

BEFORE YOU DIG CALL
"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 CONTACTED.

CITY OF HAMPTON, VA DEPARTMENT OF PUBLIC WORKS

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

N. King Street/Brights Creek Area Stormwater Basin Retrofit City Project 17-023

OFFICE REVIEW SUMMARY:
 PROJECT MANAGER: SR 30% 60% 100% FINAL
 PROJECT Q/A Q.C. JFW 30% 60% 100% FINAL
 PROJECT ENGINEER: AJW 30% 60% 100% FINAL
 DRAFTSMAN: AJW



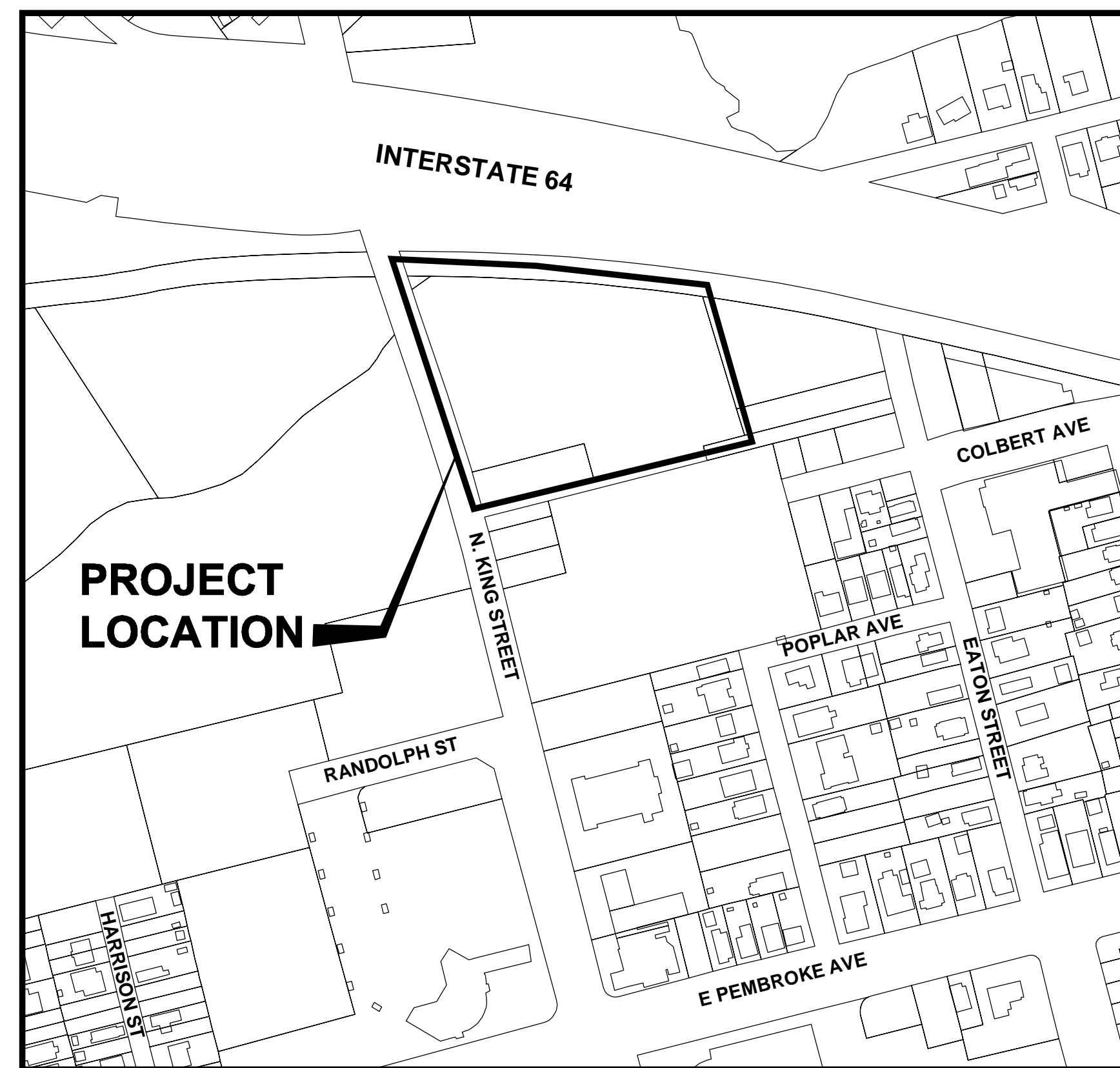
COMMONWEALTH OF VIRGINIA
 JAMES F. WHITLEY
 Lic. No. 012646
 09/01/19
 PROFESSIONAL ENGINEER

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**N. KING STREET/BRIGHTS CREEK AREA
 STORMWATER BASIN RETROFIT**
 TITLE SHEET
 CITY OF HAMPTON DEPARTMENT OF PUBLIC WORKS
 22 LINCOLN STREET, HAMPTON, VIRGINIA 23669
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DRAWING INDEX

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C1	OVERALL SITE LAYOUT PLAN
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VICINITY MAP SCALE: 1"=2000'

TOTAL PROJECT AREA: 183,147 S.F. (4.20 AC.)
 TOTAL DISTURBED AREA: 179,282 S.F. (4.12 AC.)

N. KING STREET STORMWATER BASIN	
LATITUDE AND LONGITUDE	N37° 2' 0.21" / W76° 20' 43.54"
HUC CODE	020802060906
WATERSHED NAME	HAMPTON RIVER WEST/SOUTHAMPTON
OUTFALL	BRIGHTS CREEK
BMP TYPE	LEVEL 1 WET POND
TOTAL AREA TREATED BY BMP	31.75 AC
AREA OF EACH TYPE OF LAND COVER TREATED	18.35 REGULATED PERVIOUS 13.40 REGULATED IMPERVIOUS
WATER QUALITY STORAGE REQUIRED	1.41 AC/FT
WATER QUALITY STORAGE PROVIDED	2.07 AC/FT
TOTAL PHOSPHORUS REMOVAL	14.87 LBS/YR
TOTAL NITROGEN REMOVAL	50.75 LBS/YR
TOTAL SUSPENDED SOLIDS (TSS) REMOVAL	6,797.97 LBS/YR
PROPERTY OWNERS	CITY OF HAMPTON
LRSN(S)	90020102, 080021592
ZONING	HEAVY AND LIGHT MANUFACTURING
FLOOD ZONE	FIRM ZONE AE (ELEV 7)

CONTACT INFORMATION:

OWNER: CITY OF HAMPTON, VA
 DEPARTMENT OF PUBLIC WORKS
 22 LINCOLN STREET
 HAMPTON, VA 23669
 TEL: (757) 727-6786
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ENGINEER: AECOM
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CONTACT: MR. FRED WHITLEY, P.E.
 TEL: (757) 873-0559
 DIRECT: (757) 383-6206

CONTACT: MOHAMMAD SHAR, PHD, P.E., CFM

APPROVED: J. Mitchell, DATE: 9/19/2019
 JASON MITCHELL
 DIRECTOR OF PUBLIC WORKS

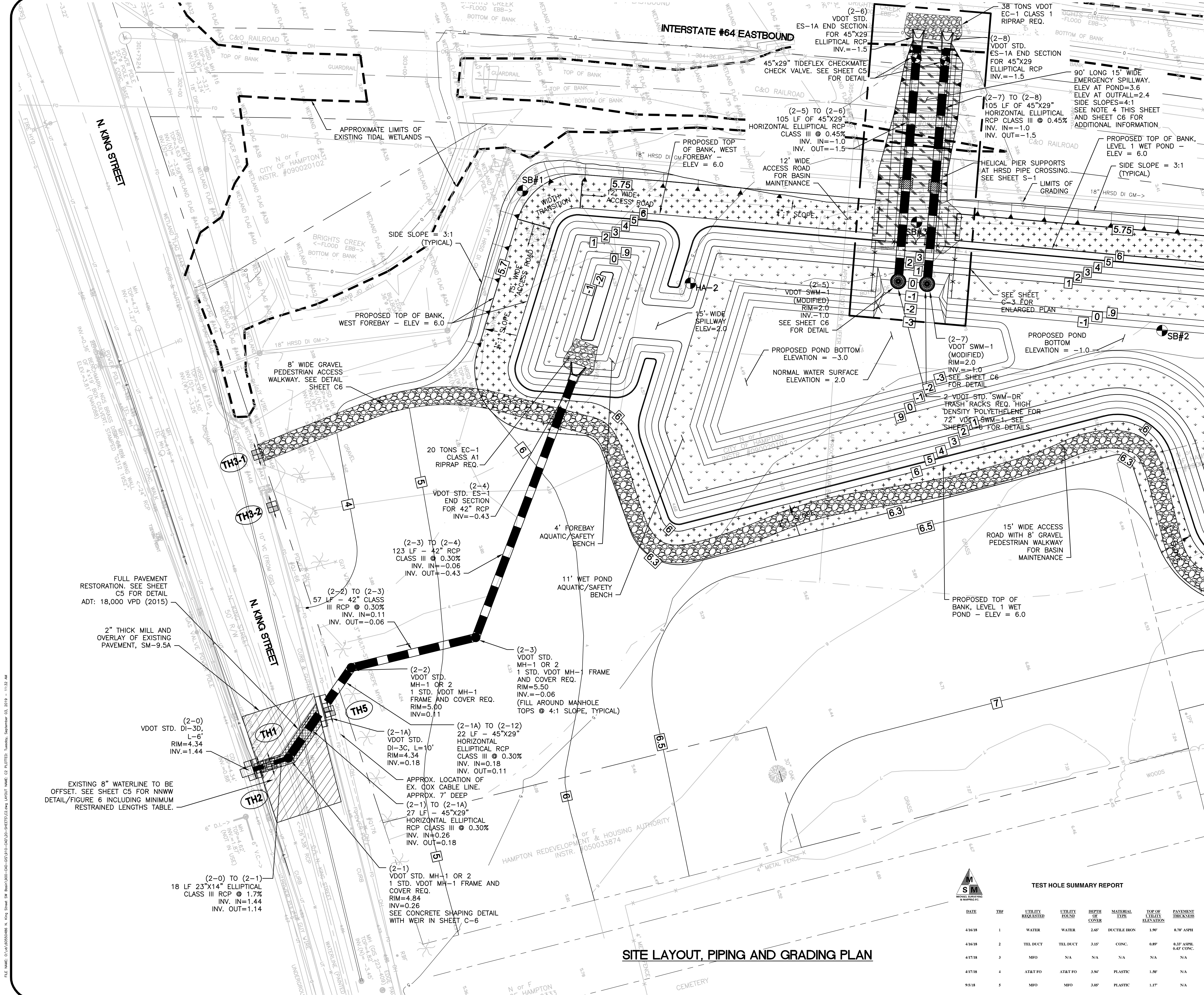
APPROVED: M. Shar, DATE: 9/12/2019
 MOHAMMED SHAR, PhD, P.E., CFM
 SENIOR CIVIL ENGINEER

PROJECT REVISIONS	DATE

ISSUE DATE:
 SEPTEMBER 1, 2019

**SHEET
 T1**
 SHEET 1 OF 15

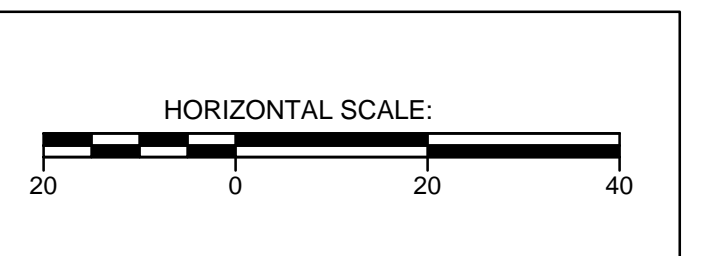
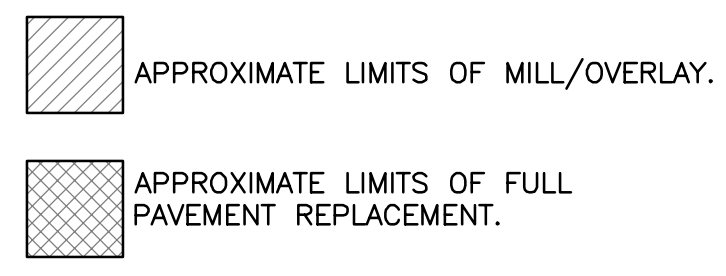
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SITE LAYOUT, PIPING AND GRADING PLAN

- HRSD STANDARD CONSTRUCTION NOTES:**
- ALL PERSONS SHALL CONTACT MISS UTILITY AT 1-800-552-7001 A MINIMUM OF 48 HOURS PRIOR TO EXCAVATION.
 - CONTRACTOR SHALL BE RESPONSIBLE TO CONTACT HRSD INTERCEPTOR OPERATIONS: CHRIS EVERTON, ENGINEERING ASSISTANT OFFICE: (757) 318-4327 CELL: (757) 803-4454 AND PROVIDE A MINIMUM OF TWO WORKING DAYS PRIOR TO EXCAVATION OF, OR IN THE VICINITY OF, HRSD INFRASTRUCTURE. MISS UTILITY CALLS DO NOT FULFILL THIS REQUIREMENT.
 - CONTRACTOR SHALL BE RESPONSIBLE TO FIELD VERIFY THE ELEVATION OF THE HRSD INFRASTRUCTURE AT THE PROPOSED CROSSING LOCATION. THESE ELEVATIONS SHALL BE FORWARDED TO THE APPROPRIATE HRSD ENGINEER PRIOR TO CONSTRUCTION.
 - CONTRACTOR SHALL PROVIDE A MINIMUM VERTICAL SEPARATION OF 18 INCHES FROM HRSD INFRASTRUCTURE. ANY PROPOSED DEVIATION FROM THE MINIMUM SEPARATION OF 18 INCHES WILL REQUIRE REVIEW AND APPROVAL BY HRSD ENGINEERING PRIOR TO CONSTRUCTION.
 - PROPOSED CROSSINGS SHALL NOT BE PERMITTED AT EXISTING JOINT LOCATIONS UNLESS APPROVED BY APPROPRIATE HRSD ENGINEER.
 - IF THE HRSD INFRASTRUCTURE WILL BE EXPOSED DURING CONSTRUCTION, A DETAIL DESCRIBING THE MEANS AND METHODS OF SUPPORTING THE HRSD INFRASTRUCTURE SHALL BE SUBMITTED TO HRSD FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.
 - CONTRACTOR SHALL NOTE THAT SIX MONTHS AFTER COMPLETION OF CONSTRUCTION AND/OR SITEWORK, HRSD SHALL REINSPECT THE CROSSING LOCATION TO IDENTIFY POOR BACKFILL OR INSTALLATION. CONTRACTOR SHALL BE EXPECTED TO WARRANTY AND REPAIR ANY DISCREPANCIES NOTED.

- SHEET NOTES:**
- SEE SHEET G1 FOR LEGEND, GENERAL NOTES, SURVEY NOTES AND ABBREVIATIONS.
 - SEE SHEET C1 FOR OVERALL SITE LAYOUT PLAN.
 - SLOPES WITHIN WET POND AND FOREBAYS ARE 3:1 UNLESS OTHERWISE NOTED.
 - BACKFILL AROUND ALL STRUCTURES TO BE SELECT FILL (CBR 15 MINIMUM).
 - SIDE SLOPES AND BOTTOM OF EMERGENCY SPILLWAY TO BE STABILIZED WITH ENKAMAT 7010 TURF REINFORCEMENT MAT (TRM) AND FLEXIBLE GROWTH MEDIUM (FGM). SEE SHEET C6 FOR ADDITIONAL DETAILS.
 - PROPOSED 45"x29" HORIZONTAL ELLIPTICAL RCP STORM PIPE TO BE GROUND SUPPORTED OVER A 24" LAYER OF NO. 57 STONE AND SHALL BE IN ACCORDANCE WITH SECTION 302 OF THE VDOT ROAD AND BRIDGE SPECIFICATIONS. SEE SHEET C-6 FOR DETAIL.
 - SEE SHEET C6 FOR BORING LOGS AND HAND AUGER SOIL PROFILES.
 - PRIOR TO PLACEMENT OF NEW STORM DRAIN PIPING AT NORTH KING STREET, CONTRACTOR TO LOCATE AND OFFSET WATERLINE. SEE SHEET C5 FOR OFFSET DETAIL.
 - CONTRACTOR MAY USE SUITABLE MATERIAL EXCAVATED FROM THE STORMWATER BASIN TO FILL/REGRADE SITE TO PROPOSED CONTOURS NOTED THUS [X]. FINAL GRADE, TO INCLUDE 4" DEPTH OF TOPSOIL.
 - PRIOR TO BASIN CONSTRUCTION, TOPSOIL TO BE STRIPPED AND STOCKPILED FOR REUSE ON SITE, IN ACCORDANCE WITH THE PROPOSED CONTOURS.

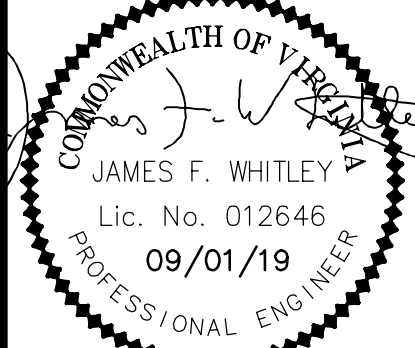


TEST HOLE SUMMARY REPORT

DATE	TH#	UTILITY REQUESTED	UTILITY FOUND	DEPTH TO COVER	MATERIAL TYPE	TOP OF UTILITY ELEVATION	PAVEMENT THICKNESS
4/16/18	1	WATER	WATER	2.65'	DUCTILE IRON	1.90'	0.70" ASPH
4/16/18	2	TEL DUCT	TEL DUCT	3.15'	CONC.	0.80'	0.30" ASPH, 0.40" CONC.
4/17/18	3	MFO	N/A	N/A	N/A	N/A	N/A
4/17/18	4	AT&T FO	AT&T FO	3.94'	PLASTIC	1.90'	N/A
9/8/18	5	MFO	MFO	3.08'	PLASTIC	1.17'	N/A

OFFICE REVIEW SUMMARY:

PROJECT MANAGER:	SR	100%	FINAL
PROJECT Q/A QC:	JFW	100%	FINAL
PROJECT ENGINEER:	AJW	100%	FINAL
DRAFTSMAN:	AJW	100%	FINAL



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**N. KING STREET/BRIGHTS CREEK AREA
 STORMWATER BASIN RETROFIT
 SITE LAYOUT, PIPING AND GRADING
 PLAN**

CITY OF HAMPTON DEPARTMENT OF PUBLIC WORKS
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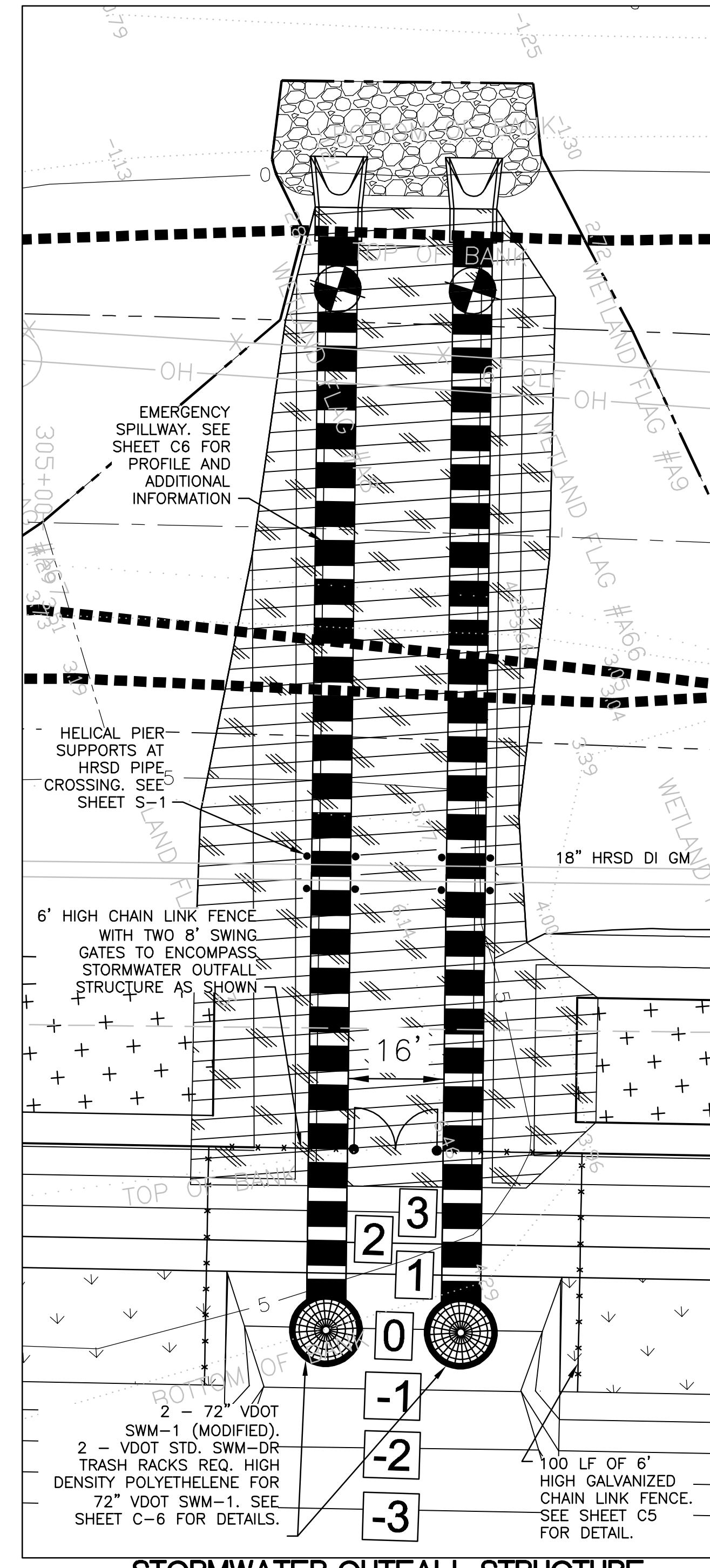
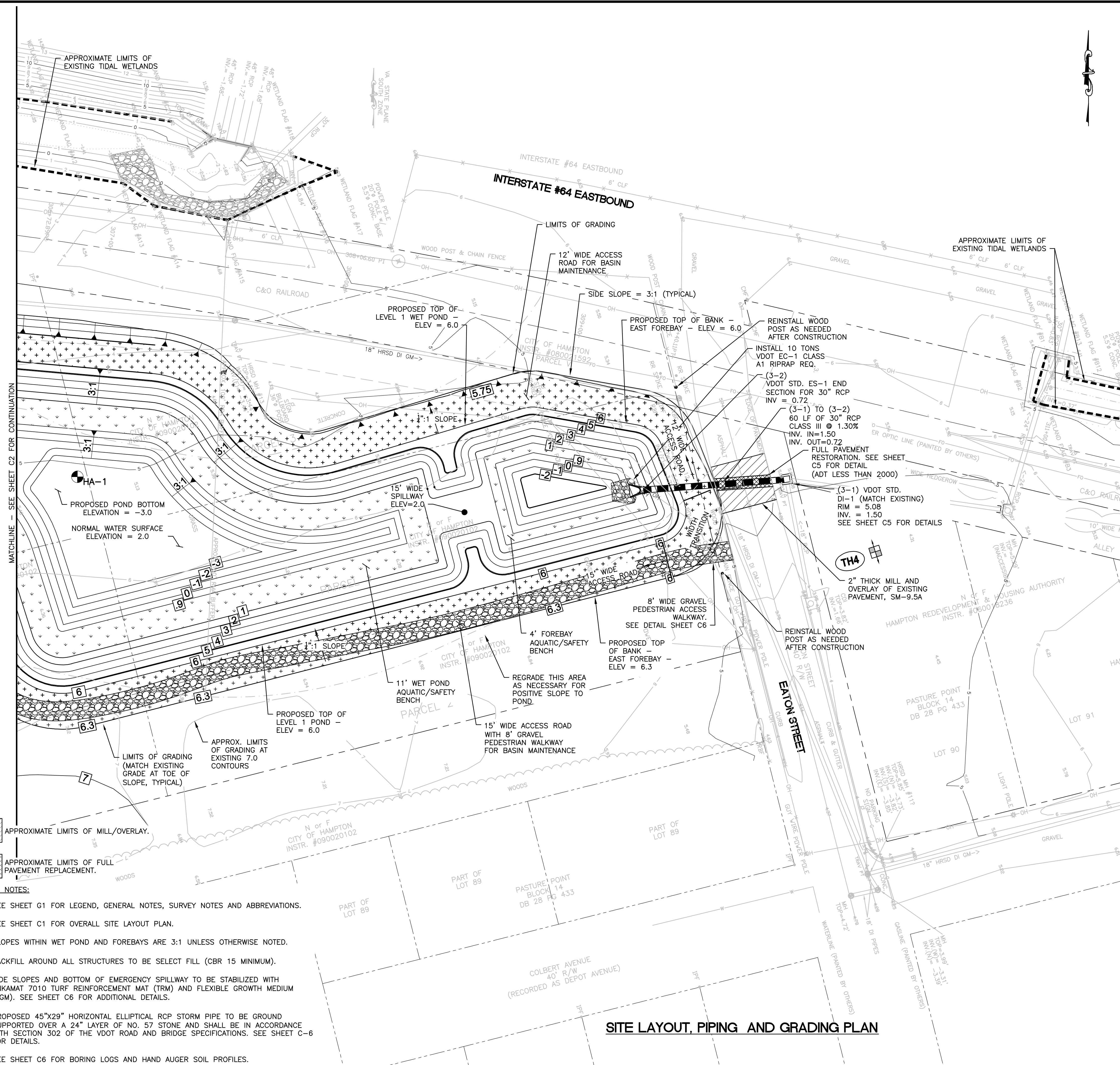
PROJECT REVISIONS

DATE	DESCRIPTION

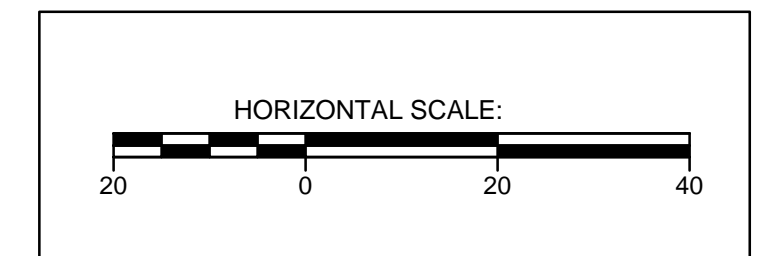
ISSUE DATE:
SEPTEMBER 1, 2019

SHEET C2

SHEET 5 OF 15



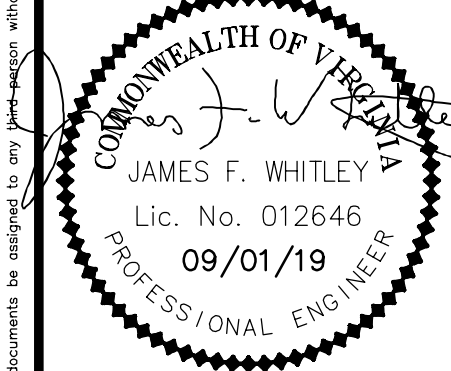
STORMWATER OUTFALL STRUCTURE ENLARGED PLAN
SCALE = 1"=10'



- SHEET NOTES:**
- SEE SHEET G1 FOR LEGEND, GENERAL NOTES, SURVEY NOTES AND ABBREVIATIONS.
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SITE LAYOUT, PIPING AND GRADING PLAN

OFFICE REVIEW SUMMARY:	SR	100%	FINAL
PROJECT MANAGER:	JFW	100%	FINAL
PROJECT Q/A/QC:	AW	100%	FINAL
PROJECT ENGINEER:	AW	100%	FINAL
DRAFTSMAN:	AW	100%	FINAL



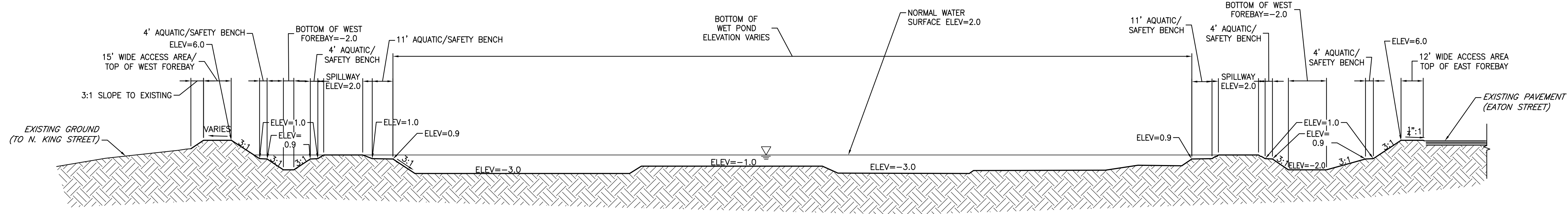
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STORMWATER BASIN RETROFIT
SITE LAYOUT, PIPING AND GRADING
PLAN**
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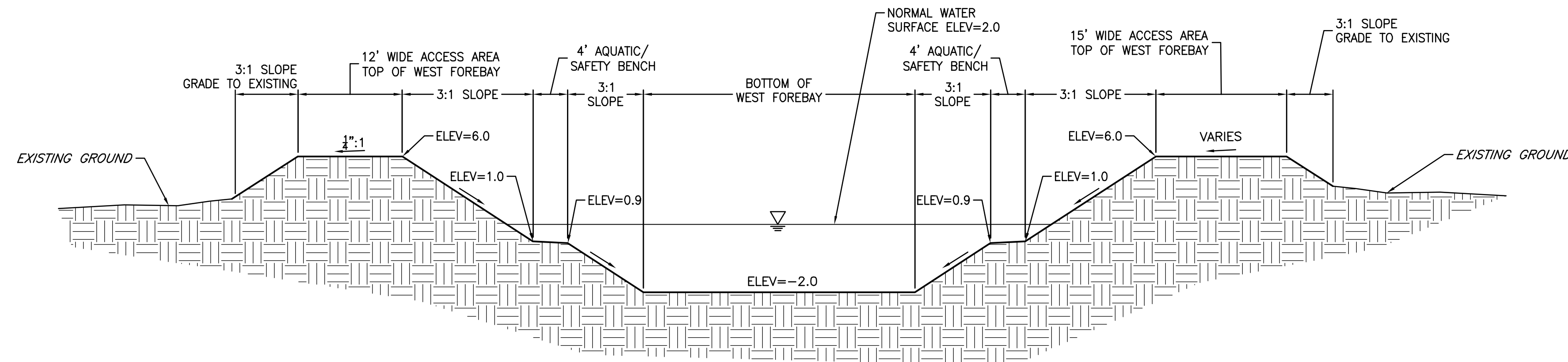
PROJECT REVISIONS	DATE

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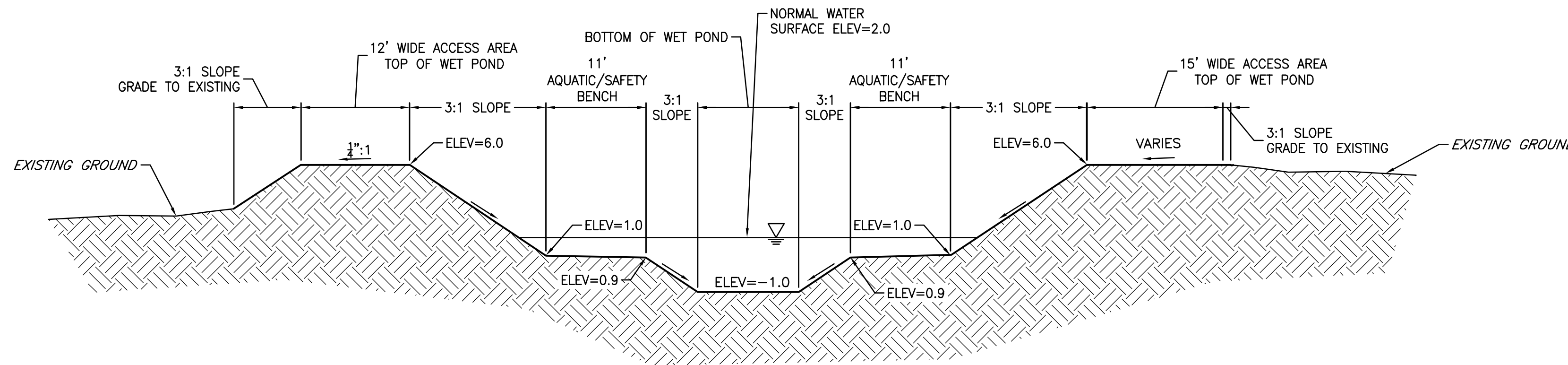
SHEET C3
SHEET 6 OF 15



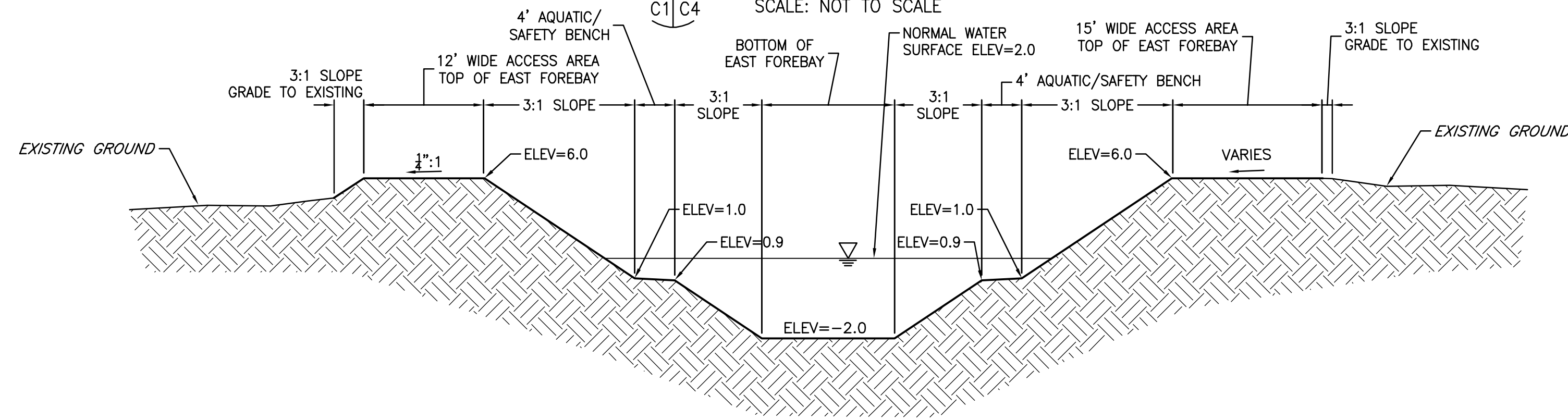
A-A SECTION A-A
C1 C4 SCALE: NOT TO SCALE



B-B SECTION B-B
C1 C4 SCALE: NOT TO SCALE

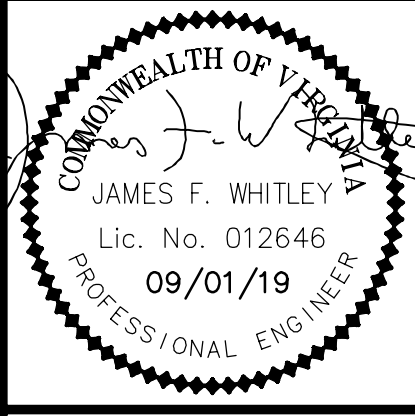


C-C SECTION C-C
C1 C4 SCALE: NOT TO SCALE



D-D SECTION D-D
C1 C4 SCALE: NOT TO SCALE

OFFICE REVIEW SUMMARY	SR	100%	FINAL
PROJECT MANAGER	JFW	100%	FINAL
PROJECT Q/A Q.C.	AW	100%	FINAL
PROJECT ENGINEER	AW	100%	FINAL
DRAFTSMAN	AW	100%	FINAL



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SITE PLAN CROSS SECTIONS
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PROJECT REVISIONS	DATE

ISSUE DATE:
SEPTEMBER 1, 2019

SHEET C4
SHEET 7 OF 15

FILE NAME: P:\WA\05050466 - N. King Street - DR. Basin\05050466-05051911-CAN\20-SHEETS\C4.dwg; USER: JFW; DATE: 09/01/19 11:56 AM

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EROSION AND SEDIMENT CONTROL NARRATIVE

PROJECT DESCRIPTION

THE PROJECT SITE IS LOCATED WITHIN THE HAMPTON RIVER WEST AND SOUTHAMPTON WATERSHED SOUTH OF INTERSTATE 64, EAST OF NORTH KING STREET AND NORTH OF PEMROKE AVENUE. THE PROJECT IS FOR THE DESIGN AND CONSTRUCTION OF A LEVEL 1 WET POND TO PROVIDE ADDITIONAL STORMWATER FLOOD STORAGE CAPACITY, STORMWATER POLLUTANT LOAD REDUCTION AND TO PROVIDE ADDITIONAL STORMWATER STORAGE FOR FUTURE SITE DEVELOPMENT. AREA OF DISTURBANCE=4.12 AC.

EXISTING SITE CONDITIONS

THE SITE FOR THE PROPOSED WET POND WAS ACQUIRED FOR REDEVELOPMENT PURPOSES. BRIGHTS CREEK, A TIDAL CREEK, RUNS THROUGH THE NORTHWEST CORNER OF THE SITE, AND STORMWATER IS CONVEYED FROM BRIGHTS CREEK TO THE HAMPTON RIVER VIA OUTFALL PIPE FLOW UNDER INTERSTATE 64.

ADJACENT PROPERTIES

THE PROPOSED PROJECT AREA IS ADJACENT TO RESIDENTIAL PROPERTIES TO THE EAST, SOUTH AND WEST.

OFF-SITE AREAS

NO OFFSITE AREAS ARE PROPOSED WITH THIS PROJECT. ALL TEMPORARY SOIL STOCKPILES WILL RESIDE WITHIN THE PROJECT LIMITS. EXCESS TOPSOIL AND FILL MATERIAL SHALL BE REMOVED FROM THE SITE AND DISPOSED OF PROPERLY.

SOILS DESCRIPTION

THE SOIL CONSERVATION SERVICE HAS IDENTIFIED THE PRESENCE OF THE SOILS TYPES AS:

SOIL#	SOIL NAME	TYPICAL SLOPES	EROSION FACTOR (K)	EROSION FACTOR (T)
1	ALTAVISTA-URBAN LAND COMPLEX	0-3%	0.20	5
6	BOHICKET MUCK	0-1%	N/A	5
26	UDORTHENTS-DUMPS COMPLEX	0-25%	XXX	X
27	URBAN LAND	0-6%	XXX	X

CRITICAL AREAS

THE AREA AROUND THE OUTFALL PIPES NEAR THE BRIGHTS CREEK CULVERT IS CONSIDERED A CRITICAL AREA. THE WORK IN THIS AREA HAS BEEN PERMITTED BY THE ARMY CORPS. UNDER A NATIONWIDE PERMIT. THE CONTRACTOR SHALL PAY CLOSE ATTENTION TO AND ADHERE TO THE REQUIREMENTS OF THIS PERMIT. CONTRACTOR SHOULD BE CAUTIOUS WHEN WORKING ON OR AROUND THE DITCH BANKS IN ORDER TO PREVENT DEBRIS FROM ENTERING THE DITCH. IF DEBRIS ENTERS THE DITCH THE CONTRACTOR SHOULD IMMEDIATELY REMOVE ALL DEBRIS. CARE SHALL BE TAKEN DURING CONSTRUCTION TO PROTECT UNDISTURBED AREAS. EROSION AND SEDIMENT CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL DISTURBED AREAS ARE STABILIZED WITH VEGETATION.

EROSION AND SEDIMENT CONTROL MEASURES

UNLESS OTHERWISE INDICATED, ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH). THE MINIMUM STANDARDS OF THE VESCH SHALL BE ADHERED TO UNLESS OTHERWISE WAIVED AND APPROVED BY THE ON-SITE E&S CONTROL INSPECTOR. THESE MEASURES SHALL INCLUDE AND NOT

TO BE LIMITED TO:

3.02 CONSTRUCTION ENTRANCE

CONSTRUCTION ENTRANCES WILL BE INSTALLED TO REDUCE THE AMOUNT OF MUD THAT IS TRANSPORTED ONTO PAVED ROADS BY VEHICLES AND/OR RUNOFF.

3.05 SILT FENCE

SILT FENCE WILL BE PLACED IN APPROPRIATE AREAS AS INDICATED ON THE PLANS TO PREVENT SILT LADEN RUNOFF FROM LEAVING THE SITE.

3.07 INLET PROTECTION

INLET PROTECTION SHALL BE USED TO REDUCE THE SEDIMENT ENTERING THE STORM SYSTEM.

3.08 CULVERT INLET PROTECTION

INLET PROTECTION SHALL BE USED TO REDUCE THE SEDIMENT ENTERING THE CULVERT DRAIN PIPES.

3.18 OUTLET PROTECTION

OUTLET PROTECTION SHALL BE USED TO PREVENT SCOUR AT STORMWATER OUTLETS, PROTECT THE OUTLET STRUCTURE AND MINIMIZE THE POTENTIAL FOR DOWNSTREAM EROSION.

3.30 TOPSOILING

TOPSOILING SHALL BE USED TO PROVIDE A SUITABLE GROWTH MEDIUM FOR FINAL SITE STABILIZATION WITH VEGETATION.

3.31 TEMPORARY SEEDING

TEMPORARY SEEDING MEASURES SHALL BE APPLIED IN AREAS TO REDUCE EROSION OF AREAS THAT WILL NOT BE BROUGHT TO FINAL GRADE FOR MORE THAN 30 DAYS.

3.32 PERMANENT SEEDING

PERMANENT SEEDING MEASURES SHALL BE APPLIED IN AREAS INDICATED ON PLANS TO REDUCE EROSION OF AREAS THAT HAVE BEEN BROUGHT TO FINAL GRADE.

3.36 BLANKETS AND MATTING

MATting SHALL BE USED IN AREAS INDICATED ON PLANS TO STABILIZE SLOPES AND REDUCE EROSION OF THOSE AREAS THAT HAVE BEEN BROUGHT TO FINAL GRADE.

3.38 TREE PRESERVATION AND PROTECTION

TREE PROTECTION SHALL BE USED IN AREAS INDICATED ON PLANS TO PREVENT SEDIMENT FROM ACCUMULATING AROUND THE TRUNK AND OVER THE ROOT SYSTEM OF EXISTING TREES.

MANAGEMENT STRATEGIES

- CONSTRUCTION WILL BE SEQUENCED SO THAT GRADING OPERATIONS CAN BEGIN AND END AS QUICKLY AS POSSIBLE.
- PERMANENT SEEDING AND OTHER STABILIZATION WILL FOLLOW IMMEDIATELY AFTER GRADING.
- THE CONTRACTOR SHALL HAVE A CERTIFIED RESPONSIBLE LAND DISTURBER AND SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL PRACTICES.
- AFTER ACHIEVING ADEQUATE STABILIZATION, THE TEMPORARY E&S CONTROLS WILL BE CLEANED UP AND REMOVED.

PERMANENT STABILIZATION

ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE STABILIZED WITH PERMANENT SEEDING IMMEDIATELY FOLLOWING GRADING.

MAINTENANCE

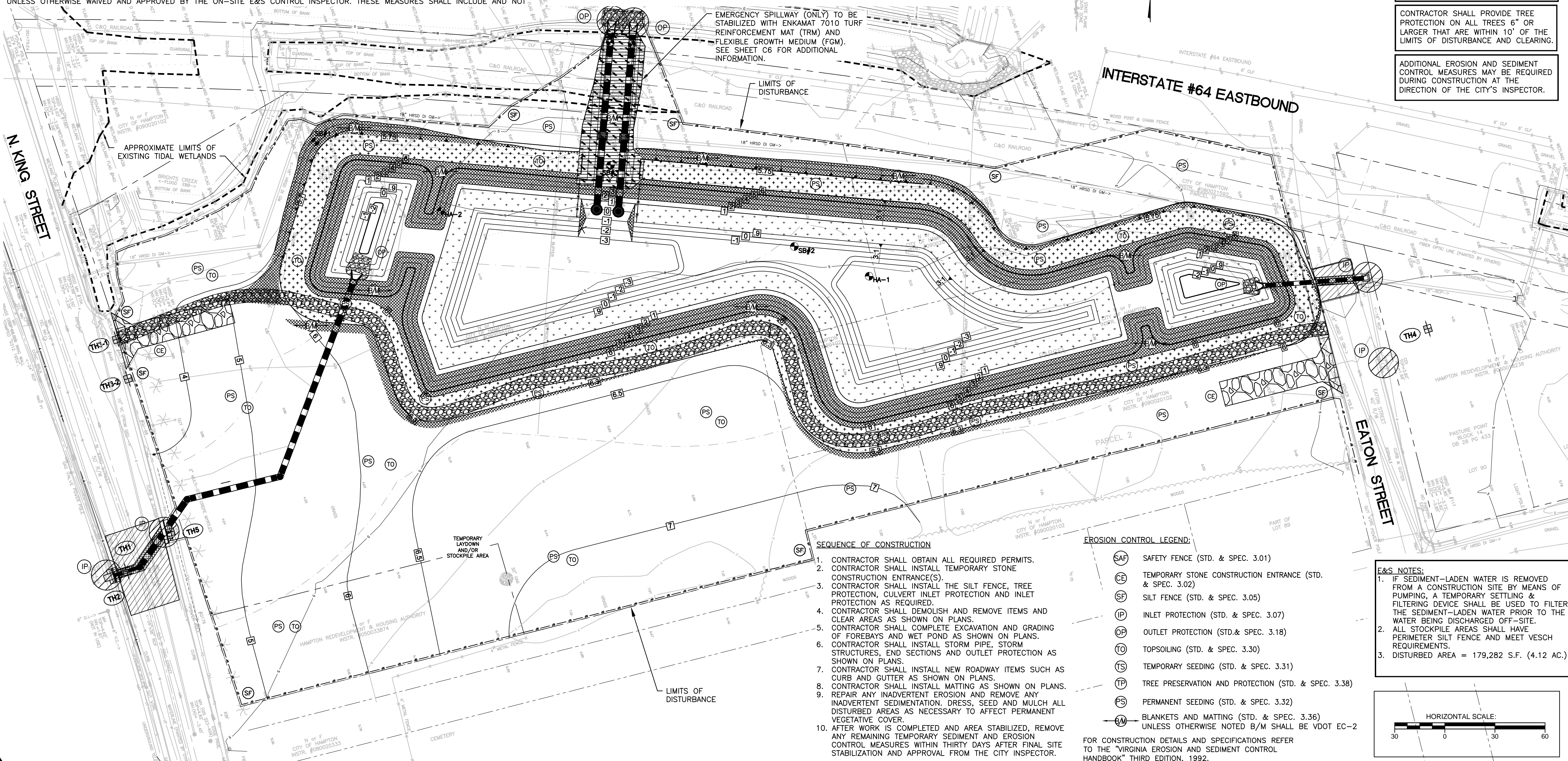
IN GENERAL, ALL EROSION AND SEDIMENT MEASURES WILL BE CHECKED DAILY AND AFTER EACH RAINFALL. THE FOLLOWING ITEMS WILL BE CHECKED IN PARTICULAR:

- EROSION AND SEDIMENT CONTROL WILL BE CHECKED REGULARLY FOR UNDERMINING OR DETERIORATION AND SEDIMENT BUILDUP, WHICH COULD PREVENT POSITIVE DRAINAGE. IF THE INLET PROTECTION IS CLOGGED BY SEDIMENT, CORRECTIVE ACTION SHALL BE TAKEN IMMEDIATELY.
- THE SILT FENCE BARRIER WILL BE CHECKED REGULARLY FOR UNDERMINING OR DETERIORATION OF THE FABRIC, SEDIMENT SHALL BE REMOVED WHEN THE LEVEL OF SEDIMENT DEPOSITION REACHES HALF WAY TO THE TOP OF THE BARRIER.
- THE SEEDED AREAS WILL BE CHECKED REGULARLY TO ENSURE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED AND RE-SEED AS NEEDED.
- ALL TEMPORARY EROSION AND SEDIMENT MEASURES SHALL BE DISPOSED OF WITHIN THIRTY (30) DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED AND VEGETATION IS ESTABLISHED.

CONTRACTOR TO PLACE SILT FENCE (FENCE TO MEET VESCH REQUIREMENTS) AROUND PERIMETER OF ANY TEMPORARY SOIL STOCKPILES OF EXCAVATED MATERIALS.

CONTRACTOR SHALL PROVIDE TREE PROTECTION ON ALL TREES 6" OR LARGER THAT ARE WITHIN 10' OF THE LIMITS OF DISTURBANCE AND CLEARING.

ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES MAY BE REQUIRED DURING CONSTRUCTION AT THE DIRECTION OF THE CITY'S INSPECTOR.

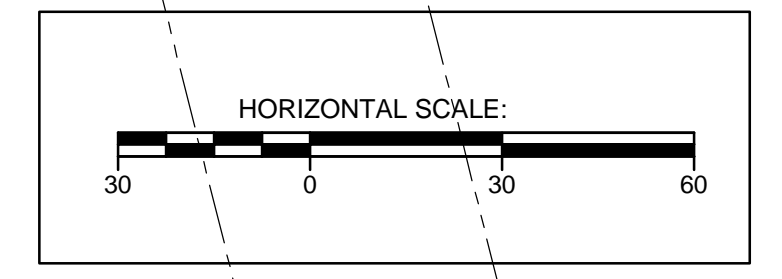


- SEQUENCE OF CONSTRUCTION**
- CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS.
 - CONTRACTOR SHALL INSTALL TEMPORARY STONE CONSTRUCTION ENTRANCE(S).
 - CONTRACTOR SHALL INSTALL THE SILT FENCE, TREE PROTECTION, CULVERT INLET PROTECTION AND INLET PROTECTION AS REQUIRED.
 - CONTRACTOR SHALL DEMOLISH AND REMOVE ITEMS AND CLEAR AREAS AS SHOWN ON PLANS.
 - CONTRACTOR SHALL COMPLETE EXCAVATION AND GRADING OF FOREBAYS AND WET POND AS SHOWN ON PLANS.
 - CONTRACTOR SHALL INSTALL STORM PIPE, STORM STRUCTURES, END SECTIONS AND OUTLET PROTECTION AS SHOWN ON PLANS.
 - CONTRACTOR SHALL INSTALL NEW ROADWAY ITEMS SUCH AS CURB AND GUTTER AS SHOWN ON PLANS.
 - CONTRACTOR SHALL INSTALL MATTING AS SHOWN ON PLANS.
 - REPAIR ANY INADVERTENT EROSION AND REMOVE ANY INADVERTENT SEDIMENTATION. DRESS, SEED AND MULCH ALL DISTURBED AREAS AS NECESSARY TO AFFECT PERMANENT VEGETATIVE COVER.
 - AFTER WORK IS COMPLETED AND AREA STABILIZED, REMOVE ANY REMAINING TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES WITHIN THIRTY DAYS AFTER FINAL SITE STABILIZATION AND APPROVAL FROM THE CITY INSPECTOR.

- EROSION CONTROL LEGEND:**
- (SAF) SAFETY FENCE (STD. & SPEC. 3.01)
 - (CE) TEMPORARY STONE CONSTRUCTION ENTRANCE (STD. & SPEC. 3.02)
 - (SF) SILT FENCE (STD. & SPEC. 3.05)
 - (IP) INLET PROTECTION (STD. & SPEC. 3.07)
 - (OP) OUTLET PROTECTION (STD. & SPEC. 3.18)
 - (TS) TOPSOILING (STD. & SPEC. 3.30)
 - (TS) TEMPORARY SEEDING (STD. & SPEC. 3.31)
 - (TP) TREE PRESERVATION AND PROTECTION (STD. & SPEC. 3.38)
 - (PS) PERMANENT SEEDING (STD. & SPEC. 3.32)
 - (BM) BLANKETS AND MATTING (STD. & SPEC. 3.36) UNLESS OTHERWISE NOTED B/M SHALL BE VDOT EC-2

E&S NOTES:

- IF SEDIMENT-LADEN WATER IS REMOVED FROM A CONSTRUCTION SITE BY MEANS OF PUMPING, A TEMPORARY SETTLING & FILTERING DEVICE SHALL BE USED TO FILTER THE SEDIMENT-LADEN WATER PRIOR TO THE WATER BEING DISCHARGED OFF-SITE.
- ALL STOCKPILE AREAS SHALL HAVE PERIMETER SILT FENCE AND MEET VESCH REQUIREMENTS.
- DISTURBED AREA = 179,282 S.F. (4.12 AC.)



PROJECT REVISIONS

NO.	DATE	DESCRIPTION

Hampton
AMERICA'S FIRST

COMMONWEALTH OF VIRGINIA
JAMES F. WHITLEY
Lic. No. 012646
09/01/19
PROFESSIONAL ENGINEER

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**N. KING STREET/BRIGHTS CREEK AREA
STORMWATER BASIN RETROFIT
SITE EROSION AND SEDIMENT
CONTROL PLAN**

CITY OF HAMPTON DEPARTMENT OF PUBLIC WORKS
22 LINCOLN STREET, HAMPTON, VIRGINIA 23669
TEL: 757-727-6346 FAX: 757-727-6123

PROJECT REVISIONS

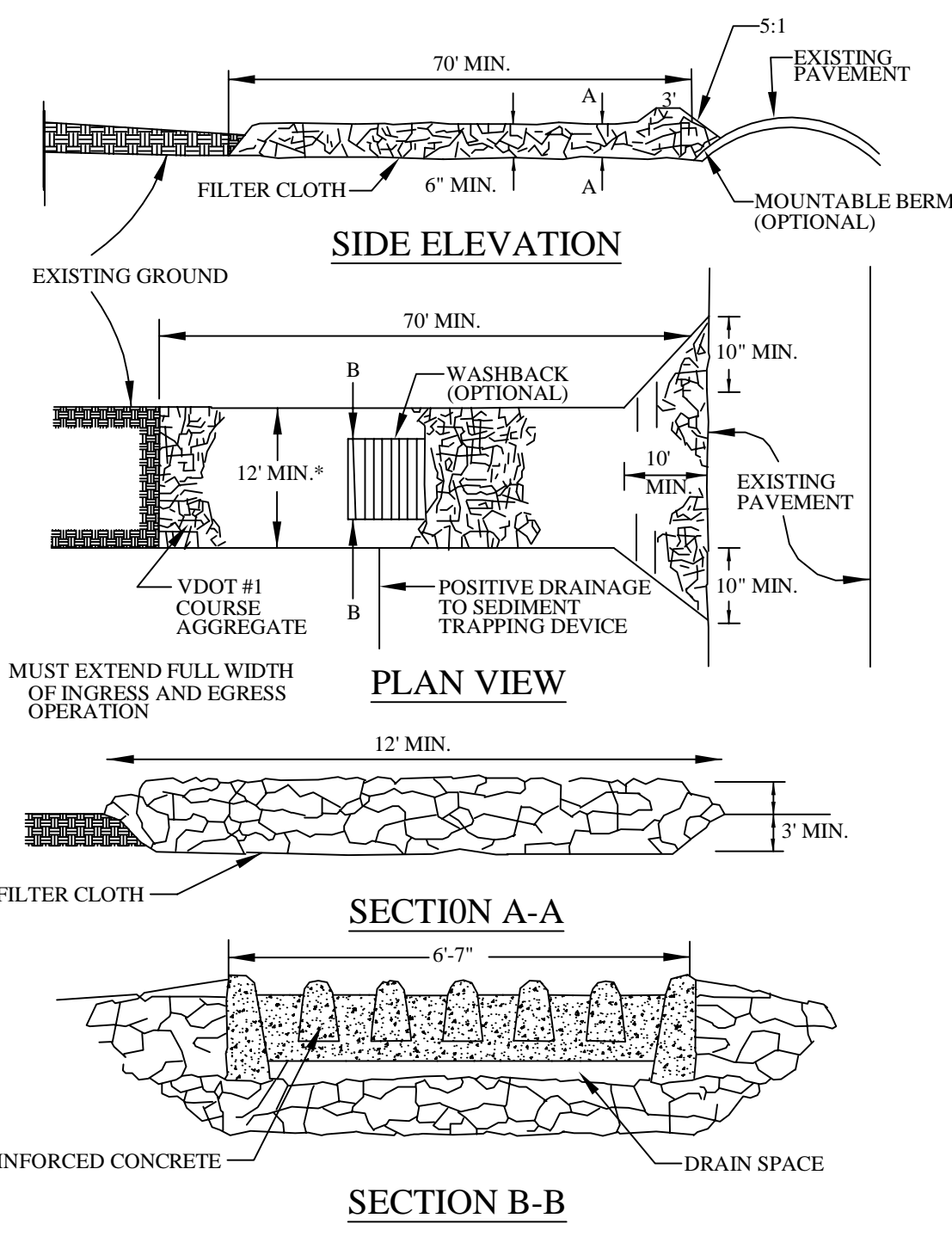
NO.	DATE	DESCRIPTION

ISSUE DATE:
SEPTEMBER 1, 2019

**SHEET
ESC1**

SHEET 10 OF 15

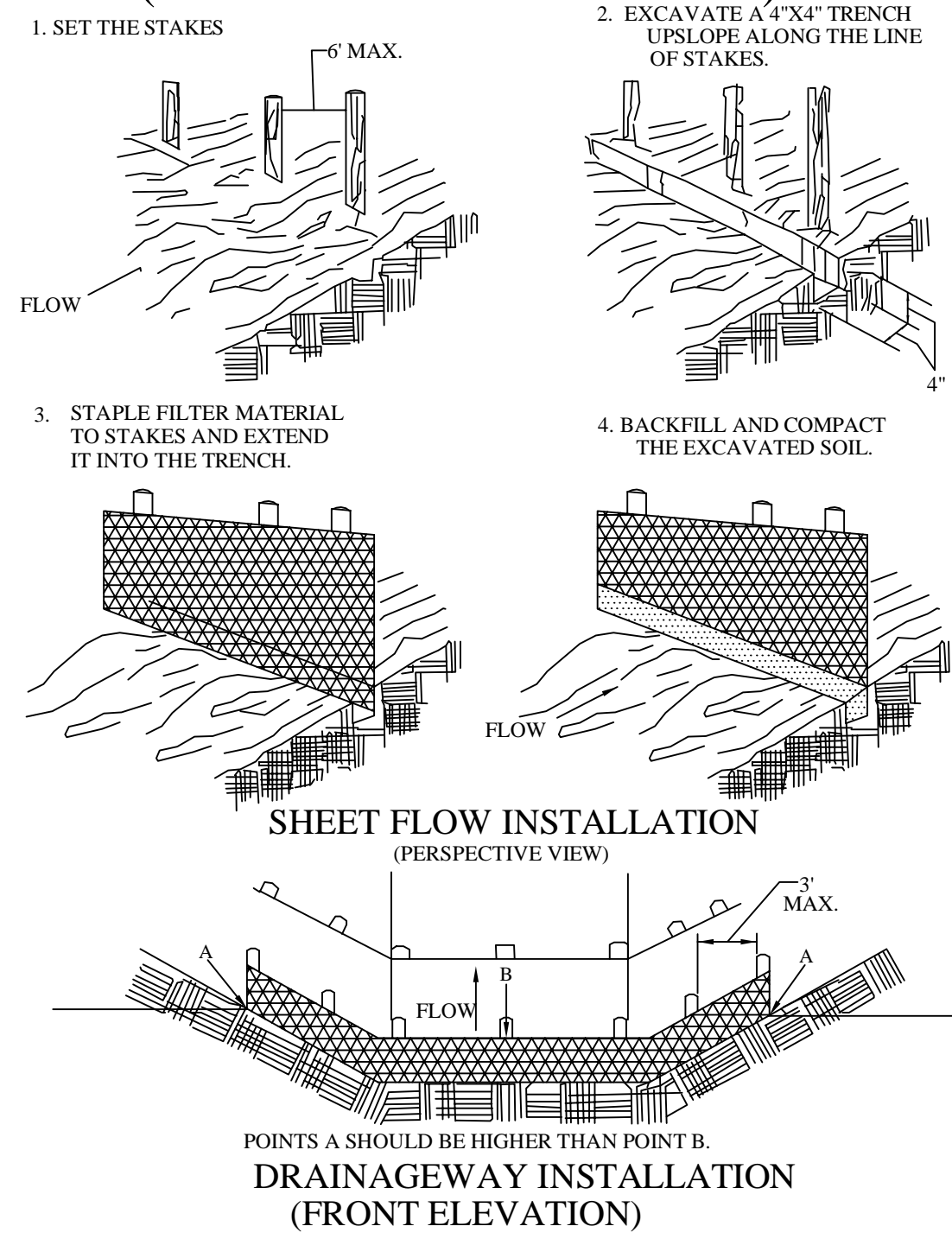
STONE CONSTRUCTION ENTRANCE



NOTE: CONSTRUCTION ENTRANCE TO INCLUDE ELEVATED EXIT GRATE TO ELIMINATE TRACKING OF DIRT INTO ROADWAY.

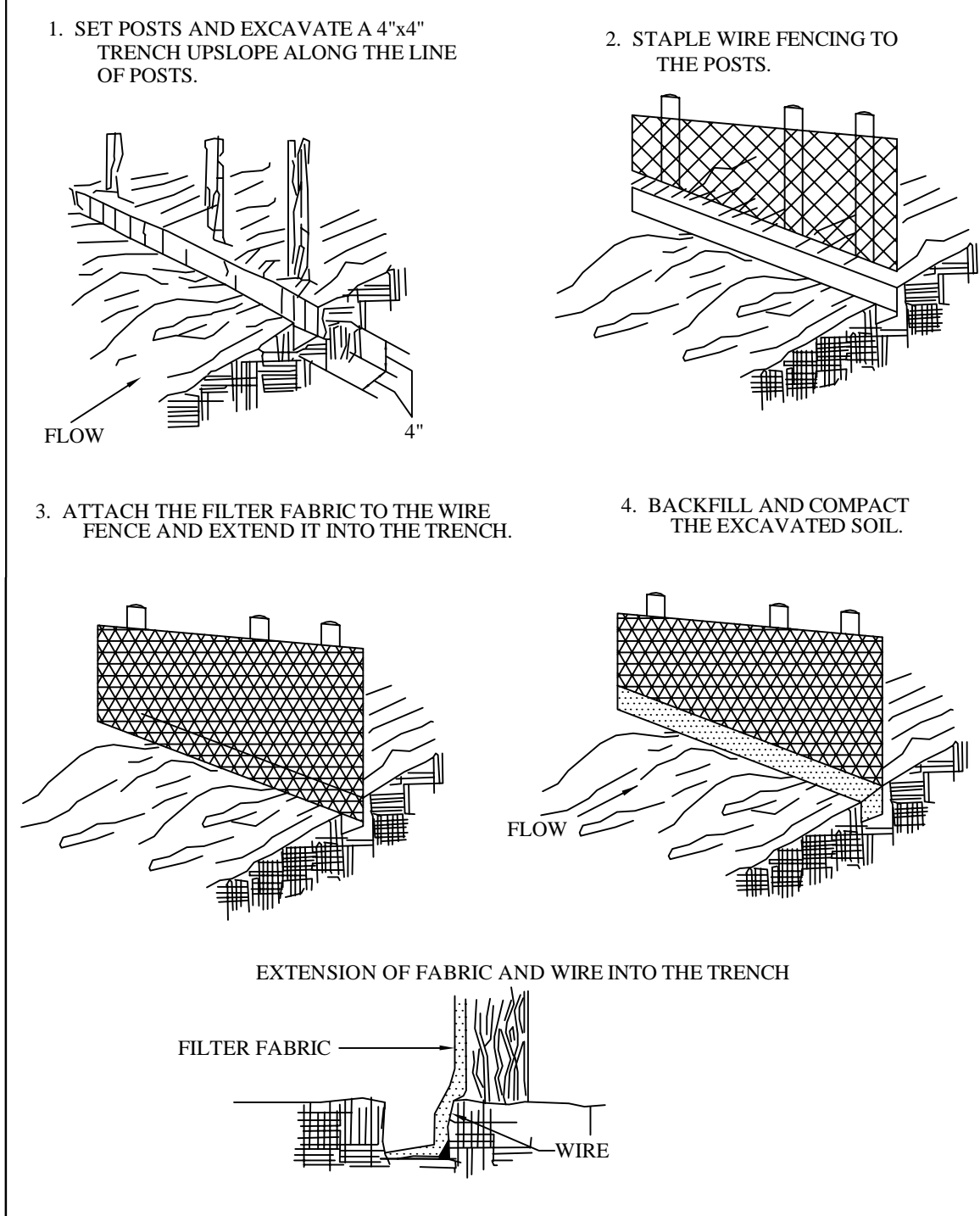
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CONSTRUCTION OF A SILT FENCE (WITHOUT WIRE SUPPORT)



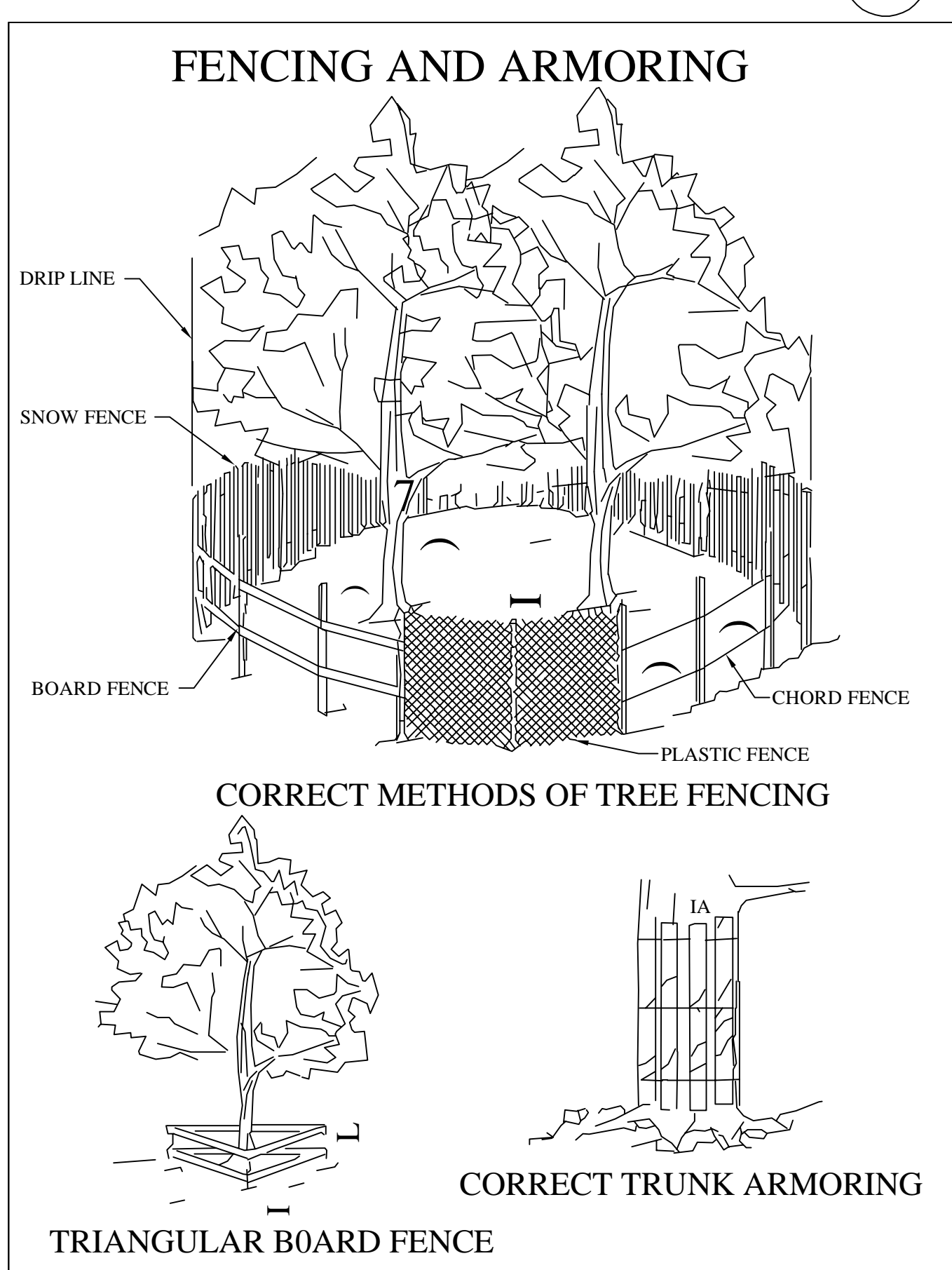
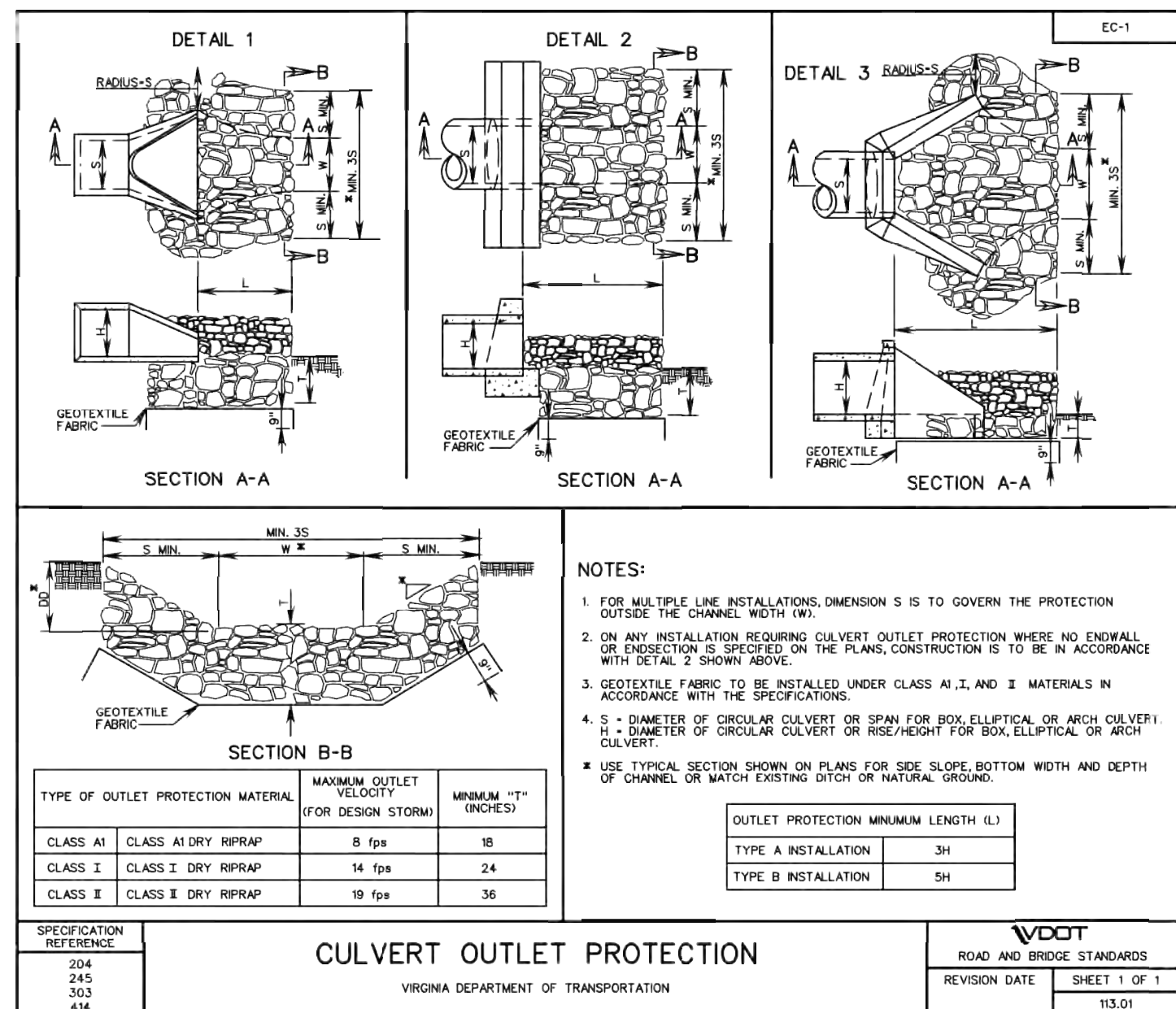
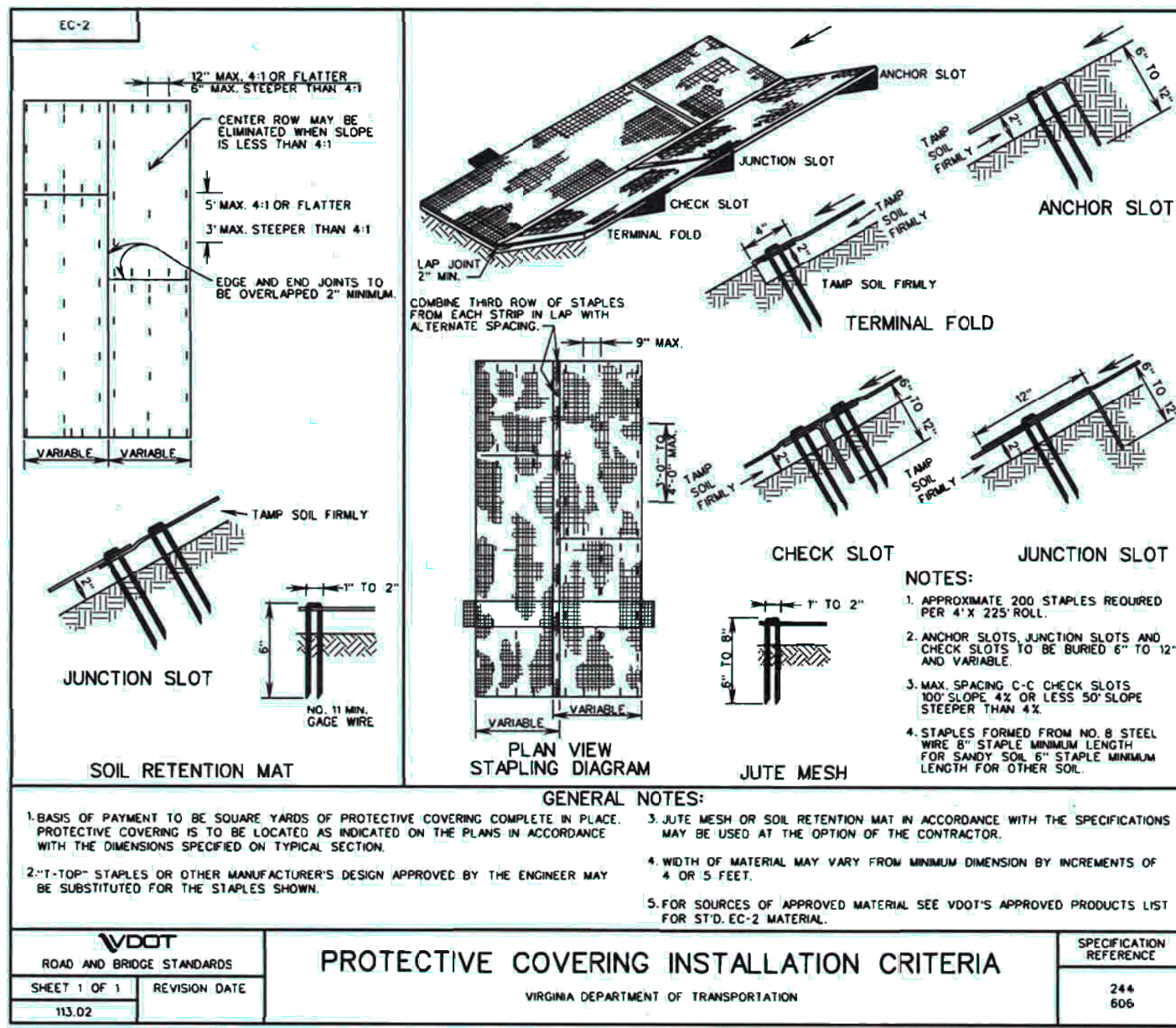
SF

CONSTRUCTION OF A SILT FENCE (WITH WIRE SUPPORT)



NOTE: SILT FENCE FABRIC SHALL BE 36" TALL, STAKED WITH 2"x2"x5" HARDWOOD STAKES ON 6' CENTERS.

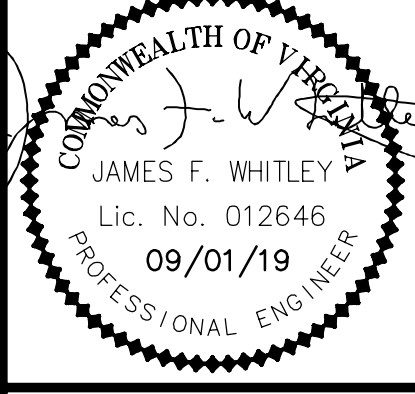
SF



TP

OFFICE REVIEW SUMMARY

PROJECT MANAGER:	30%	60%	100%	FINAL
PROJECT Q/A Q.C.:	30%	60%	100%	FINAL
PROJECT ENGINEER:	30%	60%	100%	FINAL
DRAFTSMAN:	30%	60%	100%	FINAL



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**N. KING STREET/BRIGHTS CREEK AREA
STORMWATER BASIN RETROFIT**
SITE EROSION AND SEDIMENT
CONTROL DETAILS
CITY OF HAMPTON DEPARTMENT OF PUBLIC WORKS
22 LINCOLN STREET, HAMPTON, VIRGINIA 23669
TEL: 757-727-6346 FAX: 757-727-6123

PROJECT REVISIONS	DATE

ISSUE DATE:
SEPTEMBER 1, 2019

SHEET ESC3
SHEET 12 OF 15

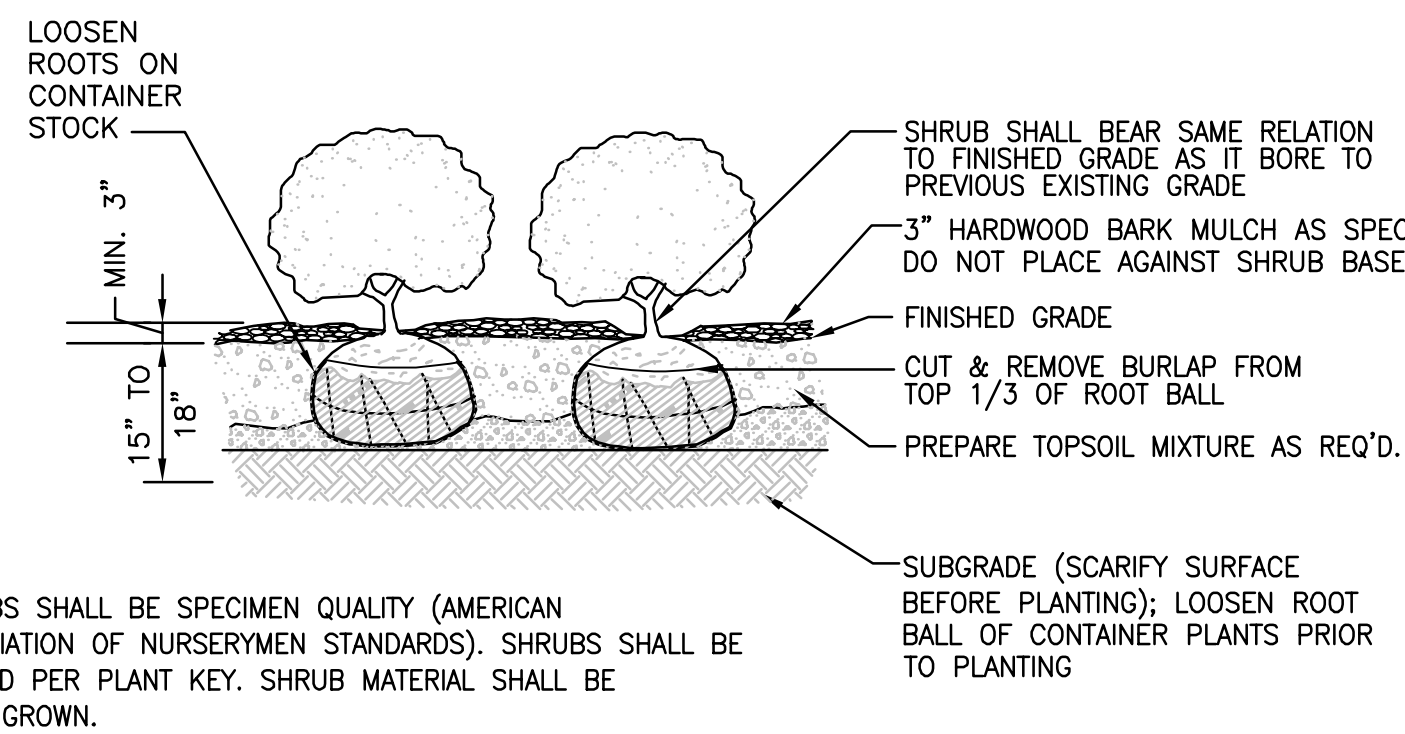
LANDSCAPE PLANTING NOTES

- 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.
- 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.
- FINISHED GRADES ON THE PLANTING PLAN INDICATE TOP OF FINISHED MULCH. INSTALLATION OF PROPOSED PLANTING AND BEDS SHALL NOT EXCEED THE GRADES INDICATED ON GRADING PLAN WHEN WORK IS COMPLETE INCLUDING MULCH. IF SITE CONDITIONS WARRANT CHANGES TO GRADES, CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT.
- ALL PLANTING BEDS SHALL BE MULCHED WITH 3" SHREDDED HARDWOOD BARK MULCH. TOP OF MULCH SHALL FINISH 1" BELOW ANY ADJACENT PAVING SUCH AS TO RETAIN MULCH IN PLANTED AREAS.
- 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.
- 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.
- ALL PLANT MATERIAL IS SUBJECT TO INSPECTION AND APPROVAL BY THE OWNER AND / OR LANDSCAPE ARCHITECT PRIOR TO DELIVERY. BED LAYOUT AND PLANT MATERIAL LOCATIONS MUST BE APPROVED BY THE OWNER AND / OR LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
- 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.
- PREPARED SOIL MIXTURE SHALL CONSIST OF: 4 PARTS TOPSOIL, 2 PARTS SPHAGUM PEAT MOSS, AND 2 PARTS PERLITE.
- ALL PLANTINGS SHALL FOLLOW THE INDIVIDUAL DETAILS ON THIS PLANTING PLAN FOR TREE PLANTING, SHRUB PLANTING, BARE ROOT 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.
- 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.
- INSTALL CENTURY, NDS, DEERPROOT, OR APPROVED EQUAL 18" DEEP LINEAR ROOT BARRIER AROUND TREES PER MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS. TAMP SOIL ADJACENT TO ROOT BARRIERS TO STABILIZE THEM.
- CONTRACTOR TO REMOVE STAKES FROM ALL TREES 6 MONTHS AFTER PLANTING.

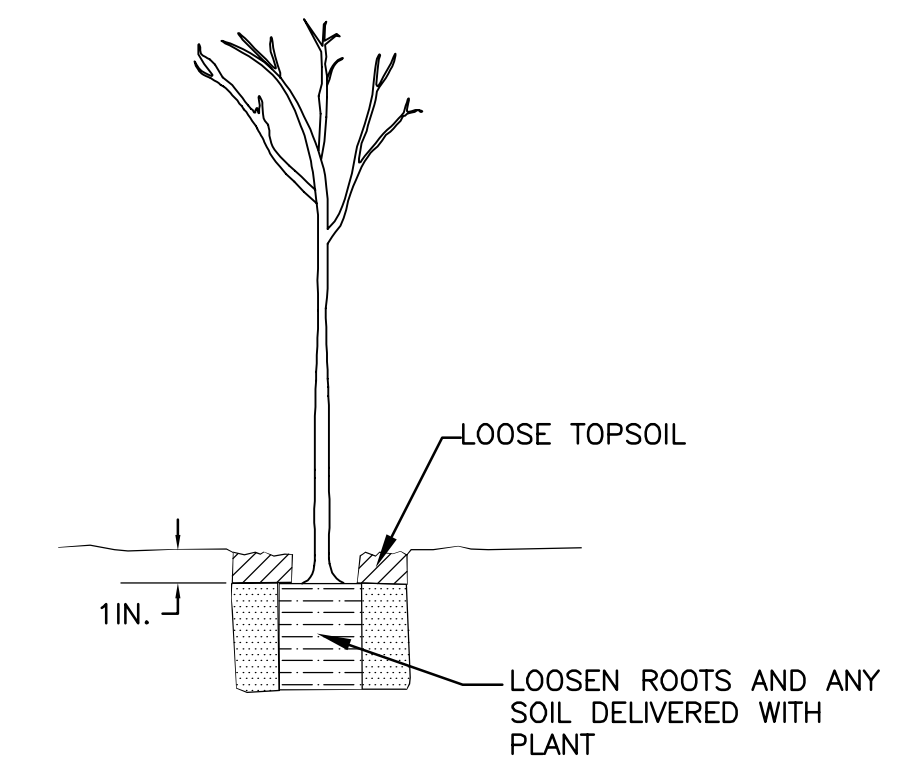
CITY OF HAMPTON GENERAL

LANDSCAPE NOTES

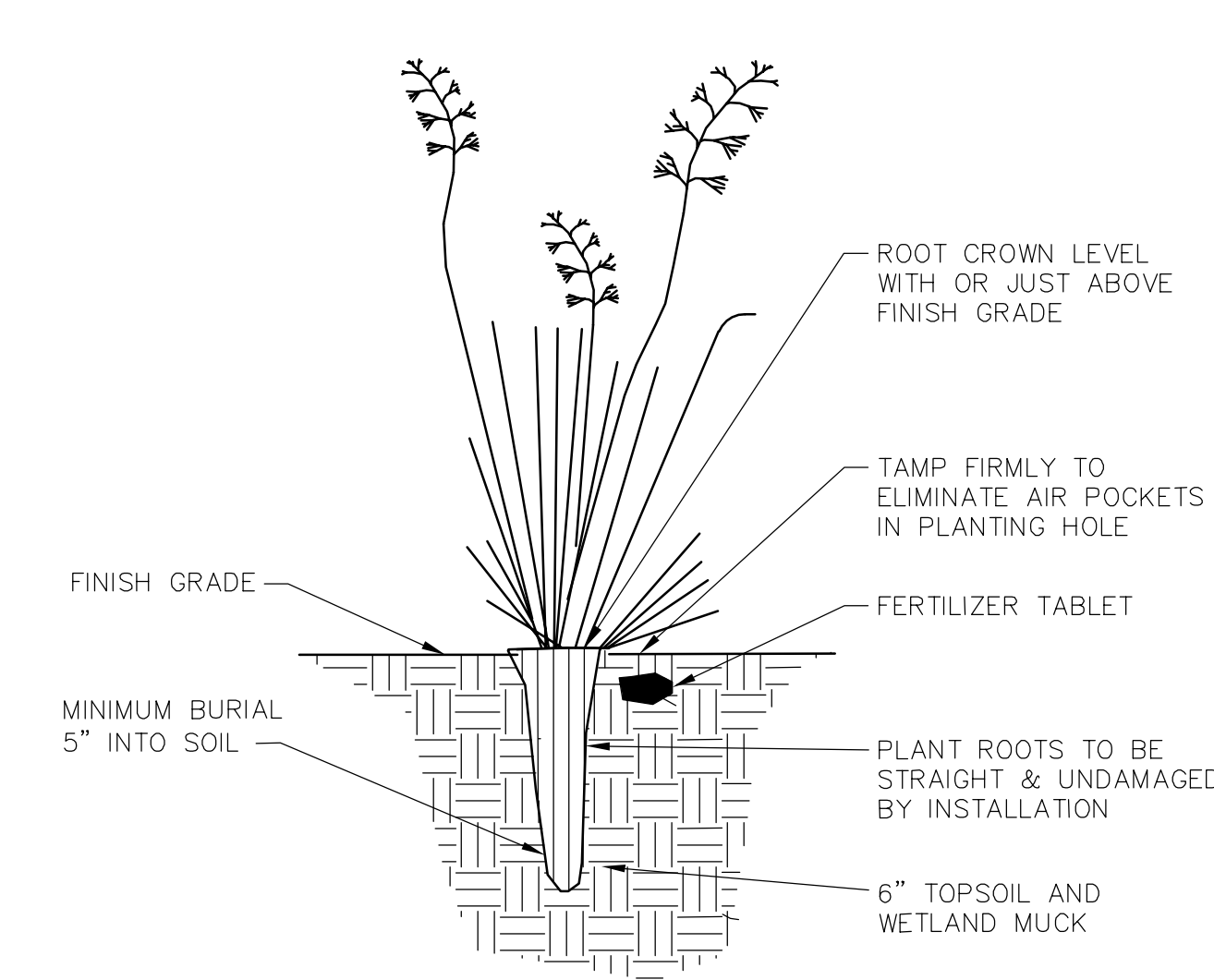
- THIS PLAN, IF SIGNED BY THE CITY OF HAMPTON'S DIRECTOR OF PLANNING OR THE DIRECTOR'S ASSIGNS, SERVES AS THE APPROVED LANDSCAPE PLANNING PLAN FOR THE PROJECT AND IS AN ELEMENT OF THE PROJECT'S SITE PLAN. ALL LANDSCAPE FEATURES DEPICTED AND SPECIFIED ON THIS PLAN AS EITHER "NEW" OR "EXISTING TO BE RETAINED" 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.
- 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.
- 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:
 - 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.
 - THE SOIL MATERIAL IS TOO SHALLOW TO PROVIDE AN ADEQUATE ROOT ZONE AND TO SUPPLY NECESSARY MOISTURE AND NUTRIENTS FOR THE PLANT GROWTH.
 - THE SOIL CONTAINS SUBSTANCES POTENTIALLY TOXIC TO PLANT GROWTH.
- OTHERWISE, THE EXISTING SOILS SHALL BE MODIFIED THROUGH THE USE OF SOIL AMENDMENTS (I.E. PEATMOSS, PERLITE, LIME, GYPSUM, ETC.) TO PROVIDE AN ADEQUATE GROWING MEDIUM.
- 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 TO PLANTS.
- ALL TOPSOIL AND PREPARED SOIL MIXTURES SHALL MEET OR EXCEED THE FOLLOWING MINIMUM CRITERIA:
 - SOIL SOLIDS SHALL CONSIST OF 40 PERCENT SAND, 40 PERCENT SILT, 10 PERCENT CLAY, AND 10 PERCENT ORGANIC MATTER.
 - pH LEVEL SHALL BE ADJUSTED AS NECESSARY TO MATCH THE SPECIFIED pH NEEDS OF THE PROPOSED PLANTS.
 - SOLUBLE SALTS SHALL NOT EXCEED 500 PPM.



SHRUB PLANTING DETAILS
SCALE: NOT TO SCALE

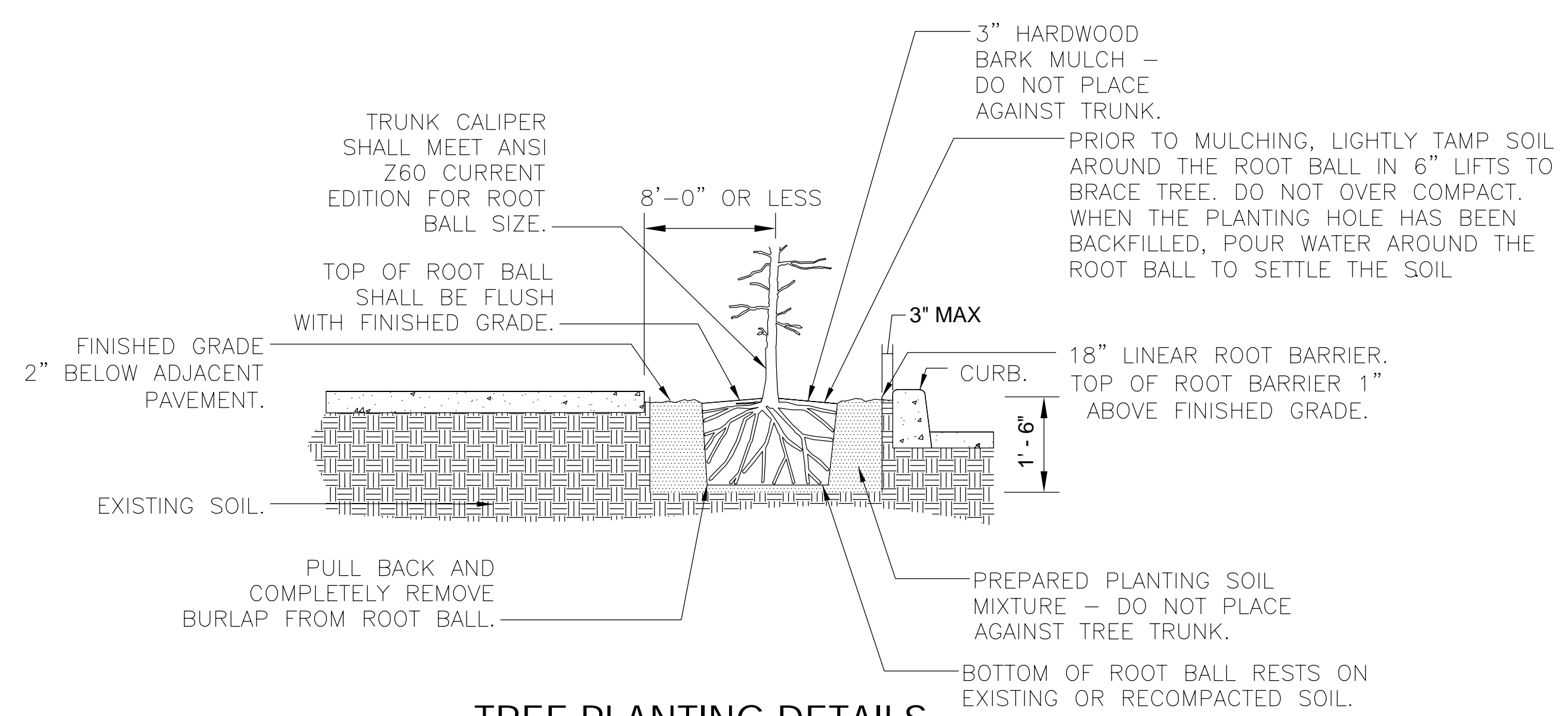


PLANTING OF CONTAINERS
NOT TO SCALE

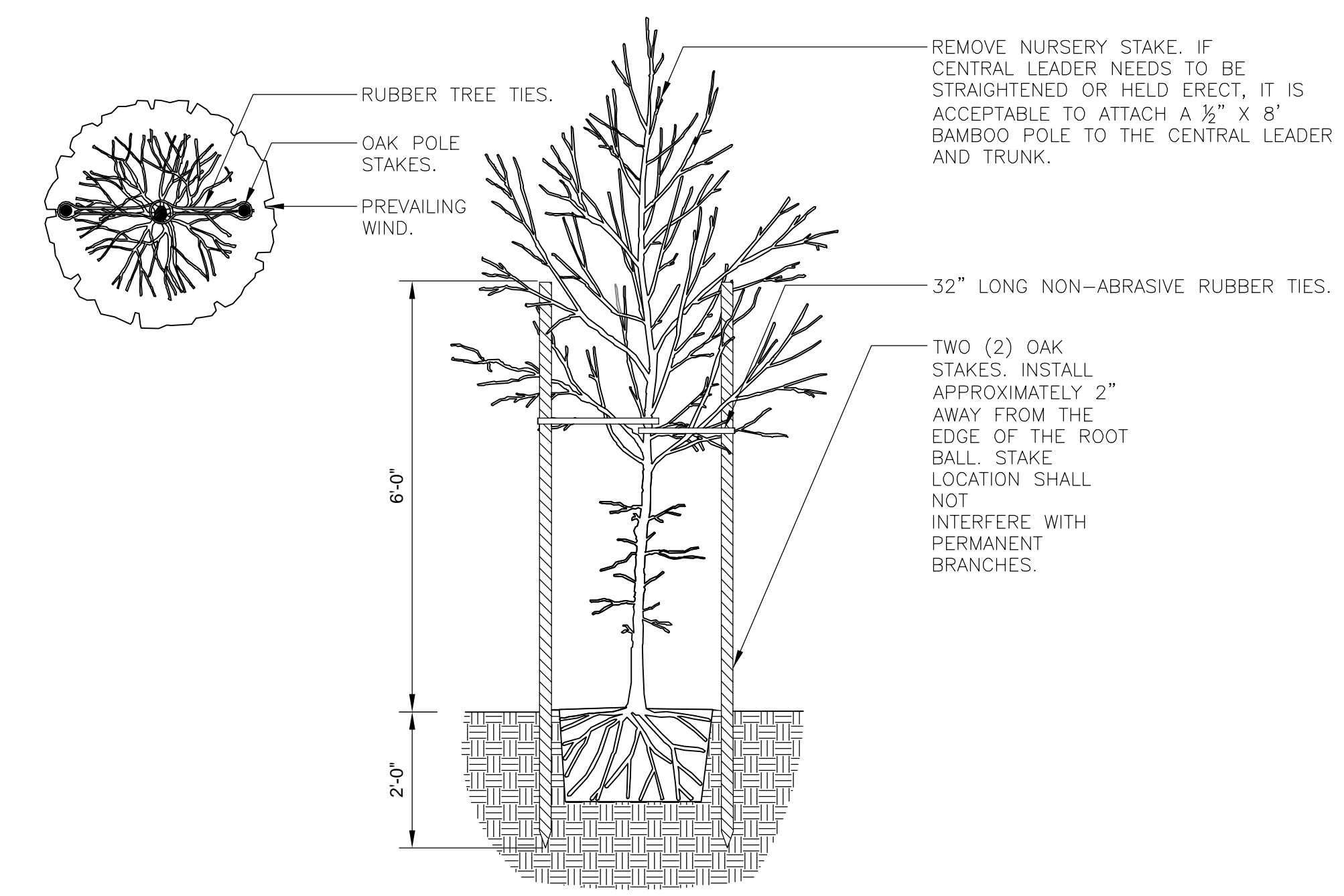


- NOTES:
- LEAVES & ROOT CROWN TO REMAIN UNDAMAGED DURING PLANTING
 - CREATE PLANTING HOLE WITH AUGER
 - PLUGS SHALL BE PLANTED WITH AN AVERAGE SPACING OF 1.5' WITHIN PLANTING CLUMPS.

WETLAND PLUG PLANTING DETAIL
NOT TO SCALE

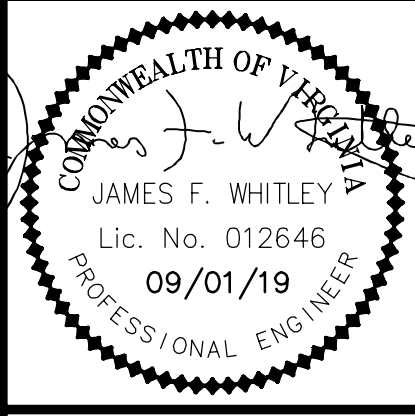


TREE PLANTING DETAILS
NOT TO SCALE



TREE STAKING - OAK POLES (2)
NOT TO SCALE

OFFICE REVIEW SUMMARY	SR	100%	FINAL
PROJECT MANAGER	JFW	100%	FINAL
PROJECT Q/A/Q.C.	AJW	100%	FINAL
PROJECT ENGINEER	AJW	100%	FINAL
DRAFTSMAN	AJW	100%	FINAL



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**N. KING STREET/BRIGHTS CREEK AREA
STORMWATER BASIN RETROFIT**
SITE PLANTING NOTES AND DETAILS

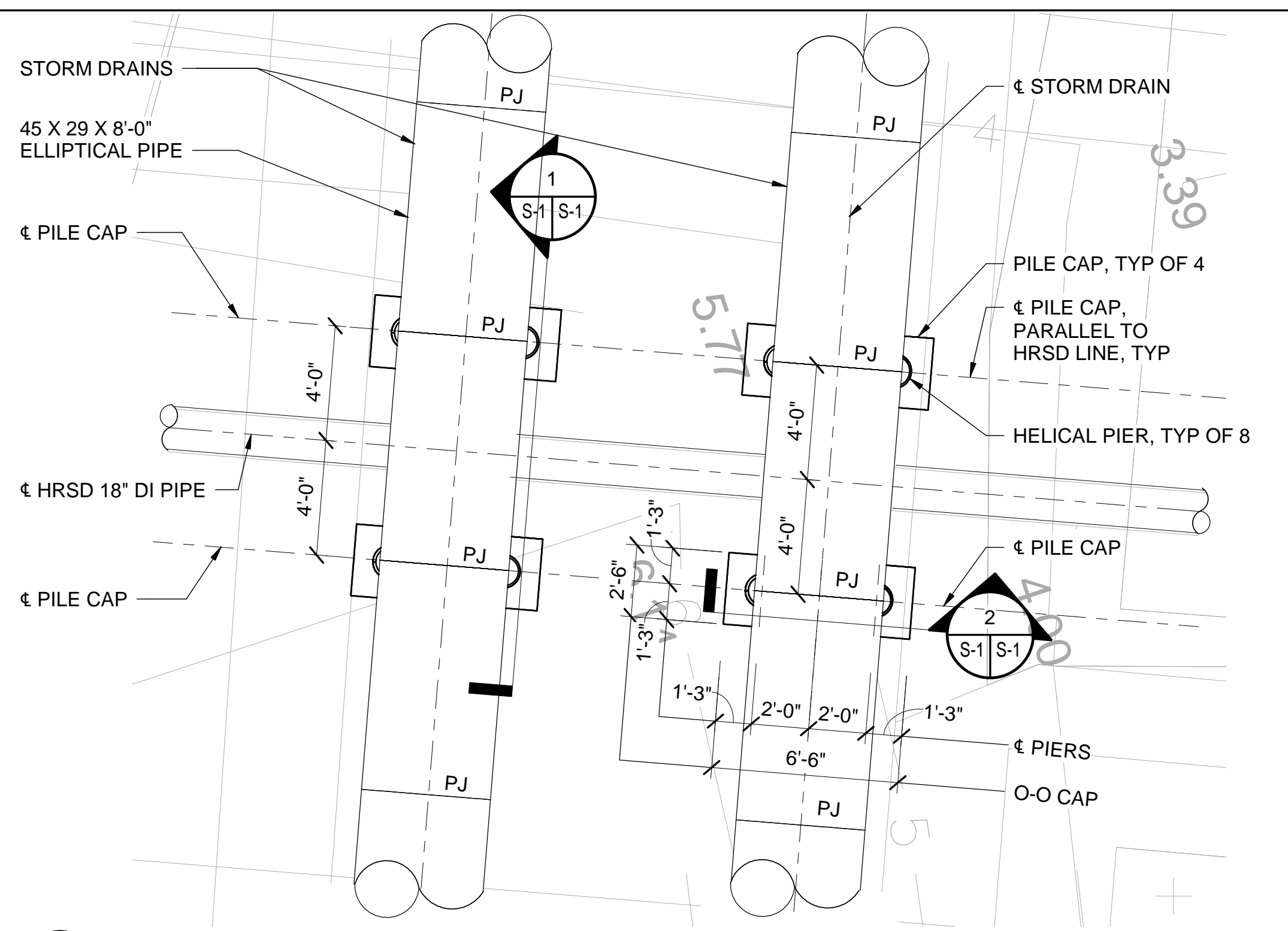
CITY OF HAMPTON DEPARTMENT OF PUBLIC WORKS
22 LINCOLN STREET, HAMPTON, VIRGINIA 23669
TEL. 757-727-6346 FAX 757-727-6123

DATE	REVISIONS

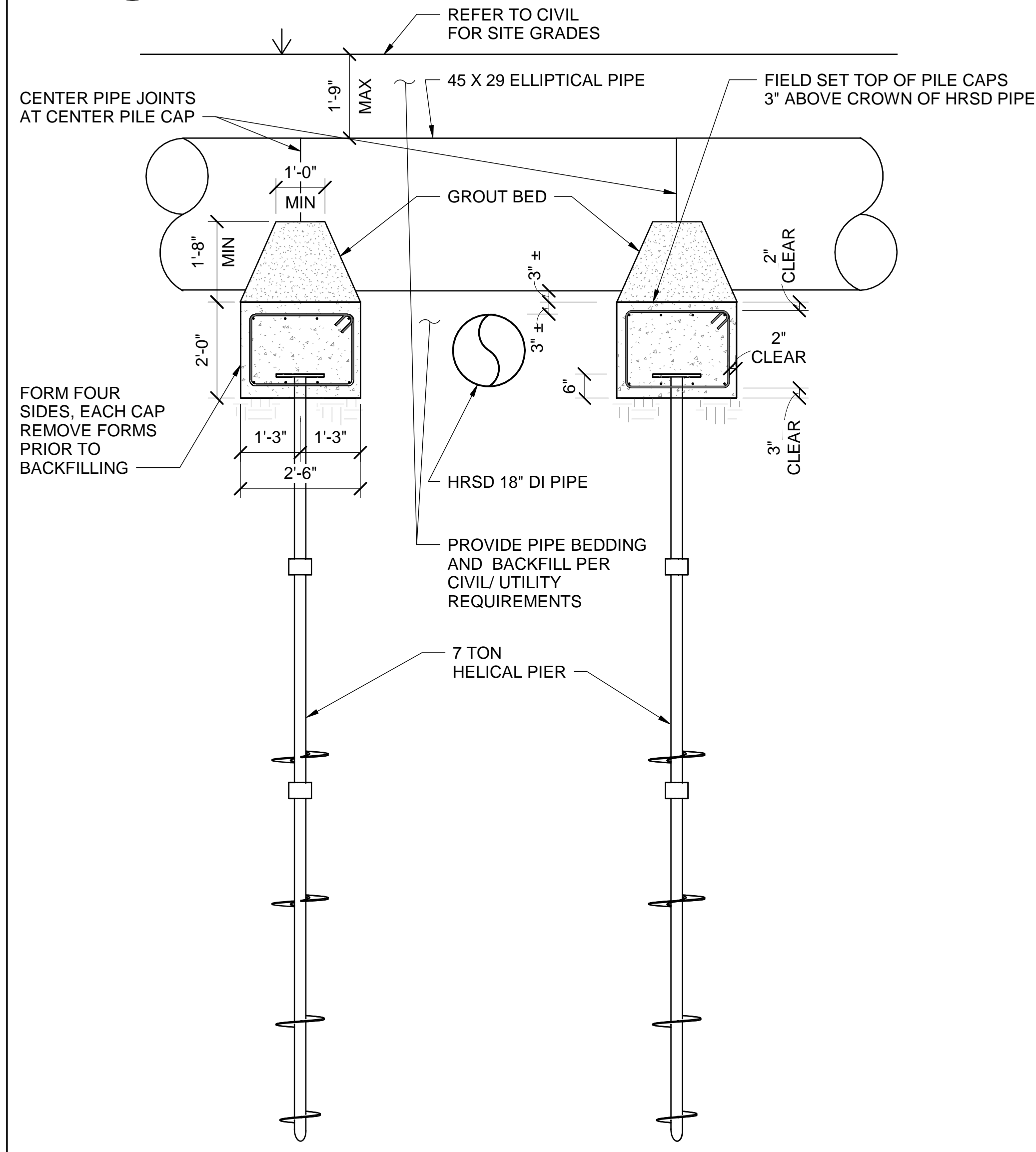
ISSUE DATE:
SEPTEMBER 1, 2019

SHEET L2
SHEET 14 OF 15

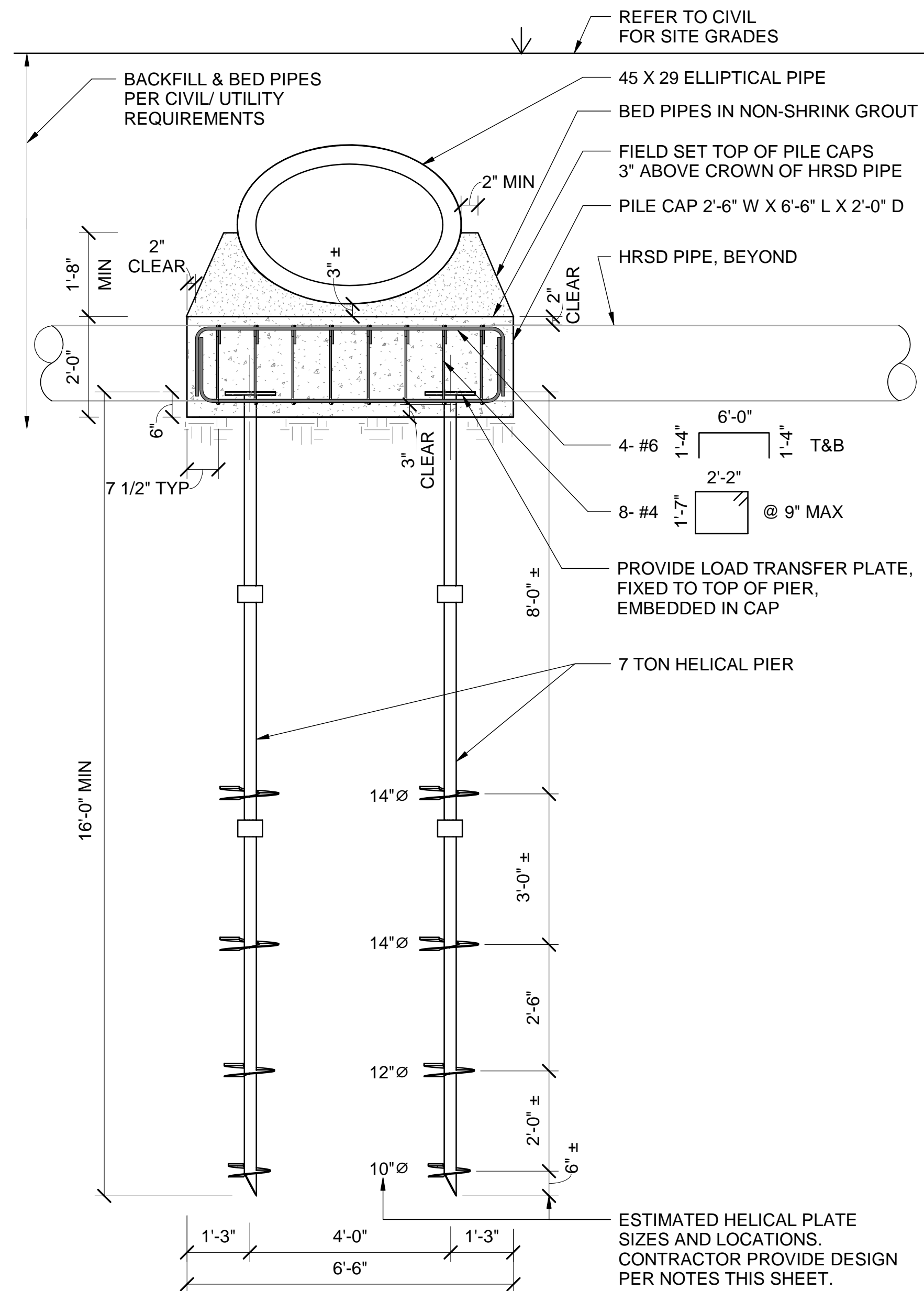
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PLAN
SCALE: 1/4" = 1'-0"



SECTION 1
SCALE: 1/2" = 1'-0"



SECTION 2
SCALE: 1/2" = 1'-0"

HELICAL PIER NOTES:

- HELICAL PIERS SHALL BE INSTALLED TO ACHIEVE A SAFE BEARING CAPACITY OF 7 TONS.
- PIER LENGTH SHALL BE 16 FEET MINIMUM.
- HELICAL PIER CONTRACTOR SHALL BE CERTIFIED BY THE MANUFACTURER AND HAVE MINIMUM OF 5 YEARS EXPERIENCE IN HELICAL PIER WORK.
- ALL WORK AS DESCRIBED HEREIN SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE SAFETY CODES IN EFFECT AT THE TIME OF INSTALLATION.
- THE HELICAL LEAD SECTIONS AND EXTENSION SECTIONS SHALL BE ROUND STEEL PIPE SHAFT 2 7/8" DIAMETER MINIMUM WITH ONE OR MORE HELICAL BEARING PLATES WELDED TO THE SHAFT.
- ALL PIERS SHALL HAVE CORROSION PROTECTION CONSISTING OF HOT DIP GALVANIZING.
- INSTALLATION UNITS SHALL CONSIST OF A ROTARY TYPE TORQUE MOTOR WITH FORWARD AND REVERSE CAPABILITIES.
- INSTALLATION UNITS SHALL BE CAPABLE OF DEVELOPING THE MINIMUM TORQUE AS REQ'D FOR INSTALLATION OF THE HELICAL PIER TO THE SPECIFIED DESIGN BEARING CAPACITIES.
- INSTALLATION UNITS SHALL BE CAPABLE OF POSITIONING THE HELICAL PIER AT THE PROPER INSTALLATION ANGLE. THIS ANGLE MAY VARY BETWEEN VERTICAL AND 5 DEGREES DEPENDING UPON APPLICATION AND THE TYPE OF LOAD TRANSFER DEVICE SPECIFIED OR REQUIRED
- INSTALLATION TORQUE SHALL BE MONITORED AND RECORDED THROUGHOUT THE INSTALLATION PROCESS.
- DESIGN OF HELICAL PIERS AND ANCHORS SHALL BE PERFORMED IN ACCORDANCE WITH EXISTING LOCAL CODE REQUIREMENTS AND ESTABLISHED LOCAL PRACTICES. THIS DESIGN WORK SHALL BE PERFORMED BY A LICENSED PROFESSIONAL ENGINEER.
- HELICAL PIERS SHALL BE DESIGNED BY A GEOTECHNICAL ENGINEER LICENSED TO PRACTICE IN THE COMMONWEALTH OF VIRGINIA.
- PROVIDE AN APPROPRIATE STEEL NEW CONSTRUCTION LOAD TRANSFER DEVICE.
- PROVIDE AND APPROPRIATE HELICAL PIER SECTION CONSIDERING THE DESIGN LOAD AND SOIL PARAMETERS ON SITE. DESIGN PIERS FOR A MINIMUM FACTOR OF SAFETY OF 2.0.
- PROVIDE A CERTIFICATE OF INSTALLATION SHOWING INSTALLATION TORQUES AND SAFE BEARING CAPACITY ACHIEVED FOR EACH PIER.

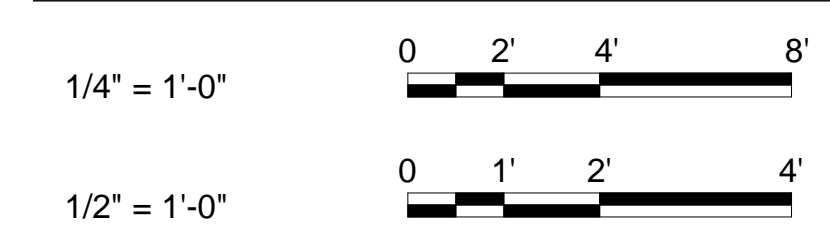
CAST-IN-PLACE CONCRETE NOTES

- FORM VERTICAL FACES OF CONCRETE PILE CAPS. REMOVE FORMS PRIOR TO BACK-FILLING. CASTING AGAINST SIDES OF EXCAVATION IS NOT ACCEPTABLE. USE OF STAY IN PLACE FORMS IS NOT ACCEPTABLE.
- ALL REINFORCING STEEL AND EMBEDDED ITEMS SHALL BE ACCURATELY PLACED IN THE POSITIONS SHOWN AND ADEQUATELY TIED AND SUPPORTED BEFORE CONCRETE IS PLACED TO PREVENT DISPLACEMENT BEYOND PERMITTED TOLERANCES.
- MINIMUM CONCRETE COVER FOR REINFORCING STEEL AS INDICATED ON THE DRAWINGS SHALL GOVERN WHEN IN CONFLICT WITH ACI 318.
- REINFORCING BARS SHALL CONFORM TO ASTM A 615, GRADE 60, DEFORMED.
- CONCRETE SHALL BE NORMAL WEIGHT, AIR ENTRAINED AND SHALL OBTAIN 28 DAY COMPRESSIVE STRENGTH OF 4000 PSI.
- NON-SHRINK GROUT SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 6000 PSI AND SHALL CONFORM TO ASTM C1107.

ABBREVIATIONS

#	NUMBER
ACI	AMERICAN CONCRETE INSTITUTE
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
CL	CENTER LINE
D	DEPTH
DI	DUCTILE IRON
HRSD	HAMPTON ROADS SANITATION DISTRICT
L	LENGTH
MAX	MAXIMUM
MIN	MINIMUM
O-O	OUT TO OUT
PJ	PIPE JOINT
PSI	POUNDS PER SQUARE INCH
T&B	TOP AND BOTTOM
TYP	TYPICAL
W	WIDTH
Ø	DIAMETER

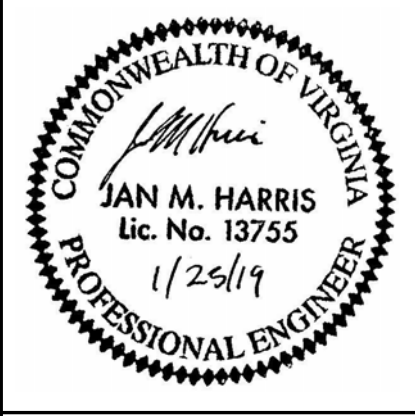
GRAPHIC SCALES



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PROJECT REVISIONS

NO.	DATE	DESCRIPTION



**N. KING STREET/BRIGHTS CREEK AREA
STORMWATER BASIN RETROFIT
HRSD PIPE CROSSING**

CITY OF HAMPTON DEPARTMENT OF PUBLIC WORKS
22 LINCOLN STREET, HAMPTON VIRGINIA 23669
TEL: 757-727-6346 FAX: 757-727-6123

PROJECT REVISIONS

NO.	DATE	DESCRIPTION

ISSUE DATE:
JANUARY 25, 2019

SHEET S-1
SHEET 15 OF 15

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