LANDMARK MALL REDEVELOPMENT

CONCEPT 2 - BLOCK I

CITY OF ALEXANDRIA, VIRGINIA

DATE: APRIL 8, 2022

PROJECT TEAM

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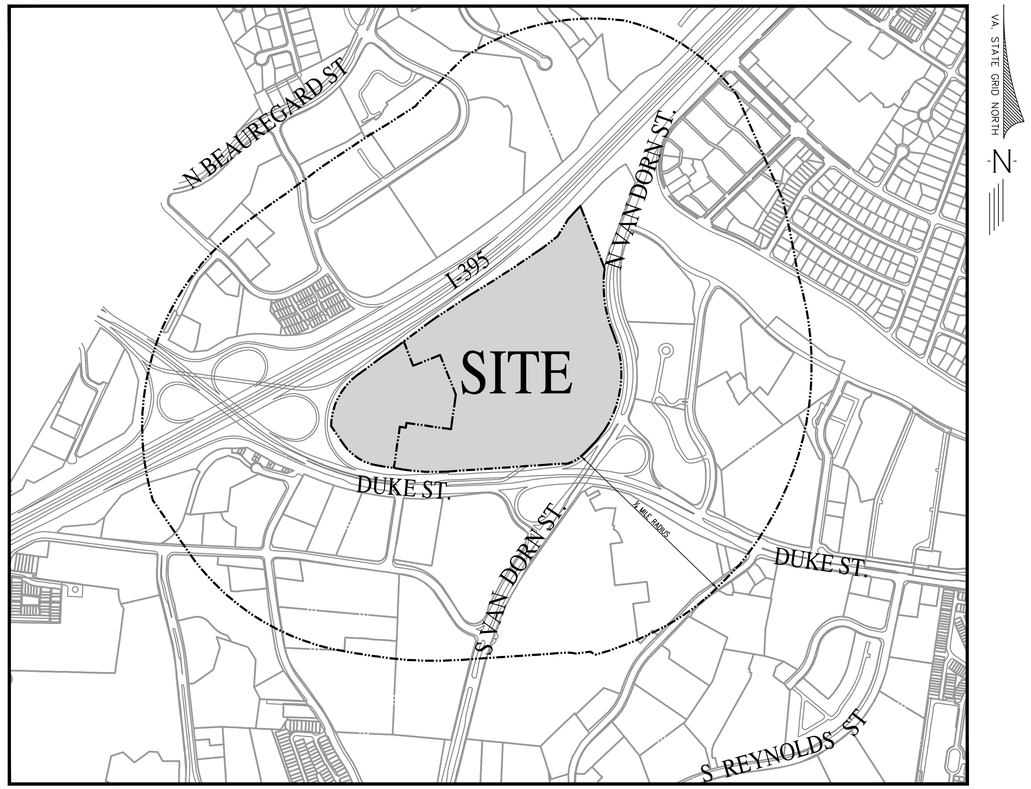

VICINITY MAP
SCALE: 1"=500'

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PROJECT NARRATIVE:

EXISTING SITE CONDITIONS:
THE EXISTING SITE CONTAINS FIVE MULTI-STORY BUILDINGS FOR COMMERCIAL/RETAIL/MIXED USE, AN ABOVE GROUND PARKING GARAGE, PARKING LOTS, AND INTERCONNECTING ROADWAYS. AN AREA TO THE EAST IS HEAVILY VEGETATED WITH STEEP SLOPES. THE MAJORITY OF THE SITE IS IMPERVIOUS AND GENERALLY SLOPES FROM WEST TO EAST. ABOVE GROUND AND BELOW GROUND UTILITIES, AND ASSOCIATED INFRASTRUCTURE ARE CONTAINED WITHIN THE SITE.

DESCRIPTION OF DEVELOPMENT:
THE SITE IS BORDERED TO THE NORTH BY AN EXISTING PARKING GARAGE, TO THE WEST BY FUTURE BLOCKS G, N AND PUBLIC ROAD, TO THE SOUTH BY FUTURE OPEN SPACE, AND TO THE EAST BY A PUBLIC ROAD.

DSP#2021-00021 IS FOR THE ONSITE AND OFFSITE INFRASTRUCTURE NECESSARY TO SUPPORT THE REDEVELOPMENT OF THE SITE. THE PURPOSE OF THE REDEVELOPMENT FOR BLOCK I IS TO ALLOW FOR A BUILDING WITH A RANGE OF USES ACROSS THE SITE. THESE USES WOULD INCLUDE COMMERCIAL RETAIL, SUPERMARKET, OFFICE, AND RESIDENTIAL. THESE USES MAY BE IMPLEMENTED ANYWHERE ON THE SITE, SUBJECT TO CAPACITY OF INFRASTRUCTURE. THIS PROJECT IS NOT A FEDERAL UNDERTAKING OR INVOLVES THE USE OF ANY FEDERAL FUNDING, IN COMPLIANCE WITH FEDERAL PRESERVATION LAWS, IN PARTICULAR SECTION 106 OF THE NATIONAL HISTORIC PRESERVATION ACT OF 1966.

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, AND TERRACE PARK, AS WELL AS NEIGHBORHOOD PARKS, 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.

IN ADDITION TO THE PARKS, THE SITE SHALL ALSO FEATURE A FIRE STATION AND A CENTRALLY LOCATED TRANSIT HUB TO PROVIDE BUS TRANSIT SERVICES TO BOTH RESIDENTS AND THE SURROUNDING COMMUNITY.

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

LIST OF REQUESTED APPROVALS:

- **DSUP #____-____**

GREEN BUILDING POLICY STATEMENT:

THE BUILDING ON BLOCK I WILL COMPLY WITH THE CITY'S CURRENT GREEN BUILDING POLICY AT THE TIME OF DSUP APPROVAL. PLEASE SEE GREEN BUILDING APPROACH ON SHEET 51.

AREA TABULATIONS:

BLOCK I LOT AREA = 2.57 AC. 112,066 SF.

ZONING TABULATIONS:

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

TOTAL SITE/LOT AREA: 112,066 SF OR 2.57 ACRES

EXISTING ZONE: CDD #29 (COORDINATED DEVELOPMENT DISTRICT #29)
PROPOSED ZONE: CDD #29 (COORDINATED DEVELOPMENT DISTRICT #29)

OPEN SPACE REQUIREMENTS: 28,017 SF (25% OF TOTAL LOT AREA: 112,066 SF X 0.25)
OPEN SPACE PROVIDED: 39,140 SF (6,123 SF AT-GRADE + 33,017 SF ABOVE-GRADE)

EXISTING USE: SHOPPING CENTER
PROPOSED USE: MIXED USE: RETAIL/RESIDENTIAL

FLOOR AREA CALCULATION:

BUILDING I	GROSS AREA (SF)	NET FLOOR AREA (SF)
RETAIL	93,000	
RESIDENTIAL	408,583	
TOTAL AREAS:	501,583	485,000

FLOOR AREA RATIO TABULATION (FAR):
COMBINED FAR PERMITTED: 1.03*
COMBINED FAR PROPOSED: 4.31

*485,000 SF PERMITTED FOR BLOCK I PER CDD CONCEPT PLAN.

DENSITY:
BLOCK I: 390 UNITS (MULTIFAMILY)

PROPOSED DENSITY: N/A

MIN/MAX BLDG.: BLOCK I: 70 FT. MIN, 120 FT. MAX.

BUILDING HEIGHT PROPOSED: BLOCK I: 85 FT.

AVG. FINISHED GRADE: BLOCK I: 193 FT.

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

PARKING TABULATIONS:

PARKING REQUIRED:

BLOCK I:
RETAIL: RATIO: 3.9 SP/1,000 SF* =363
MULTIFAMILY: RATIO: 1.2/UNIT* =468
TOTAL PARKING REQUIRED: 831

*PARKING RATIOS REFLECT APPROVED CDD CONCEPT PLAN

PARKING PROVIDED:

BLOCK I:
RETAIL: 323
MULTIFAMILY: 507
TOTAL PARKING PROVIDED: 830

LOADING SPACES REQUIRED: RATIO: 1/20,000 SF (RETAIL)= 5 SPACES
LOADING SPACES PROVIDED: 3 SPACES

TRIP GENERATION:

Land Use	ITE Code	Weekday						
		AM Peak Hour			PM Peak Hour			
		In	Out	Total	In	Out	Total	Daily Total
Total External Retail Trips		82	42	124	164	156	320	4300
OVERALL NON-AUTO MODE TRIPS	221, 850	-72	-75	-147	-168	-146	-314	-3768
OVERALL DEVELOPMENT TRIPS		**98**	**88**	**186**	**205**	**182**	**387**	**5173**

COMMONWEALTH OF VIRGINIA
CLAYTON C. TOCK
Lic. No. 036790
04/08/2022
PROFESSIONAL ENGINEER

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PLAN DATE
11-19-2021
04-08-2022
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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.

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SITE TABULATIONS

DEVELOPMENT SUMMARY

Use	Floor Area	Residential Units	Hotel Keys	INOVA HOSPITAL CAMPUS	Building A		Building B		Building C		Block D		Block E		Block G		Block H		Block I		Block F		Block N		Block J		Block K		Block L		Blocks M	
					Floor Area	Units	Floor Area	Units	Floor Area	Units	Floor Area	Units	Floor Area	Units	Floor Area	Units	Floor Area	Units	Floor Area	Units	Floor Area	Units	Floor Area	Units	Floor Area	Units	Floor Area	Units	Floor Area	Units	Floor Area	Units
Hospital	**464,467**				464,467	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Office	**-**				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Medical Office	**302,066**				-	-	94,212	-	76,357	-	-	-	131,497	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Multifamily	**1,208,150**	**1,136 units**			-	-	-	-	-	-	-	-	196,568	172	257,441	222	-	-	408,583	390	-	-	-	-	-	-	345,558	352	-	-	-	-
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	**121,454**				-	-	-	-	-	-	-	-	-	-	-	-	-	-	93,000	-	3,120	-	2,244	-	-	-	28,454	-	-	-	-	-
Grocer	**-**				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Firestation	**-**				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Garage / Loading / Service					298,250 (TOTAL GARAGE)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	129,842	-	-	-	-	-
Total	**2,096,137**	**1,136 units**	**0 keys**		**762,717**	**-**	**94,212**	**-**	**76,357**	**-**	**-**	**-**	**328,065**	**172**	**257,441**	**222**	**-**	**-**	**501,583**	**390**	**3,120**	**-**	**2,244**	**-**	**-**	**-**	**503,854**	**352**	**-**	**-**	**-**	**-**
FAR over Gross Land Area	**0.9344**																															

PARKING TABULATIONS

Parking Requirement	Parking Ratio	Totals	INOVA HOSPITAL CAMPUS	Building A		Building B		Building C		Block D		Block E		Block G		Block H		Block I		BLOCK F		BLOCK N		Block J		Block K		Block L		Blocks M	
				REQUIRED	PROPOSED	REQUIRED	PROPOSED	REQUIRED	PROPOSED	REQUIRED	PROPOSED	REQUIRED	PROPOSED	REQUIRED	PROPOSED	REQUIRED	PROPOSED	REQUIRED	PROPOSED	REQUIRED	PROPOSED	REQUIRED	PROPOSED	REQUIRED	PROPOSED	REQUIRED	PROPOSED	REQUIRED	PROPOSED	REQUIRED	PROPOSED	REQUIRED	PROPOSED
PARKING RATES																															
Hospital	1/ 2 BEDS			TBD	(SEE BELOW)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Office	3.2 / 1,000 GSF			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Medical Office	3.8 / 1,000 GSF			-	-	408	(SEE BELOW)	335	(SEE BELOW)				478																				
Multifamily	1.3 / unit			-	-	-	-	-	-	-	-	-	209	-	288	-	-	-	507	-	-	-	-	-	-	-	274	-	-	-	-	-	-
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	4.0 / 1,000 GSF			-	-	-	-	-	-	-	-	-	218	-	114	-	-	-	323	-	-	-	-	-	-	-	56	-	-	-	-	-	-
Grocer	50 spaces			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Firestation				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
VEHICLE PARKING																																	
STANDARD PARKING SPACES				-	TBD	-	TBD	-	TBD	-	-	-	405	-	127	-	-	-	131	-	-	-	-	-	-	-	132	-	-	-	-	-	-
COMPACT PARKING SPACES				-	TBD	-	TBD	-	TBD	-	-	-	462	-	260	-	-	-	673	-	-	-	-	-	-	-	188	-	-	-	-	-	-
HANDICAP PARKING SPACES (NON-VAN)				-	TBD	-	TBD	-	TBD	-	-	-	30	-	10	-	-	-	24	-	-	-	-	-	-	-	10	-	-	-	-	-	-
HANDICAP PARKING SPACES (VAN)				-	TBD	-	TBD	-	TBD	-	-	-	8	-	5	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL PARKING PROVIDED:	**3,977**				1,510				-	-	-	905	-	402	-	-	-	830	-	-	-	-	-	-	-	330	-	-	-	-	-	-
PARKING PROVIDED IN EXISTING GARAGE					550 (EXISTING GARAGE)					-	-	-	905	-	402	-	-	-	830	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PARKING PROVIDED IN PROPOSED GARAGE					960 (ABOVE GRADE GARAGE + BELOW GRADE GARAGE)					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	330	-	-	-	-	-	-
LOADING SPACES																			3								2						
BICYCLE PARKING																																	

ZONING TABULATIONS

Zoning Requirement	INOVA HOSPITAL CAMPUS	Building A	Building B	Building C	Block D		Block E		Block G		Block H		Block I		Block F		Block N		Block J		Block K		Block L		Blocks M	
		PROPOSED			REQUIRED	PROPOSED	REQUIRED	PROPOSED	REQUIRED	PROPOSED	REQUIRED	PROPOSED	REQUIRED	PROPOSED	REQUIRED	PROPOSED	REQUIRED	PROPOSED	REQUIRED	PROPOSED	REQUIRED	PROPOSED	REQUIRED	PROPOSED	REQUIRED	PROPOSED
LOT AREA (SQ. FT.)		452,343 (COMBINED INOVA HOSPITAL CAMPUS AREA)			-	-	-	100,225	-	56,428	-	-	-	112,066	-	112,495	-	112,495	-	-	-	110,365	-	-	-	-
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)			-	-	-	328,065	-	257,441	-	-	-	485,000	-	-	-	-	-	-	-	503,854	-	-	-	-
FAR (PER LOT)		2.06 (COMBINED FAR FOR BUILDINGS A,B,C)			-	-	-	3.27	-	4.56	-	-	-	4.33	-	-	-	-	-	-	-	4.57	-	-	-	-
OPEN SPACE (SF / %)		15%			-	-	-	34.17%	-	25.30%	-	-	-	34.93%	-	-	-	-	-	-	-	34.64%	-	-	-	-
GROUND FLOOR		53,530			-	-	-	-	-	-	-	-	-	6,123	-	-	-	-	-	-	-	25,218	-	-	-	-
ABOVE GROUND		10,000			-	-	-	-	-	-	-	-	-	33,017	-	-	-	-	-	-	-	13,011	-	-	-	-
TOTAL OPEN SPACE		62,530			-	-	-	34,111	-	14,113	-	-	-	39,140	-	-	-	-	-	-	-	38,229	-	-	-	-
AVERAGE FINISHED GRADE (FT.)		216.34 (PROPOSED)	209.86 (PROPOSED)	212.07 (PROPOSED)	-	-	-	200.55	-	198.58	-	-	-	193.00	-	-	-	-	-	-	-	199.20	-	-	-	-
MAX. BUILDING HEIGHT (FT.)		159	52	60	-	-	-	98 / 85	-	85	-	-	-	85	-	-	-	-	-	-	-	85	-	-	-	-
CROWN COVERAGE (SQ. FT.)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MAX. RESI DENTISTY (UNITS/AC.)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dwelling Unit Summary		-	-	-	-	-	-	TBD	-	TBD	-	-	-	-	-	-	-	-	-	-	-	TBD	-	-	-	-
STUDIO UNITS		-	-	-	-	-	-	TBD	-	TBD	-	-	-	-	-	-	-	-	-	-	-	TBD	-	-	-	-
ONE BEDROOM UNITS		-	-	-	-	-	-	TBD	-	TBD	-	-	-	-	-	-	-	-	-	-	-	TBD	-	-	-	-
ONE BEDROOM DEN UNITS		-	-	-	-	-	-	TBD	-	TBD	-	-	-	-	-	-	-	-	-	-	-	TBD	-	-	-	-
TWO BEDROOM UNITS		-	-	-	-	-	-	TBD	-	TBD	-	-	-	-	-	-	-	-	-	-	-	TBD	-	-	-	-
TWO BEDROOM DEN UNITS		-	-	-	-	-	-	TBD	-	TBD	-	-	-	-	-	-	-	-	-	-	-	TBD	-	-	-	-
LOADING SPACES		1	1	1	-	-	-	3	-	2	-	-	-	3	-	-	-	-	-	-	-	2	-	-	-	-
TRIP GENERATION (ADT)		5,774	910	3,317	-	-	-	7,482	-	2,073	-	-	-	5,173	-	-	-	-	-	-	-	2,159	-	-	-	-

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: 11-19-2021, 04-08-2022

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COMMONWEALTH OF VIRGINIA — CLAYTON C. TOCK — Lic. No. 038780 — PROFESSIONAL ENGINEER — 04/08/2022

GENERAL NOTES & DETAILS

LANDMARK MALL REDEVELOPMENT
CONCEPT 2 - BLOCK I

CITY OF ALEXANDRIA, VIRGINIA

DATE: APRIL 8, 2022

C.I.= N/A

SCALE: N/A

SHEET 02 OF 51

FILE No. DSUP-13079

Urban, Ltd. – J:\JOBS\landmarkmall\DSUP\Block-I\concept 2\13079-02-GNOTES.dwg [GNOTES] April 08, 2022 – 12:51pm yatsari

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. THE SITE IS LOCATED IN THE HOLMES RUN WATERSHED.
5. 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.
6. 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.
7. 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).
8. 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.
9. 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.
10. 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).
11. CONTRACTOR MUST ENSURE THAT THERE IS NO DISTURBANCE ON ADJACENT PROPERTIES WITHOUT RECORDED EASEMENT OR NOTARIZED LETTER OF PERMISSION FROM THE ADJACENT PROPERTY OWNERS.
12. 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), UNITED STATES 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.
13. 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.
14. 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.
15. 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.
16. 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.
17. THE CONTRACTOR MUST ENSURE THAT POSITIVE DRAINAGE OCCURS ON SITE TO PREVENT PONDING OR DRAINAGE PROBLEMS ON ADJACENT PROPERTIES.
18. 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.
19. ALL SANITARY LATERALS AND/OR SEWERS NOT SHOWN IN THE EASEMENTS SHALL BE OWNED AND MAINTAINED PRIVATELY.
20. ALL STORM DRAINS NOT SHOWN WITHIN AN EASEMENT OR IN A PUBLIC RIGHT-OF-WAY SHALL BE OWNED AND MAINTAINED PRIVATELY.
21. 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.
22. 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.
23. THIS SITE IS NOT LOCATED WITHIN A COMBINED SEWER AREA.
24. 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. SOME OF THE EXISTING UTILITIES WILL REMAIN BUT NEW ONES WILL BE ADDED.
25. THE APPLICANT IS RESPONSIBLE FOR THE MAINTENANCE OF ALL SPECIAL PAVING MATERIAL INSTALLED WITHIN THE PUBLIC RIGHT OF WAY PER DEVELOPMENT CONDITION 2G.

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.

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 ANY 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 FOR THE SUBJECT SITE 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 BUILDING =
300 GPD/UNIT * 390 UNITS + 200 GPD/1,000 S.F. * 95,433 S.F. = 136,087 GPD
PEAK FACTOR FLOW FROM BUILDING = 136,087 GPD * 4.0 = 544,348 GPD

THE TOTAL ESTIMATED FLOW EXCEEDS 10,000 GPD AND IS THEREFORE 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.

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 IMPLEMENTATION 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 THE 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 I.

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

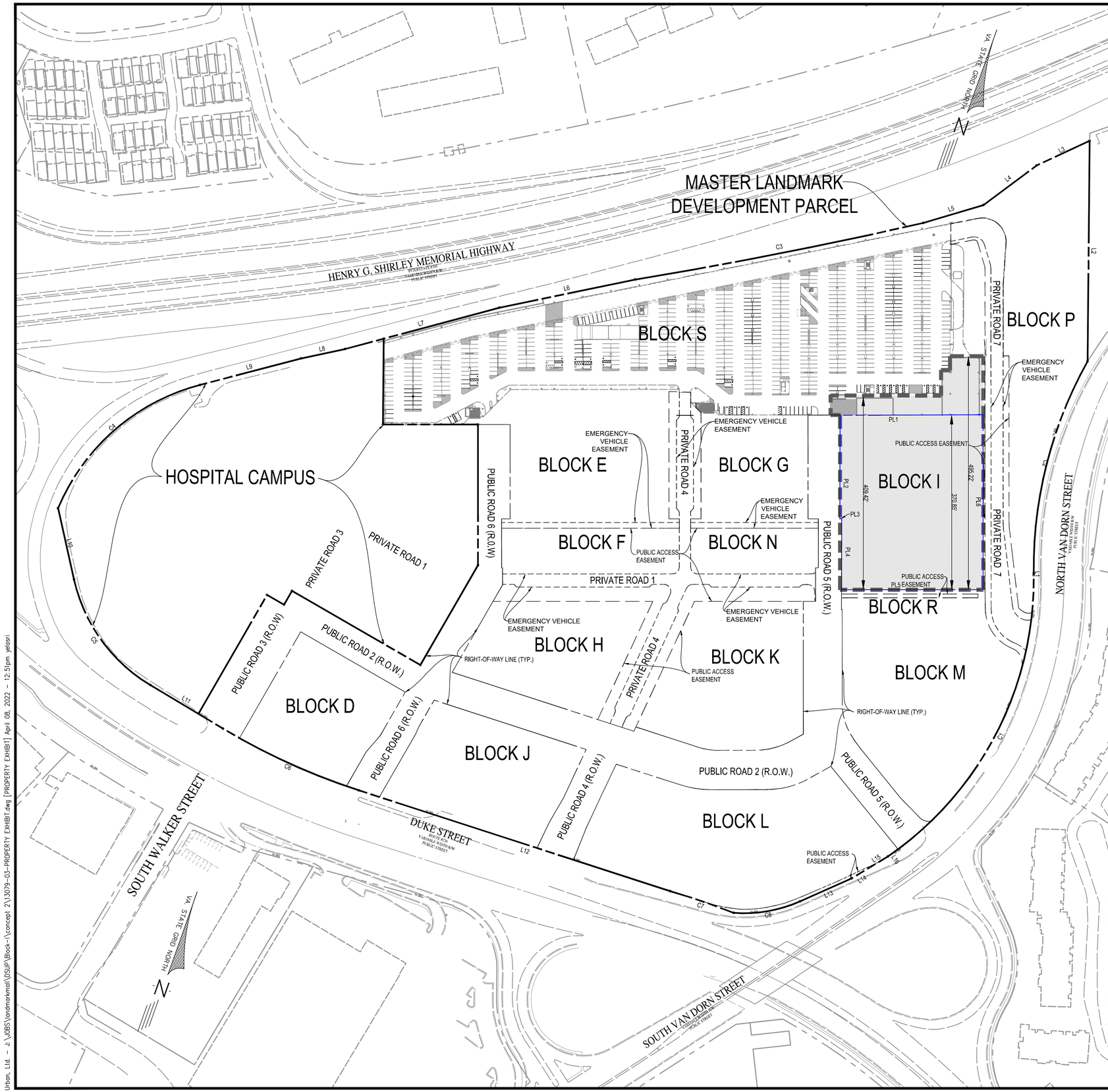
1. ALL BUILDINGS WITHIN THE BOUNDARY OF THIS SITE SHALL HAVE AT LEAST ONE "ACCESSIBLE ROUTE" THAT CONFORMS TO "ADA"-"ACCESSIBLE ROUTE" STANDARDS. THESE STANDARDS INCLUDE, BUT ARE NOT LIMITED TO: MAXIMUM WALK SLOPE=1:20 AND MAXIMUM RAMP SLOPE=1:12. ALL WALKS WILL BE BROOM-FINISHED CONCRETE UNLESS OTHERWISE 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 OF ANY GROUND DISTURBANCE SO THAT AN INSPECTION OR MONITORING SCHEDULE FOR CITY ARCHAEOLOGISTS CAN BE ARRANGED.
3. THE APPLICANT SHALL CALL ALEXANDRIA ARCHAEOLOGY IMMEDIATELY (703-746-4399) IF ANY BURIED STRUCTURAL REMAINS (WALL FOUNDATIONS, WELLS, PRIVIES, CISTERNS, ECT.) OR CONCENTRATIONS OF ARTIFACTS ARE DISCOVERED DURING DEVELOPMENT. WORK MUST CEASE IN THE AREA OF THE DISCOVERY UNTIL A CITY ARCHAEOLOGIST COMES TO THE SITE AND RECORDS THE FINDS.
4. THE APPLICANT SHALL NOT ALLOW ANY METAL DETECTION AND/OR ARTIFACT COLLECTION TO BE CONDUCTED ON THE PROPERTY, UNLESS AUTHORIZED BY ALEXANDRIA ARCHAEOLOGY. FAILURE TO COMPLY SHALL RESULT IN PROJECT DELAYS.
5. ALL REQUIRED ARCHAEOLOGICAL MEASURES SHALL BE COMPLETED IN COMPLIANCE WITH SECTION 11-411 OF THE ZONING ORDINANCE.

CONSTRUCTION NOTES

1. THE EXISTING UNDERGROUND UTILITIES SHOWN HEREIN ARE BASED UPON AVAILABLE INFORMATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF ALL UTILITIES BEFORE COMMENCING WORK AND FOR ANY DAMAGES WHICH MAY OCCUR BY HIS FAILURE TO LOCATE OR PRESERVE THESE UNDERGROUND UTILITIES. IF DURING CONSTRUCTION OPERATIONS, THE CONTRACTOR SHOULD ENCOUNTER UTILITIES OTHER THAN THOSE SHOWN ON THE PLANS, HE SHALL IMMEDIATELY NOTIFY THE ENGINEER AND TAKE NECESSARY ACTION AND PROPER STEPS TO PROTECT THE FACILITY AND ASSURE THE CONTINUATION OF SERVICE.
2. THE CONTRACTOR SHALL DIG TEST PITS AS REQUIRED FOLLOWING NOTIFICATION AND MARKING OF ALL EXISTING UTILITIES TO VERIFY THE LOCATION AND DEPTH OF EXISTING UTILITIES.TEST HOLES TO BE PERFORMED AT LEAST 30 DAYS PRIOR TO START OF CONSTRUCTION. ANY DISCREPANCIES ARE TO BE REPORTED IMMEDIATELY TO THE OWNER AND ENGINEER. REDESIGN AND APPROVAL BY REVIEWING AGENCIES SHALL BE OBTAINED, IF REQUIRED.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE OWNER AND THE ENGINEER OF ANY CHANGES OR CONDITIONS ATTACHED TO PERMITS OBTAINED FROM ANY AUTHORITY ISSUING PERMITS.
4. THE CONTRACTOR SHALL VISIT THE SITE AND SHALL VERIFY EXISTING CONDITIONS PRIOR TO STARTING CONSTRUCTION.
5. THE CONTRACTOR SHALL CLEAR THE SITE OF ALL TREES, BUILDINGS, FOUNDATIONS, ETC., WITHIN THE LIMITS OF CONSTRUCTION UNLESS OTHERWISE SPECIFIED, AND SHALL BE RESPONSIBLE FOR ENSURING THAT EXISTING UTILITIES ARE DISCONNECTED.
6. THE DEVELOPER SHALL PROVIDE OVER-LOT GRADING TO PROVIDE POSITIVE DRAINAGE AND PRECLUDE PONDING OF WATER.
7. ALL AREAS, ON OR OFFSITE, WHICH ARE DISTURBED BY THIS CONSTRUCTION AND WHICH ARE NOT PAVED OR BUILT UPON, SHALL BE ADEQUATELY STABILIZED TO CONTROL EROSION AND SEDIMENTATION. THE MINIMUM ACCEPTABLE STABILIZATION SHALL CONSIST OF PERMANENT GRASS, SEED MIXTURE TO BE AS RECOMMENDED BY THE CITY AGENT. ALL SLOPES 3:1 AND GREATER SHALL BE SODDED AND PEGGED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE CITY OF ALEXANDRIA.
8. EXISTING SEPTIC FIELDS, IF APPLICABLE, SHALL BE ABANDONED IN ACCORDANCE WITH VIRGINIA HEALTH DEPARTMENT STANDARDS AND SPECIFICATI



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 TABLE FOR BLOCK I LOT

LINE	BEARING	DISTANCE
PL1	S 68°00'57" W	303.50'
PL2	S 21°42'59" E	219.92'
PL3	N 68°08'38" E	4.03'
PL4	S 21°42'26" E	150.40'
PL5	N 68°08'38" E	300.39'
PL6	N 21°51'22" W	371.00'

LOT AREA

BLOCK I: 2.57 AC (112,066 SF)

LEGEND

LOT LINES

LIMITS OF DISTURBANCE

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 _____

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CLAYTON C. TOCK
Lic. No. 036790
04/08/2022
PROFESSIONAL ENGINEER

PROPERTY EXHIBIT

LANDMARK MALL REDEVELOPMENT CONCEPT 2 - BLOCK I

CITY OF ALEXANDRIA, VIRGINIA

SCALE: 1"=100'

C.I.= N/A

DATE: APRIL 8, 2022

SHEET 04 OF 51

FILE No. DSUP-13079

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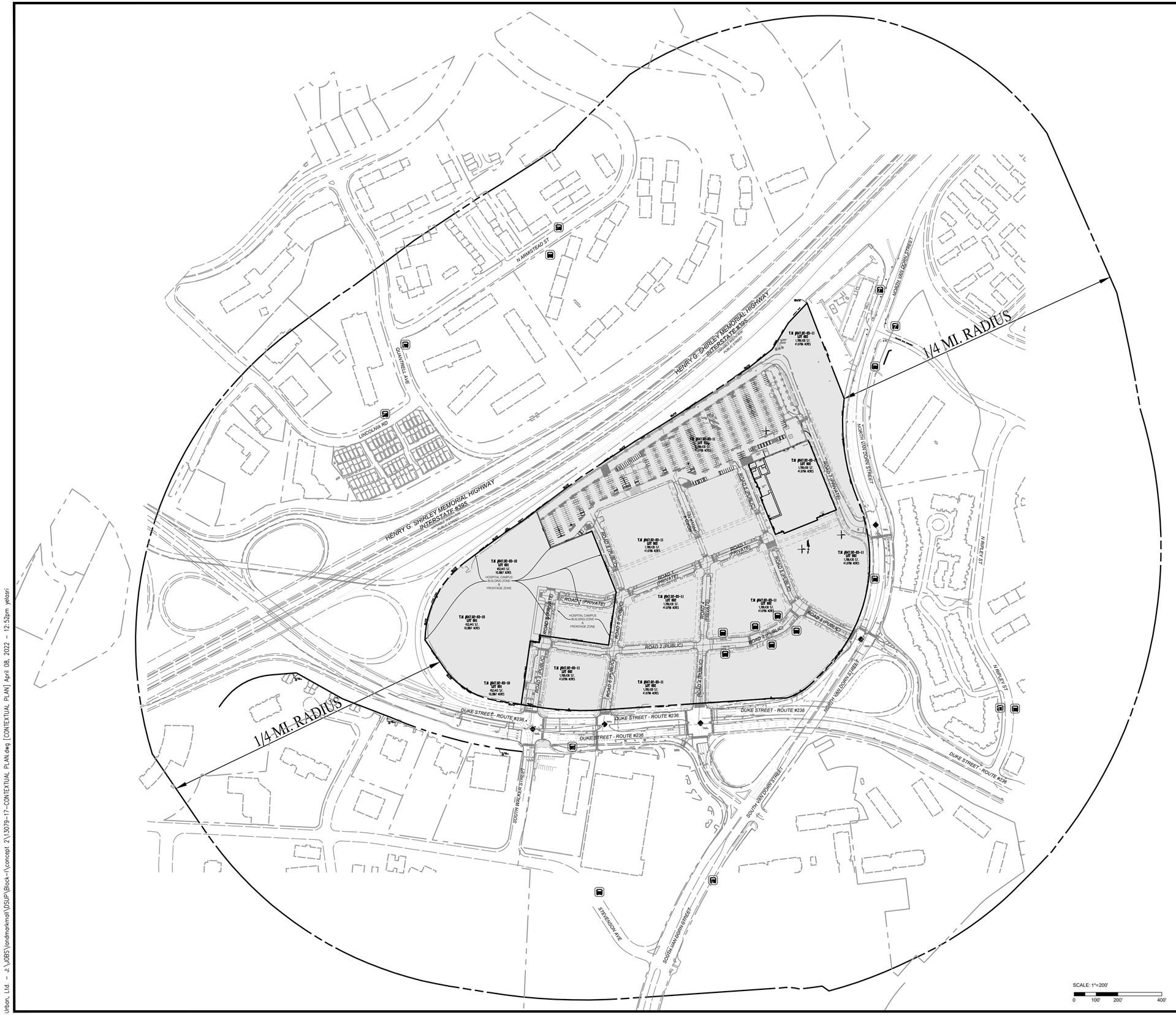

LEGEND

TRANSIT STOP

PROPOSED PROJECT SITE

APPROVED

DEVELOPMENT SITE PLAN NO. _____

DEPARTMENT OF PLANNING & ZONING

DIRECTOR DATE

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____

DIRECTOR DATE

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CONTEXTUAL PLAN

LANDMARK MALL REDEVELOPMENT CONCEPT 2 - BLOCK I

CITY OF ALEXANDRIA, VIRGINIA

SCALE: 1"=200' C.I.= N/A DATE: APRIL 8, 2022

SHEET 05 OF 51

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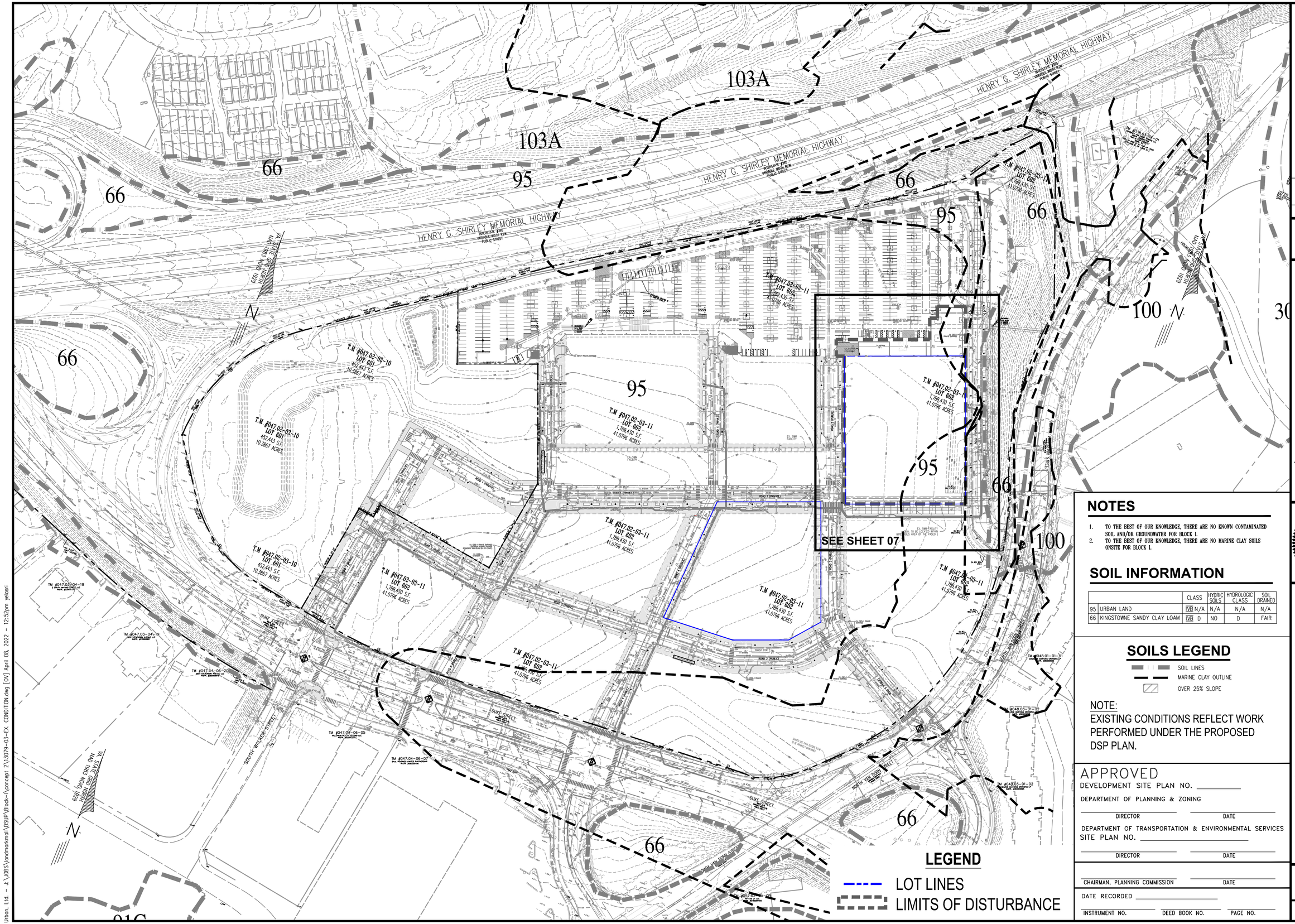

LEGEND

LOT LINES

LIMITS OF DISTURBANCE

NOTES

1. TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO KNOWN CONTAMINATED SOIL AND/OR GROUNDWATER FOR BLOCK I.
2. TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO MARINE CLAY SOILS ONSITE FOR BLOCK I.

SOIL INFORMATION

		CLASS	HYDRIC SOILS	HYDROLOGIC CLASS	SOIL DRAINED
95	URBAN LAND	IVB N/A	N/A	N/A	N/A
66	KINGSTOWNE SANDY CLAY LOAM	IVB D	NO	D	FAIR

SOILS LEGEND

SOIL LINES

MARINE CLAY OUTLINE

OVER 25% SLOPE

NOTE:
EXISTING CONDITIONS REFLECT WORK PERFORMED UNDER THE PROPOSED DSP PLAN.

APPROVED

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DEPARTMENT OF PLANNING & ZONING

DIRECTOR _____ DATE _____

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____

DIRECTOR _____ DATE _____

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OVERALL EXISTING CONDITIONS
LANDMARK MALL REDEVELOPMENT
CONCEPT 2 - BLOCK I
CITY OF ALEXANDRIA, VIRGINIA

SCALE: 1"=100' C.I.= 2' DATE: APRIL 8, 2022

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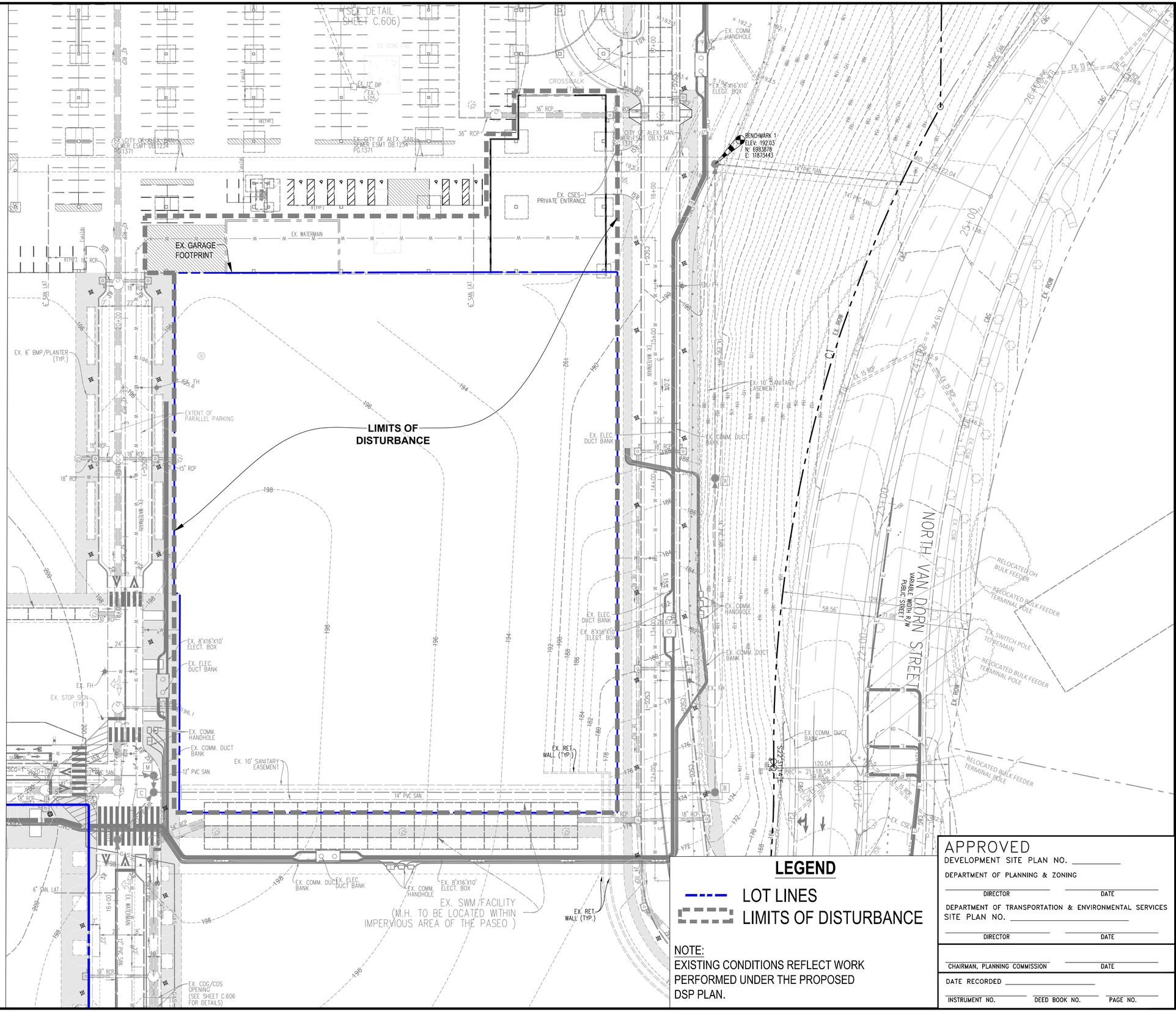

LEGEND

LOT LINES

LIMITS OF DISTURBANCE

NOTE:
EXISTING CONDITIONS REFLECT WORK PERFORMED UNDER THE PROPOSED DSP PLAN.

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DEPARTMENT OF PLANNING & ZONING
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DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
DIRECTOR DATE
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Lic. No. 036790
04/08/2022
DUTY LICENSED PROFESSIONAL ENGINEER

EXISTING CONDITIONS
LANDMARK MALL REDEVELOPMENT CONCEPT 2 - BLOCK I
CITY OF ALEXANDRIA, VIRGINIA
DATE: APRIL 8, 2022
SCALE: 1"=30' C.I.= 2'

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FILE No. DSUP-13079

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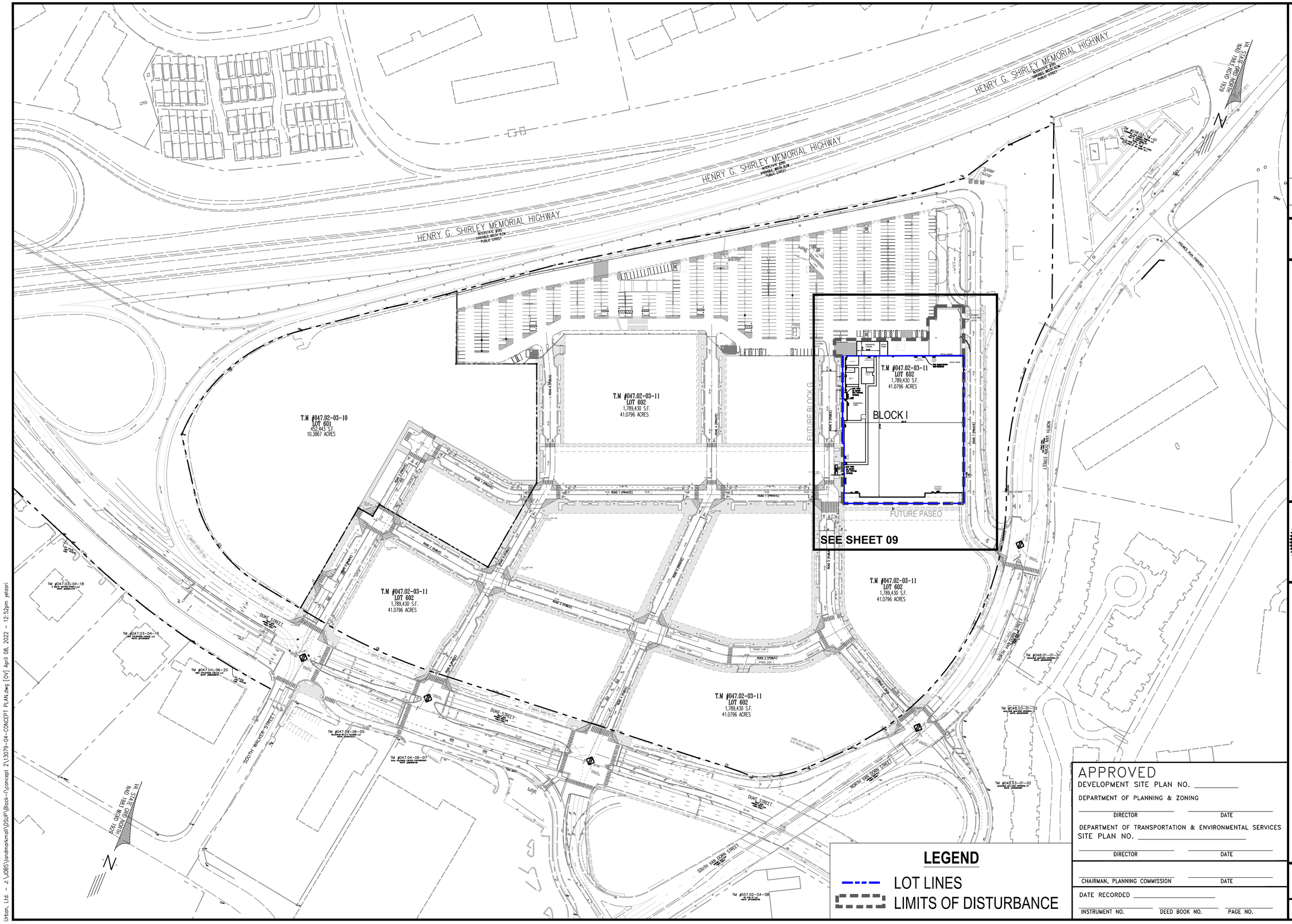

LEGEND

LOT LINES

LIMITS OF DISTURBANCE

APPROVED

DEVELOPMENT SITE PLAN NO. _____

DEPARTMENT OF PLANNING & ZONING

DIRECTOR _____ DATE _____

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

SITE PLAN NO. _____

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OVERVIEW PLAN

LANDMARK MALL REDEVELOPMENT CONCEPT 2 - BLOCK I

CITY OF ALEXANDRIA, VIRGINIA

SCALE: 1"=100'

C.I.= N/A

DATE: APRIL 8, 2022

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LEGEND

LOT LINES

LIMITS OF DISTURBANCE

BLOCK I

FUTURE BLOCK G

FUTURE PASEO

PUBLIC ROAD 5

PRIVATE ROAD 7

PRIVATE ROAD 1

NORTH VAN DORN STREET

RESIDENTIAL LOADING

RETAIL TRASH

RETAIL LOADING

RESIDENTIAL LOADING ENTRY

GARAGE RETAIL ENTRY

RETAIL LOADING ENTRY

PROP. BUILDING SANITARY SEWER CONNECTION

GARAGE FOOTPRINT ABOVE

PACKAGE RM

PET SPA

BIKE RM

RESIDENTIAL TRASH RM

BIKE RACK (8 VISITOR BIKE PARKING SPACES)

RESIDENTIAL LOBBY

LIMITS OF DISTURBANCE

RETAIL ENTRANCE

STREET RETAIL

SECONDARY RESIDENTIAL ENTRANCE

EX. CSES-1 PRIVATE ENTRANCE

EX. 8' CROSSWALK

EX. 10' CROSSWALK (TYP.)

EX. STOP SIGN (TYP.)

EX. ROW

C1

C2

C3

C4

C5

C6

C7

C8

C9

C10

C11

C12

C13

C14

C15

C16

C17

C18

C19

C20

C21

C22

C23

C24

C25

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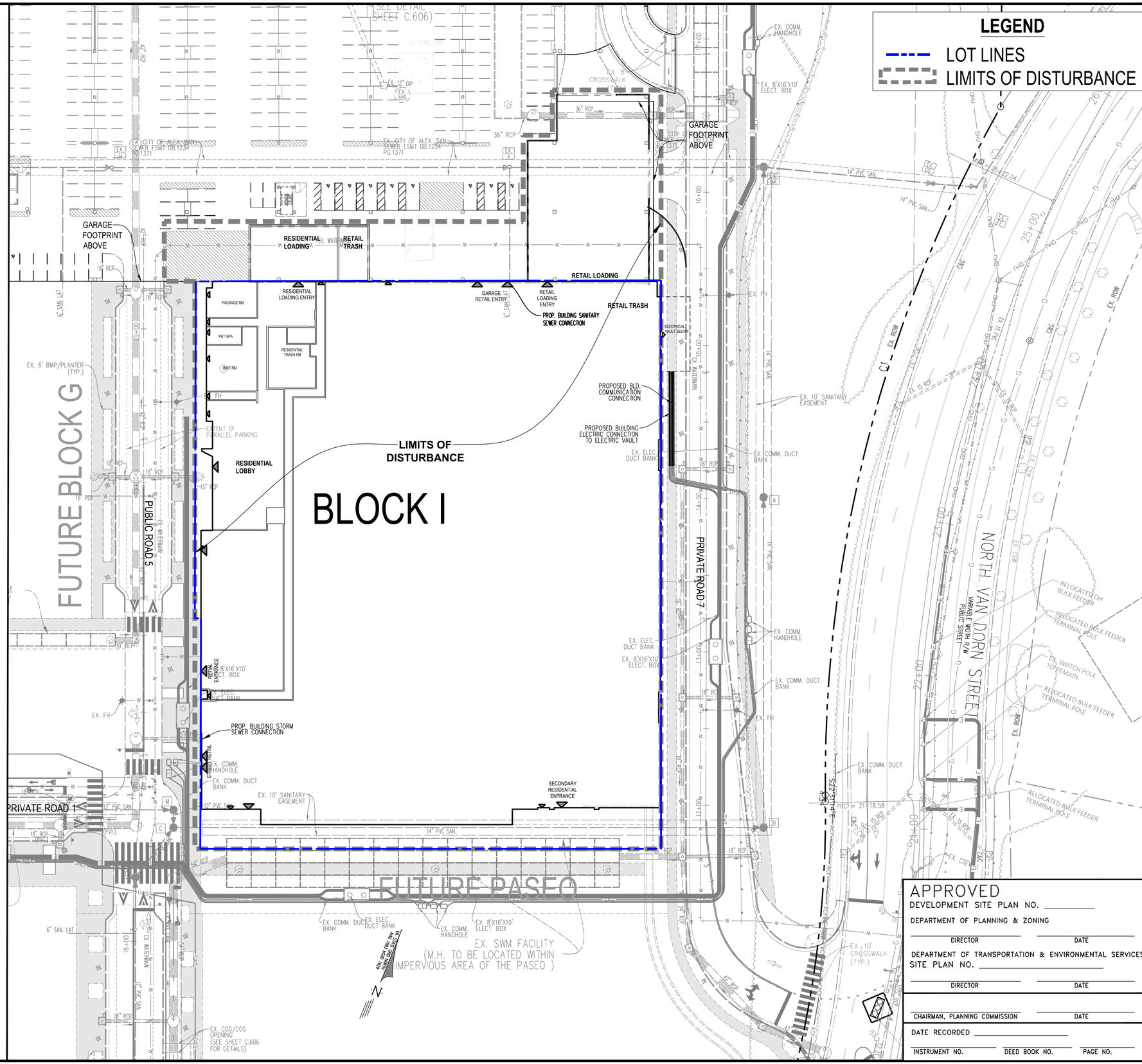
C37

C38

C39

C40



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04/08/2022
PROFESSIONAL ENGINEER

UTILITY PLAN

LANDMARK MALL REDEVELOPMENT CONCEPT 2 - BLOCK I

CITY OF ALEXANDRIA, VIRGINIA

SCALE: 1"=30' C.I.= 2' DATE: APRIL 8, 2022

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FILE No. DSUP-13079

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LEGEND

LOT LINES

LIMITS OF DISTURBANCE

BLOCK I

LIMITS OF DISTURBANCE

RESIDENTIAL LOADING

RETAIL TRASH

GARAGE FOOTPRINT ABOVE

RETAIL LOADING

RESIDENTIAL LOADING ENTRY

GARAGE RETAIL ENTRY

RETAIL LOADING ENTRY

PROP. BUILDING SANITARY SEWER CONNECTION

PACKAGE RM

PET SPA

BIKE RM

RESIDENTIAL TRASH RM

RESIDENTIAL LOBBY

RETAIL

RETAIL ENTRANCE

STREET RETAIL

SECONDARY RESIDENTIAL ENTRANCE

EX. CONC. WALK

EX. CROSSWALK

EX. STOP SIGN (TYP.)

EX. 10' CROSSWALK (TYP.)

FUTURE BLOCK G

PUBLIC ROAD 5

PRIVATE ROAD 1

PRIVATE ROAD 7

FUTURE PASEO

NORTH VAN DORN STREET

VARIABLE WIDTH R/W PUBLIC STREET

EX. R/W

CURB

PROP. 21-18.58

2.0%

5.15%

17+00 16+00 15+00 14+00 13+00 12+00 11+00 10+00 20+00 19+00 18+00 25+00 24+00 23+00 22+00 21+00

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036790
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GRADING PLAN

LANDMARK MALL REDEVELOPMENT
CONCEPT 2 - BLOCK I

CITY OF ALEXANDRIA, VIRGINIA

SCALE: 1"=30' C.I.= 2' DATE: APRIL 8, 2022

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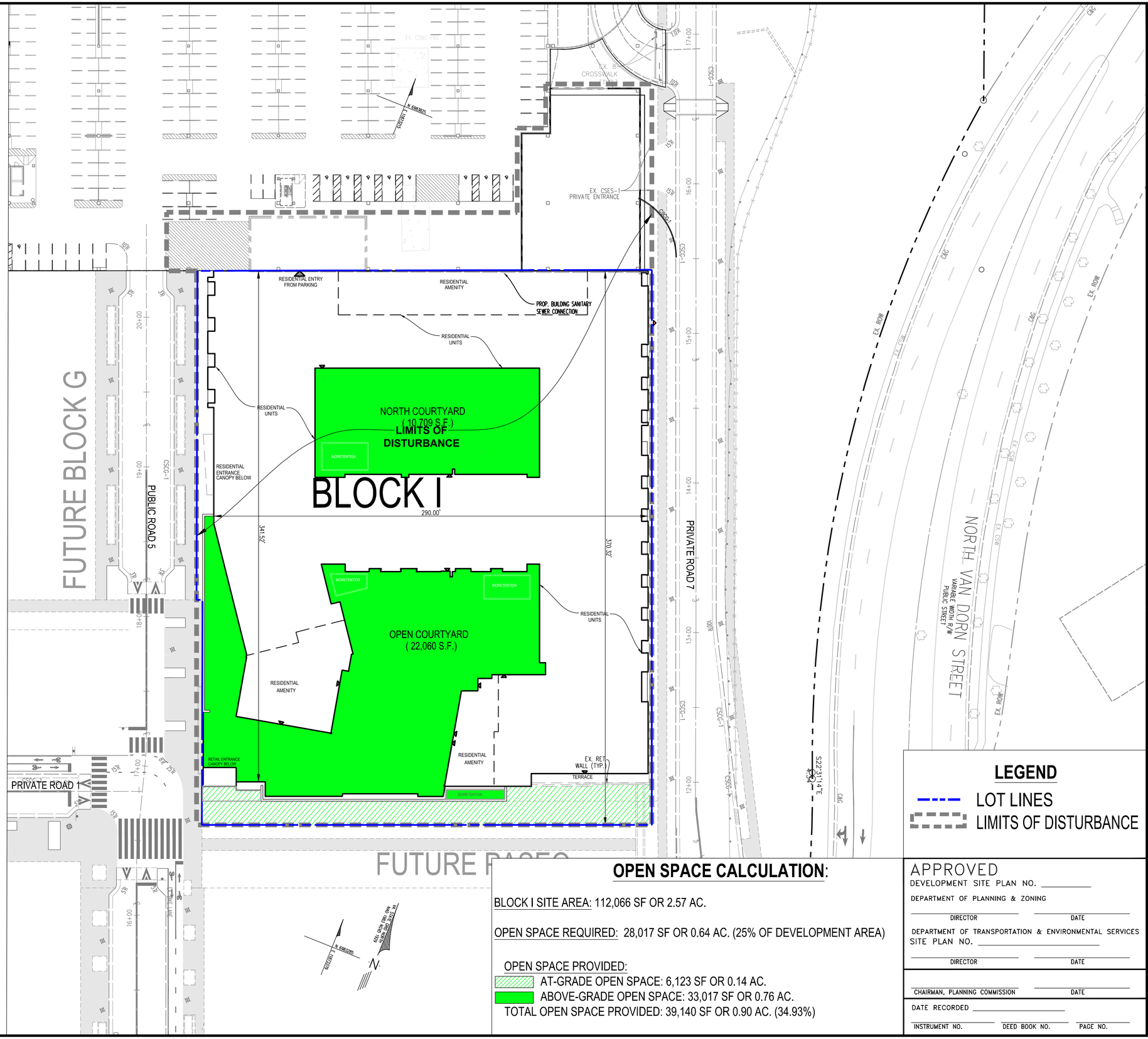
EX. CONC. PAD
EX. 8" CROSSWALK
CROSSWALK 1
N 698387E
N 698387E
EX. CSES-1
PRIVATE ENTRANCE
CSES-1
RESIDENTIAL ENTRY FROM PARKING
RESIDENTIAL AMENITY
PROP. BUILDING SANITARY SEWER CONNECTION
RESIDENTIAL UNITS
RESIDENTIAL UNITS
NORTH COURTYARD
(10,709 S.F.)
LIMITS OF DISTURBANCE
BIORETENTION
RESIDENTIAL ENTRANCE CANOPY BELOW
BLOCK I
290.00'
341.52'
370.32'
BIORETENTION
BIORETENTION
OPEN COURTYARD
(22,060 S.F.)
RESIDENTIAL UNITS
RESIDENTIAL AMENITY
RETAIL ENTRANCE CANOPY BELOW
RESIDENTIAL AMENITY
EX. RET. WALL (TYP.)
TERRACE
BIORETENTION
FUTURE BLOCK G
PUBLIC ROAD 5
PRIVATE ROAD 7
PRIVATE ROAD 1
FUTURE PASEO
EX. ROW
NORTH VAN DORN STREET
VARIABLE WIDTH R/W
PUBLIC STREET
S22°31'14"E
439.77'
N 698388E
N 698388E
N 698388E

LANDMARK MASTER OPEN SPACE CALCULATIONS

								0 SF	0 SF	0 SF			SF	AC	
CDSP 2022-00011		416,577 SF	9.56 AC	No	62,500 SF	10,000 SF	0 SF	0 SF			72,500 SF	15.00%	72,500 SF	1.66 AC	
									0 SF	-					
		60,360 SF	1.39 AC	No					0 SF	-	0 SF			0.00 AC	
CDSP 2021-00013		99,982 SF	2.30 AC	No	2,570 SF	24,677 SF	-525 SF		0 SF	-	26,722 SF	26.73%		0.00 AC	525 SF transfer to Block G
		22,739 SF	0.52 AC	Yes	0 SF	0 SF	0 SF	22,739 SF	0 SF	0.52	22,739 SF	0	22,739 SF	0.52 AC	
CDSP 2021-00013		55,393 SF	1.27 AC	No	1,645 SF	6,785 SF	525 SF		5,320 SF	-	14,275 SF	25.77%		0.00 AC	525 SF transfer from Block E, 5,320 SF transfer from Block N
		89,320 SF	2.05 AC	No				-	0 SF	-	0 SF			0.00 AC	
CDSP 2021-00014		112,066 SF	2.57 AC	No	6,123 SF	33,017 SF	0 SF	-	0 SF	-	39,140 SF	34.93%	39,140 SF	0.90 AC	
		80,597 SF	1.85 AC	No				-	0 SF	-	0 SF			0.00 AC	
CDSP 2021-00015		110,365 SF	2.53 AC	No	4,502 SF	23,396 SF	0 SF	-	0 SF	-	27,898 SF	25.28%	27,898 SF	0.64 AC	
		133,629 SF	3.07 AC	No				-	0 SF	-	0 SF			0.00 AC	
		120,815 SF	2.77 AC	No				-	0 SF	-	0 SF			0.00 AC	
		17,699 SF	0.41 AC	Yes	0 SF	0 SF	0 SF	17,699 SF	-5,320 SF	0.28	12,379 SF	69.94%	12,379 SF	0.28 AC	5,320 SF transfer to Block G
		114,050 SF	2.62 AC	Yes	0 SF	0 SF	0 SF	114,050 SF	0 SF	2.61	114,050 SF	100.00%	114,050 SF	2.62 AC	
		14,581 SF	0.33 AC	Yes	0 SF	0 SF	0 SF	14,581 SF	0 SF	0.33	14,581 SF	100.00%	14,581 SF	0.33 AC	
		10,179 SF	0.23 AC	Yes	0 SF	0 SF	0 SF	10,179 SF	0 SF	0.23	10,179 SF	100.00%	10,179 SF	0.23 AC	
			0.00 AC	No	0 SF	0 SF	0 SF	-	0 SF	-	0 SF	0	0 SF	0.00 AC	
										3.98			313,466 SF	7.20 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

- LOT LINES
- LIMITS OF DISTURBANCE
- OPEN SPACE PROVIDED FOR RESPECTIVE BLOCKS
- PUBLICLY ACCESSIBLE OPEN SPACE

HENRY G. SHIRLEY MEMORIAL HIGHWAY
VARIABLE WIDTH PUBLIC STREET

VA STATE ROAD NORTH

TERRACE PARK

BLOCK A/B
BLOCK C
BLOCK D
BLOCK E
BLOCK F
BLOCK G
BLOCK H
BLOCK I
BLOCK J
BLOCK K
BLOCK L
BLOCK M
BLOCK N
BLOCK Q

PUBLIC ROAD (R.O.W)
PRIVATE ROAD
PASEO

NORTH VAN DORN STREET
VARIABLE WIDTH PUBLIC STREET

VA STATE ROAD NORTH

SOUTH WALKER STREET

DUKE STREET
ROUTE 236
VARIABLE WIDTH PUBLIC STREET

N

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DEPARTMENT OF PLANNING & ZONING
DIRECTOR _____ DATE _____
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
DIRECTOR _____ DATE _____
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CLAYTON C. TOCK
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04/08/2022

MASTER OPEN SPACE PLAN
LANDMARK MALL REDEVELOPMENT
CONCEPT 2 - BLOCK I
CITY OF ALEXANDRIA, VIRGINIA

SCALE: 1"=100' C.I.= N/A DATE: APRIL 8, 2022

SHEET 13 OF 51

FILE No. DSUP-13079

Urban, Ltd. - J:_JOBS\landmarkmall\DSUP\Block-I\concept 2\13079-07-MASTER OPEN SPACE.dwg [MASTER OPEN SPACE] April 08, 2022 - 12:54pm yelosri

STUDY POINT "1"

STUDY POINT "2"

UNDETAINED TO STUDY POINT 1 DA = 8.24 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

T.M #047.02-03-11
LOT 602
1,789,430 S.F.
41.0796 ACRES

T.M #047.02-03-10
LOT 601
452,443 S.F.
10.3867 ACRES

HENRY G. SHIRLEY MEMORIAL HIGHWAY

LANDMARK MALL

DUKE STREET

NORTH VAN DORN STREET

SOUTH VAN DORN STREET

HOLMES RUN PARKWAY

sears

macy's

SCALE: 1"=100'

0' 50' 100' 200'

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	REVISIONS DESCRIPTION

PLAN DATE
11-19-2021
04-08-2022

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COMMONWEALTH OF VIRGINIA
CLAYTON C. TOCK
036780
PROFESSIONAL ENGINEER
04/08/2022

SWM PRE DEVELOPMENT PLAN

LANDMARK MALL REDEVELOPMENT CONCEPT 2 - BLOCK I

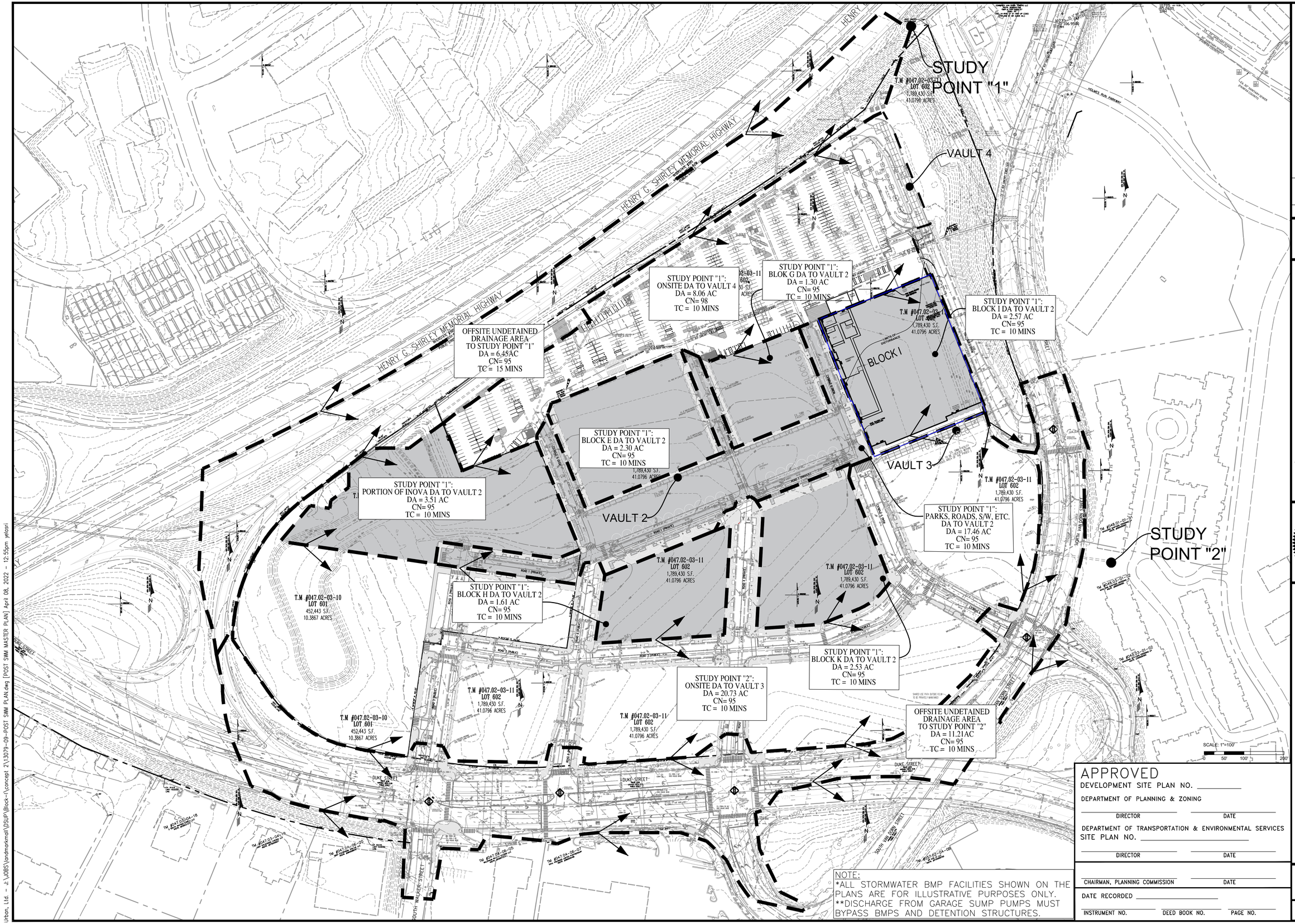
CITY OF ALEXANDRIA, VIRGINIA

SCALE: 1"=100' C.I.= 2' DATE: APRIL 8, 2022

SHEET 14 OF 51 064 OF 146

FILE No. DSUP-13079

Urban, Ltd. - J:\JOBS\landmarkmall\DSUP\Block-1\concept 2\13079-08-PRE SWM PLAN.dwg [SWM PRE] April 08, 2022 - 12:54pm yelosri



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.

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CLAYTON C. TOCK
Lic. No. 036790
04/08/2022
PROFESSIONAL ENGINEER

SWM POST DEVELOPMENT PLAN
LANDMARK MALL REDEVELOPMENT
CONCEPT 2 - BLOCK I
CITY OF ALEXANDRIA, VIRGINIA

SCALE: 1"=100' C.I.= 2' DATE: APRIL 8, 2022

SHEET 15 OF 51

FILE No. DSUP-13079

Urban, Ltd. - J:\JOBS\landmarkmall\DSUP\Block-I\concept 2\13079-09-POST SWM PLAN.dwg [POST SWM MASTER PLAN] April 08, 2022 - 12:55pm yelasri

SWM PRE - Study Point "1"

SWM PRE OFFSITE Undetained Runoff Calculations

Curve Number Calculations

Area (ac)	CN	Description
4.880	98	Paved parking, HSG D
3.360	80	>75% Grass cover, Good, HSG D
8.240	91	Weighted Average
3.360		40.78% Pervious Area
4.880		59.22% 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 = 16.03 cfs @ 12.15 hrs, Volume= 50,067 cf, Depth>1.67"

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 = 20.03 cfs @ 12.15 hrs, Volume= 63,254 cf, Depth>2.11"

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 = 32.58 cfs @ 12.15 hrs, Volume= 117,174 cf, Depth>3.92"

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 = 1,549,865 sf, 45.22% Impervious, Inflow Depth >1.44" for 1-yr event
Inflow = 66.27 cfs @ 12.10 hrs, Volume= 186,226 cf
Primary = 66.27 cfs @ 12.10 hrs, Volume= 186,226 cf, Atten= 0%, Lag= 0.0 min
Primary outflow = Inflow, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs

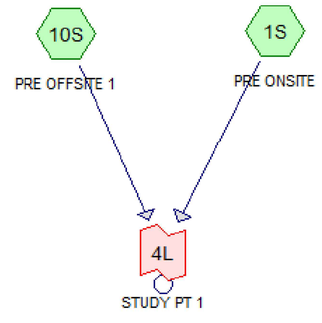
2 Year Flow Calculations

Inflow Area = 1,549,865 sf, 45.22% Impervious, Inflow Depth >1.86" for 2-yr event
Inflow = 84.95 cfs @ 12.10 hrs, Volume= 240,188 cf
Primary = 84.95 cfs @ 12.10 hrs, Volume= 240,188 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 = 1,549,865 sf, 45.22% Impervious, Inflow Depth > 3.60" for 10-yr event
Inflow = 145.10 cfs @ 12.10 hrs, Volume= 465,520 cf
Primary = 145.10 cfs @ 12.10 hrs, Volume= 465,520 cf, Atten= 0%, Lag= 0.0 min
Primary outflow = Inflow, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs

PRE-DEVELOPMENT HYDROCAD MODEL - Study Point "1"



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DIRECTOR _____ DATE _____
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04/08/2022

SWM COMPS & NARRATIVE
LANDMARK MALL REDEVELOPMENT
CONCEPT 2 - BLOCK I
CITY OF ALEXANDRIA, VIRGINIA
DATE: APRIL 8, 2022
C.I.= N/A
SCALE: N/A

SHEET 16 OF 51

FILE No. DSUP-13079

Urban, Ltd. - J:\JOBS\landmarkmall\DSUP\Block-1\concept 2\13079-10-SWM COMPS & NARRATIVE.dwg [PRE-DEV] April 08, 2022 - 12:55pm yelosri

SWM POST - Study Point "1"

SWM POST OFFSITE Undetained Runoff Calculations

Curve Number Calculations

Area (ac)	CN	Description
6.449	95	Urban commercial, 85% imp, HSG D
0.967		15.00% Pervious Area
5.482		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 = 14.72 cfs@ 12.15 hrs, Volume= 47,538 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 = 17.82 cfs@ 12.15 hrs, Volume= 58,407 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 = 27.18 cfs@ 12.15 hrs, Volume= 101,915 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 Block I DETAINED (VAULT #2) Runoff Calculations

Curve Number Calculations

Area (ac)	CN	Description
2.570	95	Urban commercial, 85% imp, HSG D
0.386		15.00% Pervious Area
2.184		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 = 6.98 cfs@ 12.08 hrs, Volume= 18,970 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 = 8.43 cfs@ 12.08 hrs, Volume= 23,306 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 = 12.70 cfs@ 12.08 hrs, Volume= 40,668 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 Block G DETAINED (VAULT #2) Runoff Calculations

Curve Number Calculations

Area (ac)	CN	Description
1.295	95	Urban commercial, 85% imp, HSG D
0.194		15.00% Pervious Area
1.101		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 = 3.52 cfs@ 12.08 hrs , Volume= 9,559 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 = 4.25 cfs@ 12.08 hrs , Volume= 11,744 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 = 6.40 cfs@ 12.08 hrs , Volume= 20,492 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 Block E DETAINED (VAULT #2) Runoff Calculations

Curve Number Calculations

Area (ac)	CN	Description
2.300	95	Urban commercial, 85% imp, HSG D
0.345		15.00% Pervious Area
1.955		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 = 6.25 cfs@ 12.08 hrs, Volume= 16,977 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 = 7.54 cfs@ 12.08 hrs, Volume= 20,858 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 = 11.36 cfs@ 12.08 hrs, Volume= 36,395 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 PORTION OF INOVA DETAINED (VAULT #2) Runoff Calculations

Curve Number Calculations

Area (ac)	CN	Description
3.510	95	Urban commercial, 85% imp, HSG D
0.527		15.00% Pervious Area
2.983		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 = 9.53 cfs @ 12.08 hrs, Volume= 25,909 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 = 11.51 cfs @ 12.08 hrs, Volume= 31,831 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 = 17.34 cfs @ 12.08 hrs, Volume= 55,542 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 Block H DETAINED (VAULT #2) Runoff Calculations

Curve Number Calculations

Area (ac)	CN	Description
1.610	95	Urban commercial, 85% imp, HSG D
0.242		15.00% Pervious Area
1.368		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 = 4.37 cfs@ 12.08 hrs, Volume= 11,884 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 = 5.28 cfs@ 12.08 hrs, Volume= 14,600 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 = 7.95 cfs@ 12.08 hrs, Volume= 25,477 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 Block K DETAINED (VAULT #2) Runoff Calculations

Curve Number Calculations

Area (ac)	CN	Description
2.530	95	Urban commercial, 85% imp, HSG D
0.380		15.00% Pervious Area
2.151		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 = 6.87 cfs@ 12.08 hrs, Volume= 18,675 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 = 8.30 cfs@ 12.08 hrs, Volume= 22,943 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 = 12.50 cfs@ 12.08 hrs, Volume= 40,035 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 Parks, Roads, S/W ,etc. DETAINED (VAULT #2) Runoff Calculations

Curve Number Calculations

Area (ac)	CN	Description
3.645	95	Urban commercial, 85% imp, HSG D
0.547		15.00% Pervious Area
3.098		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 = 9.90 cfs@ 12.08 hrs, Volume= 26,905 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 = 11.96 cfs@ 12.08 hrs, Volume= 33,055 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 = 18.01 cfs@ 12.08 hrs, Volume= 57,678 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"

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CONCEPT 2 - BLOCK I
CITY OF ALEXANDRIA, VIRGINIA
DATE: APRIL 8, 2022
C.I.= N/A
SCALE: N/A

SHEET 17 OF 51

FILE No.
DSUP-13079

Urban, Ltd. – J:\JOBS\landmarkmall\DSUP\Block-I\concept 2\13079-10-SWM COMPS & NARRATIVE.dwg [POST-DEV] April 08, 2022 – 12:55pm yelosri

SWM POST - Study Point "1"

POST-DEVELOPMENT HYDROCAD MODEL - Study Point "1"

SWM POST ONSITE Ex. Garage 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 = 1,392,570 sf, 88.78% Impervious, Inflow Depth >2.09" for 1-yr event
Inflow = 39.40 cfs @ 12.18 hrs, Volume= 242,361 cf
Primary = 39.40 cfs @ 12.18 hrs, Volume= 242,361 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 = 1,392,570 sf, 88.78% Impervious, Inflow Depth >2.55" for 2-yr event
Inflow = 52.77 cfs @ 12.21 hrs, Volume= 296,122 cf
Primary = 52.77 cfs @ 12.21 hrs, Volume= 296,122 cf, Atten= 0%, Lag= 0.0 min
Primary outflow = Inflow, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs

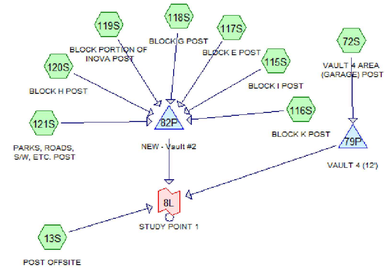
10 Year Flow Calculations

Inflow Area = 1,392,570 sf, 88.78% Impervious, Inflow Depth >4.39" for 10-yr event
Inflow = 118.46 cfs @ 12.15 hrs, Volume= 509,764 cf
Primary = 118.46 cfs @ 12.15 hrs, Volume= 509,764 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"

$Q_{(Developed)=}$	39.40	cfs
$Q_{(Pre\text{-}Developed)=}$	66.27	cfs
$RV_{(Pre\text{-}Developed)=}$	4.28	ac-ft
$RV_{(Developed)=}$	5.56	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 ($Q_{Pre\text{-}Developed}$ x RV $_{Pre\text{-}Developed}$)/RV $_{Developed}$
39.40	≤	40.81



VAULT #2

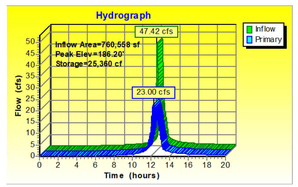
1 YEAR EVENT SUMMARY

Inflow Area = 760,558 sf 85.00% 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= 186.20'@ 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=186.20' (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)



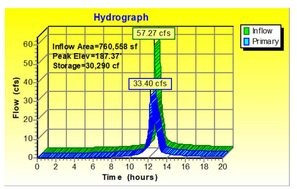
2 YEAR EVENT SUMMARY

Inflow Area = 760,558 sf, 85.00% 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= 187.37' @ 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=187.37' (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)



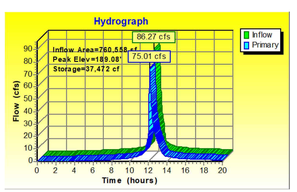
10 YEAR EVENT SUMMARY

Inflow Area = 760,558 sf, 85.00% 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= 189.08' @ 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=189.08' (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

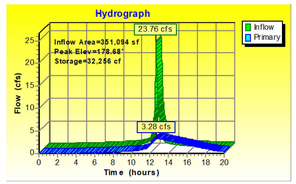
1 YEAR EVENT SUMMARY

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 = 3.28 cfs @ 12.67 hrs, Volume= 66,871 cf, Atten= 86%, Lag= 35.2 min
Primary = 3.28 cfs @ 12.67 hrs, Volume= 66,871 cf

Routing by Stor-Ind method, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Peak Elev= 178.68' @ 12.67 hrs Surf.Area= 4,200 sf Storage= 32,256 cf

Plug-Flow detention time=112.5 min calculated for 66,871 cf (98% of inflow)
Center-of-Mass det. time=101.9 min (834.7 - 732.9)

Primary OutFlow Max=3.28 cfs @ 12.67 hrs HW=178.68' (Free Discharge)
└1=Culvert (Passes 3.28 cfs of 99.40 cfs potential flow)
├2=Orifice/Grate (Orifice Controls 3.28 cfs @ 13.12 fps)
├3=Orifice/Grate (Orifice Controls 0.00 cfs @ 0.03 fps)
└4=Orifice/Grate (Controls 0.00 cfs)



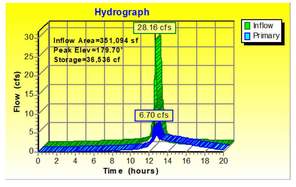
2 YEAR EVENT SUMMARY

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 = 6.70 cfs @ 12.56 hrs, Volume= 80,392 cf, Atten= 76%, Lag= 28.4 min
Primary = 6.70 cfs @ 12.56 hrs, Volume= 80,392 cf

Routing by Stor-Ind method, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Peak Elev= 179.70' @ 12.56 hrs Surf.Area= 4,200 sf Storage= 36,536 cf

Plug-Flow detention time=108.4 min calculated for 80,392 cf (98% of inflow)
Center-of-Mass det. time=97.5 min (827.0 - 729.5)

Primary OutFlow Max=6.70 cfs @ 12.56 hrs HW=179.70' (Free Discharge)
└1=Culvert (Passes 6.70 cfs of 109.02 cfs potential flow)
├2=Orifice/Grate (Orifice Controls 3.50 cfs @ 14.00 fps)
├3=Orifice/Grate (Orifice Controls 3.20 cfs @ 3.49 fps)
└4=Orifice/Grate (Controls 0.00 cfs)



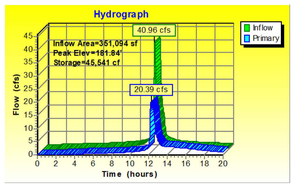
10 YEAR EVENT SUMMARY

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 = 20.39 cfs @ 12.28 hrs, Volume= 132,914 cf, Atten= 50%, Lag= 11.6 min
Primary = 20.39 cfs @ 12.28 hrs, Volume= 132,914 cf

Routing by Stor-Ind method, Time Span= 0.00-20.00 hrs, dt= 0.01 hrs
Peak Elev= 181.84' @ 12.28 hrs Surf.Area= 4,200 sf Storage= 45,541 cf

Plug-Flow detention time=88.5 min calculated for 132,914 cf (97% of inflow)
Center-of-Mass det. time=73.7 min (792.9 - 719.2)

Primary OutFlow Max=20.39 cfs @ 12.28 hrs HW=181.84' (Free Discharge)
└1=Culvert (Passes 20.39 cfs of 126.90 cfs potential flow)
├2=Orifice/Grate (Orifice Controls 3.92 cfs @ 15.67 fps)
├3=Orifice/Grate (Orifice Controls 7.25 cfs @ 7.91 fps)
└4=Orifice/Grate (Orifice Controls 9.22 cfs @ 6.15 fps)



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

No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
11-19-2021
04-08-2022

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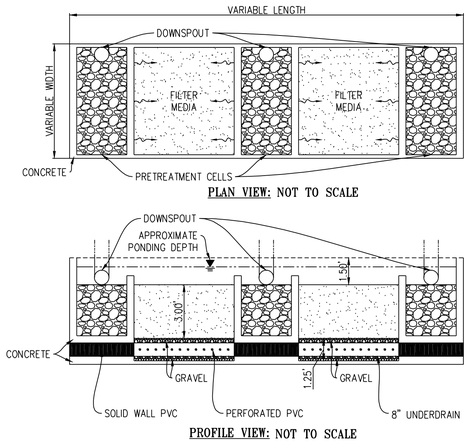
CHRISTOPHER C. CLARKE
Lic. No. 036790
PROFESSIONAL ENGINEER
04/08/2022

SWM COMPS & NARRATIVE
LANDMARK MALL REDEVELOPMENT
CONCEPT 2 - BLOCK I
CITY OF ALEXANDRIA, VIRGINIA
DATE: APRIL 8, 2022
C.I.= N/A
SCALE: N/A

SHEET 18 OF 51
FILE No. DSUP-13079

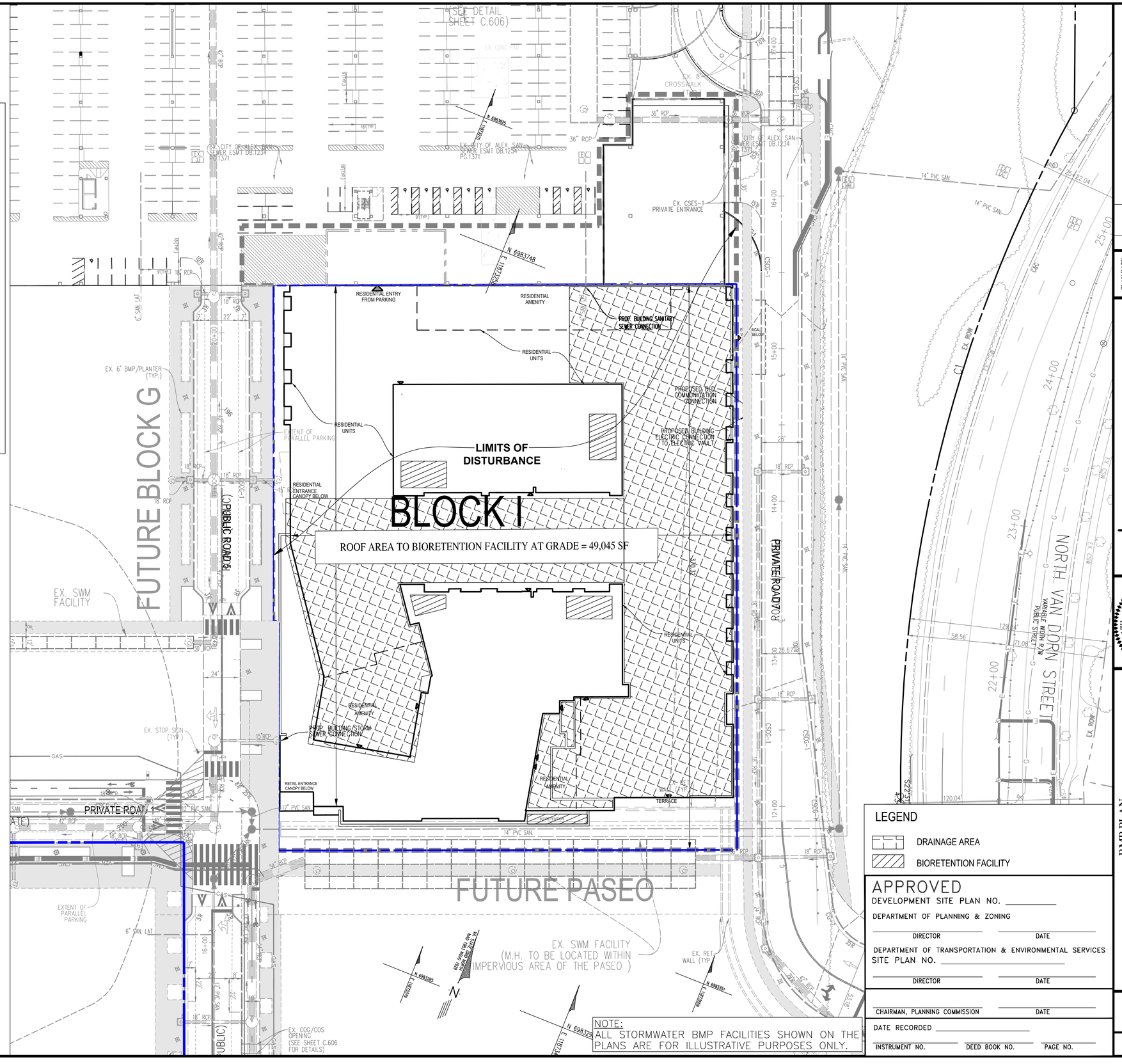
Urban, Ltd. - k:_OBS\landmarkmall\DSUP\Block-1\concept 2\13079-10-SWM COMPS & NARRATIVE.dwg [POST-DEV (2)] April 08, 2022 - 12:55pm ylossri

BIORETENTION FACILITY



PLAN VIEW: NOT TO SCALE

PROFILE VIEW: NOT TO SCALE



NOTE:
ALL STORMWATER BMP FACILITIES SHOWN ON THE PLANS ARE FOR ILLUSTRATIVE PURPOSES ONLY.

LEGEND

- DRAINAGE AREA
- BIORETENTION FACILITY

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 _____

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COMMONWEALTH OF VIRGINIA
CLAYTON C. TOCK
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04/08/2022
PROFESSIONAL ENGINEER

BMP PLAN

LANDMARK MALL REDEVELOPMENT CONCEPT 2 - BLOCK I

CITY OF ALEXANDRIA, VIRGINIA

SCALE: N/A C.I.= N/A DATE: APRIL 8, 2022

SHEET 19 OF 51

FILE No. DSUP-13079

Urban, Ltd. - J:\JOBS\landmarkmall\DSUP\Block-I\concept 2\13079-11-BMP PLAN.dwg [LAYOUT] April 08, 2022 - 12:55pm yelasri

Post-Development Project (Treatment Volume and Loads)

Enter Total Disturbed Area *(acres)* → 44.17

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 requriement 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
Final Post-Development Treatment Volume (cubic feet)	166,953
Final Post-Development TP Load (lb/yr)	**104.90**
Final Post-Development TP Load per acre (lb/acre/yr)	2.09

Post-ReDevelopment Treatment Volume (acre-ft)	3.8327
Post-ReDevelopment Treatment Volume (cubic feet)	166,953
Post-ReDevelopment Load (TP) (lb/yr)*	**104.90**
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**

Post-Development Treatment Volume (acre-ft)	--
Post-Development Treatment Volume (cubic feet)	--
Post-Development TP Load (lb/yr)	--
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	

1.b. Vegetated Roof #2 (Spec #5)	60		15.53		32,133	21,422	53,555	0		33.61	20.17	13.44	
TREEWELLS & BIORETENTION*	80		5.92	0	16,332	4,083	20,415	50	0.00	12.81	11.53	1.28	
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	

* 1.13 AC. BLOCK I ROOF TO BIORETENTION

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)	29.51	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)	48,465	0	0	0	0	48,465
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)	42.16	0.00	0.00	0.00	0.00	42.16
TP LOAD REMAINING (lb/yr)	62.73	0.00	0.00	0.00	0.00	62.73
NITROGEN LOAD REDUCTION ACHIEVED (lb/yr)	266.03	0.00	0.00	0.00	0.00	266.03

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)	42.16
TP LOAD REMAINING (lb/yr):	62.73
REMAINING TP LOAD REDUCTION REQUIRED (lb/yr):	**0.00** **

**** TARGET TP REDUCTION EXCEEDED BY ~~21.18~~ LB/YEAR **** 0.2 LB/YEAR

Total Nitrogen (For Information Purposes)

POST-DEVELOPMENT LOAD (lb/yr)	750.41
NITROGEN LOAD REDUCTION ACHIEVED (lb/yr)	266.03
REMAINING POST-DEVELOPMENT NITROGEN LOAD (lb/yr)	484.38

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 PHOSPHOROUS LOAD REDUCTION REQUIRED BY THE VRRM WILL BE SATISFIED WITH THE UTILIZATION OF THREE (3) STORMWATER BEST MANAGEMENT PRACTICE (BMP) FACILITIES IN CONFORMANCE WITH THE STORMWATER BMP CLEARINGHOUSE WEBSITE. THE THREE (3) BMP FACILITIES PROPOSED ARE:

- VEGETATED ROOF (LEVEL 2)
- URBAN BIORETENTION – TREEWELLS (LEVEL 2), BIORETENTION FACILITY (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 42.16 LBS/YEAR, THEREFORE THE TOTAL PHOSPHOROUS LOAD REDUCTION IS EXCEEDED BY 0.2 LBS/YEAR.

NOTE:
ALL STORMWATER BMP FACILITIES AND COMPUTATIONS SHOWN ON THE PLANS ARE FOR ILLUSTRATIVE PURPOSES ONLY.

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CONCEPT 2 - BLOCK I
CITY OF ALEXANDRIA, VIRGINIA
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SCALE: N/A

FILE No. DSUP-13079

Urban, Ltd. – J:\JOBS\landmarkmall\DSUP\Block-I\concept 2\13079-12-BMP COMPS & NARRATIVE.dwg [Proposed] April 08, 2022 – 12:55pm yelasri

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 FROM MASTER SWM PLAN (DSP#2021-00017))

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	29.51 ACRES	0.00 ACRES	29.51 ACRES
Off-Site Treated	0 ACRES	0 ACRES	0 ACRES
Total Treated	29.51 ACRES		
Any On-Site Disconnected by a Vegetated Buffer (25 ft)	0 ACRES		
Total On-Site Treated or Disconnected			29.51 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	15.53 ACRES	15.53 ACRES	60 %
BIORETENTION	1.13 ACRES	1.13 ACRES	50 %

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 = 29.51 AC OR 1,285,456 SF

TOTAL SITE WQV PROPOSED = 53,555 CF + 20,415 CF + 27,795 CF = 101,765 CF (SEE SHEET 20 FOR TOTAL BMP TREATMENT VOLUME VALUES)

NOTE:
ALL STORMWATER BMP FACILITIES AND COMPUTATIONS SHOWN ON THE PLANS ARE FOR ILLUSTRATIVE PURPOSES ONLY.

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
11-19-2021
04-08-2022
-
-
-
-
-
-
#

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COMMONWEALTH OF VIRGINIA
CLAYTON C. TOCK
Lic. No. 036790
04/08/2022
PROFESSIONAL ENGINEER

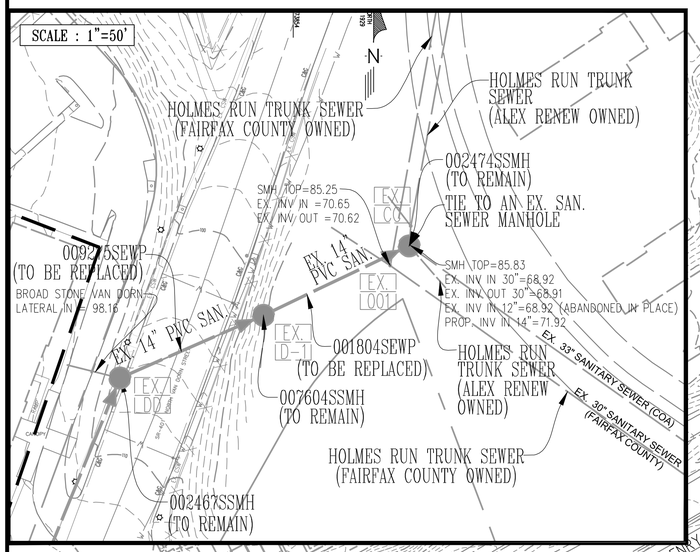
WQVD BMP DATA BLOCKS
LANDMARK MALL REDEVELOPMENT
CONCEPT 2 - BLOCK I
CITY OF ALEXANDRIA, VIRGINIA
SCALE: N/A C.I.= N/A DATE: APRIL 8, 2022

SHEET 21 OF 51
FILE No. DSUP-13079

Urban, Ltd. - J:\JOBS\landmarkmall\DSUP\Block-I\concept 2\13079-12-BMP COMPS & NARRATIVE.dwg [WQVD] April 08, 2022 - 12:55pm yelasri

NOTES

1. RESIDENTIAL AREA SANITARY FLOW IS COMPUTED AT THE RATE OF 300 GPD PER UNIT
2. EACH RESIDENTIAL UNIT IS BASED ON A 1,000 G.S.F. FLOOR PLATE
3. RETAIL AND OFFICE AREA SANITARY FLOW IS COMPUTED AT THE RATE OF 200 GPD PER 1,000 S.F. OF NET FLOOR AREA
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. INSUFFICIENT PIPE CAPACITIES OF EXISTING SANITARY SEWER ARE SHOWN ON SHEET 23. THOSE PIPES ARE SHOWN TO BE REMOVED AND REPLACED WITH APPROPRIATELY SIZED PIPES ON SHEET 23.
9. HGL ANALYSIS WILL BE PROVIDED WITH THE FINAL INFRASTRUCTURE SITE PLAN.
10. THE PROJECT SITE IS LOCATED WITHIN THE HOLMES RUN TRUNK SEWER SHED. THE PROJECT SITE IS NOT LOCATED IN THE COMBINED SEWER SYSTEM AREA.



NOTES:

- CONTRACTOR SHALL ENSURE ALL DISCHARGES ARE IN ACCORDANCE WITH CITY OF ALEXANDRIA CODE TITLE 5, CHAPTER 6, ARTICLE B.
- 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.

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
11-19-2021
04-08-2022

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COMMONWEALTH OF VIRGINIA — CLAYTON L. TAYLOR — LIC. NO. 036798 — PROFESSIONAL ENGINEER — 04/08/2022

SANITARY SEWER PLAN

LANDMARK MALL REDEVELOPMENT
CONCEPT 2 - BLOCK I
CITY OF ALEXANDRIA, VIRGINIA

SCALE: 1"=100' C.I.= 2' DATE: APRIL 8, 2022

SHEET 22 OF 51 078 OF 150

FILE No. DSUP-13079

Urban, Ltd. - J:\JOBS\landmarkmall\DSUP\Block-1\concept 2\13079-07-SAN PLAN & CMPS.dwg [SAN01] April 08, 2022 - 12:56pm yelosri

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.	565,525	200GPD/1,000 S.F.		300GPD/UNIT	-	113,105
	B	200GPD/1,000 S.F.	107,239	200GPD/1,000 S.F.	-	300GPD/UNIT	-	21,448
	C	200GPD/1,000 S.F.	88,085	200GPD/1,000 S.F.	-	300GPD/UNIT	-	17,617
Total			760,849		-		-	152,170
LANDMARK	D	200GPD/1,000 S.F.	-	200GPD/1,000 S.F.	-	300GPD/UNIT	335	100,500
	E	200GPD/1,000 S.F.	131,497	200GPD/1,000 S.F.	-	300GPD/UNIT	172	77,899
	G	200GPD/1,000 S.F.	-	200GPD/1,000 S.F.	-	300GPD/UNIT	222	66,600
	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.	95,433	300GPD/UNIT	390	136,087
	J	200GPD/1,000 S.F.	52000			300GPD/UNIT	235	80,900
	K	200GPD/1,000 S.F.	-	200GPD/1,000 S.F.	28,454	300GPD/UNIT	352	111,291
	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
Total			183,497		176,887		2,516	826,877

EX. BUILDING	MULTI-FAMILY USE	200GPD/1,000 S.F.	-	200GPD/1,000 S.F.	-	300GPD/UNIT	184	55,200.00

Landmark Mall Breakdown by Manhole

	Block	Lateral #	Lateral Tie In Location	% of Block Flow	MH Flow Enters in Sanitary Computations
HOSPITAL CAMPUS	A	1	SMH W1	33.33%	W
		2	SMH V1	33.33%	V
		3	SMH L2	33.33%	L2
	B	1	SMH R	36.09%	R
		2	SMH L2	63.91%	L2
	C	1	SMH L	32.85%	L
		2	SMH K	32.85%	K
		3	SMH T	32.85%	T
	(Garage)	1	SMH S	1.45%	S
LANDMARK MALL	D	1	SMH I2	100%	I2
	E	1	SMH R	50%	R
		2	SMH EX. MM	50%	EX. MM
	G	1	BETWEEN EX.KK & EX.JJ	100%	EX. JJ
	H	1	SMH I	50%	I
		2	SMH O	50%	O
	I	1	SMH EX. II	100%	EX. II
	J	1	SMH I	100%	I
	K	1	BETWEEN E & D	100%	D
	L	1	SMH H1	100%	H1
	M	1	SMH E	100%	E

PROPOSED SANITARY SEWER DESIGN COMPUTATIONS

Project: Landmark Mall

From Point	To Point	RESIDENTIAL 300 GPD/UNIT	OFFICE/RETAIL 200 GDP/ 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	Rim Elevation	Pipe Cover
W	V	0	188508			4.0	0.15	0.15	0.23	189.77	187.39	132.42	1.80%	12	4.03	3.85	3.74	0.010	PVC		33.33% gpd from Block A	215.00	12.61
V	U	0	188508			4.0	0.15	0.30	0.47	188.18	187.39	72.26	1.10%	12	3.15	3.87	9.58	0.010	PVC		33.33% gpd from Block A	213.75	12.78
U	L	0	0			4.0	0.00	0.30	0.47	187.29	186.25	94.64	1.10%	12	3.15	3.87	9.58	0.010	PVC			213.00	12.86
L	K	0	-			4.0	0.02	0.32	0.50	186.15	184.86	117.14	1.10%	12	3.15	4.00	10.31	0.010	PVC		Flow from Block C	211.00	12.43
K	J	0	-			4.0	0.02	0.35	0.54	184.76	184.18	52.56	1.10%	12	3.15	4.08	11.05	0.010	PVC		Flow from Block C	208.50	11.87
J	I1	0	0			4.0	0.00	0.35	0.54	184.71	184.18	47.70	1.10%	12	3.15	4.08	11.05	0.010	PVC			207.25	11.27
I1	I	0	0			4.0	0.40	0.75	1.16	184.08	181.35	248.57	1.10%	12	3.15	5.09	23.82	0.010	PVC		Flow from Block D	206.00	10.96
I	H1	0	0			4.0	0.55	1.30	2.01	181.25	178.20	276.69	1.10%	12	3.15	5.92	41.30	0.010	PVC		Flow from Block J 50% Flow from Block H	200.50	9.63
H1	H	0	0			4.0	0.32	1.62	2.51	178.10	177.17	85.17	1.10%	12	3.15	6.25	51.49	0.010	PVC		Flow from Block L	196.35	9.12
H	G	0	0			4.0	0.00	1.62	2.51	177.07	175.19	170.85	1.10%	12	3.15	6.25	51.49	0.010	PVC			195.50	9.22
G	F	0	0			4.0	0.00	1.62	2.51	175.09	173.96	102.02	1.10%	12	3.15	6.25	51.49	0.010	PVC			194.80	9.86
F	E	0	0			4.0	0.00	1.62	2.51	173.86	171.82	163.39	1.25%	12	3.36	6.55	48.30	0.010	PVC			193.75	9.94
E	D	0	0			4.0	0.69	2.31	3.57	171.72	169.30	151.17	1.60%	12	3.80	7.84	60.73	0.010	PVC		Flow from Block M Flow from Block K	195.40	11.84
D	C	0	0			4.0	0.00	2.31	3.57	169.20	168.53	40.84	1.65%	12	3.86	7.93	59.81	0.010	PVC			198.50	14.65
C	B	0	0			4.0	0.44	2.74	4.24	168.43	161.89	384.95	1.70%	14	5.90	8.40	46.48	0.010	PVC		Flows from SSMH M & D	198.85	15.21
B	A	0	0			4.0	0.00	2.74	4.24	161.79	158.12	215.56	1.70%	14	5.90	8.40	46.48	0.010	PVC			174.25	6.23
A	002506SSMH	0	0			4.0	1.17	3.92	6.06	158.02	153.71	215.56	2.00%	14	6.40	9.73	61.15	0.010	PVC			181.84	11.91
BLOCK C	L	0	28936			4.0	0.02	0.02	0.04	187.47	186.35	45.00	2.50%	8	1.61	2.46	1.44	0.010	PVC		32.85% gpd from Block C	211.00	11.76
BLOCK C	K	0	28936			4.0	0.02	0.02	0.04	186.08	184.96	45.00	2.50%	8	1.61	2.46	1.44	0.010	PVC		32.85% gpd from Block C	208.50	11.21
BLOCK D	I2	335				4.0	0.40	0.40	0.62	186.23	185.60	25.00	2.50%	12	4.75	5.71	8.47	0.010	PVC			205.25	9.51
I2	I1	0	0			4.0	0.00	0.40	0.62	185.50	184.28	48.93	2.50%	12	4.75	5.71	8.47	0.010	PVC			206.00	10.25
BLOCK J	I	235	52000			4.0	0.32	0.32	0.50	182.70	181.45	50.00	2.50%	6	0.75	5.66	43.29	0.010	PVC			200.50	8.90
BLOCK H	I	175	21000			4.0	0.23	0.23	0.35	182.70	181.45	50.00	2.50%	6	0.75	5.22	30.34	0.010	PVC		50% Flow from Block H	200.50	8.90
BLOCK L	H1	260	11000			4.0	0.32	0.32	0.50	179.55	178.30	50.00	2.50%	6	0.75	5.61	42.91	0.010	PVC			196.35	8.40
BLOCK M	E	200	0			4.0	0.24	0.24	0.37	173.17	171.92	50.00	2.50%	6	0.75	5.23	32.11	0.010	PVC			195.40	11.11
BLOCK K	D	352	28454			4.0	0.45	0.45	0.69	170.65	169.40	50.00	2.50%	8	1.61	6.10	27.65	0.010	PVC			198.50	13.92
BLOCK E	R	86	65749			4.0	0.16	0.16	0.24	183.95	182.70	50.00	2.50%	8	1.61	4.49	9.68	0.010	PVC		50% Flow from Block E	204.00	10.02
BLOCK B	R	0	38703			4.0	0.03	0.03	0.05	183.33	182.70	25.00	2.50%	8	1.61	2.90	1.92	0.010	PVC		36.09% gpd from Block B	204.00	10.34
R	Q	0	0			4.0	0.19	0.19	0.29	182.60	179.02	204.83	1.75%	12	3.97	3.97	4.70	0.010	PVC		Flow from Block B 50% Flow from Block E	204.00	10.70
Q	P	0	0			4.0	0.02	0.21	0.33	178.92	177.31	91.68	1.75%	12	3.97	4.09	5.31	0.010	PVC		Flow from Block C	211.00	16.04
P	O	0	0			4.0	0.00	0.21	0.33	177.21	175.43	143.07	1.25%	12	3.36	3.63	6.28	0.010	PVC			209.00	15.89
O	N	0	0			4.0	0.23	0.44	0.68	175.33	170.63	375.50	1.25%	12	3.36	4.56	13.04	0.010	PVC		50% Flow from Block H	206.35	15.51
N	M	0	0			4.0	0.00	0.44	0.68	170.53	169.05	118.87	1.25%	12	3.36	4.56	13.04	0.010	PVC			201.50	15.48
M	C	0	0			4.0	0.00	0.44	0.68	168.95	168.63	11.50	2.75%	12	4.98	6.01	8.79	0.010	PVC			199.00	15.03
BLOCK C	T		28936			4.0	0.02	0.02	0.04	181.73	180.70	37.50	2.75%	8	1.69	2.46	1.37	0.010	PVC		32.85% gpd from Block C	209.50	13.88
T	S		0			4.0	0.00	0.02	0.04	180.60	179.60	100.23	1.00%	10	1.85	1.81	1.25	0.010	PVC			211.25	15.33
S	Q		1277			4.0	0.00	0.02	0.04	179.50	179.12	37.87	1.00%	10	1.85	1.89	1.31	0.010	PVC		1.45% gpd from Block C Garage	211.00	15.75
BLOCK H	O	175	21000			4.0	0.23	0.23	0.35	176.78	175.53	50.00	2.50%	6	0.75	5.22	30.34	0.010	PVC		50% Flow from Block H	206.35	14.79
BLOCK I	EX.II	390	95433			4.0	0.54	0.54	0.84	170.40	169.15	50.00	2.50%	10	2.92	6.32	18.65	0.010	PVC			199.00	14.30
BLOCK E	EX.MM	86	65749			4.0	0.16	0.16	0.24	181.49	180.52	38.79	2.50%	6	2.00	4.68	7.79	0.010	PVC		50% Flow from Block E	195.13	6.82
BLOCK G	EX.JJ	222	0			4.0	0.27	0.27	0.41	179.66	177.77	75.43	2.50%	6	2.00	5.43	13.32	0.010	PVC			193.99	7.17
BLOCK A & B	L2	0	257045			4.0	0.21	0.21	0.32	185.76	184.48	51.37	2.50%	8	2.00	4.88	10.28	0.010	PVC		63.91% gpd from Block B 33.33% gpd from Block A	194.40	4.32
L2	N1	0	0			4.0	0.00	0.21	0.32	184.38	182.94	95.77	1.50%	10	2.00	4.01	10.28	0.010	PVC			194.40	5.01
N1	EX.NN	0	0			4.0	0.00	0.21	0.32	182.84	181.60	82.52	1.50%	10	2.00	4.01	10.28	0.010	PVC			194.52	5.84
EX.NN	EX.MM	0	0			4.0	0.00	0.21	0.32	181.50	180.42	223.82	0.49%	10	0.99	2.18	20.79	0.013	PVC			195.04	6.77
EX.MM	EX.LL	0	0			4.0	0.16	0.36	0.56	180.39	179.52	74.55	1.17%	10	1.54	3.56	23.53	0.013	PVC		50% Flow from Block E	195.13	7.37
EX.LL	EX.KK	0	0			4.0	0.00	0.36	0.56	179.29	178.72	122.64	0.46%	10	0.96	2.53	37.53	0.013	PVC			194.89	7.80
EX.KK	EX.JJ	0	0			4.0	0.27	0.63	0.97	178.68	177.67	177.43	0.57%	10	1.07	3.15	58.56	0.013	PVC			193.70	7.51
EX.JJ	EX.II	0	0			4.0	0.00	0.63	0.97	177.59	174.74	259.55	1.10%	10	1.49	4.04	42.15	0.013	PVC		Flow from Block G	193.99	8.20
EX.II	002506SSMH	0	0			4.0	0.54	1.17	1.81	174.44	153.71	165.68	12.51%	10	5.02	11.64	23.34	0.013	PVC		Flow from Block I	193.26	9.41

EXISTING SANITARY SEWER DESIGN COMPUTATIONS

Project: Landmark Mall

From Point	To Point	RESIDENTIAL 300 GPD/UNIT	OFFICE/RETAIL 300 GDP/ 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	Rim Elevation	Pipe Cover
002506SSMH	002469SSMH	2516	1121233.00			4.0	3.92	3.92	6.06	160.03	134.41	111.27	23.03%	10	5.91	10.83	66.31	0.015	Conc.		002506SSMH	192.03	16.00
002469SSMH	007600SSMH	0				4.0	0.00	3.92	6.06	134.24	132.08	28.20	7.66%	12	5.54	7.05	70.70	0.015	Conc.		002469SSMH	148.64	7.20
007600SSMH	002468SSMH	0				4.0	0.00	3.92	6.06	129.77	119.03	221.98	4.84%	12	4.40	5.61	88.96	0.015	Conc.		007600SSMH	138.78	4.51
002468SSMH	002467SSMH	0				4.0	0.00	3.92	6.06	118.81	97.75	299.41	7.03%	12	5.31	6.76	73.78	0.015	Conc.		002468SSMH	125.91	3.55
002467SSMH	007604SSMH	184				4.0	0.22	4.14	6.40	97.45	81.35	109.44	14.71%	12	7.68	15.40	53.89	0.015	Conc.		002467SSMH	107.00	4.78
007604SSMH	002474SSMH	0				4.0	0.00	4.14	6.40	69.50	68.92	112.75	0.51%	12	1.44	1.83	288.21	0.015	Conc.		007604SSMH	92.70	11.60

PROPOSED SANITARY SEWER DESIGN COMPUTATIONS

Project: Landmark Mall

From Point	To Point	RESIDENTIAL 300 GPD/UNIT	OFFICE/RETAIL 200 GDP/ 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	Rim Elevation	Pipe Cover
002506SSMH	002469SSMH	2516	1121233			4.0	3.92	3.92	6.06	148.40	137.27	111.27	10.00%	14	14.32	17.66	27.35	0.010	PVC			192.03	21.82
002469SSMH	007600SSMH	0				4.0	0.00	3.92	6.06	137.17	134.78	28.20	8.50%	14	13.20	16.65	29.66	0.010	PVC		002506SSMH	148.64	5.73
007600SSMH	002468SSMH	0				4.0	0.00	3.92	6.06	134.68	115.81	221.98	8.50%	14	13.20	16.65	29.66	0.010	PVC		002469SSMH	138.78	2.05
002468SSMH	002467SSMH	0				4.0	0.00	3.92	6.06	115.71	91.01	299.41	8.25%	14	13.01	16.46	30.11	0.010	PVC		007600SSMH	125.91	5.10
002467SSMH	007604SSMH	184				4.0	0.22	4.14	6.40	90.91	81.60	109.44	8.50%	14	13.20	16.90	31.34	0.010	PVC		002468SSMH	107.00	8.05
007604SSMH	002474SSMH	0				4.0	0.00	4.14	6.40	81.50	71.92	112.75	8.50%	14	13.20	16.90	31.34	0.010	PVC		002467SSMH	92.70	5.60

NOTE: WHERE VELOCITIES IN SANITARY SEWER PIPES EXCEED THE MAXIMUM ALLOWABLE VELOCITY OF 10 FT/S, SPECIAL PROVISIONS SHALL BE MADE TO RESTRAIN THE PIPE TO PROTECT AGAINST DISPLACEMENT BY EROSION.

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 ________
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04-08-2022

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COMMONWEALTH OF VIRGINIA
CLAYTON C. TOCK
Lic. No. 036790
04/08/2022
PROFESSIONAL ENGINEER

SANITARY SEWER COMPUTATIONS
LANDMARK MALL REDEVELOPMENT
CONCEPT 2 - BLOCK I
CITY OF ALEXANDRIA, VIRGINIA
DATE: APRIL 8, 2022
C.I.= N/A
SCALE: N/A

SHEET 23 OF 51 | 079 OF 150
FILE No. DSUP-13079

Urban, Ltd. – J:\JOBS\landmarkmall\DSUP\Block-I\concept 2\13079-07-SAN PLAN & CMPS.dwg [Comps] April 08, 2022 – 12:56pm yelasri

HENRY G. SHIRLEY MEMORIAL HIGHWAY
INTERSTATE #395
VARIABLE WIDTH R/W
PUBLIC STREET

NORTH VAN DORN STREET
VARIABLE WIDTH
PUBLIC STREET

PEDESTRIAN ROUTE
VEHICLE ROUTE
BIKE ROUTE

LIMITS OF DISTURBANCE

BLOCK I

FUTURE BLOCK G

FUTURE PASEO

ROAD 4 (PRIVATE)
ROAD 1 (PRIVATE)
ROAD 5 (PUBLIC)
PRIVATE ROAD (TYP.)

RETAIL LOADING
RETAIL TRASH
RESIDENTIAL LOADING
RESIDENTIAL TRASH
GARAGE FOOTPRINT ABOVE
PROP. SIGNAL UNDERGROUND SIGN CONDUIT

LEGEND

- PEDESTRIAN ROUTE
- VEHICLE ROUTE
- BIKE ROUTE

APPROVED

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DEPARTMENT OF PLANNING & ZONING

_____ DIRECTOR _____ DATE

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____

_____ DIRECTOR _____ DATE

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COMMONWEALTH OF VIRGINIA
CLAYTON C. TAYLOR
LIC. No. 036700
PROFESSIONAL ENGINEER
04/08/2022

TEMPORARY PEDESTRIAN EXHIBIT

LANDMARK MALL REDEVELOPMENT
CONCEPT 2 - BLOCK I

CITY OF ALEXANDRIA, VIRGINIA

DATE: APRIL 8, 2022
SCALE: 1"=50'
C.I.= N/A

SHEET 24 OF 51

FILE No. DSUP-13079

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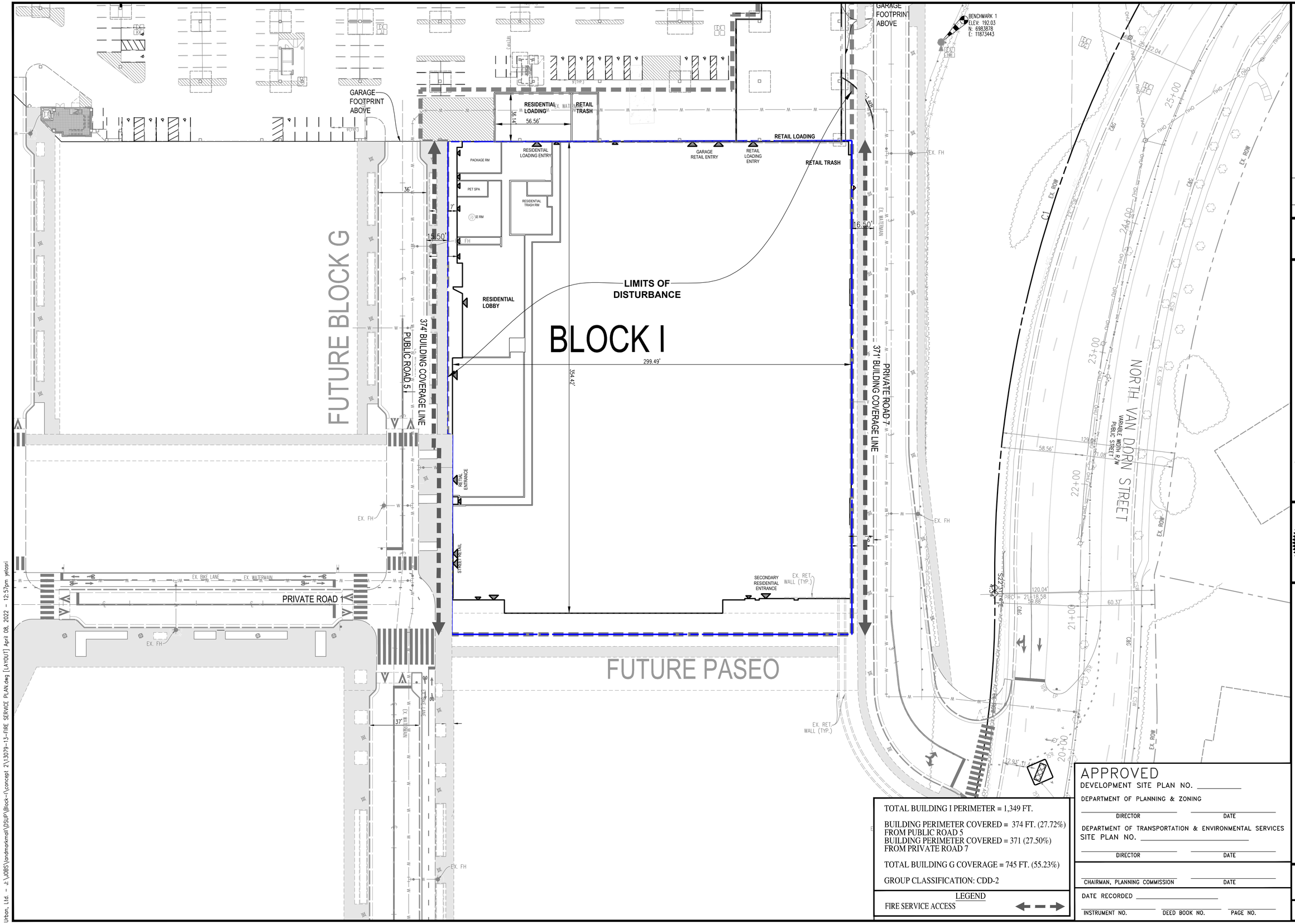

TOTAL BUILDING I PERIMETER = 1,349 FT.

BUILDING PERIMETER COVERED = 374 FT. (27.72%) FROM PUBLIC ROAD 5
BUILDING PERIMETER COVERED = 371 (27.50%) FROM PRIVATE ROAD 7

TOTAL BUILDING G COVERAGE = 745 FT. (55.23%)

GROUP CLASSIFICATION: CDD-2

LEGEND

FIRE SERVICE ACCESS

APPROVED

DEVELOPMENT SITE PLAN NO. _____

DEPARTMENT OF PLANNING & ZONING

DIRECTOR _____ DATE _____

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

SITE PLAN NO. _____

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LIC. No. 036700
PROFESSIONAL ENGINEER
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FIRE SERVICE PLAN

LANDMARK MALL REDEVELOPMENT
CONCEPT 2 - BLOCK I

CITY OF ALEXANDRIA, VIRGINIA

DATE: APRIL 8, 2022

SCALE: 1"= 30' C.I.= 2'

SHEET 25 OF 51

FILE No. DSUP-13079

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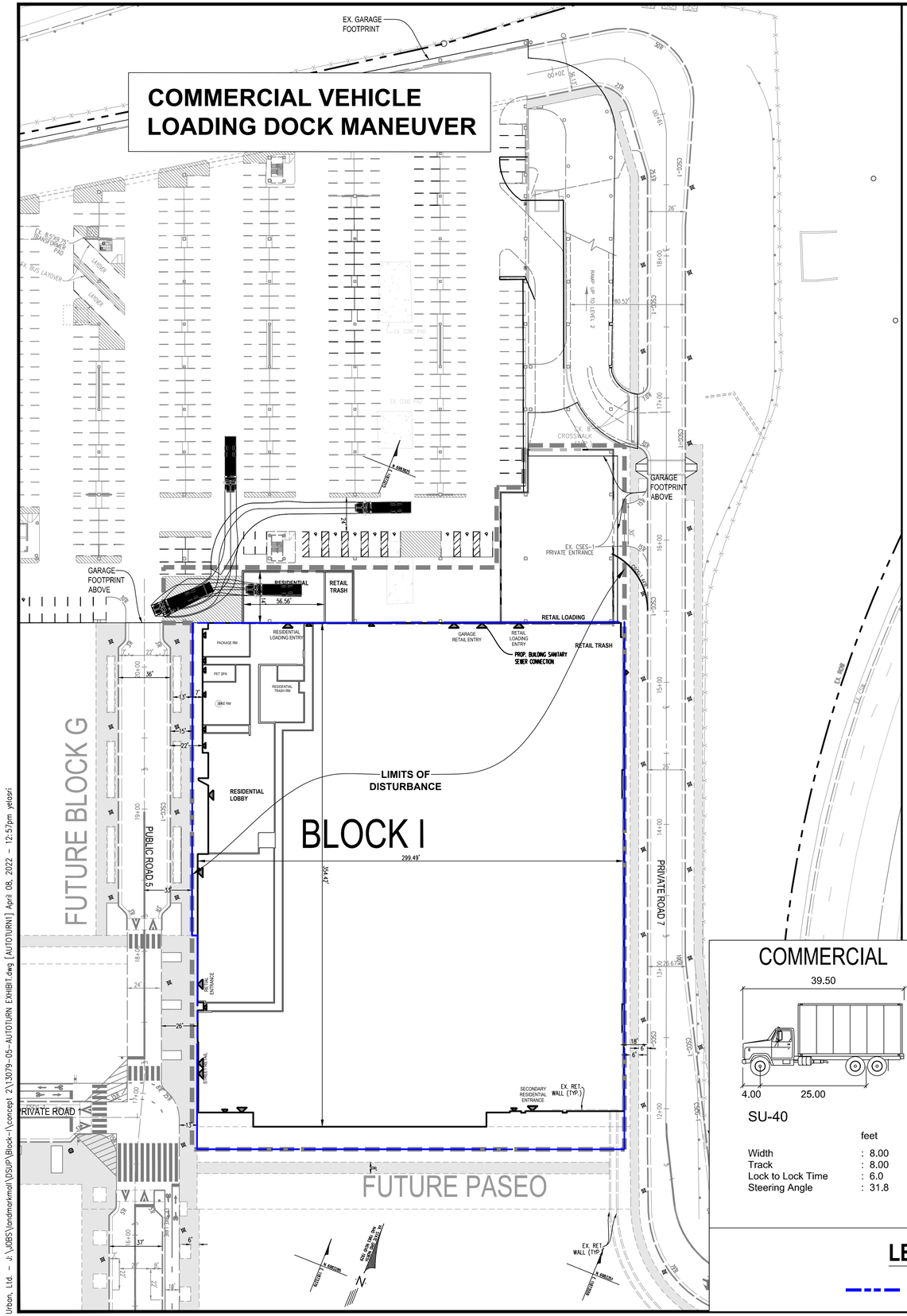
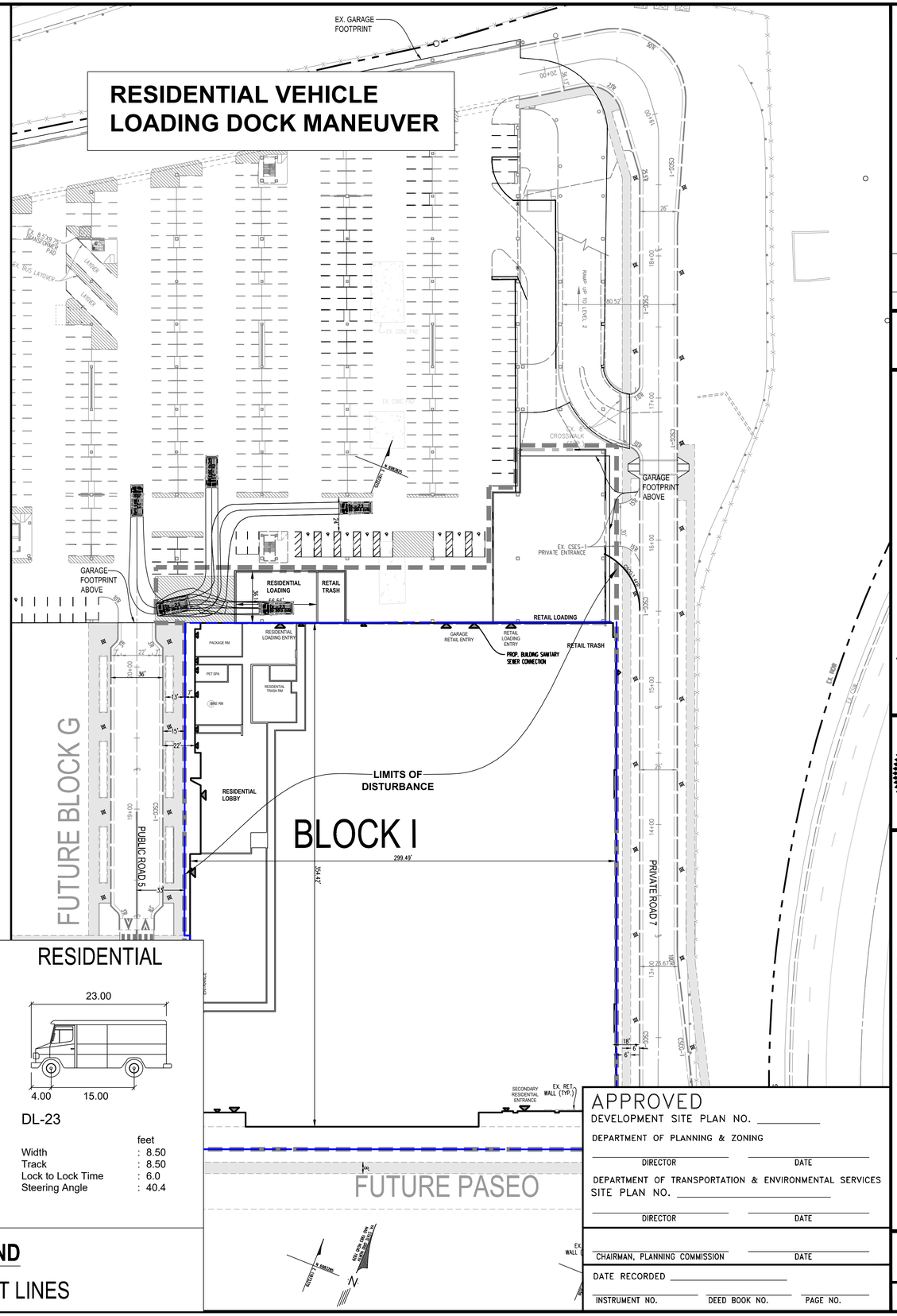
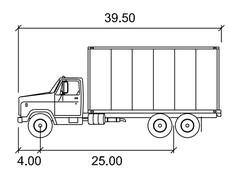




COMMERCIAL



SU-40

	feet
Width	: 8.00
Track	: 8.00
Lock to Lock Time	: 6.0
Steering Angle	: 31.8

RESIDENTIAL

DL-23

	feet
Width	: 8.50
Track	: 8.50
Lock to Lock Time	: 6.0
Steering Angle	: 40.4

LEGEND

LOT LINES

APPROVED

DEVELOPMENT SITE PLAN NO. _____

DEPARTMENT OF PLANNING & ZONING

DIRECTOR _____ DATE _____

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Lic. No. 036790
04/08/2022
PROFESSIONAL ENGINEER

AUTOTURN EXHIBIT

LANDMARK MALL REDEVELOPMENT CONCEPT 2 - BLOCK I

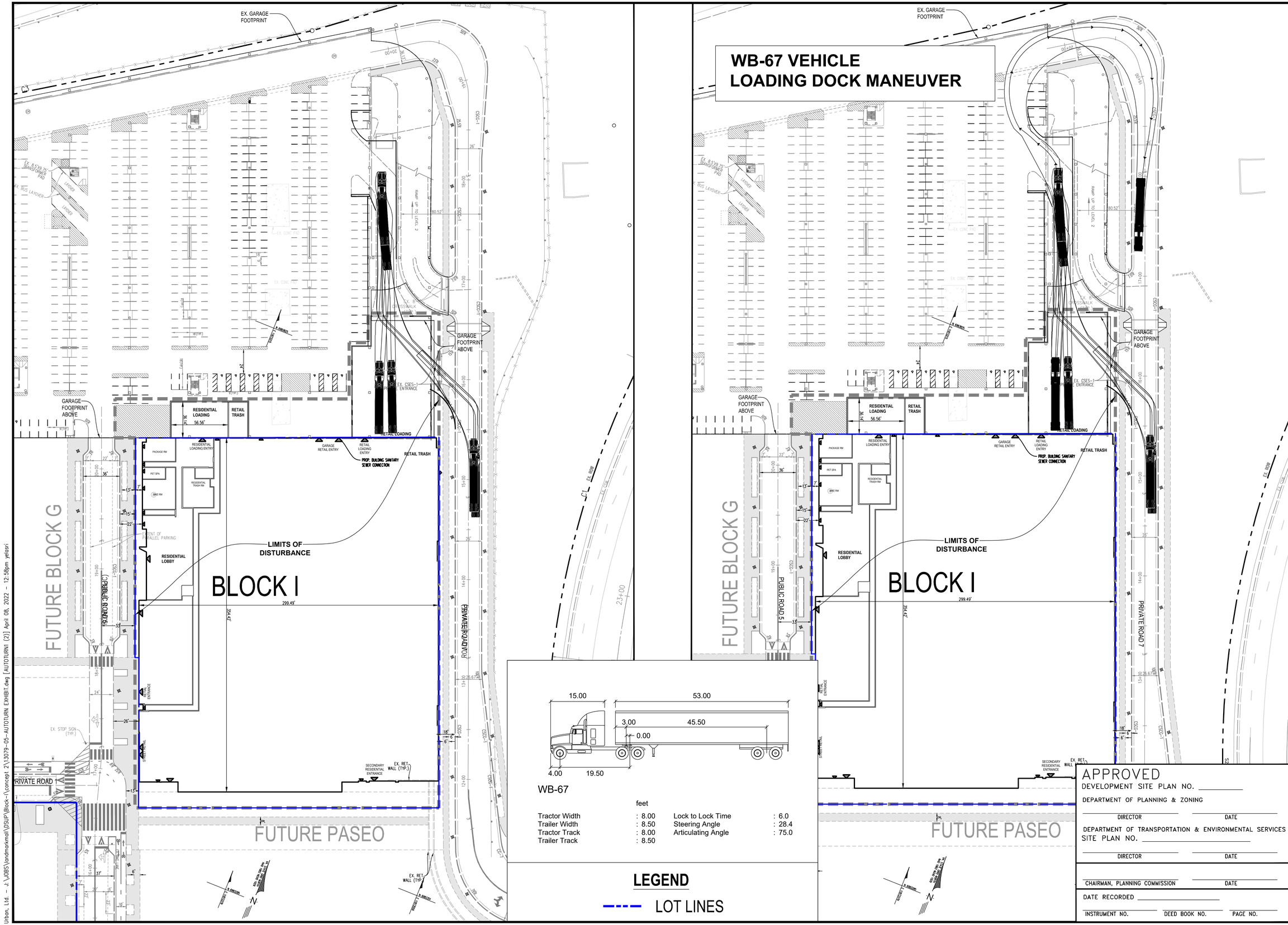
CITY OF ALEXANDRIA, VIRGINIA

SCALE: 1"=40'
C.I.= N/A
DATE: APRIL 8, 2022

SHEET 26 OF 51

FILE No. DSUP-13079

Urban, Ltd. – J:\JOBS\landmarkmall\DSUP\Block-1\concept 2\13079-05-AUTOTURN EXHIBIT.dwg [AUTOTURN1] April 08, 2022 – 12:57pm yelasri



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SITE PLAN NO. _____

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LANDMARK MALL REDEVELOPMENT CONCEPT 2 - BLOCK I

CITY OF ALEXANDRIA, VIRGINIA

SCALE: 1"=40'

C.I.= N/A

DATE: APRIL 8, 2022

SHEET 27 OF 51

FILE No. DSUP-13079

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COMMONWEALTH OF VIRGINIA
John Lightle
Lic. No. 1957
CERTIFIED ARBORIST

OVERALL TREE INVENTORY PLAN
LANDMARK MALL REDEVELOPMENT CONCEPT 2 - BLOCK I
CITY OF ALEXANDRIA, VIRGINIA

SCALE: 1"=20' C.I.= 2' DATE: APRIL 8, 2022

SHEET 28 OF 51

FILE No. DSUP-13079

Urban, Ltd. - J:\JOBS\landmarkmall\DSUP\Block-1\concept 2\13079-14-TREE INVENTORY.dwg [OVERALL TREE INVENTORY PLAN] April 08, 2022 - 12:58pm yelissi

LEGEND

EXISTING TREE
CRITICAL ROOT ZONE
TRUNK LOCATION
TREE NUMBER

This Plan Prepared or Approved by:
John Lightle, ISA Certified Arborist
MA-5174A

MATCHLINE
SEE SHEET 30

ARLINGTON FOREST SERVICE CENTER

EX. ROW

FOR INFORMATIONAL PURPOSES ONLY. NOT IN APPLICATION AREA.

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

VCS 1983 NORTH

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CERTIFIED ARBORIST
LANDSCAPE

TREE INVENTORY
LANDMARK MALL REDEVELOPMENT
CONCEPT 2 - BLOCK I
CITY OF ALEXANDRIA, VIRGINIA
DATE: APRIL 8, 2022
SCALE: 1"=20' C.I.= 2'

SHEET
29
OF
51

FILE No.
DSUP-13079

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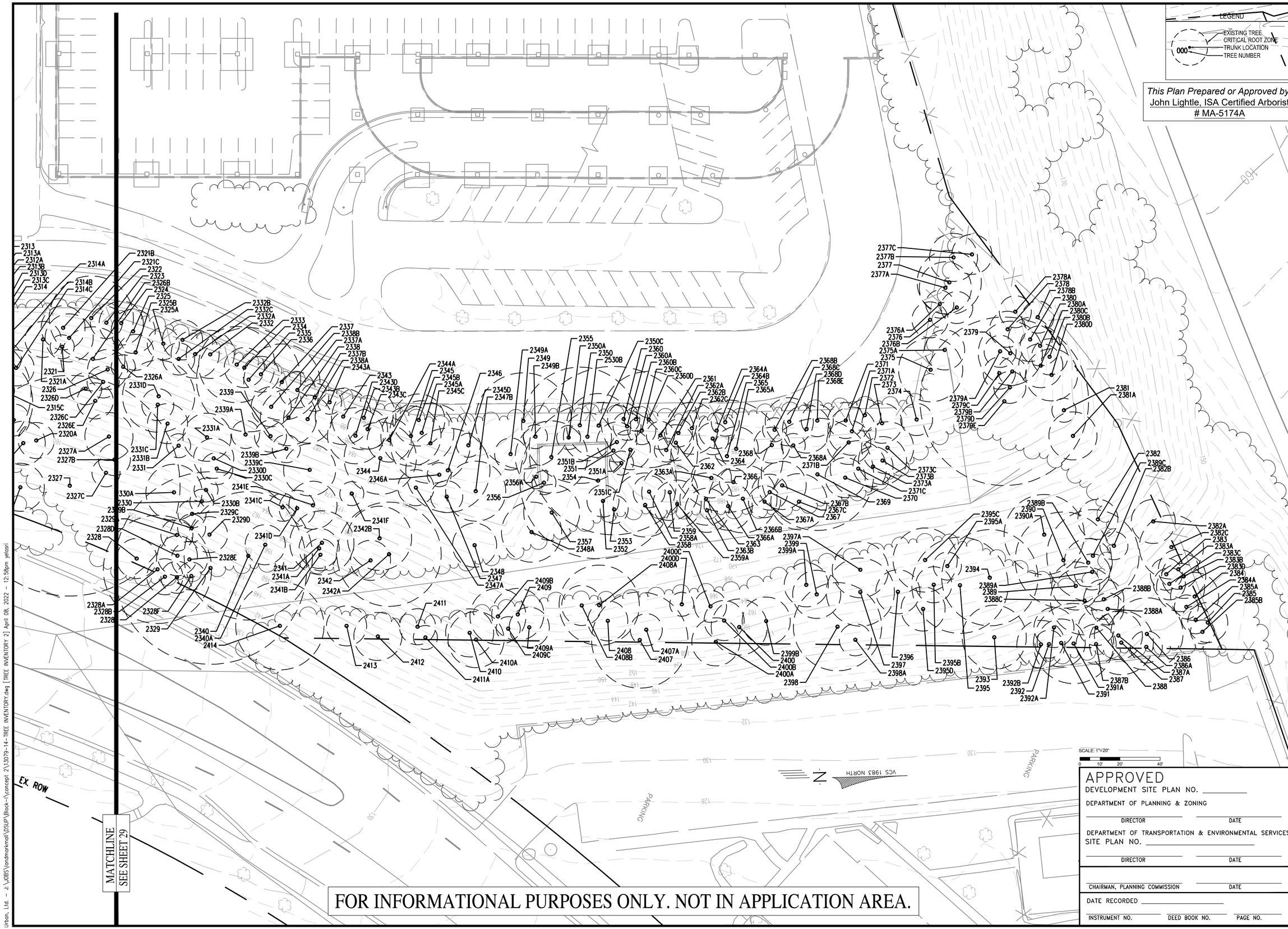

This Plan Prepared or Approved by:
John Lightle, ISA Certified Arborist
MA-5174A

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04/08/2022
LANDSCAPE ARCHITECT

TREE INVENTORY
LANDMARK MALL REDEVELOPMENT
CONCEPT 2 - BLOCK I
CITY OF ALEXANDRIA, VIRGINIA
C.I.= 2'
DATE: APRIL 8, 2022
SCALE: N/A

SHEET
30
OF
51

FILE No.
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TREE INVENTORY & CONDITION ANALYSIS

TREE #	BOTANICAL NAME	COMMON NAME	TRUNK SIZE	CRZ SIZE	TRUNK ELEVATION	CRZ ELEVATION	COMMENTS	CONDITION RATING
			DBH (in.)	R (ft.)	Elevation (ft.)	Elevation (ft.)		
2241	*Ailanthus altissima*	Tree of Heaven	7"	7'	177.00	176.50		62.50
2242	*Ailanthus altissima*	Tree of Heaven	6"	6'	179.00	178.50	Crooked	43.75
2243	*Ailanthus altissima*	Tree of Heaven	6"	6'	181.50	181.00		62.50
2244	*Robinia pseudoacacia*	Black Locust	9"	9'	183.75	183.25	Leaning	53.13
2245	*Robinia pseudoacacia*	Black Locust	10"	10'	183.75	183.25		59.38
2246	*Ailanthus altissima*	Tree of Heaven	12"	12'	185.50	185.00		62.50
2247	*Robinia pseudoacacia*	Black Locust	10"	10'	185.50	185.00	Dead	0.00
2248	*Ailanthus altissima*	Tree of Heaven	11"	11'	181.50	181.00		59.38
2249	*Robinia pseudoacacia*	Black Locust	20"	20'	180.00	179.50	Co-dominant, Poor	31.25
2250	*Prunus serotina*	Black Cherry	6"	6'	181.25	180.75		62.50
2251	*Ailanthus altissima*	Tree of Heaven	7"	7'	176.50	176.00		62.50
2252	*Quercus rubra*	Red Oak	26"	26'	174.75	174.25	Co-dominant	43.75
2253	*Quercus alba*	White Oak	16"	16'	174.75	174.25	Co-dominant, Poor, Leaning	28.13
2254	*Quercus rubra*	Red Oak	28"	28'	181.50	181.00		62.50
2255	*Quercus rubra*	Red Oak	18"	18'	179.75	179.25		59.38
2256	*Robinia pseudoacacia*	Black Locust	9"	9'	175.75	175.25		62.50
2257	*Robinia pseudoacacia*	Black Locust	12"	12'	173.75	173.25		71.88
2258	*Robinia pseudoacacia*	Black Locust	8"	8'	181.75	181.25		59.38
2259	*Robinia pseudoacacia*	Black Locust	11"	11'	182.00	181.50		62.50
2259A	*Quercus rubra*	Red Oak	6"	6'	175.75	175.25	AFA	53.13
2260	*Quercus rubra*	Red Oak	16"	16'	181.00	180.50		62.50
2261	*Quercus rubra*	Red Oak	12"	12'	178.50	178.00	Leaning	43.75
2262	*Quercus rubra*	Red Oak	16"	16'	179.00	178.50	Dead	0.00
2263	*Quercus rubra*	Red Oak	10"	10'	181.00	180.50	Dead	0.00
2264	*Robinia pseudoacacia*	Black Locust	12"	12'	169.00	168.50		62.50
2264A	*Ailanthus altissima*	Tree of Heaven	12"	12'	172.75	172.25	Co-dominant	65.63
2264B	*Ailanthus altissima*	Tree of Heaven	8"	8'	183.75	183.25	AFA	53.13
2265	*Quercus rubra*	Red Oak	16"	16'	171.75	171.25		53.13
2265A	*Ailanthus altissima*	Tree of Heaven	6"	6'	169.00	168.50		62.50
2266	*Robinia pseudoacacia*	Black Locust	10"	10'	173.50	173.00		56.25
2267	*Ailanthus altissima*	Tree of Heaven	11"	11'	175.00	174.50		62.50
2267A	*Prunus serotina*	Black Cherry	10"	10'	173.00	172.50	AFA	53.13
2268	*Ulmus americana*	American Elm	8"	8'	183.00	182.50		56.25
2269	*Prunus serotina*	Black Cherry	7"	7'	183.50	183.00	Lost Limbs, Poor	31.25
2270	*Ailanthus altissima*	Tree of Heaven	12"	12'	179.00	178.50		56.25
2271	*Robinia pseudoacacia*	Black Locust	16"	16'	171.00	170.50	Dead	0.00
2272	*Unknown*	Unknown	14"	14'	167.00	166.50	Dead	0.00
2273	*Robinia pseudoacacia*	Black Locust	22"	22'	164.50	164.00	Dead	0.00
2274	*Prunus serotina*	Black Cherry	7"	7'	166.50	166.00		53.13
2275	*Ailanthus altissima*	Tree of Heaven	7"	7'	166.00	165.50	Dead	0.00
2276	*Ailanthus altissima*	Tree of Heaven	8"	8'	162.50	162.00	Dead	0.00
2277	*Prunus serotina*	Black Cherry	7"	7'	165.00	164.50	Leaning	62.50
2278	*Prunus serotina*	Black Cherry	15"	15'	162.50	162.00	Co-Dominant	53.13
2279	*Unknown*	Unknown	17"	17'	173.00	172.50	Multi-stem, Dead	0.00
2280	*Robinia pseudoacacia*	Black Locust	20"	20'	174.00	173.50	Poor	31.25
2280A	*Unknown*	Unknown	6"	6'	185.00	184.50		62.50
2280B	*Ailanthus altissima*	Tree of Heaven	8"	8'	185.00	184.50	Co-Dominant	62.50
2281	*Prunus serotina*	Black Cherry	12"	12'	170.50	170.00		53.13
2282	*Ailanthus altissima*	Tree of Heaven	11"	11'	172.00	171.50		62.50
2283	*Ailanthus altissima*	Tree of Heaven	8"	8'	173.00	172.50		53.13
2284	*Prunus serotina*	Black Cherry	7"	7'	163.50	163.00		62.50
2285	*Robinia pseudoacacia*	Black Locust	11"	11'	163.50	163.00	Dead	0.00
2285A	*Quercus rubra*	Red Oak	14"	14'	168.50	168.00	AFA, Vines	43.75
2286	*Ailanthus altissima*	Tree of Heaven	6"	6'	185.50	185.00	Poor	31.25
2287	*Ailanthus altissima*	Tree of Heaven	9"	9'	184.00	183.50		53.13
2288	*Robinia pseudoacacia*	Black Locust	22"	22'	180.00	179.50		62.50
2289	*Prunus serotina*	Black Cherry	26"	26'	180.00	179.50		62.50
2290	*Ailanthus altissima*	Tree of Heaven	24"	24'	178.00	177.50		53.13
2291	*Unknown*	Unknown	16"	16'	170.00	169.50	Dead	0.00
2292	*Ailanthus altissima*	Tree of Heaven	8"	8'	175.50	175.00		53.13
2293	*Robinia pseudoacacia*	Black Locust	7"	7'	163.00	162.50		62.50
2294	*Ailanthus altissima*	Tree of Heaven	8"	8'	175.50	175.00		62.50
2294A	*Robinia pseudoacacia*	Black Locust	11"	11'	182.00	181.50	Leaning	53.13
2295	*Robinia pseudoacacia*	Black Locust	24"	24'	165.00	164.50	Co-Dominant, Poor	31.25
2295A	*Ailanthus altissima*	Tree of Heaven	8"	8'	162.00	161.50	Leaning	53.13
2296	*Prunus serotina*	Black Cherry	10"	10'	160.50	160.00	Leaning	40.63
2296A	*Ailanthus altissima*	Tree of Heaven	7"	7'	167.50	167.00	Crooked	43.75
2297	*Prunus serotina*	Black Cherry	13"	13'	173.50	173.00	Leaning	46.88
2297A	*Ailanthus altissima*	Tree of Heaven	9"	9'	177.00	176.50	Crooked	50.00
2298	*Ailanthus altissima*	Tree of Heaven	8"	8'	174.00	173.50		53.13
2298A	*Unknown*	Unknown	12"	12'	172.50	172.00	Dead	0.00
2298B	*Prunus serotina*	Black Cherry	9"	9'	185.00	184.50		65.63
2298C	*Prunus serotina*	Black Cherry	7"	7'	183.00	182.50		68.75
2298D	*Unknown*	Unknown	7"	7'	163.00	162.50	Dead	0.00
2299	*Ailanthus altissima*	Tree of Heaven	8"	8'	161.00	160.50		59.38
2300	*Ulmus americana*	American Elm	14"	14'	161.00	160.50	Vines	53.13
2300A	*Ulmus americana*	American Elm	16"	16'	163.00	162.50	Vines	62.50
2301	*Ailanthus altissima*	Tree of Heaven	9"	9'	166.00	165.50	Up Rooting	62.50
2301A	*Ailanthus altissima*	Tree of Heaven	24"	24'	170.00	169.50	Co-Dominant	53.13
2301B	*Ailanthus altissima*	Tree of Heaven	6"	6'	171.00	170.50		65.63
2301C	*Prunus serotina*	Black Cherry	10"	10'	183.00	182.50	Co-Dominant	68.75
2301D	*Ulmus americana*	American Elm	28"	28'	184.00	183.50	Multistem	53.13
2302	*Robinia pseudoacacia*	Black Locust	12"	12'	162.00	161.50		62.50
2303	*Ailanthus altissima*	Tree of Heaven	12"	12'	157.00	156.50		62.50
2304	*Ulmus americana*	American Elm	10"	10'	156.00	155.50		53.13
2304A	*Prunus serotina*	Black Cherry	8"	8'	165.00	164.50		59.38
2305	*Unknown*	Unknown	9"	9'	166.00	165.50	Dead	0.00
2305A	*Ailanthus altissima*	Tree of Heaven	12"	12'	164.00	163.50		59.38
2305B	*Ailanthus altissima*	Tree of Heaven	18"	18'	163.00	162.50	Co-Dominant	53.13
2350C	*Ailanthus altissima*	Tree of Heaven	6"	6'	165.00	164.50		62.50
2305D	*Prunus serotina*	Black Cherry	15"	15'	177.00	176.50		62.50
2306	*Ailanthus altissima*	Tree of Heaven	6"	6'	183.00	182.50		53.13
2306A	*Robinia pseudoacacia*	Black Locust	12"	12'	179.00	178.50	Heavy Leaning	28.13
2306B	*Prunus serotina*	Black Cherry	8"	8'	177.00	176.50		59.38
2306C	*Ailanthus altissima*	Tree of Heaven	8"	8'	185.00	184.50		53.13
2306D	*Ulmus americana*	American Elm	6"	6'	185.00	184.50		62.50
2306E	*Prunus serotina*	Black Cherry	9"	9'	181.00	180.50	Co-Dominant, Leaning	62.50
2306F	*Carya glabra*	Pignut Hickory	8"	8'	174.00	173.50		53.13
2307	*Ailanthus altissima*	Tree of Heaven	12"	12'	159.00	158.50		59.38
2307A	*Ailanthus altissima*	Tree of Heaven	6"	6'	159.00	158.50	Dead	0.00
2307B	*Ailanthus altissima*	Tree of Heaven	14"	14'	156.00	155.50		65.63
2307C	*Ailanthus altissima*	Tree of Heaven	8"	8'	157.00	156.50		68.75
2308	*Juniperus virginiana*	Eastern Red Cedar	9"	9'	155.00	154.50	Vines	59.38
2308A	*Juniperus virginiana*	Eastern Red Cedar	14"	14'	152.00	151.50		65.63
2309	*Ailanthus altissima*	Tree of Heaven	12"	12'	156.00	155.50		68.75
2309A	*Ulmus americana*	American Elm	14"	14'	151.00	150.50		53.13
2310	*Ailanthus altissima*	Tree of Heaven	7"	7'	182.00	181.50		62.50
2310A	*Ailanthus altissima*	Tree of Heaven	7"	7'	181.00	180.50		62.50
2310B	*Ailanthus altissima*	Tree of Heaven	7"	7'	185.00	184.50		53.13
2310C	*Ailanthus altissima*	Tree of Heaven	7"	7'	186.00	185.50		53.13
2310D	*Ailanthus altissima*	Tree of Heaven	8"	8'	188.00	187.50		62.50
2311	*Ailanthus altissima*	Tree of Heaven	26"	26'	175.00	174.50		62.50
2311A	*Robinia pseudoacacia*	Black Locust	28"	28'	176.00	175.50		53.13
2311B	*Ailanthus altissima*	Tree of Heaven	9"	9'	174.00	173.50	Poor	28.13
2311C	*Ailanthus altissima*	Tree of Heaven	12"	12'	173.00	172.50	Dead	0.00
2311D	*Juniperus virginiana*	Eastern Red Cedar	7"	7'	182.00	181.50		65.63
2311E	*Ailanthus altissima*	Tree of Heaven	8"	8'	187.00	186.50		68.75
2311F	*Ailanthus altissima*	Tree of Heaven	9"	9'	170.00	169.50		53.13
2312	*Ulmus americana*	American Elm	14"	14'	178.00	177.50	Vines	62.50
2312A	*Quercus rubra*	Red Oak	15"	15'	180.00	179.50	Vines	62.50
2313	*Robinia pseudoacacia*	Black Locust	12"	12'	189.00	188.50		53.13
2313A	*Robinia pseudoacacia*	Black Locust	9"	9'	187.00	186.50		59.38
2313B	*Ailanthus altissima*	Tree of Heaven	11"	11'	185.00	184.50		53.13
2313C	*Ailanthus altissima*	Tree of Heaven	6"	6'	186.00	185.50		62.50
2313D	*Ailanthus altissima*	Tree of Heaven	6"	6'	189.00	188.50		62.50
2314	*Ailanthus altissima*	Tree of Heaven	8"	8'	178.00	177.50		53.13
2314A	*Unknown*	Unknown	6"	6'	177.00	176.50	Dead	0.00
2314B	*Ailanthus altissima*	Tree of Heaven	8"	8'	176.00	175.50		65.63
2314C	*Ailanthus altissima*	Tree of Heaven	9"	9'	174.00	173.50		68.75
2315	*Ailanthus altissima*	Tree of Heaven	30"	30'	167.00	166.50	Multistem	65.63

TREE INVENTORY & CONDITION ANALYSIS

TREE #	BOTANICAL NAME	COMMON NAME	TRUNK SIZE	CRZ SIZE	TRUNK ELEVATION	CRZ ELEVATION	COMMENTS	CONDITION RATING
			DBH (in.)	R (ft.)	Elevation (ft.)	Elevation (ft.)		
2315A	*Ailanthus altissima*	Tree of Heaven	11"	11'	165.00	164.50		68.75
2315B	*Ailanthus altissima*	Tree of Heaven	24"	24'	164.00	163.50	Multistem	53.13
2315C	*Ailanthus altissima*	Tree of Heaven	6"	6'	168.00	167.50		62.50
2316	*Ailanthus altissima*	Tree of Heaven	12"	12'	160.00	159.50		62.50
2317	*Ulmus americana*	American Elm	8"	8'	162.00	161.50		53.13
2318	*Ailanthus altissima*	Tree of Heaven	8"	8'	148.00	147.50		59.38
2319	*Ulmus americana*	American Elm	12"	12'	149.00	148.50	Leaning, Poor	28.13
2320	*Ailanthus altissima*	Tree of Heaven	11"	11'	158.00	157.50		65.63
2320A	*Ailanthus altissima*	Tree of Heaven	9"	9'	159.00	158.50		68.75
2321	*Ailanthus altissima*	Tree of Heaven	6"	6'	183.00	182.50		53.13
2321A	*Juniperus virginiana*	Eastern Red Cedar	9"	9'	183.00	182.50		62.50
2321B	*Ailanthus altissima*	Tree of Heaven	11"	11'	187.00	186.50		62.50
2321C	*Robinia pseudoacacia*	Black Locust	12"	12'	185.00	184.50		53.13
2322	*Ailanthus altissima*	Tree of Heaven	21"	21'	191.00	190.50	Poor, Co-Dominant	28.13
2323	*Ailanthus altissima*	Tree of Heaven	8"	8'	190.00	189.50		65.63
2324	*Robinia pseudoacacia*	Black Locust	11"	11'	194.00	193.50		68.75
2325	*Robinia pseudoacacia*	Black Locust	12"	12'	190.00	189.50	Poor	28.13
2325A	*Ailanthus altissima*	Tree of Heaven	8"	8'	190.00	189.50		59.38
2325B	*Robinia pseudoacacia*	Black Locust	9"	9'	187.00	186.50	Dead	0.00
2326	*Prunus serotina*	Black Cherry	10"	10'	181.00	180.50		59.38
2326A	*Robinia pseudoacacia*	Black Locust	6"	6'	182.00	181.50	Dead	0.00
2326B	*Robinia pseudoacacia*	Black Locust	16"	16'	182.00	181.50		53.13
2326C	*Robinia pseudoacacia*	Black Locust	8"	8'	178.00	177.50		62.50
2326D	*Robinia pseudoacacia*	Black Locust	8"	8'	174.00	173.50		62.50
2326E	*Robinia pseudoacacia*	Black Locust	9"	9'	172.00	171.50		53.13
2327	*Acer rubrum*	Red Maple	55"	55'	152.00	151.50	Co-Dominant, 1/2 Leaning	50.00
2327A	*Robinia pseudoacacia*	Black Locust	12"	12'	165.00	164.50		62.50
2327B	*Robinia pseudoacacia*	Black Locust	8"	8'	160.00	159.50	Dead	0.00
2327C	*Robinia pseudoacacia*	Black Locust	7"	7'	167.00	166.50		65.63
2328	*Ailanthus altissima*	Tree of Heaven	10"	10'	143.00	142.50		68.75
2328A	*Ailanthus altissima*	Tree of Heaven	27"	27'	142.00	141.50	Co-Dominant	53.13
2328B	*Ailanthus altissima*	Tree of Heaven	9"	9'	142.00	141.50		62.50
2328C	*Ailanthus altissima*	Tree of Heaven	8"	8'	143.00	142.50		62.50
2328D	*Ailanthus altissima*	Tree of Heaven	10"	10'	146.00	145.50		53.13
2328E	*Ailanthus altissima*	Tree of Heaven	9"	9'	146.00	145.50		65.63
2328F	*Ailanthus altissima*	Tree of Heaven	7"	7'	144.00	143.50		68.75
2329	*Ailanthus altissima*	Tree of Heaven	48"	48'	147.00	146.50	Multistem	59.38
2329A	*Ailanthus altissima*	Tree of Heaven	8"	8'	149.00	148.50		53.13
2329B	*Ailanthus altissima*	Tree of Heaven	7"	7'	152.00	151.50		62.50
2329C	*Ulmus americana*	American Elm	7"	7'	155.00	154.50		62.50
2329D	*Ailanthus altissima*	Tree of Heaven	9"	9'	153.00	152.50		53.13
2330	*Ulmus americana*	American Elm	6"	6'	159.00	158.50		59.38
2330A	*Unknown*	Unknown	14"	14'	158.00	157.50	Dead	0.00
2330B	*Prunus serotina*	Black Cherry	6"	6'	162.00	161.50		59.38
2330C	*Robinia pseudoacacia*	Black Locust	8"	8'	166.00	165.50	Dead	0.00
2330D	*Robinia pseudoacacia*	Black Locust	10"	10'	168.00	167.50	Poor	28.13
2331	*Ailanthus altissima*	Tree of Heaven	6"	6'	169.00	168.50		59.38
2331A	*Robinia pseudoacacia*	Black Locust	12"	12'	173.00	172.50	Dead	0.00
2331B	*Prunus serotina*	Black Cherry	10"	10'	173.00	172.50		59.38
2331C	*Robinia pseudoacacia*	Black Locust	8"	8'	176.00	175.50	Dead	0.00
2331D	*Robinia pseudoacacia*	Black Locust	18"	18'	178.00	177.50	Poor	28.13
2332	*Robinia pseudoacacia*	Black Locust	12"	12'	191.00	190.50		59.38
2332A	*Ailanthus altissima*	Tree of Heaven	12"	12'	190.00	189.50	Co-Dominant	65.63
2332C	*Ailanthus altissima*	Tree of Heaven	8"	8'	188.00	187.50		68.75
2332B	*Robinia pseudoacacia*	Black Locust	10"	10'	191.00	190.50	Poor	28.13
2333	*Ailanthus altissima*	Tree of Heaven	19"	19'	191.00	190.50	Co-Dominant	53.13
2334	*Ailanthus altissima*	Tree of Heaven	10"	10'	191.00	190.50		62.50
2335	*Robinia pseudoacacia*	Black Locust	26"	26'	189.00	188.50		62.50
2336	*Ailanthus altissima*	Tree of Heaven	9"	9'	191.00	190.50		53.13
2337	*Ailanthus altissima*	Tree of Heaven	19"	19'	191.00	190.50	Co-Dominant	65.63
2337A	*Ailanthus altissima*	Tree of Heaven	9"	9'	191.00	190.50		68.75
2337B	*Robinia pseudoacacia*	Black Locust	7"	7'	191.00	190.50	Crooked	59.38
2338	*Ailanthus altissima*	Tree of Heaven	14"	14'	185.00	184.50		53.13
2338A	*Ailanthus altissima*	Tree of Heaven	12"	12'	187.00	186.50		62.50
2338B	*Ailanthus altissima*	Tree of Heaven	10"	10'	186.00	185.50		62.50
2339	*Ailanthus altissima*	Tree of Heaven	8"	8'	180.00	179.50		53.13
2339A	*Ailanthus altissima*	Tree of Heaven	7"	7'	178.00	177.50		65.63
2339B	*Ailanthus altissima*	Tree of Heaven	7"	7'	179.00	178.50		68.75
2339C	*Robinia pseudoacacia*	Black Locust	13"	13'	175.00	174.50	Vines	40.63
2340	*Quercus palustris*	Pin Oak	32"	32'	153.00	152.50		43.75
2340A	*Ailanthus altissima*	Tree of Heaven	10"	10'	157.00	156.50	Vines	46.88
2341	*Quercus palustris*	Pin Oak	16"	16'	163.00	162.50		53.13
2341A	*Quercus palustris*	Pin Oak	10"	10'	162.00	161.50		62.50
2341B	*Quercus palustris*	Pin Oak	8"	8'	161.00	160.50		62.50
2341C	*Ulmus americana*	American Elm	7"	7'	167.00	166.50		53.13
2341D	*Unknown*	Unknown	9"	9'	168.00	167.50	Dead	0.00
2341E	*Robinia pseudoacacia*	Black Locust	12"	12'	170.00	169.50	Poor	28.13
2341F	*Ailanthus altissima*	Tree of Heaven	6"	6'	176.00	175.50		65.63
2342	*Prunus serotina*	Black Cherry	10"	10'	164.00	163.50		68.75
2342A	*Ulmus americana*	American Elm	26"	26'	167.00	166.50	Co-Dominant	65.63
2342B	*Ailanthus altissima*	Tree of Heaven	16"	16'	170.00	169.50	Co-Dominant	68.75
2343	*Gleditsia triacanthos*	Honey Locust	14"	14'	190.00	189.50		53.13
2343A	*Ailanthus altissima*	Tree of Heaven	6"	6'	191.00	190.50		62.50
2343B	*Ailanthus altissima*	Tree of Heaven	16"	16'	190.00	189.50		62.50
2343C	*Ailanthus altissima*	Tree of Heaven	10"	10'	189.00	188.50		53.13
2343D	*Robinia pseudoacacia*	Black Locust	14"	14'	187.00	186.50		65.63
2344	*Robinia pseudoacacia*	Black Locust	18"	18'	185.00	184.50	Vines	68.75
2344A	*Ailanthus altissima*	Tree of Heaven	11"	11'	189.00	188.50	Crooked	59.38
2345	*Ailanthus altissima*	Tree of Heaven	15"	15'	190.50	190.00	Co-Dominant	65.63
2345A	*Ailanthus altissima*	Tree of Heaven	16"	16'	191.00	190.50	Co-Dominant	68.75
2345B	*Ailanthus altissima*	Tree of Heaven	13"	13'	192.00	191.50	Co-Dominant	40.63
2345C	*Ailanthus altissima*	Tree of Heaven	20"	20'	190.50	190.00	Co-Dominant, Crooked, 1/2 Dead	25.00
2345D	*Ulmus americana*	Tree of Heaven	6"	6'	191.00	190.50		46.88
2346	*Ailanthus altissima*	Tree of Heaven	21"	21'	187.00	186.50	Multistem	53.13
2346A	*Ulmus americana*	Tree of Heaven	6"	6'	186.00	185.50		62.50
2347	*Ailanthus altissima*	Tree of Heaven	8"	8'	182.00	181.50		62.50
2347A	*Ailanthus altissima*	Tree of Heaven	9"	9'	182.00	181.50		53.13
2347B	*Prunus serotina*	Black Cherry	15"	15'	185.00	184.50	Co-Dominant	65.63
2348	*Prunus serotina*	Black Cherry	11"	11'	175.00	174.50		68.75
2348A	*Ailanthus altissima*	Tree of Heaven	15"	15'	175.00	174.50	Co-Dominant	65.63
2349	*Prunus serotina*	Black Cherry	24"	24'	191.00	190.50	Co-Dominant, Vines	68.75
2349A	*Prunus serotina*	Black Cherry	8"	8'	187.00	186.50	Dead	0.00
2349B	*Ailanthus altissima*	Tree of Heaven	6"	6'	186.00	185.50	Vines	50.00
2350	*Prunus serotina*	Black Cherry	29"	29'	188.00	187.50	Vines	53.13
2350A	*Unknown*	Unknown	6"	6'	185.00	184.50	Dead	0.00
2350B	*Prunus serotina*	Black Cherry	12"	12'	185.00	184.50	Leaning	59.38
2350C	*Prunus serotina*	Black Cherry	16"	16'	189.00	188.50	Dead	0.00
2351	*Prunus serotina*	Black Cherry	42"	42'	183.00	182.50	Vines	59.38
2351A	*Ailanthus altissima*	Tree of Heaven	6"	6'	181.00	180.50		53.13
2351B	*Ailanthus altissima*	Tree of Heaven	10"	10'	185.00	184.50		62.50
2351C	*Robinia pseudoacacia*	Black Locust	10"	10'	185.00	184.50		62.50
2352	*Ulmus americana*	American Elm	8"	8'	174.00	173.50		53.13
2353	*Ailanthus altissima*	Tree of Heaven	7"	7'	175.00	174.50		59.38
2354	*Prunus serotina*	Black Cherry	39"	39'	174.25	173.75	Multistem, 2/3 Dead, Leaning	28.13
2355	*Quercus rubra*	Red Oak	18"	18'	175.25	174.75		65.63
2356	*Acer rubrum*	Red Maple	6"	6'	175.75	175.25		68.75
2356A	*Prunus serotina*	Black Cherry	6"	6'	178.00	177.50	Leaning	53.13
2357	*Juniperus virginiana*	Eastern Red Cedar	14"	14'	175.00	174.50		62.50
2358	*Prunus serotina*	Black Cherry	16"	16'	179.00	178.50		62.50
2358A	*Prunus serotina*	Black Cherry	8"	8'	181.00	180.50		53.13
2359	*Robinia pseudoacacia*	Black Locust	14"	14'	182.00	181.50		65.63
2359A	*Quercus palustris*	Pin Oak	12"	12'	180.00	179.50		68.75
2360	*Ailanthus altissima*	Tree of Heaven	8"	8'	192.00	191.50	Leaning	59.38
2360A	*Ailanthus altissima*	Tree of Heaven	7"	7'	190.00	189.50		65.63
2360B	*Ailanthus altissima*	Tree of Heaven	6"	6'	192.00	191.50		68.75
2360C	*Prunus serotina*	Black Cherry	7"	7'	190.00	189.50		50.00
2360D	*Ailanthus altissima*	Tree of Heaven	24"	24'	192.00	191.50	Co-Dominant	53.13
2361	*Ailanthus altissima*	Tree of Heaven	7"	7'	189.50	189.00		53.13
2362	*Robinia pseudoacacia*	Black Locust	9"	9'	189.00	188.50		62.50
2362A	*Prunus serotina*	Black Cherry	6"	6'	188.00	187.50		62.50

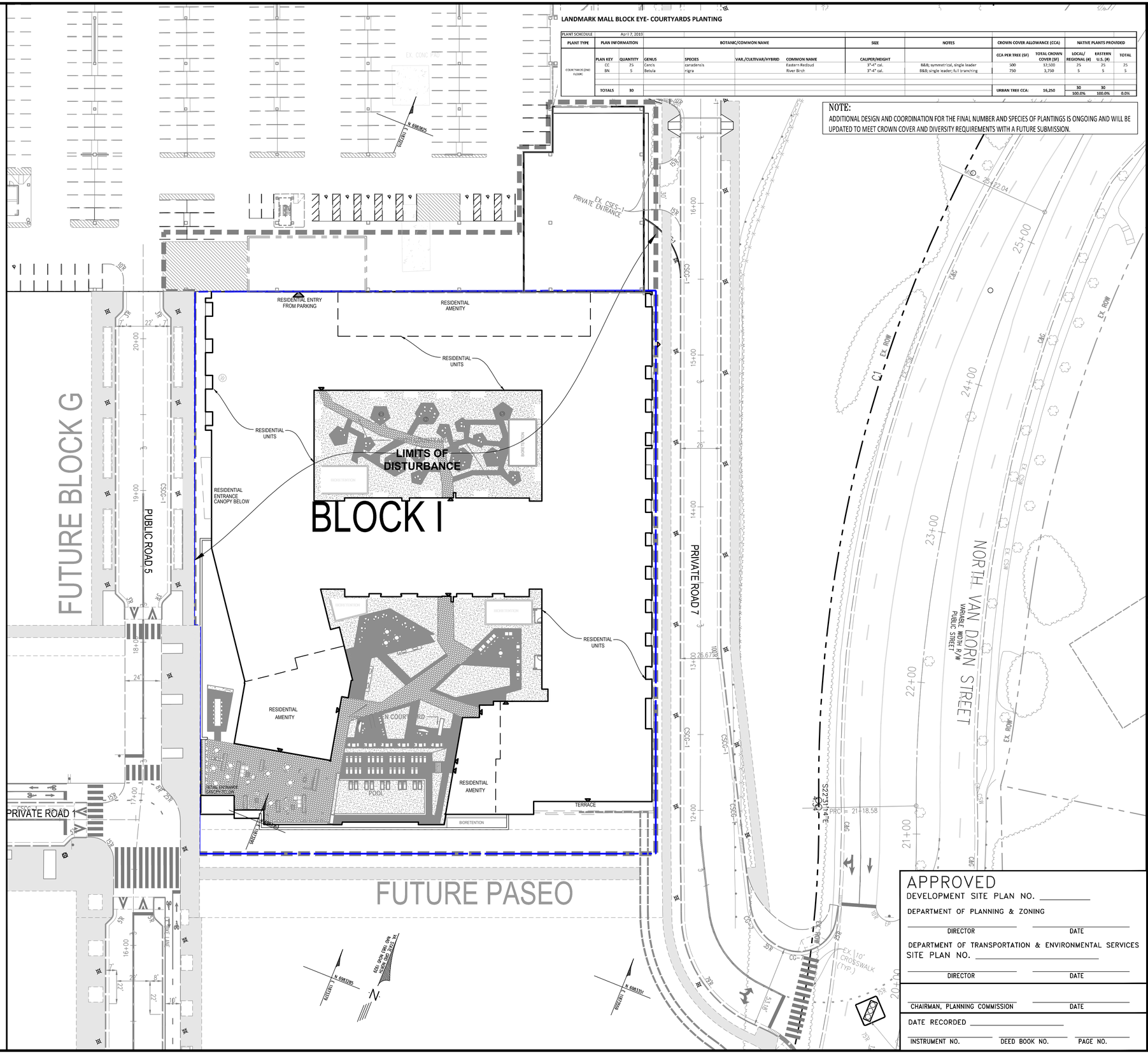
TREE INVENTORY & CONDITION ANALYSIS

TREE #	BOTANICAL NAME	COMMON NAME	TRUNK SIZE	CRZ SIZE	TRUNK ELEVATION	CRZ ELEVATION	COMMENTS	CONDITION RATING
			DBH (in.)	R (ft.)	Elevation (ft.)	Elevation (ft.)		
2362B	*Quercus rubra*	Red Oak	7"	7'	190.00	189.50		53.13
2362C	*Robinia pseudoacacia*	Black Locust	13"	13'	191.00	190.50		65.63
2363	*Robinia pseudoacacia*	Black Locust	13"	13'	180.00	179.50		68.75
2363A	*Unknown*	Unknown	10"	10'	179.00	178.50	Dead	0.00
2363B	*Quercus rubra*	Red Oak	11"	11'	179.00	178.50		59.38
2364	*Quercus palustris*	Pin Oak	8"	8'	189.50	189.00		65.63
2364A	*Robinia pseudoacacia*	Black Locust	9"	9'	191.00	190.50		68.75
2364B	*Quercus palustris*	Pin Oak	7"	7'	192.00	191.50		59.38
2365	*Robinia pseudoacacia*	Black Locust	28"	28'	187.00	186.50	Dead	0.00
2365A	*Prunus serotina*	Black Cherry	11"	11'	188.00	187.50		65.63
2366	*Quercus rubra*	Red Oak	7"	7'	183.00	182.50		68.75
2366A	*Robinia pseudoacacia*	Black Locust	12"	12'	179.00	178.50		59.38
2366B	*Unknown*	Unknown	17"	17'	180.00	179.50	Dead	0.00
2367	*Robinia pseudoacacia*	Black Locust	9"	9'	181.00	180.50	Dead	0.00
2367A	*Robinia pseudoacacia*	Black Locust	8"	8'	179.00	178.50		53.13
2367B	*Quercus rubra*	Red Oak	12"	12'	183.00	182.50		62.50
2367C	*Robinia pseudoacacia*	Black Locust	14"	14'	178.00	177.50		62.50
2368	*Quercus rubra*	Red Oak	9"	9'	189.00	188.50		53.13
2368A	*Unknown*	Unknown	6"	6'	188.00	187.50	Dead	0.00
2368B	*Quercus rubra*	Red Oak	6"	6'	192.00	191.50	Crooked	59.38
2368C	*Ulmus americana*	American Elm	12"	12'	193.00	192.50		65.63
2368D	*Ulmus americana*	American Elm	12"	12'	192.00	191.50	

LANDMARK MALL BLOCK EYE- COURTYARDS PLANTING

PLANT SCHEDULE	April 7, 2019												
PLANT TYPE	PLAN INFORMATION		BOTANIC/COMMON NAME				SIZE	NOTES	CROWN COVER ALLOWANCE (CCA)		NATIVE PLANTS PROVIDED		
	PLAN KEY	QUANTITY	GENUS	SPECIES	VAR./CULTIVAR/HYBRID	COMMON NAME	CALIPER/HEIGHT		CCA PER TREE (SF)	TOTAL CROWN COVER (SF)	LOCAL/ REGIONAL (#)	EASTERN U.S. (#)	TOTAL
COURTYARDS (2ND FLOOR)	CC	25	Cercis	canadensis		Eastern Redbud	3"-4" cal.	B&B; symmetrical, single leader	500	12,500	25	25	25
	BN	5	Betula	nigra		River Birch	3"-4" cal.	B&B; single leader; full branching	750	3,750	5	5	5
	TOTALS	30							URBAN TREE CCA:	16,250	30	30	
											100.0%	100.0%	0.0%

NOTE:
ADDITIONAL DESIGN AND COORDINATION FOR THE FINAL NUMBER AND SPECIES OF PLANTINGS IS ONGOING AND WILL BE UPDATED TO MEET CROWN COVER AND DIVERSITY REQUIREMENTS WITH A FUTURE SUBMISSION.



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04/08/2022
PROFESSIONAL ENGINEER

LANDSCAPE PLAN
LANDMARK MALL REDEVELOPMENT CONCEPT 2 - BLOCK I
CITY OF ALEXANDRIA, VIRGINIA

SCALE: 1"=30'
C.I.= N/A
DATE: APRIL 8, 2022

SHEET 32 OF 51

FILE No. DSUP-13079

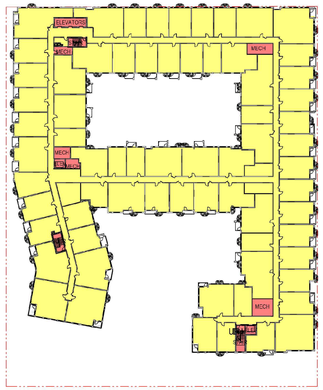
Urban, Ltd. - J:\JOBS\landmarkmall\DSUP\Block-I\concept 2\13079-06-LANDSPACE PLAN.dwg [01] April 08, 2022 - 12:59pm yelasri

FAR CALCULATIONS

FAR CALCULATIONS									
Lot Area: 112,495sf		L01	L02	L03	L04	L05	L06	L07	TOTAL
GFA TOTAL (A)	GROSS FLOOR AREA	103,701	67,629	61,734	67,379	67,379	67,379	66,382	501,583
EXCLUSIONS (B)	STAIR/ELEVATOR DEDUCTION	2,929	1,560	1,282	1,282	1,282	1,282	1,282	10,899
	MECHANICAL SPACE DEDUCTION	-	1,755	1,169	1,159	1,159	1,159	1,168	7,569 / 18,468
	LOADING BERTH DEDUCTION	-	-	-	-	-	-	-	-
NET FLOOR AREA (A-B)		100,772	64,314	59,283	64,938	64,938	64,938	63,932	483,115
FAR (NET / LOT AREA)									4.29

CONCEPT BUILDING CODE SUMMARY

USE GROUP:	A-2, A-3, B, S-2, M AND R-2
CONSTRUCTION TYPE:	TYPE IA FROM BASEMENT UP TO LEVEL 3 FLOOR TYPE IIIA FROM LEVEL 3 TO ROOF
BUILDING HEIGHT:	7 STORIES ABOVE GRADE 1 LEVEL BELOW GRADE 84'-10" FROM AVERAGE GRADE PLANE TO ROOF
FIRE PROTECTION:	FULLY SPRINKLERED IN COMPLIANCE WITH NFPA 13, BUILDING IS HIGH-RISE WITH FIRE COMAND CENTER LOCATED ON ROAD 5



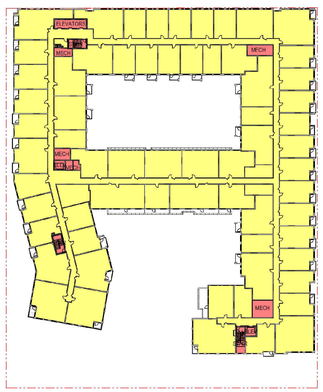
B2 FAR AREA PLAN - LEVEL 04-06

1/64" = 1'-0" 0 64' 128'



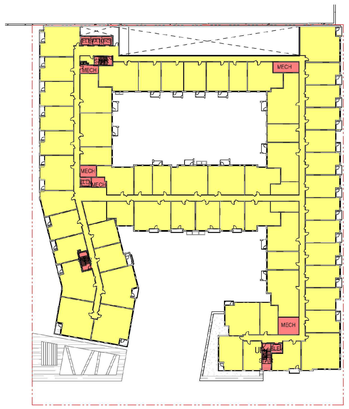
B1 FAR AREA PLAN - LEVEL 02

1/64" = 1'-0" 0 64' 128'



A3 FAR AREA PLAN - LEVEL 07

1/64" = 1'-0" 0 64' 128'



A2 FAR AREA PLAN - LEVEL 03

1/64" = 1'-0" 0 64' 128'



A1 FAR AREA PLAN - LEVEL 01

1/64" = 1'-0" 0 64'

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LANDMARK MALL REDEVELOPMENT
CONCEPT 2 - BLOCK I

CITY OF ALEXANDRIA, VIRGINIA

SCALE: AS NOTED C.I.= N/A DATE: APRIL 8, 2022

SHEET 33 OF 51

FILE No. DSUP-13079

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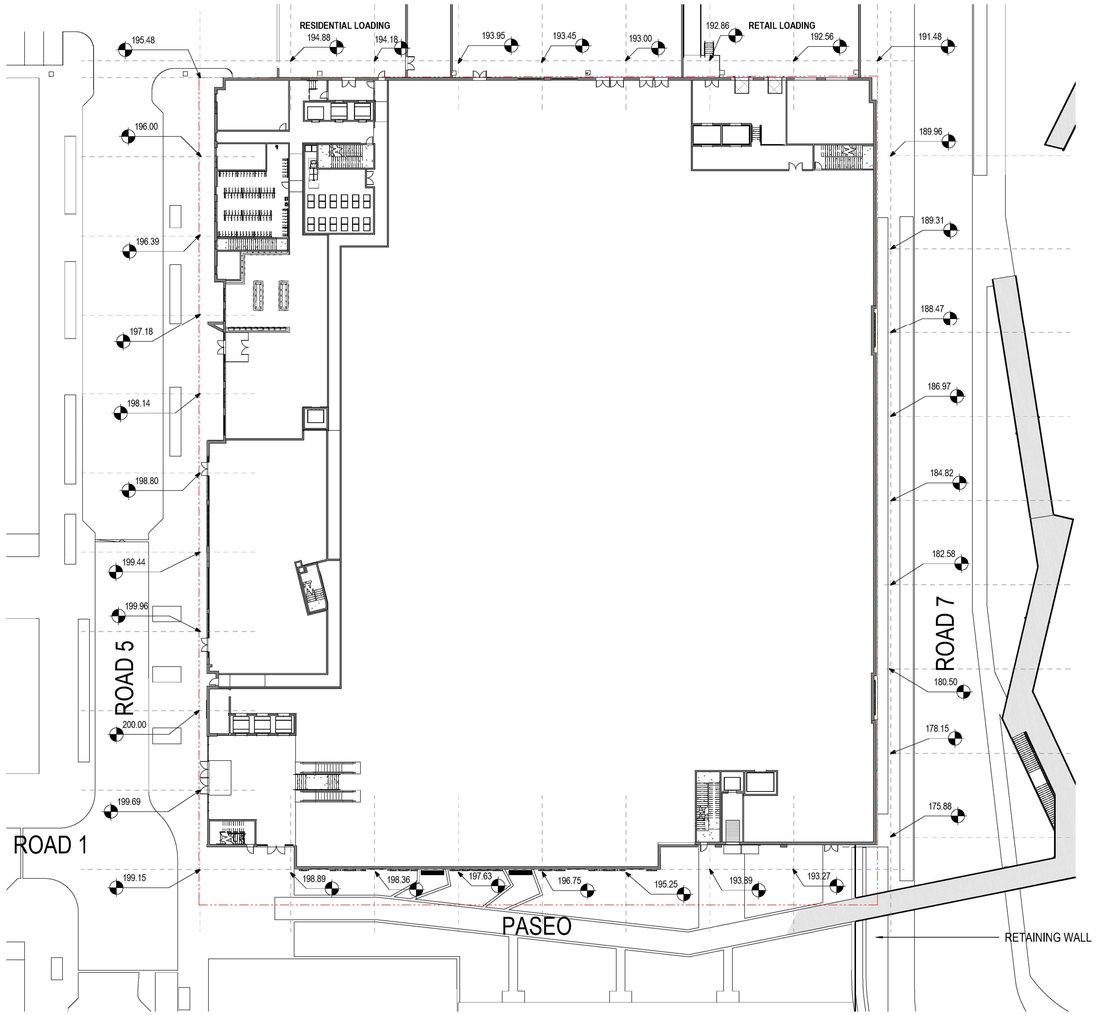
NORTH PARKING / LOADING	191.48 192.56 192.86 193.00 193.45 193.95 194.18 194.88	SOUTH	198.89 198.36 197.63 196.75 195.25 193.89 193.27
ROAD 5 - WEST	195.48 196.00 196.39 197.18 198.14 198.80 199.44 199.96 200.00 199.69 199.15	ROAD 7 - EAST	175.88 178.15 180.50 182.58 184.82 186.97 188.47 189.31 189.96
			193.03

TOP OF ROOF - 277'-10"
AVERAGE GRADE PLANE - 193'-0"
OVERALL HEIGHT - 84'-10"

EXISTING PARKING DECK



A3 ZONING DIAGRAM - AVERAGE GRADE PLANE

1/32" = 1'-0"

0 16' 32' 64'

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FILE No. DSUP-13079

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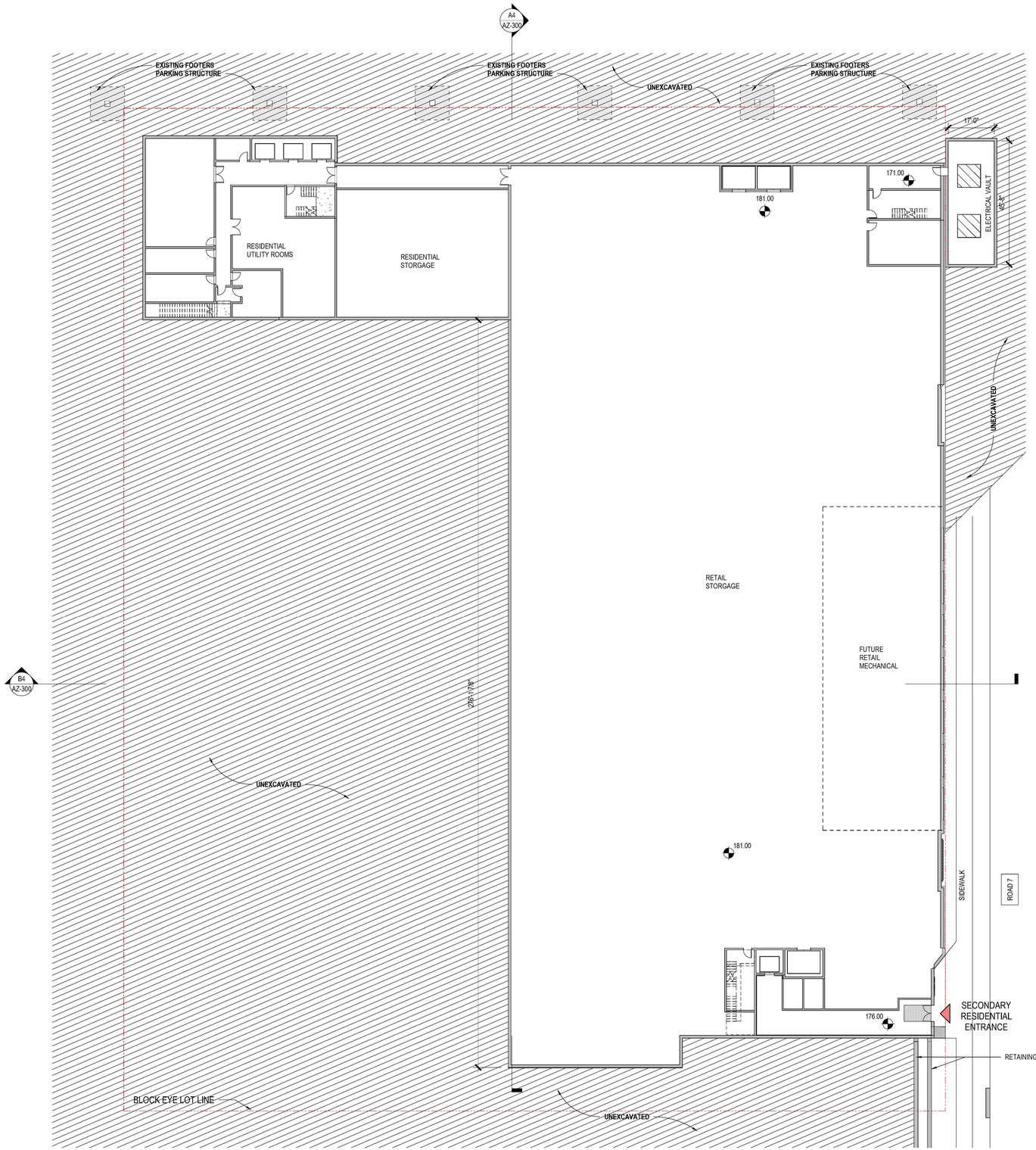

A1 | CONCEPT PLAN - LOWER LEVEL

1" = 20'-0" 0 10' 20' 40'

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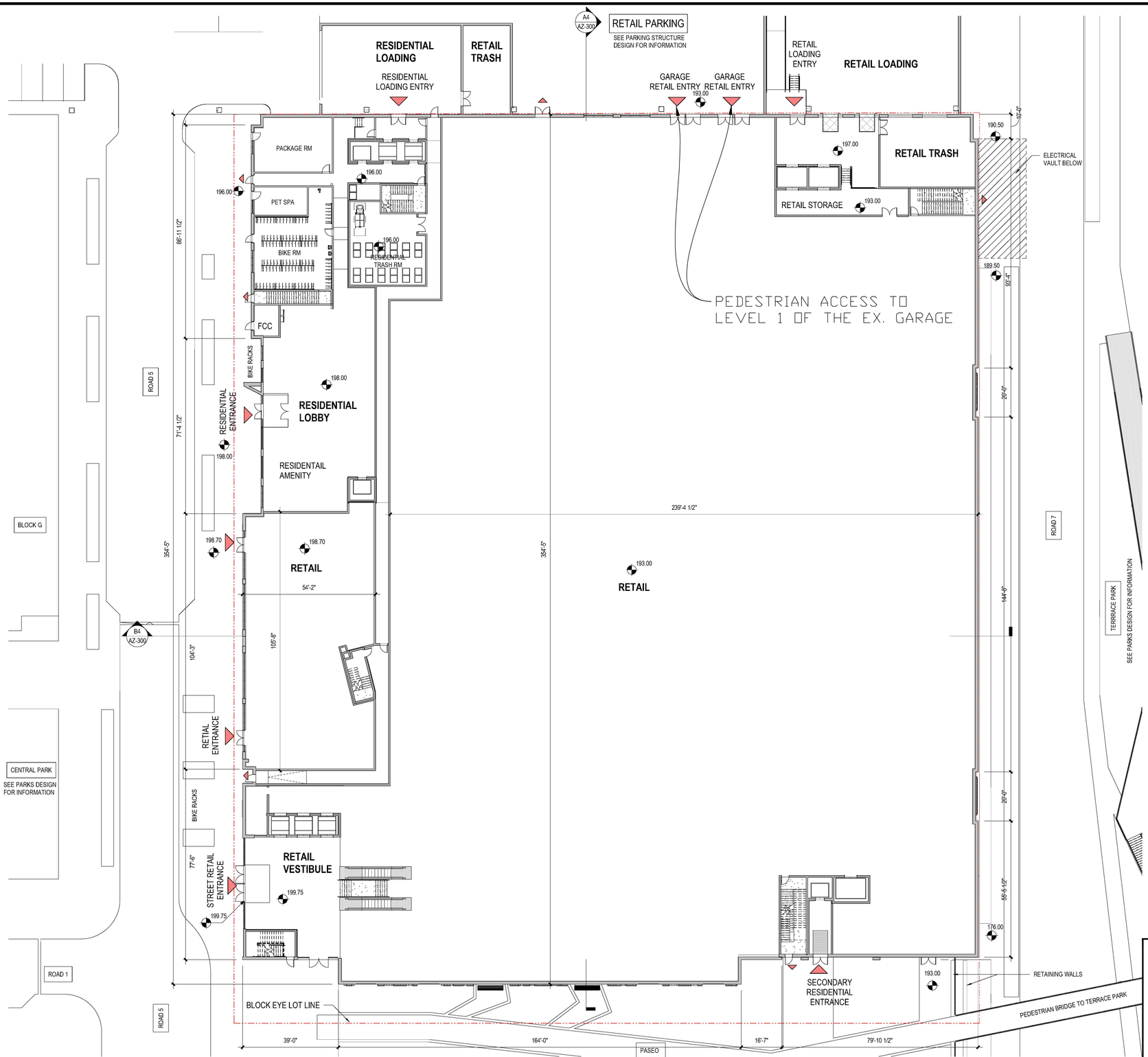

A1 CONCEPT PLAN - LEVEL 01

1" = 20'-0" 0 10' 20' 40'

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A1 CONCEPT PLAN - LEVEL 02

1" = 20'-0" 0 10' 20' 40'

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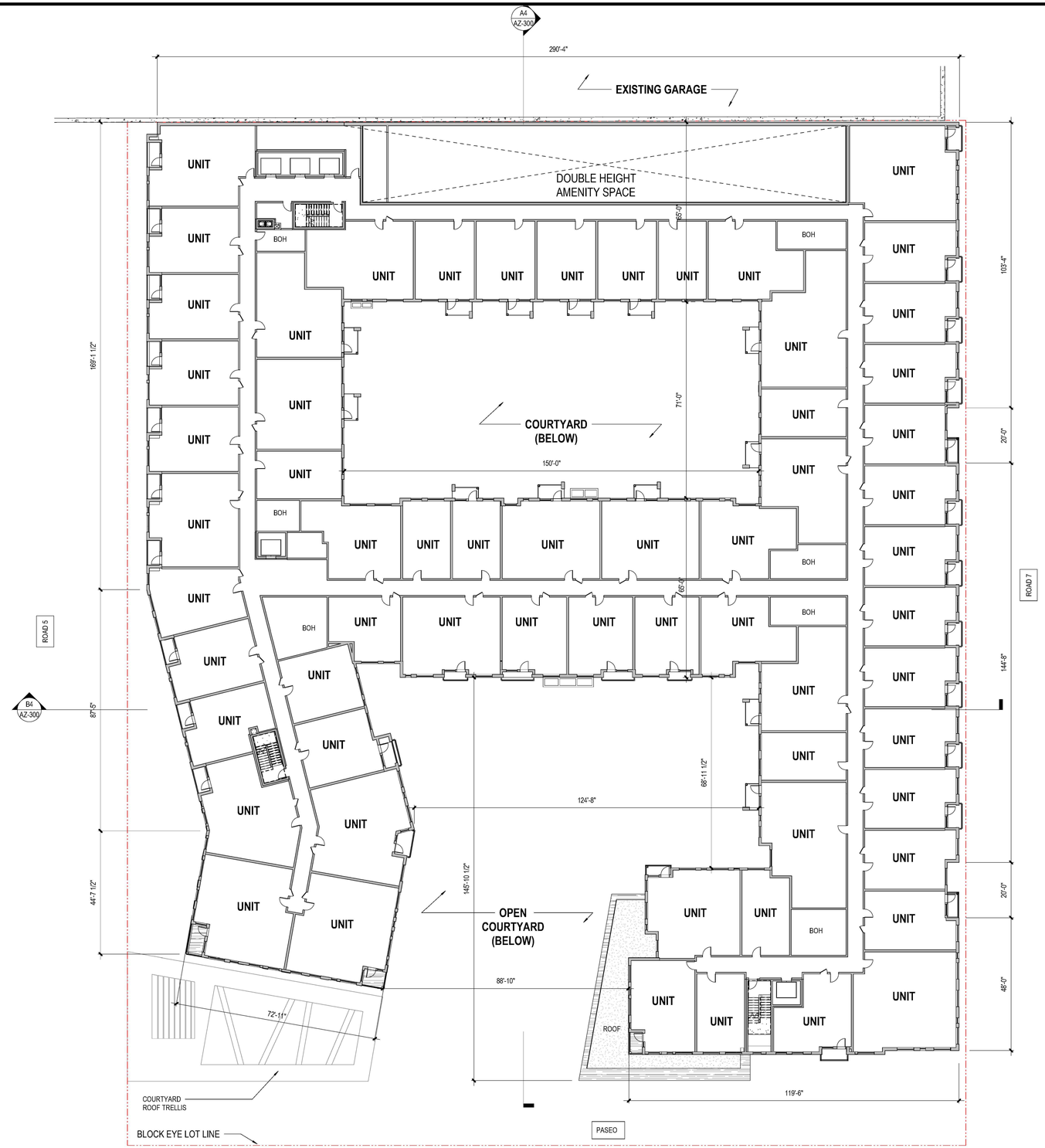

A1 CONCEPT PLAN - LEVEL 03

1" = 20'-0" 0 10' 20' 40'

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A1 CONCEPT PLAN - LEVEL 04-06 (TYP.)

1" = 20'-0" 0 10' 20' 40'

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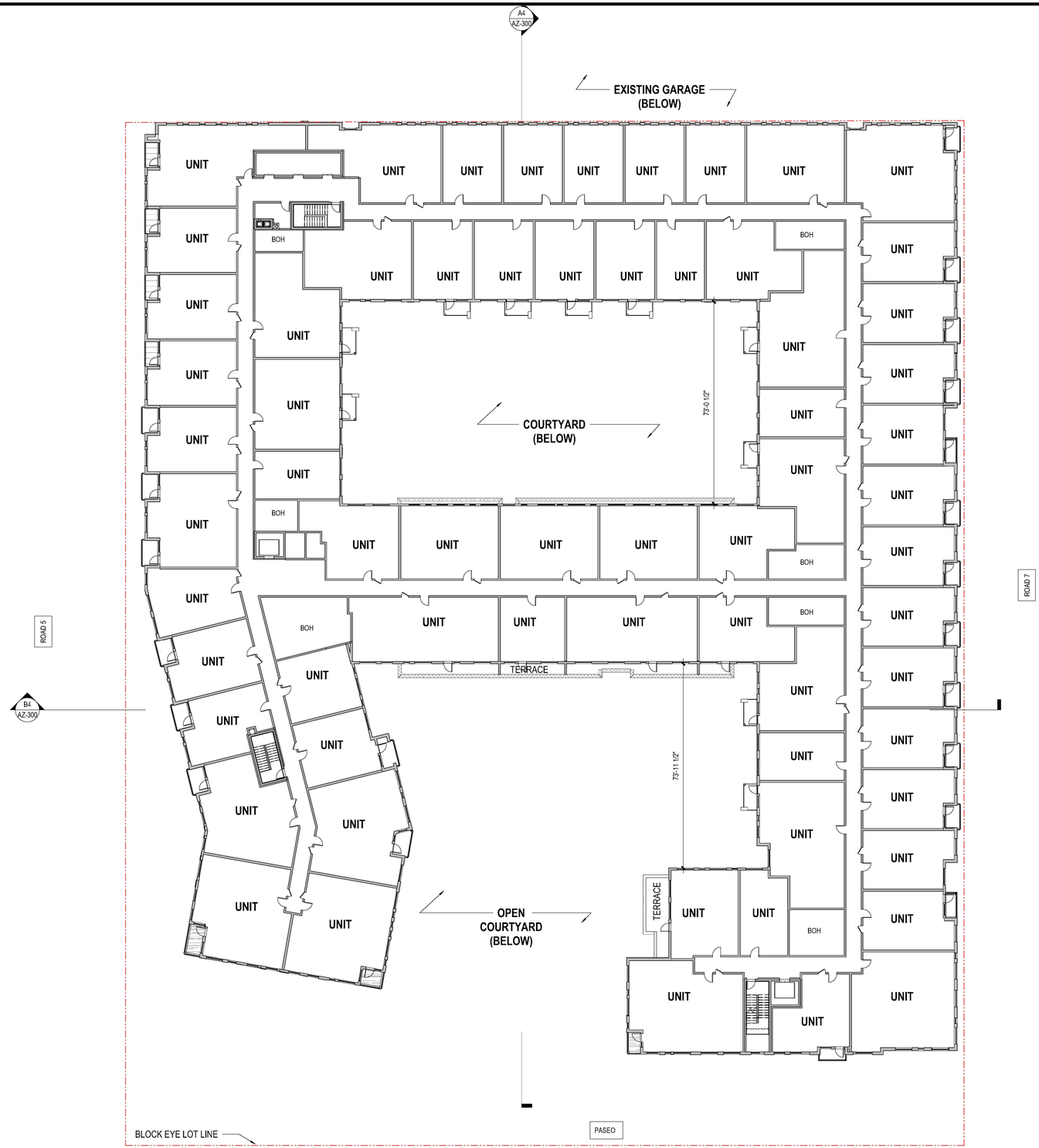

A1 CONCEPT PLAN - LEVEL 07

1" = 20'-0" 0 10' 20' 40'

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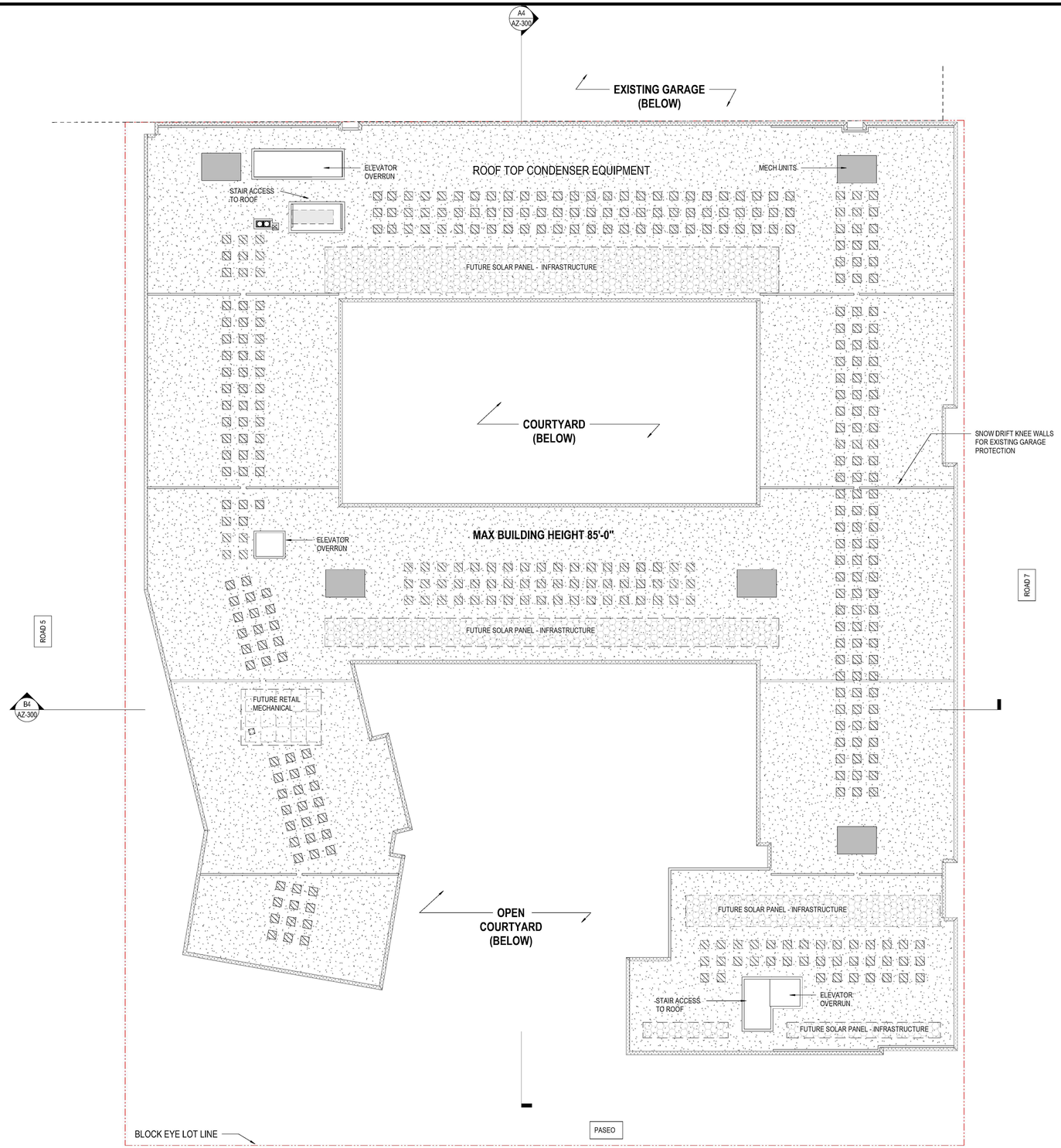

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A1 CONCEPT PLAN - ROOF

1" = 20'-0" 0 10' 20' 40'

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MATERIAL PERCENT (WEST ELEVATION)

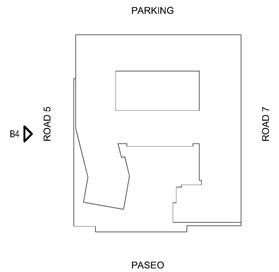
BRICK	- 8%
GLAZING	- 38%
WOOD PHENOLIC	- 3%
PORCELAIN TILE	- 4%
FIBER CEMENT PANEL	- 44%
METAL PANEL	- 2%
STONE	- 1%
CMU / MURAL /GREEN WALL	- 0%
BOARD AND BATTEN FCP	- 0%



B4 OVERALL ELEVATION - WEST

1/16" = 1'-0" 0 8' 16' 32'





A4 3D VIEW - WEST

1/16" = 1'-0" 0 8' 16' 32'

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SHEET 42 OF 51

FILE No. DSUP-13079

Urban, Ltd. - J:\JOBS\LandmarkMall\DSUP\Block-I\Concept 2\13079-07-ELEVATIONS.dwg [ELEVATION1 (11)] April 08, 2022 - 10:16am bfolsom

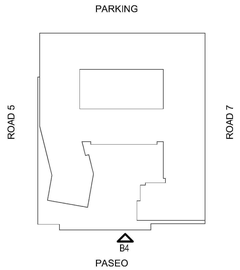
MATERIAL PERCENT (SOUTH ELEVATION)

BRICK	- 22%
GLAZING	- 28%
WOOD PHENOLIC	- 13%
PORCELAIN TILE	- 0%
FIBER CEMENT PANEL	- 31%
METAL PANEL	- 0%
STONE	- 0%
CMU / MURAL /GREEN WALL	- 6%
BOARD AND BATTEN FCP	- 0%



B4 OVERALL ELEVATION - SOUTH

1/16" = 1'-0" 0 8' 16' 32'





A4 3D VIEW - SOUTH

1/16" = 1'-0" 0 8' 16' 32'

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

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MICHAEL E. HICKOK
LICENSE No. 4833
ARCHITECT

ARCHITECTURAL PLANS

LANDMARK MALL REDEVELOPMENT
CONCEPT 2 - BLOCK I

CITY OF ALEXANDRIA, VIRGINIA

SCALE: AS NOTED C.I.= N/A DATE: APRIL 8, 2022

SHEET 43 OF 51

FILE No. DSUP-13079

Urban, Ltd. - J:\JOBS\LandmarkMall\DSUP\Block-I\Concept 2\13079-07-ELEVATIONS.dwg [ELEVATION1 (12)] April 08, 2022 - 10:16am bfolsom

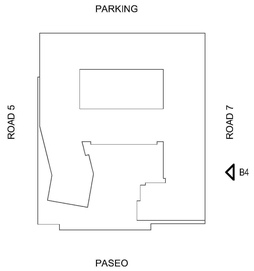
MATERIAL PERCENT (EAST ELEVATION)	
BRICK	- 38%
GLAZING	- 25%
WOOD PHENOLIC	- 0%
PORCELAIN TILE	- 0%
FIBER CEMENT PANEL	- 8%
METAL PANEL	- 0%
STONE	- 0%
CMU / MURAL /GREEN WALL	- 29%
BOARD AND BATTEN FCP	- 0%



B4 OVERALL ELEVATION - EAST

1/16" = 1'-0" 0 8' 16' 32'





A4 3D VIEW - EAST

1/16" = 1'-0" 0 8' 16' 32'

APPROVED

DEVELOPMENT SITE PLAN NO. _____

DEPARTMENT OF PLANNING & ZONING

DIRECTOR _____ DATE _____

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LANDMARK MALL REDEVELOPMENT CONCEPT 2 - BLOCK I

CITY OF ALEXANDRIA, VIRGINIA

SCALE: AS NOTED C.I.= N/A DATE: APRIL 8, 2022

SHEET 44 OF 51

FILE No. DSUP-13079

Urban, Ltd. - J:\JOBS\LandmarkMall\DSUP\Block-I\Concept 2\13079-07-ELEVATIONS.dwg [ELEVATION1 (13)] April 08, 2022 - 10:16am bfolsom

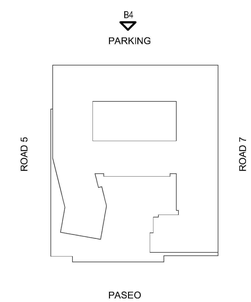
MATERIAL PERCENT (NORTH ELEVATION)

BRICK	- 17%
GLAZING	- 19%
WOOD PHENOLIC	- 1%
PORCELAIN TILE	- 0%
FIBER CEMENT PANEL	- 4%
METAL PANEL	- 0%
STONE	- 0%
CMU / MURAL /GREEN WALL	- 39%
BOARD AND BATTEN FCP	- 20%



B4 OVERALL ELEVATION - NORTH

1/16" = 1'-0" 0 8' 16' 32'





A4 3D VIEW - NORTH

1/16" = 1'-0" 0 8' 16' 32'

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CITY OF ALEXANDRIA, VIRGINIA

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SHEET 45 OF 51

FILE No. DSUP-13079

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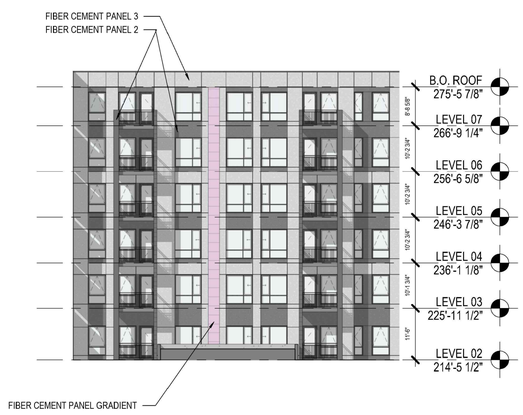
C4 ELEVATION - N. COURTYARD - SOUTH

1/16" = 1'-0" 0 8' 16' 32'



C3 ELEVATION - N. COURTYARD - EAST

1/16" = 1'-0" 0 8' 16' 32'

MATERIAL PERCENT (NORTH COURTYARD)	
BRICK	- 9%
GLAZING	- 38%
WOOD PHENOLIC	- 0%
PORCELAIN TILE	- 0%
FIBER CEMENT PANEL	- 53%
METAL PANEL	- 0%
STONE	- 0%
CMU / MURAL /GREEN WALL	- 0%
BOARD AND BATTEN FCP	- 0%



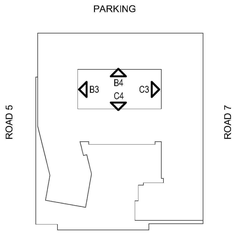
B4 ELEVATION - N. COURTYARD - NORTH

1/16" = 1'-0" 0 8' 16' 32'



B3 ELEVATION - N. COURTYARD - WEST

1/16" = 1'-0" 0 8' 16' 32'



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LANDMARK MALL REDEVELOPMENT
CONCEPT 2 - BLOCK 1

CITY OF ALEXANDRIA, VIRGINIA

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FILE No. DSUP-13079

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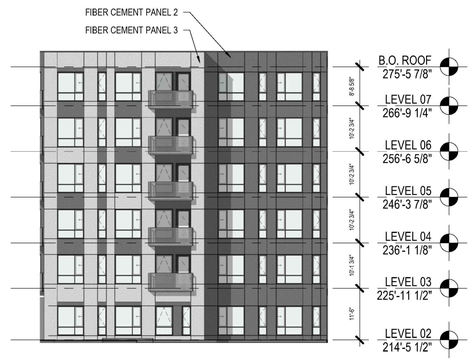
C4 ELEVATION - S. COURTYARD - WEST 1

1/16" = 1'-0" 0 8' 16' 32'



C3 ELEVATION - S. COURTYARD - WEST 2

1/16" = 1'-0" 0 8' 16' 32'

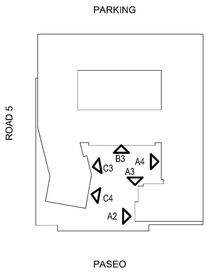
MATERIAL PERCENT (SOUTH COURTYARD)

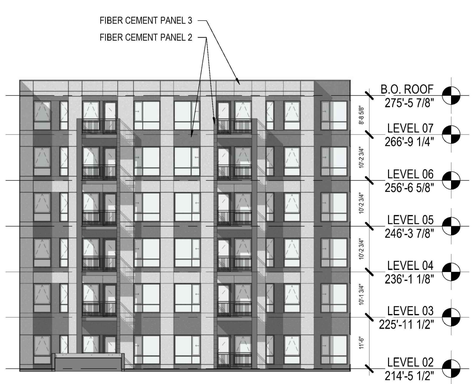
BRICK	- 10%
GLAZING	- 40%
WOOD PHENOLIC	- 2%
PORCELAIN TILE	- 0%
FIBER CEMENT PANEL	- 48%
METAL PANEL	- 0%
STONE	- 0%
CMU / MURAL /GREEN WALL	- 0%
BOARD AND BATTEN FCP	- 0%



B3 ELEVATION - S. COURTYARD - NORTH 2

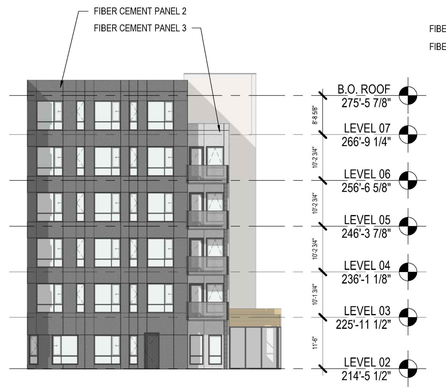
1/16" = 1'-0" 0 8' 16' 32'





A4 ELEVATION - S. COURTYARD - EAST 4

1/16" = 1'-0" 0 8' 16' 32'



A3 ELEVATION - S. COURTYARD - FACING SOUTH

1/16" = 1'-0" 0 8' 16' 32'



A2 ELEVATION - S. COURTYARD - EAST 5

1/16" = 1'-0" 0 8' 16' 32'

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LANDMARK MALL REDEVELOPMENT CONCEPT 2 - BLOCK I

CITY OF ALEXANDRIA, VIRGINIA

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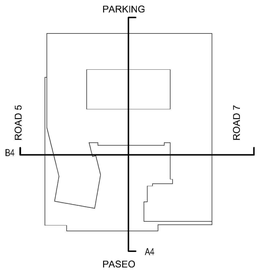
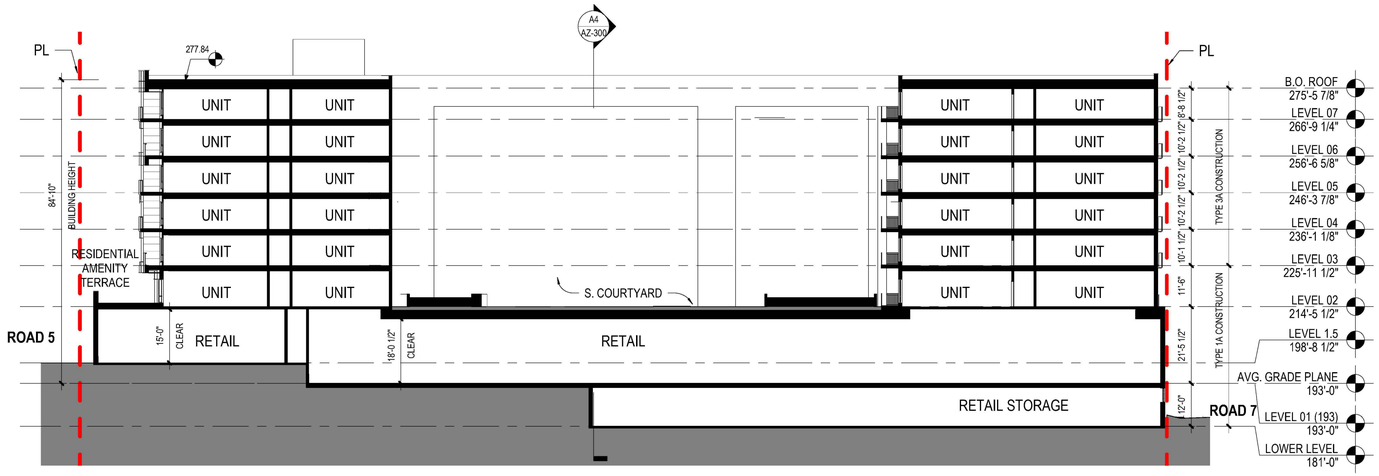
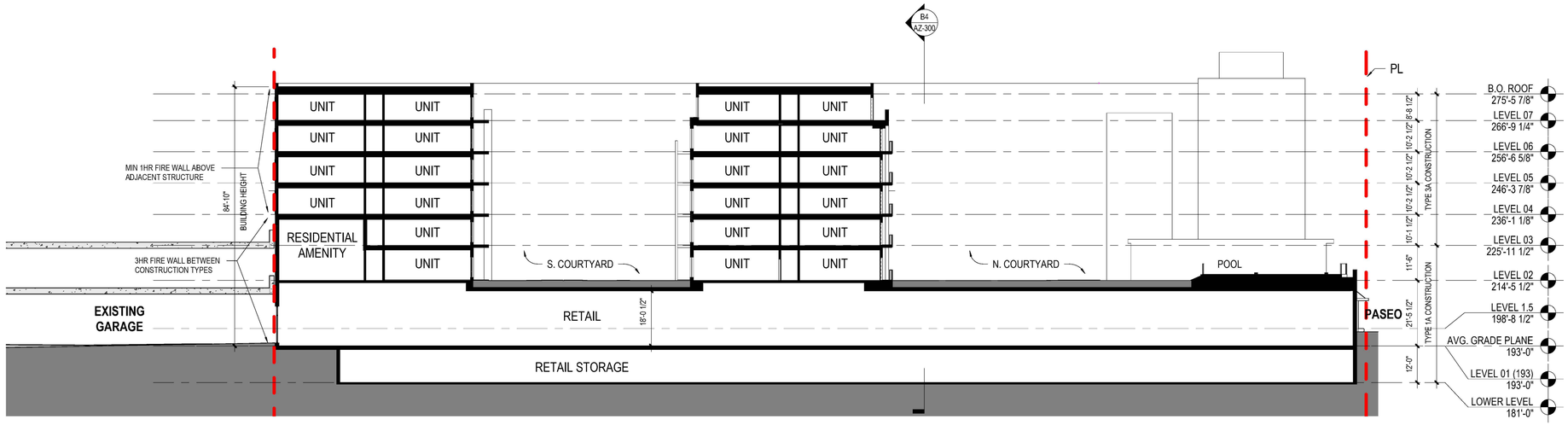




B4 CONCEPT SECTION - EAST-WEST

1" = 20'-0" 0 10' 20' 40'



A4 CONCEPT SECTION - NORTH-SOUTH

1" = 20'-0" 0 10' 20' 40'

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SITE PLAN NO. _____
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FILE No. DSUP-13079

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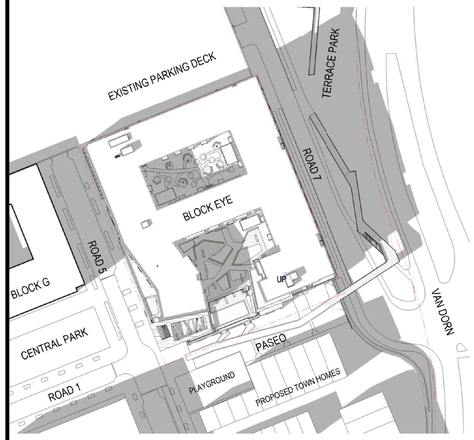
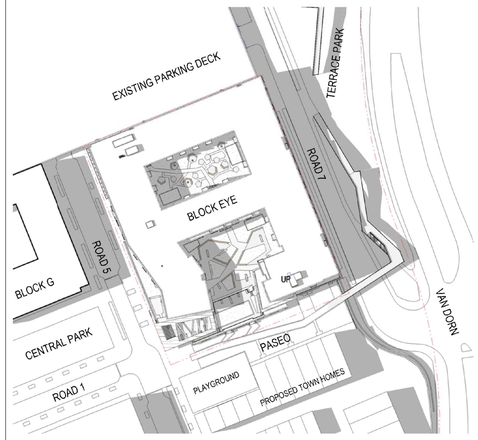
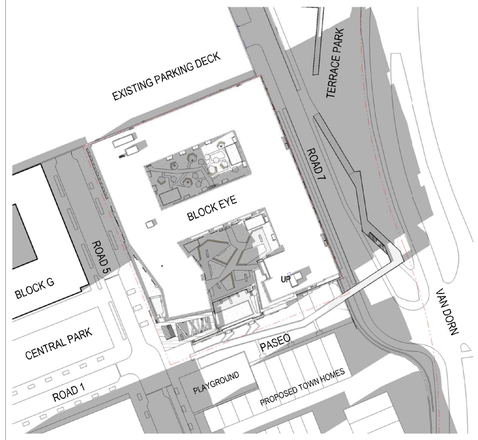


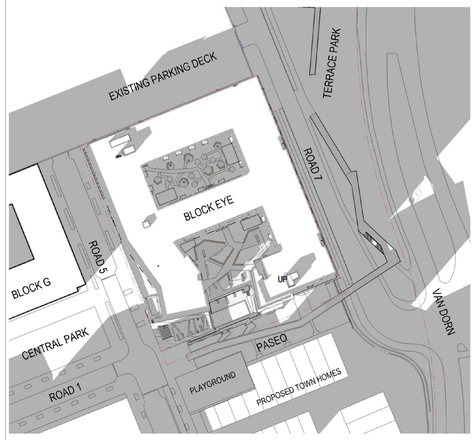
SUN STUDY - MARCH - 3PM



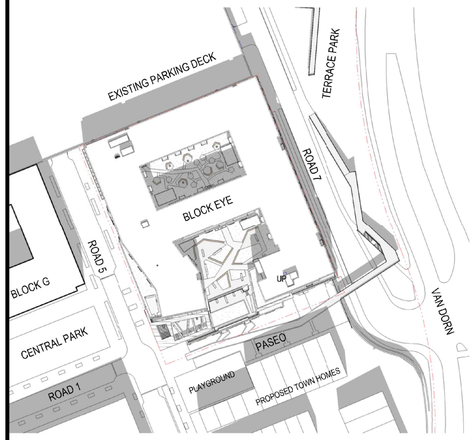
SUN STUDY - JUNE 21 - 3PM



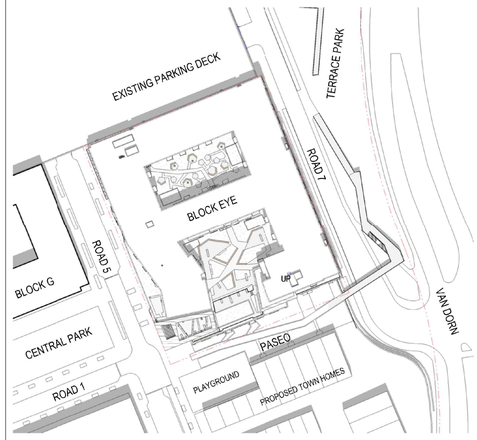
SUN STUDY - SEPTEMBER - 3PM



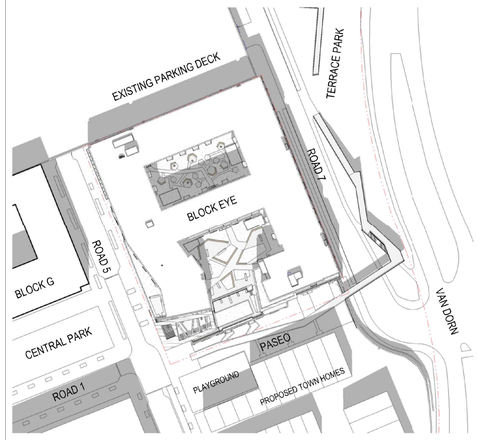
SUN STUDY - DECEMBER - 3PM



SUN STUDY - MARCH - 12PM



SUN STUDY - JUNE 21 - 12PM



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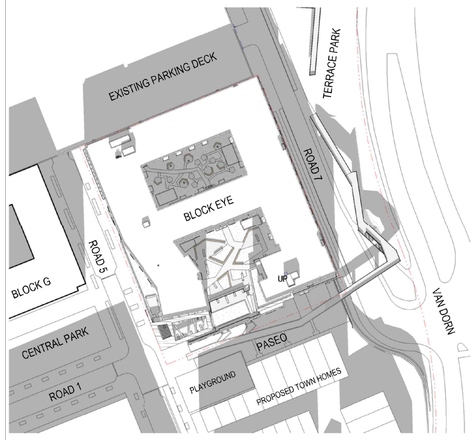
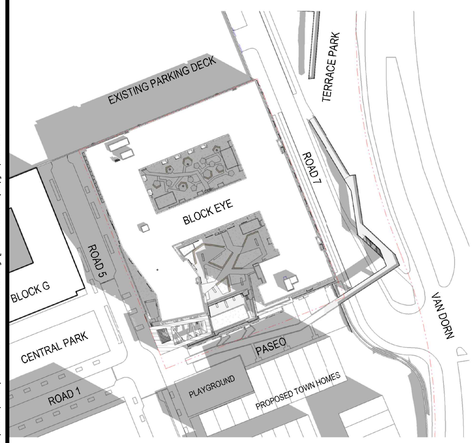
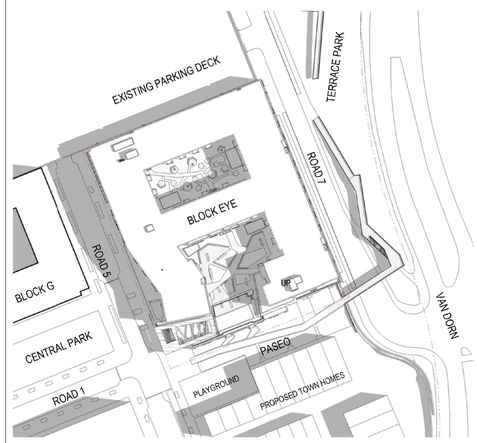


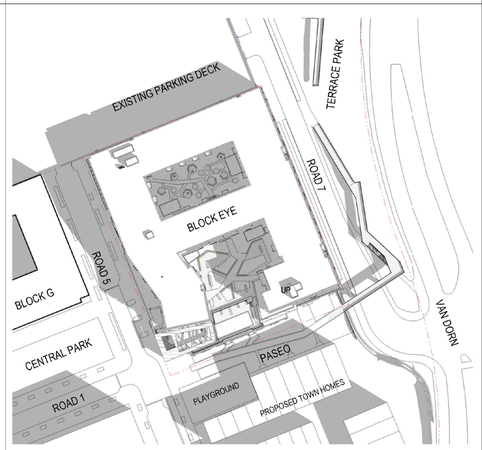
SUN STUDY - DECEMBER - 12PM



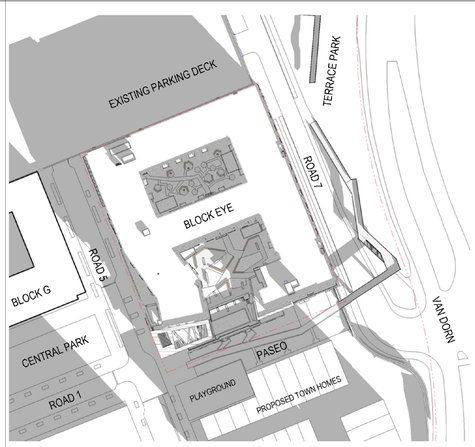
SUN STUDY - MARCH - 9AM



SUN STUDY - JUNE 21 - 9AM



SUN STUDY - SEPTEMBER - 9AM



SUN STUDY - DECEMBER - 9AM

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LANDMARK MALL REDEVELOPMENT CONCEPT 2 - BLOCK I

CITY OF ALEXANDRIA, VIRGINIA

SCALE: AS NOTED C.I.= N/A DATE: APRIL 8, 2022

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FILE No. DSUP-13079

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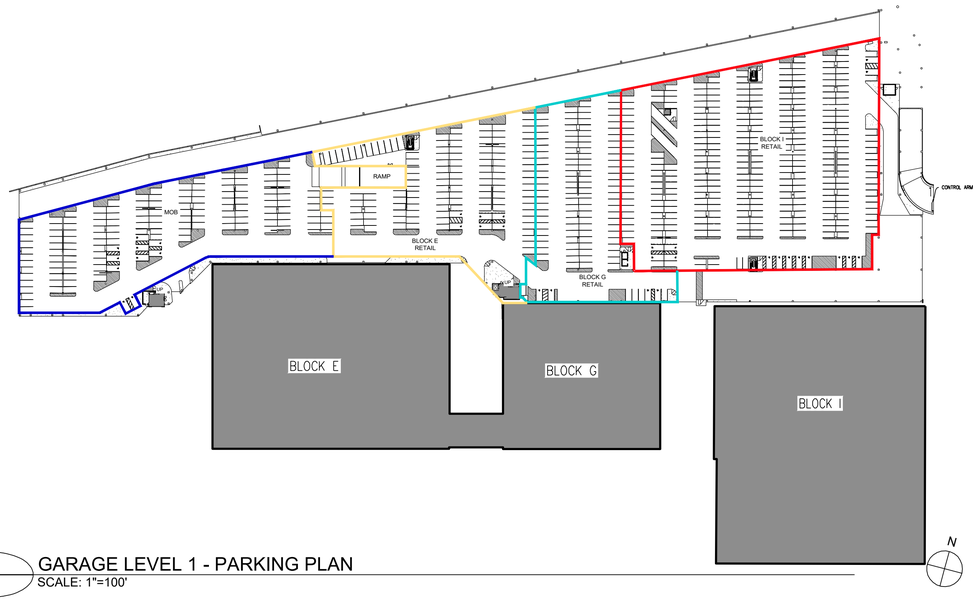
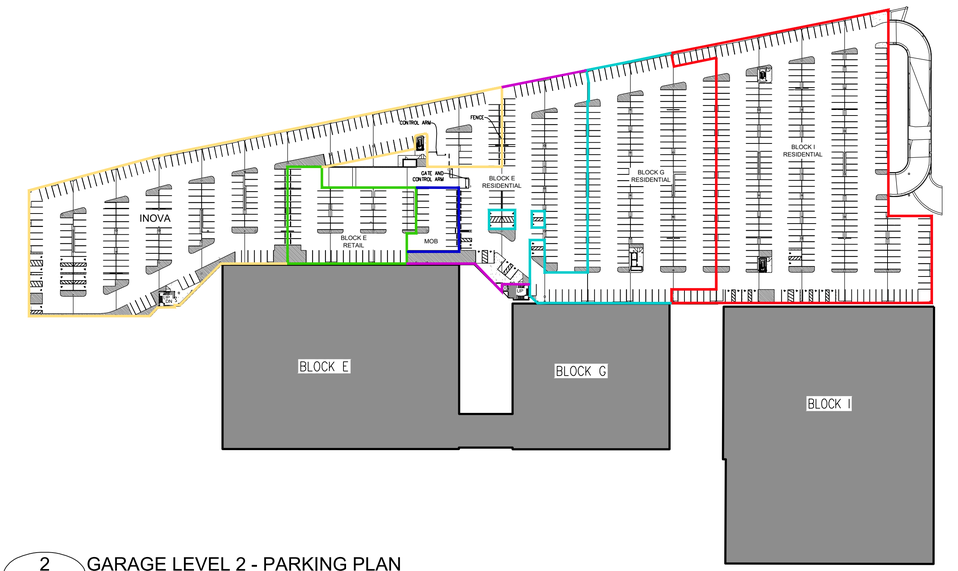
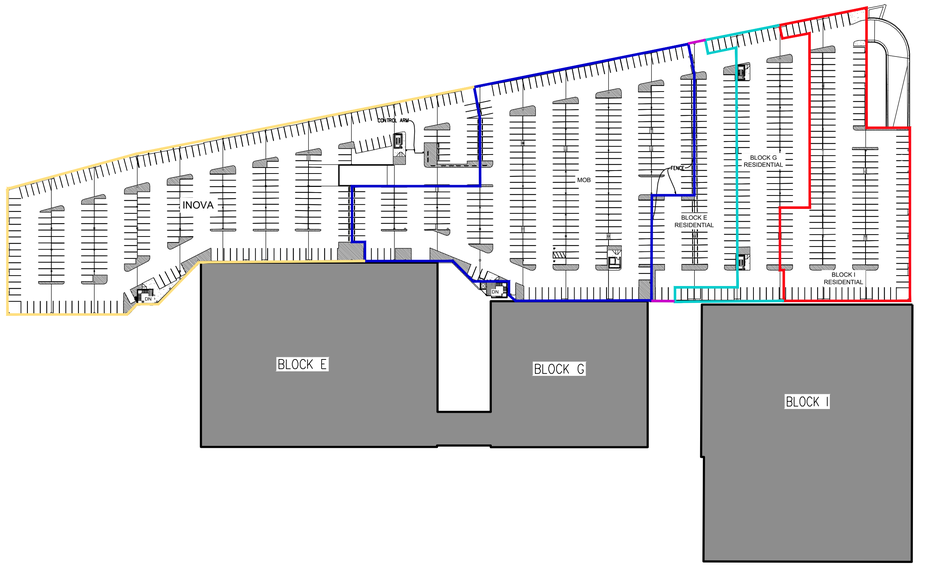


1 GARAGE LEVEL 1 - PARKING PLAN
SCALE: 1"=100'



2 GARAGE LEVEL 2 - PARKING PLAN
SCALE: 1"=100'



3 GARAGE LEVEL 3 - PARKING PLAN
SCALE: 1"=100'

GARAGE PARKING MATRIX

	RETAIL	RESIDENTIAL
LEVEL 1	318	
LEVEL 2	5	325
LEVEL 3		182
TOTAL	323	507

PARKING SPOT LOCATIONS, TOTALS AND ALLOCATIONS HAVE NOT BEEN FINALIZED AND WILL BE ADJUSTED WITHIN THE EXISTING GARAGE FOOTPRINT AS NEEDED TO ADDRESS THE CONCERNS.

LEGEND:

- BLOCK I PARKING LIMITS
- BLOCK G PARKING LIMITS
- BLOCK E PARKING LIMITS
- MOB PARKING LIMITS
- INOVA PARKING LIMITS

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DEVELOPMENT SITE PLAN NO. _____
DEPARTMENT OF PLANNING & ZONING
DIRECTOR DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____
DIRECTOR DATE
CHAIRMAN, PLANNING COMMISSION DATE
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No.	DATE	DESCRIPTION

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PLAN DATE
11-19-2021
04-08-2022

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ARCHITECTURAL PLANS
LANDMARK MALL REDEVELOPMENT
CONCEPT 2 - BLOCK I
CITY OF ALEXANDRIA, VIRGINIA

SCALE: AS NOTED C.I.= N/A DATE: APRIL 8, 2022

SHEET 50 OF 51

FILE No. DSUP-13079

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

Date: April 1st, 2022

Project: LMR Block Eye

Purpose: Concept 2 Submission - Green Building Approach

General Approach

The Landmark Mall Redevelopment (LMR) project is pursuing LEED Neighborhood Development v4 Plan certification. The LMR Block Eye project is pursuing LEED BD+C Multifamily Mid-rise v4 certification at a Silver level. The project will meet the 2019 Green Building Policy requirements as required by the CDD conditions.

Energy

Sustainable Building Partners is hired to perform whole building energy modeling for the project. The effort will analyze the impacts of the envelope, mechanical, plumbing, and electrical systems on the overall energy performance of the building. The effort is iterative, occurring at key design development milestones. Energy efficiency opportunities will be explored and considered to optimize the overall performance and reduce the environmental impacts of the building. Strategies include but are not limited to:

- Window-to-wall ratio
- Window performance
- Envelope thermal transmittance
- Thermal bridging
- Heating and cooling efficiencies
- Ventilation optimization and controls
- Lighting power density

The project will meet the require 14% energy cost savings, equivalent to 5 LEED NC energy points, and explore higher levels of performance as part of this effort. The project will not be part of a district-wide energy system.

The building will be made solar-ready for potential future installation of PV panels.

Water

The project will use native and adaptive plantings throughout the project. The project will include a high-performing irrigation system using drip irrigation, moisture meters, and controllers where necessary to ensure plantings survive and thrive. The use of non-potable water for irrigation will be evaluated.

Low flow plumbing fixtures and ENERGY STAR appliances will be used to reduce potable water use reduction. A 40% water use reduction, at minimum, will be achieved for plumbing fixtures as required by the Green Building Policy. Potential fixture flow rates include: 0.8/1.28 gpf dual flush water closet, 1.0 gpm lavatory faucet, 1.75 gpm showerhead, and 1.5 gpm kitchen faucet. All tank water closets, lavatory faucets, and showerheads will be WaterSense labeled ensuring high-quality fixtures.

Indoor Environmental Quality

Overall occupant comfort and indoor air quality will be achieved by ensuring high quality compartmentalization of the units, which will be tested and measured via unit air leakage testing. This ensures contaminant and odor transfer between units is minimized. Additionally, outdoor air will be provided directly from the outdoors into the units and all outdoor air systems will be equipped with a minimum MERV 8 filter.

Indoor air quality concerns will also be mitigated by using low-emitting flooring, paints and coating, insulation, and ceiling systems within the building. This will be managed and confirmed by reviewing product information and ensuring it carries a GreenGuard Gold label (or equivalent), which is a third-party label that confirms volatile organic compounds levels are below prescribed thresholds.

Lastly, the project team will evaluate daylight penetration into units, amenity, and retail spaces. Window and daylit area will be maximized to the greatest extent possible, while still balancing thermal and energy performance.

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GREEN BUILDING APPROACH
LANDMARK MALL REDEVELOPMENT
CONCEPT 2 - BLOCK I
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