GOVERNMENT OF THE VIRGIN ISLANDS OF THE UNITED STATES

DEPARTMENT OF PUBLIC WORKS

PLANS FOR PROPOSED

ROUTE 388, COKI POINT ROAD
PHASE 2

DESCRIPTION OF PROJECT

IMPROVEMENTS:
GRADING, DRAINAGE, CULVERT, AGGREGATE BASE, CONCRETE PAVING, SIDEWALKS, PAVEMENT MARKINGS AND OTHER MISCELLANEOUS WORK.

PROJECT LENGTH:

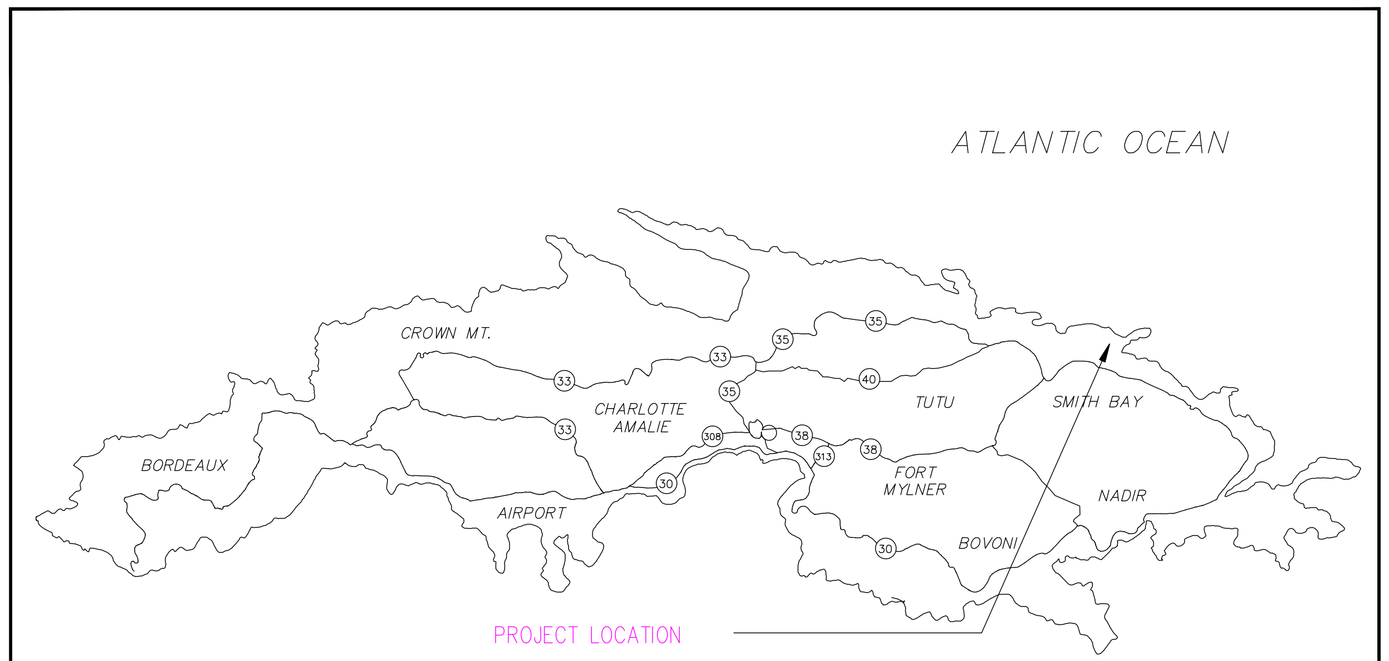
		FEET	MILES
	ROUTE 388		
STATION	0+00.00 TO 1+09.37	109.37	0.02
	ROUTE 388		
STATION	1+09.37 TO 7+66.39	657.02	0.12
	ROUTE 388		
STATION	7+66.39 TO 11+34.26	367.87	0.07
	ROUTE 388-A		
STATION	1+83.88 TO 2+50.29	66.41	0.01
	ROUTE 388-B		
STATION	0+00.00 TO 1+18.35	118.35	0.02
TOTAL		1319.02	0.24

ROAD:

	WIDTH	TYPE
SURFACE:	20'+	CONCRETE
ROADBED:	20'+	AGGREGATE

DESIGN DATA:
DESIGN SPEED 5-10 MPH

SPECIFICATIONS:
"STANDARD SPECIFATIONS FOR CONSTRUCTION OF ROADS AND BRIDGES ON FEDERAL HIGHWAY PROJECTS", FP-03 U.S. CUSTOMARY UNITS.



SAINT THOMAS
UNITED STATES VIRGIN ISLANDS
NOT TO SCALE

LIST OF DRAWINGS

100% DOCUMENTS
ISSUED FOR BIDDING PURPOSES ONLY

PROJECT CONSULTANTS:

LAND SURVEYOR:
KER ENGINEERING
5032 NORRE GADE
ST. THOMAS, VI 00802
EMAIL: KERENGINEERINGPLS@GMAIL.COM

UTILITY OWNERS:

SANITARY SEWER:
VI WASTE MANAGEMENT AUTHORITY
9500 WHEATLEY CENTER, SUITE 2
CHARLOTTE AMALIE, ST THOMAS, USVI 00803
PHONE: (340) 774-4139

WATER SERVICE:
VIRGIN ISLANDS WATER AND POWER AUTHORITY
PO BOX 1450
CHARLOTTE AMALIE, ST THOMAS, USVI 00804
PHONE: (340) 774-3552

ELECTRIC SERVICE:
VIRGIN ISLANDS WATER AND POWER AUTHORITY
PO BOX 1450
CHARLOTTE AMALIE, ST THOMAS, USVI 00804
PHONE: (340) 774-3552

TELECOMMUNICATIONS:
INNOVATIVE
TUTU PARK
ST THOMAS, USVI 00804
PHONE: (340) 779-9999

DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING
8244 SUB BASE
ST. THOMAS, USVI

Approved: _____
Gustav James Date
Commissioner
Department of Public Works

Approved: _____
ERAN FLEMMING, Date
Acting Chief Engineer
Department of Public Works

DESIGNED BY: _____
James J. Jones, Jr. Date

EXISTING CONDITIONS NOTES:

1. THE SURFACE FEATURES AND TOPOGRAPHY SHOWN ARE THE RESULT OF AN ON THE GROUND SURVEY BY TOTAL STATION CONDUCTED BETWEEN THE MONTHS OF DECEMBER 2011 AND OCTOBER 2012 BY ANTILLEAN ENGINEERS, INC.
2. HORIZONTAL DATUM: ZONE CODE CS PR83F, NAD 83 PR/VI, PROJECTION–LM
3. VERTICAL DATUM: NAVD88
4. SUBJECT PROPERTY APPEARS TO FALL WITHIN F.I.R.M. DESIGNATION: PER FLOOD INSURANCE RATE MAP 78000000014G.
5. BEARINGS SHOWN ON THIS SURVEY ARE BASED ON FOUND DATA IN THE FIELD.
6. THE COMPILED RIGHT OF WAY INFORMATION SHOWN WAS DEVELOPED FROM REFERENCE PLANS, CURRENT DEEDS OF RECORD AND PHYSICAL EVIDENCE FOUND. CONFLICTS AND ERRORS WITHIN THE SURVEY PLATS, INSUFFICIENT FIELD DATA, AND ERRONEOUS GEOMETRY PROHIBIT BOUNDARY CLOSURE. ADDITIONAL RIGHTS MAY EXIST BEYOND THE LIMITS OF THE RIGHT OF WAY SHOWN. CONTRACTOR TO PERFORM BOUNDARY VERIFICATION BEFORE PROCEEDING WITH WORK.
7. THE UNDERGROUND UTILITIES SHOWN HAVE BEEN COMPILED IN PART FROM PLANS OF RECORD, W.A.P.A. DELINEATION AND FIELD LOCATION. THE LOCATION OF UNDERGROUND UTILITIES SHOULD BE CONSIDERED APPROXIMATE AND SHOULD BE FIELD VERIFIED PRIOR TO ANY EXCAVATION OR CONSTRUCTION ACTIVITIES.

REMOVAL / DEMOLITION NOTES:

1. THE CONTRACTOR SHALL VERIFY ALL ITEMS TO BE REMOVED PRIOR TO ANY CONSTRUCTION.
2. PRESERVE AND PROTECT ALL UTILITIES, PAVEMENT AND TREES NOT SCHEDULED FOR DEMOLITION.
3. WHEN PREPARING THE SITE FOR PROPOSED DEVELOPMENT, ALL MATERIALS REMOVED SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL GOVERNING AGENCIES AT NO ADDITIONAL COST TO THE OWNER.
4. THE CONTRACTOR TO COORDINATE ALL UTILITY POLE RELOCATION WITH THE VIRGIN ISLAND WATER AND POWER AUTHORITY (WAPA).
5. THE CONTRACTOR TO COORDINATE ALL WATER WORK AND WATER METER BOX RELOCATION WITH THE VIRGIN ISLANDS WATER AND POWER AUTHORITY (WAPA). THERE MAY BE ADDITIONAL METER BOXES NOT SHOWN ON THE PLANS THAT NEED TO BE RELOCATED WITHIN THE PROJECT AREA.

EROSION & SEDIMENT CONTROL NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING EROSION CONTROL MEASURES IN ORDER TO PREVENT OFF–SITE TRACKING OF EARTH, SEDIMENT AND DEBRIS.
2. DUST SHALL BE CONTROLLED THROUGH THE USE OF WATER.
3. ALL PERMANENT SEEDING SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR CONSTRUCTION OF ROADS AND BRIDGES ON FEDERAL HIGHWAY PROJECTS FP–03 SECTION 157 – SOIL EROSION CONTROL.
4. CONTRACTOR SHALL REPAIR, CLEAN, AND REPLACE ANY SEDIMENT CONTROLS DAMAGED DURING AND/OR AFTER RAINFALL EVENTS OR AS DIRECTED BY ENGINEER/PUBLIC WORKS DEPARTMENT OF ST. THOMAS.
5. DEWATERING OF WORK ZONES IF REQUIRED, SHALL BE DISCHARGED INTO APPROVED SEDIMENT RETENTION MEASURES. THE CONTRACTOR SHALL NOT DISCHARGE DIRECTLY INTO EXISTING STORM DRAINAGE SYSTEMS, WATERCOURSES OR WATERWAYS. ALL CATCH BASINS SHALL HAVE SEDIMENT FILTERS INSTALLED IN THE INLETS.
6. SEE DRAWING C13 FOR ADDITIONAL EROSION & SEDIMENT CONTROL NOTES AND DETAILS.

GENERAL NOTES:

1. THE CONTRACTOR SHALL VERIFY AND DETERMINE THE LOCATION, SIZE, AND ELEVATION OF ALL EXISTING UTILITIES, SHOWN OR NOT SHOWN ON THESE PLANS PRIOR TO THE START OF ANY CONSTRUCTION. THE CONTRACTOR SHALL LOCATE THE UTILITIES SHOWN AND THE POSSIBLE EXISTENCE OF OTHER UNDERGROUND UTILITIES BY PROVIDING OBSERVATION TEST PITS. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION AND APPROPRIATE REMEDIAL ACTION SHALL BE AGREED TO BY THE ENGINEER BEFORE PROCEEDING WITH THE WORK.
2. THE CONTRACTOR SHALL COORDINATE AND SCHEDULE ACTIVITIES AS NECESSARY WITH OTHER CONTRACTORS AND UTILITY COMPANIES TO ENSURE WORK INTERFACES SMOOTHLY WITH OTHER WORK BEING PERFORMED ON SITE.

   THE CONTRACTOR SHALL FAMILIARIZE HIMSELF/HERSELF WITH PERMIT AND INSPECTION REQUIREMENTS OF THE VARIOUS GOVERNMENTAL AGENCIES AND SCHEDULE INSPECTIONS ACCORDING TO AGENCY INSTRUCTION.
3. THE CONTRACTOR IS RESPONSIBLE FOR ALL PERMITS, FEES, TEMPORARY UTILITIES AND COORDINATION WITH ALL AGENCIES IN OBTAINING ACCESS TO THE SITE AND PERFORMING ALL WORK REQUIRED FOR THIS PROJECT.
4. THE CONTRACTOR IS RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION AND FOR CONDITIONS OF THE SITE.
5. THE CONTRACTOR SHALL PROTECT AND MAINTAIN EXISTING BENCHMARKS AND BOUNDS. ALL BENCHMARKS AND BOUNDS DISTURBED BY THE CONTRACTOR SHALL BE RE–ESTABLISHED BY A REGISTERED LAND SURVEYOR AT NO EXPENSE TO THE OWNER.
6. THE CONTRACTOR SHALL PERFORM ALL THE CLEARING AND GRUBBING NECESSARY WITHIN THE CONSTRUCTION AREA, LIMITING THE AMOUNT OF CLEARING AND GRUBBING TO THE EXTENT POSSIBLE.
7. THIS PROJECT IS TO BE CONSTRUCTED TO THE TYPICAL SECTIONS AND DETAILS SHOWN ON THE PLANS, AND SHALL MEET THE MOST CURRENT USVI STANDARD SPECIFICATIONS UNLESS OTHERWISE NOTED.
8. WRITTEN DIMENSIONS HAVE PRECEDENCE OVER SCALED DIMENSIONS. THE CONTRACTOR SHALL USE CAUTION WHEN SCALING PLANS. IN CASE OF CONFLICT BETWEEN THIS PLAN SET AND ANY OTHER DRAWING AND/OR SPECIFICATION, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY FOR CLARIFICATIONS.
9. ALL DIMENSIONS ARE TO THE EDGE OF CURB AT THE GUTTER LINE OR TO THE CENTER OF PAVEMENT MARKINGS, UNLESS OTHERWISE NOTED.
10. ALL PAVEMENT MARKINGS AND SIGNS SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), AMERICANS WITH DISABILITIES ACT (ADA) AND STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS.
11. ALL PAVEMENT MARKINGS SHALL BE MADE WITH PERMANENT THERMOPLASTIC AND SHALL CONFORM TO FHWA STANDARD SPECIFICATIONS FOR CONSTRUCTION OF ROADS AND BRIDGES ON FEDERAL HIGHWAY PROJECTS FP–03, SECTION 634.
12. ALL EXCAVATIONS SHALL BE THOROUGHLY SECURED ON A DAILY BASIS BY THE CONTRACTOR AT THE COMPLETION OF CONSTRUCTION OPERATIONS IN THE IMMEDIATE AREA.
13. MAINTENANCE OF TRAFFIC: WHILE WORKING IN THE PUBLIC ROW, SUITABLE BARRICADES, LIGHTS AND SIGNS SHALL BE PROVIDED BY THE CONTRACTOR AND MAINTAINED 24 HOURS A DAY UNTIL COMPLETION OF THE WORK. ALL TRAFFIC CONTROL DEVICES AND LAYOUT SHALL COMPLY WITH VI TRAFFIC CONTROL REQUIREMENTS AND FHWA'S "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS." THE CONTRACTOR SHALL HAVE HIS/HER MAINTENANCE OF TRAFFIC PLAN APPROVED BY THE DEPARTMENT OF PUBLIC WORKS PRIOR TO COMMENCING CONSTRUCTION.
14. THE CONTRACTOR SHALL PROVIDE ACCESS TO ALL RESIDENCES AFFECTED BY CONSTRUCTION. IF AT ANY TIME ACCESS WILL BE PROHIBITED FOR MORE THAN TWO HOURS, A 24 HOUR NOTICE SHALL BE PROVIDED TO THE AFFECTED PARTY. ALL STEPS NECESSARY SHALL BE TAKEN TO MINIMIZE ACCESS INTERRUPTIONS. TEMPORARY ACCESS SHALL MEET ADA REQUIREMENTS.
15. CONTRACTOR SHALL RESTORE ALL PRIVATE AND PUBLIC PROPERTY AFFECTED BY THIS WORK TO PRE–CONSTRUCTION CONDITIONS FOR PAVEMENTS, SURFACES, SIDEWALKS, CURBS, ETC UNLESS OTHERWISE NOTED.

CONSTRUCTION GENERAL PERMIT NOTES:

1. THE OWNER IN CONJUNCTION WITH THE CONTRACTOR (OPERATOR) NEEDS TO OBTAIN A CONSTRUCTION GENERAL PERMIT (CGP) FOR LARGE CONSTRUCTION ACTIVITIES (FIVE OR MORE ACRES) OR SMALL CONSTRUCTION ACTIVITIES (GREATER THAN ONE ACRE BUT LESS THAN FIVE ACRES) FROM THE ENVIRONMENTAL PROTECTION AGENCY (EPA). AS PART OF THE CGP, A STORMWATER NOTICE OF INTENT (NOI) WILL NEED TO BE SUBMITTED TO THE EPA AT LEAST 14 DAYS PRIOR TO COMMENCING CONSTRUCTION. THE NOI WILL NEED TO BE SUBMITTED TO STORMWATER NOTICE OF INTENT (4203M), USEPA, 1200 PENNSYLVANIA, AVE. NW, WASHINGTON, DC 20460.
2. THE CGP OUTLINES A SET OF PROVISIONS MANDATING THE OWNER AND CONTRACTOR COMPLY WITH THE REQUIREMENTS OF THE TERRITORIAL VIRGIN ISLANDS STORMWATER POLLUTION PREVENTION PLANS (VI SWPPP) STORMWATER REGULATIONS, INCLUDING BUT NOT LIMITED TO, STORMWATER POLLUTION PREVENTION PLANS (SWPPP'S), IMPLEMENTATION OR EROSION AND SEDIMENTATION CONTROLS, EQUIPMENT MAINTENANCE GUIDELINES, ETC. PLEASE CONTACT USEPA OFFICE OF WASTEWATER MANAGEMENT AT 202–564–9545 OR AT WWW.EPA.GOV/NPDES/STORMWATER FOR ADDITIONAL INFORMATION.
3. SEE SPECIFICATIONS FOR ADDITIONAL CONSTRUCTION REQUIREMENTS.

GRADING & DRAINAGE NOTES:

1. PROVIDE UNIFORM SLOPE BETWEEN CONTOURS AND/OR SPOT ELEVATIONS. FINISH PAVEMENT SURFACES AND LAWN AREAS SHALL BE FREE OF LOW SPOTS AND PONDING AREAS.
2. EARTH SLOPES SHALL BE NO STEEPER THAN 1:1 (HORIZONTAL: VERTICAL) AND SHALL BE FLATTER WHERE SHOWN.
3. ALL DELETERIOUS MATERIAL (I.E. MUCK, PEAT, BURIED DEBRIS) IS TO BE EXCAVATED IN ACCORDANCE WITH THESE PLANS OR AS DIRECTED BY THE OWNERS ENGINEER. EXCAVATED AREAS ARE TO BE BACKFILLED WITH APPROVED MATERIALS AND COMPACTED AS DIRECTED ON THESE PLANS.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING EXCAVATIONS AGAINST COLLAPSE AND SHALL PROVIDE BRACING, SHEETING, OR SHORING AS NECESSARY. TRENCHES SHALL BE KEPT DRY WHILE PIPE AND APPURTENANCES ARE BEING PLACED. DEWATERING SHALL BE USED AS REQUIRED, AND PERMITTED THROUGH LOCAL AGENCIES AND WATER MANAGEMENT DISTRICT PER CURRENT REGULATIONS.
5. GENERAL FILL BEYOND PAVED AREAS SHALL BE FREE OF BRUSH RUBBISH, STUMPS, AND STONES LARGER THAN 8 INCHES. FILL SHALL BE PLACED IN COMPACTED LAYERS NOT TO EXCEED 8 INCHES IN THICKNESS. THE DRY DENSITY AFTER COMPACTION SHALL NOT BE LESS THAN 95% OF THE STANDARD PROCTOR TEST AND DONE IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM D698.
6. PRIOR TO THE PLACEMENT OF LOAM IN THE AREAS TO BE TOPSOILED, THE SUBGRADE SHALL BE LOOSENED BY SCARIFYING TO A DEPTH OF AT LEAST 2 INCHES TO ENSURE BONDING OF THE TOPSOIL AND SUBSOIL.
7. ALL AREAS DISTURBED BY THE CONTRACTOR'S OPERATIONS THAT DO NOT HAVE A SURFACE TREATMENT SPECIFICALLY SPECIFIED SHALL BE RESTORED TO A MINIMUM OF 4 INCHES OF SCREENED AND SEEDED TOPSOIL, FERTILIZER, AND MULCH.
8. WHEN PREPARING THE EXISTING SITE FOR THE PROPOSED DEVELOPMENT, ALL MATERIALS REMOVED SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL GOVERNING AGENCIES AT NO ADDITIONAL COST.
9. THE CONTRACTOR SHALL STABILIZE ANY AND ALL DITCHES, SWALES AND PONDS PRIOR TO DIRECTING STORMWATER RUN–OFF TO THEM.
10. THE STORM DRAINAGE SYSTEM SHALL BE CONSTRUCTED TO LINE AND GRADE AS SHOWN ON THE PLANS. ALL PIPE MATERIALS SHALL BE AS SPECIFIED ON THE PLANS.
11. ALL DRAINAGE STRUCTURES, GRATES, AND COVERS WITHIN TRAFFIC AREAS SHALL BE TRAFFIC RATED FOR H–20 LOADINGS UNLESS OTHERWISE SHOWN.
12. PROPOSED RIM ELEVATIONS OF DRAINAGE MANHOLES AND CATCH BASINS ARE APPROXIMATE. FINAL ELEVATIONS ARE TO BE SET FLUSH WITH FINISH GRADES.
13. THE CONTRACTOR SHALL PROVIDE FOR THE HANDLING OF EXISTING FLOWS FROM SERVICE CONNECTIONS AND MAINLINE PIPES. THE EXISTING SEWERS AND DRAINS HAVE ACTIVE FLOWS AND THE CONTRACTOR SHALL MAINTAIN CONTINUOUS FLOW WITHOUT RESTRICTIONS.
14. WHEN CONNECTING NEW PIPES TO EXISTING STRUCTURES SUCH AS MANHOLES AND CATCH BASINS, THE STRUCTURE SHALL BE COMPLETELY CLEANED OUT. THE HOLE MADE IN THE STRUCTURE SHALL BE AS SMALL AS NECESSARY. THE STRUCTURE SHALL BE REPAIRED TO MATCH ITS ORIGINAL TYPE OF CONSTRUCTION. THE JOINT BETWEEN THE STRUCTURE AND THE PIPE SHALL BE MADE WATERTIGHT BY FILLING THE JOINT WITH MORTAR.
15. THE CONTRACTOR SHALL CLEAN THE ENTIRE STORMWATER SYSTEM OF ALL SEDIMENT AND DEBRIS, WITHIN THE LIMIT OF WORK UPON COMPLETION OF CONSTRUCTION.
16. THE STORM DRAINAGE SYSTEM SHALL BE SUBJECT TO A VISUAL INSPECTION BY THE OWNERS ENGINEER PRIOR TO THE PLACEMENT OF BACKFILL. THE CONTRACTOR SHALL COORDINATE A FINAL INSPECTION OF THE COMPLETED STORMWATER SYSTEM PRIOR TO FINAL ACCEPTANCE BY THE OWNER. CONTRACTOR SHALL NOTIFY OWNER 48 HOURS IN ADVANCE OF ANTICIPATED INSPECTION.

UTILITY NOTES:

1. THE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES OWNING UTILITIES, EITHER OVERHEAD OR UNDERGROUND, WITHIN THE CONSTRUCTION AREA AND SHALL COORDINATE WORK WITH THE UTILITY COMPANIES. THE PROTECTION OR RELOCATION OF UTILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.
2. THIS PROJECT IS TO BE CONSTRUCTED TO THE TYPICAL SECTIONS AND DETAILS SHOWN ON THE PLANS, AND SHALL MEET THE STANDARDS OF WMA, WAPA AND THE VIRGIN ISLANDS PUBLIC WORKS DEPARTMENT.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR TO DAMAGED UTILITIES CAUSED BY HIS/HER OPERATIONS.
4. THE CONTRACTOR IS RESPONSIBLE FOR ALL PERMITS, FEES, TEMPORARY UTILITIES AND COORDINATION WITH ALL AGENCIES IN OBTAINING ACCESS TO THE SITE AND PERFORMING ALL WORK REQUIRED FOR THIS PROJECT.
5. THE CONTRACTOR SHALL COORDINATE MATERIAL AND INSTALLATION SPECIFICATIONS WITH THE INDIVIDUAL UTILITY AGENCIES/COMPANIES, AND ARRANGE FOR ALL INSPECTIONS.
6. PROPOSED RIM ELEVATIONS ARE APPROXIMATE. FINAL ELEVATIONS ARE TO BE SET FLUSH WITH FINISH GRADES. ADJUST ALL OTHER RIM ELEVATIONS OF MANHOLES, WATER GATES, GAS GATES, AND OTHER UTILITIES TO FINISHED GRADE WITHIN LIMITS OF WORK.
7. THE CONTRACTOR SHALL MAINTAIN UTILITY SERVICES TO EXISTING FACILITIES AT ALL TIMES. IF ANY DISRUPTION MUST OCCUR, THE CONTRACTOR SHALL NOTIFY AND COORDINATE WITH THE FACILITY AT LEAST 72 HOURS IN ADVANCE.
8. THE CONTRACTOR SHALL COORDINATE MATERIALS AND INSTALLATION SPECIFICATIONS WITH THE INDIVIDUAL UTILITY AGENCIES/COMPANIES, AND ARRANGE FOR ALL INSPECTIONS.
9. ALL UNDERGROUND UTILITIES SHALL BE IN PLACE, TESTED, AND INSPECTED AS REQUIRED PRIOR TO BACKFILL AND SURFACE CONSTRUCTION.

ABBREVIATIONS:

ABAN	ABANDONED
AC	ASBESTOS CONCRETE
ADJ	ADJUST
APPROX	APPROXIMATE
B=	BOTTOM=
BC	BOTTOM OF CURB
BERM	BITUMINOUS CONCRETE BERM
BIT CONC	BITUMINOUS CONCRETE
BLDG	BUILDING
BS	BOTTOM OF SLOPE
BWLL	BROKEN WHITE LANE LINE
BW	BOTTOM OF WALL
CB	CATCH BASIN
CBCI	CATCH BASIN CURB INLET
CI	CAST IRON
CICL	CAST IRON CEMENT LINED
CIP	CAST IN PLACE
℄	CENTER LINE
CLF	CHAIN LINK FENCE
CMP	CORRUGATED METAL PIPE
CO	CLEAN OUT
COL	COLUMN
CONC	CONCRETE
CP	CONCRETE PIPE
CR	CONDENSATE RETURN
DHW	DESIGN HIGH WATER
DI	DUCTILE IRON
DICL	DUCTILE IRON CEMENT LINED
DIA	DIAMETER
DMH	DRAIN MANHOLE
DWG	DRAWING
DYCL	DOUBLE YELLOW CENTER LINE
EL, ELEV	ELEVATION
ELEC	ELECTRIC
ELEV	ELEVATION
EMH	ELECTRIC MANHOLE
EXIST	EXISTING
FES	FLARED END SECTION
FFE	FINISH FLOOR ELEVATION
FM	FORCE MAIN
GC	GRANITE CURB
GG	GAS GATE
GM	GAS METER
GR	GUARDRAIL
GW	GUY WIRE
HDPE	HIGH DENSITY POLYETHYLENE
HH	HAND HOLE
HORIZ	HORIZONTAL
HR	HANDRAIL
HVAC	HEAT VENT AIR CONDITIONING
HYD	HYDRANT
INV	INVERT
I=	INVERT=
IP	IRON PIPE
LP	LIGHT POLE
LS	LANDSCAPED
LT	LEFT
MC	METAL COVER
MAX	MAXIMUM
MHW	MEAN HIGH WATER
MIN	MINIMUM
NO, #	NUMBER
NTS	NOT TO SCALE
OCS	OUTLET CONTROL STRUCTURE
OH	OVERHANG
P	POST
PB	PULL BOX
PERF	PERFORATED
PL	PLASTIC
PROP	PROPOSED
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE
PVI	POST VALVE INDICATOR
R=	RIM=
RCP	REINFORCED CONCRETE PIPE
RD	ROOF DRAIN
(rec)	RECORD
RET	RETAINING
RT	RIGHT
SGC	SLOPED GRANITE CURB
SMH	SEWER MANHOLE
SPEC	SPECIFICATION
SS	SANITARY SEWER
ST	STEAM
STA	STATION
STMH	STEAM MANHOLE
SW	SIDEWALK
SWEL	SOLID WHITE EDGE LINE
SWLL	SOLID WHITE LANE LINE
TC	TOP OF CURB
TCB	TRAFFIC CONTROL BOX
TELE	TELEPHONE
TL	TRAFFIC LIGHT
TMH	TELEPHONE MANHOLE
TRANS	TRANSFORMER
TS	TOP OF SLOPE
TW	TOP OF WALL
TYP	TYPICAL
UP	UTILITY POLE
VC	VITRIFIED CLAY
VERT	VERTICAL
VGC	VERTICAL GRANITE CURB
W	WATER
WC	WYE CONNECTION
WF	WETLAND FLAG
WG	WATER GATE
WIP	WROUGHT IRON PIPE
WM	WATER METER
WW	WINDOW WELL

LEGEND

EXISTING	PROPOSED	DESCRIPTION
		RIGHT OF WAY
		PROPERTY LINE
		EASEMENT
△	△	UNMARKED POINT
⊡ ○	⊡ ○	SURVEY MONUMENT
5+00	5+00	ROADWAY CENTERLINE
		EDGE OF GRAVEL
		EDGE OF PAVEMENT
BB	BB	BITUMINOUS BERM
BC	BC	BITUMINOUS CURB
CC	CC	CONCRETE CURB
CG	CG	CURB & GUTTER
		SAWCUT
		BUILDING
○	●	BOLLARD
		SIGN
		DOUBLE SIGN
		GUARDRAIL
		TREES
		TREELINE
		CHAINLINK FENCE
		RETAINING WALL
SF	SF	SILT FENCE
		FLOW DIRECTION
		SWALE
98	98	MINOR CONTOUR
100	100	MAJOR CONTOUR
		TRAFFIC ARROW
(10)	(10)	PARKING COUNT
SWL	SSWL	4" SINGLE SOLID WHITE LINE
DYL	DSYL	4" DOUBLE SOLID YELLOW LINE
		18" WHITE STOP LINE
		WHITE PAINTED CROSSWALK
		ACCESSIBLE TIP–DOWN RAMP
×97.5	×97.5	SPOT ELEVATION
		BORING LOCATION
		TEST PIT LOCATION
D		DRAIN LINE
		CONCRETE BOX CULVERT
S	S	SEWER LINE
OHW	OHW	OVERHEAD WIRE
W	W	WATER LINE
UE	UE	UNDERGROUND ELECTRIC
		CATCH BASIN
		CATCH BASIN (DOUBLE GRATE)
		DRAIN MANHOLE
		FLARED END SECTION
		HEADWALL
		SEWER MANHOLE
WSO	WSO	WATER SHUT–OFF
WV	WV	WATER VALVE & BOX
HYD	HYD	FIRE HYDRANT
TH	TH	THRUST BLOCK
WM	WM	WATER METER
PIV	PIV	POST INDICATOR VALVE
Ⓦ	Ⓦ	WATER MANHOLE
Ⓔ	Ⓔ	ELECTRIC MANHOLE
EM	EM	ELECTRIC METER
		LIGHT POLE
T	T	TRANSFORMER PAD
		UTILITY POLE
		GUY POLE
		GUY WIRE & ANCHOR
HH	HH	HAND HOLE
PB	PB	PULL BOX
		INLET PROTECTION
		CHECK DAM
		TREE TO BE REMOVED
		PAVED SURFACE
		RIP–RAP
		EROSION CONTROL MATTING

DPW — DEPARTMENT OF PUBLIC WORKS, U.S.V.I.

DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING
ST. THOMAS, U.S. VIRGIN ISLANDS

USVI 388

COMMISSIONER OF P.W.D.
GUSTAV JAMES, P.E.
DEPUTY COMMISSIONER OF ENGINEERING

CHIEF ENGINEER
ACTING ERAN FLEMMING, P.E.
DISTRICT ENGINEER

SURVEYED BY:
DRAWN BY: JA
SCALE:
DATE: 6/6/2016

GENERAL NOTES & ABBREVIATIONS

DPW FILE NO.
DIVISION OF ENGINEERING

PROJECT NO.
ACAD FILE NAME

SHEET NO.
G1 OF 19

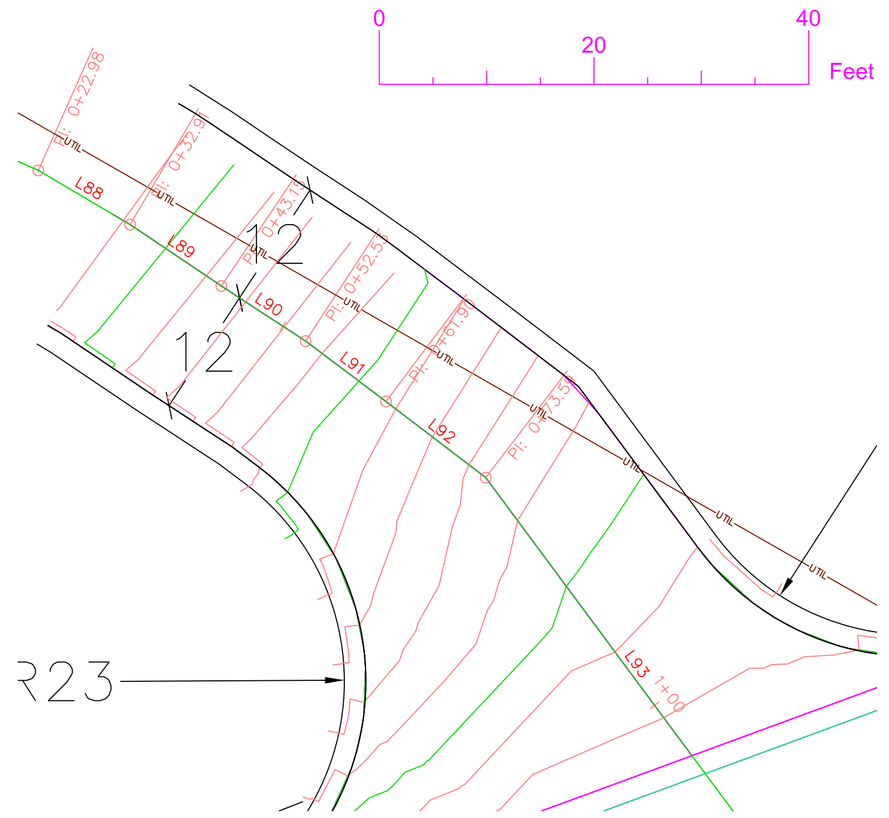
LINE TABLE: ALIGNMENT			
LINE #	LENGTH	DIRECTION	ALIGNMENT NAME
L81	53.14'	S54° 59' 31"E	388A Spring Bay Rd
L82	74.28'	S54° 59' 51"E	388A Spring Bay Rd
L83	20.30'	S50° 34' 35"E	388A Spring Bay Rd
L84	9.44'	S36° 35' 40"E	388A Spring Bay Rd
L85	26.43'	S33° 09' 17"E	388A Spring Bay Rd

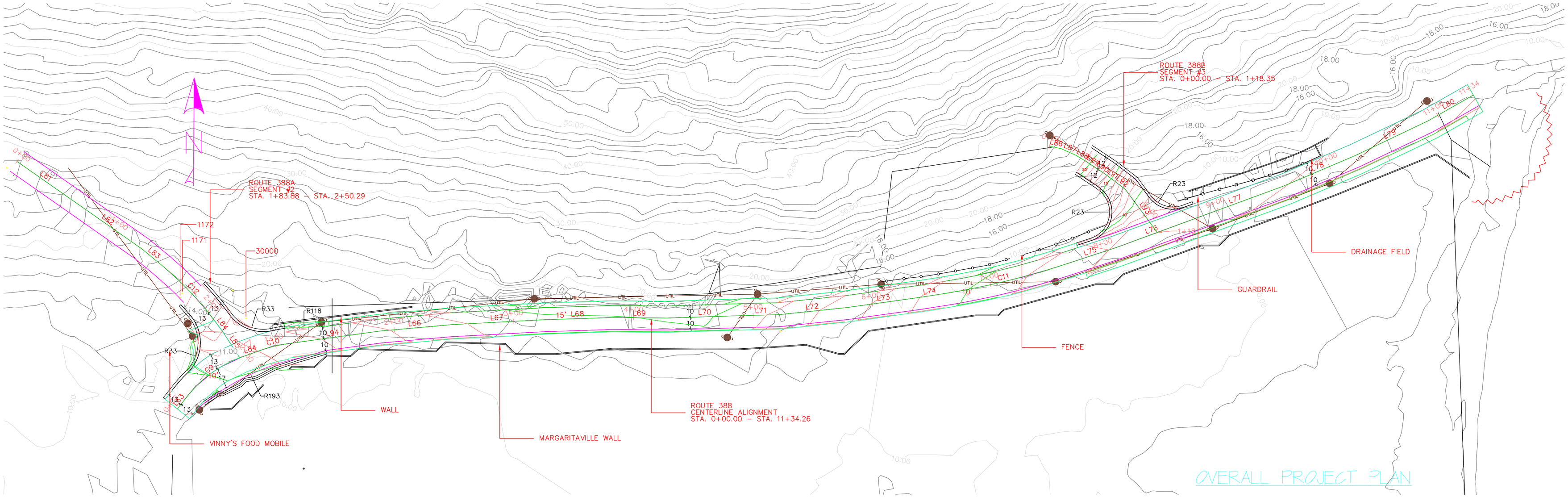
Curve Table: Alignments				
CURVE #	RADIUS	LENGTH	DELTA ANGLE	ALIGNMENT NAME
C12	273'	66.71'	S43° 35' 08"E	388A Spring Bay Rd

LINE TABLE: ALIGNMENT			
LINE #	LENGTH	DIRECTION	ALIGNMENT NAME
L63	13.43'	N38° 16' 56"E	Route 388 Alignment
L64	17.20'	N70° 24' 24"E	Route 388 Alignment
L94	78.19'	N82° 12' 02"E	Route 388 Alignment
L66	59.55'	N84° 51' 46"E	Route 388 Alignment
L67	77.90'	N86° 56' 50"E	Route 388 Alignment
L68	56.74'	N88° 07' 13"E	Route 388 Alignment
L69	46.10'	S89° 29' 12"E	Route 388 Alignment
L70	63.41'	N88° 11' 15"E	Route 388 Alignment
L71	29.92'	N88° 32' 04"E	Route 388 Alignment
L72	57.16'	N84° 02' 42"E	Route 388 Alignment
L73	62.96'	N82° 03' 17"E	Route 388 Alignment
L74	15.47'	N81° 08' 37"E	Route 388 Alignment
L75	43.04'	N71° 49' 57"E	Route 388 Alignment
L76	65.79'	N69° 48' 23"E	Route 388 Alignment
L77	82.80'	N69° 51' 57"E	Route 388 Alignment
L78	65.44'	N66° 57' 31"E	Route 388 Alignment
L79	67.33'	N64° 31' 40"E	Route 388 Alignment
L80	43.48'	N60° 20' 36"E	Route 388 Alignment

Curve Table: Alignments				
CURVE #	RADIUS	LENGTH	DELTA ANGLE	ALIGNMENT NAME
C9	102'	57.15'	N54° 20' 40"E	Route 388 Alignment
C10	105'	21.66'	N76° 18' 13"E	Route 388 Alignment
C11	674'	109.55'	N76° 29' 17"E	Route 388 Alignment

LINE TABLE: ALIGNMENT			
LINE #	LENGTH	DIRECTION	ALIGNMENT NAME
L86	10.06'	S77° 46' 48"E	388B Main Alignment – (1)
L87	12.92'	S65° 56' 54"E	388B Main Alignment – (1)
L88	9.93'	S59° 28' 52"E	388B Main Alignment – (1)
L89	10.25'	S56° 01' 42"E	388B Main Alignment – (1)
L90	9.38'	S56° 49' 05"E	388B Main Alignment – (1)
L91	9.37'	S53° 04' 23"E	388B Main Alignment – (1)
L92	11.69'	S52° 38' 12"E	388B Main Alignment – (1)
L93	44.75'	S36° 32' 45"E	388B Main Alignment – (1)





OVERALL PROJECT PLAN

DPW DEPARTMENT OF PUBLIC WORKS U.S.V.I.	DEPARTMENT OF PUBLIC WORKS DIVISION OF ENGINEERING ST.THOMAS, U.S. VIRGIN ISLANDS	USVI 388	COMMISSIONER OF P.W.D. GUSTAV JAMES, P.E. DEPUTY COMMISSIONER OF ENGINEERING	CHIEF ENGINEER ACTING ERAN FLEMMING, P.E. DISTRICT ENGINEER	SURVEYED BY: DRAWN BY: J4 SCALE: DATE: 6/6/2016		PLAN W/ LINE & CURVE DATA-I	DPW FILE NO. DIVISION OF ENGINEERING	PROJECT NO. ACAD FILE NAME	SHEET NO. 02 OF 19

LINE TABLE: ALIGNMENT			
LINE #	LENGTH	DIRECTION	ALIGNMENT NAME
L81	53.14'	S54° 59' 31"E	388A Spring Bay Rd
L82	74.28'	S54° 59' 51"E	388A Spring Bay Rd
L83	20.30'	S50° 34' 35"E	388A Spring Bay Rd
L84	9.44'	S36° 35' 40"E	388A Spring Bay Rd
L85	26.43'	S33° 09' 17"E	388A Spring Bay Rd

Curve Table: Alignments				
CURVE #	RADIUS	LENGTH	DELTA ANGLE	ALIGNMENT NAME
C12	273'	66.71'	S43° 35' 08"E	388A Spring Bay Rd

LINE TABLE: ALIGNMENT			
LINE #	LENGTH	DIRECTION	ALIGNMENT NAME
L63	13.43'	N38° 16' 56"E	Route 388 Alignment
L64	17.20'	N70° 24' 24"E	Route 388 Alignment
L94	78.19'	N82° 12' 02"E	Route 388 Alignment
L66	59.55'	N84° 51' 46"E	Route 388 Alignment
L67	77.90'	N86° 56' 50"E	Route 388 Alignment
L68	56.74'	N88° 07' 13"E	Route 388 Alignment
L69	46.10'	S89° 29' 12"E	Route 388 Alignment
L70	63.41'	N88° 11' 15"E	Route 388 Alignment
L71	29.92'	N88° 32' 04"E	Route 388 Alignment
L72	57.16'	N84° 02' 42"E	Route 388 Alignment
L73	62.96'	N82° 03' 17"E	Route 388 Alignment
L74	15.47'	N81° 08' 37"E	Route 388 Alignment
L75	43.04'	N71° 49' 57"E	Route 388 Alignment
L76	65.79'	N69° 48' 23"E	Route 388 Alignment
L77	82.80'	N69° 51' 57"E	Route 388 Alignment
L78	65.44'	N66° 57' 31"E	Route 388 Alignment
L79	67.33'	N64° 31' 40"E	Route 388 Alignment
L80	43.48'	N60° 20' 36"E	Route 388 Alignment

Curve Table: Alignments				
CURVE #	RADIUS	LENGTH	DELTA ANGLE	ALIGNMENT NAME
C9	102'	57.15'	N54° 20' 40"E	Route 388 Alignment
C10	105'	21.66'	N76° 18' 13"E	Route 388 Alignment
C11	674'	109.55'	N76° 29' 17"E	Route 388 Alignment

LINE TABLE: ALIGNMENT			
LINE #	LENGTH	DIRECTION	ALIGNMENT NAME
L86	10.06'	S77° 46' 48"E	388B Main Alignment – (1)
L87	12.92'	S65° 56' 54"E	388B Main Alignment – (1)
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L91	9.37'	S53° 04' 23"E	388B Main Alignment – (1)
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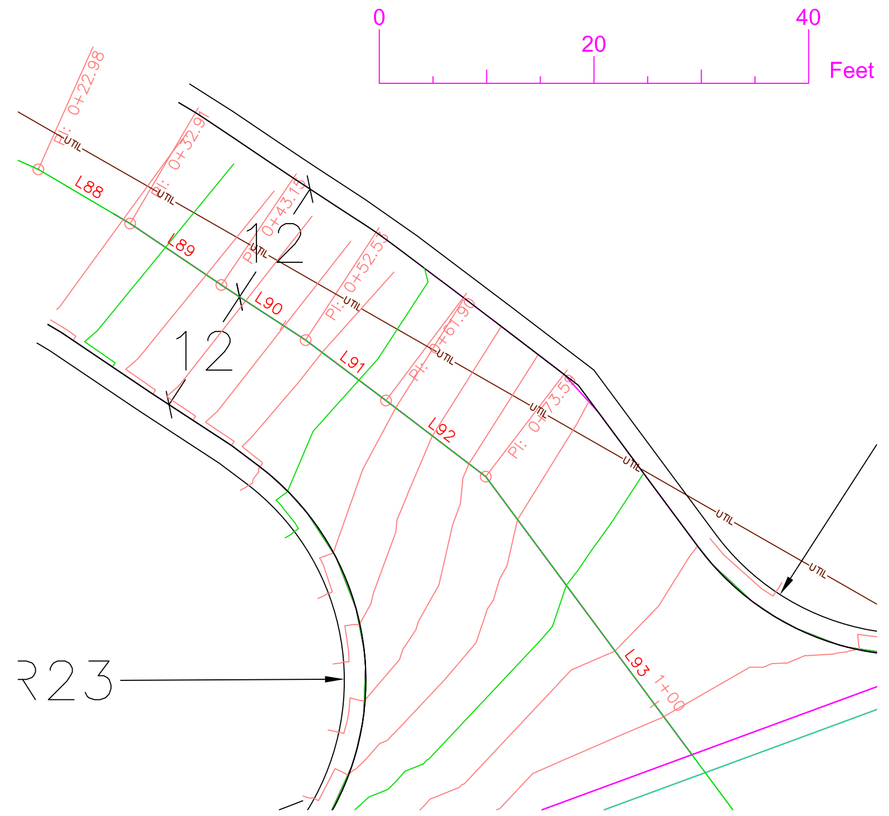
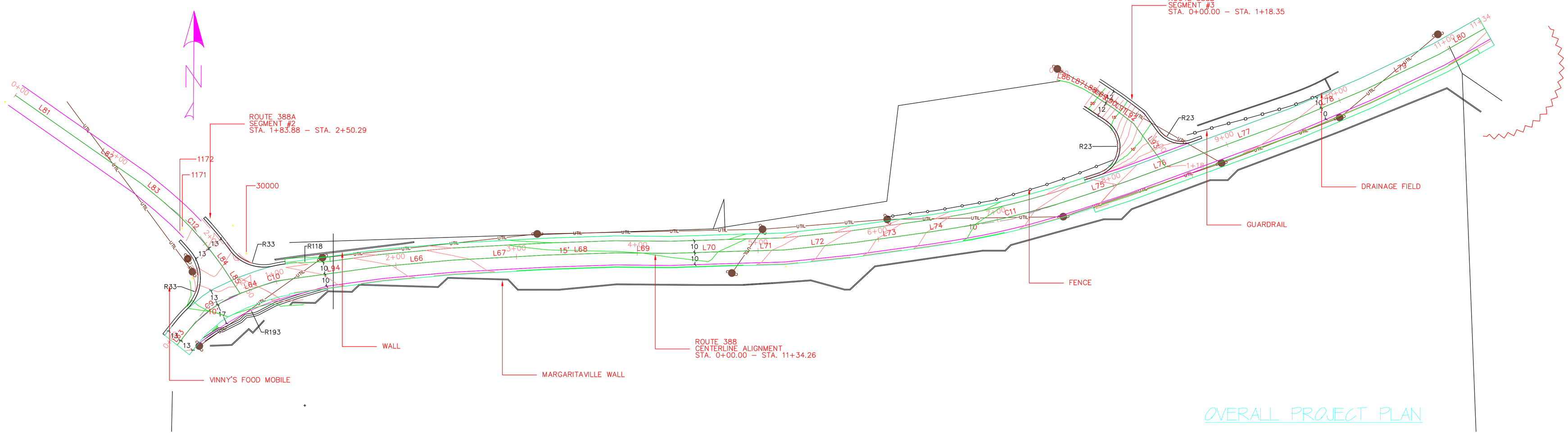
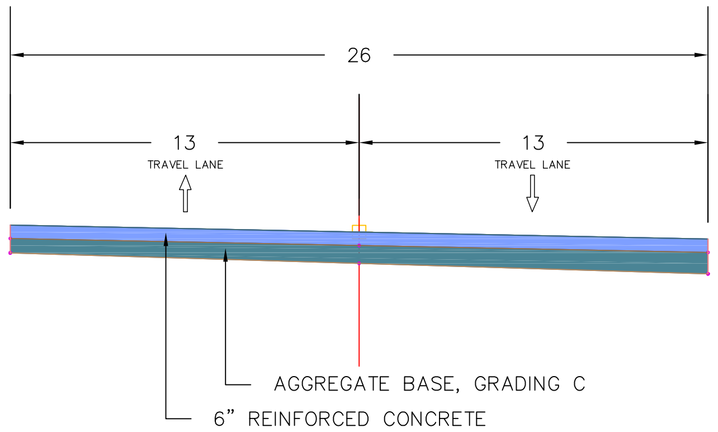


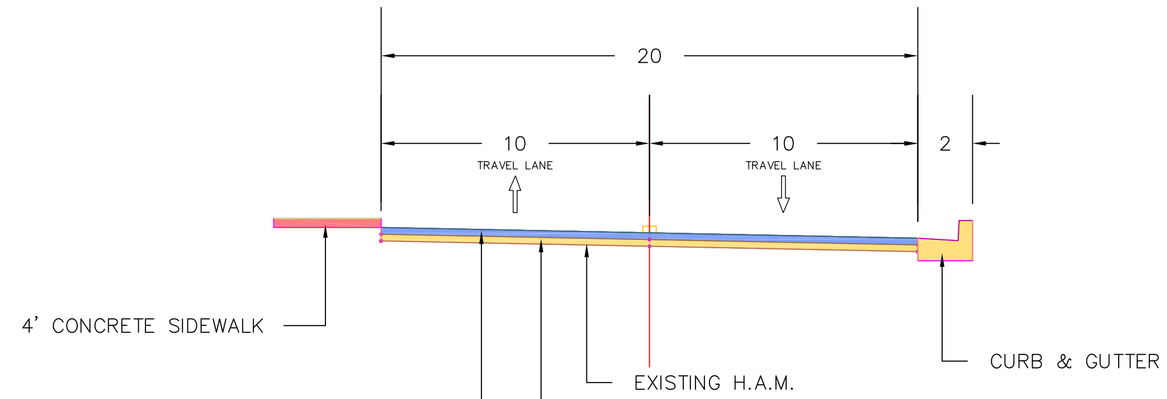


OVERALL PROJECT PLAN

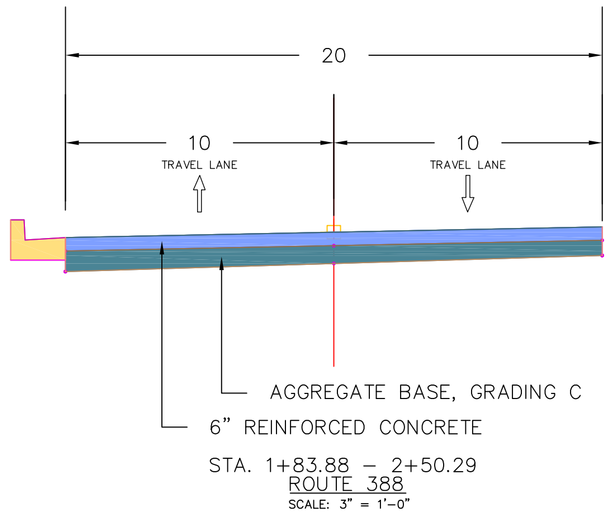
DPW DEPARTMENT OF PUBLIC WORKS U.S.V.I.	DEPARTMENT OF PUBLIC WORKS DIVISION OF ENGINEERING ST. THOMAS, U.S. VIRGIN ISLANDS	USVI 388	COMMISSIONER OF P.W.D. GUSTAV JAMES, P.E. DEPUTY COMMISSIONER OF ENGINEERING	CHIEF ENGINEER ACTING ERAN FLEMMING, P.E. DISTRICT ENGINEER	SURVEYED BY: DRAWN BY: JA SCALE: DATE: 6/6/2016		PLAN W/ LINE & CURVE DATA	DPW FILE NO. DIVISION OF ENGINEERING	PROJECT NO. ACAD FILE NAME	SHEET NO. G2.1 of 19



STA. 0+00.00 – 1+09.37
ROUTE 388
SCALE: 3" = 1'-0"



STA. 1+09.37 – 7+66.39
ROUTE 388–OPTION2
SCALE: 3" = 1'-0"



STA. 1+83.88 – 2+50.29
ROUTE 388
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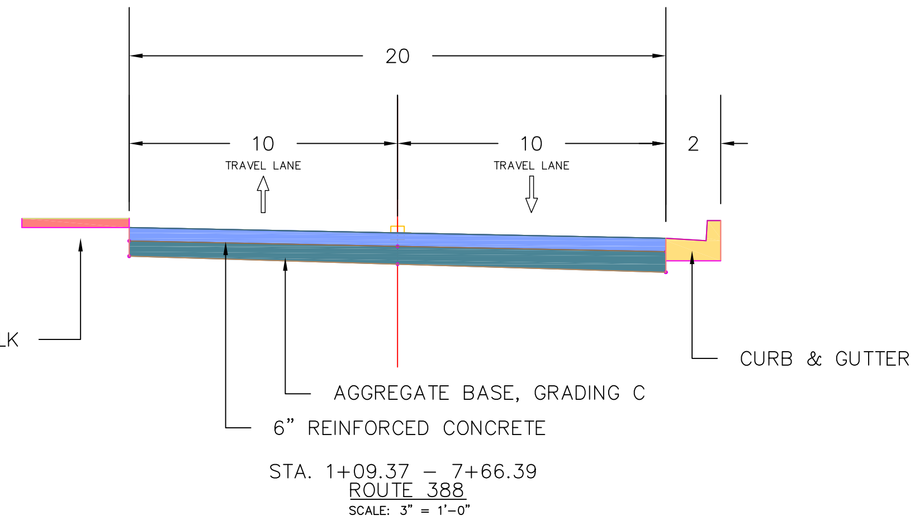

STA. 1+09.37 – 7+66.39
ROUTE 388
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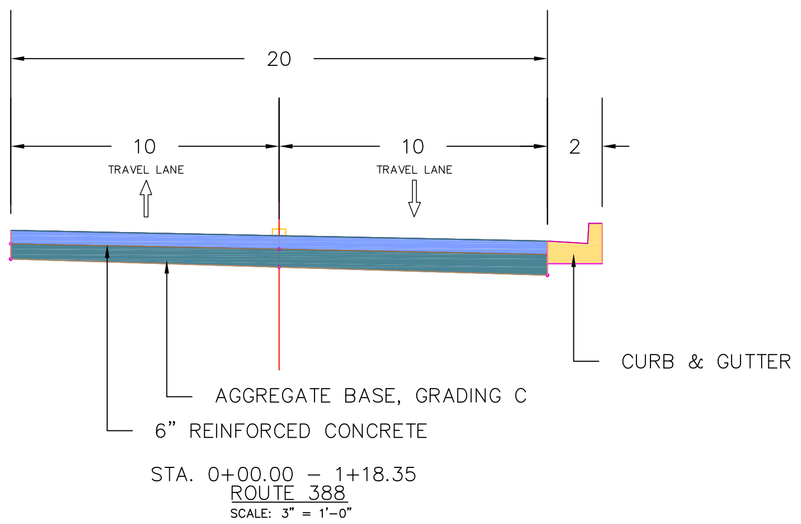
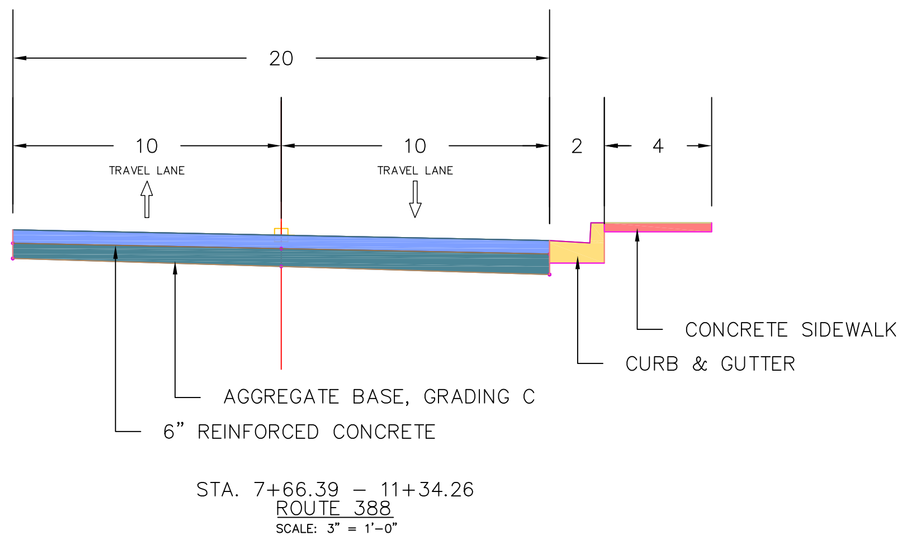


STA. 0+00.00 – 1+18.35
ROUTE 388
SCALE: 3" = 1'-0"



STA. 7+66.39 – 11+34.26
ROUTE 388
SCALE: 3" = 1'-0"

DPW
DEPARTMENT OF PUBLIC WORKS
U.S.V.I.

DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING
ST.THOMAS, U.S. VIRGIN ISLANDS

USVI 388

COMMISSIONER OF P.W.D.
GUSTAV JAMES, P.E.
DEPUTY COMMISSIONER OF ENGINEERING

CHIEF ENGINEER
ACTING ERAN FLEMMING, P.E.
DISTRICT ENGINEER

SURVEYED BY:
DRAWN BY: J4
SCALE:
DATE: 6/6/2016

TYPICAL ROADWAY SECTIONS

DPW FILE NO.
DIVISION OF ENGINEERING

PROJECT NO.
ACAD FILE NAME

SHEET NO.
63 OF 19

SCHEDULE OF QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	TOTAL
15101-0000	MOBILIZATION	LUMP	1
15201-0000	CONSTRUCTION SURVEY AND STAKING	LUMP	1
15401-0000	CONTRACTOR TESTING	LUMP	1
15701-0100	EROSION CONTROL	LUMP	1
15801-0000	WATERING FOR DUST CONTROL (1000 Gallons per Mgal)	MGAL	20
20103-0000	CLEARING AND GRUBBING	SQ. YD.	1,000
20301-2400	REMOVAL OF SIGN	EACH	6
20304-1000	REMOVAL OF STRUCTURES AND OBSTRUCTION	LUMP	1
20315-0000	SAW CUTTING	L.F.	96
20401-0000	ROADWAY EXCAVATION	CU. YD.	1,006
25301-0000	GABION BASKETS	CU. YD	9
30102-2100	AGGREGATE BASE, GRADING D	CU. YD.	503
40301-0300	RIGID PAVEMENT	S.Y.	4,000
40301-0500	HOT ASPHALTIC PAVING; CLASS B, GRADE D	TON	100
41202-0000	TACK COAT	GAL	50
60201-0700	18" PIPE CULVERT	L.F.	373
60401-1000	MANHOLE, TYPE 1	EACH	2
60404-1000	CATCH BASIN, NO. 3	EACH	5
60902-1000	PORTLAND CEMENT CONCRETE CURB AND GUTTER, 13" DEPTH	L.F.	1,132
61501-0100	SIDEWALK, CONCRETE 4"	S.Y.	452
61502-1000	ACCESSIBILITY RAMP, CONCRETE	EACH	4
61710-1100	GUARDRAIL SYSTEM G4, TYPE IV, CLASS B STEEL POST, FLARED	L.F.	180
62632-0000	PLANTINGS	LUMP	1
63304-0900	SIGNS, ALUMINUM PANELS, TYPE 3 SHEETING	EACH	5
63401-1500	PAVEMENT MARKINGS, 634.08, TYPE H, 18" SOLID WHITE	L.F.	164
63401-1700	PAVEMENT MARKINGS, TYPE H, 4" SOLID YELLOW	L.F.	3,154
63501-0000	TEMPORARY TRAFFIC CONTROL	LUMP	1
63641-0700	RELOCATE UTILITY POLE	EACH	1

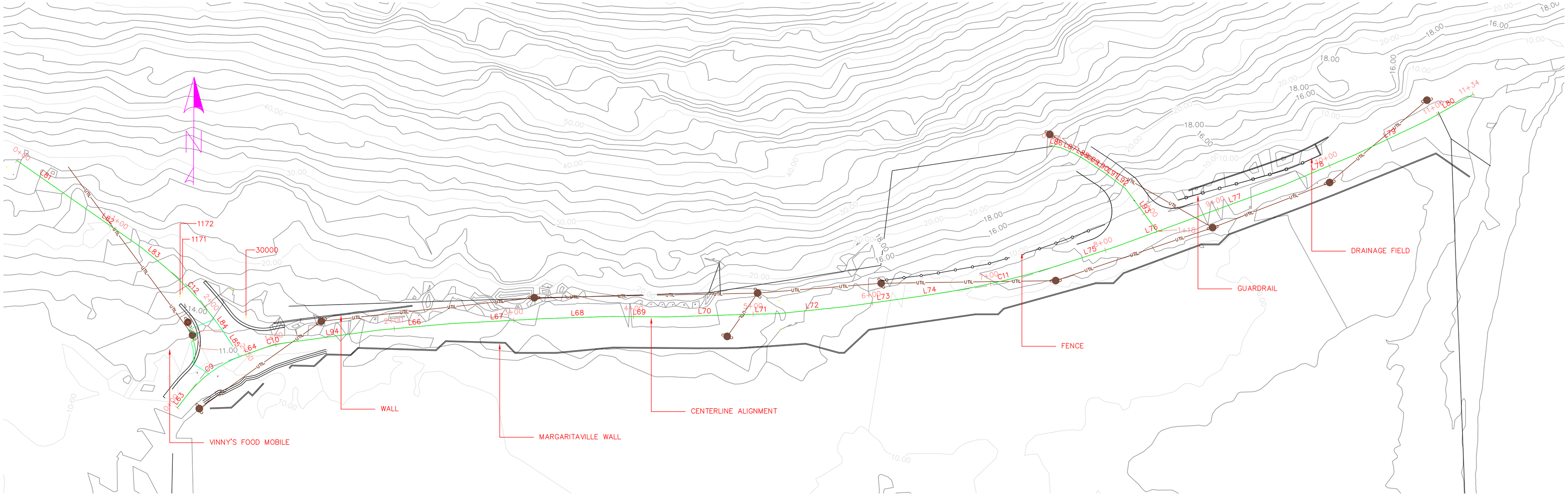
POINT TABLE				
POINT #	ELEVATION	NORTHING	EASTING	DESCRIPTION
1171	22.83'	6088355.32	908525.52	fnd nl
1172	23.26'	6088358.79	908527.48	fnd pk
30000	21.10'	6088338.03	908580.75	pk.nl.set

EXISTING CONDITIONS NOTES:

1. REFER TO DRAWING G1 FOR NOTES, ABBREVIATIONS AND LEGEND.
2. THE SURFACE FEATURES AND TOPOGRPHY SHOWN ARE THE RESULT OF AN ON THE GROUND SURVEY CONDUCTED BETWEEN JANUARY AND JUNE 2016.
3. HORIZONTAL DATUM: ZONE CODE CS PR83F, NAD 83 PR/VI, PROJECTTION–LM
4. VERTICAL DATUM: NAVD88
5. SUBJECT PR DESIGNATION: PER FLOOD INSURANCE RATE MAP 7800000014G
6. BEARINGS SHOWN ON THIS SURVEY ARE BASED ON FOUND DATA IN THE FIELD.
7. THE COMPLIED RIGHT OF WAY INFORMATION SHOWN WAS DEVELOPED FROM CURRENT DEEDS OF RECORDS AND PHYSICAL EVIDENCE FOUND. CONFLICTS AND ERRORS WITHIN THE SURVEY PLATS, INSUFFICIENT FIELD DATA, AND ERRONEOUS GEOMETRY PROHIBIT BOUNDARY CLOSURE. ADDITIONAL RIGHTS MAY EXIST BEYOND THE LIMITS OF THE RIGHT OF WAY SHOWN. CONTRACTOR TO PERFORM BOUNDARY VERIFICATION BEFORE PROCEEDING WITH WORK.
8. THE UTILITIES SHOWN HAVE BEEN COMPILED IN PART FROM FIELD LOCATION. THE LOCATION OF UNDERGROUND UTILITIES SHOULD BE CONSIDRED AND SHOULD BE FIELD VERIFIED PRIOR TO ANY EXCAVATION OR CONSTRUCTION ACTIVITIES.

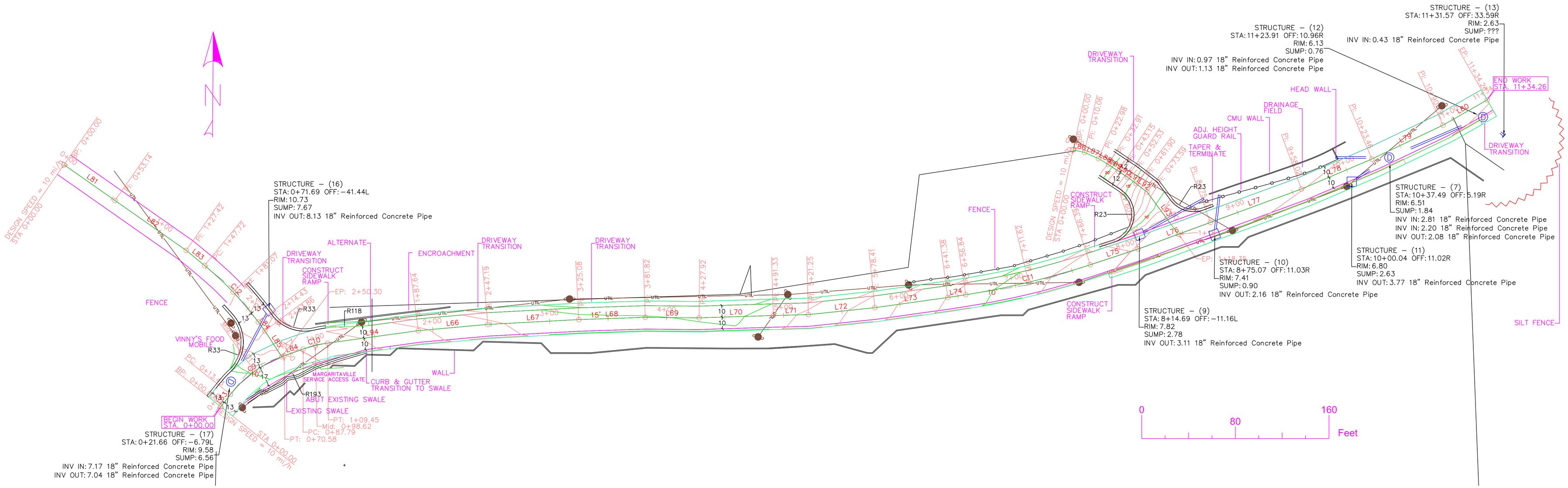
REFERENCE MAPS

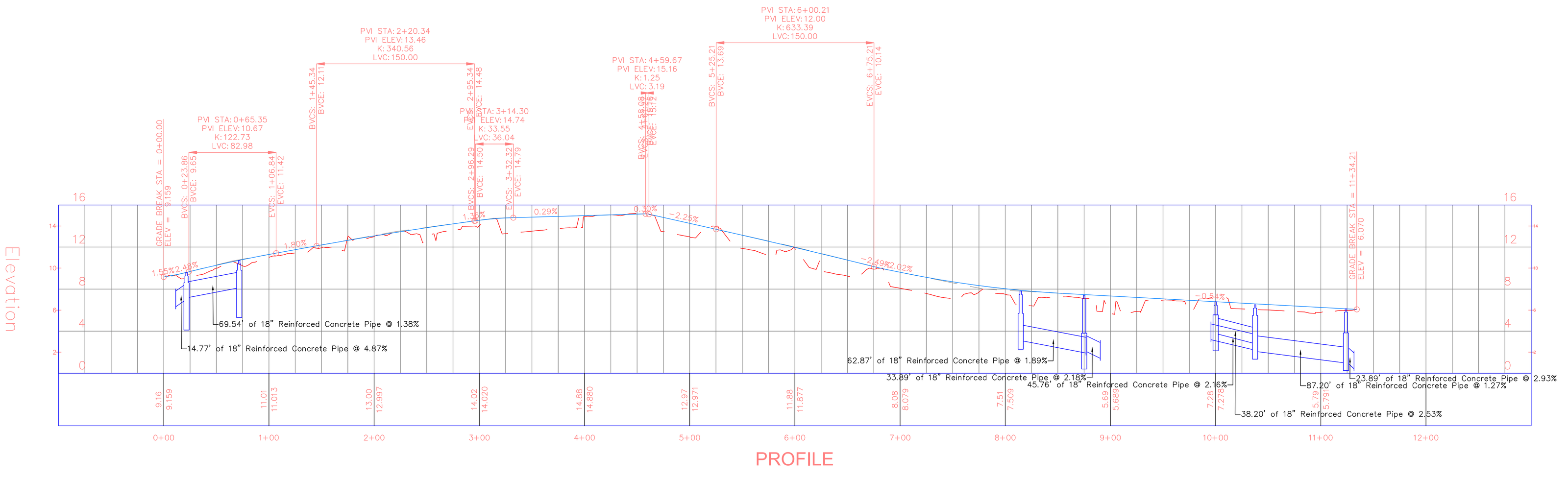
A9–292–T81
D9–1589–T80
G9–1542–T70
D9–997–T71



EXISTING CONDITIONS PLAN

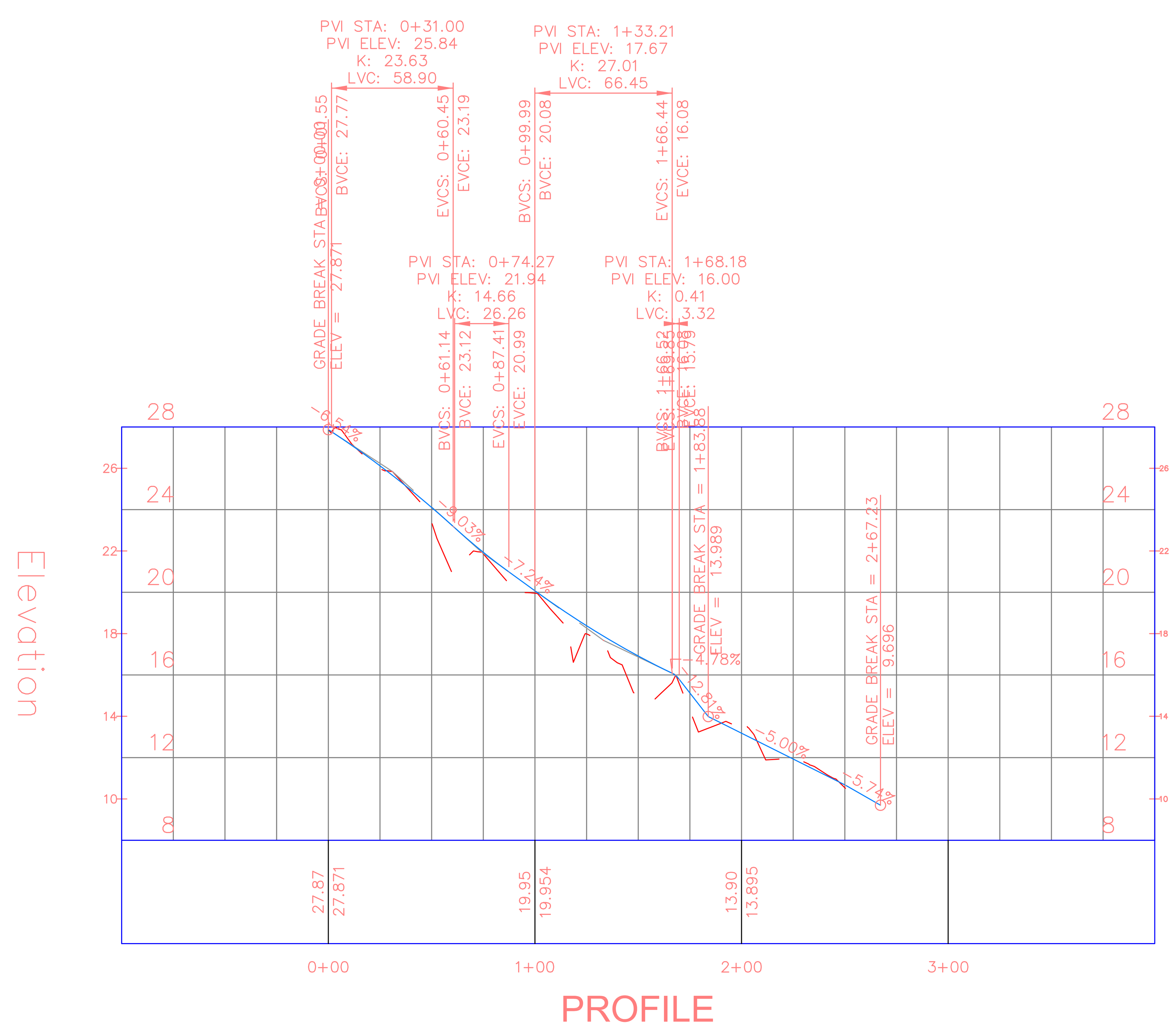
DPW DEPARTMENT OF PUBLIC WORKS U.S.V.I.	DEPARTMENT OF PUBLIC WORKS DIVISION OF ENGINEERING ST.THOMAS, U.S. VIRGIN ISLANDS	USVI 388	COMMISSIONER OF P.W.D. GUSTAV JAMES, P.E. DEPUTY COMMISSIONER OF ENGINEERING	CHIEF ENGINEER ACTING ERAN FLEMMING, P.E. DISTRICT ENGINEER	SURVEYED BY: DRAWN BY: JA SCALE: DATE: 6/6/2016	EXISTING CONDITIONS PLAN	DPW FILE NO. DIVISION OF ENGINEERING / ACAD FILE NAME	PROJECT NO.	SHEET NO. EX1 OF 19

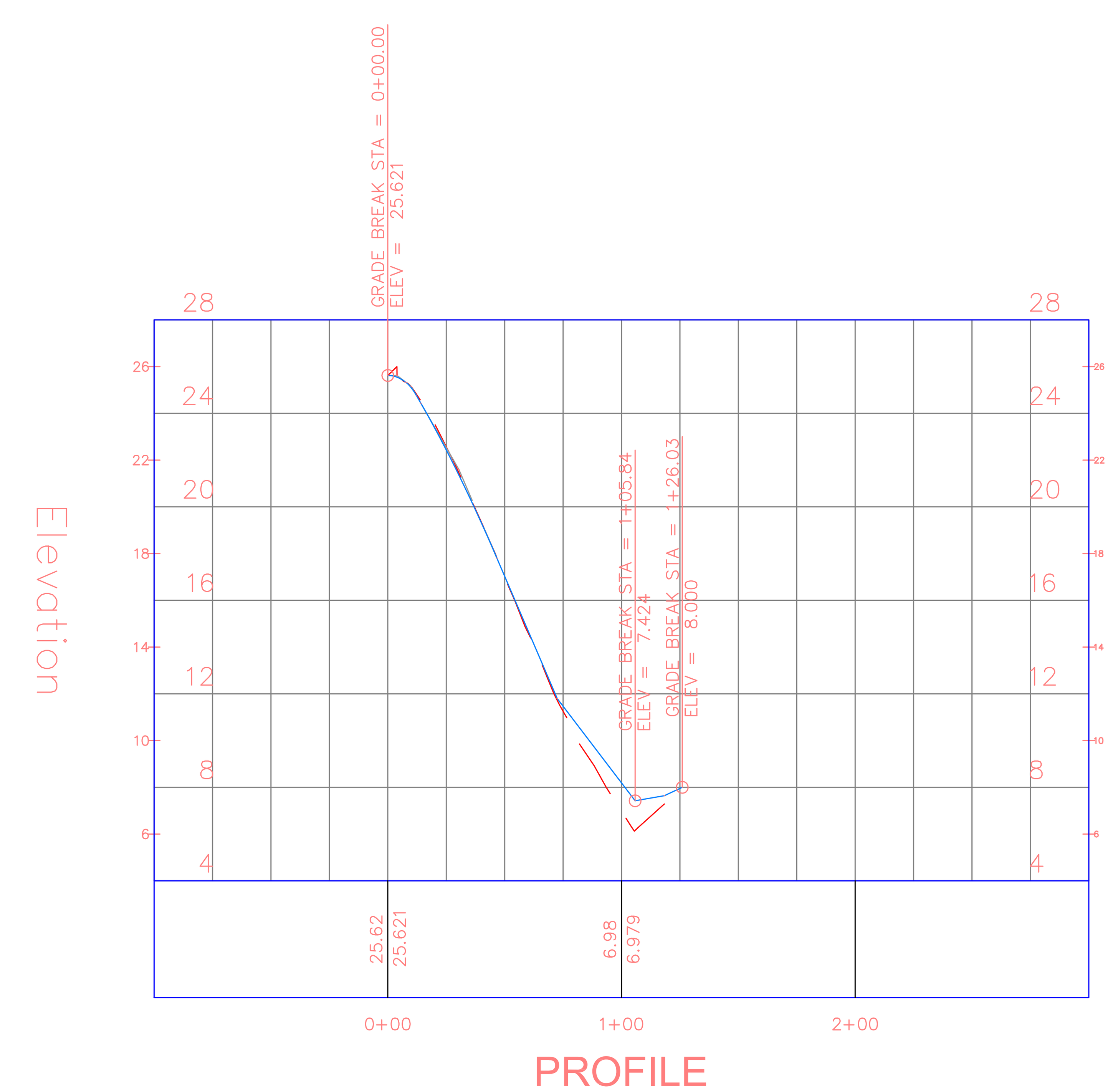




PROFILE

DPW DEPARTMENT OF PUBLIC WORKS U.S.V.I.	DEPARTMENT OF PUBLIC WORKS DIVISION OF ENGINEERING ST. THOMAS, U.S. VIRGIN ISLANDS	USVI 388	COMMISSIONER OF P.W.D. GUSTAV JAMES, P.E. DEPUTY COMMISSIONER OF ENGINEERING	CHIEF ENGINEER ACTING ERAN FLEMMING, P.E. DISTRICT ENGINEER	SURVEYED BY: DRAWN BY: J⁴ SCALE: DATE: 6/6/2016	GENERAL PLAN & PROFILE	DPW FILE NO.: DIVISION OF ENGINEERING ACAD FILE NAME	PROJECT NO.	SHEET NO. C1 OF 19





DPW DEPARTMENT OF PUBLIC WORKS U.S.V.I.	DEPARTMENT OF PUBLIC WORKS DIVISION OF ENGINEERING ST. THOMAS, U.S. VIRGIN ISLANDS	USVI 388	COMMISSIONER OF P.W.D. GUSTAV JAMES, P.E. DEPUTY COMMISSIONER OF ENGINEERING	CHIEF ENGINEER ACTING ERAN FLEMMING, P.E. DISTRICT ENGINEER	SURVEYED BY: DRAWN BY: J4 SCALE: DATE: 6/6/2016	GENERAL PLAN & PROFILE-2	DPW FILE NO. DIVISION OF ENGINEERING

PROJECT NO.	ACAD FILE NAME
SHEET NO.	C2 of 19

EROSION CONTROL NOTES:

GENERAL NOTES

1. ALL WORK ASSOCIATED WITH TEMPORARY EROSION CONTROL WILL BE INCLUDED IN THE CONTRACTORS LUMP SUM BID PRICE.

2. ALL EROSION CONTROL MEASURES SHALL CONFORM TO THE GUIDELINES AND REQUIREMENTS PROVIDED IN THE VIRGIN ISLANDS ENVIRONMENTAL PROTECTION HANDBOOK, 2002. THE HANDBOOK MAY BE DOWNLOADED ONLINE OR PURCHASED FROM THE UNIVERSITY OF THE VIRGIN ISLANDS, COOPERATIVE EXTENSION SERVICE.

3. BEFORE ANY EARTH MOVING ACTIVITIES, AND THEREAFTER, EROSION CONTROL MEASURES ARE TO BE IMPLEMENTED AS NOTED. THE SMALLEST PRACTICAL AREA OF LAND (5 ACRES MAXIMUM) SHOULD BE EXPOSED AT ANY ONE TIME DURING DEVELOPMENT. WHEN LAND IS EXPOSED DURING DEVELOPMENT, THE EXPOSURE SHOULD BE KEPT TO A MAXIMUM OF 72 HOURS BEFORE APPLYING TEMPORARY OR PERMANENT EROSION CONTROL MEASURES. CONFINE PERIOD OF DISTURBED AND UNSTABILIZED SOILS TO A MAXIMUM OF FORTY-FIVE DAYS. ALL DITCHES AND SWALES ARE REQUIRED TO BE STABILIZED PRIOR TO DIRECT RECEIPT OF ANY FLOW.

4. INSTALL SILT FENCE WHERE SHOWN PRIOR TO START OF CONSTRUCTION. INSTALL EROSION PROTECTION AROUND ALL EXISTING DRAINAGE STRUCTURES ADJACENT TO PROJECT. DO NOT REMOVE SILT BARRIERS UNTIL DISTURBED AREAS ARE FULLY COVERED WITH TURF OR OTHER APPLICABLE SURFACE MATERIAL. ALL PONDS ARE TO BE CONSTRUCTED AND STABILIZED PRIOR TO ANY OTHER DRAINAGE SYSTEM WORK, INCLUDING DITCH AND SWALE EXCAVATION.

5. EROSION AND SEDIMENT CONTROL PRACTICES INCLUDE THE USE OF THE FOLLOWING: SILT FENCE BARRIERS, PERMANENT DETENTION/SEDIMENTATION BASIN, GRASS AND/OR ROCK LINED SWALES, DIVERSIONS WITH LEVEL SPREADERS.

6. THE CONTRACTOR IS RESPONSIBLE TO COMPLY WITH THE REQUIREMENTS RELATIVE TO THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PROGRAM AS ADMINISTERED BY THE ENVIRONMENTAL PROTECTION AGENCY. THIS PROJECT MAY BE SUBJECT TO NOTICE OF INTENT, NOTICE OF TERMINATION, AND OTHER PROJECT RECORDS BY THE CONTRACTOR AS REQUIRED.

7. SEE PLANS FOR ADDITIONAL EROSION CONTROL MEASURES WHICH MAY BE REQUIRED.

VEGETATIVE MEASURES

8. TOPSOIL STOCKPILING. TOPSOIL SHALL BE STRIPPED AND STOCKPILED FOR LATER USE ON CRITICAL AREAS AND ALL OTHER AREAS TO BE SEEDED. THE STOCKPILE WILL NOT BE COMPACTED AND SHALL BE STABILIZED AGAINST EROSION WITH TEMPORARY SEEDING.

   TEMPORARY SEEDING:

9. BEDDING – REMOVE STONES AND TRASH THAT WILL INTERFERE WITH SEEDING THE AREA. WHERE FEASIBLE, TILL THE SOIL TO A DEPTH OF ABOUT 3" TO PREPARE SEED BED AND MIX THE FERTILIZER INTO THE SOIL.

10. FERTILIZER – FERTILIZER SHOULD BE UNIFORMLY SPREAD OVER THE AREA PRIOR TO BEING TILLED INTO THE SOIL. A 10-10-10 MIX OF FERTILIZER SHOULD BE APPLIED AT A RATE OF 300 POUNDS PER ACRE (OR 7 POUNDS PER 1,000 S.F.).

11. MULCHING – WHERE IT IS IMPRACTICAL TO INCORPORATE FERTILIZER AND SEED INTO MOIST SOIL, THE SEEDED AREA SHALL BE MULCHED TO FACILITATE GERMINATION. MULCH IN THE FORM OF HAY OR STRAW SHOULD BE APPLIED AT A RATE OF 70 TO 90 LBS. PER 1,000 S.F.

STRUCTURAL MEASURES

12. SILT FENCES: SILT FENCES ARE TO BE INSTALLED IN THE AREAS SHOWN ON THE PLAN. THEY ARE INTENDED PRIMARILY TO INTERCEPT AND FILTER SMALL VOLUMES OF "SHEET FLOWING" RUNOFF, OR AS SEDIMENT TRAPS IN SMALL SWALES. SILT FENCES WILL FUNCTION 6 MONTHS OR LONGER IF KEPT FREE OF SEDIMENT ACCUMULATIONS (SEE DETAILS FOR ADDITIONAL INFORMATION).

13. SWALES: TEMPORARY AND/OR PERMANENT SWALES ARE TO BE INSTALLED AS SHOWN ON THE PLAN. SWALES ARE USED TO CONVERT SHEET FLOW TO CHANNEL FLOW AND CONVEY THE RUNOFF TO A PERMANENT CHANNEL, STORM DRAIN, OR DETENTION/SEDIMENT STRUCTURE. SWALES ARE INTENDED TO INTERCEPT RUNOFF AND DIVERT IT FROM AN EXPOSED OR NEWLY SEEDED SLOPE TOWARD AN ACCEPTABLE OUTLET OR TO REDUCE THE VELOCITY OF RUNOFF FLOWING DOWN FROM A DRAINAGE AREA. TEMPORARY GRADE STABILIZATION STRUCTURES ARE TO BE INSTALLED DURING CONSTRUCTION WITHIN SWALES TO REDUCE THE VELOCITY OF CONCENTRATED STORMWATER FLOWS. THESE STRUCTURES MAY BE CONSTRUCTED OF ROCK OR TIMBER. STONE STRUCTURES, WHEN USED, SHALL CONSIST OF 2-3 INCH STONE.

14. A STABILIZED CONSTRUCTION ENTRANCE SHALL BE CONSTRUCTED OF 2-3 INCH STONE ACROSS THE FULL WIDTH OF THE VEHICLE INGRESS EGRESS AREA. THE STONE PAD SHOULD BE AT LEAST 50 FEET LONG, 25 FEET WIDE AND AT LEAST 6 INCHES THICK. ADDITIONAL STONE MAY HAVE TO BE ADDED PERIODICALLY TO MAINTAIN THE PROPER FUNCTIONING OF THE PAD.

MAINTENANCE

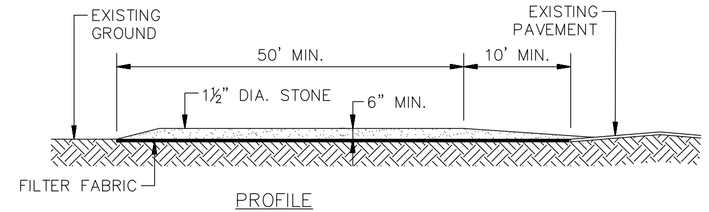
DURING THE PERIOD OF CONSTRUCTION AND/OR UNTIL LONG TERM VEGETATION IS ESTABLISHED:

15. SEEDED AREAS WILL BE FERTILIZED AND WILL BE SEEDED AS NECESSARY TO INSURE VEGETATIVE ESTABLISHMENT.

16. ADDITIONAL STONE MAY HAVE TO BE ADDED TO THE CONSTRUCTION ENTRANCE, ROCK LINED SWALES, ETC., PERIODICALLY TO MAINTAIN THE PROPER FUNCTIONING OF THE EROSION CONTROL STRUCTURE.

17. ALL DIVERSION CHANNELS AND SWALES WILL BE CHECKED WEEKLY AND REPAIRED WHEN NECESSARY UNTIL ADEQUATE VEGETATION IS ESTABLISHED.

18. ALL SILT FENCES WILL BE CHECKED WEEKLY. NECESSARY REPAIRS WILL BE MADE TO CORRECT UNDERMINING OR DETERIORATION OF THE BARRIER.

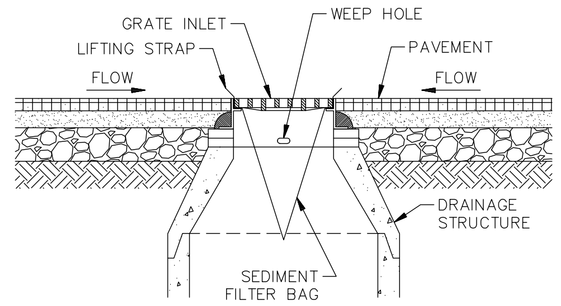


NOTE:

TO BE CONSTRUCTED AT STAGING OR STOCKPILE AREAS AS REQUIRED.

1 / C 3 STABILIZED CONSTRUCTION ENTRY DETAIL

SCALE: NONE



INLET PROTECTION NOTES:

1. THE SEDIMENT FILTER BAG SHALL BE DESIGNED FOR CATCH BASIN INLET PROTECTION. FILTER FABRIC IS NOT AN ACCEPTABLE SEDIMENT FILTER BAG.

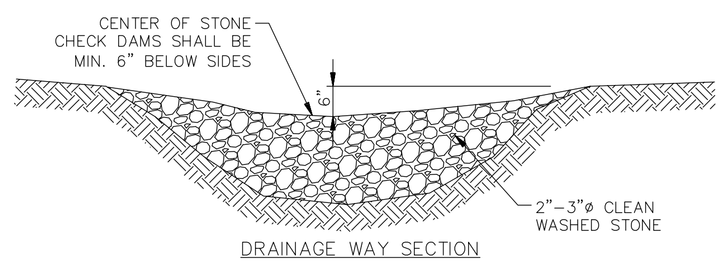
2. REMOVE DRAINAGE INLET GRATE AND PLACE SEDIMENT FILTER BAG AROUND THE FRAME, REPLACE GRATE AND SEDIMENT FILTER BAG IN POSITION OR FOLLOW MANUFACTURER'S RECOMMENDATIONS. LIFTING STRAPS SHALL BE EXPOSED AND READY FOR MAINTENANCE PROCEDURES.

3. INSPECT SEDIMENT FILTER BAG WEEKLY AND AFTER EVERY RAINFALL EVENT.

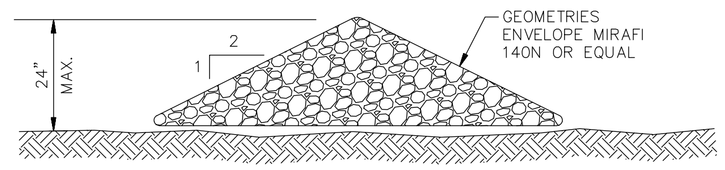
4. REPLACE, CLEAN OR REMOVE SEDIMENT FILTER BAG AS DIRECTED.

2 / C 3 INLET PROTECTION DETAIL

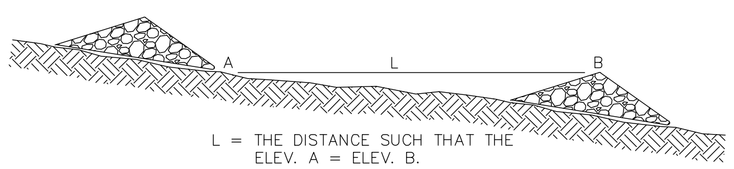
SCALE: NONE



DRAINAGE WAY SECTION



DRAINAGE WAY PROFILE

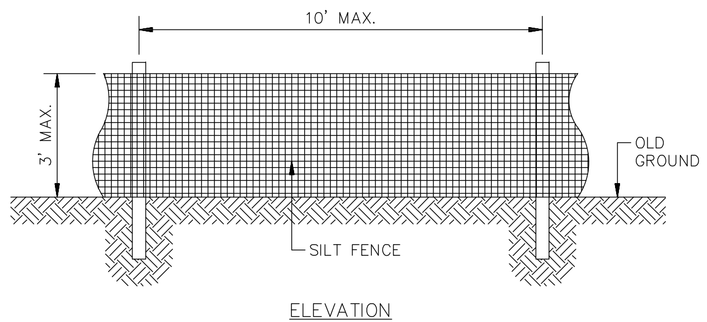


L = THE DISTANCE SUCH THAT THE ELEV. A = ELEV. B.

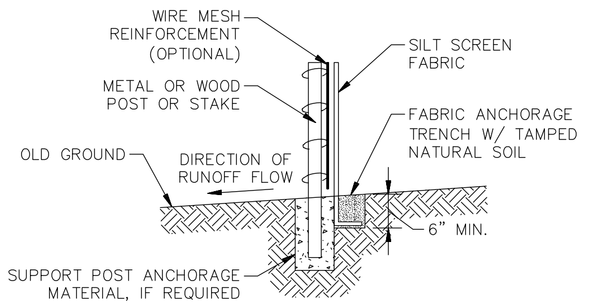
CHECK DAM SPACING

3 / C 3 STONE CHECK DAM DETAIL

SCALE: NONE



ELEVATION



END VIEW

SILT FENCE NOTES:

1. SPACING OF FENCE POSTS NOT TO EXCEED 10-0".

2. SILT FENCE SHALL BE INSTALLED BEFORE ANY EARTH REMOVAL OR EXCAVATION TAKES PLACE.

3. FILTER FABRIC TO BE FASTENED SECURELY TO POSTS WITH WIRE TIES OR STAPLES AT TOP, MIDPOINT AND BOTTOM.

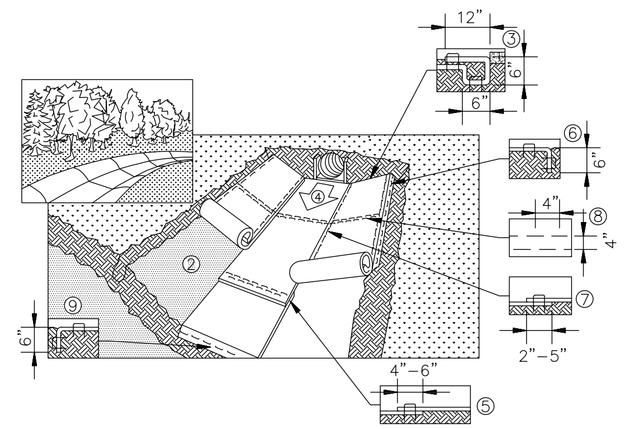
4. OVERLAP BY 6". FOLD AND STAPLE ADJOINING SECTIONS OF FILTER FABRIC.

5. MAINTENANCE SHALL BE PERFORMED AS NEEDED, AND THE MATERIAL REMOVED WHEN "BULGES" DEVELOP. DO NOT DEPOSIT THE MATERIAL NEAR WETLANDS OR WATERCOURSES.

6. FILTER FABRIC SHALL BE ENTRENCHED 6" MINIMUM BELOW EXISTING OR FINISHED GRADE.

4 / C 3 SILT FENCE EROSION CONTROL DETAIL

SCALE: NONE



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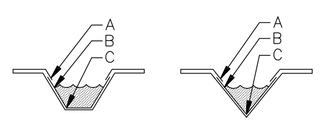


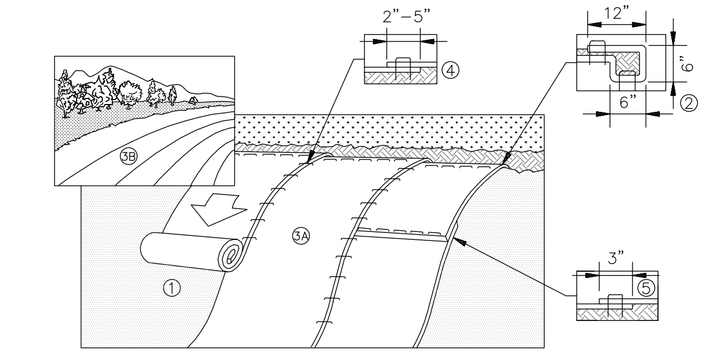
CRITICAL POINTS
A. OVERLAPS AND SEAMS
B. PROJECTED WATER LINE
C. CHANNEL BOTTOM/SIDE SLOPE VERTICES

** HORIZONTAL STAPLE SPACING SHOULD BE ALTERED IF NECESSARY TO ALLOW STAPLES TO SECURE THE CRITICAL POINTS ALONG THE CHANNEL SURFACE.

** IN LOOSE SOIL CONDITIONS, THE USED OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15cm) MAY BE NECESSARY TO PROPERLY ANCHOR THE BLANKETS

6 / C 3 CHANNEL EROSION CONTROL MATTING DETAIL

SCALE: NONE



SLOPE PROTECTION INSTALLATION NOTES:

1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.

2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE BLANKET.

3. ROLL THE BLANKETS (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING OPTIONAL DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.

4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2"-5" OVERLAP DEPENDING ON BLANKET TYPE. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE COLORED SEAM STITCH ON THE PREVIOUSLY INSTALLED BLANKET.

5. CONSECUTIVE BLANKETS SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12"APART ACROSS ENTIRE BLANKET WIDTH.

6. IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.

7. INSTALL PRODUCT IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.

5 / C 3

SCALE: NONE

CHANNEL INSTALLATION NOTES:

1. INSTALL PRODUCT IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS

2. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED, DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH THE PAPER SIDE DOWN.

3. BEGIN AT THE TOP OF THE CHANNEL BY ANCHORING THE BLANKET IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF BLANKET OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE BLANKET.

4. ROLL CENTER BLANKET IN DIRECTION OF WATER FLOW IN BOTTOM OF CHANNEL. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING OPTIONAL DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.

5. PLACE CONSECUTIVE BLANKETS END OVER END (SHINGLE STYLE) WITH A 4"-6" OVERLAP. USE A DOUBLE ROW OF STAPLES STAGGERED 4" APART AND 4"(10") ON CENTER TO SECURE BLANKETS.

6. FULL-LENGTH EDGE OF BLANKETS AT TOP OF SIDE SLOPES MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN A 6"DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.

7. ADJACENT BLANKETS MUST BE OVERLAPPED APPROXIMATELY 2"-5" (DEPENDING ON BLANKET TYPE) AND STAPLED TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE COLORED SEAM STITCH ON THE BLANKET BEING OVERLAPPED.

8. IN HIGH FLOW CHANNEL APPLICATIONS, A STAPLE CHECK SLOT IS RECOMMENDED AT 30' TO 40' INTERVALS. USE A DOUBLE ROW OF STAPLES STAGGERED 4" APART AND 4" ON CENTER OVER ENTIRE WIDTH OF CHANNEL.

9. THE TERMINAL END OF THE BLANKETS MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN A 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.

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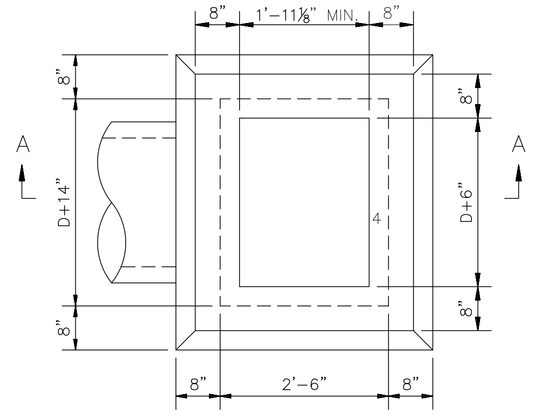
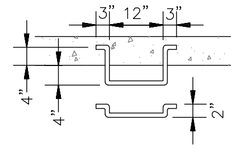


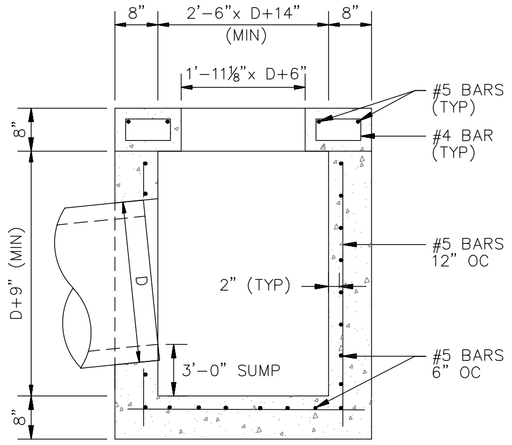
INLET, TYPE 6A



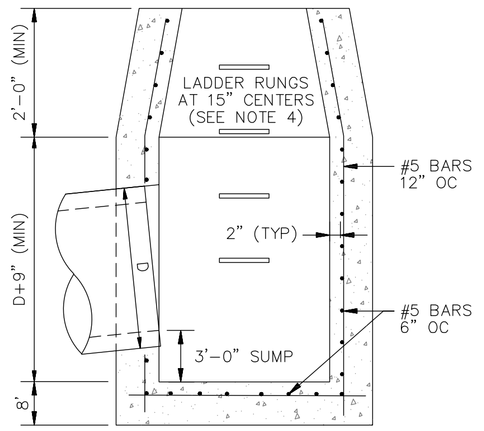
LADDER RUNG

INLET NOTES:

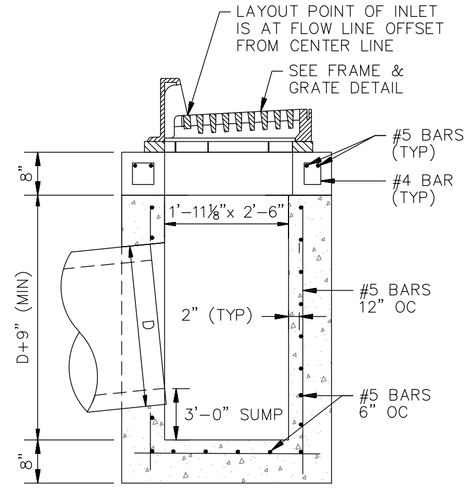
1. AT THE OPTION OF THE CONTRACTOR WALLS LESS THAN 4 FEET MAY BE OF CONCRETE AS SHOWN.
2. CONSTRUCT TYPE 6A-A INLETS FOR PIPES 24 INCH AND LARGER "LIMITED HEADROOM", UNLESS OTHERWISE DIRECTED BY THE CO.
3. CONSTRUCT INLETS PARALLEL TO THE ROADWAY CENTERLINE AND GRADE. ADAPT INLETS AS DIRECTED BY THE CO.
4. CONSTRUCT LADDER RUNGS OF $\frac{5}{8}$" ROUND OR $\frac{3}{4}$" ROUND OR SQUARE STEEL OR WROUGHT IRON WHERE DEPTH EXCEEDS 4'.
5. FOR FRAMES AND GRATINGS MINOR VARIATIONS IN DESIGN AND DIMENSIONS ARE PERMITTED TO ALLOW MANUFACTURERS STANDARDS. ALL GRATE ARE TO BE BICYCLE SAFE.
6. ORIENT CURVED VANES TOWARD DIRECTION OF STORMWATER FLOW. IN A SUMP CONDITION, ORIENTATION OF CURVED VANES CAN BE EITHER DIRECTION. CONTRACTOR IS RESPONSIBLE FOR CORRECT GRATE ORIENTATION TOWARDS STORMWATER FLOW.
7. CONSTRUCT TYPE 6A-A METAL FRAME AND GRATING FOR 6" REVEAL, UNLESS OTHERWISE DIRECTED BY THE CO.



SECTION A-A
LIMITED HEADROOM

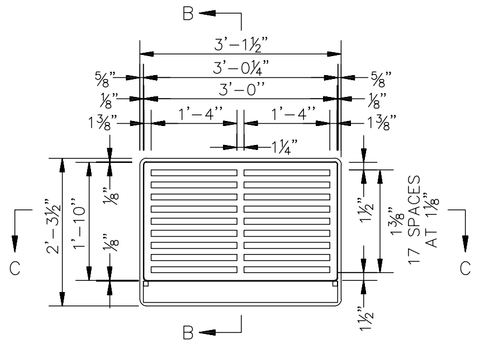


SECTION A-A
AMPLE HEADROOM

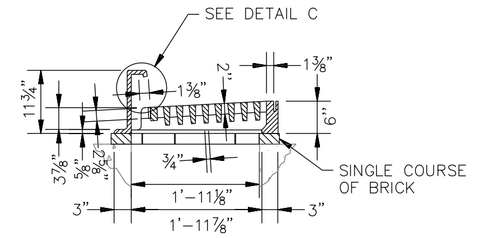


SECTION A-A
FOR MINIMUM INSIDE INLET DIMENSIONS ONLY

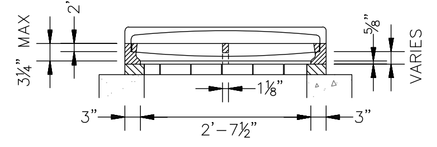
1 / C 4 TYPE 6A-A INLET DETAIL
SCALE: NONE



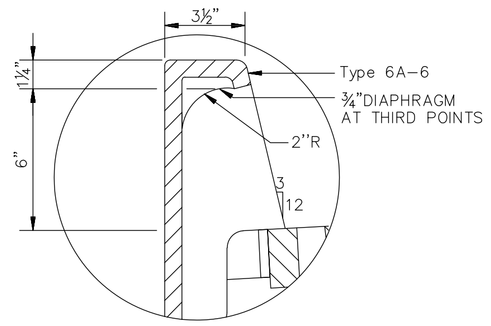
METAL FRAME AND GRATE TYPE 6A



SECTION B-B



SECTION C-C

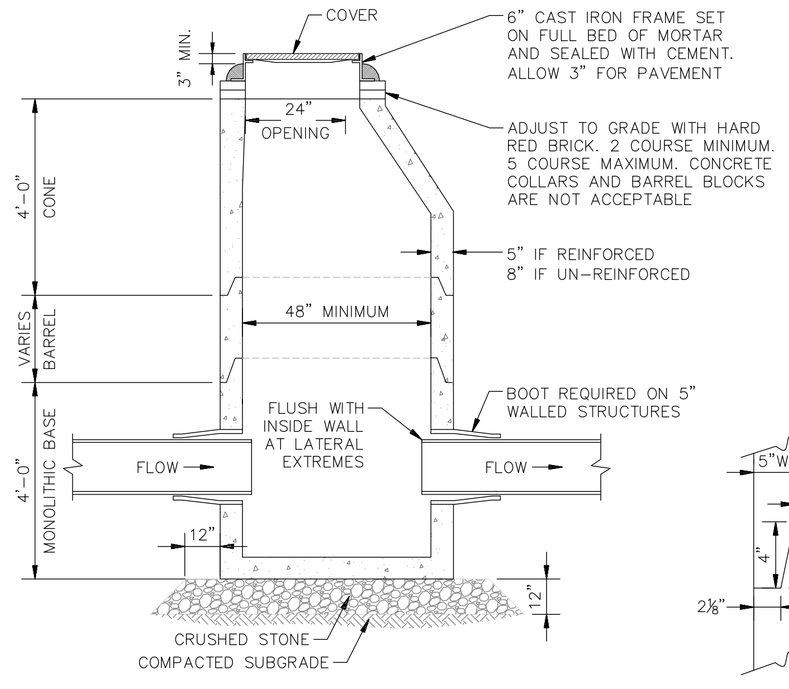


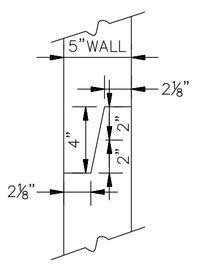
DETAIL C

2 / C 4 TYPE 6A METAL FRAME AND GRATE DETAIL
SCALE: NONE

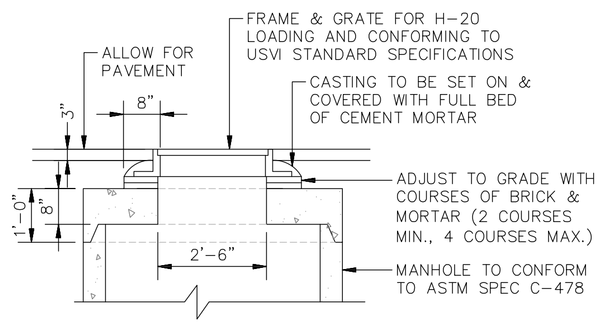
DRAIN MANHOLE NOTES:

1. STRUCTURE SHALL BE DESIGNED FOR H-20 LOADING.
2. CONCRETE: 4,000 PSI AFTER 28 DAYS.
3. CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQ.IN. PER LINEAR FOOT IN ALL SECTIONS AND SHALL BE IN THE CENTER OF THE WALL. STRUCTURE SHALL BE DESIGNED TO SUPPORT HS20 LOADINGS.
4. THE TONGUE OR THE GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQ.IN. PER LINEAR FOOT.
5. SEAL ALL PRECAST JOINTS WITH BITUMASTIC SEAL.
6. RISERS OF 2", 3" AND 4" CAN BE USED TO REACH DESIRED DEPTH. 12" MAXIMUM RISER HEIGHT.



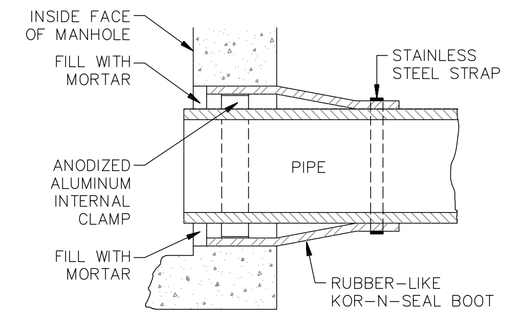


DETAIL OF TONGUE

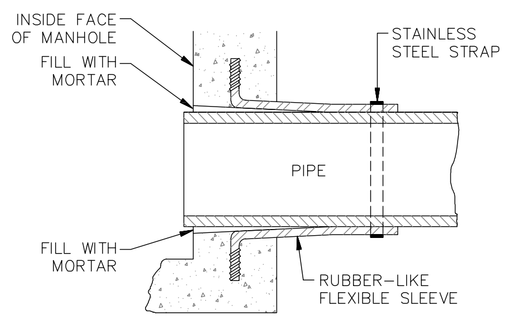


DETAIL OF FLAT SLAB

3 / C 4 DRAIN MANHOLE DETAIL
SCALE: NONE

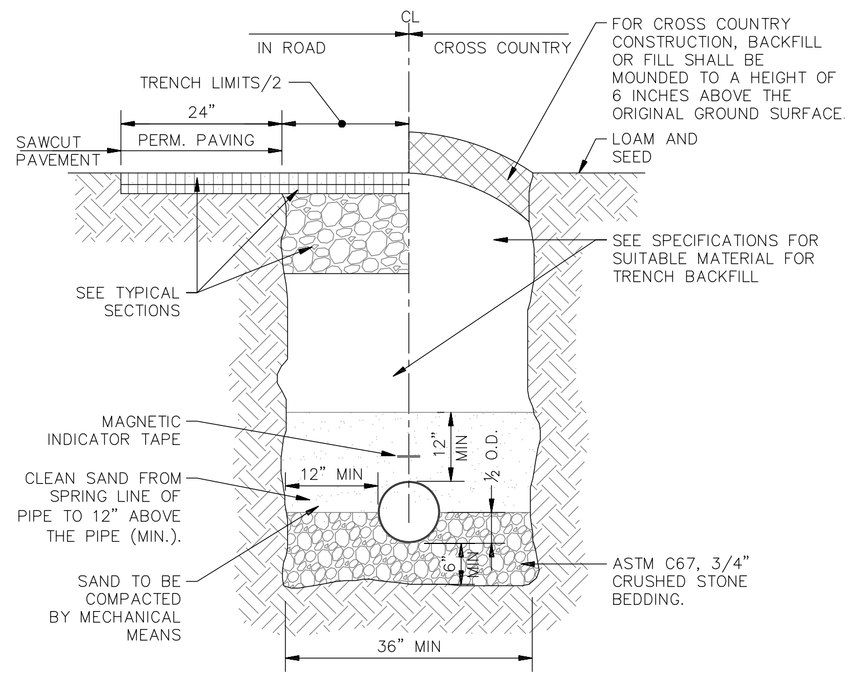


KOR-N-SEAL JOINT SLEEVE
OR EQUAL



LOCK-JOINT FLEXIBLE MANHOLE SLEEVE
OR EQUAL

4 / C 4 TYPICAL PIPE TO STRUCTURE DETAILS
SCALE: NONE



5 / C 4 DRAIN AND SEWER TRENCH DETAIL
SCALE: NONE

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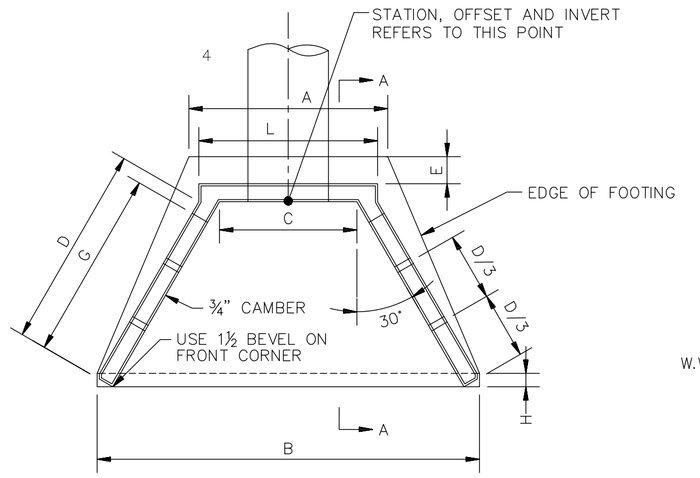
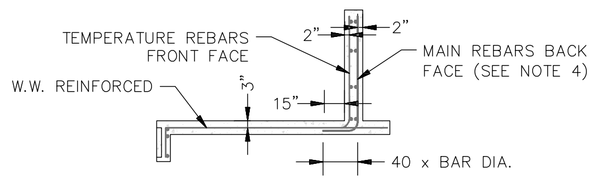
HEADWALL NOTES:

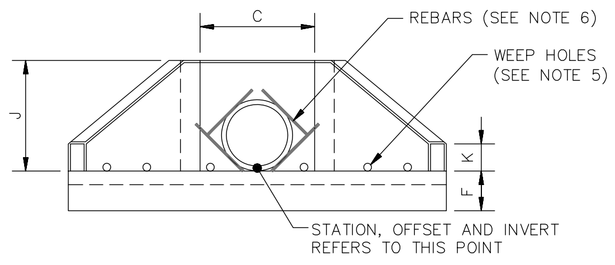
1. SEE DIMENSION TABLE FOR DIMENSIONS OF HEADWALL.
2. SEE REINFORCING SCHEDULE FOR DIMENSIONS.
3. USE 3500 P.S.I. CONCRETE.
4. USE NO.4 REBAR @ 12" O.C. BOTH FACES HORIZONTAL AND VERTICAL.
5. WEEP HOLES USED WITH 15"–42" PIPE WILL BE PLACED 6" INSIDE WING.
6. PLACE 4 REBARS AROUND PIPE IN BOTH FACES TO PROTECT AGAINST DIAGONAL TENSION.



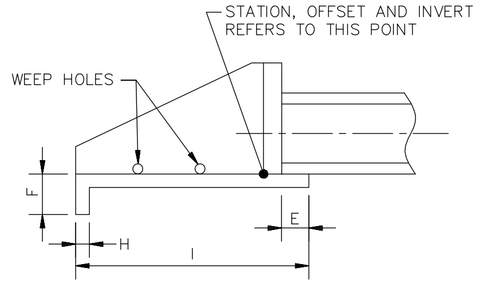
PLAN VIEW



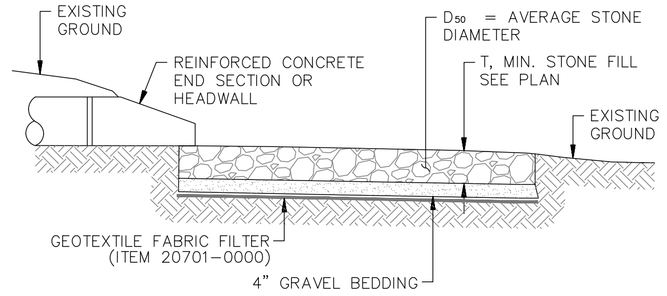
CROSS SECTION A–A



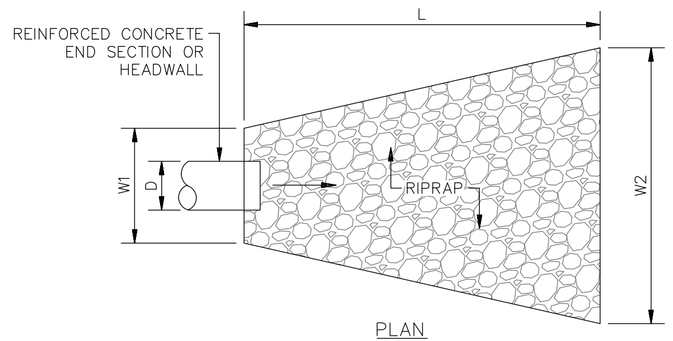
FRONT VIEW



SIDE VIEW



CROSS SECTION



PLAN

DIMENSIONS FOR REINFORCED CONCRETE HEADWALL WITH WING WALLS

PIPE SIZE	SHELL THICKNESS	WALL THICKNESS	SLAB THICKNESS	A	B	C	D	E	F	G	H	I	J	K	L
24"	3"	8"	6"	6'–4"	12'–4"	4'–6"	6'–3"	1'–0"	1'–6"	5'–9"	6"	7'–5"	3'–6"	1'–0"	6'–1"
30"	3½"	8"	6"	7'–3"	14'–3"	5'–1"	7'–7"	1'–0"	1'–6"	7'–1"	6"	8'–7"	4'–1"	1'–0"	6'–8"
36"	4"	8"	6"	7'–5"	15'–1"	5'–8"	7'–10"	1'–6"	2'–0"	7'–4"	6"	9'–4"	4'–8"	1'–6"	7'–3"
42"	4½"	8"	6"	8'–4"	17'–0"	6'–3"	9'–2"	1'–6"	2'–0"	8'–8"	6"	10'–6"	5'–3"	1'–6"	7'–10"

REINFORCING SCHEDULE

PIPE SIZE	BACK FACE			FRONT FACE	CUBIC YARDS OF CONCRETE
	WALL REINFORCEMENT		SLAB REINFORCEMENT	TEMP. REINFORCEMENT IN FRONT FACE OF WALLS (COMPRESSION STEEL)	
	HORIZONTAL	VERTICAL			
24"	NO.3 @12"O.C.	NO.3 @12"O.C.	6–6 x 10–10 WIRE MESH REINF.	NO.4 @18" HOR. AND VERT.	2.67
30"	NO.3 @12"O.C.	NO.3 @12"O.C.	6–6 x 10–10 WIRE MESH REINF.	NO.4 @18" HOR. AND VERT.	3.49
36"	NO.3 @12"O.C.	NO.3 @12"O.C.	6–6 x 10–10 WIRE MESH REINF.	NO.4 @18" HOR. AND VERT.	4.21
42"	NO.3 @12"O.C.	NO.3 @12"O.C.	6–6 x 10–10 WIRE MESH REINF.	NO.4 @18" HOR. AND VERT.	4.90

STONE LINED OUTLET PROTECTION
TABLE OF DIMENSIONS

	D (IN)	W1 (FT)	L (FT)	W2 (FT)	T (IN)	D_{50} (IN)	RIPRAP VOLUME (C.Y.)
HEADWALL 1	30	5	10	15	12	6	3.7
HEADWALL 2	30	5	15	25	12	6	8.6
HEADWALL 5	30	5	18	18	12	6	7.6
HEADWALL 6	30	5	13	16	12	6	5.0
HEADWALL 7	30	5	15	11	12	6	4.4
OUTLET 1	30	8	18	18	12	6	8.7
OUTLET 2	30	8	18	18	12	6	8.7
OUTLET 3	30	7	10	13	12	6	3.7
OUTLET 4	30	8	19	18	12	6	9.1
OUTLET 5	30	8	17	18	12	6	8.2
OUTLET 6	30	10	24	14	12	6	10.7
OUTLET 7	30	6	11	12	12	6	3.7
REPAIR AREA 2	12	7	27	11	12	6	9.0
REPAIR AREA 4	SEE PLAN	20	17	38	12	6	18.3
REPAIR AREA 6	NA	12	16	16	12	6	8.3

1 / C 5 CONCRETE HEADWALL DETAIL
SCALE: NONE

2 / C 5 STONE LINED OUTLET PROTECTION DETAIL
SCALE: NONE

DPW DEPARTMENT OF PUBLIC WORKS U.S.V.I.

DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING
ST.THOMAS, U.S. VIRGIN ISLANDS

USVI 388

COMMISSIONER OF P.W.D. GUSTAV JAMES, P.E.
DEPUTY COMMISSIONER OF ENGINEERING

CHIEF ENGINEER ACTING ERAN FLEMMING, P.E.
DISTRICT ENGINEER

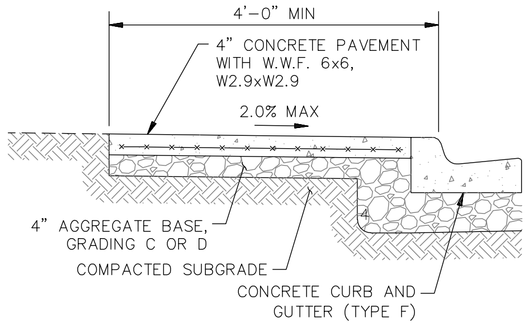
SURVEYED BY:
DRAWN BY: JA
SCALE:
DATE: 6/6/2016

CONSTRUCTION DETAILS-2

DPW FILE NO.
DIVISION OF ENGINEERING

PROJECT NO.
ACAD FILE NAME

SHEET NO.
C5 OF 19

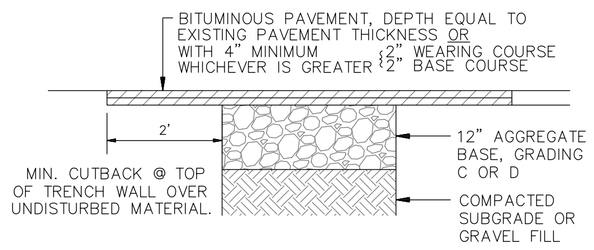


SIDEWALK NOTES:

1. CONCRETE TO BE CLASS 1, 3000 PSI.
2. 4" THICK MINIMUM, 6" THICK AT DRIVEWAYS EXTENDED 2' BEYOND DRIVE AT BOTH SIDES.

1 / C 6 TYPICAL CONCRETE SIDEWALK SECTION

SCALE: NONE



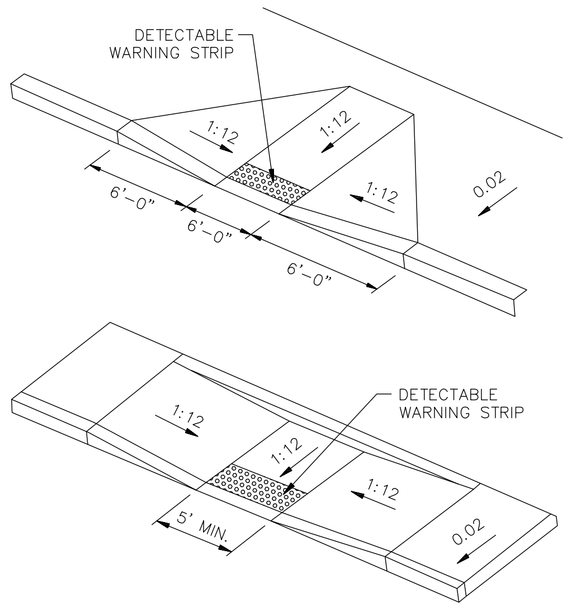
PERMANENT PAVEMENT REPAIR

PAVEMENT REPAIR NOTES:

1. MATERIALS SHOULD BE REPLACED IN-KIND, WITH MINIMUM THICKNESS AS SHOWN.
2. PAVEMENT REPAIR IN EXISTING ROADWAYS SHALL CONFORM TO STREET OPENING REQUIREMENTS.
3. ROADWAY CONSTRUCTION SHALL CONFORM TO USVI STANDARD SPECIFICATIONS.

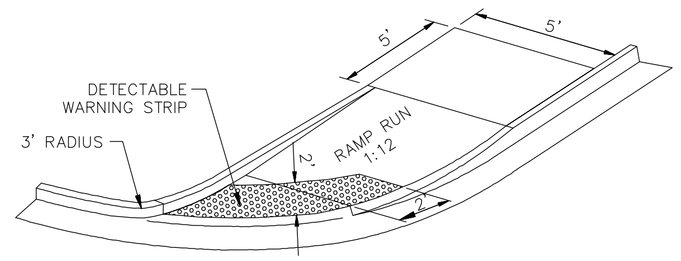
2 / C 6 PAVEMENT REPAIR DETAILS

SCALE: NONE



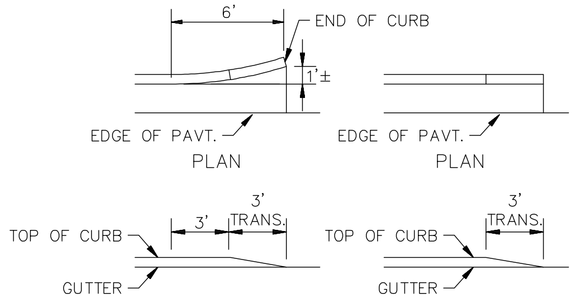
SIDEWALK RAMP NOTES:

1. SLOPE OF RAMP VARIES WITH SIDEWALK WIDTH AND HEIGHT, WITH A MAXIMUM SLOPE OF 1:12.
2. AN ADA DETECTABLE WARNING TRUNCATED DOME FINISH TO TRANSVERSE TO THE SLOPE OF THE RAMP AND WARPED SIDEWALK SHALL BE USED ON ALL RAMPS
3. MAINTAIN THE NORMAL GUTTER PROFILE THROUGHOUT THE RAMP AREA.
4. INTERCEPT DRAINAGE ALONG THE CURB IN ADVANCE OF THE RAMP.
5. FORM 1" (±1/8" TOLERANCE) CURB LIP IN SIDEWALK PAVING MATERIAL.

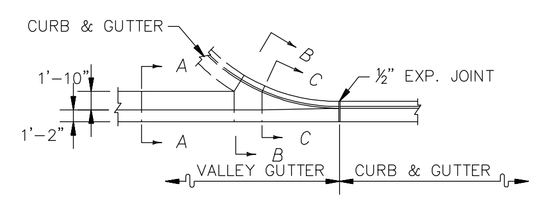


4 / C 6 HANDICAP TIP DOWN RAMP DETAILS

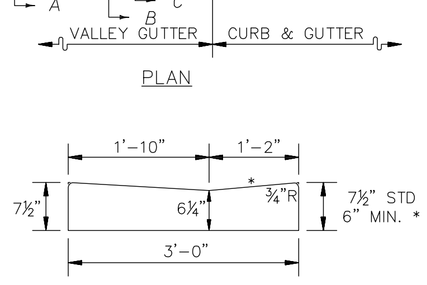
SCALE: NONE



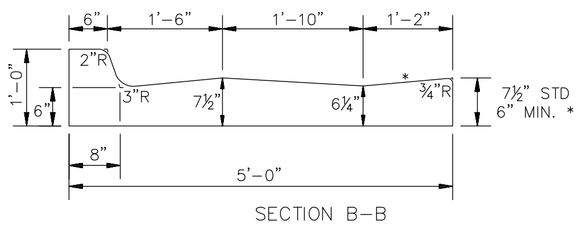
CURB AND GUTTER TYPES E AND F ENDINGS



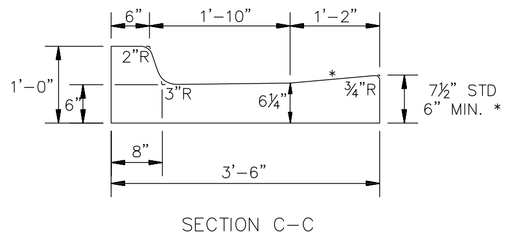
PLAN



SECTION A-A

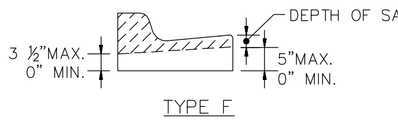


SECTION B-B



SECTION C-C

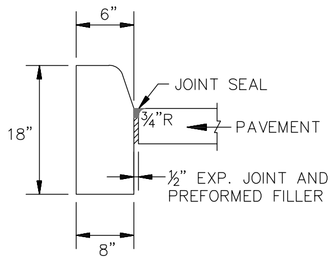
VALLEY GUTTER



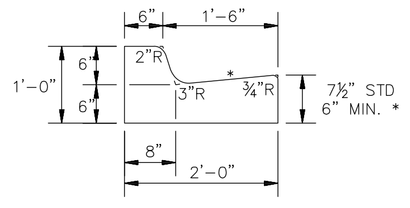
TYPE F

SAWCUTS SHOULD BE AVOIDED WITHIN VALLEY GUTTER AND WITHIN CURB AND GUTTER ENDINGS

CONTRACTION JOINT IN CURB AND GUTTER



TYPE D



TYPE F

* WHEN USED ON HIGH SIDE OR ROADWAYS, THE CROSS SLOPE OF THE GUTTER SHALL MATCH THE CROSS SLOPE OF THE ADJACENT PAVEMENT. THE THICKNESS OF THE LIP SHALL BE 6", UNLESS OTHERWISE SHOWN ON PLANS.

NOTE:
FOR USE ADJACENT TO CONCRETE OR FLEXIBLE PAVEMENT. FOR DETAILS DEPICTING USAGE ADJACENT TO FLEXIBLE PAVEMENT, SEE DIAGRAM. EXPANSION JOINT, PERFORMED JOINT FILLER AND JOINT SEAL ARE REQUIRED BETWEEN CURB & GUTTER AND CONCRETE PAVEMENT ONLY, SEE DIAGRAM.

CURB & GUTTER NOTES:

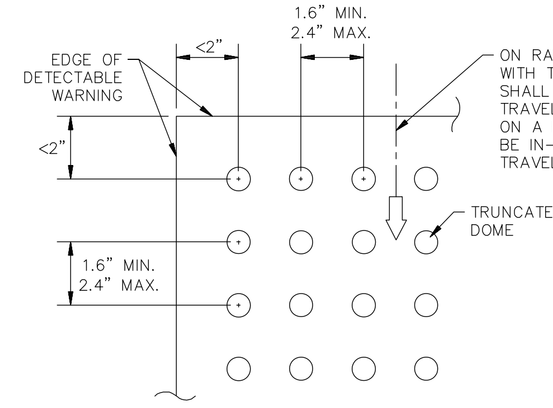
1. PUBLIC SIDEWALK CURB RAMPS SHALL BE CONSTRUCTED IN THE PUBLIC RIGHT OF WAY AT LOCATIONS THAT WILL PROVIDE CONTINUOUS UNOBSTRUCTED PEDESTRIAN CIRCULATION PATHS TO PEDESTRIAN AREAS, ELEMENTS AND FACILITIES IN THE PUBLIC RIGHT OF WAY AND TO ACCESSIBLE PEDESTRIAN ROUTES ON ADJACENT SITES. CURBED FACILITIES WITH SIDEWALKS AND THOSE WITHOUT SIDEWALKS ARE TO HAVE CURB RAMPS CONSTRUCTED AT ALL STREET INTERSECTIONS AND AT TURNOUTS THAT HAVE CURBED RETURNS. PARTIAL CURB RETURNS SHALL EXTEND TO THE LIMIT PRESCRIBED BY INDEX NO. 515 TO ACCOMMODATE CURB RAMPS. RAMPS CONSTRUCTED AT LOCATIONS WITHOUT SIDEWALKS SHALL HAVE A LANDING CONSTRUCTED AT THE TOP OF EACH RAMP.
2. THE LOCATION AND ORIENTATION OF CURB RAMPS SHALL BE AS SHOWN IN THE PLANS.
3. CURB RAMPS RUNNING SLOPES AT UNRESTRAINED SITES SHALL NOT BE STEEPER THAN 1:12 AND CROSS SLOPE SHALL BE 0.02 OR FLATTER. TRANSITION SLOPES SHALL NOT BE STEEPER THAN 1:12.

   WHEN ALTERING EXISTING PEDESTRIAN FACILITIES WHERE EXISTING SITE DEVELOPMENT PRECLUDES THE ACCOMMODATION OF A RAMP SLOPE OF 1:12, A RUNNING SLOPE BETWEEN 1:12 AND 1:10 IS PERMITTED FOR A RISE OF 6" MAXIMUM AND A RUNNING SLOPE OF BETWEEN 1:10 AND 1:8 IS PERMITTED FOR A RISE OF 3" MAXIMUM. WHERE COMPLIANCE WITH REQUIREMENTS FOR CROSS SLOPE CANNOT BE FULLY MET, THE MINIMUM FEASIBLE CROSS SLOPE SHALL BE PROVIDED.

   RAMP RUNNING SLOPE IS NOT REQUIRED TO EXCEED 8' IN LENGTH, EXCEPT AT SITES WHERE THE PLANS SPECIFY A GREATER LENGTH.
4. IF A CURB IS LOCATED WHERE PEDESTRIANS MUST WALK ACROSS THE RAMP, THEN THE WALK SHALL HAVE TRANSITION SLOPES TO THE RAMP: THE MAXIMUM SLOPE OF THE TRANSITIONS SHALL BE 1:12. RAMPS WITH CURB RETURNS MAY BE USED AT LOCATIONS WHERE OTHER IMPROVEMENTS PROVIDE GUIDANCE AWAY FROM THAT PORTION OF THE CURB PERPENDICULAR TO THE SIDEWALK; IMPROVEMENTS FOR GUIDANCE ARE NOT REQUIRED AT CURB RAMPS FOR LINEAR PEDESTRIAN TRAFFIC.
5. CURB RAMP DETECTABLE WARNING SURFACES SHALL EXTEND THE FULL WIDTH OF THE RAMP AND IN THE DIRECTION OF TRAVEL 24" FROM THE BACK OF CURB. DETECTABLE WARNING SURFACES SHALL BE CONSTRUCTED IN ACCORDANCE WITH SPECIFICATION 527. TRANSITION SLOPES ARE NOT TO HAVE DETECTABLE WARNINGS.
6. WHERE A CURB RAMP IS CONSTRUCTED WITHIN EXISTING CURB, CURB AND GUTTER AND/OR SIDEWALK, THE EXISTING CURB OR CURB AND GUTTER SHALL BE REMOVED TO THE NEAREST JOINT BEYOND THE CURB TRANSITIONS OR TO THE EXTENT THAT NO REMAINING SECTION OF CURB OR CURB AND GUTTER IS LESS THAN 5' LONG. THE EXISTING SIDEWALK SHALL BE REMOVED TO THE NEAREST JOINT BEYOND THE TRANSITION SLOPE OR WALK AROUND OR TO THE EXTENT THAT NO REMAINING SECTION OF SIDEWALK IS LESS THAN 5' LONG.
7. ACCEPTABLE CRITERIA FOR DETECTABLE WARNINGS:
   (A) THE RAMP DETECTABLE WARNING SURFACE SHALL BE COMPLETE AND UNIFORM IN COLOR AND TEXTURE.
   (B) 90% OF THE INDIVIDUAL TRUNCATED DOMES MUST COMPLY WITH THE DESIGN CRITERIA.
   (C) THERE MAY BE NO MORE THAN 4 NON-COMPLYING DOMES IN ANY ONE SQUARE FOOT OF SURFACE.
   (D) NO TWO ADJACENT DOMES MAY BE NON COMPLIANT.
   (E) SURFACE MAY NOT DEVIATE MORE THAN 0.10" FROM A TRUE PLAN.
8. ALL SIDEWALK SURFACES, RAMP SURFACES, AND LANDINGS WITH A CROSS SLOPE SHOWN IN THIS INDEX TO BE 0.02 SHALL BE 0.02 MAXIMUM. ALL RAMP SURFACES AND RAMP TRANSITION SLOPES WITH A SLOPE SHOWN IN THIS INDEX TO BE 1:12 SHALL BE 1:12 MAXIMUM.

3 / C 6 CONCRETE CURB & GUTTER DETAILS (FDOT INDEX 300)

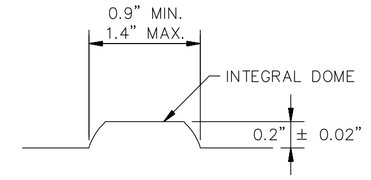
SCALE: NONE



PLAN VIEW

DETECTABLE WARNING NOTES:

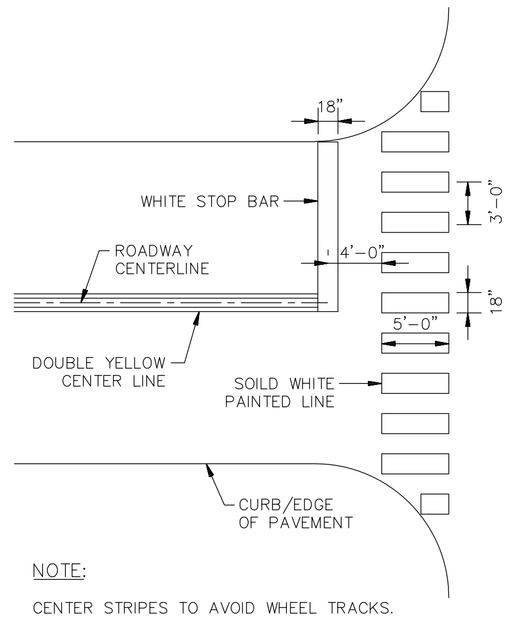
1. BASE-TO-BASE SPACING SHALL BE 0.65" MINIMUM BETWEEN DOMES.
2. ALL SIDEWALK CURB RAMPS SHALL HAVE DETECTABLE WARNING SURFACES THAT EXTEND THE FULL WIDTH OF THE RAMP AND IN THE DIRECTION OF TRAVEL 24 INCHES FROM THE BACK OF CURB
3. THE TOP WIDTH OF THE DOME SHALL BE A MINIMUM OF 50% AND A MAXIMUM OF 65% OF THE BASE DIAMETER.



TRUNCATED DOME

5 / C 6 TYPICAL DETECTABLE WARNING PANEL DETAILS

SCALE: NONE



NOTE:

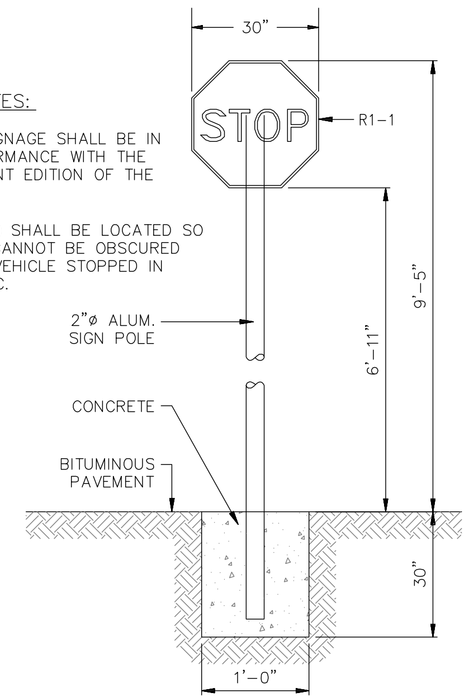
CENTER STRIPES TO AVOID WHEEL TRACKS.

6 / C 6 PAINTED CROSSWALK & STOP BAR DETAIL

SCALE: NONE

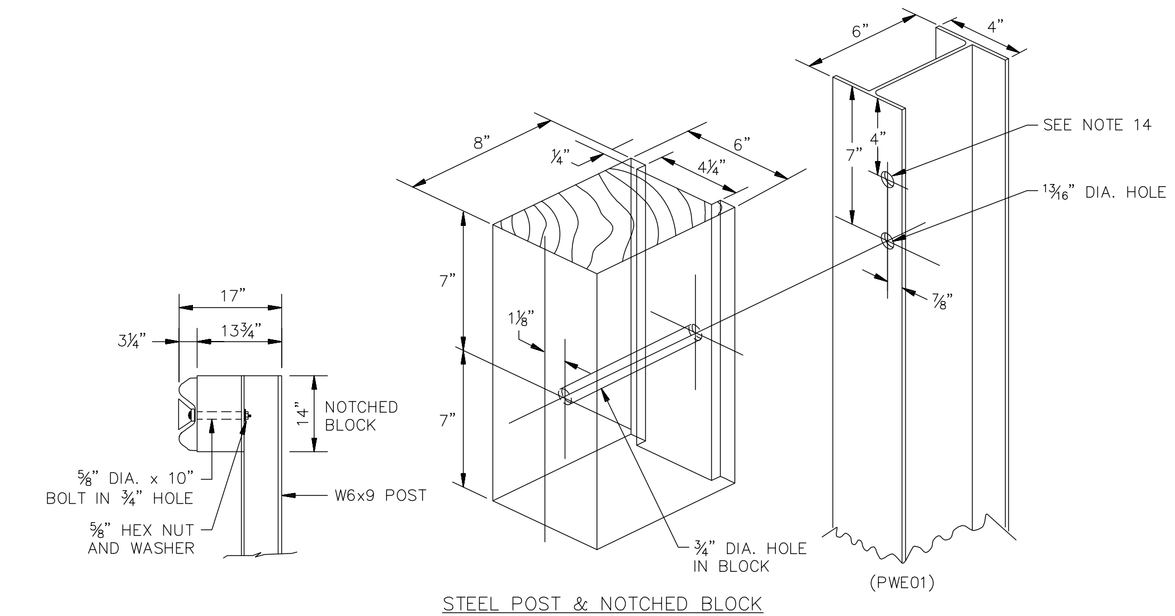
SIGN NOTES:

1. ALL SIGNAGE SHALL BE IN CONFORMANCE WITH THE CURRENT EDITION OF THE MUTCD.
2. SIGN(S) SHALL BE LOCATED SO THEY CANNOT BE OBSCURED BY A VEHICLE STOPPED IN TRAFFIC.



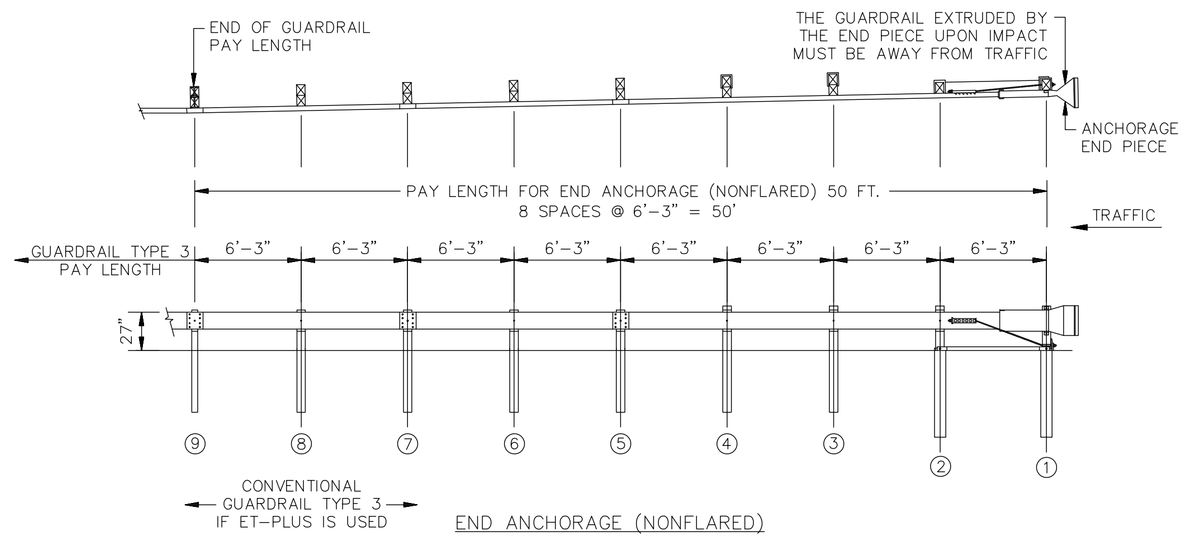
7 / C 6 SIGN MOUNTING DETAIL

SCALE: NONE



STEEL POST & NOTCHED BLOCK

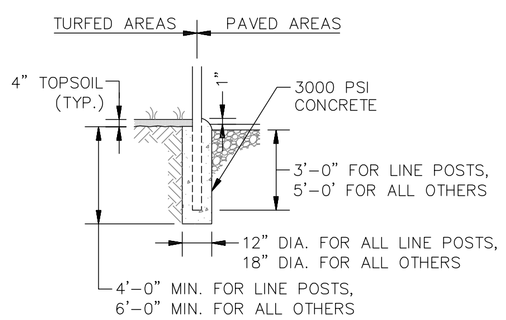
(NOMINAL DIMENSIONS ARE SHOWN FOR THE POSTS & BLOCKS)



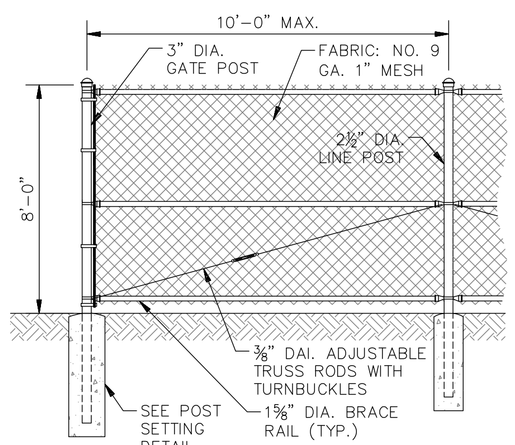
END ANCHORAGE (NONFLARED)

4 C 7 W-BEAM STEEL BACKED GUARDRAIL DETAIL

SCALE: NONE

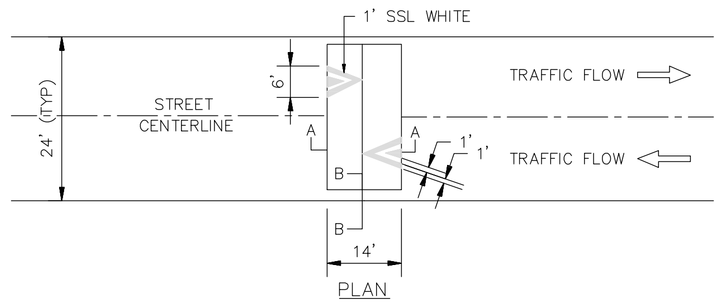


POST SETTING DETAIL

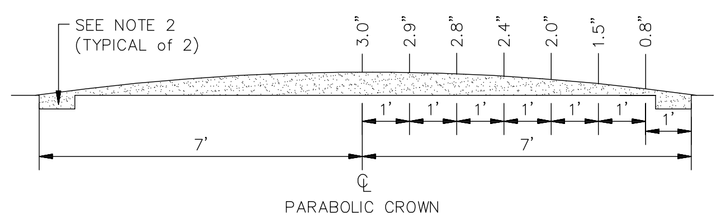


5 C 7 CHAINLINK FENCE DETAIL

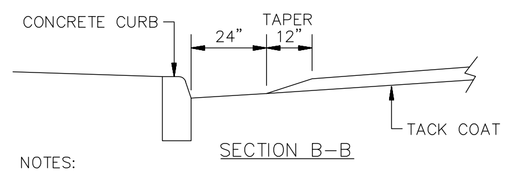
SCALE: NONE



PLAN



SECTION A–A



SECTION B–B

NOTES:

1. ASPHALTIC CONCRETE SHALL BE HACP, CLASS BM GRADING E.
2. GRIND MINIMUM 12" WIDE BY 1" DEEP KEYWAY IN EXISTING AC ALIGNED WITH LEADING EDGES OF SPEED HUMP

6 C 7 SPEED HUMP DETAIL

SCALE: NONE

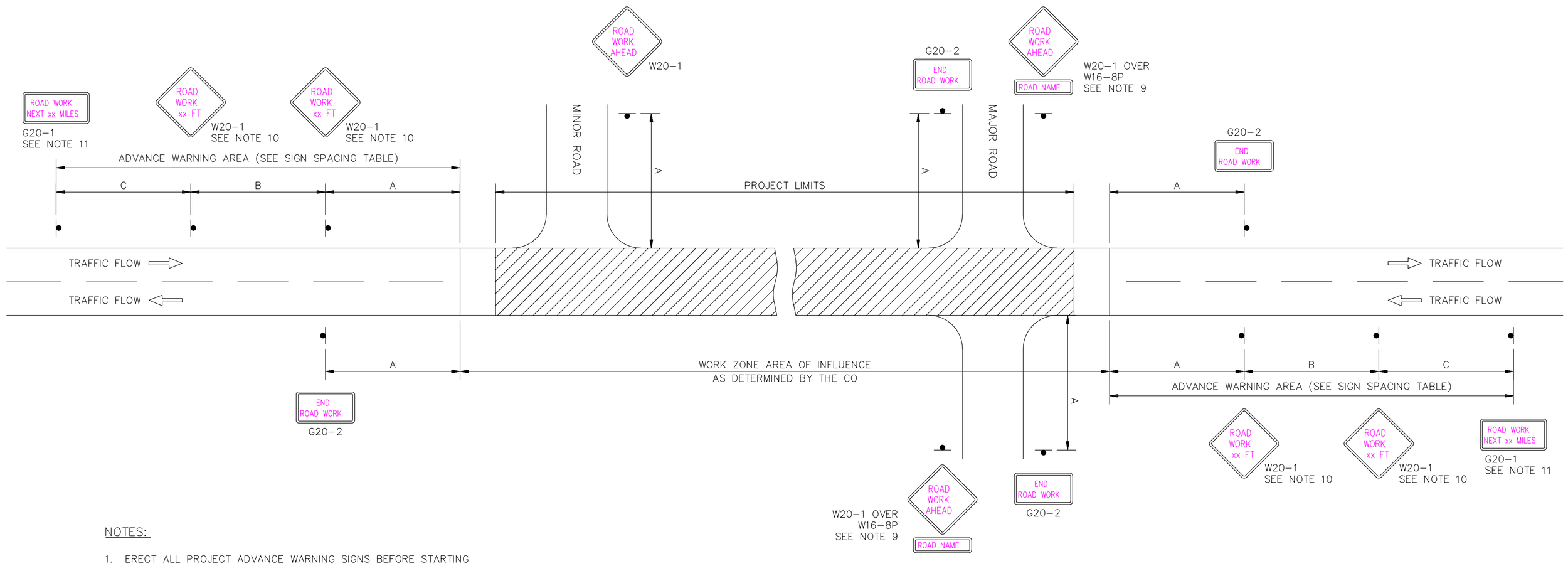
GENERAL GUARDRAIL NOTES:

1. IF 2 FT. CANNOT BE PROVIDED BETWEEN THE BACK OF THE GUARDRAIL POST AND THE BREAKPOINT, USE 7 FT. GUARDRAIL POSTS. REFER TO "RESTRICTIVE ROADSIDE INSTALLATION" DETAIL.
2. ALL W–BEAM SPLICES, AND SPLICES OF TERMINAL CONNECTORS TO W–BEAM SHALL BE LAPPED IN THE DIRECTION OF TRAFFIC UNLESS OTHERWISE NOTED.
3. MATERIAL TYPE AND SHAPE OF POSTS AND BLOCKS SHALL BE THE SAME THROUGHOUT THE PROJECT EXCEPT WHEN SPECIFIC POSTS AND BLOCKS ARE SPECIFIED, i.e. AT END ANCHORAGES AND BOX CULVERTS.
4. CONCRETE MAY BE READY–MIXED OR FIELD–MIXED AND SHALL CONSIST OF A MINIMUM OF 1 PART CEMENT TO 6 PARTS AGGREGATE BY VOLUME.
5. STANDARD GALVANIZED ROUND STEEL WASHERS SHALL BE USED UNDER ALL NUTS IN CONTACT WITH WOOD POSTS.
6. AN ADDITIONAL HOLE SHALL BE PROVIDED IN THE POSTS TO FACILITATE FUTURE RAISING OF THE RAIL ELEMENTS AND BLOCKS FOR OVERLAYS.
7. RETROREFLECTOR TABS SHALL BE INSTALLED AT 25 FT. INTERVALS. RETROREFLECTOR TABS WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE WORK. THE TABS SHALL BE MOUNTED SO THE BOLT SLOT FACES AWAY FROM TRAFFIC, AND THE RETROREFLECTOR SURFACE FACES THE APPROACHING TRAFFIC FOR ONE–WAY ROADS. FOR TWO–WAY ROADS, BOTH SIDES OF THE TABS SHALL BE RETROREFLECTIVE SO THAT DELINEATION IS PROVIDED FOR BOTH DIRECTIONS OF TRAVEL. THE RETROREFLECTIVE SHEETING COLOR SHALL MATCH THE COLOR OF THE ADJACENT TRAVEL WAY EDGE LINE.
8. AT THE TIME OF INSTALLATION, WOOD POSTS OR BLOCKS WITH SEASONING CHECKS GREATER THAN 1/4 IN. SHALL NOT BE USED WHEN THE CHECK EXTENDS THE FULL LENGTH OF THE PIECE.
9. WOOD BLOCKING SHALL BE CUT FROM THE SAME CROSS–SECTION, SPECIES, AND GRADE, AND SHALL RECEIVE THE SAME PRESERVATIVE TREATMENT AS THE POSTS WHEN WOOD POSTS ARE USED.
10. REFERENCES SUCH AS 00PB801", 00PWE01" IN THIS STANDARD PLAN SPECIFY HARDWARE DETAILS FROM 00A GUIDE TO STANDARDIZED HIGHWAY BARRIER HARDWARE" PREPARED BY THE AASHTO–AGC–ARTBA JOINT COOPERATIVE COMMITTEE.
11. NOTCHED RAIL BLOCKS MANUFACTURED FROM SYNTHETIC MATERIAL WILL BE ACCEPTED AS ALTERNATIVES TO WOOD NOTCHED BLOCKS FOR USE WITH STEEL POSTS PROVIDED THAT THE BLOCKS HAVE RECEIVED FHWA APPROVAL AND ARE CERTIFIED AS IDENTICAL TO THE SPECIMENS USED FOR TESTING AND APPROVAL.
12. WOOD POSTS SHALL BE MADE OF TIMBER WITH AN EXTREME FIBER STRESS IN BENDING OF 1200 PSI STRESS GRADING AND POST DIMENSIONS SHALL CONFORM WITH THE RULES OF THE WEST COAST INSPECTION BUREAU, OR THE SOUTHERN PINE BUREAU, OR THE WESTERN WOOD PRODUCTS ASSOCIATION. TIMBER FOR POSTS SHALL BE EITHER ROUGH SAWN (UNPLANED) OR S4S (SURFACED FOUR SIDES) WITH NOMINAL DIMENSIONS INDICATED. ONLY ONE TYPE OF SURFACE FINISH SHALL BE USED FOR POSTS AND BLOCKS IN ANY ONE CONTINUOUS LENGTH OF GUARDRAIL.
13. GLULAM POSTS AND BLOCKS WILL BE ACCEPTED AS ALTERNATIVES PROVIDED THAT THE SUPPLIED MATERIALS HAVE RECEIVED FHWA APPROVAL AND ARE CERTIFIED AS IDENTICAL TO THE SPECIMENS USED FOR TESTING AND APPROVAL.
14. PRESSURE TREATMENT OF POSTS AND BLOCKS SHALL CONFORM TO AASHTO M 133 EXCEPT THAT BLOCKS NEED NOT BE INCISED. PRESERVATION ASSAY RETENTION REPORTS SHALL BE SUBMITTED TO THE ENGINEER. THE CONTRACTOR SHALL CERTIFY THAT THE SPECIES AND GRADE MEET THE REQUIREMENTS OF THE CONTRACT.
15. W–BEAM AND THRIE–BEAM GUARDRAIL POSTS SHALL BE MANUFACTURED USING AASHTO M 270 (ASTM A 709) GRADE 36 STEEL UNLESS CORROSION RESISTANT STEEL IS REQUIRED, IN WHICH CASE THE POST SHALL BE MANUFACTURED FROM AASHTO M 270 (ASTM A 709) GRADE 50W STEEL. THE DIMENSIONS OF THE CROSS–SECTION SHALL CONFORM TO A W6 x 9 SECTION AS DEFINED IN AASHTO M 160 (ASTM A 6). W6 x 8.5 WIDE FLANGE STEEL POSTS ARE AN ACCEPTABLE ALTERNATIVE TO THE W6 x 9.
16. AFTER THE SECTION IS CUT AND ALL HOLES ARE DRILLED OR PUNCHED THE COMPONENT SHALL BE ZINC–COATED CONFORMING TO AASHTO M 111 (ASTM A 123) UNLESS CORROSION–RESISTANT STEEL IS USED. WHEN CORROSION–RESISTANT STEEL IS USED THE PORTION OF THE POST TO BE EMBEDDED IN SOIL SHALL BE ZINC–COATED CONFORMING TO AASHTO M 111 (ASTM A 123) AND THE PORTION ABOVE THE SOIL SHALL NOT BE ZINC–COATED, PAINTED OR OTHERWISE TREATED.
17. FIELD MODIFICATION TO RAIL ELEMENTS ONLY IS ALLOWED BY SAWING AND DRILLING OF HOLES. FLAME CUTTING IS NOT PERMITTED. POSTS SHALL NOT BE MODIFIED. COMPONENTS ON WHICH THE SPELTER COATING HAS BEEN DAMAGED SHALL BE EITHER REGALVANIZED OR RECOATED IN CONFORMANCE WITH AASHTO M 36, OR PAINTED WITH ONE FULL BRUSH COAT OF ZINC RICH PAINT CONFORMING TO MILITARY SPECIFICATION 00D–P–21035A.

END ANCHORAGE GUARDRAIL NOTES:

1. THE END ANCHORAGES (NONFLARED) SHALL EITHER BE THE ET–PLUS AS MANUFACTURED BY TRINITY INDUSTRIES INC. (TEL. #: 800–644–7976), OR THE SKT GUARDRAIL AS MANUFACTURED BY ROAD SYSTEMS, INC. (TEL. #: 915–263–2435). THE END ANCHORAGE (NONFLARED) SHALL INCLUDE ALL POST, RAIL, AND HARDWARE ITEMS REQUIRED FOR A COMPLETE UNIT. THE END AMCHORAGE (NONFLARED) SHALL BE INSTALLED CONFORMING TO THE MANUFACTURER'S RECOMMENDATIONS. THE CONTRACTOR SHALL PROVIDE A COPY OF THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND PARTS LIST TO THE ENGINEER PRIOR TO THE INSTALLATION OF THE DEVICE.
2. WOOD POSTS SHALL BE DRILLED FOR BREAKAWAY CONFORMING TO THE MANUFACTURER'S INSTRUCTIONS.
3. HINGED BREAK AWAY (HBA) STEEL POSTS MAY BE USED CONFORMING TO THE MANUFACTURER'S INSTRUCTIONS.
4. RETROREFLECTOR TABS SHALL NOT BE USED ON THE LAST SEVEN POSTS OF THE END ANCHORAGE (NONFLARED).
5. USE MANUFACTURER'S SPECIFIED STEEL FOUNDATION TUBE FOR POSTS 1 AND 2 FOR ET–PLUS AND SKT END ANCHORAGES (NONFLARED).
6. DELINEATION SHALL BE APPLIED TO THE END PIECE AND SHALL NOT BE PAID FOR SEPARATELY BUT BE INCLUDED IN THE COST OF THE WORK.

SIGN SPACING TABLE			
ROAD TYPE	DISTANCE BETWEEN SIGNS IN FEET		
	A	B	C
URBAN AND RURAL 30 MPH AND LESS	100	100	100
URBAN AND RURAL 35 MPH TO 50 MPH	350	350	350
RURAL GREATER THAN 50 MPH	500	500	500
EXPRESSWAY / FREEWAY	1500	1500	2640



NOTES:

1. ERECT ALL PROJECT ADVANCE WARNING SIGNS BEFORE STARTING CONSTRUCTION WORK.
2. NOT ALL DETAILS SHOWN ON THE TEMPORARY TRAFFIC CONTROL SHEETS MAY BE APPLICABLE TO THIS PROJECT. THE CONTRACTOR MAY ADD OR DELETE INFORMATION AND DETAILS IN THIS TRAFFIC CONTROL PLAN AS NECESSARY TO ACCOMMODATE ACTUAL OPERATIONS.
3. WHERE ADVANCE WARNING SIGNS, PLACED AS SHOWN, INTERFERE WITH PERMANENT SIGNS, LOCATE THE WARNING SIGNS AS DETERMINED BY THE CO FOR BEST RESULTS. VARY MESSAGES AS REQUIRED.
4. ADDITIONAL OR DIFFERENT MESSAGE SIGNS MAY BE REQUIRED TO FIT THE ACTUAL CONSTRUCTION CONDITIONS.
5. INSTALL ADVISORY SPEED PLATES UNDER THE W20 SERIES WARNING SIGNS AS NEEDED TO INDICATE A MAXIMUM RECOMMENDED SPEED THROUGH THE CONSTRUCTION AREA.
6. ENSURE ALL SIGN SUPPORTS EXPOSED TO IMPACT BY TRAFFIC MEET THE REQUIREMENTS OF NCHRP-350 OR MASH FOR CRASHWORTHINESS.
7. MAINTAIN TWO-WAY TRAFFIC DURING ALL NON-WORK HOURS EXCEPT AS APPROVED BY THE CO.
8. DO NOT STORE TRAFFIC CONTROL DEVICES ALONG THE ROADWAY WHEN NOT IN USE. COVER POST-MOUNTED SIGNS WHEN NOT APPLICABLE.
9. IF W20-1 IS PLACED ON A ROADWAY OTHER THAN THAT ON WHICH THE ACTUAL CONSTRUCTION WORK OCCURS, INCLUDE A SUPPLEMENTARY PLAQUE INDICATING THE NAME OF THE ROAD ON WHICH THE CONSTRUCTION DOES OCCUR (APPLIES TO MAJOR ROADS ONLY).
10. THE MESSAGE ON THE W20-1 SIGNS MAY BE "ROAD WORK AHEAD" OR MAY SPECIFY THE DISTANCE TO THE WORK AREA IN FEET OR IN MILES. INSTALL AN ADDITIONAL W20-1 SIGN WHEN APPROACH SPEEDS EXCEED 50 MPH. WHEN USED PLACE THE TWO W20-1 SINGS "B" FEET APART ACCORDING TO THE SIGN SPACING TABLE.
11. FOR WORK ZONES THAT ARE 2 MILES OR MORE IN LENGTH, INSTALL G20-1 SIGNS AT EACH END OF THE PROJECT. SHOW THE DISTANCE ON THE G20-1 SIGN TO THE NEAREST WHOLE MILE.
12. IF SIGNING ON A ROADWAY UNDER A JURISDICTION OTHER THAN THE CLIENT AGENCY, VERIFY THAT AN ENCROACHMENT PERMIT HAS BEEN OBTAINED.
13. USVI STANDARDS MAY BE USED AS AN ALTERNATIVE IF APPROVED BY THE CO.

1 / C 8 ADVANCE SIGNING LAYOUT DETAIL

SCALE: NONE

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DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING
ST. THOMAS, U.S. VIRGIN ISLANDS

USVI 388

COMMISSIONER OF P.W.D. — GUSTAV JAMES, P.E.
DEPUTY COMMISSIONER OF ENGINEERING

CHIEF ENGINEER — ACTING ERAN FLEMMING, P.E.
DISTRICT ENGINEER

SURVEYED BY:
DRAWN BY: J^4
SCALE:
DATE: 6/6/2016

TEMPORARY TRAFFIC CONTROL DETAILS - 1

DPW FILE NO.
DIVISION OF ENGINEERING

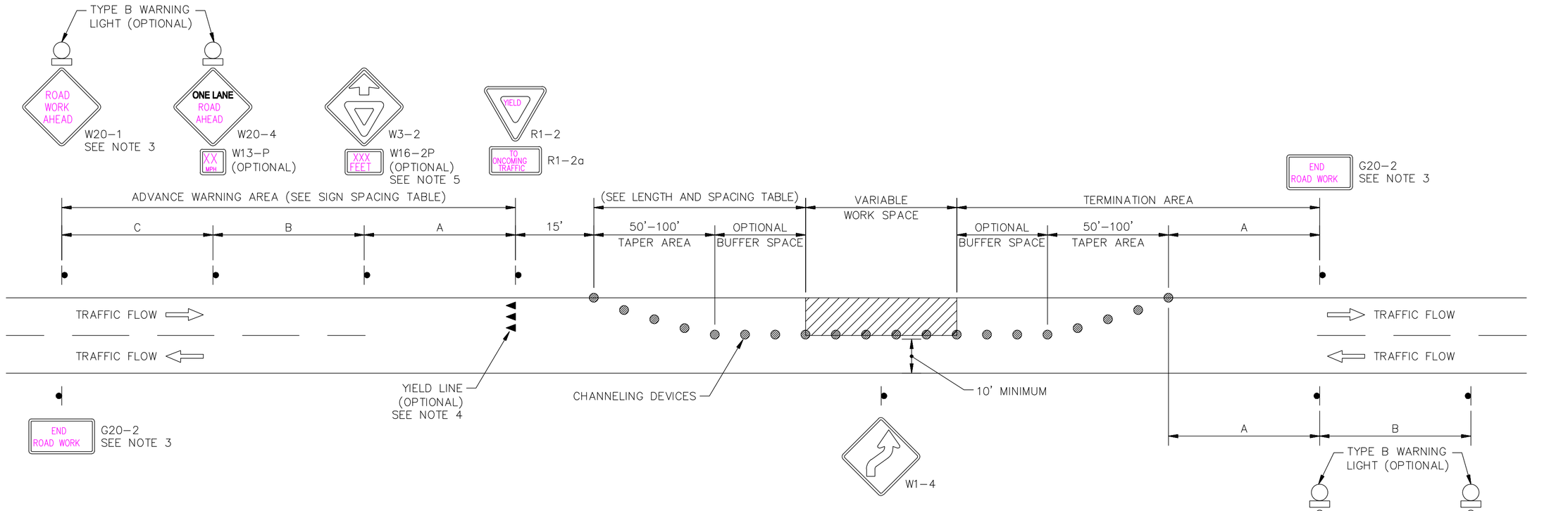
PROJECT NO.
ACAD FILE NAME

SHEET NO.
C8 OF 19

LENGTH AND SPACING TABLE				
APPROACH SPEED*	BUFFER SPACE LENGTH	CHANNELIZING DEVICE		
		TAPER AREA	BUFFER SPACE	WORK SPACE
MPH	FEET	SPACING IN FEET		
20	115	20	40	40
25	155	20	50	50
30	200	20	60	60
35	250	20	70	70
40	305	20	80	80
45	360	20	90	90
50	425	20	100	100
55	495	20	110	110
60	570	20	120	120
65	645	20	130	130
70	730	20	140	140

* APPROACH SPEED BASED ON THE REGULATORY POSTED SPEED, NOT THE ADVISORY SPEED.

SIGN SPACING TABLE			
ROAD TYPE	DISTANCE BETWEEN SIGNS IN FEET		
	A	B	C
URBAN AND RURAL 30 MPH AND LESS	100	100	100
URBAN AND RURAL 35 MPH TO 50 MPH	350	350	350
RURAL GREATER THAN 50 MPH	500	500	500
EXPRESSWAY / FREEWAY	1500	1500	2640



NOTES:

1. USE THIS LAYOUT ONLY IF SUFFICIENT GAPS IN ONCOMING TRAFFIC EXIST FOR TRAFFIC THAT MUST YIELD, AND IF DRIVERS FROM BOTH DIRECTIONS ARE ABLE TO SEE APPROACHING TRAFFIC THROUGH AND BEYOND THE WORK SITE.
2. FINAL LOCATION AND SPACING OF SIGNS AND DEVICES MAY BE CHANGED TO FIT FIELD CONDITIONS AS APPROVED THE CO.
3. IF CLOSURE IS COMPLETELY WITHIN THE PROJECT LIMITS, ELIMINATE THE "ROAD WORK AHEAD" (W20-1) AND "END ROAD WORK" (G20-2) SIGNS.
4. IF THE SURFACE IS PAVED, INSTALL YIELD LINES THAT COMPLY WITH SECTION 3B.16 OF THE MUTCD.
5. USE THE "YIELD AHEAD" (W3-2) SIGN WHEN APPROACH SPEEDS EXCEED 50 MPH.
6. DO NOT ALLOW EQUIPMENT, MATERIALS, OR VEHICLES TO BE PARKED OR STORED IN THE BUFFER SPACE.

1 / C 9 SINGLE LANE CLOSURE LAYOUT WITH YIELD SIGN

SCALE: NONE

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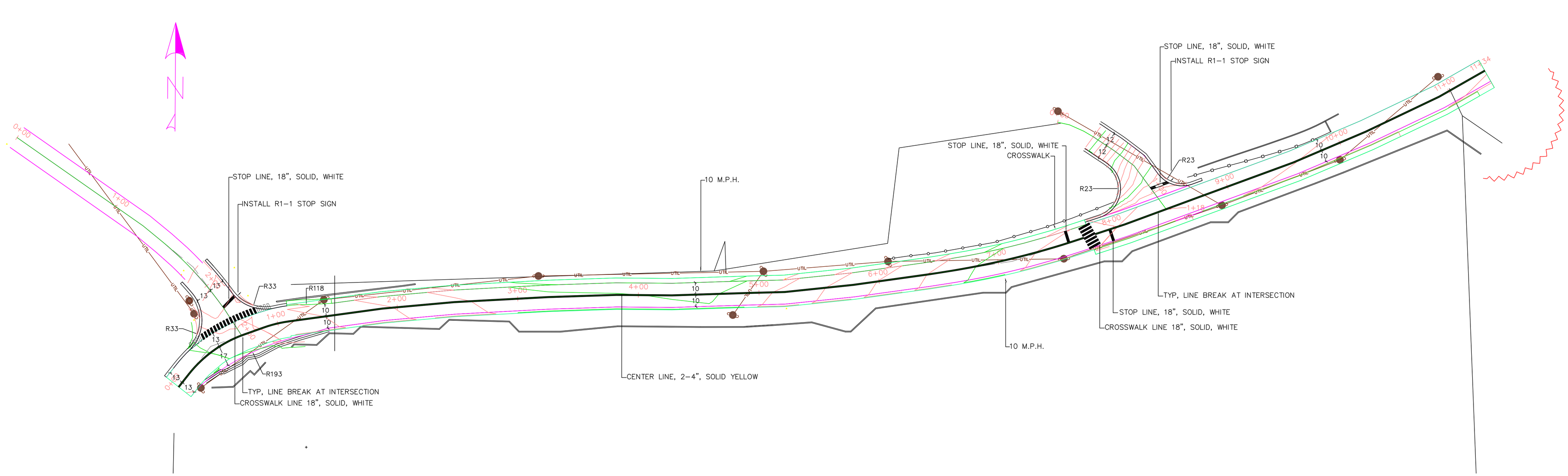
PROJECT NO.	SHEET NO.
ACAD FILE NAME	09 OF 19



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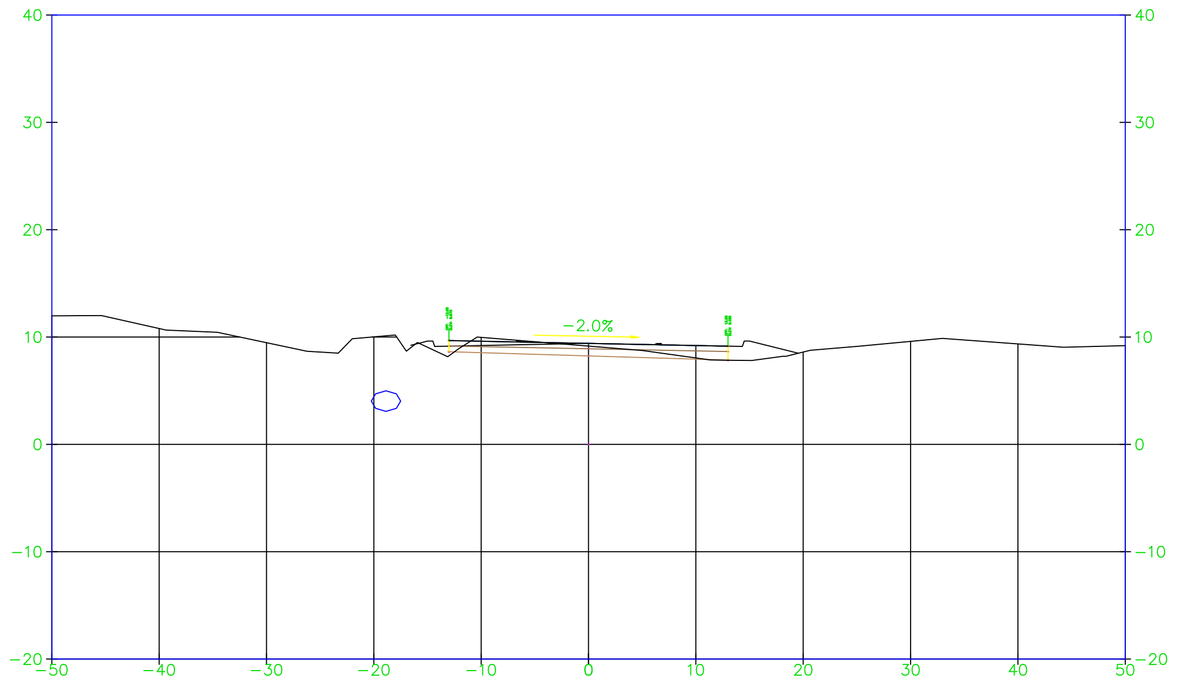

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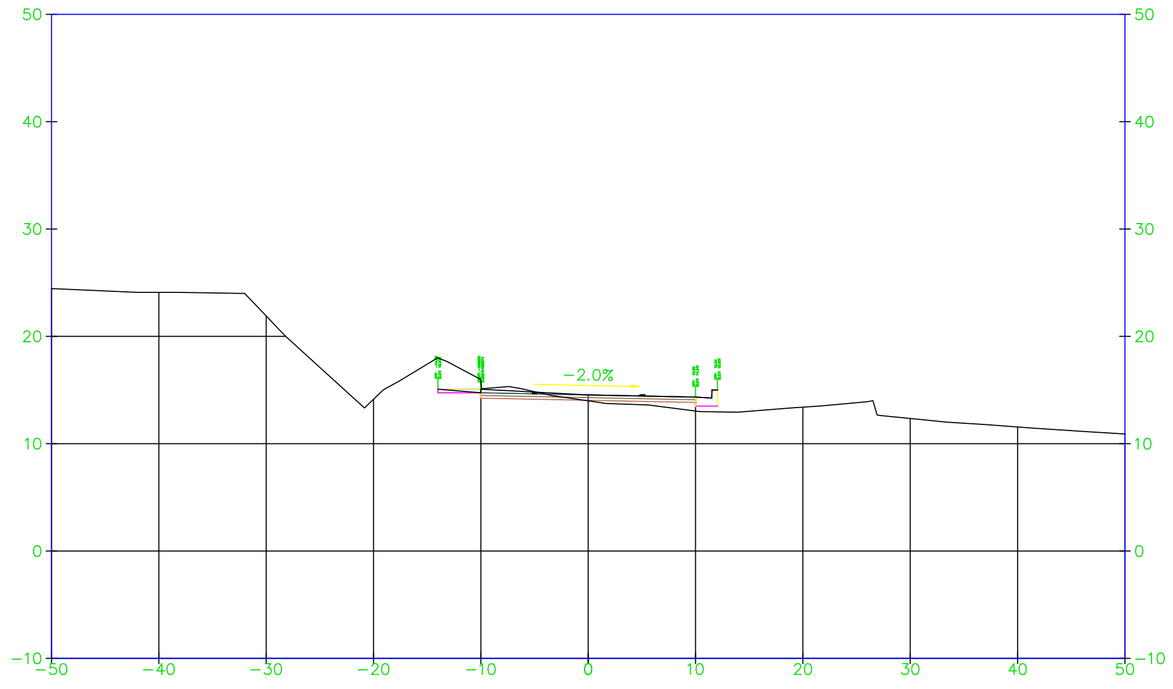

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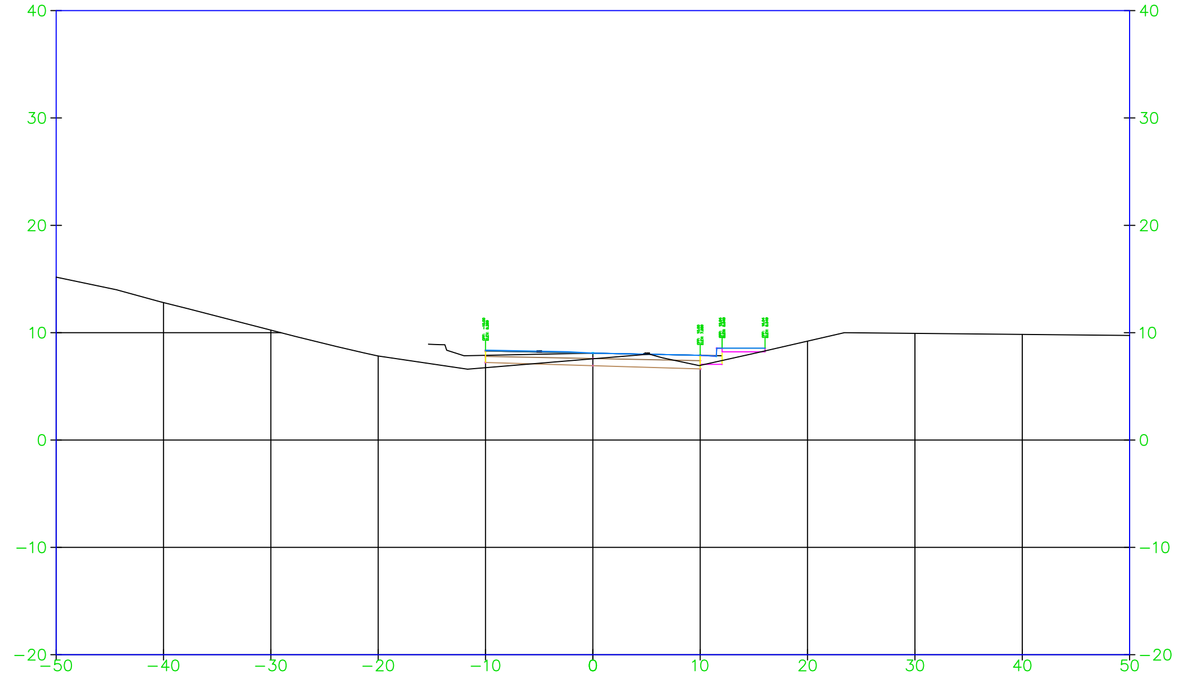

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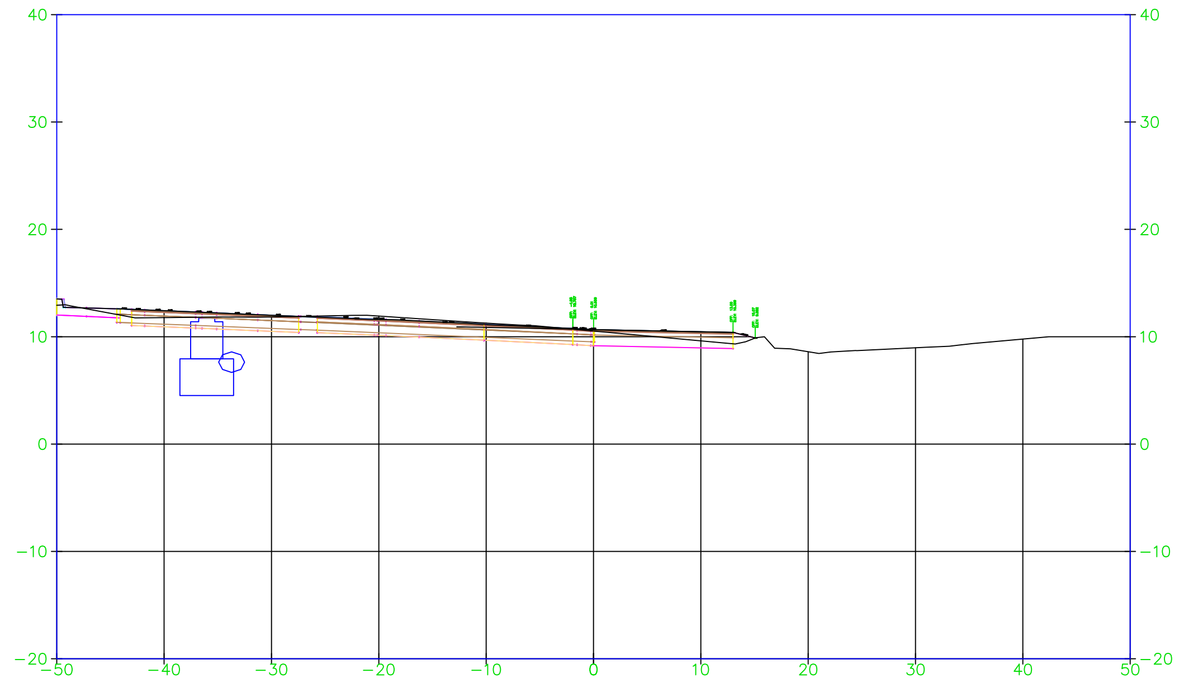

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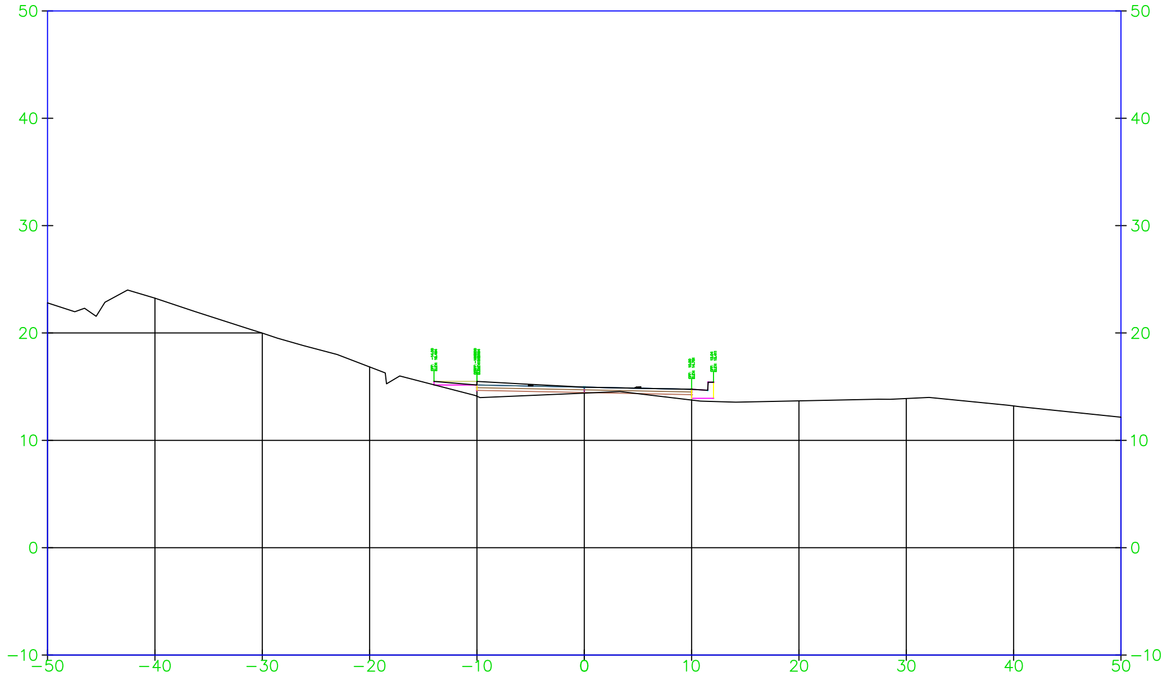

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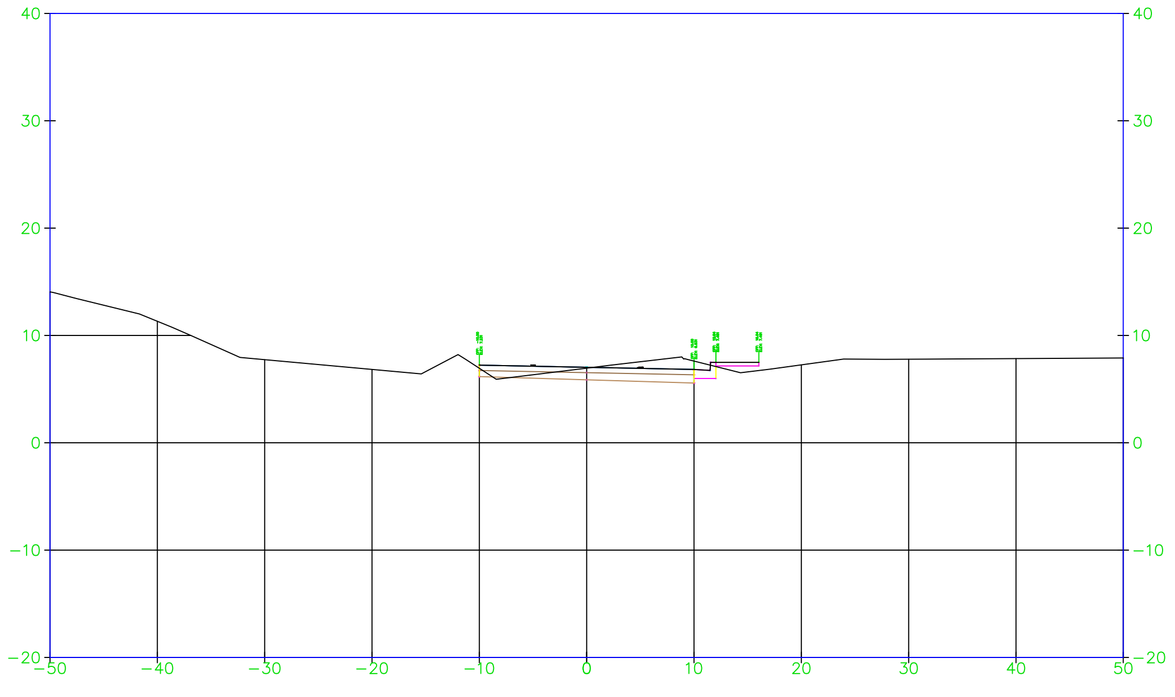

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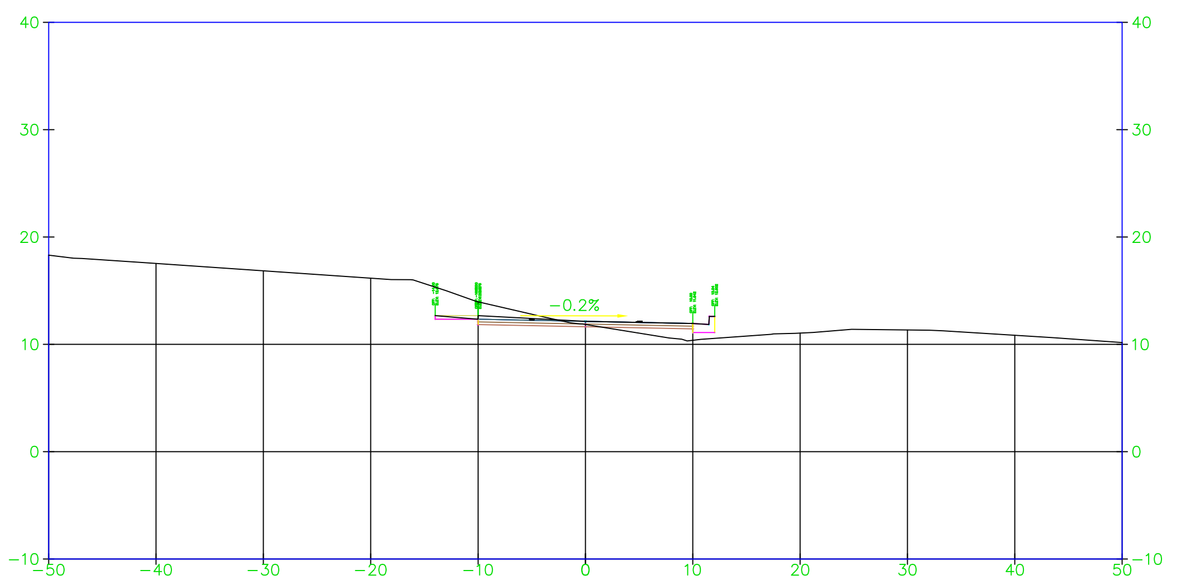

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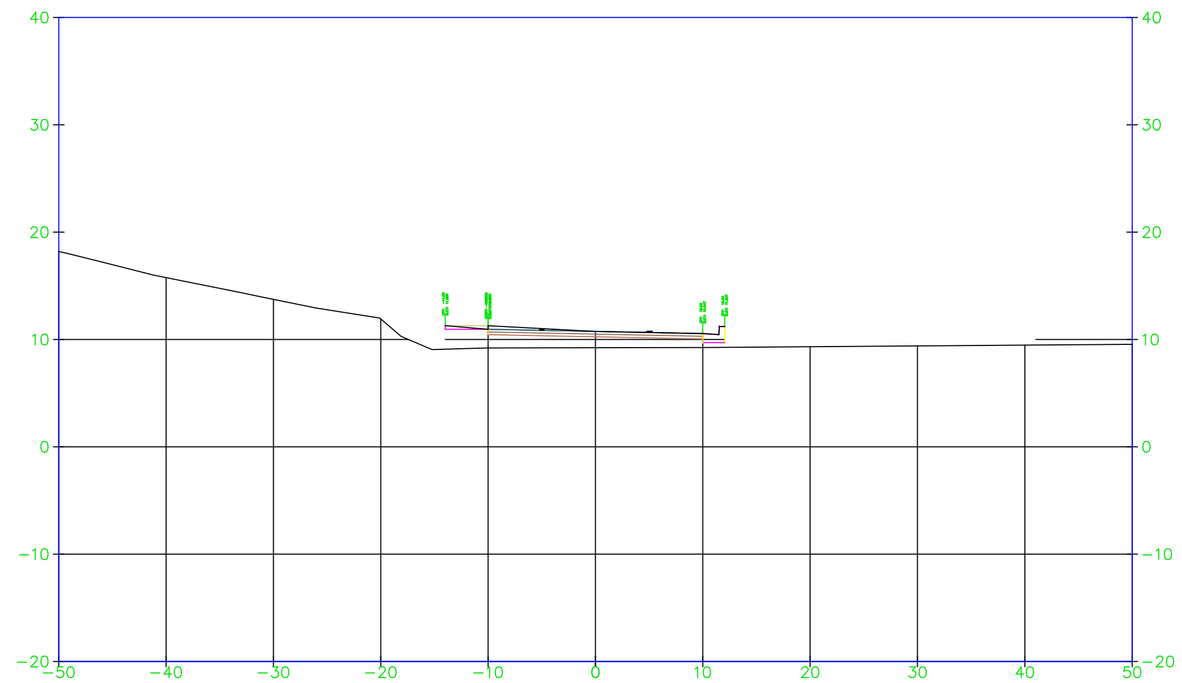

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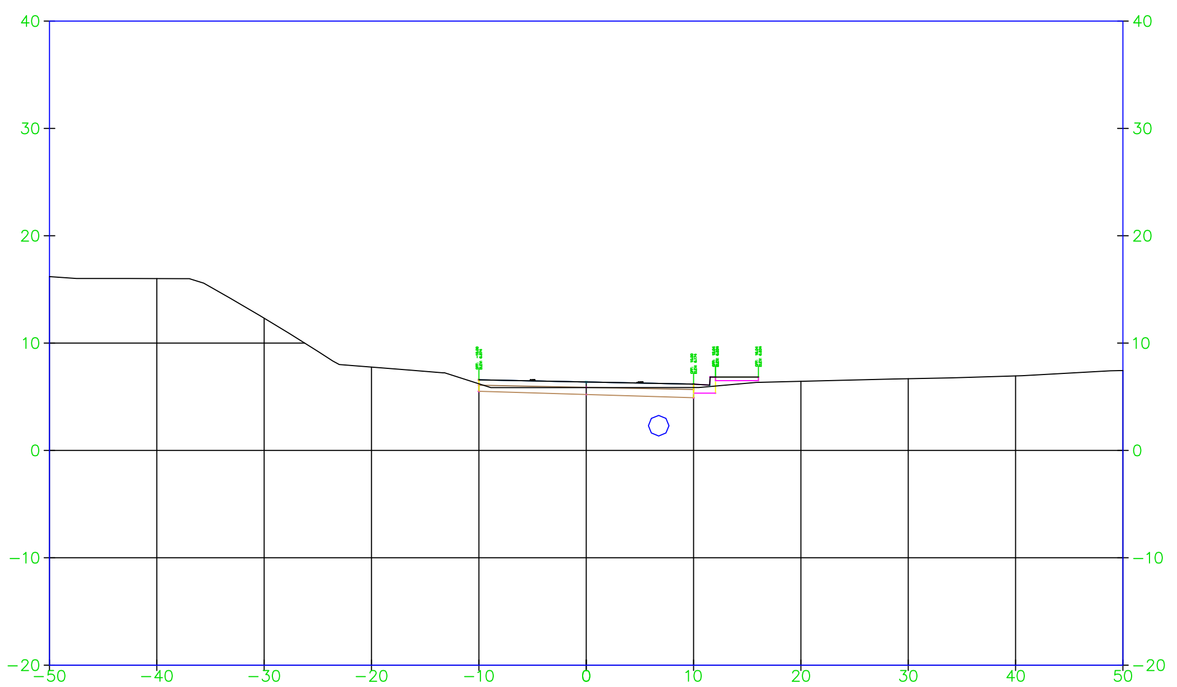

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CHIEF ENGINEER
ACTING ERAN FLEMMING, P.E.
DISTRICT ENGINEER

SURVEYED BY:
DRAWN BY: JA
SCALE: 1" = 10'
DATE: 6/6/2016

TYPICAL ROADWAY SECTIONS-I

DPW FILE NO.
DIVISION OF ENGINEERING

PROJECT NO.
ACAD FILE NAME

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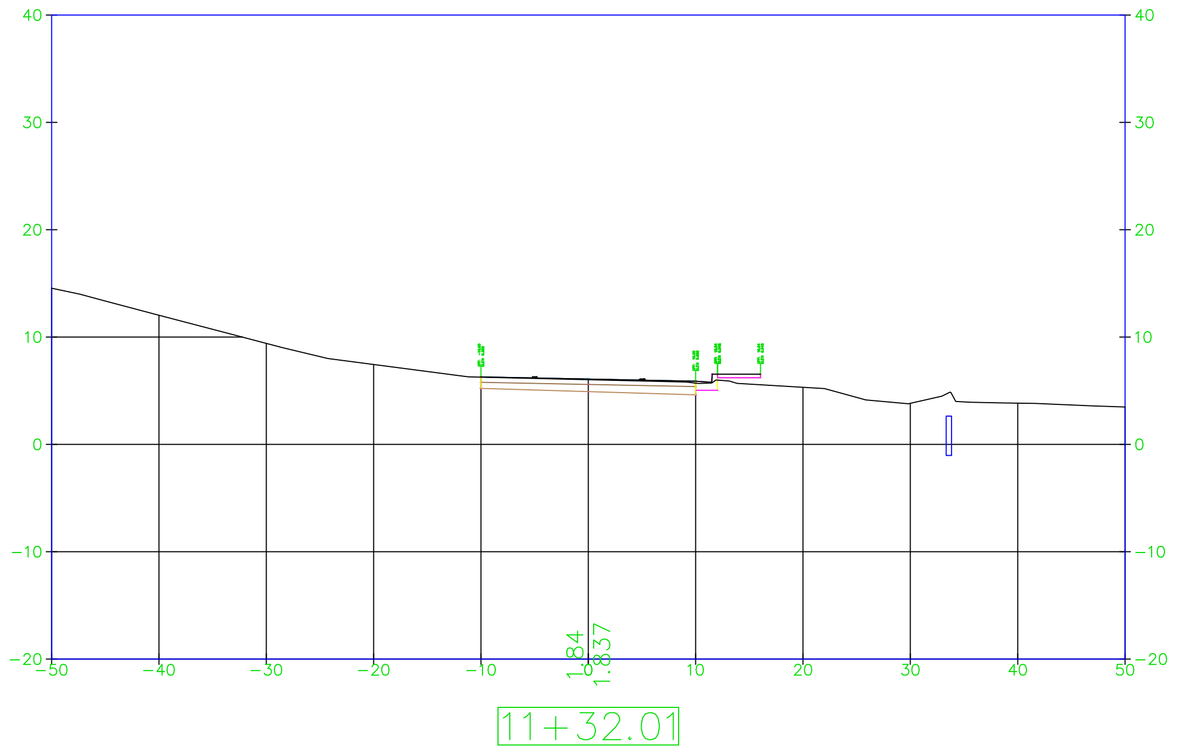

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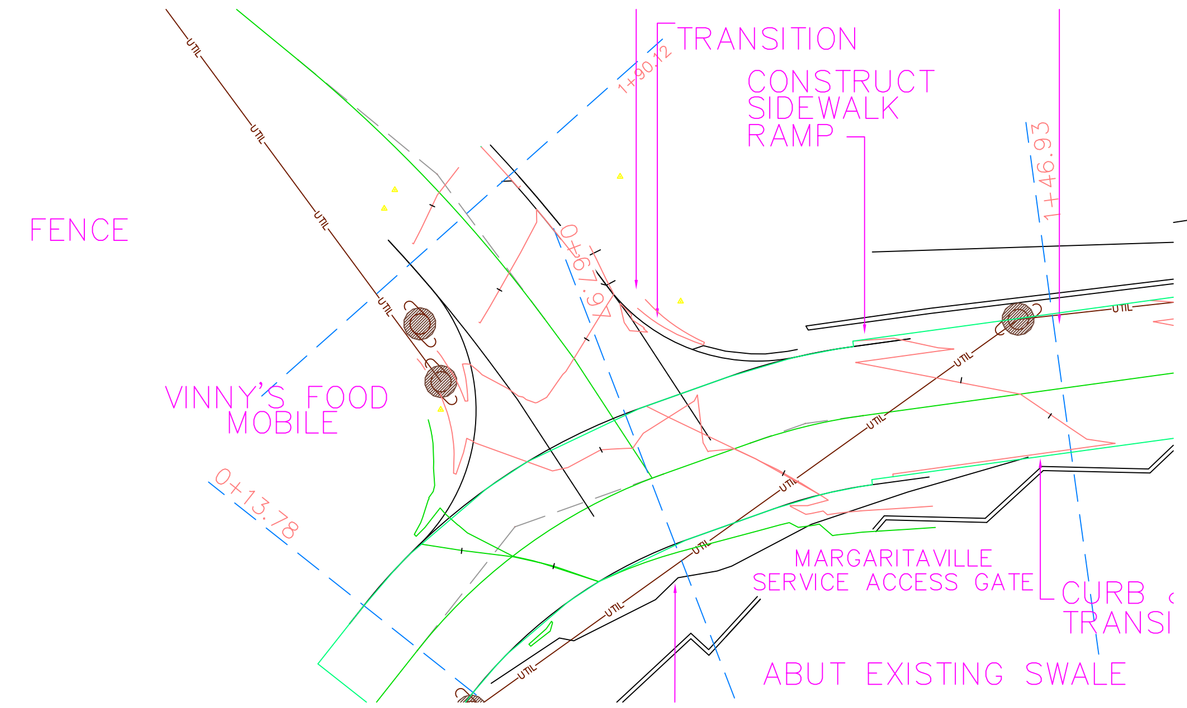

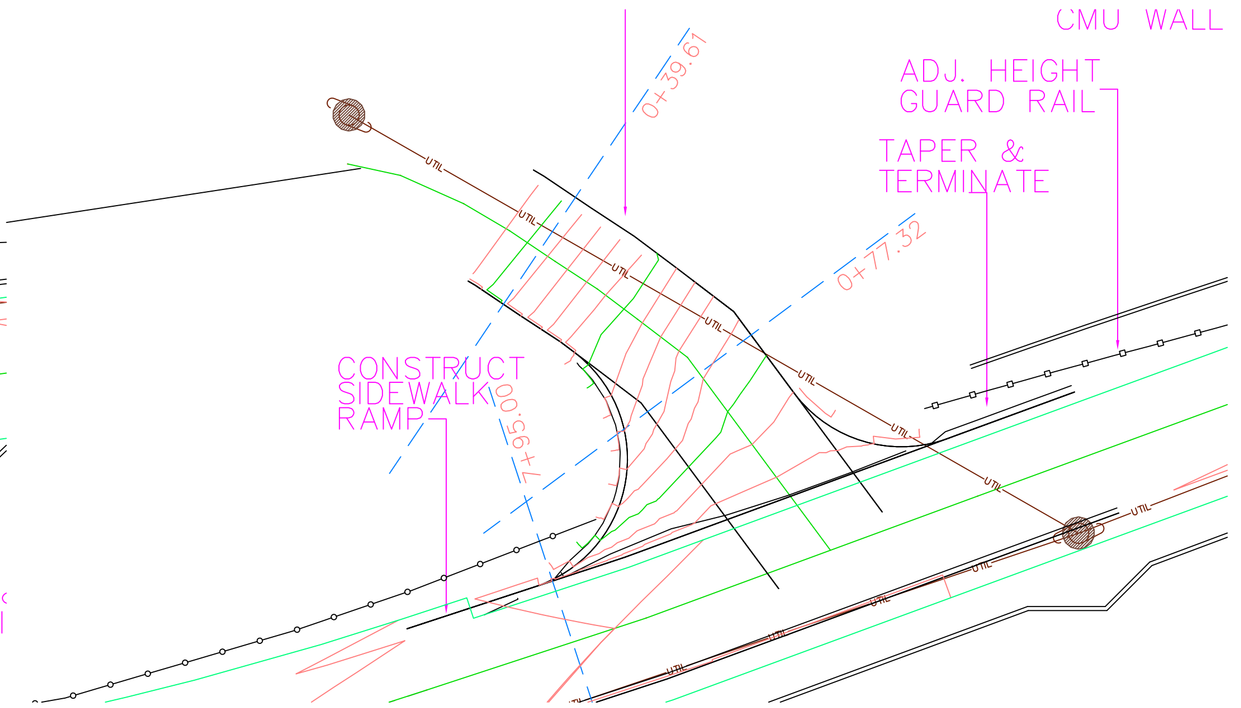

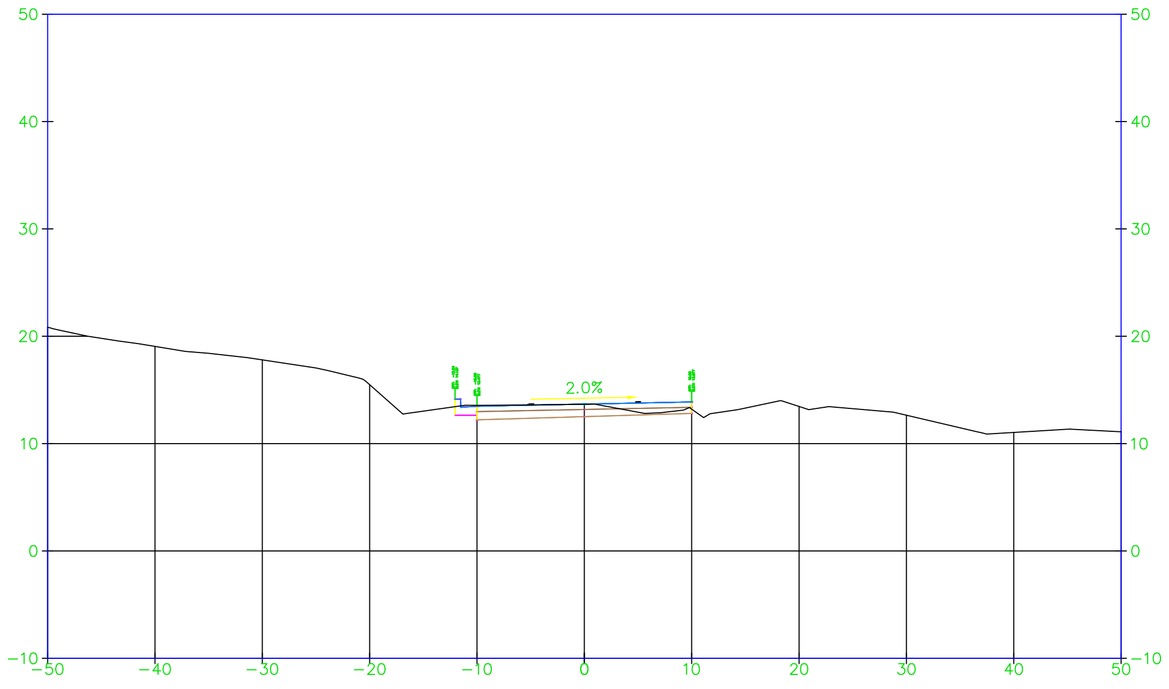

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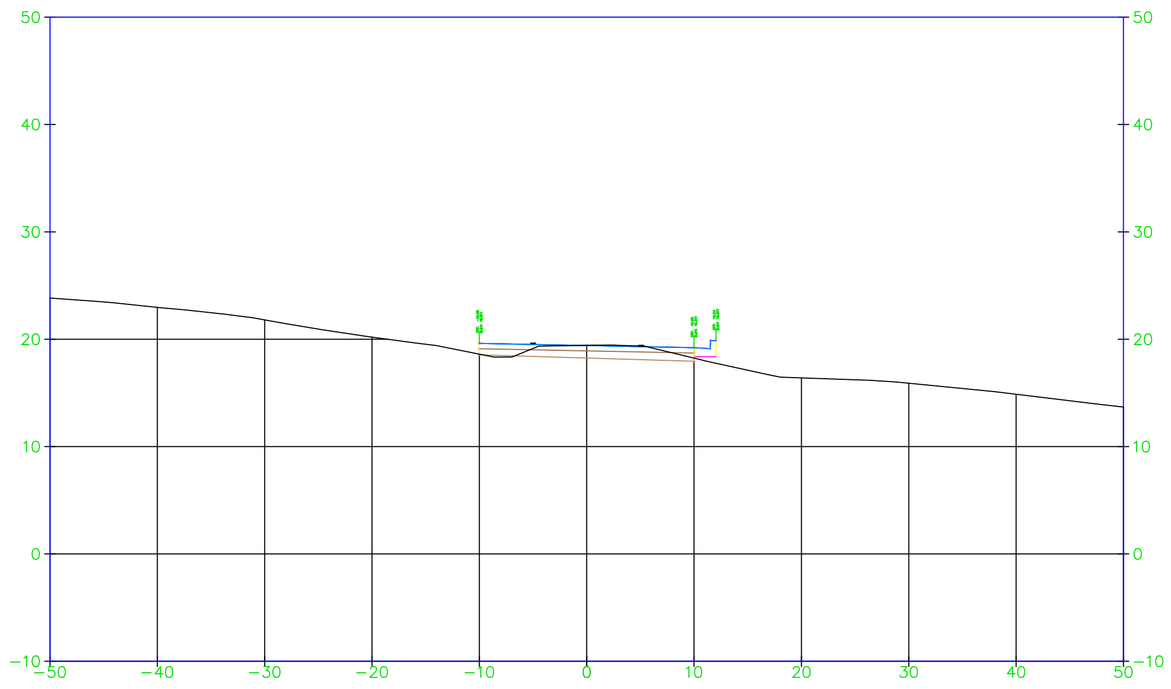

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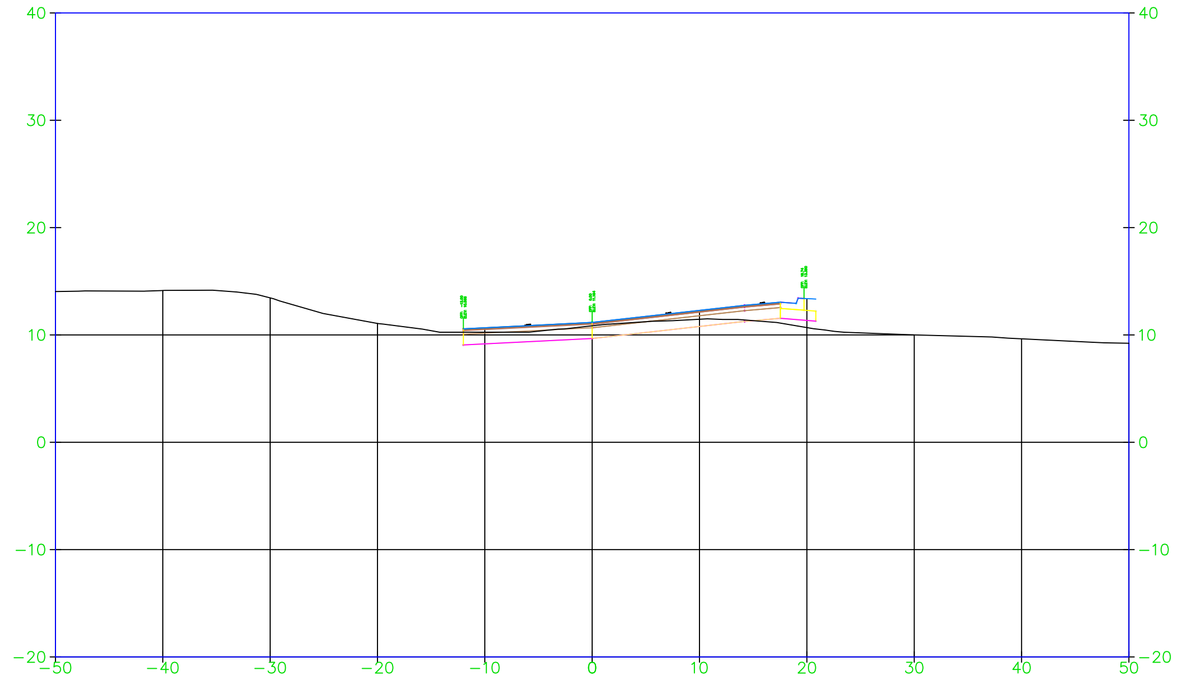

0+77.32

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