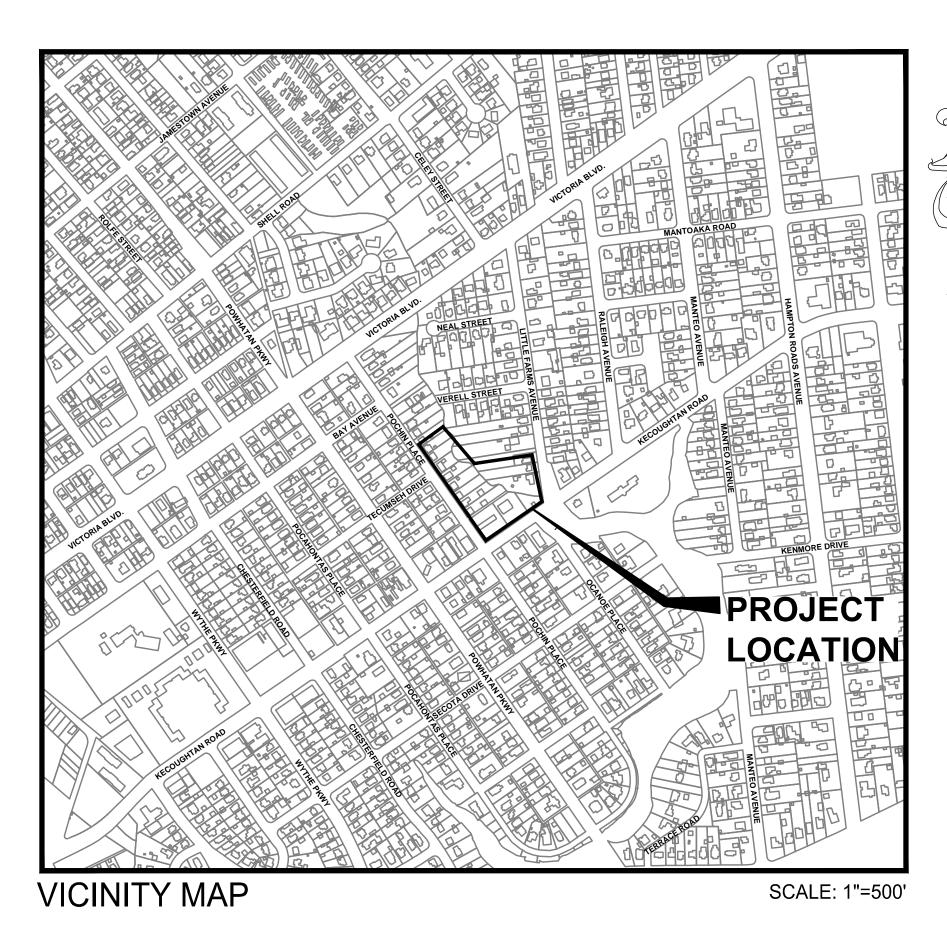
CITY OF HAMPTON, VA DEPARTMENT OF PUBLIC WORKS

22 Lincoln Street, Hampton, VA 23669 757-727-6346 (TEL) 757-727-6123 (FAX)

Pochin Place/Indian River Creek Stormwater Basin City Project 17-018

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TOTAL PROJECT AREA: 170,480 S.F. (3.91 AC.)
TOTAL DISTURBED AREA: 106,127 S.F. (2.44AC.)

CONTACT INFORMATION: OWNER: CITY OF HAMPTON, VA

OWNER: CITY OF HAMPTON, VA. DEPARTMENT OF PUBLIC WORKS

22 LINCOLN STREET HAMPTON, VA 23669
TEL: (757) 727-6284
FAX: (757) 727-6123

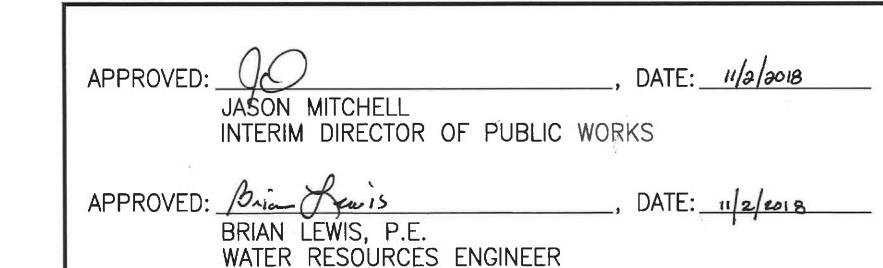
CONTACT: MR. BRIAN LEWIS, P.E. ENGINEER: AECOM 11832 ROCK LANDING DRIVE SUITE 306 NEWPORT NEWS, VA 23606

CONTACT: MR. FRED WHITLEY, P.E.

TEL: (757) 873-0559 DIRECT: (757) 383-6206

"MISS UTILITY" OF VIRGINIA 811

THE LOCATION OF EXISTING SEWER, WATER, AND GAS PIPES, CONDUITS AND OTHER STRUCTURES ACROSS, UNDERNEATH, OR OTHERWISE ALONG THE LINE OF PROPOSED WORK ARE NOT NECESSARILY SHOWN ON THE PLANS, AND WHERE SHOWN ARE ONLY APPROXIMATELY CORRECT. THE CONTRACTOR SHALL BE LIABLE FOR ALL DAMAGES DONE TO ANY STRUCTURES OR PROPERTY THROUGH HIS NEGLIGENCE OR CARELESSNESS. THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF ALL UNDERGROUND STRUCTURES AND UTILITIES SHOWN ON THE PLAN IN THE AREA OF CONSTRUCTION PRIOR TO STARTING WORK. CONTACT THE ENGINEER IMMEDIATELY IF STRUCTURE LOCATIONS OR ELEVATIONS ARE DIFFERENT FROM THOSE SHOWN ON THE PLAN, OR IF THERE APPEARS TO BE A CONFLICT, OR UPON DISCOVERY OF UTILITIES OR STRUCTURES NOT SHOWN ON THE PLAN. A MINIMUM OF 72 HOURS PRIOR TO EXCAVATING, "MISS UTILITY" OF VIRGINIA (811) MUST BE



OFFICE REVIEW SUMMARY
PROJECT MANAGER: SB

30% 60% 90% FINAL
PROJECT Q/A Q/C: JFW
30% 60% 90% FINAL
PROJECT ENGINEER: AJW
30% 60% 90% FINAL
DRAFTSMAN: AJW
DRAFTSMAN: BRA







STORMWATER BASIN
TITLE SHEET

PROJECT REVISIONS DATE

ISSUE DATE:
August 1, 2018

SHEET T 1

- THIS PROJECT IS TO BE CONSTRUCTED IN ACCORDANCE WITH CURRENT APPLICABLE CODES AND THE FOLLOWING DOCUMENTS, AS AMENDED BY CONTRACT PROVISIONS AND THE PLANS:
- a.AASHTO A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS (6TH EDITION, 2011)
- b.CITY OF HAMPTON DESIGN AND CONSTRUCTION STANDARDS (2012 EDITION)
- c.CITY OF HAMPTON UTILITY POLICY (3rd EDITION, 2012)
- d. VDOT ROAD AND BRIDGE STANDARDS (2016 EDITION) e. VDOT ROAD AND BRIDGE SPECIFICATIONS (2016 EDITION)
- f. FHWA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD, 2009 EDITION WITH REVISION NUMBERS 1 AND 2 INCORPORATED, DATED MAY 2012) AND THE VA SUPPLEMENT (2011 EDITION WITH REVISION NUMBER INCORPORATED, DATED SEPTEMBER 2013)
- g. VIRGINIA WORK AREA PROTECTION MANUAL (2011 EDITION WITH REVISION NUMBER 1 INCORPORATED, DATED APRIL 2015)
- h. VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (3rd EDITION, 1992)
- DIMENSIONS ARE FROM FACE OF BUILDING OR FACE OF CURB UNLESS OTHERWISE NOTED. ALL FILLET RADII SHALL BE MEASURED TO FACE OF CURB.
- THE CONTRACTOR SHALL REMOVE ALL EQUIPMENT, MATERIAL AND GENERAL CONSTRUCTION DEBRIS FROM THE PROJECT SITE AND DISPOSE OF THE SAME IN A LEGAL MANNER AND/OR DELIVER TO THE CITY THOSE ITEMS SO DESIGNATED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL, REPLACEMENT, AND TEMPORARY RELOCATION OF EXISTING SIGNS UNLESS OTHERWISE INDICATED.
- UNFORESEEN EXISTING ABANDONED STRUCTURES OR UTILITY LINES THAT ARE ENCOUNTERED DURING CONSTRUCTION SHALL NOT BE REMOVED WITHOUT AUTHORIZATION FROM THE CITY OR THE UTILITY OWNER.
- AREAS OUTSIDE THE LIMITS OF THE PROPOSED WORK DISTURBED/DENUDED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITIONS AT THE CONTRACTOR'S EXPENSE. ALL AREAS DISTURBED DURING CONSTRUCTION NOT COVERED WITH BUILDINGS, STRUCTURES, OR PAVEMENTS, SHALL BE GRADED TO DRAIN, TOPSOILED, SEEDED AND MULCHED AS REQUIRED BY THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH)
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING OR REPLACING, AT HIS OWN EXPENSE, ANY EXISTING UTILITIES, PAVEMENT, CONCRETE ITEMS, PIPES, LANDSCAPING, AND OTHER ITEMS THAT ARE DAMAGED DURING CONSTRUCTION.
- UNLESS OTHERWISE SPECIFIED, SAWCUT WILL NOT BE PAID SEPARATELY, BUT SHALL BE CONSIDERED INCIDENTAL TO OTHER LIKE ITEMS.
- THE CONTRACTOR SHALL NOT ENCROACH UPON THE LIMITS OF WETLANDS. RESOURCE PROTECTION AREA (RPA) BUFFER ZONES AND/OR WATERS OF THE U.S. (WOUS) UNLESS OTHERWISE SPECIFIED AND ALLOWED BY APPROPRIATE ENVIRONMENTAL PERMIT(S). ANY FINES ASSOCIATED WITH ANY ENVIRONMENTAL PERMIT OR REGULATORY VIOLATIONS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- 10. UNLESS OTHERWISE SPECIFIED, UNSUITABLE MATERIAL ENCOUNTERED DURING CONSTRUCTION SHALL BE REMOVED AND REPLACED WITH SELECT MATERIAL TYPE II MINIMUM CBR 20.
- 1. STOCKPILE LOCATIONS AND LAYDOWN AREAS ARE LIMITED TO AREAS WITHIN THE RIGHT OF WAY AND EXISTING BACK OF CURB AND SHALL NOT BE LOCATED WITHIN THE "CLEAR ZONE" AS DEFINED IN THE AASHTO ROADSIDE DESIGN GUIDE CONSTRUCTION ENTRANCES SHALL BE PLACED AS NEEDED BY THE CONTRACTOR ACCORDING TO STANDARD DETAILS.
- 12. ALL PAVEMENT MARKINGS ERADICATED OR DAMAGED DURING CONSTRUCTION SHALL BE REPLACED WITH LIKE KIND. THESE MAY BE TEMPORARY, AS APPROVED BY CITY OF HAMPTON DEPARTMENT OF PUBLIC WORKS.
- 13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ERADICATING ANY CONFLICTING PAVEMENT MARKINGS.
- 4. WHERE DESIGNATED ON THE PLANS, ALL TREES, STUMPS, ROOTS, BRUSH AND OTHER VEGETATION SHALL BE CLEARED AND GRUBBED. TREES INDICATED TO REMAIN SHALL BE TRIMMED OF DEAD BRANCHES, PAINTED WITH TREE-WOUND PAINT, AND PROTECTED FROM DAMAGE. ALL DEPRESSIONS SHALL BE FILLED AND COMPACTED.
- 15. IF A CONSTRUCTION TRAILER CONTAINING TOILET FACILITIES IS PROPOSED DURING CONSTRUCTION, IT SHALL BE CONNECTED TO THE SEWER SYSTEM OR A "PUMP AND HAUL" PERMIT SHALL BE OBTAINED FROM THE HEALTH DEPARTMENT. 16. GRADING AND DRAINAGE SHALL BE CONSTRUCTED IN ACCORDANCE WITH VDOT
- ROAD AND BRIDGE SPECIFICATIONS, LATEST EDITION. 17. CONTRACTOR SHALL RESTORE GRADE TO PRE-CONSTRUCTION CONDITION UNLESS
- OTHERWISE NOTED ON THE PLANS.
- 18. FINISHED GRADES SHALL SLOPE UNIFORMLY BETWEEN SPOT ELEVATIONS SHOWN. 19. ALL TRANSITIONS IN GRADING SHALL BE SMOOTH AND ROUNDED CURVES.
- 20. THE CONTRACTOR SHALL REINSTALL ALL SIGNS, PAVEMENT MARKINGS, AND ROADWAY LIGHTING IN ACCORDANCE WITH VDOT STANDARDS, ALONG STATE ROADWAYS AND PUBLIC OR PRIVATE STREETS, AS REQUIRED BY THE CITY OF HAMPTON DEPARTMENT OF PUBLIC WORKS.
- 21. ALL REQUIRED LANDSCAPE ELEMENTS (EXISTING TO BE RETAINED OR PROPOSED), AS SPECIFIED ON THE APPROVED LANDSCAPE PLAN, SHALL BE PROVIDED BY THE CONTRACTOR AND ACCEPTED BY THE CITY OF HAMPTON'S LANDSCAPE SERVICES COORDINATOR. FOR MORE INFORMATION CONTACT (757) 728-2444 OR (757) 727-6075 TO SCHEDULE A LANDSCAPING INSTALLATION INSPECTION.

UTILITY NOTES:

- 1. THIS PLAN DOES NOT GUARANTEE THE EXISTENCE, NONEXISTENCE, SIZE TYPE, LOCATION, ALIGNMENT, OR DEPTH OF ANY OR ALL UNDERGROUND UTILITIES OR OTHER FACILITIES. WHERE SURFACE FEATURES (MANHOLES, CATCH BASINS, VALVES, ETC.) ARE UNAVAILABLE OR INCONCLUSIVE, INFORMATION SHOWN MAY BE FROM UTILITY OWNER'S RECORDS AND/OR ELECTRONIC LINE TRACING, THE RELIABILITY OF WHICH IS UNCERTAIN. THE CONTRACTOR SHALL PERFORM WHATEVER TEST EXCAVATION OR OTHER REINVESTIGATION AS NECESSARY TO VERIFY LOCATIONS AND CLEARANCES AT HIS OWN COST, AND SHALL REPORT IMMEDIATELY ANY DISCREPANCIES TO THE ENGINEER. ANY TEST EXCAVATION OR OTHER REINVESTIGATION NECESSARY SHALL BE PERFORMED IN ADVANCE OF PLANNED WORK IN THE AREA TO PREVENT SCHEDULE DELAYS.
- 2. PRIOR TO CONSTRUCTION OR EXCAVATION, THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES (PUBLIC OR PRIVATE) THAT MAY EXIST AND CROSS THROUGH THE AREA OF CONSTRUCTION. A MINIMUM OF 72 HOURS PRIOR TO EXCAVATING, MISS UTILITY OF VIRGINIA (811) MUST BE CONTACTED.
- 3. IF ANY EXISTING UTILITY (PUBLIC OR PRIVATE) IS IN CONFLICT WITH THE PROPOSED DESIGN, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND COORDINATE THE UTILITY RELOCATION WITH THE UTILITY OWNER.
- 4. THE CONTRACTOR SHALL HAND DIG WHEN CROSSING ANY UNDERGROUND UTILITIES. THE COST FOR HAND DIGGING SHALL BE INCLUDED IN THE PRICE BID FOR OTHER RELATED ITEMS. NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- 5. ALL EXISTING UTILITIES SHALL REMAIN IN PLACE AND UNDISTURBED UNLESS OTHERWISE NOTED ON THE PLANS. THE CONTRACTOR SHALL CARRY ON HIS WORK AROUND SUCH UTILITIES AT HIS OWN RISK. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY EXISTING UTILITIES THAT ARE DAMAGED DURING CONSTRUCTION AT NO EXPENSE TO THE OWNER.
- 6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH POWER COMPANY ANY ADDITIONAL SUPPORT OF EXISTING POWER POLES AS REQUIRED FOR TRENCH EXCAVATION. ALL COSTS OF SUCH WORK SHALL BE PAID BY THE CONTRACTOR AND INCIDENTAL TO LIKE ITEMS
- 7. BURIED TELEPHONE AND CATV CABLES (FIBER OPTICS AND CONVENTIONAL) ARE KNOWN TO VARY DUE TO INSTALLATION TECHNIQUES. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR COORDINATING WITH THE UTILITY COMPANY TO DETERMINE SPECIFIC CABLE LOCATIONS AND NOTIFYING THE ENGINEER OF THE EXACT ELEVATION OF THE CABLES. WHERE EXISTING UTILITIES CONFLICT WITH THE PROPOSED IMPROVEMENTS, THE CONTRACTOR SHALL COORDINATE ANY NECESSARY RELOCATIONS WITH THE SERVICE PROVIDER.
- 8. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING HRSD INTERCEPTOR ENGINEER, JOHN MILLAR AT (757) 460-7076, A MINIMUM OF TWO (2) WORKING DAYS PRIOR TO EXCAVATION OF OR IN THE VICINITY OF HRSD LINES. "MISS UTILITY" CALLS DO NOT FULFILL THIS REQUIREMENT.
- 9. ALL WORK TO BE PERFORMED ON WATERMAINS SHALL BE PERFORMED BY A CONTRACTOR CERTIFIED TO WORK ON NEWPORT NEWS WATERWORKS WATER LINES. WATER UTILITY WORK IS TO BE PERFORMED PER THE LATEST REVISION OF NEWPORT NEWS WATERWORKS DISTRIBUTION STANDARDS FOR MATERIALS AND CONSTRUCTION.
- 10. ALL VALVES, WATER METERS, MANHOLES, AND CLEANOUTS IMPACTED BY THE PROJECT SHALL BE ADJUSTED TO FINISHED GRADE. COST ASSOCIATED WITH SUCH WORK SHALL BE INCIDENTAL TO LIKE ITEMS UNLESS OTHERWISE
- 11. UNLESS OTHERWISE SPECIFIED, THE CONTRACTOR SHALL REPLACE EXISTING FIRE HYDRANTS WITH NEW FIRE HYDRANTS, AND RETURN ALL EXISTING FIRE HYDRANTS, METERS AND CHECK DETECTORS TO BE REMOVED/REPLACED TO NEWPORT NEW WATERWORKS.
- 12. PAVEMENT FAILURE IN THE VICINITY OF THE PROPOSED WORK SHALL BE CORRECTED BY THE CONTRACTOR BY PAVEMENT REPLACEMENT REPAIR FOLLOWED BY MILLING AND OVERLAYING.
- 13. INSTALLATION OF UTILITIES WITHIN CITY RIGHT-OF-WAY SHALL FOLLOW PROCEDURES SET FORTH IN THE CITY OF HAMPTON UTILITY POLICY IN EFFECT AT THE TIME OF PLAN APPROVAL.
- 14. WATER SERVICE AND SEWER LATERALS MUST HAVE A MINIMUM SEPARATION OF TEN FEET (10'). SANITARY SEWER CLEANOUTS MUST BE LOCATED OUTSIDE OF THE DRIVEWAY APRONS AND SIDEWALK. METER BOXES SHALL NOT BE LOCATED IN DRIVEWAY APRONS OR SIDEWALKS.
- 15. THIS SITE MAY BE SUBJECT TO VIRGINIA OVERHEAD HIGH-VOLTAGE LINE SAFETY ACT. CONTRACTORS MUST CALL THE UTILITY TO MAKE SAFETY ARRANGEMENTS (DOMINION'S NUMBER IS 1-888-667-3000) BEFORE WORKING WITHIN THE 10-FOOT SAFETY ZONE. NO WORK CAN BE STARTED UNTIL APPROPRIATE SAFETY MEASURES ARE COMPLETED.

PERMIT COORDINATION NOTES:

- 1. A ROW PERMIT IS REQUIRED BEFORE ANY WORK CAN BEGIN WITHIN CITY ROW. FOR INFORMATION CONTACT THE CITY OF HAMPTON PERMIT COORDINATOR AT (757) 728-2444.
- 2.A GENERAL VPDES PERMIT FOR DISCHARGES OF STORMWATER FROM CONSTRUCTION ACTIVITIES (GENERAL PERMIT NO. VAR10 - ALSO REFERRED TO AS THE CONSTRUCTION GENERAL PERMIT, VSMP PERMIT OR VPDES PERMIT) IS REQUIRED FOR PROJECTS WITH AREA OF LAND DISTURBANCE GREATER THAN 1 ACRE. WHEN A VPDES CONSTRUCTION GENERAL PERMIT (CGP) IS REQUIRED, THE CONTRACTOR IS REQUIRED TO:
- a.CONTACT THE LD PERMIT COORDINATOR WITH THE CITY OF HAMPTON PUBLIC WORKS DEPARTMENT AT (757) 728-2444 TO COORDINATE THE CGP APPLICATION PROCESS AT LEAST ONE WEEK BEFORE THE PRECONSTRUCTION CONFERENCE.
- b.PREPARE A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) IN ACCORDANCE WITH THE REQUIREMENTS OF THE CGP AND SUBMIT THE SWPPP DOCUMENTS TO THE CITY OF HAMPTON PROJECT MANAGER FOR REVIEW AND APPROVAL AT LEAST ONE WEEK BEFORE THE PRECONSTRUCTION CONFERENCE.
- c.SUBMIT THE VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY (DEQ) "PERMIT REGISTRATION STATEMENT" APPLICATION AND ASSOCIATED PERMIT APPLICATION FEE TO THE LD PERMIT COORDINATOR. THE CGP APPLICATION MUST BE SUBMITTED TO THE DEQ BY THE LD PERMIT COORDINATOR AFTER THE SWPPP DOCUMENTS HAVE BEEN APPROVED BY THE CITY. DEQ REVIEW OF THE CGP APPLICATION MATERIALS MAY TAKE MORE THAN TWO WEEKS.
- d.SATISFY ALL THE REQUIREMENTS OF THE CGP, INCLUDING MAINTAINING THE SWPPP DOCUMENTS WITH A COPY OF THE APPROVED PLAN SET ON THE PROJECT SITE AT ALL TIMES FOR THE DURATION OF THE PROJECT.
- 3.IF THE CITY OF HAMPTON HAS ALREADY OBTAINED THE CONSTRUCTION GENERAL PERMIT (CGP) PRIOR TO PROJECT AWARD, THE RESPONSIBLE LAND DISTURBER (RLD) DESIGNATION WILL BE TRANSFERRED TO THE CONTRACTOR UPON AWARD.
- 4. WHEN A CONSTRUCTION GENERAL PERMIT (CGP) IS REQUIRED, THE CITY OF HAMPTON LAND DISTURBANCE PERMIT (LDP) CANNOT BE ISSUED UNTIL THE CGP IS APPROVED BY THE VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY (DEQ).
- 5.A CITY OF HAMPTON LAND DISTURBANCE PERMIT (LDP) IS REQUIRED BEFORE ANY LAND DISTURBING ACTIVITY CAN BEGIN FOR PROJECTS WITH AREA OF LAND DISTURBANCE GREATER THAN 2,500 SQUARE FEET IF THE PROJECT IS LOCATED IN THE CHESAPEAKE BAY PRESERVATION DISTRICT (CBPD) OR GREATER THAN 10,000 SQUARE FEET IF THE PROJECT IS OUTSIDE THE CBPD. WHEN A LDP IS REQUIRED, THE CONTRACTOR IS REQUIRED TO:
- a. SUBMIT THE LDP APPLICATION DOCUMENTS AND PERMIT FEE TO THE LD PERMIT COORDINATOR WITH THE CITY OF HAMPTON PUBLIC WORKS DEPARTMENT AT LEAST ONE WEEK BEFORE THE PRECONSTRUCTION CONFERENCE. THE LD PERMIT COORDINATOR CAN BE REACHED AT (757) 728-2444. SURETY BONDS REQUIRED BY THE CONTRACT MUST BE SUBMITTED WITH THE LD PERMIT APPLICATION.
- b.COORDINATE THE "INITIAL LAND DISTURBANCE INSPECTION" FOR EROSION AND SEDIMENT CONTROL. CONTACT INFORMATION FOR SCHEDULING LAND DISTURBANCE INSPECTIONS WILL BE PROVIDED AT THE PRECONSTRUCTION CONFERENCE.
- c.ENSURE THAT EROSION AND SEDIMENT CONTROL MEASURES ARE INSTALLED PRIOR TO THE "INITIAL LAND DISTURBANCE INSPECTION". AFTER TWO FAILED INITIAL LD INSPECTIONS, AN ADDITIONAL FEE WILL BE INCURRED FOR EACH RE-INSPECTION UNTIL THE INSPECTION PASSES. NO OTHER LAND
- DISTURBING ACTIVITY CAN BEGIN UNTIL THE INITIAL LD INSPECTION PASSES. d.SATISFY ALL THE REQUIREMENTS OF THE LDP. INCLUDING MAINTAINING A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN ON SITE AT ALL TIMES AND COORDINATING PERIODIC EROSION AND SEDIMENT CONTROL INSPECTIONS FOR THE DURATION OF THE PROJECT AS REQUIRED

BY VIRGINIA ADMINISTRATIVE CODE (9VAC25-840-60)

e.COORDINATE THE "FINAL LAND DISTURBANCE INSPECTION" FOR EROSION AND SEDIMENT CONTROL.

ABUTMENT

ADDITIONAL

ALUMINUM

AGGREGATE

ASPHALT

BASELINE

BITUMINOUS

BUILDING

RENCH MARK

CENTERLINE

BEGIN VERTICAL CURVE

CONSTRUCTION JOINT

CURB DROP INLET

CUBIC FEET/FOOT

CURB & GUTTER

CHANGE GRADE

CLEAN OUT

BLOCK

APPROXIMATE

ADD'L

AGGR.

BLDG.

SURVEY PROVIDED BY:

A. D. POTTS & ASSOCIATES, Inc 11524 Jefferson Avenue NEWPORT NEWS, VA. 23601 TEL 757.595.4610 FAX 757.591.2723

NOTES:

- VERTICAL DATUM DERIVED FROM BENCHMARK PROVIDED BY CITY OF HAMPTON HAMPTON BM #7-23: "X" CUT IN SOUTHEAST CORNER OF THE CONCRETE SLAB AT PUMP STATION #102, ELEV. 8.10' (NAVD 88) HORIZONTAL DATUM PROVIDED BY THE CITY OF HAMPTON VIRGINIA SOUTH ZONE (NAD 1983 (2011)), (US SURVEY FT) FB 958.
- THIS TOPOGRAPHIC SURVEY WAS COMPLETED UNDER THE DIRECT AND RESPONSIBLE CHARGE OF ANTHONY D. POTTS FROM AN ACTUAL GROUND SURVEY MADE UNDER MY SUPERVISION: THAT THE IMAGERY AND/OR ORIGINAL DATA WAS OBTAINED IN NOVEMBER & DECEMBER, 2016 AND THIS PLAT, MAP, OR DIGITAL GEOSPATIAL DATA. INCLUDING METADATA MEETS MINIMUM ACCURACY STANDARDS UNLESS OTHERWISE
- THIS PROJECT IS LOCATED IN FIRM ZONES X, (UNSHADED)(AREA OUTSIDE 0.2% ANNUAL CHANCE FLOOD) & X, (SHADED)(AREA OF 0.2% ANNUAL CHANCE FLOOD) & AE, (EL 8)(AREA OF 1% ANNUAL CHANCE FLOOD) AS SHOWN ON COMMUNITY PANEL NO. 515527 0024 H & AS SHOWN ON COMMUNITY PANEL NO. 515527 0025 H DATED MAY 16, 2016 (INDEX DATE MAY 16, 2016).
- THE PROPERTY LINES SHOWN HEREON ARE APPROXIMATE. LINES SHOWN ARE ALIGNED TO FOUND MONUMENTATION. PROPERTY MONUMENTATION FOUND DOES NOT COINCIDE WITH RECORDED PLATS.

- 1. TEMPORARY DRAINAGE DURING CONSTRUCTION SHALL BE PROVIDED BY THE CONTRACTOR TO RELIEVE AND PREVENT FLOODING IN AREAS THAT MAY CAUSE DAMAGE TO ROADWAYS OR ADJACENT PROPERTIES.
- 2.ALL STORM PIPE, DROP INLET STRUCTURES, DITCHES AND CURB AND GUTTER SHALL BE CLEANED OF DEBRIS AND SILT DURING THE LAST STAGES OF CONSTRUCTION, THE COST OF WHICH SHALL BE INCIDENTAL TO OTHER ITEMS.
- 3.ALL STORM DRAINAGE DIMENSIONS ARE FROM CENTER OF STRUCTURE, UNLESS OTHERWISE
- 4.ALL NEW DRAINAGE STRUCTURES SHALL HAVE INVERT SHAPING IN ACCORDANCE WITH VDOT STD. IS-1. INVERT SHAPING SHALL BE INCLUDED IN THE UNIT PRICE PER DRAINAGE STRUCTURE.
- 5.STORM DRAINAGE PIPE: REINFORCED CONCRETE PIPE (RCP) SHALL CONFORM TO ASTM C-76, CLASS III. DUCTILE IRON PIPE (DIP) SHALL CONFORM TO ANSI/AWWA C151/A21.51, CLASS 52 WITH PUSH-ON OR MECHANICAL JOINTS.
- 6.ALL STORM DRAINAGE PIPES WITHIN THE PROJECT LIMITS AND TO 200 FEET DOWNSTREAM SHALL BE VACUUMED CLEAN AFTER ESTABLISHMENT OF PERMANENT SEEDING. THE COST FOR CLEANING OUT STORM SEWER PIPING SHALL BE INCLUDED IN THE PRICE BID FOR OTHER RELATED ITEMS. NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

PLATE POWER POLE

PROPOSED

RAILROAD

SOUTH

RIGHT-OF-WAY

SANITARY SEWER

SANITARY SEWER MANHOLE

STORM DRAIN MANHOLE

SANITARY SEWER CLEAN OUT

SOUTHWEST

SILT FENCE

SANITARY

SECTION

PUMP STATION

PROP

POINT OF TANGENCY

PER SQUARE INCH

PER SQUARE FOOT/FEET

POLYVINYL CHLORIDE PIPE

REINFORCED CONCRETE PIPE

POINT OF VERTICAL INTERSECTION

_ _ _ 1 *_* _ _ _ _ MAJOR CONTOUR PROPERTY LINE OVERHEAD ELECTRIC LINE **GUY WIRE** <---- 18"RCP

LEGEND

MINOR CONTOUR

—— OH ———

<---- 8"SAN.SEW.

_____ *G* _____

RESIDENCE

ASPHALT

CONC

GRAVEL

△ TRAV PT

STORM DRAINAGE PIPE ----

SANITARY SEWER PIPE GAS LINE TOP OF BANK BOTTOM OF BANK EASEMENT LINE

FLOODZONE RIGHT-OF-WAY LINE FENCE, MATERIAL AS SPECIFIED DITCH

CONCRETE GRAVEL **BLOCK WALL**

RIP RAP WATER VALVE

TRAVERSE POINT

TREE, AS SPECIFIED GAS METER

WATER METER

SILT FENCE

FLARED END SECTION **CURB INLET** DROP INLET

CHECK VALVE SLOPE ARROW

ABBREVERARTIMENT, HAMPTON \$40\$40\$40\$ —— SF ——

CONSTRUCTION SURVEY/STAKEOUT

ALL SURVEY WORK (CONSTRUCTION STAKEOUT) SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND THE SURVEY COST WILL BE PAID BY THE CITY PER THE LINE ITEM ON THE PROJECT BID SHEET.

AS-BUILT REQUIREMENT

CONTRACTOR SHALL PROVIDE AS-BUILT INFORMATION IN AN ELECTRONIC FORMAT ACCEPTABLE TO THE OWNER (CITY OF HAMPTON). THESE AS BUILTS SHOULD INCLUDE THE AS-BUILT STRUCTURES AND DITCHES LOCATED HORIZONTALLY AND VERTICALLY. AS-BUILT STRUCTURE INFORMATION SHALL INCLUDE TYPE OF STRUCTURE, RIM, INVERTS OF EACH PIPE, PIPE SIZES AND MATERIAL. THE AS-BUILT DRAWINGS SHALL ALSO INCLUDE ANY FIELD CHANGES, DEVIATIONS FROM THE DRAWINGS DUE BOTH TO DIFFERING SITE CONDITIONS AND CHANGE ORDERS. COST FOR THE AS-BUILT SURVEY WILL BE PAID BY THE CITY PER THE LINE ITEM ON THE PROJECT BID SHEET.

ANY AND ALL MATERIAL OR DEBRIS TRACKED ONTO A PUBLIC OR PRIVATE ROAD SURFACE WILL BE REMOVED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM ROADS BY SHOVELING OR SWEEPING AND BE TRANSPORTED TO A SEDIMENT CONTROLLED DISPOSAL AREA. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL FROM THE SITE, AND LEGAL

DISPOSAL OF. DEBRIS GENERATED AS A RESULT OF DEMOLITION AND/OR CONSTRUCTION

ACTIVITIES. ALL EXCAVATED MATERIAL SHALL BE DISPOSED OF IN A LAWFUL MANNER.

ADJACENT PROPERTY OWNER NOTIFICATION:

THE CONTRACTOR SHALL PROVIDE WRITTEN NOTIFICATION TO ALL OWNERS AND RESIDENTS OF THE PROPERTY ADJACENT TO THIS DEVELOPMENT OR ADJACENT TO THE OFF—SITE IMPROVEMENTS, 30 DAYS PRIOR TO THE COMMENCEMENT OF WORK UNLESS OTHERWISE DIRECTED BY THE CITY. CONSTRUCTION WITHIN EASEMENTS OR ON PUBLIC RIGHT-OF-WAY NECESSITATES NOTICE WHETHER ADJACENT TO OR LOCATED ON THE ADJOINING PROPERTY. FAILURE TO PROVIDE THE MINIMUM NOTIFICATION TIME WILL RESULT IN A SUSPENSION OF WORK.

— X — X — ~~~~~~ TREE LINE CONCRETE CURB CURB & GUTTER PAVEMENT CENTERLINE MANHOLE **CURB INLET** YARD DRAIN 08/01/2018 POWER POLE LIGHT POST WATER VALVE FIRE HYDRANT WATER METER TELEPHONE PEDESTAL DITCH ELEVATION TOP OF CURB ELEVATION PAVEMENT ELEVATION CONCRETE PAD **BOLLARD** RESIDENCE **ASPHALT PAVEMENT**

CURB DROP INLET

SANITARY SEWER MANHOLE

CONSTRUCTION ENTRANCE

EXISTING CREEK CENTERLINE STORMWATER BASIN OUTLINE RIPRAP

STORM MANHOLE

CUT SLOPE FILL SLOPE * *

TES ANI

SUR

ISSUE DATE: August 1, 2018

SHEET

PRIOR TO CONSTRUCTION OF ANY PROPOSED UTILITIES THE CONTRACTOR SHALL VERIFY THE DEPTH AND LOCATION OF ALL EXISTING UTILITY LINES. IF ANY OF THE EXISTING UTILITIES ARE IN CONFLICT WITH THE PROPOSED DRAINAGE THE CONTRACTOR

THE LOCATION OF UTILITIES AND THE MANAGEMENT OF THEIR RELOCATION IS THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE CONSIDERED INCIDENTAL AND WILL NOT BE MEASURED AND PAID FOR SEPARATELY. THE COST FOR UTILITY LOCATION AND MANAGING THE RELOCATION OF THE UTILITY SHALL BE INCLUDED IN CONSTRUCTION COST. THE CITY WILL PAY THE UTILITY COMPANIES DIRECTLY, AND NOT THE CONTRACTOR, IF THERE ARE ANY FEES ASSOCIATED WITH THE RELOCATION OF THE UTILITY.

WILL COORDINATE THE RELOCATION OF THE EXISTING LINES WITH THE APPROPRIATE

UTILITY COMPANY.

UTILITY CONTACTS

SANITARY SEWER (GRAVITY) CITY OF HAMPTON PUBLIC WORKS 419 ARMISTEAD AVE HAMPTON, VA 23669 CONTACT: BARRY DOBBINS (757) 726-2944

NEWPORT NEWS WATERWORKS 700 TOWN CENTER DRIVE

NEWPORT NEWS 23606

CONTACT: DAN PASKO

(757) 926–1080

HAMPTON ROADS SANITATION DISTRICT (HRSD) 1436 AIR RAIL AVENUE VIRGINIA BEACH, VA 23455 CONTACT: CHRIS EVERTON (757) 318-4327

<u>GAS</u> VIRGINIA NATURAL GAS 544 S. INDEPENDENCE BLVD. VIRGINIA BEACH, VA 23452 CONTACT: KEVIN STARKE (757) 616–7529

COLONIAL PIPELINE (800) 926–2728 DOMINION VIRGINIA POWER

1600 HAMILTON AVENUE

PORTSMOUTH, VA 23707

CONTACT: JOSE PESQUERA

(757) 928–2093 CITY OF HAMPTON TRAFFIC ENGINEERING 22 LINCOLN ST. 4TH FLOOR, CITY HALL

HAMPTON, VA 23669

(757) 726-2975

CONTACT: BRIAN WILSON

<u>VERIZON</u> 5701 CLEVELAND STREET 5TH FLOOR VIRGINIA BEACH, VA 23462 CONTACT: MIKE CAVIISTON (757) 875–2677

> COX COMMUNICATIONS 5200 CLEVELAND STREET 5TH FLOOR VIRGINIA BEACH, VA 23462 CONTACT: JESSE JORDAN (757) 369 - 6277

(FORMERLY CAVALIER TELEPHONE) (800) 347-1991 CENTURYLINK (FORMERLY LEVEL 3)

(804) 298-7182

WINDSTREAM ENTERPRISE

CONC. CONCRETE CONSTRUCTION CONST CONCRETE PIPE CUBIC YARDS DITCH (ELEVATION) DEED BOOK DOUBLE DEC. **DECIDUOUS** DROP INLET DUCTILE IRON PIPE D.I.P.

ELEC.

E.V.C.

EXIST./EX

DRIVEWAY EAST EACH **EXPANSION JOINT** EDGE OF PAVEMENT ELEV./EL. ELEVATION EDGE OF PAVEMENT ELECTRIC END SECTION

EXISTING

FENCE

EXPOSED

FIRE HYDRAN

FORCE MAIN

MANHOLE MEAN HIGH WATER M.L.W. MEAN LOW WATER MINIMUM MOD. MODIFIED MAP BOOK NORTH NORTH AMERICAN NORTHWEST NUMBER N OR F NOW OR FORMERLY N.I.C. NOT IN CONTRACT NTS NOT TO SCALE OVERALL ON CENTER END VERTICAL CURVE O/H **OVERHEAD**

PED.

ABBREVIATIONS

FOOT/FEET

GALLONS

G.C.

LBS.

L.F.

HORIZ.

GALVANIZED

HORIZONTAL

H.R.S.D. HAMPTON ROADS

HYDRANT

INTERIOR INVFRT

POUNDS

GRADE CHANGE

GROUND (ELEVATION)

HIGH POINT (ELEVATION)

SANITATION DISTRICT

INSIDE DIAMETER

NORTH AMERICAN DATUM VERTICAL DATUM OUTSIDE DIAMETER PAVEMENT (ELEVATION) PROPERTY LINE

PEDESTAL

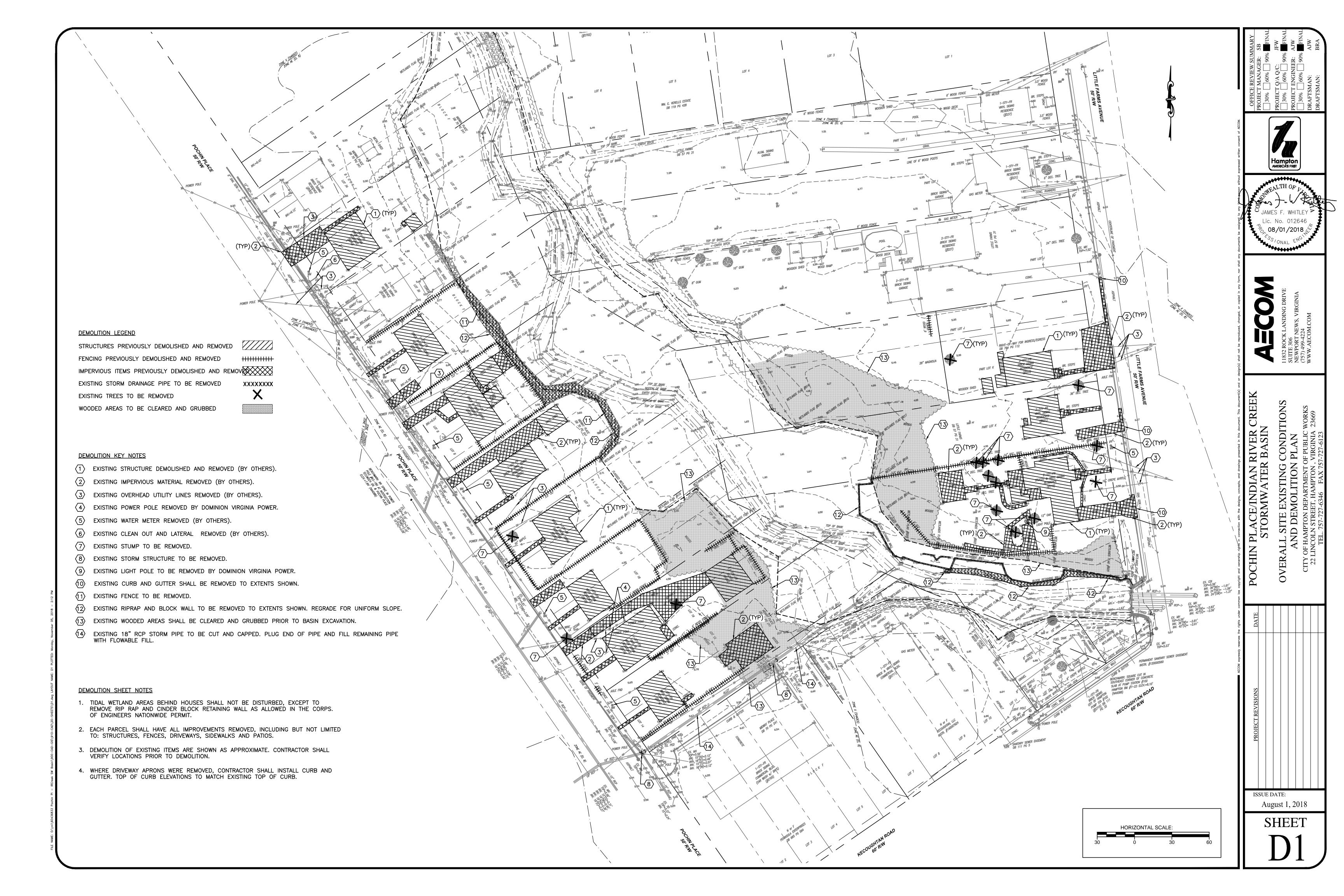
INLET PROTECTION IRON PIN FOUND LOW POINT (ELEVATION) LIGHT POLE LINEAR FEET MATCH GRADE STA. TELE. U/G UTIL

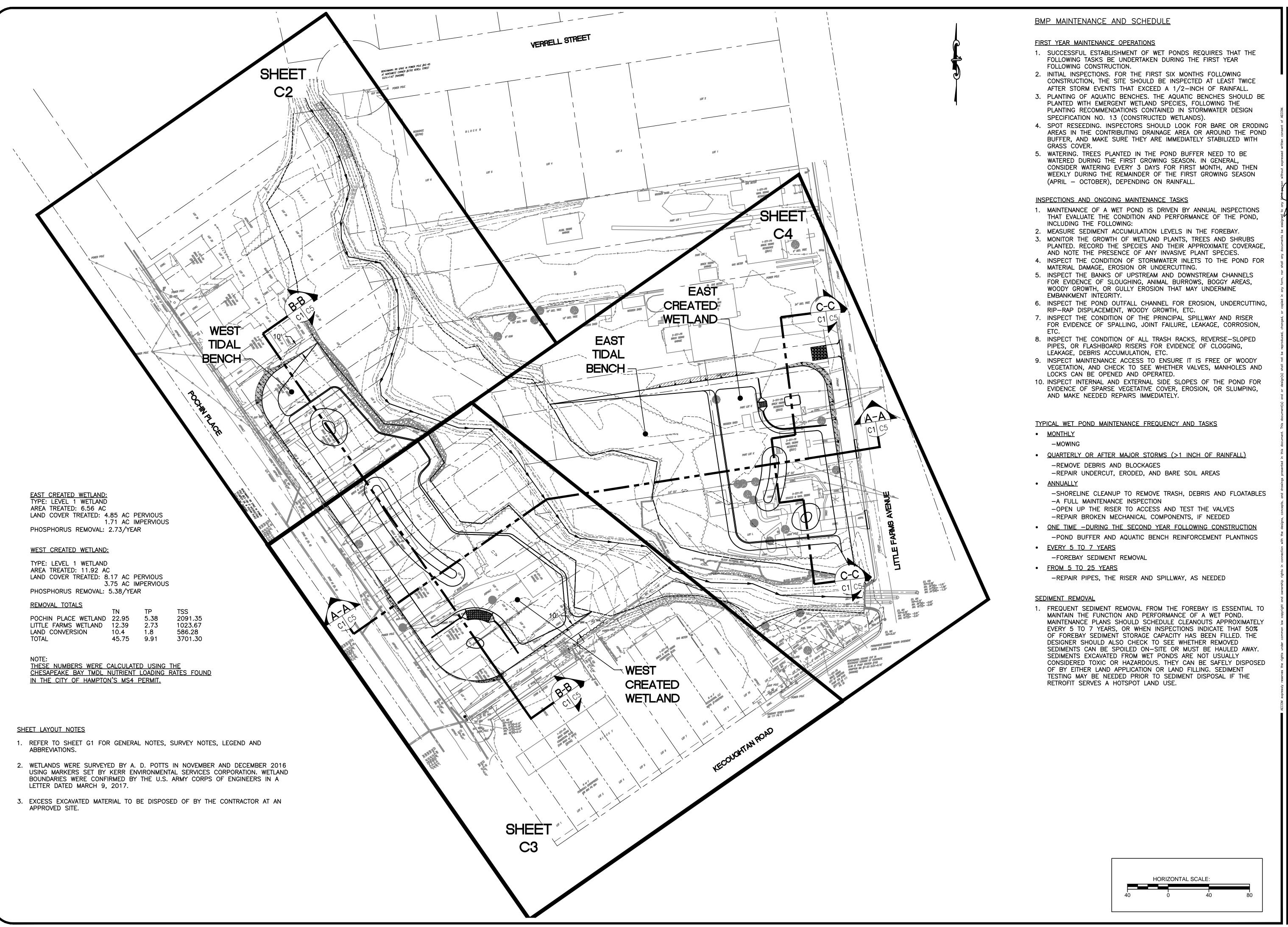
SPACED SQUARE STATION STREET STANDARD SQUARE YARD **TANGENT** TOP OF CURB (ELEVATION) TELEPHONE TREE PROTECTION TYPICAL UNDERGROUND UTILITY VERTICAL VIRGINIA DEPARTMENT OF TRANSPORTATION

WATER/WEST WATER MAIN

YARD DRAIN

SQUARE FEET







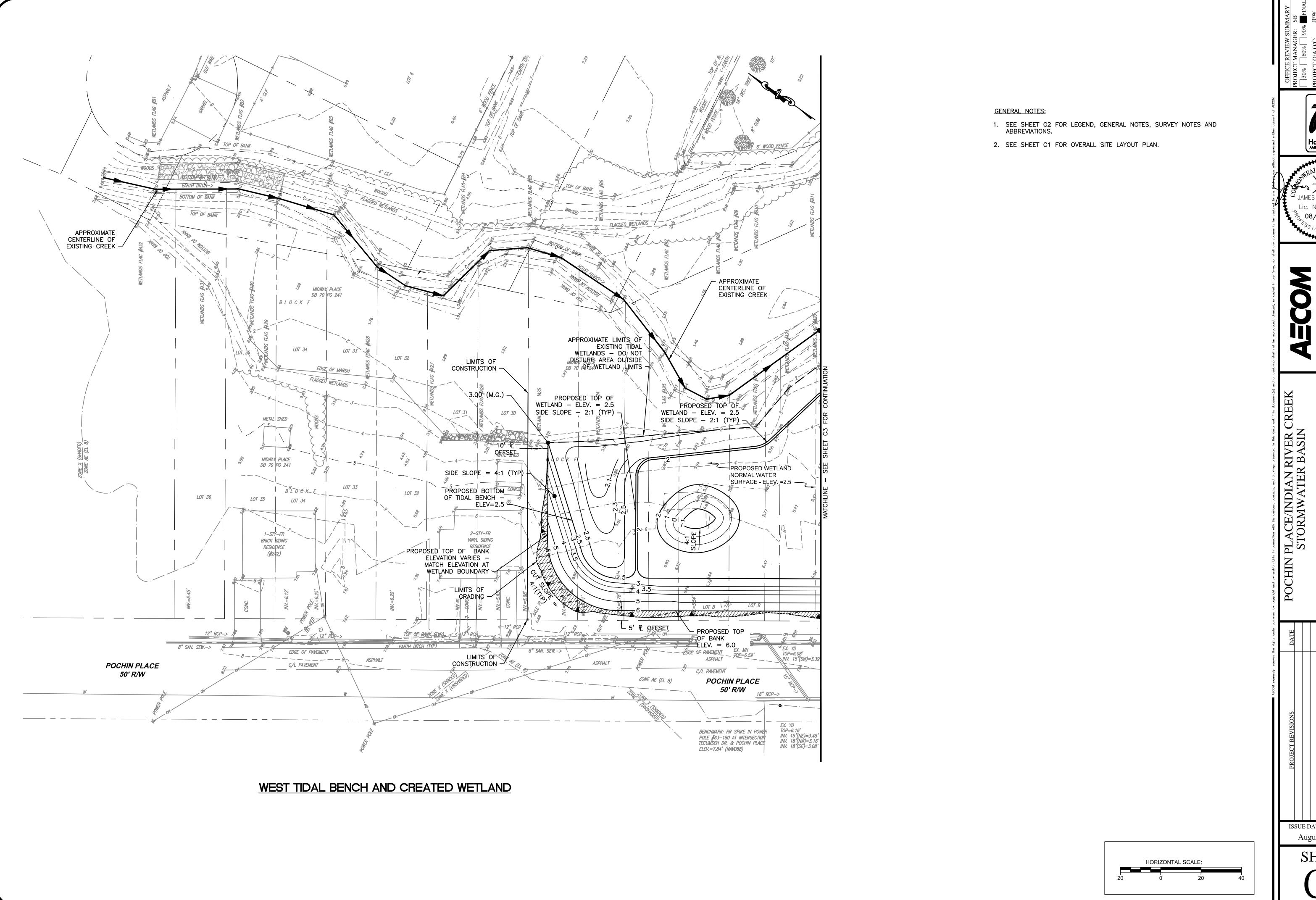
08/01/2018

SITE

TY OF HAM 22 LINCOLN

ISSUE DATE: August 1, 2018

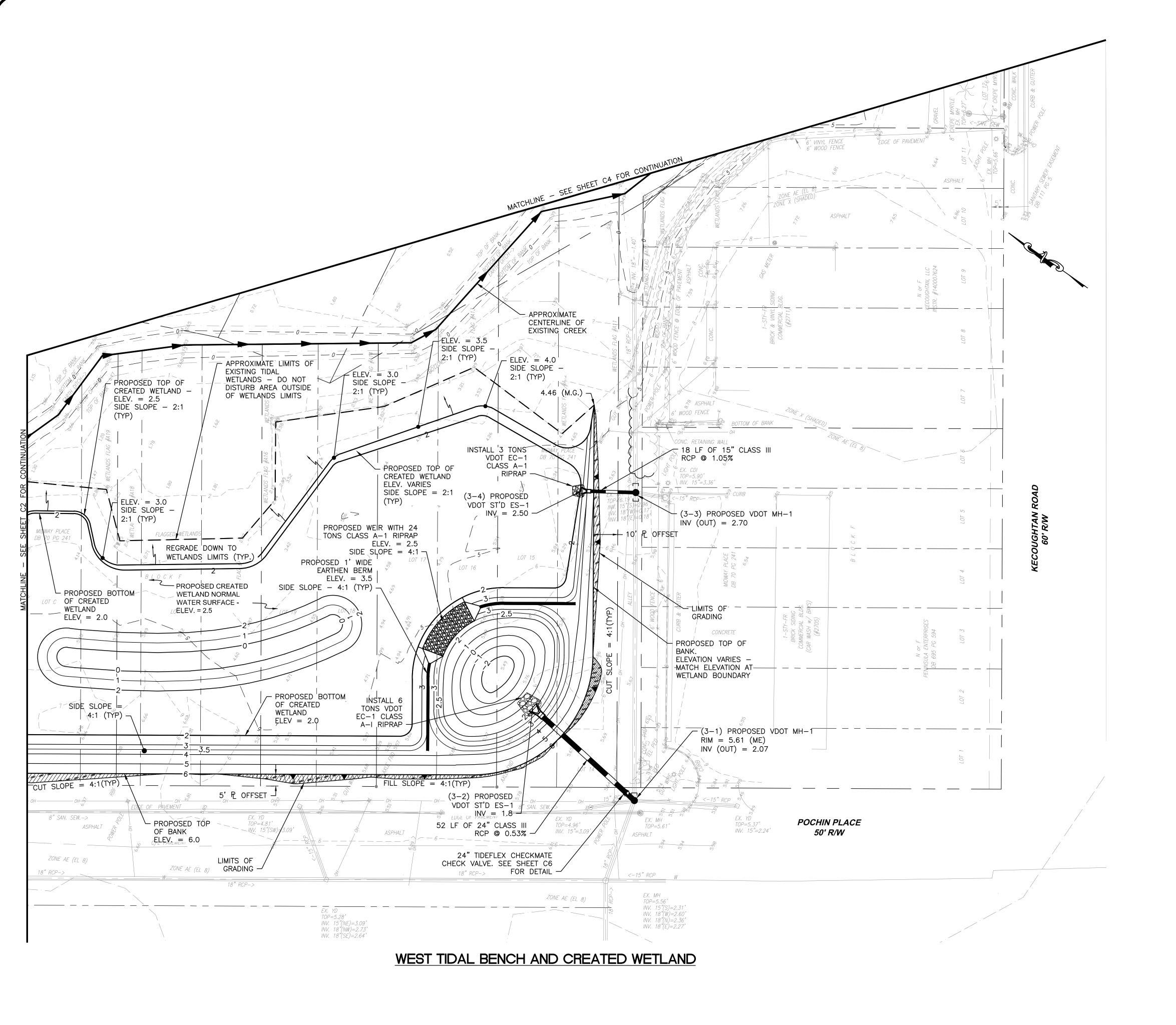
SHEET





ISSUE DATE: August 1, 2018

SHEET



GENERAL NOTES:

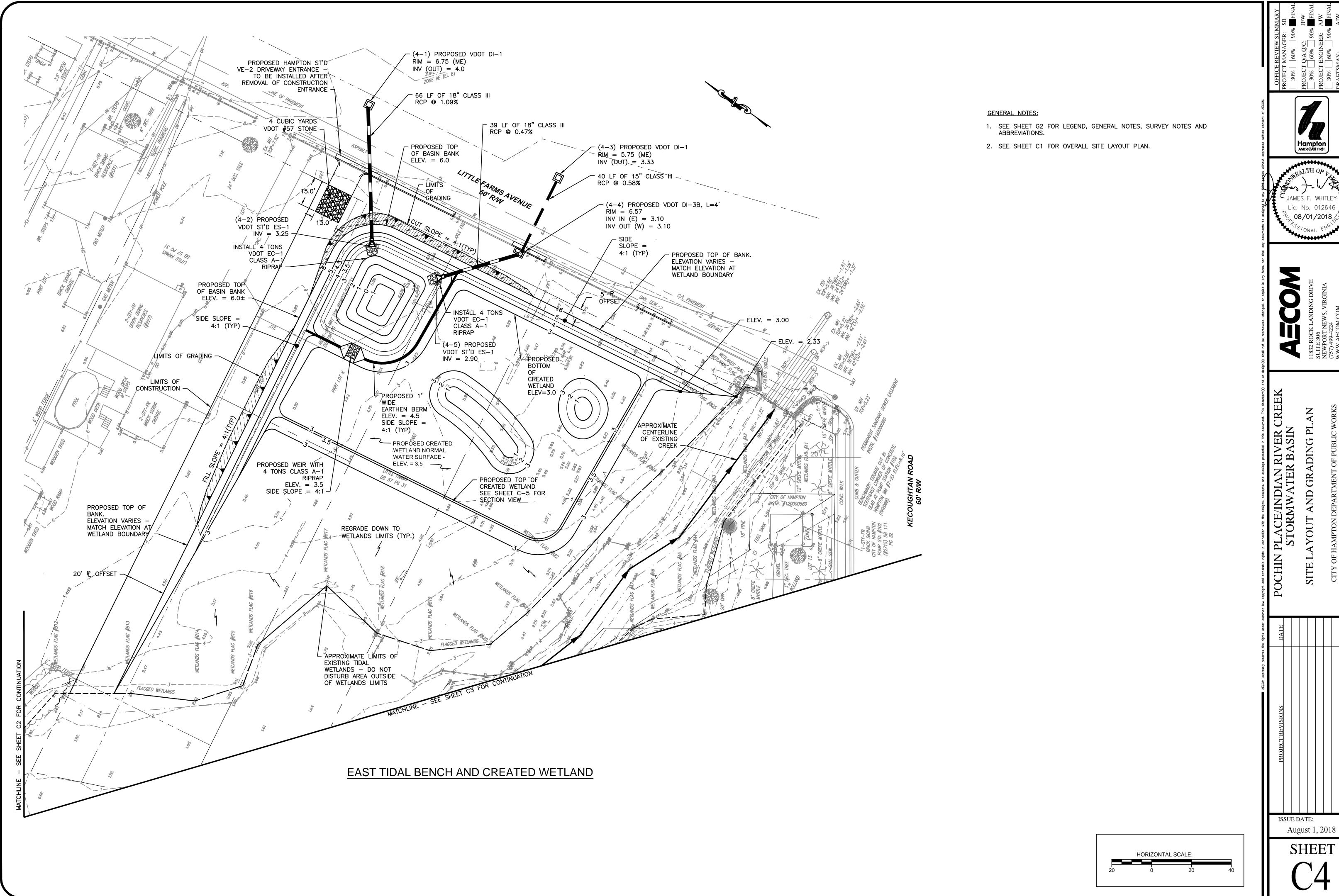
- 1. SEE SHEET G2 LEGEND, GENERAL NOTES, SURVEY NOTES AND ABBREVIATIONS.
- 2. SEE SHEET C1 FOR OVERALL SITE LAYOUT PLAN.
- 3. PLUG AND ABANDON EXISTING PIPE WHERE □ IS SHOWN.

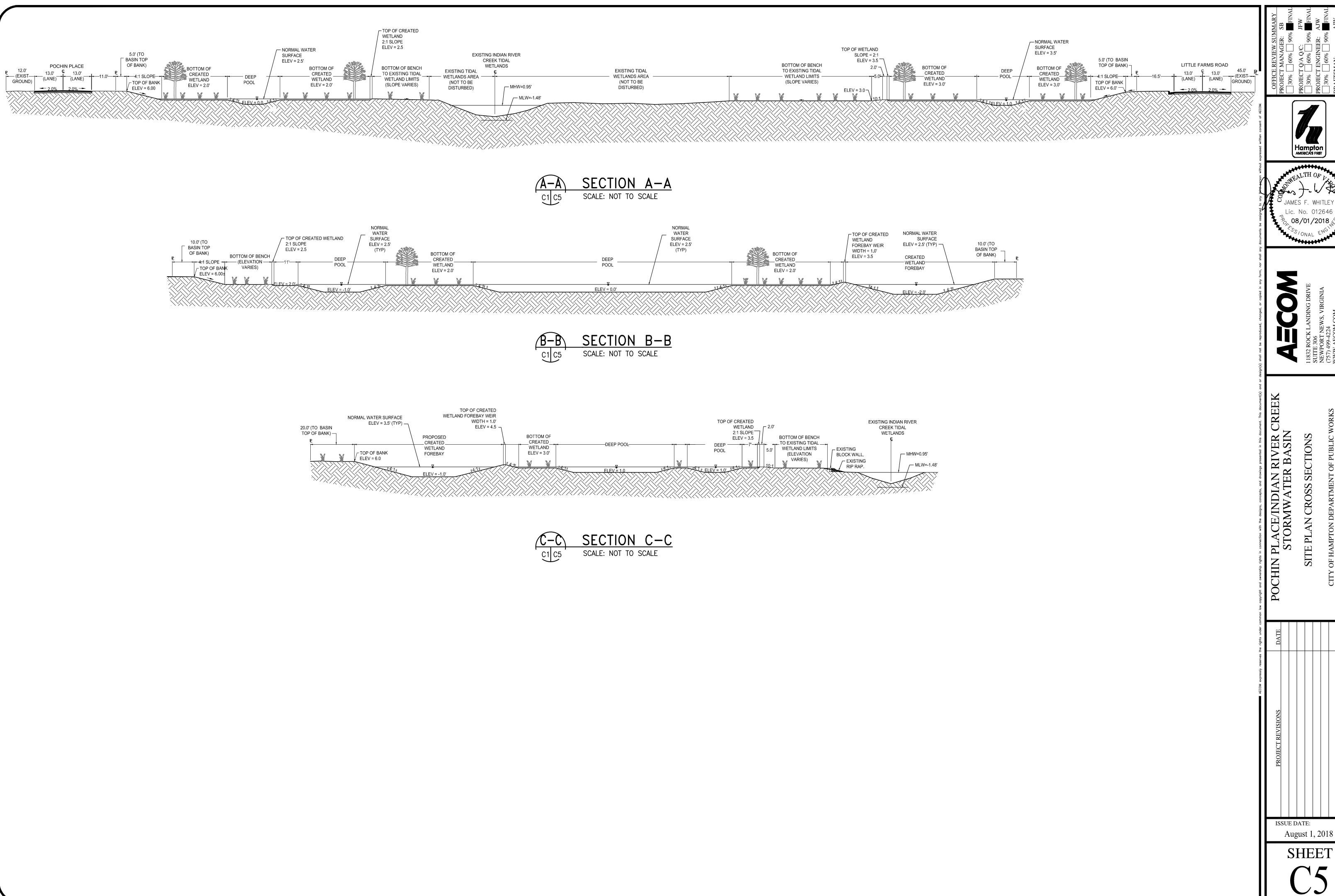


ISSUE DATE: August 1, 2018

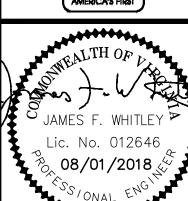
HORIZONTAL SCALE:

SHEET



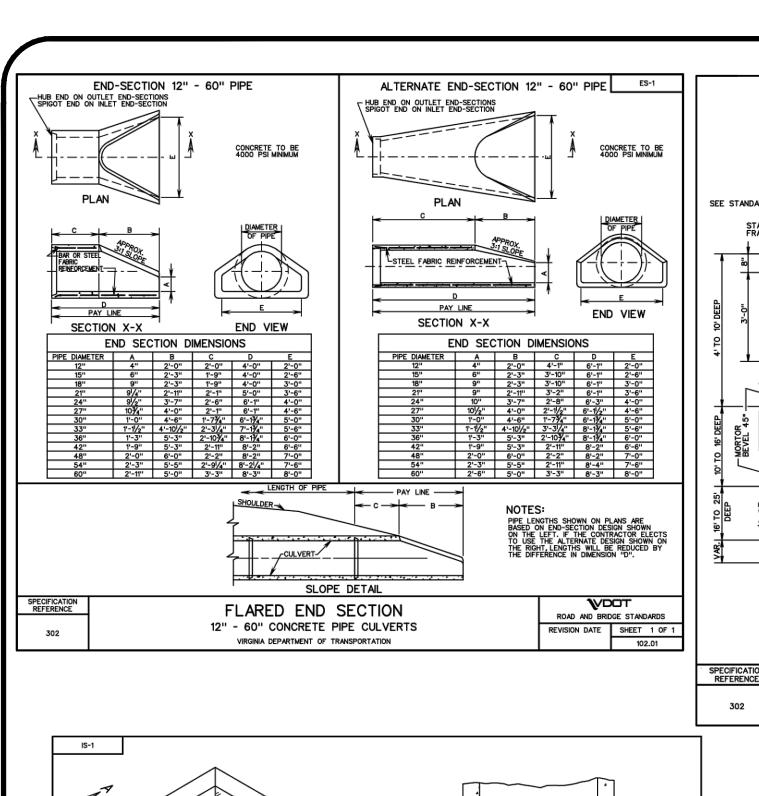


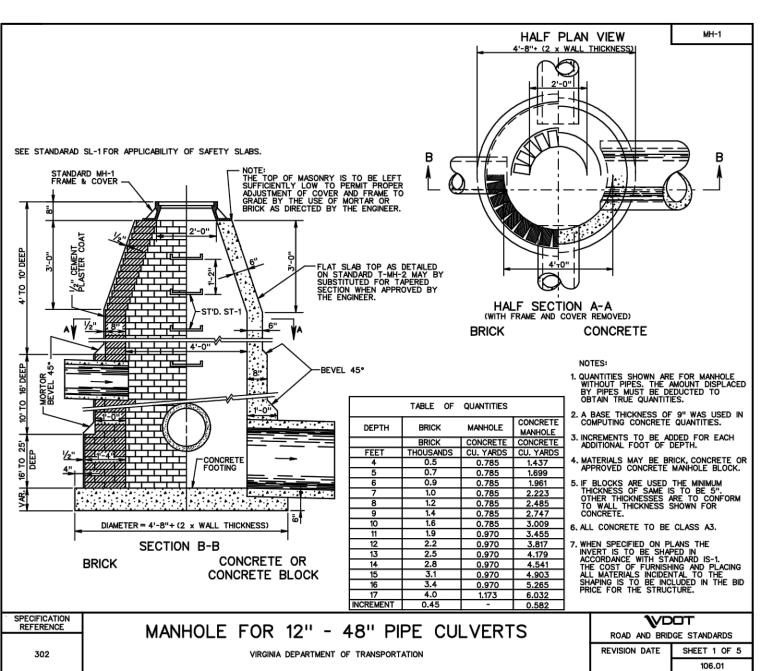


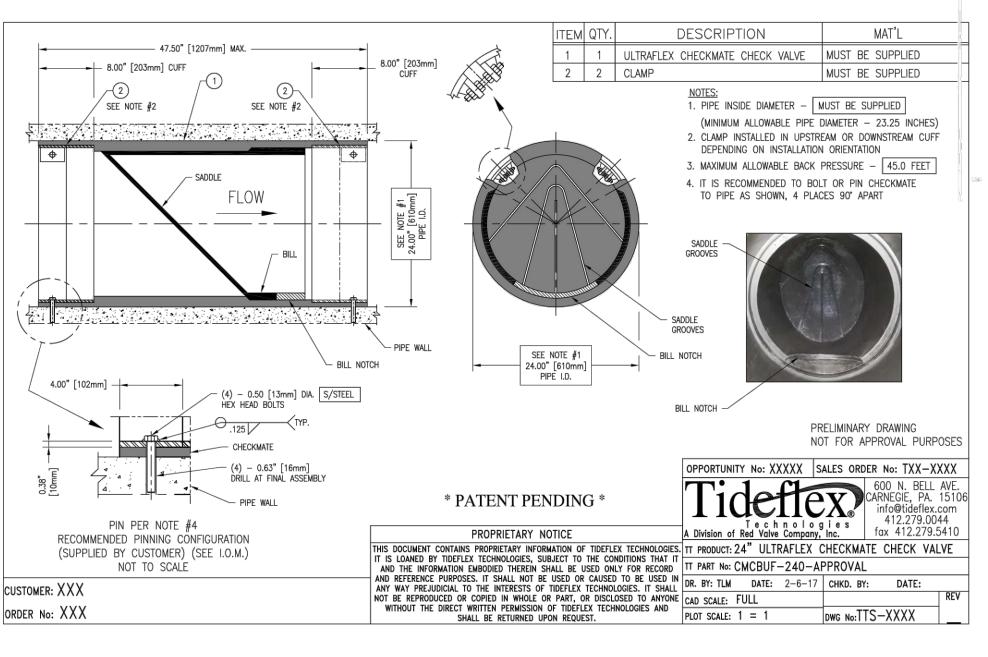


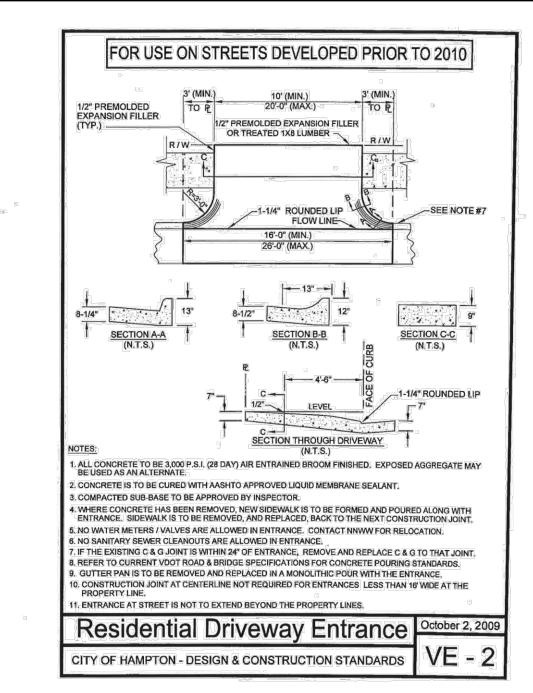
CITY OF HAMPTON DEPARTMENT 22 LINCOLN STREET, HAMPTON TEL. 757-727-6346 FAX 7

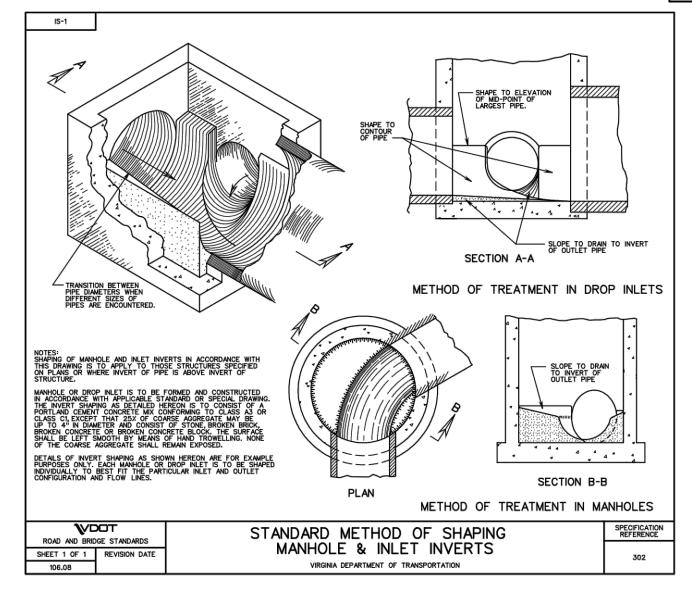
August 1, 2018

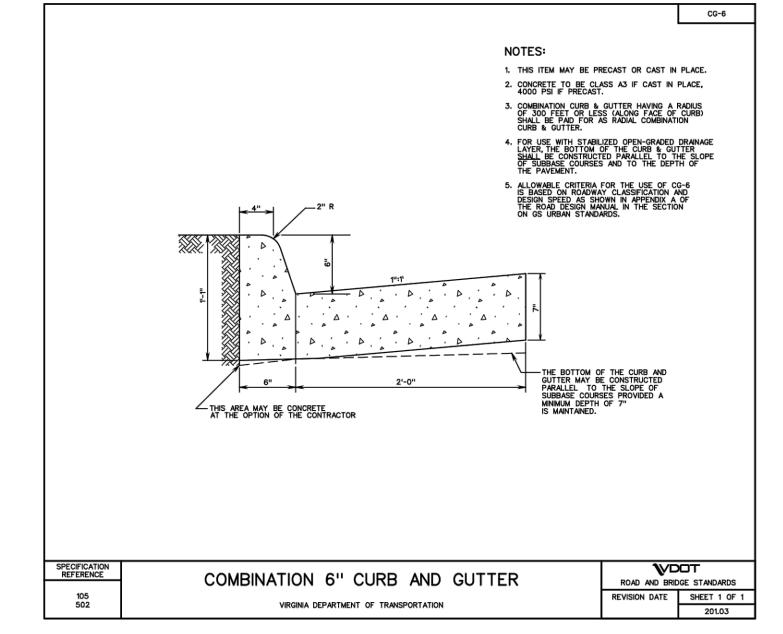


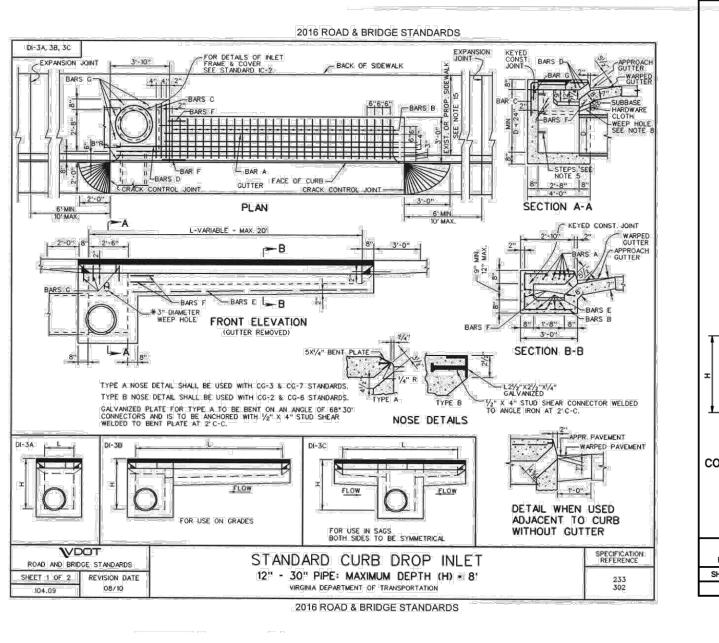


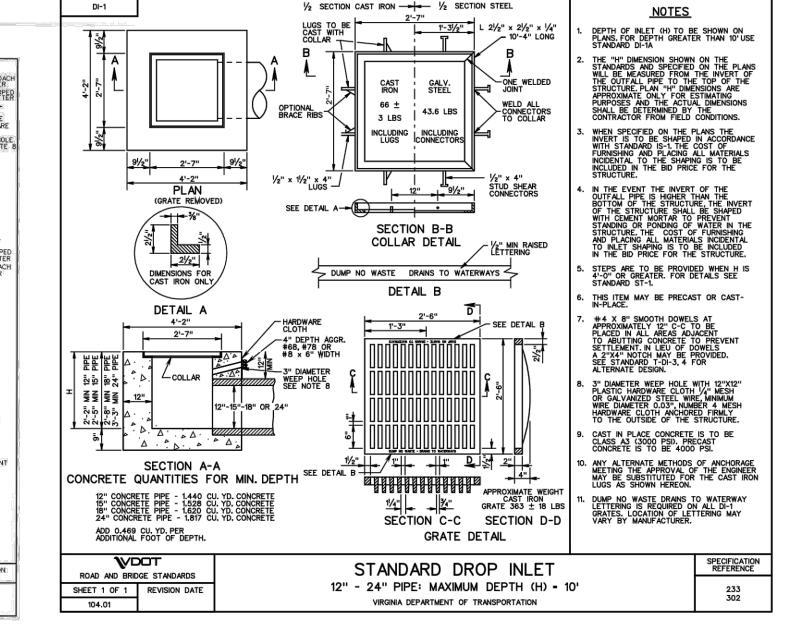


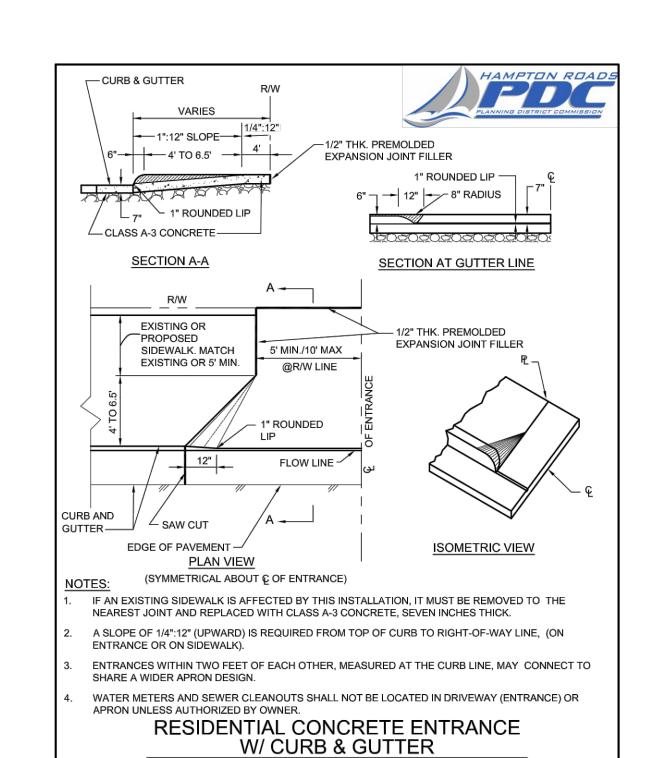












NOT TO SCALE

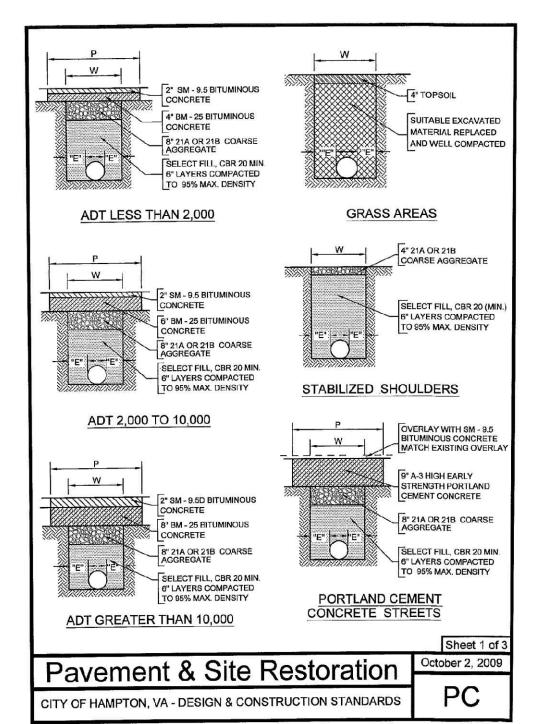
CONCRETE ITEMS

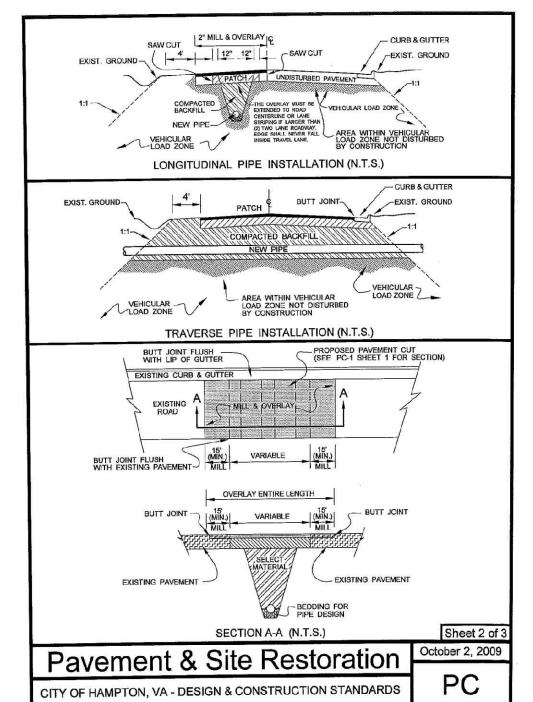
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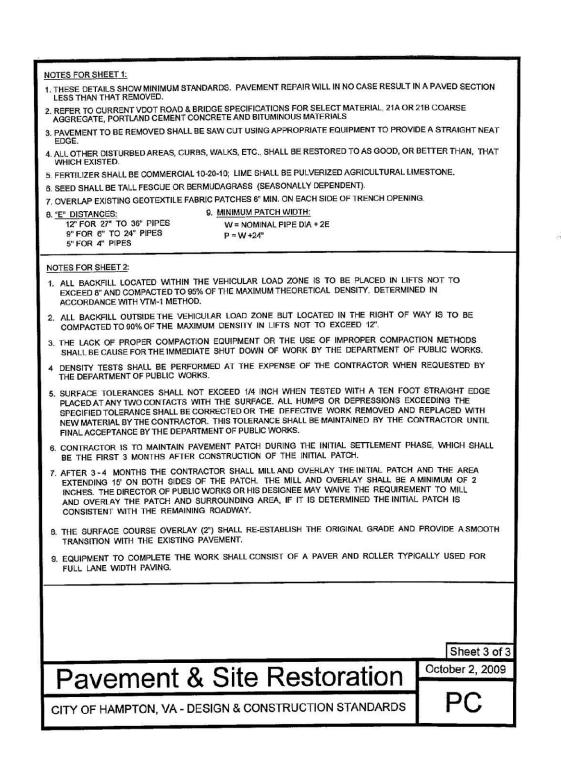
SHEET No. 1 OF 1

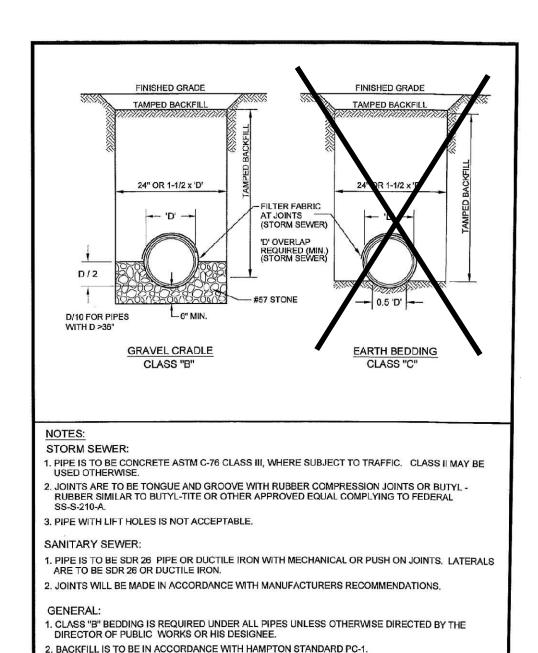
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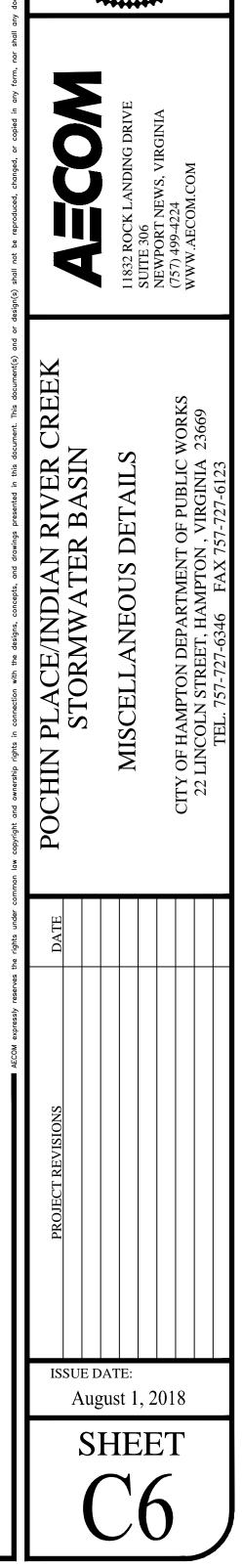




Pipe Bedding

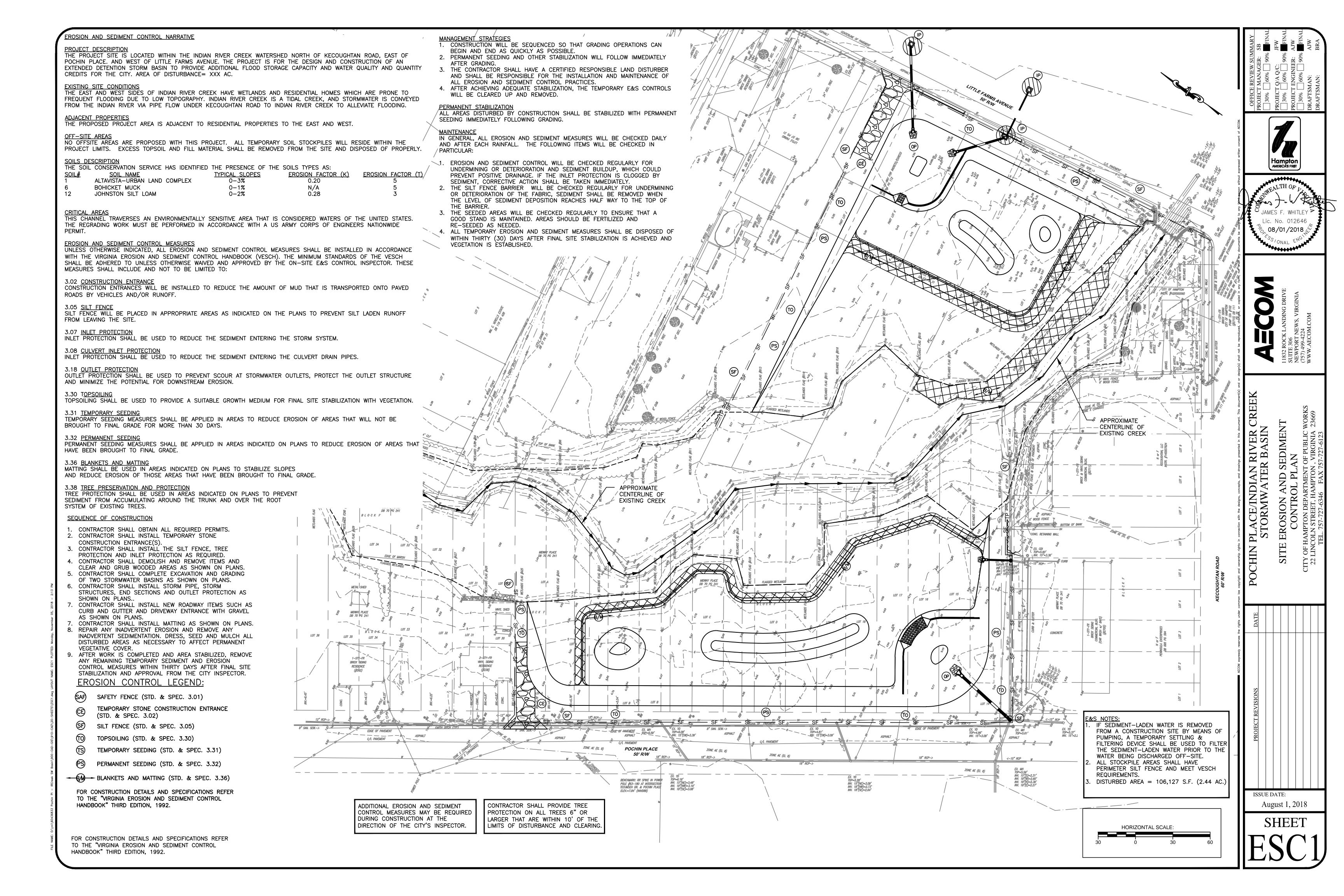
CITY OF HAMPTON, VA. - DESIGN & CONSTRUCTION STANDARDS

October 2, 1009



Hampton AMERICA'S FIRST

08/01/2018



EROSION AND SEDIMENT CONTROL MINIMUM STANDARDS:

MS-1 PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN (7) DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN (7) DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN THIRTY (30) DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE (1) YEAR.

MS-2 DURING CONSTRUCTION OF THE PROJECT, SOIL STOCKPILES AND BORROW AREAS SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. THE APPLICANT IS RESPONSIBLE FOR THE TEMPORARY PROTECTION AND PERMANENT STABILIZATION OF ALL SOIL STOCKPILES ON SITE AS WELL AS BORROW AREAS AND SOIL INTENTIONALLY TRANSPORTED FROM THE PROJECT SITE.

MS-3 A PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED ON DENUDED AREAS NOT OTHERWISE PERMANENTLY STABILIZED. PERMANENT VEGETATION SHALL NOT BE CONSIDERED ESTABLISHED UNTIL A GROUND COVER IS ACHIEVED THAT IS UNIFORM, MATURE ENOUGH TO SURVIVE AND WILL INHIBIT EROSION.

MS-4 SEDIMENT BASINS AND TRAPS, PERIMETER DIKES, SEDIMENT BARRIERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND-DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UPSLOPE LAND DISTURBANCE TAKES PLACE.

MS-5 STABILIZATION MEASURES SHALL BE APPLIED TO EARTHEN STRUCTURES SUCH AS DAMS, DIKES, AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION.

MS-6 SEDIMENT TRAPS AND SEDIMENT BASINS SHALL BE DESIGNED AND CONSTRUCTED BASED UPON THE TOTAL DRAINAGE AREA TO BE SERVED BY THE TRAP OR BASIN.

- A. THE MINIMUM STORAGE CAPACITY OF A SEDIMENT TRAP SHALL BE 134 CUBIC YARDS PER ACRE OF DRAINAGE AREA AND THE TRAP SHALL ONLY CONTROL DRAINAGE AREAS LESS THAN THREE ACRES.
- B. SURFACE RUNOFF FROM DISTURBED AREAS THAT IS COMPROMISED OF FLOW FROM DRAINAGE AREAS GREATER THAN OR EQUAL TO THREE ACRES SHALL BE CONTROLLED BY A SEDIMENT BASIN. THE MINIMUM STORAGE CAPACITY OF A SEDIMENT BASIN SHALL BE 134 CUBIC YARDS PER ACRE OF DRAINAGE AREA. THE OUTFALL SYSTEM SHALL, AT A MINIMUM, MAINTAIN THE STRUCTURAL INTEGRITY OF THE BASIN DURING A 25 YEAR STORM OF 24 HOUR DURATION. RUNOFF COEFFICIENTS USED IN RUNOFF CALCULATIONS SHALL CORRESPOND TO A BARE EARTH CONDITION OR THOSE CONDITIONS EXPECTED TO EXIST WHILE THE SEDIMENT BASIN IS UTILIZED.

MS-7 CUT AND FILL SLOPES SHALL BE CONSTRUCTED IN A MANNER THAT WILL MINIMIZE EROSION. SLOPES THAT ARE FOUND TO BE ERODING EXCESSIVELY WITHIN ONE (1) YEAR OF PERMANENT STABILIZATION SHALL BE PROVIDED

WITH ADDITIONAL SLOPE STABILIZING MEASURES UNTIL THE PROBLEM IS CORRECTED.

MS-8 CONCENTRATED RUNOFF SHALL NOT FLOW DOWN CUT OR FILL SLOPES UNLESS CONTAINED WITHIN ADEQUATE TEMPORARY OR PERMANENT CHANNEL, FLUME OR SLOPE DRAIN STRUCTURE.

MS-9 WHENEVER WATER SEEPS FROM A SLOPE FACE, ADEQUATE DRAINAGE OR OTHER PROTECTION SHALL BE PROVIDED.

MS-10 ALL STORM SEWER INLETS THAT ARE MADE OPERABLE DURING CONSTRUCTION SHALL BE PROTECTED SO THAT SEDIMENT-LADEN WATER CANNOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT.

MS-11 BEFORE NEWLY CONSTRUCTED STORMWATER CONVEYANCE CHANNELS OR PIPES ARE MADE OPERATIONAL, ADEQUATE OUTLET PROTECTION AND ANY REQUIRED TEMPORARY OR PERMANENT CHANNEL LINING SHALL BE INSTALLED IN BOTH THE CONVEYANCE CHANNEL AND RECEIVING CHANNEL

MS-12 WHEN WORK IN A LIVE WATERCOURSE IS PERFORMED, PRECAUTIONS SHALL BE TAKEN TO MINIMIZE ENCROACHMENT. CONTROL SEDIMENT TRANSPORT AND STABILIZE THE WORK AREA TO THE GREATEST EXTENT POSSIBLE DURING CONSTRUCTION. NONERODIBLE MATERIAL SHALL BE USED IN THE CONSTRUCTION OF CAUSEWAYS AND COFFERDAMS. EARTHEN FILL MAY BE USED FOR THESE STRUCTURES IF ARMORED BY NONERODIBLE COVER MATERIAL.

MS-13 WHEN A LIVE WATER COURSE MUST BE CROSSED BY CONSTRUCTION VEHICLES MORE THAN TWICE (2) IN ANY SIX (6) MONTH PERIOD, A TEMPORARY VEHICULAR STREAM CROSSING CONSTRUCTED OF NONERODIBLE MATERIAL SHALL BE PROVIDED.

MS-14 ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS PERTAINING TO WORKING IN OR CROSSING LIVE WATERCOURSES SHALL BE MET.

MS-15 THE BED AND BANKS OF A WATERCOURSE SHALL BE STABILIZED IMMEDIATELY AFTER WORK IN THE WATERCOURSE IS COMPLETED.

MS-16 UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING

- STANDARDS IN ADDITION TO OTHER APPLICABLE CRITERIA.
 - A. NO MORE THAN 500 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME. B. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES.
 - C. EFFLUENT FROM DEWATERING DEVICES 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 OFFSITE PROPERTY.
 - D. MATERIAL USED FOR BACKFILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ORDER TO MINIMIZE EROSION AND PROMOTE STABILIZATION.
 - E. RESTABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THESE REGULATIONS.

F. APPLICABLE SAFETY REGULATIONS SHALL BE COMPLIED WITH.

MS-17 WHERE CONSTRUCTION VEHICLE ACCESS ROUTES INTERSECT PAVED OR PUBLIC ROADS PROVISIONS SHALL BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT BY VEHICULAR TRACKING ONTO THE PAVED SURFACE. WHERE SEDIMENT IS TRANSPORTED ONTO A PAVED OR PUBLIC ROAD SURFACE, THE ROAD SURFACE SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING AND TRANSPORTED TO A SEDIMENT CONTROL DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT HAS BEEN REMOVED IN THIS MANNER. THIS PROVISION SHALL APPLY TO INDIVIDUAL DEVELOPMENT LOTS AS WELL AS TO LARGER LAND-DISTURBING ACTIVITIES.

MS-18 ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN THIRTY (30) DAYS AFTER FINAL SITE STABILIZATION OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED, UNLESS OTHERWISE AUTHORIZED BY THE LOCAL PROGRAM AUTHORITY. TRAPPED SEDIMENT AND THE DISTURBED SOIL AREAS RESULTING FROM THE DISPOSITION OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER AND SEDIMENTATION.

EROSION AND SEDIMENT CONTROL MINIMUM STANDARDS CONT'D.:

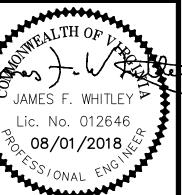
MS-19 PROPERTIES AND WATERWAYS DOWNSTREAM FROM DEVELOPMENT SITES SHALL BE PROTECTED FROM SEDIMENT DEPOSITIONS, EROSION AND DAMAGE DUE TO INCREASES IN VOLUME, VELOCITY AND PEAK FLOW RATE OF STORMWATER RUNOFF FOR THE STATED FREQUENCY STORM OF TWENTY-FOUR (24) HOUR DURATION IN ACCORDANCE WITH THE FOLLOWING STANDARDS AND CRITERIA:

- A. CONCENTRATED STORMWATER RUNOFF LEAVING A DEVELOPMENT SITE SHALL BE DISCHARGED DIRECTLY INTO AN ADEQUATE NATURAL OR MAN-MADE RECEIVING CHANNEL, PIPE OR STORM SEWER SYSTEM. FOR THOSE SITES WHERE RUNOFF IS DISCHARGED INTO A PIPE OR PIPE SYSTEM, DOWNSTREAM STABILITY ANALYSES AT THE OUTFALL OF THE PIPE OR PIPE SYSTEM SHALL BE PERFORMED.
- B. ADEQUACY OF ALL CHANNELS AND PIPES SHALL BE VERIFIED IN THE FOLLOWING
- 1. THE APPLICANT SHALL DEMONSTRATE THAT THE TOTAL DRAINAGE AREA TO THE POINT OF ANALYSES WITHIN THE CHANNEL IS ONE HUNDRED (100) TIMES GREATER THAN THE CONTRIBUTING DRAINAGE AREA OF THE PROJECT IN QUESTION; OR
- 2. (a) NATURAL CHANNELS SHALL BE ANALYZED BY THE USE OF A TWO (2) YEAR STORM TO VERIFY THAT STORMWATER WILL NOT OVERTOP CHANNEL BANKS NOR CAUSE EROSION OF CHANNEL BED OR BANKS.
- (b) ALL PREVIOUSLY CONSTRUCTED MAN-MADE CHANNELS SHALL BE ANALYZED BY THE USE OF A TEN (10) YEAR STORM TO VERIFY THAT STORMWATER WILL NOT OVERTOP ITS BANKS AND BY THE USE OF A TWO (2) YEAR STORM TO DEMONSTRATE THAT STORMWATER WILL NOT CAUSE EROSION OF CHANNEL BED OR BANKS; AND
- (c) PIPES AND STORM SEWER SYSTEMS SHALL BE ANALYZED BY THE USE OF A TEN (10) YEAR STORM TO VERIFY THAT STORMWATER WILL BE CONTAINED WITHIN THE PIPE OR SYSTEM.
- C. IF EXISTING NATURAL RECEIVING CHANNELS OR PREVIOUSLY CONSTRUCTED MAN-MADE CHANNELS OR PIPES ARE NOT ADEQUATE, THE APPLICANT SHALL:
- (1) IMPROVE THE CHANNELS TO A CONDITION WHERE TEN (10) YEAR STORM WILL NOT OVERTOP THE BANKS AND A TWO (2) YEAR STORM WILL NOT CAUSE EROSION TO THE CHANNEL BED OR BANKS; OR
- (2) IMPROVE THE PIPE OR PIPE SYSTEM TO A CONDITION WHERE THE TEN (10) YEAR STORM IS CONTAINED WITHIN THE APPURTENANCES:
- (3) DEVELOP A SITE DESIGN THAT WILL NOT CAUSE THE PRE-DEVELOPMENT PEAK RUNOFF RATE FROM A TWO (2) YEAR STORM TO INCREASE WHEN RUNOFF OUTFALLS INTO A NATURAL CHANNEL OR WILL NOT CAUSE THE PRE-DEVELOPMENT PEAK RUNOFF RATE FROM A TEN (10) YEAR STORM TO INCREASE WHEN RUNOFF OUTFALLS INTO A MAN-MADE CHANNEL; OR
- (4) PROVIDE A COMBINATION OF CHANNEL IMPROVEMENT, STORMWATER DETENTION OR OTHER MEASURES WHICH IS SATISFACTORY TO THE
- PLAN-APPROVING AUTHORITY TO PREVENT DOWNSTREAM EROSION. D. THE APPLICANT SHALL PROVIDE EVIDENCE OF PERMISSION TO MAKE THE IMPROVEMENTS.
- E. ALL HYDROLOGIC ANALYSES SHALL BE BASED ON THE EXISTING WATERSHED CHARACTERISTICS AND THE ULTIMATE DEVELOPMENT CONDITIONS OF THE SUBJECT PROJECT.
- F. IF THE APPLICANT CHOOSES AN OPTION THAT INCLUDES STORMWATER DETENTION, HE SHALL OBTAIN APPROVAL FROM THE LOCALITY OF A PLAN FOR MAINTENANCE OF THE DETENTION FACILITIES. THE PLAN SHALL SET FORTH THE MAINTENANCE REQUIREMENTS OF THE FACILITY AND THE PERSON RESPONSIBLE FOR PERFORMING THE MAINTENANCE.
- G. OUTFALL FROM A DETENTION FACILITY SHALL BE DISCHARGED TO A RECEIVING CHANNEL. AND ENERGY DISSIPATERS SHALL BE PLACED AT THE OUTFALL OF ALL DETENTION FACILITIES AS NECESSARY TO PROVIDE A STABILIZED TRANSITION FROM THE FACILITY TO THE RECEIVING CHANNEL.
- H. ALL ON-SITE CHANNELS MUST BE VERIFIED TO BE ADEQUATE.
- I. INCREASED VOLUMES OF SHEET FLOWS THAT MAY CAUSE EROSION OR SEDIMENTATION ON ADJACENT PROPERTY SHALL BE DIVERTED TO A STABLE OUTLET, ADEQUATE CHANNEL, PIPE OR PIPE SYSTEM OR TO A DETENTION FACILITY.
- J. IN APPLYING THESE STORMWATER MANAGEMENT CRITERIA, INDIVIDUAL LOTS OR PARCELS IN A RESIDENTIAL, COMMERCIAL OR INDUSTRIAL DEVELOPMENT SHALL NOT BE CONSIDERED TO BE SEPARATE DEVELOPMENT PROJECTS. INSTEAD, THE DEVELOPMENT, AS A WHOLE, SHALL BE CONSIDERED TO BE A SINGLE DEVELOPMENT PROJECT. HYDROLOGIC PARAMETERS THAT REFLECT THE ULTIMATE DEVELOPMENT CONDITION SHALL BE USED IN ALL ENGINEERING CALCULATIONS.
- K. ALL MEASURES USED TO PROTECT PROPERTIES AND WATERWAYS SHALL BE EMPLOYED IN A MANNER WHICH MINIMIZES IMPACTS ON THE PHYSICAL, CHEMICAL AND BIOLOGICAL INTEGRITY OF RIVERS, STREAMS AND OTHER WATERS OF THE STATE.

TABLE 6-1 GENERAL EROSION AND SEDIMENT CONTROL NOTES

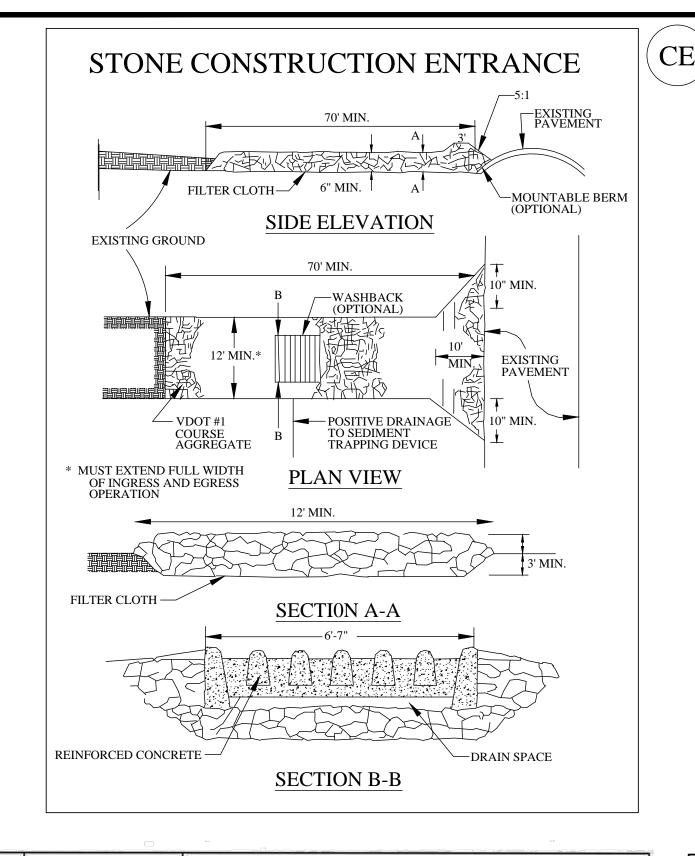
- ES-1: UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND VIRGINIA REGULATIONS VR 625-02-00 & 4VAC 50-30-40 EROSION AND SEDIMENT CONTROL REGULATIONS.
- ES-2: THE PLAN APPROVING AUTHORITY MUST BE NOTIFIED ONE (1) WEEK PRIOR TO THE PRE-CONSTRUCTION CONFERENCE, ONE (1) WEEK PRIOR TO COMMENCEMENT OF THE LAND DISTURBING ACTIVITY, AND ONE (1) WEEK PRIOR TO THE FINAL INSPECTION.
- ES-3: ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CLEARING.
- ES-4: A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
- ES-5: PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING, BUT NOT LIMITED TO, OFF-SITE BORROW OR WASTE AREAS), THE CONTRACTOR SHALL SUBMIT A SUPPLEMENTARY EROSION CONTROL PLAN TO THE OWNER FOR REVIEW AND APPROVAL BY THE PLAN APPROVING AUTHORITY.
- ES-6: THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE PLAN APPROVING AUTHORITY.
- ES-7: ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL
- ES-8: DURING DEWATERING OPERATIONS, WATER WILL BE PUMPED INTO AN APPROVED FILTERING DEVICE.
- ES-9: THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES PERIODICALLY AND AFTER EACH RUNOFF-PRODUCING RAINFALL EVENT. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY.





EDIMENT ES

ISSUE DATE: August 1, 2018



JUNCTION SLOT

1. APPROXIMATE 200 STAPLES REQUIRED PER 4' X 225' ROLL.

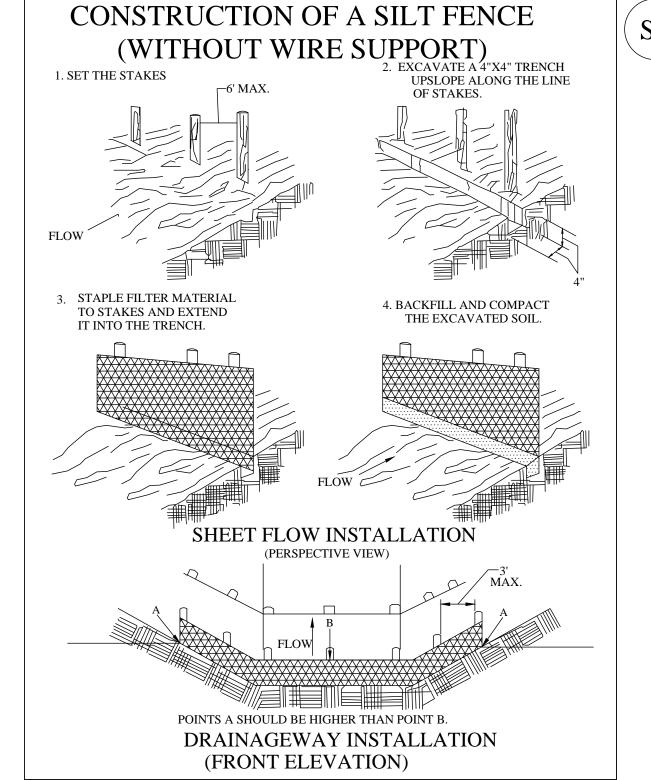
2. ANCHOR SLOTS, JUNCTION SLOTS AND CHECK SLOTS TO BE BURIED 6" TO 12 AND VARIABLE.

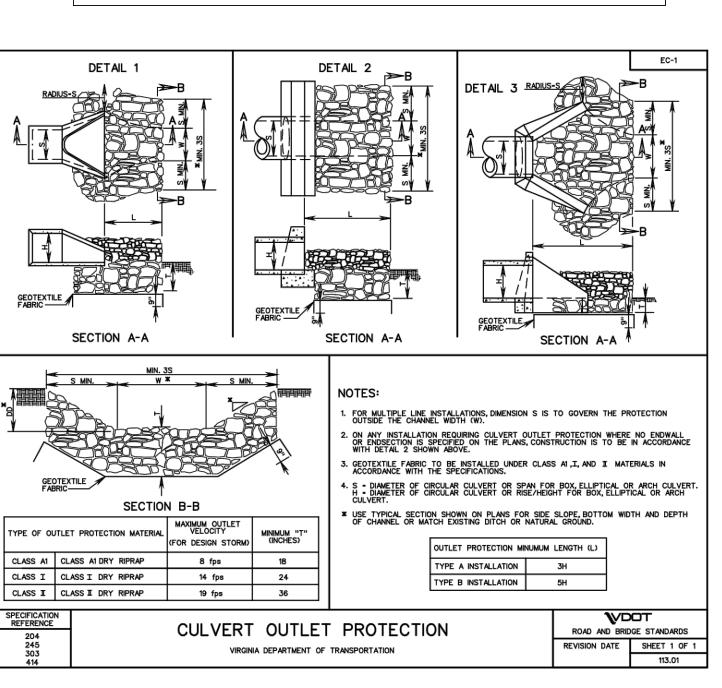
4. STAPLES FORMED FROM NO. 8 STEEL, WIRE 8" STAPLE MINIMUM LENGTH _ FOR SANDY SOIL 6" STAPLE MINIMUM LENGTH FOR OTHER SOIL.

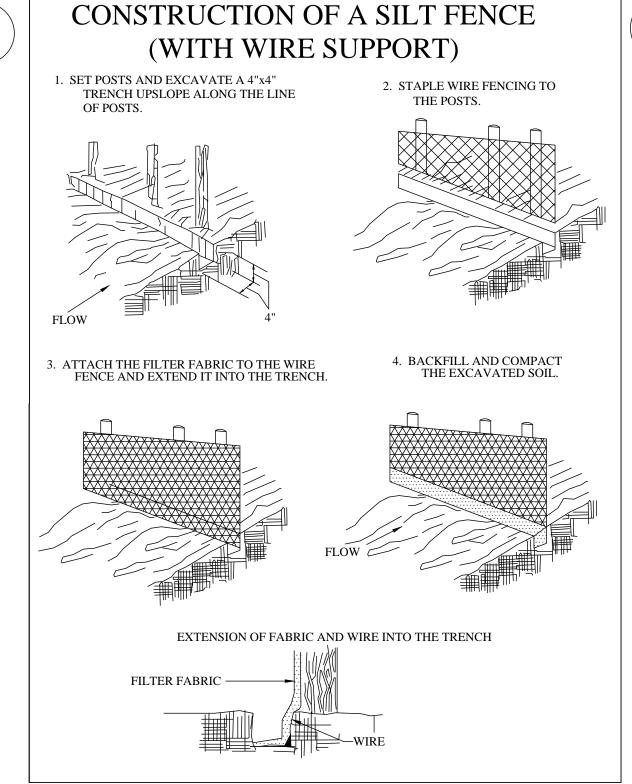
NOTES:

5. FOR SOURCES OF APPROVED MATERIAL SEE VOOT'S APPROVED PRODUCTS LIST FOR ST'D. EC-2 MATERIAL.

JUTE MESH







NOTE: SILT FENCE FABRIC SHALL BE 36" TALL, STAKED WITH 2"X2"X5" HARDWOOD STAKES ON 6" CENTERS.

TOPSOIL (FOR APPLICATION TO VARIOUS DEPTHS)

6.2

9.3

12.4

15.5

18.6

PER ACRE (CY) 134

268

403

537

672

806

DEPTH (INCHES) PER 1000 SQUARE FEET (CY)

70/30 Hydromulch or equivalent Perennial Ryegrass Seed Common Unhulled Bermuda grass seed 20-20-20 Soluble Fertilizer Jump Start or equivalent Neutralime or equivalent Tacking Agent

PERMANENT SEEDING SPECIFICATION

(FOR POCHIN PLACE/INDIAN RIVER CREEK)

DIAN KI	VER CREEK)	13
ification		
nber –Febru	ary)	
	Rate Per 1000 SF	
	50.65 lbs/1000 SF	
	10.71 lbs/1000 SF	
	1.79 lbs/1000 SF	
	2.0 lbs/1000 SF	
	0.75 lbs/ 1000 SF	
	** pending soil test	

1.14 lbs/ 1000 SF

Seeding Specification				
(Spring / Summer March – September)				
Ingredient	Rate Per 1000 SF			
70/30 Hydromulch or equivalent	50.65 lbs/1000 SF			
Perennial Ryegrass Seed	10.71 lbs/1000 SF			
Common hulled Bermuda grass seed	1.79 lbs/1000 SF			
20-20-20 Soluble Fertilizer	2.0 lbs/1000 SF			
Jump Start or equivalent	0.75 lbs/ 1000 SF			
Neutralim e or equivalent	**pending soil test			
Tacking Agent	1.14 lbs/ 1000 SF			

SITE EROSION AND SE
CONTROL DETA
CITY OF HAMPTON DEPARTMENT O
22 LINCOLN STREET, HAMPTON,

ISSUE DATE:

August 1, 2018

SHEET

END-SECTION 12" - 60" PIPE ALTERNATE END-SECTION 12" - 60" PIPE THUB END ON OUTLET END-SECTIONS
SPIGOT END ON INLET END-SECTION $\begin{picture}(100,0) \put(0,0){\times} \put(0,0$ CONCRETE TO BE 4000 PSI MINIMUM PLAN LSTEEL FABRIC REINFORCEMENT E PAY LINE END VIEW SECTION X-X SECTION X-X END VIEW END SECTION DIMENSIONS END SECTION DIMENSIONS PAY LINE -> SHOULDER-< с → **<** В →

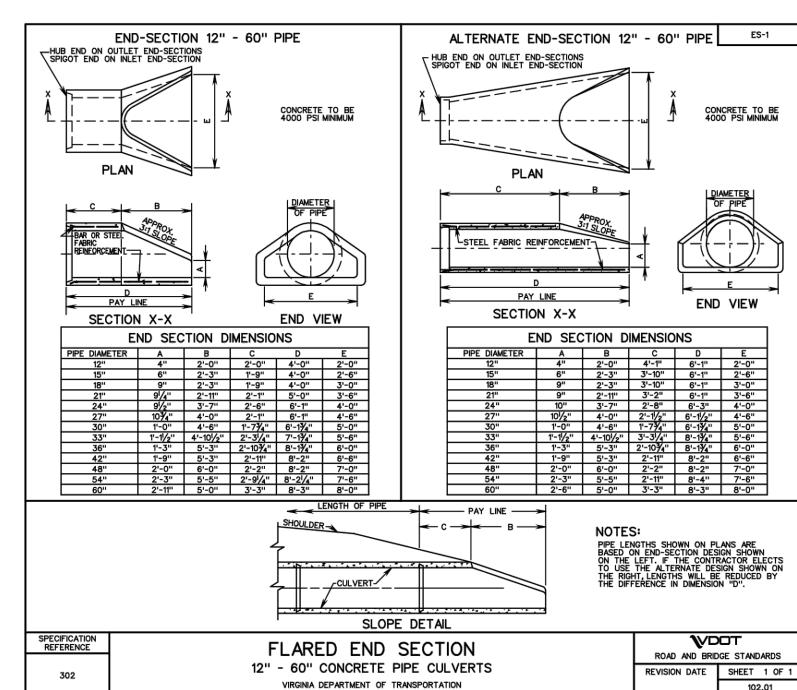
TEMPORARY SEEDING SCHEDULE (TS)

TEINITONANT SEEDINO SOTIEDOEL				
APPLICATION	SPECIES	APPLICATION RATES		
Sept. 1 — Feb. 15	50/50 Mix of Annual Ryegrass (Lolium multi—florum) & Cereal (Winter) Rye (Secale creale)	50-100 (lbs/acre)		
Feb. 16 - Apr. 30	Annual Ryegrass (Iolium multi-florum)	60-100 (lbs/acre)		
May 1 — Aug. 31	German Millet	50 (lbs/acre)		

FERTILIZER & LIME

Apply 10-10-10 Fertilizer at a rate of 450 lbs/acre (or 10 lbs. / 1,000 sq. ft.) Apply Pulverized Agricultural Limestone at a rate of 2 tons/acre (or 90 lbs. / 1,000 sq. ft.)

. A soil test is necessary to determine the actual amount of lime required to adjust the soil pH of site. 2. Incorporate the lime and fertilizer into the top 4-6 inches of the soil by disking or by other means. 3. When applying Slowly Available Nitrogen, use rates available in <u>Erosion & Sediment Control Technical Bulletin</u> #4 2003 Nutrient Management for Development Sites at http://www.dcr.state.va.us/sw/e&s.htm#pubs



SOIL RETENTION MAT 1 BASIS OF PAYMENT TO BE SQUARE YARDS OF PROTECTIVE COVERING COMPLETE IN PLACE.
PROTECTIVE COVERING IS TO BE LOCATED AS INDICATED ON THE PLANS IN ACCORDANCE
WITH THE DIMENSIONS SPECIFIED ON TYPICAL SECTION.

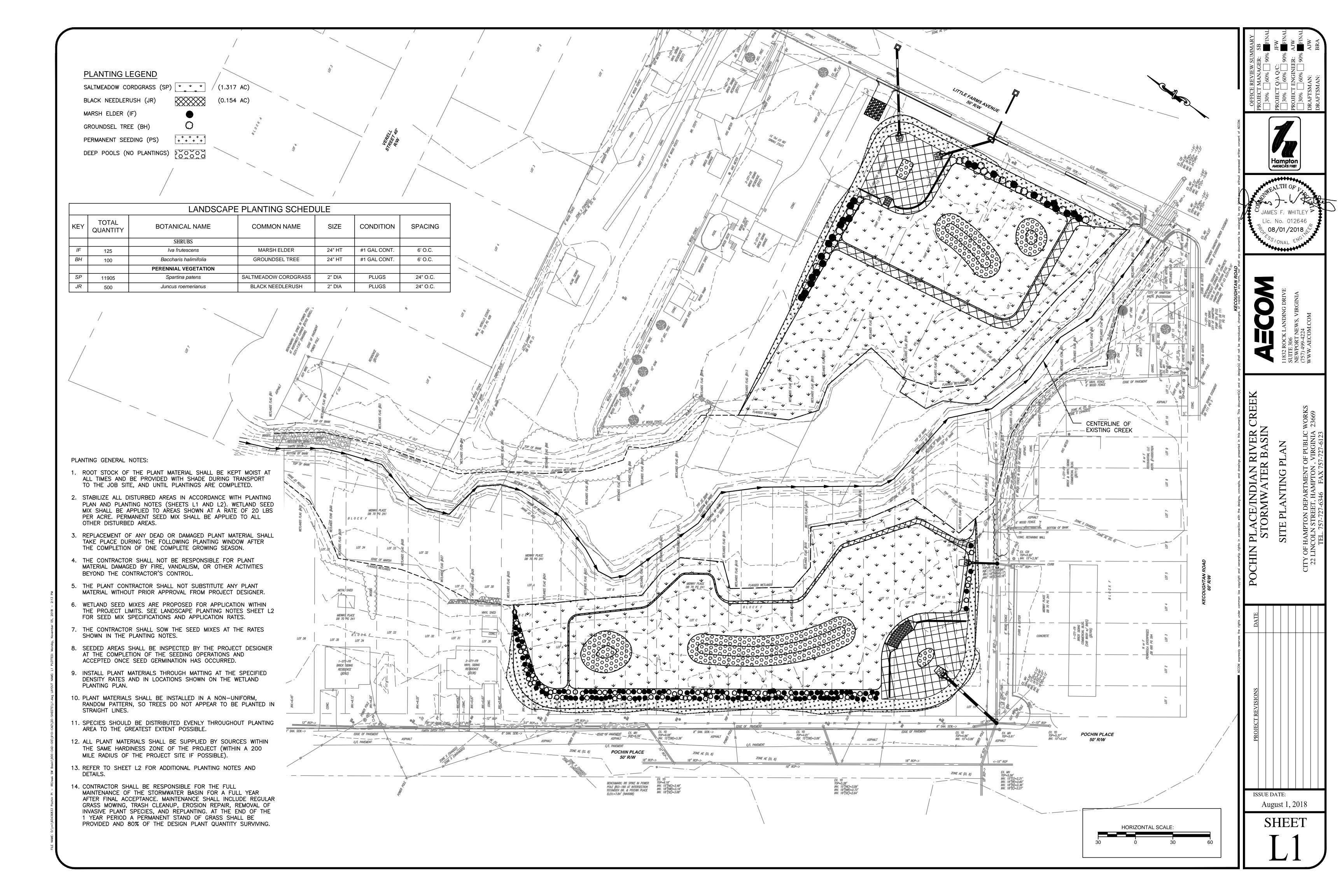
3. JUTE MESH OR SOIL RETENTION MAT IN ACCORDANCE WITH THE SPECIFICATIONS
MAY BE USED AT THE OPTION OF THE CONTRACTOR. **V**DOT ROAD AND BRIDGE STANDARDS SHEET 1 OF 1 REVISION DATE

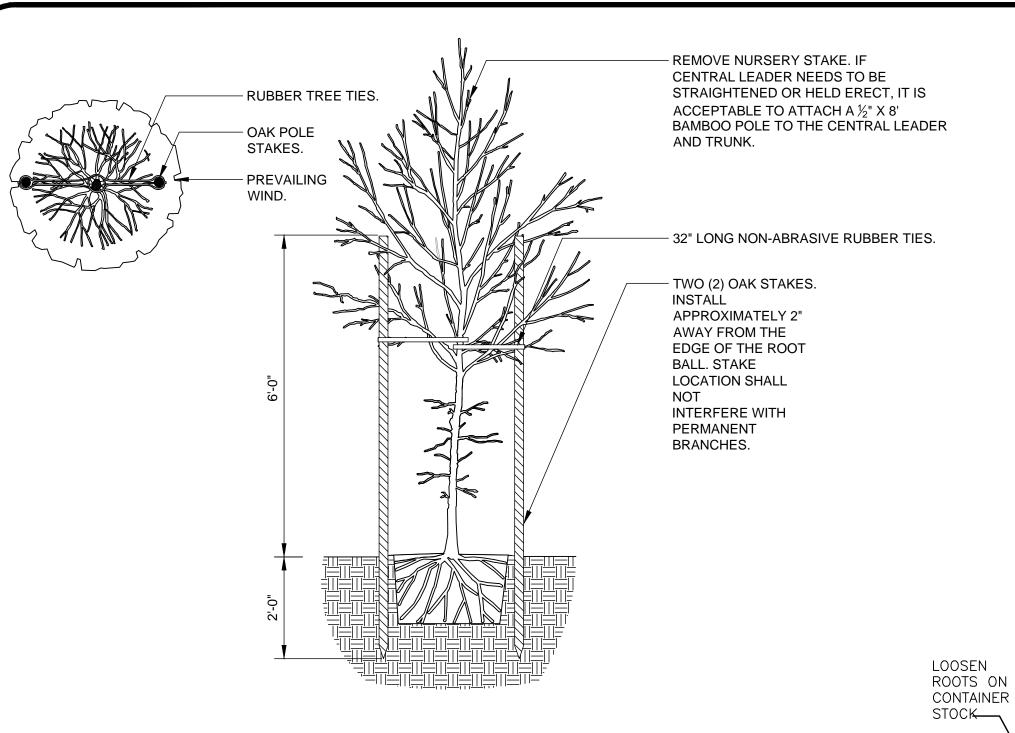
JUNCTION SLOT

2. T-TOP: STAPLES OR OTHER MANUFACTURER'S DESIGN APPROVED BY THE ENGINEER MAY BE SUBSTITUTED FOR THE STAPLES SHOWN. PROTECTIVE COVERING INSTALLATION CRITERIA

PLAN VIEW STAPLING DIAGRAM

VIRGINIA DEPARTMENT OF TRANSPORTATION





TREE STAKING - OAK POLES (2)

NOT TO SCALE

-ROOT CROWN LEVEL WITH OR JUST ABOVE FINISH GRADE - TAMP FIRMLY TO ELIMINATE AIR POCKETS IN PLANTING HOLE FINISH GRADE — — FERTILIZER TABLET MINIMUM BURIAL

PLANT ROOTS TO BE STRAIGHT & UNDAMAGED

BY INSTALLATION

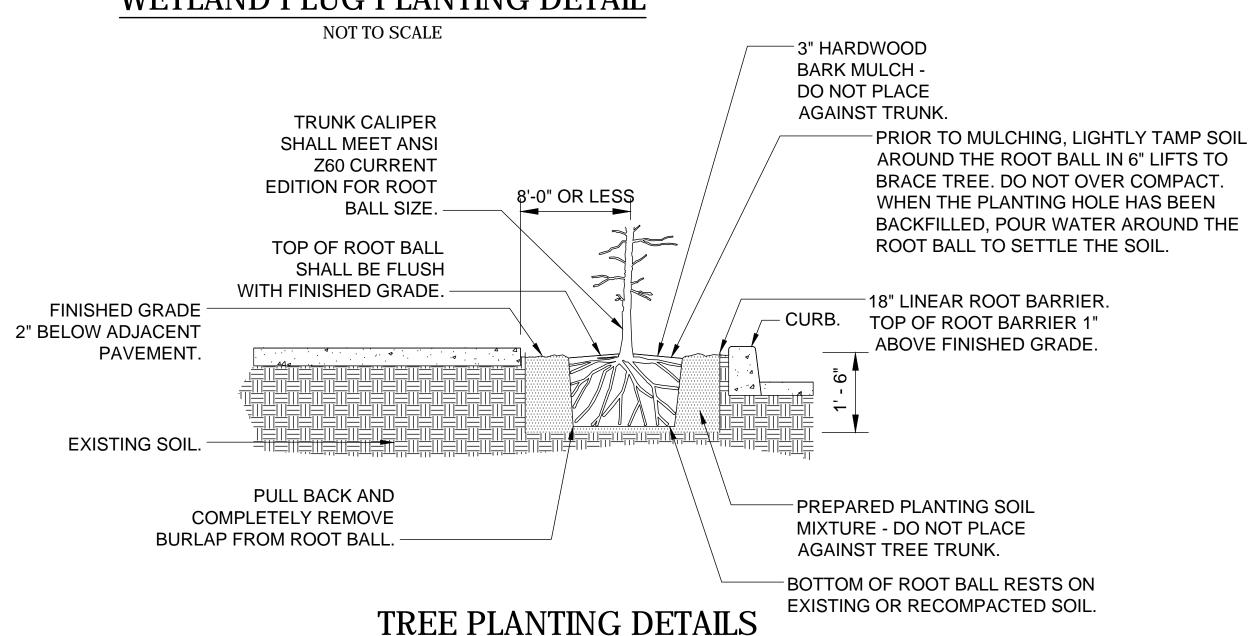
6" TOPSOIL AND WETLAND MUCK

5" INTO SOIL —

I. LEAVES & ROOT CROWN TO REMAIN UNDAMAGED DURING PLANTING 2. CREATE PLANTING HOLE WITH AUGER

3. PLUGS SHALL BE PLANTED WITH AN AVERAGE SPACING OF 1.5' WITHIN PLANTING

WETLAND PLUG PLANTING DETAIL



NOT TO SCALE

LANDSCAPE PLANTING NOTES

- 1. ALL PLANT MATERIALS SHALL MEET THE MINIMUM SPECIFICATIONS AND STANDARDS DESCRIBED IN THE MOST RECENT "AMERICAN STANDARD FOR NURSERY STOCK", PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN, 1250 I STREET, N.W. SUITE 500, WASHINGTON, DC. 20005.
- 2. THE PLANTING SEASON FOR B&B STOCK WILL BE BETWEEN OCTOBER 15 AND MARCH 31. IN NO CASE SHALL OUT OF SEASON PLANTING WITH B&B STOCK BE DONE WITHOUT APPROVAL OF THE LANDSCAPE ARCHITECT. THE PLANTING SEASON FOR CONTAINER GROWN NURSERY STOCK SHALL BE BETWEEN SEPT. 15 AND MAY 15, IN NO CASE SHALL OUT OF SEASON PLANTING WITH CONTAINER STOCK BE DONE WITHOUT APPROVAL OF THE LANDSCAPE ARCHITECT.
- 3. VERIFICATION OF TOTAL PLANT QUANTITIES AS SHOWN IN "LANDSCAPE PLANTING SCHEDULE" IS THE RESPONSIBILITY OF THE CONTRACTOR. THE PLANTING PLAN SHALL PREVAIL IN CASE OF DISCREPANCIES.

-LOOSE TOPSOIL

— LOOSEN ROOTS AND ANY

- SHRUB SHALL BEAR SAME RELATION TO FINISHED GRADE AS IT BORE TO PREVIOUS EXISTING GRADE

DO NOT PLACE AGAINST SHRUB BASE

- PREPARE TOPSOIL MIXTURE AS REQ'D.

- CUT & REMOVE BURLAP FROM TOP 1/3 OF ROOT BALL

—SUBGRADE (SCARIFY SURFACE

TO PLANTING

BEFORE PLANTING); LOOSEN ROOT

BALL OF CONTAINER PLANTS PRIOR

HARDWOOD BARK MULCH AS SPECIFIED -

SOIL DELIVERED WITH PLANT

1IN. J

1. SHRUBS SHALL BE SPECIMEN QUALITY (AMERICAN

ASSOCIATION OF NURSERYMEN STANDARDS).

SHRUB MATERIAL SHALL BE FIELD GROWN.

2. SHRUBS SHALL BE PLANTED WITH AN AVERAGE

SHRUB PLANTING DETAILS

NOT TO SCALE

SPACING OF 6.0'.

SHRUBS SHALL BE SPACED PER PLANT KEY.

PLANTING OF CONTAINERS

NOT TO SCALE

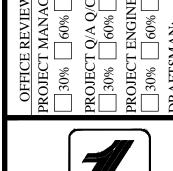
- 4. ALL NEW PLANTINGS SHALL BE LOCATED AS SHOWN AND/OR INDICATED BY PLANS AND "LANDSCAPE PLANTING SCHEDULE". CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL EXISTING SITE UTILITIES. IF OBSTRUCTIONS OCCUR BELOW GROUND OR OVERHEAD, CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT. ANY ADJUSTMENTS SHALL BE MADE UPON APPROVAL OF THE LANDSCAPE ARCHITECT.
- 5. ALL PLANT MATERIAL IS SUBJECT TO INSPECTION AND APPROVAL BY THE OWNER AND / OR LANDSCAPE ARCHITECT. BED LAYOUT AND PLANT MATERIAL LOCATIONS MUST BE APPROVED BY THE OWNER AND / OR LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
- 6. ALL SOILS MUST BE EXAMINED, TESTED AND AMENDED OR REPLACED BY CONTRACTOR TO MEET FERTILITY AND DRAINAGE REQUIREMENTS OF THE SPECIFIED PLANTS INCLUDING THE INSTALLATION OF DRAIN TILE, GRAVEL, ETC. AS NECESSARY TO CREATE A SUITABLE SOIL ENVIRONMENT FOR VIGOROUS PLANT GROWTH AND PLANT LONGEVITY.
- 7. PREPARED SOIL MIXTURE SHALL CONSIST OF: 4 PARTS TOPSOIL, 2 PARTS SPHAGUM PEAT MOSS, AND 2 PARTS PERLITE.
- 8. ALL PLANTINGS SHALL FOLLOW THE INDIVIDUAL DETAILS ON THIS PLANTING PLAN FOR TREE PLANTING, SHRUB PLANTING ETC. ALL LOCAL PLANTING REQUIREMENTS, DEEMED BY A LOCAL AGENCY, MUST ALSO BE ADHERED TO. ALL TREES SHALL BE FURNISHED BALLED AND BURLAP (B&B) OR CONTAINER GROWN UNLESS OTHERWISE APPROVED BY THE LANDSCAPE ARCHITECT.
- 9. ALL PLANTS SHALL BE FERTILIZED, WATERED AND PRUNED AT THE TIME OF PLANTING. FERTILIZER: AGRIFORM TABLET 10-20-20, SHRUBS AND GROUND COVERS 5-10-15 IN BED AT 1 LB PER 100 SQ. FT.

CITY OF HAMPTON GENERAL

LANDSCAPE NOTES

- 1. THIS PLAN, IF SIGNED BY THE CITY OF HAMPTON'S DIRECTOR OF PLANNING OR THE DIRECTOR'S ASSIGNS, SERVES AS THE APPROVED LANDSCAPE PLANTING PLAN FOR THE PROJECT AND IS AN ELEMENT OF THE PROJECT'S SITE PLAN. ALL LANDSCAPE FEATURES DEPICTED AND SPECIFIED ON THIS PLAN AS EITHER "NEW" OR "EXISTING TO BE RETAINED" ARE LANDSCAPE IMPROVEMENTS PROPOSED BY THE PROJECT DEVELOPER/OWNER/BUILDER TO SATISFY PROVISIONS OF THE CITY OF HAMPTON BUILDING AND DEVELOPMENT CODE AND ZONING ORDINANCES. AFTER THE PLAN IS IMPLEMENTED BY THE DEVELOPER/OWNER/BUILDER AND ACCEPTED BY THE CITY OF HAMPTON DEPARTMENT OF CODES COMPLIANCE, THE DEVELOPER /OWNER/BUILDER SHALL CAUSE THE MAINTENANCE AND CARE NECESSARY TO ESTABLISH AND SUSTAIN THE LANDSCAPE FEATURES SHOWN ON THE PLAN.
- 2. LANDSCAPE MAINTENANCE: ALL NEW LANDSCAPE IMPROVEMENTS AND EXISTING TREES TO BE RETAINED AS SHOWN ON THE APPROVED LANDSCAPE PLAN SHALL BE SUBJECT TO REGULAR MAINTENANCE CONSISTING OF, BUT NOT LIMITED TO, FERTILIZATION, PRUNING, REPLACEMENT, INSECT AND DISEASE CONTROL, WATERING, MULCHING AND WEED CONTROL.
- 3. GREEN AREAS: GREEN AREAS SHALL CONSIST OF EARTH CAPABLE OF SUSTAINING PLANT MATERIAL AND PROVIDING NATURAL PERCOLATION OF WATER, GREEN AREAS SHALL NOT BE USED TO STORE MATERIALS, PRODUCTS OR EQUIPMENT. WHERE ORNAMENTAL PLANTS AND / OR TURF GRASSES ARE TO BE ESTABLISHED, TOPSOIL OR A PREPARED SOIL MIXTURE SHALL BE APPLIED AT DEPTHS NOT LESS THAN THREE INCHES FOR GRASSES, TWELVE INCHES FOR SHRUBS AND EIGHTEEN INCHES FOR TREES IN AREAS WHERE THE SUBSOIL OR EXISTING SOIL ONE OR MORE OF THE FOLLOWING PROBLEMS:
 - a. THE TEXTURE, pH, OR NUTRIENT BALANCE OF THE AVAILABLE SOIL CANNOT BE MODIFIED BY REASONABLE MEANS TO PROVIDE AN ADEQUATE GROWTH MEDIUM FOR THE SPECIFIED PLANTS.
- b. THE SOIL MATERIAL IS TOO SHALLOW TO PROVIDE AN ADEQUATE ROOT ZONE AND TO SUPPLY NECESSARY MOISTURE AND NUTRIENTS FOR THE PLANT GROWTH.
- c. THE SOIL CONTAINS SUBSTANCES POTENTIALLY TOXIC TO PLANT GROWTH.
- 4. OTHERWISE, THE EXISTING SOILS SHALL BE MODIFIED THROUGH THE USE OF SOIL AMENDMENTS (i.e. PETMOSS, PERLITE, LIME, GYPSUM, etc.) TO PROVIDE AN ADEQUATE GROWING MEDIUM.
- 5. TOPSOIL OR PREPARED SOIL MIXTURES SHALL BE FRIABLE AND LOAMY. THEY SHALL BE FREE OF DEBRIS, TRASH, STUMPS, ROCKS, NOXIOUS WEEDS, AND SUBSTANCES POTENTIALLY TOXIC
- 6. ALL TOPSOIL AND PREPARED SOIL MIXTURES SHALL MEET OR EXCEED THE FOLLOWING MINIMUM CRITERIA:
 - a. SOIL SOLIDS SHALL CONSIST OF 40 PERCENT SAND, 40 PERCENT SILT, 10 PERCENT CLAY, AND 10 PERCENT ORGANIC MATTER.
 - b. pH LEVEL SHALL BE ADJUSTED AS NECESSARY TO MATCH THE SPECIFIED pH NEEDS OF THE PROPOSED PLANTS.
 - c. SOLUBLE SALTS SHALL NOT EXCEED 500 PPM.







08/01/2018

ISSUE DATE: August 1, 2018

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