PROJECT NARRATIVE

THE SITE IS CURRENTLY DEVELOPED WITH WAREHOUSE BUILDINGS, PARKING AND LOADING AREAS AND A PIER. THE SITE IS CURRENTLY ZONED W-1/ WATERFRONT MIXED USE ZONE AND IS SUBJECT TO A DEED OF COVENANTS. CONDITIONS. RESTRICTIONS AND EASEMENTS FOR THE BENEFIT OF THE CITY OF ALEXANDRIA AND THE UNITED STATES OF AMERICA. THE APPLICANT INTENDS TO DEMOLISH THE EXISTING STRUCTURES, WITH THE EXCEPTION OF THE 2 DUKE STREET WAREHOUSE, AND CONSTRUCT MIXED-USE BUILDINGS AND TOWNHOUSE BUILDINGS AS SHOWN ON THE PLAN. THE APPLICANT PROPOSES GROUND FLOOR COMMERCIAL USES, INCLUDING A RESTAURANT, IN PORTIONS OF THE BUILDINGS ALONG THE WATERFRONT AND COMMERCIAL USES IN 2 DUKE STREET. A CLUSTER DEVELOPMENT IS PROPOSED. THE APPLICANT ALSO PROPOSES TO RENOVATE THE EXISTING PIER FOR PUBLIC USE AND DEDICATE IT TO THE CITY.

ZONING APPROVALS

- 1. A DEVELOPMENT SPECIAL USE PERMIT WITH SITE PLAN TO INCREASE THE FAR ABOVE 2.0 PER SECTION 5-504(D)
- 2. A SPECIAL USE PERMIT FOR A BOAT DOCKING FACILITY PER SECTION 5-503(C)
- 3. A SPECIAL USE PERMIT FOR A RESTAURANT PER SECTION 5-503(J)
- 4. A SPECIAL USE PERMIT FOR A RETAIL SHOPPING ESTABLISHMENT PER SECTION 5-503(K)
- 5. A SPECIAL USE PERMIT TO INCREASE THE HEIGHT FROM 30 FEET TO 50 FEET PURSUANT TO SECTION 6-404(B)
- 6. A PARKING REDUCTION SPECIAL USE PERMIT
- 7. A SPECIAL USE PERMIT FOR CLUSTER DEVELOPMENT PER SECTION 11-600
- 8. A SPECIAL USE PERMIT FOR LAND WITHOUT FRONTAGE ON A PUBLIC STREET PER SECTION 7-1007
- 9. A TRANSPORTATION MANAGEMENT PLAN
- 10. BOARD OF ARCHITECTURAL REVIEW PERMIT TO DEMOLISH, A CERTIFICATE OF APPROPRIATENESS, AND A PERMIT TO ENCAPSULATE PER BAR
- 11. WAIVER OF CORNER CLEARANCE (ZO SECT. 7-801)
- 12. A SPECIAL USE PERMIT FOR VALET PARKING
- 13. A SPECIAL USE PERMIT FOR MORE THAN ONE PENTHOUSE PER BUILDING
- 14. A MODIFICATION FOR THE SIDE AND REAR YARD REQUIREMENTS

ZONING TABULATIONS

LOT G 122,167 SF OR 2.805 AC

1. ZONE OF THE SITE: EXISTING: W-1 PROPOSED: EXISTING: WAREHOUSE PROPOSED: MIXED USE 2. USE:

TOTAL LOT AREA: <u>140,420 SF OR 3.22 AC</u> MINIMUM LOT AREA: 133,584 SF OR 3.06 AC LOT E 5,612 SF OR 0.129 AC LOT H <u>9,558 SF OR 0.219 AC</u> LOT M 646 SF OR 0.015 AC VACATED STRAND 2,438 SF OR 0.056 AC



3. NUMBER OF DWELLING UNITS: <u>92 (26 TOWNHOUSE + 66 MULTI-FAMILY UNITS)</u> (SEE SITE TABULATIONS ON SHEET C-3.0 FOR BEDROOM MIX FOR MULTIFAMILY UNITS)

| 4. UNITS PER ACRE | E: ALLOWED: <u>30</u> | PROPOSED: 28.5 | _ | |
|-------------------|--|--|--|------------------------------|
| 5. FLOOR AREA: | | 1 | | |
| _ | BUILDING TYPE | CORRESPONDING UNITS | GROSS FLOOR AREA | NET FLOOR AREA |
| | CLUSTER RESIDENTIAL | 53 | 138,312 SF | 135,637 SF |
| | WATERFRONT | 39 | 142,344 SF | 136,974 SF |
| | TOTAL | 92 | 280,656 SF | 272,611 SF |
| 6. FLOOR AREA RA | TIO: PERMITTED <u>N/A</u> PROPOSED <u>1.94</u> (REFER TO WATERI | ```````````````````````````````` | BULATIONS ON SHEET C-3.0 FO | R SQUARE FOOTAGE OF EACH USE |
| 7. OPEN SPACE: | PROPOSED: 52,82 GROUND LEV | EL <u>45,943 SF</u> E (ROOF/DECK) <u>6,883 SF</u> | | |
| BL BL BL | HED GRADE: D 1_11.60 D 2_11.59 D 3_11.43 D 4_10.72 D 5_11.71 | BLD 6 11.29 BLD 7 11.71 BLD 8 11.71 BLD 9 11.70 #2 DUKE ST. <u>N/A</u> | | |
| BI BI BI | ALLOWED 50' D 1 50' MAX D 2 50' MAX D 3 50' MAX D 4 50' MAX D 5 ±47' | BLD 6 ±47' BLD 7 ±47' BLD 8 ±47' BLD 9 ±47' #2 DUKE ST. ±30' | | |
| 10. YARDS: | REQUIRED FRONT: <u>0'</u> SIDE: <u>1:2 (16' MIN)</u> REAR: <u>1:2 (16' MIN)</u> * A MODIFICATION I | | NG NORTH * | |
| 12. FRONTAGE (MUI | LTIFAMILY): REQUIRED: <u>5</u> | | N/A LOT WIDTHS TO BE MODIF EFER TO SUP REQUEST PER SI | |

PROPOSED: 1,301 13. TRIP GENERATION: EXISTING: 371

PARKING REQUIRED: 262 SPACES 14. PARKING TABULATION

PARKING PROVIDED: 201 SPACES * (SEE SITE TABULATIONS ON SHEET C-3.0 FOR SPACES REQUIRED FOR EACH USE AND A-3 FOR PARKING TYPE BREAKDOWN)

* EXCLUDES 21 SPACES ON WOLFE AND 33 TANDEM SPACES 15.LOADING TABULATIONS LOADING REQUIRED: 1 SPACE

LOADING PROVIDED: 1 SPACE (SEE SITE TABULATIONS ON SHEET C-3.0 FOR SPACES REQUIRED FOR EACH USE)

16. SITE PLAN AREA: <u>3.22 ACRES (140,420 SF)</u> AREA IN TAX PARCELS 75-03-04-(1-4): <u>3.22 ACRES (140,420 SF</u>)

17.EXISTING IMPERVIOUS ON 3.22 ACRES (140,420 SF): <u>3.22 AC (140,420 SF)</u> PROPOSED IMPERVIOUS ON 3.22 ACRES (140,420 SF): <u>2.91 AC (126,760 SF)</u>

18.DISTURBED AREA: 4.52 AC (197,042 SF)

| Land Use (ITE Code) | Amount | Unit | AM In | l Peak Hour Out | Total | PM In | 1 Peak Hour Out | Total | ADT Total | In | Saturday Out | Total | ADT Total |
|---|----------------|----------------------------|----------------|--------------------|-----------------|------------------|--------------------|------------------|--------------|-----------------|-----------------|-----------|--------------|
| Existing Uses | | | | | | | | | | | | | |
| Office (710) | 4,750 | SF | 6 | 1 | 7 | 1 | 6 | 7 | 52 | 1 | 1 | 2 | 12 |
| Warehouse (150) | 89,650 | SF | 21 27 | <u>6</u> 7 | <u>27</u> | <u>7</u> | 22 28 | <u>29</u> 36 | 319 | <u>8</u> | <u>4</u> | <u>12</u> | 110 |
| Total Trips | | | 27 | 7 | 34 | 8 | 28 | 36 | 371 | 9 | 5 | 14 | 122 |
| Proposed Robinson Terminal | | | | | | | | | | | | | |
| Residential Condominium/Townhouse (230) | 92 | DU | 8 | 40 | 48 | 38 | 18 | 56 | | 35 | 34 | 69 | 761 |
| | Mode Reduction | n• 10% ² | <u>-1</u> 7 | <u>-4</u> 36 | <u>-5</u> 43 | <u>-4</u> 34 | <u>-2</u> 16 | <u>-6</u> 50 | <u>-150</u> | <u>-4</u> 31 | <u>-3</u> | <u>-7</u> | <u>-190</u> |
| Net new residential trips | | | 7 | 36 | 43 | 34 | 16 | 50 | 448 | 31 | 31 | 62 | 571 |
| Specialty Retail (826) ³ | 5,299 | SF | 18 | 2 | 20 | 15 | 19 | 34 | | 18 | 17 | 35 | |
| High-Turnover (Sit Down) Restaurant (932) | 6,174 | SF | 37 | 30 | 67 | 37 | 24 | 61 | 785 | 46 | 41 | 87 | 978 |
| Non-Auto Mode Reduction - 25% Wee | kday & 40% S | aturday 4 | <u>-14</u> | <u>-8</u> 24 | <u>-22</u> | <u>-13</u> 39 | $\frac{-11}{32}$ | <u>-24</u> 71 | <u>-196</u> | <u>-26</u> | -23 | -49 | <u>-245</u> |
| Net new retail trips | | | 41 | 24 | 65 | 39 | 32 | 71 | 853 | 38 | 35 | 73 | 956 |
| Total Trips | | | 48 | 60 | 108 | 73 | 48 | 121 | 1,301 | 69 | 66 | 135 | 1,527 |

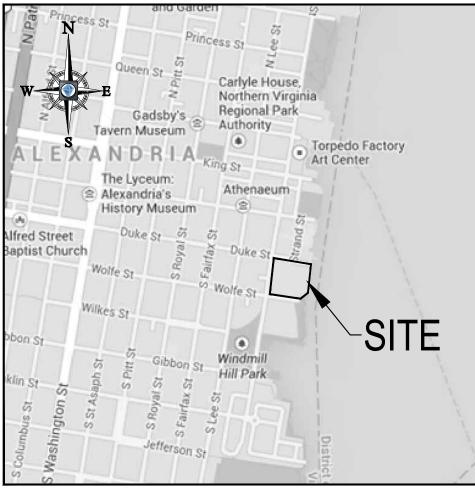
shalom baranes associates

architects

1010 WISCONSIN AVE NW, SUITE 900 WASHINGTON, DC 20007 T 202.342.2200 F 202.342.1569

DEVELOPMENT SPECIAL USE PERMIT FOR RT SOUTH ASSOCIATES LLC

LOCATION OF SITE **ROBINSON TERMINAL SOUTH** CITY OF ALEXANDRIA, VA



LOCATION MAP SCALE: 1" = 1,000'



APPLICANT RT SOUTH ASSOCIATES LLC C/O EYA 4800 HAMPDEN LANE, SUITE 300 BETHESDA, MD 20814 (301) 634-8600



22636 DAVIS DRIVE, SUITE 250 **STERLING, VIRGINIA 20164** Phone: (703) 709-9500 (703) 709-9501 Fax: www.BohlerEngineering.com



1420 SPRING HILL ROAD; SUITE 610 **TYSONS, VA 22102** P: 703-917-6620 WWW.MJWELLS.COM



1750 TYSONS BOULEVARD; SUITE 1800 **TYSONS CORNER, VA 22102** P: 703-712-5000

| | HEET INDEX | | ve.cow |
|---|--|-------------------------|--|
| COVER SHEET | ſLE | C-1.0 | 2636 DAVIS DRIVE; STE 250 STERLING, VA 20164 703-709-9500 WWW. BOHLERENGINEERING.COM WWW. BOHLERENGINEERING.COM |
| GENERAL NOTES & LEGEND | | C-1.1 - C-1.2 | DRIVE; A 20164 BRENG 31C |
| CITY OF ALEXANDRIA CONSTRUCTION NOTES | | C-1.3 | DAVIS J. BOHLI BOHLI |
| EXISTING CONDITIONS | | C-2.0 | 22636 STERI 703-70 WWW |
| | | C-2.1 | |
| PROPOSED SITE PLAN DIMENSION PLAN | | C-3.0 C-3.1 | |
| OPEN SPACE PLAN | | C-3.2 | |
| UTILITY PLAN | | C-4.0 | |
| GRADING PLAN | | C-5.0 | |
| ROAD IMPROVEMENTS PLAN AND PROFILE | | C-5.1 - C-5.2 | |
| ROAD CROSS SECTIONS SIGHT DISTANCE PROFILE | | C-5.3 C-5.4 - C-5.5 | |
| AVERAGE FINISHED GRADE EXHIBIT | | C-5.6 | |
| FIRE SAFETY PLAN | | C-6.0 | CIVIL ENGINE CIVIL ENGINE ARCHITECT ANDSCAPE M P F P |
| TRUCK TURNS | | C-6.1 - 6.2 | |
| | | C-7.0 | REVISIONS |
| PRE DEVELOPMENT DRAINAGE MAP POST DEVELOPMENT DRAINAGE MAP | | C-8.0 | REV DATE COMMENT |
| BMP PLAN | | C-9.0 | 1 11/21/14 COMMENTS |
| STORMWATER MANAGEMENT COMPUTATIONS | | C-9.1 - C-9.2 | 2 12/23/14 COMMENTS 3 3/4/15 REV PER BLDG 3 ARCH |
| SANITARY OUTFALL ANALYSIS | | C-10.0 - 10.1 | |
| | | C-11.0 | |
| CONTEXTUAL SITE PLAN RESIDENTIAL CLUSTER LOT STUDY | | A-1 A-2 | |
| GARAGE PLAN | | A-3 | |
| CONCEPT PLAN GROUND USES AND BUILDING ENTRI | IES | A-4 | |
| LEVEL 2 PLAN | | A-5 | |
| LEVEL 3 PLAN | | A-6 | |
| LEVEL 4 PLAN | | A-7 A-8 | |
| ROOF PLAN | | A-9 | |
| FAR CALC PLAN DIAGRAMS | | A-10 | THE FOLLOWING STATES REQUIRE NOTIFICATION EXCAVATORS, DESIGNERS, OR ANY PERSON PREPAI |
| SECTIONS | | A-11 - A-12 | DISTURB THE EARTH'S SURFACE ANYWHERE IN THE IN VIRGINIA, MARYLAND, THE DISTRICT OF COLUN NORTH CAROLINA AND DELAWARE CALL - 81 |
| DETAIL SECTIONS | | A-13 | (WV 1-800-245-4848) (PA 1-800-242-1776) (DC 1-800-2 (VA 1-800-552-7001) (MD 1-800-257-7777) (DE 1-800-26 |
| | | A-14 | NOT APPROVED FOR |
| ELEVATIONS | | A-15 - A-19 A-20 | |
| ARTIST RENDERINGS | | A-21 - A-32 | PROJECT No.: S13 DRAWN BY: |
| NO. 2 DUKE ST. EXISTING CONDITIONS | | A-33 -A-34 | CHECKED BY: DATE: O9/ SCALE: AS SH |
| NO. 2 DUKE ST. HISTORIC PHOTOGRAPHS | | A-35 | CAD I.D.: |
| NO. 2 DUKE ST. EXISTING BUILDING SECTION / TYPIC. | AL ROOF FRAMING BAY | A-36 | - PROJECT: DEVELOPMEN |
| NO. 2 DUKE ST. EXISTING STRUCTURE NO. 2 DUKE ST. PROPOSED FLOOR PLAN / SECTION | | A-37 A-38 | — SPECIAL USE |
| NO. 2 DUKE ST. EXISTING ELEVATION | | A-39 | PERMIT (DSUP |
| NO. 2 DUKE ST. PROPOSED DESIGN ELEVATIONS | | A-40 | RT SOUTH |
| NO. 2 DUKE ST. PROPOSED DESIGN RENDERINGS | | A-41 | - ASSOCIATES |
| FIRE RATING PLAN DIAGRAM | | A-42 | |
| GRADING PLAN | | L-01 | LOCATION OF SITE |
| BULKHEAD PHOTO STUDY | | L-02A | ROBINSON TERMINAL SOL CITY OF ALEXANDRIA, V |
| PHASING GRADING DIAGRAM | | L-02B | |
| MATERIALS PLAN | | L-03 | _11 |
| TREES CROWN COVERAGE PLAN PLANTING PLAN | | L-04 | |
| PLANTING PLAN | | L-05 | |
| PERFORMANCE IRRIGATION PLAN | | L-07 | |
| LIGHTING PHOTOMETRIC PLAN | | L-08 | 22636 DAVIS DRIVE, SUITE 25 STERLING, VIRGINIA 20164 |
| STREET SECTIONS | | L-09 - L10 | Phone: (703) 709-9500 Fax: (703) 709-9501 www.BohlerEngineering.co |
| | | L-11, L-11A, L-12, L-13 | |
| L.I.D. PLANTING DETAILS PLANTING DETAILS | | L-14 L-15 | - SHARE ALTH OF BA |
| SITE FURNITURE | | L-16 | |
| WATER FEATURE | | L-17 | Lic. No. 34168 |
| PIER VIEWS | | L-18 | |
| | APPROVED | | THE SONAL ENGINE |
| | SPECIAL USE PERMIT NO. | #2014-0006 | |
| | DEPARTMENT OF PLANNING & COMMUNITY DEVELOPMENT | | SHEET TITLE: |
| | | | COVER SHEET |
| | | I | □ · ■ ■ □ □ □ □ · · · · · · · · · · · · |
| | DIRECTOR: | DATE: | COVER SHEE. |
| | DIRECTOR: DEPARTMENT OF TRANSPORTA' ENVIRONMENTAL SERVICES | | |
| | DEPARTMENT OF TRANSPORTAT | | SHEET NUMBER: |
| | DEPARTMENT OF TRANSPORTAT | | |

GENERAL NOTES:

CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH THE NOTES AND SPECIFICATIONS CONTAINED HEREIN. CONTRACTOR IS RESPONSIBLE TO ENSURE THAT ALL SUBCONTRACTORS FULLY AND COMPLETELY CONFORM TO AND COMPLY WITH THESE REQUIREMENTS

- 1. THE FOLLOWING DOCUMENTS ARE INCORPORATED BY REFERENCE AS PART OF THIS SITE PLAN:
- BOUNDARY & TOPOGRAPHIC SURVEY: ENTITLED "BOUNDARY & TOPOGRAPHIC SURVEY - ROBINSON TERMINAL WAREHOUSE CORPORATION" LOCATED AT "2 DUKE STREET - SCHOOL DISTRICT A ELECTION DISTRICT - CITY OF ALEXANDRIA - VIRGINIA", PREPARED BY BOHLER ENGINEERING". DATED "3/24/14". JOB NO: SS132178.
- ARCHITECTURAL PLAN ENTITLED "RT SOUTH ASSOCIATES LLC - DSUP ARCHITECTURAL DRAWING INDEX." PREPARED BY "SHARON BARNES ASSOCIATES (SBA)".
- LANDSCAPE PLAN CAD FILE ENTITLED "RTxland1-9-19-14.dwg" PREPARED BY MPFP - LANDSCAPE ARCHITECT. DATED 9/16/14.
- PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR MUST VERIFY THAT HE/SHE HAS THE LATEST EDITION OF THE DOCUMENTS REFERENCED ABOVE. THIS IS CONTRACTOR'S RESPONSIBILITY.
- 2. ALL ACCESSIBLE (A/K/A ADA) PARKING SPACES MUST BE CONSTRUCTED TO MEET, AT A MINIMUM, THE MORE STRINGENT OF THE REQUIREMENTS OF THE "AMERICANS WITH DISABILITIES ACT" (ADA) CODE (42 U.S.C. § 12101 et seq. AND 42 U.S.C. § 4151 et seq.) OR THE REQUIREMENTS OF THE JURISDICTION WHERE THE PROJECT IS TO BE CONSTRUCTED, AND ANY AND ALL AMENDMENTS TO BOTH WHICH ARE IN EFFECT WHEN THESE PLANS ARE COMPLETED.
- 3. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED THE COMMENTS TO ALL PLANS AND OTHER DOCUMENTS REVIEWED AND APPROVED BY THE PERMITTING AUTHORITIES AND CONFIRMED THAT ALL NECESSARY OR REQUIRED PERMITS HAVE BEEN OBTAINED. CONTRACTOR MUST HAVE COPIES OF ALL PERMITS AND APPROVALS ON SITE AT ALL TIMES.
- 4. THE OWNER/CONTRACTOR MUST BE FAMILIAR WITH AND RESPONSIBLE FOR THE PROCUREMENT OF ANY AND ALL CERTIFICATIONS REQUIRED FOR THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.
- 5. ALL WORK MUST BE PERFORMED IN ACCORDANCE WITH THESE PLANS, SPECIFICATIONS AND CONDITIONS OF APPROVAL, AND ALL APPLICABLE REQUIREMENTS, RULES, REGULATIONS, STATUTORY REQUIREMENTS, CODES, LAWS AND STANDARDS OF ALL GOVERNMENTAL ENTITIES WITH JURISDICTION OVER THIS PROJECT
- 6. THE GEOTECHNICAL REPORT AND RECOMMENDATIONS SET FORTH HEREIN ARE A PART OF THE REQUIRED CONSTRUCTION DOCUMENTS AND, IN CASE OF CONFLICT, DISCREPANCY OR AMBIGUITY, THE MORE STRINGENT REQUIREMENTS AND/OR RECOMMENDATIONS CONTAINED IN THE PLANS AND THE GEOTECHNICAL REPORT AND RECOMMENDATIONS SHALL TAKE PRECEDENCE UNLESS SPECIFICALLY NOTED OTHERWISE ON THE PLANS. THE CONTRACTOR MUST NOTIFY THE ENGINEER. IN WRITING, OF ANY SUCH CONFLICT, DISCREPANCY OR AMBIGUITY BETWEEN THE GEOTECHNICAL REPORTS AND PLANS AND SPECIFICATIONS PRIOR TO PROCEEDING WITH ANY FURTHER WORK
- 7. THESE PLANS ARE BASED ON INFORMATION PROVIDED TO BOHLER ENGINEERING BY THE OWNER AND OTHERS PRIOR TO THE TIME OF PLAN PREPARATION. CONTRACTOR MUST FIELD VERIFY EXISTING CONDITIONS AND NOTIFY BOHLER ENGINEERING, IN WRITING, IMMEDIATELY IF ACTUAL SITE CONDITIONS DIFFER FROM THOSE SHOWN ON THE PLAN, OR IF THE PROPOSED WORK CONFLICTS WITH ANY OTHER SITE FEATURES.
- 8. ALL DIMENSIONS SHOWN ON THE PLANS MUST BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR MUST NOTIFY ENGINEER, IN WRITING, IF ANY CONFLICTS, DISCREPANCIES, OR AMBIGUITIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION. NO EXTRA COMPENSATION WILL BE PAID TO THE CONTRACTOR FOR WORK WHICH HAS TO BE REDONE OR REPAIRED DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY ON THESE PLANS PRIOR TO CONTRACTOR GIVING ENGINEER WRITTEN NOTIFICATION OF SAME AND ENGINEER, THEREAFTER, PROVIDING CONTRACTOR WITH WRITTEN AUTHORIZATION TO PROCEED WITH SUCH ADDITIONAL WORK.
- 9. CONTRACTOR MUST REFER TO THE ARCHITECTURAL/BUILDING PLANS "OF RECORD" FOR EXACT LOCATIONS AND DIMENSIONS OF ENTRY/EXIT POINTS, ELEVATIONS, PRECISE BUILDING DIMENSIONS, AND EXACT BUILDING UTILITY LOCATIONS.
- 10. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR MUST COORDINATE THE BUILDING LAYOUT BY CAREFUL REVIEW OF THE ENTIRE SITE PLAN AND THE LATEST ARCHITECTURAL PLANS (INCLUDING, BUT NOT LIMITED TO. STRUCTURAL, MECHANICAL, ELECTRICAL, PLUMBING AND FIRE SUPPRESSION PLAN, WHERE APPLICABLE). CONTRACTOR MUST IMMEDIATELY NOTIFY OWNER, ARCHITECT AND SITE ENGINEER, IN WRITING, OF ANY CONFLICTS, DISCREPANCIES OR AMBIGUITIES WHICH EXIST
- 11. DEBRIS MUST NOT BE BURIED ON THE SUBJECT SITE AND ALL UNSUITABLE EXCAVATED MATERIAL AND DEBRIS (SOLID WASTE) MUST BE DISPOSED OF IN ACCORDANCE WITH THE REQUIREMENTS OF ANY AND ALL GOVERNMENTAL AUTHORITIES WHICH HAVE JURISDICTION OVER THIS PROJECT OR OVER CONTRACTOR.
- 12. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING WHEN SHORING IS REQUIRED AND FOR INSTALLING ALL SHORING REQUIRED DURING EXCAVATION (TO BE PERFORMED IN ACCORDANCE WITH CURRENT OSHA STANDARDS) AND ANY ADDITIONAL PRECAUTIONS TO BE TAKEN TO ASSURE THE STABILITY OF ADJACENT, NEARBY AND CONTIGUOUS STRUCTURES AND PROPERTIES.
- 13. THE CONTRACTOR IS TO EXERCISE EXTREME CARE WHEN PERFORMING ANY WORK ACTIVITIES ADJACENT TO PAVEMENT. STRUCTURES, ETC. WHICH ARE TO REMAIN EITHER FOR AN INITIAL PHASE OF THE PROJECT OR AS PART OF THE FINAL CONDITION. CONTRACTOR IS RESPONSIBLE FOR TAKING ALL APPROPRIATE MEASURES REQUIRED TO ENSURE THE STRUCTURAL STABILITY OF SIDEWALKS AND PAVEMENT UTILITIES BUILDINGS AND INFRASTRUCTURE WHICH ARE TO REMAIN, AND TO PROVIDE A SAFE WORK AREA FOR THIRD PARTIES, PEDESTRIANS AND ANYONE INVOLVED WITH THE PROJECT.
- 14. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE DONE TO ANY NEW OR EXISTING CONSTRUCTION OR PROPERTY DURING THE COURSE OF CONSTRUCTION, INCLUDING BUT NOT LIMITED TO DRAINAGE, UTILITIES, PAVEMENT, STRIPING, CURB, ETC. AND SHALL BEAR ALL COSTS ASSOCIATED WITH SAME TO INCLUDE, BUT NOT BE LIMITED TO, REDESIGN, RE-SURVEY, RE-PERMITTING AND CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR AND MUST REPLACE ALL SIGNAL INTERCONNECTION CABLE, WIRING CONDUITS, AND ANY UNDERGROUND ACCESSORY EQUIPMENT DAMAGED DURING CONSTRUCTION AND MUST BEAR ALL COSTS ASSOCIATED WITH SAME. THE REPAIR OF ANY SLICH NEW OR EXISTING CONSTRUCTION OR PROPERTY MUST RESTORE SUCH CONSTRUCTION OR PROPERTY TO A CONDITION EQUIVALENT TO OR BETTER THAN THE CONDITIONS PRIOR TO COMMENCEMENT OF THE CONSTRUCTION, AND IN CONFORMANCE WITH APPLICABLE CODES, LAWS RULES, REGULATIONS, STATUTORY REQUIREMENTS AND STATUTES. CONTRACTOR MUST BEAR ALL COSTS ASSOCIATED WITH SAME, CONTRACTOR IS RESPONSIBLE TO DOCUMENT ALL EXISTING DAMAGE AND TO NOTIFY THE OWNER AND THE CONSTRUCTION MANAGER PRIOR TO THE START OF CONSTRUCTION.
- 15. ALL CONCRETE MUST BE AIR ENTRAINED AND HAVE THE MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS UNLESS OTHERWISE NOTED ON THE PLANS, DETAILS AND/OR GEOTECHNICAL REPORT
- 16. THE ENGINEER IS NOT RESPONSIBLE FOR CONSTRUCTION METHODS, MEANS, TECHNIQUES OR PROCEDURES, GENERALLY OR FOR THE CONSTRUCTION MEAN, METHODS, TECHNIQUES OR PROCEDURES FOR COMPLETION OF THE WORK DEPICTED BOTH ON THESE PLANS, AND FOR ANY CONFLICTS/SCOPE REVISIONS WHICH RESULT FROM SAME. CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE METHODS/MEANS FOR COMPLETION OF THE WORK PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
- 17. THE ENGINEER OF RECORD IS NOT RESPONSIBLE FOR JOB SITE SAFETY. THE ENGINEER OF RECORD HAS NOT BEEN RETAINED TO PERFORM OR BE RESPONSIBLE FOR JOB SITE SAFETY SAME BEING WHOLLY OUTSIDE OF ENGINEER'S SERVICES AS RELATED TO THE PROJECT. THE ENGINEER OF RECORD IS NOT RESPONSIBLE TO IDENTIFY OR REPORT ANY JOB SITE SAFETY ISSUES. AT ANY TIME
- 18. ALL CONTRACTORS MUST CARRY THE SPECIFIED STATUTORY WORKER'S COMPENSATION INSURANCE, EMPLOYER'S LIABILITY INSURANCE AND LIMITS OF COMMERCIAL GENERAL LIABILITY INSURANCE (CGL). ALL CONTRACTORS MUST HAVE THEIR CGL POLICIES ENDORSED TO NAME BOHLER ENGINEERING, AND ITS PAST, PRESENT AND FUTURE OWNERS, OFFICERS, DIRECTORS, PARTNERS, SHAREHOLDERS, MEMBERS, PRINCIPALS, COMMISSIONERS, AGENTS, SERVANTS, EMPLOYEES, AFFILIATES, SUBSIDIARIES, AND RELATED ENTITIES, AND ITS SUBCONTRACTORS AND SUBCONSULTANTS AS ADDITIONAL NAMED INSURED AND TO PROVIDE CONTRACTUAL LIABILITY COVERAGE SUFFICIENT TO INSURE THIS HOLD HARMLESS AND INDEMNITY OBLIGATIONS ASSUMED BY THE CONTRACTORS. ALL CONTRACTORS MUST FURNISH BOHLER ENGINEERING WITH CERTIFICATIONS OF INSURANCE AS EVIDENCE OF THE REQUIRED INSURANCE PRIOR TO COMMENCING WORK AND UPON RENEWAL OF EACH POLICY DURING THE ENTIRE PERIOD OF CONSTRUCTION AND FOR ONE YEAR AFTER THE COMPLETION OF CONSTRUCTION, IN ADDITION, ALL CONTRACTORS WILL, TO THE FULLEST EXTENT PERMITTED UNDER THE LAW, INDEMNIFY, DEFEND AND HOLD HARMLESS BOHLER ENGINEERING AND ITS PAST, PRESENT AND FUTURE OWNERS, OFFICERS, DIRECTORS, PARTNERS, SHAREHOLDERS, MEMBERS, PRINCIPALS, COMMISSIONERS, AGENTS, SERVANTS, EMPLOYEES, AFFILIATES, SUBSIDIARIES, AND RELATED ENTITIES, AND ITS SUBCONTRACTORS AND SUBCONSULTANTS FROM AND AGAINST ANY DAMAGES, INJURIES, CLAIMS, ACTIONS, PENALTIES, EXPENSES, PUNITIVE DAMAGES, TORT DAMAGES, STATUTORY CLAIMS, STATUTORY CAUSES OF ACTION, LOSSES, CAUSES OF ACTION, LIABILITIES OR COSTS, INCLUDING, BUT NOT LIMITED TO, REASONABLE ATTORNEYS' FEES AND DEFENSE COSTS, ARISING OUT OF OR IN ANY WAY CONNECTED WITH OR TO THE PROJECT, INCLUDING ALL CLAIMS BY EMPLOYEES OF THE CONTRACTORS, ALL CLAIMS BY THIRD PARTIES AND ALL CLAIMS RELATED TO THE PROJECT. CONTRACTOR MUST NOTIFY ENGINEER, IN WRITING, AT LEAST THIRTY (30) DAYS PRIOR TO ANY TERMINATION, SUSPENSION OR CHANGE OF ITS INSURANCE HEREUNDER.
- 19. BOHLER ENGINEERING WILL REVIEW OR TAKE OTHER APPROPRIATE ACTION ON THE CONTRACTOR SUBMITTALS, SUCH AS SHOP DRAWINGS, PRODUCT DATA, SAMPLES, AND OTHER DATA, WHICH THE CONTRACTOR IS REQUIRED TO SUBMIT, BUT ONLY FOR THE LIMITED PURPOSE OF CHECKING FOR CONFORMANCE WITH THE DESIGN INTENT AND THE INFORMATION SHOWN IN THE CONSTRUCTION CONTRACT DOCUMENTS. CONSTRUCTION MEANS AND/OR METHODS AND/OR TECHNIQUES OR PROCEDURES, COORDINATION OF THE WORK WITH OTHER TRADES, AND CONSTRUCTION SAFETY PRECAUTIONS ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND BOHLER HAS NO RESPONSIBILITY OR LIABILITY FOR SAME HEREUNDER. BOHLER ENGINEERING'S SHOP DRAWING REVIEW WILL BE CONDUCTED WITH REASONABLE PROMPTNESS WHILE ALLOWING SUFFICIENT TIME TO PERMIT ADEQUATE REVIEW. REVIEW OF A SPECIFIC ITEM MUST NOT INDICATE THAT BOHLER ENGINEERING HAS REVIEWED THE ENTIRE ASSEMBLY OF WHICH THE ITEM IS A COMPONENT. BOHLER ENGINEERING WILL NOT BE RESPONSIBLE FOR ANY DEVIATIONS FROM THE CONSTRUCTION DOCUMENTS NOT PROMPTLY AND IMMEDIATELY BROUGHT TO ITS ATTENTION. IN WRITING, BY THE CONTRACTOR. BOHLER ENGINEERING WILL NOT BE REQUIRED TO REVIEW PARTIAL SUBMISSIONS OR THOSE FOR WHICH SUBMISSIONS OF CORRELATED ITEMS HAVE NOT BEEN RECEIVED.
- 20. NEITHER THE PROFESSIONAL ACTIVITIES OF BOHLER ENGINEERING, NOR THE PRESENCE OF BOHLER ENGINEERING AND/OR ITS PAST, PRESENT AND FUTURE OWNERS, OFFICERS, DIRECTORS, PARTNERS, SHAREHOLDERS, MEMBERS, PRINCIPALS, COMMISSIONERS, AGENTS, SERVANTS, EMPLOYEES, AFFILIATES, SUBSIDIARIES, AND RELATED ENTITIES, AND ITS SUBCONTRACTORS AND SUBCONSULTANTS AT A CONSTRUCTION/PROJECT SITE, SHALL RELIEVE THE GENERAL CONTRACTOR OF ITS OBLIGATIONS. DUTIES AND RESPONSIBILITIES INCLUDING. BUT NOT LIMITED TO, CONSTRUCTION MEANS, METHODS, SEQUENCE, TECHNIQUES OR PROCEDURES NECESSARY FOR PERFORMING, OVERSEEING, SUPERINTENDING AND COORDINATING THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND COMPLIANCE ANY HEALTH OR SAFETY PRECAUTIONS REQUIRED BY ANY REGULATORY AGENCIES WITH JURISDICTION OVER THE PROJECT AND/OR PROPERTY. BOHLER ENGINEERING AND ITS PERSONNEL HAVE NO AUTHORITY TO EXERCISE ANY CONTROL OVER ANY CONSTRUCTION CONTRACTOR OR ITS EMPLOYEES IN CONNECTION WITH THEIR WORK OR ANY HEALTH

- TO SAME
- PRICE.
- APPROVED SUPPLEMENT.
- INCURS.

- OF SAID FAILURE.
- APPROPRIATE.

- TO SAME
- IMPROVEMENTS.
- DEMOLITION WORK.

- ANY DIRECTION.

LIMITED TO THE FOLLOWING:

OR SAFETY PROGRAMS OR PROCEDURES. THE GENERAL CONTRACTOR IS SOLELY RESPONSIBLE FOR JOB SITE SAFETY BOHLER ENGINEERING SHALL BE INDEMNIFIED BY THE GENERAL CONTRACTOR AND MUST BE NAMED AN ADDITIONAL INSURED UNDER THE GENERAL CONTRACTOR'S POLICIES OF GENERAL LIABILITY INSURANCE AS DESCRIBED ABOVE IN NOTE 19 FOR JOB SITE SAFETY

21. IF THE CONTRACTOR DEVIATES FROM THE PLANS AND SPECIFICATIONS, INCLUDING THE NOTES CONTAINED HEREIN, WITHOUT FIRST OBTAINING THE PRIOR WRITTEN AUTHORIZATION OF THE ENGINEER FOR SUCH DEVIATIONS, THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE PAYMENT OF ALL COSTS INCURRED IN CORRECTING ANY WORK DONE WHICH DEVIATES FROM THE PLANS. ALL FINES AND/OR PENALTIES ASSESSED WITH RESPECT THERETO AND ALL COMPENSATORY OR PUNITIVE DAMAGES RESULTING THEREFROM AND, FURTHER, SHALL DEFEND, INDEMNIFY AND HOLD HARMLESS THE ENGINEER, TO THE FULLEST EXTENT PERMITTED UNDER THE LAW, IN ACCORDANCE WITH PARAGRAPH 19 HEREIN, FOR AND FROM ALL FEES, ATTORNEYS' FEES, DAMAGES, COSTS, JUDGMENTS, PENALTIES AND THE LIKE RELATED

22. CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE AND PROTECTION OF TRAFFIC PLAN FOR ALL WORK THAT AFFECTS PUBLIC TRAVEL EITHER IN THE R.O.W. OR ON SITE. THE COST FOR THIS ITEM MUST BE INCLUDED IN THE CONTRACTOR'S

23. ALL SIGNING AND PAVEMENT STRIPING MUST CONFORM TO MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES OR LOCALLY

24. ENGINEER IS NOT RESPONSIBLE FOR ANY INJURY OR DAMAGES RESULTING FROM CONTRACTOR'S FAILURE TO BUILD OR CONSTRUCT IN STRICT ACCORDANCE WITH THE APPROVED PLANS. IF CONTRACTOR AND/OR OWNER FAIL BUILD OR CONSTRUCT IN STRICT ACCORDANCE WITH APPROVED PLANS, THEY AGREE TO JOINTLY AND SEVERALLY INDEMNIFY AND HOLD ENGINEER HARMLESS FOR ALL INJURIES AND DAMAGES THAT ENGINEER SUFFERS AND COSTS THAT ENGINEER

25. OWNER MUST MAINTAIN AND PRESERVE ALL PHYSICAL SITE FEATURES AND DESIGN FEATURES DEPICTED ON THE PLANS AND RELATED DOCUMENTS, IN STRICT ACCORDANCE WITH THE APPROVED PLAN(S) AND DESIGN AND, FURTHER ENGINEER IS NOT RESPONSIBLE FOR ANY FAILURE TO SO MAINTAIN OR PRESERVE SITE AND/OR DESIGN FEATURES. IF OWNER FAILS TO MAINTAIN AND/OR PRESERVE ALL PHYSICAL SITE FEATURES AND/OR DESIGN FEATURES DEPICTED ON THE PLANS AND RELATED DOCUMENTS, OWNER AGREES TO INDEMNIFY AND HOLD ENGINEER HARMLESS FOR ALL INJURIES AND DAMAGES THAT ENGINEER SUFFERS AND COSTS THAT ENGINEER INCURS AS A RESULT OF SAID FAILURE.

26. ALL DIMENSIONS MUST BE TO FACE OF CURB, EDGE OF PAVEMENT, OR EDGE OF BUILDING, UNLESS NOTED OTHERWISE.

27. ALL CONSTRUCTION AND MATERIALS MUST COMPLY WITH AND CONFORM TO APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS, LAWS, ORDINANCES, RULES AND CODES, AND ALL APPLICABLE OSHA REQUIREMENTS.

28. CONTRACTOR AND OWNER MUST INSTALL ALL ELEMENTS AND COMPONENTS IN STRICT COMPLIANCE WITH AND ACCORDANCE WITH MANUFACTURER'S STANDARDS AND RECOMMENDED INSTALLATION CRITERIA AND SPECIFICATIONS. IF CONTRACTOR AND/OR OWNER FAIL TO DO SO, THEY AGREE TO JOINTLY AND SEVERALLY INDEMNIFY AND HOLD ENGINEER HARMLESS FOR ALL INJURIES AND DAMAGES THAT ENGINEER SUFFERS AND COSTS THAT ENGINEER INCURS AS A RESULT

29. CONTRACTOR IS RESPONSIBLE TO MAINTAIN ON-SITE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) IN COMPLIANCE WITH EPA REQUIREMENTS FOR SITES WHERE ONE (1) ACRE OR MORE (UNLESS THE LOCAL JURISDICTION REQUIRES FEWER) IS DISTURBED BY CONSTRUCTION ACTIVITIES. CONTRACTOR IS RESPONSIBLE TO ENSURE THAT ALL ACTIVITIES, INCLUDING THOSE OF SUBCONTRACTORS, ARE IN COMPLIANCE WITH THE SWPPP, INCLUDING BUT NOT LIMITED TO LOGGING ACTIVITIES (MINIMUM ONCE PER WEEK AND AFTER RAINFALL EVENTS) AND CORRECTIVE MEASURES, AS

30. AS CONTAINED IN THESE DRAWINGS AND ASSOCIATED APPLICATION DOCUMENTS PREPARED BY THE SIGNATORY PROFESSIONAL ENGINEER, THE USE OF THE WORDS CERTIFY OR CERTIFICATION CONSTITUTES AN EXPRESSION OF "PROFESSIONAL OPINION" REGARDING THE INFORMATION WHICH IS THE SUBJECT OF THE UNDERSIGNED PROFESSIONAL KNOWLEDGE OR BELIEF AND IN ACCORDANCE WITH COMMON ACCEPTED PROCEDURE CONSISTENT WITH THE APPLICABLE STANDARDS OF PRACTICE, AND DOES NOT CONSTITUTE A WARRANTY OR GUARANTEE, EITHER EXPRESSED OR IMPLIED. GENERAL DEMOLITION NOTES:

1. THIS PLAN REFERENCES DOCUMENTS AND INFORMATION BY

SURVEY ENTITLED "BOUNDARY & TOPOGRAPHIC SURVEY - ROBINSON TERMINAL WAREHOUSE CORPORATION" LOCATED AT "2 DUKE STREET - SCHOOL DISTRICT A ELECTION DISTRICT - CITY OF ALEXANDRIA - VIRGINIA", PREPARED BY BOHLER ENGINEERING", DATED "3/24/14", JOB NO: SS132178.

2. CONTRACTOR SHALL PERFORM ALL WORK IN ACCORDANCE WITH THE REQUIREMENTS OF THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970, (29 U.S.C. 651 et seq.), AS AMENDED AND ANY MODIFICATIONS, AMENDMENTS OR REVISIONS

3. BOHLER ENGINEERING HAS NO CONTRACTUAL, LEGAL, OR OTHER RESPONSIBILITY FOR JOB SITE SAFETY OR JOB SITE SUPERVISION, OR ANYTHING RELATED TO SAME

4. THE DEMOLITION PLAN IS INTENDED TO PROVIDE GENERAL INFORMATION. ONLY, REGARDING ITEMS TO BE DEMOLISHED AND/OR REMOVED. THE CONTRACTOR MUST ALSO REVIEW THE OTHER SITE PLAN DRAWINGS AND INCLUDE IN DEMOLITION ACTIVITIES ALL INCIDENTAL WORK NECESSARY FOR THE CONSTRUCTION OF THE NEW SITE

5. CONTRACTOR MUST RAISE ANY QUESTIONS CONCERNING THE ACCURACY OR INTENT OF THESE PLANS OR SPECIFICATIONS, CONCERNS REGARDING THE APPLICABLE SAFETY STANDARDS, OR THE SAFETY OF THE CONTRACTOR OR THIRD PARTIES IN PERFORMING THE WORK ON THIS PROJECT. WITH BOHLER ENGINEERING, IN WRITING, AND RESPONDED TO BY BOHLER. IN WRITING, PRIOR TO THE INITIATION OF ANY SITE ACTIVITY AND ANY DEMOLITION ACTIVITY, ALL DEMOLITION ACTIVITIES MUST BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THESE PLANS AND SPECIFICATIONS AND ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS, RULES, REQUIREMENTS, STATUTES, ORDINANCES AND CODES.

6. PRIOR TO STARTING ANY DEMOLITION, CONTRACTOR IS RESPONSIBLE FOR/TO:

A.OBTAINING ALL REQUIRED PERMITS AND MAINTAINING THE SAME ON SITE FOR REVIEW BY THE ENGINEER AND OTHER PUBLIC AGENCIES HAVING JURISDICTION THROUGHOUT THE DURATION OF THE PROJECT, SITE WORK AND

ADA INSTRUCTIONS TO CONTRACTOR

CONTRACTORS MUST EXERCISE APPROPRIATE CARE AND PRECISION IN CONSTRUCTION OF ADA (HANDICAP) ACCESSIBLE COMPONENTS AND ACCESS ROUTES FOR THE SITE. THESE COMPONENTS, AS CONSTRUCTED, MUST COMPLY WITH THE CURRENT ADA STANDARDS AND REGULATIONS' BARRIER FREE ACCESS AND ANY MODIFICATIONS. REVISIONS OR UPDATES TO SAME. FINISHED SURFACES ALONG THE ACCESSIBLE ROUTE OF TRAVEL FROM PARKING SPACE, PUBLIC TRANSPORTATION, PEDESTRIAN ACCESS, INTER-BUILDING ACCESS, TO POINTS OF ACCESSIBLE BUILDING ENTRANCE/EXIT, MUST COMPLY WITH THESE ADA CODE REQUIREMENTS. THESE INCLUDE, BUT ARE NOT

• PARKING SPACES AND PARKING AISLES - SLOPE SHALL NOT EXCEED 1:50 (1/4" PER FOOT OR NOMINALLY 2.0%) IN

• CURB RAMPS - SLOPE MUST NOT EXCEED 1:12 (8.3%) FOR A MAXIMUM OF SIX (6) FEET.

• LANDINGS - MUST BE PROVIDED AT EACH END OF RAMPS, MUST PROVIDE POSITIVE DRAINAGE, AND MUST NOT EXCEED 1:50 (1/4" PER FOOT OR NOMINALLY 2.0%) IN ANY DIRECTION.

• PATH OF TRAVEL ALONG ACCESSIBLE ROUTE - MUST PROVIDE A 36-INCH OR GREATER UNOBSTRUCTED WIDTH OF TRAVEL (CAR OVERHANGS AND/OR HANDRAILS CANNOT REDUCE THIS MINIMUM WIDTH). THE SLOPE MUST BE NO GREATER THAN 1:20 (5.0%) IN THE DIRECTION OF TRAVEL, AND MUST NOT EXCEED 1:50 (1/4" PER FOOT OR NOMINALLY 2.0%) IN CROSS SLOPE, WHERE PATH OF TRAVEL WILL BE GREATER THAN 1:20 (5.0%), ADA RAMP MUST BE ADHERED TO. A MAXIMUM SLOPE OF 1:12 (8.3%), FOR A MAXIMUM RISE OF 2.5 FEET, MUST BE PROVIDED. THE RAMP MUST HAVE ADA HAND RAILS AND "LEVEL" LANDINGS ON EACH END THAT ARE CROSS SLOPED NO MORE THAN 1:50 IN ANY DIRECTION (1/4" PER FOOT OR NOMINALLY 2.0%) FOR POSITIVE DRAINAGE.

• DOORWAYS - MUST HAVE A "LEVEL" LANDING AREA ON THE EXTERIOR SIDE OF THE DOOR THAT IS SLOPED AWAY FROM THE DOOR NO MORE THAN 1:50 (1/4" PER FOOT OR NOMINALLY 2.0%) FOR POSITIVE DRAINAGE. THIS LANDING AREA MUST BE NO LESS THAN 60 INCHES (5 FEET) LONG, EXCEPT WHERE OTHERWISE PERMITTED BY ADA STANDARDS FOR ALTERNATIVE DOORWAY OPENING CONDITIONS. (SEE ICC/ANSI A117.1-2003 AND OTHER REFERENCED INCORPORATED BY COD.)

 WHEN THE PROPOSED CONSTRUCTION INVOLVES RECONSTRUCTION, MODIFICATION, REVISION OR EXTENSION OF OR TO ADA COMPONENTS FROM EXISTING DOORWAYS OR SURFACES, CONTRACTOR MUST VERIFY EXISTING ELEVATIONS SHOWN ON THE PLAN. NOTE THAT TABLE 405.2 OF THE DEPARTMENT OF JUSTICE'S ADA STANDARDS FOR ACCESSIBLE DESIGN ALLOWS FOR STEEPER RAMP SLOPES. IN RARE CIRCUMSTANCES. THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE DESIGN ENGINEER OF ANY DISCREPANCIES AND/OR FIELD CONDITIONS THAT DIFFER IN ANY WAY OR ANY RESPECT FROM WHAT IS SHOWN ON THE PLANS. IN WRITING, BEFORE COMMENCEMENT OF WORK. CONSTRUCTED IMPROVEMENTS MUST FALL WITHIN THE MAXIMUM AND MINIMUM LIMITATIONS IMPOSED BY THE BARRIER FREE REGULATIONS AND THE ADA REQUIREMENTS.

• THE CONTRACTOR MUST VERIFY THE SLOPES OF CONTRACTOR'S FORMS PRIOR TO POURING CONCRETE. IF ANY NON-CONFORMANCE IS OBSERVED OR EXISTS, CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER PRIOR TO POURING CONCRETE. CONTRACTOR IS RESPONSIBLE FOR ALL COSTS TO REMOVE, REPAIR AND REPLACE NON-CONFORMING CONCRETE.

IT IS STRONGLY RECOMMENDED THAT THE CONTRACTOR REVIEW THE INTENDED CONSTRUCTION WITH THE LOCAL BUILDING CODE PRIOR TO COMMENCEMENT OF CONSTRUCTION.

GENERAL GRADING & UTILITY NOTES

- 1. LOCATIONS OF ALL EXISTING AND PROPOSED SERVICES ARE APPROXIMATE AND MUST BE INDEPENDENT CONFIRMED WITH LOCAL UTILITY COMPANIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION OR EXCAVATION SANITARY SEWER AND ALL OTHER UTILITY SERVICE CONNECTION POINTS MUST BE INDEPENDENTLY CONFIRMED THE CONTRACTOR IN THE FIELD PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. ALL DISCREPANCIES MU IMMEDIATELY BE REPORTED, IN WRITING, TO THE ENGINEER. CONSTRUCTION MUST COMMENCE BEGINNING AT LOWEST INVERT (POINT OF CONNECTION) AND PROGRESS UP GRADIENT. PROPOSED INTERFACE POINTS (CROSSIN WITH EXISTING UNDERGROUND UTILITIES SHALL BE FIELD VERIFIED BY TEST PIT PRIOR TO COMMENCEMENT CONSTRUCTION
- 2. CONTRACTOR MUST VERTICALLY AND HORIZONTALLY LOCATE ALL UTILITIES AND SERVICES INCLUDING, BUT N LIMITED TO, GAS, WATER, ELECTRIC, SANITARY AND STORM SEWER, TELEPHONE, CABLE, FIBER OPTIC CABLE, E WITHIN THE LIMITS OF DISTURBANCE OR WORK SPACE, WHICHEVER IS GREATER. THE CONTRACTOR MUST USE, REF TO, AND COMPLY WITH THE REQUIREMENTS OF THE APPLICABLE UTILITY NOTIFICATION SYSTEM TO LOCATE ALL UNDERGROUND UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ALL DAMAGE TO ANY EXIST UTILITIES DURING CONSTRUCTION, AT NO COST TO THE OWNER. CONTRACTOR SHALL BEAR ALL COSTS ASSOCIAT WITH DAMAGE TO ANY EXISTING UTILITIES DURING CONSTRUCTION.
- 3. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW ALL CONSTRUCTION CONTRACT DOCUMENTS INCLUDING, E NOT LIMITED TO. ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THE PROJECT WORK SCOPE PR TO THE INITIATION AND COMMENCEMENT OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT AND/ DISCREPANCY BETWEEN THE DOCUMENTS RELATIVE TO THE SPECIFICATIONS OR THE RELATIVE OR APPLICAE CODES. REGULATIONS. LAWS. RULES. STATUTES AND/OR ORDINANCES. IT IS THE CONTRACTOR'S SO RESPONSIBILITY TO NOTIFY THE PROJECT ENGINEER OF RECORD, IN WRITING, OF SAID CONFLICT AND, DISCREPANCY PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR'S FAILURE TO NOTIFY THE PROJE ENGINEER SHALL CONSTITUTE CONTRACTOR'S FULL AND COMPLETE ACCEPTANCE OF ALL RESPONSIBILITY COMPLETE THE SCOPE OF WORK AS DEFINED BY THE DRAWINGS AND IN FULL COMPLIANCE WITH ALL FEDERAL, STA AND LOCAL REGULATIONS, LAWS, STATUTES, ORDINANCES AND CODES AND, FURTHER, CONTRACTOR SHALL RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH SAME.
- 4. THE CONTRACTOR MUST LOCATE AND CLEARLY AND UNAMBIGUOUSLY DEFINE VERTICALLY AND HORIZONTALLY ACTIVE AND INACTIVE UTILITY AND/OR SERVICE SYSTEMS THAT ARE TO BE REMOVED. THE CONTRACTOR RESPONSIBLE TO PROTECT AND MAINTAIN ALL ACTIVE AND INACTIVE SYSTEMS THAT ARE NOT BEI REMOVED/RELOCATED DURING SITE ACTIVITY.
- 5. THE CONTRACTOR MUST FAMILIARIZE ITSELF WITH THE APPLICABLE UTILITY SERVICE PROVIDER REQUIREMENTS A IS RESPONSIBLE FOR ALL COORDINATION REGARDING UTILITY DEMOLITION AS IDENTIFIED OR REQUIRED FOR PROJECT. THE CONTRACTOR MUST PROVIDE THE OWNER WITH WRITTEN NOTIFICATION THAT THE EXISTING UTILITI AND SERVICES HAVE BEEN TERMINATED AND ABANDONED IN ACCORDANCE WITH THE JURISDICTION AND UTIL COMPANY REQUIREMENTS AND ALL OTHER APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES A CODES
- 6. THE CONTRACTOR MUST INSTALL ALL STORM SEWER AND SANITARY SEWER COMPONENTS WHICH FUNCTION GRAVITY PRIOR TO THE INSTALLATION OF ALL OTHER UTILITIES.
- 7. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF SITE PLAN DOCUMENTS AND ARCHITECTURAL DESIGN F EXACT BUILDING UTILITY CONNECTION LOCATIONS, GREASE TRAP REQUIREMENTS/DETAILS, DOOR ACCESS, A EXTERIOR GRADING. THE ARCHITECT WILL DETERMINE THE UTILITY SERVICE SIZES. THE CONTRACTOR MU COORDINATE INSTALLATION OF UTILITIES/SERVICES WITH THE INDIVIDUAL COMPANIES TO AVOID CONFLICTS AND ENSURE THAT PROPER DEPTHS ARE ACHIEVED. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING T INSTALLATION OF ALL IMPROVEMENTS COMPLIES WITH ALL UTILITY REQUIREMENTS WITH JURISDICTION AND/ CONTROL OF THE SITE, AND ALL OTHER APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES A CODES AND, FURTHER, IS RESPONSIBLE FOR COORDINATING THE UTILITY TIE-INS/CONNECTIONS PRIOR CONNECTING TO THE EXISTING UTILITY/SERVICE. WHERE A CONFLICT(S) EXISTS BETWEEN THESE SITE PLANS AND ARCHITECTURAL PLANS, OR WHERE ARCHITECTURAL PLAN UTILITY CONNECTION POINTS DIFFER. THE CONTRACT MUST IMMEDIATELY NOTIFY THE ENGINEER, IN WRITING, AND PRIOR TO CONSTRUCTION, RESOLVE SAME.
- 8. WATER SERVICE MATERIALS, BURIAL DEPTH, AND COVER REQUIREMENTS MUST BE SPECIFIED BY THE LOCAL UTIL COMPANY. CONTRACTOR'S PRICE FOR WATER SERVICE MUST INCLUDE ALL FEES. COSTS AND APPURTENANC REQUIRED BY THE UTILITY TO PROVIDE FULL AND COMPLETE WORKING SERVICE. CONTRACTOR MUST CONTACT T APPLICABLE MUNICIPALITY TO CONFIRM THE PROPER WATER METER AND VAULT, PRIOR TO COMMENCI CONSTRUCTION.
- 9. ALL NEW UTILITIES/SERVICES, INCLUDING ELECTRIC, TELEPHONE, CABLE TV, ETC. ARE TO BE INSTALL UNDERGROUND. ALL NEW UTILITIES/SERVICES MUST BE INSTALLED IN ACCORDANCE WITH THE UTILITY/SERVI PROVIDER INSTALLATION SPECIFICATIONS AND STANDARDS.
- 10. SITE GRADING MUST BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT REFERENCED IN THIS PLAN SET. THE CONTRACTOR RESPONSIBLE FOR REMOVING AND REPLACING UNSUITABLE MATERIALS WITH SUITABLE MATERIALS AS SPECIFIED THE GEOTECHNICAL REPORT. ALL EXCAVATED OR FILLED AREAS MUST BE COMPACTED AS OUTLINED IN GEOTECHNICAL REPORT. MOISTURE CONTENT AT TIME OF PLACEMENT MUST BE SUBMITTED IN A COMPACT REPORT PREPARED BY A QUALIFIED GEOTECHNICAL ENGINEER, REGISTERED WITH THE STATE WHERE THE WORK PERFORMED, VERIFYING THAT ALL FILLED AREAS AND SUBGRADE AREAS WITHIN THE BUILDING PAD AREA AND ARE TO BE PAVED HAVE BEEN COMPACTED IN ACCORDANCE WITH THESE PLANS. SPECIFICATIONS AND RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT AND ALL APPLICABLE REQUIREMENTS, RUL STATUTES, LAWS, ORDINANCES AND CODES. SUBBASE MATERIAL FOR SIDEWALKS, CURB, OR ASPHALT MUST BE FR OF ORGANICS AND OTHER UNSUITABLE MATERIALS. SHOULD SUBBASE BE DEEMED UNSUITABLE OWNER/DEVELOPER, OR OWNER/DEVELOPER'S REPRESENTATIVE, SUBBASE IS TO BE REMOVED AND FILLED W APPROVED FILL MATERIAL COMPACTED AS DIRECTED BY THE GEOTECHNICAL REPORT. EARTHWORK ACTIVIT INCLUDING, BUT NOT LIMITED TO, EXCAVATION, BACKFILL, AND COMPACTING MUST COMPLY WITH RECOMMENDATIONS IN THE GEOTECHNICAL REPORT AND ALL APPLICABLE REQUIREMENTS, RULES, STATUTES, LA ORDINANCES AND CODES. EARTHWORK ACTIVITIES MUST COMPLY WITH THE STANDARD STATE DOT SPECIFICATIO
- 11. ALL FILL, COMPACTION, AND BACKFILL MATERIALS REQUIRED FOR UTILITY INSTALLATION MUST BE AS PER RECOMMENDATIONS PROVIDED IN THE GEOTECHNICAL REPORT AND MUST BE COORDINATED WITH THE APPLICAE UTILITY COMPANY SPECIFICATIONS, WHEN THE PROJECT DOES NOT HAVE GEOTECHNICAL RECOMMENDATIONS, F AND COMPACTION MUST. AT A MINIMUM. COMPLY WITH THE STATE DOT REQUIREMENTS AND SPECIFICATIONS A CONSULTANT SHALL HAVE NO LIABILITY OR RESPONSIBILITY FOR OR AS RELATED TO FILL, COMPACTION AND BACKFI FURTHER, CONTRACTOR IS FULLY RESPONSIBLE FOR EARTHWORK BALANCE.

FOR ROADWAY CONSTRUCTION (LATEST EDITION) AND ANY AMENDMENTS OR REVISIONS THERETO

- 12 THE CONTRACTOR MUST COMPLY TO THE FULLEST EXTENT, WITH THE LATEST OSHA STANDARDS AND REGULATION AND/OR ANY OTHER AGENCY WITH JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURES. THE CONTRACT IS RESPONSIBLE FOR DETERMINING THE "MEANS AND METHODS" REQUIRED TO MEET THE INTENT AND PERFORMAN CRITERIA OF OSHA, AS WELL AS ANY OTHER ENTITY THAT HAS JURISDICTION FOR EXCAVATION AND/OR TRENCHI PROCEDURES AND CONSULTANT SHALL HAVE NO RESPONSIBILITY FOR OR AS RELATED FOR OR AS RELATED EXCAVATION AND TRENCHING PROCEDURES.
- 13. PAVEMENT MUST BE SAW CUT IN STRAIGHT LINES, AND EXCEPT FOR EDGE OF BUTT JOINTS, MUST EXTEND TO T FULL DEPTH OF THE EXISTING PAVEMENT. ALL DEBRIS FROM REMOVAL OPERATIONS MUST BE REMOVED FROM T SITE AT THE TIME OF EXCAVATION. STOCKPILING OF DEBRIS WILL NOT BE PERMITTED.
- 14. THE TOPS OF EXISTING MANHOLES, INLET STRUCTURES, AND SANITARY CLEANOUT TOPS MUST BE ADJUSTED, NECESSARY, TO MATCH PROPOSED GRADES IN ACCORDANCE WITH ALL APPLICABLE STANDARDS, REQUIREMENT RULES, STATUTES, LAWS, ORDINANCES AND CODES.
- 15. DURING THE INSTALLATION OF SANITARY SEWER, STORM SEWER, AND ALL UTILITIES, THE CONTRACTOR MU MAINTAIN A CONTEMPORANEOUS AND THOROUGH RECORD OF CONSTRUCTION TO IDENTIFY THE AS-INSTALL LOCATIONS OF ALL UNDERGROUND INFRASTRUCTURE. THE CONTRACTOR MUST CAREFULLY NOTE A INSTALLATIONS THAT DEVIATE FROM THE INFORMATION CONTAINED IN THE UTILITY PLAN. THIS RECORD MUST BE KE ON A CLEAN COPY OF THE SITE PLAN, WHICH CONTRACTOR MUST PROMPTLY PROVIDE TO THE OWNER AT T COMPLETION OF WORK.
- 16. WHEN THE SITE IMPROVEMENT PLANS INVOLVE MULTIPLE BUILDINGS, SOME OF WHICH MAY BE BUILT AT A LATER DA THE CONTRACTOR MUST EXTEND ALL LINES, INCLUDING BUT NOT LIMITED TO STORM SEWER, SANITARY SEWE UTILITIES, AND IRRIGATION LINE, TO A POINT AT LEAST FIVE (5) FEET BEYOND THE PAVED AREAS FOR WHICH T CONTRACTOR IS RESPONSIBLE. CONTRACTOR MUST CAP ENDS AS APPROPRIATE, MARK LOCATIONS WITH A 2X4, AI MUST NOTE THE LOCATION OF ALL OF THE ABOVE ON A CLEAN COPY OF THE SITE PLAN, WHICH CONTRACTOR MU PROMPTLY PROVIDE TO THE OWNER UPON COMPLETION OF THE WORK.
- 17. THE CONTRACTOR IS FULLY RESPONSIBLE FOR VERIFICATION OF EXISTING TOPOGRAPHIC INFORMATION AND UTILI INVERT ELEVATIONS PRIOR TO COMMENCING ANY CONSTRUCTION. CONTRACTOR MUST CONFIRM AND ENSURE 0.7 MINIMUM SLOPE AGAINST ALL ISLANDS. GUTTERS. AND CURBS: 1.0% ON ALL CONCRETE SURFACES: AND 1.5% MINIM ON ASPHALT (EXCEPT WHERE ADA REQUIREMENTS LIMIT GRADES), TO PREVENT PONDING. CONTRACTOR ML IMMEDIATELY IDENTIFY, IN WRITING TO THE ENGINEER, ANY DISCREPANCIES THAT MAY OR COULD AFFECT THE PUB SAFETY, HEALTH OR GENERAL WELFARE, OR PROJECT COST. IF CONTRACTOR PROCEEDS WITH CONSTRUCTI WITHOUT PROVIDING PROPER NOTIFICATION. MUST BE AT THE CONTRACTOR'S OWN RISK AND, FURTHE CONTRACTOR SHALL INDEMNIFY, DEFEND AND HOLD HARMLESS THE DESIGN ENGINEER FOR ANY DAMAGES, COST INJURIES, ATTORNEY'S FEES AND THE LIKE WHICH RESULT FROM SAME.
- 18. PROPOSED TOP OF CURB ELEVATIONS ARE GENERALLY 6" ABOVE EXISTING LOCAL ASPHALT GRADE UNLE OTHERWISE NOTED. FIELD ADJUST TO CREATE A MINIMUM OF 0.75% GUTTER GRADE ALONG CURB FACE. CONTRACTOR'S OBLIGATION TO ENSURE THAT DESIGN ENGINEER APPROVES FINAL CURBING CUT SHEETS PRIOR INSTALLATION OF SAME.
- 19. REFER TO SITE PLAN FOR ADDITIONAL NOTES.
- 20. IN THE EVENT OF DISCREPANCIES AND/OR CONFLICTS BETWEEN PLANS OR RELATIVE TO OTHER PLANS, THE SITE PL WILL TAKE PRECEDENCE AND CONTROL. CONTRACTOR MUST IMMEDIATELY NOTIFY THE DESIGN ENGINEER, WRITING, OF ANY DISCREPANCIES AND/OR CONFLICTS.
- 21. CONTRACTOR MUST REQUIRED TO SECURE ALL NECESSARY AND/OR REQUIRED PERMITS AND APPROVALS FOR A OFF SITE MATERIAL SOURCES AND DISPOSAL FACILITIES. CONTRACTOR MUST SUPPLY A COPY OF APPROVALS ENGINEER AND OWNER PRIOR TO INITIATING WORK ANY WORK.
- 22. WHERE RETAINING WALLS (WHETHER OR NOT THEY MEET THE JURISDICTIONAL DEFINITION) ARE IDENTIFIED ON PLAI ELEVATIONS IDENTIFIED ARE FOR THE EXPOSED PORTION OF THE WALL. WALL FOOTINGS/FOUNDATION ELEVATIO ARE NOT IDENTIFIED HEREIN AND ARE TO BE SET/DETERMINED BY THE CONTRACTOR BASED ON FINAL STRUCTUR DESIGN SHOP DRAWINGS PREPARED BY THE APPROPRIATE PROFESSIONAL LICENSED IN THE STATE WHERE T CONSTRUCTION OCCURS.

23. STORM DRAINAGE PIPE:

UNLESS INDICATED OTHERWISE, ALL STORM SEWER PIPE MUST BE REINFORCED CONCRETE PIPE (RCP) CLASS III WIT SILT TIGHT JOINTS. WHEN HIGH-DENSITY POLYETHYLENE PIPE (HDPE) IS CALLED FOR ON THE PLANS, IT MU CONFORM TO AASHTO M294 AND TYPE S (SMOOTH INTERIOR WITH ANGULAR CORRUGATIONS) WITH GASKET FOR S TIGHT JOINT. PVC PIPE FOR ROOF DRAIN CONNECTION MUST BE SDR 26 OR SCHEDULE 40 UNLESS INDICAT OTHERWISE.

| SANITARY LATERAL MUST BE PVC SCHEDULE 40 | CHLORIDE (PVC) SDR 35 EXCEPT WHERE INDICATED OTHERWISE. OR PVC SDR 26 UNLESS INDICATED, IN WRITING, OTHERWISE. INDICATED ARE NOMINAL AND MEASURED CENTER OF INLET AND/OR TURE. | E 250 |
|--|--|---|
| | BASED ON PRELIMINARY ARCHITECTURAL PLANS. CONTRACTOR IS NS OF SAME BASED ON FINAL ARCHITECTURAL PLANS. | AVIS DRIV NG, VA 201- -9500 BOHLEREN BI |
| | ON WITHIN 10 FEET OF THE STREAM EMBANKMENT, OR WHERE SITE JCTED OF STEEL, REINFORCED CONCRETE, DUCTILE IRON OR OTHER | 22636 D STERLI 703-709 WWW. I |
| SEPARATED FROM WATER MAINS BY A DISTANC IS NOT POSSIBLE, THE PIPES MUST BE IN SEP BOTTOM OF THE WATER MAIN, OR SUCH OTH JURISDICTION OVER SAME. | ED SANITARY AND STORMWATER FLOW OR INDUSTRIAL FLOW MUST BE E OF AT LEAST 10 FEET HORIZONTALLY. IF SUCH LATERAL SEPARATION ARATE TRENCHES WITH THE SEWER AT LEAST 18 INCHES BELOW THE IER SEPARATION AS APPROVED BY THE GOVERNMENT AGENCY WITH | |
| CONCRETE, OR CONSTRUCTED OF DUCTILE I AT LEAST 10 FEET ON EITHER SIDE OF THE C LOCATED SO BOTH JOINTS WILL BE AS FAR F UNDER A SEWER, ADEQUATE STRUCTURAL SL | A WATER MAIN IS NOT POSSIBLE, THE SEWER MUST BE ENCASED IN RON PIPE USING MECHANICAL OR SLIP-ON JOINTS FOR A DISTANCE OF ROSSING. IN ADDITION, ONE FULL LENGTH OF SEWER PIPE SHOULD BE ROM THE WATER LINE AS POSSIBLE. WHERE A WATER MAIN CROSSES JPPORT FOR THE SEWER MUST BE PROVIDED. | |
| LOCAL WATER PURVEYOR. IN THE ABSENCE O | CCORDANCE WITH THE REQUIREMENTS AND SPECIFICATIONS OF THE F SUCH REQUIREMENTS, WATER MAIN PIPING MUST BE CEMENT-LINED KNESS. ALL PIPE AND APPURTENANCES MUST COMPLY WITH THE HE TIME OF APPLICATION. | |
| SEWER, WATER AND STORM SYSTEMS, MUST E AND/OR STATE DETAILS AS APPLICABLE. (COMPLETED WORK WITH THE AGENCY WITH JUF | TY TRENCHES LOCATED IN EXISTING PAVED ROADWAYS INCLUDING BE REPAIRED IN ACCORDANCE WITH REFERENCED MUNICIPAL, COUNTY CONTRACTOR MUST COORDINATE INSPECTION AND APPROVAL OF RISDICTION OVER SAME. | |
| BY TEST PIT, DETERMINE THE DEPTH TO GROU GROUNDWATER IS ENCOUNTERED IN THE BAS CONSTRUCTION METHODS ARE UTILIZED, TO BI OFFICIAL. IF AND WHERE SUMP PUMPS ARE SEWER. A CLEANOUT MUST BE PROVIDED F | R PROPOSED DWELLING UNITS, THE DEVELOPER SHALL, BY BORING OR INDWATER AT THE LOCATION OF THE PROPOSED DWELLINGS. WHERE SEMENT AREA, BASEMENTS WILL NOT BE INSTALLED UNLESS SPECIAL E REVIEWED AND APPROVED BY THE MUNICIPAL CONSTRUCTION CODE INSTALLED, ALL DISCHARGES MUST BE CONNECTED TO THE STORM PRIOR TO THE CONNECTION TO THE STORM DRAIN IN ORDER THAT | REVISIONS |
| ELEVATION(S) ARE SCHEMATIC FOR GENERIC ARCHITECTURAL PLANS TO PROVIDE A MINIMU BELOW SIDING, WHICHEVER IS LOWEST, AND I | PROJECTS, WHERE THE PROPOSED DWELLING AND ADJACENT SPOT BUILDING FOOTPRINT, GRADES MUST BE ADJUSTED BASED ON FINAL JM OF SIX (6) INCHES BELOW TOP OF BLOCK AND /OR SIX (6) INCHES MUST PROVIDE POSITIVE DRAINAGE (2% MIN.) AWAY FROM DWELLING. ST COMPLY WITH THE LATEST LOCAL AND STATE BUILDING CODE AND S, STATUTES, LAWS, ORDINANCES AND CODES. | 2 12/23/14 REV. PER CITY COMMENTS IS |
| 32. LOCATION OF PROPOSED UTILITY POLE RELOCA 33. CONSULTANT IS NEITHER LIABLE NOR RESPON | TION IS AT THE SOLE DISCRETION OF UTILITY COMPANY. SIBLE FOR ANY SUBSURFACE CONDITIONS AND FURTHER, SHALL HAVE S, HAZARDOUS SUBSTANCES, OR POLLUTANTS ON, ABOUT OR UNDER | |
| LIGHTING NOTES: | | |
| BY THE NOTED MANUFACTURER(S). ACTUAL LUMINAIRES MAY VARY DUE TO VARIATIONS I | AINED ILLUMINATION LEVELS CALCULATED USING DATA PROVIDED SUSTAINED SITE ILLUMINATION LEVELS AND PERFORMANCE OF N WEATHER, ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS, THE AND OTHER RELATED VARIABLE FIELD CONDITIONS. | |
| ALL HIGH PRESSURE SODIUM LUMINAIRES OF | ITING CALCULATIONS ARE 0.90 FOR ALL LED LUMINAIRES, 0.80 FOR R 0.72 FOR ALL METAL HALIDE LUMINAIRES UNLESS OTHERWISE OF TYPICAL LIGHTING INDUSTRY MODELING STANDARDS. | |
| GEOMETRIC PLANE AT ELEVATION ZERO (GROUND THIS PLAN ARE IN FOOTCANDLES. | TS DEPICTED ON THIS PLAN ARE ALL ANALYZED ON A HORIZONTAL UND LEVEL) UNLESS OTHERWISE NOTED. THE VALUES DEPICTED | THE FOLLOWING STATES REQUIRE NOTIFICATION BY |
| FUNCTION PROPERLY. THIS WORK SHOULD IN CLEANING OF LENSES, AND RELAMPING (IF NE FOLLOW THE ABOVE STEPS COULD CAUSE FUNCTION. | BE REGULARLY INSPECTED/MAINTAINED TO ENSURE THAT THEY CLUDE, BUT NOT BE LIMITED TO, FREQUENT VISUAL INSPECTIONS, CESSARY) AT LEAST ONCE EVERY SIX (6) MONTHS. FAILURE TO THE LUMINARIES, LAMPS AND LENSES TO FAIL PROPERLY TO | EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE. IN VIRGINIA, MARYLAND, THE DISTRICT OF COLUMBIA, NORTH CAROLINA AND DELAWARE CALL - 811 (WV 1-800-245-4848) (PA 1-800-242-1776) (DC 1-800-257-7777) (VA 1-800-552-7001) (MD 1-800-257-7777) (DE 1-800-282-8555) |
| APPROXIMATION UTILIZING LABORATORY DATA ARE TAKEN WITH A LIGHT METER AND ARE, CO AS FIXTURE MAINTENANCE, EQUIPMENT TOLEF | ON LIGHT LEVELS ILLUSTRATED ARE REPRESENTATIVE OF AN A FOR SIMILAR FIXTURES, UNLESS ACTUAL FIELD MEASUREMENTS DNSEQUENTLY, APPROXIMATIONS ONLY. DUE TO FACTORS SUCH RANCES, WEATHER CONDITIONS, ETC, ACTUAL LIGHT LEVELS MAY THIS PLAN SHOULD BE CONSIDERED APPROXIMATE. | NOT APPROVED FOR CONSTRUCTION PROJECT No.: \$132178 |
| CONDUITS, WIRING, VOLTAGES AND OTHER ARCHITECT, MEP AND/OR LIGHTING CONTI DOCUMENTS. THESE ITEMS MUST BE INS CONTRACTOR IS RESPONSIBLE FOR INSTALLI | E LOCATIONS AND TYPE OF LUMINAIRES, ONLY. POWER SYSTEM, ELECTRICAL COMPONENTS ARE THE RESPONSIBILITY OF THE RACTOR, AS INDICATED IN THE CONSTRUCTION CONTRACT TALLED AS REQUIRED BY STATE AND LOCAL REGULATIONS. NG LIGHTING FIXTURES AND APPURTENANCES IN ACCORDANCE ICAL CODES AND ALL OTHER APPLICABLE RULES, REGULATIONS, | DRAWN BY: IS CHECKED BY: MAT DATE: 09/19/14 SCALE: N/A CAD I.D.: SD2 PROJECT: |
| | TTENTION, PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, RAINAGE, UTILITIES, OR OTHER STRUCTURES. | DEVELOPMENT SPECIAL USE |
| 8. IT IS LIGHTING CONTRACTOR'S RESPONSIBILIT REGARDING THE POWER SOURCE(S) FROM WI THE DESIGN INTENT. | TY TO COORDINATE WITH THE PROJECT ARCHITECT OR OWNER ITHIN THE BUILDING, AND TIMING DEVICES NECESSARY TO MEET | PERMIT (DSUP) |
| | /ITH ALL APPLICABLE CONTRACTOR REQUIREMENTS INDICATED IN FO, GENERAL NOTES, GRADING AND UTILITY NOTES, SITE SAFETY, ANCES, REGULATIONS AND THE LIKE. | RT SOUTH ASSOCIATES |
| 10. THE CONTRACTOR MUST VERIFY THAT IN REQUIREMENTS FOR SEPARATION FROM OVER PROXIMITY REGULATIONS N.J.A.C. 12-186. | NSTALLATION OF LIGHTING FIXTURES COMPLIES WITH THE RHEAD ELECTRICAL WIRES AS INDICATED IN THE HIGH VOLTAGE | LLC |
| AND INTERPRETATION OF THE REGULATORY LIC 12. UPON OWNER'S ACCEPTANCE OF THE COMPL MAINTENANCE, SERVICING, REPAIR AND INSPE | THE LIGHTING DESIGN REPRESENTS BOHLER'S UNDERSTANDING GHTING LEVELS INTENDED BY PUBLISHED STANDARDS. LETED PROJECT, THE OWNER SHALL BE RESPONSIBLE FOR ALL ECTION OF THE LIGHTING SYSTEM AND ALL OF ITS COMPONENTS ATE LIGHTING LEVELS ARE PRESENT AND FUNCTIONING AT ALL | LOCATION OF SITE ROBINSON TERMINAL SOUTH CITY OF ALEXANDRIA, VA |
| TIMES. | | |
| | | |
| | | 22636 DAVIS DRIVE, SUITE 250 STERLING, VIRGINIA 20164 Phone: (703) 709-9500 For: (703) 709.0501 |
| | | Fax: (703) 709-9501 www.BohlerEngineering.com |
| | | ALING ALING |
| | | Smichael J. O'HARA JR. |
| | | 12/23/14 |
| | APPROVED SPECIAL USE PERMIT NO. #2014-0006 | SHEET TITLE: |
| | DEPARTMENT OF PLANNING & COMMUNITY DEVELOPMENT | GENERAL |
| | DIRECTOR: DATE: | NOTES & LEGEND |
| | DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES | SHEET NUMBER: |
| | DIRECTOR: DATE: | $C_{-1,1}$ |
| | INSTRUMENT NO. DEED BOOK NO. PAGE NO. | |

| BUILDING | PARKING GARAGE | 1 | 2 | 3 | TH ABOVE PARKING GARAGE | TH ON GRADE | NO. 2 DUKE ST |
|---|--|---|---|---|--|--|--|
| Construction Type | IA | IIB ¹ | IIB ¹ | IIB ¹ | VB ² | VB ² | VB |
| NFPA 13R | NP | NP | NP | NP | Required | Required | NP |
| NFPA 13 | Required | Required | Required | Required | NR | NR | Required |
| Use Groups | S-2 | M, A-2, R-2 | M, A-2, R-2 | R-2 | R-3 | R-3 | A-2, A-3, B |
| - executive and a second state and | S-2, Assembly with less than 300 occupants, B, M, and R (509.2) | Assembly with less than 300 occupants, Assembly may not be located above 3rd floor (509.2) | Assembly with less than 300 occupants, Assembly may not be located above 3rd floor (509.2) | Assembly with less than 300 occupants, Assembly may not be located above 3rd floor (509.2) | R-3, Residential only (310.1) | R-3, Residential only (310.1) | |
| Mixed Uses - Non-Separated - Separated | - non separated | - non separated - separated ³ | - non separated - separated ³ | - non separated - separated ³ | NA | NA | NA |
| Exterior Wall Fire Resistance Rating Based on Fire Separation Distance ⁴ | NA | | | | | | |
| of at Least: - 5 FT - 10 FT - 15 FT - 20 FT | | - NA - 0 Hour - 0 Hour - 0 Hour | - NA - 0 Hour - 0 Hour - 0 Hour | - NA - 0 Hour - 0 Hour - 0 Hour | - 1 Hour - 0 Hour - 0 Hour - 0 Hour | - 1 Hour - 0 Hour - 0 Hour - 0 Hour | - 1 Hour - 0 Hour - 0 Hour - 0 Hour |
| Exterior Wall Opening Limitations Based on Fire Separation Distance ⁴ of at Least: - 5 FT - 10 FT - 15 FT - 20 FT | NA | - NA - 45% - NL - NL | - NA - 45% - NL - NL | - NA - 45% - NL - NL | - NL ² - NL - NL - NL | - NL ² - NL - NL - NL | - 10% - NL - NL - NL |

| | | | | | | | | | G.com |
|--|--|--|------------|---------------------------------------|-------------|-----------------------------------|---|--|--|
| <u>SIANDAE</u> | RD DRAWING FOR ENTIRE PLAN SET (NOT TO SCALE) | <u>LEGEND</u> | S | TANDARD | ABB | REVIATIONS | | | DRIVE; STE 250 A 20164 RENGINEERING.COM architects |
| EXISTING NOTE | TYPICAL NOTE TEXT | PROPOSED NOTE | AC | FOR E | NTIRE PL | AN SET | | | 22636 DAVIS DRIVE; S STERLING, VA 20164 703-709-9500 WWW. BOHLERENGIN |
| | LINE / R.O.W. LINE NEIGHBORING PROPERTY LINE / | | ADA | AMERICANS WITH | PROP | PROPOSED | | | |
| | INTERIOR PARCEL LINE EASEMENT | | | | | | | | R°° Ciat |
| | LINE _ SETBACK | | ARCH BC | ARCHITECTURAL BOTTOM OF CURB | PT PTCR | POINT OF TANGENCY | | | |
| | LINE | | BF | BASEMENT FLOOR | PVC | RETURN POLYVINYL CHLORIDE PIPE | | | |
| | | CURB AND GUTTER | вк | BLOCK | PVI | POINT OF VERTICAL INTERSECTION | | | PFPL DFPL 2477. 6546 |
| | CONCRETE CURB & | SPILL CURB TRANSITION CURB | BL | BASELINE | PVT | POINT OF VERTICAL TANGENCY | | | |
| | | DEPRESSED CURB AND GUTTER | BLDG | BUILDING | R | RADIUS | | | |
| | UTILITY POLE WITH LIGHT | | BM | BUILDING BENCHMARK BUILDING | RCP RET | REINFORCED CONCRETE PIPE | | | |
| <u> </u> | POLE LIGHT | | BRL CF | CUBIC FEET | WALL R/W | RETAINING WALL RIGHT OF WAY | | | |
| | TRAFFIC LIGHT | | CL | CENTERLINE | S | SLOPE | | | REVISIONS rev date comment by |
| о — — — — — — — — — — — — — — — — — — — | UTILITY POLE | 0 | | METAL PIPE | SAN | SANITARY SEWER | | | 1 11/21/14 REV. PER CITY COMMENTS IS |
| <u>لة</u> | TYPICAL LIGHT ACORN | <u>له</u> | CONC | CONCRETE | STA | STATION | | | 2 12/23/14 REV. PER CITY COMMENTS IS |
| ¢ | LIGHT | ¢ | CPP | CORRUGATED PLASTIC PIPE | STM | STORM | | | |
| | SIGN | | CY | CUBIC YARDS | S/W | SIDEWALK | | | |
| | COUNTS | | DEC DEP | DECORATIVE | TBR TBRL | TO BE REMOVED TO BE RELOCATED | | | |
| | | 190 | DIP | DUCTILE IRON PIPE | TC | TOP OF CURB | | | |
| 169 TC 516.4 OR 516.4 | - LINE SPOT ELEVATIONS | 187 TC516.00 BC 515.55 | DOM | DOMESTIC | TELE | TELEPHONE | | | |
| UTT 570.4 | | • • • • • • • • • • | ELEC | ELECTRIC | TPF | TREE PROTECTION FENCE | | | |
| SAN # | SANITARY LABEL | SAN # | ELEV | ELEVATION | TW | TOP OF WALL | | | |
| | STORM LABEL | X # | EP | EDGE OF PAVEMENT | ТҮР | TYPICAL | | | THE FOLLOWING STATES REQUIRE NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE. |
| SL | _ SANITARY SEWER LATERAL | SL | ES | EDGE OF SHOULDER | | | | | IN VIRGINIA, MARYLAND, THE DISTRICT OF COLUMBIA, NORTH CAROLINA AND DELAWARE CALL - 811 (WV 1-800-245-4848) (PA 1-800-242-1776) (DC 1-800-257-7777) (VA 1-800-552-7001) (MD 1-800-257-7777) (DE 1-800-282-8555) |
| W | _ UNDERGROUND WATER LINE | w | EW | END WALL EXISTING | UP W | UTILITY POLE WIDE | | | NOT APPROVED FOR |
| E | UNDERGROUND ELECTRIC LINE | E | FES | FLARED END SECTION | W/L | WATER LINE | | | |
| G | _ UNDERGROUND GAS LINE | G | FF | FINISHED FLOOR | W/M | WATER METER | | | PROJECT No.: \$132178 DRAWN BY: IS CHECKED BY: MAT |
| OH | _ OVERHEAD WIRE _ UNDERGROUND | OH | FH FG | FIRE HYDRANT FINISHED GRADE | * • | PLUS OR MINUS DEGREE | | | DATE: 09/19/14 SCALE: N/A CAD I.D.: SD2 |
| | TELEPHONE LINE UNDERGROUND | | G GF | GRADE GARAGE FLOOR (AT | Ø # | DIAMETER | | | PROJECT: DEVELOPMENT |
| | CABLE LINESTORM | | GH | DOOR) GRADE HIGHER SIDE OF WALL | | | | | SPECIAL USE |
| <i>S</i> | SEWER SANITARY SEWER MAIN | s | GL | GRADE LOWER SIDE OF WALL | | | | | PERMIT (DSUP) |
| V | HYDRANT | v | GRT | GRATE | | | | | RT SOUTH |
| S | SANITARY MANHOLE | | GV HDPE | GATE VALVE HIGH DENSITY | | | | | ASSOCIATES LLC |
| | STORM MANHOLE | | | POLYETHYLENE PIPE | | | | | LOCATION OF SITE ROBINSON TERMINAL SOUTH |
| ⊗ ^{WM} | WATER METER | • | HP | HIGH POINT HORIZONTAL | - | | | | CITY OF ALEXANDRIA, VA |
| | WATER VALVE | | HW | HEADWALL | - | | | ROPOSED EASEMENT LEGEND | |
| | GAS VALVE | | INT INV | INTERSECTION | | | | SIGHT DISTANCE STORM DRAIN | |
| | GAS METER | | LF | LINEAR FOOT | - | | | | BOHLER BNGINBERING |
| C C R | TYPICAL END SECTION HEADWALL OR | | LOC | LIMITS OF CLEARING | | | | WATER PUBLIC ACCESS | 22636 DAVIS DRIVE, SUITE 250 STERLING, VIRGINIA 20164 |
| | ENDWALL | | LOS | LINE OF SIGHT | | | | POBLIC ACCESS COMMON SHARED | Phone: (703) 709-9500 Fax: (703) 709-9501 <i>www.BohlerEngineering.com</i> |
| | INLET CURB INLET | Image: Second se | LP | | | | | | ALTH 94 10 |
| 0 | CLEAN | 0 | L/S MAX | LANDSCAPE MAXIMUM | - | | | PUBLIC UTILITY VARIABLE WIDTH S | A MARCAN MAN PORT |
| Ē | ELECTRIC | Ē | MIN | MINIMUM | - | | | | MICHAEL J. O'HARA JR. |
| (7) | TELEPHONE MANHOLE | Ū | MH MJ | MANHOLE MECHANICAL JOINT | | | I | · | Lić. No. 34168 |
| EB | ELECTRIC BOX | EB | OC | ON CENTER | | | | APPROVED SPECIAL LISE PERMIT NO #2014-0006 | THE SOUNAL ENGINE |
| EP | ELECTRIC PEDESTAL | EP | PA PC | POINT OF ANALYSIS | _ | | | DEPARTMENT OF PLANNING & | SHEET TITLE: |
| | | | PCCR | POINT OF COMPOUND | | | | COMMUNITY DEVELOPMENT | GENERAL |
| | MONITORING WELL | | | CURVATURE, CURB RETURN | - | | | DIRECTOR: DATE: | NOTES & LEGEND |
| | TEST PIT BENCHMARK | | PI | POINT OF | | | | DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES | SHEET NUMBER: |
| | BORING | | | | | | | DIRECTOR: DATE: | C-1.2 |
| $\bigsqcup \Psi$ | | | | | | | | DATE RECORDED | OF 92 |
| | | | | | | | | INSTRUMENT NO. DEED BOOK NO. PAGE NO. | |

BUILDING CODE ANALYSIS PROVIDED BY SBA ON 9/24/14

1. The construction type of the concrete buildings may have an inherent fire resistance rating depending upon the type and thickness of concrete and the concrete cover of rebar. The construction type for use group R-3 occupancies may be Type VB when the townhouse buildings are subdivided by fire walls. Fire walls having a 2-hour fire resistance rating are required to separate every two townhouse units for a townhouse building to qualify as use group R-3. 3. Since the height of the building exceeds the allowable height for Assembly use groups, the Assembly use groups must be separated from the stories located above the allowable number of stories for Assembly occupancies. The occupancy separation is a 1-hour fire resistance rated floor/ceiling assembly. The construction supporting the occupancy separation must have an equal or greater fire resistance rating. 4. Fire Separation Distance is measured perpendicularly from the exterior wall of the building to the imaginary or real property line. For example, if the separation distance between two parallel buildings located on the same lot is 40 feet then the Fire Separation Distance could be 20 feet from each building. Depending on the requirements for exterior wall fire resistance ratings and opening limitations, the design team has the option of determining the location of the imaginary property between buildings on the same lot. For the purposes of this table, the imaginary property line is assumed to be the midpoint between two adjacent buildings.

CONSTRUCTION NOTES

- 1. THE EXISTING UNDERGROUND UTILITIES SHOWN HEREON ARE BASED UPON AVAILABLE INFORMATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF ALL UTILITIES BEFORE COMMENCING WORK AND FOR ANY DAMAGES WHICH MAY OCCUR BY HIS FAILURE TO LOCATE OR PRESERVE THESE UNDERGROUND UTILITIES IF DURING CONSTRUCTION OPERATIONS THE CONTRACTOR SHOULD ENCOUNTER UTILITIES OTHER THAN IN THOSE SHOWN ON THE PLANS. HE SHALL IMMEDIATELY NOTIFY THE ENGINEER AND TAKE NECESSARY AND PROPER STEPS TO PROTECT THE FACILITY AND ASSURE THE CONTINUANCE OF SERVICE
- 2. THE CONTRACTOR SHALL DIG TEST PITS AS REQUIRED FOLLOWING NOTIFICATION AND MARKING OF ALL EXISTING UTILITIES TO VERIFY THE LOCATION AND DEPTH OF EXISTING UTILITIES TEST HOLES TO BE PERFORMED AT LEAST 30 DAYS PRIOR TO START OF CONSTRUCTION. ANY DISCREPANCIES ARE TO BE REPORTED IMMEDIATELY TO THE OWNER AND ENGINEER. REDESIGN AND APPROVAL BY REVIEWING AGENCIES SHALL BE OBTAINED, IF REQUIRED.
- 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE OWNER AND THE ENGINEER OF ANY CHANGES OR CONDITIONS ATTACHED TO PERMITS OBTAINED FROM ANY AUTHORITY ISSUING PERMITS.
- 4. THE CONTRACTOR SHALL VISIT THE SITE AND SHALL VERIFY EXISTING CONDITIONS PRIOR TO STARTING CONSTRUCTION.
- 5. THE CONTRACTOR SHALL CLEAR THE SITE OF ALL TREES, BUILDINGS, FOUNDATIONS, ETC., WITHIN THE LIMITS OF CONSTRUCTION UNLESS OTHERWISE SPECIFIED, AND SHALL BE RESPONSIBLE FOR ENSURING THAT EXISTING UTILITIES ARE DISCONNECTED.
- 6. THE DEVELOPER SHALL PROVIDE OVER-LOT GRADING TO PROVIDE POSITIVE DRAINAGE AND PRECLUDE PONDING OF WATER.
- 7. ALL AREAS, ON OR OFF-SITE, WHICH ARE DISTURBED BY THIS CONSTRUCTION AND WHICH ARE NOT PAVED OR BUILT UPON. SHALL BE ADEQUATELY STABILIZED TO CONTROL EROSION AND SEDIMENTATION. THE MINIMUM ACCEPTABLE STABILIZATION SHALL CONSIST OF PERMANENT GRASS, SEED MIXTURE TO BE AS RECOMMENDED BY THE CITY AGENT. ALL SLOPES 3:1 AND GREATER SHALL BE SODDED AND PEGGED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE CITY OF ALEXANDRIA.
- 8. EXISTING SEPTIC FIELDS, IF APPLICABLE, SHALL BE ABANDONED IN ACCORDANCE WITH VIRGINIA HEALTH DEPARTMENT STANDARDS AND SPECIFICATIONS.
- 9. ALL ABOVE GROUND UTILITIES SERVING THE SITE SHALL BE RELOCATED AS REQUIRED BY THE OWNING UTILITY COMPANIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING ALL ARRANGEMENTS AND COORDINATING ALL WORK REQUIRED FOR THE NECESSARY RELOCATIONS
- 10. PRIOR TO BEGINNING OF CONSTRUCTION. CONTRACTOR SHALL VERIFY FROM THE ARCHITECTURAL DRAWINGS ALL DIMENSIONS, DETAILS, AND TREATMENTS FOR THE PROPOSED BUILDINGS, WALKWAYS, AND OTHER PROPOSED CONSTRUCTION WHERE INDICATED ON THE PLANS.
- 11. THE CONTRACTOR IS TO VERIFY INVERT, SIZE, AND LOCAT~ON OF BUILDING UTILITY CONNECTIONS WITH THE MECHANICAL PLANS PRIOR TO PLACEMENT OF UNDERGROUND UTILITIES.
- 12. EXISTING BUILDINGS, FENCES AND OTHER EXISTING PHYSICAL FEATURES ARE TO BE REMOVED AS REQUIRED BY THE CONSTRUCTION.
- 13. EXISTING CONSTRUCTION SHALL BE REMOVED TO NEAREST JOINT. NEW CONSTRUCTION SHALL BE PROVIDED AS SHOWN AND ANY DAMAGED AREA SHALL BE REPAIRED TO MATCH CONDITIONS EXISTING PRIOR TO CONSTRUCTION OR TO THE SATISFACTION OF DIRECTOR, TRANSPORTATION AND ENVIRONMENTAL SERVICES.
- 14. ALL PRIVATE BUILDING CONNECTIONS ARE TO BE INSTALLED IN ACCORDANCE WITH THE CURRENT PLUMBING CODE.
- 15. TOPS OF EXISTING STRUCTURES WHICH REMAIN IN USE ARE TO BE ADJUSTED IN ACCORDANCE WITH THE GRADING PLAN. ALL PROPOSED STRUCTURE TOP ELEVATIONS ARE TO BE VERIFIED BY THE CONTRACTOR WITH THE SITE GRADING PLANS. IN CASE OF CONFLICT. THE GRADING PLAN SHALL SUPERSEDE PROFILE ELEVATIONS, MINOR ADJUSTMENTS TO MEET FINISHED GRADE ELEVATIONS, IF REQUIRED, SHALL BE MADE IN THE FIELD WITH THE APPROVAL OF SITE INSPECTOR OF THE DEPARTMENT OF TRANSPORTATION AND ENVIRONMENTAL SERVICES.
- 16. THE DESIGN, CONSTRUCTION, FIELD PRACTICES, AND METHODS SHALL CONFORM TO THE REQUIREMENTS SET FORTH BY THE CITY OF ALEXANDRIA ZONING ORDINANCE AND DESIGN AND CONSTRUCTION STANDARDS MANUAL. FAILURE TO COMPLY WITH THE CODE APPLICABLE MANUALS AND PROVISIONS OF THE CONSTRUCTION AND ESCROW AGREEMENTS OR THE PERMITS SHALL BE DEEMED A VIOLATION.
- 17. THE APPROVAL OF THESE PLANS SHALL IN NO WAY RELIEVE THE OWNER/DEVELOPER HIS AGENT OF ANY LEGAL RESPONSIBILITIES WHICH MAY BE REQUIRED BY T CODE OF VIRGINIA OR ANY ORDINANCE ENACTED BY THE CITY OF ALEXANDRIA.
- 18. CONSTRUCTION STAKEOUT SHALL BE UNDER THE DIRECT SUPERVISION OF A LICENSED LAND SURVEYOR IN THE COMMONWEALTH OF VIRGINIA.
- 19. THE CONTRACTOR IS REFERRED TO STRUCTURAL. GEOTECHNICAL, MECHANICAL AND ARCHITECTURAL PLANS FOR FOUNDATION TREATMENT INCLUDING, BUT NOT LIMITED TO. SHEETING AND SHORING FOR BUILDING EXCAVATION. WATERPROOFING FOR FILL AGAINST BUILDINGS, LOCATION OF MECHANICAL EQUIPMENT, AND CONNECTIONS AT THE FACES OF BUILDINGS.
- 20. SMOOTH GRADE SHALL BE MAINTAINED FROM THE CENTERLINE OF THE EXISTING ROAD TO THE PROPOSED ENTRANCE AND/OR CURB & GUTTER TO PRECLUDE THE FORMING OF FALSE GUTTER AND/OR PONDING OF WATER ON THE ROADWAY.
- 21. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING A SMOOTH TRANSITION TO EXISTING CURB AND SIDEWALKS, IF APPLICABLE.
- 22. THE CALIFORNIA BEARING RATIO (CB) VALUES OF IN-SITU MATERIALS SHALL BE DETERMINED BY FIELD AND/OR LABORATORY TESTS FOR ACTUAL DETERMINATION OF REQUIRED THICKNESS OF SURFACE, BASE, SUB-BASE, AND SUB GRADE MATERIALS. THE PAVEMENT SECTION SHALL BE DESIGNED BY A GEOTECHNICAL / LICENSED PROFESSIONAL ENGINEER TO THE SATISFACTION OF DIRECTOR, TRANSPORTATION AND ENVIRONMENTAL SERVICES FOR ALL PAVEMENTS INCLUDING EMERGENCY VEHICLE EASEMENT (EVE) TO SUPPORT H-20 LOADING. IN THE CASE OF PAVEMENT PATCHES, PAVEMENT SECTION MUST MEET OR EXCEED EXISTING SECTION.
- 23. THE THICKNESS OF SUB-BASE, BASE, AND WEARING COURSE SHALL BE DESIGNED USING "CALIFORNIA METHOD" AS SET FORTH ON PAGE 3-76 OF THE SECOND EDITION OF A BOOK ENTITLED. "DATA BOOK FOR CIVIL ENGINEERS. VOLUME ONE. DESIGN" WRITTEN BY ELWYN E. SEELYE. AN ALTERNATE PAVEMENT SECTION DESIGNED TO THE SATISFACTION OF DIRECTOR, TRANSPORTATION AND ENVIRONMENTAL SERVICES FOR ALL PAVEMENTS INCLUDING EMERGENCY VEHICLE EASEMENT (EVE) TO SUPPORT H-20 LOADING BASED ON CBR AND VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT) METHOD (VASWANI METHOD) AND STANDARD MATERIAL SPECIFICATIONS SHALL BE ACCEPTABLE.
- 24. EMERGENCY VEHICLE EASEMENTS (EVE) AND AMERICAN WITH DISABILITY (ADA) ACCESSIBLE PARKING SPACES MUST BE DELINEATED WITH PAVEMENT MARKINGS PER THE CITY OF ALEXANDRIA STANDARD SIGNAGE AND AMERICAN WITH DISABILITIES (ADA) REQUIREMENTS.
- 25. ALL STRIPING SHALL MEET THE REQUIREMENTS OF MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) STANDARDS (LATEST EDITION) AND SHALL BE THERMOPLASTIC UNLESS OTHERWISE SPECIFIED.
- 26. ALL EARTHWORK OPERATIONS ARE TO BE PERFORMED UNDER THE FULL TIME, ON-SITE SUPERVISION OF A REGISTERED GEOTECHNICAL ENGINEER WITH GEOTECHNICAL TESTING IN ACCORDANCE WITH CONSTRUCTION SPECIFICATIONS AND GEOTECHNICAL REPORT REQUIREMENTS.
- 27. THE CONTRACTORS SHALL NOT CAUSE OR PERMIT VEHICLES TO IDLE FOR MORE THAN 10 MINUTES WHEN PARKED.
- 28. UNLESS OTHERWISE APPROVED THE CONTRACTOR SHALL PROVIDE THERMOPLASTIC LADDER STYLE / STANDARD PEDESTRIAN CROSS WALKS AT ALL CROSSINGS AT THE PROPOSED DEVELOPMENT, WHICH MUST BE DESIGNED TO THE SATISFACTION OF THE DIRECTOR, TRANSPORTATION AND ENVIRONMENTAL SERVICES. THE DESIGN OF LADDER STYLE OR STANDARD PEDESTRIAN CROSS WALK SHALL BE EVALUATED ON A CASE BY CASE BASIS AND SHALL COMPLY WITH THE REQUIREMENTS OF POLICY MANUAL SECTION 30.18, PEDESTRIAN CROSSWALKS, JULY 13,2006. A COPY OF THE POLICY MANUAL CAN BE OBTAINED FROM YON LAMBERT, BICYCLE AND PEDESTRIAN COORDINATOR / TRANSPORTATION PLANNER, TELEPHONE (703) 746-4081.

CITY STANDARD GENERAL NOTES

1. THE SUBJECT SITE IS LOCATED ON CITY OF ALEXANDRIA ASSESSMENT MAP NO. 075.03-04-14, 075.03-04-01, 075.03-04-04, 075.03-04-14, 075.03-04-01, PARCELS "E", 'G", "H", "M", AND "VACATED STRAND", RESPECTIVELY AND IS ZONED W-1

- 2. OWNER: GRAHAM HOLDINGS.
- 3. DEED BOOK 1113 PAGE 392, INST. #130022156 4. 2 DUKE STREET, SCHOOL DISTRICT A ELECTION DISTRICT, CITY OF ALEXANDRIA, VIRGINIA.
- 5. SITE AREA: 140,420 SF (3.22 AC) PARCELS E, G, H, M, AND THE VACATED
- 6. THE NATURAL SOILS AT THE SITE CONSIST OF CONTROLLED FILL PER THE
- GEOTECH REPORT 7. THE SITE IS LOCATED IN THE POTOMAC WATERSHED.
- 8. CONSTRUCTION PERMITS ARE REQUIRED FOR THIS PROJECT. THE APPROVED SITE PLAN MUST BE ATTACHED TO THE PERMIT APPLICATION THAT FULLY DETAILS THE CONSTRUCTION AS WELL AS LAYOUTS AND

SCHEMATICS OF THE MECHANICAL, ELECTRICAL, AND PLUMBING SYSTEMS.

- 9. ALL PUBLIC AND PRIVATE EASEMENTS OR ALL KNOWN PUBLIC AND PRIVATE EASEMENTS, INCLUDING ALL UTILITY, EGRESS, AND CONSERVATION RESTRICTIONS ARE SHOWN. THE APPLICANT SHALL NOT CONSTRUCT ANY PERMANENT STRUCTURES OVER ANY EXISTING OR PROPOSED PUBLIC AND/OR PRIVATE EASEMENTS UNLESS OTHERWISE APPROVED BY THE PLANNING COMMISSION AND CITY OF ALEXANDRIA COUNCIL.
- 10. PLAT SUBJECT TO RESTRICTIONS OF RECORD.
- 11. BUILDING HEIGHT SHALL NOT EXCEED THE ALLOWABLE LIMIT BY CITY OF ALEXANDRIA ZONING ORDINANCE OR AS APPROVED BY THE PLANNING COMMISSION AND CITY OF ALEXANDRIA COUNCIL.
- 12. ALL NEW CONSTRUCTION SHALL CONFORM TO THE CURRENT STANDARDS AND SPECIFICATIONS OF THE CITY OF ALEXANDRIA AND TO THE VIRGINIA UNIFORM STATEWIDE BUILDING CODE (USBC).
- 13. FLOOR AREA CALCULATIONS WITH ALLOWABLE LIMITS, AS APPROVED BY PLANNING COMMISSION AND CITY COUNCIL, ARE DEMONSTRATED HEREIN.
- 14. PRIOR TO COMMENCING NEW WORK, THE CONTRACTOR SHALL PROTECT FROM DAMAGE ALL EXISTING ADJACENT AREAS. IF CITY'S EXISTING PUBLIC INFRASTRUCTURE, INCLUDING BUT NOT LIMITED, TO STREETS, ALL EYWAYS DRIVEWAY APRONS, SANITARY AND STORM SEWERS, STREET LIGHTING, TRAFFIC AND PEDESTRIAN SIGNALS, SIDEWALKS, CURB AND GUTTER, AND
- STORM WATER DROP INLET STRUCTURES ARE DAMAGED BY THE CONTRACTOR OR BY ACTIVITIES RELATING TO THE SITE CONSTRUCTION THEN THE APPLICANT SHALL REPAIR THE SAME TO THE SATISFACTION OF DIRECTOR, TRANSPORTATION AND ENVIRONMENTAL SERVICES (T&ES). A PRE-CONSTRUCTION WALK/SURVEY OF THE SITE SHALL OCCUR WITH CONSTRUCTION AND INSPECTION STAFF TO DOCUMENT EXISTING CONDITIONS PRIOR TO ANY LAND DISTURBING ACTIVITY.
- 15. ALL IMPROVEMENTS TO THE CITY'S RIGHT-OF-WAY SUCH AS CURB, GUTTER, SIDEWALK, AND DRIVEWAY APRONS, ETC., ARE DESIGNED PER THE CITY OF ALEXANDRIA STANDARDS AND SPECIFICATIONS.
- 16. ALL STREET CUT AND PATCH WORK LOCATED IN PUBLIC RIGHT-OF-WAYS, REQUIRED FOR ANY UTILITY INSTALLATION SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE CITY OF ALEXANDRIA STANDARDS AND SPECIFICATIONS AND TO THE SATISFACTION OF THE DIRECTOR OF TRANSPORTATION AND ENVIRONMENTAL SERVICES (T&ES).
- 17. CONTRACTOR MUST ENSURE THAT THERE IS NO DISTURBANCE ON ADJACENT PROPERTIES WITHOUT RECORDED EASEMENT OR NOTARIZED LETTER OF PERMISSION FROM THE ADJACENT PROPERTY OWNERS.
- 18. ALL REQUIRED STATE AND FEDERAL PERMITS, WHICH COULD INCLUDE PERMITS FROM THE VIRGINIA DEPARTMENT OF CONSERVATION AND RECREATION (VDCR). VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY (VDEQ), VIRGINIA DEPARTMENT OF HISTORIC RESOURCES (VDHR), UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (USEPA), ARMY CORPS OF ENGINEERS AND VIRGINIA MARINE RESOURCES. MUST BE IN PLACE FOR ALL PROJECT CONSTRUCTION AND MITIGATION WORK PRIOR TO RELEASE OF THE FINAL SITE PLAN. THIS INCLUDES THE STATE REQUIREMENT FOR A VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSMP) GENERAL PERMIT FOR DISCHARGES OF STORMWATER FROM CONSTRUCTION ACTIVITIES FOR LAND DISTURBING ACTIVITIES GREATER THAN 2,500.
- 19. PERMITS FROM THE CITY OF ALEXANDRIA OFFICE OF ENVIRONMENTAL QUALITY (OEQ), TRANSPORTATION AND ENVIRONMENTAL SERVICES (T&ES), AND BUILDING AND FIRE CODE ADMINISTRATION SHALL BE OBTAINED BY THE APPLICANT, AS REQUIRED AND DOCUMENTED HEREIN, THE CONTRACTOR CAN CONTACT ALEXANDRIA FIRE AND CODE ADMINISTRATION DEPARTMENT AT (703) 838-4644 OR (703) 746-4200 FOR ANY QUESTIONS OR ADDITIONAL INFORMATION. CONTRACTOR CAN CONTACT THE ALEXANDRIA DEPARTMENT OF CODE ADMINISTRATION AT 703-746-4200.
- 20. ANY WORK IN THE PUBLIC RIGHT OF WAY SHALL REQUIRE A SEPARATE PERMIT FROM THE DIRECTOR, TRANSPORTATION AND ENVIRONMENTAL SERVICES. THE CONTRACTOR CAN CONTACT THE DEPARTMENT OF TRANSPORTATION AND ENVIRONMENTAL SERVICES AT (703) 746-4035 FOR ANY QUESTIONS OR ADDITIONAL INFORMATION.
- 21. THE PROPERTY ADDRESS MUST BE CLEARLY MARKED IN THE FRONT AND BACK OF THE PROPOSED DEVELOPMENT SITE DURING CONSTRUCTION FOR EMERGENCY RESPONSE PURPOSE IN CONTRASTING COLORS FOR EASY IDENTIFICATION.
- 22. THE APPLICANT SHALL CONTACT THE CRIME PREVENTION UNIT OF THE ALEXANDRIA POLICE DEPARTMENT AT 703-746-1920 REGARDING SECURITY HARDWARE FOR NEW CONSTRUCTION. THIS SHALL BE COMPLETED PRIOR TO ISSUANCE OF BUILDING PERMIT.
- 23. ROOF DRAINAGE SYSTEM, SUMP PUMP DISCHARGE, AND FOUNDATION DRAIN SYSTEM MUST BE INSTALLED SO AS NEITHER TO ADVERSELY IMPACT UPON, NOR CAUSE EROSION DAMAGE TO ADJACENT PROPERTIES OR THE PUBLIC RIGHT OF WAY. 24. THE CONTRACTOR MUST ENSURE THAT POSITIVE DRAINAGE OCCURS ON SITE TO PREVENT PONDING OR DRAINAGE PROBLEMS ON ADJACENT PROPERTIES.
- 25. IN THE EVENT, THE PROPOSED ROOF DRAINAGE AND/OR SUMP PUMP DISCHARGE, AND FOUNDATION DRAIN SYSTEMS AND/OR GRADING ADVERSELY IMPACTS AND/OR CREATES A NUISANCE ON PUBLIC RIGHT OF WAY OR PRIVATE PROPERTIES THEN THE APPLICANT SHALL BE RESPONSIBLE TO PROVIDE ADDITIONAL IMPROVEMENTS TO THE ROOF DRAINAGE AND/OR SUMP PUMP DISCHARGE AND FOUNDATION DRAIN SYSTEMS AND/OR GRADING TO THE SATISFACTION OF DIRECTOR, TRANSPORTATION AND ENVIRONMENTAL SERVICES.
- 26. PER THE REQUIREMENTS OF SECTION 8-1-12 OF THE CITY CHARTER AND CODE: WHEN THE BUILDING FOOTING HAS BEEN PLACED AND THE WALLS HAVE BEEN RAISED TO THE FIRST JOIST BEARING OR STORY HEIGHT ABOVE GRADE, A PLOT PLAN SHOWING THE EXACT LOCATION OF THE WALLS SHALL BE PREPARED BY A LICENSED, CERTIFIED PUBLIC LAND SURVEYOR OR PROFESSIONAL ENGINEER AND FILED WITH THE BUILDING OFFICIAL FOR APPROVAL BEFORE PROCEEDING FURTHER WITH THE CONSTRUCTION.
- 27. A SEPARATE DESIGN IS REQUIRED FOR ALL WALLS 24" AND OVER IN HEIGHT FROM THE GRADE AND SUBJECT TO SEPARATE PERMITS TO BE OBTAINED BY THE OWNERS. GEOTECHNICAL AND STRUCTURAL DESIGN IS TO BE COMPLETED BY OTHERS. THIS FINAL SITE PLAN SHOWS LOCATION, PROPOSED GRADING, AND DESIGN OF ALL THE WALLS.
- 28. SUBMIT A SURVEY, CONSISTENT WITH THE REQUIREMENTS FOR CERTIFICATE OF OCCUPANCY CHECKLIST, TO THE DEPARTMENT OF TRANSPORTATION AND ENVIRONMENTAL SERVICES PRIOR TO REQUESTING AN INSPECTION FOR A CERTIFICATE OF OCCUPANCY.
- 29. ALL SANITARY LATERALS AND/OR SEWERS NOT SHOWN IN THE EASEMENTS SHALL BE OWNED AND MAINTAINED PRIVATELY.
- 30. ALL STORM DRAINS NOT SHOWN WITHIN AN EASEMENT OR IN A PUBLIC RIGHT OF WAY SHALL BE OWNED AND MAINTAINED PRIVATELY.
- 31. ALL WATER FACILITY CONSTRUCTION SHALL CONFORM TO VIRGINIA AMERICAN WATER COMPANY STANDARDS AND SPECIFICATIONS. CONTRACTOR SHALL CONTACT VIRGINIA AMERICAN WATER COMPANY AT (703) 549-7080 TO COORDINATE CONSTRUCTION AND INSPECTION OF WATER FACILITIES.
- 32. THE SIDEWALKS SHALL REMAIN OPENED DURING CONSTRUCTION OR PEDESTRIAN ACCESS SHALL BE MAINTAINED TO THE SATISFACTION OF THE DIRECTOR OF TRANSPORTATION AND ENVIRONMENTAL SERVICES THROUGHOUT THE CONSTRUCTION OF THE PROJECT.

ENVIRONMENTAL SITE ASSESSMENT

THE BUILDING OR PORTION THEREOF, IN ACCORDANCE WITH VIRGINIA USBC 115.0.

1. THERE ARE TIDAL WETLANDS AND FLOODPLAINS CONNECTED TIDAL WETLANDS, ISOLATED WETLANDS, HIGHLY ERODIABLE/PERMEABLE SOILS OR BUFFER AREAS ASSOCIATED WITH SHORES, STREAMS, OR WETLANDS LOCATED ON THE SITE. THERE ARE WETLAND PERMITS REQUIRED FOR THIS DEVELOPMENT PROJECT. ADDITIONALLY, THERE ARE KNOWN UNDERGROUND STORAGE TANKS OR AREAS OF SOIL OR GROUNDWATER CONTAMINATION ON THE SITE.

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 703-746-4866.

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

SATURDAYS FROM 9 AM TO 6 PM.

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

SIGN CONSTRUCTION

HEALTH (NIOSH)

UTILITY-RELATED WORK.

4. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE UPON ENCOUNTERING ANY HAZARDOUS MATERIALS DURING DEMOLITION AND/OR CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL DOCUMENT SAME TO THE OWNER'S REPRESENTATIVE AND OBTAIN DIRECTION AS TO THE APPROPRIATE ACTION(S) TO BE TAKEN.

TRANSPORTATION (VDOT).

REPRESENTATIVE.

3. DEVELOPMENT AND USES PROPOSED IN THE RPA ARE IN COMPLIANCE WITH THE REQUIREMENTS OF ARTICLE 13-107 OF THE ALEXANDRIA ZONING ORDINANCE (AZO).

33. PRIOR TO THE RELEASE OF THE FINAL SITE PLAN. A TRAFFIC CONTROL PLAN FOR CONSTRUCTION DETAILING PROPOSED CONTROLS TO TRAFFIC MOVEMENT. LANE CLOSURES, CONSTRUCTION ENTRANCES, HAUL ROUTES, AND STORAGE AND STAGING SHALL BE PROVIDED FOR INFORMATION PURPOSE; HOWEVER, AN AMENDED TRAFFIC CONTROL PLAN. IF REQUIRED BY THE DIRECTOR OF TRANSPORTATION AND ENVIRONMENTAL SERVICES SHALL BE SUBMITTED TO THE DIRECTOR OF TRANSPORTATION AND ENVIRONMENTAL SERVICES ALONG WITH THE BUILDING PERMIT

APPLICATION. THE FINAL SITE PLAN SHALL INCLUDE A STATEMENT "FOR INFORMATION ONLY" ON THE TRAFFIC CONTROL PLAN SHEETS. 34. A CERTIFICATE OF OCCUPANCY SHALL BE OBTAINED PRIOR TO ANY OCCUPANCY OF

EMERGENCY VEHICLE EASEMENTS NOTE

ALL EMERGENCY VEHICLE EASEMENTS ARE SHOWN ON THE PLAN AND SHALL BE RECORDED WITH ALEXANDRIA LAND RECORDS

• MONDAY THROUGH FRIDAY FROM 7 AM TO 6 PM AND

• NO CONSTRUCTION ACTIVITIES ARE PERMITTED ON SUNDAYS.

PILE DRIVING IS FURTHER RESTRICTED TO THE FOLLOWING HOURS:

A SEPARATE PERMIT IS REQUIRED FOR SIGN CONSTRUCTION.

DEMOLITION NOTES

1. A SEPARATE PERMIT IS REQUIRED FOR DEMOLITION; HOWEVER, NO DEMOLITION SHALL BEGIN UNTIL ALL EROSION AND SEDIMENT AND TREE PROTECTION CONTROLS ARE IN PLACE AND ARE APPROVED BY AN EROSION AND SEDIMENT CONTROL INSPECTOR OF THE DEPARTMENT OF TRANSPORTATION AND ENVIRONMENTAL SERVICES.

2. ALL WORK SHALL BE PERFORMED IN STRICT COMPLIANCE WITH THE MOST CURRENT APPLICABLE FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS, INCLUDING BUT NOT LIMITED, TO ENVIRONMENTAL PROTECTION AGENCY (EPA), OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA), VIRGINIA OCCUPATIONAL AND SAFETY HEALTH COMPLIANCE PROGRAM (VOSH ENFORCEMENT) VIRGINIA OVERHEAD HIGH VOLTAGE LINE SAFETY ACT, NATIONAL EMISSIONS STANDARDS FOR HAZARDOUS AIR POLLUTANTS (NESHAPS), AND NATIONAL INSTITUTE OF OCCUPATIONAL SAFETY AND

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF WORK WITH REPRESENTATIVE UTILITY COMPANIES AND FOR THE IMPLEMENTATION OF REQUIRED

5. DISCONNECTION OF SERVICES AND SYSTEMS SUPPLYING UTILITIES TO BE ABANDONED OR DEMOLISHED SHALL BE COMPLETED PRIOR TO OTHER SITE DEMOLITION IN FULL COMPLIANCE WITH APPLICABLE CODES, REGULATIONS, AND THE REQUIREMENTS OF UTILITY PURVEYORS HAVING JURISDICTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH THE UTILITY PURVEYORS, PAYMENT OF ASSOCIATED FEES AND PROCUREMENT OF ALL NECESSARY PERMITS.

6. PRIOR TO REMOVAL OF MATERIALS OVER EXISTING UTILITY SYSTEMS, THE CONTRACTOR SHALL DOCUMENT EXISTING CONDITIONS AND, IF AT VARIANCE WITH CONDITIONS AS REPRESENTED ON THE PLANS, NOTIFY THE OWNER'S REPRESENTATIVE AND OBTAIN DIRECTIONS AS TO THE APPROPRIATE ACTION(S) TO BE

7. THE CONTRACTOR SHALL BACKFILL EXCAVATED AREAS WITH APPROVED MATERIALS / CLEAN FILL AS PER THE REQUIREMENTS OF VIRGINIA DEPARTMENT OF

8. THE CONTRACTOR SHALL PROTECT AND PREVENT DAMAGE TO EXISTING ON-SITE UTILITY DISTRIBUTION FACILITIES THAT ARE TO REMAIN. ACTIVE UTILITY DISTRIBUTION FACILITIES ENCOUNTERED DURING DEMOLITION AND/OR CONSTRUCTION ACTIVITIES SHALL BE SHUT OFF AT THE SERVICE MAIN WITH THE APPROVAL OF THE OWNER'S

9. DURING DEMOLITION AND/OR CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE UPON ENCOUNTERING ANY EXISTING UTILITIES AND/OR UTILITY SYSTEM STRUCTURES NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL DOCUMENT THE SAME AND FORWARD THE INFORMATION TO THE RESIDENT ENGINEER / OWNER'S REPRESENTATIVE, AND OBTAIN DIRECTION AS TO THE APPROPRIATE ACTION(S) TO BE TAKEN.

10. THE CONTRACTOR OR APPLICANT SHALL WORK WITH THE CITY STAFF TO REUSE THE EXISTING, LEFTOVER, UNUSED, AND/OR DISCARDED BUILDING MATERIALS AS PART OF THE DEMOLITION PROCESS OR THE CONSTRUCTION DEBRIS MUST BE REMOVED TO AN APPROVED LANDFILL WITH ADEQUATE FREQUENCY IN ACCORDANCE WITH THE VIRGINIA STATE LITTER CONTROL ACT.

RESOURCE PROTECTION AREA NOTES

1. THE SUBJECT PROPERTY LIES WITHIN A CITY OF ALEXANDRIA RESOURCE PROTECTION AREA (RPA). FIELD DEMARCATED/VERIFIED 50 FEET AND 100 FEET RESOURCE PROTECTION AREA LINES ARE SHOWN ON THE SITE PLAN.

2. VEGETATION IN RPA IS PROPOSED TO BE DISTURBED AND REPLACED IN ACCORDANCE WITH THE MAJOR WQIA SUBMITTED WITH THIS PLAN.

FLOOD PLAIN NOTES

1. THE SITE LIES WITHIN 100-YEAR FLOOD PLAIN WATER SURFACE ELEVATION (WSE) AND THE 100-YEAR FLOOD PLAIN WSE IS SHOWN ON THE SITE PLAN PER THE DEMARCATION OF THE CURRENT FLOOD INSURANCE RATE MAP (FIRM) PUBLISHED BY FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA).

2. THE PLAN DEMONSTRATES COMPLIANCE WITH FLOOD PLAIN ORDINANCE SECTION 6-

300 TO SECTION 6-311 OF ARTICLE VI SPECIAL AND OVERLAY ZONES OF THE ALEXANDRIA ZONING ORDINANCE (AZO).

ARCHAEOLOGY NOTES

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

- 2. CALL ALEXANDRIA ARCHAEOLOGY (703-746-4399) TWO WEEKS BEFORE THE STARTING DATE OF ANY GROUND DISTURBANCE SO THAT AN INSPECTION OR MONITORING SCHEDULE FOR CITY ARCHAEOLOGISTS CAN BE ARRANGED.
- 3. THE APPLICANT SHALL CALL ALEXANDRIA ARCHAEOLOGY IMMEDIATELY (703-746-4399) IF ANY BURIED STRUCTURAL REMAINS (WALL FOUNDATIONS, WELLS PRIVIES. CISTERNS. 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.

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

CEMETERY AND/OR BURIAL GROUNDS

THERE IS NO OBSERVABLE, HISTORICAL, OR ARCHAEOLOGICAL EVIDENCE OF CEMETERIES OR BURIAL GROUNDS ON THIS PROPERTY. FINAL DETERMINATION TO BE MADE WITH ARCHAEOLOGICAL REPORT APPROVED PRIOR TO CONSTRUCTION, PLAN TO BE UPDATED IF NECESSARY

RODENT ABATEMENT NOTE

PRIOR TO THE ISSUANCE OF A DEMOLITION PERMIT OR LAND DISTURBANCE PERMIT. A RODENT ABATEMENT PLAN SHALL BE SUBMITTED TO THE CITY OF ALEXANDRIA BUILDING AND FIRE CODE ADMINISTRATION THAT WILL OUTLINE STEPS THAT WILL BE TAKEN TO PREVENT THE SPREAD OF RODENTS FROM THE CONSTRUCTION SITE TO THE SURROUNDING COMMUNITY AND SEWERS. THE CONTRACTOR CAN CONTACT ALEXANDRIA BUILDING AND FIRE CODE ADMINISTRATION DEPARTMENT AT (703) 838-4644 OR (703) 746-4200 FOR ANY QUESTIONS OR ADDITIONAL INFORMATION. CONTRACTOR CAN CONTACT ALEXANDRIA DEPARTMENT OF CODE ADMINISTRATION AT 703-746-4866.

MOSQUITO CONTROL NOTES

1. SINCE STORM WATER MANAGEMENT (SWM) AND BEST MANAGEMENT PRACTICE (BMP) SYSTEMS THAT HOLD WATER FOR MORE THEN 5 DAYS BETWEEN THE MONTHS OF MAY - OCTOBER HAVE THE POTENTIAL TO CAUSE MOSQUITO BREEDING HABITATS; THEREFORE, SUCH BMPs SHALL BE TREATED WITH A REGISTERED MOSQUITO LARVAL CONTROL PRODUCT. ALL LABELS SHOULD BE FOLLOWED FOR APPLICATION RATES AND AMOUNTS

2. SINCE EXCESSIVE VEGETATION IN EXISTING BMPs ALSO INCREASES THE POTENTIAL FOR MOSQUITO PROBLEMS; THEREFORE, VEGETATION SHALL BE CONTROLLED AND CUT TO REDUCE MOSQUITO BREEDING.

3. CONTACT THE CITY OF ALEXANDRIA ENVIRONMENTAL HEALTH VECTOR BORNE ILLNESS PROGRAM (703-746-4866) FOR QUESTIONS OR TREATMENT ASSISTANCE

EXISTING CONDITIONS SURVEY NOTES

. HORIZONTAL DATUM* NORTH AMERICAN DATUM OF 1983, NAD83 ------VERTICAL DATUM* NORTH AMERICAN VERTICAL DATUM OF 1988, NAVD88* -----

2. UTILITY INFORMATION, AS SHOWN ON THIS PLAN, IS TAKEN FROM THE RECORDS AND/OR FIELD SURVEY COMPLETED BY BOHLER ENGINEERING, DATED 3/24/2014; AND CANNOT BE GUARANTEED. FOR EXACT LOCATIONS OF EXISTING UNDERGROUND UTILITIES, NOTIFY "MISS UTILITY" AT 1-800-257-7777 AND 811 72 HOURS BEFORE THE START OF ANY EXCAVATION OR CONSTRUCTION. THE CONSTRUCTION WORKERS AND CONTRACTOR(S) ARE ENCOURAGED TO VISIT DOMINION VIRGINIA POWER WEB SITE AT www.dom.com (KEYWORD SAFETY) FOR ADDITIONAL SAFETY INSTRUCTIONS.

3. LOCATION AND DEPTH OF ALL EXISTING UNDERGROUND UTILITIES TO BE VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR/ENGINEER SHOULD DIG TEST PITS BY HAND AT ALL UTILITY CROSSINGS TO VERIFY EXACT LOCATION.

4. THE BOUNDARY INFORMATION FOR THE SUBJECT SITE IS BASED ON A CURRENT FIELD SURVEY PREPARED BY BOHLER ENGINEERING. DATED 03/24/14 IN ACCORDANCE WITH THE REQUIREMENTS OF VIRGINIA ASSOCIATION OF LAND SURVEYORS.

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

NOTES

1. THE CITY OF ALEXANDRIA DEPARTMENT OF TRANSPORTATION AND ENVIRONMENTAL SERVICES, DIVISION OF ENVIRONMENTAL QUALITY MUST BE NOTIFIED IF UNUSUAL OR UNANTICIPATED CONTAMINATION OR LINDERGROUND 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.

2. ALL WELLS TO BE DEMOLISHED ON THIS PROJECT, INCLUDING MONITORING WELLS, MUST BE CLOSED IN ACCORDANCE WITH STATE WELL REGULATION. COORDINATE WITH THE ALEXANDRIA HEALTH DEPARTMENT AT 703-746-4866

3. 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

AND SATURDAYS FROM 10AM TO 4PM



5

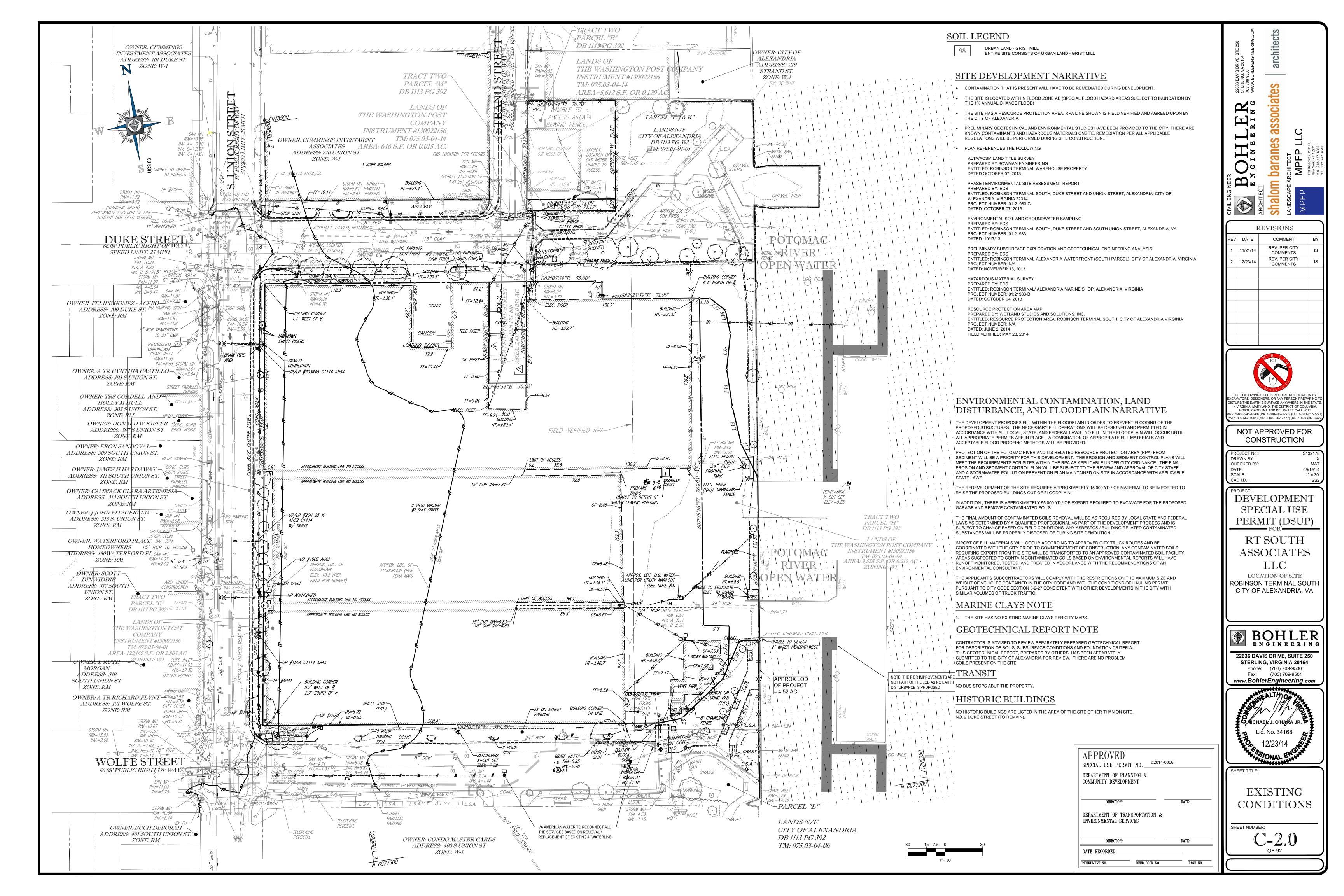
chited

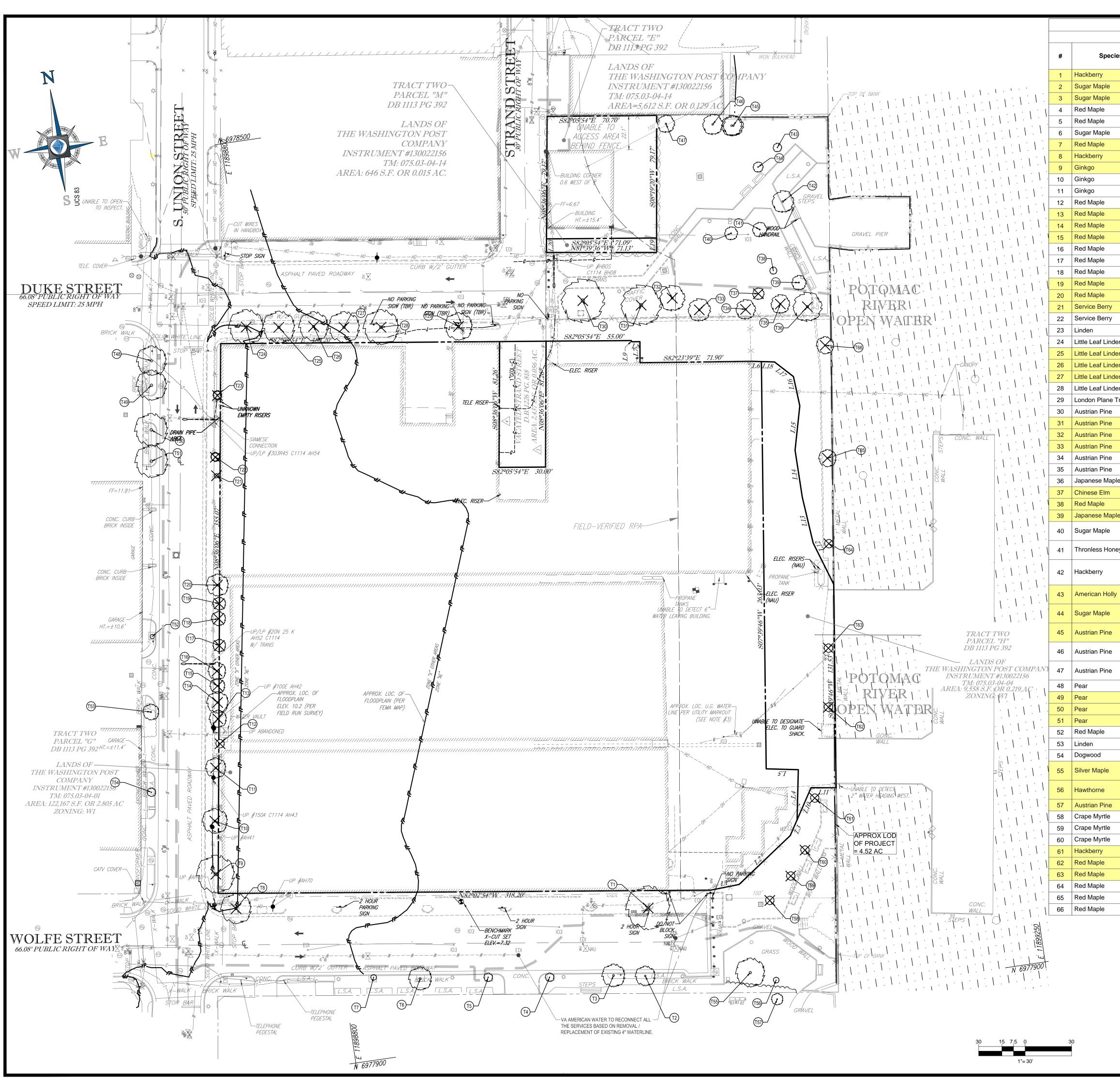
| APPROVED special use permit no#2014-00 | 06 |
|---|-------|
| DEPARTMENT OF PLANNING & COMMUNITY DEVELOPMENT | |
| DIRECTOR: DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES | DATE: |
| DIRECTOR: | DATE: |

DEED BOOK NO.

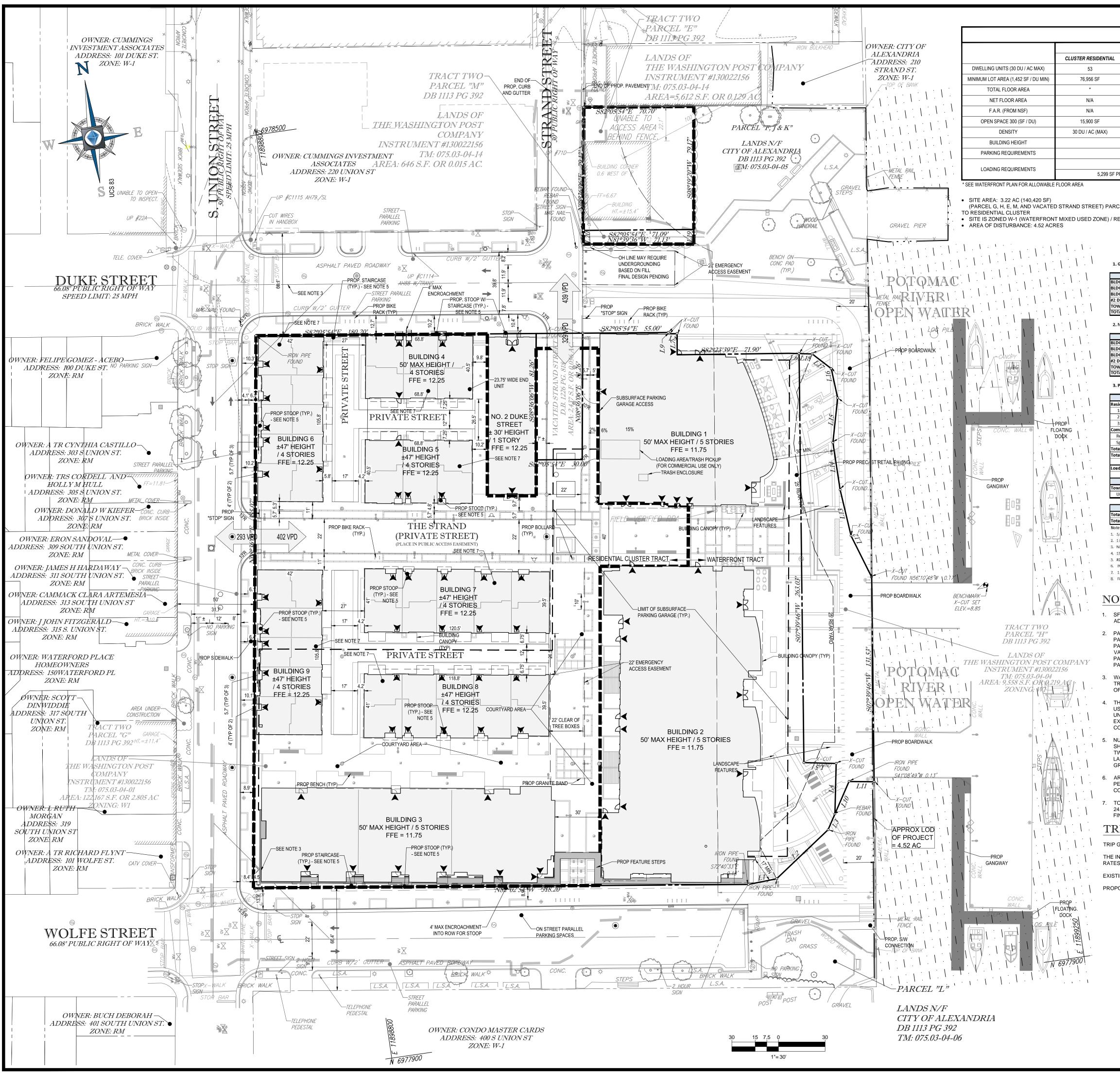
PAGE NO.

INSTRUMENT 1

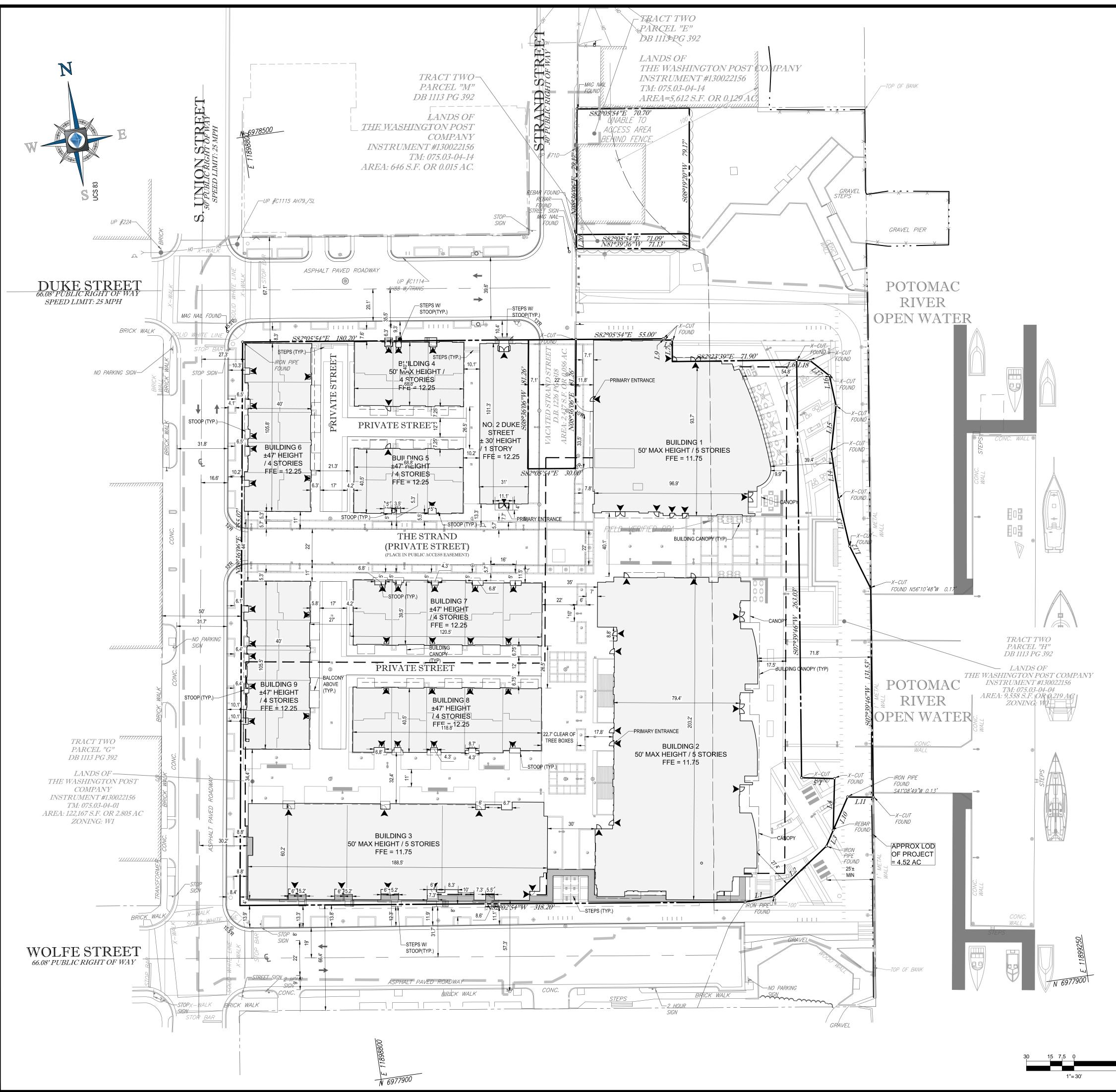




| 95 | Size (DBH in | Condition | Species Rating | Preserve or Remove | Remarks | CRZ (foot) |
|-----------|--|---|--|--|---|---------------|
| | inches) | Rating (%) | (%) | Tree | | (feet) |
| | 17 7 | 85% 85% | 65% 75% | Remove Preserve | | |
| | 8 | 85% | 75% | Preserve | | |
| | 5 | 80% | 80% | Preserve | | |
| | 5 | 85% | 80% | Preserve | | |
| | 7.5 | 40% | 75% | Preserve | | |
| | 3 | 90% | 80% | Preserve | | |
| | 15 | 10% | 65% | Remove | Heavy crown die back | |
| | 12.5 | 85% | 80% | Remove | | |
| | 11 7 | 70% | 80% 80% | Remove | | |
| | 9.5 | 70% | 80% 80% | Remove Remove | | |
| | 9.5 8.5 | 70% | 80% | Remove | | |
| | 6 | 40% | 80% | Remove | | |
| | 7 | 65% | 80% | Remove | | |
| | 7 | 30% | 80% | Remove | | |
| | 7 | 20% | 80% | Remove | | |
| | 6 | 20% | 80% | Remove | | |
| | 8 | 15% | 80% | Remove | | |
| | 9 | 60% | 80% | Remove | | |
| | 3 | 80% | 85% | Remove | Double Leador | |
| | 4 + 5 2 @ 7 in | 80% 80% | 85% 75% | Remove Remove | Double Leader Double Leader | |
| n | 2 @ 7 m 15 | 70% | 75% 75% | Remove | Asymmetrical Crown | |
| en 👘 | 15.5 | 85% | 75% | Remove | | |
| n | 11 | 90% | 75% | Remove | | |
| en 👘 | 14 | 90% | 75% | Remove | | |
| n | 14 | 90% | 75% | Remove | | |
| ree | 10.5 | 65% | 75% | Remove | | |
| | 16 | 85% | 55% | Remove | | |
| | 14 | 75% | 55% | Remove | | |
| | 8 | 80% | 55% | Remove | | |
| | 11 11 | 75% 75% | 55% 55% | Remove Remove | | |
| | 11 | 75% 80% | 55% 55% | Remove | | |
| e | 4 @ 8 in | 95% | 85% | Remove | 4 Stems | |
| | 8.5 | 90% | 85% | Remove | | |
| | 5 | 85% | 80% | Preserve | | |
| e | 7 | 80% | 85% | Preserve | Minimal crown dieback | |
| | 10.5 | 85% | 75% | Preserve | To be preserved during this plan; will be removed in future plans by others | |
| w Loovert | | 0501 | 7001 | D | To be preserved during this plan; will be | |
| ey Locust | 12 | 95% | 70% | Preserve | removed in future plans by others | |
| | 8; 2@6 | 30% | 65% | Preserve | 3 Stems; To be preserved during this plan; will be removed in future plans by | |
| | , 23 | 2070 | 2070 | | others | |
| | 6 | 90% | 75% | Preserve | To be preserved during this plan; will be removed in future plans by others | |
| | 0 | 050/ | 750/ | Dress | To be preserved during this plan; will be | |
| | 8 | 85% | 75% | Preserve | removed in future plans by others | |
| | 1@14; 1@13in | 80% | 55% | Preserve | To be preserved during this plan; will be removed in future plans by others | |
| | 14.5 | 75% | 55% | Presona | To be preserved during this plan; will be | |
| | 14.5 | / 3% | 33% | Preserve | removed in future plans by others | |
| | 14 | 85% | 55% | Preserve | To be preserved during this plan; will be removed in future plans by others | |
| | 22 | 85% | 60% | Preserve | | |
| | 19 | 80% | 60% | Preserve | | |
| | 16 | 80% | 60% | Preserve | Asymmetrical crown | |
| | 13.5 | 80% | 60% | Preserve | Asymmetrical crown | |
| | 5.5 | 25% | 80% | Preserve | Heavy crown dieback | |
| | 9 | 85% | 75% | Preserve | Girdled roots | |
| | 6 | 85% | 80% | Preserve | To be preserved during this place will be | |
| | | | 50% | Preserve | To be preserved during this plan; will be removed in future plans by others | |
| | 27.5 | 95% | | | | |
| | 27.5 6 | 95% 70% | 70% | Preserve | To be preserved during this plan; will be | |
| | 6 | 70% | | | To be preserved during this plan; will be removed in future plans by others | |
| | 6 | 70% | 55% | Preserve | removed in future plans by others | |
| | 6 | 70% | | | | |
| | 6 11 5 @ 1in | 70% 85% 90% | 55% 80% | Preserve Remove | removed in future plans by others 5 Stems | |
| | 6 11 5 @ 1in 5 @ 1in | 70% 85% 90% 90% | 55% 80% 80% | Preserve Remove Remove | removed in future plans by others 5 Stems 5 Stems | |
| | 6 11 5 @ 1in 5 @ 1in 4 @ 5in | 70% 85% 90% 90% 90% | 55% 80% 80% 80% | Preserve Remove Remove Remove | removed in future plans by others 5 Stems 5 Stems | |
| | 6 11 5 @ 1in 5 @ 1in 4 @ 5in 20 | 70% 85% 90% 90% 90% 30% | 55% 80% 80% 80% 75% | Preserve Remove Remove Remove Remove | removed in future plans by others 5 Stems 5 Stems | |
| | 6 11 5 @ 1in 5 @ 1in 4 @ 5in 20 5 5 10 16 | 70% 85% 90% 90% 90% 30% 70% 75% 80% | 55% 80% 80% 80% 75% 80% 80% 80% | Preserve Remove Remove Remove Remove Remove Remove | removed in future plans by others 5 Stems 5 Stems 4 Stems | |
| | 6 11 5 @ 1in 5 @ 1in 4 @ 5in 20 5 5 10 | 70% 85% 90% 90% 90% 30% 70% 75% | 55% 80% 80% 80% 75% 80% 80% | Preserve Remove Remove Remove Remove Remove Remove | removed in future plans by others 5 Stems 5 Stems | |



| | | | | | | | | - | | |
|--|--|---|--|---|--|----------------------------|------------------------------------|--|--|--|
| | | | | | | | | G.COM | architects | |
| | SITE | TABULATIO | DN | | | | | TE 250 | nite | |
| | REQUIRED / ALLOWABLE | | | | PROVI | | | VE; S ⁻ 0164 NGINI | rch | |
| ITIAL | 39 56,628 SF | 92 133,584 SF | 53 UNITS (| RESIDENTIAL BLD 3 + TH) 16 SF | WATERF 39 UNITS (BLD 1 56,804 | +2+#2 DUKE) | 92 140,420 SF | 22636 DAVIS DRIVE; STE 250 STERLING, VA 20164 703-709-9500 WWW. BOHLERENGINEERING.COM | | |
| | * N/A | * N/A | , | 312 SF 337 SF | 142,34 136,97 | | 280,656 SF 272,611 SF | 2263 STEI 703- | associates | |
| | N/A 11,700 SF | N/A 27,600 SF | | .62 563 SF / DU) | 2.4 22,987 SF (58 | | 1.94 52,826 SF (574 SF/DU) | | oci | |
| () | 30 DU / AC (MAX) 50' | 30 DU / AC (MAX) | | DU / AC | 29.9 DU | | 28.5 DU / AC ASUREMENT FROM AFG | | ass | \mathbf{O} |
| | 262 SPACES | | | | JDED ON WOLFE | STREET AND 33 TA | ANDEM SPACES EXCLUDED) | | S | LL(^{h Fl.} ⁷¹ ²⁶ |
| 99 SF PRC | 1 SP / 20,000 SF COMMERCIAL POSED = 1 SPACE MINIMUM (12 | | | 5,299 SF PRO | 1 SPACE PF | E MINIMUM 12' X 25 | 5' X 14.5' H | | c al | NPFP [120 Broadway, 20th Fl New York, NY 10271 tele. 212. 477. 6366 fax. 212. 477. 6548 |
| E) / RES | OSS FLOOR AREA TABULATION | ROBINSON TERMINAL SOUTH Revised ESIDENTIAL FLOOR AREA COM 38,855 90,078 | L _DSUP SUBMISSIC March 03, 2015 | | Y | 46,967 92,047 | :A | CIVILE CONTENT CONTENT REV DATE 1 11/21/14 | | - вү |
| #2 DUI | KE STREET | .52,837 | 3,3305 | | | 52,837 3,330⁵ 85,475 | _ | 2 12/23/14 | REV. PER CI | TY IS |
| TOTAL | | 267,245 | 11,473 ⁵ | 1,218 | 720 | 280,656⁵ | | 3 3/4/15 F | REV PER BLDG 3 | |
| | | ESIDENTIAL FLOOR AREA COM | MERCIAL FLOOR AR | EA PARKING RAN | IP LOADING | TOTAL FLOOR ARE | A | | | |
| BLDG 1 BLDG 2 BLDG 3 | 2 | 36,950 86,613 50,162 | 6,174 1,969 | 1,218 | 720 | 45,062 88,582 50,162 | | | | |
| #2 DUI TOWN | KE STREET HOMES | 85,475 | 3,3305 | | | 3,330⁵ 85,475 | | | | |
| TOTAL | RKING TABULATION | 259,200 | 11,4735 | 1,218 | 720 | 272,6115 | | | | |
| Reside | ntial- Required | MULTI-FAMILY RESIDENTIA | & COMMERCIAL PA | RKING SPACES | | | - | | | |
| 1 B 2 B | edroom units edroom units | 3 44 | x x | 1.3 1.75 | = | 3.9 77 | | | | |
| Comm | edroom units ercial- Required taurant (seats) | 19 251 ⁴ | X | 2.2 | = | 62.75 | | | | |
| Spe Total F | cialty Retail Required | 5,299 SF | 1 | 220 SF ¹ | i i | 24.09 210 | | | | |
| | rovided In Garage g - Provided | 720 SF | | | = | 149 1 ² | | | BEFORE YOURS | |
| Townh | ouse- Provided | TOWNHOUS | E PARKING SPACES | | | | _ | EXCAVATORS, DESIGN DISTURB THE EARTH IN VIRGINIA, MARY | IERS, OR ANY PERSO S SURFACE ANYWHE LAND, THE DISTRICT | ON PREPARING TO RE IN THE STATE. OF COLUMBIA, |
| Unit | | 26 | x | 2 | = | 52 | | NORTH CAROL (WV 1-800-245-4848) (F (VA 1-800-552-7001) (M | | DC 1-800-257-7777) |
| 10000000000000000000000000000000000000 | arking Spaces Provided (Townho arking Spaces Required (Townho | ouses Included) | ARKING SPACES | | | 201 ⁶ 262 | | NOT AF | PROVED | FOR |
| 2. 110 3. NOT 4. 135 ⁻¹ 5. #2 D 6. IN G 7. 1 PA 8. FOR NOT | D - 20,000 SF GROUND FLOOR RETAIL IN ADING SPACE FOR EVERY 20,000 SF. USED SEATS INDOORS & 116 OUTDOORS, REST UKE IS PRESERVED IN PLACE AS SINGLE L ARAGE, 33 ADDITIONAL TANDEM SPACE IRKING SPACE FOR EVERY 4 SEATS PURPOSES OF ALL ZONING TABULATION TES: DPEN SPACE VALUES ARE USTMENT WITH FINAL DES | AURANT SEATING COUNT PROVIDED BY EVEL. S ARE ALSO PROVIDED FOR A TOTAL OF : IS, BUILDINGS 1-2 & #2 DUKE STREET ARE | 234 TOTAL PARKING SPAC | | NGS ARE ON THE CLUS | STER RESIDENTIAL LOT. | | | LOPM CIAL U | |
| PAR PAR PAR VAC PAR | CEL SUMMARY: 140,420 SF CEL G: 122,167 SF CEL H: 9,558 SF ATED STRAND: 2,437 SF CEL M: 646 SF CEL E: 5,612 SF | | 75,211 SF F 2,147 SF V/ 83,616 SF 1 <u>WATERFR(</u> | ACATED STRAN "OTAL <u>DNT LOT</u> : | ID | | | RT | IIT (DS FOR SOUT OCIAT | Ή |
| TRIA OF A | VER REQUESTED FOR VIS NNGLE INFRINGEMENT AS ALEXANDRIA. | SPECIFIED BY CITY | 290 SF VAC 46,956 SF F 9,558 SF P/ 56,804 SF T | ARCEL H |) | | | | LLC ATION OF SI | |
| USE UND EXIS COL | CITY PLANS ON CONSTRU ON PARCELS E & M FAR U ER THE SETTLEMENT AGF STING / PROPOSED BUILDII INT AGAINST RESIDENTIAL IBER OF 6" RISERS AT STO | JP TO 2.5 PERMITTED REEMENT. ANY NG WOULD NOT - DENSITY AREAS. | | | | | | ROBINSON CITY OF | I TERMINAI ALEXANDF | |
| SHC TWC LAN GRA | WN TO BE FINALIZED WITI STEPS PER STOOP ANTIO DSCAPE ARCHITECT PLAN DING DETAILS. AS LABELED AS "ENCROA | H SITE PLAN. ONE - CIPATED. SEE I FOR FURTHER | | | | | | B | OHI | |
| PER COD . TOV 24.7 | MITTED PER SECTION 5-2-)E. /NHOME UNIT WIDTHS VAF ' END UNITS AND 19' TO 24 | 29 OF THE CITY RY FROM 24.25 TO ' INTERNAL UNITS. | | | | | | 22636 DAV STERLIN | I G I N E E //S DRIVE, SU IG, VIRGINIA (703) 709-9 | IITE 250 20164 |
| TRI | AL WIDTHS TO BE DETERM P GENERAT NERATION STATISTICS PR | ION STATIST | | NOVEMBER. 20 | 014. | | | Fax: | (703) 709-9 (703) 709-9 erEngineer | 501 |
| RATES A | ORMATION IS BASED ON T IND EQUATIONS. THE TABI G - 371 ADT TOTAL SED - 1,527 ADT | LE IS SHOWN ON SHEET C | | APPRO | OVED | | | | EL J. O'HAYA S. No. 34168 3/4/15 ONAL | • • • • • • • • • • • • • • • • • • • |
| | LEGE XXX VPD | VEHICLES PER DAY | | DEPARTMEN | USE PERMIT NT OF PLANNI (DEVELOPMEI | NO ING & | | SHEET TITLE: | | SITE |
| | | IN / OUT OF SITE | | DEPARTMEN | DIRECTOR: NT OF TRANSI ENTAL SERVICI | | DATE: |] | PLAN | |
| | | | | DATE RECO | DIRECTOR: | | DATE: | | Z=3 .(| |
| | | | | INSTRUMENT NO | | DEED BOOK NO. | PAGE NO. | | | |



| | LINE TABLE | = | | | |
|------|---------------|----------|--|--|--|
| LINE | BEARING | DISTANCE | | | |
| L21 | S20° 53' 29"E | 0.90' | | | |
| L22 | S82° 13' 29"E | 5.20' | | | |
| L23 | S08° 10' 33"W | 13.60' | | | |
| L24 | S80° 11' 30"E | 14.97' | | | |
| L25 | S80° 12' 08"E | 20.77' | | | |
| L26 | S09° 47' 52"W | 32.50' | | | |
| L27 | S31° 44' 29"W | 11.00' | | | |
| L28 | S54° 42' 19"W | 45.73' | | | |
| L29 | S86° 57' 22"W | 18.64' | | | |
| L30 | S04° 59' 43"E | 30.50' | | | |
| L31 | S18° 11' 13"E | 29.66' | | | |
| L32 | N81° 11' 32"W | 16.18' | | | |
| L33 | S31° 44' 29"W | 22.76' | | | |
| L34 | S80° 11' 30"E | 14.97' | | | |
| L35 | S43° 58' 51"E | 15.47' | | | |
| L36 | S03° 53' 09"E | 19.35' | | | |
| L37 | S14° 21' 54"W | 28.81' | | | |
| L38 | S00° 23' 03"E | 30.66' | | | |
| L39 | S08° 19' 20"W | 9.35' | | | |
| L40 | N08° 36' 06"E | 8.81' | | | |

NOTES:

1. PRIMARY ENTRANCE TO EACH TOWNHOUSE AT FRONT OF EACH BUILDING.

2. BUILDING 3 HAS PRIMARY ENTRANCES INTERIOR TO SITE AND IS SPLIT INTO THREE DISTINCT UNITS WITH NO CROSS ACCESS.

3. ALL OTHER PRIMARY ENTRANCES ARE AS SHOWN. ALL UNMARKED ENTRANCES ARE SECONDARY.

4. NUMBER OF 6" RISERS AT STOOPS / STAIRCASES SHOWN TO BE FINALIZED WITH SITE PLAN. ONE - TWO STEPS PER STOOP ANTICIPATED. SEE LANDSCAPE ARCHITECT PLAN FOR FURTHER GRADING DETAILS.

5. 6' MIN CLEAR SIDEWALK TO BE PROVIDED ALONG DUKE, WOLFE, AND SOUTH UNION WITH FINAL SITE PLAN.

| _ | | | |
|---|---|------|-------|
| | APPROVED special use permit no#20 |)14- | 0006 |
| | DEPARTMENT OF PLANNING & COMMUNITY DEVELOPMENT | | |
| | | | |
| | DIRECTOR: | | DATE: |
| | DEPARTMENT OF TRANSPORTATION | & | |

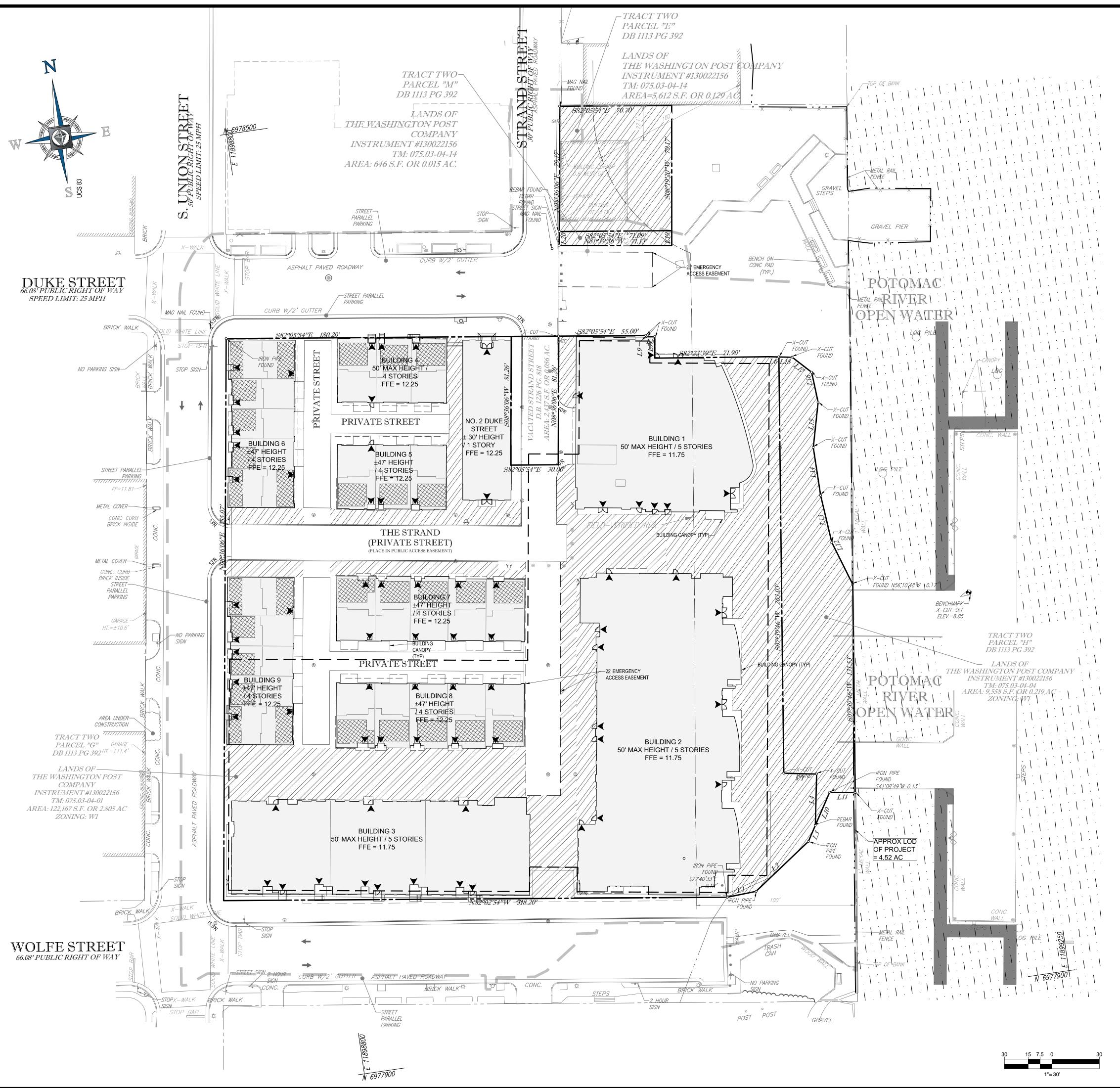
ENVIRONMENTAL SERVICES

DIRECTOR: DATE RECORDED.

PAGE NO. DEED BOOK NO. INSTRUMENT NO.

DATE:





OPEN SPACE NARRATIVE

THE ROBINSON TERMINAL OPEN SPACE IS ENVISIONED AS A SERIES OF PASSIVE AND PROGRAMMABLE OUTDOOR ROOMS THAT PROVIDE VISUAL AND PEDESTRIAN CONNECTIVITY FROM THE ADJACENT RESIDENTIAL AND RETAIL BLOCKS TO THE ACTIVE PROMENADE AND PIER. THE LINEAR OPEN SPACE CONNECTIONS ARE PASSIVE IN NATURE AT RESIDENTIAL FRONTAGES AND ACTIVE AND PROGRAMMABLE AT RETAIL AND COMMERCIAL FRONTAGES. THIS ATTEMPTS TO BLUR THE DISTINCTION BETWEEN THE INTERIOR RETAIL SPACES AND THE ACTIVE ADJACENT OPEN SPACES ACTIVATING THE SPACES DAILY WHILE PROVIDING PROGRAMMABILITY OF THE SPACES FOR EVENTS. THE WATERFRONT CONNECTION IS STRENGTHENED BY EXTENDING THE RETAIL FROM THE STRAND TO THE PROMENADE INCORPORATING RESTAURANT AND SMALL CAFES AT STREET LEVEL SEVERAL FEET ABOVE PROMENADE LEVEL.

A VARIETY OF PASSIVE AND PROGRAMMABLE SPACES INCLUDING SHADED GARDEN ROOMS, AN OPEN SLOPED LAWN AND AN EXPANDED STEPPED PLAZA SPACE, MULTIPURPOSE WATER FEATURE, AMPHITHEATER WITH SEATWALLS AND 4% SLOPED WALKWAYS PROVIDE FLUID ACCESS BETWEEN THE PROMENADE LEVEL AND THE UPPER RETAIL LEVEL. PROGRAMING COULD INCLUDE SMALL MUSIC EVENTS, MOVIE NIGHT, STREET

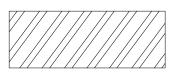
PERFORMERS, FIREWORK VIEWING OR OTHER WATER RELATED EVENTS. WE ENVISION AN OPEN SPACE INTERWOVEN WITH A LAYER OF PUBLIC ART FEATURES ESTABLISHING A

VOCABULARY OF ORIENTATION AND CONNECTIVITY THROUGHOUT THE SITE. THE PIER TOWER LOCATED ON AXIS WITH THE STRAND WILL SERVE AS A BEACON FROM THE WATERFRONT, FROM THE PROMENADE TO THE NORTH AND SOUTH AND THE CONNECTION TO THE STAND STEPPED PLAZA/WATER FEATURE, WHICH WILL INCLUDE ADDITIONAL ART COMPONENTS DRAWING THE USERS INTO THE UPPER LEVEL RETAIL AREA AND THE NORTH/SOUTH STRAND.

THE DEMARCATION OF THE NORTH SOUTH STRAND IS NOTED WITH A SERIES OF PAVEMENT ART REPRESENTING THE HISTORIC WORKING SEAPORT ON AXIS WITH THE ALLIES MAKING THE CONNECTION TO WOLFE STREET.

THE PIER IS ENVISIONED AS THE MOST ACTIVE COMPONENT OF ROBINSON TERMINAL WITH SEASONAL CAFÉ, A SHADE STRUCTURE FOR PASSIVE AND PROGRAMMABLE EVENTS AND AMPLE OPEN SPACE FOR DANCE OR MUSIC EVENTS AND SEAPORT RELATED EVENTS WITH DOCKING SPACE FOR SEVERAL TALL SHIPS. THE PIER IS ALSO ACCESSIBLE VIA PLEASURE CRAFT WITH TRANSIENT TIE UP SPACE PROVIDING WATERFRONT CONNECTIVITY. IN A PROGRAMMED EVENT THE LINEAR OPEN SPACES/STREETS SUCH AS THE STRAND CAN BE CLOSED TO ACCOMMODATE MERCHANT BOOTHS AND ESTABLISH A VEHICLE FREE ACTIVE ZONE FROM THE CITY BLOCKS THROUGH THE SITE TO THE PIER.

OPEN SPACE = 1.22 AC (53,168 SF)



OPEN SPACE



ROOF TOP OPEN SPACE

0.69 AC: RESIDENTIAL CLUSTER DEVELOPMENT* (30,181 SF) 0.16 AC TH ROOF TOP OPEN SPACE (6,883 SF) 0.53 AC OPEN SPACE (23,298 SF)

0.53 AC: WATERFRONT LOT (22,987 SF)

* RESIDENTIAL OPEN SPACE INCLUDES LOTS E & M



DIRECTOR:

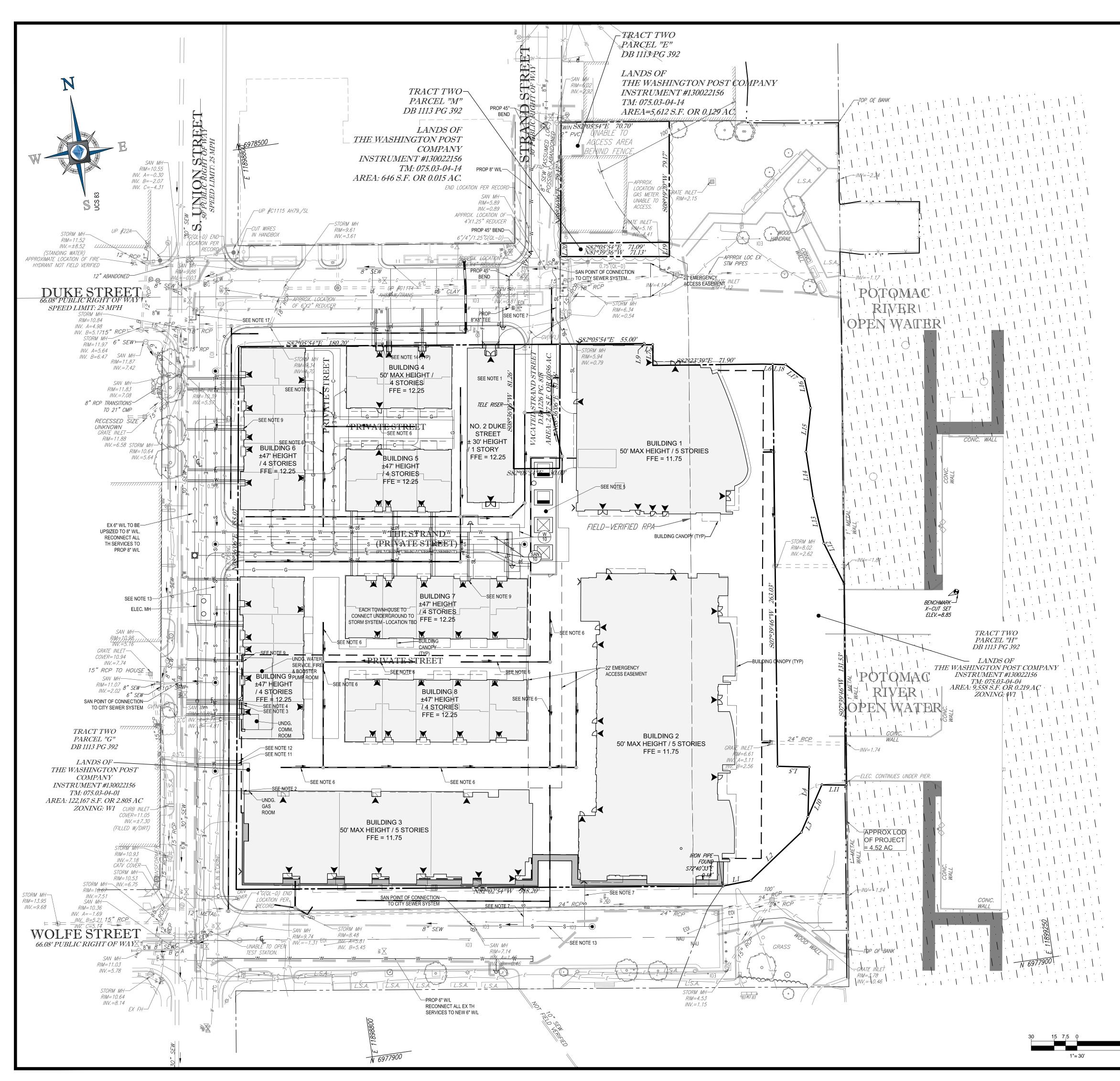
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

DATE: DIRECTOR: DATE RECORDED.

DEED BOOK NO. PAGE NO. INSTRUMENT NO.

DATE:

| 22636 DAVIS DRIVE; STE 250 | STERLING, VA 20164 703-709-9500 WWW. BOHLERENGINEERING.COM | architects | _ | | | | | |
|--------------------------------------|---|--|--|---|--|--|--|--|
| | ARCHITECT | shalom baranes associates | MPFP LLC | 120 Broadway, 20th Fl. New York, NY 10271 tele. 212. 477. 6366 fax. 212. 477. 6548 | | | | |
| REV | RI date | EVISIO | | BY | | | | |
| | 11/21/14 12/23/14 | REV. PE COMM REV. PE COMM | R CITY | IS IS | | | | |
| | | COMIN | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| EXCAVA DISTUR IN VI (WV 1-8 | FOLLOWING ST TORS, DESIGNI B THE EARTH'S RGINIA, MARYL NORTH CAROLI 00-245-4848) (P/ 00-552-7001) (MC | ERS, OR ANY I SURFACE AN AND, THE DIS NA AND DELA A 1-800-242-13 | PERSON PREF YWHERE IN TH TRICT OF COL WARE CALL - 8 776) (DC 1-800 | PARING TO HE STATE. UMBIA, 311 -257-7777) | | | | |
| | NOT AP | PROV | | R | | | | |
| DRA | LE: | | 09 | 132178 IS MAT 9/19/14 1" = 30' SS2 | | | | |
| | ject: DEVE SPE(PERM | CIAL | USE | | | | | |
| | RT ASS(| - FOR - SOU | JTH ATES | | | | | |
| | LOCA BINSON ITY OF A | | NAL SO | | | | | |
| | ת | <u> </u> | ים די | | | | | |
| | BOHLER BOHLER B N G I N E E R I N G 22636 DAVIS DRIVE, SUITE 250 STERLING, VIRGINIA 20164 Phone: (703) 709-9500 Fax: (703) 709-9501 www.BohlerEngineering.com | | | | | | | |
| | Circhael J. O'HARA JR. Lic. No. 34168 | | | | | | | |
| (| et title: OPE] F | PLA | | | | | | |
| | | -3 OF 92 | .2 | | | | | |



UTILITY WORKS

UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING MINIMUM STANDARDS DESCRIBED IN SECTION 4VAC50-30-40 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH) AND ADDITIONAL APPLICABLE PRACTICES FOLLOWED BY THE CITY OF ALEXANDRIA:

A. ALL PRIVATE UTILITIES SHALL BE LOCATED OUTSIDE OF THE PUBLIC RIGHT-OFWAY AND PUBLIC UTILITY EASEMENTS UNLESS THE UTILITY OWNERS HAVE FRANCHISE AGREEMENT WITH THE CITY OF ALEXANDRIA; HOWEVER, NO ELECTRIC TRANSFORMERS AND SWITCH GEARS / CONTROL BOXES SHALL BE PLACED IN THE PUBLIC RIGHT OF

B. ALL THE EXISTING AND PROPOSED PUBLIC AND PRIVATE UTILITIES AND EASEMENTS SHALL BE SHOWN AND A DESCRIPTIVE NARRATION OF VARIOUS UTILITIES SHALL BE PROVIDED ON THE PLAN.

C. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN UTILITY SERVICES AT ALL TIMES DURING CONNECTION AND/OR CONSTRUCTION.

D. NO MORE THAN 500 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME.

E. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES.

F. EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF-SITE PROPERTY.

G. MATERIAL USED FOR BACKFILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ACCORDANCE WITH THE CITY OF ALEXANDRIA STANDARDS AND SPECIFICATIONS TO MINIMIZE EROSION AND PROMOTE STABILIZATION.

H. SHOULD UTILITY CONSTRUCTION BE PERFORMED AFTER COMPLETING EARTHWORK, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACHIEVING 98 PERCENT OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM D-1551) COMPACTION IN ALL TRENCH BACKFILL.

I. DESTABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE VIRGINIA REGULATIONS §4VAC50-30 EROSION AND SEDIMENT CONTROL REGULATIONS, VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH).

J. APPLICABLE SAFETY REGULATIONS SHALL BE COMPLIED WITH.

K. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL CONTROL MEASURES AS NECESSARY TO PREVENT EROSION AND SEDIMENTATION, AS DETERMINED BY THE DIRECTOR OF TRANSPORTATION AND ENVIRONMENTAL SERVICES, CITY OF ALEXANDRIA.

L. A REMEDIATION PLAN SHALL BE SUBMITTED DETAILING HOW CONTAMINATED SOILS AND/OR GROUNDWATER WILL BE DEALT WITH, INCLUDING PLANS TO PREMEDITATE UTILITY CORRIDORS.M. UTILITY CORRIDORS IN CONTAMINATED SOIL SHALL BE OVER EXCAVATED BY 2 FEET AND BACKFILLED WITH "CLEAN" SOIL.

N. GRADING CAN BE PERFORMED ON INSTALLATION OF UTILITIES.

O. ALL UTILITIES SUCH AS ELECTRICAL LINES, GAS PIPES, COMMUNICATION CABLES, INCLUDING WATER AND SEWER LATERALS ON PRIVATE PROPERTY IN THE CITY OF ALEXANDRIA SHALL BE PROVIDED WITH MINIMUM 3" WIDE 5 MIL OVERALL THICKNESS DETECTABLE UNDERGROUND WARNING TAPE (DUWT). THE DUWT SHALL BE INSTALLED AT DEPTHS OF 12" TO 18" FOR DUWT WIDTHS OF 3" AND 24" FOR WIDTHS OF 6" SO AS TO MAKE UNDERGROUND INSTALLATIONS EASY TO FIND USING A NON-FERROUS LOCATOR. THE DUWT SHALL BE WITH ALUMINUM BACKING OR SOLID ALUMINUM CORE LAMINATED WITH A PROTECTIVE CLEAR FILM ON BOTH SIDES, SEALING AND PROTECTING THE GRAPHICS FROM UNDERGROUND MOISTURE, ACIDS, ALKALIS, AND OTHER

| SOIL SUBSTANCES. ALL DUWT | TAPES SHALL BE PRINTED IN BLACK INK ON AMERICAN PUBLIC WORKS ASSOCIATION (APWA) OR EXCEED INDUSTRY STANDARDS. |
|---------------------------|--|
| COLOR RED | <u>CODES</u> CAUTION BURIED ELECTRIC POWER LINES, CABLES, CONDUITS, AND LIGHTING CABLES |
| YELLOW | CAUTION GAS, OIL, STEAM, PETROLEUM, OR GASEOUS MATERIALS |
| ORANGE | CAUTION COMMUNICATIONS, ALARM OR SIGNAL LINES, CABLES, OR CONDUITS |
| BLUE | CAUTION POTABLE WATER |
| PURPLE | CAUTION RECLAIMED WATER, IRRIGATION AND SLURRY LINES |

GREEN CAUTION SEWER, DRAIN LINES, AND FORCE MAIN

SOLID WASTE MANAGEMENT

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

THE PLAN DEMONSTRATES THAT ADEQUATE SPACE WITHIN EACH UNIT TO ACCOMMODATE A CITY STANDARD SUPER CAN AND RECYCLING CONTAINER HAS BEEN PROVIDED. THE CONTAINERS ARE PLACED INSIDE THE UNITS OR WITHIN AN ENCLOSURE THAT COMPLETELY SCREENS THEM FROM VIEW. THE DEVELOPER SHALL PURCHASE THE STANDARD CONTAINERS FROM THE CITY OR PROVIDE CONTAINERS THAT ARE COMPATIBLE WITH CITY COLLECTION SYSTEM AND APPROVED BY THE DIRECTOR OF TRANSPORTATION AND ENVIRONMENTAL SERVICES.

THE PLAN DEMONSTRATES THAT ADEQUATE SPACE FOR SOLID WASTE AND RECYCLING CONTAINERS HAS BEEN PROVIDED AND THE DEVELOPMENT MEETS ALL THE MINIMUM STREET STANDARDS, INCLUDING ALL STANDARD CUL-DE-SAC TURNAROUNDS, IF APPLICABLE. THE TRASH TRUCK TURNING MOVEMENTS DEMONSTRATE THAT THE TRASH TRUCK IS ABLE TO PICK UP SOLID WASTE FROM PRIVATE STREETS WITHOUT BACKING UP. THE CONTAINERS HAVE BEEN PLACED WITHIN AN ENCLOSURE THAT COMPLETELY SCREENS THEM FROM VIEW.

2. IN THE EVENT SECTION 5-1-2(12B) OF THE CITY CHARTER AND CODE TITLE 5:

TRANSPORTATION AND ENVIRONMENTAL SERVICES IS AMENDED TO DESIGNATE MULTIFAMILY DWELLINGS IN GENERAL, OR MULTI-FAMILY DWELLINGS WHEN SO PROVIDED BY SPECIAL USE PERMIT (SUP), AS REQUIRED USER PROPERTY [AS DEFINED IN 5-1-2(12B) OF THE CITY CHARTER AND CODE], THEN REFUSE COLLECTION SHALL BE PROVIDED BY THE CITY FOR THE TOWNHOME CONDOMINIUM PORTION OF THIS PLAN.

NOTES:

1. ALL UTILITIES CURRENTLY SERVICE EXISTING #2 DUKE STREET EXCEPT FIRE. RELOCATION OF SERVICE TO WEST SIDE OF BUILDING FOR GAS, ELECTRIC, AND TELEPHONE OF SERVICE IS ASSUMED.

2. GAS FOR BUILDINGS 1-3 AND 7-9.

3. 8" FIRE FOR BUILDINGS 1-3

- 4. 6" DOMESTIC WATER LINE AND A 4" INTERNAL METER FOR BUILDINGS 1-3 WITH A 1" IRRIGATION SUBMETER.
- 82' x 16' ELECTRIC VAULT FOR BUILDINGS 1-3 AND 7-9. REFER TO DRY UTILITY PLAN FROM DAVIS CONSULTING FOR ADDITIONAL DRY UTILITY INFORMATION.
- 6. AREA DRAINS THROUGH COURTYARD, TYPICAL 2' MIN COVER, 8" PVC
- 7. 6" SEWER LATERALS FOR BUILDINGS 1, 2, AND 3
- 8. ALL PROPOSED STORM APPROXIMATELY 15" DIAMETER OR LESS. ALL PROPOSED SANITARY 10" (MAINS DASHED) OR 4" (LATERALS SOLID LINES).
- 9. 2" PVC FIRELINE AND 1" COPPER DOMESTIC LINE FOR TOWN HOUSES THAT ARE PART OF BUILDINGS 4-6, 7, AND 9. (TYP.)
- 10. FINAL SIZE OF ALL UTILITIES TO BE DETERMINED AT SITE PLAN.
- 11. 4" WATER / FIRE WITH 2" METER AND PRIVATE SUBMETERS TO FEED TH BUILDING 8.
- 12. 6" SEWER SERVICE FOR TH BUILDING 8.
- 13. 10" SEWER MAIN.

14. 2" METER OR SMALLER TO BE INSTALLED OUTSIDE OF BUILDING PER CODE, IN A METER BOX, BEHIND THE CURB AND IN THE SIDEWALK.

15. WATER OWNED BY VIRGINIA AMERICAN WATER, CABLE BY VERIZON, ELECTRIC BY DVP. STORM ON SITE TO BE PRIVATELY MAINTAINED BY HOA.

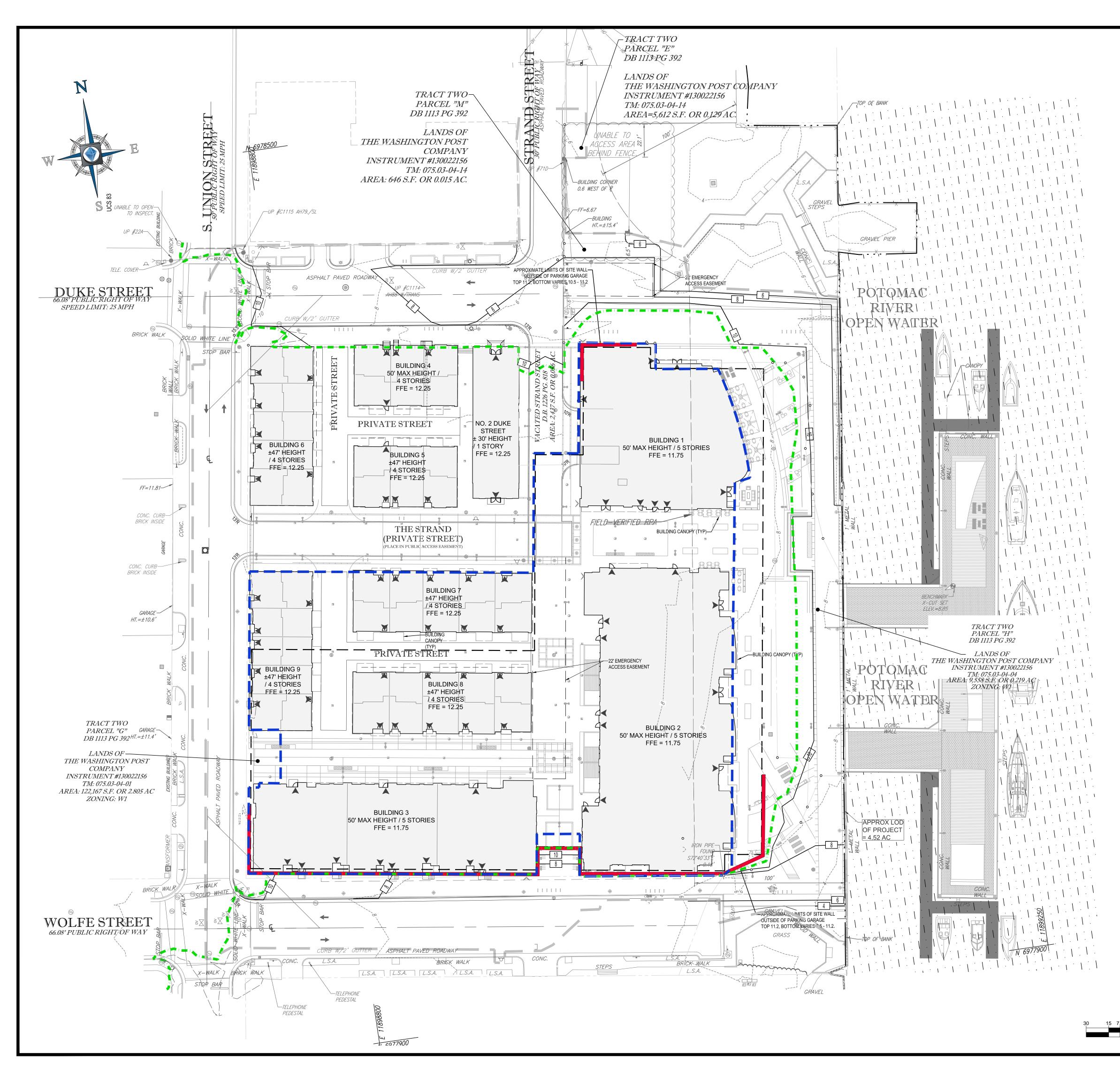
16. TREE PIT UNDERDRAIN SIZE TO BE DETERMINED WITH FINAL SITE PLAN

17. SIZE OF WATER LINE TO BE VERIFIED IN FIELD AND UPSIZED TO 8" LINE SIZE IF NECESSARY.

| APPROVED SPECIAL USE PERMIT NO DEPARTMENT OF PLANNING & COMMUNITY DEVELOPMENT | 0006 |
|--|----------|
| DIRECTOR: DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES | DATE: |
| DIRECTOR: | DATE: |
| DATE RECORDED | PAGE NO. |

| 22636 DAVIS DRIVE; STE 250 STERLING, VA 20164 703-709-9500 WWW. BOHLERENGINEERING. OTChiteC |
|--|
| CIVIL ENGINEER COULT ENGINEER COULTINE COUL |
| REVISIONSREVDATECOMMENTBY111/21/14REV. PER CITY COMMENTSIS |
| 212/23/14REV. PER CITY COMMENTSIS33/4/15REV PER BLDG 3 ARCHIS |
| |
| |
| |
| THE FOLLOWING STATES REQUIRE NOTIFICATION BY |
| EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE. IN VIRGINIA, MARYLAND, THE DISTRICT OF COLUMBIA, NORTH CAROLINA AND DELAWARE CALL - 811 (WV 1-800-245-4848) (PA 1-800-242-1776) (DC 1-800-257-7777) (VA 1-800-552-7001) (MD 1-800-257-7777) (DE 1-800-282-8555) |
| NOT APPROVED FOR CONSTRUCTION |
| PROJECT No.: S132178 DRAWN BY: IS CHECKED BY: MAT DATE: 09/19/14 SCALE: 1" = 30' CAD I.D.: SS3 |
| PROJECT: DEVELOPMENT SPECIAL USE PERMIT (DSUP) |
| RT SOUTH ASSOCIATES |
| LLC LOCATION OF SITE ROBINSON TERMINAL SOUTH CITY OF ALEXANDRIA, VA |
| |
| BOHLER BOHLER 22636 DAVIS DRIVE, SUITE 250 |
| STERLING, VIRGINIA 20164 Phone: (703) 709-9500 Fax: (703) 709-9501 www.BohlerEngineering.com |
| Chichael J. O'Hara JR. Lic. No. 34168 3/4/15 |
| SHEET TITLE: UTILITY PLAN |
| SHEET NUMBER: C=4.0 OF 92 |
| |

S



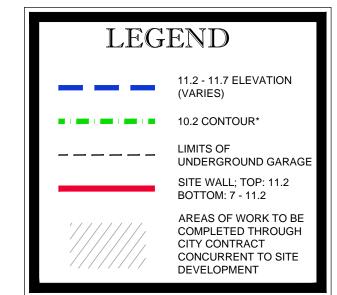
GRADING NARRATIVE

PLAN PROVIDES TWO FOOT PROPOSED CONTOURS PER DSUP CHECKLIST. SEE LA SHEETS FOR DETAILED CONCEPTUAL GRADING ON SITE / ALONG WATERFRONT.

NOTE:

SEE SHEETS C-5.1 AND C-5.2 FOR ROADWAY GRADING DETAILS.





* NEW LIMIT OF FEMA 100 YR FLOODPLAIN.

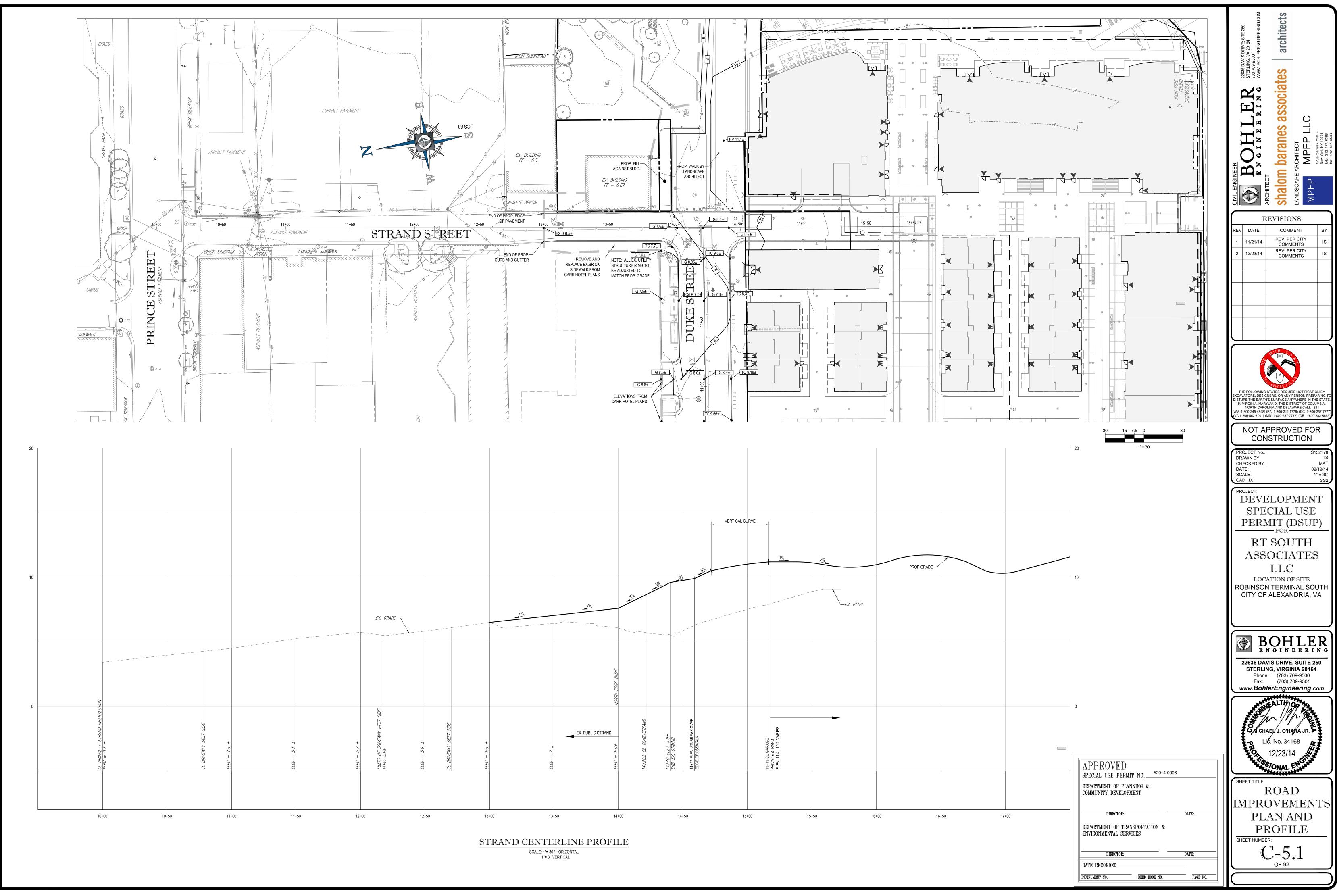
INSTRUMENT NO.

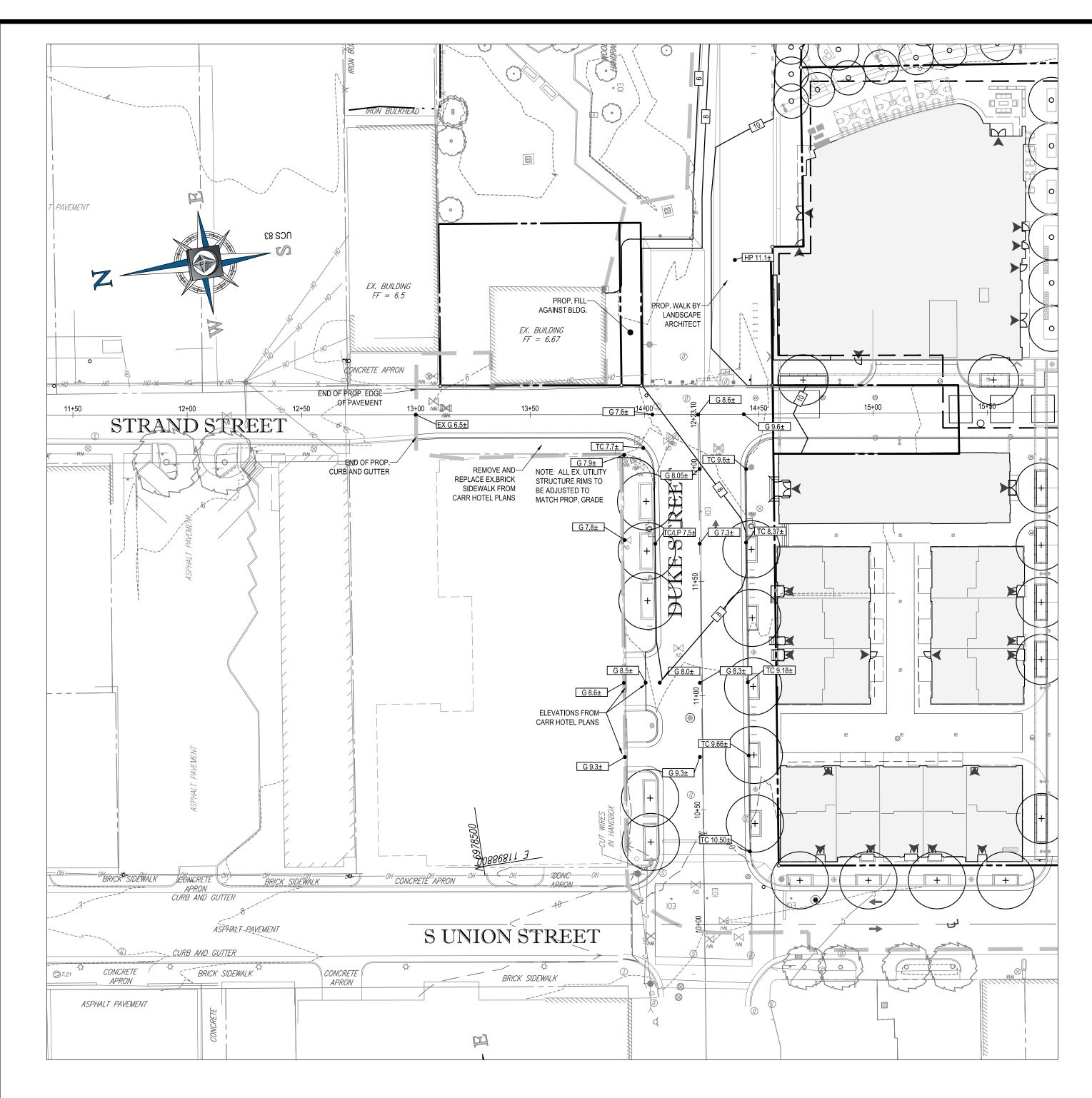


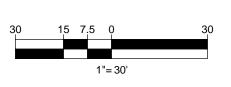
DEED BOOK NO.

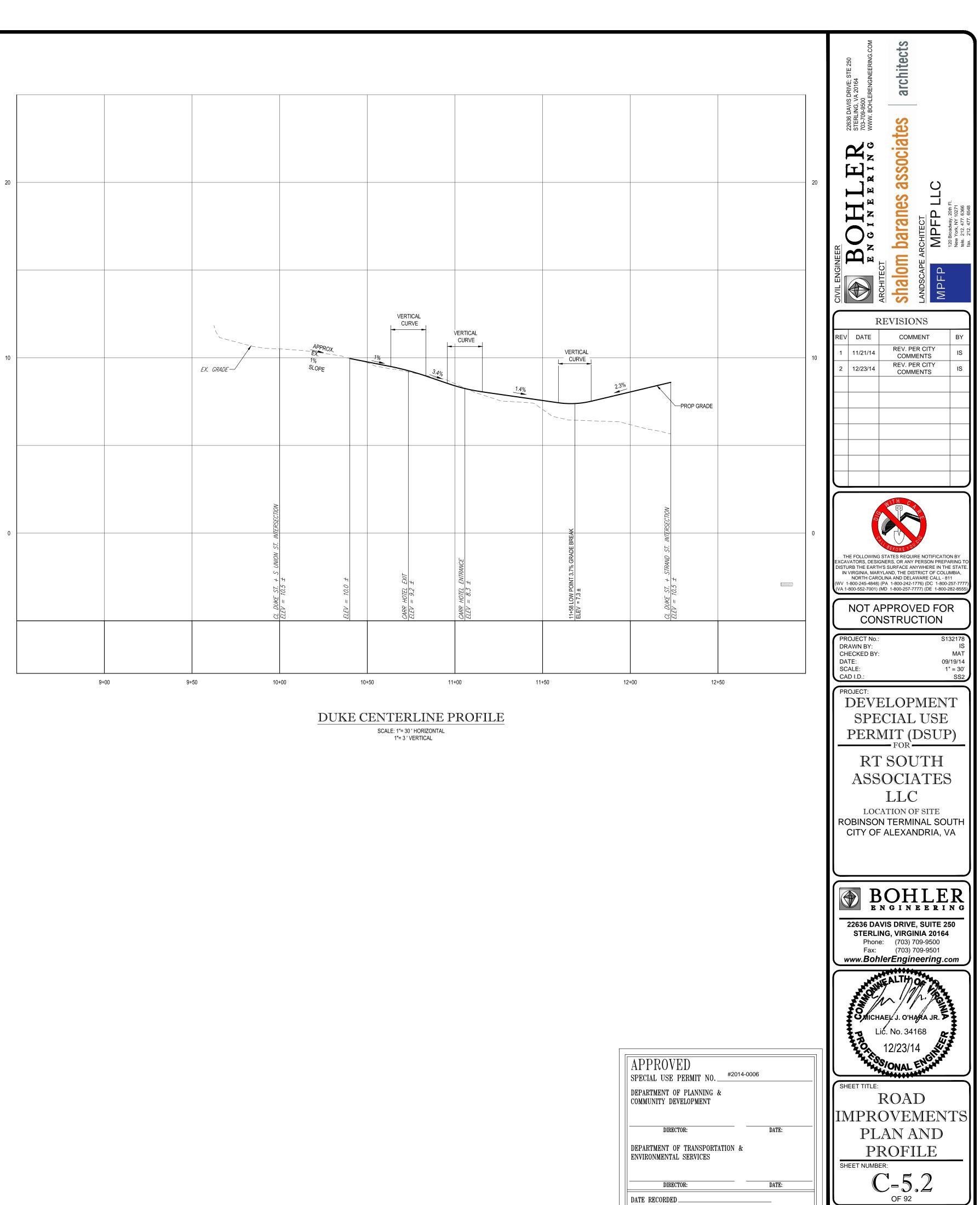
PAGE NO.

1"= 30'

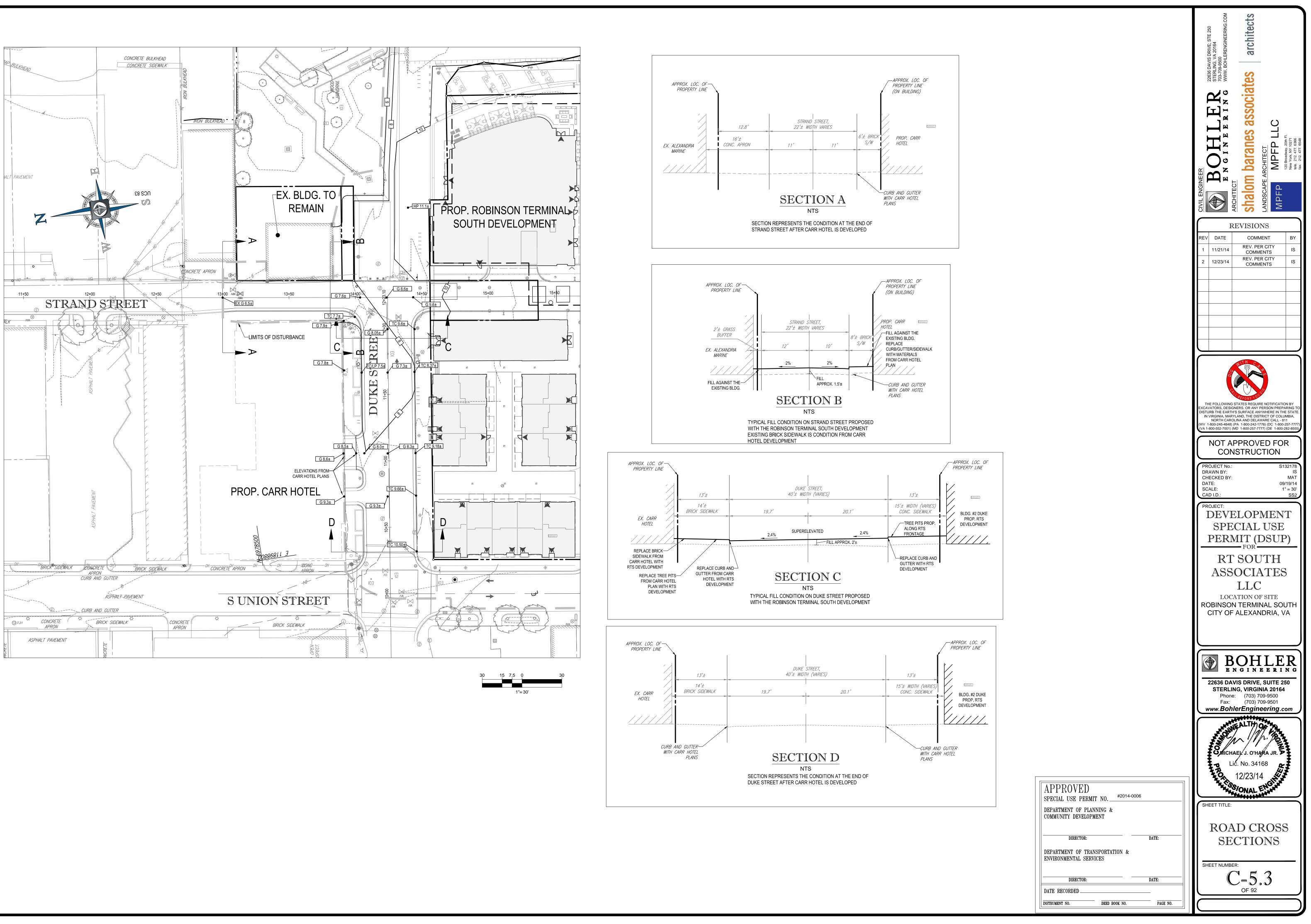


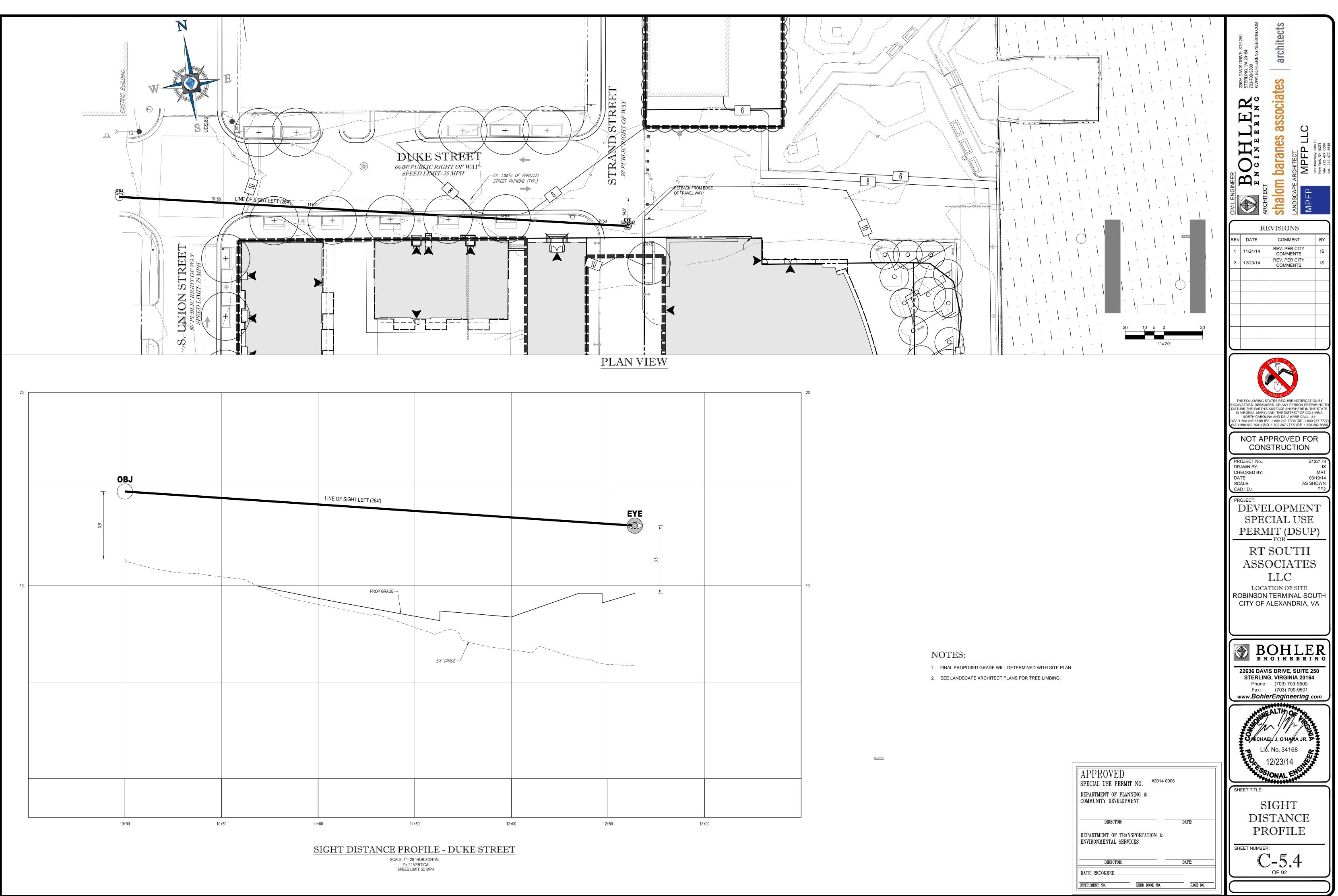


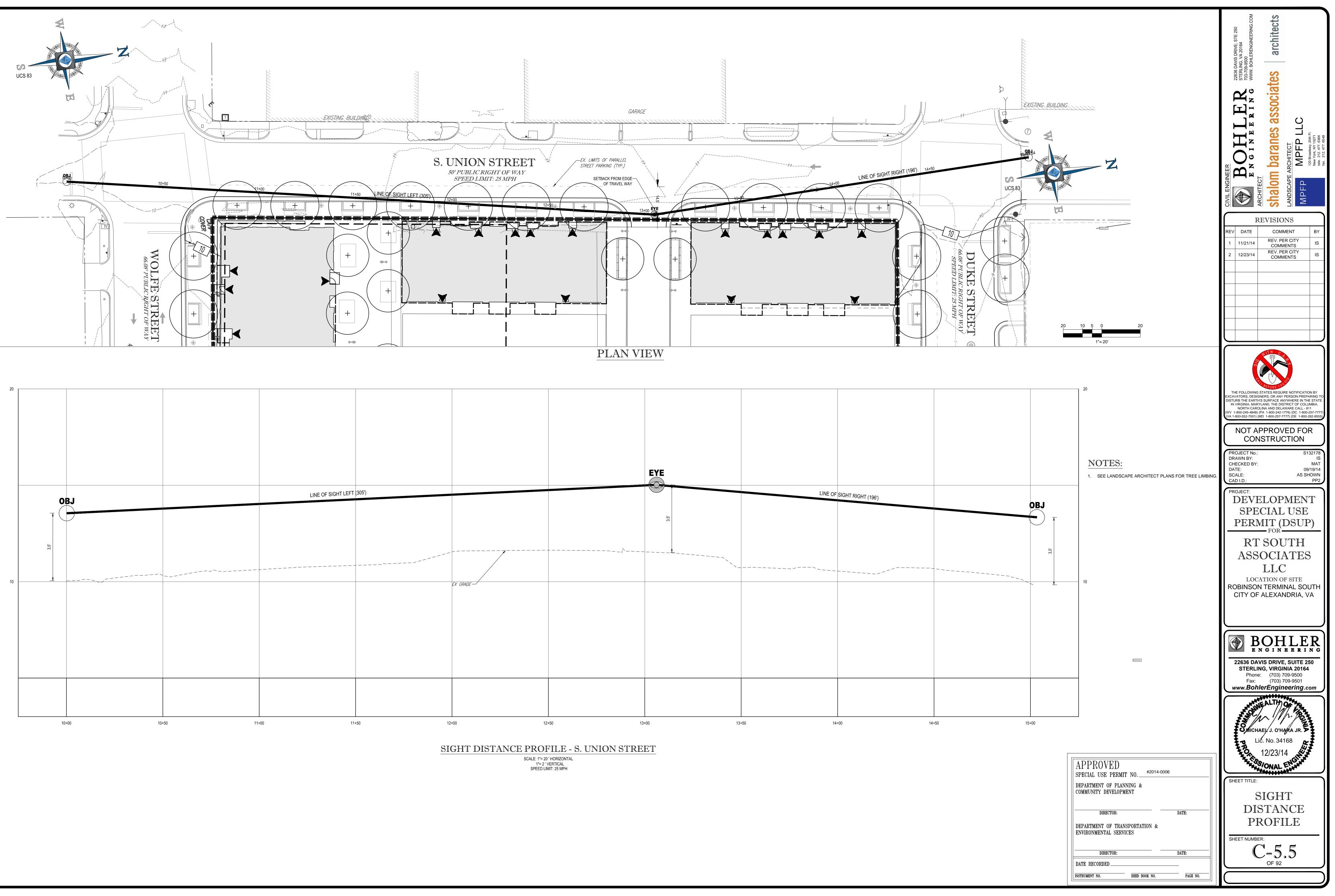


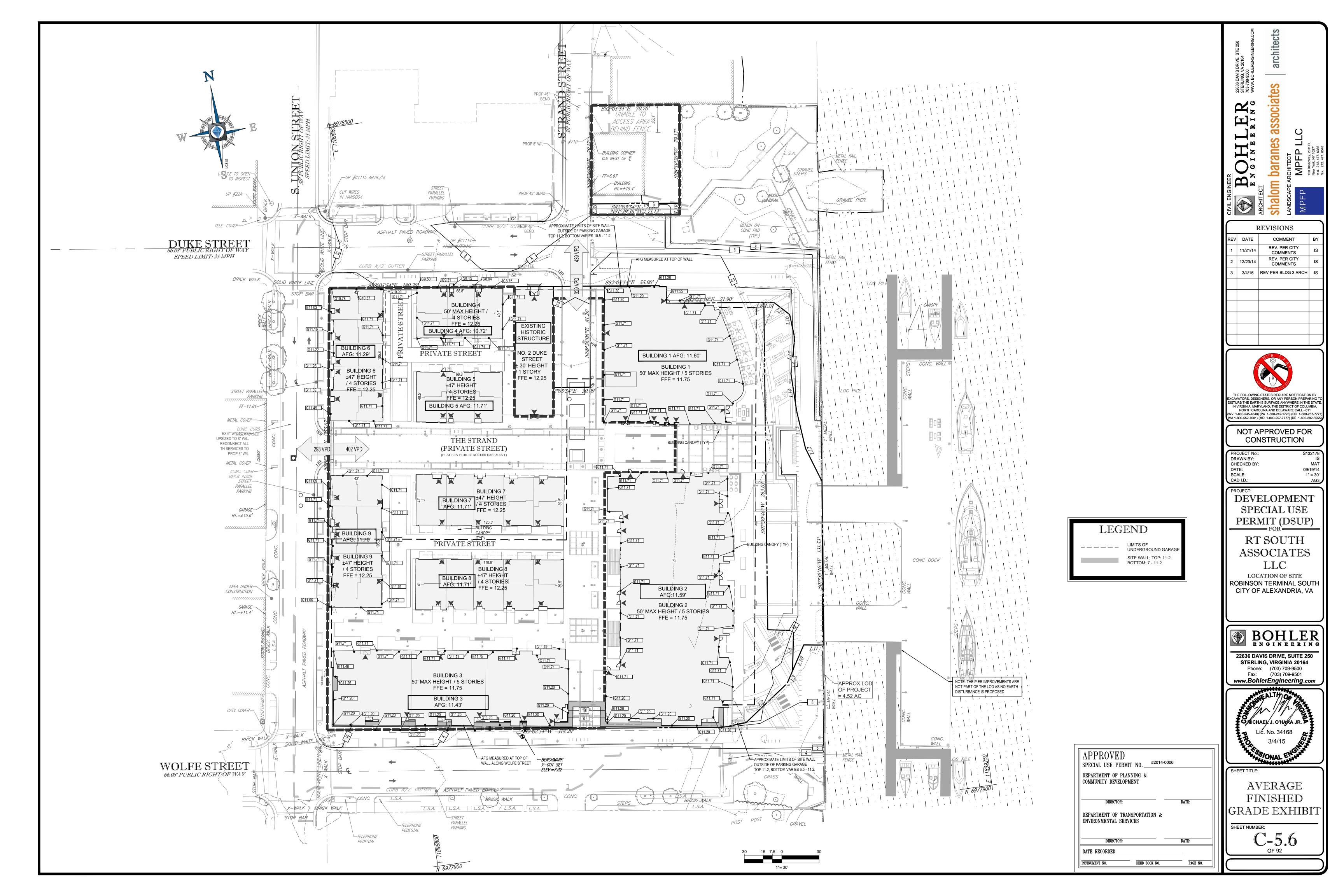


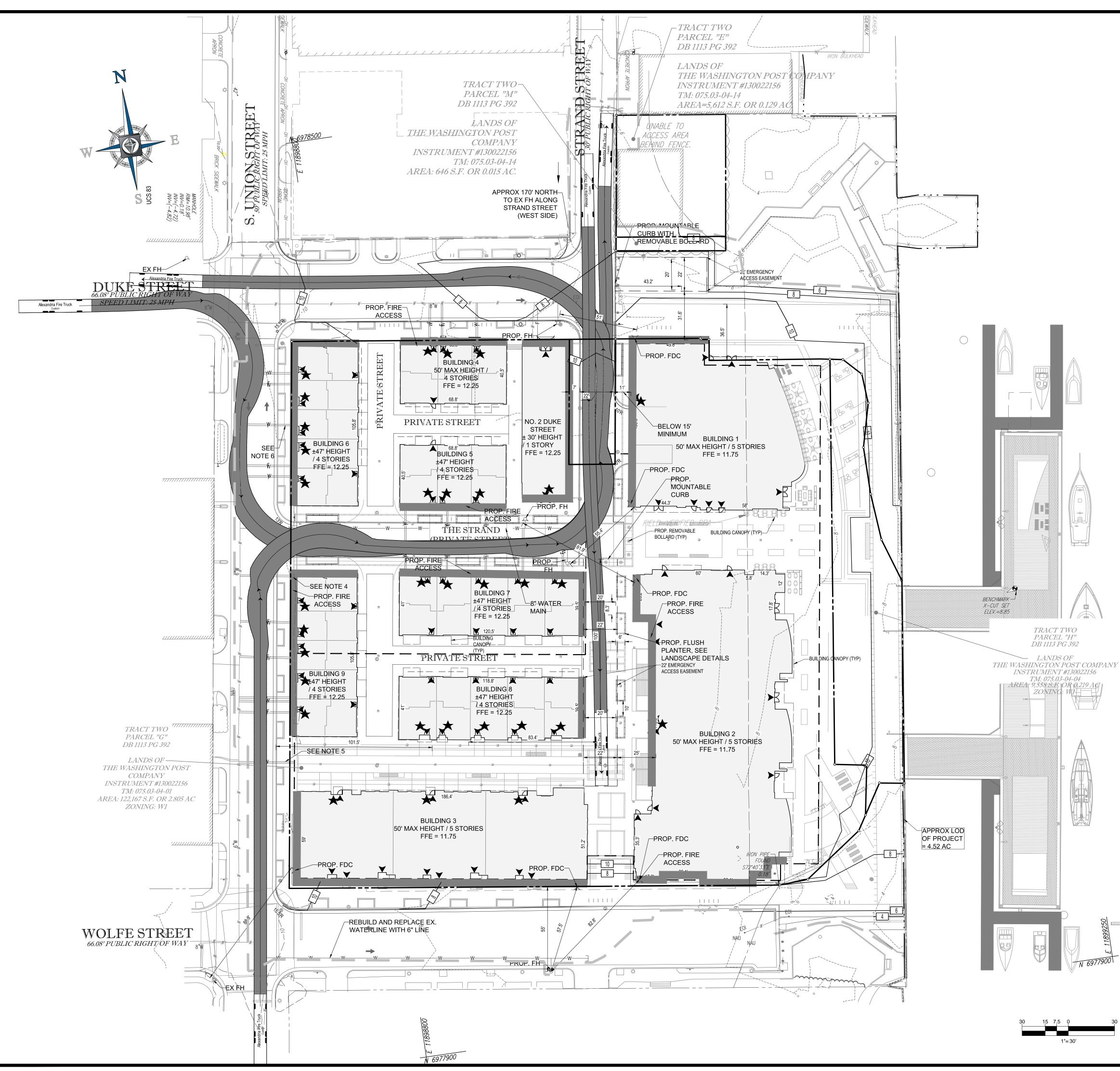
| DIRECTOR: | | DAIE: |
|--|---------------|----------|
| DEPARTMENT OF TRA ENVIRONMENTAL SER | | |
| DIRECTOR: | | DATE: |
| DATE RECORDED | | |
| INSTRUMENT NO. | DEED BOOK NO. | PAGE NO. |



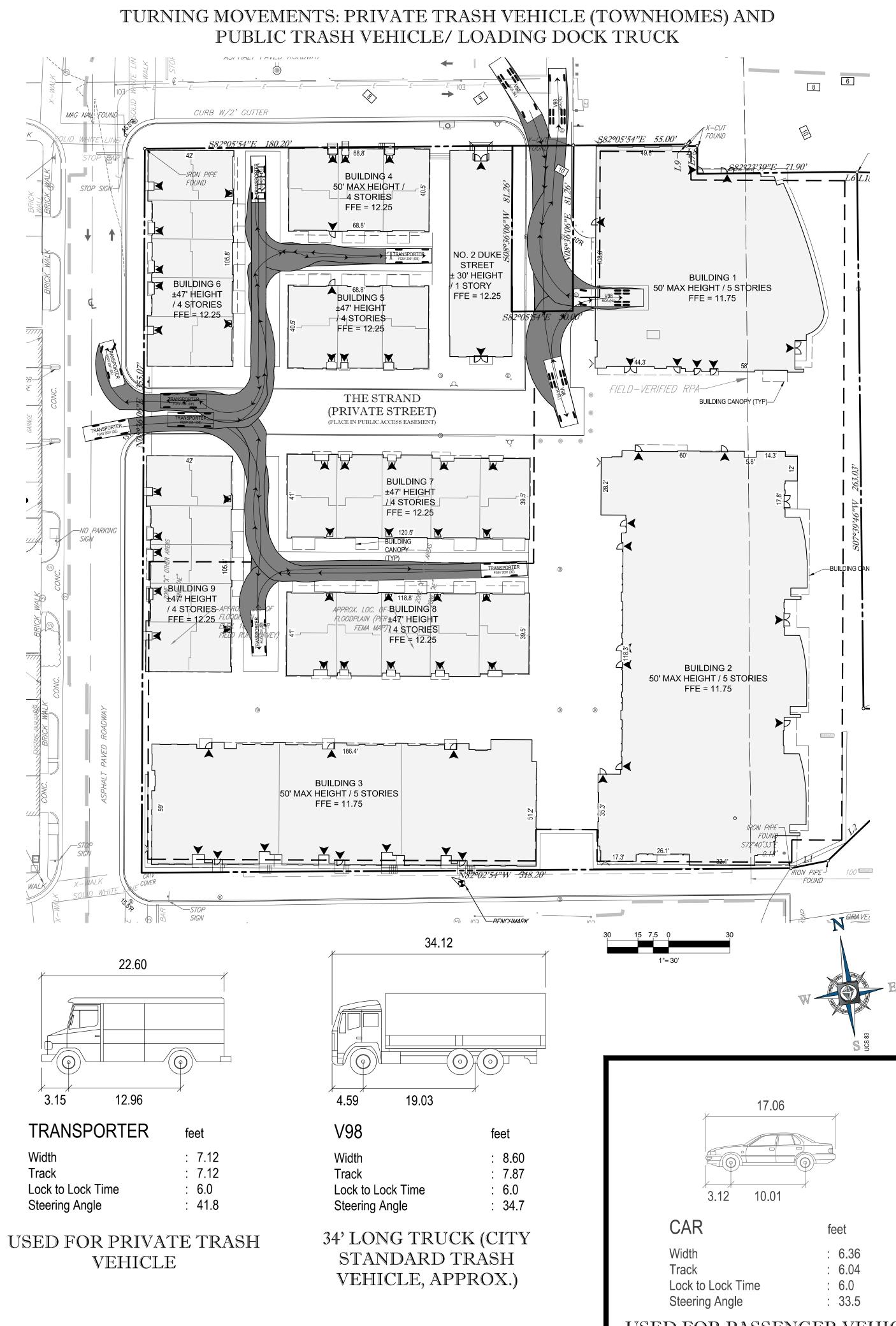




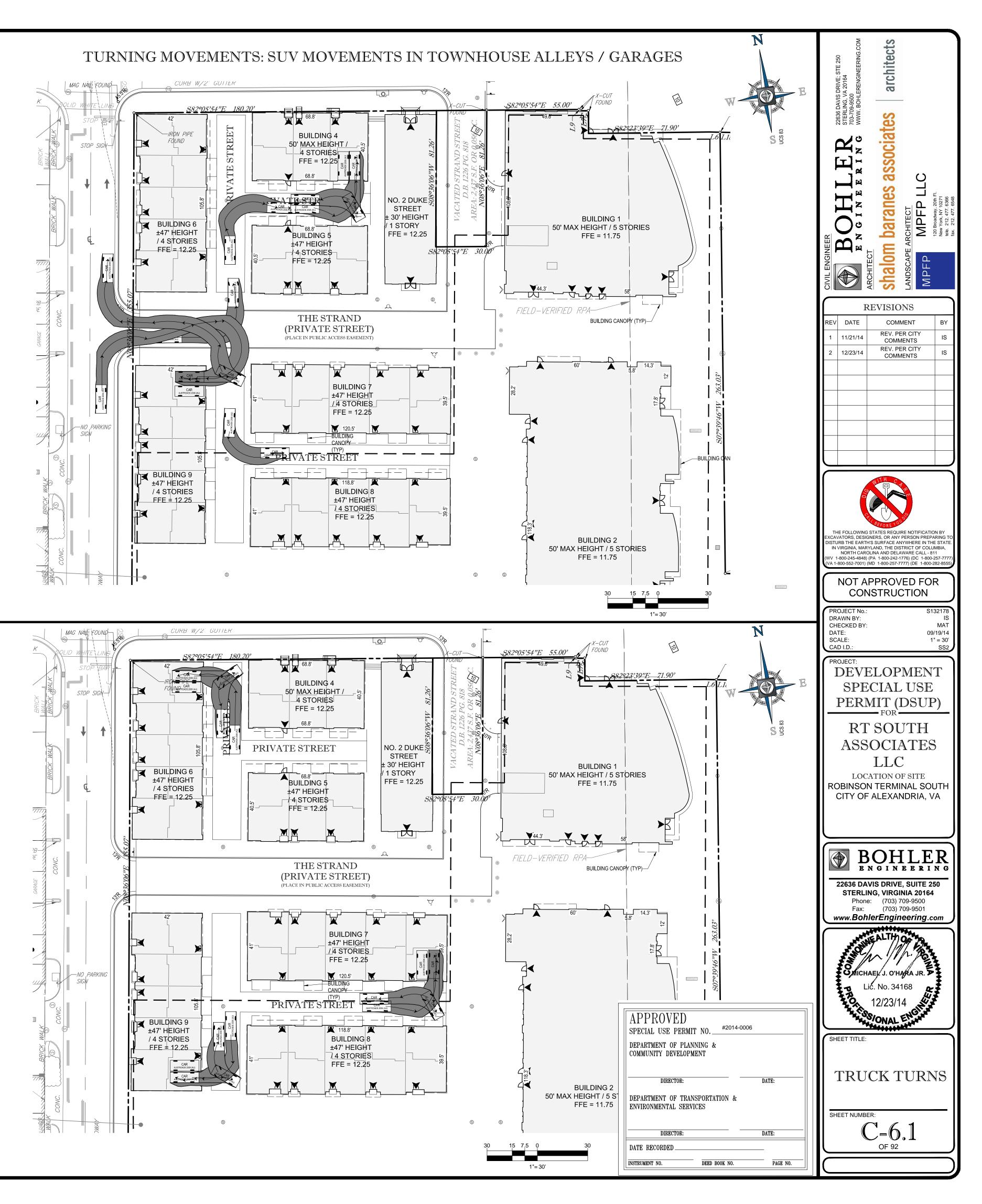


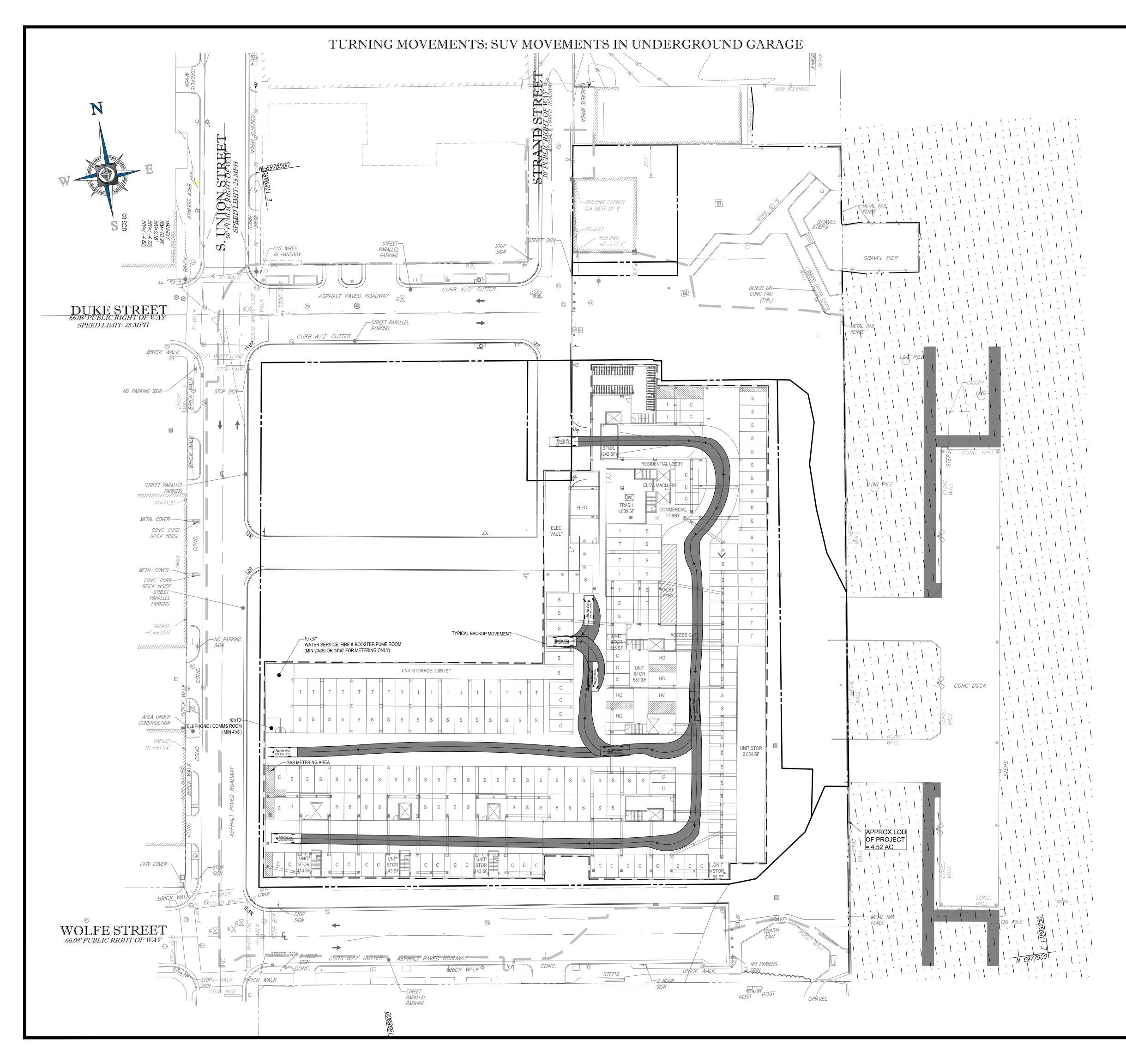


chitects **REQUIRED FIRE TRUCK ACCESS:** 48% OF BUILDING PERIMETER OR LONGEST FRONTAGE + ADJACENT SIDE ar EX BUILDING: N/A, SEE NOTE BUILDING 1: 38% - BUILDING CODE MODIFICATION REQUESTED BUILDING 2: 23% - BUILDING CODE MODIFICATION REQUESTED 22636 I STERL 703-709 WWW BUILDING 3: LONGEST FRONTAGE + ADJACENT SIDE es BUILDING 4: N/A, SEE NOTE 1 BUILDING 5: N/A, SEE NOTE 1 ociati BUILDING 6: N/A, SEE NOTE 1 \mathbf{A}_{z}° BUILDING 7: N/A, SEE NOTE 1 BUILDING 8: N/A, SEE NOTE 1 BUILDING 9: N/A, SEE NOTE 1 S \mathbf{O} NOTES: S 1. BUILDINGS 4-9 AND THE EX BUILDING ARE NOT 5 STORIES OR 50' OR MORE IN HEIGHT. THEREFORE, THEY DO NOT aran REQUIRE FULL LADDER TRUCK ACCESS. 2. ONE TOWN HOUSE IN BUILDING 8 IS MORE THAN 100' FROM FIRE TRUCK ACCESS AS NOTED. Ö O 3. 300' HOSE LAY COVERAGE IS MET FOR ALL PROPOSED BUILDINGS WITH PROPOSED FIRE HYDRANTS NOTED. **M**[™] 4. 8" FIRE FOR BUILDINGS 1-3 AND 7-9. \cap 5. 4" FIRE LINE SERVING BUILDING 8 (TH). 6. 2" PVC FIRELINE FOR TOWN HOUSES THAT ARE PART OF BUILDINGS 4-6, 7, AND 9. 5 7. PRIMARY ENTRANCE IS INDICATED BY A 🗙 REVISIONS V DATE COMMENT REV. PER CITY 11/21/14 COMMENTS 47.37 REV. PER CITY 12/23/14 COMMENTS 20.00 8.00 Alexandria Fire Truck feet Width : 8.17 : 8.00 Track Lock to Lock Time : 6.0 THE FOLLOWING STATES REQUIRE NOTIFICATION BY AVATORS, DESIGNERS, OR ANY PERSON PREPARIN ISTURB THE EARTH'S SURFACE ANYWHERE IN THE STAT IN VIRGINIA, MARYLAND, THE DISTRICT OF COLUMBIA, : 25.6 Steering Angle NORTH CAROLINA AND DELAWARE CALL - 811 / 1-800-245-4848) (PA 1-800-242-1776) (DC 1-800-257-7 A 1-800-552-7001) (MD 1-800-257-7777) (DE 1-800-282-85 NOT APPROVED FOR CONSTRUCTION PROJECT N DRAWN BY: CHECKED BY: DATE: 09/19/14 SCALE: 1" = 30 CAD I.D. PROJEC DEVELOPMENT SPECIAL USE PERMIT (DSUP) **RT SOUTH** ASSOCIATES LLC LOCATION OF SITE ROBINSON TERMINAL SOUTH CITY OF ALEXANDRIA, VA BOHLER BNGINEERING BOHLER 22636 DAVIS DRIVE, SUITE 250 STERLING, VIRGINIA 20164 Phone: (703) 709-9500 Fax: (703) 709-9501 THE INNER SURFACE OF THE LADDER TRUCK ACCESS www.BohlerEngineering.com WAY SHALL BE NO LESS THAN 15 FEET AND NO MORE THAN 30 FEET FROM THE EXTERIOR BUILDING WALL PER CODE. DIMENSIONS INDICATED WHERE THIS Sinichael J. O'HARA JI SEPARATION IS NOT MET. No. 34168 APPROVED SPECIAL USE PERMIT NO. ______ SHEET TITLE DEPARTMENT OF PLANNING & COMMUNITY DEVELOPMENT FIRE SAFETY DATE: DIRECTOR: PLAN DEPARTMENT OF TRANSPORTATION & || ENVIRONMENTAL SERVICES HEET NUMBER C-6.0DATE: DIRECTOR: OF 92 DATE RECORDED. DEED BOOK NO. PAGE NO. INSTRUMENT NO.

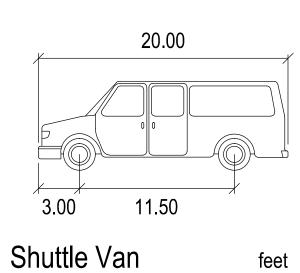


USED FOR PASSENGER VEHICLE FOR RESIDENTIAL GARAGE







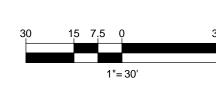


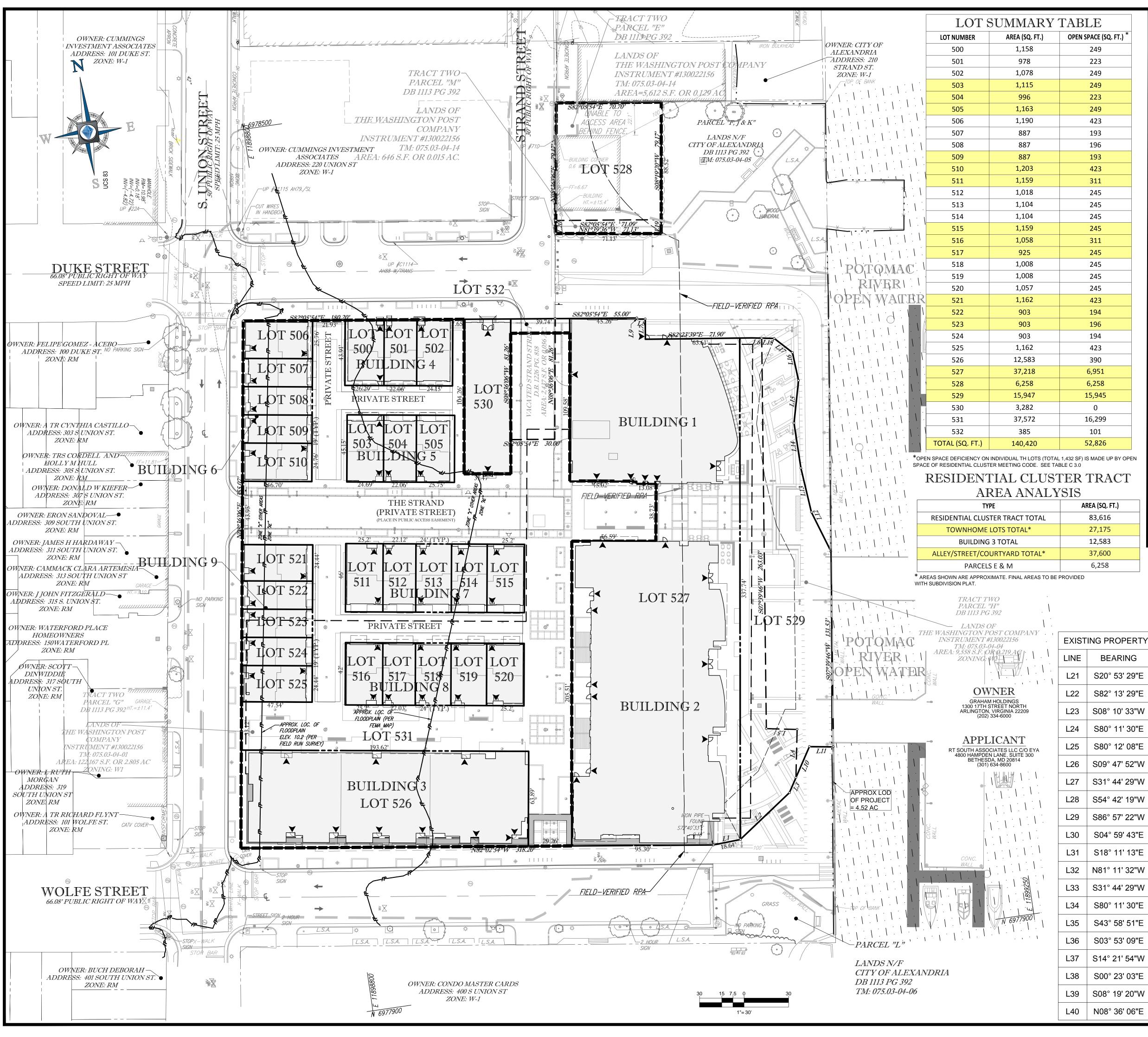
| Width | |
|-------------------|--|
| Trool | |
| Track | |
| Lock to Lock Time | |
| Steering Angle | |
| Steering Angle | |

USED FOR SUV VEHICLE

: 6.0

| APPROVED SPECIAL USE PER |) MIT NO | 06 |
|--------------------------------------|---------------|----------|
| DEPARTMENT OF PI COMMUNITY DEVELC | | |
| DIRECTOR: | | DATE: |
| DEPARTMENT OF TH ENVIRONMENTAL SE | | |
| DIRECTOR: | | DATE: |
| DATE RECORDED | | |
| INSTRUMENT NO. | DEED BOOK NO. | PAGE NO. |



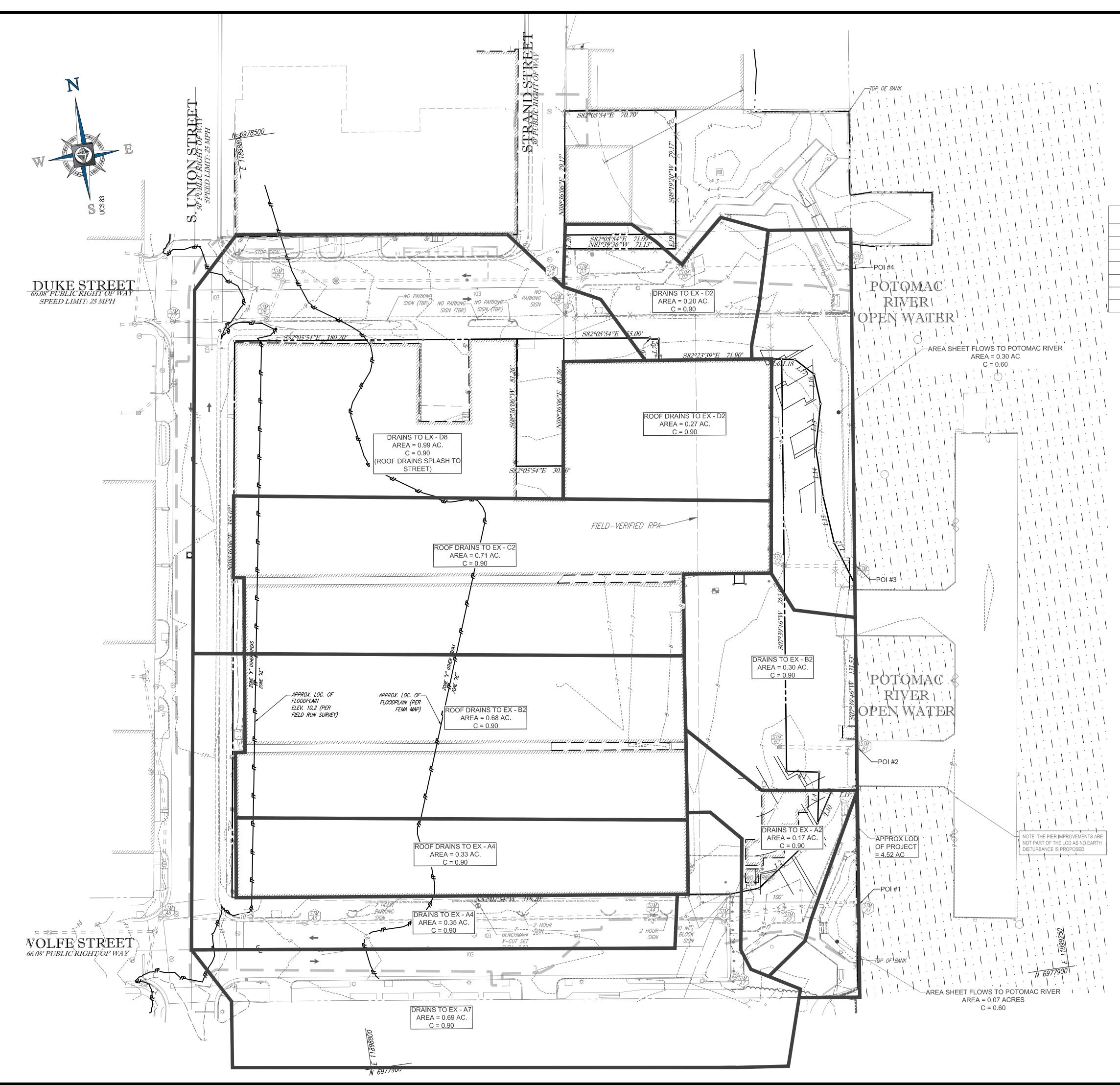


| | UPEN 3 | 249 | | | | | | | | | STE 2 | | |
|------------------|----------|-------------------|-------------------|---------------------------|------------------------------|-----------------------|-------------------------------|-----------------------------------|--------------------------------|----------|-------------------|---|----------------------------|
| | | 223 | LOT NUMBE | | ALCU AREA (SQ. F | | | DT MIN = 1, | 452 SQ. FT. | _ | S DRIVE; | STERLING, VA 20164 703-709-9500 WWW. BOHLERENGINEEF | |
| | | 249 249 | 500 | | 1158 | , | (D | 29 | IN SQ. FT.) | _ | 36 DAVI | ERLING, -709-95(/W. BOH | |
| | | 223 | 501 | | 978 | | | 47 | | _ | 226 | STE 703 WW | |
| | | 249 | 502 | | 1078 | | | 37 | | | F | Ч° | |
| _ | | 423 193 | 503 504 | | 1115 996 | | | 33 45 | | | F | T] H | |
| | | 195 | 505 | | 1163 | | | 28 | | | ⊧ | | |
| | | 193 | 506 | | 1190 | | | 26 | 2 | | Þ | | |
| | | 423 | 507 | | 887 | | | 56 | | _ | + | | |
| | | 311 245 | 508 509 | | 887 887 | | | 56 56 | | ~ | | | 9 |
| - | | 245 | 510 | | 1203 | | | 24 | | ENGINEER | F | | 티 |
| | | 245 | 511 | | 1159 | | | 29 | | | | | ARCHITECT |
| | | 245 311 | 512 513 | | 1018 | | | 43 | | CIVIL | ; | | ARC |
| | | 245 | 515 | | 1104 | | | 34 | | | | | REV |
| | | 245 | 515 | | 1159 | | | 29 | | R | EV | DATE | |
| | | 245 | 516 517 | | 1058 925 | | | 39 52 | | | 1 | 11/21/14 | |
| | | 245 423 | 517 | | 1008 | | | 44 | | | 2 | 12/23/14 | |
| | | 194 | 519 | | 1008 | | | 44 | 4 | | 3 | 3/4/15 | REV |
| | | 196 | 520 | | 1057 | | | 39 | | - ┃ - | + | | <u> </u> |
| + | | 194 423 | 521 522 | | 903 | | | 29 54 | | ┥║╴ | + | | <u> </u> |
| + | | 390 | 523 | | 903 | | | 54 | | | + | | \vdash |
| | | 6,951 | 524 | | 903 | | | 54 | | | _ | | |
| | | 6,258 15,945 | 525 TOT | AL DEFFICIEN | 1162 ICY (SO. FT | .) = | | 29 10,5 | | - IC | | | |
| | _ | 0 | | | | | Y (1 2 1 | | | | | | W |
| | 1 | 16,299 | RES | SIDEN' | | | | | ACT. | | | e u | |
| | c | 101 | | OPEN | | | | | | | | | |
| | | S MADE UP BY OPEN | | REQUIRED | | | OPEN SPA | CE (SQ. FT.) <mark>900*</mark> | | EV | | E FOLLOWING ATORS, DESI | |
| AB | LE C 3.0 | | | PROVIDED | | | | 839** | | DI | ISTUR IN VI | RB THE EART IRGINIA, MAR NORTH CAR | TH'S SU RYLANI OLINA |
| | | TRACT | | EXCESS | | | 13, | 939 | | (W (V | /V 1-8 /A 1-8/ | 800-245-4848 00-552-7001) |) (PA 1 (MD 1 |
| Y | SIS | REA (SQ. FT.) | EXCESS > | LOT DEFICIE | NCY | | 13,381 | > 10,577 | | ſ | 1 | | |
| | | 83,616 | PROVI | DED MIN LOT | WIDTH | | 1 | 9' | | | DDC | 100 | |
| | | 27,175 | | JIRED MIN LOT V | | | 1 | | | | DRA | DJECT No. WN BY: ECKED BY | |
| | | 12,583 37,600 | **15,900 SF | REQUIRED FOR 53 | | | | NCLUDES L | OTS E & M | | DAT SCA | LE: | |
| | | 6,258 | | SUN | | | ABLE | | | | |) I.D.: DJECT: | |
| ΞP | ROVIDED | | | | AREA (SC | (. FT.) | AREA (ACRES) | NO. OF LOTS | NO. OF BUILDINGS | | Γ | DEVI | EI |
| | | | RESIDENTIA TRA | | 83,61 | 16 | 1.92 | 29 | 27 | | т | SPE | |
| | | | WATERFRO | NT TRACT | 56,80 | | 1.30 | 4 | 3 | _ ∥. | <u>ا</u> | PER | |
| Г | | | ТОТ | | 140,4 | | 3.22 | 33 | 30 | | | R٦ | |
| | EXIST | ING PROPERTY | LINE TABLE | | EY NO | | | | DDODEDTV | | | ASS | 30 |
| | LINE | BEARING | DISTANCE | DELINEATED KNOWLEDGE | BY THIS PLAT AND BELIEF; | , AND THA THAT THI | | CT TO THE SION OF PA | | | | | \mathbb{I} |
| F | L21 | S20° 53' 29"E | 0.90' | | DNVEYED BY _ _ AND RECOR | DED AMO | TO NG THE LAND I PAGE | B RECORDS C | DEED DATED | | RO | LOC BINSO | |
| ╞ | L22 | S82° 13' 29"E | 5.20' | BOUNDARIES WHERE INDIC | ; AND THAT A CATED; EXCEP | LL REQUI | RED MONUMEI HAT WILL BE IN | NTS HAVE B | EEN INSTALLEI T A LATER DAT | 5 | | | |
| ╞ | L23 | S08° 10' 33"W | 13.60' | BUT BEFORE | COMPLETION | I OF THE I | -KOJECT." | | | | | | |
| $\left \right $ | | | | VERT | ICAL S | UBD | IVISIO | NNO | TE: | | | | |
| | L24 | S80° 11' 30"E | 14.97' | | | | | | L BE FURTHER R THE GARAGE | | A | F | 3(|
| | L25 | S80° 12' 08"E | 20.77' | NOTE | S. | | | | | | | | N |
| | L26 | S09° 47' 52"W | 32.50' | | | NS SHALL | BE RECORDE | D WITH THIS | S PLAT, IF | | 2 | 2636 DA STERL | |
| | L27 | S31° 44' 29"W | 11.00' | APPLICABLE | | | | | ISSUANCE OF | | | Phon Fax: | ie: |
| | L28 | S54° 42' 19"W | 45.73' | | | | PICTED ON GR | | | | | ww.Boh | |
| F | L29 | S86° 57' 22"W | 18.64' | 1 | | | | | 1 | | | | NF. |
| - | L30 | S04° 59' 43"E | 30.50' | | | LE | GEND | | | | | | h |
| ╞ | L31 | S18° 11' 13"E | 29.66' | | | | VACA | ATED PROP | ERTY LINE | | | | 7 |
| | | | | | | | | | | | | PRO | _ić. I 3 |
| | L32 | N81° 11' 32"W | 16.18' | | APPR | () ហ្គេប | | | | | | | Sir |
| | L33 | S31° 44' 29"W | 22.76' | | 11 | | MIT NO | 2014-0006 | | _ \ | <u></u> | - 4 | |
| | L34 | S80° 11' 30"E | 14.97' | | DEPARTME | | | | | | | ET TITLE: | |
| | L35 | S43° 58' 51"E | 15.47' | | | טממגמים י | | | | | | PRE | |
| | L36 | S03° 53' 09"E | 19.35' | | | DIRECTOR: | | | DATE: | | C N | SUB | |
| $\left \right $ | L37 | S14° 21' 54"W | 28.81' | | DEPARTME | | RANSPORTATIO | N & | | | | | P] |
| | L38 | S00° 23' 03"E | 30.66' | | | DIVIAL SE | 101020 | | | | SHE | ET NUMB | ER: |
| - | | | | | | DIRECTOR: | | | DATE: | | | | ¥ ' |
| | L39 | S08° 19' 20"W | 9.35' | | DATE RECO | | | | _ | | _ | | |
| | L40 | N08° 36' 06"E | 8.81' | | INSTRUMENT NO | 0. | DEED BOOK | NO. | PAGE NO. | ╶║╎┃╱ | | | |

RESIDENTIAL CLUSTER TRACT

TOWNHOME LOT SIZE

rchitects ar lates SOCI S \mathbf{O} 5 baranes ____ **D** 3 \geq ISIONS COMMENT REV. PER CITY COMMENTS REV. PER CITY COMMENTS PER BLDG 3 ARCH S REQUIRE NOTIFICATION BY OR ANY PERSON PREPARING RFACE ANYWHERE IN THE STAT D, THE DISTRICT OF COLUMBIA, ND DELAWARE CALL - 811 800-242-1776) (DC 1-800-257-77 300-257-7777) (DE 1-800-282-855 ROVED FOR RUCTION 09/19/14 1" = 30 OPMENT IAL USE T (DSUP) OR — SOUTH CIATES LC ON OF SITE ERMINAL SOUTH EXANDRIA, VA **OHLER** INEERING DRIVE, SUITE 250 VIRGINIA 20164 (703) 709-9500 (703) 709-9501 ingineering.con J. O'HARA JR. lo. 34168 /4/15 WAL ENG MINARY IVISION LAN -7.0)F 92



RTS SWM NARRATIVE

SITE WILL FOLLOW 2014 VIRGINIA STATE STORMWATER MANAGEMENT REGULATIONS. STORMWATER MANAGEMENT NOT ANTICIPATED DUE TO EXISTING PIPES / DECREASE IN IMPERVIOUS AREA AND EXISTING DIRECT DISCHARGE TO POTOMAC RIVER. SIMILARLY, ADEQUATE OUTFALL STUDY WILL ONLY EXTEND TO LIMITS OF PROJECT IMPROVEMENTS DUE TO KNOWN FLOODING FROM POTOMAC RIVER.

ANY FLOWS UPSTREAM ARE CONSISTENT FROM PRE TO POST DEVELOPMENT.

BASED ON DECREASING THE IMPERVIOUS AREA ONSITE WITH THE PROPOSED DEVELOPMENT, THE FLOW DECREASES FROM THE PRE CONDITION TO THE POST CONDITION. SEE TABLES FOR FLOWS IN THE PROJECT AREA.

THE TOTAL FLOW TO THE POTOMAC HAS BEEN DECREASED FROM PRE TO POST. THE PEAK OVERALL FLOW TO ALL POINTS OF INTERESTS WILL NOT INCREASE AS THE SITE FLOW ARRIVES PRIOR TO THE PEAK FLOW OF THE RIVER DUE TO UPSTREAM TC ARRIVAL LAG.

FLOW SUMMARY TABLE FROM PROJECT AREA

| POI | PRE 2 (Q) | POST 2 (Q) | PRE 10 (Q) | POST 10 (Q) |
|------------|-----------|------------|------------|-------------|
| 1 | 8.59 | 7.04 | 12.47 | 10.22 |
| 2 | 5.47 | 5.27 | 7.94 | 7.65 |
| 3 | 3.96 | 3.90 | 5.75 | 5.66 |
| 4 | 8.15 | 7.55 | 11.83 | 10.96 |
| SHEET FLOW | 1.38 | 1.64 | 2.00 | 2.38 |
| TOTAL | 27.55 | 25.40 | 39.99 | 36.87 |

| INTENSITY TABLE (TC = 5 M | | | |
|-------------------------------------|-----|--|--|
| 12 | 6.2 | | |
| I 10 | 9 | | |
| | | | |

| | PRE-DEVE | LOPMENT | | | | | |
|------------|-----------------|------------|----------------|--|--|--|--|
| | POI SUMMA | RY TABLE | | | | | |
| POI | C VALUE | AREA (AC.) | C VALUE X AREA | | | | |
| 1 | 0.90 | 1.54 | 1.39 | | | | |
| 2 | 0.90 | 0.98 | 0.88 | | | | |
| 3 | 0.90 | 0.71 | 0.64 | | | | |
| 4 | 0.90 | 1.46 | 1.31 | | | | |
| SHEET FLOW | 0.60 | 0.37 | 0.22 | | | | |
| т | DTAL AREA (AC.) | 5.06 | 4.44 | | | | |
| L | | | | | | | |

STUDY AREA. ALL AREAS OUTSIDE CONSISTENT FROM PRE TO POST DEVELOPMENT SO THEY ARE EXCLUDED FROM THIS STUDY

STORMWATER MANAGEMENT PLAN

THE PLAN DEMONSTRATES THE DRAINAGE DIVIDE AREAS ON THE GRADING PLAN ALONG WITH THE STRUCTURES WHERE EACH SUB-AREA DRAINS.

THERE IS A STORM WATER INLET AVAILABLE WITHIN 100' OF THE DEVELOPMENT SITE; THEREFORE, THE ROOF, SURFACE AND SUBSURFACE DRAINAGE IS CONNECTED WITH CONTINUOUS UNDERGROUND PIPE TO THIS INLET PER THE REQUIREMENTS OF THE CITY OF ALEXANDRIA CODE SECTION 8-1-22.

THE PLAN DEMONSTRATES THAT THE SITE HAS BEEN DEVELOPED TO DECREASE THE POST DEVELOPMENT PEAK RUNOFF RATE FROM THE PRE-DEVELOPMENT PEAK RUNOFF RATE FOR A TWO-YEAR AND TEN YEAR STORM CONSIDERED INDIVIDUALLY. NO STORMWATER DETENTION IS PROVIDED PER THE REQUIREMENTS OF ARTICLE 13-109(F)(1) OF ALEXANDRIA ZONING ORDINANCE; A WAIVER FOR STORMWATER DETENTION WILL BE REQUIRED BY THE DIRECTOR OF TRANSPORTATION AND ENVIRONMENTAL SERVICES SINCE PROVIDING DETENTION WILL ADVERSELY IMPACT THE CITY'S FLOOD CONTROL PROGRAM.

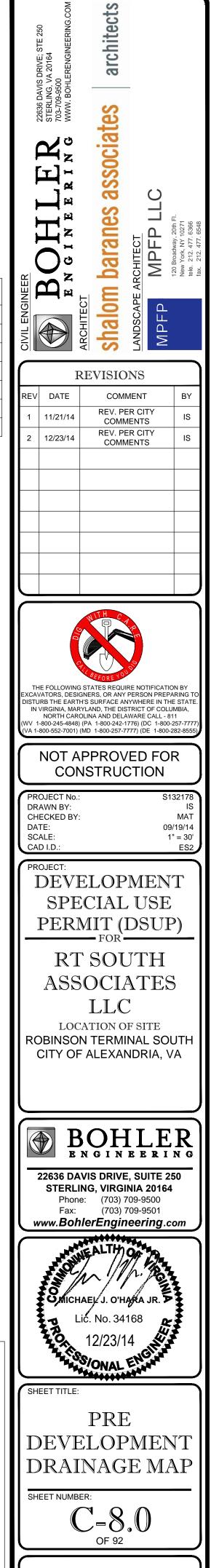
1"= 30'

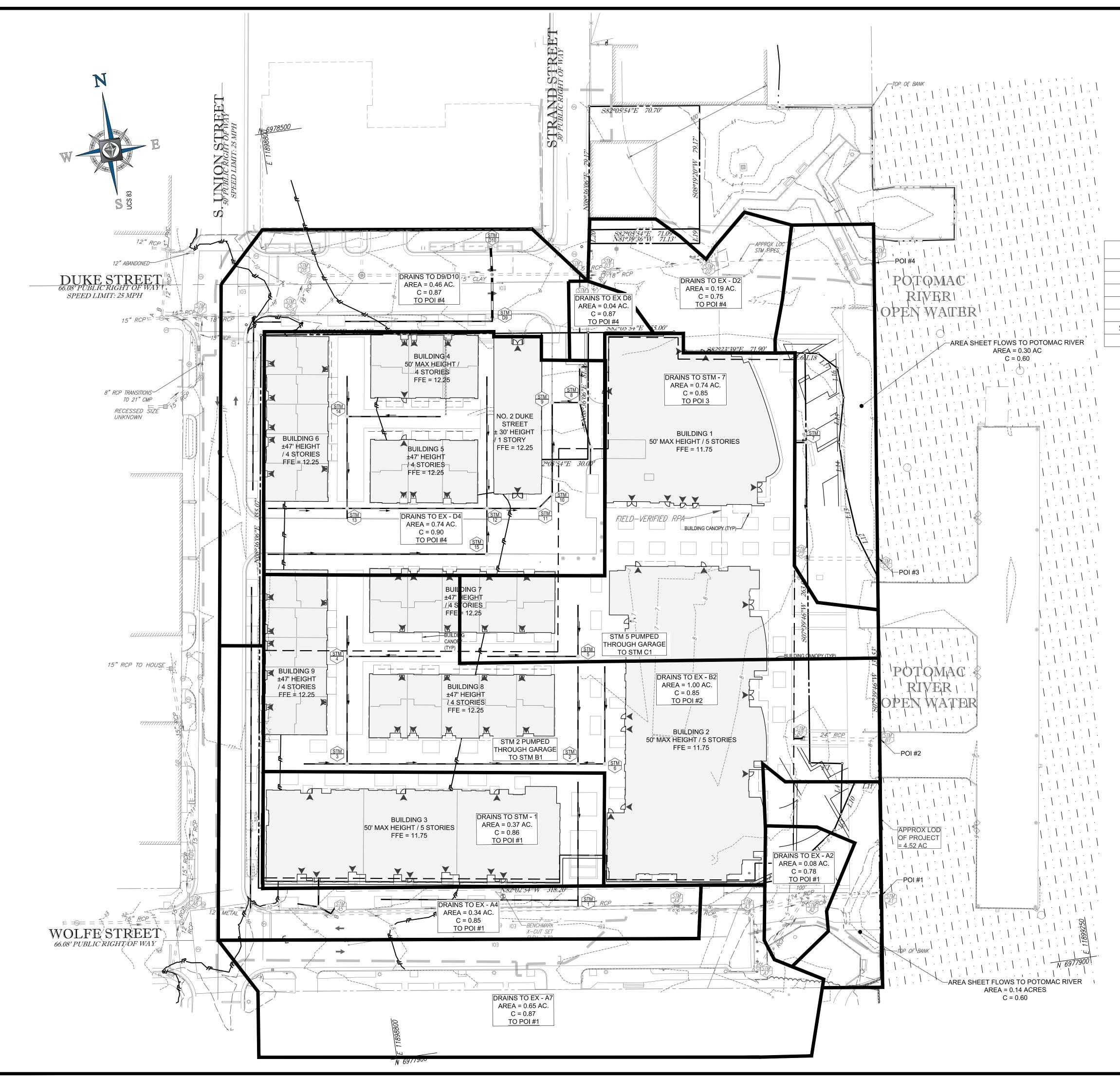
| | APPROVED special use permit no. <u>#2014-0006</u> department of planning & community development | |
|----|---|--|
| | DIRECTOR: DATE: DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES | |
| 30 | DIRECTOR: DATE: | |

INSTRUMENT NO.

DEED BOOK NO.

PAGE NO.





| 5 | |
|---|---|
| AREA POST 10 (Q) 10.22 10.22 10.26 10.96 2.38 | SI SI New York, NY 10271 Image: A state of the state of |
| 36.87 | |
| | |
| | \exists |
| | |
| THE FOLLOWING STATES REQUIRE NOTIFICATION EXCAVATORS, DESIGNERS, OR ANY PERSON PREPAR DISTURB THE EARTH'S SURFACE ANYWHERE IN THE IN VIRGINIA, MARYLAND, THE DISTRICT OF COLUM NORTH CAROLINA AND DELAWARE CALL - 811 (WV 1-800-245-4848) (PA 1-800-242-1776) (DC 1-800-25 | RING TO STATE. IBIA, |
| NOT APPROVED FOR CONSTRUCTION | 2-8555) |
| PROJECT No.: S132 DRAWN BY: CHECKED BY: | 2178 IS MAT |
| DATE: 09/1 SCALE: 1": CAD I.D.: PROJECT: | 9/14 = 30' ES2 |
| DEVELOPMENT SPECIAL USE PERMIT (DSUP | |
| VALUE X AREART SOUTH1.25ASSOCIATES | |
| 0.85LLC0.63LOCATION OF SITE1.20ROBINSON TERMINAL SOU | тн |
| 1.20CITY OF ALEXANDRIA, VA0.264.19 | |
| BOHLE | \exists |
| Image: Constraint of the second se | T G |
| Phone: (703) 709-9500 Fax: (703) 709-9501 www.BohlerEngineering.co | m |
| 06 | |
| DATE: | T |
| DRAINAGE MA | .P |
| DATE: C-8.1 | |
| PAGE NO. | |

| FLOW SUMMARY TABLE FROM PROJECT AREA | | | | | | | | | | |
|--------------------------------------|-----------|------------|------------|-------------|--|--|--|--|--|--|
| POI | PRE 2 (Q) | POST 2 (Q) | PRE 10 (Q) | POST 10 (Q) | | | | | | |
| 1 | 8.59 | 7.04 | 12.47 | 10.22 | | | | | | |
| 2 | 5.47 | 5.27 | 7.94 | 7.65 | | | | | | |
| 3 | 3.96 | 3.90 | 5.75 | 5.66 | | | | | | |
| 4 | 8.15 | 7.55 | 11.83 | 10.96 | | | | | | |
| SHEET FLOW | 1.38 | 1.64 | 2.00 | 2.38 | | | | | | |
| TOTAL | 27.55 | 25.40 | 39.99 | 36.87 | | | | | | |

| INTENSITY ' | TABLE (TC = 5 MIN) |
|-------------|-------------------------------|
| 12 | 6.2 |
| I 10 | 9 |
| | |

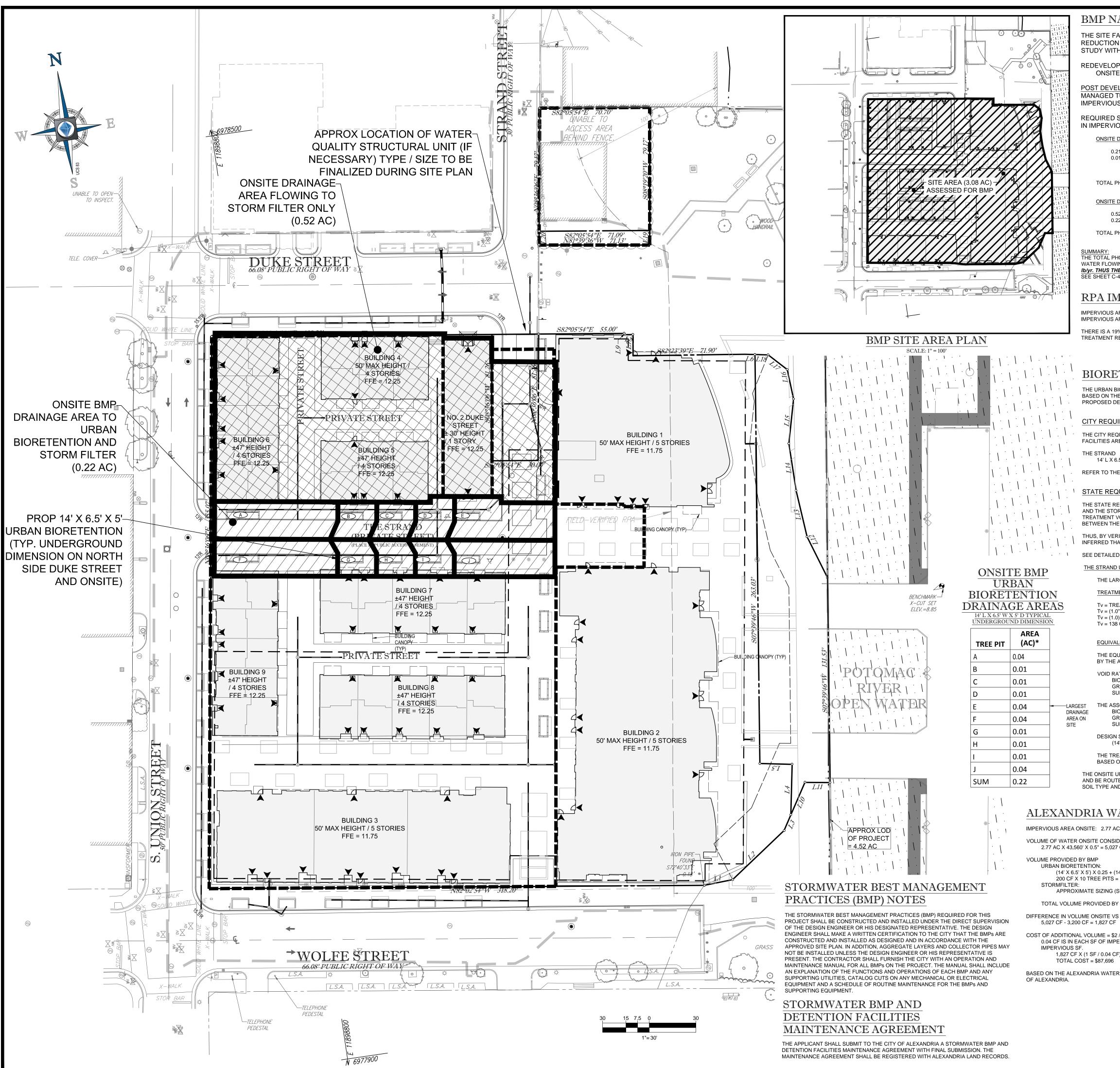
| POST DEVELOPMENT POI SUMMARY TABLE | | | | | | | | |
|---------------------------------------|-----------------|------|------|--|--|--|--|--|
| POI C VALUE AREA (AC.) C VALUE X ARE | | | | | | | | |
| 1 | 0.86 | 1.45 | 1.25 | | | | | |
| 2 | 0.85 | 1.00 | 0.85 | | | | | |
| 3 | 0.85 | 0.74 | 0.63 | | | | | |
| 4 | 0.84 | 1.43 | 1.20 | | | | | |
| SHEET FLOW | 0.60 | 0.44 | 0.26 | | | | | |
| т | DTAL AREA (AC.) | 5.06 | 4.19 | | | | | |

| APPROVED SPECIAL USE PERMIT NO#2014-00 | 06 |
|---|------|
| DEPARTMENT OF PLANNING & COMMUNITY DEVELOPMENT | |
| DIRECTOR: | DATE |
| | |

DEED BOOK NO.

DIRECTOR:

DATE RECORDED_ 15 7.5 (INSTRUMENT NO. 1"= 30'



| ARRATIVE | | a.com |
|---|--|---|
| FALLS UNDER REDEVELOPMENT (OVER ONE (1) ACRE) IN N IN PHOSPHORUS RUN OFF FROM PRE TO POST. THE B TH A TOTAL OF 3.08 ACRES INCLUDED AS OUTLINED BELC | ELOW AREAS COMPRISE THE REDEVELOPMENT | AVIS DRIVE; STE 250 NG, VA 20164 BOHLERENGINEERING.COM architects |
| OPMENT AREA: 3.08 AC (0.14 AC PARCELS E & M NOT CON TE AREA: 3.08 AC | SIDERED) | AVIS DRI -9500 30HLERE |
| TURF: 0.31 AC (OF 3.08 AC) MANAGED TURF | IENT CONDITION F: 0.00 AC (OF 3.08 AC) OVER: 3.08 AC (OF 3.08 AC) | |
| SWM TREATMENT FOR REDEVELOPMENT AREA: 0.78 lb/ IOUS AREA FROM PRE TO POST) | yr (20% FOR REDEVELOPED AREA, NO NET INCREASE | C C C C C C C C C C C C C C C C C C C |
| E DRAINAGE AREA FLOWING TO URBAN BIORETENTION: 0.22 AC | | |
| 01 AC MANAGED TURF DRAINING TO URBAN BIORETENTION [THE URBAN BIORETENTION WILL CONVEY WATER THROUGH AN U ATTAINING ADDITIONAL CREDIT.] PHOSPHORUS REMOVAL IN DRAINAGE AREA FROM URBAN BIORETEN | | Daranes CHITECT MPFP LL 120 Broadway, 20th FL New York, NY 10271 tele. 212, 477, 6548 fax. 212, 477, 6548 |
| E DRAINAGE AREA FLOWING INTO STORMFILTER: 0.73 AC | HON AREA. U.JZ IDIYI | ARCHITECT NPFI Iso 212.477. fax. 212.477. |
| .52 AC IMPERVIOUS ACRES FLOWING DIRECTLY INTO STORMFILTER .22 AC FROM TREE PITS INTO STORMFILTER | | |
| PHOSPHORUS REMOVAL IN DRAINAGE AREA FROM STORMFILTER: 0.4 | <u>7 lb/yr</u> | CIVIL ENGINEE |
| HOSPHORUS REMOVAL FROM THE ONSITE URBAN BIORETENTION AR VING INTO THE STORMFILTER IS 0.47 lb/yr. <u>THE TOTAL PHOSPHORUS R</u> HE REQUIREMENT IS MET. FINAL SITE PLAN SHALL DEMONSTRATE TH C-4.0 FOR SCHEMATIC UNDERDRAIN LAYOUT. | EMOVAL IS 0.79 lb/yr WHICH IS MORE THAN THE REQUIRED 0.78 | REVISIONS |
| MPERVIOUS NARRATIVE | | 1 11/21/14 REV. PER CITY COMMENTS IS 2 12/22/14 REV. PER CITY IS |
| AREA IN RPA PRE: 0.64 AC AREA IN RPA POST: 0.52 AC | | COMMENTS |
| 9% DECREASE IN IMPERVIOUS AREA WITHIN THE RPA FROM PRE TO P REQUIRED WITHIN THE RPA. | OST CONDITIONS. THUS, THERE IS NO FURTHER WATER QUALITY | |
| ETENTION SIZING REQUIREMEN | TS | |
| BIORETENTION ARE SIZED TO MEET THE REQUIREMENTS OF THE CITY HE LATEST VIRGINIA DEQ STORMWATER DESIGN VERSION 1.9, 2013 ST DESIGN OF THE URBAN BIORETENTION. | | |
| JIREMENT: | | |
| QUIREMENT REQUIRES 450 CUBIC FT OF SOIL VOLUME TO BE PROVID RE SIZED TO PROVIDE 450 CF OF SOIL VOLUME AS DEMONSTRATED B | | |
| 0 6.5' W X 5' D = 455 CF | | CALL DEFORE YOURS |
| HE LANDSCAPE ARCHITECT PLANS FOR MORE DETAILS ON THE BMP F | ACILITY DIMENSIONS. | THE FOLLOWING STATES REQUIRE NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE. IN VIRGINIA, MARYLAND, THE DISTRICT OF COLUMBIA, |
| QUIREMENT: REQUIREMENT FOR URBAN BIORETENTION IS BASED ON THE COMPUT | | IN VIRGINIA, MARYLAND, I HE DISTRICT OF COLIMBIA, NORTH CAROLINA AND DELAWARE CALL - 811 (WV 1-800-245-4848) (PA 1-800-242-1776) (DC 1-800-257-7777) (VA 1-800-552-7001) (MD 1-800-257-7777) (DE 1-800-282-8555) |
| CONFIDENT FOR ORBAIN BIORETENTION IS BASED ON THE COMPUT ORAGE DEPTH VOLUME PROVIDED BY THE FACILITY. TO PROVE THE U VOLUME FLOWING INTO A PARTICULAR URBAN BIORETENTION WAS A HE TWO DIFFERENT SIZES OF URBAN BIORETENTION UTILIZED IN THIS | RBAN BIORETENTION MEETS STATE REQUIREMENTS, THE LARGEST SSESSED. THE CALCULATIONS BELOW ARE BROKEN DOWN | NOT APPROVED FOR |
| RIFYING THAT THE URBAN BIORETENTION IS SIZED ADEQUATELY TO F | IANDLE THE LARGEST DRAINAGE AREA FLOWING TO IT, IT CAN BE | CONSTRUCTION |
| ED CALCULATIONS BELOW | | PROJECT No.: S132178 DRAWN BY: IS CHECKED BY: MAT |
| D URBAN BIORETENTION | | DATE: 09/19/14 SCALE: 1" = 30' CAD I.D.: SW2 |
| RGEST TREATMENT VOLUME GOING TO URBAN BIORETENTION IS 1,90 MENT VOLUME CALCULATION: | U SF UK U.U4 AC: | PROJECT: |
| REATMENT VOLUME (LARGEST) .0")(Rv)(A) / 12 .0)(0.87)(1,900 SF) / 12 | | DEVELOPMENT SPECIAL USE |
| 8 CF | | PERMIT (DSUP) |
| ALENT STORAGE DEPTH VOLUME CALCULATION: QUIVALENT STORAGE DEPTH VOLUME IS COMPUTED AS THE VOLUME | | RT SOUTH |
| E ACCEPTED VOID RATIO PROVIDED BY THE VIRGINIA DEQ STORMWAT | | ASSOCIATES |
| BIORETENTION SOIL MEDIA Vr = 0.25 GRAVEL Vr = 0.40 | | LLC |
| SURFACE STORAGE Vr = 1.0 SSOCIATED DEPTHS BASED ON THE LANDSCAPE ARCHITECT DETAILS | ARE: | LOCATION OF SITE ROBINSON TERMINAL SOUTH |
| BIORETENTION SOIL MEDIA = 5' BRAVEL = 1.16' BURFACE STORAGE = 0.58' | | CITY OF ALEXANDRIA, VA |
| N STORAGE DEPTH VOLUME CALCULATION: 14' X 6.5' X 5') X 0.25 + (14' X 6.5' X 1.16') X 0.40 + (15' X 5' X 0.58') X 1.0 = 2 | 00 CF | |
| REATMENT VOLUME REQUIRED PER THE LARGEST DRAINAGE AREA IS ON THESE CALCULATIONS, THE STATE REQUIREMENT IS MET FOR TH | | |
| URBAN BIORETENTION HAVE AN UNDERDRAIN RUNNING THROUGH TH TED THROUGH A STORMFILTER FOR ADDITIONAL TREATMENT. THERE ND THE DESIGN OF THE FACILITIES WITH A LARGE CONCRETE BOX. | | |
| ATER QUALITY DEFAULT | LEGEND | 22636 DAVIS DRIVE, SUITE 250 STERLING, VIRGINIA 20164 Phone: (703) 709-9500 Fax: (703) 709-9501 |
| AC IDERING 1.5" DEPTH 27 CF | DRAINAGE AREA FLOWING DIRECTLY TO STORMFILTER (0.53 AC) | www.BohlerEngineering.com |
| (14' X 6.5' X 1.16') X 0.40 + (15' X 5' X 0.58') X 1.0 = 200 CF = 2,000 CF | ONSITE URBAN BIORETENTION AND STORM FILTER DRAINAGE | |
| (SUBJECT TO CHANGE): 12' X 20' X 5' = 1,200 CF | AREA (0.22 AC) | Lić. No. 34168 |
| SY BMP: 3,200 CF /S VOLUME PROVIDED BY BMP: = | | 12/23/14 |
| | APPROVED SPECIAL USE PERMIT NO. #2014-0006 | The S/ONAL EN IN |
| PERVIOUS AREA BASED ON 0.5" OF RAINFALL OVER EACH CF) = 43,848 SF | DEPARTMENT OF PLANNING & COMMUNITY DEVELOPMENT | SHEET TITLE: |
| ER QUALITY DEFAULT, \$87,696 WILL NEED TO BE PAID TO THE CITY | | BMP PLAN |
| | DIRECTOR: DATE: DEPARTMENT OF TRANSPORTATION & | |
| | ENVIRONMENTAL SERVICES | |
| | DIRECTOR: DATE: DATE: | C=9.0 |
| | DATE RECORDED INSTRUMENT NO. DEED BOOK NO. PAGE NO. | |
| | | |

| rainage Area | | Impervious | Pervious | Total |
|---|-------------------------------|--------------------------|----------|----------------------|
| REDEVELOPMENT AR | FA TREATED | 0.74 AC | 0.01 AC | 0.75 AC |
| Off-Site Treated | | | | |
| Total Treated | | 0.74 AC | 0.01 AC | 0.75 AC |
| Any On-Site Dis by a Vegetated | | N/A | | |
| TOTAL REDEVELOPM TREATED OR DISCON | | | | 0.75 AC |
| Water Treatmer | nt IN REDEVELOPMEN | NT AREA | | |
| | Area treated k BMP (acres) | treated by Bl | | efficiency (%) |
| BMP Type | BMP (acres) | treated by BI (acres) | MP | |
| BMP Type | | treated by Bl | 40% RUNC | Efficiency (%) |
| BMP Type | BMP (acres) | treated by BI (acres) | 40% RUNC | OFF VOLUME REDUCTION |
| BMP Type | BMP (acres) | treated by BI (acres) | 40% RUNC | OFF VOLUME REDUCTION |
| BMP Type THE STRAND TREE PIT STORMFILTER Miscellaneous Total WG | BMP (acres) | treated by BI (acres) | 40% RUNC | OFF VOLUME REDUCTION |

Project discharges to which body of water? POTOMAC RIVER

Virginia Runoff Reduction Method e used w/ DRAFT 2013 BMP dards and Specifications Data

ct Name: Robinson Terminal South (R 12/17/14

t-ReDevelopment Project & d Cover Information

ants

l Rainfall (inches) Rainfall Event (inches)

horus EMC (mg/L) t Phosphorus Target Load (lb/acre/yr)

Development Land Cover (acres)

Open Space (acres) -- undisturbed, ected forest/open space or reforested land Managed Turf (acres) -- disturbed, graded for yards or other turf to be mowed/managed Impervious Cover (acres)

Post-ReDevelopment Land Cover (acres)

Forest/Open Space (acres) -- undisturbed, protected forest/open space or reforested land Managed Turf (acres) -- disturbed, graded for yards or other turf to be mowed/managed Impervious Cover (acres)

Area Check

Rv Coefficients

Forest/Open Space Managed Turf

Impervious Cover

Land Cover Summary

Pre-ReDevelopment

Forest/Open Space Cover (acres) Composite Rv(forest) % Forest

Managed Turf Cover (acres) Composite Rv(turf)

% Managed Turf

Impervious Cover (acres) Rv(impervious)

% Impervious

Total Site Area (acres) Site Rv

Pre-Development Treatment Volume (acre-ft)

Pre-Development Treatment Volume (cubic feet)

Pre-Development Load (TP) (lb/yr)

1Adjusted Land Cover Summary reflects the pre redeve cover minus the pervious land cover (forest/open space turf) acreage proposed for new impervious cover. The a acreage is consistent with the Post Redevelopment acre acreage of new impervious cover). The load reduction r the new impervious cover to meet the new development computed in Column I.

Pre-Development Load (TN) (lb/yr)

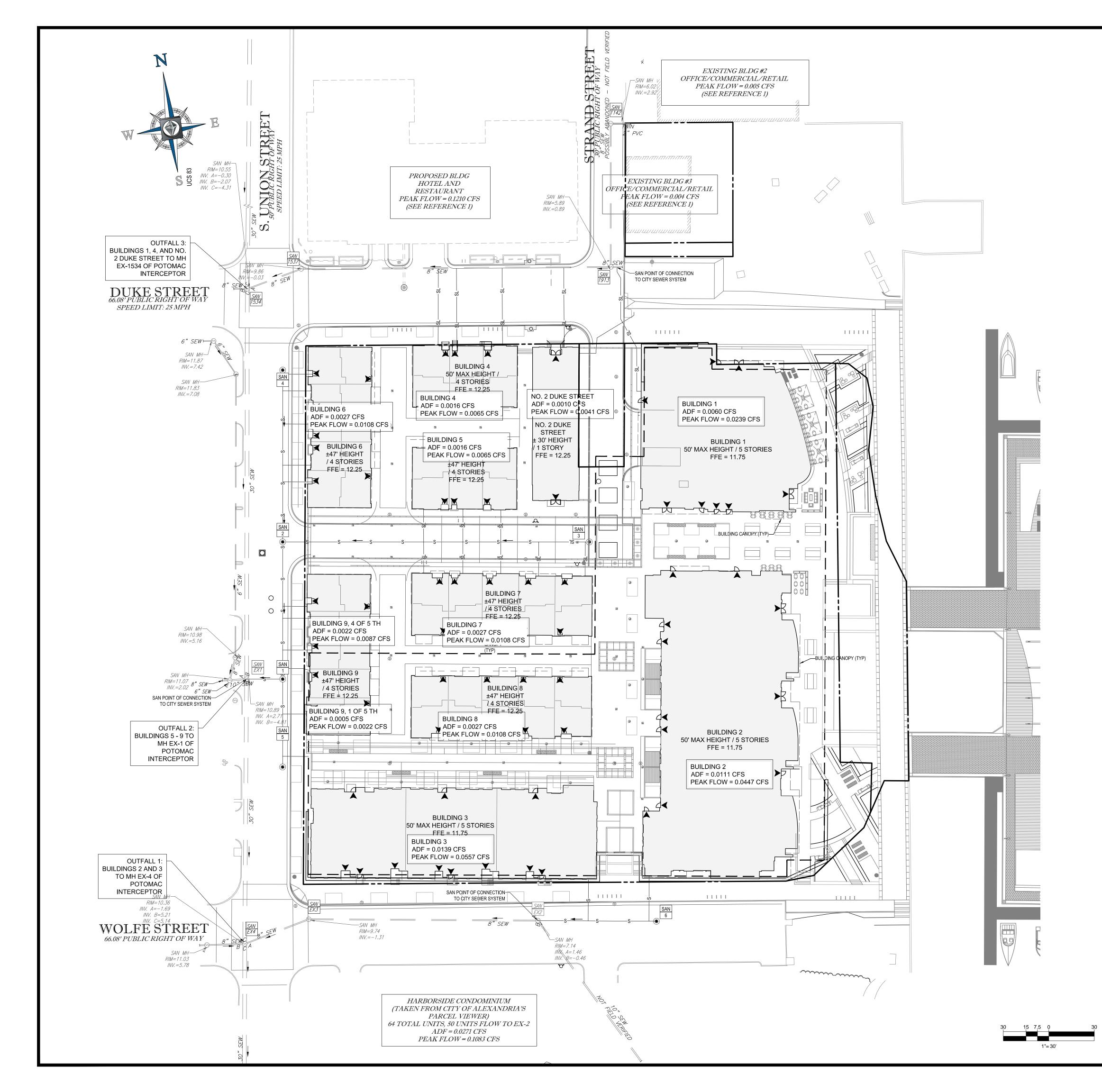
| d ReDevelopme | ent Worksheet - | v2.8 - June 20' | 14 | | | |
|--|--|--------------------------|--|---|---|---|
| | | | | | | |
| | | | | | | |
| | | | | | | |
| RTS; Project Num | oer S132178) | | | | | |
| | | | | | | |
| data input calla | | | | | | |
| data input cells calculation cells | | | | | | |
| constant values | | | | | | |
| | | | | | | |
| | | | Total Disturbed Acreage | 3.08 | | |
| | | | | | | |
| | | | | | | |
| 40 | | | | | | |
| 1.00 | | | | | | |
| 0.26 | | | Nitrogen EMC (mg/L) | 1.86 | | |
| 0.41 | | | | | | |
| 0.90 | | | | | | |
| | | | | | | |
| A soils | B Soils | C Soils | D Soils | Totals | | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | |
| 0.00 | 0.00 | 0.00 | 3.08 | 3.08 | | |
| | | | Total | 3.08 | | |
| | | | | | | |
| A soils | B Soils | C Soils | D Soils | Totals | | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | |
| | | | | | | |
| 0.00 | 0.00 | 0.00 | 0.31 | 0.31 | | |
| | | | Total | 3.08 | | |
| Okay | Okay | Okay | Okay | | | |
| | | | | | | |
| A soils | | | | | | |
| | B Soils | C Soils | D Soils | | | |
| 0.02 | 0.03 | 0.04 | 0.05 | | | |
| 0.02 0.15 | 0.03 0.20 | 0.04 0.22 | 0.05 | | | |
| 0.02 | 0.03 | 0.04 | 0.05 | | | |
| 0.02 0.15 | 0.03 0.20 | 0.04 0.22 | 0.05 0.25 0.95 | | | |
| 0.02 0.15 0.95 | 0.03 0.20 | 0.04 0.22 | 0.05 | | Land Cover Summary | |
| 0.02 0.15 0.95 | 0.03 0.20 0.95 | 0.04 0.22 | 0.05 0.25 0.95 Land Cover | | Land Cover Summary Post-ReDevelopment New Impervious | |
| 0.02 0.15 0.95 | 0.03 0.20 0.95 Adjusted1 | 0.04 0.22 | 0.05 0.25 0.95 Land Cover Summary Post-ReDevelopme nt Forest/Open Space | | Post-ReDevelopment New | |
| 0.02 0.15 0.95 | 0.03 0.20 0.95 | 0.04 0.22 | 0.05 0.25 0.95 Land Cover Summary Post-ReDevelopme nt Forest/Open Space Cover (acres) | 0.00 | Post-ReDevelopment New | |
| 0.02 0.15 0.95 Listed | 0.03 0.20 0.95 Adjusted1 | 0.04 0.22 | 0.05 0.25 0.95 Land Cover Summary Post-ReDevelopme nt Forest/Open Space Cover (acres) Composite Rv(forest) % Forest | | Post-ReDevelopment New | |
| 0.02 0.15 0.95 Listed 0.00 | 0.03 0.20 0.95 Adjusted1 0.00 | 0.04 0.22 | 0.05 0.25 0.95 Land Cover Summary Post-ReDevelopme nt Forest/Open Space Cover (acres) Composite Rv(forest) | 0.00 | Post-ReDevelopment New | |
| 0.02 0.15 0.95 Listed 0.00 0.00 0.00 | 0.03 0.20 0.95 Adjusted1 0.00 0.00 0.00 0.00 | 0.04 0.22 | 0.05 0.25 0.95 Land Cover Summary Post-ReDevelopme nt Forest/Open Space Cover (acres) Composite Rv(forest) % Forest Managed Turf Cover (acres) Composite Rv(turf) | 0.00 0% 0.31 0.25 | Post-ReDevelopment New | |
| 0.02 0.15 0.95 Listed 0.00 0.00 0% | 0.03 0.20 0.95 Adjusted1 0.00 0.00 0% | 0.04 0.22 | 0.05 0.25 0.95 Land Cover Summary Post-ReDevelopme nt Forest/Open Space Cover (acres) Composite Rv(forest) % Forest Managed Turf Cover (acres) Composite Rv(turf) % Managed Turf | 0.00 0% 0.31 | Post-ReDevelopment New | |
| 0.02 0.15 0.95 Listed 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0. | 0.03 0.20 0.95 Adjusted1 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0. | 0.04 0.22 | 0.05 0.25 0.95 Land Cover Summary Post-ReDevelopme nt Forest/Open Space Cover (acres) Composite Rv(forest) % Forest Managed Turf Cover (acres) Composite Rv(turf) % Managed Turf ReDev. Impervious Cover (acres) | 0.00 0% 0.31 0.25 10% 2.77 | Post-ReDevelopment New Impervious | |
| 0.02 0.15 0.95 Listed 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0. | 0.03 0.20 0.95 Adjusted1 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0. | 0.04 0.22 | 0.05 0.25 0.95 Land Cover Summary Post-ReDevelopme nt Forest/Open Space Cover (acres) Composite Rv(forest) % Forest Managed Turf Cover (acres) Composite Rv(turf) % Managed Turf ReDev. Impervious Cover (acres) Rv(impervious) | 0.00 0% 0.31 0.25 10% 2.77 0.95 | Post-ReDevelopment New Impervious | 0.95 |
| 0.02 0.15 0.95 Listed 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0. | 0.03 0.20 0.95 Adjusted1 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0. | 0.04 0.22 | 0.05 0.25 0.95 Land Cover Summary Post-ReDevelopme nt Forest/Open Space Cover (acres) Composite Rv(forest) % Forest Managed Turf Cover (acres) Composite Rv(turf) % Managed Turf ReDev. Impervious Cover (acres) Rv(impervious) % Impervious | 0.00 0% 0.31 0.25 10% 2.77 0.95 90% | Post-ReDevelopment New Impervious | 0.95 Check Area |
| 0.02 0.15 0.95 Listed 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0. | 0.03 0.20 0.95 Adjusted1 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0. | 0.04 0.22 | 0.05 0.25 0.95 Land Cover Summary Post-ReDevelopme nt Forest/Open Space Cover (acres) Composite Rv(forest) % Forest Managed Turf Cover (acres) Composite Rv(turf) % Managed Turf ReDev. Impervious Cover (acres) Rv(impervious) % Impervious | 0.00 0% 0.31 0.25 10% 2.77 0.95 90% | Post-ReDevelopment New Impervious | 0.95 Check Area 0.00 |
| 0.02 0.15 0.95 Listed 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0. | 0.03 0.20 0.95 Adjusted1 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0. | 0.04 0.22 | 0.05 0.25 0.95 Land Cover Summary Post-ReDevelopme nt Forest/Open Space Cover (acres) Composite Rv(forest) % Forest Managed Turf Cover (acres) Composite Rv(turf) % Managed Turf ReDev. Impervious Cover (acres) Rv(impervious) % Impervious Total ReDev. Site Area (acres) ReDev. Site Rv | 0.00 0% 0.31 0.25 10% 2.77 0.95 90% | Post-ReDevelopment New Impervious | 0.95 Check Area 0.00 |
| 0.02 0.15 0.95 Listed 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0. | 0.03 0.20 0.95 Adjusted1 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0. | 0.04 0.22 | 0.05 0.25 0.95 Land Cover Summary Post-ReDevelopme nt Forest/Open Space Cover (acres) Composite Rv(forest) % Forest Managed Turf Cover (acres) Composite Rv(turf) % Managed Turf ReDev. Impervious Cover (acres) Rv(impervious) % Impervious Total ReDev. Site Area (acres) ReDev. Site Rv | 0.00 0% 0.31 0.25 10% 2.77 0.95 90% | Post-ReDevelopment New Impervious | 0.95 Check Area 0.00 0.95 |
| 0.02 0.15 0.95 Listed 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0. | 0.03 0.20 0.95 Adjusted1 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0. | 0.04 0.22 | 0.050.250.950.95Land Cover SummaryPost-ReDevelopme ntForest/Open Space Cover (acres)Composite Rv(forest)% ForestManaged Turf Cover (acres)Composite Rv(turf)% Managed TurfReDev. Impervious Cover (acres)Rv(impervious)% ImperviousTotal ReDev. Site Area (acres)ReDev. Site RvPost-ReDevelopmen t Treatment Volume (acre-ft) | 0.00 0% 0.31 0.25 10% 2.77 0.95 90% | Post-ReDevelopment New Impervious | 0.95 Check Area 0.00 0.95 |
| 0.02 0.15 0.95 Listed 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0. | 0.03 0.20 0.95 Adjusted1 Adjusted1 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0. | 0.04 0.22 | 0.05 0.25 0.95 Land Cover Summary Post-ReDevelopme nt Forest/Open Space Cover (acres) Composite Rv(forest) % Forest Managed Turf Cover (acres) Composite Rv(turf) % Managed Turf ReDev. Impervious Cover (acres) Rv(impervious) % Impervious Total ReDev. Site Area (acres) ReDev. Site Rv Post-ReDevelopmen t Treatment Volume (acre-ft) Post-ReDevelopmen t Treatment Volume | 0.00 0% 0.31 0.25 10% 2.77 0.95 90% 3.08 0.88 0.88 | Post-ReDevelopment New Impervious | 0.95 Check Area 0.00 0.95 0.0000 |
| 0.02 0.15 0.95 Listed 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0. | 0.03 0.20 0.95 Adjusted1 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0. | 0.04 0.22 | 0.05 0.25 0.95 Land Cover Summary Post-ReDevelopme nt Forest/Open Space Cover (acres) Composite Rv(forest) % Forest Managed Turf Cover (acres) Composite Rv(turf) % Managed Turf ReDev. Impervious Cover (acres) Rv(impervious) % Impervious Total ReDev. Site Area (acres) ReDev. Site Rv Post-ReDevelopmen t Treatment Volume (acre-ft) Post-ReDevelopmen t Treatment Volume | 0.00 0% 0.31 0.25 10% 2.77 0.95 90% 3.08 0.88 | Post-ReDevelopment New Impervious | 0.95 Check Area 0.00 0.95 0.0000 |
| 0.02 0.15 0.95 Listed 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0. | 0.03 0.20 0.95 Adjusted1 Adjusted1 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0. | 0.04 0.22 | 0.050.250.950.95Land Cover SummaryPost-ReDevelopme ntForest/Open Space Cover (acres)Composite Rv(forest)% ForestManaged Turf Cover (acres)Composite Rv(turf)% Managed TurfReDev. Impervious Cover (acres)Rv(impervious)% ImperviousTotal ReDev. Site Area (acres)ReDev. Site RvPost-ReDevelopmen t Treatment Volume (acre-ft)Post-ReDevelopmen t Treatment Volume (cubic feet) | 0.00 0% 0.31 0.25 10% 2.77 0.95 90% 3.08 0.88 0.88 | Post-ReDevelopment New Impervious | 0.95 Check Area 0.00 0.95 0.0000 |
| 0.02 0.15 0.95 Listed 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0. | 0.03 0.20 0.95 Adjusted1 Adjusted1 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0. | 0.04 0.22 0.95 | 0.05 0.25 0.95 Land Cover Summary Post-ReDevelopme nt Forest/Open Space Cover (acres) Composite Rv(forest) % Forest Managed Turf Cover (acres) Composite Rv(turf) % Managed Turf ReDev. Impervious Cover (acres) Rv(impervious) % Impervious Rv(impervious) % Impervious Total ReDev. Site Area (acres) ReDev. Site Rv Post-ReDevelopmen t Treatment Volume (acre-ft) Post-ReDevelopmen t Treatment Volume (cubic feet) Post-ReDevelopmen t Load (TP) (lb/yr) | 0.00 0% 0.31 0.25 10% 2.77 0.95 90% 3.08 0.88 0.88 0.88 0.88 | Post-ReDevelopment New Impervious | 0.95 Check Area 0.00 0.95 0.0000 |
| 0.02 0.15 0.95 Listed 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0. | 0.03 0.20 0.95 Adjusted1 Adjusted1 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0. | 0.04 0.22 0.95 | 0.050.250.950.95Land Cover SummaryPost-ReDevelopme ntForest/Open Space Cover (acres)Composite Rv(forest)% ForestManaged Turf Cover (acres)Composite Rv(turf)% Managed TurfReDev. Impervious Cover (acres)Rv(impervious)% ImperviousRv(impervious)% ImperviousPost-ReDevelopmen t Treatment Volume (acre-ft)Post-ReDevelopmen t Treatment Volume (cubic feet)Post-ReDevelopmen t Load (TP) (lb/yr) | 0.00 0% 0.31 0.25 10% 2.77 0.95 90% 3.08 0.88 0.88 0.88 0.88 | Post-ReDevelopment New Impervious | 0.95 Check Area 0.00 0.95 0.0000 |
| 0.02 0.15 0.95 Listed 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0. | 0.03 0.20 0.95 Adjusted1 Adjusted1 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0. | 0.04 0.22 0.95 | 0.050.250.950.95Land Cover SummaryPost-ReDevelopme ntForest/Open Space Cover (acres)Composite Rv(forest)% ForestManaged Turf Cover (acres)Composite Rv(turf)% Managed TurfReDev. Impervious Cover (acres)Rv(impervious)% Impervious)% ImperviousTotal ReDev. Site Area (acres)ReDev. Site RvPost-ReDevelopmen t Treatment Volume (acre-ft)Post-ReDevelopmen t Load (TP) (lb/yr)wtion Required Below -ReDevelopment Loadeduction Required for | 0.00 0% 0.31 0.25 10% 2.77 0.95 90% 3.08 0.88 0.88 0.88 0.88 0.88 0.88 0.88 | Post-ReDevelopment New Impervious Post-ReDevelopment New Impervious Impervious | 0.95 Check Area 0.00 0.95 0.0000 0 0.0000 |
| 0.02 0.15 0.95 Listed 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0. | 0.03 0.20 0.95 Adjusted1 Adjusted1 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0. | 0.04 0.22 0.95 | 0.050.250.950.95Land Cover SummaryPost-ReDevelopme ntForest/Open Space Cover (acres)Composite Rv(forest)% ForestManaged Turf Cover (acres)Composite Rv(turf)% Managed TurfReDev. Impervious Cover (acres)Rv(impervious)% ImperviousTotal ReDev. Site Area (acres)ReDev. Site RvPost-ReDevelopmen t Treatment Volume (acre-ft)Post-ReDevelopmen t Load (TP) (lb/yr)uttion Required Below t-ReDevelopment Load | 0.00 0% 0.31 0.25 10% 2.77 0.95 90% 3.08 0.88 0.88 0.88 0.88 0.88 0.88 0.88 | Post-ReDevelopment New Impervious Post-ReDevelopment New Impervious Impervious | 0.95 Check Area 0.00 0.95 0.0000 |
| 0.02 0.15 0.95 Listed 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0. | 0.03 0.20 0.95 Adjusted1 Adjusted1 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0. | 0.04 0.22 0.95 | 0.050.250.950.95Land Cover SummaryPost-ReDevelopme ntForest/Open Space Cover (acres)Composite Rv(forest)% ForestManaged Turf Cover (acres)Composite Rv(turf)% Managed TurfReDev. Impervious Cover (acres)Rv(impervious)% ImperviousTotal ReDev. Site Area (acres)ReDev. Site RvPost-ReDevelopmen t Treatment Volume (acre-ft)Post-ReDevelopmen t Treatment Volume (cubic feet)Post-ReDevelopmen t Load (TP) (lb/yr)uttion Required Below -ReDevelopment Loadeduction Required for teveloped Area (lb/yr) | 0.00 0% 0.31 0.25 10% 2.77 0.95 90% 3.08 0.88 0.88 0.88 0.88 0.88 0.88 0.88 | Post-ReDevelopment New Impervious Post-ReDevelopment New Impervious Impervious | 0.95 Check Area 0.00 0.95 0.0000 0 0.0000 |
| 0.02 0.15 0.95 Listed 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0. | 0.03 0.20 0.95 Adjusted1 Adjusted1 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0. | 0.04 0.22 0.95 | 0.050.250.950.95Land Cover SummaryPost-ReDevelopme ntForest/Open Space Cover (acres)Composite Rv(forest)% ForestManaged Turf Cover (acres)Composite Rv(turf)% Managed TurfReDev. Impervious Cover (acres)Rv(impervious)% ImperviousTotal ReDev. Site Area (acres)ReDev. Site RvPost-ReDevelopmen t Treatment Volume (acre-ft)Post-ReDevelopmen t Treatment Volume (cubic feet)Post-ReDevelopmen t Load (TP) (lb/yr)uttion Required Below -ReDevelopment Loadeduction Required for teveloped Area (lb/yr) | 0.00 0% 0.31 0.25 10% 2.77 0.95 90% 3.08 0.88 0.88 0.88 0.88 0.88 0.88 0.88 | Post-ReDevelopment New Impervious Post-ReDevelopment New Impervious Impervious | 0.95 Check Area 0.00 0.95 0.0000 0 0.0000 |
| 0.02 0.15 0.95 Listed 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0. | 0.03 0.20 0.95 Adjusted1 Adjusted1 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0. | 0.04 0.22 0.95 | 0.050.250.950.95Land Cover SummaryPost-ReDevelopme ntForest/Open Space Cover (acres)Composite Rv(forest)% ForestManaged Turf Cover (acres)Composite Rv(turf)% Managed TurfReDev. Impervious Cover (acres)Rv(impervious)% ImperviousRotal ReDev. Site Area (acres)ReDev. Site RvPost-ReDevelopmen t Treatment Volume (acre-ft)Post-ReDevelopmen t Load (TP) (lb/yr)Post-ReDevelopmen t Load (TP) (lb/yr)Ction Required Below -ReDevelopment LoadPost-Development t Load (TP) (lb/yr) | 0.00 0% 0.31 0.25 10% 2.77 0.95 90% 3.08 0.90% 3.08 0.88 0.88 0.88 0.88 0.88 0.88 0.88 | Post-ReDevelopment New Impervious Post-ReDevelopment New Impervious Impervious | 0.95 Check Area 0.00 0.95 0.0000 0 0.0000 |
| 0.02 0.15 0.95 Listed 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0. | 0.03 0.20 0.95 Adjusted1 Adjusted1 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0. | 0.04 0.22 0.95 | 0.050.250.950.95Land Cover SummaryPost-ReDevelopme ntForest/Open Space Cover (acres)Composite Rv(forest)% ForestManaged Turf Cover (acres)Composite Rv(turf)% Managed TurfReDev. Impervious Cover (acres)Rv(impervious)% ImperviousTotal ReDev. Site Area (acres)ReDev. Site RvPost-ReDevelopmen t Treatment Volume (acre-ft)Post-ReDevelopmen t Load (TP) (lb/yr)Post-ReDevelopmen t Load (TP) (lb/yr)cuction Required Below -ReDevelopment Loadcuction Required for teveloped Area (lb/yr) | 0.00 0% 0.31 0.25 10% 2.77 0.95 90% 3.08 0.90% 3.08 0.88 0.88 0.88 0.88 0.88 0.88 0.88 | Post-ReDevelopment New Impervious Post-ReDevelopment New Impervious Impervious | 0.95 Check Area 0.00 0.95 0.0000 0 0.0000 |

| | DRIVE; STE 250 A 20164 ERENGINEERING.COM architects |
|-----------|--|
| | 22636 DAVIS DRIVE; STE 250 STERLING, VA 20164 703-709-9500 WWW. BOHLERENGINEERING.COM WWW. BOHLERENGINEERING.COM |
| | 22636 DAVIS STERLING, V. 703-709-9500 www. BOHLe |
| | VIL ENGINEER VIL ENGINEER BOHLER ENGINEERING NUM RCHITECT ADPP ADPP ADPP ISON EERING NUM RCHITECT ADPP ADPP ISON NUM RCHITECT ADPP ADPP ISON NUM RCHITECT ADPP ADPP ADPP ADPP ADPP ISON NUM RCHITECT ADPP AD |
| | |
| | CHITECT MPFP LLC 120 Broadway, 20th FI. NPFP LLC 120 Broadway, 20th FI. New York, NY 10271 table. 212, 477, 6548 |
| | CIVIL ENGINEER E N G T T ARCHITECT ARCHITECT Shalom baral MPFP ISO Broadway, NPFP ISO Broadway, ISO Br |
| | CIVIL ENGIN ARCHITECT Shalor LANDSCAPE M P F P |
| | REVISIONS REV DATE COMMENT BY |
| | 111/21/14REV. PER CITY COMMENTSIS212/23/14REV. PER CITY COMMENTSIS |
| | |
| | |
| | |
| | |
| | ALL BERNEL SUSS |
| | THE FOLLOWING STATES REQUIRE NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE. IN VIRGINIA, MARYLAND, THE DISTRICT OF COLUMBIA, NORTH CAROLINA AND DELAWARE CALL - 811 (WV 1-800-245-4848) (PA 1-800-242-1776) (DC 1-800-257-7777) |
| | (VA 1-800-552-7001) (MD 1-800-257-7777) (DE 1-800-282-8555) |
| | CONSTRUCTION PROJECT No.: S132178 DRAWN BY: IS |
| | CHECKED BY: MAT DATE: 09/19/14 SCALE: AS SHOWN CAD I.D.: SW2 |
| | PROJECT: DEVELOPMENT SPECIAL USE |
| | PERMIT (DSUP) |
| | RT SOUTH ASSOCIATES |
| | LLC LOCATION OF SITE |
| | ROBINSON TERMINAL SOUTH CITY OF ALEXANDRIA, VA |
| | |
| | BOHLER BNGINBERING |
| | 22636 DAVIS DRIVE, SUITE 250 STERLING, VIRGINIA 20164 Phone: (703) 709-9500 Fax: (703) 709-9501 |
| | www.BohlerEngineering.com |
| | Shichael J. O'Hara JR. |
| 1 | Lić. No. 34168 |
| | SHEET TITLE: |
| ·E: | STORMWATER MANAGEMENT COMPUTATIONS |
| | SHEET NUMBER: |
| <u>E:</u> | C=9.1 OF 92 |
| PAGE NO. | |

| APPROVED SPECIAL USE PERM | /IT NO#2014-000 | 06 |
|--|-----------------|-------|
| DEPARTMENT OF PLA COMMUNITY DEVELOI | ANNING & | |
| DIRECTOR: | ANSPORTATION & | DATE: |
| ENVIRONMENTAL SEF | RVICES | DATE: |
| DIRECTOR: | | DATE: |
| DATE RECORDED | | |
| INSTRUMENT NO. | DEED BOOK NO. | PAG |

| Drainage Area A | | | | | | | | | | | | | Practice | Unit | Description of Credit | Credit | Area (excluding areas treated by | Runoff from Upstream RF |
|--|---|--|---------------------------------|------------------------|---|---|------------------------------|------------------------------------|----------------------|---------------------|-----------------------------|-------------------------------------|--|--|--|------------------------------------|----------------------------------|---|
| Drainage Area A Land Cover (acres) | | | | | | | | | | | | | | | | | upstream practices) | |
| Forest/Open Space (acres) undisturbed, protected forest/open | A soils B Soils | C Soils D Soils | Totals | Land Cover Rv | | | | | | | | | 10.a. Wet Swale #1 (Spec #11) | impervious acres draining to wet swale | 0% runoff volume reduction | 0.00 | 0.00 | 0.00 |
| space or reforested land Managed Turf (acres) disturbed, graded for yards or other turf to be mowed/managed | | 0.00 0.00 | 0.00 | 0.00 | - | | | | | | | | 10.b. Wet Swale #2 (Spec #11) | turf acres draining to wet swale impervious acres draining to wet swale | 0% runoff volume reduction 0% runoff volume reduction | 0.00 | 0.00 | 0.00 |
| Impervious Cover (acres) | 0.00 0.00 0.00 0.00 | 0.00 0.31 0.00 2.77 Total | 0.31 2.77 3.08 | 0.25 | | Post Development Trea | atment Volume (| (cf) 0924 | - | | | | | turf acres draining to wet swale | 0% runoff volume reduction | 0.00 | 0.00 | 0.00 |
| Apply Runoff Reduction Practices to Reduce | | | 5.00 | | | | | (01) 9034 | | | | | | | | | | |
| Treatment Volume & Post-Development Load in Drainage Area A | | | | | | | | | | | | | 11.a.Filtering Practice #1 (Spec #12) | impervious acres draining to filter turf acres draining to filter | 0% runoff volume reduction 0% runoff volume reduction | 0.00 | 0.00 | 0.00 |
| | | | | | Volume from | Remainin | g | Phosphorus Load from | Untreated Phospho | orus Phosphorus | Remaining | | 11.b. Filtering Practice #2 (Spec #12) | impervious acres draining to filter turf acres draining to filter | 0% runoff volume reduction 0% runoff volume reduction | 0.00 | 0.00 | 0.00 |
| Credit 1. Vegetated Roof | Unit | Description of Credit | Credit | Credit Area (acres) | Upstream RR Practice (cf) | Runoff Runoff Reduction (cf) Volume (c | Phosphoru f) Efficiency (| (%) Upstream RR Practices (Ibs) | Load to F (Ibs.) | Practice Removed By | Phosphorus) Load (lbs.) | Downstream Treatment to be Employed | | | | | | |
| 1.a. Vegetated Roof #1 (Spec #5) | acres of green roof | 45% runoff volume reduction | | 0.00 | 0 | 0 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | | 12.a.Constructed Wetland #1 (Spec #13) | impervious acres draining to wetland turf acres draining to wetland | 0% runoff volume reduction 0% runoff volume reduction | 0.00 | 0.00 | 0.00 |
| 1.b. Vegetated Roof #2 (Spec #5) | acres of green roof | 60% runoff volume reduction | n <u>0.60</u> | 0.00 | 0 | 0 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | | 12.b. Constructed Wetland #2 (Spec #13) | impervious acres draining to wetland | 0% runoff volume reduction | 0.00 | 0.00 | 0.00 |
| 2. Rooftop Disconnection 2.a. Simple Disconnection to A/B Soils (Spec #1) | impervious acres disconnected | 50% runoff volume reduction f | for 0.50 | 0.00 | 0 | 0 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | | | turf acres draining to wetland | 0% runoff volume reduction | 0.00 | 0.00 | 0.00 |
| 2.b. Simple Disconnection to C/D Soils (Spec #1) | impervious acres disconnected | | 0.25 | 0.00 | 0 | 0 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | | 13.a. Wet Pond #1 (Spec #14) | impervious acres draining to wet pond | 0% runoff volume reduction | 0.00 | 0.00 | 0.00 |
| 2.c. To Soil Amended Filter Path as per specifications (existing C/D soils) (Spec #4) | impervious acres disconnected | 50% runoff volume reduction f treated area 50% runoff volume reduction f | 0.50 | 0.00 | 0 | 0 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | | 13.b. Wet Pond #1 (Coastal Plain) (Spec #14) | turf acres draining to wet pond | 0% runoff volume reduction 0% runoff volume reduction | 0.00 | 0.00 | 0.00 |
| 2.d. To Dry Well or French Drain #1 (Microinfilration #1) (Spec #8) 2.e. To Dry Well or French Drain #2 (Micro-Infiltration #2) (Spec #8) | | 90% runoff volume reduction f | 0.50 for 0.90 | 0.00 | 0 | 0 0 | 25 | 0.00 | 0.00 | 0.00 | 0.00 | | | turf acres draining to wet pond | 0% runoff volume reduction | 0.00 | 0.00 | 0.00 |
| 2.f. To Rain Garden #1 (Micro-Bioretention #1) (Spec #9) | impervious acres disconnected | | 0.40 | 0.00 | 0 | 0 0 | 25 | 0.00 | 0.00 | 0.00 | 0.00 | | 13.c. Wet Pond #2 (Spec #14) | impervious acres draining to wet pond | 0% runoff volume reduction | 0.00 | 0.00 | 0.00 |
| 2.g. To Rain Garden #2 (Micro-Bioretention #2) (Spec #9) | impervious acres disconnected | d treated area based on tank size and desig | 0.80 gn | 0.00 | 0 | 0 0 | 50 | 0.00 | 0.00 | 0.00 | 0.00 | | 13.d. Wet Pond #2 (Coastal Plain) (Spec #14) | turf acres draining to wet pond impervious acres draining to wet pond | 0% runoff volume reduction 0% runoff volume reduction | 0.00 | 0.00 | 0.00 |
| 2.h. To Rainwater Harvesting (Spec #6) 2.i. To Stormwater Planter (Urban Bioretention) (Spec #9, Appendix A) | impervious acres captured impervious acres disconnected | 40% runoff volume reduction f | | 0.00 | 0 | 0 0 | 25 | 0.00 | 0.00 | 0.00 | 0.00 | | | turf acres draining to wet pond | 0% runoff volume reduction | 0.00 | 0.00 | 0.00 |
| 3. Pormashio Pavomont | | | 0.40 | | | | | 0.00 | | | | | 14. Storm Eiltor | impositious acros draining to device | 00/ runoff volume reduction | 0.00 | 0.52 | 424.51 |
| 3. Permeable Pavement 3.a. Permeable Pavement #1 (Spec #7) | acres of permeable pavement acres of "external" (upgradient |) | | | | | | | | | | | 14. Storm Filter | impervious acres draining to device turf acres draining to device | 0% runoff volume reduction 0% runoff volume reduction | 0.00 | 0.52 | 434.51 5.45 |
| 3.b. Permeable Pavement #2 (Spec #7) | impervious pavement acres of permeable pavement | 45% runoff volume reduction 75% runoff volume reduction | | 0.00 | 0 | 0 0 0 0 | 25 25 | 0.00 | 0.00 | 0.00 | 0.00 | | | | | TOTAL | 0.73 | |
| 4. Grass Channel | | | | | | | | | | | | | | | | COVER TREATED | | |
| 4.a. Grass Channel A/B Soils (Spec #3) | impervious acres draining to grass channels turf acres draining to grass | 20% runoff volume reduction | n 0.20 | 0.00 | 0 | 0 0 | 15 | 0.00 | 0.00 | 0.00 | 0.00 | | | | | TOTAL TURF AREA TREATED (ac) | 0.01 | |
| | turf acres draining to grass channels impervious acres draining to | | | 0.00 | 0 | 0 0 | 15 | 0.00 | 0.00 | 0.00 | 0.00 | | | | | AREA CHECK | ОК. | |
| 4.b. Grass Channel C/D Soils (Spec #3) | grass channels turf acres draining to grass channels | 10% runoff volume reduction | | 0.00 | 0 | 0 0 | 15 | 0.00 | 0.00 | 0.00 | 0.00 | | | | | | | PHOSPHORUS |
| 4.c. Grass Channel Compost Amended Soils as per specs (see Spec | impervious acres draining to | 30% runoff volume reduction | | 0.00 | 0 | 0 0 | 15 | 0.00 | 0.00 | 0.00 | 0.00 | | | | | | | REMOVAL BY PRACTICES THA DO NOT REDUC RUNOFF VOLUM |
| #4) | turf acres draining to grass channels | 30% runoff volume reduction | n 0.20 | 0.00 | 0 | 0 0 | 15 | 0.00 | 0.00 | 0.00 | 0.00 | | | | | | | IN D.A. A |
| 5. Dry Swale | impervious acres draining to dr | | | | | | | | | | | | | | | | | TOTAL |
| 5.a. Dry Swale #1 (Spec #10) | turf acres draining to dry swale | 40% runoff volume reduction | | 0.00 | 0 | 0 0 0 0 | 20 20 | 0.00 | 0.00 | 0.00 | 0.00 | | | | | | | REMOVAL IN D. A (lb/yr) |
| 5.b. Dry Swale #2 (Spec #10) | impervious acres draining to dr swale | 60% runoff volume reduction | | 0.00 | 0 | 0 0 | 40 | 0.00 | 0.00 | 0.00 | 0.00 | | | | | | | SEE WATER QUALITY |
| | turf acres draining to dry swale | 60% runoff volume reduction | n 0.60 | 0.00 | 0 | 0 0 | 40 | 0.00 | 0.00 | 0.00 | 0.00 | | | | | | | COMPLIANCE TA FOR SITE COMPLIANCE CALCULATION |
| 6. Bioretention | impervious acres draining to bioretention | 40% runoff volume reductior | n <u>0.40</u> | 0.21 | 0 | 290 435 | 25 | 0.00 | 0.42 | 0.23 | 0.19 | 14. Manufactured Device | | | | | | |
| 6.a. Bioretention #1 or Urban Bioretention (Spec #9) | turf acres draining to bioretention | 40% runoff volume reduction | | 0.01 | 0 | 4 5 | 25 | 0.00 | 0.01 | 0.00 | 0.00 | 14. Manufactured Device | | | | | | |
| 6.b. Bioretention #2 (Spec #9) | impervious acres draining to bioretention turf acres draining to | 80% runoff volume reduction | n 0.80 | 0.00 | 0 | 0 0 | 50 | 0.00 | 0.00 | 0.00 | 0.00 | | | | | | | NITROGEN REMOVAL BY PRACTICES TH |
| | bioretention | 80% runoff volume reduction | n 0.80 | 0.00 | 0 | 0 0 | 50 | 0.00 | 0.00 | 0.00 | 0.00 | | | | | | | PRACTICES THA DO NOT REDUC RUNOFF VOLUM IN D.A. A |
| 7. Infiltration | impervious acres draining to | | 0.50 | | | | | 0.00 | | | | | | | | | | |
| 7.a. Infiltration #1 (Spec #8) | infiltration turf acres draining to infiltration impervious acres draining to | 50% runoff volume reduction 50% runoff volume reduction | | 0.00 | 0 | 0 0 | 25 25 | 0.00 | 0.00 | 0.00 | 0.00 | | | | | | | TOTAL NITROG REMOVAL IN D A (Ib/yr) |
| 7.b. Infiltration #2 (Spec #8) | infiltration | 90% runoff volume reduction 90% runoff volume reduction | | 0.00 | 0 | 0 0 0 0 | 25 25 | 0.00 | 0.00 | 0.00 | 0.00 | | | | | | | |
| 8. Extended Detention Pond | | | | | | | | | | | | | | | | | | |
| 8.a. ED #1 (Spec #15) | impervious acres draining to ED turf acres draining to ED | O% runoff volume reductionO% runoff volume reduction | | 0.00 | 0 | 0 0 0 0 | 15 15 | 0.00 | 0.00 | 0.00 | 0.00 | | | | | | | |
| 8.b. ED #2 (Spec #15) | impervious acres draining to ED turf acres draining to ED | D 15% runoff volume reduction 15% runoff volume reduction | | 0.00 | 0 | 0 0 0 0 | 15 15 | 0.00 | 0.00 | 0.00 | 0.00 | | | | | | | |
| 9. Sheetflow to Filter/Open Space | | | | | | | | | | | | | | | | | | |
| | conserved open space | 75% runoff volume reduction f treated area | 0.75 | 0.00 | 0 | 0 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | | | | | | | |
| 9.a. Sheetflow to Conservation Area with A/B Soils (Spec #2) | open space | d 75% runoff volume reduction f treated area 50% runoff volume reduction f | 0.75 | 0.00 | 0 | 0 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | | | | | | | |
| | conserved open space turf acres draining to conserved | treated area d 50% runoff reduction volume f | 0.50 for | 0.00 | 0 | 0 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | | | | | | | |
| 9.b. Sheetflow to Conservation Area with C/D Soils (Spec #2) | open space impervious acres draining to conserved open space | treated area 50% runoff volume reduction f treated area | 0.50 for 0.50 | 0.00 | 0 | 0 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | | | | | | | |
| 9.c. Sheetflow to Vegetated Filter Strip in A Soils or Compost Amended B/C/D Soils (Spec #2 & #4) | turf acres draining to conserved open space | d 50% runoff reduction volume f treated area | | 0.00 | 0 | 0 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | | | | | | | |
| | | | TOTA | | | | | | | | | | | TOTAL REDEVELOPM | | | | |
| | | | COVE TREATED (ad | R c) 0.21 | | | | | | | | | | PHOSPHORUS REMO | | | | 0.00040 |
| | | | TOTAL TUR ARE TREATED (ad | A | | | | | | | | | | ONSITE BMP AREA TO ONSITE DRAINAGE A | | | | 5. U.ZZ AC |
| | | | AREA CHECI | К ОК. | | | | | | | | | | BMP TYPE: URBAN BI BMP PHOSPHORUS F | | | TREAM TO S | TORMFILT |
| | | | | | TOTAL | | | | | | | | | PHOSPHORUS REMO | | | | |
| | | | | | PHOSPHOROL S REMOVAL REQUIRED ON | | | | | | | | | BMP TYPE: DIRECT D BMP PHOSPHORUS F | | | | |
| | | | | | SITE (lb/yr |) 0.78 | | | | | | | | PHOSPHORUS REMO | | | | |
| | | | | | REDUCTION IN D.A. A (cf | 293 | | | | | | | | PHOSPHORUS REMO | VAL PROVIDED = 0.7 | 79 lb/yr_ | | |
| | | | | | PHOSPHORUS REMOVAL FROM RUNOFF | | | | | | | | | | | | | |
| | | | | | REDUCTION PRACTICES IN D.A. A (Ib/yr) | 4 | | | | | | | | | | | | |
| | | | | | SEE WATER | k line line line line line line line line | | | | | | | | | | | | |
| | | | | | QUALITY COMPLIANCE TAB FOR | | | | | | | | | | | | | |
| | | | | | SITE COMPLIANCE | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| Apply Practices that Remove Pollutants but | | | | | | | | | | | | | | | | | | |
| Do Not Reduce Runoff Volume | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |

| f from am RR es (cf) | Runoff Reduction (cf) | Remaining Runoff Volume (cf) | Phosphorus Efficiency (%) | Phosphorus Load from Upstream RR Practices (Ibs) | Untreated Phosphorus Load to Practice (lbs.) | Phosphorus Removed By Practice (Ibs.) | Remaining Phosphorus Load (lbs.) | Downstream Treatment to be Employed | 22636 DAVIS DRIVE; STE 250 STERLING, VA 20164 703-709-9500 WWW. BOHLERENGINEERING.COM | architects |
|-------------------------------------|--------------------------|------------------------------------|------------------------------|--|--|---|--|-------------------------------------|--|---|
| 00 | 0 | 0 | 20 | 0.00 | 0.00 | 0.00 | 0.00 | | /E; STH 164 NGINE | chi |
| 00 | 0 | 0 | 20 | 0.00 | 0.00 | 0.00 | 0.00 | | S DRIV VA 20 [.] LEREF | al |
| 00 | 0 | 0 | 40 | 0.00 | 0.00 | 0.00 | 0.00 | | 3 DAVI 3 DAVI 09-950 7. BOH | |
| 50 | 0 | 0 | 40 | 0.00 | 0.00 | 0.00 | 0.00 | | 22630 STEF 703-7 WWW | GS |
| 00 | 0 | 0 | 60 | 0.00 | 0.00 | 0.00 | 0.00 | | | associates |
| 00 | 0 | 0 | 60 65 | 0.00 | 0.00 | 0.00 | 0.00 | | | 000 |
| 00 | 0 | 0 | 65 | 0.00 | 0.00 | 0.00 | 0.00 | | | |
| 00 | 0 | 0 | 50 | 0.00 | 0.00 | 0.00 | 0.00 | | | |
| 00 | 0 | 0 | 50 | 0.00 | 0.00 | 0.00 | 0.00 | | $\mathbf{T}_{\mathbf{z}}^{\mathbf{H}}$ | CHITECT RCHITECT MPFP LL 120 Broadway, 20th FI. New York, NY 10271 tele. 212, 477, 6546 fax. 212, 477, 6548 |
| 00 | 0 | 0 | 75 | 0.00 | 0.00 | 0.00 | 0.00 | | | ARCHITECT ARCHITECT NPFP New York, NY 1027 tele. 212. 477. 654 fax. 212. 477. 654 |
| 00 | 0 | 0 | 75 | 0.00 | 0.00 | 0.00 | 0.00 | | | |
| 00 | 0 | 0 | 50 | 0.00 | 0.00 | 0.00 | 0.00 | | | <u>—</u> <u> </u> |
| 00 | 0 | 0 | 50 | 0.00 | 0.00 | 0.00 | 0.00 | | | SN21011 ANDSCAPE MPFP |
| 00 | 0 | 0 | 45 | 0.00 | 0.00 | 0.00 | 0.00 | | CIVIL | SI M |
| 00 | 0 | 0 | 75 | 0.00 | 0.00 | 0.00 | 0.00 | | REV | ISIONS |
| 00 | 0 | 0 | 75 65 | 0.00 | 0.00 | 0.00 | 0.00 | | REV DATE | COMMENT BY |
| 00 | 0 | 0 | 65 | 0.00 | 0.00 | 0.00 | 0.00 | | | EV. PER CITY COMMENTS IS |
| | | | | | | | | | 2 10/02/14 R | EV. PER CITY COMMENTS IS |
| l.51 45 | 0 | 2228 5 | 45 45 | 0.19 | 1.05 | 0.56 | 0.68 | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| HORUS /AL BY ES THAT | 0.56 | | <u>.</u> | | | | | | | |
| ES THAT REDUCE VOLUME A. A | | | | | | | | | WIT | |
| | | | | | | | | | | |
| TAL HORUS L IN D.A. | 0.79 | | | | | | | | | V Jose |
| o/yr) | | | | | | | | | EXCAVATORS, DESIGNERS, | DRE VO S REQUIRE NOTIFICATION BY OR ANY PERSON PREPARING TO |
| ATER LITY NCE TAB | | | | | | | | | IN VIRGINIA, MARYLAND, NORTH CAROLINA A | FACE ANYWHERE IN THE STATE. THE DISTRICT OF COLUMBIA, ND DELAWARE CALL - 811 |
| SITE IANCE ATIONS | | | | | | | | | (WV 1-800-245-4848) (PA 1-8 (VA 1-800-552-7001) (MD 1-8 | 00-242-1776) (DC 1-800-257-7777) 00-257-7777) (DE 1-800-282-8555) |
| | | | | | | | | | | ROVED FOR |
| | | | | | | | | | CONST | RUCTION |
| DGEN /AL BY ES THAT | 0.00 | | | | | | | | PROJECT No.: DRAWN BY: | S132178 IS |
| REDUCE VOLUME A. A | | | | | | | | | CHECKED BY: DATE: | MAT 09/19/14 |
| | | | | | | | | | SCALE: CAD I.D.: | AS SHOWN SW2 |
| TROGEN L IN D.A. p/yr) | 1.94 | | | | | | | | PROJECT: | OPMENT |
| | | | | | | | | | | AL USE |
| | | | | | | | | | | Γ (DSUP) |
| | | | | | | | | | | OR |
| | | | | | | | | | | OUTH |
| | | | | | | | | | | CIATES |
| | | | | | | | | | | LC |
| | | | | | | | | | | ON OF SITE RMINAL SOUTH |
| | | | | | | | | | CITY OF AL | EXANDRIA, VA |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | BC | HLER |
| | | | | | | | | | | |
| AC | | | | | | | | | | DRIVE, SUITE 250 /IRGINIA 20164 |
| II - | | | | | | | | | Phone: (| 703) 709-9500 (703) 709-9501 |
| ILTER | | | | | | | | | | ngineering.com |
| | | | | | | | | | A | THOM TO |
| | | | | | | | | | The second | //h./2 |
| | | | | | | | | | Smichael. | J. O'HARA JR. |
| | | | | | | | | | Lic. N | 0.34168 |
| | | | | | | | |] | 12/ | 23/14 |
| | | | | | | PROVE | | #2014-0006 | ******* | VAL ENUM |
| | | | | | | | PERMIT NO PLANNING & | | SHEET TITLE: | |
| | | | | | | MUNITY DEV | | | STORN | IWATER |
| | | | | | | DIDIO | | | | GEMENT |
| | | | | | | DIRECT | | DATE: | | TATIONS |
| | | | | | | ARTMENT OF IRONMENTAL | TRANSPORTA SERVICES | 110IN & | | |
| | | | | | | | 0.0 | | SHEET NUMBER: | 0^{1} |
| | | | | | חאידנ | DIRECT | UK: | DATE: | | -9.2 |
| | | | | | | MENT NO. | DEED | 300K NO. PAGE NO. | | |
| | | | | | | | | | | J |



SANITARY SEWER OUTFALL NARRATIVE

ANALYSIS HAS BEEN PREPARED PER MEMO TO THE INDUSTRY NO. 06-14, DATED JUNE 20, 2014 ON NEW SANITARY SEWER CONNECTION AND ADEQUATE OUTFALL ANALYSIS - UPDATED. PER THE MEMO, ADEQUATE OUTFALL ANALYSIS SHALL BE SHOWN UP TO A 24" MAIN.

THE PROPOSED SANITARY SEWER LATERALS AND MAINS CONNECT TO A 30" EXISTING SANITARY MAIN UNDER SOUTH UNION STREET. EACH EXISTING SANITARY SEWER MAIN HAS ADEQUATE CAPACITY PER THE COMPUTATIONS (NEXT SHEET). IT IS THE OPINION OF THE ENGINEER OR RECORD THAT THE SITE HAS AN ADEQUATE SANITARY OUTFALL.

THE PROJECT SITE'S SANITARY SEWER OUTFALLS TO THE 30" MAIN AT 3 DIFFERENT MANHOLES.

THE SANITARY FLOWS FROM BUILDINGS 2 AND 3 ARE CONVEYED BY A PROPOSED 10" MAIN (SAN 6 TO EX 2) FROM EX 2, FLOWS ARE CONVEYED BY AN EXISTING 8" SANITARY PIPE TO THE POTOMAC INTERCEPTOR. BASED ON THE COMPUTATIONS PROVIDED ON SHEET C-10.1, THE EXISTING SEWER HAS CAPACITY TO CONVEY THE PEAK FLOW OF 0.209 CFS (18.11% FULL WORST CASE).

OUTFALL #2: THE SANITARY FLOWS FROM BUILDINGS 5, 6, 7, 8, AND 9 ARE CONVEYED BY PROPOSED SANITARY LATERALS AND MAINS WHICH CONNECT TO AN EXISTING 30" SANITARY PIPE, PART OF THE POTOMAC INTERCEPTOR, AT MANHOLE EX-1. BASED ON THE COMPUTATIONS PROVIDED ON SHEET C-10.1, THE EXISTING SEWER HAS CAPACITY TO CONVEY THE PEAK FLOW OF 0.050 CFS (2.26% FULL WORST CASE).

OUTFALL #3: THE SANITARY FLOWS FROM BUILDINGS 1 AND 4 ARE CONVEYED BY AN EXISTING 8" SANITARY PIPE TO THE POTOMAC INTERCEPTOR. BASED ON THE COMPUTATIONS PROVIDED ON SHEET C-10.1, THE EXISTING SEWER HAS CAPACITY TO CONVEY THE PEAK FLOW OF 0.164 CFS (16.04% FULL WORST CASE).

REFERENCES:

 ENTITLED, "CH. CUMMINGS SITE, 220 S. UNION STREET, FINAL SITE PLAN" PREPARED BY BOWMAN CONSULTING, DATED FEBRUARY 17, 2014, REVISED JULY 7, 2014, FILE # 7981-D-CP-001."
 CITY OF ALEXANDRIA'S GIS PARCEL VIEWER AND SEWER VIEWER.

| | 22636 DAVIS DRIVE; STE 250 STERLING, VA 20164 703-709-9500 WWW. BOHLERENGINEERING.0 | architec | | | | | | | | |
|---|---|--|---|---|--|--|--|--|--|--|
| | CIVIL ENGINEER BOHLLER ENGINEERING MWW. ARCHITECT | shalom baranes associates | MPFP LLC | 120 Broadway, 20th FI. New York, NY 10271 tele. 212. 477. 6366 fax. 212. 477. 6548 | | | | | | |
| | REV DATE | EVISIO COMM | | ВҮ | | | | | | |
| | 1 11/21/14 2 12/23/14 | REV. PE COMM REV. PE COMM | ENTS R CITY | IS IS | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | \dashv | | | | | | |
| | THE FOLLOWING ST EXCAVATORS, DESIGNE DISTURB THE EARTH'S IN VIRGINIA, MARYL/ NORTH CAROLII (WV 1-800-245-4848) (PA | ERS, OR ANY F SURFACE AN AND, THE DIS ⁻ NA AND DELA [\] | PERSON PREP YWHERE IN TH FRICT OF COLL WARE CALL - 8 | ARING TO IE STATE. JMBIA, 11 | | | | | | |
| | (VA 1-800-552-7001) (MD | PROV | ED FO | 282-8555) | | | | | | |
| | PROJECT No.: DRAWN BY: CHECKED BY: DATE: SCALE: | STRUC | S1 09 | 32178 IS MAT 1/19/14 " = 30' | | | | | | |
| | SPEC | CIAL | | | | | | | | |
| | PERMIT (DSUP) FOR RT SOUTH ASSOCIATES LLC LOCATION OF SITE ROBINSON TERMINAL SOUTH CITY OF ALEXANDRIA, VA | | | | | | | | | |
| | | | | | | | | | | |
| | BOHLER BOHLER B N G I N E E R I N G 22636 DAVIS DRIVE, SUITE 250 STERLING, VIRGINIA 20164 Phone: (703) 709-9500 Fax: (703) 709-9501 www.BohlerEngineering.com | | | | | | | | | |
| | S Michae D Lic. | ALTH EV J. O'H4 No. 341 2/23/14 ONAL | | | | | | | | |
| - | OU | NITA TFA ALY | LL | | | | | | | |
| | | 1 | | | | | | | | |
| | | –]() OF 92 | 0.0 | | | | | | | |

ts

| APPROVED special use permit no | 006 |
|--|-------|
| DEPARTMENT OF PLANNING & COMMUNITY DEVELOPMENT | |
| DIRECTOR: | DATE: |
| DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES | |
| DIRECTOR: | DATE: |
| DATE RECORDED | |

DEED BOOK NO.

PAGE NO.

INSTRUMENT NO.

OUTFALL 1 COMPUTATIONS

| EXISTING SITE FLO | W: | | | | | | |
|-------------------|-------------------------------|-----------------------------|------------------|----------------|-----------|--------|-----|
| | | | PIPE EX-2 TO | EX-3 | | | |
| EXISTING TOWNHO | DUSES SOUTH C | OF WOLFE STRE | ET | | | | |
| ADF = | 5 | 0 TH X (350 GP | D / UNIT) = | 17500 | GPD | 0.0271 | CFS |
| PEAK FLOW = | | 17500 GPD | X 4 = | 70000 | GPD | 0.1083 | CFS |
| TWO EXISTING WA | REHOUSES ON | SITE | | | | | |
| ADF= | 56421 X (15 GPD / 500 S.F.) = | | | 1693 | GPD | 0.0026 | CFS |
| PEAK FLOW = | | 1693 GPD | X 4 = | 6771 | GPD | 0.0105 | CFS |
| | | | | | | | |
| PROPOSED SITE FL | OW: | | | | | | |
| | Α | DDITIONAL PR | OPOSED FLOW TO | PIPE FROM SAN- | 6 TO EX-2 | | |
| PROPOSED BUILDI | NG 2 | | | | | | |
| USE 1: COMMERCIA | AL | | | | | | |
| ADF = | 1971 | S.F. X (200 GPI | 0 / 1000 S.F.) = | 394 | GPD | 0.0006 | CFS |
| USE 2: RESIDENTIA | L | | | | | | |
| ADF = | 29 | UNITS X (300 G | PD / UNIT) = | 8700 | GPD | 0.0135 | CFS |
| PEAK FLOW = | (87 | (8700 GDP + 6300 GPD) X 4 = | | | GPD | 0.0563 | CFS |
| PROPOSED BUILDI | NG 3 | | | | • | · | • |
| ADF = | 30 | UNITS X (300 G | PD / UNIT) = | 9000 | GPD | 0.0139 | CFS |
| PEAK FLOW = | | 9000 GPD | X 4 = | 36000 | GPD | 0.0557 | CFS |
| TOTAL FLOW = | 0.1120 | CFS | | | | | |

| | n = 0. | .013 | | | | | | |
|--------------|--------------------------|-----------------------|---------------------|----------------|----------------|----------------|--------------------------|--------|
| PIPE | INV. HEIGHT (FT-ELEV) | INV. LOW (FT-ELEV) | PIPE LENGTH (FT) | PIPE SIZE (IN) | PIPE SLOPE (%) | CAPACITY (CFS) | PROJECTED FLOWS (CFS) | % FULL |
| EX-2 TO EX-3 | 1.46 | -1.31 | 148 | 8 | 1.87% | 1.66 | 0.082 | 4.95% |
| | | | | | | | | |
| EX-3 TO EX-4 | -1.31 | -1.69 | 42 | 8 | 0.90% | 1.15 | 0.082 | 7.11% |

| | n = 0. | 013 | | | | | | |
|---------------|--------------------------|-----------------------|---------------------|----------------|----------------|----------------|--------------------------|--------|
| PIPE | INV. HEIGHT (FT-ELEV) | INV. LOW (FT-ELEV) | PIPE LENGTH (FT) | PIPE SIZE (IN) | PIPE SLOPE (%) | CAPACITY (CFS) | PROJECTED FLOWS (CFS) | % FULL |
| SAN-6 TO EX-2 | 2 | 1.46 | 78 | 10 | 0.69% | 1.83 | 0.209 | 11.42% |
| EX-2 TO EX-3 | 1.46 | -1.31 | 148 | 8 | 1.87% | 1.66 | 0.209 | 12.59% |
| EX-3 TO EX-4 | -1.31 | -1.69 | 42 | 8 | 0.90% | 1.15 | 0.209 | 18.11% |

> PIPE SAN-3 TO SAN-2

SAN-4 TO SAN-2

SAN-2 TO SAN-1

SAN-5 TO SAN-1

SAN-1 TO E

OUTFALL 2 COMPUTATIONS

| PROPOSED SITE FLC | W: | | | | | | |
|-------------------|---------------------------|-----------------|-------------------|------------------|-----|--------|-----|
| | | PROPOSE | O FLOW TO PIPE FI | ROM SAN-3 TO SAN | -2: | , I | |
| PROPOSED BUILDIN | G 5 | | | | | | |
| ADF = | 3 | 3 TH X (350 GPC |) / UNIT) = | 1050 | GPD | 0.0016 | CFS |
| PEAK FLOW = | | 1050 GPD | X 4 = | 4200 | GPD | 0.0065 | CFS |
| PROPOSED BUILDIN | G 7 | | | | | | |
| ADF = | [| 5 TH X (350 GPC |) / UNIT) = | 1750 | GPD | 0.0027 | CFS |
| PEAK FLOW = | | 1750 GPD | X 4 = | 7000 | GPD | 0.0108 | CFS |
| TOTAL FLOW = | 0.0173 | CFS | | · | | | |
| | | PROPOSE | O FLOW TO PIPE FI | ROM SAN-4 TO SAN | -2: | | |
| PROPOSED BUILDIN | G 6 | | | | | | |
| ADF = | 5 TH X (350 GPD / UNIT) = | | | 1750 | GPD | 0.0027 | CFS |
| PEAK FLOW = | 1750 GPD X 4 = | | | 7000 | GPD | 0.0108 | CFS |
| TOTAL FLOW = | 0.0108 | CFS | | | | | |
| | | PROPOSE | O FLOW TO PIPE FI | ROM SAN-2 TO SAN | -1: | | |
| PROPOSED BUILDIN | G 9 | | | | | | |
| ADF = | 2 | 4 TH X (350 GPC |) / UNIT) = | 1400 | GPD | 0.0022 | CFS |
| PEAK FLOW = | | 1400 GPD | X 4 = | 5600 | GPD | 0.0087 | CFS |
| TOTAL FLOW = | 0.0087 | CFS | | | | | |
| | | PROPOSE | D FLOW TO PIPE FI | ROM SAN-5 TO SAN | -1: | | |
| PROPOSED BUILDIN | G 9 | | | | | | |
| ADF = | 1 | L TH X (350 GPC |) / UNIT) = | 350 | GPD | 0.0005 | CFS |
| PEAK FLOW = | 350 GPD X 4 = | | | 1400 | GPD | 0.0022 | CFS |
| PROPOSED BUILDIN | G 8 | | | | | | |
| ADF = | Į. | 5 TH X (350 GPC |) / UNIT) = | 1750 | GPD | 0.0027 | CFS |
| PEAK FLOW = | | 9000 GPD | X 4 = | 7000 | GPD | 0.0108 | CFS |
| TOTAL FLOW = | 0.0130 | CFS | | | | · | |

| | PROPC | SED SANITARY SE | WER COMPUTATIO | ONS FOR BUILDING | GS 5 - 9 | | n = 0. | 013 |
|----------|--------------------------|-----------------------|---------------------|------------------|----------------|----------------|--------------------------|--------|
| | INV. HEIGHT (FT-ELEV) | INV. LOW (FT-ELEV) | PIPE LENGTH (FT) | PIPE SIZE (IN) | PIPE SLOPE (%) | CAPACITY (CFS) | PROJECTED FLOWS (CFS) | % FULL |
| TO -2 | 5.84 | 3.95 | 202 | 10 | 0.93% | 2.12 | 0.017 | 0.82% |
| | | | | | | | | |
| TO -2 | 5.04 | 3.95 | 113.3 | 10 | 0.96% | 2.15 | 0.011 | 0.50% |
| | | | | | | | | |
| T0 ·1 | 3.95 | 2.95 | 90.5 | 10 | 1.10% | 2.31 | 0.037 | 1.59% |
| | | | | | | | | |
| T0 ·1 | 3.48 | 2.95 | 46.3 | 10 | 1.14% | 2.35 | 0.013 | 0.55% |
| | | | | | | | | |
|) EX-1 | 2.95 | 2.71 | 23.8 | 10 | 1.01% | 2.21 | 0.050 | 2.26% |

OUTFALL 3 (

| EXISTING SITE FLOW | : | | | | | | | | | |
|---------------------------|---|-----------------|--|---------------|--------|--------|-----|--|--|--|
| | 0 S. UNION STF | REET, FINAL SIT | UILDING, EX. BLDG #2, E PLAN" PREPARED BY | , | | | ' | | | |
| | PIPE FROM 1142 TO 1913 (EX. BLDG #2 AND EX. BLDG #3) | | | | | | | | | |
| PROJECTED FLOW = | | 0.0090 CFS | | | | | | | | |
| | ADDITIONAL FLOW TO PIPE FROM 1913 TO 1537 (PROPOSED BLDG AND EX. BLDG #4) | | | | | | | | | |
| PROJECTED FLOW = | | 0.3149 CFS | | | | | | | | |
| | | PIPE FROM | 1537 TO 1534 (NO AD | DITIONAL FLO | N) | | | | | |
| PROJECTED FLOW = | | 0.3149 CFS | | | | | | | | |
| | | | | | | | | | | |
| PROPOSED SITE FLO | W: | | | | | | | | | |
| | Α | DDITIONAL PR | OPOSED FLOW TO PIP | E FROM 1913 T | 0 1537 | | | | | |
| PROPOSED BUILDING | G 1 | | | | | | | | | |
| USE 1: COMMERCIAL | - | | | | | | | | | |
| ADF = | 6138 | S.F. X (200 GPC | 0 / 1000 S.F.) = | 1228 | GPD | 0.0019 | CFS | | | |
| USE 2: RESIDENTIAL | | | | | | | | | | |
| ADF = | 10 | UNITS X (300 G | PD / UNIT) = | 3000 | GPD | 0.0046 | CFS | | | |
| PEAK FLOW = | (33 | 300 GDP + 2700 |) GPD) X 4 = | 16910 | GPD | 0.0262 | CFS | | | |
| NO. 2 DUKE STREET | (COMMERCIAI | _) | | | | | | | | |
| ADF = | 3330 | S.F. X (200 GPI | D/ 1000 S.F.) = | 666 | GPD | 0.0010 | CFS | | | |
| PEAK FLOW = | | 666 GPD > | (4 = | 2664 | GPD | 0.0041 | CFS | | | |
| PROPOSED BUILDING | G 4 | | | | | | | | | |
| ADF = | 3 | 5 TH X (350 GPC |) / UNIT) = | 1050 | GPD | 0.0016 | CFS | | | |
| PEAK FLOW = | | 1050 GPD | X 4 = | 4200 | GPD | 0.0065 | CFS | | | |
| TOTAL FLOW = | 0.0368 | CFS | | | | | | | | |

| | n = 0. | 013 | | | | | | |
|--|--------------------------|-----------------------|---------------------|----------------|----------------|----------------|--------------------------|---------|
| (EXISTING INFORMATION FROM ENTITLED, "CH. CUMMINGS SITE, 220 S. UNION STREET, FINAL SITE PLAN" PREPARED BY BOWMAN CONSULTING, DATED FEBRUARY 17, 2014, REVISED JULY 7, 2014, FILE # 7981-D-CP-001.") | | | | | | | | |
| MANHOLE | INV. HEIGHT (FT-ELEV) | INV. LOW (FT-ELEV) | PIPE LENGTH (FT) | PIPE SIZE (IN) | PIPE SLOPE (%) | CAPACITY (CFS) | PROJECTED FLOWS (CFS) | % FULL |
| 1142 TO 1913 | 3.26 | 1.51 | 94.6 | 8 | 1.85% | 1.65 | 0.009 | 0.55% |
| | | | | | | | | |
| 1913 TO 1537 | 1.2 | 0.2 | 204.31 | 8 | 0.49% | 0.85 | 0.3149 | 37.15% |
| | | | | | | | | |
| 1537 TO 1534 | 0.18 | -0.04 | 37.81 | 8 | 0.58% | 0.92 | 0.3149 | 34.07% |
| 1007 10 1004 | 0.10 | 0.04 | 57.01 | 5 | 0.0070 | 0.52 | 0.0145 | 01.0770 |

NOTE: EXISTING BUILDING #4 AND EXISTING BUILDING #3 (FROM "CH. CUMMINGS SITE, 220 S. UNION STREET, FINAL SITE PLAN" PREPARED BY BOWMAN CONSULTING, DATED FEBRUARY 17, 2014, REVISED JULY 7, 2014, FILE # 7981-D-CP-001.") ARE DEMOLISHED WITH THIS PROJECT, THEREFORE THE EXISTING FLOW HAS BEEN SUBTRACTED FORM THE PROPOSED FLOW CALCULATIONS.

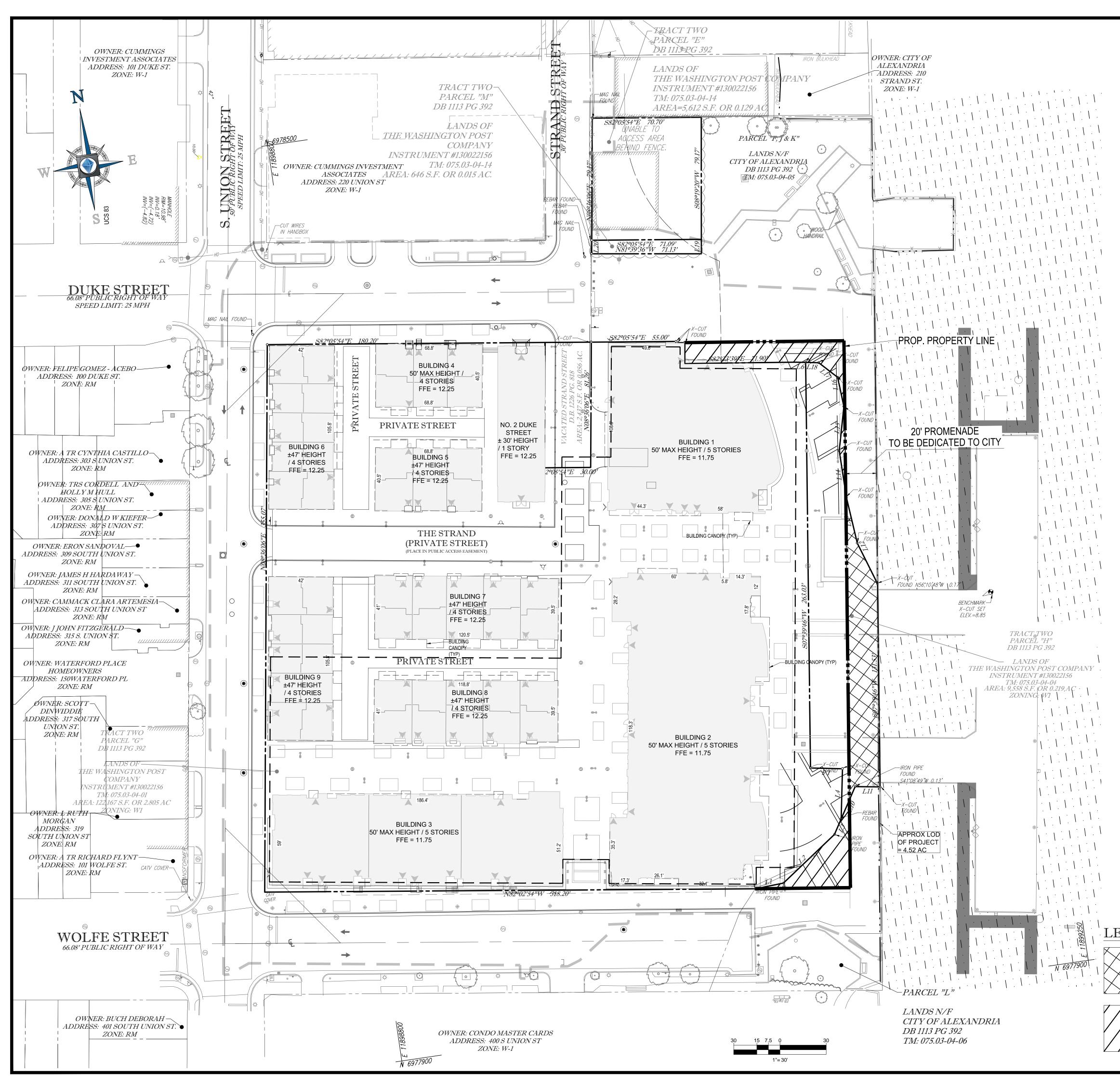
EXISTING FLOW FROM 1913 TO 1537 = 0.3149 CFS PROPOSED FLOW FROM 1913 TO 1537 AFTER DEMOLITION = 0.3149 CFS - 0.185 CFS (EX BLDG #4) -0.004 CFS (EX BLDG #3) = 0.1259 CFS PROPOSED FLOW FROM 1913 TO 1537 AFTER PROPOSED WORK IS COMPLETE = 0.1259 CFS + 0.0345 = 0.1600 CFS

| Р | n = 0. | 013 | | | | | | |
|--------------|--------------------------|-----------------------|---------------------|----------------|----------------|----------------|--------------------------|--------|
| PIPE | INV. HEIGHT (FT-ELEV) | INV. LOW (FT-ELEV) | PIPE LENGTH (FT) | PIPE SIZE (IN) | PIPE SLOPE (%) | CAPACITY (CFS) | PROJECTED FLOWS (CFS) | % FULL |
| 1142 TO 1913 | 3.26 | 1.51 | 94.6 | 8 | 1.85% | 1.65 | 0.005 | 0.30% |
| 1913 TO 1537 | 0.89 | -0.03 | 204.31 | 8 | 0.45% | 0.81 | 0.164 | 20.19% |
| 1537 TO 1534 | -0.03 | -0.30 | 37.81 | 8 | 0.71% | 1.02 | 0.164 | 16.04% |

INVERTS SHOWN IN TABLE ARE BASED ON FIELD SURVEY PREPARED BY BOHLER ENGINEERING SHOWN ON SHEET C-2.0.

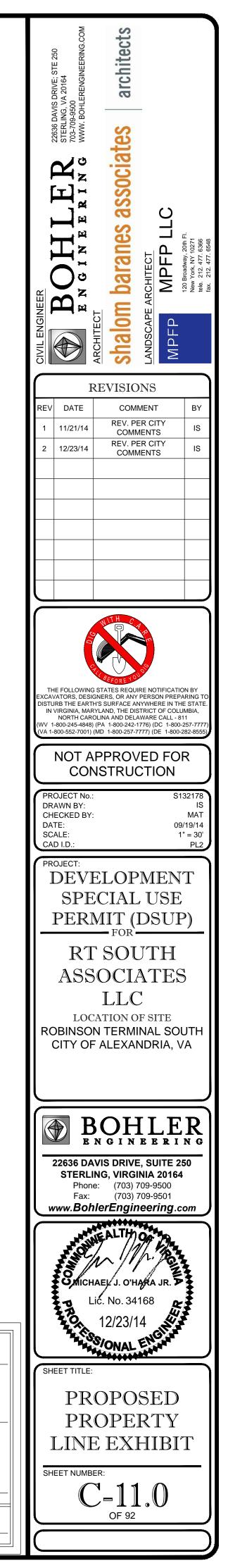


| EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE. IN VIRGINIA, MARYLAND, THE DISTRICT OF COLUMBIA, NORTH CAROLINA AND DELAWARE CALL - 811 (WV 1-800-245-4848) (PA 1-800-242-1776) (DC 1-800-257-7777) (VA 1-800-552-7001) (MD 1-800-257-7777) (DE 1-800-282-8555) NOT APPROVED FOR CONSTRUCTION PROJECT NO.: S132178 DRAWN BY: IS CHECKED BY: MAT DATE: 09/19/14 SCALE: AS SHOWN CAD I.D.: S02 PROJECT: DEVELOPMENT SPECIAL USE PERMIT (DSUP) FOR RT SOUTH |
|--|
| EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE. IN VIRGINIA, MARYLAND, THE DISTRICT OF COLUMBIA, NORTH CAROLINA AND DELAWARE CALL - 811 (WV 1-800-245-4848) (PA 1-800-242-1776) (DC 1-800-257-7777) (VA 1-800-552-7001) (MD 1-800-257-7777) (DE 1-800-282-8555) NOT APPROVED FOR CONSTRUCTION PROJECT NO.: S132178 DRAWN BY: IS CHECKED BY: MAT DATE: 09/19/14 SCALE: AS SHOWN CAD I.D.: S02 PROJECT: DEVELOPMENT SPECIAL USE PERMIT (DSUP) FOR RT SOUTH |
| CHECKED BY: MAT DATE: 09/19/14 SCALE: AS SHOWN CAD I.D.: SO2 PROJECT: DEVELOPMENT SPECIAL USE PERMIT (DSUP) FOR RT SOUTH |
| ASSOCIATES |
| LLC LOCATION OF SITE ROBINSON TERMINAL SOUTH CITY OF ALEXANDRIA, VA |
| BOHLER ENGINEERING 22636 DAVIS DRIVE, SUITE 250 STERLING, VIRGINIA 20164 Phone: (703) 709-9500 Fax: (703) 709-9501 www.BohlerEngineering.com |
| Chichael J. O'Hara Jr. Lic. No. 34168 12/23/14 SHEET TITLE: |
| SHEET MILE. SANITARY OUTFALL ANALYSIS SHEET NUMBER: C=10.1 OF 92 |

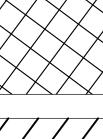


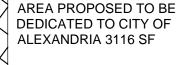
NOTE:

THE APPLICANT PROPOSES A NET DEDICATION OF APPROXIMATELY 312 SF TO THE CITY IN ORDER TO RATIONALIZE THE PROPERTY LINE ADJACENT TO THE PROPOSED DEVELOPMENT.



LEGEND:





AREA PROPOSED TO BE CONVEYED FROM CITY OF ALEXANDRIA 2804 SF

| DEPARTMENT OF PLANNING & COMMUNITY DEVELOPMENT | | |
|--|------|----|
| DIRECTOR: | DATI |]: |
| DEPARTMENT OF TRANSPORTATION ENVIRONMENTAL SERVICES | & | |
| DIRECTOR: | DATI | : |
| DATE RECORDED | | |

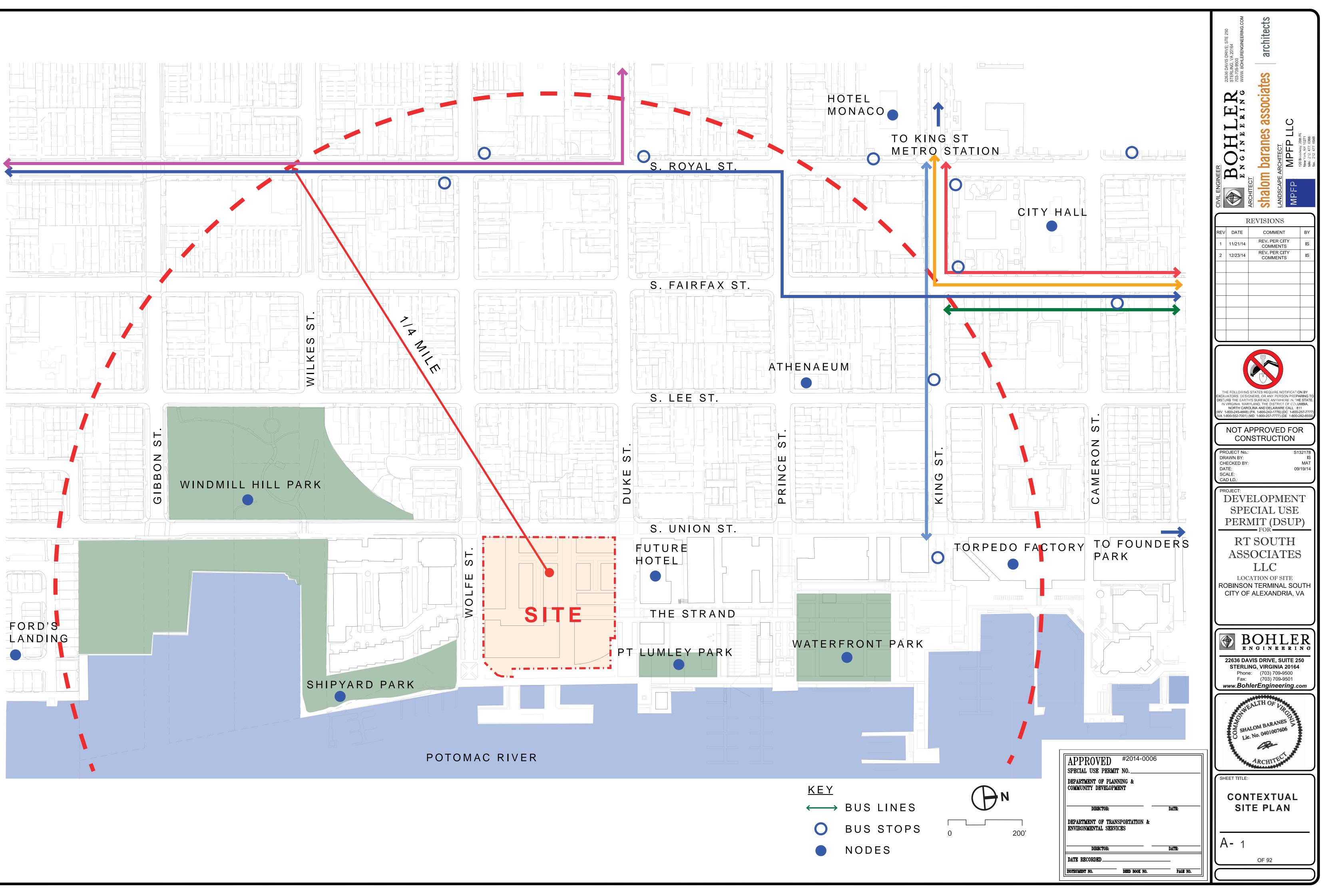
DEED BOOK NO.

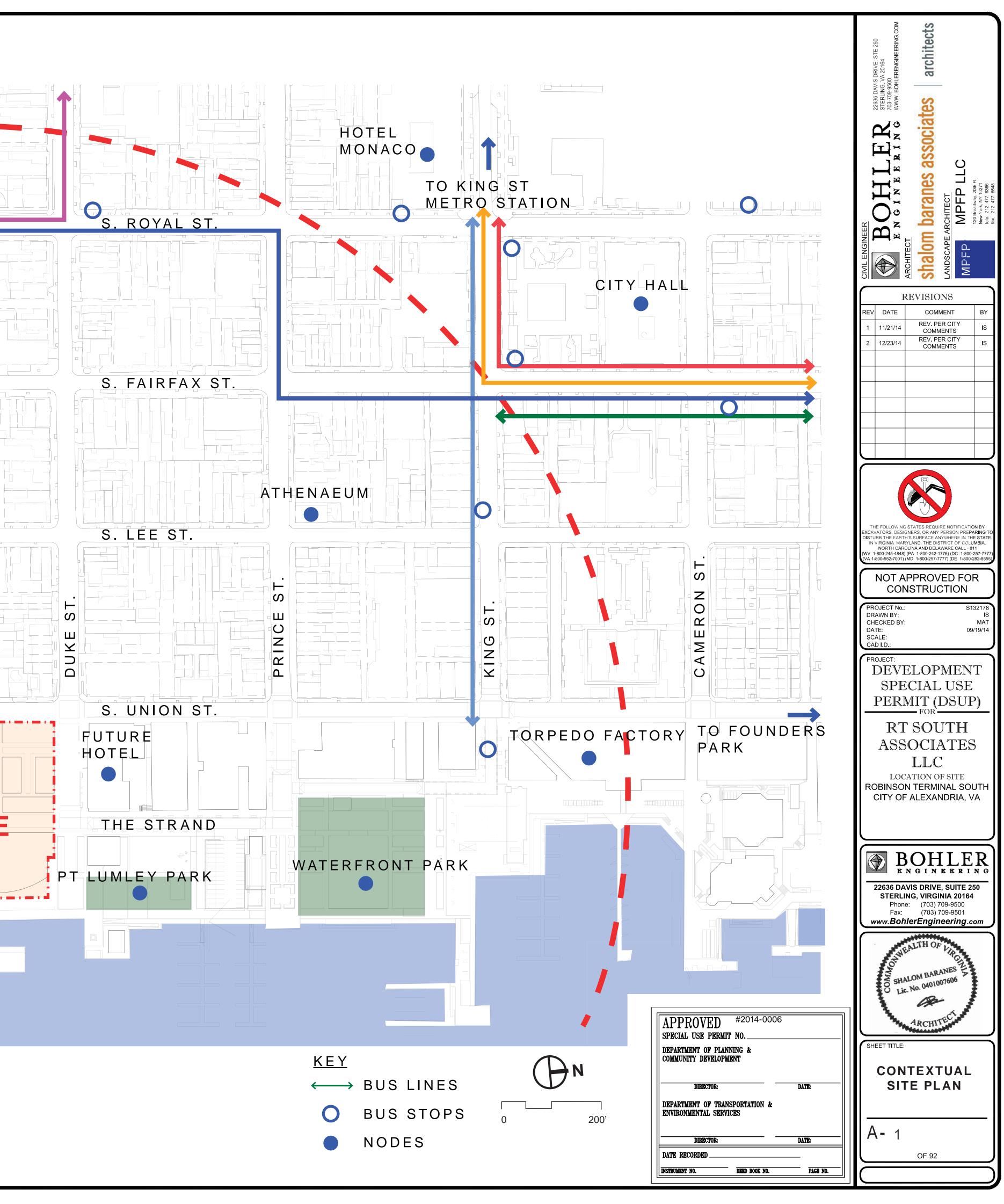
PAGE NO.

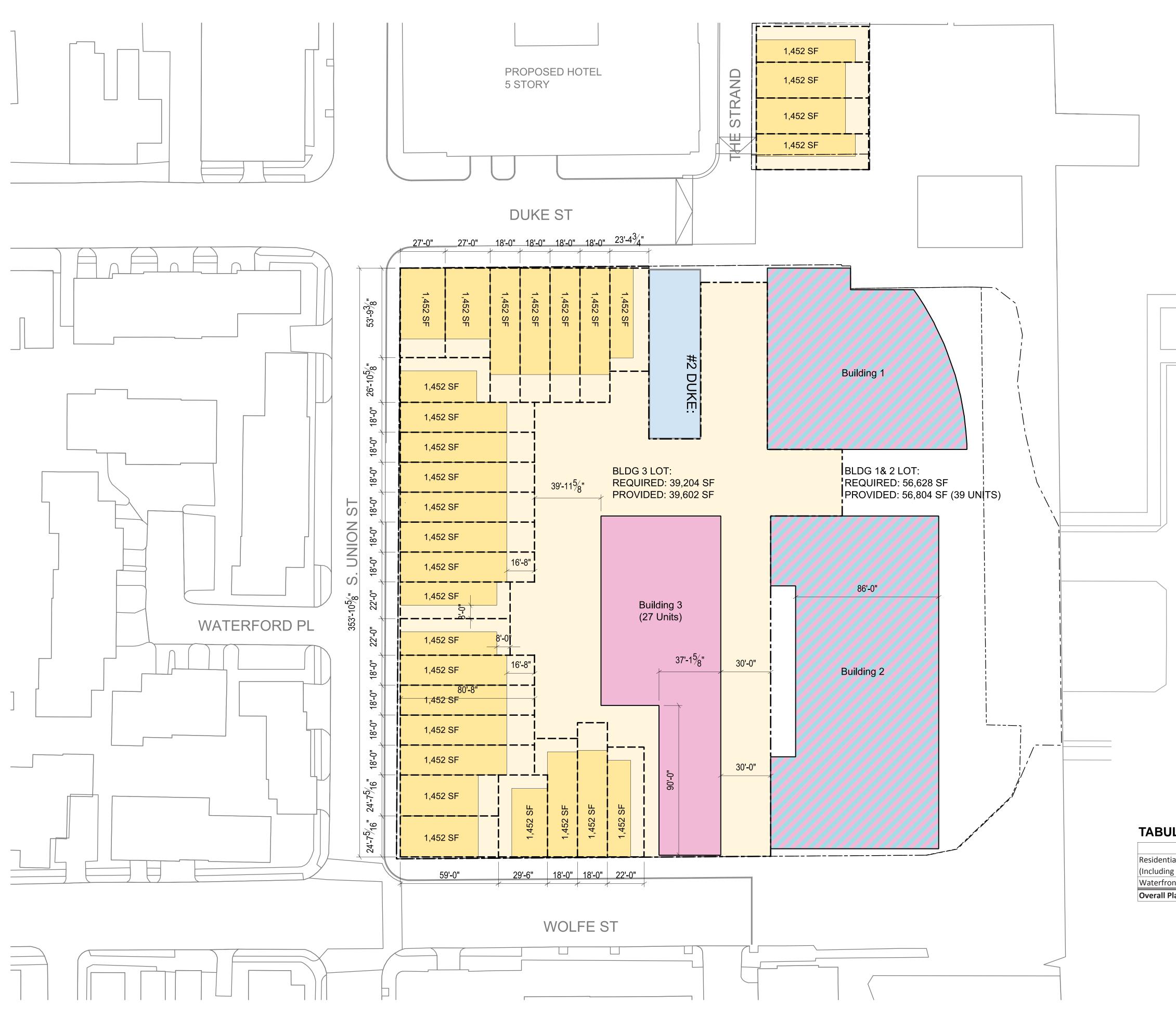
SPECIAL USE PERMIT NO. _____

APPROVED

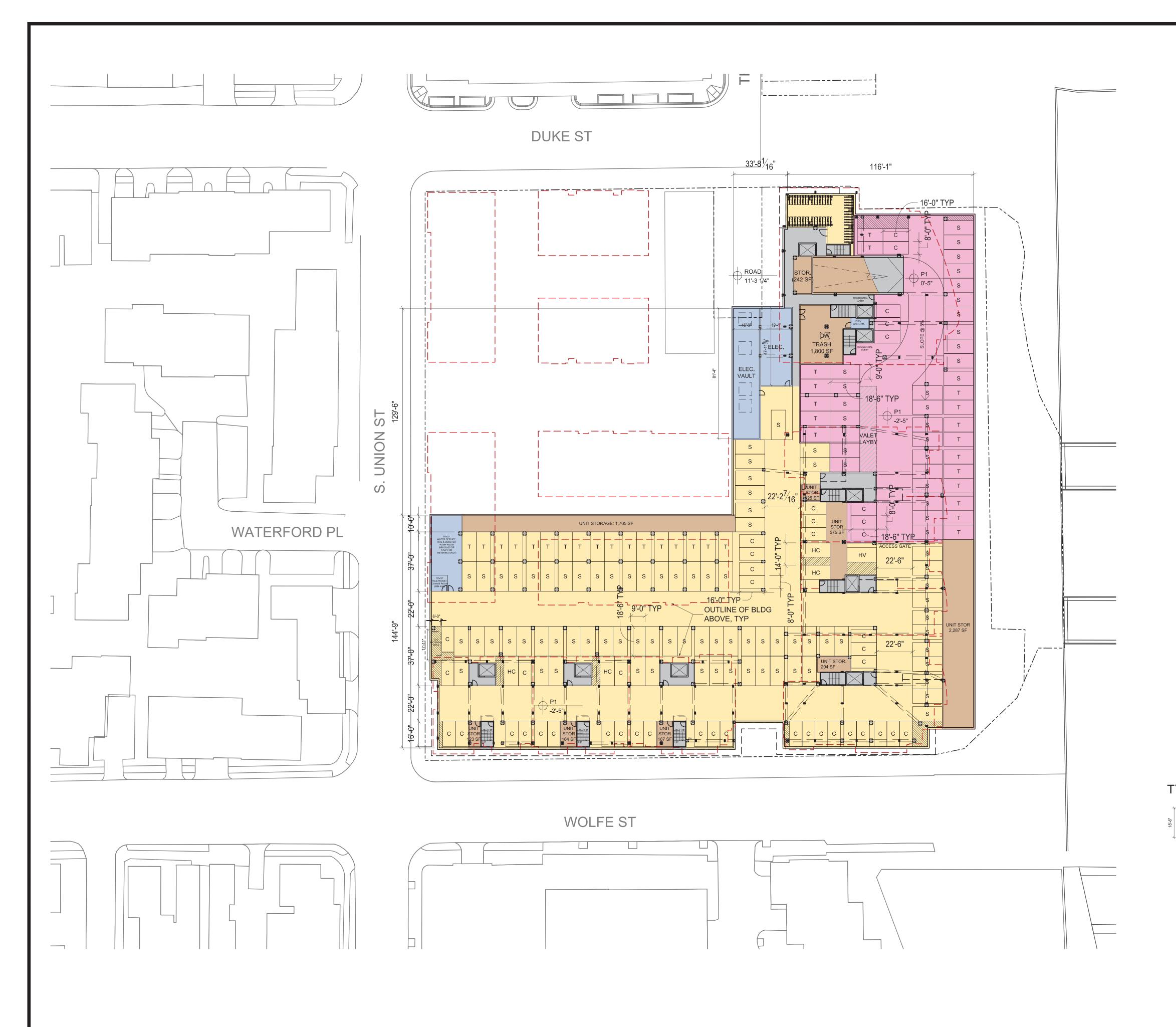
INSTRUMENT NO.

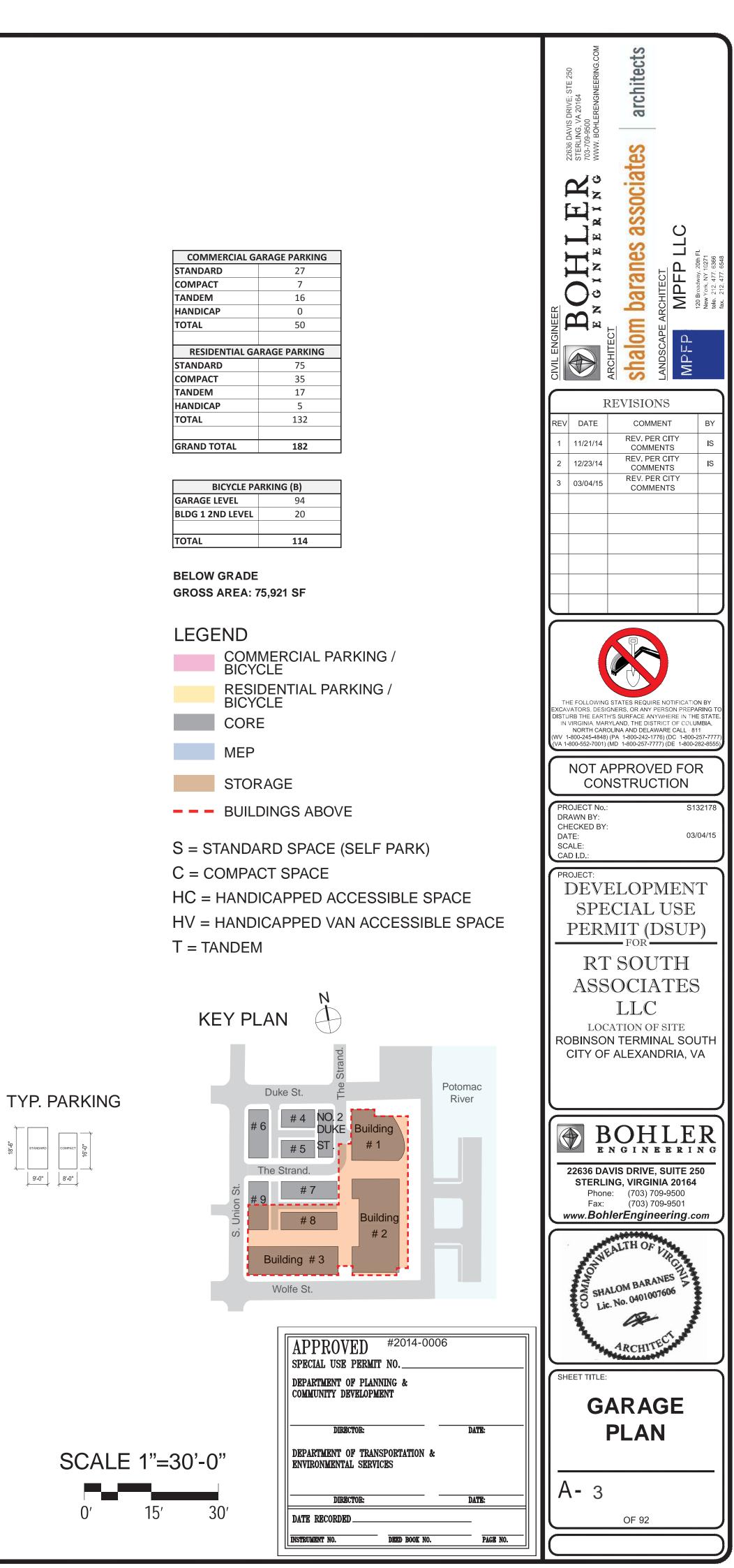


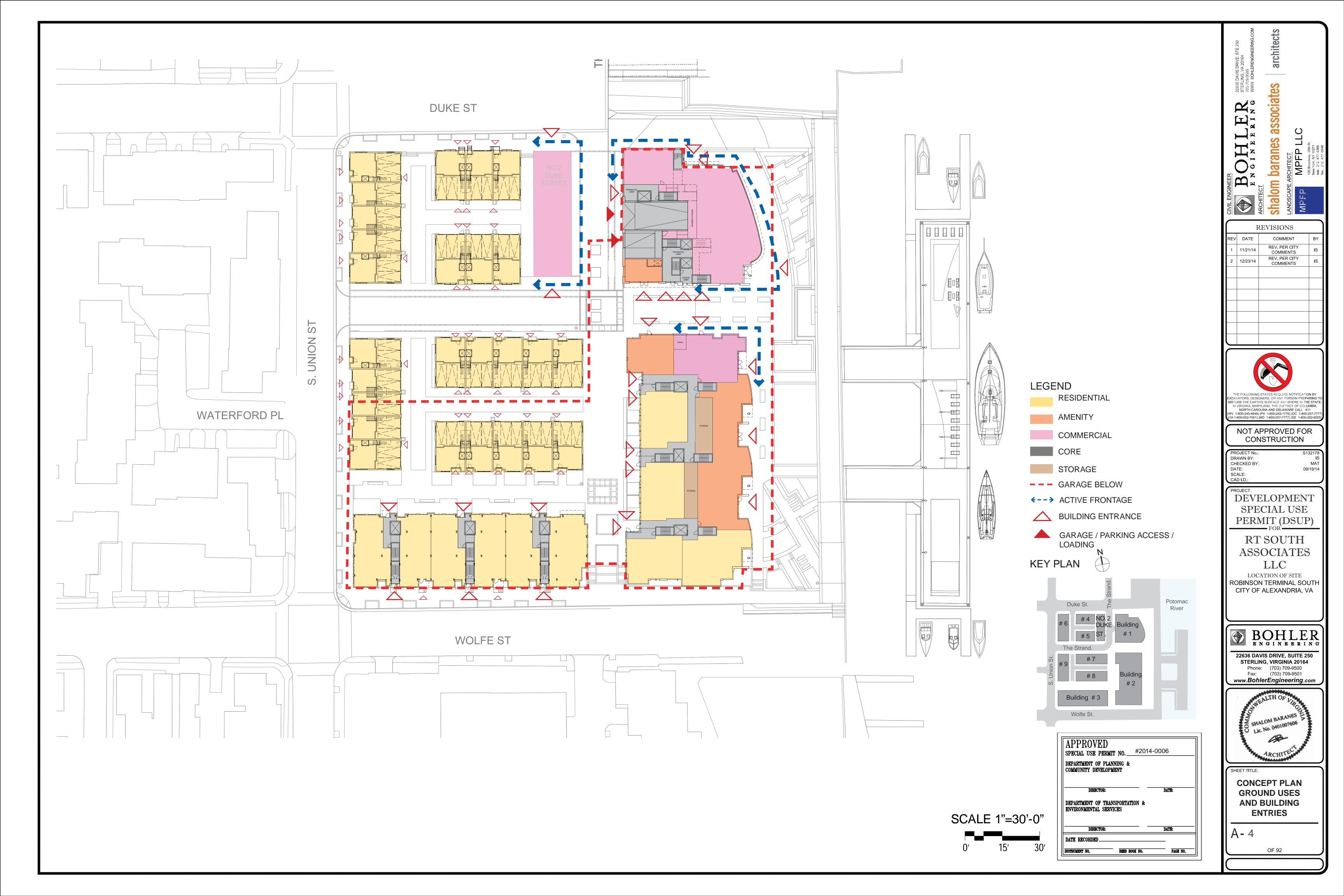


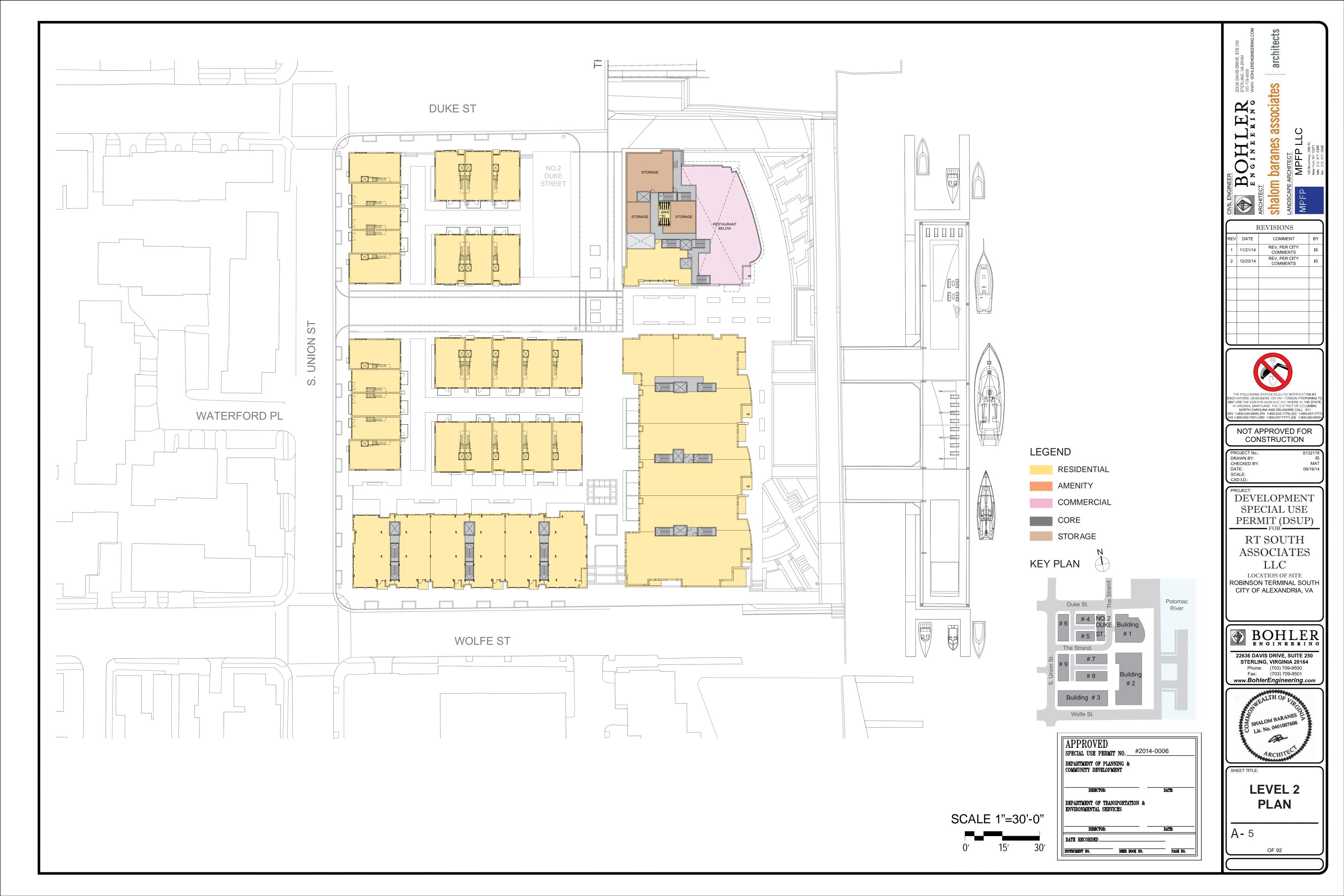


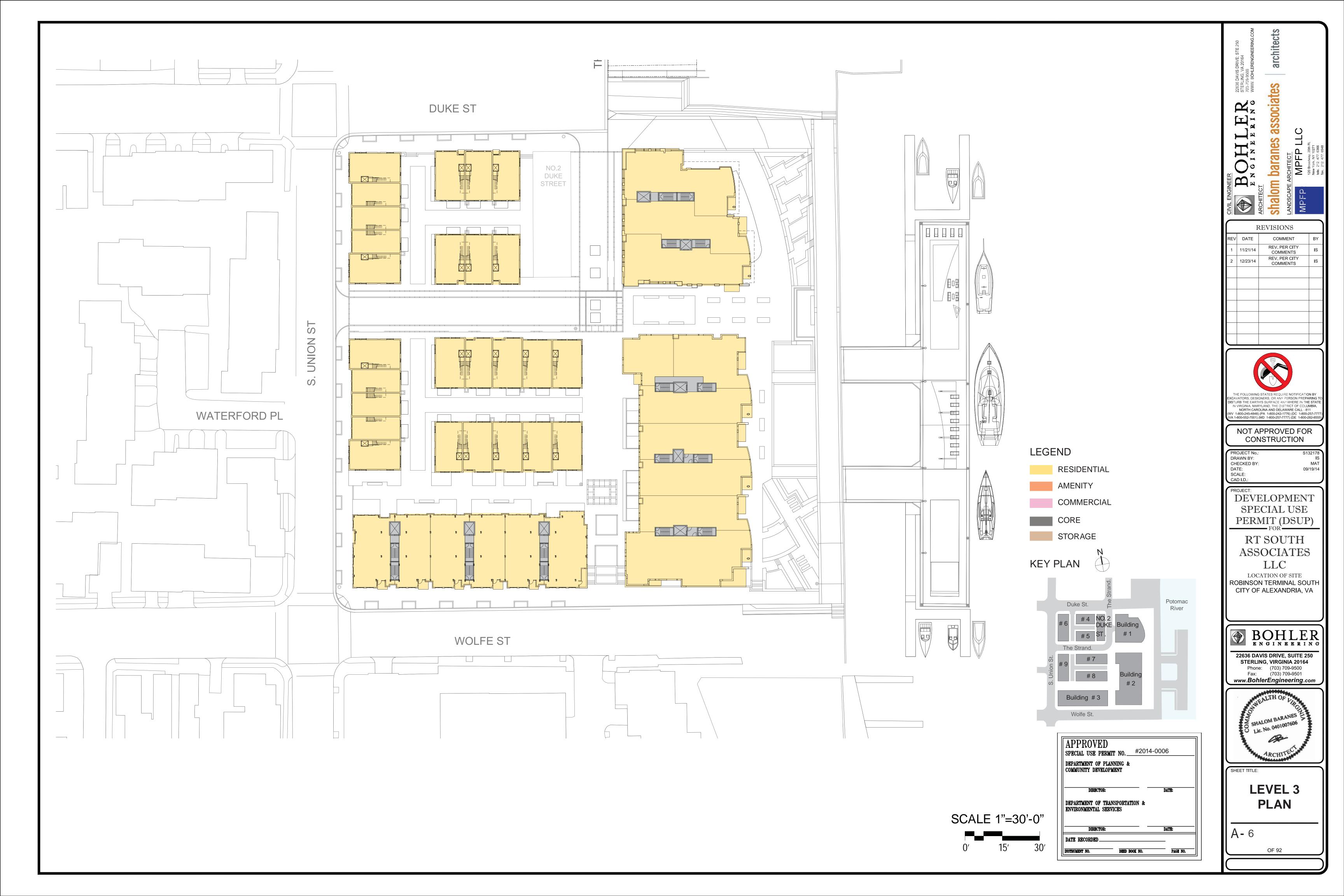
| | | Image: State of the state |
|--|--|--|
| | NOTE: SQUARE FOOTAGES SHOWN ON PLAN DENOTE LOT-AREAS N LEGEND | In the following states require notification by texcavators, designers, or any person preparing to the state. In vignia, marky land, the disperse of any person preparing to the state. In vignia, marky land, the disperse of any design of the state. In vignia, marky land, the disperse of any design of the state. In vignia, marky land, the disperse of any design of the state. In vignia, marky land, the disperse of the state. In vignia, marky land, the disperse of the state. In vignia, marky land, the disperse of the state. In vignia, marky land, the disperse of the state. In vignia, marky land, the disperse of the state. In vignia, marky land, the disperse of the state. In vignia, marky land, the disperse of the state. In vignia, marky land, the disperse of the state. In vignia, the state of the state of the state. In vignia, the state of the state of the state of the state. In vignia, the state of the st |
| LATION: ial Cluster Parcel g Parcel E & M) ont Parcel | CLUSTER DEVELOPMENT LOT TOWNHOUSE / RESIDENTIAL MULTI-FAMILY / RESIDENTIAL COMMERCIAL Total Lot Area Total Floor Area FAR Open Space 83,616 SF 141,874 SF 1.7 GREATER THAN 17,100 SF 56,804 SF 140,250 SF 2.47 GREATER THAN 11,700 SF 140,420 SF 282,124 SF 2.01 GREATER THAN 28,800 SF | BOHLER E N G I N E E R I N G 22636 DAVIS DRIVE, SUITE 250 STERLING, VIRGINIA 20164 Phone: (703) 709-9500 Fax: (703) 709-9501 www.BohlerEngineering.com |
| | APPROVED #2014-0006 SPECIAL USE PERMIT NO. | SHEET TITLE: RESIDENTIAL CLUSTER LOT STUDY A- 2 OF 92 |

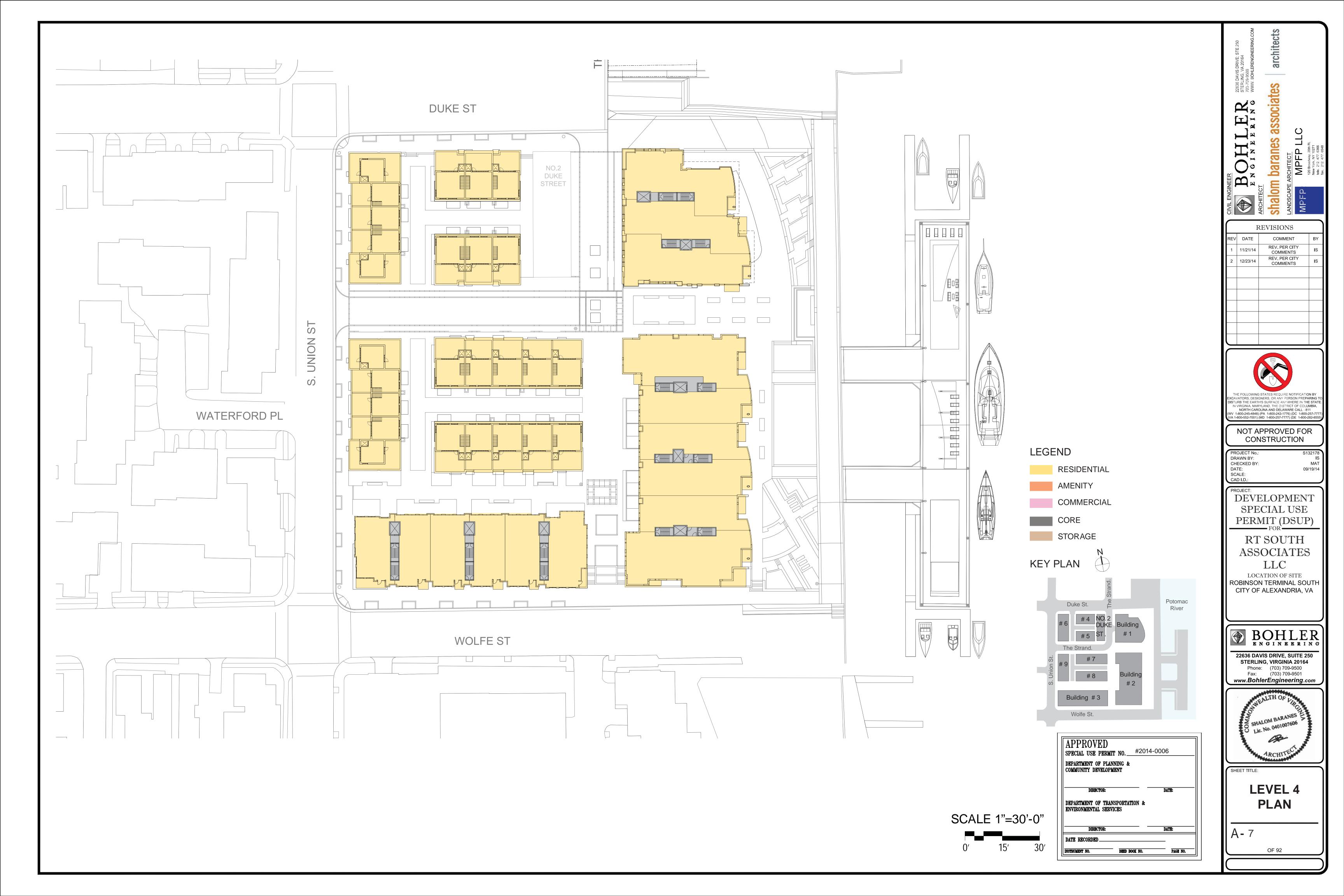


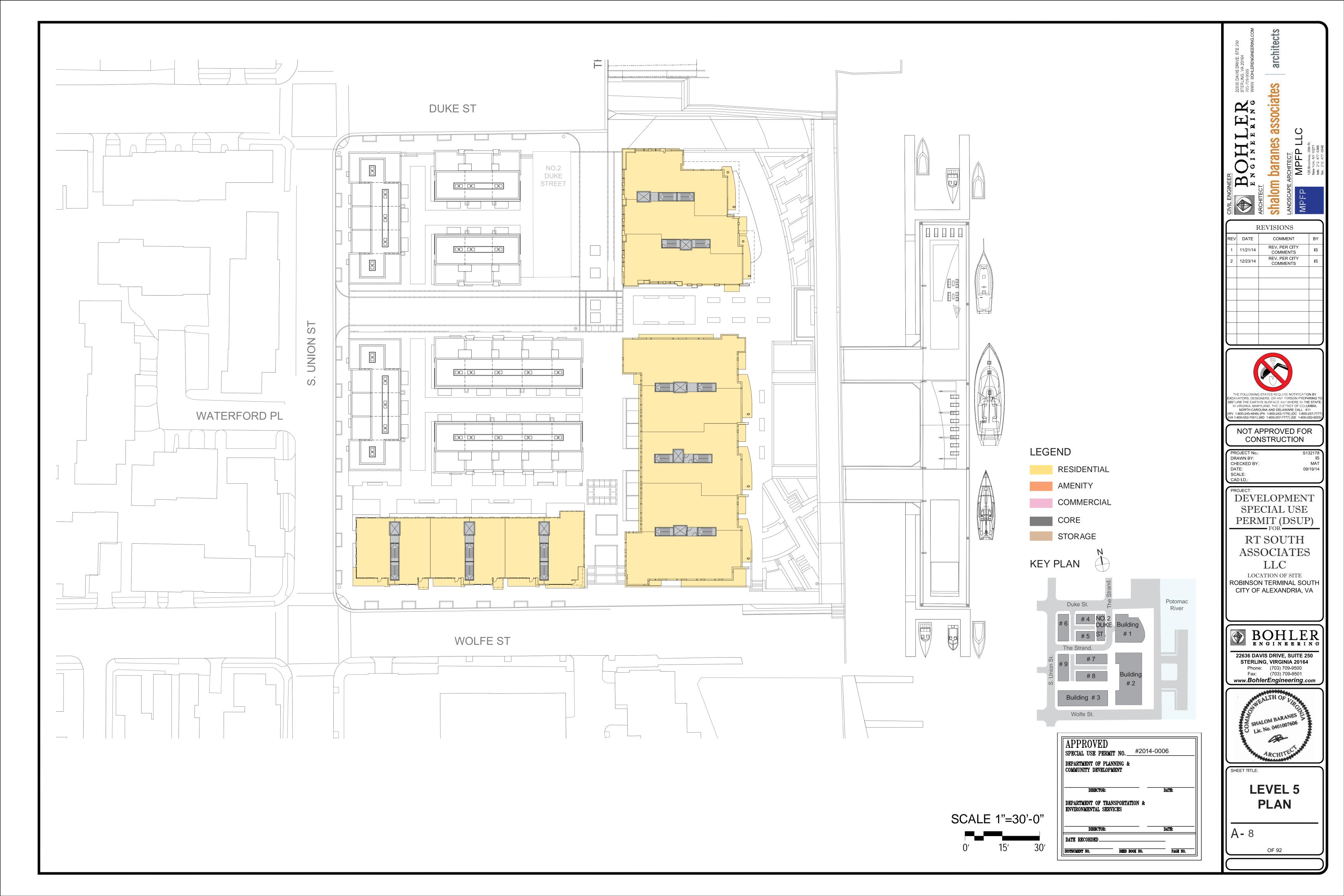


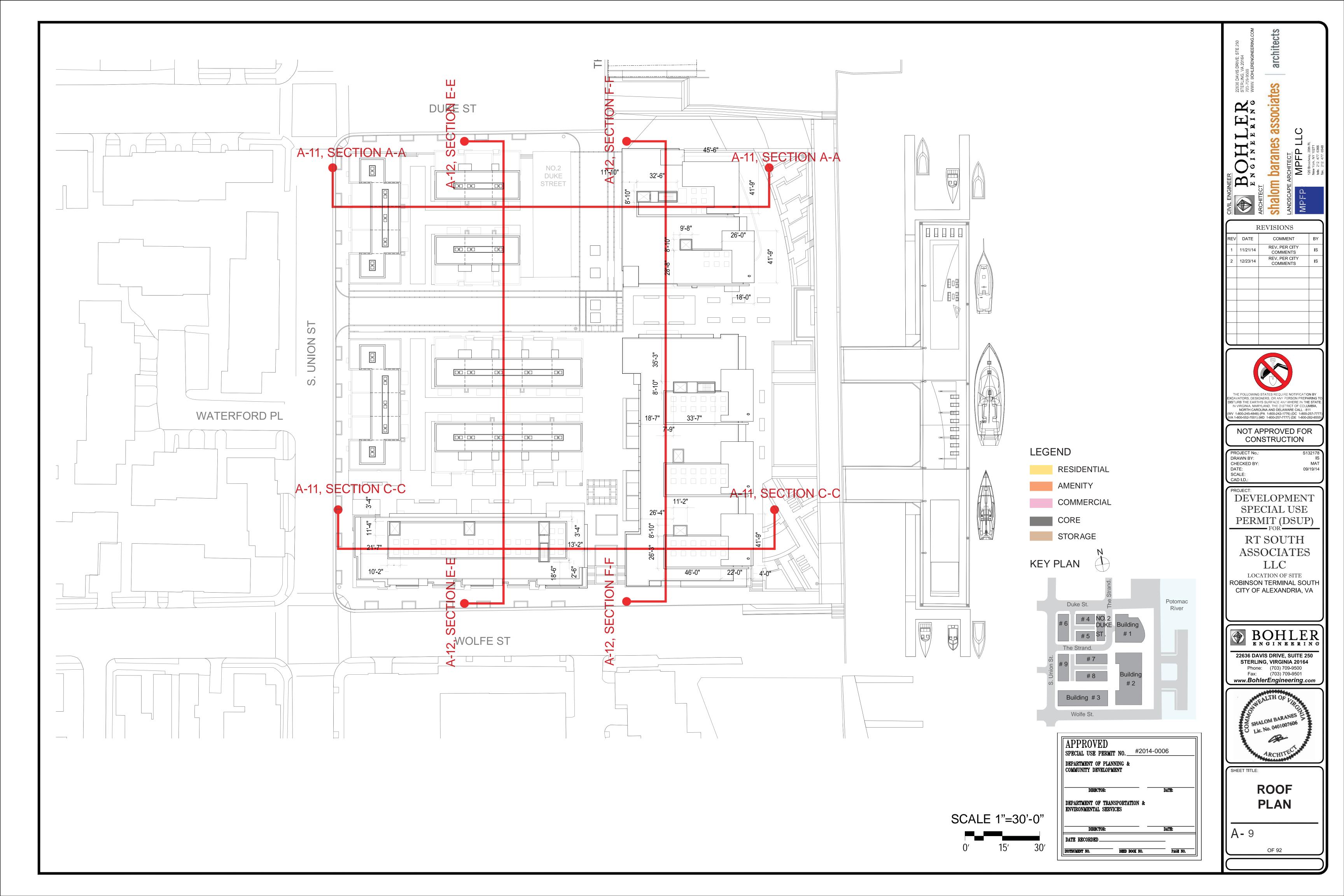












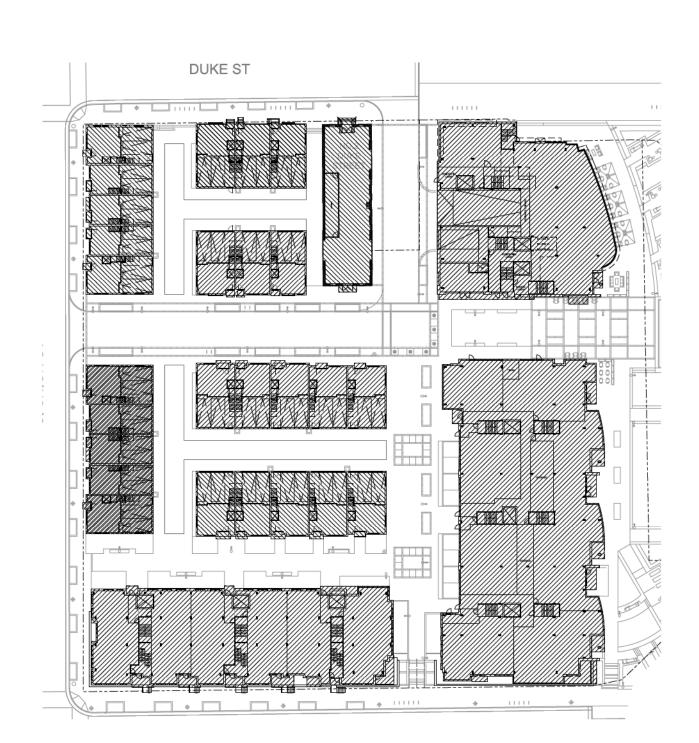
LEVEL 4



LEVEL 5



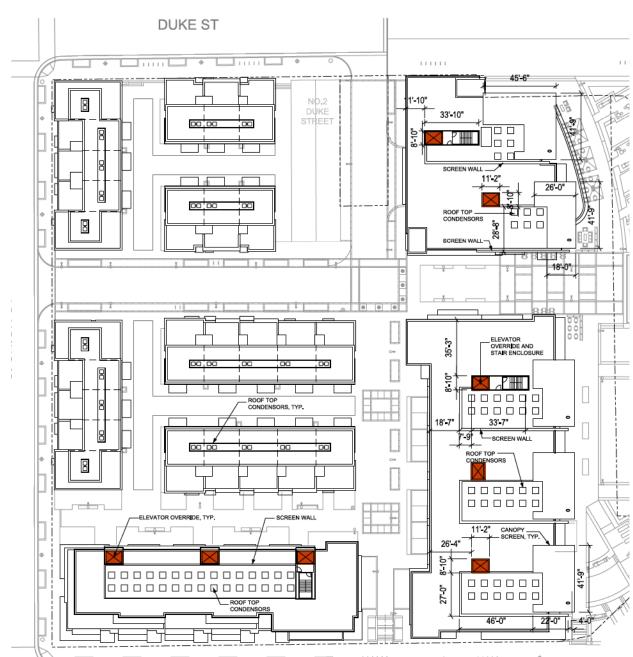
GROUND LEVEL



LEVEL 2



ROOF LEVEL



LEVEL 3



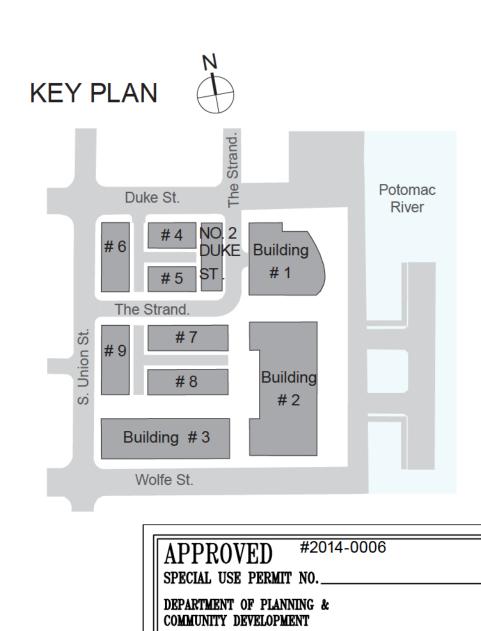
LEGEND

DEDUCTED FLOOR AREA

| GROSS AREA | (Units in Square Feet) | | | | | | |
|-------------------|------------------------|----------|----------|----------|----------|------|---------|
| | LEVEL 01 | LEVEL 02 | LEVEL 03 | LEVEL 04 | LEVEL 05 | ROOF | TOTAL |
| BUILDING 01 | 10,888 | 5,992 | 9,984 | 9,963 | 9,742 | 398 | 46,967 |
| BUILDING 02 | 18,439 | 18,559 | 18,559 | 18,559 | 17,416 | 515 | 92,047 |
| BUILDING 03 | 11,459 | 11,203 | 11,203 | 10,181 | 8,216 | 575 | 52,837 |
| | | | | | | | |
| BUILDING 04 | 2,811 | 2,769 | 2,760 | 1,650 | | | 9,990 |
| BUILDING 05 | 2,811 | 2,769 | 2,760 | 1,751 | | | 10,091 |
| BUILDING 06 | 4,406 | 4,333 | 4,333 | 2,297 | | | 15,369 |
| BUILDING 07 | 4,863 | 4,777 | 4,777 | 2,870 | | | 17,287 |
| BUILDING 08 | 4,902 | 4,800 | 4,797 | 2,870 | | | 17,369 |
| BUILDING 09 | 4,406 | 4,333 | 4,333 | 2,297 | | | 15,369 |
| | | | | | | | |
| #2 DUKE | 3,330 | | | | | | 3,330 |
| | | | | | | | |
| TOTAL | 68,315 | 59,535 | 63,506 | 52,438 | 35,374 | | 280,656 |

| NET AREA | (Units in Sq | uare Feet) | | | | | |
|--------------------|--------------|------------|----------|----------|----------|------|---------|
| | LEVEL 01 | LEVEL 02 | LEVEL 03 | LEVEL 04 | LEVEL 05 | ROOF | TOTAL |
| BUILDING 01 | 10,888 | 5,674 | 9,586 | 9,565 | 9,349 | 0 | 45,062 |
| BUILDING 02 | 18,142 | 17,890 | 17,890 | 17,890 | 16,770 | 0 | 88,582 |
| BUILDING 03 | 11,162 | 10,681 | 10,681 | 9,884 | 7,754 | 0 | 50,162 |
| | | | | | | | |
| BUILDING 04 | 2,811 | 2,769 | 2,760 | 1,650 | | | 9,990 |
| BUILDING 05 | 2,811 | 2,769 | 2,760 | 1,751 | | | 10,091 |
| BUILDING 06 | 4,406 | 4,333 | 4,333 | 2,297 | | | 15,369 |
| BUILDING 07 | 4,863 | 4,777 | 4,777 | 2,870 | | | 17,287 |
| BUILDING 08 | 4,902 | 4,800 | 4,797 | 2,870 | | | 17,369 |
| BUILDING 09 | 4,406 | 4,333 | 4,333 | 2,297 | | | 15,369 |
| | | | | | | | |
| #2 DUKE | 3,330 | | | | | | 3,330 |
| | | | | | | | |
| TOTAL | 67,721 | 58,026 | 61,917 | 51,074 | 33,873 | | 272,611 |

NOTE: "NET AREA" IS EQUAL TO "GROSS AREA" MINUS THE ELEVATOR SHAFTS (SHOWN IN RED ON THE FLOOR PLAN DIAGRAMS) AND AN ADDITIONAL 2% OF THE AREA OF EACH FLOOR PLATE FOR FUTURE MECHANICAL SHAFTS.



DIRECTOR:

DIRECTOR:

DATE RECORDED.

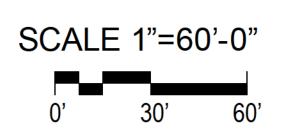
INSTRUMENT NO.

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

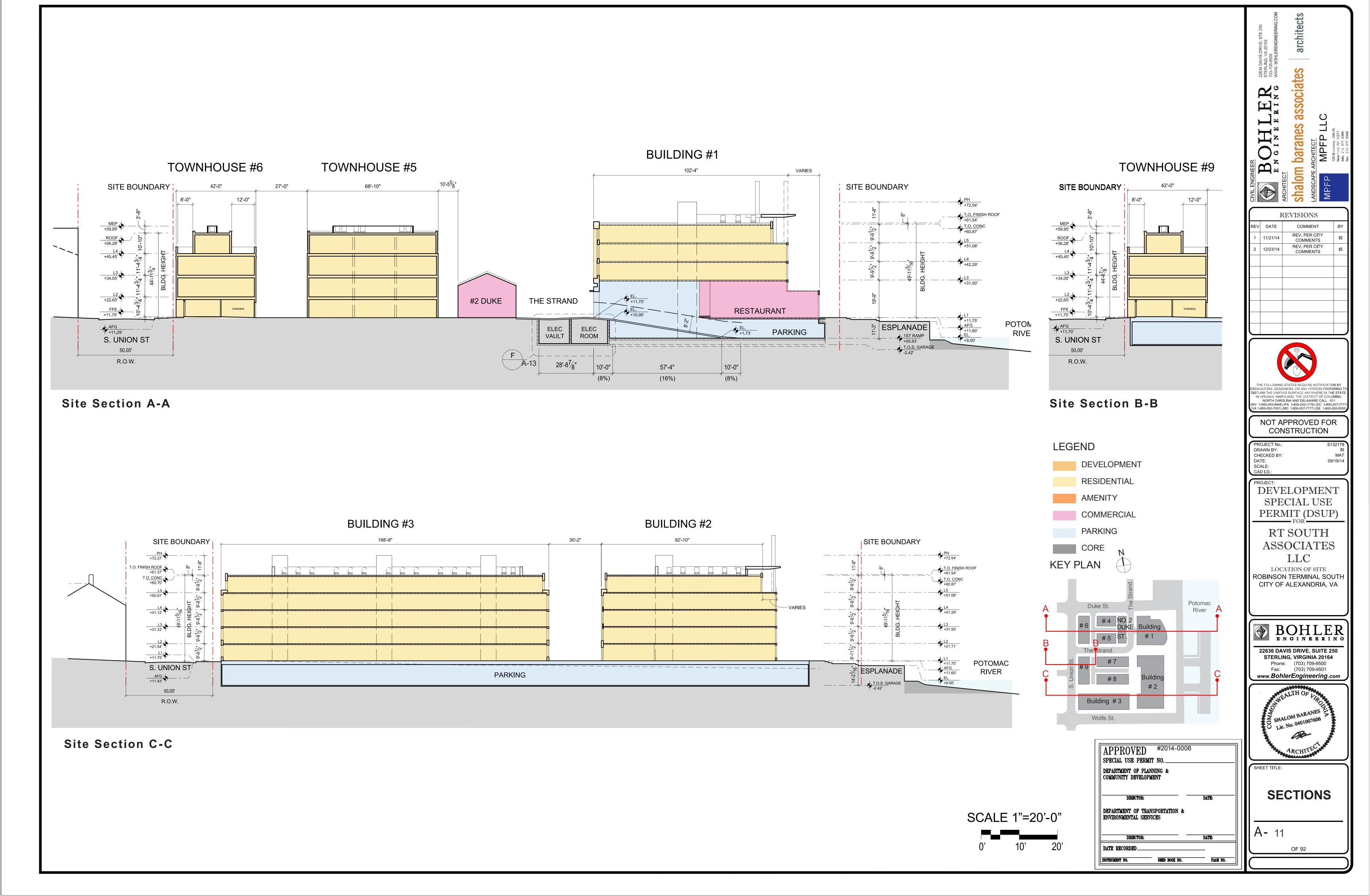
DEED BOOK NO.

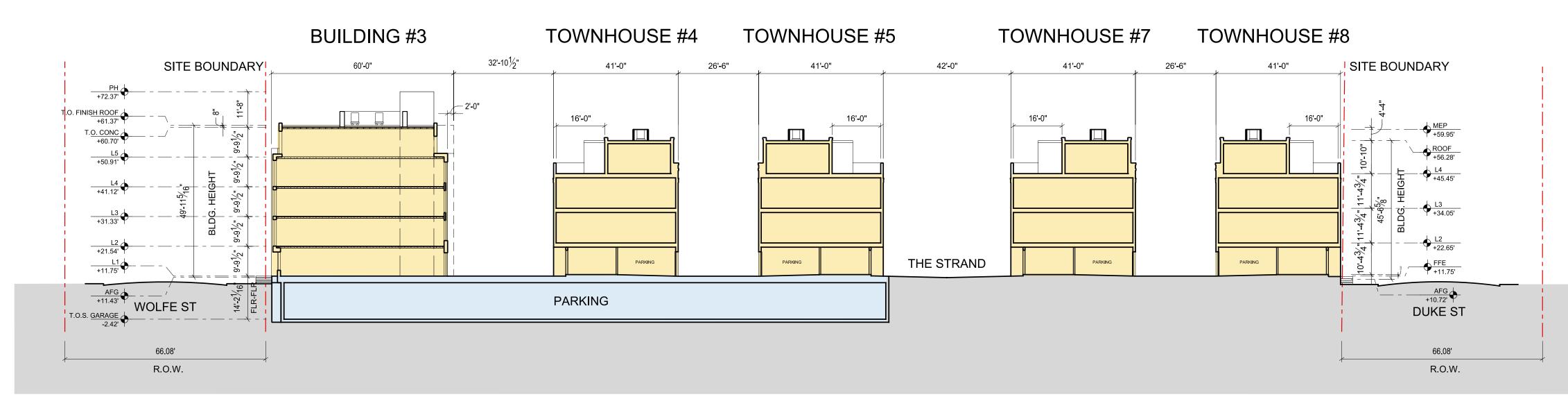
DATE:

DATE:

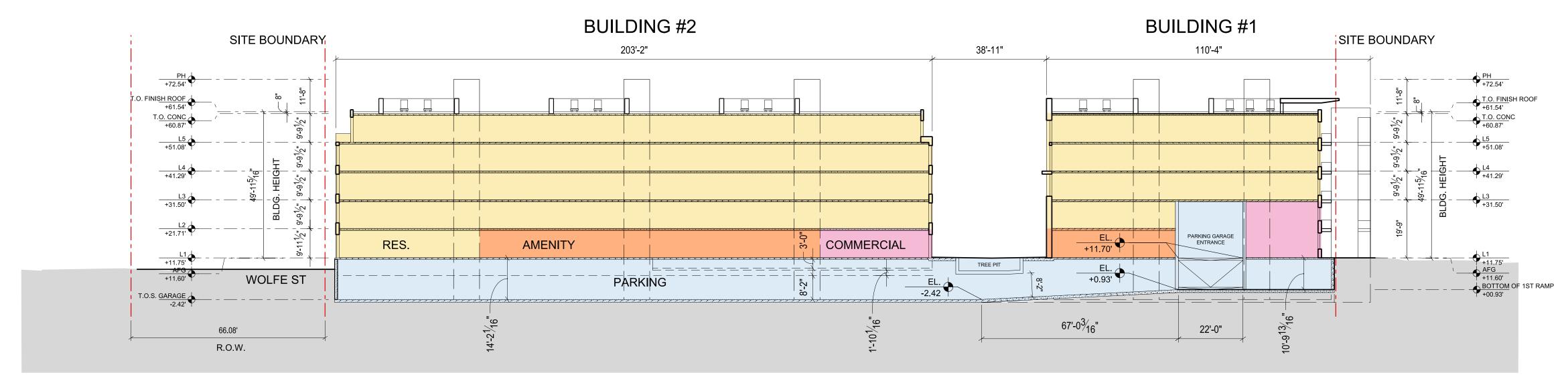




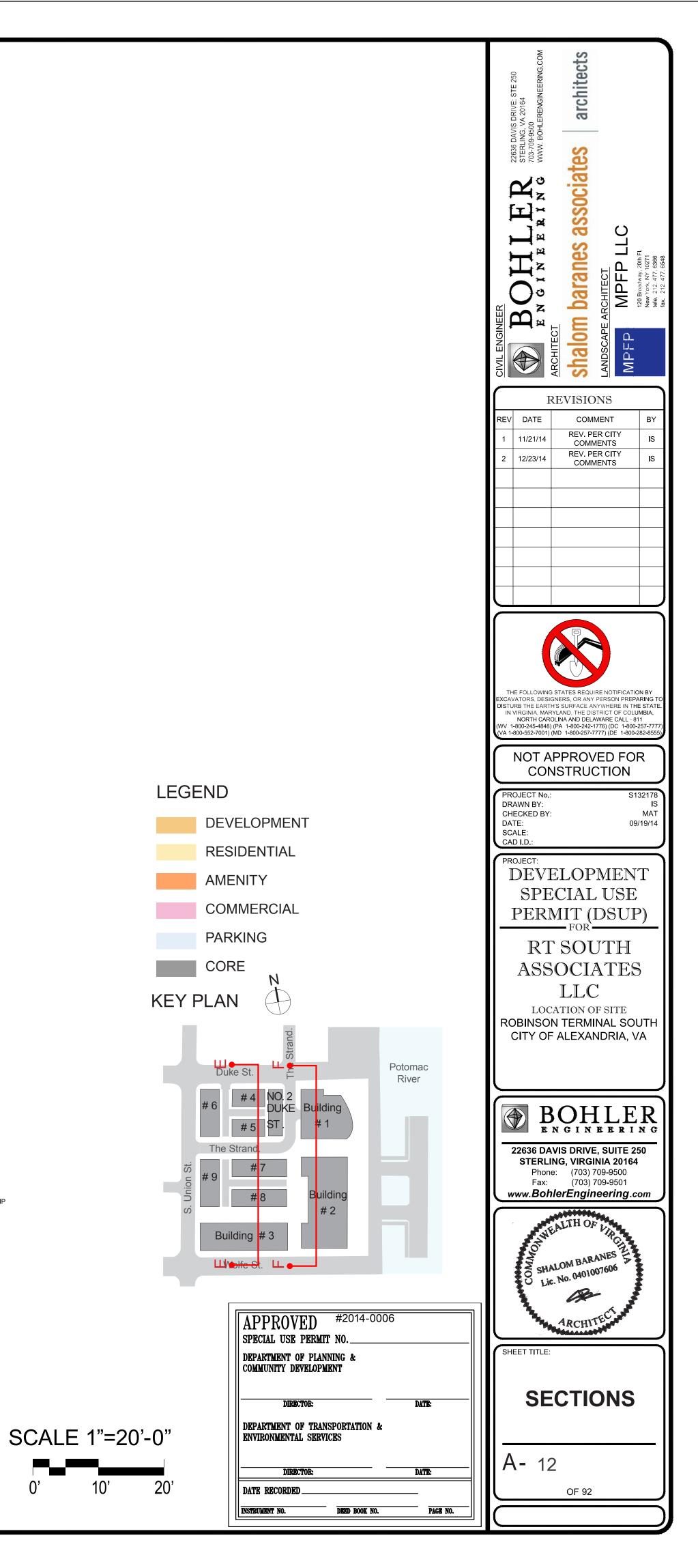


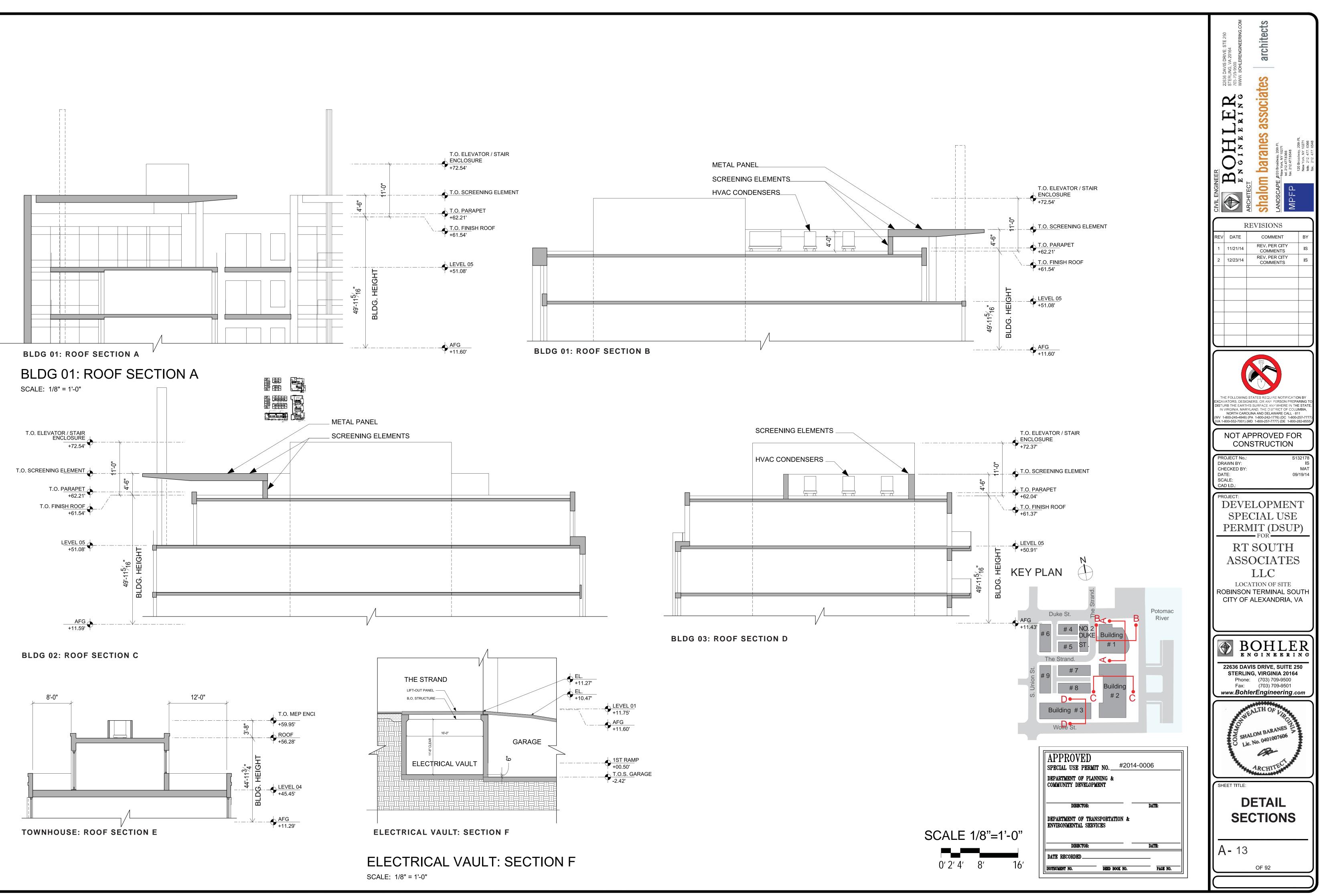






Site Section F-F







EAST WATERSIDE



WOLFE STREET



DUKE STREET



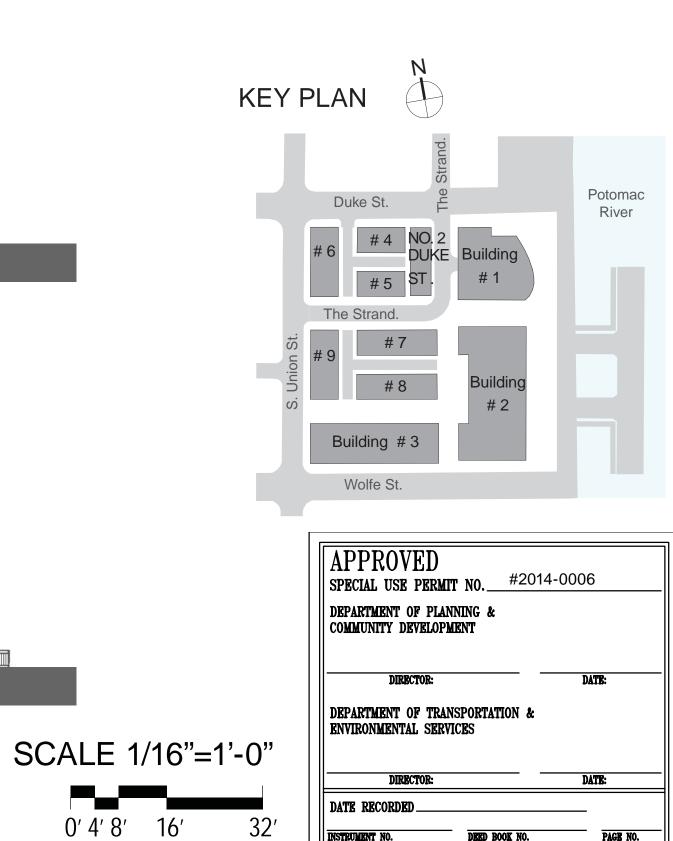


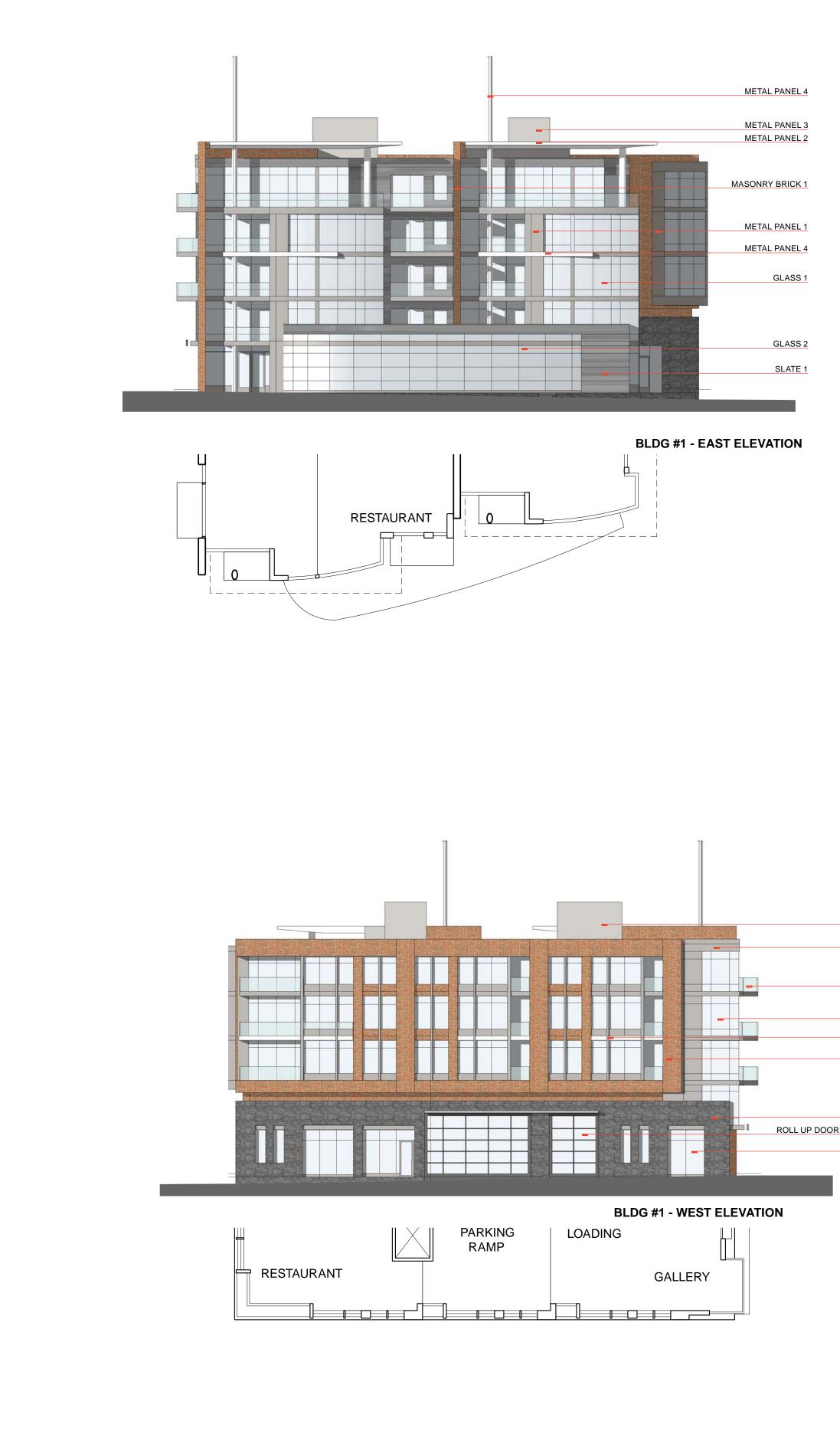






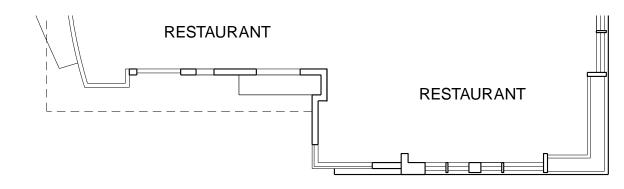




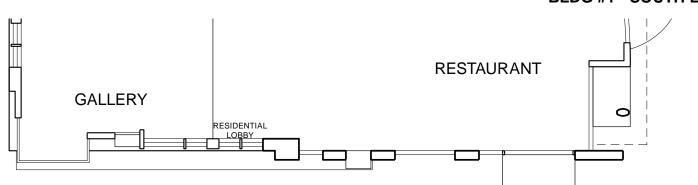




BLDG #1 - NORTH ELEVATION







METAL PANEL 1 GLASS RAILING

METAL PANEL 3

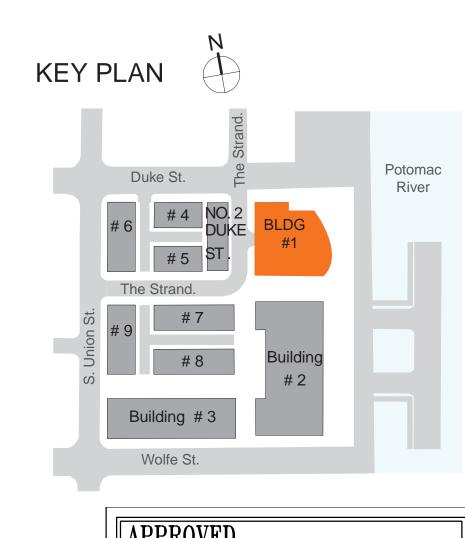
GLASS 1

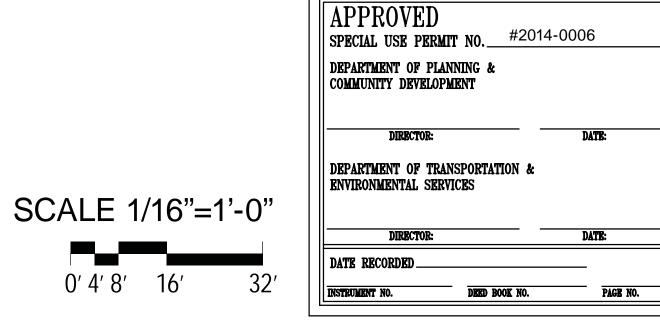
METAL PANEL 4 MASONRY BRICK 1

STONE

ROLL UP DOOR WITH TRANSLUCENT GLASS GLASS 2











DATE:

DIRECTOR:

INSTRUMENT NO. DEED BOOK NO. PAGE NO.

DATE RECORDED.

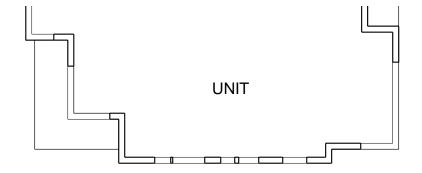
32′

0' 4' 8' 16'



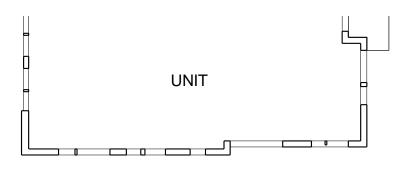


BLDG #3 - EAST ELEVATION





BLDG #3 - WEST ELEVATION



| METAT DAVIET TO LEASE AND A LE | | | 22636 DAVIS DRIVE; STE 250 STERLING, VA 20164 703-709-9500 WWW. BOHLERENGINEERING.COM WWW. BOHLERENGINEERING.COM |
|--|----------------------------|---|---|
| | | | |
| | METAL PANEL 3 | | ES associ |
| | GLASS RAILING GLASS 1 | | |
| | | | CIVIL ENG ARCHITEC Shalo LANDSCAF MPFP |
| Image: Scale 1/16''=1'-0'' | MASONRY BRICK 2 GLASS 1 | | REVDATECOMMENTBY111/21/14REV. PER CITY COMMENTSIS |
| | | | |
| | | | |
| | | | |
| CONSTRUCTION | | | EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE. IN VIRGINIA, MARYLAND, THE DISTRICT OF COLUMBIA, NORTH CAROLINA AND DEI AWARE CALL, 811 |
| METAL PARELS SATE 1 SATE 1 | | | CONSTRUCTION PROJECT No.: S132178 DRAWN BY: IS |
| SPECIAL USE PERMIT (DSUP) RT SOUTH ASSOCIATES LLC LOCATOR OF STE RUSC R | | | DATE: 09/19/14 SCALE: CAD I.D.: PROJECT: |
| ALASS RAILING GLASS 1 METAL PANEL 4 MASONEY BRICK 2 GLASS 1 METAL PANEL 4 MASONEY BRICK 2 MASONEY BRICK 2 MASONE BRICK 2 MASONEY BRICK 2 MASONE | | | SPECIAL USE PERMIT (DSUP) |
| | GLASS TAILING | PLAN | ASSOCIATES LLC LOCATION OF SITE |
| | | River | |
| BLDG #3 Wolfe St. Wolfe St. SHEET TITLE: ELEVATIONS HEET TITLE: ELEVATIONS A - 17 | GLASS 1 | # 5 ST. # 1 The Strand. | ENGINEERING |
| Wolfe St. No. #2014-0006 SPECIAL USE PERMIT NO. #2014-0006 DEPARTMENT OF PLANNING & COMMUNITY DEVELOPMENT DEPARTMENT OF TRANSPORTATION & NUTROINMENTAL SERVICES DEPARTMENT OF TRANSPORTATION & NUTROINMENTAL SERVICES DATE DATE DATE DATE DATE DATE DATE DATE DATE DATE DATE DATE | | <i>ω</i> # 2 | STERLING, VIRGINIA 20164 Phone: (703) 709-9500 Fax: (703) 709-9501 www.BohlerEngineering.com |
| SPECIAL USE PERMIT NO. <u>#2014-0006</u> DEPARTMENT OF PLANNING & COMMUNITY DEVELOPMENT DIRECTOR: DATE: DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES DIRECTOR: DATE: DATE: DATE: DATE: DATE: A - 17 | | Wolfe St. | OTHER |
| SCALE $1/16"=1'-0"$ 0' 4' 8' = 16' = 32' DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES DATE: | | SPECIAL USE PERMIT NO. #2014-0006 DEPARTMENT OF PLANNING & | ARCHITE |
| $\begin{array}{ c c c c c c c c c c c c c c c c c c c$ | SCALE 1/16"-1' 0" | DEPARTMENT OF TRANSPORTATION & | ELEVATIONS |
| | | DATE RECORDED | |







└──╒╾┎┍┯┯┯┲╒╡┍┲╞╕╤┲┙╝





H





╘╍╞═┅┥╴╴┍╾╍╶┥╴╴┝╾╸╸╡╾┙╵











| BLDG #7 - SOUTH ELEVATION |
|----------------------------------|
| |



SLATE 2 METAL COPING

SLATE 2

GLASS 1

METAL SPANDREL

MASONRY BRICK 3 METAL RAILING

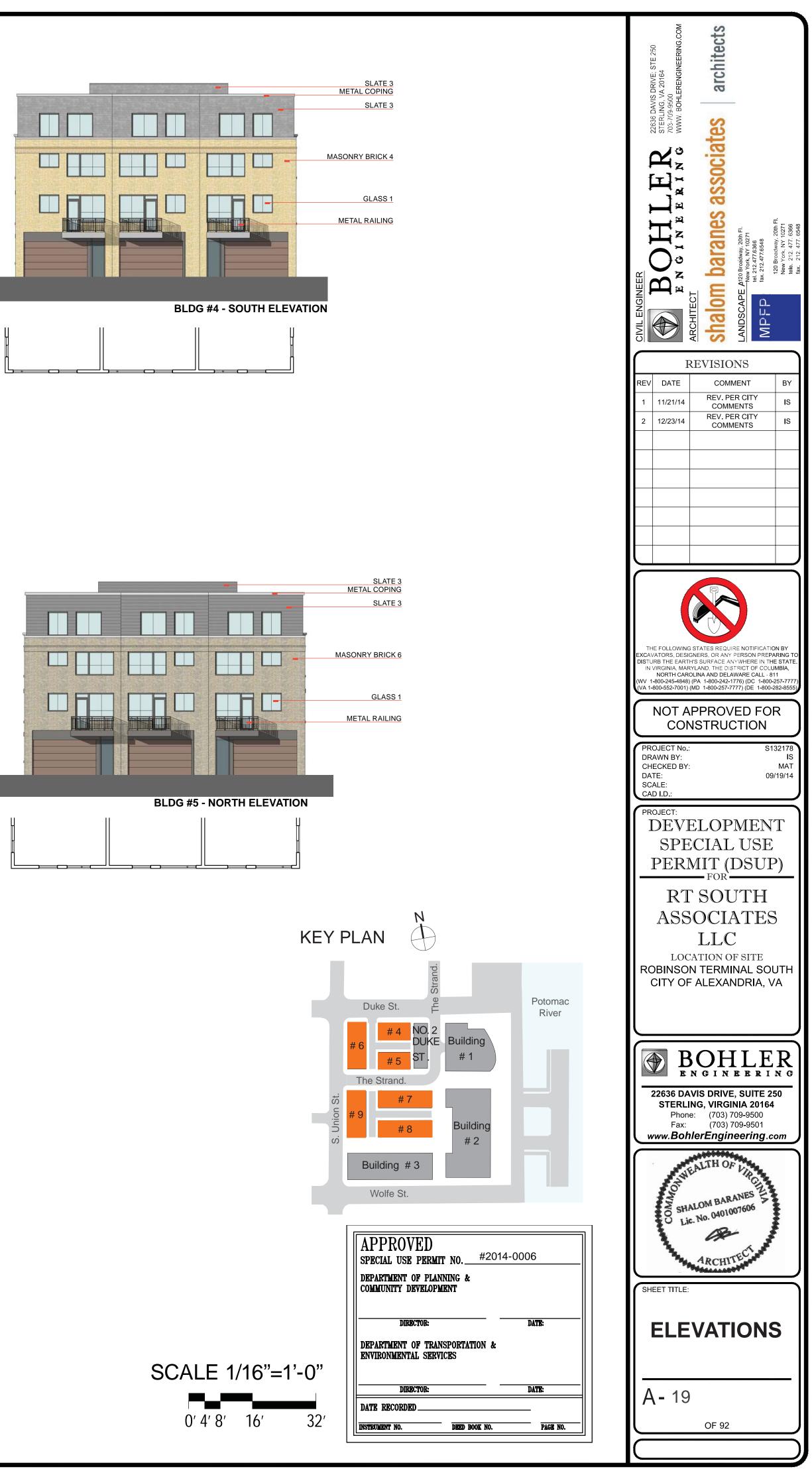
METAL COPING

SLATE 3

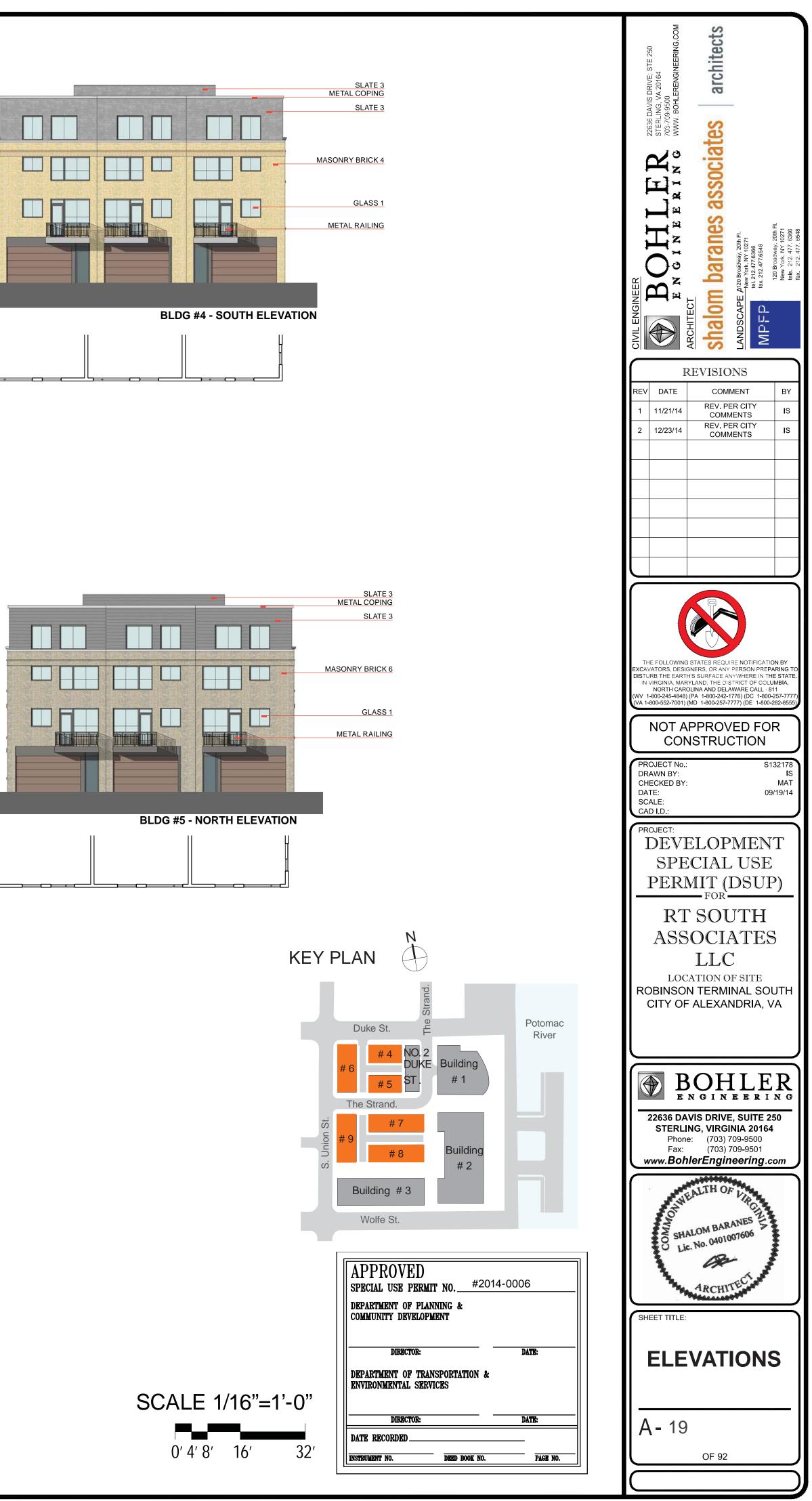
MASONRY BRICK 4

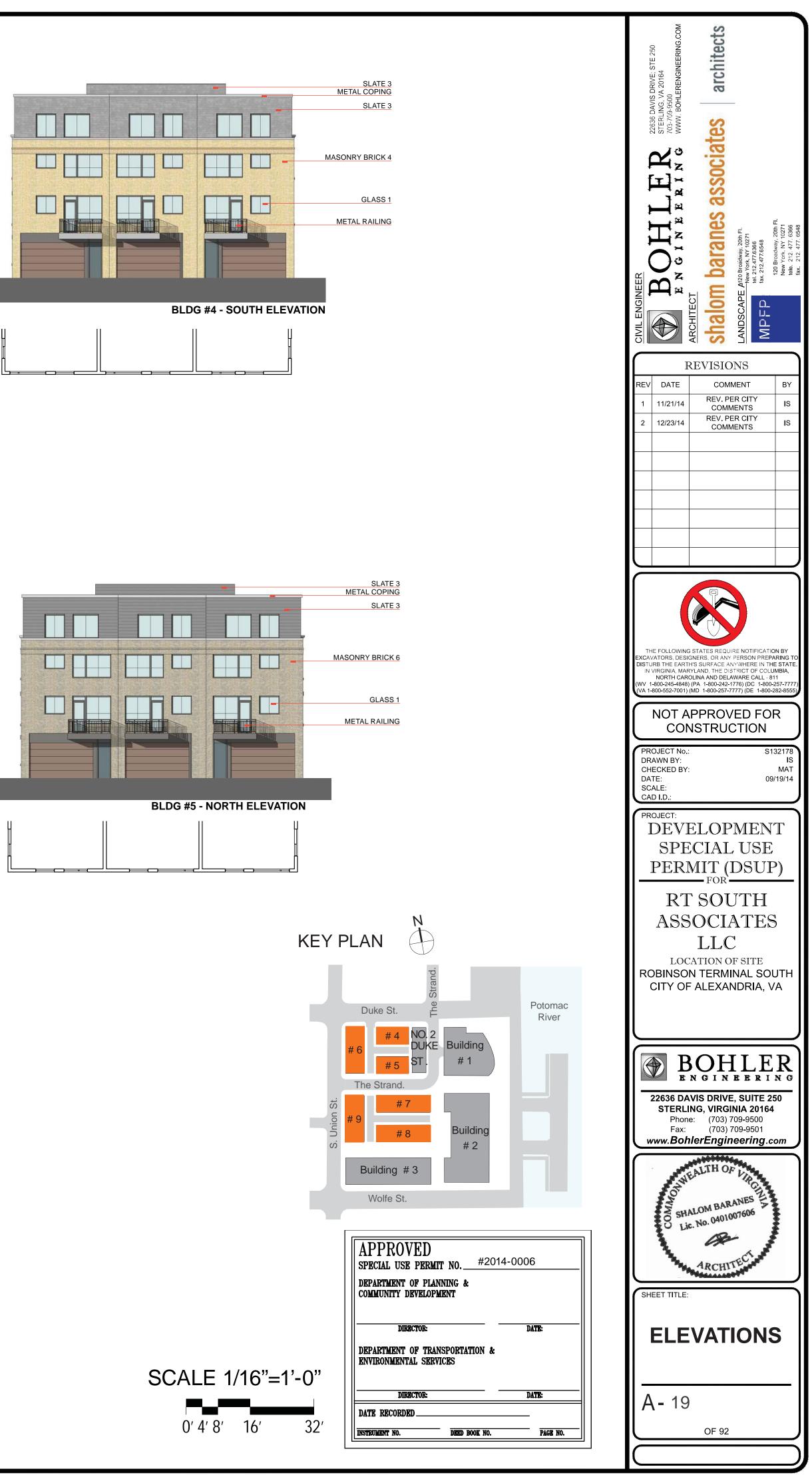
GLASS 1

METAL RAILING





















| COLLENGINER COLLENGINER COLLENGINE COLLENGINE COLLENGINE BOOLLEN 22636 DAVIS DRIVE: STE 250 STELING, VA 20164 TO-709-9500 TO | 120 Broadway, 20th Fl. New York, NY 10271 tele. 212, 477, 6366 fax. 212, 477, 6548 |
|---|---|
| REVDATECOMMENT111/21/14REV. PER CITY COMMENTS | BY IS |
| 2 12/23/14 REV. PER CITY COMMENTS | IS |
| | |
| | |
| THE FOLLOWING STATES REQUIRE NOTIFICATIO EXCAVATORS, DESIGNERS, OR ANY PERSON PREP/ DISTURB THE EARTH'S SURFACE ANYWHERE IN TH IN VIRGINIA, MARYLAND, THE DISTRICT OF COLU NORTH CAROLINA AND DELAWARE CALL - 8' (WV 1-800-245-4848) (PA 1-800-242-1776) (DC 1-800- (VA 1-800-552-7001) (MD 1-800-257-7777) (DE 1-800-5 | ARING TO E STATE. JMBIA, 11 257-7777) |
| NOT APPROVED FOR CONSTRUCTION | R |
| DRAWN BY: CHECKED BY: | 32178 IS MAT /19/14 |
| PROJECT: DEVELOPMEN SPECIAL USE PERMIT (DSUF | |
| RT SOUTH ASSOCIATES LLC LOCATION OF SITE | |
| ROBINSON TERMINAL SOU CITY OF ALEXANDRIA, V | |
| BOHLE | |
| ENGINEERI 22636 DAVIS DRIVE, SUITE 25 STERLING, VIRGINIA 20164 Phone: (703) 709-9500 Fax: (703) 709-9501 www.BohlerEngineering.c | N G |
| OTWEALTH OF LIPC | |
| SHEET TITLE: ARTIST RENDERINGS | S |
| A- 24 OF 92 | |
| | \supset |







VIEW FROM THE STRAND, N

| | APPROVED #2014-0006 special use permit no department of planning & community development director: date: | SHEET TITLE: |
|--------------------|--|----------------|
| IORTH OF NO.2 DUKE | DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES DIRECTOR: DATE: DATE RECORDED | A- 27 OF 92 |









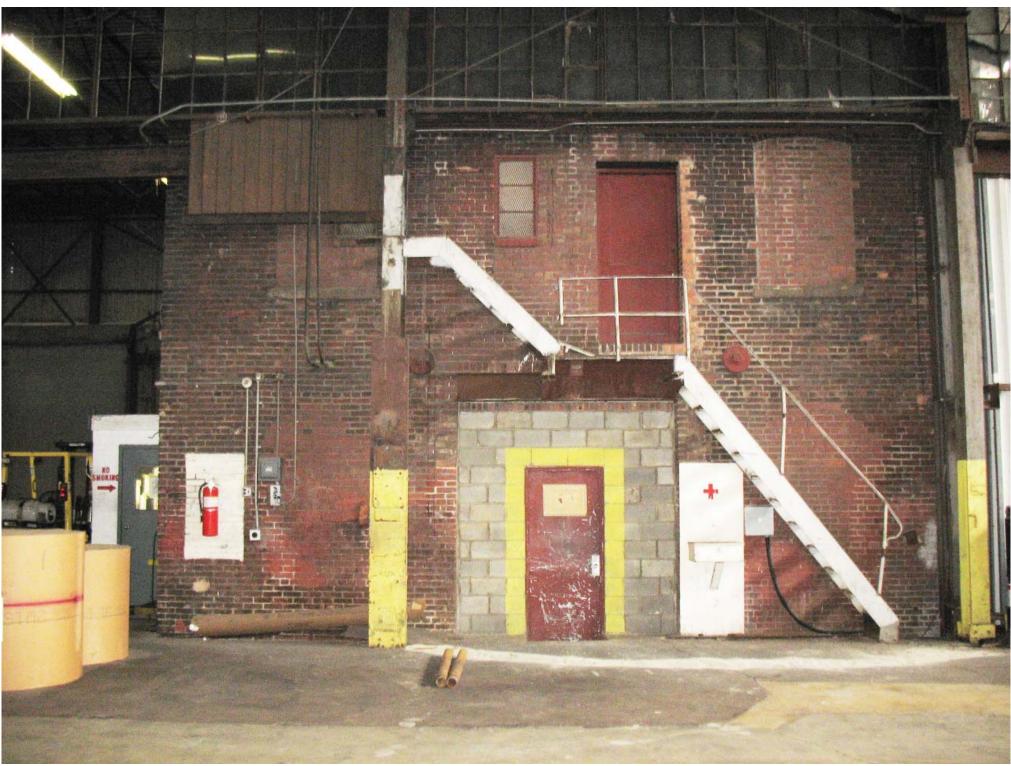




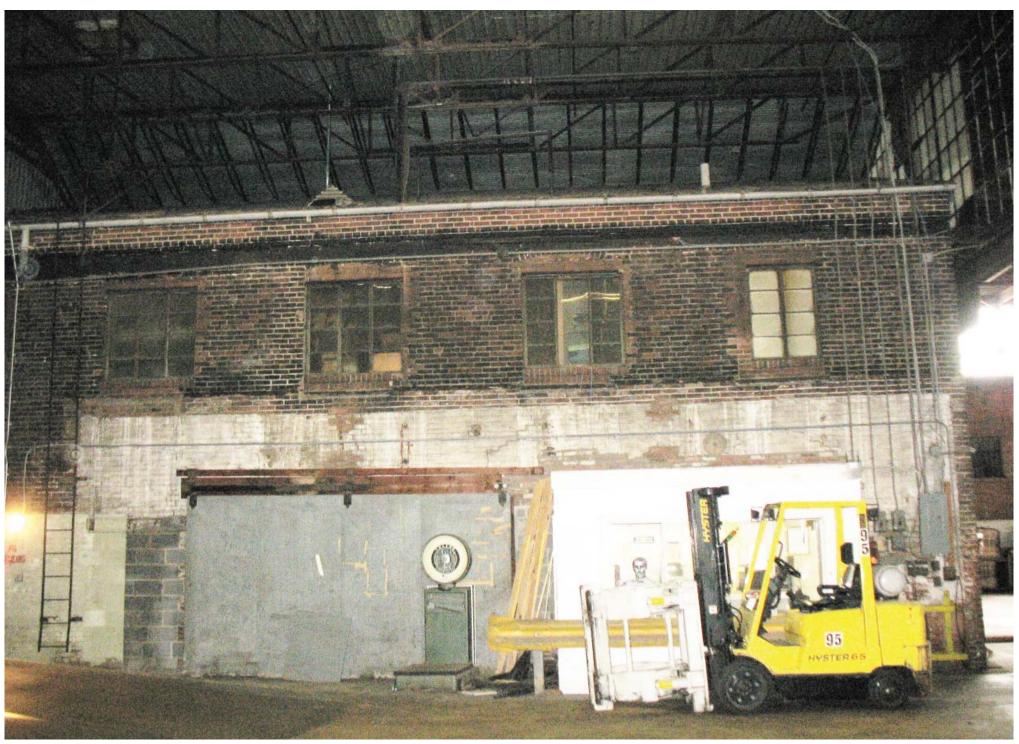
1-VIEW OF NORTH & EAST FAÇADES: The current street façade dates from the early 1990s. The original east façade openings have been heav-ily altered.



3-VIEW OF WEST FAÇADE: Similarly the west façade window openings have been extensively modified.

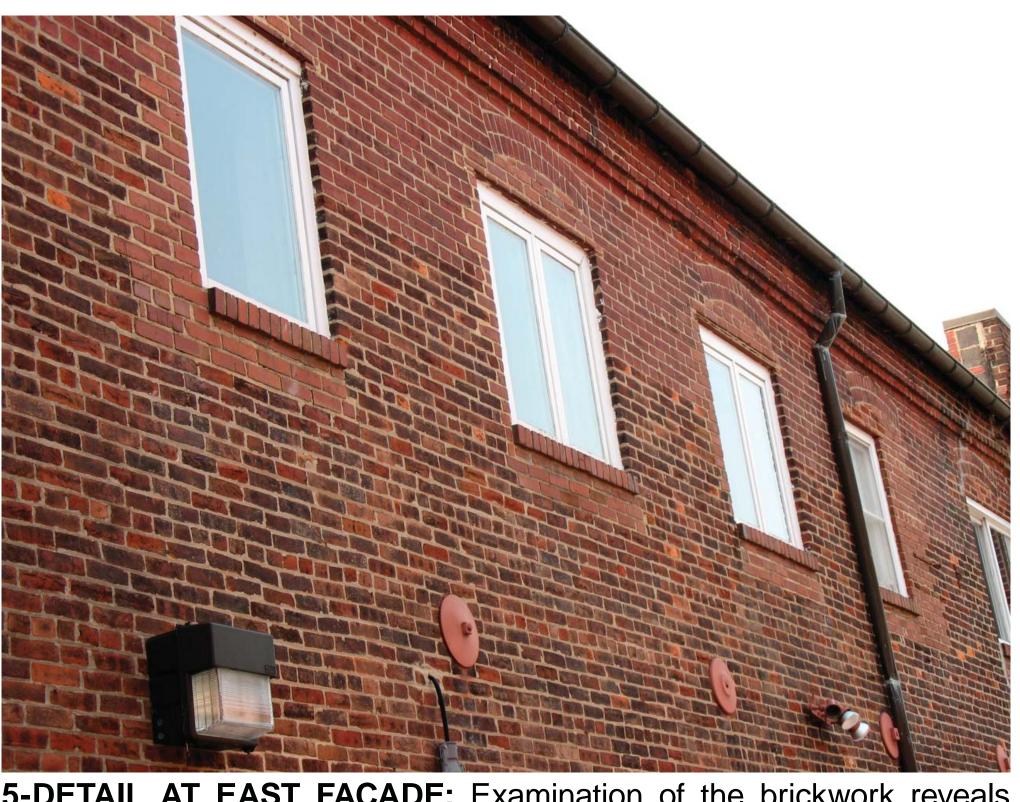


2-VIEW OF THE SOUTH FAÇADE: Encapsulated by later construction, this elevation has been extensively modified. Despite the changes, the original three bay configuration is evident upon close inspection.

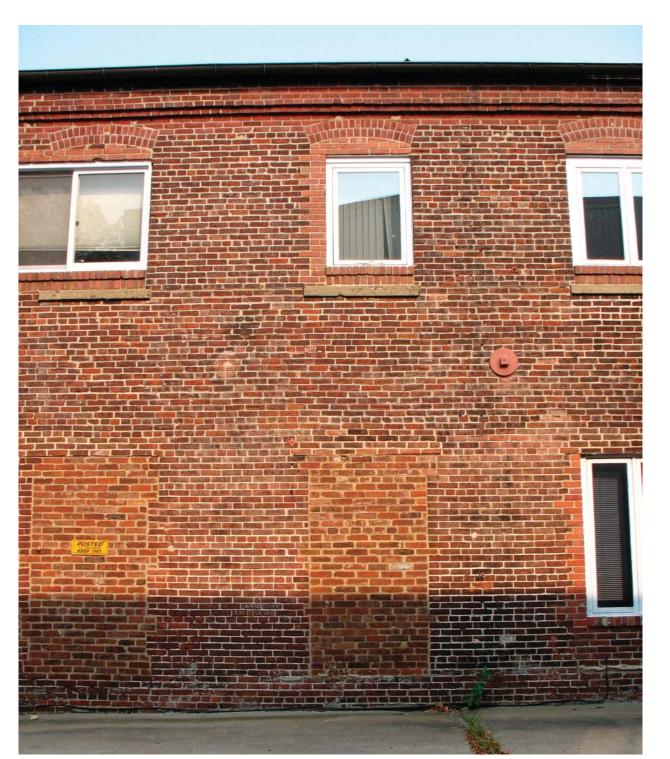


4-VIEW OF WEST FAÇADE: The portion of the west façade within the warehouse retains the outline in white of an earlier structure removed.

| | G.COM |
|--|--|
| | 22636 DAVIS DRIVE; STE 250 STERLING, VA 20164 703-709-9500 WWW. BOHLERENGINEERING.COM WWW. BOHLERENGINEERING.COM |
| | 22636 DAVIS DRIVE: STERLING, VA 20164 703-709-9500 WWW. BOHLERENGI |
| | vww |
| | |
| | LLE BS 3SS00 LLC |
| | CHITECT MPFP L 120 Broadway, 20th F1. New York, NY 10271 tele. 212.477, 6548 fax. 212.477, 6548 |
| | CIVIL ENGINEER ENGLA BOD ENGLA BOD ENGLA ARCHITECT ARCHITECT ARCHITECT COMPFINATION COMPFI |
| | CIVIL ENGINEER B ARCHITECT ARCHITECT ARCHITECT MPFP |
| | |
| | REVISIONS rev date comment by |
| | 111/21/14REV. PER CITY COMMENTSIS212/23/14REV. PER CITY COMMENTSIS |
| | |
| | |
| | |
| | |
| | |
| | |
| | THE FOLLOWING STATES REQUIRE NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE. IN VIRGINIA, MARYLAND, THE DISTRICT OF COLUMBIA, |
| | NORTH CAROLINA AND DELAWARE CALL - 811 (WV 1-800-245-4848) (PA 1-800-242-1776) (DC 1-800-257-7777) (VA 1-800-552-7001) (MD 1-800-257-7777) (DE 1-800-282-8555) |
| | NOT APPROVED FOR CONSTRUCTION |
| | PROJECT No.: S132178 DRAWN BY: IS CHECKED BY: MAT DATE: 09/19/14 |
| | SCALE: CAD I.D.: PROJECT: |
| | DEVELOPMENT SPECIAL USE |
| | PERMIT (DSUP) |
| | RT SOUTH ASSOCIATES |
| | LLC |
| | LOCATION OF SITE ROBINSON TERMINAL SOUTH CITY OF ALEXANDRIA, VA |
| | |
| | |
| | BOHLER E N G I N E E R I N G 22636 DAVIS DRIVE SUITE 250 |
| | 22636 DAVIS DRIVE, SUITE 250 STERLING, VIRGINIA 20164 Phone: (703) 709-9500 Fax: (703) 709-9501 |
| | www.BohlerEngineering.com |
| | OTWEALTH OF LINE |
| | SHALOM BARANES S O Lic. No. 0401007606 |
| APPROVED #2014-0006 | ARCHITECT |
| SPECIAL USE PERMIT NO DEPARTMENT OF PLANNING & COMMUNITY DEVELOPMENT | SHEET TITLE: |
| DIRECTOR: DATE: | NO. 2 DUKE ST. EXISTING |
| DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES | CONDITIONS |
| DIRECTOR: DATE: | A- 33 |
| DATE RECORDED INSTRUMENT NO. DEED BOOK NO. PAGE NO. | OF 92 |
| | ∎l } |



5-DETAIL AT EAST FAÇADE: Examination of the brickwork reveals the size and location of original narrower openings with segmental brick arched headers.



7-DETAIL AT WEST FAÇADE: Windows at the ground and second levels were originally aligned. Note the concrete sills.



6-DETAIL AT WEST FAÇADE: The window sills have been raised.



8-DETAIL AT WEST FAÇADE: Brick rolock sills were used when sills were raised.

APPROVED #2014-0006 special use permit no.____

DEPARTMENT OF PLANNING & COMMUNITY DEVELOPMENT

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

DEED BOOK NO

DATE RECORDE

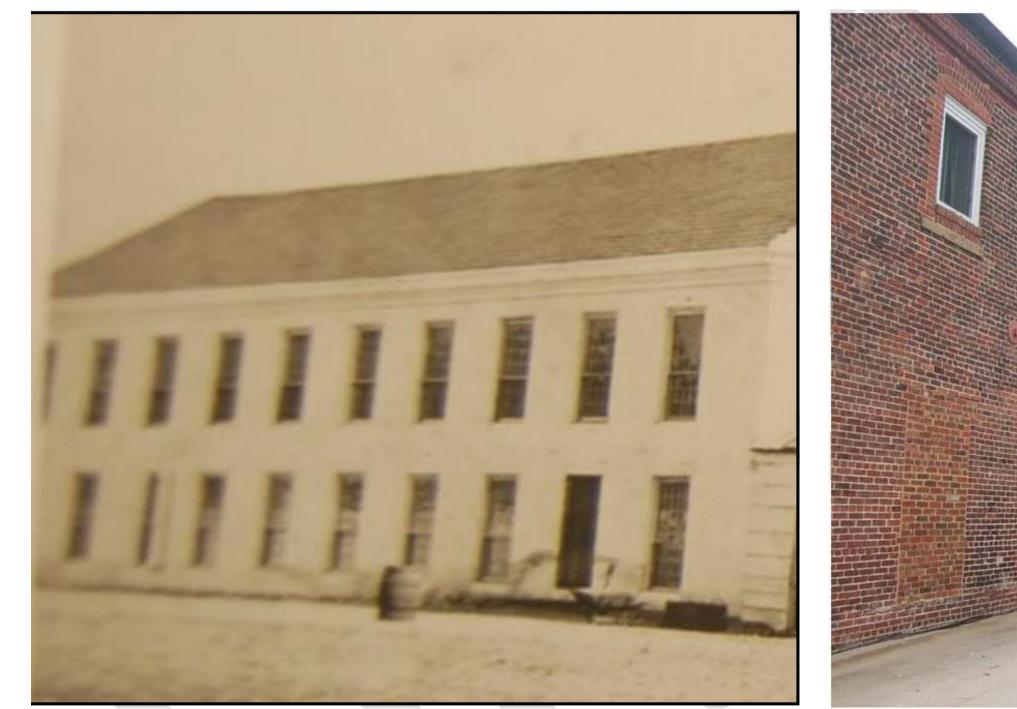
| | E 250 ERING.COM | architects | | |
|------------|--|--|--|---|
| | 22636 DAVIS DRIVE; STE 250 STERLING, VA 20164 703-709-9500 WWW. BOHLERENGINEERING.COM | archi | | |
| | 22636 DAVIS DRIVE; STERLING, VA 20164 703-709-9500 WWW. BOHLERENGI | S | | |
| | Ř | ciat | | |
| | | m baranes associal | U U | |
| | | nes | MPFP LLC | у, 2001 Y 10271 7. 6548 7. 6548 |
| | | bara | MPFP MPFP L | New York, NY 10271 tele. 212. 477. 6366 fax. 212. 477. 6548 |
| | CIVIL ENGINEER | lom | | |
| | CIVIL ENGIN | sha | | |
| | RI REV DATE | EVISION | | ВҮ |
| | 1 11/21/14 | REV. PER COMME | CITY NTS | IS |
| | 2 12/23/14 | COMME | | IS |
| | | | | |
| | | | | |
| | | | | |
| | | | | \dashv |
| | | | | |
| | THE FOLLOWING S EXCAVATORS, DESIGN DISTURB THE EARTH'S | ERS, OR ANY PE S SURFACE ANYV | RSON PRE PA I VHERE IN T HE | RING TO STATE. |
| | IN VIRGINIA, MARYL NORTH CAROL (WV 1-800-245-4848) (P (VA 1-800-552-7001) (M | NA AND DELAW | ARE CALL - 81 ⁺ 6) (DC 1-800-2 | 1 57-7777) |
| | NOT AF CON | PROVE | | |
| | PROJECT No.: DRAWN BY: CHECKED BY: DATE: | | | 82178 IS MAT 19/14 |
| | CAD I.D.: | | 09/ | |
| | DEVE | LOPN | | Γ |
| | PERM | | |) |
| | | SOU | | |
| | | DCIA LLC | | |
| | LOCA ROBINSON CITY OF | | AL SOL | |
| | | | , | |
| | | OH | ד ו | |
| | | GINE | ERI | NG |
| | STERLIN Phone: Fax: | G, VIRGIN (703) 709 (703) 709 | A 20164 9-9500 9-9501 | |
| | www.Bohle | erEngine | ering.co | |
| | | LTH OF | | |
| | O SHAL | OM BARAN No. 0401007 | 606 | |
| | Real Property in the second | ARCHITE | CT-see | |
| | SHEET TITLE: | B | | \exists |
| TE: | NO. 2 | IDUK | | • |
| | CON | IDITIC | ONS | |
| TE: | A- 34 | | | |
| PAGE NO. | | OF 92 | | \exists |
| | | | | <u> </u> |



9-VIEW OF THE BACKYARD OF PIONEER MILLS, circa 1880: Note the three bay south elevation of the original building at No. 2 Duke.



11-VIEW OF NO. 2 DUKE STREET FAÇADE, circa 1952 (photographed **1972):** The façade was reconfigured.



10-VIEW OF THE WEST ELEVATION OF THE COOPERS SHOP, circa 1864 (left) AND VIEW OF EXISTING BUILDING (right): The historic view shows that the second story windows were as large as the first story and had a straight header. Compare this with the segmental arched headers of the late 19th century building that replaced the earlier structure. ture.

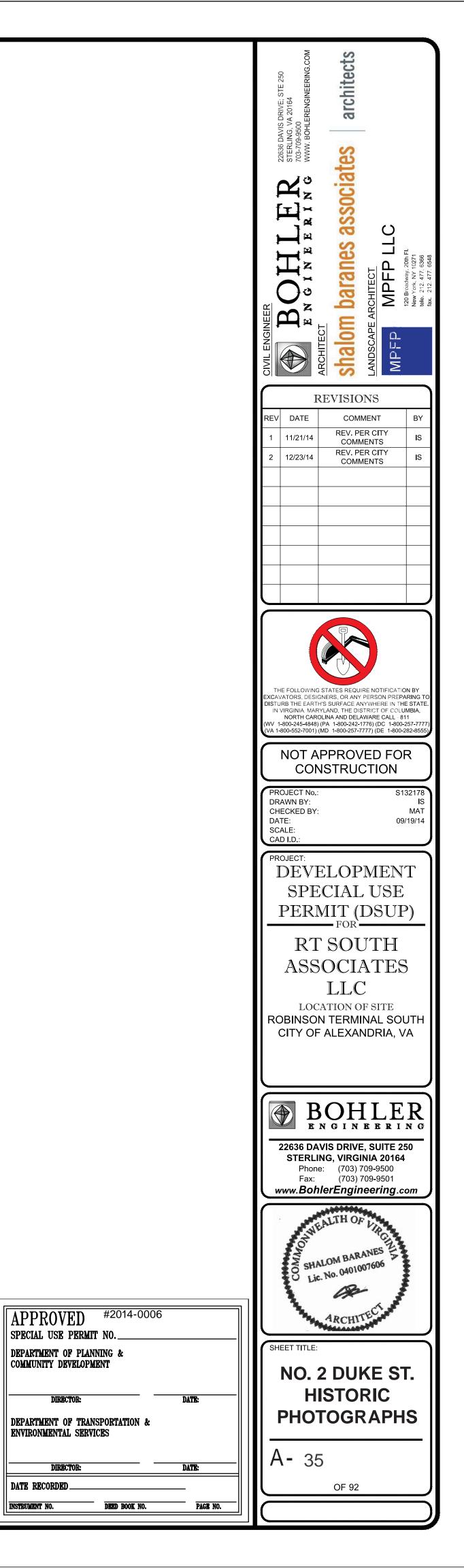


12-EXAMPLE OF A HISTORIC WAREHOUSE IN ALEXANDRIA: Note the parapet of the three bay gabled front.



DIRECTOR:

DATE RECORDE



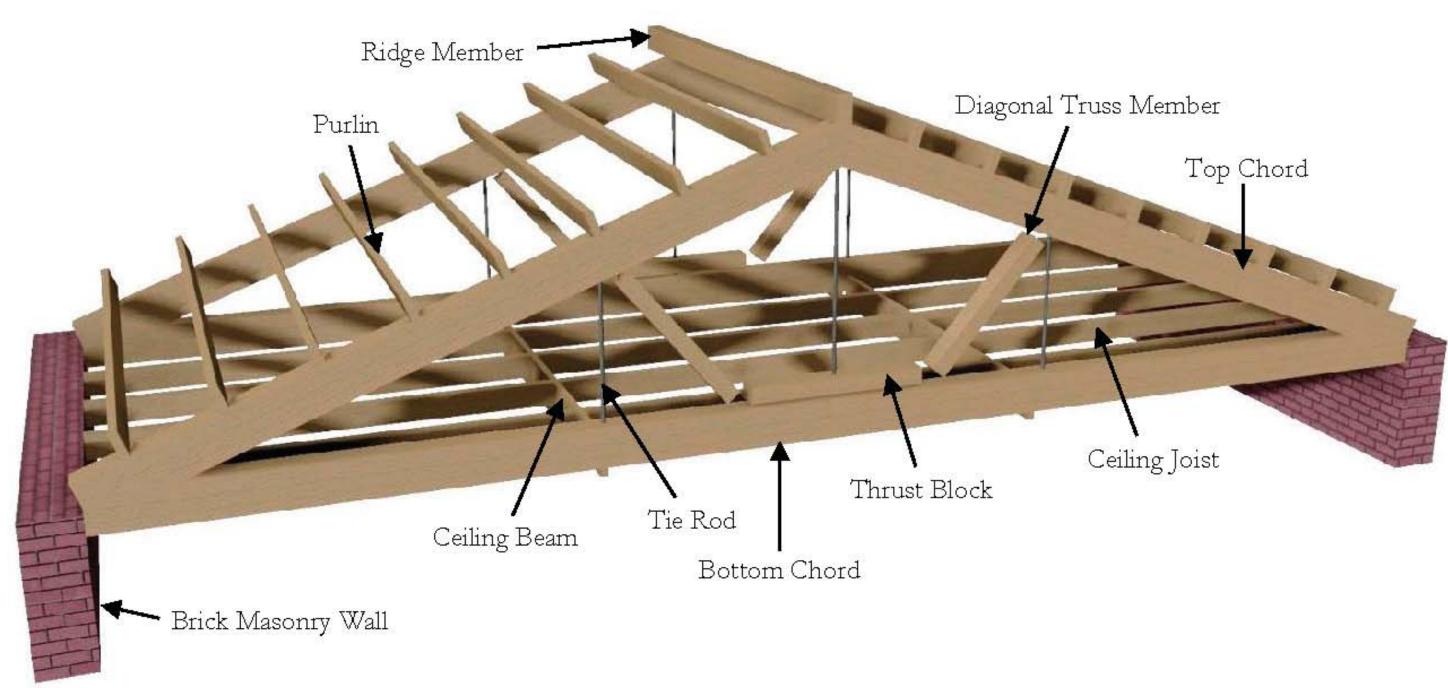


Figure 8 – Revit Rendering of a Typical Bay of Roof Framing

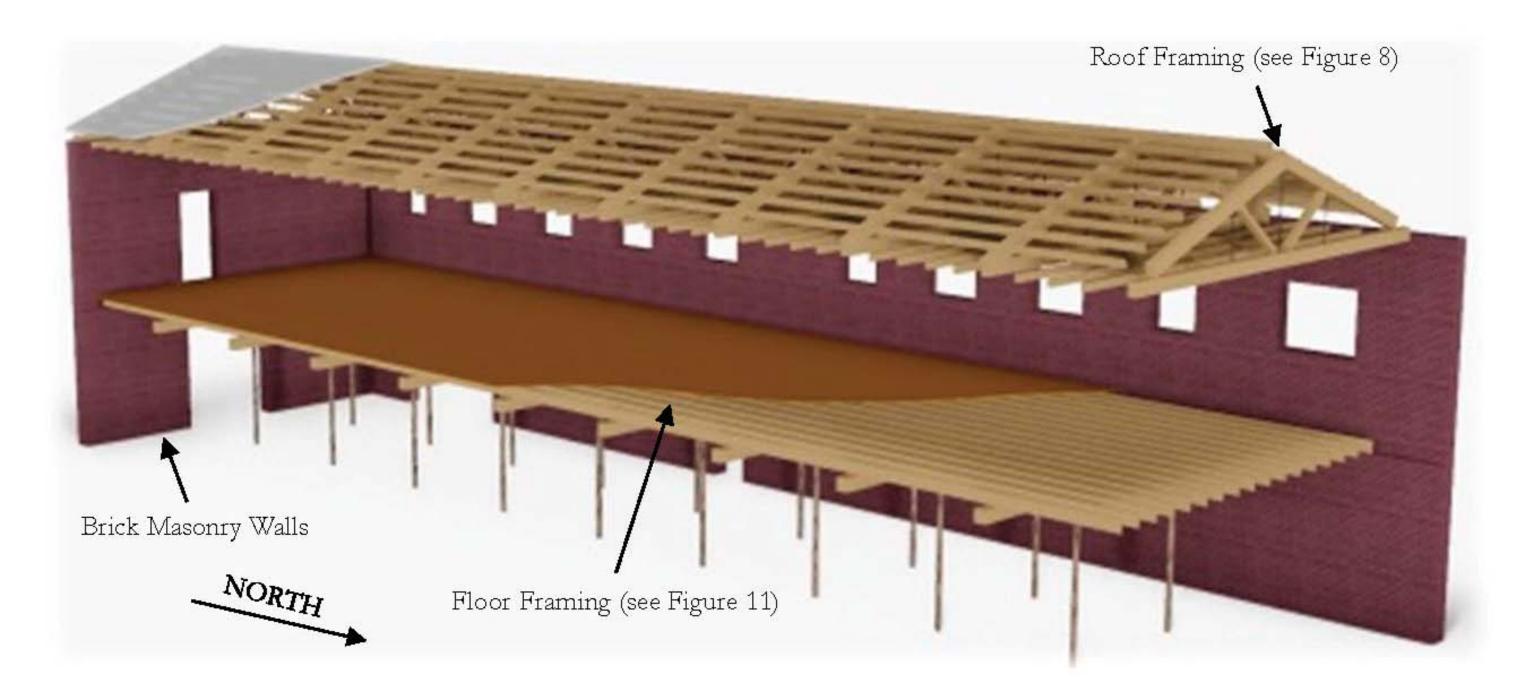


Figure 5 – Revit Rendering of #2 Duke Street Building, Showing the Structure Exposed With North & East Walls Hidden

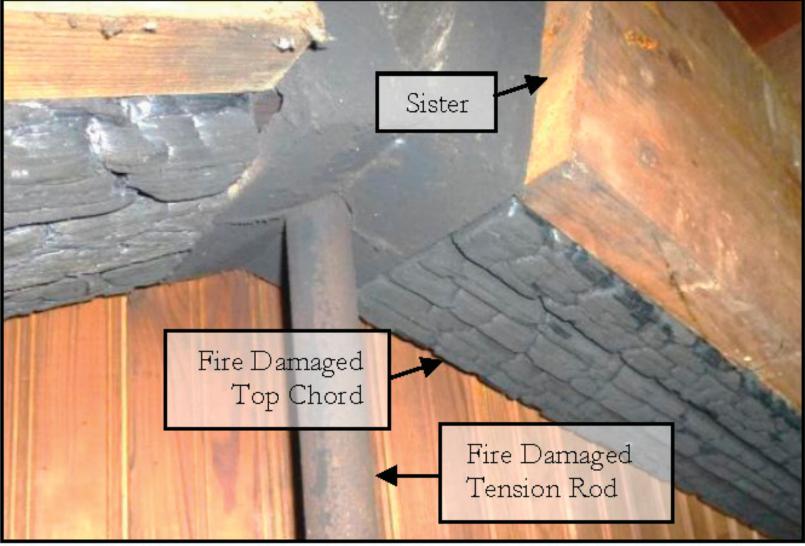


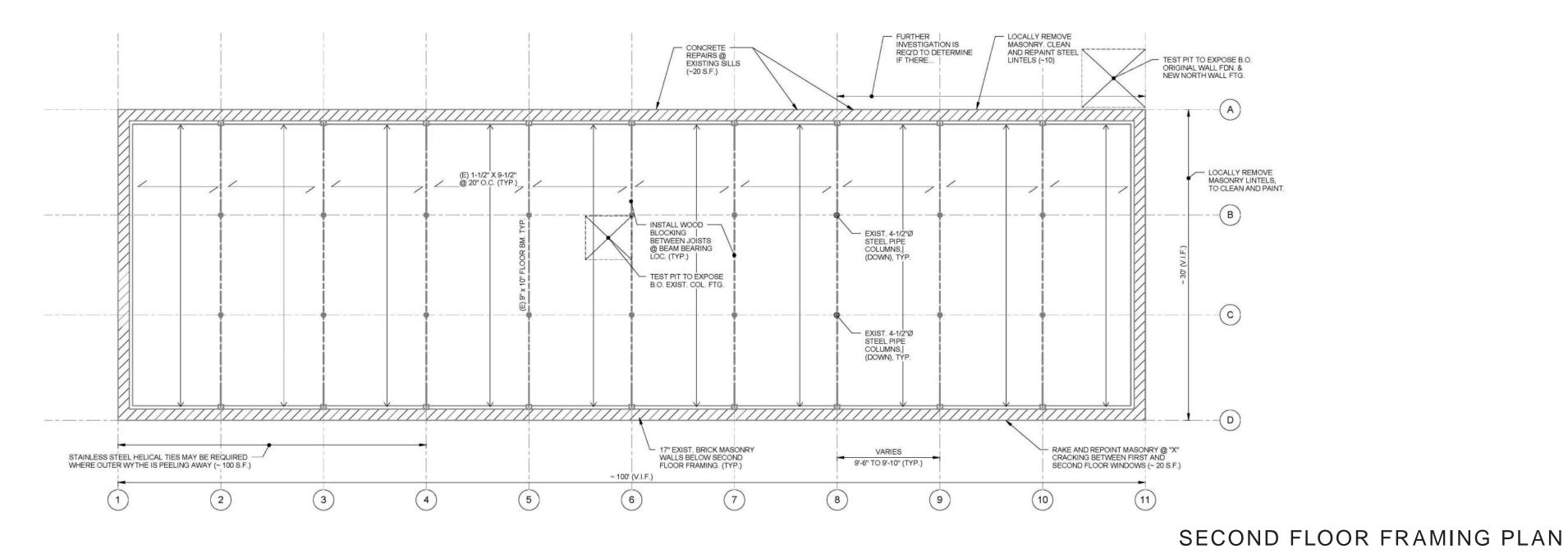
Figure 2 – Fire Damage at Top Chord of Truss at North End

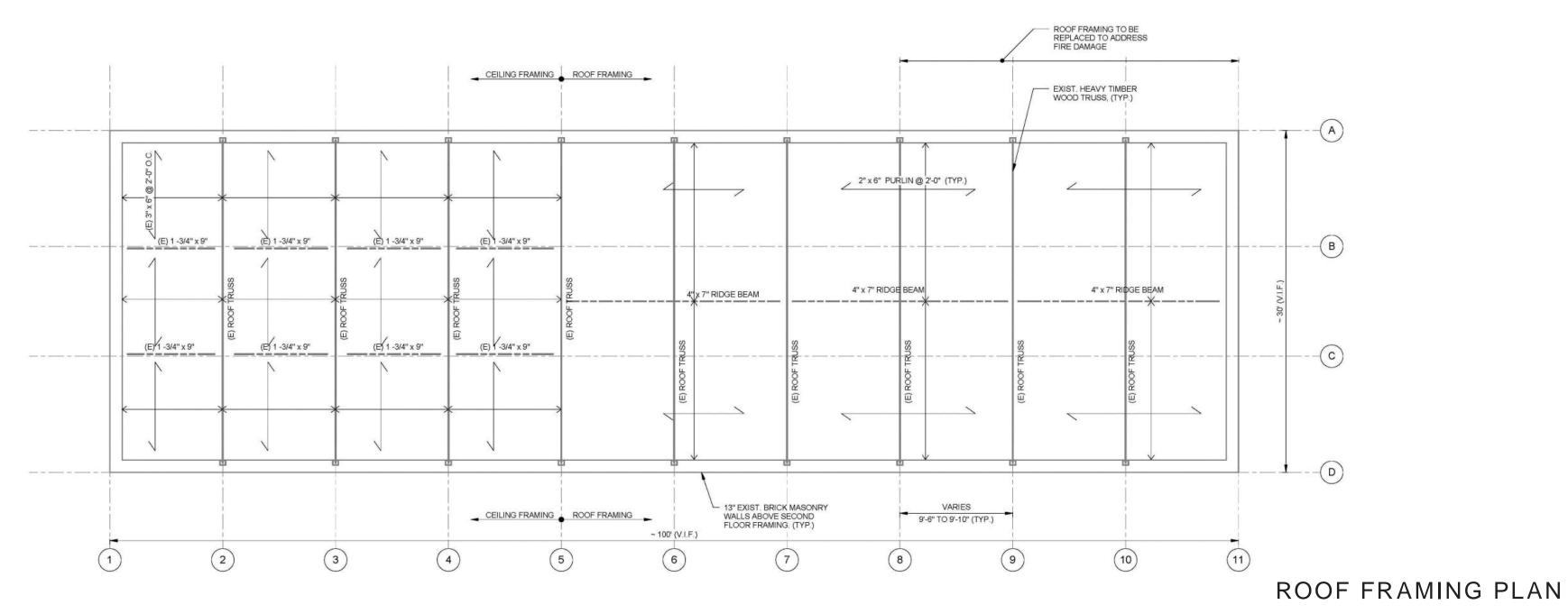


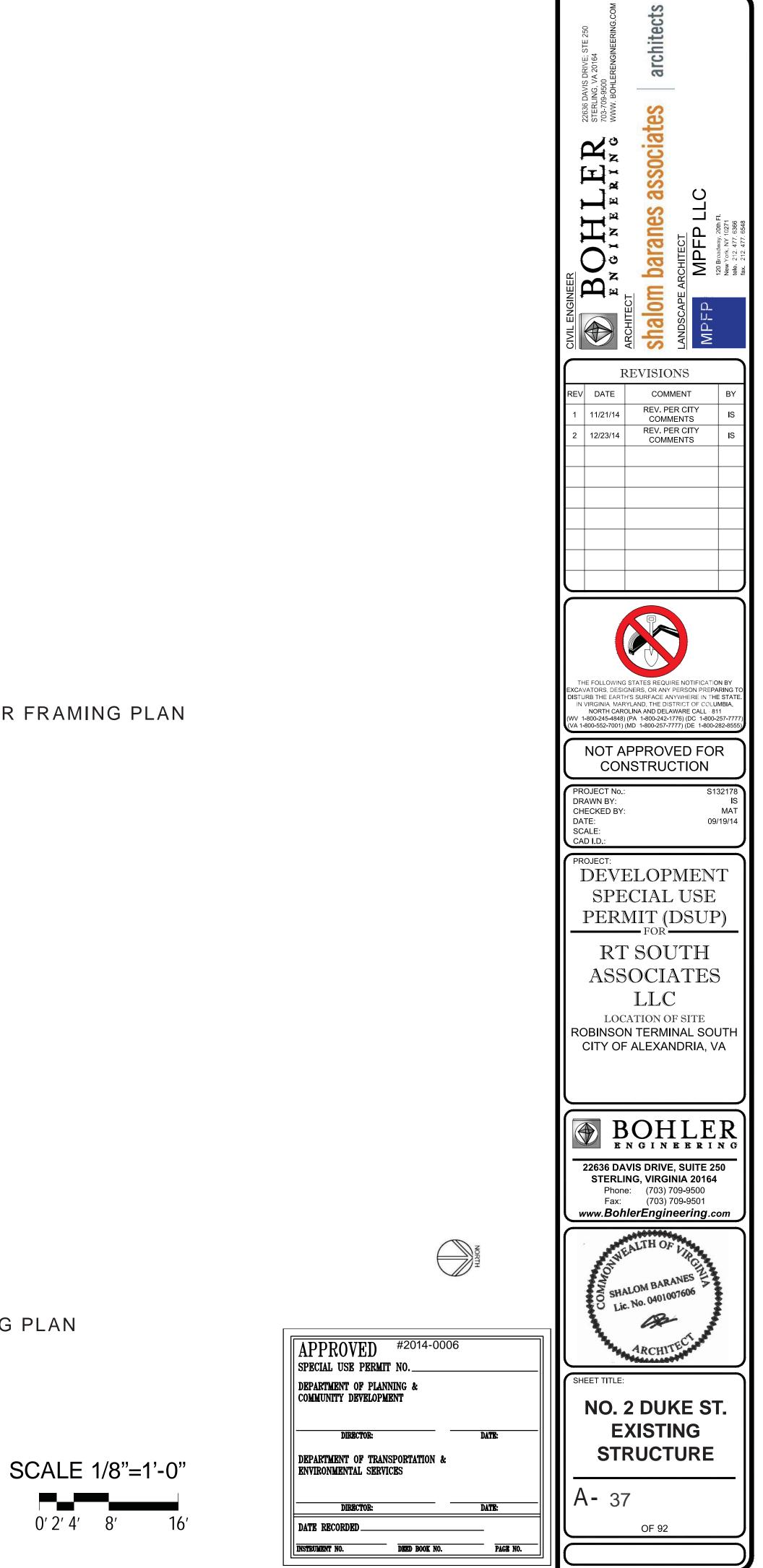
Figure 7 – Cast Iron Bracket at Peak of Roof Trusses

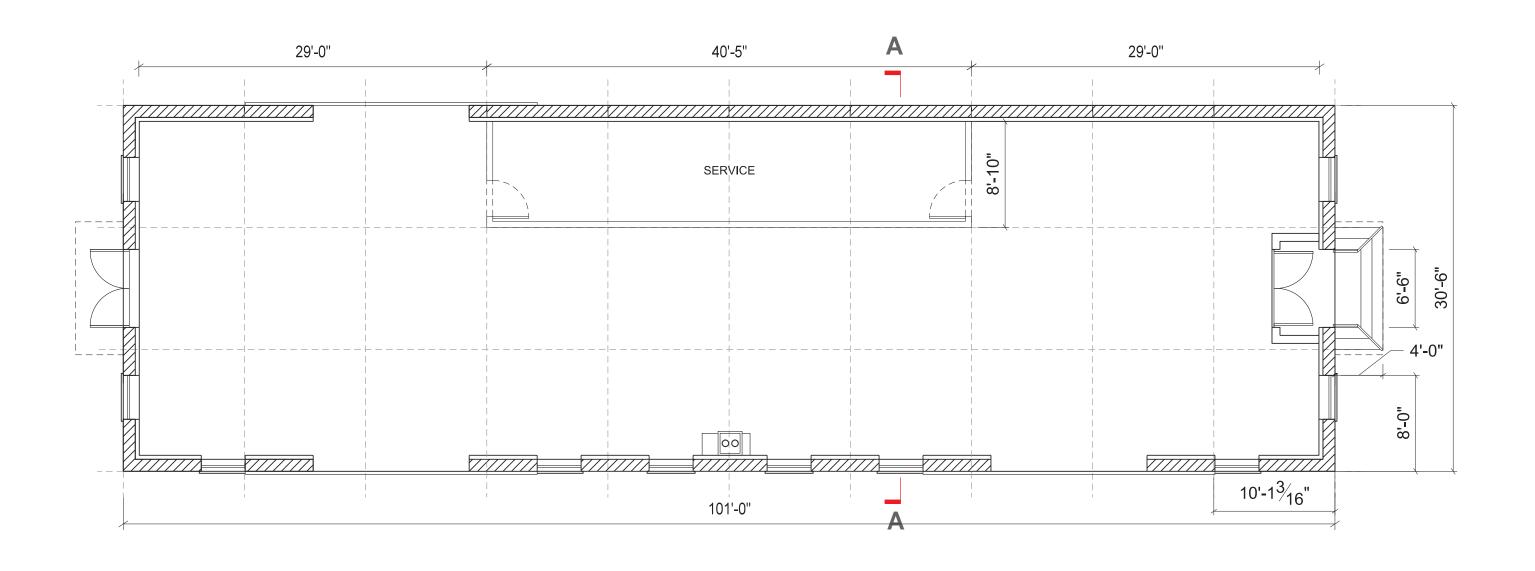
| | 22636 DAVIS DRIVE; STE 250 STERLING, VA 20164 703-709-9500 WWW. BOHLERENGINEERING.COM | architects | |
|---|--|--|---|
| | CHRIVE CINC STERLING, VA 20164 CINC REFINE OF TO 703-709-9500 WWW. BOHLERENGI | PLLC | 120 Broadway, 20th Fl. New York, NY 10271 tele. 212. 477, 6366 fax. 212. 477, 6548 |
| | CIVIL ENGINEER B B B C B C B C C | Shalom baral Landscape architect MPFP | |
| | RE' | VISIONS | BY |
| | 1 11/21/14 | REV. PER CITY COMMENTS | IS |
| | 2 12/23/14 | REV. PER CITY COMMENTS | |
| | | | |
| | | | |
| | | | |
| | EXCAVATORS, DESIGNEF DISTURB THE EARTH'S S IN VIRGINIA, MARYLAN NORTH CAROLIN/ (WV 1-800-245-4848) (PA | URFACE ANYWHERE IN T ND, THE DISTRICT OF COI A AND DELAWARE CALL - | PARING TO HE STATE. ∟UMBIA, 811 0-257-7777) |
| | | PROVED FO | DR |
| | PROJECT No.: DRAWN BY: CHECKED BY: DATE: SCALE: CAD I.D.: | | 132178 IS MAT 99/19/14 |
| | SPEC PERM | LOPMEN SIAL USE IT (DSU | |
| | RT S ASSC | FOR SOUTH OCIATES LLC | S |
| | LOCAT ROBINSON T | TION OF SITE FERMINAL SC LEXANDRIA, | |
| | | | |
| | E N 22636 DAVIS STERLING | GINEERI GINEERI DRIVE, SUITE 2 , VIRGINIA 2016 | 250 |
| | Fax: www.Bohler | (703) 709-9500 (703) 709-9501 ′Engineering . | com |
| | OTWEAL OTWEAL OTWEAL OTWEAL | TH OF LING | |
| | ×. | RCHITECT | Ŧ |
| - | EX BUILDIN /TYPI | DUKE ST. ISTING NG SECTIO CAL ROOF MING BAY | ON |
| _ | A- 36 | | |
| | | OF 92 | \dashv |

| APPROVED # | | |
|---|--------------|-----------|
| SPECIAL USE PERMIT N | 0 | `` |
| DEPARTMENT OF PLANNIN COMMUNITY DEVELOPMENT | | |
| DIRECTOR: | DAT | B: |
| DEPARTMENT OF TRANSPO ENVIRONMENTAL SERVICES | | |
| DIRECTOR: | DAT | B: |
| DATE RECORDED | | |
| INSTRUMENT NO. | KED BOOK NO. | PAGE NO. |

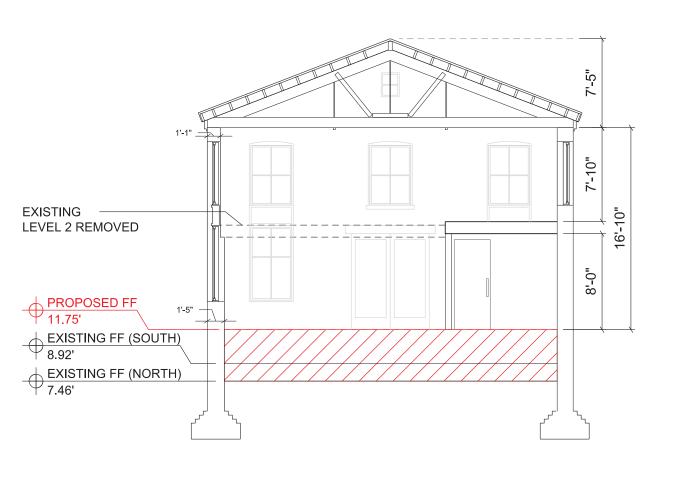








PROPOSED FLOOR PLAN

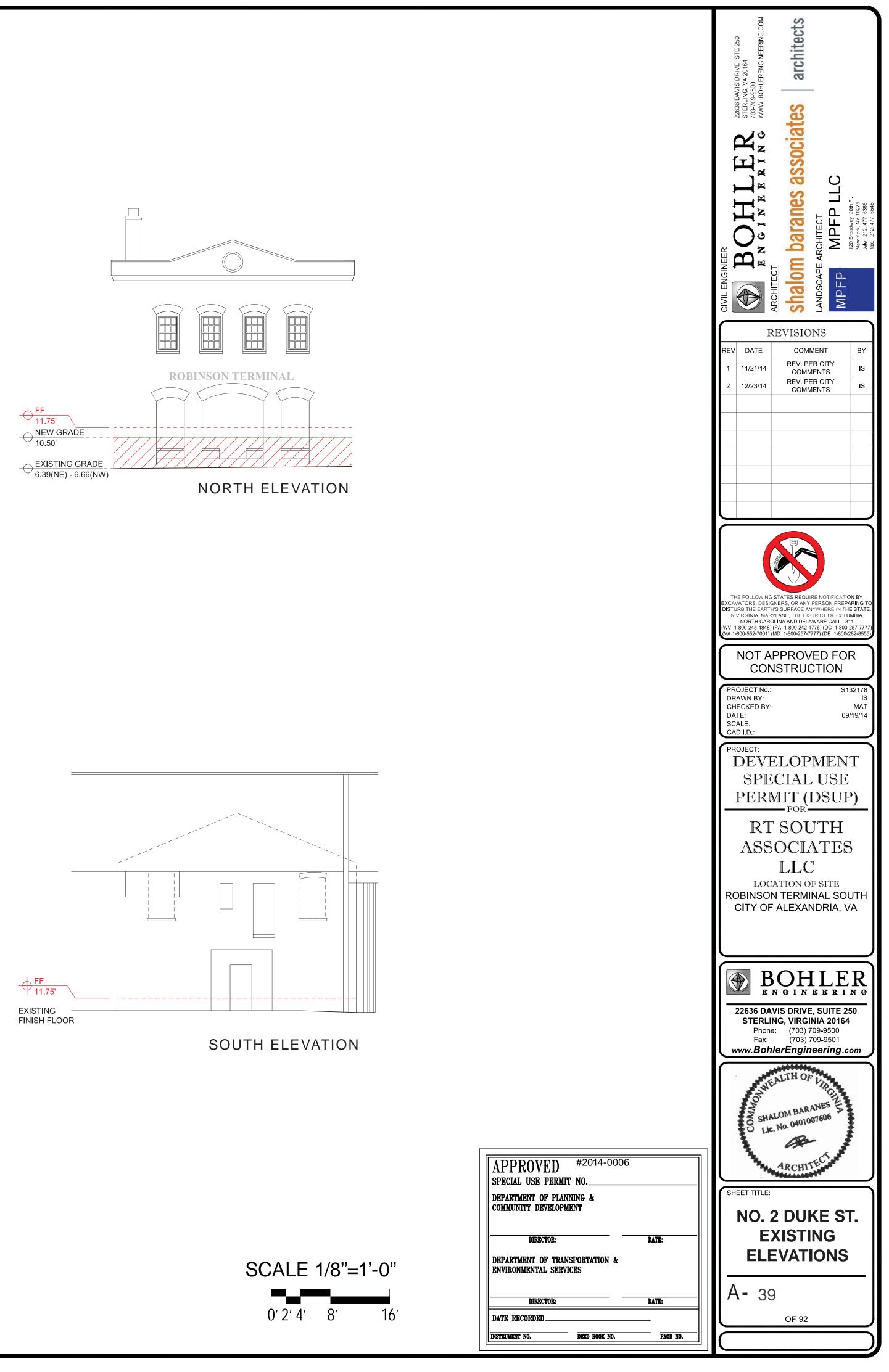


PROPOSED SECTION A-A

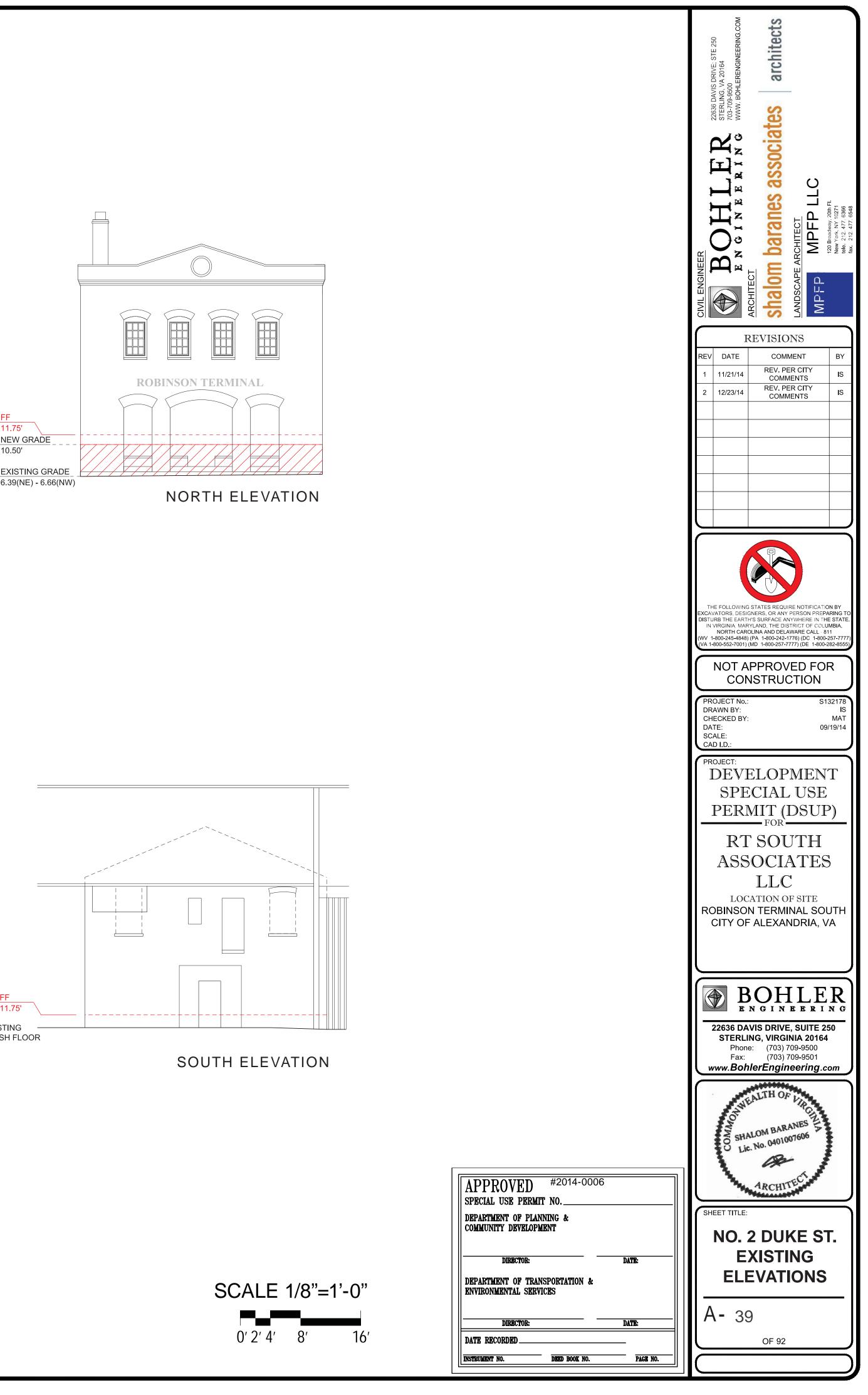
| | CALLENGIAGE CALLENGIAGE CALLENGIAGE CALLENGIAGE CALLENGIAGE ERLING, VA 2014. ERLING, VA 2014. Case day is the range of the r |
|--|---|
| | REV DATE COMMENT BY 1 11/21/14 REV. PER CITY IS 2 12/23/14 REV. PER CITY IS 2 12/23/14 REV. PER CITY IS 1 IS IS IS 2 12/23/14 REV. PER CITY IS 1 IS IS |
| | CONSTRUCTIONPROJECT NO.:S132178DRAWN BY:ISCHECKED BY:MATDATE:O9/19/14CALE:O9/19/14CALE:O9/19/14PROJECT:DEVELOPMENT SPECIAL USE PERMIT (DSUP) FORDRT SOUTH ASSOCIATES LDCDEVELOPMENT SOUTH FORDRT SOUTH ASSOCIATES LDCDCATION OF SITE ROBINSON TERMINAL SOUTH CITY OF ALEXANDRIA, VA |
| APPROVED #2014-0006 SPECIAL USE PERMIT NO DEPARTMENT OF PLANNING & | <image/> <image/> <section-header><text><text><text><text></text></text></text></text></section-header> |
| DEPARTMENT OF PLANNING & COMMUNITY DEVELOPMENT DIRECTOR: DATE: DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES DIRECTOR: DATE: DATE RECORDED INSTRUMENT NO. DEED BOOK NO. PAGE NO. | NO. 2 DUKE ST. PROPOSED FLOOR PLAN/SECTION A- 38 OF 92 |



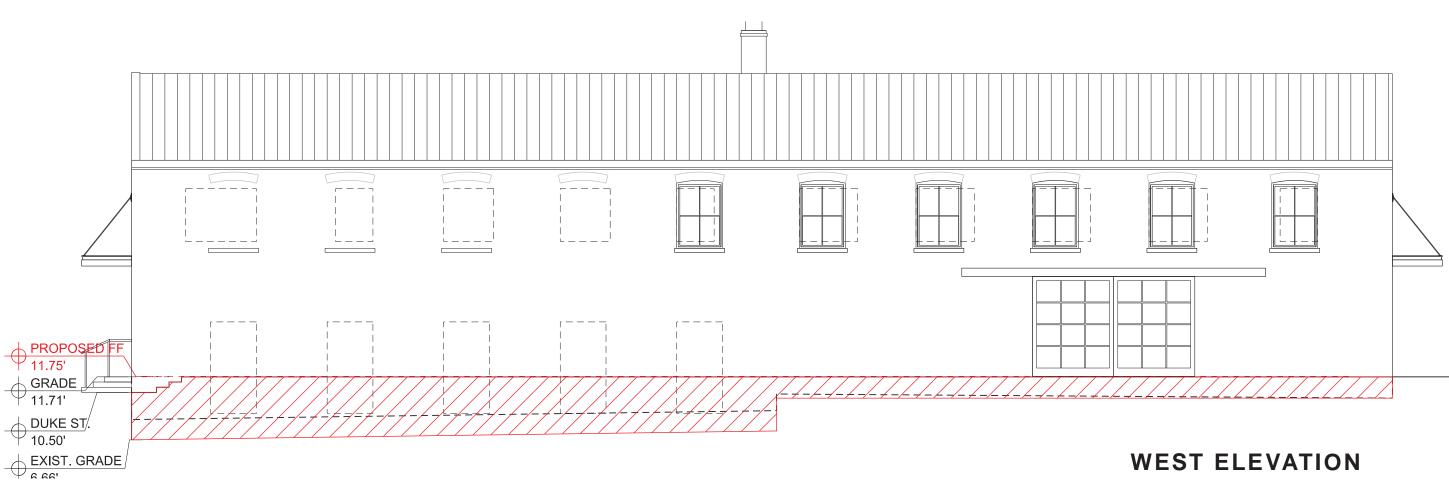


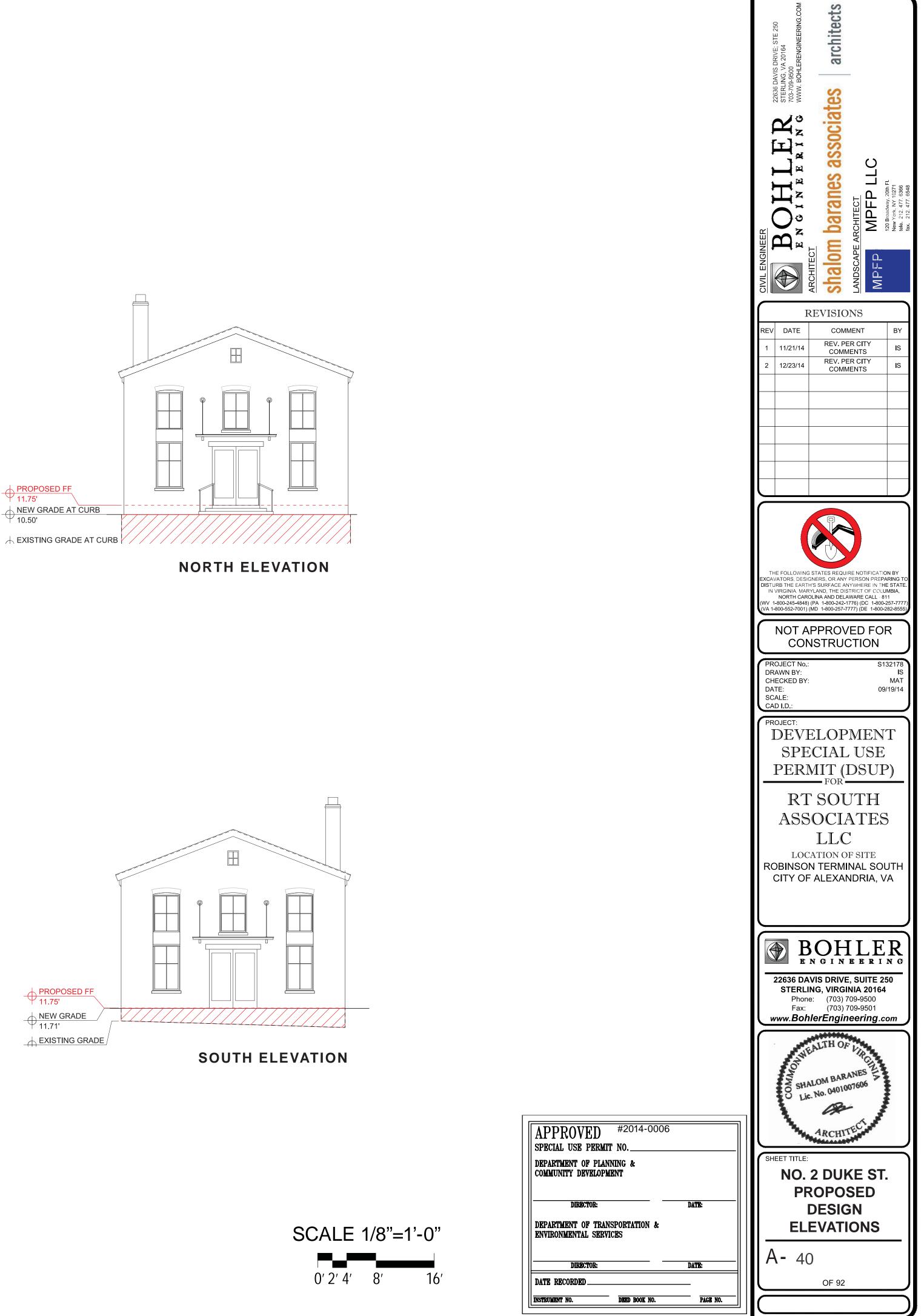


L _ _ _ J L _ _ _ J L _ _ _ J \bigcirc \bigcirc <u>KAK</u> EAST ELEVATION

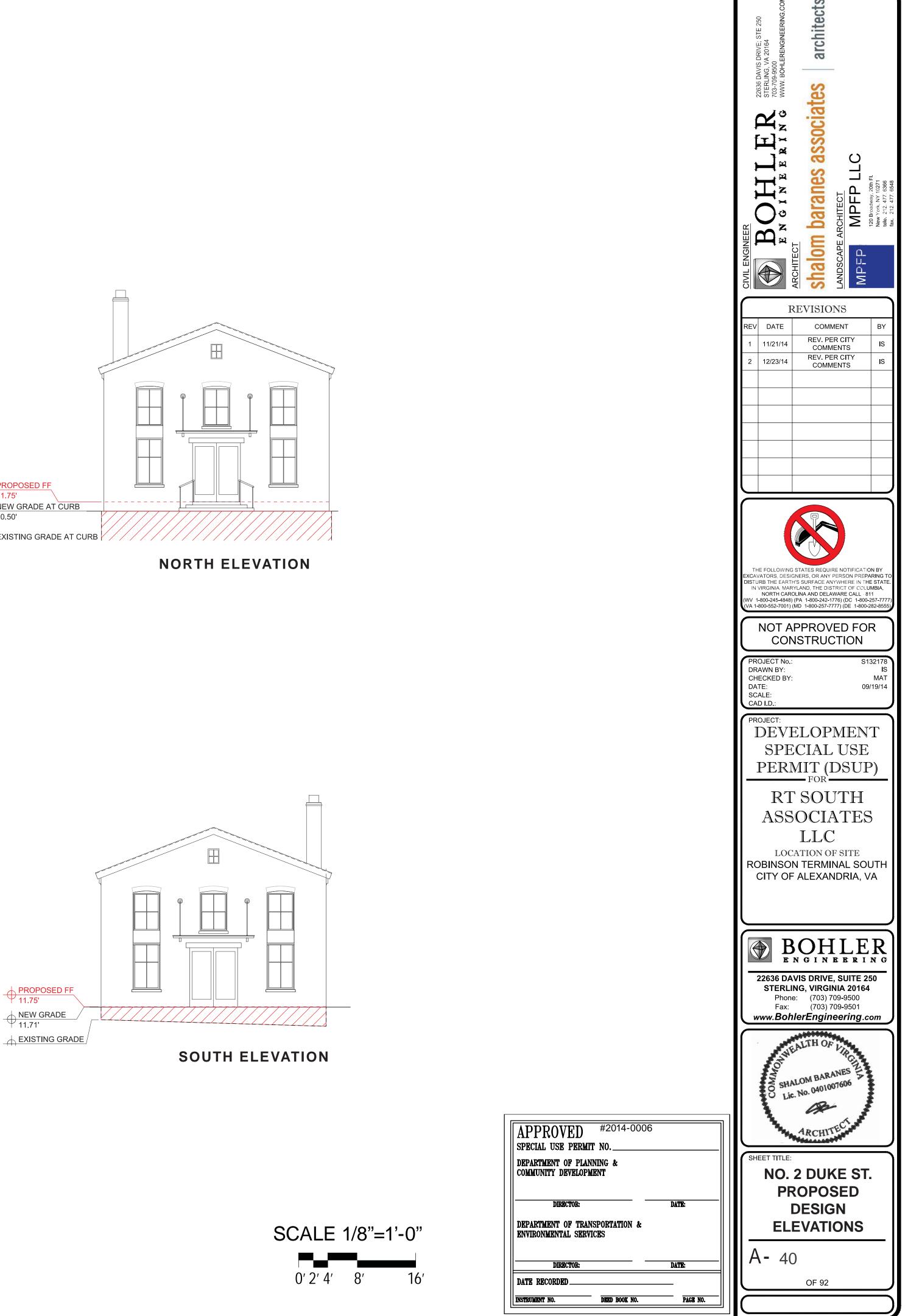














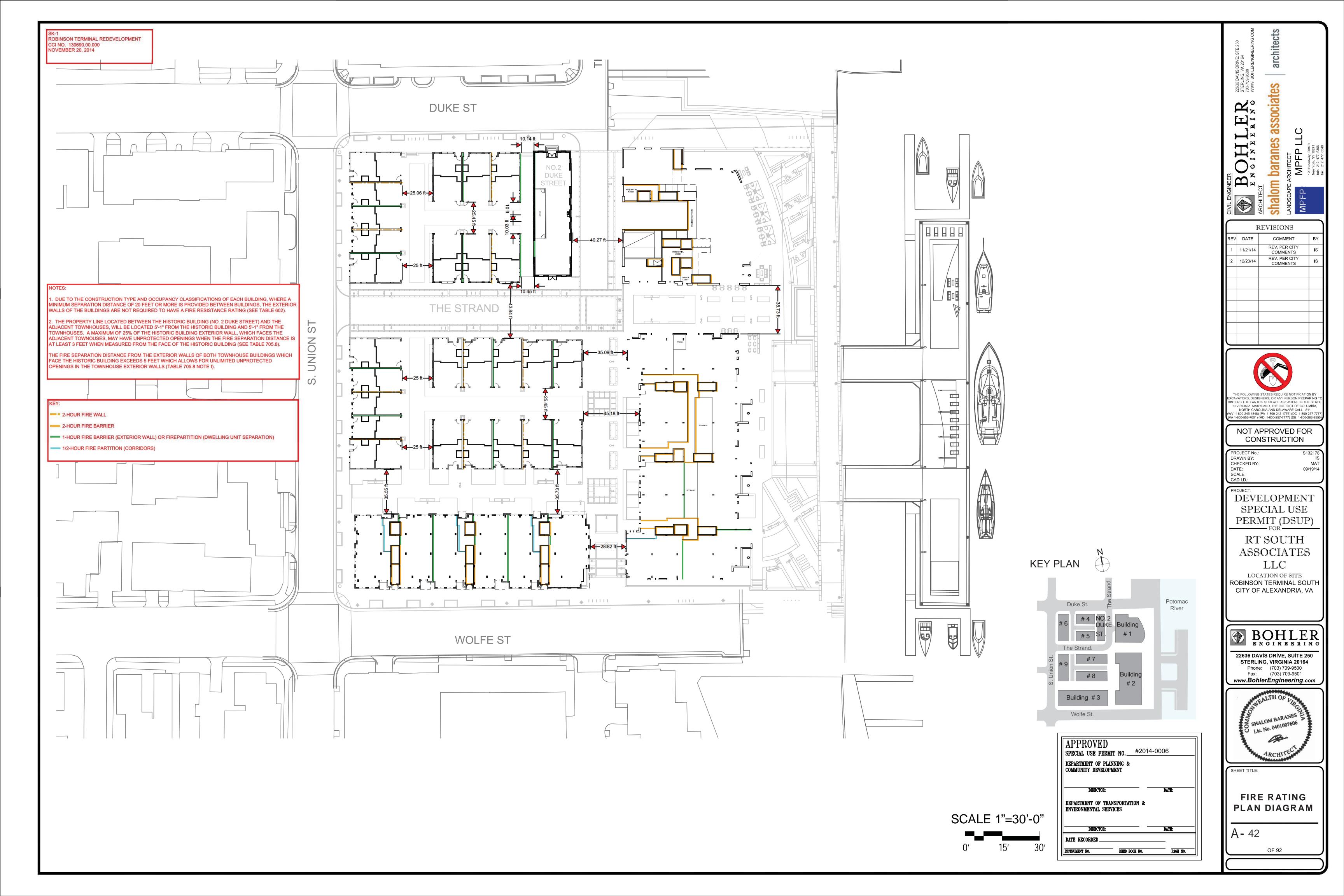


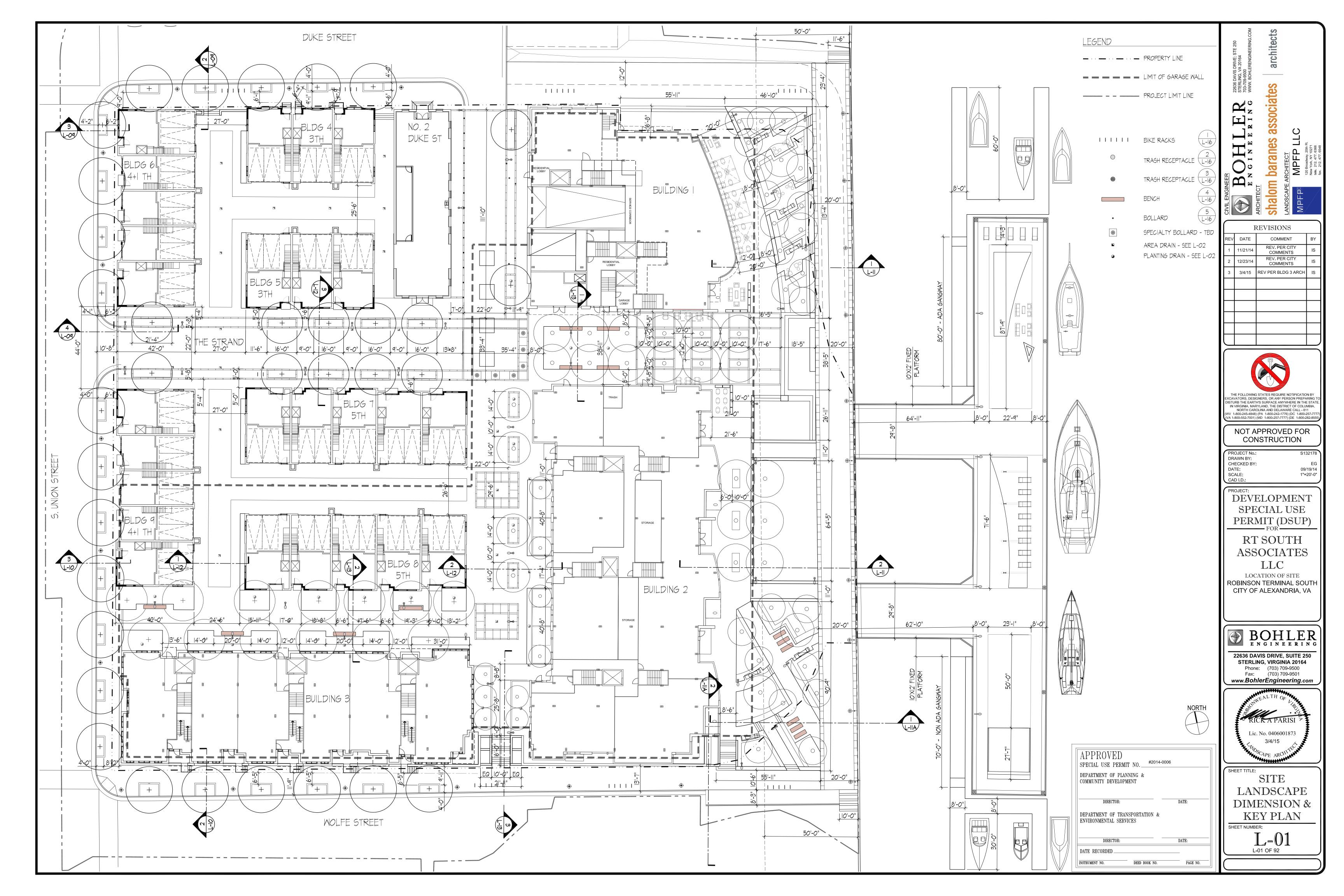


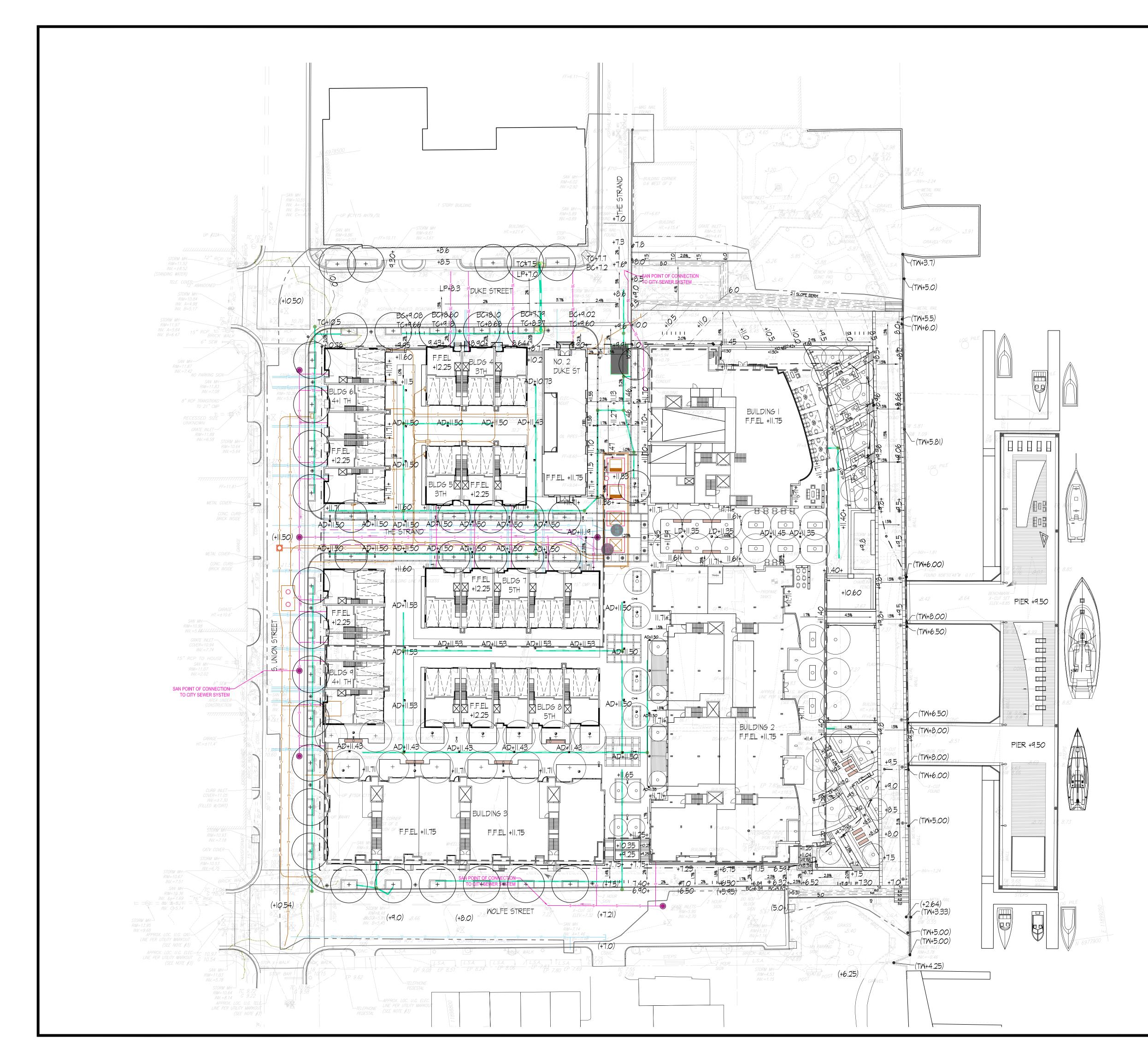


EAST ELEVATION 3/32"=1'-0"

3/32"=1'-0"









GRADING LEGEND

| ×11.24 | SURVEY EXISTING GRADES | |
|--------------------|-------------------------------|-------------|
| (T W+6 .00) | EXISTING BULKHEAD TOP OF WALL | |
| (+7.21) | EXISTING GRADES | |
| AD +11.50 | AREA DRAIN - SEE DETAIL | 485 L-12 |
| | | 4\$5 |



LEGEND

- PROPERTY LINE

– 🗕 — — — LIMIT OF GARAGE WALL

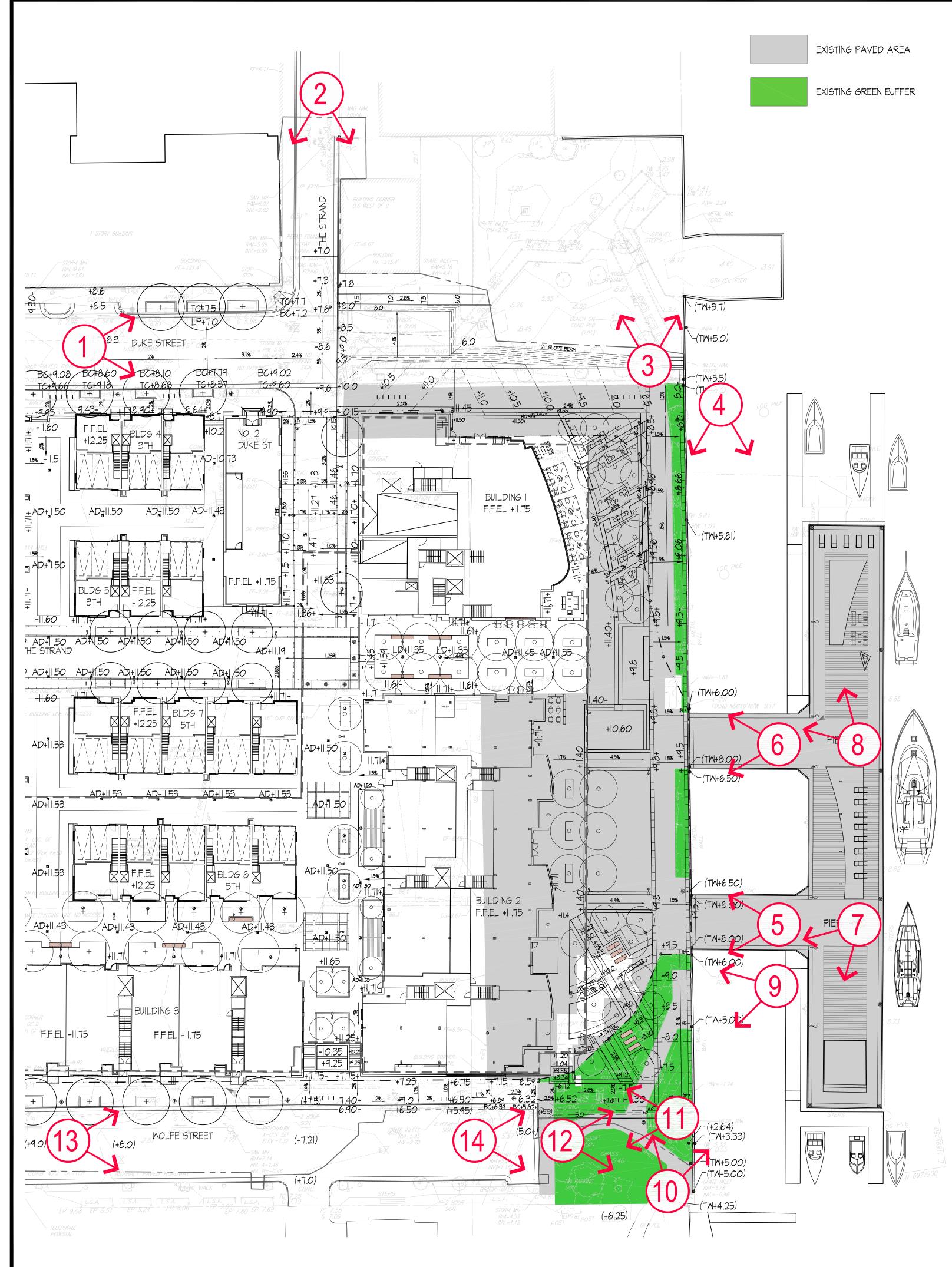
----- PROJECT LIMIT LINE



APPROVED SPECIAL USE PERMIT NO. #2014-0006 DEPARTMENT OF PLANNING & COMMUNITY DEVELOPMENT DATE: DIRECTOR: DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES DATE: DIRECTOR:

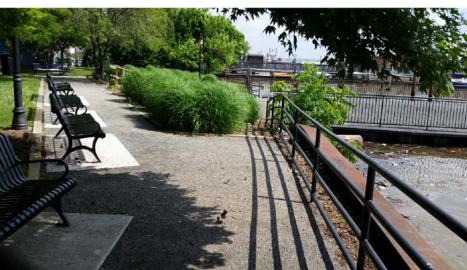
DATE RECORDED

DEED BOOK NO. INSTRUMENT NO.





1 - DUKE STREET LOOKING EAST



3 - LOOKING NORTH



5 - ON PIER LOOKING WEST



7 - ON PIER LOOKING SOUTH - WEST



9 - ON PIER LOOKING SOUTH - WEST



11 - ON GRASS LOOKING WEST TO WOLFE



13 - ON WOLFE ST LOOKING EAST





4 - LOOKING SOUTH



6 - ON PIER LOOKING WEST









2 - STRAND ST LOOKING TOWARDS STRAND & DUKE INTERSECTION

8 - ON PIER LOOKING NORTH - WEST

10 - ON GRASS LOOKING NORTH

LEGEND

APPROVED

DEPARTMENT OF PLANNING &

DIRECTOR:

ENVIRONMENTAL SERVICES

DIRECTOR:

DATE RECORDED

INSTRUMENT NO.

DEPARTMENT OF TRANSPORTATION &

DEED BOOK NO.

COMMUNITY DEVELOPMENT

SPECIAL USE PERMIT NO. #2014-0006

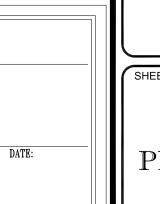
- · · - · · - PROPERTY LINE - - - - LIMIT OF GARAGE WALL

----- PROJECT LIMIT LINE



DATE:

PAGE NO.



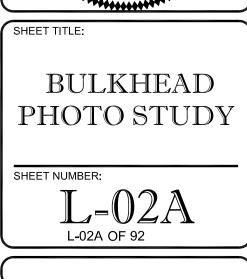


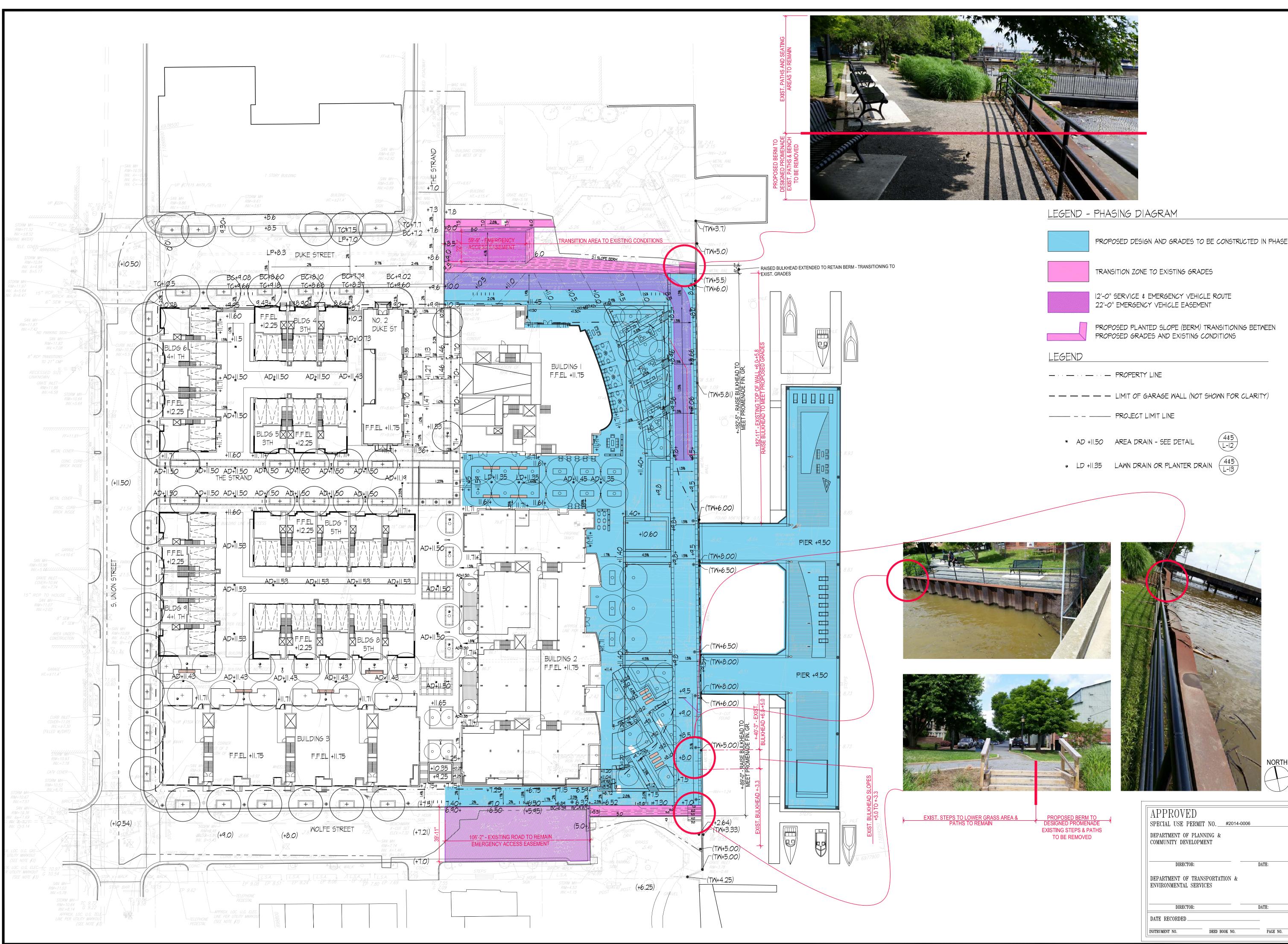
chitects

ar

S

22636 [STERL 703-709 WWW

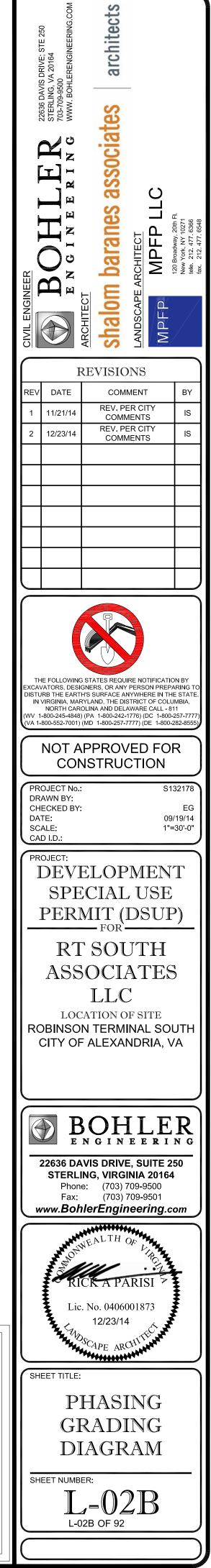




| | PROPOSED DESIGN AND GRADES TO BE CONSTRUCTED IN PHASE I |
|--------|--|
| | TRANSITION ZONE TO EXISTING GRADES |
| | 12'-0" SERVICE & EMERGENCY VEHICLE ROUTE 22'-0" EMERGENCY VEHICLE EASEMENT |
| | PROPOSED PLANTED SLOPE (BERM) TRANSITIONING BETWEEN PROPOSED GRADES AND EXISTING CONDITIONS |
| LEGEND | |
| | - PROPERTY LINE |

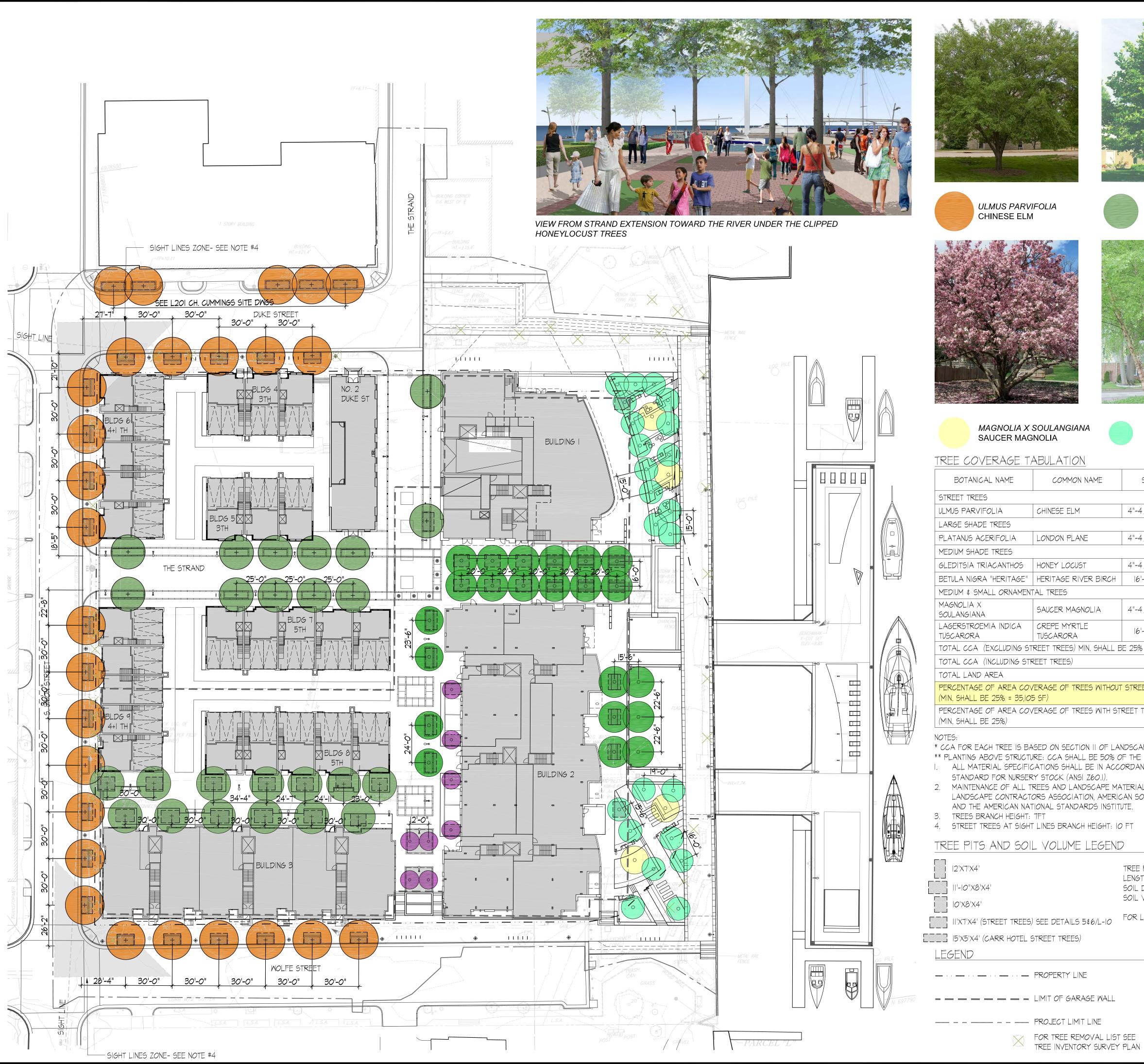


| DEPARTMENT OF H | PLANNING & | |
|-----------------|-----------------|-------|
| COMMUNITY DEVEI | OPMENT | |
| | | |
| DIRECTOR | : | DATE: |
| DEPARTMENT OF 7 | RANSPORTATION & | |
| ENVIRONMENTAL S | ERVICES | |
| | | |
| | | DATE: |
| DIRECTOR | : | DATE: |





| | | | 22636 DAVIS DRIVE; STE 250 STERLING, VA 20164 703-709-9500 WWW. BOHLERENGINEERING.COM WWW. BOHLERENGINEERING.COM |
|-----------|--|--|---|
| 「「「「「「」」」 | SIDEWALK PA DUKE, UNION, TYPE: SIZE: MANUFACTURE: COLOR: FINISH: | | HEERING NEERING DLC DLC |
| | THE STRAND TYPE: SIZE: MANUFACTURE: COLOR: FINISH: | PREST BRICK 4"X8" HANOVER RED NATURAL | CIVIL ENGINEER CIVIL ENGINEER E N G I ARCHITECT ARCHITECT BABOOD BATA ARCHITECT ARCHIT |
| | TOWNHOUSE TYPE: SIZE: MANUFACTURE: COLOR: FINISH: | ALLEYS PREST BRICK 4"X8" HANOVER RED, CHARCOAL NATURAL | 111/21/14REV. PER CITY COMMENTSIS212/23/14REV. PER CITY COMMENTSIS111111111111111111111111111111 |
| | RETAIL PLAZA TYPE: SIZE: MANUFACTURE: COLOR: FINISH: | , GARDENS PREST PRECAST PAVER 12"X24", 12"X18", 8"X8" HANOVER LIMESTONE GRAY TUDOR | THE FOLLOWING STATES REQUIRE NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE. IN VIRGINIA, MARYLAND, THE DISTRICT OF COLUMBIA, NORTH CAROLINA AND DELAWARE CALL - 811 (WV 1-800-245-4848) (PA 1-800-242-1776) (DC 1-800-257-7777) (VA 1-800-552-7001) (MD 1-800-257-7777) (DE 1-800-252-555) |
| | PIER TYPE: SIZE: MANUFACTURE: COLOR: FINISH: TYPE: SIZE: | PREST BRICK 4"X8" HANOVER LIMESTONE GRAY TUDOR PREMIUM #1 GRADE IPE WOOD DECK 5/8"X6" | NOT APPROVED FOR CONSTRUCTION PROJECT NO.: S132178 DRAWN BY: CHECKED BY: EG DATE: 09/19/14 SCALE: 1"=30'-0" CAD I.D.: PROJECT: DEVELOPMENT |
| | MANUFACTURE: FINISH: WOOD DECK | TBD OILED | SPECIAL USE PERMIT (DSUP) FOR RT SOUTH ASSOCIATES LLC LOCATION OF SITE |
| | WALLS, STEPS TREE PITS AN TYPE: SIZE: | | ROBINSON TERMINAL SOUTH CITY OF ALEXANDRIA, VA |
| | MANUFACTURE: COLOR: FINISH: | TBD CARNELIAN OR GRAY TBD | 22636 DAVIS DRIVE, SUITE 250 STERLING, VIRGINIA 20164 Phone: (703) 709-9500 Fax: (703) 709-9501 www.BohlerEngineering.com |
| | PROMENADE TYPE: | PERMEABLE PAVEMENT BY OLIN | RICK A PARISI Lic. No. 0406001873 |
| | PROPERTY LI | NE APPROVED SPECIAL USE PERMIT NO. #2014-0006 DEPARTMENT OF PLANNING & COMMUNITY DEVELOPMENT DIRECTOR: DATE: | SHEET TITLE: MATERIALS PLAN |
| | 60' | 120' DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES DIRECTOR: DATE: DATE RECORDED INSTRUMENT NO. DEED BOOK NO. PAGE NO. | SHEET NUMBER: L-03 OF 92 |



| REE COVERAGE I. | ADULATION | | | | | | | | |
|---|---|--|----------|----------------------|--------|-------------------------------|-----------------|----------------|-------------------|
| BOTANICAL NAME | COMMON NAME | SIZE | ROOT | SPACING | CROWN | * CCA | QTY ON GRADE | QTY ON SLAB | TOTAL COVERAGE |
| STREET TREES | | | | | | | OTV BE | | 001210.02 |
| ULMUS PARVIFOLIA | CHINESE ELM | $4''-4/_2''$ CAL. | B₿B | 30'-0" 0.C. | 25'-0" | 1,250 SF | 27 | | 33,750 SF |
| LARGE SHADE TREES | | _ | | | | | | | |
| PLATANUS ACERIFOLIA | LONDON PLANE | $4''-4\frac{1}{2}''$ CAL. | B₿B | 25'- <i>0" 0.</i> C. | 22'-0" | 1,250 SF | | ** 4 | 22,500 S |
| 1EDIUM SHADE TREES | | | 1 | 1 | | | | 1 | <u> </u> |
| LEDITSIA TRIACANTHOS | HONEY LOCUST | 4"-4 1/2" CAL. | B₿B | AS SHOWN | 20'-0" | 750 SF | 3 | ** 9 | 9,375 St |
| ETULA NIGRA "HERITAGE" | HERITAGE RIVER BIRCH | 16'-18' HT | B₿B | AS SHOWN | 15'-0" | 750 SF | 21 | **2 | 16,500 5 |
| EDIUM & SMALL ORNAMEN | TAL TREES | | 1 | | | | 1 | I | I |
| IAGNOLIA X OULANGIANA | SAUCER MAGNOLIA | 4"-4 1/2" CAL. | B¢B | SPECIMEN | 18'-0" | 500 SF | 4 | | 2,000 5 |
| AGERSTROEMIA INDICA JSCARORA | CREPE MYRTLE TUSCARORA | 16'-18' HT | B₿B | 2'-0" O.C. | 12'-0" | 250 SF | | ** 8 | 1,000 SI |
| DTAL CCA (EXCLUDING ST | TREET TREES) MIN. SHALL | 3E 25% = 33,54C | 0.5 SF | | | | 39 | 43 | 51,375 5 |
| DTAL CCA (INCLUDING ST | REET TREES) | | | | | | 66 | 43 | 85,125 51 |
| OTAL LAND AREA | | | | | | | | | 140,420 5 |
| ERCENTAGE OF AREA CO 11N. SHALL BE 25% = 35,10 | VERAGE OF TREES WITHOU 95 SF) | T STREET TREES | | | | | | | 37% |
| ERCENTAGE OF AREA CO ^N 11N. SHALL BE 25%) | VERAGE OF TREES WITH S | TREET TREES | | | | | | | 61% |
| LANDSCAPE CONTRACT | REES AND LANDSCAPE M, ORS ASSOCIATION, AMERI TIONAL STANDARDS INSTI- 7FT | CAN SOCIETY OF UTE. | | | | | | | TURE |
| REE PITS AND SOI | L VOLUME LEGEN |) | | | | | | | |
| 2'X7'X4' '- 0"X8'X4' 0'X8'X4' | | TREE PIT FOR T LENGTH AND WI SOIL DEPTH - SOIL VOLUME - | DTH - | VARIES MIN. 4'-0" | TURE | | | | NORTH |
| | | FOR LID TREE | PITS VOI | UME SEE SHEET | 1-06 | APPROV | ED | | |
| II'X7'X4' (STREET TREES |) SEE DETAILS 5\$6/L-IO | | | , 'e vee viiee | | SPECIAL USE | | #2014-0006 | |
| I5'X5'X4' (CARR HOTEL ' EGEND | STREET TREES) | | | | | DEPARTMENT O COMMUNITY DE | | \$c | |
| | PROPERTY LINE | | | | | DIREC | TOR: | | DATE: |
| | LIMIT OF GARAGE WALL | | | | | DEPARTMENT 0 ENVIRONMENTAI | | ATION & | |
| | PROJECT LIMIT LINE | | | | | DIREC | TOR: | | DATE: |
| | | | | | | | | | |



PLATANUS ACERFOLIA LONDON PLANE



BETULA NIGRA **RIVER BIRCH**



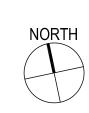
GLEDITSIA TRIACANTHOS

HONEY LOCUST



LAGERSTROEMIA INDICA TUSCARORA CREPE MYRTLE TUSCARORA

| TREE PIT FOR TREES | PLANTED ON STRUCTURE |
|--------------------|----------------------|
| LENGTH AND WIDTH - | VARIES |
| SOIL DEPTH - | MIN. 4'-0" |
| SOIL VOLUME - | MIN. 300 CF |
| | |
| | |

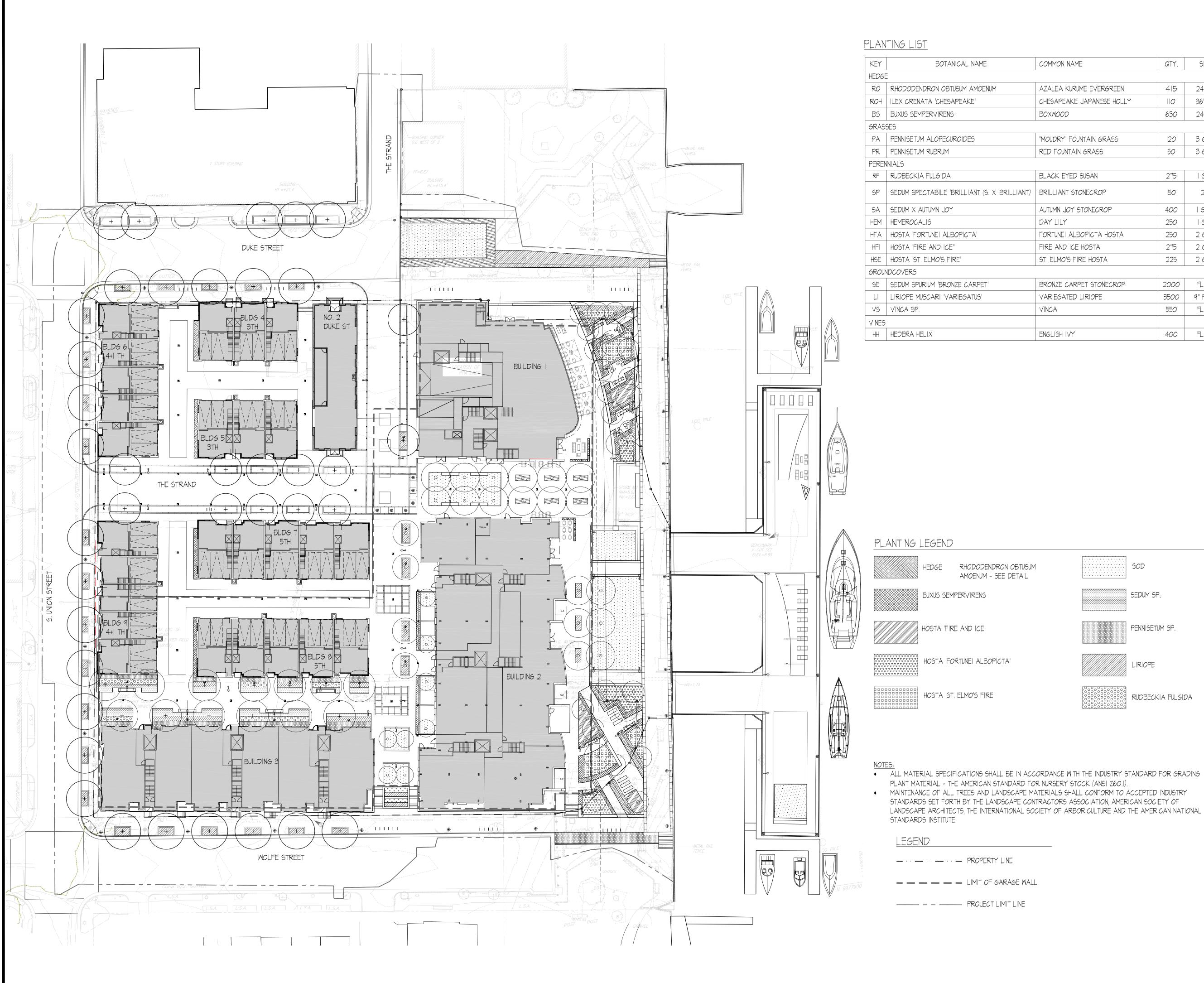


PAGE NO.

DIRECTOR:

DATE RECORDED_ INSTRUMENT NO. DEED BOOK NO.

| | E 250 ERING.COM | itects | | LOUD N | | | | | | |
|---|---|---|--|---|--|--|--|--|--|--|
| | 22636 DAVIS DRIVE; STE 250 STERLING, VA 20164 703-709-9500 WWW. BOHLERENGINEERING.COM | architect | | | | | | | | |
| | | ciates | | | | | | | | |
| | | s associ | .LC | | | | | | | |
| | BOHLER Engineering | aranes | | Lou Broadway, 20th FI. New York, NY 10271 tele. 212.477.6366 fax. 212.477.6548 | | | | | | |
| | CIVIL ENGINEER | alom b | MPFP MPFP | a tel N= z | | | | | | |
| | RE RE | | | | | | | | | |
| | REV DATE 1 11/21/14 | COMM REV. PEI COMMI | R CITY ENTS | BY IS | | | | | | |
| | 2 12/23/14 | REV. PEI COMMI | | IS | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | THE FOLLOWING ST. EXCAVATORS, DESIGNE DISTURB THE EARTH'S . IN VIRGINIA, MARYL/ NORTH CAROLIN (WV 1-800-245-4848) (PA (VA 1-800-552-7001) (MD | RS, OR ANY F SURFACE AN AND, THE DIST A AND DELA A 1-800-242-17 | PERSON PREPA YWHERE IN THI FRICT OF COLU WARE CALL - 8 776) (DC 1-800- | ARING TO E STATE. MBIA, 1 257-7777) | | | | | | |
| _ | NOT AP CONS | PROV STRUC | | ٢ | | | | | | |
| | PROJECT No.: DRAWN BY: CHECKED BY: DATE: SCALE: CAD I.D.: | | 09/ | 32178 EG (19/14 :30'-0" | | | | | | |
| | PROJECT: DEVE SPEC | CIAL | USE | | | | | | | |
| | PERM RT | SOU | | <u>)</u> | | | | | | |
| _ | | LLC | | > | | | | | | |
| | ROBINSON CITY OF A | | NAL SO | | | | | | | |
| | | <u></u> วบ | LE | [] | | | | | | |
| | 22636 DAVI STERLING | G I N I S DRIVE G, VIRGI (703) 70 | E E R I , SUITE 2 NIA 20164 | N G 50 | | | | | | |
| | www.Bohle | rEngin | eering.c | om | | | | | | |
| | RICK A PARISI Lic. No. 0406001873 | | | | | | | | | |
| | | | Lic. No. 0406001873 | | | | | | | |
| | A A A A A A A A A A A A A A A A A A A | | | | | | | | | |
| | SHEET TITLE: TREES COV | 12/23/14 | ROW | | | | | | | |
| | SHEET TITLE: TREES COV | 12/23/14 | ROW | | | | | | | |



| 1MON NAME | QTY. | SIZE | ROOT | SPACING | COMMENTS |
|------------------------|------|---------|-------|------------------|------------------|
| | | | | | |
| ALEA KURUME EVERGREEN | 415 | 24" HT | CONT. | 18" O.C. | CLIPPED 18" HIGH |
| SAPEAKE JAPANESE HOLLY | 110 | 36" HT. | CONT. | 18" O.C. | CLIPPED 36" HIGH |
| KWOOD | 630 | 24" HT | CONT | 18" O.C. | CLIPPED 18" HIGH |
| | | | | | |
| UDRY' FOUNTAIN GRASS | 120 | 3 GAL. | CONT. | 36" O.C. | |
| FOUNTAIN GRASS | 50 | 3 GAL. | CONT. | 36" O.C. | |
| | | | | | |
| ICK EYED SUSAN | 275 | I GAL | CONT. | 18" O.C. | |
| LIANT STONECROP | 150 | 24" | CONT. | 18" O.C | |
| UMN JOY STONECROP | 400 | I GAL. | CONT. | 12" <i>O</i> .C. | |
| ' LILY | 250 | I GAL | CONT. | | |
| RTUNEI ALBOPICTA HOSTA | 250 | 2 GAL. | CONT. | 24" O.C. | |
| E AND ICE HOSTA | 275 | 2 GAL. | CONT. | 18" O.C. | |
| ELMO'S FIRE HOSTA | 225 | 2 GAL. | CONT. | 24" O.C. | |
| | · | | | | |
| NZE CARPET STONECROP | 2000 | FLATS | CONT. | 6" O.C. | |
| RIEGATED LIRIOPE | 3500 | 9" POTS | CONT. | 8" O.C. | |
| CA | 550 | FLATS | CONT. | 8" O.C. | |
| | | | | | |
| LISH IVY | 400 | FLATS | CONT. | 6" | |



-05 OF 92

| ····· | 50D |
|-------|-------------------|
| | SEDUM SP. |
| | PENNISETUM SP. |
| | LIRIOPE |
| | RUDBECKIA FULGIDA |

| APPROVED SPECIAL USE PERMIT NO#2014-0006 DEPARTMENT OF PLANNING & COMMUNITY DEVELOPMENT DIRECTOR: DATE: DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES DIRECTOR: DATE: DATE RECORDED INSTRUMENT NO. DEED BOOK NO. | | |
|--|---|------|
| DEPARTMENT OF PLANNING & COMMUNITY DEVELOPMENT DIRECTOR: DATE: DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES DIRECTOR: DATE: DATE RECORDED | APPROVED | |
| DEPARTMENT OF PLANNING & COMMUNITY DEVELOPMENT DIRECTOR: DATE: DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES DIRECTOR: DATE: DATE RECORDED | SPECIAL USE PERMIT NO. <u>#2014-0006</u> | |
| DIRECTOR: DATE: DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES DIRECTOR: DATE: DATE RECORDED | | |
| DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES DIRECTOR: DATE: DATE RECORDED | | |
| ENVIRONMENTAL SERVICES SHEE DIRECTOR: DATE: DATE RECORDED | DIRECTOR: DATE: | |
| DATE RECORDED | | SHEE |
| | DIRECTOR: DATE: | |
| DEED BOOK NO. PAGE NO. | DATE RECORDED | |
| | INSTRUMENT NO. DEED BOOK NO. PAGE NO. | |

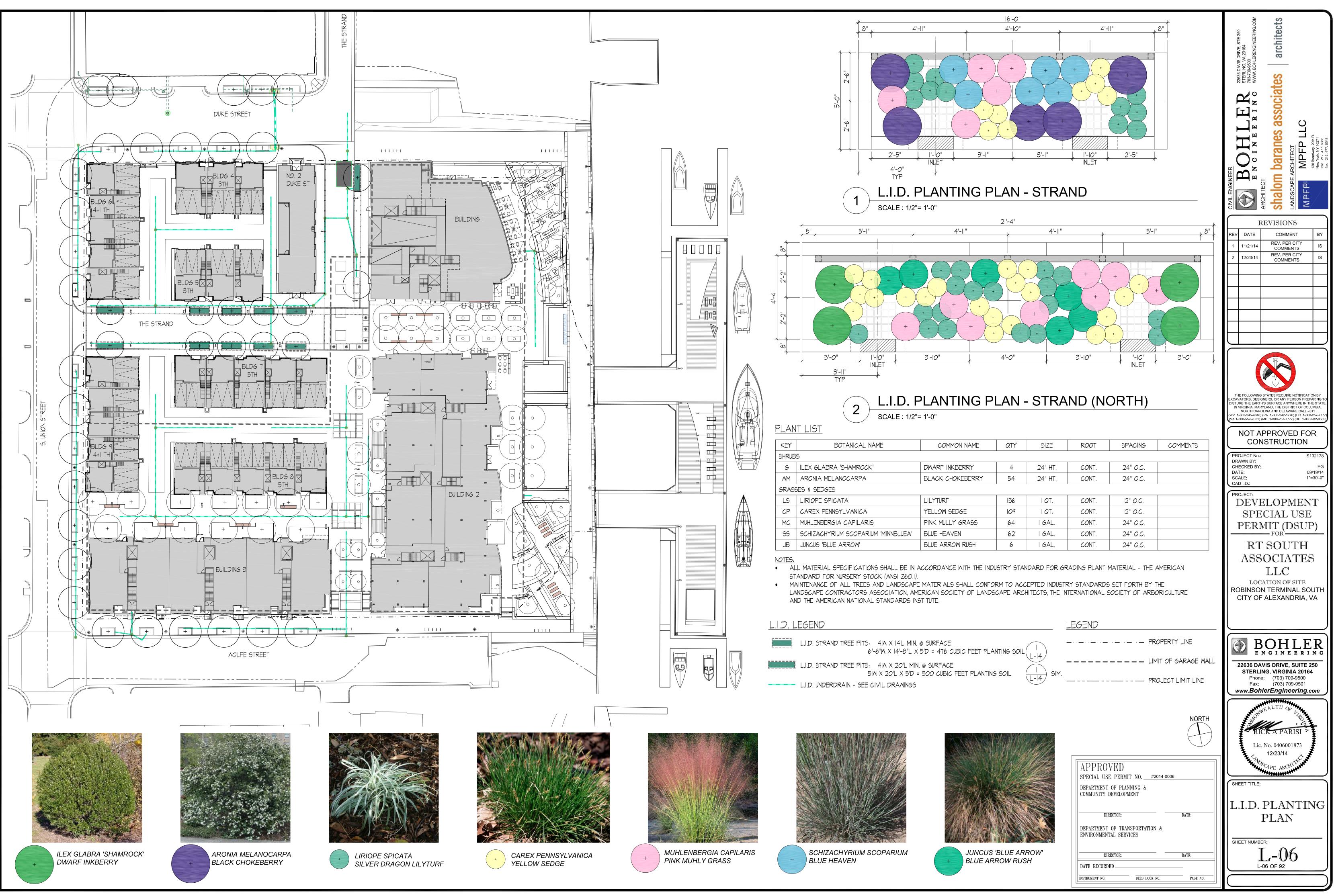
HEDERA HELIX

VINCA SP. -

SEE DETAIL

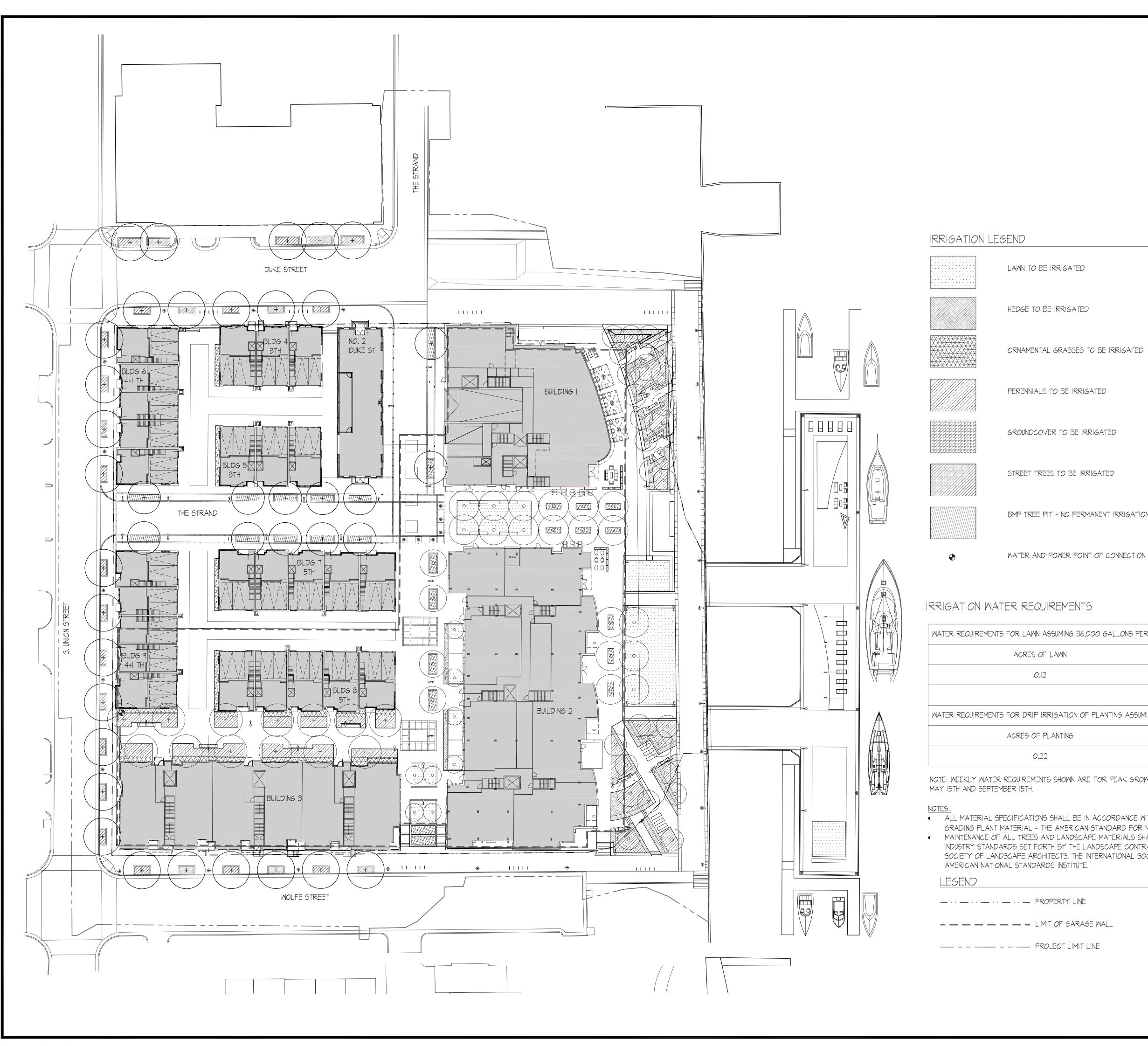
ILEX CRENATA

HEMEROCALIS



| COMMON NAME | QTY | SIZE | ROOT | SPACING | COMMENTS |
|------------------|-----|---------|-------|------------------|----------|
| | | | | | |
| DWARF INKBERRY | 4 | 24" HT. | CONT. | 24" <i>O</i> .C. | |
| BLACK CHOKEBERRY | 54 | 24" HT. | CONT. | 24" <i>O</i> .C. | |
| | | | | | |
| LILYTURF | 136 | QT. | CONT. | 12" O.C. | |
| YELLOW SEDGE | 109 | QT. | CONT. | 12" O.C. | |
| PINK MULLY GRASS | 64 | I GAL. | CONT. | 24" <i>O</i> .C. | |
| BLUE HEAVEN | 62 | I GAL. | CONT. | 24" <i>O</i> .C. | |
| BLUE ARROW RUSH | 6 | I GAL. | CONT. | 24" <i>O</i> .C. | |

| | LEGEND | |
|---|---|--|
| SURFACE P = 476 CUBIC FEET PLANTING SOIL | PROPERTY LINE | BOHI ENGINEE |
| SURFACE | LIMIT OF GARAGE WALL | 22636 DAVIS DRIVE, SU |
| DO CUBIC FEET PLANTING SOIL | PROJECT LIMIT LINE | STERLING, VIRGINIA Phone: (703) 709-9 Fax: (703) 709-9 www.BohlerEngineer |
| | | RICK A PARIS Lic. No. 040600187 12/23/14 |
| | APPROVED special use permit no. <u>#2014-0006</u> department of planning & community development | SHEET TITLE: |
| | DIRECTOR: DATE: DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES | L.I.D. PLANT PLAN |
| JUNCUS 'BLUE ARROW' + BLUE ARROW RUSH | DIRECTOR: DATE: | SHEET NUMBER: |
| | INSTRUMENT NO. DEED BOOK NO. PAGE NO. | |
| | | |



BMP TREE PIT - NO PERMANENT IRRIGATION INSTALLED

| 36,000 GALLONS PER | NEEK PER ACRE |
|-----------------------|------------------------------------|
| | GALLONS OF WATER |
| | 4,320 |
| | |
| N OF PLANTING ASSUMIN | G 20,000 GALLONS PER WEEK PER ACRE |
| | GALLONS OF WATER |
| | 4,400 |
| | |

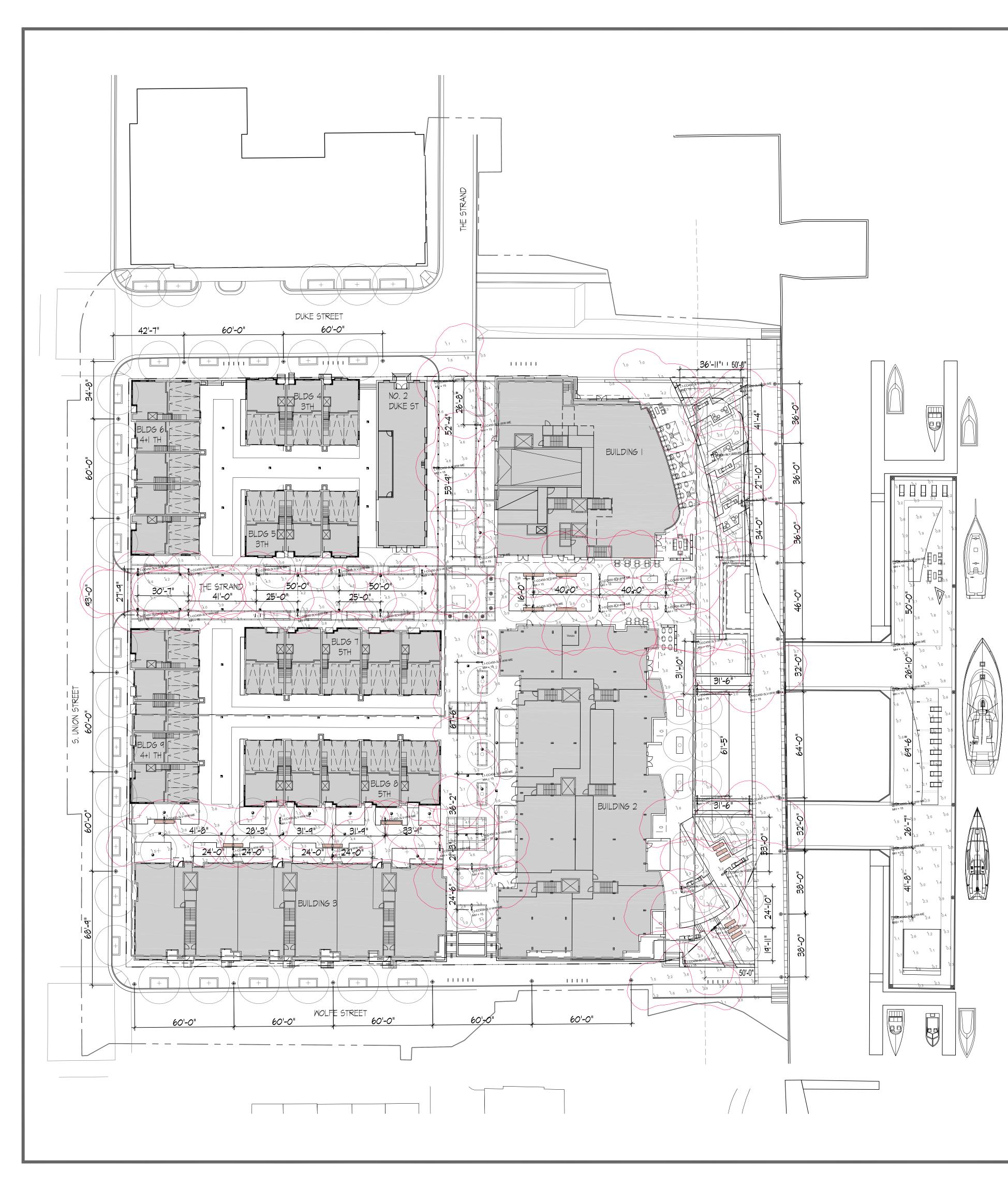
NOTE: WEEKLY WATER REQUIREMENTS SHOWN ARE FOR PEAK GROWING SEASONS USUALLY BETWEEN

• ALL MATERIAL SPECIFICATIONS SHALL BE IN ACCORDANCE WITH THE INDUSTRY STANDARD FOR GRADING PLANT MATERIAL - THE AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60.1). MAINTENANCE 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 ARBORICULTURE AND THE

| | APPROVED SPECIAL USE PERMIT NO. #2014-0000 | 6 | |
|---------|---|----------|-----------------|
| GE WALL | DEPARTMENT OF PLANNING & COMMUNITY DEVELOPMENT | | PERFORN |
| LINE | DIRECTOR: DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES | DATE: | IRRIGAT PLAT |
| | DIRECTOR: | DATE: | |
| | DATE RECORDED | PAGE NO. | L-07 OF 92 |

NORTH

| | P | | | | DR CH DA SC | EXCAN DISTU IN (WV 1 | REV 1 2 | CIVIL ENGINEER | | |
|---|--------------------------------------|---------------|--|---|--|--|-----------------------------------|-----------------------|----------------|--|
| | EET TITLE: ERF IRR EET NUMB | | E 22636 DA STERL Phon Fax: Www.Boh | PERI RT ASS | OJECT No.: AWN BY: ECKED BY | HE FOLLOWING VATORS, DESI VIRGINIA, MAF NORTH CAR -800-245-4848 800-552-7001 NOT A | I DATE 11/21/14 12/23/14 | BOHLER ENGINEERING | | 22030 DAVIS DRIVE; STE 230 STERLING, VA 20164 703-709-9500 WWW. BOHLERENGINEERING.COM |
| | FOI LIG PL | . No. (| | CCL MI F SOC SOC L CATIC | | GNERS, (H'S SURF RYLAND, OLINA AN) (PA 1-8 (MD 1-8) | R | <u>ARCHITECT</u> | | |
| | RM AT AT | 04060 | I N DRIVE /IRGII 703) 7 703) 7 ngin | AL C (I OR - OU CIA LC DN OI RMI | RUC | OR ANY I FACE AN THE DIS ND DELA 00-242-1 00-257-7 | COMN EV. PE COMM | snaiom daranes | les associates | architects |
| | IAN FIO | RISI 01873 | NIA 201 09-9500 09-9501 eering | USI DSU UTH ATE F SITE | | PERSON PR YWHERE IN TRICT OF C4 WARE CALL 776) (DC 1-8 777) (DE 1-8 | IENT R CITY ENTS R CITY | MDEP LLC | | |
|) | | And Announce | I N G 250 64 | Е Т <u>Р)</u> [СS | S132178 EG 09/19/14 1"=30'-0" | EPARING TO THE STATE. OLUMBIA, - 811 300-257-7777) 500-282-8555) | BY IS IS | N / / | | |



LI - PEDESTRIAN POLE LIGHT

CANTO 450 LED Specification

CANTO's smooth lines blend harmoniously with a variety of architecture. The dome shaped housing of heavy cast aluminum is available in two sizes to satisfy a variety of building scale requirements. Frameless tempered glass lens has single quarter-turn fastener for tool-less relamping. Hinged reflector assembly allows access to the ballast tray. Mounting bracket and straight round steel pole with flush handhole are hot-dip galvanized prior to being finished in high quality, finely textured paint. Base cover is spun aluminum. All hardware is stainless steel. Standard colors; matte silver grey metallic or graphite grey. Special colors available.

| Model LED Module | Color Temperature | Distribution | Volt | Mounting |
|------------------|----------------------|---------------|----------|------------|
| 2LV - 2 LEVO | | | UNV - | A - Single |
| CC450 Modules | WW -3000K | ME - Type III | 120-277V | Mount |

L2 - PEDESTRIAN POLE LIGHT - PIER

CANTO G 450 LED Specification

The smoothly engineered shape of the CANTO combined with its gracefully arching pole creates a unique appearance. The gentle curvature allows the pole to spatially define paths or roadways. Two luminaire sizes and three pole heights are available to meet proportional requirements of large or small scale applications. The heavy cast aluminum housing is fitted with a flat tempered glass lens with a quarter-turn fastener for easy relamping. Hinged reflector assembly allows access to the ballast tray. Mounting bracket and steel pole with flush handhole are hot-dip galvanized prior to being finished in high quality, finely textured paint. Base cover is spun aluminum. All hardware is stainless steel. Standard colors; matte silver grey metallic or graphite grey. Special colors available.

| Model | LED Module | Color Temperature | Distribution | Volt | Mounting |
|-------|--------------|----------------------|---------------|----------|------------|
| | 21V - 2 LEV0 | | | UNV - | A - Single |
| | Modules | WW -3000K | ME - Type III | 120-277V | • |

Luminaire Schedule Label ymbol L1-CC450-3LV-WW-ME **——————** 44 L2-CC450G-3LV-WW-ME —**—** 6

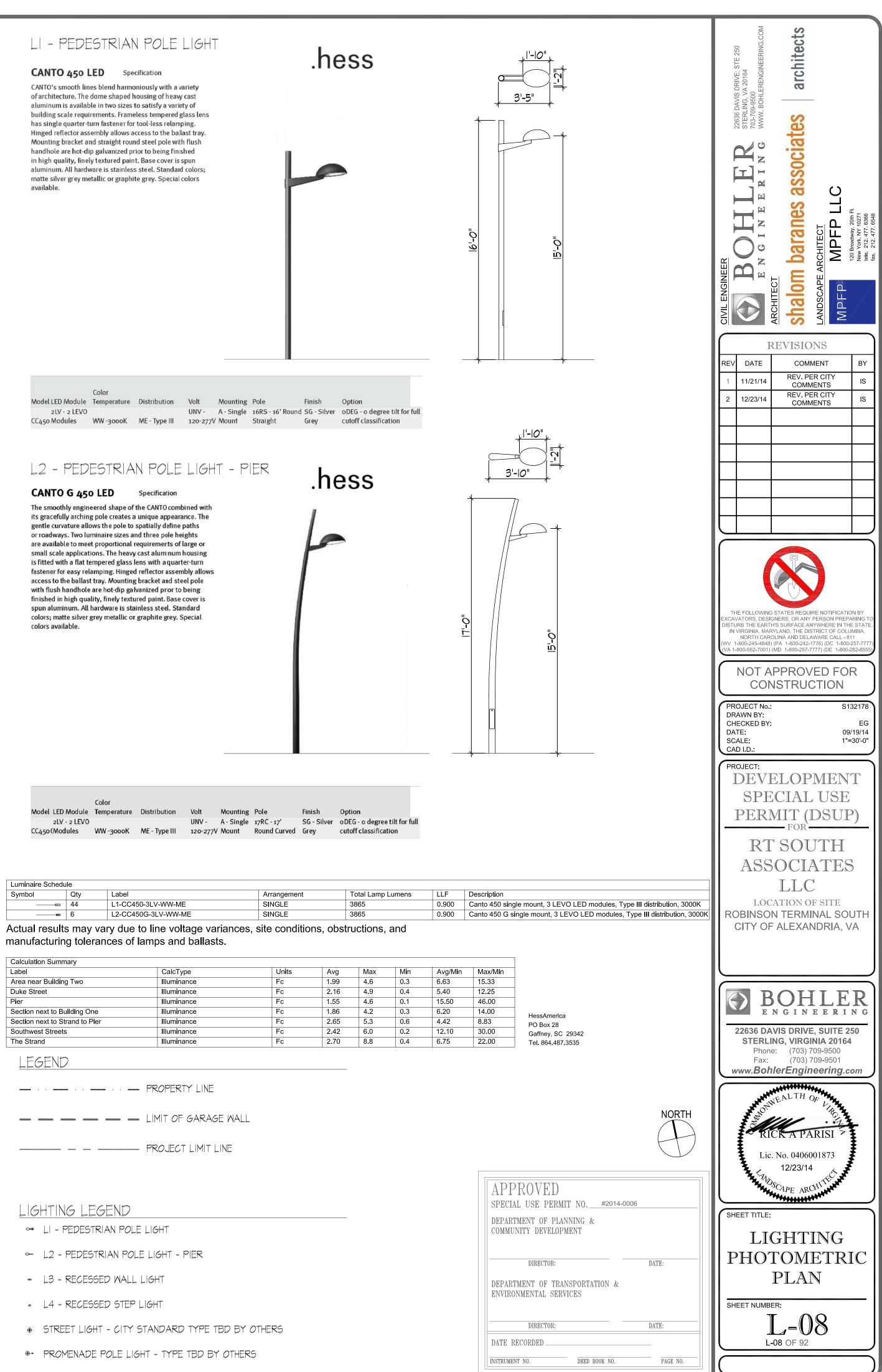
manufacturing tolerances of lamps and ballasts.

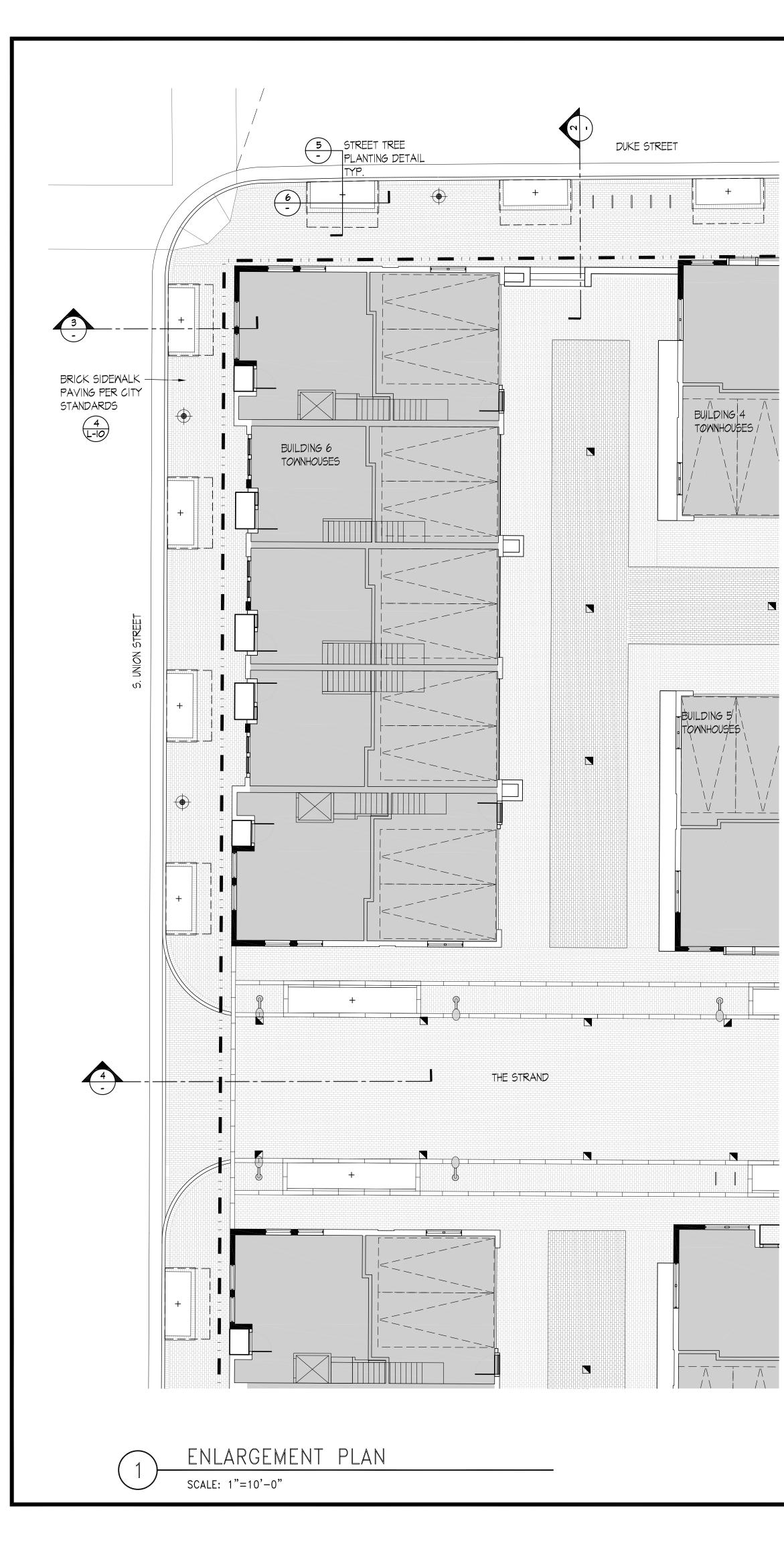
| Calculation Summary | |
|--|--------------------|
| Label | CalcType |
| Area near Building Two | Illuminance |
| Duke Street | Illuminance |
| Pier | Illuminance |
| Section next to Building One | Illuminance |
| Section next to Strand to Pier Illuminance | |
| Southwest Streets | Illuminance |
| The Strand | Illuminance |
| LEGEND | |
| PR | OPERTY LINE |
| | MIT OF GARAGE WALL |

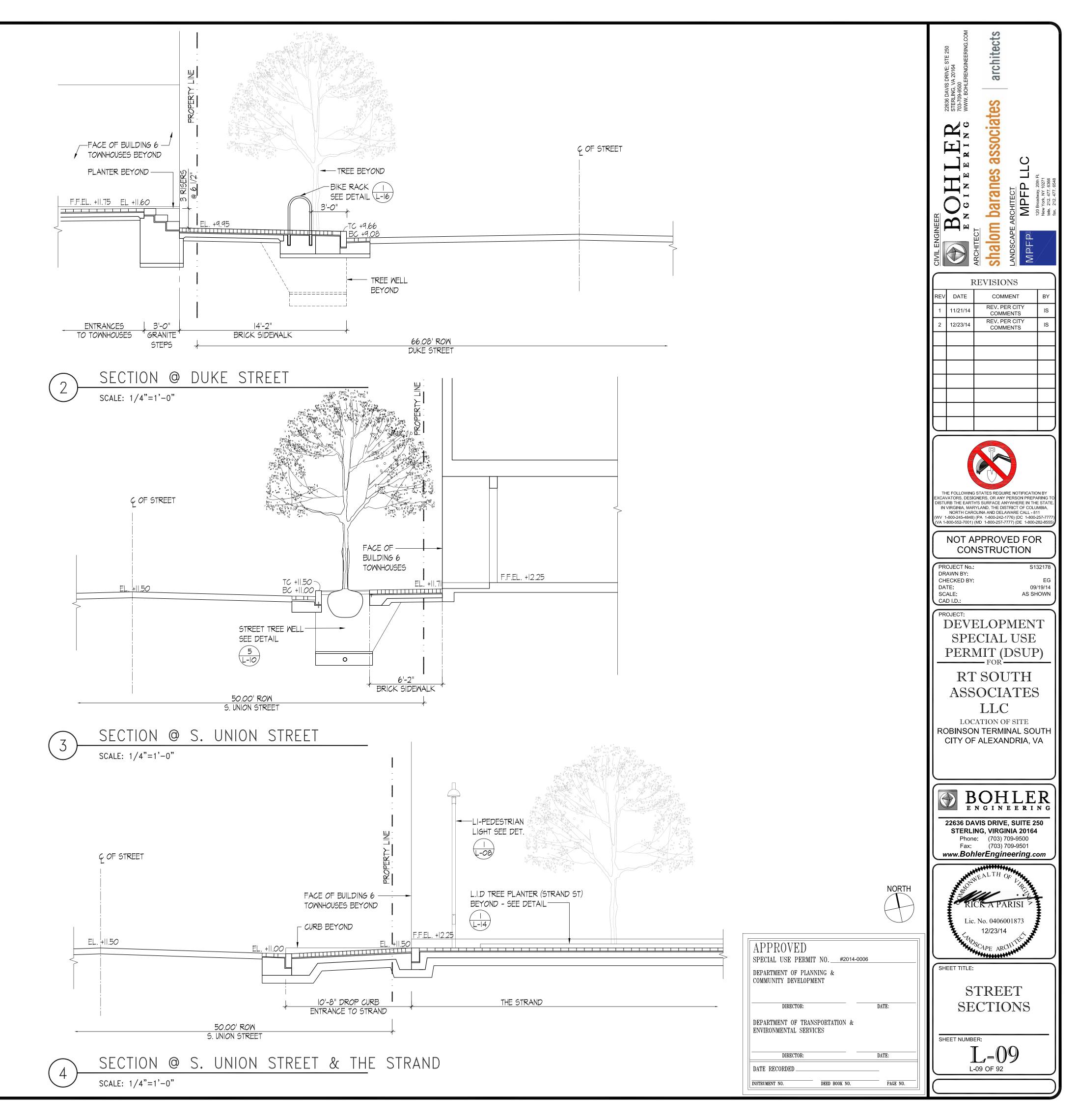
----- PROJECT LIMIT LINE

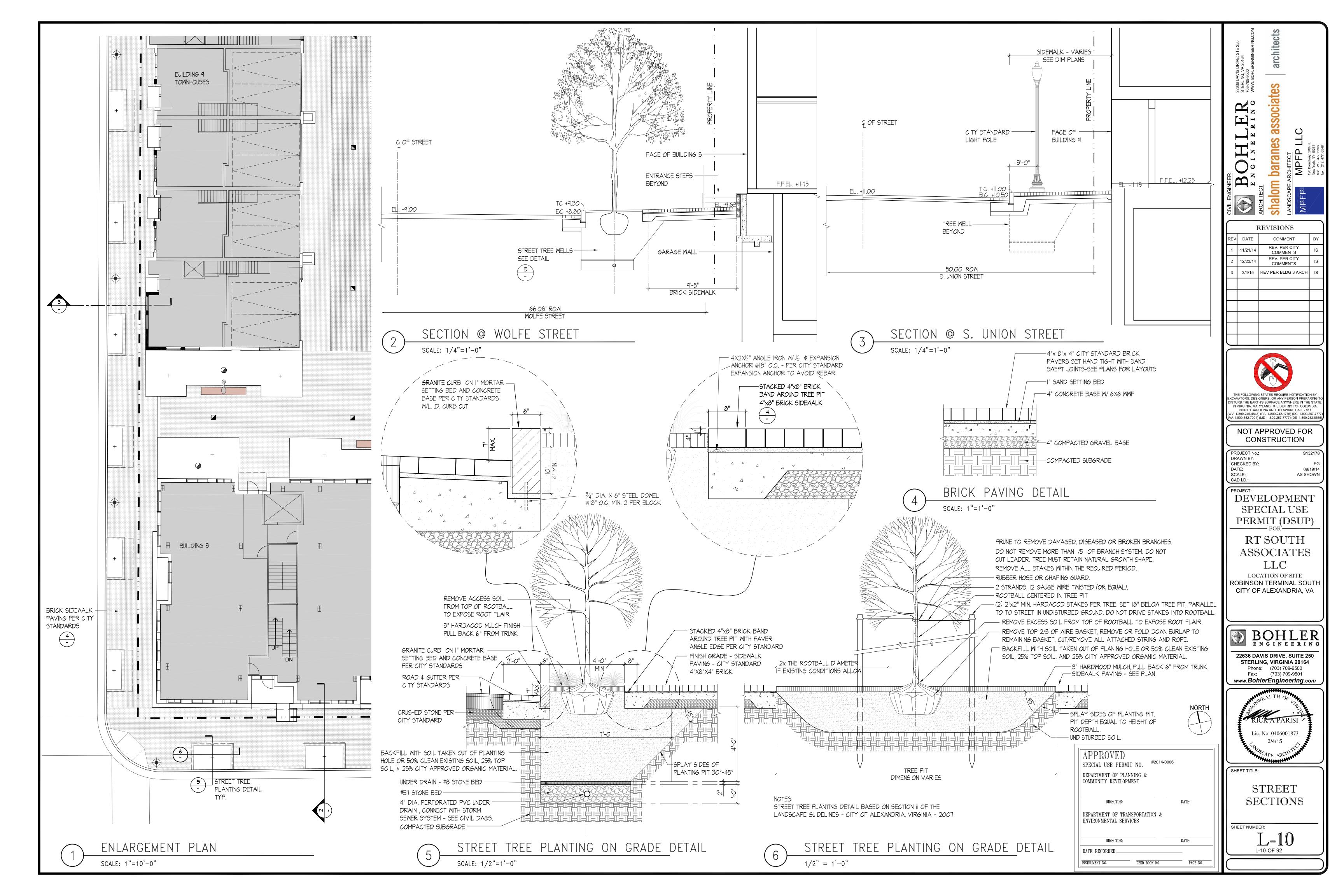
LIGHTING LEGEND

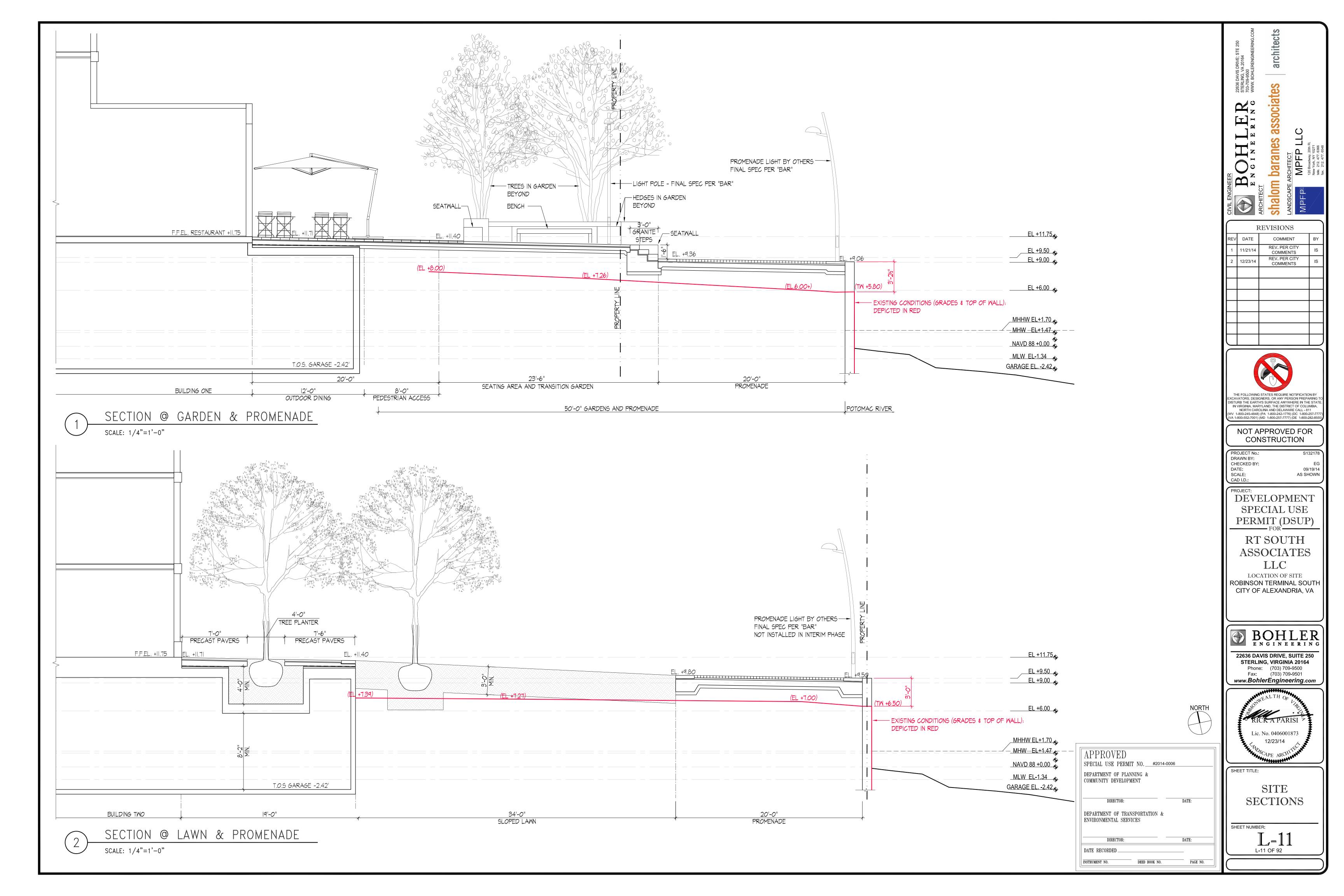
- ∞ LI PEDESTRIAN POLE LIGHT
- ∽ L2 PEDESTRIAN POLE LIGHT PIER
- L3 RECESSED WALL LIGHT
- L4 RECESSED STEP LIGHT
- ✤ STREET LIGHT CITY STANDARD TYPE TBD BY OTHERS
- PROMENADE POLE LIGHT TYPE TBD BY OTHERS

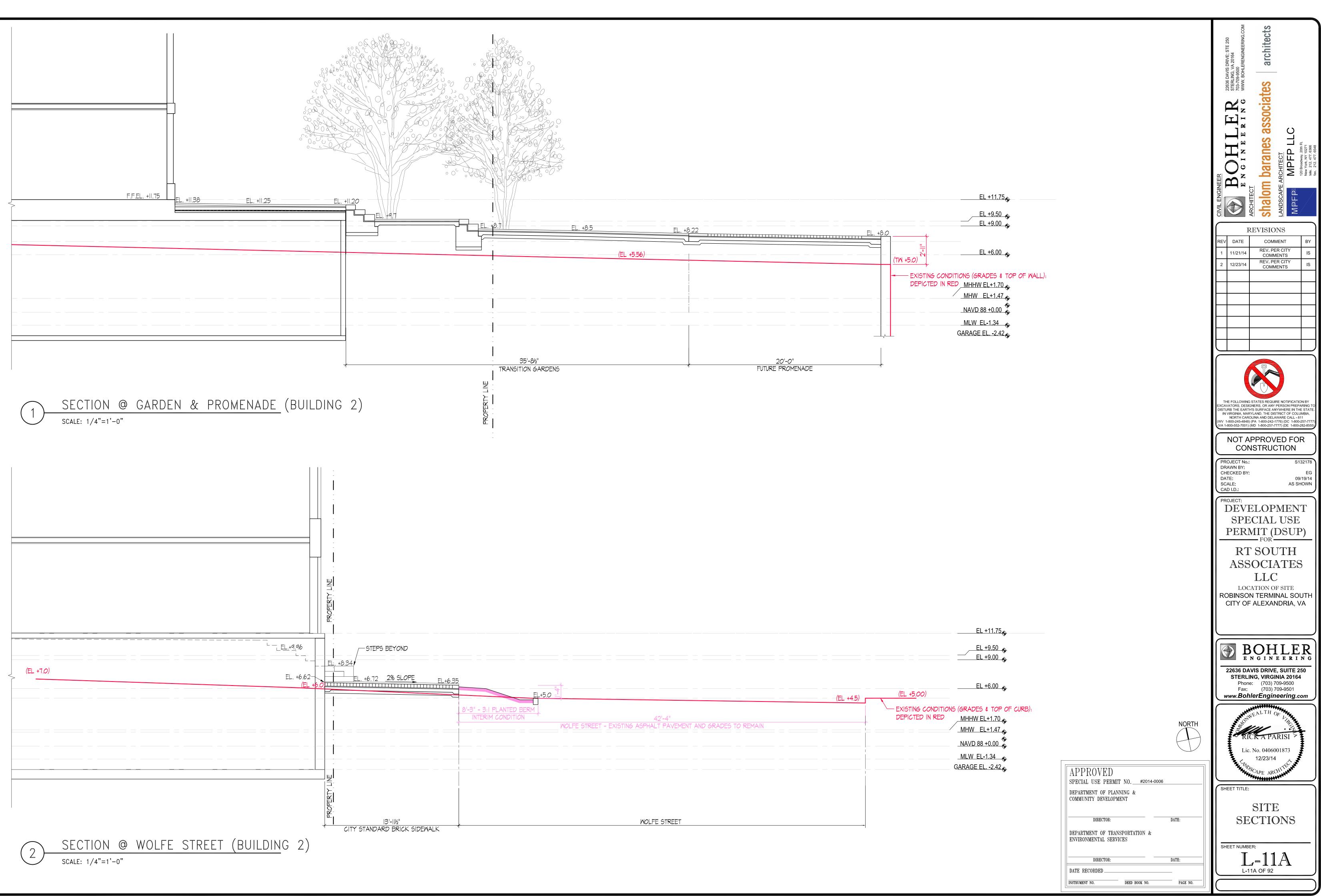




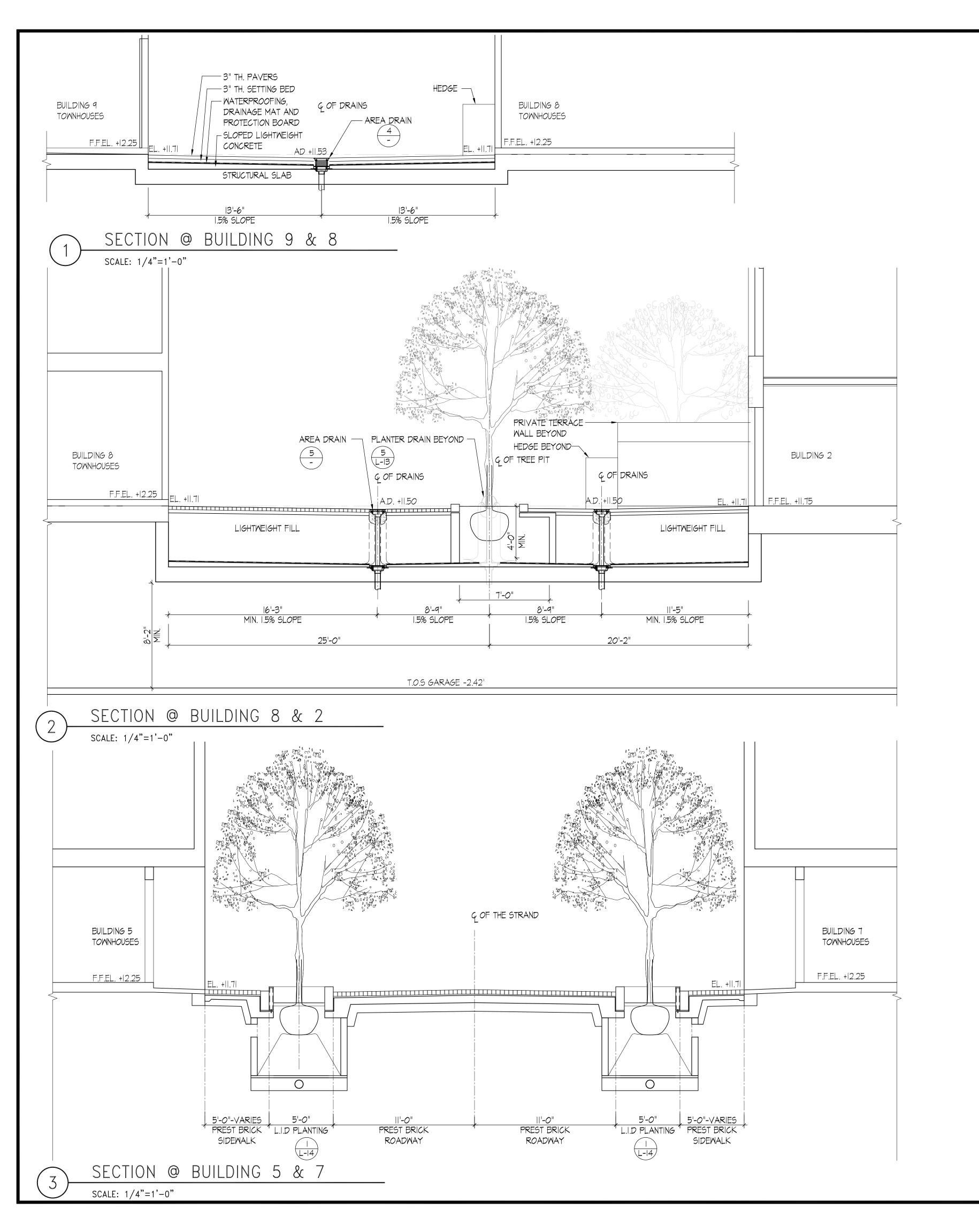


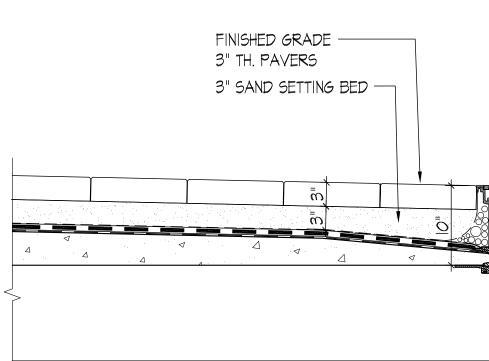




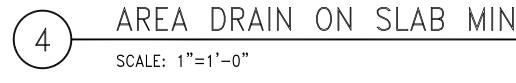


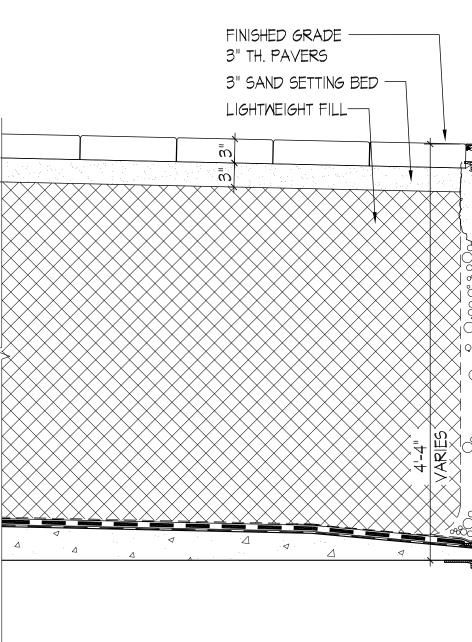
| EL+5.0 - | | (EL +4.5) |
|--------------------------|--|-----------|
| 3'-3" - 3:1 PLANTED BERM | | |
| INTERIM CONDITION | 42'-4" | |
| Wa | DLFE STREET - EXISTING ASPHALT PAVEMENT AND GRADES TO REMAIN | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | WOLFE STREET | |





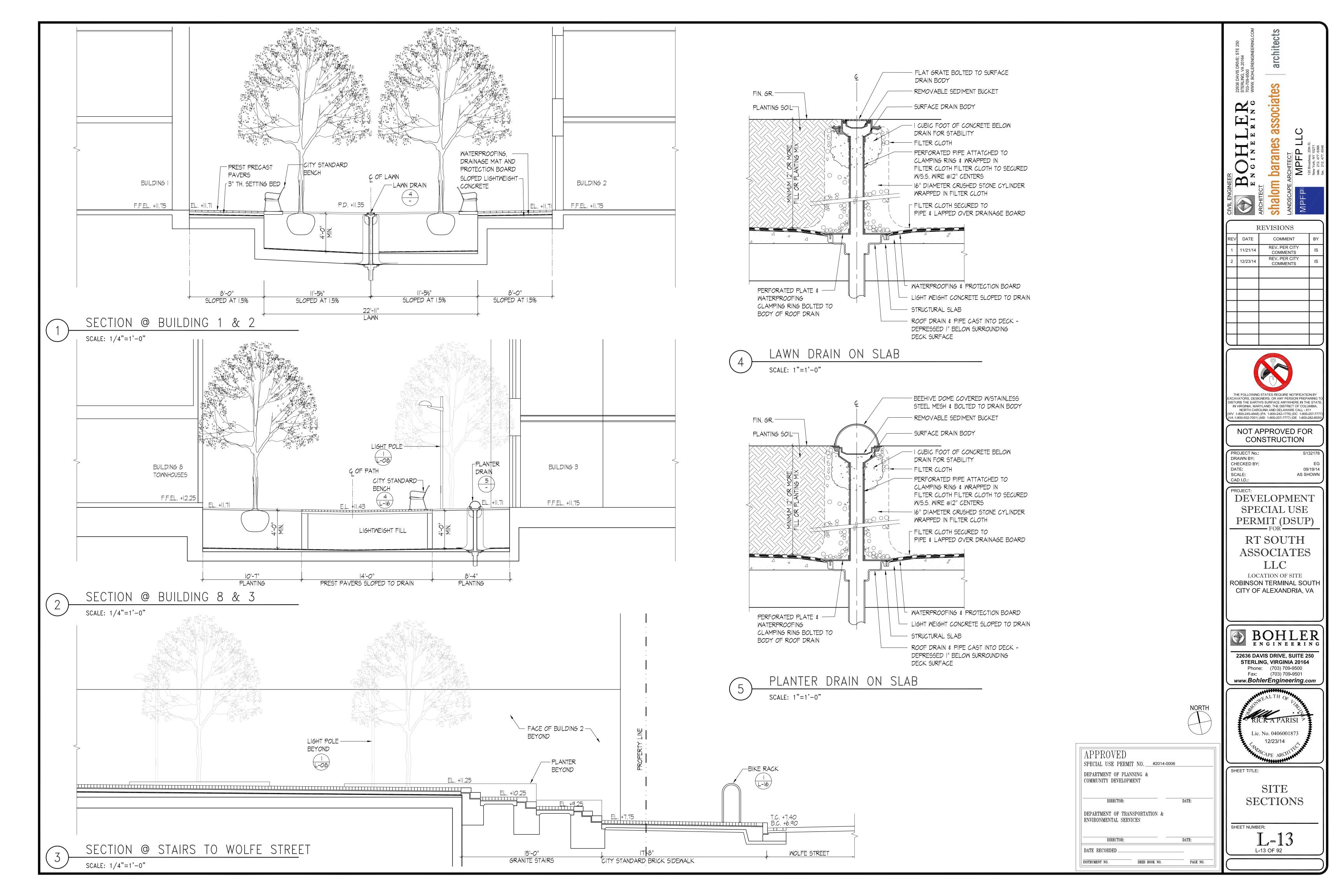
ELEVATIONS LESS TH

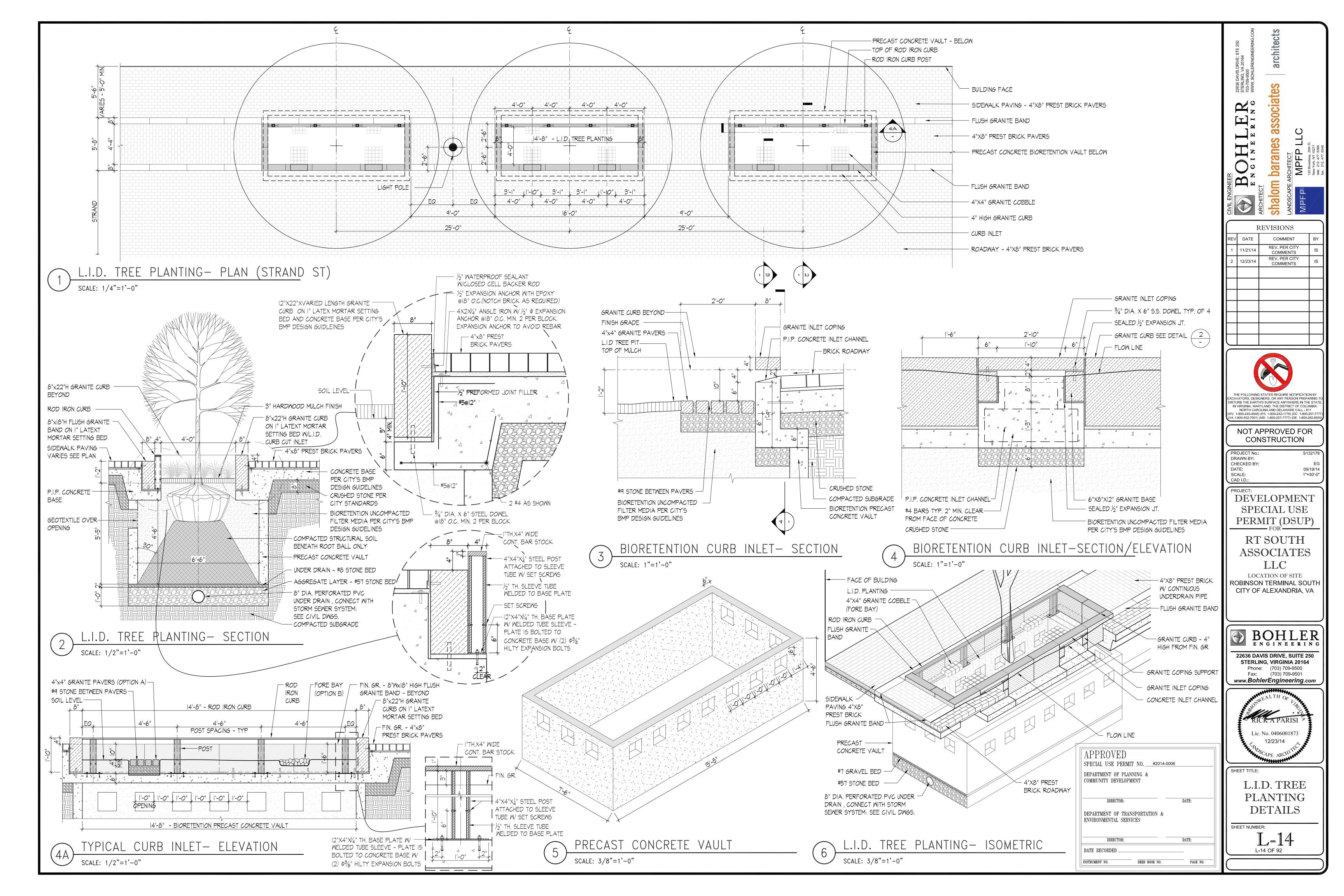


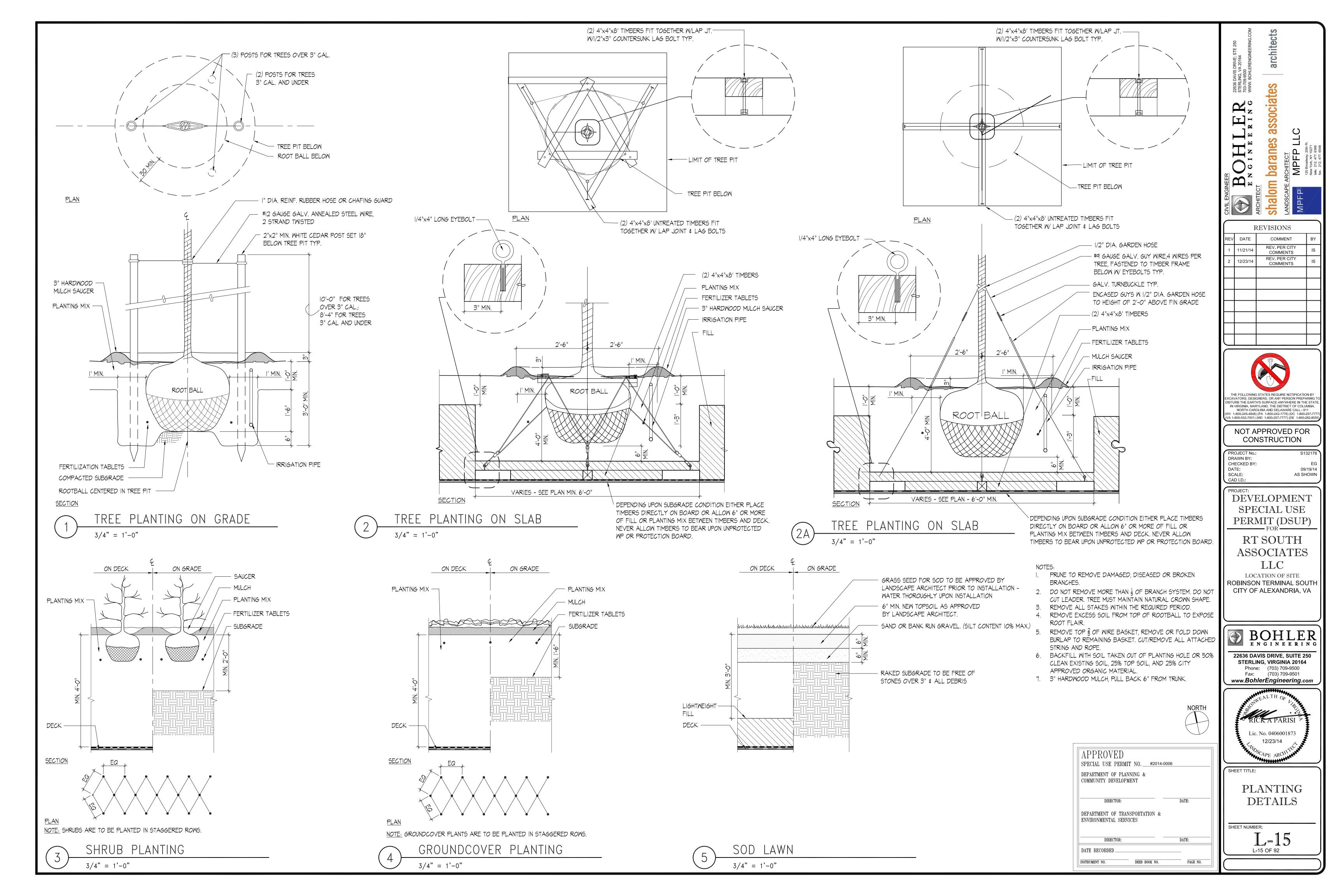




| HEEL PROOF FLAT GRATE FASTENED TO SURFACE DRAIN BODY W/ VANDAL- PROOF SCREW REMOVABLE SEDIMENT BUCKET PERFORATED EXTENSION COLLA CRUSHED STONE FILTER CLOTH LAPPED OVE DRAINAGE BOARD DRAINAGE BOARD | R | CIVIL ENGINEER EVIL ENGINEER Image: Station of the stating of |
|--|---|--|
| PROTECTION BOARD LIGHT WEIGHT CONCRETE SLOPED TO DRAIN STRUCTURAL SLAB ROOF DRAIN & PIPE CAST INTO DECK - DEPRESSED I" BELOW | | REVISIONS REV DATE COMMENT BY 1 11/21/14 REV. PER CITY COMMENTS IS 2 12/23/14 REV. PER CITY COMMENTS IS |
| SURROUNDING DECK SURFACE THAN 12" ABOVE STRUCTURAL SLAB | | |
| HEEL PROOF FLAT GRATE FAS SURFACE DRAIN BODY W/ VAN PROOF SCREWS REMOVABLE SEDIMENT BUCKET SURFACE DRAIN BODY | DAL- | THE FOLLOWING STATES REQUIRE NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE. IN VIRGINIA, MARYLAND, THE DISTRICT OF COLUMBIA, NORTH CAROLINA AND DELAWARE CALL - 811 (WV 1-800-245-4848) (PA 1-800-242-1776) (DC 1-800-282-8555) NORT APPPROVED FOR CONSTRUCTION |
| | TO CLAMPING RING FILTER CLOTH TO | PROJECT No.: S132178 DRAWN BY: CHECKED BY: EG DATE: 09/19/14 SCALE: AS SHOWN CAD I.D.: PROJECT: DEVELOPMENT SPECIAL USE |
| 6 8 6 7 6 7 6 7 6 7 6 7 6 7 6 7 6 7 6 7 | RD | PERMIT (DSUP) FOR RT SOUTH ASSOCIATES LLC LOCATION OF SITE ROBINSON TERMINAL SOUTH CITY OF ALEXANDRIA, VA |
| LIGHT WEIGHT CONCRETE SLOPED TO DRAIN STRUCTURAL SLAB ROOF DRAIN & PIPE CAST I DECK - DEPRESSED I" BELC | | BOHLER E N G I N E E R I N G 22636 DAVIS DRIVE, SUITE 250 STERLING, VIRGINIA 20164 Phone: (703) 709-9500 Fax: (703) 709-9501 www.BohlerEngineering.com |
| SURROUNDING DECK SURFAC | | RICK A PARISI Lic. No. 0406001873 12/23/14 SHEET TITLE: |
| | SPECIAL USE PERMIT NO#2014-0006 DEPARTMENT OF PLANNING & COMMUNITY DEVELOPMENT DIRECTOR: DATE: DEPARTMENT OF TRANSPORTATION & | SHEET TITLE: SITE SECTIONS |
| | ENVIRONMENTAL SERVICES DIRECTOR: DATE: DATE RECORDED | SHEET NUMBER: L-12 OF 92 |



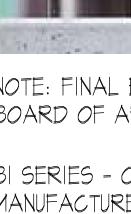


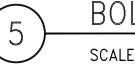
















WATER FEATURE - AERIAL VIEW



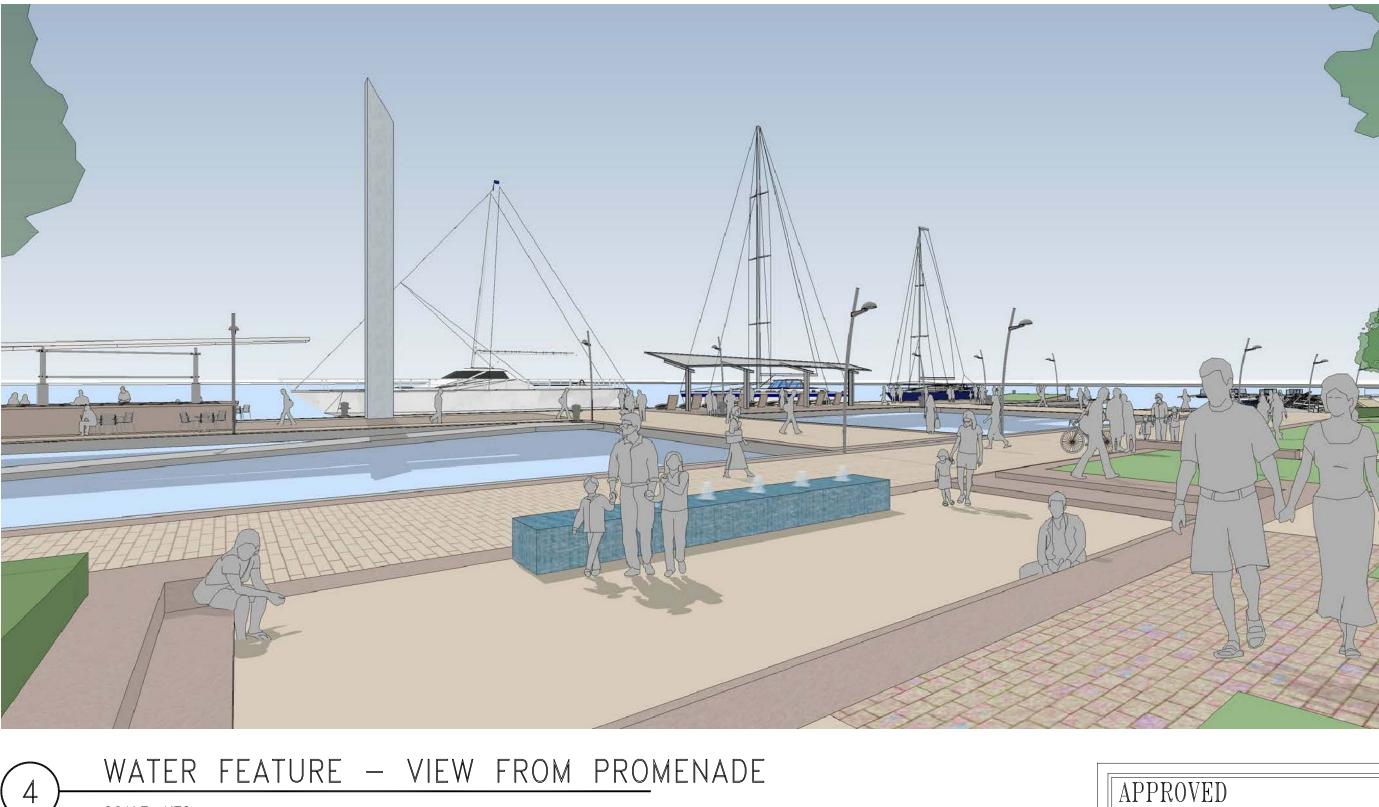






SCALE: NTS

SCALE: NTS



| \square | |
|-----------|---|
| U | E |
| _ | |

| APPROVED | |
|--|--|
| SPECIAL USE PERMIT NO. #2014-0006 | |
| DEPARTMENT OF PLANNING & COMMUNITY DEVELOPMENT | |
| DIRECTOR: DATE: | |
| DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES | |
| DIRECTOR: DATE: | |
| | |
| DATE RECORDED | |
| INSTRUMENT NO. DEED BOOK NO. PAGE NO. | |

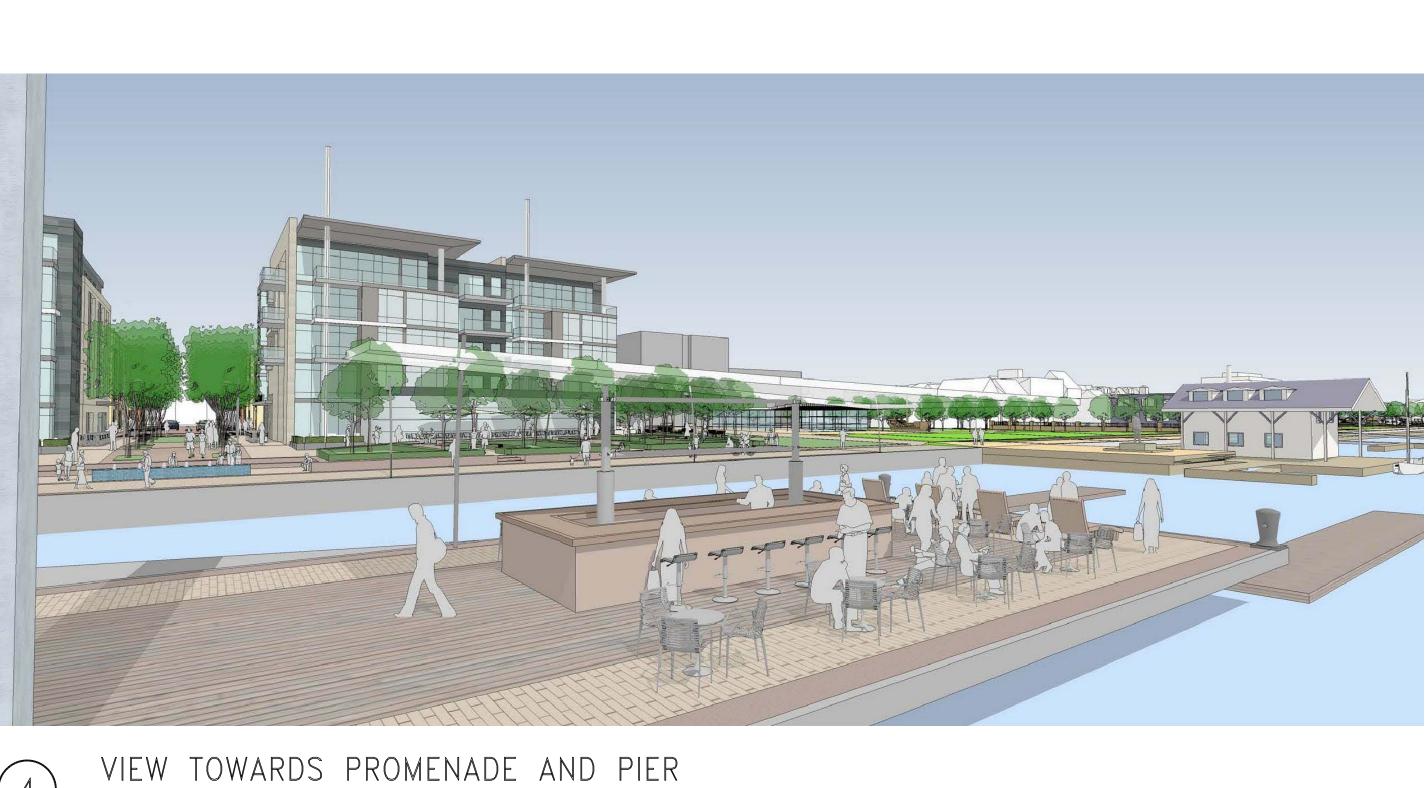


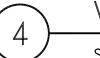


SCALE: NTS









SCALE: NTS

| SI BUIAL USE I EI | RMIT NO. <u>#2014-000</u> | 0 |
|-------------------------------------|---------------------------|--------|
| DEPARTMENT OF P COMMUNITY DEVELO | | |
| DIRECTOR: | | DATE: |
| DEPARTMENT OF T ENVIRONMENTAL SH | | |
| DIRECTOR: | | DATE: |
| DATE RECORDED | | |
| | | PAGE N |

