DATE	SUBMISSION

PRELIMINARY DSUP SITE PLAN

THE STRAND CONDOMINIUM

ALEXANDRIA, VIRGINIA

TAX MAP # 075.03-03-05, 075.03-03-06, 075.03-03-07

PREPARED BY:

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engineering · surveying · land planning
christopher consultants, ltd.
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703.273.6820 · fax 703.273.7636

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CIVIL ENGINEER
christopher consultants, ltd.
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FOURTH FLOOR
FAIRFAX, VIRGINIA 22031
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RUST ORLING ARCHITECTURE
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ALEXANDRIA, VIRGINIA 22314
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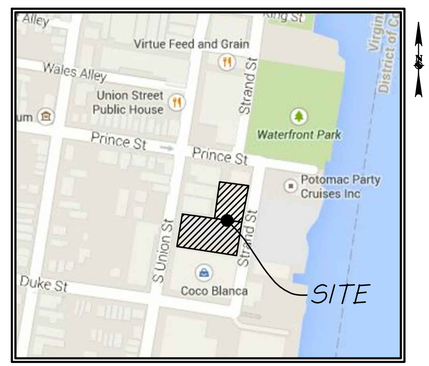
ATTORNEY
McGUIRE WOODS
1750 TYSONS BLVD, SUITE 1800
McLEAN, VA 22102
(703) 712-5000



LOCATION MAP
SCALE 1"= 200'

SHEET INDEX

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C000 COVER SHEET
C100 NOTES AND TABULATIONS
C200 SITE DETAILS
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C600 SIGHT DISTANCE PROFILE
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C800 PRELIMINARY OPEN SPACE PLAN
C900 PRELIMINARY LANDSCAPE PLAN
C901 PRELIMINARY LIGHTING AND SIGNAGE PLAN
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ARCHITECTURAL SHEETS

A1.1 ARCHITECTURAL SITE PLAN
A1.2 FLOOR PLANS
A1.3 FLOOR PLANS
A1.4 FAR DIAGRAMS
A2.1 EXTERIOR ELEVATIONS
A3.1 211 STRAND BUILDING SECTIONS

AREA TABULATIONS:

TOTAL AREA OF TAX PARCEL = 0.619 Ac. OR 26,944 SF

075.03-03-07 - 18,779 S.F. OR 0.431 AC.
075.03-03-06 - 3,639 S.F. OR 0.084 AC.
075.03-03-05 - 3,708 S.F. OR 0.086 AC.
075.03-03-04.R - ALLEY - 818 S.F. OR 0.0188 AC. (ALLOCATION PER AGREEMENT WITH ABUTTING ALLEY OWNERS - SEE BELOW)

TOTAL EXISTING IMPERVIOUS AREA = 0.59 Ac. OR 25,700 SF

TOTAL PROPOSED IMPERVIOUS AREA = 0.52 Ac. OR 22,650 SF

TOTAL DISTURBED AREA = 0.54 Ac. OR 23,350 SF

BUILDING CODE ANALYSIS:

Building Code Data				
		211 Strand St.	205 Strand St.	203 Strand St. (ex'g to remain)
Use Group		R-2/M/S-2/A-3	R-3/M	A-2
Number of stories		5 + Occupied Roof	3	2
Type of Construction		II-B	III-B	existing
Floor Area per floor	1	13,632	2,750	3,325
	2	11,112	2,700	3,161
	3	12,953	2,700	n/a
	4	12,795	n/a	n/a
	5	12,566	n/a	n/a
Sprinklered		yes	yes	

NARRATIVE DESCRIPTION OF DEVELOPMENT

THE SITE IS BORDERED TO THE NORTH BY PRINCE STREET; TO THE EAST BY STRAND STREET; TO THE WEST BY SOUTH UNION STREET AND TO THE SOUTH BY A PROPOSED HOTEL CURRENTLY UNDER CONSTRUCTION. THE ENTIRE SITE FALLS WITHIN THE 100-YEAR FLOODPLAIN. THERE ARE NO STEEP SLOPES ON THE PROPERTY.

THIS PROJECT CONSISTS OF THE REDEVELOPMENT OF THE SUBJECT SITE CURRENTLY OCCUPIED BY THREE EXISTING BUILDINGS CONTAINING RETAIL, OFFICE, AND A RESTAURANT. THE EXISTING BUILDING AT 211 STRAND STREET WILL BE DEMOLISHED. A 5-STORY MULTIFAMILY BUILDING WITH RETAIL, LOBBY AND PARKING ON THE GROUND FLOOR AND IMPROVED STREETSCAPE/OPEN SPACE. GARAGE ACCESS WILL BE PROVIDED BY A RELOCATED ENTRANCE ALONG SOUTH UNION STREET. THE SECOND FLOOR OF THE EXISTING BUILDING AT 205 STRAND STREET WILL BE CONVERTED TO TWO RESIDENTIAL UNITS AND THE FIRST FLOOR WILL BE CONVERTED TO RETAIL. A 1-STORY ADDITION IS PROPOSED FOR 205 STRAND STREET. THE RESTAURANT AT 203 STRAND STREET WILL REMAIN.

SITE ACCESS: THE PRIMARY ACCESS TO THIS SITE WILL BE FROM SOUTH UNION STREET.

SPECIAL USE PERMITS/ZONING MODIFICATIONS/WAIVERS

DEVELOPMENT SPECIAL USE PERMIT
SPECIAL USE PERMIT FOR RESTAURANT IN W-1 ZONE
SPECIAL USE PERMIT FOR HEIGHT OVER 30 FEET IN POTOMAC RIVER VICINITY HEIGHT DISTRICT
RETAIL AND RESIDENTIAL PARKING REDUCTION SPECIAL USE PERMIT
MODIFICATION OF NORTH AND SOUTH SIDE YARD SETBACKS
MODIFICATION OF MINIMUM CANOPY COVERAGE
WAIVER OF SECTION 6-403
SPECIAL USE PERMIT FOR HEIGHT INCREASE FOR 2 PENTHOUSES
PARKING REDUCTION FOR 28 SPACES (20 RETAIL SPACES AND 8 RESIDENTIAL SPACES)
MODIFICATION FOR RESIDENTIAL LOBBY ON GROUND FLOOR IN W-1 ZONE (5-509(A))*

*UNDER THE CURRENT CITY PARKING ORDINANCE, THE APPLICANT REQUESTS A PARKING REDUCTION OF 25 SPACES FOR THE NEW RETAIL SPACE. IF THE CITY APPROVES THE PROPOSED CHANGE TO THE CITY PARKING ORDINANCE OF .25 SPACES PER 1,000 SQUARE FEET OF RETAIL, THE RETAIL PARKING REDUCTION REQUEST WILL BE REDUCED TO 2 SPACES

Complete Streets Criteria		
	New	Upgraded
Crosswalks (number)		
Standard	0	0
High Visibility	0	0
Curb Ramps	0	0
Sidewalks (LF)	0	293
Bicycle Parking (number of spaces)		
Public/Visitor	2	N/A
Private/Garage	10	N/A
Bicycle Paths (LF)	N/A	N/A
Pedestrian Signals	0	0

COMMONWEALTH OF VIRGINIA
JOHN L. HELMS
Lic. No.52485
11/17/2017
PROFESSIONAL ENGINEER

APPROVED
SPECIAL USE PERMIT NO. 2016-0003
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.

C000

107207

GENERAL NOTES

1. THE BOUNDARY INFORMATION FOR THE SUBJECT SITE IS BASED ON A CURRENT FIELD SURVEY PREPARED BY THIS FIRM IN FEBRUARY 2016.
2. EXISTING SITE INFORMATION FOR THE SUBJECT SITE IS BASED ON A CURRENT FIELD SURVEY PREPARED BY THIS FIRM IN JANUARY AND FEBRUARY 2016.
3. THE SUBJECT SITE IS LOCATED ON CITY OF ALEXANDRIA ASSESSMENT MAP 075.03-03-07, 075.03-03-06, 075.03-03-05, AND 075.03-03-04.R.
4. THE PROPERTY SHOWN HEREON IS LOCATED ON F.E.M.A. MAP COMMUNITY PANEL NUMBER 5155190041E, REVISED JUNE 16, 2011, ZONE AE.
5. PENDING OWNER/APPLICANT: THE IDI STRAND LC
6. IN ACCORDANCE WITH THE CITY OF ALEXANDRIA'S MARINE CLAY AREAS MAP DATED NOVEMBER 1976, THERE ARE NO AREAS OF MARINE CLAY LOCATED IN THE VICINITY OF THIS SITE.
7. IN ACCORDANCE WITH THE RESOURCE PROTECTION AREAS MAP ADOPTED JUNE 12, 2004 BY THE CITY COUCIL OF ALEXANDRIA, THERE ARE NO RESOURCE PROTECTION AREAS LOCATED ON THIS PROPERTY.
8. THIS PROJECT IS LOCATED IN A COMBINED SEWER AREA.
9. TO THE BEST OF OUR KNOWLEDGE THE SITE IS NOT LOCATED WITHIN 1,000 FEET OF A SANITARY LANDFILL.
10. TO THE BEST OF OUR KNOWLEDGE THERE ARE AREAS ON-SITE CONTAINING CONTAMINATED SOILS OR CONTAMINATED GROUNDWATER.
11. THERE IS NO OBSERVABLE EVIDENCE OF CEMETERIES OR BURIAL GROUNDS.

SOIL DATA:

A GEOTECHNICAL ENGINEERING REPORT FOR THE SUBJECT PROPERTY WAS PREPARED BY ECS MID-ATLANTIC, LLC IN MARCH, 2016. SOIL BORING TESTS WERE DONE ON SITE TO EVALUATE THE SUBSURFACE CONDITIONS. THE TOP STRATUM CONSISTED OF FILL MATERIAL. BENEATH THE FILL MATERIAL ARE ALLUVIAL SOILS CONSISTING OF GRAVEL, SANDS AND SILTS.

ENVIRONMENTAL SITE ASSESSMENT

1. THERE ARE NO TIDAL WETLANDS, TIDAL SHORES, TRIBUTARY STREAMS, FLOODPLAINS, CONNECTED TIDAL WETLANDS, ISOLATED WETLANDS, HIGHLY ERODIABLE/PERMEABLE SOILS OR BUFFER AREAS ASSOCIATED WITH SHORES, STREAMS, OR WETLANDS LOCATED ON THE SITE. FURTHER, THERE ARE NO WETLAND PERMITS REQUIRED FOR THIS DEVELOPMENT PROJECT. ADDITIONALLY, THERE ARE KNOWN UNDERGROUND STORAGE TANKS OR AREAS OF SOIL OR GROUNDWATER CONTAMINATION ON THE SITE.

   THE FOLLOWING REPORTS WILL BE SUBMITTED TO THE CITY OF ALEXANDRIA FOR REVIEW AND APPROVAL DURING THE FINAL SITE PLAN PROCESS: SITE CHARACTERIZATION REPORT, RISK ASSESSMENT, HAZARDOUS MATERIALS SURVEY OF ALL ONSITE BUILDINGS, SOIL AND GROUNDWATER MANAGEMENT PLAN, AND HEALTH AND SAFETY PLAN. REPORT RECOMMENDATIONS WILL BE FOLLOWED.

2. 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.
3. 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 703-838-4400 EXT 267/255.
4. 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 7AM TO 6PM AND
   - SATURDAYS FROM 9AM TO 6PM
   - NO CONSTRUCTION ACTIVITIES ARE PERMITTED ON SUNDAYS

   PILE DRIVING IS FURTHER RESTRICTED TO THE FOLLOWING HOURS:

   - MONDAY THROUGH FRIDAY FROM 9AM TO 6PM
   - SATURDAYS FROM 10AM TO 4PM.

PROJECT SITE RUNOFF COMPUTATIONS:

PRE-DEVELOPMENT

A = 0.62 ACRES

$C = \frac{(0.03)(0.35) + (0.59)(0.90)}{0.62} = 0.87$

T = 5 MINUTES

I_2 = 6.2 INCHES/HOUR

I_{10} = 9.0 INCHES/HOUR

Q_2 = (0.87)(6.2)(0.62)= 3.344 CFS

Q_{10} = (0.87)(9.0)(0.62)= 4.854 CFS

POST-DEVELOPMENT

A = 0.62 ACRES

$C = \frac{(0.10)(0.35) + (0.52)(0.90)}{0.62} = 0.81$

T_C = 5 MINUTES

I_2 = 6.2 INCHES/HOUR

I_{10} = 9.0 INCHES/HOUR

Q_2 = (0.81)(6.2)(0.62)= 3.113 CFS

Q_{10} = (0.81)(9.0)(0.62)= 4.520 CFS

NET DECREASE IN RUNOFF

Q_2 = 3.344 CFS - 3.113 CFS = 0.231 CFS

Q_{10} = 4.854 CFS - 4.520 CFS = 0.334 CFS

STORM WATER MANAGEMENT NARRATIVE

DUE TO THE REDUCTION IN IMPERVIOUS COVER FOR THE SITE THROUGH REDEVELOPMENT, POST-DEVELOPMENT PEAK RUNOFF FOR THE TWO AND TEN YEAR STORMS WILL NOT EXCEED THE PRE-DEVELOPMENT RATES. PER THE CITY'S STORMWATER MANAGEMENT REQUIREMENTS [ARTICLE XIII 'CHESAPEAKE BAY ENVIRONMENTAL MANAGEMENT' SECTION 13-109.F.1] NO VOLUME CONTROL IS REQUIRED.

ZONING TABULATIONS

SITE LOCATION/ADDRESS:	#203, 205, AND 211 STRAND STREET
EXISTING ZONE:	W-1
PROPOSED ZONE:	W-1
SMALL AREA PLAN DISTRICT:	WATERFRONT PLAN
EXISTING SITE AREA:	075.03-03-07 - 18,779 S.F. OR 0.431 AC. 075.03-03-06 - 3,639 S.F. OR 0.084 AC. 075.03-03-05 - 3,708 S.F. OR 0.085 AC. 075.03-03-04.R - ALLEY - 818 S.F. OR 0.0188 AC. (ALLOCATION PER AGREEMENT WITH ABUTTING ALLEY OWNERS - SEE BELOW)
PROPOSED SITE AREA:	26,126 S.F. OR 0.599 AC. ALLEY ALLOCATION - 818 S.F. TOTAL - 26,944 S.F. OR 0.619 AC.
DEDICATED R.O.W:	0 SF OR 0 Ac.
EXISTING USE:	OFFICE/RETAIL/RESTAURANT
PROPOSED USE:	MULTIFAMILY/RETAIL/RESTAURANT
MAXIMUM FLOOR AREA RATIO:	3.0
EXISTING FLOOR AREA RATIO:	0.65
PROPOSED FLOOR AREA RATIO:	3.0
GROSS FLOOR AREA PROPOSED:	211 STRAND: 66,369 S.F. 205 STRAND: 8,150 S.F. (EXISTING) 203 STRAND: 6,486 S.F. (EXISTING) TOTAL GROSS FLOOR AREA: 81,005 S.F.
NET FLOOR AREA PROPOSED:	80,832 S.F. (MAXIMUM NET FLOOR AREA PROVIDED IN ORDER TO ACCOMMODATE FINAL DESIGN OF BUILDING AND FAR DEDUCTIONS)
MAXIMUM NUMBER OF UNITS:	30 UNITS PER ACRE
PROPOSED NUMBER OF UNITS:	18 DWELLING UNITS (2 & 3 BEDROOM UNITS)
PROPOSED RETAIL GFA:	211 STRAND: 2,266 S.F. 205 STRAND: 1,861 S.F. 203 STRAND: 6,486 S.F. (EXISTING) TOTAL GROSS FLOOR AREA: 10,829 S.F.
REQUIRED LOT SIZE:	1,452 SF / UNIT * 18 UNITS = 26,136 SF < 26,944 SF
OPEN SPACE REQUIRED:	REQUIRED: 300 SF/UNIT = 5,400 SF OR 0.131 AC.
OPEN SPACE PROVIDED:	AT GRADE: 4,729 SF ABOVE GRADE (ROOFTOP): 671 SF TOTAL OPEN SPACE = 5,400 SF OR 20%
MAXIMUM BUILDING HEIGHT:	50' FROM AVERAGE FINISHED GRADE
PROPOSED BUILDING HEIGHT:	50' FROM AVERAGE FINISHED GRADE
AVERAGE FINISHED GRADE:	8.95'
YARDS:	FRONT YARD REQUIRED: N/A FRONT YARD PROVIDED: 0.88' (WEST) FRONT YARD PROVIDED: 1.5' (EAST) SIDE YARD REQUIRED: 16' MINIMUM SIDE YARD PROVIDED: 16.75' (NORTH) SIDE YARD PROVIDED: 10' (SOUTH)
LOT FRONTAGE:	LOT FRONTAGE REQUIRED: 50' LOT FRONTAGE PROVIDED: 104' (WEST) LOT FRONTAGE PROVIDED: 183.98' (EAST)
BASE FLOOD ELEVATION:	BASE FLOOD ELEVATION = 10.2'
PARKING REQUIRED:	RESIDENTIAL (211 + 205 STRAND) 1.0 SPACE PER BEDROOM - 5% 4+ BUS ROUTES = 0.95 SPACES PER BEDROOM 18 UNITS (2 OR 3 BEDROOM) X 0.95 SPACES PER BEDROOM = 34.2 SPACES REQUIRED

RETAIL

211 STRAND	2,266 SF	11 REQUIRED (1.0 PER 210 SF)
205 STRAND	1,861 SF	9 REQUIRED

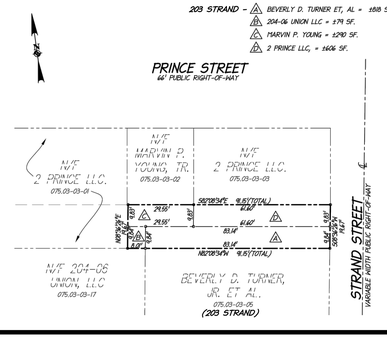
RESTAURANT

203 STRAND	6,486 SF	0 REQUIRED

PARKING PROVIDED:	36 SPACES (GARAGE - 2/UNIT); 17 COMPACT; 2 HANDICAP
PARKING REDUCTION REQUESTED:	28 SPACES
LOADING REQUIRED:	1 SPACE
LOADING PROVIDED:	1 SPACE FOR COMMERCIAL USE IN THE ALLEY
EXISTING TRIP GENERATION:	168 ADT (PER ITE STANDARDS)
PROPOSED TRIP GENERATION:	139 ADT (PER ITE STANDARDS)
APPROXIMATE AREA OF DISTURBANCE DURING CONSTRUCTION:	0.54 AC OR 23,350 SF
BICYCLE PARKING REQUIRED:	12 SPACES
BICYCLE PARKING PROVIDED:	12 SPACES
BASE FLOOD ELEVATION:	10.2'

ALLEY OWNERSHIP ALLOCATION

203 STRAND -
1. BEVERLY D. TURNER ET, AL = ±618 SF.
2. 204-06 UNION LLC = ±79 SF.
3. MARVIN P. YOUNG = ±290 SF.
4. 2 PRINCE LLC, = ±466 SF.



BEST MANAGEMENT PRACTICES:

TO COMPLY WITH THE CHESAPEAKE BAY ACT (CBA) AND ARTICLE XIII OF THE ZONING ORDINANCE, THIS PROJECT WILL PROVIDE WATER QUALITY TREATMENT THROUGH GREEN ROOF. THE DESIGN WILL BE UPDATED WITH FUTURE SUBMISSIONS.

SANITARY DESIGN FLOWS

NO CHANGE TO THE EXISTING FLOWS FROM 203 STRAND STREET

CITY OF ALEXANDRIA RECOMMENDED AVERAGE DESIGN FLOWS:

300 GPD/UNIT (FOR RESIDENTIAL)
200 GPD/1,000 SF (FOR RETAIL)

(300 GPD/UNIT X 18 UNITS) + (200 GPD/1,000 SF X 2,266 SF) = 5,854 GPD

PEAK FACTOR FOR LATERALS = 4.0

5,854 GPD * (4) = 23,416 GPD > 10,000 GPD#

#PER MEMO TO INDUSTRY 2002-0007,
ADEQUATE OUTFALL ANALYSIS NECESSARY - SEE SHEET C502

Q = (5,854 GPD / 7.48 GAL/CF) * (DAY/86,400 SEC) = 0.009 C.F.S.

DESIGN FLOW = 0.009 X 4.0 = 0.036 C.F.S.

UTILITY CONTACTS:

WASHINGTON GAS
MR. PAT ESTRADA-PALMA
6801 INDUSTRIAL ROAD
SPRINGFIELD, VA 22151
(703) 750-4289

VERIZON
MR. STEVE H PURYEAR,
SUPERVISOR-ENGINEERING
2980 FAIRVIEW PARK DRIVE, 6TH FLOOR
FALLS CHURCH, VA 22042
(703) 204-5072

DOMINION VIRGINIA POWER
MR. KEN HOLMES
907 WEST GLEBE ROAD.
ALEXANDRIA, VA 22305
(703) 838-2478

VIRGINIA AMERICAN WATER COMPANY
STEVEN CHEN
2225 DUKE STREET
ALEXANDRIA, VA 22314
(703) 706-3863

COMCAST CABLE
MR. GUSTAVO CATELLON
2707 WILSON BLVD.
ARLINGTON, VA 22201
(703) 926-0534

CITY OF ALEXANDRIA DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
301 KING STREET, ROOM 4100
ALEXANDRIA, VA 22314
(703) 746-4025

GREEN BUILDING POLICY

THE SITE WILL COMPLY WITH THE CITY OF ALEXANDRIA'S GREEN BUILDING POLICY

ARCHAEOLOGY NOTES

1. THE APPLICANT/DEVELOPER SHALL CALL ALEXANDRIA ARCHAEOLOGY IMMEDIATELY (703-746-4399) IF ANY BURIED STRUCTURAL REMAINS (WALL FOUNDATIONS, WELLS, PRIVIES, CISTERNS, ETC.) OR CONCENTRATIONS OF ARTIFACTS ARE DISCOVERED DURING DEVELOPMENT. WORK MUST CEASE IN THE AREA OF THE DISCOVERY UNTIL A CITY ARCHAEOLOGIST COMES TO THE SITE AND RECORDS THE FINDS.

2. THE APPLICANT/DEVELOPER SHALL NOT ALLOW ANY METAL DETECTION TO BE CONDUCTED ON THE PROPERTY , UNLESS AUTHORIZED BY ALEXANDRIA ARCHAEOLOGY.

WALKABILITY SCORE

Walkability Index Use Types & Categories Chart

TABLE: USE TYPES & CATEGORIES

Category	Max. Points	Use or Service Type	0.25 mi. or less	0.25 - 0.5 mi.
Food Retail	15	Supermarket or grocery with produce section (min. 5,000 gross square footage)	15	5
Community-serving retail	20	Convenience Store	7	3
		Farmers Market (min. 9 months per year) X	5	-
		Hardware store X	5	-
		Pharmacy1	5	5
		Other retail2	3	-
Services	20	Bank (not ATM)	5	-
		Family entertainment venue (e.g. theater, sports) X	5	-
		Gym, health club, exercise studio X	5	-
		Hair care	3	-
		Laundry, dry cleaner X	5	-
		Restaurant, café, diner (excluding those with only drive-thru only service).	5 (2)	5
Civic and community facilities	35	Adult or senior care (licensed) X	3	-
		Child care (licensed) X	3	-
		Cultural arts facility (museum, performing arts)	5	-
		Education facility (e.g. K-12 school)	10	5
		Education facility (e.g. university, adult education center, vocational school, community college) X	5	-
		Government office that serves public on-site	3	-
		Medical clinic or office that treats patients3 X	3	-
		Place of worship	5 X	-
		Police or fire station	3	-
		Post office X	5	-
		Public library X	5	-
		Public park	10	5
		Community recreation center X	3	-
		Social services center	3	-
Community anchor uses	10	Business office (100 or more FTE) ?	10	5

1Pharmacies may be co-located with grocery stores
2Multiple retail uses may be counted if they are of a different type
3Only up to two restaurants may be counted

63

2

DATE	SUBMISSION

ALL CONSTRUCTION SHALL CONFORM TO THE CURRENT CITY OF ALEXANDRIA STANDARDS AND SPECIFICATIONS

LEGEND

DISTURBED AREA: 0.54 AC OR 23,350 S.F.

Utilities - Water
- WATER VALVE
- FIRE HYDRANT
- WATER METER

Utilities - Sanitary
- SANITARY MANHOLE
- CLEAN OUT

Utilities - Storm
- STORM DRAIN INLET
- STORM DRAIN MANHOLE
- STORM CATCH BASIN
- STORM INVERT

Utilities - Electric
- LIGHT POLE
- ELECTRIC MANHOLE
- ELECTRIC VAULT
- POWER POLE

Utilities - Communication
- COMMUNICATION PEDESTAL
- COMMUNICATION MANHOLE
- COMMUNICATION VAULT

Utilities - Gas
- GAS VALVE
- GAS METER

Misc. Symbols
- UNIDENTIFIED MANHOLE
- SIGN
- BOLLARD
- GROUND SPOT SHOT
- BUILDING HEIGHT MEASUREMENT
- METAL POST
- EXISTING PARCEL IDENTIFICATION
- PARKING SPACE COUNT
- STORM STRUCTURE
- SANITARY STRUCTURE
- DECIDUOUS TREE
- CONIFEROUS TREE

Linetypes
- FENCE
- UNDERGROUND SANITARY LINE
- UNDERGROUND GAS LINE
- UNDERGROUND ELECTRIC LINE
- UNDERGROUND COMMUNICATION LINE
- UNDERGROUND WATER LINE
- UNIDENTIFIED UNDERGROUND UTILITY
- GAS LINE SCALED PER PLANS
- SANITARY LINE SCALED PER PLANS
- STORM LINE SCALED PER PLANS
- CURB & GUTTER
- PROPERTY LINE
- ADJOINER LINE
- EX. INDEX CONTOUR (5')
- EX. INT. CONTOUR (1')
- EDGE OF WATER
- CENTERLINE OF R/W

Abbreviations

C&G	CURB & GUTTER
RCP	REIN. CONC. PIPE
CLF	CHAIN LINK FENCE
WF	WOOD FENCE
EOW	EDGE OF WATER
EOI	END OF UTILITY INFORMATION

- COMPACT PARKING SPACE
- PROPOSED ENTRANCE
- PROPOSED CURB & GUTTER
- PROPOSED CURB & GUTTER TRANSITION
- DENOTES NUMBER OF STANDARD PARKING SPACES
- FIRE DEPARTMENT CONNECTION (FDC)
- PROPOSED FENCE

APPROVED
SPECIAL USE PERMIT NO. 2016-0003
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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COMMONWEALTH OF VIRGINIA
JOHN L. HELMS
Lic. No.52485
11/17/2017
PROFESSIONAL ENGINEER

NOTES AND TABULATIONS

PRELIMINARY PLAN
THE STRAND CONDOMINIUM
THE CITY OF ALEXANDRIA, VIRGINIA

PROJECT NO: 15048.002.00
SCALE: N/A
DATE: 4/14/17
DESIGN: JLH
DRAWN: AJB
CHECKED: KMW
SHEET No.
C100

107207

STORM STRUCTURE DATA

EX. A — 159.42 LF OF 15" RCP
- EX. 2531: RIM EL. = 11.11; INV. - (15" RCP FROM WEST = 5.24); INV. - (15" RCP FROM SOUTH = 5.51); INV. - (TO 2645 = 5.15)
- EX. 2645: RIM EL. = 9.66; INV. - (FROM 2531 = 5.02)

EX. B — 26.16 LF OF 15" RCP
- EX. 2645: RIM EL. = 9.66; INV. - (TO 1567 = 4.96)
- EX. 1567: RIM EL. = 9.91; INV. - (FROM 2645 = 3.95)

EX. C — 173.61 LF OF 15" RCP
- EX. 1567: RIM EL. = 9.91; INV. - (TO 1643 = 3.94)
- EX. 1643: RIM EL. = 5.79; INV. - (FROM 1567 = 1.04); INV. - (15" RCP TO EAST = 1.27)

EX. D — 99.40 LF OF 18" RCP
- EX. 2054: RIM EL. = 5.85; INV. - (12" RCP FROM WEST = 1.75); INV. - (10" RCP FROM SOUTH = 2.10); INV. - (10" RCP FROM SOUTH EAST = 2.07); INV. - (15" RCP FROM NORTH = 2.33); INV. - (TO 1458 = 1.35)
- EX. 1458: RIM EL. = 3.73; INV. - (FROM 2054 = -0.57); INV. - (18" RCP TO EAST = -0.67)

EX. E — 7.76 LF OF 12" RCP
- EX. 1455: RIM EL. = 3.27; INV. - (TO 1456 = 0.62)
- EX. 1456: RIM EL. = 3.04; INV. - (FROM 1455 = -0.33); INV. - (12" RCP TO SOUTH EAST = -0.20)

EX. F — 32.30 LF OF 10" T.C.
- EX. 404: RIM EL. = 3.27; INV. - (TO 556 = 0.47)
- EX. 556: RIM EL. = 2.84; INV. - (FROM 404 = 0.76); (STRUCTURE FULL OF WATER, INV TAKEN AT BOTTOM)

EX. 1566: RIM EL. = 6.14 (NO ACCESS, FULL OF DEBRIS)

EX. 2617: RIM EL. = 6.41 (NO ACCESS, FULL OF DEBRIS)

EX. 2472: RIM EL. = 6.17; INV. - (15" RCP TO NORTH EAST = 1.17)

EX. 1445: RIM EL. = 3.37; INV. - (12" RCP TO EAST = 0.60)

EX. 1446: RIM EL. = 2.89; INV. - (PIPE SIZE UNKNOWN = -1.44); (STRUCTURE FULL OF WATER, INV TAKEN AT BOTTOM)

EX. 557: RIM EL. = 2.91 (NO ACCESS, FULL OF DEBRIS)

EX. 317: RIM EL. = 3.17; INV. - (10" T.C. = -0.12); (STRUCTURE FULL OF WATER, INV TAKEN AT BOTTOM)

EX. 551: RIM EL. = 3.18; INV. - (10" T.C. = -0.32); (STRUCTURE FULL OF WATER, INV TAKEN AT BOTTOM)

SANITARY STRUCTURE DATA

EX. A — 126.76 LF OF 10" DIP
- EX. 2052: RIM EL. = 3.54 (NO ACCESS, LID BOLTED)
- EX. 2051: RIM EL. = 5.68; INV. - (FROM 1457 = -1.70)

EX. B — 15.53 LF OF 8" DIP
- EX. 2053: RIM EL. = 5.95; INV. - (8" DIP FROM WEST = 2.50); INV. - (TO 2052 = 2.35)
- EX. 2052: RIM EL. = 5.81; INV. - (FROM 2053 = 1.94)

EX. C — 13.46 LF OF 8" DIP
- EX. 2051: RIM EL. = 5.81; INV. - (TO 2051 = 1.54)
- EX. 2051: RIM EL. = 5.68; INV. - (30" DIP FROM NORTH = -4.58); INV. - (FROM 2052 = -1.22)

EX. D — 173.95 LF OF 30" DIP
- EX. 2051: RIM EL. = 5.68; INV. - (TO 2409 = -4.90)
- EX. 2409: RIM EL. = 6.87; INV. - (FROM 2051 = -4.31)

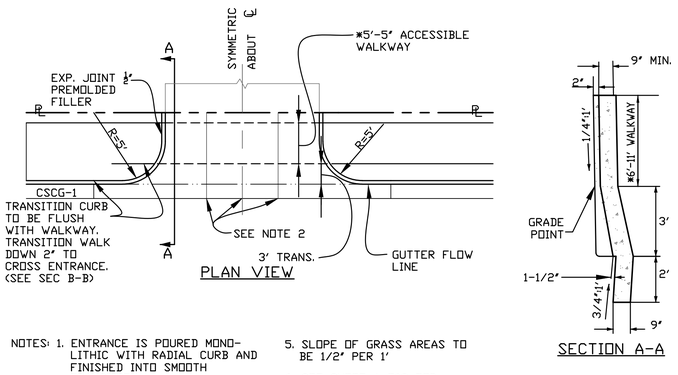
EX. E — 249.64 LF OF 30" DIP
- EX. 2409: RIM EL. = 6.87; INV. - (TO 2533 = -4.33)
- EX. 2533: RIM EL. = 10.82; INV. - (FROM 2409 = -4.83); INV. - (8" DIP FROM WEST = -1.76); INV. - (10" DIP FROM EAST = 0.61); INV. - (10" DIP TO SOUTH = -4.59)

EX. F — 176.27 LF OF 8" T.C.
- EX. 461: RIM EL. = 5.02; INV. - (4" T.C. FROM BUILDING = 0.82); INV. - (TO 1358 = 0.26)
- EX. 359: RIM EL. = 2.89; INV. - (FROM 461 = 0.78); INV. - (10" T.C. TO WEST = -1.21)

EX. G — 93.58 LF OF 10" T.C.
- EX. 359: RIM EL. = 2.89; INV. - (TO 1359 = -1.21)
- EX. 359: RIM EL. = 3.54 (NO ACCESS, LID BOLTED)

EX. 649: RIM EL. = 6.17; INV. - (8" DIP FROM WEST = 4.44); INV. - (10" DIP TO WEST = 1.30)

EX. 251: RIM EL. = 10.16 (NO ACCESS, JERSEY WALL OBSTRUCTING LID)



PLAN VIEW

SECTION A-A

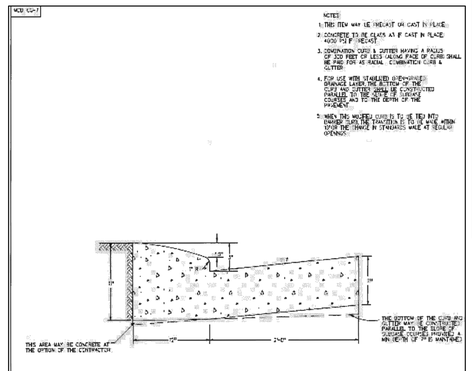
NOTES:
1. ENTRANCE IS POURED MONO-LITHIC WITH RADIAL CURB AND FINISHED INTO SMOOTH TRANSITION.
2. PROVIDE KEYED JOINT AT CENTER LINE AND INTERMEDIATE CONTRACTION JOINTS AT 1/4 OF ENTRANCE WIDTH, IF ENTRANCE WIDTH EXCEEDS 24'.
3. NEW CURB AND SIDEWALK GRADE IS TO CONTINUE THROUGH GRADE POINT AT 1/4":1'.
4. PAY QUANTITIES SQUARE YARDS COMPLETE.
5. SLOPE OF GRASS AREAS TO BE 1/2" PER 1'
6. SEE SHEET A-502 FOR PAVEMENT TREATMENTS AND LOCATIONS.

DETAILS NOT TO SCALE

REVISIONS:
TRANSPORTATION & ENVIRONMENTAL SERVICES DEPARTMENT
ALEXANDRIA VIRGINIA

ENTRANCE INDUSTRIAL

CSEI-1 | PAGE 30



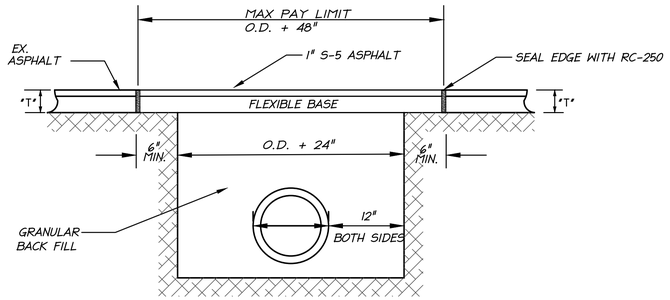
MOUNTABLE CURB

MODIFIED COMBINATION 3" CURB & GUTTER

DATE	SUBMISSION

ALL CONSTRUCTION SHALL CONFORM TO THE CURRENT CITY OF ALEXANDRIA STANDARDS AND SPECIFICATIONS

DISTURBED AREA:
0.54 AC OR 23,350 S.F.



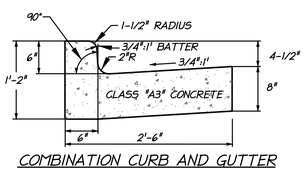
NOTES:
1: B-3 ASPHALT BASE COURSE TO BE 1" BELOW EXISTING PAVEMENT SURFACE; THICKNESS SHALL BE 6" OR "T" MINUS 1"; WHICHEVER IS GREATER. THICKNESS WILL NOT BE LESS THAN EXISTING ASPHALT PAVEMENT.
2: GRANULAR BACK FILL TO BE TAMPED PER CSJT-1 SPECIFICATIONS
3: THIS DETAIL IS FOR THE INSTALLATION OF UTILITIES IN THE RIGHT-OF-WAY.

DETAILS NOT TO SCALE

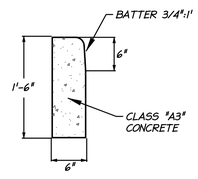
REVISIONS:
TRANSPORTATION & ENVIRONMENTAL SERVICES DEPARTMENT
ALEXANDRIA VIRGINIA

REPLACEMENT SURFACE
(FLEXIBLE BASE)

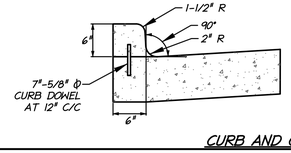
CSRS-2 | PAGE 20



COMBINATION CURB AND GUTTER



COPING CURB



CURB AND GUTTER

DETAILS NOT TO SCALE

REVISIONS:
TRANSPORTATION & ENVIRONMENTAL SERVICES DEPARTMENT
ALEXANDRIA VIRGINIA

CURB AND GUTTER AND COPING CURB

CSCG-1 | PAGE 24

APPROVED
SPECIAL USE PERMIT NO. 2016-0003
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.

christopher consultants
engineering · surveying · land planning
9900 main street (fourth floor) · fairfax va. 22031-3507
703.273.6820 · fax 703.273.7636

COMMONWEALTH OF VIRGINIA
JOHN L. HELMS
Lic. No.52485
11/17/2017
PROFESSIONAL ENGINEER

SITE DETAILS

PRELIMINARY PLAN
THE STRAND CONDOMINIUM
THE CITY OF ALEXANDRIA, VIRGINIA

PROJECT NO:15048.002.00
SCALE: N/A
DATE: 4/14/17
DESIGN: JLH
DRAWN: AJB
CHECKED: KMW
SHEET No. C200

107207

P:\Projects\15048\00200\107207 Preliminary\C-200 SITE DETAILS.dwg, 11/20/2017 11:56:55 AM, johnhelms, 1:1, christopher consultants, ltd

GENERAL NOTES

1. THE PROPERTIES SHOWN HEREON ARE NOW IN THE NAME OF BEVERLY D. TURNER, JR. ET AL., RECORDED AT DEED BOOK 748 AT PAGE 784, DEED BOOK 851 AT PAGE 343, DEED BOOK 875 AT PAGE 749 ALL AMONG THE LAND RECORDS OF THE CITY OF ALEXANDRIA, VIRGINIA.

2. DURING THE PROCESS OF OUR PHYSICAL SURVEY NO INDICATIONS OF A CEMETERY WERE FOUND. NO FURTHER INSPECTION OF THESE PROPERTIES HAVE BEEN MADE FOR POSSIBLE CEMETERIES.

3. A TITLE REPORT WAS FURNISHED AND HAS BEEN INCORPORATED HEREON. ALL UNDERLYING TITLE LINES, RIGHT-OF-WAYS, EASEMENTS, ENCUMBRANCES OR OTHER CIRCUMSTANCES AFFECTING THE SUBJECT PROPERTY ARE AS SHOWN BY THE TITLE REPORT FURNISHED BY FIRST AMERICAN TITLE INSURANCE COMPANY, COMMITMENT NUMBER AI5013611CL AND WITH AN EFFECTIVE DATE OF JANUARY 4th, 2016.

4. A.) HORIZONTAL DATUM SHOWN HEREON IS REFERENCED TO THE NORTH AMERICAN DATUM OF 1983 (NAD 83) - VIRGINIA STATE GRID NORTH ZONE AS ESTABLISHED FROM A RECENT FIELD SURVEY PERFORMED BY C.P. JOHNSON & ASSOCIATES.

   B.) THE VERTICAL DATUM SHOWN HEREON IS REFERENCE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) AS ESTABLISHED FROM A RECENT FIELD SURVEY PERFORMED BY C.P. JOHNSON & ASSOCIATES.

5. NO GEOTECHNICAL, SUBSURFACE, FIELD REVIEWS, RESEARCH, AGENCY OR GOVERNMENTAL RECORD REVIEWS, OR OTHER INVESTIGATIONS HAVE BEEN MADE FOR THE PURPOSE OF LOCATING, OR DETERMINING THE EXISTENCE OF WETLANDS, HAZARDOUS MATERIALS, OR OTHER ENVIRONMENTAL CONCERNS ON SITE IN THE PERFORMANCE OF CHRISTOPHER CONSULTANTS, LTD SERVICES FOR THE PROJECT AS SHOWN HEREON.

6. ALL BUILDING DIMENSIONS ARE MEASURED AT THE OUTSIDE GROUND LEVEL OF BUILDING.

7. THERE ARE 26 REGULAR PARKING SPACES AND NO HANDICAP PARKING SPACES WITHIN THE LIMITS OF THE SURVEY.

8. THE PERPETUAL INGRESS-EGRESS EASEMENT SHOWN HEREON IS BASED UPON A PLAT ENTITLED "PLAT SHOWING A NON-EXCLUSIVE PERPETUAL INGRESS-EGRESS EASEMENT ON THE LAND OF BEVERLY D. TURNER, JR., JAMES A TURNER, DORIS TURNER-WHITESTONE", BY HOLLAND ENGINEERING AND DATED FEBRUARY 16th, 1995. THERE HAS BEEN NO EVIDENCE OF THIS PLAT BEING RECORDED AT THE TIME OF THIS SURVEY.

FLOOD ZONE NOTE

THE PROPERTIES SHOWN HEREON ARE LOCATED ON THE FLOOD INSURANCE RATE MAP (FIRM), COMMUNITY PANEL NO. 5155190041E, REVISED AND EFFECTIVE ON JUNE 16, 2011.

BY GRAPHIC DEPICTION ONLY (UNLESS OTHERWISE NOTED), THE PROPERTIES SHOWN HEREON ARE SHOWN IN:

- FLOOD ZONE "AE". SPECIAL FLOOD HAZARD AREA SUBJECT TO INUNDATION BY 1% ANNUAL CHANCE FLOOD (100-YEAR FLOOD - BASE FLOOD AREAS DETERMINED.)

A FIELD SURVEY WAS NOT PERFORMED TO DETERMINE THE FLOOD ZONES LISTED HEREON. AN ELEVATION CERTIFICATE MAY BE NEEDED TO VERIFY THIS DETERMINATION OR APPLY FOR A VARIANCE FROM THE FEDERAL EMERGENCY MANAGEMENT AGENCY.

UTILITY MARKING NOTES:

1) THE LOCATION OF UTILITIES SHOWN HEREON ARE FROM OBSERVED EVIDENCE OF ABOVE GROUND APPURTENANCES AND SURFACE GROUND MARKINGS.

2) BEFORE DIGGING IN THIS AREA, CALL "MISS UTILITY" 1-800-552-7001 FOR FIELD LOCATIONS (REQUEST FOR GROUND MARKINGS) OF UNDERGROUND UTILITY LINES.

3) UTILITY PROFESSIONALS, INC. MARKED FOR THE HORIZONTAL LOCATION OF UNDERGROUND UTILITIES ON 08/08/14.

4) THIS INVESTIGATION DOES NOT INCLUDE THE USE OF GROUND PENETRATING RADAR OR INTRUSIVE METHODS OF INVESTIGATION SUCH AS TEST PITS OR BORINGS.

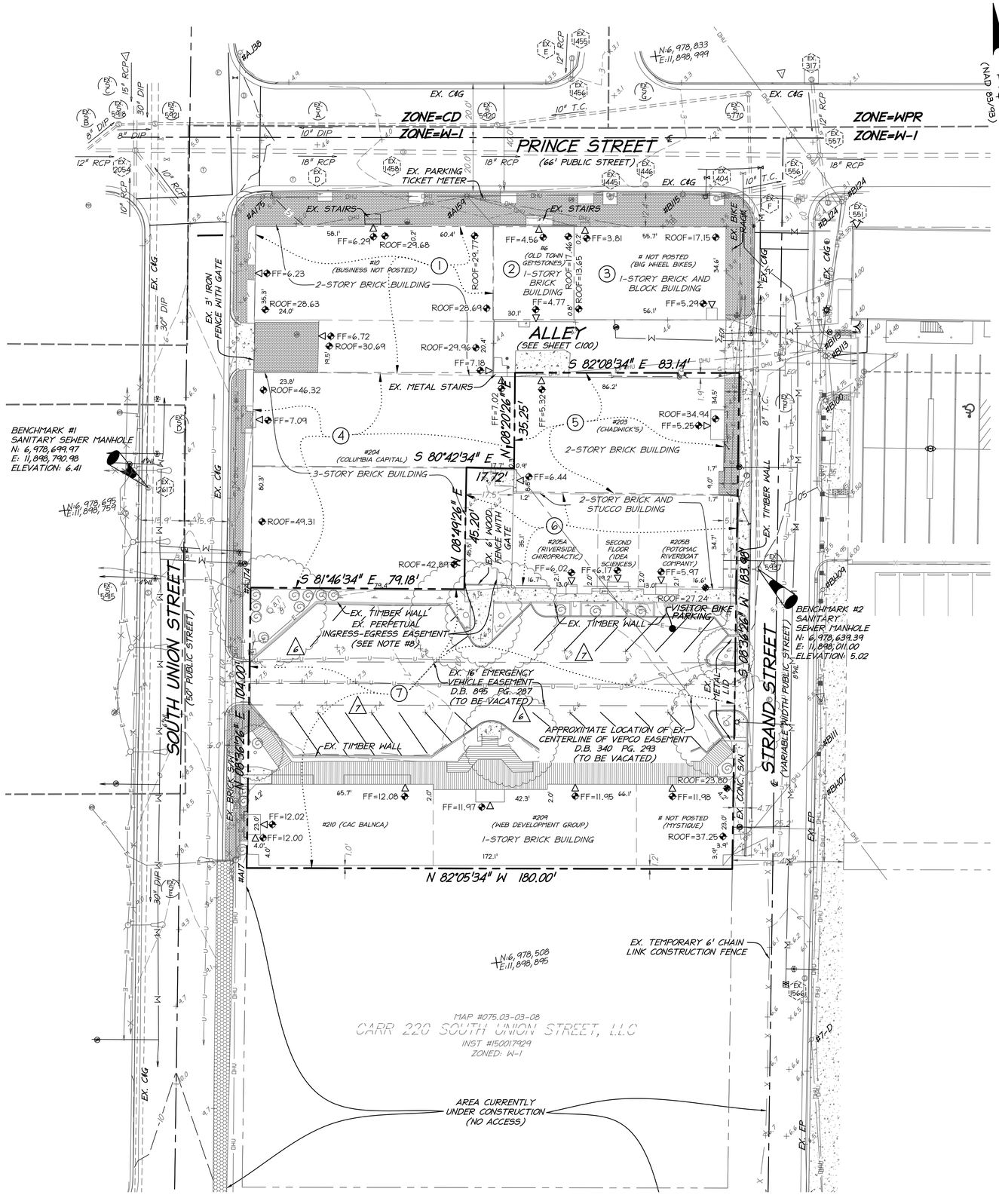
5) THIS INVESTIGATION DOES NOT INCLUDE DESIGNATING SPRINKLER OR IRRIGATION SYSTEMS, BURIED TANKS, SEPTIC SYSTEMS, OR WELLS.

6) DETECTING AND DESIGNATING UTILITIES THAT ARE BURIED DIRECTLY BELOW OTHER UTILITIES ARE NOT PROVIDED.

UTILITY DESCRIPTION	PLANS	MARKED	LOCATED	NOTES
COMMUNICATIONS				
VERIZON		X	X	MARKED AND LOCATED AS SHOWN.
COMCAST		X	X	MARKED AND LOCATED AS SHOWN.
ELECTRIC				
DOMINION VIRGINIA POWER		X	X	MARKED AND LOCATED AS SHOWN.
WATER				
VIRGINIA AMERICAN WATER		X	X	MARKED AND LOCATED AS SHOWN.
GAS				
WASHINGTON GAS		X	X	MARKED AND LOCATED AS SHOWN.
STORM & SANITARY SEWER				
CITY OF ALEXANDRIA	ALEXANDRIA SEWER VIEWER			AS-BUILT DATA OBTAINED WHERE ACCESSIBLE. CERTAIN FEATURES SHOWN PER PLAN.
UNIDENTIFIED				
UNIDENTIFIED UTILITY LINE		X	X	MARKED AND LOCATED AS SHOWN.

EXISTING PARCEL TABULATION AND OWNER INFORMATION

1. PARCEL #075.03-03-01
   OWNER: 2 PRINCE LLC
   INST # 120015524
   4,532 SQ. FT.
   ZONED: W-1
2. PARCEL #075.03-03-02
   OWNER: YOUNG MARVIN P TR
   INST #010024262
   1,035 SQ. FT.
   ZONED: W-1
3. PARCEL #075.03-03-03
   OWNER: 2 PRINCE LLC
   INST. #120015524
   1,960 SQ. FT.
   ZONED: W-1
4. PARCEL #075.03-03-17
   OWNER: 204-206 UNION LLC
   INST #130016243
   5,950 SQ. FT.
   ZONED: W-1
5. PARCEL #075.03-03-05
   OWNER: TURNER BEVERLY D JR ET ALS
   3,708 SQ. FT.
   ZONED: W-1
6. PARCEL #075.03-03-06
   OWNER: TURNER BEVERLY D JR ET ALS
   3,639 SQ. FT.
   ZONED: W-1
7. PARCEL #075.03-03-07
   OWNER: TURNER BEVERLY D JR ET ALS
   INST #150017929
   18,774 SQ. FT.
   ZONED: W-1



DATE	SUBMISSION

ALL CONSTRUCTION SHALL CONFORM TO THE CURRENT CITY OF ALEXANDRIA STANDARDS AND SPECIFICATIONS

DISTURBED AREA:
0.54 AC OR 23,350 S.F.

NOTES:

1. SEE SHEET C100 FOR LEGEND
1. SEE SHEET C200 FOR STORM AND SANITARY STRUCTURE DATA.

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

APPROVED
SPECIAL USE PERMIT NO. 2016-0003
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.

christopher consultants
engineering · surveying · land planning
9900 main street (fourth floor) · fairfax va. 22031-3507
703.273.6820 · fax 703.273.7636

COMMONWEALTH OF VIRGINIA
JOHN L. HELMS
Lic. No.52485
11/17/2017
PROFESSIONAL ENGINEER

EXISTING CONDITIONS PLAN

PRELIMINARY PLAN
THE STRAND CONDOMINIUM
THE CITY OF ALEXANDRIA, VIRGINIA

PROJECT NO:15048.002.00
SCALE: 1"=20'
DATE: 4/14/17
DESIGN: JLH
DRAWN: AJB
CHECKED: KMW
SHEET No.
C300

107207

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OWNERSHIP INFORMATION

1. WATERFRONT PARK
   1A PRINCE STREET
   USE: OPEN SPACE
   ZONE: WPR
2. AMERICAN MEDICAL GROUP ASSOCIATION
   1 PRINCE STREET
   USE: OFFICE
   ZONE: CD
3. SOUTH UNION STREET HOLDINGS LLC
   110 S UNION STREET
   USE: OFFICE
   ZONE: CD
4. 2 PRINCE LLC
   2 PRINCE STREET
   USE: GENERAL COMMERCIAL
   ZONE: W-1
5. YOUNG MARVIN P TR
   6 PRINCE STREET
   USE: GENERAL COMMERCIAL
   ZONE: W-1
6. CITY OF ALEXANDRIA
   #0 PRINCE STREET
   USE: CITY
   ZONE: W-1
7. CITY OF ALEXANDRIA
   208 STRAND STREET
   USE: CITY PARKINGL
   ZONE: W-1
8. CITY OF ALEXANDRIA
   206 STRAND STREET
   USE: CITY PARKING
   ZONE: W-1
9. CITY OF ALEXANDRIA
   210 STRAND STREET
   USE: OPEN SPACE
   ZONE: W-1
10. THE WASHINGTON POST COMPANY
    226 STRAND STREET
    USE: OFFICE/WAREHOUSE
    ZONE: W-1
11. OLD DOMINION BOAT CLUB
    200 STRAND STREET
    USE: GENERAL COMMERCIAL
    ZONE: W-1
12. TURNER BEVERLY D JR ET ALS
    203 STRAND STREET
    USE: RESTAURANT/FST FOOD
    ZONE:W-1
13. TURNER BEVERLY D JR ET ALS
    205 STRAND STREET
    USE: GENERAL COMMERCIAL
    ZONE:W-1
14. TURNER BEVERLY D JR ET ALS
    211 STRAND STREET
    USE: GENERAL COMMERCIAL
    ZONE:W-1
15. CARR 220 SOUTH UNION STREET LLC
    220 S UNION STREET
    USE: HOTEL AND MOTEL
    ZONE: W-1
16. 2 PRINCE LLC
    10 PRINCE STREET
    USE: OFFICE
    ZONE: W-1
17. 204-06 UNION LLC
    206 UNION STREET
    USE: OFFICE
    ZONE: W-1
18. OLINGER DAVID S OR MIRIAM W
    100 PRINCE STREET
    USE: RESIDENTIAL
    ZONE: RM
19. SHOTPUT PROPERTIES LLC
    203 S UNION STREET
    USE: GENERAL COMMERCIAL
    ZONE: W-1
20. BUNN KATHY T OR ROBERT A
    205 S UNION STREET
    USE: GENERAL COMMERCIAL
    ZONE: W-1
21. CAPTAINS LANDING INC.
    299 S UNION STREET
    USE: VACANT - COMMERCIAL
    ZONE: RM
22. SPICER GEORGE W OR AGNES G
    215 S UNION STREET
    USE: GENERAL COMMERCIAL
    ZONE: W-1
23. CUMMINGS INVESTMENT ASSOCIATES INC
    101 DUKE STREET
    USE: PARKING GARAGE
    ZONE: W-1

LEGEND

DASH BUS STOP

DATE	SUBMISSION

ALL CONSTRUCTION SHALL CONFORM TO THE CURRENT CITY OF ALEXANDRIA STANDARDS AND SPECIFICATIONS

DISTURBED AREA:
0.54 AC OR 23,350 S.F.

APPROVED
SPECIAL USE PERMIT NO. 2016-0003
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.

christopher consultants
engineering · surveying · land planning
9900 main street (fourth floor) · fairfax va. 22031-3907
703.273.6820 · fax 703.273.7636

COMMONWEALTH OF VIRGINIA
JOHN L. HELMS
Lic. No.52485
11/17/2017
PROFESSIONAL ENGINEER

CONTEXTUAL PLAN

PRELIMINARY PLAN
THE STRAND CONDOMINIUM
THE CITY OF ALEXANDRIA, VIRGINIA

PROJECT NO:15048.002.00
SCALE: SEE DWG
DATE: 4/14/17
DESIGN: JLH
DRAWN: JLH
CHECKED: KMW
SHEET No.
C301

107207

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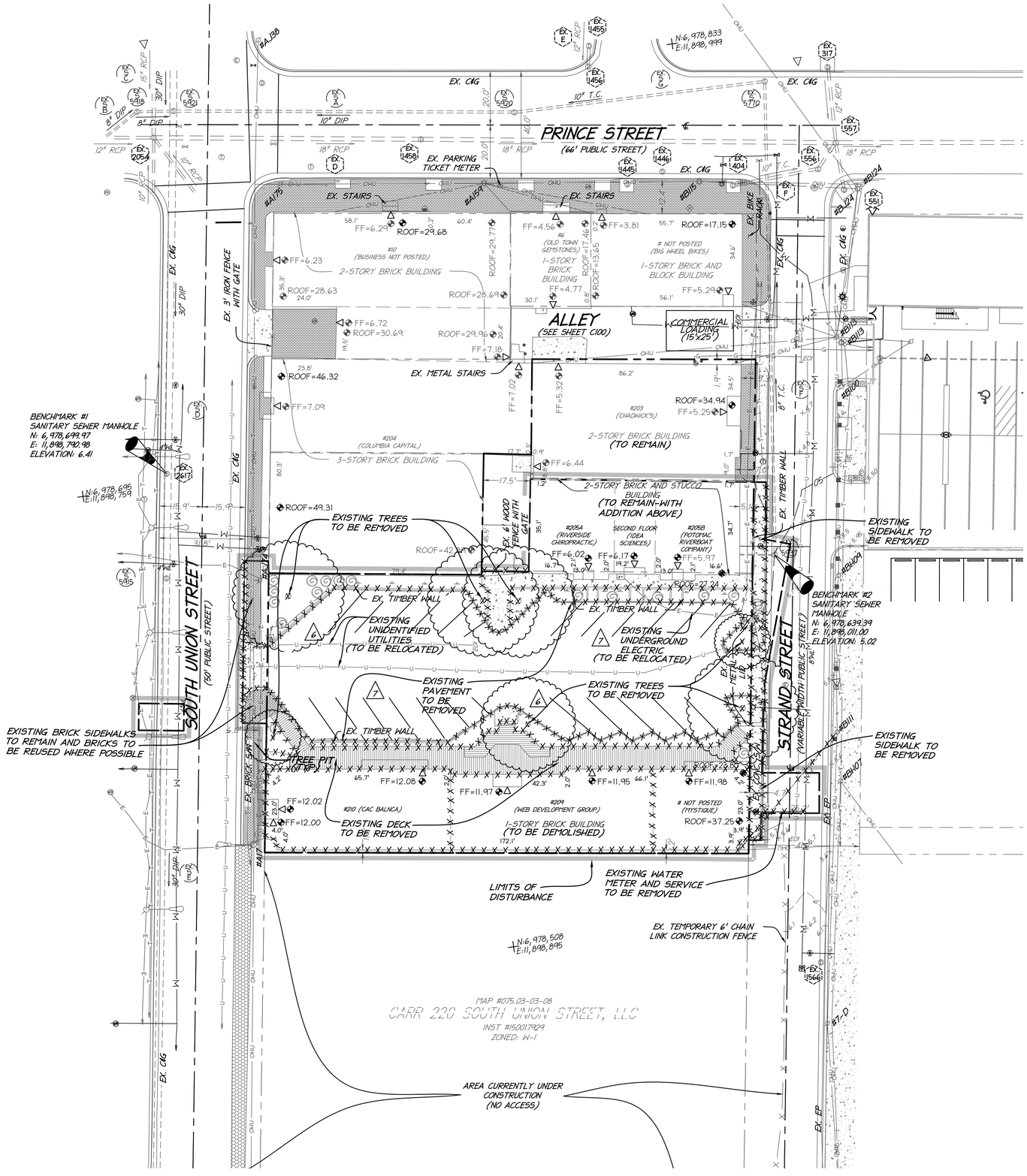

DATE	SUBMISSION

ALL CONSTRUCTION SHALL CONFORM TO THE CURRENT CITY OF ALEXANDRIA STANDARDS AND SPECIFICATIONS

DISTURBED AREA:
0.54 AC OR 23,350 S.F.

NOTES:

1. SEE SHEET C100 FOR LEGEND

ARCHAEOLOGY NOTES

1. THE FINAL SITE PLAN, GRADING PLAN, OR ANY OTHER PERMITS INVOLVING 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) SHALL NOT BE RELEASED UNTIL THE CITY ARCHAEOLOGIST CONFIRMS THAT ALL ARCHAEOLOGICAL FIELD WORK HAS BEEN COMPLETED OR THAT AN APPROVED RESOURCE MANAGEMENT PLAN IS IN PLACE TO RECOVER SIGNIFICANT RESOURCES IN CONCERT WITH CONSTRUCTION ACTIVITIES. TO CONFIRM, CALL ALEXANDRIA ARCHAEOLOGY AT (703) 746-4399.
2. THE APPLICANT / DEVELOPER SHALL CALL ALEXANDRIA ARCHAEOLOGY IMMEDIATELY (703-746-4399) IF ANY BURIED STRUCTURAL REMAINS (WALL FOUNDATIONS, WELLS, PRIVIES, CISTERNS, ETC.) OR CONCENTRATIONS OF ARTIFACTS ARE DISCOVERED DURING DEVELOPMENT. WORK MUST CEASE IN THE AREA OF THE DISCOVERY UNTIL A CITY ARCHAEOLOGIST COMES TO THE SITE AND RECORDS THE FINDS.
3. THE APPLICANT / DEVELOPER 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.

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

APPROVED
SPECIAL USE PERMIT NO. 2016-0003
DEPARTMENT OF PLANNING & ZONING
DIRECTOR DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
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COMMONWEALTH OF VIRGINIA
JOHN L. HELMS
Lic. No.52485
11/17/2017
PROFESSIONAL ENGINEER

DEMOLITION PLAN

PRELIMINARY PLAN
THE STRAND CONDOMINIUM
THE CITY OF ALEXANDRIA, VIRGINIA

PROJECT NO: 15048.002.00
SCALE: 1"=20'
DATE: 4/14/17
DESIGN: JLH
DRAWN: JLH
CHECKED: KMW
SHEET No.
C302

107207

P:\Projects\15048\00200\107207 Preliminary\C-302 DEMO PLAN.dwg, 11/20/2017 11:58:39 AM, johnhelms, 1:1, christopher consultants, ltd

LEGEND

Utilities - Water
- WATER VALVE
- FIRE HYDRANT
- WATER METER

Utilities - Sanitary
- SANITARY MANHOLE
- CLEAN OUT

Utilities - Storm
- STORM DRAIN INLET
- STORM DRAIN MANHOLE
- STORM CATCH BASIN
- STORM INVERT

Utilities - Electric
- LIGHT POLE
- ELECTRIC MANHOLE
- ELECTRIC VAULT
- POWER POLE

Utilities - Communication
- COMMUNICATION PEDESTAL
- COMMUNICATION MANHOLE
- COMMUNICATION VAULT

Utilities - Gas
- GAS VALVE
- GAS METER

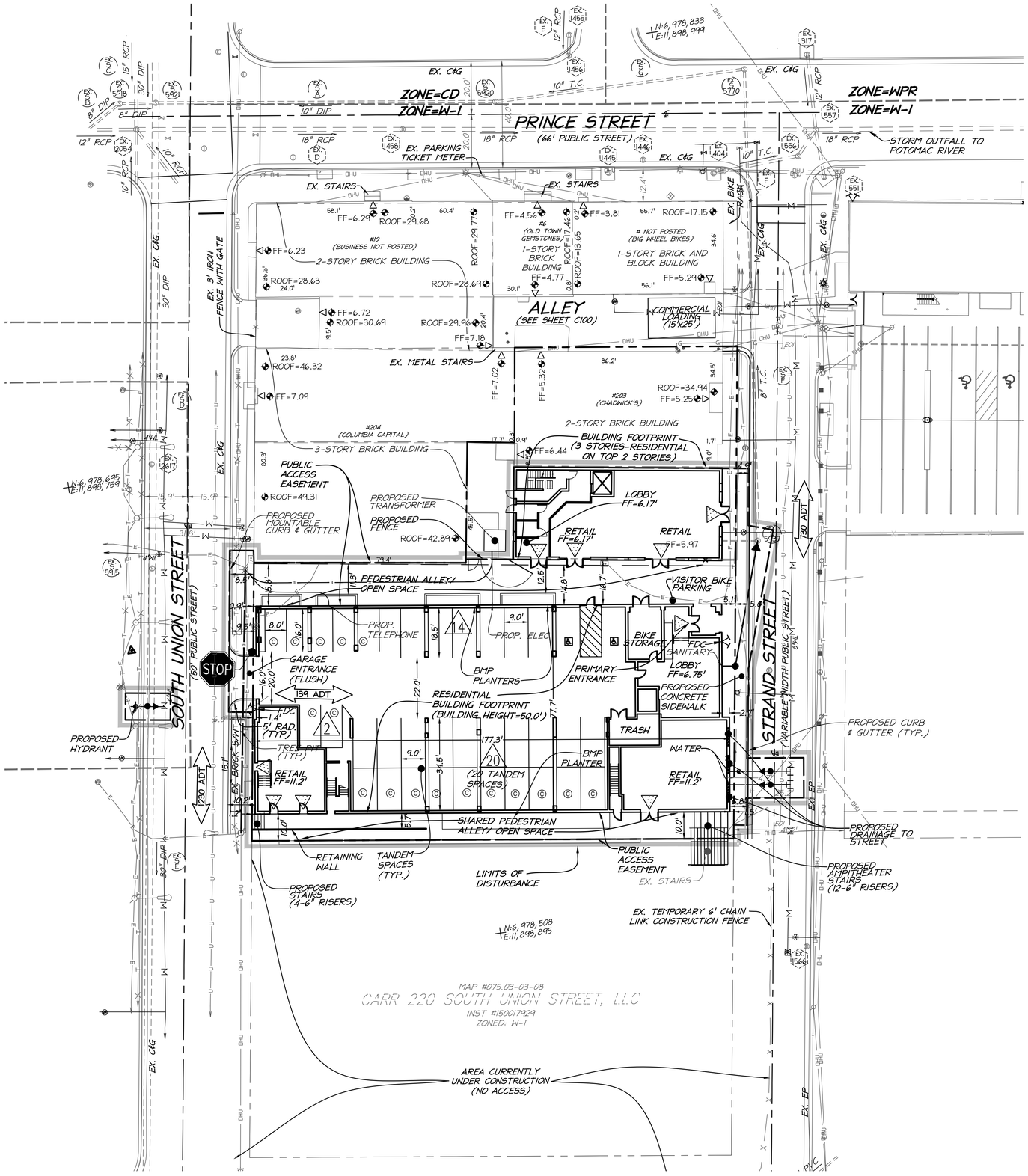
Misc. Symbols
- UNIDENTIFIED MANHOLE
- SIGN
- BOLLARD
- GROUND SPOT SHOT
- BUILDING HEIGHT MEASUREMENT
- METAL POST
- EXISTING PARCEL IDENTIFICATION
- PARKING SPACE COUNT
- STORM STRUCTURE
- SANITARY STRUCTURE
- DECIDUOUS TREE
- CONIFEROUS TREE

Linetypes
- FENCE
- UNDERGROUND SANITARY LINE
- UNDERGROUND GAS LINE
- UNDERGROUND ELECTRIC LINE
- UNDERGROUND COMMUNICATION LINE
- UNDERGROUND WATER LINE
- UNIDENTIFIED UNDERGROUND UTILITY
- GAS LINE SCALED PER PLANS
- SANITARY LINE SCALED PER PLANS
- STORM LINE SCALED PER PLANS
- CURB & GUTTER
- PROPERTY LINE
- ADJOINER LINE
- EX. INDEX CONTOUR (5')
- EX. INT. CONTOUR (1')
- EDGE OF WATER
- CENTERLINE OF R/W

Abbreviations

C&G	CURB & GUTTER
RCP	REIN. CONC. PIPE
CLF	CHAIN LINK FENCE
WF	WOOD FENCE
EOW	EDGE OF WATER
EOI	END OF UTILITY INFORMATION

- COMPACT PARKING SPACE
- PROPOSED ENTRANCE
- PROPOSED CURB & GUTTER
- PROPOSED CURB & GUTTER TRANSITION
- DENOTES NUMBER OF STANDARD PARKING SPACES
- FIRE DEPARTMENT CONNECTION (FDC)
- PROPOSED FENCE



DATE	SUBMISSION

Virginia State Grid North (NAD 83/93)

ALL CONSTRUCTION SHALL CONFORM TO THE CURRENT CITY OF ALEXANDRIA STANDARDS AND SPECIFICATIONS

DISTURBED AREA:
0.54 AC OR 23,350 S.F.

ARCHAEOLOGY NOTES

1. THE FINAL SITE PLAN, GRADING PLAN, OR ANY OTHER PERMITS INVOLVING 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) SHALL NOT BE RELEASED UNTIL THE CITY ARCHAEOLOGIST CONFIRMS THAT ALL ARCHAEOLOGICAL FIELD WORK HAS BEEN COMPLETED OR THAT AN APPROVED RESOURCE MANAGEMENT PLAN IS IN PLACE TO RECOVER SIGNIFICANT RESOURCES IN CONCERT WITH CONSTRUCTION ACTIVITIES. TO CONFIRM, CALL ALEXANDRIA ARCHAEOLOGY AT (703) 746-4399.
2. THE APPLICANT / DEVELOPER SHALL CALL ALEXANDRIA ARCHAEOLOGY IMMEDIATELY (703-746-4399) IF ANY BURIED STRUCTURAL REMAINS (WALL FOUNDATIONS, WELLS, PRIVIES, CISTERNS, ETC.) OR CONCENTRATIONS OF ARTIFACTS ARE DISCOVERED DURING DEVELOPMENT. WORK MUST CEASE IN THE AREA OF THE DISCOVERY UNTIL A CITY ARCHAEOLOGIST COMES TO THE SITE AND RECORDS THE FINDS.
3. THE APPLICANT / DEVELOPER SHALL NOT ALLOW ANY METAL DETECTION AND/OR ARTIFACT COLLECTION TO BE CONDUCTED ON THE PROPERTY, UNLESS AUTHORIZED BY ALEXANDRIA ARCHEOLOGY. FAILURE TO COMPLY SHALL RESULT IN PROJECT DELAYS.

NOTES:

1.) EMERGENCY VEHICLE ACCESS TO THE SITE IS PROVIDED BY THE EXISTING PUBLIC STREETS.
2.) THE EXISTING BRICK SIDEWALK ALONG SOUTH UNION STREET WILL REMAIN AND THE EXISTING BRICKS REUSED WHERE POSSIBLE.
3.) THE EXISTING CONCRETE SIDEWALK ALONG STRAND STREET WILL BE REPLACED WITH A NEW CONCRETE SIDEWALK.
4.) FOR UTILITY OWNER INFORMATION, SEE SHEET C300.
5.) SEE ARCHITECTURAL PLANS FOR DETAILED FLOOR PLANS AND ELEVATIONS.
6.) SEE ARCHITECTURAL PLANS FOR DETAILED STOOP AND RAILING INFORMATION.
7.) TRASH TO BE TAKEN TO THE STREET BY MANAGEMENT.
8.) REFER TO SHEET 402 FOR PROPERTY BEARINGS AND DISTANCES.
9.) SEE SHEET C200 FOR SEWER AND SANITARY STRUCTURE DATA.
10.) THE BICYCLE ROUTE WILL BE THROUGH THE NORTHERN ALLEY.

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

APPROVED
SPECIAL USE PERMIT NO. 2016-0003
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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COMMONWEALTH OF VIRGINIA
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PRELIMINARY SITE PLAN

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PROJECT NO: 15048.002.00
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CHECKED: KMW
SHEET No. C400

107207

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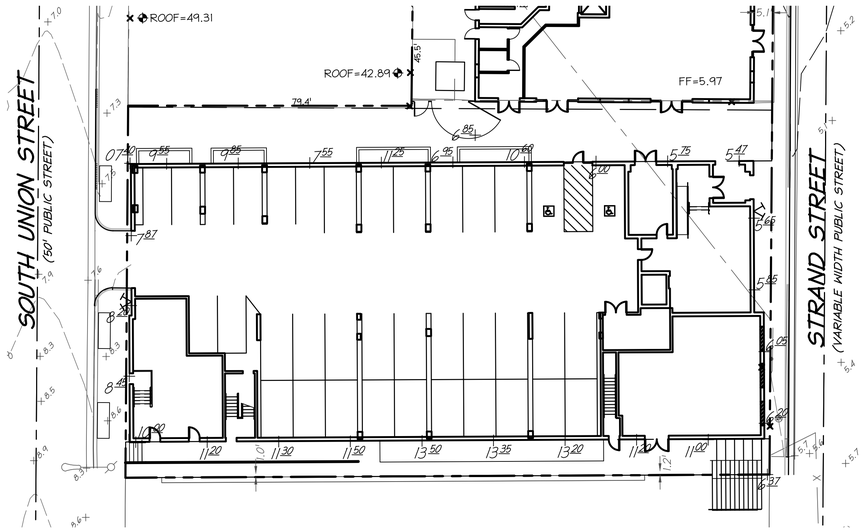

AVERAGE FINISHED GRADE

ELEVATION
7.4
7.87
8.2
8.45
10
11.2
11.3
11.5
13.5
13.35
13.2
11.2
11
6.2
6.05
5.85
5.65
5.47
5.75
6
10.6
6.95
11.25
7.55
9.85
7.55
A.F.G. = 8.95'

ARCHAEOLOGY NOTES

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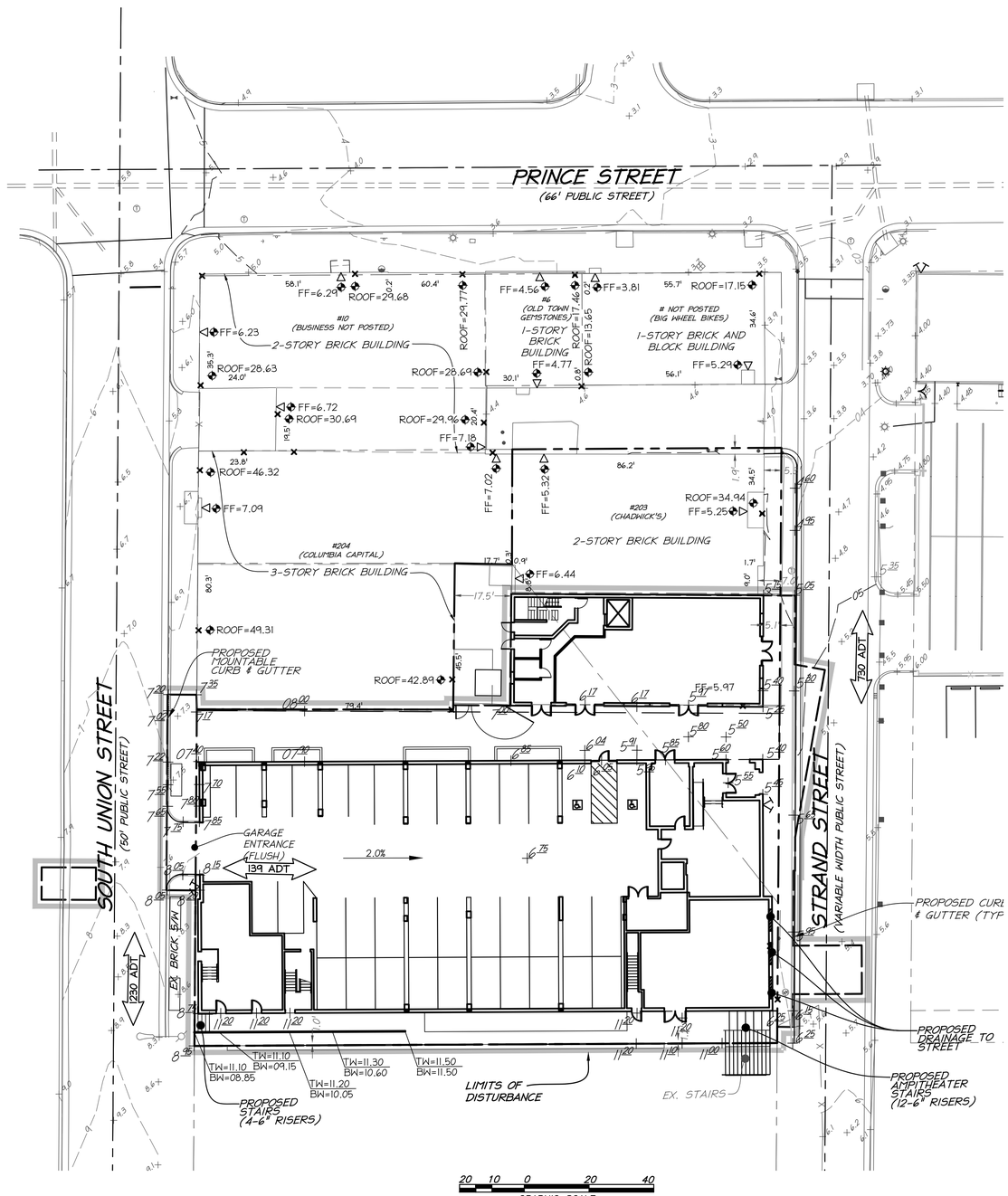

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COMMONWEALTH OF VIRGINIA
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11/17/2017
PROFESSIONAL ENGINEER

PRELIMINARY SITE GRADING PLAN

PRELIMINARY PLAN
THE STRAND CONDOMINIUM
THE CITY OF ALEXANDRIA, VIRGINIA

PROJECT NO:15048.002.00
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CHECKED: KMW
SHEET No.
C401

107207

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NOTES:

1. BUILDING HEIGHT = 50.0'
2. SEE ARCHITECTURAL PLANS FOR DETAILED FLOOR PLANS AND ELEVATIONS.

LEGEND

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Abbreviations

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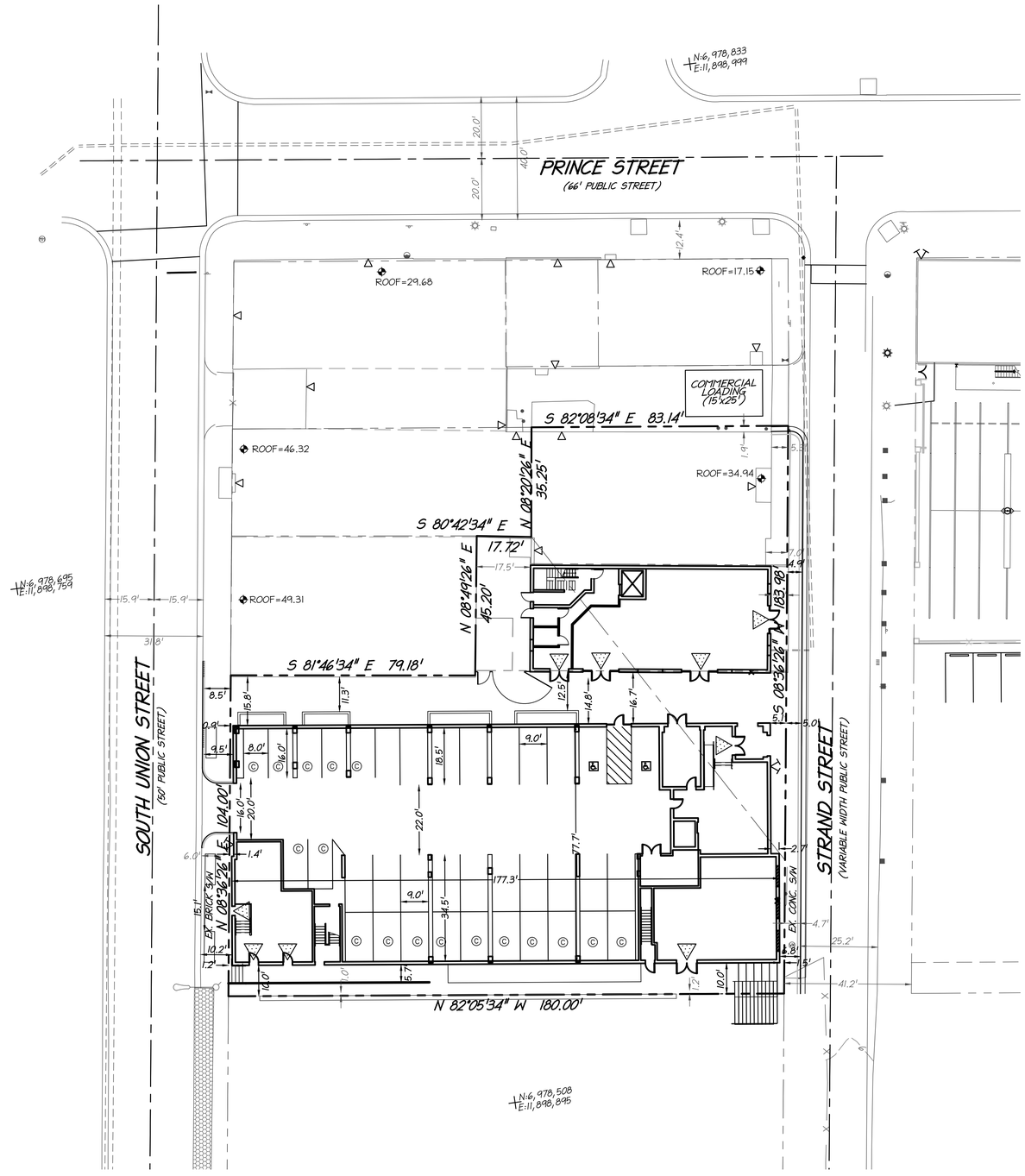

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20 10 0 20 40
GRAPHIC SCALE
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COMMONWEALTH OF VIRGINIA
JOHN L. HELMS
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11/17/2017
PROFESSIONAL ENGINEER

PRELIMINARY DIMENSION PLAN

PRELIMINARY PLAN
THE STRAND CONDOMINIUM
THE CITY OF ALEXANDRIA, VIRGINIA

PROJECT NO:15048.002.00
SCALE: 1"=20'
DATE: 4/14/17
DESIGN: JLH
DRAWN: JRW
CHECKED: KMW
SHEET No.
C402

107207

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NOTES:

1. BUILDING HEIGHT = 50.0'
2. SEE ARCHITECTURAL PLANS FOR DETAILED FLOOR PLANS AND ELEVATIONS.
3. BUILDING CODE ANALYSIS:

Building Code Data				
		211 Strand St.	205 Strand St.	203 Strand St. (ex'g to remain)
Use Group		R-2/M/S-2/A-3	R-3/M	A-2
Number of stories		5 + Occupied Roof	3	2
Type of Construction		II-B	III-B	existing
Floor Area per floor	1	13,632	2,750	3,325
	2	10,767	2,700	3,161
	3	12,953	2,700	n/a
	4	12,795	n/a	n/a
	5	12,566	n/a	n/a
Sprinklered		yes	yes	

4. SEE SHEET C100 AND ARCHITECTURAL SHEETS FOR BUILDING SQUARE FOOTAGES.

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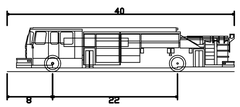
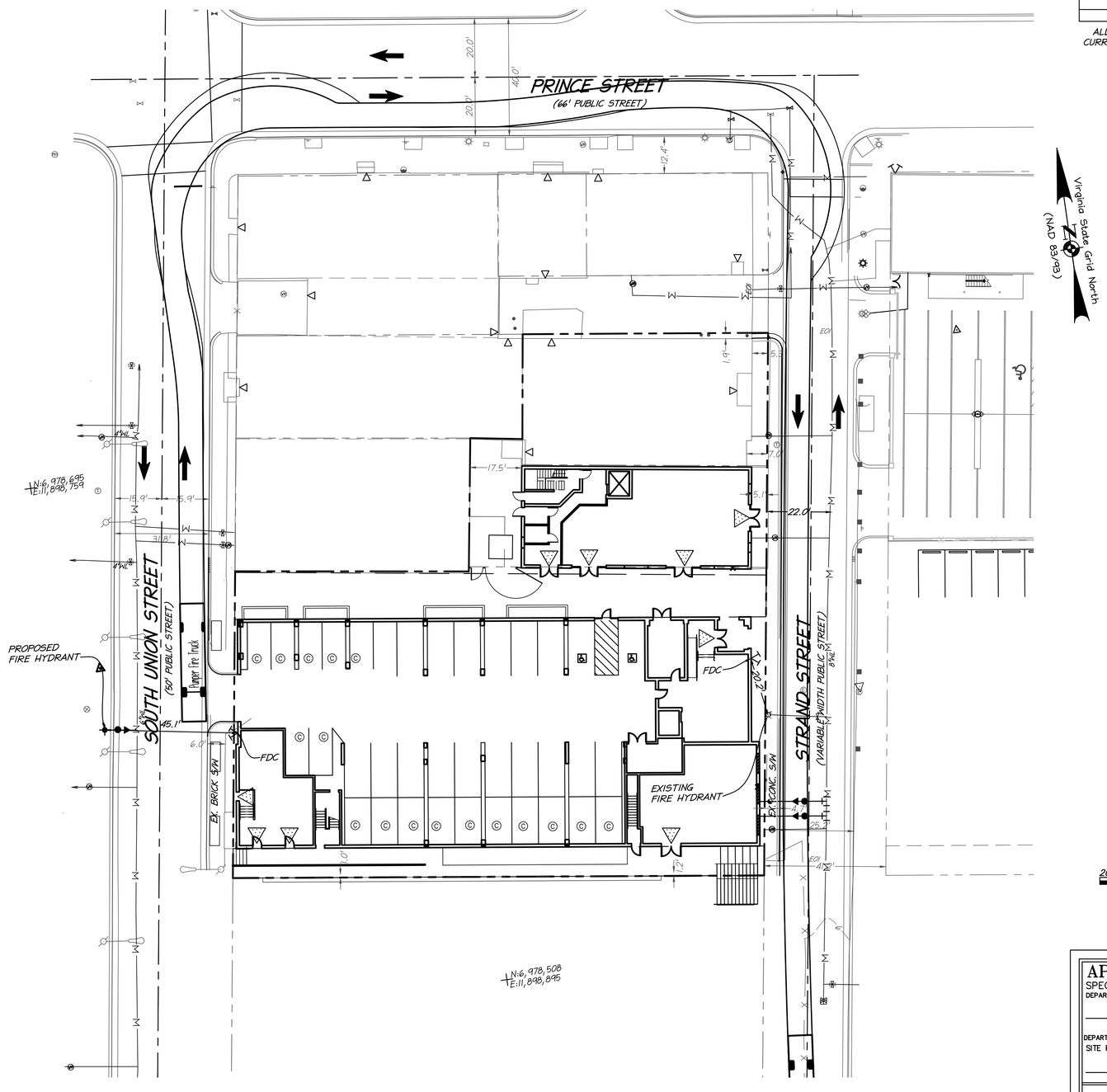


Pumper Fire Truck	
Overall Length	40.000ft
Overall Width	8.167ft
Overall Body Height	7.745ft
Min Body Ground Clearance	0.656ft
Track Width	8.167ft
Lock-to-lock time	5.00s
Max Wheel Angle	45.00°

PUMPER TRUCK DETAIL



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

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COMMONWEALTH OF VIRGINIA
JOHN L. HELMS
Lic. No.52485
11/17/2017
PROFESSIONAL ENGINEER

PRELIMINARY
FIRE SERVICE
PLAN

PRELIMINARY PLAN
THE STRAND CONDOMINIUM
THE CITY OF ALEXANDRIA, VIRGINIA

PROJECT NO:15048.002.00

SCALE: 1"=20'

DATE: 4/14/17

DESIGN: JLH
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CHECKED: KMW

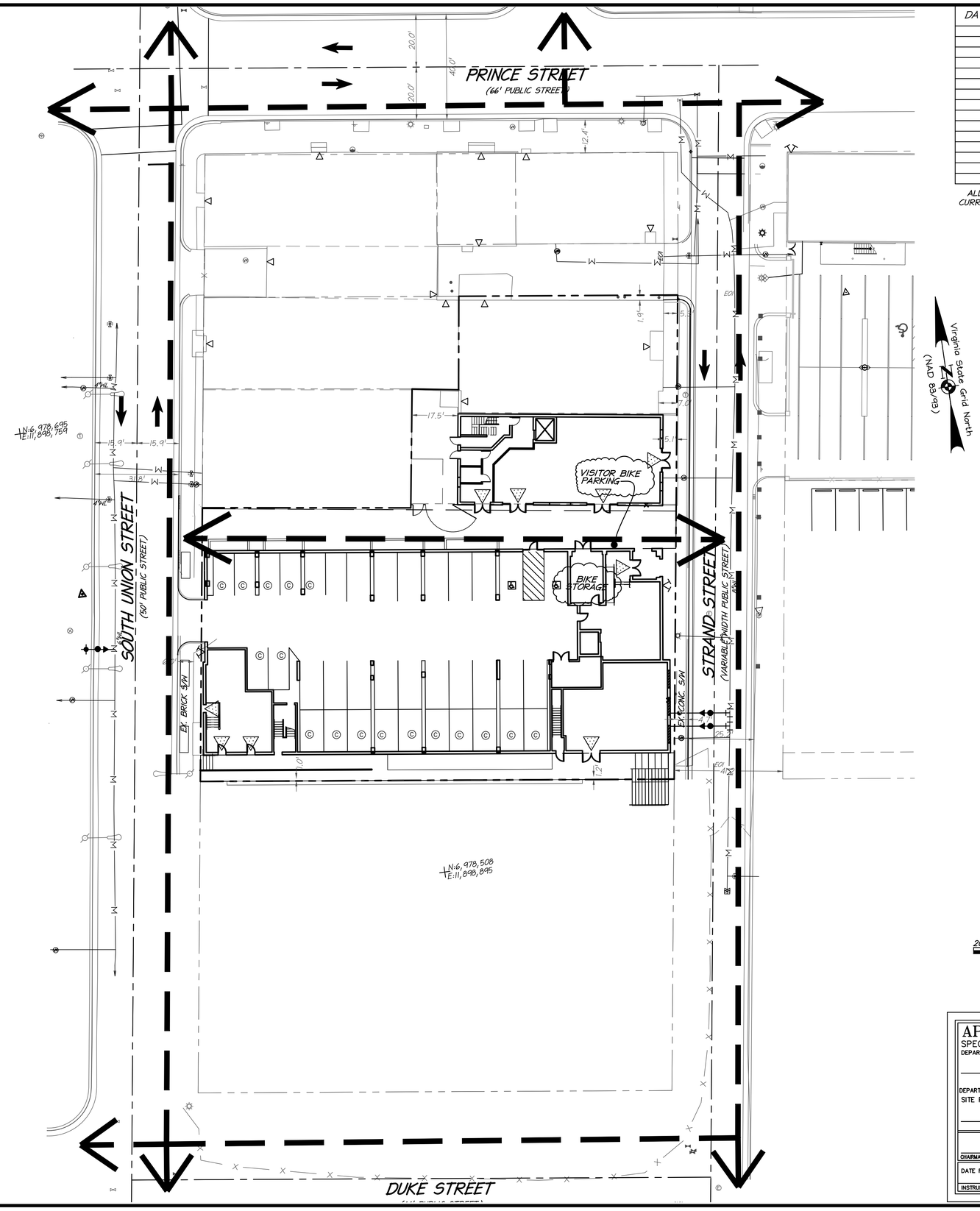
SHEET No.
C403

107207

P:\Projects\15048\00200\107207 Preliminary\C-403 FIRE SERVICE PLAN.dwg, 11/20/2017 12:00:31 PM, johnhelms, 1:1, christopher consultants, ltd

LEGEND:

BIKE CIRCULATION PATH



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JOHN L. HELMS
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11/17/2017
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BIKE CIRCULATION EXHIBIT

PRELIMINARY PLAN
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THE CITY OF ALEXANDRIA, VIRGINIA

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C404

107207

P:\Projects\15048\00200\107207 Preliminary\C-404 BIKE CIRCULATION EXHIBIT.dwg, 11/20/2017 12:01:03 PM, johnhelms, 1:1, christopher consultants, ltd

EXISTING CONDITION SITE NARRATIVE

THIS DEVELOPMENT CONSISTS OF APPROXIMATELY 0.62 ACRES OF LAND IN THE CITY OF ALEXANDRIA, AND IS CURRENTLY OCCUPIED BY THREE EXISTING BUILDINGS CONTAINING RETAIL, OFFICE, AND A RESTAURANT, AND SURFACE PARKING SERVING THOSE FACILITIES. THE SITE IS BORDERED TO THE NORTH BY PRINCE STREET; TO THE EAST BY STRAND STREET; TO THE WEST BY SOUTH UNION STREET AND TO THE SOUTH BY A PROPOSED HOTEL CURRENTLY UNDER CONSTRUCTION. THE ENTIRE SITE FALLS WITHIN THE 100-YEAR FLOODPLAIN. THERE ARE NO STEEP SLOPES ON THE PROPERTY.

REVIEW OF EXISTING TOPOGRAPHY INDICATES THAT MAJORITY OF THE PROPERTY SLOPES FROM THE WEST TO THE EAST TOWARDS THE POTOMAC RIVER. THE EXISTING PARKING LOT DRAINS TO AN EXISTING CLOSED CONDUIT STORM SYSTEM. THE STORM SYSTEM OUTFALLS INTO THE POTOMAC RIVER.

THERE ARE NO RESOURCE PROTECTION AREAS ON THIS PROPERTY.

PROPOSED CONDITION SITE NARRATIVE

THIS PROJECT CONSISTS OF THE REDEVELOPMENT OF THE SUBJECT SITE. THE EXISTING BUILDING AT 211 STRAND STREET WILL BE DEMOLISHED. A 5-STORY MULTIFAMILY BUILDING WITH RETAIL, LOBBY AND PARKING ON THE GROUND FLOOR AND IMPROVED STREETSCAPE/OPEN SPACE. GARAGE ACCESS WILL BE PROVIDED BY A RELOCATED ENTRANCE ALONG SOUTH UNION STREET. THE SECOND FLOOR OF THE EXISTING BUILDING AT 205 STRAND STREET WILL BE CONVERTED TO TWO RESIDENTIAL UNITS AND THE FIRST FLOOR WILL BE CONVERTED TO RETAIL. A 1-STORY ADDITION IS PROPOSED FOR 205 STRAND STREET. THE RESTAURANT AT 203 STRAND STREET WILL REMAIN.

WATER QUALITY TREATMENT (BMP) NARRATIVE

TO COMPLY WITH THE CHESAPEAKE BAY ACT (CBA) AND ARTICLE XIII OF THE ZONING ORDINANCE, THE PROJECT WILL PROVIDE WATER QUALITY TREATMENT THROUGH GREEN ROOF. THIS TREATMENT FACILITY IS CAPABLE OF TREATING NECESSARY VOLUME TO MEET THE STATE WATER QUALITY REQUIREMENT FOR THE RE-DEVELOPED PROPERTY.

THE BMP WILL TREAT APPROXIMATELY 0.16 ACRES OF IMPERVIOUS RUNOFF. THE SITE INCREASES THE PERVIOUS AREA IN THE ALLEYS, AND THEREFORE HAS MET THE STATE PHOSPHORUS REMOVAL REQUIREMENTS.

WQV TREATMENT

THE WQV TO BE TREATED AS PER THE CITY OF ALEXANDRIA SUPPLEMENT TO THE NORTHERN VIRGINIA BMP HANDBOOK IS 1816 CU FT/ ACRE OF IMPERVIOUS SURFACE. THEREFORE WQV REQUIRED = 0.54 x 1816 = 980.64 CU FT. CHADWICKS AND ITS ASSOCIATED ALLEY IS NOT INCLUDED FOR THE WATER QUALITY VOLUME PER DIRECTION FROM THE CITY.

BMP TREATMENT PROVIDED

FOR THIS PROJECT, 0.14 AC OF ON-SITE IMPERVIOUS COVER IS TREATED WITH THE GREEN ROOF AND WILL BE TREATED AGAIN BY URBAN BIORETENTION PLANTERS. A CONTRIBUTION TO THE WQIF WILL BE MADE FOR THE REMAINDER OF THE SITE. THIS PROJECT IS COMBINING 3 PARCELS TO ACHIEVE THE NECESSARY DENSITY. THE CONTRIBUTION IS NECESSARY DUE TO THE PROJECT INCLUDING 2 EXISTING BUILDINGS, ONE OF WHICH WILL NOT BE MODIFIED, AND THE OTHER CANNOT HANDLE THE ADDITIONAL LOAD DUE TO STRUCTURAL ISSUES. THERE IS ALSO AN ALLEY INCLUDED IN THE SITE AREA FOR DENSITY PURPOSES WHICH IS SHARED BY 4 BUSINESSES AND IS USED FOR DELIVERY AND TRASH, AND CANNOT BE MODIFIED TO HANDLE A BMP FACILITY. ADDITIONAL BMP FACILITIES CANNOT BE INSTALLED AT GRADE AS THE WATER TABLE WOULD RENDER THESE FACILITIES INEFFECTIVE AND WOULD CAUSE EXTENDED PONDING AND AN UNDERDRAIN SYSTEM CANNOT BE INSTALLED DUE TO EXISTING UTILITIES IN STRAND STREET.

BECAUSE OF THESE REASONS, A CONTRIBUTION TO THE WQIF IS REQUESTED IN LIEU OF ADDITIONAL TREATMENT.

WATER QUANTITY TREATMENT (SWM) NARRATIVE

DUE TO THE DECREASE IN IMPERVIOUS COVER FOR THE SITE THROUGH REDEVELOPMENT, THE POST-DEVELOPMENT PEAK RUNOFF FOR THE TWO AND TEN YEAR STORMS WILL NOT EXCEED THE PRE-DEVELOPMENT RATES.

BECAUSE OF THE SITE'S DECREASE IN RUNOFF AND AND ITS CLOSE PROXIMITY TO THE POTOMAC RIVER, STORMWATER MANAGEMENT WILL NOT BE PROVIDED.

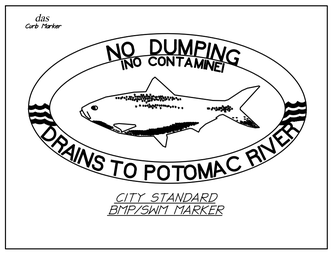
BMP MAINTENANCE AGREEMENT NOTE:

THE APPLICANT SHALL EXECUTE A MAINTENANCE SERVICE CONTRACT WITH A PRIVATE CONTRACTOR FOR A MINIMUM OF THREE YEARS. A COPY OF THE CONTRACT SHALL BE PLACED IN THE BMP OPERATION AND MAINTENANCE MANUAL. PRIOR TO ISSUANCE OF THE CERTIFICATE OF OCCUPANCY, A COPY OF THE CONTRACT SHALL BE SUBMITTED TO THE CITY. THE APPLICANT SHALL PREPARE AN OWNER'S OPERATION AND MAINTENANCE MANUAL FOR ALL THE BEST MANAGEMENT PRACTICES (BMPS) USED ON SITE. THE MANUAL SHALL INCLUDE AT A MINIMUM: AN EXPLANATION OF THE FUNCTIONS AND OPERATIONS OF THE BMP(S); DRAWINGS AND DIAGRAMS OF THE BMP(S) AND ANY SUPPORTING UTILITIES; CATALOG CUTS ON MAINTENANCE REQUIREMENTS; MANUFACTURER CONTACT NAMES AND PHONE NUMBERS; A COPY OF THE EXECUTED MAINTENANCE SERVICE CONTRACT; AND A COPY OF THE MAINTENANCE AGREEMENT WITH THE CITY. PRIOR TO ISSUANCE OF THE CERTIFICATE OF OCCUPANCY, A COPY OF THE OPERATION AND MAINTENANCE MANUAL SHALL BE SUBMITTED TO THE CITY ON A DIGITAL MEDIA.

DESIGN PROFESSIONAL INSPECTION NOTE

THE STORMWATER BEST MANAGEMENT PRACTICES (BMPS) REQUIRED FOR THIS PROJECT SHALL BE CONSTRUCTED AND INSTALLED UNDER THE DIRECT SUPERVISION OF THE DESIGN PROFESSIONAL OR HIS DESIGNATED REPRESENTATIVE. PRIOR TO ISSUANCE OF THE CERTIFICATE OF OCCUPANCY, THE DESIGN PROFESSIONAL SHALL SUBMIT A WRITTEN CERTIFICATION TO THE DIRECTOR OF T&ES THAT THE BMPS ARE:
A. CONSTRUCTED AND INSTALLED AS DESIGNED AND IN ACCORDANCE WITH THE APPROVED FINAL SITE PLAN.
B. CLEAN AND FREE OF DEBRIS, SOIL, AND LITTER BY EITHER HAVING BEEN INSTALLED OR BROUGHT INTO SERVICE AFTER SITE WAS STABILIZED.

das Curb Marker



CITY STANDARD BMP/SWM MARKER

SITE DATA:

Site Information

final results

Post-Development Project (Treatment Volume and Loads)

Enter Total Disturbed Area *(acres)* → 0.54

Maximum reduction required:	*10%*
The site's net increase in impervious cover (acres) is:	*0*
Post-Development TP Load Reduction for Site (lb/yr):	*0.13*

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, protected forest/open space or reforested					0.00
Managed Turf (acres) -- disturbed, graded for yards or other turf to be mowed/managed				0.03	0.03
Impervious Cover (acres)				0.59	0.59
					0.62

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 mowed/managed				0.03	0.03
Impervious Cover (acres)				0.59	0.59
Area Check	OK.	OK.	OK.	OK.	0.62

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)	0.03	0.03
Weighted Rv (turf)	0.25	0.25
% Managed Turf	5%	5%
Impervious Cover (acres)	0.59	0.59
Rv(impervious)	0.95	0.95
% Impervious	95%	95%
Total Site Area (acres)	**0.62**	**0.62**
Site Rv	**0.92**	**0.92**

Treatment Volume and Nutrient Load

Pre-ReDevelopment Treatment Volume (acre-ft)	0.0473	0.0473
Pre-ReDevelopment Treatment Volume (cubic feet)	2,062	2,062
Pre-ReDevelopment TP Load (lb/yr)	**1.30**	**1.30**
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)		0.25

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

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

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

LAND COVER SUMMARY -- POST DEVELOPMENT

Land Cover Summary-Post (Final)

Post ReDev. & New Impervious	
Forest/Open Space Cover (acres)	
Weighted Rv(forest)	0.00
% Forest	0%
Managed Turf Cover (acres)	0.03
Weighted Rv (turf)	0.25
% Managed Turf	5%
Impervious Cover (acres)	0.59
Rv(impervious)	0.95
% Impervious	95%
Final Site Area (acres)	**0.62**
Final Post Dev Site Rv	**0.92**

Land Cover Summary-Post

Post-ReDevelopment	
Forest/Open Space Cover (acres)	0.00
Weighted Rv(forest)	0.00
% Forest	0%
Managed Turf Cover (acres)	0.03
Weighted Rv (turf)	0.25
% Managed Turf	5%
ReDev. Impervious Cover (acres)	0.59
Rv(impervious)	0.95
% Impervious	95%
Total ReDev. Site Area (acres)	**0.62**
ReDev Site Rv	**0.92**

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)	0.0473	**Post-ReDevelopment Treatment Volume (acre-ft)**	0.0473	**Post-Development Treatment Volume (acre-ft)** --
Final Post-Development Treatment Volume (cubic feet)	2,062	**Post-ReDevelopment Treatment Volume (cubic feet)**	2,062	**Post-Development Treatment Volume (cubic feet)** --
Final Post-Development TP Load (lb/yr)	**1.30**	**Post-ReDevelopment Load (TP) (lb/yr)***	**1.30**	**Post-Development TP Load (lb/yr)** --
Final Post-Development TP Load per acre (lb/acre/yr)	2.09	Post-ReDevelopment TP Load per acre (lb/acre/yr)	2.09	
		Max. Reduction Required (Below Pre-ReDevelopment Load)	**10%**	
		TP Load Reduction Required for Redeveloped Area (lb/yr)	**0.13**	**TP Load Reduction Required for New Impervious Area (lb/yr)** **0**

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

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

Post-Development Requirement for Site Area

TP Load Reduction Required (lb/yr)	**0.13**

Nitrogen Loads (Informational Purposes Only)

Pre-ReDevelopment TN Load (lb/yr)	9.27	Final Post-Development TN Load (Post-ReDevelopment & New Impervious) (lb/yr)	9.27

SITE RESULTS:

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)	0.31	0.00	0.00	0.00	0.00	OK.
IMPERVIOUS COVER TREATED (ac)	0.14	0.00	0.00	0.00	0.00	OK.
MANAGED TURF AREA (ac)	0.00	0.00	0.00	0.00	0.00	OK.
MANAGED TURF AREA TREATED (ac)	0.00	0.00	0.00	0.00	0.00	OK.
AREA CHECK	OK.	OK.	OK.	OK.	OK.	

Site Treatment Volume (ft³) 2,062

Runoff Reduction Volume and TP By Drainage Area

	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	TOTAL
RUNOFF REDUCTION VOLUME ACHIEVED (ft³)	323	0	0	0	0	323
TP LOAD AVAILABLE FOR REMOVAL (lb/yr)	0.67	0.00	0.00	0.00	0.00	0.67
TP LOAD REDUCTION ACHIEVED (lb/yr)	0.23	0.00	0.00	0.00	0.00	0.23
TP LOAD REMAINING (lb/yr)	0.44	0.00	0.00	0.00	0.00	0.44
NITROGEN LOAD REDUCTION ACHIEVED (lb/yr)	1.74	0.00	0.00	0.00	0.00	1.74

Total Phosphorus

FINAL POST-DEVELOPMENT TP LOAD (lb/yr)	1.30
TP LOAD REDUCTION REQUIRED (lb/yr)	0.13
TP LOAD REDUCTION ACHIEVED (lb/yr)	0.23
TP LOAD REMAINING (lb/yr)	1.07
REMAINING TP LOAD REDUCTION REQUIRED (lb/yr)	0.00 **

** TARGET TP REDUCTION EXCEEDED BY 0.1 LB/YEAR **

Total Nitrogen (For Information Purposes)

POST-DEVELOPMENT LOAD (lb/yr)	9.27
NITROGEN LOAD REDUCTION ACHIEVED (lb/yr)	1.74
REMAINING POST-DEVELOPMENT NITROGEN LOAD (lb/yr)	7.53

URBAN BIORETENTION PLANTER SIZING FOR 211 STRAND:

AREA TO BE TREATED:

RAINFALL = 1 INCH
TOTAL VOLUME NOT TREATED BY GREEN ROOF = 266 CU. FT.

SOUTHERN PLANTER VOLUME: 60% OF LEFT OVER VOLUME

VOLUME = (.6)(266 CU.FT.) = 160 CU.FT.
AREA = 6'X62.5' = 375 SQ.FT.
DEPTH OF STONE = 1 FT.'
STONE POROSITY = 0.40
DEPTH OF MEDIA = 2.5 FT.
MEDIA POROSITY = 0.25
VOLUME PROVIDED = (375 SQ.FT.)(1')(0.40)+(375 SQ.FT.)(2.5')(0.25) = 384 CU.FT.
384 CU.FT. > 160 CU.FT.

NORTHERN PLANTER VOLUME: 40% OF LEFT OVER VOLUME

VOLUME = (.6)(266 CU.FT.) = 107 CU.FT.
107 CU.FT. PER 2 DOWNSPOUTS = 53.5 CU.FT. EACH
AREA = 3'x18' = 54 SQ.FT. PER PLANTER
DEPTH OF STONE = 1 FT.'
STONE POROSITY = 0.40
DEPTH OF MEDIA = 2.5 FT.
MEDIA POROSITY = 0.25
VOLUME PROVIDED = (54 SQ.FT.)(1')(0.40)+(54 SQ.FT.)(2.5')(0.25) = 55.35 CU.FT.
55.35 CU.FT. > 53.5 CU.FT.

211 STRAND BMP AREA SUMMARY:

Drainage Area A

CLEAR BMP AREAS

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)					0.00	0.00
Impervious Cover (acres)				0.31	0.31	0.95
				Total	0.31	

Total Phosphorus Available for Removal in D.A. A (lb/yr)	0.67
Post Development Treatment Volume in D.A. A (ft³)	1,069

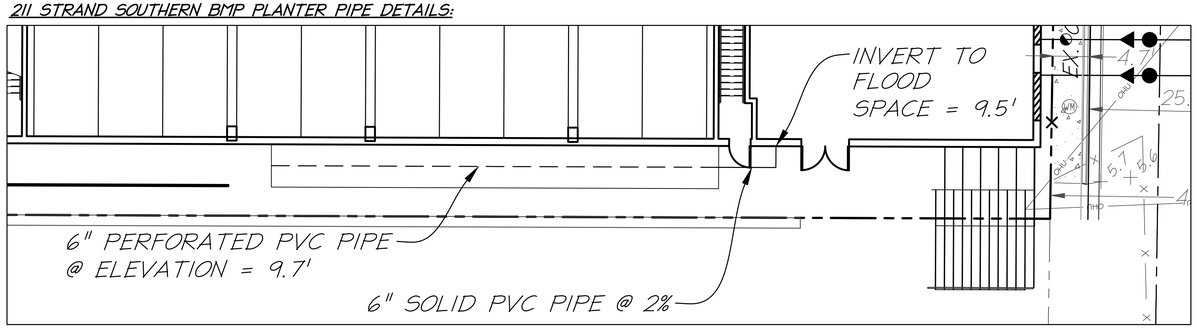
Stormwater Best Management Practices (RR = Runoff Reduction)

--Select from dropdown lists--

Practice	Runoff Reduction Credit (%)	Managed Turf Credit Area (acres)	Impervious Cover Credit Area (acres)	Volume from Upstream Practice (ft³)	Runoff Reduction (ft³)	Remaining Runoff Volume (ft³)	Total BMP Treatment Volume (ft³)	Phosphorus Removal Efficiency (%)	Phosphorus Load from Upstream Practices (lb)	Untreated Phosphorus Load to Practice (lb)	Phosphorus Removed By Practice (lb)	Remaining Phosphorus Load (lb)	Downstream Practice to be Employed
1. Vegetated Roof (RR)													
1.a. Vegetated Roof #1 (Spec #5)	45		0.14		217	266	483	0		0.30	0.14	0.17	2.i. To Stormwater Planter (Urban Bioretention)
2. Rooftop Disconnection (RR)													
2.i. To Stormwater Planter, Urban Bioretention (Spec #9, Appendix A)	40			266	106	159	266	25	0.17	0.00	0.09	0.07	

Practice	Nitrogen Removal Efficiency (%)	Nitrogen Load from Upstream Practices (lbs)	Untreated Nitrogen Load to Practice (lbs)	Nitrogen Removed By Practice (lbs)	Remaining Nitrogen Load (lbs)
1. Vegetated Roof (RR)					
0		2.17	0.98	1.19	
2. Rooftop Disconnection (RR)					
40	1.19	0.00	0.76	0.43	

211 STRAND SOUTHERN BMP PLANTER PIPE DETAILS:



Project Description
Development (Redevelopment)

Drainage Area	Impervious	Pervious	Total
Site Area	0.59	0.03	0.62
On-Site Treated (BMP #1)	0.16	0.00	0.16
Off-Site Treated	0.00	0.00	0.00
Total Treated	0.16	0.00	0.16
On-Site Impervious Areas Disconnected by Vegitated Buffer	0.00		
Total Treated or Disconnected	0.16	0.00	0.16

Water Treatment On-Site

BMP Type	Area Treated by BMP	Impervious Area treated by BMP	BMP Efficiency (%)
VEGETATIVE ROOF	0.16 AC	0.16 AC	0%

Miscellaneous

Total WQV treated yes (no)
Detention on Site yes (no)
Project is within which watershed? POTOMAC RIVER
Project Discharges to which body of water? POTOMAC RIVER

DATE	SUBMISSION

ALL CONSTRUCTION SHALL CONFORM TO THE CURRENT CITY OF ALEXANDRIA STANDARDS AND SPECIFICATIONS

DISTURBED AREA:
0.54 AC OR 23,350 S.F.

PROJECT SITE RUNOFF COMPUTATIONS:

PRE-DEVELOPMENT

A = 0.62 ACRES
$C = \frac{(0.03)(0.35) + (0.59)(0.90)}{0.62} = 0.87$

T = 5 MINUTES
I_2 = 6.2 INCHES/HOUR
I_{10} = 9.0 INCHES/HOUR

Q_2 = (0.87)(6.2)(0.62)= 3.344 CFS
Q_{10} = (0.87)(9.0)(0.62)= 4.854 CFS

POST-DEVELOPMENT

A = 0.62 ACRES
$C = \frac{(0.10)(0.35) + (0.52)(0.90)}{0.62} = 0.81$

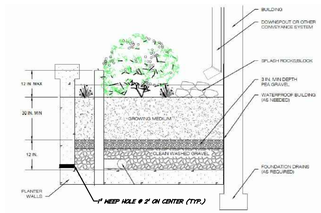
T_C = 5 MINUTES
I_2 = 6.2 INCHES/HOUR
I_{10} = 9.0 INCHES/HOUR

Q_2 = (0.81)(6.2)(0.62)= 3.113 CFS
Q_{10} = (0.81)(9.0)(0.62)= 4.520 CFS

NET DECREASE IN RUNOFF

Q_2 = 3.344 CFS - 3.113 CFS = 0.231 CFS
Q_{10} = 4.854 CFS - 4.520 CFS = 0.334 CFS

URBAN BIORETENTION PLANTER DETAIL:



APPROVED
SPECIAL USE PERMIT NO. 2016-0003
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.

christopher consultants
engineering · surveying · land planning
9900 main street (fourth floor) · fairfax va. 22031-3507
703.273.6820 · fax 703.273.7636

COMMONWEALTH OF VIRGINIA
JOHN L. HELMS
Lic. No.52485
11/17/2017
PROFESSIONAL ENGINEER

SWM AND BMP COMPUTATIONS

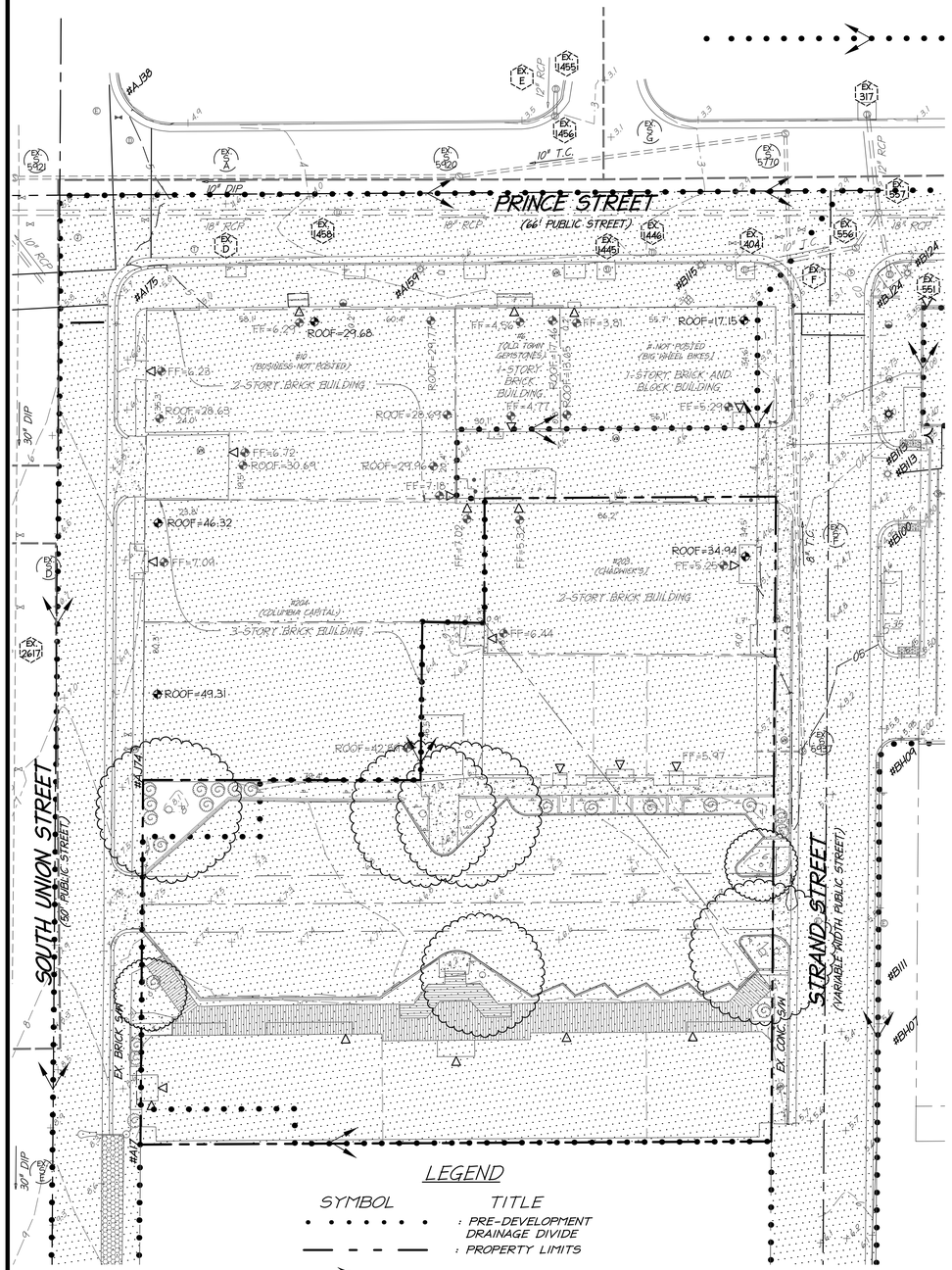
PRELIMINARY PLAN
THE STRAND CONDOMINIUM
THE CITY OF ALEXANDRIA, VIRGINIA

PROJECT NO: 15048.002.00
SCALE: 1"=20'
DATE: 4/14/17
DESIGN: JLH
DRAWN: JLH
CHECKED: KMW
SHEET No. C500

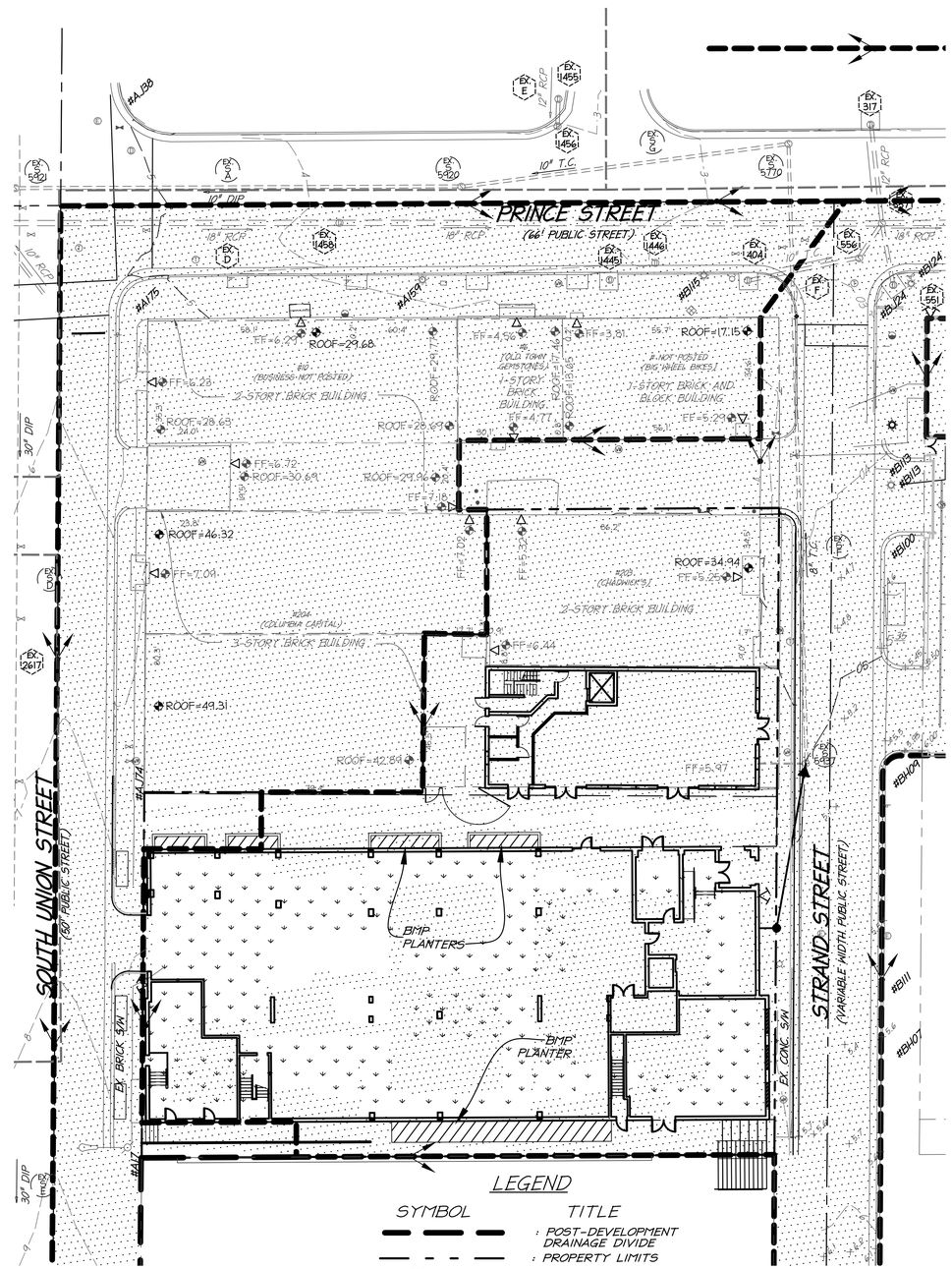
107207

P:\Projects\15048\00200\107207 Preliminary\C-500 SWM BMP COMP & NARRATIVE.dwg, 11/20/2017 12:01:29 PM, johnhelms, 1:1, christopher consultants, ltd

PRE-DEVELOPMENT DRAINAGE MAP:



POST-DEVELOPMENT/BMP DRAINAGE MAP:



LEGEND

SYMBOL	TITLE
	: PRE-DEVELOPMENT DRAINAGE DIVIDE
	: PROPERTY LIMITS
	: PRE-DEVELOPMENT DIVIDE ARROW
	ONSITE : IMPERVIOUS AREA (PRE TOTAL = 0.59 ac)

LEGEND

SYMBOL	TITLE
	: POST-DEVELOPMENT DRAINAGE DIVIDE
	: PROPERTY LIMITS
	: POST-DEVELOPMENT DIVIDE ARROW
	: ONSITE IMPERVIOUS AREA (POST TOTAL = 0.59 ac)
	: GREEN SPACE (POST TOTAL = 0.03 ac)
	: GREEN ROOF (POST TOTAL = 0.16 ac)

DATE	SUBMISSION

ALL CONSTRUCTION SHALL CONFORM TO THE CURRENT CITY OF ALEXANDRIA STANDARDS AND SPECIFICATIONS

DISTURBED AREA:
0.54 AC OR 23,350 S.F.

Virginia State Grid North
(NAD 83/98)

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

APPROVED
SPECIAL USE PERMIT NO. 2016-0003
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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COMMONWEALTH OF VIRGINIA
JOHN L. HELMS
Lic. No.52485
11/17/2017
PROFESSIONAL ENGINEER

PRELIMINARY
BMP DRAINAGE
DIVIDE MAP

PRELIMINARY PLAN
THE STRAND CONDOMINIUM
THE CITY OF ALEXANDRIA, VIRGINIA

PROJECT NO:15048.002.00
SCALE: 1"=20'
DATE: 4/14/17
DESIGN: JLH
DRAWN: JLH
CHECKED: KMW
SHEET No.
C501

107207

P:\Projects\15048\00200\107207 Preliminary\C-501 DRAINAGE DIVIDES.dwg, 11/20/2017 12:02:00 PM, johnhelms, 1:1, christopher consultants, ltd

SANITARY SEWER DESIGN COMPUTATIONS

FROM	TO	UPPER INV	LOWER INV	L (FT)	SLOPE (%)	DIA (IN)	MATERIAL	N	CAPACITY (cfs)	CAPACITY (MGD)	DESIGN FLOW (cfs)	DESIGN FLOW (MGD)	V (ft/s)	Assumptions	Inc (MGD)
Pr. Bldg.	Pr. 1	1.55	1.45	2.5	4.00	8	VCP	0.014	0.94	0.61	0.03	0.0216	1.27		0.0216
Pr. 1	5937	1.3	0.4	47.5	1.89	8	VCP	0.014	0.94	0.61	0.03	0.0216	1.27		0.0216
5937	5770	0.26	-0.86	176.27	0.64	8	VCP	0.014	0.94	0.61	0.03	0.0216	1.27		0.0216
5770	5920	-1.21	-1.90	93.58	0.74	10	VCP	0.014	1.86	1.20	0.06	0.0391	1.48	as-built data from field survey dated 2/2/17	0.0175
5920	5921	-2.00	-3.21	126.76	0.95	10	RCP	0.015	1.97	1.27	0.06	0.0391	1.18	as-built data from field survey dated 2/2/17	0.0049

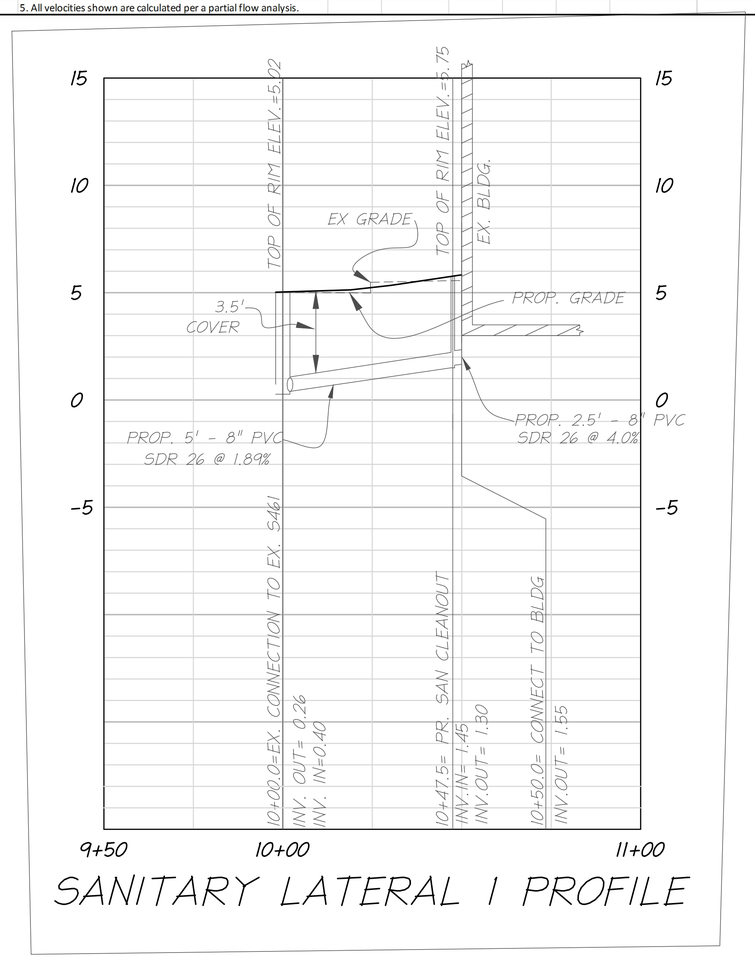
Notes:
1. Assumption for flow from Old Dominion Boat Club: 12,164.8 GPD per DSUP# 2014-0026
2. All capacities shown on the chart are full flow capacities, approximately 93% of the maximum capacity.
3. Information shown above was gathered during topographic survey performed February 2017.
4. **All average flows have been multiplied by a peak factor of 4**
5. All velocities shown are calculated per a partial flow analysis.

AT THIS POINT THE SYSTEM ENTERS A 30" DIP SANITARY PIPE

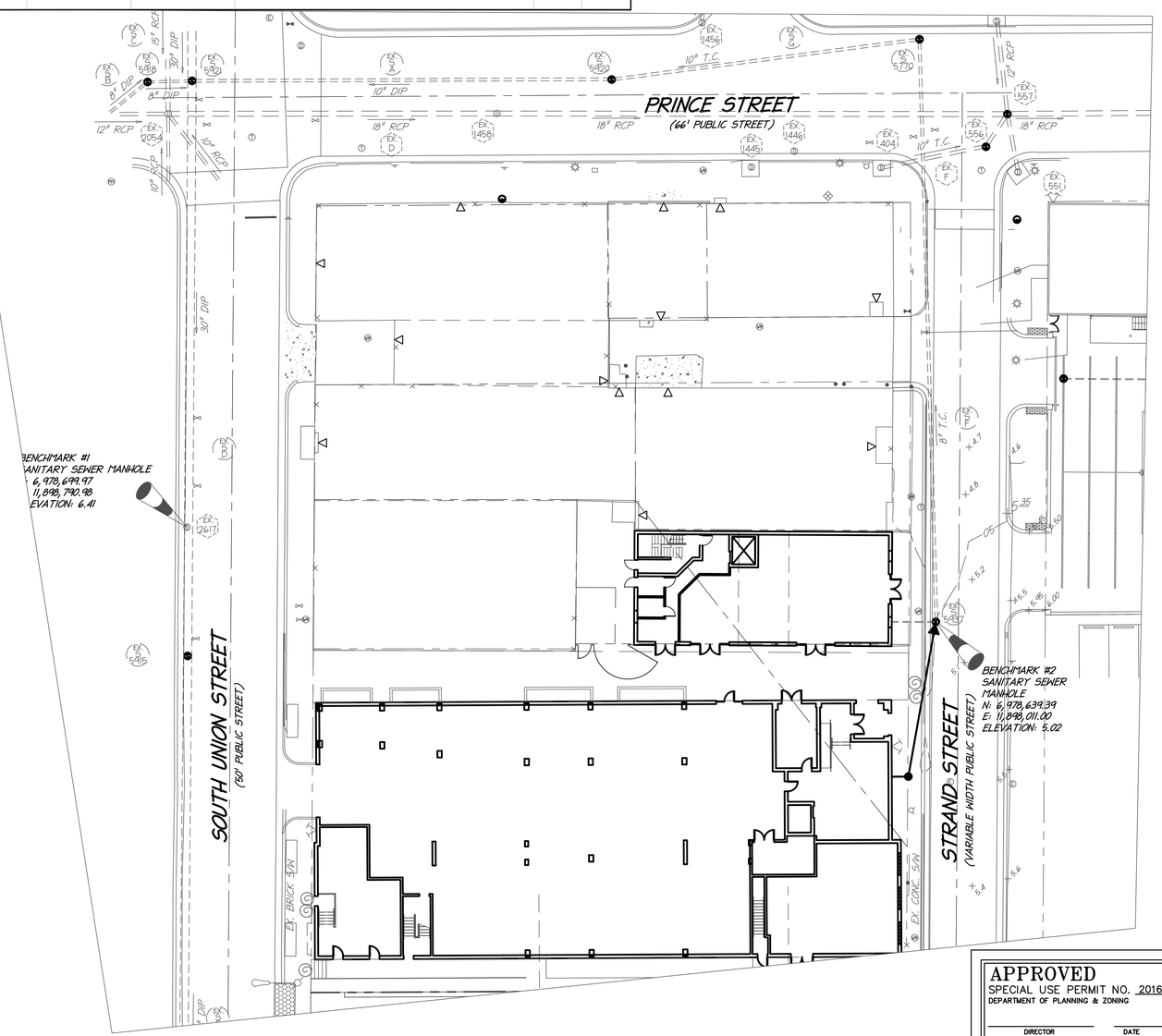
DATE	SUBMISSION

ALL CONSTRUCTION SHALL CONFORM TO THE CURRENT CITY OF ALEXANDRIA STANDARDS AND SPECIFICATIONS

DISTURBED AREA:
0.54 AC OR 23,350 S.F.



SANITARY LATERAL 1 PROFILE



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

APPROVED
SPECIAL USE PERMIT NO. 2016-0003
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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COMMONWEALTH OF VIRGINIA
JOHN L. HELMS
Lic. No.52485
11/17/2017
PROFESSIONAL ENGINEER

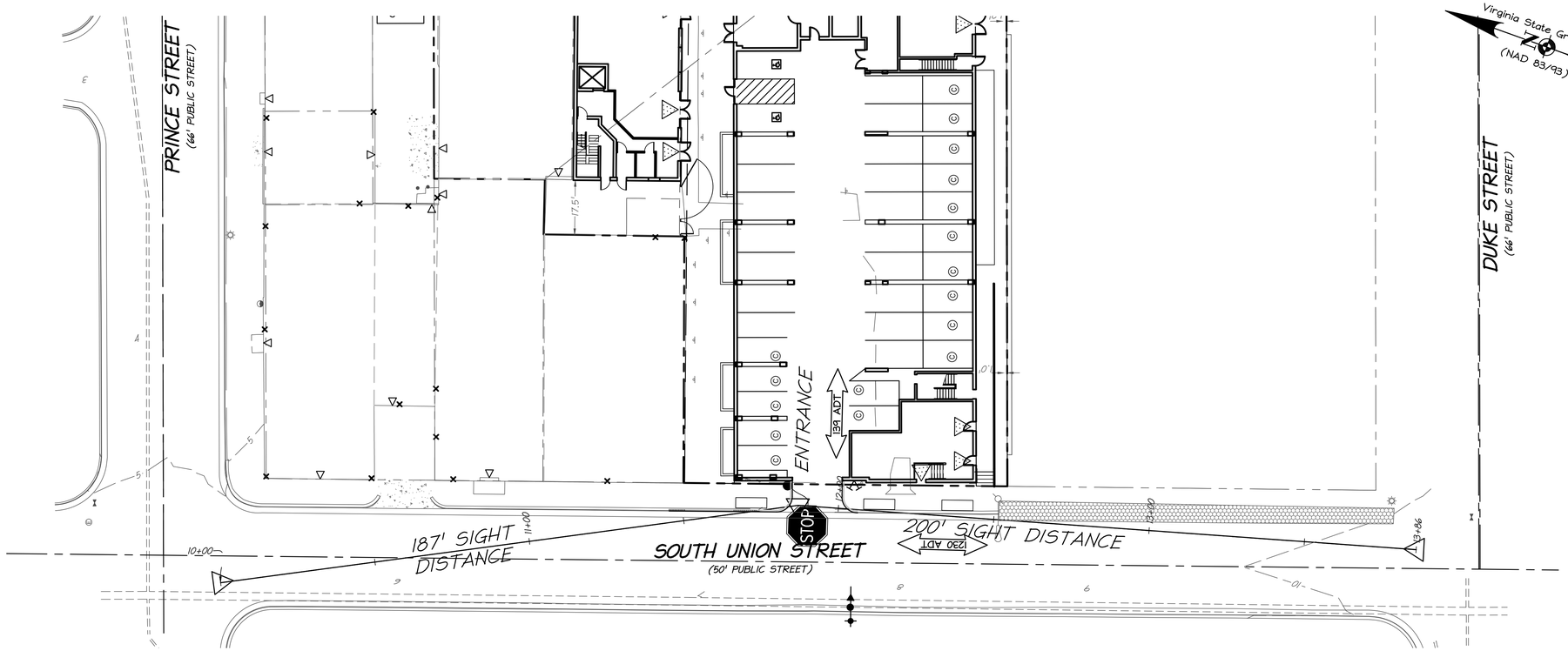
SANITARY SEWER COMPUTATIONS

PRELIMINARY PLAN
THE STRAND CONDOMINIUM
THE CITY OF ALEXANDRIA, VIRGINIA

PROJECT NO:15048.002.00
SCALE: 1"=20'
DATE: 4/14/17
DESIGN: JRW
DRAWN: JLH
CHECKED: KMW
SHEET No.
C502

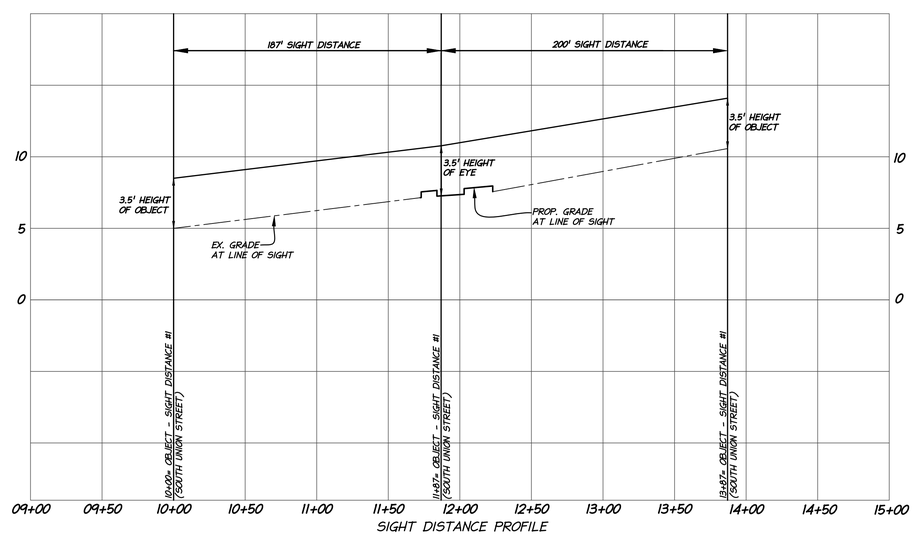
107207

P:\Projects\15048\00200\107207 Preliminary\C-502 SANITARY CALCS.dwg, 11/20/2017 12:02:29 PM, johnhelms, 1:1, christopher consultants, ltd



POSTED SPEED LIMIT: 25 MPH
DESIGN SPEED: 30 MPH

GRAPHIC SCALE
SCALE: 1" = 20'



SIGHT DISTANCE PROFILE

VERTICAL SCALE
5 2.5 0 5 10
GRAPHIC SCALE
1" = 5'

HORIZONTAL SCALE
50 25 0 50 100
GRAPHIC SCALE
1" = 50'

DATE	SUBMISSION

ALL CONSTRUCTION SHALL CONFORM TO THE CURRENT CITY OF ALEXANDRIA STANDARDS AND SPECIFICATIONS

DISTURBED AREA:
0.54 AC OR 23,350 S.F.

APPROVED
SPECIAL USE PERMIT NO. 2016-0003
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.

christopher consultants
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9900 main street (fourth floor) · fairfax va. 22031-3907
703.273.6820 · fax 703.273.7636

COMMONWEALTH OF VIRGINIA
JOHN L. HELMS
Lic. No.52485
11/17/2017
PROFESSIONAL ENGINEER

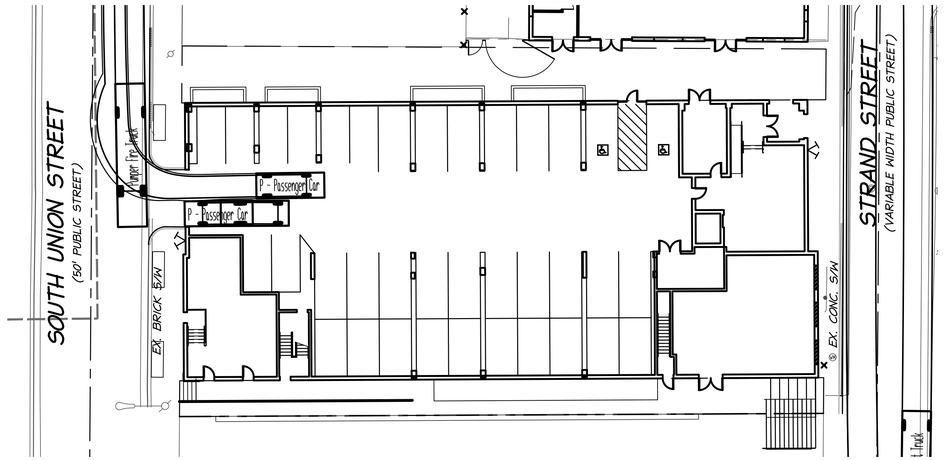
SIGHT DISTANCE PROFILE

PRELIMINARY PLAN
THE STRAND CONDOMINIUM
THE CITY OF ALEXANDRIA, VIRGINIA

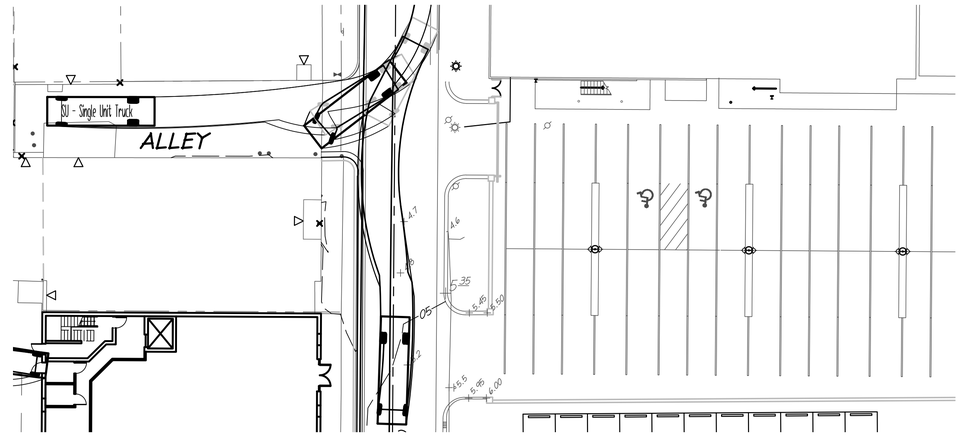
PROJECT NO:15048.002.00
SCALE: AS NOTED
DATE: 4/14/17
DESIGN: JRW
DRAWN: JRW
CHECKED: KMW
SHEET No.
C600

107207

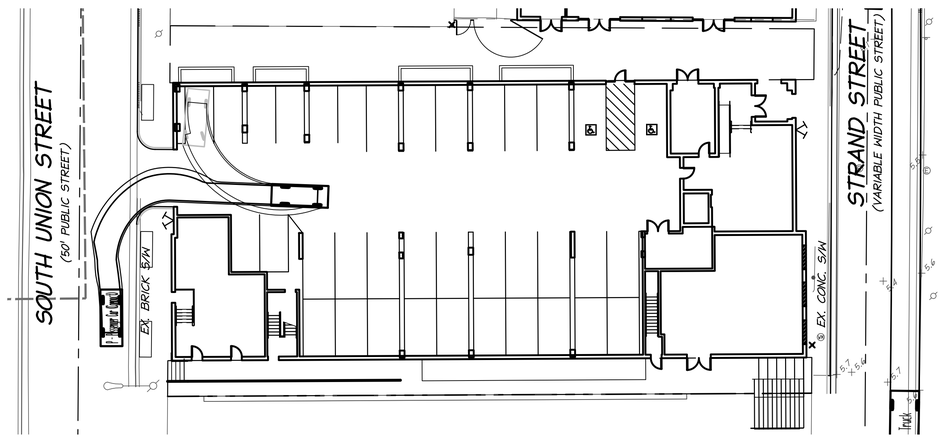
P:\Projects\15048\00200\107207 Preliminary\C-600 SIGHT DISTANCE PROFILE.dwg, 11/20/2017 12:03:00 PM, johnhelms, 1:1, christopher consultants, ltd



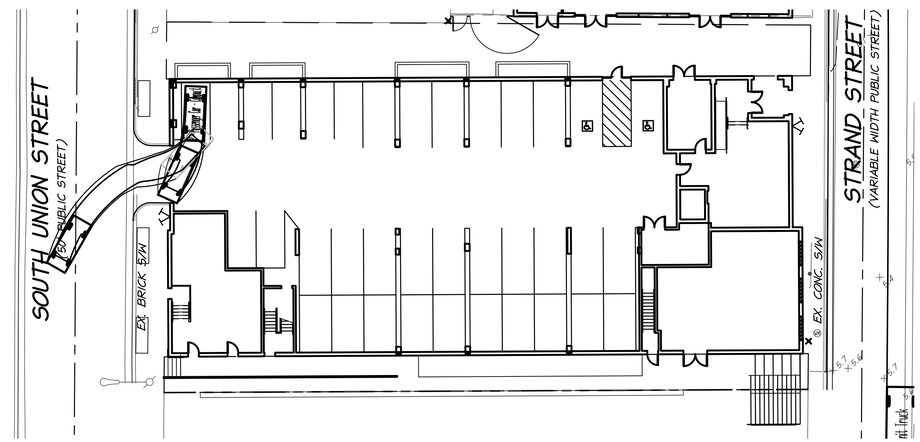
CARS PASSING AT ENTRANCE



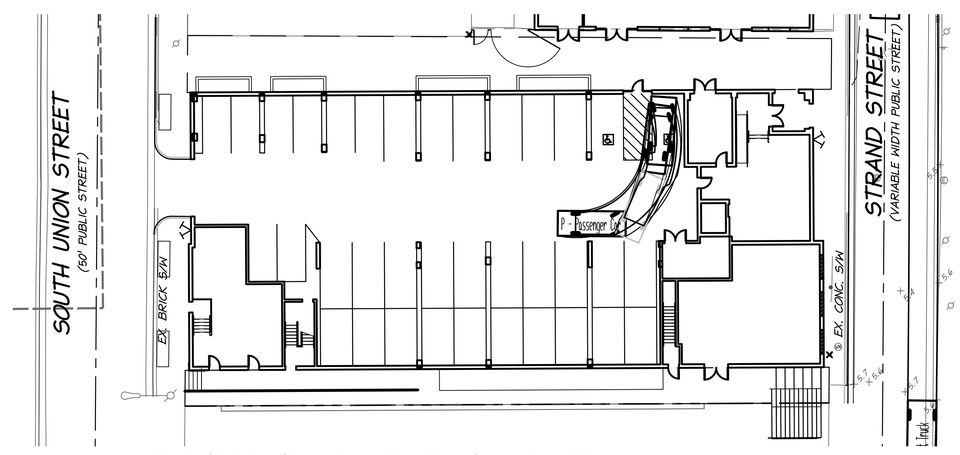
TRUCK EXITING ALLEY



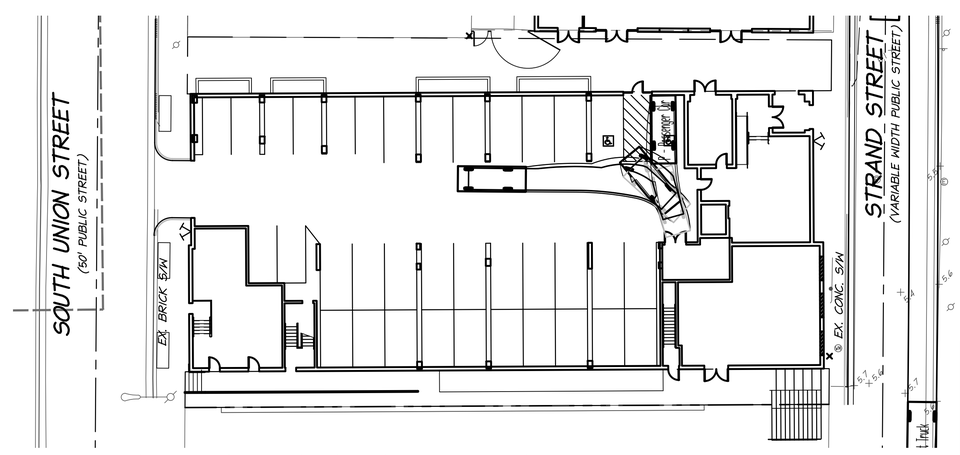
COMPACT CAR ENTERING PARKING SPACE



COMPACT CAR EXITING PARKING SPACE



CAR ENTERING ADA PARKING SPACE



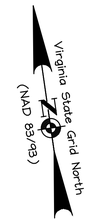
CAR EXITING ADA PARKING SPACE

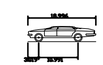
DATE	SUBMISSION

ALL CONSTRUCTION SHALL CONFORM TO THE CURRENT CITY OF ALEXANDRIA STANDARDS AND SPECIFICATIONS

DISTURBED AREA:
0.54 AC OR 23,350 S.F.

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





P - Passenger Car

Overall Length	18.996ft
Overall Width	6.988ft
Overall Body Height	4.267ft
Min Body Ground Clearance	1.167ft
Track Width	6.004ft
Lock-to-lock time	4.0s
Curb to Curb Turning Radius	23.819ft

CAR DETAIL

SU - Single Unit Truck

Overall Length	30.000ft
Overall Width	8.000ft
Overall Body Height	11.581ft
Min Body Ground Clearance	1.367ft
Track Width	8.000ft
Lock-to-lock time	6.0s
Curb to Curb Turning Radius	42.000ft

TRUCK DETAIL

APPROVED
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DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO. _____

DIRECTOR DATE

CHAIRMAN, PLANNING COMMISSION DATE

DATE RECORDED _____

INSTRUMENT NO. DEED BOOK NO. PAGE NO.

NOTE:

1. COMMERCIAL LOADING TO CONTINUE TO USE THE EXISTING ALLEY.
2. RESIDENTIAL LOADING & TRASH PICK-UP TO BE FROM THE STREET.

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703.273.6820 · fax 703.273.7636

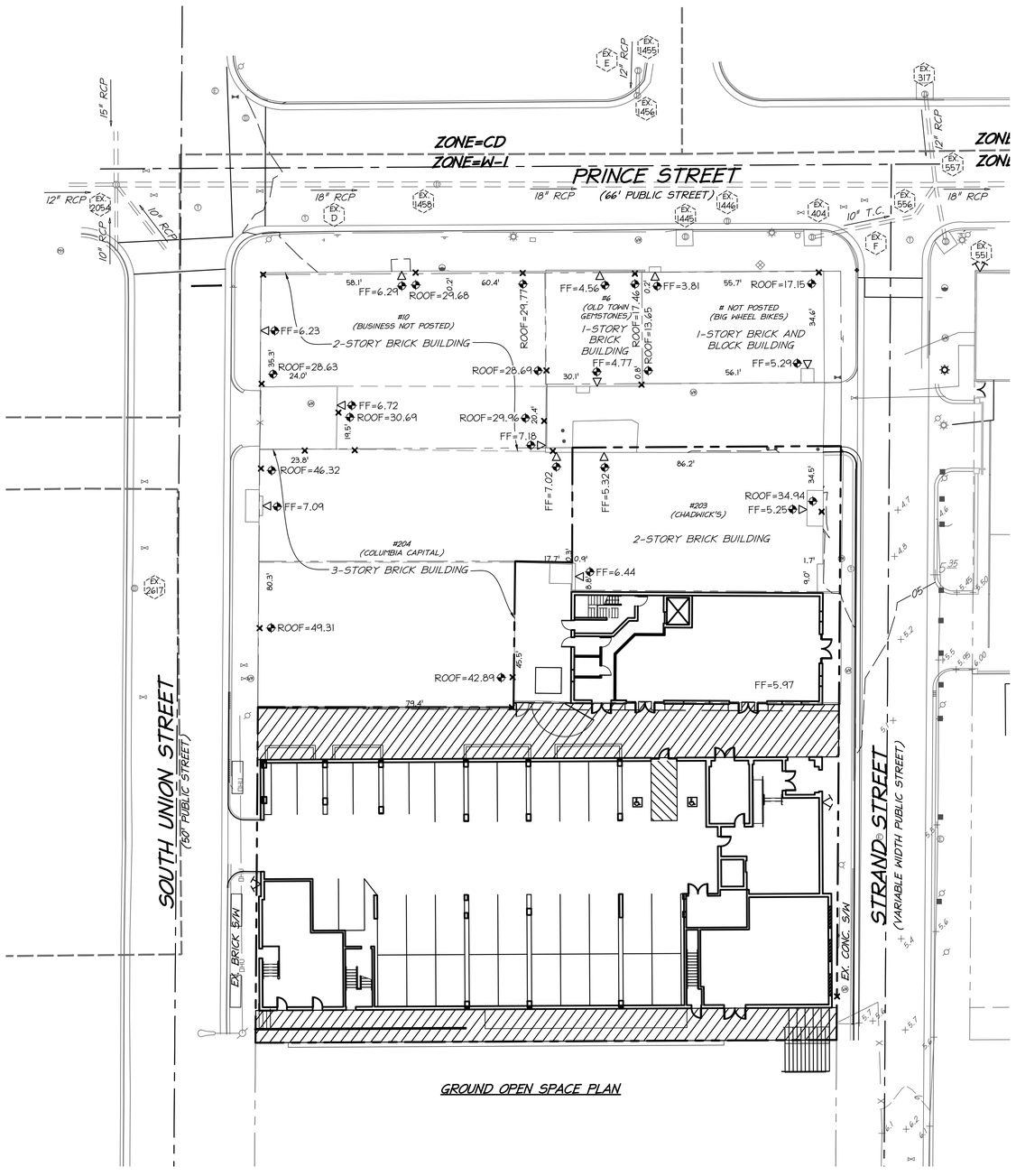
COMMONWEALTH OF VIRGINIA
JOHN L. HELMS
Lic. No.52485
11/17/2017
PROFESSIONAL ENGINEER

TURNING MOVEMENTS

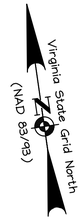
PRELIMINARY PLAN
THE STRAND CONDOMINIUM
THE CITY OF ALEXANDRIA, VIRGINIA

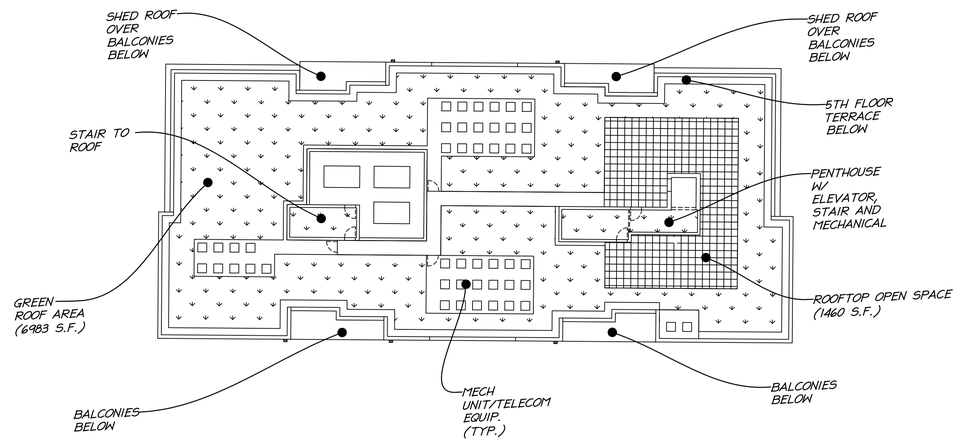
PROJECT NO:15048.002.00
SCALE: 1"=20'
DATE: 4/14/17
DESIGN: JLH
DRAWN: JRW
CHECKED: KMW
SHEET No.
C700
107207

P:\Projects\15048\002000\107207 Preliminary\C-700 TURNING MOVEMENTS.dwg, 11/20/2017 12:03:06 PM, johnhelms, 1:1, christopher consultants, ltd



GROUND OPEN SPACE PLAN





ROOFTOP OPEN SPACE PLAN - 211 STRAND STREET

NOTE:

1.) PEDESTRIAN/ALLEY WAYS SHALL HAVE A PUBLIC ACCESS EASEMENT.
2.) FINAL ORIENTATION OF THE ROOF LAYOUT TO BE DETERMINED. A MINIMUM OF 671 S.F. WILL BE PROVIDED TO MEET THE REQUIRED OPEN SPACE.

GROUND OPEN SPACE PROVIDED = 4,729 S.F.

ROOFTOP OPEN SPACE PROVIDED = 671 S.F. (MINIMUM)
= 1,460 S.F. (AS SHOWN)

TOTAL OPEN SPACE PROVIDED = 6,189 S.F.

TOTAL OPEN SPACE REQUIRED = 5,400 S.F. OR 20%

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

APPROVED
SPECIAL USE PERMIT NO. 2016-0003
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.

DATE	SUBMISSION

ALL CONSTRUCTION SHALL CONFORM TO THE CURRENT CITY OF ALEXANDRIA STANDARDS AND SPECIFICATIONS

DISTURBED AREA:
0.54 AC OR 23,350 S.F.

christopher consultants
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9900 main street (fourth floor) · fairfax va. 22031-3507
703.273.6820 · fax 703.273.7636

COMMONWEALTH OF VIRGINIA
JOHN L. HELMS
Lic. No.52485
11/17/2017
PROFESSIONAL ENGINEER

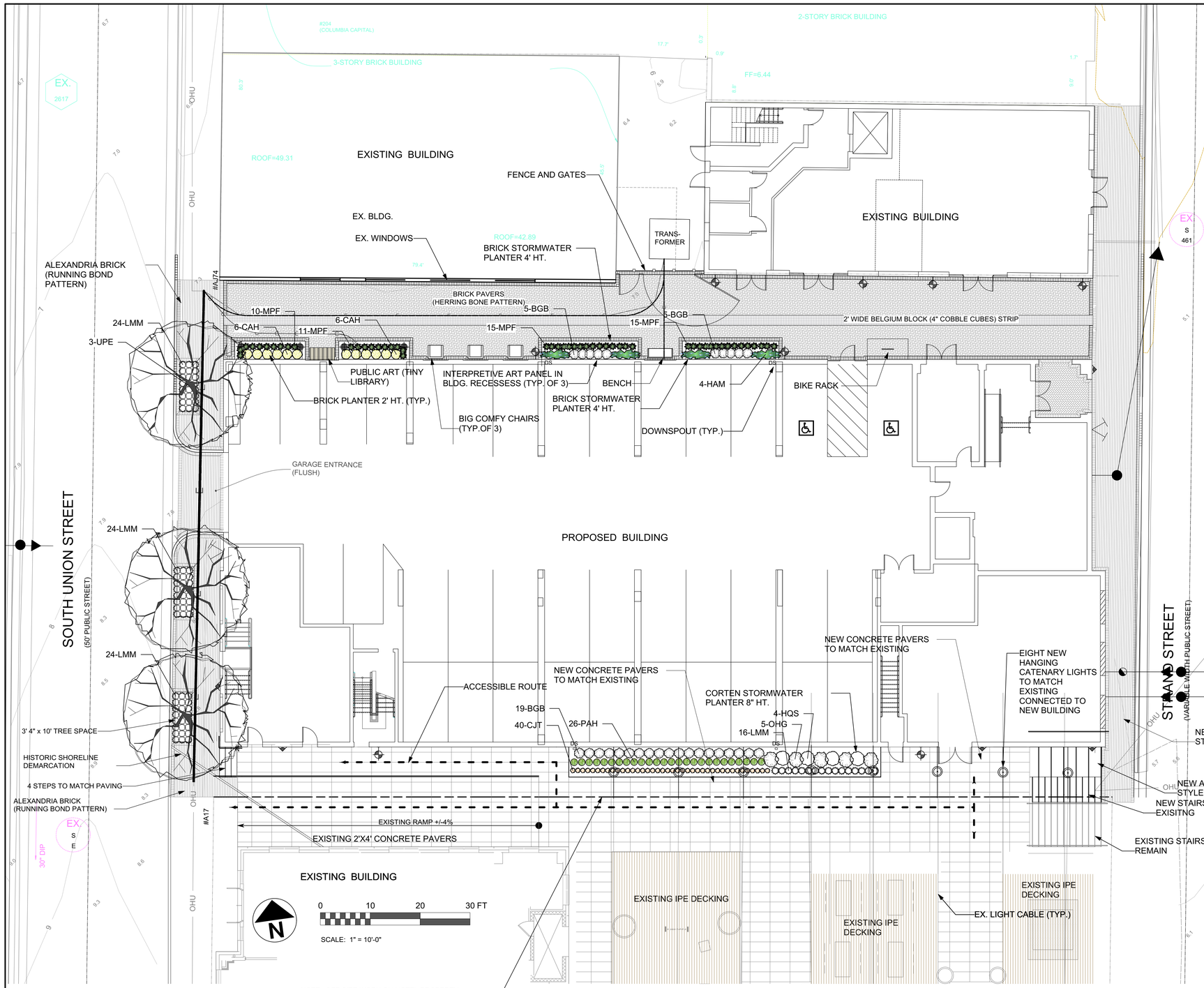
PRELIMINARY OPEN SPACE PLAN

PRELIMINARY PLAN
THE STRAND CONDOMINIUM
THE CITY OF ALEXANDRIA, VIRGINIA

PROJECT NO:15048.002.00
SCALE: 1"=20'
DATE: 4/14/17
DESIGN: JLH
DRAWN: AJB
CHECKED: KMN
SHEET No.
C800

107207

P:\Projects\15048\00200\107207 Preliminary\C-800 OPEN SPACE.dwg, 11/20/2017 11:56:44 AM, johnhelms, 1:1, christopher consultants, ltd



Plant List					
ID	Qty	Latin Name	Common Name	Scheduled Size	Remarks
BGB	29	Buxus x 'Glencoe'	Chicagoland Green Boxwood	18"-24" Ht.	B&B
CAH	12	Clethra alnifolia 'Hummingbird'	Hummingbird Summersweet	18" SPR.	CONTAINER, 18" O.C.
CJT	40	Coreopsis 'Jethro Tull' P.P.# 18789	Jethro Tull Tickseed	1 GAL.	CONTAINER, 12" O.C.
HAM	4	Hydrangea anomala petiolaris 'Mirranda'	Mirranda Climbing Hydrangea	3 GAL.	CONTAINER
HQS	4	Hydrangea quercifolia 'Snowflake' P.P.# 3047	Snowflake Oakleaf Hydrangea	24"-30"	B&B OR CONTAINER
LMM	88	Liriope muscari 'Majestic'	Majestic Lily Turf	1 Gal.	CONTAINER, 18" O.C.
MPF	51	Matteuccia pennsylvanica	Ostrich Fern	1 GAL.	CONTAINER, 18" 0.C.
OHG	5	Osmanthus heterophyllus 'Goshiki'	Goshiki False Holly	36" HT.	B&B OR CONTAINER
PAH	26	Pennisetum alopecuroides 'Hameln'	Hameln Fountain Grass	1 GAL.	CONTAINER
UPE	3	Ulmus parviflora 'Elmer II'	Allee Chinese Elm	3" CAL.	B&B

BENCHMARK #2
SANITARY SEWER MANHOLE
N: 6,978,639.39
E: 11,898,011.00
ELEVATION: 5.02

NOTES:

1. ALL EXISTING VEGETATION TO BE REMOVED FROM THE SITE.
2. SPECIFICATIONS FOR ALL PLANTING SHALL BE IN ACCORDANCE WITH THE CURRENT AND MOST UP TO DATE EDITION OF ANSI-Z60.1, THE AMIERICAN STANDARD FOR NURSERY STOCK AS PRODUCED BY THE AMERICAN ASSOCIATION OF NURSERYMEN; WASHINGTON, DC.
3. THE APPLIANT WILL MAKE SUITABLE ARRANGEMENT FOR PRE-SELECTION TAGGING, PRE-CONTRACT GROWING, OR IS UNDERTAKING SPECIALIZED PLANTING STOCK DEVELOPMENT WITH A NURSERY OR GROWER THAT IS CONVENIENTLY LOCATED TO THE PROJECT SITE, OTHER PROCEDURES THAT WILL ENSURE AVAILABBIOLITY OF SPECIFIED MATERIALS. IN THE EVENT THAT SHORTAGES AND/OR MODIFICATION TO THE LANDSCAPE PLAN SHALL BE UNDERTAKEN BY THE APPLICANT. ALL REMDIAL EFFORSTS SHALL, WITH PRIOR APPROVAL BY THE CITY, BE PERFORMED TO THE SATISFACTION OF THE DIRECTORS OF THE PLANNING AND ZONING, RECREATION , PARKS AND CULTURAL ACTIVITES AND TRANSPORTATION AND ENVIRONMENTAL SERVICES.
4. IN LIEU OF MORE STRENUOUS SPECIFICATIONS, ALL LANDSCAPE RELATED WORK SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE CURRENT AND MOST UP-TO-DATE EDITION (AT TIME OF CONSTRUCTION) OF LANDSCAPE SPECIFICATION GUIDELINES AS PRODUCED BY THE LANDSCAPE CONTRACTORS ASSOCIATION OF MARYLAND, DISTRICT OF COLUMBIA AND VIRGINIA; GAITHERSBURG, MARYLAND.
5. PRIOR TO COMMENCEMENT OF LANDSCAPE INSTALLATION/PLANTING OPERATIONS, A PRE-INSTALLATION/CONSTRUCTION MEETING WILL BE SCHEDULED WITH THE CITY'S ARBORIST AND LANDSCAPE ARCHITECTS TO REVIEW THE SCOPE OF INSTALLATION PROCEDURES AND PROCESSES.
6. MAINTENANCE FOR THIS PROJECT SHALL BE PERFORMED IN PERPETUITY, IN COMPLIANCE WITH CITY OF ALEXANDRIA LANDSCAPE GUIDELINS AND/OR AS CONDITIONED BY PRJECT APPROVAL.
7. A CERTIFICATION LETTER FOR TREE WELLS, TREE TRENCHES AND PLANTINGS ABOVE STRUCTURE SHALL BE PROVIDED BY THE PROJECT'S LANDSCAPE ARCHITECT.
8. AS-BUILT DRAWINGS FOR THIS LANDSCAPE AND/OR IRRIGATION /WATER MANAGEMENT SYSTEM WILL BE PROVIDED IN COMPLIANCE WITH CITY OF ALEXANDRIA LANDSCAPE GUIDELINES. AS-BUILT DRAWINGS SHALL INCLUDE CLEAR IDENTIFICATION OF ALL VARIATIONS AND CHANGES FROM APPROVED DRAWINGS INCLUDING LOCATION, QUANTITY AND SPECIFICATION OF ALL PROJECT ELEMENTS.

CROWN COVER CALCULATIONS			
	TOTAL SITE AREA		26,944 S.F.
	CROWN COVER REQUIRED	25.00%	6,736 S.F.
QUAN	TREE TYPE	CCA CREDIT	TOTAL
0	MEDIUM SHADE TREE	750 S.F.	0 S.F.
	TOTAL SHADE TREE CROWN COVER		0 S.F.
47	SHRUBS	2 S.F.	94 S.F.
	TOTAL SHRUB CROWN COVER		94 S.F.
	MAX. ALLOWANCE 25%		1,684 S.F.
	TOTAL CROWN COVER	0.48%	94 S.F.
	CROWN COVER DEFICIENCY		6,642 S.F.

APPROVED
SPECIAL USE PERMIT NO. 2016-0003
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.

COMMONWEALTH OF VIRGINIA
DAVID B. POST
001
LANDSCAPE ARCHITECT

No.	Date	Revision Notes
3	11-17-2017	PER CITY REVIEW
2	10-31-2017	PER CITY REVIEW
1	9-8-2017	PER CITY REVIEW

PostModern
Landscape Architecture, LLC
10725 SANTA ANITA TERRACE
DAMASCUS, MD 20872
301-968-7214
INFO@POSTMODERN-LA.COM

Project Title
PRELIMINARY PLAN
THE STRAND CONDOMINIUM
203/205/211 STRAND STREET
THE CITY OF ALEXANDRIA, VIRGINIA

Drawing Title
PRELIMINARY LANDSCAPE PLAN

Drawn By: DBP
Date: 6/30/2017
CAD File Name:
Project ID: 2017-407
Scale: 1" = 10'
Drawing No.: C-900
of

EXISTING BUILDING

EX. BLDG.

EX. WINDOWS

FENCE AND GATES

BRICK STORMWATER PLANTER 4' HT.

TRANS-FORMER

WALL SIGN LOCATION

WALL SIGN LOCATION

BRICK PAVERS (HERRING BONE PATTERN)

2' WIDE BELGIUM BLOCK (4" COBBLE CUBES) STRIP

PUBLIC ART (TINY LIBRARY)

INTERPRETIVE ART PANEL IN BLDG. RECESSESS (TYP. OF 3)

BENCH

BRICK STORMWATER PLANTER 4' HT.

BIKE RACK

BRICK PLANTER 2' HT. (TYP.)

BIG COMFY CHAIRS (TYP.OF 3)

DOWNSPOUT (TYP.)

GARAGE ENTRANCE (FLUSH)

PROPOSED BUILDING

SOUTH UNION STREET (50' PUBLIC STREET)

STRAND STREET (VARIABLE WIDTH PUBLIC STREET)

ADDRESS NUMBERS

BENCHMARK #2
SANITARY SEWER MANHOLE
N: 6,978,639.39
E: 11,898,011.00
ELEVATION: 5.02

PROTRUDING SIGN LOCATION

WALL SIGN LOCATION

ADDRESS NUMBERS

RETAIL WALL MOUNTED SIGN WITH EXTERNAL LIGHTING

ADDRESS NUMBERS

ACCESSIBLE ROUTE

CORTEN STORMWATER PLANTER 8" HT.

EIGHT NEW HANGING CATENARY LIGHTS TO MATCH EXISTING CONNECTED TO NEW BUILDING

ADDRESS NUMBERS

PROTRUDING SIGN LOCATION

NEW AMPHITHEATER STYLE STAIR CASE

NEW STAIRS TO MATCH EXISITNG

EXISTING STAIRS TO REMAIN

EXISTING RAMP +/-4%

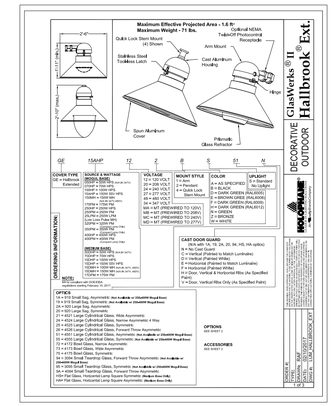
EXISTING BUILDING

EX. LIGHT CABLE (TYP.)

0 10 20 30 FT

SCALE: 1" = 10'-0"

NOTE: OFF-SITE WORK ON HOTEL PROPERTY INCLUDING DEMOLITION OF EXISTING PLANTERS, LIGHT POLES, PAVING AND GREEN SCREEN IS CONTINGENT ON APPROVAL BY THE ADJACENT PROPERY OWNER.



APPROVED

SPECIAL USE PERMIT NO. 2016-0003
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SITE LIGHTING LEGEND:

- EX. STREET LIGHT
- PROPOSED WALL MOUNTED LIGHT (8)
- PROPOSED BOLLARD LIGHT (4)
- PROPOSED SIGN LIGHTING (5)
- CATENARY LIGHT (2) MATCH EXISTING

COMMONWEALTH OF VIRGINIA
DAVID B. POST
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LANDSCAPE ARCHITECT

No.	Date	Revision Notes
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Landscape Architecture, LLC
10725 SANTA ANITA TERRACE
DAMASCUS, MD 20872
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INFO@POSTMODERN-LA.COM

Project Title
PRELIMINARY PLAN
THE STRAND CONDOMINIUM
203/205/211 STRAND STREET
THE CITY OF ALEXANDRIA, VIRGINIA

Drawing Title
PRELIMINARY LIGHTING AND SIGNAGE PLAN

Drawn By: DBP
Date: 6/30/2017
CAD File Name

Project ID: 2017-407
Scale: 1" = 10'
Drawing No.: C-901
of

SPECIFICATIONS FOR PLANTING

Plant Identification - All plants shall be properly tagged with plant name, size and nursery location.

List of Plant Material - The quantities given in the plant list are approximate only. The contractor is responsible for verifying plant quantities prior to bidding and any discrepancies shall be brought to the attention of the landscape architect. The Contractor shall furnish, and plant, all plants required to complete the work as shown on the drawings. Substitutions shall not be made without the written approval of the Landscape Architect. This contract will be based on the bidder having verified, prior to bidding, the availability of the required plant materials as specified on the Plant Schedule.

Plant Quality - All shrubs shall be dense, heavy to the ground, and well grown, showing evidence of having been pruned regularly, and shall be vigorous, healthy and of good color. All plants shall be sound, free of plant disease, infestation, or insect eggs and shall have a healthy, normal root system. Plants shall be freshly dug and not heeled-in stock, nor stock from cold storage. All plants shall be nursery grown. Plants shall not be pruned prior to delivery. The shape of the plant shall, in general, conform to its natural growth proportions unless otherwise specified. All plants, including container grown, shall conform to the branching, caliper and height specifications of the American Association of Nurserymen's Publication entitled American standard for Nursery Stock, ANSIZ60.1, latest edition, and shall have a well-shaped, heavy-branched structure for the species. Evergreen trees are to have an internode no greater than 24" and shall be uniformly well-shaped.

Plant Tagging - The contractor shall prepare a list of nurseries supplying the specified plant material.

Plant Spacing - Plant spacing is to scale on plan. No shrub material shall be closer than 30" to building walls.

Soil Mix - Soil mix will be 2/3 existing topsoil, 1/3 leafmold or other approved organic matter, thoroughly mixed and homogenized.

Rootball Size - The ball size shall conform to the American Association of Nurserymen's Publication entitled American Standard for Nursery Stock, ANSIZ60.1, latest edition, and shall be wrapped in untreated burlap.

Excavation - Holes for all plants shall be 18" larger in diameter than size of ball or container and shall have vertical sides. Hedges shall be planted in a trench 12" wider than ball diameter. Beds for mass planting shall be entirely rototilled to a depth of 8" and shall be 18" beyond the average outside edge of plant balls. Organic matter will be incorporated into plant beds by tilling again to a depth of 8". Proportions of soil to organic material will be two parts existing soil to one part organic material.

Planting - Backfilling shall be done with soil mix previously described, reasonably free of stones, subsoil, clay, lumps, stumps, roots, weeds, Bermuda grass, litter, toxic substances, or any other material which may be harmful to plant growth or hinder grading, planting, or maintenance operations. Should any unforeseen or unsuitable planting conditions arise, such as faulty soil drainage, chemical residues or inconsistencies between plans and actual site conditions, they should be called to the attention of the landscape architect and the owner for adjustment before planting. Plants shall be set plumb and straight and trees shall be guyed or staked at the time of planting. Backfill shall be well worked about the roots and seated by watering. Plants will be planted higher than surrounding grade. Shrubs will be 1" higher and trees will be 3" higher. Remove rope from round tree trunks and lay back burlap and wire baskets from top 1/3 of all B&B material. Nylon, plastic, or vinyl rope and/or burlap will be completely removed from all plant material prior to planting.

Transplanting Trees by Tree Machines - Trees shall be moved by machines that provide a minimum ball diameter of 10" per 1" of tree caliper. Holes are to be dug by the same size machine as the one transporting the plant. The plant material shall be transplanted in approximately the same growing condition as it is presently growing, in terms of soil type and moisture content. Fertilize and guy as described in these plans and specifications.

Cultivation - All trenches and shrub beds shall be cultivated, edged and mulched to a depth of 2" minimum and 3" maximum with well-aged, fine-shredded hardwood bark. The area around isolated plants shall be mulched to at least a 6" greater diameter than that of the hole. Plant beds adjacent to buildings shall be entirely mulched to the building wall.

Maintenance - The Contractor shall be responsible during the contract and up to the time of acceptance for keeping the planting and work incidental thereto in good condition by replanting, plant replacement, watering, weeding, cultivating, pruning, spraying, restaking and cleaning up, and by performing all other necessary operations of care for the promotion of good plant growth so that all work is in satisfactory condition at the time of acceptance at no additional cost to the owner.

Fertilizer - All fertilizer shall be granular, packet or pellet type with 35 to 80 percent of the total nitrogen in a slowly available form. For trees, shrubs, and groundcover; fertilizer shall be a complete fertilizer with a minimum analysis of 10 percent nitrogen, 6 percent phosphorus and 4 percent potassium. For perennials, annuals, and bulbs; fertilizer shall be a time-released, high-phosphate fertilizer; i.e., MagAmp 7-40-6 coarse. For bulbs, fertilizer shall be bonemeal (commercial, raw and finely-round), with an analysis of 4 percent nitrogen and 20 percent phosphoric acid.

Fertilizer shall be added depending on the size of the plant and the manufacturer's recommendation using the following application rates:

1. Trees: Use ½ lb. of 10-6-4 fertilizer per inch of trunk diameter.
2. Shrubs: Use 1/4 lb. of 10-6-4 fertilizer per foot of height or spread per plant, or 3-5 lbs. of 10-6-4 fertilizer per 100 square feet of bed area.
3. Groundcover: Use 3 lbs. of 10-6-4 fertilizer per 100 square feet of bed area.
4. Perennials, Annuals, Bulbs: Use 3 lbs. of time-release, high-phosphate fertilizer (5-10-5) per 100 square feet of bed area.
5. Bulbs: Use 4-8 lbs. of bonemeal per 100 square feet of bed area (or use time-released, high-phosphate fertilizer as specified above).

Ground Cover - All areas of groundcover shall be rototilled to a depth of 6". Apply 2" of organic material (leafmold) and rototil until thoroughly mixed. Apply fertilizer as stated above.

Perennial Flower Bed Preparation - A soil test shall be taken for pH analysis and the soil amended with ground limestone for acidic soil and garden sulfur or ferrous sulfate for alkaline soil at rates recommended by the soil test. The final pH should be between 6.5 and 7.0. Soil shall be spaded to a depth of 12". Spread 4" of completely decayed organic matter over the soil. Use "nitrogen-fortified" organic material or spread two pounds of ammonium sulfate per 100 square feet. Over this layer spread a thin layer of fertilizer per the schedule unless the soil test indicates otherwise. Rototil fertilizer and organic matter, mixing them thoroughly into the soil. Use a tiller that will cultivate to a minimum depth of 8" and do not make more than two passes. The entire bed may be cultivated with a spade if preferred. When finished, rake surface with a steel-tooth rake until smooth. Moisten the bed, let the water soak in, and rake it again.

Annual Flower Bed Preparation - A soil test shall be taken for pH analysis and the soil amended with ground limestone for acidic soil and garden sulfur or ferrous sulfate to alkaline soil at rates recommended by the soil test. The final pH should be between 6.5 and 6.8. Soil shall be spaded to a depth of approximately 12". Spread 2"-3" of organic matter over soil. Organic material may be coarse moist peat moss, well-rotted manure or compost. Over this layer of organic material, spread a thin layer of fertilizer per the schedule above. Rototil fertilizer and organic material to a depth of 6", mixing them thoroughly into the soil and continue to break-up lumps; then rake surface with steel-tooth rake until smooth. Moisten the bed, let the water soak in and rake it again. Space plants as indicated on drawing.

Guarantee and Replacement - All plant material shall be unconditionally guaranteed for one year. The guarantee will begin on the date of final acceptance of the work. After a plant has been determined to be dead, dying or damaged from handling or installation, it will be replaced during the next growing season. For example, if a plant is found dead during the summer months, it will be replaced during the fall planting season. The guarantee will end for all plant material one year after acceptance. During the guarantee period, the Contractor will not be responsible for mechanical injury or vandalism caused by other parties.

Material Inspection - The Landscape Architect may inspect plant material before and during delivery and installation. Plant material will be properly delivered in covered trucks, and promptly uncovered when delivered to prevent damage. Material will be unloaded and properly handled in such a way as not to damage plants. Plants will be inspected and may be rejected upon delivery and/or installation by the owner for mechanical damage, and damage that will subsequently cause misshapen or deformed material. Owner will have authority to observe site preparation and planting installations, and have the right to reject any work if the specifications and construction documents are not followed. All plant material shall be of the quality specified and installed as described above, and unless these minimum standards are satisfied, the plants will be rejected.

SECTION 9-A-4: TYPICAL DETAILS

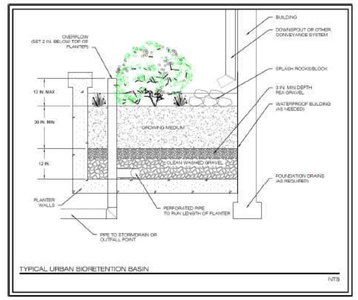
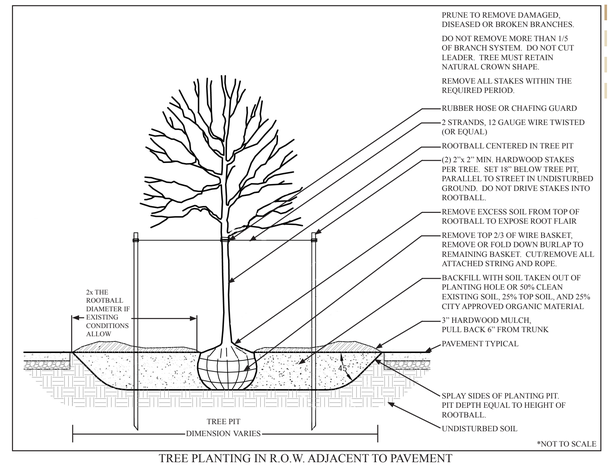
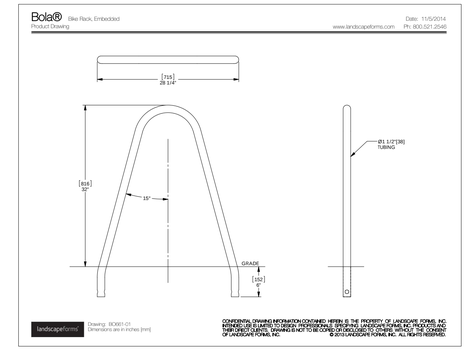


Figure 9-A.4. Stormwater Planter Cross-Section

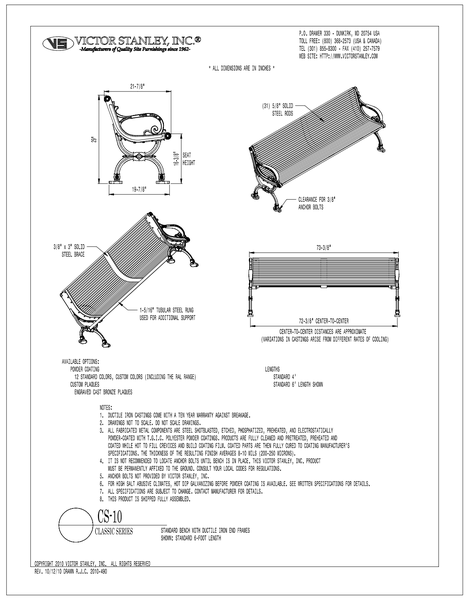


TREE PLANTING IN R.O.W. ADJACENT TO PAVEMENT

EXISTING VIEW OF SOUTH ALLEY FROM STRAND STREET:
EXISTING STEPS AND HANDRAILS TO REMAIN.
CORTEN PLANTER TO BE REMOVED.
NEW AMPHITEATER STYLE STAIRS AND RAILING TO MATCH.



BIKE RACK



BENCH

COMMONWEALTH OF VIRGINIA
DAVID B. POST
001[illegible]
LANDSCAPE ARCHITECT

APPROVED
SPECIAL USE PERMIT NO. 2016-0003
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	Revision Notes
3	11-17-2017	PER CITY REVIEW
2	10-31-2017	PER CITY REVIEW
1	9-8-2017	PER CITY REVIEW

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Project Title: *PRELIMINARY PLAN* *THE STRAND CONDOMINIUM* *203/205/211 STRAND STREET* *THE CITY OF ALEXANDRIA, VIRGINIA*

Drawing Title: PRELIMINARY LANDSCAPE DETAILS

Drawn By: DBP

Date: 6/30/2017

CAD File Name:

Project ID: 2017-407

Scale: AS SHOWN

Drawing No.: C-902

of