



# APPLICATION SPECIAL USE PERMIT

## ADMINISTRATIVE CHANGE OF OWNERSHIP OR MINOR AMENDMENT

**Change of Ownership**       **Minor Amendment**

[must use black ink or type]

**PROPERTY LOCATION:** 529 E Howell Ave, Alexandria, VA 22301

**TAX MAP REFERENCE:** 35.03      **ZONE:** CDD #24

### APPLICANT

Name: Alexander Benbassat

Address: 5571 Vincent Gate Terrace, Apt. 1437, Alexandria, VA 22312

### PROPERTY OWNER

Name: Garsay 529, LLC

Address: 605 Deerfield Pond Ct, Ste 400 Great Falls, VA 22066

**SITE USE:** Counter service restaurant and bar with outdoor dining

**Business Name:**      **Current:**      **Proposed (if changing):** Brewskis Barkhaus, LLC

**THE UNDERSIGNED** hereby applies for a Special Use Permit for **Change in Ownership**, in accordance with the provisions of Article XI, Division A, Section 11-503 (5)(f) of the 1992 Zoning Ordinance of City of Alexandria, Virginia.

**THE UNDERSIGNED**, having read and received a copy of the special use permit, hereby agrees to comply with all conditions of the current special use permit, including all other applicable City codes and ordinances.

**THE UNDERSIGNED** hereby applies for a Special Use Permit for **Minor Amendment**, in accordance with the provisions of Article XI, Division A, Section 11-509 and 11-511 of the 1992 Zoning Ordinance of City of Alexandria, Virginia.

**THE UNDERSIGNED**, having obtained permission from the property owner, hereby requests this special use permit. The undersigned also attests that all of the information herein required to be furnished by the applicant are true, correct and accurate to the best of his/her knowledge and belief.

Alexander Benbassat

Print Name of Applicant or Agent

5571 Vincent Gate Terrace, Apt. 1437

Mailing/Street Address

Alexandria, VA      22312

City and State      Zip Code

Signature

(336) 214-4226

Telephone #      Fax #

aben1644@vt.edu

Email address

02/26/2020

Date

### DO NOT WRITE IN THIS SPACE - OFFICE USE ONLY

Application Received: \_\_\_\_\_

Fee Paid: \$ \_\_\_\_\_

Legal advertisement: \_\_\_\_\_

ACTION - PLANNING COMMISSION \_\_\_\_\_

ACTION - CITY COUNCIL: \_\_\_\_\_

The following information must be furnished to the Department of Planning and Zoning to determine if the current use conducted on the premises complies with the special use permit provisions and all other applicable codes and ordinances.

1. Please describe prior special use permit approval for the subject use.

Most recent Special Use Permit # 2014-0068

Date approved: 10 / 18 / 2014  
month day year

Name of applicant on most recent special use permit EMS Food Group, LLC

Use Restaurant

2. Describe below the nature of the *existing* operation *in detail* so that the Department of Planning and Zoning can understand the nature of the change in operation; include information regarding type of operation, number of patrons served, number of employees, parking availability, etc. (Attach additional sheets if necessary.)

EMS Food Group, LLC is no longer in service, however the following is the previous use of 529 E Howell Avenue. The space was used for a quick service casual restaurant. "Patrons will be served at the restaurant counter. This menu will consist of salads, wraps, falafels and pita sandwiches. The restuarant used forty-eight (48) seats of which ten (10) seats could be used seasonally for outdoors dining. The restaurant operated from 11:00 am until 10:00 pm, seven (7) days a week."

\_\_\_\_\_  
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\_\_\_\_\_  
\_\_\_\_\_

3. Describe any proposed *changes* to the business from what was represented to the Planning Commission and City Council during the special use permit approval process, including any proposed changes in the nature of the activity, the number and type of patrons, the number of employees, the hours, how parking is to be provided for employees and patrons, any noise emitted by the use, etc. (Attach additional sheets if necessary)

Business Operations - The use of 529 E Howell Ave will remain a restaurant/taphouse with a new outdoor dining space for 20 seats. Guests will be allowed to take their food/beverages to the outdoor area. Patrons will also be allowed to bring their dogs to the outdoor dining area. Restaurant will operate as a counter service cafe.

Menu Change - Items to be sold and consumed on property may include handhelds (sandwiches, sliders, burgers, specialty sausages, hot dogs, tacos etc.), fried foods (french fries, chicken, vegetables etc.), cold salads, wings, and flatbreads.

Hours of Operation - Restaurant/Bar (Sun - Thurs, 11am - 10 pm) & (Fri - Sat, 11am - 11pm)

Number and Type of Patrons - Currently 150 per day, no change is anticipated

Number of Employees - More employees will be required to run the new use, changing from 4 ~~staffed per shift, to 6-7 per shift.~~ Also changing total employees from an estimated 15 to 20-25 full and part time employees.

Parking - Off-Street parking will be available, however it will be reduced from 12 to 8 (7 regular and 1 ADA)

4. Is the use currently open for business?  Yes  No  
If the use is closed, provide the date closed. 01 / 01 / 2019  
month day year

5. Describe any proposed changes to the conditions of the special use permit:  
Maximum number of seats Indoors - Currently 48, requesting 70  
~~Maximum number of seats Outdoors - Currently 10, requesting 20~~  
Hours of operation for restaurant - Currently 11 am - 10 pm, requesting 11am - 11pm Fri & Saturday  
Employee parking - Currently required for off-street parking, change to street parking when available

6. Are the hours of operation proposed to change?  Yes  No  
If yes, list the current hours and proposed hours:  
Current Hours: 11am - 10pm  
Proposed Hours: Bar / Cafe : 11am - 10pm; 11am - 11pm (Fri & Sat)

7. Will the number of employees remain the same?  Yes  No  
If no, list the current number of employees and the proposed number.  
Current Number of Employees: 15 full or part time, 4 onsite per shift  
Proposed Number of Employees: 20-25 full or part time, 5-7 onsite per shift

8. Will there be any renovations or new equipment for the business? X Yes \_\_\_ No  
If yes, describe the type of renovations and/or list any new equipment proposed.  
Outdoor fencing, turf and tables  
Minor interior demolition - removal of non-structural walls and portion of bar; (no mechanical work); removal of two sinks  
Minor interior construction - new partitions and half walls

9. Are you proposing changes in the sales or service of alcoholic beverages? \_\_\_ Yes X No  
If yes, describe proposed changes:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

10. Is off-street parking provided for your employees?  Yes  No  
If yes, how many spaces, and where are they located?  
\_\_\_\_\_  
\_\_\_\_\_

11. Is off-street parking provided for your customers?  Yes  No  
If yes, how many spaces, and where are they located?  
**8 parking spaces; 7 standard and 1 ADA**  
\_\_\_\_\_  
\_\_\_\_\_

12. Is there a proposed increase in the number of seats or patrons served?  Yes  No  
If yes, describe the current number of seats or patrons served and the proposed number of seats and patrons served. For restaurants, list the number of seats by type (i.e. bar stools, seats at tables, etc.)

Current:	Proposed:
<b>48 Seats Indoor</b>	<b>70 Seats Indoor (1st and 2nd Floor)</b>
<b>10 Seats Outdoor</b>	<b>20 Seats Outdoor</b>
_____	_____
_____	_____

13. Are physical changes to the structure or interior space requested?  Yes  No  
If yes, attach drawings showing existing and proposed layouts. In both cases, include the floor area devoted to uses, i.e. storage area, customer service area, and/or office spaces.

14. Is there a proposed increase in the building area devoted to the business?  Yes  No  
If yes, describe the existing amount of building area and the proposed amount of building area.

Current:	Proposed:
_____	_____
_____	_____
_____	_____

15. The applicant is the (check one)  Property owner  Lessee  
 other, please describe: \_\_\_\_\_

16. The applicant is the (check one) \_\_\_\_\_ Current business owner \_\_\_\_\_ Prospective business owner  
 other, please describe: **Prospective lease holder (couldn't check box above)**

17. Each application shall contain a clear and concise statement identifying the applicant, including the name and address of each person owning an interest in the applicant and the extent of such ownership interest. If the applicant, or one of such persons holding an ownership interest in the applicant is a corporation, each person owning an interest in excess of ten percent (3%) in the corporation and the extent of interest shall be identified by name and address.

For the purpose of this section, the term "ownership interest" shall include any legal or equitable interest held in the subject real estate at the time of the application. If a nonprofit corporation, the name of the registered agent must be provided.

Please provide ownership information here:

**Co Owners**

Justin LeGore - (45%) - 5571 Vincent Gate Terrace, Apt. 1437, Alexandria, VA 22312

Alexander Benbassat- (45%) - 5571 Vincent Gate Terrace, Apt. 1437, Alexandria, VA 22312

**Silent Partners**

Ernest and Ester Benbassat (10% Jointly) - 104 Eastgate Dr, Elon, NC 27244

## Special Use Permits Eligible for Administrative Approval

Certain uses of land that have potentially negative impacts on surrounding properties require special use permit approval from City Council. The City Council may impose conditions on the operation of the special use in order to protect the health, safety and welfare of the surrounding area. For new uses and for intensifications or amendments of existing uses, the Planning Commission and City Council conduct public hearings and decide whether to approve the request. The Director of Planning and Zoning, however, may approve a special use permit administratively if it is only a change in ownership or a minor amendment of a previously approved special use permit.

## Special Use Permit for Change of Ownership

If the existing special use permit for an operation restricts the ownership of the use, a prospective owner may not take ownership of the operation until he receives special use permit approval for the change of ownership. Pursuant to Section 11-503, the director may approve the change and transfer the special use permit to a new owner, if the following conditions apply:

- 1) The applicant is not requesting a change in the conditions of the special use permit;
- 2) there have been no substantiated violations of the special use permit conditions;
- 3) there are no changes proposed or anticipated in the operation of the use involved;
- 4) the director has concluded that no new conditions or no amendments to existing conditions are necessary; and
- 5) following notice of the application in a newspaper of general circulation in the City, no person has requested that the director forward the application to the Planning Commission or City Council.

If the application does not meet any one of the above conditions, it must be docketed for the next available Planning Commission and City Council public hearings. If the Director approves a special use permit for change in ownership, the new owner must sign an agreement stating that he/she will to continue to comply with the special use permit conditions.

## Special Use Permit for Minor Amendment

Pursuant to Sections 11-509 and 11-511 of the zoning ordinance, the director may approve minor amendments to approved special use permits. Only changes that constitute no more than a minimal enlargement or extension of the special use permit or that are so insignificant they will have little or no zoning impact on the surrounding neighborhood are eligible for administrative approval. If a change will intensify the use, it requires Planning Commission and City Council approval. Changes that intensify a use include any increase in the following:

- 1) Hours of operation;
- 2) number of seats;
- 3) number of employees; visitors of customers; or
- 4) number of vehicle trips generated.

The Director may not administratively approve minor amendments if any of the following apply:

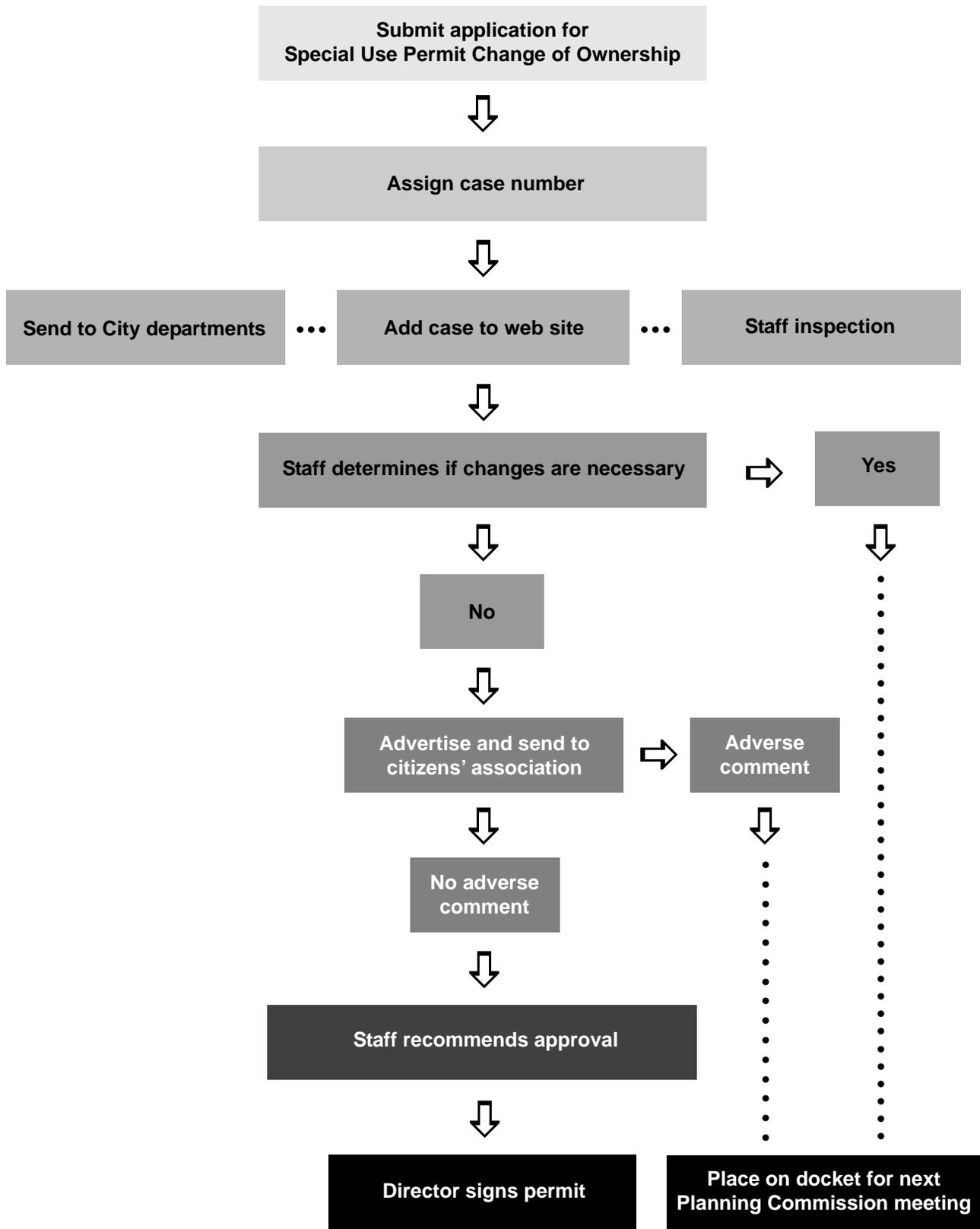
- 1) He/She has received written or oral complaints that the use is in violation of the zoning ordinance;
- 2) at the time the special use permit was approved, opposition was presented to the Planning Commission or City Council; or
- 3) new conditions or amendments to existing conditions are necessary.

Notice of the application is published in a newspaper of general circulation in the City and is sent to docket subscribers.

## Approval Process

For both change in ownership and minor amendment special use permits, the approval process generally takes between four and six weeks from the time an application is submitted. During that time, staff will review the application, inspect the subject property for compliance with special use permit conditions and advertise the proposed change in the newspaper to provide an opportunity for citizens to comment on the change and, in the case of minor amendments, send notice to the Planning Commission and City Council members. If the Director determines that the Planning Commission and City Council must consider the application, he/she will docket the application for the next available Planning Commission and City Council hearings. At that time, the Director may require additional information regarding the application.

# PROCESS FLOW CHART: Change of Ownership SUP













AS-BUILT  
 LOT 506, DEL-RAY, BEING A CONSOLIDATION OF  
 LOTS 206, 207 AND PART OF LOTS 208 & 209, DEL-RAY (INSTR.#140007196)  
**THE DORN BUILDING**  
 (529 EAST HOWELL AVENUE)  
 CITY OF ALEXANDRIA, VIRGINIA

**RCF**  
 & ASSOCIATES, INC.  
 ENGINEERING • LAND SURVEYING • PLANNING  
 730 S. Washington Street  
 Alexandria, Virginia 22314  
 (703) 549-6422

PROJ. MANAGER: BRIAN DOFFLEMYER  
 EMAIL: bdofflemyer@rcfassoc.com  
 DATE: NOV. 1, 2013  
 REV: JUNE 14, 2016  
 SCALE: AS NOTED  
 DRAWN: WMM

**AREA TABULATIONS**

TOTAL SITE AREA = 0.2160 AC 9,410 SF  
 TOTAL AREA OF TAX PARCELS = 0.2160 AC 9,410 SF  
 TOTAL EXISTING IMPERVIOUS AREA = 0.1693 AC 7,374 SF  
 TOTAL PROPOSED IMPERVIOUS AREA = 0.1674 AC 7,290 SF  
 TOTAL DISTURBED AREA = 0.5057 AC 22,028 SF

**VICINITY MAP**

SCALE: 1"=400'



TAX PARCEL NUMBERS: 035.03-04-10  
 035.03-04-11

**ZONING TABULATIONS**

- ZONE OF SITE: CSL SHOPPING/RETAIL ESTABLISHMENT & BUSINESS OR PROFESSIONAL OFFICE
- USE: EXISTING VACANT PUMP HOUSE AND STORAGE YARD PROPOSED BUSINESS OR PROFESSIONAL OFFICE
- LOT AREA: 9,410 SF OR 0.2180 AC MINIMUM LOT AREA: N/A FOR NON-RESIDENTIAL USES
- NUMBER OF DWELLING UNITS: N/A
- UNITS PER ACRE: N/A
- GROSS FLOOR AREA: 2,956 SF AS PER ARCHITECTURAL DESIGN PLANS  
 RETAIL: 1,478 SF  
 OFFICE: 1,478 SF
- NET FLOOR AREA: 2,641 SF AS PER ARCHITECTURAL DESIGN PLANS  
 RETAIL: 1,316 SF  
 OFFICE: 1,325 SF
- FLOOR AREA RATIO: ALLOWED: 0.50  
 PROPOSED: 0.28 AS PER ARCHITECTURAL DESIGN PLANS
- OPEN SPACE: NONE REQUIRED FOR NON-RESIDENTIAL USE
- AVERAGE FINISHED GRADE: 38.7 39.0
- HEIGHT: ALLOWED: 50.0'  
 PROPOSED: 25.5' 25.4'
- YARDS:  
 REQUIRED:  
 • WEST SIDE: BUILDING HEIGHT (25.5') ZONE TRANSITION BUFFER REQUIRED FROM RESIDENTIAL LOT 205  
 • NORTH FRONT: 20' ZONE TRANSITION ALONG EAST HOWELL AVENUE  
 PROPOSED:  
 • WEST SIDE: 25.5' 25.5'  
 • NORTH FRONT: 72.9' 72.9'
- FRONTAGE: N/A FOR NON-RESIDENTIAL USE
- PARKING REQUIRED (ZONE 2):  
 RETAIL REQUIRED:  
 1.1 SPACES/200 SF = 1,316/200 x 1.1 = 7.2 OR 8 SPACES  
 OFFICE REQUIRED:  
 1 SPACE/450 SF = 1,325/450 x 1.0 = 2.9 OR 3 SPACES  
 TOTAL SPACES REQUIRED: 11  
 TOTAL SPACES PROVIDED: 12 (STANDARD WITH 1 ACCESSIBLE SPACE)
- LOADING SPACES: RETAIL: NONE REQUIRED FOR STRUCTURE WITH LESS THAN 2,500 SF OF RETAIL GROSS FLOOR AREA.  
 OFFICE: NONE REQUIRED
- TRIP GENERATION: EXISTING 10 PROPOSED 83 (PER ITE STANDARDS)

**ENVIRONMENTAL SITE ASSESSMENT**

- THERE ARE NO RESOURCE PROTECTION AREAS (RPA'S), TIDAL WETLANDS, SHORES, TRIBUTARY STREAMS, FLOOD PLAINS, OR BUFFER AREAS FOR SHORES, WETLANDS, CONNECTED TIDAL WETLANDS, ISOLATED WETLANDS OR HIGHLY ERODIBLE/PERMEABLE SOILS LOCATED ON THIS SITE. THERE ARE NO WETLAND PERMITS REQUIRED FOR THE DEVELOPMENT ON THIS PROPERTY.
- THE CITY OF ALEXANDRIA DEPARTMENT OF TRANSPORTATION AND ENVIRONMENTAL SERVICES, DIVISION 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 RELEASE TO THE ENVIRONMENT WILL BE HANDLED IN ACCORDANCE WITH FEDERAL, STATE, AND CITY REGULATIONS.
- ALL WELLS TO BE DEMOLISHED ON THIS PROJECT, INCLUDING MONITORING WELLS, MUST BE CLOSED IN ACCORDANCE WITH STATE WELL REGULATION. CONTACT THE ALEXANDRIA HEALTH DEPARTMENT AT 703-746-4996 OR THE ENVIRONMENTAL HEALTH DIVISION AT 703-746-4910.
- THERE ARE NO KNOWN CONTAMINATED AREAS, CONTAMINATED SOILS OR ENVIRONMENTAL ISSUES ASSOCIATED WITH THIS SITE.

**ENVIRONMENTAL PERMITS NOTE:**

ALL REQUIRED PERMITS FROM VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY, ENVIRONMENTAL PROTECTION AGENCY, ARMY CORPS OF ENGINEERS, VIRGINIA MARINE RESOURCES MUST BE IN PLACE FOR ALL PROJECT CONSTRUCTION AND MITIGATION WORK PRIOR TO RELEASE OF THE FINAL SITE PLAN.  
 A VSPM PERMIT IS REQUIRED FOR THIS PROJECT BECAUSE THE PROPOSED CONSTRUCTION ACTIVITIES DISTURB AN AREA GREATER THAN 2,500 SQ.FT.

**COMPREHENSIVE LEGEND**

**CIVIL LEGEND**

ITEM	EXISTING	PROPOSED
CURB & GUTTER	=====	=====
CONC. WALK	-----WALK-----	-----WALK-----
FIRE HYDRANT	⊕	⊕
STRUCTURES	[-----]	[-----]
WATER MAINS	---W---	---W---
GAS MAINS	---G---	---G---
TELEPHONE LINES	---T---	---T---
STORM SEWER	-----S-----	-----S-----
SANITARY SEWER	-----SS-----	-----SS-----
PAVING	-----P-----	-----P-----
FENCES	---X---	---X---
POWER LINES	-----P-----	-----P-----
SPOT ELEVATIONS	+124.5	+124.5
CONTOURS	-----124-----	-----124-----
BUILDING ENTRANCES	▽	▽
UTILITY POLE	⊕	⊕
LIGHT POLE	☆	☆
LIMITS OF DISTURBANCE	-----	-----

1 DENOTES NUMBER OF PARKING SPACES IN A ROW  
 62 PROP. STORM STRUCTURE I.D. LABEL

	NEW	UPGRADED
CROSSWALKS (NUMBER)	N/A	N/A
STANDARD	N/A	N/A
HIGH VISIBILITY	N/A	N/A
CURB RAMPS	N/A	2
SIDEWALKS (LF)	254	92
BICYCLE PARKING (NUMBER SPACES)	4	N/A
PUBLIC/VISITOR	4	N/A
PRIVATE/GARAGE	N/A	N/A
BICYCLE PATHS (LF)	N/A	N/A
PEDESTRIAN SIGNALS	N/A	N/A

**TEXT LEGEND:**

- =DEGREES
- '=MINUTES (OR FEET)
- "=SECONDS (OR INCHES)
- %=PERCENT
- #=SQUARE FEET
- #=NUMBER
- ⊕=AT
- lbs.=POUNDS
- A=ARC
- AC.=ACRE
- AD=AREA DRAIN
- ADA=AMERICANS WITH DISABILITIES ACT
- B.C.=BACK OF CURB
- BF=BASEMENT FLOOR
- BLDG.=BUILDING
- BOL.=BOLLARD
- CATV=CABLE UTILITY
- CL=CLASS
- CLEAR=CLEARANCE
- CMP=CORRUGATED METAL PIPE
- C.I.=CURB INLET
- C.O.=CLEAN OUT
- C&G=CURB & GUTTER
- D.S.=DOWNSPOUT
- DSUP=DEVELOPMENT SPECIAL USE PLAN
- DU=DWELLING UNIT
- E=EAST
- FDC=FIRE DEPT. CONNECTION
- FF=FINISH FLOOR
- FH=FIRE HYDRANT
- FT=FEET
- GL=GROUND LIGHT
- G/V=GAS VALVE
- G/M=GAS METER
- G.I.=GRATE INLET
- H.C.=HEADER CURB
- HDPCP=HANDICAP
- HDPE=HIGH DENSITY POLYETHYLENE
- HPS=HIGH PRESSURE SODIUM
- IPF=IRON PIPE FOUND
- INV.=INVERT
- L=LUMENS
- LOC.=LOCATION
- LP=LIGHT POLE
- MAX.=MAXIMUM
- MH=MANHOLE
- MIN.=MINIMUM
- MPH=MILES PER HOUR
- MW=MONITORING WELL
- N=NORTH
- OHW=OVERHEAD WIRE
- PF=PLANTER BOX FILTER
- PN=PANEL
- PP=POWER POLE
- PVC=POLYVINYL CHLORIDE
- R=RADIUS
- RCP=RE-ENFORCED CONCRETE PIPE
- RELOC.=RELOCATED
- RET.=RETAINING
- RESID.=RESIDENTIAL
- R/W=RIGHT-OF-WAY
- S=SOUTH
- SAN.=SANITARY SEWER
- SQ.FT.=SQUARE FEET
- STM.=STORM SEWER
- STR.=STRUCTURE
- TBR=TO BE REMOVED
- TBS=TO BE SAVED
- TW=TOP OF WALL
- TRAF.SIG.=TRAFFIC SIGNAL
- TYP=TYPICAL
- VCS=VIRGINIA COORDINATE SYSTEM
- W=WATT
- W=WEST
- W.S.E.=WATER SURFACE
- W/V=WATER VALVE
- W/M=WATER METER
- W.W.=WINDOW WELL

**PROJECT DESCRIPTION NARRATIVE**

THE APPLICANT IS PROPOSING THE REDEVELOPMENT OF THE SUBJECT SITE WHICH IS CURRENTLY OCCUPIED BY A VACANT PUMP HOUSE AND A STORAGE YARD. ALL EXISTING IMPROVEMENTS SHALL BE REMOVED AND REPLACED WITH A SHOPPING/RETAIL ESTABLISHMENT AND BUSINESS OR PROFESSIONAL OFFICE SPACE MIXED USE BUILDING. THE PROPOSED BUILDING WILL HAVE RETAIL SPACE ON THE FIRST FLOOR AND OFFICE SPACE ABOVE. PARKING WILL BE PROVIDED IN THE PROPOSED SURFACE PARKING LOT.

**APPROVED APPLICATIONS**

- DEVELOPMENT SITE PLAN

**PROPOSED USE NOTE:**

HOURS OF OPERATION: RETAIL: TYPICAL FOR RETAIL USE  
 OFFICE: TYPICAL FOR AN OFFICE USE

DESCRIPTION OF POTENTIAL USES: THIS SITE WILL PROVIDE A 2-STORY BUILDING. THE FIRST FLOOR WILL BE RETAIL SPACE AND THE SECOND STORY WILL BE OFFICE SPACE. PARKING WILL BE PROVIDED IN THE SURFACE PARKING LOT.

**ARCHAEOLOGY NOTES**

CALL ALEXANDRIA ARCHAEOLOGY IMMEDIATELY (703-746-4399) IF ANY BURIED STRUCTURAL REMAINS (WALLS WELL, PRIMES, 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.

THE APPLICANT SHALL NOT ALLOW ANY METAL DETECTION AND/OR ARTIFACT COLLECTION TO BE CONDUCTED ON THE PROPERTY, UNLESS AUTHORIZED BY ALEXANDRIA ARCHAEOLOGY. FAILURE TO COMPLY SHALL RESULT IN PROJECT DELAYS.

**OWNER/DEVELOPER**

- OWNER: HOWELL PROPERTIES, LLC  
 1200 CHADWICK AVE  
 ALEXANDRIA, VA 22308
- DEVELOPER: HOWELL PROPERTIES, LLC  
 1200 CHADWICK AVE  
 ALEXANDRIA, VA 22308  
 CONTACT: ERIC DORN  
 (571) 969-9699
- PLAN PREPARED BY: R.C. FIELDS & ASSOCIATES, INC.  
 730 S. WASHINGTON STREET  
 ALEXANDRIA, VA 22314  
 CONTACT: BRIAN DOFFLEMYER
- ARCHITECT: RITTER ARCHITECTS  
 814 KING STREET, 3RD FLOOR  
 ALEXANDRIA, VA 22314  
 (703) 548-4405 x303  
 CONTACT: JOHN WIRTH
- ATTORNEY: LAND, CARROLL AND BLAIR  
 524 KING STREET  
 ALEXANDRIA, VA 22314  
 (703) 595-2037  
 CONTACT: DUNCAN BLAIR
- LANDSCAPE ARCHITECT: KIRK BEREUTER LANDSCAPE ARCHITECTURE, LLC  
 911 KING STREET, 2ND FLOOR  
 ALEXANDRIA, VA 22314  
 (703) 507-1991  
 CONTACT: KIRK BEREUTER

**SHEET INDEX:**

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**APPROVED ASBUILT**

DEVELOPMENT PLAN NO. DSP 2013-0010

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

DIRECTOR \_\_\_\_\_ DATE \_\_\_\_\_

SPECIAL USE PERMIT \_\_\_\_\_

**"AS-BUILT" SURVEYOR'S CERTIFICATION:**

☐ = AS-BUILT

NOTE: ALL "BOXED" DIMENSIONS, TEXT, SPOT ELEVATIONS, AND SITE IMPROVEMENTS DENOTES THOSE ITEMS AS AS-BUILT ITEMS.

THE SITE IMPROVEMENTS ON THIS PLAN ARE SHOWN AS THEY EXIST AS OF THE DATE OF THIS CERTIFICATE.

I HEREBY CERTIFY THAT THIS "AS-BUILT" PLAN IS SUBSTANTIALLY IN CONFORMANCE WITH THE APPROVED PLANS EXCEPT AS NOTED.  
 DATE: AUGUST 30, 2016



AS-BUILT  
 LOT 506, DEL-RAY, BEING A CONSOLIDATION  
 OF LOTS 206, 207 AND PART OF LOTS 208 &  
 209, DEL-RAY (INSTR.#140007196)  
**THE DORN BUILDING**  
 (529 EAST HOWELL AVENUE)  
 CITY OF ALEXANDRIA, VIRGINIA

COVER SHEET

**APPROVED**  
 SPECIAL USE PERMIT NO. \_\_\_\_\_

DEPARTMENT OF PLANNING & ZONING

DIRECTOR \_\_\_\_\_ DATE \_\_\_\_\_

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

SITE PLAN NO. DSP 2013-0010

DIRECTOR \_\_\_\_\_ DATE \_\_\_\_\_

CHAIRMAN, PLANNING COMMISSION \_\_\_\_\_ DATE \_\_\_\_\_

DATE RECORDED \_\_\_\_\_

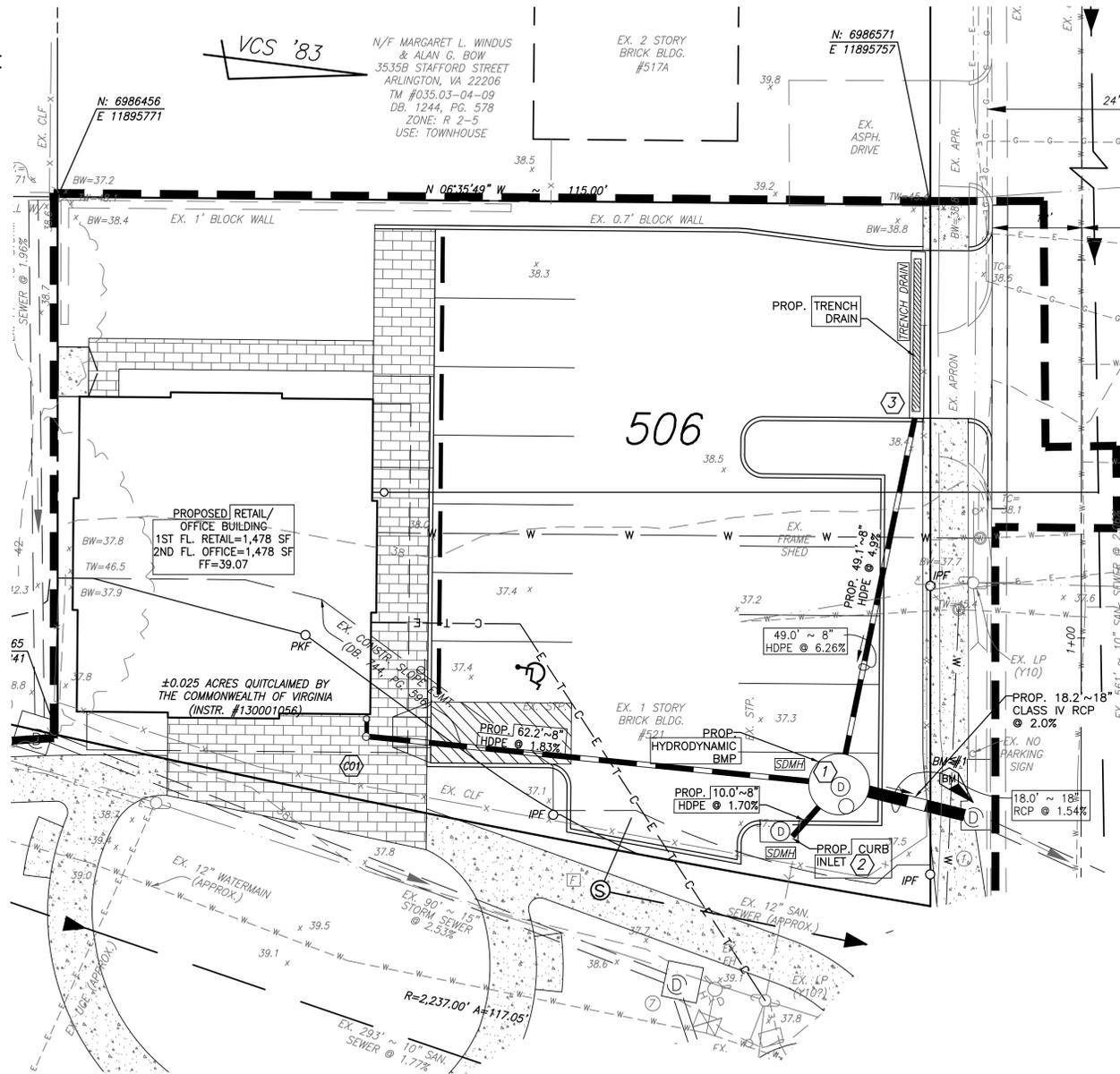
INSTRUMENT NO. \_\_\_\_\_ DEED BOOK NO. \_\_\_\_\_ DATE \_\_\_\_\_





**EX. STORM SCHEDULE**

- 1 BENCHMARK #1  
EX. CURB INLET  
TOP=37.16  
INV.OUT=33.26(15")
- 2 EX. CURB INLET  
TOP=37.30  
INV.IN=32.80(15")  
INV.OUT=32.70(18")
- 3 EX. STORM GRATE  
TOP=37.25  
INV.IN=32.05(18")  
INV.OUT=31.45(24")
- 4 EX. STORM MH  
TOP=40.16  
INV.IN=28.46(24")  
INV.OUT=28.96(36")  
INV.OUT=28.86
- 5 EX. STORM MH  
TOP=39.81  
INV.IN=31.11(15")  
INV.IN=30.51(36")  
INV.OUT=30.51(36")
- 6 EX. STORM MH  
TOP=40.21  
INV.IN=32.01(15")  
INV.OUT=31.91(15")
- 7 EX. STORM INLET  
TOP=38.84  
INV.IN=32.74(15")  
INV.OUT=32.74(15")
- 8 EX. STORM INLET  
TOP=39.92  
INV.IN=35.32(15")  
INV.OUT=35.02(15")
- 9 BENCHMARK #2  
EX. STORM INLET  
TOP=39.62  
INV.IN=30.82(18")  
INV.OUT=30.82(24")
- 10 EX. STORM MH  
TOP=40.39  
INV.IN=32.49(18")  
INV.OUT=32.34(18")
- 11 EX. CURB INLET  
TOP=39.03  
INV.OUT=33.83



**LEGEND**

- DENOTES CONCRETE WALK
- DENOTES BRICK WALK

**STORMWATER RUNOFF COMPUTATIONS:**  
(RUNOFF ANALYSIS UTILIZING RATIONAL METHOD)

I. PROJECT AREA = 9,410 SQ.FT. OR 0.2160 ACRES  
EXISTING IMPERVIOUS AREAS: = 7,374 SQ.FT. OR 0.1693 ACRES  
PROPOSED IMPERVIOUS AREAS: = 7,290 SQ.FT. OR 0.1674 ACRES

II. WEIGHTED "C" FACTOR CALCULATION  
PRE-DEVELOPMENT "C" = (0.30 X 0.0467 + 0.90 X 0.1693) ÷ 0.2160 = 0.77  
POST-DEVELOPMENT "C" = (0.30 X 0.0486 + 0.90 X 0.1674) ÷ 0.2160 = 0.77

III. PEAK DISCHARGE FOR DESIGN STORMS (tc = 5 MIN)  
PRE-DEVELOPMENT  
Qp PRE = CIA = (0.77)(6.20)(0.2160) = 1.03 CFS  
Qp POST = CIA = (0.77)(9.00)(0.2160) = 1.50 CFS

POST-DEVELOPMENT  
Qp POST = CIA = (0.77)(6.20)(0.2160) = 1.03 CFS  
Qp POST = CIA = (0.77)(9.00)(0.2160) = 1.50 CFS

IV. POST-DEVELOPMENT DECREASES

THERE IS NO SIGNIFICANT CHANGE IN RUNOFF BETWEEN THE PRE- AND POST- CONDITIONS.

V. DETENTION VOLUME ESTIMATES: DECREASE IN IMPERVIOUS AREA, THEREFORE NO DETENTION IS REQUIRED. (SEE OUTFALL NARRATIVE, SHEET 18)

**PROJECT DESCRIPTION**

REDEVELOPMENT - MIXED USE (RETAIL AND OFFICE)

DRAINAGE AREA	IMPERVIOUS	PERVIOUS	TOTAL
PROJECT AREA	0.1674	0.0486	0.2160
ON-SITE TREATED	0.1592	0.0315	0.1907
OFF-SITE TREATED	0.0000	0.0019	0.0019
TOTAL TREATED	0.1592	0.0334	0.1926
ON-SITE IMPERVIOUS AREAS DISCONNECTED BY A VEGETATIVE BUFFER	N/A		
TOTAL TREATED OR DISCONNECTED			0.1926

**WATER QUALITY VOLUME DEFAULT:**

PROPOSED IMPERVIOUS: 0.1674 AC  
TREATMENT OF FIRST HALF INCH OF RUNOFF: 1,815 X 0.1674 = 304 CU. FT. WQV REQUIRED

**WATER TREATMENT ON-SITE**

BMP TYPE	AREA TREATED BY BMP (ACRES)	IMPERVIOUS AREA TREATED BY BMP (ACRES)	BMP EFFICIENCY (%)
HYDRODYNAMIC	0.1926	0.1592	15%

TOTAL WQV TREATED: NO  
WATER QUALITY VOLUME REQUIRED = 304 CU. FT.  
WATER QUALITY VOLUME TREATED = 1,815 X 0.1592 = 289 CU. FT.  
PERCENT OF WATER QUALITY VOLUME TREATED = 95.1%  
DETENTION ON SITE: NO (PROP. DECREASE IN IMPERVIOUS AREA)  
PROJECT IS WITHIN WHICH WATERSHED? POTOMAC RIVER  
PROJECT DISCHARGES TO WHICH BODY OF WATER? POTOMAC RIVER

**COMPLIANCE NARRATIVE:**

A HYDRODYNAMIC BMP IS PROPOSED TO TREAT THE RUNOFF FROM THE PROPOSED BUILDING, WALKWAYS AND PARKING LOT. STORMWATER FROM THE PROPOSED BUILDING WILL BE DIRECTED TO THE BMP BY A ROOF DRAIN SYSTEM. RUNOFF FROM THE PARKING LOT AND FRONT WALKWAY WILL SHEETFLOW AND ENTER THE BMP THROUGH THE PROPOSED CURB INLET. FINALLY, RUNOFF FROM THE WEST SIDE WALKWAY WILL OVERLAND FLOW TO THE PARKING LOT AND EVENTUALLY REACH THE BMP VIA THE PROPOSED CURB INLET. THE HYDRODYNAMIC BMP WILL TREAT THE RUNOFF FOR WATER QUALITY BEFORE RELEASING IT INTO THE CITY MAINTAINED STORM SEWER SYSTEM. WATER QUALITY COMPLIANCE WILL BE MET BY THE ON-SITE BMP AND A CONTRIBUTION TO THE CITY OF ALEXANDRIA'S WATER QUALITY IMPROVEMENT FUND (SEE REQUEST LETTER, SHEET 17).

**INLET SPREAD CALCULATIONS:**  
(RUNOFF ANALYSIS UTILIZING RATIONAL METHOD)

STRUCTURE 2  
TOTAL AREA TO INLET: 6,137 SQ.FT. OR 0.1474 ACRES  
Q = (C)(I)(A) = (0.79)(9.00)(0.1474) = 1.05 CFS  
INLET LENGTH: 4 FEET  
INLET HEIGHT: 4 INCHES  
PARKING LOT CROSS SLOPE: 2%  
GUTTER CROSS SLOPE: 6.25%  
LONGITUDINAL SLOPE: 10%  
GUTTER SPREAD = 2.8'

STRUCTURE 3  
TOTAL AREA TO INLET: 333 SQ.FT. OR 0.0076 ACRES  
Q = (C)(I)(A) = (0.79)(9.00)(0.0076) = 0.05 CFS  
TRENCH LENGTH: 22 FEET  
TRENCH WIDTH: 4 INCHES  
PARKING LOT CROSS SLOPE: 2%  
GUTTER SPREAD = 0.67'

**ALEXANDRIA, VIRGINIA  
PHOSPHOROUS  
LOADING COMPUTATIONS**

WORKSHEET B: REDEVELOPMENT - 521 EAST HOWELL AVENUE

COMPLETE SITE-SPECIFIC DATA		PRE-DEVELOPMENT	POST-DEVELOPMENT
A*	STRUCTURES	0.2160 ACRES	0.2160 ACRES
la	PARKING LOT	0.0135 ACRES	0.0350 ACRES
	ROADWAY	0.1558 ACRES	0.1052 ACRES
	OTHER	ACRES	0.0272 ACRES
	TOTAL la	0.1693 ACRES	0.1674 ACRES
I = (TOTAL la/A) x 100		78 PERCENT EXPRESSED IN WHOLE NUMBERS	78 PERCENT EXPRESSED IN WHOLE NUMBERS

Rv = 0.05 + (0.009 x I) = 0.75 UNITLESS

C: I ≥ 20 = 1.08 mg/l  
I < 20 = 0.26 mg/l  
= 1.08 mg/l

\* A IS THE TOTAL AREA OF THE SITE  
\*\* la IS THE TOTAL IMPERVIOUS COVER ON THE SITE

2. CALCULATE THE PRE-DEVELOPMENT LOAD (Lpre)

Lpre = 8.16 x Rv-pre x C x A = 8.16 x 0.75 x 1.08 x 0.2160 = 1.43 POUNDS PER YEAR

3. CALCULATE THE POST-DEVELOPMENT LOAD (Lpost)

Lpost = 8.16 x Rv-post x C x A = 8.16 x 0.75 x 1.08 x 0.2160 = 1.43 POUNDS PER YEAR

4. CALCULATE THE POLLUTANT REMOVAL REQUIREMENT (RR).

RR = Lpost - (0.9 x Lpre) = 1.43 - (0.9 x 1.43) = 0.143 POUNDS PER YEAR  
%RR = (RR/Lpost) x 100 = (0.143/1.43) x 100 = 10.0%

WORKSHEET C: COMPLIANCE

SELECTED OPTION	REMOVAL EFFICIENCY (+100)	FRACTION OF CBPA DRAINAGE AREA SERVED (EXPRESSED IN DECIMAL FORM)	LPOST= (LBS/YR)	LOAD REMOVED (LBS/YR)
HYDRODYNAMIC BMP	15%	0.1926/0.2160	1.43	0.191 LBS/YR

0.191 LBS/YR > 0.143 LBS/YR REQUIREMENT

**APPROVED ASBUILT**

DEVELOPMENT PLAN NO. DSP 2013-0010

DIRECTOR \_\_\_\_\_ DATE \_\_\_\_\_

SPECIAL USE PERMIT \_\_\_\_\_

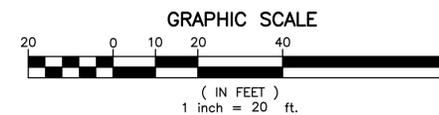
**"AS-BUILT" SURVEYOR'S CERTIFICATION:**

= AS-BUILT

NOTE: ALL "BOXED" DIMENSIONS, TEXT, SPOT ELEVATIONS, AND SITE IMPROVEMENTS DENOTES THOSE ITEMS AS AS-BUILT ITEMS.

THE SITE IMPROVEMENTS ON THIS PLAN ARE SHOWN AS THEY EXIST AS OF THE DATE OF THIS CERTIFICATE.

I HEREBY CERTIFY THAT THIS "AS-BUILT" PLAN IS SUBSTANTIALLY IN CONFORMANCE WITH THE APPROVED PLANS EXCEPT AS NOTED.  
DATE: AUGUST 30, 2016



**R. FIELDS & ASSOCIATES, INC.**  
ENGINEERING • LAND SURVEYING • PLANNING  
730 S. Washington Street  
Alexandria, Virginia 22314  
www.rfassoc.com  
(703) 949-6422

AS-BUILT  
LOT 506, DEL-RAY  
**THE DORN BUILDING**  
(529 EAST HOWELL AVENUE)  
CITY OF ALEXANDRIA, VIRGINIA

DATE	REVISION
1/22/14	FINAL #2
3/20/14	FINAL #3
4/22/14	FINAL #4
5/7/14	MTLR
6/14/16	AS-BUILT
8/10/16	PER CITY COMMENTS
8/30/16	PER CITY COMMENTS

DESIGN: BAD  
DRAWN: VMM

SCALE: 1" = 20'

DATE: JUNE 14, 2016

SHEET 4 OF 8

FILE: 12-145

SWM/BMP MAP AND COMPUTATIONS

**521 East Howell Avenue**  
Alexandria, VA  
**Stormwater Treatment System - Design Summary**

October 9<sup>th</sup>, 2013

Information provided:

Structure ID	Area (ac)	C	Water Quality Flow (cfs)
BMP	0.183	0.81	0.26

- Presiding agency = VDCR / City of Alexandria
- Assumptions:
  - Design storm = Modified Rational Method with I = 1.75"/hr (required by the City of Alexandria)
- Site estimates:

The In-line CDS Unit is placed on the main storm drain within one manhole. This system's unique configuration meets multiple engineering objectives by combining both treatment and bypass capabilities in one structure. By utilizing CDS' patented non-blocking screening technology, the In-line Unit ensures removal of both fine and suspended solids along with oil, grease, trash and debris. Offering a remarkably small footprint, this system can be incorporated into new development projects or retrofitted into existing storm water collection systems. It can also be fitted with an inlet grate to accept surface flow.

The CDS is a flow-based system, and therefore, is sized by calculating the peak water quality flow rate associated with the design storm. The design storm is calculated using the modified rational method per the City of Alexandria's stormwater requirements for hydrodynamic separators. The water quality flow rate was calculated utilizing a rain fall intensity of 1.75"/hr.

**BMP**

$$Q_{\text{flow}} = CiA = 0.81 \times 1.75 \frac{\text{in}}{\text{hr}} \times 0.183 \text{ acres} = 0.26 \text{ cfs} \rightarrow \text{use a CDS2015-4}$$

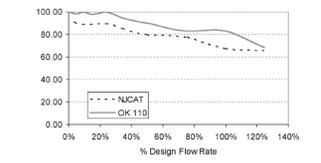
To accommodate a treatment flow rates listed above, Contech recommends using a CDS2015-4 Hydrodynamic Separation Unit. The CDS2015-4 will treat up to 0.70 cfs before internal bypass. It will also adequately handle the 10 year peak flow rate of 1.35 cfs. The estimated cost of this system, complete and delivered to the job site, is available upon request. The contractor is responsible for installing the CDS unit and all external piping.

**Maintenance**

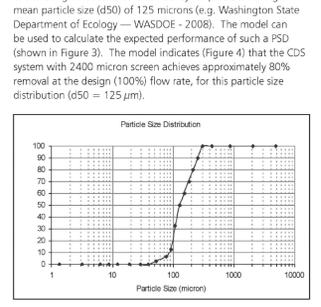
Like any stormwater best management practice, the CDS system requires regular inspection and maintenance to ensure optimal performance. Maintenance frequency will be driven by site conditions. Quarterly visual inspections are recommended, at which time the accumulation of pollutants can be determined. On average, the CDS system requires annual removal of accumulated pollutants. Please contact Contech or navigate to [www.conteches.com](http://www.conteches.com) for more information in this regard.

CDS Model	Diameter		Distance from Water Surface to Top of Sediment Pile		Sediment Storage Capacity	
	ft	m	ft	m	yd <sup>3</sup>	m <sup>3</sup>
CDS2015-4	4	1.2	3.0	0.9	0.5	0.4

to SSC removal for any particle size gradation, assuming the particles are inorganic sandy-silt. Figure 2 shows CDS predictive performance for two typical particle size gradations (NUCAT gradation and OK-110 sand) as a function of operating rate.



Many regulatory jurisdictions set a performance standard for hydrodynamic devices by stating that the devices shall be capable of achieving an 80% removal efficiency for particles having a mean particle size (d50) of 125 microns (e.g. Washington State Department of Ecology - WASDOE - 2008). The model can be used to calculate the expected performance of such a PSD (shown in Figure 3). The model indicates (Figure 4) that the CDS system with 2400 micron screen achieves approximately 80% removal at the design (100%) flow rate, for this particle size distribution (d50 = 125 µm).



**Figure 3. WASDOE PSD**

CDS Unit Performance for Ecology PSD  
d<sub>50</sub> = 125 µm

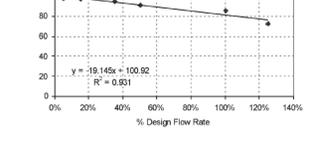


Figure 4. Modeled performance for WASDOE PSD.

**Maintenance**

The CDS system should be inspected at regular intervals and maintained when necessary to ensure optimum performance. The rate at which the system collects pollutants will depend more heavily on site activities than the size of the unit. For example, unstable soils or heavy winter sanding will cause the grit chamber to fill more quickly but regular sweeping of paved surfaces will slow accumulation.

**Inspection**

Inspection is the key to effective maintenance and is easily performed. Pollutant transport and deposition may vary from year to year and regular inspections will help ensure that the system is cleaned out at the appropriate time. At a minimum, inspections should be performed twice per year (e.g. spring and fall) however more frequent inspections may be necessary in climates where winter sanding operations may lead to rapid accumulations, or in equipment washdown areas. Installations should also be inspected more frequently where excessive amounts of trash are expected.

The visual inspection should ascertain that the system components are in working order and that there are no blockages or obstructions in the inlet and separation screen. The inspection should also quantify the accumulation of hydrocarbons, trash, and sediment in the system. Measuring pollutant accumulation can be done with a calibrated dipstick, tape measure or other measuring instrument. If absorbent material is used for enhanced removal of hydrocarbons, the level of discoloration of the sorbent material should also be identified.



**BMP MAINTENANCE AGREEMENT NOTE:**

A STORMWATER MANAGEMENT BMP AGREEMENT HAS BEEN RECORDED FOR THE MAINTENANCE OF THE BMP ON THIS SITE.

INSTRUMENT#140007196

**PLAN VIEW**

**SECTION B-B**

**SECTION A-A**

**MATERIALS LIST - PROVIDED BY CONTECH**

COUNT	DESCRIPTION	INSTALLED BY
1	FIBERGLASS INLET & CYLINDER	CONTECH
1	2400 MICRON SEP. SCREEN	CONTECH
1	SEALANT FOR JOINTS	CONTRACTOR
1	GRADE RINGS/ RISERS	CONTRACTOR
1	630"x4" FRAME AND COVER	CONTRACTOR

**SITE DESIGN DATA**

WATER QUALITY FLOW RATE	0.26 CFS
PEAK FLOW RATE	1.34 CFS
RETURN PERIOD OF PEAK FLOW	10 YRS

**GENERAL NOTES**

- CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
- DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
- FOR SITE SPECIFIC DRAWINGS WITH DETAILED DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. [www.conteches.com](http://www.conteches.com)
- CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
- STRUCTURE SHALL MEET AASHTO H20 AND CASTINGS SHALL MEET AASHTO M308 LOAD RATING, ASSUMING GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION.
- PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.

**INSTALLATION NOTES**

- ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
- CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE (LIFTING CLUTCHES PROVIDED).
- CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.
- CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.
- CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

**CONTECH PROPOSAL DRAWING**

**CONTECH ENGINEERED SOLUTIONS LLC**  
521 EAST HOWELL AVENUE  
ALEXANDRIA, VA  
SITE DESIGNATION: 1

**GDS**  
CONTECH ENGINEERED SOLUTIONS LLC  
521 EAST HOWELL AVENUE  
ALEXANDRIA, VA

DESIGNED: AMIL  
CHECKED: AMIL  
PROJECT NO: 480372  
SHEET: 1 OF 1

**RC FIELDS & ASSOCIATES**  
INCORPORATED  
ENGINEERING • LAND SURVEYING • PLANNING

730 S. WASHINGTON STREET  
ALEXANDRIA, VA 22314  
TEL. (703) 549-64  
FAX (703) 549-64  
[www.rcfields.com](http://www.rcfields.com)

22 August 2013

Ms. Claudia Hamblin-Katnik  
City Hall - Alexandria  
Watershed Program Administrator  
301 King Street, Room 3900  
Alexandria, VA 22314

**RE: 521 East Howell Avenue**  
**DSP #2013-0010**

Dear Ms. Hamblin-Katnik:

On behalf of our client, Howell Properties, LLC, we are requesting to provide a monetary contribution to the Alexandria Water Quality Improvement Fund for that portion of the site that is not collected or treated by a BMP facility.

The phosphorous removal requirement and the majority of the Water Quality Default Volume are met through the use of a hydrodynamic BMP. However, a portion of on-site impervious area (0.0082 acres) from the sidewalk along the west side of the proposed building is unable to be captured.

We are providing the following method (provided to us by OEQ) for the required contribution to the Alexandria Water Quality Improvement Fund for your approval:

Determine water quality improvement fund fee:  
0.0082 acres X 43,560 square feet / acre = 357 X \$2.00 / square foot = \$714.00

The resulting contribution for this project is \$714.00.

Once approved, I will include this request letter along with your approval letter as part of the final site plan that will be submitted to the City of Alexandria for review and approval.

Thank you for your attention to this matter.

Respectfully,  
**R.C. FIELDS & ASSOCIATES, INC.**

*Jonathan C. Brodie*  
Jonathan Brodie  
Project Engineer

DEPARTMENT OF TRANSPORTATION AND ENVIRONMENTAL SERVICES  
Office of Environmental Quality  
P.O. Box 178 - City Hall  
Alexandria, Virginia 22313  
<http://alexandriava.gov/Environment>

March 19, 2014

RC Fields & Associates, Inc.  
Attn: Jonathan Brodie  
730 S. Washington Street  
Alexandria, VA 22314

**RE: 521 E Howell Avenue**  
**DSP2013-00010**

Dear Mr. Brodie:

This is in regard to your letter, dated August 22, 2013 requesting to meet the water quality management performance criteria requiring BMP treatment in a Resource Management Area (Article XIII, Section 13-109(E)(5)(a & b)) by treating 95 percent of the water quality volume in the project area(s) through a BMP and by participating in the City's Water Quality Improvement Fund. You have requested to pay a fee in lieu of providing an on-site BMP as outlined in Article XIII, Section 13-110(A)(2). You have agreed to provide a monetary contribution of \$792.00 (396 square feet impervious surface x \$2/square foot) to the Alexandria Water Quality Improvement Fund. This represents 5 percent of the overall Water Quality Volume left untreated.

Your request has been approved. The procedure now is to scan your request letter onto your final plan on a sheet that is labeled BMP Details or something similar. Your final plan will be eligible for approval when you have paid the fee (\$792.00). The approval of the plan (with your request therein) will act as the approval of your request.

Sincerely,  
*Daniel Imig*  
Daniel Imig P.E.  
Acting Watershed Program Administrator

cc: Shanna Austin, Site Plan Coordinator

**RC FIELDS & ASSOCIATES, INC.**  
ENGINEERING • LAND SURVEYING • PLANNING  
730 S. Washington Street  
Alexandria, Virginia 22314  
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(703) 549-6422

AS-BUILT  
LOT 506, DEL-RAY  
**THE DORN BUILDING**  
(529 EAST HOWELL AVENUE)  
CITY OF ALEXANDRIA, VIRGINIA

**APPROVED ASBUILT**

DEVELOPMENT PLAN NO. DSP 2013-0010

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

DIRECTOR \_\_\_\_\_ DATE \_\_\_\_\_

SPECIAL USE PERMIT \_\_\_\_\_

**"AS-BUILT" SURVEYOR'S CERTIFICATION:**

= AS-BUILT

NOTE: ALL "BOXED" DIMENSIONS, TEXT, SPOT ELEVATIONS, AND SITE IMPROVEMENTS DENOTES THOSE ITEMS AS AS-BUILT ITEMS.

THE SITE IMPROVEMENTS ON THIS PLAN ARE SHOWN AS THEY EXIST AS OF THE DATE OF THIS CERTIFICATE.

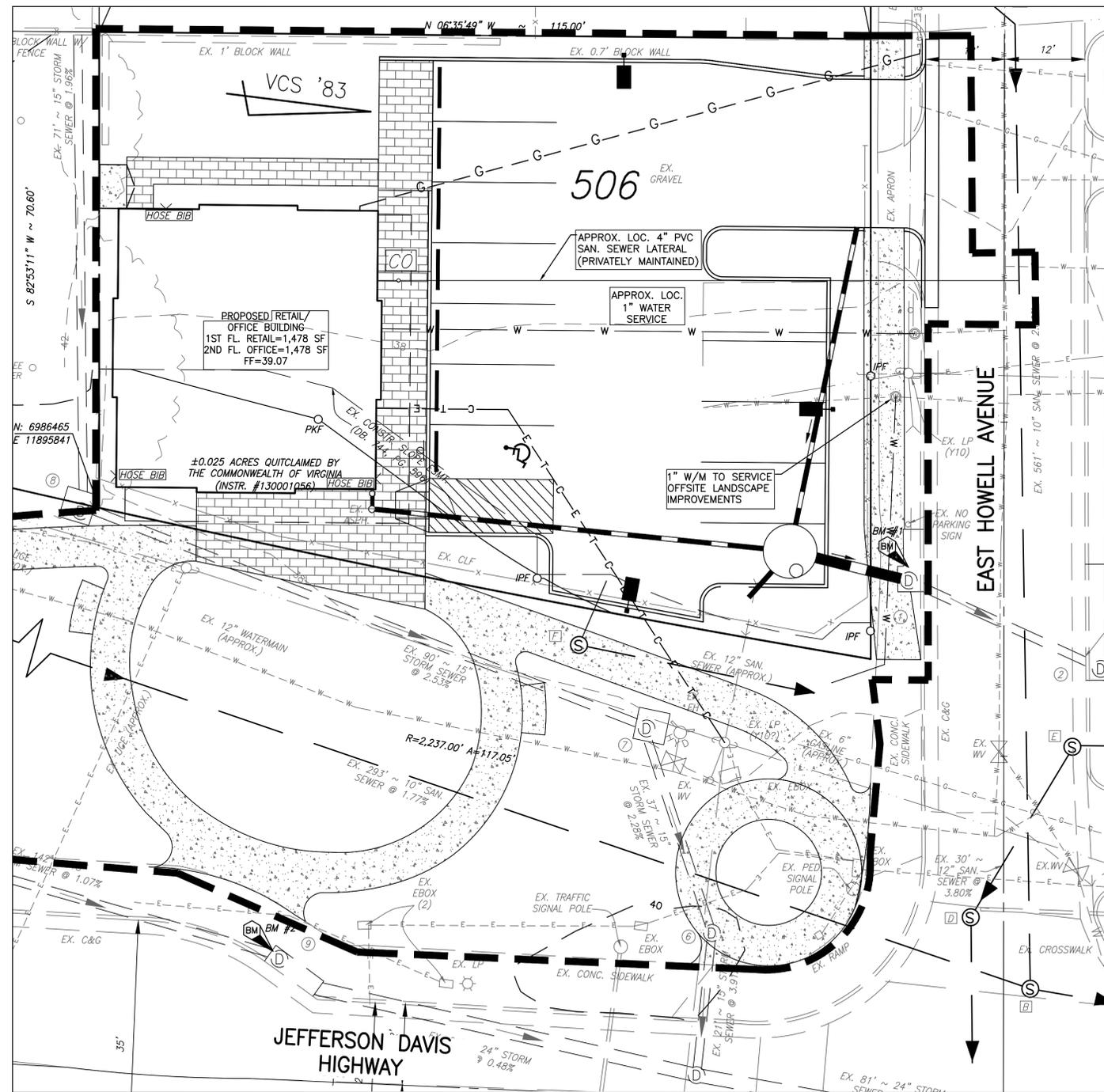
I HEREBY CERTIFY THAT THIS "AS-BUILT" PLAN IS SUBSTANTIALLY IN CONFORMANCE WITH THE APPROVED PLANS EXCEPT AS NOTED.  
DATE: AUGUST 30, 2016

*Darryl Bowser*  
DARRYL BOWSER  
Lic. No. 2160  
AUGUST 30, 2016  
LAND SURVEYOR

DATE	REVISION
1/22/14	FINAL #2
3/20/14	FINAL #3
4/22/14	FINAL #4
5/7/14	MTLR
6/14/16	AS-BUILT
8/10/16	PER CITY COMMENTS
8/30/16	PER CITY COMMENTS

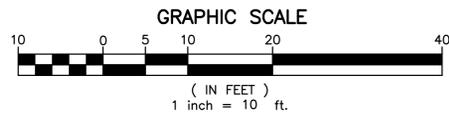
DESIGN: BAD  
DRAWN: VMM  
SCALE: AS SHOWN  
DATE: JUNE 14, 2016  
SHEET 5 OF 8  
FILE: 12-145

BMP NOTES AND DETAILS



**WATER SERVICE INSTALLATION NOTES:**

- VIRGINIA - AMERICAN WATER COMPANY WILL INSTALL AND MAINTAIN ALL WATERMANS, SERVICE CONNECTIONS AND METER SETTINGS. AN INDIVIDUAL APPLICATION FOR EACH SERVICE IS REQUIRED TO VERIFY LINE SIZE, METER SIZE AND ANY BACKFLOW REQUIREMENTS.
- PERMITS FOR THE INSTALLATION OF WATER FACILITIES ON-SITE MUST BE OBTAINED BY THE DEVELOPER/CONTRACTOR FROM THE ALEXANDRIA DEPARTMENT OF TRANSPORTATION AND ENVIRONMENTAL SERVICES.
- ALL WATER FACILITY CONSTRUCTION, INCLUDING BACKFLOW PREVENTION DEVICES, SHALL CONFORM TO VIRGINIA - AMERICAN WATER COMPANY STANDARDS AND SPECIFICATIONS, ALEXANDRIA CITY STANDARDS AND THE STATE BOARD OF HEALTH WATERWORKS REGULATIONS.
- LOCATION AND DEPTH OF THE EXISTING WATERMAIN IS TO BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
- WHERE A MINIMUM TEN (10) FOOT HORIZONTAL AND 18-INCH VERTICAL SEPARATION CANNOT BE MAINTAINED BETWEEN THE OUTSIDE OF THE WATERMAIN AND THE OUTSIDE OF THE SANITARY SEWER FACILITIES, THE FOLLOWING SHALL APPLY:
  - SEWER SHALL BE CONSTRUCTED OF AWWA APPROVED WATER PIPE, PRESSURE TESTED IN PLACE WITHOUT LEAKAGE, PRIOR TO BACKFILLING.
  - SEWER MANHOLES SHALL BE OF WATERTIGHT CONSTRUCTION AND TESTED IN PLACE.
- ANY NEW FIRE SERVICES THAT ARE INSTALLED MUST BE SEPARATE CONNECTIONS TO THE WATER MAIN FROM THE DOMESTIC SERVICE.
- ANY FIRE HYDRANT LATERAL OR SERVICE 1.5" OR LARGER REQUIRES A GATE VALVE AT MAIN TAP.



**TEST HOLE NOTES:**

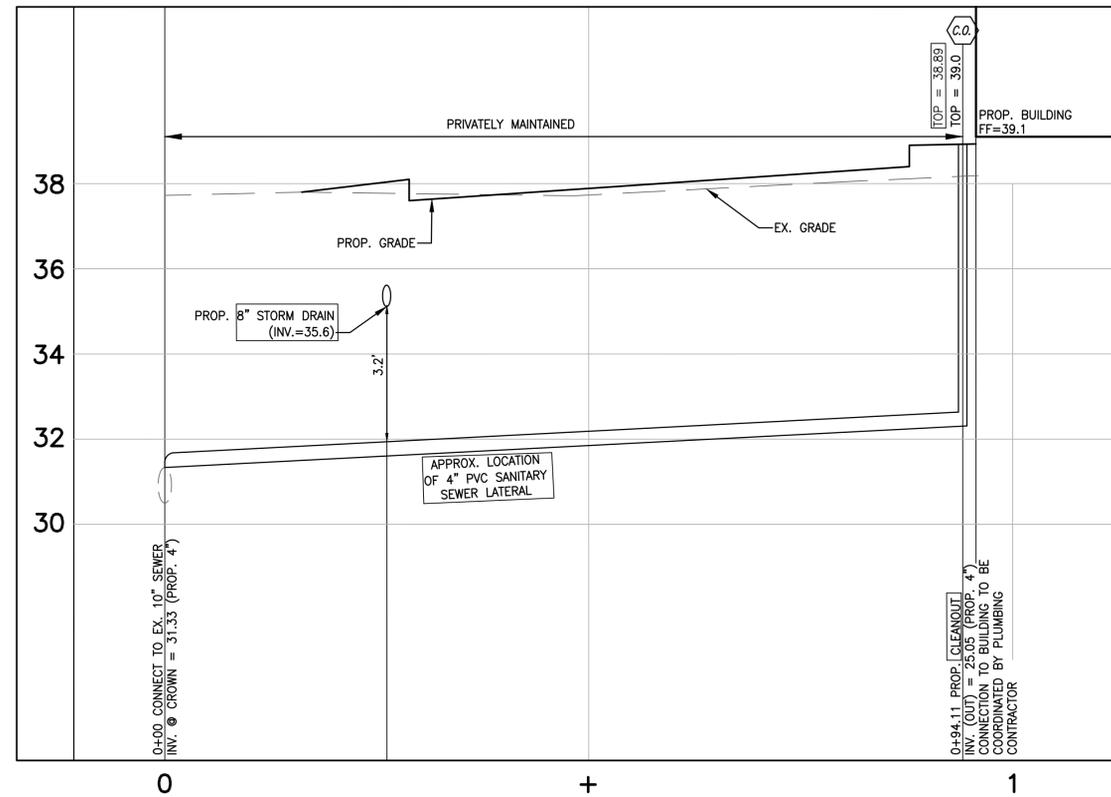
IT IS THE RESPONSIBILITY OF THE OWNER AND/OR CONTRACTOR TO PROVIDE THE DESIGN ENGINEER AND SURVEYOR WITH TEST HOLE INFORMATION PRIOR TO CONSTRUCTION. THE LOCATION AND DEPTH OF EXISTING UTILITIES, ESPECIALLY AT CRITICAL TIE-INS AND CROSSINGS, MUST BE PROVIDED TO ENSURE CONSTRUCTIBILITY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE UTILITIES HORIZONTALLY AND VERTICALLY DURING TEST PIT OPERATIONS AND PROVIDE THE INFORMATION TO THE DESIGN ENGINEER.

STAKE OUT AND CUT SHEETS OF THE PROPOSED DESIGN WILL NOT BE PERFORMED BY R.C. FIELDS AND ASSOCIATES, INC UNTIL TEST HOLES ARE PERFORMED AND DETAILED UTILITY INFORMATION IS PROVIDED.

⊙ DENOTES PROPOSED TEST HOLE LOCATION.

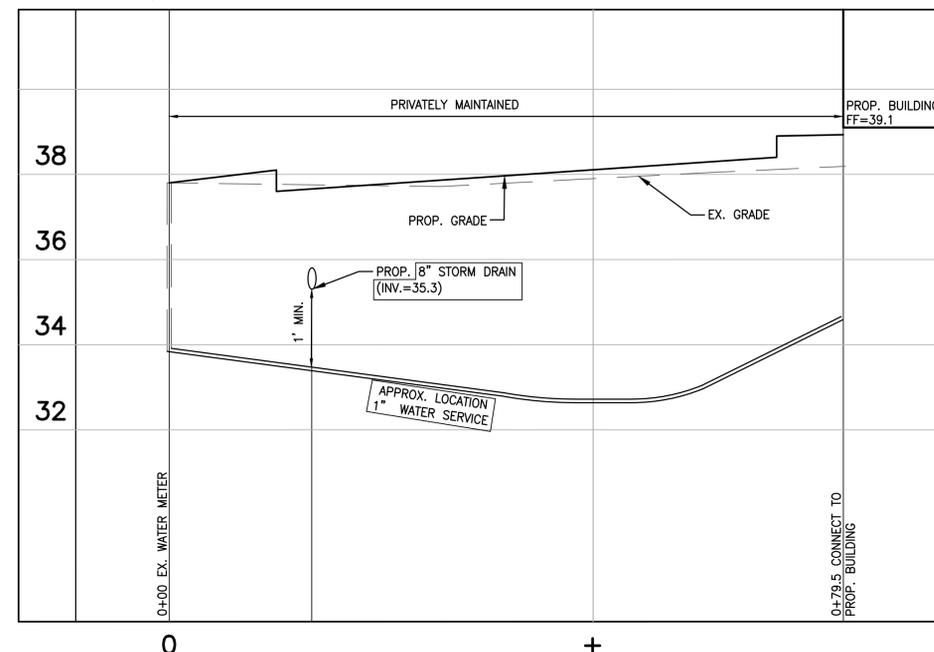
**SANITARY LATERAL PROFILE:**

SCALE: HORIZ. 1"=10', VERT. 1"=2'

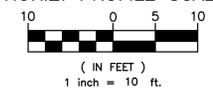


**WATER SERVICE PROFILE:**

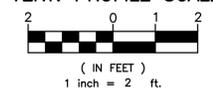
SCALE: HORIZ. 1"=10', VERT. 1"=2'



**HORIZ. PROFILE SCALE**



**VERT. PROFILE SCALE**



**APPROVED ASBUILT**

DEVELOPMENT PLAN NO. DSP 2013-0010

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

DIRECTOR DATE

SPECIAL USE PERMIT

**"AS-BUILT" SURVEYOR'S CERTIFICATION:**

☐ = AS-BUILT

NOTE: ALL "BOXED" DIMENSIONS, TEXT, SPOT ELEVATIONS, AND SITE IMPROVEMENTS DENOTES THOSE ITEMS AS AS-BUILT ITEMS.

THE SITE IMPROVEMENTS ON THIS PLAN ARE SHOWN AS THEY EXIST AS OF THE DATE OF THIS CERTIFICATE.

I HEREBY CERTIFY THAT THIS "AS-BUILT" PLAN IS SUBSTANTIALLY IN CONFORMANCE WITH THE APPROVED PLANS EXCEPT AS NOTED.  
DATE: AUGUST 30, 2016



**R. C. FIELDS & ASSOCIATES, INC.**  
 ENGINEERING • LAND SURVEYING • PLANNING  
 730 S. Washington Street  
 Alexandria, Virginia 22314  
 www.rcfields.com  
 (703) 549-6422

AS-BUILT  
 LOT 506, DEL-RAY  
**THE DORN BUILDING**  
 (529 EAST HOWELL AVENUE)  
 CITY OF ALEXANDRIA, VIRGINIA

DATE	REVISION
1/22/14	FINAL #2
3/20/14	FINAL #3
4/22/14	FINAL #4
5/7/14	MYLAR
6/14/16	AS-BUILT
8/10/16	PER CITY COMMENTS
8/30/16	PER CITY COMMENTS

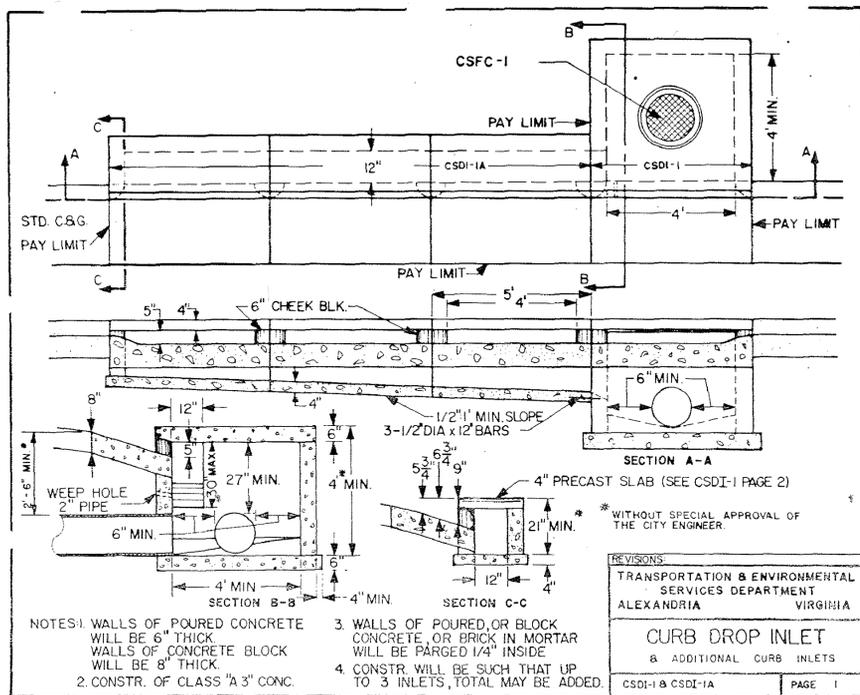
DESIGN: BAD  
 DRAWN: VMM

SCALE: 1" = 10'  
 DATE: JUNE 14, 2016

SHEET **6** OF **8**  
 FILE: **12-145**

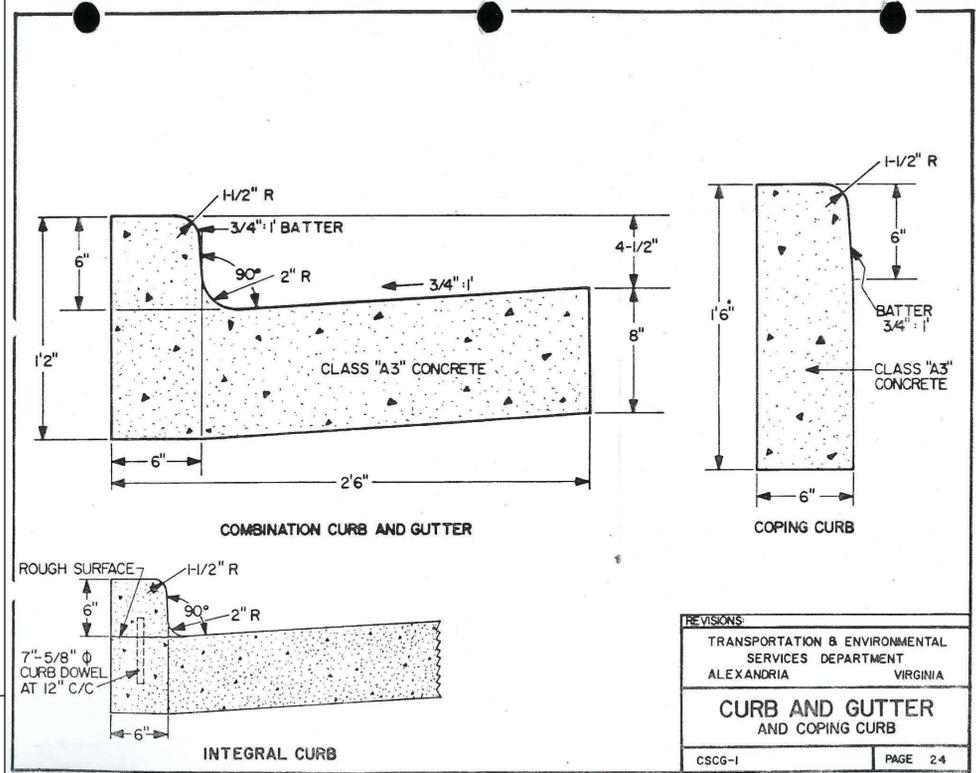
SEWER AND WATER PLAN AND PROFILE

S:\2013\12145\DWG\DEVAAS-BUILD\12-145 AS-BUILT.dwg  
 Plot Date: 08/31/2016 1:24:06pm



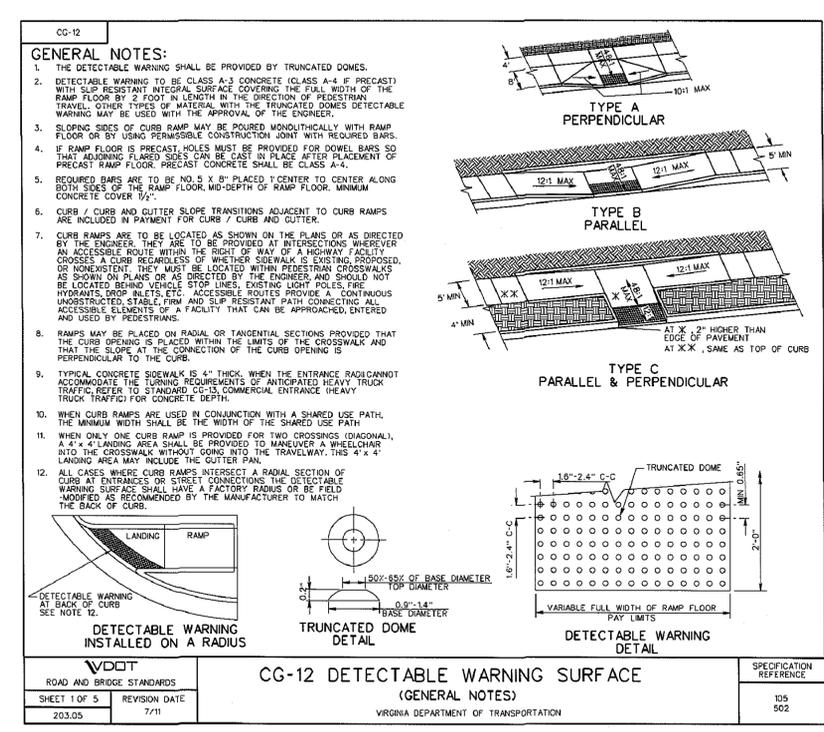
REVISIONS:

TRANSPORTATION & ENVIRONMENTAL SERVICES DEPARTMENT ALEXANDRIA VIRGINIA
<b>CURB DROP INLET &amp; ADDITIONAL CURB INLETS</b>
CSDI-1 & CSDI-1A PAGE 1



REVISIONS:

TRANSPORTATION & ENVIRONMENTAL SERVICES DEPARTMENT ALEXANDRIA VIRGINIA
<b>CURB AND GUTTER AND COPING CURB</b>
CSCG-1 PAGE 2/4

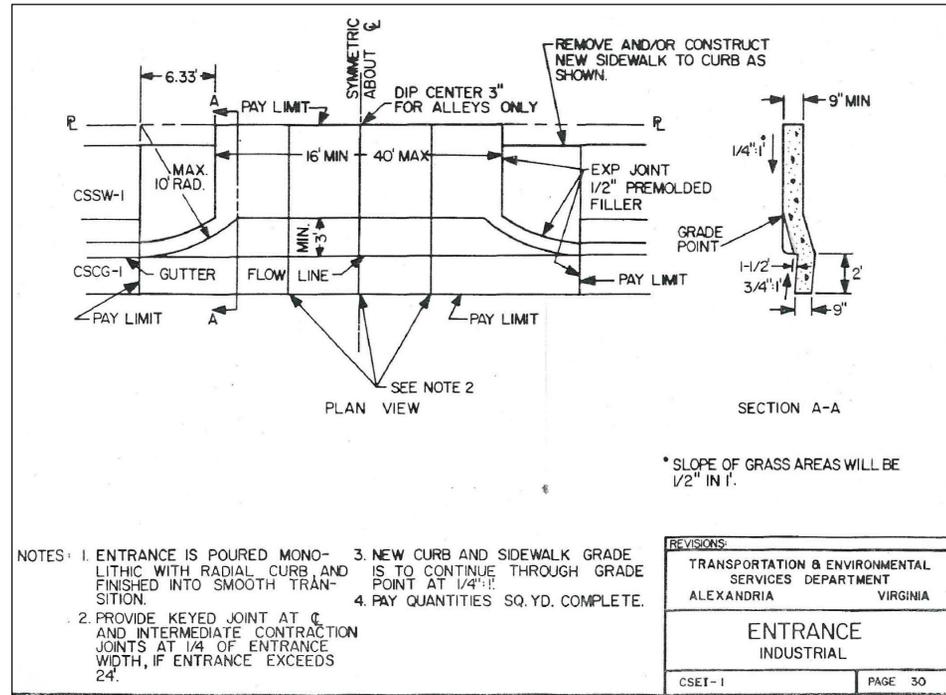


VDOT ROAD AND BRIDGE STANDARDS SHEET 1 OF 5 203.05

CG-12 DETECTABLE WARNING SURFACE (GENERAL NOTES) VIRGINIA DEPARTMENT OF TRANSPORTATION

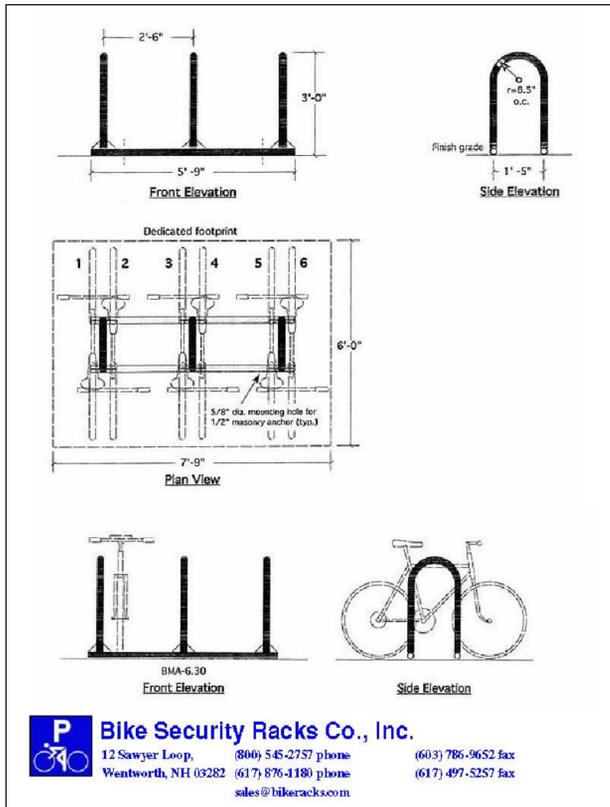
REVISION DATE: 7/11

SPECIFICATION REFERENCE: 105 502

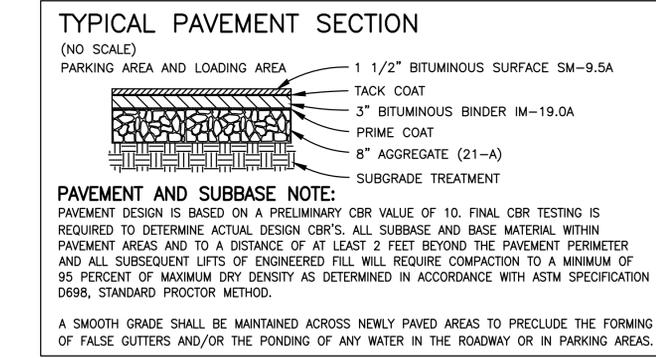


REVISIONS:

TRANSPORTATION & ENVIRONMENTAL SERVICES DEPARTMENT ALEXANDRIA VIRGINIA
<b>ENTRANCE INDUSTRIAL</b>
CSET-1 PAGE 30



**P Bike Security Racks Co., Inc.**  
 12 Sawyer Loop, Wentworth, NH 03282  
 (800) 545-2757 phone (603) 786-9652 fax  
 (617) 876-4180 phone (617) 497-5257 fax  
 sales@bikeracks.com



**PAVEMENT AND SUBBASE NOTE:**  
 PAVEMENT DESIGN IS BASED ON A PRELIMINARY CBR VALUE OF 10. FINAL CBR TESTING IS REQUIRED TO DETERMINE ACTUAL DESIGN CBR'S. ALL SUBBASE AND BASE MATERIAL WITHIN PAVEMENT AREAS AND TO A DISTANCE OF AT LEAST 2 FEET BEYOND THE PAVEMENT PERIMETER AND ALL SUBSEQUENT LIFTS OF ENGINEERED FILL WILL REQUIRE COMPACTION TO A MINIMUM OF 95 PERCENT OF MAXIMUM DRY DENSITY AS DETERMINED IN ACCORDANCE WITH ASTM SPECIFICATION D698, STANDARD PROCTOR METHOD.

A SMOOTH GRADE SHALL BE MAINTAINED ACROSS NEWLY PAVED AREAS TO PRECLUDE THE FORMING OF FALSE GUTTERS AND/OR THE PONDING OF ANY WATER IN THE ROADWAY OR IN PARKING AREAS.



**CBAY INLET PLACARD**  
 N.T.S.  
 TO BE PLACED ON ALL INLETS WITHIN 50 FEET OF THE SITE.

**APPROVED ASBUILT**

DEVELOPMENT PLAN NO. DSP 2013-0010

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

DIRECTOR \_\_\_\_\_ DATE \_\_\_\_\_

SPECIAL USE PERMIT \_\_\_\_\_

**"AS-BUILT" SURVEYOR'S CERTIFICATION:**

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DATE: AUGUST 30, 2016

DARRYL BOWSER  
 Lic. No. 2160  
 AUGUST 30, 2016  
 LAND SURVEYOR

**RC FIELDS & ASSOCIATES, INC.**  
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 730 S. Washington Street  
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AS-BUILT  
 LOT 506, DEL-RAY  
**THE DORN BUILDING**  
 (529 EAST HOWELL AVENUE)  
 CITY OF ALEXANDRIA, VIRGINIA

DATE	REVISION
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3/20/14	FINAL #3
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8/10/16	PER CITY COMMENTS
8/30/16	PER CITY COMMENTS

DESIGN: BAD  
 DRAWN: VMM

SCALE: NO SCALE  
 DATE: JUNE 14, 2016

SHEET 7 OF 8  
 FILE: 12-145

SITE DETAILS

NOTE: SITE DETAILS SHOWN ARE FOR INFORMATION ONLY AND ARE TAKEN FROM THE APPROVED SITE PLAN. MAY NOT NECESSARILY REFLECT WHAT WAS ACTUALLY INSTALLED.



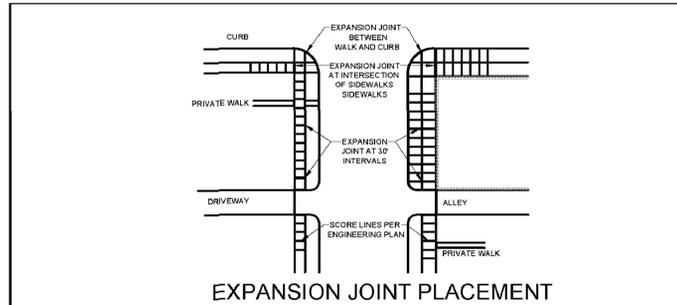
MANUFACTURER:  
VICTOR STANLEY INC.  
P.O. BOX DRAWER 330  
DUNKIRK, MARYLAND 20754  
PH: (301) 855-8300  
PH: (800) 368-2573

MODEL:  
IRONSITES MODEL NUMBER SD-42 (36 GAL.)  
LID: STANDARD TAPERED FORMED LID  
FRAME COLOR: BLACK

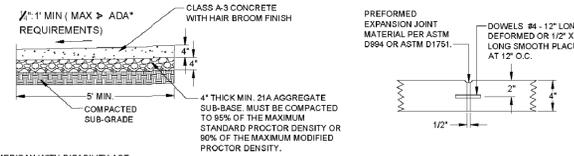
- NOTES:
1. RECEPTACLE TO BE MOUNTED PER MANUFACTURERS INSTRUCTIONS.
  2. USE TAMPER RESISTANT HARDWARE.
  3. RECEPTACLE SHALL INCLUDE DOMED LID.

**TRASH RECEPTACLE NOTE:**

A PAYMENT OF \$1,150 SHALL BE MADE TO THE DIRECTOR OF T&ES FOR THE INSTALLATION OF ONE (1) TRASH RECEPTACLE. THE RECEPTACLE SHALL BE PLACED IN THE PUBLIC RIGHT-OF-WAY IN A STRATEGIC LOCATION TO SERVE PEDESTRIAN TRAFFIC ALONG THE PROPERTY FRONTAGE. CONTRACTOR SHALL COORDINATE WITH THE DIRECTOR TO DETERMINE THE APPROPRIATE LOCATION.



**EXPANSION JOINT PLACEMENT**

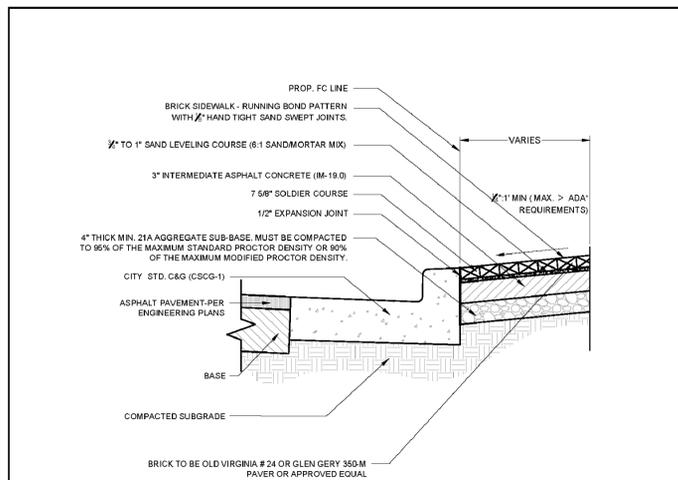


\*ADA: AMERICAN WITH DISABILITY ACT.

**SIDEWALK SECTION (N.T.S.) EXPANSION JOINT**

- NOTES:
1. SCORING OF CONCRETE SLAB SHALL BE SAW CUT NOT MORE THAN 3/16" IN WIDTH AND NOT MORE THAN 1/4" DEEP.
  2. THE EXPANSION JOINTS SHALL BE 1/2" WIDE, FULL DEPTH, AND SHALL BE OF PRE-FORMED EXPANSION JOINT MATERIAL CONFORMING TO THE REQUIREMENTS OF ASTM D894 ASPHALT OR ASTM D1751 FIBRE. EXPANSION MATERIAL SHALL BE SECURED IN A MANNER THAT WILL PREVENT MOVEMENT OR DISPLACEMENT OF CONCRETE DURING PLACEMENT.
  3. THE EXPANSION JOINTS SHALL BE PLACED PERPENDICULAR TO CONCRETE CURB AT A DISTANCE OF 30' OR CONCORDING WITH THE SCORING.
  4. DOWELS SHALL BE PLACED AT THE END OF A SIDEWALK PLACEMENT, AT INTERRUPTIONS FOR A DRIVEWAY, OR IF SIDEWALK SLABS ARE POURED AT DIFFERENT TIMES.
  5. SAWING OF JOINTS SHALL BE CONDUCTED AS SOON AS THE CONDITION OF THE CONCRETE PERMITS AND BEFORE ANY RANDOM CRACKING APPEARS.
  6. ALL STRUCTURAL ITEMS TO CONFORM TO THE LATEST EDITION OF UNIFORM STATEWIDE BUILDING CODE (USBC) REQUIREMENTS.
  7. PRIOR TO CONSTRUCTION, ALL STRUCTURAL CROSS SECTIONS SHALL BE REVIEWED BY A QUALIFIED STRUCTURAL AND/OR GEOTECHNICAL ENGINEER, AND MODIFIED AS NECESSARY BASED ON THE SITE SPECIFIC GEOTECHNICAL REPORT.

STANDARD CONCRETE SIDEWALK		DATE
APPROVED	DATE	CSSW-1
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES		PAGE 41
ALEXANDRIA VIRGINIA		



\*ADA: AMERICAN WITH DISABILITY ACT.

- NOTES:
1. ALL STRUCTURAL ITEMS TO CONFORM TO 2009 IBC REQUIREMENTS.
  2. PRIOR TO CONSTRUCTION ALL STRUCTURAL CROSS SECTIONS SHALL BE REVIEWED BY A QUALIFIED STRUCTURAL AND/OR GEOTECHNICAL ENGINEER AND MODIFIED AS NECESSARY BASED ON THE SITE SPECIFIC GEOTECHNICAL REPORT.
  3. THE EXPANSION JOINTS SHALL BE 1/2" WIDE, FULL DEPTH, AND SHALL BE OF PRE-FORMED EXPANSION JOINT MATERIAL CONFORMING TO THE REQUIREMENTS OF ASTM D894 ASPHALT OR ASTM D1751 FIBRE. EXPANSION MATERIAL SHALL BE SECURED IN A MANNER THAT WILL PREVENT MOVEMENT OR DISPLACEMENT OF BRICK DURING PLACEMENT.

(N.T.S.)

STANDARD BRICK SIDEWALK		DATE
APPROVED	DATE	CSSW-3
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES		PAGE 43
ALEXANDRIA VIRGINIA		

**NOTES:**

1. CONNECTION TO A PUBLIC SANITARY SEWER SHALL REQUIRE A SEWER LATERAL CONNECTION PERMIT FROM THE DEPARTMENT OF TRANSPORTATION AND ENVIRONMENTAL SERVICES (T&ES). IF THE SANITARY SEWER IS LOCATED WITHIN THE PUBLIC RIGHT OF WAY AN EXCAVATION PERMIT SHALL ALSO BE REQUIRED.
2. THE CONNECTION SHALL BE MADE PER THE RECOMMENDATIONS OF THE MANUFACTURER, AND IN THE PRESENCE OR WITH THE APPROVAL OF THE T&ES, CONSTRUCTION AND INSPECTION (C&I) INSPECTOR.
3. THE SADDLE SHALL PROPERLY MATCH THE SANITARY SEWER MAIN PIPE.
4. THE CUT ON THE EXISTING PIPE MUST BE NO LARGER THAN NECESSARY TO INSTALL SADDLE.
5. ROUGH EDGES LEFT BY SAW CUT OR CORING SHALL BE SMOOTHED WITH A FILE OR SAND PAPER DEPENDING UPON THE MATERIAL OF THE SANITARY SEWER PIPE.
6. OVER CUTTING THE HOLE OR DAMAGING THE SEWER MAIN WILL WARRANT REPLACEMENT OF THE DAMAGED MAIN LINE SEGMENT AND INSTALLATION OF A FACTORY MANUFACTURED WYE OR TEE CONNECTION PER DETAIL CSLC-1B.
7. THE SADDLE CONNECTION MAY BE REPLACED WITH COMPRESSION SLEEVE CONNECTION WITH APPROVAL OF CITY ENGINEER AND/OR DIRECTOR, T&ES.
8. THE HOLES MUST BE OFFSET MINIMUM 2' FROM THE JOINTS.
9. T&ES INSPECTOR MUST INSPECT THE TAP PRIOR TO BACKFILL.

Pipe Type	Pipe Cutting Method	Connection Type	Applicable Detail
Iron/ductile	Iron/ductile Pipe Cutter	Romac CB Sewer Saddle or approved equal	CSLC-1A
Concrete	Coring	Romac CB Sewer Saddle or approved equal	CSLC-1A
Cast Iron/Ductile Iron	Topping Machine	Romac CB Sewer Saddle or approved equal	CSLC-1A
Verifired Clay Pipe (VCP)	Saw Cut	Manufactured Y or T connection	CSLC-1B
Non-circular pipe	Other	Special design	

TO BLDG CONNECTION

MAX ANGLE 3' MIN

2.5% MIN SLOPE

45°

3' MIN

3' MIN

6

6

ELEVATION

CUT IN CONNECTION FOR EXISTING SANITARY SEWER PIPE

NOTE:

- 1) ROMAC CB SEWER SADDLE OR CITY APPROVED EQUAL
- 2) ROMAC CB STRAPS 304 STAINLESS STEEL
- 3) EXISTING SEWER MAIN
- 4) 45° ELBOW/ BEND
- 5) PVC LATERAL SDR 28 OR SCHEDULE 40
- 6) CLASS "A3" CONCRETE CRADLE TO JOINT

CONCRETE CRADLE TO BE USED IF COVER IS LESS THAN 5 FEET OR MORE THAN 12 FEET. CRADLE TO BE POURED TO SPRING LINE OF PIPE AND TO SUPPORT THE SANITARY LATERAL. IF COVER IS 2 FEET OR LESS, PIPE IS TO BE ENCASED IN CONFORMANCE WITH CSSE-1.

SANITARY SEWER LATERAL CONNECTION		12/03/2010
APPROVED	DATE	REVISION DATE
TRANSPORTATION & ENVIRONMENTAL SERVICES DEPARTMENT		CSLC-1A
ALEXANDRIA VIRGINIA		PAGE 14

SANITARY SEWER LATERAL CONNECTION		12/03/2010
APPROVED	DATE	REVISION DATE
TRANSPORTATION & ENVIRONMENTAL SERVICES DEPARTMENT		CSLC-1A
ALEXANDRIA VIRGINIA		PAGE 14

**APPROVED ASBUILT**

DEVELOPMENT PLAN NO. DSP 2013-0010

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

DIRECTOR \_\_\_\_\_ DATE \_\_\_\_\_

SPECIAL USE PERMIT \_\_\_\_\_

"AS-BUILT" SURVEYOR'S CERTIFICATION:

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AS-BUILT  
LOT 506, DEL-RAY  
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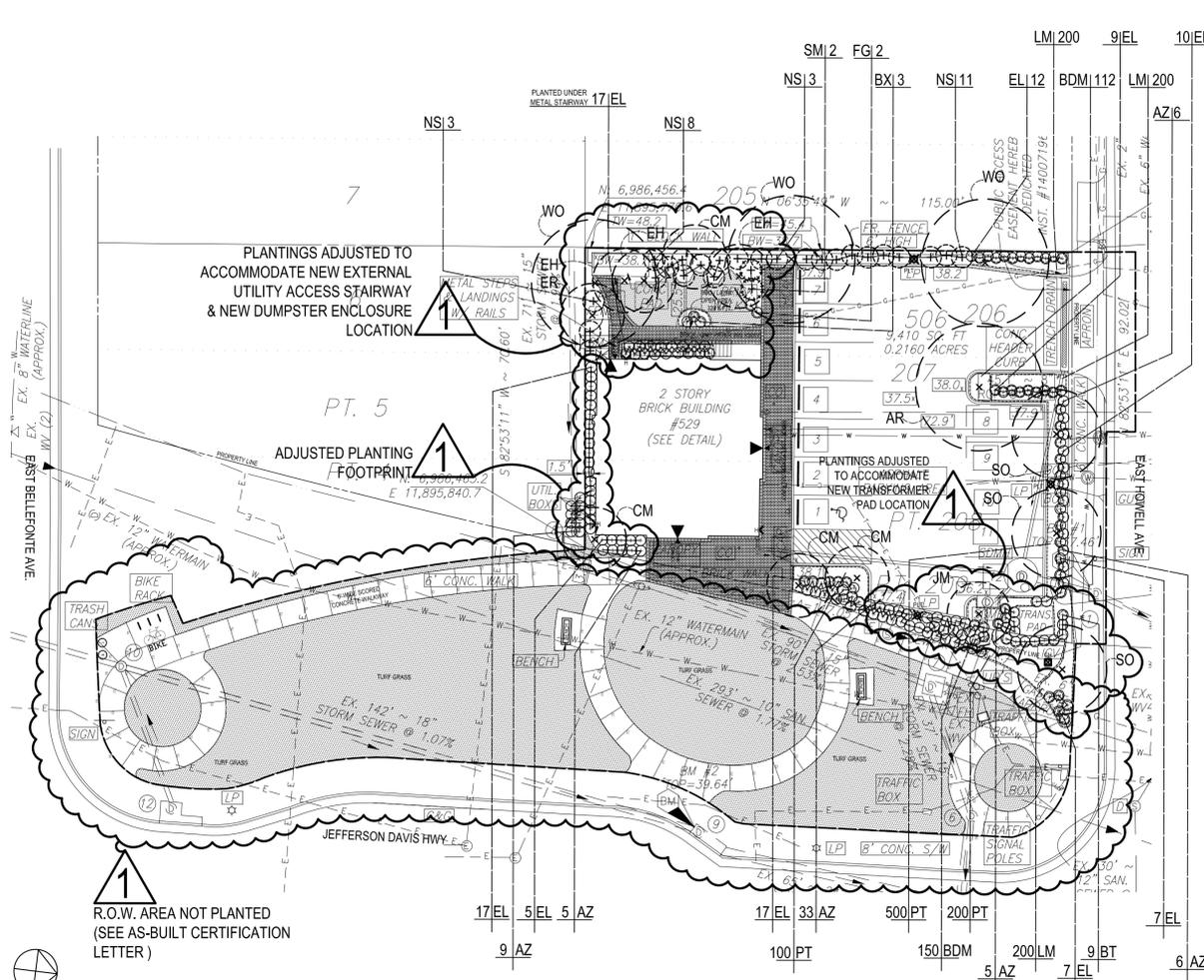
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8/10/16	PER CITY COMMENTS
8/30/16	PER CITY COMMENTS

DESIGN: BAD  
DRAWN: VMM

SCALE: NO SCALE  
DATE: JUNE 14, 2016

SHEET 8 OF 8  
FILE: 12-145

SITE DETAILS



**LANDSCAPE PLAN**  
 SCALE: 1" = 20' - 0"  
 NORTH (VCS 83)

**LEGEND**

PROPOSED PLANTS (SEE PLANTING DETAILS ON SHEET L-2)

- LARGE SHADE TREES (shown at 30' canopy diameter)
- MEDIUM SHADE TREES (shown at 21' canopy diameter)
- ORNAMENTAL TREES (shown at 15' canopy diameter)
- EVERGREEN TREES (shown at 5' diameter)
- SHRUBS (2.5' wide for each plant - see plant schedule for height & spacing)
- GROUND COVER (see plant schedule for spacing)

PROPOSED SITE LIGHTING (SEE SHEET LP1)

SITE FURNISHINGS

- BIKE RACKS (SEE DETAIL 4 ON SHEET L-3)
- TRASH RECEPTACLE (SEE DETAIL 2 ON SHEET L-3)
- RECYCLING RECEPTACLE (SEE DETAIL 3 ON SHEET L-3)
- BENCH (SEE DETAIL 1 ON SHEET L-3)
- HOSE BIB & GROUND SET HOSE CONNECTION LOCATIONS (SEE CIVIL DRAWINGS FOR DETAILS)

PLANT LABELS

- SHRUB & GROUND COVER CALLOUT
- TREE CALLOUT

PROPOSED PAVEMENT (SEE CIVIL DRAWINGS FOR CONSTRUCTION DETAILS)

- BRICK PAVEMENT (OPEN JOINT - SAND SWEEP - GLEN GERY MOLDED BRICK PAVER)
- RUNNING BOND
- HEADER COURSE
- CROSS BOND (DIRECTION OF BRICK PERPENDICULAR TO FACE OF BUILDING ENTRANCE FRONTAGE)
- SCORED CONCRETE WALKWAY (SCORE JOINTS APPROXIMATELY WHERE SHOWN) ("EJ"= EXPANSION JOINT / "CJ"= CONTROL JOINT)
- SOD / LAWN & TURF GRASS (SEE "NOTES" BELOW). GRASS INSTALLATION TIMING SHALL COMPLY WITH THE CITY OF ALEXANDRIA LANDSCAPE GUIDELINES PLANTING TIMES. ALL GRASS SEED SHALL BE BLUE TAG CERTIFIED.

45° HERRINGBONE FILL PATTERN REPLACED WITH CROSS BOND @ ENTRANCE PAVEMENT

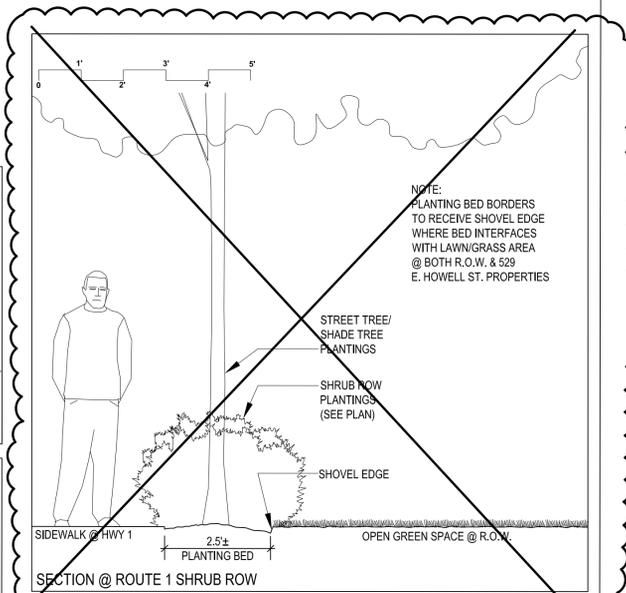
TREE PROTECTION FENCE (SEE DETAIL 8 ON SHEET L-2)

NOTES:

- TURF GRASS INSTALLATION/PLANTING FOR OPEN AREAS LABELED "TURF GRASS" SHALL BE SELECTED FROM "VIRGINIA COOPERATIVE EXTENSION TURF GRASS VARIETY RECOMMENDATIONS"
- ALL MATERIALS SPECIFICATIONS SHALL BE IN ACCORDANCE WITH THE INDUSTRY STANDARD FOR GRADING PLANT MATERIAL - "THE AMERICAN STANDARD FOR NURSERY STOCK (ANSI 760.1)"
- MAINTINANCE OF ALL TREES AND LANDSCAPE MATERIALS SHALL CONFORM TO ACCEPTED INDUSTRY STANDARDS SET FORTH BY THE "LANDSCAPE CONTRACTORS ASSOCIATION", "AMERICAN SOCIETY OF LANDSCAPE ARCHITECTS", "THE INTERNATIONAL SOCIETY OF ARBORCULTURE" AND "THE AMERICAN NATIONAL STANDARDS INSTITUTE".

NOTES

- EXISTING PROPERTY DOES NOT CONTAIN BICYCLE & PEDESTRIAN PATHS AS PER THE "Bicycle Transportation and Multi-Use Trail Master Plan" INSIDE, OR ADJACENT TO PROPERTY BOUNDARIES
- EXISTING PROPERTY DOES NOT CONTAIN TREES, OR SHRUBS OF ANY SIZE - THERE IS NOTHING EXISTING TO SAVE



**PLANT SCHEDULE (529 EAST HOWELL AVE.)**

QUANTITY	KEY	COMMON NAME	BOTANICAL NAME	SIZE @ INSTALLATION	SPACING	CULTIVAR(S) / NOTES	CROWN COVERAGE ALLOWANCE PER PLANT	CROWN COVERAGE PROVIDED
<b>SHADE TREES (LARGE)</b>								
3	WO	WHITE OAK	Quercus alba	2.5 - 3 inch Cal. (12'-14' ht.)	AS SHOWN		1,250 S.F.	3,750 S.F.
1	AR	RED MAPLE	Acer rubrum	2.5 - 3 inch Cal. (12'-14' ht.)	AS SHOWN	'October Glory'	1,250 S.F.	1,250 S.F.
<b>SHADE TREES (MEDIUM)</b>								
3	SO	SAWTOOTH OAK	Quercus acutissima	2.5 - 3 inch Cal. (12'-14' ht.)	AS SHOWN		750 S.F.	2,250 S.F.
<b>ORNAMENTAL TREES (MEDIUM &amp; SMALL)</b>								
1	AM	AMUR MAPLE	Acer ginnala	8' ht.	AS SHOWN	'Flame'		
1	JM	JAPANESE MAPLE	Acer palmatum	8' ht.	AS SHOWN	'Glowing Embers'	250 S.F.	250 S.F.
4	CM	CRAPPE MYRTLE	Lagostroemia indica	8' ht.	AS SHOWN	'Catawba'	250 S.F.	1,000 S.F.
1	ER	EASTERN REDBUD	Cercis canadensis	8' ht.	AS SHOWN	'Northern Strain'	500 S.F.	500 S.F.
3	EH	EUROPEAN HORNBEAM	Carpinus betulus	8' ht.	AS SHOWN	'Fastigata'	250 S.F.	750 S.F.
<b>EVERGREEN TREES</b>								
25	NS	NELLIE STEVENS HOLLY	Ilex x Nellie R. Stevens	8' ht.	AS SHOWN	(mix males & females) evergreen	250 S.F.	6,250 S.F.
2	SM	SWEETBAY MAGNOLIA	Magnolia virginiana	8' ht.	AS SHOWN	evergreen	250 S.F.	500 S.F.
<b>SHRUBS &amp; ORNAMENTAL GRASSES</b>								
(deciduous)	IV	VIRGINIA SWEETSPIRE	Itea virginica	2.5' ht.	2' SPACING	'Henry's Garnet'		
(evergreen)	AZ	AZALEA	Rhododendron species	2.5' ht.	2' SPACING	'Delaware Valley'	2 S.F.	128 S.F.
(evergreen)	EL	ENGLISH LAUREL	Prunus laurocerasus	2.5' ht.	2' SPACING	'Otto Luken'	2 S.F.	202 S.F.
(evergreen)	BX	ENGLISH BOXWOOD	Buxus sempervirens	18" ht.	2' SPACING		2 S.F.	6 S.F.
(evergreen)	BT	JAPANESE BARBERRY	Berberis thunbergii	2.5' ht.	2' SPACING	'Atropurpurea'	2 S.F.	12 S.F.
(deciduous)	FG	FORSYTHIA	Forsythia x intermedia	2.5' ht.	2' SPACING	'Gold Tide'	2 S.F.	4 S.F.
<b>GROUND COVER</b>								
800	PT	PACHYSANDRA	Pachysandra terminalis	1 pnt. container	6" triangular spacing	'Japanese Spurge'	N/A	
600	LM	CREEPING LILYTURF	Liriope spicata	1 pnt. container	6" triangular spacing	'Variegata'	N/A	
262	BDM	BLACK MONDO GRASS	Ophiopogon planiscapus	3.5 in. square pots	6" triangular spacing	'Black Dragon'	N/A	

**PLANT SCHEDULE (R.O.W.)**

QUANTITY	KEY	COMMON NAME	BOTANICAL NAME	SIZE @ INSTALLATION	SPACING	CULTIVAR(S) / NOTES	CROWN COVERAGE ALLOWANCE PER PLANT	CROWN COVERAGE PROVIDED
<b>SHADE TREES (LARGE)</b>								
6	PE	PRINCETON ELM	Ulmus americana	2.5 - 3 inch Cal. (12'-14' ht.)	AS SHOWN	'Princeton'	1,250 S.F.	7,500 S.F.
<b>SHRUBS &amp; ORNAMENTAL GRASSES</b>								
37	FS	FOUNTAIN GRASS	Pennisetum alopecuroides	2.5' ht.	2' SPACING		2 S.F.	82 S.F.
34	WB	WINTERBERRY	Ilex verticillata	2.5' ht.	2' SPACING	mix ratio: 1 'Jim Dandy' to 10 'Red Sprite'	2 S.F.	68 S.F.
43	IB	INKBERRY	Ilex glabra	2.5' ht.	2' SPACING	'Shamrock'	2 S.F.	86 S.F.
<b>GROUND COVER</b>								
148	BL	BIG BLUE LILYTURF	Liriope muscari	1 pnt. container	12" triangular spacing	'Big Blue'	N/A	
200	EB	ELIJAH BLUE FESCUE	Festuca glauca	1 pnt. container	12" triangular spacing	'Elijah Blue'	N/A	

**CROWN COVERAGE (BASED ON CITY ALLOWANCES) ( 529 HOWELL AVE.)**

SHADE TREES (LARGE): 5,000 S.F.  
 SHADE TREES (MEDIUM): 2,000 S.F.  
 MEDIUM ORNAMENTAL TREES: 500 S.F.  
 SMALL ORNAMENTAL TREES: 2,000 S.F.  
 EVERGREEN TREES: 6,750 S.F.  
 SHRUBS: 116 S.F.

TOTAL: 16,366 S.F. PROVIDED (does not include shrubs that screen parking area)

ADJUSTED COVERAGES PER CHANGES IN PLAN / QUANTITIES

TOTAL COVERAGE PROVIDED: 16,366 S.F. PROVIDED (PROPERTY AREA @ 9,410 S.F. x 0.25 = 2,353 S.F. REQUIRED)

TOTAL PROPERTY SITE AREA: 9,410 S.F.  
 BUILDING FOOTPRINT AREA: 1,597 S.F.

**CROWN COVERAGE (BASED ON CITY ALLOWANCES) ( R.O.W.)**

SHADE TREES (LARGE / STREET TREE): 7,500 S.F.  
 SHRUBS: 236 S.F.

TOTAL COVERAGE PROVIDED: 7,736 S.F. PROVIDED

(COVERAGE % FOR R.O.W. AREA NOT REQUIRED. TREE & SHRUB QUANTITIES BASED ON AGREEMENT BETWEEN CITY & 529 E. HOWELL AVENUE PROPERTY OWNER)

**NOTES PER ALEXANDRIA CITY STANDARDS & REQUIREMENTS:**

- ALL PROTECTION AND PRESERVATION MEASURES FOR EXISTING VEGETATION, INCLUDING MAINTINENCE SHALL BE APPROVED BY THE CITY ARBORIST IN-FIELD PRIOR TO COMMENCEMENT OF ANY SITE DISTURBING ACTIVITY.
- SPECIFICATION FOR ALL PLANTINGS SHALL BE IN ACCORDANCE WITH THE CURRENT AND MOST UP TO DATE EDITION OF ANSI-Z60.1, The American Standard for Nursery Stock AS PRODUCED BY THE AMERICAN ASSOCIATION OF NURSERYMEN, WASHINGTON, DC.
- THE APPLICANT HAS MADE SUITABLE ARRANGEMENTS 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 AVAILABILITY OF SPECIFIED MATERIALS. IN THE EVENT THAT SHORTAGES AND/OR INABILITY TO OBTAIN SPECIFIED PLANTINGS OCCURS, REMEDIAL EFFORTS INCLUDING SPECIES CHANGES, ADDITIONAL PLANTINGS AND MODIFICATION TO THE LANDSCAPE PLAN SHALL BE UNDERTAKEN BY APPLICANT. ALL REMEDIAL EFFORTS SHALL, WITH PRIOR APPROVAL BY THE CITY, BE PERFORMED TO THE SATISFACTION OF THE DIRECTORS OF PLANNING & ZONING, RECREATION, PARKS & CULTURAL ACTIVITIES AND TRANSPORTATION & ENVIRONMENTAL SERVICES
- 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
- 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.
- MAINTENANCE FOR THIS PROJECT SHALL BE PERFORMED IN PERPETUITY, IN COMPLIANCE WITH CITY OF ALEXANDRIA GUIDELINES AND/OR AS CONDITIONED BY PROJECT APPROVAL.
- A CERTIFICATION LETTER FOR TREE WELLS, TREE TRENCHES AND PLANTINGS ABOVE STRUCTURE SHALL BE PROVIDED BY THE PROJECT'S LANDSCAPE ARCHITECT. THE LETTER SHALL CERTIFY THAT ALL BELOW GRADE CONSTRUCTION IS IN COMPLIANCE WITH APPROVED DRAWINGS AND SPECIFICATIONS. THE LETTER SHALL BE SUBMITTED TO THE CITY ARBORIST AND APPROVED PRIOR TO APPROVAL OF THE LAST AND FINAL CERTIFICATE OF OCCUPANCY FOR THE PROJECT. THE LETTER SHALL BE SUBMITTED BY THE OWNER/APPLICANT/SUCCESSOR AND SEALED AND DATED AS APPROVED BY THE PROJECT'S LANDSCAPE ARCHITECT.
- 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 VARIATION(S) AND CHANGES FROM APPROVED DRAWINGS INCLUDING LOCATION, QUANTITY AND SPECIFICATION OF ALL PROJECT ELEMENTS.

**AS-BUILT CERTIFIED CORRECT:**

NOTE: ALL "CLOUDED" DIMENSIONS, TEXT, SPOT ELEVATIONS, AND SITE IMPROVEMENTS DENOTES THOSE ITEMS AS AS-BUILT ITEMS.

THE SITE IMPROVEMENTS ON THIS PLAN ARE SHOWN AS THEY EXIST AS OF THE DATE OF THIS CERTIFICATE.

I HEREBY CERTIFY THAT THIS "AS-BUILT" PLAN IS SUBSTANTIALLY IN CONFORMANCE WITH THE APPROVED PLANS EXCEPT AS NOTED.  
 DATE: AUGUST 31, 2016

KIRK DANIEL BERUTEER  
 LIC. No. 1358  
 LANDSCAPE ARCHITECT

**APPROVED AS-BUILT**

DEVELOPMENT PLAN NO. DSP#2013-00010

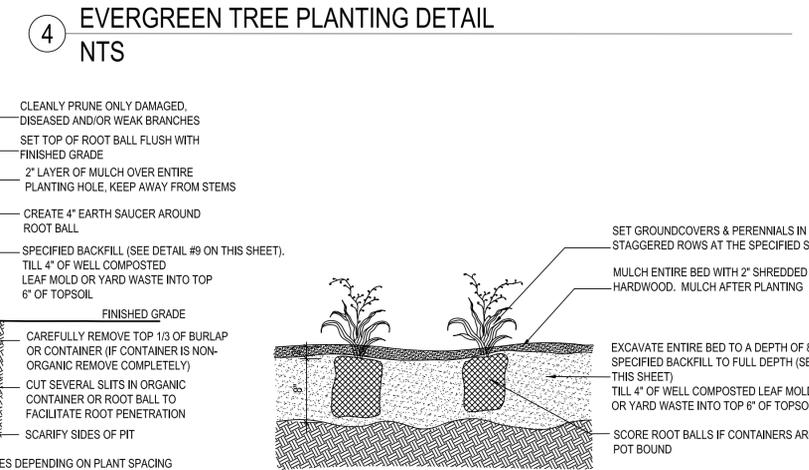
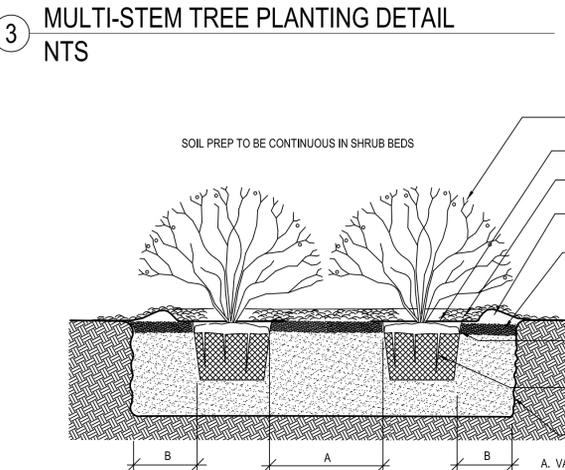
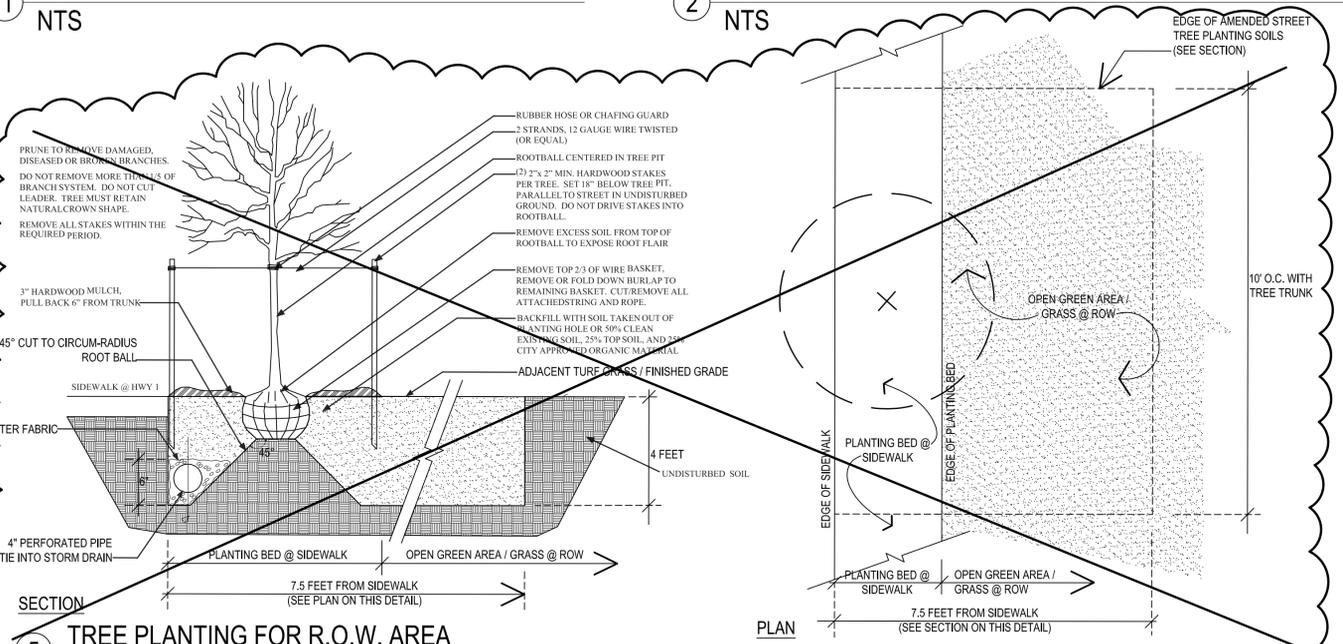
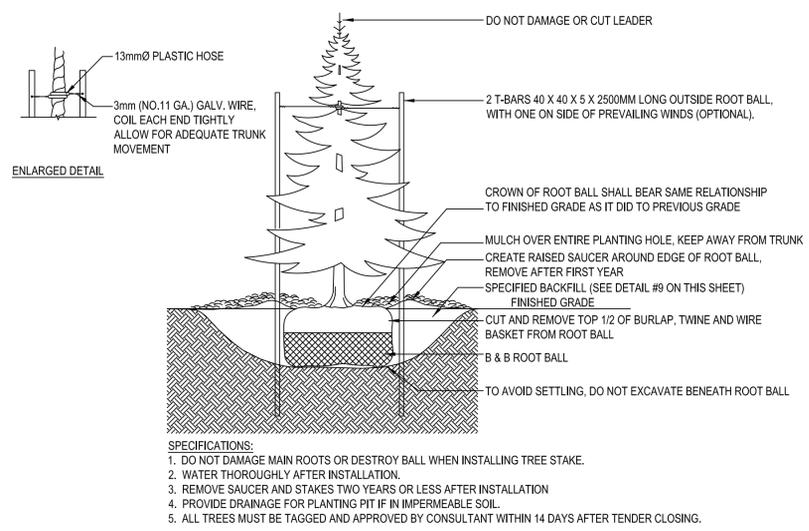
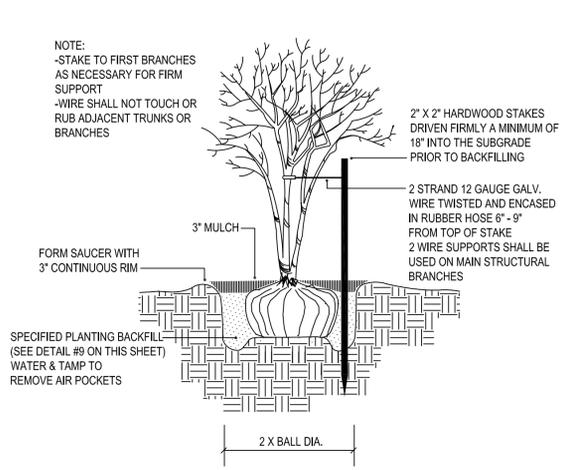
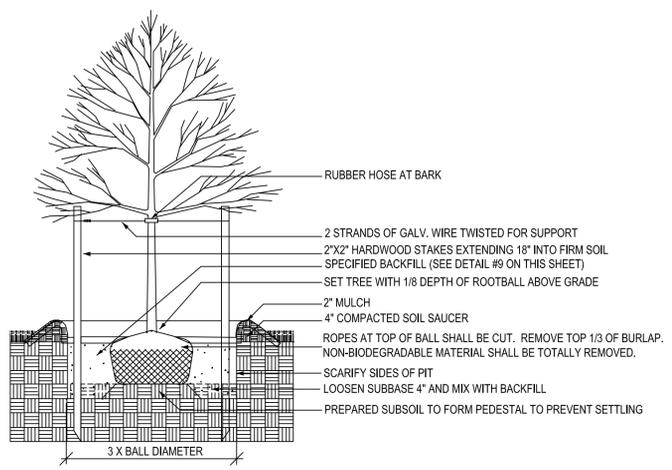
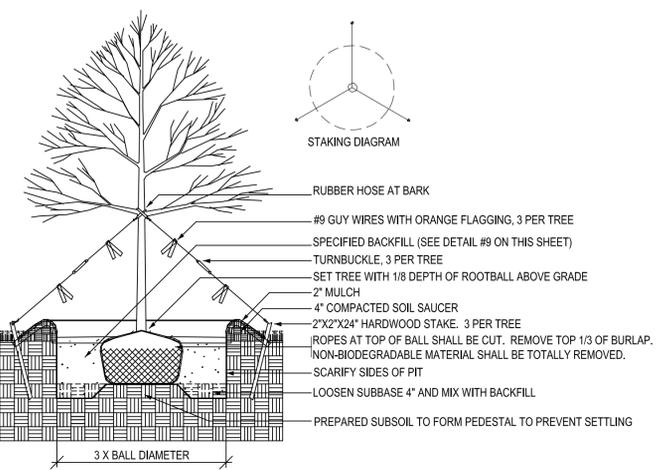
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

DIRECTOR \_\_\_\_\_ DATE \_\_\_\_\_

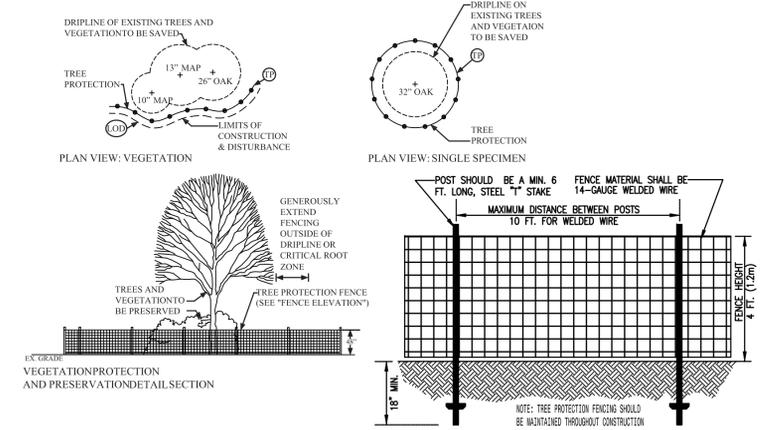
SPECIAL USE PERMIT \_\_\_\_\_

KIRK DANIEL BERUTEER  
 LIC. No. 1358  
 LANDSCAPE ARCHITECT

SHEET NUMBER: L-1



**1**  
 NOT USED: PLANTINGS IN R.O.W. NOT IMPLEMENTED / INSTALLED



"AS-BUILT" CERTIFIED CORRECT:  
 = AS-BUILT

NOTE: ALL "CLOUDED" DIMENSIONS, TEXT, SPOT ELEVATIONS, AND SITE IMPROVEMENTS DENOTES THOSE ITEMS AS AS-BUILT ITEMS.

THE SITE IMPROVEMENTS ON THIS PLAN ARE SHOWN AS THEY EXIST AS OF THE DATE OF THIS CERTIFICATE.

I HEREBY CERTIFY THAT THIS "AS-BUILT" PLAN IS SUBSTANTIALLY IN CONFORMANCE WITH THE APPROVED PLANS EXCEPT AS NOTED.  
 DATE: AUGUST 31, 2016

KIRK DANIEL BEREBUTER  
 LIC No. 1358  
 LANDSCAPE ARCHITECT

APPROVED AS-BUILT

DEVELOPMENT PLAN NO. DSP#2013-00010

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

DIRECTOR \_\_\_\_\_ DATE \_\_\_\_\_

SPECIAL USE PERMIT \_\_\_\_\_

REVISIONS:  
 AS-BUILTS 17 JUNE 2016

LIC. No. 1358  
 KIRK DANIEL BEREBUTER  
 LANDSCAPE ARCHITECT

LIC. No. 1358  
 KIRK DANIEL BEREBUTER  
 LANDSCAPE ARCHITECT

SHEET NUMBER:  
 L - 2





Your Dog's Best Friends

529 East Howell Avenue  
14 min drive - home

Google

Grande Ave

E Howell Ave

E Howell Ave

E Howell Ave

E Howell Ave

transitway

Richmond Hwy



Crystal City Potomac Yard Transitway

Richmond Hwy

Rich

E Howell A

Main Line Blvd

E Howell

Main Line Blvd

Main Line Blvd

La Grande Ave

La Grande Ave

E Bellefonte Ave

E Bellefonte Ave

E Bellefonte Ave

E Bellefonte Ave

E Duncan Ave