

SUFFOLK SEABOARD COASTLINE TRAIL

PHASE IV

DEPARTMENT OF PARKS AND RECREATION SUFFOLK, VIRGINIA
 STATE PROJECT EN01-133-104 P101501(UPC 59771)
 FHWA-3J028

CLARK NEXSEN
 Architecture & Engineering

6160 KEMPSVILLE CIRCLE
 NORFOLK, VIRGINIA 23502
 757-455-5800 FAX 757-455-5638
 WWW.CLARKNEXSEN.COM



Spell checked by GDFEM on 04/26/2013 10:27am

HX:\2012\4549-Suffolk Seaboard Coastline Trail PhaseIV\CAD\Sheets\G1001.dwg Fri, 07 Feb 2014 - 11:28am gilepapa

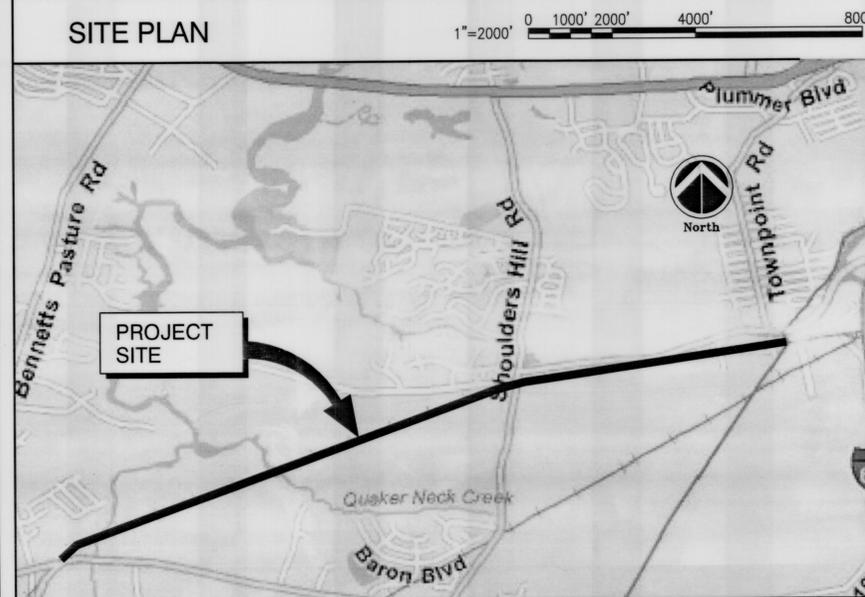
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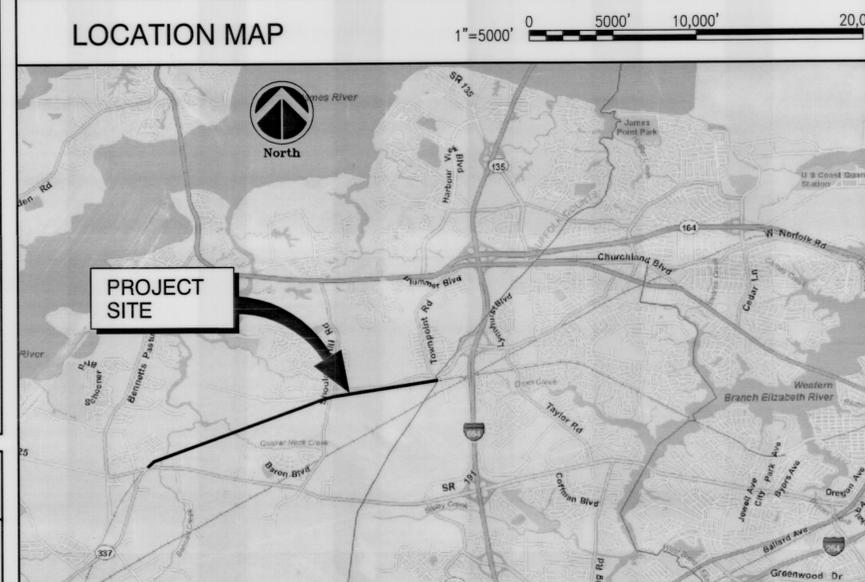
SITE DATA

DISTURBED AREA:	7.97 AC
EXISTING IMPERVIOUS AREA:	6.13 AC (EXISTING RAILROAD)
POST IMPERVIOUS AREA:	6.26 AC

SITE PLAN



LOCATION MAP



SITE INFORMATION

- ALL CONSTRUCTION IS TO BE PERFORMED WITHIN EXISTING RIGHT OF WAY.
- IN ACCORDANCE WITH THE AASHTO GUIDE FOR DEVELOPMENT OF BICYCLE FACILITIES 2012 THE TRAIL DESIGN SPEED IS 18 MPH.
- ACOE PERMIT # NAO-2013-01130
- VMRC PERMIT # 2013-1302
- ALL CONSTRUCTION METHODS AND MATERIALS SHALL CONFORM WITH THE CURRENT EDITION (INCLUDING REVISIONS AND AMENDMENTS) OF THE 2008 VDOT ROAD AND BRIDGE STANDARDS, 2007 VDOT ROAD AND BRIDGE SPECIFICATIONS, 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, 2011 VIRGINIA WORK AREA PROTECTION MANUAL

TIER 1 PROJECT

LOCALLY ADMINISTERED PROJECTS	
CITY OF SUFFOLK	
 SHERRY B. EARLEY, P.E.	
RECOMMENDED FOR APPROVAL FOR RIGHT OF WAY ACQUISITION	ENGINEERING MANAGER
DATE	TITLE OF POSITION
 SHERRY B. EARLEY, P.E.	
RECOMMENDED FOR APPROVAL FOR CONSTRUCTION	ENGINEERING MANAGER
2/19/14	DATE
DATE	TITLE OF POSITION
RECOMMENDED FOR APPROVAL FOR RIGHT OF WAY ACQUISITION	
DATE	DISTRICT PLANNING AND INVESTMENT MANAGER
DATE	DISTRICT PROJECT DEVELOPMENT ENGINEER
APPROVED FOR RIGHT OF WAY ACQUISITION	
DATE	DISTRICT ADMINISTRATOR
RECOMMENDED FOR APPROVAL FOR CONSTRUCTION	
DATE	DISTRICT PLANNING AND INVESTMENT MANAGER
DATE	DISTRICT PROJECT DEVELOPMENT ENGINEER
APPROVED FOR CONSTRUCTION	
DATE	DISTRICT ADMINISTRATOR

SUFFOLK SEABOARD COASTLINE TRAIL
 PHASE IV

DEPARTMENT OF PARKS AND RECREATION
 CITY OF SUFFOLK, VIRGINIA

CN NO: 4549
 DATE: 01/30/14
 DESIGN: JPP
 DRAWN: BJL
 REVIEW: IDJ

REVISIONS
 No. Date Description By

TITLE SHEET

GI001

SHEET 1 OF 37

Sheet checked by G02P/ML on 04/26/2013 10:23am

D

C

B

A

GENERAL NOTES

1. THE CONTRACTOR SHALL NOTIFY THE CITY OF SUFFOLK PUBLIC WORKS DEPARTMENT (757-514-7683) A MINIMUM OF 36 HOURS PRIOR TO THE COMMENCEMENT OF ANY DEMOLITION AND/OR CONSTRUCTION.
2. ALL CONSTRUCTION METHODS AND MATERIALS SHALL CONFORM WITH THE CURRENT EDITION (INCLUDING REVISIONS AND AMENDMENTS) OF THE VDOT ROAD AND BRIDGE STANDARDS AND SPECIFICATIONS, VIRGINIA STORMWATER MANAGEMENT REGULATIONS, CITY OF SUFFOLK UNIFIED DEVELOPMENT ORDINANCE, CITY OF SUFFOLK PUBLIC FACILITIES MANUAL, MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, AASHTO GUIDE FOR THE DEVELOPMENT OF BICYCLE FACILITIES, AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES, VIRGINIA EROSION AND SEDIMENT CONTROL REGULATIONS, AND ANY OTHER APPLICABLE CITY OR STATE ORDINANCES, CODES, LAWS, AND FEDERAL REGULATIONS.
3. ALL SITE IMPROVEMENTS ARE SUBJECT TO CITY INSPECTION UNDER CITY CODES, VDOT AND THE CITY OF SUFFOLK DEPARTMENT OF PUBLIC UTILITIES SPECIFICATIONS, AS APPLICABLE.
4. UNDERGROUND EXPLORATIONS AND A TITLE SEARCH WERE NOT PERFORMED TO DETERMINE THE ABSENCE OR PRESENCE OF SOIL CONTAMINATION.
5. UPON CONSTRUCTION COMPLETION, ONE (1) COPY OF THE FINAL AS-BUILT DRAWINGS SHALL BE PROVIDED TO PUBLIC WORKS ON CD IN MICROSTATION SE OR LATER VERSION OR AUTOCAD 2000 OR LATER VERSION. DRAWINGS SHALL INDICATE LOCATION OF STRUCTURE IN CORRECT COORDINATE SPACE HAVING BEARINGS AND DISTANCES AND SHOULD BE TIED TO THE NAD 83 OF THE VIRGINIA STATE PLANE COORDINATE SYSTEM SOUTH.
6. THE CONTRACTOR SHALL WORK WITHIN THE EXISTING RIGHT-OF-WAY. THERE ARE NO TEMPORARY CONSTRUCTION EASEMENTS ASSOCIATED WITH THIS PROJECT. THE CONTRACTOR SHALL KEEP ALL EQUIPMENT, SPOILS, MATERIAL STOCKPILES AND OTHER ITEMS ASSOCIATED WITH THE WORK WITHIN THE EXISTING RIGHT-OF-WAY.
7. PRIOR TO CONSTRUCTION OR EXCAVATION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES (PUBLIC OR PRIVATE) THAT MAY EXIST WITHIN THE AREA OF CONSTRUCTION THAT ARE NOT SHOWN ON THESE PLANS. PRIOR TO CONSTRUCTION OR EXCAVATION, THE CONTRACTOR SHALL CALL "MISS UTILITY" OF VIRGINIA AT 1-800-552-7001. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY EXISTING UTILITY DAMAGED DURING CONSTRUCTION AT HIS EXPENSE.
8. THIS DESIGN COMPLIES WITH SECTION 5.2.8 OF THE AASHTO GUIDE FOR THE DEVELOPMENT OF BICYCLE FACILITIES 2012.

GRADING, DRAINAGE AND INCIDENTAL

1. ALL TRANSITIONS IN GRADING SHALL BE SMOOTH ROUND CURVES.
2. THE GEOTECHNICAL ENGINEER SHALL EVALUATE SUBGRADE SOILS TO DETERMINE IF UNSUITABLE MATERIAL EXISTS AND PROPOSE A MEANS TO STABILIZE THE MATERIAL.
3. PRIVATE PROPERTY RESIDENTIAL MAILBOXES OR DRIVEWAYS DAMAGED OR DESTROYED DURING CONSTRUCTION SHALL BE REPLACED IN KIND AT THE CONTRACTOR'S EXPENSE.

SURVEY NOTES

1. THE MERIDIAN SOURCE OF THIS TOPOGRAPHIC SURVEY IS BASED ON THE VIRGINIA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NORTH AMERICAN DATUM 1983(NAD83) (NA2011). THE PROJECT MERIDIAN WAS ESTABLISHED USING GPS METHODS AND WAS INITIATED AT CITY OF SUFFOLK CONTROL MONUMENT #153. NORTH AMERICAN DATUM 1983(NAD83) (NA2011) = NORTH: 3,472,644.362, EAST: 12,079,009.224
NORTH AMERICAN DATUM 1983(NAD83) (1963HARN) = NORTH: 3,472,644.505, EAST: 12,079,009.192
2. ELEVATIONS REFER TO NORTH AMERICAN VERTICAL DATUM 1988 (NAVD 88) AND WERE ESTABLISHED USING DIFFERENTIAL LEVELING METHODS INITIATED AT CITY OF SUFFOLK VERTICAL CONTROL MONUMENT #121.
3. THIS SURVEY WAS PREPARED TO SHOW EXISTING FEATURES AS OF 3 JANUARY 2013 AND DOES NOT CERTIFY TO CHANGES TO SITE CONDITIONS WHICH OCCUR SUBSEQUENT TO THIS DATE AND OR TO PROPOSED IMPROVEMENTS.
4. THIS PROPERTY APPEARS TO BE IN ZONE "X", OTHER AREAS, AND ZONE "AE(7.5)" BASE FLOOD ELEVATIONS DETERMINED. REFERENCE: FEDERAL EMERGENCY MANAGEMENT AGENCY, FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NUMBER 510156130D, MAP REVISED NOVEMBER 16, 2011.
5. THIS SURVEY DOES NOT CONSTITUTE A BOUNDARY SURVEY NOR A SUBDIVISION OF LAND.
6. PROPERTY AND RIGHT-OF-WAY LINES ARE DEPICTED FOR GRAPHIC PURPOSES ONLY AND DO NOT REPRESENT A BOUNDARY SURVEY NOR A SUBDIVISION OF LAND. THE PROPERTY AND RIGHT-OF-WAY BEARINGS AND DISTANCES ARE NOT DEPICTED ON THIS TOPOGRAPHIC SURVEY BECAUSE THEY ARE A COMPILATION OF DEEDS AND PLATS WHICH HAVE BEEN SCALED, TRANSLATED AND ROTATED TO FIT INTO THE PROJECT DATUM.
7. THIS SURVEY DOES NOT INTEND TO DEPICT ANY WETLANDS, HAZARDOUS WASTE AND ENVIRONMENTAL FEATURES THAT MAY AFFECT SAID PROPERTY SHOWN HEREON EXCEPT AS SHOWN.
8. PIPE MATERIAL TYPES ARE DETERMINED BY FIELD OBSERVATIONS TO THE BEST OF OUR ABILITY. PMI DOES NOT WARRANT THE MATERIAL TYPE OF PIPES LOCATED IN CONFINED OR INACCESSIBLE SPACES.
9. THE UNDERGROUND UTILITIES SHOWN, IF ANY, ARE BASED ON AVAILABLE PLANS OF RECORD AND/OR HAVE BEEN DESIGNATED BY "MISS UTILITY" DESIGN TICKET #'S B231000054, B231000058, AND B231000048 AND THE PAINT DESIGNATION LINES HAVE BEEN LOCATED IN THE FIELD. THE SURVEYOR MAKES NO GUARANTEE THAT THE

UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED, ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. THE SURVEYOR FURTHER NOTIFIES ALL PARTIES THAT VIRGINIA LAW REQUIRES MISS-UTILITY TO BE CONTACTED PRIOR TO ANY EXCAVATION.

10. THE TOPOGRAPHY AND PHYSICAL FEATURES SHOWN ON THIS MAP WERE OBTAINED UNDER THE DIRECT AND RESPONSIBLE CHARGE AND SUPERVISION OF, FRANK WINEINGER, L.S. FROM AN ACTUAL GROUND SURVEY. THIS TOPOGRAPHIC SURVEY INCLUDING METADATA MEETS MINIMUM ACCURACY STANDARDS UNLESS OTHERWISE NOTED.

11. THIS TOPOGRAPHIC SURVEY WAS PREPARED/COMPILED BY:



PRECISION MEASUREMENTS, INC.
 SURVEYORS - GPS - GIS - MAPPING - 3-D LASER SCANNING
 813 DILIGENCE DRIVE, SUITE 119
 NEWPORT NEWS, VA 23606
 (757) 595-7570
 WWW.PRECISIONMEASUREMENTS.COM
 VIRGINIA BEACH - NEWPORT NEWS - RICHMOND, VIRGINIA

ABBREVIATIONS

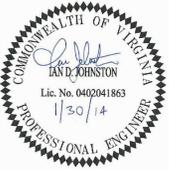
AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS	L/P	LIGHT POLE	UD	UNDERDRAIN
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	LF	LINEAR FEET	VAR	VARIABLE
BM	BENCH MARK	LS	LANDSCAPING	VDOT	VIRGINIA DEPARTMENT OF TRANSPORTATION
BOV	BLOW OFF VALVE	PIN(F)	PIN FOUND	VDES	VIRGINIA DEPARTMENT OF EMERGENCY SERVICES
CI	CURB INLET	PVC	POLYVINYL CHLORIDE	VSMP	VIRGINIA STORMWATER MANAGEMENT PROGRAM
CO	CLEANOUT	RCP	REINFORCED CONCRETE PIPE	W	WEST
CONC	CONCRETE	DIP	DUCTILE IRON PIPE	W/	WITH
CTV	CABLE TELEVISION	CMP	CORRUGATED METAL PIPE	WM	WATER METER
EG	EXISTING GAS	BCCMP	BITUMINOUS COATED CORRUGATED METAL PIPE	WV	WATER VALVE
ES	EXISTING SANITARY SEWER	BOT	BOTTOM	WWF	WELDED WIRE FABRIC
ESD	EXISTING STORM DRAIN	SMH	SANITARY MANHOLE	&	AND
EUC	EXISTING UNDERGROUND TELEPHONE	SAN	SANITARY	#	NUMBER
EUE	EXISTING UNDERGROUND ELECTRICAL	SMH	SANITARY MANHOLE	@	AT
EUCTV	EXISTING UNDERGROUND CABLE TV	SQ	SQUARE FEET		
EX/EXIST	EXISTING	SQ FT	SQUARE FEET		
EW	EXISTING WATER	STA	STATION		
FHWA	FEDERAL HIGHWAY ADMINISTRATION	STD	STANDARD		
FL	FLOW LINE	TB	TOP OF BANK		
HOPE	HIGH DENSITY POLYETHYLENE	TBM	TEMPORARY BENCHMARK		
HOPP	HIGH DENSITY PLASTIC PIPE	TC	TOP OF CURB		
INV	INVERT	TP	TREE PROTECTION		
		TPED	TELEPHONE PEDESTAL		
		TP	TYPICAL		

LEGEND

	EXISTING		NEW 22.49	SPOT ELEVATION
	EXISTING			UNDERGROUND CABLE TV
	EXISTING			GUY WIRE
	EXISTING			OVERHEAD LINES
	EXISTING			POWER POLE
	EXISTING			FIBER OPTIC WITNESS POST
	EXISTING			UNDERGROUND FIBER OPTICS
	EXISTING			GAS WITNESS POST
	EXISTING			UNDERGROUND GAS LINE
	EXISTING			SOIL BORING
	EXISTING			FORCE MAIN
	EXISTING			CURB DRAINAGE INLET
	EXISTING			STORM PIPES
	EXISTING			SIGN
	EXISTING			TRAVERSE POINT
	EXISTING			TEMPORARY BENCH MARK
	EXISTING			TELEPHONE WITNESS POST
	EXISTING			TELEPHONE PEDESTAL
	EXISTING			UNDERGROUND TELEPHONE
				TREE/SIZE & TYPE
				WATER WITNESS POST VALVE
				WATER METER
				WETLAND LIMIT
				WATER
				ASPHALT SURFACE
				GRAVEL SURFACE
				CHAIN LINK FENCE
				WOOD FENCE
				WHEEL STOP
				SILT FENCE
				RIP-RAP
				MILE MARKER
				HEAVY DUTY ASPHALT SURFACE

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 WWW.CLARKNEXSEN.COM



SUFFOLK SEABOARD COASTLINE TRAIL
 PHASE IV

DEPARTMENT OF PARKS AND RECREATION
 CITY OF SUFFOLK, VIRGINIA

CN NO: 4549
 DATE: 01/30/14
 DESIGN: JPP
 DRAWN: GMD
 REVIEW: IDJ

REVISIONS

No.	Date	Description	By
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GENERAL NOTES
 LEGEND AND
 ABBREVIATIONS

C-001

SHEET 2 OF 37

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**SUFFOLK SEABOARD COASTLINE TRAIL
PHASE IV**

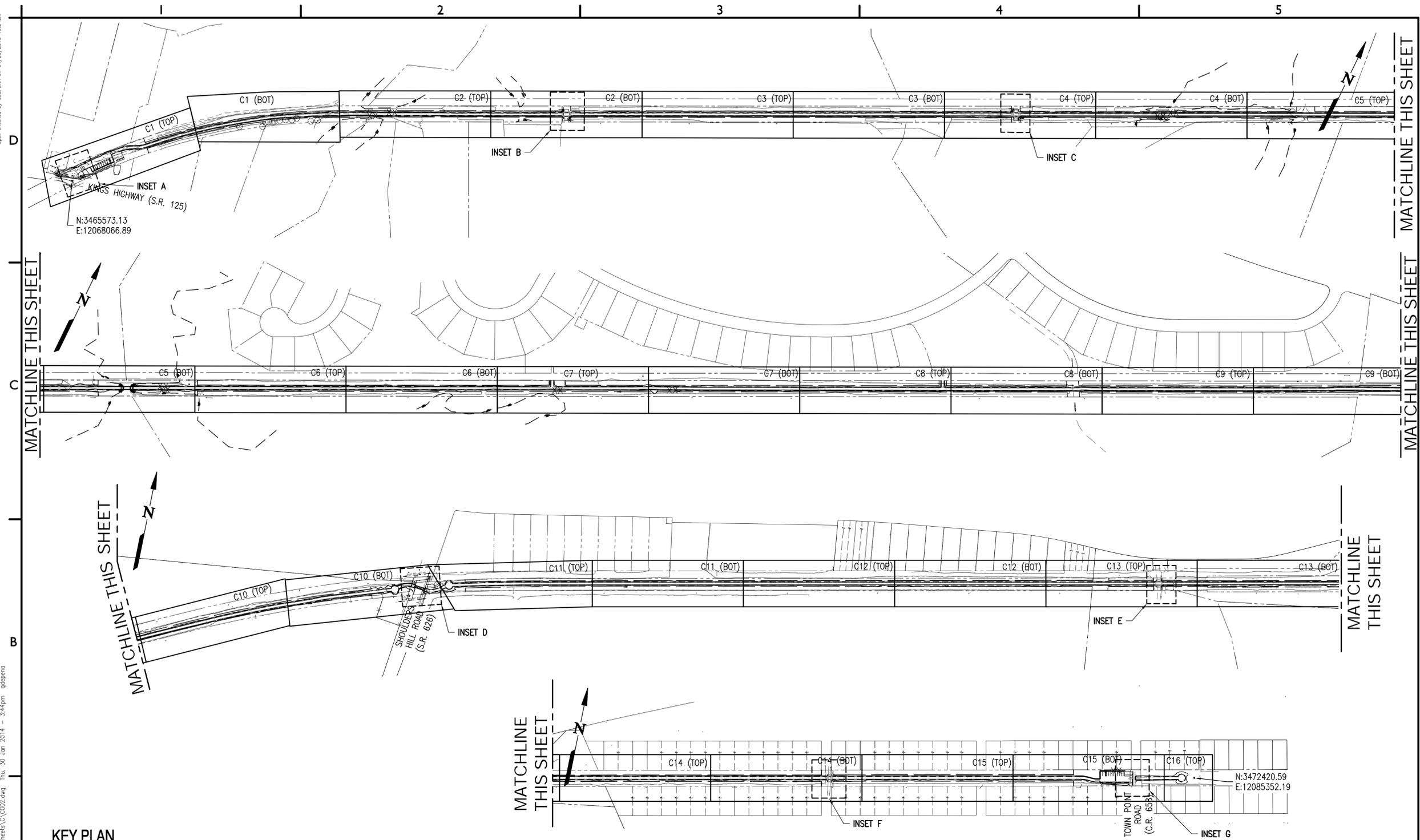
DEPARTMENT OF PARKS AND RECREATION
CITY OF SUFFOLK, VIRGINIA

CN NO: 4549
DATE: 01/30/14
DESIGN: GMD
DRAWN: BJL
REVIEW: IDJ
REVISIONS

No.	Date	Description	By

**SHEET INDEX
PLAN**

C-002
SHEET 3 OF 37

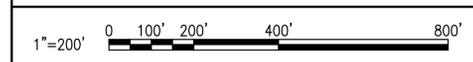


KEY PLAN
SCALE: 1"=200'

UTILITY OWNERS

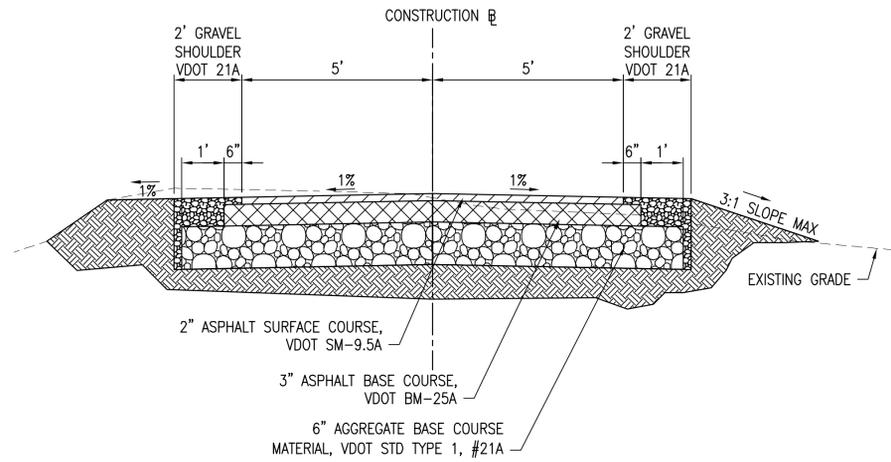
DOMINION VIRGINIA POWER STEVE HEROUX 1600 HAMILTON AVENUE PORTSMOUTH, VA 23707 P: 393-3991 STEVE.HEROUX@DOM.COM	VERIZON JOE BARKLEY 765 S. BATTLEFIELD BLVD CHESAPEAKE, VA 23322 P: 667-2709 JOSEPH.R.BARKLEY@VERIZON.COM	CHARTER COMMUNICATIONS KIM MANN CONSTRUCTION COORDINATOR 216 MOORE AVENUE SUFFOLK, VA 23434 P: 735-4007 KIMBERLY.MANN@CHARTERCOM.COM	COLUMBIA GAS D. ERIC ERTZNER COASTAL CONSULTANTS P.C. WWW.COASTALCPC.COM P: 804.864.4265
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GRAPHIC SCALE(S)



Scale checked by GDEP/ML on 04/29/2013 12:42pm

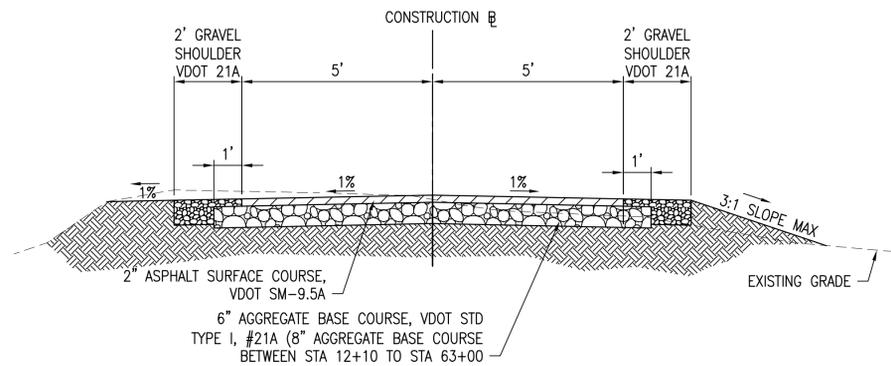
D



TYPICAL SECTION - HEAVY DUTY PAVEMENT

NO SCALE

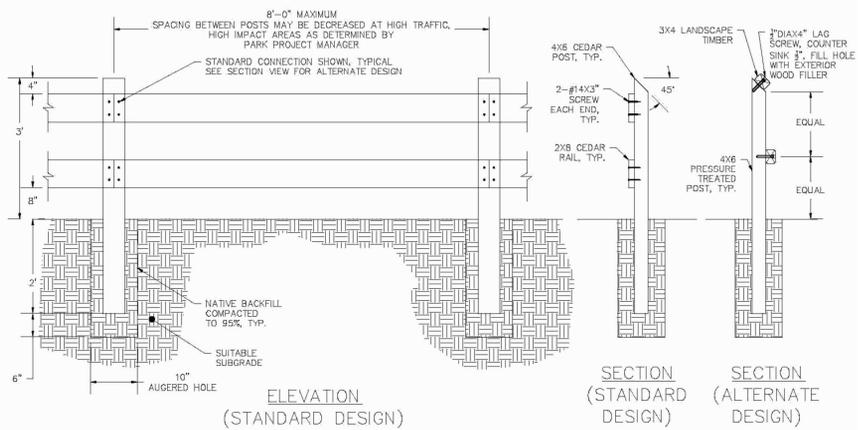
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TYPICAL SECTION

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B

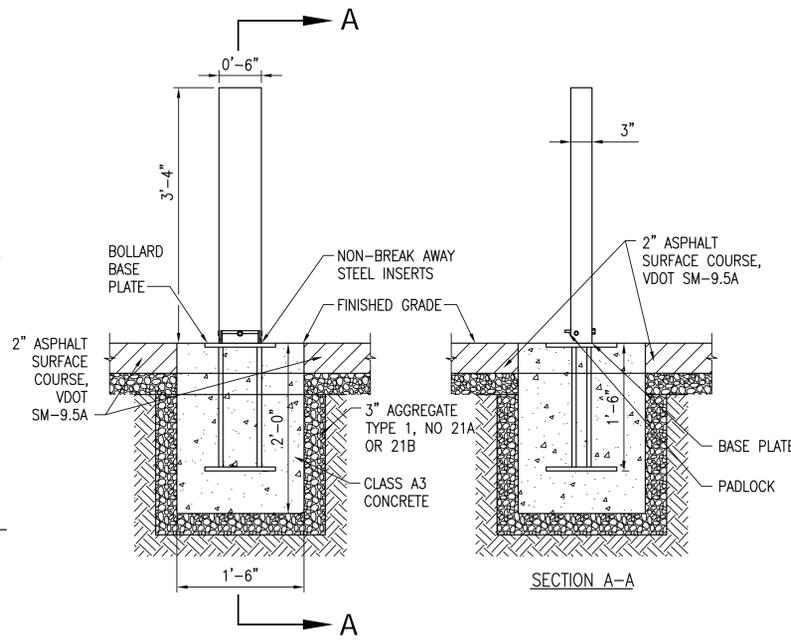


SPLIT RAIL FENCE DETAIL

NO SCALE

NOTES:
 A. TWO RAIL FENCE SHALL BE USED AS DIRECTED BY PARK PROJECT MANAGER TO DELINEATE BOUNDARIES WHERE NEEDED AND SHALL NOT BE USED AS A GUARDRAIL OR FOR FALL PROTECTION. BOUNDARIES INCLUDE PROPERTY, WETLANDS AND OTHER GENERAL AREAS WHERE A VISUAL BARRIER IS NEEDED.
 B. TWO RAIL FENCE SHALL BE USED ON FLAT TERRAIN (3:1 SLOPES OR FLATTER) OR IN LOCATIONS WHERE FALL PROTECTION IS NOT NEEDED.
 C. ALL FASTENERS AND HARDWARE SHALL BE SUITABLE FOR PRESSURE TREATED WOOD AND OUTDOOR APPLICATIONS.

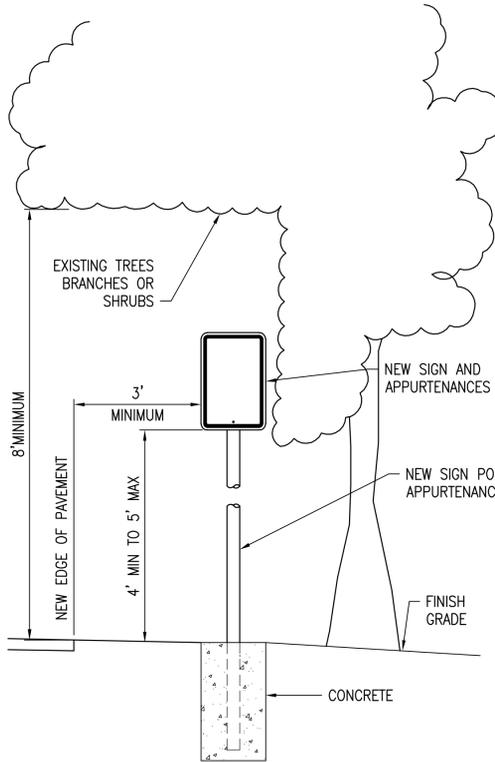
3



NOTES: DOWN POSITION HEIGHT NO MORE THAN 4".

COLLAPSIBLE BOLLARD

NO SCALE

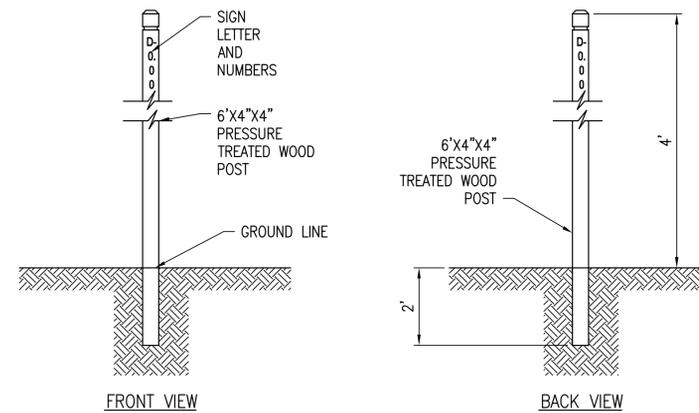


NOTE:
 NEW SIGNS SHALL BE INSTALLED IN ACCORDANCE WITH THE MOST CURRENT VDOT ROAD AND BRIDGE STANDARDS AND SPECIFICATIONS

NEW SIGN / TREE TRIMMING

NO SCALE

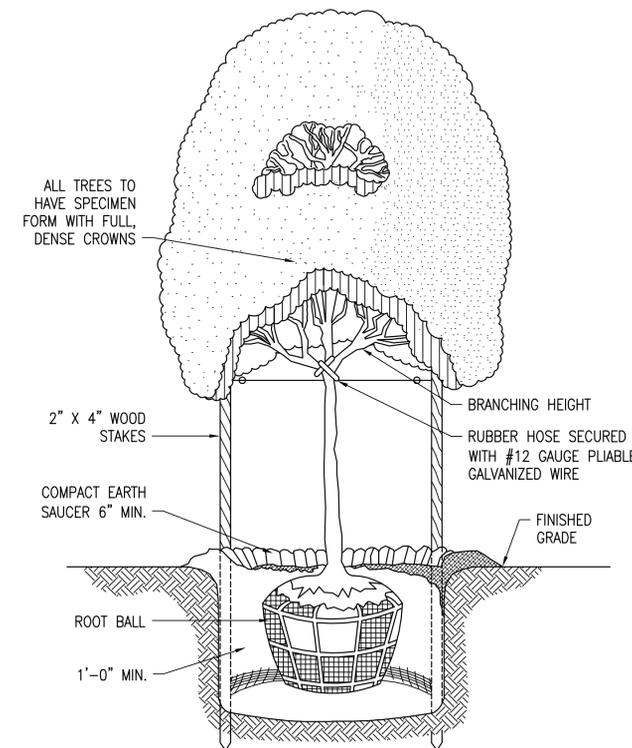
4



MILE MARKER DETAIL

NO SCALE

5



TREE PLANTING DETAIL

NO SCALE



CN NO: 4549
 DATE: 01/30/14
 DESIGN: JPP
 DRAWN: BJL
 REVIEW: IDJ
 REVISIONS

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H:\2012\4549-Suffolk Seaboard Coastline Trail PhaseIV\CAD\Sheets\C-003.dwg Thu, 30 Jan 2014 - 3:44pm gdpenna

STORMWATER POLLUTION PREVENTION PLAN (SWPPP) GENERAL INFORMATION SHEET

THE SWPPP GENERAL INFORMATION SHEETS ARE TO BE COMPLETED AND INCLUDED IN THE CONSTRUCTION PLAN SET (OR OTHER SUCH DOCUMENTS) FOR LAND DISTURBANCE ACTIVITIES THAT DISTURB AN AREA EQUAL TO OR GREATER THAN 10,000 SQUARE FEET, OR EQUAL TO OR GREATER THAN 2,500 SQUARE FEET IN THE AREA DEFINED AS TIDEWATER, VIRGINIA IN THE VIRGINIA CHESAPEAKE BAY PRESERVATION ACT.

* DENOTES INFORMATION THAT IS TO BE PROVIDED/COMPLETED BY THE CONTRACTOR OR THE VDOT RLD, AS APPROPRIATE.

SECTION I GENERAL INFORMATION

1. ACTIVITY DESCRIPTION - THE SUFFOLK SEABOARD COASTLINE TRAIL PHASE IV PROJECT LOCATED IN SUFFOLK, VA. INCLUDES A 10-FT WIDE PAVED MULTI-USE TRAIL WITH 2-FT WIDE GRAVEL SHOULDERS AND TWO TRAIL HEADS. THE TRAIL EXTENDS FOR 3.3 MILES FROM THE TOWN OF DRIVER TO THE CHESAPEAKE CITY LINE. THE ALIGNMENT WILL BE CONTAINED WITHIN THE EXISTING CITY RIGHT-OF-WAY ALONG THE ABANDONED SEABOARD COASTLINE RAIL CORRIDOR. ONE OF THE TRAIL HEADS WILL BE LOCATED IN THE TOWN OF DRIVER. THE OTHER TRAIL HEAD WILL BE LOCATED NEAR THE CITY LINE. THE TOTAL AREA OF DISTURBANCE FOR THE PROJECT IS APPROXIMATELY 8 ACRES.
2. THIS LAND DISTURBANCE ACTIVITY SITE IS LOCATED IN SUFFOLK, VA AND APPROXIMATELY 8 ACRES ACRES WILL BE DISTURBED BY EXCAVATION, GRADING OR OTHER CONSTRUCTION ACTIVITIES. (NOTE: THE DISTURBED AREA INCLUDES AN ESTIMATE FOR ANY ANTICIPATED OFFSITE SUPPORT FACILITIES, I.E., BORROW SITES, DISPOSAL AREAS, STORAGE AREAS, ETC.)
3. THIS LAND DISTURBANCE ACTIVITY COVERAGE UNDER THE VSMP GENERAL PERMIT FOR DISCHARGES OF STORMWATER FROM CONSTRUCTION ACTIVITIES AS ISSUED BY THE DCR.
4. THE EROSION AND SEDIMENT CONTROL (ESC) AND STORMWATER MANAGEMENT (SWM) PLANS FOR THIS LAND DISTURBANCE ACTIVITY HAVE BEEN DEVELOPED IN ACCORDANCE WITH VDOT'S EROSION AND SEDIMENT CONTROL AND STORMWATER MANAGEMENT STANDARDS AND SPECIFICATIONS AS APPROVED ANNUALLY BY THE DEPARTMENT OF CONSERVATION AND RECREATION.
5. THE CONTRACTOR IS DESIGNATED AS THE RLD FOR THIS LAND DISTURBANCE ACTIVITY. THE RDL NAME AND JOB TITLE WILL BE DETERMINED AFTER THE PROJECT HAS BEEN AWARDED.
6. CRITICAL AREAS (E.G., WETLANDS, SURFACE WATER BODIES, ETC) ADJACENT TO THIS LAND DISTURBANCE ACTIVITY SITE AND NOT OTHERWISE IDENTIFIED IN THE CONSTRUCTION PLAN SET (OR OTHER SUCH DOCUMENTS) ARE AS FOLLOWS: ALL WETLAND AREAS ADJACENT TO THE PROJECT ARE SHOWN ON THE PLANS.
7. STORMWATER RUN-OFF FROM THE DISTURBED AREAS OF THIS LAND DISTURBANCE ACTIVITY WILL FLOW INTO THE FOLLOWING STREAMS: QUAKER NECK CREEK AND DRUM POINT CREEK.
8. LOCATIONS WHERE STORMWATER DISCHARGES FROM THIS LAND DISTURBANCE ACTIVITY SITE TO A SURFACE WATER ARE IDENTIFIED IN THE CONSTRUCTION PLAN SET (OR OTHER SUCH DOCUMENTS).

SECTION II EROSION AND SEDIMENT CONTROL

1. THE FOLLOWING VARIANCES TO THE VIRGINIA ESC REGULATIONS HAVE BEEN APPROVED BY DCR FOR THIS LAND DISTURBANCE ACTIVITY: N/A
- * 2. THE INTENDED SEQUENCE AND TIMING OF ACTIVITIES THAT DISTURB SOILS AT THE SITE (E.G., GRUBBING, EXCAVATION, GRADING, UTILITIES AND INFRASTRUCTURE INSTALLATION, ETC.) SHALL BE PROVIDED BY THE CONTRACTOR IN ACCORDANCE WITH SECTION 108.03 OF THE VDOT R&B SPECIFICATIONS AND WILL BE INCLUDED WITH THE OTHER SWPPP DOCUMENTS FOR THIS LAND DISTURBANCE ACTIVITY.
3. DIRECTIONS OF STORMWATER FLOW AND APPROXIMATE SLOPES ANTICIPATED AFTER MAJOR GRADING ACTIVITIES ARE IDENTIFIED IN THE CONSTRUCTION PLAN SET (OR OTHER SUCH DOCUMENTS) FOR THIS LAND DISTURBANCE ACTIVITY.
4. AREAS OF SOIL DISTURBANCE AND AREAS OF THE SITE WHICH WILL NOT BE DISTURBED ARE IDENTIFIED IN THE CONSTRUCTION PLAN SET (OR OTHER SUCH DOCUMENTS) FOR THIS LAND DISTURBANCE ACTIVITY.
5. LOCATIONS OF MAJOR STRUCTURAL AND NONSTRUCTURAL ESC MEASURES IDENTIFIED IN THE SWPPP, INCLUDING THOSE THAT WILL BE PERMANENT CONTROLS THAT WILL REMAIN AFTER CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED, ARE IDENTIFIED IN THE CONSTRUCTION PLAN SET (OR OTHER SUCH DOCUMENTS) FOR THIS LAND DISTURBANCE ACTIVITY.
6. LOCATIONS WHERE STABILIZATION PRACTICES ARE EXPECTED TO OCCUR ARE IDENTIFIED IN THE CONSTRUCTION PLAN SET (OR OTHER SUCH DOCUMENTS) FOR THIS LAND DISTURBANCE ACTIVITY.
7. A DESCRIPTION OF INTERIM AND PERMANENT STABILIZATION PRACTICES FOR THE SITE ARE IDENTIFIED IN THE APPLICABLE SECTIONS OF THE DOCUMENTS IDENTIFIED IN THE NOTE 1 OF SECTION III.
- * 8. A RECORD OF THE DATES WHEN MAJOR GRADING ACTIVITIES OCCUR, WHEN CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE, AND WHEN STABILIZATION MEASURES ARE INITIATED WILL BE MAINTAINED IN THE SWPPP DOCUMENTS FOR THIS LAND DISTURBANCE ACTIVITY.
9. A DESCRIPTION OF STRUCTURAL PRACTICES TO DIVERT FLOWS FROM EXPOSED SOILS, RETAIN/DETAIN FLOWS OR OTHERWISE LIMIT RUNOFF AND THE DISCHARGE OF POLLUTANTS FROM EXPOSED AREAS OF THE CONSTRUCTION SITE ARE IDENTIFIED IN THE APPLICABLE SECTIONS OF THE DOCUMENTS IDENTIFIED IN NOTE 1 OF SECTION III.
10. A DESCRIPTION AND SCHEDULE OF PROCEDURES TO MAINTAIN VEGETATION, EROSION AND SEDIMENT CONTROL MEASURES AND OTHER PROTECTIVE MEASURES IN GOOD AND EFFECTIVE OPERATING CONDITIONS DURING CONSTRUCTION ARE IDENTIFIED IN SECTIONS 107.16 AND 303.03 OF THE VDOT R&B SPECIFICATIONS.
11. ALL ENGINEERING CALCULATIONS SUPPORTING THE DESIGN OF EROSION AND SEDIMENT CONTROL MEASURES ARE CONTAINED IN THE PROJECT DRAINAGE FILE LOCATED IN THE CITY PUBLIC WORKS OFFICE AND WILL BE MADE AVAILABLE FOR REVIEW UPON REQUEST DURING NORMAL WORKING BUSINESS HOURS.
12. THE TEMPORARY EROSION AND SILTATION CONTROL ITEMS SHOWN ON THE EROSION AND SEDIMENT CONTROL (ESC) PLAN FOR THIS PROJECT ARE INTENDED TO PROVIDE A GENERAL PLAN FOR CONTROLLING EROSION AND SEDIMENT WITHIN THE PROJECT LIMITS. THE ESC PLAN IS BASED ON FIELD CONDITIONS AT THE TIME OF PLAN DEVELOPMENT AND AN ASSUMED SEQUENCE OF CONSTRUCTION FOR THE PROJECT. THE CONTRACTOR, IN CONJUNCTION WITH THE VDOT PROJECT ENGINEER AND/OR ESC INSPECTOR, SHALL ADJUST THE LOCATION, QUANTITY AND TYPE OF EROSION AND SEDIMENT CONTROL ITEMS REQUIRED BASED ON THE ACTUAL FIELD CONDITIONS ENCOUNTERED AT THE TIME OF CONSTRUCTION AND THE ACTUAL SCHEDULING AND SEQUENCING OF THE CONSTRUCTION ACTIVITIES. SIGNIFICANT CHANGES TO THE PROPOSED ESC PLAN (E.G., THOSE THAT REQUIRE AN ENGINEERING ANALYSIS) SHALL BE SUBMITTED TO THE APPLICABLE DISTRICT HYDRAULICS ENGINEER FOR REVIEW AND APPROVAL. ANY CHANGES TO THE PROPOSED ESC PLAN MUST BE NOTED ON A DESIGNATED PLAN SET (RECORD SET) WHICH SHALL BE RETAINED ON THE PROJECT SITE AND MADE AVAILABLE UPON REQUEST DURING NORMAL WORKING BUSINESS HOURS.
13. THE AREAS BEYOND THE PROJECT'S CONSTRUCTION AREA ARE TO BE PROTECTED FROM SILTATION. PERIMETER CONTROLS SUCH AS FILTER BARRIER, SILT FENCE, DIVERSION DIKES, TURBIDITY CURTAINS, ETC. SHALL BE INSTALLED PRIOR TO ANY GRUBBING OPERATIONS OR OTHER EARTH MOVING ACTIVITIES.
14. TEMPORARY EARTHEN STRUCTURES SUCH AS DIKES AND BERMS ARE TO BE STABILIZED IMMEDIATELY UPON INSTALLATION. STABILIZATION MAY INCLUDE TEMPORARY OR PERMANENT SEEDING, RIPRAP, AGGREGATE, SOD, MULCHING, AND/OR SOIL STABILIZATION BLANKETS AND MATTING IN CONJUNCTION WITH SEEDING.
15. ALL CHANNEL RELOCATIONS ARE TO BE CONSTRUCTED DURING THE EARLIEST STAGE OF CONSTRUCTION AND SHALL BE CONSTRUCTED IN ACCORDANCE WITH ALL APPLICABLE PERMIT REQUIREMENTS AND SHALL BE CONSTRUCTED IN THE DRY WHEREVER POSSIBLE. STABILIZATION OR VEGETATION SHALL BE ESTABLISHED BEFORE FLOW IS REDIRECTED THROUGH THE CONSTRUCTED AREA AS DIRECTED BY THE ENGINEER.

ACRONYMS

DCR	DEPARTMENT OF CONSERVATION AND RECREATION
ESC	EROSION AND SEDIMENT CONTROL
R&B	ROAD AND BRIDGE
RLD	RESPONSIBLE LAND DISTURBER
SWM	STORMWATER MANAGEMENT
SWPPP	STORMWATER POLLUTION PREVENTION PLAN
VSMP	VIRGINIA STORMWATER MANAGEMENT PROGRAM

CLARK NEXSEN
Architecture & Engineering

6160 KEMPSVILLE CIRCLE
NORFOLK, VIRGINIA 23502
757-455-5800 FAX 757-455-5638
WWW.CLARKNEXSEN.COM



SUFFOLK SEABOARD COASTLINE TRAIL
PHASE IV

DEPARTMENT OF PARKS AND RECREATION
CITY OF SUFFOLK, VIRGINIA

CN NO: 4549
DATE: 01/30/14
DESIGN: JPP
DRAWN: GMD
REVIEW: IDJ
REVISIONS

No.	Date	Description	By
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**STORMWATER
POLLUTION
PREVENTION PLAN -
GENERAL INFORMATION
SHEET**

C-004

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STORMWATER POLLUTION PREVENTION PLAN (SWPPP) GENERAL INFORMATION SHEET

THE SWPPP GENERAL INFORMATION SHEETS ARE TO BE COMPLETED AND INCLUDED IN THE CONSTRUCTION PLAN SET (OR OTHER SUCH DOCUMENTS) FOR LAND DISTURBANCE ACTIVITIES THAT DISTURB AN AREA EQUAL TO OR GREATER THAN 10,000 SQUARE FEET, OR EQUAL TO OR GREATER THAN 2,500 SQUARE FEET IN THE AREA DEFINED AS TIDEWATER, VIRGINIA IN THE VIRGINIA CHESAPEAKE BAY PRESERVATION ACT.

* DENOTES INFORMATION THAT IS TO BE PROVIDED/COMPLETED BY THE CONTRACTOR OR THE VDOT RLD, AS APPROPRIATE.



CN NO: 4549
DATE: 01/30/14
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No.	Date	Description	By

ACRONYMS
DCR - DEPARTMENT OF CONSERVATION AND RECREATION
ESC - EROSION AND SEDIMENT CONTROL
R&B - ROAD AND BRIDGE
RLD - RESPONSIBLE LAND DISTURBER
SWM - STORMWATER MANAGEMENT
SWPPP - STORMWATER POLLUTION PREVENTION PLAN
VSMP - VIRGINIA STORMWATER MANAGEMENT PROGRAM

**STORMWATER
POLLUTION
PREVENTION PLAN -
GENERAL INFORMATION
SHEET**

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SECTION III SWPPP

1. ALL DOCUMENTS RELATED TO THE SWPPP FOR THIS LAND DISTURBANCE ACTIVITY SHALL BE MAINTAINED AT THE ACTIVITY SITE AND SHALL BE READILY AVAILABLE FOR REVIEW UPON REQUEST DURING NORMAL WORKING BUSINESS HOURS. SUCH DOCUMENTS INCLUDE, BUT ARE NOT LIMITED TO, THE CONSTRUCTION PLANS (OR OTHER SUCH DOCUMENTS), THE ESC PLAN, THE POST CONSTRUCTION SWM PLAN (IF APPLICABLE), THE VDOT R&B STANDARDS AND SPECIFICATIONS, SUPPLEMENTAL SPECIFICATIONS, SPECIAL PROVISIONS AND SPECIAL PROVISION COPIED NOTES. DOCUMENTS RELATED TO STORMWATER POLLUTION PREVENTION WHICH ARE NOT A PART OF THOSE DOCUMENTS REFERENCED ABOVE, SUCH AS A COPIES OF THE VSMP CONSTRUCTION PERMIT COVERAGE LETTER (WHEN APPLICABLE), THE DCR GENERAL PERMIT FOR DISCHARGES OF STORMWATER FROM CONSTRUCTION ACTIVITIES (WHEN APPLICABLE) AND THOSE REQUIRED TO BE DEVELOPED BY THE CONTRACTOR FOR STORMWATER POLLUTION PREVENTION ASSOCIATED WITH ANY SUPPORT FACILITIES FOR THIS LAND DISTURBANCE ACTIVITY ARE TO BE MAINTAINED AT THE ACTIVITY SITE WITH THE OTHER SWPPP DOCUMENTS. WHERE NO FACILITIES ARE AVAILABLE AT THE ACTIVITY SITE TO MAINTAIN THE SWPPP DOCUMENTS, THEY ARE TO BE KEPT BY OR WITH THE DESIGNATED RLD AT A LOCATION CONVENIENT TO THE ACTIVITY SITE WHERE THEY WOULD BE MADE AVAILABLE FOR REVIEW UPON REQUEST DURING NORMAL BUSINESS WORKING HOURS.
2. OTHER THAN CONSTRUCTION AT THE ACTIVITY SITE, THERE ARE NO DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY (E.G., FROM DEDICATED ASPHALT PLANTS OR DEDICATED CONCRETE PLANTS) PRODUCED BY THIS LAND DISTURBANCE ACTIVITY OR (WHERE APPLICABLE) COVERED BY THE VSMP GENERAL PERMIT FOR DISCHARGES OF STORMWATER FROM CONSTRUCTION ACTIVITIES FOR THIS LAND DISTURBANCE ACTIVITY.
- *3. DOCUMENTS IDENTIFYING THE LOCATIONS OF OFF-SITE WASTE OR BORROW AREAS OR MATERIAL OR EQUIPMENT STORAGE AREAS ASSOCIATED WITH OR (WHERE APPLICABLE) COVERED BY THE VSMP GENERAL PERMIT FOR DISCHARGES OF STORMWATER FROM CONSTRUCTION ACTIVITIES FOR THIS LAND DISTURBANCE ACTIVITY SHALL BE PROVIDED BY THE CONTRACTOR IN ACCORDANCE WITH SECTION 107.16, OF THE VDOT R&B SPECIFICATIONS AND WILL BE MAINTAINED WITH THE OTHER SWPPP DOCUMENTS FOR THIS LAND DISTURBANCE ACTIVITY.
- *4. A DESCRIPTION OF ALL POLLUTION CONTROL MEASURES THAT WILL BE IMPLEMENTED AS A PART OF THIS CONSTRUCTION ACTIVITY TO CONTROL POLLUTANTS IN STORMWATER DISCHARGES ARE IDENTIFIED AND DESCRIBED IN THE CONTRACTOR SUPPLIED DOCUMENTS, THE CONSTRUCTION PLAN SET (OR OTHER SUCH DOCUMENTS) AND APPLICABLE SECTIONS OF THE VDOT R&B SPECIFICATIONS AND STANDARDS, INCLUDING BUT NOT LIMITED TO, SPECIFICATIONS 107.16, 303.03, 603, 604 AND 606 AND STANDARDS 113.01 THROUGH 114.08. THE NAME OF THE INDIVIDUAL(S) OR CONTRACTOR(S) RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF THE POLLUTION CONTROL MEASURES IS INCLUDED IN THE CONTRACTOR SUPPLIED DOCUMENTS.
5. REQUIREMENTS FOR THE PREVENTION OF THE DISCHARGE OF SOLID MATERIALS, INCLUDING BUILDING MATERIALS, GARBAGE, AND DEBRIS, TO SURFACE WATERS OF THE STATE, EXCEPT AS AUTHORIZED BY A CLEAN WATER ACT 404 PERMIT, ARE CONTAINED IN SECTIONS 106.04, 107.02 AND 107.16 OF THE VDOT R&B SPECIFICATIONS.
6. REQUIREMENTS FOR COMPLIANCE WITH APPLICABLE STATE OR LOCAL WASTE DISPOSAL, SANITARY SEWER OR SEPTIC SYSTEM REGULATIONS ARE CONTAINED IN SECTIONS 106.04 AND 107.18 OF THE VDOT R&B SPECIFICATIONS.
7. A DESCRIPTION OF CONSTRUCTION AND WASTE MATERIALS EXPECTED TO BE STORED ON-SITE OR AT OFF-SITE SUPPORT FACILITIES AND A DESCRIPTION OF CONTROLS TO REDUCE POLLUTANTS FROM THESE MATERIALS, INCLUDING STORAGE PRACTICES TO MINIMIZE EXPOSURE OF THE MATERIALS TO STORMWATER AND PRACTICES FOR SPILL PREVENTION AND RESPONSE, WILL BE CONTAINED IN DOCUMENTS SUPPLIED BY THE CONTRACTOR AND MAINTAINED WITH THE OTHER SWPPP DOCUMENTS FOR THIS LAND DISTURBANCE ACTIVITY.
8. A DESCRIPTION OF POTENTIAL POLLUTANT SOURCES FROM OFF SITE SUPPORT AREAS AND A DESCRIPTION OF CONTROLS AND MEASURES THAT WILL BE IMPLEMENTED AT THOSE SITES TO MINIMIZE POLLUTANT DISCHARGES WILL BE CONTAINED IN DOCUMENTS SUPPLIED BY THE CONTRACTOR AND MAINTAINED WITH THE OTHER SWPPP DOCUMENTS FOR THIS LAND DISTURBANCE ACTIVITY.
9. BY COMPLETING AND SUBMITTING THE SWPPP CERTIFICATION FORM LD-445E, THE RLD, OR HIS AUTHORIZED REPRESENTATIVE, CERTIFIES THAT ALL CONTRACTOR SUPPLIED DOCUMENTS, IDENTIFIED HEREIN, WILL BE REVIEWED, APPROVED AND INCLUDED WITH THE OTHER SWPPP DOCUMENTS FOR THIS LAND DISTURBANCE ACTIVITY PRIOR TO IMPLEMENTATION OF WORK IN THOSE AREAS IDENTIFIED BY SUCH INFORMATION.
- *10. THE NAME OF THE VDOT INDIVIDUAL RESPONSIBLE FOR THE INSPECTION OF THE EROSION AND SEDIMENT CONTROL MEASURES IS IDENTIFIED ON THE LD-445E FORM WHICH WILL BE MAINTAINED WITH THE OTHER SWPPP DOCUMENTS FOR THIS LAND DISTURBANCE ACTIVITY (NOTE: INDIVIDUAL SHALL BE CERTIFIED THROUGH THE DCR ESC INSPECTOR CERTIFICATION PROGRAM).
- *11. FOR THOSE LAND DISTURBING ACTIVITIES REQUIRING COVERAGE UNDER THE VSMP GENERAL PERMIT FOR THE DISCHARGE OF STORMWATER FROM CONSTRUCTION ACTIVITIES, THE SWPPP SHALL BE MADE AVAILABLE FOR REVIEW UPON THE REQUEST OF THE DCR, THE EPA, LOCAL GOVERNMENT OFFICIALS OR THE OPERATOR OF A MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) RECEIVING DISCHARGE FROM THE CONSTRUCTION SITE.

- *12. FOR THOSE LAND DISTURBING ACTIVITIES REQUIRING COVERAGE UNDER THE VSMP GENERAL PERMIT FOR THE DISCHARGE OF STORMWATER FROM CONSTRUCTION ACTIVITIES, THE VDOT RLD SHALL POST, OR HAVE POSTED, A COPY OF THE GENERAL PERMIT COVERAGE LETTER AND A COPY OF A COMPLETED LD-445A FORM, NOTING THE NAME AND CONTACT INFORMATION FOR THE VDOT PERSON RESPONSIBLE FOR THE LAND DISTURBING ACTIVITY AND ITS SWPPP, OUTSIDE THE PROJECT'S CONSTRUCTION OFFICE ALONG WITH OTHER FEDERAL AND STATE MANDATED INFORMATION. WHERE THERE IS NO CONSTRUCTION OFFICE (E.G., A MAINTENANCE ACTIVITY), THE PERMIT COVERAGE LETTER AND THE LD-445A FORM ARE TO BE MAINTAINED WITH THE OTHER SWPPP DOCUMENTS FOR THE LAND DISTURBING ACTIVITY.
- *13. FOR THOSE LAND DISTURBING ACTIVITIES REQUIRING COVERAGE UNDER THE VSMP GENERAL PERMIT FOR THE DISCHARGE OF STORMWATER FROM CONSTRUCTION ACTIVITIES ON OR AFTER JULY 1, 2009 THAT HAVE NOT BEEN PREVIOUSLY COVERED BY A VSMP PERMIT, THE SWPPP SHALL BE MADE AVAILABLE FOR REVIEW BY THE PUBLIC UPON REQUEST. SUCH REVIEWS SHALL BE AT A TIME AND PUBLICLY ACCESSIBLE LOCATION CONVENIENT TO THE VDOT AND SHALL BE SCHEDULED DURING NORMAL BUSINESS HOURS AND NO LESS THAN ONCE A MONTH.

SECTION IV POST CONSTRUCTION STORMWATER MANAGEMENT

1. THIS LAND DISTURBANCE ACTIVITY IS EXEMPT FROM THE STORMWATER MANAGEMENT REGULATIONS BECAUSE IT DISTURBS LESS THAN 1 ACRE OR LESS THAN 2500 SQUARE FEET IN AN AREA DESIGNATED AS A CHESAPEAKE BAY PRESERVATION AREA.
2. THIS ACTIVITY IS LINEAR IN NATURE AND THE FOLLOWING STORMWATER OUTFALL LOCATIONS ARE EXEMPT FROM THE REQUIREMENTS OF THE VIRGINIA STORMWATER MANAGEMENT LAW BECAUSE ALL OF THE FOLLOWING CONDITIONS ARE MET (NOTE: DOCUMENTATION MUST DEMONSTRATE THAT ALL THREE CONDITIONS (A-C) HAVE BEEN MET AND SUCH DOCUMENTATION SHALL BE MAINTAINED IN THE PROJECT DRAINAGE FILE LOCATED AT THE SITE IDENTIFIED IN NOTE 6 OF THIS SECTION):
 - 2.1.1. THE LAND DISTURBANCE CREATED BY THIS ACTIVITY AT EACH LISTED OUTFALL IS LESS THAN ONE ACRE AND,
 - 2.1.2. THERE ARE INSIGNIFICANT INCREASES IN PEAK FLOW RATES AT EACH LISTED OUTFALL AND,
 - 2.1.3. THERE IS NO EXISTING OR ANTICIPATED FLOODING OR EROSION PROBLEMS DOWNSTREAM OF THE DISCHARGE POINT OF EACH LISTED OUTFALL. (LIST ALL APPLICABLE LOCATIONS)
3. THE FOLLOWING OUTFALLS DO NOT REQUIRE A PERMANENT SWM FACILITY BECAUSE, AS A RESULT OF THIS LAND DISTURBANCE ACTIVITY, THE AMOUNT OF ADDITIONAL IMPERVIOUS AREA DRAINING TO THE OUTFALL IS LESS THAN 16% OF THE TOTAL RIGHT OF WAY AND PERMANENT EASEMENT AREA DRAINING TO THE OUTFALL. (LIST ALL APPLICABLE LOCATIONS)
4. FOR STORMWATER OUTFALL LOCATIONS NOT COVERED BY NOTES 2 AND 3 OF THIS SECTION, LIST THE PERMANENT SWM FACILITIES PROPOSED TO MEET THE WATER QUALITY/QUANTITY REQUIREMENTS FOR THIS LAND DISTURBANCE ACTIVITY IN SECTION VI: (LIST EACH OUTFALL LOCATION AND THE TYPE OF PROPOSED PERMANENT SWM FACILITY, INCLUDING ANY AGREEMENTS FOR THE USE OF OFFSITE OR REGIONAL STORMWATER FACILITIES OR PAYMENT INTO A DCR APPROVED COUNTY/CITY WATERSHED STORMWATER MANAGEMENT PLAN FUND).
5. A DESCRIPTION OF ALL POST-CONSTRUCTION STORMWATER MANAGEMENT MEASURES THAT WILL BE INSTALLED DURING THE CONSTRUCTION PROCESS TO CONTROL POLLUTANTS IN STORMWATER DISCHARGES AFTER CONSTRUCTION OPERATIONS HAVE BEEN COMPLETED IS INCLUDED IN THE CONSTRUCTION PLAN SET (OR OTHER SUCH DOCUMENTS) FOR THIS LAND DISTURBANCE ACTIVITY.
6. ALL ENGINEERING CALCULATIONS SUPPORTING THE DESIGN OF THE POST-CONSTRUCTION STORMWATER MANAGEMENT MEASURES, INCLUDING AN EXPLANATION OF THE TECHNICAL BASIS USED TO SELECT THE PRACTICES, ARE CONTAINED IN THE PROJECT DRAINAGE FILE LOCATED IN THE (INSERT APPROPRIATE LOCATION, I.E., VDOT CENTRAL OFFICE HYDRAULICS SECTION OR THE VDOT (SPECIFY) DISTRICT HYDRAULICS SECTION OR THE VDOT (SPECIFY) RESIDENCY OFFICE) AND WILL BE MADE AVAILABLE FOR REVIEW UPON REQUEST DURING NORMAL WORKING BUSINESS HOURS.



STORMWATER POLLUTION PREVENTION PLAN (SWPPP) GENERAL INFORMATION SHEET

THE SWPPP GENERAL INFORMATION SHEETS ARE TO BE COMPLETED AND INCLUDED IN THE CONSTRUCTION PLAN SET (OR OTHER SUCH DOCUMENTS) FOR LAND DISTURBANCE ACTIVITIES THAT DISTURB AN AREA EQUAL TO OR GREATER THAN 10,000 SQUARE FEET, OR EQUAL TO OR GREATER THAN 2,500 SQUARE FEET IN THE AREA DEFINED AS TIDEWATER, VIRGINIA IN THE VIRGINIA CHESAPEAKE BAY PRESERVATION ACT.

* DENOTES INFORMATION THAT IS TO BE PROVIDED/COMPLETED BY THE CONTRACTOR OR THE VDOT RLD, AS APPROPRIATE.

SECTION V - LOCATION MAP



1"=2000'
0 1000' 2000' 4000' 8000'

SECTION VI - PERMANENT BMP INFORMATION

PERMANENT BMP TYPE (SEE TABLE 1) (1)	REGIONAL BMP Y(YES) OR N (NO)	COUNTY/CITY (1)	STATE HYDROLOGIC UNIT CODE (1)	BMP RECEIVING STREAM NAME (1) (2)	ACRES TREATED PER BMP (3)	* IN SERVICE DATE (4)
EXISTING VEGETATED SWALES	N	SUFFOLK	020802080106	QUAKER NECK CREEK	54.86	EXISTING
EXISTING VEGETATED SWALES	N	SUFFOLK	020802080205	DRUM POINT CREEK	6.7	EXISTING

TABLE 1: PERMANENT BMP TYPES

- BIO-RETENTION BASIN
- BIO-RETENTION FILTER
- CONSTRUCTED STORMWATER WETLANDS
- EXTENDED DETENTION BASIN
- EXTENDED DETENTION BASIN-ENHANCED
- GRASSED SWALE
- INFILTRATION BASIN
- INFILTRATION TRENCH
- MANUFACTURED BMP'S
- RETENTION BASIN I
- RETENTION BASIN II
- RETENTION BASIN III
- SAND FILTER
- VEGETATED FILTER STRIP
- OTHER (LIST TYPE) (5)

ACRONYMS

- DCR - DEPARTMENT OF CONSERVATION AND RECREATION
- ESC - EROSION AND SEDIMENT CONTROL
- R&B - ROAD AND BRIDGE
- RLD - RESPONSIBLE LAND DISTURBER
- SWM - STORMWATER MANAGEMENT
- SWPPP - STORMWATER POLLUTION PREVENTION PLAN
- VSMP - VIRGINIA STORMWATER MANAGEMENT PROGRAM

NOTES:

1. WHERE STORMWATER MANAGEMENT REQUIREMENTS ARE BEING MET BY A REGIONAL BMP, INFORMATION LISTED IS TO BE FOR THE REGIONAL BMP.
2. FOR STREAMS WITH NO NAMES, LIST "UNNAMED TRIBUTARY TO (CLOSEST STREAM NAME)".
3. SHOW ACRES TO THE NEAREST ONE TENTH.
4. DATE PLACED INTO SERVICE AS A PERMANENT BMP.
5. INCLUDES AGREEMENTS WITH OFF-SITE BMP OWNERS OR PAYMENTS INTO A DCR APPROVED COUNTY/CITY WATERSHED STORMWATER MANAGEMENT PLAN (FUND).

△ THE INFORMATION SHOWN IN THE BMP TABLE IS BASED ON THE PROPOSED PRE-CONSTRUCTION SWM PLAN. ANY CHANGES TO THE PROPOSED SWM PLAN REQUIRED DURING THE CONSTRUCTION PHASE OF THE PROJECT SHALL BE COORDINATED BY THE VDOT RLD WITH THE APPROPRIATE VDOT DISTRICT HYDRAULICS ENGINEER. THE RLD IS TO HAVE THE INFORMATION SHOWN IN THE BMP TABLE REVISED TO REFLECT ANY AUTHORIZED CHANGES TO THE PROPOSED SWM PLAN, ADD THE *IN SERVICE DATE* AND INCLUDE A COPY OF THE BMP TABLE WITH THE LD-445D FORM WHEN SUBMITTING FOR TERMINATION OF COVERAGE UNDER THE VSMP GENERAL PERMIT FOR THE DISCHARGE OF STORMWATER FROM CONSTRUCTION ACTIVITIES.

**SUFFOLK SEABOARD COASTLINE TRAIL
PHASE IV**
 DEPARTMENT OF PARKS AND RECREATION
 CITY OF SUFFOLK, VIRGINIA

CN NO: 4549
DATE: 01/30/14
DESIGN: JPP
DRAWN: GMD
REVIEW: IDJ
REVISIONS

No.	Date	Description	By

STORMWATER
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EROSION CONTROL NOTES

- 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 (LATEST EDITION) AND THE CITY OF SUFFOLK EROSION AND SEDIMENT CONTROL ORDINANCE.
- THE CONTRACTOR SHALL APPLY PERMANENT OR TEMPORARY SOIL STABILIZATION TO ALL DENUDED OR DISTURBED AREAS WITHIN 7 DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. SOIL STABILIZATION MUST ALSO BE APPLIED TO DENUDED OR DISTURBED AREAS WHICH MAY NOT BE AT FINAL GRADE BUT WHICH WILL REMAIN UNDISTURBED FOR LONGER THAN 30 DAYS. SOIL STABILIZATION MEASURES INCLUDE VEGETATIVE ESTABLISHMENT, MULCHING, AND THE EARLY APPLICATION OF GRAVEL BASE MATERIAL ON AREAS TO BE PAVED.
- ALL EROSION AND SEDIMENT CONTROL MEASURES AND TREE PROTECTION DEVICES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN LAND DISTURBANCE.
- THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES PERIODICALLY AND AFTER EACH RUNOFF PRODUCING RAINFALL EVENT. ANY NECESSARY REPAIRS TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES AND CLEANUP OF SEDIMENTATION ARE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE MADE IMMEDIATELY.
- THE CONTRACTOR SHALL LIMIT SITE ACCESS BY CONSTRUCTION VEHICLES TO EXISTING GRAVEL ENTRANCES. SEDIMENT SHALL BE REMOVED FROM PAVED AREAS ON A DAILY BASIS.
- STOCKPILES OF SOIL AND OTHER ERODIBLE MATERIALS SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. THE CONTRACTOR IS RESPONSIBLE FOR THE TEMPORARY PROTECTION AND PERMANENT STABILIZATION FOR STOCKPILES ON SITE AS WELL AS FOR MATERIALS TRANSPORTED FROM THE PROJECT SITE.
- THE CONTRACTOR SHALL MONITOR AND TAKE PRECAUTIONS TO CONTROL DUST, INCLUDING (BUT NOT LIMITED TO) USE OF WATER, MULCH, OR CHEMICAL DUST ADHESIVES AND CONTROL OF CONSTRUCTION SITE TRAFFIC.
- EFFLUENT FROM DE-WATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT ADJACENT PROPERTIES, WETLANDS, WATERWAYS OR THE STORM DRAINAGE SYSTEM.
- THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION AND MAINTENANCE OF ANY ADDITIONAL CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED NECESSARY BY THE PLAN APPROVING AUTHORITY.
- TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES ARE NOT TO BE REMOVED UNTIL ALL DISTURBED AREAS ARE STABILIZED. AFTER STABILIZATION IS COMPLETE, ALL MEASURES SHALL BE REMOVED WITHIN 30 DAYS. TRAPPED SEDIMENT SHALL BE SPREAD AND SEEDED.
- TREES SELECTED FOR PRESERVATION ARE SHOWN ON THE PLANS AND SHALL BE CLEARLY MARKED IN THE FIELD.
- PRIOR TO ANY CLEARING, GRADING OR CONSTRUCTION, PROTECTION BARRIERS SHALL BE PLACED AROUND ALL TREES TO BE RETAINED ON THE SITE PLAN TO PREVENT THE DESTRUCTION OR DAMAGE OF THE TREES. THE TREE PROTECTION SHALL BE IN ACCORDANCE WITH THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, THIRD EDITION, (1992), STANDARD AND SPECIFICATION 3.38 (TREE PRESERVATION AND PROTECTION) AND SHOULD BE LOCATED IN A CIRCULAR PATTERN AROUND THE TREE A MINIMUM DISTANCE EQUAL TO THE DRIP LINE OF THE TREE OR A MINIMUM OF 5' WHERE THE DRIP LINE IS LESS THAN 5', OR WHICHEVER IS GREATER. MATERIALS SHALL NOT BE STOCKPILED WITHIN THIS DEFINED AREA AND VEHICLES AND OTHER EQUIPMENT SHALL BE OPERATED TO AVOID SOIL COMPACTION. THE ONLY EXCEPTION TO THIS REQUIREMENT WILL BE THOSE SPECIFICALLY ALLOWED BY THESE STANDARDS AND SPECIFICATIONS.
- BOARDS OR WIRES OF A NON-PROTECTIVE NATURE SHALL NOT BE NAILED OR ATTACHED TO TREES DURING CONSTRUCTION.
- HEAVY EQUIPMENT OPERATORS ARE TO BE CAUTIONED TO AVOID DAMAGE TO EXISTING TREE TRUNKS AND ROOTS DURING LAND LEVELING OPERATIONS. FEEDER ROOTS SHOULD NOT BE CUT IN AN AREA EQUAL TO TWICE THE TREE CIRCUMFERENCE (MEASURED 4 1/2" ABOVE GROUND LINE IN INCHES) EXPRESSED IN FEET (EXAMPLE: CIRCUMFERENCE OF 10" WOULD HAVE A "NO CUT" ZONE OF 20' IN ALL DIRECTIONS FROM THE TREE). THIS SHOULD APPLY TO DITCHING FOR UTILITY SERVICES, IF FEASIBLE.
- TREE TRUNKS AND EXPOSED ROOTS DAMAGED DURING EQUIPMENT OPERATIONS SHALL BE TREATED IN ACCORDANCE WITH ARBORICULTURAL STANDARDS. DAMAGED TREE LIMBS SHALL BE CUT BACK TO THE NEXT LATERAL BRANCH OR PARENT STEM AT THE BRANCH COLLAR. CARE FOR SERIOUS INJURY SHOULD BE PRESCRIBED BY THE CITY ARBORIST.
- CRITERIA FOR REPLACING TREES KILLED DURING CONSTRUCTION: IF DESIRED TREES PROTECTED BY THE ABOVE MEANS ARE KILLED DURING CONSTRUCTION, THEY SHALL BE REPLACED BY TREES OF AT LEAST 2" CALIPER OF THE SAME SPECIES OF LIKE QUALITY AS SPECIFIED BY THE CITY ARBORIST. REPLACEMENT TREES SHALL CONFORM TO THE LATEST EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK. ANY AND ALL MATERIAL OR DEBRIS TRACKED ONTO A PUBLIC OR PRIVATE
- ROAD SURFACE WILL BE CLEANED 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.
- ALL MATERIAL REMOVED FROM THE SITE SHALL BE DISPOSED OF IN A LAWFUL MANNER.
- ALL MAINTENANCE OF DRAINAGE AND ANY STORM WATER MANAGEMENT MEASURES IS THE CITY OF SUFFOLK'S RESPONSIBILITY.

EROSION AND SEDIMENT CONTROL NARRATIVE

PROJECT DESCRIPTION
THE EROSION AND SEDIMENT CONTROL PLAN WILL ADDRESS LAND DISTURBANCE FOR THE SUFFOLK SEABOARD COASTLINE TRAIL PHASE IV PROJECT LOCATED IN SUFFOLK, VA. THE PROJECT INCLUDES A 10-FT WIDE PAVED MULTI-USE TRAIL WITH 2-FT WIDE GRAVEL SHOULDERS AND TWO TRAIL HEADS. THE TRAIL EXTENDS FOR 3.3 MILES FROM THE TOWN OF DRIVER TO THE CHESAPEAKE CITY LINE. THE ALIGNMENT WILL BE CONTAINED WITHIN THE EXISTING CITY RIGHT-OF-WAY ALONG THE ABANDONED SEABOARD COASTLINE RAIL CORRIDOR. ONE OF THE TRAIL HEADS WILL BE LOCATED IN THE TOWN OF DRIVER. THE OTHER TRAIL HEAD WILL BE LOCATED NEAR THE CITY LINE. THE TOTAL AREA OF DISTURBANCE FOR THE PROJECT IS APPROXIMATELY 8 ACRES.

EXISTING SITE CONDITIONS
THE TRAIL ENCOUNTERS GENERALLY LEVEL TERRAIN AND LITTLE VARIATION IN LAND USES, SOILS, SURFACE WATER RESOURCES, AND WETLANDS. LAND USES INCLUDE LARGE TRACTS OF UNDEVELOPED LAND AND LOW-DENSITY RESIDENTIAL DEVELOPMENTS. THE EXISTING RAIL CORRIDOR GENERALLY DRAINS TO ADJACENT DRAINAGE DITCHES. THE OVERALL DRAINAGE PATTERN FOR THE POST DEVELOPED CONDITION WILL BE THE SAME AS THE EXISTING CONDITION.

ADJACENT AREAS
THE SUFFOLK SEABOARD COASTLINE TRAIL PHASE IV IS MOSTLY BORDERED BY LARGE TRACTS OF UNDEVELOPED LAND USED FOR FARMING. LOW-DENSITY RESIDENTIAL DEVELOPMENTS EXIST TO THE NORTH IN THE TOWN OF DRIVER AND ADJACENT TO SHOULDERS HILL ROAD.

OFF-SITE AREAS
CONTRACTOR IS RESPONSIBLE FOR PROVIDING EROSION AND SEDIMENT CONTROL FOR OFF SITE AREAS.

SOILS
THE SOILS THROUGHOUT MOST OF THE SITE CONSIST OF FILL COMPRISED OF SAND WITH VARYING AMOUNTS OF SILT AND CLAY.

CRITICAL EROSION AREAS
THE TOPOGRAPHY OF THE PROJECT IS GENERALLY FLAT, RESULTING IN NO CRITICAL EROSION AREAS ASSOCIATED WITH MOST OF THIS PROJECT. HIGH VELOCITY FLOW WAS OBSERVED AT THE QUAKER NECK CREEK BRIDGE.

WETLANDS
WETLANDS ARE PRESENT WITHIN THE PROJECT LIMITS. SPECIFICALLY, WETLANDS EXIST ADJACENT TO THE STREAM CROSSINGS AT BENNETTS AND QUAKER NECK CREEK AND WITHIN THE EXISTING DRAINAGE DITCHES. A JOINT PERMIT APPLICATION (JPA) WILL BE FILED FOR THIS PROJECT.

EROSION AND SEDIMENT CONTROL MEASURES
UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL SEDIMENT CONTROL PRACTICES SHALL BE CONSTRUCTED AND MAINTAINED ACCORDING TO THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE CURRENT EDITION OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH) AND THE CITY OF SUFFOLK PUBLIC FACILITIES MANUAL. MEASURES INCLUDE SILT FENCE, RIPRAP, TOPSOILING, PERMANENT SEEDING, TREE PRESERVATION AND PROTECTION, AND DUST CONTROL. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO DEMOLITION AND EARTH-MOVING ACTIVITIES. FOR ALL SITES ONE ACRE OF GREATER, OR GREATER THAN 2500 SQUARE FEET IN THE CHESAPEAKE BAY PRESERVATION AREA, CONTACT THE VIRGINIA DEPARTMENT OF CONSERVATION AND RECREATION AT (804) 786-3957 TO OBTAIN A VSMP CONSTRUCTION PERMIT.

MANAGEMENT STRATEGIES / SEQUENCE OF CONSTRUCTION
1. THE CONTRACTOR SHALL INSTALL SILT FENCE ON THE PROJECT SITE BEFORE ANY SITE DEMOLITION OR EARTH-MOVING ACTIVITY. SITE ACCESS BY CONSTRUCTION VEHICLES SHALL BE IN ACCORDANCE WITH THE VIRGINIA WORK AREA PROTECTION MANUAL, LATEST EDITION. THE SILT FENCE WILL ALSO ACT AS TREE PROTECTION.
2. THE CONTRACTOR SHALL STOCKPILE SOIL AND OTHER CREDIBLE MATERIALS AND STABILIZE OR PROTECT WITH SEDIMENT TRAPPING MEASURES. THE CONTRACTOR IS RESPONSIBLE FOR TEMPORARY AND PERMANENT STABILIZATION MEASURES FOR STOCKPILES LOCATED WITHIN THE PROJECT SITE OR THOSE TRANSPORTED FROM THE PROJECT SITE.
3. THE CONTRACTOR SHALL MONITOR AND CONTAIN DUST USING WATER, MULCH, CHEMICAL DUST ADHESIVES OR OTHER MEASURES AS DIRECTED BY THE CITY INSPECTOR. THE CONTRACTOR SHALL CONTROL CONSTRUCTION SITE TRAFFIC.
4. THE CONTRACTOR SHALL COMPLETE MAJOR GRADING AS SOON AS POSSIBLE AFTER BEGINNING CONSTRUCTION. APPROVED SOIL STABILIZATION MEASURES SHALL BE APPLIED TO ALL DENUDED OR DISTURBED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DISTURBED LONGER THAN 30 DAYS. THE CONTRACTOR SHALL INSTALL PERMANENT STABILIZATION WITHIN 7 DAYS OR AS DIRECTED BY THE CITY INSPECTOR AFTER FINAL GRADING IS COMPLETED.
5. THE CONTRACTOR SHALL INSTALL AND MAINTAIN ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE CITY INSPECTOR.
6. ONCE THE CITY INSPECTOR DETERMINES CONSTRUCTION IS SUBSTANTIALLY COMPLETE AND THE WORK AREA IS STABILIZED, THE CONTRACTOR SHALL REMOVE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES AND DISPOSE OF SEDIMENTS WITHIN 30 DAYS.

MAINTENANCE
THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL PRACTICES. SILT FENCE SHALL BE CHECKED REGULARLY FOR UNDERMINING AND DETERIORATION OF THE FABRIC. SEDIMENT SHALL BE REMOVED WHEN THE LEVEL OF SEDIMENT DEPOSITION REACHES HALFWAY TO THE TOP OF THE BARRIER. SEDIMENTS AND EXCESS SPOILS SHALL BE DISPOSED BY THE CONTRACTOR AT A FACILITY APPROVED BY LOCAL AND STATE REGULATIONS.

STRUCTURAL PRACTICES
THE STRUCTURAL PRACTICES TO BE USED ON THIS PROJECT ARE DISCUSSED BELOW AND ARE REFERENCED TO THE RESPECTIVE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK NUMBER.

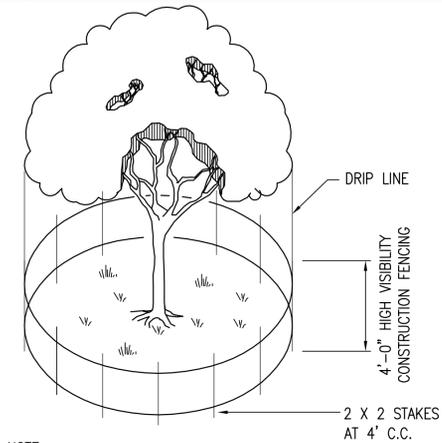
- CONSTRUCTION ENTRANCE - 3.02**
A STABILIZED STONE PAD WITH A FILTER FABRIC UNDER LNER LOCATED AT POINT OF VEHICULAR INGRESS AND EGRESS ON A CONSTRUCTION SITE.
- SILT FENCE - 3.05**
A TEMPORARY SEDIMENT BARRIER CONSTRUCTED OF POSTS, FILTER FABRIC AND, IN SOME CASES, A WIRE SUPPORT FENCE, PLACED ACROSS OR AT THE TOE OF A SLOPE OR IN A MINOR DRAINAGE WAY TO INTERCEPT AND DETAIN SEDIMENT AND DECREASE FLOW VELOCITIES FROM DRAINAGE AREAS OF LIMITED SIZE; APPLICABLE WHERE SHEET AND RILL EROSION OR SMALL CONCENTRATED FLOWS MAY BE A PROBLEM. MAXIMUM EFFECTIVE LIFE OF 6 MONTHS.
- RIPRAP - 3.19**
A PERMANENT, EROSION-RESISTANT GROUND COVER OF LARGE, LOOSE, ANGULAR STONE INSTALLED WHEREVER SOIL CONDITIONS, WATER TURBULENCE AND VELOCITY, EXPECTED VEGETATIVE COVER, ETC. ARE SUCH THAT SOIL MAY ERODE UNDER DESIGN FLOW CONDITIONS.

VEGETATIVE PRACTICES
THE VEGETATIVE PRACTICES TO BE USED ON THIS PROJECT ARE DISCUSSED BELOW AND ARE REFERENCED TO THE RESPECTIVE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK NUMBER.

- TOPSOILING - 3.30**
PRESERVING AND USING TOPSOIL TO PROVIDE A SUITABLE GROWTH MEDIUM FOR VEGETATION USED TO STABILIZE DISTURBED AREAS. APPLICABLE WHERE PRESERVATION OR IMPORTATION OF TOPSOIL IS MOST COST-EFFECTIVE METHOD OF PROVIDING A SUITABLE GROWTH MEDIUM; NOT RECOMMENDED FOR SLOPES STEEPER THAN 2:1 UNLESS ADDITIONAL MEASURES ARE TAKEN TO PREVENT SLOUGHING AND EROSION.
- PERMANENT SEEDING - 3.32**
ESTABLISHMENT OF PERENNIAL VEGETATIVE COVER BY PLANTING SEED ON ROUGH-GRADED AREAS THAT WILL NOT BE BROUGHT TO FINAL GRADE FOR A YEAR OR MORE OR WHERE PERMANENT, LONG-LIVED VEGETATIVE COVER IS NEEDED ON FINE-GRADED AREAS.
- TREE PRESERVATION AND PROTECTION - 3.38**
PROTECTING EXISTING TREES FROM MECHANICAL AND OTHER INJURY DURING LAND-DISTURBING AND CONSTRUCTION ACTIVITY TO ENSURE THE SURVIVAL OF DESIRABLE TREES WHERE THEY WILL BE EFFECTIVE FOR EROSION AND SEDIMENT CONTROL AND PROVIDE OTHER ENVIRONMENTAL AND AESTHETIC BENEFITS. THE SILT FENCE BARRIER PLACED ALONG THE LIMITS OF DISTURBANCE WILL PROTECT THE TREES AND OTHER VEGETATION FROM CONSTRUCTION EQUIPMENT AND SOIL COMPACTION.
- DUST CONTROL - 3.39**
REDUCING SURFACE AND AIR MOVEMENT OF DUST DURING LAND DISTURBANCE, DEMOLITION, OR CONSTRUCTION ACTIVITIES IN AREAS SUBJECT TO DUST PROBLEMS IN ORDER TO PREVENT SOIL LOSS AND REDUCE THE PRESENCE OF POTENTIALLY HARMFUL AIRBORNE SUBSTANCE. MEASURES TO PREVENT AND CONTROL DUST DURING DEMOLITION, EXCAVATION, PAVING, GRADING AND ALL OTHER POTENTIAL LAND DISTURBING ACTIVITIES SHALL BE USED DURING CONSTRUCTION.

STORMWATER RUNOFF CONSIDERATIONS
THE OVERALL DRAINAGE PATTERNS FOR THE POST DEVELOPMENT CONDITION WILL BE THE SAME AS THE EXISTING CONDITION. THE PAVED TRAIL IS CROWNED WITH A 1% SLOPE DRAINING TOWARD THE GRAVEL SHOULDERS. THE MINIMAL AMOUNT OF RUNOFF FROM THE PAVED TRAIL WILL SHEET FLOW OVER THE GRAVEL SHOULDERS INTO THE EXISTING WOODED AREAS AND VEGETATED DITCHES.

CALCULATIONS
FOR ALL CALCULATIONS SEE DESIGN REPORT.

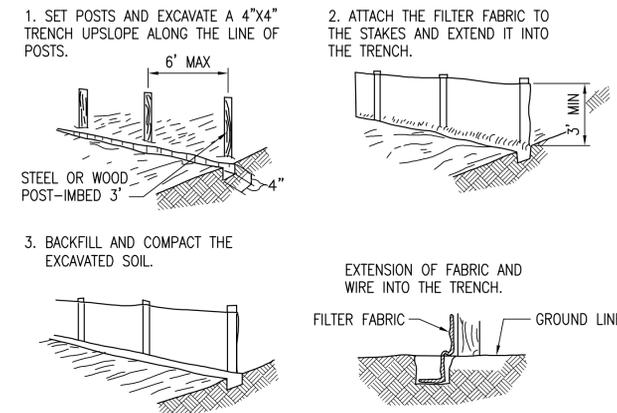


NOTE: DRIVE STAKES FIRMLY INTO GROUND AT LEAST 12"

TREE PROTECTION

NO SCALE

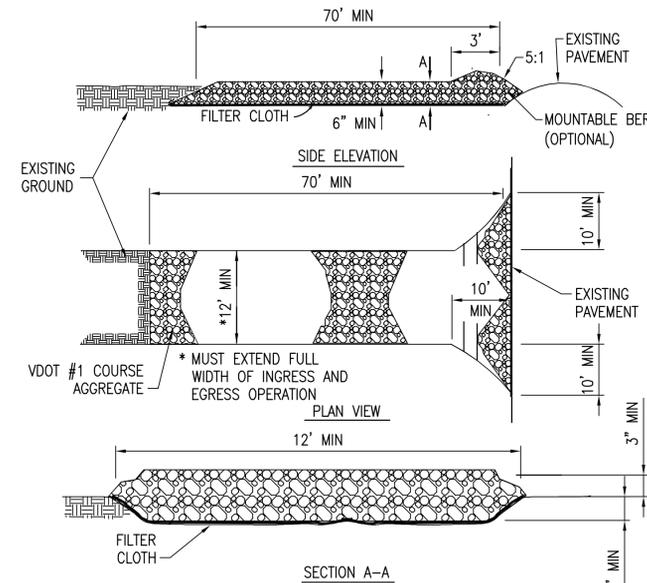
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TEMPORARY SILT FENCE

NO SCALE

SF



SOURCE: VA. DSWC

TEMPORARY CONSTRUCTION ENTRANCE

NO SCALE

CE

CLARK NEXSEN
Architecture & Engineering

6160 KEMPSVILLE CIRCLE
NORFOLK, VIRGINIA 23502
757-455-5800 FAX 757-455-5638
WWW.CLARKNEXSEN.COM



SUFFOLK SEABOARD COASTLINE TRAIL
PHASE IV
DEPARTMENT OF PARKS AND RECREATION
CITY OF SUFFOLK, VIRGINIA

CN NO: 4549
DATE: 01/30/14
DESIGN: JPP
DRAWN: GMD
REVIEW: IDJ

REVISIONS

No.	Date	Description	By

EROSION AND SEDIMENT CONTROL NOTES

C-007

SHEET 8 OF 37

TRAFFIC ENGINEERING GENERAL NOTES

1. A LAND USE PERMIT MUST BE OBTAINED FROM THE CITY OF SUFFOLK, DEPARTMENT OF PUBLIC WORKS BEFORE ANY CONSTRUCTION IS STARTED WITHIN THE EXISTING CITY RIGHT OF WAY, CONTACT THE CITY FOR THE PERMIT FEE AND BOND AMOUNT, ALL LAND USE PERMIT APPLICATIONS MUST HAVE TWO (2) SETS OF APPROVED PLANS, A CHECK FOR THE PROCESSING FEE MADE PAYABLE TO THE CITY TREASURER, AND SURETY IN THE REQUIRED AMOUNT
2. THE DEVELOPER IS RESPONSIBLE FOR THE RELOCATION OF ANY UTILITIES OR PAVEMENT MARKINGS WITHIN THE EXISTING RIGHT OF WAY OR PROPOSED RIGHT OF WAY REQUIRED BY THE DEVELOPMENT OF THE SITE/SUBDIVISION
3. THE DEVELOPER IS RESPONSIBLE FOR THE COST OF A TRAFFIC SIGNAL OR ANY MODIFICATIONS TO AN EXISTING TRAFFIC SIGNAL THAT ARE DETERMINED TO BE NECESSARY, THIS WORK MAY BE BY A CONTRACTOR HIRED BY THE DEVELOPER, WITH TRAFFIC ENGINEERING INSPECTION AND APPROVAL OF WORK, SOME WORK MAY BE CHARGED UNDER AN OPERATIONAL PROJECT (ACCOUNTS RECEIVABLE) NUMBER AND PERFORMED BY CITY STAFF, CONTACT THE CITY TRAFFIC ENGINEER FOR THE PROPER PROCEDURE TO BE FOLLOWED ON THIS PROJECT PRIOR TO ANY CONSTRUCTION, THE CONTRACTOR SHALL CONSULT WITH THE DEVELOPER'S ENGINEER TO VERIFY THE FINAL APPROVAL OF THE PLANS, OR ANY REVISED PLANS, BY THE VARIOUS AGENCIES (PUBLIC UTILITIES, PUBLIC WORKS, ETC.)
5. CITY OF SUFFOLK APPROVAL OF THESE PLANS WILL EXPIRE IN FIVE (5) YEARS FROM THE DATE OF APPROVAL
6. THE TRAFFIC ENGINEER IS TO RECEIVE WRITTEN NOTIFICATION 48 HOURS PRIOR TO THE START OF ANY TRAFFIC ENGINEERING RELATED WORK, A PRE-CONSTRUCTION MEETING WILL BE REQUIRED PRIOR TO ANY TRAFFIC ENGINEERING RELATED WORK ON THE SITE, THE CONTRACTOR SHALL ATTEND THE PRE-CONSTRUCTION MEETING, THE DEVELOPER'S CONTRACTOR SHALL HAVE A PROPOSED PROGRESS SCHEDULE OF WORK
7. ANY ERRORS, CONFLICTS, OR DISCREPANCIES FOUND ON THE APPROVED PLANS SHALL BE REPORTED TO THE DEVELOPER'S ENGINEER AND THE CITY TRAFFIC ENGINEER FOR RESOLUTION BEFORE PROCEEDING FURTHER WITH WORK
8. THE DEVELOPER'S ENGINEER AND CONTRACTOR (SUB-CONTRACTOR) SHALL VERIFY IN THE FIELD THE ELEVATIONS OF ALL POINTS OF CONNECTION OF PROPOSED WORK TO EXISTING ITEMS, PRIOR TO THE CONSTRUCTION IN THE FIELD
9. ALL MATERIALS AND CONSTRUCTION WITHIN THE PROPOSED PUBLIC RIGHT OF WAY, SHALL BE IN ACCORDANCE WITH THE CURRENT CITY OF SUFFOLK SPECIFICATIONS AND STANDARDS
10. ANY REQUEST FOR A CHANGE OF SPECIFIED MATERIALS OR DESIGN FROM THE APPROVED PLANS WILL NEED TO BE SUBMITTED TO THE CITY TRAFFIC ENGINEER, A LETTER MUST ACCOMPANY THE PROPOSED CHANGES AND INCLUDE REVISED PLAN SHEETS AND/OR DESIGN CALCULATIONS FOR REVIEW AND APPROVAL BY THE CITY TRAFFIC ENGINEER
11. THE DEVELOPER WILL BE RESPONSIBLE FOR PROVIDING THE GEOTECHNICAL (SOILS) REPORT, A PROFESSIONAL ENGINEER OR PROFESSIONAL GEOLOGIST WILL SUBMIT A COMPLETE REPORT WITH BORING DATA AND RECOMMENDATIONS TO THE CITY FOR APPROVAL OF HIS PROPOSED METHOD OF CONSTRUCTION, THIS REPORT SHALL BE IN CONFORMANCE WITH VDOT ROAD AND BRIDGE SPECIFICATION 700, THE REPORT WILL SHOW THE BORE LOCATIONS, TYPES OF SOILS ENCOUNTERED, AND ANY RECOMMENDATIONS
12. WHEN SOILS OCCUR THAT ARE UNSUITABLE FOR FOUNDATIONS, BACKFILL, OR OTHER WORK REQUIREMENT PURPOSES, THE DEVELOPER'S CONTRACTOR SHALL EXCAVATE SAID MATERIAL UNDER DIRECTION OF THE DEVELOPER'S SOILS ENGINEER, BY UNDERCUTTING SUCH MATERIAL BELOW THE PROPOSED GRADES SHOWN ON THE PLANS, THE CONTRACTOR SHALL NOTIFY THE DEVELOPER'S ENGINEER AND THE CITY TRAFFIC ENGINEER UPON DISCOVERY OF THE UNSUITABLE MATERIAL, CONCURRENCE OF THE ENGINEER SHALL BE OBTAINED BEFORE ADDITIONAL WORK IS UNDERTAKEN
13. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. ALL EROSION CONTROL MEASURES WILL BE IN PLACE AND REVIEWED BY THE CONTRACTOR DAILY AND AFTER ALL INCLEMENT WEATHER TO INSURE COMPLIANCE FOR THE CONTROL OF ANY EROSION AND SILTATION, ANY CORRECTIONS OR REPAIRS WILL BE MADE IMMEDIATELY, IN ACCORDANCE WITH CITY OF SUFFOLK

14. THE CONTRACTOR AND SUBCONTRACTOR(S) SHALL HAVE A COPY OF THE CURRENT PROJECT STANDARDS AND SPECIFICATIONS AT THE SITE, THE CONTRACTOR SHALL HAVE AT LEAST ONE (1) SET OF APPROVED PLANS WITH ALL APPROVED REVISIONS, THE LAND USE PERMIT WILL BE AT THE SITE AT ALL TIMES
15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL UNDERGROUND AND OVERHEAD UTILITIES, WHETHER OR NOT THEY ARE SHOWN ON THE PLANS, THE CONTRACTOR WILL BE RESPONSIBLE FOR REPAIRS AT HIS OWN EXPENSE OF ANY UTILITIES DAMAGED BY HIS CONSTRUCTION METHODS, MISS UTILITY MUST BE CONTACTED AT 1-800-552-7001 AT LEAST 72 HOURS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION
16. THE CONTRACTOR WILL BE RESPONSIBLE FOR REPLACING, WITH MATCHING MATERIALS, ANY PAVEMENT, CURB AND GUTTER, OR VEWAY PIPE, SIDEWALK, ETC, THAT ARE DAMAGED DURING THE CONSTRUCTION OF THE PROJECT
17. CERTIFICATION AND SOURCE OF MATERIALS ARE TO BE SUBMITTED TO THE CITY TRAFFIC ENGINEER. ALL MATERIALS MUST MEET CITY OF SUFFOLK SPECIFICATIONS AND STANDARDS
18. THE DEVELOPER'S GEOTECHNICAL ENGINEER AND/OR HIS CERTIFIED MATERIALS TECHNICIANS WILL PERFORM COMPACTION (DENSITY) TESTS FOR REVIEW BY THE CITY OF SUFFOLK, ALL TESTS WILL BE PERFORMED IN ACCORDANCE WITH THE CURRENT PFM SPECIFICATIONS AND STANDARDS, BACKFILL MATERIAL FOR PIPE, STRUCTURES, AND UTILITIES LOCATED WITHIN THE PROPOSED RIGHT OF WAY WILL BE COMPACTED AND TESTED AS THE FILL MATERIAL IS PLACED IN UNIFORM LIFTS, A MINIMUM OF 95% DENSITY WITH THE SOILS STANDARD PROCTOR WILL BE OBTAINED WITH THE PROPER MOISTURE CONTENT ON EMBANKMENT AND FILLS MATERIAL, FOR THE FINAL 6H OF THE FINISHED SUBGRADE, 100% DENSITY WILL BE OBTAINED, THE TEST RESULTS WILL BE SUBMITTED TO THE CITY OF SUFFOLK FOR REVIEW AND COMPLIANCE OF THE MATERIALS, PRIOR TO THE DEVELOPER'S CONTRACTOR REQUESTING AN INSPECTION FOR A PROOF ROLL ON THE SUBGRADE, AGGREGATE STONE, BASE MIX (ASPHALT OR THE PLACEMENT OF THE SURFACE MIX ALL TRAFFIC ENGINEERING EASEMENTS SHALL BE LABELED AS "TRAFFIC CONTROL EASEMENTS" AND SHALL BE DEDICATED TO THE CITY OF SUFFOLK
19. ALL CONCRETE SHALL BE CLASS A3 (3000PSI) WITH AIR ENTRAINED ADDITIVE) AND TESTED BY THE DEVELOPER'S GEOTECHNICAL ENGINEER FOR CONFORMANCE TO CITY OF SUFFOLK PFM SPECIFICATIONS AND STANDARDS
21. THERE SHALL BE A MINIMUM OF 6" OF COMPACTED 21-B AGGREGATE MATERIAL OR STONE DEPTH SHALL MATCH THE EXISTING PAVEMENT TYPICAL UNDER THE CURB AND GUTTER; THIS MATERIAL SHALL EXTEND L' BEYOND THE BACK OF THE CURB AND GUTTER, DENSITY TESTS SHALL BE TAKEN PRIOR TO A PROOF ROLL OF THE MATERIAL AND PLACEMENT OF THE CURB/CURB AND GUTTER, UNDERDRAINS WILL BE INSTALLED ON RAISED CURB MEDIANS IN ACCORDANCE WITH CURRENT CITY OF SUFFOLK PFM SPECIFIC A TIONS AND STANDARDS
22. ALL STREETS WITH CURB AND GUTTER SHALL HAVE A STANDARD CG ENTRANCE INSTALLED IN ACCORDANCE WITH THE CURRENT CITY PFM, THE CURB AND GUTTER PAN SHALL BE REMOVED PRIOR TO THE INSTALLATION OF THE ENTRANCE UNLESS A WIPE-DOWN OF THE CURB WAS MADE DURING THE INSTALLATION OF THE CURB AND GUTTER, THE SAW CUTTING AND REMOVAL OF ONLY THE CURB PORTION IS NOT ALLOWED, IT IS THE DEVELOPER'S RESPONSIBILITY TO INSURE THAT THE BUILDERS HAVE INSTALLED ALL CONCRETE ENTRANCES IN ACCORDANCE WITH CITY OF SUFFOLK SPECIFICATION AND STANDARDS
23. ALL UNDERGROUND UTILITIES ARE TO BE IN PLACE PRIOR TO THE PLACEMENT OF THE BASE MATERIAL AND SHALL HAVE A MINIMUM COVERING OF 36H , ON CURB AND GUTTER STREETS, THE AREA DIRECTLY BEHIND THE CURB TO THE RIGHT OF WAY LINE SHALL BE RELATIVELY FLAT AT THE PRIVATE ENTRANCE LOCATION, THE DEVELOPER'S CONTRACTOR SHOULD CUT EMBANKMENTS TO THE RIGHT OF WAY LINE PRIOR TO THE INSTALLATION OF ALL UNDERGROUND UTILITIES TO INSURE A MINIMUM 36" OF COVER
24. ALL HOT MIX (ASPHALT) COURSES SHALL BE PLACED IN ACCORDANCE WITH CITY PFM, THE WEATHER LIMITATIONS OF A 40- F SURFACE TEMPERATURE OR

- 50- F AND RISING AIR TEMPERATURE SHALL BE FOLLOWED, THE DEVELOPER'S GEOTECHNICAL ENGINEER SHALL TEST THE MATERIAL TO INSURE COMPLIANCE WITH CURRENT PFM SPECIFICATION AND THE SUPPLIER'S JOB MIX DESIGN, THE DEVELOPER'S GEOTECHNICAL ENGINEER SHALL ALSO PERFORM A ROLLER PATTERN AND A CONTROL STRIP FOR THE THEORETICAL DENSITY (COMPACTION) OF THE MATERIAL IN CONFORMANCE WITH THE CURRENT CITY PFM SPECIFICATIONS
25. ALL UTILITY CABINETS, PEDESTALS, AND STREETLIGHTS SHALL BE LOCATED IN ACCORDANCE WITH CLEAR ZONE REQUIREMENTS, AS NOTED IN THE CURRENT PFM, THERE SHALL NOT BE ANY CABINETS, PEDESTALS, OR FIRE HYDRANTS LOCATED ON THE SHOULDER
26. ALL STORM PIPE, DROPP INLET STRUCTURES, DITCHES, AND CURB AND GUTTER SHALL BE CLEANED OF DEBRIS AND SILT DURING THE LAST STAGES OF CONSTRUCTION
27. FLOWERS, SHRUBS, AND TREES SHALL NOT BE PLACED WITHIN THE PROPOSED RIGHT OF WAY BY THE DEVELOPER OR HOMEOWNER WITHOUT AN APPROVED SET OF PLANS AND ON APPROVED PLANTING AGREEMENT, NO IRRIGATION (SPRINKLER) SYSTEMS SHALL BE LOCATED WITHIN THE PROPOSED R/W, ANY IRRIGATION SYSTEM FOUND WITHIN THE R/W WILL BE REMOVED PRIOR TO THE ACCEPTANCE OF THE STREETS AND ALL COSTS WILL BE BORNE BY THE OWNER, NO BRICK COLUMNS, ENDWALLS, AND/OR BRICK MAILBOXES WILL BE CONSTRUCTED OR INSTALLED IN THE PROPOSED R/W, ANY OF THE ABOVE ITEMS FOUND IN THE PROPOSED R/W WILL BE REMOVED, AND ALL COSTS OF THE REMOVAL WILL BE BORNE BY THE OWNER AND/OR DEVELOPER, THE DEVELOPER IS RESPONSIBLE FOR INSTALLING MAILBOX POSTS
28. NO EASEMENTS SHALL ENCR OACH UPON THE PROPOSED R/W, ANY EASEMENTS LOCATED WITHIN THE PROPOSED R/W MUST BE REMOVED FROM THE PLAT PRIOR TO THE RECORDATION OF THE PLAT, A DEED OF QUIT CLAIM WILL BE REQUIRED ON ANY EASEMENTS LOCATED WITHIN THE PROPOSED R/W PRIOR TO THE ACCEPTANCE OF THE STREETS INTO THE CITY ROAD SYSTEM
29. CONTACT CITY TRAFFIC ENGINEER 72 HOURS IN ADVANCE OF ALL PAVEMENT MARKINGS/SIGN INSTALLATIONS AT (757) 514-7603, FAILURE TO DO SO MAY RESULT IN ADDITIONAL COST TO THE DEVELOPER
30. CONTACT THE CITY TRAFFIC ENGINEER AT (757) 514-7603 A MINIMUM OF 48 HOURS IN ADVANCE WHENEVER AN OPEN CUT OR BORING OF A UTILITY LINE ACROSS A ROAD IS WITHIN 400 FEET OF A TRAFFIC SIGNAL, SO THE LINES CAN BE MARKED, FAILURE TO DO SO COULD BE A COSTLY REPAIR FOR THE DEVELOPER
31. TRAFFIC ON EXISTING ROADWAYS MUST BE MAINTAINED DURING CONSTRUCTION WHAN ANY WORK IS BEING PERFORMED WITHIN THE EXISTING RIGHT OF WAY, THE MAINTENANCE OF TRAFFIC PLAN FOR THIS WORK MUST BE IN CONFORMANCE WITH THE VIRGINIA WORK AREA PROTECTION MANUAL AND ANY OTHER SPECIAL PROVISIONS LISTED IN THE CITY LAND USE PACKAGE FOR THIS SITE
32. DURING THE CONSTRUCTION, THE OWNER/DEVELOPER SHALL RECORD ON A SET OF THE PLANS THE AS-BUILT LOCATIONS AND DIMENSIONS OF ALL TRAFFIC FACILITIES CONSTRUCTED, THE OWNER/DEVELOPER SHALL FURNISH THE TRAFFIC ENGINEER A COMPLETE SET OF REPRODUCIBLE DRAWINGS, AND ELECTRONIC FILES IN A VERSION OF AUTOCAD NO OLDER THAN RELEASE 14 SHOWING THE AS-BUILT LOCATIONS AND DIMENSIONS, EACH SHEET SHALL BE MARKED HAS-BUILT" OR "RECORD DRAWINGS" AND DATED, ALL AS-BUILT INFORMATION SHALL BE "BLOCKED" OR "FRAMED" FOR IDENTIFICATION AS FINAL AS-BUILT INFORMATION, TRAFFIC FACILITIES SHALL BE LOCATED BY A DISTANCE MEASURED FROM THE CENTERLINE OF THE STREET, WHERE APPLICABLE, AND A DISTANCE OVER TO THE STRUCTURE, ALSO MEASURED FROM THE CENTERLINE OF THE STREET, A TOLERANCE OF TEN FEET (10') FOR DRAWINGS AT A SCALE OF TWENTY FEET (20") OR MORE AND FIVE FEET (5') FOR A DRAWING AT A SCALE LESS THAN TWENTY FEET (20") WILL BE ALLOWED FOR THE DRAWN LOCATION OF STRUCTURES, WHERE THE AS-BUILT LOCATION OF A STRUCTURE IS AT A GREATER DISTANCE THAN THAT INDICATED ABOVE FROM IT'S PLANNED LOCATION, THE STRUCTURE SHALL BE REDRAWN AT ITS AS-BUILT LOCATION, ERASING OR HATCHING OUT THE STRUCTURE AT ITS PLANNED LOCATION,

PAVEMENT MARKING STANDARDS

CITY OF SUFFOLK PAVEMENT MARKING STANDARDS
PAVEMENT MARKINGS AND MARKERS

SCOPE: THE PURPOSE OF THESE SPECIFICATIONS IS TO PROVIDE THE MINIMUM REQUIREMENTS OF THE CITY OF SUFFOLK FOR ANY PAVEMENT MARKING ACTIVITY THAT GOES ON IN THE PUBLIC RIGHT OF WAY. IT IS TO BE IN ADDITION TO THE VDOT ROAD AND BRIDGE SPECIFICATIONS. ALL REFERENCES MADE TO THE VDOT ROAD AND BRIDGE SPECIFICATIONS REFER TO THE JANUARY 2002 EDITION.

- MATERIALS:**
1. ALL PAVEMENT MARKING MATERIALS (INCLUDING PAINT, THERMOPLASTIC, AND GLASS BEADS) SHALL CONFORM TO ALL VDOT SPECIFICATIONS.
 2. TYPE A PAINT IS ONLY TO BE USED BY THE DIRECTION OF THE OFFICE OF THE CITY TRAFFIC ENGINEER.
 3. THERMOPLASTIC MATERIAL SHALL BE OF ALKYD BASE BINDER.

SECTION I. LANE, EDGE AND CENTERLINE MARKINGS

- 1.1 WHITE LANE LINES, EITHER SOLID OR SKIP LINES WILL BE 4" UNLESS OTHERWISE STATED IN PLANS.
- 1.2 LANE LINES ON AN APPROACH TO A SIGNALIZED INTERSECTION WILL BE SOLID WHITE FOR A DISTANCE OF NOT LESS THAN 150' MEASURED FROM STOP BAR OR EQUAL TO THE LENGTH OF THE SOLID LANE LINES, FOR ADJACENT AUXILIARY (RIGHT AND OR LEFT TURN LANE LINES).
- 1.3 LANE LINES THAT DELINEATE THE EDGE OF THE TURN LANE WILL BE 4" SOLID WHITE LINES AND THEY WILL CONTINUE CONTINUOUSLY FROM THE BEGINNING OF THE FULL WIDTH OF THE TURN LANE TO THE STOP BAR. MINI SKIPS WILL BE EXTENDED FROM THE LANE LINE TO THE END OF THE TRANSITION.
- 1.4 EDGE LINES, WHEN NOTED ON THE PLAN WILL BE SOLID WHITE LINES 4" WIDE, BUT SOLID YELLOW LINES ARE TO BE USED WHEN ADJACENT TO A MEDIAN WHICH SEPARATES OPPOSING DIRECTIONS OF VEHICULAR TRAFFIC. EDGE LINES ARE NOT TO BE USED WITH CURB AND GUTTER ON THE OUTSIDE LANE.
- 1.5 CENTERLINES ON AN UNDIVIDED HIGHWAY WILL BE SOLID DOUBLE YELLOW LINES 4" WIDE SEPARATED BY A 4" SPACE.
- 1.6 ON MINOR APPROACHES TO AN ARTERIAL OR COLLECTOR, LANE LINES, EDGE LINES, AND OR CENTERLINES WILL BE EXTENDED A MINIMUM DISTANCE OF 150' FROM THE STOP BAR.

SECTION II. CROSSWALKS

- 2.1 CROSSWALK LINES WILL BE SOLID WHITE LINES, 6" WIDE, MARKING BOTH EDGES OF THE CROSSWALK AREA.
- 2.2 CROSSWALK LINES WILL EXTEND FROM EDGE OF PAVEMENT TO EDGE OF PAVEMENT OR EDGE OF SHOULDER AS POSSIBLE.
- 2.3 LINES FORMING A CROSSWALK WILL BE PARALLEL.
- 2.4 THE WIDTH OF A CROSSWALK WILL BE 8', MEASURING FROM CENTER OF 6" LINE TO CENTER OF 6" LINE. IN HEAVY TRAFFIC AREAS CROSSWALKS WILL BE 10' IN WIDTH.
- 2.5 IN HEAVY TRAFFIC AREAS OUTSIDE OF THE DOWNTOWN BUSINESS AREA, CROSSWALKS WILL HAVE 2' WIDE CONSECUTIVE WHITE RECTANGLES THAT WILL COVER THE ENTIRE WIDTH OF THE CROSSWALK PERPENDICULAR TO THE 6" WHITE LINES, SPACING WILL BE APPROXIMATELY 6' ON CENTER. THEY WILL BE LOCATED SO AS TO AVOID NORMAL WHEEL PATHS.

SECTION III. MEDIAN MARKINGS

- 3.1 CENTER LANE LEFT TURN ONLY (TWO WAY LEFT TURN LANES OR SUICIDE LANES) WILL CONSIST OF TWO SETS OF ONE WAY BARRIER LINES. 10' BROKEN YELLOW LINES WITH 30' SPACE WILL BE LOCATED INSIDE SOLID YELLOW LINES.
- 3.2 TRANSVERSE MEDIAN MARKINGS WILL CONSIST OF 2' YELLOW LINES.

SECTION IV. GORE MARKINGS

- 4.1 MARKINGS WILL CONSIST OF 2' SOLID WHITE OR YELLOW TRANSVERSE LINES. SPACED AS REQUIRED BY NOTE #3 IN SECTION 4.
- 4.2 CHEVRONS WILL BE USED WHEN SPECIFIED IN APPROVED PLANS.
- 4.3 2' MEDIAN, GORE, AND CHEVRON MARKINGS WILL BE SPACED ACCORDING TO THE POSTED SPEED LIMITS AS FOLLOWS: SPACING WILL MATCH POSTED SPEED LIMIT UP TO A MAXIMUM SPACING OF 35'.

SECTION V. STOP BARS

- 5.1 TWO FEET WIDE SOLID WHITE STOP BARS WILL

COMPLETELY TRANSVERSE ALL TRAFFIC LANES ON EACH APPROACH AT A SIGNALIZED INTERSECTION, OR APPROACHES TO AN INTERSECTION WITH A "STOP" SIGN CONTROL AT MAJOR COLLECTORS AND ARTERIAL ROADWAYS.

5.2 STOP BARS WILL BE LOCATED AT A MINIMUM OF 4' IN ADVANCE OF A CROSSWALK, UNLESS OTHERWISE SPECIFIED ON AN APPROVED PLAN.

SECTION VI. PAVEMENT LEGENDS

- 6.1 LEGENDS WILL BE TRANSVERSELY ALIGNED ACROSS EACH LANE, THE DISTANCE BETWEEN THE ARROW SYMBOL AND THE STOP BAR WILL BE 8'
- 6.2 ARROWS AND LEGENDS WILL NOT BE PLACED PRIOR TO THE SOLID WHITE LANE LINES.
- 6.3 WORD MESSAGES WILL BE LOCATED IN ADVANCE OF ITS ACCOMPANYING SYMBOL BY A DISTANCE OF NOT LESS THAN 32', NOT MORE THAN 80' FROM THE SYMBOL. AFTER THE 5TH LEGEND IN A TURN LANE THE SPACING BETWEEN LEGENDS MAY GO TO 100' MAXIMUM.
- 6.4 FOR AUXILIARY RIGHT AND OR LEFT TURN LANES ON ALL APPROACHES, LEGENDS WILL BE CENTERED WITHIN THE LANE. THEY WILL CONTINUE THE LENGTH OF THE LANE BEGINNING AND ENDING WITH A SYMBOL. THRU LANES WILL NOT BE INSTALLED ON AN UNCONTROLLED THRU STREET AT INTERSECTION WITHOUT A SIGNAL
- 6.5 MERGE ARROWS WILL BE SPACED ACCORDING TO THE POSTED SPEED LIMIT AS FOLLOWS:
 - A. POSTED SPEED <35 MPH=80'
 - B. POSTED SPEED >35MPH =120'

SECTION VII. BICYCLE LANES

- 7.1 PAVEMENT MARKINGS CONSISTING OF ARROW, BICYCLE AND PREFERENTIAL LANE SYMBOLS SHALL BE PLACED AT THE BEGINNING OF THE BICYCLE LANE AT RIGHT TURN LANES. THEY SHALL ALSO BE PLACED AT THE END OF THE BICYCLE LANE AT RIGHT TURN LANES IF THE SOLID WHITE LINE SEPARATING THE BICYCLE LANE FROM THE RIGHT TURN LANE IS GREATER THEN 100' IN LENGTH.
- 7.2 BICYCLE LANE SYMBOLS SHALL BE PLACED A MAXIMUM OF 500' APART.
- 7.3 THE BICYCLE LANE STRIPE SHALL BE 4 FEET FROM THE EDGE OF PAVEMENT ON ROADS WITH CURB & GUTTER UNLESS OTHERWISE NOTED ON THE PLANS ORS EXISTING MARKINGS INDICATE OTHERWISE.
- 7.4 THE BICYCLE LANE STRIPE SHALL BE 5 FEET FROM THE FACE OF CURB ON ROADWAYS WITHOUT A GUTTER PAN UNLESS OTHERWISE NOTED ON THE PLANS OR EXISTING MARKINGS INDICATE OTHERWISE.

SECTION VIII. PARKING SPACE MARKINGS

- 8.1 ALL ON STREET PARKING SPACES WILL BE A MINIMUM OF 20' LONG AND A MINIMUM OF 8' WIDE.
- 8.2 ALL PARKING SPACES WILL BE MARKED WITH 6" LINES.

SECTION IX. GENERAL NOTES

- 9.1 INSTALLATION AND MATERIALS FOR ALL PAVEMENT MARKINGS AND LEGENDS WILL BE IN ACCORDANCE WITH THE CITY OF SUFFOLK DEPARTMENT OF PUBLIC WORKS/TRAFFIC ENGINEERING DIVISION SPECIFICATIONS SET FORTH IN THIS DOCUMENT UNLESS OTHERWISE STATED ON THE PLANS OR IN CONTRACT DOCUMENTS.
- 9.2 THE CONTRACTOR WILL NOTE ALL SPECIAL PROVISIONS OF THE CONTRACT SPECIFICALLY WITH THE REGARD TO RATE OF APPLICATION, MAINTENANCE OF TRAFFIC, RESTRICTED WORKING HOURS, AND OR RESTRICTED WEATHER CONDITIONS.
- 9.3 THE CONTRACTOR WILL REMOVE ALL PREVIOUS PAVEMENT MARKINGS WHICH IN THE OPINION OF THE ENGINEER WILL CONFLICT WITH THE NEW PAVEMENT MARKINGS. ALL ERADICATION WILL BE IN CONFORMANCE WITH THE VDOT SPECIFICATIONS.
- 9.4 BEFORE ANY MARKINGS WILL BE APPLIED IN THE RIGHT OF WAY, THE CITY TRAFFIC ENGINEER'S OFFICE MUST BE NOTIFIED 72 HOURS IN ADVANCE. IF THIS OFFICE IS NOT NOTIFIED AND THE MARKINGS DO NOT MEET WITH WHAT THE CITY TRAFFIC ENGINEER'S OFFICE CONSIDERS PROPER, THE MARKINGS WILL BE ERADICATED AND REPLACED AT THE SOLE EXPENSE OF THE CONTRACTOR.
- 9.5 NO PAVEMENT MARKINGS WILL BE APPLIED UNTIL 48 HOURS AFTER RAINFALL, UNLESS OTHERWISE DIRECTED BY THE CITY TRAFFIC ENGINEER'S OFFICE.
- 9.6 SNOW PLOWABLE PAVEMENT MARKERS WILL BE INSTALLED ONLY BY DIRECTION OF THE CITY TRAFFIC ENGINEER'S OFFICE.
- 9.7 ONLY ALKYD BASED THERMOPLASTIC IS TO BE USED UNLESS OTHERWISE DIRECTED BY THE CITY TRAFFIC ENGINEER'S OFFICE.
- 9.8 ALL PAVEMENT MARKINGS INSTALLED IN THE CITY'S RIGHT OF WAY WHETHER "TEMPORARY OR PERMANENT" WILL CONTAIN GLASS BEADS.



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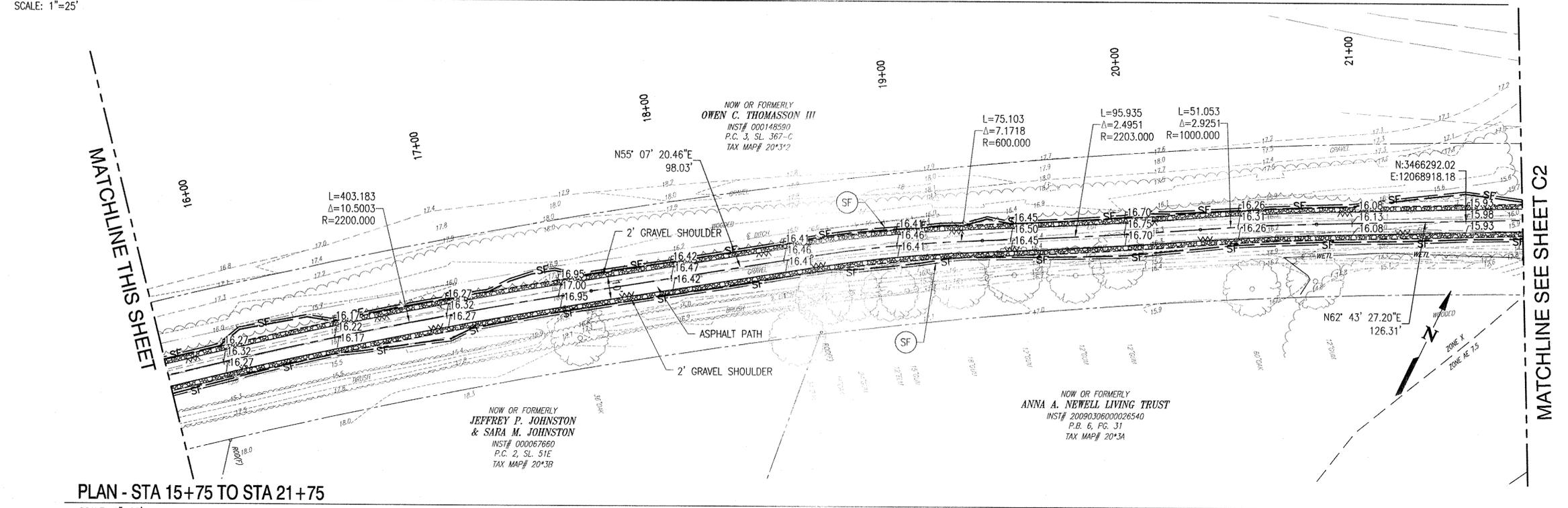
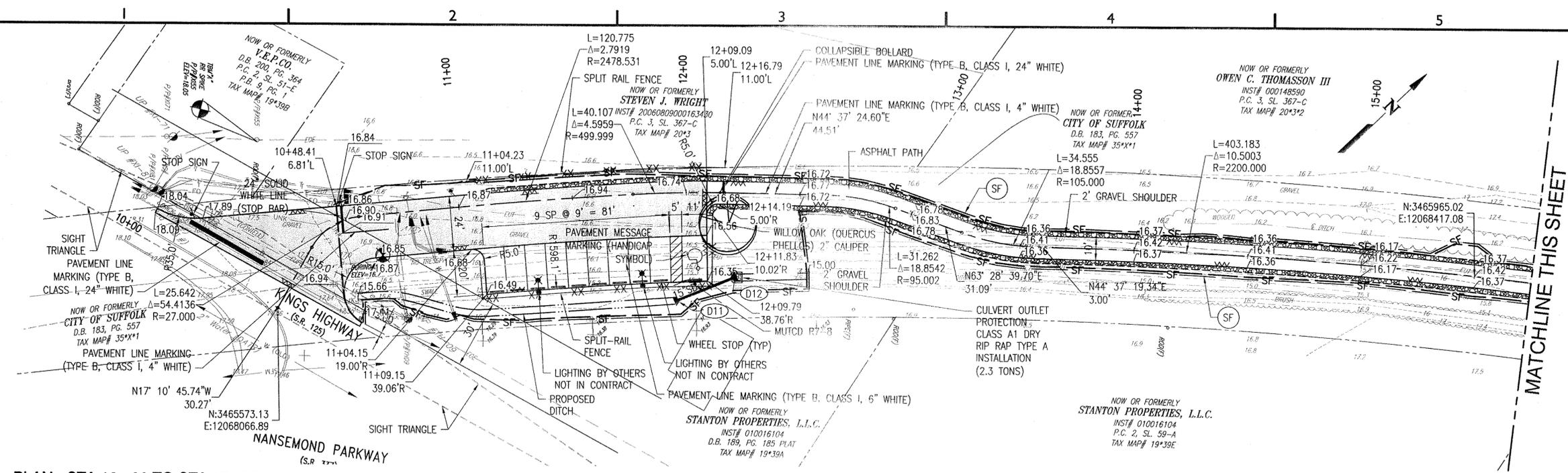
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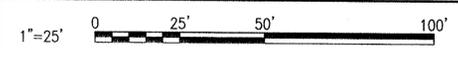
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DRAINAGE SCHEDULE

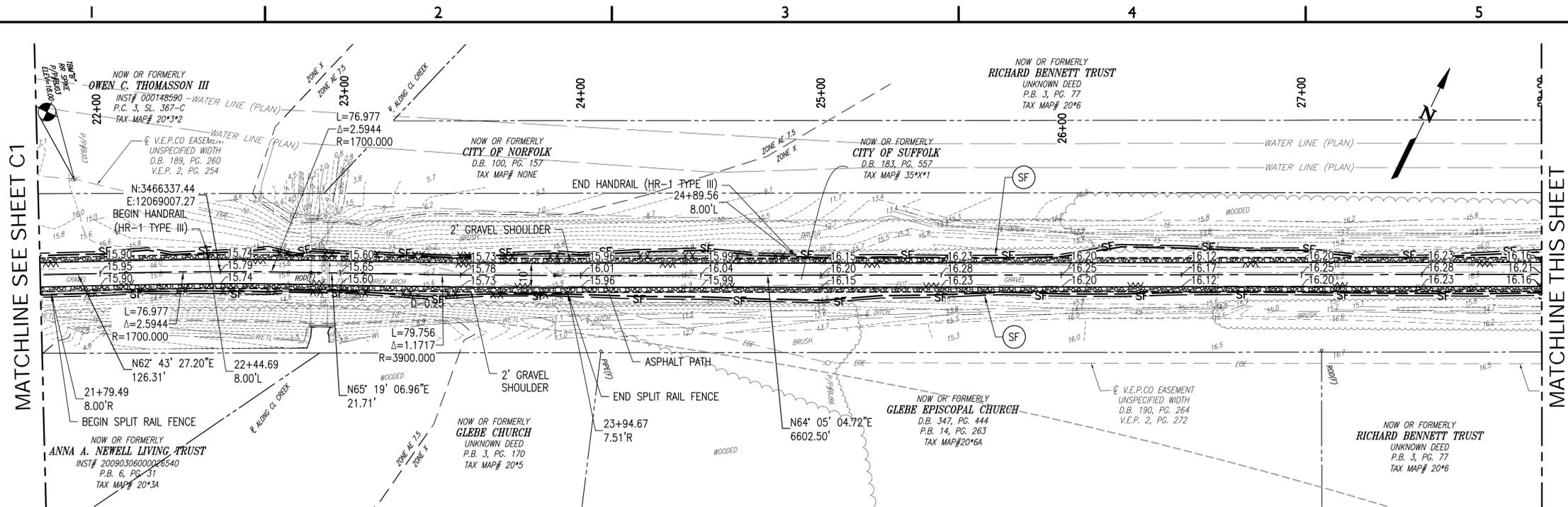
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GRAPHIC SCALE(S)



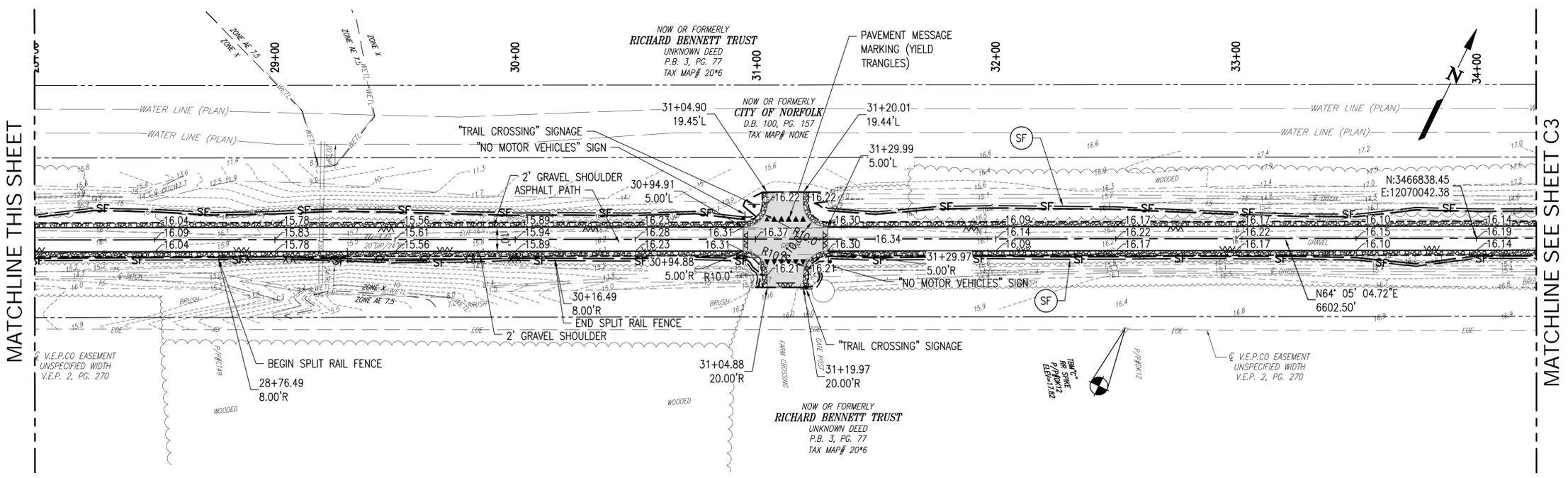
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PLAN - STA 21+75 TO 28+00

SCALE: 1"=25'



PLAN - STA 28+00 TO STA 34+25

SCALE: 1"=25'

GENERAL NOTES

GRAPHIC SCALE(S)



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PHASE IV**

DEPARTMENT OF PARKS AND RECREATION
CITY OF SUFFOLK, VIRGINIA

CN NO: 4549
DATE: 01/30/14
DESIGN: JPP
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REVIEW: IDJ

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**SITE
IMPROVEMENTS
STA 21+75 TO
STA 34+25
C2**

SHEET 11 OF 37

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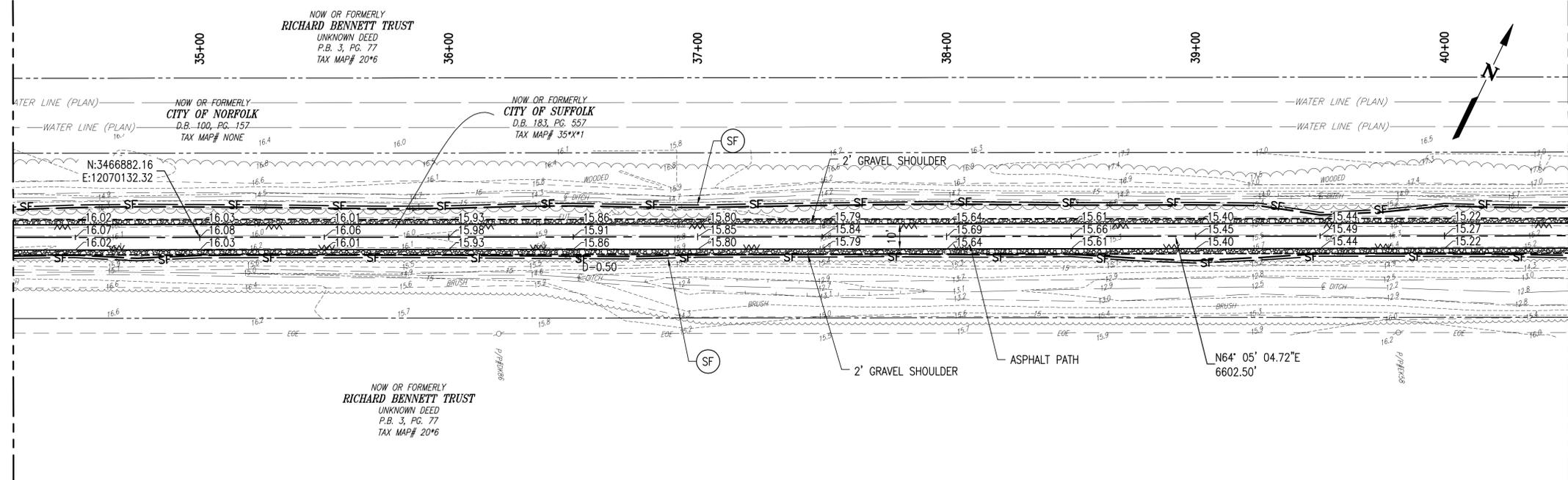
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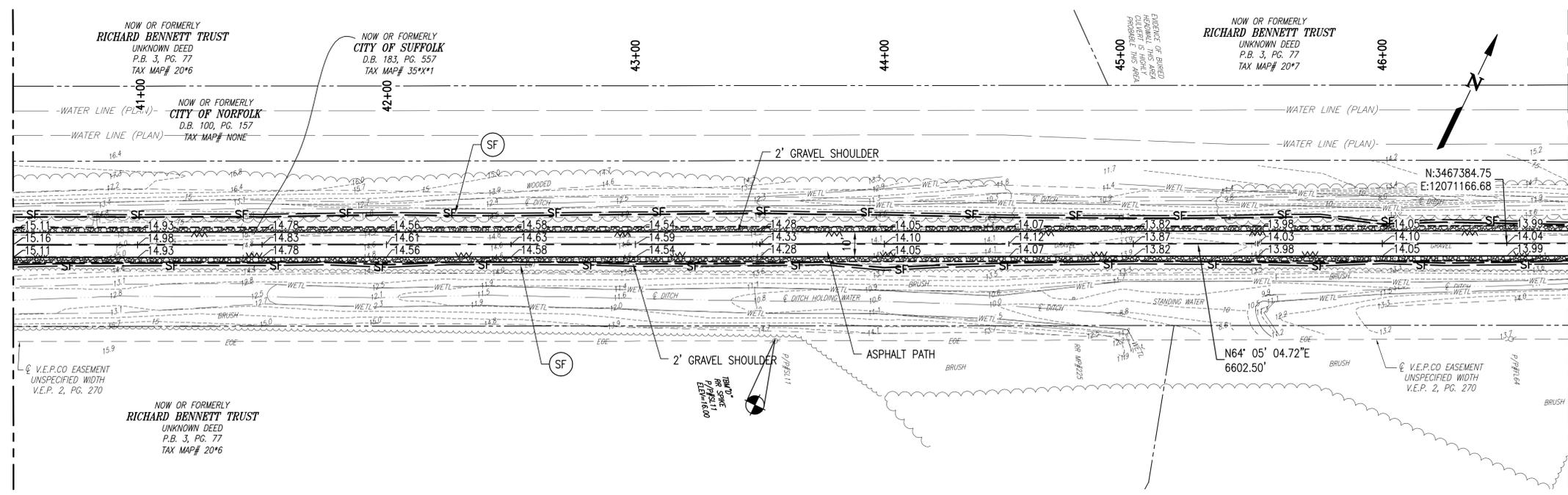
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MATCHLINE THIS SHEET

MATCHLINE SEE SHEET C4



PLAN - STA 34+75 TO STA 40+50
SCALE: 1"=25'



PLAN - STA 40+50 TO STA 46+75
SCALE: 1"=25'

GENERAL NOTES

GRAPHIC SCALE(S)



**SUFFOLK SEABOARD COASTLINE TRAIL
PHASE IV**

DEPARTMENT OF PARKS AND RECREATION
CITY OF SUFFOLK, VIRGINIA

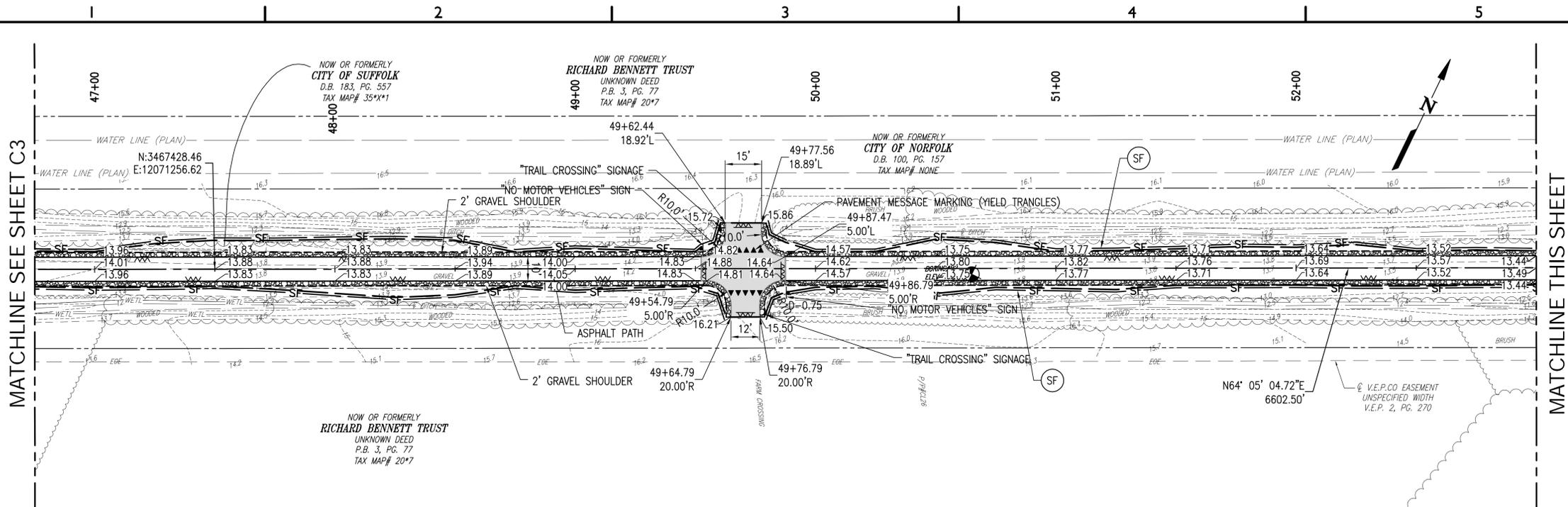
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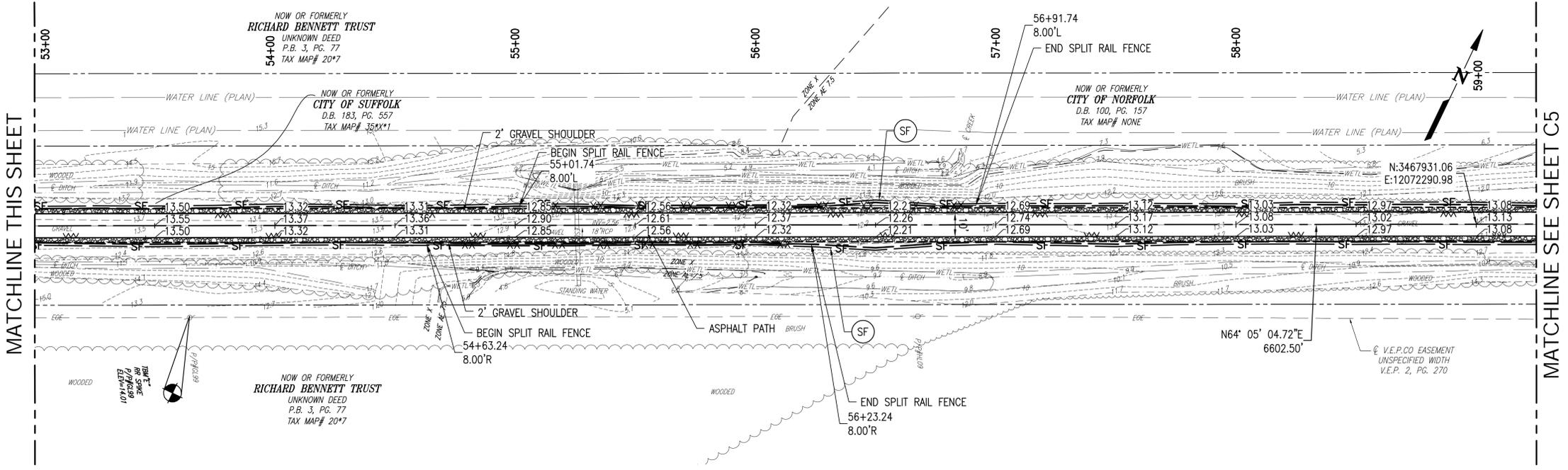
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PLAN - STA 46+75 TO STA 53+00

SCALE: 1"=25'



PLAN - STA 53+00 TO STA 59+25

SCALE: 1"=25'

GENERAL NOTES

GRAPHIC SCALE(S)



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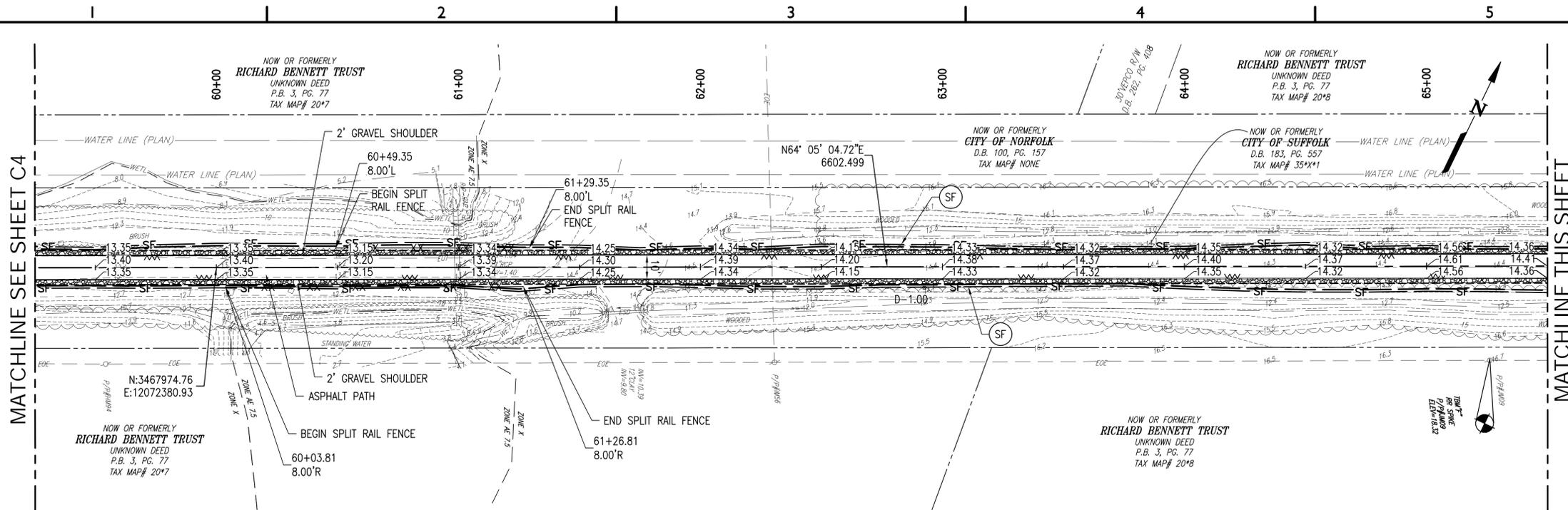
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SITE IMPROVEMENTS
STA 46+75 TO
STA 59+25
C4

SHEET 13 OF 37

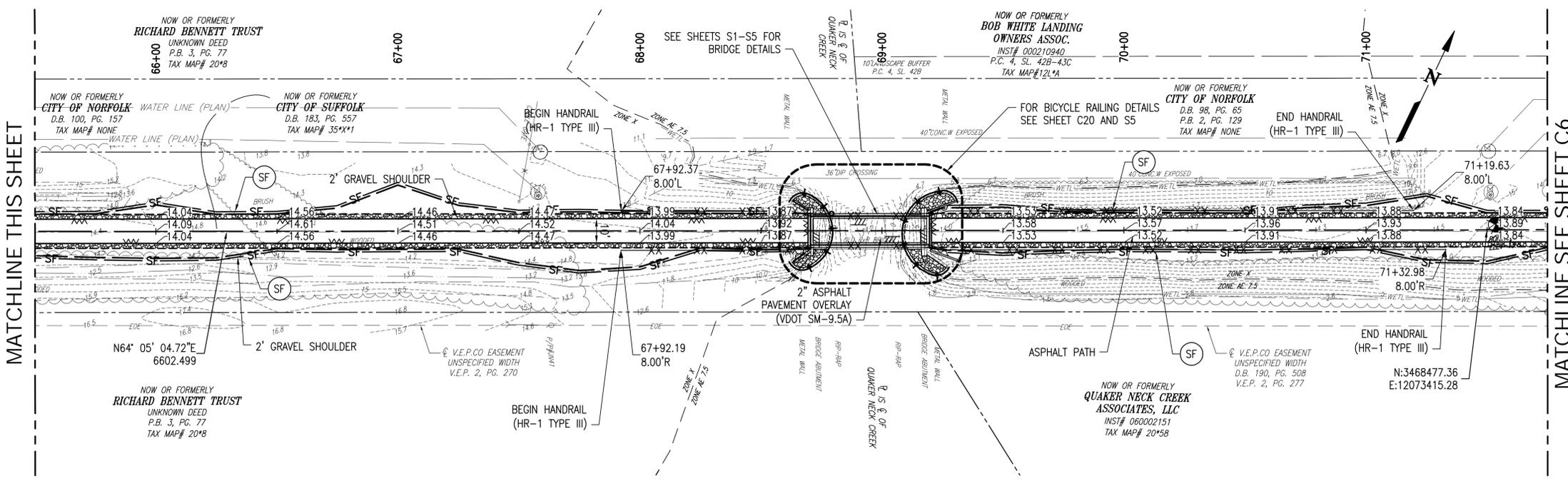
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PLAN - STA 59+25 TO STA 65+50

SCALE: 1"=25'



PLAN - STA 65+50 TO STA 71+75

SCALE: 1"=25'

GENERAL NOTES

GRAPHIC SCALE(S)



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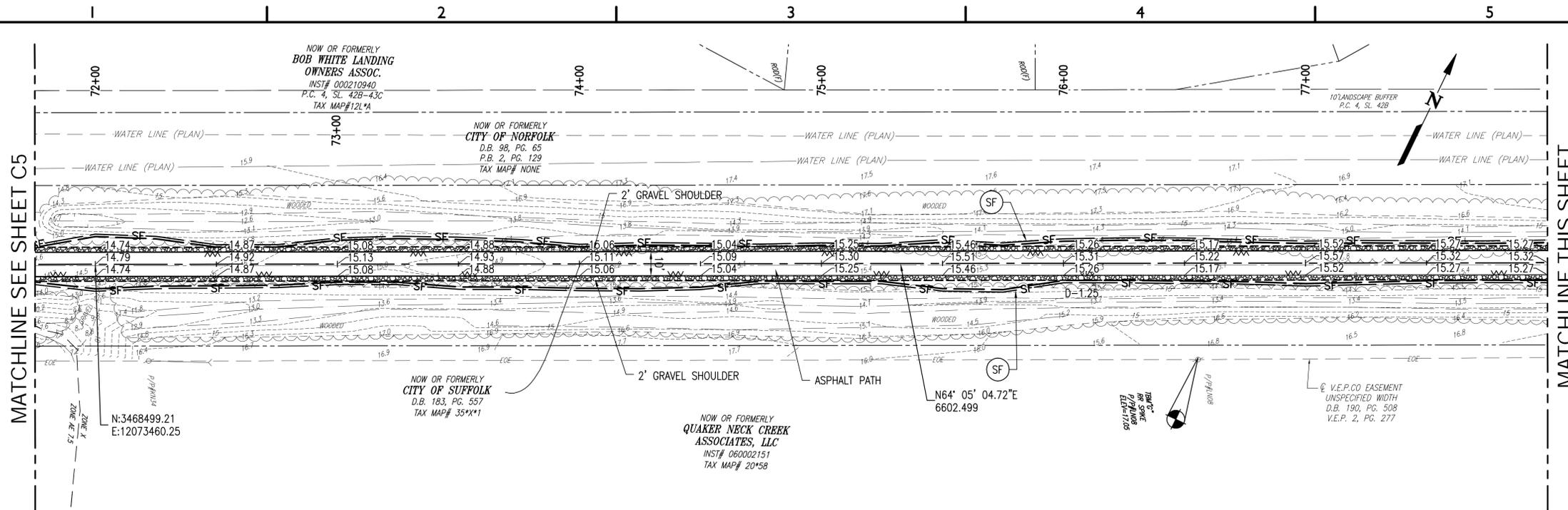
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SITE IMPROVEMENTS
STA 59+25 TO
STA 71+75
C5

SHEET 14 OF 37

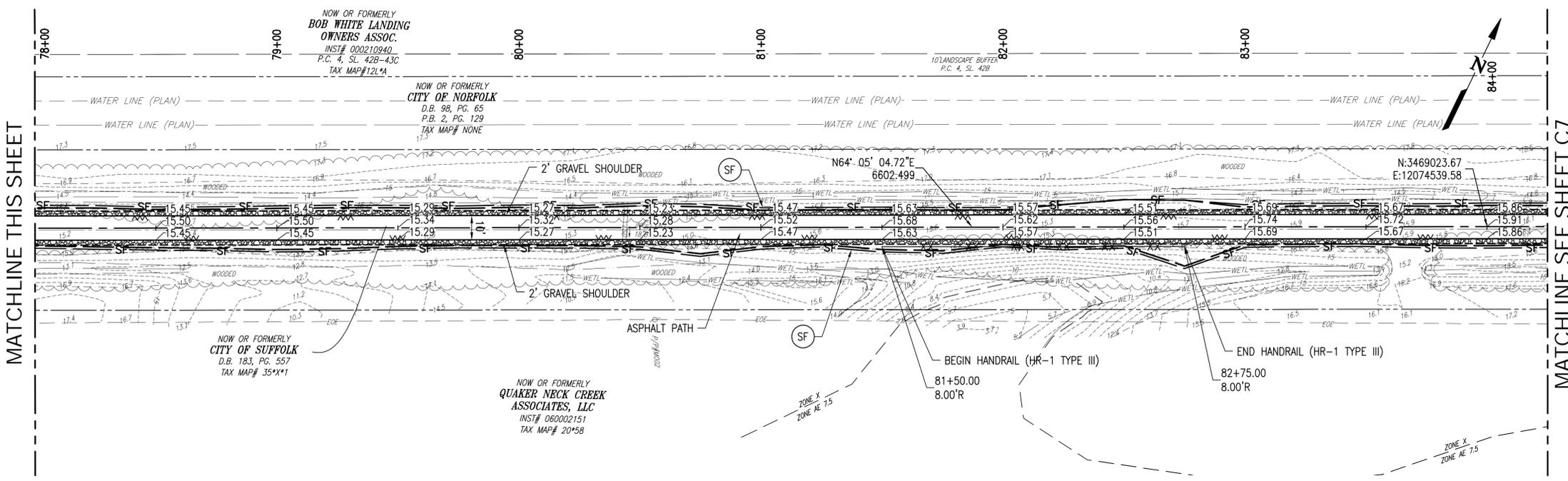
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PLAN - STA 71+75 TO STA 78+00

SCALE: 1"=25'



PLAN - STA 78+00 TO STA 84+25

SCALE: 1"=25'

GENERAL NOTES

GRAPHIC SCALE(S)



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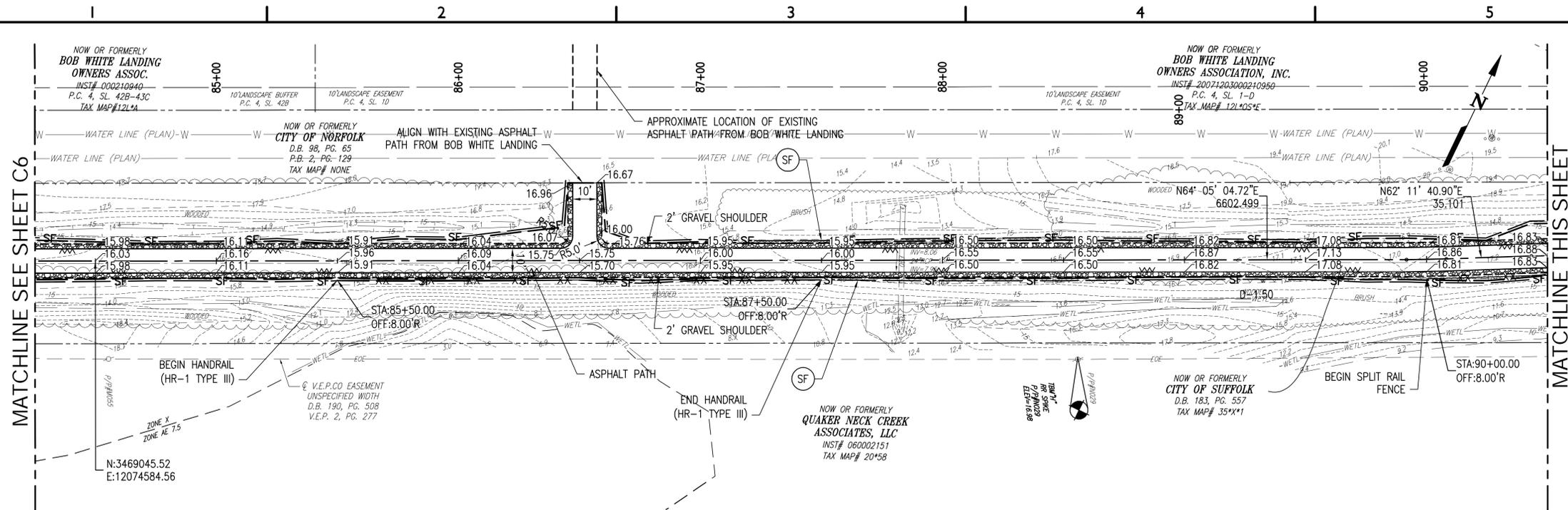
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**SITE
IMPROVEMENTS
STA 71+75 TO
STA 84+25
C6**

SHEET 15 OF 37

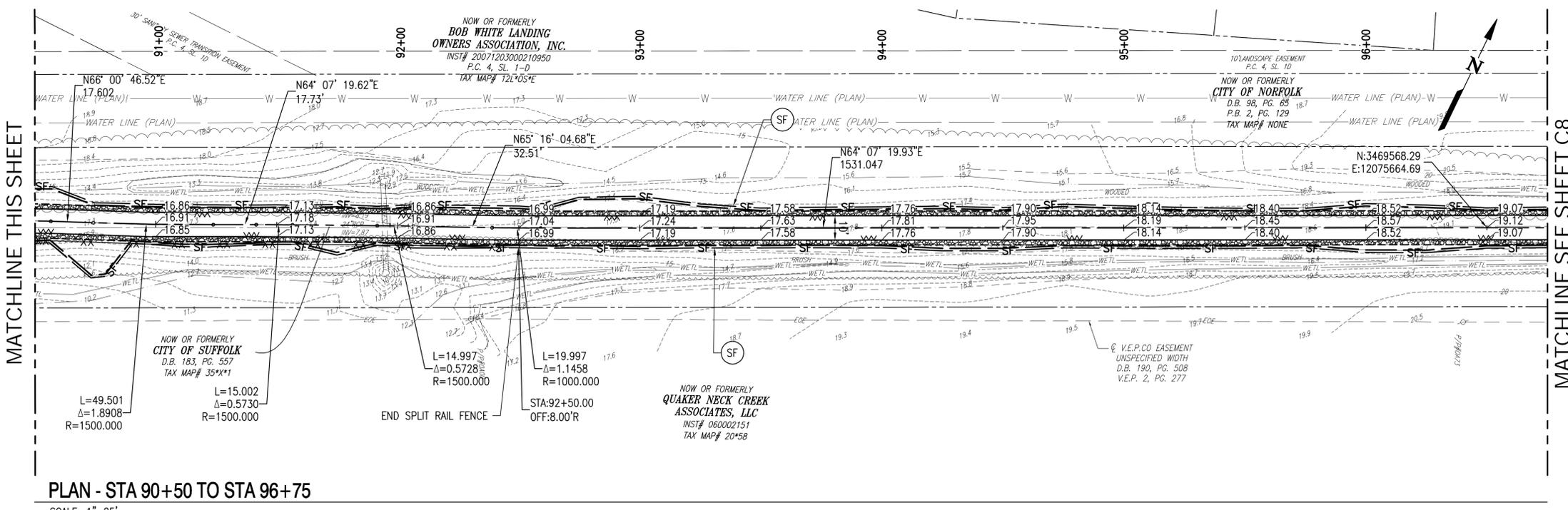
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PLAN - STA 84+25 TO STA 90+50

SCALE: 1"=25'



PLAN - STA 90+50 TO STA 96+75

SCALE: 1"=25'

GENERAL NOTES

GRAPHIC SCALE(S)



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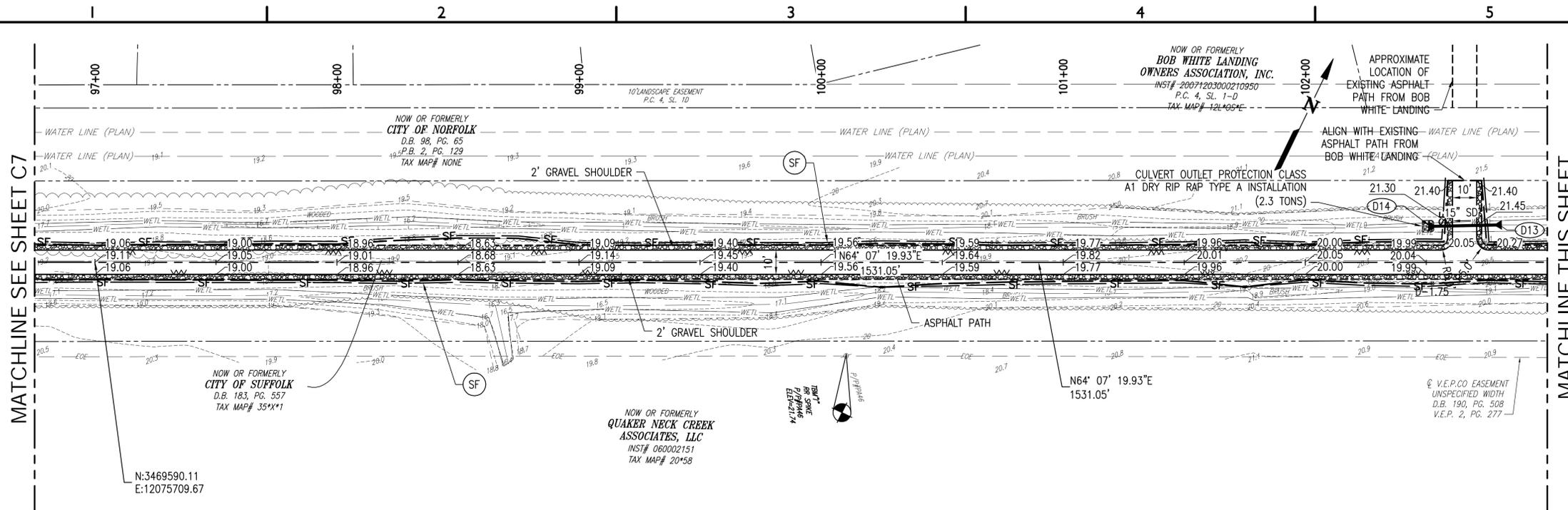
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No.	Date	Description	By

SITE
IMPROVEMENTS
STA 84+25 TO
STA 96+75
C7

SHEET 16 OF 37

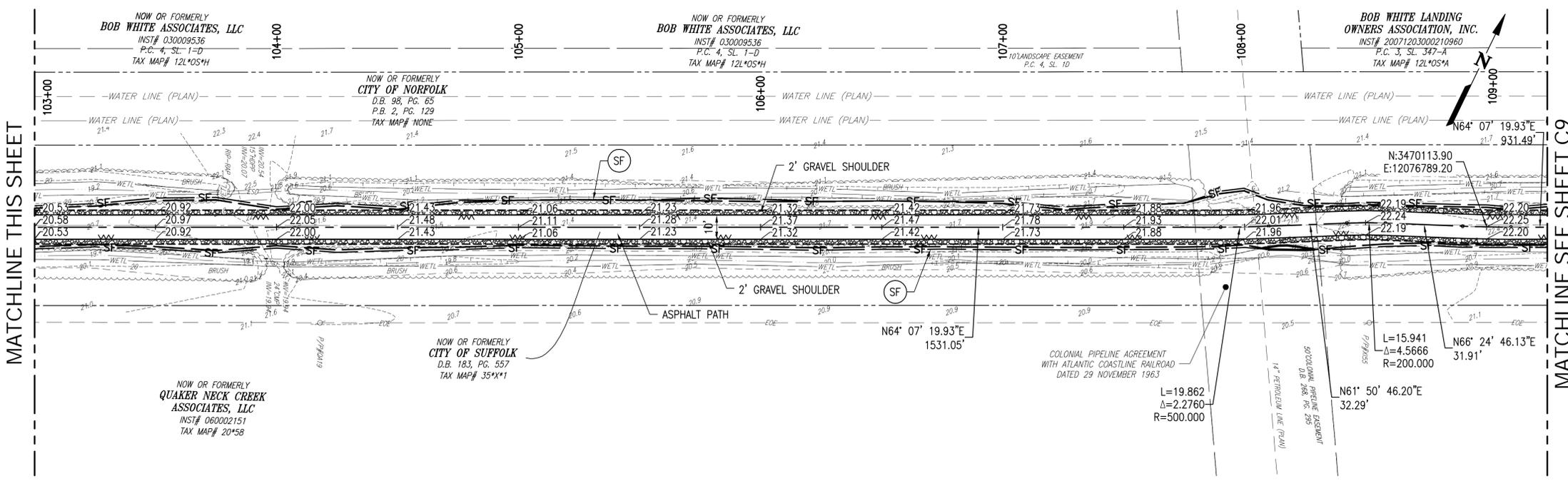
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PLAN - STA 96+75 TO STA 103+00

SCALE: 1"=25'



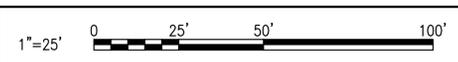
PLAN - STA 103+00 TO STA 109+25

SCALE: 1"=25'

DRAINAGE SCHEDULE

- (D13) 15" END SECTION ES-1
N 3469857.07
E 12076224.71
INV. IN=19.02
- (D13) - (D14) 28LF - 15" RCP @ 0.04%
- (D14) 15" END SECTION ES-1
N 3469844.44
E 12076199.96
INV. OUT=19.01

GRAPHIC SCALE(S)



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PHASE IV

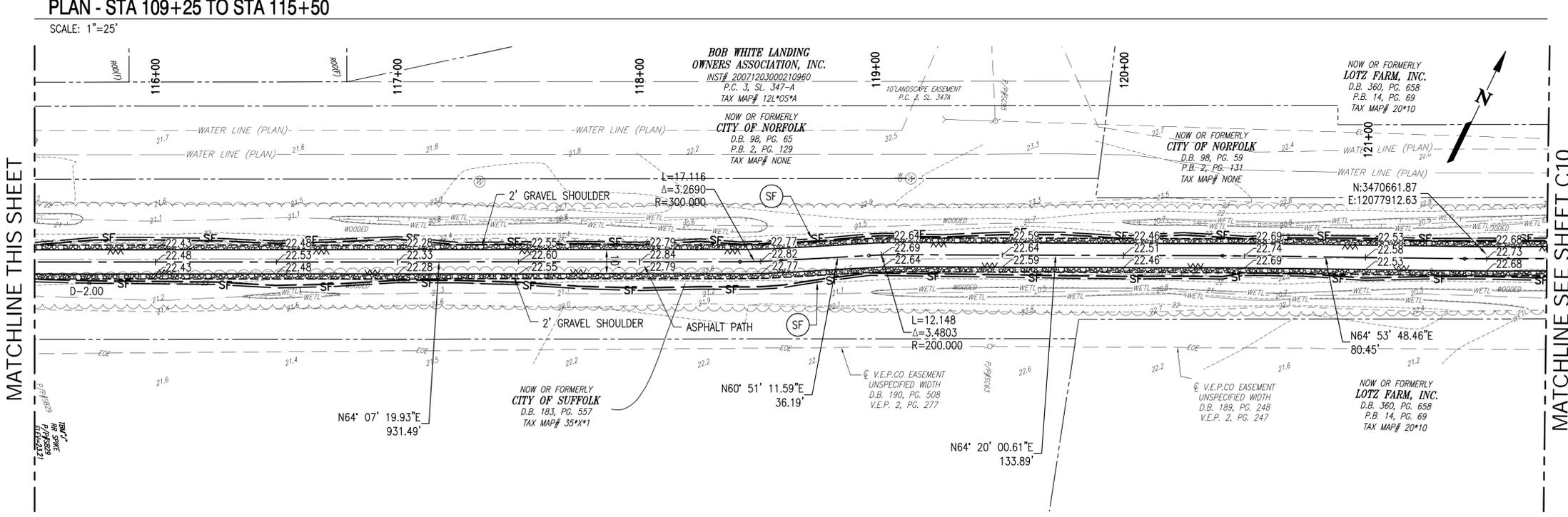
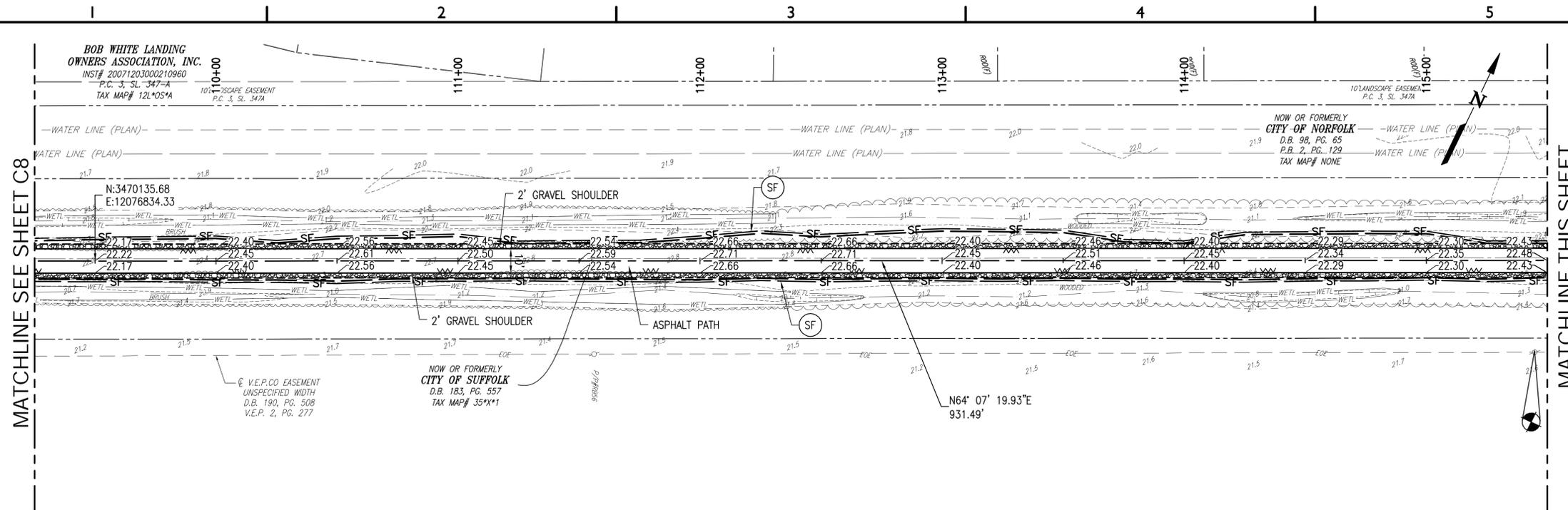
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SITE IMPROVEMENTS
STA 96+75 TO
STA 109+25
C8

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GENERAL NOTES

GRAPHIC SCALE(S)

1"=25' 0 25' 50' 100'

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CITY OF SUFFOLK, VIRGINIA

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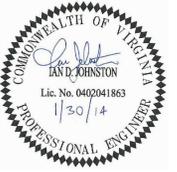
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**SITE IMPROVEMENTS
STA 109+25 TO
STA 121+75**

C9

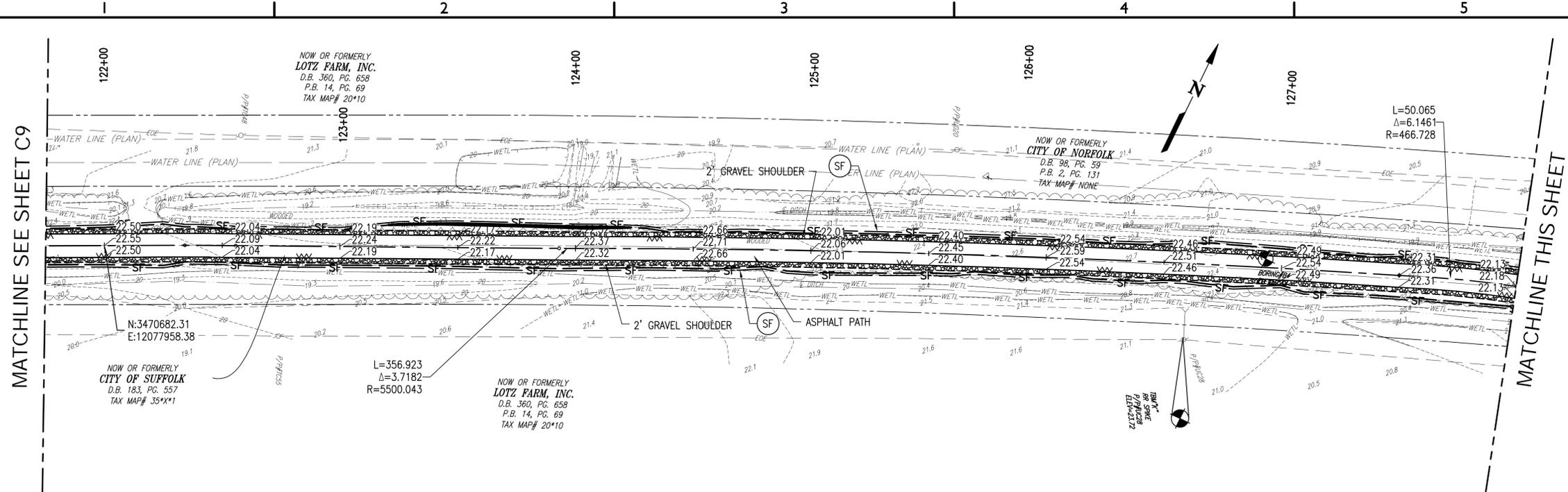
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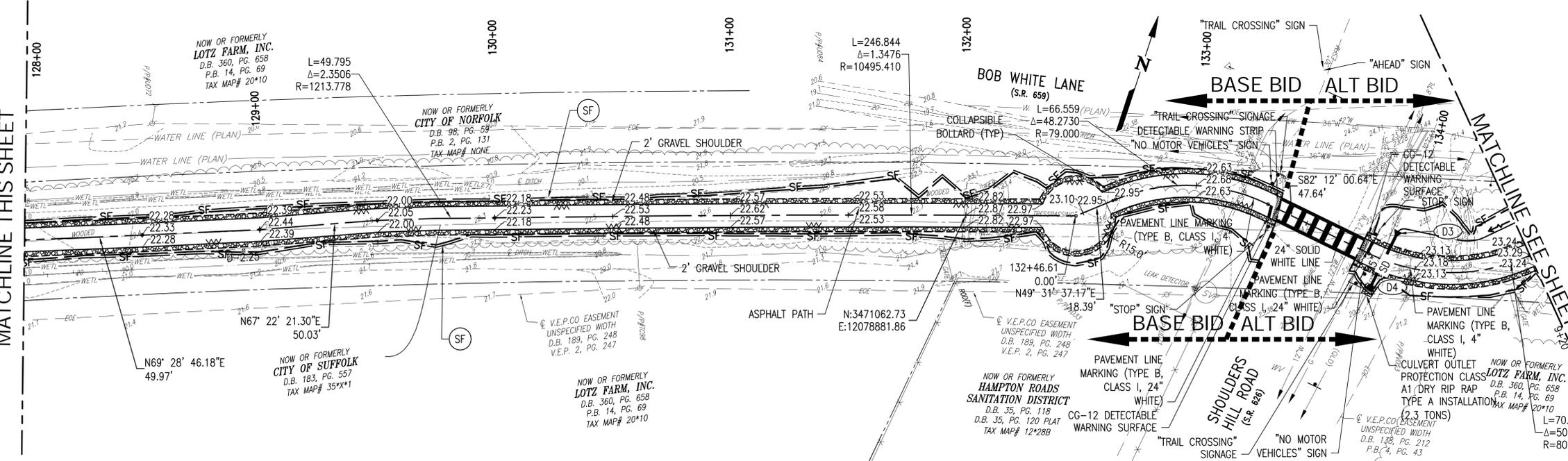
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PHASE IV**
DEPARTMENT OF PARKS AND RECREATION
CITY OF SUFFOLK, VIRGINIA

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SITE IMPROVEMENTS
STA 121+75 TO
STA 134+50
C10
SHEET 19 OF 37



PLAN - STA 121+75 TO STA 128+00
SCALE: 1"=25'

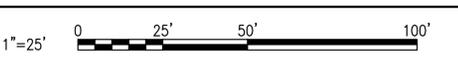


PLAN - STA 128+00 TO STA 134+50
SCALE: 1"=25'

DRAINAGE SCHEDULE

- D3 15" END SECTION ES-1
N 3471112.38
E 12079058.27
INV. OUT=19.85
- D3 - D4 25LF - 15" RCP @ 0.30%
- D4 15" END SECTION ES-1
N 3471087.40
E 12079054.58
INV. IN=19.78

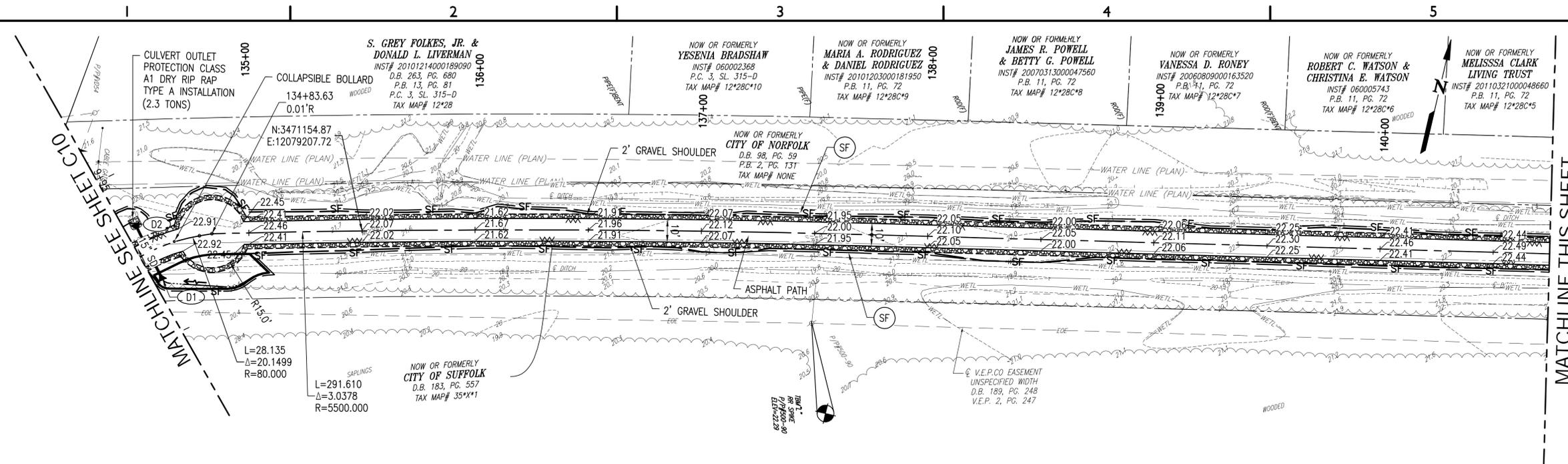
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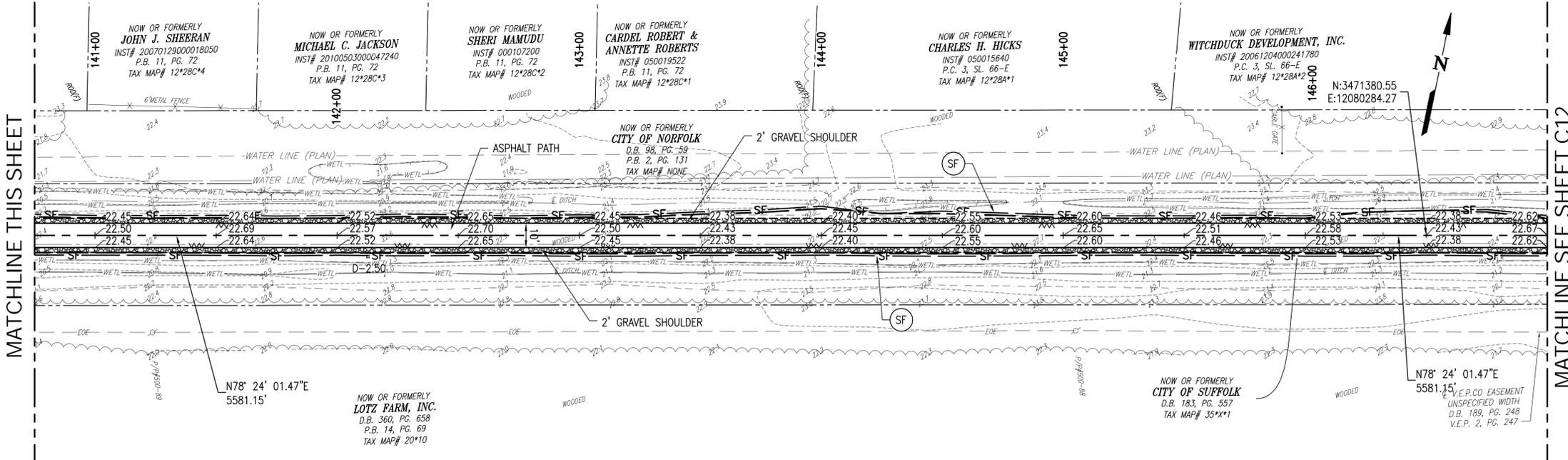
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PLAN - STA 134+50 TO STA 140+75 (ALTERNATE BID)

SCALE: 1"=25'



PLAN - STA 140+75 TO STA 147+00 (ALTERNATE BID)

SCALE: 1"=25'

DRAINAGE SCHEDULE

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E 12079126.16
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- (D2) 15" END SECTION ES-1
N 3471134.02
E 12079110.19
INV. OUT=20.03

GRAPHIC SCALE(S)



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SUFFOLK SEABOARD COASTLINE TRAIL
PHASE IV

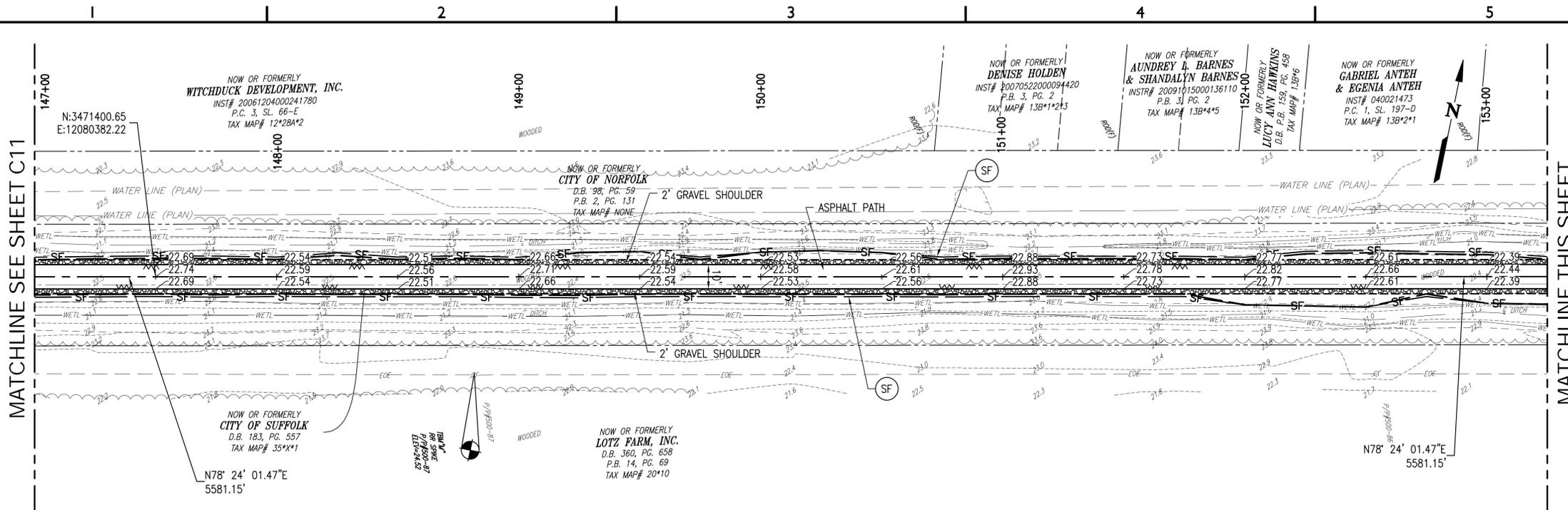
DEPARTMENT OF PARKS AND RECREATION
CITY OF SUFFOLK, VIRGINIA

NO.	DATE	DESCRIPTION	BY
CN NO: 4549	DATE: 01/30/14	DESIGN: JPP	
		DRAWN: GMD	
		REVIEW: IDJ	
REVISIONS			

SITE IMPROVEMENTS
STA 134+50 TO
STA 147+00
C11

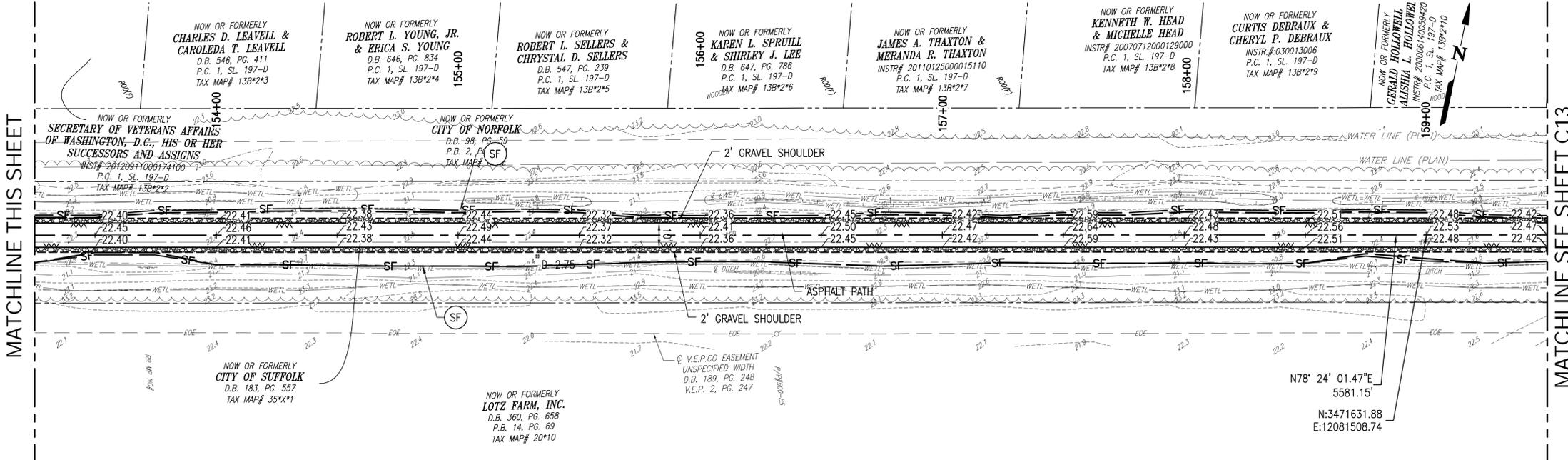
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PLAN - STA 147+00 TO STA 153+25 (ALTERNATE BID)

SCALE: 1"=25'



PLAN - STA 153+25 TO 159+50 (ALTERNATE BID)

SCALE: 1"=25'

GENERAL NOTES

GRAPHIC SCALE(S)



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DATE: 01/30/14
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No.	Date	Description	By

SITE IMPROVEMENTS
STA 147+00 TO
STA 159+50
C12

Sheet checked by GDE/PLM on 04/26/2013 10:56am

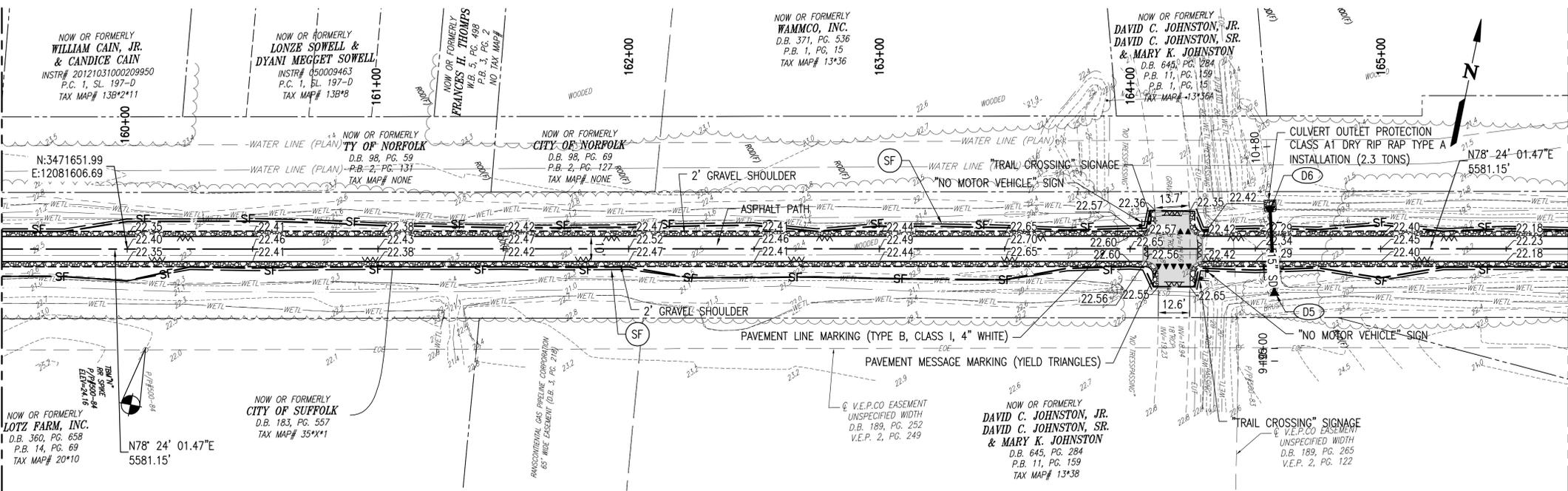
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MATCHLINE SEE SHEET C12

MATCHLINE THIS SHEET

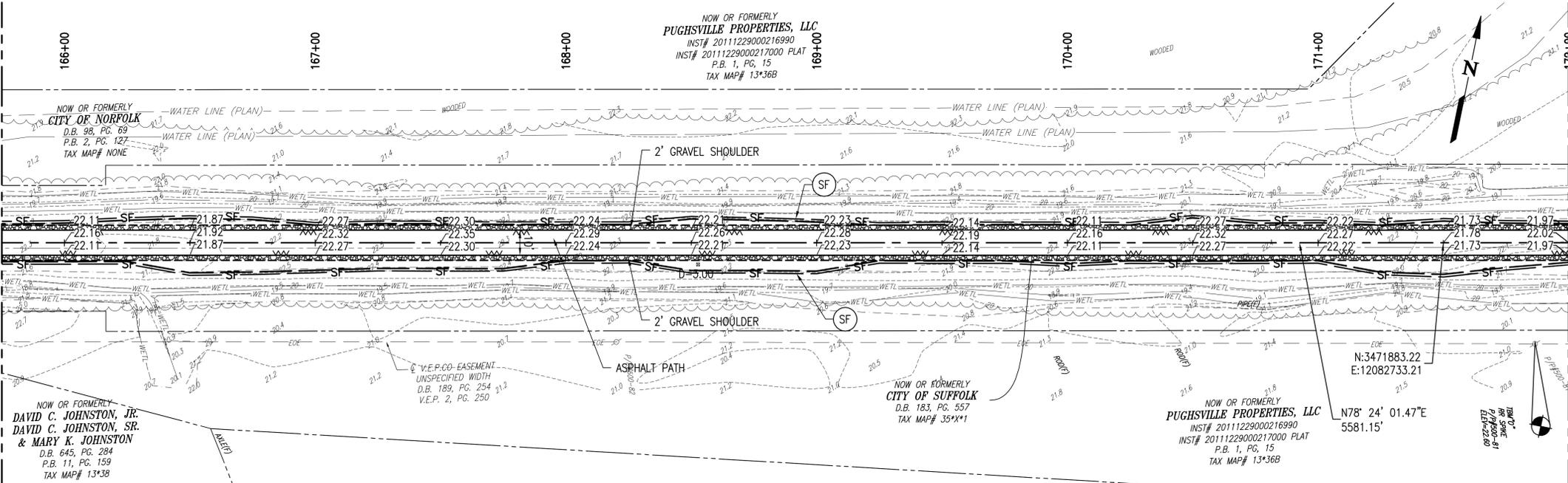
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MATCHLINE SEE SHEET C14



PLAN - STA 159+50 TO STA 165+75 (ALTERNATE BID)

SCALE: 1"=25'



PLAN - STA 165+75 TO STA 172+00 (ALTERNATE BID)

SCALE: 1"=25'

DRAINAGE SCHEDULE

- (D5) 15" END SECTION ES-1
N 3471727.01
E 12082058.42
INV. IN=19.93
- (D5) - (D6) 33LF - 15" RCP @ 0.30%
- (D6) 15" END SECTION ES-1
N 3471758.95
E 12082050.11
INV. OUT=19.83

GRAPHIC SCALE(S)



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SITE IMPROVEMENTS
STA 159+50 TO
STA 172+00
C13

SHEET 22 OF 37

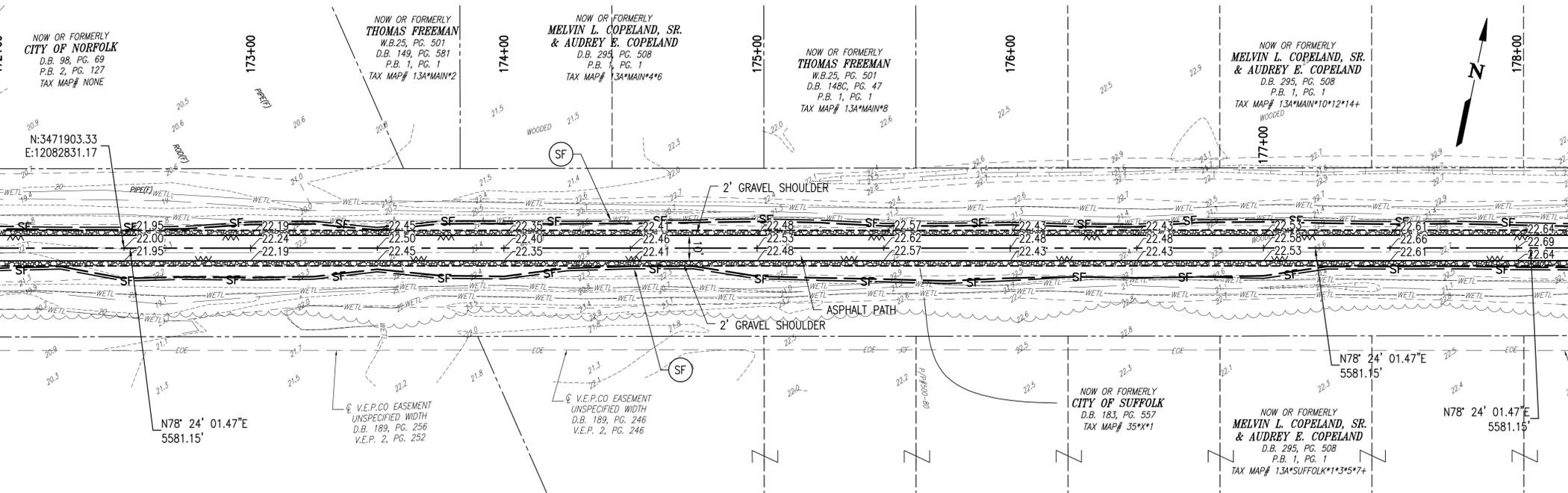
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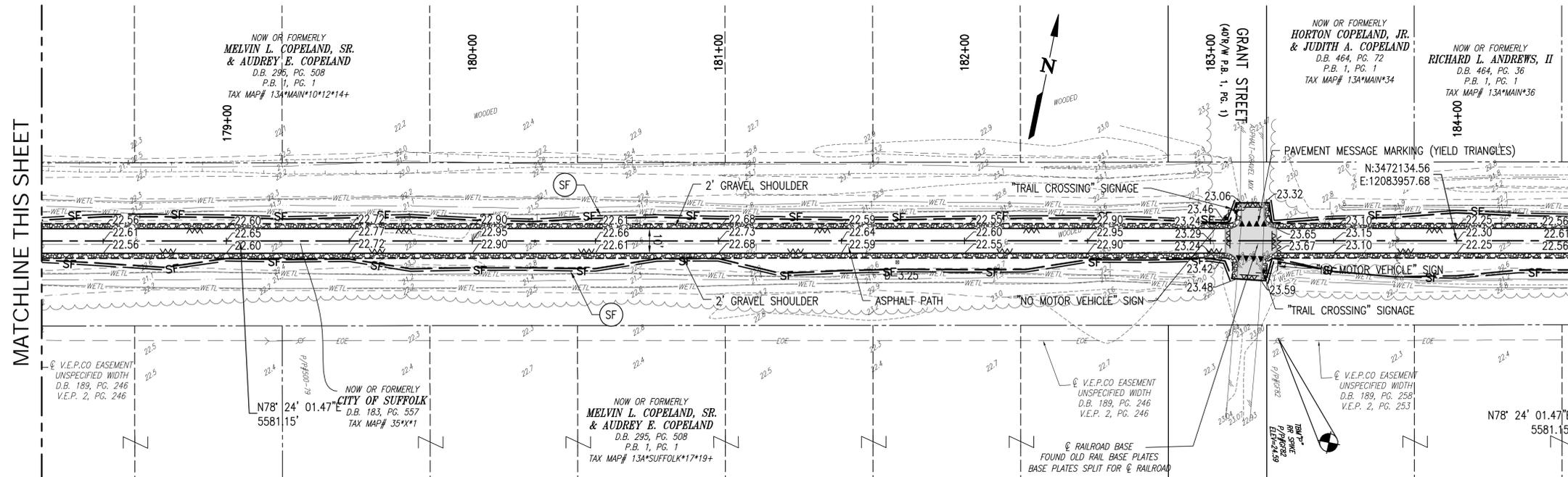
MATCHLINE THIS SHEET

MATCHLINE THIS SHEET



PLAN - STA 172+00 TO STA 178+25 (ALTERNATE BID)

SCALE: 1"=25'



PLAN - STA 178+25 TO STA 184+50 (ALTERNATE BID)

SCALE: 1"=25'

GENERAL NOTES

GRAPHIC SCALE(S)



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PHASE IV**

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CITY OF SUFFOLK, VIRGINIA

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**SITE
IMPROVEMENTS
STA 172+00 TO
STA 184+50
C14**

SHEET 23 OF 37



**SUFFOLK SEABOARD COASTLINE TRAIL
PHASE IV**
DEPARTMENT OF PARKS AND RECREATION
CITY OF SUFFOLK, VIRGINIA

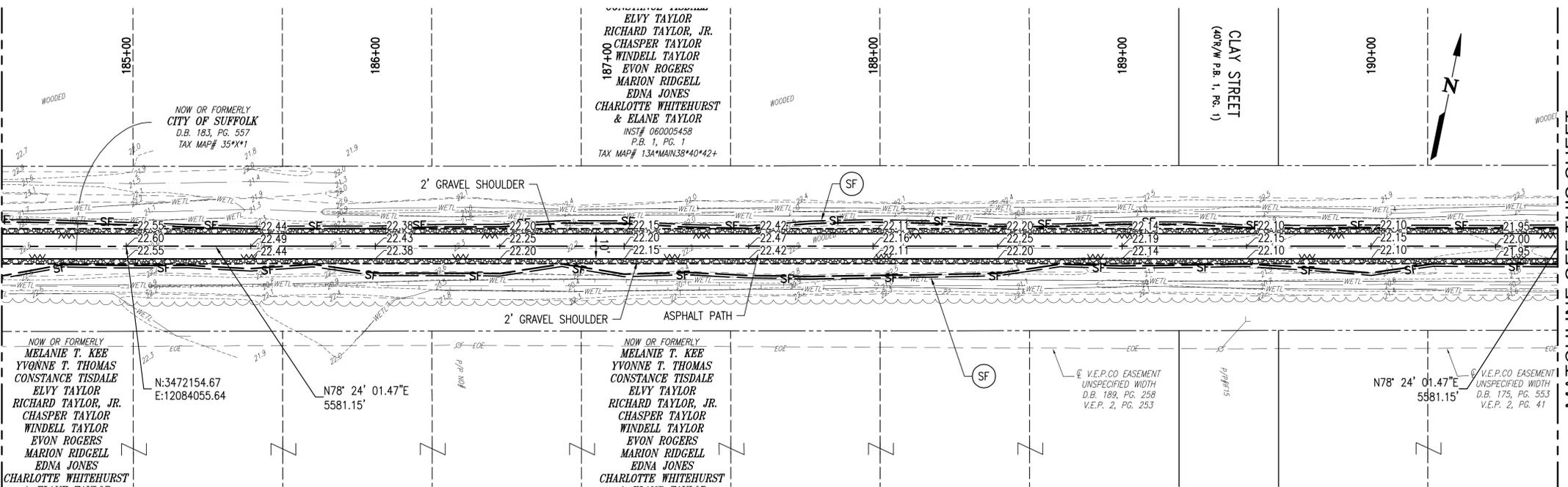
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REVIEW: IDJ
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No. Date Description By

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MATCHLINE SEE SHEET C14

MATCHLINE SEE THIS SHEET

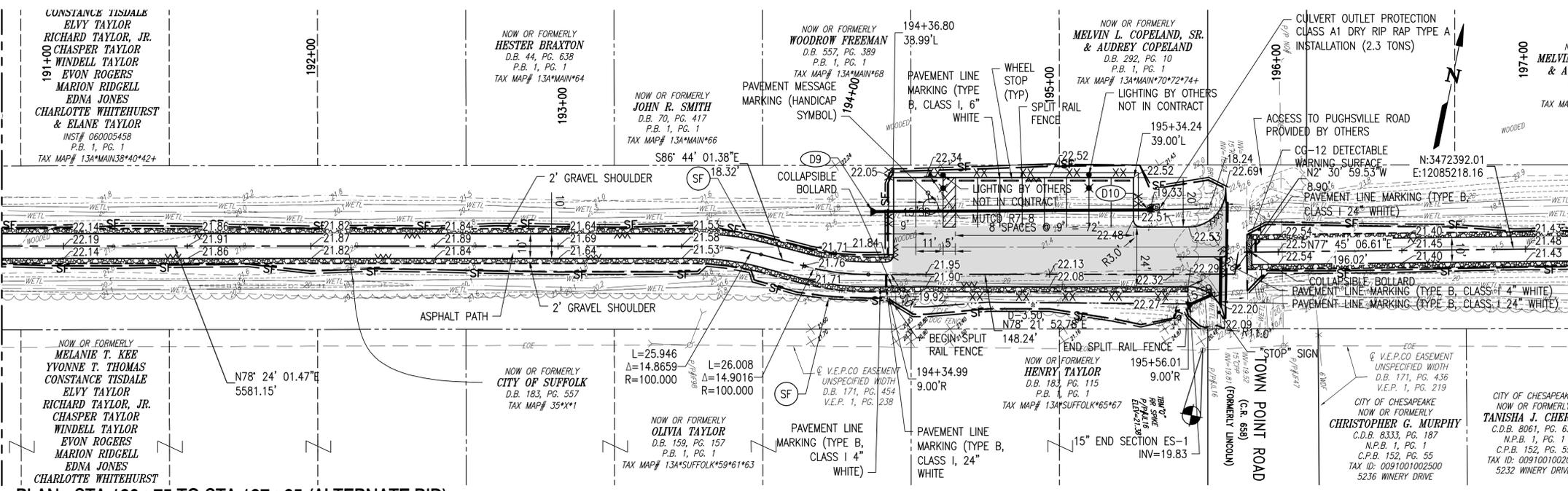


PLAN - STA 184+50 TO STA 190+75 (ALTERNATE BID)

SCALE: 1"=25'

MATCHLINE THIS SHEET

MATCHLINE SEE SHEET C16



PLAN - STA 190+75 TO STA 197+25 (ALTERNATE BID)

SCALE: 1"=25'

DRAINAGE SCHEDULE

- (D9) 15" END SECTION ES-1
N 3472354.81
E 12084961.52
INV. IN=19.66
- (D9) - (D10) 112LF - 15" RCP @ 0.30%
- (D10) 15" END SECTION ES-1
N 3472377.97
E 12085070.91
INV. OUT=19.33

GRAPHIC SCALE(S)



**SITE IMPROVEMENTS
STA 184+50 TO
STA 197+25
C15**

Scale checked by GDEP/ML on 04/26/2013 11:04am

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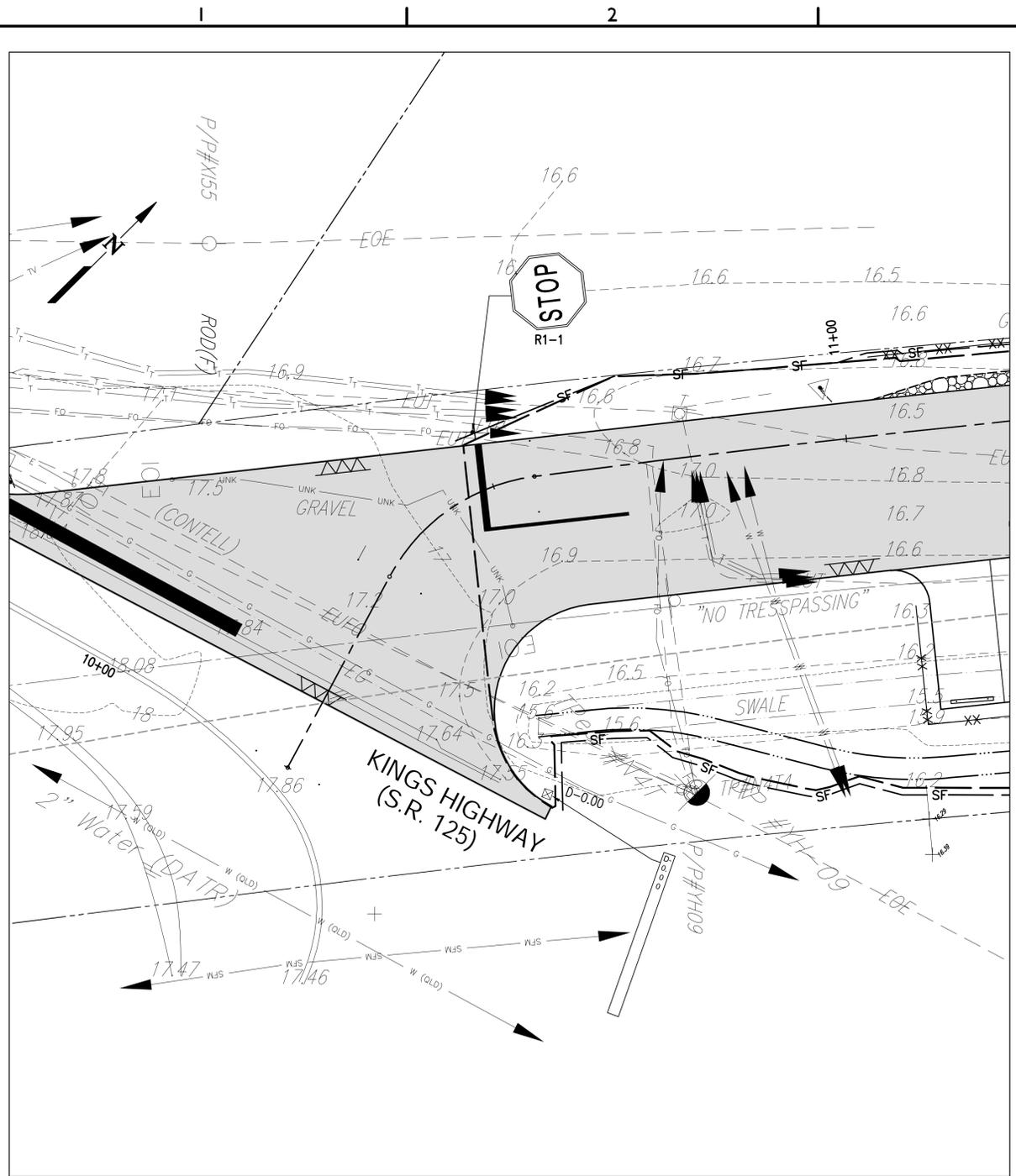


**SUFFOLK SEABOARD COASTLINE TRAIL
PHASE IV**

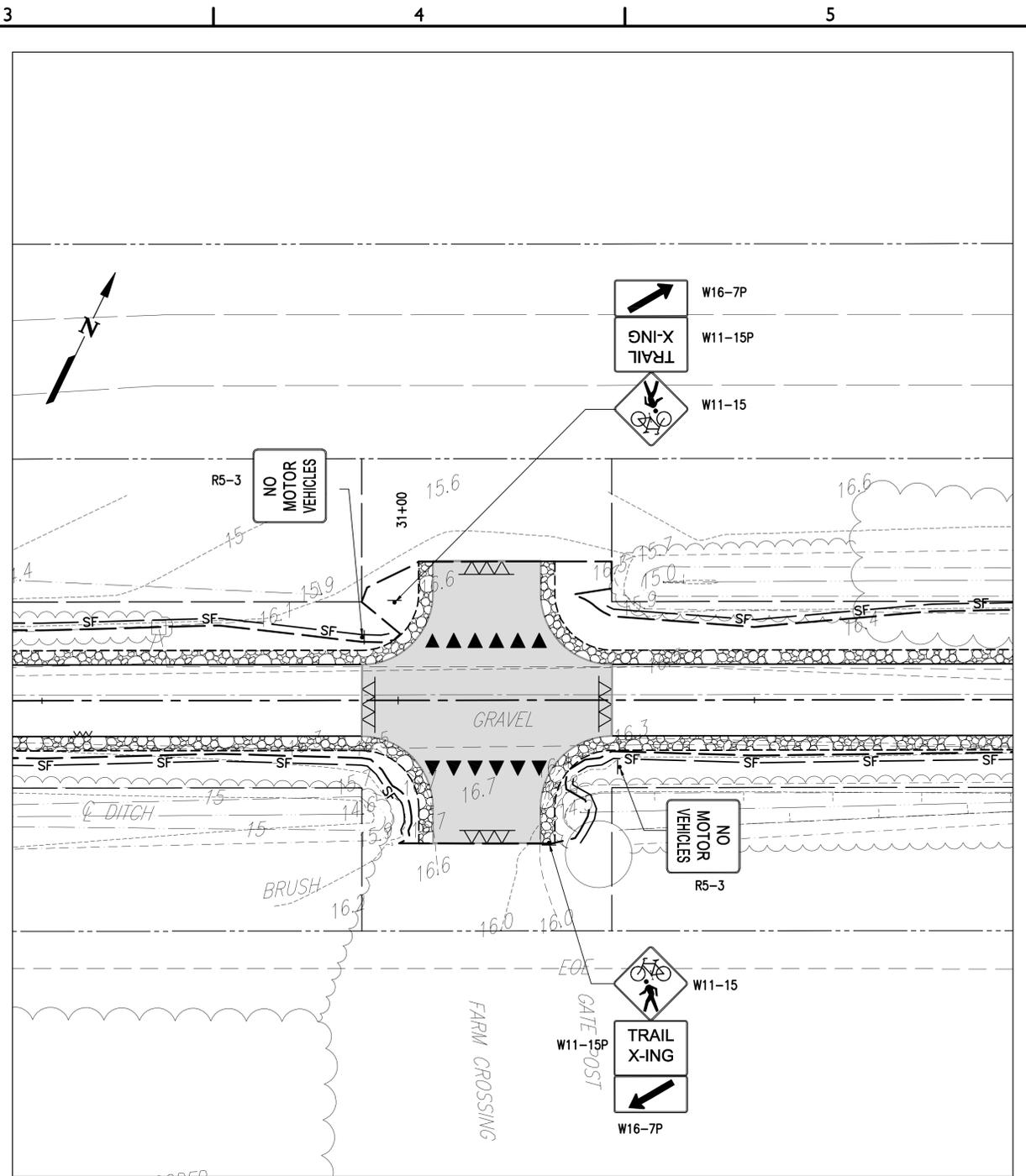
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CITY OF SUFFOLK, VIRGINIA

CN NO: 4549
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DESIGN: JPP
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REVISIONS
No. Date Description By

**INTERSECTION
IMPROVEMENTS -
INSET A AND
INSET B
C17**
SHEET 25 OF 37



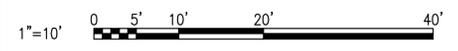
INSET A - SEE SHEET C1
SCALE: 1"=10'



INSET B - SEE SHEET C2
SCALE: 1"=10'

GENERAL NOTES

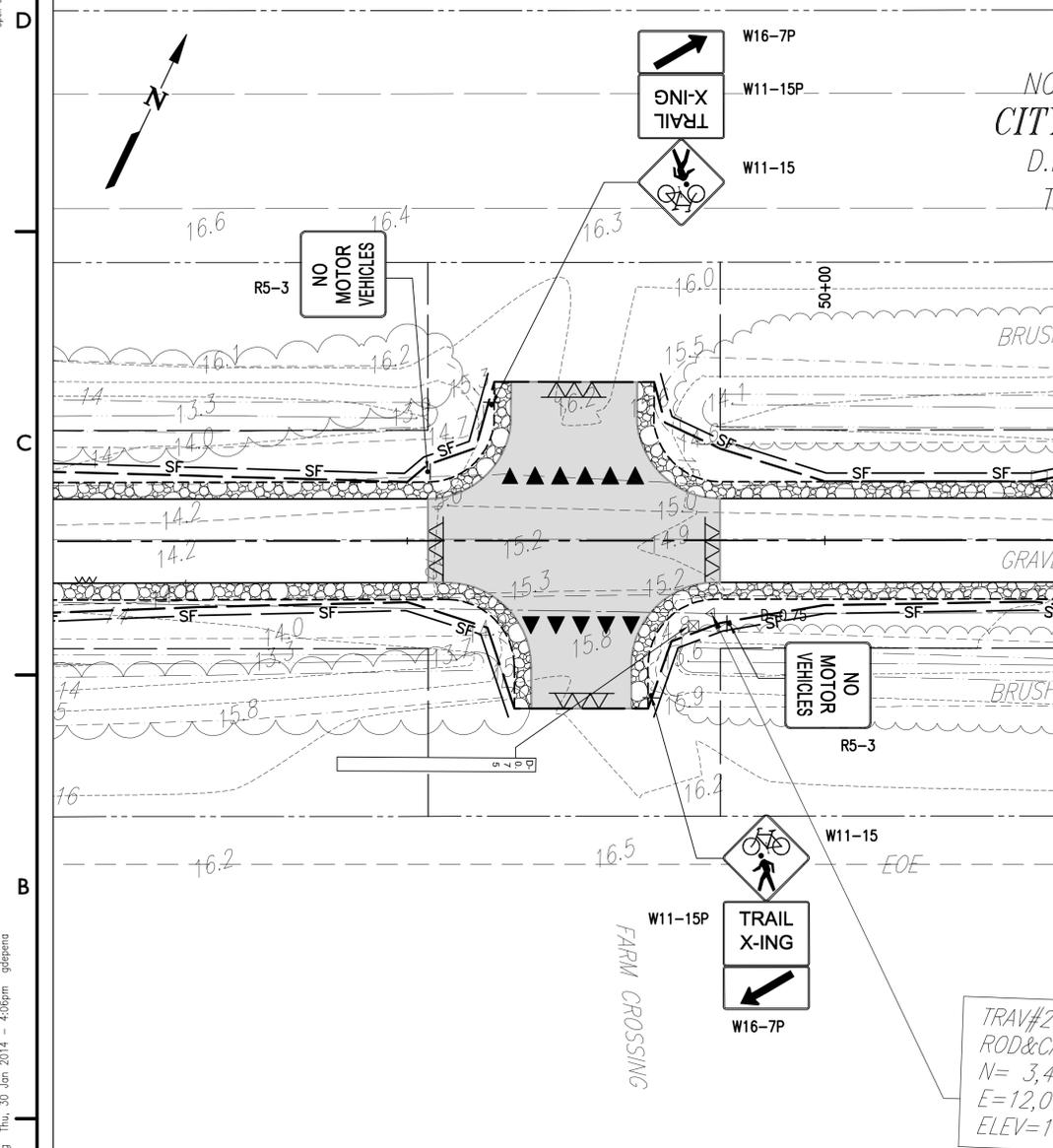
GRAPHIC SCALE(S)



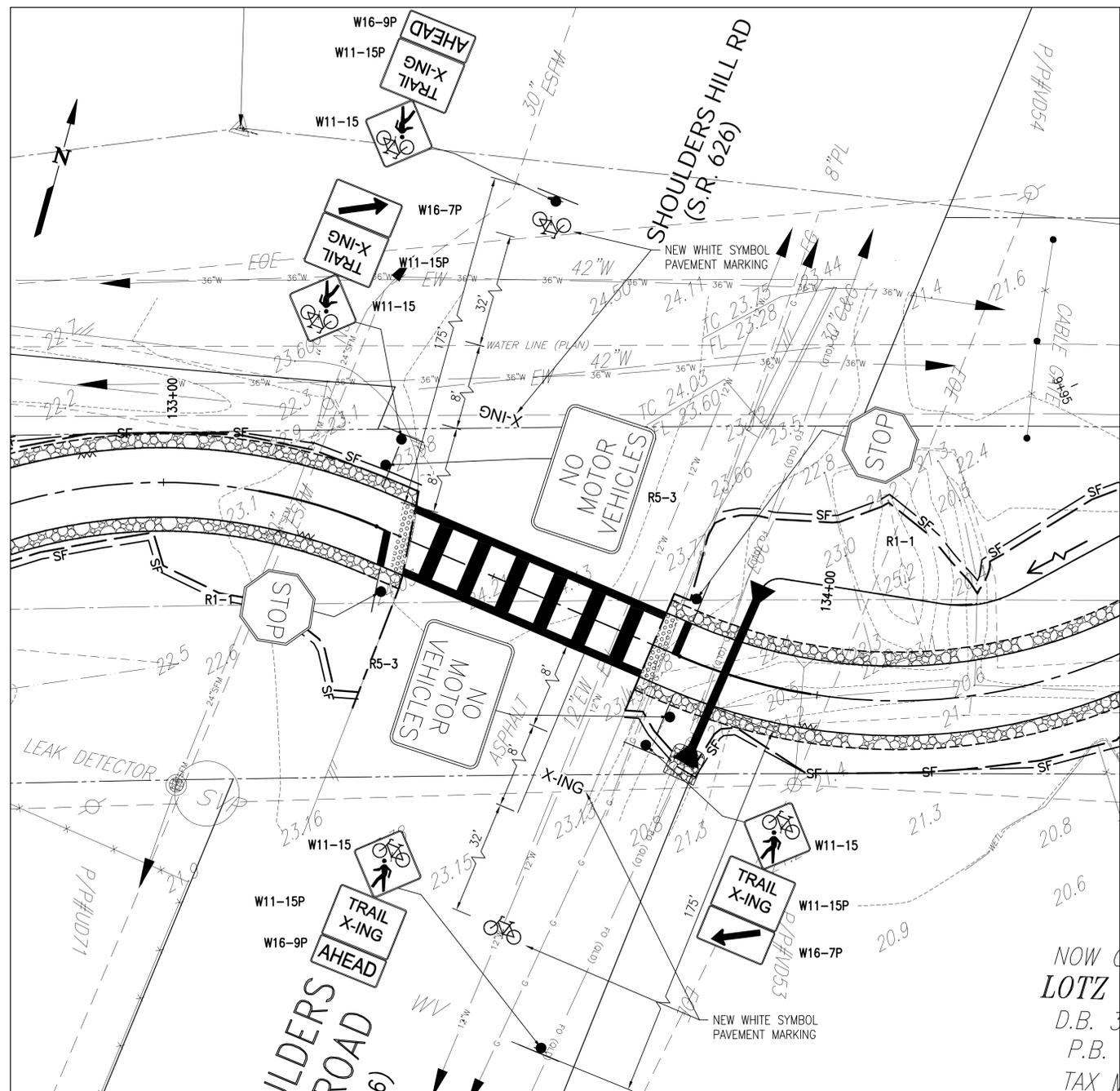
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RD BENNETT TRUST
UNKNOWN DEED
P.B. 3, PG. 77
TAX MAP# 20*7



INSET C - SEE SHEET C4
SCALE: 1"=10'



INSET D - SEE SHEET C10
SCALE: 1"=10'

GENERAL NOTES

GRAPHIC SCALE(S)



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PHASE IV

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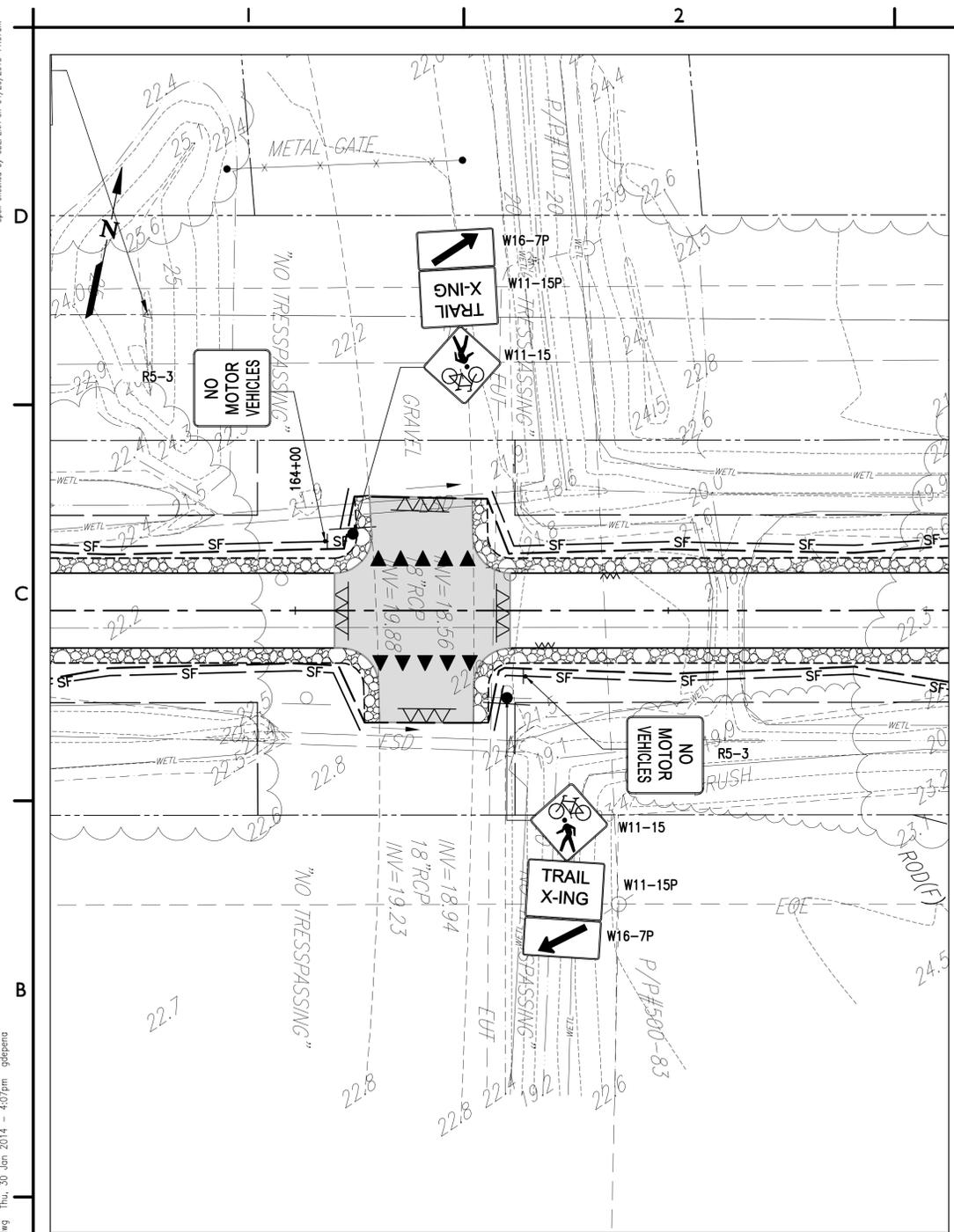
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 REVIEW: IDJ
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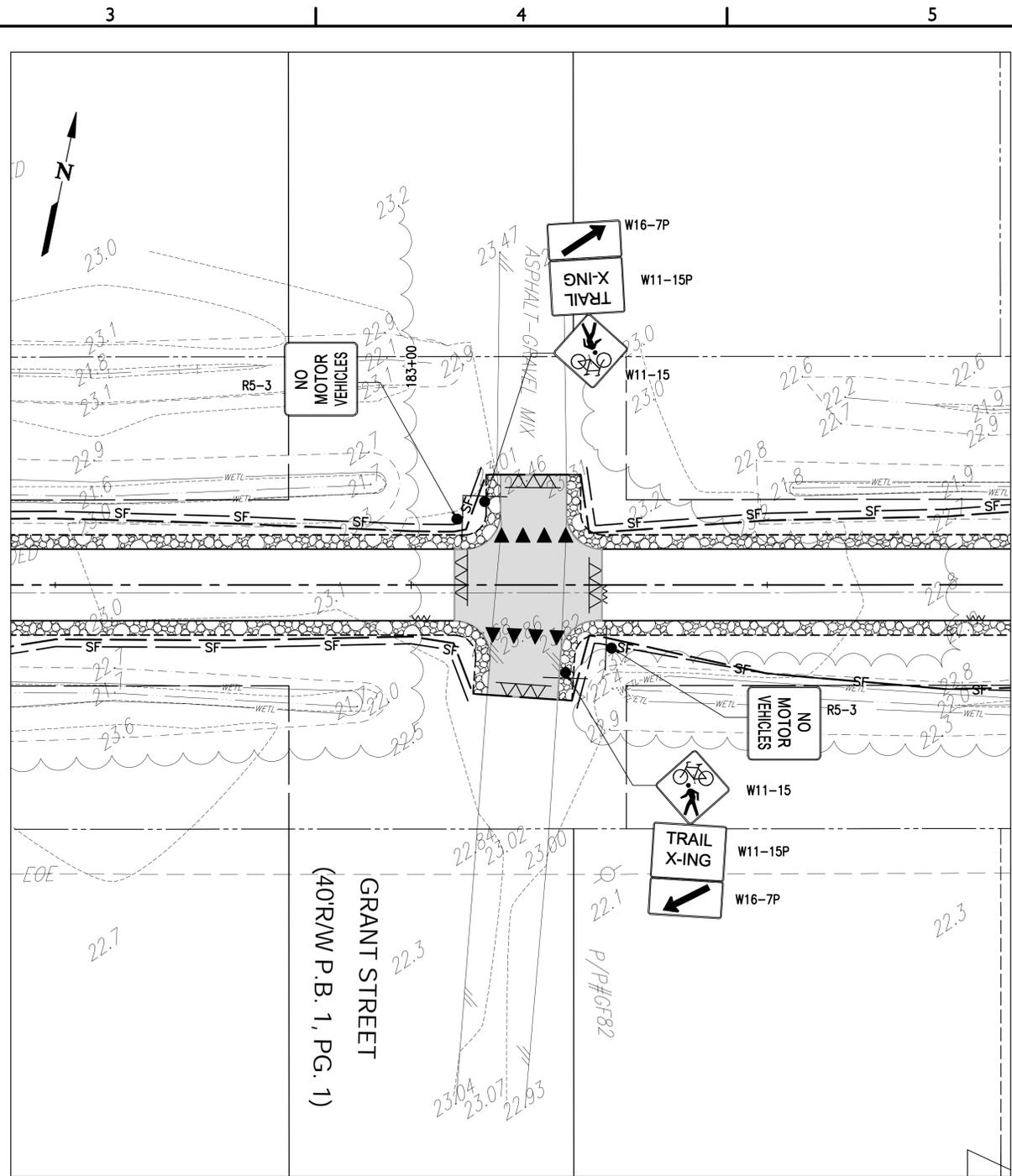
INTERSECTION
IMPROVEMENTS -
INSET C AND
INSET D
C18

Scale checked by GDEP/ML on 04/26/2013 11:07am

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INSET E - SEE SHEET C13
SCALE: 1"=10'



INSET F - SEE SHEET C14
SCALE: 1"=10'

GENERAL NOTES

GRAPHIC SCALE(S)



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PHASE IV**

DEPARTMENT OF PARKS AND RECREATION
CITY OF SUFFOLK, VIRGINIA

CN NO: 4549
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**INTERSECTION
IMPROVEMENTS -
INSET E AND
INSET F
C19**

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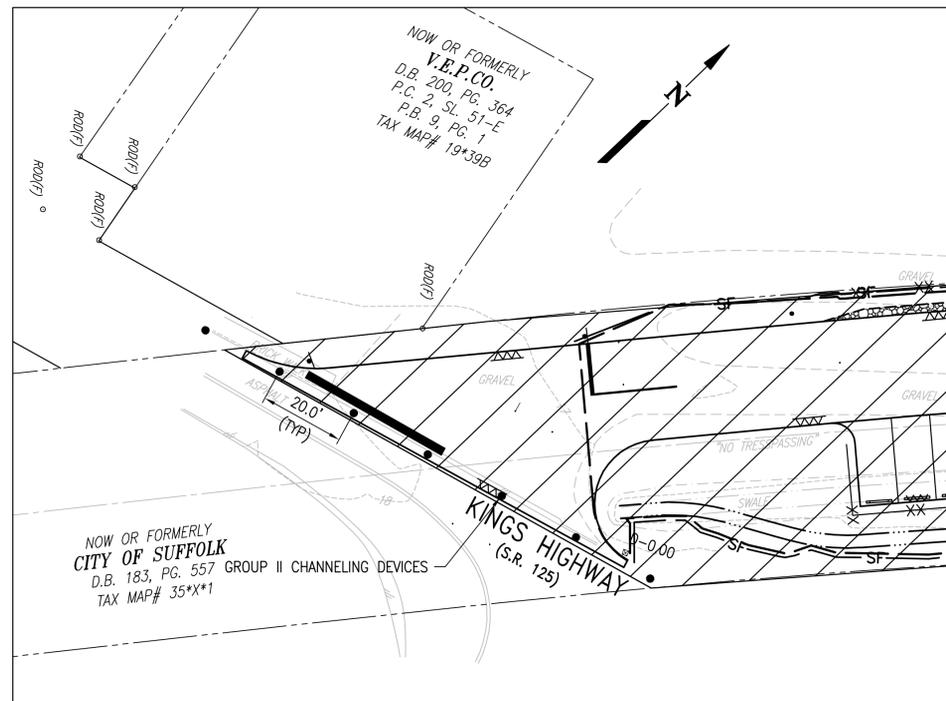
1 2 3 4 5

D

C

B

A

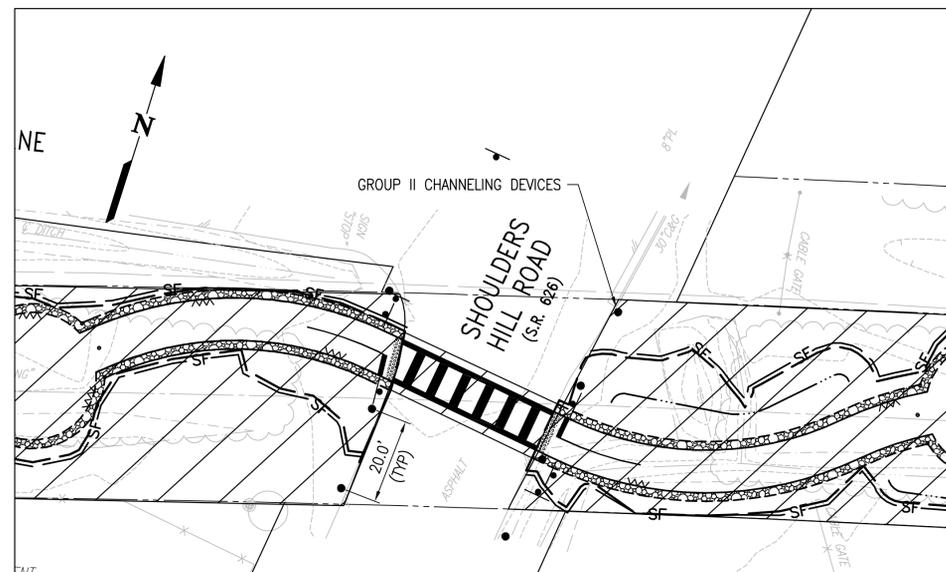


TYPICAL MAINTENANCE OF TRAFFIC PLAN - KINGS HIGHWAY INTERSECTION

SCALE: 1"=20'

KINGS HIGHWAY INTERSECTION - MAINTENANCE OF TRAFFIC

INTERSECTION WORK TTC 5.0 - SHOULDER OPERATION WITH MINOR ENCROACHMENT



TYPICAL MAINTENANCE OF TRAFFIC PLAN - SHOULDERS HILL ROAD INTERSECTION

SCALE: 1"=20'

SHOULDERS HILL ROAD - MAINTENANCE OF TRAFFIC

CROSSWALK TTC 23.0 - LANE CLOSURE ON A TWO-LANE ROADWAY USING FLAGGERS

INTERSECTION WORK TTC 5.0 - SHOULDER OPERATION WITH MINOR ENCROACHMENT

TRAFFIC MANAGEMENT NOTES

1. TRAFFIC CONTROL PLANS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE VIRGINIA WORK AREA PROTECTION MANUAL, INCLUDING ALL REVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST EDITION, INCLUDING ALL REVISIONS. SHOULD THERE BE A DISCREPANCY WHICHEVER IS MORE RESTRICTIVE SHALL GOVERN.
2. MAINTAIN ACCESS TO ALL COMMERCIAL AND RESIDENTIAL ENTRANCES AND ALL SIDE STREET INTERSECTIONS AT ALL TIMES. PROVIDE ACCESS FOR EMERGENCY VEHICLES, SCHOOL BUSES AND SERVICE VEHICLES AT ALL TIMES.
3. DURING ALL HOURS OF DARKNESS, TYPE A WARNING LIGHTS SHALL BE USED ON DRUMS AND BARRICADES.
4. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF PANEL LEGEND LAYOUT TO THE CITY PROJECT MANAGER PRIOR TO SIGN FABRICATION.
5. SIGN SPACING DISTANCE SHALL BE 350' - 500'. USE 36" X 36" SIGNS IN LIEU OF 48" X 48" SIGNS ONLY WHERE SPACE IS LIMITED.
6. FOR SIGNS THAT ARE NON-STANDARD PER THE MUTCD, THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF PANEL LEGEND LAYOUT TO THE CITY PROJECT MANAGER PRIOR TO SIGN FABRICATION.
7. DURING NON-CONSTRUCTION HOURS, EXCAVATED AREAS TO BE BACKFILLED SHALL BE SECURED AND PROTECTED BY USING APPROVED SAFETY DEVICES OR MATERIALS PER VDOT STANDARDS. AT NIGHT, EXCAVATED AREAS ARE TO BE DELINEATED WITH LIGHTED CHANNELIZING DEVICES.
8. REFERENCE SHEET C22 FOR THE TTC DETAILS.
9. ANY TRAFFIC CONTROL DEVICES INCLUDING, BUT NOT LIMITED TO PAVEMENT MARKINGS, SIGNAGE, AND TRAFFIC SIGNAL EQUIPMENT DAMAGED OR DESTROYED BY THE CONTRACTOR SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
10. THE CONTRACTOR SHALL CHECK ALL TRAFFIC CONTROL EQUIPMENT BEFORE, DURING, AND AFTER EACH WORK DAY TO ENSURE PROPER OPERATION. ON WEEKENDS, HOLIDAYS, AND NON-WORKING DAYS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING THE TRAFFIC CONTROL DEVICES DAILY FOR PROPER OPERATION.
11. IN ACCORDANCE WITH THE VIRGINIA OCCUPATIONAL SAFETY AND HEALTH STANDARDS (CONSTRUCTION INDUSTRIAL) 29 CFR, PART 1929, 1989 EDITION, ALL CONTRACTOR EMPLOYEES AND SUBCONTRACTOR(S) EMPLOYEES EXPOSED TO VEHICULAR TRAFFIC SHALL BE PROVIDED WITH AND REQUIRED TO WEAR WARNING VESTS MARKED WITH OR MADE OF REFLECTORIZED OR HIGH VISIBILITY MATERIALS.
12. IT IS NOT THE INTENT OF THE TRAFFIC MANAGEMENT PLANS TO ENUMERATE EVERY DETAIL WHICH MUST BE CONSIDERED IN THE CONSTRUCTION OF EACH STAGE, BUT ONLY TO SHOW THE GENERAL HANDLING OF TRAFFIC.

LEGEND



GRAPHIC SCALE(S)



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**SUFFOLK SEABOARD COASTLINE TRAIL
PHASE IV**

**DEPARTMENT OF PARKS AND RECREATION
CITY OF SUFFOLK, VIRGINIA**

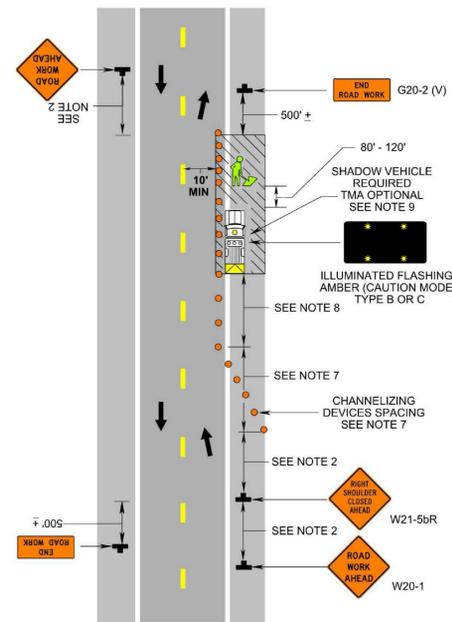
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**TRAFFIC
MANAGEMENT
PLAN AND
NOTES
C21**

SHEET 30 OF 37

Shoulder Operation with Minor Encroachment
(Figure TTC-5.0)



Typical Traffic Control
Shoulder Operation with Minor Encroachment
(Figure TTC-5.0)

- NOTES**
- Standard**
- On divided highways having a median wider than 8', right and left sign assemblies shall be required. See Note 1, TTC-4 for additional sign information.
- Guidance**
- Sign spacing should be 1300'-1500' for Limited Access highways. For all other roadways, the sign spacing should be 500'-800' where the posted speed limit is greater than 45 mph, and 350'-500' where the posted speed limit is 45 mph or less.
 - When work takes up part of a lane on a high volume roadway, vehicular traffic volumes, vehicle mix, speed and capacity should be analyzed to determine whether the affected lane should be closed. Unless the lane encroachment analysis permits a remaining lane width of 10 feet, the lane should be closed. If the closure operation is on a Limited Access highway, the minimum lane width is 11 feet.
- Option:**
- The ROAD WORK AHEAD (W20-1) sign on an intersecting roadway may be omitted where drivers emerging from that roadway will encounter another advance warning sign prior to this activity area.
- Standard:**
- A shadow vehicle with either an arrow board operating in the caution mode, or at least one high-intensity amber rotating, flashing, oscillating, or strobe light shall be parked 80' - 120' in advance of the first work crew.
 - Vehicle hazard warning signals shall not be used instead of the vehicle's high-intensity amber rotating, flashing, oscillating, or strobe lights. Vehicle hazard warning signals can be used to supplement high-intensity amber rotating, flashing, oscillating, or strobe lights.
 - Taper length (L) and channelizing device spacing shall be as follows:

Speed Limit (mph)	Taper Length (L)			
	9	10	11	12
25	95	105	115	125
30	135	150	165	180
35	185	205	225	245
40	240	270	295	320
45	405	450	495	540
50	450	500	550	600
55	495	550	605	660
60	540	600	660	720
65	585	650	715	780
70	630	700	770	840

Location	Channelizing Device Spacing	
	Speed Limit (mph) 0-35	36+
Transition Spacing	20'	40'
Travelway Spacing	40'	80'
Construction Access*	80'	120'

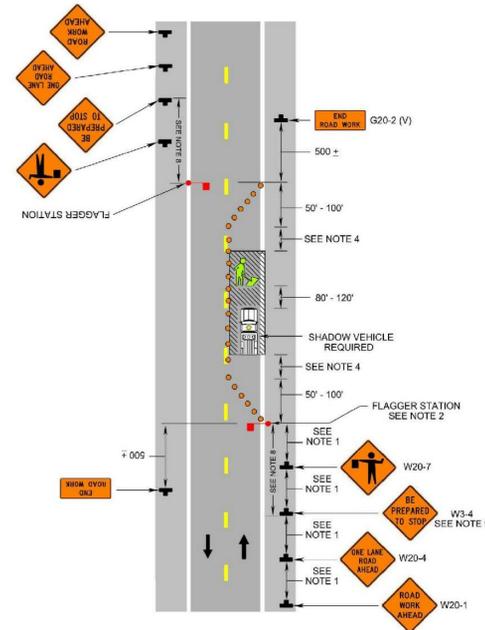
* Spacing may be increased to this distance, but shall not exceed one access per 1/4 mile.

On roadways with paved shoulders having a width of 8 feet or more, channelizing devices shall be used to close the shoulder in advance of the merging taper to direct vehicular traffic to remain within the traveled way.

- The buffer space length shall be as shown in Table 6H-3 on Page 6H-5 for the posted speed limit.
- A truck-mounted attenuator (TMA) shall be used on Limited Access highways and multi-lane roadways with posted speed limit equal to or greater than 45 mph.
- When a side road intersects the highway within the temporary traffic control zone, additional traffic control devices shall be placed as needed.

TTC 5.0
NO SCALE

Lane Closure on a Two-Lane Roadway Using Flaggers
(Figure TTC-23.0)



Typical Traffic Control
Lane Closure on a Two-Lane Roadway Using Flaggers
(Figure TTC-23.0)

- NOTES**
- Guidance:**
- Sign spacing distance should be 350'-500' where the posted speed limit is 45 mph or less, and 500'-800' where the posted speed limit is greater than 45 mph.
 - Care should be exercised when establishing the limits of the work zone to insure maximum possible sight distance in advance of the flagger station and transition, based on the posted speed limit and at least equal to or greater than the values in Table 6H-3. Generally speaking, motorists should have a clear line of sight from the graphic flagger symbol sign to the flagger.
- Option:**
- Where Right-of-Way or geometric conditions prevent the use of 48" x 48" signs, 36" x 36" signs may be used.
- Standard:**
- Flagging stations shall be located far enough in advance of the work space to permit approaching traffic to reduce speed and/or stop before passing the work space and allow sufficient distance for departing traffic in the left lane to return to the right lane before reaching opposing traffic (see Table 6H-3 on Page 6H-5).
 - All flaggers shall be state certified and have their certification card in their possession when performing flagging duties (see Section 6E.01, Qualifications for Flaggers).
 - Cone spacing shall be as follows:

Location	Posted Speed Limit (mph)	
	0-35	36+
Transition Spacing	20'	40'
Travelway Spacing	40'	80'

- A shadow vehicle with at least one high intensity amber rotating, oscillating, or strobe light shall be parked 80'-120' in advance of the first work crew.
- Option:**
- A supplemental flagger may be required in this area to give advance warning of the operation ahead by slowing approaching traffic prior to reaching the flagger station or queued traffic.
- Guidance:**
- If the queue of traffic reaches the BE PREPARED TO STOP (W3-4) sign, then the signs should be readjusted at greater distances.
 - When a highway-rail crossing exists within or upstream of the transition area and it is anticipated that queues resulting from the lane closure might extend through the highway-rail grade crossing, the temporary traffic control zone should be extended so that the transition area precedes the highway-rail crossing (see Figure TTC-36 for additional information on highway-rail crossings).
- Standard:**
- At night, flagger stations shall be illuminated, except in emergencies (see Section 6E.08).
- Option:**
- Cones may be eliminated when using a pilot vehicle operation or when the total roadway width is 20 feet or less.
 - For low-volume situations with short work zones on straight roadways where the flagger is visible to road users approaching from both directions, a single flagger, positioned to be visible to road users approaching from both directions, may be used (see Chapter 6E).

TTC 23.0
NO SCALE



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REVIEW: IDJ

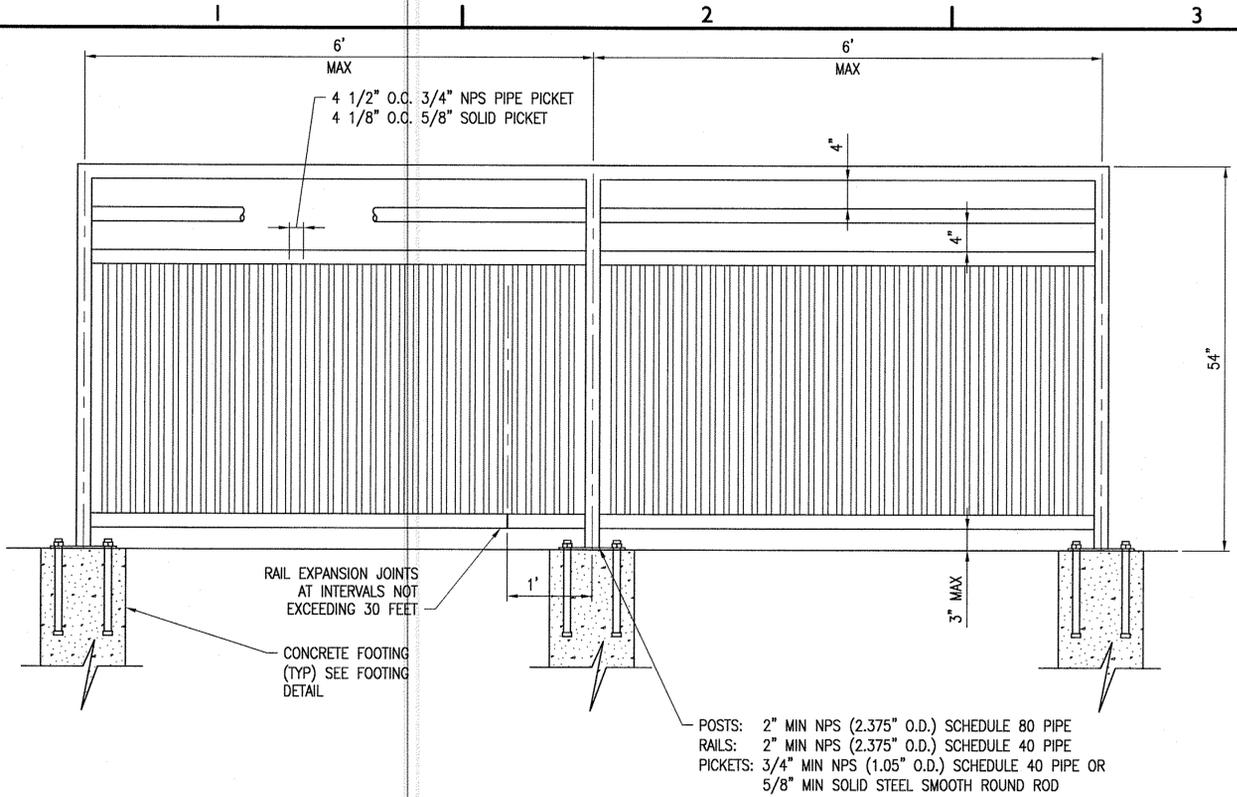
REVISIONS
No. Date Description By

TRAFFIC
MANAGEMENT
DETAILS

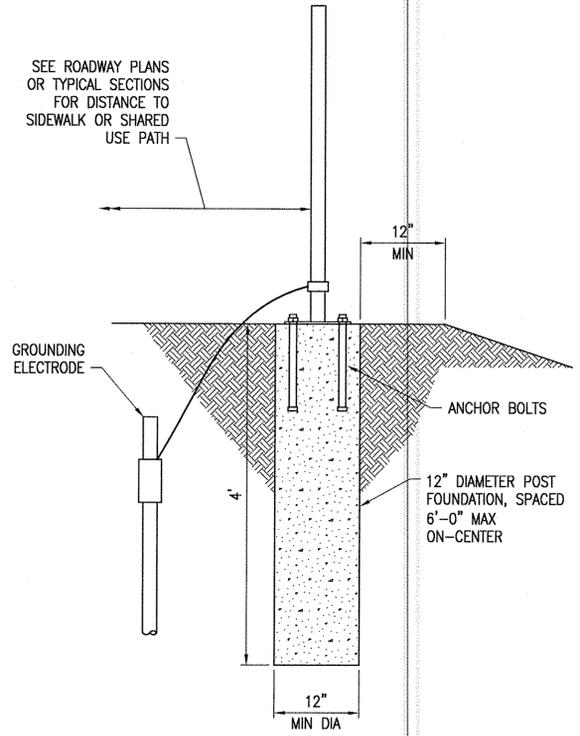
C22

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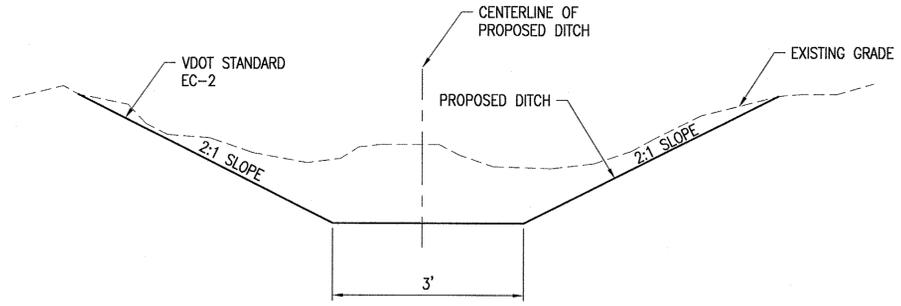
ELEVATION VIEW



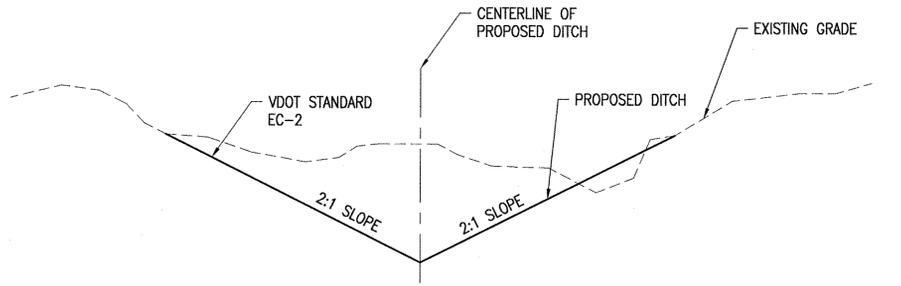
FOOTING & GROUND DETAIL

HR-1 TYPE III BICYCLE RAILING
NO SCALE

- NOTES:**
1. THE CONTRACTOR SHALL SUBMIT DRAWINGS DETAILING ALL ASPECTS OF FABRICATION AND INSTALLATION OF RAILING INCLUDING CONCRETE FOUNDATIONS FOR APPROVAL BY THE ENGINEER PRIOR TO INSTALLATION. SHOP DRAWINGS SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER, HOLDING A VALID LICENSE TO PRACTICE ENGINEERING IN THE COMMONWEALTH OF VIRGINIA.
 2. ALL RAILING COMPONENTS AND FASTENERS SHALL BE GALVANIZED IN ACCORDANCE WITH THE CURRENT ROAD AND BRIDGE SPECIFICATIONS. TO ACHIEVE A UNIFORM COATING ON ALL SURFACES VENTING AND DRAINAGE HOLES FOR GALVANIZING SHALL BE INCLUDING IN THE SHOP DRAWINGS.
 3. ALL FASTENERS SHALL BE IN ACCORDANCE WITH ASTM A307, ASTM A563 AND ASTM F844. ALL ANCHOR BOLTS SHALL BE IN ACCORDANCE WITH AASHTO M314, GRADE 36.
 4. A CHEMICAL ANCHOR SYSTEM FROM VDOT'S APPROVED MATERIAL LIST MAY BE USED IN LUI OF CAST IN PLACE ANCHORS AND SHALL BE INCLUDED IN THE SHOP DRAWINGS.
 5. ALL POSTS AND PICKETS SHALL BE SET PLUMB.
 6. RAILINGS SHALL BE GROUNDED AND EFFECTIVELY BONDED. GROUNDING MATERIALS INSTALLATION TO BE IN ACCORDANCE WITH STD FE-6.
 7. COMMERCIALY AVAILABLE RAILING SYSTEMS MAY BE USED IN LUI OF DESIGNING AND FABRICATING THE RAILING. DOCUMENTATION FROM THE MANUFACTURER VERIFYING THAT PROJECT REQUIREMENTS ARE MET WITH THE RAILING SYSTEM SHALL BE SUBMITTED WITH THE INSTALLATION DRAWINGS AND APPROVED BY THE ENGINEER IN ACCORDANCE WITH NOTE 1.
 8. HANDRAIL TO BE IN ACCORDANCE WITH THE LATEST EDITION OF THE VIRGINIA UNIFORM STATEWIDE BUILDING CODE.
 9. THIS HANDRAIL IS TO BE USED ONLY AS A PROTECTION FOR PEDESTRIANS/BICYCLISTS AND SHOULD NOT BE PLACED IN ANY LOCATION WHERE IT MIGHT BE SUBJECT TO ANY VEHICULAR IMPACT. FOR VEHICULAR PROTECTION STANDARD GUARDRAIL SHOULD BE USED.



TYPICAL SECTION OF PROPOSED DITCH SHEET C1
NO SCALE



TYPICAL SECTION OF PROPOSED DITCH SHEET C15
NO SCALE



**SUFFOLK SEABOARD COASTLINE TRAIL
PHASE IV**

DEPARTMENT OF PARKS AND RECREATION
CITY OF SUFFOLK, VIRGINIA

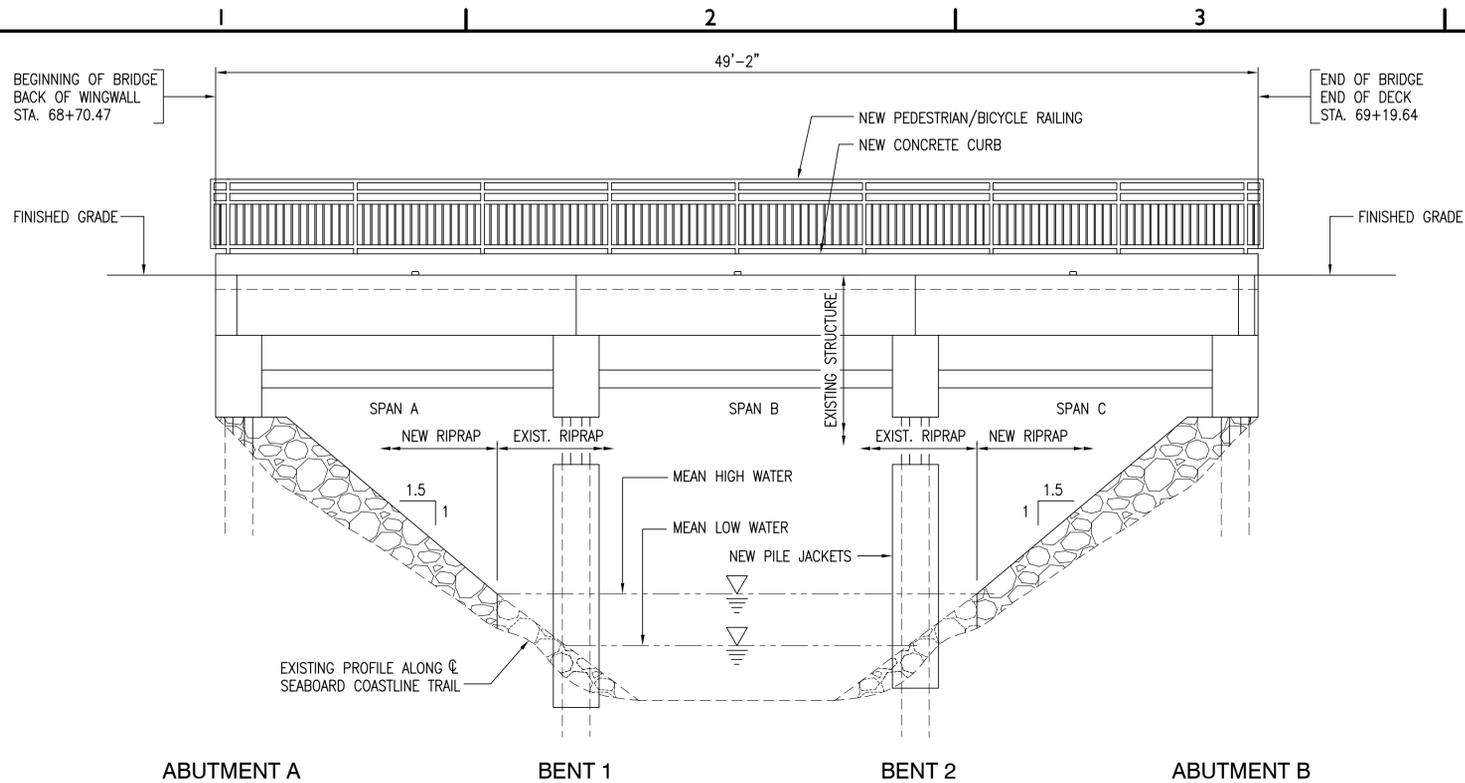
CN NO: 4549
DATE: 06/04/14
DESIGN: JPP
DRAWN: GMD
REVIEW: IDJ
REVISIONS

No.	Date	Description	By

DETAILS

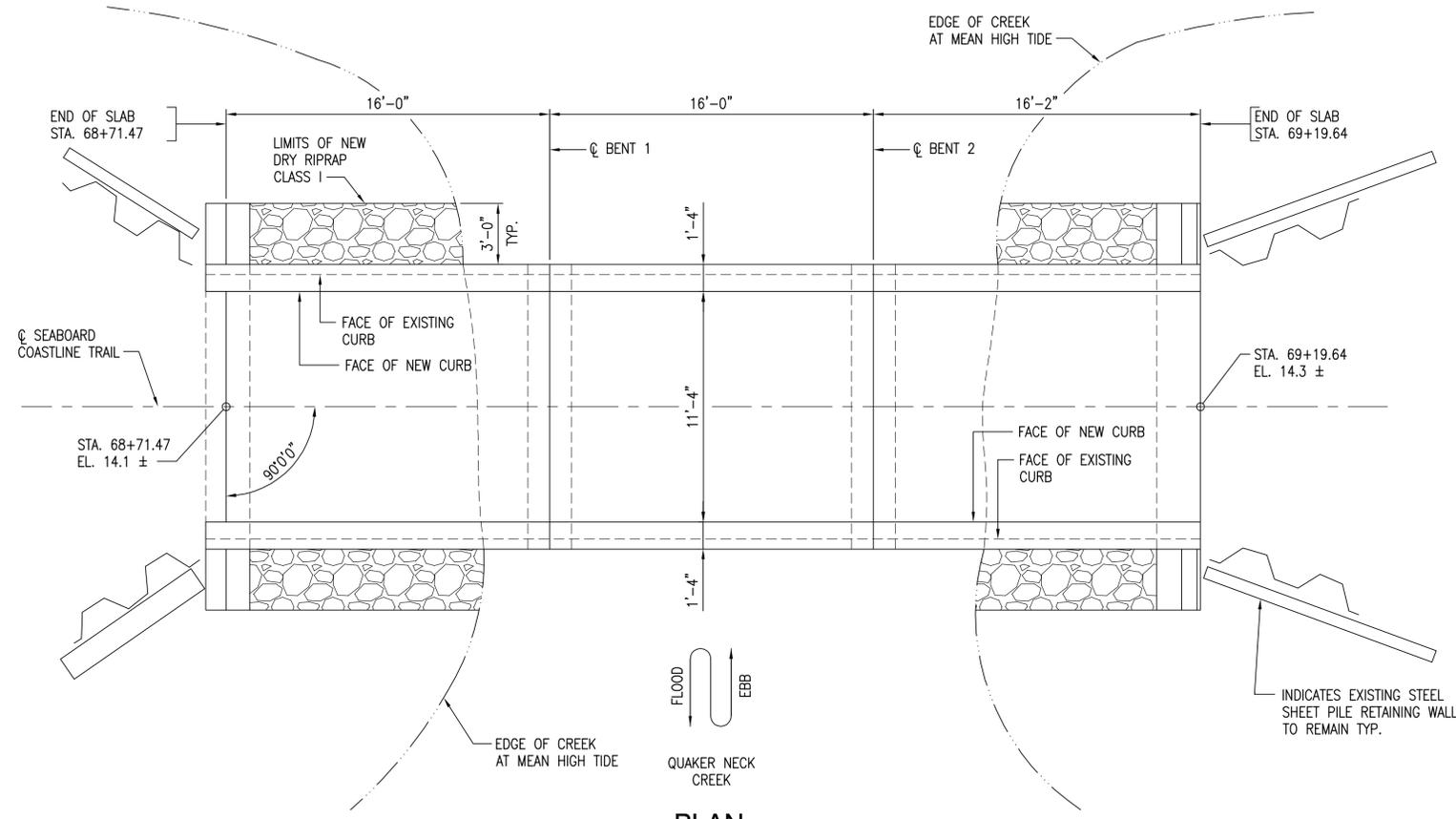
C23

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ABUTMENT A BENT 1 BENT 2 ABUTMENT B

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



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

GENERAL NOTES:

WIDTH: 11'-4" FACE-TO-FACE OF CURBS.
 SPAN LAYOUT: 16'-16'-16' REINFORCED CONCRETE SLAB UNITS.
 SPECIFICATIONS:
 CONSTRUCTION - VIRGINIA DEPARTMENT OF TRANSPORTATION ROAD AND BRIDGE SPECIFICATIONS, 2007.
 DESIGN - LRFD GUIDE SPECIFICATIONS FOR DESIGN OF PEDESTRIAN BRIDGES, 2nd EDITION 2009.
 STANDARDS - VIRGINIA DEPARTMENT OF TRANSPORTATION ROAD AND BRIDGE STANDARDS, 2008
 THESE PLANS ARE INCOMPLETE UNLESS ACCOMPANIED BY THE TECHNICAL SPECIFICATIONS AND SPECIAL PROVISIONS INCLUDED IN THE CONTRACT DOCUMENTS.
 THIS PROJECT IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE VIRGINIA DEPARTMENT OF TRANSPORTATION WORK AREA PROTECTION MANUAL, JUNE 2011 AND LATEST REVISIONS.
 ALL ITEMS SHOWN ON THESE DRAWINGS ARE EXISTING UNLESS OTHERWISE NOTED.
 THE DIMENSIONS GIVEN FOR THE EXISTING BRIDGE STRUCTURE AND ASSOCIATED COMPONENTS INDICATED ARE APPROXIMATE AND ARE GIVEN FOR ESTIMATING PURPOSES ONLY. DETAIL WORK SHALL BE BASED ON CONTRACTOR'S FIELD MEASUREMENTS.
 THE CONTRACTOR SHALL THOROUGHLY FAMILIARIZE HIMSELF WITH THE PLANS AND EXISTING STRUCTURE, INCLUDING THE VERIFICATION OF ALL PERTINENT DIMENSIONS BEFORE PROCEEDING WITH THE WORK. DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER.
 THE CONTRACTOR SHALL COORDINATE THE LOCATION AND LIMITS OF THE CONTRACTOR'S LAY DOWN AREA WITH THE CITY OF SUFFOLK DEPARTMENT OF PARKS AND RECREATION.
 REPAIR AREAS SHOWN ON PLAN ARE APPROXIMATE. ACTUAL REPAIR AREAS FOR PAYMENT WILL BE FIELD VERIFIED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO THE APPLICATION OF REPAIR MATERIAL.
 THE CONTRACTOR SHALL PROTECT FROM DAMAGE ALL UTILITIES LOCATED WITHIN THE CONSTRUCTION AREA FOR THE DURATION OF THE PROJECT.
 EXISTING CONSTRUCTION THAT IS TO REMAIN IN PLACE, BE REUSED, OR REMAIN THE PROPERTY OF THE OWNER AND IS DAMAGED AS A RESULT OF THE CONTRACTOR'S OPERATION SHALL BE REPLACED WITH NEW OR BE REPAIRED TO IT'S ORIGINAL CONDITION IN ACCORDANCE WITH THE SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER AT NO ADDITIONAL COST TO THE OWNER.

SCOPE OF WORK:

- REPAIR SPALLED/DELAMINATED CONCRETE ON UNDERSIDE OF DECK (SOFFIT) AND PILE BENTS, SEE SHEETS S3 & S4.
- INSTALL NEW CLASS I DRY RIPRAP AT ABUTMENTS, SEE SHEET S2.
- INSTALL PILE JACKETS ON ALL PILES AT BENTS 1 & 2, SEE SHEET S4.
- INSTALL NEW CONCRETE CURB AND PEDESTRIAN/BICYCLE RAILING, SEE SHEET S5.
- REMOVE EXISTING GRAVEL BASE AND INSTALL NEW ASPHALT BASE COURSE AND PAVING, SEE SHEETS S2 & S5
- INSTALL WATERPROOFING MEMBRANE SEALANT OVER ALL EXPANSION JOINTS, SEE SHEET S3.
- FOR ESTIMATED QUANTITIES SEE SHEET S2.

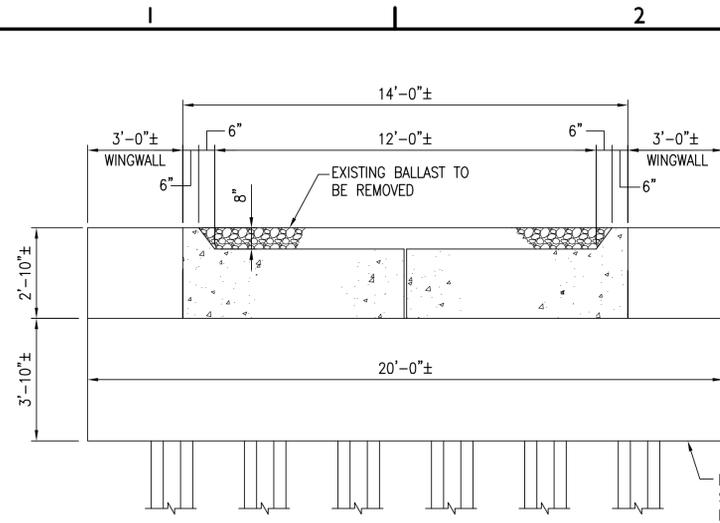


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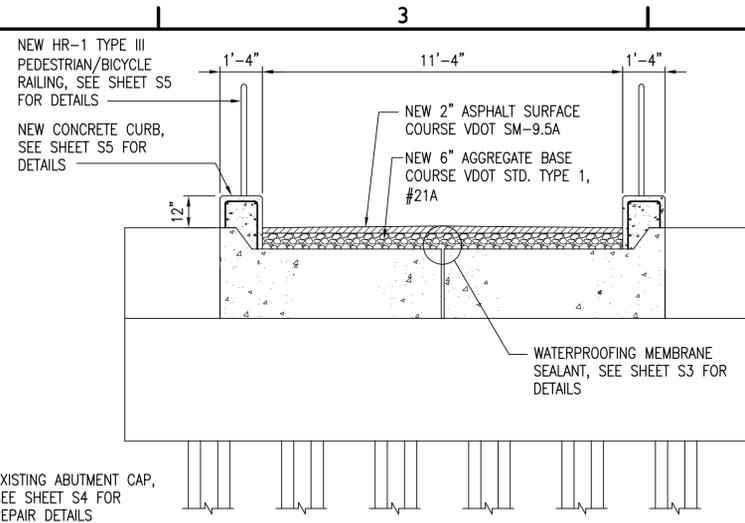
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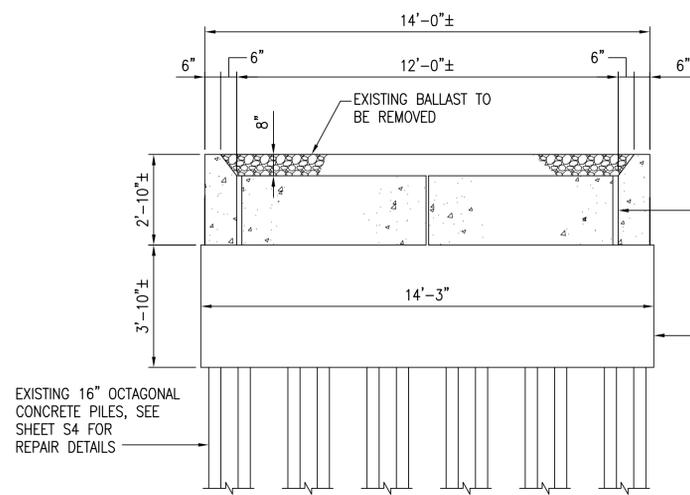
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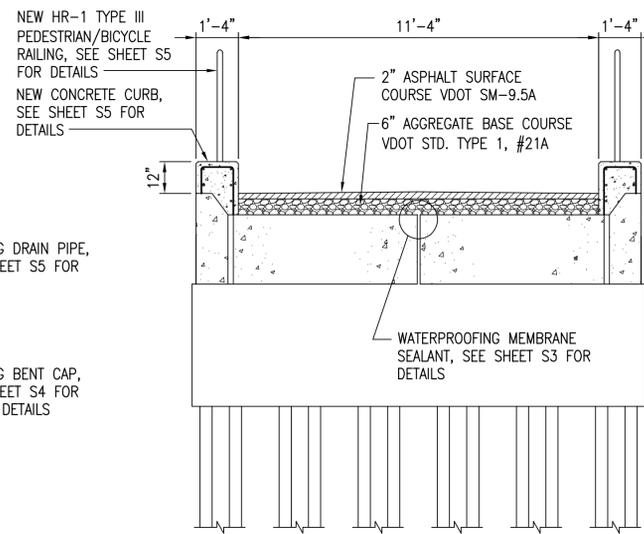
EXISTING TRANSVERSE SECTION AT ABUTMENTS
SCALE: 3/8"=1'-0"



NEW TRANSVERSE SECTION AT ABUTMENTS
SCALE: 3/8"=1'-0"



EXISTING TRANSVERSE SECTION AT BENTS
SCALE: 3/8"=1'-0"



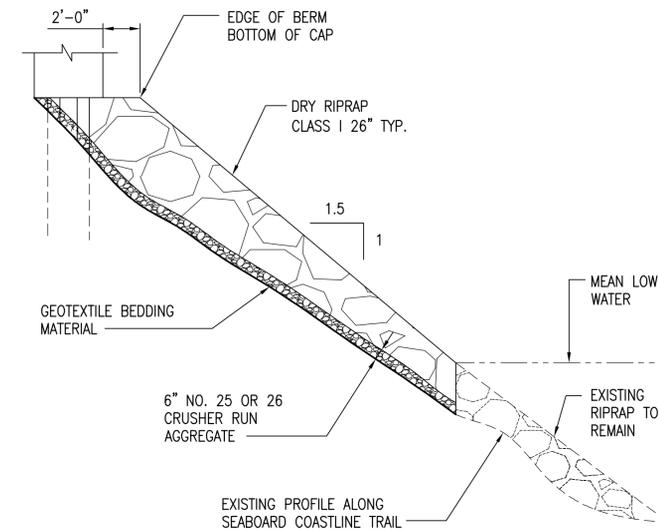
NEW TRANSVERSE SECTION AT BENTS
SCALE: 3/8"=1'-0"

ESTIMATED QUANTITIES					
	SHOTCRETE CLASS A	HR-1 TYPE III PEDESTRIAN/BICYCLE RAILING *	F.R.P. JACKET 16" OCTAGONAL PILES	WATERPROOFING MEMBRANE SEALANT	DRY RIPRAP CLASS I 26"
	SF	LF	LF	LF	TON
SUPERSTRUCTURE	145	98	—	74	—
ABUTMENT A	11	—	—	—	45
BENT 1	13	—	66	—	—
BENT 2	13	—	60	—	—
ABUTMENT B	34	—	—	—	45
TOTAL	216	98	126	74	90

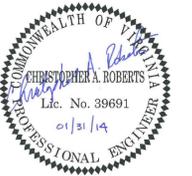
MOBILIZATION - LUMP SUM

* PAY ITEM SHALL INCLUDE ALL MATERIALS, TOOLS, LABOR, EQUIPMENT AND INCIDENTALS REQUIRED TO INSTALL THE NEW CONCRETE CURB, PEDESTRIAN/BICYCLE RAILING, DRAIN PIPES, AND REINFORCING STEEL.

PAY ITEMS FOR REMOVAL OF EXISTING BALLAST, NEW AGGREGATE BASE COURSE AND ASPHALT PAVING ARE INCLUDED IN THE CIVIL PLANS.



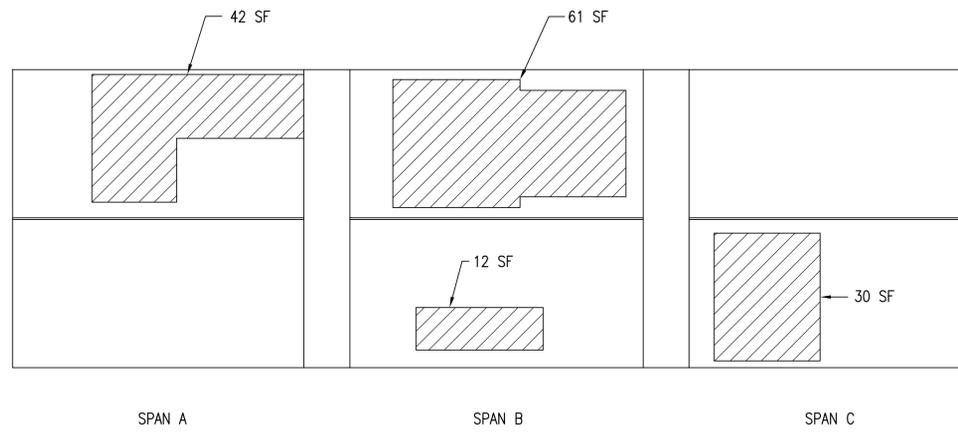
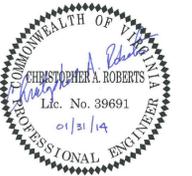
SLOPE PROTECTION DETAIL
NOT TO SCALE



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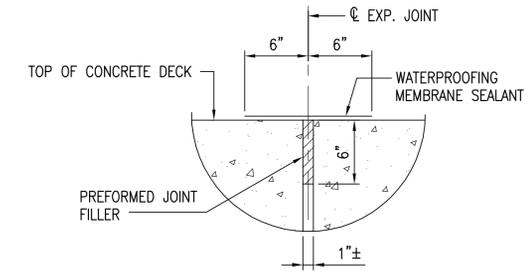
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ABUTMENT A BENT 1 BENT 2 ABUTMENT B
REFLECTED DECK PLAN

LEGEND

INDICATES REPAIR AREA ON UNDERSIDE (SOFFIT) OF DECK SLAB



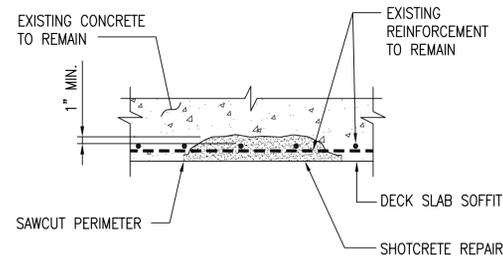
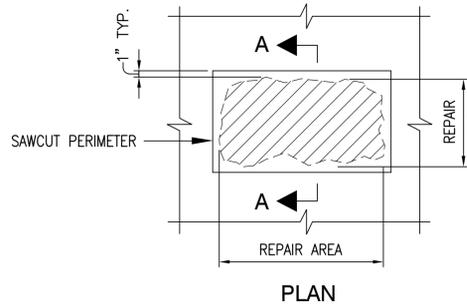
EXPANSION JOINT WATERPROOFING DETAIL
SCALE: 1 1/2"=1'-0"

EXPANSION JOINT WATERPROOFING NOTES:

1. WATERPROOFING MEMBRANE SHALL BE INSTALLED IN ACCORDANCE WITH VDOT ROAD AND BRIDGE SPECIFICATION, SECTION 416.03(b).
2. EXISTING CONCRETE SURFACE SHALL BE THOROUGHLY CLEANED OF OILS, DUST, MOISTURE OR LOOSE FOREIGN MATTER PRIOR TO INSTALLING MEMBRANE SEALANT.
3. CONTRACTOR SHALL SUBMIT WATERPROOFING MEMBRANE TO BE USED OVER EXISTING EXPANSION JOINT FOR APPROVAL BY THE ENGINEER.
4. EXPANSION JOINTS OCCUR OVER EACH PILE BENT AND FULL LENGTH DOWN THE CENTER OF THE STRUCTURE BETWEEN DECK SECTIONS.
5. WATERPROOFING MEMBRANE OVER EACH PILE BENT SHALL EXTEND 6" UP FACE OF NEW CURB.

DECK SLAB SOFFIT REPAIR NOTES:

1. ALL DECK SLAB SOFFIT CONCRETE SURFACE REPAIRS SHALL BE MADE WITH SHOTCRETE IN ACCORDANCE WITH SECTION 412.03 (f) OF VDOT ROAD AND BRIDGE SPECIFICATIONS.
2. THE CONTRACTOR SHALL VERIFY, MARK AND RECORD THE EXTENT OF THE REPAIR LOCATIONS SHOWN ON THE REFLECTED DECK PLAN AND SUBMIT THEM TO THE ENGINEER FOR APPROVAL.
3. THE DEPTH OF SHOTCRETE REPAIRS SHALL EXTEND AT LEAST 1" PAST THE PRIMARY REINFORCING STEEL OR TO SOUND CONCRETE MATRIX WHICHEVER IS GREATER. THE DEPTH AND EXTENT OF REPAIRS SHALL BE AS DIRECTED BY THE ENGINEER.
4. THE PERIMETER OF THE AREAS TO BE REPAIRED SHALL BE SAWCUT 1/2" DEEP MINIMUM. THE CONTRACTOR SHALL TAKE CARE AND ADJUST DEPTH OF THE SAWCUT SO NO REINFORCING BARS ARE CUT.
5. THE FINISHED REPAIR SURFACE SHALL BE FLUSH WITH THE SURROUNDING CONCRETE SURFACES.
6. SHOTCRETE PROVIDED SHALL CONFORM TO SECTION 412, CLASS A OF VDOT ROAD AND BRIDGE SPECIFICATIONS, AND BE REINFORCED WITH SYNTHETIC FIBERS.
7. THE CONTRACTOR SHALL LIMIT THE AMOUNT OF OVERSPRAY AND DUSTING TO SURROUNDING ELEMENTS OF THE STRUCTURE. ANY ADJACENT SURFACE COVERED SHALL BE CLEANED BEFORE OVERSPRAY HARDENS.



SECTION A-A
DECK SLAB SOFFIT REPAIR DETAILS
NOT TO SCALE

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**SUFFOLK SEABOARD COASTLINE TRAIL
PHASE IV**

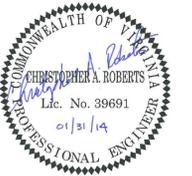
DEPARTMENT OF PARKS AND RECREATION
CITY OF SUFFOLK, VIRGINIA

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No.	Date	Description

**CONCRETE
REPAIR DETAILS**

S3



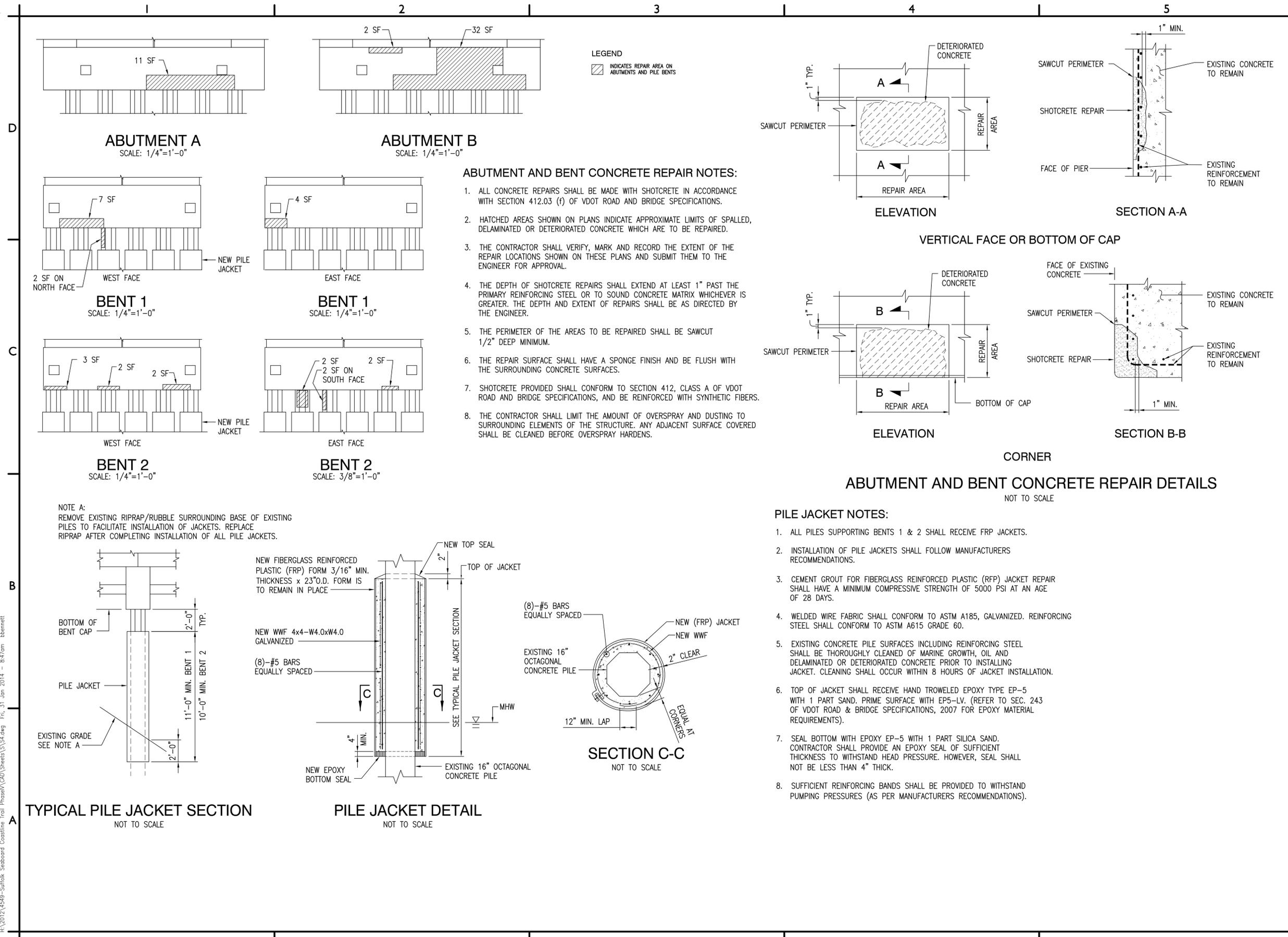
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REVIEW: AP

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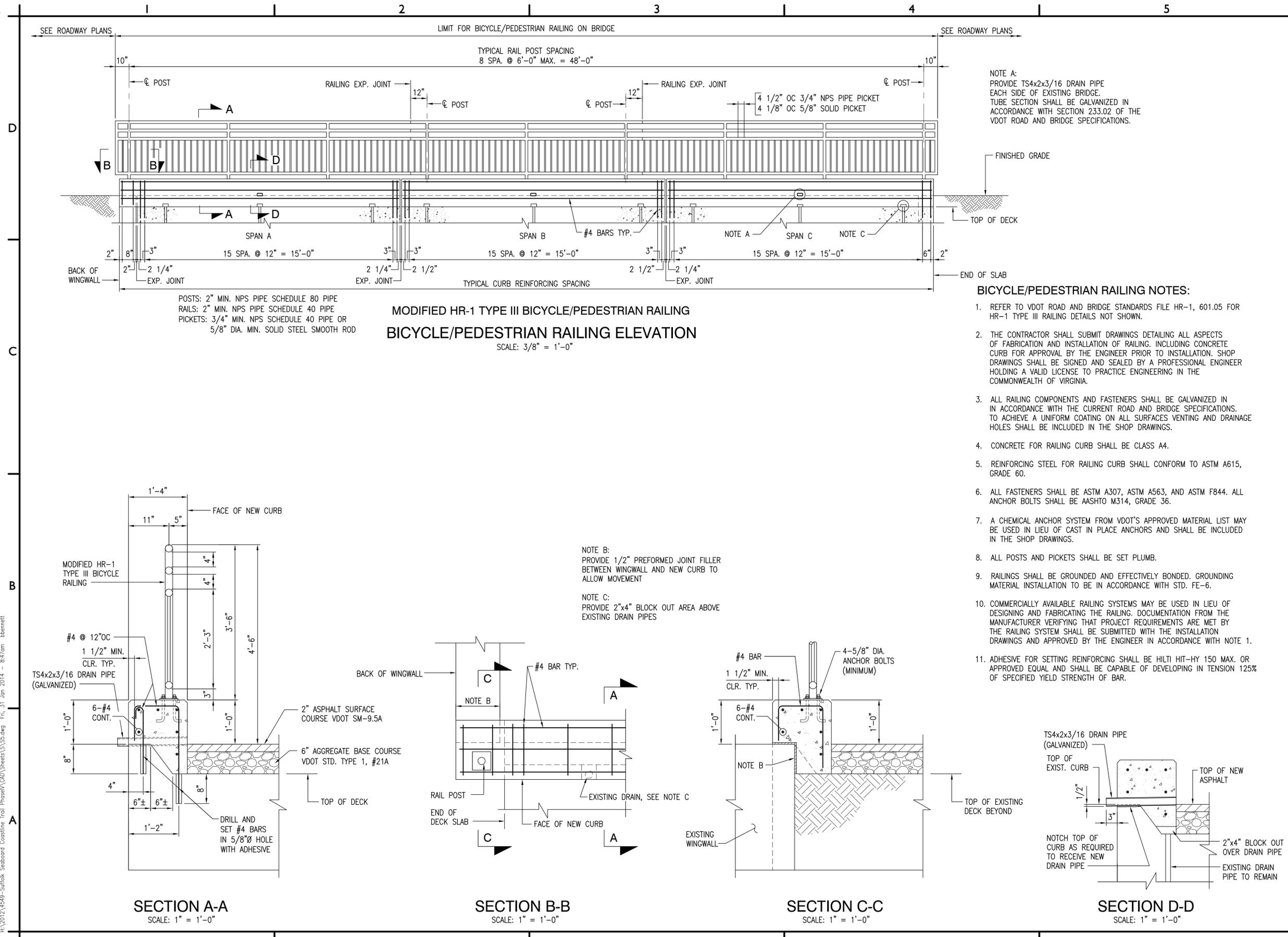
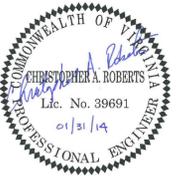
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CONCRETE REPAIR DETAILS

S4



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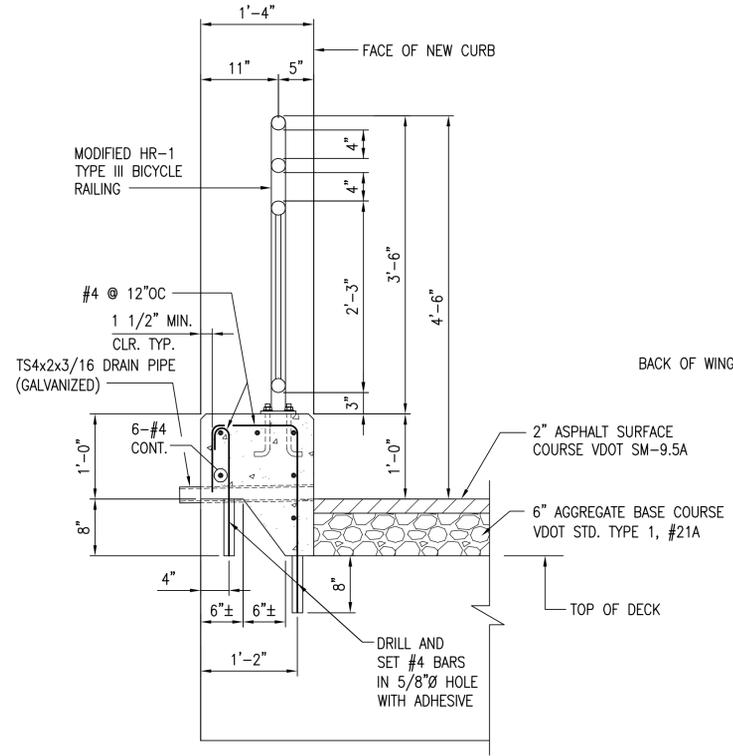
NOTE A:
PROVIDE TS4x2x3/16 DRAIN PIPE
EACH SIDE OF EXISTING BRIDGE.
TUBE SECTION SHALL BE GALVANIZED IN
ACCORDANCE WITH SECTION 233.02 OF THE
VDOT ROAD AND BRIDGE SPECIFICATIONS.

POSTS: 2" MIN. NPS PIPE SCHEDULE 80 PIPE
RAILS: 2" MIN. NPS PIPE SCHEDULE 40 PIPE
PICKETS: 3/4" MIN. NPS SCHEDULE 40 PIPE OR
5/8" DIA. MIN. SOLID STEEL SMOOTH ROD

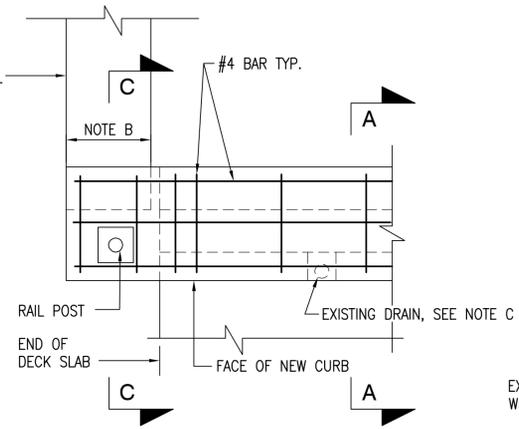
MODIFIED HR-1 TYPE III BICYCLE/PEDESTRIAN RAILING
BICYCLE/PEDESTRIAN RAILING ELEVATION
SCALE: 3/8" = 1'-0"

BICYCLE/PEDESTRIAN RAILING NOTES:

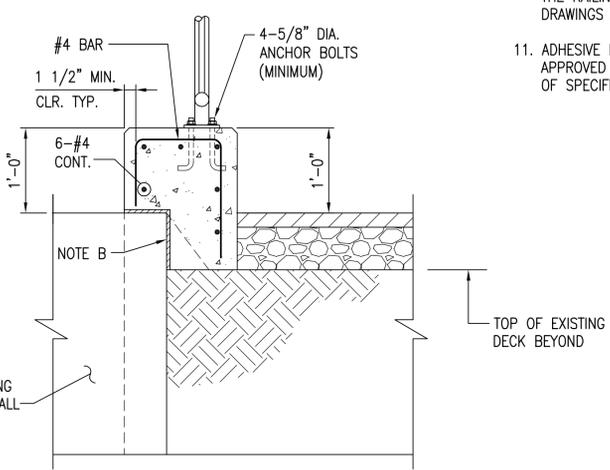
- REFER TO VDOT ROAD AND BRIDGE STANDARDS FILE HR-1, 601.05 FOR HR-1 TYPE III RAILING DETAILS NOT SHOWN.
- THE CONTRACTOR SHALL SUBMIT DRAWINGS DETAILING ALL ASPECTS OF FABRICATION AND INSTALLATION OF RAILING, INCLUDING CONCRETE CURB FOR APPROVAL BY THE ENGINEER PRIOR TO INSTALLATION. SHOP DRAWINGS SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER HOLDING A VALID LICENSE TO PRACTICE ENGINEERING IN THE COMMONWEALTH OF VIRGINIA.
- ALL RAILING COMPONENTS AND FASTENERS SHALL BE GALVANIZED IN ACCORDANCE WITH THE CURRENT ROAD AND BRIDGE SPECIFICATIONS. TO ACHIEVE A UNIFORM COATING ON ALL SURFACES VENTING AND DRAINAGE HOLES SHALL BE INCLUDED IN THE SHOP DRAWINGS.
- CONCRETE FOR RAILING CURB SHALL BE CLASS A4.
- REINFORCING STEEL FOR RAILING CURB SHALL CONFORM TO ASTM A615, GRADE 60.
- ALL FASTENERS SHALL BE ASTM A307, ASTM A563, AND ASTM F844. ALL ANCHOR BOLTS SHALL BE AASHTO M314, GRADE 36.
- A CHEMICAL ANCHOR SYSTEM FROM VDOT'S APPROVED MATERIAL LIST MAY BE USED IN LIEU OF CAST IN PLACE ANCHORS AND SHALL BE INCLUDED IN THE SHOP DRAWINGS.
- ALL POSTS AND PICKETS SHALL BE SET PLUMB.
- RAILINGS SHALL BE GROUNDED AND EFFECTIVELY BONDED. GROUNDING MATERIAL INSTALLATION TO BE IN ACCORDANCE WITH STD. FE-6.
- COMMERCIALY AVAILABLE RAILING SYSTEMS MAY BE USED IN LIEU OF DESIGNING AND FABRICATING THE RAILING. DOCUMENTATION FROM THE MANUFACTURER VERIFYING THAT PROJECT REQUIREMENTS ARE MET BY THE RAILING SYSTEM SHALL BE SUBMITTED WITH THE INSTALLATION DRAWINGS AND APPROVED BY THE ENGINEER IN ACCORDANCE WITH NOTE 1.
- ADHESIVE FOR SETTING REINFORCING SHALL BE HILTI HIT-HY 150 MAX. OR APPROVED EQUAL AND SHALL BE CAPABLE OF DEVELOPING IN TENSION 125% OF SPECIFIED YIELD STRENGTH OF BAR.



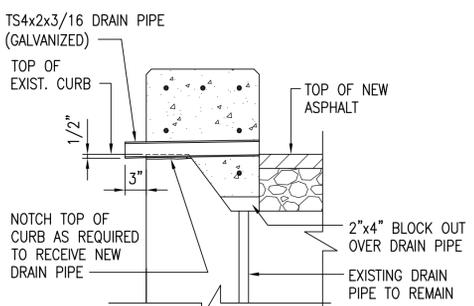
SECTION A-A
SCALE: 1" = 1'-0"



SECTION B-B
SCALE: 1" = 1'-0"



SECTION C-C
SCALE: 1" = 1'-0"



SECTION D-D
SCALE: 1" = 1'-0"

NOTE B:
PROVIDE 1/2" PREFORMED JOINT FILLER
BETWEEN WINGWALL AND NEW CURB TO
ALLOW MOVEMENT

NOTE C:
PROVIDE 2"x4" BLOCK OUT AREA ABOVE
EXISTING DRAIN PIPES

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PEDESTRIAN RAILING DETAILS

S5

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