DOCKET ITEM # 3

Development Special Use Permit #2023-10004

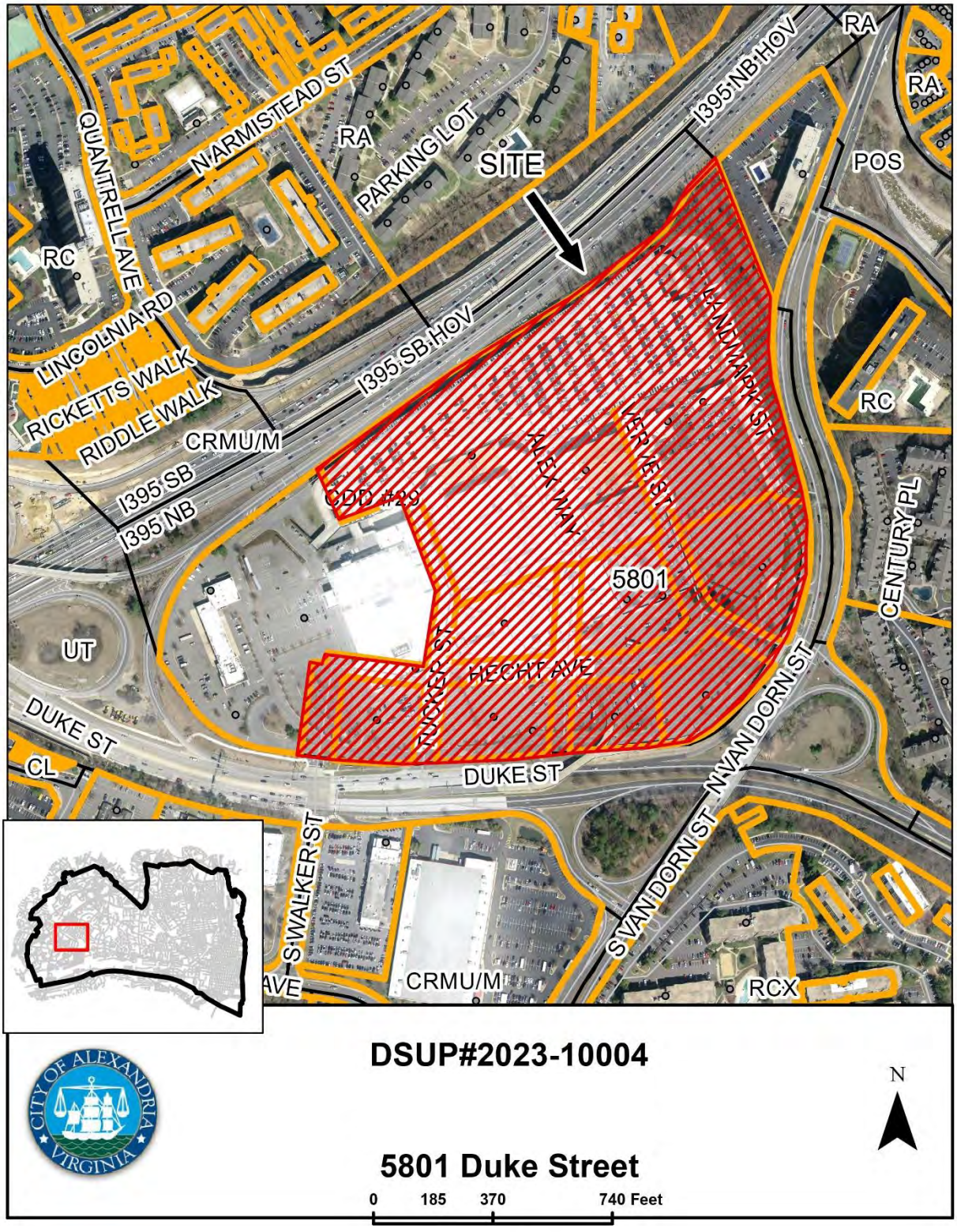
West End (Landmark) Open Spaces

Application	**General Data**	
Project Name: West End (Landmark) Open Spaces	PC Hearing:	September 5, 2023
	CC Hearing:	September 16, 2023
	If approved, DSUP Expiration:	November 16, 2027[1]
	Plan Acreage:	4.69 acres (204,105 sq. ft.)
Location: 5801 Duke Street	Zone:	CDD #29 / Coordinated Development District #29
	Proposed Use:	Parks and accessory retail
	Dwelling Units:	N/A
	Gross Floor Area:	11,343 sq. ft.
Applicant: Landmark Land Holdings, LLC represented by Kenneth Wire, Attorney	Small Area Plan:	Landmark Van Dorn Corridor Plan
	Historic District:	N/A
	Green Building:	2019 Green Building Policy plus CDD #29 requirements

Purpose of Application
Consideration of a request to construct the Central Plaza (Blocks F and N), Paseo (Block R), and Terrace Park (Block P), including two retail pavilions.
Special Use Permits and Modifications Requested:
1. Development Special Use Permit with site plan and a modification for on street loading.

Staff Recommendation: APPROVAL WITH CONDITIONS
Staff Reviewers: Jared Alves, AICP, Urban Planner III, Jared.Alves@AlexandriaVA.gov Maya Contreras, Principal Planner, Maya.Contreras@AlexandriaVA.gov Robert Kerns, AICP, Division Chief, Robert.Kerns@AlexandriaVA.gov

[1] Extended approval to align with Blocks E, G, I, and K.



PROJECT LOCATION MAP

I. SUMMARY

A. Recommendation

Staff recommends **approval of** Development Special Use Permit (DSUP) #2023-10004 to construct the Central Plaza, Paseo, and Terrace Park, including two retail pavilions, subject to Staff recommendations. This project conforms to the City's adopted plans, codes, and policies and provides several benefits for the community, including:

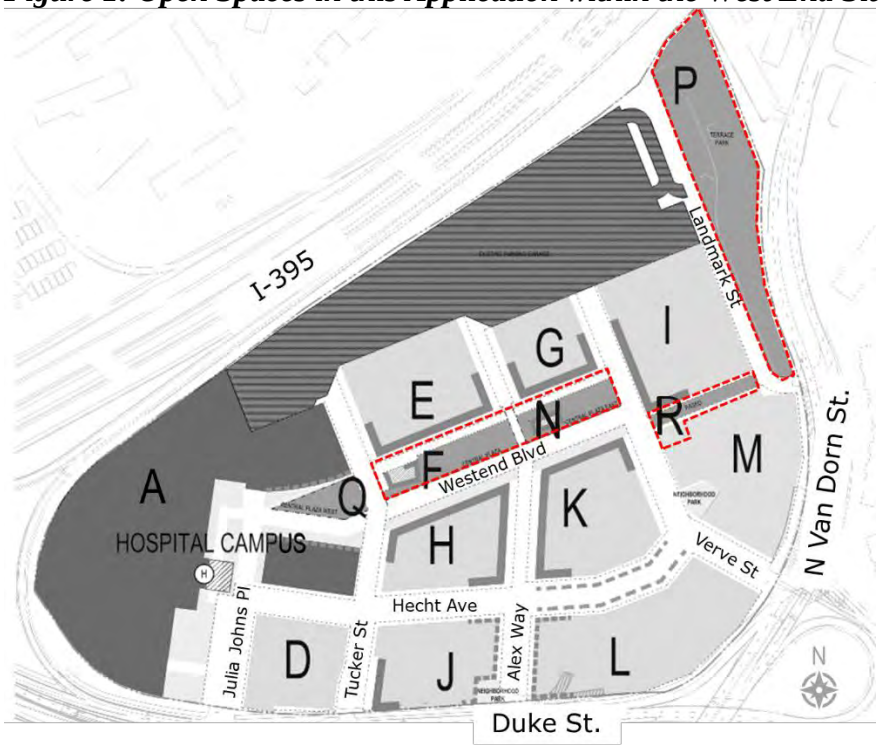
- Ongoing redevelopment of the former Landmark Mall site,
- 192,459 sq. ft. (4.42 acres.) of publicly accessible open space,
- 11,343 sq. ft. of retail, and
- 41.96 lbs. of phosphorous removed per year with new stormwater facilities.

B. General Project Description

The applicant, Landmark Land Holdings, LLC, proposes to construct Central Plaza Blocks F and N, Paseo (Block R), and Terrace Park (Block P). Figure 1 shows these blocks within the site. Land use applications for this project include a DSUP with a site plan. Key issues to consider, as discussed in greater detail in this report, include:

- Compatibility with the approved CDD Concept Plan,
- Transportation, and
- Site layout including open space, landscaping, stormwater, and parking.

Figure 1: Open Spaces in this Application within the West End Site



II. BACKGROUND

A. Site Context

General Information

The approximately 4.7-acre project site starts in the middle of the West End (formerly Landmark Mall) neighborhood with Blocks F and N of the Central Plaza and extends east to the Paseo (Block R) before forming the eastern boundary of the site with the Terrace Park (Block P). The Central Plaza blocks are to the south of the mixed-use buildings on Blocks E & G and to the north of the mixed-use buildings on Blocks H and K. The Paseo separates the mixed-use building on Block I from the residential Block M, which staff anticipates will be townhouses. The Terrace park is on the eastern edge of Landmark Street/Road 7 and the western edge of N Van Dorn Street. Broadstone at Van Dorn, a nine-story apartment building, is on the northeastern edge of Terrace Park.

Site Features

The blocks are in the Holmes Run Watershed. Impervious material covered most of the blocks prior to grading work associated with the approved Infrastructure Development Site Plan (DSP#2021-00012) and Stormwater Master Plan (DSP#2021-00017). No portion of the site is in a floodplain.

Site History

The open space blocks are part of the 51.5-acre West End neighborhood that was formerly the location of Landmark Mall. Originally developed as an outdoor mall in 1965, Landmark was the first mall in the region to feature three anchor department stores. During the late 1980s, when open-air malls fell out of favor, the owners enclosed the center. The retail sector continued to evolve and by 2010, the mall was largely vacant. In 2022, the applicant demolished the former mall and outlying buildings to prepare for the redevelopment of individual blocks. Blocks F and N were part of the central mall atrium and the Macy's store, Block R was the Macy's parking lot, and Block P is sloped and wooded.

B. Project Evolution/Procedural Background

Replanning for the site began in 2009 with the Landmark/Van Dorn Corridor Plan. After delays due to changes in the site's ownership structure and the real estate market, the project evolved with the Landmark Neighborhood Chapter of the Landmark/Van Dorn Corridor Plan approved in 2019. In 2020, Foulger-Pratt became the master developer and partnered with the owners (The Howard Hughes Corporation and Seritage Growth Properties), Inova Alexandria Hospital, and the City to redevelop the Landmark site. Subsequently, the Planning Commission and City Council have approved several land use applications:

- **July 2021**, CDD Concept Plan #2020-00007 and associated applications for the 5.6 million sq. ft. redevelopment,

- **June 2022**, Infrastructure Plan DSP #2021-00012 to construct the roads, pipes, wires, and Subdivision #2021-00012 to create the individual blocks,
- **December 2022**, DSUPs #2022-10015, #2022-10016, and #2022-10017 for Blocks I, K, and E & G, respectively; and Street Naming Case #2022-0003, and
- **March 2023**, DSUP #2022-10023 for the Inova Hospital Campus.

III. ZONING

The CDD anticipated two retail/restaurant pavilions within the Central Plaza Blocks F and N, with final locations and sizes determined by the DSUP application. Table 1 lists the zoning details for the retail pavilions plus requirements for parking, loading, open space, and tree canopy.

Table 1: Zoning Tabulations

Property Address: 5801 Duke Street
Total Site Area: 204,105 sq. ft. (4.7 acres)
Zone: CDD #29 / Coordinated Development District #29
Current Use: Vacant
Proposed Use: Parks and retail

	Permitted/Required	**Proposed**
FAR[1]	N/A	0.12
Pavilion setbacks (ft.) ***Westend Blvd.***	12.0 (min.)	15.0 (Pavilion 1) 19.0 (Pavilion 2)
Parking (spaces)[2]	0	0
Loading spaces[3]	2	0
Open Space[4] ***Incl. E&G Transfer***	152,460 SF (3.5 ac)	192,459 SF (4.4 ac) 180,734 SF (4.1 ac)
Tree Canopy[5]		
Blocks F, N, R	25.0% (18,848 SF)	116.0% (83,250 SF)[6]
Block P	25.0% (32,179 SF)	89.0% (78,600 SF)

[1] CDD #2020-00007 condition #84 specified that the DSUP would determine the final locations and sizes of the retail pavilions.
[2] No parking requirement per § 8-100(A)(9), but customers may park in the existing garage.
[3] Modification requested for on-street loading.
[4] CDD condition #68 requires at least 3.5 acres of open space across Blocks F, N, Q, P, and R and Condition #69 allows open space transfers to development blocks.
[5] Infrastructure DSP #2021-00012 condition #19 set a sitewide canopy coverage requirement of 25% excluding public street trees, the Hospital Campus, the existing parking garage (Block S), Terrace Park (Block P), and public right-of-way.
[6] Achieved with a significant number of Class IV trees.

IV. STAFF ANALYSIS

A. Consistency with the Master Plan

The open space blocks are part of the 51.5-acre former Landmark Mall site identified as West End Town Center in the Landmark Van Dorn Corridor Plan, which is the relevant Small Area Plan Chapter of the Alexandria Master Plan. A series of graphics and recommendations guide implementation of the Corridor Plan by illustrating an urban grid of streets, blocks, programmed open spaces, transportation multimodality, and an active core. As part of the CDD Concept Plan approval, the applicant sought Master Plan Amendments to revise certain West End Town Center elements, including the street framework, transit hub location, connectivity to I-395, location of pedestrian and bicycle facilities, locations and size of the Central Plaza, active retail locations, maximum building heights, placemaking locations, and to retain the existing parking garage.

Within the framework established by the Corridor Plan chapter of the Master Plan, the approved CDD Concept Plan set requirements and design flexibility for the publicly accessible open spaces within the West End. These considerations included size, retail/restaurant pavilions within the central plaza, amenities (e.g., seating, Wi-Fi infrastructure), construction timing, maintenance, live programming, and ADA accessibility). Throughout the review process, Staff have ensured that the proposal for these open spaces aligns with the Master Plan and CDD Concept Plan requirements.

B. Open Space Requirements in CDD #29

Overall Summary

CDD condition #68 required at least 3.5 acres of publicly accessible open space across the West End, provided through the Central Plaza, Paseo, Terrace Park, and neighborhood parks. This application encompasses most of this mandatory publicly accessible open space, excepting the 0.3 acres provided with Block Q of the Central Plaza as part of the Inova hospital campus. CDD condition #69 also permits transfers of any excess open space beyond the 3.5 acre minimum to development blocks to satisfy their individual 25 percent open space requirements. Accordingly, DSUP #2022-10017 transferred about 0.3 acres of the Terrace Park open space to Blocks E & G. The intent of this transfer is to pool the required open space into larger parcels and maintain the desired urban design of the neighborhood. Table 2 shows that accounting for Block Q, the Block E & G transfer, and the open space provided with this application, the West End is providing nearly one acre more than the minimum.[2]

[2] If approved, the Major Site Plan Amendment to Blocks E & G, DSUP2023-10008, would increase the transfer by 1,829 sq. ft., so the surplus would decrease to 0.95 acres.

Table 2: CDD Required Open Space

		SF	Acres
Central Plaza	*Block Q*[1]	15,022	0.34
	Block F	25,738	0.59
	Block N	20,326	0.47
Paseo	*Block R*	11,763	0.27
	Playground	7,679	0.18
Terrace Park	*Block P*	126,291	2.90
	Bridge	662	0.02
	Subtotal	**207,481**	**4.8**
	Transfers	11,725	0.27
	Provided	**195,756**	**4.5**
	Min. Required	152,460	3.50
	Surplus	**43,296**	**0.99**

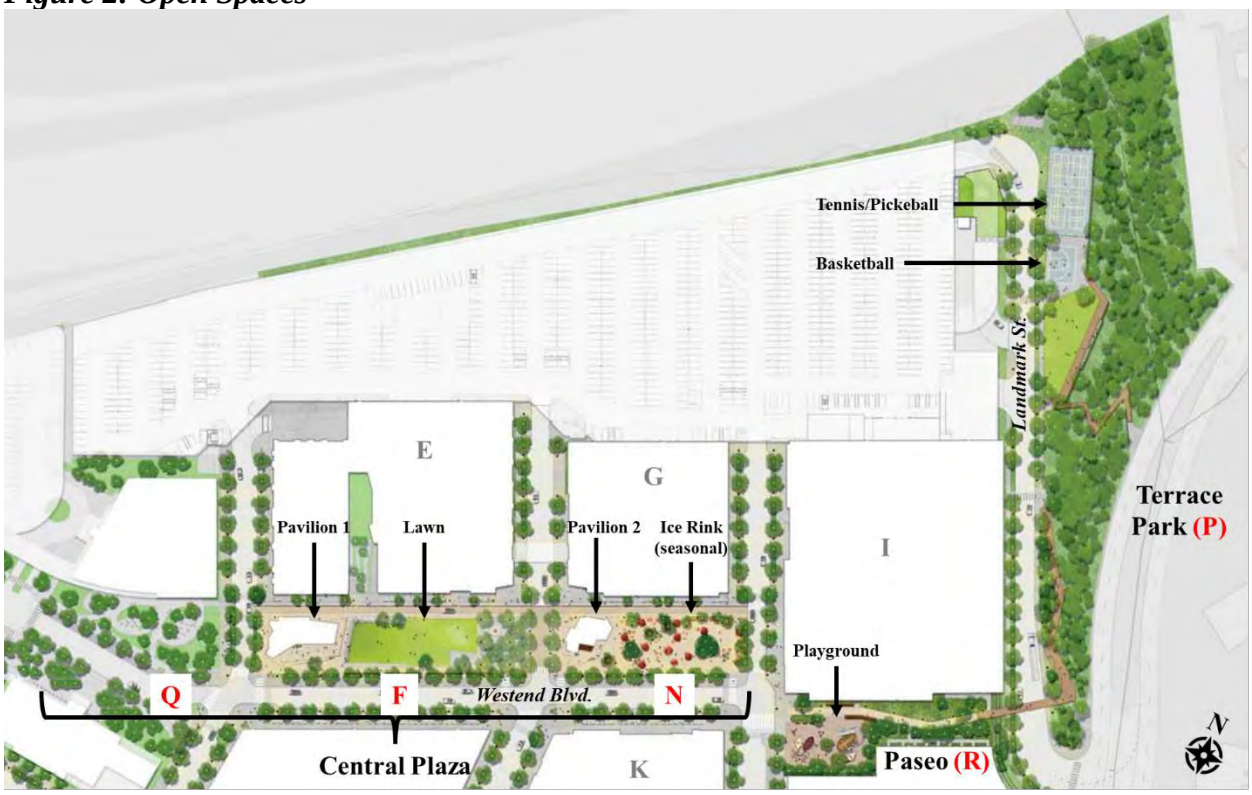
[1] Provided with DSUP#2022-10023 Inova hospital campus.

Since the applicant is providing additional open space beyond the minimum required by the CDD, they had proposed designating the Paseo's playground as private open space that would be publicly accessible through a DSUP condition. However, the applicant has agreed to Condition 3, which would require a public access easement for the playground. Privately maintained playgrounds with public access easements exist at projects like Potomac Yards at Glendale, Banjo Park at Old Town Commons (James Bland ARHA redevelopment), and the Beth El Hebrew Congregation. Future such playgrounds will exist at Potomac River Generating Station, Oakville Triangle, Building 32 in Eisenhower East, and Housing Alexandria Glebe Road. Staff have acknowledged that the public access easement for the playground will need to be tailored so that the applicant has greater control over hours and operations to promote the safety and security of the space.

Block Descriptions

The CDD Concept Plan established a network of publicly accessible open spaces extending from Block Q of the Central Plaza adjacent to the Inova hospital campus in the western side of the site to the Terrace Park in east. The CDD also showed a pair of neighborhood parks within Block J and Block M, with the size and locations of these parks determined as part of future DSUPs. Figure 2 shows the three-block Central Plaza (Q, F, and N), the Paseo (Block R), and the Terrace Park (Block P). Excepting Block Q and the neighborhood park shown in Block J, this application includes the publicly accessible open spaces envisioned with the CDD.

Figure 2: Open Spaces



As reviewed and approved with the hospital campus DSUP, Block Q of the Central Plaza abuts the Cancer Center to the north and is opposite Westend Blvd./Road 1 from the Specialty Care Center. This space would function as a healing garden for rest, relaxation, and reflection. Moving east, opposite Tucker St./Road 6 is Block F of the Central Plaza. As described further in the Building Architecture section of this report, this block has a retail/restaurant pavilion with outdoor seating on the western edge, a sloped lawn space for active recreation and performances in the middle, and tree grove with a fire feature on the eastern edge. To the north is the medical office building and residential building, both with ground floor retail on Block E approved with DSUP#2022-10017 in December 2022. To the south is Block H, which the CDD anticipates will be mixed-use with ground floor retail.

Alex Way/Road 4 separates Block F from Block N of the Central Plaza, but the Infrastructure DSP#2021-00012 specified a curb free street to ease movement between the blocks and enable future open streets events. On the western edge of Block N is the second retail/restaurant pavilion with outdoor dining. This building also serves as a skate rental kiosk for when the seasonal ice-skating rink is open on the rest of the block. The applicant anticipates that this kiosk will double as an alternate retail or restaurant use outside of the winter season. In warmer weather the ice-skating area will have movable furniture and equipment for outdoor games. A residential building with ground floor retail is to the north on Block G, as approved with DSUP#2022-10017 and another residential building with ground floor retail is to the south on Block K, as approved with DSUP#2022-10016.

Continuing east across Verve St./Road 5 is the Paseo. The name from this space comes from Spanish meaning “a leisurely walk or stroll” and the original intent of the Paseo was to provide a green connection between the Central Plaza and the Terrace Park. The proposed Paseo achieves this intent and more. While designing the open spaces for this DSUP, the applicant determined that the Paseo would become a more usable space by combining the neighborhood park shown in the CDD with Block M as part of the Paseo.

Staff supports this decision because moving the neighborhood park from the middle of Block M to the northwest corner both enlarges the Paseo and creates a stronger visual connection to the Central Plaza. The applicant proposes an accessible and inventive playground for this space, with precedents shown in Figure 3. To the north of the Paseo will be a mixed-use residential building with ground floor retail on Block I, as approved with DSUP#2022-10015. Staff are also reviewing concepts for townhouses on Block M, as anticipated with the CDD.

Figure 3: Paseo Playground Precedents

A bridge on the eastern end of the Paseo passes over Landmark St./Road 7. Staff support the bridge as a creative way to manage the steep grade change down to Road 7 while enabling it to rise with the street as it heads north to the flat portion of Terrace Park. The bridge will have seating and interpretive signage so it can function as both a pathway and a destination. As the path from the bridge heads north it winds among trees and eventually reaches ground level, thereby providing an ADA compliant pathway from Landmark St./Road 7 to the Paseo. In addition, a staircase connects down from the path at the southern end near to where the bridge reaches the opposite side of Landmark St.

Once the path reaches grade, a sidewalk connects the gap between it and the flat portion of Terrace Park. This flat area has three features: a lawn for active recreation, a half basketball court, and a court with lines for tennis and pickleball. At the southern end of the lawn the applicant expects to construct a staircase envisioned by the CDD to zigzag between the trees and ultimately reach N

Van Dorn Street. However, consistent with CDD condition 85.d, Staff have proposed Condition 25 to enable the applicant to exclude the staircase if they can demonstrate that construction costs exceed $250,000 in 2021 dollars as adjusted for inflation. Across Landmark St./Road 7 from the flat portion of Terrace Park is the existing parking garage and a small dog park tucked under one of the garage ramps.

C. Site & Building Design

Site Design

Within the bounds of the blocks established by the CDD Concept Plan and refined by the Infrastructure DSP, this proposal for the open spaces adheres to the principles of high-quality site design. The development of these open space blocks does not entail creating any new streets or curb cuts beyond those designed with the Infrastructure Site Plan, DSP#2021-00012. As noted in the preceding section, this application makes two positive changes from the CDD by merging a neighborhood park identified tentatively for Block M with the Paseo and proposing a bridge to connect the Paseo to the Terrace Park over Landmark St./Road 7. Expanding the Paseo visually links the park to the Central Plaza and the bridge provides a seamless connection to the active and passive recreational spaces in the Terrace Park. Combined, these changes help fulfill the CDD vision of linking the primary open spaces across the site.

The CDD identified the Central Plaza blocks as the heart of the neighborhood, and the design of Blocks F and N with this DSUP advance that vision. The CDD left open the final locations, size, and shapes of the pavilions, but had shown them illustratively in the western edges of Blocks F and N. This application finalizes those locations, and Staff supports them based on their interaction with the other amenities in their respective Central Plaza blocks plus their interaction with the surrounding street network and adjacent buildings. Complementing the Central Plaza design with this Open Space DSUP is the Infrastructure DSP design for curb-free streets to link Blocks F, N, and Q to slow vehicles and enable people to walk seamlessly between the blocks. The curb-free laneway designed with the Blocks E, G, and I DSUPs link Blocks F and N to the north with the ground floor retail and restaurants that will bring outdoor diners, shoppers, and sidewalk activity between the parks and businesses. Similarly, the approved DSUP for Block K and the future design of Block H to the south, will provide additional eyes on the parks with the ground floor retail and restaurants in those blocks.

Site Landscaping

The landscaping varies for each of the four Open Space blocks in this DSUP. Starting from the west, Block F has hardscape around Pavilion 1 to provide space for outdoor dining, a sloped, rectilinear green with synthetic turf in the center, and a tree grove in the eastern end along Alex Way/Road 4. Staff supports synthetic turf in this location due to the expected high use of the space and difficulty of managing natural grass under those circumstances. Block N is primarily hardscape to accommodate outdoor dining around Pavilion 2 and the seasonal ice-skating rink. Trees along the edges provide greenery and shade. The Block R Paseo features a zigzagging path lined with trees, which also border the edges of the playground. Most of the Block P Terrace Park is a steeply sloped forest management area, with the applicant committing to removing invasive species, retaining healthy, mature trees, and planting new native species along the elevated

walkway. As noted previously, the flat area within the park is primarily hardscape with the basketball and tennis/pickleball courts, softened by the recreation lawn that accounts of the remainder of the space.

Building Architecture

As identified with the CDD, Blocks F and N of the Central Plaza will each have a retail/restaurant pavilion. Due to the nature of the retail environment, the applicant requested flexibility to not construct Pavilion 1 until they confirm its tenant. Staff support this flexibility but have proposed Condition 9 to require the Pavilion 1 to be built within 10 years of completing the remaining Central Plaza features. The applicant will build Pavilion 2 and have it ready from the start with the rest of the park. Staff supports the asymmetrical design of each pavilion, with few right angles and expansive trellises covering outdoor dining areas. Both buildings use a mix of textured and smooth stone, wood, metal panel, and glass in their modern designs. Figure 4 shows the southwest corner of Pavilion 1, which is on the western edge of the block.

The figure shows the primary entrance to this two-story building as well as an expansive outdoor dining area. In warm weather, many of the first-floor glass windows can slide open to blend the indoors with the outdoors and make the structure more permeable. The large box above the primary entrance encases mechanical equipment while doubling as a creative light feature. Facing towards the central lawn is a second-story rooftop dining area, accessed by both an external staircase that extends toward the lawn and an internal staircase and elevator. Staff worked with the applicant team to add glass to the internal staircase to avoid having a blank wall face towards the ground floor retail in the Block E medical office building.

Figure 4: Pavilion 1 in Central Plaza Block F

Pavilion 2 would be on the western edge of Block N. Figure 5 shows the southern façade and, like Pavilion 1, this side has a large trellis covering outdoor dining and floor-to-ceiling windows that can slide open in warmer weather. This pavilion is also permeable with several entrances, including one facing northwest towards a second, smaller outdoor dining area. On the eastern side

is the rental ice-skating kiosk described previously in the open space section. While this pavilion does not have an accessible second story, the design includes a distinct shed roof that peaks facing south. Within Pavilion 2, Staff have proposed Condition 16 to ensure access to its public restroom.

Figure 5: Pavilion 2 in Central Plaza Block N

D. Compliance with City Policies

Affordable Housing Policy

As part of the approved CDD, the applicant committed to an Affordable Housing Plan that will deliver 45 committed affordable units (CAUs) with Blocks E, G, I, and K; 15 for sale affordable units, approximately 200 CAUs with a co-located fire station and affordable housing building on Block J, and 2% of units affordable at the auxiliary grant level within any future continuum of care facility. While this DSUP will not be providing additional contributions toward housing affordability, the open spaces created with this project will advance the redevelopment of the site and provide recreation and gathering spaces for future residents.

Green Building Policy

The CDD Concept Plan established several sustainability conditions specifying compliance with the current Green Building Policy at the time of DSUP approval, plus green roofs equal to at least 15 percent of the roof area of the podium level, and a 5% reduction in embodied carbon. The applicant has provided draft LEED scorecards showing that Pavilions 1 and 2 are on track to meet Silver certification. In addition to site location, including access to transit and mixed uses, the pavilions will use a green lease to require energy savings from future tenants, high efficiency drip irrigation and other methods to maintain landscaped areas, low-flow plumbing fixtures, and low-emitting materials.

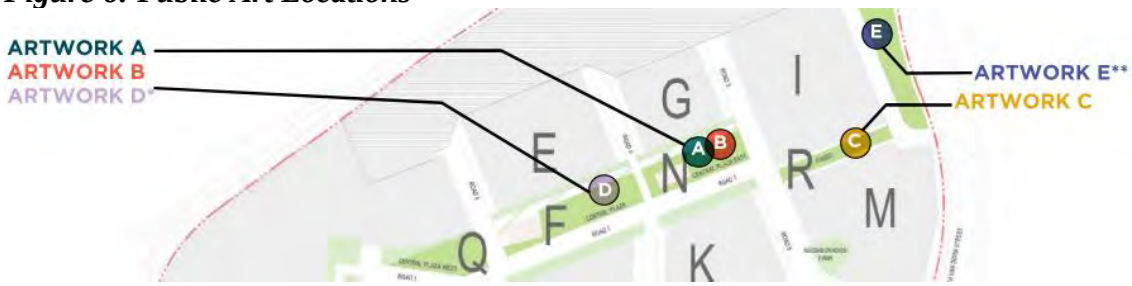
Per the CDD conditions, the applicant is providing a green roof totaling 978 sq. ft. (equaling 21% of the roof area of the podium levels), which exceeds the 15% minimum required. Since Pavilions

1 and 2 are relatively small structures, the applicant worked with Staff to provide a single green roof on Pavilion 1 that exceeds the overall square footage required for both pavilions. This combined green roof area is therefore larger and more functional than two smaller green roof areas on each pavilion. In addition, the applicant will achieve an at least 5% reduction in embodied carbon per CDD condition 105 through materials selection.

Public Art

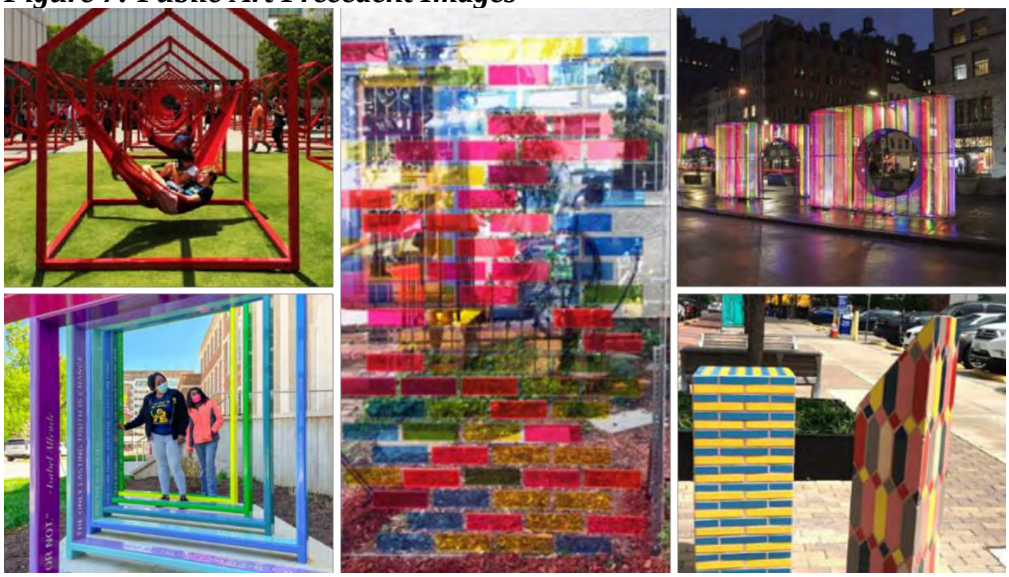
CDD #2020-00007 condition 122 required the applicant to submit a consolidated and coordinated public art plan with the first DSUP for the site. In addition, CDD condition 121 specified that each DSUP would need to provide on-site public art or a contribution equivalent to the City's Public Art policy toward public art within the CDD planning area. With the Block I DSUP#2022-10015, the applicant provided a plan that showed locations for public art within the Central Plaza and the Paseo. With this DSUP, the applicant provided a refined public art plan that incorporated staff comments. As shown in Figure 6, the applicant has identified five locations for public art within the Central Plaza, Paseo, and bridge to the Terrace Park. In addition, the applicant has provided precedent images to showcase the types of public art that they envision for these spaces (sample shown in Figure 7). Staff will continue to work with the applicant team as they select the artists to design and install these pieces of public art.

Figure 6: Public Art Locations



* Artwork D is a potential location in the tree grove
** Artwork E is a potential location on the bridge to Terrace Park and may be an extension of Artwork C

Figure 7: Public Art Precedent Images



E. Stormwater and Wastewater

Stormwater

Stormwater management for the entire West End neighborhood is designed through a Stormwater Management Master Plan (SWMMP) (DSP#2021-00017) that meets the requirements of the Virginia Stormwater Management Program Regulations and the Chesapeake Bay Act in Accordance with Article XIII of the Zoning Ordinance for control of stormwater quality. When fully implemented, the net effect of the SWMMP will be to manage stormwater quantity and quality better than the existing conditions of an untreated surface parking lot and mall, including reducing overall runoff by approximately 18% and the phosphorous load by 40% from the existing conditions.[3]

In addition to the three stormwater vaults constructed south of Blocks E & G, south of Block I, and beneath the existing parking garage, the open spaces will provide Level II vegetated roof, Level II urban bioretention basins (tree wells), and Level I sand filter. As a result, the open space blocks will remove 41.96 pounds of phosphorus per year, which meets the removal requirement.

Wastewater

As part of the Infrastructure Development Site Plan (DSP#2021-00012), the applicant conducted a sanitary sewer adequate outfall analysis per the City's Memo to Industry 06-14 to identify any places where sewer capacity is exceeded and where they would need to complete infrastructure upgrades to accommodate the redevelopment of the site. With the Infrastructure Site Plan, the applicant is installing new sanitary sewer lines along Westend Blvd./Road 1, Hecht Ave./Road 2, Julia Johns Pl./Road 3, Verve St./Road 5, and Tucker St./Road 6, which will meet at the Paseo and exit the site through the Terrace Park, run along N Van Dorn Street, and connect to the existing Holmes Run Trunk Sewer.

As determined during the DSP review, the sanitary sewer design is sufficient for the office, residential, institutional, and commercial development planned for the site, including the hospital campus. With this DSUP submission, the applicant has updated the table from the infrastructure plan analysis to show the remaining sewer flow and remaining gross floor area.

Wastewater flows from this development will be treated at the AlexRenew wastewater treatment facility. Based on City development forecasts, it is projected that the City will reach its treatment capacity allocation sometime after 2040. As part of the City's sanitary sewer master planning process, alternatives for acquiring additional treatment plant capacity will be studied, which will be funded through sewer tap fee revenues collected citywide.

[3] The infrastructure plan will reduce runoff by approximately 28%. As the blocks are redeveloped, the overall reduction will decrease to approximately 18% at full build-out.

F. Parking/Loading/Transit

Vehicle Parking

Section 8-100(A)9 exempts non-residential uses from the off-street parking requirement provided that the requirement is for two or fewer spaces. The minimum parking requirements for Pavilions 1 and 2 are two spaces each. However, the applicant provided a Parking Management Plan that states that retail visitors to Pavilions 1 and 2 may park within Level 1 of the existing garage. Since DSUPs 2022-10015 (Block I) and 2022-10017 (Blocks E & G) both obtained Special Use Permits to exceed their off-street parking requirements, Staff agree that sufficient retail parking exists within the garage to satisfy the retail demand for Pavilions 1 and 2.

Bicycle Parking

The applicant proposes to provide 34 bike parking spaces for employees and visitors. The spaces are Class 3 outdoor bike racks at various locations around the site. As shown in Table 3, the proposed spaces far exceed the bicycle parking requirement.

Table 3: Bicycle Parking Requirement

Type	Required	Proposed
Employee	1	5
Visitor	3	29
Total	4	34

Loading

The Zoning Ordinance sets a loading requirement of 1 space per 20,000 sq. ft. of retail. Since the two pavilions are 11,343 sq. ft, the requirement rounds to 1 loading space. The applicant has requested a modification to remove this loading space requirement and has proposed designating loading spaces on the east sides of Tucker Street/Road 6 and Alex Way/Road 4. Given the limited loading activities anticipated for the pavilions and the designation of the on-street spaces, Staff support the requested modification for this requirement.

Transit

These open spaces will be accessible with the new transit hub constructed on Hecht Ave./Road 2 between Alex Way/Road 4 and Verve St./Road 5 as part of the Infrastructure DSP#2021-00012. This six-bay transit hub will serve WMATA, DASH, and Fairfax Connector buses, including the future West End and Duke Street Transitways, and will be operational during phase one of the redevelopment.

G. Transportation and Streetscape

The CDD Concept Plan established the street network, transit hub location, bicycle routes, and street cross sections and dimensional requirements within the West End neighborhood. The Infrastructure DSP refined those cross sections, including specifying the location of streetlights, trees, crosswalks, curb radii, and more. The applicant is constructing the Central Plaza frontages

on Westend Blvd./Road 1, Alex Way/Road 4., and Tucker St./Road 6; the Central Plaza and Paseo frontage on Verve St./Road 5; and the Terrace Park frontage on Landmark St./Road 7.

Residents, visitors, and workers at the West End will benefit from the pedestrian, bicycle, transit, and vehicular access provided with the redevelopment of this site, including raised bicycle tracks on Westend Blvd., Julia Johns Pl., and Verve St.; the multimodal path on Duke and Van Dorn Streets, new crosswalks and intersections on Duke and Van Dorn, and the centrally located transit hub on Hecht Ave. Notably, the work associated with this DSUP will complete important connections on the western edge of the site, including linking the Paseo to Landmark St. and the anticipated staircase descending the steep slope in the Terrace Park to N Van Dorn St.

H. Traffic

The applicant provided a detailed traffic study with the approved CDD Concept Plan that found no detrimental impact to the surrounding transportation network because of the redevelopment. Staff concurred with the finding based on the proposed infrastructure improvements, including the new street grid within the West End neighborhood that will help to disperse traffic. Staff also found that the approved plan balanced walking, biking, transit, and driving needs with appropriate facilities for each mode. CDD #2020-00007 condition 129 required a transportation memorandum to the approved CDD Multimodal Transportation Study if the DSUP generates 50 vehicle trips or more in either peak hour but does not create more than 10% of the trips proposed in the CDD study. Staff agrees with the applicant that the development of these open space blocks does not trigger that condition.

V. COMMUNITY

In addition to the 16 community meetings and public hearings conducted throughout 2021 for the CDD, the applicant attended two in-person meetings of the Park and Recreation Commission and one in-person meeting of the Eisenhower West/Landmark Van Dorn Implementation Advisory Group meeting to present on the specific plans for the open space blocks.

During the March 2023 meeting, the Park and Recreation Commission voted unanimously to endorse the project. The Commission praised how the design connected the open spaces and included space for active recreation. The applicant also maintains a website www.WestEndVA.com to provide ongoing updates on the redevelopment of the Landmark site. Additional information is available on the City's webpage: www.AlexandriaVA.gov/Landmark.

Table 4: Community Meetings

Date	Entity
April 21, 2022	Park and Recreation Commission meeting
April 27, 2022	Eisenhower West/Landmark Van Dorn Implementation Advisory Group meeting
March 16, 2023	Park and Recreation Commission meeting

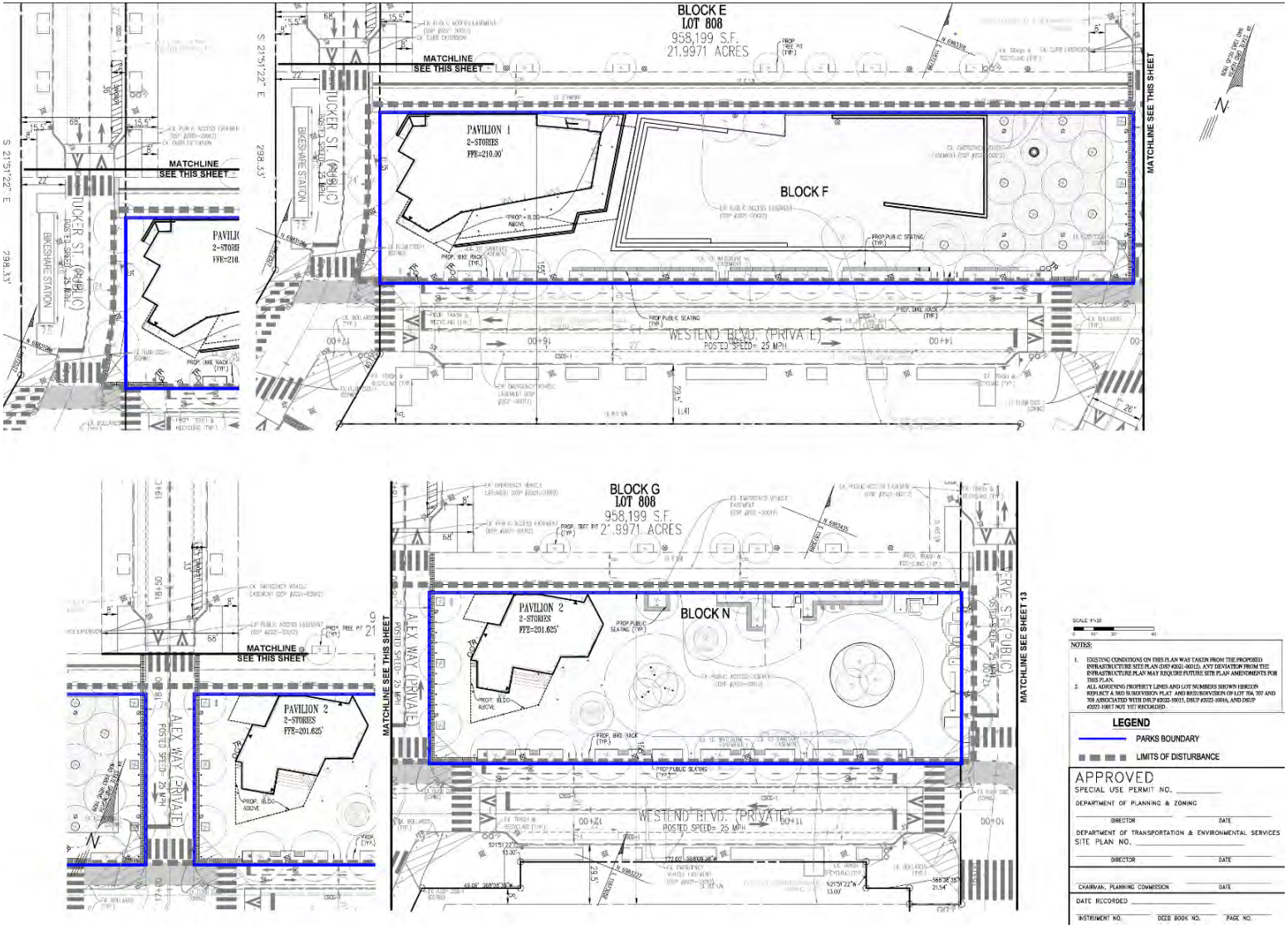
VI. CONCLUSION

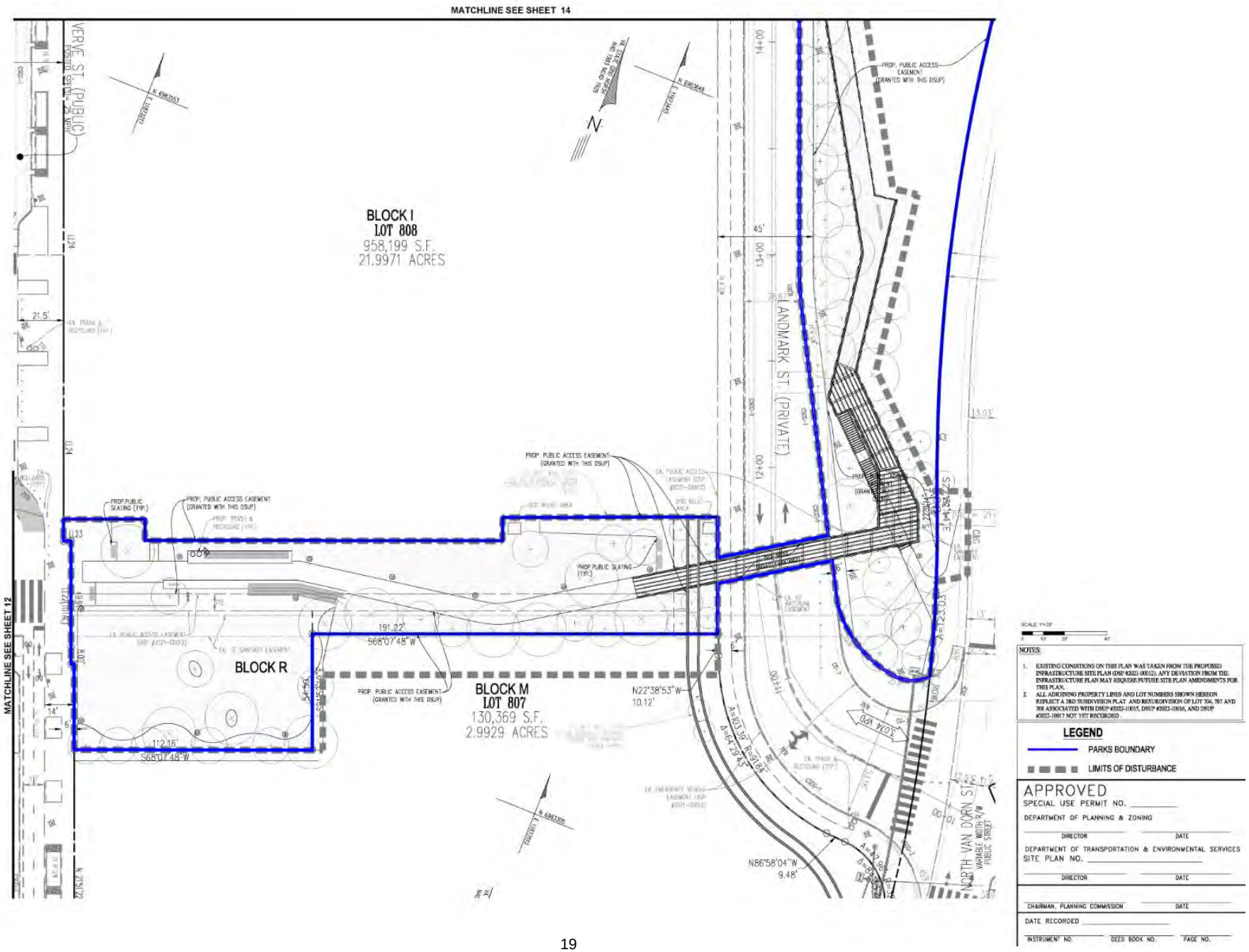
Staff recommends approving the Development Special Use Permit to construct the Central Plaza, Paseo, and Terrace Park subject to meeting all applicable codes, ordinances, and the recommended conditions included in this report.

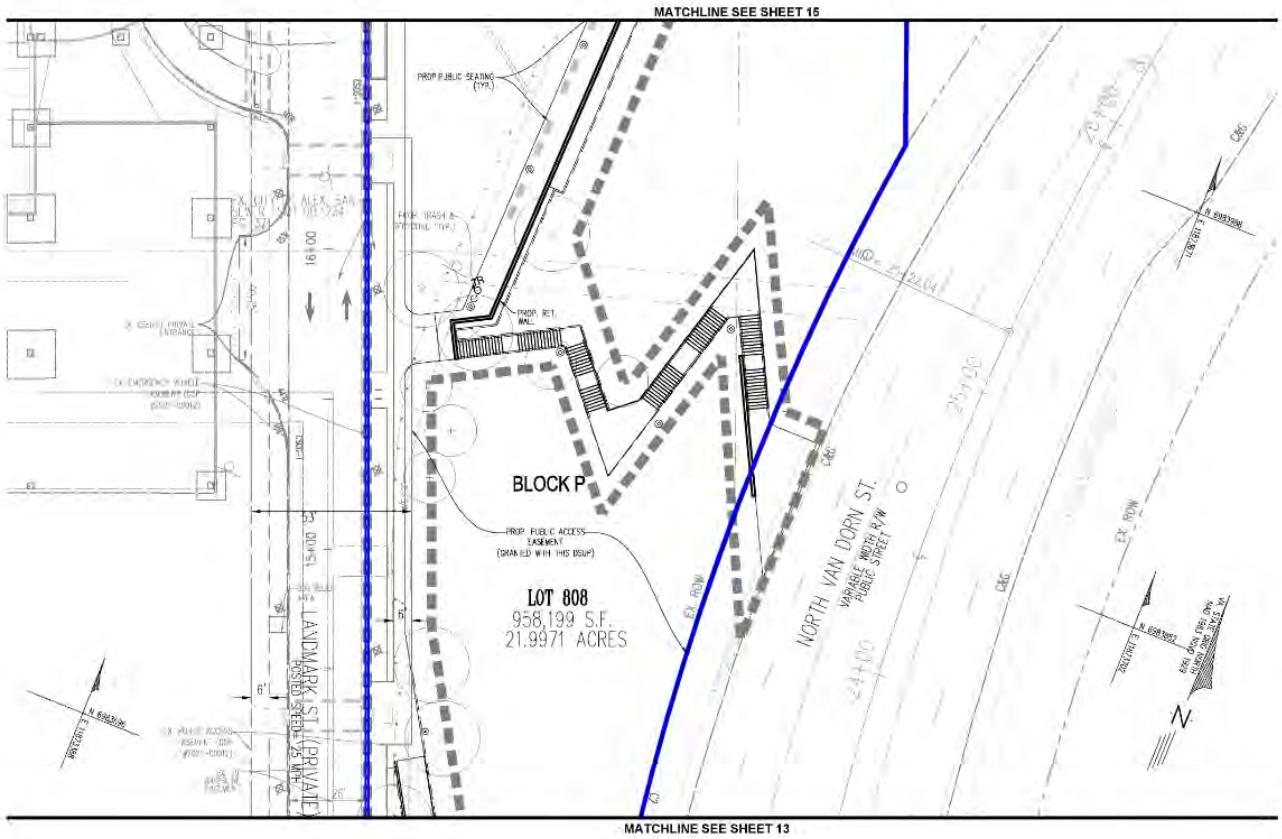
STAFF: Robert Kerns, AICP, Division Chief, Department of Planning and Zoning
Maya Contreras, Principal Planner
Jared Alves, AICP, Urban Planner

VII. GRAPHICS

Exhibit A: Site Plan




MATCHLINE SEE SHEET 14
MATCHLINE SEE SHEET 12
VERVE ST. (PUBLIC)
BLOCK I
LOT 808
958,199 S.F.
21.9971 ACRES
LANDMARK ST. (PRIVATE)
PROP. PUBLIC ACCESS EASEMENT (GRANTED WITH THIS DSUP)
PROP. PUBLIC SEATING (TYP.)
BLOCK R
BLOCK M
LOT 807
130,369 S.F.
2.9929 ACRES
191.22'
S68°07'48"W
112.16'
S65°07'48"W
N22°38'53"W
10.12'
N86°58'04"W
9.48'
NORTH VAN DORN ST.
VARIABLE WIDTH PUBLIC STREET
NOTES:
1. EXISTING CONDITIONS ON THIS PLAN WAS TAKEN FROM THE PROPOSED INFRASTRUCTURE SITE PLAN (DSP #2021-00012). ANY DEVIATION FROM THE INFRASTRUCTURE PLAN MAY REQUIRE FUTURE SITE PLAN AMENDMENTS FOR THIS PLAN.
2. ALL ADJOINING PROPERTY LINES AND LOT NUMBERS SHOWN HEREON REFLECT A 3RD SUBDIVISION PLAT AND RESUBDIVISION OF LOT 704, 707 AND 708 ASSOCIATED WITH DSUP #2022-10015, DSUP #2022-10016, AND DSUP #2022-10017 NOT YET RECORDED.
LEGEND
PARKS BOUNDARY
LIMITS OF DISTURBANCE
APPROVED
SPECIAL USE PERMIT NO. _____
DEPARTMENT OF PLANNING & ZONING
DIRECTOR DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
DIRECTOR DATE
CHAIRMAN, PLANNING COMMISSION DATE
DATE RECORDED _____
INSTRUMENT NO. DEED BOOK NO. PAGE NO.



SCALE 1"=20'

NOTES:

1. EXISTING CONDITIONS ON THIS PLAN WAS TAKEN FROM THE PROPOSED INFRASTRUCTURE SITE PLAN (DSP #2021-00012). ANY DEVIATION FROM THE INFRASTRUCTURE PLAN MAY REQUIRE FUTURE SITE PLAN AMENDMENTS FOR THIS PLAN.
2. ALL ADJOINING PROPERTY LINES AND LOT NUMBERS SHOWN HEREON REFLECT A THD SUBDIVISION PLAT AND RESUBDIVISION OF LOT 704, 707 AND 708 ASSOCIATED WITH DSUP #2022-10015, DSUP #2022-10016, AND DSUP #2023-10017 NOT YET RECORDED.

LEGEND

PARKS BOUNDARY

LIMITS OF DISTURBANCE

APPROVED

SPECIAL USE PERMIT NO. _____

DEPARTMENT OF PLANNING & ZONING

_____ _____
DIRECTOR DATE

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

SITE PLAN NO. _____

_____ _____
DIRECTOR DATE

_____ _____
CHAIRMAN, PLANNING COMMISSION DATE

DATE RECORDED _____

INSTRUMENT NO. _____ DEED BOOK NO. _____ PAGE NO. _____

N43°10'11"E 124.06'
140.72'
N31°28'43"E
133.19'
L'36'25"E
CMF
APPROXIMATE LOCATION OF EX. VEPCO EASEMENT DB 645 PG 66
PROP. PUBLIC ACCESS EASEMENT (GRANTED WITH THIS DSUP)
EX. VEPCO EASEMENT DB 1352 PG 470
PROP. RET. WALL
BLOCK P
LOT 808
958,199 S.F.
21.9971 ACRES
S21°18'19"E 467.89'
APPROXIMATE LOCATION OF EX. VEPCO EASEMENT DB 645 PG 66 (TO BE VACATED)
FFE= 95.00
LANDMARK ST. (PRIVATE)
POSTED SPEED- 25 MPH
PROP. PUBLIC SEATING (TYP.)
PROP. BIKE RACK (TYP.)
PROP. PUBLIC ACCESS EASEMENT (GRANTED WITH THIS DSUP)
PROP. PUBLIC SEATING (TYP.)
RAMP UP TO GRADE
EMERGENCY VEHICLE EASEMENT (EVE) #6051-00017
MATCHLINE SEE SHEET 14
POOL
NORTH VAN DORN ST.
VARIABLE WIDTH R/W
PUBLIC STREET
NOTES:
1. EXISTING CONDITIONS ON THIS PLAN WAS TAKEN FROM THE PROPOSED INFRASTRUCTURE SITE PLAN (DSP #2021-00012). ANY DEVIATION FROM THE INFRASTRUCTURE PLAN MAY REQUIRE FUTURE SITE PLAN AMENDMENTS FOR THIS PLAN.
2. ALL ADJOINING PROPERTY LINES AND LOT NUMBERS SHOWN HEREON REFLECT A 3RD SUBDIVISION PLAT AND RESUBDIVISION OF LOT 704, 707 AND 708 ASSOCIATED WITH DSUP #2022-10015, DSUP #2022-10016, AND DSUP #2022-10017 NOT YET RECORDED.
LEGEND
PARKS BOUNDARY
LIMITS OF DISTURBANCE
APPROVED
SPECIAL USE PERMIT NO. _____
DEPARTMENT OF PLANNING & ZONING
DIRECTOR DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
DIRECTOR DATE
CHAIRMAN, PLANNING COMMISSION DATE
DATE RECORDED _____
INSTRUMENT NO. DEED BOOK NO. PAGE NO.

VIII. STAFF RECOMMENDATIONS

1. The Final Site Plan shall conform substantially with the preliminary plan dated May 26, 2023, and comply with the following conditions of approval.

I. SITE PLAN

2. Per § 11-418 of the Zoning Ordinance, the Development Special Use Permit shall expire and become null and void, unless the applicant commences substantial construction of the project within 50 months after initial approval and the applicant thereafter pursues such construction with due diligence. The applicant shall provide a written status report to Staff 20 months after initial approval to update the City Council on the project status if they have not yet commenced substantial construction. The applicant may petition to extend the validity period after adequate notice and a public hearing. (P&Z)

3. Submit the plats and associated deeds for all applicable easements with the first Final Site Plan submission. The applicant must obtain approval of the plat(s) prior to or concurrent with Final Site Plan release. (P&Z) (T&ES) (RP&CA) *

    a. Provide public easements to the satisfaction of the Directors of P&Z and T&ES. Easements shall include:

        i. The extent of the Central Plaza (Blocks F and N); the Paseo (Block R), including the playground; and the Terrace Park (Block P), including the bridge that connects the Terrace Park to the Paseo.

    b. Emergency Vehicle Easement(s) (EVE) shall not be painted. When an EVE is shared with a pedestrian walkway or consists of grasscrete or a similar surface treatment, the EVE shall be defined in a manner that is compatible with the surrounding ground plane.

4. Record the plat and submit a copy of the recorded easements plat and deeds with the first application for a building permit. (P&Z) (T&ES) **

5. Show site utilities in accordance with DSP #2021-00012 compatible with other site conditions on the site plan to the satisfaction of the Directors of P&Z and T&ES prior to Final Site Plan release, specifically: (P&Z) (T&ES) *

    a. Locating above grade service openings and required clearances for items such as transformers, telephone, HVAC units, electrical, cable boxes, and other utilities as needed.
    b. Minimizing conflicts with plantings, and pedestrian areas.
    c. Do not locate new above grade utilities in dedicated open space areas and tree wells.

6. Provide a lighting plan for areas not already included in the lighting plan approved as part of DSP #2021-00012 or modified by this DSUP with the Final Site Plan, unless otherwise identified below, to verify that lighting meets City standards. The plan shall be to the satisfaction of the Directors of P&Z and T&ES in consultation with the Chief of Police and Code administration shall include: (P&Z) (T&ES) (Code) *

   a. The location of all existing and proposed streetlights and site lights, shading back less relevant information.
   b. A lighting schedule that identifies each type and number of all fixtures, mounting height, and strength of fixture in Lumens or Watts.
   c. A photometric plan with lighting calculations encompassing all existing and proposed streetlights and site light fixtures, including any existing streetlights located on the opposite side(s) of all adjacent streets. Photometric calculations must extend from proposed building face(s) to property line and from property line to the opposite side(s) of all adjacent streets and/or 20 feet beyond the property line on all adjacent properties and rights-of-way. For clarity, this excludes Van Dorn Street and the northern property line of the existing Garage (Block S)
   d. Manufacturer's specifications and details for all proposed fixtures including site, landscape, pedestrian, sign(s), and security lighting.
   e. The numeric summary for various areas (i.e., roadway, walkway/sidewalk, alley, and parking lot, etc.) in the proposed development.
   f. Full cut-off lighting shall be used, as applicable, to prevent light spill onto adjacent properties.
   g. Basic, approved Dominion LED light fixtures for all proposed light fixtures in the City right-of-way.
   h. All site lights designed to meet City of Alexandria photometric standards shall have photovoltaic switches.
   i. The location of conduit routing between site lighting fixtures to avoid conflicts with street trees.
   j. Details indicating proposed light pole and footings relative to the adjacent grade and pavement. All light pole foundations shall be concealed from view or light poles shall be direct bury.

7. Provide a georeferenced CAD file in **AutoCAD 2018**.dwg format that adheres to the National CAD Standards prior to Final Site Plan release. The file shall have the dimension plan including existing conditions, proposed conditions, and grading elements. (P&Z) (DPI) (GIS) *

8. Sheeting and shoring, support of excavation shall not extend beyond the property line, except when the applicant has obtained a written release or encroachment from adjacent property owners which has been reviewed prior to Final Site Plan release and recorded in the Land Records. (P&Z) (Code) *

9. Excepting retail Pavilion 1, construction of Block F and N will be per the plan to satisfy CDD Condition 79(d) and the release of any bonds covering performance

of public work within the limits of disturbance. For the avoidance of doubt, the construction of Pavilion 1 is not a requirement for the completion of the parks within Blocks F and N. The applicant must construct Pavilion 1 within 10 years of completing the Blocks F and N parks and must provide a written update to P&Z Staff if the applicant has not started building Pavilion 1 as of 5 years of Block F and N completion. (P&Z) (T&ES) (RP&CA)

10. Construction of the proposed pedestrian pathway and bridge connecting the Central Plaza to Terrace Park including appropriate plantings shall be sufficient to meet CDD Condition 87 for the proposed townhomes on Block M to receive a certificate of occupancy. All improvements shown within the Paseo, including the playground, will need to be completed per the plan for Block I to receive a final certificate of occupancy. (P&Z) (RP&CA)

A. BUILDING

11. Provide a building code analysis with these building code data prior to Final Site Plan release: (1) use group, (2) number of stories, (3) type of construction, (4) total floor area per floor, (5) height of structure, (6) non-separated or separated mixed use, and (7) fire protection system requirements. (P&Z) (Code) *

12. The building design, including the appearance, color, and quality of materials; final detailing; three-dimensional expression; and depth of all plane changes, shall be consistent with the elevations dated May 26, 2023, and the following conditions. Provide this information regarding materials and design to the satisfaction of the Director of P&Z prior to Final Site Plan release: (P&Z) (Code) *

    a. Samples of actual window glazing, frame, and sash components proposed for each area of the building in the color and material that will be provided (may reduce sample sizes for ease in handling).

        i. Window sizes and types.
        ii. Window mullion dimensions and projection in front of face of glass.
        iii. Window frame, sash, and mullion materials.
        iv. Any windows visible from a public park or right-of-way shown as simulated divided light type shall be either true divided light, or at a minimum shall include between the glass spacer bars aligned with exterior muntins; any such exterior muntins shall project not less than 3/8 inch beyond the face of glass and be reflected in the window samples provided. Grills located between the glass will not be supported.

    b. Where fiber cement façade panels are permitted, they shall not use a wrap-around trim for mounting to the substructure but may use either a batten system to conceal the joints or a rainscreen type installation. If exposed

fasteners are proposed, they may be either concealed or if exposed, shall be finished to match the adjacent panels and their location integrated into the overall design.

c. The underside of all balconies shall be finished and present a visually cohesive appearance.
d. Where specified by the governing Small Area Plan and accompanying Design Guidelines, or by the governing CDD documents, the maximum percentage of fiber shall be interpreted as the percentage of ***solid façade*** that is fiber cement (excluding glazed portions of the elevation). Typically, such restrictions shall apply to building facades that face any public right-of-way or public open space, along with any portions of open courtyards that are visible from same.
e. Coordinate the design, color, and materials of all penthouses, rooftop mechanical areas, and rooftop screening with the overall architecture of the building, as regards massing, materials, and detailing/expression.
f. The recessed or projecting depth of brick rustication must be a minimum of 3/4 inches.
g. Where plane changes in facades are proposed, they shall generally not be less than two feet.
h. Where dissimilar materials meet, they must typically meet at an interior corner; where that is not possible, such transitions shall occur at a significant plane change or reveal.

13. Provide detailed drawings in realistic colors to permit evaluation of key building elements such as the building base, entrances, entry canopy, stoops, windows, balconies, railings, cornices, and other ornamental elements, and material details including the final detailing, finish, and color of these elements prior to Final Site Plan release. (P&Z) *

    a. The drawings shall be enlarged and coordinated plan-section-elevation studies, typically at ¼" =1'-0" scale, with shadows cast at 45 degrees from both left and above to show true depth of recesses and projections.
    b. Separate design drawings shall be submitted for each primary building typology, different wall, or bay type.
    c. When warranted by the three-dimensional complexity of the design, the applicant shall provide isometric vignettes of special conditions or building areas to the satisfaction of the Director of P&Z.
    d. All structures must remain within the property (e.g., balconies, railings, and canopies), unless permitted under the City of Alexandria Code or an encroachment has been obtained.

14. Provide the items listed below to allow Staff to review the materials, finishes, and architectural details. These materials shall conform substantially to the preliminary plan and the current *Guidelines for Preparation of Mock-Up Panels*, Memo to Industry effective at application submission.

a. Prior to ordering final building materials, provide a materials board that includes all proposed materials and finishes prior to Final Site Plan release. The materials board shall remain with P&Z until the issuance of the final Certificate of Occupancy, when Staff will return all samples to the applicant. (P&Z) *, ***
b. Staff may request more detailed/extensive materials relating to the proposed fenestration, such as samples of the glazing, frame, and sash components, and including whether the windows will be double-or-triple glazed and have simulated divided lights. *
c. Materials may be modified or substituted if in substantial conformance with the Preliminary Site Plan approval and to the satisfaction of the Director of P&Z. *
d. Drawings of mock-up panel(s) that depict all proposed materials, finishes, and relationships as part of the Final Site Plan. *
e. An on-site, mock-up panel using the approved materials, finishes, and relationships shall be constructed for Staff review and approval. Per VCC108.2 concrete or masonry mock-up panels exceeding 6-ft. require a building permit. The panel(s) shall be constructed and approved prior to vertical (above-grade) construction and located so that the panel does not face north. Building materials ordered prior to staff approval of the panel is done at the applicant's risk **
f. The mock-up panel shall remain on-site, throughout construction until the issuance of the first Certificate of Occupancy. (P&Z) (Code) ***

B. OPEN SPACE/LANDSCAPING

15. All publicly accessible open space proposed in DSUP #2023-10004 will be subject to a public access easement and fully open to the public. Operating hours of these spaces will be not less than those required by City of Alexandria Codes. Signage will be coordinated with the Comprehensive Sign Plan SUP #2023-00011. (RP&CA)

16. Provide these modifications to the landscape plan and supporting drawings with the Final Site Plan: (P&Z) *

    a. Include a diagram showing the locations for park equipment storage for the Central Park
    b. Include a water fountain with bottle filler in Pavilion 2.

17. Develop a palette of site furnishings for review and approval by Staff prior to Final Site Plan release. *

    a. Site furnishings may include benches, bicycle racks, trash bins, recycling receptacles, and other associated features. City standard materials are mandatory in all public right-of-way. (P&Z) (T&ES)

18. Provide material, finishes, and architectural details for all retaining, seat, decorative, and screen walls prior to Final Site Plan release. Indicate methods for grade transitions, handrails, directional changes, and above and below-grade conditions. Coordinate with adjacent site and building conditions. Design and construction of all walls shall be to the satisfaction of the Directors of P&Z, T&ES, and Code. (P&Z) (T&ES) (Code) *

19. Per CDD #2020-00007 condition 75, any proposed playspaces shall conform to the City of Alexandria's Playspace Policy approved in October 2013 to the satisfaction of the Director of RP&CA. The playspace design, installation, and maintenance shall meet these requirements: (RP&CA) (Code) *, ***

    a. Provide a coordinated array of the play elements.
    b. Depict the location, scale, massing, and character of the playspace, grade conditions, surfacing, site furnishings, vegetation, and other site features.
    c. Playspaces and site equipment shall comply with the most recent guidelines, specifications, and recommendations of the Consumer Product Safety Commission (CPSC) Handbook for Public Playground Safety, ASTM Specification for Playground Equipment for Public Use (ASTM F1487) and ASTM Specification for Impact Attenuation of Surface Systems Under and Around Playground Equipment (ASTM F1292) in effect at the time of the first FSP submission.
    d. Applicant will provide a Hazard Identification and Risk Assessment Report demonstrating compliance with Condition 19.c prior to release of the FSP.
    e. Play area and equipment shall comply with Americans with Disabilities Act 2010 ADA Standards for Accessible Design.
    f. Playspaces shall be regularly inspected and maintained according to CPSC, ASTM, and the manufacturer recommendations. Natural play spaces and/or elements shall be maintained and cared for according to landscape standards provided by landscape architect and/or planner.
    g. Play areas shall be open to the public and located in areas accessible to the public. The play areas will also be subject to a public access easement.
    h. Playspaces shall have appropriate signage posted with hours of operation and other operational information.

20. The playground design shall include the features listed below to the satisfaction of the Director of RP&CA. (RP&CA) *

    a. A portion of the playground including the accessible route to the play equipment shall feature a poured-in-place, rubber tile or synthetic turf playground surface to ensure accessibility for persons with disabilities.
    b. Ground-level play equipment for children with mobility devices.
    c. Equipment to support gross and fine motor functions.
    d. An enclosure such as a fence located along the street frontage and the south side of the property limits.
    e. Ample seating such as seat walls and other multifunctional elements to maximize space for play equipment.

f. Appropriate shading to ensure safe play during hot seasons.
g. Subsurface drainage system within the playground.

21. The playground shall have a design feature or landscaping element in the southeast corner to screen Road D within Block M to the satisfaction of the Directors of P&Z and RP&CA. Submit the design for review and approval by the Directors prior to Final Site Plan release. (P&Z) (RP&CA) *

22. Outdoor dining on the public right-of-way may be permitted subject to the City's current sidewalk dining regulations and CDD #2020-00007's requirement to provide a minimum eight-foot-wide clear pedestrian zone. The minimum pedestrian zone may be provided with a combination of public right-of-way and private land subject to a pedestrian access easement. Outdoor dining may be adjacent to the building or the curb. (P&Z) (RP&CA)

23. Comply with CDD 2020-00007 condition #77. Install public Wi-Fi infrastructure in the Central Plaza, Paseo, and Terrace Park (Blocks F, N, R, and P). (P&Z) (RP&CA) ***

24. All publicly accessible open spaces shall be maintained by the applicant/owner or its successors. The applicant is responsible for providing a maintenance plan that includes maintenance practices, standards, and frequency for all hardscape, landscaping, furniture, and related infrastructure for all publicly accessible open spaces. (RP&CA)

    a. The owner or designee shall be responsible for all costs to operate and maintain all publicly accessible open spaces. Costs shall include the life cycle replacement of materials and components depicted in the landscape design.
    b. Per CDD 2020-00007 conditions #81, 86, and 90, provide a maintenance plan to the satisfaction of the Director of RP&CA for the Central Plaza, Terrace Park, and Paseo (including the playground) prior to Final Site Plan release. *

25. Per CDD Condition 85(d), if the cost to construct the stair connection from the flat portion of Terrace Park to North Van Dorn Street exceeds $250,000 in 2021 dollars, inflated per the CDD Condition, the Applicant will not be required to construct that element of the DSUP plan. Applicant will need to provide an estimate from the general contractor for the cost to construct the stairwell to include the materials (e.g., stairs, wall, handrails) labor, and site preparation (e.g., earthwork) for review and acceptance by the Directors of P&Z, T&ES, and RP&CA prior to being relieved of the obligation. (P&Z) (T&ES) (RP&CA)

26. Incorporate and interpret elements of the site history into the signage. The final site plan shall indicate the locations and general themes for one or two historic interpretive signs. One that addresses the history of the Landmark Mall, and

second sign focused on the Fitzhugh family's use of the land in the nineteenth century. (OHA) *, **, ***

a. A professional archaeological consultant or qualified historian, in consultation with Staff, shall write text and graphically design the historical interpretive signage using a template provided by the Office of Historic Alexandria (OHA) (or an alternative template as approved by OHA).

b. Alternatively, the applicant may opt to have the Office of Historic Alexandria write, design, fabricate, and install the interpretive signage for a fixed fee of $7,500 per sign. If a consultant does the work, they must provide text and graphics for the interpretive signage to the Office of Historic Alexandria/Alexandria Archaeology for review prior to the issuance of the initial Building Permit for this project.

c. Construct the interpretive elements and erect the interpretive markers prior to release of the first Certificates of Occupancy for the retail pavilions, if Option B is not selected.

C. TREE PROTECTION AND PRESERVATION

27. Provide a Tree and Vegetation Protection Plan per the City of Alexandria's Landscape Guidelines for approval prior to Final Site Plan release and implement the plan for the duration of construction. (P&Z) (RP&CA) *

28. Provide an Invasive Species Removal and Management Plan per the City of Alexandria's Landscape Guidelines for approval prior to Final Site Plan release. Submit an invasive species monitoring and management plan report annually beginning with the first Certificate of Occupancy and continuing until release of the Maintenance Bond. (P&Z) (RP&CA) *, ***, ****

D. ARCHAEOLOGY

29. Call Alexandria Archaeology immediately at (703) 746-4399 if any buried structural remains (wall foundations, wells, privies, cisterns, etc.) or concentrations of artifacts are discovered during development. Work must cease in the discovery area until a City archaeologist comes to the site and records the finds. (Archaeology) *

30. The applicant shall not allow any metal detection and/or artifact collection to be conducted on the property, unless authorized by Alexandria Archaeology. Failing to comply shall result in project delays. (Archaeology) *

31. Include the language from the preceding Archaeology conditions on all Final Site Plan sheets involving any ground disturbing activities (incl. basement/foundation plans, demolition, erosion and sediment control, grading, landscaping, utilities, and sheeting and shoring) so that on-site contractors are aware of the requirements. (Archaeology) *

32. The final Certificate of Occupancy shall not be issued for this property until interpretive elements have been constructed, interpretive markers have been erected, and the final archaeological report has been received and approved by the City Archaeologist. (Archaeology) ***

E. PEDESTRIAN/STREETSCAPE

33. To the extent not already installed, provide the pedestrian improvements within the DSUP limits of disturbance per the approved Infrastructure Plan (DSP #2021-00012) to the satisfaction of the Directors of P&Z and T&ES. Complete all pedestrian improvements prior to the issuance of the final Certificate of Occupancy. (P&Z) (T&ES) ***

F. PARKING

34. Per CDD #2020-00007 condition 59, provide a final Parking Management Plan that is updated to include each block within the CDD Plan area. The Parking Management Plan shall be updated and approved with each subsequent DSUP submittal within the CDD Plan Area. The Parking Management Plan shall be approved by the Departments of P&Z and T&ES prior to the release of the Final Site Plan and comply with the requirements of the Parking Management Plan Template provided in Memo to Industry 01-19. (P&Z) (T&ES) *

35. Show all existing and proposed on-street parking controls and restrictions on the Final Site Plan. The Traffic and Parking Board must approve any on-street parking changes desired after the Signature Set approval. (P&Z) (T&ES) *

36. Valet parking operations may be permitted within designated pick-up, drop-off, or loading spaces subject to §11-513(N) of the Zoning Ordinance and the satisfaction of the Director of T&ES. (T&ES)

37. Provide bicycle parking per current Bicycle Parking Standards. Bicycle parking standards, acceptable rack types for short- and long-term parking, and details for allowable locations are available at: www.alexandriava.gov/bicycleparking.

38. Provide details on the locations and types of bicycle parking provided with this DSUP and the locations of adjacent bike parking provided with the Infrastructure DSP and DSUPs for Blocks E, G, and I on the Final Site Plan. Install bicycle parking prior to the issuance of the first Certificate of Occupancy. (T&ES) *, ***

G. SUSTAINABILITY

39. The applicant may propose additional strategies to the sustainability conditions outlined below and these additional sustainability strategies may be incorporated administratively to the satisfaction of the Directors of T&ES and P&Z. (P&Z) (T&ES)

40. The project shall comply with the requirements of the current City of Alexandria Green Building Policy at the time of DSUP submission. Diligent pursuit and achievement of this certification shall be monitored through these requirements unless exempted by the certification rating systems and the Green Building Policy:

    a. Provide evidence of the project's registration with LEED, Green Globes, or Earthcraft (or equivalent) with the submission of the first Final Site Plan and provide a draft checklist from the P&Z website showing how the project plans to achieve the certification and clearly indicate that requirements for the priority performance points are being met as defined by the City of Alexandria's Green Building Policy. *
    b. Provide an updated copy of the draft certification scorecard/checklist prior building permit release for above-grade construction to show compliance with the Green Building Policy. **
    c. Provide updated building energy performance analysis and building energy use intensity (EUI) (energy use per sq. ft.) prior to release of the building permits for above-grade construction. **
    d. Provide updated documentation for the indoor environmental quality priority performance points as defined by the City of Alexandria's Green Building Policy prior to the release of building permits for above-grade construction. **
    e. Provide evidence that design phase credits (for the certifying party) have been submitted by the first Certificate of Occupancy. ***
    f. Provide a commission report that has been verified by a certified, third-party reviewer, including issues log, completed pre-function checklists, and any completed functional performance tests prior to maintenance bond release. ****
    g. Provide evidence showing that the requirements for priority performance points for Energy Use Reduction, Water Efficiency and Indoor Environmental Quality are being met as defined by the City of Alexandria's Green Building Policy for Design Phase credits to the U.S. Green Building Council, Green Globes, or Earthcraft (or equivalent) prior to issuance of the final Certificate of Occupancy for the retailer operating within each specific pavilion. ***
    h. Provide documentation of applicable green building certification clearly indicating that the priority performance points requirement for Energy Use Reduction, Water Efficiency, and Indoor Environmental Quality have been achieved as defined by the City of Alexandria's Green Building Policy prior to maintenance bond release. ****
    i. Failure to achieve the certification level, as required by the City of Alexandria's Green Building Policy, will be evaluated by City Staff to determine whether a good faith, reasonable, and documented effort was made to achieve the certification level to the satisfaction of the Director of P&Z.

41. Demonstrate that the roof(s) are solar ready, with the necessary conduit and available electrical panel area to enable future solar panel installation, on the Final Site Plan. (T&ES) *

II. TRANSPORTATION

A. STREETS/TRAFFIC

42. Repair any of the City's existing public infrastructure that is damaged during construction per the most recent version of the T&ES Design and Construction Standards, or to the satisfaction of Director of T&ES, prior to Performance Bond release. (T&ES) ****

43. Conduct a pre-construction walk/survey of the site prior to any land disturbing activities with T&ES Construction & Inspection Staff and Code Administration Staff to document existing conditions prior to Final Site Plan release. (T&ES) (Code) *

44. Mark all private street signs that intersect a public street with a fluorescent green strip to notify the plowing crews, both City and contractor, that they are not to plow those streets, prior to the issuance of the first Certificate of Occupancy. (T&ES) ***

45. Provide full curb to curb restoration for any asphalt patches larger than 20 percent of the total asphalt surface, measured along the length of the road adjacent to the property frontage and/or extending to the centerline of the street prior to Performance Bond release. (T&ES) ****

46. To accommodate emergency vehicles, the proposed pedestrian bridge shall be no less than 15 feet in height, as measured from the top surface of the roadway to the lowest part of the bridge. (T&ES)

B. BUS STOPS AND BUS SHELTERS

47. Show all existing bus stops, bus shelters, and bus stop benches in the vicinity of the site on the Final Site Plan. (T&ES) *

III. PUBLIC WORKS

A. WASTEWATER/SANITARY SEWERS

48. Pay the sewer connection fee prior to Final Site Plan release. (T&ES) *

B. UTILITIES

49. If a franchise agreement has not been entered into with the City, locate all private utilities outside of the public right-of-way and public utility easements. (T&ES)

50. Do not locate transformers and switch gears in the public right-of-way. (T&ES)

51. All new fire hydrants on public streets shall be City owned and maintained. All hydrants on private streets shall be located in a public access easement and owned, inspected, tested, and maintained by the City of Alexandria. Hydrants must be installed and functional prior to issuance of the Certificate of Occupancy. (T&ES) ***

C. INFORMATION TECHNOLOGY

52. All conduit on private property will be owned and maintained by the property owner. Unless otherwise specified, conduit on public right-of-way will be owned and maintained by the City. (ITS) (T&ES)

53. Provide a minimum of two, 2-inch conduits for each building. Terminate each conduit drop to a 24-inch by 36-inch installed hand hole within the public right-of-way or at a nearby accessible location. (ITS)

    a. Enable telecommunications providers to install cables in the conduit.

    b. Submit a digital as built in CAD or GIS that details the fiber conduit installation prior to the issuance of the Certificate of Occupancy. (ITS) ***

D. SOLID WASTE

54. The point of collection shall be as agreed upon between the owner and the private collector duly licensed, provided that such point shall not be in a public right-of-way and shall not hinder or interfere with parking, traffic, or pedestrians. All trash collectors for the project site are required to take their collected trash to the Alexandria/Arlington waste-to-energy facility (T&ES)

IV. ENVIRONMENTAL

A. STORMWATER MANAGEMENT

55. The City of Alexandria's stormwater management regulations regarding water quality are two-fold: (1) state phosphorus removal requirement and (2) Alexandria Water Quality Volume Default. Complying with the state phosphorus reduction requirement does not relieve the applicant from the Alexandria Water Quality Default requirement. The Alexandria Water Quality Volume Default, as determined by the site's post-development impervious area shall be treated in a Best Management Practice (BMP) facility. Compliance will be determined as shown on the approved Stormwater Master Plan DSP #2021-00017. (T&ES) *

56. The redevelopment phosphorus removal requirement is 40 percent from the predeveloped load (treatment of the first ½ inch of rainfall is required). New impervious must meet the required 0.41 lbs./ac phosphorus loading rate or the 40 percent reduction, whichever is more stringent. The site's entire water quality

volume shall be treated. Compliance will be determined as shown on the approved Stormwater Master Plan DSP #2021-00017. (T&ES) *

57. Provide a BMP narrative and complete pre- and post-development drainage maps that include areas outside that contribute surface runoff from beyond project boundaries to include adequate topographic information, locations of existing and proposed storm drainage systems affected by the development, all proposed BMPs and a completed Virginia Runoff Reduction Method (VRMM) worksheet showing project compliance prior to Final Site Plan release. The project must use hydrologic soil group "D" in the spreadsheet unless a soils report from a soil scientist or geotechnical engineer delineates onsite soils otherwise. (T&ES) *

58. Design all stormwater Best Management Practices (BMPs) to comply with the most recent standards and specifications published in the Virginia Stormwater BMP Clearinghouse. Provide complete design details for all BMPs, including site specific plan views, cross sections, planting plans, and complete design calculations for each BMP prior to Final Site Plan release. (T&ES) *

59. Provide a BMP table with a separate listing for each individual BMP that includes the name of the practice, total area treated (acres), pervious area treated (acres), impervious area treated (acres), phosphorous removal efficiency (percentage), phosphorous removal efficiency (percentage), phosphorous removed by the practice (lbs.), and latitude and longitude in decimal degrees, prior to Final Site Plan release. (T&ES) *

60. All BMP's must be accessible for regular maintenance and inspections. The final building design must include access points and maintenance accessibility for the green roof and any other BMPs. Green roof access can be achieved either by a door on the same level as the green roof, an interior elevator, interior stairway with door through a penthouse, or by an alternating tread device with a rood hatch or trap door not less than 16 square feet in area and with a minimum dimension of 24 inches. (T&ES)

61. Complete construction inspection checklists and associated photographic documentation for each stormwater BMP and detention facility. Submit all documents required by The City of Alexandria As-Built Stormwater Requirements including as-built plans, CAD data, BMP certifications, and completed construction inspection checklists prior to Performance Bond release. (T&ES) ****

62. Construct and install the stormwater BMPs required for this project under the direct supervision of the design professional or their designated representative. Submit a written certification from the design professional to the Director of T&ES prior to Performance Bond release certifying that the BMPs are:

    a. Constructed and installed as designed and in accordance with the released Final Site Plan.

b. Clean and free of debris, soil, and litter by either having been installed or brought into service after the site was stabilized. (T&ES) ****

63. Install descriptive signage for surface-installed stormwater BMPs (e.g., Bio-Retention Filters, Vegetated Swales) prior to the submission of As-Built Plans to the satisfaction of the Director of T&ES. (T&ES) ****

64. Submit two originals of the stormwater quality BMP Maintenance Agreement, to include the BMP Schedule and Guidelines Addendum as part of the Final Site Plan #2. Executed and record the agreement with the Land Records Division of Alexandria Circuit Court prior to Final Site Plan release. (T&ES) *

65. Submit two originals of the stormwater quality BMP and Stormwater Detention Facilities Maintenance Agreement to include the BMP Schedule and Guidelines Addendum with the Final Site Plan #2. Execute and record the agreement with the Land Records Division of Alexandria Circuit Court prior to Final Site Plan release. (T&ES) *

66. The Applicant shall be responsible for maintaining stormwater Best Management Practices (BMPs) until activation of the BID and/or master association, if applicable, or until sale to a private owner. Prior to transferring maintenance responsibility for the BMPs to the BID, master association, and/or owner, the applicant shall:

a. Execute a maintenance service contract with a qualified private contractor for a minimum of three years, and transfer the contract to the BID, master association, and/or owner.
b. Include a copy of the contract in the BMP Operation and Maintenance Manual.
c. Submit a copy of the maintenance contract to T&ES prior to Performance Bond release. (T&ES) ****

67. Provide the BID and/or master association, with an Owner's Operation and Maintenance Manual for all on site BMPs. The manual shall include at a minimum:

a. An explanation of the functions and operations of the BMP(s),
b. Drawings and diagrams of the BMP(s) and any supporting utilities,
c. Catalog cuts on maintenance requirements including any mechanical or electrical equipment,
d. Manufacturer contact names and phone numbers,
e. A copy of the executed maintenance service contract, and
f. A copy of the maintenance agreement with the City.

68. Submit a copy of the Operation and Maintenance Manual to the T&ES Stormwater Management Division prior to Performance Bond release. (T&ES) ****

69. Submit a certification by a qualified professional that any existing stormwater management facilities adjacent to the project and associated conveyance systems

were not adversely affected by construction operations prior Performance Bond release to the satisfaction of the Director of T&ES. If maintenance of the facilities or systems were required to make this certification, provide a description of the maintenance measures performed. (T&ES) ****

B. WATERSHED, WETLANDS, & RPAs

70. Use standard city markers to mark all on-site stormwater curb inlets and public curb inlets within 50 feet of the property line to the satisfaction of the Director of T&ES. (T&ES)

71. For sites that contain marine clays, account for marine clay or highly erodible soils in the construction methodology and erosion and sediment control measures. (T&ES)

72. Provide Environmental Site Assessment Notes that delineate, map, describe, and/or explain these environmental features (if located on site):

    a. Individual components of the RPA as well as the total geographic extent of the RPA, to include the appropriate buffer, intermittent streams, and associated buffers,
    b. Highly erodible and highly permeable soils,
    c. Steep slopes greater than 15 percent in grade,
    d. Known areas of contamination; springs, seeps, or related features, and
    e. A listing of all wetlands permits required by law. (T&ES)

C. CONTAMINATED LAND

73. Indicate on the plan whether any soil and groundwater contamination are present Submit supporting reports for associated environmental investigations or assessments performed to substantiate this determination. (T&ES) *

74. If environmental site assessments or investigations discover the presence of contamination on site beyond that already identified under DSP #2021-00012, the Final Site Plan shall not be released, and no construction activity shall occur until these items have been submitted and approved by the Director of T&ES: (T&ES) *

    a. A Site Characterization Report/Extent of Contamination Study detailing the location, applicable contaminants, and the estimated quantity of any contaminated soils and/or groundwater at or in the immediate vicinity of the site.
    b. A Risk Assessment indicating any risks associated with the contamination.
    c. A Remediation Plan detailing any contaminated soils and/or groundwater, including plans to remediate utility corridors. Utility corridors in contaminated soil shall be over excavated by two feet and backfilled with "clean" soil. Include description of environmentally sound methods of off-site transport and disposal of contaminated soils and debris (including, but

not limited to types of vehicles appropriate for handling specific materials and ensuring vehicle loads are covered).

d. A Health and Safety Plan with measures to take during remediation and/or construction activities to minimize the potential risks to workers, the neighborhood, and the environment. Initial Air Monitoring may be required during site activities to demonstrate acceptable levels of volatiles and/or airborne particles. Justify the air monitoring determination in the Health and Safety Plan submitted for review.

e. Screen for PCBs as part of the site characterization if any of the past uses are within the identified high risk category sites for potential sources of residual PCBs, which includes these SICs: 26&27 (Paper and Allied Products), 30 (Rubber and Misc. Plastics), 33 (Primary Metal Industries), 34 (Fabricated Metal Products), 37 (Transportation Equipment), 49 (Electrical, Gas, and Sanitary Services), 5093 (Scrap Metal Recycling), and 1221 and 1222 (Bituminous Coal).

75. Should any unanticipated contamination, underground storage tanks, drums or containers be encountered at the site during construction, the applicant must notify T&ES, Office of Environmental Quality immediately. Should unanticipated conditions warrant, stop construction within the affected area until the appropriate environmental reports identified in "a" through "e" above are submitted and approved at the discretion of the Director of T&ES. This shall be included as a note on the Final Site Plan. (T&ES) (Code) *

76. If warranted by a Site Characterization report, design and install a vapor barrier and ventilation system for buildings and parking areas to prevent the migration or accumulation of methane or other gases or conduct a study and provide a report signed by a professional engineer showing that such measures are not required to the satisfaction of Directors of T&ES and Code Administration. The vapor barrier and ventilation system must include a passive ventilation system that can be converted to an active ventilation system if warranted. (T&ES) (Code)

D. SOILS

77. Provide a geotechnical report, including recommendations from a geotechnical professional for proposed cut slopes and embankments prior to Final Site plan release. (T&ES) *

E. NOISE

78. Supply deliveries, loading, and unloading activities shall not occur between the hours of 11PM and 7AM. (T&ES)

79. If the applicant or their successors propose a public address (PA) system within the open spaces covered by this DSUP, i.e., Blocks F, N, R, or P, then the future operator shall perform a study to demonstrate that the PA system will comply with the City's Noise Code, minimize effects on surrounding community/neighbors,

and provide noise mitigation measures to the satisfaction by the Director of T&ES. (T&ES)

80. No trucks or other vehicles, including construction equipment, associated with this project shall be permitted to idle for more than 5 minutes when parked, including vehicles in the loading dock. Post at least two no idling for greater than 5 minutes signs in the loading dock area in plain view prior to the issuance of the Certificate of Occupancy. (T&ES) ***

F. AIR POLLUTION

81. Kitchen equipment, including floor mats, shall not be cleaned outside, nor shall any cooking residue be washed into any street, alley, or storm sewer. (T&ES)

82. Control odors and any other air pollution sources resulting from operations at the site and prevent them from leaving the property or becoming a nuisance to neighboring properties, as determined by the Director of T&ES. (T&ES)

V. CONSTRUCTION MANAGEMENT

83. Submit a separate construction management plan to the Directors of P&Z, T&ES, and Code Administration prior to Final Site Plan release. The plan shall satisfy these requirements: (P&Z) (T&ES) (Code)

    a. No streetlights shall be removed without authorization from the City of Alexandria,
    b. If streetlights are to be removed from the public right-of-way, then temporary lights shall be provided until the installation and commissioning of new lights, *
    c. Include an analysis as to whether temporary street or site lighting is needed for safety during the construction on the site and how it is to be installed, *
    d. Provide a detailed sequence of demolition and construction of improvements in the public right of way along with an overall proposed schedule for demolition and construction, *
    e. Include an overall proposed schedule for construction, *
    f. Include a plan for temporary pedestrian circulation, *
    g. Include the location and size of proposed construction trailers, if any, *
    h. Include a preliminary Maintenance of Traffic Plan as part of the construction management plan for informational purposes only, to include proposed controls for traffic movement, lane closures, construction entrances and storage of materials, and *
    i. Post copies of the plan in the construction trailer and give to each subcontractor before they start work. ***

84. Provide off-street parking for all construction workers without charge and ensure that all workers use this parking. For workers who use Metro, DASH, or another form of mass transit, subsidize a minimum of 50 percent of the fees. Complying with this condition shall be a component of the construction management plan,

which shall be submitted prior to Final Site Plan release and approved by the Departments of P&Z and T&ES prior to commencing any construction activities. This plan shall:

a. Establish and provide verifiable details and/or agreements on the location of the parking to be provided at various stages of construction, how many spaces will be provided, how many construction workers will be assigned to the work site, and mechanisms which will be used to encourage the use of mass transit, *
b. Post information on transit schedules and routes, *
c. The community liaison must manage parking actively for all construction workers and ensure compliance with the off-street parking requirement, and
d. If the off-street construction workers parking plan is found to be violated during construction, a correction notice will be issued to the applicant. If the violation is not corrected within five days, a "stop work order" will be issued, with construction halted until the violation has been corrected. (P&Z) (T&ES) *

85. Include a chapter on the waste control program in the Construction Management Plan. This program shall control wastes such as discarded building materials, concrete truck washout, chemicals, litter or trash, trash generated by construction workers or mobile food vendor businesses serving them, and all sanitary waste at the construction site and prevent offsite migration that may cause adverse impacts to neighboring properties or to the environment to the satisfaction of Directors of T&ES and Code Administration. Dispose of all wastes offsite per all applicable federal, state, and local laws. If program is implemented in coordination with green building certification, include documentation as appropriate per the City's Green Building Policy and conditions therein. (T&ES) (Code) *

86. Identify a Certified Land Disturber (CLD) in a letter to the Division Chief of Infrastructure Right of Way prior to any land disturbing activities and include the name on the Phase I Erosion and Sediment Control sheets prior to Final Site Plan release. If the CLD changes during the project, that change must be noted in a letter to the Division Chief. (T&ES) *

87. Conduct an in-person or virtual meeting to review the location of construction worker parking, plan for temporary pedestrian and vehicular circulation, and hours and overall schedule for construction prior to commencing demolition, clearing, and grading of the site. Notice all adjoining property owners, civic associations, and the Departments of P&Z and T&ES at least 14 calendar days before the meeting. Hold the meeting before any permits are issued. (P&Z) (T&ES) **

88. To the extent the City establishes a quarterly community meeting for the purpose of providing updates on the status of construction projects in the West End, the applicant shall participate in such meetings or provide written updates to City staff while the project is under substantial construction. Such updates may be provided in coordination with meetings hosted by the City. (P&Z)

89. Hold an in-person or virtual pre-installation/construction meeting to review the scope of landscaping installation procedures and processes with the P&Z project planner prior to starting work. (P&Z) (Code)

90. Identify a community liaison throughout the duration of construction. Provide their name and telephone number, including an emergency contact number, to residents, property managers, and business owners whose property abuts the site, to the satisfaction of the Directors of P&Z and T&ES. Install a temporary informational sign prior to Final Site Plan release with the community liaison's name and contact information. Display the sign until construction finishes. (P&Z) (T&ES) *, ***

91. Temporary construction and/or on-site sales trailer(s) are permitted and subject to the approval of the Directors of P&Z and Code Administration. Remove the trailer(s) prior to the issuance of the final Certificate of Occupancy. (P&Z) (Code) ***

92. Submit a stamped electronic copy of a wall check survey completed by a licensed, certified public land surveyor or professional engineer when below-grade construction reaches proposed finished grade. Ensure the wall check shows: (P&Z) **

    a. Key dimensions of the building as shown on the approved Final Site Plan,
    b. Key dimensions from future face of finished wall above to the property line and any adjacent structures on the property,
    c. Extent of any below-grade structures,
    d. Foundation wall in place, and
    e. Future face of finished wall above.

93. Submit an as-built development site plan survey, pursuant to the requirements outlined in the initial as-built submission for occupancy portion of the as-built development site plan survey checklist to the T&ES Site Plan Coordinator prior to applying for a Certificate of Occupancy permit. The as-built development site plan survey shall be prepared and sealed by a registered architect, engineer, or surveyor. Include a note stating that the height was calculated based on all applicable provisions of the Zoning Ordinance. (P&Z) (T&ES) ***

94. If outstanding performance, completion, or other bonds for the benefit of the City are in effect for the property at such time as it may be conveyed or sold to a party other than the applicant, a substitute bond and associated documents must be provided by that party or, in the alternative, an assignment or other documentation from the bonding company indicating that the existing bond remains in effect despite the change in ownership may be provided. The bond(s) shall be maintained until such time that all requirements are met, and the bond(s) released by the City. (T&ES) ****

VI. CONTRIBUTIONS

95. The applicant shall comply with CDD #2020-00007 contribution condition 93. (P&Z) ***

VII. PUBLIC ART

96. Comply with the CDD #2020-00007 conditions 122 and 123 for public art. (P&Z) (RP&CA) *

97. Select the artist, finalize locations and medium, and provide a schedule for the art installation prior to Final Site Plan release. The public art shall conform substantially with the Public Art Plan dated October 26, 2022, to the satisfaction of the Directors of RP&CA and P&Z. (P&Z) (RP&CA) *

98. Install the art prior to the issuance of the last Certificate of Occupancy for buildings under DSUP #2022-10015, DSUP #2022-10116, DSUP #2022-10017, and DSUP #2023-10004, i.e., Blocks I, K, E, and G, to the satisfaction of the Directors of P&Z and RP&CA. (P&Z) (RP&CA) ***

VIII. USES AND SIGNS

A. RETAIL/COMMERCIAL

99. Provide these conditions for the retail/commercial areas, to the satisfaction of the Director of P&Z:

    a. A minimum 15 feet floor-to-floor height.
    b. All ground floor windows shall remain transparent, except as otherwise allowed by the City of Alexandria Zoning Ordinance. This is not intended to prevent retailers from displaying their goods in display cases that are oriented towards the street frontage.
    c. Placing or constructing items that block visibility through windows of the interior commercial space from the street and the sidewalk, including but not limited to walls, window film, storage cabinets, carts, shelving, boxes, coat racks, storage bins, and closets, shall be prohibited.

100. The Director of P&Z shall review administrative Special Use Permits after one year of operation, and shall docket the matter for the Planning Commission and City Council if (1) violations of the permit conditions occurred and were not corrected immediately, constitute repeat violations, or create a direct and immediate adverse zoning effect on the surrounding community; (2) the Director has received a request from any person to docket the permit for review due to a complaint that may be a violation of the permit conditions and the Director has reasonably determined that such a violation occurred; or (3) the Director has determined that problems with the operation of the use exist and that new or revised conditions are needed. (P&Z)

101. The design of individual retail bays may vary to express the unique characteristics of each tenant subject to the approval of the Director of P&Z. (P&Z) ***

102. Encourage employees who drive to use off-street parking. (T&ES)

103. Encourage employees to use public transportation. Contact Go Alex at goalex@alexandriava.gov for information on establishing an employee transportation benefits program. (T&ES)

104. Provide information about alternative forms of transportation to access the site, including but not limited to printed and electronic business promotional material and posting on the business website. Contact Go Alex at goalex@alexandriava.gov for more information. (T&ES)

105. Provide information about nearby garages on the business's website to encourage patrons to park off-street. (T&ES)

106. The restroom within Pavilion 2 identified as a public restroom shall be open to the public when a business within the pavilion is open. Post a sign at the entrance to the public restroom identifying it as such prior to receipt of the first Certificate of Occupancy. (P&Z) ***

B. SIGNAGE

107. Comply with the CDD #2020-00007 condition 120 for the coordinated sign plan. (P&Z)

CITY DEPARTMENT CODE COMMENTS

Legend: C - Code Requirement R - Recommendation F - Finding

A. Planning and Zoning (P&Z)

C - 1 Submit as-built documents for all landscape and irrigation installations with the as-built plan and request for Performance Bond release. Refer to City of Alexandria Landscape Guidelines. (P&Z) (T&ES) ****

C - 2 Identify all trees to remove and protect/preserve in the tree conservation and protection plans prior to Final Site Plan release. Detail construction methods to reduce disturbance within driplines. Schedule an on-site inspection of existing conditions with the City Arborist and Natural Resources Division Staff prior to preparing the Tree Conservation and Protection Plan. *

B. Code Administration (Building Code)

F - 1. The review by Code Administration is a preliminary review only. Once the applicant has filed for a building permit, code requirements will be based upon the building permit plans.

A preconstruction conference is recommended for large projects. Contact the Code Administration Office, Plan Review Supervisor at (703) 746-4200 with any questions.

C - 1 New construction or alterations to existing structures must comply with the current Uniform Statewide Building Code (USBC) in effect when applying for building permit(s).

C - 2 Facilities shall be accessible for persons with disabilities per the current Virginia Uniform Statewide Building Code in effect when applying for building permit(s).

C - 3 Submit a soils report with the building permit application for all new and existing building structures. **

C - 4 Submit an abatement plan from a licensed Pest Control Company to prevent rodents from spreading from the construction site to the surrounding community and sewers to the Department of Code Administration prior to receiving a demolition or land disturbance permit. Code Administration Staff will conduct a pre-demolition site survey to verify that the abatement plan is consistent with the field installation. **

C - 5 Submit a wall location plat prepared by a land surveyor to the Department of Code Administration prior to any building framing inspection. **

C. Archaeology

F - 1. According to an 1865 map, a small farmstead was located in the center of the property, belonging to the Fitzhugh family, and it may have dated back to the early nineteenth century. By 1878 the Edwin Fitzhugh family occupied the farm and by 1894 a C. Ashby owned the property which consisted of 131.5 acres. Although a farmstead once occupied the property, due to the level of development of the subject property, the likelihood that intact archaeological remains are present is low.

F - 2. If this project is a federal undertaking or involves the use of any federal funding, the applicant shall comply with federal preservation laws, in particular Section 106 of the National Historic Preservation Act of 1966. The applicant will coordinate with the Virginia Department of Historic Resources and the federal agency involved in the project, as well as with Alexandria Archaeology.

C - 1 All archaeological preservation measures shall comply with § 11-411 of the Zoning Ordinance.

D. Transportation & Environmental Services (T&ES)

F - 3. Prepare the Final Site Plan per the Memorandum to Industry 02-09 dated December 3, 2009, Design Guidelines for Site Plan Preparation, which is available at: http://alexandriava.gov/uploadedFiles/tes/info/Memo%20to%20Industry%20No.%2002-09%20December%203,%202009.pdf (T&ES) *

F - 4. Show and label the sanitary and storm sewer and water line in plan and profile in the first Final Site Plan, cross referencing sheets if plan and profile cannot be on the same sheet.

Provide existing and proposed grade elevations plus the rim and invert elevations of all the existing and proposed sanitary and storm sewer at manholes, and water line piping at gate wells on the respective profiles. Use distinctive stationing for various sanitary and storm sewers (if applicable or required by the plan), and water line in plan and use the corresponding stationing in respective profiles. (T&ES) *

F - 5. Provide a dimension plan with all proposed features, the final property lines, and associated property line annotation. When possible, show all annotation pertaining to the final property line configuration on the site layout sheet (also referred to as the site plan sheet). (T&ES) *

F - 6. Construct all storm sewers to the City of Alexandria standards and specifications. The minimum diameter for storm sewers is 18-inches in the public right-of-way and the minimum size storm sewer catch basin lead is 15-inches Acceptable pipe materials are Reinforced Concrete Pipe (RCP) ASTM C-76 Class IV. Alternatively, the Director of T&ES may approve AWWA C-151 (ANSI A21.51) Class 52. For roof drainage system, Polyvinyl Chloride (PVC) ASTM D-3034-77 SDR 26 and ASTM 1785-76 Schedule 40 pipes are acceptable. The minimum and maximum velocities are 2.0 fps and 15 fps, respectively. The storm sewers immediately upstream of the first manhole in the public right-of-way shall be owned and maintained privately (i.e., all storm drains not shown within an easement or in a public right-of-way shall be owned and maintained privately). (T&ES) *, ****

F - 7. Construct all sanitary sewers to the City of Alexandria standards and specifications. The minimum diameter of sanitary sewers is 10-inches in the public right-of-way and sanitary lateral 6-inches for all commercial and institutional developments; however, a 4-inch sanitary lateral is acceptable for single family residences. Acceptable pipe materials are Polyvinyl Chloride (PVC) ASTM D-3034-77 SDR 26, ASTM 1785-76 Schedule 40, Ductile Iron Pipe (DIP) AWWA C-151 (ANSI A21.51) Class 52 or reinforced concrete pipe ASTM C-76 Class IV (For 12-inches or larger diameters); Class III may be acceptable on private properties. Minimum and maximum velocities are 2.5 fps and 10 fps, respectively. Laterals shall be connected to the sanitary sewer through a manufactured “Y” or “T” or approved sewer saddle. Where the laterals are being connected to existing Terracotta pipes, replace the section of main and provide manufactured “Y” or “T”, or else install a manhole. (T&ES) *, ****

F - 8. Provide a horizontal separation of 10-feet (edge to edge) between a storm or sanitary sewer and a water line. However, if this horizontal separation cannot be achieved, then install the sewer and water main in separate trenches and set the bottom of the water main at least 18-inches above of the top of the sewer. If both the horizontal and vertical separations cannot be achieved, then use Ductile Iron Pipe (DIP) AWWA C-151 (ANSI A21.51) Class 52 for the sewer pipe material and pressure test it in place without leakage prior to install. (T&ES) *, ****

F - 9. Provide at least 18-inches of vertical separation for sanitary sewer and 12-inches for storm sewer when a water main over crosses or under crosses a sanitary/storm sewer. However, if this cannot be achieved, then construct both the water main and the sanitary/storm sewer

using Ductile Iron Pipe (DIP) AWWA C-151 (ANSI A21.51) Class 52 with joints that are equivalent to water main standards for a distance of 10-feet on each side of the point of crossing. Center a section of water main pipe at the point of crossing and pressure test the pipes in place without leakage prior to installation. Provide adequate structural support for sewers crossing over the water main (i.e., concrete pier support and/or concrete encasement) to prevent damage to the water main. Encase in concrete sanitary sewers under creeks and storm sewer pipe crossings with less than 6-inch clearance. (T&ES) *, ****

F - 10. No water main pipe shall pass through or touch any part of sanitary/storm sewer manhole. Place manholes at least 10-feet horizontally from the water main whenever possible. When local conditions prohibit this horizontal separation, ensure that the manhole is watertight and tested in place. (T&ES) *, ****

F - 11. Maintain at least 12-inches of separation or clearance from water main, sanitary, or storm sewers when crossing underground telephone, cable TV, gas, and electrical duct banks. If this separation cannot be achieved, then use Ductile Iron Pipe (DIP) AWWA C-151 (ANSI A21.51) Class 52 material for the sewer pipe for a distance of 10-feet on each side of the point of crossing and pressure test it in place without leakage prior to installation. Provide adequate structural support for sanitary/storm sewers and water main crossing over the utilities (i.e., pier support and/or concrete encasement) to prevent damage to the utilities. (T&ES) *, ****

F - 12. Design any rip rap per the requirements of Virginia Erosion and Sediment Control Handbook, Latest Edition. (T&ES) *, ****

F - 13. Provide the dimensions of parking spaces, aisle widths, etc. within the parking garage on the Final Site Plan. Exclude column widths from the dimensions. (T&ES) *, ****

F - 14. Show the drainage divide areas on the grading plan or on a sheet that includes topography and structures where each sub-area drains. (T&ES) *

F - 15. Provide proposed elevations (contours and spot shots) in sufficient details on grading plan to clearly show the drainage patterns. (T&ES) *

F - 16. Show all existing and proposed public and private utilities and easements on the Final Site Plan with a narrative. (T&ES) *

F - 17. Provide a Maintenance of Traffic Plan with the Construction Management Plan prior to Final Site Plan release that replicates the existing vehicular, pedestrian, and bicycle routes as closely as practical. Maintain pedestrian and bike access adjacent to the site per Memo to Industry #04-18. (T&ES) *

F - 18. Include these notes on all Maintenance of Traffic Plan Sheets (MOT): (T&ES)

a. Include the statement: “FOR INFORMATION ONLY” on all MOT Sheets. *
b. No sidewalks can remain closed for the duration of the project. Temporary sidewalk closures are subject to separate approval from T&ES at the time of permit application.

c. Contractor shall apply for all necessary permits for uses of the City right-of-way and shall submit MOT Plans with the T&ES Application for final approval at that time.

F - 19. Add complete streets tabulation to the cover sheet with the Final Site Plan submission. (T&ES) *

F - 20. Parking for the residential and commercial uses shall match the Zoning Ordinance requirements in effect at approval by the City Council and/or Planning Commission. (P&Z) (T&ES) *

F - 21. Maintain a separation of 150 feet between the beginning of street corner radius and any driveway apron radius on arterial and collector roadways, with a minimum of 100 feet permitted, subject to the approval of the Director of T&ES. (T&ES) *

F - 22. Maintain a minimum separation of 30 feet on residential streets between the beginning of the street corner radius and any driveway apron radius. (T&ES) *

C - 1 Complete a drainage study and adequate outfall analysis for the total drainage area to the receiving sewer that serves the site, per Article XI of the Zoning Ordinance. If the existing storm system is inadequate, design and build on-site or off-site improvements to discharge to an adequate outfall, even if post development stormwater flow from the site is less than pre-development flow. Demonstrate that a non-erosive stormwater outfall is present to the satisfaction of the Director of T&ES. (T&ES) *

C - 2 Comply with the stormwater quality requirements and provide channel and flood protection per the Article XIII of the Zoning Ordinance. Meet the peak flow requirements of the Zoning Ordinance if the development proposes combined uncontrolled and controlled stormwater outfall. If the project site is within the Braddock-West watershed or a known flooding area, provide an additional 10 percent storage of the pre-development flows in the watershed to meet detention requirements. (T&ES) *

C - 3 Design stormwater facilities that require analysis of pressure hydraulic systems, including but not limited to the design of flow control structures and stormwater flow conveyance systems according to Article XIII of the Zoning Ordinance, § 13-114(F), as signed and sealed by a professional engineer registered in Virginia. Include the adequate outfall, inlet, and hydraulic grade line analyses to the satisfaction of the Director of T&ES. Provide the references and/or sources used to complete these analyses. (T&ES) *

C - 4 Provide additional improvements to adjust lighting levels if the site does not comply with § 13-1-3 of the City Code, to the satisfaction of the Director of T&ES to comply with the Code. (T&ES) *

C - 5 The location of customer utility services and installing transmission, distribution, and main lines in the public rights-of-way by any public service company shall be governed by franchise agreement with the City per Title 5, Ch. 3, § 5-3-2 and § 5-3-3, respectively. The transformers, switch gears, and boxes shall be outside of the public right-of-way. (T&ES)

a. All new customer utility services, extensions of existing customer utility services, and existing overhead customer utility services supplied by any existing overhead facilities must be installed underground below the surface of the ground unless exempted by City Code § 5-3-2, to the satisfaction of the Director of T&ES. *, ****

b. Install all new installation or relocation of poles, towers, wires, lines, cables, conduits, pipes, mains, and appurtenances used or intended to transmit or distribute any service (electric current, telephone, telegraph, cable television, traffic control, fire alarm, police communication, gas, water, steam, or petroleum) whether or not on streets, alleys, or other public places of the City must be installed underground or below the surface of bridges and elevated highways unless exempted by City Code § 5-3-3, to the satisfaction of the Director of T&ES. *, ****

C - 6 Discharge flow from downspouts, foundation drains, and sump pumps to the storm sewer per the requirements of Memorandum to Industry 05-14. Pipe discharges from downspouts and sump pump to the storm sewer outfall, where applicable after treating for water quality per Article XIII of the Zoning Ordinance. (T&ES) *, ****

C - 7 Provide a total turning radius of 25-feet and show turning movements of standard vehicles in the parking lot per the latest AASHTO vehicular guidance per the requirements of Title 4, Ch. 2, Article B, § 4-2-21, Appendix A, § A 106(6), Figure A 106.1 Minimum Standards for Emergency Vehicle Access to the satisfaction of the Directors of T&ES, Office of Building, and Fire Code Administration. (T&ES) *

C - 8 Provide storage space for both trash and recycling materials containers as outlined in the City's "Solid Waste and Recyclable Materials Storage Space Guidelines" to the satisfaction of the Director of Transportation & Environmental Services. Show the turning movements of the collection trucks, minimizing the need to reverse to perform trash or recycling collection. The City's storage space guidelines are at: https://www.alexandriava.gov/ResourceRecovery or by contacting the City's Resource Recovery Division at (703) 746-4410 or commercialrecycling@alexandriava.gov. (T&ES) *

C - 9 Include a note on the Final Site Plan that mandates delivering all solid waste, as defined by the City Charter and Code of the City of Alexandria, to the Covanta Energy Waste Facility located at 5301 Eisenhower Avenue. Stipulate in any future lease or property sales agreement that all tenants and/or property owners shall also comply with this requirement. (T&ES) *

C - 10 Submit a Recycling Implementation Plan to the Solid Waste Division, as outlined in Article H of Title 5 prior to Final Site Plan release. The form is available at: https://www.alexandriava.gov/ResourceRecovery or contact the Resource Recovery Division at (703) 746-4410 or CommercialRecycling@alexandriava.gov. (T&ES) *

C - 11 Satisfy the City's Minimum Standards for Private Streets and Alleys prior to Final Site Plan Release. (T&ES) *

C - 12 Post the bond for the erosion & sediment control before Final Site Plan release as described in the City of Alexandria Memorandum to Industry Number 03-01. (T&ES) *

C - 13 Provide plans and profiles of utilities and roads in public easements and/or public right-of-way for review and approval prior to Final Site Plan release. (T&ES) *

C - 14 Provide a phased erosion and sediment control plan consistent with the grading and construction plan prior to Final Site Plan release. (T&ES) *

C - 15 Provide as-built sewer data with the final as-built process per the Memorandum to Industry, dated July 20, 2005, prior to release of the Performance Bond. Prepare initial site survey work and plans using Virginia State Plane (North Zone) coordinates based on NAD 83 and NAVD 88. Reference the control points/benchmarks used to establish these coordinates. (T&ES) ****

C - 16 Design the thickness of sub-base, base, and wearing course using "California Method" as set forth on page 3-76 of the second edition of a book entitled, "Data Book for Civil Engineers, Volume One, Design" written by Elwyn E. Seelye. Determine the values of California Bearing Ratios used in the design by field and/or laboratory tests. Using an alternate pavement section for Emergency Vehicle Easements to support H-20 loading designed using California Bearing Ratio determined through geotechnical investigation and using VDOT method (Vaswani Method) and standard material specifications is acceptable to the satisfaction of the Director of T&ES. (T&ES) *, ****

C - 17 Provide all pedestrian, traffic, and wayfinding signage per the Manual of Uniform Traffic Control Devices, latest edition to the satisfaction of the Director of T&ES. (T&ES) *

C - 18 No overhangs (decks, bays, columns, post, or other obstructions) shall protrude into public rights-of-ways, public easements, and the pedestrian or vehicular travel ways unless otherwise permitted by the City Code or additional City approvals are obtained. (T&ES) *

C - 19 Design all driveway entrances, curbing, etc. in or abutting public right-of-way per City standards. (T&ES) *

C - 20 All sanitary laterals and/or sewers not shown in the easements shall be owned and maintained privately. (T&ES)

C - 21 Comply with the City of Alexandria's Noise Control Code, Title 11, Ch. 5, which sets the maximum permissible noise level as measured at the property line. (T&ES)

C - 22 Comply with the Alexandria Noise Control Code Title 11, Ch. 5, § 11-5-4(b)(15), which permits construction activities to occur during these hours: (T&ES)

i. Monday Through Friday from 7 AM to 6 PM
ii. Saturdays from 9 AM to 6 PM
iii. No construction activities allowed on Sundays and holidays

a. § 11-5-4(b)(19) further restricts pile driving to these hours:

i. Monday through Friday from 9 AM to 6 PM
ii. Saturdays from 10 AM to 4 PM

iii. No pile driving is allowed Sundays and holidays

b. § 11-5-109 restricts excavating work in the right-of-way to:

i. Monday through Saturday 7 AM to 5 PM
ii. No excavation in the right-of-way allowed on Sundays, New Year's Day, Independence Day, Thanksgiving, and Christmas.

C - 23 Comply with the stormwater pollutant load reduction, treatment of the Alexandria Water Quality Volume Default, and stormwater quantity management per Article XIII of the Zoning Ordinance. (T&ES) *

C - 24 Comply with the City of Alexandria, Erosion, and Sediment Control Code, Title 5, Ch. 4. (T&ES) *

C - 25 Obtain all necessary permits from Virginia Department of Environmental Quality, Environmental Protection Agency, Army Corps of Engineers, and/or Virginia Marine Resources for all project construction and mitigation work prior to Final Site Plan release. This condition includes the state requirement for a state General VPDES Permit for Discharges of Stormwater from Construction Activities (general permit) and associated Stormwater Pollution Prevention Plan for land disturbing activities equal to or greater than one acre. Refer to the Memo to Industry 08-14: http://alexandriava.gov/tes/info/default.aspx?id=3522. (T&ES) *

C - 26 Provide a Stormwater Pollution Prevention Plan (SWPPP) Book with the Final Site Plan. The project's stormwater management (SWM) plan and the erosion and sediment control (E&SC) plan must be approved prior to the SWPPP being deemed approved and processed to receive coverage under the VPDES Construction General Permit. Upon approval, provide an electronic copy of the SWPPP Book with the Signature Set submission and a copy of the coverage letter must be added to the plan sheet containing the stormwater management calculations. Include an electronic copy of the SWPPP Binder Book in the released site plans and include a hardcopy of the SWPPP Binder Book with the on-site construction drawings. Separate parcel owners must seek separate VPDES Construction General Permit Coverage unless a blanket entity incorporated in Virginia has control of the entire project. (T&ES) *

E. Information Technology

R - 1. Development cases should not use any addresses in their case name as existing site addresses may change during development. (GIS)

F. Fire Department

C - 1 Show the location of Fire Department Connections (FDC) prior to Final Site Plan release. (P&Z) (Code) *

R - 1. Consider letting the Alexandria Fire Department use buildings that will be razed for training exercises. The Fire Department will formulate conditions of use between the parties and provide a hold harmless agreement to the owner or their representative.

G. Police Department

R - 2. Plant shrubbery that achieves a natural growth height of no more than 2.5 to 3 feet with a maximum height of 3 feet when it matures to avoid obstructing the view of patrolling law enforcement officers.

Asterisks denote:

* Condition must be fulfilled prior to release of the Final Site Plan
** Condition must be fulfilled prior to release of the building permit
*** Condition must be fulfilled prior to issuance of the Certificate of Occupancy
**** Condition must be fulfilled prior to release of the bond

APPLICATION
SPECIAL USE PERMIT

SPECIAL USE PERMIT # 2023-10004

PROPERTY LOCATION: 5801 Duke Street

TAX MAP REFERENCE: 047.02-03-11 **ZONE:** CDD #29

APPLICANT:

Name: Landmark Land Holdings LLC

Address: 12435 Park Potomac Ave. Suite 200, Potomac, MD 20854

PROPOSED USE: WestEnd Parks Plans per CDD #29

Modification to Section 8-200(B) requested to allow for on street loading for retail pavilions

☑ THE UNDERSIGNED, hereby applies for a Special Use Permit in accordance with the provisions of Article XI, Section 4-11-500 of the 1992 Zoning Ordinance of the City of Alexandria, Virginia.

☑ THE UNDERSIGNED, having obtained permission from the property owner, hereby grants permission to the City of Alexandria staff and Commission Members to visit, inspect, and photograph the building premises, land etc., connected with the application.

☑ THE UNDERSIGNED, having obtained permission from the property owner, hereby grants permission to the City of Alexandria to post placard notice on the property for which this application is requested, pursuant to Article IV, Section 4-1404(D)(7) of the 1992 Zoning Ordinance of the City of Alexandria, Virginia.

☑ THE UNDERSIGNED, hereby attests that all of the information herein provided and specifically including all surveys, drawings, etc., required to be furnished by the applicant are true, correct and accurate to the best of their knowledge and belief. The applicant is hereby notified that any written materials, drawings or illustrations submitted in support of this application and any specific oral representations made to the Director of Planning and Zoning on this application will be binding on the applicant unless those materials or representations are clearly stated to be non-binding or illustrative of general plans and intentions, subject to substantial revision, pursuant to Article XI, Section 11-207(A)(10), of the 1992 Zoning Ordinance of the City of Alexandria, Virginia.

Kenneth W. Wire, Wire Gill LLP		May 26, 2023
Print Name of Applicant or Agent	Signature	Date
700 N. Fairfax Street, Suite 600	703-677-3129	
Mailing/Street Address	Telephone #	Fax #
Alexandria, VA 22314	kwire@wiregill.com	
City and State Zip Code	Email address	

PROPERTY OWNER'S AUTHORIZATION

As the property owner of 5801 Duke Street, I hereby
(Property Address)
grant the applicant authorization to apply for the special use permit use as
(use)
described in this application.

Name: Jay Kelly Phone 240-499-9600
Please Print
Address: 12435 Park Potomac Avenue, Potomac, MD 20854 Email: jkelly@foulgerpratt.com

Signature: Jay Kelly (Aug 24, 2022 09:54 EDT) **Date:** 2/1/2023

1. Floor Plan and Plot Plan. As a part of this application, the applicant is required to submit a floor plan and plot or site plan with the parking layout of the proposed use. The SUP application checklist lists the requirements of the floor and site plans. The Planning Director may waive requirements for plan submission upon receipt of a written request which adequately justifies a waiver.

[✓] **Required floor plan and plot/site plan attached.**

[ ] **Requesting a waiver. See attached written request.**

2. The applicant is the *(check one)*:
[✓] Owner
[ ] Contract Purchaser
[ ] Lessee or
[ ] Other: _____ of the subject property.

State the name, address and percent of ownership of any person or entity owning an interest in the applicant or owner, unless the entity is a corporation or partnership, in which case identify each owner of more than three percent.
See attached disclosure form and attachment.

Last updated: 10.21.2020

OWNERSHIP AND DISCLOSURE STATEMENT

Use additional sheets if necessary

1. Applicant. State the name, address and percent of ownership of any person or entity owning an interest in the applicant, unless the entity is a corporation or partnership, in which case identify each owner of more than three percent. The term ownership interest shall include any legal or equitable interest held at the time of the application in the real property which is the subject of the application.

Name	Address	Percent of Ownership
1. See attached.		
2.		
3.		

2. Property. State the name, address and percent of ownership of any person or entity owning an interest in the property located at 5801 Duke Street (address), unless the entity is a corporation or partnership, in which case identify each owner of more than three percent. The term ownership interest shall include any legal or equitable interest held at the time of the application in the real property which is the subject of the application.

Name	Address	Percent of Ownership
1. See attached.		
2.		
3.		

3. Business or Financial Relationships. Each person or entity indicated above in sections 1 and 2, with an ownership interest in the applicant or in the subject property are require to disclose **any** business or financial relationship, as defined by Section 11-350 of the Zoning Ordinance, existing at the time of this application, or within the12-month period prior to the submission of this application with any member of the Alexandria City Council, Planning Commission, Board of Zoning Appeals or either Boards of Architectural Review. **All fields must be filled out completely. Do not leave blank. (If there are no relationships please indicated each person or entity and "None" in the corresponding fields).**

For a list of current council, commission and board members, as well as the definition of business and financial relationship, click here.

Name of person or entity	Relationship as defined by Section 11-350 of the Zoning Ordinance	Member of the Approving Body (i.e. City Council, Planning Commission, etc.)
1. See attached.	None	None
2.		
3.		

NOTE: Business or financial relationships of the type described in Sec. 11-350 that arise after the filing of this application and before each public hearing must be disclosed prior to the public hearings.

As the applicant or the applicant's authorized agent, I hereby attest to the best of my ability that the information provided above is true and correct.

May 26, 2023	Kenneth W. Wire, Wire Gill LLP	
Date	Printed Name	Signature

West End Block K
Development Special Use Permit
Disclosure Attachment

Applicant and Owner:

Landmark Land Holdings LLC
12435 Park Potomac Ave.
Suite 200
Potomac, MD 20854

The following individuals own more than a 3% interest in the Applicant/Owner entity:

Bryan F. Foulger
Clayton F. Foulger
Brent K. Pratt

Entities with Ownership interest in Applicant and Owner:

1) Foulger-Pratt
12435 Park Potomac Ave.
Suite 200
Potomac, MD 20854

2) Landmark Mall LLC
Landmark Mall LLC is wholly owned by the Howard Research and Development Corporation. The Howard Research and Development Corporation is wholly owned by Howard Hughes Corporation, a publicly traded corporation listed on the New York Stock Exchange.

3) Seritage SRC Finance LLC
Seritage SRC Finance LLC is wholly owned by Seritage SRC Mezzanine Finance LLC. Seritage SRC Mezzanine Finance LLC is wholly owned by Seritage Growth Properties, L. P. which is a publicly traded real estate investment trust company traded on the New York Stock Exchange.

If property owner or applicant is being represented by an authorized agent such as an attorney, realtor, or other person for which there is some form of compensation, does this agent or the business in which the agent is employed have a business license to operate in the City of Alexandria, Virginia?

[X] **Yes.** Provide proof of current City business license

[ ] **No.** The agent shall obtain a business license prior to filing application, if required by the City Code.

NARRATIVE DESCRIPTION

3. The applicant shall describe below the nature of the request **in detail** so that the Planning Commission and City Council can understand the nature of the operation and the use. The description should fully discuss the nature of the activity. (Attach additional sheets if necessary.)

Please see enclosed WestEnd Parks plan which meets the requirements of CDD #29. The Applicant proposes a variety of active and passive open spaces, as well as well-designed landscaping, which will enhance the public realm of the WestEnd development. The proposed parks plan includes retail pavilions, seating areas integrated into the landscape design, passive spaces with interesting plantings, and active uses uses such as an ice skating rink, a playground, etc. The proposed park plan includes 3.5 acres of open space, consistent with the requirements of CDD #29. The Applicant requests a modification to allow for on-street loading for the retail pavilions set within the open space due to the size of the pavilions, building constraints and the integration of the pavilions within the urban design of the parks.

USE CHARACTERISTICS

4. The proposed special use permit request is for *(check one):*

[ ] a new use requiring a special use permit,
[ ] an expansion or change to an existing use without a special use permit,
[ ] an expansion or change to an existing use with a special use permit,
[✓] other. Please describe: Parks Plan

5. Please describe the capacity of the proposed use:

A. How many patrons, clients, pupils and other such users do you expect?
Specify time period (i.e., day, hour, or shift).

Parks Plan will support overall WestEnd development. See approved CDD #29 for approved density and uses.

B. How many employees, staff and other personnel do you expect?
Specify time period (i.e., day, hour, or shift).

See approved CDD #29 for approved density and uses.

6. Please describe the proposed hours and days of operation of the proposed use:

Day:	Hours:
7 days per week	24 hours per day

7. Please describe any potential noise emanating from the proposed use.

A. Describe the noise levels anticipated from all mechanical equipment and patrons.

Noise from retail in parks will be minimal.

B. How will the noise be controlled?

Retail and property management; proposed retail is subject to the City noise ordinance.

8. Describe any potential odors emanating from the proposed use and plans to control them:

If retail includes restaurants, scrubbers may be used.

9. Please provide information regarding trash and litter generated by the use.

A. What type of trash and garbage will be generated by the use? (i.e. office paper, food wrappers)

Typical of retail proposed; typical of parks spaces

B. How much trash and garbage will be generated by the use? (i.e. # of bags or pounds per day or per week)

Typical of retail proposed; typical of parks spaces

C. How often will trash be collected?

1-2 times per week

D. How will you prevent littering on the property, streets and nearby properties?

Property managment

10. Will any hazardous materials, as defined by the state or federal government, be handled, stored, or generated on the property?

[ ] Yes. [✓] No.

If yes, provide the name, monthly quantity, and specific disposal method below:

11. Will any organic compounds, for example paint, ink, lacquer thinner, or cleaning or degreasing solvent, be handled, stored, or generated on the property?

[✓] Yes. [ ] No.

If yes, provide the name, monthly quantity, and specific disposal method below:

Cleaning, building and parks maintenance supplies may be used and stored

12. What methods are proposed to ensure the safety of nearby residents, employees and patrons?

Building and property management, lighting, other security measures

ALCOHOL SALES

13.

A. Will the proposed use include the sale of beer, wine, or mixed drinks?

[ ] Yes [✓] No *Unknown at this time; depends on ultimate retail tenant*

If yes, describe existing (if applicable) and proposed alcohol sales below, including if the ABC license will include on-premises and/or off-premises sales.

PARKING AND ACCESS REQUIREMENTS

14. A. How many parking spaces of each type are provided for the proposed use:

No parking is required for retail uses

_____ Standard spaces

_____ Compact spaces

_____ Handicapped accessible spaces.

_____ Other.

Planning and Zoning Staff Only
Required number of spaces for use per Zoning Ordinance Section 8-200A_____
Does the application meet the requirement? [ ] Yes [ ] No

B. Where is required parking located? *(check one)*

[✓] on-site There is street parking and collector garage.

[ ] off-site

If the required parking will be located off-site, where will it be located?

_____

PLEASE NOTE: Pursuant to Section 8-200 (C) of the Zoning Ordinance, commercial and industrial uses may provide off-site parking within 500 feet of the proposed use, provided that the off-site parking is located on land zoned for commercial or industrial uses. All other uses must provide parking on-site, except that off-street parking may be provided within 300 feet of the use with a special use permit.

C. If a reduction in the required parking is requested, pursuant to Section 8-100 (A) (4) or (5) of the Zoning Ordinance, complete the PARKING REDUCTION SUPPLEMENTAL APPLICATION.

[ ] Parking reduction requested; see attached supplemental form

15. Please provide information regarding loading and unloading facilities for the use:

A. How many loading spaces are available for the use? 0

Modification requested to provide 0 loading spaces

Planning and Zoning Staff Only
Required number of loading spaces for use per Zoning Ordinance Section 8-200_____
Does the application meet the requirement? [ ] Yes [ ] No

B. Where are off-street loading facilities located? N/A

C. During what hours of the day do you expect loading/unloading operations to occur?
Normal business hours

D. How frequently are loading/unloading operations expected to occur, per day or per week, as appropriate?
Depending on the ultimate retail tenants, 1-2 times per day

16. Is street access to the subject property adequate or are any street improvements, such as a new turning lane, necessary to minimize impacts on traffic flow?

Street access to property was approved pursuant to CDD #29

SITE CHARACTERISTICS

17. Will the proposed uses be located in an existing building? [ ] Yes [✓] No

Do you propose to construct an addition to the building? [✓] Yes [ ] No

How large will the addition be? see DSUP Plans square feet.

18. What will the total area occupied by the proposed use be? *Please see approved CDD & DSUPs*

_____ sq. ft. (existing) + _____ sq. ft. (addition if any) = _____sq. ft. (total)

19. The proposed use is located in: *(check one)*
[✓] a stand alone building
[ ] a house located in a residential zone
[ ] a warehouse
[ ] a shopping center. Please provide name of the center: _____
[ ] an office building. Please provide name of the building: _____
[✓] other. Please describe: Please see DSUP plans

End of Application

Department of Planning & Zoning
Special Use Permit Application Checklist

Supplemental application for the following uses:

- ☐ Automobile Oriented
- ☐ Parking Reduction
- ☐ Signs
- ☐ Substandard Lot
- ☐ Lot modifications requested with SUP use

Interior Floor Plan

- ☐ Include labels to indicate the use of the space (doors, windows, seats, tables, counters, equipment)

If Applicable

- ☑ Plan for outdoor uses

Contextual site image

- ☑ Show subject site, on-site parking area, surrounding buildings, cross streets

GOROVE SLADE
Transportation Planners and Engineers

TECHNICAL MEMORANDUM

To: Sara Brandt-Vorel — Foulger-Pratt

From: Maria Ponton
Felice Brychta, P.E.
Rob Schiesel, P.E.

Date: March 16, 2023

Subject: Landmark Mall Redevelopment – Retail Pavilions Parking Memo

Introduction

This memorandum describes the parking allocation and management of parking facilities associated with the retail pavilions in Block F and Block N of the WestEnd development located in Alexandria, Virginia. The overall site is bounded by the Henry G. Shirley Memorial Highway (I-395) to the north and west, Duke Street to the south, and N Van Dorn Street to the east. Within the site, Block F is bounded by Block E to the north, Westend Boulevard to the south, Tucker Street to the west, and Alex Way to the east; Block N is bounded by Block G to the north, Westend Boulevard to the south, Alex Way to the west, and Verve Street to the east.

Per the March 2023 DSUP submission, the pavilion within Block F (Pavilion 1) will consist of approximately 7,279 square feet of commercial space reserved for retail, and the pavilion within Block N (Pavilion 2) will consist of approximately 4,064 square feet of commercial space also reserved for retail. An existing above-grade parking facility is located one (1) block north of the retail pavilions and will be shared by Block E, Block G, Block I, the retail use associated with Block K, and the Hospital Campus. Details regarding the shared facility are available in the parking management plans for the blocks that will use it.

The following narrative and figures describe the planned access, allocation, and quantities of parking spaces for the retail pavilions.

Project Contact Information

Sara Brandt-Vorel
Development Manager
Foulger-Pratt
12435 Park Potomac Avenue
Suite 200
Potomac, MD 20854
(240) 744-0453

Parking Access

Vehicular access to the existing parking facility is proposed via three (3) entrance/exit access points on the south side of the garage and one (1) entrance/exit access point on the east side of garage. Direct access to the to the parking spaces available for users of the retail pavilions will be available from Alex Way.

Parking Allocation

Required Parking

Per the March 2023 DSUP submission, Pavilion 1 consists of 7,279 square feet of retail space. Based on City of Alexandria's Zoning Ordinance, the proposed development is required to provide a minimum of two (2) spaces and a maximum of 22 spaces.

Per the March 2023 DSUP submission, Pavilion 2 consists of 4,064 square feet of retail space. Based on City of Alexandria's Zoning Ordinance, the proposed development is required to provide a minimum of two (2) spaces and a maximum of 13 spaces.

However, per the City of Alexandria's Zoning Ordinance, "nonresidential uses that have a minimum parking requirement of two spaces or less shall be exempt from providing the spaces." As such, Pavilion 1 and Pavilion 2 are not required to provide parking on site. Detailed parking calculations are provided in Attachment A.

Parking Provided

The existing parking facility currently provides more parking than the maximum required for retail uses of Block I, Block E, and Block G. If needed, parking for retail visitors of Pavilion 1 and Pavilion 2 will be available within walking distance on Level 1 of the above grade parking facility. Figure 1 provides an overview of the location of Block F and Block N and the existing parking facility.

Bicycle Parking

According to the City of Alexandria's current Bicycle Parking Standards, the retail requirement is "two (2) Class 2 or Class 3 spaces for every 10,000 square feet, or portion thereof, of the first 50,000 square feet of retail floor area; one (1) space for every 12,500 square feet, or portion thereof, of additional retail floor area and one (1) employee space for every 25,000 square feet, or portion thereof, of retail floor area."

Pavilion 1 includes 7,279 square feet of commercial space reserved for retail which results in two (2) spaces required for retail use and one (1) space required for employee use for a total of three (3) spaces.

Pavilion 2 includes 4,064 square feet of commercial space reserved for retail which results in one (1) space required for retail use and one (1) space required for employee use for a total of two (2) spaces.

A total of 12 bicycle racks or 24 spaces will be provided external to the garage at street level near building entrances. Location of the bicycle racks is shown on Figure 2.

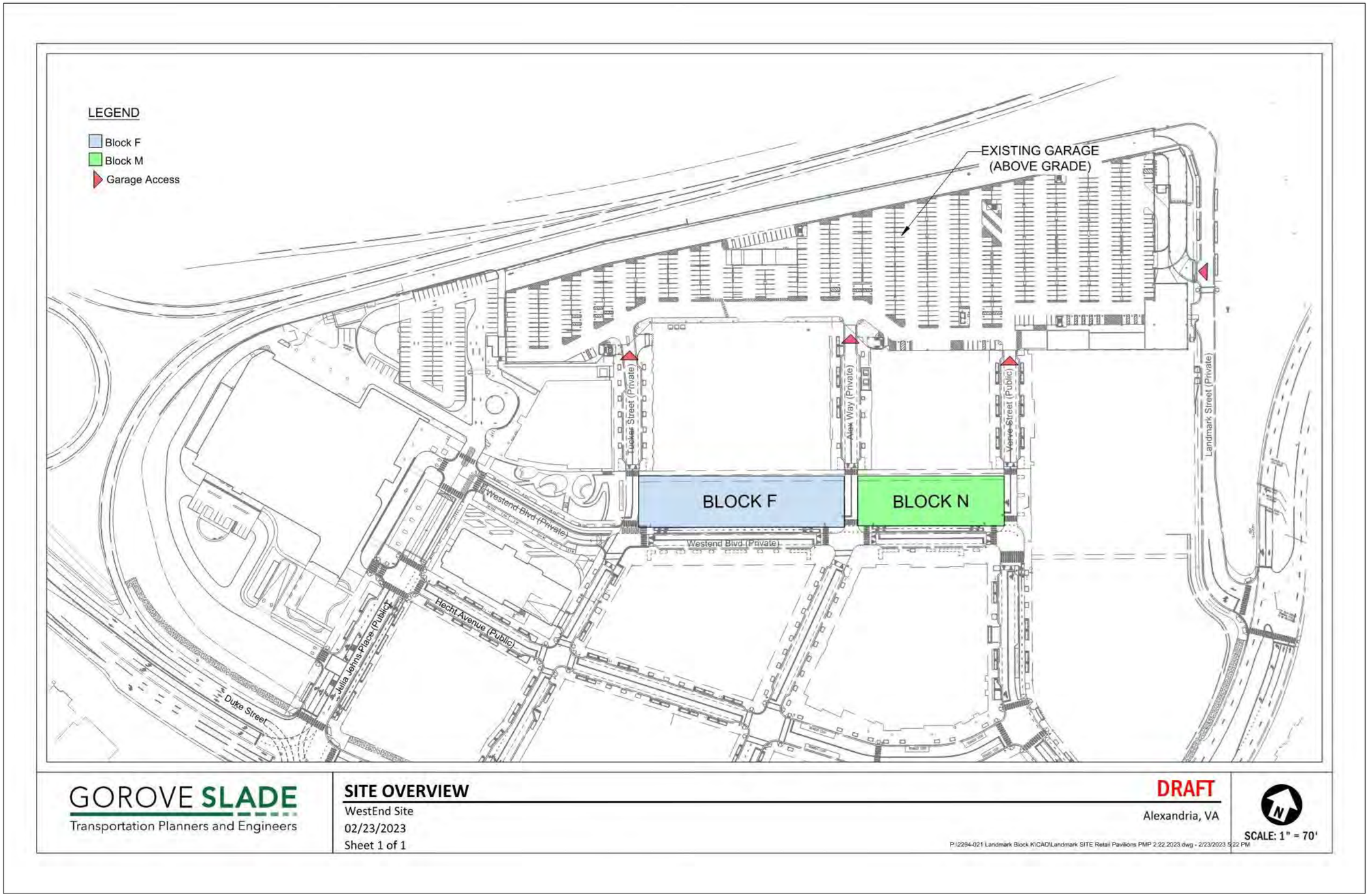


Figure 1: Site Overview

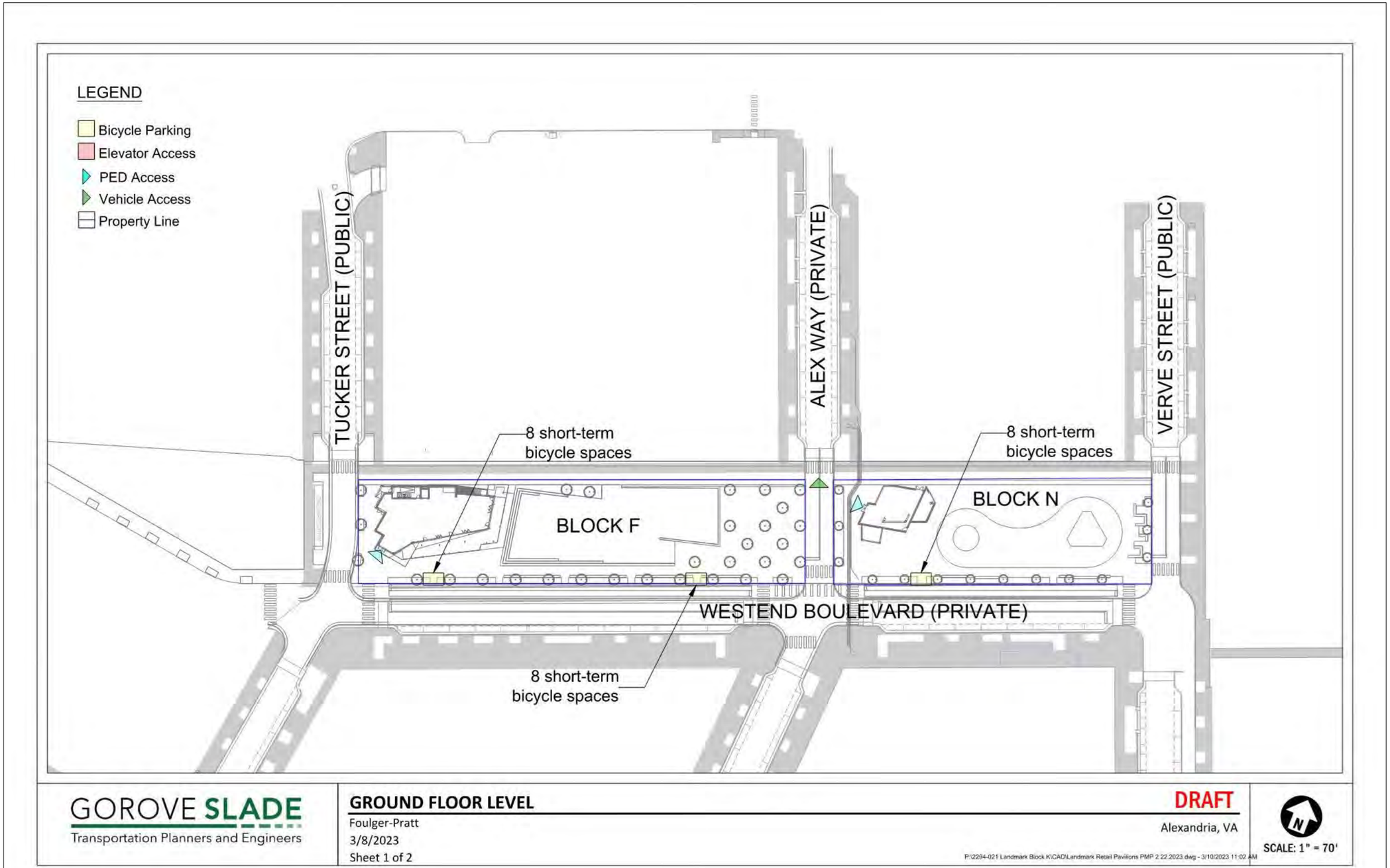


Figure 2: Retail Pavilions Ground Floor Level

ATTACHMENT A

City of Alexandria's Parking Requirements

Zoning Requirements Based on Residential Performance-Based City Standards **(Minimums)**

	Zoning Ratio[1]			Development Size			Minimum Spaces[2]
Non-Residential							
Specific Commercial (Retail Pavilion 1 - Block F)	0.25	/ksf	x	7.279	ksf	=	2
Specific Commercial (Retail Pavilion 2 - Block N)	0.25	/ksf	x	4.064	ksf	=	2
Non-Residential Subtotal							**4**
Total with Zoning Requirements							**4**

Notes:
1. Parking ratio for specific commercial uses is 0.25 spaces per 1,000 sf for a project located inside the Enhanced Transit Area per City of Alexandria's Parking Code dated September 29, 2020.
2. Non-residential uses that have a minimum parking requirement of 2 spaces or less shall be exempt from providing the spaces, per City of Alexandria's parking code dated September 29, 2020.

Zoning Requirements Based on Residential Performance-Based City Standards **(Maximums)**

	Zoning Ratio[1]			Development Size			Maximum Spaces
Non-Residential							
Specific Commercial (Retail Pavilion 1 - Block F)	3	/ksf	x	7.279	ksf	=	22
Specific Commercial (Retail Pavilion 2 - Block N)	3	/ksf	x	4.064	ksf	=	13
Non-Residential Subtotal							**35**
Total with Zoning Requirements							**35**

Notes:
1. Parking ratio for specific commercial uses is 3 spaces per 1,000 sf for a project located inside the Enhanced Transit Area per City of Alexandria's Parking Code dated September 29, 2020.

LANDMARK MALL REDEVELOPMENT

PRELIMINARY SITE PLAN - PARKS

CITY OF ALEXANDRIA, VIRGINIA

DATE: MAY 26, 2023

PROJECT TEAM

APPLICANT
FOULGER-PRATT DEVELOPMENT, LLC
12435 PARK POTOMAC AVE
SUITE 200
POTOMAC, MD 20854
TEL. 240-499-9684
CONTACT: JAY KELLY

CIVIL ENGINEER
URBAN, LTD.
4200D TECHNOLOGY COURT
CHANTILLY, VA 20151
TEL. 703-376-4221
CONTACT: CLAYTON TOCK, P.E.

TRAFFIC ENGINEER
GOROVE SLADE
225 REINEKERS LANE
SUITE 750
ALEXANDRIA, VA 22314
TEL. 202-540-1926
CONTACT: ROBERT SCHIESEL, P.E.

UTILITY ENGINEER
DAVIS UTILITY CONSULTING, LLC
3975 FAIR RIDGE DRIVE
SUITE 125-SOUTH
FAIRFAX, VA 22033
TEL. 703-945-9606
CONTACT: DAVIS GRAHAM

ATTORNEY
WIRE GILL LLP
700 NORTH FAIRFAX STREET
SUITE 600
ALEXANDRIA, VA 22314
TE. 703-677-3129
CONTACT: KENNETH WIRE

LANDSCAPE ARCHITECT
OCULUS
1611 CONNECTICUT AVE, NW
3RD FLOOR
WASHINGTON, DC 20009
TEL. 202-588-5454
CONTACT: DON HOOVER

ARCHITECT
CORE
1010 WISCONSIN AVE NW
SUITE 405
WASHINGTON DC, 20007
202-464-7475
CONTACT: CHRISTOPHER PELI

AREA TABULATIONS:

BLOCK F LOT AREA = 31,872 S.F. 0.732 AC.
BLOCK N LOT AREA = 22,509 S.F. 0.517 AC.
BLOCK R LOT AREA = 21,009 S.F. 0.482 AC.
BLOCK P LOT AREA = 128,715 S.F. 2.955 AC.

ZONING TABULATIONS:

ON-SITE LOCATIONS / ADDRESSES: T.M. #047.02-03-11 / 5801 DUKE ST. ALEXANDRIA, VA 22314-1930

TOTAL SITE/LOT AREA: 204,105 S.F. OR 4.686 AC.
TOTAL IMPERVIOUS AREA: 24,895 SF OR 0.57 AC.
TOTAL DISTURBED AREA: 146,845 SF OR 3.37 AC.

EXISTING ZONE: CDD #29 (COORDINATED DEVELOPMENT DISTRICT #29)
PROPOSED ZONE: CDD #29 (COORDINATED DEVELOPMENT DISTRICT #29)
OPEN SPACE REQUIREMENTS: SEE SHEETS 03A & 20.

EXISTING USE: SHOPPING CENTER/DEMOLISHED
PROPOSED USE: PARKS AND RETAIL/RESTAURANT

FLOOR AREA CALCULATION:

PAVILION 1	NET AREA (SF)	GROSS AREA (SF)	F.A.R
RETAIL/RESTAURANT	4,610	7,279	0.23
TOTAL	4,610	7,279	0.23

PAVILION 2	NET AREA (SF)	GROSS AREA (SF)	F.A.R
RETAIL/RESTAURANT	1,661	4,064	0.18
TOTAL	1,661	4,064	0.18

DENSITY:
BLOCK F: N/A
BLOCK N: N/A
BLOCK R: N/A
BLOCK P: N/A

MIN/MAX BLDG.: PAVILION 1: -- FT. MIN, -- FT. MAX.
PAVILION 2: -- FT. MIN, -- FT. MAX.

PROPOSED BUILDING HEIGHT NOT TO EXCEED : PAVILION 1: 38'-0" FT.
PAVILION 2: 33'-0" FT.

BUILDING HEIGHT (STORIES): PAVILION 1: 2-STORIES
PAVILION 2: 2-STORIES

AVG. FINISHED GRADE: PAVILION 1: 208.9' FT.
PAVILION 2: 201.625' FT.

YARDS: REQUIRED: N/A PROPOSED: N/A

FRONTAGE: REQUIRED: N/A PROPOSED: N/A

PARKING TABULATIONS:

PAVILION 1 REQUIRED PARKING:
RATIO: *0.25 SP/1,000 SF =7,279 S.F X 0.25/1000= **2 SPACES.

PAVILION 2 REQUIRED PARKING:
RATIO: *0.25 SP/1,000 SF =4,064 S.F X 0.25/1000= **2 SPACES.

* PARKING RATIOS REFLECT SEC. 8-200 PER CITY OF ALEXANDRIA ZONING ORDINANCE.

** PER SEC. 8-100(A)(9) NONRESIDENTIAL USES THAT HAVE A PARKING REQUIREMENT OF TWO SPACES OR LESS SHALL BE EXEMPT FROM PROVIDING THE SPACES.

PAVILION 1 PROVIDED PARKING:
NO PARKING REQUIRED. ADDITIONAL PARKING PROVIDED IN THE EXISTING GARAGE (SEE ATTACHED PMP)

PAVILION 2 PROVIDED PARKING:
NO PARKING REQUIRED. ADDITIONAL PARKING PROVIDED IN THE EXISTING GARAGE (SEE ATTACHED PMP)

LOADING SPACE REQUIRED:
PAVILION 1: 1/20,000 SF (RETAIL)= 7,279 X 1/20,000= 1 SPACE
PAVILION 2: 1/20,000 SF (RETAIL)= 4,064 X 1/20,000= 1 SPACE

LOADING SPACE PROVIDED:
PAVILION 1: 1 SPACE (ON-STREET, EAST SIDE OF TUCKER ST.)
PAVILION 2: 1 SPACE (ON-STREET, EAST SIDE OF ALEX WAY)

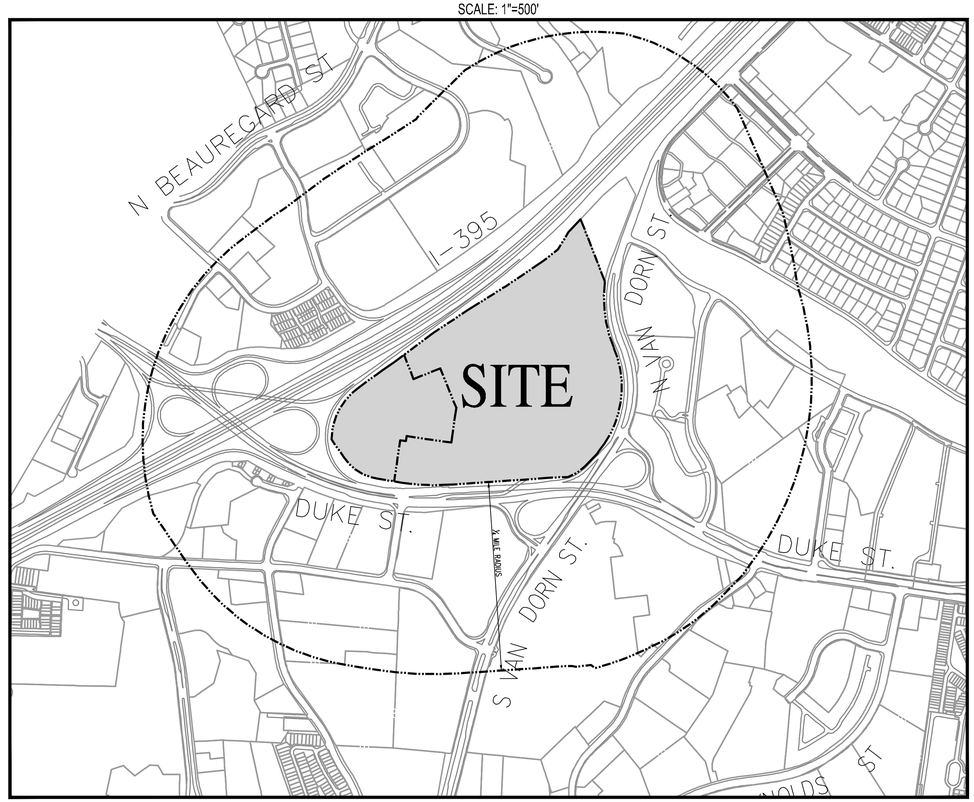
TRIP GENERATION:

NO TRIPS ARE BEING GENERATED BY THE PROPOSED PARK DEVELOPMENTS.

BUILDING CODE ANALYSIS:

SEE SHEET A.00

VICINITY MAP
SCALE: 1"=500'



SHEET INDEX

Sheet List Table

Sheet Number	Sheet Title		
01	COVER SHEET	A.00	PAVILION INFORMATION
02-03B	GENERAL NOTES & DETAILS	A.01	PAVILION SECTIONS AND FAR DIAGRAM
04	PROPERTY EXHIBIT	A.02	PAVILION 1 ELEVATIONS
05	CONTEXTUAL PLAN	A.03	PAVILION 1 MASS ORIENTATION DIAGRAMS
06	OVERALL EXISTING CONDITIONS	A.04	PAVILION 1 RENDERING
07-10	EXISTING CONDITIONS	A.05	PAVILION 1 - GROUND FLOOR
11	OVERVIEW PLAN	A.06	PAVILION 1 - SECOND FLOOR
12-15	SITE PLAN	A.07	PAVILION 1 - ROOF PLAN
16-19	GRADING PLAN	A.08	PAVILION 1 - BASEMENT
19A-19D	UTILITY PLAN	A.09	PAVILION 2 ELEVATIONS
19E-19G	GIS DIMENSION PLAN	A.10	PAVILION 2 MASS ORIENTATION DIAGRAMS
20	MASTER OPEN SPACE	A.11	PAVILION 2 RENDERING
21	SANITARY SEWER PLAN	A.12	PAVILION 2 - GROUND FLOOR
22	SANITARY SEWER COMPUTATIONS	A.13	PAVILION 2 - ROOF PLAN
23	BMP PLAN	A.14	PAVILION 2 - BASEMENT
23A-23B	BMP COMPUTATIONS	L0001	ILLUSTRATIVE PLAN
23C	WQVD DATA BLOCKS	L0002	OPEN SPACE PLAN
24	PRE SWM PLAN	L0003	KEY PLAN
25	POST SWM PLAN	L0004	DOG RELIEF AREA DIAGRAM
26-29	STORMWATER MANAGEMENT COMPUTATIONS	L0100	MATERIALS SCHEDULE
30-34	OUTFALL ANALYSIS	L0110-L0114	MATERIALS PLAN - AREA 1-5
35-38	TEMPORARY PEDESTRIAN EXHIBIT	L0701	ICE RINK DIAGRAM
39	FIRE SERVICE PLAN	L0702	PAVING TRANSITION DIAGRAM
40	OVERALL TREE PRESERVATION PLAN	L0910-L0914	PLANTING PLAN - AREA 1-5
41-42	TREE PRESERVATION PLAN	L1000	PLANTING SCHEDULE
43	TREE INVENTORY	L1001	CANOPY COVERAGE MASTERPLAN
44	TREE PRESERVATION NOTES AND DETAILS	L1010-L1011	PLANTING DETAILS
45-47	STREET SECTIONS	PL001	PLAYGROUND PLAN
		PL002	PLAYGROUND DETAILS
		LT001-LT005	SITE LIGHTING PLAN - AREA 1-5
		LT010	LIGHTING FIXTURE SCHEDULE & CUTS
		LT020-LT025	LIGHTING FIXTURE CUT SHEETS
		R100	SKATING TRAIL FLOOR PLAN
		R500	ICE RINK DETAILS AND SECTIONS

TOTAL SHEETS= 117

PROJECT NARRATIVE:

DESCRIPTION OF DEVELOPMENT:
THE OVERALL LANDMARK PARCEL IS BORDERED TO THE NORTH BY HENRY G. SHIRLEY MEMORIAL HWY (I-395), TO THE SOUTHEAST BY DUKE STREET, AND TO THE EAST BY VAN DORN STREET.

THIS PLAN PROPOSES THE PUBLIC PARK IMPROVEMENTS LOCATED IN BLOCK F,N,R, AND P. THE PARK AMENITIES ARE BEING PROPOSED ALONG WITH THE NECESSARY INFRASTRUCTURE TO SUPPORT THE PARK FACILITIES/AMENITIES.

SPECIAL AMENITIES:
AS PART OF THE OVERALL PROPOSED DEVELOPMENT FOR THE SITE, THE APPLICANT PROPOSES TO PROVIDE SPECIAL AMENITIES INCLUDING A MINIMUM 3.5 ACRES OF OPEN SPACE NETWORK TO INCLUDE A CENTRAL PARK, PASEO, TERRACE PARK, AND A PLAYGROUND. COLLECTIVELY, THESE PARKS WILL PROVIDE A MIX OF ACTIVE AND PASSIVE USES, AS WELL AS A COMBINATION OF LANDSCAPE AND HARDSCAPE AREAS, FOR RESIDENTS AND VISITORS ALIKE.

THE CDD CONDITIONS OUTLINED THE AMENITIES REQUIRED WITH THE INFRASTRUCTURE PLAN. THOSE AMENITIES HAVE BEEN PROVIDED HEREIN.

ADJACENT PROPERTIES:
OVERALL, ANY ADJACENT PROPERTIES ARE SEPARATED FROM THE SITE BY MAJOR ROADWAYS, AND IN COMBINATION WITH STEPS PROPOSED BELOW, THE APPLICANT DOES NOT ANTICIPATE ADVERSE EFFECTS FOR THOSE PROPERTIES AS A RESULT OF THE PROPOSED DEVELOPMENT.

ADJACENT PROPERTIES SHALL BE PROTECTED FROM ADVERSE EFFECTS VIA STANDARD EROSION AND SEDIMENT CONTROL MEASURES, ALONGSIDE EFFORTS TO REDUCE THE OVERALL RUNOFF FROM THE SITE. IN ADDITION, BOTH ON AND OFFSITE IMPROVEMENTS MITIGATING THE IMPACT OF ADDITIONAL TRAFFIC SHALL BE PROVIDED AS PART OF THE APPROPRIATE DSUP PHASES OF DEVELOPMENT, AND AS DETERMINED BY TRIGGERS PROVIDED IN THE TRAFFIC STUDY.

PRIMARY ACCESS TO THE SITE WILL BE FROM SIGNALIZED INTERSECTIONS ON DUKE AND VAN DORN STREETS.

LIST OF EXISTING APPROVALS:

- CDD #2020-00007
- DSP #2021-00012
- DSP #2021-00017
- SUB #2021-00003
- SUB #2022-00005
- GRD #2022-00012

LIST OF REQUESTED APPROVALS:

- **DSUP #2023-____**
- **MODIFICATION FOR ON STREET LOADING.**

GREEN BUILDING POLICY STATEMENT:

THE PROPOSED STRUCTURES WITH PARK PLAN WILL COMPLY WITH THE CITY'S CURRENT GREEN BUILDING POLICY AND THE REQUIREMENTS OF (CDD #2020-00007) AT THE TIME OF DSUP SUBMISSION. PLEASE SEE SHEET 03B.

COMMONWEALTH OF VIRGINIA
CLAYTON C. TOCK
Lic. No. 036790
05/26/2023
PROFESSIONAL ENGINEER

PLAN DATE	REVISION
02-11-2022	1ST SUBMISSION
12-09-2022	2ND SUBMISSION
03-17-2023	3RD SUBMISSION
05-26-2023	4TH SUBMISSION
-	
-	
-	
-	
-	
-	

urban
Urban, Ltd.
4200 D TECHNOLOGY CT.
CHANTILLY, VA. 20151
TEL. 703.642.2306
FAX 703.378.7808
www.urban-ltd.com
Planners•Engineers•Landscape Architects•Land Surveyors

APPROVED
SPECIAL USE PERMIT NO. _____
DEPARTMENT OF PLANNING & ZONING
DIRECTOR DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
DIRECTOR DATE
CHAIRMAN, PLANNING COMMISSION DATE
DATE RECORDED _____
INSTRUMENT NO. DEED BOOK NO. PAGE NO.

5/25/2023 2:18 PM YOUSSEF EL ASRI J:\JOBS\LANDMARKMALL\DSUP\BLOCK-PARKS\PRELIMINARY SP\13089-01-COVER.DWG

GENERAL NOTES

1. THE SUBJECT SITE IS LOCATED ON THE FOLLOWING CITY OF ALEXANDRIA ASSESSMENT MAP NO.s: LOT 602 LANDMARK MALL REDEVELOPMENT R/S: 047.02-03-11 (5801 DUKE ST), AND IS ZONED CDD.
2. OWNER: LANDMARK LAND HOLDINGS, LLC C/O FOULGER-PRATT DEVELOPMENT, LLC
3. ADDRESS: 12435 PARK POTOMAC AVE, SUITE 200, POTOMAC, MD, 20854
4. AREA TABULATION: REFER TO SHEETS 01 AND 09.
5. THE NATURAL SOILS AT THE SITE CONSIST OF KINGSTOWNE SANDY CLAY LOAM AND URBAN LAND PER THE USDA SOIL MAP.
6. THE SITE IS LOCATED IN THE HOLMES RUN WATERSHED.
7. CONSTRUCTION PERMITS ARE REQUIRED FOR THIS PROJECT. THE APPROVED SITE PLAN MUST BE ATTACHED TO THE PERMIT APPLICATION THAT FULLY DETAILS THE CONSTRUCTION AS WELL AS LAYOUTS AND SCHEMATICS OF THE MECHANICAL, ELECTRICAL, AND PLUMBING SYSTEMS.
8. ALL PUBLIC AND PRIVATE EASEMENTS OR ALL KNOWN PUBLIC AND PRIVATE EASEMENTS, INCLUDING ALL UTILITY, EGRESS, AND CONSERVATION RESTRICTIONS ARE SHOWN. THE APPLICANT SHALL NOT CONSTRUCT ANY PERMANENT STRUCTURES OVER ANY EXISTING OR PROPOSED PUBLIC EASEMENTS UNLESS OTHERWISE APPROVED BY THE PLANNING COMMISSION AND CITY OF ALEXANDRIA COUNCIL.
9. PLAT SUBJECT TO RESTRICTIONS OF RECORD.
10. BUILDING HEIGHT SHALL NOT EXCEED THE ALLOWABLE LIMIT BY CITY OF ALEXANDRIA ZONING ORDINANCE OR AS APPROVED BY THE PLANNING COMMISSION AND CITY OF ALEXANDRIA COUNCIL.
11. ALL NEW CONSTRUCTION SHALL CONFORM TO THE CURRENT STANDARDS AND SPECIFICATIONS OF THE CITY OF ALEXANDRIA AND TO THE VIRGINIA UNIFORM STATEWIDE BUILDING CODE (USBC).
12. FLOOR AREA CALCULATIONS WITH ALLOWABLE LIMITS, AS APPROVED BY PLANNING COMMISSION AND CITY COUNCIL, ARE DEMONSTRATED HEREIN.
13. PRIOR TO COMMENCING NEW WORK, THE CONTRACTOR SHALL PROTECT FROM DAMAGE ALL EXISTING ADJACENT AREAS. IF CITY'S EXISTING PUBLIC INFRASTRUCTURE, INCLUDING BUT NOT LIMITED TO, STREETS, ALLEYWAYS, DRIVEWAY APRONS, SANITARY AND STORM SEWERS, STREET LIGHTING, TRAFFIC AND PEDESTRIAN SIGNALS, SIDEWALKS, CURB AND GUTTER, AND STORM WATER DROP INLET STRUCTURES ARE DAMAGED BY THE CONTRACTOR OR BY ACTIVITIES RELATING TO THE SITE CONSTRUCTION THEN THE APPLICANT SHALL REPAIR THE SAME TO THE SATISFACTION OF DIRECTOR, TRANSPORTATION AND ENVIRONMENTAL SERVICES (T&ES). A PRE-CONSTRUCTION WALK/SURVEY OF THE SITE SHALL OCCUR WITH CONSTRUCTION AND INSPECTION STAFF TO DOCUMENT EXISTING CONDITIONS PRIOR TO ANY LAND DISTURBING ACTIVITY.
14. ALL IMPROVEMENTS TO THE CITY'S RIGHT-OF-WAY SUCH AS CURB, GUTTER, SIDEWALK, AND DRIVEWAY APRONS, ETC., ARE DESIGNED PER THE CITY OF ALEXANDRIA STANDARDS AND SPECIFICATIONS.
15. ALL STREET CUT AND PATCH WORK LOCATED IN PUBLIC RIGHT-OF-WAYS, REQUIRED FOR ANY UTILITY INSTALLATION SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE CITY OF ALEXANDRIA STANDARDS AND SPECIFICATIONS AND TO THE SATISFACTION OF THE DIRECTOR OF TRANSPORTATION AND ENVIRONMENTAL SERVICES (T&ES).
16. CONTRACTOR MUST ENSURE THAT THERE IS NO DISTURBANCE ON ADJACENT PROPERTIES WITHOUT RECORDED EASEMENT OR NOTARIZED LETTER OF PERMISSION FROM THE ADJACENT PROPERTY OWNERS.
17. ALL REQUIRED STATE AND FEDERAL PERMITS, WHICH COULD INCLUDE PERMITS FROM THE VIRGINIA DEPARTMENT OF CONSERVATION AND RECREATION (VDCR), VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY (VDEQ), VIRGINIA DEPARTMENT OF HISTORIC RESOURCES (VDHR), US ARMY CORPS OF ENGINEERS ENVIRONMENTAL PROTECTION AGENCY (USEPA), ARMY CORPS OF ENGINEERS AND VIRGINIA MARINE RESOURCES, MUST BE IN PLACE FOR ALL PROJECT CONSTRUCTION AND MITIGATION WORK PRIOR TO RELEASE OF THE FINAL SITE PLAN. THIS INCLUDES THE STATE REQUIREMENT FOR A VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSMP) GENERAL PERMIT FOR DISCHARGES OF STORMWATER FROM CONSTRUCTION ACTIVITIES FOR LAND DISTURBING ACTIVITIES GREATER THAN 2,500. INFORMATION REGARDING THE VSMP GENERAL PERMIT CAN BE FOUND ONLINE AT: http://www.dcr.virginia.gov/soil_and_water/vsmp.shtml.
18. PERMITS FROM THE CITY OF ALEXANDRIA OFFICE OF ENVIRONMENTAL QUALITY (OEQ), TRANSPORTATION AND ENVIRONMENTAL SERVICES (T&ES), AND BUILDING AND FIRE CODE ADMINISTRATION SHALL BE OBTAINED BY THE APPLICANT, AS REQUIRED AND DOCUMENTED HEREIN. THE CONTRACTOR CAN CONTACT ALEXANDRIA FIRE AND CODE ADMINISTRATION DEPARTMENT AT (703) 838-4644 OR (703) 746-4200 FOR ANY QUESTIONS OR ADDITIONAL INFORMATION.
19. ANY WORK IN THE PUBLIC RIGHT OF WAY SHALL REQUIRE A SEPARATE PERMIT FROM THE DIRECTOR, TRANSPORTATION AND ENVIRONMENTAL SERVICES. THE CONTRACTOR CAN CONTACT THE DEPARTMENT OF TRANSPORTATION AND ENVIRONMENTAL SERVICES AT (703) 746-4035 FOR ANY QUESTIONS OR ADDITIONAL INFORMATION.
20. THE PROPERTY ADDRESS MUST BE CLEARLY MARKED IN THE FRONT AND BACK OF THE PROPOSED DEVELOPMENT SITE DURING CONSTRUCTION FOR EMERGENCY RESPONSE PURPOSES IN CONTRASTING COLORS FOR EASY IDENTIFICATION.
21. THE APPLICANT SHALL CONTACT THE CRIME PREVENTION UNIT OF THE ALEXANDRIA POLICE DEPARTMENT AT 703-746-1920 REGARDING SECURITY HARDWARE FOR NEW CONSTRUCTION. THIS SHALL BE COMPLETED PRIOR TO ISSUANCE OF BUILDING PERMIT.
22. ROOF DRAINAGE SYSTEM, SUMP PUMP DISCHARGE, AND FOUNDATION DRAIN SYSTEM MUST BE INSTALLED SO AS NEITHER TO ADVERSELY IMPACT UPON, NOR CAUSE EROSION DAMAGE TO ADJACENT PROPERTIES OR THE PUBLIC RIGHT-OF-WAY.
23. THE CONTRACTOR MUST ENSURE THAT POSITIVE DRAINAGE OCCURS ON SITE TO PREVENT PONDING OR DRAINAGE PROBLEMS ON ADJACENT PROPERTIES.
24. IN THE EVENT, THE PROPOSED ROOF DRAINAGE AND/OR SUMP PUMP DISCHARGE, AND FOUNDATION DRAIN SYSTEMS AND/OR GRADING ADVERSELY IMPACTS AND/OR CREATES A NUISANCE ON PUBLIC RIGHT-OF-WAY OR PRIVATE PROPERTIES THEN THE APPLICANT SHALL BE RESPONSIBLE TO PROVIDE ADDITIONAL IMPROVEMENTS TO THE ROOF DRAINAGE AND/OR SUMP PUMP DISCHARGE AND FOUNDATION DRAIN SYSTEMS AND/OR GRADING TO THE SATISFACTION OF DIRECTOR, TRANSPORTATION AND ENVIRONMENTAL SERVICES.
25. PER THE REQUIREMENTS OF SECTION 8-1-12 OF THE CITY CHARTER AND CODE; WHEN THE BUILDING FOOTING HAS BEEN PLACED AND THE WALLS HAVE BEEN RAISED TO THE FIRST JOIST BEARING OR STORY HEIGHT ABOVE GRADE, A PLOT PLAN SHOWING THE EXACT LOCATION OF THE WALLS SHALL BE PREPARED BY A LICENSED, CERTIFIED PUBLIC LAND SURVEYOR OR PROFESSIONAL ENGINEER AND FILED WITH THE BUILDING OFFICIAL FOR APPROVAL BEFORE PROCEEDING FURTHER WITH THE CONSTRUCTION.
26. A SEPARATE DESIGN IS REQUIRED FOR ALL WALLS 24" AND OVER IN HEIGHT FROM THE GRADE AND SUBJECT TO SEPARATE PERMITS TO BE OBTAINED BY THE OWNERS. GEOTECHNICAL AND STRUCTURAL DESIGN IS TO BE COMPLETED BY OTHERS. THIS FINAL SITE PLAN SHOWS LOCATION, PROPOSED GRADING, AND DESIGN OF ALL THE WALLS.
27. SUBMIT A SURVEY, CONSISTENT WITH THE REQUIREMENTS FOR CERTIFICATE OF OCCUPANCY CHECKLIST, TO THE DEPARTMENT OF TRANSPORTATION AND ENVIRONMENTAL SERVICES PRIOR TO REQUESTING AN INSPECTION FOR A CERTIFICATE OF OCCUPANCY.
28. ALL SANITARY LATERALS AND/OR SEWERS NOT SHOWN IN THE EASEMENTS SHALL BE OWNED AND MAINTAINED PRIVATELY.
29. ALL STORM DRAINS NOT SHOWN WITHIN AN EASEMENT OR IN A PUBLIC RIGHT-OF-WAY SHALL BE OWNED AND MAINTAINED PRIVATELY.
30. ALL WATER FACILITY CONSTRUCTIONS SHALL CONFORM TO VIRGINIA AMERICAN WATER (VAW) STANDARDS AND SPECIFICATIONS. NO WORK CAN BE COMPLETED ON EXISTING AND PROPOSED WATER FACILITIES UNTIL ALL EASEMENTS AND AGREEMENTS WITH VAW ARE FINALIZED, EXECUTED AND RECORDED. DEVELOPER OR CONTRACTOR SHALL CONTACT VAW AT 703-706-3889 TO OBTAIN AN APPROVED PROPOSAL AND PAY ALL REQUIRED FEES, PRIOR TO THE START OF CONSTRUCTION, DEMOLITION AND INSPECTION OF WATER FACILITIES, INCLUDING, BUT NOT LIMITED TO, WATER MAINS, FIRE HYDRANTS, DOMESTIC AND FIRE SERVICE LINES. ALL THE PROPOSED WET TAPS ON AN EXISTING WATER MAIN SHALL BE CONSTRUCTED BY VAW.
31. THE SIDEWALKS SHALL REMAIN OPENED DURING CONSTRUCTION OR PEDESTRIAN ACCESS SHALL BE MAINTAINED TO THE SATISFACTION OF THE DIRECTOR OF TRANSPORTATION AND ENVIRONMENTAL SERVICES THROUGHOUT THE CONSTRUCTION OF THE PROJECT.
32. PRIOR TO THE RELEASE OF THE FINAL SITE PLAN, A TRAFFIC CONTROL PLAN FOR CONSTRUCTION DETAILING PROPOSED CONTROLS TO TRAFFIC MOVEMENT, LANE CLOSURES, CONSTRUCTION ENTRANCES, HAUL ROUTES, AND STORAGE AND STAGING SHALL BE PROVIDED FOR INFORMATION PURPOSES; HOWEVER, AN AMENDED TRAFFIC CONTROL PLAN, IF REQUIRED BY THE DIRECTOR OF TRANSPORTATION AND ENVIRONMENTAL SERVICES SHALL BE SUBMITTED TO THE DIRECTOR OF TRANSPORTATION AND ENVIRONMENTAL SERVICES ALONG WITH THE BUILDING PERMIT APPLICATION. THE FINAL SITE PLAN SHALL INCLUDE A STATEMENT "FOR INFORMATION ONLY" ON THE TRAFFIC CONTROL PLAN SHEETS.
33. THIS SITE IS NOT LOCATED WITHIN A COMBINED SEWER AREA.
34. THE APPLICANT SHALL BE RESPONSIBLE TO DELIVER THE SOLID WASTE, AS DEFINED BY THE CITY CHARTER AND CODE OF THE CITY OF ALEXANDRIA TO THE CONVANTA ENERGY WASTE FACILITY LOCATED AT 5301 EISENHOWER AVENUE. THE DEVELEOPER FURTHER AGREES TO STIPULATE IN ANY FUTURE LEASE OR PROPERTY SALES AGREEMENT THAT ALL TENANTS AND/OR PROPERTY OWNERS SHALL ALSO COMPLY WITH THIS REQUIREMENT.
35. THE SITE CONTAINS EXISTING STORM SEWER, SANITARY SEWER, WATERLINES, ELECTRIC, AND OVERHEAD UTILITY. THE SUBJECT PLAN PROPOSES THE ADDITION OF STORM SEWER, SANITARY SEWER, WATERLINES, ELECTRIC, AND TELECOMMUNICATION CONNECTIONS. CONTRACTOR SHALL COORDINATE REMOVAL OF ANY HYDRANTS WITH CITY OF ALEXANDRIA AND AMERICAN WATER.
36. FIRE HYDRANTS SHALL REMAIN IN-SERVICE AND UNOBSTRUCTED DURING CONSTRUCTION, UNLESS THEY ARE BEING REMOVED. NO HYDRANTS SHALL BE REMOVED FROM SERVICE UNTIL THE REMOVAL HAS BEEN COORDINATED WITH AMERICAN WATER AND THE CITY OF ALEXANDRIA FIRE MARSHALL OFFICE.
37. THE APPLICANT IS RESPONSIBLE FOR THE MAINTENANCE OF ALL SPECIAL PAVING MATERIAL INSTALLED WITHIN THE PUBLIC RIGHT OF WAY PER DEVELOPMENT CONDITION 2G.

TRAFFIC MAINTENANCE

ALL EXISTING ROADS ADJACENT TO THE SUBJECT SITE WILL REMAIN OPEN FOR USE DURING CONSTRUCTION PHASES.

EXISTING CONDITIONS SURVEY NOTES

1. HORIZONTAL DATUM* NORTH AMERICAN DATUM OF 1983, NAD83
   VERTICAL DATUM* NORTH AMERICAN VERTICAL DATUM OF 1988, NAVD88*
2. UTILITY INFORMATION, AS SHOWN ON THIS PLAN, IS TAKEN FROM THE RECORDS AND/OR FIELD SURVEY COMPLETED BY URBAN LTD., DATED 05/10/2012; AND CANNOT BE GUARANTEED. FOR EXACT LOCATIONS OF EXISTING UNDERGROUND UTILITIES, NOTIFY "MISS UTILITY" AT 1-800-257-7777 AND 811 72 HOURS BEFORE THE START OF EXCAVATION OR CONSTRUCTION. THE CONSTRUCTION WORKERS AND CONTRACTOR(S) ARE ENCOURAGED TO VISIT DOMINION VIRGINIA POWER WEB SITE AT WWW.DOM.COM (KEYWORD SAFETY) FOR ADDITIONAL SAFETY INSTRUCTIONS.
3. LOCATION AND DEPTH OF ALL EXISTING UNDERGROUND UTILITIES TO BE VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR/ENGINEER SHOULD DIG TEST PITS BY HAND AT ALL UTILITY CROSSINGS TO VERIFY EXACT LOCATION.
4. THE BOUNDARY INFORMATION IS THE SUBJECT OF THIS SURVEY AND IS BASED ON A CURRENT FIELD SURVEY PREPARED BY URBAN LTD., DATED 02/01/2012 IN ACCORDANCE WITH THE REQUIREMENTS OF VIRGINIA ASSOCIATION OF LAND SURVEYORS.

* PER MEMORANDUM TO INDUSTRY, JULY 20, 2005; THE PLAN SHALL BE PREPARED USING VIRGINIA STATE PLANE (NORTH ZONE) COORDINATES BASED ON NAD83 AND NAVD88; HOWEVER, IF THE CURRENT DRAWINGS ARE PREPARED USING NORTH AMERICAN DATUM OF 1927 (NAD27) AND NORTH GEODETIC VERTICAL DATUM OF 1929 (NGVD29) THEN THE AS-BUILT DRAWINGS SHALL PROVIDE A CONVERSION TABLE OF SANITARY AND STORM SEWER DATA IN THE NAD83 AND NAVD88 DATUMS.

ENVIRONMENTAL SITE ASSESSMENT

1. THE CITY OF ALEXANDRIA DEPARTMENT OF TRANSPORTATION AND ENVIRONMENTAL SERVICES, OFFICE OF ENVIRONMENTAL QUALITY MUST BE NOTIFIED IF UNUSUAL OR UNANTICIPATED CONTAMINATION OR UNDERGROUND STORAGE TANKS, DRUMS, AND CONTAINERS ARE ENCOUNTERED AT THE SITE. IF THERE IS ANY DOUBT ABOUT PUBLIC SAFETY OR A RELEASE TO THE ENVIRONMENT, THE ALEXANDRIA FIRE DEPARTMENT MUST BE CONTACTED IMMEDIATELY BY CALLING 911. THE TANK OR CONTAINER'S REMOVAL, ITS CONTENTS, ANY SOIL CONTAMINATION AND RELEASES TO THE ENVIRONMENT WILL BE HANDLED IN ACCORDANCE WITH FEDERAL, STATE, AND CITY REGULATIONS.
2. ALL WELLS TO BE DEMOLISHED IN THIS PROJECT, INCLUDING MONITORING WELLS MUST BE CLOSED IN ACCORDANCE WITH VIRGINIA STATE WATER CONTROL BOARD (VSWCB) REQUIREMENTS. CONTACT ENVIRONMENTAL HEALTH SPECIALIST AND COORDINATE WITH THE ALEXANDRIA HEALTH DEPARTMENT AT 703-746-4996.
3. UNLESS APPROVED BY THE DIRECTOR OF TRANSPORTATION & ENVIRONMENTAL SERVICES (T&ES) ALL CONSTRUCTION ACTIVITIES MUST COMPLY WITH THE ALEXANDRIA NOISE CONTROL CODE TITLE 11, CHAPTER 5, WHICH PERMITS CONSTRUCTION ACTIVITIES TO OCCUR
   BETWEEN THE FOLLOWING HOURS:
   MONDAY THROUGH FRIDAY FROM 7 AM TO 6 PM AND
   SATURDAYS FROM 9 AM TO 6 PM.
   NO CONSTRUCTION ACTIVITIES ARE PERMITTED ON SUNDAYS.
   PILE DRIVING IS FURTHER RESTRICTED TO THE FOLLOWING HOURS:
   MONDAY THROUGH FRIDAY FROM 9 AM TO 6 PM AND
   SATURDAYS FROM 10 AM TO 4 PM.

SANITARY FLOW COMPUTATIONS

TOTAL FLOW FROM PARKS=
200 GPD/1,000 S.F. * 11,810 S.F. = 2,362 GPD
PEAK FACTOR FLOW FROM PARKS = 2,362 GPD * 4.0 = 9,448 GPD OR 0.009 MGD

THE TOTAL ESTIMATED FLOW DOES NOT EXCEED 10,000 GPD, THEREFORE, IT IS NOT SUBJECT MEMORANDUM TO INDUSTRY NO. 06-14, WHICH STATES THAT AT THE TIME OF THE FINAL SITE PLAN.

1. THE APPLICANT SHALL PROVIDE ADEQUATE SANITARY SEWER OUTFALL ANALYSIS, AS GENERALLY DESCRIBED BELOW, SUFFICIENT TO DETERMINE EXISTING AND FUTURE FLOWS IN THE CITY-OWNED SEWERS THAT ARE USED BY THE DEVELOPMENT/REDEVELOPMENT PROJECT. THE SANITARY SEWER ADEQUATE OUTFALL ANALYSIS SHALL BE COMPLETED UP TO THE TRUNK SEWER DOWNSTREAM WITH A MINIMUM DIAMETER OF 24" OR TO A POINT AS DIRECTED BY T&ES STAFF.
2. THE APPLICANT SHALL PROVIDE AN ESTIMATE OF THE AVERAGE DAY AND PEAK WASTEWATER FLOW DISCHARGED UPSTREAM AND DOWNSTREAM OF THE DEVELOPMENT SITE UNDER EXISTING CONDITIONS AND THE CONTRIBUTION OF SANITARY FLOW FROM THE PROPOSED DEVELOPMENT SITE TO THE TRUNK SEWER USING THE FACTORS DESCRIBED BELOW:

A. AVERAGE DESIGN FLOWS:
I. SINGLE FAMILY HOME/TOWNHOUSE 350 GPD/UNIT
II. MULTI-FAMILY (CONDO, APARTMENT) 300 GPD/UNIT
III. OFFICE/RETAIL 200 GPD/1000 S.F.
IV. HOTEL 130 GPD/ROOM
B. THE SANITARY SEWERS SHALL BE DESIGNED FOR PEAK FLOW USING A PEAKING FACTOR OF 4 APPLIED TO THE AVERAGE FLOW.
C. AT THE DISCRETION OF T&ES STAFF, EXISTING CONDITIONS PEAK FLOWS, BASED ON LONG-TERM MONITORING AND/OR SEWER MODELING, MAY BE AVAILABLE TO THE APPLICANT FOR USE IN DETERMINING SANITARY SEWER CAPACITY.
D. SHORT-TERM TEMPORARY FLOW MONITORING OR WATER METER DATA MAY NOT BE USED IN LIEU OF COMPUTING EXISTING FLOWS. LONG-TERM MONITORING MAY BE USED SUBJECT TO THE APPROVAL OF THE DIRECTOR OF T&ES.

3. IN LIEU OF THE ESTIMATION OF THE AVERAGE DAY AND PEAK HOUR WASTEWATER FLOW, THE DIRECTOR OF T&ES AT HIS DISCRETION MAY REQUEST THE APPLICANT TO MEASURE THE SANITARY FLOW UPSTREAM AND DOWNSTREAM OF THE PROPOSED DEVELOPMENT SITE TO DETERMINE THE CURRENT SANITARY FLOW DISCHARGED INTO THE TRUNK SEWER UPSTREAM OF THE DEVELOPMENT SITE AND THE CURRENT CONTRIBUTION OF THE SANITARY FLOW TO THE TRUNK SEWER FROM THE DEVELOPMENT SITE UNDER EXISTING CONDITIONS.
4. THE APPLICANT SHALL ESTIMATE ADDITIONAL AVERAGE DAY AND PEAK HOUR WASTEWATER FLOW TO BE DISCHARGED INTO THE TRUNK SEWER FROM THE PROPOSED DEVELOPMENT SITE UNDER PROPOSED CONDITIONS USING THE FACTORS DESCRIBED ABOVE.
5. THE SANITARY SEWER ADEQUATE OUTFALL ANALYSIS SHALL ACCOUNT FOR THE EXISTING AND FUTURE NEEDS.
6. THE CITY OF ALEXANDRIA, AT ITS DISCRETION, WILL PROVIDE THE APPLICANT WITH ANY READILY AVAILABLE DATA TO ASSIST IN COMPLETION OF THE ADEQUATE OUTFALL ANALYSIS. THE ADDITIONAL PARAMETERS REQUIRED TO COMPLETE THE ANALYSIS SHALL BE FIELD MEASURED (I.E., LENGTH, PIPE DIAMETER, MATERIAL OF CONSTRUCTION, AND SLOPE, ETC.) AND/OR ESTIMATED (I.E., MANNING'S ROUGHNESS COEFFICIENT) BY THE APPLICANT. THE APPLICANT SHALL USE THE CRITERIA ESTABLISHED BY THE ENGINEERS AND SURVEYORS (ESI) INSTITUTE, AS SHOWN ON THE ESI CHECK LIST, WHERE APPLICABLE.
7. THE APPLICANT SHALL PROVIDE ALL THE MEASURED AND/OR ESTIMATED DATA AND CALCULATIONS ON THE ADEQUATE SANITARY SEWER OUTFALL ANALYSIS ON THE PLANS FOR REVIEW BY THE CITY STAFF.
8. THE INCREASED PEAK FLOW WILL BE PLACED IN THE CITY OF ALEXANDRIA WASTEWATER FLOW CAPACITY REGISTRY TO DETERMINE THAT THE CITY HAS SUFFICIENT TREATMENT CAPACITY AVAILABLE IN THE ALEXANDRIA SANITATION AUTHORITY (ASA) ADVANCED WASTEWATER TREATMENT PLANT (A WWTP) AND IN VARIOUS INTERCEPTOR SEWERS IN THE CITY OF ALEXANDRIA.
9. SANITARY SEWER SYSTEMS THAT SERVE OVER 400 PEOPLE REQUIRE THE APPROVAL OF THE VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY (VDEQ). THEREFORE, THE APPLICANT SHALL COMPLY WITH ALL THE REGULATORY REQUIREMENTS OF THE STATE OF VIRGINIA.
10. THE INSTALLATION OF PLUMBING FIXTURES THROUGHOUT THE CITY SHALL BE GOVERNED BY LOCATION. IN THE AREAS A AND B SHOWN IN THE ATTACHED MAP, THE SANITARY SEWER PLUMBING FIXTURES AND DRAINS LOCATED BELOW THE FIRST FLOOR (INCLUDING PARKING STRUCTURES) SHALL HAVE IN-STRUCTURE OR ON-SITE PLUNPED DISCHARGE TO THE CITY'S GRAVITY COLLECTION SYSTEM.
11. THE PUMPED FACILITIES SHALL BE PROVIDED WITH A STANDBY SOURCE OF POWER (I.E., BATTELY OR GENERATOR).
12. THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR THE PERPETUAL OWNERSHIP, CAPITAL, AND MAINTENANCE AND OPERATION OF THE PUMPS AND APPURTENANCES.
13. NO FOUNDATION DRAIN, BASEMENT DRAIN, OR STAIRWELL BASEMENT ACCESS DRAIN SHALL BE CONNECTED TO THE CITY OR ASA SANITARY SEWER.

ADDITIONAL NOTES

1. CONTRACTOR SHALL ENSURE ALL DISCHARGES ARE IN ACCORDANCE WITH CITY OF ALEXANDRIA CODE TITLE 5, CHAPTER 6, ARTICLE B.
2. DEWATERING AND OTHER CONSTRUCTION RELATED DISCHARGE LIMITS TO THE SEWER SYSTEM ARE REGULATED BY ALEXRENEW PRETREATMENT. CONTRACTOR IS REQUIRED TO CONTACT ALEXRENEW'S PRETREATMENT COORDINATOR AT 703-721-3500 X2020.

DEMOLITION

1. A SEPARATE PERMIT IS REQUIRED FOR DEMOLITION; HOWEVER, NO DEMOLITION SHALL BEGIN UNTIL ALL EROSION AND SEDIMENT AND TREE PROTECTION CONTROLS ARE IN PLACE AND ARE APPROVED BY AN EROSION AND SEDIMENT CONTROL INSPECTOR OF THE DEPARTMENT OF TRANSPORTATION AND ENVIRONMENTAL SERVICES.
2. ALL WORK SHALL BE PERFORMED IN STRICT COMPLIANCE WITH THE MOST CURRENT APPLICABLE FEDERAL, STATE , AND LOCAL LAWS AND REGULATIONS, INCLUDING BUT NOT LIMITED, TO ENVIRONMENTAL PROTECTION AGENCY (EPA), OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA), VIRGINIA OCCUPATIONAL AND SAFETY HEALTH COMPLIANCE PROGRAM (VOSH ENFORCEMENT), VIRGINIA OVERHEAD HIGH VOLTAGE LINE SAFETY ACT, NATIONAL EMISSIONS STANDARDS FOR HAZARDOUS AIR POLLUTANTS (NESHAPS), AND NATIONAL INSTITUTE OF OCCUPATIONAL SAFETY AND HEALTH (NIOSH).
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF WORK WITH REPRESENTATIVE UTILITY COMPANIES AND FOR THE MPLEMENTATION OF REQUIRED UTILITY-RELATED WORK.
4. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE UPON ENCOUNTERING ANY HAZARDOUS MATERIALS DURING DEMOLITION AND/OR CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL DOCUMENT SAME TO THE OWNER'S REPRESENTATIVE AND OBTAIN DIRECTION AS TO THE APPROPRIATE ACTION(S) TO BE TAKEN.
5. DISCONNECTION OF SERVICES AND SYSTEMS SUPPLYING UTILITIES TO BE ABANDONED OR DEMOLISHED SHALL BE COMPLETED PRIOR TO OTHER SITE DEMOLITION IN FULL COMPLIANCE WITH APPLICABLE CODES, REGULATIONS, AND THE REQUIREMENTS OF UTILITY PURVEYORS HAVING JURISDICTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH THE UTILITY PURVEYORS, PAYMENT OF ASSOCIATED FEES AND PROCUREMENT OF ALL NECESSARY PERMITS.
6. PRIOR TO REMOVAL OF MATERIALS OVER EXISTING UTILITY SYSTEMS, THE CONTRACTOR SHALL DOCUMENT EXISTING CONDITIONS AND, IF AT VARIANCE WITH CONDITIONS AS REPRESENTED ON THE PLANS, NOTIFY THE OWNER'S REPRESENTATIVE AND OBTAIN DIRECTIONS AS TO THE APPROPRIATE ACTION(S) TO BE TAKEN.
7. THE CONTRACTOR SHALL BACKFILL EXCAVATED AREAS WITH APPROVED MATERIALS/CLEAN FILL AS PER THE REQUIREMENTS OF VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT).
8. THE CONTRACTOR SHALL PROTECT AND PREVENT DAMAGE TO EXISTING ON-SITE UTILITY DISTRIBUTION FACILITIES THAT ARE TO REMAIN. ACTIVE UTILITY DISTRIBUTION FACILITIES ENCOUNTERED DURING DEMOLITION AND/OR CONSTRUCTION ACTIVITIES SHALL BE SHUT OFF AT THE SERVICE MAIN WITH THE APPROVAL OF THE OWNER'S REPRESENTATIVE.
9. DURING DEMOLITION AND/OR CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE UPON ENCOUNTERING ANY EXISTING UTILITIES AND/OR UTILITY SYSTEM STRUCTURES NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL DOCUMENT THE SAME AND FORWARD THE INFORMATION TO THE RESIDENT ENGINEER/OWNER'S REPRESENTATIVE, AND OBTAIN DIRECTION AS TO THE APPROPRIATE ACTION(S) TO BE TAKEN.
10. THE CONTRACTOR OR APPLICANT SHALL WORK WITH THE CITY STAFF TO REUSE THE EXISTING, LEFTOVER, UNUSED, AND/OR DISCARDED BUILDING MATERIALS AS PART OF THE DEMOLITION PROCESS OR THE CONSTRUCTION DEBRIS MUST BE REMOVED TO AN APPROVED LANDFILL WITH ADEQUATE FREQUENCY IN ACCORDANCE WITH THE VIRGINIA STATE LINER CONTROL ACT.

SIGN CONSTRUCTION

A SEPARATE PERMIT IS REQUIRED FOR SIGN CONSTRUCTION.

CEMETERY AND/OR BURIAL GROUNDS

THERE IS NO OBSERVABLE, HISTORICAL, OR ARCHAEOLOGICAL EVIDENCE OF CEMETERIES OR BURIAL GROUNDS ON THIS PROPERTY. FURTHERMORE, IT IS ILLEGAL TO DISTURB HUMAN REMAINS WITHOUT OBTAINING APPROPRIATE LEGAL AUTHORIZATION. IF BURIALS ARE FOUND DURING THE ARCHAELOGICAL INVESTIGATION AND NEED TO BE MOVED PRIOR TO DEVELOPMENT, THE APPLICANT SHALL BE RESPONSIBLE FOR THE ARCHAEOLOGICAL REMOVAL AND FOR OBTAINING THE NECESSARY LEGAL DOCUMENTS, INCLUDING A PERMIT FROM THE VIRGINIA DEPARTMENT OF HISTORIC RESOURCES FOR THE ARCHAELOGICAL REMOVAL OF BURIALS.

RODENT ABATEMENT NOTE

PRIOR TO THE ISSUANCE OF A DEMOLITION PERMIT, A RODENT ABATEMENT PLAN SHALL BE SUBMITTED TO THE CITY OF ALEXANDRIA DEPARTMENT OF CODE ADMINISTRATION THAT WILL OUTLINE WHAT STEPS HAVE AND WILL BE TAKEN TO PREVENT THE SPREAD OF RODENTS FROM THE CONSTRUCTION SITE TO THE SURROUNDING COMMUNITY AND SEWERS. THE CONTRACTOR CAN CONTACT ALEXANDRIA DEPARTMENT OF CODE ADMINISTRATION AT 703-746-4200 FOR ANY QUESTIONS OR ADDITIONAL INFORMATION. PLEASE BE ADVISED ONCE ANY DEMOLITION HAS BEEN COMPLETED ANY ABOVE GROUND BAIT BOXES MUST BE RELOCATED TO WITHIN 50 FEET OF A STRUCTURE IN KEEPING WITH EPA REGULATIONS. IF THIS IS NOT POSSIBLE, THEY SHALL BE REMOVED AND REGULAR INSPECTIONS OF THE SITE CONDUCTED BY A VIRGINIA LICENSED PEST EXTERMINATOR TO ENSURE THE SITE REMAINS RODENT FREE.

MARINE CLAY STATEMENT

NO MARINE CLAYS EXISTS ON SITE FOR BLOCK PARKS.

SOLID WASTE MANAGEMENT

1. SINCE THE APPLICANT IS NOT REQUIRED, BY SECTION 5-1-31 OF THE CITY CHARTER AND CODE TITLE 5: TRANSPORTATION AND ENVIRONMENTAL SERVICES, TO USE THE CITY OF ALEXANDRIA'S COLLECTION AND DISPOSAL SERVICES; SOLID WASTE COLLECTION AND DISPOSAL SERVICES SHALL BE PROVIDED BY THE APPLICANT / PRIVATE COLLECTORS AND SHALL BE PASSED ON TO THE NEW OWNER IN CASE OF A SALE OF THE PROPERTY SUBSEQUENT TO THE DEVELOPMENT.

SITE ACCESSIBILITY NOTES

1. ALL BUILDINGS WITHIN THE BOUNDARY OF THIS SITE SHALL HAVE AT LEAST ONE "ACCESSIBLE ROUTE" THAT CONFORMS TO "ADA"-"ACCESSIBLE ROUTE" STANDARDS. THESE STANDARDS INCLUDE, BUT ARE NOT LIMITED TO: MAXIMUM WALK SLOPE=1:20 AND MAXIMUM RAMP SLOPE=1:12. ALL WALKS WILL BE BROOM-FINISHED CONCRETE UNLESS OTHERWISE SPECIFIED ON THESE DRAWINGS AND/OR THE ARCHITECTURAL PLANS.
2. ALL "ACCESSIBLE" PARKING SPACES SHALL BE DESIGNATED WITH APPROPRIATE SIGNAGE.
3. THE PAVEMENT SLOPE WITHIN ACCESSIBLE PARKING SPACES SHALL NOT EXCEED 2% IN ANY DIRECTION.

ARCHAEOLOGY NOTES

1. ALL REQUIRED ARCHAEOLOGICAL PRESERVATION MEASURES SHALL BE COMPLETED PRIOR TO GROUND-DISTURBING ACTIVITIES (SUCH AS CORING, GRADING, FILLING, VEGETATION REMOVAL, UNDERGROUNDING UTILITIES , PILE DRIVING, LANDSCAPING AND OTHER EXCAVATIONS AS DEFINED IN SECTION 2-151 OF THE ZONING ORDINANCE) OR A RESOURCE MANAGEMENT PLAN MUST BE IN PLACE TO PRESERVE AND/OR RECOVER SIGNIFICANT RESOURCES IN CONCERT WITH CONSTRUCTION ACTIVITIES. TO CONFIRM, CALL ALEXANDRIA ARCHAEOLOGY AT (703) 838-4399.
2. CALL ALEXANDRIA ARCHAEOLOGY (703-746-4399) TWO WEEKS BEFORE THE STARTING DATE O

WESTEND DEVELOPMENT TABULATIONS:

DEVELOPMENT SUMMARY

Use	Floor Area	Residential Units	Hotel Keys	INOVA HOSPITAL CAMPUS Building A Floor Area	Building A Units	Building B Floor Area	Building B Units	Building C Floor Area	Building C Units	Block D Floor Area	Block D Units	Block E Floor Area	Block E Units	Block G Floor Area	Block G Units	Block H Floor Area	Block H Units	Block I Floor Area	Block I Units	Block F Floor Area	Block F Units	Block N Floor Area	Block N Units	Block J Floor Area	Block J Units	Block K Floor Area	Block K Units	Block L Floor Area	Block L Units	Blocks M Floor Area	Blocks M Units
Hospital	464,467			464,467	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Office	-			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Medical Office	280,805			-	-	94,212	-	76,357	-	-	-	110,236	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Multifamily	1,118,575	1,072 units		-	-	-	-	-	-	-	-	150,697	140	193,847	234	-	-	414,031	375	-	-	-	-	-	-	360,000	323	-	-	-	-
Affordable Multifamily	12,250	45 units		-	-	-	-	-	-	-	-	5,500	6	6,750	10	-	-	-	15	-	-	-	-	-	-	-	14	-	-	-	-
Senior Housing (AL/IL)	-	0 units		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-over-2 Townhomes		0 units		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Traditional Townhomes	296,157	109 units		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	118,915	43	177,242	66
Condo Flats	-	0 units		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hotel	-		0 keys	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Retail	237,496			-	-	-	-	-	-	-	-	89,971	-	23,888	-	-	-	91,637	-	7,279	-	4,064	-	-	-	32,000	-	-	-	-	-
Grocer	-			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Firestation	-			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Garage / Loading / Service				298,250 (TOTAL GARAGE)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	80,000	-	-	-	-	-
Total	**2,409,750**	**1,226 units**	**0 keys**	**762,717**	-	**94,212**	-	**76,357**	-	-	-	**356,404**	**146**	**224,485**	**244**	-	-	**505,668**	**390**	**7,279**	-	**4,064**	-	-	-	**472,000**	**337**	**118,915**	**43**	**177,242**	**66**
FAR over Gross Land Area	**1.0742**																														

PARKING TABULATIONS

Parking Requirement	Parking Ratio	Totals	INOVA HOSPITAL CAMPUS Building A REQUIRED	Building A PROPOSED	Building B REQUIRED	Building B PROPOSED	Building C REQUIRED	Building C PROPOSED	Block D REQUIRED	Block D PROPOSED	Block E REQUIRED	Block E PROPOSED	Block G REQUIRED	Block G PROPOSED	Block H REQUIRED	Block H PROPOSED	Block I REQUIRED	Block I PROPOSED	BLOCK F REQUIRED	BLOCK F PROPOSED	BLOCK N REQUIRED	BLOCK N PROPOSED	Block J REQUIRED	Block J PROPOSED	Block K REQUIRED	Block K PROPOSED	Block L REQUIRED	Block L PROPOSED	Blocks M REQUIRED	Blocks M PROPOSED
PARKING RATES																															
Hospital	1/ 2 BEDS		TBD	(SEE BELOW)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Office	1.5/ 1000 GSF		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Medical Office	1.5/ 1000 GSF		-	-	408	(SEE BELOW)	335	(SEE BELOW)			270	403																				
Multifamily	1/ BEDROOM		-	-	-	-	-	-	-	-	213	229	285	285	-	-	-	483	-	-	-	-	-	-	312	298	-	-	-	-	-	-
Affordable Multifamily	0.8/ UNIT		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	-	-	-	-	-	-
Senior Housing (AL/IL)	0.7/ UNIT		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-over-2 Townhomes	2.0/ UNIT		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Traditional Townhomes	2.0/ UNIT		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	86	-	132	-	-
Condo Flats	1.3/ UNIT		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hotel	0.7/ KEY		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Retail	3.0/ 1000 GSF		-	-	-	-	-	-	-	-	165	205	72	95	-	-	-	375	2**	0	2**	0	-	-	8	63 (SEE SHEET 03A)	-	-	-	-	-	-
Grocer	50 spaces		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Firestation			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
VEHICLE PARKING																																
STANDARD PARKING SPACES			-	TBD	-	TBD	-	TBD	-	-	-	385	-	117	-	-	-	154	-	-	-	-	-	-	-	114	-	86	-	132	-	-
COMPACT PARKING SPACES			-	TBD	-	TBD	-	TBD	-	-	-	429	-	248	-	-	-	683	-	-	-	-	-	-	-	186	-	-	-	-	-	-
ON-STREET PARKING SPACES												15		15												20						
HANDICAP PARKING SPACES (NON-VAN)			-	TBD	-	TBD	-	TBD	-	-	-	18	-	11	-	-	-	12	-	-	-	-	-	-	-	8	-	-	-	-	-	-
HANDICAP PARKING SPACES (VAN)			-	TBD	-	TBD	-	TBD	-	-	-	5	-	4	-	-	-	9	-	-	-	-	-	-	-	2	-	-	-	-	-	-
TOTAL PARKING PROVIDED:		**4,163**		1,510					-	-	648	852	357	395	-	-	-	858	-	-	-	-	-	-	320	330	-	86	-	132		
PARKING PROVIDED IN EXISTING GARAGE			550 (EXISTING GARAGE)						-	-	-	837	-	380	-	-	-	858	-	0	-	0	-	-	-	63 (SEE SHEET 03A)	-	-	-	-	-	-
PARKING PROVIDED IN PROPOSED GARAGE			960 (ABOVE GRADE GARAGE + BELOW GRADE GARAGE)						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	310	-	-	-	-	-	-
LOADING SPACES											5	4	1	3			6	3								2						
BICYCLE PARKING																																
Residential									-	-	44	48	74	78	-	-	-	129	-	-	-	-	-	-	102	116	-	-	-	-	-	-
Visitor									-	-	9	9	5	5	-	-	-	8	-	15	-	6	-	-	7	7	-	-	-	-	-	-
Retail											18	15	3	6				28		3		2			9	11						
Office									-	-	15	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

ZONING TABULATIONS

Zoning Requirement	INOVA HOSPITAL CAMPUS Building A PROPOSED	Building B PROPOSED	Building C PROPOSED	Block D REQUIRED	Block D PROPOSED	Block E REQUIRED	Block E PROPOSED	Block G REQUIRED	Block G PROPOSED	Block H REQUIRED	Block H PROPOSED	Block I REQUIRED	Block I PROPOSED	Block F REQUIRED	Block F PROPOSED	Block N REQUIRED	Block N PROPOSED	Block J REQUIRED	Block J PROPOSED	Block K REQUIRED	Block K PROPOSED	Block L REQUIRED	Block L PROPOSED	Blocks M REQUIRED	Blocks M PROPOSED
LOT AREA (SQ. FT.)	452,343 (COMBINED INOVA HOSPITAL CAMPUS AREA)			-	-	-	108,575	-	62,083	-	-	-	107,845	-	31,872	-	22,509	-	-	-	98,964	-	77,919	-	122,172
LOT WIDTH (FT.)	-			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FRONT YARD (FT.)	-			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SIDE YARD (FT.)	-			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
REAR YARD (FT.)	-			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FLOOR AREA (SQ. FT.)	933,286 (COMBINED FLOOR AREA FOR BUILDINGS A,B,C)			-	-	-	356,404	-	224,485	-	-	-	487,512		7,279	-	4,064	-	-	-	392,578	-	118,915	-	177,242
OPEN SPACE (SF / %)	15%			-	-	25.00%	25.00%	25.00%	25.00%	-	-	-	28.26%	25%	80.75%	25%	87.73%	-	-	25%	25.66%	25%	28.65%	25%	38.92%
GROUND FLOOR	53,530			-	-	-	10,303	-	14,056	-	-	-	1,364	7,968	25,738	5,627	19,748	-	-	24,741	7,248	19,166	22,428	30,492	47,600
ABOVE GROUND	10,000			-	-	-	16,840	-	1,464	-	-	-	29,115	-	-	-	-	-	-	-	18,142	-	-	-	-
TOTAL OPEN SPACE	62,530			-	-	27,143	27,143	15,520	15,520	-	-	-	30,479	7,968	25,738	5,627	19,748	-	-	24,741	25,390	-	22,428	-	47,600
AVERAGE FINISHED GRADE (FT.)	216.34 (PROPOSED)	209.86 (PROPOSED)	212.07 (PROPOSED)	-	-	-	200.55	-	198.58	-	-	-	193.00		208.90	-	201.625	-	-	-	199.21	-	-	-	-
MAX. BUILDING HEIGHT (FT.)	159	52	60	-	-	-	91.90/80	-	85	-	-	-	85	-	38'-0"	-	33'-0"	-	-	-	85	-	50	-	50
CROWN COVERAGE (SQ. FT.)	-	-	-	-	-	-	14750 (13.6%)	-	13500 (21.7%)	-	-	-	-	7,968	38250 (120%)	5,627	28500 (126%)	-	-	24,741	19019 (19.22%)	-	-	-	-
MAX. RESI DENTISTY (UNITS/AC.)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dwelling Unit Summary (ADU)	-	-	-	-	-	-	146	-	244	-	-	-	390	-	-	-	-	-	-	-	337 (14)	-	-	-	-
STUDIO UNITS (ADU)	-	-	-	-	-	-	1	-	37	-	-	-	58	-	-	-	-	-	-	-	4 (1)	-	-	-	-
JR ONE BEDROOM UNITS (ADU)									17												125				
ONE BEDROOM UNITS (ADU)	-	-	-	-	-	-	64	-	143	-	-	-	189	-	-	-	-	-	-	-	119 (10)	-	-	-	-
ONE BEDROOM DEN UNITS (ADU)	-	-	-	-	-	-	14	-	6	-	-	-	50	-	-	-	-	-	-	-	5	-	-	-	-
TWO BEDROOM UNITS (ADU)	-	-	-	-	-	-	46	-	36	-	-	-	68	-	-	-	-	-	-	-	77 (2)	-	-	-	-
TWO BEDROOM DEN UNITS (ADU)	-	-	-	-	-	-	6	-	5	-	-	-	13	-	-	-	-	-	-	-	-	-	-	-	-
THREE BEDROOM UNITS (ADU)	-	-	-	-	-	-	15	-	-	-	-	-	12	-	-	-	-	-	-	-	7 (1)	-	-	-	-
LOADING SPACES	1	1	1	-	-	3	4	1	3	-	-	6	3	-	-	-	-	-	-	-	2	-	-	-	-
TRIP GENERATION (ADT)	5,774	910	3,317	-	-	-	5,621	-	1,570	-	-	-	5,173	-	-	-	-	-	-	-	1,981	-	-	-	-

APPROVED

SPECIAL USE PERMIT NO. _____

DEPARTMENT OF PLANNING & ZONING

_____ DIRECTOR _____ DATE

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

SITE PLAN NO. _____

_____ DIRECTOR _____ DATE

_____ CHAIRMAN, PLANNING COMMISSION _____ DATE

DATE RECORDED _____

INSTRUMENT NO. _____ DEED BOOK NO. _____ PAGE NO. _____

REVISIONS

No.	DATE	DESCRIPTION

PLAN DATE
02 – 11 – 2022
02 – 09 – 2023
04 – 17 – 2023
05 – 26 – 2023

Urban Ltd.
4200 D TECHNOLOGY CT.
CHANTILLY, VA. 20151
TEL: 703.642.2306
FAX: 703.378.7888
www.urban-ltd.com

urban
Planners • Engineers • Landscape Architects • Land Surveyors

COMMONWEALTH OF VIRGINIA
CLAYTON C. TOCK
Lic. No. 038790
05/26/2023
PROFESSIONAL ENGINEER

GENERAL NOTES & DETAILS

LANDMARK MALL REDEVELOPMENT
PRELIMINARY SITE PLAN - PARKS

CITY OF ALEXANDRIA, VIRGINIA

DATE: NOV., 2022

C.I.= N/A

SCALE: N/A

SHEET 03 OF 47

FILE No. DSUP-13089

Urban, Ltd. – J:\JOBS\landmarkmall\DSUP\block-parks\preliminary sp\13089-02A-GNOTES.dwg [GNOTES1] May 25, 2023 – 1:51pm yelesri

PARKS TABULATIONS:

DEVELOPMENT SUMMARY

Use	Floor Area	Residential Units	Hotel Keys	Block F Floor Area	Block F Units	Block N Floor Area	Block N Units	Block R Floor Area	Block R Units	Block P Floor Area	Block P Units
Hospital	-			-	-	-	-	-	-	-	-
Office	-			-	-	-	-	-	-	-	-
Medical Office	-			-	-	-	-	-	-	-	-
Multifamily	-	**0 units**		-	-	-	-	-	-	-	-
Affordable Multifamily	-	**0 units**		-	-	-	-	-	-	-	-
Senior Housing (AL/IL)	-	**0 units**		-	-	-	-	-	-	-	-
2-over-2 Townhomes	-	**0 units**		-	-	-	-	-	-	-	-
Traditional Townhomes	-	**0 units**		-	-	-	-	-	-	-	-
Condo Flats	-	**0 units**		-	-	-	-	-	-	-	-
Hotel	-		**0 keys**	-	-	-	-	-	-	-	-
Retail	**11,343**			7,279	-	4,064	-	-	-	-	-
Grocer	-			-	-	-	-	-	-	-	-
Firestation	-			-	-	-	-	-	-	-	-
Garage / Loading / Service	-				-		-		-		-
Total	**11,343**	**0 units**	**0 keys**	**7,279**	**-**	**4,064**	**-**	**-**	**-**	**-**	**-**

PARKING TABULATIONS

Parking Requirement	Parking Ratio	Totals	Block F REQUIRED	Block F PROPOSED	Block N REQUIRED	Block N PROPOSED	Block R REQUIRED	Block R PROPOSED	Block P REQUIRED	Block P PROPOSED
PARKING RATES										
Hospital	1/ 2 BEDS		-	-	-	-	-	-	-	-
Office	1.5/1000 SF		-	-	-	-	-	-	-	-
Medical Office	1.5/1000 SF		-	-			-	-		
Multifamily	1/BEDROOM		-	-	-	-	-	-	-	-
Affordable Multifamily	0.8 / unit		-	-	-	-	-	-	-	-
Senior Housing (AL/IL)	0.7 / unit		-	-	-	-	-	-	-	-
2-over-2 Townhomes	2.0 / unit		-	-	-	-	-	-	-	-
Traditional Townhomes	2.0 / unit		-	-	-	-	-	-	-	-
Condo Flats	1.3 / unit		-	-	-	-	-	-	-	-
Hotel	0.7 / key		-	-	-	-	-	-	-	-
Retail	3.0 / 1,000 GSF		2**	0	2**	0	-	-	-	-
Grocer	50 spaces		-	-	-	-	-	-	-	-
Firestation			-	-	-	-	-	-	-	-
VEHICLE PARKING										
STANDARD PARKING SPACES			-	-	-	-	-	-	-	-
COMPACT PARKING SPACES			-	-	-	-	-	-	-	-
ON-STREET PARKING			-	-	-	-	-	-	-	-
HANDICAP PARKING SPACES (NON-VAN)			-	-	-	-	-	-	-	-
HANDICAP PARKING SPACES (VAN)			-	-	-	-	-	-	-	-
TOTAL PARKING PROVIDED:			-	-	-	-	-	-	-	-
PARKING PROVIDED IN EXISTING GARAGE			-	0	-	0	-	-	-	-
PARKING PROVIDED IN PROPOSED GARAGE			-		-		-		-	
LOADING SPACES			-	-	-	-	-	-	-	-
BICYCLE PARKING										
Residential			-	-	-	-	-	-	-	-
Visitor			-	15	-	6	-		-	8
Retail			-	3		2	-	-	-	-
Office			-	-	-	-	-	-	-	-

ZONING TABULATIONS

Zoning Requirement	Block F REQUIRED	Block F PROPOSED	Block N REQUIRED	Block N PROPOSED	Block R REQUIRED	Block R PROPOSED	Block P REQUIRED	Block P PROPOSED
LOT AREA (SQ. FT.)	-	31,872	-	22,509	-	21,009	-	128,715
LOT WIDTH (FT.)	-	-	-	-	-	-	-	-
FRONT YARD (FT.)	-	-	-	-	-	-	-	-
SIDE YARD (FT.)	-	-	-	-	-	-	-	-
REAR YARD (FT.)	-	-	-	-	-	-	-	-
FLOOR AREA (SQ. FT.)	-	7,279	-	4,064	-	-	-	-
OPEN SPACE (SF / %)	25%	80.75%	25%	90.59%	25%	55.99%	25%	88.18%
AT-GRADE	7,968	25,738	5,627	20,390	5,252	11,763	32,179	113,507
ABOVE GROUND	-	-	-	-	-	-	-	-
TOTAL OPEN SPACE	7,968	25,738	5,627	20,390	5,252	11,763	32,179	113,507
AVERAGE FINISHED GRADE (FT.)	-	208.90	-	201.625	-	-	-	-
MAX. BUILDING HEIGHT (FT.)	-	38'-0"	-	33'-0"	-	-	-	-
CROWN COVERAGE (SQ. FT.)	7,968	38250 (120%)	5,627	28500 (126%)	5,252	17500 (83.29%)	N/A	46000 (35.74%)
MAX. RESI DENTISTY (UNITS/AC.)	-	-	-	-	-	-	-	-
Dwelling Unit Summary		-		-		-		-
STUDIO UNITS	-	-	-	-	-	-	-	-
JR ONE BEDROOM UNITS				-				-
ONE BEDROOM UNITS	-	-	-	-	-	-	-	-
ONE BEDROOM DEN UNITS	-	-	-	-	-	-	-	-
TWO BEDROOM UNITS	-	-	-	-	-	-	-	-
TWO BEDROOM DEN UNITS	-	-	-	-	-	-	-	-
THREE BEDROOM UNITS	-	-	-	-	-	-	-	-
LOADING SPACES	-	-	-	-	-	-	-	-
TRIP GENERATION (ADT)	-	-		-	-	-		-

NOTE:

- **SEE SHEET L002 FOR GREATER DETAIL FOR PARK-SPECIFIC OPEN SPACE.**
- **BLOCK P TO BE EXCLUDED FROM CANOPY COVERAGE CALCULATIONS PER CDD CONDITION #19.**

LEGEND:

- EXISTING WATER LINE
- PROPOSED WATER LINE
- EX. FIRE HYDRANT
- PROP. FIRE HYDRANT
- EXISTING WATER METER
- PROPOSED WATER METER
- EXISTING WATER VALVE
- PROPOSED WATER VALVE
- EXISTING STORM DRAIN
- PROPOSED STORM DRAIN
- EXISTING SANITARY SEWER
- PROPOSED SANITARY SEWER DIRECTION OF FLOW
- EXISTING GAS LINE
- PROPOSED GAS LINE
- EXISTING GAS VALVE
- PROPOSED GAS VALVE
- EXISTING OVERHEAD WIRE
- EXISTING LIGHTING
- PROPOSED LIGHTING
- EXISTING FENCE
- PROPOSED FENCE
- EXISTING TREE LINE
- EXISTING CONTOURS
- PROPOSED CONTOURS
- PROPOSED PHASE LINE
- PROPOSED LIMITS OF CLEARING & GRADING
- EXISTING WETLANDS
- PROP. RET. WALL
- EX. RET. WALL
- PROP. POST LIGHT
- PROP. BUILDING MAIN ENTRANCE
- PROP. BUILDING ENTRANCE
- PROP. UNDERGROUND GARAGE
- PROPERTY LINE
- LOADING SPACE
- INTERSECTION VISIBILITY TRIANGLE
- BRICK PAVE AREA (TO MATCH EXISTING PLAZA)
- PROP. CONCRETE SIDEWALK
- PARKING SPACE COUNT
- (COA) CITY OF ALEXANDRIA
- (AW) AMERICAN WATER
- (CSW) CONC. SIDEWALK
- (ASW) ASPHALT SIDEWALK
- EXISTING TELEPHONE LINE
- PROP. TELEPHONE LINE
- EXISTING VDOT ELECTRIC LINE
- EXISTING ELECTRIC LINE
- EX. VERIZON FIBER
- EX. COMCAST FIBER
- EX. PRIVATE FIBER
- EX. ACF FIBER
- EX. ELECTRIC MANHOLE
- EX. FIBER HANDHOLE
- PROP. ELECTRIC LINE
- PROP. VERIZON FIBER
- PROP. COMCAST FIBER
- PROPOSED PRIVATE FIBER
- PROPOSED ACF FIBER
- PROPOSED ELECTRIC MANHOLE
- PROPOSED FIBER HANDHOLE
- EXISTING CABLE TV LINE
- ROAD SIGN
- EX. POWER POLE
- EXISTING SPOT ELEVATION
- PROP. SPOT ELEVATION
- SPILL AND TRANSITION CURB AND GUTTER
- PROPOSED CURB
- EX. STREET LIGHTS
- PROP. STREET LIGHTS
- PROPOSED CG-12
- EXISTING TREE
- PROPOSED TREE
- WATER FITTING IDENTIFIER
- LOADING AREA
- BENCHMARK
- TEST PIT REQUIRED
- PROJECTED TRAFFIC COUNT
- OVERLAND RELIEF
- PROP. PROPOSED
- EX. EXISTING
- SF SQUARE FEET
- GSF GROSS SQUARE FEET
- NSF NET SQUARE FEET
- T.B.R. TO BE REMOVED
- FF FINISHED FLOOR
- V VISITOR PARKING SPACE
- S, C, HC STANDARD, COMPACT, AND HANDICAP PARKING SPACE DESIGNATOR
- PROP. PERVIOUS AREA
- PROP. PARKING SPACE

No.	DATE	REVISIONS DESCRIPTION

PLAN DATE
02-11-2022
02-09-2023
03-17-2023
05-26-2023

Urban Ltd.
4200 D TECHNOLOGY CT.
CHANTILLY, VA. 20151
TEL. 703.642.2306
FAX 703.378.7588
www.urban-ltd.com
Planners • Engineers • Landscape Architects • Land Surveyors

COMMONWEALTH OF VIRGINIA
CLAYTON C. POCK
Lic. No. 038790
PROFESSIONAL ENGINEER
05/26/2023

GENERAL NOTES & DETAILS

LANDMARK MALL REDEVELOPMENT
PRELIMINARY SITE PLAN - PARKS

CITY OF ALEXANDRIA, VIRGINIA

DATE: NOV., 2022
C.I.= N/A
SCALE: N/A

APPROVED
SPECIAL USE PERMIT NO. _____
DEPARTMENT OF PLANNING & ZONING
_____ DIRECTOR _____ DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
_____ DIRECTOR _____ DATE
_____ CHAIRMAN, PLANNING COMMISSION _____ DATE
DATE RECORDED _____
_____ INSTRUMENT NO. _____ DEED BOOK NO. _____ PAGE NO.

SHEET 03A OF 47

FILE No. DSUP-13089

Urban, Ltd. - J:\JOBS\landmarkmall\DSUP\block-parks\preliminary sp\3089-02A-GNOTES.dwg [GNOTES2] May 25, 2023 - 1:51pm yelosri

LEED v4 for BD+C Core & Shell
LMR Retail Pavilion 1 Block F
March 3, 2023

SUSTAINABLE BUILDING PARTNERS

Y	?	N			
0	0	1	**Integrative Process**	**Possible Points:**	**1**
		1	Credit 1 Integrative Process		1
13	0	7	**Location and Transportation**	**Possible Points:**	**20**
		20	Credit 1 LEED for Neighborhood Development	PATH 1	20
2			Credit 2 Sensitive Land Protection	PATH 2	2
		3	Credit 3 High Priority Site		3
6			Credit 4 Surrounding Density & Diverse Uses:		6
3		3	Credit 5 Access to Quality Transit (v4.1)		6
		1	Credit 6 Bicycle Facilities (v4.1)		1
1			Credit 7 Reduced Parking Footprint (v4.1)		1
1			Credit 8 Electric Vehicles (v4.1)		1
4	0	7	**Sustainable Sites**	**Possible Points:**	**11**
Y			Prereq 1 Construction Activity Pollution Prevention		Required
1			Credit 1 Site Assessment		1
		2	Credit 2 Site Development - Protect or Restore Habitat		2
		1	Credit 3 Open Space		1
		3	Credit 4 Rainwater Management		3
2			Credit 5 Heat Island Reduction		2
		1	Credit 6 Light Pollution Reduction		1
1			Credit 7 Tenant Design & Construction Guidelines		1
7	0	4	**Water Efficiency**	**Possible Points:**	**11**
Y			Prereq 1 Outdoor Water Use Reduction		Required
Y			Prereq 2 Indoor Water Use Reduction		Required
Y			Prereq 3 Building-Level Water Metering		Required
3			Credit 1 Outdoor Water Use Reduction		3
4		1	Credit 2 Indoor Water Use Reduction		5
		2	Credit 3 Cooling Tower Water Use		2
		1	Credit 4 Water Metering		1
11	0	22	**Energy and Atmosphere**	**Possible Points:**	**33**
Y			Prereq 1 Fundamental Commissioning and Verification		Required
Y			Prereq 2 Minimum Energy Performance		Required
Y			Prereq 3 Building-Level Energy Metering		Required
Y			Prereq 4 Fundamental Refrigerant Management		Required
3		3	Credit 1 Enhanced Commissioning		6
5		13	Credit 2 Optimize Energy Performance		18
1		0	Credit 3 Advanced Energy Metering		1
		2	Credit 4 Demand Response		2
2		3	Credit 5 Renewable Energy Production (v4.1)		5
		1	Credit 6 Enhanced Refrigerant Management		1
4	0	10	**Materials and Resources**	**Possible Points:**	**13**
Y			Prereq 1 Storage and Collection of Recyclables		Required
Y			Prereq 2 Construction and Demolition Waste Management Planning		Required
3		3	Credit 1 Building Life-Cycle Impact Reduction (v4.1)		6
		2	Credit 2 Product Disclosure & Optimization - EPDs (v4.1)		2
		2	Credit 3 Product Disclosure & Optimization - Sourcing of Raw Materials (v4.1)		2
		2	Credit 4 Product Disclosure & Optimization - Material Ingredients (v4.1)		2
1		1	Credit 5 Construction and Demolition Waste Management (v4.1)		2
2	3	5	**Indoor Environmental Quality**	**Possible Points:**	**16**
Y			Prereq 1 Minimum Indoor Air Quality Performance		Required
Y			Prereq 2 Environmental Tobacco Smoke Control (v4.1)		Required
		2	Credit 1 Enhanced Indoor Air Quality Strategies		2
	3	0	Credit 2 Low-Emitting Materials (v4.1)		3
1		0	Credit 3 Construction Indoor Air Quality Management Plan		1
		3	Credit 5 Daylight (v4.1)		3
1		0	Credit 6 Quality Views		1
6	0	0	**Innovation**	**Possible Points:**	**6**
1		0	Credit 1.1 Innovation Credit: Assessments and Planning for Resilience		1
1		0	Credit 1.2 Pilot Credit: Carbon Sequestration		1
1		0	Credit 1.3 Innovation Credit: Low-Mercury Lamps		1
1		0	Credit 1.4 Innovation Credit: Green Education		1
1		0	Credit 1.5 Pilot Credit: Integrative Analysis of Building Materials		1
1		0	Credit 2 LEED Accredited Professional		1
3	0	1	**Regional Priority Credits**	**Possible Points:**	**4**
1		0	Credit 1 Regional Priority: Surrounding Density & Diverse Uses (th: 2)		1
1		0	Credit 2 Regional Priority: Access to Quality Transit (th: 1)		1
		1	Credit 3 Regional Priority: Open Space (th: 1)		1
1		0	Credit 4 Regional Priority: Electric Vehicles (th: 1)		1
80	3	57		**Possible Points:**	**110**

LEED v4 for BD+C Core & Shell
LMR Retail Pavilion 2 Block N
March 3, 2023

SUSTAINABLE BUILDING PARTNERS

Y	?	N			
0	0	1	**Integrative Process**	**Possible Points:**	**1**
		1	Credit 1 Integrative Process		1
13	0	7	**Location and Transportation**	**Possible Points:**	**20**
		20	Credit 1 LEED for Neighborhood Development	PATH 1	20
2			Credit 2 Sensitive Land Protection	PATH 2	2
		3	Credit 3 High Priority Site		3
6			Credit 4 Surrounding Density & Diverse Uses:		6
3		3	Credit 5 Access to Quality Transit (v4.1)		6
		1	Credit 6 Bicycle Facilities (v4.1)		1
1			Credit 7 Reduced Parking Footprint (v4.1)		1
1			Credit 8 Electric Vehicles (v4.1)		1
4	0	7	**Sustainable Sites**	**Possible Points:**	**11**
Y			Prereq 1 Construction Activity Pollution Prevention		Required
1			Credit 1 Site Assessment		1
		2	Credit 2 Site Development - Protect or Restore Habitat		2
		1	Credit 3 Open Space		1
		3	Credit 4 Rainwater Management		3
2			Credit 5 Heat Island Reduction		2
		1	Credit 6 Light Pollution Reduction		1
1			Credit 7 Tenant Design & Construction Guidelines		1
7	0	4	**Water Efficiency**	**Possible Points:**	**11**
Y			Prereq 1 Outdoor Water Use Reduction		Required
Y			Prereq 2 Indoor Water Use Reduction		Required
Y			Prereq 3 Building-Level Water Metering		Required
3			Credit 1 Outdoor Water Use Reduction		3
4	1		Credit 2 Indoor Water Use Reduction		5
		2	Credit 3 Cooling Tower Water Use		2
		1	Credit 4 Water Metering		1
11	0	22	**Energy and Atmosphere**	**Possible Points:**	**33**
Y			Prereq 1 Fundamental Commissioning and Verification		Required
Y			Prereq 2 Minimum Energy Performance		Required
Y			Prereq 3 Building-Level Energy Metering		Required
Y			Prereq 4 Fundamental Refrigerant Management		Required
3		3	Credit 1 Enhanced Commissioning		6
5		13	Credit 2 Optimize Energy Performance		18
1		0	Credit 3 Advanced Energy Metering		1
		2	Credit 4 Demand Response		2
2		3	Credit 5 Renewable Energy Production (v4.1)		5
		1	Credit 6 Enhanced Refrigerant Management		1
4	4	6	**Materials and Resources**	**Possible Points:**	**13**
Y			Prereq 1 Storage and Collection of Recyclables		Required
Y			Prereq 2 Construction and Demolition Waste Management Planning		Required
3		3	Credit 1 Building Life-Cycle Impact Reduction (v4.1)		6
	2	0	Credit 2 Product Disclosure & Optimization - EPDs (v4.1)		2
		2	Credit 3 Product Disclosure & Optimization - Sourcing of Raw Materials (v4.1)		2
	2	0	Credit 4 Product Disclosure & Optimization - Material Ingredients (v4.1)		2
1		1	Credit 5 Construction and Demolition Waste Management (v4.1)		2
5	0	5	**Indoor Environmental Quality**	**Possible Points:**	**16**
Y			Prereq 1 Minimum Indoor Air Quality Performance		Required
Y			Prereq 2 Environmental Tobacco Smoke Control (v4.1)		Required
		2	Credit 1 Enhanced Indoor Air Quality Strategies		2
3		0	Credit 2 Low-Emitting Materials (v4.1)		3
1		0	Credit 3 Construction Indoor Air Quality Management Plan		1
		3	Credit 5 Daylight (v4.1)		3
1		0	Credit 6 Quality Views		1
6	0	0	**Innovation**	**Possible Points:**	**6**
1		0	Credit 1.1 Innovation Credit: Assessments and Planning for Resilience		1
1		0	Credit 1.2 Pilot Credit: Carbon Sequestration		1
1		0	Credit 1.3 Innovation Credit: Low-Mercury Lamps		1
1		0	Credit 1.4 Innovation Credit: Green Education		1
1		0	Credit 1.5 Pilot Credit: Integrative Analysis of Building Materials		1
1		0	Credit 2 LEED Accredited Professional		1
3	0	1	**Regional Priority Credits**	**Possible Points:**	**4**
1		0	Credit 1 Regional Priority: Surrounding Density & Diverse Uses (th: 2)		1
1		0	Credit 2 Regional Priority: Access to Quality Transit (th: 1)		1
		1	Credit 3 Regional Priority: Open Space (th: 1)		1
1		0	Credit 4 Regional Priority: Electric Vehicles (th: 1)		1
53	4	53		**Possible Points:**	**110**

Sustainable Building Partners
2701 Prosperity Avenue, Suite 100
Fairfax, VA 22031

Date: March 3, 2023

Project: LMR Blocks F&N – Retail Pavilions

Purpose: DSUP Submission - Green Building Approach

General Approach

The Landmark Mall Redevelopment (LMR) project is pursuing LEED Neighborhood Development v4 Plan certification for the entire development. The LMR Blocks F&N Retail Pavilions are pursuing LEED BD+C Core & Shell v4 certification at a Silver level, see attached "LEED Scorecard". The projects will be designed to meet the 2019 Green Building Policy.

Energy

Sustainable Building Partners is hired to perform whole building energy modeling for the referenced projects. Due to the limited mechanical and electrical scope of these Core and Shell buildings, the team will utilize a signed Green Lease to demonstrate that the final building will achieve the required 11% energy savings.

Water

Native and adaptive plantings will be installed in all landscaped areas within the LEED project boundary and will be irrigated by a high-efficiency system using drip irrigation, moisture meters, and controllers where necessary to ensure plantings survive and thrive.

The following low flow plumbing fixtures will be installed in all restrooms to achieve a 40% water use reduction:

- WC: 0.8/1.28 gpf (dual flush)
- Urinal: 0.125 gpf
- Lav Faucet: 0.35 gpm

Restrooms not installed with this project scope will be held to these fixture rates through a signed Green Lease.

Indoor Environmental Quality

If installed with the project scope, flooring, paints and coating, insulation, and ceiling systems within the building will be low-emitting to protect contractor and occupant health and comfort. To be compliant, products will have an emissions evaluation in accordance with California Department of Public Health version 1.1, 2010 (CDPH v1.1 2010) or later. Specified products within these categories will be evaluated for compliance. All other applicable products submitted during construction will be approved by the LEED consultant.

Also during construction, the contractor will develop an Indoor Air Quality Management plan to protect construction workers and materials. These requirements will be incorporated into specification section "018113 Sustainable Design Requirements". A template plan has been provided, see "LEED v4 Indoor Air Quality Mgmt Plan - Template".

The final required performance point under the Indoor Environmental Quality section is Thermal Comfort. Since this credit is not available on the LEED Core & Shell scorecard, it is not applicable to these projects.

Optional Credits

In addition to compliance with the applicable required performance points, the referenced projects will contract Enhanced Commissioning services to provide additional verification that the installed equipment functions as intended.

Whole building Life Cycle Assessments will be conducted for both buildings to evaluate the embodied carbon of the structures. Embodied carbon reduction strategies will be incorporated into the project specifications.

No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
02-11-2022
02-09-2023
04-17-2023
05-26-2023

Urban, Ltd.
4200 D TECHNOLOGY CT.
CHANTILLY, VA. 20151
TEL: 703.642.2306
FAX: 703.378.7888
www.urban-ltd.com

urban™
Planners • Engineers • Landscape Architects • Land Surveyors

COMMONWEALTH OF VIRGINIA
CLAYTON C. YOCK
Lic. No. 038790
PROFESSIONAL ENGINEER
04/26/2023

GENERAL NOTES & DETAILS

LANDMARK MALL REDEVELOPMENT
PRELIMINARY SITE PLAN - PARKS

CITY OF ALEXANDRIA, VIRGINIA

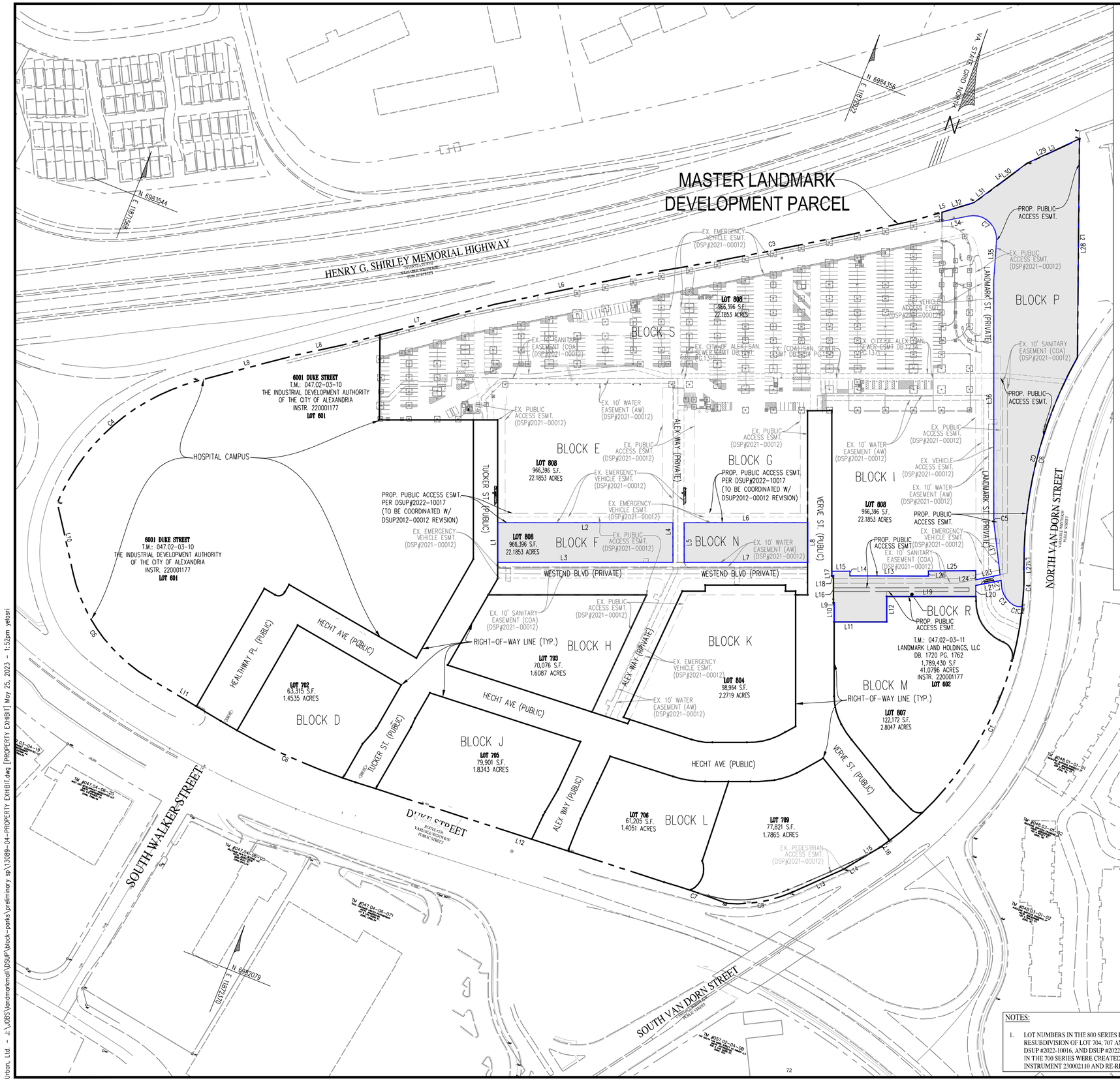
DATE: NOV., 2022
C.I.= N/A
SCALE: N/A

APPROVED
SPECIAL USE PERMIT NO. _____
DEPARTMENT OF PLANNING & ZONING
_____ DIRECTOR _____ DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
_____ DIRECTOR _____ DATE
_____ CHAIRMAN, PLANNING COMMISSION _____ DATE
DATE RECORDED _____
_____ INSTRUMENT NO. _____ DEED BOOK NO. _____ PAGE NO.

SHEET
03B
OF
47

FILE No.
DSUP-13089

Urban, Ltd. – J:\JOBS\landmarkmall\DSUP\block-parks\preliminary sp\13089-02A-GNOTES.dwg [GREEN BUILDING] May 25, 2023 – 1:52pm yelasri



LINE AND CURVE TABLE FOR MASTER LANDMARK PARCEL

LINE	BEARING	DISTANCE
L1	N 22°31'14" W	4.34'
L2	N 21°18'19" W	467.89'
L3	S 43°10'11" W	124.06'
L4	S 31°28'43" W	140.72'
L5	S 51°36'25" W	133.19'
L6	S 56°26'03" W	294.13'
L7	S 53°09'18" W	338.60'
L8	S 56°03'08" W	95.82'
L9	S 53°28'53" W	221.61'
L10	S 34°28'32" E	154.97'
L11	S 80°55'52" E	180.07'
L12	N 86°05'08" E	694.45'
L13	N 44°09'27" E	119.69'
L14	N 37°04'34" E	27.45'
L15	N 37°04'34" E	62.71'
L16	S 54°49'53" E	0.01'

CURVE	ARC LENGTH	RADIUS	DELTA ANGLE	CHORD BEARING	CHORD LENGTH	TANGENT
C1	699.67'	714.22'	56°07'44"	N 05°32'41" E	672.03'	380.79'
C2	468.83'	898.89'	29°53'01"	N 07°34'42" W	463.54'	239.88'
C3	622.78'	10000.00'	3°34'06"	S 57°02'00" W	622.68'	311.49'
C4	413.23'	450.00'	52°36'49"	S 27°10'28" W	398.86'	222.47'
C5	283.79'	350.00'	46°27'26"	S 57°42'15" E	276.08'	150.22'
C6	317.24'	1400.00'	12°58'59"	S 87°25'22" E	316.56'	159.30'
C7	141.68'	1512.69'	5°21'59"	N 87°02'47" E	141.63'	70.89'
C8	144.40'	291.56'	28°22'37"	N 58°20'45" E	142.93'	73.71'

LINE AND CURVE TABLE FOR PARKS

LINE TABLE

LINE	BEARING	DISTANCE	LINE	BEARING	DISTANCE
L1	N21°52'27"W	85.00'	L21	S56°43'50"W	54.96'
L2	N68°08'38"E	375.00'	L22	N28°30'10"W	19.71'
L3	S68°08'38"W	374.94'	L23	N56°43'50"E	52.98'
L4	S21°49'58"E	85.00'	L24	S21°52'20"E	19.14'
L5	N21°51'22"W	85.00'	L25	N67°58'28"E	101.34'
L6	N68°08'38"E	264.74'	L26	N21°51'22"W	10.95'
L7	S68°08'38"W	264.88'	L27	S22°32'04"E	4.34'
L8	S21°56'53"E	85.00'	L28	S21°19'09"E	467.89'
L9	S68°42'38"W	1.46'	L29	N43°09'21"E	124.06'
L10	N21°53'22"W	40.26'	L30	N31°27'53"E	94.31'
L11	S68°09'52"W	112.17'	L31	N31°27'53"E	46.41'
L12	S21°52'19"E	54.50'	L32	N51°23'02"E	72.27'
L13	N68°12'24"E	168.33'	L33	N22°03'21"W	19.51'
L14	S21°52'12"E	10.00'	L34	S56°37'47"W	58.19'
L15	N68°08'38"E	38.40'	L35	N17°54'32"W	84.93'
L16	N21°51'22"W	57.91'	L36	N21°51'22"W	509.71'
L17	N21°51'22"W	10.26'	L37	N28°29'18"W	111.09'
L18	S68°08'38"W	3.53'			
L19	S68°07'48"W	190.91'			
L20	S21°51'14"E	23.62'			

CURVE TABLE

CURVE	ARC	RADIUS	DELTA ANGLE	TANGENT	CHORD	BEARING
C1	8.83'	20.82'	24°18'22"	4.48'	8.77'	S89°02'49"W
C2	10.42'	25.99'	22°58'22"	5.28'	10.35'	S59°09'32"W
C3	43.36'	54.17'	45°51'33"	22.92'	42.21'	N58°37'10"W
C4	79.39'	714.22'	6°22'07"	39.74'	79.35'	S19°20'57"E
C5	11.58'	99.61'	6°39'34"	5.80'	11.57'	N25°02'33"W
C6	468.83'	898.89'	29°53'01"	239.88'	463.54'	S07°35'32"E
C7	92.04'	50.00'	105°28'21"	65.72'	79.59'	N70°38'42"W

PARKS AREA

BLOCK F: 31,872 SF OR 0.732 AC
BLOCK N: 22,509 SF OR 0.517 AC
BLOCK R: 21,009 SF OR 0.482 AC
BLOCK P: 128,715 SF OR 2.955 AC

LEGEND

PARKS BOUNDARY
DSUP APPLICATION AREA

NOTES:

1. LOT NUMBERS IN THE 800 SERIES REFLECT A 3RD SUBDIVISION PLAT AND RESUBDIVISION OF LOT 704, 707 AND 708 ASSOCIATED WITH DSUP #2022-10015, DSUP #2022-10016, AND DSUP #2022-10017 NOT YET RECORDED . LOT NUMBERS IN THE 700 SERIES WERE CREATED VIA DEED OF SUBDIVISION RECORDED IN INSTRUMENT 230002110 AND RE-RECORDED IN INSTRUMENT _____."

APPROVED
SPECIAL USE PERMIT NO. _____
DEPARTMENT OF PLANNING & ZONING
DIRECTOR — DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
DIRECTOR — DATE
CHAIRMAN, PLANNING COMMISSION — DATE
DATE RECORDED _____
INSTRUMENT NO. — DEED BOOK NO. — PAGE NO.

No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
02-11-2022
02-09-2023
04-11-2023
05-26-2023

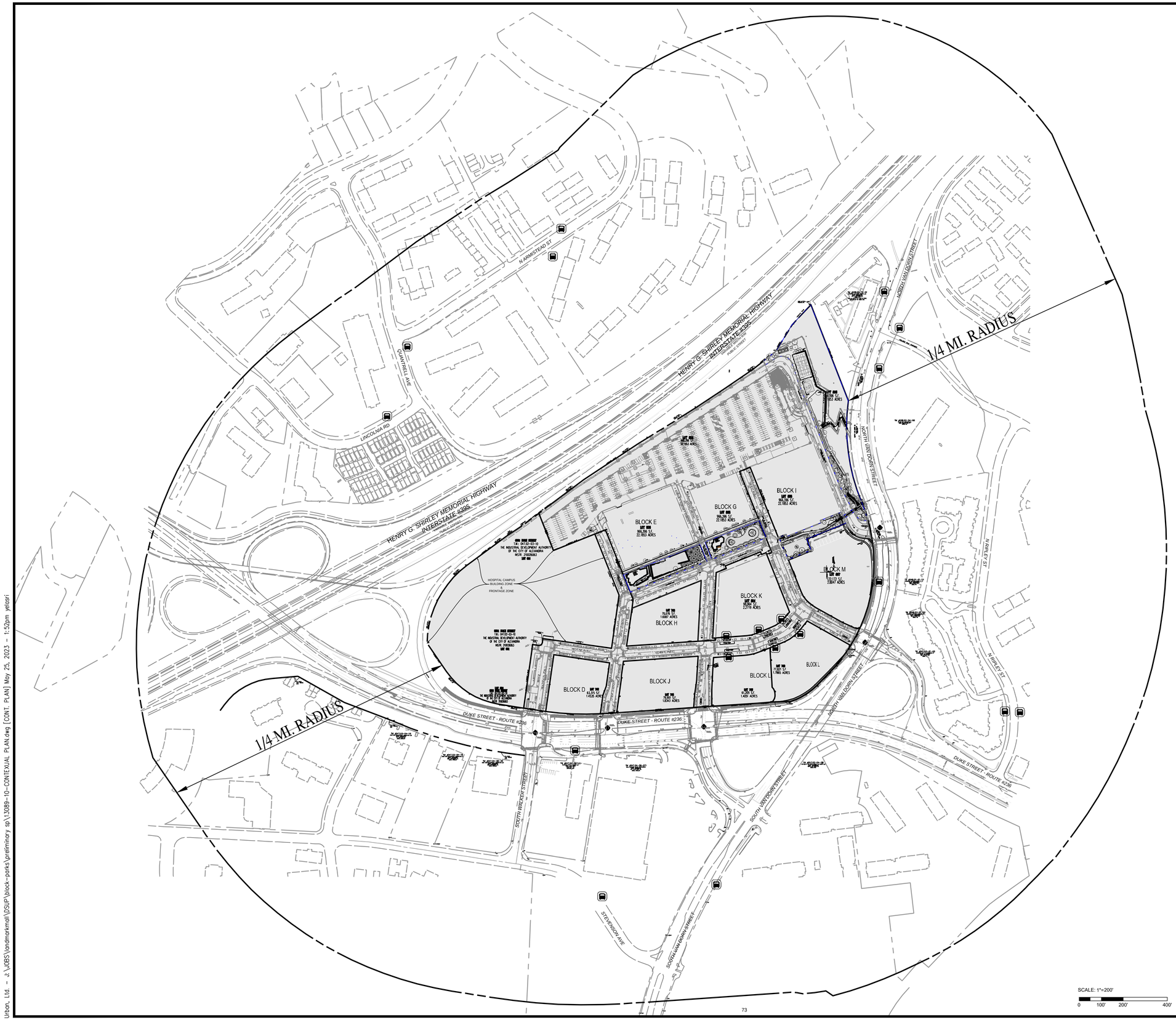
Urban Ltd.
4200 D TECHNOLOGY CT.
CHANTILLY, VA. 20151
TEL: 703.642.2306
FAX: 703.378.7888
www.urban-ltd.com
urban
Planners+Engineers+Landscape Architects+Land Surveyors

COMMONWEALTH OF VIRGINIA
CLAYTON C. TOCK
Lic. No. 038780
PROFESSIONAL ENGINEER
03/26/2023

PROPERTY EXHIBIT
LANDMARK MALL REDEVELOPMENT
PRELIMINARY SITE PLAN - PARKS
CITY OF ALEXANDRIA, VIRGINIA
DATE: NOV., 2022
SCALE: 1"=100'
C.I.= N/A

SHEET 04 OF 47
FILE No. DSUP-13089

J:\JOBS\landmarkmall\DSUP\block-parks\preliminary sp\13089-04-PROPERTY EXHIBIT.dwg [PROPERTY EXHIBIT] May 25, 2023 - 1:52pm yelosri
Urban, Ltd. -



No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
02-11-2022
02-09-2023
05-17-2023
05-26-2023
- -
- -
- -
- -

Urban Ltd.
4200 D TECHNOLOGY CT.
CHANTILLY, VA. 20151
TEL. 703.642.2306
FAX 703.378.7888
www.urban-ltd.com

urban
Planners • Engineers • Landscape Architects • Land Surveyors

COMMONWEALTH OF VIRGINIA
CLAYTON C. TOCH
Lic. No. 038790
PROFESSIONAL ENGINEER
05/26/2023

CONTEXTUAL PLAN

LANDMARK MALL REDEVELOPMENT
PRELIMINARY SITE PLAN - PARKS

CITY OF ALEXANDRIA, VIRGINIA

SCALE: 1"=200' C.I.=N/A DATE: NOV., 2022

LEGEND

- TRANSIT STOP
- PROPOSED PROJECT SITE
- DSUP APPLICATION

APPROVED

SPECIAL USE PERMIT NO. _____

DEPARTMENT OF PLANNING & ZONING

_____ DIRECTOR _____ DATE

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

SITE PLAN NO. _____

_____ DIRECTOR _____ DATE

_____ CHAIRMAN, PLANNING COMMISSION _____ DATE

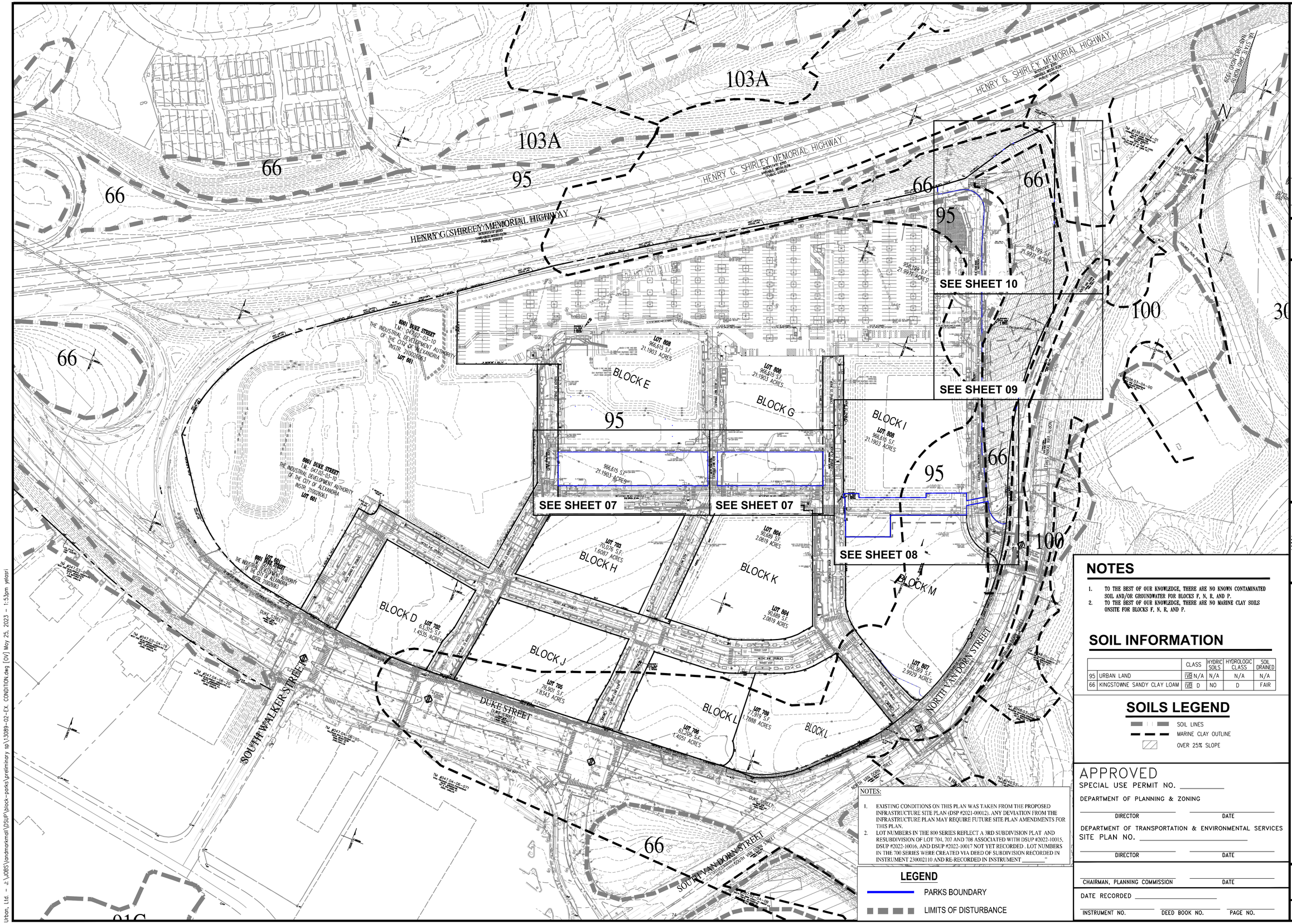
DATE RECORDED _____

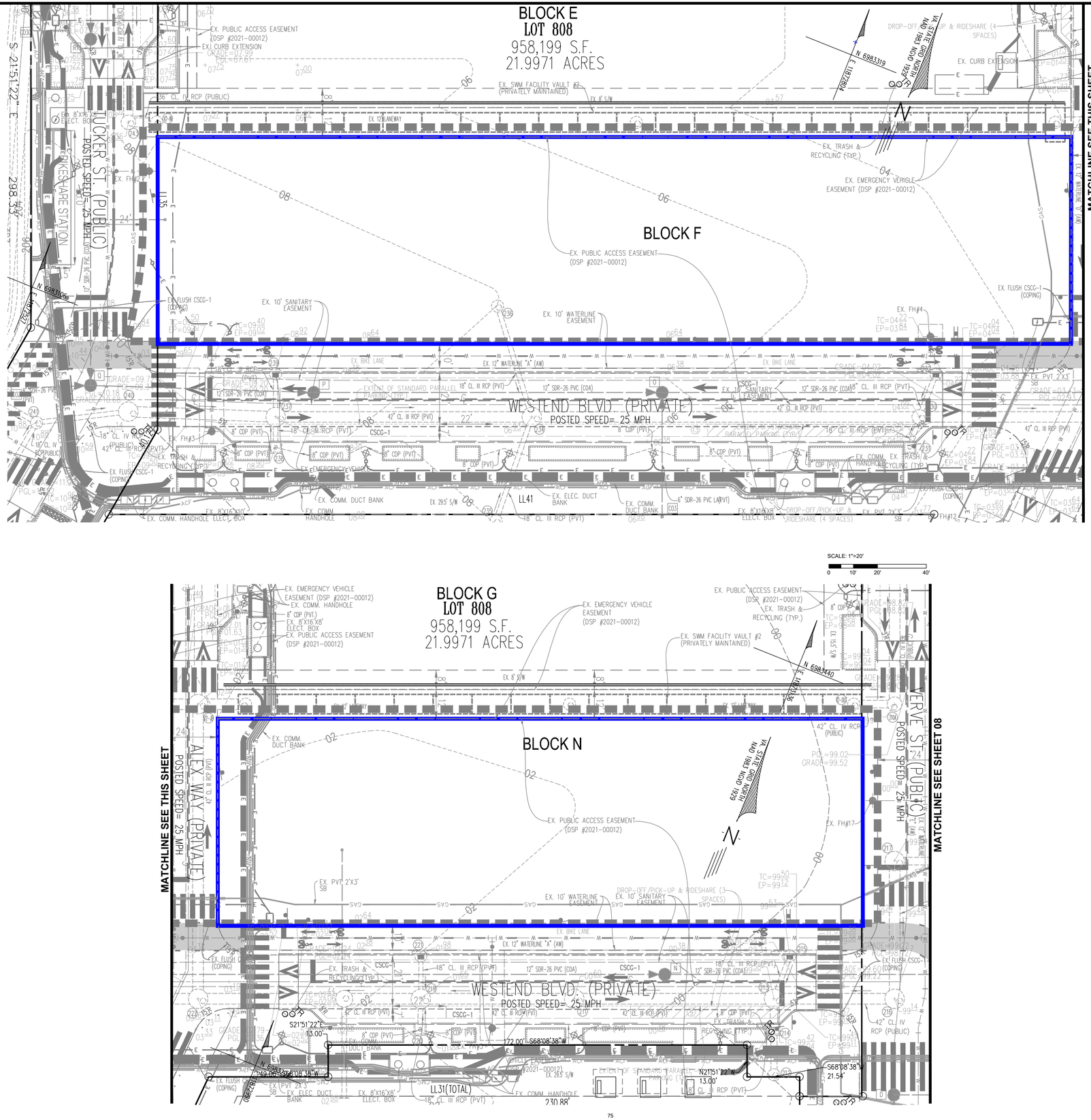
_____ INSTRUMENT NO. _____ DEED BOOK NO. _____ PAGE NO.

SHEET 05 OF 47

FILE No. DSUP-13089

Urban, Ltd. - J:\JOBS\landmarkmall\DSUP\block-parks\preliminary sp\13089-10-CONTEXUAL PLAN.dwg [CONT. PLAN] May 25, 2023 - 1:52pm yelosri


HENRY G. SHIRLEY MEMORIAL HIGHWAY
INTERSTATE 495
NORTHBOUND ROUTE
PUBLIC STREET
103A
66
95
100
6001 DUKE STREET
T.M. 047.02-03-10
THE INDUSTRIAL DEVELOPMENT AUTHORITY
OF THE CITY OF ALEXANDRIA
INSTR. 210026063
LOT 601
BLOCK E
LOT 808
966,615 S.F.
21.1903 ACRES
BLOCK G
BLOCK I
BLOCK D
LOT 702
63,574 S.F.
1.4594 ACRES
BLOCK H
LOT 703
70,074 S.F.
1.6087 ACRES
BLOCK K
LOT 804
90,699 S.F.
2.0819 ACRES
BLOCK J
LOT 705
79,901 S.F.
1.8343 ACRES
BLOCK L
LOT 706
61,268 S.F.
1.4061 ACRES
LOT 709
77,975 S.F.
1.7898 ACRES
BLOCK M
LOT 807
129,669 S.F.
2.9929 ACRES
958,199 S.F.
21.9971 ACRES
SEE SHEET 07
SEE SHEET 08
SEE SHEET 09
SEE SHEET 10
DUKE STREET
SOUTH WALKER STREET
NORTH VAN DORN STREET
SOUTH VAN DORN STREET
HOWARD JOHNSON
HOTEL & RESTAURANT
TM #047.03-04-10
TM #047.04-06-02
TM #047.04-06-03
TM #047.04-06-01
TM #047.04-06-07
TM #047.04-06-08
TM #047.04-06-09
TM #047.04-06-10
TM #047.04-06-11
TM #047.04-06-12
TM #047.04-06-13
TM #047.04-06-14
TM #047.04-06-15
TM #047.04-06-16
TM #047.04-06-17
TM #047.04-06-18
TM #047.04-06-19
TM #047.04-06-20
TM #047.04-06-21
TM #047.04-06-22
TM #047.04-06-23
TM #047.04-06-24
TM #047.04-06-25
TM #047.04-06-26
TM



NOTES:

1. EXISTING CONDITIONS ON THIS PLAN WAS TAKEN FROM THE PROPOSED INFRASTRUCTURE SITE PLAN (DSP #2021-00012). ANY DEVIATION FROM THE INFRASTRUCTURE PLAN MAY REQUIRE FUTURE SITE PLAN AMENDMENTS FOR THIS PLAN.
2. LOT NUMBERS IN THE 800 SERIES REFLECT A 3RD SUBDIVISION PLAT AND RESUBDIVISION OF LOT 704, 707 AND 708 ASSOCIATED WITH DSUP #2022-10015, DSUP #2022-10016, AND DSUP #2022-10017 NOT YET RECORDED . LOT NUMBERS IN THE 700 SERIES WERE CREATED VIA DEED OF SUBDIVISION RECORDED IN INSTRUMENT 230002140 AND RE-RECORDED IN INSTRUMENT _____."

LEGEND

PARKS BOUNDARY

LIMITS OF DISTURBANCE

APPROVED

SPECIAL USE PERMIT NO. _____

DEPARTMENT OF PLANNING & ZONING

_____ DIRECTOR _____ DATE

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

SITE PLAN NO. _____

_____ DIRECTOR _____ DATE

_____ CHAIRMAN, PLANNING COMMISSION _____ DATE

DATE RECORDED _____

_____ INSTRUMENT NO. _____ DEED BOOK NO. _____ PAGE NO.

No.	DESCRIPTION	DATE
	REVISIONS	

PLAN DATE
02-11-2022
02-09-2023
05-17-2023
05-26-2023

Urban Ltd.
4200 D TECHNOLOGY CT.
CHANTILLY, VA. 20151
TEL. 703.642.2306
FAX 703.378.7888
www.urban-ltd.com

urban™
Planners+Engineers+Landscape Architects+Land Surveyors

COMMONWEALTH OF VIRGINIA
CLAYTON C. TOCK
Lic. No. 038790
PROFESSIONAL ENGINEER
05/26/2023

EXISTING CONDITIONS

LANDMARK MALL REDEVELOPMENT
PRELIMINARY SITE PLAN - PARKS

CITY OF ALEXANDRIA, VIRGINIA

SCALE: 1"=20' C.I.=2' DATE: NOV., 2022

SHEET 07 OF 47

FILE No. DSUP-13089

Urban, Ltd. - J:\JOBS\Landmark Mall\DSUP\block-parks\preliminary sp\13089-02-EX. CONDITION.dwg [01] May 25, 2023 - 1:53pm yelasri

MATCHLINE SEE SHEET 09

MATCHLINE SEE SHEET 07

VERVE ST. (PUBLIC)
POSTED SPEED=25 MPH

BLOCK I
LOT 808
958,199 S.F.
21.9971 ACRES

BLOCK R

BLOCK M
LOT 807
130,369 S.F.
2.9929 ACRES

NORTH VAN DORN ST.
VARIABLE WIDTH R/W
PUBLIC STREET

(PRIVATE)

BENCHMARK 2
ELEV: 198.91
N: 6983327
E: 11873249

EX. PUBLIC ACCESS EASEMENT (DSP #2021-00012)

EX. 10' SANITARY EASEMENT

EX. RET. WALL (TYP.) (TO BE DESIGNED TO SPAN STORM AND SANITARY SEWER PIPES)

EX. SWM FACILITY VAULT #3 (M.H. TO BE LOCATED WITHIN IMPERVIOUS AREA OF THE PASEO) (PRIVATELY MAINTAINED)

EX. PUBLIC ACCESS EASEMENT (DSP #2021-00012)

EX. 10' WATERLINE EASEMENT

EX. EMERGENCY VEHICLE EASEMENT (DSP #2021-00012)

EX. ELEC. DUCT BANK

EX. 8'X16'X8' ELECT. BOX

EX. COMM. HANDHOLE

EX. COMM. DUCT BANK

EX. FH #20

EX. TRASH & RECYCLING (TYP.)

EX. CURBCUT METAL TRENCH DRAIN

VA STATE GRID NORTH
NAD 1983 NO. 1929

N 6983553
E 11873017

N 6983636
E 11873457

N 6983315
E 11873345

191.22'
S68°07'48"W

112.16'
S68°07'48"W

54.50'
S21°52'12"E

N22°38'53"W
10.12'

N86°58'04"W
9.48'

A=123.03'
R=90.00'
Δ=78°18'41"
CHB=S 22°14'47" E
CHL=114.52'

A=57.96'
R=90.00'
Δ=36°54'22"

A=805.39'
R=917.84'
Δ=50°17'39"
CHB=N 47°31'14" E
CHL=779.67'

A=84.43'
R=90.00'
Δ=53°45'43"

SCALE: 1"=20'
0 10' 20' 40'

NOTES:

1. EXISTING CONDITIONS ON THIS PLAN WAS TAKEN FROM THE PROPOSED INFRASTRUCTURE SITE PLAN (DSP #2021-00012). ANY DEVIATION FROM THE INFRASTRUCTURE PLAN MAY REQUIRE FUTURE SITE PLAN AMENDMENTS FOR THIS PLAN.
2. LOT NUMBERS IN THE 800 SERIES REFLECT A 3RD SUBDIVISION PLAT AND RESUBDIVISION OF LOT 704, 707 AND 708 ASSOCIATED WITH DSUP #2022-10015, DSUP #2022-10016, AND DSUP #2022-10017 NOT YET RECORDED . LOT NUMBERS IN THE 700 SERIES WERE CREATED VIA DEED OF SUBDIVISION RECORDED IN INSTRUMENT 230002110 AND RE-RECORDED IN INSTRUMENT _____"

LEGEND

PARKS BOUNDARY

LIMITS OF DISTURBANCE

APPROVED
SPECIAL USE PERMIT NO. _____

DEPARTMENT OF PLANNING & ZONING

DIRECTOR _____ DATE _____

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____

DIRECTOR _____ DATE _____

CHAIRMAN, PLANNING COMMISSION _____ DATE _____

DATE RECORDED _____

INSTRUMENT NO. _____ DEED BOOK NO. _____ PAGE NO. _____

No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
02-11-2022
02-09-2022
05-17-2023
05-26-2023

Urban Ltd.
4200 D TECHNOLOGY CT.
CHANTILLY, VA. 20151
TEL: 703.642.2306
FAX: 703.378.7888
www.urban-ltd.com

urban™
Planners • Engineers • Landscape Architects • Land Surveyors

COMMONWEALTH OF VIRGINIA
CLAYTON C. TOCK
Lic. No. 039780
PROFESSIONAL ENGINEER
05/26/2023

EXISTING CONDITIONS
LANDMARK MALL REDEVELOPMENT
PRELIMINARY SITE PLAN - PARKS
CITY OF ALEXANDRIA, VIRGINIA

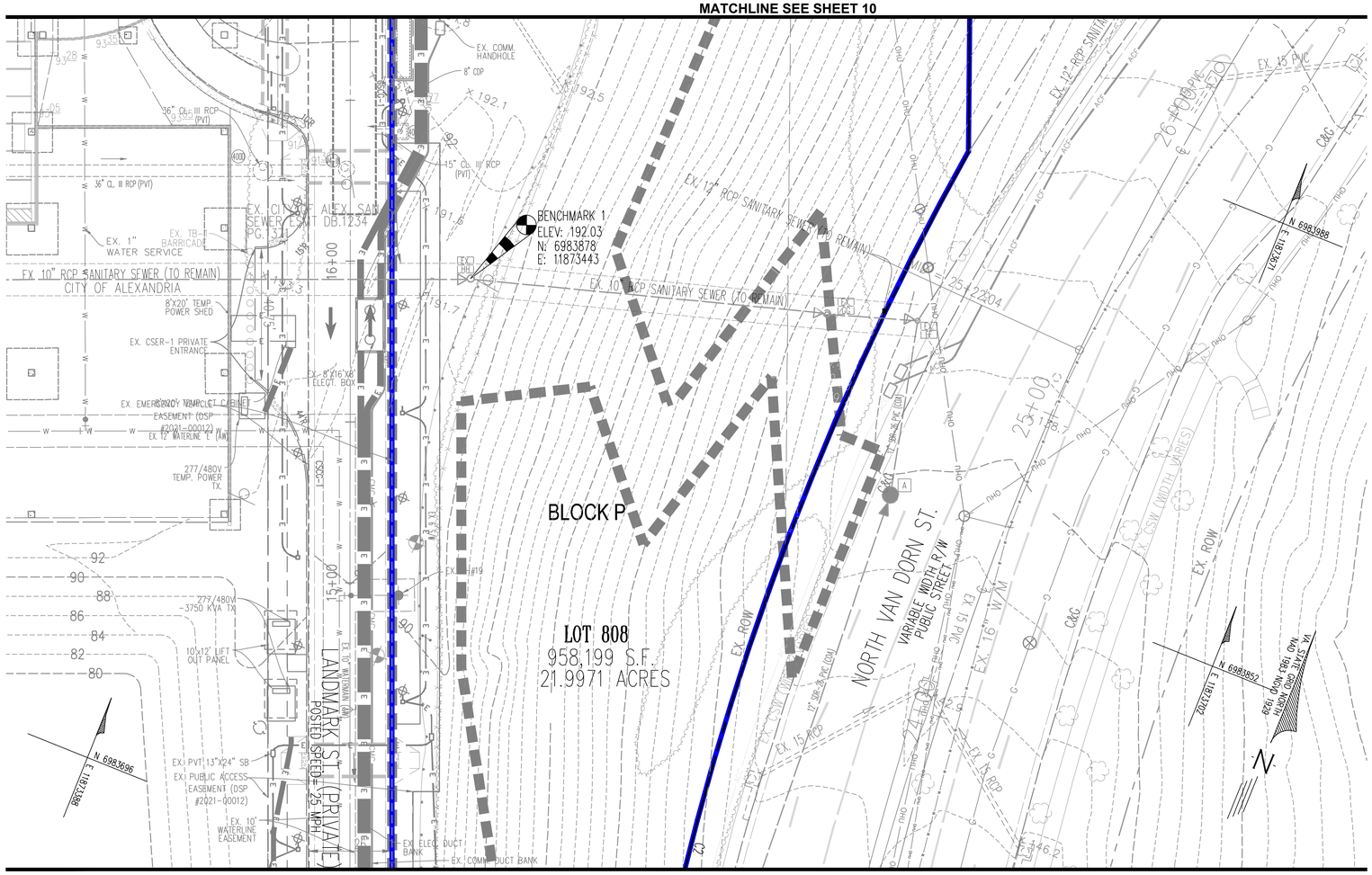
SCALE: 1"=20' C.I.= 2' DATE: NOV., 2022

SHEET 08 OF 47

FILE No. DSUP-13089

Urban, Ltd. - J:\JOBS\landmarkmall\DSUP\block-parks\preliminary sp\13089-02-EX. CONDITION.dwg [02] May 25, 2023 - 1:53pm yelosri

MATCHLINE SEE SHEET 10



MATCHLINE SEE SHEET 08

SCALE: 1"=20'
0 10' 20' 40'

NOTES:

1. EXISTING CONDITIONS ON THIS PLAN WAS TAKEN FROM THE PROPOSED INFRASTRUCTURE SITE PLAN (DSP #2021-00012). ANY DEVIATION FROM THE INFRASTRUCTURE PLAN MAY REQUIRE FUTURE SITE PLAN AMENDMENTS FOR THIS PLAN.
2. LOT NUMBERS IN THE 800 SERIES REFLECT A 3RD SUBDIVISION PLAT AND RESUBDIVISION OF LOT 704, 707 AND 708 ASSOCIATED WITH DSUP #2022-10015, DSUP #2022-10016, AND DSUP #2022-10017 NOT YET RECORDED . LOT NUMBERS IN THE 700 SERIES WERE CREATED VIA DEED OF SUBDIVISION RECORDED IN INSTRUMENT 230002110 AND RE-RECORDED IN INSTRUMENT _____."

LEGEND

PARKS BOUNDARY

LIMITS OF DISTURBANCE

APPROVED

SPECIAL USE PERMIT NO. _____

DEPARTMENT OF PLANNING & ZONING

_____ DIRECTOR _____ DATE

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

SITE PLAN NO. _____

_____ DIRECTOR _____ DATE

_____ CHAIRMAN, PLANNING COMMISSION _____ DATE

DATE RECORDED _____

_____ INSTRUMENT NO. _____ DEED BOOK NO. _____ PAGE NO.

No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
02-11-2022
02-09-2023
05-17-2023
05-26-2023
- -
- -
- -

Urban Ltd.
4200 D TECHNOLOGY CT.
CHANTILLY, VA. 20151
TEL. 703.642.2306
FAX 703.378.7888
www.urban-ltd.com

urban
Planners+Engineers+Landscape Architects+Land Surveyors

COMMONWEALTH OF VIRGINIA
CLAYTON C. TOCK
Lic. No. 038790
PROFESSIONAL ENGINEER
05/26/2023

EXISTING CONDITIONS

LANDMARK MALL REDEVELOPMENT
PRELIMINARY SITE PLAN - PARKS

CITY OF ALEXANDRIA, VIRGINIA

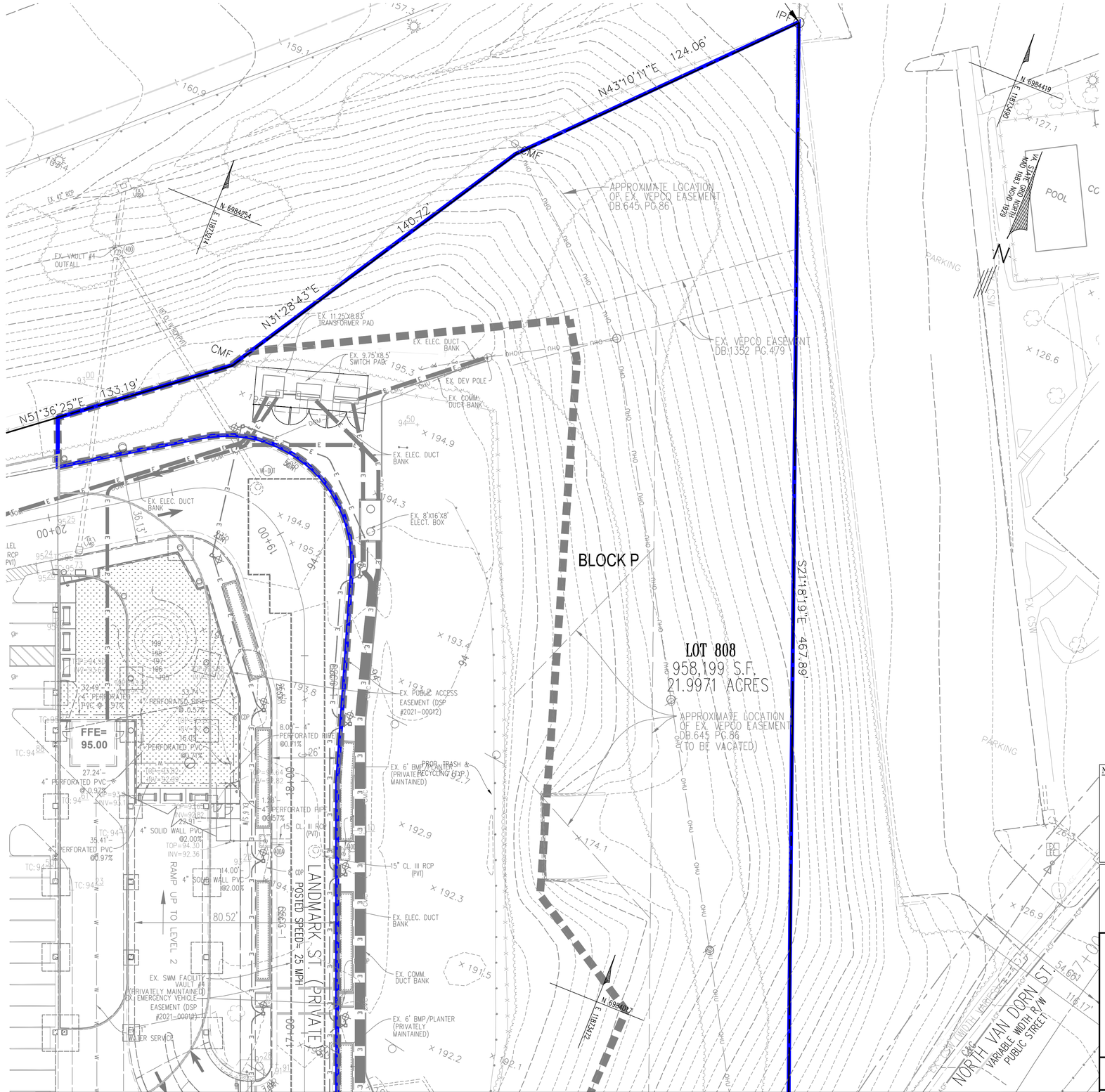
DATE: NOV., 2022

SCALE: 1"=20' C.I.= 2'

SHEET 09 OF 47

FILE No. DSUP-13089

Urban, Ltd. - J:\JOBS\landmarkmall\DSUP\block-parks\preliminary sp\13089-02-EX. CONDITION.dwg [03] May 25, 2023 - 1:54pm jelosri


IPF
N43°10'11"E 124.06'
CMF
APPROXIMATE LOCATION OF EX. VEPCO EASEMENT DB.645, PG.86
140.72'
N31°28'43"E
EX. VEPCO EASEMENT DB.1352 PG.479
CMF
133.19'
N51°36'25"E
EX. 11.25'X8.83' TRANSFORMER PAD
EX. ELEC. DUCT BANK
EX. 9.75'X8.5' SWITCH PAD
EX. DEV POLE
EX. COMM. DUCT BANK
EX. ELEC. DUCT BANK
EX. ELEC. DUCT BANK
EX. 8'X16'X8' ELECT. BOX
EX. PUBLIC ACCESS EASEMENT (DSP #2021-00012)
EX. 6' BMP/PLANTER (PRIVATELY MAINTAINED)
PROP. TRASH & RECYCLING (TYP.)
EX. 6' BMP/PLANTER (PRIVATELY MAINTAINED)
EX. ELEC. DUCT BANK
EX. COMM. DUCT BANK
EX. 6' BMP/PLANTER (PRIVATELY MAINTAINED)
EX. SWM FACILITY VAULT #5 (PRIVATELY MAINTAINED)
EX. EMERGENCY VEHICLE EASEMENT (DSP #2021-00012)
WATER SERVICE
FFE= 95.00
RAMP UP TO LEVEL 2
80.52'
LANDMARK ST. (PRIVATE)
POSTED SPEED= 25 MPH
BLOCK P
LOT 808
958,199 S.F.
21.9971 ACRES
APPROXIMATE LOCATION OF EX. VEPCO EASEMENT DB.645 PG.86 (TO BE VACATED)
S21°18'19"E 467.89'
N 6984419
E 1187211.3
N 6984254
E 1187214.1
N 6984077
E 1187342.2
NORTH VAN DORN ST.
VARIABLE WIDTH R/W
PUBLIC STREET
POOL
PARKING
EX. CSW
EX. 4" PERFORATED PIPE
EX. 15" CL. III RCP (PVI)
EX. 15" CL. III RCP (PVI)
EX. 4" PERFORATED PIPE
EX. 8.0" PERFORATED RISER
EX. 4" PERFORATED PVC
EX. 4" SOLID WALL PVC
EX. 4" SOLID WALL PVC
EX. 4" PERFORATED PVC
EX. 4" PERFORATED PVC
EX. 4" PERFORATED

6001 DUKE STREET
T.M.: 047.02-03-10
THE INDUSTRIAL DEVELOPMENT AUTHORITY
OF THE CITY OF ALEXANDRIA
INSTR. 210026063
LOT 601

6001 DUKE STREET
T.M.: 047.02-03-01
THE INDUSTRIAL DEVELOPMENT AUTHORITY
OF THE CITY OF ALEXANDRIA
INSTR. 210026063
LOT 601

LOT 808
966,615 S.F.
21.1903 ACRES

LOT 808
958,199 S.F.
21.9971 ACRES

LOT 808
958,199 S.F.
21.9321 ACRES

LOT 808
966,615 S.F.
21.1903 ACRES

LOT 808
966,615 S.F.
21.1903 ACRES

LOT 808
966,615 S.F.
21.1903 ACRES

LOT 605
16,615 S.F.

LOT 605
16,615 S.F.

LOT 704
70,076 S.F.
1.6087 ACRES

LOT 804
90,699 S.F.
2.0819 ACRES

LOT 804
90,699 S.F.
2.0819 ACRES

LOT 705
79,901 S.F.
1.8343 ACRES

LOT 706
61,205 S.F.
1.4051 ACRES

LOT 708
77,919 S.F.
1.7888 ACRES

LOT 707
130,369 S.F.
2.9929 ACRES

LOT 703
67,315 S.F.
1.4535 ACRES

BLOCK D
BLOCK E
BLOCK G
BLOCK H
BLOCK I
BLOCK J
BLOCK K
BLOCK L
BLOCK M

SEE SHEET 15 & 19
SEE SHEET 14 & 18
SEE SHEET 12 & 16
SEE SHEET 12 & 16
SEE SHEET 13 & 17

SCALE: 1"=100'
0 50' 100' 200'

LEGEND

PARKS BOUNDARY

LIMITS OF DISTURBANCE

NOTES:

1. EXISTING CONDITIONS ON THIS PLAN WAS TAKEN FROM THE PROPOSED INFRASTRUCTURE SITE PLAN (DSP #2021-00012). ANY DEVIATION FROM THE INFRASTRUCTURE PLAN MAY REQUIRE FUTURE SITE PLAN AMENDMENTS FOR THIS PLAN.
2. ALL ADJOINING PROPERTY LINES AND LOT NUMBERS SHOWN HEREON REFLECT A 3RD SUBDIVISION PLAT AND RESUBDIVISION OF LOT 704, 707 AND 708 ASSOCIATED WITH DSUP #2022-10015, DSUP #2022-10016, AND DSUP #2022-10017 NOT YET RECORDED.

APPROVED
SPECIAL USE PERMIT NO. _____
DEPARTMENT OF PLANNING & ZONING
DIRECTOR _____ DATE _____
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
DIRECTOR _____ DATE _____
CHAIRMAN, PLANNING COMMISSION _____ DATE _____
DATE RECORDED _____
INSTRUMENT NO. _____ DEED BOOK NO. _____ PAGE NO. _____

No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
02-11-2022
02-17-2023
05-26-2023

Urban Ltd.
4200 D TECHNOLOGY CT.
CHANTILLY, VA. 20151
TEL: 703.642.2306
FAX: 703.378.7888
www.urban-ltd.com
Planners+Engineers+Landscape Architects+Land Surveyors

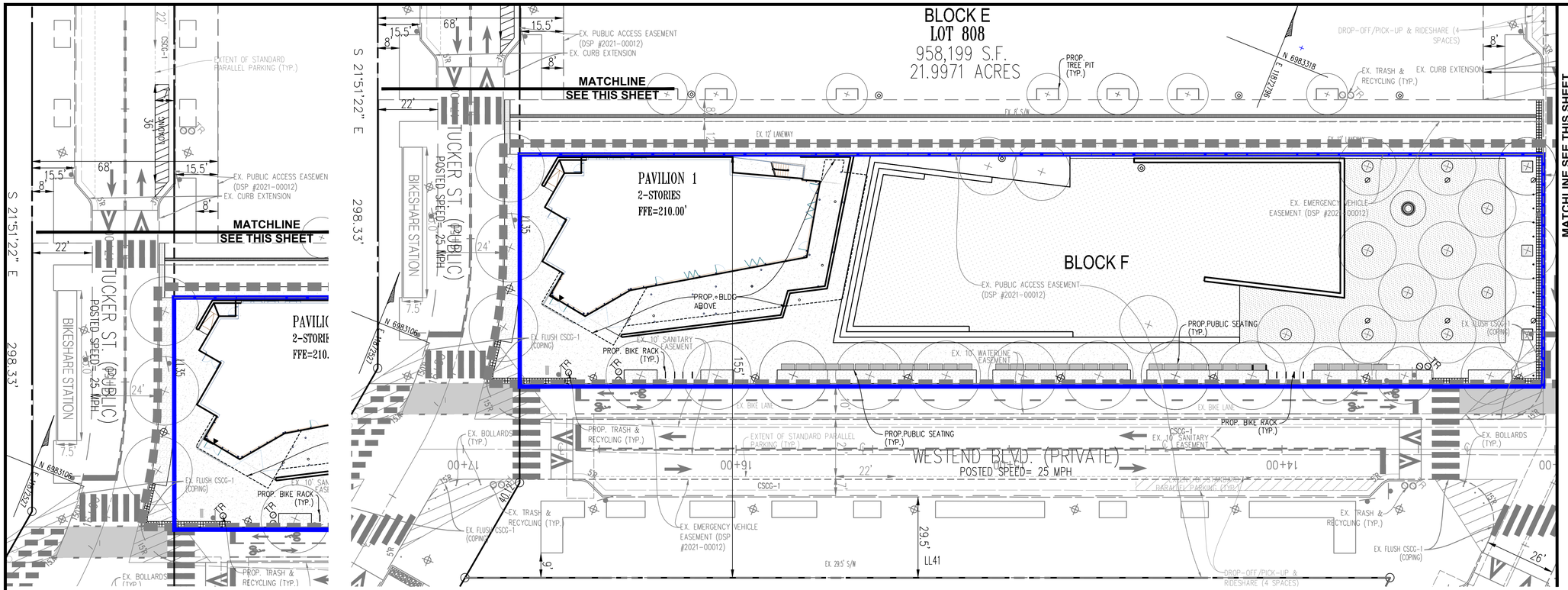
COMMONWEALTH OF VIRGINIA
CLAYTON C. TOCK
Lic. No. 039790
ENGINEER
PROFESSIONAL
05/26/2023

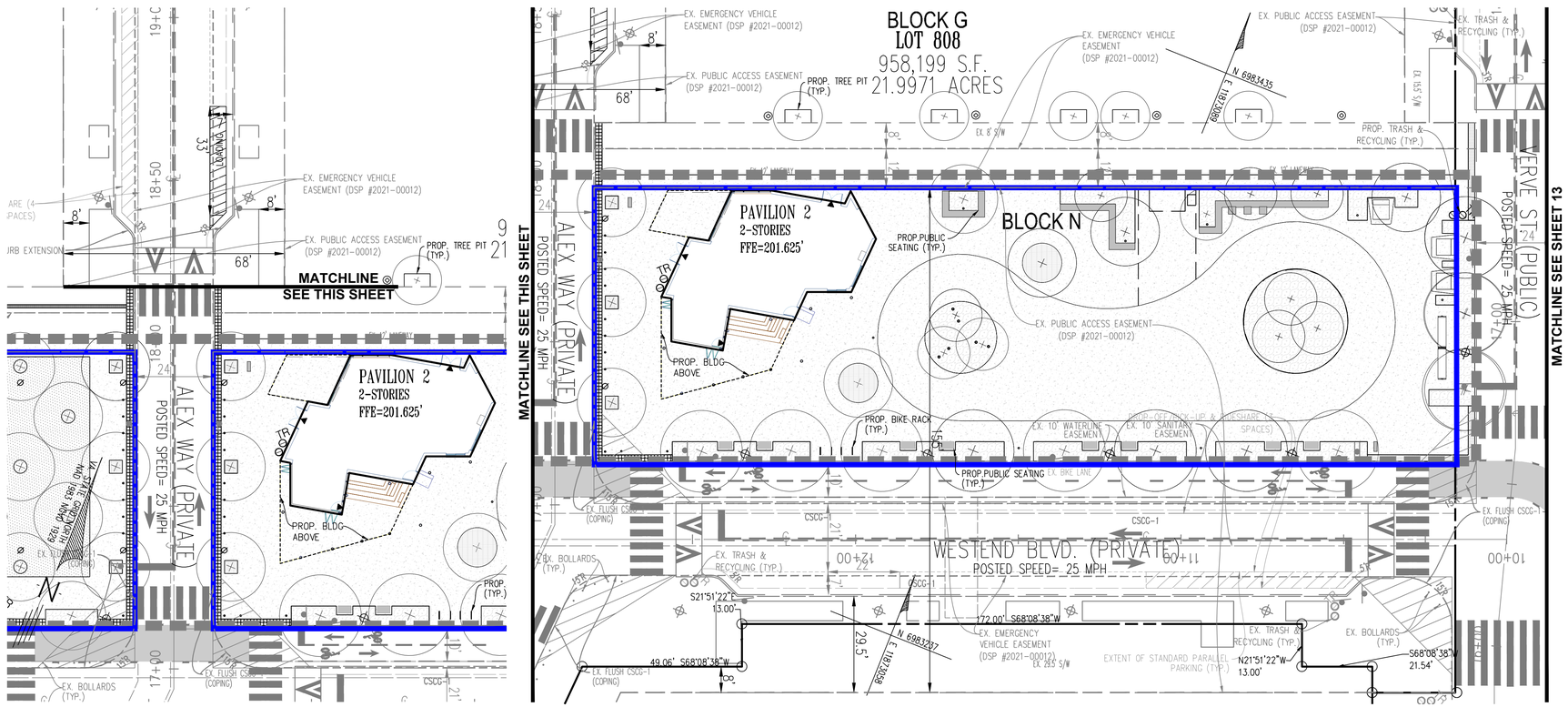
OVERVIEW PLAN
LANDMARK MALL REDEVELOPMENT
PRELIMINARY SITE PLAN - PARKS
CITY OF ALEXANDRIA, VIRGINIA
SCALE: 1"=100' C.I.= 2' DATE: NOV., 2022

SHEET 11 OF 47

FILE No. DSUP-13089

Urban, Ltd. - J:\JOBS\landmarkmall\DSUP\block-parks\preliminary sp\13089-03-CONCEPT PLAN.dwg [OV] May 25, 2023 - 1:54pm yelosri





SCALE: 1"=20'
0 10' 20' 40'

NOTES:

1. EXISTING CONDITIONS ON THIS PLAN WAS TAKEN FROM THE PROPOSED INFRASTRUCTURE SITE PLAN (DSP #2021-00012). ANY DEVIATION FROM THE INFRASTRUCTURE PLAN MAY REQUIRE FUTURE SITE PLAN AMENDMENTS FOR THIS PLAN.
2. ALL ADJOINING PROPERTY LINES AND LOT NUMBERS SHOWN HEREON REFLECT A 3RD SUBDIVISION PLAT AND RESUBDIVISION OF LOT 704, 707 AND 708 ASSOCIATED WITH DSUP #2022-10015, DSUP #2022-10016, AND DSUP #2022-10017 NOT YET RECORDED.

LEGEND

PARKS BOUNDARY

LIMITS OF DISTURBANCE

APPROVED
SPECIAL USE PERMIT NO. _____

DEPARTMENT OF PLANNING & ZONING

_____ _____
DIRECTOR DATE

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____

_____ _____
DIRECTOR DATE

_____ _____
CHAIRMAN, PLANNING COMMISSION DATE

DATE RECORDED _____

_____ _____ _____
INSTRUMENT NO. DEED BOOK NO. PAGE NO.

No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
02-11-2022
02-09-2023
03-17-2023
05-26-2023

Urban Ltd.
4200 D TECHNOLOGY CT.
CHANTILLY, VA. 20151
TEL. 703.642.2306
FAX 703.378.7888
www.urban-ltd.com

urban™
Planners • Engineers • Landscape Architects • Land Surveyors

COMMONWEALTH OF VIRGINIA
CLAYTON C. TOCK
Lic. No. 038790
PROFESSIONAL ENGINEER
03/24/2023

SITE PLAN
LANDMARK MALL REDEVELOPMENT
PRELIMINARY SITE PLAN - PARKS
CITY OF ALEXANDRIA, VIRGINIA
SCALE: 1"=20' C.I.=N/A DATE: NOV., 2022

SHEET 12 OF 47

FILE No. DSUP-13089

Urban, Ltd. - J:\JOBS\landmarkmall\DSUP\block-parks\preliminary sp\13089-03-CONCEPT PLAN.dwg [01] May 25, 2023 - 1:55pm yelosri

MATCHLINE SEE SHEET 14

VERVE ST. (PUBLIC)
POSTED SPEED= 25 MPH

N 6983553
E 1182977

VA STATE GRID NORTH
MAD 1983 NGVD 1929

N 6983649
E 1182745

BLOCK I
LOT 808
958,199 S.F.
21.9971 ACRES

PROP. PUBLIC ACCESS EASEMENT (GRANTED WITH THIS DSUP)

14+00
13+00
12+00
11+00
10+00

45'
26.67'
100R
LANDMARK ST. (PRIVATE)
W/S 9.73
E/S 9.73
CSOC-1
13.03'
A=123.03'
R=75.00'
S 72°51'11" E
141.24'
PR = 21+
CURB
SANITARY EASEMENT
EX. 10' WATERLINE EASEMENT
6'
13'
12.93'
11.52'
EX. TRASH & RECYCLING (TYP.)
A=103.39'
R=91.84'
Δ=64°29'43"
N22°38'53"W
10.12'
A=47.96'
R=54.00'
Δ=50°53'18"
N86°58'04"W
9.48'
NORTH VAN DORN ST.
VARIABLE WIDTH R/W
PUBLIC STREET
EX. EMERGENCY VEHICLE EASEMENT (DSP #2021-00012)
EX. RET. WALL (TYP.) (TO BE DESIGNED TO SPAN STORM AND SANITARY SEWER PIPES)
EX. PUBLIC ACCESS EASEMENT (DSP #2021-00012)
PROP. PUBLIC ACCESS EASEMENT (GRANTED WITH THIS DSUP)
PROP. PUBLIC ACCESS EASEMENT (GRANTED WITH THIS DSUP)
PROP. PUBLIC ACCESS EASEMENT (GRANTED WITH THIS DSUP)
DOG RELIEF AREA
DOG RELIEF AREA
PROP. PUBLIC SEATING (TYP.)
PROP. PUBLIC SEATING (TYP.)
PROP. TRASH & RECYCLING (TYP.)
EX. BOLLARDS (TYP.)
25ft
LL24
LL23
LL22
LL21
EX. 10' SANITARY EASEMENT
EX. PUBLIC ACCESS EASEMENT (DSP #2021-00012)
8.00'
14'
6'
10'
191.22'
S68°07'48"W
112.16'
S68°07'48"W
34.56'
S21°52'12"E
BLOCK R
BLOCK M
LOT 807
130,369 S.F.
2.9929 ACRES
N 6983305
E 1182352
N 2153.22'
21.5'
EX. TRASH & RECYCLING (TYP.)
CSOC-1
CG-7
CG-2
CG-6
3574 VPD
25ft
35ft
24ft
W/S 9.73
E/S 9.73
EX. 24" STORM
EX. 8" SAN

MATCHLINE SEE SHEET 12

SCALE: 1"=20'
0 10' 20' 40'

NOTES:

1. EXISTING CONDITIONS ON THIS PLAN WAS TAKEN FROM THE PROPOSED INFRASTRUCTURE SITE PLAN (DSP #2021-00012). ANY DEVIATION FROM THE INFRASTRUCTURE PLAN MAY REQUIRE FUTURE SITE PLAN AMENDMENTS FOR THIS PLAN.
2. ALL ADJOINING PROPERTY LINES AND LOT NUMBERS SHOWN HEREON REFLECT A 3RD SUBDIVISION PLAT AND RESUBDIVISION OF LOT 704, 707 AND 708 ASSOCIATED WITH DSUP #2022-10015, DSUP #2022-10016, AND DSUP #2022-10017 NOT YET RECORDED.

LEGEND

PARKS BOUNDARY

LIMITS OF DISTURBANCE

APPROVED
SPECIAL USE PERMIT NO. _____

DEPARTMENT OF PLANNING & ZONING

DIRECTOR _____ DATE _____

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____

DIRECTOR _____ DATE _____

CHAIRMAN, PLANNING COMMISSION _____ DATE _____

DATE RECORDED _____

INSTRUMENT NO. _____ DEED BOOK NO. _____ PAGE NO. _____

No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
02-11-2022
03-09-2022
04-17-2023
05-26-2023

Urban Ltd.
4200 D TECHNOLOGY CT.
CHANTILLY, VA. 20151
TEL. 703.642.2306
FAX. 703.378.7888
www.urban-ltd.com

urban
Planners+Engineers+Landscape Architects+Land Surveyors

COMMONWEALTH OF VIRGINIA
CLAYTON C. TOCK
Lic. No. 039790
PROFESSIONAL ENGINEER
05/26/2023

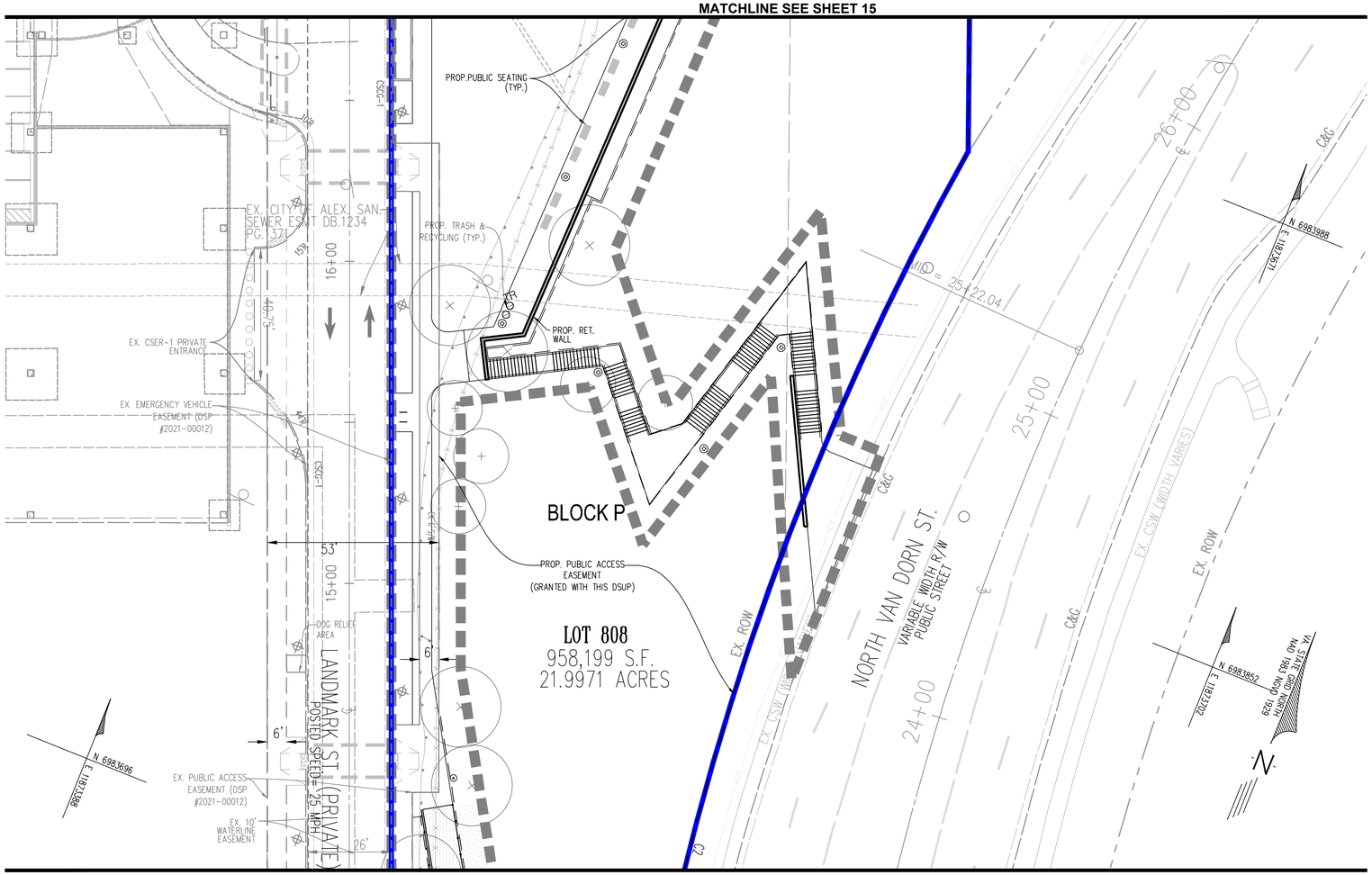
SITE PLAN
LANDMARK MALL REDEVELOPMENT
PRELIMINARY SITE PLAN - PARKS
CITY OF ALEXANDRIA, VIRGINIA
SCALE: 1"=20' C.I.= N/A DATE: NOV., 2022

SHEET 13 OF 47

FILE No. DSUP-13089

Urban, Ltd. - J:\JOBS\landmarkmall\DSUP\block-parks\preliminary sp\13089-03-CONCEPT PLAN.dwg [02] May 25, 2023 - 1:55pm yelosri

MATCHLINE SEE SHEET 15



MATCHLINE SEE SHEET 13

SCALE: 1"=20'
0 10' 20' 40'

NOTES:

1. EXISTING CONDITIONS ON THIS PLAN WAS TAKEN FROM THE PROPOSED INFRASTRUCTURE SITE PLAN (DSP #2021-00012). ANY DEVIATION FROM THE INFRASTRUCTURE PLAN MAY REQUIRE FUTURE SITE PLAN AMENDMENTS FOR THIS PLAN.
2. ALL ADJOINING PROPERTY LINES AND LOT NUMBERS SHOWN HEREON REFLECT A 3RD SUBDIVISION PLAT AND RESUBDIVISION OF LOT 704, 707 AND 708 ASSOCIATED WITH DSUP #2022-10015, DSUP #2022-10016, AND DSUP #2022-10017 NOT YET RECORDED .

LEGEND

PARKS BOUNDARY

LIMITS OF DISTURBANCE

APPROVED
SPECIAL USE PERMIT NO. _____

DEPARTMENT OF PLANNING & ZONING

_____ DIRECTOR _____ DATE

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____

_____ DIRECTOR _____ DATE

_____ CHAIRMAN, PLANNING COMMISSION _____ DATE

DATE RECORDED _____

_____ INSTRUMENT NO. _____ DEED BOOK NO. _____ PAGE NO.

No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
02-11-2022
02-09-2023
05-17-2023
05-26-2023
- -
- -
- -
- -

Urban Ltd.
4200 D TECHNOLOGY CT.
CHANTILLY, VA. 20151
TEL. 703.642.2306
FAX. 703.378.7888
www.urban-ltd.com

urban
Planners+Engineers+Landscape Architects+Land Surveyors

COMMONWEALTH OF VIRGINIA
CLAYTON C. TOCK
Lic. No. 039790
PROFESSIONAL ENGINEER
05/26/2023

SITE PLAN

LANDMARK MALL REDEVELOPMENT
PRELIMINARY SITE PLAN - PARKS

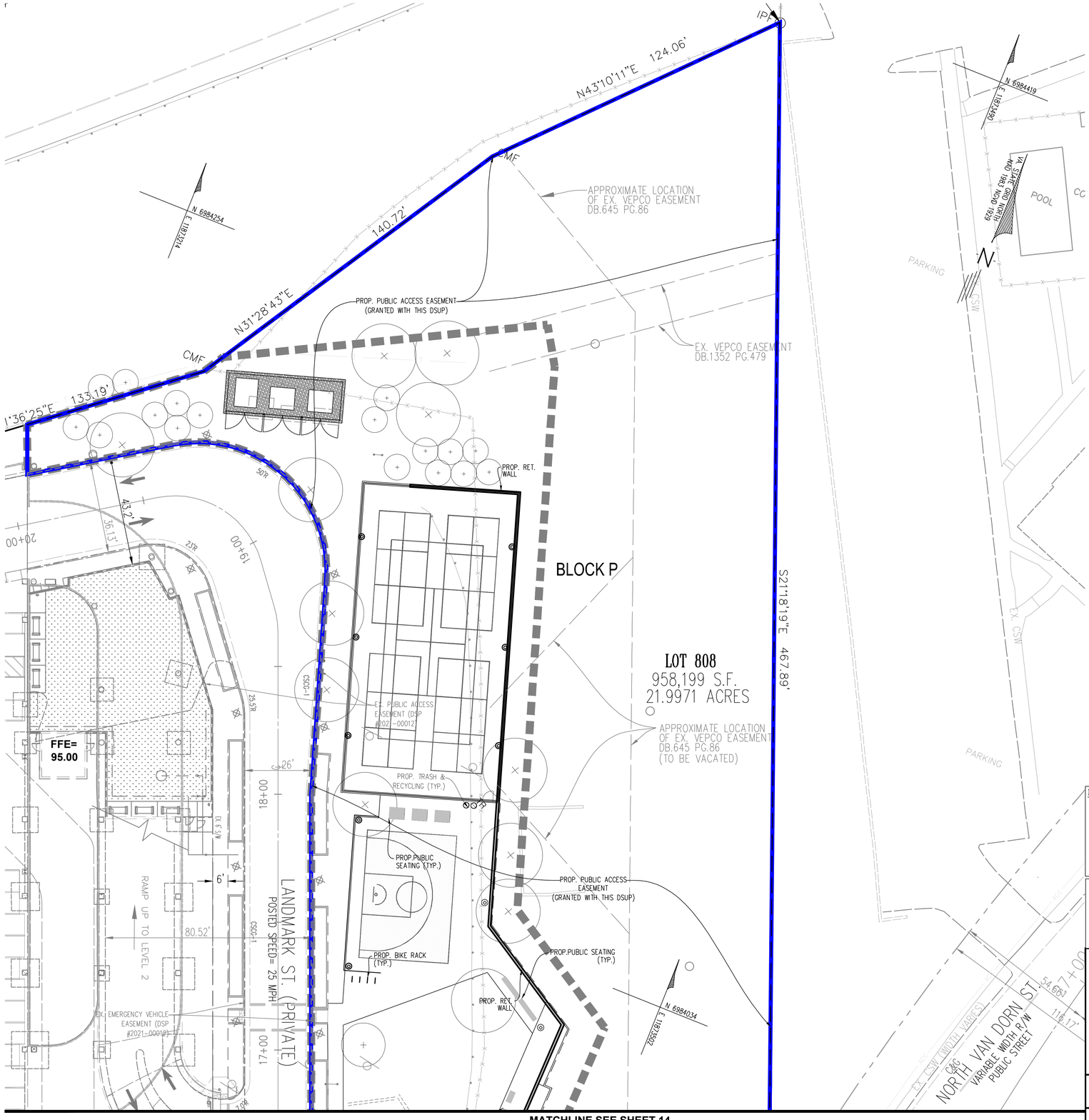
CITY OF ALEXANDRIA, VIRGINIA

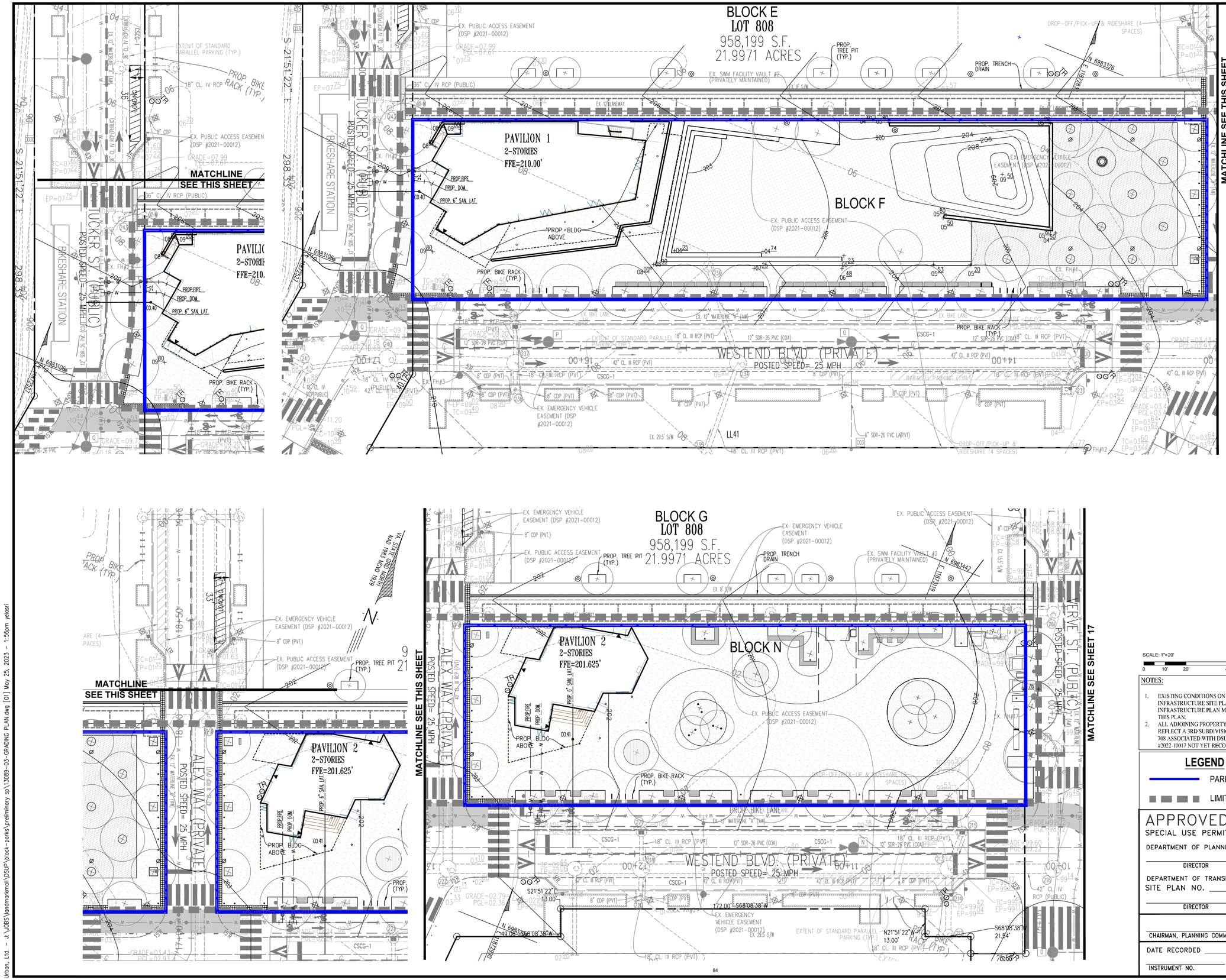
DATE: NOV., 2022
C.I.= N/A
SCALE: 1"=20'

SHEET
14
OF
47

FILE No.
DSUP-13089

Urban, Ltd. - J:\JOBS\landmarkmall\DSUP\block-parks\preliminary sp\3089-03-CONCEPT PLAN.dwg [03] May 25, 2023 - 1:55pm yelasri


N43°10'11"E 124.06'
N31°28'43"E 140.72'
N1°36'25"E 133.19'
CMF
CMF
IPF
N 6984254
E 1187214
APPROXIMATE LOCATION OF EX. VEPCO EASEMENT DB.645 PG.86
PROP. PUBLIC ACCESS EASEMENT (GRANTED WITH THIS DSUP)
EX. VEPCO EASEMENT DB.1352 PG.479
PROP. RET. WALL
BLOCK P
LOT 808
958,199 S.F.
21.9971 ACRES
S21°18'19"E 467.89'
APPROXIMATE LOCATION OF EX. VEPCO EASEMENT DB.645 PG.86 (TO BE VACATED)
EX. PUBLIC ACCESS EASEMENT (DSP #2021-00012)
PROP. TRASH & RECYCLING (TYP.)
PROP.PUBLIC SEATING (TYP.)
PROP. BIKE RACK (TYP.)
PROP. PUBLIC ACCESS EASEMENT (GRANTED WITH THIS DSUP)
PROP.PUBLIC SEATING (TYP.)
PROP. RET. WALL
N 6984034
E 1187550
FFE= 95.00
RAMP UP TO LEVEL 2
80.52'
6'
26'
LANDMARK ST. (PRIVATE)
POSTED SPEED= 25 MPH
EX. EMERGENCY VEHICLE EASEMENT (DSP #2021-00012)
CSCL-1
CSCL-2
CSCL-3
CSCL-4
CSCL-5
CSCL-6
CSCL-7
CSCL-8
CSCL-9
CSCL-10
CSCL-11
CSCL-12
CSCL-13
CSCL-14
CSCL-15
CSCL-16
CSCL-17
CSCL-18
CSCL-19
CSCL-20
CSCL-21
CSCL-22
CSCL-23
CSCL-24
CSCL-25
CSCL-26
CSCL-27
CSCL-28
CSCL-29
CSCL-30
CSCL-31
CSCL-32
CSCL-33
CSCL-34
CSCL-35
CSCL-36
CSCL-37
CSCL-38
CSCL-39
CSCL-40



SCALE: 1"=20'
0 10' 20' 40'

NOTES:

1. EXISTING CONDITIONS ON THIS PLAN WAS TAKEN FROM THE PROPOSED INFRASTRUCTURE SITE PLAN (DSP #2021-00012). ANY DEVIATION FROM THE INFRASTRUCTURE PLAN MAY REQUIRE FUTURE SITE PLAN AMENDMENTS FOR THIS PLAN.
2. ALL ADJOINING PROPERTY LINES AND LOT NUMBERS SHOWN HEREON REFLECT A 3RD SUBDIVISION PLAT AND RESUBDIVISION OF LOT 704, 707 AND 708 ASSOCIATED WITH DSUP #2022-10015, DSUP #2022-10016, AND DSUP #2022-10017 NOT YET RECORDED.

LEGEND

PARKS BOUNDARY

LIMITS OF DISTURBANCE

APPROVED
SPECIAL USE PERMIT NO. _____
DEPARTMENT OF PLANNING & ZONING
DIRECTOR _____ DATE _____
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
DIRECTOR _____ DATE _____
CHAIRMAN, PLANNING COMMISSION _____ DATE _____
DATE RECORDED _____
INSTRUMENT NO. _____ DEED BOOK NO. _____ PAGE NO. _____

No.	DATE	REVISIONS

PLAN DATE
02-11-2022
02-09-2023
04-17-2023
05-26-2023

Urban Ltd.
4200 D TECHNOLOGY CT.
CHANTILLY, VA. 20151
TEL. 703.642.2306
FAX 703.378.7888
www.urban-ltd.com
Planners • Engineers • Landscape Architects • Land Surveyors

COMMONWEALTH OF VIRGINIA
CLAYTON C. TOCK
Lic. No. 038790
PROFESSIONAL ENGINEER
03/26/2023

GRADING PLAN
LANDMARK MALL REDEVELOPMENT
PRELIMINARY SITE PLAN - PARKS
CITY OF ALEXANDRIA, VIRGINIA
SCALE: 1"=20' C1.= 2' DATE: NOV., 2022

SHEET 16 OF 47

FILE No. DSUP-13089

Urban, Ltd. - J:_OBS\landmarkmall\DSUP\block-parks\preliminary sp\13089-03-GRADING PLAN.dwg [01] May 25, 2023 - 1:56pm yelosri

MATCHLINE SEE SHEET 18

MATCHLINE SEE SHEET 16

BLOCK I
LOT 808
958,199 S.F.
21.9971 ACRES

BLOCK R

BLOCK M
LOT 807
130,369 S.F.
2.9929 ACRES

VERVE ST. (PUBLIC)
POSTED SPEED=25 MPH

LANDMARK S.T. (PRIVATE)

NORTH VAN DORN ST.
VARIABLE WIDTH R/W
PUBLIC STREET

PROP. PUBLIC ACCESS EASEMENT (GRANTED WITH THIS DSUP)

EX. PUBLIC ACCESS EASEMENT (DSP #2021-00012)

EX. RET. WALL (TYP.) (TO BE DESIGNED TO SPAN STORM AND SANITARY SEWER PIPES)

EX. SWM FACILITY VAULT #3 (M.H. TO BE LOCATED WITHIN IMPERVIOUS AREA OF THE PASEO) (PRIVATELY MAINTAINED)

DOG RELIEF AREA

EX. EMERGENCY VEHICLE EASEMENT (DSP #2021-00012)

EX. CURBCUT METAL TRENCH DRAIN

BENCHMARK #2
ELEV: 198.91
N: 6983227
E: 11873249

191.22'
S68°07'48"W

112.16'
S68°07'48"W

34.56'
S21°52'12"E

N22°38'53"W
10.12'

N86°58'04"W
9.48'

A=103.39' R=91.84'
Δ=64°29'43"

A=47.96'
Δ=30°

A=123.03'
4°34'

S22°34'14"E
100.34'

5.15%

SCALE: 1"=20'
0 10' 20' 40'

NOTES:

1. EXISTING CONDITIONS ON THIS PLAN WAS TAKEN FROM THE PROPOSED INFRASTRUCTURE SITE PLAN (DSP #2021-00012). ANY DEVIATION FROM THE INFRASTRUCTURE PLAN MAY REQUIRE FUTURE SITE PLAN AMENDMENTS FOR THIS PLAN.
2. ALL ADJOINING PROPERTY LINES AND LOT NUMBERS SHOWN HEREON REFLECT A 3RD SUBDIVISION PLAT AND RESUBDIVISION OF LOT 704, 707 AND 708 ASSOCIATED WITH DSUP #2022-10015, DSUP #2022-10016, AND DSUP #2022-10017 NOT YET RECORDED.

LEGEND

PARKS BOUNDARY

LIMITS OF DISTURBANCE

APPROVED
SPECIAL USE PERMIT NO. _____

DEPARTMENT OF PLANNING & ZONING

_____ DIRECTOR _____ DATE

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____

_____ DIRECTOR _____ DATE

_____ CHAIRMAN, PLANNING COMMISSION _____ DATE

DATE RECORDED _____

_____ INSTRUMENT NO. _____ DEED BOOK NO. _____ PAGE NO.

No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
02-11-2022
02-09-2023
03-17-2023
05-26-2023

Urban Ltd.
4200 D TECHNOLOGY CT.
CHANTILLY, VA. 20151
TEL. 703.642.2306
FAX. 703.378.7888
www.urban-ltd.com

urban
Planners+Engineers+Landscape Architects+Land Surveyors

COMMONWEALTH OF VIRGINIA
CLAYTON C. TOCK
Lic. No. 039790
PROFESSIONAL ENGINEER
03/24/2023

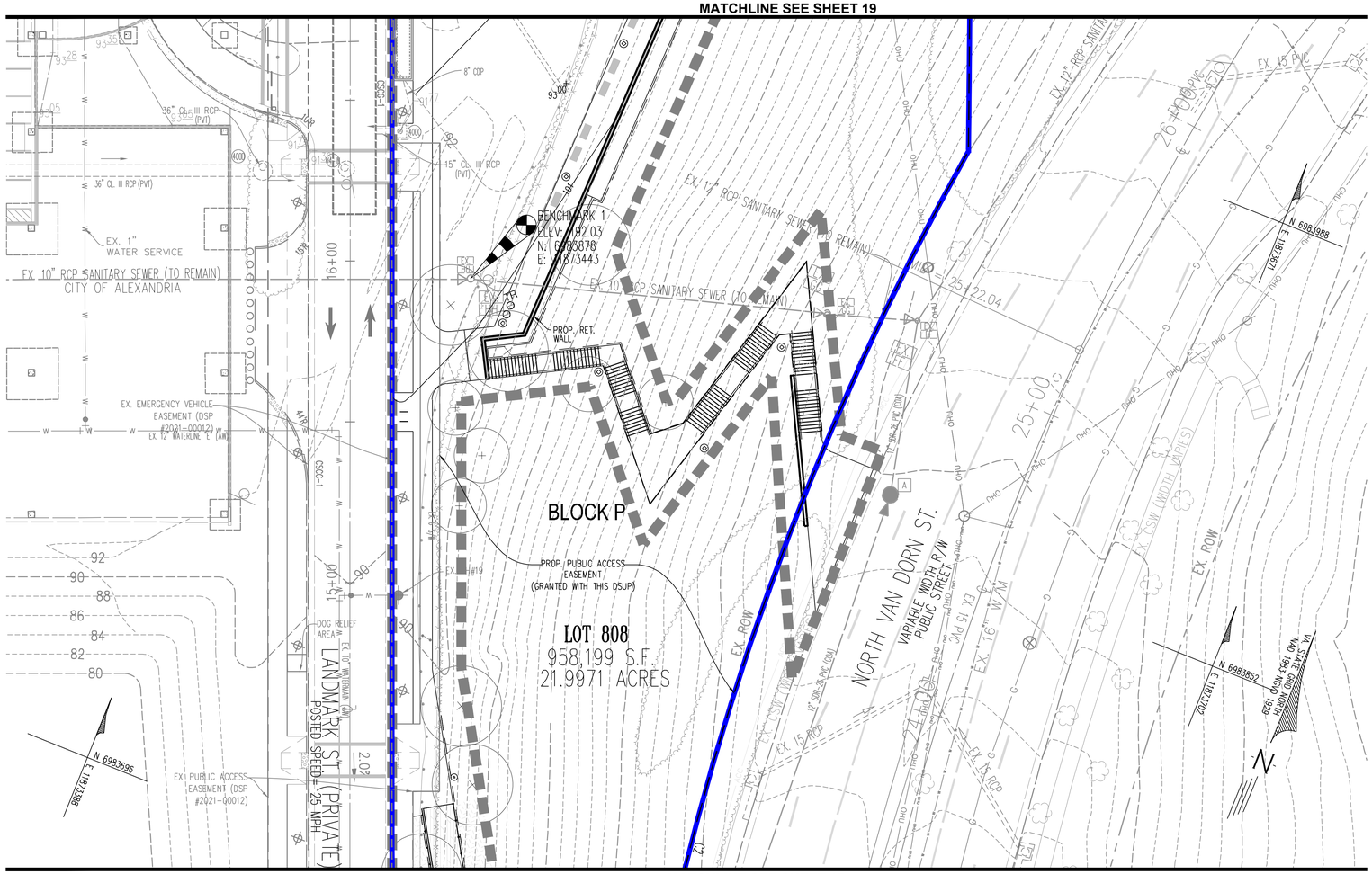
GRADING PLAN
LANDMARK MALL REDEVELOPMENT
PRELIMINARY SITE PLAN - PARKS
CITY OF ALEXANDRIA, VIRGINIA

SCALE: 1"=20' C.I.= 2' DATE: NOV., 2022

SHEET 17 OF 47

FILE No. DSUP-13089

MATCHLINE SEE SHEET 19



MATCHLINE SEE SHEET 17

SCALE: 1"=20'
0 10' 20' 40'

NOTES:

1. EXISTING CONDITIONS ON THIS PLAN WAS TAKEN FROM THE PROPOSED INFRASTRUCTURE SITE PLAN (DSP #2021-00012). ANY DEVIATION FROM THE INFRASTRUCTURE PLAN MAY REQUIRE FUTURE SITE PLAN AMENDMENTS FOR THIS PLAN.
2. ALL ADJOINING PROPERTY LINES AND LOT NUMBERS SHOWN HEREON REFLECT A 3RD SUBDIVISION PLAT AND RESUBDIVISION OF LOT 704, 707 AND 708 ASSOCIATED WITH DSUP #2022-10015, DSUP #2022-10016, AND DSUP #2022-10017 NOT YET RECORDED .

LEGEND

PARKS BOUNDARY

LIMITS OF DISTURBANCE

APPROVED
SPECIAL USE PERMIT NO. _____
DEPARTMENT OF PLANNING & ZONING
_____ DIRECTOR _____ DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
_____ DIRECTOR _____ DATE
_____ CHAIRMAN, PLANNING COMMISSION _____ DATE
DATE RECORDED _____
_____ INSTRUMENT NO. _____ DEED BOOK NO. _____ PAGE NO.

No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
02-11-2022
02-17-2022
03-31-2023
05-26-2023

Urban Ltd.
4200 D TECHNOLOGY CT.
CHANTILLY, VA. 20151
TEL. 703.642.2306
FAX 703.378.7888
www.urban-ltd.com

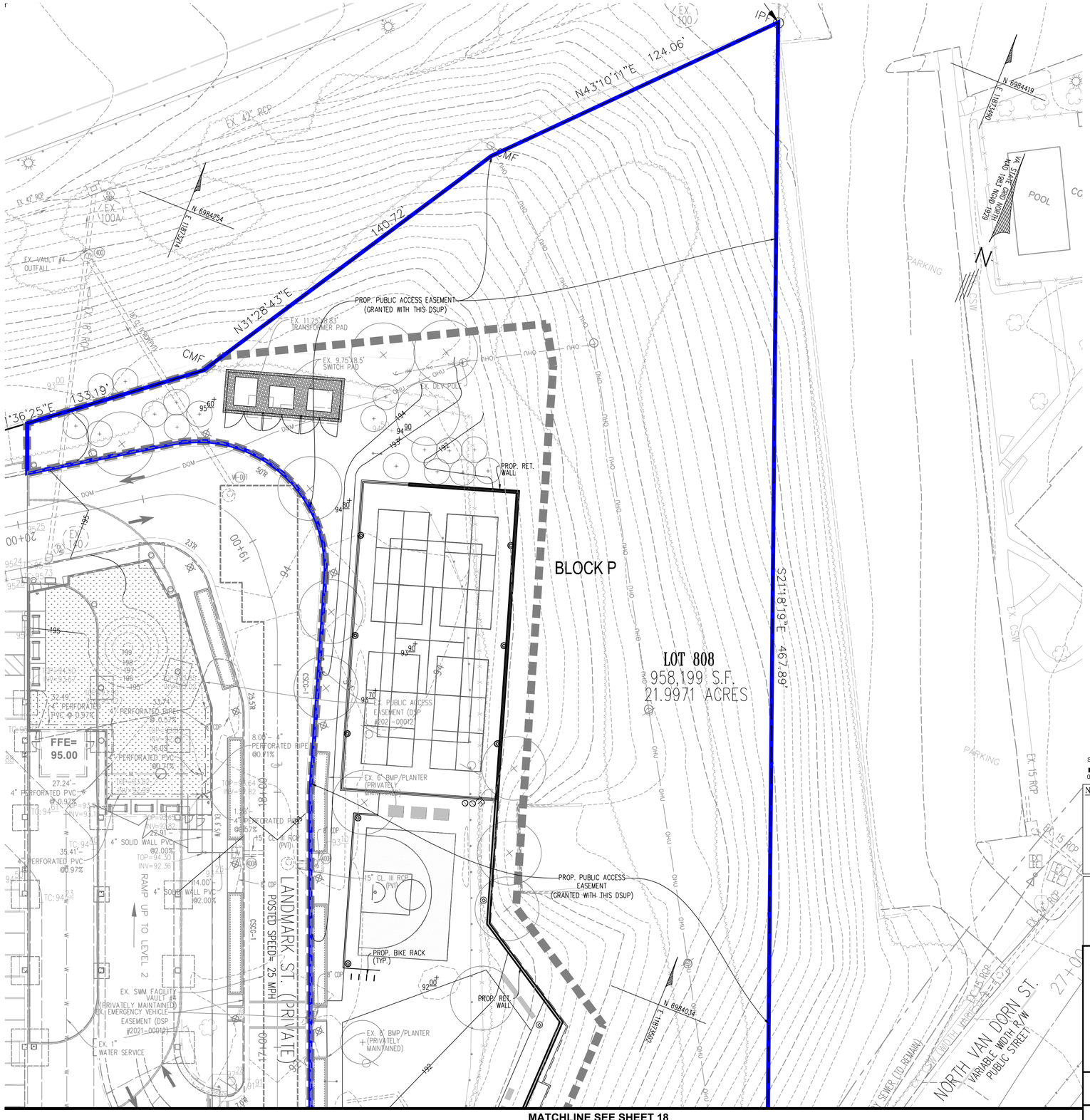
urban™
Planners+Engineers+Landscape Architects+Land Surveyors

COMMONWEALTH OF VIRGINIA
CLAYTON C. TOCK
Lic. No. 038790
PROFESSIONAL ENGINEER
03/26/2025

GRADING PLAN
LANDMARK MALL REDEVELOPMENT
PRELIMINARY SITE PLAN - PARKS
CITY OF ALEXANDRIA, VIRGINIA
SCALE: 1"=20' C.I.= 2' DATE: NOV., 2022

SHEET 18 OF 47

FILE No. DSUP-13089



MATCHLINE SEE SHEET 18

NOTES:

1. EXISTING CONDITIONS ON THIS PLAN WAS TAKEN FROM THE PROPOSED INFRASTRUCTURE SITE PLAN (DSP #2021-00012). ANY DEVIATION FROM THE INFRASTRUCTURE PLAN MAY REQUIRE FUTURE SITE PLAN AMENDMENTS FOR THIS PLAN.
2. ALL ADJOINING PROPERTY LINES AND LOT NUMBERS SHOWN HEREON REFLECT A 3RD SUBDIVISION PLAT AND RESUBDIVISION OF LOT 704, 707 AND 708 ASSOCIATED WITH DSUP #2022-10015, DSUP #2022-10016, AND DSUP #2022-10017 NOT YET RECORDED.

LEGEND

PARKS BOUNDARY

LIMITS OF DISTURBANCE

APPROVED

SPECIAL USE PERMIT NO. _____

DEPARTMENT OF PLANNING & ZONING

DIRECTOR _____ DATE _____

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

SITE PLAN NO. _____

DIRECTOR _____ DATE _____

CHAIRMAN, PLANNING COMMISSION _____ DATE _____

DATE RECORDED _____

INSTRUMENT NO. _____ DEED BOOK NO. _____ PAGE NO. _____

REVISIONS		
No.	DATE	DESCRIPTION

PLAN DATE
02-11-2022
02-09-2023
03-17-2023
05-26-2023

Urban Ltd.
4200 D TECHNOLOGY CT.
CHANTILLY, VA. 20151
TEL. 703.642.2306
FAX 703.378.7888
www.urban-ltd.com

urban™
Planners • Engineers • Landscape Architects • Land Surveyors

COMMONWEALTH OF VIRGINIA
CLAYTON C. POCK
Lic. No. 036790
PROFESSIONAL ENGINEER
07/26/2023

GRADING PLAN

LANDMARK MALL REDEVELOPMENT
PRELIMINARY SITE PLAN - PARKS

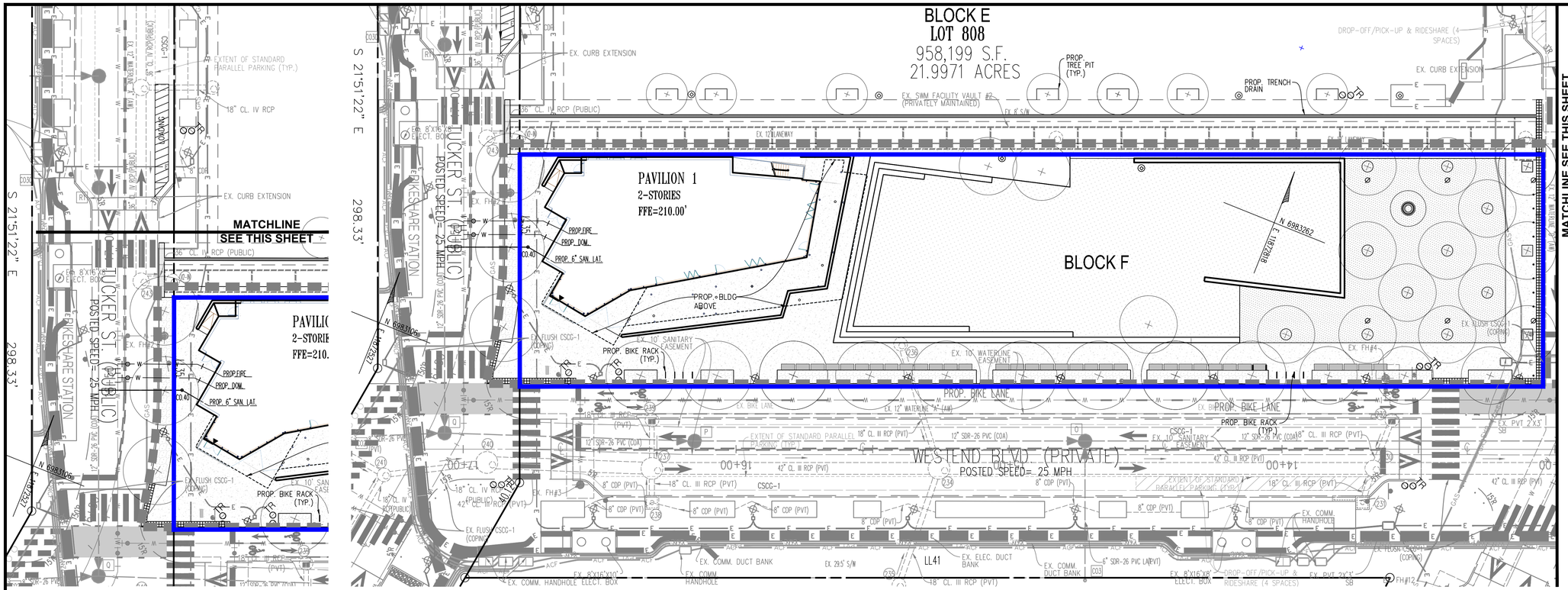
CITY OF ALEXANDRIA, VIRGINIA

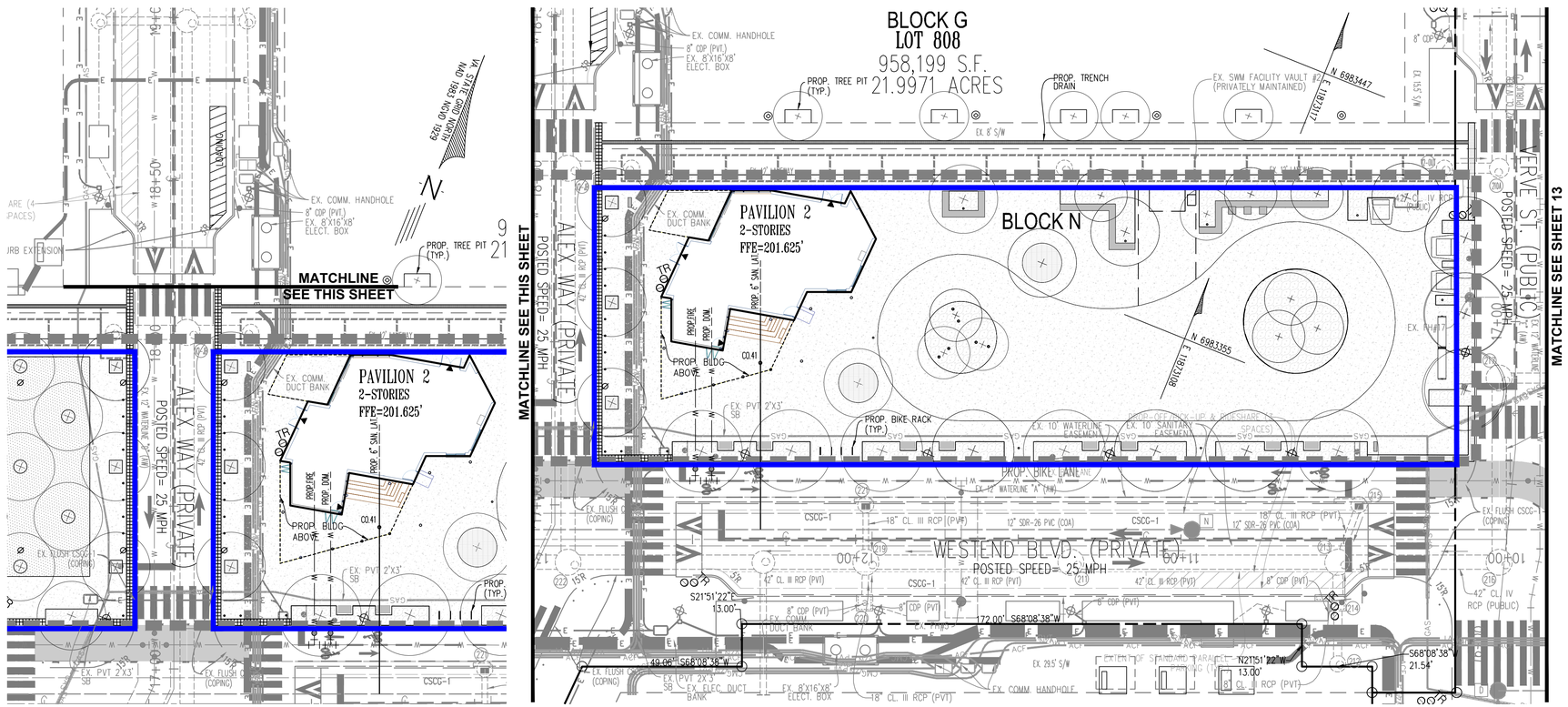
SCALE: 1"=20' C.I.= 2' DATE: NOV., 2022

SHEET 19 OF 47

FILE No. DSUP-13089

Urban, Ltd. - J:\JOBS\landmarkmall\DSUP\block-parks\preliminary sp\13089-03-GRADING PLAN.dwg [04] May 25, 2023 - 1:57pm yelosri





SCALE: 1"=20'
0 10' 20' 40'

NOTES:

1. EXISTING CONDITIONS ON THIS PLAN WAS TAKEN FROM THE PROPOSED INFRASTRUCTURE SITE PLAN (DSP #2021-00012). ANY DEVIATION FROM THE INFRASTRUCTURE PLAN MAY REQUIRE FUTURE SITE PLAN AMENDMENTS FOR THIS PLAN.
2. ALL ADJOINING PROPERTY LINES AND LOT NUMBERS SHOWN HEREON REFLECT A 3RD SUBDIVISION PLAT AND RESUBDIVISION OF LOT 704, 707 AND 708 ASSOCIATED WITH DSUP #2022-10015, DSUP #2022-10016, AND DSUP #2022-10017 NOT YET RECORDED .

LEGEND

PARKS BOUNDARY

LIMITS OF DISTURBANCE

APPROVED
SPECIAL USE PERMIT NO. _____
DEPARTMENT OF PLANNING & ZONING
_____ DIRECTOR _____ DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
_____ DIRECTOR _____ DATE
_____ CHAIRMAN, PLANNING COMMISSION _____ DATE
DATE RECORDED _____
_____ INSTRUMENT NO. _____ DEED BOOK NO. _____ PAGE NO.

No.	DATE	REVISIONS

PLAN DATE
02-11-2022
02-09-2022
03-17-2023
05-26-2023

Urban Ltd.
4200 D TECHNOLOGY CT.
CHANTILLY, VA. 20151
TEL. 703.642.2306
FAX 703.378.7888
www.urban-ltd.com
urban
Planners+Engineers+Landscape Architects+Land Surveyors

COMMONWEALTH OF VIRGINIA
CLAYTON C. TOCK
Lic. No. 038790
PROFESSIONAL ENGINEER
03/24/2023

UTILITY PLAN
LANDMARK MALL REDEVELOPMENT
PRELIMINARY SITE PLAN - PARKS
CITY OF ALEXANDRIA, VIRGINIA
SCALE: 1"=20' C.I.=N/A DATE: NOV., 2022

SHEET 19A OF 47

FILE No. DSUP-13089

Urban, Ltd. - J:\JOBS\landmarkmall\DSUP\block-parks\preliminary sp\13089-04A-UTILITY PLAN.dwg [01] May 25, 2023 - 1:58pm yelosri

MATCHLINE SEE SHEET 14

MATCHLINE SEE SHEET 12

VERVE ST. (PUBLIC)
POSTED SPEED= 25 MPH

BLOCK I
LOT 808
958,199 S.F.
21.9971 ACRES

BLOCK R

BLOCK M
LOT 807
130,369 S.F.
2.9929 ACRES

LANDMARK ST. (PRIVATE)

NORTH VAN DORN ST.
VARIABLE WIDTH R/W
PUBLIC STREET

BENCHMARK 2
ELEV: 198.91
N: 6983327
E: 11873249

PROSPECT LANE

DOG RELIEF AREA

EX. SWM FACILITY VAULT #3
(M.H. TO BE LOCATED WITHIN IMPERVIOUS AREA OF THE PASEO)
(PRIVATELY MAINTAINED)

EX. RET. WALL (TYP.)
(TO BE DESIGNED TO SPAN STORM AND SANITARY SEWER PIPES)

EX. 10' SANITARY EASEMENT

EX. 10' WATERLINE EASEMENT

EX. ELEC. DUCT BANK

EX. COMM. HANDHOLE

EX. COMM. DUCT BANK

EX. CURBCUT METAL TRENCH DRAIN

12" SDR-26 PVC (COA)

18" CL. III RCP (PVT)

42" CL. IV RCP (PUBLIC)

54" CL. IV RCP (PUBLIC)

8" CDP

15" CL. IV RCP (PUBLIC)

24" CL. IV RCP (PVT)

42" CL. IV RCP (PVT)

N 6983553
E 11873177

N 6983625
E 11873443

N 6983785
E 11873480

VA STATE GRID NORTH
MAG NOR NO 1929

191.22'
S68°07'48"W

112.16'
S68°07'48"W

54.56'
S68°07'48"W

N22°38'53"W
10.12'

N86°58'04"W
9.48'

C1: R=905.39', L=917.84', Δ=58°04'29"
C2: R=905.39', L=1014.24', Δ=64°12'43"
C3: R=905.39', L=1014.24', Δ=64°12'43"

S 22°34'14" E
124.27'

A=125.03'

SCALE: 1"=20'
0 10' 20' 40'

NOTES:

1. EXISTING CONDITIONS ON THIS PLAN WAS TAKEN FROM THE PROPOSED INFRASTRUCTURE SITE PLAN (DSP #2021-00012). ANY DEVIATION FROM THE INFRASTRUCTURE PLAN MAY REQUIRE FUTURE SITE PLAN AMENDMENTS FOR THIS PLAN.
2. ALL ADJOINING PROPERTY LINES AND LOT NUMBERS SHOWN HEREON REFLECT A 3RD SUBDIVISION PLAT AND RESUBDIVISION OF LOT 704, 707 AND 708 ASSOCIATED WITH DSUP #2022-10015, DSUP #2022-10016, AND DSUP #2022-10017 NOT YET RECORDED .

LEGEND

PARKS BOUNDARY

LIMITS OF DISTURBANCE

APPROVED
SPECIAL USE PERMIT NO. _____
DEPARTMENT OF PLANNING & ZONING
DIRECTOR _____ DATE _____
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
DIRECTOR _____ DATE _____
CHAIRMAN, PLANNING COMMISSION _____ DATE _____
DATE RECORDED _____
INSTRUMENT NO. _____ DEED BOOK NO. _____ PAGE NO. _____

No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
02-11-2022
03-09-2022
04-17-2023
05-26-2023

Urban Ltd.
4200 D TECHNOLOGY CT.
CHANTILLY, VA. 20151
TEL. 703.642.2306
FAX. 703.378.7888
www.urban-ltd.com
Planners+Engineers+Landscape Architects+Land Surveyors

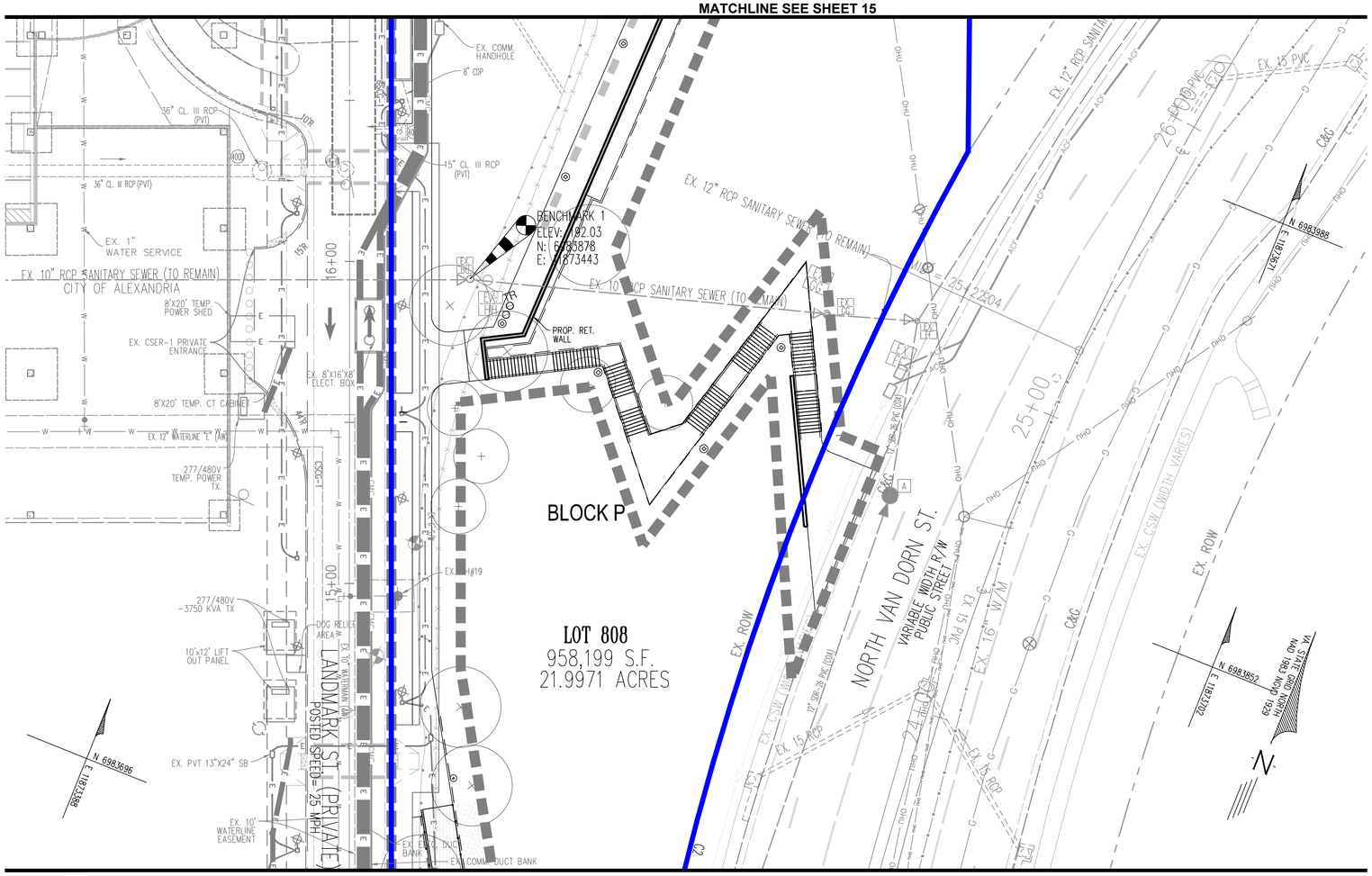
COMMONWEALTH OF VIRGINIA
CLAYTON C. TOCK
Lic. No. 038790
PROFESSIONAL ENGINEER
05/26/2023

UTILITY PLAN
LANDMARK MALL REDEVELOPMENT
PRELIMINARY SITE PLAN - PARKS
CITY OF ALEXANDRIA, VIRGINIA
SCALE: 1"=20' C.I.=N/A DATE: NOV., 2022

SHEET 19B OF 47

FILE No. DSUP-13089

Urban, Ltd. - J:_JOBS\landmarkmall\DSUP\block-parks\preliminary sp\13089-04A-UTILITY PLAN.dwg [02] May 25, 2023 - 1:58pm yetesri



SCALE: 1"=20'

0 10' 20' 40'

NOTES:

1. EXISTING CONDITIONS ON THIS PLAN WAS TAKEN FROM THE PROPOSED INFRASTRUCTURE SITE PLAN (DSP #2021-00012). ANY DEVIATION FROM THE INFRASTRUCTURE PLAN MAY REQUIRE FUTURE SITE PLAN AMENDMENTS FOR THIS PLAN.
2. ALL ADJOINING PROPERTY LINES AND LOT NUMBERS SHOWN HEREON REFLECT A 3RD SUBDIVISION PLAT AND RESUBDIVISION OF LOT 704, 707 AND 708 ASSOCIATED WITH DSUP #2022-10015, DSUP #2022-10016, AND DSUP #2022-10017 NOT YET RECORDED .

LEGEND

PARKS BOUNDARY

LIMITS OF DISTURBANCE

APPROVED

SPECIAL USE PERMIT NO. _____

DEPARTMENT OF PLANNING & ZONING

_____ DIRECTOR _____ DATE

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

SITE PLAN NO. _____

_____ DIRECTOR _____ DATE

_____ CHAIRMAN, PLANNING COMMISSION _____ DATE

DATE RECORDED _____

_____ INSTRUMENT NO. _____ DEED BOOK NO. _____ PAGE NO.

No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
02-11-2022
02-09-2023
03-17-2023
05-26-2023

Urban Ltd.
4200 D TECHNOLOGY CT.
CHANTILLY, VA. 20151
TEL. 703.642.2306
FAX 703.378.7888
www.urban-ltd.com

urban™
Planners•Engineers•Landscape Architects•Land Surveyors

COMMONWEALTH OF VIRGINIA
CLAYTON C. YOCK
Lic. No. 036790
PROFESSIONAL ENGINEER
05/26/2023

UTILITY PLAN

LANDMARK MALL REDEVELOPMENT
PRELIMINARY SITE PLAN - PARKS

CITY OF ALEXANDRIA, VIRGINIA

DATE: NOV., 2022

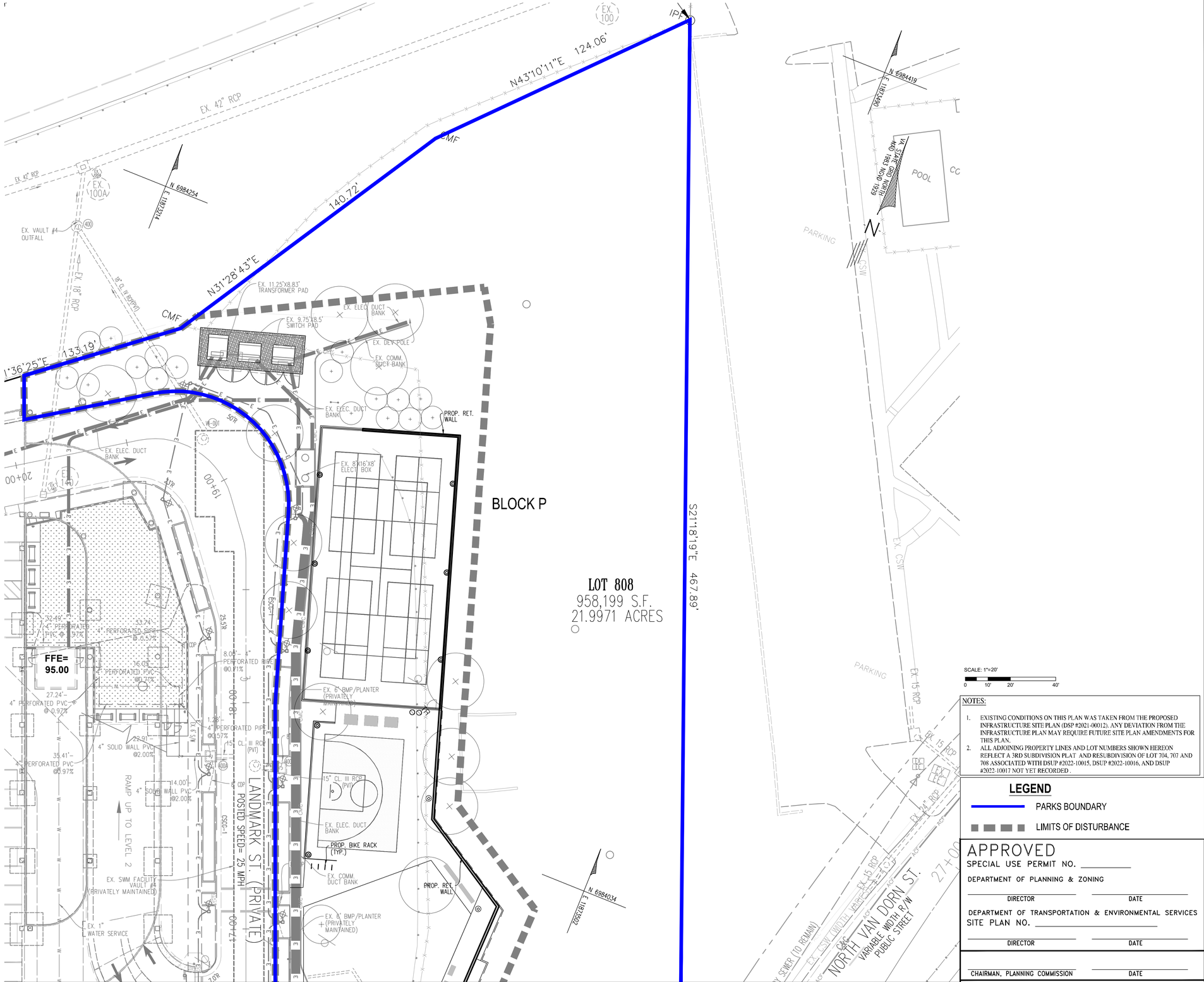
SCALE: 1"=20'

C.I.= N/A

SHEET 19C OF 47

FILE No. DSUP-13089

Urban, Ltd. – J:\JOBS\landmarkmall\DSUP\block-parks\preliminary sp\13089-04A-UTILITY PLAN.dwg [03] May 25, 2023 – 1:58pm yelosri



NOTES:

1. EXISTING CONDITIONS ON THIS PLAN WAS TAKEN FROM THE PROPOSED INFRASTRUCTURE SITE PLAN (DSP #2021-00012). ANY DEVIATION FROM THE INFRASTRUCTURE PLAN MAY REQUIRE FUTURE SITE PLAN AMENDMENTS FOR THIS PLAN.
2. ALL ADJOINING PROPERTY LINES AND LOT NUMBERS SHOWN HEREON REFLECT A 3RD SUBDIVISION PLAT AND RESUBDIVISION OF LOT 704, 707 AND 708 ASSOCIATED WITH DSUP #2022-10015, DSUP #2022-10016, AND DSUP #2022-10017 NOT YET RECORDED .

LEGEND

PARKS BOUNDARY

LIMITS OF DISTURBANCE

APPROVED
SPECIAL USE PERMIT NO. _____
DEPARTMENT OF PLANNING & ZONING
DIRECTOR _____ DATE _____
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
DIRECTOR _____ DATE _____
CHAIRMAN, PLANNING COMMISSION _____ DATE _____
DATE RECORDED _____
INSTRUMENT NO. _____ DEED BOOK NO. _____ PAGE NO. _____

No.	DATE	DESCRIPTION

REVISIONS

PLAN DATE
02-11-2022
02-09-2023
03-17-2023
05-26-2023

Urban Ltd.
4200 D TECHNOLOGY CT.
CHANTILLY, VA. 20151
TEL. 703.642.2306
FAX. 703.378.7888
www.urban-ltd.com

urban™
Planners+Engineers+Landscape Architects+Land Surveyors

COMMONWEALTH OF VIRGINIA
CLAYTON C. TOCK
Lic. No. 039790
PROFESSIONAL ENGINEER
05/26/2023

UTILITY PLAN

LANDMARK MALL REDEVELOPMENT
PRELIMINARY SITE PLAN - PARKS

CITY OF ALEXANDRIA, VIRGINIA

SCALE: 1"=20' C.I.=N/A DATE: NOV., 2022

SHEET 19D OF 47

FILE No. DSUP-13089

Urban, Ltd. - J:\JOBS\landmarkmall\DSUP\block-parks\preliminary sp\13089-04A-UTILITY PLAN.dwg [04] May 25, 2023 - 11:59pm yelosri

TUCKER ST. (PUBLIC)
ALEX WAY (PRIVATE)
VERVE ST. (PUBLIC)
WESTEND BLVD. (PRIVATE)
POSTED SPEED= 25 MPH

BLOCK E
LOT 808
958,199 S.F.
21.9971 ACRES

BLOCK F

BLOCK G
LOT 808
958,199 S.F.
21.9971 ACRES

BLOCK N

BLOCK H
LOT 703
70,076 S.F.
1.6087 ACRES

BLOCK K
LOT 804
98,964 S.F.
2.2719 ACRES

BLOCK R

PAVILION 1
2-STORIES
FFE=2.0.00'

PAVILION 2
2-STORIES
FFE=201.625'

EXTENT OF STANDARD PARALLEL PARKING (TYP.)

DROP-OFF/PICK-UP & RIDESHARE (4 SPACES)

DROP-OFF/PICK-UP & RIDESHARE (3 SPACES)

PROP. PUBLIC SEATING (TYP.)

PROP. TRASH & RECYCLING (TYP.)

EX. TRASH & RECYCLING (TYP.)

PROP. BIKE RACK (TYP.)

PROP. BLDG ABOVE

EX. 10' WATERLINE EASEMENT

EX. CURB EXTENSION

BIKESHARE STATION

MATCHLINE SEE SHEET 19F

S 21°51'22" E 298.33'

N 6983354 E 1187243

N 6983499 E 1187252

N 6982996 E 1187265

N 6982180 E 1187257

LEGEND

PARKS BOUNDARY

SCALE: 1"=30'
0 10' 30' 60'

NOTES:

1. EXISTING CONDITIONS ON THIS PLAN WAS TAKEN FROM THE PROPOSED INFRASTRUCTURE SITE PLAN (DSP #2021-00012). ANY DEVIATION FROM THE INFRASTRUCTURE PLAN MAY REQUIRE FUTURE SITE PLAN AMENDMENTS FOR THIS PLAN.
2. ALL ADJOINING PROPERTY LINES AND LOT NUMBERS SHOWN HEREON REFLECT A 3RD SUBDIVISION PLAT AND RESUBDIVISION OF LOT 704, 707 AND 708 ASSOCIATED WITH DSUP #2022-10015, DSUP #2022-10016, AND DSUP #2022-10017 NOT YET RECORDED .

APPROVED
SPECIAL USE PERMIT NO. _____
DEPARTMENT OF PLANNING & ZONING
DIRECTOR DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
DIRECTOR DATE
CHAIRMAN, PLANNING COMMISSION DATE
DATE RECORDED _____
INSTRUMENT NO. DEED BOOK NO. PAGE NO.

No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
02-11-2022
02-17-2022
05-17-2023
05-26-2023

Urban Ltd.
4200 D TECHNOLOGY CT.
CHANTILLY, VA. 20151
TEL. 703.642.2306
FAX. 703.378.7888
www.urban-ltd.com

urban
Planners+Engineers+Landscape Architects+Land Surveyors

COMMONWEALTH OF VIRGINIA
CLAYTON C. TOCK
Lic. No. 036790
PROFESSIONAL ENGINEER
05/26/2023

GIS DIMENSION PLAN
LANDMARK MALL REDEVELOPMENT
PRELIMINARY SITE PLAN - PARKS
CITY OF ALEXANDRIA, VIRGINIA
DATE: NOV., 2022
SCALE: 1"=30' C.I.= N/A

SHEET 19E OF 47

FILE No. DSUP-13089

Urban, Ltd. - J:\JOBS\landmarkmall\DSUP\block-parks\preliminary sp\13089-05-GIS DIMENSION.dwg [01] May 25, 2023 - 1:59pm yelosri

MATCHLINE SEE SHEET 19G

MATCHLINE SEE SHEET 19E

BLOCK P

LOT 808
958,199 S.F.
21.9971 ACRES

BLOCK I
LOT 808
958,199 S.F.
21.9971 ACRES

BLOCK R

BLOCK M
LOT 807
130,369 S.F.
2.9929 ACRES

LANDMARK ST. (PRIVATE)

NORTH VAN DORN ST.
VARIABLE WIDTH R/W
PUBLIC STREET

EX. R/W

EX. CSXR-1 PRIVATE ENTRANCE

EX. GARAGE WALL

PROP. RET. WALL

EX. 6' S/W

EX. 9' S/W

EX. 10' WATERLINE EASEMENT

DOG RELIEF AREA

PROP. PUBLIC SEATING (TYP.)

PROP. TRASH & RECYCLING (TYP.)

EX. RET. WALL (TYP.) (TO BE DESIGNED TO SPAN STORM AND SANITARY SEWER PIPES)

EX. NOSE DOWN CURB

SIGNALIZED INTERSECTION

OP-OFF/PICK-UP & ESHARE (3 SPACES)

XTENT OF TANDARD PARALLEL PARKING (TYP.)

VA. STATE PLANE COORD. SYSTEM NORTH ZONE (NAD 1983)

N. 6983499
E. 1187252

N. 6983777
S59°28'13"E

N. 6983332
E. 1187382

S68°07'48"W 191.22'

N22°38'53"W 10.12'

N86°58'04"W 9.48'

S68°07'48"W 112.16'

S21°52'19"E 54.75'

A=123.03'
R=284.25'
S=121°38'25"E
CH=121.63'

A=30.38'
R=291.84'
S=84°29'43"E

A=31.08'
R=299.84'
S=84°29'43"E

CH=21.18.58
64.28'

LEGEND

PARKS BOUNDARY

SCALE: 1"=30'
0 10' 30' 60'

NOTES:

1. EXISTING CONDITIONS ON THIS PLAN WAS TAKEN FROM THE PROPOSED INFRASTRUCTURE SITE PLAN (DSP #2021-00012). ANY DEVIATION FROM THE INFRASTRUCTURE PLAN MAY REQUIRE FUTURE SITE PLAN AMENDMENTS FOR THIS PLAN.
2. ALL ADJOINING PROPERTY LINES AND LOT NUMBERS SHOWN HEREON REFLECT A 3RD SUBDIVISION PLAT AND RESUBDIVISION OF LOT 704, 707 AND 708 ASSOCIATED WITH DSUP #2022-10015, DSUP #2022-10016, AND DSUP #2022-10017 NOT YET RECORDED .

APPROVED
SPECIAL USE PERMIT NO. _____

DEPARTMENT OF PLANNING & ZONING

DIRECTOR _____ DATE _____

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____

DIRECTOR _____ DATE _____

CHAIRMAN, PLANNING COMMISSION _____ DATE _____

DATE RECORDED _____

INSTRUMENT NO. _____ DEED BOOK NO. _____ PAGE NO. _____

No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
02-11-2022
02-17-2022
05-17-2023
05-26-2023
- -
- -
- -

Urban Ltd.
4200 D TECHNOLOGY CT.
CHANTILLY, VA. 20151
TEL. 703.642.2306
FAX. 703.378.7588
www.urban-ltd.com

urban
Planners • Engineers • Landscape Architects • Land Surveyors

COMMONWEALTH OF VIRGINIA
CLAYTON C. TOCK
Lic. No. 038790
PROFESSIONAL ENGINEER
03/24/2023

GIS DIMENSION PLAN

LANDMARK MALL REDEVELOPMENT
PRELIMINARY SITE PLAN - PARKS

CITY OF ALEXANDRIA, VIRGINIA

DATE: NOV., 2022

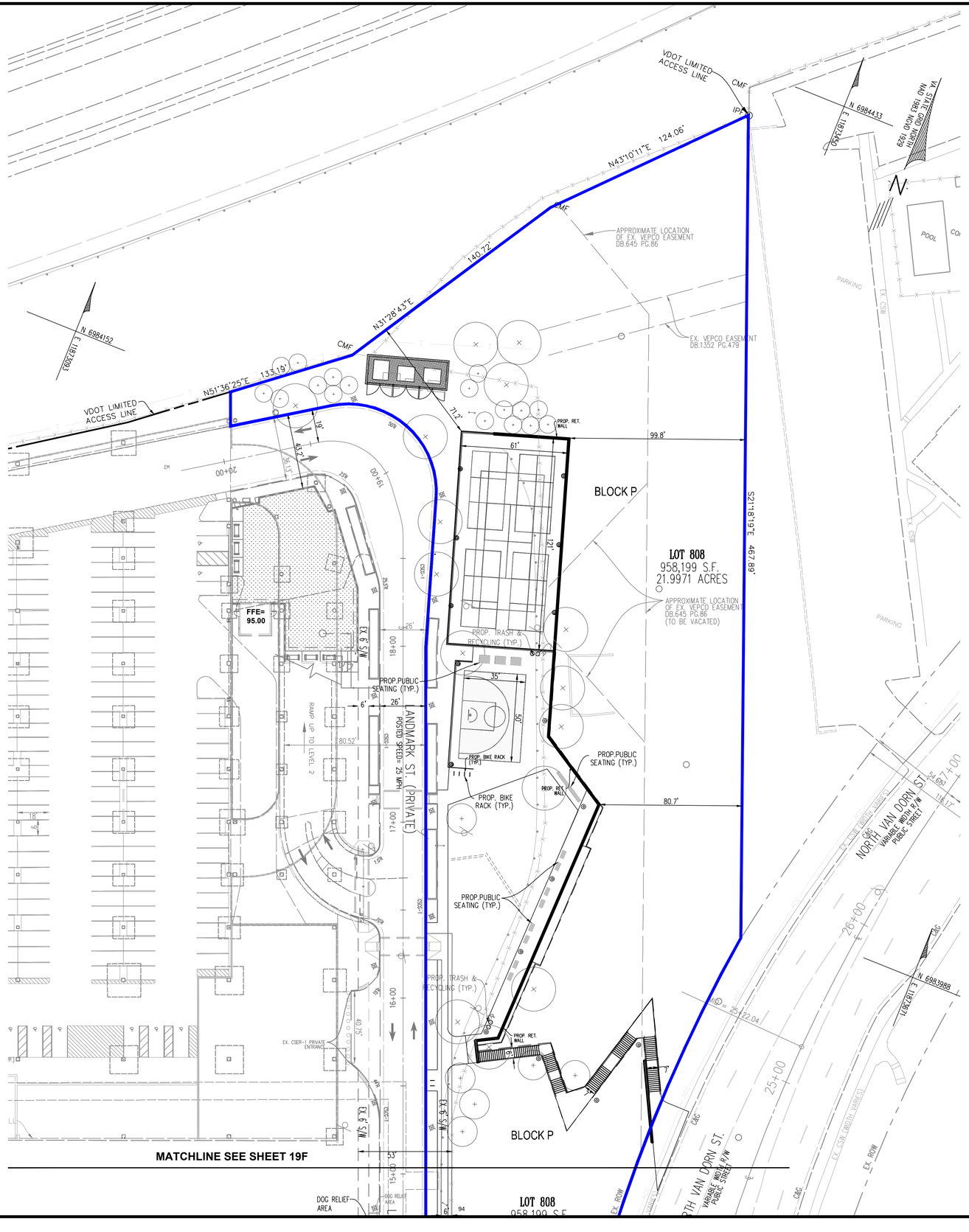
SCALE: 1"=30'

C.I.= N/A

SHEET
19F
OF
47

FILE No.
DSUP-13089

Urban, Ltd. – J:\JOBS\landmarkmall\DSUP\block-parks\preliminary sp\13089-05-GIS DIMENSION.dwg [02] May 25, 2023 – 1:59pm yelosri



LEGEND

PARKS BOUNDARY

SCALE: 1"=30'

0 10' 30' 60'

NOTES:

1. EXISTING CONDITIONS ON THIS PLAN WAS TAKEN FROM THE PROPOSED INFRASTRUCTURE SITE PLAN (DSP #2021-00012). ANY DEVIATION FROM THE INFRASTRUCTURE PLAN MAY REQUIRE FUTURE SITE PLAN AMENDMENTS FOR THIS PLAN.
2. ALL ADJOINING PROPERTY LINES AND LOT NUMBERS SHOWN HEREON REFLECT A 3RD SUBDIVISION PLAT AND RESUBDIVISION OF LOT 704, 707 AND 708 ASSOCIATED WITH DSUP #2022-10015, DSUP #2022-10016, AND DSUP #2022-10017 NOT YET RECORDED .

APPROVED

SPECIAL USE PERMIT NO. _____

DEPARTMENT OF PLANNING & ZONING

_____ DIRECTOR _____ DATE

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

SITE PLAN NO. _____

_____ DIRECTOR _____ DATE

_____ CHAIRMAN, PLANNING COMMISSION _____ DATE

DATE RECORDED _____

_____ INSTRUMENT NO. _____ DEED BOOK NO. _____ PAGE NO.

No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
02-11-2022
02-17-2022
05-12-2023
05-26-2023

Urban Ltd.
4200 D TECHNOLOGY CT.
CHANTILLY, VA. 20151
TEL. 703.642.2306
FAX 703.378.7588
www.urban-ltd.com

urban
Planners • Engineers • Landscape Architects • Land Surveyors

COMMONWEALTH OF VIRGINIA
CLAYTON C. TOCK
Lic. No. 038780
PROFESSIONAL ENGINEER
05/26/2023

GIS DIMENSION PLAN

LANDMARK MALL REDEVELOPMENT
PRELIMINARY SITE PLAN - PARKS

CITY OF ALEXANDRIA, VIRGINIA

DATE: NOV., 2022

SCALE: 1"=30'

C.I.= N/A

SHEET 19G OF 47

FILE No. DSUP-13089

J:\JOBS\landmarkmall\DSUP\block-parks\preliminary sp\13089-05-GIS DIMENSION.dwg [03] May 25, 2023 - 2:00pm yelosri
© Urban, Ltd. - J:\JOBS\landmarkmall\DSUP\block-parks\preliminary sp\13089-05-GIS DIMENSION.dwg [03] May 25, 2023 - 2:00pm yelosri

WESTEND MASTER OPEN SPACE CALCULATIONS

DSUP	Block	Lot Area SF	Lot Area AC	Publicly Accessible	Onsite At Grade	Onsite Above Grade	Transferred Block Open Space (1)	Mandatory Open Space Blocks	Onsite Transferred Mandatory Open Space (SF)	Remaining Mandatory Open Space (AC.)	Total	Percent OS/Block	Sitewide Open Space SF	Sitewide Open Space AC	Notes
CDSP 2022-00011	Hospital Campus (A,B,C)	416,577 SF	9.56 AC	No	62,500 SF	10,000 SF	0 SF	0 SF	0 SF	1.66	72,500 SF	17.40%	72,500 SF	1.66 AC	
	Block D	60,360 SF	1.39 AC	No			-	-	0 SF	0.00	0 SF	0.00%	0 SF	0.00 AC	
DSUP 2022-10017	Block E	108,575 SF	2.49 AC	No		16,840 SF	-	-	10,303 SF	0.15	27,143 SF	25.00%	27,143 SF	0.62 AC	10,303 SF Transfer from Block P
CDSP-2022-00007	Block F	31,872 SF	0.73 AC	Yes	25,738 SF	0 SF	-	-	0 SF	0.59	25,738 SF	80.75%	25,738 SF	0.59 AC	
DSUP 2022-10017	Block G	62,083 SF	1.43 AC	No	10,805 SF	1,464 SF	-	-	3,251 SF	0.21	15,520 SF	25.00%	15,520 SF	0.36 AC	3,251 SF Transfer from Block P
	Block H	89,320 SF	2.05 AC	No			-	-	0 SF	0.00	0 SF	0.00%	0 SF	0.00 AC	
DSUP 2022-10015	Block I	107,845 SF	2.48 AC	No	1,364 SF	29,115 SF	-	-	0 SF	0.70	30,479 SF	28.26%	30,479 SF	0.70 AC	
	Block J	80,597 SF	1.85 AC	No			-	-	0 SF	0.00	0 SF	0.00%	0 SF	0.00 AC	
DSUP 2022-10016	Block K	98,964 SF	2.27 AC	No	7,248 SF	18,142 SF	-	-	0 SF	0.58	25,390 SF	25.66%	25,390 SF	0.58 AC	
	Block L	133,629 SF	3.07 AC	No			-	-	0 SF	0.00	0 SF	0.00%	0 SF	0.00 AC	
	Block M	120,815 SF	2.77 AC	No			-	-	0 SF	0.00	0 SF	0.00%	0 SF	0.00 AC	
CDSP-2022-00007	Block N	22,509 SF	0.52 AC	Yes	20,390 SF	0 SF	-	-	0 SF	0.47	20,390 SF	90.59%	20,390 SF	0.47 AC	
CDSP-2022-00007	Block P	128,715 SF	2.95 AC	Yes	126,291 SF	0 SF	-	-	(13,554)	2.59	112,737 SF	87.59%	112,737 SF	2.59 AC	13,544 SF Transfer to Block E&G
	Block Q	14,581 SF	0.33 AC	Yes	14,581 SF	0 SF	-	-	0 SF	0.33	14,581 SF	100.00%	14,581 SF	0.33 AC	
CDSP-2022-00007	Block R	21,009 SF	0.48 AC	PARTIAL	11,763 SF	0 SF	-	-	0 SF	0.27	11,763 SF	55.99%	11,763 SF	0.27 AC	
	Road 7 Bridge	-	-	Yes	662 SF	0 SF	-	-	0 SF	0.02	662 SF	100.00%	662 SF	0.02 AC	
									TOTAL	7.57			356,903 SF	8.19 AC	

1. See sheet L002 for Block Parks Public and Private open space locations.
2. See "Notes" column for explanation of where open space was transferred from or to.
3. Per condition 69 of CDD 2020-00007, if development Blocks D, E, G, H, I, J, K, L and M cannot meet their individual open space requirements, then the unmet portion may be accommodated as publicly accessible ground-level open space on adjacent blocks within the CDD Plan Area. Area in excess of the required 3.5 acres of publicly accessible open spaces provided on Blocks F, N, P, Q, and R may contribute towards the unmet portions of development blocks outside the Hospital Campus, as determined through the DSUP process.
4. Mandatory OS AC. cannot fall below 3.5 Acres.

LEGEND

- PARKS BOUNDARY
- LIMITS OF DISTURBANCE
- PRIVATE OPEN SPACE PROVIDED BY RESPECTIVE BLOCKS
- PUBLICLY ACCESSIBLE OPEN SPACE (BLOCK Q TO BE PROVIDED UNDER SEPARATE DSUP)
- PRIVATE OPEN SPACE
- NON OPEN SPACE AREA

NOTE:
- SEE SHEET L002 FOR PRIVATE OPEN SPACE LOCATIONS AND AREAS.

HENRY G. SHIRLEY MEMORIAL HIGHWAY
VARIABLE WIDTH PUBLIC STREET

INOVA HOSPITAL CAMPUS
6001 DUKE STREET
T.M.: 047.02-03-10
THE INDUSTRIAL DEVELOPMENT AUTHORITY OF THE CITY OF ALEXANDRIA
INSTR. 210026063
LOT 801

BLOCK P
TERRACE PARK
LANDMARK ST. (PRIVATE)
LOT 808
966,615 S.F.
21.1903 ACRES
BLOCK E
LOT 808
966,615 S.F.
21.1903 ACRES
BLOCK G
BLOCK I
BLOCK Q
BLOCK F
BLOCK N
TUCKER ST. (PUBLIC)
ALEX WAY (PRIVATE)
VERNE ST. (PUBLIC)
WESTEND BLVD. (PRIVATE)
BLOCK R
PASEO
NORTH VAN DORN STREET
VARIABLE WIDTH PUBLIC STREET
BLOCK H
LOT 703
70,076 S.F.
1.6087 ACRES
BLOCK K
LOT 804
90,889 S.F.
2.0819 ACRES
BLOCK M
LOT 807
130,369 S.F.
2.9929 ACRES
BLOCK D
LOT 702
63,315 S.F.
1.4535 ACRES
HECHT AVE. (PUBLIC)
JULIE JOHNSTON WAY
BLOCK J
LOT 705
79,901 S.F.
1.8343 ACRES
BLOCK L
LOT 706
61,205 S.F.
1.4051 ACRES
LOT 709
77,919 S.F.
1.7888 ACRES
JEFFREY (PUBLIC)
SOUTH WALKER STREET
DUKE STREET
VARIABLE WIDTH PUBLIC STREET
TM #047-04-06-20
TM #047-04-06-05
TM #047-04-06-021
TM #047-03-01-00
TM #048-03-01-02
TM #048-01-01-91
VA STATE GRID NORTH
N
SCALE: 1"=100'
0 50' 100' 200'

APPROVED

SPECIAL USE PERMIT NO. _____

DEPARTMENT OF PLANNING & ZONING

_____ DIRECTOR _____ DATE

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____

_____ DIRECTOR _____ DATE

_____ CHAIRMAN, PLANNING COMMISSION _____ DATE

DATE RECORDED _____

INSTRUMENT NO. _____ DEED BOOK NO. _____ PAGE NO. _____

No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
02-11-2022
12-09-2022
03-17-2023
05-26-2023

Urban, Ltd.
4200 CHAIN BRIDGE LOCK CT.
FAIRFAX, VA. 22030
TEL. 703.691.2306
FAX 703.378.7888
www.urban-ltd.com
Planners+Engineers+Landscape Architects+Land Surveyors

COMMONWEALTH OF VIRGINIA
CLAYTON R. COOK
LIC. NO. 038790
PROFESSIONAL ENGINEER
07/26/2023

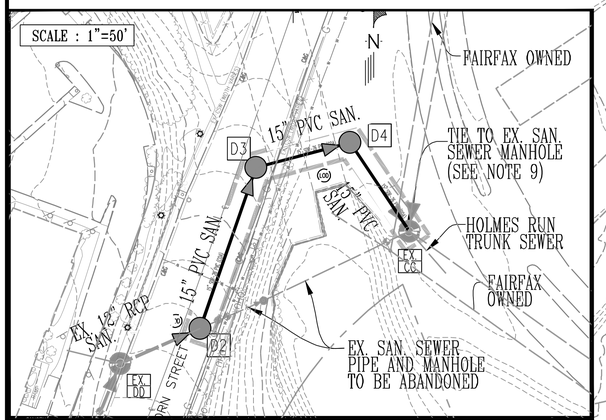
MASTER OPEN SPACE
LANDMARK MALL REDEVELOPMENT
PRELIMINARY SITE PLAN - PARKS
CITY OF ALEXANDRIA, VIRGINIA
DATE: NOV. 2022
SCALE: 1"=100' C.I.= N/A

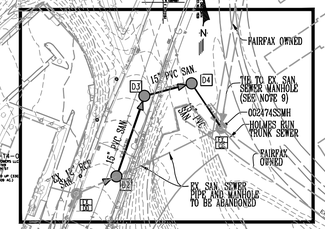
SHEET 20 OF 47

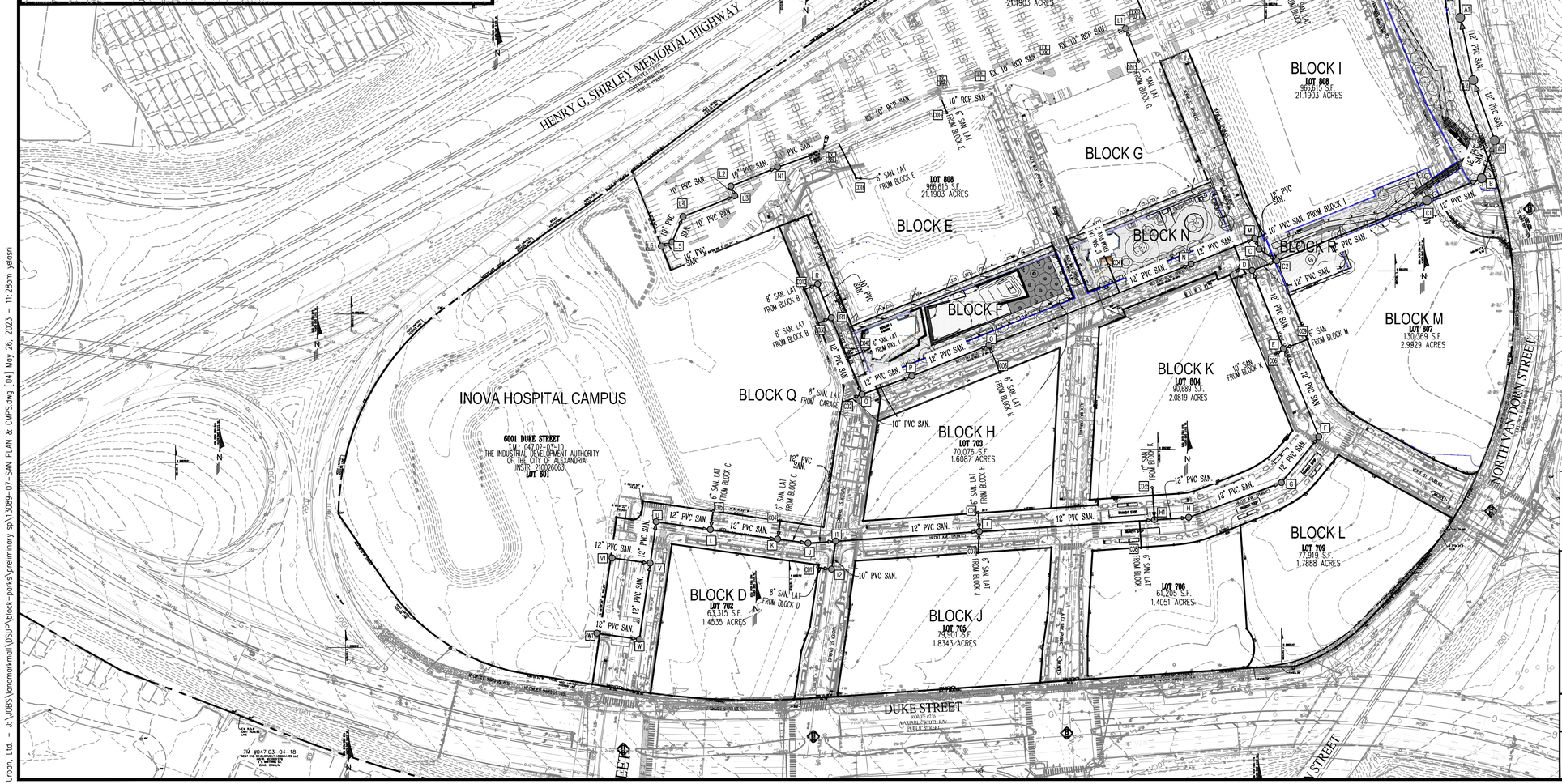
FILE No. DSUP-13089

Urban, Ltd. – z:\JOBS\pandmarksmall\DSUP\block--parks\preliminary sp\13089--10--MASTER OPEN SPACE.dwg [MASTER OPEN SPACE] May 25, 2023 – 2:00pm yelosri

1. RETAIL AND OFFICE AREA SANITARY FLOW IS COMPUTED AT THE RATE OF 200 GPD PER 1,000 S.F. OF NET FLOOR AREA
2. RESIDENTIAL AREA SANITARY FLOW IS COMPUTED AT THE RATE OF 300 GPD PER UNIT
3. EACH RESIDENTIAL UNIT IS BASED ON A 1,000 G.S.F. FLOOR PLATE
4. ALL PIPE DATA HAS BEEN OBTAINED BY FIELD SURVEY PERFORMED BY URBAN, LTD.
5. CONTRACTOR SHALL ENSURE ALL DISCHARGES ARE IN ACCORDANCE WITH CITY OF ALEXANDRIA CODE TITLE 5, CHAPTER 6, ARTICLE B.
6. DEWATERING AND OTHER CONSTRUCTION RELATED DISCHARGE LIMITS TO THE SEWER SYSTEM ARE REGULATED BY ALEXRENEW PRETREATMENT. CONTRACTOR IS REQUIRED TO CONTACT ALEXRENEW'S PRETREATMENT COORDINATOR AT 703-721-3500 X2020.
7. THE APPLICANT SHALL PROVIDE A PRE- AND POST-CCTV INSPECTION OF MANHOLE CONNECTION BY A NASSCO MACP CERTIFIED TECHNICIAN.
8. THE PROJECT SITE IS LOCATED WITHIN THE HOLMES RUN TRUNK OF THE COMBINED SEWER AREA.
9. CONTRACTOR TO MAINTAIN SEWER OPERATIONS. IF SEWER BYPASS IS REQUIRED, CONTRACTOR TO SUBMIT A SEWER BYPASS PUMPING PLAN TO SEWER OWNER FOR APPROVAL.
10. ALL DROP CONNECTIONS ARE TO BE INTERNAL DROP CONNECTIONS. ALL MANHOLES WITH INTERNAL DROP CONNECTIONS ARE TO BE MINIMUM 5' IN DIAMETER.







LEGEND

SCALE: 1"=100'
0 50' 100' 200'

PARKS BOUNDARY

LIMITS OF DISTURBANCE

APPROVED

SPECIAL USE PERMIT NO. _____

DEPARTMENT OF PLANNING & ZONING

DIRECTOR _____ DATE _____

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

SITE PLAN NO. _____

DIRECTOR _____ DATE _____

CHAIRMAN, PLANNING COMMISSION _____ DATE _____

DATE RECORDED _____

INSTRUMENT NO. _____ DEED BOOK NO. _____ PAGE NO. _____

No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
02-11-2022
02-09-2023
04-17-2023
05-26-2023

Urban Ltd.
4200 D TECHNOLOGY CT.
CHANTILLY, VA. 20151
TEL. 703.642.2306
FAX 703.378.7888
www.urban-ltd.com

urban
Planners+Engineers+Landscape Architects+Land Surveyors

COMMONWEALTH OF VIRGINIA
CLAYTON C. TOCK
Lic. No. 038790
PROFESSIONAL ENGINEER
Clayton C. Tock
Date: 11/2022

SANITARY SEWER PLAN

LANDMARK MALL REDEVELOPMENT
PRELIMINARY SITE PLAN - PARKS

CITY OF ALEXANDRIA, VIRGINIA

DATE: NOV., 2022

SCALE: 1"=20' C.I.= 2'

SHEET 21 OF 47

FILE No. DSUP-13089

Urban, Ltd. – J:\JOBS\Landmark Mall\DSUP\block-parks\preliminary sp\13089-07-SAN PLAN & CMPS.dwg [04] May 26, 2023 - 11:28am yelosri

PROPOSED SANITARY SEWER FLOW COMPUTATIONS

Project: West End

From Point	To Point	RESIDENTIAL 300 GPD/UNIT	OFFICE/RETAIL 200 GPD/ 1000 SF	SFA/SFD DWELLINGS 350 GPD/UNIT	HOTEL 130 GPD/UNIT	PEAK FACTOR	INCR q MGD	FLOW q MGD	FLOW q C.F.S.	Invert Elevation Upper End	Invert Elevation Lower End	Length FT.	Slope %	Dia. IN.	Capacity Q MGD	VEL. F.P.S.	Capacity q/Q %	Pipe Coefficient	Pipe Material	BLOCKS TO STR	Remarks
L6	L5		189743			4.0	0.15	0.15	0.23	190.38	190.18	19.63	1.00%	10	1.85	3.22	8.22	0.010	PVC		33.34% Flow from Block A
L5	L4					4.0	0.00	0.15	0.23	190.08	189.84	47.79	0.50%	10	1.31	2.53	11.63	0.010	PVC		
L4	L3					4.0	0.00	0.15	0.23	189.74	189.26	96.24	0.50%	10	1.31	2.53	11.63	0.010	PVC		
L3	L2					4.0	0.00	0.15	0.23	189.16	189.07	17.58	0.50%	10	1.31	2.53	11.63	0.010	PVC		
L2	N1					4.0	0.00	0.15	0.23	188.97	188.53	87.06	0.50%	10	1.31	2.53	11.63	0.010	PVC		
N1	EX.NN					4.0	0.00	0.15	0.23	188.43	188.02	82.58	0.50%	10	1.31	2.53	11.63	0.010	PVC		
EX.NN	EX.MM					4.0	0.10	0.25	0.38	187.92	186.84	223.82	0.46%	10	0.83	2.39	29.65	0.015	RCP		100% Flow from Block E1 (MOB)
EX.MM	EX.LL					4.0	0.25	0.49	0.77	186.81	185.94	74.55	1.17%	10	1.33	3.48	37.16	0.015	RCP		100% Flow from Block E (Res.)
EX.LL	EX.KK					4.0	0.00	0.49	0.77	185.71	185.14	122.64	0.46%	10	0.83	2.41	59.26	0.015	RCP		
EX.KK	L1					4.0	0.00	0.49	0.77	185.10	184.27	145.48	0.57%	10	0.93	2.67	53.24	0.015	RCP		
L1	EX.JJ					4.0	0.31	0.81	1.25	184.27	184.09	31.95	0.57%	10	0.93	1.79	86.80	0.015	RCP		100% Flow from Block G
EX.JJ	EX.II					4.0	0.00	0.81	1.25	184.01	181.16	259.55	1.10%	10	1.29	3.85	62.49	0.015	RCP		
EX.II	EX.HH					4.0	0.30	1.11	1.71	180.86	160.37	165.68	12.37%	10	4.33	10.29	25.58	0.015	RCP		Flow from Block I
EX.HH	EX. GG					4.0	0.00	1.11	1.71	160.03	134.41	111.27	23.02%	10	5.91	12.87	18.75	0.015	RCP		
EX. GG	EX. FF					4.0	0.00	1.11	1.71	134.24	132.08	28.12	7.68%	12	5.55	8.54	19.97	0.015	RCP		
EX. FF	EX. EE					4.0	2.94	4.05	6.26	129.77	119.03	222.04	4.84%	12	4.40	5.61	91.91	0.015	RCP		100% Flow from Landmark Mall
EX. EE	EX.DD					4.0	0.00	4.05	6.26	118.81	97.75	299.39	7.03%	12	5.31	6.76	76.26	0.015	RCP		
EX.DD	D2	184				4.0	0.22	4.27	6.60	97.45	88.48	60.98	14.71%	12	7.68	15.67	55.60	0.015	RCP		100% Flow from Broadstone Appt
D2	D3					4.0	0.00	4.27	6.60	88.38	86.95	119.11	1.20%	15	5.96	4.86	71.57	0.010	PVC		
D3	D4					4.0	0.00	4.27	6.60	86.85	86.34	68.07	0.75%	15	4.71	3.84	90.54	0.010	PVC		
D4	EX.CC					4.0	0.00	4.27	6.60	76.45	74.96	74.40	2.00%	15	7.70	9.96	55.44	0.010	PVC		
W1	W		189686			4.0	0.15	0.15	0.23	196.20	195.37	66.50	1.25%	12	3.36	3.35	4.52	0.010	PVC		33.33% Flow from Block A
W	V					4.0	0.00	0.15	0.23	195.27	193.61	132.42	1.25%	12	3.36	3.35	4.52	0.010	PVC		
V	U		-			4.0	0.15	0.30	0.47	193.51	192.61	72.26	1.25%	12	3.36	4.11	9.04	0.010	PVC		
U	L					4.0	0.00	0.30	0.47	192.51	191.33	94.64	1.25%	12	3.36	4.11	9.04	0.010	PVC		
L	K		-			4.0	0.02	0.33	0.50	191.23	189.76	117.14	1.25%	12	3.36	4.23	9.69	0.010	PVC		Flow from Block C
K	J		-			4.0	0.02	0.35	0.54	189.66	189.01	52.56	1.25%	12	3.36	4.23	10.34	0.010	PVC		Flow from Block C
J	I1					4.0	0.00	0.35	0.54	188.91	188.31	47.70	1.25%	12	3.36	4.28	10.33	0.010	PVC		
I1	I					4.0	0.40	0.75	1.16	188.21	185.10	248.57	1.25%	12	3.36	5.33	22.34	0.010	PVC		Flow from Block D
I	H1					4.0	0.55	1.30	2.01	185.00	181.21	302.66	1.25%	12	3.36	6.20	38.76	0.010	PVC		Flow from Block J 50% Flow from Block H
H1	H					4.0	0.54	1.84	2.84	181.11	180.05	85.17	1.25%	12	3.35	6.75	54.85	0.010	PVC		Flow from Block L and K
H	G					4.0	0.00	1.84	2.84	179.95	178.68	170.85	0.74%	12	2.59	3.29	71.05	0.010	PVC		
G	F					4.0	0.00	1.84	2.84	178.58	177.72	102.02	0.85%	12	2.77	3.52	66.38	0.010	PVC		
F	E					4.0	0.00	1.84	2.84	177.62	176.23	163.39	0.85%	12	2.77	3.52	66.38	0.010	PVC		
E	D					4.0	0.45	2.29	3.55	176.13	173.94	145.68	1.50%	12	3.68	7.63	62.33	0.010	PVC		Flow from Block M Flow from Block K
D	C2					4.0	0.00	2.29	3.55	171.13	170.44	45.86	1.50%	12	3.68	7.63	62.33	0.010	PVC		
C2	C1					4.0	0.65	2.94	4.55	169.79	164.21	279.42	2.00%	12	4.24	5.40	69.27	0.010	PVC		Flows from SSMH C & D
C1	B					4.0	0.00	2.94	4.55	163.69	161.16	101.26	2.50%	12	4.75	9.85	61.93	0.010	PVC		
B	A3					4.0	0.00	2.94	4.55	157.93	156.19	69.56	2.50%	12	4.75	9.85	61.93	0.010	PVC		
A3	A2					4.0	0.00	2.94	4.55	151.41	148.65	110.30	2.50%	12	4.75	9.85	61.93	0.010	PVC		
A2	A1					4.0	0.00	2.94	4.55	144.65	141.91	109.92	2.50%	12	4.75	9.85	61.93	0.010	PVC		
A1	A					4.0	0.00	2.94	4.55	138.91	135.45	138.24	2.50%	12	4.75	9.85	61.93	0.010	PVC		
A	EX. FF					4.0	0.00	2.94	4.55	133.45	132.08	54.80	2.50%	12	4.75	9.85	61.93	0.010	PVC		
R	R1					4.0	0.03	0.03	0.05	196.13	194.56	62.62	2.50%	10	2.92	2.71	1.10	0.010	PVC		Flow from Block B
R1	Q					4.0	0.06	0.09	0.15	194.46	190.91	142.21	2.50%	12	4.75	3.70	1.99	0.010	PVC		Flow from Block B Flow from Pav. 1
Q	P					4.0	0.02	0.12	0.18	190.81	188.97	91.68	2.00%	12	4.25	3.69	2.76	0.010	PVC		Flow from Block C
P	O					4.0	0.00	0.12	0.18	188.87	186.01	143.07	2.00%	12	4.25	3.69	2.76	0.010	PVC		
O	N					4.0	0.23	0.35	0.54	185.91	178.40	375.50	2.00%	12	4.25	5.04	8.17	0.010	PVC		50% Flow from Block H Flow from Pav. 2
N	M					4.0	0.00	0.35	0.54	178.30	175.93	118.87	2.00%	12	4.25	5.04	8.17	0.010	PVC		
M	C					4.0	0.00	0.65	1.00	175.83	175.43	19.86	2.00%	12	4.25	6.06	15.26	0.010	PVC		Flow from Block I
C	C2					5.0	0.00	0.65	1.00	170.62	169.89	36.41	2.00%	12	4.25	6.06	15.26	0.010	PVC		Flow to C2
CO1	I	175	21000			4.0	0.23	0.23	0.35	186.00	185.17	33.00	2.50%	6	0.75	5.22	30.34	0.010	PVC		50% Flow from Block H
CO2	Q		28129			4.0	0.02	0.02	0.03	192.10	191.24	28.85	3.00%	8	1.76	2.76	1.28	0.010	PVC		34% Flow from Block C
CO3	O	175	21000			4.0	0.23	0.23	0.35	187.68	186.41	51.00	2.50%	6	0.75	5.22	30.34	0.010	PVC		50% Flow from Block H
CO4	K		27302			4.0	0.02	0.02	0.03	195.00	189.83	33.00	3.03%	8	1.77	2.67	1.23	0.010	PVC		33% Flow from Block C
CO5	L		27302			4.0	0.02	0.02	0.03	195.00	191.40	33.00	3.03%	8	1.77	2.67	1.23	0.010	PVC		33% Flow from Block C
BLDG K	CO6	168	16000			4.0	0.21	0.21	0.33	177.41	176.83	23.00	2.50%	10	2.92	4.83	7.35	0.010	PVC		50% Flow from Block K
CO6	E					4.0	0.00	0.21	0.33	176.73	176.33	16.24	2.50%	10	2.92	4.83	7.35	0.010	PVC		
CO7	I	235	52000			4.0	0.32	0.32	0.50	186.09	185.17	36.86	2.50%	6	0.75	5.66	43.29	0.010	PVC		100% Flow from Block J
BLDG K	CO35	169	16000			4.0	0.22	0.22	0.33	183.05	182.80	10.00	2.50%	10	2.92	4.86	7.39	0.010	PVC		50% Flow from Block K
CO35	H1					4.0	0.00	0.22	0.33	182.70	181.31	55.56	2.50%	10	2.92	4.86	7.39	0.010	PVC		
CO8	H1	260	11000			4.0	0.32	0.32	0.50	182.78	181.61	46.81	2.50%	6	0.75	5.61	42.91	0.010	PVC		100% Flow from Block L
CO9	E	200				4.0	0.24	0.24	0.37	185.22	176.63	44.91	2.50%	6	0.75	5.23	32.11	0.010	PVC		100% Flow from Block M
CO10	R		39999			4.0	0.03	0.03	0.05	196.93	196.29	25.44	2.50%	8	1.61	3.00	1.99	0.010	PVC		36.09% Flow from Block B
CO11	I2	336				4.0	0.40	0.40	0.62	190.07	189.47	24.00	2.50%	8	1.61	5.96	25.04	0.010	PVC		100% Flow from Block D
I2	I1					4.0	0.00	0.40	0.62	189.30	188.08	48.93	2.50%	10	2.92	5.85	13.81	0.010	PVC		
BLDG E (RES)	CO21	146	89971			4.0	0.25	0.25	0.38	188.43	187.93	20.00	2.50%	6	2.00	5.31	12.36	0.010	PVC		100% Flow from Block E (Res.)
CO21	CO12					4.0	0.00	0.25	0.38	187.83	187.54	11.71	2.50%	6	2.00	5.31	12.36	0.010	PVC		
CO12	EX.MM					4.0	0.00	0.25	0.38	187.44	187.14	12.00	2.50%	6	2.00	5.31	12.36	0.010	PVC		
BLDG G	CO13	244	23888			4.0	0.31	0.31	0.48	186.61	186.23	15.00	2.50%	6	2.00	5.64	15.60	0.010	PVC		100% Flow from Block G
CO13	L1					4.0	0.00	0.31	0.48	186.13	184.60	61.26	2.50%	6	2.00	5.64	15.60	0.010	PVC		100% Flow from Block G
BLDG I	M	195	83517			4.0	0.30	0.30	0.47	176.54	176.10	17.78	2.50%	10	2.92	5.27	10.31	0.010	PVC		50% Flow from Block I
BLDG I	CO14	195	83517			4.0	0.30	0.30	0.47	183.25	182.18	42.81	2.50%	10	2.92	5.27	10.31	0.010	PVC		50% Flow from Block I
CO14	EX.II					4.0	0.00	0.30	0.47	182.08	181.26	32.65	2.50%	10	2.92	5.27	10.31	0.010	PVC		
BLDG E1 (MOB)	CO16		119630			4.0	0.10	0.10	0.15	190.66	190.41	10.00	2.50%	6	0.75	4.03	12.80	0.010	PVC		100% Flow from Block E1 (MOB)
CO16	EX.NN					4.0	0.00	0.10	0.15	190.31	188.60	68.32	2.50%	6	0.75	4.03	12.80	0.010	PVC		
CO30	R1		70832			4.0	0.06	0.06	0.09	195.35	194.73	25.11	2.50%	8	1.61	3.19	3.52	0.010	PVC		63.91% Flow from Block B
V1	V		189686			4.0	0.15	0.15	0.23	194.05	193.38	66.50	1.00%	12	3.00	3.11	5.06	0.010	PVC		33.33% Flow from Block A
PAVILION 1	PAV.1	CO40	7279			4.0	0.01	0.006	0.01	194.65	194.47	7.16	2.50%	6	0.75	1.71	0.78	0.010	PVC		100% Flow from Pavilion 1 Block F
	CO40	R1	0			4.0	0.00	0.006	0.01	194.37	193.61	30.57	2.50%	6	0.75	1.71	0.78	0.010	PVC		100% Flow from Pavilion 1 Block F
PAVILION 2	PAV.2	CO41	4064			4.0	0.00	0.003	0.01	183.80	183.43	15.00	2.50%	6	0.75	0.93	0.43	0.010	PVC		100% Flow from Pavilion 2 Block N
	CO41	O	0			4.0	0.00	0.003	0.01	183.33	182.05	51.15	2.50%	6	0.75	0.93	0.43	0.010	PVC		100% Flow from Pavilion 2 Block N

ADEQUATE OUTFALL ANALYSIS

Blocks		Office Sanitary Flow	Office G.S.F	Retail Sanitary Flow	Retail G.S.F	MFH Sanitary Flow	MFH Units	Total Proposed Sanitary Flow (GPD)
HOSPITAL CAMPUS	A	200GPD/1,000 S.F.	569,114	200GPD/1,000 S.F.		300GPD/UNIT	-	113,823
	B	200GPD/1,000 S.F.	110,831	200GPD/1,000 S.F.	-	300GPD/UNIT	-	22,166
	C	200GPD/1,000 S.F.	82,733	200GPD/1,000 S.F.	-	300GPD/UNIT	-	16,547
Total			762,678		-		-	152,536
				TOTAL FLOW FROM HOSPITAL CAMPUS (MGD)				0.61
LANDMARK	D	200GPD/1,000 S.F.	-	200GPD/1,000 S.F.	-	300GPD/UNIT	336	100,800
	E (MOB & RES.)	200GPD/1,000 S.F.	119,630	200GPD/1,000 S.F.	89,971	300GPD/UNIT	146	85,720
	G	200GPD/1,000 S.F.	-	200GPD/1,000 S.F.	23,888	300GPD/UNIT	244	77,978
	H	200GPD/1,000 S.F.	-	200GPD/1,000 S.F.	42,000	300GPD/UNIT	350	113,400
	I	200GPD/1,000 S.F.	-	200GPD/1,000 S.F.	167,033	300GPD/UNIT	390	150,407
	J	200GPD/1,000 S.F.	52000			300GPD/UNIT	235	80,900
	K	200GPD/1,000 S.F.	-	200GPD/1,000 S.F.	32,000	300GPD/UNIT	337	107,500
	L	200GPD/1,000 S.F.	-	200GPD/1,000 S.F.	11,000	300GPD/UNIT	260	80,200
	M	200GPD/1,000 S.F.	-	200GPD/1,000 S.F.	-	300GPD/UNIT	200	60,000
	F	200GPD/1,000 S.F.	-	200GPD/1,000 S.F.	7,279	300GPD/UNIT	0	1,456
	N	200GPD/1,000 S.F.	-	200GPD/1,000 S.F.	4,064	300GPD/UNIT	0	813
Total			171,630		377,235		2,038	859,173
				TOTAL FLOW FROM LANDMARK MALL BLOCKS (MGD)				3.44
EX. BUILDING	MULTI-FAMILY USE	200GPD/1,000 S.F.	-	200GPD/1,000 S.F.	-	300GPD/UNIT	184	55,200.00
				TOTAL FLOW FROM BROADSTONE APPT				0.22
				TOTAL FLOW GOING TO EX. CC (MGD)				4.27

Landmark Mall Breakdown by Manhole

	Block	Lateral #	Lateral Tie In Location	% of Block Flow	MH Flow Enters in
HOSPITAL CAMPUS	A	1	SMH W1	33.33%	W
		2	SMH V1	33.33%	V
		3	L6	33.34%	L5
	B	1	CO10	36.09%	R
		2	CO30	63.91%	R1
	C	1	CO5	33.00%	L
		2	CO4	33.00%	K
	(Garage)	3	CO2	34.00%	Q
LANDMARK MALL	D	1	CO11	100%	I2
	E1 (MOB)	1	CO16	100%	EX. NN
	E (RES.)	1	CO12	100%	EX. MM
	G	1	CO13	100%	EX. JJ
	H	1	CO1	50%	I
		2	CO3	50%	O
	I	1	SMH M	50%	C
		2	CO14	50%	EX. II
	J	1	CO7	100%	I
	K	1	CO35	50%	H1
		2	CO6	50%	E
	L	1	CO8	100%	H1
	M	1	CO9	100%	E
	F	1	CO40	100%	Q
	N	1	CO41	100%	N

SANITARY SEWER ADEQUATE OUTFALL NARRATIVE:

THE PROPOSED PAV.1 AND PAV.2 6" LATERAL CONNECTS TO AN EXISTING 12" PIPE THAT RUNS BETWEEN M.H. "R1-Q" AND "O-N" RESPECTIVELY. THE OVERALL DEVELOPMENT CONNECTS TO AN EXISTING M.H. "CC". APPROXIMATELY 2,523 LF FROM THE PROPOSED CONNECTION MARKS THE END OF THE ANALYSIS IN ACCORDANCE WITH SECTION MEMORADUM TO INDUSTRY NO. 06-14 AS THE LINE THEN CONNECTS WITH AN EXISTING 33" LINE. THE PROPOSED SITE, PAVILION 1 AND PAVILION 2, WILL UTILIZE EXISTING PIPE BETWEEN SMH R1-Q AND O-N AS A CONNECTION POINT TO THE SANITARY SYSTEM AS SHOWN ON SHEET 21. A TOTAL OF 11,343 RETAIL G.S.F HAVE BEEN INCLUDED.

REVISIONS

No.	DATE	DESCRIPTION

PLAN DATE
02-11-2022
02-09-2023
04-17-2023
05-26-2023

Urban Ltd.
4200 D TECHNOLOGY CT.
CHANTILLY, VA. 20151
TEL: 703.642.2306
FAX: 703.378.7888
www.urban-ltd.com

urban™ Planners+Engineers+Landscape Architects+Land Surveyors

COMMONWEALTH OF VIRGINIA
CLARION C. TOCK
Lic. No. 039790
PROFESSIONAL ENGINEER
05/26/2023

SANITARY SEWER COMPUTATIONS
LANDMARK MALL REDEVELOPMENT
PRELIMINARY SITE PLAN - PARKS
CITY OF ALEXANDRIA, VIRGINIA

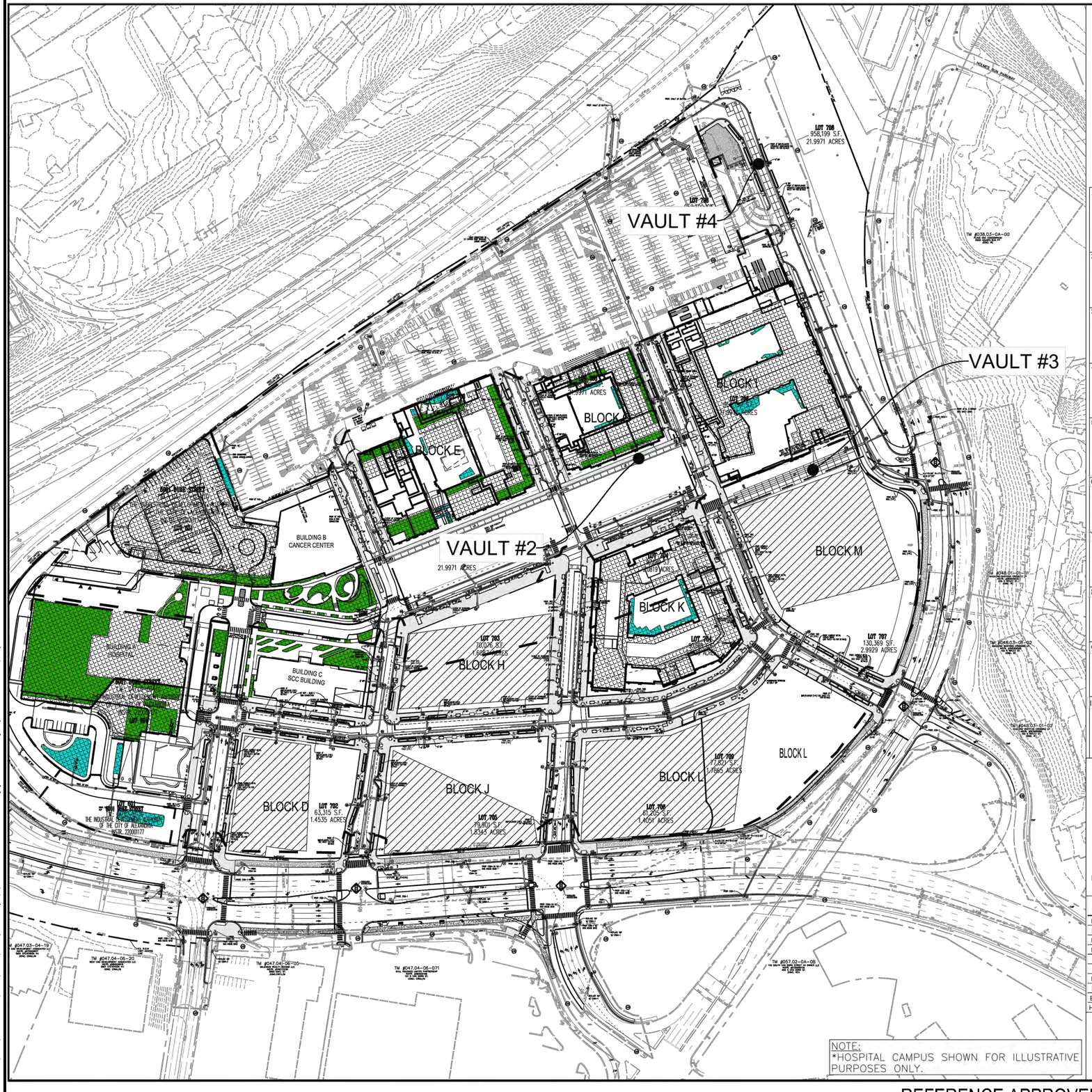
SCALE: 1"=20' C.I.= 2' DATE: NOV., 2022

APPROVED
SPECIAL USE PERMIT NO. _____
DEPARTMENT OF PLANNING & ZONING
DIRECTOR _____ DATE _____
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
DIRECTOR _____ DATE _____
CHAIRMAN, PLANNING COMMISSION _____ DATE _____
DATE RECORDED _____
INSTRUMENT NO. _____ DEED BOOK NO. _____ PAGE NO. _____

SHEET 22 OF 47

FILE No. DSUP-13089

Urban, Ltd. - J:\JOBS\landmarkmall\DSUP\block-parks\preliminary sp\13089-07-SAN PLAN & CMPS.dwg [Comps] May 26, 2023 - 11:28am yelosri


VAULT #4
VAULT #3
VAULT #2
LOT 708
958,199 S.F.
21.9971 ACRES
LOT 709
LOT 710
LOT 711
LOT 712
LOT 713
LOT 714
LOT 715
LOT 716
LOT 717
LOT 718
LOT 719
LOT 720
LOT 721
LOT 722
LOT 723
LOT 724
LOT 725
LOT 726
LOT 727
LOT 728
LOT

Post-Development Project (Treatment Volume and Loads)

Enter Total Disturbed Area *(acres)* → 60.64

Maximum reduction required:	*20%*
The site's net increase in impervious cover (acres) is:	*0*
Post-Development TP Load Reduction for Site (lb/yr):	~~20.98~~ 41.96

Check:
BMP Design Specifications List: 2013 Draft Stds & Specs
Linear project? No
Land cover areas entered correctly? ✔
Total disturbed area entered? ✔

Pre-ReDevelopment Land Cover (acres)

	A Soils	B Soils	C Soils	D Soils	Totals
Forest/Open Space (acres) -- undisturbed forest/open space					0.00
Managed Turf (acres) -- disturbed, graded for yards or other turf to be				2.52	2.52
Impervious Cover (acres)				47.75	47.75
					50.27

Post-Development Land Cover (acres)

	A Soils	B Soils	C Soils	D Soils	Totals
Forest/Open Space (acres) -- undisturbed, protected forest/open space or reforested					0.00
Managed Turf (acres) -- disturbed, graded for yards or other turf to be				2.52	2.52
Impervious Cover (acres)				47.75	47.75
Area Check	OK.	OK.	OK.	OK.	50.27

Constants

Annual Rainfall (inches)	43
Target Rainfall Event (inches)	1.00
Total Phosphorus (TP) EMC (mg/L)	0.26
Total Nitrogen (TN) EMC (mg/L)	1.86
Target TP Load (lb/acre/yr)	0.41
Pj (unitless correction factor)	0.90

Runoff Coefficients (Rv)

	A Soils	B Soils	C Soils	D Soils
Forest/Open Space	0.02	0.03	0.04	0.05
Managed Turf	0.15	0.20	0.22	0.25
Impervious Cover	0.95	0.95	0.95	0.95

LAND COVER SUMMARY -- PRE-REDEVELOPMENT

Land Cover Summary-Pre		
Pre-ReDevelopment	**Listed**	**Adjusted[1]**
Forest/Open Space Cover (acres)	0.00	0.00
Weighted Rv(forest)	0.00	0.00
% Forest	0%	0%
Managed Turf Cover (acres)	2.52	2.52
Weighted Rv(turf)	0.25	0.25
% Managed Turf	5%	5%
Impervious Cover (acres)	47.75	47.75
Rv(impervious)	0.95	0.95
% Impervious	95%	95%
Total Site Area (acres)	**50.27**	**50.27**
Site Rv	**0.91**	**0.91**

Treatment Volume and Nutrient Load

Pre-ReDevelopment Treatment Volume (acre-ft)	3.8327	3.8327
Pre-ReDevelopment Treatment Volume (cubic feet)	166,953	166,953
Pre-ReDevelopment TP Load (lb/yr)	**104.90**	**104.90**
Pre-ReDevelopment TP load per acre (lb/acre/yr)	2.09	2.09
Baseline TP Load (lb/yr) (0.41 lbs/acre/yr applied to pre-redevelopment area excluding pervious land proposed for new impervious cover)		*20.61*

[1] *Adjusted Land Cover Summary:*
Pre ReDevelopment land cover minus pervious land cover (forest/open space or managed turf) acreage proposed for new impervious cover.

Adjusted total acreage is consistent with Post-ReDevelopment acreage (minus acreage of new impervious cover).

Column I shows load reduction requirement for new impervious cover (based on new development load limit, 0.41 lbs/acre/year).

LAND COVER SUMMARY -- POST DEVELOPMENT

Land Cover Summary-Post (Final)	
Post ReDev. & New Impervious	
Forest/Open Space Cover (acres)	0.00
Weighted Rv(forest)	0.00
% Forest	0%
Managed Turf Cover (acres)	2.52
Weighted Rv (turf)	0.25
% Managed Turf	5%
Impervious Cover (acres)	47.75
Rv(impervious)	0.95
% Impervious	95%
Final Site Area (acres)	**50.27**
Final Post Dev Site Rv	**0.91**

Land Cover Summary-Post	
Post-ReDevelopment	
Forest/Open Space Cover (acres)	0.00
Weighted Rv(forest)	0.00
% Forest	0%
Managed Turf Cover (acres)	2.52
Weighted Rv (turf)	0.25
% Managed Turf	5%
ReDev. Impervious Cover (acres)	47.75
Rv(impervious)	0.95
% Impervious	95%
Total ReDev. Site Area (acres)	**50.27**
ReDev Site Rv	**0.91**

Land Cover Summary-Post	
Post-Development New Impervious	
New Impervious Cover (acres)	0.00
Rv(impervious)	--

Treatment Volume and Nutrient Load

Final Post-Development Treatment Volume (acre-ft)	3.8327	Post-ReDevelopment Treatment Volume (acre-ft)	3.8327	Post-Development Treatment Volume (acre-ft)	--
Final Post-Development Treatment Volume (cubic feet)	166,953	Post-ReDevelopment Treatment Volume (cubic feet)	166,953	Post-Development Treatment Volume (cubic feet)	--
Final Post-Development TP Load (lb/yr)	**104.90**	**Post-ReDevelopment Load (TP) (lb/yr)***	**104.90**	**Post-Development TP Load (lb/yr)**	**--**
Final Post-Development TP Load per acre (lb/acre/yr)	2.09	Post-ReDevelopment TP Load per acre (lb/acre/yr)	2.09		
		Max. Reduction Required (below Pre-ReDevelopment Load)	20%		
		TP Load Reduction Required for Redeveloped Area (lb/yr)	**20.98**	**TP Load Reduction Required for New Impervious Area (lb/yr)**	**0**

Post-Development Requirement for Site Area

TP Load Reduction Required (lb/yr)	~~20.98~~ 41.96

Nitrogen Loads (Informational Purposes Only)

Pre-ReDevelopment TN Load (lb/yr)	750.41	Final Post-Development TN Load (Post-ReDevelopment & New Impervious) (lb/yr)	750.41

Drainage Area A

Drainage Area A Land Cover (acres)

	A Soils	B Soils	C Soils	D Soils	Totals	Land Cover Rv
Forest/Open Space (acres)					0.00	0.00
Managed Turf (acres)				2.52	2.52	0.25
Impervious Cover (acres)				47.75	47.75	0.95
				Total	50.27	

11.b. Vegetated Roof #2 (Spec #5)	60		17.07		35,320	23,546	58,866	0		36.94	22.17	14.78	
6.b BMP TREE WELLS	80		4.79	0	13,215	3,304	16,518	50	0.00	10.37	9.33	1.04	
11.a. Filtering Practice #1 (Spec #12)	0		8.06	0	0	27,795	27,795	60	0.00	17.44	10.47	6.98	

Site Results (Water Quality Compliance)

Area Checks	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	AREA CHECK
FOREST/OPEN SPACE (ac)	0.00	0.00	0.00	0.00	0.00	OK.
IMPERVIOUS COVER (ac)	47.75	0.00	0.00	0.00	0.00	OK.
IMPERVIOUS COVER TREATED (ac)	29.92	0.00	0.00	0.00	0.00	OK.
MANAGED TURF AREA (ac)	2.52	0.00	0.00	0.00	0.00	OK.
MANAGED TURF AREA TREATED (ac)	0.00	0.00	0.00	0.00	0.00	OK.
AREA CHECK	OK.	OK.	OK.	OK.	OK.	

Site Treatment Volume (ft^3) 166,953

Runoff Reduction Volume and TP By Drainage Area

	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	TOTAL
RUNOFF REDUCTION VOLUME ACHIEVED (ft^3)	48,534	0	0	0	0	48,534
TP LOAD AVAILABLE FOR REMOVAL (lb/yr)	104.90	0.00	0.00	0.00	0.00	104.90
TP LOAD REDUCTION ACHIEVED (lb/yr)	41.96	0.00	0.00	0.00	0.00	41.96
TP LOAD REMAINING (lb/yr)	62.93	0.00	0.00	0.00	0.00	62.93
NITROGEN LOAD REDUCTION ACHIEVED (lb/yr)	264.24	0.00	0.00	0.00	0.00	264.24

Total Phosphorus

FINAL POST-DEVELOPMENT TP LOAD (lb/yr)	104.90
TP LOAD REDUCTION REQUIRED (lb/yr)	~~20.98~~ 41.96
TP LOAD REDUCTION ACHIEVED (lb/yr)	41.96
TP LOAD REMAINING (lb/yr):	62.93
REMAINING TP LOAD REDUCTION REQUIRED (lb/yr):	0.00 **

** TARGET TP REDUCTION EXCEEDED BY ~~20.98~~ LB/YEAR ** 0 LB/YEAR

Total Nitrogen (For Information Purposes)

POST-DEVELOPMENT LOAD (lb/yr)	750.41
NITROGEN LOAD REDUCTION ACHIEVED (lb/yr)	264.24
REMAINING POST-DEVELOPMENT NITROGEN LOAD (lb/yr)	486.17

BMP NARRATIVE

STORMWATER BEST MANAGEMENT PRACTICES FOR THE SUBJECT SITE ARE BEING PROVIDED IN ACCORDANCE WITH VA DEQ AND CITY OF ALEXANDRIA STANDARDS BY USING THE VIRGINIA RUNOFF REDUCTION METHOD (VRRM) TO MEET THE WATER QUALITY CRITERIA

THE BELOW REQUIRED TP REMOVAL IS TO BE DISTRIBUTED ACROSS THE SITE ON A PER BLOCK BASIS. THE PHOSPHORUS LOAD REDUCTION REQUIRED BY THE VRRM WILL BE SATISFIED WITH THE UTILIZATION OF THREE (3) STORMWATER BEST MANAGEMENT PRACTICE (BMP) FACILITITIES IN CONFORMANCE WITH THE STORMWATER BMP CLEARINGHOUSE WEBSITE. THE THREE (3) BMP FACILITIES PROPOSED ARE:

- VEGETATED ROOF (LEVEL 2)
- URBAN BIORETENTION BASIN - TREEWELLS (LEVEL 2)
- SAND FILTER (LEVEL 1)

BASED ON THE SUBJECT SITE'S PROPOSED LAND COVER, THE TOTAL PHOSPHOROUS LOAD REDUCTION REQUIRED TO BE REMOVED IS 41.96 LBS/YEAR. THE TOTAL PHOSPHOROUS LOAD REDUCTION ACHIEVED IS 41.96 LBS/YEAR, THEREFORE THE TOTAL PHOSPHOROUS LOAD REDUCTION IS EXCEEDED BY 0.00 LBS/YEAR.

APPROVED
DEVELOPMENT SITE PLAN NO. 2021-00017
DEPARTMENT OF PLANNING & ZONING
J.A. for K. Moritz — DIRECTOR — 11-22-2022 — DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. ____
DIRECTOR — 12/06/2022 — DATE
CHAIRMAN, PLANNING COMMISSION — 11-22-2022 — DATE
DATE RECORDED ____
INSTRUMENT NO. ____ DEED BOOK NO. ____ PAGE NO. ____

No.	DESCRIPTION	DATE
	REVISIONS	

PLAN DATE
11-16-2021
02-15-2022
03-25-2022
10-25-2022
11-22-2022

Urban, Ltd.
4200 D TECHNOLOGY CT.
CHANTILLY, VA. 20151
TEL. 703.642.2306
FAX. 703.378.7888
www.urban-ltd.com
Planners • Engineers • Landscape Architects • Land Surveyors

PROPOSED BMP COMPUTATIONS
LANDMARK MALL REDEVELOPMENT
MASTER STORMWATER MANAGEMENT PLAN
CITY OF ALEXANDRIA, VIRGINIA
DATE: NOVEMBER 2021
SCALE: N/A C.I.= N/A

SHEET C.605 OF C.702
FILE No. SP-13076

No.	DESCRIPTION	DATE
	REVISIONS	

PLAN DATE
02-11-2022
02-15-2022
03-17-2023
05-26-2023

Urban, Ltd.
4200 D TECHNOLOGY CT.
CHANTILLY, VA. 20151
TEL. 703.642.2306
FAX. 703.378.7888
www.urban-ltd.com
Planners • Engineers • Landscape Architects • Land Surveyors

BMP COMPUTATIONS
LANDMARK MALL REDEVELOPMENT
PRELIMINARY SITE PLAN - PARKS
CITY OF ALEXANDRIA, VIRGINIA
DATE: NOV., 2022
SCALE: 1"=100' C.I.= N/A

SHEET 23A OF 47
FILE No. DSUP-13089

REFERENCE APPROVED DSP #2021-00017 FOR INFORMATIONAL PURPOSES ONLY!!

Urban, Ltd. -- J:_JOBS\landmarkmall\DSUP\block--parks\preliminary sp\13089-28-SWM BMP PLAN.dwg [COMPS] May 25, 2023 -- 2:02pm yelosri

Post-Development Project (Treatment Volume and Loads)

Enter Total Disturbed Area *(acres)* → 60.64

Maximum reduction required:	*20%*
The site's net increase in impervious cover (acres) is:	*0*
Post-Development TP Load Reduction for Site (lb/yr):	~~20.98~~ 41.96

Check:

BMP Design Specifications List:	2013 Draft Stds & Specs
Linear project?	No
Land cover areas entered correctly?	✓
Total disturbed area entered?	✓

Pre-ReDevelopment Land Cover (acres)

	A Soils	B Soils	C Soils	D Soils	Totals
Forest/Open Space (acres) -- undisturbed forest/open space					0.00
Managed Turf (acres) -- disturbed, graded for yards or other turf to be				2.52	2.52
Impervious Cover (acres)				47.75	47.75
					50.27

Post-Development Land Cover (acres)

	A Soils	B Soils	C Soils	D Soils	Totals
Forest/Open Space (acres) -- undisturbed, protected forest/open space or reforested					0.00
Managed Turf (acres) -- disturbed, graded for yards or other turf to be				2.52	2.52
Impervious Cover (acres)				47.75	47.75
Area Check	OK.	OK.	OK.	OK.	50.27

Constants

Annual Rainfall (inches)	43
Target Rainfall Event (inches)	1.00
Total Phosphorus (TP) EMC (mg/L)	0.26
Total Nitrogen (TN) EMC (mg/L)	1.86
Target TP Load (lb/acre/yr)	0.41
Pj (unitless correction factor)	0.90

Runoff Coefficients (Rv)

	A Soils	B Soils	C Soils	D Soils
Forest/Open Space	0.02	0.03	0.04	0.05
Managed Turf	0.15	0.20	0.22	0.25
Impervious Cover	0.95	0.95	0.95	0.95

LAND COVER SUMMARY -- PRE-REDEVELOPMENT

Land Cover Summary-Pre		
Pre-ReDevelopment	**Listed**	**Adjusted[1]**
Forest/Open Space Cover (acres)	0.00	0.00
Weighted Rv(forest)	0.00	0.00
% Forest	0%	0%
Managed Turf Cover (acres)	2.52	2.52
Weighted Rv(turf)	0.25	0.25
% Managed Turf	5%	5%
Impervious Cover (acres)	47.75	47.75
Rv(impervious)	0.95	0.95
% Impervious	95%	95%
Total Site Area (acres)	**50.27**	**50.27**
Site Rv	**0.91**	**0.91**

Treatment Volume and Nutrient Load

Pre-ReDevelopment Treatment Volume (acre-ft)	3.8327	3.8327
Pre-ReDevelopment Treatment Volume (cubic feet)	166,953	166,953
Pre-ReDevelopment TP Load (lb/yr)	**104.90**	**104.90**
Pre-ReDevelopment TP Load per acre (lb/acre/yr)	2.09	2.09
Baseline TP Load (lb/yr) (0.41 lbs/acre/yr applied to pre-redevelopment area excluding pervious land proposed for new impervious cover)		*20.61*

LAND COVER SUMMARY -- POST DEVELOPMENT

Land Cover Summary-Post (Final)	
Post ReDev. & New Impervious	
Forest/Open Space Cover (acres)	0.00
Weighted Rv(forest)	0.00
% Forest	0%
Managed Turf Cover (acres)	2.52
Weighted Rv (turf)	0.25
% Managed Turf	5%
Impervious Cover (acres)	47.75
Rv(impervious)	0.95
% Impervious	95%
Final Site Area (acres)	**50.27**
Final Post Dev Site Rv	**0.91**

Land Cover Summary-Post	
Post-ReDevelopment	
Forest/Open Space Cover (acres)	0.00
Weighted Rv(forest)	0.00
% Forest	0%
Managed Turf Cover (acres)	2.52
Weighted Rv (turf)	0.25
% Managed Turf	5%
ReDev. Impervious Cover (acres)	47.75
Rv(impervious)	0.95
% Impervious	95%
Total ReDev. Site Area (acres)	**50.27**
ReDev Site Rv	**0.91**

Land Cover Summary-Post	
Post-Development New Impervious	
New Impervious Cover (acres)	0.00
Rv(impervious)	--

Treatment Volume and Nutrient Load

Final Post-Development Treatment Volume (acre-ft)	3.8327	**Post-ReDevelopment Treatment Volume (acre-ft)**	3.8327	**Post-Development Treatment Volume (acre-ft)**	--
Final Post-Development Treatment Volume (cubic feet)	166,953	**Post-ReDevelopment Treatment Volume (cubic feet)**	166,953	**Post-Development Treatment Volume (cubic feet)**	--
Final Post-Development TP Load (lb/yr)	**104.90**	**Post-ReDevelopment Load (TP) (lb/yr)***	**104.90**	**Post-Development TP Load (lb/yr)**	--
Final Post-Development TP Load per acre (lb/acre/yr)	2.09	Post-ReDevelopment TP Load per acre (lb/acre/yr)	2.09		
		Max. Reduction Required (Below Pre-ReDevelopment Load)	**20%**		
		TP Load Reduction Required for Redeveloped Area (lb/yr)	**20.98**	**TP Load Reduction Required for New Impervious Area (lb/yr)**	**0**

[1] Adjusted Land Cover Summary:
Pre ReDevelopment land cover minus pervious land cover (forest/open space or managed turf) acreage proposed for new impervious cover.

Adjusted total acreage is consistent with Post-ReDevelopment acreage (minus acreage of new impervious cover).

Column I shows load reduction requirement for new impervious cover (based on new development load limit, 0.41 lbs/acre/year).

Post-Development Requirement for Site Area

TP Load Reduction Required (lb/yr)	~~20.98~~ 41.96

Nitrogen Loads (Informational Purposes Only)

Pre-ReDevelopment TN Load (lb/yr)	750.41
Final Post-Development TN Load (Post-ReDevelopment & New Impervious) (lb/yr)	750.41

Drainage Area A

Drainage Area A Land Cover (acres)

	A Soils	B Soils	C Soils	D Soils	Totals	Land Cover Rv
Forest/Open Space (acres)					0.00	0.00
Managed Turf (acres)				2.52	2.52	0.25
Impervious Cover (acres)				47.75	47.75	0.95
				Total	50.27	

Stormwater Best Management Practices (RR = Runoff Reduction) --Select from dropdown lists--

Practice	Runoff Reduction Credit (%)	Managed Turf Credit Area (acres)	Impervious Cover Credit Area (acres)	Volume from Upstream Practice (ft³)	Runoff Reduction (ft³)	Remaining Runoff Volume (ft³)	Total BMP Treatment Volume (ft³)	Phosphorus Removal Efficiency (%)	Phosphorus Load from Upstream Practices (lb)	Untreated Phosphorus Load to Practice (lb)	Phosphorus Removed By Practice (lb)	Remaining Phosphorus Load (lb)	Downstream Practice to be Employed
6.b. BMP TREE WELLS	80		4.59	0	12,663	3,166	15,829	50	0.00	9.93	8.94	0.99	
11.a Filtering Practice #1 (Spec #12)	0		8.06	0	0	27,795	27,795	60	0.00	17.44	10.47	6.98	
14.a. Manufactured Treatment Device-Hydrodynamic	0		0.89	0	0	3,069	3,069	20	0.00	1.93	0.39	1.54	

Site Results (Water Quality Compliance)

Area Checks	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	AREA CHECK
FOREST/OPEN SPACE (ac)	0.00	0.00	0.00	0.00	0.00	OK.
IMPERVIOUS COVER (ac)	47.75	0.00	0.00	0.00	0.00	OK.
IMPERVIOUS COVER TREATED (ac)	13.54	0.00	0.00	0.00	0.00	OK.
MANAGED TURF AREA (ac)	2.52	0.00	0.00	0.00	0.00	OK.
MANAGED TURF AREA TREATED (ac)	0.00	0.00	0.00	0.00	0.00	OK.
AREA CHECK	OK.	OK.	OK.	OK.	OK.	

Site Treatment Volume (ft³) 166,953

Runoff Reduction Volume and TP By Drainage Area

	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	TOTAL
RUNOFF REDUCTION VOLUME ACHIEVED (ft³)	12,663	0	0	0	0	12,663
TP LOAD AVAILABLE FOR REMOVAL (lb/yr)	104.90	0.00	0.00	0.00	0.00	104.90
TP LOAD REDUCTION ACHIEVED (lb/yr)	19.79	0.00	0.00	0.00	0.00	19.79
TP LOAD REMAINING (lb/yr)	85.10	0.00	0.00	0.00	0.00	85.10
NITROGEN LOAD REDUCTION ACHIEVED (lb/yr)	102.82	0.00	0.00	0.00	0.00	102.82

Total Phosphorus

FINAL POST-DEVELOPMENT TP LOAD (lb/yr)	104.90
TP LOAD REDUCTION REQUIRED (lb/yr)	~~20.98~~ 41.96 LB/YR
TP LOAD REDUCTION ACHIEVED (lb/yr)	19.79
TP LOAD REMAINING (lb/yr)	85.10
REMAINING TP LOAD REDUCTION REQUIRED (lb/yr):	~~1.19~~ 22.17 LB/YR REMAINING TP TO BE REMOVED BY FUTURE DSUP APPLICATIONS

Total Nitrogen (For Information Purposes)

POST-DEVELOPMENT LOAD (lb/yr)	750.41
NITROGEN LOAD REDUCTION ACHIEVED (lb/yr)	102.82
REMAINING POST-DEVELOPMENT NITROGEN LOAD (lb/yr)	647.59

BMP NARRATIVE

STORMWATER BEST MANAGEMENT PRACTICES FOR THE SUBJECT SITE ARE BEING PROVIDED IN ACCORDANCE WITH VA DEQ AND CITY OF ALEXANDRIA STANDARDS BY USING THE VIRGINIA RUNOFF REDUCTION METHOD (VRRM) TO MEET THE WATER QUALITY CRITERIA

THE PHOSPHOROUS LOAD REDUCTION REQUIRED BY THE VRRM WILL BE SATISFIED WITH THE UTILIZATION OF THREE (3) STORMWATER BEST MANAGEMENT PRACTICE (BMP) FACILITITIES IN CONFORMANCE WITH THE STORMWATER BMP CLEARINGHOUSE WEBSITE. THE THREE (3) BMP FACILITIES PROPOSED ARE:

- URBAN BIORETENTION BASIN - TREEWELLS (LEVEL 2)
- SAND FILTER (LEVEL 1)
- HYDRODYNAMIC DEVICE - HYDRODYNAMIC SEPARATOR

BASED ON THE SUBJECT SITE'S PROPOSED LAND COVER, THE TOTAL PHOSPHOROUS LOAD REDUCTION REQUIRED TO BE REMOVED IS 41.96 LBS/YEAR. THE TOTAL PHOSPHOROUS LOAD REDUCTION ACHIEVED IS 19.79 LBS/YEAR, THEREFORE THE REMAINING 22.17 LBS/YEAR WILL BE REMOVED BY FUTURE DSUP APPLICATIONS.

APPROVED
DEVELOPMENT SITE PLAN NO. 2021-00017

DEPARTMENT OF PLANNING & ZONING
J.A. for K. Moritz — 11-22-2022
DIRECTOR — DATE

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
12/06/2022
DIRECTOR — DATE

11-22-2022
CHAIRMAN, PLANNING COMMISSION — DATE

DATE RECORDED _____

INSTRUMENT NO. — DEED BOOK NO. — PAGE NO.

No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
11-16-2021
02-15-2022
03-25-2022
10-25-2022
11-22-2022

Urban, Ltd.
4200 D TECHNOLOGY CT.
CHANTILLY, VA. 20151
TEL. 703.642.2306
FAX. 703.378.7888
www.urban-ltd.com
Planners • Engineers • Landscape Architects • Land Surveyors

COMMONWEALTH OF VIRGINIA — CLAYTON C. TOCK — Lic. No. 038780 — PROFESSIONAL ENGINEER — 11/22/2022

ACTUAL BMP COMPUTATIONS
LANDMARK MALL REDEVELOPMENT
MASTER STORMWATER MANAGEMENT PLAN
CITY OF ALEXANDRIA, VIRGINIA
DATE: NOVEMBER 2021
SCALE: N/A — C.I.= N/A

SHEET C 606 OF C.702
FILE No. SP-13076

No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
02-11-2022
02-15-2022
03-17-2023
05-26-2023

Urban, Ltd.
4200 D TECHNOLOGY CT.
CHANTILLY, VA. 20151
TEL. 703.642.2306
FAX. 703.378.7888
www.urban-ltd.com
Planners • Engineers • Landscape Architects • Land Surveyors

COMMONWEALTH OF VIRGINIA — CLAYTON C. TOCK — Lic. No. 038780 — PROFESSIONAL ENGINEER — 05/26/2023

BMP COMPUTATIONS
LANDMARK MALL REDEVELOPMENT
PRELIMINARY SITE PLAN - PARKS
CITY OF ALEXANDRIA, VIRGINIA
DATE: NOV., 2022
SCALE: 1"=100' — C.I.= N/A

SHEET 23B OF 47
FILE No. DSUP-13089

REFERENCE APPROVED DSP #2021-00017 FOR INFORMATIONAL PURPOSES ONLY!!

J:_JOBS\landmarkmall\DSUP\block--parks\preliminary sp\13089-28-SWM BMP PLAN.dwg [COMPS (2)] May 25, 2023 - 2:02pm yelasri
Urban, Ltd.

PROPOSED BMP COMPUTATIONS

Project Description

Development or **Redevelopment**

Drainage Area	Impervious	Pervious	Total
Site Area	47.75 ACRES	2.52 ACRES	50.27 ACRES
On-Site Treated	29.92 ACRES	0.00 ACRES	29.92 ACRES
Off-Site Treated	0 ACRES	0 ACRES	0 ACRES
Total Treated	29.92 ACRES		
Any On-Site Disconnected by a Vegetated Buffer (25 ft)	0 ACRES		
Total On-Site Treated or Disconnected			29.92 ACRES

Water Treatment on site

BMP Type	*Area treated by BMP (acres)*	*Impervious area treated by BMP (acres)*	*BMP efficiency (%)*
SAND FILTER	8.06 ACRES	8.06 ACRES	60 %
TREEWELL	4.79 ACRES	4.79 ACRES	50 %
GREEN ROOF	17.07 ACRES	17.07 ACRES	60 %

Miscellaneous

Total WQV treated: **yes** no
Detention on site: **yes** no

Project is within which watershed? HOLMES RUN WATERSHED

Project discharges to which body of water? HOLMES RUN

PROPOSED WQV TREATMENT:

TOTAL SITE PROP. IMPERVIOUS AREA = 47.75 AC OR 2,079,990 SF

TOTAL SITE WQV REQUIRED = 2,079,990 SF X (0.5 IN/12 IN/FT) = 86,666.25 CF

PROP. TREATED IMPERVIOUS AREA = 29.92 AC OR 1,303,315 SF

TOTAL SITE WQV PROPOSED = 58,866 CF + 16,518 CF + 27,795 CF = 103,179 CF (SEE SHEET C.605 FOR TOTAL BMP TREATMENT VOLUME VALUES)

APPROVED
DEVELOPMENT SITE PLAN NO. 2021-00017

DEPARTMENT OF PLANNING & ZONING
J.A. for K. Moritz — 11-22-2022
DIRECTOR — DATE

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
DIRECTOR — 12/06/2022 DATE

CHAIRMAN, PLANNING COMMISSION — 11-22-2022 DATE

DATE RECORDED _____
INSTRUMENT NO. — DEED BOOK NO. — PAGE NO.

ACTUAL BMP COMPUTATIONS

Project Description

Development or **Redevelopment**

Drainage Area	Impervious	Pervious	Total
Site Area	47.75 ACRES	2.52 ACRES	50.27 ACRES
On-Site Treated	13.54 ACRES	0.00 ACRES	13.54 ACRES
Off-Site Treated	0 ACRES	0 ACRES	0 ACRES
Total Treated	13.54 ACRES		
Any On-Site Disconnected by a Vegetated Buffer (25 ft)	0 ACRES		
Total On-Site Treated or Disconnected			13.54 ACRES

Water Treatment on site

BMP Type	*Area treated by BMP (acres)*	*Impervious area treated by BMP (acres)*	*BMP efficiency (%)*
SAND FILTER	8.06 ACRES	8.06 ACRES	60 %
TREEWELLS	4.59 ACRES	4.59 ACRES	50 %
PROPRIETARY	0.89 ACRES	0.89 ACRES	20 %

Miscellaneous

Total WQV treated: yes **no**
Detention on site: **yes** no

Project is within which watershed? HOLMES RUN WATERSHED

Project discharges to which body of water? HOLMES RUN

ACTUAL WQV TREATMENT:

TOTAL SITE PROP. IMPERVIOUS AREA = 47.75 AC OR 2,079,990 SF

TOTAL SITE WQV REQUIRED = 2,079,990 SF X (0.5 IN/12 IN/FT) = 86,666.25 CF

PROP. TREATED IMPERVIOUS AREA = 13.54 AC OR 589,802 SF

TOTAL SITE WQV PROPOSED = TREEWELLS + SAND FILTER TV + PROPRIETARY TV
= 15,829 CF + 27,795 CF + 3,069 CF = 46,693 CF (SEE SHEET C.606 FOR TOTAL BMP TREATMENT VOLUME VALUES)

REVISIONS		
DESCRIPTION	DATE	No.

PLAN DATE
11-16-2021
02-15-2022
04-29-2022
10-25-2022
11-22-2022

Urban, Ltd.
4200 D TECHNOLOGY CT.
CHANTILLY, VA. 20151
TEL. 703.642.2306
FAX. 703.378.7888
www.urban-ltd.com
Planners • Engineers • Landscape Architects • Land Surveyors

WQVD BMP DATA BLOCKS

LANDMARK MALL REDEVELOPMENT
MASTER STORMWATER MANAGEMENT PLAN

CITY OF ALEXANDRIA, VIRGINIA

SCALE: N/A C.I.= N/A DATE: NOVEMBER, 2021

SHEET
8.607
OF
C.702

FILE No.
SP-13076

REVISIONS		
DESCRIPTION	DATE	No.

PLAN DATE
02-11-2022
02-17-2022
05-17-2023
05-26-2023

Urban, Ltd.
4200 D TECHNOLOGY CT.
CHANTILLY, VA. 20151
TEL. 703.642.2306
FAX. 703.378.7888
www.urban-ltd.com
Planners • Engineers • Landscape Architects • Land Surveyors

WQVD DATA BLOCKS

LANDMARK MALL REDEVELOPMENT
PRELIMINARY SITE PLAN - PARKS

CITY OF ALEXANDRIA, VIRGINIA

SCALE: 1"=100' C.I.= N/A DATE: NOV., 2022

SHEET
23C
OF
47

FILE No.
DSUP-13089

REFERENCE APPROVED DSP #2021-00017 FOR INFORMATIONAL PURPOSES ONLY!!

Urban, Ltd. - J:\JOBS\landmarkmall\DSUP\block-parks\preliminary sp\13089-28-SWM BMP PLAN.dwg [WQVD] May 25, 2023 - 2:02pm yelasri

STUDY POINT "1"

STUDY POINT "2"

UNDETAINED TO STUDY POINT 1 DA = 7.37 ACRES

UNDETAINED TO STUDY POINT 1 DA = 27.34 ACRES

UNDETAINED TO STUDY POINT 2 DA = 20.03 ACRES

UNDETAINED TO STUDY POINT 2 DA = 11.21 ACRES

HENRY G. SHIRLEY MEMORIAL HIGHWAY

LANDMARK MALL

sears

macy's

DUKE STREET

SOUTH VAN DORN STREET

NORTH VAN DORN STREET

HOLMES RUN PARKWAY

SCALE: 1"=100'
0' 50' 100' 200'

APPROVED

SPECIAL USE PERMIT NO. _____

DEPARTMENT OF PLANNING & ZONING

_____ DIRECTOR _____ DATE

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

SITE PLAN NO. _____

_____ DIRECTOR _____ DATE

_____ CHAIRMAN, PLANNING COMMISSION _____ DATE

DATE RECORDED _____

_____ INSTRUMENT NO. _____ DEED BOOK NO. _____ PAGE NO.

No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
02-11-2022
03-09-2022
04-17-2023
05-26-2023

Urban Ltd.
4200 D TECHNOLOGY CT.
CHANTILLY, VA. 20151
TEL. 703.642.2306
FAX 703.378.7888
www.urban-ltd.com

urban
Planners • Engineers • Landscape Architects • Land Surveyors

COMMONWEALTH OF VIRGINIA
CLAYTON C. TOCK
Lic. No. 038790
PROFESSIONAL ENGINEER
03/26/2023

PRE SWM PLAN

LANDMARK MALL REDEVELOPMENT
PRELIMINARY SITE PLAN - PARKS

CITY OF ALEXANDRIA, VIRGINIA

SCALE: 1"=100' C.I.= 2' DATE: NOV. 1, 2022

SHEET 24 OF 47

FILE No. DSUP-13089

Urban, Ltd. – J:\JOBS\Landmarkmall\DSUP\block-parks\preliminary sp\13089-21-PRE SWM PLAN.dwg [SWM PRE] May 25, 2023 – 2:02pm yelasri

STUDY POINT "1"

STUDY POINT "2"

HENRY G. SHIRLEY MEMORIAL HIGHWAY

HENRY G. SHIRLEY MEMORIAL HIGHWAY

OFFSITE UNDETAINED DRAINAGE AREA TO STUDY POINT "1" DA = 7.37 AC CN= 95 TC = 15 MINS

STUDY POINT "1": ONSITE DA TO VAULT 4 DA = 8.06 AC CN= 98 TC = 10 MINS

STUDY POINT "1": ONSITE DA TO VAULT 2 DA = 17.46 AC CN= 95 TC = 10 MINS

STUDY POINT "2": ONSITE DA TO VAULT 3 DA = 20.73 AC CN= 95 TC = 10 MINS

OFFSITE UNDETAINED DRAINAGE AREA TO STUDY POINT "2" DA = 11.21AC CN= 95 TC = 10 MINS

VAULT 4

VAULT 3

VAULT 2

BLOCK I

BLOCK G

BLOCK E

BLOCK M

BLOCK K

BLOCK H

BLOCK J

BLOCK L

BLOCK D

LOT 708 958,199 S.F. 21.9971 ACRES

LOT 708 966,615 S.F. 21.1903 ACRES

LOT 708 966,615 S.F. 21.1903 ACRES

LOT 708 6,615 S.F.

LOT 704 90,689 S.F. 2.0819 ACRES

LOT 703 70,076 S.F. 1.6087 ACRES

LOT 704 90,689 S.F. 2.0819 ACRES

LOT 707 130,399 S.F. 2.9929 ACRES

LOT 709 77,919 S.F. 1.7888 ACRES

LOT 706 61,295 S.F. 1.4071 ACRES

LOT 705 79,901 S.F. 1.8343 ACRES

LOT 702 63,315 S.F. 1.4535 ACRES

LOT 601 6001 DUKE STREET T.M.: 047.02-03-10 THE INDUSTRIAL DEVELOPMENT AUTHORITY OF THE CITY OF ALEXANDRIA INSTR. 210028063

LOT 601 6001 DUKE STREET T.M.: 047.02-03-10 THE INDUSTRIAL DEVELOPMENT AUTHORITY OF THE CITY OF ALEXANDRIA INSTR. 210028063

LOT 601 6001 DUKE STREET THE INDUSTRIAL DEVELOPMENT AUTHORITY OF THE CITY OF ALEXANDRIA INSTR. 210028063

TM #038.03-0A-00

TM #048.01-01-01

TM #048.03-01-02

TM #048.03-01-92

TM #047.03-04-18

TM #047.03-04-19

TM #047.04-06-20

TM #047.04-06-05

TM #047.04-06-071

TM #057.02-0A-08

DUKE STREET

NORTH VAN DORN STREET

SOUTH VAN DORN STREET

NORTH HALTOM STREET

SOUTH HALTOM STREET

HOLMES RUN PARKWAY

SCALE: 1"=100'

0 50' 100' 200'

NOTE:
*ALL STORMWATER BMP FACILITIES SHOWN ON THE PLANS ARE FOR ILLUSTRATIVE PURPOSES ONLY.
**DISCHARGE FROM GARAGE SUMP PUMPS MUST BYPASS BMPS AND DETENTION STRUCTURES.

APPROVED

SPECIAL USE PERMIT NO. _____

DEPARTMENT OF PLANNING & ZONING

DIRECTOR DATE

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

SITE PLAN NO. _____

DIRECTOR DATE

CHAIRMAN, PLANNING COMMISSION DATE

DATE RECORDED _____

INSTRUMENT NO. DEED BOOK NO. PAGE NO.

No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
02-11-2022
02-09-2022
05-17-2023

Urban Ltd.
4200 D TECHNOLOGY CT.
CHANTILLY, VA. 20151
TEL: 703.642.2306
FAX: 703.378.7888
www.urban-ltd.com

urban
Planners+Engineers+Landscape Architects+Land Surveyors

COMMONWEALTH OF VIRGINIA
CLAYTON C. TOCK
Lic. No. 038780
PROFESSIONAL ENGINEER
05/17/2023

POST SWM PLAN

LANDMARK MALL REDEVELOPMENT
PRELIMINARY SITE PLAN - PARKS

CITY OF ALEXANDRIA, VIRGINIA

SCALE: 1"=100' C.I.= 2' DATE: NOV., 2022

SHEET 25 OF 108

FILE No. DSUP-13089

Urban, Ltd. - J:\JOBS\landmarkmall\DSUP\block-parks\preliminary sp\13089-22-POST SWM PLAN.dwg [POST SWM MASTER PLAN] May 25, 2023 - 2:02pm yelosri

SWM POST - Study Point "2"

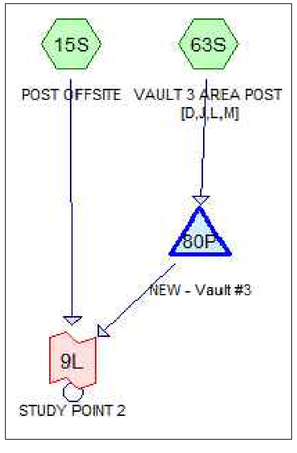
Elevation (feet)	Storage (cubic-feet)	Primary (cfs)
167.96	0	0.00
168.26	0	0.44
168.56	121	1.24
168.86	2,291	2.24
169.16	4,461	2.92
169.46	6,631	3.46
169.76	8,801	3.92
170.06	10,972	4.33
170.36	13,142	4.70
170.66	15,312	5.05
170.96	17,482	5.37
171.26	19,652	5.67
171.56	21,823	5.96
171.86	23,993	6.24
172.16	26,163	6.50
172.46	28,333	6.75
172.76	30,503	7.00
173.06	32,674	7.23
173.36	34,844	7.46
173.66	37,014	7.68
173.96	39,184	7.90
174.26	41,354	8.11
174.56	43,524	8.31
174.86	45,695	8.51
175.16	47,865	8.71
175.46	50,035	8.90
175.76	52,205	9.08
176.06	54,375	9.27
176.36	56,546	9.45
176.66	58,716	9.62
176.96	60,886	9.80
177.26	63,056	9.97
177.56	65,226	11.28
177.86	67,397	14.84
178.16	69,567	19.65
178.46	71,737	26.27
178.76	73,907	36.73
179.06	76,077	49.61
179.36	78,248	64.29
179.66	80,418	75.62
179.96	82,588	84.73
180.26	84,758	92.71
180.56	86,808	99.94
180.86	86,808	106.60

Volume	Invert	Avail.Storage	Storage Description
#1A	167.96'	0 cf	32.00'W x 256.00'L x 13.17'H Field A 107,861 cf Overall - 107,861 cf Embedded = 0 cf x 40.0% Voids
#2A	167.96'	86,808 cf	Oldcastle StormCapture SC2 1254 Inside #1 Inside= 84.0"W x 144.0"H => 86.13 sf x 16.00'L = 1,378.0 cf Outside= 96.0"W x 158.0"H => 105.33 sf x 16.00'L = 1,685.3 cf 4 Rows adjusted for 1,384.1 cf perimeter wall
		86,808 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	167.96'	60.0" Round Culvert L=52.3' RCP, groove end w/headwall, Ke=0.200 Inlet / Outlet Invert= 167.96' / 167.67' S=0.0055 '/' Cc=0.900 n=0.011 Concrete pipe, straight & clean, Flow Area=19.63 sf
#2	Device 1	167.96'	10.0" W x 10.0" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	177.36'	48.0" W x 24.0" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Device 1	178.32'	60.0" W x 12.0" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads

POST DEVELOPMENT ROUTING SCHEMATIC
STUDY POINT '2'



SWM POST OFFSITE Undetained Runoff Calculations

Curve Number Calculations

Area (ac)	CN	Description
11.210	95	Urban commercial, 85% imp, HSG D
1.682		15.00% Pervious Area
9.529		85.00% Impervious Area

Time of Concentration Calculations

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry,

1 Year Flow Calculations

Runoff = 30.45 cfs @ 12.08 hrs Volume= 82,745 cf Depth> 2.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Landmark Mall 24-hr S1 1-yr Rainfall=2.70"

2 Year Flow Calculations

Runoff = 36.77 cfs @ 12.08 hrs Volume= 101,658 cf Depth> 2.50"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Landmark Mall 24-hr S1 2-yr Rainfall=3.20"

10 Year Flow Calculations

Runoff = 55.39 cfs @ 12.08 hrs Volume= 177,387 cf Depth> 4.36"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Landmark Mall 24-hr S1 10-yr Rainfall=5.20"

SWM POST Onsite DETAINED Runoff Calculations

Area (ac)	CN	Description
20.730	95	
20.730		

Time of Concentration Calculations

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					**Direct Entry,**

1 Year Flow Calculations

Runoff = 56.31 cfs @ 12.08 hrs, Volume= 153,015 cf, Depth> 2.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Landmark Mall 24-hr S1 1-yr Rainfall=2.70"

2 Year Flow Calculations

Runoff = 68.00 cfs @ 12.08 hrs, Volume= 187,991 cf, Depth> 2.50"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Landmark Mall 24-hr S1 2-yr Rainfall=3.20"

10 Year Flow Calculations

Runoff = 102.42 cfs @ 12.08 hrs, Volume= 328,031 cf, Depth> 4.36"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Landmark Mall 24-hr S1 10-yr Rainfall=5.20"

VAULT #3

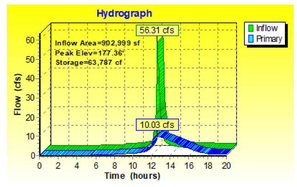
1 YEAR EVENT SUMMARY

Inflow Area = 902,999 sf, 0.00% Impervious, Inflow Depth > 2.03" for 1-yr event
Inflow = 56.31 cfs @ 12.08 hrs, Volume= 153,015 cf
Outflow = 10.03 cfs @ 12.63 hrs, Volume= 153,017 cf, Atten= 82% Lag= 32.8 min
Primary = 10.03 cfs @ 12.63 hrs, Volume= 153,017 cf

Routing by Stor-Ind method, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Peak Elev= 177.36' @ 12.63 hrs Surf.Area= 8,192 sf Storage= 63,787 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 60.8 min (817.3 - 756.5)

Primary OutFlow Max=10.02 cfs @ 12.63 hrs HW=177.36' (Free Discharge)
└1=Culvert (Passes 10.02 cfs of 295.09 cfs potential flow)
  ├2=Orifice/Grate (Orifice Controls 10.02 cfs @ 14.43 fps)
  ├3=Orifice/Grate (Orifice Controls 0.00 cfs @ 0.10 fps)
  └4=Orifice/Grate (Controls 0.00 cfs)



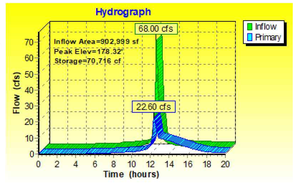
2 YEAR EVENT SUMMARY

Inflow Area = 902,999 sf, 0.00% Impervious, Inflow Depth > 2.50" for 2-yr event
Inflow = 68.00 cfs @ 12.08 hrs, Volume= 187,991 cf
Outflow = 22.60 cfs @ 12.39 hrs, Volume= 187,991 cf, Atten= 67% Lag= 18.6 min
Primary = 22.60 cfs @ 12.39 hrs, Volume= 187,991 cf

Routing by Stor-Ind method, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Peak Elev= 178.32' @ 12.39 hrs Surf.Area= 8,192 sf Storage= 70,716 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 57.7 min (809.5 - 751.8)

Primary OutFlow Max=22.59 cfs @ 12.39 hrs HW=178.32' (Free Discharge)
└1=Culvert (Passes 22.59 cfs of 323.80 cfs potential flow)
  ├2=Orifice/Grate (Orifice Controls 10.54 cfs @ 15.18 fps)
  ├3=Orifice/Grate (Orifice Controls 12.05 cfs @ 3.14 fps)
  └4=Orifice/Grate (Controls 0.00 cfs)



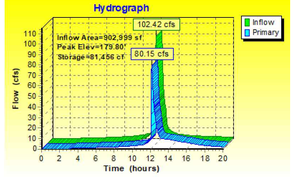
10 YEAR EVENT SUMMARY

Inflow Area = 902,999 sf, 0.00% Impervious, Inflow Depth > 4.36" for 10-yr event
Inflow = 102.42 cfs @ 12.08 hrs, Volume= 328,031 cf
Outflow = 80.15 cfs @ 12.17 hrs, Volume= 326,881 cf, Atten= 22% Lag= 5.0 min
Primary = 80.15 cfs @ 12.17 hrs, Volume= 326,881 cf

Routing by Stor-Ind method, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Peak Elev= 179.80' @ 12.17 hrs Surf.Area= 8,192 sf Storage= 81,456 cf

Plug-Flow detention time= 48.0 min calculated for 326,718 cf (100% of inflow)
Center-of-Mass det. time= 46.4 min (785.0 - 738.7)

Primary OutFlow Max=80.11 cfs @ 12.17 hrs HW=179.80' (Free Discharge)
└1=Culvert (Passes 80.11 cfs of 361.20 cfs potential flow)
  ├2=Orifice/Grate (Orifice Controls 11.30 cfs @ 16.27 fps)
  ├3=Orifice/Grate (Orifice Controls 45.22 cfs @ 5.65 fps)
  └4=Orifice/Grate (Orifice Controls 23.58 cfs @ 4.72 fps)



STUDY POINT 2 SWM POST FLOWS

1 Year Flow Calculations

Inflow Area = 1,391,306 sf, 29.83% Impervious, Inflow Depth > 2.03" for 1-yr event
Inflow = 37.61 cfs @ 12.09 hrs, Volume= 235,762 cf
Primary = 37.61 cfs @ 12.09 hrs, Volume= 235,762 cf, Atten= 0% Lag= 0.0 min
Primary outflow = Inflow, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs

2 Year Flow Calculations

Inflow Area = 1,391,306 sf, 29.83% Impervious, Inflow Depth > 2.50" for 2-yr event
Inflow = 44.83 cfs @ 12.09 hrs, Volume= 289,649 cf
Primary = 44.83 cfs @ 12.09 hrs, Volume= 289,649 cf, Atten= 0% Lag= 0.0 min
Primary outflow = Inflow, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs

10 Year Flow Calculations

Inflow Area = 1,391,306 sf, 29.83% Impervious, Inflow Depth > 4.35" for 10-yr event
Inflow = 126.27 cfs @ 12.14 hrs, Volume= 504,268 cf
Primary = 126.27 cfs @ 12.14 hrs, Volume= 504,268 cf, Atten= 0% Lag= 0.0 min
Primary outflow = Inflow, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs

ENERGY BALANCE METHOD TO STUDY POINT "2"

$Q_{(Developed)}$=	37.61	cfs
$Q_{(Pre-Developed)}$=	76.56	cfs
$RV_{(Pre-Developed)}$=	4.48	ac-ft
$RV_{(Developed)}$=	5.41	ac-ft
I.F. =	0.8	(0.8 for sites greater than one acre) (0.9 for sites less than or equal to one acre)

Q Developed	≤	I.F x ($Q_{Pre-Developed}$ x $RV_{Pre-Developed}$)/$RV_{Developed}$
37.61		50.75

APPROVED
SPECIAL USE PERMIT NO. _____
DEPARTMENT OF PLANNING & ZONING
_____ DIRECTOR _____ DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
_____ DIRECTOR _____ DATE
_____ CHAIRMAN, PLANNING COMMISSION _____ DATE
DATE RECORDED _____
_____ INSTRUMENT NO. _____ DEED BOOK NO. _____ PAGE NO.

REVISIONS

No.	DATE	DESCRIPTION

PLAN DATE
02-11-2022
12-05-2022

Urban Ltd.
4200 D TECHNOLOGY CT.
CHANTILLY, VA. 20151
TEL. 703.642.2306
FAX. 703.378.7888
www.urban-ltd.com
urban™
Planners • Engineers • Landscape Architects • Land Surveyors

COMMONWEALTH OF VIRGINIA
CLAYTON C. POCK
Lic. No. 036790
PROFESSIONAL ENGINEER
12/5/2022

STORMWATER MANAGEMENT COMPUTATIONS
LANDMARK MALL REDEVELOPMENT
PHASE II CONCEPT - PARKS
CITY OF ALEXANDRIA, VIRGINIA
DATE: NOV., 2022
C.I.= N/A
SCALE: N/A

SHEET 26 OF 43
FILE No. DSUP-13089

Urban, Ltd. - J:\JOBS\landmarkmall\DSUP\block-parks\preliminary sp\13089-23-SWM COMPUTATIONS AND NARRATIVES.dwg [SWM COMPS SP2 VAULT3] May 25, 2023 - 2:03pm yelasri

SWM POST - Study Point "1"

SWM POST OFFSITE Undetained Runoff Calculations

Curve Number Calculations

Area (ac)	CN	Description
7.370	95	Urban commercial, 85% imp, HSG D
1.106		15.00% Pervious Area
6.264		85.00% Impervious Area

Time of Concentration Calculations

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.0					**Direct Entry,**

1 Year Flow Calculations

Runoff = 16.82 cfs@ 12.15 hrs, Volume= 54,327 cf, Depth> 2.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Landmark Mall 24-hr S1 1-yr Rainfall=2.70"

2 Year Flow Calculations

Runoff = 20.36 cfs@ 12.15 hrs, Volume= 66,748 cf, Depth> 2.49"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Landmark Mall 24-hr S1 2-yr Rainfall=3.20"

10 Year Flow Calculations

Runoff = 31.07 cfs@ 12.15 hrs, Volume= 116,470 cf, Depth> 4.35"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Landmark Mall 24-hr S1 10-yr Rainfall=5.20"

SWM POST Onsite DETAINED (VAULT #2) Runoff Calculations

Curve Number Calculations

	Area (ac)	CN	Description
*	17.460	95	
	17.460		

Time of Concentration Calculations

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					**Direct Entry,**

1 Year Flow Calculations

Runoff = 47.42 cfs @ 12.08 hrs, Volume= 128,878 cf, Depth> 2.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Landmark Mall 24-hr S1 1-yr Rainfall=2.70"

2 Year Flow Calculations

Runoff = 57.27 cfs @ 12.08 hrs, Volume= 158,337 cf, Depth> 2.50"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Landmark Mall 24-hr S1 2-yr Rainfall=3.20"

10 Year Flow Calculations

Runoff = 86.27 cfs @ 12.08 hrs, Volume= 276,287 cf, Depth> 4.36"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Landmark Mall 24-hr S1 10-yr Rainfall=5.20"

SWM POST Onsite DETAINED (VAULT #4) Runoff Calculations

Curve Number Calculations

Area (ac)	CN	Description
8.060	98	Paved parking, HSG D
8.060		100.00% Impervious Area

Time of Concentration Calculations

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					**Direct Entry,**

1 Year Flow Calculations

Runoff = 23.76 cfs@ 12.08 hrs, Volume= 68,545 cf, Depth> 2.34"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Landmark Mall 24-hr S1 1-yr Rainfall=2.70"

2 Year Flow Calculations

Runoff = 28.16 cfs@ 12.08 hrs, Volume= 82,450 cf, Depth> 2.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Landmark Mall 24-hr S1 2-yr Rainfall=3.20"

10 Year Flow Calculations

Runoff = 40.96 cfs@ 12.08 hrs, Volume= 137,581 cf, Depth> 4.70"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Landmark Mall 24-hr S1 10-yr Rainfall=5.20"

STUDY POINT 1 SWM POST FLOWS

1 Year Flow Calculations

Inflow Area = 1,432,688 sf, 43.55% Impervious, Inflow Depth >2.07" for 1-yr event
Inflow = 41.05 cfs@ 12.18 hrs, Volume= 247,607 cf
Primary = 41.05 cfs@ 12.18 hrs, Volume= 247,607 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs

2 Year Flow Calculations

Inflow Area = 1,432,688 sf, 43.55% Impervious, Inflow Depth >2.53" for 2-yr event
Inflow = 54.68 cfs@ 12.20 hrs, Volume= 302,228 cf
Primary = 54.68 cfs@ 12.20 hrs, Volume= 302,228 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs

10 Year Flow Calculations

Inflow Area = 1,432,688 sf, 43.55% Impervious, Inflow Depth >4.36" for 10-yr event
Inflow = 122.80 cfs@ 12.15 hrs, Volume= 520,300 cf
Primary = 122.80 cfs@ 12.15 hrs, Volume= 520,300 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs

ENERGY BALANCE METHOD TO STUDY POINT "1"

$Q_{(Developed)=}$	41.05	cfs
$Q_{(Pre-Developed)=}$	67.19	cfs
$RV_{(Pre-Developed)=}$	4.37	ac-ft
$RV_{(Developed)=}$	5.68	ac-ft
I.F. =	0.8	(0.8 for sites greater than one acre) (0.9 for sites less than or equal to one acre)

Q Developed	≤	I.F x ($Q_{Pre-Developed}$ x $RV_{Pre-Developed}$)/$RV_{Developed}$
41.05		41.35

VAULT #2

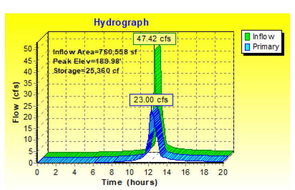
1 YEAR EVENT SUMMARY

Inflow Area = 760,558 sf 0.00% Impervious, Inflow Depth > 2.03" for 1-yr event
Inflow = 47.42 cfs@ 12.08 hrs, Volume= 128,878 cf
Outflow = 23.00 cfs@ 12.27 hrs, Volume= 127,952 cf, Atten= 52%, Lag= 11.1 min
Primary = 23.00 cfs@ 12.27 hrs, Volume= 127,952 cf

Routing by Stor-Ind method, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Peak Elev= 189.98'@ 12.27 hrs Surf.Area= 4,200 sf Storage= 25,360 cf

Plug-Flow detention time=15.8 min calculated for 127,888 cf (99% of inflow)
Center-of-Mass det. time=12.7 min (769.2 - 756.5)

Primary OutFlow Max=23.00 cfs @ 12.27 hrs HW=189.98'(Free Discharge)
└1=Culvert(Passes 23.00 cfs of 222.28 cfs potential flow)
├2=Orifice/Grate (Orifice Controls 23.00 cfs @ 11.50 fps)
├3=Orifice/Grate (Controls 0.00 cfs)
└4=Orifice/Grate (Controls 0.00 cfs)



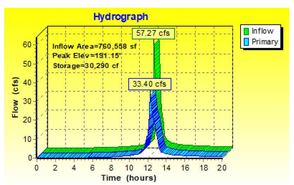
2 YEAR EVENT SUMMARY

Inflow Area = 760,558 sf, 0.00% Impervious, Inflow Depth >2.50" for 2-yr event
Inflow = 57.27 cfs@ 12.08 hrs, Volume= 158,337 cf
Outflow = 33.40 cfs@ 12.23 hrs, Volume= 157,324 cf, Atten= 42%, Lag= 8.6 min
Primary = 33.40 cfs@ 12.23 hrs, Volume= 157,324 cf

Routing by Stor-Ind method, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Peak Elev= 191.15'@ 12.23 hrs Surf.Area= 4,200 sf Storage= 30,290 cf

Plug-Flow detention time= 15.5 min calculated for 157,324 cf (99% of inflow)
Center-of-Mass det. time=12.7 min (764.5 - 751.8)

Primary OutFlow Max=33.38 cfs @ 12.23 hrs HW=191.15' (Free Discharge)
└1=Culvert(Passes 33.38 cfs of 256.50 cfs potential flow)
├2=Orifice/Grate (Orifice Controls 25.25 cfs @ 12.63 fps)
├3=Orifice/Grate (Orifice Controls 8.13 cfs @ 3.47 fps)
└4=Orifice/Grate (Orifice Controls 0.00 cfs @ 0.09 fps)



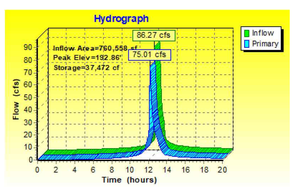
10 YEAR EVENT SUMMARY

Inflow Area = 760,558 sf, 0.00% Impervious, Inflow Depth > 4.36" for 10-yr event
Inflow = 86.27 cfs@ 12.08 hrs, Volume= 276,287 cf
Outflow = 75.01 cfs@ 12.14 hrs, Volume= 274,936 cf, Atten= 13%, Lag= 3.5 min
Primary = 75.01 cfs@ 12.14 hrs, Volume= 274,936 cf

Routing by Stor-Ind method, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Peak Elev= 192.86'@ 12.14 hrs Surf.Area= 4,200 sf Storage= 37,472 cf

Plug-Flow detention time= 12.9 min calculated for 274,798 cf (99% of inflow)
Center-of-Mass det. time= 10.7 min (749.4 - 738.7)

Primary OutFlow Max=74.94 cfs @ 12.14 hrs HW=192.86'(Free Discharge)
└1=Culvert(Passes 74.94 cfs of 299.43 cfs potential flow)
├2=Orifice/Grate (Orifice Controls 28.22 cfs @ 14.11 fps)
├3=Orifice/Grate (Orifice Controls 18.02 cfs @ 7.21 fps)
└4=Orifice/Grate (Orifice Controls 28.71 cfs @ 4.20 fps)



VAULT #4

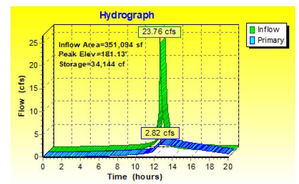
1 YEAR EVENT SUMMARY

Inflow Area = 351,094 sf, 100.00% Impervious, Inflow Depth >2.34" for 1-yr event
Inflow = 23.76 cfs@ 12.08 hrs, Volume= 68,545 cf
Outflow = 2.82 cfs@ 12.70 hrs, Volume= 65,328 cf, Atten= 88%, Lag= 37.1 min
Primary = 2.82 cfs@ 12.70 hrs, Volume= 65,328 cf

Routing by Stor-Ind method, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Peak Elev= 181.13'@ 12.70 hrs Surf.Area= 4,200 sf Storage= 34,144 cf

Plug-Flow detention time= 139.1 min calculated for 65,328 cf (95% of inflow)
Center-of-Mass det. time=120.2 min (853.0 - 732.9)

Primary OutFlow Max=2.82 cfs @ 12.70 hrs HW=181.13' (Free Discharge)
└**1=Culvert**(Passes 2.82 cfs of 109.54 cfs potential flow)
├**2=Orifice/Grate** (Orifice Controls 2.82 cfs @ 13.52 fps)
├**3=Orifice/Grate** (Controls 0.00 cfs)
└**4=Orifice/Grate** (Controls 0.00 cfs)



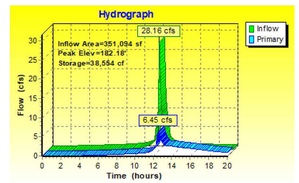
2 YEAR EVENT SUMMARY

Inflow Area = 351,094 sf, 100.00% Impervious, Inflow Depth >2.82" for 2-yr event
Inflow = 28.16 cfs@ 12.08 hrs, Volume= 82,450 cf
Outflow = 6.45 cfs@ 12.57 hrs, Volume= 78,156 cf, Atten= 77%, Lag= 29.2 min
Primary = 6.45 cfs@ 12.57 hrs, Volume= 78,156 cf

Routing by Stor-Ind method, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Peak Elev= 182.18'@ 12.57 hrs Surf.Area= 4,200 sf Storage= 38,554 cf

Plug-Flow detention time=132.1 min calculated for 78,156 cf (95% of inflow)
Center-of-Mass det. time=111.4 min (840.9 - 729.5)

Primary OutFlow Max=6.45 cfs @ 12.57 hrs HW=182.18' (Free Discharge)
└**1=Culvert**(Passes 6.45 cfs of 117.90 cfs potential flow)
├**2=Orifice/Grate** (Orifice Controls 3.00 cfs @ 14.39 fps)
├**3=Orifice/Grate** (Orifice Controls 3.45 cfs @ 3.29 fps)
└**4=Orifice/Grate** (Controls 0.00 cfs)



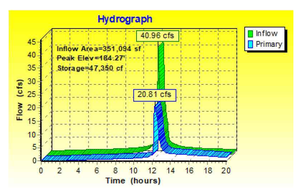
10 YEAR EVENT SUMMARY

Inflow Area = 351,094 sf, 100.00% Impervious, Inflow Depth >4.70" for 10-yr event
Inflow = 40.96 cfs@ 12.08 hrs, Volume= 137,581 cf
Outflow = 20.81 cfs@ 12.27 hrs, Volume= 128,895 cf, Atten= 49%, Lag= 11.3 min
Primary = 20.81 cfs@ 12.27 hrs, Volume= 128,895 cf

Routing by Stor-Ind method, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Peak Elev= 184.27'@ 12.27 hrs Surf.Area= 4,200 sf Storage= 47,350 cf

Plug-Flow detention time=103.9 min calculated for 128,895 cf (94% of inflow)
Center-of-Mass det. time=78.6 min (797.8 - 719.2)

Primary OutFlow Max=20.81 cfs @ 12.27 hrs HW=184.27' (Free Discharge)
└**1=Culvert**(Passes 20.81 cfs of 133.00 cfs potential flow)
├**2=Orifice/Grate** (Orifice Controls 3.33 cfs @ 15.99 fps)
├**3=Orifice/Grate** (Orifice Controls 8.40 cfs @ 7.75 fps)
└**4=Orifice/Grate** (Orifice Controls 9.08 cfs @ 6.05 fps)



No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
02-11-2022
12-05-2022

Urban Ltd.
4200 D TECHNOLOGY CT.
CHANTILLY, VA. 20151
TEL. 703.642.2306
FAX. 703.378.7888
www.urban-ltd.com

urban™
Planners•Engineers•Landscape Architects•Land Surveyors

COMMONWEALTH OF VIRGINIA
CLAYTON C. POCH
Lic. No. 036790
PROFESSIONAL ENGINEER
12/5/2022

STORMWATER MANAGEMENT COMPUTATIONS
LANDMARK MALL REDEVELOPMENT
PHASE II CONCEPT - PARKS
CITY OF ALEXANDRIA, VIRGINIA
SCALE: N/A C.I.=N/A DATE: NOV., 2022

APPROVED
SPECIAL USE PERMIT NO. _____
DEPARTMENT OF PLANNING & ZONING
_____ DIRECTOR _____ DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
_____ DIRECTOR _____ DATE
_____ CHAIRMAN, PLANNING COMMISSION _____ DATE
DATE RECORDED _____
_____ INSTRUMENT NO. _____ DEED BOOK NO. _____ PAGE NO.

SHEET 27 OF 43
FILE No. DSUP-13089

Urban, Ltd. - J:\JOBS\landmarkmall\DSUP\block-parks\preliminary sp\13089-23-SWM COMPUTATIONS AND NARRATIVES.dwg [SWMCOMPS SP1 VAULT4] May 25, 2023 - 2:03pm yelosri

SWM PRE - Study Point "1"

SWM PRE OFFSITE Undetained Runoff Calculations

Curve Number Calculations

	Area (ac)	CN	Description
*	7.370	95	
	7.370		100.00% Pervious Area

Time of Concentration Calculations

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.0					**Direct Entry,**

1 Year Flow Calculations

Runoff = 16.82 cfs@ 12.15 hrs , Volume= 54,327 cf , Depth> 2.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Landmark Mall 24-hr S1 1-yr Rainfall=2.70"

2 Year Flow Calculations

Runoff = 20.36 cfs@ 12.15 hrs , Volume= 66,748 cf, Depth> 2.49"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Landmark Mall 24-hr S1 2-yr Rainfall=3.20"

10 Year Flow Calculations

Runoff = 31.07 cfs@ 12.15 hrs , Volume= 116,470 cf, Depth> 4.35"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Landmark Mall 24-hr S1 10-yr Rainfall=5.20"

SWM PRE Onsite UNDETAINED Runoff Calculations

Curve Number Calculations

Area (ac)	CN	Description
11.210	98	Paved parking, HSG D
16.130	80	>75% Grass cover, Good, HSG D
27.340	87	Weighted Average
16.130		59.00% Pervious Area
11.210		41.00% Impervious Area

Time of Concentration Calculations

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry,

1 Year Flow Calculations

Runoff = 52.17 cfs@ 12.09 hrs, Volume= 136,159 cf Depth> 1.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Landmark Mall 24-hr S1 1-yr Rainfall=2.70"

2 Year Flow Calculations

Runoff = 67.33 cfs@ 12.09 hrs, Volume= 176,935 cf Depth> 1.78"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Landmark Mall 24-hr S1 2-yr Rainfall=3.20"

10 Year Flow Calculations

Runoff = 116.25 cfs@ 12.09 hrs, Volume= 348,346 cf Depth> 3.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Landmark Mall 24-hr S1 10-yr Rainfall=5.20"

STUDY POINT 1 SWM PRE FLOWS

1 Year Flow Calculations

Inflow Area = 1,511,968 sf, 32.30% Impervious, Inflow Depth >1.51" for 1-yr event
Inflow = 67.19 cfs@ 12.10 hrs, Volume= 190,486 cf
Primary = 67.19 cfs@ 12.10 hrs, Volume= 190,486 cf, Atten= 0%, Lag= 0.0 min
Primary outflow = Inflow, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs

2 Year Flow Calculations

Inflow Area = 1,511,968 sf, 32.30% Impervious, Inflow Depth >1.93" for 2-yr event
Inflow = 85.47 cfs@ 12.10 hrs, Volume= 243,683 cf
Primary = 85.47 cfs@ 12.10 hrs, Volume= 243,683 cf, Atten= 0%, Lag= 0.0 min
Primary outflow = Inflow, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs

10 Year Flow Calculations

Inflow Area = 1,511,968 sf, 32.30% Impervious, Inflow Depth >3.69" for 10-yr event
Inflow = 143.92 cfs@ 12.10 hrs, Volume= 464,816 cf
Primary = 143.92 cfs@ 12.10 hrs, Volume= 464,816 cf, Atten= 0%, Lag= 0.0 min
Primary outflow = Inflow, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs

SWM PRE - Study Point "2"

SWM PRE OFFSITE Undetained Runoff Calculations

Curve Number Calculations

Area (ac)	CN	Description
11.210	98	Urban commercial, 85% imp, HSG D
1.682		15.00% Pervious Area
9.529		85.00% Impervious Area

Time of Concentration Calculations

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry,

1 Year Flow Calculations

Runoff = 33.04 cfs@ 12.08 hrs, Volume= 95,334 cf Depth> 2.34"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Landmark Mall 24-hr S1 1-yr Rainfall=2.70"

2 Year Flow Calculations

Runoff = 39.16 cfs@ 12.08 hrs, Volume= 114,673 cf Depth> 2.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Landmark Mall 24-hr S1 2-yr Rainfall=3.20"

10 Year Flow Calculations

Runoff = 56.97 cfs@ 12.08 hrs, Volume= 191,351 cf Depth> 4.70"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Landmark Mall 24-hr S1 10-yr Rainfall=5.20"

SWM PRE ONSITE Undetained Runoff Calculations

Curve Number Calculations

Area (ac)	CN	Description
8.210	98	Paved parking, HSG D
11.820	80	>75% Grass cover, Good, HSG D
20.030	87	Weighted Average
11.820		59.01% Pervious Area
8.210		40.99% Impervious Area

Time of Concentration Calculations

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

1 Year Flow Calculations

Runoff = 48.77 cfs@ 12.03 hrs, Volume= 99,926 cf Depth> 1.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Landmark Mall 24-hr S1 1-yr Rainfall=2.70"

2 Year Flow Calculations

Runoff = 62.66 cfs@ 12.03 hrs, Volume= 129,838 cf Depth> 1.79"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Landmark Mall 24-hr S1 2-yr Rainfall=3.20"

10 Year Flow Calculations

Runoff = 106.06 cfs@ 12.03 hrs, Volume= 255,599 cf Depth> 3.52"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Landmark Mall 24-hr S1 10-yr Rainfall=5.20"

STUDY POINT 2 SWM PRE FLOWS

1 Year Flow Calculations

Inflow Area = 1,360,814 sf, 56.78% Impervious, Inflow Depth >1.72" for 1-yr event
Inflow = 76.56 cfs@ 12.04 hrs, Volume= 195,259 cf
Primary = 76.56 cfs@ 12.04 hrs, Volume= 195,259 cf, Atten= 0%, Lag= 0.0 min
Primary outflow = Inflow, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs

2 Year Flow Calculations

Inflow Area = 1,360,814 sf, 56.78% Impervious, Inflow Depth >2.16" for 2-yr event
Inflow = 95.46 cfs@ 12.04 hrs, Volume= 244,511 cf
Primary = 95.46 cfs@ 12.04 hrs, Volume= 244,511 cf, Atten= 0%, Lag= 0.0 min
Primary outflow = Inflow, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs

10 Year Flow Calculations

Inflow Area = 1,360,814 sf, 56.78% Impervious, Inflow Depth >3.94" for 10-yr event
Inflow = 153.75 cfs@ 12.04 hrs, Volume= 446,950 cf
Primary = 153.75 cfs@ 12.04 hrs, Volume= 446,950 cf, Atten= 0%, Lag= 0.0 min
Primary outflow = Inflow, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs

APPROVED
SPECIAL USE PERMIT NO. _____
DEPARTMENT OF PLANNING & ZONING
DIRECTOR _____ DATE _____
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
DIRECTOR _____ DATE _____
CHAIRMAN, PLANNING COMMISSION _____ DATE _____
DATE RECORDED _____
INSTRUMENT NO. _____ DEED BOOK NO. _____ PAGE NO. _____

REVISIONS

No.	DATE	DESCRIPTION

PLAN DATE
02-11-2022
12-05-2022

Urban Ltd.
4200 D TECHNOLOGY CT.
CHANTILLY, VA. 20151
TEL. 703.642.2306
FAX. 703.378.7888
www.urban-ltd.com
urban™
Planners • Engineers • Landscape Architects • Land Surveyors

COMMONWEALTH OF VIRGINIA
CLAYTON C. TOCK
Lic. No. 038790
PROFESSIONAL ENGINEER
12/5/2022

STORMWATER MANAGEMENT COMPUTATIONS
LANDMARK MALL REDEVELOPMENT
PHASE II CONCEPT - PARKS
CITY OF ALEXANDRIA, VIRGINIA
DATE: NOV., 2022
C.I.= N/A
SCALE: N/A

SHEET 28 OF 43
FILE No. DSUP-13089

Urban, Ltd. - J:\JOBS\Landmarkmall\DSUP\block-parks\preliminary sp\13089-23-SWM COMPUTATIONS AND NARRATIVES.dwg [SWM COMPS SP1 VAULT2] May 25, 2023 - 2:03pm yelasri

SWM POST - Study Point "1"

VAULT #2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Primary (cfs)
183.94	**4,200**	0	0.00
184.14	4,200	840	0.50
184.34	4,200	1,680	1.98
184.54	4,200	2,520	4.40
184.74	4,200	3,360	6.42
184.94	4,200	4,200	7.78
185.14	4,200	5,040	8.91
185.34	4,200	5,880	9.90
185.54	4,200	6,720	10.81
185.74	4,200	7,560	11.64
185.94	4,200	8,400	12.41
186.14	4,200	9,240	13.14
186.34	4,200	10,080	13.83
186.54	4,200	10,920	14.49
186.74	4,200	11,760	15.11
186.94	4,200	12,600	15.72
187.14	4,200	13,440	16.30
187.34	4,200	14,280	16.86
187.54	4,200	15,120	17.40
187.74	4,200	15,960	17.92
187.94	4,200	16,800	18.43
188.14	4,200	17,640	18.93
188.34	4,200	18,480	19.41
188.54	4,200	19,320	19.89
188.74	4,200	20,160	20.35
188.94	4,200	21,000	20.80
189.14	4,200	21,840	21.24
189.34	4,200	22,680	21.67
189.54	4,200	23,520	22.10
189.74	4,200	24,360	22.51
189.94	4,200	25,200	22.92
190.14	4,200	26,040	23.73
190.34	4,200	26,880	25.10
190.54	4,200	27,720	26.79
190.74	4,200	28,560	28.74
190.94	4,200	29,400	30.90
191.14	4,200	30,240	33.25
191.34	4,200	31,080	36.61
191.54	4,200	31,920	40.49
191.74	4,200	32,760	44.78
191.94	4,200	33,600	49.45
192.14	4,200	34,440	54.46
192.34	4,200	35,280	59.78
192.54	4,200	36,120	65.40
192.74	4,200	36,960	71.29
192.94	4,200	**37,800**	77.44
193.14	4,200	37,800	83.83

Volume	Invert	Avail.Storage	Storage Description
#1	183.94'	37,800 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
183.94	4,200	0	0
192.94	4,200	37,800	37,800

Device	Routing	Invert	Outlet Devices
#1	Primary	183.94'	60.0" Round Culvert L= 87.6' RCP, grooved end w/ headwall, Ke= 0.200 Inlet/ Outlet Invert= 183.94'/ 176.72' S= 0.0824 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 19.63 sf
#2	Device 1	183.94'	9.0" W x 8.0" H Vert. Orifice/Grate X 4.00 C= 0.600 Limited to weir flow at low heads
#3	Device 1	189.98'	24.0" W x 15.0" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Device 1	191.15'	48.0" W x 24.0" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads

VAULT #4

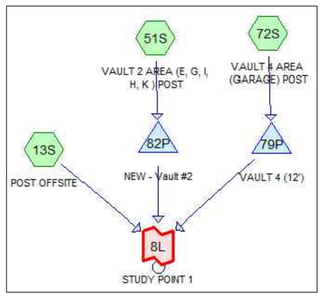
Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Primary (cfs)
173.00	**4,200**	0	0.00
173.30	4,200	1,260	0.22
173.60	4,200	2,520	0.58
173.90	4,200	3,780	0.80
174.20	4,200	5,040	0.97
174.50	4,200	6,300	1.12
174.80	4,200	7,560	1.25
175.10	4,200	8,820	1.36
175.40	4,200	10,080	1.47
175.70	4,200	11,340	1.57
176.00	4,200	12,600	1.66
176.30	4,200	13,860	1.75
176.60	4,200	15,120	1.84
176.90	4,200	16,380	1.92
177.20	4,200	17,640	1.99
177.50	4,200	18,900	2.07
177.80	4,200	20,160	2.14
178.10	4,200	21,420	2.21
178.40	4,200	22,680	2.28
178.70	4,200	23,940	2.34
179.00	4,200	25,200	2.41
179.30	4,200	26,460	2.47
179.60	4,200	27,720	2.53
179.90	4,200	28,980	2.59
180.20	4,200	30,240	2.64
180.50	4,200	31,500	2.70
180.80	4,200	32,760	2.76
181.10	4,200	34,020	2.81
181.40	4,200	35,280	3.31
181.70	4,200	36,540	4.30
182.00	4,200	37,800	5.57
182.30	4,200	39,060	7.20
182.60	4,200	40,320	9.33
182.90	4,200	41,580	11.79
183.20	4,200	42,840	14.52
183.50	4,200	44,100	16.67
183.80	4,200	45,360	18.42
184.10	4,200	46,620	19.98
184.40	4,200	47,880	21.39
184.70	4,200	49,140	22.70
185.00	4,200	**50,400**	**23.92**

Volume	Invert	Avail.Storage	Storage Description
#1	173.00'	50,400 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
173.00	4,200	0	0
185.00	4,200	50,400	50,400

Device	Routing	Invert	Outlet Devices
#1	Primary	173.00'	**36.0" Round Culvert** L= 59.9' RCP, grooved end w/ headwall, Ke= 0.200 Inlet/ Outlet Invert= 173.00'/ 170.66' S= 0.0391 '/' Cc= 0.900 n= 0.013, Flow Area= 7.07 sf
#2	Device 1	173.00'	**5.0" W x 6.0" H Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	181.13'	**12.0" W x 13.0" H Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Device 1	182.18'	**18.0" W x 12.0" H Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

POST DEVELOPMENT ROUTING SCHEMATIC
STUDY POINT '1'



STORMWATER MANAGEMENT NARRATIVE

THE EXISTING TOPOGRAPHY OF THE PARCEL HAS TWO DISTINCT OUTFALLS, RESULTING IN TWO STUDY POINTS. STUDY POINT #1 OUTFALLS TO THE NORTHEAST CORNER OF THE PROPERTY. STUDY POINT #2 OUTFALLS TO THE EAST OF THE SITE, IMMEDIATELY NORTH OF THE DUKE STREET RAMP CONNECTION TO VAN DORN STREET. A TOTAL PRE-DEVELOPMENT DRAINAGE AREA OF 35.58 ACRES DRAINS TO STUDY POINT 1, WHILE A TOTAL PRE-DEVELOPMENT DRAINAGE AREA OF 31.24 ACRES DRAINS TO STUDY POINT 2.

STORMWATER MANAGEMENT IS TO BE PROVIDED IN THREE SEPARATE STORMWATER MANAGEMENT VAULTS; VAULT 2, 3, AND 4. VAULT 2 IS LOCATED IMMEDIATELY SOUTH OF BLOCKS E&G AND HAS A DRAINAGE AREA OF 17.46 ACRES. VAULT 3 IS LOCATED SOUTH OF BLOCK I AND HAS A DRAINAGE AREA OF 20.73 ACRES. VAULT 4 IS LOCATED EACH OF THE EXISTING PARKING STRUCTURE AND HAS A DRAINAGE AREA OF 8.06 ACRES. IN ACCORDANCE WITH THE ARTICLE XIII SECTION 13-109 OF THE ALEXANDRIA ZONING ORDINANCE, AND UTILIZING THE VIRGINIA RUNOFF REDUCTION METHODOLOGY, THE TREATMENT VOLUME IS REDUCED VIA THE UNDERGROUND SWM FACILITIES.

THE ALLOWABLE RELEASE RATE FOR EACH STUDY POINT HAS BEEN CALCULATED IN ACOORDANCE WITH ARTICLE XIII SECTION 13-109(F) OF THE ALEXANDRIA ZONING ORDINANCE. FOR THE CHANNEL PROTECTION AND FLOOD PROTECTION WHEN STORMWATER FROM A DEVELOPMENT IS DISCHARGED TO A NATURAL STORMWATER CONVEYANCE SYSTEM, THE MAXIMUM PEAK FLOW RATE FROM THE 1-YEAR 24-HOUR STORM FOLLOWING THE LAND-DISTURBING ACTIVITY SHALL BE CALCULATED WHERE:

$Qdev \leq I.F. * (Qpre * RVpre)/RVdev$

AND THE PEAK FLOW RATE FOR THE 10-YEAR 24-HOUR STORM EVENT IS LESS THAN THE PRE-DEVELOPMENT PEAK FLOW RATE FROM THE 10-YEAR 24-HOUR STORM EVENT. AS SHOWN IN THE FLOW SUMMARY TABLE ON SHEET 123. THE PROPOSED FLOW TO THE STUDY POINTS ARE LESS THAN THE ALLOWABLE RUNOFF.

IT IS THEREFORE THE OPINION OF URBAN, LTD. THAT THE PROPOSED SWM DESIGN MEETS THE REQUIRED SWM REQUIREMENTS OF THE ALEXANDRIA ORDINANCE. THE STORMWATER MASTER PLAN (DSP#2021-00017) IS TO BE UPDATED WITH THE APPROVAL OF EACH DSUP PER BLOCK TO ADDRESS COMPLIANCE FOR TOTAL SITE STORMWATER QUANTITY AND QUALITY REQUIREMENTS.

Clayton Tock

URBAN LTD.
CLAYTON C. TOCK, P.E., PRINCIPLE

APPROVED
SPECIAL USE PERMIT NO. _____

DEPARTMENT OF PLANNING & ZONING

DIRECTOR _____ DATE _____

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____

DIRECTOR _____ DATE _____

CHAIRMAN, PLANNING COMMISSION _____ DATE _____

DATE RECORDED _____

INSTRUMENT NO. _____ DEED BOOK NO. _____ PAGE NO. _____

No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
02-11-2022
12-05-2022

Urban Ltd.
4200 D TECHNOLOGY CT.
CHANTILLY, VA. 20151
TEL. 703.642.2306
FAX 703.378.7888
www.urban-ltd.com

urban
Planners • Engineers • Landscape Architects • Land Surveyors

COMMONWEALTH OF VIRGINIA
CLAYTON C. TOCK
Lic. No. 038790
12/5/2022
REGISTERED PROFESSIONAL ENGINEER

STORMWATER MANAGEMENT COMPUTATIONS

LANDMARK MALL REDEVELOPMENT
PHASE II CONCEPT - PARKS

CITY OF ALEXANDRIA, VIRGINIA

DATE: NOV., 2022
C.I.= N/A
SCALE: N/A

SHEET
29
OF
43

FILE No.
DSUP-13089

Urban, Ltd. - J:\JOBS\landmarkmall\DSUP\block-parks\preliminary sp\13089-23-SWM COMPUTATIONS AND NARRATIVES.dwg [SWMCOMPS SP1 VAULT4 (2)] May 25, 2023 - 2:03pm yelosri

PLAN VIEW
SCALE: 1"=10'

PLAN VIEW
SCALE: 1"=10'

SECTION A–A

SECTION B–B

* FOOTING DESIGN DEPTH TO BE COORDINATED WITH STRUCTURAL ENGINEER TO ENSURE PROPER FOOTING DEPTHS ARE MET.

SCALE: 1"=10'
0 5' 10' 20'

APPROVED
SPECIAL USE PERMIT NO. _____
DEPARTMENT OF PLANNING & ZONING
_____ DIRECTOR _____ DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
_____ DIRECTOR _____ DATE
_____ CHAIRMAN, PLANNING COMMISSION _____ DATE
DATE RECORDED _____
_____ INSTRUMENT NO. _____ DEED BOOK NO. _____ PAGE NO.

No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
02-11-2022
02-17-2022
05-17-2023
05-26-2023

Urban Ltd.
4200 D TECHNOLOGY CT.
CHANTILLY, VA. 20151
TEL: 703.642.2306
FAX: 703.378.7888
www.urban-ltd.com

urban
Planners+Engineers+Landscape Architects+Land Surveyors

COMMONWEALTH OF VIRGINIA
CLAYTON C. POCK
Lic. No. 038790
PROFESSIONAL ENGINEER
05/26/2023

LOADING PLANE DIAGRAM

LANDMARK MALL REDEVELOPMENT
PRELIMINARY SITE PLAN - PARKS

CITY OF ALEXANDRIA, VIRGINIA

SCALE: H: 1"=10' ; V: 1"=10' C.I.= 2' DATE: NOV., 2022

SHEET
29A
OF
47

FILE No.
DSUP-13089

Urban, Ltd. – J:\JOBS\landmarkmall\DSUP\block-parks\preliminary sp\13089-25-VAULT Cross Section.dwg [01] May 25, 2023 - 2:04pm yelosri

OUTFALL POINT #1

OUTFALL POINT #2

FEMA ZONE FLOODPLAIN BOUNDARY

STUDY POINT "1"

TIME OF CONCENTRATION TRAVEL PATH

OFFSITE UNDETAINED DRAINAGE AREA TO OUTFALL POINT "1" DA = 0.86 AC CN= 86 TC = 15 MINS

STUDY POINT "1": ONSITE DA TO VAULT 4 DA = 8.06 AC CN= 98 TC = 10 MINS

OFFSITE UNDETAINED DRAINAGE AREA TO STUDY POINT "1" DA = 7.37 AC CN= 95 TC = 15 MINS

STUDY POINT "1": ONSITE DA TO VAULT 2 DA = 17.46 AC CN= 95 TC = 10 MINS

OFFSITE UNDETAINED DRAINAGE AREA TO OUTFALL POINT "2" DA = 5.36 AC CN= 92 TC = 10 MINS

TIME OF CONCENTRATION TRAVEL PATH

OFFSITE UNDETAINED DRAINAGE AREA TO EX. CHANNEL DA = 0.29 AC

STUDY POINT "2"

STUDY POINT "2": ONSITE DA TO VAULT 3 DA = 20.73 AC CN= 95 TC = 10 MINS

OFFSITE UNDETAINED DRAINAGE AREA TO STUDY POINT "2" DA = 11.21AC CN= 95 TC = 10 MINS

HENRY G. SHIRLEY MEMORIAL HIGHWAY

BLOCK D

BLOCK E

BLOCK G

BLOCK H

BLOCK I

BLOCK J

BLOCK K

BLOCK L

BLOCK M

6001 DUKE STREET
TAX MAP: 047.03-03-10
THE INDUSTRIAL DEVELOPMENT AUTHORITY OF THE CITY OF ALEXANDRIA
INSTR. 210020063
LOT 001

SCALE: 1"=125'
0 62.5' 125' 250'

APPROVED

SPECIAL USE PERMIT NO. _____

DEPARTMENT OF PLANNING & ZONING

DIRECTOR DATE

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

SITE PLAN NO. _____

DIRECTOR DATE

CHAIRMAN, PLANNING COMMISSION DATE

DATE RECORDED _____

INSTRUMENT NO. DEED BOOK NO. PAGE NO.

No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
02-11-2022
12-05-2022

Urban Ltd.
4200 D TECHNOLOGY CT.
CHANTILLY, VA. 20151
TEL. 703.642.2306
FAX 703.378.7888
www.urban-ltd.com

Planners • Engineers • Landscape Architects • Land Surveyors

COMMONWEALTH OF VIRGINIA
ENGINEER
CLARKSON C. TOTH
Lic. No. 038790
PROFESSIONAL
12/05/2022

OUTFALL ANALYSIS

LANDMARK MALL REDEVELOPMENT
PHASE II CONCEPT - PARKS

CITY OF ALEXANDRIA, VIRGINIA

SCALE: 1"= 125' C.I.= 2' DATE: NOV., 2022

SHEET 30 OF 83

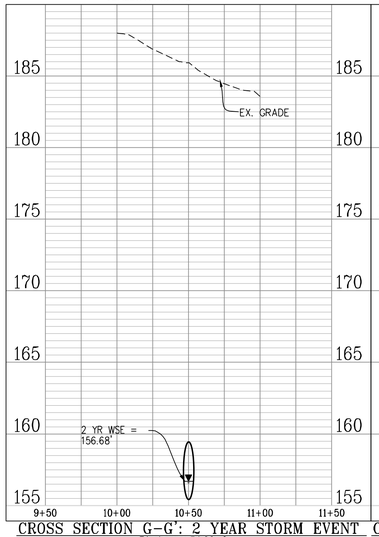
FILE No. DSUP-13089

Urban, Ltd. - J:_JOBS\[pndmarkmall]\DSUP\block-parks\preliminary sg\13089-24-OUTFALL ANALYSIS.dwg [ANALYSIS] May 25, 2023 - 2:04pm yelsari

CROSS SECTION A-A': 2 YEAR STORM EVENT

Discharge: 44.83 cfs
Flow Area: 3.5 ft²
Wetted Perimeter: 4.8 ft
Hydraulic Radius: 8.7 in
Top Width: 3.74 ft
Normal Depth: 15.4 in
Critical Depth: 24.0 in
Critical Slope: 0.013 ft/ft
Velocity: 12.84 ft/s
Velocity Head: 2.56 ft
Specific Energy: 3.85 ft
Froude Number: 2.342
Maximum Discharge: 215.34 cfs
Discharge Full: 200.18 cfs
Slope Full: 0.003 ft/ft
Flow Type: Supercritical

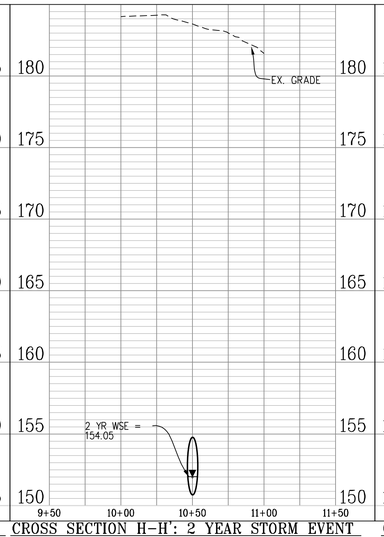
V2ALLOW=15 FPS



CROSS SECTION B-B': 2 YEAR STORM EVENT

Discharge: 44.83 cfs
Flow Area: 3.5 ft²
Wetted Perimeter: 4.8 ft
Hydraulic Radius: 8.7 in
Top Width: 3.74 ft
Normal Depth: 15.4 in
Critical Depth: 24.0 in
Critical Slope: 0.013 ft/ft
Velocity: 12.84 ft/s
Velocity Head: 2.56 ft
Specific Energy: 3.85 ft
Froude Number: 2.342
Maximum Discharge: 215.34 cfs
Discharge Full: 200.18 cfs
Slope Full: 0.003 ft/ft
Flow Type: Supercritical

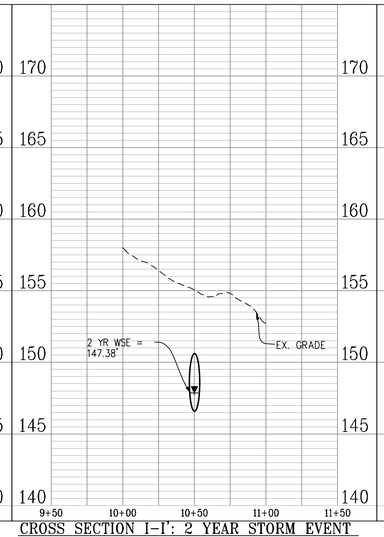
V2ALLOW=15 FPS



CROSS SECTION C-C': 2 YEAR STORM EVENT

Discharge: 44.83 cfs
Flow Area: 3.5 ft²
Wetted Perimeter: 4.8 ft
Hydraulic Radius: 8.7 in
Top Width: 3.74 ft
Normal Depth: 15.4 in
Critical Depth: 24.0 in
Critical Slope: 0.013 ft/ft
Velocity: 12.84 ft/s
Velocity Head: 2.56 ft
Specific Energy: 3.85 ft
Froude Number: 2.342
Maximum Discharge: 215.34 cfs
Discharge Full: 200.18 cfs
Slope Full: 0.003 ft/ft
Flow Type: Supercritical

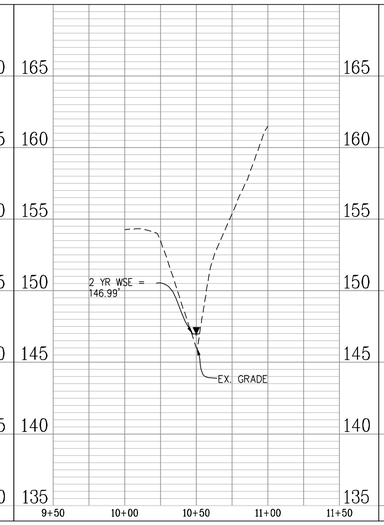
V2ALLOW=15 FPS



CROSS SECTION D-D': 2 YEAR STORM EVENT

Discharge: 52.77 cfs
Flow Area: 2.5 ft²
Wetted Perimeter: 5.5 ft
Hydraulic Radius: 5.5 in
Top Width: 5.07 ft
Normal Depth: 11.8 in
Critical Depth: 23.0 in
Critical Slope: 0.003 ft/ft
Velocity: 21.26 ft/s*
Velocity Head: 7.02 ft
Specific Energy: 8.00 ft
Froude Number: 5.355
Flow Type: Supercritical

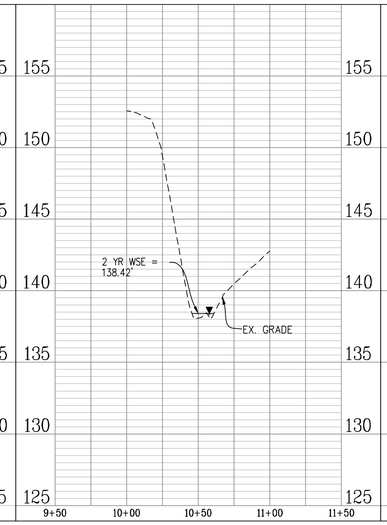
*MANMADE CHANNEL LINED WITH CONCRETE. PER TABLE 7-1 OF THE VDOT DRAINAGE MANUAL, THE MAXIMUM ALLOWABLE VELOCITY IS NOT APPLICABLE.



CROSS SECTION E-E': 2 YEAR STORM EVENT

Discharge: 52.77 cfs
Flow Area: 3.3 ft²
Wetted Perimeter: 14.5 ft
Hydraulic Radius: 2.7 in
Top Width: 14.30 ft
Normal Depth: 4.8 in
Critical Depth: 10.9 in
Critical Slope: 0.003 ft/ft
Velocity: 16.10 ft/s*
Velocity Head: 4.03 ft
Specific Energy: 4.42 ft
Froude Number: 5.927
Flow Type: Supercritical

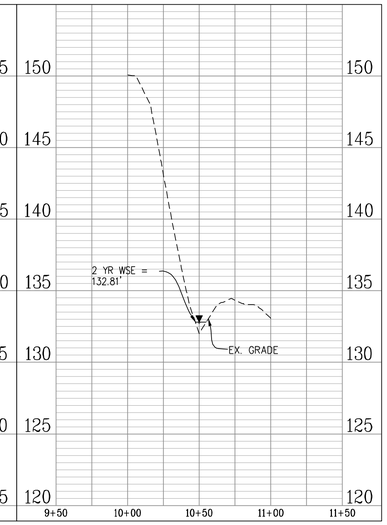
*MANMADE CHANNEL LINED WITH CONCRETE. PER TABLE 7-1 OF THE VDOT DRAINAGE MANUAL, THE MAXIMUM ALLOWABLE VELOCITY IS NOT APPLICABLE.



CROSS SECTION F-F': 2 YEAR STORM EVENT

Discharge: 52.77 cfs
Flow Area: 3.1 ft²
Wetted Perimeter: 7.9 ft
Hydraulic Radius: 4.8 in
Top Width: 7.71 ft
Normal Depth: 9.7 in
Critical Depth: 18.0 in
Critical Slope: 0.003 ft/ft
Velocity: 16.86 ft/s*
Velocity Head: 4.42 ft
Specific Energy: 5.23 ft
Froude Number: 4.665
Flow Type: Supercritical

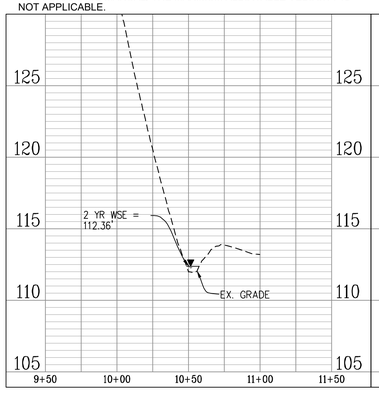
*MANMADE CHANNEL LINED WITH CONCRETE. PER TABLE 7-1 OF THE VDOT DRAINAGE MANUAL, THE MAXIMUM ALLOWABLE VELOCITY IS NOT APPLICABLE.



CROSS SECTION G-G': 2 YEAR STORM EVENT

Discharge: 54.39 cfs
Flow Area: 2.7 ft²
Wetted Perimeter: 8.8 ft
Hydraulic Radius: 3.7 in
Top Width: 8.69 ft
Normal Depth: 5.1 in
Critical Depth: 13.8 in
Critical Slope: 0.003 ft/ft
Velocity: 20.25 ft/s*
Velocity Head: 6.37 ft
Specific Energy: 6.80 ft
Froude Number: 6.421
Flow Type: Supercritical

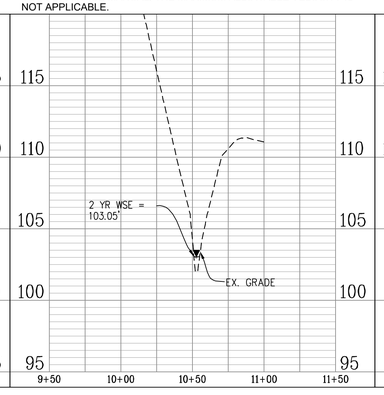
*MANMADE CHANNEL LINED WITH CONCRETE. PER TABLE 7-1 OF THE VDOT DRAINAGE MANUAL, THE MAXIMUM ALLOWABLE VELOCITY IS NOT APPLICABLE.



CROSS SECTION H-H': 2 YEAR STORM EVENT

Discharge: 54.39 cfs
Flow Area: 1.7 ft²
Wetted Perimeter: 3.9 ft
Hydraulic Radius: 5.3 in
Top Width: 3.16 ft
Normal Depth: 12.9 in
Critical Depth: 29.2 in
Critical Slope: 0.003 ft/ft
Velocity: 31.88 ft/s*
Velocity Head: 15.80 ft
Specific Energy: 16.88 ft
Froude Number: 7.653
Flow Type: Supercritical

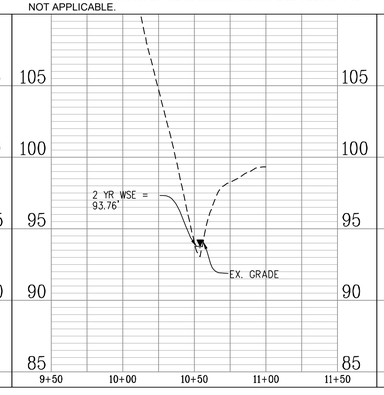
*MANMADE CHANNEL LINED WITH CONCRETE. PER TABLE 7-1 OF THE VDOT DRAINAGE MANUAL, THE MAXIMUM ALLOWABLE VELOCITY IS NOT APPLICABLE.



CROSS SECTION I-I': 2 YEAR STORM EVENT

Discharge: 54.39 cfs
Flow Area: 1.9 ft²
Wetted Perimeter: 5.0 ft
Hydraulic Radius: 4.7 in
Top Width: 4.69 ft
Normal Depth: 8.6 in
Critical Depth: 21.6 in
Critical Slope: 0.003 ft/ft
Velocity: 28.15 ft/s*
Velocity Head: 12.32 ft
Specific Energy: 13.03 ft
Froude Number: 7.737
Flow Type: Supercritical

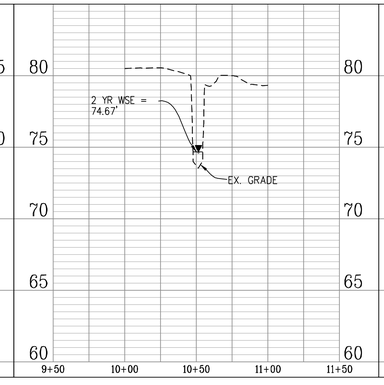
*MANMADE CHANNEL LINED WITH CONCRETE. PER TABLE 7-1 OF THE VDOT DRAINAGE MANUAL, THE MAXIMUM ALLOWABLE VELOCITY IS NOT APPLICABLE.



CROSS SECTION J-J': 2 YEAR STORM EVENT

Discharge: 60.84 cfs
Flow Area: 6.1 ft²
Wetted Perimeter: 8.1 ft
Hydraulic Radius: 9.0 in
Top Width: 7.00 ft
Normal Depth: 13.6 in
Critical Depth: 19.1 in
Critical Slope: 0.036 ft/ft
Velocity: 9.96 ft/s
Velocity Head: 1.54 ft
Specific Energy: 2.67 ft
Froude Number: 1.880
Flow Type: Supercritical

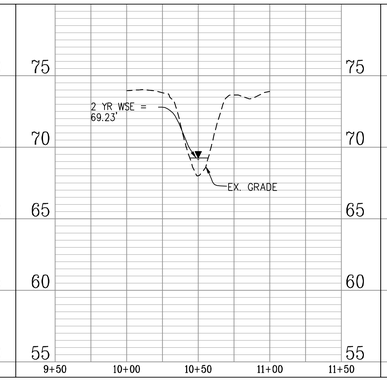
V2ALLOW= 13 FPS



CROSS SECTION K-K': 2 YEAR STORM EVENT

Discharge: 60.84 cfs
Flow Area: 6.8 ft²
Wetted Perimeter: 11.0 ft
Hydraulic Radius: 7.4 in
Top Width: 10.69 ft
Normal Depth: 14.7 in
Critical Depth: 19.5 in
Critical Slope: 0.032 ft/ft
Velocity: 9.01 ft/s
Velocity Head: 1.26 ft
Specific Energy: 2.49 ft
Froude Number: 1.999
Flow Type: Supercritical

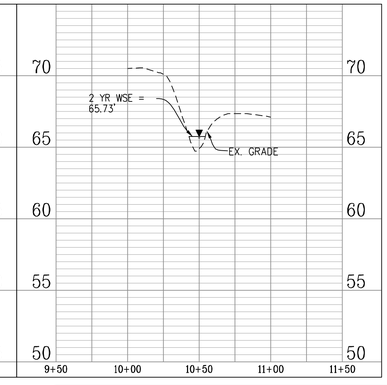
V2ALLOW= 13 FPS



CROSS SECTION L-L': 2 YEAR STORM EVENT

Discharge: 60.84 cfs
Flow Area: 7.5 ft²
Wetted Perimeter: 12.8 ft
Hydraulic Radius: 7.1 in
Top Width: 12.57 ft
Normal Depth: 12.2 in
Critical Depth: 16.2 in
Critical Slope: 0.033 ft/ft
Velocity: 8.06 ft/s
Velocity Head: 1.01 ft
Specific Energy: 2.03 ft
Froude Number: 1.835
Flow Type: Supercritical

V2ALLOW= 13 FPS



No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
02-11-2022
12-05-2022

Urban, Ltd.
4200 D TECHNOLOGY CT.
CHANTILLY, VA. 20151
TEL. 703.642.2306
FAX. 703-378-2488
www.urban-ltd.com

urban
Planners • Engineers • Landscape Architects • Land Surveyors

COMMONWEALTH OF VIRGINIA
CLAYTON C. TOCK
Lic. No. 036790
PROFESSIONAL ENGINEER
12/05/2022

OUTFALL ANALYSIS
LANDMARK MALL REDEVELOPMENT PHASE II CONCEPT - PARKS
CITY OF ALEXANDRIA, VIRGINIA

SCALE: H:1"=50'; V:1"=5' | C.I.= N.A. | DATE: NOV., 2022

APPROVED
SPECIAL USE PERMIT NO. _____
DEPARTMENT OF PLANNING & ZONING
DIRECTOR _____ DATE _____
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
DIRECTOR _____ DATE _____
CHAIRMAN, PLANNING COMMISSION _____ DATE _____
DATE RECORDED _____
INSTRUMENT NO. _____ DEED BOOK NO. _____ PAGE NO. _____

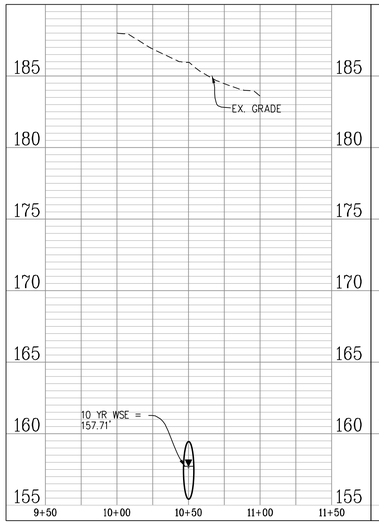
SHEET 31 OF 83

FILE No. DSUP-13089

J:\JOBS\landmarkmall\DSUP\block-parks\preliminary sp\13089-24-OUTFALL ANALYSIS.dwg [2 years] May 25, 2023 - 2:05pm yelosri
Urban, Ltd.

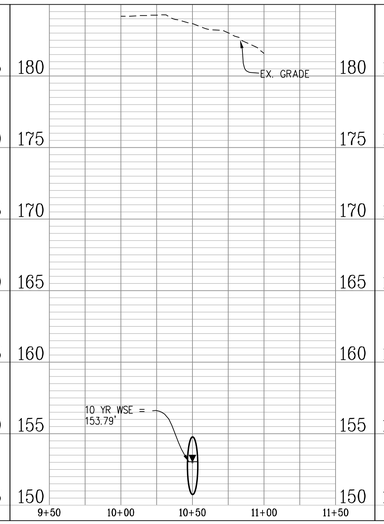
CROSS SECTION A-A': 10 YEAR STORM EVENT

Discharge: 126.27 cfs
Flow Area: 7.5 ft²
Wetted Perimeter: 6.9 ft
Hydraulic Radius: 13.0 in
Top Width: 3.95 ft
Normal Depth: 27.7 in
Critical Depth: 40.5 in
Critical Slope: 0.025 ft/ft
Velocity: 16.84 ft/s
Velocity Head: 4.41 ft
Specific Energy: 6.71 ft
Froude Number: 2.156
Maximum Discharge: 215.34 cfs
Discharge Full: 200.18 cfs
Slope Full: 0.026 ft/ft
Flow Type: Supercritical



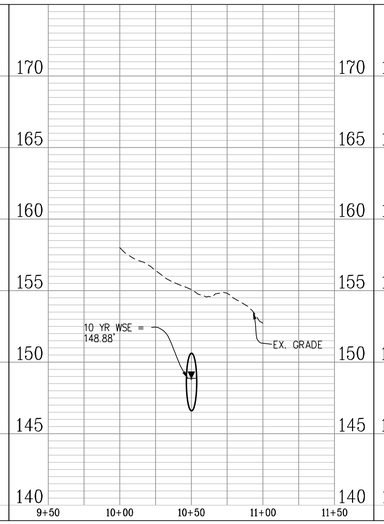
CROSS SECTION B-B': 10 YEAR STORM EVENT

Discharge: 126.27 cfs
Flow Area: 7.5 ft²
Wetted Perimeter: 6.9 ft
Hydraulic Radius: 13.0 in
Top Width: 3.95 ft
Normal Depth: 27.7 in
Critical Depth: 40.5 in
Critical Slope: 0.025 ft/ft
Velocity: 16.84 ft/s
Velocity Head: 4.41 ft
Specific Energy: 6.71 ft
Froude Number: 2.156
Maximum Discharge: 215.34 cfs
Discharge Full: 200.18 cfs
Slope Full: 0.026 ft/ft
Flow Type: Supercritical



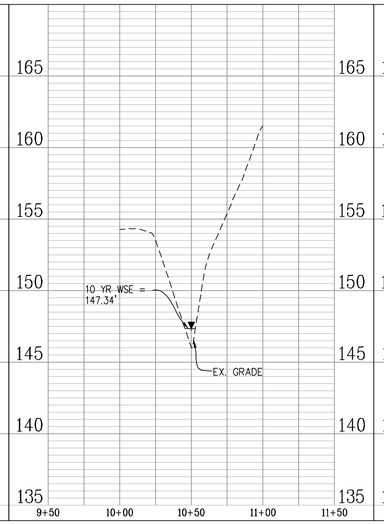
CROSS SECTION C-C': 10 YEAR STORM EVENT

Discharge: 126.27 cfs
Flow Area: 7.5 ft²
Wetted Perimeter: 6.9 ft
Hydraulic Radius: 13.0 in
Top Width: 3.95 ft
Normal Depth: 27.7 in
Critical Depth: 40.5 in
Critical Slope: 0.025 ft/ft
Velocity: 16.84 ft/s
Velocity Head: 4.41 ft
Specific Energy: 6.71 ft
Froude Number: 2.156
Maximum Discharge: 215.34 cfs
Discharge Full: 200.18 cfs
Slope Full: 0.026 ft/ft
Flow Type: Supercritical



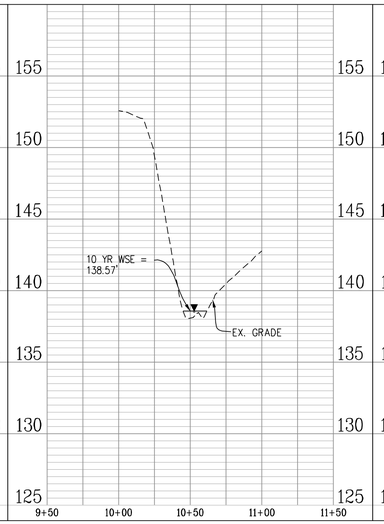
CROSS SECTION D-D': 10 YEAR STORM EVENT

Discharge: 118.46 cfs
Flow Area: 4.6 ft²
Wetted Perimeter: 7.4 ft
Hydraulic Radius: 7.4 in
Top Width: 6.86 ft
Normal Depth: 15.9 in
Critical Depth: 31.8 in
Critical Slope: 0.002 ft/ft
Velocity: 26.03 ft/s
Velocity Head: 10.53 ft
Specific Energy: 11.85 ft
Froude Number: 5.635
Flow Type: Supercritical



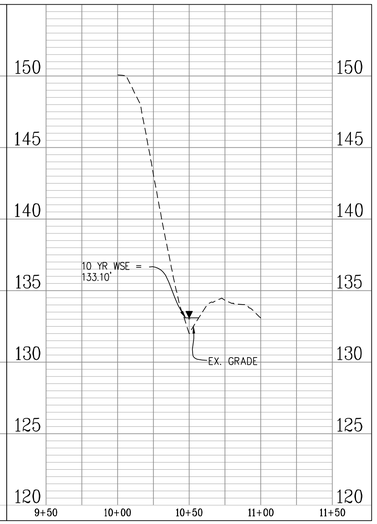
CROSS SECTION E-E': 10 YEAR STORM EVENT

Discharge: 118.46 cfs
Flow Area: 5.5 ft²
Wetted Perimeter: 15.6 ft
Hydraulic Radius: 4.2 in
Top Width: 15.42 ft
Normal Depth: 6.5 in
Critical Depth: 16.7 in
Critical Slope: 0.003 ft/ft
Velocity: 21.56 ft/s
Velocity Head: 7.22 ft
Specific Energy: 7.77 ft
Froude Number: 6.366
Flow Type: Supercritical



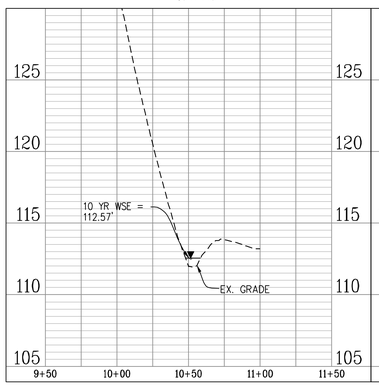
CROSS SECTION F-F': 10 YEAR STORM EVENT

Discharge: 118.46 cfs
Flow Area: 5.7 ft²
Wetted Perimeter: 10.7 ft
Hydraulic Radius: 6.4 in
Top Width: 10.44 ft
Normal Depth: 13.2 in
Critical Depth: 26.0 in
Critical Slope: 0.003 ft/ft
Velocity: 20.64 ft/s
Velocity Head: 6.62 ft
Specific Energy: 7.72 ft
Froude Number: 4.908
Flow Type: Supercritical



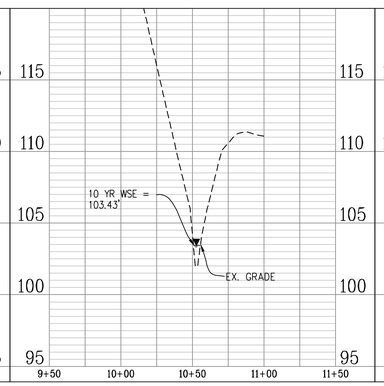
CROSS SECTION G-G': 10 YEAR STORM EVENT

Discharge: 121.50 cfs
Flow Area: 4.7 ft²
Wetted Perimeter: 10.5 ft
Hydraulic Radius: 5.3 in
Top Width: 10.39 ft
Normal Depth: 7.6 in
Critical Depth: 20.3 in
Critical Slope: 0.003 ft/ft
Velocity: 25.97 ft/s
Velocity Head: 10.48 ft
Specific Energy: 11.11 ft
Froude Number: 6.821
Flow Type: Supercritical



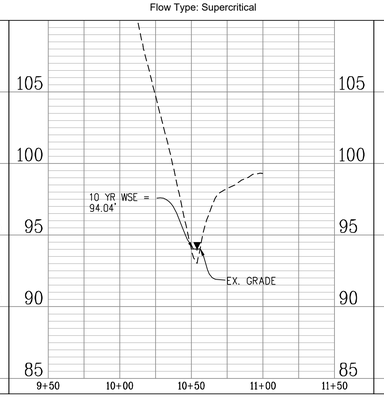
CROSS SECTION H-H': 10 YEAR STORM EVENT

Discharge: 121.50 cfs
Flow Area: 3.1 ft²
Wetted Perimeter: 5.2 ft
Hydraulic Radius: 7.2 in
Top Width: 4.27 ft
Normal Depth: 17.5 in
Critical Depth: 40.4 in
Critical Slope: 0.003 ft/ft
Velocity: 38.98 ft/s
Velocity Head: 23.61 ft
Specific Energy: 25.07 ft
Froude Number: 8.047
Flow Type: Supercritical



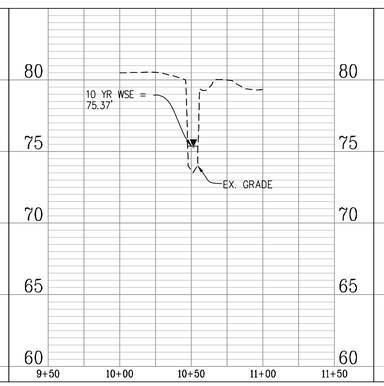
CROSS SECTION I-I': 10 YEAR STORM EVENT

Discharge: 121.50 cfs
Flow Area: 3.5 ft²
Wetted Perimeter: 6.3 ft
Hydraulic Radius: 6.5 in
Top Width: 5.96 ft
Normal Depth: 12.0 in
Critical Depth: 30.6 in
Critical Slope: 0.002 ft/ft
Velocity: 35.18 ft/s
Velocity Head: 19.23 ft
Specific Energy: 20.23 ft
Froude Number: 8.145
Flow Type: Supercritical



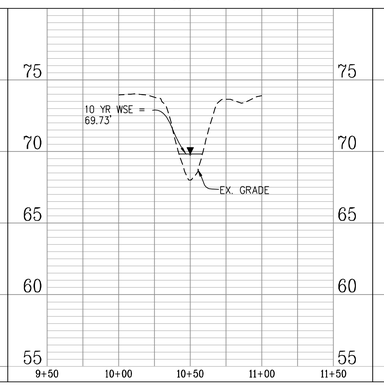
CROSS SECTION J-J': 10 YEAR STORM EVENT

Discharge: 148.84 cfs
Flow Area: 11.2 ft²
Wetted Perimeter: 9.6 ft
Hydraulic Radius: 14.0 in
Top Width: 7.37 ft
Normal Depth: 22.0 in
Critical Depth: 32.1 in
Critical Slope: 0.037 ft/ft
Velocity: 13.33 ft/s
Velocity Head: 2.76 ft
Specific Energy: 4.60 ft
Froude Number: 1.910
Flow Type: Supercritical



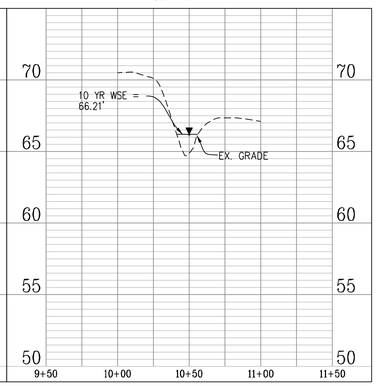
CROSS SECTION K-K': 10 YEAR STORM EVENT

Discharge: 148.84 cfs
Flow Area: 13.0 ft²
Wetted Perimeter: 14.8 ft
Hydraulic Radius: 10.6 in
Top Width: 14.37 ft
Normal Depth: 20.7 in
Critical Depth: 28.3 in
Critical Slope: 0.029 ft/ft
Velocity: 11.44 ft/s
Velocity Head: 2.03 ft
Specific Energy: 3.76 ft
Froude Number: 2.120
Flow Type: Supercritical



CROSS SECTION L-L': 10 YEAR STORM EVENT

Discharge: 148.84 cfs
Flow Area: 14.5 ft²
Wetted Perimeter: 17.0 ft
Hydraulic Radius: 10.2 in
Top Width: 16.67 ft
Normal Depth: 17.9 in
Critical Depth: 24.2 in
Critical Slope: 0.029 ft/ft
Velocity: 10.29 ft/s
Velocity Head: 1.64 ft
Specific Energy: 3.14 ft
Froude Number: 1.947
Flow Type: Supercritical



REVISIONS

No.	DATE	DESCRIPTION

PLAN DATE
02-11-2022
12-05-2022

Urban, Ltd.
4200 D TECHNOLOGY CT.
CHANTILLY, VA. 20151
TEL. 703.642.2306
FAX 703.378.7888
www.urban-ltd.com

urban
Planners • Engineers • Landscape Architects • Land Surveyors

COMMONWEALTH OF VIRGINIA
CLAYTON C. TOCE
Lic. No. 036790
PROFESSIONAL ENGINEER
12/01/2022

OUTFALL ANALYSIS

LANDMARK MALL REDEVELOPMENT
PHASE II CONCEPT - PARKS

CITY OF ALEXANDRIA, VIRGINIA

DATE: NOV., 2022
SCALE: H:1"=50'; V:1"=5'
C.I.= N.A.

APPROVED
SPECIAL USE PERMIT NO. _____

DEPARTMENT OF PLANNING & ZONING

DIRECTOR _____ DATE _____

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____

DIRECTOR _____ DATE _____

CHAIRMAN, PLANNING COMMISSION _____ DATE _____

DATE RECORDED _____

INSTRUMENT NO. _____ DEED BOOK NO. _____ PAGE NO. _____

SHEET
32
OF
83

FILE No.
DSUP-13089

J:\JOBS\landmarkmall\DSUP\block-parks\preliminary sp\13089-24-OUTFALL ANALYSIS.dwg [10 years] May 25, 2023 - 2:05pm yelosri
Urban, Ltd.

SWM PRE OFFSITE Undetained Runoff Calculations To Ex. Ditch

Curve Number Calculations

Area (ac)	CN	Description
0.276	80	>75% Grass cover, Good, HSG D
0.149	98	Paved roads w/curbs & sewers, HSG D
0.425	86	Weighted Average
0.276		64.94% Pervious Area
0.149		35.06% Impervious Area

Time of Concentration Calculations

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

1 Year Flow Calculations

Runoff = 0.98 cfs @ 12.03 hrs , Volume= 2,014 cf , Depth> 1.31"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Landmark Mall 24-hr S1 1-yr Rainfall=2.70"

2 Year Flow Calculations

Runoff = 1.27 cfs @ 12.03 hrs , Volume= 2,635 cf , Depth> 1.71"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Landmark Mall 24-hr S1 2-yr Rainfall=3.20"

10 Year Flow Calculations

Runoff = 2.20 cfs @ 12.03 hrs , Volume= 5,269 cf , Depth> 3.42"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Landmark Mall 24-hr S1 10-yr Rainfall=5.20"

SWM POST OFFSITE Undetained Runoff Calculations To Ex. Ditch

Curve Number Calculations

Area (ac)	CN	Description
0.236	80	>75% Grass cover, Good, HSG D
0.057	98	Paved roads w/curbs & sewers, HSG D
0.293	84	Weighted Average
0.236		80.55% Pervious Area
0.057		19.45% Impervious Area

Time of Concentration Calculations

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

1 Year Flow Calculations

Runoff = 0.61 cfs @ 12.03 hrs , Volume= 1,249 cf , Depth> 1.17"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Landmark Mall 24-hr S1 1-yr Rainfall=2.70"

2 Year Flow Calculations

Runoff = 0.80 cfs @ 12.03 hrs , Volume= 1,659 cf , Depth> 1.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Landmark Mall 24-hr S1 2-yr Rainfall=3.20"

10 Year Flow Calculations

Runoff = 1.44 cfs @ 12.03 hrs , Volume= 3,425 cf , Depth> 3.22"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Landmark Mall 24-hr S1 10-yr Rainfall=5.20"

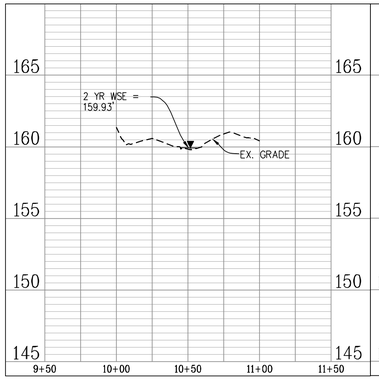
ENERGY BALANCE METHOD TO Ex. Channel at Str. 43.

$Q_{(Developed)}$=	0.61	cfs
$Q_{(Pre-Developed)}$=	0.98	cfs
$RV_{(Pre-Developed)}$=	2014.00	c.f.
$RV_{(Developed)}$=	1249.00	c.f.
I.F. =	0.9	(0.8 for sites greater than one acre) (0.9 for sites less than or equal to one acre)

Q Developed		I.F x ($Q_{Pre-Developed}$ X $RV_{Pre-Developed}$)/$RV_{Developed}$
0.61	≤	1.42

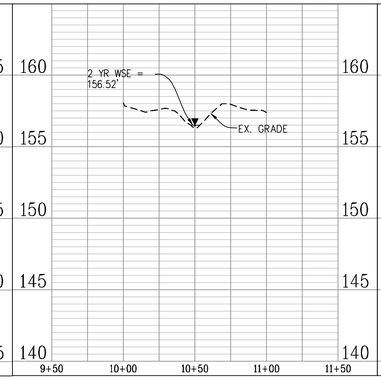
CROSS SECTION M-M': 2 YEAR STORM EVENT

Discharge: 0.80 cfs
Flow Area: 0.9 ft²
Wetted Perimeter: 12.2 ft
Hydraulic Radius: 0.9 in
Top Width: 12.16 ft
Normal Depth: 1.8 in
Critical Depth: 1.4 in
Critical Slope: 0.093 ft/ft
Velocity: 0.88 ft/s
Velocity Head: 0.01 ft
Specific Energy: 0.16 ft
Froude Number: 0.568
Flow Type: Subcritical
V2ALLOW= 13 FPS



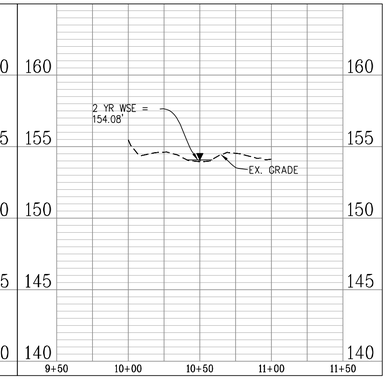
CROSS SECTION N-N': 2 YEAR STORM EVENT

Discharge: 0.80 cfs
Flow Area: 0.5 ft²
Wetted Perimeter: 4.8 ft
Hydraulic Radius: 1.3 in
Top Width: 4.79 ft
Normal Depth: 2.5 in
Critical Depth: 2.4 in
Critical Slope: 0.079 ft/ft
Velocity: 1.58 ft/s
Velocity Head: 0.04 ft
Specific Energy: 0.25 ft
Froude Number: 0.858
Flow Type: Subcritical
V2ALLOW= 13 FPS



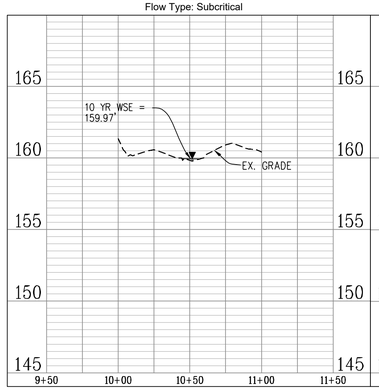
CROSS SECTION O-O'-: 2 YEAR STORM EVENT

Discharge: 0.80 cfs
Flow Area: 0.7 ft²
Wetted Perimeter: 9.9 ft
Hydraulic Radius: 0.8 in
Top Width: 9.88 ft
Normal Depth: 1.6 in
Critical Depth: 1.5 in
Critical Slope: 0.092 ft/ft
Velocity: 1.20 ft/s
Velocity Head: 0.02 ft
Specific Energy: 0.16 ft
Froude Number: 0.819
Flow Type: Subcritical
V2ALLOW= 13 FPS



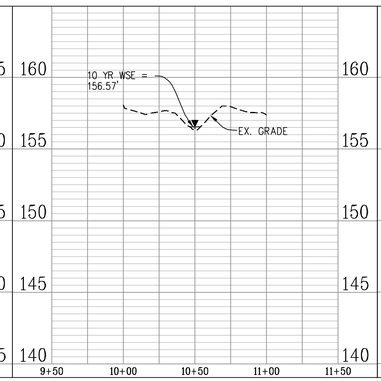
CROSS SECTION M-M': 10 YEAR STORM EVENT

Discharge: 1.44 cfs
Flow Area: 1.4 ft²
Wetted Perimeter: 15.2 ft
Hydraulic Radius: 1.1 in
Top Width: 15.16 ft
Normal Depth: 2.2 in
Critical Depth: 1.8 in
Critical Slope: 0.086 ft/ft
Velocity: 1.02 ft/s
Velocity Head: 0.02 ft
Specific Energy: 0.20 ft
Froude Number: 0.589
Flow Type: Subcritical



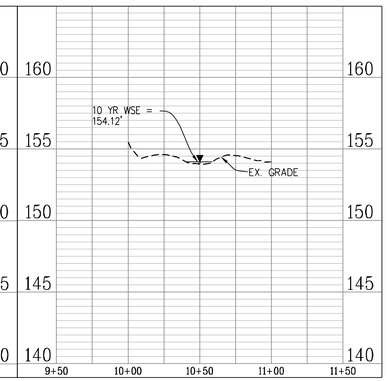
CROSS SECTION N-N': 10 YEAR STORM EVENT

Discharge: 1.44 cfs
Flow Area: 0.8 ft²
Wetted Perimeter: 6.0 ft
Hydraulic Radius: 1.6 in
Top Width: 5.97 ft
Normal Depth: 3.2 in
Critical Depth: 3.0 in
Critical Slope: 0.073 ft/ft
Velocity: 1.83 ft/s
Velocity Head: 0.05 ft
Specific Energy: 0.32 ft
Froude Number: 0.890
Flow Type: Subcritical



CROSS SECTION O-O': 10 YEAR STORM EVENT

Discharge: 1.44 cfs
Flow Area: 1.0 ft²
Wetted Perimeter: 12.3 ft
Hydraulic Radius: 1.0 in
Top Width: 12.31 ft
Normal Depth: 2.0 in
Critical Depth: 1.9 in
Critical Slope: 0.085 ft/ft
Velocity: 1.40 ft/s
Velocity Head: 0.03 ft
Specific Energy: 0.20 ft
Froude Number: 0.850
Flow Type: Subcritical



APPROVED
SPECIAL USE PERMIT NO. _____

DEPARTMENT OF PLANNING & ZONING

_____ DIRECTOR _____ DATE

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____

_____ DIRECTOR _____ DATE

_____ CHAIRMAN, PLANNING COMMISSION _____ DATE

DATE RECORDED _____

_____ INSTRUMENT NO. _____ DEED BOOK NO. _____ PAGE NO.

REVISIONS

No.	DATE	DESCRIPTION

PLAN DATE
02-11-2022
12-05-2022

Urban, Ltd.
4200 D TECHNOLOGY CT.
CHANTILLY, VA. 20151
TEL. 703.642.2306
FAX. 703.378.7888
www.urban-ltd.com

urban
Planners • Engineers • Landscape Architects • Land Surveyors

COMMONWEALTH OF VIRGINIA
CLAYTON C. FOCE
Lic. No. 036790
PROFESSIONAL ENGINEER
12/05/2022

OUTFALL ANALYSIS

LANDMARK MALL REDEVELOPMENT
PHASE II CONCEPT - PARKS

CITY OF ALEXANDRIA, VIRGINIA

SCALE: H:1"=50'; V:1"=5' C.I.= N.A. DATE: NOV., 2022

SHEET 33 OF 83

FILE No.
DSUP-13089

Urban, Ltd. – J:\JOBS\landmarkmall\DSUP\block-parks\preliminary sp\13089-24-OUTFALL ANALYSIS.dwg [M-M' to O-O'] May 25, 2023 - 2:06pm yelosri

OUTFALL ANALYSIS NARRATIVE

THE EXISTING TOPOGRAPHY OF THE PARCEL HAS TWO DISTINCT OUTFALLS, RESULTING IN TWO STUDY POINTS. STUDY POINT #1 OUTFALLS TO THE NORTHEAST CORNER OF THE PROPERTY. STUDY POINT #2 OUTFALLS TO THE EAST OF THE SITE, IMMEDIATELY NORTH OF THE DUKE STREET RAMP CONNECTION TO VAN DORN STREET. A TOTAL PRE-DEVELOPMENT DRAINAGE AREA OF 35.58 ACRES DRAINS TO STUDY POINT 1, WHILE A TOTAL PRE-DEVELOPMENT DRAINAGE AREA OF 31.24 ACRES DRAINS TO STUDY POINT 2.

STORMWATER MANAGEMENT IS TO BE PROVIDED IN THREE SEPARATE STORMWATER MANAGEMENT VAULTS; VAULT 2, 3, AND 4. VAULT 2 IS LOCATED IMMEDIATELY SOUTH OF BLOCKS E&G AND HAS A DRAINAGE AREA OF 17.46 ACRES. VAULT 3 IS LOCATED SOUTH OF BLOCK I AND HAS A DRAINAGE AREA OF 20.73 ACRES. VAULT 4 IS LOCATED EACH OF THE EXISTING PARKING STRUCTURE AND HAS A DRAINAGE AREA OF 8.06 ACRES. IN ACCORDANCE WITH THE ARTICLE XIII SECTION 13-109 OF THE ALEXANDRIA ZONING ORDINANCE, AND UTILIZING THE VIRGINIA RUNOFF REDUCTION METHODOLOGY, THE TREATMENT VOLUME IS REDUCED VIA THE UNDERGROUND SWM FACILITIES.

THE ALLOWABLE RELEASE RATE FOR EACH STUDY POINT HAS BEEN CALCULATED IN ACOORDANCE WITH ARTICLE XIII SECTION 13-109(F) OF THE ALEXANDRIA ZONING ORDINANCE. FOR THE CHANNEL PROTECTION AND FLOOD PROTECTION WHEN STORMWATER FROM A DEVELOPMENT IS DISCHARGED TO A NATURAL STORMWATER CONVEYANCE SYSTEM, THE MAXIMUM PEAK FLOW RATE FROM THE 1-YEAR 24-HOUR STORM FOLLOWING THE LAND-DISTURBING ACTIVITY SHALL BE CALCULATED WHERE:

$Qdev \leq I.F. * (Qpre * RVpre)/RVdev$

AND THE PEAK FLOW RATE FOR THE 10-YEAR 24-HOUR STORM EVENT IS LESS THAN THE PRE-DEVELOPMENT PEAK FLOW RATE FROM THE 10-YEAR 24-HOUR STORM EVENT. AS SHOWN IN THE FLOW SUMMARY TABLE ON INFRASTRUCTURE SITE PLAN (DSP #2021-00012) SHEET 123. THE PROPOSED FLOW TO THE STUDY POINTS ARE LESS THAN THE ALLOWABLE RUNOFF.

IT IS THEREFORE THE OPINION OF URBAN, LTD. THAT THE PROPOSED SWM DESIGN MEETS THE REQUIRED SWM REQUIREMENTS OF THE ALEXANDRIA ORDINANCE. THE STORMWATER MASTER PLAN (DSP#2021-00017) IS TO BE UPDATED WITH THE APPROVAL OF EACH DSUP PER BLOCK TO ADDRESS COMPLIANCE FOR TOTAL SITE STORMWATER QUANTITY AND QUALITY REQUIREMENTS.

URBAN LTD.
CLAYTON C. TOCK, P.E., PRINCIPLE

FLOW SUMMARY TABLES

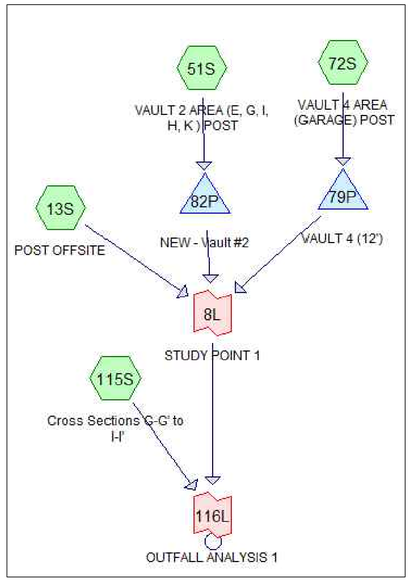
STUDY POINT 1:

FLOW SUMMARY		PRE-DEVELOPMENT			POST-DEVELOPMENT SUMMARY			Q ALLOW*
NODE ID	RETURN EVENT	Q PEAK hrs	Q PEAK cfs	Rv cu.ft.	Q PEAK hrs	Q PEAK cfs	Rv cu.ft.	CFS
ONSITE	1	12.09	52.17	136,159				
	2	12.09	67.33	176,935				
	10	12.09	116.25	348,346				
OFFSITE	1	12.15	16.82	54,327	12.15	16.82	54,327	
	2	12.15	20.36	66,748	12.15	20.36	66,748	
	10	12.15	31.07	116,470	12.15	31.07	116,470	
VAULT 2	1				12.27	23.00	127,952	
	2				12.23	33.40	157,324	
	10				12.14	75.01	274,936	
VAULT 4	1				12.67	3.28	66,871	
	2				12.56	6.70	80,392	
	10				12.28	20.39	132,914	
CROSS SECTIONS G-G' TO I-I'	1				12.16	1.30	4,051	
	2				12.16	1.70	5,303	
	10				12.15	3.04	10,605	
STUDY POINT 1	1	12.10	67.19	190,486	12.18	41.46	249,150	41.35
	2	12.10	85.47	243,683	12.20	55.14	304,463	85.47
	10	12.10	143.92	464,816	12.15	125.38	534,923	143.92
OUTFALL POINT 1	1				12.18	42.76	253,200	
	2				12.20	56.77	309,766	
	10				12.15	121.50	520,368	

STUDY POINT 2:

FLOW SUMMARY		PRE-DEVELOPMENT			POST-DEVELOPMENT SUMMARY			Q ALLOW*
NODE ID	RETURN EVENT	Q PEAK hrs	Q PEAK cfs	Rv cu.ft.	Q PEAK hrs	Q PEAK cfs	Rv cu.ft.	CFS
ONSITE	1	12.03	48.77	99,926				
	2	12.03	62.66	129,838				
	10	12.03	106.06	255,599				
OFFSITE	1	12.08	33.04	95,334	12.08	30.45	82,745	
	2	12.08	39.16	114,673	12.08	36.77	101,658	
	10	12.08	56.97	191,351	12.08	55.39	177,387	
VAULT 3	1				12.63	10.03	153,017	
	2				12.39	22.60	187,991	
	10				12.17	80.15	326,881	
CROSS SECTION J-J' TO L-L'	1				12.09	12.95	34,232	
	2				12.09	16.01	42,944	
	10				12.08	25.30	78,364	
STUDY POINT 2	1	12.04	76.56	195,259	12.09	37.61	235,762	50.75
	2	12.04	95.46	244,511	12.09	44.83	289,649	95.46
	10	12.04	153.75	446,950	12.14	126.27	504,268	153.75
OUTFALL POINT 2	1				12.09	50.55	269,994	
	2				12.09	60.84	332,593	
	10				12.13	148.84	582,632	

POST-DEVELOPMENT NODE SUMMARIES FOR OUTFALL POINT #1



POST-DEVELOPMENT 2-YEAR OUTFALL POINT #1

Inflow Area = 1,470,063 sf , 42.45% Impervious , Inflow Depth > 2.53" for 2-yr event
Inflow = 56.77 cfs @ 12.20 hrs , Volume= 309,766 cf
Primary = 56.77 cfs @ 12.20 hrs , Volume= 309,766 cf , Atten= 0% , Lag= 0.0 min

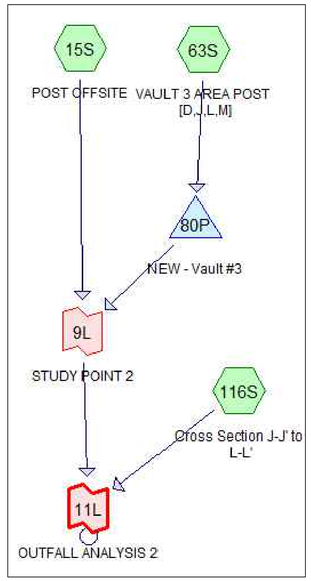
Primary outflow = Inflow, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs

POST-DEVELOPMENT 10-YEAR OUTFALL POINT #1

Inflow Area = 1,470,063 sf , 42.45% Impervious , Inflow Depth > 4.37" for 10-yr event
Inflow = 125.38 cfs @ 12.15 hrs , Volume= 534,923 cf
Primary = 125.38 cfs @ 12.15 hrs , Volume= 534,923 cf , Atten= 0% , Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs

POST-DEVELOPMENT NODE SUMMARIES FOR OUTFALL POINT #2



POST-DEVELOPMENT 2-YEAR OUTFALL POINT #2

Inflow Area = 1,624,676 sf , 34.88% Impervious , Inflow Depth > 2.46" for 2-yr event
Inflow = 60.84 cfs @ 12.09 hrs , Volume= 332,597 cf
Primary = 60.84 cfs @ 12.09 hrs , Volume= 332,597 cf , Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs

POST-DEVELOPMENT 10-YEAR OUTFALL POINT #2

Inflow Area = 1,624,676 sf , 34.88% Impervious , Inflow Depth > 4.30" for 10-yr event
Inflow = 148.84 cfs @ 12.13 hrs , Volume= 582,638 cf
Primary = 148.84 cfs @ 12.13 hrs , Volume= 582,638 cf , Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs

NODE LEGEND

ROUTING DIAGRAM NODE SYMBOLS:

Subcat — HYDROCAD SUBCATCHMENT – USED TO MODEL THE EFFECT OF RAINFALL ON A SPECIFIC SECTION OF THE WATERSHED, AND PRODUCES A RUNOFF HYDROGRAPH. SUBCATCHMENTS ARE DESCRIBED BY A NUMBER OF PARAMETERS SUCH AS AREA, CURVE NUMBER, AND TIME OF CONCENTRATION.

Pond — HYDROCAD POND –USED TO MODEL THE STORAGE EFFECTS OF ANY RETENTION OR DETENTION AREA, SUCH AS A RESERVOIR, DETENTION POND, OR STORAGE CHAMBER. A POND CAN ALSO INCORPORATE A VARIETY OF ANY OUTLET CONTROL DEVICES, SUCH AS CULVERTS, WEIRS, ETC., WITH THE ABILITY TO ACCOUNT FOR HEADWATER AND TAILWATER EFFECTS.

Link — HYDROCAD LINK –USED TO INTERCONNECT SEVERAL ROUTING DIAGRAMS AND PRODUCES A RUNOFF HYDROGRAPH SCALED APPROPRIATELY FOR TIME. THIS PROVIDES A REPRESENTATION OF DISCHARGE OF RUNOFF WHERE MULTIPLE HYDROGRAPHS ARE ACCUMULATED TO A POINT OF ANALYSIS.

**NOTE – THE NUMBER AND LETTER GENERATED WITHIN THE ROUTING DIAGRAM NODE IS AUTOMATICALLY GENERATED BY THE HYDROCAD SOFTWARE. THE NUMBER AND LETTER HAS NO EFFECT ON THE ROUTING CALCULATIONS. THE TEXT BELOW EACH HYDROCAD NODE PROVIDES A BRIEF DESCRIPTION OF THE NODES REPRESENTATION.

OUTFALL ANALYSIS COMPUTATION SUMMARY

CROSS SECTIONS	SWALE TYPE DESCRIPTION:	AVG. CHANNEL SLOPE (%):	DRAINAGE AREA (AC):	CN FACTOR:	Tc (MIN):	ROUGHNESS COEFFICIENT:	2 YEAR FLOW (CFS):	2 YEAR VELOCITY (FPS):	2 YEAR NORMAL DEPTH (FT):	10 YEAR FLOW (CFS):	10 YEAR VELOCITY (FPS):	10 YEAR NORMAL DEPTH (FT):	CHANNEL LINING:
D-D'	EXISTING MANMADE CHANNEL-OFFSITE	0.10%	31.97	96	10*	0.013	52.77	21.26	0.98	118.46	26.03	1.33	EX. CONCRETE LINING
E-E'	EXISTING MANMADE CHANNEL-OFFSITE	0.14%	31.97	96	10*	0.013	52.77	16.10	0.40	118.46	21.56	0.54	EX. CONCRETE LINING
F-F'	EXISTING MANMADE CHANNEL-OFFSITE	0.08%	31.97	96	10*	0.013	52.77	16.86	0.81	118.46	20.64	1.10	EX. CONCRETE LINING
G-G'	EXISTING MANMADE CHANNEL-OFFSITE	0.15%	32.83	86	15*	0.013	54.39	20.25	0.43	121.50	25.97	0.63	EX. CONCRETE LINING
H-H'	EXISTING MANMADE CHANNEL-OFFSITE	0.23%	32.83	86	15*	0.013	54.39	31.88	1.08	121.50	38.98	1.46	EX. CONCRETE LINING
I-I'	EXISTING MANMADE CHANNEL-OFFSITE	0.21%	32.83	86	15*	0.013	54.39	28.15	0.72	121.50	35.18	1.00	EX. CONCRETE LINING
J-J'	EXISTING MANMADE CHANNEL-OFFSITE	0.13%	37.30	92	10*	0.045	60.84	9.96	1.13	148.84	13.33	1.83	EX. RIP RAP LINING
K-K'	EXISTING MANMADE CHANNEL-OFFSITE	0.14%	37.30	92	10*	0.045	60.84	9.01	1.23	148.84	11.44	1.73	EX. RIP RAP LINING
L-L'	EXISTING MANMADE CHANNEL-OFFSITE	0.12%	37.30	92	10*	0.045	60.84	8.06	1.02	148.84	10.29	1.49	EX. RIP RAP LINING

APPROVED
SPECIAL USE PERMIT NO. _____
DEPARTMENT OF PLANNING & ZONING
DIRECTOR _____ DATE _____
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
DIRECTOR _____ DATE _____
CHAIRMAN, PLANNING COMMISSION _____ DATE _____
DATE RECORDED _____
INSTRUMENT NO. _____ DEED BOOK NO. _____ PAGE NO. _____

No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
02-11-2022
12-05-2022

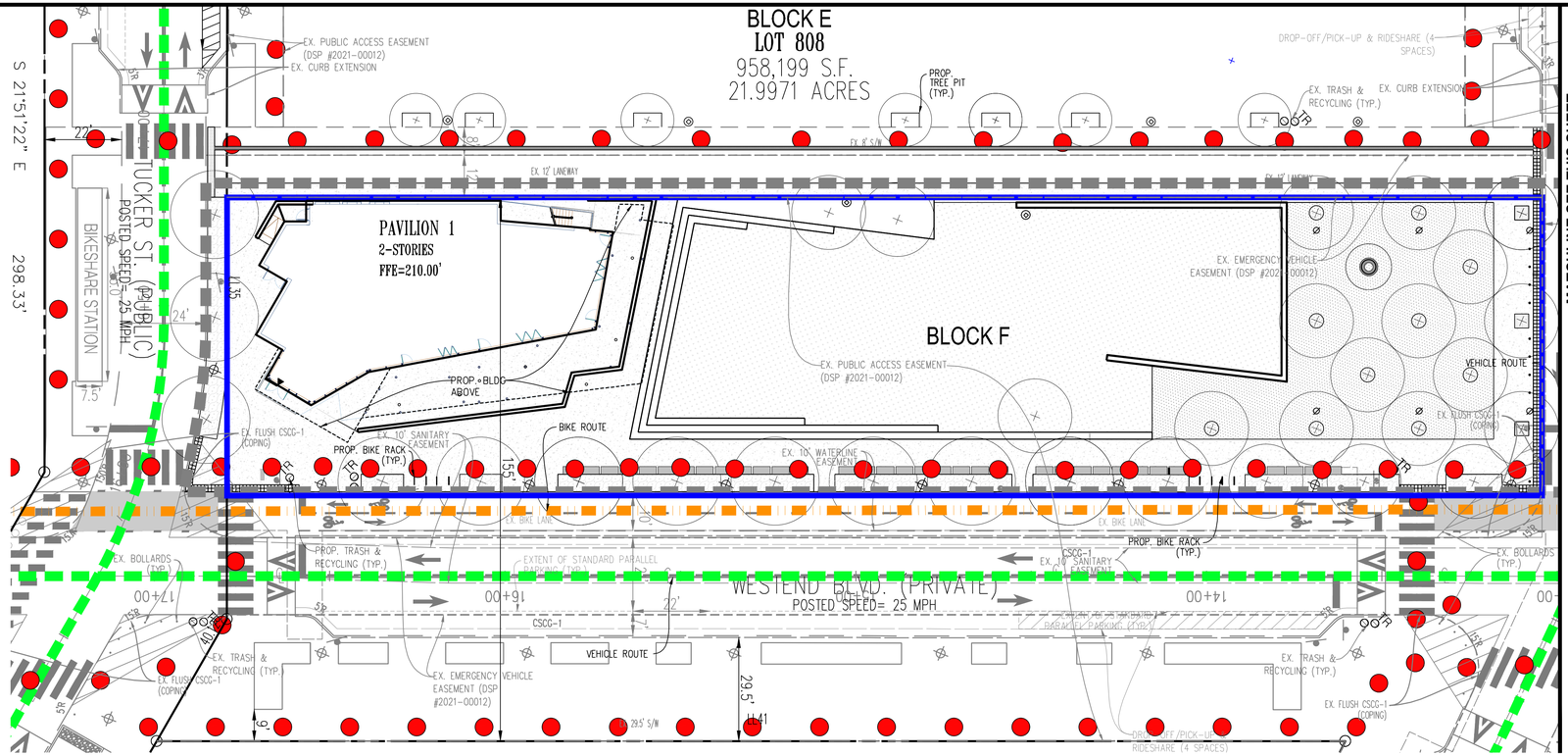
Urban, Ltd.
4200 D TECHNOLOGY CT.
CHANTILLY, VA. 20151
TEL. 703.642.2306
FAX 703.378.7888
www.urban-ltd.com
urban
Planners • Engineers • Landscape Architects • Land Surveyors

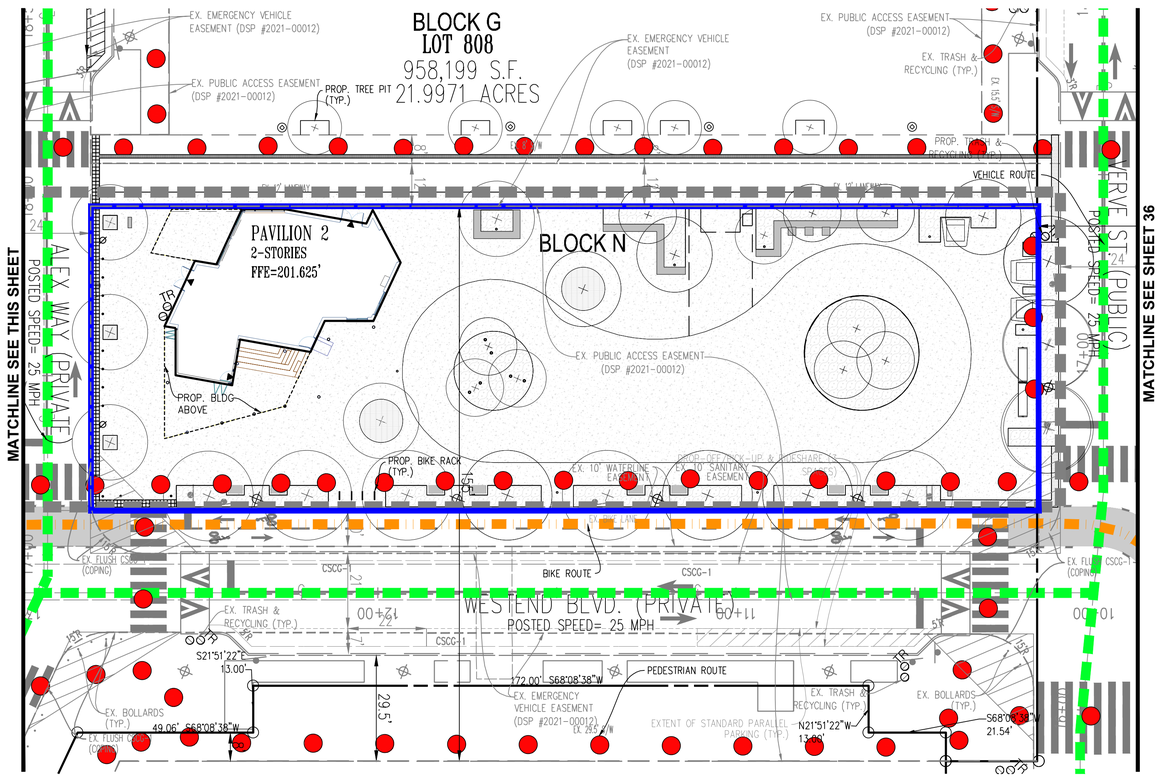
COMMONWEALTH OF VIRGINIA — CLAYTON C. TOCK — Lic. No. 036790 — ENGINEER — 12/05/2022 — PROFESSIONAL

OUTFALL ANALYSIS
LANDMARK MALL REDEVELOPMENT
PHASE II CONCEPT - PARKS
CITY OF ALEXANDRIA, VIRGINIA
DATE: NOV., 2022
SCALE: N.A. C.I.= N.A.

SHEET 34 OF 83
FILE No. DSUP-13089

J:\JOBS\Landmarkmall\DSUP\block-parks\preliminary sp\13089-24-OUTFALL ANALYSIS.dwg [NARR] May 25, 2023 - 2:06pm yelosri
Urban, Ltd. -





SCALE: 1"=20'
0 10' 20' 40'

LEGEND

- PEDESTRIAN ROUTE
- VEHICLE ROUTE
- BIKE ROUTE

APPROVED
SPECIAL USE PERMIT NO. _____
DEPARTMENT OF PLANNING & ZONING
DIRECTOR _____ DATE _____
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
DIRECTOR _____ DATE _____
CHAIRMAN, PLANNING COMMISSION _____ DATE _____
DATE RECORDED _____
INSTRUMENT NO. _____ DEED BOOK NO. _____ PAGE NO. _____

No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
02-11-2022
02-09-2023
03-17-2023
05-26-2023

Urban Ltd.
4200 D TECHNOLOGY CT.
CHANTILLY, VA. 20151
TEL. 703.642.2306
FAX 703.378.7888
www.urban-ltd.com
urban
Planners • Engineers • Landscape Architects • Land Surveyors

COMMONWEALTH OF VIRGINIA
CLAYTON C. TOCK
Lic. No. 038790
PROFESSIONAL ENGINEER
03/24/2023

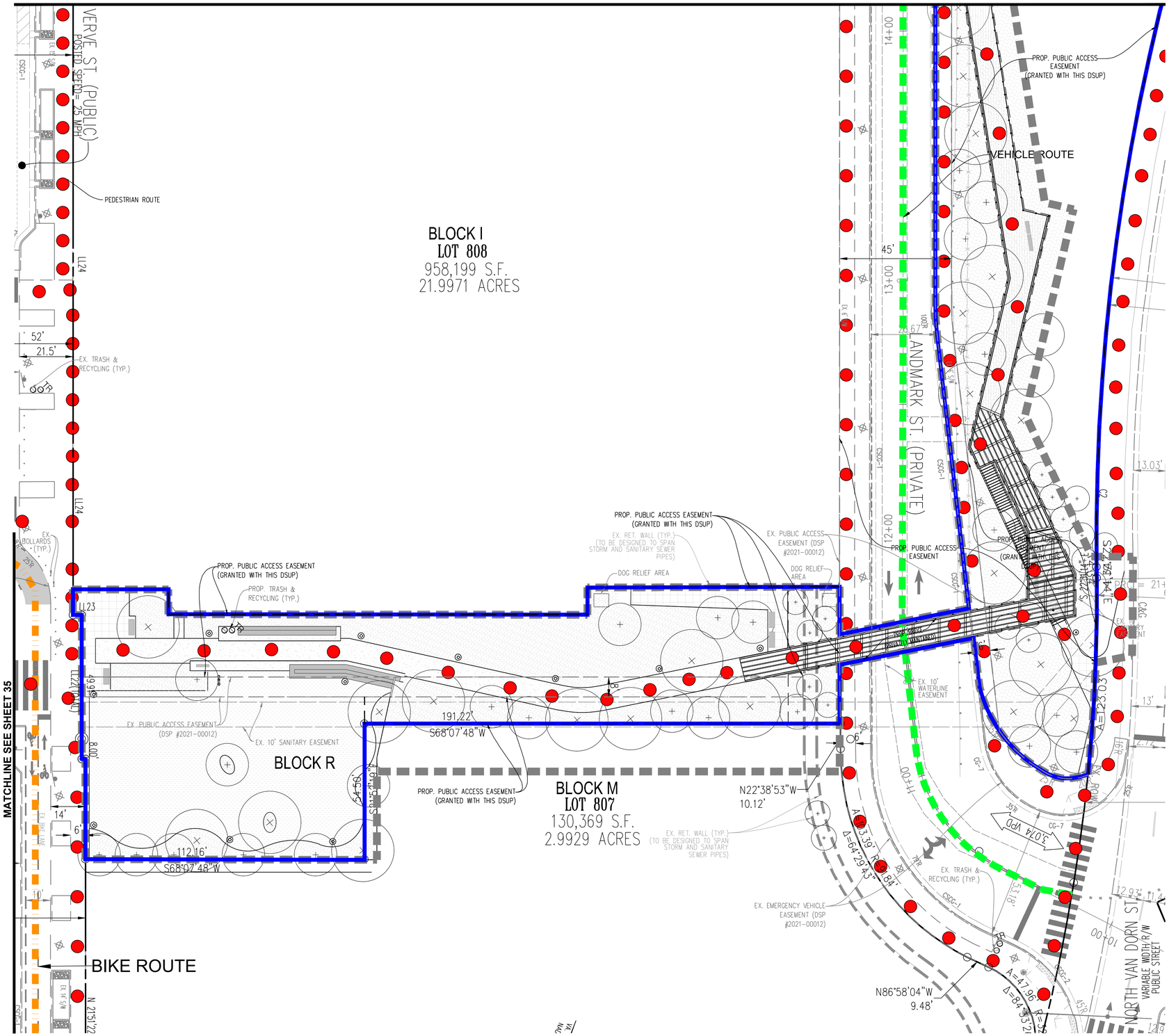
TEMPORARY PEDESTRIAN EXHIBIT
LANDMARK MALL REDEVELOPMENT
PRELIMINARY SITE PLAN - PARKS
CITY OF ALEXANDRIA, VIRGINIA
SCALE: 1"=20' C.I.=N/A DATE: NOV., 2022

SHEET 35 OF 47

FILE No. DSUP-13089

Urban, Ltd. - J:\JOBS\landmarkmall\DSUP\block-parks\preliminary sp\13089-14-PEDESTRIAN EXHIBIT.dwg [01] May 25, 2023 - 2:07pm yelsori

MATCHLINE SEE SHEET 37



SCALE: 1"=20'
0 10' 20' 40'

LEGEND

- PEDESTRIAN ROUTE
- VEHICLE ROUTE
- BIKE ROUTE

APPROVED
SPECIAL USE PERMIT NO. _____
DEPARTMENT OF PLANNING & ZONING
DIRECTOR DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
DIRECTOR DATE
CHAIRMAN, PLANNING COMMISSION DATE
DATE RECORDED _____
INSTRUMENT NO. DEED BOOK NO. PAGE NO.

No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
02-11-2022
02-09-2023
03-17-2023
05-26-2023

Urban Ltd.
4200 D TECHNOLOGY CT.
CHANTILLY, VA. 20151
TEL. 703.642.2306
FAX 703.378.7888
www.urban-ltd.com
urban
Planners+Engineers+Landscape Architects+Land Surveyors

COMMONWEALTH OF VIRGINIA
CLAYTON C. TOCK
Lic. No. 036790
PROFESSIONAL ENGINEER
03/16/2023

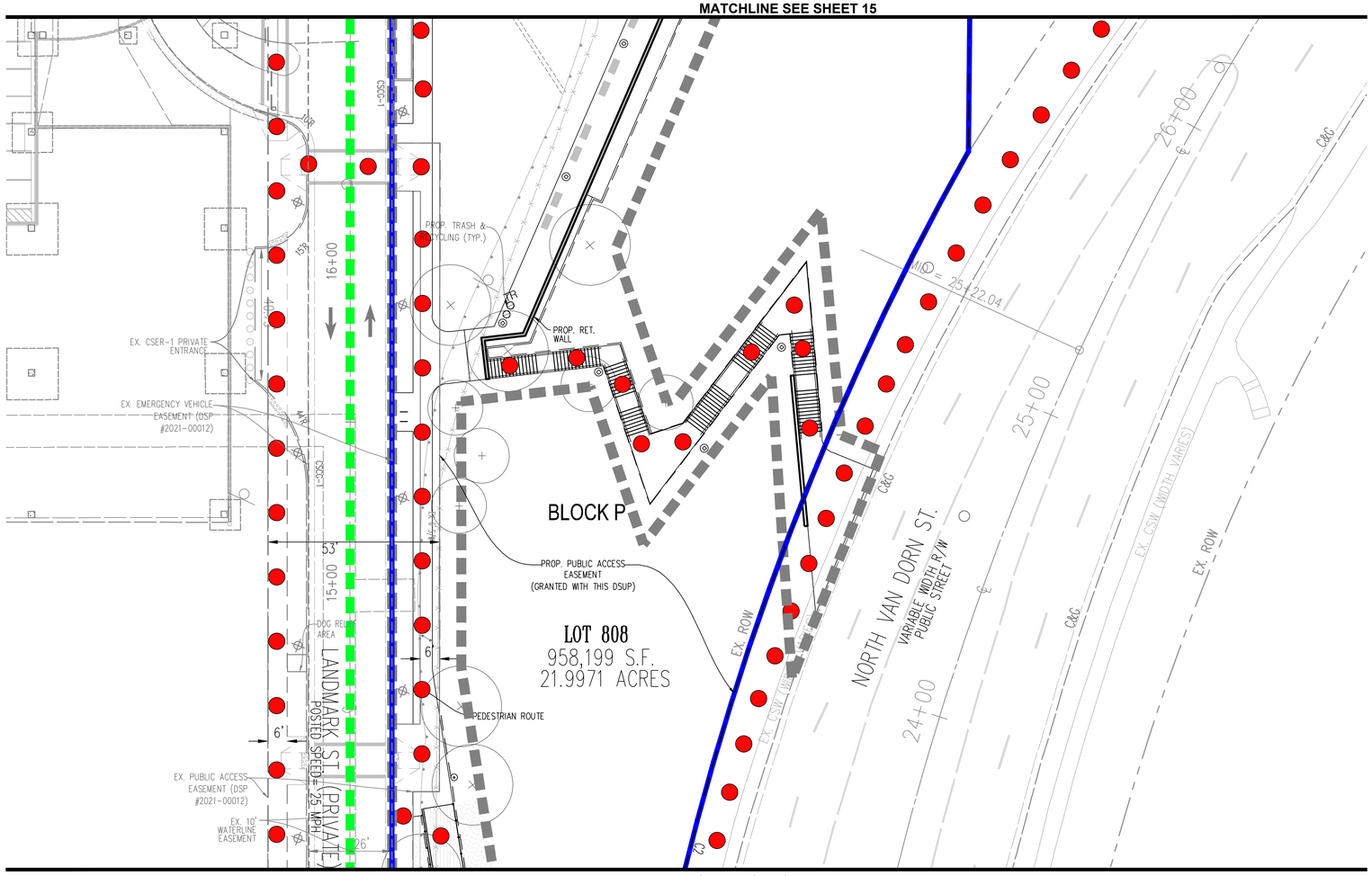
TEMPORARY PEDESTRIAN EXHIBIT
LANDMARK MALL REDEVELOPMENT
PRELIMINARY SITE PLAN - PARKS
CITY OF ALEXANDRIA, VIRGINIA
DATE: NOV., 2022
SCALE: 1"=20' C.I.= N/A

SHEET 36 OF 47

FILE No. DSUP-13089

Urban, Ltd. - J:\JOBS\landmarkmall\DSUP\block-parks\preliminary sp\13089-14-PEDESTRIAN EXHIBIT.dwg [02] May 25, 2023 - 2:07pm yelosri

MATCHLINE SEE SHEET 15



MATCHLINE SEE SHEET 13

SCALE: 1"=20'
0 10' 20' 40'

LEGEND

- PEDESTRIAN ROUTE
- VEHICLE ROUTE
- BIKE ROUTE

APPROVED
SPECIAL USE PERMIT NO. _____
DEPARTMENT OF PLANNING & ZONING
DIRECTOR _____ DATE _____
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
DIRECTOR _____ DATE _____
CHAIRMAN, PLANNING COMMISSION _____ DATE _____
DATE RECORDED _____
INSTRUMENT NO. _____ DEED BOOK NO. _____ PAGE NO. _____

No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
02-11-2022
02-09-2023
05-17-2023
05-26-2023

Urban Ltd.
4200 D TECHNOLOGY CT.
CHANTILLY, VA. 20151
TEL. 703.642.2306
FAX. 703.378.7888
www.urban-ltd.com
urban
Planners•Engineers•Landscape Architects•Land Surveyors

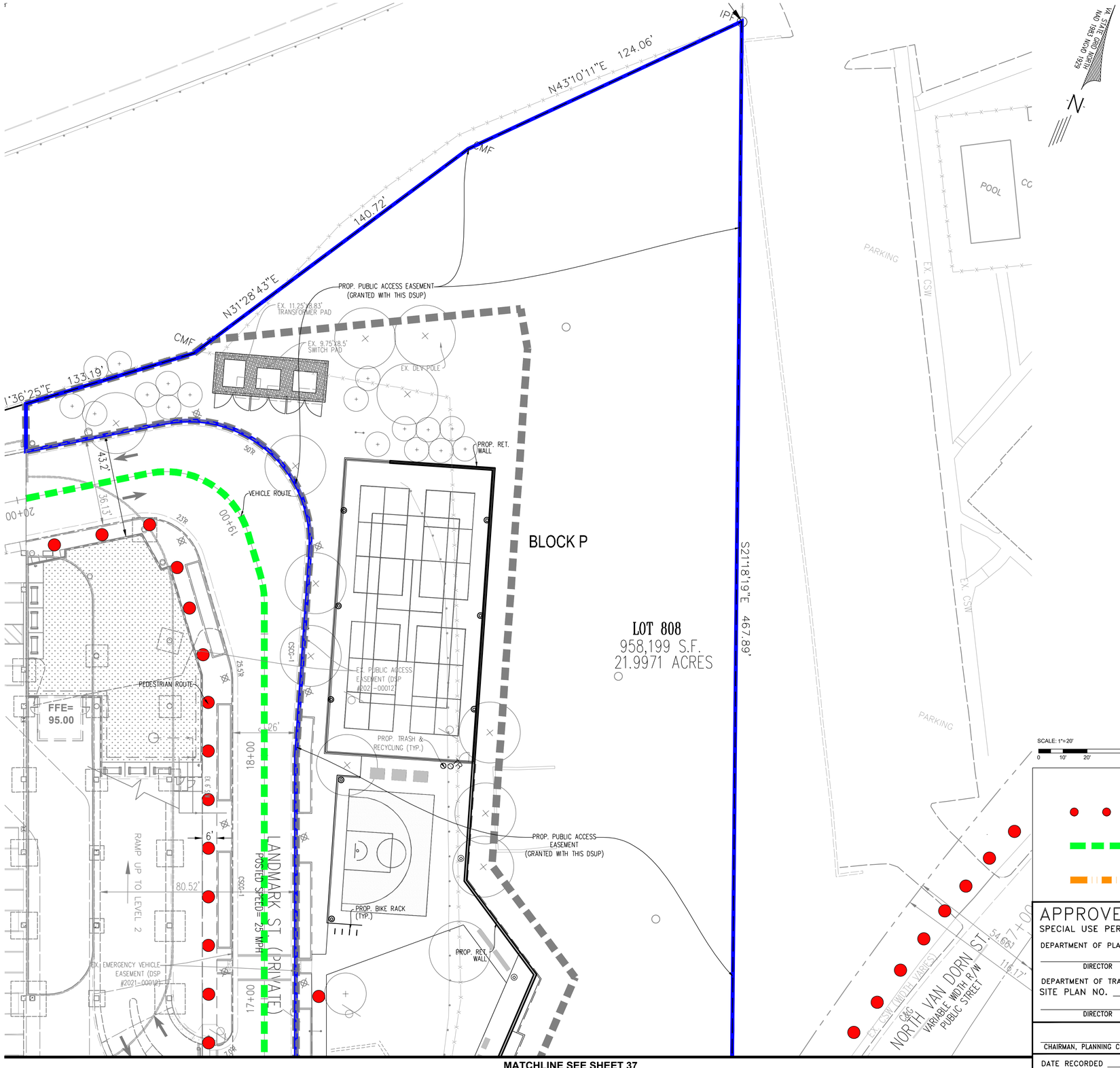
COMMONWEALTH OF VIRGINIA
CLAYTON C. TOCK
Lic. No. 038780
PROFESSIONAL ENGINEER
05/26/2023

TEMPORARY PEDESTRIAN EXHIBIT
LANDMARK MALL REDEVELOPMENT
PRELIMINARY SITE PLAN - PARKS
CITY OF ALEXANDRIA, VIRGINIA
SCALE: 1"=20' C.I.= N/A DATE: NOV., 2022

SHEET 37 OF 47

FILE No. DSUP-13089

J:\JOBS\landmarkmall\DSUP\block-parks\preliminary sp\13089-14-PEDESTRIAN EXHIBIT.dwg [03] May 25, 2023 - 2:07pm yelosri
Urban, Ltd. -



LEGEND

- PEDESTRIAN ROUTE
- VEHICLE ROUTE
- BIKE ROUTE

APPROVED
SPECIAL USE PERMIT NO. _____
DEPARTMENT OF PLANNING & ZONING
DIRECTOR _____ DATE _____
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
DIRECTOR _____ DATE _____
CHAIRMAN, PLANNING COMMISSION _____ DATE _____
DATE RECORDED _____
INSTRUMENT NO. _____ DEED BOOK NO. _____ PAGE NO. _____

No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
02-11-2022
02-09-2023
03-17-2023
05-26-2023

Urban Ltd.
4200 D TECHNOLOGY CT.
CHANTILLY, VA. 20151
TEL. 703.642.2306
FAX. 703.378.7888
www.urban-ltd.com
urban
Planners • Engineers • Landscape Architects • Land Surveyors

COMMONWEALTH OF VIRGINIA
CLAYTON C. TOCK
Lic. No. 039790
PROFESSIONAL ENGINEER
03/24/2023

TEMPORARY PEDESTRIAN EXHIBIT
LANDMARK MALL REDEVELOPMENT
PRELIMINARY SITE PLAN - PARKS
CITY OF ALEXANDRIA, VIRGINIA
SCALE: 1"=20' C.I.= N/A DATE: NOV., 2022

SHEET 38 OF 47

FILE No. DSUP-13089

Urban, Ltd. – J:\JOBS\landmarkmall\DSUP\block-parks\preliminary sp\13089-14-PEDESTRIAN EXHIBIT.dwg [04] May 25, 2023 – 2:07pm yelsri

BLOCK E

BLOCK G

LOT 808
958,199 S.F.
21.9971 ACRES

LOT 808
958,199 S.F.
21.9971 ACRES

BLOCK H
LOT 703
70,076 S.F.
1.6087 ACRES

BLOCK K

TUCKER ST. (PUBLIC)

ALEX WAY (PRIVATE)

WESTEND BLVD. (PRIVATE)
POSTED SPEED= 25 MPH

101' BUILDING COVERAGE LINE

61' BUILDING COVERAGE LINE

83' BUILDING COVERAGE LINE

48' BUILDING COVERAGE LINE

79' BUILDING COVERAGE LINE

68' BUILDING COVERAGE LINE

PAVILION 1
2-STORIES
FFE=210.00'

PAVILION 2
2-STORIES
FFE=201.625'

EXTENT OF STANDARD PARALLEL PARKING (TYP.)

EX. PUBLIC ACCESS EASEMENT (DSP #2021-00012)

EX. CURB EXTENSION

PROP. TREE PIT (TYP.)

PROP. TRENCH DRAIN

EX. EMERGENCY VEHICLE EASEMENT (DSP #2021-00012)

DROP-OFF/PICK-UP & RIDESHARE (4 SPACES)

PROP. BIKE RACK (TYP.)

PROP. BIKE LANE

EX. 10" WATERLINE EASEMENT

EX. 12" WATERLINE "A" (AW)

EX. FLUSH CSCG-1 (COPING)

CSCG-1

PROP. BLDG ABOVE

PROP. FIRE PROP. DOM.

PROP. 6" SAN. LAT.

S 21°51'22" E 298.33'

S21°51'22"E 13.00'

S68°08'38"W 172.00'

S68°08'38"W 40.00'

TOTAL PAVILION 1 PERIMETER = 351 FT.

BUILDING PERIMETER COVERED = 79 FT. (22.51%) FROM TUCKER ST.
BUILDING PERIMETER COVERAGE =83 FT. (23.65%) FROM WESTEND BLVD
BUILDING PERIMETER COVERED = 101 FT. (28.77%) FROM BLOCK E ACCESS ROAD

TOTAL PAVILION 1COVERAGE = 263 FT. (74.93%)

GROUP CLASSIFICATION: A-2

TOTAL PAVILION 2 PERIMETER = 249 FT.

BUILDING PERIMETER COVERED = 68 FT. (27.31%) FROM ALEX WAY
BUILDING PERIMETER COVERAGE =48 FT. (19.28%) FROM WESTEND BLVD
BUILDING PERIMETER COVERED = 61 FT. (24.50%) FROM BLOCK G ACCESS ROAD

TOTAL PAVILION 2 COVERAGE = 177 FT. (71.09%)

GROUP CLASSIFICATION: B & S-2

SCALE: 1"=20'
0 10' 20' 40'

LEGEND
FIRE SERVICE ACCESS

APPROVED
SPECIAL USE PERMIT NO. _____
DEPARTMENT OF PLANNING & ZONING
DIRECTOR DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
DIRECTOR DATE
CHAIRMAN, PLANNING COMMISSION DATE
DATE RECORDED _____
INSTRUMENT NO. DEED BOOK NO. PAGE NO.

No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
02-11-2022
02-09-2023
03-17-2023
05-26-2023

Urban Ltd.
4200 D TECHNOLOGY CT.
CHANTILLY, VA. 20151
TEL. 703.642.2306
FAX 703.378.7888
www.urban-ltd.com

urban
Planners+Engineers+Landscape Architects+Land Surveyors

COMMONWEALTH OF VIRGINIA
CLAYTON C. TOCK
Lic. No. 038790
PROFESSIONAL ENGINEER
05/26/2023

FIRE SERVICE PLAN
LANDMARK MALL REDEVELOPMENT
PRELIMINARY SITE PLAN - PARKS
CITY OF ALEXANDRIA, VIRGINIA
DATE: NOV. 2022
SCALE: 1"=20' C.I.=N/A

SHEET 39 OF 47

FILE No. DSUP-13089

Urban, Ltd. - J:\JOBS\Landmarkmall\DSUP\block-parks\preliminary sp\13089-03-FIRE SERVICE.dwg [01] May 25, 2023 - 2:08pm yelasri

SEE SHEET 42

SEE SHEET 41

N 6984307
E 1187735

N 6983872
E 1187926

N 6982667
E 1187373

LANDMARK MALL

sears

SCALE: 1"=100'
0 50' 100' 200'

LEGEND

- EXISTING TREE
- CRITICAL ROOT ZONE
- TRUNK LOCATION
- TREE NUMBER
- TREE TO BE REMOVED (WITHIN LOD)
- TREE TO BE REMOVED (POOR CONDITION / OTHER)
- TREE PRESERVATION AREA
- LIMITS OF DESTRUCTION
- SUPERSILT FENCE / TREE PROTECTION FENCE
- APPLICATION BOUNDARY

VA. STATE GRID NORTH
NAD 1983 (NSRS) 2011

This Plan Prepared or Approved by:
John Lightle, ISA Certified Arborist
MA-5174A

No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
02-11-2022
12-09-2022
03-17-2023
05-26-2023

Urban, Ltd.
4200 TECHNOLOGY CT.
CHANTILLY, VA. 20151
TEL 703.642.2396
FAX 703.378.7888
www.urban-ltd.com
Planners+Engineers+Landscape Architects+Land Surveyors

COMMONWEALTH OF VIRGINIA
John Lightle
Lic. No. 1957
05/26/2023
LANDSCAPE ARCHITECT

OVERALL TREE PRESERVATION PLAN
LANDMARK MALL REDEVELOPMENT
PRELIMINARY SITE PLAN - PARKS
CITY OF ALEXANDRIA, VIRGINIA

DATE: NOV., 2022
SCALE: 1"=20' C.I.= 2'

APPROVED
DEVELOPMENT SITE PLAN NO. _____
DEPARTMENT OF PLANNING & ZONING
DIRECTOR _____ DATE _____
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
DIRECTOR _____ DATE _____
CHAIRMAN, PLANNING COMMISSION _____ DATE _____
DATE RECORDED _____
INSTRUMENT NO. _____ DEED BOOK NO. _____ PAGE NO. _____

SHEET 40 OF 47

FILE No. DSUP-13089

Urban, Ltd. - J:\JOBS\Landmarkmall\DSUP\block-parks\preliminary sp\Landscape Arch\Tree Inventory Update\13078-17-EAST SIDE TREE INVENTORY.dwg [40-OVERALL] May 25, 2023 - 2:08pm ysilvasi

LEGEND

- EXISTING TREE
- CRITICAL ROOT ZONE
- TRUNK LOCATION
- TREE NUMBER
- TREE TO BE REMOVED (WITHIN LOD)
- TREE TO BE REMOVED (POOR CONDITION / OTHER)
- TREE PRESERVATION AREA
- LIMITS OF DESTRUCTION
- SUPERSILT FENCE / TREE PROTECTION FENCE
- APPLICATION BOUNDARY

This Plan Prepared or Approved by:
John Lightle, ISA Certified Arborist
MA-5174A

TREE PRESERVATION AREA 5: 954SF.

TREE PRESERVATION AREA 8: 1,661 SF.

TREE PRESERVATION AREA 7: 3,945 SF.

TREE PRESERVATION AREA 6: 965 SF.

TREE PRESERVATION AREA 4: 210 SF.

NORTH VAN DORN ST.
VARIABLE WIDTH R/W
PUBLIC STREET

LANDMARK ST. (PRIVATE)
POSTED SPEED= 25 MPH

EX. ROW

PROP. PUBLIC ACCESS EASEMENT (GRANTED WITH THIS SUSUP)

EX. PUBLIC ACCESS EASEMENT (DOC # 2021-0002)

EX. EMERGENCY VEHICLE EASEMENT (DOC # 2021-0002)

EX. WATERLINE EASEMENT

ARLINGTON FOREST SERVICE CENTER

MATCHLINE SEE SHEET 37B

SCALE: 1"=20'
0 10' 20' 40'

VCS 1983 NORTH

APPROVED
DEVELOPMENT SITE PLAN NO. _____
DEPARTMENT OF PLANNING & ZONING
DIRECTOR _____ DATE _____
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
DIRECTOR _____ DATE _____
CHAIRMAN, PLANNING COMMISSION _____ DATE _____
DATE RECORDED _____
INSTRUMENT NO. _____ DEED BOOK NO. _____ PAGE NO. _____

No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
02-11-2022
12-09-2022
03-17-2023
05-26-2023

Urban, Ltd.
Architecture Technology Ct.
Chantilly, VA 20151
TEL 703.642.2306
FAX 703.378.7888
www.urban-ltd.com
Planners • Engineers • Landscape Architects • Land Surveyors

COMMONWEALTH OF VIRGINIA
John Lightle
Lic. No. 1957
09/29/2022
LANDSCAPE ARCHITECT

TREE PRESERVATION PLAN
LANDMARK MALL REDEVELOPMENT
PRELIMINARY SITE PLAN - PARKS
CITY OF ALEXANDRIA, VIRGINIA
DATE: NOV. 2022
SCALE: 1"=20' C.I.=2'

SHEET 41 OF 47
FILE No. DSUP-13089

Urban, Ltd. – J:\JOBS\landmarkmall\DSUP\block-parks\preliminary sp\Landscape Arch\Tree Inventory Update\13078-17-EAST SIDE TREE INVENTORY.dwg, [41 TREE PRES] May 25, 2023 – 2:08pm, yelsori

LEGEND

- EXISTING TREE CRITICAL ROOT ZONE
- TRUNK LOCATION
- TREE NUMBER
- TREE TO BE REMOVED (WITHIN LOD)
- TREE TO BE REMOVED (POOR CONDITION / OTHER)
- TREE PRESERVATION AREA
- LIMITS OF DESTRUCTION
- SUPERSILT FENCE / TREE PROTECTION FENCE
- APPLICATION BOUNDARY

This Plan Prepared or Approved by:
John Lightle, ISA Certified Arborist
MA-5174A

TREE PRESERVATION AREA 5: 954SF.

TREE PRESERVATION AREA 2: 888 SF.

TREE PRESERVATION AREA 3: 9,984 SF.

TREE PRESERVATION AREA 1: 17,034 SF.

POSTED SPEED= 25 MPH

LOT 800

BLOCK B

NORTH VAN DORN ST.
VARIABLE WIDTH R/W
PUBLIC STREET

EX. ROW

MATCHLINE
SEE SHEET 37A

SCALE: 1"=20'
0 10' 20' 40'

VCS 1983 NORTH

APPROVED
DEVELOPMENT SITE PLAN NO. _____
DEPARTMENT OF PLANNING & ZONING
DIRECTOR DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
DIRECTOR DATE
CHAIRMAN, PLANNING COMMISSION DATE
DATE RECORDED _____
INSTRUMENT NO. DEED BOOK NO. PAGE NO.

No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
02-11-2022
12-09-2022
03-17-2023
05-26-2023

Urban, Ltd.
ANNANDALE TECHNOLOGY CT.
CHANTILLY, VA 20151
TEL. 703.642-2306
FAX 703.378.7888
www.urban-ltd.com
Planners+Engineers+Landscape Architects+Land Surveyors

COMMONWEALTH OF VIRGINIA
John Lightle
Lic. No. 1957
05/26/2023
LANDSCAPE ARCHITECT

TREE PRESERVATION PLAN
LANDMARK MALL REDEVELOPMENT
PRELIMINARY SITE PLAN - PARKS
CITY OF ALEXANDRIA, VIRGINIA
SCALE: 1"=20' C.I.= 2' DATE: NOV. 2022

SHEET 42 OF 47

FILE No. DSUP-13089

Urban, Ltd. – J:\JOBS\landmarkmall\DSUP\block-parks\preliminary.sp\Landscape Arch\Tree Inventory Update\13078-17-EAST SIDE TREE INVENTORY.dwg [42 TREE PRES] May 25, 2023 - 2:08pm wellard

TREE INVENTORY & CONDITION ANALYSIS

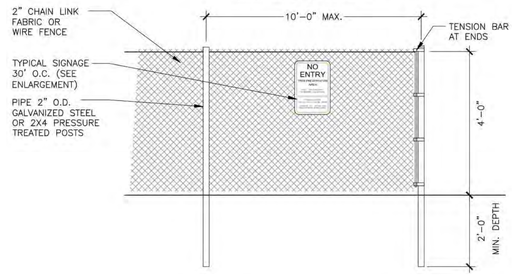
TREE#	BOTANICAL NAME	COMMON NAME	TRUNK SIZE	CRZ SIZE	TRUNK ELEVATION	CRZ ELEVATION	COMMENTS	REMOVE POOR	Remove / Preserve
			DBH (in.)	R (ft.)	Elevation (ft.)	Elevation (ft.)			
2241	*Ailanthus altissima*	Tree of Heaven	7"	8'	177.00	176.50		62.50	PRESERVE
2242	*Ailanthus altissima*	Tree of Heaven	6"	8'	179.00	178.50	Crooked	43.75	REMOVE-POOR COND.
2243	*Ailanthus altissima*	Tree of Heaven	6"	8'	181.50	181.00		62.50	PRESERVE
2244	*Robinia pseudoacacia*	Black Locust	9"	9'	183.75	183.25	Leaning	53.13	PRESERVE
2245	*Robinia pseudoacacia*	Black Locust	10"	10'	183.75	183.25		59.38	PRESERVE
2246	*Ailanthus altissima*	Tree of Heaven	12"	12'	185.50	185.00		62.50	PRESERVE
2247	*Robinia pseudoacacia*	Black Locust	10"	10'	185.50	185.00	Dead	0.00	REMOVE-WITHIN LOD
2248	*Ailanthus altissima*	Tree of Heaven	11"	11'	181.50	181.00		59.38	PRESERVE
2249	*Robinia pseudoacacia*	Black Locust	20"	20'	180.00	179.50	Co-dominant, Poor	31.25	REMOVE-POOR COND.
2250	*Prunus serotina*	Black Cherry	6"	8'	181.25	180.75		62.50	PRESERVE
2251	*Ailanthus altissima*	Tree of Heaven	7"	8'	176.50	176.00		62.50	PRESERVE
2252	*Quercus rubra*	Red Oak	26"	28'	174.75	174.25	Co-dominant	43.75	REMOVE-POOR COND.
2253	*Quercus alba*	White Oak	16"	16'	174.75	174.25	Co-dominant; Poor, Leaning	28.13	REMOVE-POOR COND.
2254	*Quercus rubra*	Red Oak	28"	28'	181.50	181.00	Vines	62.50	PRESERVE
2255	*Quercus rubra*	Red Oak	18"	18'	179.75	179.25	Vines	59.38	PRESERVE
2256	*Robinia pseudoacacia*	Black Locust	9"	9'	175.75	175.25	Vines	62.50	PRESERVE
2257	*Robinia pseudoacacia*	Black Locust	12"	12'	173.75	173.25	Vines	71.88	PRESERVE
2258	*Robinia pseudoacacia*	Black Locust	8"	8'	181.75	181.25		59.38	PRESERVE
2259	*Robinia pseudoacacia*	Black Locust	11"	11'	182.00	181.50		62.50	PRESERVE
2259A	*Quercus rubra*	Red Oak	6"	8'	175.75	175.25	AFA	53.13	PRESERVE
2260	*Quercus rubra*	Red Oak	16"	16'	181.00	180.50		62.50	PRESERVE
2261	*Quercus rubra*	Red Oak	12"	12'	178.50	178.00	Leaning	43.75	REMOVE-WITHIN LOD
2262	*Quercus rubra*	Red Oak	16"	16'	179.00	178.50	Dead	0.00	REMOVE-WITHIN LOD
2263	*Quercus rubra*	Red Oak	10"	10'	181.00	180.50	Dead	0.00	REMOVE-WITHIN LOD
2264	*Robinia pseudoacacia*	Black Locust	12"	12'	169.00	168.50		62.50	REMOVE-WITHIN LOD
2264A	*Ailanthus altissima*	Tree of Heaven	12"	12'	172.75	172.25	Co-dominant	65.63	REMOVE-WITHIN LOD
2264B	*Ailanthus altissima*	Tree of Heaven	8"	8'	183.75	183.25	AFA	53.13	REMOVE-WITHIN LOD
2265	*Quercus rubra*	Red Oak	16"	16'	171.75	171.25		53.13	REMOVE-WITHIN LOD
2265A	*Ailanthus altissima*	Tree of Heaven	6"	8'	169.00	168.50		62.50	REMOVE-WITHIN LOD
2266	*Robinia pseudoacacia*	Black Locust	10"	10'	173.50	173.00		56.25	REMOVE-WITHIN LOD
2267	*Ailanthus altissima*	Tree of Heaven	11"	11'	175.00	174.50	Dead	0.00	REMOVE-WITHIN LOD
2267A	*Prunus serotina*	Black Cherry	10"	10'	173.00	172.50	Dead	0.00	REMOVE-WITHIN LOD
2268	*Ulmus americana*	American Elm	8"	8'	163.00	162.50		56.25	REMOVE-WITHIN LOD
2269	*Prunus serotina*	Black Cherry	7"	8'	163.50	163.00	Lost Limbs; Poor	31.25	REMOVE-WITHIN LOD
2270	*Ailanthus altissima*	Tree of Heaven	12"	12'	179.50	179.00		56.25	REMOVE-WITHIN LOD
2271	*Robinia pseudoacacia*	Black Locust	16"	16'	171.00	170.50	Dead	0.00	REMOVE-WITHIN LOD
2272	*Unknown*	Unknown	14"	14'	167.00	166.50	Dead	0.00	REMOVE-WITHIN LOD
2273	*Robinia pseudoacacia*	Black Locust	22"	22'	164.50	164.00	Dead	0.00	REMOVE-WITHIN LOD
2274	*Prunus serotina*	Black Cherry	7"	8'	166.50	166.00		53.13	REMOVE-WITHIN LOD
2275	*Ailanthus altissima*	Tree of Heaven	7"	8'	166.00	165.50	Dead	0.00	REMOVE-POOR COND.
2276	*Ailanthus altissima*	Tree of Heaven	8"	8'	162.50	162.00	Dead	0.00	REMOVE-POOR COND.
2277	*Prunus serotina*	Black Cherry	7"	8'	165.00	164.50	Leaning	62.50	PRESERVE
2278	*Prunus serotina*	Black Cherry	15"	15'	162.50	162.00	Co-Dominant	53.13	PRESERVE
2279	*Unknown*	Unknown	17"	17'	173.00	172.50	Multi-stem, Dead	0.00	REMOVE-WITHIN LOD
2280	*Robinia pseudoacacia*	Black Locust	20"	20'	174.00	173.50	Poor	31.25	REMOVE-POOR COND.
2280A	*Unknown*	Unknown	6"	8'	185.00	184.50		62.50	REMOVE-WITHIN LOD
2280B	*Ailanthus altissima*	Tree of Heaven	8"	8'	185.00	184.50	Co-Dominant	62.50	REMOVE-WITHIN LOD
2281	*Prunus serotina*	Black Cherry	12"	12'	170.00	169.50	Leaning	53.13	REMOVE-WITHIN LOD
2282	*Ailanthus altissima*	Tree of Heaven	11"	11'	172.00	171.50		62.50	REMOVE-WITHIN LOD
2283	*Ailanthus altissima*	Tree of Heaven	8"	8'	173.00	172.50		53.13	REMOVE-WITHIN LOD
2284	*Prunus serotina*	Black Cherry	7"	8'	163.50	163.00		62.50	PRESERVE
2285	*Robinia pseudoacacia*	Black Locust	11"	11'	163.50	163.00	Dead	0.00	REMOVE-POOR COND.
2285A	*Quercus rubra*	Red Oak	14"	14'	188.50	188.00	AFA; Vines	43.75	PRESERVE
2286	*Ailanthus altissima*	Tree of Heaven	6"	8'	185.50	185.00	Poor	31.25	REMOVE-WITHIN LOD
2287	*Ailanthus altissima*	Tree of Heaven	9"	9'	184.00	183.50	Poor	25.00	REMOVE-WITHIN LOD
2288	*Robinia pseudoacacia*	Black Locust	22"	22'	180.00	179.50		62.50	REMOVE-WITHIN LOD
2289	*Prunus serotina*	Black Cherry	26"	26'	180.00	179.50		62.50	REMOVE-WITHIN LOD
2290	*Ailanthus altissima*	Tree of Heaven	24"	24'	178.00	177.50		53.13	REMOVE-WITHIN LOD
2291	*Unknown*	Unknown	16"	16'	170.00	169.50	Dead	0.00	REMOVE-WITHIN LOD
2292	*Ailanthus altissima*	Tree of Heaven	8"	8'	175.50	175.00	Fallen	0.00	REMOVE-WITHIN LOD
2293	*Robinia pseudoacacia*	Black Locust	7"	8'	163.00	162.50		62.50	PRESERVE
2294	*Ailanthus altissima*	Tree of Heaven	8"	8'	175.50	175.00		62.50	PRESERVE
2294A	*Robinia pseudoacacia*	Black Locust	11"	11'	182.00	181.50	Leaning; vines	53.13	REMOVE-WITHIN LOD
2295	*Robinia pseudoacacia*	Black Locust	24"	24'	165.00	164.50	Co-Dominant, Poor	31.25	REMOVE-POOR COND.
2295A	*Ailanthus altissima*	Tree of Heaven	8"	8'	162.00	161.50	Leaning	53.13	PRESERVE
2296	*Prunus serotina*	Black Cherry	10"	10'	160.50	160.00	Leaning; Poor Condition	40.63	REMOVE-POOR COND.
2296A	*Ailanthus altissima*	Tree of Heaven	7"	8'	167.50	167.00	Crooked; Poor Condition	43.75	REMOVE-WITHIN LOD
2297	*Prunus serotina*	Black Cherry	13"	13'	173.50	173.00	Leaning	46.88	REMOVE-WITHIN LOD
2297A	*Ailanthus altissima*	Tree of Heaven	9"	9'	177.00	176.50	Crooked	50.00	REMOVE-WITHIN LOD
2298	*Ailanthus altissima*	Tree of Heaven	8"	8'	174.00	173.50		53.13	REMOVE-WITHIN LOD
2298A	*Unknown*	Unknown	12"	12'	172.50	172.00	Dead	0.00	REMOVE-WITHIN LOD
2298B	*Prunus serotina*	Black Cherry	9"	9'	185.00	184.50		65.63	REMOVE-WITHIN LOD
2298C	*Prunus serotina*	Black Cherry	7"	8'	183.00	182.50		68.75	REMOVE-WITHIN LOD
2298D	*Unknown*	Unknown	7"	8'	183.00	182.50	Dead	0.00	REMOVE-POOR COND.
2299	*Ailanthus altissima*	Tree of Heaven	8"	8'	161.00	160.50		59.38	PRESERVE
2300	*Ulmus americana*	American Elm	14"	14'	161.00	160.50	Vines	53.13	PRESERVE
2300A	*Ulmus americana*	American Elm	16"	16'	163.00	162.50	Vines	62.50	PRESERVE
2301	*Ailanthus altissima*	Tree of Heaven	9"	9'	166.00	165.50	Up Rooting	62.50	REMOVE-WITHIN LOD
2301A	*Ailanthus altissima*	Tree of Heaven	24"	24'	170.00	169.50	Co-Dominant	53.13	REMOVE-WITHIN LOD
2301B	*Ailanthus altissima*	Tree of Heaven	6"	8'	171.00	170.50		65.63	REMOVE-WITHIN LOD
2301C	*Prunus serotina*	Black Cherry	10"	10'	183.00	182.50	Co-Dominant	68.75	REMOVE-WITHIN LOD
2301D	*Ulmus americana*	American Elm	28"	28'	184.00	183.50	Multistem	53.13	REMOVE-WITHIN LOD
2302	*Robinia pseudoacacia*	Black Locust	12"	12'	162.00	161.50		62.50	PRESERVE
2303	*Ailanthus altissima*	Tree of Heaven	12"	12'	157.00	156.50		62.50	PRESERVE
2304	*Ulmus americana*	American Elm	10"	10'	156.00	155.50		53.13	PRESERVE
2304A	*Prunus serotina*	Black Cherry	8"	8'	165.00	164.50		59.38	PRESERVE
2305	*Unknown*	Unknown	9"	9'	166.00	165.50	Dead; fallen over	0.00	REMOVE-POOR COND.
2305A	*Ailanthus altissima*	Tree of Heaven	12"	12'	164.00	163.50	Dead	0.00	REMOVE-POOR COND.
2305B	*Ailanthus altissima*	Tree of Heaven	18"	18'	163.00	162.50	Dead	0.00	REMOVE-POOR COND.
2305C	*Ailanthus altissima*	Tree of Heaven	6"	8'	165.00	164.50	Dead	0.00	REMOVE-POOR COND.
2305D	*Prunus serotina*	Black Cherry	15"	15'	177.00	176.50	Poor Condition	25.00	REMOVE-WITHIN LOD
2306	*Ailanthus altissima*	Tree of Heaven	6"	8'	183.00	182.50		53.13	REMOVE-WITHIN LOD
2306A	*Robinia pseudoacacia*	Black Locust	12"	12'	179.00	178.50	Heavy Leaning	28.13	REMOVE-WITHIN LOD
2306B	*Prunus serotina*	Black Cherry	8"	8'	177.00	176.50		59.38	REMOVE-WITHIN LOD
2306C	*Ailanthus altissima*	Tree of Heaven	8"	8'	185.00	184.50		53.13	REMOVE-WITHIN LOD
2306D	*Ulmus americana*	American Elm	6"	8'	185.00	184.50		62.50	REMOVE-WITHIN LOD
2306E	*Prunus serotina*	Black Cherry	9"	9'	181.00	180.50	Co-Dominant; Leaning	62.50	REMOVE-WITHIN LOD
2306F	*Carya glabra*	Pignut Hickory	8"	8'	174.00	173.50		53.13	PRESERVE
2307	*Ailanthus altissima*	Tree of Heaven	12"	12'	159.00	158.50	Vines	59.38	PRESERVE
2307A	*Ailanthus altissima*	Tree of Heaven	6"	8'	159.00	158.50	Dead; Vines	0.00	REMOVE-POOR COND.
2307B	*Ailanthus altissima*	Tree of Heaven	14"	14'	156.00	155.50	Vines	65.63	PRESERVE
2307C	*Ailanthus altissima*	Tree of Heaven	8"	8'	157.00	156.50	Vines	68.75	PRESERVE
2308	*Juniperus virginiana*	Eastern Red Cedar	9"	9'	155.00	154.50	Vines	59.38	PRESERVE
2308A	*Juniperus virginiana*	Eastern Red Cedar	14"	14'	152.00	151.50		65.63	PRESERVE
2309	*Ailanthus altissima*	Tree of Heaven	12"	12'	156.00	155.50		68.75	PRESERVE
2309A	*Ulmus americana*	American Elm	14"	14'	151.00	150.50		53.13	PRESERVE
2310	*Ailanthus altissima*	Tree of Heaven	7"	8'	182.00	181.50		62.50	REMOVE-WITHIN LOD
2310A	*Ailanthus altissima*	Tree of Heaven	7"	8'	181.00	180.50		62.50	REMOVE-WITHIN LOD
2310B	*Ailanthus altissima*	Tree of Heaven	7"	8'	185.00	184.50		53.13	REMOVE-WITHIN LOD
2310C	*Ailanthus altissima*	Tree of Heaven	7"	8'	186.00	185.50		53.13	REMOVE-WITHIN LOD
2310D	*Ailanthus altissima*	Tree of Heaven	8"	8'	188.00	187.50		62.50	REMOVE-WITHIN LOD
2311	*Ailanthus altissima*	Tree of Heaven	28"	28'	175.00	174.50		62.50	PRESERVE
2311A	*Robinia pseudoacacia*	Black Locust	28"	28'	176.00	175.50		53.13	REMOVE-WITHIN LOD
2311B	*Ailanthus altissima*	Tree of Heaven	9"	9'	174.00	173.50	Poor	28.13	REMOVE-POOR COND.
2311C	*Ailanthus altissima*	Tree of Heaven	12"	12'	173.00	172.50	Dead	0.00	REMOVE-POOR COND.
2311D	*Juniperus virginiana*	Eastern Red Cedar	7"	8'	182.00	181.50		65.63	REMOVE-WITHIN LOD
2311E	*Ailanthus altissima*	Tree of Heaven	8"	8'	187.00	186.50		68.75	REMOVE-WITHIN LOD
2311F	*Ailanthus altissima*	Tree of Heaven	9"	9'	170.00	169.50		53.13	PRESERVE
2312	*Ulmus americana*	American Elm	14"	14'	178.00	177.50	Vines	62.50	REMOVE-WITHIN LOD
2312A	*Quercus rubra*	Red Oak	15"	15'	180.00	179.50	Vines	62.50	REMOVE-WITHIN LOD
2313	*Robinia pseudoacacia*	Black Locust	12"	12'	189.00	188.50		53.13	REMOVE-WITHIN LOD
2313A	*Robinia pseudoacacia*	Black Locust	9"	9'	187.00	186.50		59.38	REMOVE-WITHIN LOD
2313B	*Ailanthus altissima*	Tree of Heaven	11"	11'	185.00	184.50		53.13	REMOVE-WITHIN LOD
2313C	*Ailanthus altissima*	Tree of Heaven	6"	8'	186.00	185.50		62.50	REMOVE-WITHIN LOD
2313D	*Ailanthus altissima*	Tree of Heaven	6"	8'	189.00	188.50		62.50	REMOVE-WITHIN LOD
2314	*Ailanthus altissima*	Tree of Heaven	8"	8'	178.00	177.50		53.13	REMOVE-WITHIN LOD
2314A	*Unknown*	Unknown	6"	8'	177.00	176.50	Dead	0.00	REMOVE-POOR COND.
2314B	*Ailanthus altissima*	Tree of Heaven	8"	8'	176.00	175.50		65.63	PRESERVE
2314C	*Ailanthus altissima*	Tree of Heaven	9"	9'	174.00	173.50		68.75	PRESERVE
2315	*Ailanthus altissima*	Tree of Heaven	30"	45'	167.00	166.50	Vines; multistem	65.63	PRESERVE

TREE INVENTORY & CONDITION ANALYSIS

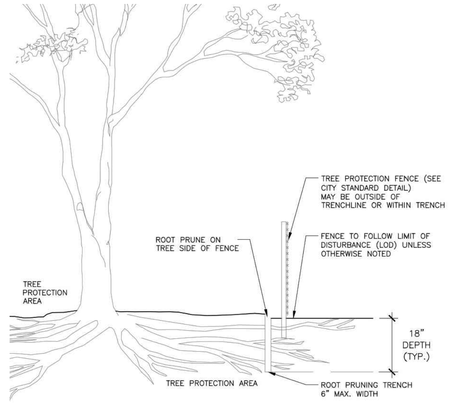
TREE#	BOTANICAL NAME	COMMON NAME	TRUNK SIZE	CRZ SIZE	TRUNK ELEVATION	CRZ ELEVATION	COMMENTS	REMOVE POOR	Remove / Preserve
			DBH (in.)	R (ft.)	Elevation (ft.)	Elevation (ft.)			
2315A	*Ailanthus altissima*	Tree of Heaven	11"	11'	165.00	164.50	Dead	0.00	REMOVE-POOR COND.
2315B	*Ailanthus altissima*	Tree of Heaven	24"	24'	164.00	163.50	Dead	0.00	REMOVE-POOR COND.
2315C	*Ailanthus altissima*	Tree of Heaven	6"	8'	168.00	167.50		62.50	PRESERVE
2316	*Ailanthus altissima*	Tree of Heaven	12"	12'	160.00	159.50	Poor Condition	40.00	REMOVE-POOR COND.
2317	*Ulmus americana*	American Elm	8"	8'	162.00	161.50		53.13	PRESERVE
2318	*Ailanthus altissima*	Tree of Heaven	8"	8'	148.00	147.50		59.38	PRESERVE
2319	*Ulmus americana*	American Elm	12"	12'	149.00	148.50	Leaning; Poor Condition	28.13	REMOVE-POOR COND.
2320	*Ailanthus altissima*	Tree of Heaven	11"	11'	158.00	157.50	Poor Condition	25.00	REMOVE-POOR COND.
2320A	*Ailanthus altissima*	Tree of Heaven	9"	9'	159.00	158.50	Poor Condition	25.00	REMOVE-POOR COND.
2321	*Ailanthus altissima*	Tree of Heaven	6"	8'	183.00	182.50		53.13	REMOVE-WITHIN LOD
2321A	*Juniperus virginiana*	Eastern Red Cedar	9"	9'	183.00	182.50		62.50	REMOVE-WITHIN LOD
2321B	*Ailanthus altissima*	Tree of Heaven	11"	11'	187.00	186.50		62.50	REMOVE-WITHIN LOD
2321C	*Robinia pseudoacacia*	Black Locust	12"	12'	185.00	184.50		53.13	REMOVE-WITHIN LOD
2322	*Ailanthus altissima*	Tree of Heaven	21"	21'	191.00	190.50	Poor Condition, Co-Dominant	28.13	REMOVE-WITHIN LOD
2323	*Ailanthus altissima*	Tree of Heaven	8"	8'	190.00	189.50		65.63	REMOVE-WITHIN LOD
2324	*Robinia pseudoacacia*	Black Locust	11"	11'	194.00	193.50		68.75	REMOVE-WITHIN LOD
2325	*Robinia pseudoacacia*	Black Locust	12"	12'	190.00	189.50	Poor Condition; dying	20.00	REMOVE-WITHIN LOD
2325A	*Ailanthus altissima*	Tree of Heaven	8"	8'	190.00	189.50		59.38	REMOVE-WITHIN LOD
2325B	*Robinia pseudoacacia*	Black Locust	9"	9'	187.00	186.50	Dead	0.00	REMOVE-WITHIN LOD
2326	*Prunus serotina*	Black Cherry	10"	10'	181.00	180.50		59.38	PRESERVE
2328A	*Robinia pseudoacacia*	Black Locust	8"	8'	182.00	181.50	Dead	0.00	REMOVE-POOR COND.
2328B	*Robinia pseudoacacia*	Black Locust	16"	16'	182.00	181.50		53.13	PRESERVE
2326C	*Robinia pseudoacacia*	Black Locust	8"	8'	178.00	177.50		62.50	PRESERVE
2326D	*Robinia pseudoacacia*	Black Locust	8"	8'	174.00	173.50		62.50	PRESERVE
2326E	*Robinia pseudoacacia*	Black Locust	9"	9'	172.00	171.50		53.13	PRESERVE
2327	*Acer rubrum*	Red Maple	55"	83'	152.00	151.50	Co-Dominant; 1/2 Leaning	50.00	PRESERVE
2327A	*Robinia pseudoacacia*	Black Locust	12"	12'	165.00	164.50		53.13	REMOVE-WITHIN LOD
2327B	*Robinia pseudoacacia*	Black Locust	8"	8'	160.00	159.50	Dead	0.00	REMOVE-WITHIN LOD
2327C	*Robinia pseudoacacia*	Black Locust	7"	8'	167.00	166.50		65.63	REMOVE-WITHIN LOD
2328	*Ailanthus altissima*	Tree of Heaven	10"	10'	143.00	142.50	Vines	68.75	REMOVE-WITHIN LOD
2328A	*Ailanthus altissima*	Tree of Heaven	27"	27'	142.00	141.50	Co-Dominant	53.13	PRESERVE
2328B	*Ailanthus altissima*	Tree of Heaven	9"	9'	142.00	141.50		62.50	PRESERVE
2328C	*Ailanthus altissima*	Tree of Heaven	8"	8'	143.00	142.50		62.50	PRESERVE
2328D	*Ailanthus altissima*	Tree of Heaven	10"	10'	146.00	145.50		53.13	REMOVE-WITHIN LOD
2328E	*Ailanthus altissima*	Tree of Heaven	9"	9'	146.00	145.50		65.63	PRESERVE
2328F	*Ailanthus altissima*	Tree of Heaven	7"	8'	144.00	143.50		68.75	PRESERVE
2329	*Ailanthus altissima*	Tree of Heaven	48"	72'	147.00	146.50	Multistem	59.38	PRESERVE
2329A	*Ailanthus altissima*	Tree of Heaven	8"	8'	149.00	148.50		53.13	REMOVE-WITHIN LOD
2329B	*Ailanthus altissima*	Tree of Heaven	7"	8'	152.00	151.50		62.50	REMOVE-WITHIN LOD
2329C	*Ulmus americana*	American Elm	7"	8'	155.00	154.50	Vines	62.50	REMOVE-WITHIN LOD
2329D	*Ailanthus altissima*	Tree of Heaven	9"	9'	153.00	152.50		53.13	REMOVE-WITHIN LOD
2330	*Ulmus americana*	American Elm	6"	8'	159.00	158.50		59.38	PRESERVE
2330A	*Unknown*	Unknown	14"	14'	158.00	157.50	Dead	0.00	REMOVE-WITHIN LOD
2330B	*Prunus serotina*	Black Cherry	6"	8'	162.00	161.50	Vines	59.38	PRESERVE
2330C	*Robinia pseudoacacia*	Black Locust	8"	8'	166.00	165.50	Dead / Broken	0.00	REMOVE-POOR COND.
2330D	*Robinia pseudoacacia*	Black Locust	10"	10'	168.00	167.50	Dead	0.00	REMOVE-POOR COND.
2331A	*Robinia pseudoacacia*	Black Locust	12"	12'	173.00	172.50	Dead	0.00	REMOVE-POOR COND.
2331A	*Prunus serotina*	Black Cherry	10"	10'	173.00	172.50		59.38	REMOVE-WITHIN LOD
2331C	*Robinia pseudoacacia*	Black Locust	8"	8'	176.00	175.50	Dead	0.00	REMOVE-WITHIN LOD
2331D	*Robinia pseudoacacia*	Black Locust	18"	18'	178.00	177.50	Poor Condition	28.13	REMOVE-WITHIN LOD
2332	*Robinia pseudoacacia*	Black Locust	12"	12'	191.00	190.50		59.38	REMOVE-WITHIN LOD
2332A	*Ailanthus altissima*	Tree of Heaven	12"	12'	190.00	189.50	Co-Dominant	65.63	REMOVE-WITHIN LOD
2332B	*Robinia pseudoacacia*	Black Locust	10"	10'	191.00	190.50	Broken; dying	10.00	REMOVE-WITHIN LOD
2332C	*Ailanthus altissima*	Tree of Heaven	8"	8'	188.00	187.50		68.75	REMOVE-WITHIN LOD
2333	*Ailanthus altissima*	Tree of Heaven	19"	19'	191.00	190.50	Co-Dominant	53.13	REMOVE-WITHIN LOD
2334	*Ailanthus altissima*	Tree of Heaven	10"	10'	191.00	190.50		62.50	REMOVE-WITHIN LOD
2335	*Robinia pseudoacacia*	Black Locust	26"	26'	189.00	188.50	Vines	62.50	REMOVE-WITHIN LOD
2336	*Ailanthus altissima*	Tree of Heaven	9"	9'	191.00	190.50		53.13	REMOVE-WITHIN LOD
2337	*Ailanthus altissima*	Tree of Heaven	19"	19'	191.00	190.50	Co-Dominant	65.63	REMOVE-WITHIN LOD
2337A	*Ailanthus altissima*	Tree of Heaven	9"	9'	191.00	190.50	Dead / broken	68.75	REMOVE-WITHIN LOD
2337B	*Robinia pseudoacacia*	Black Locust	7"	8'	191.00	190.50	Crooked	59.38	REMOVE-WITHIN LOD
2338	*Ailanthus altissima*	Tree of Heaven	14"	14'	185.00	184.50		53.13	REMOVE-WITHIN LOD
2338A	*Ailanthus altissima*	Tree of Heaven	12"	12'	187.00	186.50		62.50	REMOVE-WITHIN LOD
2338B	*Ailanthus altissima*	Tree of Heaven	10"	10'	186.00	185.50		62.50	REMOVE-WITHIN LOD
2339	*Quercus palustris*	Pin Oak	32"	48'	153.00	152.50	Broken	43.75	REMOVE-WITHIN LOD
2339A	*Ailanthus altissima*	Tree of Heaven	7"	8'	178.00	177.50		65.63	REMOVE-WITHIN LOD
2339B	*Ailanthus altissima*	Tree of Heaven	7"	8'	179.00	178.50		68.75	REMOVE-WITHIN LOD
2339C	*Robinia pseudoacacia*	Black Locust	13"	13'	175.00	174.50	Vines	40.63	REMOVE-POOR COND.
2340A	*Ailanthus altissima*	Tree of Heaven	10"	10'	157.00	156.50	Vines	46.88	PRESERVE
2341	*Quercus palustris*	Pin Oak	16"	16'	163.00	162.50		53.13	PRESERVE
2341A	*Quercus palustris*	Pin Oak	10"	10'	162.00	161.50		62.50	PRESERVE
2341B	*Quercus palustris*	Pin Oak	8"	8'	161.00	160.50	Dead / Cut down	0.00	REMOVE-POOR COND.
2341C	*Ulmus americana*	American Elm	7"	8'	167.00	166.50		53.13	PRESERVE
2341E	*Robinia pseudoacacia*	Black Locust	12"	12'	170.00	169.50	Dead	0.00	REMOVE-POOR COND.
2341F	*Ailanthus altissima*	Tree of Heaven	6"	8'	176.00	175.50		65.63	PRESERVE
2342	*Prunus serotina*	Black Cherry	10"	10'	164.00	163.50	Dead / Cut down	0.00	REMOVE-POOR COND.
2342A	*Ulmus americana*	American Elm	26"	26'	167.00	166.50	Co-Dominant	65.63	PRESERVE
2342B	*Ailanthus altissima*	Tree of Heaven	16"	16'	170.00	169.50	Co-Dominant; Vines	68.75	PRESERVE
2343	*Gleditsia triacanthus*	Honey Locust	14"	14'	190.00	189.50		53.13	REMOVE-WITHIN LOD
2343A	*Ailanthus altissima*	Tree of Heaven	6"	8'	191.00	190.50		62.50	REMOVE-WITHIN LOD
2343B	*Ailanthus altissima*	Tree of Heaven	16"	16'	190.00	189.50		62.50	REMOVE-WITHIN LOD
2343C	*Ailanthus altissima*	Tree of Heaven	10"	10'	189.00	188.50		53.13	REMOVE-WITHIN LOD
2343D	*Robinia pseudoacacia*	Black Locust	14"	14'	187.00	186.50		65.63	REMOVE-WITHIN LOD
2344	*Robinia pseudoacacia*	Black Locust	18"	18'	185.00	184.50	Vines	68.75	REMOVE-WITHIN LOD
2344A	*Ailanthus altissima*	Tree of Heaven	11"	11'	189.00	188.50	Crooked; Vines	59.38	REMOVE-WITHIN LOD
2345	*Ailanthus altissima*	Tree of Heaven	15"	15'	190.50	190.00	Co-Dominant	65.63	REMOVE-WITHIN LOD
2345A	*Ailanthus altissima*	Tree of Heaven	16"	16'	191.00	190.50	Co-Dominant	68.75	REMOVE-WITHIN LOD
2345B	*Ailanthus altissima*	Tree of Heaven	13"	13'	192.00	191.50	Co-Dominant	40.63	REMOVE-WITHIN LOD
2345C	*Ailanthus altissima*	Tree of Heaven	20"	20'	190.50	190.00	Dead	0.00	REMOVE-WITHIN LOD
2345D	*Robinia pseudoacacia*	Black Locust	6"	8'	191.00	190.50	Dead	0.00	REMOVE-WITHIN LOD
2346	*Ailanthus altissima*	Tree of Heaven	21"	21'	187.00	186.50	Dying	40.00	REMOVE-WITHIN LOD
2346A	*Robinia pseudoacacia*	Black Locust	6"	8'	186.00	185.50		62.50	REMOVE-WITHIN LOD
2347	*Ailanthus altissima*	Tree of Heaven	8"	8'	182.00	181.50		62.50	REMOVE-WITHIN LOD
2347A	*Ailanthus altissima*	Tree of Heaven	9"	9'	182.00	181.50	Vines	53.13	REMOVE-WITHIN LOD
2347B	*Prunus serotina*	Black Cherry	15"	15'	185.00	184.50	Co-Dominant; Vines	65.63	PRESERVE
2348	*Prunus serotina*	Black Cherry	11"	11'	175.00	174.50	Vines	68.75	PRESERVE
2348A	*Ailanthus altissima*	Tree of Heaven	15"	15'	175.00	174.50		65.63	PRESERVE
2349	*Prunus serotina*	Black Cherry	24"	24'	191.00	190.50	Vines, dying	40.00	REMOVE-WITHIN LOD
2349A	*Prunus serotina*	Black Cherry	8"	8'	187.00	186.50	Dead; Vines	0

NOTES

1. TREE PROTECTION DETAIL SHALL APPLY TO ALL TREES INCLUDING STREET TREES.
2. TREE PROTECTION FENCE SHALL BE INSTALLED PRIOR TO ANY SITE WORK, CLEARING OR DEMOLITION. CITY STAFF SHALL BE NOTIFIED 72 HOURS PRIOR TO INSTALLATION OR ANY OTHER TREE PRESERVATION MEASURE SPECIFIED IN PLANS AND SHALL APPROVE LAYOUT.
3. NO PERSONNEL, VEHICLES, EQUIPMENT, CONSTRUCTION MATERIALS OR DEBRIS ALLOWED IN TREE PROTECTION AREAS. REFER TO LANDSCAPE GUIDELINES FOR ADDITIONAL RESTRICTIONS.
4. REMOVE TREE PROTECTION FENCE ONLY WITH APPROVAL FROM CITY STAFF AFTER ALL SITE WORK HAS BEEN COMPLETED.
5. SIGN MATERIAL TO BE WEATHER RESISTANT.
6. FENCE FABRIC MAY ALSO BE 2X4 WELDED WIRE FABRIC MIN. 12.5 GAUGE LAYERED WITH ORANGE SNOW FENCE FOR VISIBILITY



1 TREE PROTECTION FENCE
NTS



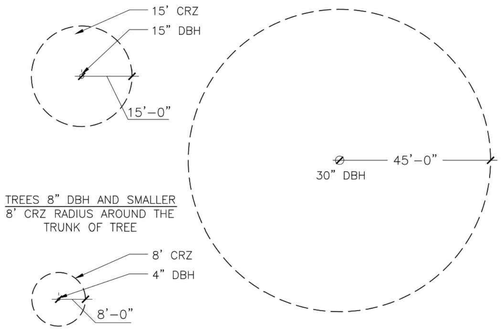
NOTES

1. ROOT PRUNING SHALL BE DONE WITH TRENCHER OR VIBRATORYPLOW TO DEPTH OF 18". ROOTS OVER 1.5" IN DIAMETER SHALL HAVE A CLEAN CUT MADE BY A CLEAN SAW ON THE SURFACE OF THE ROOT, WHICH IS STILL ATTACHED TO THE TREE. DO NOT BREAK OR CHOP. DO NOT PAINT THE CUT ROOT END. IF EXCAVATION IS FOR INSTALLATION OF UNDERGROUND UTILITIES, LEAVE THE ROOT INTACT AND THREAD THE LINES UNDERNEATH.
2. ROOT PRUNING SHALL TAKE PLACE PRIOR TO ANY CLEARING AND GRADING. EXACT LOCATION OF TREE PROTECTION AREAS SHALL BE STAKED OR FLAGGED PRIOR TO TRENCHING AND SHALL BE APPROVED BY CITY STAFF.
3. ROOT PRUNING SHALL BE CONDUCTED WITH THE SUPERVISION OF AN ISA CERTIFIED ARBORIST. CERTIFICATION SHALL BE PROVIDED TO THE CITY UPON COMPLETION.
4. BACKFILL THE ROOT-PRUNING TRENCH WITH APPROVED LOOSE TOPSOIL MIX AND TOP WITH 3-4" BARK MULCH AND MARK LOCATION FOR FUTURE REFERENCE. SILT FENCE MAY BE INSTALLED IN TRENCH PRIOR TO BACKFILLING AS LONG AS THE TRENCH IS NOT OPEN FOR LONGER THAN 48 HOURS WITHOUT WATERING.
5. ROOT PRUNING WORK SHALL NOT BE DONE WHEN MORE THAN THE TOP 1 INCH OF SOIL IS FROZEN. ROOT PRUNING SHALL NOT BE UNDERTAKEN WHEN THE SOIL IS WET AND CONDITIONS ARE MUDDY.
6. CITY OF ALEXANDRIA STAFF SHALL BE NOTIFIED 72 HOURS PRIOR TO TRENCHING AND WHEN ALL ROOT PRUNING AND TREE PROTECTION FENCE INSTALLATION IS COMPLETE.

2 ROOT PRUNING
NTS

TREES 8.1"–29.9" DBH
1" DBH = 1' CRZ RADIUS

TREES 30" DBH OR GREATER OR
TREES DESIGNATED AS SPECIMEN TREES
1" DBH = 1.5' CRZ RADIUS



TREES 8" DBH AND SMALLER
8' CRZ RADIUS AROUND THE TRUNK OF TREE

NOTES:

1. GRAPHICALLY, THE CRITICAL ROOT ZONE (CRZ) IS REPRESENTED AS A CIRCULAR REGION MEASURED OUTWARD FROM A TREE TRUNK REPRESENTING THE AREA OF ROOTS THAT MUST BE MAINTAINED OR PROTECTED FOR THE TREE'S SURVIVAL.
2. PLOT ACCURATE TRUNK LOCATIONS OF ALL TREES GREATER THAN 2" DIAMETER AT 54" ABOVE GRADE AND/OR TREE STANDS WITHIN DEVELOPMENT AREAS ON ALL PLANS FOR THE PROJECT AND DELINEATE THEIR ESTIMATED CRITICAL ROOT ZONE.
3. PLOT ACCURATE TRUNK LOCATIONS OF OFFSITE TREES WHICH WILL HAVE THEIR CRZ AFFECTED BY DEVELOPMENT AND DELINEATE THEIR ESTIMATED CRITICAL ROOT ZONE.

3 TREE PROTECTION DETAIL FOR DETERMINING CRITICAL ROOT ZONE
NTS

TREE PRESERVATION NOTES

1. Vegetation designated for protection and/or preservation shall continuously receive an enhanced level of maintenance throughout the entire construction period.
   - Maintenance shall be pro-active.
   - Maintenance operations shall aggressively monitor the health, growth and vigor of vegetation and prescribe selective pruning, removal of volunteer and/or invasive species, watering, fertilization and installation of mulch/topdressing.
   - When preserved vegetation is located on city property, maintenance shall be performed to the satisfaction of the City.
2. Areas designated for protection and/or preservation of vegetation shall not be entered or utilized (approved maintenance procedures and watering excepted) throughout the entire construction period. Prohibited items/activities include, but are not limited to:
   - Modifying site topography in a manner that directly or indirectly alters existing site drainage within protection zone including trenching or grading operations and placing, storing or stockpiling soil or construction related supplies.
   - Felling and storing vegetation. Iii. Incinerating materials within or in close proximity.
   - Operating machinery or equipment, including vehicle/equipment parking or storage.
   - Temporary or permanent utility construction, paving or impervious surface installation.
   - Disposal of debris or chemicals. Vii. Temporary facilities or occupation by work force.
   - Storage of construction materials or waste

APPROVED
DEVELOPMENT SITE PLAN NO. _____
DEPARTMENT OF PLANNING & ZONING
_____ DIRECTOR _____ DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
_____ DIRECTOR _____ DATE
_____ CHAIRMAN, PLANNING COMMISSION _____ DATE
DATE RECORDED _____
_____ INSTRUMENT NO. _____ DEED BOOK NO. _____ PAGE NO.

No.	DESCRIPTION	DATE
	REVISIONS	

PLAN DATE
02-11-2022
12-09-2022
03-17-2023
05-26-2023

Urban, Ltd.
200 N. GLEBE ROAD, SUITE 1100
CARLYLE PLAZA
ARLINGTON, VA. 22203
TEL. 703.642.2306
FAX 703.378.7888
www.urban-ltd.com
urban
Planners+Engineers+Landscape Architects+Land Surveyors

COMMONWEALTH OF VIRGINIA
John Lightle
Lic. No. 19857
LANDSCAPE ARCHITECT

TREE PRESERVATION NOTES AND DETAILS

LANDMARK MALL REDEVELOPMENT
PRELIMINARY SITE PLAN - PARKS
CITY OF ALEXANDRIA, VIRGINIA

DATE: NOV. 2022
C.I.= N/A
SCALE: N/A

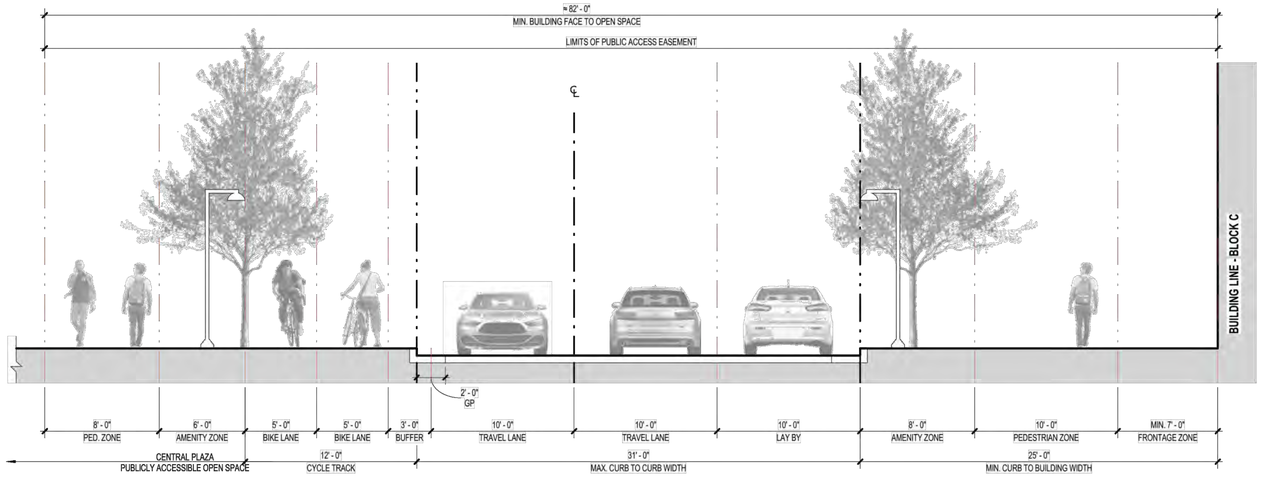
SHEET
44
OF
47

FILE No.
DSUP-13089

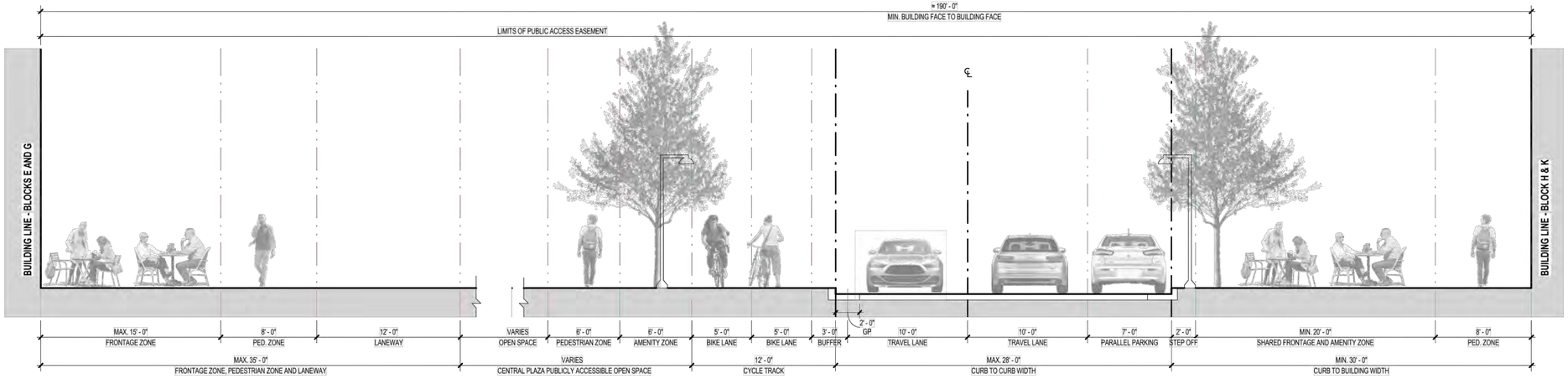
Urban, Ltd. – z:\JOBS\landmarkmall\DSUP\block-parks\preliminary sp\Landscape Arch\Tree Inventory Update\13078-17-EAST SIDE TREE INVENTORY.dwg [43A TREE NOTES] May 25, 2023 – 2:09pm yelosa

NOTES

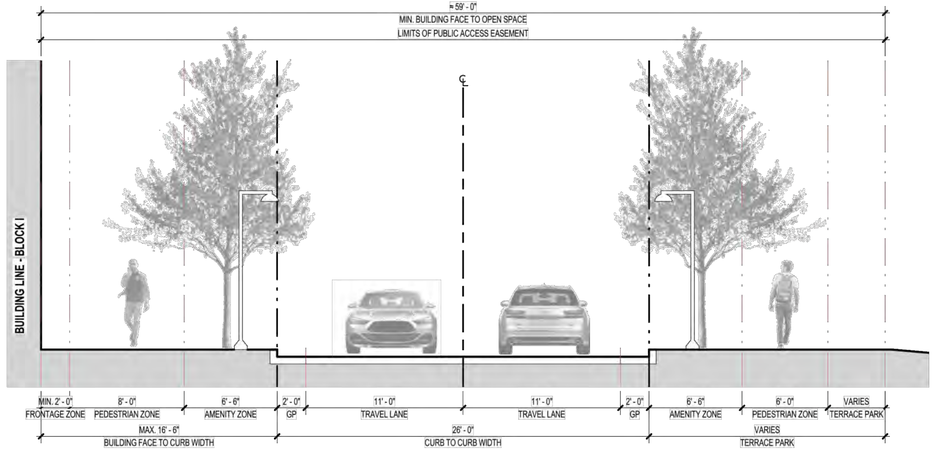
1. ROAD SECTIONS ARE FOR ILLUSTRATIVE PURPOSES ONLY AND TO CONVEY DESIGN INTENT. DIMENSIONS MAY VARY WITH FINAL ENGINEERING.
2. ADDITIONAL ROAD WIDTH MAY BE REQUIRED TO ACCOMMODATE LARGER VEHICLES ON SELECT ROADS.
3. FINAL ROAD SECTIONS WILL BE DETERMINED AT TIME OF AN INFRASTRUCTURE DSP.
4. ALLOWABLE USES IN THE AMENITY AND PEDESTRIAN ZONES ON PUBLIC STREETS MAY INCLUDE, BUT ARE NOT LIMITED TO, OUTDOOR DINING, SIGNAGE, CANOPIES/ AWNINGS, SMALL STRUCTURES, STORMWATER MANAGEMENT FACILITIES, AND UTILITIES.
5. PARALLEL PARKING SHOWN ON SECTIONS MAY NOT BE APPLICABLE ON ALL STREETS. IN AREAS WHERE ON-STREET PARKING IS NOT PRESENT, WIDER DIMENSIONS FOR THE AMENITY, PEDESTRIAN, AND FRONTAGE ZONES SHOULD BE PROVIDED, NOT TO EXCEED THE BUILDING FACE TO BUILDING-FACE DIMENSION SHOWN.
6. BUILDING DROP-OFFS AND LAYBYS MAY BE LOCATED IN PARALLEL PARKING AREAS. FINAL DIMENSIONS TO BE IDENTIFIED BY THE INDIVIDUAL DSUPS FOR EACH BLOCK.
7. AREA DESIGNATED AS AMENITY/PEDESTRIAN/FRONTAGE ZONE ON PRIVATE STREETS TO CONTAIN LANDSCAPING, SIDEWALKS, AND ALLOW FOR BUILDING BUMPOUTS AND ARTICULATION.
8. RESPONSIBILITY FOR CONSTRUCTION WITHIN THE PUBLIC RIGHT-OF-WAY WILL BE DETERMINED THROUGH THE APPROVAL PROCESS.
9. WHERE GUTTER PAN IS INDICATED TO BE 2' - 0", THE SECOND FOOT SHALL BE INCLUDED IN THE NEIGHBORING TRAVEL LANE WIDTH.



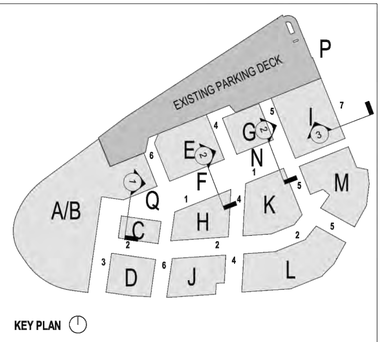
1 / 09A STREET SECTION - ROAD 1 (PRIVATE ROAD)
SCALE: 1 : 60



2 / 09A STREET SECTION - ROAD 1 (PRIVATE ROAD)
SCALE: 1 : 60



3 / 09A STREET SECTION - ROAD 7 (PRIVATE ROAD)
SCALE: 1 : 60



KEY PLAN

APPROVED
DEVELOPMENT SITE PLAN NO. CDD#2020-00007
DEPARTMENT OF PLANNING & ZONING
J.A. for K. Moritz — DIRECTOR
11.8.2021 — DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
DIRECTOR
11/13/2021 — DATE
CHAIRMAN, PLANNING COMMISSION
11.8.2021 — DATE
DATE RECORDED _____
INSTRUMENT NO. _____ DEED BOOK NO. _____ PAGE NO. _____

COOPER CARRY
625 N WASHINGTON ST
ALEXANDRIA, VA 22314
(703) 519-6152
WWW.COOPERCARRY.COM

PROJECT TEAM

APPLICANT
FOULGER-PRATT DEVELOPMENT, LLC
12435 PARK POTOMAC AVE
SUITE 200
POTOMAC, MD 20854
TEL. 240-499-9600
CONTACT: JAY KELLY

ATTORNEY
WIRE GILL LLP
700 NORTH FAIRFAX STREET
SUITE 600
ALEXANDRIA, VA 22314
TEL. 703-677-3129
CONTACT: KENNETH WIRE

CIVIL ENGINEER
URBAN, LTD.
4200D TECHNOLOGY COURT
CHANTILLY, VA 20151
TEL. 703-376-4221
CONTACT: CLAYTON TOCK, P.E.

ARCHITECT
COOPER-CARRY
625 NORTH WASHINGTON STREET
SUITE 200
ALEXANDRIA, VA 22314
TEL. 703-519-6152
CONTACT: ABBEY OKLAK, AIA

TRAFFIC ENGINEER
GOROVE SLADE
225 REINEKERS LANE
SUITE 750
ALEXANDRIA, VA 22314
TEL. 202-540-1926
CONTACT: ROBERT SCHIESEL, P.E.

LANDSCAPE ARCHITECT
OCULUS
1611 CONNECTICUT AVE, NW
3RD FLOOR
WASHINGTON, DC 20009
TEL: 202-588-5454
CONTACT: DON HOOVER

APPLICANTS
FOULGER-PRATT DEVELOPMENT, LLC
12435 PARK POTOMAC AVE
SUITE 200
POTOMAC, MD 20854
TEL. 240-499-9600

KEY MAP

SEAL
COMMONWEALTH OF VIRGINIA
STEPHEN MICHAEL SMITH
Lic. No. 0401014885
09/24/2021
ARCHITECT

PROJECT
LANDMARK MALL REDEVELOPMENT

LANDMARK MALL, LLC
CITY OF ALEXANDRIA, VIRGINIA
LANDMARK - VAN DORN

COOPER CARRY PROJ.#
20200118

REVISION / ISSUANCE

NO.	DESCRIPTION	DATE
1	1st SUBMISSION	12.21.2020
2	2nd SUBMISSION	03.05.2021
3	3RD SUBMISSION	04.09.2021
4	FINAL APPROVED CDD	07.30.2021
5	FINAL APPROVED CDD	09/24/2021
6	-	-
7		
8		
9		
10		

DESIGNED BY: URBAN
DRAWN BY: COOPER-CARRY/URBAN
CHECKED BY: -

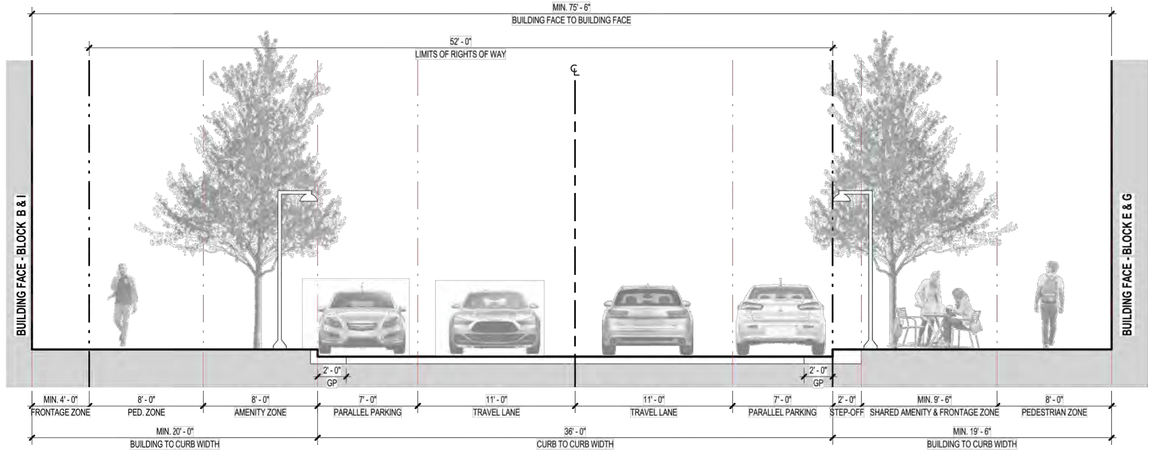
SCALE AS NOTED NORTH

VERT: AS NOTED
HORZ: AS NOTED

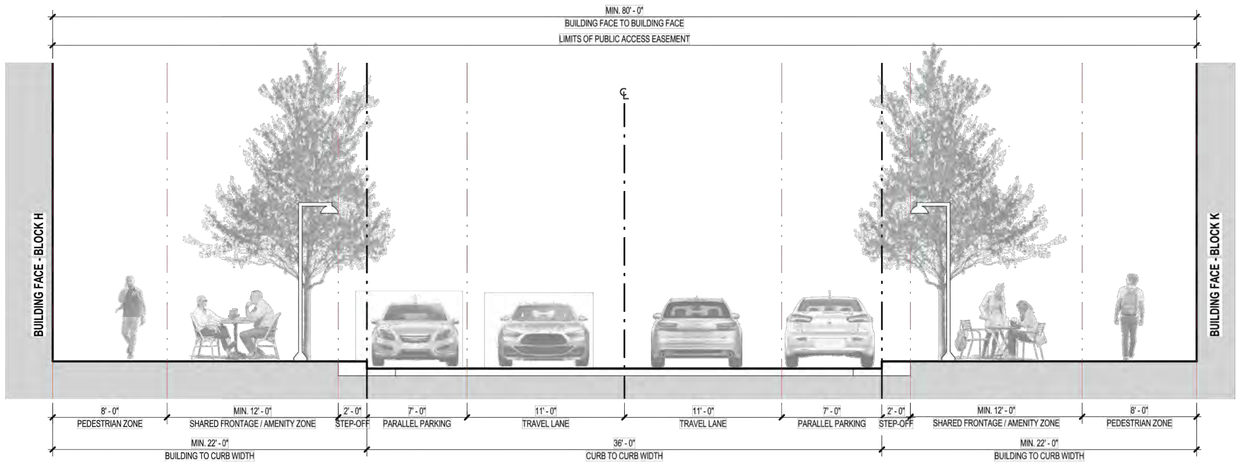
SHEET TITLE
STREET SECTIONS

SHEET NUMBER
~~D9A~~ 45-OF 47

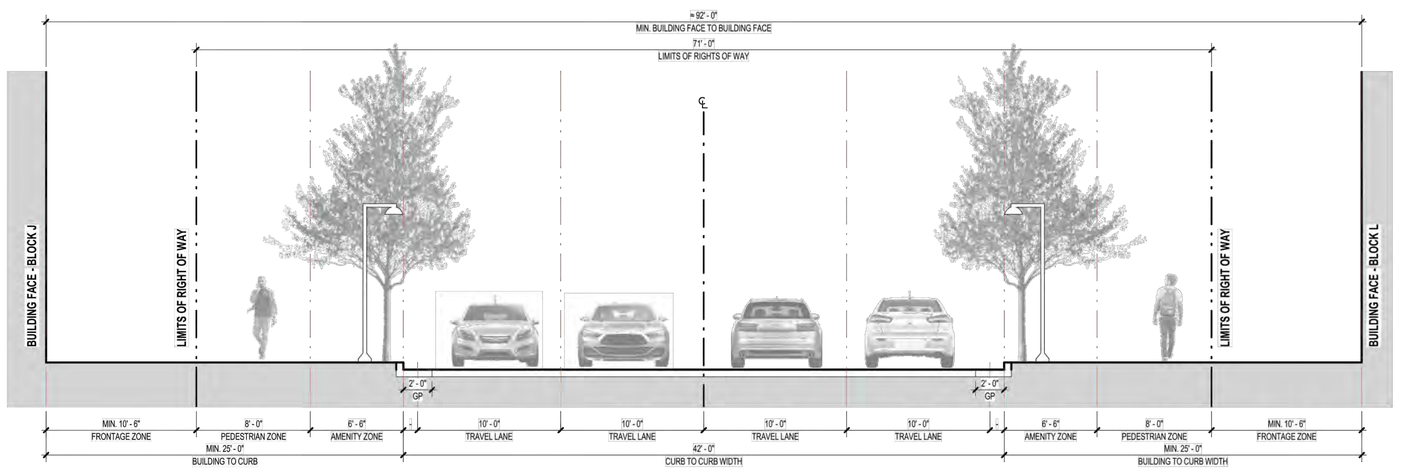
REFERENCE APPROVED CDD #2020-00007 FOR INFORMATIONAL PURPOSES ONLY!!



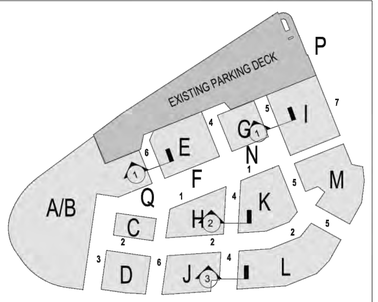
1 / 09D STREET SECTION - ROAD 5 & 6 (PUBLIC ROAD)
SCALE: 1 : 60



2 / 09D STREET SECTION - ROAD 4 (PRIVATE ROAD)
SCALE: 1 : 60



3 / 09D STREET SECTION - ROAD 4 (PUBLIC ROAD)
SCALE: 1 : 60



KEY PLAN

NOTES

1. ROAD SECTIONS ARE FOR ILLUSTRATIVE PURPOSES ONLY AND TO CONVEY DESIGN INTENT. DIMENSIONS MAY VARY WITH FINAL ENGINEERING.
2. ADDITIONAL ROAD WIDTH MAY BE REQUIRED TO ACCOMMODATE LARGER VEHICLES ON SELECT ROADS.
3. FINAL ROAD SECTIONS WILL BE DETERMINED AT TIME OF AN INFRASTRUCTURE DSP.
4. ALLOWABLE USES IN THE AMENITY AND PEDESTRIAN ZONES ON PUBLIC STREETS MAY INCLUDE, BUT ARE NOT LIMITED TO, OUTDOOR DINING, SIGNAGE, CANOPIES/ AWNINGS, SMALL STRUCTURES, STORMWATER MANAGEMENT FACILITIES, AND UTILITIES.
5. PARALLEL PARKING SHOWN ON SECTIONS MAY NOT BE APPLICABLE ON ALL STREETS. IN AREAS WHERE ON-STREET PARKING IS NOT PRESENT, WIDER DIMENSIONS FOR THE AMENITY, PEDESTRIAN, AND FRONTAGE ZONES SHOULD BE PROVIDED, NOT TO EXCEED THE BUILDING FACE TO BUILDING-FACE DIMENSION SHOWN.
6. BUILDING DROP-OFFS AND LAYBYS MAY BE LOCATED IN PARALLEL PARKING AREAS. FINAL DIMENSIONS TO BE IDENTIFIED BY THE INDIVIDUAL DSUPS FOR EACH BLOCK.
7. AREA DESIGNATED AS AMENITY/PEDESTRIAN/FRONTAGE ZONE ON PRIVATE STREETS TO CONTAIN LANDSCAPING, SIDEWALKS, AND ALLOW FOR BUILDING BUMPOUTS AND ARTICULATION.
8. RESPONSIBILITY FOR CONSTRUCTION WITHIN THE PUBLIC RIGHT-OF-WAY WILL BE DETERMINED THROUGH THE APPROVAL PROCESS.
9. WHERE GUTTER PAN IS INDICATED TO BE 2' - 0", THE SECOND FOOT SHALL BE INCLUDED IN THE NEIGHBORING TRAVEL LANE WIDTH.

APPROVED
DEVELOPMENT SITE PLAN NO. CDD#2020-00007
DEPARTMENT OF PLANNING & ZONING
J.A. for K. Moritz — DIRECTOR — 11.8.2021 — DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
DIRECTOR — 11/13/2021 — DATE
CHAIRMAN, PLANNING COMMISSION — 11.8.2021 — DATE
DATE RECORDED _____
INSTRUMENT NO. — DEED BOOK NO. — PAGE NO.

COOPER CARRY
625 N WASHINGTON ST
ALEXANDRIA, VA 22314
(703) 519-6152
WWW.COOPERCARRY.COM

PROJECT TEAM

APPLICANT
FOULGER-PRATT DEVELOPMENT, LLC
12435 PARK POTOMAC AVE
SUITE 200
POTOMAC, MD 20854
TEL. 240-499-9600
CONTACT: JAY KELLY

ATTORNEY
WIRE GILL LLP
700 NORTH FAIRFAX STREET
SUITE 600
ALEXANDRIA, VA 22314
TEL. 703-677-3129
CONTACT: KENNETH WIRE

CIVIL ENGINEER
URBAN, LTD.
4200D TECHNOLOGY COURT
CHANTILLY, VA 20151
TEL. 703-376-4221
CONTACT: CLAYTON TOCK, P.E.

ARCHITECT
COOPER-CARRY
625 NORTH WASHINGTON STREET
SUITE 200
ALEXANDRIA, VA 22314
TEL. 703-519-6152
CONTACT: ABBEY OKLAK, AIA

TRAFFIC ENGINEER
GOROVE SLADE
225 REINEKERS LANE
SUITE 750
ALEXANDRIA, VA 22314
TEL. 202-540-1926
CONTACT: ROBERT SCHIESEL, P.E.

LANDSCAPE ARCHITECT
OCULUS
1611 CONNECTICUT AVE, NW
3RD FLOOR
WASHINGTON, DC 20009
TEL: 202-588-5454
CONTACT: DON HOOVER

APPLICANTS
FOULGER-PRATT DEVELOPMENT, LLC
12435 PARK POTOMAC AVE
SUITE 200
POTOMAC, MD 20854
TEL. 240-499-9600

KEY MAP

SEAL
COMMONWEALTH OF VIRGINIA
STEPHEN MICHAEL SMITH
Lic. No. 0401014885
09/24/2021
ARCHITECT

PROJECT
LANDMARK MALL REDEVELOPMENT

LANDMARK MALL, LLC
CITY OF ALEXANDRIA, VIRGINIA
LANDMARK - VAN DORN

COOPER CARRY PROJ.#
20200118

REVISION / ISSUANCE

NO.	DESCRIPTION	DATE
1	1st SUBMISSION	12.21.2020
2	2nd SUBMISSION	03.05.2021
3	3RD SUBMISSION	04.09.2021
4	FINAL APPROVED CDD	07.30.2021
5	FINAL APPROVED CDD	09/24/2021
6	-	-
7		
8		
9		
10		

DESIGNED BY: URBAN
DRAWN BY: COOPER-CARRY/URBAN
CHECKED BY: -

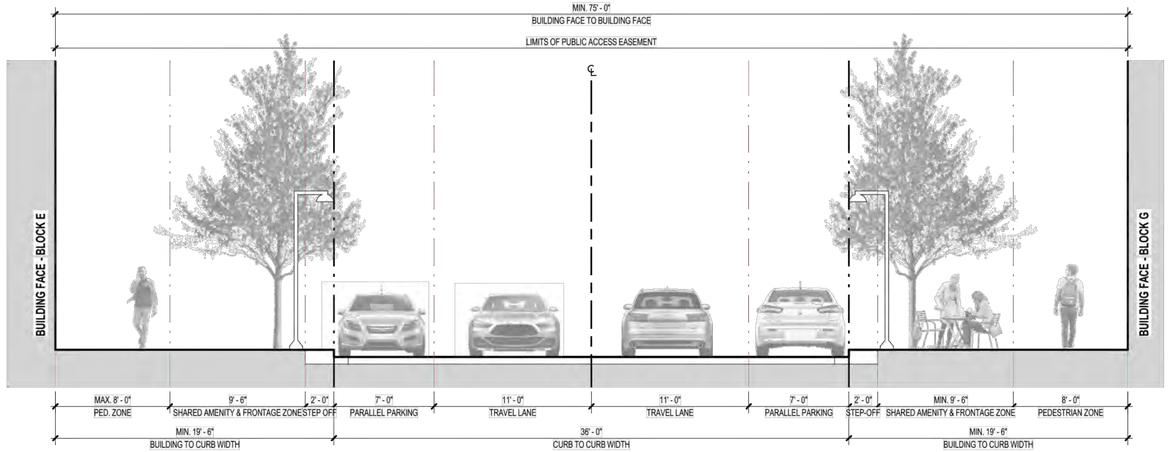
SCALE AS NOTED NORTH

VERT: AS NOTED
HORZ: AS NOTED

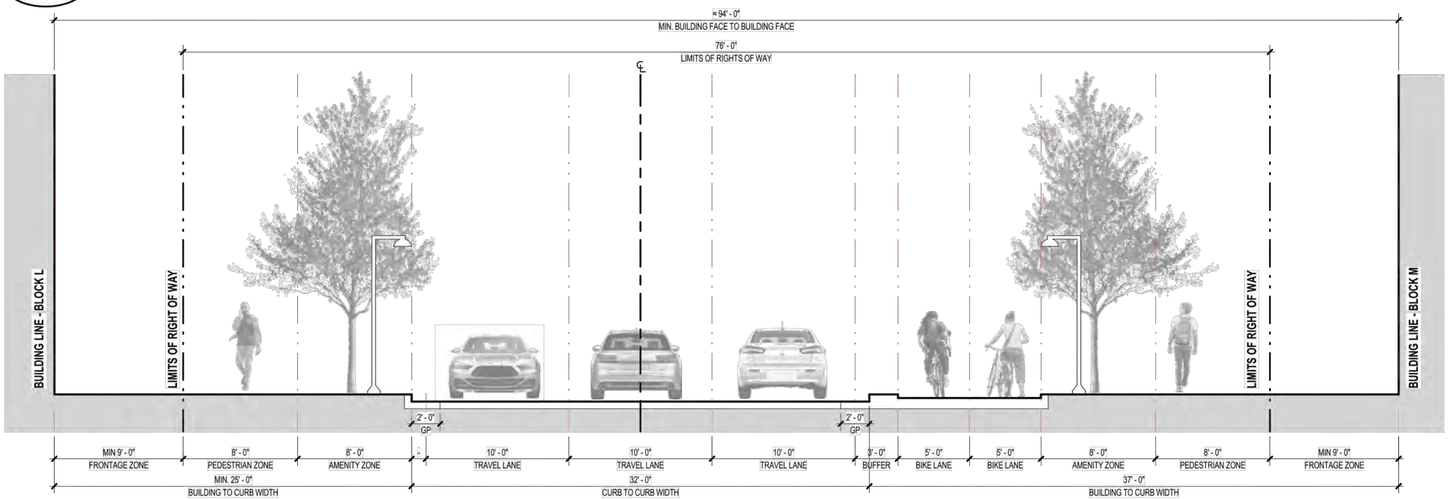
SHEET TITLE
STREET SECTIONS

SHEET NUMBER
D9D
46 OF 47

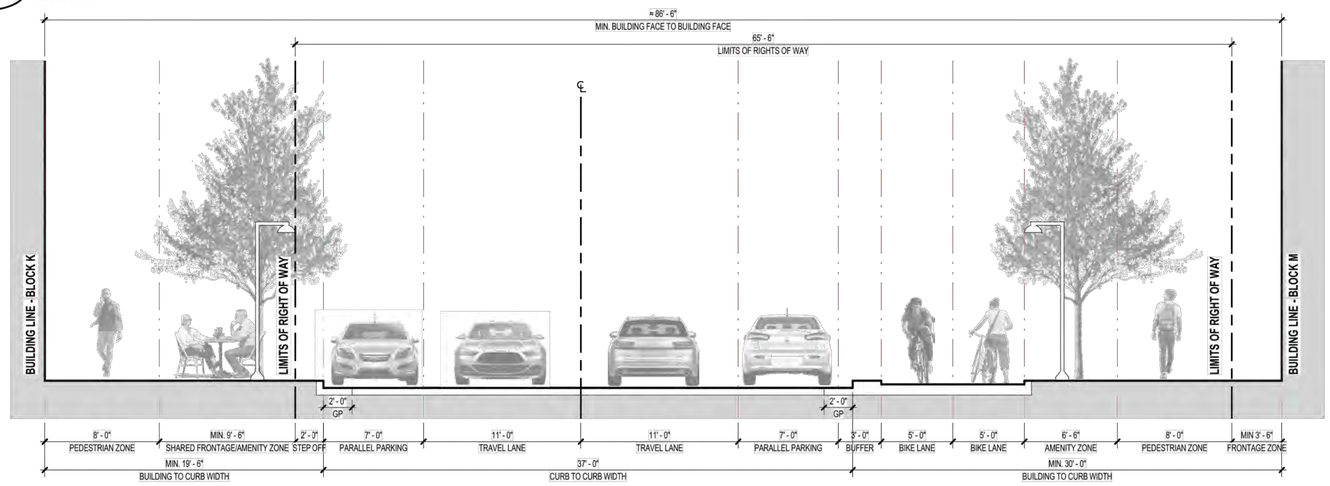
REFERENCE APPROVED CDD #2020-00007 FOR INFORMATIONAL PURPOSES ONLY!!



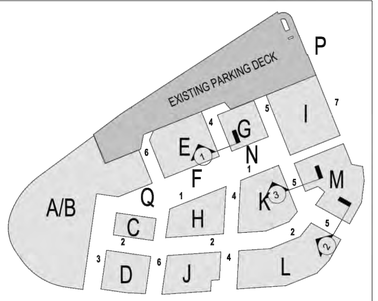
1 / 09E STREET SECTION - ROAD 4 (PRIVATE ROAD)
SCALE: 1 : 60



2 / 09E STREET SECTION - ROAD 5 (PUBLIC ROAD)
SCALE: 1 : 60



3 / 09E STREET SECTION - ROAD 5 (PUBLIC ROAD)
SCALE: 1 : 60



KEY PLAN

NOTES

1. ROAD SECTIONS ARE FOR ILLUSTRATIVE PURPOSES ONLY AND TO CONVEY DESIGN INTENT. DIMENSIONS MAY VARY WITH FINAL ENGINEERING.
2. ADDITIONAL ROAD WIDTH MAY BE REQUIRED TO ACCOMMODATE LARGER VEHICLES ON SELECT ROADS.
3. FINAL ROAD SECTIONS WILL BE DETERMINED AT TIME OF AN INFRASTRUCTURE DSP.
4. ALLOWABLE USES IN THE AMENITY AND PEDESTRIAN ZONES ON PUBLIC STREETS MAY INCLUDE, BUT ARE NOT LIMITED TO, OUTDOOR DINING, SIGNAGE, CANOPIES/ AWNINGS, SMALL STRUCTURES, STORMWATER MANAGEMENT FACILITIES, AND UTILITIES.
5. PARALLEL PARKING SHOWN ON SECTIONS MAY NOT BE APPLICABLE ON ALL STREETS. IN AREAS WHERE ON-STREET PARKING IS NOT PRESENT, WIDER DIMENSIONS FOR THE AMENITY, PEDESTRIAN, AND FRONTAGE ZONES SHOULD BE PROVIDED, NOT TO EXCEED THE BUILDING FACE TO BUILDING-FACE DIMENSION SHOWN.
6. BUILDING DROP-OFFS AND LAYBYS MAY BE LOCATED IN PARALLEL PARKING AREAS. FINAL DIMENSIONS TO BE IDENTIFIED BY THE INDIVIDUAL DSUPS FOR EACH BLOCK.
7. AREA DESIGNATED AS AMENITY/PEDESTRIAN/FRONTAGE ZONE ON PRIVATE STREETS TO CONTAIN LANDSCAPING, SIDEWALKS, AND ALLOW FOR BUILDING BUMPOUTS AND ARTICULATION.
8. RESPONSIBILITY FOR CONSTRUCTION WITHIN THE PUBLIC RIGHT-OF-WAY WILL BE DETERMINED THROUGH THE APPROVAL PROCESS.
9. WHERE GUTTER PAN IS INDICATED TO BE 2' - 0", THE SECOND FOOT SHALL BE INCLUDED IN THE NEIGHBORING TRAVEL LANE WIDTH.

APPROVED
DEVELOPMENT SITE PLAN NO. CDD#2020-00007
DEPARTMENT OF PLANNING & ZONING
J.A. for K. Moritz — 11.8.2021
DIRECTOR — DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
11/13/2021
DIRECTOR — DATE
11.8.2021
CHAIRMAN, PLANNING COMMISSION — DATE
DATE RECORDED _____
INSTRUMENT NO. — DEED BOOK NO. — PAGE NO.

COOPER CARRY
625 N WASHINGTON ST
ALEXANDRIA, VA 22314
(703) 519-6152
WWW.COOPERCARRY.COM

PROJECT TEAM

APPLICANT
FOULGER-PRATT DEVELOPMENT, LLC
12435 PARK POTOMAC AVE
SUITE 200
POTOMAC, MD 20854
TEL. 240-499-9600
CONTACT: JAY KELLY

ATTORNEY
WIRE GILL LLP
700 NORTH FAIRFAX STREET
SUITE 600
ALEXANDRIA, VA 22314
TEL. 703-677-3129
CONTACT: KENNETH WIRE

CIVIL ENGINEER
URBAN, LTD.
4200D TECHNOLOGY COURT
CHANTILLY, VA 20151
TEL. 703-376-4221
CONTACT: CLAYTON TOCK, P.E.

ARCHITECT
COOPER-CARRY
625 NORTH WASHINGTON STREET
SUITE 200
ALEXANDRIA, VA 22314
TEL. 703-519-6152
CONTACT: ABBEY OKLAK, AIA

TRAFFIC ENGINEER
GOROVE SLADE
225 REINEKERS LANE
SUITE 750
ALEXANDRIA, VA 22314
TEL. 202-540-1926
CONTACT: ROBERT SCHIESEL, P.E.

LANDSCAPE ARCHITECT
OCULUS
1611 CONNECTICUT AVE, NW
3RD FLOOR
WASHINGTON, DC 20009
TEL: 202-588-5454
CONTACT: DON HOOVER

APPLICANTS
FOULGER-PRATT DEVELOPMENT, LLC
12435 PARK POTOMAC AVE
SUITE 200
POTOMAC, MD 20854
TEL. 240-499-9600

KEY MAP

SEAL
COMMONWEALTH OF VIRGINIA
STEPHEN MICHAEL SMITH
Lic. No. 0401014885
09/24/2021
ARCHITECT

PROJECT
LANDMARK MALL REDEVELOPMENT

LANDMARK MALL, LLC
CITY OF ALEXANDRIA, VIRGINIA
LANDMARK - VAN DORN

COOPER CARRY PROJ.#
20200118

REVISION / ISSUANCE

NO.	DESCRIPTION	DATE
1	1st SUBMISSION	12.21.2020
2	2nd SUBMISSION	03.05.2021
3	3RD SUBMISSION	04.09.2021
4	FINAL APPROVED CDD	07.30.2021
5	FINAL APPROVED CDD	09/24/2021
6	-	-
7		
8		
9		
10		

DESIGNED BY: URBAN
DRAWN BY: COOPER-CARRY/URBAN
CHECKED BY: -

SCALE AS NOTED NORTH
VERT: AS NOTED
HORZ: AS NOTED

SHEET TITLE
STREET SECTIONS

SHEET NUMBER
~~D9E~~ 47 OF 47

REFERENCE APPROVED CDD #2020-00007 FOR INFORMATIONAL PURPOSES ONLY!!

Architectural Symbols Legend

Lobby 0001 — Room Name / Room Number

DWG / SHT — Detail/Section Marker (Interior)

DWG / SHT — Detail/Wall Section Marker(Exterior)

DWG / SHT — Building Section Marker

DWG / SHT — Elevation Marker

DWG / DWG SHT DWG / DWG — Interior Elevation Marker (Single and Multiple)

Plan Detail reference

A — A — Structural Grid

W1 — Wall Label

101 — Door Label

W01 — W01 — Window Label

A — Light Fixture and Tag

1B — Equipment Tag

1 — Sheet or Work Note

Note

align — Align with established element

Break Line

+11'-4" First Floor — Elevation Above Sea Level, Building Section/Elevation

+4'-2" AFF — Existing Elevation, Above Finished Floor

+4'-2" AFF — New Elevation, Above Finished Floor

X — Revision Cloud and Marker

WD-1 — Finish Tag

Floor / Base; Wall / Trim — Room Finish Tag

Wall / Base — Wall/Base Finish Tag

VCT / CPT — Finish Transition

CH-5 — Furniture Tag

0 4' 8' 16' 32' — Graphic Scale

MATCH LINE SEE XXX-XXX — Match Line

N — North Arrow

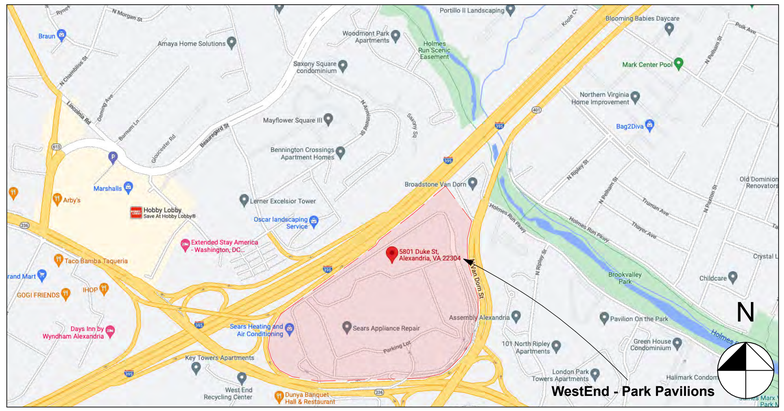
Graphic Symbols for Materials

- Earth
- Gravel
- Concrete
- Brick
- Concrete Masonry Unit
- Cut Stone
- Metal (See mat'l tag & schedule for type)
- Glass
- GWB (Large scale)
- Medium Density Overlay (MDO) Oriented Strand Board (OSB)
- Plywood
- Lay-in Ceiling Tile (Acoustical Panels)
- Insulation (Loose or Batt)
- Insulation (Rigid)
- Membrane
- Wood Blocking/Shim
- Wood Blocking - Continuous
- Wood - Finished

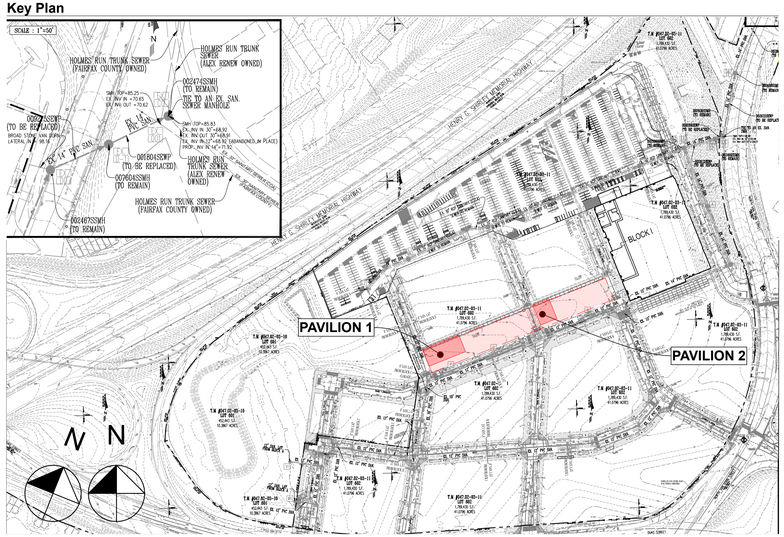
Abbreviations

1x	One-inch nominal thickness	JAN	Janitor
2x	Two-inch nominal thickness	JST	Joist
@	At	JT	Joint
ABV	Above	KITCH	Kitchen
AC	Air Conditioning	LAV	Lavatory
ACOUS	Acoustical	LEV	Level
ACT	Acoustical Ceiling Tile	LH	Left Hand
ADJ	Adjacent, Adjustable	LT	Light
AFF	Above Finish Floor	LTG	Lighting
ALT	Alternate	MAT'L	Material
AL or ALUM	Aluminum	MAX	Maximum
ANCH	Anchor	MDF	Medium Density Fiberboard
ANO	Anodized	MECH	Mechanical
APPROX	Approximate	MEMB	Membrane
AVG	Average	MEZZ	Mezzanine
BD	Board, Bead if applicable	MFR	Manufacturer('s)
BLDG	Building	MIN	Minimum
BLK'G	Blocking	MISC	Miscellaneous
BM	Beam	MLDG	Molding
BOT	Bottom	MLWK	Millwork
BO _	Bottom of _	MO	Masonry Opening
BR'G	Bearing	MR	Moisture Resistant
BSMT	Basement	MTD	Mounted
BTWN	Between	MTG	Mounting
BYD	Beyond	MTL	Metal
CAB	Cabinet	MW	Microwave Oven
CDL	Core Drill Location	N	North
CEM	Cement	NIC	Not in Contract
CER	Ceramic	NO.	Number
CFL	Compact Fluorescent Light	NTS	Not to Scale
CJ	Control Joint	OA	Overall
CL	Closet	OC	On Center
CL	Centerline	OD	Outside Diameter
CT	Ceramic Tile	OFF	Office
CLAD'G	Cladding	OPP	Opposite
CLG	Ceiling	OPP HAND	Opposite Hand
CLR	Clear	OSB	Oriented Strand Board
CMU	Concrete Masonry Unit	PART	Partition
COL	Column	PERIM	Perimeter
CONC	Concrete	PG	Paint Grade
CONST	Construction	PL	Plate
CONT	Continuous	PLAM	Plastic Laminate
CONT'R	Contractor	PLAS	Plaster
CORR	Corridor	PLEX	Plexiglass
CPT	Carpet	PLMB	Plumbing
CS	Cast Stone	PLY or PLYWD	Plywood
CSK	Countersink	POLY	Polyethylene
CT	Ceramic Tile	POS	Point Of Sale
CTR	Center or Centered	PSF	Pound per Square Foot
CW	Cold Water	PSI	Pound per Square Inch
DBL	Double	PT	Pressure Treated
DEMO	Demolish, Demolition	PTD	Painted
DTL	Detail	PVC	Polyvinyl Chloride
DG	Double Glazed	PVMT	Pavement
DIA	Diameter	QT	Quarry Tile
DIM	Dimension	QTY	Quantity
DN	Down	R	Riser(s)
DS	Downspout	R	Ridge (Roof)
DW	Dishwasher	R=	Radius
DWG	Drawing	RAD	Radius
E	East	RCP	Reflected Ceiling Plan
EA	Each	RDG	Removable Double Glazing
EJ	Expansion Joint		
ELEC	Electric(al)	RECPT	Receptacle
ELEV	Elevation	REF	Refrigerator
EMER	Emergency	REINF	Reinforcing
EOS	Edge Of Slab	REPL	Replace(ment)
EP	Energy Panel	REQ	Request
EQ	Equal	REQ'D	Required
EQUIP	Equipment	RESIL	Resilient
ETR	Existing to Remain	REV	Revision
EWC	Electric Water Cooler	RFI	Request For Information
EXH	Exhaust	RM	Room
EX'G	Existing	RO	Rough Opening
EXP	Expansion, Exposed	RTU	Roof Top Unit (Mech)
EXT	Exterior	SHLF	Shelf; Shelves
FA	Fire Alarm	S4S	Surface Four Sides
FBO	Furnished by Owner	SCM	Solid Core Metal
FD	Floor Drain	SCHED	Schedule(d)
FND	Foundation	SDG	Siding
FE	Fire Extinguisher (Cabinet)	SECT	Section
FF	Finish Floor	SG	Stain Grade (wood)
FGLAS	Fiberglass	SHT	Sheet
FIN	Finish	SHT'G	Sheathing
FXT	Fixture	SIM	Similar
FLASH	Flashing	S	South
FL or FLR	Floor	Spec	Specification(s)
FLUOR	Fluorescent	SQ	Square
FOM	Face of Masonry	SSTL	Stainless Steel
FOS	Face of Structure	ST	Street
	Face of Stud	STD	Standard
FP	Fire Proof	STL	Steel
FRM'G	Framing	STOR	Storage
FRT	Fire Retardant Treated	STRUCT	Structure
FS	Floor Sink	SUBFL	Subfloor
FT	Feet	SURF	Surface
FT'G	Footing	SUSP	Suspend
FURN	Furniture	T&G	Tongue and Groove
FURR	Furring	TEL	Telephone
GA	Gauge	TEMP	Temperature
GALV	Galvanized	THK	Thick
GC	General Contractor	THKNS	Thickness
GFI	Ground Fault Interrupter	TO _	Top of _
GL	Glass	TRT'D	Treated
GWB	Gypsum Wall Board	TYP	Typical
GYP	Gypsum	UL	Underwriters Laboratories, Inc.
HB	Hose Bib		
HC	Handicap	UNO	Unless Noted Otherwise
HM	Hollow Metal	UON	Unless Otherwise Noted
HD	Head	UTIL	Utility
HDBD	Hardboard	V	Volt
HDR	Header	V	Valley (Roof)
HDWD	Hardwood	VB	Vapor Barrier
HDWR	Hardware	VCT	Vinyl Composition Tile
HORIZ	Horizontal	VENT	Ventilate(-ion)
HT	Height	VIF	Verify in Field
HTR	Heater	W	West
HVAC	Heating/Ventilation/ Air-Conditioning	W/	With
		W/O	Without
HW	Hot Water	WC	Water Closet
IG	Isolated Ground	WD	Wood
IN	Inch	WIN	Window
INCAN	Incandescent	WF	Wide Flange
INCL	Include(d)	WH	Water Heater
INSUL	Insulation	WP	Waterproof / Waterproofing
INT	Interior	WS	Weatherstripping
		WT	Weight
		WWM	Welded Wire Mesh

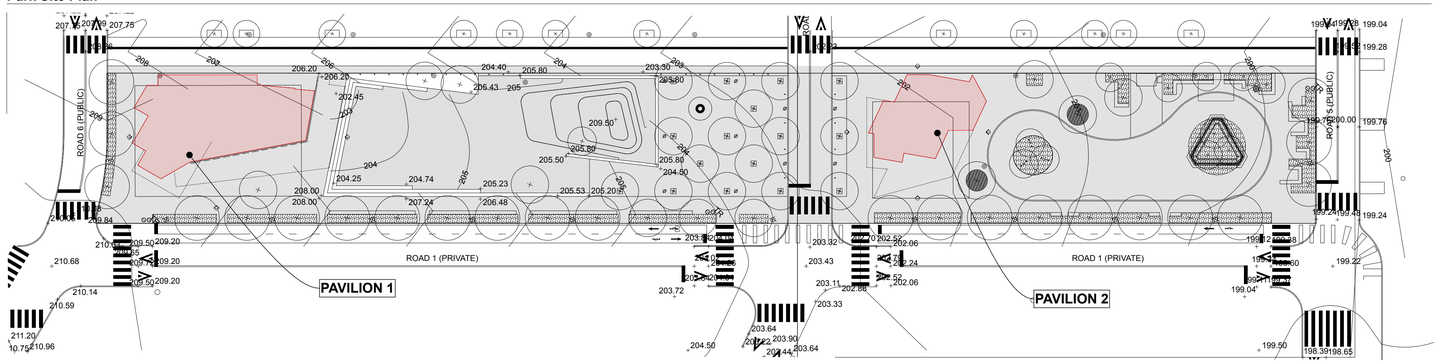
Vicinity Map



Key Plan



Park Site Plan



PROJECT SCOPE SUMMARY

Pavilion 1 SOW:
Two-Story Shell Building designed for future A-2 Assembly (Restaurant) Use. Building is of non-combustable steel and masonry construction, fully-sprinklered and fire alarm; Ground Floor slab on grade and concrete foundations; Second Floor and occupied Roof Area accessed by enclosed egress stair, ADA compliant elevator, and open stair. Semi-enclosed Roof Mechanical area for future equipment (by Tenant) accessed from Second Floor.

Pavilion 2 SOW:
One-Story Shell Building with one sub-grade basement, designed for future B Business and S-2 Storage Uses. Building is of non-combustable steel and masonry construction, fully-sprinklered and fire alarm; Basement (S-2 Use) slab on grade and concrete foundations accessed by maintenance stair; Ground Floor (B Use) concrete floor, accessed at grade; Semi-enclosed Roof Mechanical area for equipment accessed by Alternating Tread Device.

CODE SUMMARY

Applicable Codes:

Building:	2018 Virginia Construction Code
Mechanical:	2018 Virginia Mechanical Code
Plumbing:	2018 Virginia Plumbing Code
Electrical:	2017 National Electrical Code (NEC)
Fire:	2018 Virginia Statewide Fire Prevention Code 2018 International Fire Code (IFC)
Energy:	2018 Virginia Energy Conservation Code
Fuel Gas:	2018 Virginia Fuel Gas Code
Accessibility:	2018 Virginia Construction Code | 2009 ICC/ANSI A117 ADA Accessibility Guidelines

PROJECT SIZE :

Pavilion 1 Gross Floor Area (GFA)	**7,279 SF Total**	**Pavilion 2 Gross Floor Area (GFA)**	**4,064 SF Total**
Ground Floor GFA	*4,133 SF*	*Ground Floor GFA*	*1,990 SF*
Second Floor GFA	*1,643 SF*	*Basement GFA*	*2,074 SF*
Basement GFA	*1,503 SF*		
Pavilion 1 Net Area	**4,610 SF Total**	**Pavilion 2 Net Floor Area**	**1,661 SF Total**
Ground Floor Net	*3,603 SF*	*Ground Floor Net*	*1,661 SF*
Second Floor Net	*1,007 SF*		

BUILDING DATA - PAVILION 1 :

Occupancy Classification :	§303.3	A-2 Assembly
Construction Type :	Table 601	Type II-B
Stories in Building	Table 504.3	2 Stories
Building Height	Table 504.4	37'-7"
Automatic Sprinkler System	§903.2.1.2	Required
Fire Alarm System		Required
Accessibility	§1104.4 / 1108.2.4	Elevator Required, 2-stop ADA compliant elevator provided; Stretcher-compliance not required
Accessible Entrances	§1105.1 / Exception 1	60% of entrances Accessible; Loading and Service entrances not required to be Accessible

BUILDING DATA - PAVILION 2 :

Occupancy Classification :	§303.1.1 / 304.1 & 311.3	B Business & S-2 Storage
Construction Type :	Table 601	Type II-B
Stories in Building	Table 504.3	1 Story + 1 Basement
Building Height	Table 504.4	32'-8"
Automatic Sprinkler System		Provided
Fire Alarm System		Provided
Accessibility	§1104.4 Exception 4	Elevator not required to story with occupant load of 5 or fewer persons
Accessible Entrances	§1105.1 / Exception 1	60% of entrances Accessible; Loading and Service entrances not required to be Accessible

GREEN BUILDING SUMMARY

Form & Orientation:
The overall concept of the Retail Pavilions is to integrate the forms and functions into the surrounding Park, as if they are a continuity with the Landscape, not building sited within in. Buildings are oriented to maximize views longitudinally through the Park and take advantage of the southern exposure, with primary building glazing facing solar South for natural daylighting.

Indoor & Outdoor Shading:
To mitigate heat gain and glare, the South-facing facades feature large sun-shading canopies, which shade both the glazed facades as well as the South-facing outdoor dining areas. Pavilion 1 outdoor roof area is oriented East using the building mass to shade afternoon and evening sun. Each Pavilion features expansive operable glazed walls for both a visual connectivity to the surrounding park, and passive cooling opportunities.

Materiality:
The primary building walls of each Pavilion are designed as natural stone mass walls, oriented to the North and West to block the direction of primarily winter winds. Proposed use of a natural stone material sourced locally to the Mid-Atlantic/Appalachian region for the mass walls. Solar-shading canopies shall be of renewable wood and recycled aluminum materials where possible, and steel structure where beam spans require.

DEVELOPER

FOULGER-PRATT DEVELOPMENT, LLC
12435 PARK POTOMAC AVENUE
SUITE 200
POTOMAC, MD 20854
240.499.9600
CONTACT: JAY KELLY

ATTORNEY

WIRE GILL LLP
700 NORTH FAIRFAX STREET
SUITE 600
ALEXANDRIA, VA 22314
703.677.3129
CONTACT: KENNETH WIRE

CIVIL ENGINEER

URBAN, LTD.
4200D TECHNOLOGY COURT
CHANTILLY, VA 20151
703.376.4221
CONTACT: CLAYTON TOCK, P.E.

LANDSCAPE ARCHITECT

OCULUS
1611 CONNECTICUT AVENUE
THIRD FLOOR
WASHINGTON, DC 20009
202.588.5454
CONTACT: DON HOOVER

FOUNTAIN CONSULTANT

FLUIDITY DESIGN CONSULTANTS
724 S. SPRING STREET, SUITE 1401
LOS ANGELES, CALIFORNIA 90014
213.739.9291
CONTACT: RON SCHAFER

PLAYGROUND CONSULTANT

EARTHSCAPE
7215 WELLINGTON ROAD 86
WALLENSTEIN, ON CANADA N0B 2S0
1.877.269.2972
CONTACT: NATHANIEL GRANT

LIGHTING DESIGNER

MCLA ARCHITECTURAL LIGHTING DESIGN
1000 POTOMAC STREET NW, SUITE 121
WASHINGTON, DC 20007
202.298.8062
CONTACT: FRANK FEIST

ARCHITECT

CORE
1010 WISCONSIN AVE NW SUITE 405
WASHINGTON, DC 20007
202.466.6116
CONTACT: CHRISTOPHER PELI

SEAL & SIGNATURE

COMMONWEALTH OF VIRGINIA — Reg. No. 0401017654 — ARCHITECT

SUBMISSIONS/ REVISIONS	
12/02/2022	CONCEPT II
03/13/2023	CONCEPT 2 REVISION

KEY MAP

DATE: 03/13/2023

PROJECT NUMBER: **22019.00**

SCALE:

DRAWING TITLE:

Pavilion Information

SHEET NUMBER:

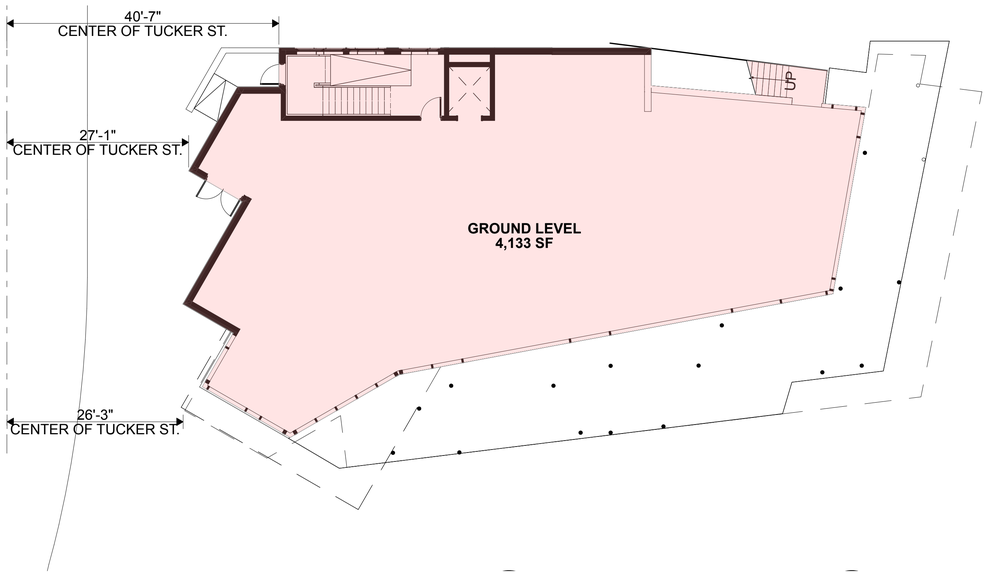
A.00

Printed: 5/11/23

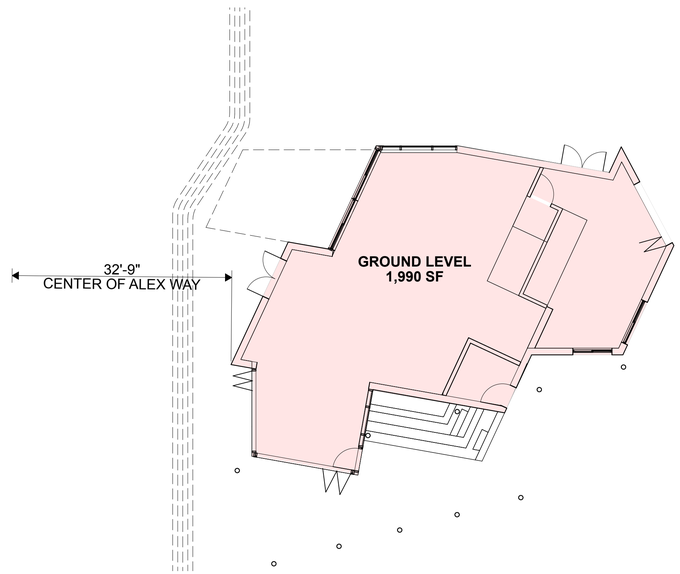
©2023 CORE architecture + design, inc.

APPROVED
SPECIAL USE PERMIT NO. _____
DEPARTMENT OF PLANNING & ZONING
DIRECTOR — DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
DIRECTOR — DATE
CHAIRMAN, PLANNING COMMISSION — DATE
DATE RECORDED _____
INSTRUMENT NO. — DEED BOOK NO. — PAGE NO.

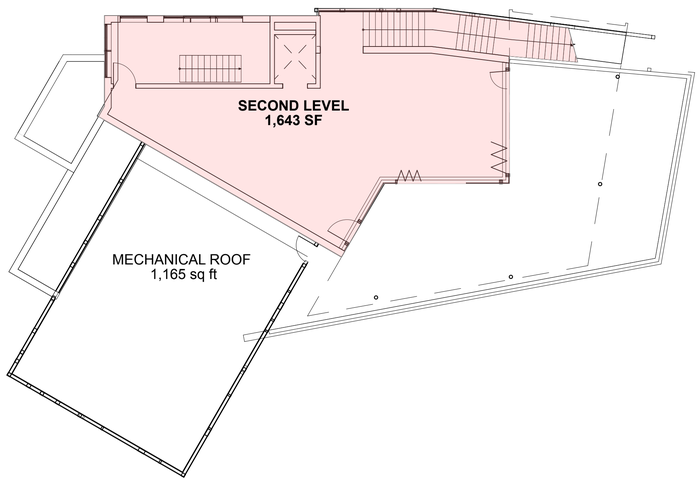
File Name: "/Volumes/Projects/22019 Landmark Pavilions/22019-Drawings/01 CAD/1-8 Archive/22019_Landmark Pavilions_ARCHIVE_20220414.pla" Layout: A.00 Pavilion Information Printed Date: 5/11/23 at 10:00 AM
Projects/22019 Landmark Pavilions_ARCHIVE_20220414.pla



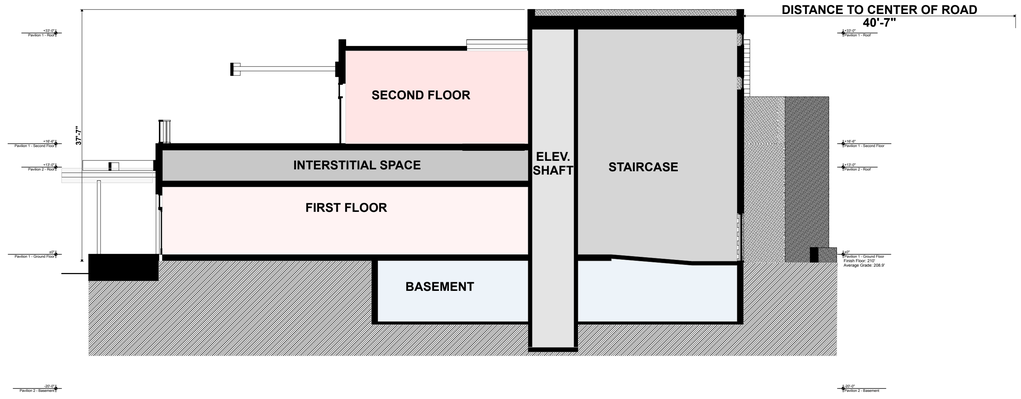
1 Pavilion 1 Ground Floor Area Ratio Diagram
Scale: 3/32" = 1'-0"



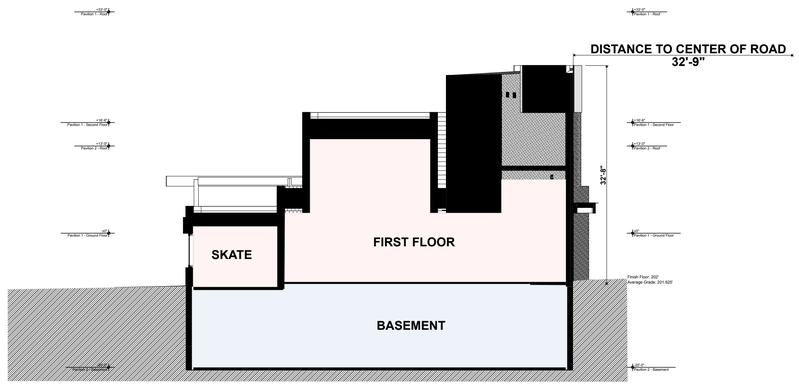
4 Pavilion 2 Ground Floor Area Ratio Diagram
Scale: 3/32" = 1'-0"



2 Pavilion 1 Second Floor Area Ratio Diagram
Scale: 3/32" = 1'-0"



3 Pavilion 1 Section
Scale: 3/32" = 1'-0"



5 Pavilion 2 Section
Scale: 3/32" = 1'-0"

APPROVED
SPECIAL USE PERMIT NO. _____
DEPARTMENT OF PLANNING & ZONING
DIRECTOR — DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
DIRECTOR — DATE
CHAIRMAN, PLANNING COMMISSION — DATE
DATE RECORDED _____
INSTRUMENT NO. — DEED BOOK NO. — PAGE NO.

DEVELOPER
FOULGER-PRATT DEVELOPMENT, LLC
12435 PARK POTOMAC AVENUE
SUITE 200
POTOMAC, MD 20854
240.499.9600
CONTACT: JAY KELLY

ATTORNEY
WIRE GILL LLP
700 NORTH FAIRFAX STREET
SUITE 600
ALEXANDRIA, VA 22314
703.677.3129
CONTACT: KENNETH WIRE

CIVIL ENGINEER
URBAN, LTD.
4200D TECHNOLOGY COURT
CHANTILLY, VA 20151
703.376.4221
CONTACT: CLAYTON TOCK, P.E.

LANDSCAPE ARCHITECT
OCULUS
1611 CONNECTICUT AVENUE
THIRD FLOOR
WASHINGTON, DC 20009
202.588.5454
CONTACT: DON HOOVER

FOUNTAIN CONSULTANT
FLUIDITY DESIGN CONSULTANTS
724 S. SPRING STREET, SUITE 1401
LOS ANGELES, CALIFORNIA 90014
213.739.9291
CONTACT: RON SCHAFER

PLAYGROUND CONSULTANT
EARTHSCAPE
7215 WELLINGTON ROAD 86
WALLENSTEIN, ON CANADA N0B 2S0
1.877.269.2972
CONTACT: NATHANIEL GRANT

LIGHTING DESIGNER
MCLA ARCHITECTURAL LIGHTING DESIGN
1000 POTOMAC STREET NW, SUITE 121
WASHINGTON, DC 20007
202.298.8062
CONTACT: FRANK FEIST

ARCHITECT
CORE
1010 WISCONSIN AVE NW SUITE 405
WASHINGTON, DC 20007
202.466.6116
CONTACT: CHRISTOPHER PELI

SEAL & SIGNATURE
COMMONWEALTH OF VIRGINIA
Reg. No. 0401017664
ARCHITECT

SUBMISSIONS/ REVISIONS	
12/02/2022	CONCEPT II
03/13/2023	CONCEPT 2 REVISION

KEY MAP

DATE: 03/13/2023

PROJECT NUMBER: **22019.00**

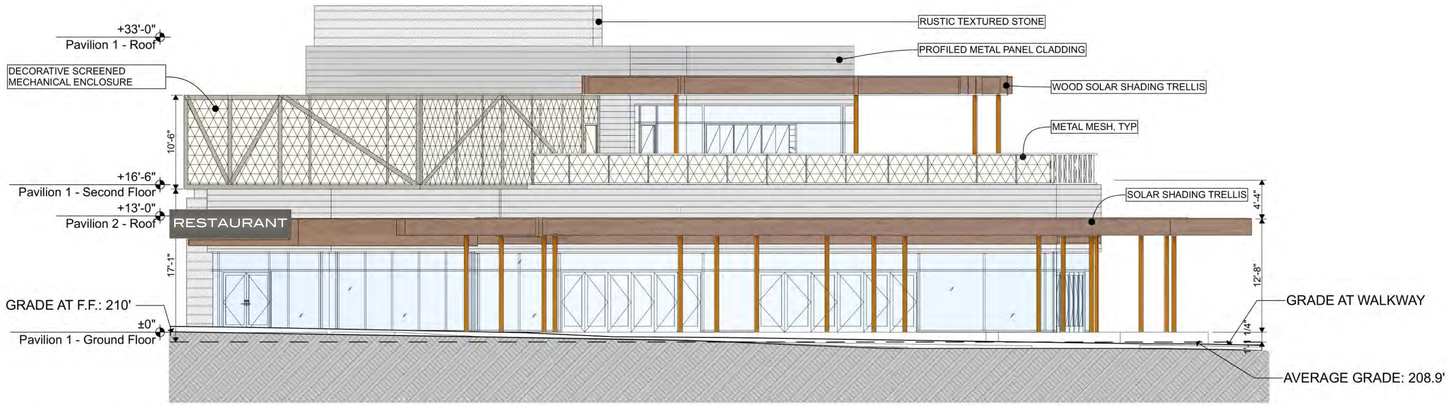
SCALE:

DRAWING TITLE:
Pavilion Sections and FAR Diagrams

SHEET NUMBER:
A.01

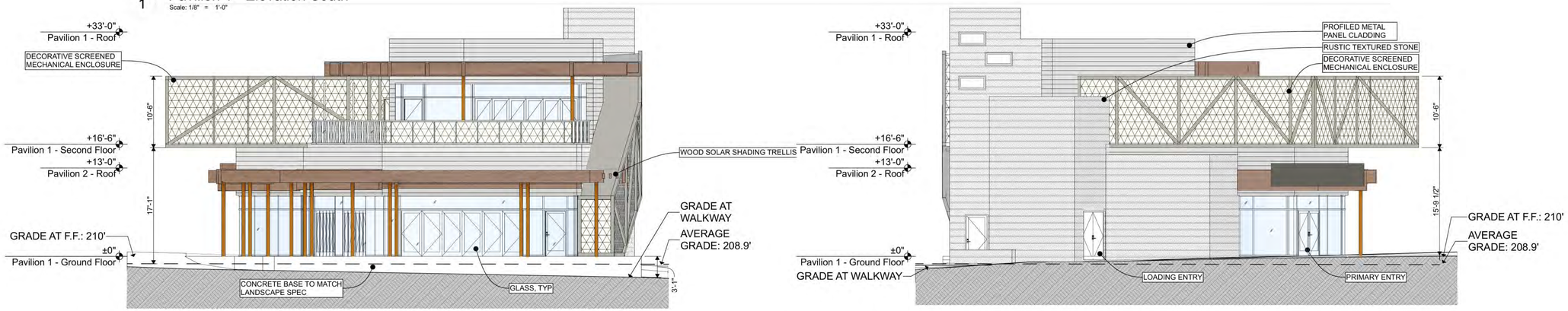
Printed: 5/11/23
©2023 CORE architecture + design, inc.

File Name: "/Volumes/Projects/22019 Landmark Pavilions/22019-Drawings/01 CAD/1-8 Archive/22019_Landmark Pavilions_ARCHIVE_20230414.pla:22019_Landmark Pavilions_ARCHIVE_20230414.pla" Layout: A.01 Pavilion Sections and FAR Diagrams Printed Date: 5/11/23 at 9:58 AM



1 Pavilion 1 - Elevation South

Scale: 1/8" = 1'-0"

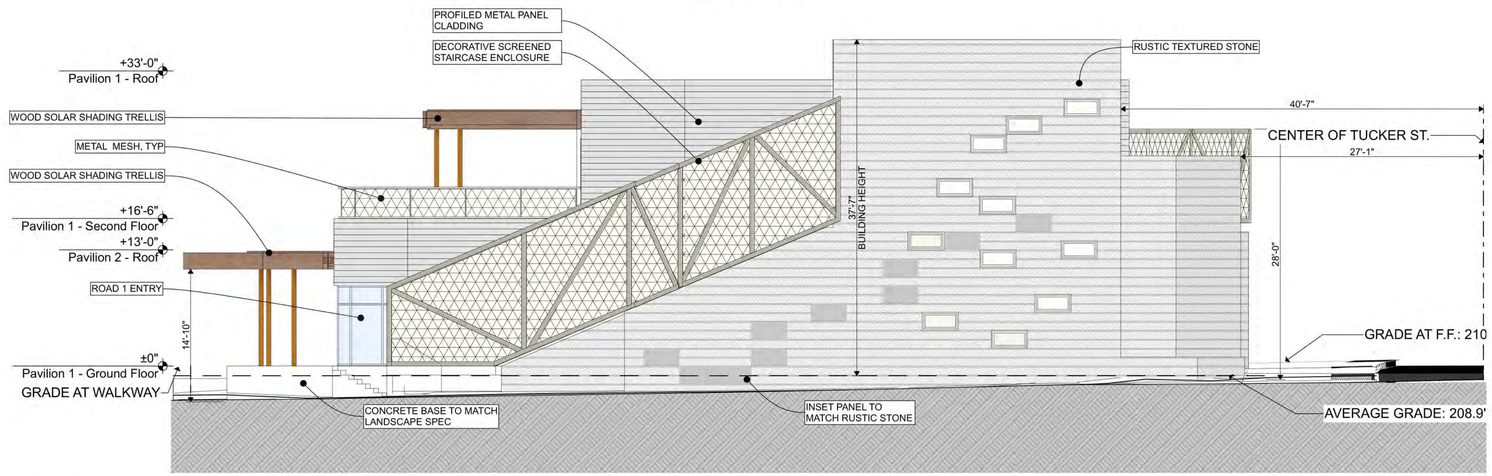


2 Pavilion 1 - Elevation East

Scale: 1/8" = 1'-0"

3 Pavilion 1 - Elevation West

Scale: 1/8" = 1'-0"



4 Pavilion 1 - Elevation North

Scale: 1/8" = 1'-0"

DEVELOPER

FOULGER-PRATT DEVELOPMENT, LLC
12435 PARK POTOMAC AVENUE
SUITE 200
POTOMAC, MD 20854
240.499.9600
CONTACT: JAY KELLY

ATTORNEY

WIRE GILL LLP
700 NORTH FAIRFAX STREET
SUITE 600
ALEXANDRIA, VA 22314
703.677.3129
CONTACT: KENNETH WIRE

CIVIL ENGINEER

URBAN, LTD.
4200D TECHNOLOGY COURT
CHANTILLY, VA 20151
703.376.4221
CONTACT: CLAYTON TOCK, P.E.

LANDSCAPE ARCHITECT

OCULUS
1611 CONNECTICUT AVENUE
THIRD FLOOR
WASHINGTON, DC 20009
202.588.5454
CONTACT: DON HOOVER

FOUNTAIN CONSULTANT

FLUIDITY DESIGN CONSULTANTS
724 S. SPRING STREET, SUITE 1401
LOS ANGELES, CALIFORNIA 90014
213.739.9291
CONTACT: RON SCHAFER

PLAYGROUND CONSULTANT

EARTHSCAPE
7215 WELLINGTON ROAD 86
WALLENSTEIN, ON CANADA N0B 2S0
1.877.269.2972
CONTACT: NATHANIEL GRANT

LIGHTING DESIGNER

MCLA ARCHITECTURAL LIGHTING DESIGN
1000 POTOMAC STREET NW, SUITE 121
WASHINGTON, DC 20007
202.298.8062
CONTACT: FRANK FEIST

ARCHITECT

CORE
1010 WISCONSIN AVE NW SUITE 405
WASHINGTON, DC 20007
202.466.6116
CONTACT: CHRISTOPHER PELI

SEAL & SIGNATURE

SUBMISSIONS/ REVISIONS	
12/02/2022	CONCEPT II
03/13/2023	CONCEPT 2 REVISION

KEY MAP

DATE: 03/13/2023

PROJECT NUMBER: **22019.00**

SCALE:

DRAWING TITLE:

Pavilion 1 Elevations

SHEET NUMBER:

A.02

Printed: 5/11/23

©2023 CORE architecture + design, inc.

APPROVED

SPECIAL USE PERMIT NO.

DEPARTMENT OF PLANNING & ZONING

DIRECTOR DATE

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

SITE PLAN NO.

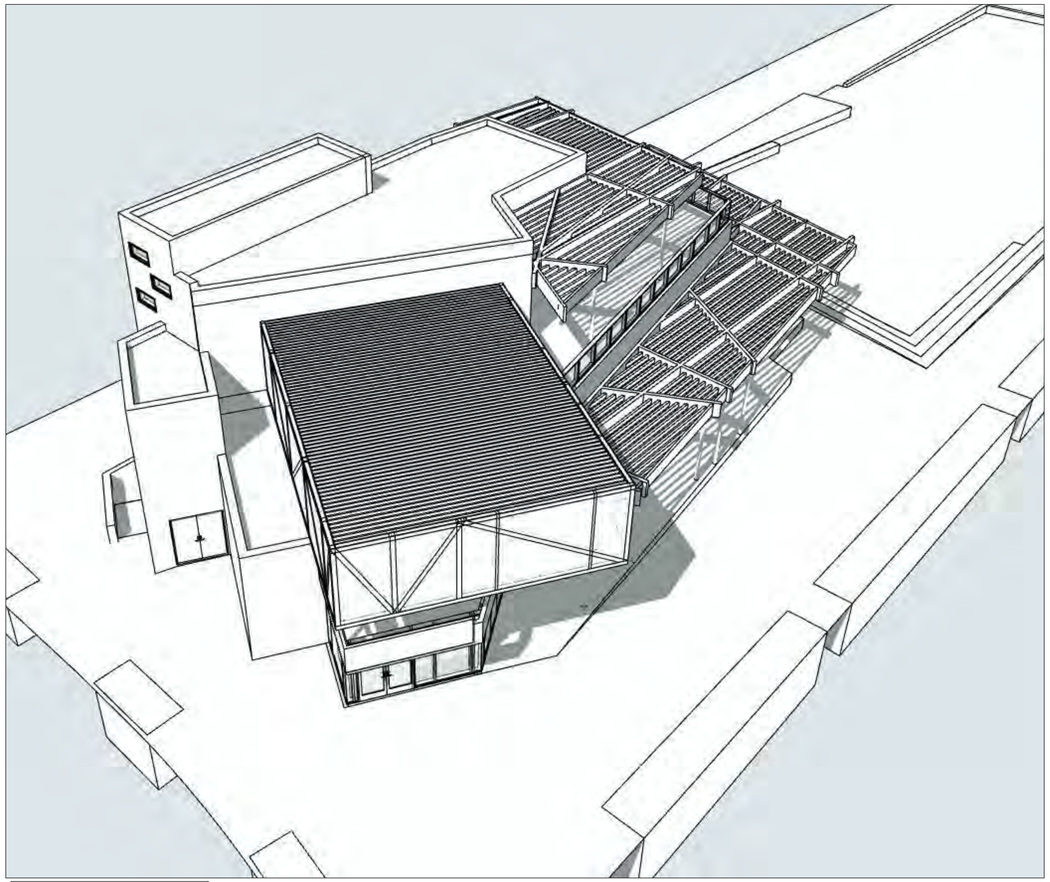
DIRECTOR DATE

CHAIRMAN, PLANNING COMMISSION DATE

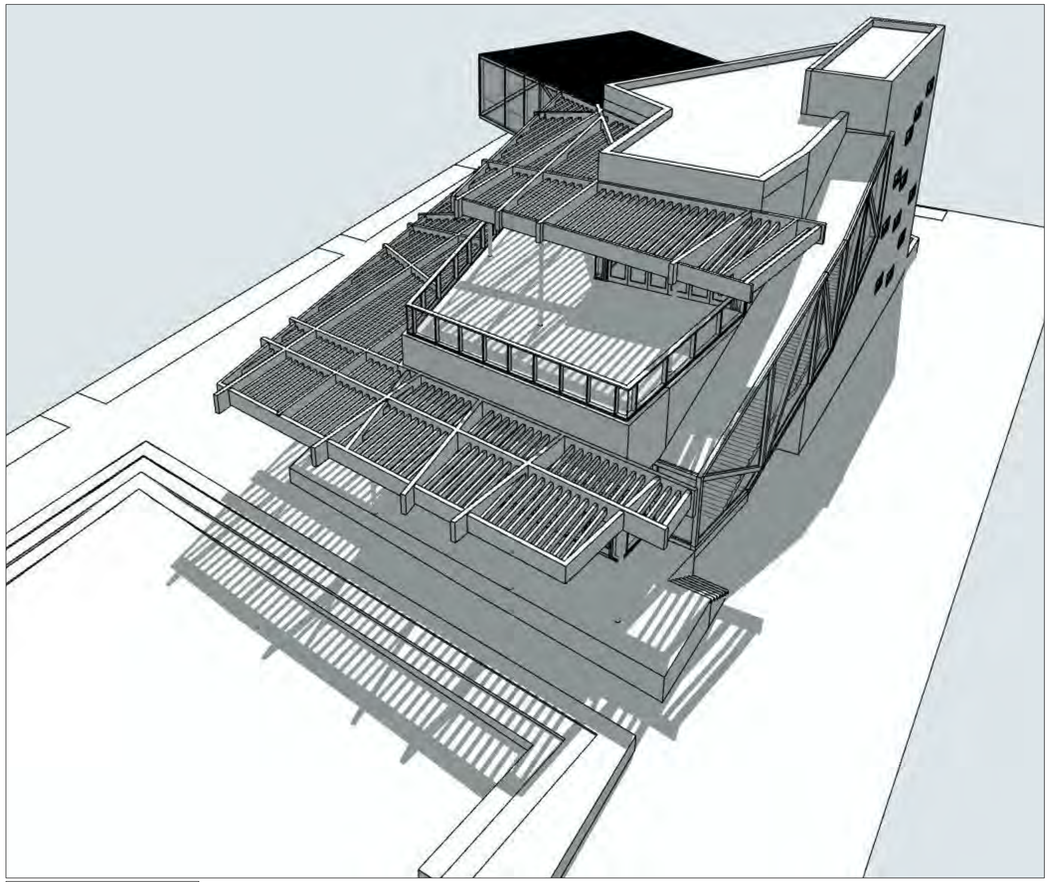
DATE RECORDED

INSTRUMENT NO. DEED BOOK NO. PAGE NO.

File Name: "/Volumes/Projects/22019 Landmark Pavilions/22019-Drawings/01 CAD/1-9 Archive/22019_Landmark Pavilions_ARCHIVE_20230414.pla" Layout: A.02 Pavilion 1 Elevations Printed Date: 5/11/23 at 3:53 PM



PAVILION 1 - SW 3D



PAVILION 1 - NE 3D

DEVELOPER
FOULGER-PRATT DEVELOPMENT, LLC
12435 PARK POTOMAC AVENUE
SUITE 200
POTOMAC, MD 20854
240.499.9600
CONTACT: JAY KELLY

ATTORNEY
WIRE GILL LLP
700 NORTH FAIRFAX STREET
SUITE 600
ALEXANDRIA, VA 22314
703.677.3129
CONTACT: KENNETH WIRE

CIVIL ENGINEER
URBAN, LTD.
4200D TECHNOLOGY COURT
CHANTILLY, VA 20151
703.376.4221
CONTACT: CLAYTON TOCK, P.E.

LANDSCAPE ARCHITECT
OCULUS
1611 CONNECTICUT AVENUE
THIRD FLOOR
WASHINGTON, DC 20009
202.588.5454
CONTACT: DON HOOVER

FOUNTAIN CONSULTANT
FLUIDITY DESIGN CONSULTANTS
724 S. SPRING STREET, SUITE 1401
LOS ANGELES, CALIFORNIA 90014
213.739.9291
CONTACT: RON SCHAFER

PLAYGROUND CONSULTANT
EARTHSCAPE
7215 WELLINGTON ROAD 86
WALLENSTEIN, ON CANADA N0B 2S0
1.877.269.2972
CONTACT: NATHANIEL GRANT

LIGHTING DESIGNER
MCLA ARCHITECTURAL LIGHTING DESIGN
1000 POTOMAC STREET NW, SUITE 121
WASHINGTON, DC 20007
202.298.8062
CONTACT: FRANK FEIST

ARCHITECT
CORE
1010 WISCONSIN AVE NW SUITE 405
WASHINGTON, DC 20007
202.466.6116
CONTACT: CHRISTOPHER PELI

SEAL & SIGNATURE

COMMONWEALTH OF VIRGINIA
Reg. No. 0401017664
ARCHITECT

SUBMISSIONS/ REVISIONS	
12/02/2022	CONCEPT II
03/13/2023	CONCEPT 2 REVISION

KEY MAP

N

DATE: 03/13/2023

PROJECT NUMBER: **22019.00**

SCALE:

DRAWING TITLE:
Pavilion 1 Mass
Orientation Diagrams

SHEET NUMBER:
A.03

Printed: 3/13/23
©2023 CORE architecture + design, inc.

APPROVED
SPECIAL USE PERMIT NO.
DEPARTMENT OF PLANNING & ZONING
DIRECTOR — DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO.
DIRECTOR — DATE
CHAIRMAN, PLANNING COMMISSION — DATE
DATE RECORDED
INSTRUMENT NO. — DEED BOOK NO. — PAGE NO.

File Name: "BIMcloud : xserve04.coredc.com - BIMcloud Basic for ARCHICAD 23/22019_Landmark Pavilions-22019 _Landmark Pavilions" Layout: A.03 Pavilion 1 Mass Orientation Diagrams Printed Date: 3/13/23 at 5:18 PM

DEVELOPER

FOULGER-PRATT DEVELOPMENT, LLC
12435 PARK POTOMAC AVENUE
SUITE 200
POTOMAC, MD 20854
240.499.9600
CONTACT: JAY KELLY

ATTORNEY

WIRE GILL LLP
700 NORTH FAIRFAX STREET
SUITE 600
ALEXANDRIA, VA 22314
703.677.3129
CONTACT: KENNETH WIRE

CIVIL ENGINEER

URBAN, LTD.
4200D TECHNOLOGY COURT
CHANTILLY, VA 20151
703.376.4221
CONTACT: CLAYTON TOCK, P.E.

LANDSCAPE ARCHITECT

OCULUS
1611 CONNECTICUT AVENUE
THIRD FLOOR
WASHINGTON, DC 20009
202.588.5454
CONTACT: DON HOOVER

FOUNTAIN CONSULTANT

FLUIDITY DESIGN CONSULTANTS
724 S. SPRING STREET, SUITE 1401
LOS ANGELES, CALIFORNIA 90014
213.739.9291
CONTACT: RON SCHAFER

PLAYGROUND CONSULTANT

EARTHSCAPE
7215 WELLINGTON ROAD 86
WALLENSTEIN, ON CANADA N0B 2S0
1.877.269.2972
CONTACT: NATHANIEL GRANT

LIGHTING DESIGNER

MCLA ARCHITECTURAL LIGHTING DESIGN
1000 POTOMAC STREET NW, SUITE 121
WASHINGTON, DC 20007
202.298.8062
CONTACT: FRANK FEIST

ARCHITECT

CORE
1010 WISCONSIN AVE NW SUITE 405
WASHINGTON, DC 20007
202.466.6116
CONTACT: CHRISTOPHER PELI

SEAL & SIGNATURE

COMMONWEALTH OF VIRGINIA
Reg. No. 0401017654
ARCHITECT

SUBMISSIONS/ REVISIONS	
12/02/2022	CONCEPT II
03/13/2023	CONCEPT 2 REVISION

KEY MAP

N

DATE: 03/13/2023

PROJECT NUMBER: **22019.00**

SCALE:

DRAWING TITLE:

Pavilion 1 Rendering

SHEET NUMBER:

A.04

Printed: 3/13/23

©2023 CORE architecture + design, inc.

APPROVED

SPECIAL USE PERMIT NO. _____

DEPARTMENT OF PLANNING & ZONING

DIRECTOR _____ DATE _____

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

SITE PLAN NO. _____

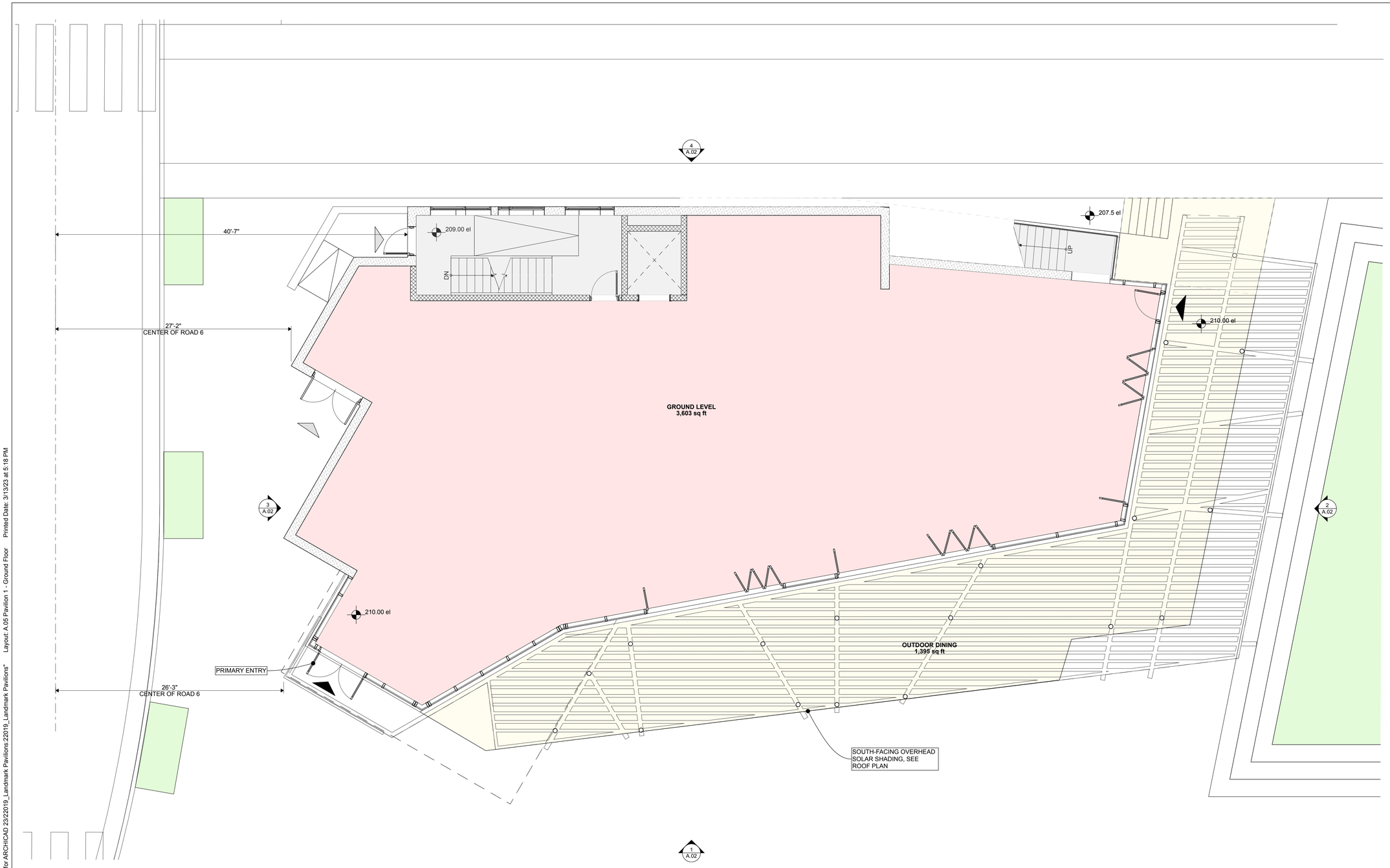
DIRECTOR _____ DATE _____

CHAIRMAN, PLANNING COMMISSION _____ DATE _____

DATE RECORDED _____

INSTRUMENT NO. _____ DEED BOOK NO. _____ PAGE NO. _____

File Name: "BIMcloud: xserve04.coredc.com - BIMcloud Basic for ARCHICAD 23/22019_Landmark Pavilions 22019_Landmark Pavilions" Layout: A.04 Pavilion 1 Rendering Printed Date: 3/13/23 at 5:18 PM



1 Pavilion 1 - Ground Floor

Scale: 3/16" = 1'-0"

File Name: "BIMcloud: xserve04.coredc.com - BIMcloud Basic for ARCHICAD 23/22019_Landmark Pavilions 22019_Landmark Pavilions" Layout: A.05 Pavilion 1 - Ground Floor Printed Date: 3/13/23 at 5:18 PM

DEVELOPER

FOULGER-PRATT DEVELOPMENT, LLC
12435 PARK POTOMAC AVENUE
SUITE 200
POTOMAC, MD 20854
240.499.9600
CONTACT: JAY KELLY

ATTORNEY

WIRE GILL LLP
700 NORTH FAIRFAX STREET
SUITE 600
ALEXANDRIA, VA 22314
703.677.3129
CONTACT: KENNETH WIRE

CIVIL ENGINEER

URBAN, LTD.
4200D TECHNOLOGY COURT
CHANTILLY, VA 20151
703.376.4221
CONTACT: CLAYTON TOCK, P.E.

LANDSCAPE ARCHITECT

OCULUS
1611 CONNECTICUT AVENUE
THIRD FLOOR
WASHINGTON, DC 20009
202.588.5454
CONTACT: DON HOOVER

FOUNTAIN CONSULTANT

FLUIDITY DESIGN CONSULTANTS
724 S. SPRING STREET, SUITE 1401
LOS ANGELES, CALIFORNIA 90014
213.739.9291
CONTACT: RON SCHAFER

PLAYGROUND CONSULTANT

EARTHSCAPE
7215 WELLINGTON ROAD 86
WALLENSTEIN, ON CANADA N0B 2S0
1.877.269.2972
CONTACT: NATHANIEL GRANT

LIGHTING DESIGNER

MCLA ARCHITECTURAL LIGHTING DESIGN
1000 POTOMAC STREET NW, SUITE 121
WASHINGTON, DC 20007
202.298.8062
CONTACT: FRANK FEIST

ARCHITECT

CORE
1010 WISCONSIN AVE NW SUITE 405
WASHINGTON, DC 20007
202.466.6116
CONTACT: CHRISTOPHER PELI

SEAL & SIGNATURE

COMMONWEALTH OF VIRGINIA
Reg. No. 0401017654
ARCHITECT

SUBMISSIONS/ REVISIONS	
12/02/2022	CONCEPT II
03/13/2023	CONCEPT 2 REVISION

KEY MAP

N

DATE: 03/13/2023

PROJECT NUMBER: **22019.00**

SCALE:

DRAWING TITLE:

Pavilion 1 - Ground Floor

SHEET NUMBER:

A.05

Printed: 3/13/23

©2023 CORE architecture + design, inc.

APPROVED

SPECIAL USE PERMIT NO.

DEPARTMENT OF PLANNING & ZONING

DIRECTOR DATE

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

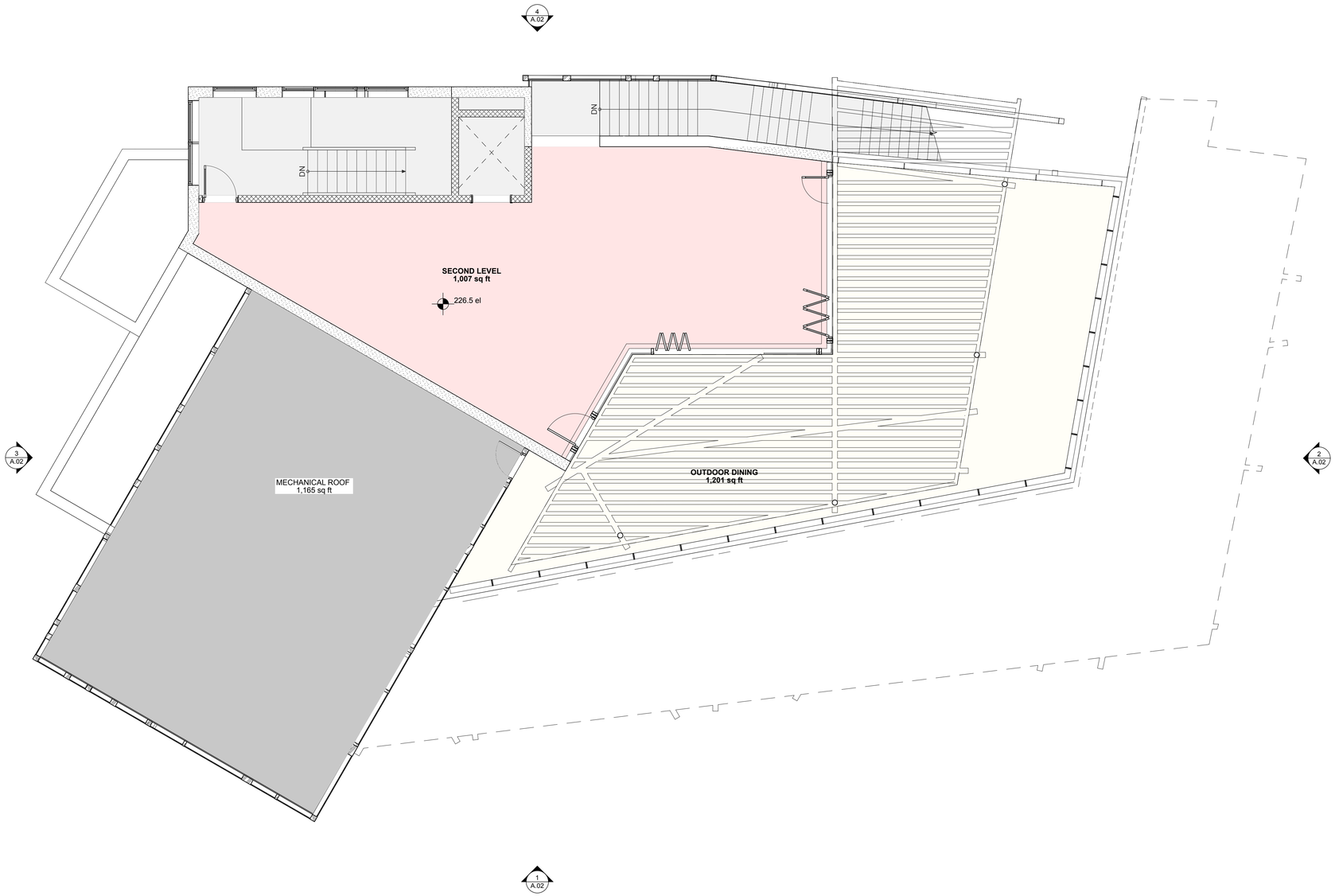
SITE PLAN NO.

DIRECTOR DATE

CHAIRMAN, PLANNING COMMISSION DATE

DATE RECORDED

INSTRUMENT NO. DEED BOOK NO. PAGE NO.



1 Pavilion 1 - Second Floor
Scale: 3/16" = 1'-0"

APPROVED
SPECIAL USE PERMIT NO.
DEPARTMENT OF PLANNING & ZONING
DIRECTOR DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO.
DIRECTOR DATE
CHAIRMAN, PLANNING COMMISSION DATE
DATE RECORDED
INSTRUMENT NO. DEED BOOK NO. PAGE NO.

DEVELOPER
FOULGER-PRATT DEVELOPMENT, LLC
12435 PARK POTOMAC AVENUE
SUITE 200
POTOMAC, MD 20854
240.499.9600
CONTACT: JAY KELLY

ATTORNEY
WIRE GILL LLP
700 NORTH FAIRFAX STREET
SUITE 600
ALEXANDRIA, VA 22314
703.677.3129
CONTACT: KENNETH WIRE

CIVIL ENGINEER
URBAN, LTD.
4200D TECHNOLOGY COURT
CHANTILLY, VA 20151
703.376.4221
CONTACT: CLAYTON TOCK, P.E.

LANDSCAPE ARCHITECT
OCULUS
1611 CONNECTICUT AVENUE
THIRD FLOOR
WASHINGTON, DC 20009
202.588.5454
CONTACT: DON HOOVER

FOUNTAIN CONSULTANT
FLUIDITY DESIGN CONSULTANTS
724 S. SPRING STREET, SUITE 1401
LOS ANGELES, CALIFORNIA 90014
213.739.9291
CONTACT: RON SCHAFER

PLAYGROUND CONSULTANT
EARTHSCAPE
7215 WELLINGTON ROAD 86
WALLENSTEIN, ON CANADA N0B 2S0
1.877.269.2972
CONTACT: NATHANIEL GRANT

LIGHTING DESIGNER
MCLA ARCHITECTURAL LIGHTING DESIGN
1000 POTOMAC STREET NW, SUITE 121
WASHINGTON, DC 20007
202.298.8062
CONTACT: FRANK FEIST

ARCHITECT
CORE
1010 WISCONSIN AVE NW SUITE 405
WASHINGTON, DC 20007
202.466.6116
CONTACT: CHRISTOPHER PELI

SEAL & SIGNATURE

COMMONWEALTH OF VIRGINIA
Lic. No. 0401017664
ARCHITECT

SUBMISSIONS/ REVISIONS	
12/02/2022	CONCEPT II
03/13/2023	CONCEPT 2 REVISION

KEY MAP

DATE: 03/13/2023

PROJECT NUMBER: **22019.00**

SCALE:

DRAWING TITLE:
Pavilion 1 - Second Floor

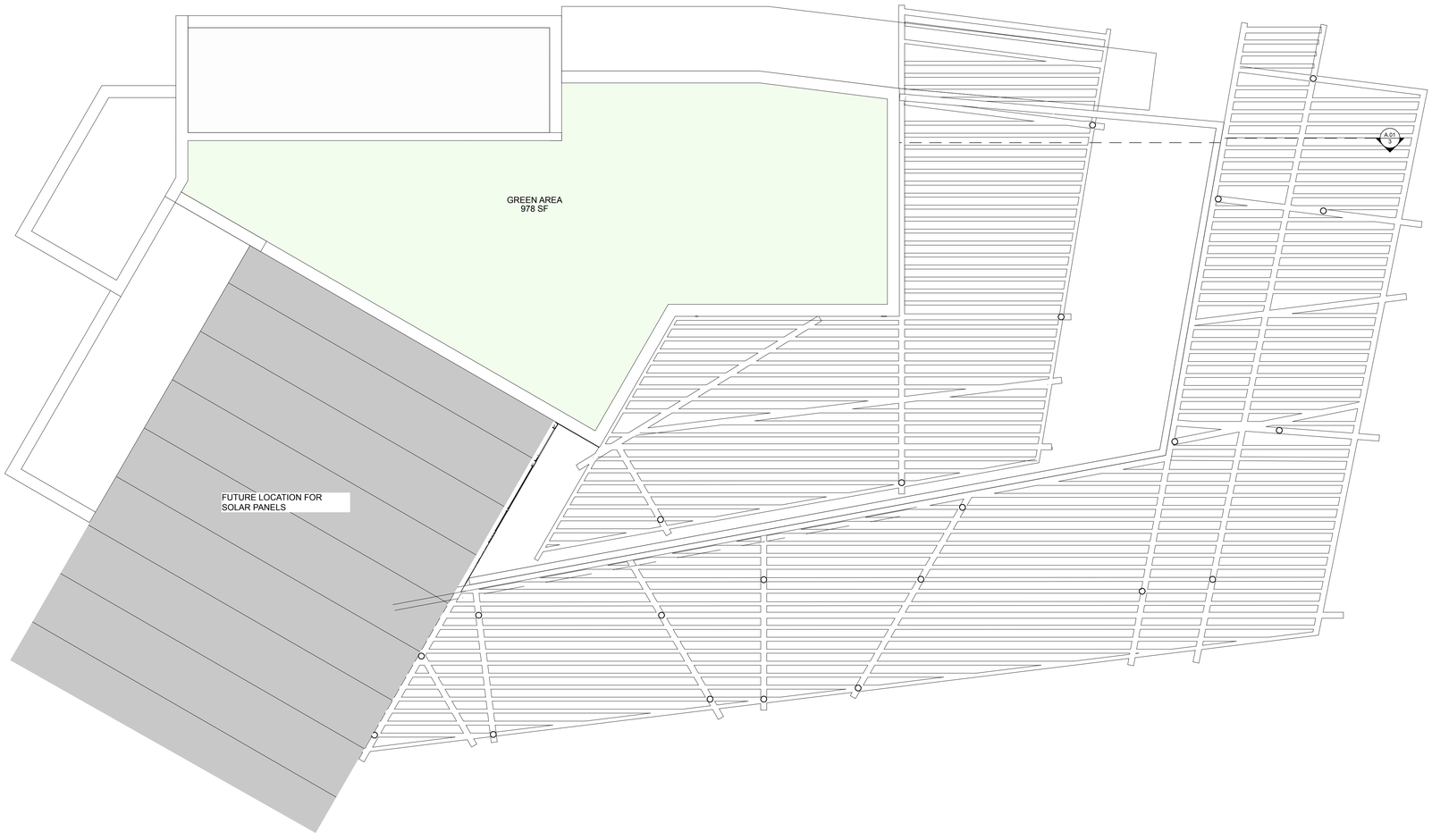
SHEET NUMBER:
A.06

Printed: 3/13/23
©2023 CORE architecture + design, inc.

File Name: "BIMcloud : xserve04.coredc.com - BIMcloud Basic for ARCHICAD 23/22019_Landmark Pavilions-22019_Landmark Pavilions" Layout: A.06 Pavilion 1 - Second Floor Printed Date: 3/13/23 at 5:18 PM

Combined Total Roof SF of Pavilion 1 and 2: 6,425 SF
15% of 6,425: 963 SF
Current Green Roof Plan: 978 SF (21%)

With this proposal, we have consolidated all green roof area to be on Pavilion 1 as this amount still exceeds the required 15% rule.



1 Pavilion 1 - Roof
Scale: 3/16" = 1'-0"

DEVELOPER
FOULGER-PRATT DEVELOPMENT, LLC
12435 PARK POTOMAC AVENUE
SUITE 200
POTOMAC, MD 20854
240.499.9600
CONTACT: JAY KELLY

ATTORNEY
WIRE GILL LLP
700 NORTH FAIRFAX STREET
SUITE 600
ALEXANDRIA, VA 22314
703.677.3129
CONTACT: KENNETH WIRE

CIVIL ENGINEER
URBAN, LTD.
4200D TECHNOLOGY COURT
CHANTILLY, VA 20151
703.376.4221
CONTACT: CLAYTON TOCK, P.E.

LANDSCAPE ARCHITECT
OCULUS
1611 CONNECTICUT AVENUE
THIRD FLOOR
WASHINGTON, DC 20009
202.588.5454
CONTACT: DON HOOVER

FOUNTAIN CONSULTANT
FLUIDITY DESIGN CONSULTANTS
724 S. SPRING STREET, SUITE 1401
LOS ANGELES, CALIFORNIA 90014
213.739.9291
CONTACT: RON SCHAFER

PLAYGROUND CONSULTANT
EARTHSCAPE
7215 WELLINGTON ROAD 86
WALLENSTEIN, ON CANADA N0B 2S0
1.877.269.2972
CONTACT: NATHANIEL GRANT

LIGHTING DESIGNER
MCLA ARCHITECTURAL LIGHTING DESIGN
1000 POTOMAC STREET NW, SUITE 121
WASHINGTON, DC 20007
202.298.8062
CONTACT: FRANK FEIST

ARCHITECT
CORE
1010 WISCONSIN AVE NW SUITE 405
WASHINGTON, DC 20007
202.466.6116
CONTACT: CHRISTOPHER PELI

SEAL & SIGNATURE

COMMONWEALTH OF VIRGINIA
Lic. No. 0401017664
ARCHITECT

SUBMISSIONS/ REVISIONS	
12/02/2022	CONCEPT II
03/13/2023	CONCEPT 2 REVISION

KEY MAP

N

DATE: 03/13/2023

PROJECT NUMBER: **22019.00**

SCALE:

DRAWING TITLE:

Pavilion 1 - Roof Plan

SHEET NUMBER:

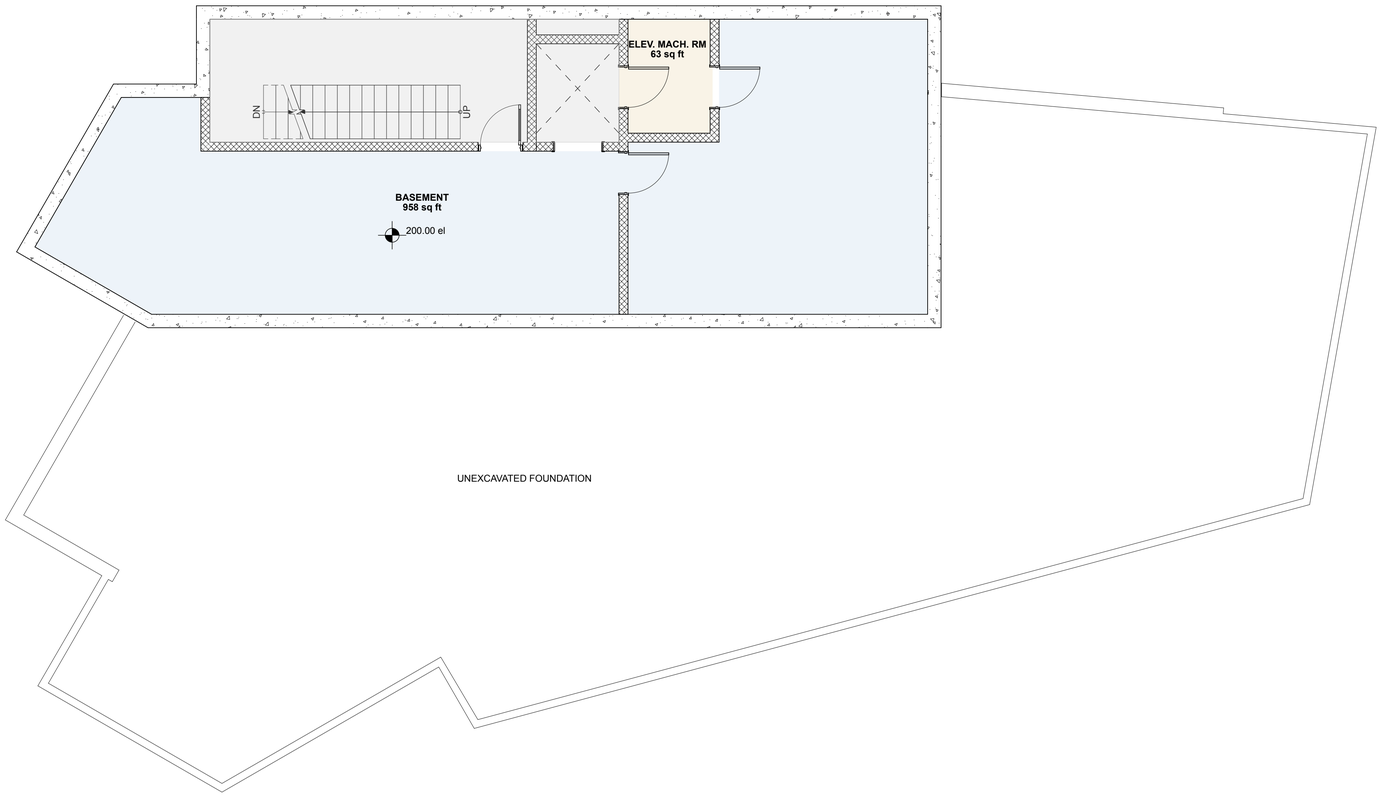
A.07

Printed: 5/11/23

©2023 CORE architecture + design, inc.

APPROVED
SPECIAL USE PERMIT NO. _____
DEPARTMENT OF PLANNING & ZONING
DIRECTOR _____ DATE _____
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
DIRECTOR _____ DATE _____
CHAIRMAN, PLANNING COMMISSION _____ DATE _____
DATE RECORDED _____
INSTRUMENT NO. _____ DEED BOOK NO. _____ PAGE NO. _____

File Name: "\Volumes\Projects\22019 Landmark Pavilions\22019-Drawings\01 CAD\1-8 Archive\22019_Landmark Pavilions_ARCHIVE_20230414.pla:22019_Landmark Pavilions_ARCHIVE_20230414_pla" Layout: A.07 Pavilion 1 - Roof Plan Printed Date: 5/11/23 at 10:07 AM



1 Pavilion 1 - Basement
Scale: 3/16" = 1'-0"

APPROVED
SPECIAL USE PERMIT NO.
DEPARTMENT OF PLANNING & ZONING
DIRECTOR DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO.
DIRECTOR DATE
CHAIRMAN, PLANNING COMMISSION DATE
DATE RECORDED
INSTRUMENT NO. DEED BOOK NO. PAGE NO.

DEVELOPER
FOULGER-PRATT DEVELOPMENT, LLC
12435 PARK POTOMAC AVENUE
SUITE 200
POTOMAC, MD 20854
240.499.9600
CONTACT: JAY KELLY

ATTORNEY
WIRE GILL LLP
700 NORTH FAIRFAX STREET
SUITE 600
ALEXANDRIA, VA 22314
703.677.3129
CONTACT: KENNETH WIRE

CIVIL ENGINEER
URBAN, LTD.
4200D TECHNOLOGY COURT
CHANTILLY, VA 20151
703.376.4221
CONTACT: CLAYTON TOCK, P.E.

LANDSCAPE ARCHITECT
OCULUS
1611 CONNECTICUT AVENUE
THIRD FLOOR
WASHINGTON, DC 20009
202.588.5454
CONTACT: DON HOOVER

FOUNTAIN CONSULTANT
FLUIDITY DESIGN CONSULTANTS
724 S. SPRING STREET, SUITE 1401
LOS ANGELES, CALIFORNIA 90014
213.739.9291
CONTACT: RON SCHAFER

PLAYGROUND CONSULTANT
EARTHSCAPE
7215 WELLINGTON ROAD 86
WALLENSTEIN, ON CANADA N0B 2S0
1.877.269.2972
CONTACT: NATHANIEL GRANT

LIGHTING DESIGNER
MCLA ARCHITECTURAL LIGHTING DESIGN
1000 POTOMAC STREET NW, SUITE 121
WASHINGTON, DC 20007
202.298.8062
CONTACT: FRANK FEIST

ARCHITECT
CORE
1010 WISCONSIN AVE NW SUITE 405
WASHINGTON, DC 20007
202.466.6116
CONTACT: CHRISTOPHER PELI

SEAL & SIGNATURE
COMMONWEALTH OF VIRGINIA
Lic. No. 0401017604
ARCHITECT

SUBMISSIONS/ REVISIONS

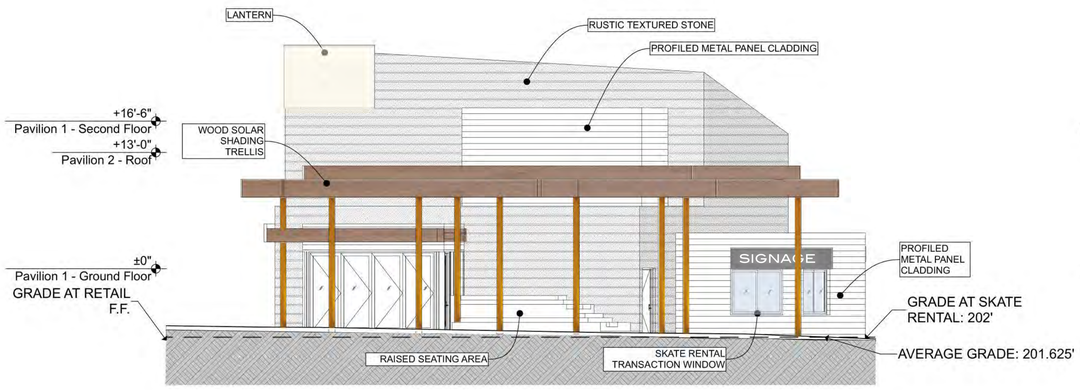
12/02/2022	CONCEPT II
03/13/2023	CONCEPT 2 REVISION

KEY MAP

DATE: 03/13/2023
PROJECT NUMBER: **22019.00**
SCALE:
DRAWING TITLE:
Pavilion 1 - Basement
SHEET NUMBER:
A.08

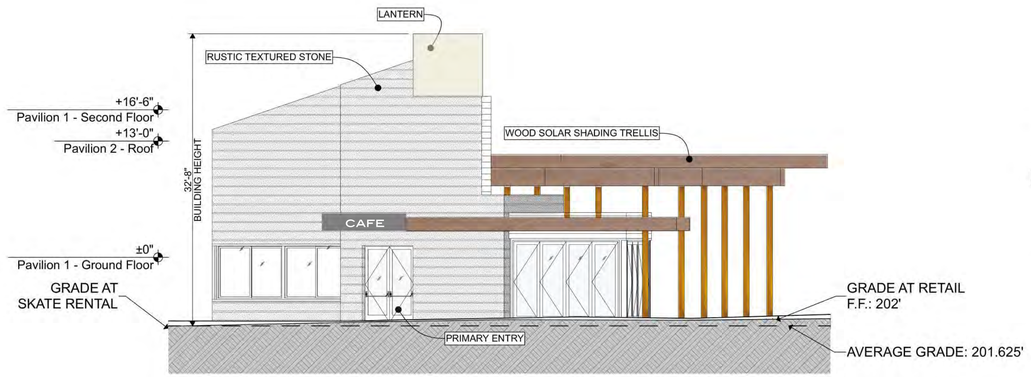
Printed: 3/13/23
©2023 CORE architecture + design, inc.

File Name: "BIMcloud: xserve04.coredc.com - BIMcloud Basic for ARCHICAD 23/22019_Landmark Pavilions:22019_Landmark Pavilions" Layout: A.08 Pavilion 1 - Basement Printed Date: 3/13/23 at 5:18 PM

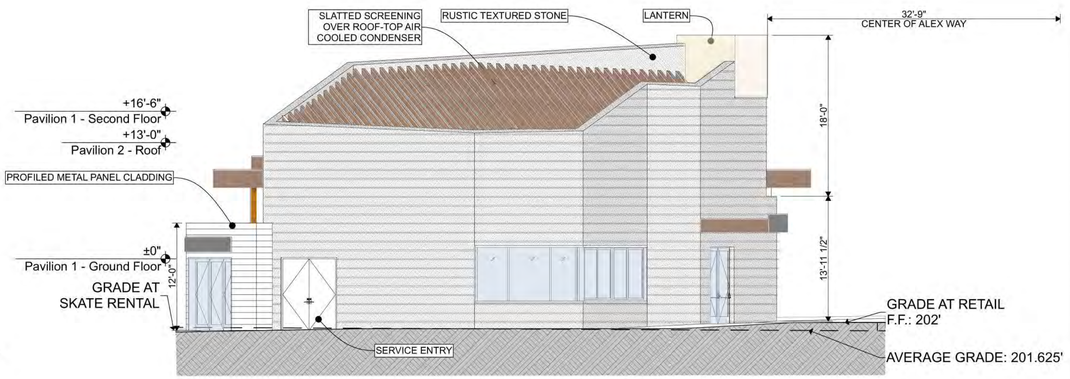


1 Pavilion 2 - Elevation South
Scale: 1/8" = 1'-0"

2 Pavilion 2 - Elevation East
Scale: 1/8" = 1'-0"



3 Pavilion 2 - Elevation West
Scale: 1/8" = 1'-0"



4 Pavilion 2 - Elevation North
Scale: 1/8" = 1'-0"

DEVELOPER
FOULGER-PRATT DEVELOPMENT, LLC
12435 PARK POTOMAC AVENUE
SUITE 200
POTOMAC, MD 20854
240.499.9600
CONTACT: JAY KELLY

ATTORNEY
WIRE GILL LLP
700 NORTH FAIRFAX STREET
SUITE 600
ALEXANDRIA, VA 22314
703.677.3129
CONTACT: KENNETH WIRE

CIVIL ENGINEER
URBAN, LTD.
4200D TECHNOLOGY COURT
CHANTILLY, VA 20151
703.376.4221
CONTACT: CLAYTON TOCK, P.E.

LANDSCAPE ARCHITECT
OCULUS
1611 CONNECTICUT AVENUE
THIRD FLOOR
WASHINGTON, DC 20009
202.588.5454
CONTACT: DON HOOVER

FOUNTAIN CONSULTANT
FLUIDITY DESIGN CONSULTANTS
724 S. SPRING STREET, SUITE 1401
LOS ANGELES, CALIFORNIA 90014
213.739.9291
CONTACT: RON SCHAFER

PLAYGROUND CONSULTANT
EARTHSCAPE
7215 WELLINGTON ROAD 86
WALLENSTEIN, ON CANADA N0B 2S0
1.877.269.2972
CONTACT: NATHANIEL GRANT

LIGHTING DESIGNER
MCLA ARCHITECTURAL LIGHTING DESIGN
1000 POTOMAC STREET NW, SUITE 121
WASHINGTON, DC 20007
202.298.8062
CONTACT: FRANK FEIST

ARCHITECT
CORE
1010 WISCONSIN AVE NW SUITE 405
WASHINGTON, DC 20007
202.466.6116
CONTACT: CHRISTOPHER PELI

SEAL & SIGNATURE

COMMONWEALTH OF VIRGINIA
Reg. No. 0401017664
ARCHITECT

SUBMISSIONS/ REVISIONS	
12/02/2022	CONCEPT II
03/13/2023	CONCEPT 2 REVISION

KEY MAP

DATE: 03/13/2023

PROJECT NUMBER: **22019.00**

SCALE:

DRAWING TITLE:

Pavilion 2 Elevations

SHEET NUMBER:

A.09

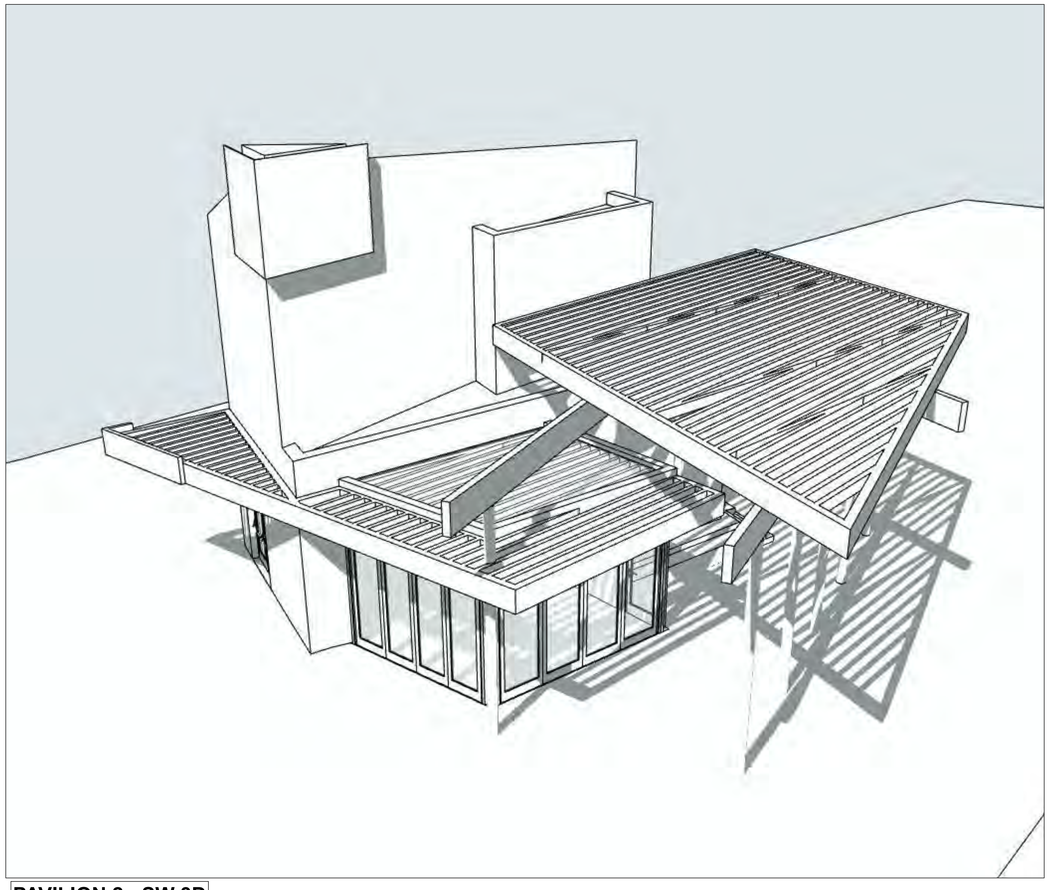
Printed: 3/16/23

©2023 CORE architecture + design, inc.

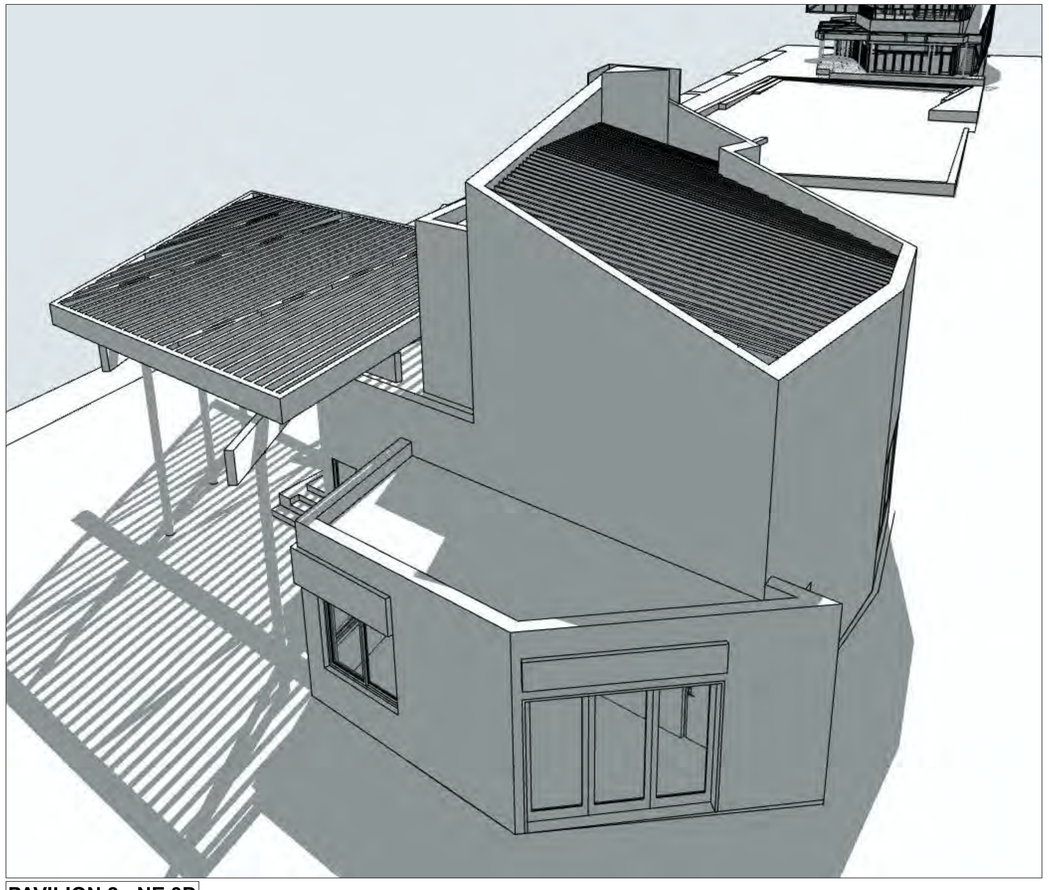
APPROVED
SPECIAL USE PERMIT NO.
DEPARTMENT OF PLANNING & ZONING
DIRECTOR DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO.
DIRECTOR DATE
CHAIRMAN, PLANNING COMMISSION DATE
DATE RECORDED
INSTRUMENT NO. DEED BOOK NO. PAGE NO.

File Name: "BIMcloud: xserve04.coredc.com - BIMcloud Basic for ARCHICAD 23/22019_Landmark Pavilions:22019_Landmark Pavilions" Layout: A.09 Pavilion 2 Elevations Printed Date: 3/16/23 at 2:15 PM

File Name: "BIM360docs: xserve04.coredc.com - BIM360ud Basic for ARCHICAD 23/22019_Landmark Pavilions:22019_Landmark Pavilions" Layout: A.10 Pavilion 2 Mass Orientation Diagrams Printed Date: 3/13/23 at 5:18 PM



PAVILION 2 - SW 3D



PAVILION 2 - NE 3D

APPROVED

SPECIAL USE PERMIT NO. _____

DEPARTMENT OF PLANNING & ZONING

DIRECTOR _____ DATE _____

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

SITE PLAN NO. _____

DIRECTOR _____ DATE _____

CHAIRMAN, PLANNING COMMISSION _____ DATE _____

DATE RECORDED _____

INSTRUMENT NO. _____ DEED BOOK NO. _____ PAGE NO. _____

DEVELOPER

FOULGER-PRATT DEVELOPMENT, LLC
12435 PARK POTOMAC AVENUE
SUITE 200
POTOMAC, MD 20854
240.499.9600
CONTACT: JAY KELLY

ATTORNEY

WIRE GILL LLP
700 NORTH FAIRFAX STREET
SUITE 600
ALEXANDRIA, VA 22314
703.677.3129
CONTACT: KENNETH WIRE

CIVIL ENGINEER

URBAN, LTD.
4200D TECHNOLOGY COURT
CHANTILLY, VA 20151
703.376.4221
CONTACT: CLAYTON TOCK, P.E.

LANDSCAPE ARCHITECT

OCULUS
1611 CONNECTICUT AVENUE
THIRD FLOOR
WASHINGTON, DC 20009
202.588.5454
CONTACT: DON HOOVER

FOUNTAIN CONSULTANT

FLUIDITY DESIGN CONSULTANTS
724 S. SPRING STREET, SUITE 1401
LOS ANGELES, CALIFORNIA 90014
213.739.9291
CONTACT: RON SCHAFER

PLAYGROUND CONSULTANT

EARTHSCAPE
7215 WELLINGTON ROAD 86
WALLENSTEIN, ON CANADA N0B 2S0
1.877.269.2972
CONTACT: NATHANIEL GRANT

LIGHTING DESIGNER

MCLA ARCHITECTURAL LIGHTING DESIGN
1000 POTOMAC STREET NW, SUITE 121
WASHINGTON, DC 20007
202.298.8062
CONTACT: FRANK FEIST

ARCHITECT

CORE
1010 WISCONSIN AVE NW SUITE 405
WASHINGTON, DC 20007
202.466.6116
CONTACT: CHRISTOPHER PELI

SEAL & SIGNATURE

COMMONWEALTH OF VIRGINIA
Lic. No. 0401017664
ARCHITECT

SUBMISSIONS/ REVISIONS	
12/02/2022	CONCEPT II
03/13/2023	CONCEPT 2 REVISION

KEY MAP

N

DATE: 03/13/2023

PROJECT NUMBER: **22019.00**

SCALE:

DRAWING TITLE:
Pavilion 2 Mass
Orientation Diagrams

SHEET NUMBER:
A.10

Printed: 3/13/23
©2023 CORE architecture + design, inc.

File Name: "BIMcloud : xserve04.coredc.com - BIMcloud Basic for ARCHICAD 23/22019_Landmark Pavilions-22019_Landmark Pavilions" Layout: A.11 Pavilion 2 Rendering Printed Date: 3/13/23 at 5:18 PM

DEVELOPER

FOULGER-PRATT DEVELOPMENT, LLC
12435 PARK POTOMAC AVENUE
SUITE 200
POTOMAC, MD 20854
240.499.9600
CONTACT: JAY KELLY

ATTORNEY

WIRE GILL LLP
700 NORTH FAIRFAX STREET
SUITE 600
ALEXANDRIA, VA 22314
703.677.3129
CONTACT: KENNETH WIRE

CIVIL ENGINEER

URBAN, LTD.
4200D TECHNOLOGY COURT
CHANTILLY, VA 20151
703.376.4221
CONTACT: CLAYTON TOCK, P.E.

LANDSCAPE ARCHITECT

OCULUS
1611 CONNECTICUT AVENUE
THIRD FLOOR
WASHINGTON, DC 20009
202.588.5454
CONTACT: DON HOOVER

FOUNTAIN CONSULTANT

FLUIDITY DESIGN CONSULTANTS
724 S. SPRING STREET, SUITE 1401
LOS ANGELES, CALIFORNIA 90014
213.739.9291
CONTACT: RON SCHAFER

PLAYGROUND CONSULTANT

EARTHSCAPE
7215 WELLINGTON ROAD 86
WALLENSTEIN, ON CANADA N0B 2S0
1.877.269.2972
CONTACT: NATHANIEL GRANT

LIGHTING DESIGNER

MCLA ARCHITECTURAL LIGHTING DESIGN
1000 POTOMAC STREET NW, SUITE 121
WASHINGTON, DC 20007
202.298.8062
CONTACT: FRANK FEIST

ARCHITECT

CORE
1010 WISCONSIN AVE NW SUITE 405
WASHINGTON, DC 20007
202.466.6116
CONTACT: CHRISTOPHER PELI

SEAL & SIGNATURE

COMMONWEALTH OF VIRGINIA
Lic. No. 0401017664
ARCHITECT

SUBMISSIONS/ REVISIONS	
12/02/2022	CONCEPT II
03/13/2023	CONCEPT 2 REVISION

KEY MAP

N

DATE: 03/13/2023

PROJECT NUMBER: **22019.00**

SCALE:

DRAWING TITLE:

Pavilion 2 Rendering

SHEET NUMBER:

A.11

Printed: 3/13/23

©2023 CORE architecture + design, inc.

APPROVED

SPECIAL USE PERMIT NO. _____

DEPARTMENT OF PLANNING & ZONING

DIRECTOR _____ DATE _____

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

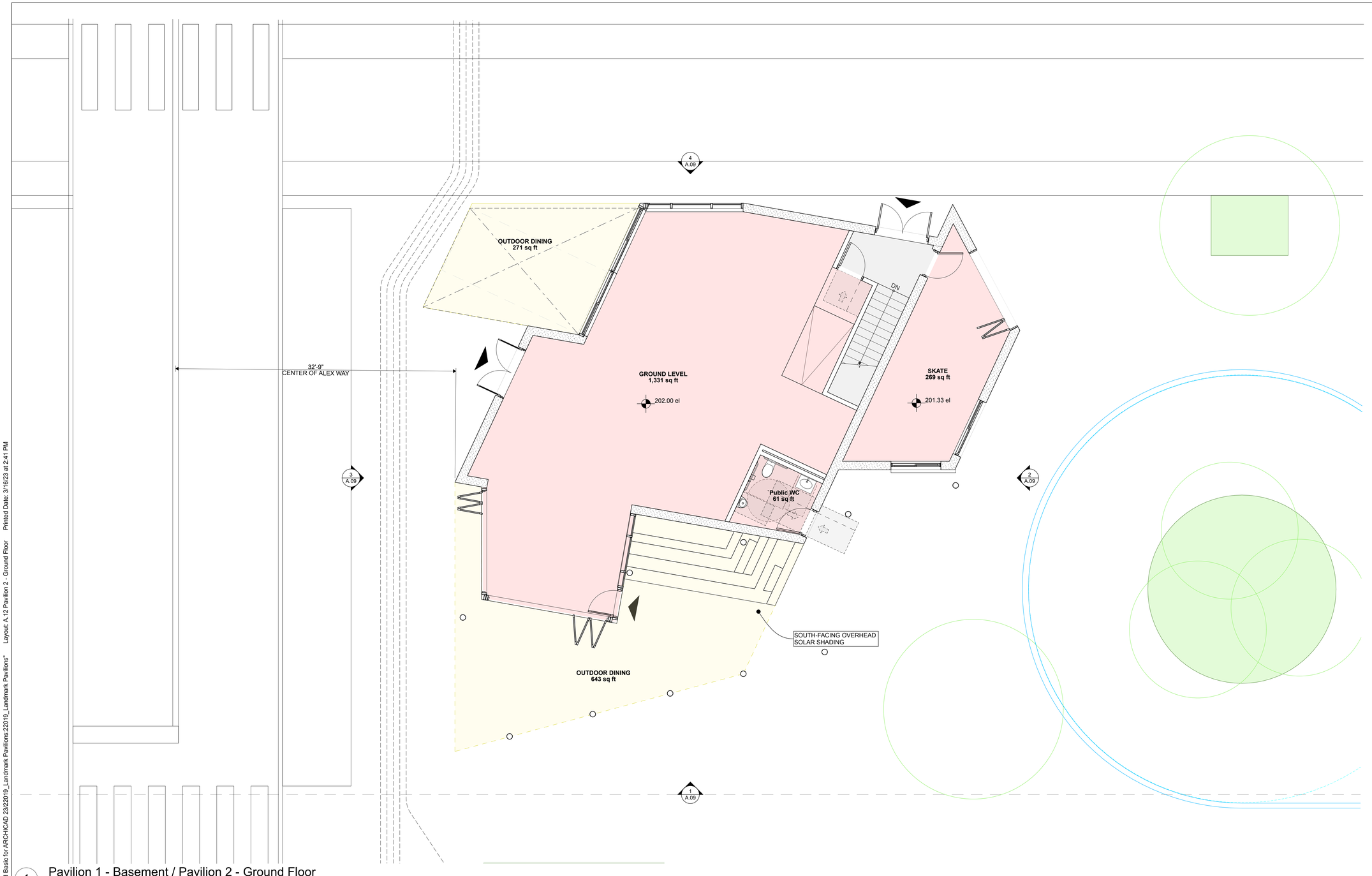
SITE PLAN NO. _____

DIRECTOR _____ DATE _____

CHAIRMAN, PLANNING COMMISSION _____ DATE _____

DATE RECORDED _____

INSTRUMENT NO. _____ DEED BOOK NO. _____ PAGE NO. _____



1 Pavilion 1 - Basement / Pavilion 2 - Ground Floor
Scale: 3/16" = 1'-0"

DEVELOPER
FOULGER-PRATT DEVELOPMENT, LLC
12435 PARK POTOMAC AVENUE
SUITE 200
POTOMAC, MD 20854
240.499.9600
CONTACT: JAY KELLY

ATTORNEY
WIRE GILL LLP
700 NORTH FAIRFAX STREET
SUITE 600
ALEXANDRIA, VA 22314
703.677.3129
CONTACT: KENNETH WIRE

CIVIL ENGINEER
URBAN, LTD.
4200D TECHNOLOGY COURT
CHANTILLY, VA 20151
703.376.4221
CONTACT: CLAYTON TOCK, P.E.

LANDSCAPE ARCHITECT
OCULUS
1611 CONNECTICUT AVENUE
THIRD FLOOR
WASHINGTON, DC 20009
202.588.5454
CONTACT: DON HOOVER

FOUNTAIN CONSULTANT
FLUIDITY DESIGN CONSULTANTS
724 S. SPRING STREET, SUITE 1401
LOS ANGELES, CALIFORNIA 90014
213.739.9291
CONTACT: RON SCHAFER

PLAYGROUND CONSULTANT
EARTHSCAPE
7215 WELLINGTON ROAD 86
WALLENSTEIN, ON CANADA N0B 2S0
1.877.269.2972
CONTACT: NATHANIEL GRANT

LIGHTING DESIGNER
MCLA ARCHITECTURAL LIGHTING DESIGN
1000 POTOMAC STREET NW, SUITE 121
WASHINGTON, DC 20007
202.298.8062
CONTACT: FRANK FEIST

ARCHITECT
CORE
1010 WISCONSIN AVE NW SUITE 405
WASHINGTON, DC 20007
202.466.6116
CONTACT: CHRISTOPHER PELI

SEAL & SIGNATURE

COMMONWEALTH OF VIRGINIA
Lic. No. 0401017664
ARCHITECT

SUBMISSIONS/ REVISIONS	
12/02/2022	CONCEPT II
03/13/2023	CONCEPT 2 REVISION

KEY MAP

DATE: 03/13/2023

PROJECT NUMBER: **22019.00**

SCALE:

DRAWING TITLE:

Pavilion 2 - Ground Floor

SHEET NUMBER:

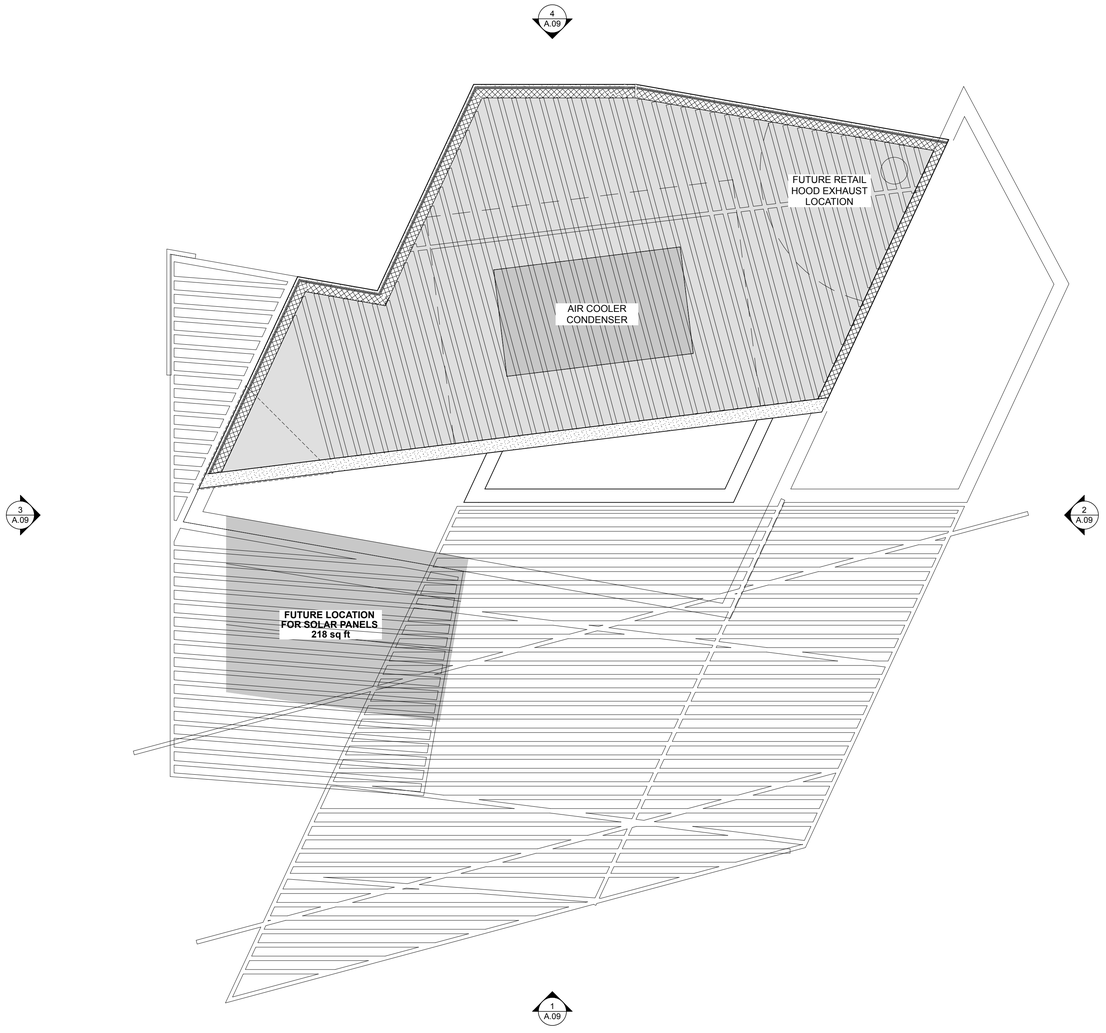
A.12

Printed: 3/16/23

©2023 CORE architecture + design, inc.

APPROVED
SPECIAL USE PERMIT NO. _____
DEPARTMENT OF PLANNING & ZONING
DIRECTOR DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
DIRECTOR DATE
CHAIRMAN, PLANNING COMMISSION DATE
DATE RECORDED _____
INSTRUMENT NO. DEED BOOK NO. PAGE NO.

File Name: "BIMcloud: xserve04.coredc.com - BIMcloud Basic for ARCHICAD 23\22019_Landmark Pavilions 22019_Landmark Pavilions" Layout: A.12 Pavilion 2 - Ground Floor Printed Date: 3/16/23 at 2:41 PM



1 Pavilion 2 - Roof
Scale: 3/16" = 1'-0"

APPROVED
SPECIAL USE PERMIT NO. _____
DEPARTMENT OF PLANNING & ZONING
DIRECTOR _____ DATE _____
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
DIRECTOR _____ DATE _____
CHAIRMAN, PLANNING COMMISSION _____ DATE _____
DATE RECORDED _____
INSTRUMENT NO. _____ DEED BOOK NO. _____ PAGE NO. _____

DEVELOPER
FOULGER-PRATT DEVELOPMENT, LLC
12435 PARK POTOMAC AVENUE
SUITE 200
POTOMAC, MD 20854
240.499.9600
CONTACT: JAY KELLY

ATTORNEY
WIRE GILL LLP
700 NORTH FAIRFAX STREET
SUITE 600
ALEXANDRIA, VA 22314
703.677.3129
CONTACT: KENNETH WIRE

CIVIL ENGINEER
URBAN, LTD.
4200D TECHNOLOGY COURT
CHANTILLY, VA 20151
703.376.4221
CONTACT: CLAYTON TOCK, P.E.

LANDSCAPE ARCHITECT
OCULUS
1611 CONNECTICUT AVENUE
THIRD FLOOR
WASHINGTON, DC 20009
202.588.5454
CONTACT: DON HOOVER

FOUNTAIN CONSULTANT
FLUIDITY DESIGN CONSULTANTS
724 S. SPRING STREET, SUITE 1401
LOS ANGELES, CALIFORNIA 90014
213.739.9291
CONTACT: RON SCHAFER

PLAYGROUND CONSULTANT
EARTHSCAPE
7215 WELLINGTON ROAD 86
WALLENSTEIN, ON CANADA N0B 2S0
1.877.269.2972
CONTACT: NATHANIEL GRANT

LIGHTING DESIGNER
MCLA ARCHITECTURAL LIGHTING DESIGN
1000 POTOMAC STREET NW, SUITE 121
WASHINGTON, DC 20007
202.298.8062
CONTACT: FRANK FEIST

ARCHITECT
CORE
1010 WISCONSIN AVE NW SUITE 405
WASHINGTON, DC 20007
202.466.6116
CONTACT: CHRISTOPHER PELI

SEAL & SIGNATURE

COMMONWEALTH OF VIRGINIA
Reg. No. 0401017664
ARCHITECT

SUBMISSIONS/ REVISIONS	
12/02/2022	CONCEPT II
03/13/2023	CONCEPT 2 REVISION

KEY MAP

DATE: 03/13/2023

PROJECT NUMBER: **22019.00**

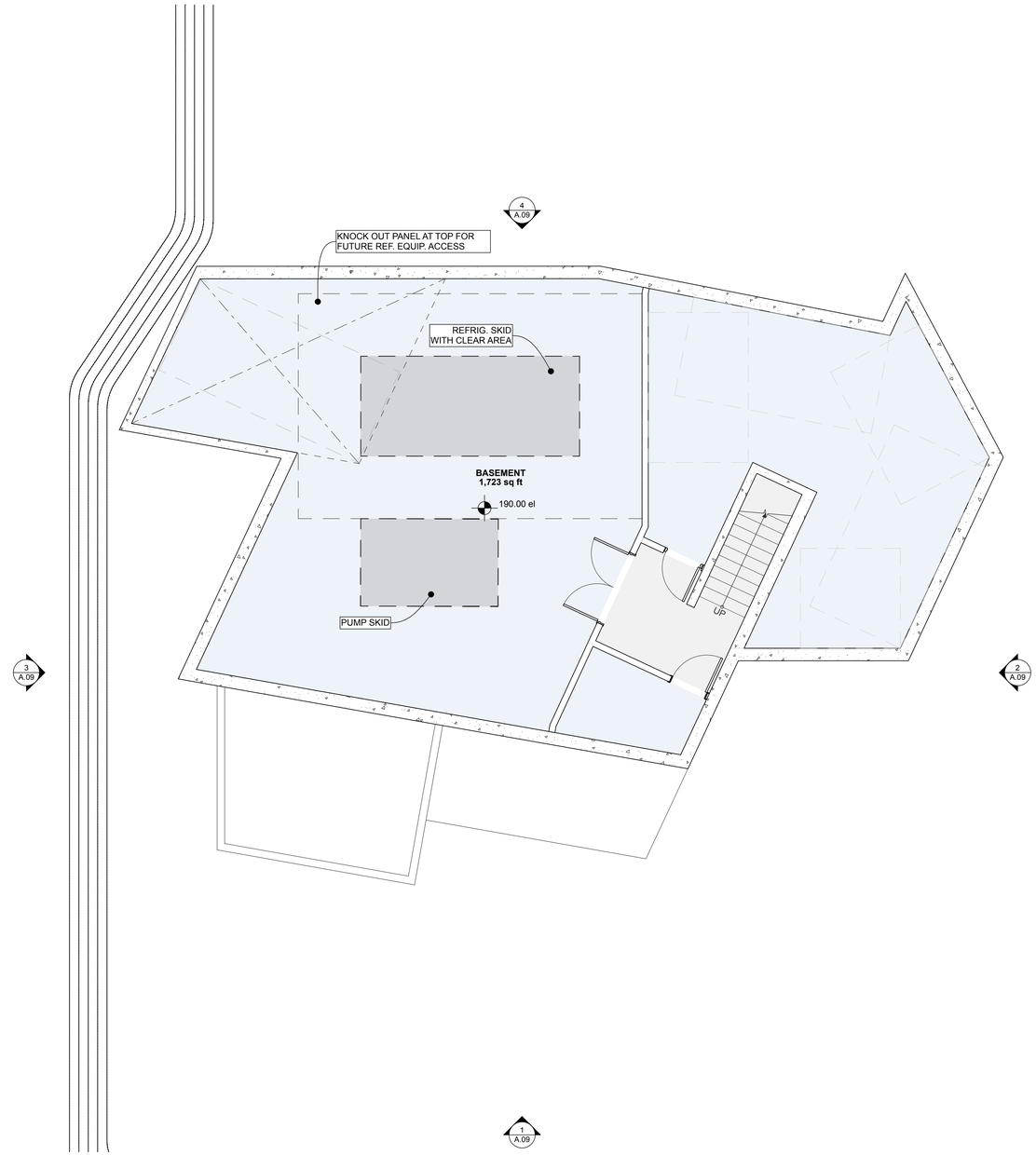
SCALE:

DRAWING TITLE:
Pavilion 2 - Roof

SHEET NUMBER:
A.13

Printed: 5/11/23
©2023 CORE architecture + design, inc.

File Name: "I:\Volumes\Projects\22019 Landmark Pavilions\22019-Drawings\01 CAD\1-8 Archive\22019_Landmark Pavilions_ARCHIVE_20230414.pla:22019_Landmark Pavilions_ARCHIVE_20230414.pla" Layout: A.13 Pavilion 2 - Roof Printed Date: 5/11/23 at 10:45 AM



1 Pavilion 2 - Basement
Scale: 3/16" = 1'-0"

DEVELOPER
FOULGER-PRATT DEVELOPMENT, LLC
12435 PARK POTOMAC AVENUE
SUITE 200
POTOMAC, MD 20854
240.499.9600
CONTACT: JAY KELLY

ATTORNEY
WIRE GILL LLP
700 NORTH FAIRFAX STREET
SUITE 600
ALEXANDRIA, VA 22314
703.677.3129
CONTACT: KENNETH WIRE

CIVIL ENGINEER
URBAN, LTD.
4200D TECHNOLOGY COURT
CHANTILLY, VA 20151
703.376.4221
CONTACT: CLAYTON TOCK, P.E.

LANDSCAPE ARCHITECT
OCULUS
1611 CONNECTICUT AVENUE
THIRD FLOOR
WASHINGTON, DC 20009
202.588.5454
CONTACT: DON HOOVER

FOUNTAIN CONSULTANT
FLUIDITY DESIGN CONSULTANTS
724 S. SPRING STREET, SUITE 1401
LOS ANGELES, CALIFORNIA 90014
213.739.9291
CONTACT: RON SCHAFER

PLAYGROUND CONSULTANT
EARTHSCAPE
7215 WELLINGTON ROAD 86
WALLENSTEIN, ON CANADA N0B 2S0
1.877.269.2972
CONTACT: NATHANIEL GRANT

LIGHTING DESIGNER
MCLA ARCHITECTURAL LIGHTING DESIGN
1000 POTOMAC STREET NW, SUITE 121
WASHINGTON, DC 20007
202.298.8062
CONTACT: FRANK FEIST

ARCHITECT
CORE
1010 WISCONSIN AVE NW SUITE 405
WASHINGTON, DC 20007
202.466.6116
CONTACT: CHRISTOPHER PELI

SEAL & SIGNATURE

COMMONWEALTH OF VIRGINIA
Reg. No. 0401017654
ARCHITECT

SUBMISSIONS/ REVISIONS	
12/02/2022	CONCEPT II
03/13/2023	CONCEPT 2 REVISION

KEY MAP

N

DATE: 03/13/2023

PROJECT NUMBER: **22019.00**

SCALE:

DRAWING TITLE:
Pavilion 2 - Basement

SHEET NUMBER:
A.14

Printed: 3/13/23
©2023 CORE architecture + design, inc.

APPROVED
SPECIAL USE PERMIT NO. _____
DEPARTMENT OF PLANNING & ZONING
DIRECTOR DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
DIRECTOR DATE
CHAIRMAN, PLANNING COMMISSION DATE
DATE RECORDED _____
INSTRUMENT NO. DEED BOOK NO. PAGE NO.

File Name: "BIMcloud: xserve04.coredc.com - BIMcloud Basic for ARCHICAD 23/22019_Landmark Pavilions:22019_Landmark Pavilions" Layout: A.14 Pavilion 2 - Basement Printed Date: 3/13/23 at 5:18 PM

DEVELOPER

FOULGER-PRATT DEVELOPMENT
12435 PARK POTOMAC AVENUE
SUITE 200
POTOMAC, MD 20854
240.499.9600
CONTACT: JAY KELLY

LANDSCAPE ARCHITECT

O C U L U S
1611 CONNECTICUT AVE NW 3RD FLOOR
WASHINGTON DC 20009
P 202 588 5454
US@OCULUS.INFO

CONSULTANTS

FOUNTAIN CONSULTANT
FLUIDITY DESIGN CONSULTANTS
724 S. SPRING STREET, SUITE 1401
LOS ANGELES, CALIFORNIA 90014
213.739.9291

PLAYGROUND CONSULTANT
EARTHSCAPE
7215 WELLINGTON ROAD 86
WALLENSTEIN, ON CANADA N0B 2S0
1.877.269.2972

ICE RINK CONSULTANT
832 ENGINEERING GROUP, INC.
2211 O'NEIL ROAD
HUDSON, WI 54016
1.651.256.3090

LIGHTING DESIGNER
MCLA ARCHITECTURAL LIGHTING DESIGN
1000 POTOMAC STREET NW, SUITE 121
WASHINGTON, DC 20007
202.298.8062

PROJECT NAME

WestEnd Open Space Blocks

City of Alexandria

SEAL & SIGNATURE

COMMONWEALTH OF VIRGINIA
DONALD RAY HOOVER
Lic. No. 406000790
LANDSCAPE ARCHITECT

COMPLETENESS SUBMISSION

NOT FOR CONSTRUCTION

ISSUE

MARK	DATE	DESCRIPTION
	11/29/2022	CONCEPT II
	03/10/2023	COMPLETENESS
	05/05/2023	COMPLETENESS
	06/02/2023	DD PRICING

KEY MAP

DATE: 05/05/2023

PROJECT NUMBER: W2108

SCALE: NTS

DRAWING TITLE: ILLUSTRATIVE PLAN

SHEET NUMBER: L0001

APPROVED

SPECIAL USE PERMIT NO. _____

DEPARTMENT OF PLANNING & ZONING

_____ DIRECTOR _____ DATE

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

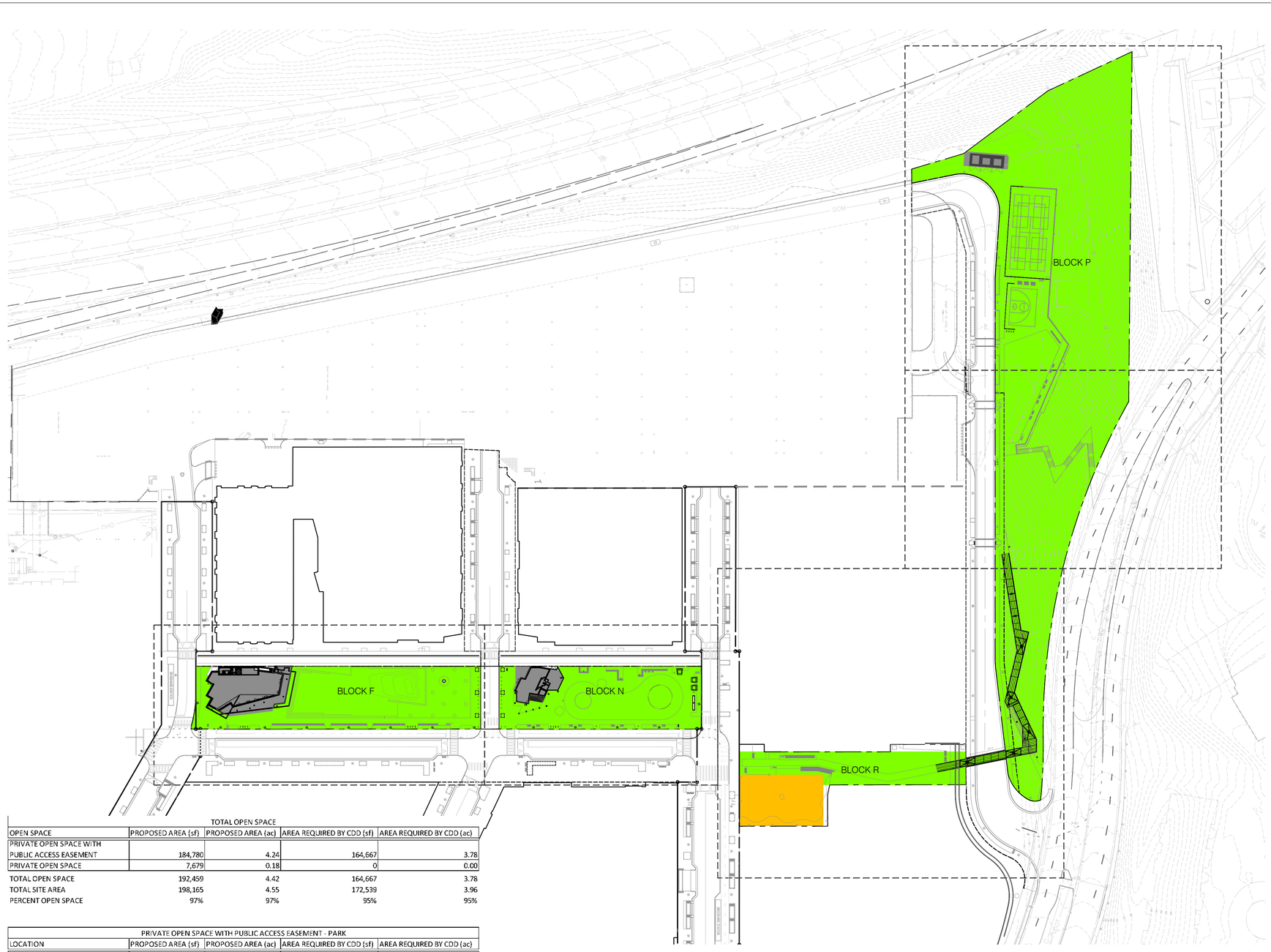
SITE PLAN NO. _____

_____ DIRECTOR _____ DATE

_____ CHAIRMAN, PLANNING COMMISSION _____ DATE

DATE RECORDED _____

_____ INSTRUMENT NO. _____ DEED BOOK NO. _____ PAGE NO.



TOTAL OPEN SPACE

OPEN SPACE	PROPOSED AREA (sf)	PROPOSED AREA (ac)	AREA REQUIRED BY CDD (sf)	AREA REQUIRED BY CDD (ac)
PRIVATE OPEN SPACE WITH PUBLIC ACCESS EASEMENT	184,780	4.24	164,667	3.78
PRIVATE OPEN SPACE	7,679	0.18	0	0.00
TOTAL OPEN SPACE	192,459	4.42	164,667	3.78
TOTAL SITE AREA	198,165	4.55	172,539	3.96
PERCENT OPEN SPACE	97%	97%	95%	95%

PRIVATE OPEN SPACE WITH PUBLIC ACCESS EASEMENT - PARK

LOCATION	PROPOSED AREA (sf)	PROPOSED AREA (ac)	AREA REQUIRED BY CDD (sf)	AREA REQUIRED BY CDD (ac)
BLOCK F - CENTRAL PLAZA	25,738	0.59	22,739	0.52
BLOCK N - CENTRAL PLAZA EAST	20,326	0.47	17,699	0.41
BLOCK P - TERRACE PARK	126,291	2.90	114,050	2.62
BLOCK R - PASEO	11,763	0.27	10,179	0.23
ROAD 7 BRIDGE	662	0.02	0	0.00
TOTAL OPEN SPACE	184,780	4.24	164,667	3.78

PRIVATE OPEN SPACE

LOCATION	PROPOSED AREA (sf)	PROPOSED AREA (ac)	AREA REQUIRED BY CDD (sf)	AREA REQUIRED BY CDD (ac)
BLOCK F - CENTRAL PLAZA	0	0.00	0	0.00
BLOCK N - CENTRAL PLAZA EAST	0	0.00	0	0.00
BLOCK M - PLAYGROUND	7,679	0.18	0	0.00
BLOCK P - TERRACE PARK	0	0.00	0	0.00
TOTAL OPEN SPACE	7,679	0.18	0	0.00

RETAIL PAVILIONS

LOCATION	PROPOSED AREA (sf)	PROPOSED AREA (ac)	AREA REQUIRED BY CDD (sf)	AREA REQUIRED BY CDD (ac)
BLOCK F - CENTRAL PLAZA	3,717	0.09	4,557	0.10
BLOCK N - CENTRAL PLAZA EAST	1,989	0.05	3,315	0.08
TOTAL OPEN SPACE	5,706	0.13	7,872	0.18

OPEN SPACE LEGEND

- PRIVATE OPEN SPACE WITH PUBLIC ACCESS EASEMENT - PARKS
- PRIVATE OPEN SPACE
- NON OPEN SPACE AREA

APPROVED

SPECIAL USE PERMIT NO. _____

DEPARTMENT OF PLANNING & ZONING

_____ DIRECTOR _____ DATE

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

SITE PLAN NO. _____

_____ DIRECTOR _____ DATE

_____ CHAIRMAN, PLANNING COMMISSION _____ DATE

DATE RECORDED _____

_____ INSTRUMENT NO. _____ DEED BOOK NO. _____ PAGE NO.

DEVELOPER

FOULGER-PRATT DEVELOPMENT
12435 PARK POTOMAC AVENUE
SUITE 200
POTOMAC, MD 20854
240.499.9600
CONTACT: JAY KELLY

LANDSCAPE ARCHITECT

O C U L U S
1611 CONNECTICUT AVE NW 3RD FLOOR
WASHINGTON DC 20009
P 202 588 5454
US@OCULUS.INFO

CONSULTANTS

FOUNTAIN CONSULTANT
FLUIDITY DESIGN CONSULTANTS
724 S. SPRING STREET, SUITE 1401
LOS ANGELES, CALIFORNIA 90014
213.739.9291

PLAYGROUND CONSULTANT
EARTHSCAPE
7215 WELLINGTON ROAD 86
WALLENSTEIN, ON CANADA N0B 2S0
1.877.269.2972

ICE RINK CONSULTANT
BS2 ENGINEERING GROUP, INC.
2211 O'NEIL ROAD
HUDSON, WI 54016
1.651.256.3090

LIGHTING DESIGNER
MCLA ARCHITECTURAL LIGHTING DESIGN
1000 POTOMAC STREET NW, SUITE 121
WASHINGTON, DC 20007
202.298.8062

PROJECT NAME

WestEnd Open Space Blocks
City of Alexandria

SEAL & SIGNATURE

COMMONWEALTH OF VIRGINIA
DONALD RAY HOOVER
Lic. No. 406000790
LANDSCAPE ARCHITECT

COMPLETENESS SUBMISSION

NOT FOR CONSTRUCTION

ISSUE

MARK	DATE	DESCRIPTION
	11/29/2022	CONCEPT II
	03/10/2023	COMPLETENESS
	05/05/2023	COMPLETENESS
	06/02/2023	DD PRICING

KEY MAP

N

DATE: 05/05/2023

PROJECT NUMBER: W2108

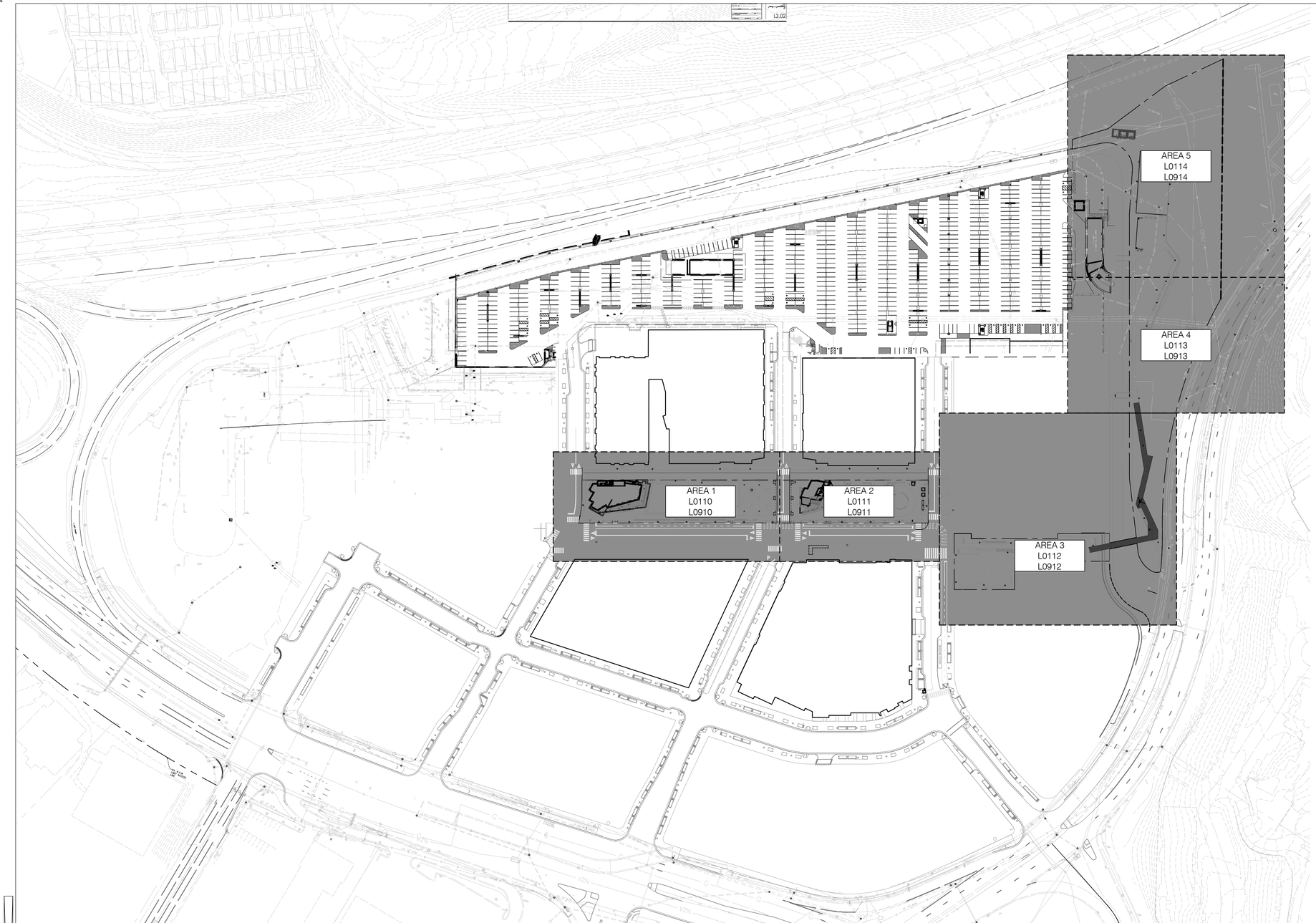
SCALE: 1"=70'

OPEN SPACE PLAN

DRAWING TITLE:

L0002

SHEET NUMBER:



APPROVED

SPECIAL USE PERMIT NO. _____

DEPARTMENT OF PLANNING & ZONING

_____ _____
DIRECTOR DATE

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

SITE PLAN NO. _____

_____ _____
DIRECTOR DATE

_____ _____
CHAIRMAN, PLANNING COMMISSION DATE

DATE RECORDED _____

_____ _____ _____
INSTRUMENT NO. DEED BOOK NO. PAGE NO.

DEVELOPER

FOULGER-PRATT DEVELOPMENT
12435 PARK POTOMAC AVENUE
SUITE 200
POTOMAC, MD 20854
240.499.9600
CONTACT: JAY KELLY

LANDSCAPE ARCHITECT

O C U L U S
1611 CONNECTICUT AVE NW 3RD FLOOR
WASHINGTON DC 20009
P 202 588 5454
US@OCULUS.INFO

CONSULTANTS

FOUNTAIN CONSULTANT
FLUIDITY DESIGN CONSULTANTS
724 S. SPRING STREET, SUITE 1401
LOS ANGELES, CALIFORNIA 90014
213.739.9291

PLAYGROUND CONSULTANT
EARTHSCAPE
7215 WELLINGTON ROAD 86
WALLENSTEIN, ON CANADA N0B 2S0
1.877.269.2972

ICE RINK CONSULTANT
BS2 ENGINEERING GROUP, INC.
2211 O'NEIL ROAD
HUDSON, WI 54016
1.651.256.3090

LIGHTING DESIGNER
MCLA ARCHITECTURAL LIGHTING DESIGN
1000 POTOMAC STREET NW, SUITE 121
WASHINGTON, DC 20007
202.298.8062

PROJECT NAME

WestEnd Open Space Blocks
City of Alexandria

SEAL & SIGNATURE

COMMONWEALTH OF VIRGINIA
DONALD RAY HOOVER
Lic. No. 406000790
LANDSCAPE ARCHITECT

COMPLETENESS SUBMISSION

NOT FOR CONSTRUCTION

ISSUE

MARK	DATE	DESCRIPTION
	11/29/2022	CONCEPT II
	03/10/2023	COMPLETENESS
	05/05/2023	COMPLETENESS
	06/02/2023	DD PRICING

KEY MAP

DATE: 05/05/2023

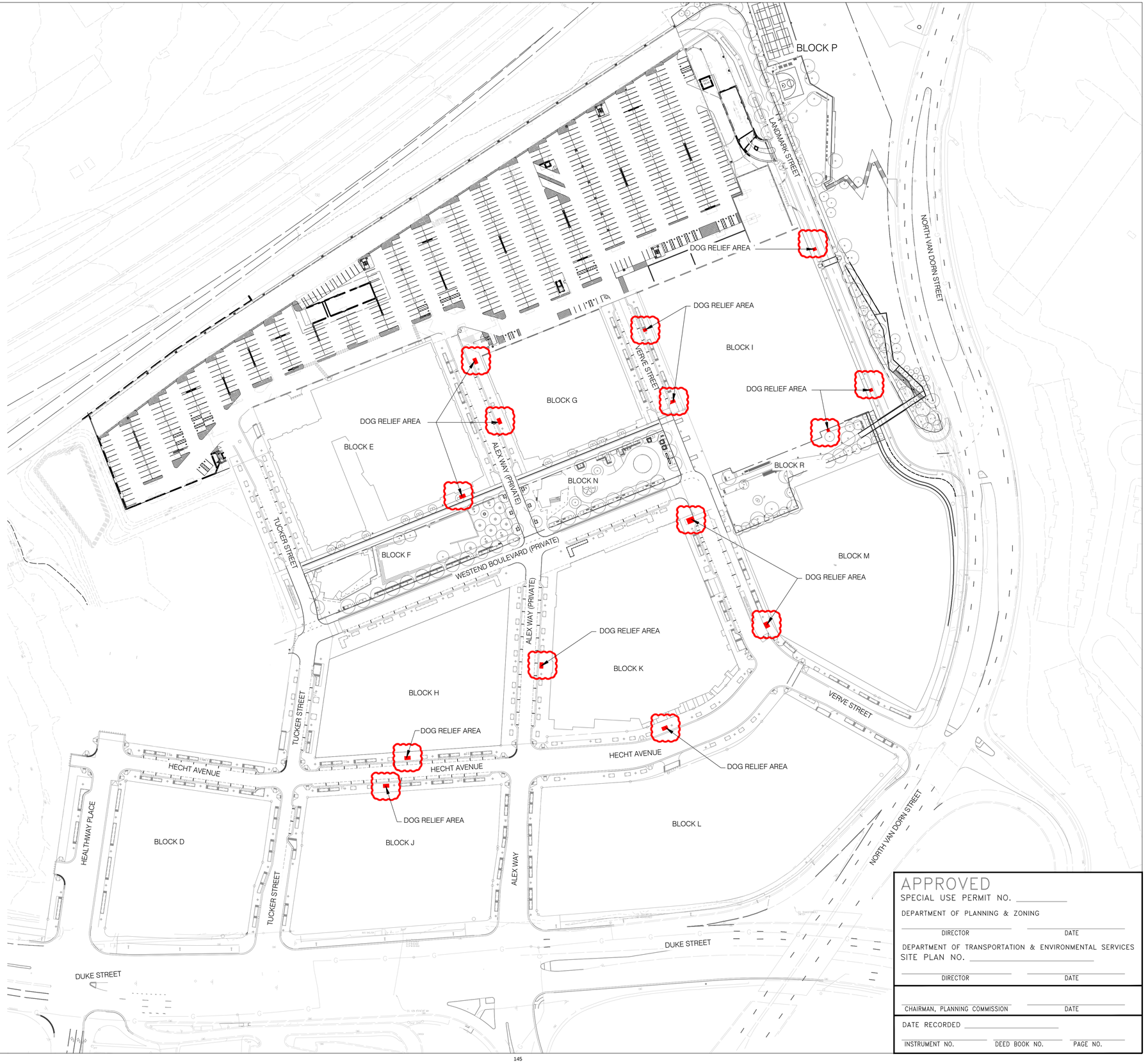
PROJECT NUMBER: W2108

SCALE: 1" = 100'

DRAWING TITLE: KEY PLAN

SHEET NUMBER: L0003

NOTE: FOR REFERENCE ONLY. REFER TO WEST END (LANDMARK) INFRASTRUCTURE DSP #2021-00012 FOR DETAILED INFORMATION.



APPROVED

SPECIAL USE PERMIT NO. _____

DEPARTMENT OF PLANNING & ZONING

_____ DIRECTOR _____ DATE

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

SITE PLAN NO. _____

_____ DIRECTOR _____ DATE

_____ CHAIRMAN, PLANNING COMMISSION _____ DATE

DATE RECORDED _____

_____ INSTRUMENT NO. _____ DEED BOOK NO. _____ PAGE NO.

DEVELOPER

FOULGER-PRATT DEVELOPMENT
12435 PARK POTOMAC AVENUE
SUITE 200
POTOMAC, MD 20854
240.499.9600
CONTACT: JAY KELLY

LANDSCAPE ARCHITECT

O C U L U S
1611 CONNECTICUT AVE NW 3RD FLOOR
WASHINGTON DC 20009
P 202 588 5454
US@OCULUS.INFO

CONSULTANTS

FOUNTAIN CONSULTANT
FLUIDITY DESIGN CONSULTANTS
724 S. SPRING STREET, SUITE 1401
LOS ANGELES, CALIFORNIA 90014
213.739.9291

PLAYGROUND CONSULTANT
EARTHSCAPE
7215 WELLINGTON ROAD 86
WALLENSTEIN, ON CANADA N0B 2S0
1.877.269.2972

ICE RINK CONSULTANT
B32 ENGINEERING GROUP, INC.
2211 O'NEIL ROAD
HUDSON, WI 54016
1.651.256.3090

LIGHTING DESIGNER
MCLA ARCHITECTURAL LIGHTING DESIGN
1000 POTOMAC STREET NW, SUITE 121
WASHINGTON, DC 20007
202.298.8062

PROJECT NAME

WestEnd Open Space Blocks

City of Alexandria

SEAL & SIGNATURE

COMMONWEALTH OF VIRGINIA
DONALD RAY HOOVER
Lic. No. 406000790
LANDSCAPE ARCHITECT

COMPLETENESS SUBMISSION

NOT FOR CONSTRUCTION

ISSUE

MARK	DATE	DESCRIPTION
	11/29/2022	CONCEPT II
	03/10/2023	COMPLETENESS
	05/05/2023	COMPLETENESS
	06/02/2023	DD PRICING

KEY MAP

N

DATE: 05/05/2023

PROJECT NUMBER: W2108

SCALE: 1" = 80'-0"

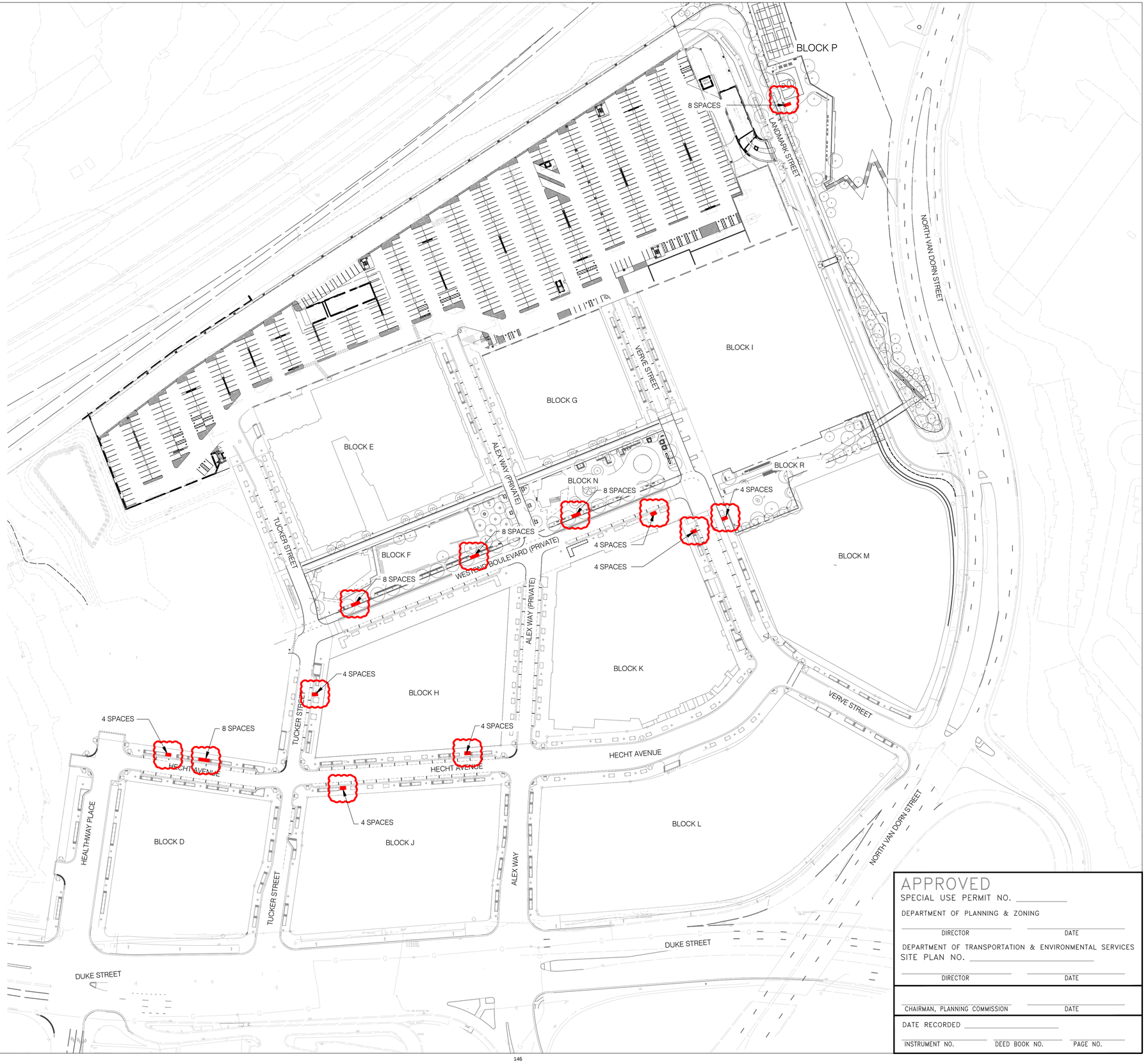
DOG RELIEF AREA DIAGRAM

DRAWING TITLE:

L0004

SHEET NUMBER: VALUE of 339

NOTE: FOR REFERENCE ONLY. REFER TO WEST END (LANDMARK) INFRASTRUCTURE DSP #2021-00012 FOR DETAILED INFORMATION.



APPROVED

SPECIAL USE PERMIT NO. _____

DEPARTMENT OF PLANNING & ZONING

DIRECTOR _____ DATE _____

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

SITE PLAN NO. _____

DIRECTOR _____ DATE _____

CHAIRMAN, PLANNING COMMISSION _____ DATE _____

DATE RECORDED _____

INSTRUMENT NO. _____ DEED BOOK NO. _____ PAGE NO. _____

DEVELOPER

FOULGER-PRATT DEVELOPMENT
12435 PARK POTOMAC AVENUE
SUITE 200
POTOMAC, MD 20854
240.499.9600
CONTACT: JAY KELLY

LANDSCAPE ARCHITECT

O C U L U S
1611 CONNECTICUT AVE NW 3RD FLOOR
WASHINGTON DC 20009
P 202 588 5454
US@OCULUS.INFO

CONSULTANTS

FOUNTAIN CONSULTANT
FLUIDITY DESIGN CONSULTANTS
724 S. SPRING STREET, SUITE 1401
LOS ANGELES, CALIFORNIA 90014
213.739.9291

PLAYGROUND CONSULTANT
EARTHSCAPE
7215 WELLINGTON ROAD 86
WALLENSTEIN, ON CANADA N0B 2S0
1.877.269.2972

ICE RINK CONSULTANT
B32 ENGINEERING GROUP, INC.
2211 O'NEIL ROAD
HUDSON, WI 54016
1.651.256.3090

LIGHTING DESIGNER
MCLA ARCHITECTURAL LIGHTING DESIGN
1000 POTOMAC STREET NW, SUITE 121
WASHINGTON, DC 20007
202.298.8062

PROJECT NAME

WestEnd Open Space Blocks

City of Alexandria

SEAL & SIGNATURE

COMMONWEALTH OF VIRGINIA
DONALD RAY HOOVER
Lic. No. 406000790
LANDSCAPE ARCHITECT

COMPLETENESS SUBMISSION

NOT FOR CONSTRUCTION

ISSUE

MARK	DATE	DESCRIPTION
	11/29/2022	CONCEPT II
	03/10/2023	COMPLETENESS
	05/05/2023	COMPLETENESS
	06/02/2023	DD PRICING

KEY MAP

DATE: 05/05/2023

PROJECT NUMBER: W2108

SCALE: 1" = 80'-0"

BICYCLE PARKING DIAGRAM

DRAWING TITLE:

L0005

SHEET NUMBER: VALUE of 339

West End Open Space Blocks
SITE MATERIALS/ FINISHES SCHEDULE

PAVEMENTS

KEY	TYPE	MATERIAL	SHEET NUMBER
PV-01	Concrete Walk	4" min. CIP Concrete, broom finish	
PV-02	Special Paving Type 1	Stone or Brick or Colored Concrete	
PV-03	Special Paving Type 2	Stabilized Stone Dust	
PV-04	Wood Deck	TBD	
PV-05	Play Surface	Rubber Safety Surface or Play Turf	
PV-06	Asphalt	VDOT standard	
PV-07	Detectable Warning Strip	Concrete, Color TBD	
PV-08	Court Paving	Asphalt	
ST-01	Concrete Step	CIP Concrete	
ST-02	Wood Step	TBD	

SITE WALLS & STAIRS

KEY	TYPE	MATERIAL	DETAIL NUMBER / SHEET
WA-01	Concrete Retaining Wall	Precast Concrete	
WA-02	Concrete Retaining Wall	CIP Concrete	
ST-01	Ampitheater Stair		

SITE FURNISHINGS

KEY	TYPE	MATERIAL	DETAIL NUMBER / SHEET
FN-01	Landscape Forms Neoliviano	Aluminum frame with wood seats, TBD	
FN-02	Loll Go Love Seat	Recycled High-density Polyethylene (HDPE), Color TBD	
FN-03	Landscape Forms Glide Bench	Recycled High-density Polyethylene (HDPE), Color TBD	
FN-04	Mmcite Limpido Bench	Steel, Color TBD	
FN-05	Mmcite Woody Bench	Steel frame with wood seats	
FN-06	Mmcite Rautster 4-Top	Steel frame with wood seats	
FN-07	Mmcite Rautster 2-Top	Steel frame with wood seats	
FN-08	Bike Racks	City of Alexandria Standard or approved equal	
FN-09	Waste Receptacles	City of Alexandria Standard or approved equal	
FN-10	Mmcite Donat Bollard	Steel, Aluminum	
FN-11	Square Tree Grate	TBD	
FN-12	Round Tree Grate	TBD	
FN-13	Custom Swing Bench	TBD	
FN-14	Custom Linear Bench	Steel frame with wood seats	
FN-15	Landscape Forms GO Outdoor Table (Standing Height)	Powdercoated metal	
FN-16	Landscape Forms GO Outdoor Table (Dining Height)	Powdercoated metal	
FN-17	Custom Chess Table	TBD	
FN-18	Custom Tiered Seating	Wood, TBD	

HANDRAILS, GUARDRAILS, AND FENCING

KEY	TYPE	MATERIAL	DETAIL NUMBER / SHEET
RA-01	Handrail	36" handrail	
RA-02	Guardrail	42" guardrail	
FE-01	Play Area Fence	4'-0" fence	
FE-02	Court Fence	10'-0" fence	

LIGHTS

KEY	TYPE	MATERIAL	DETAIL NUMBER / SHEET
KX-01	Street Light	City of Alexandria standard	
KX-02	Site Light		
KX-03	Step Light		

APPROVED
SPECIAL USE PERMIT NO. _____
DEPARTMENT OF PLANNING & ZONING
DIRECTOR _____ DATE _____
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
DIRECTOR _____ DATE _____
CHAIRMAN, PLANNING COMMISSION _____ DATE _____
DATE RECORDED _____
INSTRUMENT NO. _____ DEED BOOK NO. _____ PAGE NO. _____

DEVELOPER
FOULGER-PRATT DEVELOPMENT
12435 PARK POTOMAC AVENUE
SUITE 200
POTOMAC, MD 20854
240.499.9600
CONTACT: JAY KELLY

LANDSCAPE ARCHITECT
O C U L U S
1611 CONNECTICUT AVE NW 3RD FLOOR
WASHINGTON DC 20009
P 202 588 5454
US@OCULUS.INFO

CONSULTANTS
FOUNTAIN CONSULTANT
FLUIDITY DESIGN CONSULTANTS
724 S. SPRING STREET, SUITE 1401
LOS ANGELES, CALIFORNIA 90014
213.739.9291

PLAYGROUND CONSULTANT
EARTHSCAPE
7215 WELLINGTON ROAD 86
WALLENSTEIN, ON CANADA N0B 2S0
1.877.269.2972

ICE RINK CONSULTANT
832 ENGINEERING GROUP, INC.
2211 ONEIL ROAD
HUDSON, WI 54016
1.651.256.3090

LIGHTING DESIGNER
MCLA ARCHITECTURAL LIGHTING DESIGN
1000 POTOMAC STREET NW, SUITE 121
WASHINGTON, DC 20007
202.298.8062

PROJECT NAME
WestEnd Open Space Blocks
City of Alexandria

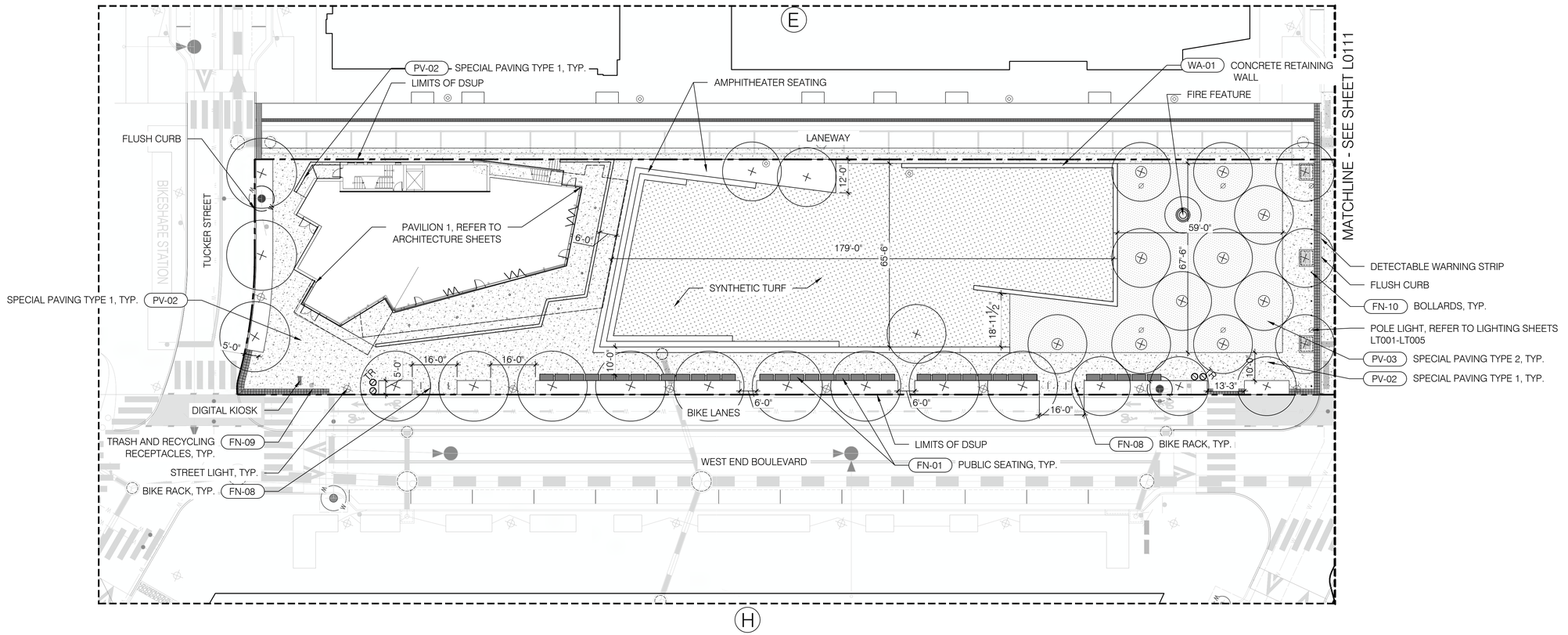
SEAL & SIGNATURE
COMMONWEALTH OF VIRGINIA
DONALD RAY HOOVER
Lic. No. 406000790
LANDSCAPE ARCHITECT

COMPLETENESS SUBMISSION
NOT FOR CONSTRUCTION

ISSUE

MARK	DATE	DESCRIPTION
	11/29/2022	CONCEPT II
	03/10/2023	COMPLETENESS
	05/05/2023	COMPLETENESS
	06/02/2023	DD PRICING

KEY MAP
N
DATE: 05/05/2023
PROJECT NUMBER: W2108
SCALE: #########
DRAWING TITLE: MATERIALS SCHEDULE
SHEET NUMBER: L0100



DEVELOPER

FOULGER-PRATT DEVELOPMENT
12435 PARK POTOMAC AVENUE
SUITE 200
POTOMAC, MD 20854
240.499.9600
CONTACT: JAY KELLY

LANDSCAPE ARCHITECT

O C U L U S
1611 CONNECTICUT AVE NW 3RD FLOOR
WASHINGTON DC 20009
P 202.588.5454
US@OCULUS.INFO

CONSULTANTS

FOUNTAIN CONSULTANT
FLUIDITY DESIGN CONSULTANTS
724 S. SPRING STREET, SUITE 1401
LOS ANGELES, CALIFORNIA 90014
213.739.9291

PLAYGROUND CONSULTANT
EARTHSCAPE
7215 WELLINGTON ROAD 86
WALLENSTEIN, ON CANADA N0B 2S0
1.877.269.2972

ICE RINK CONSULTANT
832 ENGINEERING GROUP, INC.
2211 O'NEIL ROAD
HUDSON, WI 54016
1.651.256.3090

LIGHTING DESIGNER
MCLA ARCHITECTURAL LIGHTING DESIGN
1000 POTOMAC STREET NW, SUITE 121
WASHINGTON, DC 20007
202.298.8062

PROJECT NAME

WestEnd Open Space Blocks
City of Alexandria

SEAL & SIGNATURE

COMMONWEALTH OF VIRGINIA
DONALD RAY HOOVER
Lic. No. 406000790
LANDSCAPE ARCHITECT

COMPLETENESS SUBMISSION

NOT FOR CONSTRUCTION

ISSUE

MARK	DATE	DESCRIPTION
	11/29/2022	CONCEPT II
	03/10/2023	COMPLETENESS
	05/05/2023	COMPLETENESS
	06/02/2023	DD PRICING

KEY MAP

DATE: 05/05/2023

PROJECT NUMBER: W2108

SCALE: 1" = 20'

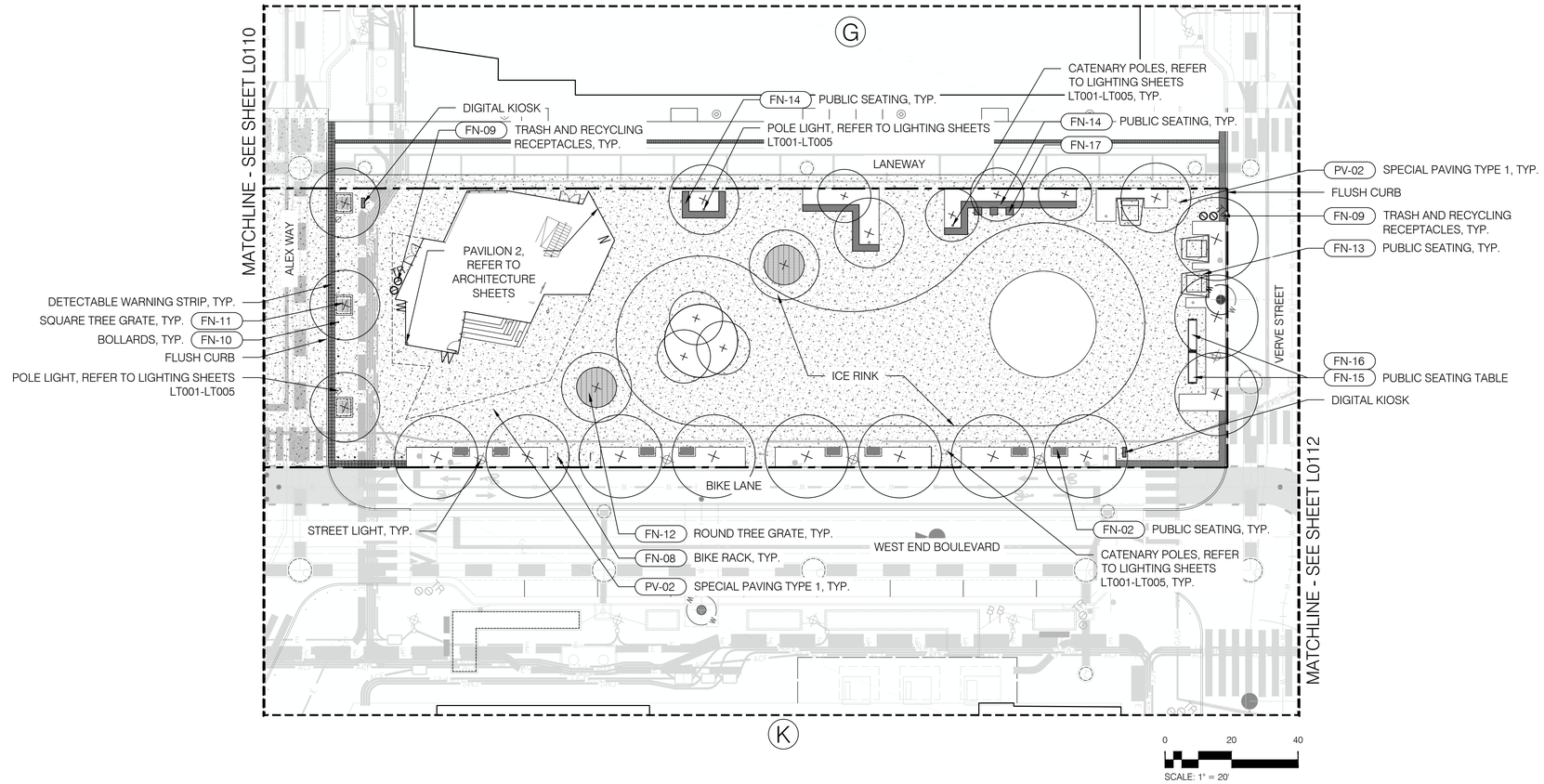
MATERIALS PLAN - AREA 1

DRAWING TITLE:

L0110

SHEET NUMBER:

APPROVED
SPECIAL USE PERMIT NO. _____
DEPARTMENT OF PLANNING & ZONING
DIRECTOR DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
DIRECTOR DATE
CHAIRMAN, PLANNING COMMISSION DATE
DATE RECORDED _____
INSTRUMENT NO. DEED BOOK NO. PAGE NO.



DEVELOPER

FOULGER-PRATT DEVELOPMENT
12435 PARK POTOMAC AVENUE
SUITE 200
POTOMAC, MD 20854
240.499.9600
CONTACT: JAY KELLY

LANDSCAPE ARCHITECT

O C U L U S
1611 CONNECTICUT AVE NW 3RD FLOOR
WASHINGTON DC 20009
P 202.588.5454
US@OCULUS.INFO

CONSULTANTS

FOUNTAIN CONSULTANT
FLUIDITY DESIGN CONSULTANTS
724 S. SPRING STREET, SUITE 1401
LOS ANGELES, CALIFORNIA 90014
213.739.9291

PLAYGROUND CONSULTANT
EARTHSCAPE
7215 WELLINGTON ROAD 86
WALLENSTEIN, ON CANADA N0B 2S0
1.877.269.2972

ICE RINK CONSULTANT
832 ENGINEERING GROUP, INC.
2211 O'NEIL ROAD
HUDSON, WI 54016
1.651.256.3090

LIGHTING DESIGNER
MCLA ARCHITECTURAL LIGHTING DESIGN
1000 POTOMAC STREET NW, SUITE 121
WASHINGTON, DC 20007
202.298.8062

PROJECT NAME

WestEnd Open Space Blocks
City of Alexandria

SEAL & SIGNATURE

COMMONWEALTH OF VIRGINIA
DONALD RAY HOOVER
Lic. No. 406000790
LANDSCAPE ARCHITECT

COMPLETENESS SUBMISSION

NOT FOR CONSTRUCTION

ISSUE

MARK	DATE	DESCRIPTION
	11/29/2022	CONCEPT II
	03/10/2023	COMPLETENESS
	05/05/2023	COMPLETENESS
	06/02/2023	DD PRICING

KEY MAP

N

DATE: 05/05/2023

PROJECT NUMBER: W2108

SCALE: 1" = 20'

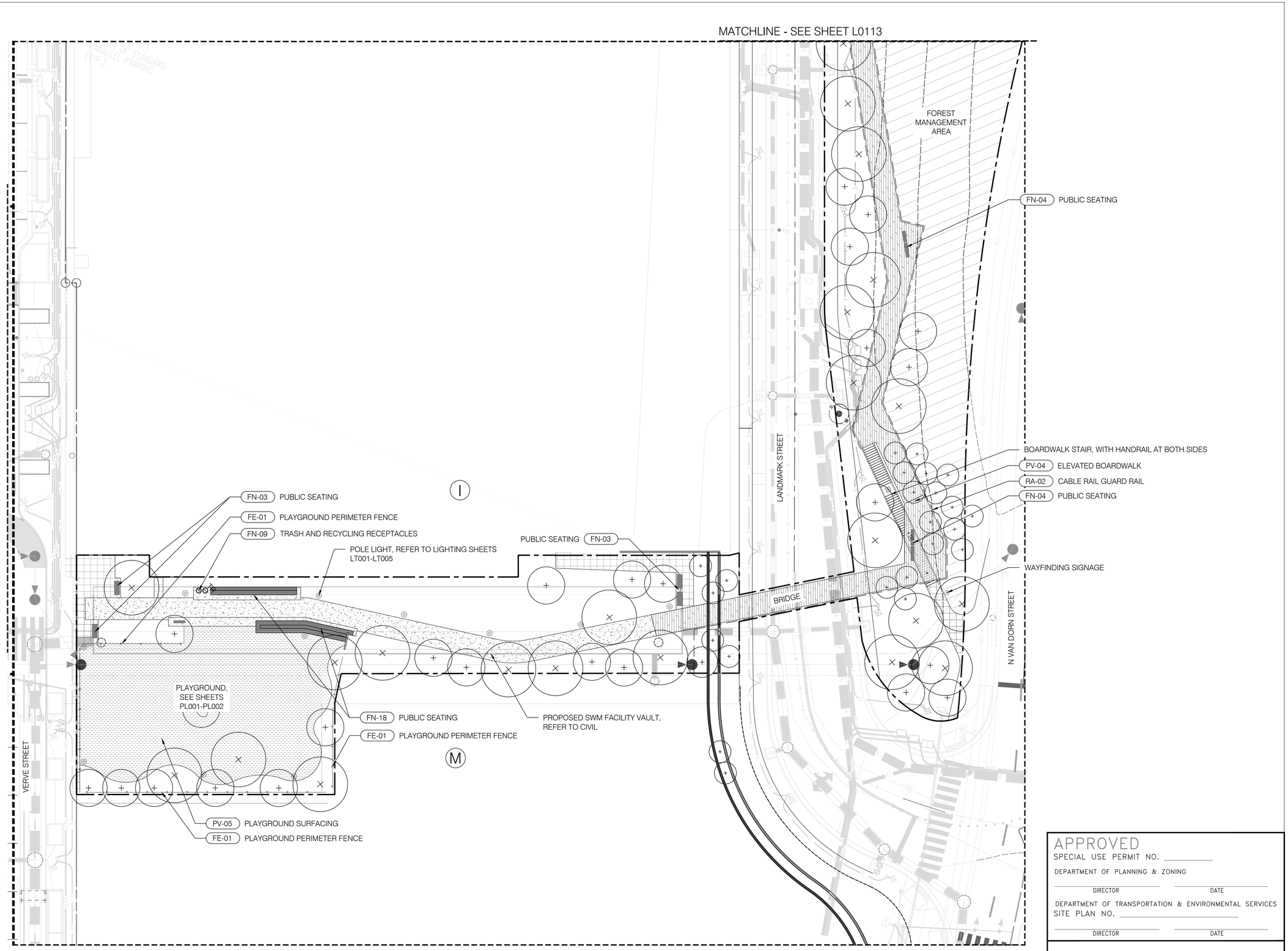
MATERIALS PLAN - AREA 2

DRAWING TITLE:

L0111

SHEET NUMBER:

APPROVED
SPECIAL USE PERMIT NO. _____
DEPARTMENT OF PLANNING & ZONING
DIRECTOR DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
DIRECTOR DATE
CHAIRMAN, PLANNING COMMISSION DATE
DATE RECORDED _____
INSTRUMENT NO. DEED BOOK NO. PAGE NO.



DEVELOPER

FOULGER-PRATT DEVELOPMENT
12435 PARK POTOMAC AVENUE
SUITE 200
POTOMAC, MD 20854
240.499.9600
CONTACT: JAY KELLY

LANDSCAPE ARCHITECT

O C U L U S
1611 CONNECTICUT AVE NW 3RD FLOOR
WASHINGTON DC 20009
P 202 588 5454
US@OCULUS.INFO

CONSULTANTS

FOUNTAIN CONSULTANT
FLUIDITY DESIGN CONSULTANTS
724 S. SPRING STREET, SUITE 1401
LOS ANGELES, CALIFORNIA 90014
213.739.9291

PLAYGROUND CONSULTANT
EARTHSCAPE
7215 WELLINGTON ROAD 86
WALLENSTEIN, ON CANADA N0B 2S0
1.877.269.2972

ICE RINK CONSULTANT
832 ENGINEERING GROUP, INC.
2211 O'NEIL ROAD
HUDSON, WI 54016
1.651.256.3090

LIGHTING DESIGNER
MCLA ARCHITECTURAL LIGHTING DESIGN
1000 POTOMAC STREET NW, SUITE 121
WASHINGTON, DC 20007
202.298.8062

PROJECT NAME

WestEnd Open Space Blocks

City of Alexandria

SEAL & SIGNATURE

COMMONWEALTH OF VIRGINIA
DONALD RAY HOOVER
Lic. No. 406000790
LANDSCAPE ARCHITECT

COMPLETENESS SUBMISSION

NOT FOR CONSTRUCTION

ISSUE

MARK	DATE	DESCRIPTION
	11/29/2022	CONCEPT II
	03/10/2023	COMPLETENESS
	05/05/2023	COMPLETENESS
	06/02/2023	DD PRICING

APPROVED

SPECIAL USE PERMIT NO. _____

DEPARTMENT OF PLANNING & ZONING

DIRECTOR DATE

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

SITE PLAN NO. _____

DIRECTOR DATE

CHAIRMAN, PLANNING COMMISSION DATE

DATE RECORDED _____

INSTRUMENT NO. DEED BOOK NO. PAGE NO.

KEY MAP

N

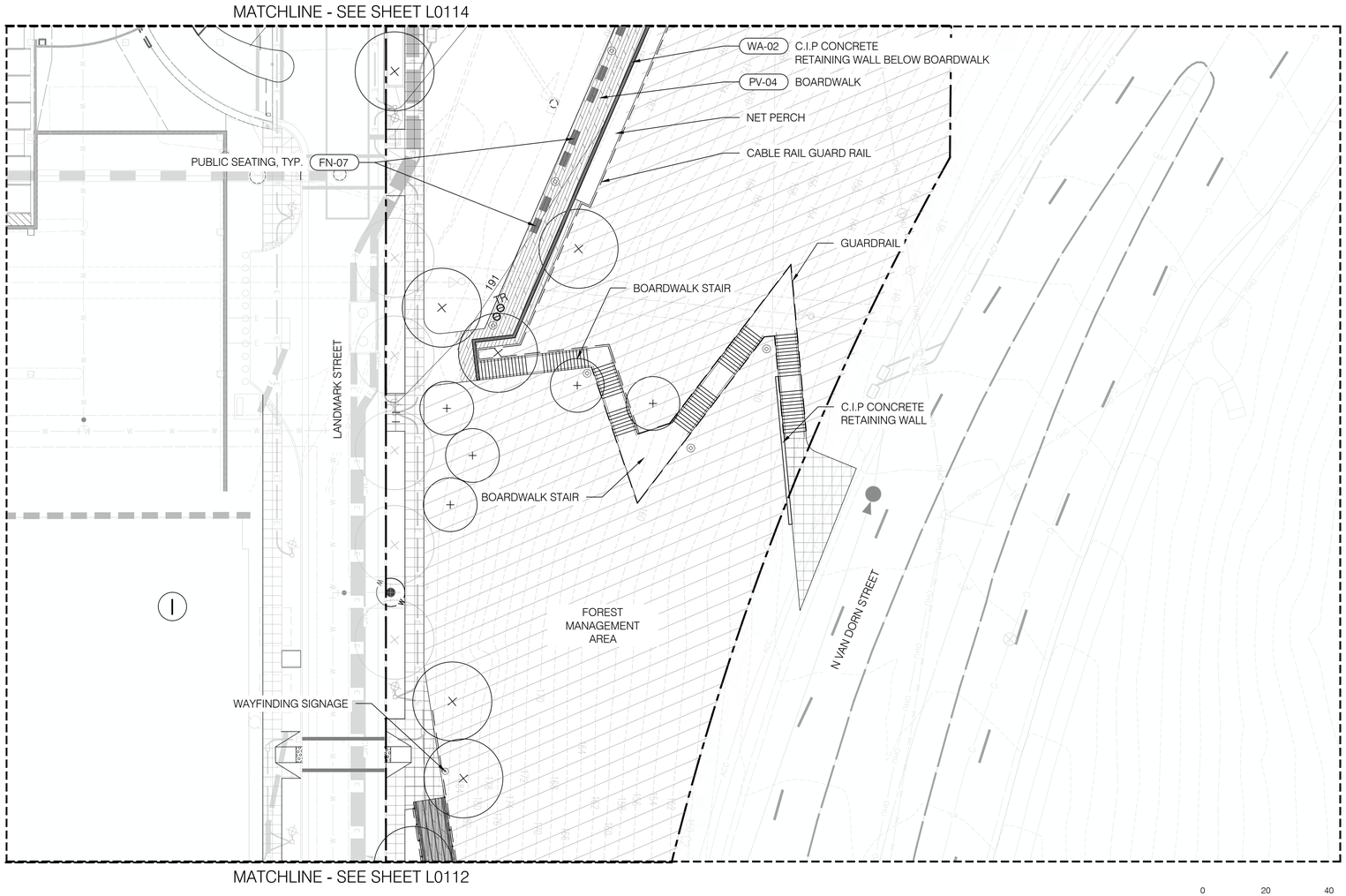
DATE: 05/05/2023

PROJECT NUMBER: W2108

SCALE: 1" = 20'

DRAWING TITLE: MATERIALS PLAN - AREA 3

SHEET NUMBER: L0112



DEVELOPER
FOULGER-PRATT DEVELOPMENT
12435 PARK POTOMAC AVENUE
SUITE 200
POTOMAC, MD 20854
240.499.9600
CONTACT: JAY KELLY

LANDSCAPE ARCHITECT
O C U L U S
1611 CONNECTICUT AVE NW 3RD FLOOR
WASHINGTON DC 20009
P 202 588 5454
US@OCULUS.INFO

CONSULTANTS
FOUNTAIN CONSULTANT
FLUIDITY DESIGN CONSULTANTS
724 S. SPRING STREET, SUITE 1401
LOS ANGELES, CALIFORNIA 90014
213.739.9291

PLAYGROUND CONSULTANT
EARTHSCAPE
7215 WELLINGTON ROAD 86
WALLENSTEIN, ON CANADA N0B 2S0
1.877.269.2972

ICE RINK CONSULTANT
832 ENGINEERING GROUP, INC.
2211 O'NEIL ROAD
HUDSON, WI 54016
1.651.256.3090

LIGHTING DESIGNER
MCLA ARCHITECTURAL LIGHTING DESIGN
1000 POTOMAC STREET NW, SUITE 121
WASHINGTON, DC 20007
202.298.8062

PROJECT NAME
WestEnd Open Space Blocks
City of Alexandria

SEAL & SIGNATURE
COMMONWEALTH OF VIRGINIA
DONALD RAY HOOVER
Lic. No. 406000790
LANDSCAPE ARCHITECT

COMPLETENESS SUBMISSION
NOT FOR CONSTRUCTION

ISSUE

MARK	DATE	DESCRIPTION
	11/29/2022	CONCEPT II
	03/10/2023	COMPLETENESS
	05/05/2023	COMPLETENESS
	06/02/2023	DD PRICING

APPROVED
SPECIAL USE PERMIT NO. _____
DEPARTMENT OF PLANNING & ZONING
DIRECTOR DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
DIRECTOR DATE
CHAIRMAN, PLANNING COMMISSION DATE
DATE RECORDED _____
INSTRUMENT NO. DEED BOOK NO. PAGE NO.

KEY MAP
DATE: 05/05/2023
PROJECT NUMBER: W2108
SCALE: 1" = 20'
DRAWING TITLE: MATERIALS PLAN - AREA 4
SHEET NUMBER: L0113

APPROVED

SPECIAL USE PERMIT NO. _____

DEPARTMENT OF PLANNING & ZONING

_____ _____
DIRECTOR DATE

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

SITE PLAN NO. _____

_____ _____
DIRECTOR DATE

_____ _____
CHAIRMAN, PLANNING COMMISSION DATE

DATE RECORDED _____

_____ _____ _____
INSTRUMENT NO. DEED BOOK NO. PAGE NO.

DEVELOPER

FOULGER-PRATT DEVELOPMENT
12435 PARK POTOMAC AVENUE
SUITE 200
POTOMAC, MD 20854
240.499.9600
CONTACT: JAY KELLY

LANDSCAPE ARCHITECT

O C U L U S
1611 CONNECTICUT AVE NW 3RD FLOOR
WASHINGTON DC 20009
P 202 588 5454
US@OCULUS.INFO

CONSULTANTS

FOUNTAIN CONSULTANT
FLUIDITY DESIGN CONSULTANTS
724 S. SPRING STREET, SUITE 1401
LOS ANGELES, CALIFORNIA 90014
213.739.9291

PLAYGROUND CONSULTANT
EARTHSCAPE
7215 WELLINGTON ROAD 86
WALLENSTEIN, ON CANADA N0B 2S0
1.877.269.2972

ICE RINK CONSULTANT
832 ENGINEERING GROUP, INC.
2211 O'NEIL ROAD
HUDSON, WI 54016
1.651.256.3090

LIGHTING DESIGNER
MCLA ARCHITECTURAL LIGHTING DESIGN
1000 POTOMAC STREET NW, SUITE 121
WASHINGTON, DC 20007
202.298.8062

PROJECT NAME

WestEnd Open Space Blocks

City of Alexandria

SEAL & SIGNATURE

COMMONWEALTH OF VIRGINIA
DONALD RAY HOOVER
Lic. No. 406000790
LANDSCAPE ARCHITECT

COMPLETENESS SUBMISSION

NOT FOR CONSTRUCTION

ISSUE

MARK	DATE	DESCRIPTION
	11/29/2022	CONCEPT II
	03/10/2023	COMPLETENESS
	05/05/2023	COMPLETENESS
	06/02/2023	DD PRICING

KEY MAP

N

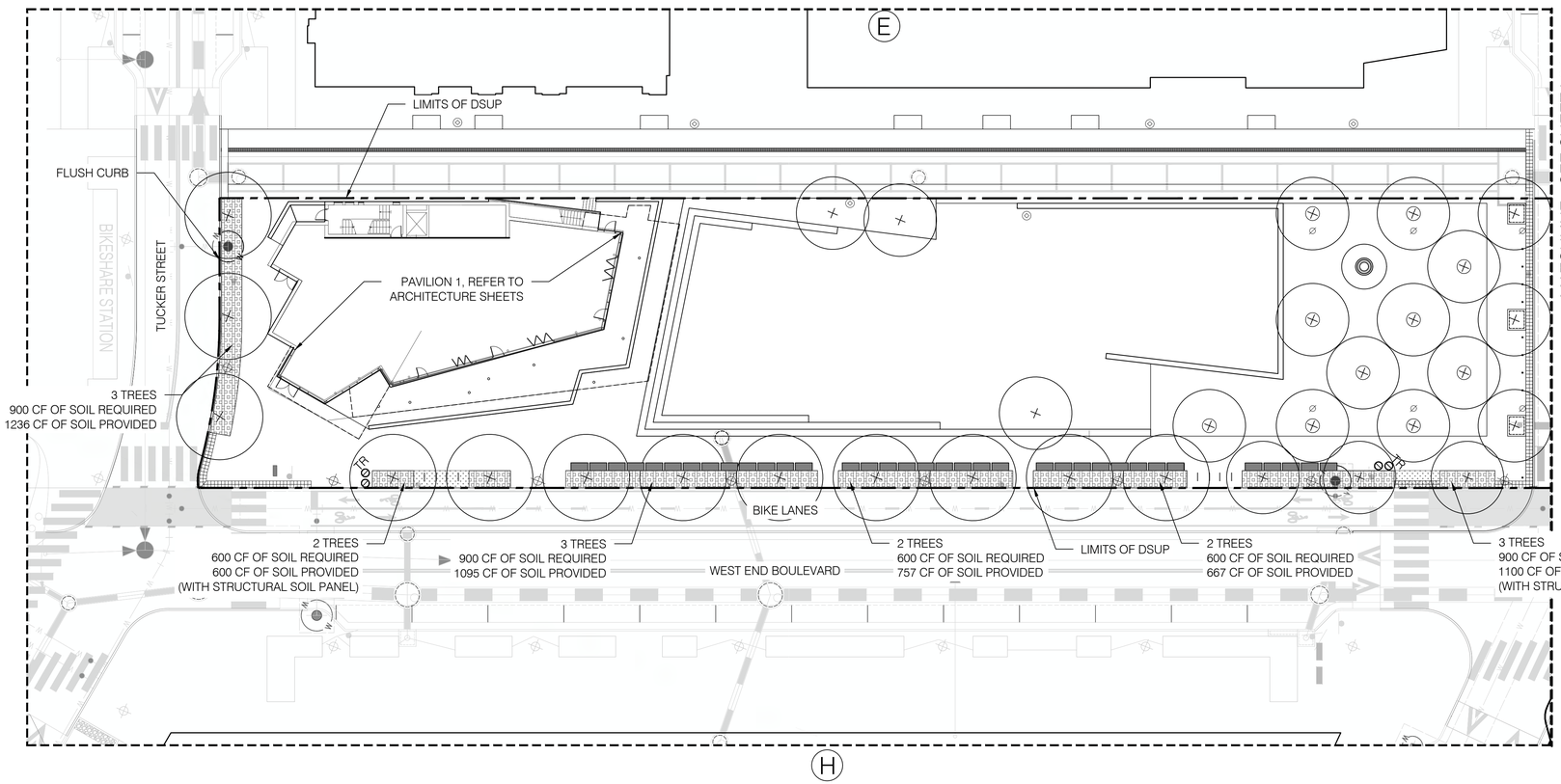
DATE: 05/05/2023

PROJECT NUMBER: W2108

SCALE: 1" = 20'

DRAWING TITLE: MATERIALS PLAN - AREA 5

SHEET NUMBER: L0114



SOILS LEGEND

PLANT BED SOIL

STRUCTURAL SOIL

NOTE: FINAL SOIL PLANS AND DETAILS
TO BE PROVIDED WITH FSP SUBMISSION

APPROVED

SPECIAL USE PERMIT NO. _____

DEPARTMENT OF PLANNING & ZONING

_____ _____
DIRECTOR DATE

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

SITE PLAN NO. _____

_____ _____
DIRECTOR DATE

_____ _____
CHAIRMAN, PLANNING COMMISSION DATE

DATE RECORDED _____

_____ _____ _____
INSTRUMENT NO. DEED BOOK NO. PAGE NO.

DEVELOPER

FOULGER-PRATT DEVELOPMENT
12435 PARK POTOMAC AVENUE
SUITE 200
POTOMAC, MD 20854
240.499.9600
CONTACT: JAY KELLY

LANDSCAPE ARCHITECT

O C U L U S
1611 CONNECTICUT AVE NW 3RD FLOOR
WASHINGTON DC 20009
P 202.588.5454
US@OCULUS.INFO

CONSULTANTS

FOUNTAIN CONSULTANT
FLUIDITY DESIGN CONSULTANTS
724 S. SPRING STREET, SUITE 1401
LOS ANGELES, CALIFORNIA 90014
213.739.9291

PLAYGROUND CONSULTANT
EARTHSCAPE
7215 WELLINGTON ROAD 86
WALLENSTEIN, ON CANADA N0B 2S0
1.877.269.2972

ICE RINK CONSULTANT
832 ENGINEERING GROUP, INC.
2211 O'NEIL ROAD
HUDSON, WI 54016
1.651.256.3090

LIGHTING DESIGNER
MCLA ARCHITECTURAL LIGHTING DESIGN
1000 POTOMAC STREET NW, SUITE 121
WASHINGTON, DC 20007
202.298.8062

PROJECT NAME

WestEnd Open Space
Blocks
City of Alexandria

SEAL & SIGNATURE

COMMONWEALTH OF VIRGINIA
DONALD RAY HOOVER
Lic. No. 406000790
LANDSCAPE ARCHITECT

COMPLETENESS SUBMISSION

NOT FOR CONSTRUCTION

ISSUE

MARK	DATE	DESCRIPTION
	11/29/2022	CONCEPT II
	03/10/2023	COMPLETENESS
	05/05/2023	COMPLETENESS
	06/02/2023	DD PRICING

KEY MAP

DATE: 05/05/2023

PROJECT NUMBER: W2108

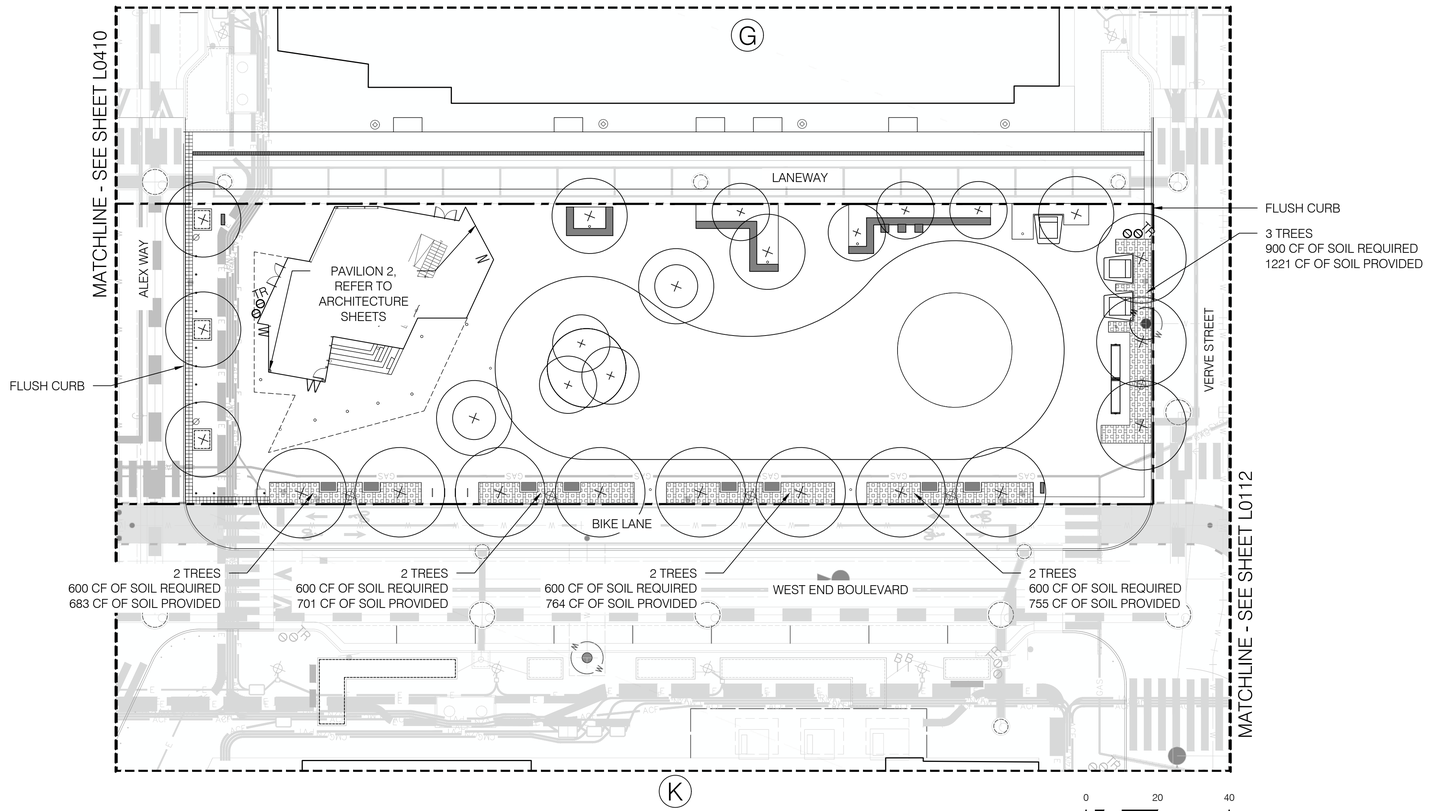
SCALE: 1" = 20'

SOIL DIAGRAM - AREA 1

DRAWING TITLE:

L0410

SHEET NUMBER:



SOILS LEGEND

PLANT BED SOIL

STRUCTURAL SOIL

NOTE: FINAL SOIL PLANS AND DETAILS TO BE PROVIDED WITH FSP SUBMISSION

APPROVED

SPECIAL USE PERMIT NO. _____

DEPARTMENT OF PLANNING & ZONING

_____ DIRECTOR _____ DATE

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

SITE PLAN NO. _____

_____ DIRECTOR _____ DATE

_____ CHAIRMAN, PLANNING COMMISSION _____ DATE

DATE RECORDED _____

_____ INSTRUMENT NO. _____ DEED BOOK NO. _____ PAGE NO.

DEVELOPER

FOULGER-PRATT DEVELOPMENT
12435 PARK POTOMAC AVENUE
SUITE 200
POTOMAC, MD 20854
240.499.9600
CONTACT: JAY KELLY

LANDSCAPE ARCHITECT

O C U L U S
1611 CONNECTICUT AVE NW 3RD FLOOR
WASHINGTON DC 20009
P 202.588.5454
US@OCULUS.INFO

CONSULTANTS

FOUNTAIN CONSULTANT
FLUIDITY DESIGN CONSULTANTS
724 S. SPRING STREET, SUITE 1401
LOS ANGELES, CALIFORNIA 90014
213.739.9291

PLAYGROUND CONSULTANT
EARTHSCAPE
7215 WELLINGTON ROAD 86
WALLENSTEIN, ON CANADA N0B 2S0
1.877.269.2972

ICE RINK CONSULTANT
832 ENGINEERING GROUP, INC.
2211 O'NEIL ROAD
HUDSON, WI 54016
1.651.256.3090

LIGHTING DESIGNER
MCLA ARCHITECTURAL LIGHTING DESIGN
1000 POTOMAC STREET NW, SUITE 121
WASHINGTON, DC 20007
202.298.8062

PROJECT NAME

WestEnd Open Space Blocks
City of Alexandria

SEAL & SIGNATURE

COMMONWEALTH OF VIRGINIA
DONALD RAY HOOVER
Lic. No. 406000790
LANDSCAPE ARCHITECT

COMPLETENESS SUBMISSION

NOT FOR CONSTRUCTION

ISSUE

MARK	DATE	DESCRIPTION
	11/29/2022	CONCEPT II
	03/10/2023	COMPLETENESS
	05/05/2023	COMPLETENESS
	06/02/2023	DD PRICING

KEY MAP

N

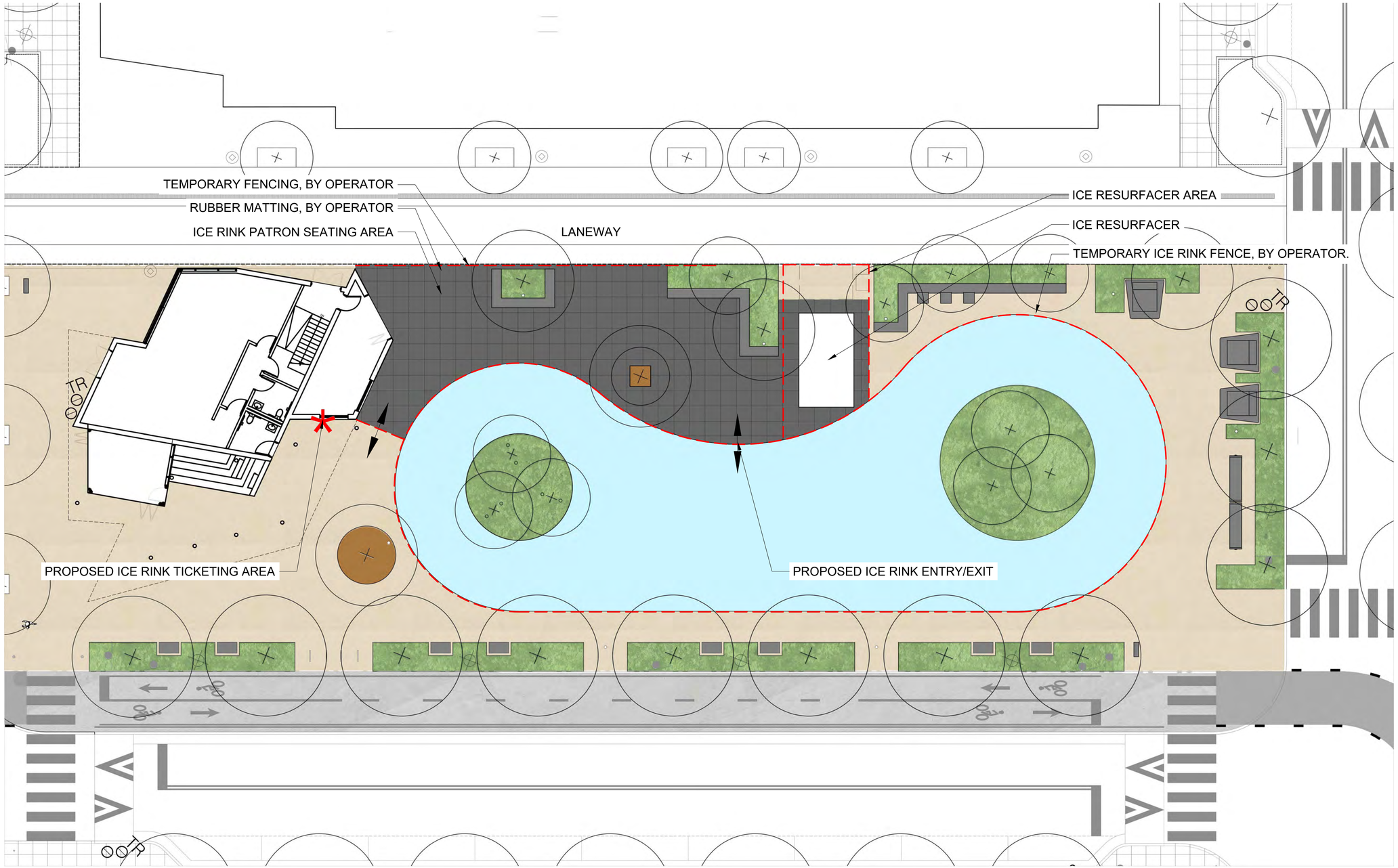
DATE: 05/05/2023

PROJECT NUMBER: W2108

SCALE: 1" = 20'

DRAWING TITLE: SOIL DIAGRAM - AREA 2

SHEET NUMBER: L0411



FOR ILLUSTRATIVE PURPOSES ONLY. FINAL DESIGN AND LAYOUT OF ICE RINK OPERATIONS TO BE FINALIZED WITH ICE RINK OPERATOR.

APPROVED

SPECIAL USE PERMIT NO. _____

DEPARTMENT OF PLANNING & ZONING

_____ DIRECTOR _____ DATE

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

SITE PLAN NO. _____

_____ DIRECTOR _____ DATE

_____ CHAIRMAN, PLANNING COMMISSION _____ DATE

DATE RECORDED _____

_____ INSTRUMENT NO. _____ DEED BOOK NO. _____ PAGE NO.

DEVELOPER

FOULGER-PRATT DEVELOPMENT
12435 PARK POTOMAC AVENUE
SUITE 200
POTOMAC, MD 20854
240.499.9600
CONTACT: JAY KELLY

LANDSCAPE ARCHITECT

O C U L U S
1611 CONNECTICUT AVE NW 3RD FLOOR
WASHINGTON DC 20009
P 202 588 5454
US@OCULUS.INFO

CONSULTANTS

FOUNTAIN CONSULTANT
FLUIDITY DESIGN CONSULTANTS
724 S. SPRING STREET, SUITE 1401
LOS ANGELES, CALIFORNIA 90014
213.739.9291

PLAYGROUND CONSULTANT
EARTHSCAPE
7215 WELLINGTON ROAD 86
WALLENSTEIN, ON CANADA N0B 2S0
1.877.269.2972

ICE RINK CONSULTANT
832 ENGINEERING GROUP, INC.
2211 O'NEIL ROAD
HUDSON, WI 54016
1.651.256.3090

LIGHTING DESIGNER
MCLA ARCHITECTURAL LIGHTING DESIGN
1000 POTOMAC STREET NW, SUITE 121
WASHINGTON, DC 20007
202.298.8062

PROJECT NAME

WestEnd Open Space Blocks
City of Alexandria

SEAL & SIGNATURE

COMMONWEALTH OF VIRGINIA
DONALD RAY HOOVER
Lic. No. 406000790
LANDSCAPE ARCHITECT

COMPLETENESS SUBMISSION

NOT FOR CONSTRUCTION

ISSUE

MARK	DATE	DESCRIPTION
	11/29/2022	CONCEPT II
	03/10/2023	COMPLETENESS
	05/05/2023	COMPLETENESS
	06/02/2023	DD PRICING

KEY MAP

N

DATE: 05/05/2023

PROJECT NUMBER: W2108

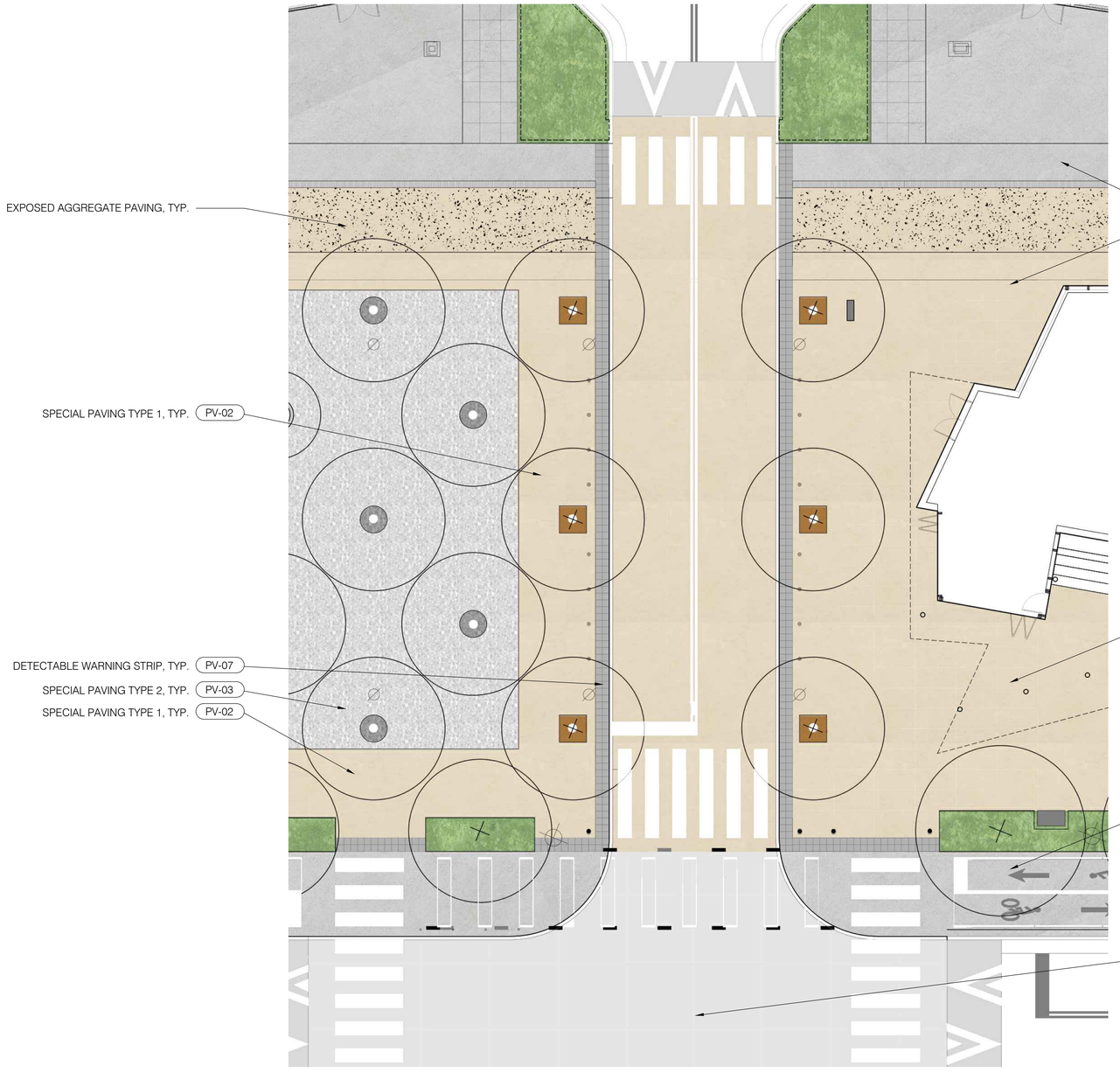
SCALE:

ICE RINK DIAGRAM

DRAWING TITLE:

L0701

SHEET NUMBER:



NOTE:
DIAGRAM IS FOR ILLUSTRATIVE PURPOSES ONLY. COLORS SHOWN DO NOT REFLECT FINAL SELECTIONS BUT INSTEAD SERVE TO GRAPHICALLY DIFFERENTIATE PAVING TYPES. FINAL COLOR AND MATERIAL TO BE FINALIZED AS PART OF FSP SUBMISSION.

APPROVED
SPECIAL USE PERMIT NO. _____
DEPARTMENT OF PLANNING & ZONING
_____ DIRECTOR _____ DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
_____ DIRECTOR _____ DATE
_____ CHAIRMAN, PLANNING COMMISSION _____ DATE
DATE RECORDED _____
INSTRUMENT NO. _____ DEED BOOK NO. _____ PAGE NO. _____

DEVELOPER
FOULGER-PRATT DEVELOPMENT
12435 PARK POTOMAC AVENUE
SUITE 200
POTOMAC, MD 20854
240.499.9600
CONTACT: JAY KELLY

LANDSCAPE ARCHITECT
O C U L U S
1611 CONNECTICUT AVE NW 3RD FLOOR
WASHINGTON DC 20009
P 202.588.5454
US@OCULUS.INFO

CONSULTANTS
FOUNTAIN CONSULTANT
FLUIDITY DESIGN CONSULTANTS
724 S. SPRING STREET, SUITE 1401
LOS ANGELES, CALIFORNIA 90014
213.739.9291

PLAYGROUND CONSULTANT
EARTHSCAPE
7215 WELLINGTON ROAD 86
WALLENSTEIN, ON CANADA N0B 2S0
1.877.269.2972

ICE RINK CONSULTANT
B32 ENGINEERING GROUP, INC.
2211 O'NEIL ROAD
HUDSON, WI 54016
1.651.256.3090

LIGHTING DESIGNER
MCLA ARCHITECTURAL LIGHTING DESIGN
1000 POTOMAC STREET NW, SUITE 121
WASHINGTON, DC 20007
202.298.8062

PROJECT NAME
WestEnd Open Space Blocks
City of Alexandria

SEAL & SIGNATURE
COMMONWEALTH OF VIRGINIA
DONALD RAY HOOVER
Lic. No. 406000790
LANDSCAPE ARCHITECT

COMPLETENESS SUBMISSION
NOT FOR CONSTRUCTION

ISSUE

MARK	DATE	DESCRIPTION
	11/29/2022	CONCEPT II
	03/10/2023	COMPLETENESS
	05/05/2023	COMPLETENESS
	06/02/2023	DD PRICING

KEY MAP
N
DATE: 05/05/2023
PROJECT NUMBER: W2108
SCALE: 1" = 80'-0"
PAVING TRANSITION DIAGRAM
DRAWING TITLE:
L0702
SHEET NUMBER:

NOTE:
DIAGRAM IS FOR ILLUSTRATIVE PURPOSES ONLY. COLORS SHOWN DO NOT REFLECT FINAL SELECTIONS BUT INSTEAD SERVE TO GRAPHICALLY DIFFERENTIATE PAVING TYPES. FINAL COLOR AND MATERIAL TO BE FINALIZED AS PART OF FSP SUBMISSION.

APPROVED
SPECIAL USE PERMIT NO. _____
DEPARTMENT OF PLANNING & ZONING
_____ DIRECTOR _____ DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
_____ DIRECTOR _____ DATE
_____ CHAIRMAN, PLANNING COMMISSION _____ DATE
DATE RECORDED _____
_____ INSTRUMENT NO. _____ DEED BOOK NO. _____ PAGE NO.

DEVELOPER
FOULGER-PRATT DEVELOPMENT
12435 PARK POTOMAC AVENUE
SUITE 200
POTOMAC, MD 20854
240.499.9600
CONTACT: JAY KELLY

LANDSCAPE ARCHITECT
O C U L U S
1611 CONNECTICUT AVE NW 3RD FLOOR
WASHINGTON DC 20009
P 202 588 5454
US@OCULUS.INFO

CONSULTANTS
FOUNTAIN CONSULTANT
FLUIDITY DESIGN CONSULTANTS
724 S. SPRING STREET, SUITE 1401
LOS ANGELES, CALIFORNIA 90014
213.739.9291

PLAYGROUND CONSULTANT
EARTHSCAPE
7215 WELLINGTON ROAD 86
WALLENSTEIN, ON CANADA N0B 2S0
1.877.269.2972

ICE RINK CONSULTANT
BS2 ENGINEERING GROUP, INC.
2211 ONEIL ROAD
HUDSON, WI 54016
1.651.256.3090

LIGHTING DESIGNER
MCLA ARCHITECTURAL LIGHTING DESIGN
1000 POTOMAC STREET NW, SUITE 121
WASHINGTON, DC 20007
202.298.8062

PROJECT NAME
WestEnd Open Space Blocks
City of Alexandria

SEAL & SIGNATURE
COMMONWEALTH OF VIRGINIA
DONALD RAY HOOVER
Lic. No. 406000790
LANDSCAPE ARCHITECT

COMPLETENESS SUBMISSION
NOT FOR CONSTRUCTION

ISSUE

MARK	DATE	DESCRIPTION
	11/29/2022	CONCEPT II
	03/10/2023	COMPLETENESS
	05/05/2023	COMPLETENESS
	06/02/2023	DD PRICING

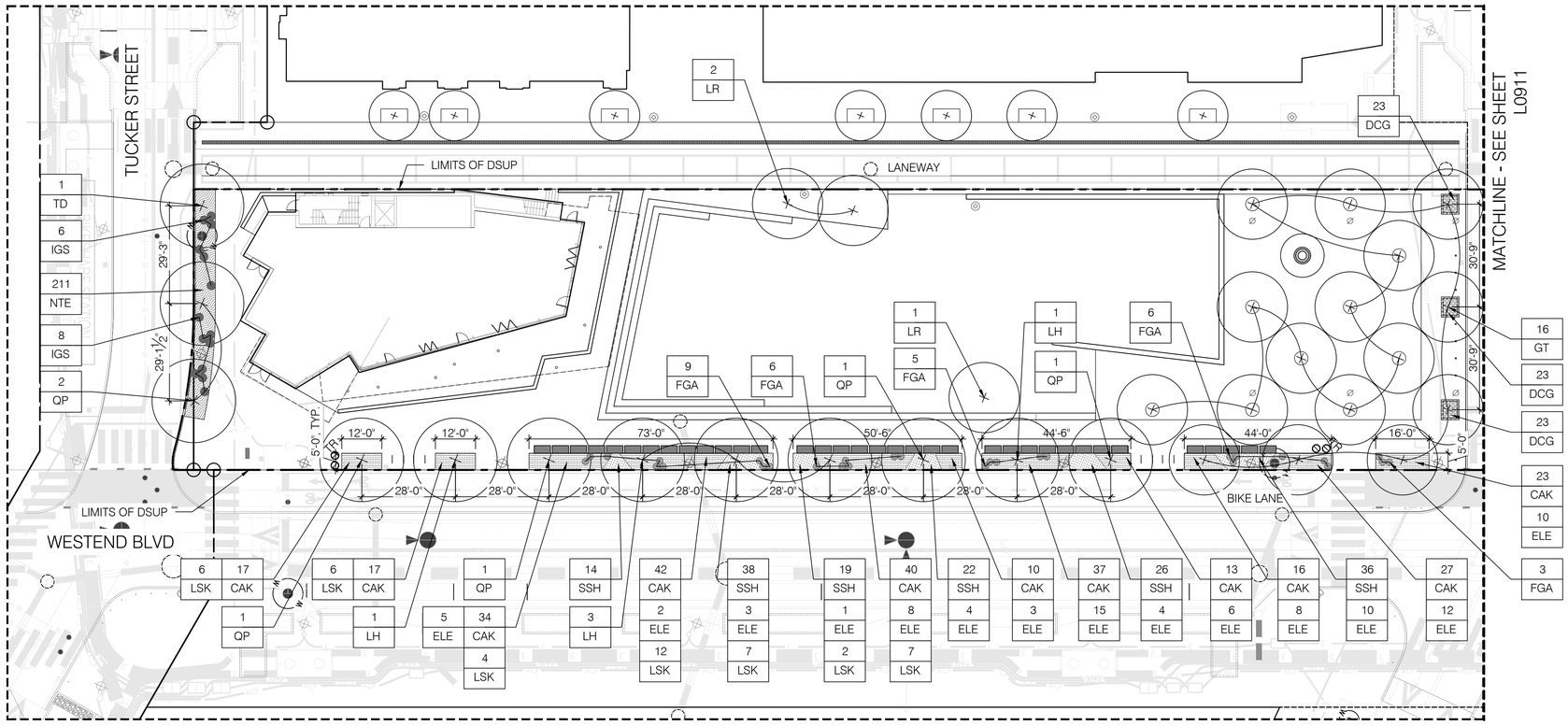
KEY MAP
N

DATE: 05/05/2023
PROJECT NUMBER: W2108
SCALE:
DRAWING TITLE: BRIDGE RENDERINGS

SHEET NUMBER: L0703

PLANTING LEGEND

- LAWN
- GARDEN PLANTING
- MEADOW PLANTING



0 20 40

SCALE: 1" = 20'

Landmark Parks
PLANT SCHEDULE - L0910

PREPARED: 05.10.2023

	CANOPY TREES					
QTY.	KEY	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS	SPACING
16	GT	*Gleditsia triacanthos 'Shademaster'*	Shademaster Honeylocust	3.5 - 4" cal.	B&B	AS SHOWN
5	LH	*Liquidambar styraciflua, Happidaze*	Happidaze Seedless Sweetgum	3.5 - 4" cal.	B&B	AS SHOWN
3	LR	*Liquidambar styraciflua, Rotundiloba*	Seedless Sweetgum	3.5 - 4" cal.	B&B	AS SHOWN
6	QP	*Quercus phellos*	Willow Oak	3.5 - 4" cal.	B&B	AS SHOWN
1	TD	*Taxodium distichum*	Bald Cypress	3.5 - 4" cal.	B&B	AS SHOWN

	SHRUBS					
	KEY	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS	SPACING
29	FGA	*Fothergilla gardenii*	Dwarf Fothergilla	3 Gal.	Container	AS SHOWN
14	IGS	*Ilex glabra 'Shamrock'*	Shamrock Inkberry Holly	5 Gal.	Container	AS SHOWN

	PERENNIALS & ORNAMENTAL GRASSES					
	KEY	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS	SPACING
276	CAK	*Calamagrostis x acutiflora 'Karl Foerster'*	Karl Foerster Reed Grass	1 Gal.	Container	24" O.C.
69	DCG	*Deschampsia cespitosa 'Goldtau'*	Tufted Hair Grass	1 Gal.	Container	15" O.C.
91	ELE	*Echinacea 'Leilani'*	Leilani Yellow Coneflower	1 Qt.	Container	15" O.C. or field layout
44	LSK	*Liatris spicata 'Kobold'*	Blazing Star	1 Qt.	Container	Field Layout
211	NTE	*Nassella tenuissima*	Mexican Feather Grass	1 Gal.	Container	18" O.C.
155	SSH	*Schizachyrium scoparium 'Ha Ha Tonka'*	Ha Ha Tonka Little Bluestem	1 Gal.	Container	18" O.C.

APPROVED
SPECIAL USE PERMIT NO. _____
DEPARTMENT OF PLANNING & ZONING
DIRECTOR DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
DIRECTOR DATE
CHAIRMAN, PLANNING COMMISSION DATE
DATE RECORDED _____
INSTRUMENT NO. DEED BOOK NO. PAGE NO.

DEVELOPER
FOULGER-PRATT DEVELOPMENT
12435 PARK POTOMAC AVENUE
SUITE 200
POTOMAC, MD 20854
240.499.9600
CONTACT: JAY KELLY

LANDSCAPE ARCHITECT
O C U L U S
1611 CONNECTICUT AVE NW 3RD FLOOR
WASHINGTON DC 20009
P 202.588.5454
US@OCULUS.INFO

CONSULTANTS
FOUNTAIN CONSULTANT
FLUIDITY DESIGN CONSULTANTS
724 S. SPRING STREET, SUITE 1401
LOS ANGELES, CALIFORNIA 90014
213.739.9291

PLAYGROUND CONSULTANT
EARTHSCAPE
7215 WELLINGTON ROAD 86
WALLENSTEIN, ON CANADA N0B 2S0
1.877.269.2972

ICE RINK CONSULTANT
832 ENGINEERING GROUP, INC.
2211 O'NEIL ROAD
HUDSON, WI 54016
1.651.256.3090

LIGHTING DESIGNER
MCLA ARCHITECTURAL LIGHTING DESIGN
1000 POTOMAC STREET NW, SUITE 121
WASHINGTON, DC 20007
202.298.8062

PROJECT NAME
WestEnd Open Space Blocks
City of Alexandria

SEAL & SIGNATURE
COMMONWEALTH OF VIRGINIA
DONALD RAY HOOVER
Lic. No. 406000790
LANDSCAPE ARCHITECT

COMPLETENESS SUBMISSION
NOT FOR CONSTRUCTION

ISSUE

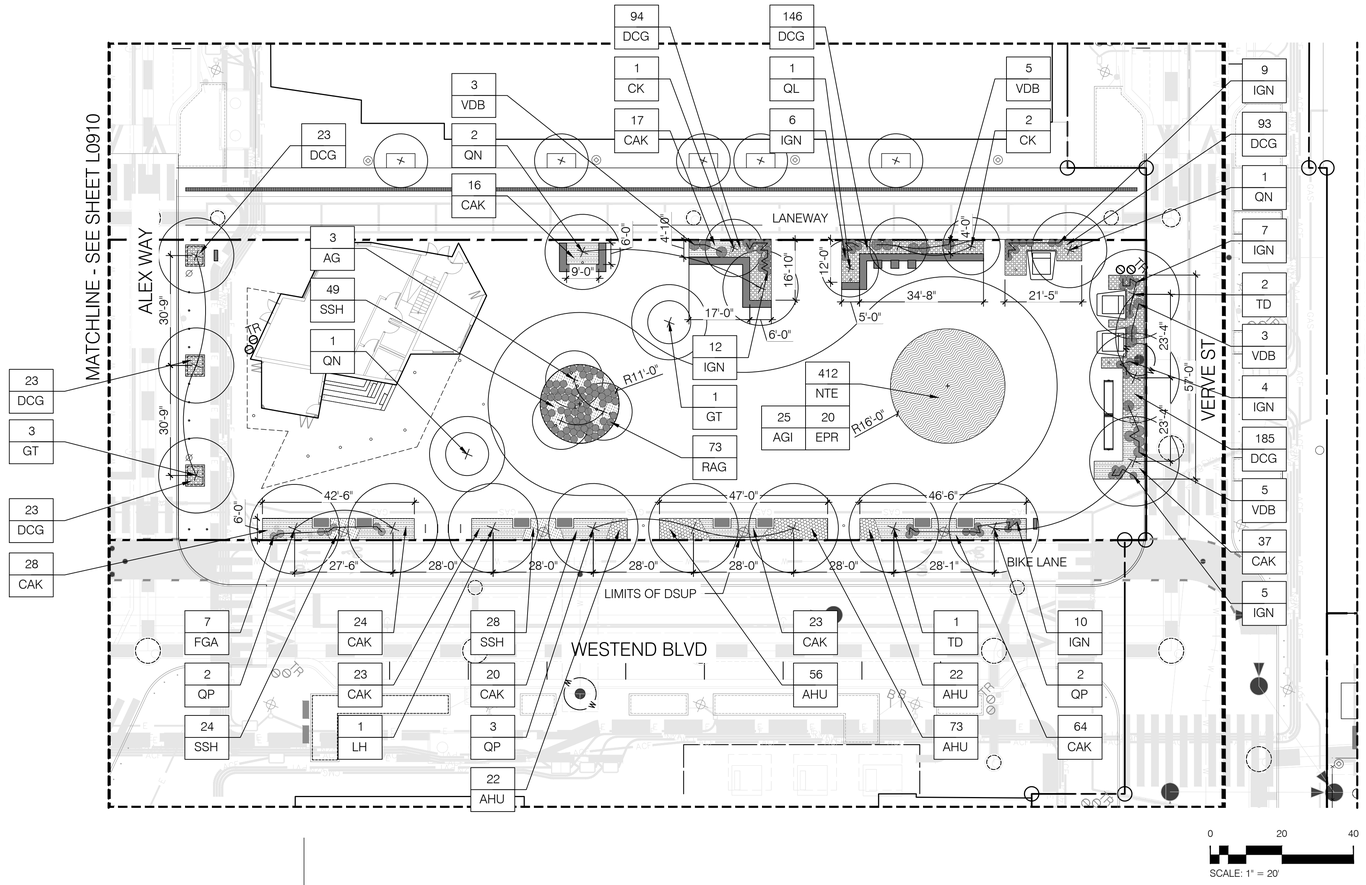
MARK	DATE	DESCRIPTION
	11/29/2022	CONCEPT II
	03/10/2023	COMPLETENESS
	05/05/2023	COMPLETENESS
	06/02/2023	DD PRICING

KEY MAP

DATE: 05/05/2023
PROJECT NUMBER: W2108
SCALE: 1" = 20'

PLANTING PLAN - AREA 1
DRAWING TITLE:

L0910
SHEET NUMBER:



PLANTING LEGEND

- LAWN
- GARDEN PLANTING
- MEADOW PLANTING

Landmark Parks - L0911
PLANT SCHEDULE

PREPARED: 05.10.2023

CANOPY TREES

QTY.	KEY	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS	SPACING
3	CK	*Cladrastis kentukea*	Kentucky Yellowwood	3.5" - 4" cal.	B&B	AS SHOWN
4	GT	*Gleditsia triacanthos 'Shademaster'*	Shademaster Honeylocust	3.5" - 4" cal.	B&B	AS SHOWN
1	LH	*Liquidambar styraciflua, Happidaze*	Happidaze Seedless Sweetgum	3.5" - 4" cal.	B&B	AS SHOWN
1	QL	*Quercus lyrata*	Overcup Oak	3.5" - 4" cal.	B&B	AS SHOWN
4	QN	*Quercus nuttallii*	Nuttall Oak	3.5" - 4" cal.	B&B	AS SHOWN
7	QP	*Quercus phellos*	Willow Oak	3.5" - 4" cal.	B&B	AS SHOWN
3	TD	*Taxodium distichum*	Bald Cypress	3.5" - 4" cal.	B&B	AS SHOWN

UNDERSTORY TREES

QTY.	KEY	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS	SPACING
3	AG	*Amelanchier x grandiflora 'Autumn Brilli*	Apple Serviceberry	3.5" - 4" cal. 10'-12' ht.	B&B	AS SHOWN

SHRUBS

KEY	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS	SPACING
FGA	*Fothergilla gardenii*	Dwarf Fothergilla	3 Gal.	Container	AS SHOWN
IGN	*Ilex glabra 'Nigra'*	Nigra Inkberry Holly	5 Gal.	Container	AS SHOWN
RAG	*Rhus aromatica 'Gro-Low'*	Grow-Low Fragrant Sumac	3 Gal.	Container	AS SHOWN
VDB	*Viburnum dentatum 'Blue Muffin'*	Arrowwood Viburnum	5 Gal.	Container	AS SHOWN

PERENNIALS & ORNAMENTAL GRASSES

KEY	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS	SPACING
AHU	*Amsonia hubrichtii*	Narrowleaf Blue Star	1 Gal.	Container	15" O.C.
CAK	*Calamagrostis x acutiflora 'Karl Foerstr*	Karl Foerster Reed Grass	1 Gal.	Container	24" O.C.
DCG	*Deschampsia cespitosa 'Goldtau'*	Tufted Hair Grass	1 Gal.	Container	15" O.C.
NTE	*Nassella tenuissima*	Mexican Feather Grass	1 Gal.	Container	18" O.C.
SSH	*Schizachyrium scoparium 'Ha Ha Tonka*	Ha Ha Tonka Little Bluestem	1 Gal.	Container	18" O.C.

APPROVED
SPECIAL USE PERMIT NO. _____
DEPARTMENT OF PLANNING & ZONING
DIRECTOR _____ DATE _____
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
DIRECTOR _____ DATE _____
CHAIRMAN, PLANNING COMMISSION _____ DATE _____
DATE RECORDED _____
INSTRUMENT NO. _____ DEED BOOK NO. _____ PAGE NO. _____

DEVELOPER
FOULGER-PRATT DEVELOPMENT
12435 PARK POTOMAC AVENUE
SUITE 200
POTOMAC, MD 20854
240.499.9600
CONTACT: JAY KELLY

LANDSCAPE ARCHITECT
O C U L U S
1611 CONNECTICUT AVE NW 3RD FLOOR
WASHINGTON DC 20009
P 202.588.5454
US@OCULUS.INFO

CONSULTANTS
FOUNTAIN CONSULTANT
FLUIDITY DESIGN CONSULTANTS
724 S. SPRING STREET, SUITE 1401
LOS ANGELES, CALIFORNIA 90014
213.739.9291

PLAYGROUND CONSULTANT
EARTHSCAPE
7215 WELLINGTON ROAD 86
WALLENSTEIN, ON CANADA N0B 2S0
1.877.269.2972

ICE RINK CONSULTANT
832 ENGINEERING GROUP, INC.
2211 O'NEIL ROAD
HUDSON, WI 54016
1.651.256.3090

LIGHTING DESIGNER
MCLA ARCHITECTURAL LIGHTING DESIGN
1000 POTOMAC STREET NW, SUITE 121
WASHINGTON, DC 20007
202.298.8062

PROJECT NAME
WestEnd Open Space Blocks
City of Alexandria

SEAL & SIGNATURE
COMMONWEALTH OF VIRGINIA
DONALD RAY HOOVER
Lic. No. 406000790
LANDSCAPE ARCHITECT

COMPLETENESS SUBMISSION
NOT FOR CONSTRUCTION

ISSUE

MARK	DATE	DESCRIPTION
	11/29/2022	CONCEPT II
	03/10/2023	COMPLETENESS
	05/05/2023	COMPLETENESS
	06/02/2023	DD PRICING

KEY MAP
N
DATE: 05/05/2023
PROJECT NUMBER: W2108
SCALE: 1" = 20'
DRAWING TITLE: PLANTING PLAN - AREA 2
L0911
SHEET NUMBER:

MATCHLINE - SEE SHEET L0911

MATCHLINE - SEE SHEET L0913

VERVE STREET

LANDMARK STREET

N VAN DORN ST

ELEVATED WALKWAY ABOVE

ELEVATED WALKWAY ABOVE

LIMITS OF DSUP

15'-9"
10'-6"
9'-0"
15'-5"
13'-11"
32'-0"
10'-6"
40'-10"
19'-4"
29'-4"

1 GT
1 BN
2 CC
1 QP
2 AG
1 AG
2 BN
1 AG
2 AG
1 CC
1 QL
16 RT
3 CC
2 LT
3 LT
3 CF
1 CF
5 IO
2 BN
2 HC
1 AG
1 QN
3 AG
1 QN
1 GT
2 AG
1 LH
2 QL
3 CF
2 CO

0 20 40
SCALE: 1" = 20'

PLANTING LEGEND

- LAWN
- GARDEN PLANTING
- MEADOW PLANTING

APPROVED

SPECIAL USE PERMIT NO. _____

DEPARTMENT OF PLANNING & ZONING

DIRECTOR _____ DATE _____

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

SITE PLAN NO. _____

DIRECTOR _____ DATE _____

CHAIRMAN, PLANNING COMMISSION _____ DATE _____

DATE RECORDED _____

INSTRUMENT NO. _____ DEED BOOK NO. _____ PAGE NO. _____

DEVELOPER

FOULGER-PRATT DEVELOPMENT
12435 PARK POTOMAC AVENUE
SUITE 200
POTOMAC, MD 20854
240.499.9600
CONTACT: JAY KELLY

LANDSCAPE ARCHITECT

O C U L U S
1611 CONNECTICUT AVE NW 3RD FLOOR
WASHINGTON DC 20009
P 202 588 5454
US@OCULUS.INFO

CONSULTANTS

FOUNTAIN CONSULTANT
FLUIDITY DESIGN CONSULTANTS
724 S. SPRING STREET, SUITE 1401
LOS ANGELES, CALIFORNIA 90014
213.739.9291

PLAYGROUND CONSULTANT
EARTHSCAPE
7215 WELLINGTON ROAD 86
WALLENSTEIN, ON CANADA N0B 2S0
1.877.269.2972

ICE RINK CONSULTANT
832 ENGINEERING GROUP, INC.
2211 O'NEIL ROAD
HUDSON, WI 54016
1.651.256.3090

LIGHTING DESIGNER
MCLA ARCHITECTURAL LIGHTING DESIGN
1000 POTOMAC STREET NW, SUITE 121
WASHINGTON, DC 20007
202.298.8062

PROJECT NAME

WestEnd Open Space Blocks

City of Alexandria

SEAL & SIGNATURE

COMMONWEALTH OF VIRGINIA
DONALD RAY HOOVER
Lic. No. 406000790
LANDSCAPE ARCHITECT

COMPLETENESS SUBMISSION

NOT FOR CONSTRUCTION

ISSUE

MARK	DATE	DESCRIPTION
	11/29/2022	CONCEPT II
	03/10/2023	COMPLETENESS
	05/05/2023	COMPLETENESS
	06/02/2023	DD PRICING

KEY MAP

N

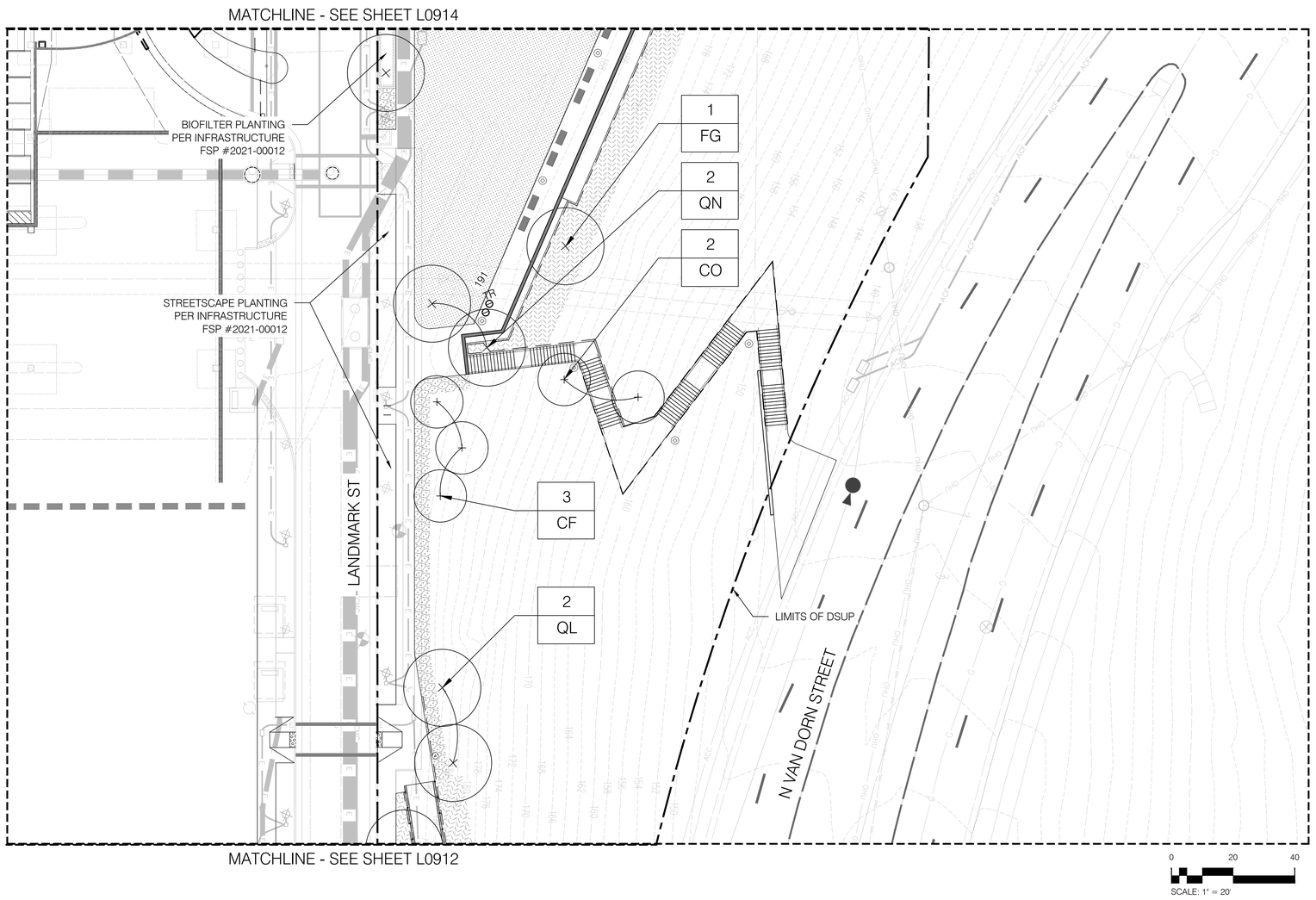
DATE: 05/05/2023

PROJECT NUMBER: W2108

SCALE: 1" = 20'

DRAWING TITLE: PLANTING PLAN - AREA 3

SHEET NUMBER: L0912



PLANTING LEGEND

- LAWN
- GARDEN PLANTING
- MEADOW PLANTING

DEVELOPER

FOULGER-PRATT DEVELOPMENT
12435 PARK POTOMAC AVENUE
SUITE 200
POTOMAC, MD 20854
240.499.9600
CONTACT: JAY KELLY

LANDSCAPE ARCHITECT

O C U L U S
1611 CONNECTICUT AVE NW 3RD FLOOR
WASHINGTON DC 20009
P 202 588 5454
US@OCULUS.INFO

CONSULTANTS

FOUNTAIN CONSULTANT
FLUIDITY DESIGN CONSULTANTS
724 S. SPRING STREET, SUITE 1401
LOS ANGELES, CALIFORNIA 90014
213.739.9291

PLAYGROUND CONSULTANT
EARTHSCAPE
7215 WELLINGTON ROAD 86
WALLENSTEIN, ON CANADA N0B 2S0
1.877.269.2972

ICE RINK CONSULTANT
832 ENGINEERING GROUP, INC.
2211 O'NEIL ROAD
HUDSON, WI 54016
1.651.256.3090

LIGHTING DESIGNER
MCLA ARCHITECTURAL LIGHTING DESIGN
1000 POTOMAC STREET NW, SUITE 121
WASHINGTON, DC 20007
202.298.8062

PROJECT NAME

WestEnd Open Space Blocks

City of Alexandria

SEAL & SIGNATURE

COMMONWEALTH OF VIRGINIA
DONALD RAY HOOVER
Lic. No. 406000790
LANDSCAPE ARCHITECT

COMPLETENESS SUBMISSION

NOT FOR CONSTRUCTION

ISSUE

MARK	DATE	DESCRIPTION
	11/29/2022	CONCEPT II
	03/10/2023	COMPLETENESS
	05/05/2023	COMPLETENESS
	06/02/2023	DD PRICING

KEY MAP

DATE: 05/05/2023

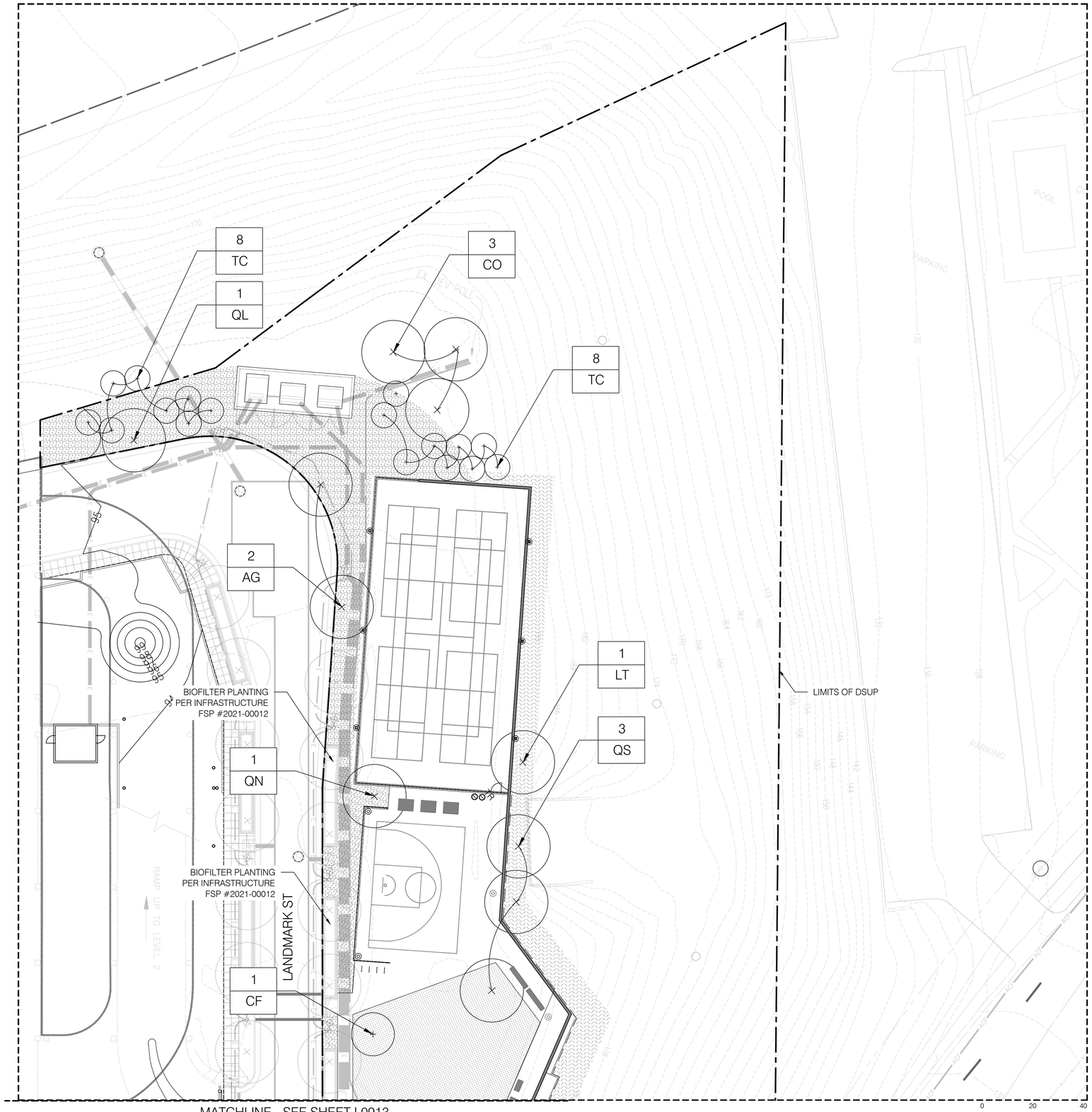
PROJECT NUMBER: W2108

SCALE: 1" = 20'

DRAWING TITLE: PLANTING PLAN - AREA 4

SHEET NUMBER: L0913

APPROVED
SPECIAL USE PERMIT NO. _____
DEPARTMENT OF PLANNING & ZONING
DIRECTOR DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
DIRECTOR DATE
CHAIRMAN, PLANNING COMMISSION DATE
DATE RECORDED _____
INSTRUMENT NO. DEED BOOK NO. PAGE NO.



PLANTING LEGEND

- LAWN
- GARDEN PLANTING
- MEADOW PLANTING

DEVELOPER

FOULGER-PRATT DEVELOPMENT
12435 PARK POTOMAC AVENUE
SUITE 200
POTOMAC, MD 20854
240.499.9600
CONTACT: JAY KELLY

LANDSCAPE ARCHITECT

O C U L U S
1611 CONNECTICUT AVE NW 3RD FLOOR
WASHINGTON DC 20009
P 202 588 5454
US@OCULUS.INFO

CONSULTANTS

FOUNTAIN CONSULTANT
FLUIDITY DESIGN CONSULTANTS
724 S. SPRING STREET, SUITE 1401
LOS ANGELES, CALIFORNIA 90014
213.739.9291

PLAYGROUND CONSULTANT
EARTHSCAPE
7215 WELLINGTON ROAD 86
WALLENSTEIN, ON CANADA N0B 2S0
1.877.269.2972

ICE RINK CONSULTANT
832 ENGINEERING GROUP, INC.
2211 O'NEIL ROAD
HUDSON, WI 54016
1.651.256.3090

LIGHTING DESIGNER
MCLA ARCHITECTURAL LIGHTING DESIGN
1000 POTOMAC STREET NW, SUITE 121
WASHINGTON, DC 20007
202.298.8062

PROJECT NAME

WestEnd Open Space Blocks

City of Alexandria

SEAL & SIGNATURE

COMMONWEALTH OF VIRGINIA
DONALD RAY HOOVER
Lic. No. 406000790
LANDSCAPE ARCHITECT

COMPLETENESS SUBMISSION

NOT FOR CONSTRUCTION

ISSUE

MARK	DATE	DESCRIPTION
	11/29/2022	CONCEPT II
	03/10/2023	COMPLETENESS
	05/05/2023	COMPLETENESS
	06/02/2023	DD PRICING

KEY MAP

DATE: 05/05/2023

PROJECT NUMBER: W2108

SCALE: 1" = 20'

DRAWING TITLE: PLANTING PLAN - AREA 5

SHEET NUMBER: L0914

APPROVED
SPECIAL USE PERMIT NO. _____
DEPARTMENT OF PLANNING & ZONING
DIRECTOR DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
DIRECTOR DATE
CHAIRMAN, PLANNING COMMISSION DATE
DATE RECORDED _____
INSTRUMENT NO. DEED BOOK NO. PAGE NO.

Landmark Parks
PLANT SCHEDULE

PREPARED: 05.05.2023

	CANOPY TREES					
QTY.	KEY	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS	SPACING
				3.5" - 4" cal.		
5	BN	*Betula nigra 'Dura Heat'*	River Birch	16'-18' ht.	B&B	AS SHOWN
7	CO	*Carya ovata*	Shagbark Hickory	3.5" - 4" cal.	B&B	AS SHOWN
3	CK	*Cladrastis kentukea*	Kentucky Yellowwood	3.5" - 4" cal.	B&B	AS SHOWN
1	FG	*Fagus grandifolia*	American Beech	3.5" - 4" cal.	B&B	AS SHOWN
22	GT	*Gleditsia triacanthos 'Shademaster'*	Shademaster Honeylocust	3.5" - 4" cal.	B&B	AS SHOWN
6	LT	*Liriodendron tulipifera*	Tulip Tree	3.5" - 4" cal.	B&B	AS SHOWN
7	LH	*Liquidambar styraciflua, Happidaze*	Happidaze Seedless Sweetgum	3.5" - 4" cal.	B&B	AS SHOWN
3	LR	*Liquidambar styraciflua, Rotundiloba*	Seedless Sweetgum	3.5" - 4" cal.	B&B	AS SHOWN
7	QL	*Quercus lyrata*	Overcup Oak	3.5" - 4" cal.	B&B	AS SHOWN
9	QN	*Quercus nuttallii*	Nuttall Oak	3.5" - 4" cal.	B&B	AS SHOWN
14	QP	*Quercus phellos*	Willow Oak	3.5" - 4" cal.	B&B	AS SHOWN
3	QS	*Quercus shumardii*	Shumard Oak	3.5" - 4" cal.	B&B	AS SHOWN
4	TD	*Taxodium distichum*	Bald Cypress	3.5" - 4" cal.	B&B	AS SHOWN

	UNDERSTORY TREES					
QTY.	KEY	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS	SPACING
				3.5" - 4" cal.		
16	AG	*Amelanchier x grandiflora 'Autumn Brilliance'*	Apple Serviceberry	10'-12' ht.	B&B	AS SHOWN
6	CC	*Cercis Canadensis*	Eastern Redbud	2.5" - 3" cal.	B&B	AS SHOWN
11	CF	*Cornus florida*	Flowering Dogwood	2.5" - 3" cal.	B&B	AS SHOWN
				3.5" - 4" cal.		
2	HC	*Halesia carolia*	Carolina Silverbell	10'-12' ht.	B&B	AS SHOWN
				3.5" - 4" cal.		
5	IO	*Ilex opaca*	American Holly	8'-10' ht.	B&B	AS SHOWN
				2.5" - 3" cal.		
16	RT	*Rhus typhina*	Staghorn Sumac	5'-6' ht.	B&B	AS SHOWN
				3.5" - 4" cal.		
16	TC	*Tsuga canadensis*	Eastern Hemlock	12'-14' ht.	B&B	AS SHOWN

GARDEN PLANTING

KEY	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS	SPACING INCH O.C. (or as shown)	NATIVE
BMP	*Buxus microphylla*	Littleleaf Boxwood	#5		30"	NO
BSW	*Buxus sinica var. insularis* 'Wintergreen'	Korean Boxwood	#5		30"	NO
CAR	*Clethra alnifolia 'Ruby Spice'*	Sweet Pepperbush	#5		30"	REGIONAL
FGA	*Fothergilla gardenii*	Dwarf Fothergilla	#5		30"	EASTERN U.S.
FMA	*Fothergilla major 'Arkansas Beauty'*	Arkansas Beauty Fothergilla	#5		30"	EASTERN U.S.
HQS	*Hydrangea quercifolia 'Snow Queen'*	Snow Queen Oakleaf Hydrangea	#7		30"	EASTERN U.S.
IGN	*Ilex glabra 'Nigra'*	Nigra Inkberry Holly	5 Gal.		24"	REGIONAL
IGS	*Ilex glabra 'Shamrock'*	Inkberry	#5		30"	REGIONAL
IVJ	*Ilex verticillata* 'Jim Dandy'	Winterberry	#5		48"	LOCAL
IVR	*Ilex verticillata* 'Red Sprite'	Dwarf Winterberry	#5		30"	LOCAL
RAG	*Rhus aromatica 'Gro-Low'*	Grow-Low Fragrant Sumac	3 Gal.		24"	LOCAL
RRA	*Rosa rugosa* 'Agnes'	Rugosa Rose	#5		30"	NO
RRW	*Rosa rugosa* 'White Pavement'	Rugosa Rose	#5		18"	NO
VDB	*Viburnum dentatum 'Christom'* Blue Muffin	Blue Muffin Arrowwood Viburnum	#5		36"	LOCAL

PERENNIALS AND ORNAMENTAL GRASSES

KEY	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS	SPACING INCH O.C. (or as shown)	NATIVE
AHU	*Amsonia hubrichtii*	Bluestar	Quart		24"	EASTERN U.S.
ATB	*Andropogon ternarius 'Black Mountain'*	Black Mountain Bluestem	Quart		18"	LOCAL
ATH	*Asclepias tuberosa 'Hello Yellow'*	Hello Yellow Butterfly Weed	Quart		12"	LOCAL
CAK	*Calamagrostis x acutiflora 'Karl Foerster'*	Karl Foerster Reed Grass	1 Gal.		24"	REGIONAL
CAR	*Carex divulsa*	Grassland Sedge	Quart		12"	NO
CPE	*Carex pensylvanica*	Pennsylvania Sedge	Quart		6"	REGIONAL
DCG	*Deschampsia cespitosa 'Goldtau'*	Golden Dew Tufted Hair Grass	Quart		18"	REGIONAL
ELE	*Echinacea 'leilani'*	Leilani Yellow Coneflower	Quart		15"	REGIONAL
EPR	*Echinacea purpurea* 'Rubinstern'	Purple Coneflower	Quart		12"	REGIONAL
EPW	*Echinacea purpurea* 'White Swan'	White Coneflower	Quart		12"	REGIONAL
EPM	*Eupatorium purpureum subsp. maculatum* 'Ga	Joe Pye Weed	Quart		24"	REGIONAL
HVA	*Heuchera villosa* 'Autumn Bride'	Hairy Alum Root	Quart		15"	REGIONAL
IVE	*Iris versicolor*	Blue Flag	Quart		15"	REGIONAL
JEF	*Juncus effusus*	Soft Rush	Quart		15"	LOCAL
LSA	*Liatris spicata 'Alba'*	White Gayfeather	Quart			LOCAL
LSF	*Liatris spicata 'Floristan Violet'*	Violet Gayfeather	Quart			LOCAL
LSK	*Liatris spicata 'Kobold'*	Blazing Star	Quart		Field Layou	LOCAL
NTE	*Nassella tenuissima*	Mexican Feather Grass	Quart		18"	U.S
PVS	*Panicum virgatum* 'Shenandoah'	Switch Grass	Quart		24"	LOCAL
RFS	*Rudbeckia fulgida var. sullivantii* 'Goldsturm'	Black-Eyed Susan	Quart		12"	REGIONAL
SES	*Seslaria autumnalis*	Autumn Moor Grass	Quart		12"	NO
SSH	*Schizachyrium scoparium 'Ha Ha Tonka'*	Ha Ha Tonka Little Bluestem	Quart		18"	LOCAL
SSS	*Schizachyrium scoparium* 'Smoke Signal' *PP27*	Bluestem Grass	Quart		18"	LOCAL

PERENNIALS AND ORNAMENTAL GRASSES

KEY	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS	SPACING INCH O.C. (or as shown)	NATIVE
PVS	*Panicum virgatum* 'Shenandoah'	Switch Grass			24"	LOCAL
SSS	*Schizachyrium scoparium* 'Smoke Signal' *PP27435*	Bluestem Grass			18"	LOCAL

Grass Seed for Stabilization

BLOCK F

PLANTING TYPE	SIZE	CCA	QTY.	TOTAL CCA
CATEGORY I TREES	18"	250	0	0
CATEGORY II TREES	25'	500	0	0
CATEGORY III TREES	30'	750	1	750
CATEGORY IV TREES	40'	1,250	30	37500

Existing Crown Coverage to Remain	0
Crown Coverage Provided (s.f.)	38250
Total Block Site Area (s.f.)	32,004
Total Site Area provided with CCA	120%

BLOCK N

PLANTING TYPE	SIZE	CCA	QTY.	TOTAL CCA
CATEGORY I TREES	18"	250	0	0
CATEGORY II TREES	25'	500	7	3500
CATEGORY III TREES	30'	750	5	3750
CATEGORY IV TREES	40'	1,250	16	20000

Existing Crown Coverage to Remain	0
Crown Coverage Provided (s.f.)	27250
Total Block Site Area (s.f.)	22,758
Total Site Area provided with CCA	120%

BLOCK R

PLANTING TYPE	SIZE	CCA	QTY.	TOTAL CCA
CATEGORY I TREES	18"	250	10	2500
CATEGORY II TREES	25'	500	14	7000
CATEGORY III TREES	30'	750	6	4500
CATEGORY IV TREES	40'	1,250	3	3750

Existing Crown Coverage to Remain	0
Crown Coverage Provided (s.f.)	17750
Total Block Site Area (s.f.)	17,018
Total Site Area provided with CCA	104%

BLOCK P

PLANTING TYPE	SIZE	CCA	QTY.	TOTAL CCA
CATEGORY I TREES	18"	250	26	6500
CATEGORY II TREES	25'	500	29	14500
CATEGORY III TREES	30'	750	0	0
CATEGORY IV TREES	40'	1,250	20	25000

Existing Crown Coverage to Remain	35,641
Crown Coverage Provided (s.f.)	78,600
Total Block Site Area (s.f.)	128,715
Total Site Area provided with CCA	89%

BIODIVERSITY TABULATIONS

TREES (URBAN AND STANDARD)
TOTAL NUMBER OF TREES PROPOSED: 163

GENUS	QTY.	PERCENT OF TOTAL PROPOSED	MAXIMUM PERCENT ALLOWED	SPECIES	QTY.	PERCENT OF TOTAL PROPOSED	MAXIMUM PERCENT ALLOWED
Amelanchier	16	10%	33%	grandiflora	16	10%	10%
Betula	5	3%	33%	nigra	5	3%	10%
Carya	7	4%	33%	ovata	7	4%	10%
Cercis	6	4%	33%	canadensis	6	4%	10%
Cladrastis	3	2%	33%	kentukea	3	2%	10%
Cornus	11	7%	33%	florida	11	7%	10%
Fagus	1	1%	33%	grandifolia	1	1%	10%
Gelditsia	22	13%	33%	triancanthos	22	13%	10%
Halesia	2	1%	33%	carolina	2	1%	10%
Ilex	5	3%	33%	opaca	5	3%	10%
Liriodendron	6	4%	33%	tulipifera	6	4%	10%
Liquidambar	10	6%	33%	styraciflua	10	6%	10%
Quercus	33	20%	33%	lyrata	7	4.3%	10%
				Nuttallii	9	5.5%	10%
				phellos	14	8.6%	10%
				shumardii	3	1.8%	10%
Rhus	16	10%	33%	typhina	16	10%	10%
Taxodium	4	2%	33%	distichum	4	2%	10%
Tsuga	16	10%	33%	canadensis	16	10%	10%

A) STANDARD LANDSCAPE PLAN NOTES FOR ALL PLANS REQUIRING APPROVAL:

THE FOLLOWING NOTES SHALL BE PROVIDED ON LANDSCAPE PLAN SUBMISSIONS FOR ALL PROJECTS THAT REQUIRE APPROVAL BY THE CITY AS OUTLINED IN CHAPTER 3 OF THE CITY'S 2019 LANDSCAPE GUIDELINES:

1) THE PROPERTY OWNER AND/OR APPLICANT, SPECIFIER, CONTRACTOR AND INSTALLER OF PLANT MATERIAL ARE RESPONSIBLE FOR UNDERSTANDING AND ADHERING TO THE STANDARDS SET FORTH IN THE MOST RECENT VERSION OF THE CITY OF ALEXANDRIA LANDSCAPE GUIDELINES AND APPLICABLE CONDITIONS OF APPROVAL. ALL QUESTIONS REGARDING APPLICATION OF, OR ADHERENCE TO, THE STANDARDS AND/OR CONDITIONS OF APPROVAL SHALL BE DIRECTED TO THE CITY PRIOR TO COMMENCEMENT OF DEMOLITION, CONSTRUCTION, OR ANY LAND DISTURBING ACTIVITY.

2) THE CITY-APPROVED LANDSCAPE PLAN SUBMISSION, INCLUDING PLANT SCHEDULE, NOTES AND DETAILS SHALL BE THE DOCUMENT USED FOR INSTALLATION PURPOSES AND ALL PROCEDURES SET FORTH IN THE LANDSCAPE GUIDELINES MUST BE FOLLOWED.

3) THE CONTRACTOR SHALL NOT INTERFERE WITH ANY TREE PROTECTION MEASURES OR IMPACT ANY EXISTING VEGETATION IDENTIFIED TO BE PRESERVED PER THE APPROVED TREE AND VEGETATION PROTECTION PLAN.

4) ANY CHANGES, ALTERATIONS OR MODIFICATIONS TO THE SITE CONDITIONS THAT AFFECT VEGETATION PROTECTION ZONES WILL REQUIRE AN AMENDMENT TO THE APPROVED TREE AND VEGETATION PROTECTION PLAN AND/OR DETAILS.

5) INSTALLATION OF PLANT MATERIAL MAY ONLY OCCUR DURING THE PLANTING SEASONS IDENTIFIED IN THE LANDSCAPE GUIDELINES.

6) IN LIEU OF MORE STRENUOUS SPECIFICATIONS, ALL LANDSCAPE RELATED WORK SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE CURRENT AND MOST UP-TO-DATE EDITION (AT TIME OF CONSTRUCTION) OF LANDSCAPE SPECIFICATION GUIDELINES AS PRODUCED BY THE LANDSCAPE CONTRACTORS ASSOCIATION OF MARYLAND, DISTRICT OF COLUMBIA AND VIRGINIA; GAITHERSBURG, MARYLAND.

7) SUBSTITUTIONS TO THE APPROVED PLANT MATERIAL SHALL NOT OCCUR UNTIL WRITTEN APPROVAL IS PROVIDED BY THE CITY.

8) MAINTENANCE FOR THIS PROJECT SHALL BE PERFORMED BY THE OWNER, APPLICANT, SUCCESSOR(S) AND/OR ASSIGN(S) IN PERPETUITY AND IN COMPLIANCE WITH CITY OF ALEXANDRIA LANDSCAPE GUIDELINES AND AS CONDITIONED BY PROJECT APPROVAL, AS APPLICABLE.

B) STANDARD LANDSCAPE PLAN NOTES FOR DEVELOPMENT SITE PLANS:

IN ADDITION TO THE NOTES PROVIDED ABOVE, THE FOLLOWING NOTES SHALL BE PROVIDED ON LANDSCAPE PLAN SUBMISSIONS FOR ALL DSP/DSUP PROJECTS:

1) THE APPROVED METHOD(S) OF PROTECTION MUST BE IN PLACE FOR ALL VEGETATION TO BE PRESERVED ON-SITE AND ADJACENT TO THE PROJECT SITE PURSUANT TO THE APPROVED TREE AND VEGETATION PROTECTION PLAN AND DETAILS PRIOR TO COMMENCEMENT OF DEMOLITION, CONSTRUCTION, OR ANY LAND DISTURBANCE. THE APPLICANT SHALL NOTIFY THE PLANNING & ZONING (P&Z) PROJECT MANAGER ONCE THE TREE PROTECTION METHODS ARE IN PLACE. NO DEMOLITION, CONSTRUCTION, OR LAND DISTURBANCE MAY OCCUR UNTIL AN INSPECTION IS PERFORMED BY THE CITY AND WRITTEN CONFIRMATION IS PROVIDED BY THE CITY WHICH VERIFIES CORRECT INSTALLATION OF THE TREE PROTECTION MEASURES.

2) THE APPLICANT MUST CONTACT THE P&Z PROJECT MANAGER PRIOR TO COMMENCEMENT OF LANDSCAPE INSTALLATION/PLANTING OPERATION TO SCHEDULE A PRE-INSTALLATION MEETING. THE MEETING SHOULD BE HELD BETWEEN THE APPLICANT'S GENERAL CONTRACTOR, LANDSCAPE CONTRACTOR, LANDSCAPE ARCHITECT, THE P&Z PROJECT MANAGER AND THE CITY ARBORIST (AS APPLICABLE) TO REVIEW THE SCOPE OF INSTALLATION PROCEDURES AND PROCESSES DURING AND AFTER INSTALLATION.

3) THE FOLLOWING INFORMATION SHALL BE PROVIDED TO THE P&Z PROJECT MANAGER AT LEAST FIVE (5) BUSINESS DAYS PRIOR TO THE LANDSCAPE PRE-INSTALLATION MEETING: 1) A LETTER THAT CERTIFIES THAT THE PROJECT LANDSCAPE ARCHITECT PERFORMED PRE-SELECTION TAGGING FOR ALL TREES PROPOSED WITHIN THE PUBLIC RIGHT OF WAY AND ON PUBLIC LAND PRIOR TO INSTALLATION. THIS LETTER MUST BE SIGNED AND SEALED BY THE PROJECT LANDSCAPE ARCHITECT, AND 2) A COPY OF THE SOIL BULK DENSITY TEST REPORT VERIFYING THAT MAXIMUM COMPRESSION RATES ARE MET.

4) ALL CONSTRUCTION WASTE SHALL BE REMOVED PRIOR TO PLANTING.

5) AS-BUILT DRAWINGS FOR THIS LANDSCAPE AND/OR IRRIGATION/WATER MANAGEMENT SYSTEM WILL BE PROVIDED IN COMPLIANCE WITH CITY OF ALEXANDRIA LANDSCAPE GUIDELINES, THE CITY CODE OF ORDINANCES, AND ALL APPLICABLE PLAN PREPARATION CHECKLISTS. AS-BUILT DRAWINGS SHALL INCLUDE CLEAR IDENTIFICATION OF ALL VARIATION(S) AND CHANGES FROM APPROVED DRAWINGS INCLUDING LOCATION, QUANTITY AND SPECIFICATION OF ALL PROJECT ELEMENTS.

6) AREAS OF BARE SOIL WILL NOT BE ACCEPTED. MULCHED AREAS AND PLANTING AREAS SHALL BE WEED FREE UPON ACCEPTANCE OF THE PROJECT BY THE CITY.

A STANDARD LANDSCAPE PLAN NOTES
NOT TO SCALE

OF UPDATES: 01 LAST UPDATED: 12/02/2019

CITY OF ALEXANDRIA, VIRGINIA
STANDARD LANDSCAPE DETAILS
CITY OF ALEXANDRIA, VIRGINIA

NOTE:
THE INFORMATION SHOWN HEREIN THIS DOCUMENT IS FOR GENERAL GUIDANCE ONLY AND IS NOT INTENTED FOR CONSTRUCTION PURPOSES. ITS USE SHALL NOT RELIEVE THE DESIGN PROFESSIONAL OR CONTRACTOR OF ANY LEGAL RESPONSIBILITY.

Source: CITY OF ALEXANDRIA
Approved by: COA
STANDARD LANDSCAPE PLAN NOTES
1 OF 1
Date drawn: 01/01/19
LD 016

A) STANDARD TREE PRESERVATION NOTES FOR ALL PLANS REQUIRING APPROVAL:

THE FOLLOWING NOTES SHALL BE PROVIDED ON LANDSCAPE PLAN SUBMISSIONS FOR ALL PROJECTS WITH PRESERVATION AREAS

1) VEGETATION DESIGNATED FOR PROTECTION AND/OR PRESERVATION SHALL CONTINUOUSLY RECEIVE AN ENHANCED LEVEL OF MAINTENANCE THROUGHOUT THE ENTIRE CONSTRUCTION PERIOD.

A. MAINTENANCE SHALL BE PRO-ACTIVE.

B. MAINTENANCE OPERATIONS SHALL AGGRESSIVELY MONITOR THE HEALTH, GROWTH AND VIGOR OF VEGETATION AND PRESCRIBE SELECTIVE PRUNING, REMOVAL OF VOLUNTEER AND/OR INVASIVE SPECIES, WATERING, FERTILIZATION AND INSTALLATION OF MULCH/TOPDRESSING.

C. WHEN PRESERVED VEGETATION IS LOCATED ON CITY PROPERTY, MAINTENANCE SHALL BE PERFORMED TO THE SATISFACTION OF THE CITY.

2) AREAS DESIGNATED FOR PROTECTION AND/OR PRESERVATION OF VEGETATION SHALL NOT BE ENTERED OR UTILIZED (APPROVED MAINTENANCE PROCEDURES AND WATERING EXCEPTED) THROUGHOUT THE ENTIRE CONSTRUCTION PERIOD. PROHIBITED ITEMS/ ACTIVITIES INCLUDE, BUT ARE NOT LIMITED TO:

A. MODIFYING SITE TOPOGRAPHY IN A MANNER THAT DIRECTLY OR INDIRECTLY ALTERS EXISTING SITE DRAINAGE WITHIN PROTECTION ZONE INCLUDING TRENCHING OR GRADING OPERATIONS AND PLACING, STORING OR STOCKPILING SOIL OR CONSTRUCTION RELATED SUPPLIES.

B. FELLING AND STORING VEGETATION. III. INCINERATING MATERIALS WITHIN OR IN CLOSE PROXIMITY.

C. OPERATING MACHINERY OR EQUIPMENT, INCLUDING VEHICLE/EQUIPMENT PARKING OR STORAGE.

D. TEMPORARY OR PERMANENT UTILITY CONSTRUCTION, PAVING OR IMPERVIOUS SURFACE INSTALLATION.

E. DISPOSAL OF DEBRIS OR CHEMICALS. VII. TEMPORARY FACILITIES OR OCCUPATION BY WORK FORCE.

F. STORAGE OF CONSTRUCTION MATERIALS OR WASTE.

A STANDARD TREE PRESERVATION NOTES
NOT TO SCALE

OF UPDATES: 00 LAST UPDATED:

CITY OF ALEXANDRIA, VIRGINIA
STANDARD LANDSCAPE DETAILS
CITY OF ALEXANDRIA, VIRGINIA

NOTE:
THE INFORMATION SHOWN HEREIN THIS DOCUMENT IS FOR GENERAL GUIDANCE ONLY AND IS NOT INTENTED FOR CONSTRUCTION PURPOSES. ITS USE SHALL NOT RELIEVE THE DESIGN PROFESSIONAL OR CONTRACTOR OF ANY LEGAL RESPONSIBILITY.

Source: CITY OF ALEXANDRIA
Approved by: COA
STANDARD TREE PRESERVATION PLAN NOTES
1 OF 1
Date drawn: 12/02/2019
LD 017

APPROVED
SPECIAL USE PERMIT NO. _____
DEPARTMENT OF PLANNING & ZONING
DIRECTOR _____ DATE _____
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
DIRECTOR _____ DATE _____
CHAIRMAN, PLANNING COMMISSION _____ DATE _____
DATE RECORDED _____
INSTRUMENT NO. _____ DEED BOOK NO. _____ PAGE NO. _____

DEVELOPER
FOULGER-PRATT DEVELOPMENT
12435 PARK POTOMAC AVENUE
SUITE 200
POTOMAC, MD 20854
240.499.9600
CONTACT: JAY KELLY

LANDSCAPE ARCHITECT
OCULUS
1611 CONNECTICUT AVE NW 3RD FLOOR
WASHINGTON DC 20009
P 202.588.5454
US@OCULUS.INFO

CONSULTANTS
FOUNTAIN CONSULTANT
FLUIDITY DESIGN CONSULTANTS
724 S. SPRING STREET, SUITE 1401
LOS ANGELES, CALIFORNIA 90014
213.739.9291

PLAYGROUND CONSULTANT
EARTHSCAPE
7215 WELLINGTON ROAD 86
WALLENSTEIN, ON CANADA N0B 2S0
1.877.269.2972

ICE RINK CONSULTANT
B32 ENGINEERING GROUP, INC.
2211 O'NEIL ROAD
HUDSON, WI 54016
1.651.256.3090

LIGHTING DESIGNER
MCLA ARCHITECTURAL LIGHTING DESIGN
1000 POTOMAC STREET NW, SUITE 121
WASHINGTON, DC 20007
202.298.8062

PROJECT NAME
WestEnd Open Space Blocks
City of Alexandria

SEAL & SIGNATURE
COMMONWEALTH OF VIRGINIA
DONALD RAY HOOVER
Lic. No. 406000790
LANDSCAPE ARCHITECT

COMPLETENESS SUBMISSION
NOT FOR CONSTRUCTION

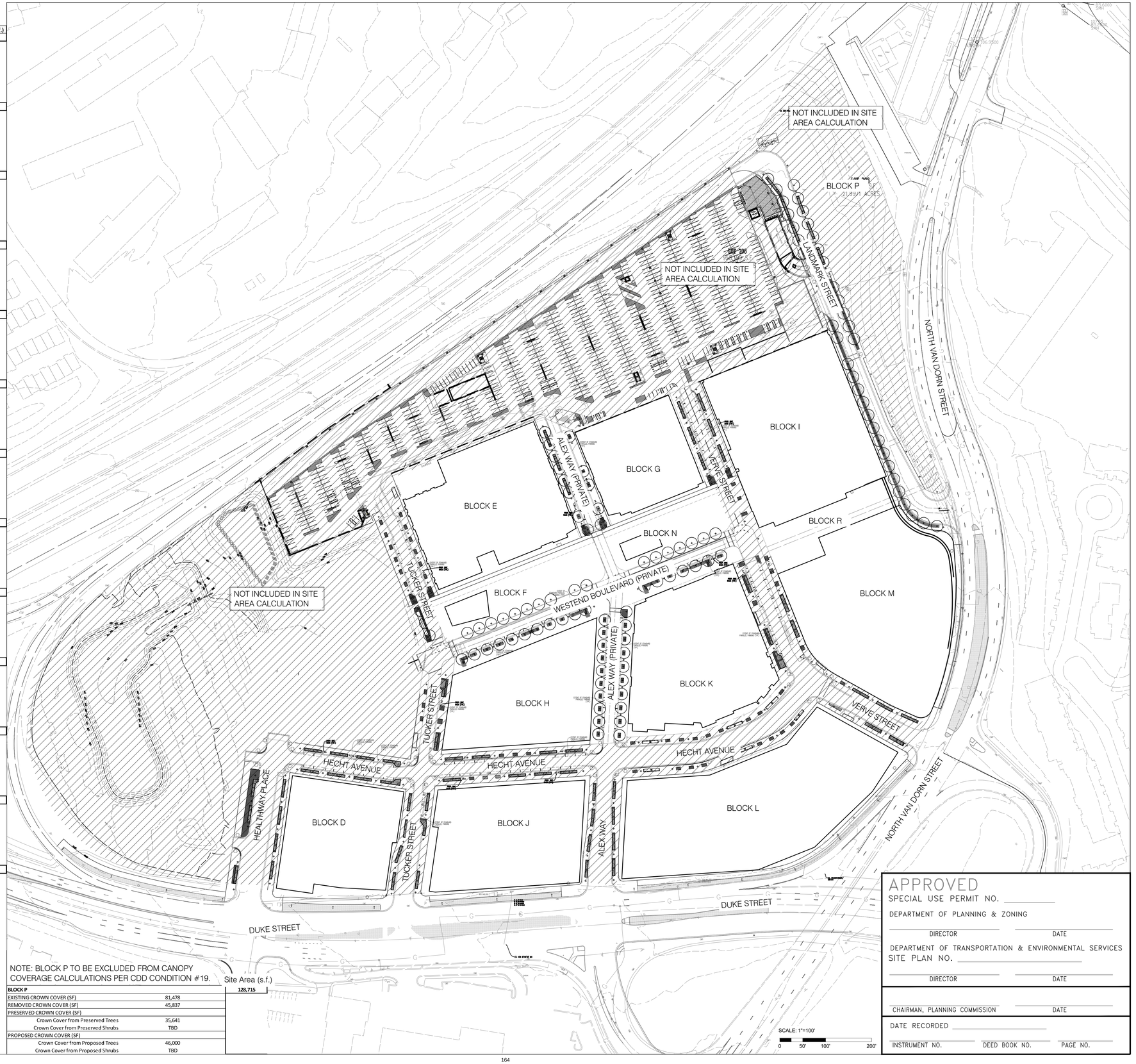
ISSUE

MARK	DATE	DESCRIPTION
	11/29/2022	CONCEPT II
	03/10/2023	COMPLETENESS
	05/05/2023	COMPLETENESS
	06/02/2023	DD PRICING

KEY MAP
DATE: 05/05/2023
PROJECT NUMBER: W2108
SCALE: NTS
DRAWING TITLE: PLANTING SCHEDULE
L1000
SHEET NUMBER:

CROWN COVER TABULATIONS (FULL SITE)		
TOTAL SITE AREA (SF)	1,183,250	
25% CROWN COVER REQUIRED (SF)	295,813	
		SITE AREA (s.f.)
PRIVATE STREETS		**146,984**
EXISTING CROWN COVER (SF)	0	
REMOVED CROWN COVER (SF)	0	
PRESERVED CROWN COVER (SF)		
Crown Cover from Preserved Trees	0	
Crown Cover from Preserved Shrubs	0	
PROPOSED CROWN COVER (SF)		
Crown Cover from Proposed Trees	106,250	
Crown Cover from Proposed Shrubs		
BLOCK D		
EXISTING CROWN COVER (SF)	TBD	
REMOVED CROWN COVER (SF)	TBD	
PRESERVED CROWN COVER (SF)		
Crown Cover from Preserved Trees	TBD	
Crown Cover from Preserved Shrubs	TBD	
PROPOSED CROWN COVER (SF)		
Crown Cover from Proposed Trees	TBD	
Crown Cover from Proposed Shrubs	TBD	
BLOCK E		**108,575**
EXISTING CROWN COVER (SF)	0	
REMOVED CROWN COVER (SF)	0	
PRESERVED CROWN COVER (SF)		
Crown Cover from Preserved Trees	0	
Crown Cover from Preserved Shrubs	0	
PROPOSED CROWN COVER (SF)		
Crown Cover from Proposed Trees	14,750	
Crown Cover from Proposed Shrubs	0	
BLOCK F		**32,004**
EXISTING CROWN COVER (SF)	0	
REMOVED CROWN COVER (SF)	0	
PRESERVED CROWN COVER (SF)		
Crown Cover from Preserved Trees	0	
Crown Cover from Preserved Shrubs	0	
PROPOSED CROWN COVER (SF)		
Crown Cover from Proposed Trees	38,250	
Crown Cover from Proposed Shrubs	TBD	
BLOCK G		**62,083**
EXISTING CROWN COVER (SF)	0	
REMOVED CROWN COVER (SF)	0	
PRESERVED CROWN COVER (SF)		
Crown Cover from Preserved Trees	0	
Crown Cover from Preserved Shrubs	0	
PROPOSED CROWN COVER (SF)		
Crown Cover from Proposed Trees	13,500	
Crown Cover from Proposed Shrubs	0	
BLOCK H		
EXISTING CROWN COVER (SF)	TBD	
REMOVED CROWN COVER (SF)	TBD	
PRESERVED CROWN COVER (SF)		
Crown Cover from Preserved Trees	TBD	
Crown Cover from Preserved Shrubs	TBD	
PROPOSED CROWN COVER (SF)		
Crown Cover from Proposed Trees	TBD	
Crown Cover from Proposed Shrubs	TBD	
BLOCK I		107,844
EXISTING CROWN COVER (SF)	0	
REMOVED CROWN COVER (SF)	0	
PRESERVED CROWN COVER (SF)		
Crown Cover from Preserved Trees	0	
Crown Cover from Preserved Shrubs	0	
PROPOSED CROWN COVER (SF)		
Crown Cover from Proposed Trees	12,000	
Crown Cover from Proposed Shrubs	10,062	
BLOCK J		
EXISTING CROWN COVER (SF)	TBD	
REMOVED CROWN COVER (SF)	TBD	
PRESERVED CROWN COVER (SF)		
Crown Cover from Preserved Trees	TBD	
Crown Cover from Preserved Shrubs	TBD	
PROPOSED CROWN COVER (SF)		
Crown Cover from Proposed Trees	TBD	
Crown Cover from Proposed Shrubs	TBD	
BLOCK K		**98,964**
EXISTING CROWN COVER (SF)	0	
REMOVED CROWN COVER (SF)	0	
PRESERVED CROWN COVER (SF)		
Crown Cover from Preserved Trees	0	
Crown Cover from Preserved Shrubs	0	
PROPOSED CROWN COVER (SF)		
Crown Cover from Proposed Trees	13,000	
Crown Cover from Proposed Shrubs	6019	
BLOCK L		
EXISTING CROWN COVER (SF)	TBD	
REMOVED CROWN COVER (SF)	TBD	
PRESERVED CROWN COVER (SF)		
Crown Cover from Preserved Trees	TBD	
Crown Cover from Preserved Shrubs	TBD	
PROPOSED CROWN COVER (SF)		
Crown Cover from Proposed Trees	TBD	
Crown Cover from Proposed Shrubs	TBD	
BLOCK M		
EXISTING CROWN COVER (SF)	TBD	
REMOVED CROWN COVER (SF)	TBD	
PRESERVED CROWN COVER (SF)		
Crown Cover from Preserved Trees	TBD	
Crown Cover from Preserved Shrubs	TBD	
PROPOSED CROWN COVER (SF)		
Crown Cover from Proposed Trees	TBD	
Crown Cover from Proposed Shrubs	TBD	
BLOCK N		**22,758**
EXISTING CROWN COVER (SF)	0	
REMOVED CROWN COVER (SF)	0	
PRESERVED CROWN COVER (SF)		
Crown Cover from Preserved Trees	0	
Crown Cover from Preserved Shrubs	0	
PROPOSED CROWN COVER (SF)		
Crown Cover from Proposed Trees	28,500	
Crown Cover from Proposed Shrubs	TBD	
BLOCK R		**17,018**
EXISTING CROWN COVER (SF)	0	
REMOVED CROWN COVER (SF)	0	
PRESERVED CROWN COVER (SF)		
Crown Cover from Preserved Trees	0	
Crown Cover from Preserved Shrubs	0	
PROPOSED CROWN COVER (SF)		
Crown Cover from Proposed Trees	17,500	
Crown Cover from Proposed Shrubs	TBD	
TOTAL CROWN COVER PROVIDED (%)	42.3%	
TOTAL CROWN COVER PROVIDED (SF)	500,856	

NOTE: TREES ON PUBLIC STREETS NOT INCLUDED IN CROWN COVER TABULATIONS.



NOTE: BLOCK P TO BE EXCLUDED FROM CANOPY COVERAGE CALCULATIONS PER CDD CONDITION #19.

	Site Area (s.f.)
BLOCK P	**128,715**
EXISTING CROWN COVER (SF)	81,478
REMOVED CROWN COVER (SF)	45,837
PRESERVED CROWN COVER (SF)	
Crown Cover from Preserved Trees	35,641
Crown Cover from Preserved Shrubs	TBD
PROPOSED CROWN COVER (SF)	
Crown Cover from Proposed Trees	46,000
Crown Cover from Proposed Shrubs	TBD

APPROVED

SPECIAL USE PERMIT NO. _____

DEPARTMENT OF PLANNING & ZONING

_____ _____
DIRECTOR DATE

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

SITE PLAN NO. _____

_____ _____
DIRECTOR DATE

_____ _____
CHAIRMAN, PLANNING COMMISSION DATE

DATE RECORDED _____

_____ _____ _____
INSTRUMENT NO. DEED BOOK NO. PAGE NO.

DEVELOPER

FOULGER-PRATT DEVELOPMENT
12435 PARK POTOMAC AVENUE
SUITE 200
POTOMAC, MD 20854
240.499.9600
CONTACT: JAY KELLY

LANDSCAPE ARCHITECT

O C U L U S
1611 CONNECTICUT AVE NW 3RD FLOOR
WASHINGTON DC 20009
P 202 588 5454
US@OCULUS.INFO

CONSULTANTS

FOUNTAIN CONSULTANT
FLUIDITY DESIGN CONSULTANTS
724 S. SPRING STREET, SUITE 1401
LOS ANGELES, CALIFORNIA 90014
213.739.9291

PLAYGROUND CONSULTANT
EARTHSCAPE
7215 WELLINGTON ROAD 86
WALLENSTEIN, ON CANADA N0B 2S0
1.877.269.2972

ICE RINK CONSULTANT
832 ENGINEERING GROUP, INC.
2211 O'NEIL ROAD
HUDSON, WI 54016
1.651.256.3090

LIGHTING DESIGNER
MCLA ARCHITECTURAL LIGHTING DESIGN
1000 POTOMAC STREET NW, SUITE 121
WASHINGTON, DC 20007
202.298.8062

PROJECT NAME

WestEnd Open Space Blocks

City of Alexandria

SEAL & SIGNATURE

COMMONWEALTH OF VIRGINIA
DONALD RAY HOOVER
Lic. No. 406000790
LANDSCAPE ARCHITECT

COMPLETENESS SUBMISSION

NOT FOR CONSTRUCTION

ISSUE

MARK	DATE	DESCRIPTION
	11/29/2022	CONCEPT II
	03/10/2023	COMPLETENESS
	05/05/2023	COMPLETENESS
	06/02/2023	DD PRICING

KEY MAP

N

DATE: 05/05/2023

PROJECT NUMBER: W2108

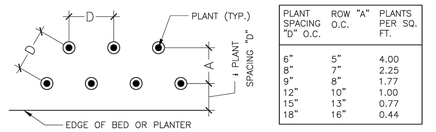
SCALE:

CANOPY COVERAGE MASTERPLAN

DRAWING TITLE:

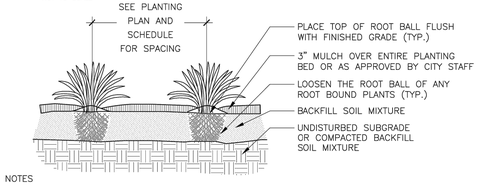
L1001

SHEET NUMBER: VALUE of 339



PLANT SPACING "D" O.C.	ROW "A" O.C.	PLANTS PER SQ. FT.
6"	5"	4.00
8"	7"	2.25
9"	8"	1.77
12"	10"	1.00
15"	13"	0.77
18"	16"	0.44

TRIANGULAR SPACING PLAN & CHART
NOT TO SCALE



NOTES

1. PLANTING WELL / TRENCH SHALL BE DUG TO ALLOW TOP OF ROOT BALL TO SET FLUSH WITH EXISTING GRADE.
2. SET PLANTS IN ERECT, STABLE, AND UNIFORM POSITIONS. ORIENT BEST FACE OF PLANT TO BE MOST VISIBLE.
3. GROUND COVERS AND PERENNIALS SHALL BE INSTALLED WITH TRIANGULAR SPACING. REFER TO CHART.
4. UNLESS OTHERWISE DIRECTED BY PROJECT SPECIFICATIONS OR CITY STAFF, SOIL MIXTURE SHALL BE CLEANED OF DEBRIS, AND MEET SOIL COMPOSITION REQUIREMENTS OF CITY OF ALEXANDRIA LANDSCAPE GUIDELINES.
5. DO NOT PLACE MULCH IN CONTACT WITH STEM OR CROWN OF PLANTS.
6. ALL PLANTS MUST BE WATERED AT INSTALLATION AND AGAIN WITHIN 48–HOURS OF INSTALLATION, PER THE SPECIFICATIONS.

A GROUNDCOVER & PERENNIAL PLANTING
NOT TO SCALE

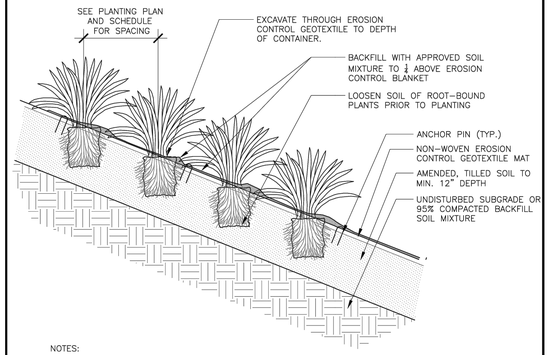
OF UPDATES: 00 LAST UPDATED:

CITY OF ALEXANDRIA, VIRGINIA
STANDARD LANDSCAPE DETAILS
CITY OF ALEXANDRIA, VIRGINIA

NOTE: THE INFORMATION SHOWN HEREIN THIS DOCUMENT IS FOR GENERAL GUIDANCE ONLY AND IS NOT INTENTED FOR CONSTRUCTION PURPOSES. ITS USE SHALL NOT RELIEVE THE DESIGN PROFESSIONAL OR CONTRACTOR OF ANY LEGAL RESPONSIBILITY.

Source: CITY OF ALEXANDRIA	GROUNDCOVER & PERENNIAL PLANTING	
Approved by: COA	Date drawn: 01/01/19	LD 011
1 OF 1		

1 GROUNDCOVER AND PERENNIAL PLANTING
SCALE: NTS



NOTES:

1. REFER TO CITY OF ALEXANDRIA GROUND COVER AND PERENNIAL PLANTING DETAIL AND NOTES FOR ADDITIONAL SPECIFICATIONS.
2. ALL PLANTS MUST BE WATERED TWICE. ONCE AT INSTALLATION AND AGAIN WITHIN 48 HOURS OF INSTALLATION PER THE SPECIFICATIONS.

A GROUNDCOVER & PERENNIAL PLANTING ON SLOPE
NOT TO SCALE

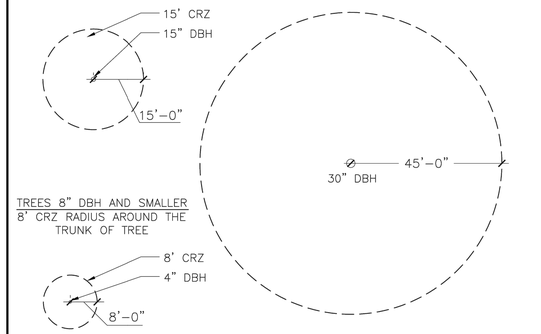
OF UPDATES: 00 LAST UPDATED:

CITY OF ALEXANDRIA, VIRGINIA
STANDARD LANDSCAPE DETAILS
CITY OF ALEXANDRIA, VIRGINIA

NOTE: THE INFORMATION SHOWN HEREIN THIS DOCUMENT IS FOR GENERAL GUIDANCE ONLY AND IS NOT INTENTED FOR CONSTRUCTION PURPOSES. ITS USE SHALL NOT RELIEVE THE DESIGN PROFESSIONAL OR CONTRACTOR OF ANY LEGAL RESPONSIBILITY.

Source: CITY OF ALEXANDRIA	GROUNDCOVER & PERENNIAL PLANTING ON SLOPE	
Approved by: COA	Date drawn: 01/01/19	LD 012
1 OF 1		

2 GROUNDCOVER AND PERENNIAL PLANTING ON SLOPE
SCALE: NTS



NOTES:

1. GRAPHICALLY, THE CRITICAL ROOT ZONE (CRZ) IS REPRESENTED AS A CIRCULAR REGION MEASURED OUTWARD FROM A TREE TRUNK REPRESENTING THE AREA OF ROOTS THAT MUST BE MAINTAINED OR PROTECTED FOR THE TREE'S SURVIVAL.
2. PLOT ACCURATE TRUNK LOCATIONS OF ALL TREES GREATER THAN 2" DIAMETER AT 54" ABOVE GRADE AND/OR TREE STANDS WITHIN DEVELOPMENT AREAS ON ALL PLANS FOR THE PROJECT AND DELINEATE THEIR ESTIMATED CRITICAL ROOT ZONE.
3. PLOT ACCURATE TRUNK LOCATIONS OF OFFSITE TREES WHICH WILL HAVE THEIR CRZ AFFECTED BY DEVELOPMENT AND DELINEATE THEIR ESTIMATED CRITICAL ROOT ZONE.

A TREE PROTECTION DETAIL FOR DETERMINING CRITICAL ROOT ZONE
NOT TO SCALE

OF UPDATES: 00 LAST UPDATED:

CITY OF ALEXANDRIA, VIRGINIA
STANDARD LANDSCAPE DETAILS
CITY OF ALEXANDRIA, VIRGINIA

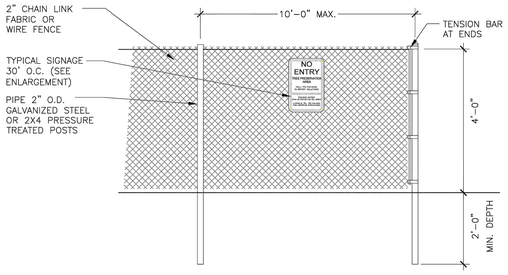
NOTE: THE INFORMATION SHOWN HEREIN THIS DOCUMENT IS FOR GENERAL GUIDANCE ONLY AND IS NOT INTENTED FOR CONSTRUCTION PURPOSES. ITS USE SHALL NOT RELIEVE THE DESIGN PROFESSIONAL OR CONTRACTOR OF ANY LEGAL RESPONSIBILITY.

Source: CITY OF ALEXANDRIA	CRITICAL ROOT ZONE	
Approved by: COA	Date drawn: 01/01/19	LD 013
1 OF 1		

3 TREE PROTECTION DETAIL FOR DETERMINING CRITICAL ROOT ZONE
SCALE: NTS

NOTES

1. TREE PROTECTION DETAIL SHALL APPLY TO ALL TREES INCLUDING STREET TREES.
2. TREE PROTECTION FENCE SHALL BE INSTALLED PRIOR TO ANY SITE WORK, CLEARING OR DEMOLITION. CITY STAFF SHALL BE NOTIFIED 72 HOURS PRIOR TO INSTALLATION OR ANY OTHER TREE PRESERVATION MEASURE SPECIFIED IN PLANS AND SHALL APPROVE LAYOUT.
3. NO PERSONNEL, VEHICLES, EQUIPMENT, CONSTRUCTION MATERIALS OR DEBRIS ALLOWED IN TREE PROTECTION AREAS. REFER TO LANDSCAPE GUIDELINES FOR ADDITIONAL RESTRICTIONS.
4. REMOVE TREE PROTECTION FENCE ONLY WITH APPROVAL FROM CITY STAFF AFTER ALL SITE WORK HAS BEEN COMPLETED.
5. SIGN MATERIAL TO BE WEATHER RESISTANT.
6. FENCE FABRIC MAY ALSO BE 2X4 WELDED WIRE FABRIC MIN. 12.5 GAUGE LAYERED WITH ORANGE SNOW FENCE FOR VISIBILITY



A TREE PROTECTION FENCE
NOT TO SCALE

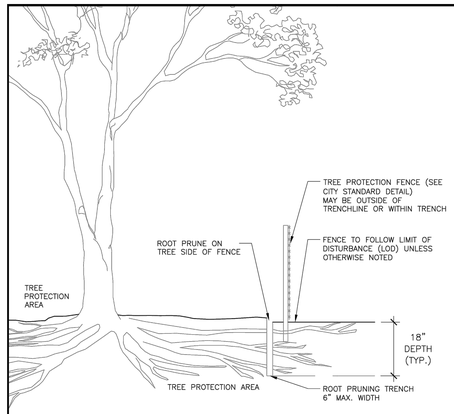
OF UPDATES: 00 LAST UPDATED:

CITY OF ALEXANDRIA, VIRGINIA
STANDARD LANDSCAPE DETAILS
CITY OF ALEXANDRIA, VIRGINIA

NOTE: THE INFORMATION SHOWN HEREIN THIS DOCUMENT IS FOR GENERAL GUIDANCE ONLY AND IS NOT INTENTED FOR CONSTRUCTION PURPOSES. ITS USE SHALL NOT RELIEVE THE DESIGN PROFESSIONAL OR CONTRACTOR OF ANY LEGAL RESPONSIBILITY.

Source: CITY OF ALEXANDRIA	TREE PROTECTION FENCE	
Approved by: COA	Date drawn: 01/01/19	LD 014
1 OF 1		

4 TREE PROTECTION FENCE
SCALE: NTS



NOTES

1. ROOT PRUNING SHALL BE DONE WITH TRENCHER OR VIBRATORYPLOW TO DEPTH OF 18". ROOTS OVER 1.5" IN DIAMETER SHALL HAVE A CLEAN CUT MADE BY A CLEAN SAW ON THE SURFACE OF THE ROOT, WHICH IS STILL ATTACHED TO THE TREE. DO NOT BREAK OR CHOP. DO NOT PAINT THE CUT ROOT END. IF EXCAVATION IS FOR INSTALLATION OF UNDERGROUND UTILITIES, LEAVE THE ROOT INTACT AND THREAD THE LINES UNDERNEATH.
2. ROOT PRUNING SHALL TAKE PLACE PRIOR TO ANY CLEARING AND GRADING. EXACT LOCATION OF TREE PROTECTION AREAS SHALL BE STAKED OR FLAGGED PRIOR TO TRENCHING AND SHALL BE APPROVED BY CITY STAFF.
3. ROOT PRUNING SHALL BE CONDUCTED WITH THE SUPERVISION OF AN ISA CERTIFIED ARBORIST. CERTIFICATION SHALL BE PROVIDED TO THE CITY UPON COMPLETION.
4. BACKFILL THE ROOT–PRUNING TRENCH WITH APPROVED LOOSE TOPSOIL MIX AND TOP WITH 3–4" BARK MULCH AND MARK LOCATION FOR FUTURE REFERENCE. SILT FENCE MAY BE INSTALLED IN TRENCH PRIOR TO BACKFILLING AS LONG AS THE TRENCH IS NOT OPEN FOR LONGER THAN 48 HOURS WITHOUT WATERING.
5. ROOT PRUNING WORK SHALL NOT BE DONE WHEN MORE THAN THE TOP 1 INCH OF SOIL IS FROZEN. ROOT PRUNING SHALL NOT BE UNDERTAKEN WHEN THE SOIL IS WET AND CONDITIONS ARE MUDDY.
6. CITY OF ALEXANDRIA STAFF SHALL BE NOTIFIED 72 HOURS PRIOR TO TRENCHING AND WHEN ALL ROOT PRUNING AND TREE PROTECTION FENCE INSTALLATION IS COMPLETE.

A ROOT PRUNING
NOT TO SCALE

OF UPDATES: 00 LAST UPDATED:

CITY OF ALEXANDRIA, VIRGINIA
STANDARD LANDSCAPE DETAILS
CITY OF ALEXANDRIA

NOTE: THE INFORMATION SHOWN HEREIN THIS DOCUMENT IS FOR GENERAL GUIDANCE ONLY AND IS NOT INTENTED FOR CONSTRUCTION PURPOSES. ITS USE SHALL NOT RELIEVE THE DESIGN PROFESSIONAL OR CONTRACTOR OF ANY LEGAL RESPONSIBILITY.

Source: CITY OF ALEXANDRIA	ROOT PRUNING	
Approved by: COA	Date drawn: 01/01/19	LD 015
1 OF 1		

5 ROOT PRUNING
SCALE: NTS

APPROVED
SPECIAL USE PERMIT NO. _____
DEPARTMENT OF PLANNING & ZONING
DIRECTOR _____ DATE _____
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
DIRECTOR _____ DATE _____
CHAIRMAN, PLANNING COMMISSION _____ DATE _____
DATE RECORDED _____
INSTRUMENT NO. _____ DEED BOOK NO. _____ PAGE NO. _____

DEVELOPER
FOULGER-PRATT DEVELOPMENT
12435 PARK POTOMAC AVENUE
SUITE 200
POTOMAC, MD 20854
240.499.9600
CONTACT: JAY KELLY

LANDSCAPE ARCHITECT
O C U L U S
1611 CONNECTICUT AVE NW 3RD FLOOR
WASHINGTON DC 20009
P 202 588 5454
US@OCULUS.INFO

CONSULTANTS
FOUNTAIN CONSULTANT
FLUIDITY DESIGN CONSULTANTS
724 S. SPRING STREET, SUITE 1401
LOS ANGELES, CALIFORNIA 90014
213.739.9291

PLAYGROUND CONSULTANT
EARTHSCAPE
7215 WELLINGTON ROAD 86
WALLENSTEIN, ON CANADA N0B 2S0
1.877.269.2972

ICE RINK CONSULTANT
832 ENGINEERING GROUP, INC.
2211 O'NEIL ROAD
HUDSON, WI 54016
1.651.256.3090

LIGHTING DESIGNER
MCLA ARCHITECTURAL LIGHTING DESIGN
1000 POTOMAC STREET NW, SUITE 121
WASHINGTON, DC 20007
202.298.8062

PROJECT NAME
WestEnd Open Space Blocks
City of Alexandria

SEAL & SIGNATURE
COMMONWEALTH OF VIRGINIA
DONALD RAY HOOVER
Lic. No. 406000790
LANDSCAPE ARCHITECT

COMPLETENESS SUBMISSION
NOT FOR CONSTRUCTION

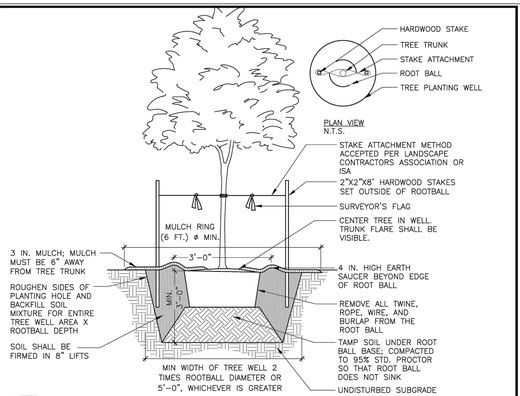
ISSUE

MARK	DATE	DESCRIPTION
	11/29/2022	CONCEPT II
	03/10/2023	COMPLETENESS
	05/05/2023	COMPLETENESS
	06/02/2023	DD PRICING

KEY MAP
DATE: 05/05/2023
PROJECT NUMBER: W2108
SCALE: NTS

PLANTING DETAILS
DRAWING TITLE:

L1010
SHEET NUMBER:



NOTES

1. AT PLANTING PRUNE ONLY CROSSING LIMBS, BROKEN OR DEAD BRANCHES, AND ANY BRANCHES THAT POSE A HAZARD TO PEDESTRIANS PER ANSI STANDARDS A300. DO NOT PRUNE INTO OLD WOOD ON EVERGREENS.
2. CONTRACTOR SHALL MAXIMIZE EXCAVATED AREA FOR TREE WELL WITHOUT ADVERSELY IMPACTING ADJACENT SITE FEATURES
4. UNLESS OTHERWISE DIRECTED BY PROJECT SPECIFICATIONS OR CITY STAFF, SOIL MIXTURE SHALL BE CLEANED OF DEBRIS, AND MEET SOIL COMPOSITION REQUIREMENTS OF CITY OF ALEXANDRIA LANDSCAPE GUIDELINES.
5. TREES PLANTED WITHOUT THE TRUNK FLARE VISIBLE WILL BE REJECTED.
6. ALL PLANTS MUST BE WATERED AT INSTALLATION AND AGAIN WITHIN 48-HOURS OF INSTALLATION, ESTABLISHMENT WATERING SHALL BE PER THE SPECIFICATIONS ON ALL DETAILS.
7. STAKES WILL BE INSTALLED USING ARBORICULTURE PRACTICES, TREES SHALL STAND PLUM AFTER STAKING.
8. INSTALLATION WILL INCLUDE THE REMOVAL OF ALL STAKING MATERIAL ONE YEAR AFTER INSTALLATION. ANY HOLES LEFT BY REMOVING STAKING SHALL BE FILLED WITH APPROVED TOPSOIL / BACKFILL MIXTURE.
9. CONTRACTOR SHALL USE GALVANIZED EYESCREW & TURNBUCKLE INSTEAD OF ARBOR TIE ONLY FOR TREES OF SIGNIFICANT SIZE AS DIRECTED BY CITY STAFF.

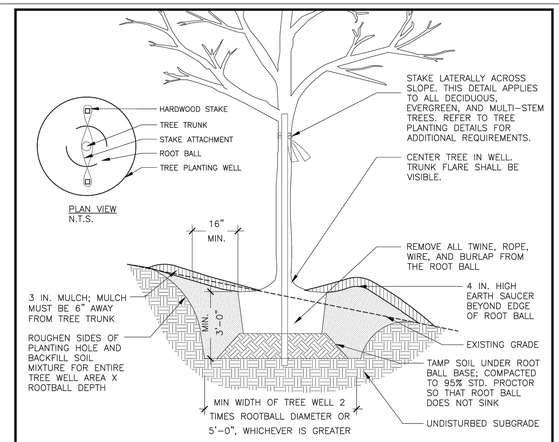
A DECIDUOUS TREE PLANTING
NOT TO SCALE

OF UPDATES: 00 LAST UPDATED:

CITY OF ALEXANDRIA, VIRGINIA
STANDARD LANDSCAPE DETAILS
CITY OF ALEXANDRIA, VIRGINIA

NOTE: THE INFORMATION SHOWN HEREIN THIS DOCUMENT IS FOR GENERAL GUIDANCE ONLY AND IS NOT INTENTED FOR CONSTRUCTION PURPOSES. ITS USE SHALL NOT RELIEVE THE DESIGN PROFESSIONAL OR CONTRACTOR OF ANY LEGAL RESPONSIBILITY.

Source: CITY OF ALEXANDRIA	DECIDUOUS TREE PLANTING
Approved by: COA	Date drawn: 01/01/19
1 OF 1	LD 001



NOTES

1. AT PLANTING PRUNE ONLY CROSSING LIMBS, BROKEN OR DEAD BRANCHES, AND ANY BRANCHES THAT POSE A HAZARD TO PEDESTRIANS PER ANSI STANDARDS A300. DO NOT PRUNE INTO OLD WOOD ON EVERGREENS.
2. CONTRACTOR SHALL MAXIMIZE EXCAVATED AREA FOR TREE WELL WITHOUT ADVERSELY IMPACTING ADJACENT SITE FEATURES
4. UNLESS OTHERWISE DIRECTED BY PROJECT SPECIFICATIONS OR CITY STAFF, SOIL MIXTURE SHALL BE CLEANED OF DEBRIS, AND MEET SOIL COMPOSITION REQUIREMENTS OF CITY OF ALEXANDRIA LANDSCAPE GUIDELINES.
5. TREES PLANTED WITHOUT THE TRUNK FLARE VISIBLE WILL BE REJECTED.
6. REFER TO STAKING DETAILS.
7. ALL PLANTS MUST BE WATERED AT INSTALLATION AND AGAIN WITHIN 48-HOURS OF INSTALLATION, ESTABLISHMENT WATERING SHALL BE PER THE SPECIFICATIONS ON ALL DETAILS.

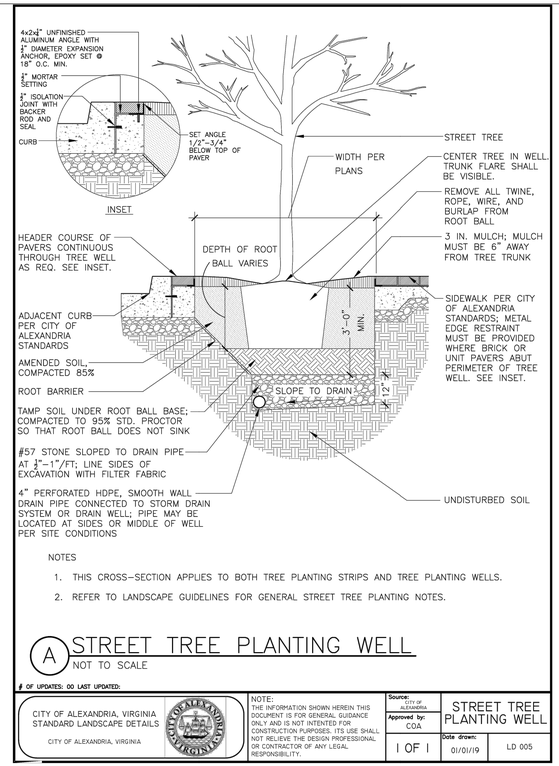
A TREE PLANTING ON SLOPE
NOT TO SCALE

OF UPDATES: 00 LAST UPDATED:

CITY OF ALEXANDRIA, VIRGINIA
STANDARD LANDSCAPE DETAILS
CITY OF ALEXANDRIA, VIRGINIA

NOTE: THE INFORMATION SHOWN HEREIN THIS DOCUMENT IS FOR GENERAL GUIDANCE ONLY AND IS NOT INTENTED FOR CONSTRUCTION PURPOSES. ITS USE SHALL NOT RELIEVE THE DESIGN PROFESSIONAL OR CONTRACTOR OF ANY LEGAL RESPONSIBILITY.

Source: CITY OF ALEXANDRIA	TREE PLANTING ON SLOPE
Approved by: COA	Date drawn: 01/01/19
1 OF 1	LD 004



NOTES

1. THIS CROSS-SECTION APPLIES TO BOTH TREE PLANTING STRIPS AND TREE PLANTING WELLS.
2. REFER TO LANDSCAPE GUIDELINES FOR GENERAL STREET TREE PLANTING NOTES.

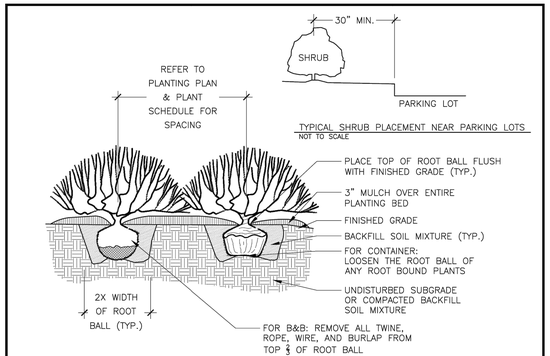
A STREET TREE PLANTING WELL
NOT TO SCALE

OF UPDATES: 00 LAST UPDATED:

CITY OF ALEXANDRIA, VIRGINIA
STANDARD LANDSCAPE DETAILS
CITY OF ALEXANDRIA, VIRGINIA

NOTE: THE INFORMATION SHOWN HEREIN THIS DOCUMENT IS FOR GENERAL GUIDANCE ONLY AND IS NOT INTENTED FOR CONSTRUCTION PURPOSES. ITS USE SHALL NOT RELIEVE THE DESIGN PROFESSIONAL OR CONTRACTOR OF ANY LEGAL RESPONSIBILITY.

Source: CITY OF ALEXANDRIA	STREET TREE PLANTING WELL
Approved by: COA	Date drawn: 01/01/19
1 OF 1	LD 005



NOTES

1. AT PLANTING, PRUNE ONLY BROKEN OR DEAD BRANCHES PER ANSI 300 STANDARD.
2. PLANTING WELL / TRENCH SHALL BE DUG TO ALLOW TOP OF ROOT BALL TO SET FLUSH WITH EXISTING GRADE.
3. SET PLANTS IN ERECT, STABLE, AND UNIFORM POSITIONS. ORIENT BEST FACE OF PLANT TO BE MOST VISIBLE.
4. UNLESS OTHERWISE DIRECTED BY PROJECT SPECIFICATIONS OR CITY STAFF, SOIL MIXTURE SHALL BE CLEANED OF DEBRIS, AND MEET SOIL COMPOSITION REQUIREMENTS OF CITY OF ALEXANDRIA LANDSCAPE GUIDELINES.
5. DO NOT PLACE MULCH IN CONTACT WITH STEM OF PLANTS.
6. ALL PLANTS MUST BE WATERED AT INSTALLATION AND AGAIN WITHIN 48-HOURS OF INSTALLATION, ESTABLISHMENT WATERING SHALL BE PER THE SPECIFICATIONS ON ALL DETAILS.

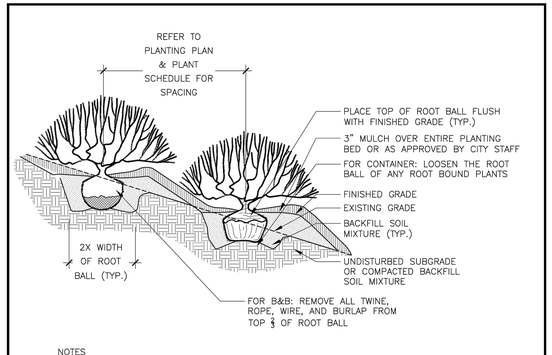
A SHRUB PLANTING
NOT TO SCALE

OF UPDATES: 00 LAST UPDATED:

CITY OF ALEXANDRIA, VIRGINIA
STANDARD LANDSCAPE DETAILS
CITY OF ALEXANDRIA, VIRGINIA

NOTE: THE INFORMATION SHOWN HEREIN THIS DOCUMENT IS FOR GENERAL GUIDANCE ONLY AND IS NOT INTENTED FOR CONSTRUCTION PURPOSES. ITS USE SHALL NOT RELIEVE THE DESIGN PROFESSIONAL OR CONTRACTOR OF ANY LEGAL RESPONSIBILITY.

Source: CITY OF ALEXANDRIA	SHRUB PLANTING
Approved by: COA	Date drawn: 01/01/19
1 OF 1	LD 009



NOTES

1. AT PLANTING, PRUNE ONLY BROKEN OR DEAD BRANCHES PER ANSI 300 STANDARD.
2. PLANTING WELL / TRENCH SHALL BE DUG TO ALLOW TOP OF ROOT BALL TO SET FLUSH WITH EXISTING GRADE.
3. SET PLANTS IN ERECT, STABLE, AND UNIFORM POSITIONS. ORIENT BEST FACE OF PLANT TO BE MOST VISIBLE.
4. UNLESS OTHERWISE DIRECTED BY PROJECT SPECIFICATIONS OR CITY STAFF, SOIL MIXTURE SHALL BE CLEANED OF DEBRIS, AND MEET SOIL COMPOSITION REQUIREMENTS OF CITY OF ALEXANDRIA LANDSCAPE GUIDELINES.
5. DO NOT PLACE MULCH IN CONTACT WITH STEM OF PLANTS.
6. ALL PLANTS MUST BE WATERED AT INSTALLATION AND AGAIN WITHIN 48-HOURS OF INSTALLATION, ESTABLISHMENT WATERING SHALL BE PER THE SPECIFICATIONS ON ALL DETAILS.

A SHRUB PLANTING ON SLOPE
NOT TO SCALE

OF UPDATES: 00 LAST UPDATED:

CITY OF ALEXANDRIA, VIRGINIA
STANDARD LANDSCAPE DETAILS
CITY OF ALEXANDRIA, VIRGINIA

NOTE: THE INFORMATION SHOWN HEREIN THIS DOCUMENT IS FOR GENERAL GUIDANCE ONLY AND IS NOT INTENTED FOR CONSTRUCTION PURPOSES. ITS USE SHALL NOT RELIEVE THE DESIGN PROFESSIONAL OR CONTRACTOR OF ANY LEGAL RESPONSIBILITY.

Source: CITY OF ALEXANDRIA	SHRUB PLANTING ON SLOPE
Approved by: COA	Date drawn: 01/01/19
1 OF 1	LD 010

APPROVED
SPECIAL USE PERMIT NO. _____
DEPARTMENT OF PLANNING & ZONING
DIRECTOR _____ DATE _____
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
DIRECTOR _____ DATE _____
CHAIRMAN, PLANNING COMMISSION _____ DATE _____
DATE RECORDED _____
INSTRUMENT NO. _____ DEED BOOK NO. _____ PAGE NO. _____

DEVELOPER
FOULGER-PRATT DEVELOPMENT
12435 PARK POTOMAC AVENUE
SUITE 200
POTOMAC, MD 20854
240.499.9600
CONTACT: JAY KELLY

LANDSCAPE ARCHITECT
OCULUS
1611 CONNECTICUT AVE NW 3RD FLOOR
WASHINGTON DC 20009
P 202 588 5454
US@OCULUS.INFO

CONSULTANTS
FOUNTAIN CONSULTANT
FLUIDITY DESIGN CONSULTANTS
724 S. SPRING STREET, SUITE 1401
LOS ANGELES, CALIFORNIA 90014
213.739.9291

PLAYGROUND CONSULTANT
EARTHSCAPE
7215 WELLINGTON ROAD 86
WALLENSTEIN, ON CANADA N0B 2S0
1.877.269.2972

ICE RINK CONSULTANT
B32 ENGINEERING GROUP, INC.
2211 O'NEIL ROAD
HUDSON, WI 54016
1.651.256.3090

LIGHTING DESIGNER
MCLA ARCHITECTURAL LIGHTING DESIGN
1000 POTOMAC STREET NW, SUITE 121
WASHINGTON, DC 20007
202.298.8062

PROJECT NAME
WestEnd Open Space Blocks
City of Alexandria

SEAL & SIGNATURE
COMMONWEALTH OF VIRGINIA
DONALD RAY HOOVER
Lic. No. 406000790
LANDSCAPE ARCHITECT

COMPLETENESS SUBMISSION
NOT FOR CONSTRUCTION

ISSUE

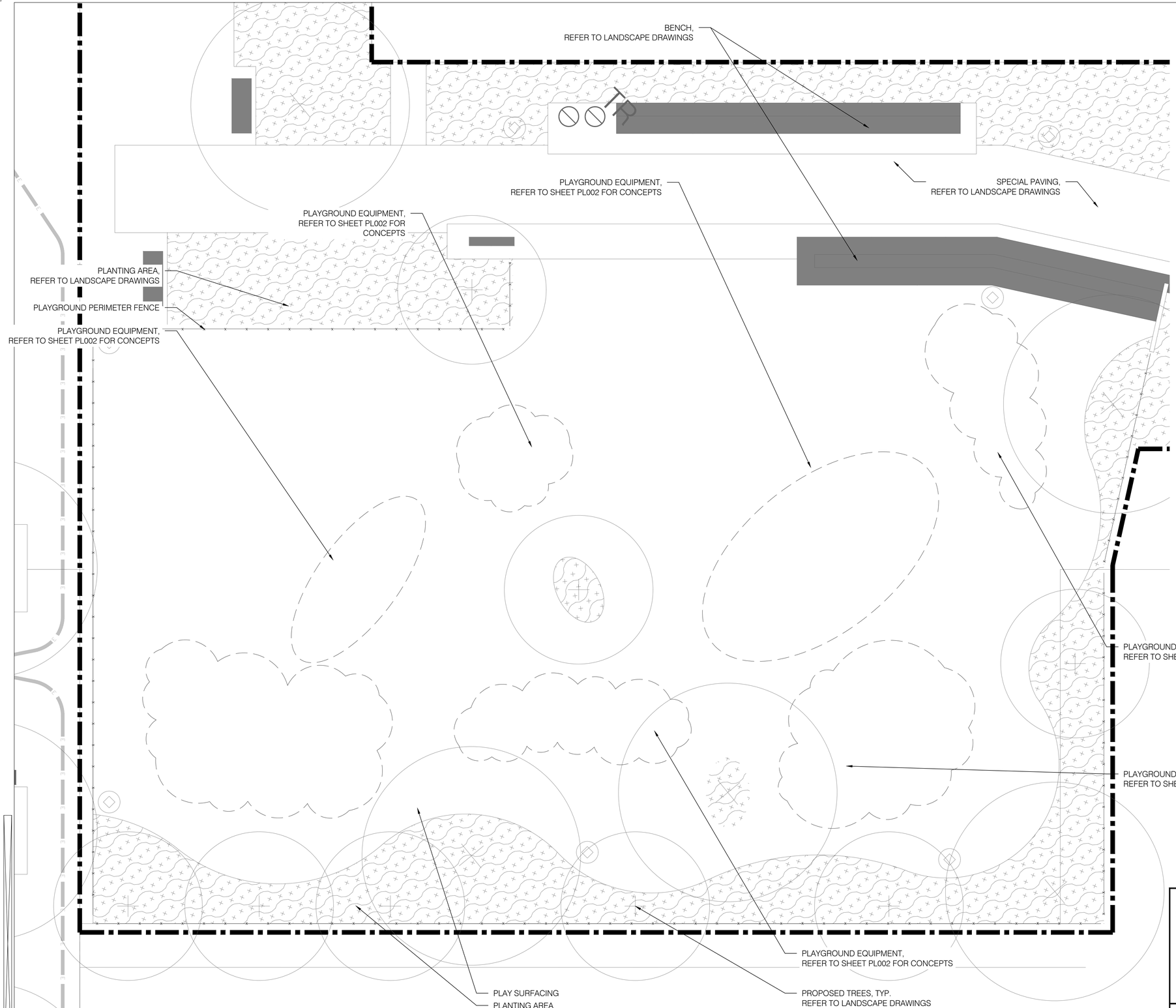
MARK	DATE	DESCRIPTION
	11/29/2022	CONCEPT II
	03/10/2023	COMPLETENESS
	05/05/2023	COMPLETENESS
	06/02/2023	DD PRICING

KEY MAP

DATE: 05/05/2023
PROJECT NUMBER: W2108
SCALE: NTS

PLANTING DETAILS
DRAWING TITLE:

L1011
SHEET NUMBER:



APPROVED

SPECIAL USE PERMIT NO. _____

DEPARTMENT OF PLANNING & ZONING

_____ DIRECTOR _____ DATE

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

SITE PLAN NO. _____

_____ DIRECTOR _____ DATE

_____ CHAIRMAN, PLANNING COMMISSION _____ DATE

DATE RECORDED _____

_____ INSTRUMENT NO. _____ DEED BOOK NO. _____ PAGE NO.

DEVELOPER

FOULGER-PRATT DEVELOPMENT
12435 PARK POTOMAC AVENUE
SUITE 200
POTOMAC, MD 20854
240.499.9600
CONTACT: JAY KELLY

LANDSCAPE ARCHITECT

O C U L U S
1611 CONNECTICUT AVE NW 3RD FLOOR
WASHINGTON DC 20009
P 202 588 5454
US@OCULUS.INFO

CONSULTANTS

FOUNTAIN CONSULTANT
FLUIDITY DESIGN CONSULTANTS
724 S. SPRING STREET, SUITE 1401
LOS ANGELES, CALIFORNIA 90014
213.739.9291

PLAYGROUND CONSULTANT
EARTHSCAPE
7215 WELLINGTON ROAD 86
WALLENSTEIN, ON CANADA N0B 2S0
1.877.269.2972

ICE RINK CONSULTANT
832 ENGINEERING GROUP, INC.
2211 O'NEIL ROAD
HUDSON, WI 54016
1.651.256.3090

LIGHTING DESIGNER
MCLA ARCHITECTURAL LIGHTING DESIGN
1000 POTOMAC STREET NW, SUITE 121
WASHINGTON, DC 20007
202.298.8062

PROJECT NAME

WestEnd Open Space Blocks

City of Alexandria

SEAL & SIGNATURE

COMMONWEALTH OF VIRGINIA
DONALD RAY HOOVER
Lic. No. 406000790
LANDSCAPE ARCHITECT

COMPLETENESS SUBMISSION

NOT FOR CONSTRUCTION

ISSUE

MARK	DATE	DESCRIPTION
	11/29/2022	CONCEPT II
	03/10/2023	COMPLETENESS
	05/05/2023	COMPLETENESS
	06/02/2023	DD PRICING

KEY MAP

DATE: 05/05/2023

PROJECT NUMBER: W2108

SCALE: 3/16" = 1'-0"

PLAYGROUND PLAN

DRAWING TITLE:

PL001

SHEET NUMBER:

NOTES:

- IMAGES ARE FOR ILLUSTRATIVE PURPOSES ONLY. FINAL EQUIPMENT TO BE DETERMINED AND SHOWN BY RELEASE OF FINAL SITE PLAN.
- GOAL IS TO PROVIDE A RANGE OF PLAY EQUIPMENT WHICH COULD BE PROVIDED.
- PLAYGROUND WILL BE AVAILABLE TO THE PUBLIC AS A SITEWIDE AMENITY. FUTURE SIGNAGE WITH CLEARLY IDENTIFY THE HOURS OF OPERATION WHEN THE SPACE IS AVAILABLE FOR USE (SIMILAR HOURS AS THOSE TO BE PROPOSED FOR THE PICKLEBALL AND BASKETBALL COURTS.
- SELECTED PLAY EQUIPMENT WILL BE GEARED TOWARDS PLAY OF ALL AGES; VARYING LEVELS OF DIFFICULTY TO ALLOW SPACE FOR YOUNGER CHILDREN AND OLDER CHILDREN TO HAVE EXPERIENCE IN THE PLAY SPACE.
- DIFFERENTIATION OF AGE/DIFFICULTY WILL BE ENSURED BY TWO SEPARATE BUT ADJOINING PLAY EXPERIENCES.
- PLAY SPACE WILL PROVIDE ADA ACCESSIBLE OPPORTUNITIES FOR CHILDREN OF VARYING ABILITIES.

APPROVED

SPECIAL USE PERMIT NO. _____

DEPARTMENT OF PLANNING & ZONING

DIRECTOR _____ DATE _____

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

SITE PLAN NO. _____

DIRECTOR _____ DATE _____

CHAIRMAN, PLANNING COMMISSION _____ DATE _____

DATE RECORDED _____

INSTRUMENT NO. _____ DEED BOOK NO. _____ PAGE NO. _____

DEVELOPER

FOULGER-PRATT DEVELOPMENT
12435 PARK POTOMAC AVENUE
SUITE 200
POTOMAC, MD 20854
240.499.9600
CONTACT: JAY KELLY

LANDSCAPE ARCHITECT

O C U L U S
1611 CONNECTICUT AVE NW 3RD FLOOR
WASHINGTON DC 20009
P 202 588 5454
US@OCULUS.INFO

CONSULTANTS

FOUNTAIN CONSULTANT
FLUIDITY DESIGN CONSULTANTS
724 S. SPRING STREET, SUITE 1401
LOS ANGELES, CALIFORNIA 90014
213.739.9291

PLAYGROUND CONSULTANT
EARTHSCAPE
7215 WELLINGTON ROAD 86
WALLENSTEIN, ON CANADA N0B 2S0
1.877.269.2972

ICE RINK CONSULTANT
832 ENGINEERING GROUP, INC.
2211 O'NEIL ROAD
HUDSON, WI 54016
1.651.256.3090

LIGHTING DESIGNER
MCLA ARCHITECTURAL LIGHTING DESIGN
1000 POTOMAC STREET NW, SUITE 121
WASHINGTON, DC 20007
202.298.8062

PROJECT NAME

WestEnd Open Space Blocks
City of Alexandria

SEAL & SIGNATURE

COMMONWEALTH OF VIRGINIA
DONALD RAY HOOVER
Lic. No. 406000790
LANDSCAPE ARCHITECT

COMPLETENESS SUBMISSION

NOT FOR CONSTRUCTION

ISSUE

MARK	DATE	DESCRIPTION
	11/29/2022	CONCEPT II
	03/10/2023	COMPLETENESS
	05/05/2023	COMPLETENESS
	06/02/2023	DD PRICING

KEY MAP

DATE: 05/05/2023

PROJECT NUMBER: W2108

SCALE: 3/16" = 1'-0"

DRAWING TITLE: PLAYGROUND DETAILS

SHEET NUMBER: PL002

SUSTAINABLE BUILDING PARTNERS

2701 Prosperity Ave, Suite 100
Fairfax, 22031
Phone: 703.970.2890
Fax: 703.970.2891
www.sustainbldgs.com

LEED BD+C: CS v4, EQ Credit 3
Construction IAQ Management Plan During Construction

Prepared for:

Project Name:

Project Address:

Date:

Introduction

This Indoor Air Quality (IAQ) Management Plan has been developed for LEED NC v4 Credit EQ 3. The plan aims to improve the health of construction personnel and future occupants of the building. The plan is based on the Sheet Metal and Air Conditioning National Contractors Association (SMACNA) IAQ Guidelines for Occupied Buildings Under Construction, 2nd Edition 2007, ANSI/SMACNA 008-2008 (Chapter 3).

Method

Photographs will be taken of each of the following measures in progress for LEED documentation. Photographs must be taken at three different times during construction. Provide a minimum of 24 photographs total.

HVAC Protection

Protect ductwork and equipment from dust and debris. Any ductwork, equipment, and HVAC components must have plastic cover protecting from contamination when not in use. Should HVAC equipment be operational during construction, MERV 8 temporary filters are required at each return air grille, as determined by ASHRAE Standard 52.2. Record the manufacturer and product number of all filtration media. All heavy construction activity should not occur when equipment is in use. If an unducted plenum over the construction zone must be used, isolate the area with installed ceiling tiles.

Replace filtration prior to occupancy. Mechanical rooms are not to be used to store construction equipment or waste. Periodically inspect HVAC components to ensure proper coverage is maintained and no leaks are present.

Source Control

This project has specified low VOC paints, coatings, sealants and adhesives. Additional materials that may provide contamination to the IAQ include flooring, which has also been specified as compliant with low emitting certification programs. This will greatly reduce the amount of indoor pollutants entering the building from construction materials.

Additional sources include exhaust from vehicles and tools and smoking. Please ensure to provide measures to mitigate pollutants from entering the building. Select a safe distance from the building that these activities may occur. If any of these activities must occur within proximity to the building, isolate the area that may be impacted from the rest of the

building (See Pathway interruption). Ventilate areas that may be impacted by these sources or by other toxic materials.

Pathway Interruption

Materials will be handled and stored according to manufacturer's recommendations. Store absorbent materials in plastic or the packaging it arrived in until ready to install. Store materials indoors when possible.

Isolate areas of work that may produce dust, debris, or off-gas. Install polyurethane barriers to isolate and reduce the amount of construction dust and airborne debris that could enter construction areas.

All equipment and material staging areas will be located away from airflow and high traffic areas. Entryway mats will be used to reduce the amount of contaminants entering the building air. Pressurize spaces when appropriate. Suppress dust with wetting agents if appropriate and feasible.

Housekeeping

Housekeeping activities will occur at least daily and more frequently if needed. Trash and recycling containers will be easily accessible to all personnel. Spills need to be cleaned up immediately. Use vacuums with HEPA filters. Low emitting cleaning agents will be used for housekeeping activities when possible. Compliant cleaning agents can be found at *greenseal.org*.

Scheduling

Activities that require high pollutant potential will be conducted at the end of the week to allow off-gassing during the weekend. Activities that will emit VOCs or produce dust and debris must occur prior to the installation of HVAC equipment and absorbent materials (i.e. painting prior to carpet installation). Ensure proper venting during these activities.

Moisture Control

Any ductwork or insulation that contain moisture is not to be installed. Protect stored on-site and installed absorptive materials from moisture damage. Protect materials by elevating from the floor or covering with moisture resistant materials.

Tobacco Products

The use of tobacco products during construction is explicitly prohibited inside the building and within at least 25 feet of the building entrance.

Communication

Ensure that all construction personnel and subcontractors have been provided this plan and understand how it impacts the construction activities. Hold regular meetings to discuss the planned construction activities and the impact to the IAQ may occur and methods to reduce contamination as described in this plan.

Verification

Provide periodic photographs of each measure listed above. Provide photographs during multiple stages of construction. A minimum of 24 photographs must be provided. Record the location and date of each photograph. Provide a description of the SMACNA measure implemented in the photograph.

At the end of construction, complete the LEED Online template and supporting documentation to verify all elements of this plan were implemented.