SHALL PROVIDE AT LESST ONE DAY OF A FACTORY-TRAINED AND CERTIFIED TECHNICIAN TO PROVIDE WARRANTY START UP AND PROGRAMMING FOR ALL LIGHTING CONTROL SYSTEMS AND PROGRAMMABLE LIGHTING FIXTURES.
- 7. CONTRACTOR SHALL PROVIDE THE FOLLOWING WITH THEIR BID:
- A. THE UNIT PRICE, WITHOUT LAMP, FOR EACH LIGHTING FIXTURE TYPE LISTED WITHIN THE LIGHTING FIXTURE SCHEDULE. THE UNIT PRICE SHALL BE FOR ONE OF THE LISTED MANUFACTURER'S FOR THAT PARTICULAR FIXTURE. THE MANUFACTURER SHALL BE IDENTIFIED. SUBSTITUTIONS FOR FIXTURES PROVIDED BY MANUFACTURERS NOT LISTED IN THE SCHEDULE ARE NOT ACCEPTABLE. SEE BELOW FOR REQUIREMENTS ASSOCIATED WITH SUBMITTING LIGHTING FIXTURE SLIENTITUTIONS.
- SUBSTITUTIONS.
  THE TOTAL QUANTITY OF EACH FIXTURE TYPE WITH THE EXTENDED COST FOR THAT QUANTITY.
- C. THE UNIT PRICE, TYPE, AND QUANTITY OF LAMPS.
- 11. WITHIN 21 DAYS OF CONTRACT AWARD, THE CONTRACTOR SHALL FURNISH SUBMITTALS FOR ALL SPECIFIED LIGHTING FIXTURES FOR REVIEW BY THE DESIGN PROFESSIONAL. THE SUBMITTALS SHALL INCLUDE LUMINAIRE CATALOG CUTS, SUBMITTAL SHEETS, OR MANUFACTURERS SHOP DRAWINGS INDICATING THE FOLLOWING:
  - MANUFACTURER'S NAME AND COMPLETE CATALOG NUMBER
- MANUFACTURER'S NAME. AND COMPLETE CATALOG NUMBER FIXTURE TYPE, DIMENSIONS AND FINISHES FIXTURE PYPE, DIMENSIONS AND FINISHES FIXTURE PHOTOMETRIC TEST DATA FROM AN INDEPENDENT TEST LABORATORY FIXTURE ACCESSORIES, COMPONENTS, AND HARDWARE WHEN SPECIFIED LAMP TYPE, QUANTITY, WATTAGE, LUMEN OUTPUT, RATED LIFE, COLOR TEMPERATURE, COLOR RENDERING INDEX AND BEAM SPREAD AS APPLICABLE BALLAST TYPE AND FIXTURE VOLTAGE

SUBMITTALS FOR LIGHTING FIXTURES MOUNTED WITHIN ARCHITECTURAL COVES OR CASEWORK, VARIABLE LENGTH FIXTURES, AND FOR NON-STANDARD, OR CUSTOM FIXTURES, SHALL ALSO INCLUDE SCALED DRAWINGS SHOWING THE LAYOUT AND DIMENSIONS OF ALL FIXTURE COMPONENTS AND ACCESSORIES, THE METHOD OF INSTALLATION, AND A COMPLETE BILL OF MATERIALS.

- 12. LIGHTING FIXTURE SUBSTITUTION REQUESTS MUST BE SENT TO AND RECEIVED BY THE LIGHTING DESIGNER FOR REVIEW 14 DAYS PRIOR TO BID DATE. FAILURE TO SUBMIT WITHIN THIS DEADLINE SHALL CONSTITUTE A GUARANTEE THAT THE SPECIFIED FIXTURES WILL BE SUPPLIED. THE SUBMITTAL SHALL INCLUDE THE FOLLOWING:
- A. SIX HARD COPIES OF THE SUBMITTALS REQUIRED ABOVE FOR BOTH THE SPECIFIED FIXTURE AND THE PROPOSED SUBSTITUTION.

  B. ONE NON-RETURNABLE WORKING SAMPLE OF THE PROPOSED SUBSTITUTE FIXTURE WITH CORD & PLUG CONNECTION FOR 120 VOLT OPERATION, AND SPECIFIED LAMP(S).
- SPECIFIED LAMP(S).

  CONTRACTOR'S STATEMENT INDICATING THE EFFECT OF THE SUBSTITUTION ON THE CONSTRUCTION SCHEDULE COMPARED TO THE SCHEDULE WITHOUT THE APPROVAL OF THE PROPOSED SUBSTITUTION.

  CONTRACTOR'S CERTIFICATION STATING THAT THE PROPOSED SUBSTITUTION CONFORMS TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS IN EVERY RESPECT AND IS APPROPRIATE FOR THE APPLICATIONS INDICATED IN THE DOCUMENTS.
- RESPECT AND IS APPROPRIATE FOR THE APPLICATIONS INDICATED IN THE DOCUMENTS.

  CONTRACTOR'S CERTIFICATION STATING THAT ANY MODIFICATIONS TO ANY BUILDING SYSTEM OR EQUIPMENT THAT MAY RESULT FROM THE PROPOSED LIGHTING FIXTURE SUBSTITUTION WILL BE DESIGNED AND CONSTRUCTED AT THE CONTRACTOR'S EXPENSE.

  CONTRACTOR'S WAIVER OF RIGHTS TO ADDITIONAL PAYMENT OR TIME THAT MAY BECOME NECESSARY SHOULD THE PROPOSED SUBSTITUTION FAIL TO PERFORM IN A MANNER THAT MATCHES THE SPECIFIED FIXTURE.

  CONTRACTOR—NET UNIT PRICE FOR THE SPECIFIED FIXTURE AND FOR THE PROPOSED SUBSTITUTE FIXTURE.

THE LIGHTING DESIGNER SHALL BE REIMBURSED BY THE CONTRACTOR FOR ALL OF THE DESIGNER'S TIME ASSOCIATED WITH THE REVIEW OF THE PROPOSED FIXTURE SUBSTITUTION(S). PAYMENT SHALL BE MADE IN ADVANCE OF THE REVIEW, BASED ON THE DESIGNER'S ESTIMATE OF THE REQUIRED TIME. THE PAYMENT SHALL BE BASED ON THE DESIGNER'S STANDARD HOURLY RATES FOR THE PERSONNEL INVOLVED IN THE REVIEW.

# **DEFINITIONS:**

- CORRELATED COLOR TEMPERATURE (CCT): THE ABSOLUTE TEMPERATURE, MEASURED IN DEGREES KELVIN, OF A BLACKBODY RADIATOR HAVING CHROMATICITY RESEMBLING THAT OF AN ELECTRIC LIGHT SOURCE. FOR LED SOURCES CCT SHALL NOT DEVIATE FROM THE REFERENCE COLOR TEMPERATURE BY NO MORE THAN THREE MACADAM ELLIPSES, AS DEFINED BY NEMA/ANSI/ANSLG C38.377-2011
- 2. COLOR RENDERING INDEX (CRI): MEASURE OF COLOR SHIFT OBJECTS UNDERGO WHEN ILLUMINATED BY AN ELECTRIC LIGHT SOURCE AS COMPARED WITH THE COLOR OF THE SAME OBJECTS ILLUMINATED BY A REFERENCE SOURCE AT THE SAME COLOR TEMPERATURE. OR IVALUES FOR ELECTRIC LIGHT SOURCES RANGE FROM APPROXIMATELY 20 (LOW PRESSURE SODIUM) TO 99 (HALOGEN). CRI VALUES FOR LED SOURCES SHALL BE MEASURED AFTER 6000 HOURS AND SHALL NOT DEVIATE MORE THAN 3 POINTS FROM THE RATED VALUE.
- 3. LED LIGHT ENGINE: THE COMBINED LED LIGHT SOURCE AND ITS ASSOCIATED ELECTRONIC DRIVER. THE LED LIGHT ENGINE MAY HAVE AN INTEGRAL DRIVER OR THE DRIVER MAY BE HOUSED IN A SEPARATE ENCLOSURE.
- 4. LED DRIVER: CONTROL DEVICE THAT MAINTAINS CONSTANT AMOUNT OF CURRENT TO THE LED LIGHT SOURCE. LED DRIVERS GENERALLY OPERATE AT 12VDC OR 24VDC. SOME DRIVERS ARE DESIGNED TO ACCEPT BRANCH CIRCUIT VOLTAGE RANGING FROM 120VAC THROUGH 277VAC OR MAY REQUIRE A SEPARATE TRANSFORMER.
- 5. TRANSFORMER: ELECTROMAGNETIC OR ELECTRONIC DEVICE THAT STEPS DOWN PRIMARY VOLTAGE TO A LOWER SECONDARY VOLTAGE. GENERALLY SECONDARY VOLTAGE WILL BE 12V OR 24V
- 6. DIMMING: THE REDUCTION OF LIGHT INTENSITY OF A LIGHT SOURCE. ALL SOURCES SHALL HAVE A SMOOTH, FLICKER-FREE AND CONTINUOUS DIMMING CURVE AS NOTED IN LUMINAIRE DESCRIPTION. LED SOURCES MAY BE DIMMED BY EITHER CONSTANT CURRENT REDUCTION (CCR) OR BY PULSE WIDTH MODULATION (PWM) DIMMING FOR CONSTANT CURRENT DRIVERS.
- 7. RATED LUMEN MAINTENANCE LIFE: THE ELAPSED OPERATING TIME OVER WHICH AN LED LIGHT SOURCE WILL MAINTAIN THE PERCENTAGE OF ITS INITIAL LUMEN OUTPUT L70: TIME, IN HOURS, TO 70% LUMEN MAINTENANCE L50: TIME, IN HOURS, TO 50% LUMEN MAINTENANCE

CERTIFICATION NOTE:

I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL FOR NEW TOWN ALTERNATIVE COMPLIANCE AND THE CRESCENT NEIGHBORHOOD DESIGN GUIDELINES. I/WE FURTHER CERTIFY THAT UPON COMPLETION A LETTER OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

DEVELOPER'S/OWNER'S NAME

SCALE

JUNE. 2016

DEVELOPER'S/OWNER'S NAME

PURPOSE NOTE: THIS SHEET HAS BEEN ADDED AS A RESULT OF THE EXPANSION OF THE BUILDING 'B' FOOTPRINT AND DESIGN"

L-503

ZONING

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TAX MAP - GRI

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G. L. W. FILE No

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SHEET

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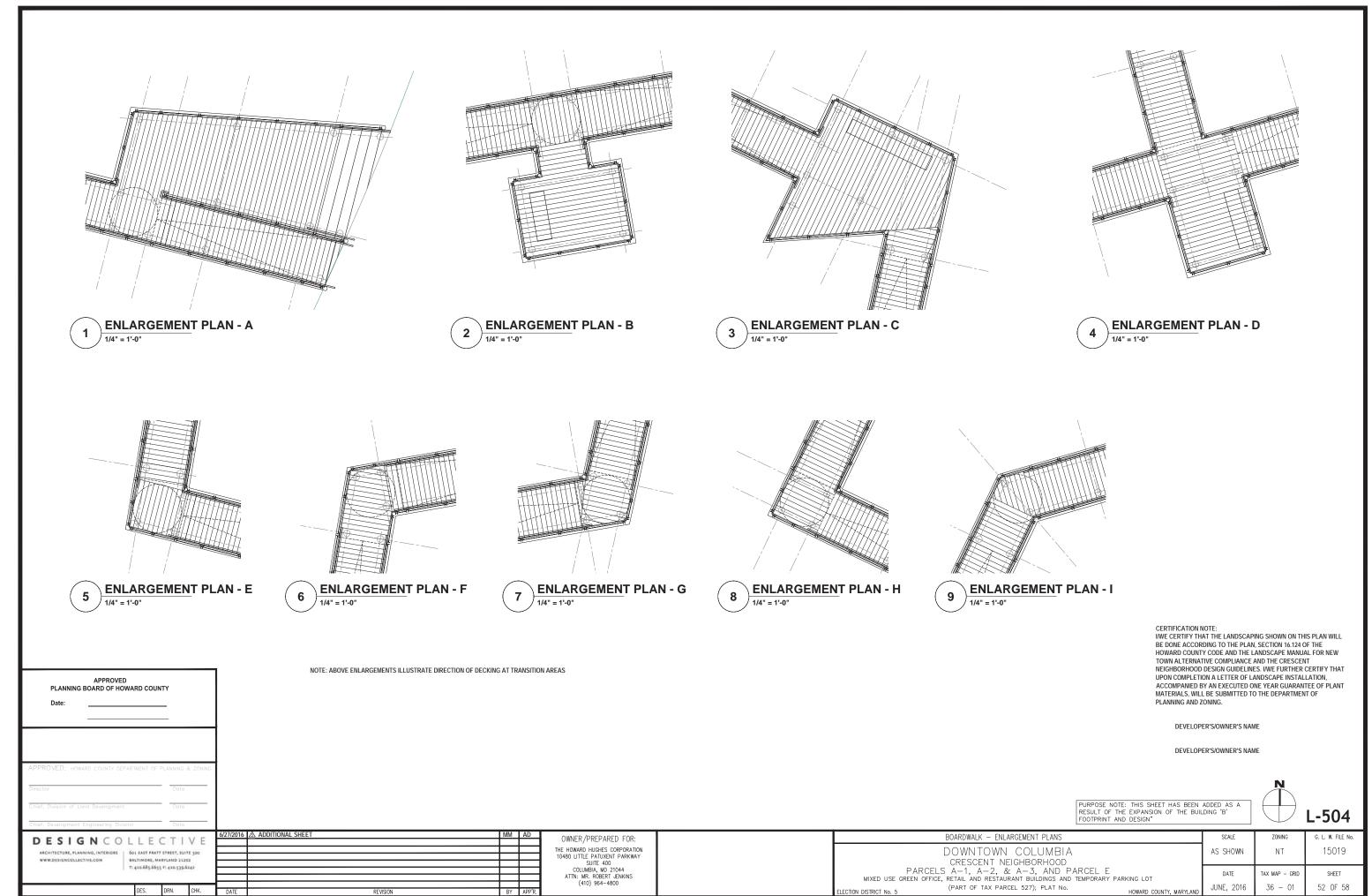
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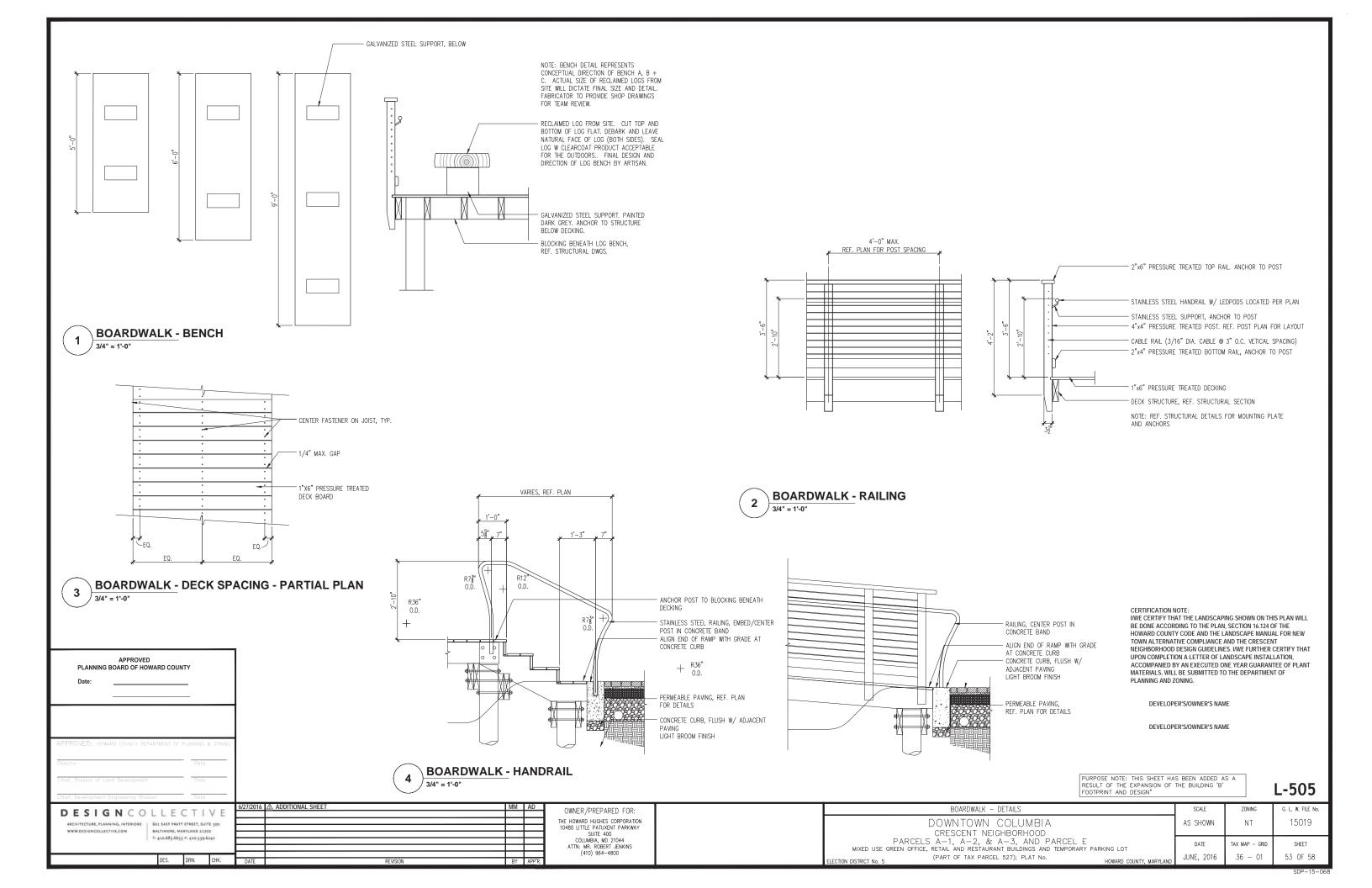
6/27/2016 🛕 ADDITIONAL SHEET

OWNER/PREPARED FOR: THE HOWARD HUGHES CORPORATION 10480 LITTLE PATUXENT PARKWAY COLUMBIA, MD 21044 ATTN: MR. ROBERT JENKINS (410) 964-4800

BOARDWALK - LIGHTING SCHEDULE DOWNTOWN COLUMBIA CRESCENT NEIGHBORHOOD

PARCELS A-1, A-2, & A-3, AND PARCEL E
MIXED USE GREEN OFFICE, RETAIL AND RESTAURANT BUILDINGS AND TEMPORARY PARKING LOT (PART OF TAX PARCEL 527); PLAT No. FCTION DISTRICT No. 5 HOWARD COUNTY, MARYLAND





### GENERAL STRUCTURAL NOTES

### PART 1 - GENERAL REQUIREMENTS AND DESIGN CRITERIA

- SPECIFICATIONS
- THE WORK OF THESE DRAWINGS ADDRESSES STRUCTURAL INFORMATION ONLY. THE STRUCTURAL DOCUMENTS INCLUDE THESE S-SERIES DRAWINGS AND GENERAL NOTES. THERE ARE NO TECHNICAL SPECIFICATIONS IN ADDITION TO THESE GENERAL NOTES.
- 1.2 ELEVATIONS & DIMENSIONS
  - ALL ELEVATIONS AND DIMENSIONS SHOWN FOR NEW CONSTRUCTION ARE BASED ON THE ARCHITECTURAL / LANDSCAPE DRAWINGS, COORDINATE ALL ELEVATIONS AND DIMENSIONS BEFORE PROCEEDING WITH CONSTRUCTION.

### 1.3 GOVERNING BUILDING COCES

- THE FOLLOWING BULDING CODES AND STANDARDS, INCLUDING ALL SPECIFICATIONS REFERENCED WITHIN, SHALL APPLY TO THE DESIGN, CONSTRUCTION, QUALITY CONTROL AND SAFETY OF ALL WORK PERFORMED ON THE PROJECT.

  1. "INTERNATIONAL BUILDING CODE 2015", INTERNATIONAL CODE COUNCIL
- 2. "MINIMUM DESIGN LOADS FOR BUILDING AND OTHER STRUCTURES", (ANSI/AS:E 7-10), AMERICAN SOCIETY OF CIVIL ENGINEERS ADDITIONAL CODESFOR MATERIALS SHALL BE FOUND IN THE APPROPRIATE SECTIONS THAT FOLLOW. SEE THOSE SECTIONS FOR THE APPLICABLE CODES.

### 1.4 DESIGN LOADS

- FLOOR LIVE LOADS
  - ELEVATED WALKWAY = 100 PSF
- SNOW LOAD PLUS DRIFTING AND SLIDING WHERE APPLICABLE

  - PF = 21 PSF
  - CE = 1.0 I = 1.0 CT = 1.2
- DEAD LOADS ALL FERMANENT STATIONARY CONSTRUCTION.
- WIND LOAD PARAMETERS
- BASIC WIND SPEED (3-SECOND GUST), V = 115 MPH
- WIND IMPORTANCE FACTOR, I = 1.0, AND OCCUPANCY CATEGORY = II
- EXPOSURE (ATEGORY: C
- COMPONENTS AND CLADDING
  - ACTUAL PRESSURE(S) ON EVERY COMPONENT AND CLADDING ELEMENT SHALL BE DETERMINED BY THE CONTRACTOR'S SPECIALTY PROFESSIONAL ENGINEER, LICENSED IN THE PROJECT'S JURISDICTION, RESPONSIBLE FOR THE STRUCTURAL DESIGN OF SUCH FLEMENT(S)
- SEISMIC LOAD PARAMETERS
- SEISMIC IMPORTANCE FACTOR, I = 1.0, AND OCCUPANCY CATEGORY = II
- MAPPED SPECTRAL RESPONSE ACCELERATIONS
- S(1) = 0.051 g
- SITE CLASS: D SPECTRAL RESPONSE COEFFICIENTS
- S(DS) = 0.132 q
- S(D1)= 0.082 o
- SEISMIC DESIGN CATEGORY = B
  BASIC SEISMC-FORCE-RESISTING SYSTEM: TIMBER BRACES / TIMBER CANTILEVERED COLUMNS
- DESIGN BASE SHEAR, V = 3 KIPS
- SEISMIC RESPONSE COEFFICIENT, C(S) = 0.088 RESPONSE MODIFICATION FACTOR, R = 1.5
- ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE PROCEDURE

# PART 2 - CONSTRUCTION

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- UNAUTHORIZED REPRODUCTION OF ANY PORTION OF THE STRUCTURAL CONTRACT DRAWINGS FOR RE-SUBMITTAL AS SHOP DRAWINGS IS PROHIBITED. SHOPDRAWINGS PRODUCED IN SUCH A MANNER WILL BE REJECTED AND RETURNED. THESE DRAWINGS FEPRESENT THE COMPLETED PROJECT WHICH HAS BEEN DESIGNED FOR THE WEIGHTS OF MATERIALS, FOR THE
- SUPERIMPOSED LOADS INDICATED IN THE DESIGN LOAD CRITERIA ABOVE, AND FOR LOADS INDICATED ON THE DRAWINGS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ALLOWABLE CONSTRUCTION LOADS AND TO PROVIDE PROPER DESIGN AND CONSTRUCTION OF FALSE WORK, STAGING, BRACING, SHEETING AND SHORING, ETC.
- DEVELOPING AND INPLEMENTING JOB SITE SAFETY AND CONSTRUCTION PROCEDURES ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR
- ALL COSTS OF INVESTIGATION AND REDESIGN, DUE TO THE CONTRACTOR MISLOCATION OF STRUCTURAL ELEMENTS OR OTHER LACK OF CONFORMANCE WITH THE PROJECT DOCUMENTS, SHALL BE AT THE CONTRACTOR SEXPENSE. SEE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR DETAILED INFORMATION REGARDING FINISHES, WATER PROOFING, HAND RAILING, ETC.
- IN CASE OF CONFLICT BETWEEN THE GENERAL NOTES, THE DETAILS AND SPECIFICATIONS, THE MOST RIGID SHALL GOVERN.
  WORK NOT INCLUDED ON THE DRAWINGS BUT IMPLIED TO BE SIMILAR TO THAT SHOWN AT CORRESPONDING LOCATIONS ELSEWHERE ON THE
- DRAWINGS SHALL BE REPEATED.

### 2.2 SHOP DRAWINGS

- SHOP DRAWINGS FOR ALL STRUCTURAL ELEMENTS SHOWN ON THE CONTRACT DOCUMENTS ARE REQUIRED TO BE SUBMITTED BY THE CONTRACTOR AND REVIEWED BY THE STRUCTURAL ENGINEER. IF A CONTRACTOR OR OWNER FAILS TO SUBMIT THE SHOP DRAWINGS, TARANTINO ENGINEERING CONSULTANTS (TEC) WILL NOT BE RESPONSIBLE FOR THE STRUCTURAL CERTEICATION AND DESIGN OF THE PROJECT
- ENGINEERING CONSULTANTS (TEC) WILL NOT BE RESPONSIBLE FOR THE STRUCTURAL CERTIFICATION AND DESIGN OF THE PROJECT.

  SHOP DRAWINGS SUBMITTED FOR STRUCTURAL REVIEW SHALL CONSIST OF ELECTRONIC DRAWINGS. ONLY ONE MARKED UP SET OF ELECTRONIC DRAWINGS WITH THE STRUCTURAL ENGINEER'S COMMENTS WILL BE RETURNED TO THE CONTRACTOR.

  ALLOW 10 BUSINESS DAYS FOR STRUCTURAL REVIEW OF SHOP DRAWINGS. THIS TIME SHOLLD BE ALLOTTED IN THE CONTRACTOR'S SCHEDULE.

  SHOP DRAWINGS SHALL BER'S THE CONTRACTOR'S STAMP OF APPROVAL WHICH SHALL CONSTITUTE CERTIFICATION THAT THEY HAVE VERIFIED ALL FIELD MEASUREMENTS, CONSTRUCTION CRITERIA, MATERIALS AND SIMILAR DATA AND HAVE CHECKED EACH DRAWING FOR COMPLETENESS,
- THE CONTRACTOR SHALL SIBMIT FOR REVIEW, SIGNED AND SEALED DRAWINGS AND CALCULATIONS PREPARED BY A SPECIALTY STRUCTURAL ENGINEER REGISTERED IN THE PROJECTS JURISDICTION FOR THE FOLLOWING ASSEMBLIES. THIS REVIEW SHALL BE FOR GENERAL CONFORMANCE WITH THE PROJECTS PARAMETERS AS INDICATED ON THE DRAWINGS, SPECFICATIONS AND GENERAL NOTES. THE DESIGN OF THESE ASSEMBLIES IS THE RESPONSIBILITY OF THE CONTRACTOR'S ENGINEER WHO HAS SIGNED AND SEALED THESE DRAWINGS AND CALCULATIONS. THESE SUBMISSIONS SHALL BE MADE AVAILABLE IN CONJUNCTION WITH ORPRIOR TO THE SHOP DRAWING FOR THE PRIMARY BUILDING STRUCTURE THAT SUPPORT THESE ASSEMBLIES.
  - METAL RAILINGS: DESIGNS SHALL TAKE INTO ACCOUNT ALL VERTICAL AND LATERAL LOADS REQJIRED BY APPLICABLE BUILDING CODES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING AND INSTALLING EMEEDS AND HARDWARE AS REQUIRED BY THE RAILING DESIGN.

# 2.3 EXISTING CONDITIONS

- EXISTING BUILDING INFORMATION SHOWN IS BASED ON EXISTING BUILDING DRAWINGS, FIELD OBSERVATIONS, OR AS INDICATED ON THE ARCHITECTURAL / LANDSCAPE DRAWINGS. THE CONTRACTOR SHALL VERIFY ALL EXISTING BUILDING INFORMATION SHOWN (DIMENSIONS, ELEVATIONS, ETC.) AND NOTIFY THE ARCHITECT AND STRUCTURAL ENGINEER OF ANY DISCREPANCIES.

  NEW FRAMED WALKWAY ELEVATIONS ARE TO MATCH EXISTING ADJACENT ELEVATIONS AS INDICATED ON THE ARCHITECTURAL / LANDSCAPE
- DRAWINGS. FOUNDATION ELEVATIONS OR THE LENGTH OF VERTICAL LOAD CARRYING ELEMENTS SHALL BE ADJUSTED WITH THE APPROVAL OF THE STRUCTURAL ENGINEER TO ACHIEVE MATCHING SLAB ELEVATIONS.
  UNLESS NOTED OR DETAILED OTHERWISE ON THE PLANS, NEW FOUNDATIONS ADJACENT TO EXISTING FOUNDATIONS SHALL BEAR AT THE SAME.
- ELEVATION.

# PART 3 - FOUNDATIONS / EARTHWORK / GEOTECHNICAL REPORT

#### 3.1 REFERENCE GEOTECHNICAL REPORT

- FOUNDATION DESIGN IS IN ACCORDANCE WITH THE RECOMMENDATIONS PROVIDED IN THE (EOTECHNICAL REPORT PREPARED BY THE ROBERT B. BATTER COMPANY, DATED #PRIL 27, 2016, AUTHOR'S REPORT NUMBER 16765-0.
- ALL FOUNDATIONS SHALL BEAR A MINIMUM OF 30° BELOW ADJACENT EXTERIOR GRADE. THE CONTRACTOR SHALL COORDINATE THESE REQUIREMENTS WITH ALL UNDERGROUND UTILITIES, TUNNELS, ETC. AND NOTIFY THE ARCHITECT AND STRUCTURAL ENGINEER IN ADVANCE OF ANY CONSTRUCTION TO ALLOW FOR ADJUSTMENTS.
- SEE THE SPECIFICATIONS AND GEOTECHNICAL REPORT REQUIREMENTS FOR EXCAVATION AND PREPARATION OF THE SUBGRADE FOR THE FOUNDATIONS AND THE SUB ON GRADE, INCLUDING COMPACTION PROCEDURES. CONTRACTOR NOTE: REQUIREMENTS CONTAINED IN THE GEOTECHNICAL REPORT ARE PART OF THIS WORK.

### 3.2 FOUNDATION DESIGN PARAMETERS

- TREATED TIMBER PILES:
- 4 TON CAPACTY: MINIMUM 7 INCH TIP DIAMETER.

COORDINATION AND COMPLANCE WITH THE CONTRACT DOCUMENTS.

- PILE LOAD TEST SHALL BE PERFORMED ACCORDING TO THE CONTRACT SPECIFICATIONS AND ASTM D-1143.

  ANY DEVIATION IN PLE LOCATION OR ELEVATION SHALL BE REPORTED IMMEDIATELYTO THE STRUCTURAL ENGINEER. ALL REDESIGN
- COSTS DUE TO PILE VIS-LOCATION SHALL BE AT THE CONTRACTOR'S EXPENSE. PILES SHALL BE PREAUGERED WHEN SPECIFIED OR RECOMMENDED BY THE GEOTECHNICAL ENGINEER TO REDUCE VIBRATIONS. PILES SHALL BE DRIVEN TC COMPLETION IMMEDIATELY AFTER PRE-AUGERING OF EACH PILE LOCATION, AND PRIOR TO ANY FURTHER PRE-AUGERING.
- 3.3 EXCAVATION: THE SLOPE BETWEEN THE LOWER EDGES OF ADJACENT FOUNDATIONS SHALL NOT EXCEED 15 DEGREES REFERENCED FROM THE HORIZONTAL, UNLESS NOTED OR DETAILED OTHERWISE ON THE PLAN. MAINTAIN A 1V:1H SLOPE FROM BOITOM EDGE OF ANY EXCAVATION
  - THE CONTRACTOR SHALL VERIFY ALL EXISTING FIELD CONDITIONS THAT MAY AFFECT THE INSTALLATION OF THE FOUNDATION SYSTEM AS SHOWN THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL EXISTING UTILITIES, ABOVE AND BELOW GRADE STRUCTURES,
  - ETC., WHETHER NOICATED OR NOT, THAT MAY BE AFFECTED BY THE CONSTRUCTION PROCESS.

    UTILITIES LINES SHALL NOT 3E PLACED THROUGH OR BELOW FOUNDATIONS WITHOUT THE STRUCTURAL ENGINEER'S APPROVAL UNLESS DETAILED OTHERWISE IN THE PLANS.
  - ALL SHORING. SHEETING AND DEWATERING SHALL BE THE TOTAL RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR'S ENGINEER REGISTERED IN THE PROJECT'S JURISDICTION, SHALL DESIGN THE SHEETING AND SHORING AND PROVIDE SIGNED AND SEALED SUBMITTALS FOR REVIEW.

- BACKFILL AGAINST WALLS:
   A. DO NOT BACKFILL AGAINST RETAINING WALLS UNTIL WALL CONCRETE IS AT FULL DESIGN STRENGTH. BACKFILL WITH APPROVED MATERIAL PLACED IN 6 IN LAYERS AND COMPACTED TO 95% DENSITY AT OPTIMUM MOISTURE CONTENT AND FREE OF DEBRIS AS DEFINED BY ASTM D-1557.
  - METHOUD.

    NO BACKFILL MATERIAL SHALL BE PLACED AGAINST FOUNDATION WALLS UNTIL THE UPPER ERACING FLOORS ARE IN PLACE FOR AT LEAST 7 DAYS, OR ADEQUATE BRACING IS NISTALLED. THE CONTRACTOR'S ENGINEER, REGISTERED IN THE PROJECT'S JURISDICTION, SHALL DESIGN THE
  - BRACING AND PROVIDE SIGRED AND SEALED SUBMITTALS FOR REVIEW.
    WHERE THE FINAL GRADE ELEVATIONS ARE APPROXIMATELY EQUAL ON BOTH SIDES OF A WALL, BACKFILL IN LIFTS TO MAINTAIN LEVEL ELEVATIONS WITHIN 12 IN. ON BOTH SIDES AT ANY TIME.

### PART 4 - WOOD FRAMING

- "DESIGN SPECIFICATIONS", TIMBER CONSTRUCTION MANUAL, AMERICAN INSTITUTE OF TIMBER CONSTRUCTION.
- "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION" WITH SUPPLEMENT, 2012, AMERICAN FOREST'S PAPER ASSOCIATION

- A. SAWN LUMBER: ALL SAWN LUMBER SHALL HAVE 19% MAXIMUM MOISTURE CONTENT AND SHALL BE SURFACE DRY SPRUCE-PINE-FIR (NOT SOUTH). STRUCTURAL MEMBERS: GRADE #1 WITH THE FOLLOWING BASE DESIGN VALUES (PSI)
  - FC(PERP) FV 175 TIMBER PILES: ALL TIMBER PILES SHALL BE ROUND, TREATED SOUTHERN PINE.
  - STRUCTURAL MEMBERS: GRADE ASTMD-25 ROUND #1

#### 4.3 SAWN LUMBER

- EVINION.
  SEE INTERNATIONAL BUILDING CODE CHAPTER 23, TABLE 2304.9.1 FOR MINIMUM BRACING AND FASTENING.
  MEMBERS SHALL BE SET WITH CROWN SIDE UP AND HAVE A MINIMUM 3 IN. BEARING.
  MEMBERS FRAMING TO BEAMS, HEADERS, ETC. SHALL BE SECURED WITH SIMPSON STRONG-TIE FRAMING ANCHORS OR APPROVED EQUAL,
- LINLESS DETAILED OTHERWISE ALL JOISTS AND RAFTERS SHALL BE RIGIDLY BRIDGED AT INTERVALS NOT EXCEEDING 8 FEET.

  USE ½ IN. DIAMETER LAG SCREWS OR THRU BOLTS AT 24 INCH O.C. TO JOIN MULTIPLE 2X BEAMS OR GIRDERS 30 THAT LOAD DISTRIBUTES

- PROVIDE CONTINUOUS SOLID BLOCKING UNDER CONCENTRATED LOADS (INCLUDING WINDOW AND DOOR JAMBS) DOWN THROUGH FLOOR FRAMING TO SLAB ON GRADE OR FOUNDATION.
- FRAMING TO SEAS ON GRADE OF FOUNDATION.
  ALL WOOD SILL PLATES SHALL BE ANCHORED TO GROUT FILLED CMU OR CONCRETE FOUNDATIONS WITH ½ IN DIAMETER HOOKED ANCHORS AT 4 FEET O.C. (2 MINIMUM PER SIZE PIECE). ANCHOR BOLTS SHALL BE EMBEDDED A MINIMUM OF 14 IN. INTO MORTAR GROUT AND 8 IN. INTO CAST-IN-PLACE CONCRETE.

  ALL BOLTS AND LAG SCREWS SHALL BE FITTED WITH GALVANIZED, MALLEABLE IRON OR STEEL PLATE WASHERS.

WOOD PRESERVATIVE TREATMENT:
A. WHERE LUMBER OR PLYWOOD IS INDICATED AT 'TREATED', COMPLY WITH APPLICABLE REQUIREMENTS OR AMERICAN WOOD PRESERVERS ASSOCIATION (AWPA) STANDARDS U1. T1 AND P5. AND WITH AWPB STANDARDS LISTED BELOW. MARK EACH TREATED ITEM WITH THE AWPB

ARREVIATION WORD OR PHRASE

THEOLITTINE INCHINEIT.			
	AWPA USE CATEGORY	PRESERVATIVE	RETENTION LEVEL
TIMBER PILES	UC4C	CHROMATED COPPER ARSENATE	0.8 PCF
SAWN LUMBER	UC4C	CHROMATED COPPER ARSENATE	0.6 PCF

# 4.5 FASTENERS

NAILS: COMMON WIRE, GALVANIZED, FOR ATTACHMENT OF HURRICANE TIES.

BOLTS: ASTM A307 FOR ALL WOOD-TO-WOOD AND LIGHT GAGE STEEL-TO-WOOD CONNECTIONS, HOT-DIPPED SALVANIZED OR STAINLESS STEEL SCREWS: ASME B18.6.1 FOR ALL WOOD-TO-WOOD AND WOOD-TO-STEEL CONNECTIONS AND ATTACHMENT OF DECK BOARDS TO JOIST (OR AS NUFACTUERER). CONNECTORS: SIMPSON STRONG-TIE OR APPROVED EG

ARREVIATION	WORD OR PHRASE	ABBREVIATIONS CONTINUED						
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	GALV	GALVANIZED					
ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERS							
AWS	AMERICAN WELDING SOCIETY	INFO	INFORMATION					
AB	ANCHOR BOLT	IBC	INTERNATIONAL BUILDING CODE					
ARCH	ARCHITECT							
@	AT RATE OF	JB	JOIST BEARING					
BM	BEAM	MFR	MANUFACTURER					
BRG	BEARING	MAX	MAXIMUM					
BLK	BLOCKING	MIN	MINIMUM					
BLDG	BUILDING							
		NDS	NATIONAL DESIGN SPECIFICATION FOR WOOL					
CL	CENTERLINE		CONSTRUCTION					
CLR	CLEAR	NTS	NOT TO SCALE					
CONC	CONCRETE							
CONN	CONNECTION	OC	ON CENTER					
CONST	CONSTRUCTION							
CONT	CONTINUOUS	PSF	POUNDS PER SQUARE FOOT					
DIA	DIAMETER	REF	REFERENCE					
DIM	DIMENSION							
DWLS	DOWELS	SS	STAINLESS STEEL					
DN	DOWN	STD	STANDARD					
DWG	DRAWING	STL	STEEL					
EA	EACH	TOW	TOP OF WALL					
EW	EACH WAY	TYP	TYPICAL					
EL	ELEVATION							
EQ	EQUAL	UNO	UNLESS NOTED OTHERWISE					
EX OR (E)	EXISTING							
FT	FEET	CERTIFICATION N						
FDN	FOUNDATION	BE DONE ACCOR HOWARD COUNT TOWN ALTERNAT NEIGHBORHOOD UPON COMPLETION	INE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CCDE AND THE LANDSCAPE MANUAL FOR NEW TOWN ALTERNATIVE COMPLIANCE AND THE CRESCENT NEIGHBORHOOD DESIGN GUIDELINES. IWE FURTHER CERTIFY THAT UPON COMPLETION A LETTER OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AIR EXECUTED DONE YEAR GUARANTEE OF PLANT					

DEVELOPER'S OWNER'S NAME

MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF

DEVELOPER'S OWNER'S NAME

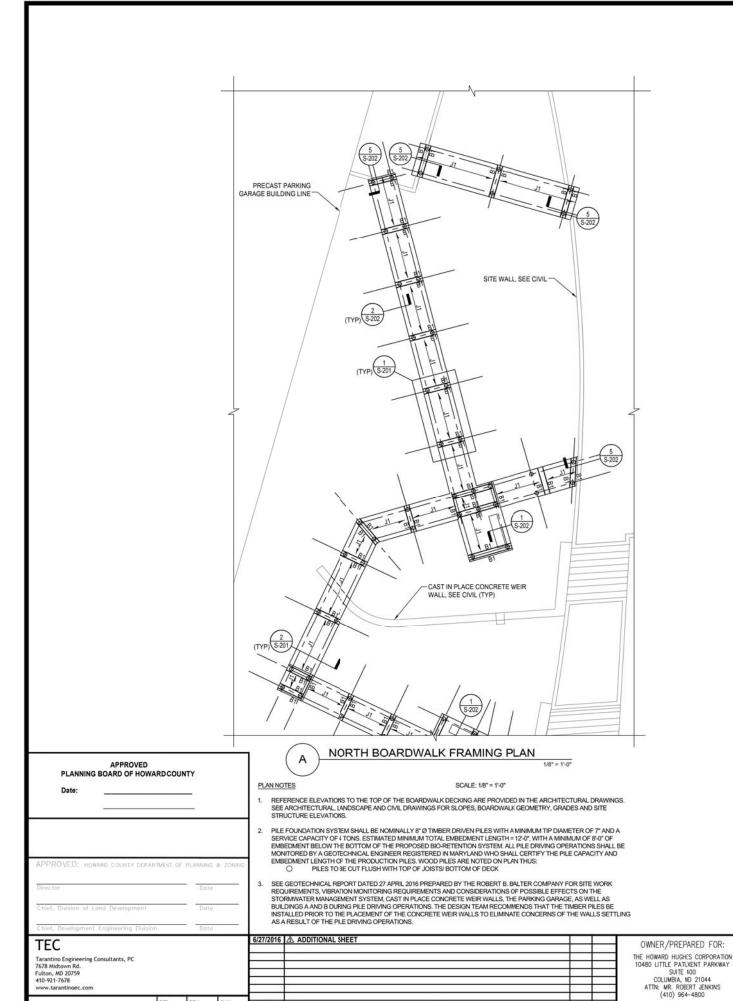
PLANNING AND ZONING.

ARREVIATIONS CONTINUED

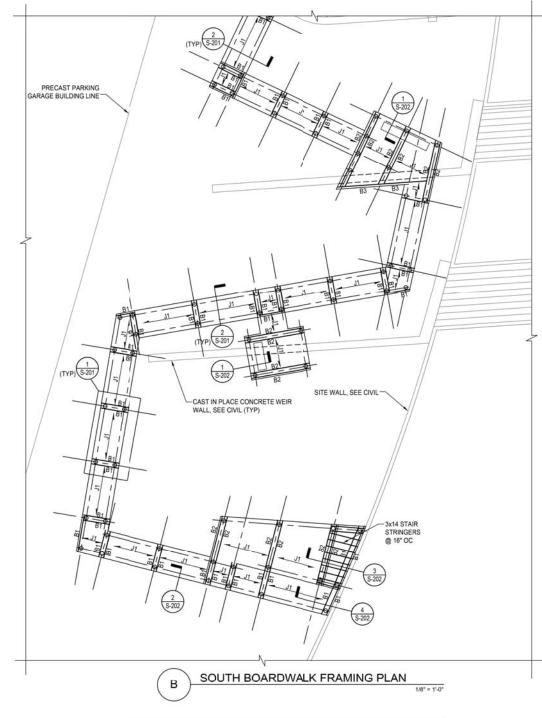
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Chief, Development Engineering Division Date		92	5.6	54		100		
TEC	6/27/2016	⚠ ADDITIONAL SHEET	_	OWNER/PREPARED FOR:	STRUCTURAL GENERAL NOTES	SCALE	ZONING	G. L. W. FILE No.
	8 6	1 2		THE HOWARD HUGHES CORPORATION 10480 LITTLE PATLXENT PARKWAY	DOWNTOWN COLUMBIA	NTS	NT	15019
Tarantino Engineering Consultants, PC 7678 Midtown Rd. Fulton, MD 20279 410-921-7678				SUITE 400 COLUMBIA, ND 21044 ATTN: MR. ROBERT JENKINS	CRESCENT NEIGHBORHOOD  PARCELS A-1, A-2, & A-3, AND PARCEL E	10000		0.00000
www.tarantinoec.com				ATTN: MR. ROBERT JENKINS (410) 964-4800	MIXED USE GREEN OFFICE, RETAIL AND RESTAURANT BUILDINGS AND TEMPORARY PARKING LOT	DATE	TAX MAP - GRID	SHEET
DES. DRN. CHK.	DATE	REVISION BY	Y APP'R.	(410) 304 4000	ELECTION DISTRICT No. 5 (PART OF TAX PARCEL 527); PLAT No. HOWARD COUNTY, MARYL	JUNE, 2016	36 - 01	54 OF 58





DES. DRN. CHK.



LEGEND/ SCHEDULE B3 (1) 3x12 SP O 8° Ø TIMBER DRIVEN PILE EMBED ±12'-0°

# LEGEND NOTES

NO. 1 PRESSURE TREATED SOUTHERN PINE. ALL LUMBER IN EXPOSED TO WEATHER AND SHALL BE SP. BK. BEAMS

BUILDING B KEY PLAN

> NORTH BOARDWALK PLAN SOUTH BOARDWALK PLAN

# CERTIFICATION NOTE:

I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CCDE AND THE LANDSCAPE MANUAL FOR NEW TOWN ALTERNATIVE COMPLIANCE AND THE CRESCENT NEIGHBORHOOD DESGN GUIDELINES. I/WE FURTHER CERTIFY THAT UPON COMPLETION A LETTER OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

# DEVELOPER'S OWNER'S NAME

DEVELOPER'S OWNER'S NAME

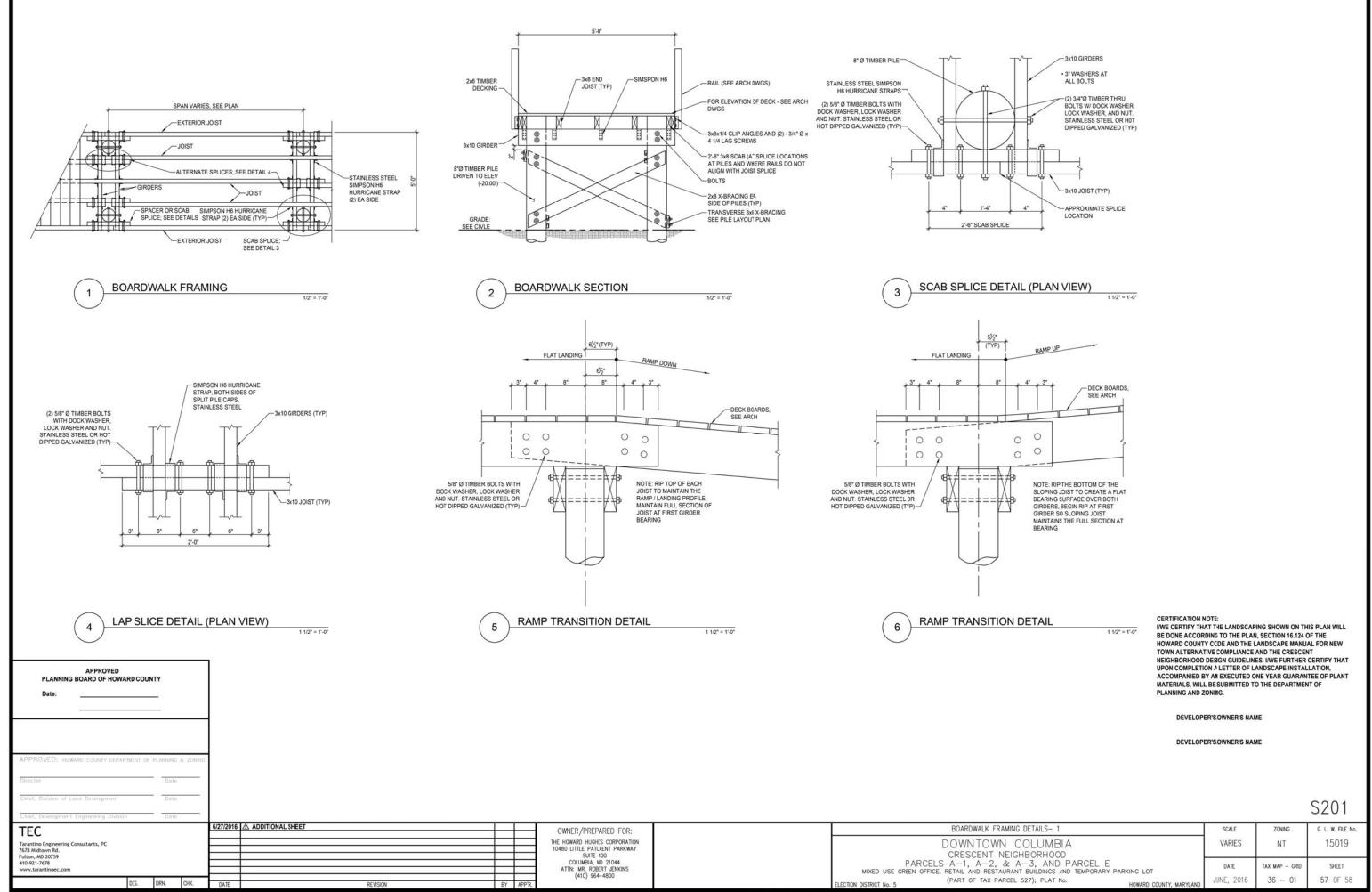


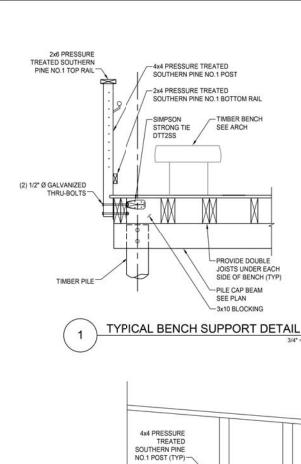
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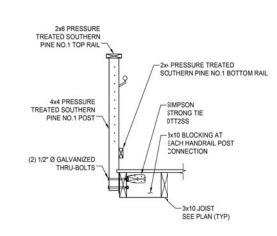
BOARDWALK FRAMING PLAN G. L. W. FILE No. SCALE DOWNTOWN COLUMBIA 1/8"=1'-0" 15019 CRESCENT NEIGHBORHOOD

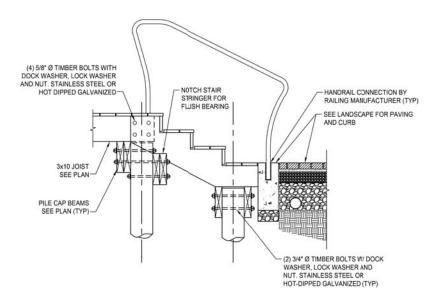
PARCELS A-1, A-2, & A-3, AND PARCEL E

MIXED USE GREEN OFFICE, RETAIL AND RESTAURANT BUILDINGS AND TEMPORARY PARKING LOT TAX MAP - GRID SHEET 36 - 01 56 OF 58 (PART OF TAX PARCEL 527); PLAT No. JUNE, 2016 HOWARD COUNTY, MARYLAND



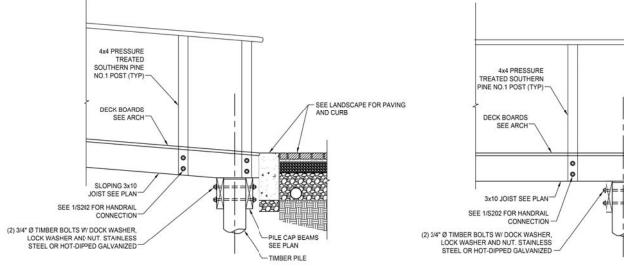






TYPICAL RAILING CONNECTION DETAIL

**BOARDWALK STAIRS DETAIL** 3



BOARDWALK RAMP TO LANDSCAPE TRANSITION

BOARDWALK TO LANDSCAPE TRANSITION 5

P 200

APPROVED PLANNING BOARD OF HOWARD COUNTY TE

CERTIFICATION NOTE: I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CCDE AND THE LANDSCAPE MANUAL FOR NEW TOWN ALTERNATIVE COMPLIANCE AND THE CRESCENT NEIGHBORHOOD DESIGN GUIDELINES. I/WE FURTHER CERTIFY THAT

UPON COMPLETION A LETTER OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BESUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

DEVELOPER'S OWNER'S NAME

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S202

Chief, Development Engineering Division Date		94 9 10	100	
TEC	6/27/2016 🛆 ADDITIONAL SHEET	OWNER/PREPARED FOR:  BOARDWALK FRAMING DETAILS—2	SCALE ZONING	G. L. W. FILE No.
Tarantino Engineering Consultants, PC 76.78 Midtown Rd. Fulton, MD 20759 1410-921-7678		THE HOWARD HUGHES CORPORATION 10480 LITTLE PAILXENT PARKWAY SUITE 400  CRESCENT NEIGHBORHOOD	/4" = 1'-0" NT	15019
rutton, m/ 20739 4410-921-7678 www.tarantinoec.com		COLUMBIA, ND 21044  PARCELS A-1, A-2, & A-3, AND PARCEL E  ATIN: MR. ROBERT JENKINS  NEVER LISE CREEN CERTOE BETALLAND DESTALIBANT BUILDINGS AND TEMPORARY PARKING LOT	DATE TAX MAP - GRID	
DES. DRN. CHK.	DATE REVISION	(410) 964-4800  BY APPR.  (410) 964-4800  ELECTION DISTRICT No. 5  (PART OF TAX PARCEL 527); PLAT No.  HOWARD COUNTY, MARYLAND	JUNE, 2016 36 - 01	58 OF 58

- SEE LANDSCAPE FOR PAVING

AND CURB

