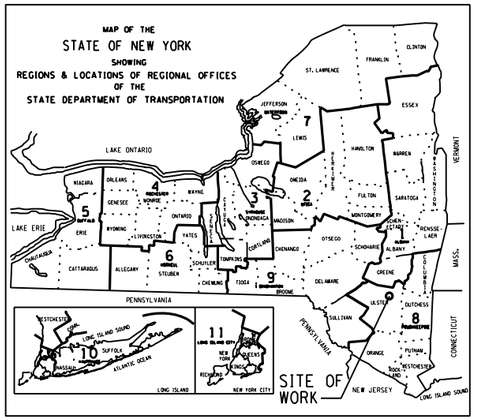
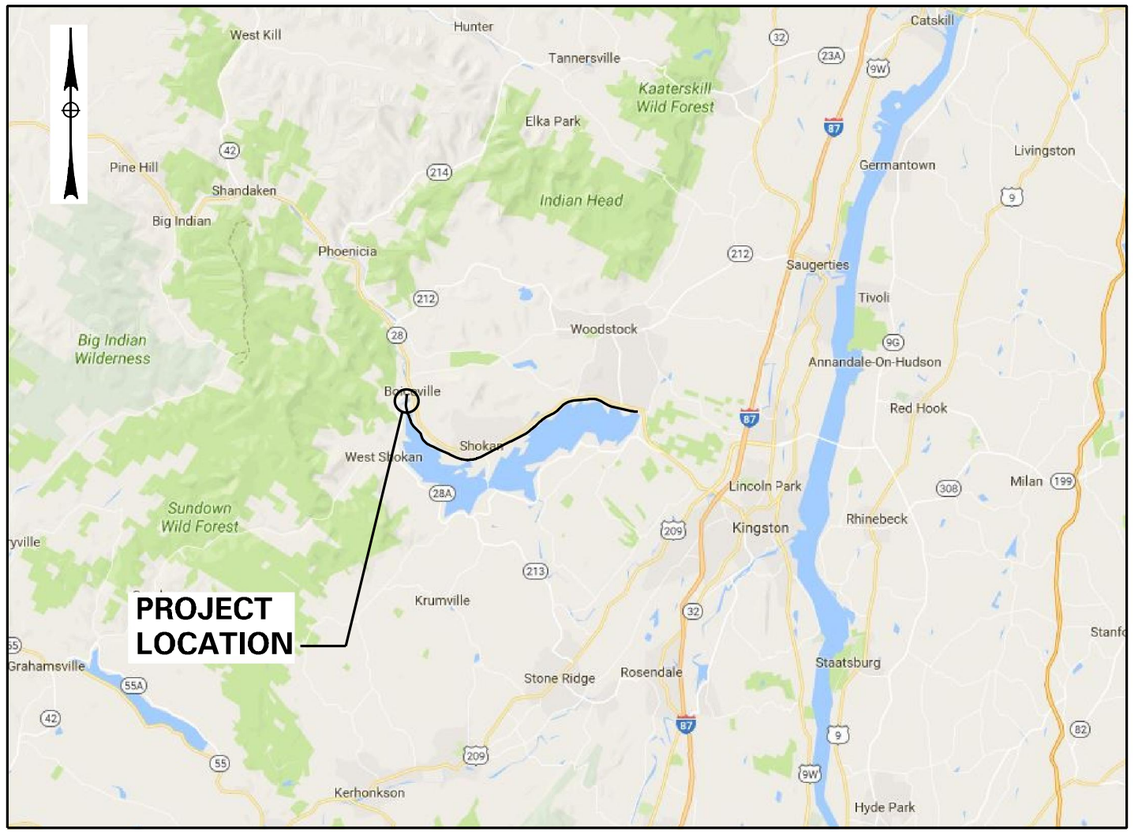


ASHOKAN RAIL TRAIL
BOICEVILLE BRIDGE
ULSTER COUNTY

CONSTRUCTION DRAWINGS
SEPTEMBER, 2018



PROJECT LOCATION

LATEST REVISIONS OF THE STANDARD SHEETS MAINTAINED BY THE DEPARTMENT, WHICH ARE CURRENT ON THE DATE OF ADVERTISEMENT FOR BIDS, SHALL BE CONSIDERED TO BE IN EFFECT. ALL PAY ITEMS AND WORK CONTAINED IN THE CONTRACT AND ANY ADDITIONAL PAY ITEMS AND WORK ENCOUNTERED DURING THE COURSE OF THE CONTRACT SHALL BE SUBJECT TO THE APPLICABLE STANDARD SHEET(S) UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS.

ALL WORK CONTEMPLATED UNDER THIS CONTRACT IS TO BE COVERED BY AND IN CONFORMITY WITH THE STANDARD SPECIFICATIONS (US CUSTOMARY) REFERENCED IN THE CONTRACT PROJECT "PROPOSAL" EXCEPT AS MODIFIED BY THESE PLANS OR BY CHANGES SET FORTH IN THE CONTRACT PROJECT "PROPOSAL". THESE PLANS ARE SUBMITTED IN ACCORDANCE WITH THE HIGHWAY LAW AND STANDARD SPECIFICATIONS OFFICIALLY FINALIZED AND ADOPTED ON JANUARY 01, 2018 AS POSTED ON THE DEPARTMENT'S WEBSITE.

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE. THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

Barton & Loguidice

SURVEY AND MAPPING PROVIDED BY:

BROOKS & BROOKS, PC
SURVEYING, PLANNING, GIS

PREPARED AND RECOMMENDED BY

STATE OF NEW YORK
ROBERT J. SIPZNER
No. 064501
LICENSED PROFESSIONAL ENGINEER

9/26/2018

ROBERT J. SIPZNER, P.E. DATE
NEW YORK STATE PROFESSIONAL ENGINEERS LICENSE NO. 064501

CONTRACTOR'S NAME _____
AWARD DATE _____
COMPLETION DATE _____
FINAL ACCEPTANCE DATE _____
ENGINEER IN CHARGE _____
FINAL COST TOTAL _____

FISCAL SHARE COST(S)

ASHOKAN RAIL TRAIL			
ULSTER COUNTY			
SUBMISSION: CONSTRUCTION DRAWINGS			
FED. ROAD REG. NO.	STATE	SHEET NO.	TOTAL SHEETS
	N.Y.	1	65
FEDERAL AID PROJECT NO.			
CAPITAL PROJECT IDENTIFICATION NO.	RFB-UC18-154C		

INDEX ON SHEET NO. 2

ALIGNMENT

ABBR.	DESCRIPTION
AH	AHEAD
AZ	AZIMUTH
BK	BACK
℄	BASELINE
BRG	BEARING
℄	CENTERLINE
CS	CURVE TO SPIRAL
e	SUPERELEVATION RATE (CROSS SLOPE)
EQ	EQUALITY
EXT	EXTERNAL
HCL	HORIZONTAL CONTROL LINE
HSD	HEADLIGHT SIGHT DISTANCE
L	LENGTH OF CIRCULAR CURVE
LS	LENGTH OF SPIRAL
LVC	LENGTH OF VERTICAL CURVE
E	CENTER CORRECTION OF VERTICAL CURVE
ℳ	MAIN LINE
PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION
POL	POINT ON LINE
PSD	PASSING SIGHT DISTANCE
PT	POINT OF TANGENT
PVC	POINT OF VERTICAL CURVE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENT
R	RADIUS
SC	SPIRAL TO CURVE
SSD	STOPPING SIGHT DISTANCE
ST	SPIRAL TO TANGENT
STA	STATION
T	TANGENT LENGTH
TGL	THEORETICAL GRADE LINE
TS	TANGENT TO SPIRAL
VC	VERTICAL CURVE

UTILITIES

ABBR.	DESCRIPTION
E	ELECTRIC
EMH	ELECTRIC MANHOLE
G	GAS
GP	GUY POLE
GSB	GAS SERVICE BOX (HOUSE LINE)
GV	GAS VALVE (MAIN LINE)
HYD	HYDRANT
LP	LIGHT POLE
LPG	LOW PRESSURE GAS
PP	POWER POLE
SA	SANITARY SEWER
SMH	SANITARY MANHOLE
ST	STORM SEWER
T	TELEPHONE
TCB	TRAFFIC CONTROL BOX
TELBOX	TELEPHONE BOX
TEL P	TELEPHONE POLE
TMH	TELEPHONE MANHOLE
CTV	CABLE TELEVISION
W	WATER
WSB	WATER SERVICE BOX (HOUSE LINE)
WV	WATER VALVE (MAIN LINE)

TOPOGRAPHY (DRAINAGE)

ABBR.	DESCRIPTION
BB	BOTTOM OF BANK (STREAM)
BC	BOTTOM OF CURB
BO	BOTTOM OF OPENING
CAP	CORRUGATED ALUMINUM PIPE
CB	CATCH BASIN
CIP	CAST IRON PIPE
℄ STRM	CENTERLINE OF STREAM
CMP	CORRUGATED METAL PIPE
CP	CONCRETE PIPE
CSP	CORRUGATED STEEL PIPE
CULV	CULVERT
DIA	DIAMETER
DMH	DRAINAGE MANHOLE
DS	DRAINAGE STRUCTURE PIPE
D'XING	DITCH CROSSING
EHW	EXTREME HIGH WATER
EL	ELEVATION
ELEV	ELEVATION
ELW	EXTREME LOW WATER
ES	END SECTION
HW	HEADWALL
INV	INVERT
MH	MANHOLE
MHW	MEAN HIGH WATER
OHW	ORDINARY HIGH WATER
OLW	ORDINARY LOW WATER
RCP	REINFORCED CONCRETE PIPE
TB	TOP OF BANK (STREAM)
TC	TOP OF CURB
TG	TOP OF GRATE
VCP	VITRIFIED CLAY PIPE
SICPP	SMOOTH INTERIOR CORRUGATED POLYETHYLENE PIPE

SUBSURFACE EXPLORATION

ABBR.	DESCRIPTION

REPLACE ABBREVIATION "AB" WITH:

AH	HAND AUGER
CP	CONE PENETROMETER
DA	60 mm CASED DRILL HOLE
DM	DRILLING MUD
DN	100 mm CASED DRILL HOLE
FH	HOLLOW FLIGHT AUGER
PA	POWER AUGER
PH	PROBE
PT	PERCOLATION TEST HOLE
RP	25 mm SAMPLER (RETRACTABLE PLUG)
	TO BE DEFINED AT THE TIME OF EXPLORATION
SP	SEISMIC POINT
TP	TEST PIT

REPLACE ABBREVIATION"C"IN CATEGORIES: DA, DM, DN AND FH WITH:

B	BRIDGE
C	CUT
D	DAM
F	FILL
K	CULVERT
W	WALL
X	TO BE USED IF ONE OF THE ABOVE CANNOT BE DEFINED AT THE TIME THE EXPLORATION IS MADE

TOPOGRAPHY (MISCELLANEOUS)

ABBR.	DESCRIPTION
ABUT	ABUTMENT
AOBE	AS ORDERED BY ENGINEER
ASPH	ASPHALT
BDY	BOUNDARY
BLDG	BUILDING
BM	BENCH MARK
CC	CENTER TO CENTER
CONC	CONCRETE
CONST	CONSTRUCTION
CR	COUNTY ROAD
D	DEED DISTANCE
DM	DIRECT MEASUREMENT
DWY	DRIVEWAY
EP	EDGE OF PAVEMENT
ES	EDGE OF SHOULDER
FEE	FEE ACQUISITION
FEE WO/A	FEE ACQUISITION WITHOUT ACCESS
FP	FENCE POST
FD	FOUNDATION
FL	FENCE LINE
GAR	GARAGE
GR	GRAVEL
HO	HOUSE
HWY	HIGHWAY
IP	IRON PIN OR IRON PIPE
MB	MAILBOX
MON	MONUMENT
N&W	NAIL AND WASHER
OG	ORIGINAL GROUND
O/H	OVERHEAD
P	PARCEL
PAV'T	PAVEMENT
PE	PERMANENT EASEMENT
PED POLE	PEDESTRIAN POLE
p	PROPERTY LINE
POR	PORCH
RR	RAILROAD
RTE	ROUTE
ROW	RIGHT OF WAY
RW	RETAINING WALL
SH	STATE HIGHWAY
SHLDR	SHOULDER
SPK	SPIKE
ST	STREET
STK	STAKE
STY	STORY
SW	SIDEWALK
TE	TEMPORARY EASEMENT
TO	TEMPORARY OCCUPANCY
U/G	UNDERGROUND
WW	WING WALL

BOICEVILLE BRIDGE - ASHOKAN RAIL TRAIL DRAWING INDEX

PREPARED BY: BARTON & LOGUIDICE, D.P.C.
ON : SEPTEMBER 26, 2018

STATE OF NEW YORK · ROBERT J. SIPZNER · LICENSED PROFESSIONAL ENGINEER · No. 064501

NO.	DATE	BY	REVISION

Barton & Loguidice

ASHOKAN RAIL TRAIL
BRIDGE REPLACEMENT
BOICEVILLE BRIDGE OVER ESOPUS CREEK
ULSTER COUNTY

INDEX & ABBREVIATIONS

SCALE: NONE
DATE ISSUED: 9/26/2018
DRAWING IND-1

IN CHARGE OF RJS | DESIGNED BY RSO | CHECKED BY MDP/BSR | DRAFTED BY JDHSr
CHECKED BY RSO/BSR
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DATE = 9/26/2018
TIME = 4:03:58 PM

ALIGNMENT

STYLE	NAME	DESCRIPTION
	AC	CONTROL (CENTERLINE)
	AD_P	DETOUR
	AT_P	TRANSITION CONTROL
BRIDGE		
	BR	RAIL
	BSHT	SHEET PILING
CONTROL		
	CB	BASELINE
	CBPR	BASELINE, PROJECTION
DRAINAGE		
	DCP	CULVERT PIPE
	DCP_P	CULVERT PIPE (DIR)
	DDG_P	DITCH, GRASS LINED
	DDP_P	DITCH, PAVED INVERT
	DDS_P	DITCH, STONE LINED
	DFL_P	FLOW LINE
	DSSD	SLOTTED DRAIN
ENVIRONMENTAL		
	EBLHS	BALE, HAY/STRAW
	ECT	CURTAIN, TURBIDITY
	EDMC	DAM, COFFER TYPE
	EDMEC_P	DAM, EARTHEN, CHECK
	EDMPC_P	DAM, PREFAB, CHECK
	EDMSC_P	DAM, STONE, CHECK
	EFNS	FENCE, SILT
	EFNSV	FENCE, SILT & VEGETATION
	EFNV	FENCE, VEGETATION
	EWAA_P	WETLAND, ADJACENT AREA
	EWF	WETLAND, FEDERAL
	EWFS	WETLAND, FEDERAL AND STATE
	EWM	WETLAND, MITIGATION AREA
	EWS	WETLAND, STATE
SIGNS		
	SBLB	BILLBOARDS
	SM	MULTIPLE POST
	SSO	STRUCTURE, OVERHEAD
	SSOC	STRUCTURE, OVHD. CANTILEVER

LANDSCAPE

STYLE	NAME	DESCRIPTION
	LABL	AREA, BRUSH LINE
	LAHR	AREA, HEDGE ROW
	LAPB	AREA, PLANTING BED
	LAWA	AREA, WOODED AREA OUTLINE
	LAWE	AREA, WATERS EDGE
	LCUT_P	CUT LIMIT
	LFILL_P	FILL LIMIT
	LFNC	FENCE
	LTRC	TREE ROW, CONIFEROUS
	LTRD	TREE ROW, DECIDUOUS
	LWH	WALL, H PILE
	LWR	WALL, RETAINING
	LWS	WALL, STONE
ROW MAPPING		
	MDL	DEED LINE
	MEE	EASEMENT, EXISTING
	MEP_P	EASEMENT, PERMANENT
	MEPA_P	EASEMENT, PERMANENT, APPROX.
	MET_P	EASEMENT, TEMPORARY
	META_P	EASEMENT, TEMPORARY, APPROX.
	MF_P	FEE ACQUISITION, W/ ACCESS
	MFA_P	FEE ACQUISITION, APPROXIMATE
	MFS_P	FEE ACQUISITION, SHAPE
	MFWOA_P	FEE ACQUISITION, W/O ACCESS
	MHB	HIGHWAY BOUNDARY
	MHBA	HIGHWAY BOUNDARY, APPROX.
	MHBW	HWY BOUNDARY, FACE OF WALL
	MHBWOA	HIGHWAY BOUNDARY, W/O ACCESS
	MJC	JURISDICTION, CITY
	MJCY	JURISDICTION, COUNTY
	MJHD	JURISDICTION, HISTORIC DISTRICT
	MJLL	JURIS., (GREAT, MILITARY) LOT LINE
	MJN	JURISDICTION, NATION
	MJPB	JURISDICTION, PUBLIC LANDS
	MJS	JURISDICTION, STATE
	MJT	JURISDICTION, TOWN
	MJV	JURISDICTION, VILLAGE
	MPL	PROPERTY LOT LINE
	MPLA	PROPERTY LOT LINE, APPROXIMATE
	MSL	SUB LOT LINE
PR	PR	PRIVATE PROPERTY RELEASE

ROADWAY

STYLE	NAME	DESCRIPTION
	RG	GUIDE RAIL, MISCELLANEOUS
	RGB	GUIDE RAIL, BOX BEAM
	RGBM	GUIDE RAIL, BOX BEAM, MEDIAN
	RGC	GUIDE RAIL, CABLE
	RGCB	GUIDE RAIL, CONCRETE BARRIER
	RGP_P	GUIDE POST
	RGW	GUIDE RAIL, W BEAM
	RGWM	GUIDE RAIL, W BEAM, MEDIAN
	RPB	PARKING BUMPER
	RRC	RAIL ROAD, CATENARY
	RRER	RAIL ROAD, 3RD RAIL
	RRPLS_P	RAIL, PHOTO, LARGE SCALE
	RRPSS	RAIL, PHOTO, SMALL SCALE
	RRS	RUMBLE STRIP
	RRSLS_P	RAIL, SURVEY, LARGE SCALE
	RRSSS	RAIL, SURVEY, SMALL SCALE
STRIPING		
	STB•	BROKEN LINE
	STDB•	DOUBLE BROKEN LINE
	STDL•	DOTTED LINE LONG
	STDS•	DOTTED LINE SHORT
	STFB•	FULL BARRIER LINE
	STH•	HATCH LINE
	STPB•	PARTIAL BARRIER LINE
	STRCT	ROUNDABOUT, CAT TRACKS
	STRYL	ROUNDABOUT, YIELD LINE
	STSB	STOP BAR
	STSE	SOLID, EDGE
	STXL•	X WALK, LADDER LINE
		• = W (WHITE) OR Y (YELLOW)
TRAFFIC CONTROL		
	TCSW	SIGNAL, SPAN WIRE
TRAFFIC MAINTENANCE		
	TMBCD_P	BARRICADES
	TMBCDL_P	BARRICADES, LIGHTED
	TMBT_P	BARRIER, TEMPORARY
	TMBTL_P	BARRIER, TEMPORARY, LIGHTED
	TMDB_P	DEVICE, BARRELS
	TMDBL_P	DEVICE, BARRELS, LIGHTED
	TMDC_P	DEVICE, CONES
UTILITIES		
	UC	CONDUIT, UNDERGROUND
	UCH	CONDUIT, HANGING
	UCO	CONDUIT, OVERHEAD
	UE	ELECTRIC LINE, UNDERGROUND
	UEH	ELECTRIC LINE, HANGING
	UEO	ELECTRIC LINE, OVERHEAD
	UETO	ELECTRIC TRANSMISSION, OVERHEAD

UTILITIES CONT'D.

STYLE	NAME	DESCRIPTION
	UESS	ELECTRIC, SUBSTATIONS
	UFO	FIBER OPTIC, UNDERGROUND
	UFOH	FIBER OPTIC, HANGING
	UFOO	FIBER OPTIC, OVERHEAD
	UG	GAS, UNDERGROUND
	UGH	GAS, HANGING
	UGO	GAS, OVERHEAD
	UIC	INFORM CABLE, UNDERGROUND
	UICH	INFORM CABLE, HANGING
	UO	OIL LINE, UNDERGROUND
	UOH	OIL LINE, HANGING
	UPBP	POLE, BRACE, PUSH BRACE
	UPBW	POLE, GUY WIRE
	USA	SANITARY SEWER, UNDERGROUND
	USAH	SANITARY SEWER, HANGING
	USAF	SANITARY SEWER, FORCE MAIN, UGND
	USAFH	SANITARY SEWER, FORCE MAIN, HANG
	UT	TELEPHONE, UNDERGROUND
	UTH	TELEPHONE, HANGING
	UTO	TELEPHONE, OVERHEAD
	UTV	CABLE TV, UNDERGROUND
	UTVH	CABLE TV, HANGING
	UTVO	CABLE TV, OVERHEAD
	UUU	UNKNOWN, UNDERGROUND
	UUH	UNKNOWN, HANGING
	UUO	UNKNOWN, OVERHEAD
	UW	WATER LINE, UNDERGROUND
	UWH	WATER LINE, HANGING
	UWO	WATER LINE, OVERHEAD

1. THE LEGEND ILLUSTRATES MAPPING FEATURES (EXISTING AND PROPOSED).
2. FEATURES ARE SHOWN AS EITHER LINEAR ROADWAY (GUIDERAIL, ROADWAY SIDEWALK, UTILITY LINES, ETC.) OR POINT (SIGN, UTILITY POLE, ETC.).
3. FEATURES SHOWN ON THE LEGEND AS EXISTING FEATURES ALSO HAVE CORRESPONDING PROPOSED FEATURES.
4. PROPOSED FEATURE SYMBOLOGY IS IDENTICAL TO EXISTING FEATURE SYMBOLOGY EXCLUDING LINE WEIGHT. LINE WEIGHT FOR PROPOSED FEATURES IS THICKER (0.40 MM ON B SIZE DRAWINGS).
5. MAPPING FEATURES NOT INCLUDED ON THE LEGEND SHEET DO NOT HAVE A UNIQUE SYMBOLOGY (SUCH AS THE PAVEMENT EDGE, PAVEMENT EDGE OF TRAVEL WAY) AND SHOULD BE LABELED ON THE PLANS.
6. FEATURES SHOWN AT THE HEAVIER WEIGHT ARE PROPOSED ONLY AND DO NOT HAVE CORRESPONDING EXISTING FEATURES.

NO.	DATE	BY	REVISION

ASHOKAN RAIL TRAIL
BRIDGE REPLACEMENT
BOICEVILLE BRIDGE OVER ESOPUS CREEK
ULSTER COUNTY

LEGEND - 1

SCALE: NONE
DATE ISSUED: 9/26/2018
DRAWING
LE-1

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IN CHARGE OF RJS | DESIGNED BY RSO | CHECKED BY MDP/BSR | DRAFTED BY JDH/Sr | CHECKED BY RSO/BSR

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DATE = 9/26/2018
TIME = 4:04:02 PM

ROW MAPPING

CELL	NAME	DESCRIPTION
	MDL1P	DEED LINE, TYPE 1
	MDL2P	DEED LINE, TYPE 2
	MDL3P	DEED LINE, TYPE 3
	MDL4P	DEED LINE, TYPE 4
	MDL5P	DEED LINE, TYPE 5
	MEEP	EASEMENT, EXISTING
	MEPAP_P	EASEMENT, PERM., APPROX.
	MEPP_P	EASEMENT, PERM., BACK LINE
	MEPSP_P	EASEMENT, PERM., SHAPE
	MFAP_P	FEE ACQUISITION, APPROX.
	MFP_P	FEE ACQUISITION, BACK LINE
	MFSP_P	FEE ACQUISITION, SHAPE
	MHBAP	HIGHWAY BNDRY., APPROX.
	MHBCP	HISTORICAL, BLDG. CORNERS
	MHBP	HIGHWAY BNDRY, PT.
	MJCP	PT., JURIS. CITY
	MPBC	PT., BUILDING CORNER
	MPCC	PT., CROSS CUT
	MPDH	PT., DRILL HOLE
	MPF	PT., FENCE LOCATION
	MPIP	PT., IRON PIPE
	MPIR	PT., IRON ROD
	MPM	PT., MONUMENT
	MPMM	PT., MONUMENT, MISC.
	MPN	PT., NAIL
	MPRS	PT., RAILROAD SPIKE
	MPSP	PT., SPIKE
	MPST	PT., STAKE
	MPTW	PT., TREE W/ WIRE
	MPWL	PT., WALL LOCATION

ALIGNMENT

CELL	NAME	DESCRIPTION
	ACC	CENTER OF CURVATURE
	ACOGO	COGO
	ACS	CURVE TO SPIRAL
	ADPI_P	DETOUR, POINT OF INTERSECT.
	ADPL_P	DETOUR, POINT ON LINE
	AEQN	EQUATION
	AEQNAHD	EQUATION AHEAD
	AEQNBK	EQUATION BACK
	AEVT	EVENT STATION
	APC	POINT OF CURVATURE
	APCC	POINT OF COMPOUND CURVATURE
	API	POINT OF INTERSECTION
	APOB	POINT OF BEGINNING
	APOC	POINT OF CURVATURE
	APOE	POINT OF END
	APOL	POINT ON LINE
	APOS	POINT ON SPIRAL
	APOT	POINT ON TANGENT
	APOVC	POINT ON VERTICAL CURVE
	APOVT	POINT ON VERTICAL TANGENT
	APORC	POINT ON REVERSE CURVE
	APT	POINT OF TANGENCY
	APVC	POINT OF VERTICAL CURVATURE
	APVCC	POINT OF VERT. CMPND CURVE
	APVI	POINT OF VERT. INTERSECTION
	APVRC	POINT OF VERT. REVERSE CURVE
	APVT	POINT OF VERTICAL TANGENCY
	ASC	SPIRAL TO CURVE
	ASPI	SPIRAL POINT OF INTERSECTION
	ASTS	SPIRAL TO SPIRAL
	AST	SPIRAL TO TANGENT
	ATS	TANGENT TO SPIRAL
	AVEVT	VERTICAL EVENT POINT
	AVHIGH	VERTICAL HIGH POINT
	AVLOW	VERTICAL LOW POINT

CONTROL

	CBP	BASELINE, POINT
	CBPOL	BASELINE, POINT ON LINE
	CBSP	BASELINE, SPUR POINT
	CBTP	BASELINE, TIE POINT
	CPBM	BENCHMARK
	CPH	POINT, HORIZ. PHOTOGRAMMETRY
	CPSM	POINT, SURVEY MARKER, PERM.
	CPSV	POINT, VERT., PHOTOGRAMMETRY

BRIDGE

CELL	NAME	DESCRIPTION
	BSC	BRIDGE, SCUPPER

DRAINAGE

	DINV	INVERT
	DS	STRUCTURE, RECTANGULAR
	DSI	STRUCTURE, INVERT
	DSM	STRUCTURE, MANHOLE
	DSMTXX_P	STRUCTURE, MANHOLE, TYPE "XX" "XX" = 48, 60, 72, 96
	DSR	STRUCTURE, ROUND
	DST"X"CB P	STRUCTURE, RECT., WITH CURB TYPE "X" "X" = F, G, N, O, P, R
	DST"X" P	STRUCTURE, RECT., TYPE "X" "X" = I, K, L, M, O, P, U

ENVIRONMENTAL

CULV	EIOP_P	STR., INLET, OUTLET PROT.
GB	EIPGB_P	STR., INLET PROT., GRAVEL BAG
H/S	EIPHS_P	STR., INLET PROT., HAY/STRAW
PREB	EIPP_P	STR., INLET PROT., PREFAB.
SF	EIPSF_P	STR., INLET PROT., SILT FENCE
	ERCB	RISER, CONCRETE BOX
	ETRS_P	TRAP, SEDIMENT
	EWFG	WETLAND FLAG

GEOTECHNICAL

	GDH	DRILL HOLE

LANDSCAPE

CELL	NAME	DESCRIPTION
	LELS	ELEVATION, SPOT
	LFP	FLAG POLE
	LMB	MAILBOX
	LPB	PAPER BOX
	LPST	POST, SINGLE
	LRB	ROCK, BOULDER
	LSHC	SHRUB, CONIFEROUS
	LSHD	SHRUB, DECIDUOUS
	LTC	TREE, CONIFEROUS
	LTD	TREE, DECIDUOUS
	LTS	TREE, STUMP
	LTW P	TREE, WELL OR WALL
	LUKP	UNKNOWN POINT

ROADWAY

CELL	NAME	DESCRIPTION
	RES P	ELEVATION, SPOT
	RGA	GUIDE RAIL, ANCHOR
	RGP	GUIDE POST, SINGLE

SIGNS

	S	SINGLE POST
	S P	SINGLE POST, PROPOSED
	SB P	BACK TO BACK, PROPOSED
	SDEL	DELINEATORS
	SPM	PARKING METER
RFM	SRM	REFERENCE MARKERS
	SRSC3	SHLD, CTY, 123 DIG.
	SRSC4	SHLD, CTY, 4 DIG.
	SRSCT2	SHLD, CTY TOUR, 1-2 DIG.
	SRSCT4	SHLD, CTY TOUR, 3-4 DIG.
	SRSI	SHLD, INTERSTATE
	SRSN2	SHLD, NATIONAL, 2 DIG.
	SRSN3	SHLD, NATIONAL, 3 DIG.
	SRSS2	SHLD, STATE, 2 DIG.
	SRSS3	SHLD, STATE, 3 DIG.
	SRSS4	SHLD, STATE, 4 DIG.

TRAFFIC

	TCBJ	BOX, JUNCTION
T	TCBP	BOX, PULL BOX
	TCBS	BOX, SPLICE
	TCMC	MICROCOMPUTER CABINET
	TCPP	PED POLE
	TCSH	SIGNAL HEADS
	TCSP	SIGNAL POLE

ITS

CELL	NAME	DESCRIPTION
	IANT P	ANTENNAS
AS	IASCTS	ACCOU. SPEED/COUNT SNSR.S
P	ICABPAD	CABINET & PAD
	ICCTV	CCTV SITE
CDPD	ICDPD	CDPD TRANSCEIVER
	ICELLT	CELL PHONE TOWER
	ICJB	CONDUIT JACK OR BORING
	ICNTLCAB	CONTROLLER CABINET
	ICPB	COMMUNICATION PULL BOX
	ICTD	CONDUIT TURNING DOWN
	ICTU	CONDUIT TURNING UP
	ICVTRT	COMM. VEH. ROAD TRANSCVR.
	IDEFAULT	DEFAULT
EZ	IEZR	EZ-PASS READER
EZ-T	IEZTR	TRANSMITTAL READER
XC	IFOXCAB	FIBER OPTIC X-CONNECT CAB.
	IFUSSPL	FUSION SPLICE
	IHARADV	HAR ADVISORY SIGN
	IHARST	HAR SITE
LC	ILC	LOAD CENTER
	IMECSPL	MECHANICAL SPLICE
PM	IMSCS	PORT. SPEED & COUNT SENS
M	IMSCTS	MICRO SPEED & COUNT SNSR.
M	IMT	MICROWAVE TRANSCEIVER
VMS	IOVHVMS	PERM. OVERHEAD VMS
PA	IPASCS	PORT. ACC. SPD $ CNT SNSR.
	IPEDS	PEDESTRIAN SIGNAL HEAD
	IPSS	PAVEMENT SURFACE SNSR.
PVMS	IPVMS	PERM. VMS
RM	IRM	RAMP METER
RWIS	IRWIS	RDWY WEATHER INFO. SNSR.
	ISP	SOLAR PANEL
SS	ISST	SPREAD SPECT. TRANSCEIVER
TC	ITDB	TELEPHONE DEMARCATION BLK
TP	ITP	SUBSURFACE TEMP. PROBE
	IVTRT	VEHICLE TO RDWY TRANCEIVER
WIM	IWIMD	WEIGHT IN MOTION DETECTOR
WVR	IWVR	WIRELESS VIDEO REPEATER
V	IWVRC	WIRELESS VIDEO RECEIVER
V	IWVTT	WIRELESS VIDEO TRANSMITTER

UTILITIES

CELL	NAME	DESCRIPTION
E	UEB	ELECTRIC, BOX
E	UEM	ELECTRIC, METER
E	UEMH	ELECTRIC, MANHOLE
E	UEPT	ELECTRIC, POLE, TRANS.
G	UGM	GAS, METER
G	UGMH	GAS, MANHOLE
	UGLM	GAS, LINE MARKER
FP	UGP	GAS/FUEL PUMP
	UGV	GAS, VALVE
	UGVT	GAS, VENT
	ULP	LIGHTING, POLE
	ULPM	LIGHTING, POLE, MEDIAN
	ULPP	LIGHTING, POLE, PED.
	UMFC	MISC. FILLER CAP
	UOLM	OIL, LINE MARKER
	UP	POLE, WITH UTILITY
	UPD	POLE, DEAD (NO UTILITY)
	UPL	POLE, WITH LIGHT
S	USMH	SANITARY SEWER MANHOLE
P	UTB	TELEPHONE, BOOTH
	UTLM	TELEPHONE, LINE MARKER
T	UTMH	TELEPHONE, MANHOLE
	UTVLM	CABLE TV, LINE MARKER
	UTVPB	CABLE TV, PULL BOX
	UUB	UNKNOWN, BOX
	UUJB	UNKNOWN, JUNCTION BOX
	UUPB	UNKNOWN, MANHOLE
	UUMH	UNKNOWN, PULL BOX
	UUVL	UNKNOWN, VALVE
	UUVT	UNKNOWN, VENT
	UUW	UNKNOWN, WELL
	UWFH	WATER, FIRE HYDRANT
W	UWM	WATER, METER
W	UWMH	WATER, MANHOLE
	UWV	WATER, VALVE
	UWW	WATER, WELL

ROW ACQUISITION

MJPI FEE	MFS_P_T	FEE ACQUISITION
MJPI PE	MEPS_P_T	EASEMENT, PERMANENT
MJPI TE	METS_P_T	EASEMENT, TEMPORARY
MJPI TO	METS_P_T	OCCUPANCY, TEMPORARY
MJPI FEE W/O A	MFS_P_T	FEE ACQUISITION W/O ACCESS

1. THE LEGEND ILLUSTRATES MAPPING FEATURES (EXISTING AND PROPOSED).
2. FEATURES ARE SHOWN AS EITHER LINEAR (ROADWAY GUIDERAIL, ROADWAY SIDEWALK, UTILITY LINES, ETC.) OR POINT (SIGN, UTILITY POLE, ETC.).
3. FEATURES SHOWN ON THE LEGEND AS EXISTING FEATURES ALSO HAVE CORRESPONDING PROPOSED FEATURES.
4. PROPOSED FEATURE SYMBOLOGY IS IDENTICAL TO EXISTING FEATURE SYMBOLOGY EXCLUDING LINE WEIGHT. LINE WEIGHT FOR PROPOSED FEATURES IS THICKER (0.40 MM ON B SIZE DRAWINGS).
5. MAPPING FEATURES NOT INCLUDED ON THE LEGEND SHEET DO NOT HAVE A UNIQUE SYMBOLOGY (SUCH AS THE PAVEMENT EDGE, PAVEMENT EDGE OF TRAVEL WAY) AND SHOULD BE LABELED ON THE PLANS.
6. FEATURES SHOWN AT THE HEAVIER WEIGHT ARE PROPOSED ONLY AND DO NOT HAVE CORRESPONDING EXISTING FEATURES.

NO.	DATE	BY	REVISION

ASHOKAN RAIL TRAIL

BRIDGE REPLACEMENT

BOICEVILLE BRIDGE OVER ESOPUS CREEK

ULSTER COUNTY

LEGEND - 2

SCALE: NONE

DATE ISSUED: 9/26/2018

DRAWING
LE-2

IN CHARGE OF RJS | DESIGNED BY RSO | CHECKED BY MDP/BSR | DRAFTED BY JDHSr | CHECKED BY RSO/BSR

FILE NAME = L:\MSTN_Projects\0300\369.007 - Ashokan Rail Trail\MSTN\2018 Boiceville Bid Set\003.369007001.legend-2.dgn
DATE = 9/26/2018
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DEFINITION

THE WORDS "SHALL", "PROPOSED", "SHOULD", AND "MAY", AS USED IN THE CONTRACT DOCUMENTS, HAVE THE FOLLOWING MEANINGS:

SHALL - A MANDATORY CONDITION. IN THE DESIGN, APPLICATION, OR LOCATION OF DEVICES, REQUIREMENTS HAVING "SHALL" STIPULATIONS ARE MANDATORY. NO DISCRETION IN FOLLOWING THEM IS ALLOWED.

PROPOSED - A MANDATORY CONDITION. IN THE DESIGN, APPLICATION, OR LOCATION OF DEVICES, REQUIREMENTS HAVING "PROPOSED" STIPULATIONS ARE MANDATORY. NO DISCRETION IN FOLLOWING THEM IS ALLOWED.

SHOULD - AN ADVISORY CONDITION. WHERE "SHOULD" IS USED IN RELATION TO A PROVISION, THAT PROVISION IS RECOMMENDED, AND NORMALLY IS TO BE FOLLOWED, BUT IS NOT MANDATORY. DEVIATION FROM SUCH PROVISIONS IS PERMISSIBLE IF, AND TO THE EXTENT THERE IS JUSTIFIABLE CAUSE TO DO SO.

MAY - A PERMISSIVE CONDITION. NO REQUIREMENTS FOR DESIGN OR APPLICATION IS INTENDED.

DRAINAGE FACILITIES

THE CONTRACTOR SHALL BECOME FAMILIARIZED WITH DRAINAGE CHARACTERISTICS OF THE AREA SO THAT HE MAY PROGRESS HIS WORK EFFICIENTLY WITH FULL KNOWLEDGE OF THE POTENTIAL DRAINAGE ISSUES.

SURVEY

1. THE CONTRACTOR SHALL PROVIDE SURVEY AND STAKEOUT, AS REQUIRED, AND IN ACCORDANCE WITH SECTION 625 OF THE NYSDOT STANDARD SPECIFICATIONS. COST FOR THIS WORK SHALL BE INCLUDED UNDER ITEM 625.01 - SURVEY OPERATIONS.
2. SURVEY INFORMATIO,N INCLUDING BASELINE TIES, IS AVAILABLE IN THE CONTRACT DOCUMENTS.

RESTORING DISTURBED AREAS

1. THE CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS TO A CONDITION APPROVED BY THE ENGINEER.
2. THE RESTORATION OF DISTURBED AREAS SHALL BE ACCOMPLISHED AS SPECIFIED UNDER SECTION 01710 OF THE NYSDOT STANDARD SPECIFICATIONS.

UTILITIES

1. THE CONTRACTOR SHALL CALL DIG SAFELY NEW YORK (UFPO) AT 1-800-962-7962 OR VIA THREE DIGIT DIALING WITH THE RECENTLY INTRODUCED 811 PROGRAM FOR UTILITY MARK-OUTS AND INTERFERENCE PRIOR TO COMMENCEMENT OF ANY OPERATIONS. CONFIRMATION OF UTILITY LOCATION IS THE RESPONSIBILITY OF THE CONTRACTOR. UNDERGROUND UTILITIES MAY BE PRESENT THROUGHOUT THE SITE.
2. LOCATION OF UTILITIES, PUBLIC AND/OR PRIVATE, INDICATED AS EXISTING AND/OR TO BE CONSTRUCTED AS SHOWN ON THE PLANS ARE APPROXIMATE ONLY. THEIR EXACT LOCATION SHALL BE DETERMINED IN THE FIELD. ADDITIONAL UTILITY LINES, WHETHER ABANDONED OR IN SERVICE, MAY EXIST AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONDUCT HIS OPERATIONS AND TAKE THE NECESSARY PRECAUTIONS TO PREVENT INTERFERENCE WITH OR DAMAGE TO THESE OR OTHER FACILITIES DURING THE COURSE OF CONSTRUCTION. IN THE EVENT THE CONTRACTOR DAMAGES AN EXISTING UTILITY SERVICE CAUSING AN INTERRUPTION IN SAID SERVICE, HE SHALL IMMEDIATELY COMMENCE WORK TO RESTORE SERVICE IN COORDINATION WITH THE OWNER OF THE UTILITY AFFECTED, AND MAY NOT CEASE HIS WORK OPERATION UNTIL SERVICE IS RESTORED.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES ENCOUNTERED IN THE WORK COMPLETED UNDER THIS CONTRACT. WHERE NECESSARY, THE CONTRACTOR SHALL PROVIDE TIMBER, PLANK OR OTHER APPROVED MATERIALS AND SECURELY BRACE AND PROTECT THESE UTILITIES.
4. THE QUALITY OF UNDERGROUND UTILITY FACILITY INFORMATION SHOWN ON THE PLANS IS QUALITY LEVEL C. QUALITY LEVEL C IS THE THIRD HIGHEST DEGREE OF ACCURACY. THE INFORMATION SHOWN ON THE PLANS HAS BEEN OBTAINED BY SURVEYING AND PLOTTING VISIBLE ABOVE-GROUND UTILITY FEATURES AND BY USING PROFESSIONAL JUDGEMENT IN CORRELATING THIS INFORMATION TO QUALITY LEVEL C INFORMATION.

CONSTRUCTION NOTES:

1. MATERIAL AND CONSTRUCTION SPECIFICATIONS: STANDARD SPECIFICATIONS, CONSTRUCTION AND MATERIALS, NEW YORK STATE DEPARTMENT OF TRANSPORTATION, OFFICE OF ENGINEERING, DATED JANUARY 1, 2018 INCLUDING CURRENT ADDENDUMS.
2. THE CONTRACTOR SHALL EXAMINE AND VERIFY IN THE FIELD ALL CONDITIONS AND DIMENSIONS. IF FIELD CONDITIONS AND DIMENSIONS DIFFER FROM THOSE SHOWN ON THE PLANS, THE CONTRACTOR SHALL USE THE FIELD CONDITIONS AND DIMENSIONS AND MAKE THE APPROPRIATE CHANGES TO THOSE SHOWN ON THE PLANS AS APPROVED BY THE ENGINEER. THE RESULTS OF THIS CHECK OF CONDITIONS AND DIMENSIONS SHALL BE SO NOTED ON THE DRAWINGS SUBMITTED FOR APPROVAL. THERE SHALL BE NO CLAIM AGAINST THE OWNER MADE BY THE CONTRACTOR FOR WORK PERTAINING TO MODIFICATIONS AS MAY BE REQUIRED DUE TO ANY DIFFERENCE BETWEEN ACTUAL FIELD CONDITIONS AND THOSE SHOWN BY THE DETAILS AND DIMENSIONS ON THE CONTRACT PLANS. THE CONTRACTOR WILL BE PAID AT THE UNIT BID PRICE FOR THE ACTUAL QUANTITIES OF MATERIALS USED OR FOR THE WORK PERFORMED, AS INDICATED BY THE VARIOUS ITEMS IN THE CONTRACT EXCEPT FOR ITEMS DEFINED WITH PAY LIMITS. PAY LIMITS PREVAIL.
3. THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR ALL DAMAGES TO THE EXISTING FACILITY CAUSED BY HIS OPERATIONS WHICH IS NOT INCLUDED AS PART OF THE INTENDED WORK. ALL DAMAGE TO THE EXISTING FACILITY WHICH IS NOT PART OF THE INTENDED WORK SHALL BE REPAIRED BY THE CONTRACTOR WITHOUT COST TO THE OWNER AND TO THE SATISFACTION OF THE ENGINEER.
4. THE CONTRACTOR SHALL EXERCISE CARE IN HIS REMOVAL OPERATIONS SO AS NOT TO UNDULY DISTURB UNDERLYING MATERIALS WHICH ARE TO REMAIN IN PLACE. THE CONTRACTOR SHALL PERFORM ALL WORK WITH CARE SO THAT ANY MATERIALS WHICH ARE TO REMAIN IN PLACE, OR WHICH ARE TO REMAIN THE PROPERTY OF THE OWNER, WILL NOT BE DAMAGED. IF THE CONTRACTOR DAMAGES ANY MATERIALS WHICH ARE TO REMAIN IN PLACE, OR WHICH ARE TO REMAIN THE PROPERTY OF THE OWNER, THE DAMAGED MATERIAL SHALL BE REPAIRED OR REPLACED IN A MANNER SATISFACTORY TO THE ENGINEER AT THE EXPENSE OF THE CONTRACTOR.
5. IT WILL BE THE CONTRACTOR'S OBLIGATION AND RESPONSIBILITY TO USE METHODS AND EQUIPMENT WHICH WILL INSURE THE SATISFACTORY COMPLETION OF THE REQUIRED WORK WITH A MINIMUM OF DELAY.
6. THE CONTRACTOR IS ADVISED THAT ADDITIONAL "NOTES" WILL BE FOUND ON SUBSEQUENT SHEETS OF THE CONTRACT PLANS AND SUCH "NOTES", WHILE PERTAINING TO THESE SPECIFIC SHEETS THEY ARE PLACED ON, ALSO SUPPLEMENT THE GENERAL NOTES LISTED HEREIN.
7. NO ADDITIONAL PAYMENT WILL BE MADE FOR WORK CALLED FOR BY NOTES ON THE PLANS OR IN THE SPECIFICATIONS UNLESS PAYMENT IS SPECIFICALLY INDICATED BY ITEM NUMBER. THE COST OF WORK FOR WHICH NO PAYMENT ITEM IS INDICATED, SHALL BE INCLUDED IN THE UNIT PRICES BID FOR VARIOUS ITEMS OF THIS CONTRACT.
8. CARE SHALL BE TAKEN TO RETAIN NATURAL GROWTH AND PREVENT DAMAGE TO TREES WITHIN AND OUTSIDE THE LIMITS OF CONSTRUCTION, AND NOT SCHEDULED FOR REMOVAL. ANY DAMAGE CAUSED TO THIS NATURAL GROWTH SHALL BE RESTORED AT THE EXPENSE OF THE CONTRACTOR AS DIRECTED BY THE ENGINEER.
9. THE CONTRACTOR SHALL BE REQUIRED TO PROTECT HIS WORKERS AT ALL TIMES IN CONFORMANCE WITH APPLICABLE OSHA REGULATIONS.
10. WHENEVER ITEMS IN THE CONTRACT REQUIRE MATERIALS TO BE REMOVED AND DISPOSED OF, THE COST OF SUPPLYING A DISPOSAL AREA AND TRANSPORTATION TO THE AREA SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THOSE ITEMS. ALL DISPOSAL AREAS MUST BE APPROVED BY THE ENGINEER PRIOR TO USE.
11. THE CONTRACTOR IS RECOMMENDED TO VISIT THE SITE BEFORE BIDDING, TO BECOME FAMILIAR WITH THE FIELD CONDITIONS AND TO JUDGE FOR THEMSELVES THE EXTENT AND NATURE OF THE WORK TO BE DONE UNDER THIS CONTRACT. NO EXTRA COMPENSATION WILL BE ALLOWED BECAUSE OF THEIR FAILURE TO INCLUDE IN THE BID ALL ITEMS AND MATERIALS WHICH IS REQUIRED TO BE FURNISHED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
12. A PRE BID MEETING AT THE SITE OF THE BOICEVILLE BRIDGE IS SCHEDULED FOR OCTOBER 11, 2018 AT 11:30 AM.

ROCK ENCOUNTERED

1. IF ROCK IS ENCOUNTERED WITHIN THE GRADING LIMITS THE CONTRACTOR SHALL IMMEDIATELY CONTACT THE ENGINEER. THE CONTRACTOR SHALL NOT EXCAVATE ROCK TO REACH THE PROPOSED GRADING LIMITS UNLESS DEEMED NECESSARY BY THE ENGINEER.

ITEM 637.12 - ENGINEERS FIELD OFFICE

1. THE CONTRACTOR SHALL SUPPLY THE ENGINEER WITH A FIELD OFFICE BEGINNING AUGUST, 1 2019 FOR THE REMAINDER OF THE CONTRACT.

ITEM 203.02 - EXCAVATION AND DISPOSAL OF SOILS

1. THE CONTRACTOR SHALL COMPLY WITH THE SOIL TESTING REQUIREMENTS NOTED IN THE DOCUMENT TITLED "ENVIRONMENTAL SOIL SAMPLING PROGRAM RESULTS", PREPARED BY BARTON AND LOGUIDICE ON MAY 16, 2017. THIS DOCUMENT MAY BE FOUND AS ADDITIONAL INFORMATION IN THE CONTRACT DOCUMENTS.
2. TESTING OF ANY SOILS THAT CANNOT BE RE-USED ON THIS PROJECT SHALL BE TESTED UNDER ITEM 205.0401. SOILS SHALL BE TESTED AS REQUIRED BY NYSDEC PART 375 SOCs FOR RESTRICTED RESIDENTAIL USE AND THE CONTRACT DOCUMENTS FOR THIS PROJECT.
3. DISPOSAL OF CONTAMINATED SOILS SHALL BE INLCUDED IN ITEM 205.050101, IF APPLICABLE.

TRAIL CORRIDOR AND BRIDGE ACCESS:

1. ACCESS TO THE RAILROAD CORRIDOR AND BRIDGE IS PROVIDED BY 2 DEP ACCESS ROADWAYS, LOCATED ON THE SOUTH SIDE OF THE ADJACENT NYS ROUTE 28 AND 28A. NO ADDITIONAL ACCESS GATES, ROADWAYS OR LOCATIONS ARE AVAILABLE FOR USE.
2. IMPROVEMENTS TO THE EXISTING ROADWAYS ARE SHOWN ON DRAWINGS AP-1 THROUGH AP-2. ADDITIONAL IMPROVEMENTS REQUIRED FOR THE CONTRACTORS OPERATIONS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL BY THE ENGINEER AND NYC DEP. ADDITIONAL IMPROVEMENTS OF THIS NATURE SHALL BE INCLUDED IN THE VARIOUS BID ITEMS AND WILL NOT BE REIMBURSED. IMPROVEMENTS AND WORK BEYOND THE LIMITS SHOWN IN THE CONTRACT DRAWINGS IS CONSIDERED THE CONTRACTORS MEANS AND METHODS.
3. THE CONTRACTOR SHALL TAKE NOTICE THAT THE ADJACENT ROUTE 28A BRIDGE OVER THE ESOPUS CREEK IS "R" POSTED. THIS IS THE SHORTEST ACCESS ROUTE FROM ROUTE 28 TO THE SITE OF THE BRIDGE.
4. THE CONTRACTOR WILL HAVE LIMITED, TO NO ACCESS TO THE SOUTHERN ABUTMENT OF THE BOICEVILLE BRIDGE AND ANY PORTION FROM THE W-7 ACCESS GATE TO THE ESOPUS CREEK UNTIL AUGUST OF 2019 DUE TO AN ON GOING PROJECT. ACCESS TO THIS SEGMENT OF THE PROJECT PRIOR TO AUGUST 2019 REQUIRES COORDINATION AND WRITTEN APPROVAL BY THE COUNTY.

ITEM 637.31UC - UTILITY VEHICLE:

1. THE CONTRACTOR SHALL PROVIDE A UTV FOR THE USE OF THE COUNTY / ENGINEER DURING CONSTRUCTION. THE UTV SHALL AT A MINIMUM BE EQUIPPED WITH 4 WHEEL DRIVE, A GAS POWERED ENGINE, 2 SEATS, AND A UTILITY BED SIMILAR TO THE HONDA PIONEER 700, OR AN APPROVED EQUAL.
2. THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL MAINTENANCE AND FUEL FOR THE DURATION OF THE PROJECT AND WILL RETAIN THE UTV AT THE COMPLETION OF THE PROJECT.
3. PAYMENT WILL BE MADE MONTHLY FOR THE UTV. DEDUCTIONS MAY BE MADE ON 0.25 MONTH INCREMENTS FOR EVEY WEEK THE UTV IS NOT ON-SITE OR NOT FUNCTIONING OR USABLE TO THE SATIFACTION OF THE ENGINEER.

ITEM 203.03 - EMBANKMENT-IN-PLACE

1. EXISTING EMBANKMENT SOIL IS LOCATED AT THE SHOKAN STATION AND THE GATE W-7 STAGING AND STOCKPILE AREAS (SHOKAN STATION IS LOCATED ADJACENT TO ROUTE 28, APPROXIMATELY 2 MILES EAST OF NYCDEP GATE W-7.) THE CONTRACTOR SHALL USE THIS SOIL AS EMBANKMENT MATERIAL TO ESTABLISH THE PROPOSED GRADE FOR THE BOICEVILLE BRIDGE.
2. THE CONTRACTOR SHALL ASSUME THAT 1000 CY OF EMBANKMENT IS AVAILABLE AT SHOKAN STATION AND GATE W-7 FOR USE AT THE BOICEVILLE BRIDGE. THE CONTRACTORS BID PRICE FOR ITEM 203.03 SHALL INCLUDE ALL EQUIPMENT, LABOR AND MATERIALS TO ACQUIRE, TRANSPORT, AND INSTALL THIS MATERIAL
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING THE REMAINING EMBANKMENT MATERIAL NEEDED IN THE CONTRACT FROM AN OFF-SITE SOURCE.

ITEM 201.06 - CLEARING AND GRUBBING

1. ITEM 201.06 SHALL INCLUDE THE FOLLOWING AREAS:
   - i. CLEARING AND GRUBBING SHALL BE AS DEFINED BY THE LIMITS SHOWN AND NOTED ON DWG. AP-1A FOR THE LAYDOWN/STOCKPILE AREA.
   - ii. ANY CLEARING AND GRUBBING NECESSARY TO REMOVE THE EXISTING STEEL GIRDERS FROM THE PROJECT SITE AND TRANSPORT ALL ELEMENTS OF THE NEW BRIDGE IS INCLUDED IN THE BID PRICE FOR ITEM 201.06.
   - iii ANY ADDITIONAL TREE CLEARING NECESSARY FOR THE CONTRACTORS MEANS AND METHODS TO CONSTRUCT THE BRIDGE. THIS WAY INCLUDE BUT IS NOT LIMITED TO TREE REMOVAL TO WIDEN ACCESS ROUTES, EXPAND THE STOCKPILE AND STAGING AREA, OR EXPANDED EXCAVATION LIMITS.
2. ALL TREES TO BE CUT SHALL BE APPROVED BY THE ENGINEER PRIOR TO REMOVAL.

PREPARED BY: BARTON & LOGUIDICE, D.P.C.
ON : SEPTEMBER 26, 2018

STATE OF NEW YORK · THOMAS C. BAIRD IV · LICENSED PROFESSIONAL ENGINEER · 074590

IN CHARGE OF TCB | DESIGNED BY CMH | CHECKED BY TCB | DRAFTED BY CMH/JDH | CHECKED BY CMH | jdh

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Barton & Loguidice

ASHOKAN RAIL TRAIL
BRIDGE REPLACEMENT
BOICEVILLE BRIDGE OVER ESOPUS CREEK
ULSTER COUNTY

GENERAL CONSTRUCTION NOTES

SCALE: NONE
DATE ISSUED: 9/26/2018
DRAWING GCN-1

ENVIRONMENTAL NOTES:

1. THERE ARE NO LOCATIONS WITHIN OR ADJACENT TO THE PROJECT LIMITS FOR THE DISPOSAL OF CONSTRUCTION DEBRIS OR SPOILS.

2. ALL NECESSARY PRECAUTIONS SHALL BE TAKEN TO PREVENT THE ENTRANCE OF FRESH CONCRETE INTO THE WATERS OF NEW YORK STATE. EQUIPMENT, TOOLS, AND TRUCKS USED IN THIS PROJECT SHALL BE CLEANED IN SUCH A MANNER AS TO PREVENT WASH WATER FROM ENTERING ANY WATER BODY. WET CONCRETE IS HIGHLY TOXIC TO FISH. CONCRETE WASH AREAS SHALL BE APPROVED BY THE ENGINEER AND SHALL CONFORM WITH DETIALS AND NOTES ON DWG. ESCD-2.

3. SPILLAGE OF OIL AND HAZARDOUS SUBSTANCES IS ESPECIALLY PROHIBITED BY SECTION 311 OF THE CLEAN WATER ACT OF 1977. MEASURES INCLUDING PROPER MAINTENANCE OF CONSTRUCTION EQUIPMENT, DESIGNATING FUEL/HAZARDOUS SUBSTANCES, HANDLING AREAS TO ALLOW SPILLS TO BE CONTAINED BEFORE REACHING THE WATERWAY, INSTRUCTING PERSONNEL NOT TO DISPOSE OF OIL AND OTHER SUCH MATERIALS INTO DRAINS OR INTO THE WATERWAY DIRECTLY, AND OTHER NECESSARY PROCEDURES SHALL BE IMPLEMENTED PRIOR TO ANY CONSTRUCTION ACTIVITIES. IF, IN SPITE OF SUCH PLANNING, OIL/HAZARDOUS SUBSTANCES ARE SPILLED INTO A WATERCOURSE, IMMEDIATE NOTIFICATION SHALL BE GIVEN TO THE N.Y.S. DEPARTMENT OF ENVIRONMENTAL CONSERVATION AT TELEPHONE NUMBER (518) 457-7362 AND THE NATIONAL RESPONSE CENTER AT TELEPHONE NUMBER 1-800-424-8802.
A CONTAINMENT BOOM AND A SUPPLY OF HAY, STRAW, OR OTHER ABSORBENT SHALL BE RETAINED SO THAT IT MAY BE RAPIDLY DEPLOYED TO SOAK UP ANY POSSIBLE SPILLAGE. PENDING ENVIRONMENTAL CONSERVATION AND/OR NYCDEP ARRIVAL ON THE SCENE, THE USE OF CHEMICAL DISPERSING AGENTS AND EMULSIFIERS IS NOT AUTHORIZED WITHOUT PRIOR, SPECIFIC, FEDERAL, OR STATE APPROVAL.

4. ANY MATERIAL ENTERING THE WATER, FOR ANY REASON WHATSOEVER, WHICH IS NOT PART OF INTENDED WORK, SHALL BE REMOVED AND DISPOSED OF PROPERLY IN ACCORDANCE WITH CURRENT NYCDEP REGULATIONS.

5. THE CONTRACTOR SHALL KEEP STRAW ON-SITE AT ALL TIMES FOR APPLICATION TO DISTURBED SOILS AS DIRECTED BY THE ENGINEER.

BALD EAGLE NEST MANAGEMENT NOTES:

NO ACTIVE BALD EAGLE NESTS HAVE BEEN IDENTIFIED WITHIN THE PROJECT CORRIDOR. HOWEVER, THE PROJECT SITE IS LOCATED IN AN AREA KNOWN TO HAVE PREVIOUS BALD EAGLE ACTIVITY AND SUITABLE HABITAT. SHOULD AN ACTIVE BALD EAGLE NEST BE IDENTIFIED WITHIN 1/4 MI OF THE PROJECT CORRIDOR DURING CONSTRUCTION OF THIS PROJECT, THE FOLLOWING MEASURES SHALL BE TAKEN BY THE CONTRACTOR:

1. THE CONTRACTOR SHALL IMMEDIATELY CEASE WORK WITHIN 1/2 MILES OF THE ACTIVE BALD EAGLE NEST AND NOTIFY THE ENGINEER OR OWNER.

2. NO WORK SHALL OCCUR WITHIN 1/2 MILE OF AN ACTIVE BALD EAGLE NEST DURING THE BREEDING SEASON OR AS DETERMINED BY NYSDEC (BETWEEN THE DATES OF JANUARY 1 AND SEPTEMBER 30.)

UPON RESUMING WORK, THE CONTRACTOR MAY BE HELD TO THE FOLLOWING CONDITIONS:

1. THE CONTRACTOR MAY BE REQUESTED TO ALTER HIS EQUIPMENT TO REDUCE THE NOISE EMITTED FROM THE MACHINERY SUCH AS USING A WHITE NOISE BACK-UP ALERT SYSTEM IN PLACE OF A BEEPING SYSTEM, REFRAINING FROM THE SLAMMING OF DUMP TRUCK TAILGATES, INSTALLING SILENCERS AND MUFFLERS ON EQUIPMENT EXHAUST SYSTEMS, INSTALL NOISE SHIELDING ON STATIONARY EQUIPMENT, ETC.

2. HIGH NOISE ACTIVITIES SUCH AS PILE DRIVING, JACK HAMMERING, OR BREAKING OF CONCRETE MAY NEED TO BE COMPLETED WITHIN THE NON-BREEDING SEASON.

GENERAL NOTES:

1. NO WHITE PINE TREES GREATER THAN 3" DBH SHALL BE CUT WITHIN THE PROJECT SITE WITHOUT APPROVAL BY THE ENGINEER.

2. NO WHITE PINE TREES GREATER THAN 25" DBH SHALL BE CUT WITHIN THE PROJECT SITE.

3. IF A BALD EAGLE NEST IS IDENTIFIED AND WORK IS SHUT DOWN OR DELAYED, THE COUNTY WILL NEGOTIATE ANY CONTRACTURAL WORK DELAYS OR UNANTICIPATED COSTS AS A RESULT OF THE PRESENCE OF A BALD EAGLE NEST.

4. THE COUNTY WILL IDENTIFY POTENTIAL BALD EAGLE NESTS AND NOTIFY THE CONTRACTOR OF THIER PRESENCE. CURRENTLY, NO ACTIVE BALD EAGLE NESTS ARE KNOWN TO BE PRESENT.

STREAM PROTECTION NOTES:

VARIOUS STREAMS ARE CLASSIFIED AS CLASS A, STANDARD A(T) WATERBODIES THROUGHOUT THE PROJECT LIMITS.

1. DURING THE COURSE OF CONSTRUCTION, THE CONTRACTOR SHALL CONDUCT ITS OPERATIONS IN SUCH A MANNER TO PREVENT ANY DAMAGE TO ANY WATERBODY, INCLUDING WETLANDS, FROM DIRECT OR INDIRECT POLLUTION BY DEBRIS, SEDIMENTATION OR OTHER FOREIGN MATERIAL, OR FROM THE MANIPULATION OF EQUIPMENT AND/OR MATERIALS IN OR NEAR SUCH WATERBODIES. NO WATER SHALL BE RETURNED DIRECTLY TO THE WATERBODY WHICH HAS BEEN USED FOR WASH PURPOSES OR OTHER SIMILAR OPERATIONS, WHICH CAUSE THIS WATER TO BE CONTAMINATED WITH SAND, SILT, CEMENT, OIL, OR OTHER IMPURITIES.

2. DURING REMOVAL OPERATIONS, THE CONTRACTOR SHALL NOT BE ALLOWED TO DROP WASTE CONCRETE, DEBRIS, AND OTHER MATERIAL IN ANY WATERWAY, CHANNEL, SIDE POOL OR ANYWHERE ON COUNTY OR NYCDEP PROPERTY UNLESS APPROVED BY THE COUNTY OR NYCDEP. PLATFORMS, NETS, SCREENS, OR OTHER PROTECTIVE DEVICES SHALL BE USED TO CATCH THE MATERIAL. IF THE ENGINEER DETERMINES THAT ADEQUATE PROTECTIVE DEVICES ARE NOT BEING EMPLOYED, THE WORK SHALL BE SUSPENDED UNTIL ADEQUATE PROTECTION IS PROVIDED.

3. PRIOR TO STARTING ANY WORK IN THE STREAM BED OR WITHIN 50' OF THE WATER'S EDGE, INCLUDING CONSTRUCTION ACCESS, WATER DIVERSION, AND HABITAT RESTORATION, THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER-IN-CHARGE (EIC). THE EIC SHALL CONSULT WITH THE REGIONAL CONSTRUCTION ENVIRONMENTAL COORDINATOR AND THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION REGION 3 HABITAT PROTECTION MANAGER.

4. THE CONTRACTOR SHALL ACCOMPLISH STREAM WORK, INCLUDING WATER DIVERSION, COFFERDAM INSTALLATION AND REMOVAL, DURING THE PERIOD BETWEEN MAY 1 AND SEPTEMBER 30. COFFERDAMS IN THE STREAM CHANNEL AND/OR WATER DIVERSIONS SHALL NOT BE ALLOWED PRIOR TO MAY 1 AND AFTER SEPTEMBER 30 WITHOUT PRIOR WRITTEN APPROVAL FROM THE NYSDEC AND THE REGIONAL CONSTRUCTION ENVIRONMENTAL COORDINATOR. COFFERDAMS AND STREAM DIVERSIONS SHOULD BE SIZED WITH REGARD TO THE SEASONAL FLOW OF THE STREAM EXPECTED FOR THE TIME THEY ARE TO BE IN USE.

IN CHARGE OF TCB DESIGNED BY CMH CHECKED BY TCB DRAFTED BY CMH

PREPARED BY: BARTON & LOGUIDICE, D.P.C.
ON : SEPTEMBER 26, 2018

STATE OF NEW YORK · THOMAS C. BAIRD IV · LICENSED PROFESSIONAL ENGINEER · 074590 · EXCELSIOR

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DATE = 9/26/2018
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NO.	DATE	BY	REVISION

6/65

SEAL OF THE COUNTY OF ULSTER · NEW YORK · EMPIRE STATE

Barton & Loguidice

ASHOKAN RAIL TRAIL
BRIDGE REPLACEMENT
BOICEVILLE BRIDGE OVER ESOPUS CREEK
ULSTER COUNTY

ENVIRONMENT PROTECTION NOTES

SCALE: NONE
DATE ISSUED: 9/26/2018
DRAWING
EPN-1

GENERAL NOTES FOR EROSION PREVENTION AND SEDIMENT CONTROL

1. THE CONTRACTOR WILL BE REQUIRED TO PERFORM ALL CONSTRUCTION OPERATIONS IN A MANNER SO AS TO MINIMIZE SOIL EROSION AND ENSURE SEDIMENT CONTROL. EROSION CONTROL MEASURES ARE ITEMS WHICH MINIMIZE THE EROSION OF SOIL. SEDIMENT CONTROL MEASURES ARE ITEMS WHICH KEEP SEDIMENT FROM LEAVING THE PROJECT SITE. EFFECTIVE SOIL EROSION AND SEDIMENT CONTROL CAN BE ACCOMPLISHED BY LIMITING THE AREA OF UNPROTECTED SOIL. PROTECTED IS DEFINED AS HAVING TEMPORARY OR PERMANENT SOIL EROSION MEASURES IN PLACE.

2. TEMPORARY SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED AS PER DETAILS AND SPECIFICATIONS. THE COST OF MAINTAINING AND REMOVING TEMPORARY SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INCLUDED IN THE BID PRICE OF THE ITEM USED. ALL TEMPORARY SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED BY THE CONTRACTOR AT A MINIMUM ONCE EVERY SEVEN (7) CALENDAR DAYS AND AFTER EACH RAINFALL OF ONE-HALF INCH OR MORE IN A 24 HOUR PERIOD.

3. PERIMETER SEDIMENT CONTROL MEASURES (FIBER LOGS) AND SILT FENCE SHALL BE INSTALLED PRIOR TO SOIL DISTURBANCE OPERATIONS. THESE MEASURES SHALL REMAIN IN PLACE UNTIL AFTER FINAL GRADING HAS HAS OCCURED AND ALL DISTURBED AREAS ARE PERMANENTLY STABILIZED.

4. TEMPORARY STOCKPILES OF SOIL SHALL BE PROTECTED AS PER THE SOIL EROSION AND SEDIMENT CONTROL PLAN AND DETAILS SHOWN ON DWG. AP-1 THRU AP-2 AND DWG. ESCD-2 . AT A MINIMUM TEMPORARY STOCKPILES SHALL BE RINGED WITH FIBER LOGS OR SILT FENCE. STOCKPILES AND AREA OF STOCKPILES LEFT INACTIVE FOR LONGER THAN 7 DAYS SHALL HAVE TEMPORARY MULCH, OR TEMPORARY SEED AND MULCH APPLIED, OR BE COVERED IN A MANNER THAT WILL PREVENT EROSION. ANY MEASURES USED TO COVER STOCKPILES SHALL BE SECURED TO MAINTAIN THEIR EFFECTIVENESS.

5. ANY ADDITIONAL SOIL EROSION AND SEDIMENT CONTROL MEASURES USED TO SUPPLEMENT THE PLANS SHALL BE PREPARED IN ACCORDANCE WITH THE TECHNICAL REQUIREMENTS CONTAINED IN THE "NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL", LATEST EDITION. ADDITIONAL SOIL EROSION AND SEDIMENT CONTROL MEASURES MAY BE REQUIRED AS PER SECTION 107-12 OF THE STANDARD SPECIFICATIONS.

6. THE CONTRACTOR SHALL COMPLY WITH THE PROVISIONS OF ALL ENVIRONMENTAL PERMITS ISSUED FOR THIS PROJECT. THESE PLANS REFLECT THE PROVISIONS AND REQUIREMENTS OF SAID PERMIT(S). PERMIT(S) WILL BE AVAILABLE FROM THE ENGINEER-IN-CHARGE (E.I.C.) PRIOR TO THE START OF CONSTRUCTION. PERMITS INCLUDE, BUT ARE NOT LIMITED TO:

   - ARTICLE 15: PROTECTION OF WATERS
   - ARTICLE 24: FRESHWATER WETLAND PERMIT
   - SECTION 401: WATER QUALITY CERTIFICATION PERMIT
   - USACE NATIONWIDE PERMIT 14
   - NYSDE SPDES GP-0-15-002

7. ALL NECESSARY PRECAUTIONS SHALL BE TAKEN TO PREVENT DIRECT OR INDIRECT CONTAMINATION OF ALL WATER BODIES (INCLUDING WETLANDS) BY SILT, SEDIMENT, FUELS, SOLVENTS, LUBRICANTS, EPOXY COATINGS, CONCRETE LEACHATE, SLURRY OR ANY OTHER POLLUTANT ASSOCIATED WITH CONSTRUCTION AND CONSTRUCTION PROCEDURES. DURING CONSTRUCTION, NO WET OR FRESH CONCRETE OR LEACHATE OR SLURRY SHALL BE ALLOWED TO ESCAPE DIRECTLY OR INDIRECTLY INTO ANY WATER BODIES (INCLUDING WETLANDS), NOR SHALL WASHINGS FROM CONCRETE TRUCKS, MIXERS, OR OTHER DEVICES BE ALLOWED TO ESCAPE DIRECTLY OR INDIRECTLY INTO ANY WATER BODIES (INCLUDING WETLANDS). THE USE OF CONCRETE WASHOUT AREAS ARE REQUIRED FOR THIS PROJECT AND SHALL CONFORM TO DETAIL ON DWG. ESCD-2.

8. ANY DEBRIS OR EXCESS MATERIALS FROM CONSTRUCTION OF THIS PROJECT SHALL BE IMMEDIATELY AND COMPLETELY REMOVED FROM THE PROJECT SITE AND FROM WITHIN 50' OF THE WATER'S EDGE OF ALL WATER BODIES (INCLUDING WETLANDS) AND SHALL BE DISPOSED OF OFFSITE.

9. THE CONTRACTOR SHALLABIDE BY THE NYCDEP APPROVED SWPPP DATED AUGUST 2018. ANY DISCREPANCIES BETWEEN THE SWPPP AND THE THE PLANS SHALL BE RESOLVED BY THE SWPPP.

10. ANY PROPOSED CHANGES TO THE EROSION AND SEDIMENT CONTROL MEASURES SHALL BE APPROVED BY THE ENGINEER PRIOR TO BEING IMPLEMENTED.

11. THE CONTRACTOR IS ADVISED THAT THE LOCATIONS OF THE TEMPORARY DEVICES ARE APPROXIMATE. THE EXACT DEVICE LOCATIONS TO ACCOMMODATE THE PROPOSED WORK SHALL BE THE CONTRACTOR'S RESPONSIBILITY AND AS APPROVED BY THE ENGINEER.

12. THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE FACT THAT THROUGHOUT THE DURATION OF THE CONTRACT, IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO CAPTURE ALL WATER BORNE SEDIMENT OR POLLUTANTS ORIGINATING FROM ANY WORK BEING DONE ON OR IN SUPPORT OF THIS PROJECT.

13. THE POLLUTION CONTROL NOTES AND DETAILS SHOWN IN THESE DRAWINGS ARE NOT INTENDED TO BE ALL INCLUSIVE BUT TO SERVE AS A GUIDELINE FOR THE DEVELOPMENT OF THE CONTRACTOR'S EROSION CONTROL SCHEME REQUIRED UNDER THE RESPECTIVE ITEMS OF THE CONTRACT.

14. THE CONTRACTOR SHALL INSPECT THE SOIL EROSION PREVENTION AND SEDIMENT CONTROL MEASURES ON A WEEKLY BASIS OR A.O.B.E. REPAIRS SHALL BE MADE BY THE CONTRACTOR IMMEDIATELY, AND SEDIMENT SHALL BE REMOVED BY THE CONTRACTOR WHEN THE STORAGE VOLUME OF AN EROSION CONTROL MEASURE IS APPROACHING ONE-HALF OF ITS INTENDED CAPACITY OR A.O.B.E. FAILURE TO COMPLY WITH THIS PROVISION IS BASIS TO CEASE CONSTRUCTION, AT NO EXPENSE TO THE OWNER UNTIL THIS PROVISION IS IN COMPLIANCE.

GENERAL NOTES FOR EROSION PREVENTION AND SEDIMENT CONTROL (CONTINUED):

15. PRIOR TO EXCAVATION OR EMBANKMENT, THE CONTRACTOR SHALL PLACE TEMPORARY FIBER ROLLS OR SILT FENCE ON THE PERIMETER OF THE DISTURBED AREA OR AS SHOWN ON THE PLANS TO PREVENT MIGRATION OF SEDIMENT.

16. DURING CONSTRUCTION, NO WET OR FRESH CONCRETE OR LEACHATE SHALL BE ALLOWED TO ESCAPE INTO ANY WATERS, NOR SHALL WASHING FROM CONCRETE TRUCKS, MIXERS OR OTHER DEVICES BE ALLOWED TO ENTER ANY WETLANDS OR WATERS. DESIGNATED CONCRETE WASHOUT AREAS CONFORMING TO DWG. ESCD-2 AND THE SWPPP SHALL BE UTILIZED.

17. THE PROPOSED WORK WILL REQUIRE THAT THE TEMPORARY EROSION PREVENTION AND SEDIMENT CONTROLS BE PLACED OVER THE COURSE OF THE PROJECT AS WORK PROGRESSES. NO WORK SHALL BE PERFORMED WITHOUT THE APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES INSTALLED IN THE ACTIVE CONSTRUCTION AREA.

18. THE SYMBOLS SHOWN ON THE CONSTRUCTION PLAN SHEETS REPRESENT THE EROSION CONTROL ITEMS TO BE USED IN CONJUNCTION WITH THE PROPOSED WORK. THE INSTALLATION METHODS, INCLUDING APPLICABLE PLACEMENT INTERVALS, ARE AS SHOWN ON THE PLANS AND DETAILS IN THE CONTRACT DOCUMENTS.

19. ALL DISTURBED AREAS WILL BE STABILIZED IN ACCORDANCE WITH THE PLANS AND DETAILS IN THE CONTRACT DOCUMENTS.

20. FIBER LOGS AND SILT FENCE ARE A SECONDARY CONTROL MEASURE AND ARE USED TO CAPTURE SEDIMENT DEPOSITS THAT BREAK FREE FROM THE PRIMARY EROSION CONTROLS.

21. MULCHING, SEEDING AND ROLLED EROSION CONTROL PRODUCT (RECP) ARE THE PRIMARY MEASURE FOR EROSION CONTROL UTILIZED ON THIS PROJECT.

22. THE CONTRACTOR WILL BE REQUIRED TO PERFORM ALL CONSTRUCTION OPERATIONS IN A MANNER THAT MINIMIZES SOIL EROSION AND PREVENTS SEDIMENTATION ON LANDS ADJACENT TO OR AFFECTED BY THE WORK, AND TAKE MEASURES TO MAINTAIN WATER QUALITY OF RECEIVING WATER BODIES (INCLUDING WETLANDS).

23. THE AREA OF DISTURBANCE SHALL BE LIMITED TO AN AREA NO GREATER THAN FIVE ACRES AT ANY ONE TIME AS REQUIRED BY THE SWPPP.

24. "DISTURBED" IS DEFINED AS WORK THAT RESULTS IN SOIL EXPOSURE.

25. "STABILIZED" IS DEFINED AS HAVING TEMPORARY OR PERMANENT EROSION AND SEDIMENT CONTROL MEASURES IN PLACE, INCLUDING, BUT NOT LIMITED TO, EROSION CONTROL MEASURES THAT COVER EXPOSED SOIL TO MINIMIZE THE SOIL FROM ERODING. PERIMETER SEDIMENT CONTROL MEASURES ALONE ARE NOT CONSIDERED ADEQUATE STABILIZATION.

26. PRIOR TO BEGINNING ANY DISTURBANCE ACTIVITIES ON A "SECTION" OF THE PROJECT, THE CONTRACTOR SHALL SUBMIT A PLAN SHOWING THE LIMITS OF DISTURBANCE, INCLUDING THE AMOUNT OF AREA TO BE DISTURBED, AN EROSION AND SEDIMENT CONTROL PLAN THAT SUPPLEMENTS THE CONTRACT'S EROSION AND SEDIMENT CONTROL PLAN, AND A PROGRESS SCHEDULE FOR THE ACCOMPLISHMENT OF TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL WORK FOR REVIEW AND APPROVAL BY THE ENGINEER-IN-CHARGE. THE CONTRACTOR'S EROSION AND SEDIMENT CONTROL PLAN SHALL INCLUDE MEASURES THAT MINIMIZE EROSION AND CONTROL SEDIMENT FROM DISTURBED AREAS, INCLUDING, BUT NOT LIMITED TO, EROSION AND SEDIMENT CONTROL FOR STORAGE AND STAGING AREAS, HAUL ROADS AND CONSTRUCTION ENTRANCES. THE CONTRACTOR'S EROSION AND SEDIMENT CONTROL PLAN SHALL BE PREPARED IN ACCORDANCE WITH THE SPECIFICATIONS AND THE GUIDANCE CONTAINED IN THE "NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL", LATEST EDITION (A.K.A. NYSDEC BLUE BOOK.)

27. THE CONTRACTOR'S ATTENTION SHALL BE DIRECTED TO THE SWPPP, AS IT WILL BE STRICTLY ADHERED TO DURING THE DURATION OF THE PROJECT. THE CONTRACTOR SHALL DESIGNATE TO THE ENGINEER AN EROSION AND SEDIMENT CONTROL SUPERVISOR WITH ADEQUATE TRAINING, EXPERIENCE, AND AUTHORITY TO IMPLEMENT AND MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES, AS PER THE REQUIREMENTS OF THE SWPPP AND ALL ASSOCIATED FEDERAL AND STATE LAWS AND REGULATIONS. THIS INDIVIDUAL WILL BE RESPONSIBLE FOR MONITORING IMPENDING WEATHER CONDITIONS THAT MAY HAVE AN AFFECT ON DAILY CONSTRUCTION OPERATIONS AND THE NEED TO PROVIDE THE REQUIRED EROSION AND SEDIMENT CONTROLS.

28. IF NECESSARY, THE CONTRACTOR SHALL EXPECT TWO (2) SITE INSPECTIONS IN ACCORDANCE WITH PART IV.C. EVERY SEVEN (7) CALENDAR DAYS, FOR AS LONG AS GREATER THAN FIVE (5) ACRES OF SOIL REMAIN DISTURBED. THE TWO (2) INSPECTIONS SHALL BE SEPARATED BY A MINIMUM OF TWO (2) FULL CALENDAR DAYS.

MAINTENANCE OF SLOPE PROTECTION NOTES

1. MAINTENANCE OF THE MULCHED AREAS SHALL INCLUDE REINSTALLING MULCH IN AREAS WHERE THE SOIL BECOMES EXPOSED TO VIEW. ANY AREAS THAT BECOME SETTLED OR GULLIED DURING THE INSTALLATION PROCESS SHALL BE REPAIRED WITHIN (3) DAYS OR PRIOR TO THE ONSET OF INCLEMENT WEATHER, WHICH EVER IS LESS.

2. MAINTENANCE OF TEMPORARY SEEDED AREAS SHALL INCLUDE RE-SEEDING AS NEEDED (OR AOBE) TO ESTABLISH A SATISFACTORY STAND OF TURF. THE COST OF RESEEDING SHALL BE AT THE CONTRACTORS EXPENSE. IT IS HIGHLY RECOMMENDED THAT THE SEEDING BE DONE PRIOR TO INSTALLING THE RECP.

3. ALL TEMPORARY TREATMENT SHALL BE MAINTAINED THROUGHOUT THE LIFE OF THE EROSION CONTROL MEASURE UNTIL PERMANENT VEGETATION HAS BEEN ESTABLISHED.

4. MAINTENANCE OF ROLLED EROSION CONTROL PRODUCT SHALL INCLUDE RE-GRADING OF AREAS THAT BECOME SETTLED OR GULLIED DURING INSTALLATION. ANY EDGES THAT BECOME LOOSE OR EXPOSED SHALL BE RE-INSTALLED.

5. ALL SLOPES SHALL BE BROUGHT TO FINISHED GRADE AND TRIMMED AS SOON AS POSSIBLE.

6. PERMANENT EROSION CONTROL MEASURES OF SEEDING AND MULCHING (SEED ONLY WITHIN SEEDING DATES) SHALL BE CARRIED OUT ONCE THE SLOPES HAVE REACHED FINAL GRADE. TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES AS SHOWN IN THE TEMPORARY SLOPE TREATMENT TABLE IN THE SWPPP SHALL BE EMPLOYED AS INDICATED.

7. FOR ADDITIONAL TEMPORARY AND PERMANENT EROSION CONTROL INFORMATION, REFER TO THE EROSION CONTROL PLANS, DETAILS, AND SWPPP.

TEMPORARY MULCH NOTES

1. THE CONTRACTOR'S ATTENTION IS ALERTED TO THE ADDED REQUIREMENTS AND STIPULATIONS OF THIS ITEM. THE PRICE PER SQUARE YARD OF ROLLED EROSION CONTROL PRODUCT (RECP) INCLUDES ALL COST ASSOCIATED WITH BEING ABLE TO PROVIDE A QUALITY RECP COVER, SPREAD IN A UNIFORM LAYER TO PROTECT THE EXISTING SOIL LAYER. RECP SHALL BE ANCHORED WITH 100% BIODEGRADABLE STAKES AND BE FLAT AGAINST THE SOIL.

2. IN ACCORDANCE WITH NYSDOT SECTION 209-3.04, THE CONTRACTOR SHALL HAVE THE CAPABILITY TO INSTALL RECP OR MULCH ON ANY DISTURBED AREAS ON ANY GIVEN DAY (E.G. THOSE AREAS WHERE EARTHWORK OPERATIONS ARE ONGOING, ETC.). THE ENGINEER IN CHARGE SHALL DIRECT THE CONTRACTOR TO LIMIT THE AREA OF CLEARING AND GRUBBING, EXCAVATION, BORROW, AND EMBANKMENT OPERATIONS IN PROGRESS, COMMENSURATE WITH THEIR CAPABILITY AND PROGRESS IN KEEPING THE FINISH GRADING, MULCHING, SEEDING AND OTHER TEMPORARY AND/OR PERMANENT CONTROL MEASURES CURRENT IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

3. UNDER NO CONDITION, SHALL ANY AREA OF UNPROTECTED ERODIBLE EARTH MATERIAL EXPOSED BY CLEARING AND GRUBBING, EXCAVATION, BORROW, OR FILL BE LEFT IN AN UNPROTECTED CONDITION. ANY PORTION OF AN AREA ON WHICH CLEARING AND GRUBBING, EXCAVATION, BORROW, OR FILL HAD PERMANENTLY CEASED SHALL BE STABILIZED, BY EITHER TEMPORARY OR PERMANENT MEANS. THE CONTRACTOR WILL ALSO BE AWARE OF IMPENDING WEATHER CONDITIONS AND THE NEED TO APPLY AND/OR RE-APPLY RECP OR MULCH ON AREAS THAT WORK IS PROGRESSING IN ORDER TO MEET THE REQUIREMENTS OF SECTION 209.

4. THE CONTRACTOR MUST CONTINUALLY BE PREPARED TO REPAIR AND REINSTALL RECP OR MULCH IN DISTURBED SOIL AREAS TO PROVIDE NECESSARY COVERAGE TO LOCATIONS THAT HAVE BEEN DAMAGED BY STORMS OR EQUIPMENT. SHOULD THE ENGINEER DETERMINE THAT AT ANY TIME THE RECP OR MULCH HAS NOT STABILIZED THE PROJECT AREA, THE CONTRACTOR SHALL BE RESPONSIBLE FOR RE-ESTABLISHING THE RECP OR MULCH AND ALL ADDITIONAL WORK NECESSARY TO CORRECT THE PROBLEM SHALL BE AT THE CONTRACTOR'S EXPENSE. THIS WORK WILL BE REQUIRED FOR ALL AREAS ASSOCIATED WITH THE PROJECT AND WITHIN THE PROJECT LIMITS. THE CONTRACTOR WILL BE RESPONSIBLE TO MAINTAIN THE SAME STANDARDS FOR ALL OFF SITE AREAS ASSOCIATED WITH THE PROJECT. THE COST OF THAT WORK SHALL BE DONE AT THE CONTRACTOR'S EXPENSE.

5. RECP SHALL BE USED ON SLOPES STEEPER THAN 1V : 4H.

6. IN AREAS WHERE SOIL DISTURBANCE ACTIVITY HAS BEEN TEMPORARILY OR PERMANENTLY CEASED, TEMPORARY AND/OR PERMANENT SOIL STABILIZATION MEASURES SHALL BE INSTALLED AND/OR IMPLEMENTED BY THE END OF EACH WORK DAY.

VEGETATION GROWTH AND CARE

1. THE TEMPORARY AND PERMANENT SEED SHALL BE EASTERN ECOTYPE GRASS MIX (ERNMX-177) FROM ERNST SEED. THE SEED MIX SHALL CONSIST OF A MIXTURE OF 35.0% ANDROPOGON GERARDII, 30.0% SORGHASTRUM NUTANS, 20.0% PANICUM VIRGATUM AND 15.0% ELYMUS VIRGINICUS. APPLIED AT 12 LBS. PER ACRE OR AT 1/2 LBS. PER 1000 SQFT. ALL PROPOSED SEED MIXES WILL REQUIRE APPROVAL BY THE OWNER AND NYCDEP PRIOR TO INSTALLATION.

2.TEMPORARY AND PERMANENT SEED SHALL BE SPREAD BY HAND OR USING A HAND SEEDER.

2. THE USE OF HYDROSEED SHALL NOT BE PERMITED ON THIS PROJECT.

FIBER LOG (ROLL) NOTES

1. THE FIBER LOG PLACEMENT LOCATIONS SHOWN ON THE EROSION AND SEDIMENT CONTROL PLANS (ESCP) ARE APPROXIMATE LOCATIONS ONLY AND THE CONTRACTOR AND/OR ENGINEER SHALL DETERMINE THE EXACT LOCATIONS AND ORIENTATION OF THE FIBER LOGS. THIS MAY INCLUDE ADDITIONAL LOCATIONS NOT NOTED ON THE PLANS.

2. SEE DWG. ESCD-1 AND ESCD-2 FOR FIBER LOG PLACEMENT DETAILS

3. SEE DWGS. ESCP-1 THROUGH ESCP-4 FOR FIBER LOG PLACEMENT LOCATIONS.

4. THE FIBER LOGS INTERIOR MATERIAL SHALL CONSIST OF STRAW OR OTHER MORE DURABLE MATERIALS. FIBER LOGS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO USE.

NOTE

1. THE NYC DEP APPROVED SWPPP DATED AUGUST 2018, SHALL TAKE PRECEDENCE OVER ANY DISCREPANCY BETWEEN THE CONSTRUCTION PLANS AND THE SWPPP.

PREPARED BY: BARTON & LOGUIDICE, D.P.C.
ON : SEPTEMBER 26, 2018

STATE OF NEW YORK
THOMAS C. BAIRD IV
EXCELSIOR
074590
LICENSED PROFESSIONAL ENGINEER

IN CHARGE OF TCB | DESIGNED BY CMH | CHECKED BY TCB | DRAFTED BY CMH/JDH | CHECKED BY CMH

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NO.	DATE	BY	REVISION

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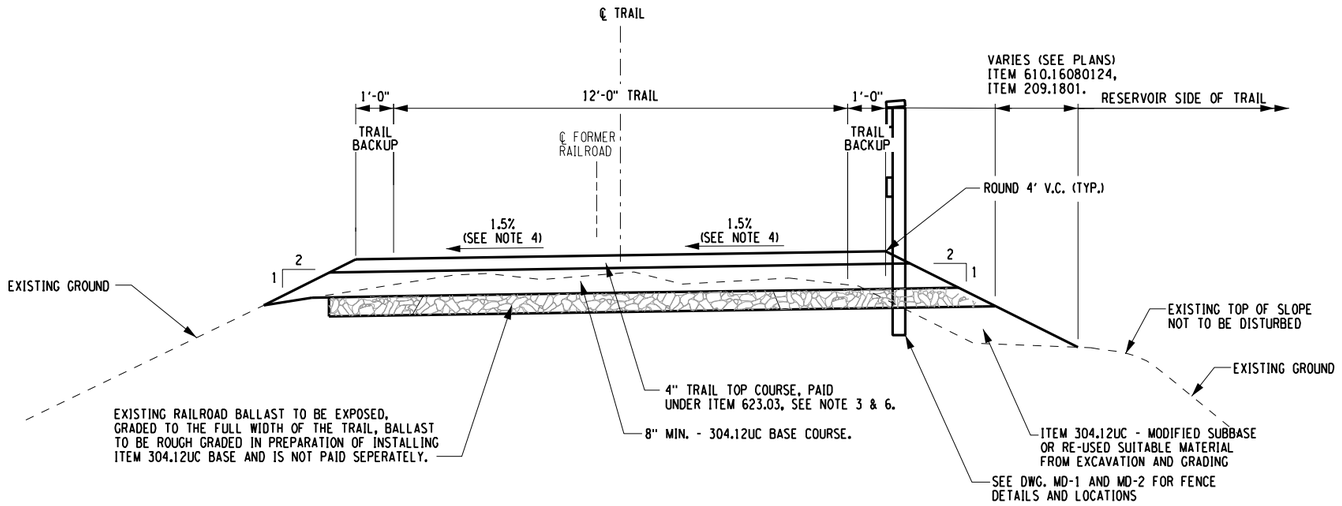
SEAL OF THE COUNTY OF ULSTER

Barton & Loguidice

ASHOKAN RAIL TRAIL
BRIDGE REPLACEMENT
BOICEVILLE BRIDGE OVER ESOPUS CREEK
ULSTER COUNTY

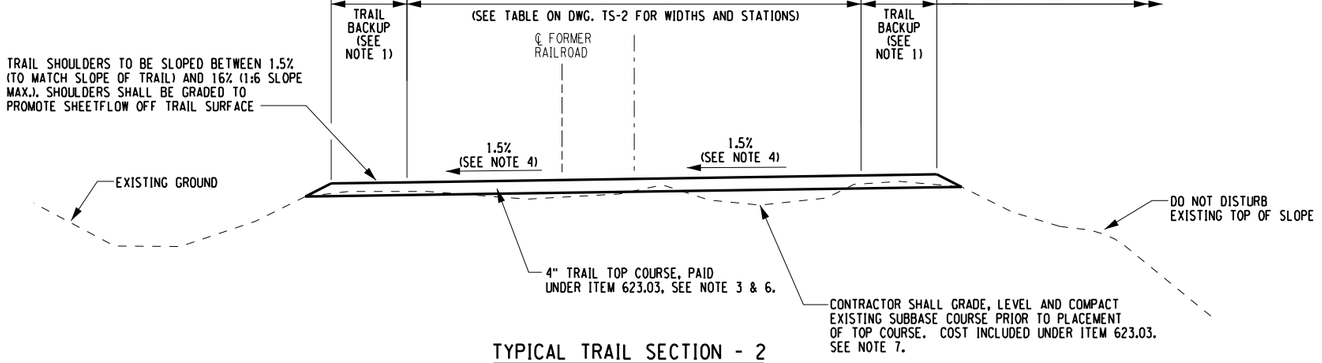
EROSION AND SEDIMENT CONTROL NOTES

SCALE: NONE
DATE ISSUED: 9/26/2018
DRAWING
ESCN-1



TYPICAL TRAIL SECTION - 1

SCALE: 1/4" = 1'



TYPICAL TRAIL SECTION - 2

SCALE: 1/4" = 1'

STA. A 36+00 TO STA. 143+00

BASE COURSE STONE GRADATION

ITEM 304.12UC

BASE COURSE	
NYSDOT STONE	COMPOSITION (BY WEIGHT)
ITEM 304.12	50%
#4A STONE	50%

TOP COURSE STONE GRADATION

ITEM 623.03

SIEVE DESIGNATION	% PASSING (BY WEIGHT)
1/2"	100%
3/8"	90-95%
No. 4	60-70%
No. 8	40-50%
No. 40	20-30%
No. 200	10-16%

TABLE OF TRAIL AND TRAIL BACKUP WIDTH

BEGIN STA.	END STA.	TRAIL BACKUP WIDTH (FT.)	
		LT	RT
A 17+00	A 27+55	1.0	1.0
A 31+15	A 36+00	1.0	1.0
A 36+00	A 43+50	1.0	2.0
A 43+50	A 48+00	2.0	2.0
A 48+00	A 73+25	1.0	1.0
A 73+25	A 75+00	1.0	2.0
A 75+00	A 90+75	1.0	1.0
A 90+75	A 100+75	1.0	2.0
A 100+75	A 102+75	2.0	2.0
A 102+75	A 104+50	1.0	2.0
A 104+50	A 108+00	2.0	2.0
A 108+00	A 116+00	1.0	2.0
A 116+00	A 121+25	2.0	2.0
A 121+25	A 122+75	1.0	2.0
A 122+75	A 124+00	2.0	2.0
A 124+00	A 129+25	1.0	1.0
A 129+25	N 10+50	2.0	2.0
N 10+50	N 18+31	1.0	1.0
N 18+31	A 143+00	2.0	2.0

TYPICAL SECTION NOTES

1. SEE TABLE THIS DWG. FOR WIDTH OF TRAIL BACKUP.
2. CONTRACTOR SHALL MIX A 3 CY SAMPLE OF ITEM 304.12UC FOR ENGINEER TO VISUALLY INSPECT AT QUARRY. COST INCLUDED IN ITEM 304.12UC.
3. THE CONTRACTOR IS STRONGLY ENCOURAGED TO USE AN ASPHALT PAVING MACHINE TO APPLY THE TOP COURSE
4. CROSS SLOPE OF TRAIL SHALL BE SLOPED TO DRAIN AWAY FROM THE RESERVOIR (GENERALLY TO THE NORTH), EXCEPT WHERE THE TRAIL CURVES TO THE RIGHT THE CROSS SLOPE SHALL SLOPE TOWARD THE RESERVOIR TO MATCH THE EXISTING CROSS SLOPE.
5. ALL NYSDOT STANDARD SPECIFICATIONS OF ITEM 304.12 SHALL APPLY TO ITEM 304.12UC EXCEPT THE GRADATION OF ITEM 304.12UC SHALL BE AS SPECIFIED IN THE TABLE ON DWG. TS-1.
6. GRADATION FOR ITEM 623.03 SHALL CONFORM TO TABLE "TOP COARSE STONE GRADATION" ON DWG TS-1.
7. THE CONTRACTOR SHALL LEVEL AND FINE GRADE THE EXISTING SUBBASE MATERIAL PRIOR TO PLACEMENT OF TOP COURSE. THE CONTRACTOR IS RESPOSIBLE FOR FIXING ANY POTHOLES, RUTTING, OR OTHER DEFORMATIES CAUSED BY VEHICLE TRAVEL FROM STA. A 36+00 TO STA. A 143+00 DURING CONSTRUCTION OF THE BOICEVILLE BRIDGE.

PREPARED BY: BARTON & LOGUIDICE, D.P.C.
ON : SEPTEMBER 26, 2018

ITEM NO.	DESCRIPTION	UNITS	ITEM NO.	DESCRIPTION	UNITS	NOTES
209.1801	ROLLED EROSION CONTROL PRODUCT, CLASS I TYPE A, SHORT TERM	SY				(NOTES LISTED ABOVE ON THIS DWG.)
304.12UC	SUBBASE COURSE, TYPE 2 MODIFIED (BASE COURSE)	CY				
610.16080124	TURF ESTABLISHMENT - SEED MIX AS SPECIFIED	SY				
623.03	CRUSHED STONE, BY WEIGHT (TOP COURSE)	TON				

STATE OF NEW YORK · THOMAS C. BAIRD IV · EXCELSIOR · 074590 · LICENSED PROFESSIONAL ENGINEER

NO.	DATE	BY	REVISION

Barton & Loguidice

ASHOKAN RAIL TRAIL
BRIDGE REPLACEMENT
BOICEVILLE BRIDGE OVER ESOPUS CREEK
ULSTER COUNTY

TYPICAL SECTIONS

SCALE: AS SHOWN
DATE ISSUED: 9/26/2018
DRAWING TS-1

8/65

IN CHARGE OF TCB | DESIGNED BY CMH | DRAFTED BY TCB | CHECKED BY CMH | CHECKED BY CMH/JDH | DRAFTED BY CMH

jdh
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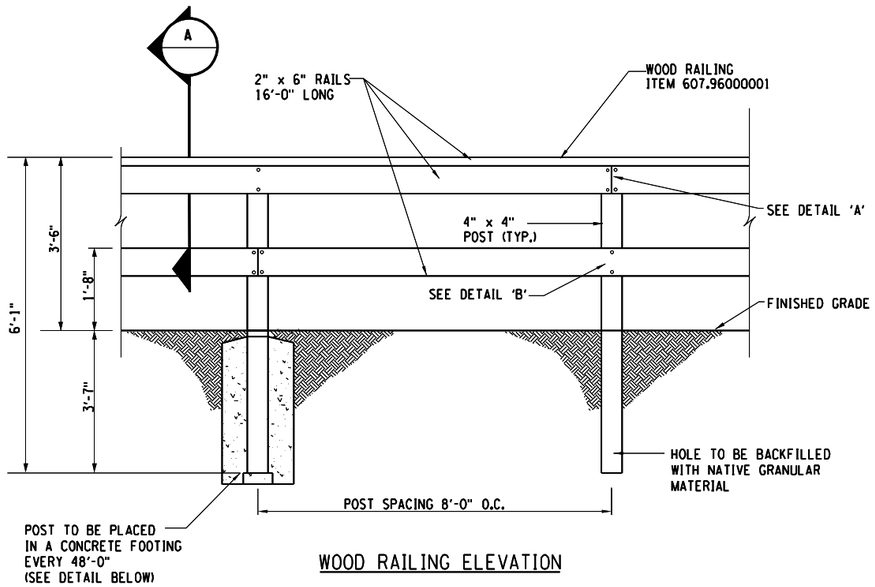
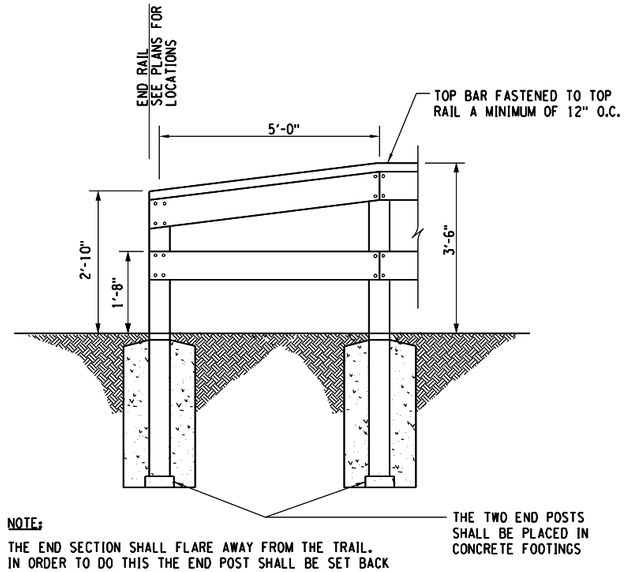
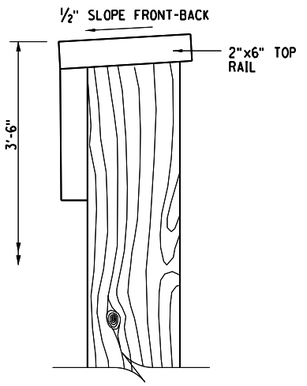


WOOD RAILING ELEVATION

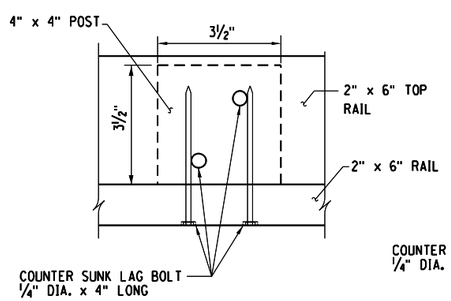


NOTE:
THE END SECTION SHALL FLARE AWAY FROM THE TRAIL. IN ORDER TO DO THIS THE END POST SHALL BE SET BACK 2'-0" BEHIND THE STANDARD RAILING ALIGNMENT.

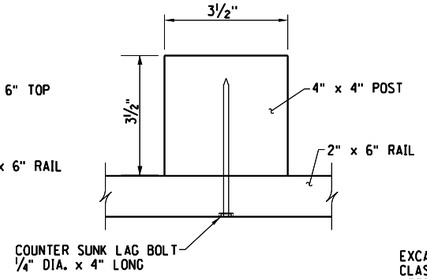
END/TRANSITION SECTION



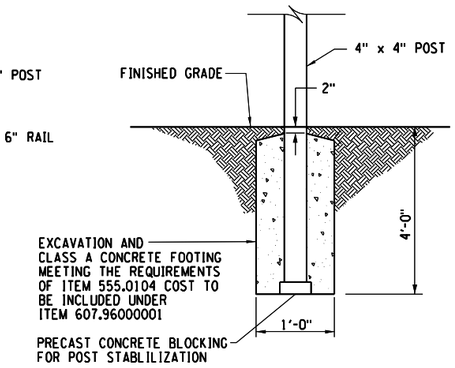
SECTION A-A



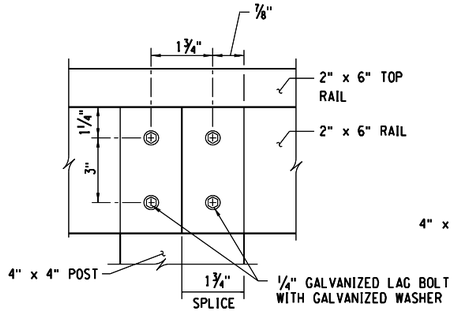
PLAN



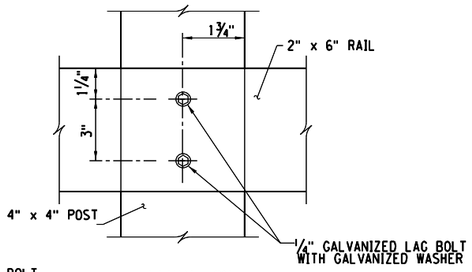
PLAN



CONCRETE FOOTING DETAIL



ELEVATION
DETAIL "A"



ELEVATION
DETAIL "B"

ITEM 607.96000001 - WOOD RAIL FENCE NOTES:

1. RAIL TO BE PROVIDED IN 16'-0" LENGTHS.
2. SPLICES IN THE RAIL SHALL BE STAGGERED SO THAT NO MORE THAN ONE ADJACENT RAIL IS DISCONTINUOUS AT ANY GIVEN POST.
3. ALL WOOD SHALL MEET SECTION 710-13 OF THE STANDARD SPECS.
4. ONLY ONE WOOD TYPE SHALL BE USED IN THE RAILING SYSTEM.
5. PAYMENT FOR ALL MATERIALS, LABOR AND EQUIPMENT ASSOCIATED WITH THE WOOD RAILING INCLUDING THE CONCRETE FOOTINGS, TIMBER, FASTENERS, EXCAVATION, ETC. SHALL BE INCLUDED IN ITEM 607.96000001.
6. WOOD RAIL FENCING IS PROVIDED ONLY FOR DELINEATION PURPOSES AND IS NOT INTENDED TO PROVIDE SHIELDING TO HAZARDS (I.E. SLOPES, WATER, ECT.).

PREPARED BY: BARTON & LOGUIDICE, D.P.C.
ON : SEPTEMBER 26, 2018

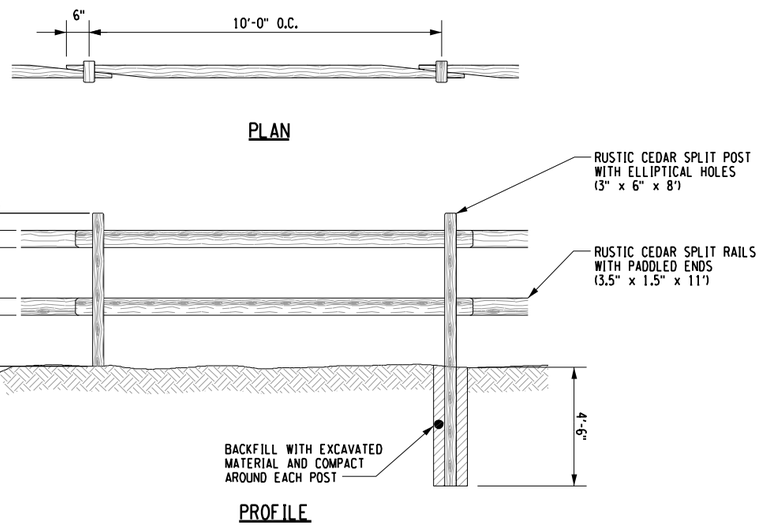
NO.	DATE	BY	REVISION

Barton & Loguidice

ASHOKAN RAIL TRAIL
BRIDGE REPLACEMENT
BOICEVILLE BRIDGE
OVER ESOPUS CREEK
ULSTER COUNTY

MISCELLANEOUS DETAILS - 1

SCALE: AS SHOWN
DATE ISSUED: 9/26/2018
DRAWING
MD-1

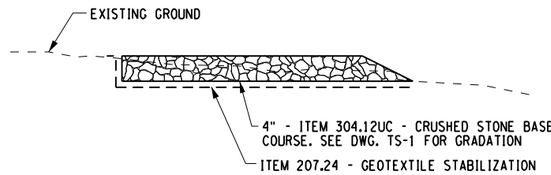


ITEM 607.65020010 - TYPE 2 SPLIT-RAIL WOOD FENCE

NOT TO SCALE

NOTES:

1. SPLIT RAIL FENCE IS NOT INTENDED TO BE A PHYSICAL BARRIER TO SHIELD ANY HAZARDS (I.E. SLOPES, WATER, ECT.). THE SPLIT RAIL FENCE IS INTENDED AS A VISUAL BARRIER AND TO MOUNT SIGNAGE.

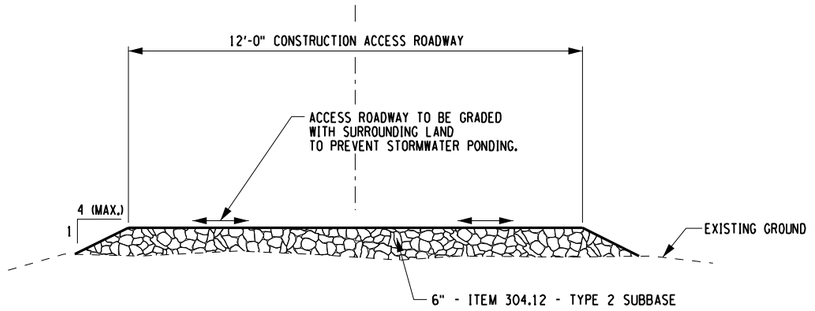


CONSTRUCTION STAGING AREA DETAIL - SECTION VIEW

N.T.S.

CONSTRUCTION STAGING AREA NOTES:

1. SEE DWG. AP-1A FOR STAGING AREA LOCATION.
2. STAGING AREA SHALL BE THE MINIMUM SIZE POSSIBLE FOR FOR THE CONTRACTOR TO COMPLETE THE WORK IN A SAFE AND EFFICIENT MANNER.



CONSTRUCTION ACCESS ROADWAY TYPICAL SECTION

SCALE: 1/4" = 1'

CONSTRUCTION ACCESS ROAD NOTES:

1. SEE DWGS. AP-1 & AP-1B FOR CONSTRUCITON ACCESS ROAD LOCATIONS

PREPARED BY: BARTON & LOGUIDICE, D.P.C.
ON : SEPTEMBER 26, 2018

STATE OF NEW YORK
THOMAS C. BAIRD IV
LICENSED PROFESSIONAL ENGINEER
074590
EXCELSIOR

IN CHARGE OF: TCB | DESIGNED BY: CMH | CHECKED BY: TCB | DRAFTED BY: CMH/JDH | CHECKED BY: CMH

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NO.	DATE	BY	REVISION

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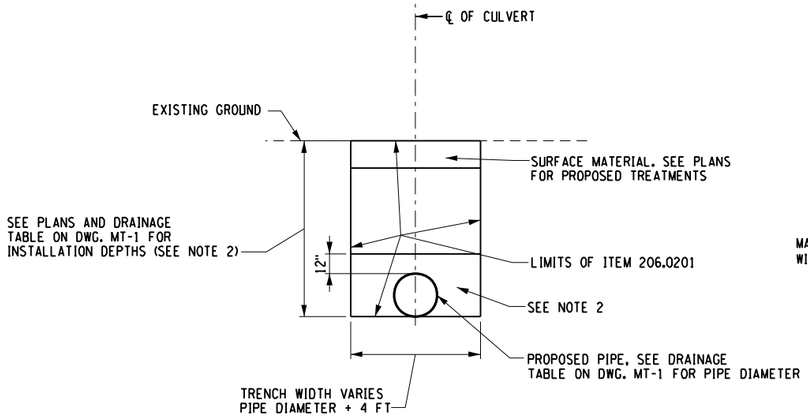
Barton & Loguidice

ASHOKAN RAIL TRAIL
BRIDGE REPLACEMENT
BOICEVILLE BRIDGE OVER ESOPUS CREEK
ULSTER COUNTY

MISCELLANEOUS DETAILS - 2

SCALE: AS SHOWN
DATE ISSUED: 9/26/2018
DRAWING MD-2

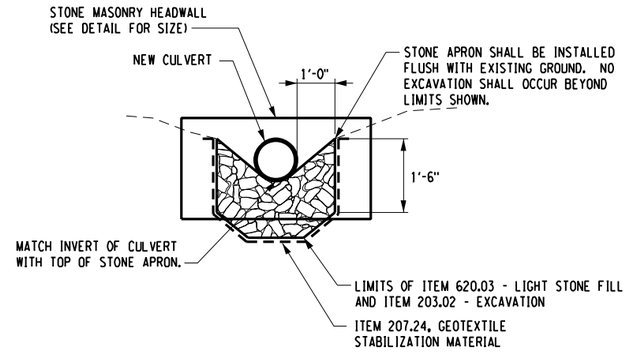


DRAINAGE PIPE INSTALLATION AND TRENCH DETAIL

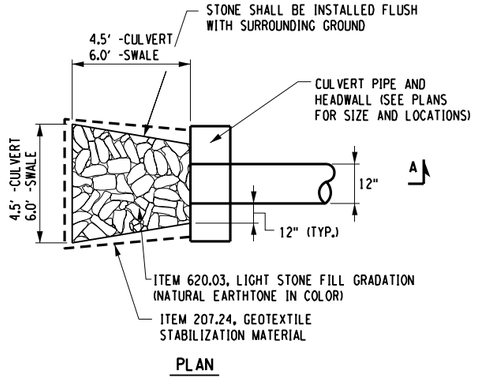
NTS

NOTES:

1. THE NEW PIPES SHALL BE INSTALLED TO HAVE A MININUM COVER ABOVE THE CROWN OF PIPE OF 12" AND MAINTAIN THE PROPER THICKNESS OF SURFACE MATERIAL ABOVE THE PIPE.
2. MATERIAL SURROUNDING THE RESET CULVERT SHALL BE SUITABLE AND FINE GRADED MATERIAL EXCAVATED FROM THE TRENCH. MATERIAL SHALL BE SMALLER THAN 3" IN DIAMETER.



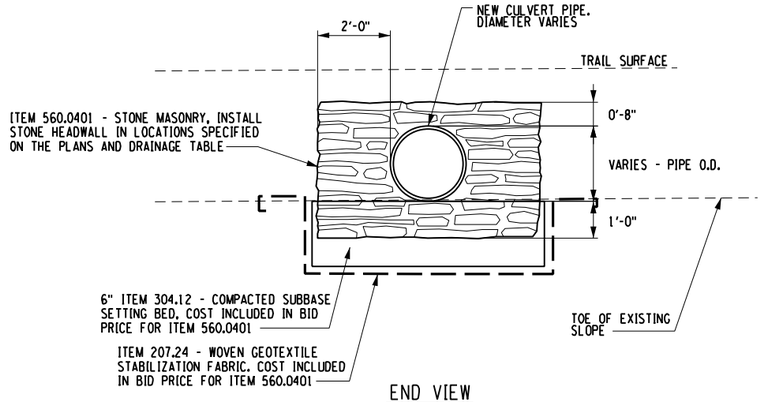
SECTION



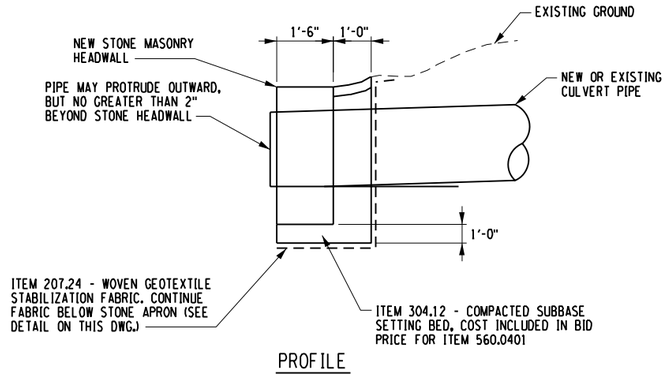
PLAN

STONE APRON DETAILS

NTS



END VIEW



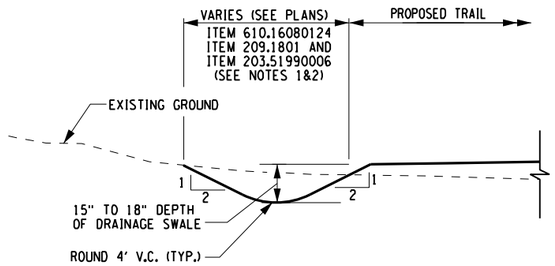
PROFILE

STONE HEADWALL DETAIL

N.T.S.

NOTES:

1. ALL EXCAVATION, LEVELING, BACKFILLING, REMOVALS, STONE MASONRY WORK, STONE PROCUREMENT, LABOR, AND MATERIAL NECESSARY TO CONSTRUCT THE STONE HEADWALL SHALL BE INCLUDED IN THE BID PRICE FOR ITEM 560.0401
2. STONE USED FOR HEADWALL CONSTRUCTION SHALL BE NATIVE TO THE AREA AND APPEAR NATURAL TO THE SURROUNDINGS. STONE DIMENSIONS SHALL BE APPROXIMATELY 2" - 4" IN HEIGHT AND 18" IN DEPTH (DIMENSIONS RELATIVE TO PLACEMENT ORIENTATION.)

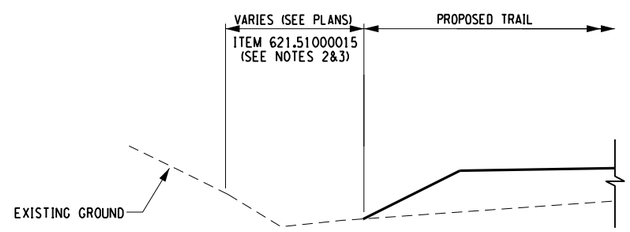


ITEM 203.51990006 - SWALE ESTABLISHMENT DETAILS

SCALE: 1/4" = 1'

SWALE ESTABLISHMENT NOTES:

1. ALL PROPOSED SEED MIXES REQUIRE APPROVAL BY THE OWNER AND NYCDEP PRIOR TO INSTALLATION (SEE NOTE 1 ON DWG. ESCN-2).
2. SWALES SHALL TIE INTO THE EXISTING BACK SLOPE GRADE WITH A SMOOTH TRANSITION. TIE-INS SHALL OCCUR WITHIN THE CUT LIMITS SHOWN ON THE PLANS UNLESS DIRECTED OTHERWISE BY THE ENGINEER.
3. ALL DISTUBED SOIL SHALL BE SEEDED WITHIN 3 CALEDER DAYS OF FINAL GRADING.
4. LIVE TREES WITHIN THE EXISTING SWALES SHALL REMAIN UNLESS DIRECTED OTHERWISE BY THE ENGINEER.
5. NO GRADING, EXCAVATION OR FILL SHALL OCCUR IN DELINEATED SENSITIVE WATER RESOURCES.
6. SEE TABLE OF SWALE CLEANING AND GRADING ON DWG. MT-1.



ITEM 621.51000015 - SWALE CLEANING DETAILS

SCALE: 1/4" = 1'

SWALE CLEANING NOTES:

1. EXTRACT AND DISPOSE OF ALL FALLEN TREES AND WOODY DEBRIS WITHIN THE EXISTING SWALES.
2. NO GRADING, EXCAVATION OR FILL SHALL OCCUR WITHIN EXISTING SWALES.
3. FALLEN TREES AND WOODY DEBRIS SHALL BE CAREFULLY EXTRACTED FROM THE EXISTING SWALE. LIMIT DISTURBANCE TO THE GREATEST EXTENT POSSIBLE.
4. LIVE TREES WITHIN THE EXISTING SWALES SHALL REMAIN UNLESS DIRECTED OTHERWISE BY THE ENGINEER.
5. SEE TABLE OF SWALE CLEANING AND GRADING ON DWG. MT-1.
6. LIMITS OF WOODY DEBRIS REMOVAL SHALL EXTEND A MINIMUM OF 5 FT. FROM THE NEW TRAIL EDGE, OR 2 FT. BEYOND THE BACK EDGE OF THE SWALE, A.O.B.E. CONTRACTOR WILL NOT BE REQUIRED TO REMOVE THE FULL LENGTH OF EXISTING FALLEN TREES TREES ADJACENT TO THE TRAIL CORRIDOR.

PREPARED BY: BARTON & LOGUIDICE, D.P.C.
ON : SEPTEMBER 26, 2018

IN CHARGE OF: TCB | DESIGNED BY: CMH | CHECKED BY: TCB | DRAFTED BY: CMH/JDH | CHECKED BY: CMH

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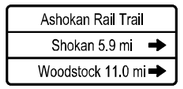
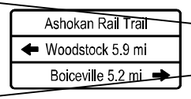
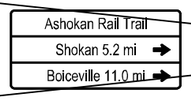
11
65

Barton & Loguidice

ASHOKAN RAIL TRAIL
BRIDGE REPLACEMENT
BOICEVILLE BRIDGE OVER ESOPUS CREEK
ULSTER COUNTY

MISCELLANEOUS DETAILS - 3

SCALE: AS SHOWN
DATE ISSUED: 9/26/2018
DRAWING MD-3

DESIGNATION & COLOR (SEE NOTE 2)	TEXT	ITEM	SIZE	PAYMENT AREA (SEE NOTE 3) TOTAL PAYMENT AREA	SIGN POSTS (ITEM 645.81)	TOTAL NUMBER OF SIGNS (SEE NOTE 5)	TOTAL PAYMENT AREA
S1		645.5101	11 1/4" x 11 1/4"	1.50 SF	0 EACH	7 EACH	169.50 SF
~~S2~~		645.5101	~~11 x 15"~~	1.75 SF	0 EACH	0 EACH	0.00 SF
S3		645.5101	11 1/4" x 11 1/4"	1.00 SF	0 EACH	1 EACH	1.00 SF
~~S4~~		645.5101	~~11 1/4" x 11 1/4"~~	1.00 SF	0 EACH	0 EACH	0.00 SF
S5		645.5101	22" x 30"	4.60 SF	0 EACH	1 EACH	4.60 SF
S6		645.5101	11 1/4" x 11 1/4"	1.00 SF	0 EACH	2 EACH	2.00 SF
S7		645.5101	9" x 30"	3.60 SF	2 EACH	1 EACH	3.60 SF
~~S8~~		645.5101	~~4" x 30"~~	3.60 SF	2 EACH	0 EACH	0.00 SF
~~S9~~		645.5101	~~4" x 30"~~	3.60 SF	2 EACH	0 EACH	0.00 SF

SIGNING NOTES:

1. SIGN LOCATIONS AS SHOWN ON PLANS ARE APPROXIMATE. THE CONTRACTOR SHALL INSTALL NEW SIGNS AND RELOCATE EXISTING SIGNS IN ACCORDANCE WITH THE NYC DEP SIGN STANDARD MANUAL.
2. THE COLOR IS ONLY SHOWN WHEN THERE IS AN OPTION THAT MUST BE SPECIFIED.
3. THE AREA AND PAYMENT AREA FOR SIGNS ARE FROM THE APPLICABLE STANDARD SHEETS OR SIGN FACE LAYOUTS.
4. SIGNS SHALL BE INSTALLED ON TREES, OR FENCE POSTS WHEN POSSIBLE. IF NO FEASIBLE LOCATION IS PRESENT WITHIN 25' OF INSTALLATION LOCATION SHOWN ON THE PLAN SHEETS, THE CONTRACTOR SHALL USE A GALVANIZED SIGN POST, ITEM 645.81.
5. SEE DWG. PL-1 THROUGH DWG. PL-88 FOR SIGN LOCATIONS

PREPARED BY: BARTON & LOGUIDICE, D.P.C.
ON : SEPTEMBER 26, 2018

SURVEY AND MAPPING PROVIDED BY:
BROOKS & BROOKS, PC
SURVEYING, PLANNING, GIS

IN CHARGE OF TCB | DESIGNED BY CMH | CHECKED BY TCB | DRAFTED BY CMH/JDH | CHECKED BY CMH

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NO.	DATE	BY	REVISION

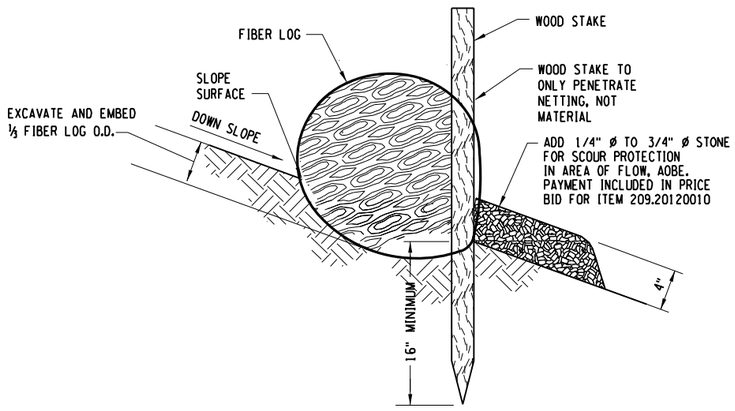
12
65

Barton & Loguidice

ASHOKAN RAIL TRAIL
BRIDGE REPLACEMENT
BOICEVILLE BRIDGE OVER ESOPUS CREEK
ULSTER COUNTY

MISCELLANEOUS TABLES

SCALE: NONE
DATE ISSUED: 9/26/2018
DRAWING MT-1



FIBER LOG STAKE DETAIL (ON BARE SOIL)

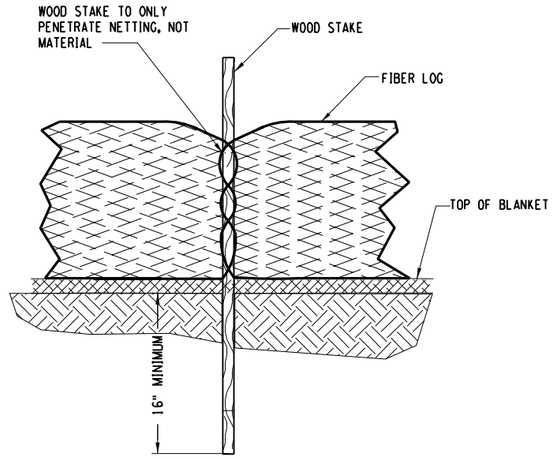
ITEM 209.20120010
N.T.S.

FIBER LOG CHECK DAM APPLICATION NOTES:

A. THE PRIMARY PURPOSE OF A CHECK DAM IS TO REDUCE EROSION IN A CHANNEL BY REDUCING FLOW VELOCITY IN THE CHANNEL.

B. CHECK DAMS WILL CAPTURE SEDIMENT THAT FALLS OUT OF SUSPENSION BEHIND THE CHECK DAM DUE TO DECREASED VELOCITY.

C. CHECK DAMS ARE NOT INTENDED TO, AND WILL NOT FILTER SEDIMENT FROM TURBID WATER.

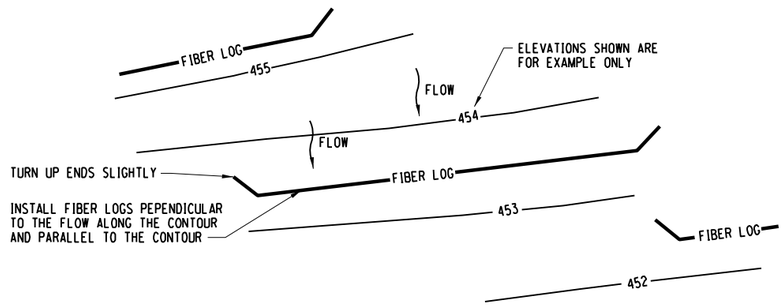


FIBER LOG STAKE DETAIL (FRONT VIEW)

ITEM 209.20120010
N.T.S.

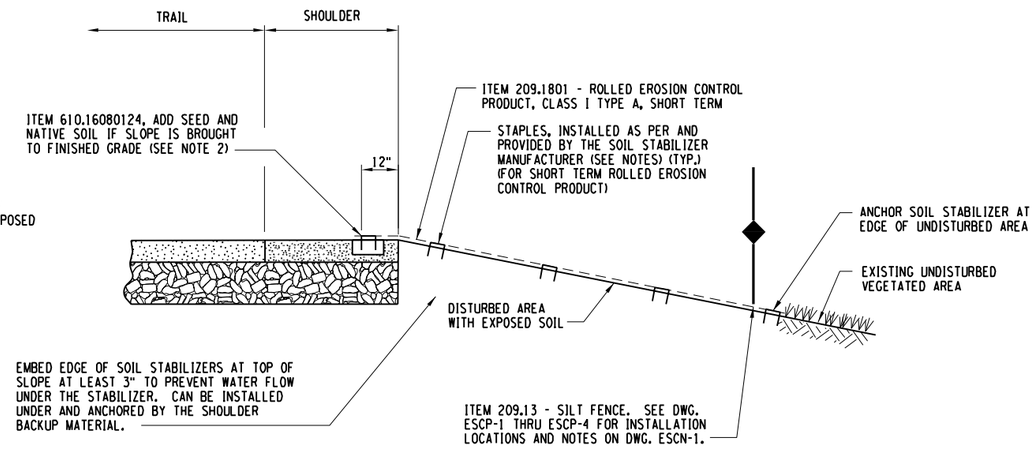
NOTES:

1. DRAINAGE AREAS:
   MAXIMUM DRAINAGE AREA TRIBUTARY TO FIBER LOG CHECK DAM SHALL BE 1 ACRE. MAXIMUM DRAINAGE AREA TRIBUTARY TO PREFABRICATED CHECK DAM SHALL BE ½ ACRE.
2. POSTS MAY BE 1¼" x 1¼" (MIN.) HARDWOOD, 1½" x 3½" (MIN.) SOFTWOOD. ADDITIONAL POSTS ARE REQUIRED AT THE OUTER EDGES OF DITCH WIDTH.
3. THE FIBER LOG SHALL BE INSTALLED WITH THE POSTS ON THE DOWNSTREAM SIDE OF THE FABRIC AS SHOWN.
4. SEDIMENT SHALL BE REMOVED WHEN ACCUMULATION REACHES ONE-HALF OF THE MEASURE HEIGHT OF THE FIBER LOG. SEDIMENT SHALL BE DISPOSED OF AS UNSUITABLE MATERIAL.



FIBER LOG PLAN EXAMPLE

N.T.S.



EROSION AND SEDIMENT CONTROL FOR ALL DISTURBED AREAS TEMPORARY OR PERMANENT

N.T.S.

NOTES:

1. ITEMS IN THIS DETAIL MAY APPEAR EXAGGERATED TO SHOW DETAIL.
2. IF SLOPE IS BROUGHT TO FINISHED GRADE, NATIVE SOIL AND SEEDING SHALL BE INSTALLED PRIOR TO INSTALLING ITEM 209.1801 - ROLLED EROSION CONTROL PRODUCT, CLASS I TYPE A, SHORT TERM. IF SLOPES ARE NOT BROUGHT TO FINISH GRADE THEY ARE TO BE TREATED WITH ITEM 610.16080124 - TURF ESTABLISHMENT - SEED MIX AS SPECIFIED (SEE NOTE 1 ON DWG. ESCN-2) AND 209.100101.
3. ROLLED EROSION CONTROL BLANKETS SHALL BE BIONET S150 BN OR APPROVED EQUAL. PAYMENT WILL NOT BE MADE FOR MATERIALS THAT ARE NOT BIONET S150 BN OR HAVE NOT BEEN APPROVED BY THE ENGINEER, IMPROPERLY INSTALLED, NOT MAINTAINED, DAMAGED BY THE CONTRACTOR AND/OR SUB-CONTRACTORS.
4. ROLLED EROSION CONTROL BLANKETS MUST BE FLUSH AND IN CONTACT WITH THE SOIL AND NOT RAISED BY CLUMPS, WEEDS, STICKS, ECT. AND MUST BE STAPLED SECURELY, AS PER THE MANUFACTURER.
5. ROLLED EROSION CONTROL BLANKETS SHALL BE INSTALLED IN AN UP-DOWN SLOPE DIRECTION, NOT ALONG THE CONTOURS OF THE SLOPE.
6. FOR SLOPES 1V : 6H OR FLATTER, STRAW MULCH MAY BE SUBSTITUTED.

PREPARED BY: BARTON & LOGUIDICE, D.P.C.
ON : SEPTEMBER 26, 2018

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13
65

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ASHOKAN RAIL TRAIL
BRIDGE REPLACEMENT
BOICEVILLE BRIDGE OVER ESOPUS CREEK
ULSTER COUNTY

EROSION AND SEDIMENT CONTROL DETAILS - 1

SCALE: AS SHOWN
DATE ISSUED: 9/26/2018
DRAWING ESCD-1

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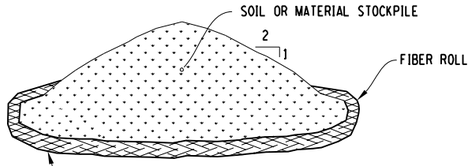
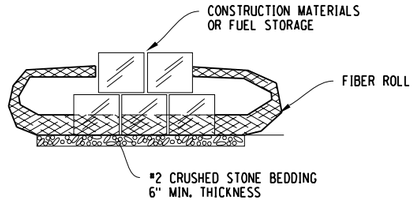


EXCAVATED AND IMPORTED SOIL AND MATERIAL STOCKPILE

1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE. THE AREA SHALL NOT BE WITHIN THE DRIPLINE OR CANOPY OF EXISTING TREES. THE LOCATION SHALL BE AS NOTED ON THE DRAWINGS. DREDGED OR EXCAVATED MATERIALS SHALL BE PLACED UPON SILT FENCE FABRIC.

2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 2(H) TO 1(V).

3. FIBER LOGS SHALL BE PLACED FIVE (5)-FEET DOWNSLOPE OF EACH PILE. UPON COMPLETION OF SOIL STOCKPILING. TOPSOIL SHALL BE STABILIZED WITH TEMPORARY SEED AND MULCH IF NOT TO BE DISTURBED/UTILIZED WITHIN FOURTEEN (14) DAYS.



FUEL, EQUIPMENT, OR MATERIAL STORAGE AREA

1. AREA CHOSEN FOR STORAGE OPERATIONS SHALL BE DRY AND STABLE. THE AREA SHALL NOT BE WITHIN THE DRIPLINE OR CANOPY OF TREES. THE LOCATION SHALL BE AS NOTED ON THE DRAWINGS.

2. NO STOCKPILE AREA SHALL BE LOCATED WITHIN FIFTY (50) FEET OF SURFACE WATER, FLOODPLAIN, SLOPE, DRAINAGE FACILITY OR ROADWAY.

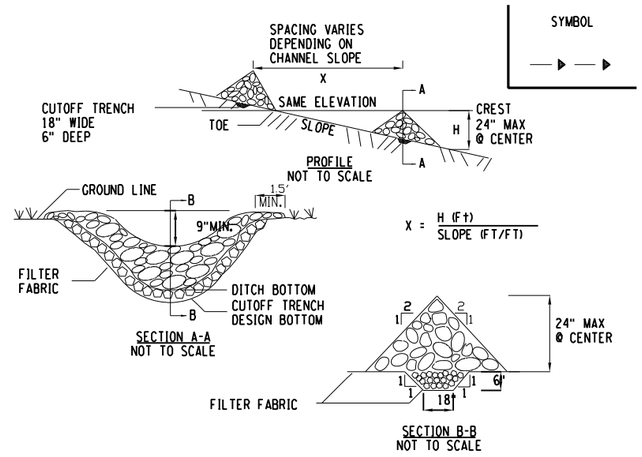
3. IF STABLE SURFACE NOT AVAILABLE, THE TOP SIX (6) INCHES OF NATIVE MATERIAL SHALL BE EXCAVATED FROM THE MATERIAL/FUEL STORAGE AREA AND STOCKPILED TO REUSE FOR RESTORATION OF THIS AREA. IN THE AREA EXCAVATED, PLACE SEPARATION FABRIC AND SIX (6) INCHES OF *2 CRUSHED STONE BEDDING, SEE SPECIFICATIONS. IF APPROVED BY THE ENGINEER, USE OF EXISTING GRAVEL AREAS MAY BE USED IN LIEU OF EXCAVATION, STONE, AND FABRIC.

4. FIBER LOGS SHALL BE PLACED FIVE (5) FEET DOWN SLOPE OF STORAGE AREA.

5. REMOVE ALL MATERIALS INCLUDING STONE AND FABRIC WHEN NEED FOR STORAGE IS OVER. RESTORE TO ORIGINAL GRADE WITH STOCKPILED EXCAVATED SOIL (NO FOREIGN DEBRIS).

CONSTRUCTION STOCKPILE/STORAGE AREA DETAIL

N.T.S.

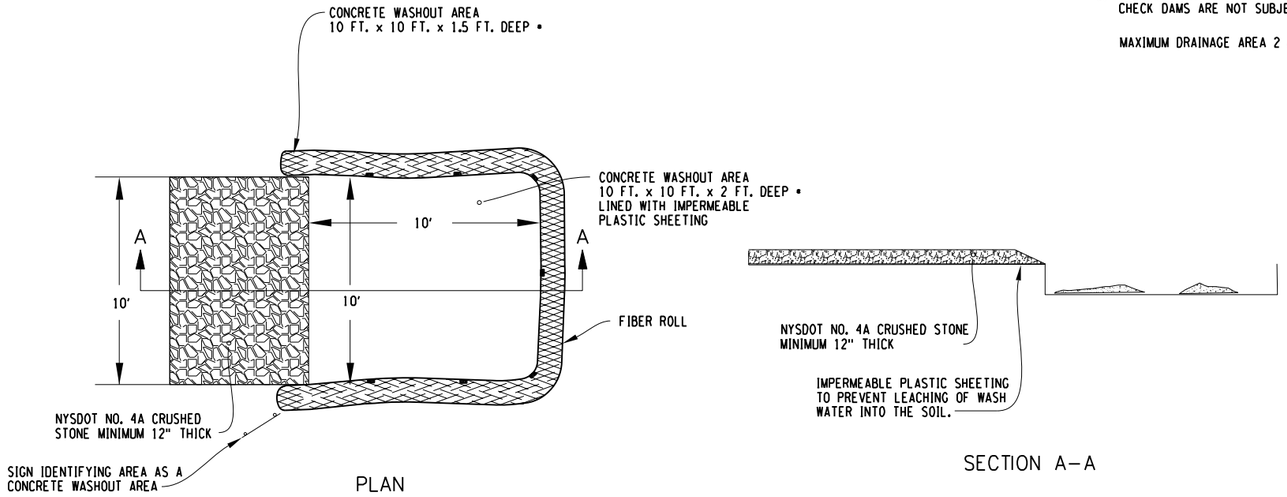


STONE CHECKDAM DETAIL

N.T.S.

1. STONE WILL BE PLACED ON A FILTER FABRIC FOUNDATION TO THE LINES, GRADES AND LOCATIONS SHOWN IN THE PLAN.
2. SET SPACING OF CHECK DAMS TO ASSUME THAT THE ELEVATIONS OF THE CREST OF THE DOWNSTREAM DAM IS AT THE SAME ELEVATION OF THE TOE OF THE UPSTREAM DAM.
3. EXTEND THE STONE A MINIMUM OF 1.5 FEET BEYOND THE DITCH BANKS TO PREVENT CUTTING AROUND THE DAM.
4. PROTECT THE CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM FROM SCOUR AND EROSION WITH STONE OR LINER AS APPROPRIATE.
5. ENSURE THAT CHANNEL APPURTENANCES SUCH AS CULVERT ENTRANCES BELOW CHECK DAMS ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONE.

MAXIMUM DRAINAGE AREA 2 ACRES.



CONCRETE WASHOUT AREA

N.T.S.

NOTES:

1. COST FOR CONCRETE WASHOUT ARE INCLUDED IN VARIOUS ITEMS FOR CONCRETE
2. UNDER NO CIRCUMSTANCES SHALL WASH WATER BE ALLOWED TO INFILTRATE INTO THE SOIL. THIS INCLUDES THE WASHING OF TOOLS, MIXERS, CHUTES, AND ANY OTHER SURFACES THAT HAVE BEEN IN CONTACT WITH FRESH CONCRETE.
3. WASH FACILITY SHALL BE LOCATED A MIMIMUM OF 100 FT. FROM ANY DRAINAGE STRUCTURE INCLUDING DRAINAGE SWALES, STORM DRAIN INLETS, WETLANDS, STREAMS, AND ANY OTHER SURFACE WATERS AND AS APPROVED BY NYCDEP.
4. WASHOUT AREAS SHALL BE LOCATED IN THE STOCKPILE AREAS LOCATED ON DWG. AP-1A OR AP-2A ONLY.

PREPARED BY: BARTON & LOGUIDICE, D.P.C.
ON : SEPTEMBER 26, 2018

STATE OF NEW YORK · THOMAS C. BAIRD IV · EXCELSIOR · LICENSED PROFESSIONAL ENGINEER · 074590

NO.	DATE	BY	REVISION

Barton & Loguidice

ASHOKAN RAIL TRAIL
BRIDGE REPLACEMENT
BOICEVILLE BRIDGE OVER ESOPUS CREEK
ULSTER COUNTY

EROSION AND SEDIMENT CONTROL DETAILS - 2

SCALE: AS SHOWN
DATE ISSUED: 9/26/2018
DRAWING
ESCD-2

IN CHARGE OF TCB | DESIGNED BY CMH | CHECKED BY TCB | DRAFTED BY CMH/JDH | CHECKED BY CMH | jdh

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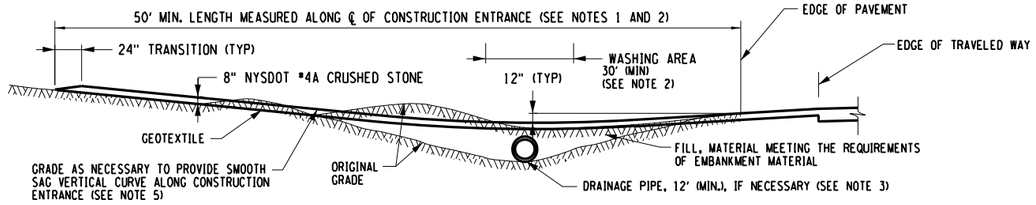
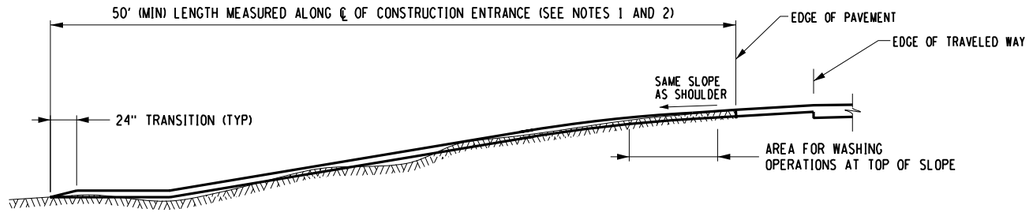
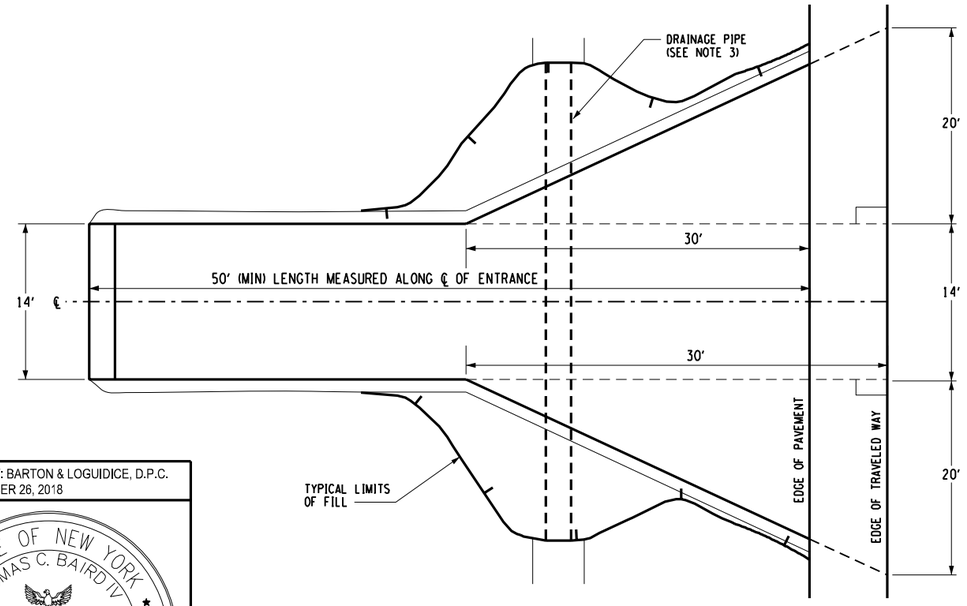


TYPICAL CONSTRUCTION ENTRANCE PROFILE
(CUT AND DITCH SECTIONS)



TYPICAL CONSTRUCTION ENTRANCE PROFILE
(FILL SECTIONS)



TYPICAL CONSTRUCTION ENTRANCE PLAN
(CUT/DITCH AND FILL SECTIONS)

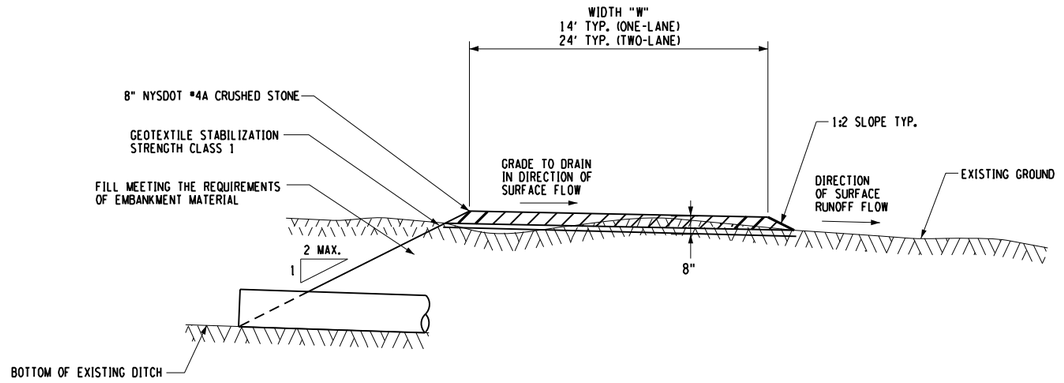
CONSTRUCTION ENTRANCES:

APPLICATION NOTES:

A. THE PURPOSE OF A STABILIZED CONSTRUCTION ENTRANCE IS TO REDUCE OR ELIMINATE THE TRACKING OF SEDIMENT ONTO PUBLIC RIGHTS OF WAY OR STREETS.

NOTES:

1. MODIFICATIONS MAY BE REQUIRED TO MATCH FIELD CONDITIONS.
2. A 30' WASH AREA SHALL BE PROVIDED. ADDITIONAL GRADING MAY BE REQUIRED TO PROVIDE WASHING AREAS.
3. PROPOSED DRAINAGE PIPES SHALL BE SIZED WITH SUFFICIENT CAPACITY TO CARRY DITCH FLOWS. ALTERNATE WAYS OF TRANSPORTING DITCH DRAINAGE ACROSS CONSTRUCTION ENTRANCES MAY BE PROPOSED BY THE CONTRACTOR FOR APPROVAL BY THE ENGINEER.
4. THE CONTRACTOR SHALL GRADE TO PREPARE AND SMOOTH ORIGINAL GROUND FOR PLACEMENT OF 8" OF #4A CRUSHED STONE ENTRANCE MATERIAL UP TO THE EDGE OF PAVEMENT.
5. ALL WORK TO CONSTRUCT THE STABILIZED ENTRANCE, INCLUDING GRADING, DRAINAGE PIPE, EXCAVATION, FILL, GEOTEXTILE AND CRUSHED STONE OR GRAVEL SHALL BE INCLUDED IN THE UNIT PRICE BID.
6. 100% CRUSHED STONE MEETING THE NYSDOT #4A STONE GRADATION SHALL BE UTILIZED FOR CONSTRUCTION ENTRANCES
7. ANY TRACKING OF SEDIMENT ONTO ROUTE 28 OR ROUTE 28A SHALL RESULT IN THE IMMEDIATE SHUTDOWN OF THE CONSTRUCTION ENTRANCE AND ACCESS ROAD. CORRECTIVE MEASURES SHALL BE TAKEN BY THE CONTRACTOR TO LIMIT ADDITIONAL SEDIMENT TRACKING ONTO ROUTE 28 OR ROUTE 28A. THE CONSTRUCTION ENTRANCE AND ACCESS ROAD SHALL NOT BE UTILIZED UNTIL CORRECTIVE MEASURES HAVE BEEN COMPLETED TO THE SATISFACTION OF THE ENGINEER.



TYPICAL CONSTRUCTION ENTRANCE SECTION

PREPARED BY: BARTON & LOGUIDICE, D.P.C.
ON : SEPTEMBER 26, 2018

STATE OF NEW YORK
THOMAS C. BAIRD IV
LICENSED PROFESSIONAL ENGINEER
074590
EXCELSIOR

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ASHOKAN RAIL TRAIL
BRIDGE REPLACEMENT
BOICEVILLE BRIDGE OVER ESOPUS CREEK
ULSTER COUNTY

EROSION AND SEDIMENT CONTROL DETAILS - 3

SCALE: NONE
DATE ISSUED: 9/26/2018
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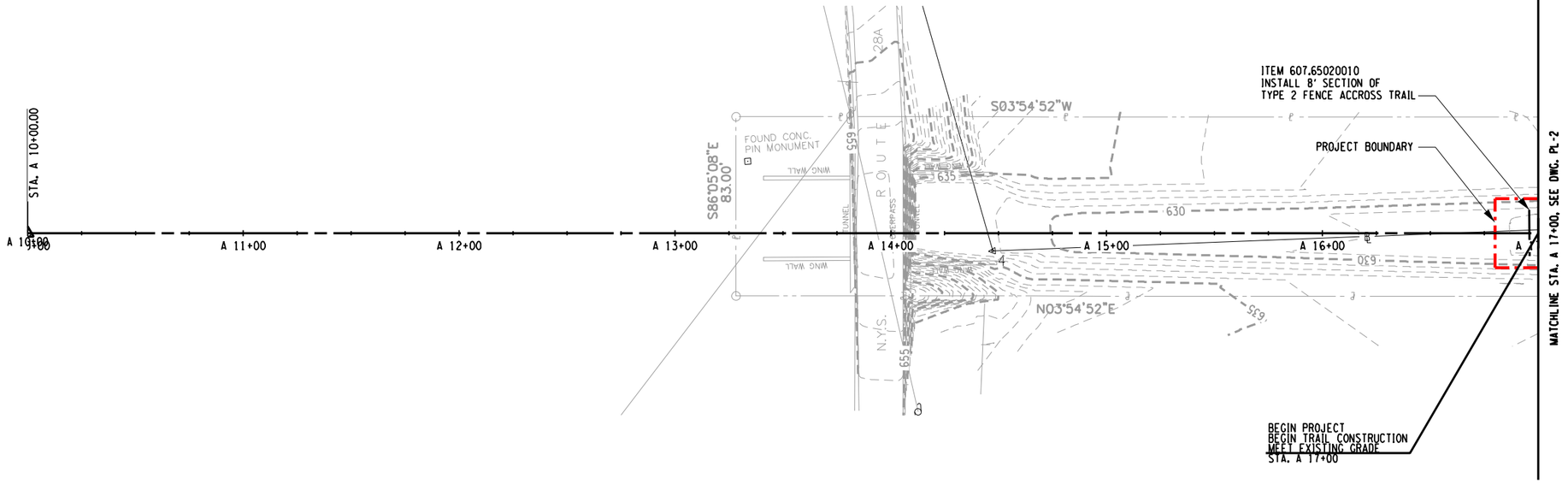
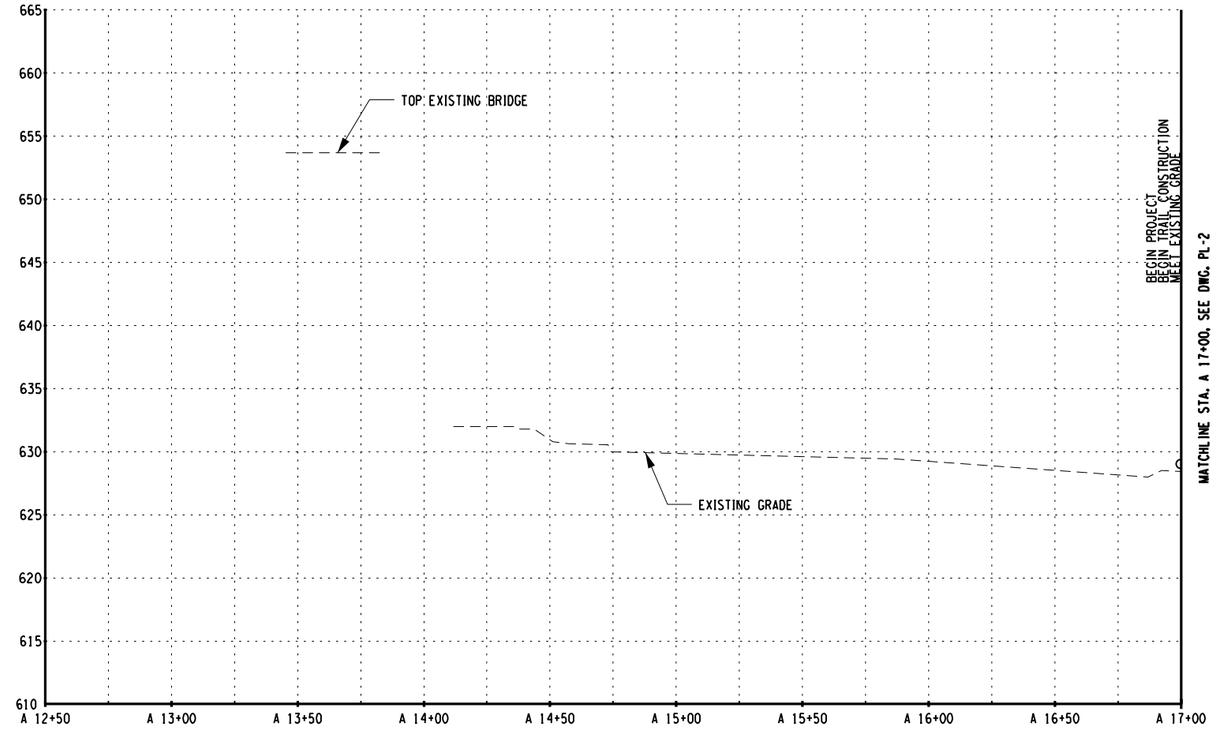
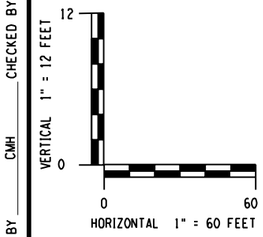


PLAN - STA. A 10+00 TO STA. A 17+00



PROFILE - STA. A 10+00 TO STA. A 17+00



PREPARED BY: BARTON & LOGUIDICE, D.P.C.
ON : SEPTEMBER 26, 2018

PLAN NOTES:

1. REMOVE EXISTING WOODY DEBRIS FROM EXISTING SWALES. EXCAVATION OR FILL PLACEMENT SHALL NOT EXTEND PAST SLOPE LIMITS DISPLAYED ON RESPECTIVE ESCP DRAWINGS UNLESS NECESSARY TO PROMOTE DRAINAGE FLOW IN DIRECTION SHOWN. EXCAVATION IN DRAINAGE SWALES SHALL BE LIMITED TO SPOT LOCATIONS AND SHALL BE AS MINIMAL AS POSSIBLE TO RESTORE POSITIVE DRAINAGE FLOW WITHIN THE SWALE.

SURVEY AND MAPPING PROVIDED BY:

BROOKS & BROOKS, PC
SURVEYING, PLANNING, GIS

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ASHOKAN RAIL TRAIL
BRIDGE REPLACEMENT
BOICEVILLE BRIDGE OVER ESOPUS CREEK
ULSTER COUNTY

PLAN AND PROFILE - 1

SCALE: AS SHOWN
DATE ISSUED: 9/26/2018
DRAWING PL-1

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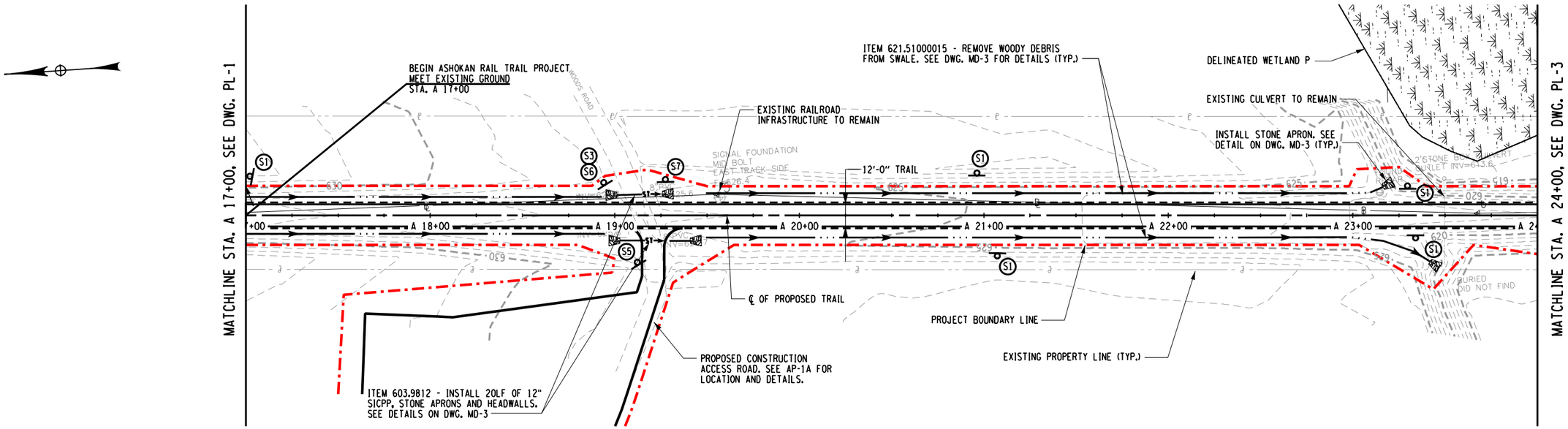
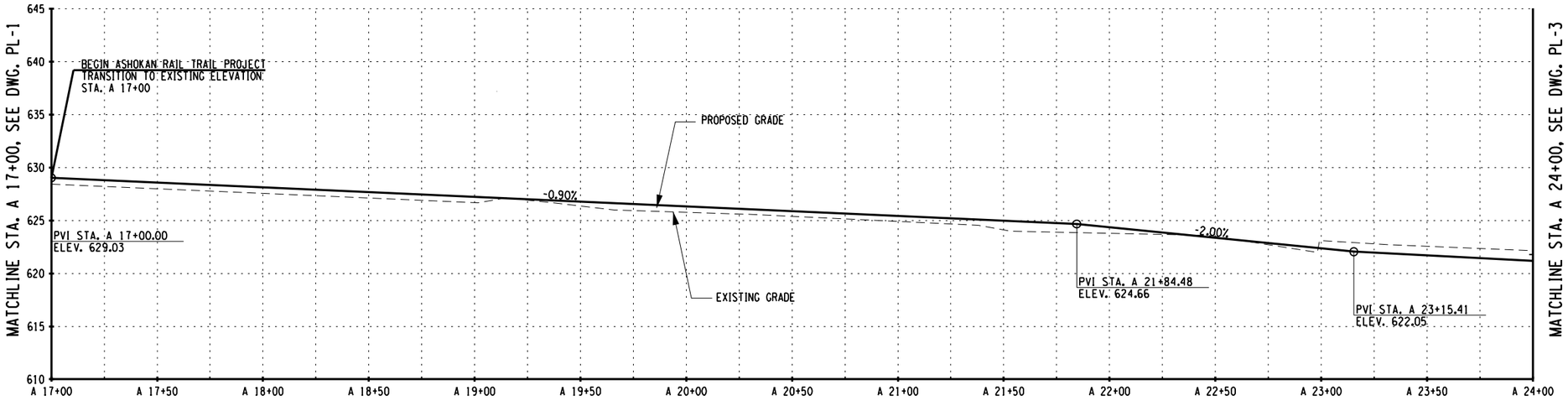


PLAN - STA. A 17+00 TO STA. A 24+00



PROFILE - STA. A 17+00 TO STA. A 24+00

VERTICAL 1" = 12 FEET
0
12
HORIZONTAL 1" = 60 FEET
0
60

PREPARED BY: BARTON & LOGUIDICE, D.P.C.
ON : SEPTEMBER 26, 2018

STATE OF NEW YORK
THOMAS C. BAIRD IV
LICENSED PROFESSIONAL ENGINEER
EXCELSIOR
074590

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NO.	DATE	BY	REVISION

17
65

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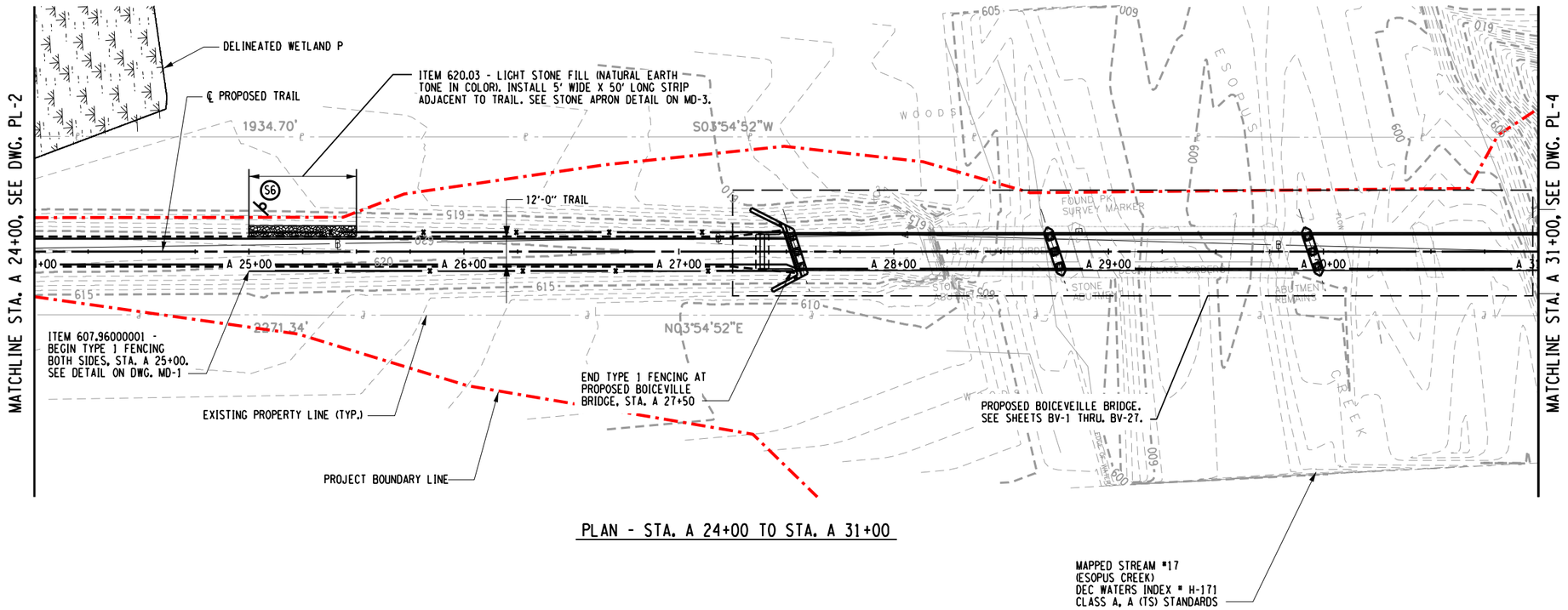
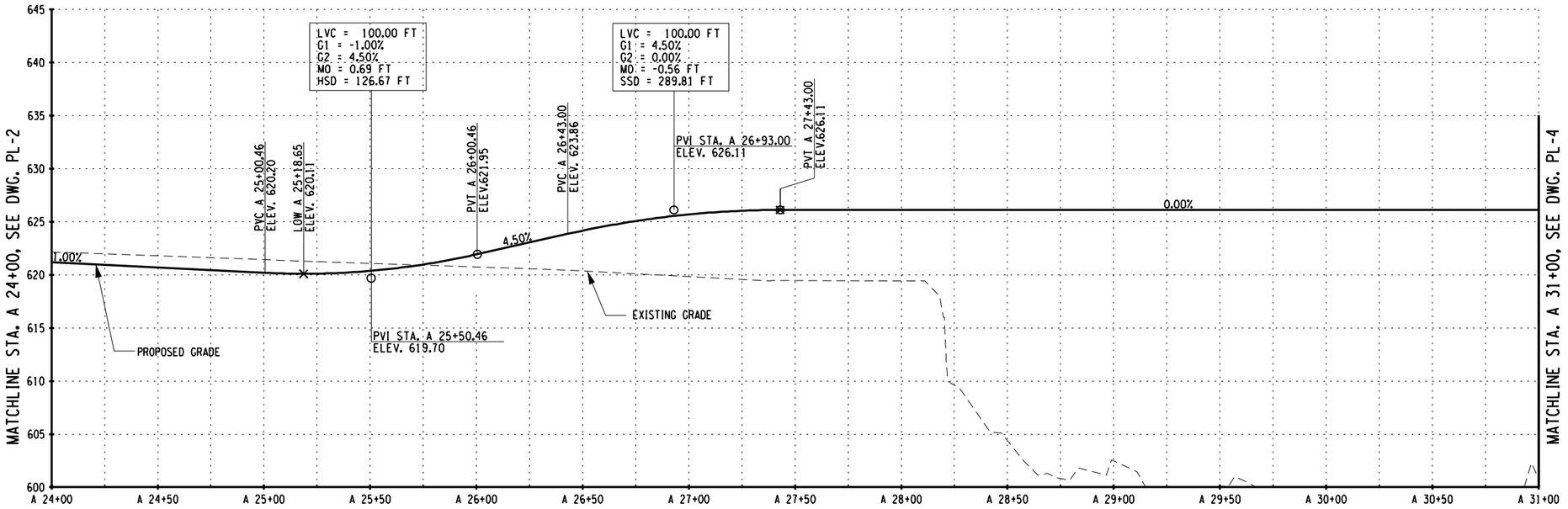
ASHOKAN RAIL TRAIL
BRIDGE REPLACEMENT
BOICEVILLE BRIDGE
OVER ESOPUS CREEK
ULSTER COUNTY

PLAN AND PROFILE - 2

SCALE: AS SHOWN
DATE ISSUED: 9/26/2018
DRAWING
PL-2



PLAN - STA. A 24+00 TO STA. A 31+00



PROFILE - STA. A 24+00 TO STA. A 31+00

VERTICAL 1" = 12 FEET
12
0
0
60
HORIZONTAL 1" = 60 FEET

PREPARED BY: BARTON & LOGUIDICE, D.P.C.
ON : SEPTEMBER 26, 2018

STATE OF NEW YORK
THOMAS C. BAIRD IV
EXCELSIOR
074590
LICENSED PROFESSIONAL ENGINEER

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ASHOKAN RAIL TRAIL
BRIDGE REPLACEMENT
BOICEVILLE BRIDGE OVER ESOPUS CREEK
ULSTER COUNTY

PLAN AND PROFILE - 3

SCALE: AS SHOWN
DATE ISSUED: 9/26/2018
DRAWING PL-3

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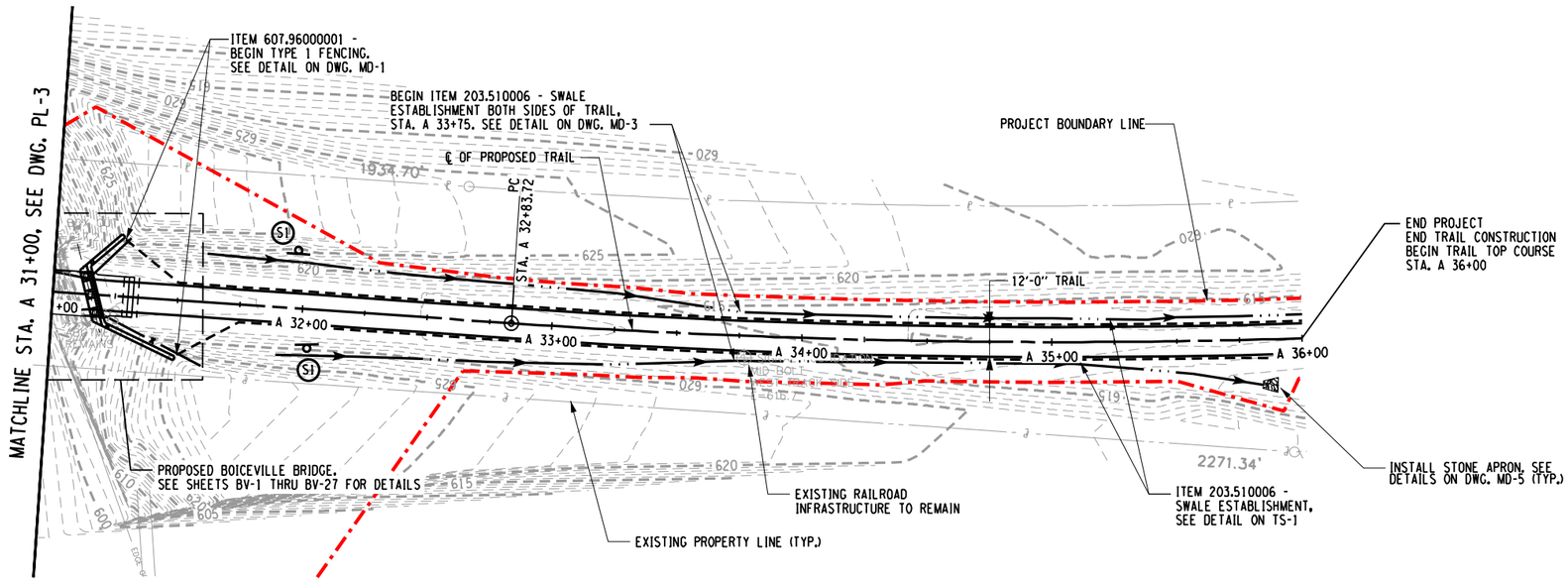
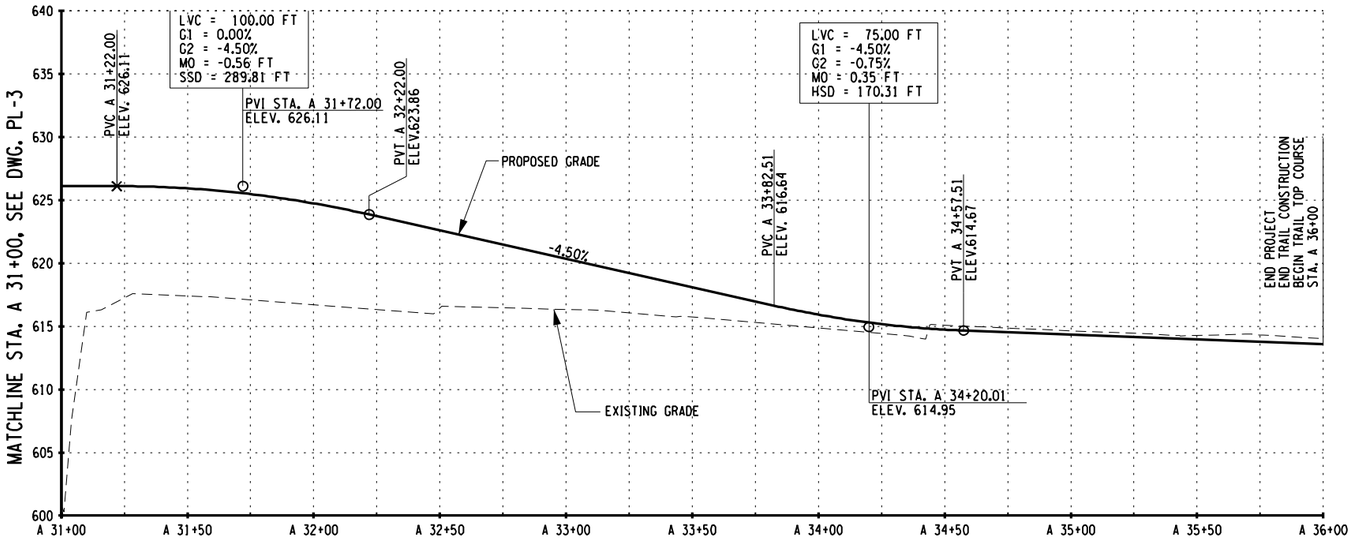


PLAN - STA. A 31+00 TO STA. A 38+00



PROFILE - STA. A 31+00 TO STA. A 38+00

VERTICAL 1" = 12 FEET (0, 12)
HORIZONTAL 1" = 60 FEET (0, 60)

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ON : SEPTEMBER 26, 2018

STATE OF NEW YORK · THOMAS C. BAIRD IV · EXCELSIOR · 074590 · LICENSED PROFESSIONAL ENGINEER

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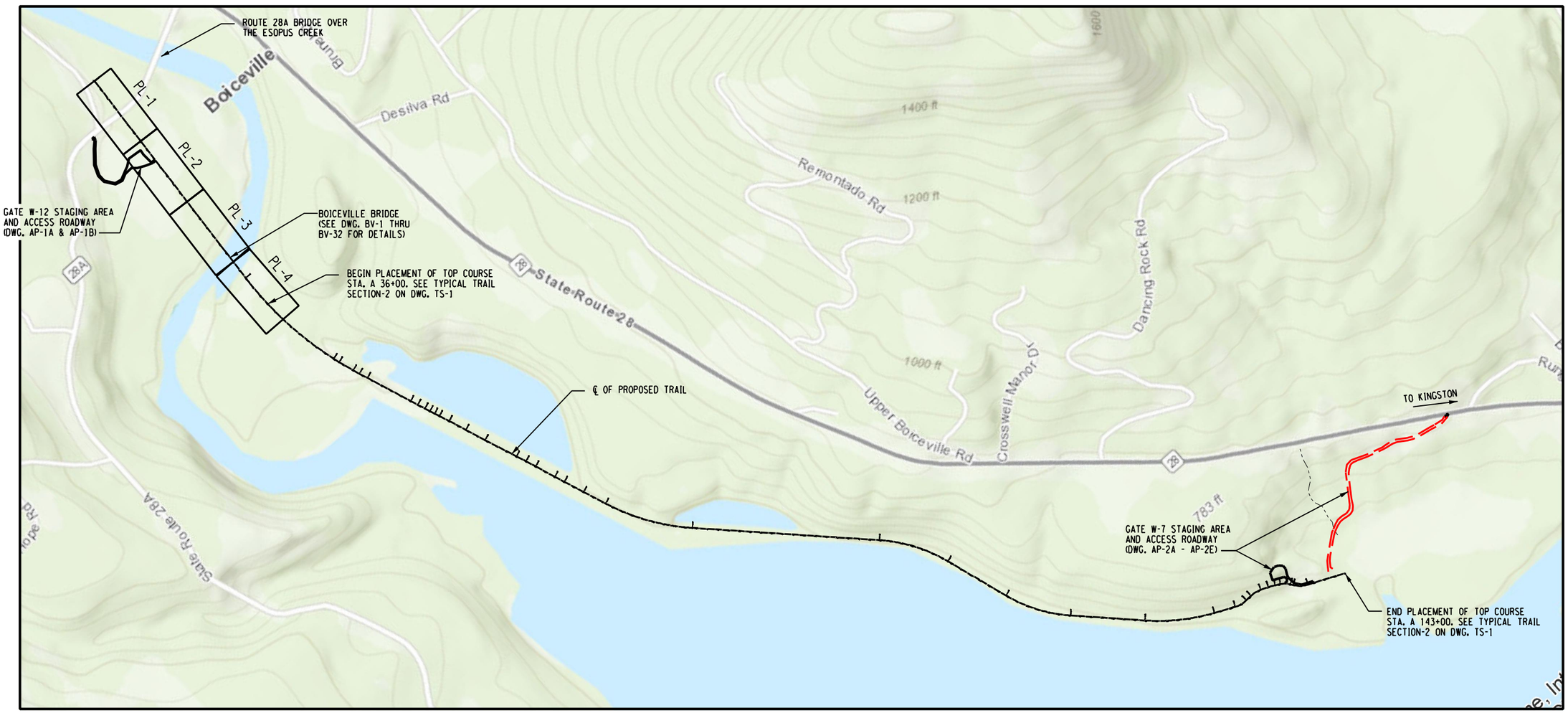
ASHOKAN RAIL TRAIL
BRIDGE REPLACEMENT
BOICEVILLE BRIDGE OVER ESOPUS CREEK
ULSTER COUNTY

PLAN AND PROFILE - 4

SCALE: AS SHOWN
DATE ISSUED: 9/26/2018
DRAWING PL-4



PLAN - STA. A 36+00 TO STA. A 143+00

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0 500 1,000
SCALE: 1" = 1,000 FEET

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ASHOKAN RAIL TRAIL
BRIDGE REPLACEMENT
BOICEVILLE BRIDGE
OVER ESOPUS CREEK
ULSTER COUNTY

GENERAL
PLAN - 5

SCALE: 1 : 1,000
DATE ISSUED: 9/26/2018
DRAWING
PL-5

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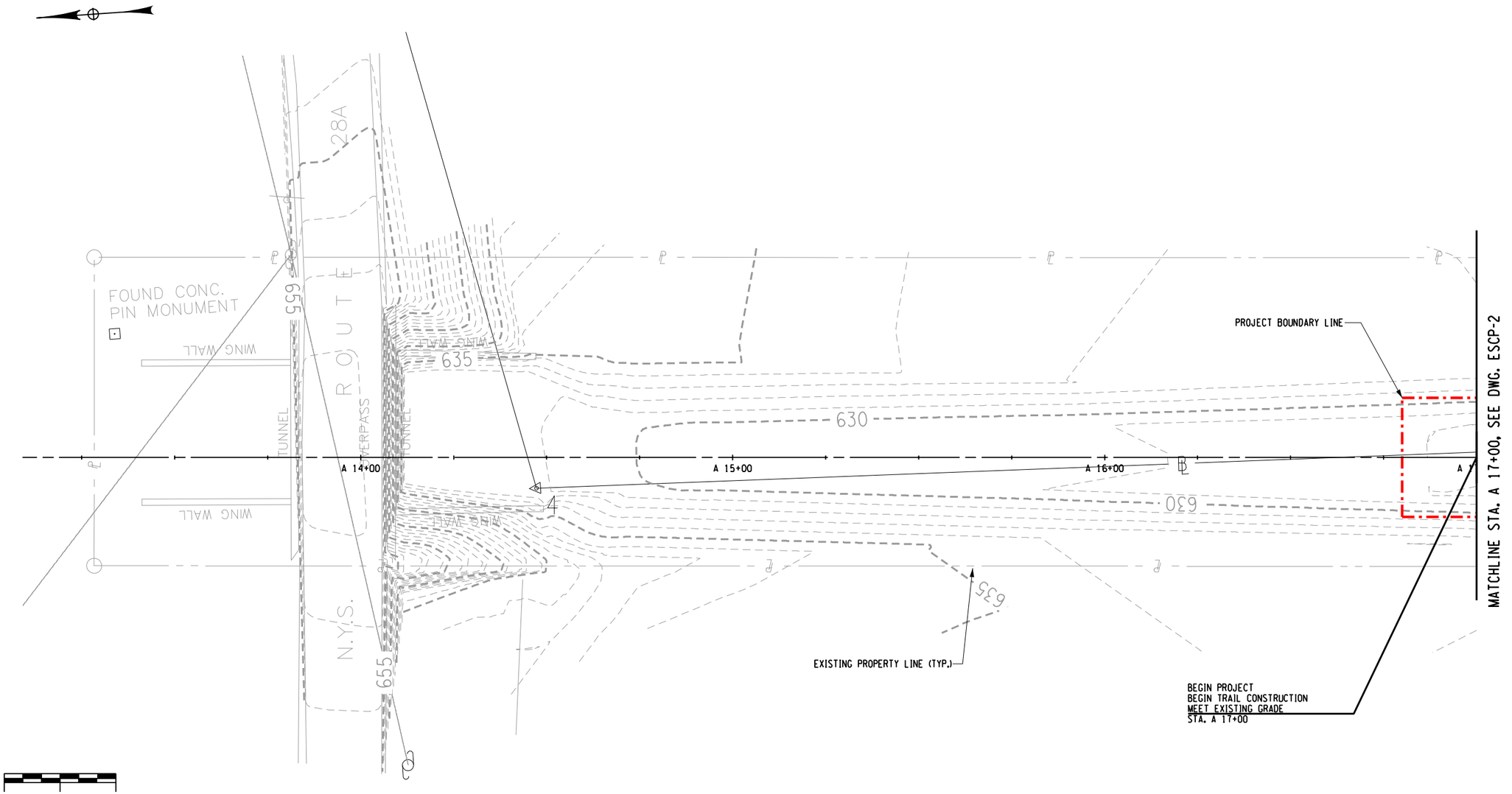

0 15 30
SCALE 1" = 30 FEET

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THOMAS C. BAIRD IV
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21
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BOICEVILLE BRIDGE OVER ESOPUS CREEK
ULSTER COUNTY

EROSION AND SEDIMENT CONTROL PLAN - 1

SCALE: 1 : 30
DATE ISSUED: 9/26/2018
DRAWING
ESCP-1

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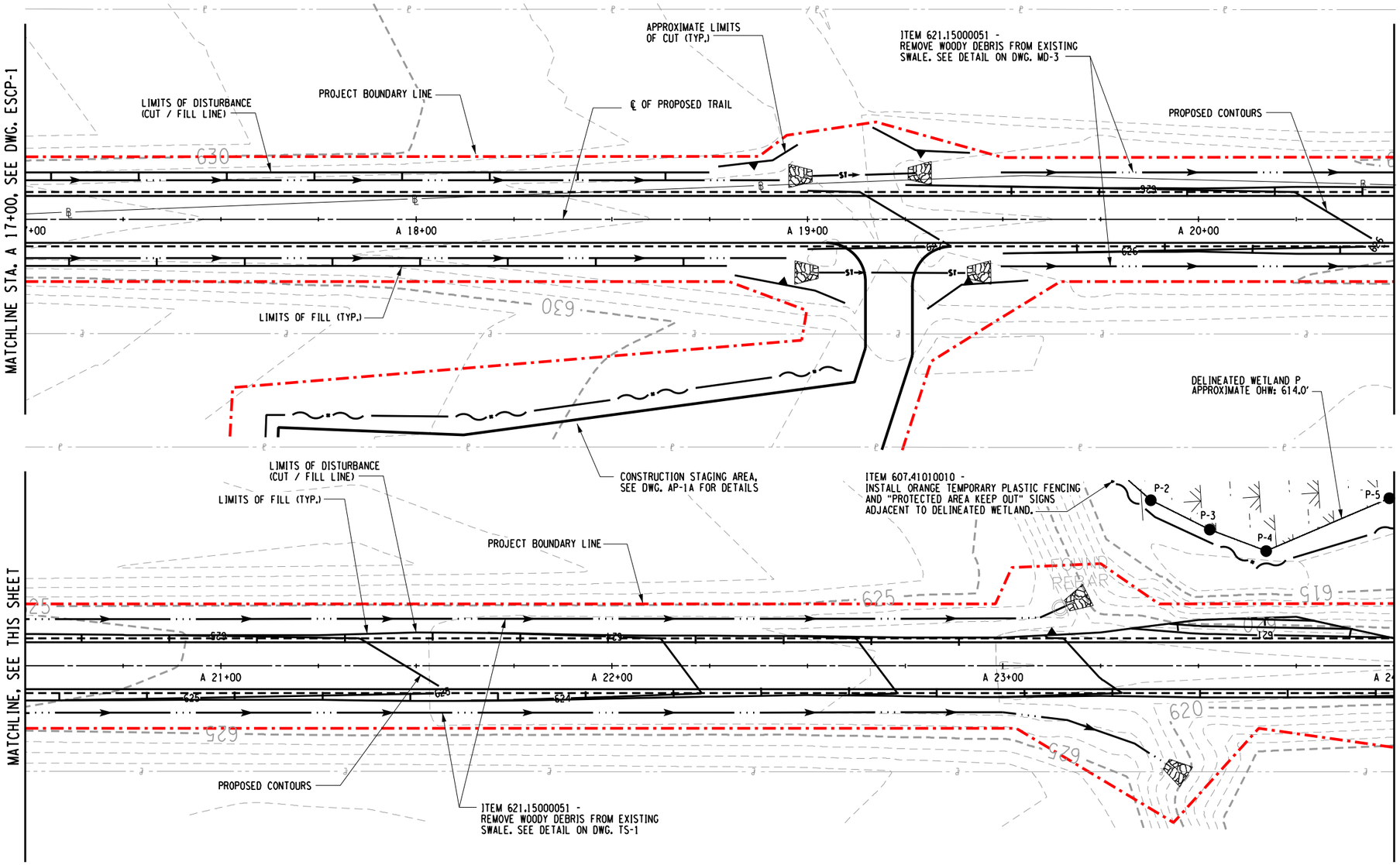

EROSION AND SEDIMENT CONTROL PLAN - STA. A 17+00 TO STA. A 24+00

0 15 30
SCALE 1" = 30 FEET

PREPARED BY: BARTON & LOGUIDICE, D.P.C.
ON : SEPTEMBER 26, 2018

STATE OF NEW YORK
THOMAS C. BAIRD IV
LICENSED PROFESSIONAL ENGINEER
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BOICEVILLE BRIDGE OVER ESOPUS CREEK
ULSTER COUNTY

EROSION AND SEDIMENT CONTROL PLAN - 2
SCALE: 1:30
DATE ISSUED: 9/26/2018
DRAWING ESCP-2

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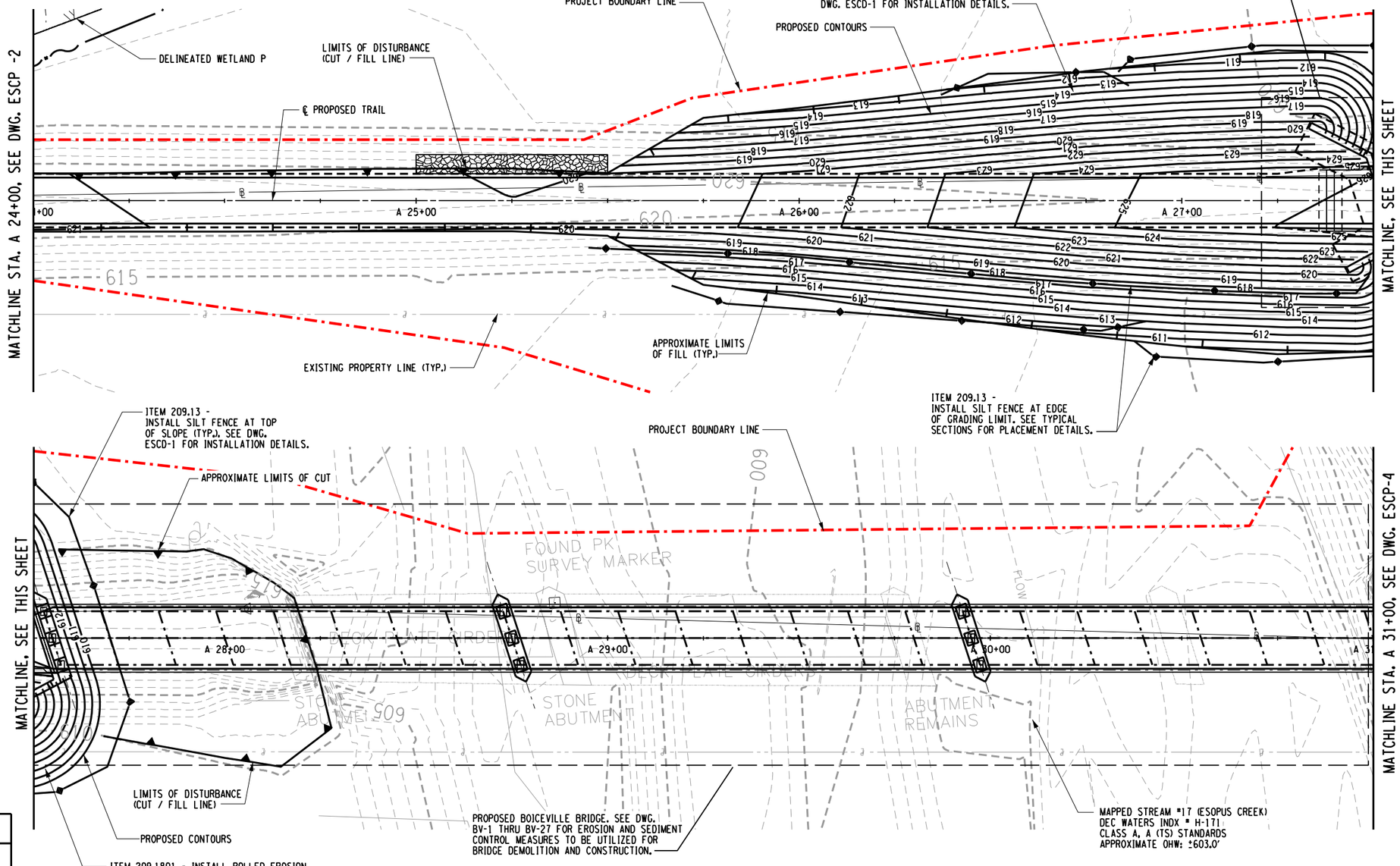

EROSION AND SEDIMENT CONTROL PLAN - STA. A 24+00 TO STA. A 31+00

PREPARED BY: BARTON & LOGUIDICE, D.P.C.
ON : SEPTEMBER 26, 2018

STATE OF NEW YORK
THOMAS C. BAIRD IV
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LICENSED PROFESSIONAL ENGINEER

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ASHOKAN RAIL TRAIL
BRIDGE REPLACEMENT
BOICEVILLE BRIDGE OVER ESOPUS CREEK
ULSTER COUNTY

EROSION SEDIMENT CONTOL PLAN-3
SCALE: 1 : 30
DATE ISSUED: 9/26/2018
DRAWING ESCP-3

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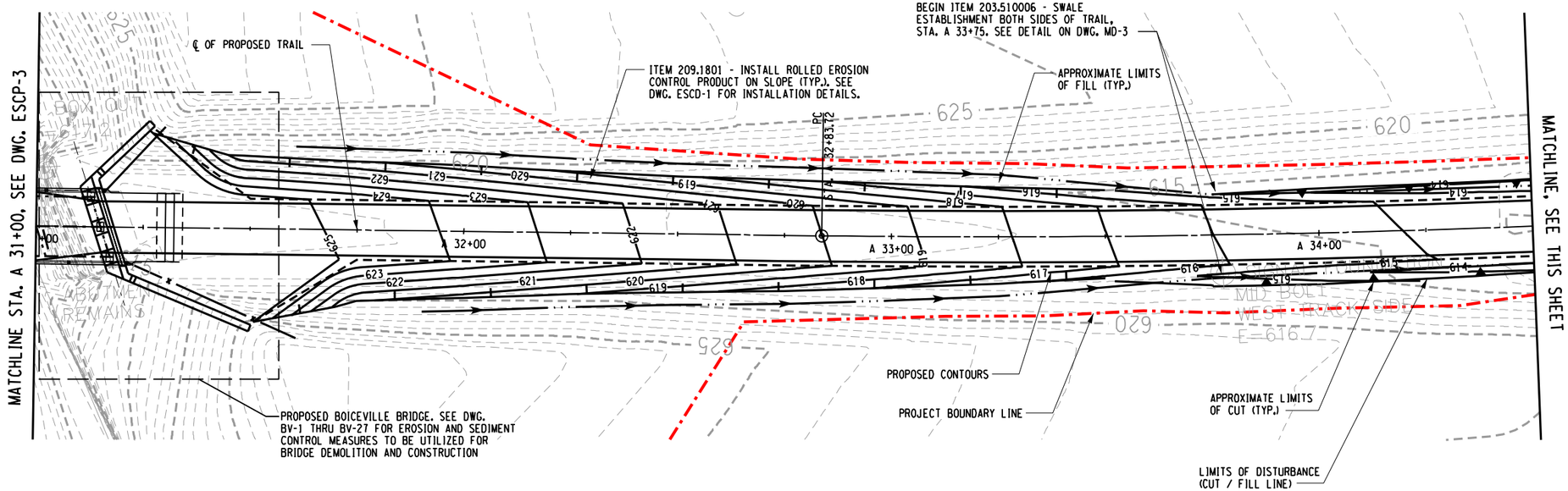

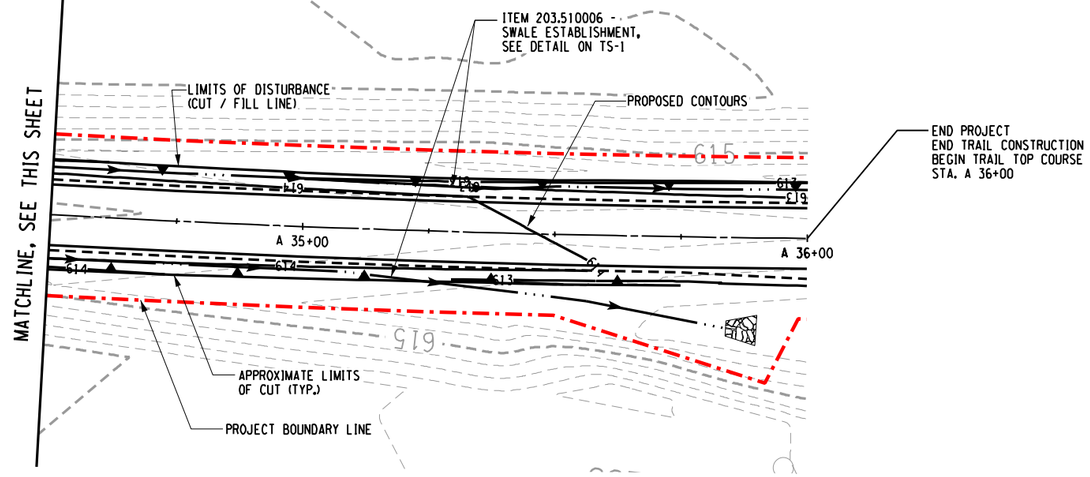

0 15 30
SCALE 1" = 30 FEET

PREPARED BY: BARTON & LOGUIDICE, D.P.C.
ON : SEPTEMBER 26, 2018

STATE OF NEW YORK
THOMAS C. BAIRD IV
074590
LICENSED PROFESSIONAL ENGINEER
EXCELSIOR

EROSION AND SEDIMENT CONTROL PLAN - STA. A 31+00 TO STA. A 36+00

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24
65

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ASHOKAN RAIL TRAIL
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BOICEVILLE BRIDGE OVER ESOPUS CREEK
ULSTER COUNTY

EROSION AND SEDIMENT CONTROL PLAN - 4
SCALE: 1 : 30
DATE ISSUED: 9/26/2018
DRAWING
ESCP-4

IN CHARGE OF TCB DESIGNED BY CMH CHECKED BY TCB DRAFTED BY CMH/JDH CHECKED BY CMH

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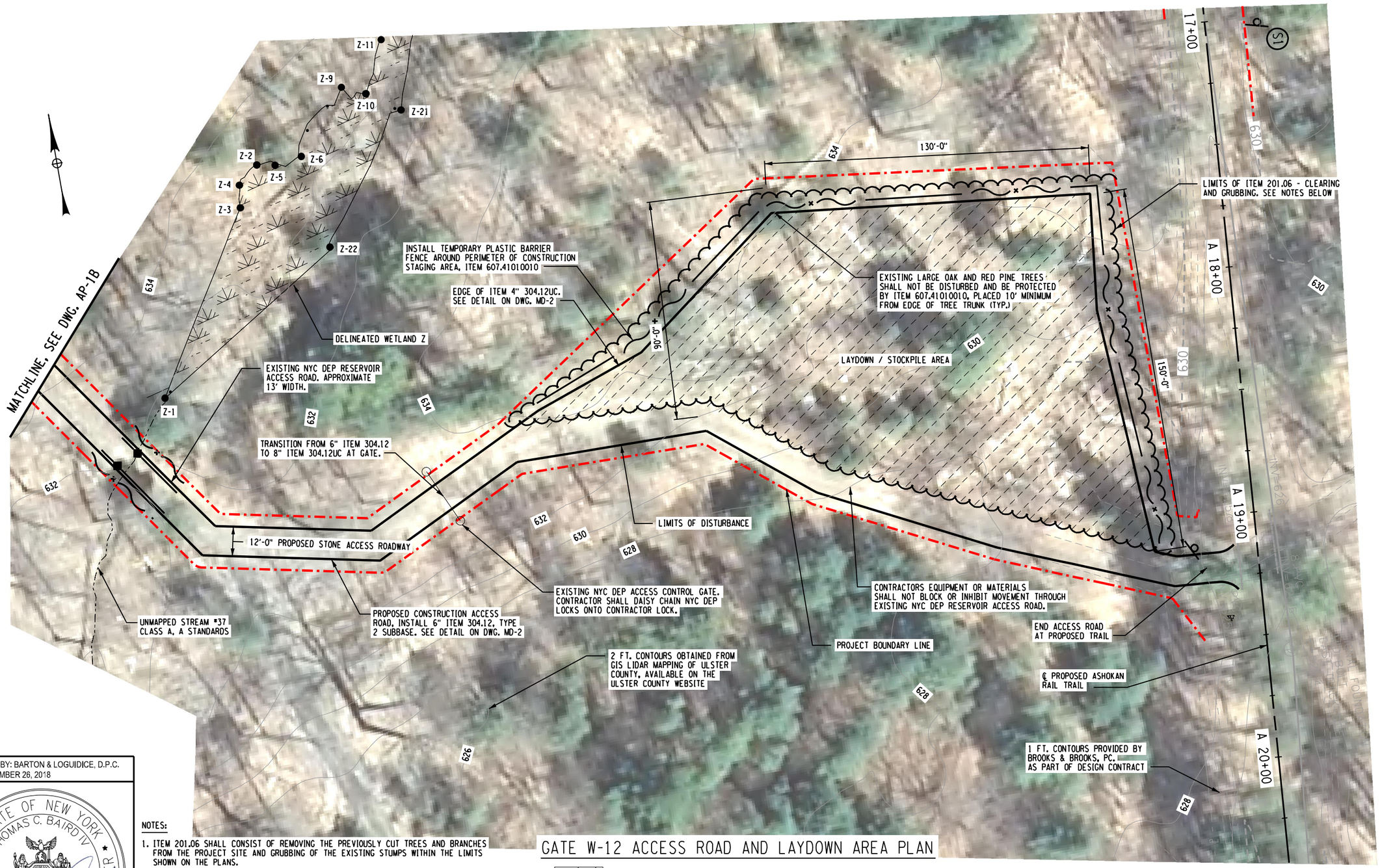

PREPARED BY: BARTON & LOGUIDICE, D.P.C.
ON : SEPTEMBER 26, 2018

STATE OF NEW YORK · THOMAS C. BAIRD IV · EXCELSIOR · 074590 · LICENSED PROFESSIONAL ENGINEER

NOTES:

1. ITEM 201.06 SHALL CONSIST OF REMOVING THE PREVIOUSLY CUT TREES AND BRANCHES FROM THE PROJECT SITE AND GRUBBING OF THE EXISTING STUMPS WITHIN THE LIMITS SHOWN ON THE PLANS.
2. NO LARGE OAK, OR RED PINE TREES MAY BE CUT OR FELLED AND SHALL BE SURROUNDED BY TEMPORARY CONSTRUCTION FENCING IF THEY ARE WITHIN THE LIMITS OF THE CONSTRUCTION STAGING AREA.
3. ITEM 201.06 SHALL ALSO INCLUDE ALL ADDITIONAL TREE CLEARING NECESSARY FOR THE CONTRACTORS MEANS AND METHODS TO CONSTRUCT THE BRIDGE. THIS MAY INCLUDE TREE REMOVAL TO WIDEN ACCESS ROUTES OR EXPAND THE STOCKPILE AND STAGING AREA. ALL TREE REMOVAL SHALL BE APPROVED BY THE ENGINEER PRIOR TO BEING CUT.

GATE W-12 ACCESS ROAD AND LAYDOWN AREA PLAN

MATERIAL STORAGE, LAYDOWN, OR STOCKPILING IN HATCHED AREAS ONLY.

0 25 50
1" = 40 FEET

SURVEY AND MAPPING PROVIDED BY:
BROOKS & BROOKS, PC
SURVEYING, PLANNING, GIS

NO.	DATE	BY	REVISION

Barton & Loguidice

ASHOKAN RAIL TRAIL
BRIDGE REPLACEMENT
BOICEVILLE BRIDGE OVER ESOPUS CREEK
ULSTER COUNTY

ACCESS ROAD PLAN - 1A

SCALE: 1:40
DATE ISSUED: 9/26/2018
DRAWING
AP-1A

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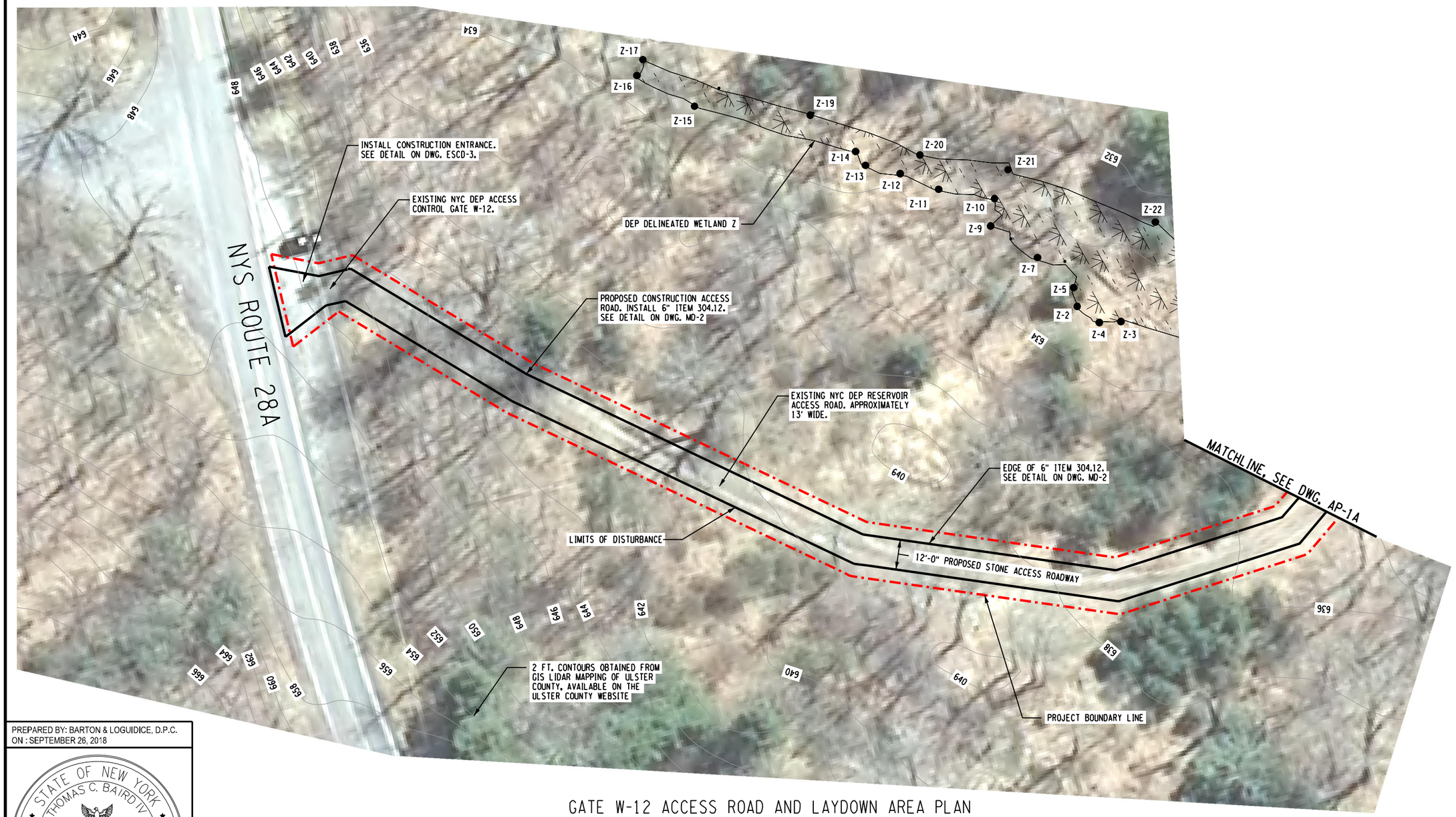

GATE W-12 ACCESS ROAD AND LAYDOWN AREA PLAN

0 25 50
1" = 40 FEET

SURVEY AND MAPPING PROVIDED BY:
BROOKS & BROOKS, PC
SURVEYING, PLANNING, GIS

PREPARED BY: BARTON & LOGUIDICE, D.P.C.
ON : SEPTEMBER 26, 2018

STATE OF NEW YORK
THOMAS C. BAIRDIV
EXCELSIOR
074590
LICENSED PROFESSIONAL ENGINEER

NO.	DATE	BY	REVISION

Barton & Loguidice

ASHOKAN RAIL TRAIL
BRIDGE REPLACEMENT
BOICEVILLE BRIDGE OVER ESOPUS CREEK
ULSTER COUNTY

ACCESS ROAD PLAN - 1B

SCALE: 1:40
DATE ISSUED: 9/26/2018
DRAWING AP-1B

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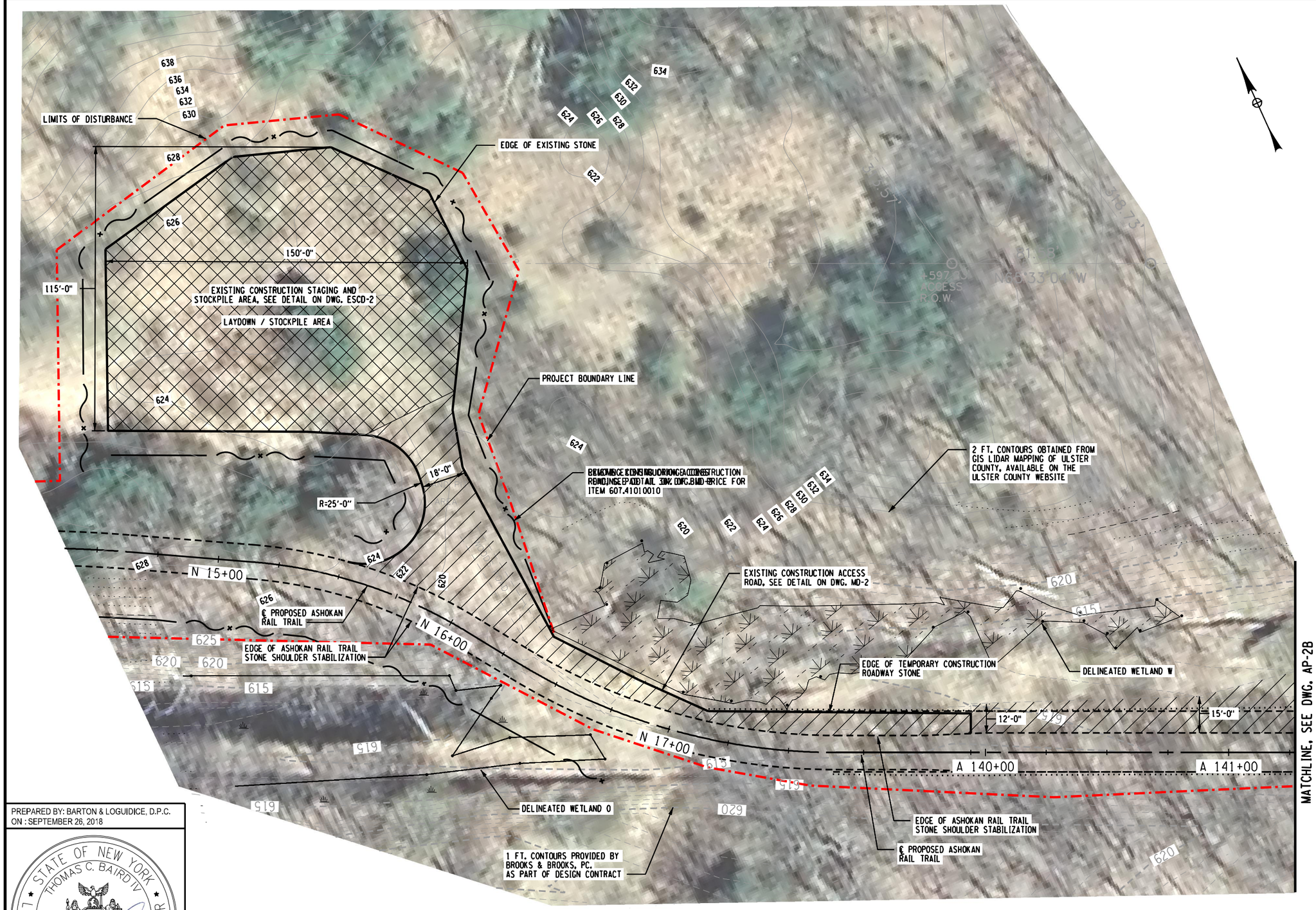

PREPARED BY: BARTON & LOGUIDICE, D.P.C.
ON : SEPTEMBER 26, 2018

STATE OF NEW YORK
THOMAS C. BAIRD IV
074590
LICENSED PROFESSIONAL ENGINEER
EXCELSIOR

GATE W-7 ACCESS ROAD AND LAYDOWN AREA PLAN

MATERIAL STORAGE, LAYDOWN, OR STOCKPILING IN SHADED AREAS ONLY. STONE AND GEOTEXTILE FABRIC SHALL BE REMOVED IN THESE AREAS POST CONSTRUCTION OF TRAIL TO EXPOSE UNDERLYING SOILS BELOW GEOTEXTILE FABRIC. REMOVAL OF STONE TO BE PAID FOR UNDER ITEM 203.02.

ALL STONE AND GEOTEXTILE FABRIC SHALL BE REMOVED FROM THE THE MATERIAL AND STOCKPILE AREA AND SHALL BE DEEP RIPPED TO A DEPTH OF 2' AFTER REMOVAL OF THE STONE AND GEOTEXTILE FABRIC. PAYMENT FOR STONE AND FABRIC REMOVAL AND DEEP RIPPING SHALL BE INCLUDED UNDER ITEM 203.02.

0 25 50
1" = 40 FEET

SURVEY AND MAPPING PROVIDED BY:
BROOKS & BROOKS, PC
SURVEYING, PLANNING, GIS

NO.	DATE	BY	REVISION

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ASHOKAN RAIL TRAIL
BRIDGE REPLACEMENT
BOICEVILLE BRIDGE OVER ESOPUS CREEK
ULSTER COUNTY

ACCESS ROAD PLAN - 2A R1

SCALE: 1:40
DATE ISSUED: 9/26/2018
DRAWING
AP-2A R1

GATE W-7 ACCESS ROAD AND LAYDOWN AREA PLAN

MATERIAL STORAGE, LAYDOWN, OR STOCKPILING IN SHADED AREAS ONLY. STONE AND GEOTEXTILE FABRIC SHALL BE REMOVED IN THESE AREAS POST CONSTRUCTION OF TRAIL TO EXPOSE UNDERLYING SOILS BELOW GEOTEXTILE FABRIC. REMOVAL OF STONE TO BE PAID FOR UNDER ITEM 203.02.

0 25 50
1" = 40 FEET

SURVEY AND MAPPING PROVIDED BY:
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SURVEYING, PLANNING, GIS

PREPARED BY: BARTON & LOGUIDICE, D.P.C.
ON : SEPTEMBER 26, 2018

STATE OF NEW YORK
THOMAS C. BAIRD IV
074590
LICENSED PROFESSIONAL ENGINEER
EXCELSIOR
2017

NO.	DATE	BY	REVISION

Barton & Loguidice

ASHOKAN RAIL TRAIL
BRIDGE REPLACEMENT
BOICEVILLE BRIDGE OVER ESOPUS CREEK
ULSTER COUNTY

ACCESS ROAD PLAN - 2B

SCALE: 1:40
DATE ISSUED: 9/26/2018
DRAWING AP-2B

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IN CHARGE OF TCB

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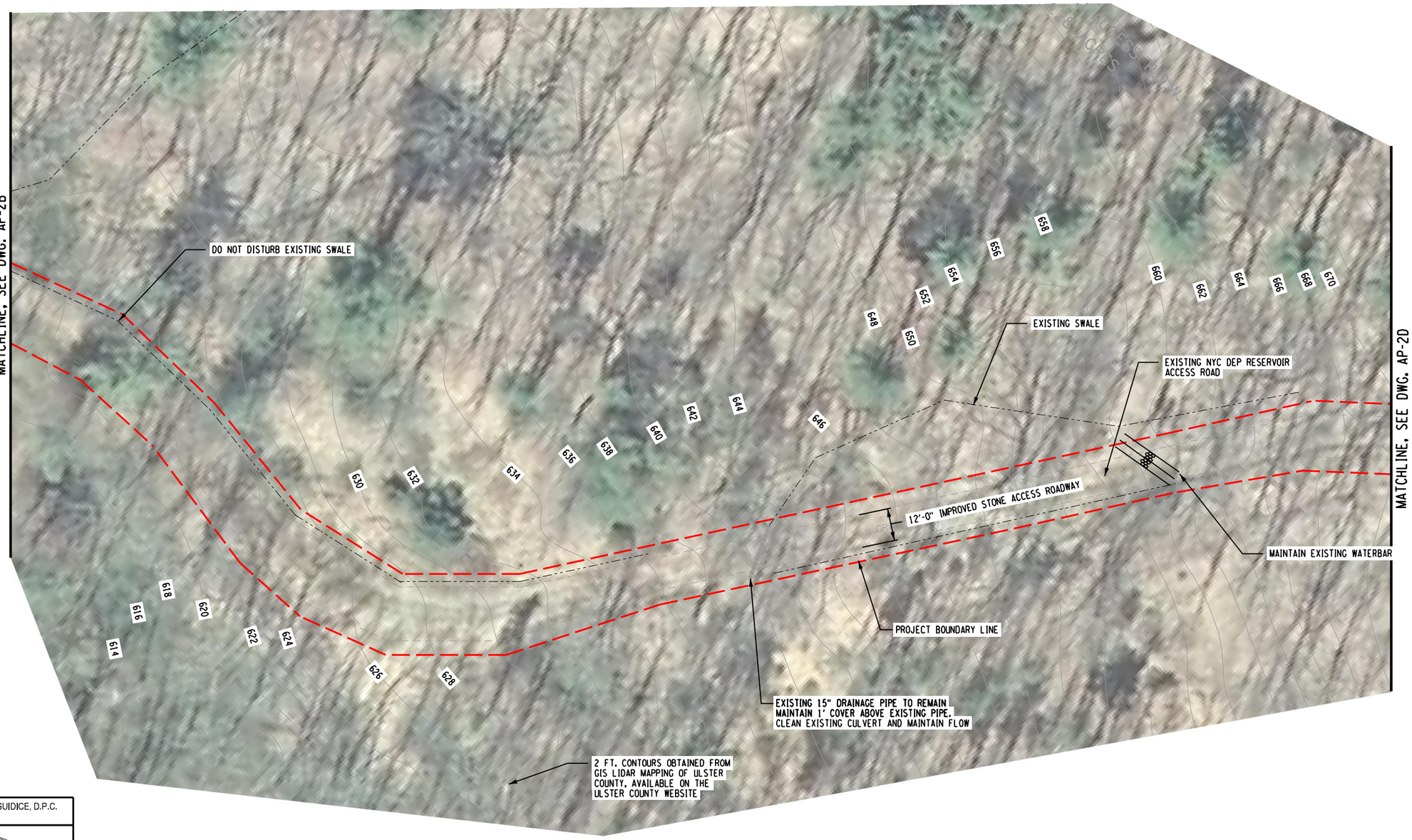

GATE W-7 ACCESS ROAD AND LAYDOWN AREA PLAN

0 25 50
1" = 40 FEET

SURVEY AND MAPPING PROVIDED BY:
BROOKS & BROOKS, PC
SURVEYING, PLANNING, GIS

PREPARED BY: BARTON & LOGUIDICE, D.P.C.
ON : SEPTEMBER 26, 2018

STATE OF NEW YORK
THOMAS C. BAIRD IV
074590
LICENSED PROFESSIONAL ENGINEER

NO.	DATE	BY	REVISION

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ASHOKAN RAIL TRAIL
BRIDGE REPLACEMENT
BOICEVILLE BRIDGE OVER ESOPUS CREEK
ULSTER COUNTY

ACCESS ROAD PLAN - 2C

SCALE: 1:40
DATE ISSUED: 9/26/2018
DRAWING AP-2C

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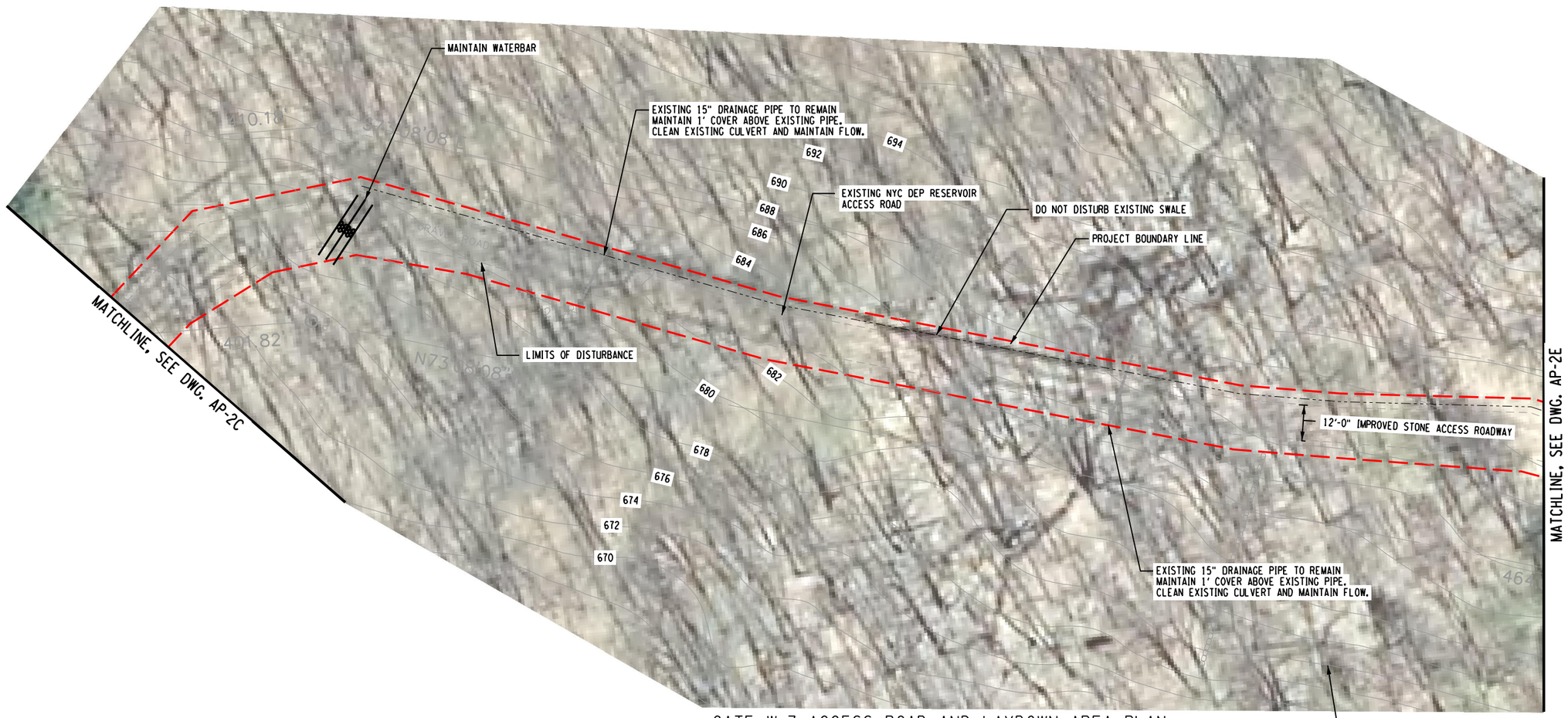

GATE W-7 ACCESS ROAD AND LAYDOWN AREA PLAN

SURVEY AND MAPPING PROVIDED BY:

BROOKS & BROOKS, PC
SURVEYING, PLANNING, GIS

PREPARED BY: BARTON & LOGUIDICE, D.P.C.
ON : SEPTEMBER 26, 2018

STATE OF NEW YORK
THOMAS C. BAIRD IV
LICENSED PROFESSIONAL ENGINEER
074590
EXCELSIOR

NO.	DATE	BY	REVISION

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ULSTER COUNTY

ASHOKAN RAIL TRAIL
BRIDGE REPLACEMENT
BOICEVILLE BRIDGE
OVER ESOPUS CREEK
ULSTER COUNTY

ACCESS ROAD
PLAN - 2D

SCALE: 1:40
DATE ISSUED: 9/26/2018
DRAWING
AP-2D

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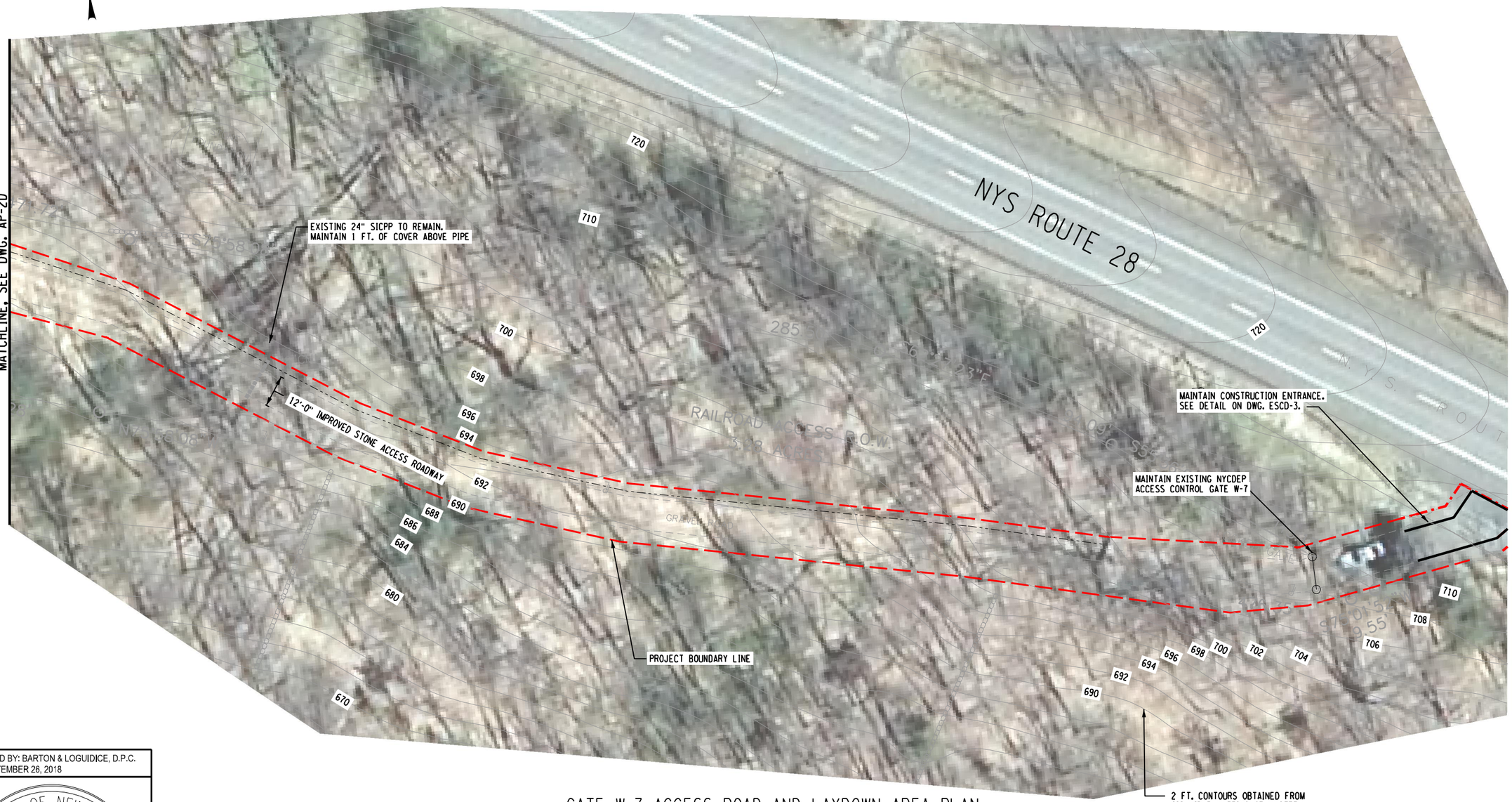

GATE W-7 ACCESS ROAD AND LAYDOWN AREA PLAN

2 FT. CONTOURS OBTAINED FROM GIS LIDAR MAPPING OF ULSTER COUNTY, AVAILABLE ON THE ULSTER COUNTY WEBSITE

0 25 50
1" = 40 FEET

SURVEY AND MAPPING PROVIDED BY:
BROOKS & BROOKS, PC
SURVEYING, PLANNING, GIS

PREPARED BY: BARTON & LOGUIDICE, D.P.C.
ON : SEPTEMBER 26, 2018

STATE OF NEW YORK
THOMAS C. BAIRD IV
LICENSED PROFESSIONAL ENGINEER
074590
EXCELSIOR

NO.	DATE	BY	REVISION

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ASHOKAN RAIL TRAIL
BRIDGE REPLACEMENT
BOICEVILLE BRIDGE OVER ESOPUS CREEK
ULSTER COUNTY

ACCESS ROAD PLAN - 2E

SCALE: 1:40
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BRIDGE NOTES:

DESIGN SPECIFICATIONS: NEW YORK STATE DEPARTMENT OF TRANSPORTATION LRFD BRIDGE DESIGN SPECIFICATIONS WITH ALL PROVISIONS IN EFFECT AS OF FEBRUARY 2017. (FOR DESIGN PURPOSES, COMPRESSIVE STRENGTH OF CONCRETE FOR SUBSTRUCTURES AND DECK SLABS AT 28 DAYS: 3 ksi)

LIVE LOAD: 90PSF PEDESTRIAN LOAD, H-20 SERVICE VEHICLE
CONSTRUCTION LIVE LOAD: SINGLE 32.5 TON VEHICLE

CONSTRUCTION AND MATERIALS SPECIFICATIONS: STANDARD SPECIFICATIONS, CONSTRUCTION AND MATERIALS, NEW YORK STATE DEPARTMENT OF TRANSPORTATION, OFFICE OF ENGINEERING, DATED JANUARY 1, 2018 WITH CURRENT ADDITIONS AND MODIFICATIONS.

WATER USED FOR COMPACTION OF SELECT FILL ITEMS SHALL COMPLY WITH THE SPECIFICATIONS FOR ITEM 203.21. THE COST OF WATER USED FOR COMPACTION OF SELECT FILL ITEMS SHALL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 203.21.

THE COST OF ALL JOINT MATERIAL SHALL BE INCLUDED IN THE UNIT BID PRICE FOR THE VARIOUS ITEMS OF THE CONTRACT, UNLESS OTHERWISE SPECIFIED ON THE PLANS.

ALL SHOP DRAWINGS FOR THIS PROJECT SHALL BE IN US CUSTOMARY UNITS.

DETAILS ON THE DRAWINGS LABELED "NOT TO SCALE" ARE INTENTIONALLY DRAWN NOT TO SCALE FOR VISUAL CLARITY. ALL OTHER DETAILS FOR WHICH NO SCALE IS SHOWN ARE DRAWN PROPORTIONAL AND ARE FULLY DIMENSIONED.

WORK TO BE PERFORMED UNDER THIS CONTRACT DOES NOT REQUIRE THE DISTURBING, DESTRUCTION OR REMOVAL OF ANY KNOWN MATERIALS CONTAINING ASBESTOS. UNLESS OTHERWISE INDICATED ON THE PLANS, IT IS THE EXPRESS INTENT OF THIS CONTRACT THAT THESE MATERIALS NOT BE DISTURBED IN ANY WAY. SHOULD THE CONTRACTOR BE FORCED TO DISTURB IN ANY WAY ANY SUCH MATERIALS, THE CONTRACTOR SHALL FIRST BE FAMILIAR WITH INDUSTRIAL CODE RULE 56 OF THE N.Y.S. DEPARTMENT OF LABOR. THE CONTRACTOR SHALL ALSO OBTAIN WRITTEN PERMISSION OF THE ENGINEER BEFORE PROCEEDING.

THE LOAD RATINGS ARE IN ACCORDANCE WITH THE AASHTO MANUAL FOR BRIDGE EVALUATION.

DIMENSIONS FOR THICKNESSES OF STEEL ROLLED ANGLE SHAPES AND STRUCTURAL TUBING ARE SHOWN ACCORDING TO THE CURRENT AISC MANUAL.

REMOVAL NOTES:

EXISTING SUPERSTRUCTURE SHALL BE REMOVED UNDER ITEM 202.120001.

EXISTING SUBSTRUCTURES SHALL BE REMOVED WITHIN THE LIMITS SHOWN ON THE CONTRACT PLANS UNDER ITEM 202.19
THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE REQUIREMENTS OF SUBSECTION 202-03.01 GENERAL SAFETY REQUIREMENTS. A REMOVAL PLAN SIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF NEW YORK SHALL BE SUBMITTED TO THE ENGINEER THIRTY (30) DAYS PRIOR TO BEGINNING THE DEMOLITION.

THE FOLLOWING ITEMS SHALL BE USED TO IMPLEMENT AND MAINTAIN EFFECTIVE HEALTH AND SAFETY CONTROLS:

- ENVIRONMENTAL GROUND PROTECTION (ITEM 570.090001)
- ENVIRONMENTAL WATERWAY PROTECTION (ITEM 570.100001)

REFER TO SUBSECTION 107-05 OF THE STANDARD SPECIFICATIONS FOR SAFETY AND HEALTH REQUIREMENTS.

SUBSTRUCTURE NOTES:

ALL PLACEMENTS OF SELECT STRUCTURE FILL, ITEM 203.21, SHALL BE COMPACTED TO 95 PERCENT OF STANDARD PROCTOR MAXIMUM DENSITY.

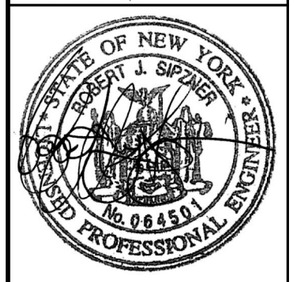
TRAILWAY EMBANKMENT MATERIAL AND SELECT STRUCTURE FILL, ITEM 203.21, SHALL BE PLACED SIMULTANEOUSLY, IN CONTACT, ON BOTH SIDES OF THE VERTICAL DIFFERENTIATION LINE BETWEEN ITEMS.

THE CONTRACTOR, WITH THE PERMISSION OF THE ENGINEER, MAY ELECT TO INTRODUCE CONSTRUCTION JOINTS IN THE ABUTMENTS AT LOCATIONS NOT SHOWN ON THE PLANS. THESE CONSTRUCTION JOINTS SHALL BE PROVIDED WITH SHEAR KEYS AND WATERSTOPS. VERTICAL CONSTRUCTION JOINTS INTRODUCED IN THE BACKWALL SHOULD PREFERABLY BE PLACED MIDWAY BETWEEN THE PEDESTALS.

BRIDGE RAILING NOTES:

THE CONTRACTOR SHALL SUBMIT FABRICATION SHOP DRAWINGS FOR THE PROPOSED BRIDGE RAILING TO THE DESIGN ENGINEER FOR APPROVAL. THE CONTRACTOR SHOULD BE AWARE OF THE CUSTOM AESTHETIC ASPECTS OF THE RAILING SHOWN ON THE CONTRACT DRAWINGS AND SHALL ADJUST THE UNIT BID PRICE ACCORDINGLY FOR ALL ASSOCIATED ITEMS.

PREPARED BY: BARTON & LOGUIDICE, D.P.C.
ON : SEPTEMBER 26, 2018



SUPERSTRUCTURE NOTES:

NO DEVIATIONS FROM THE HAUNCH DETAILS SHOWN ON THESE PLANS MAY BE MADE WITHOUT THE PERMISSION OF THE ENGINEER.

THE STRUCTURAL STEEL SHALL BE AS FOLLOWS:

ASTM A 709, GRADE 50W (GIRDERS)
ASTM A 709, GRADE 50, GRADE 50 (GALVANIZED)

THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE PROVISIONS OF THE CURRENT SPECIFICATIONS FOR SUPERSTRUCTURE SLABS, WHICH ALLOW THE OPTION OF 3 FORMING SYSTEMS FOR THE UNDERSIDE OF THE SLABS. HOWEVER, ON THIS BRIDGE, ONLY THE FOLLOWING OPTION(S) WILL BE PERMITTED: PERMANENT CORRUGATED METAL AND REMOVABLE WOODEN FORMS.

FOR THE VARIOUS LUMP SUM STRUCTURAL STEEL ITEMS IN THE CONTRACT, THE "TOTAL WEIGHT FOR PROGRESS PAYMENT" IS AS FOLLOWS:

ITEM 564.0501 - 230,000 POUNDS

THIS WEIGHT SHALL BE USED IN DETERMINING PARTIAL PAYMENTS AND PROGRESS. UNDER NO CIRCUMSTANCES SHALL THE "TOTAL WEIGHT FOR PROGRESS PAYMENT" BE USED FOR FINAL PAYMENT PURPOSES. THE CONTRACTOR IS ADVISED NOT TO USE THE "TOTAL WEIGHT FOR PROGRESS PAYMENT" AS A BIDDING TOOL. DISCREPANCIES WHICH MAY OCCUR BETWEEN THE TOTAL WEIGHT SHIPPED AND "TOTAL WEIGHT FOR PROGRESS PAYMENT" SHALL NOT BE A BASIS FOR ADDITIONAL COMPENSATION.

THE COST OF CLEANING THE STEEL IN THE FABRICATION SHOP AND THE FIELD SHALL BE INCLUDED IN THE UNIT PRICES BID FOR THE VARIOUS ITEMS IN THE CONTRACT.

THE STRUCTURAL STEEL FOR THE BOICEVILLE BRIDGE SHALL BE PARTIALLY PAINTED. FINISH COAT COLOR SHALL MATCH FEDERAL COLOR STANDARD 595, #20059. VIEWING SHALL BE DONE UNDER NORTH STANDARD DAYLIGHT. THE FOLLOWING PORTIONS OF THE STEEL SHALL BE PAINTED: ALL EXPOSED SURFACES OF THE GIRDERS INCLUDING ANY STIFFENERS OR CONNECTION PLATES FOR THE LOCATIONS SHOWN ON BV-19.

STEEL ERECTION NOTES:

THE CONTRACTOR SHALL PROVIDE FOR THE STABILITY OF STRUCTURAL STEEL DURING ALL PHASES OF ERECTION AND CONSTRUCTION, AS PROVIDED IN SUBSECTION 204 OF THE NEW YORK STATE STEEL CONSTRUCTION MANUAL (SCM). THE GIRDERS ON THIS BRIDGE SHALL BE STABILIZED DURING ERECTION BY USE OF FALSEWORK, TEMPORARY BRACING, COMPRESSION FLANGE STIFFENING TRUSSES, CHOOSING ALTERNATE PICKING POINTS, OR BY USE OF A HOLDING CRANE UNTIL SUFFICIENT NUMBER OF GIRDERS HAVE BEEN ERECTED AND CROSS FRAMES INSTALLED. THE METHODS USED BY THE CONTRACTOR SHALL BE DOCUMENTED ON THE ERECTION DRAWINGS WITH ALL SUPPORTING STABILITY CALCULATIONS SUBMITTED AND STAMPED BY A LICENSED NEW YORK STATE PROFESSIONAL ENGINEER AND SUBMITTED TO THE ENGINEER IN ACCORDANCE WITH THE SCM.

THE DESIGN OF THIS STRUCTURE ASSUMES THAT THE STRUCTURAL STEEL IS COMPLETELY ERECTED BEFORE IT IS ALLOWED TO DEFLECT UNDER ITS OWN DEAD LOAD. DEFLECTIONS INCURRED DURING THE VARIOUS STAGES OF THE ERECTION METHOD ARE NOT CONSIDERED. THEREFORE, THE ACTUAL ERECTION METHODS AND SEQUENCES EMPLOYED BY THE CONTRACTOR MAY HAVE A SUBSTANTIAL EFFECT ON THE FINAL STEEL PROFILE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TAKING ALL NECESSARY COMPENSATORY ACTION TO ENSURE THAT THE FINAL ALIGNMENT AND PROFILE OF ERECTED STEEL CONFORMS TO SUBSECTION 1213, 1214, AND 1215 OF THE SCM. ANY CORRECTIVE WORK NECESSARY TO RE-POSITION ERECTED STEEL TO ACHIEVE ACCEPTABLE ALIGNMENT AND PROFILE MUST BE APPROVED BY THE ENGINEER, AND SHALL BE PERFORMED AT NO ADDITIONAL COST TO THE OWNER.

IF THE CONTRACTOR ELECTS TO MOVE THE SPLICE LOCATION SHOWN OF THE PLANS, IT IS THE CONTRACTOR'S RESPONSIBILITY TO HAVE A NEW YORK STATE LICENSED PROFESSIONAL ENGINEER REDESIGN THE SPLICE. COST OF REDESIGN TO BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 564.0501.

DECK PLACEMENT NOTES:

CONCRETE PLACEMENT AND FINISHING OPERATIONS SHALL BE PERFORMED AS RAPIDLY AS POSSIBLE. THE ENGINEER MAY ORDER THE CONTRACTOR TO STOP PLACEMENT OPERATIONS AT ANY TIME IF, IN THE ENGINEER'S OPINION, CONCRETE PLACED DURING THE PLACEMENT HAS STARTED TO SET, OR IS ABOUT TO SET, AND FURTHER PLACEMENT OF CONCRETE WILL CAUSE DEFLECTION CRACKING.

TOP SURFACES OF NEW BRIDGE DECKS AND APPROACH SLABS SHALL BE SEALED ACCORDING TO ITEM 559.18960118 - PROTECTIVE SEALING OF STRUCTURAL CONCRETE ON NEW BRIDGE DECKS AND BRIDGE DECK OVERLAYS.

PLACEMENT OF THE BRIDGE DECK SLAB SHALL NOT OCCUR WHEN THE AMBIENT TEMPERATURE FALLS BELOW 45 DEGREES FAHRENHEIT.

FINISHING MACHINE(S) SHALL OPERATE AS CLOSE TO THE SKEW ANGLE AS PRACTICAL FOR SKEWS BETWEEN 0° AND 50°. WHEN SKEW ANGLE IS GREATER THAN 50° THE FINISHING MACHINE(S) SHALL OPERATE AT AN ANGLE OF 50°.

WET BURLAP CURING BLANKETS ARE REQUIRED TO BE PLACED ON THE CONCRETE DECK WITHIN 30 MINUTES OF THE CONCRETE BEING DEPOSITED INTO THE FORMS OR 5 MINUTES AFTER FINISHING, WHICHEVER COMES FIRST. THE PLACEMENT OF THE TURF DRAG TEXTURE SHALL NOT INTERFERE WITH THESE REQUIREMENTS.

IN THE EVENT THE CONTRACTOR'S DECK PLACEMENT OPERATION IS STOPPED PRIOR TO COMPLETION, WHETHER BY THE CONTRACTOR'S OWN DECISION OR BY ORDER OF THE ENGINEER, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A FINISHED DECK GRADE WHICH MATCHES THE PLANNED PROFILE. ANY SUBSEQUENT REVISIONS TO DECK FORMS MADE NECESSARY BY SUCH ACTION SHALL BE AT THE CONTRACTOR'S EXPENSE.

THE CONTRACTOR SHALL PROVIDE TO THE ENGINEER THE PROPOSED SET RETARDING ADMIXTURE (ASTM C494, TYPE D, SRWR) AND A COPY OF THE MANUFACTURER'S LITERATURE SPECIFYING THE RECOMMENDED RANGE TO PROVIDE SUFFICIENT RETARDATION. THIS SRWR DOSAGE SHALL NOT BE REDUCED AS THE PLACEMENT PROGRESSES. THE ENGINEER WILL REJECT ANY CONCRETE TRUCK THAT CALLS FOR AN ADMIXTURE DOSAGE RATE BEYOND THE MANUFACTURER'S RECOMMENDED RANGE. ANY SUPPLIER CODES DENOTING SRWR SHALL BE GIVEN TO THE ENGINEER FOR MONITORING PURPOSES.

THE CONTRACTOR SHALL ENSURE THAT CONCRETE PLACED DURING ANY RESPECTIVE POURING SEQUENCE DOES NOT BEGIN TO SET UNTIL ALL CONCRETE TO BE PLACED IN THAT CORRESPONDING POUR HAS BEEN PLACED.

DECK PLACEMENT NOTES (CONT.):

THE CONCRETE DECK SLAB FOR THIS STRUCTURE SHALL BE PLACED ACCORDING TO THE POURING SEQUENCE SHOWN ON THE CONTRACT PLANS, REQUESTS FOR ANY ALTERNATE DECK POURING SEQUENCE SHALL BE SUBMITTED TO THE DESIGN ENGINEER FOR APPROVAL. IF AN ALTERNATE SEQUENCE IS PROPOSED, NO RELATED WORK MAY BE PROGRESSED BY THE CONTRACTOR UNTIL THE WRITTEN APPROVAL OF THE DESIGN ENGINEER IS OBTAINED.

CONSTRUCTION JOINTS SHALL BE PLACED PARALLEL TO THE SKEW ANGLE. DECK CONCRETE SHALL BE PLACED SO THAT THE LEADING EDGE PARALLELS THE SKEW. FINISHING MACHINE(S) SHALL BE OPERATED AS CLOSE TO THE SKEW ANGLE AS PRACTICABLE. TEXTURING MAY BE DONE LONGITUDINAL, TRANSVERSE OR PARALLEL TO THE ALIGNMENT OF THE FINISHING MACHINE.

ALL AREAS SHOWN ON THE PLANS AS "PLACEMENT 1" MUST BE PLACED DURING THE INITIAL CONTINUOUS WORK PERIOD. SUBSEQUENT PLACEMENTS (CONTINUOUS PLACEMENTS) WILL NOT BE PERMITTED UNTIL 72 HOURS OF ACCEPTABLE CURING AFTER COMPLETION OF THE PREVIOUS PLACEMENT.

THE CONTRACTOR MAY DIVIDE PLACEMENT 2 INTO SEPERATE SEGMENTS PROVIDED THE 72 HOUR WAITING PERIOD BETWEEN PLACEMENTS IS OBSERVED.

A CONCRETE PENETRATING STAIN SHALL BE APPLIED IN THE FIELD AFTER CASTING OF THE ENTIRE BRIDGE DECK. THE FINAL COLORATION OF CONCRETE AFTER STAINING SHALL BE FEDERAL COLOR STANDARD 595, #35237. THE COLOR SHALL BE EQUIVALENT TO THE COLOR OF THE STAIN USED ON THE SUBSTRUCTURES. SEE THE SUBSTRUCTURE ARCHITECTURAL TREATMENT NOTES FOR ALL REQUIREMENTS PERTAINING TO CONCRETE STAINING. THE CONCRETE STAIN SHALL BE APPLIED PRIOR TO THE APPLICATION OF ITEM 559.18960118 - PROTECTIVE SEALING OF STRUCTURAL CONCRETE ON NEW BRIDGE DECKS AND OVERLAYS. NO COLOR ADDITIVE IS REQUIRED IN THE CONCRETE MIX.

THE COST OF THE DECK CONTERE STAIN SHALL BE INCLUDED IN THE DECK CONCRETE ITEM NUMBER.

RECONSTRUCTION NOTES:

THE CONTRACTOR SHALL PERFORM ALL WORK WITH CARE SO THAT ANY MATERIALS WHICH ARE TO REMAIN IN PLACE, OR WHICH ARE TO REMAIN THE PROPERTY OF THE OWNER, OR ADJACENT PROPERTY OWNERS WILL NOT BE DAMAGED. IF THE CONTRACTOR DAMAGES ANY MATERIALS WHICH ARE TO REMAIN IN PLACE, OR WHICH ARE TO REMAIN THE PROPERTY OF THE OWNER, OR ADJACENET PROPERTY OWNERS. THE DAMAGED MATERIALS SHALL BE REPAIRED OR REPLACED IN A MANNER SATISFACTORY TO THE OWNER AT THE EXPENSE OF THE CONTRACTOR.

WHENEVER ITEMS IN THE CONTRACT REQUIRE MATERIALS TO BE REMOVED AND DISPOSED OF, THE COST OF SUPPLYING A DISPOSAL AREA AND TRANSPORTATION TO THAT AREA SHALL BE INCLUDED IN THE UNIT BID PRICES FOR THOSE ITEMS.

DURING REMOVAL OPERATIONS, THE CONTRACTOR SHALL NOT BE ALLOWED TO DROP WASTE CONCRETE, DEBRIS AND OTHER MATERIAL TO THE AREA BELOW THE BRIDGE EXCEPT WHERE THE PLANS SPECIFICALLY PERMIT THE DROPPING OF MATERIAL. PLATFORMS, NETS, SCREENS OR OTHER PROTECTIVE DEVICES SHALL BE USED TO CATCH THE MATERIAL. IF THE ENGINEER DETERMINES THAT ADEQUATE PROTECTIVE DEVICES ARE NOT BEING EMPLOYED, THE WORK SHALL BE SUSPENDED UNTIL ADEQUATE PROTECTION IS PROVIDED.

ALL MATERIAL FALLING ON THE AREA BELOW AND ADJACENT TO THE BRIDGE SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AT NO COST TO THE OWNER.

THE COST OF FURNISHING, INSTALLING, MAINTAINING, REMOVING AND DISPOSING OF ALL PLATFORMS, NETS, SCREENS OR OTHER PROTECTIVE DEVICES SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE APPROPRIATE ITEMS OF THE CONTRACT.

THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE FACT THAT, DUE TO THE NATURE OF RECONSTRUCTION PROJECTS, THE EXACT EXTENT OF RECONSTRUCTION WORK CANNOT ALWAYS BE ACCURATELY DETERMINED PRIOR TO THE COMMENCEMENT OF WORK. THESE CONTRACT DOCUMENTS HAVE BEEN PREPARED BASED ON FIELD INSPECTION AND OTHER INFORMATION AVAILABLE AT THE TIME. ACTUAL FIELD CONDITIONS MAY REQUIRE MODIFICATIONS TO THE CONSTRUCTION DETAILS AND WORK QUANTITIES. THE CONTRACTOR SHALL PERFORM WORK IN ACCORDANCE WITH FIELD CONDITIONS.

CONTRACTOR SHALL VERIFY DIMENSIONS NECESSARY FOR THE PROPER FIT OF STEEL PIECES PRIOR TO THE FABRICATION OF THE STEEL. THE COST OF FIELD VERIFYING DIMENSIONS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR STRUCTURAL STEEL ITEMS.

IF THE STRUCTURE HAS A BRIDGE IDENTIFICATION NUMBER (B.I.N.) PLATE ATTACHED, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROTECT IT DURING CONSTRUCTION OR REMOVE AND REMOUNT IT OR A NEW PLATE (NO DIRECT PAYMENT) AFTER CONSTRUCTION IS COMPLETED.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM THE FOLLOWING DIMENSIONS IN THE FIELD PRIOR TO THE FABRICATION OF NEW SUPERSTRUCTURE COMPONENTS: EXISTING SPAN LENGTHS (CHECK AT MULTIPLE APPROPRIATE POINTS IF SUBSTRUCTURES ARE NONPARALLEL)

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM THE TOP OF ABUTMENT AND PIER ELEVATIONS PRIOR TO CASTING THE NEW PEDESTALS AND/OR INSTALLING THE NEW BEARINGS.

STREAM PROTECTION NOTES:

DURING THE COURSE OF CONSTRUCTION, THE CONTRACTOR SHALL CONDUCT OPERATIONS IN SUCH A MANNER AS TO PREVENT OR REDUCE TO A MINIMUM ANY DAMAGE TO ANY STREAM FROM POLLUTION BY DEBRIS, SEDIMENT, OR OTHER FOREIGN MATERIAL, OR FROM MANIPULATION OF EQUIPMENT AND/OR MATERIALS IN OR NEAR SUCH STREAMS. THE CONTRACTOR SHALL NOT RETURN DIRECTLY TO A STREAM ANY WATER, WHICH HAS BEEN USED FOR WASH PURPOSES OR OTHER SIMILAR OPERATIONS, WHICH CAUSE THIS WATER TO BECOME POLLUTED WITH SAND, SILT, CEMENT, OIL, OR OTHER IMPURITIES..

ALL IN-STREAM ACTIVITIES ARE PROHIBITED DURING THE ESTABLISHED NYSDEC TROUT SPAWNING AND HATCHING PERIOD COMMENCING OCTOBER 1 AND ENDING APRIL 30.

COFFERDAM NOTES:

SHOULD THE CONTRACTOR ELECT TO LAY BACK A PORTION OF THE EXISTING EARTH ADJACENT TO AN EXCAVATION REQUIRING A COFFERDAM, ANY REQUIRED EXTENSIONS OF THE COFFERDAM NECESSARY TO KEEP WATER FROM ENTERING THE EXCAVATION SHALL BE FURNISHED AND PLACED AT NO COST TO THE COUNTY.

WHERE A COFFERDAM IS USED, THE COST OF DEWATERING THE ENTIRE EXCAVATION, REGARDLESS OF SOURCE OF WATER, SHALL BE INCLUDED IN THE COFFERDAM ITEM.

COFFERDAM NOTES (CONT.):

SHOULD FIELD CONDITIONS REQUIRE A CHANGE IN THE TYPE OF COFFERDAM SYSTEM CALLED FOR ON THE PLANS, THE CONTRACTOR SHALL CONTACT THE ENGINEER FOR COORDINATION WITH THE APPROPRIATE AGENCIES TO APPROVE THE CHANGE.

IF MULTIPLE COFFERDAMS ARE REPLACED BY A SINGLE SYSTEM, AS PERMITTED BY THE ENGINEER, PAYMENT SHALL BE BASED ON ALL OF THE APPLICABLE COFFERDAM ITEMS INDICATED ON THE PLANS.

DEWATERING OF THE COFFERDAM SHALL BE ACCOMPLISHED BY PUMPING THE WATER TO AN APPROVED UPLAND VEGETATED AREA OUTSIDE OF THE STREAMBED AS APPROVED BY THE ENGINEER. TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL, SUCH AS STRAW BALES, OR APPROVED EQUAL, MAY BE REQUIRED AS DETERMINED BY THE ENGINEER. NO SETTLEMENT BASIN SHALL BE CONSTRUCTED.

ANY WATER, EITHER DIVERTED OR PUMPED FROM THE STRUCTURE EXCAVATION, THAT IS TO BE RETURNED TO THE WATERWAY SHALL NOT BE MORE TURBID THAN THE WATER UPSTREAM OF THE PROJECT.

WATER THAT IS MORE TURBID SHALL BE TREATED BY MEANS OF A SETTLEMENT TRAP OF ADEQUATE SIZE TO RETURN WATER QUALITY TO ACCEPTABLE LEVELS, COST TO BE INCLUDED IN THE COFFERDAM ITEMS.

REMOVAL - THE CONTRACTOR SHALL REMOVE THE COFFERDAMS, AFTER SUCH TIME THAT IT IS DETERMINED BY THE ENGINEER THAT IT IS NOT NECESSARY. THE REMOVAL SHALL BE SEQUENCED TO MINIMIZE TURBIDITY AND THE DISCHARGE OF MATERIALS INTO THE WATERWAY.

ORDINARY HIGH WATER:

ORDINARY HIGH WATER ELEVATION IS ESTIMATED TO BE 605.73 AT THE BOICEVILLE BRIDGE. THIS IS DEFINED AS THE WATER SURFACE ELEVATION FOR THE MEAN ANNUAL FLOOD WHICH IS THE FLOOD THAT HAS A RECURRENCE INTERVAL OF 2.33 YEARS.

ORDINARY WATER:

ORDINARY WATER ELEVATION IS ESTIMATED TO BE 603.73 AT THE BOICEVILLE BRIDGE. THIS IS DEFINED AS THE HIGHEST SURFACE WATER ELEVATION LIKELY TO BE ENCOUNTERED DURING ONE CONSTRUCTION SEASON (OTHER THAN MAJOR FLOODS). IT IS ALWAYS LESS THAN THE ORDINARY HIGH WATER ELEVATION AND IT IS USUALLY AN OBSERVED ELEVATION RATHER THAN A COMPUTED ONE.

LOW WATER:

LOW WATER ELEVATION IS ESTIMATED TO BE 601.73 AT THE BOICEVILLE BRIDGE. THIS WATER ELEVATION IS THE NORMAL LOW WATER ELEVATION PREVALENT DURING ONE CONSTRUCTION SEASON FOR MORE THAN 25% OF THE TIME. IT IS AN OBSERVED ELEVATION RATHER THAN A COMPUTED ONE.

SUBSTRUCTURE ARCHITECTURAL TREATMENT NOTES:

ARCHITECTURAL TREATMENT SHALL BE ADDED TO THE EXPOSED FACES OF THE ABUTMENTS, PIERS, AND WINGWALLS (AS SHOWN IN THE CONTRACT PLANS) WITH THE USE OF CONCRETE FORM LINERS. PAYMENT FOR ALL ARCHITECTURAL TREATMENT AND CONCRETE STAINING SHALL BE INCLUDED IN THE UNIT BID PRICE FOR THE ITEM 555.72950010.

30 DAYS PRIOR TO THE FIRST CONCRETE PLACEMENT THAT REQUIRES ARCHITECTURAL TREATMENT, THE CONTRACTOR SHALL PRODUCE A SAMPLE PANEL FOR APPROVAL BY THE ENGINEER. THE PANEL SHALL BE CAST VERTICALLY APPROXIMATELY 4.0 FT X 4.0 FT X 1.0 FT. THE TEST PANEL SHALL BE CONSTRUCTED OF THE SAME MATERIALS TO BE USED DURING CONSTRUCTION TO DEMONSTRATE THE EXPECTED FINISH, COLOR AND TEXTURE. THE CONTRACTOR MAY BE REQUIRED TO PRODUCE UP TO THREE DIFFERENT TEST PANELS TO OBTAIN APPROVAL. WHEN APPROVED, THIS SAMPLE SHALL BE USED AS THE STANDARD FOR ALL ARCHITECTURALLY TREATED SUBSTRUCTURE CONCRETE WORK AND THE STAIN CHARACTERISTICS SHALL BE USED AS THE STANDARD FOR DECK STAIN. ARCHITECTURAL PATTERNS SHALL NOT BE USED ON THE DECK.

THE FORM LINER SHALL BE:
- COMPANY: CUSTOMROCK FORMLINER
- #1208 DRYSTACK
- OR AN APPROVED EQUAL

A CONCRETE PENETRATING STAIN SHALL BE APPLIED IN THE FIELD AFTER CASTING OF ALL ARCHITECTURALLY TREATED CONCRETE (SUBSTRUCTURES AND BRIDGE DECK). THE COLOR SHALL BE THE SAME FOR BOTH THE SUBSTRUCTURES AND THE BRIDGE DECK. THE FINAL COLORATION OF CONCRETE AFTER STAINING SHALL BE FEDERAL COLOR STANDARD 595, #35237. THE COLOR STAIN SHALL BE APPLIED TO THE TEST PANEL FOR APPROVAL BY THE ENGINEER. CONTRACTOR SHALL VERIFY STAIN COLORATION CHOICE PRIOR TO CREATION OF TEST PANEL. NO COLOR ADDITIVE IS REQUIRED IN THE CONCRETE MIX.

THE CONTRACTOR SHALL OBTAIN EACH COLOR, SIZE, TYPE, AND VARIETY OF AESTHETIC CONCRETE FINISHING MATERIALS FROM ONE MANUFACTURER WITH RESOURCES TO PROVIDE A CAST-IN-PLACE ARCHITECTURAL CONCRETE FINISH OF CONSISTENT QUALITY IN APPEARANCE AND PHYSICAL PROPERTIES.

FORMS AND ADJACENT SURFACES TO RECEIVE CONCRETE SHALL BE CLEANED. CHIPS, WOOD, SAWDUST, DIRT, AND OTHER DEBRIS SHALL BE REMOVED FROM THE FORMS JUST BEFORE PLACING CONCRETE.

FORM LINERS SHALL BE PLACED ACCURATELY TO PROVIDE THE FINISHED SURFACE TEXTURE INDICATED. SOLID BACKING SHALL BE PROVIDED AND ATTACHED SECURELY TO PREVENT DEFLECTION AND MAINTAIN STABILITY OF LINERS DURING CONCRETING. FORM LINERS SHALL BE PREVENTED FROM SAGGING AND STRETCHING IN HOT WEATHER. JOINTS OF FORM LINERS AND FORM LINER ACCESSORIES SHALL BE SEALED TO PREVENT MORTAR LEAKS. FORM LINER SHALL BE COATED WITH FORM-RELEASE AGENT PRIOR TO THE PLACING OF REINFORCEMENT. CONTACT SURFACES OF FORMS SHALL BE COATED WITH SURFACE RETARDER, ACCORDING TO THE MANUFACTURER'S WRITTEN INSTRUCTIONS PRIOR TO THE PLACING OF REINFORCEMENT.

ALL COURSING SHALL LINE UP CONTINUOUSLY FROM LEFT TO RIGHT OF FORM WITH NO VERTICAL SEAM OFFSET. PATTERN SHALL BE CONTINUOUS ACROSS JOINTS AND AROUND CORNERS. NO FORM LINER SEAMS SHALL BE VISIBLE IN THE FINAL FORMED CONCRETE. FOLLOW THE MANUFACTURER'S DIRECTIONS TO HIDE SEAMS (CAULKING, PATTERN INTERLOCK, ETC.). THE FORM LINER SEAM ELIMINATION TECHNIQUE SHALL BE APPROVED IN WRITING BY THE ENGINEER.

THE CONTRACTOR SHALL PROTECT CAST-IN-PLACE ARCHITECTURAL CONCRETE FROM STAINING, LAITANCE, AND CONTAMINATION DURING THE REMAINDER OF THE CONSTRUCTION PERIOD.

THE CONTRACTOR SHALL CLEAN CAST-IN-PLACE ARCHITECTURAL CONCRETE SURFACES AFTER FINISH TREATMENT TO REMOVE STAINS, MARKINGS, DUST, AND DEBRIS.

WASH AND RINSE SURFACES ACCORDING TO THE CONCRETE FINISH APPLICATOR;S WRITTEN RECOMMENDATIONS. PROTECT OTHER WORK FROM STAINING OR DAMAGE DUE TO CLEANING OPERATIONS. DO NOT USE CLEANING MATERIALS OR PROCESSES THAT COULD CHANGE THE APPEARANCE OF CAST-IN-PLACE ARCHITECTURAL CONCRETE FINISHES.

THE CONTRACTOR SHALL MAINTAIN THE STREAM PROTECTION NOTES DURING ALL STAINING AND WASHING OPERATIONS. NO CONTAMINANTS FROM CONCRETING, STAINING, OR WASHING CONCRETE SHALL BE ALLOWED TO ENTER THE STREAM AT ANY POINT.

NO.	DATE	BY	REVISION

ASHOKAN RAIL TRAIL
BRIDGE REPLACEMENT
BOICEVILLE BRIDGE OVER ESOPUS CREEK
ULSTER COUNTY

GENERAL BRIDGE NOTES

SCALE: NONE
DATE ISSUED: 9/26/2018
DRAWING GBN-1

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IN CHARGE OF RJS | DESIGNED BY RSO | CHECKED BY MDP/BSR | DRAFTED BY JDH/Sr | CHECKED BY RSO/BSR

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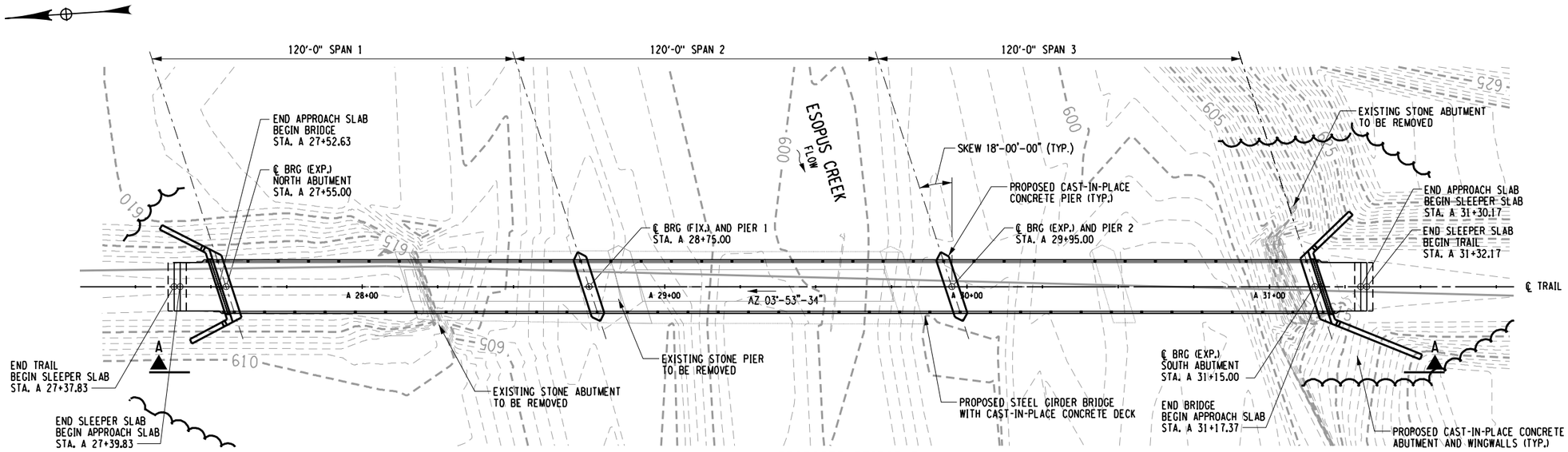
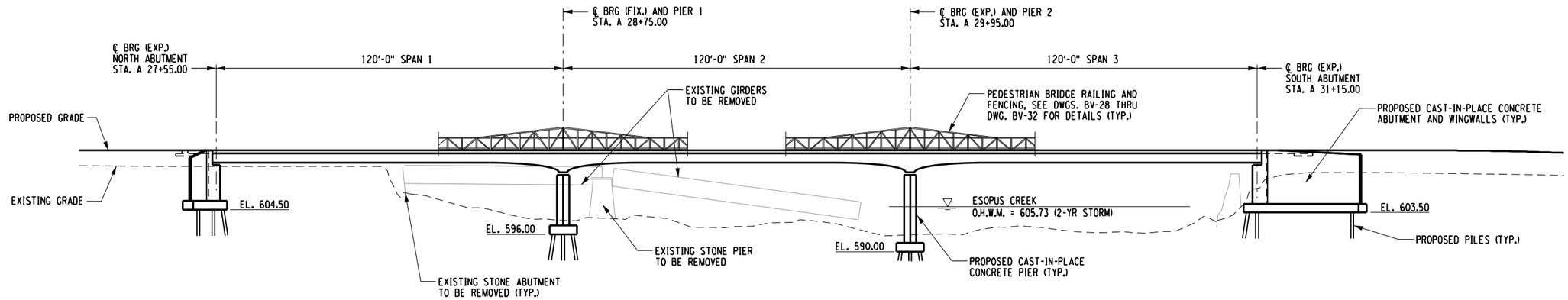


PROPOSED BRIDGE PLAN
SCALE: 1" = 40'-0"



PROPOSED BRIDGE ELEVATION A-A
SCALE: 1" = 40'-0"

NOTES:

1. SEE DWGS. PL-3 AND PL-4 FOR PROFILE INFORMATION.
2. SEE DWGS. ESCP-3 AND ESCP-4 FOR GRADING PLAN.

PREPARED BY: BARTON & LOGUIDICE, D.P.C.
ON : SEPTEMBER 26, 2018

BROOKS & BROOKS, PC
SURVEYING, PLANNING, GIS

NO.	DATE	BY	REVISION

Barton & Loguidice

ASHOKAN RAIL TRAIL
BRIDGE REPLACEMENT
BOICEVILLE BRIDGE
OVER ESOPUS CREEK
ULSTER COUNTY

BRIDGE PLAN AND ELEVATION

SCALE: AS SHOWN
DATE ISSUED: 9/26/2018
DRAWING
BV-1

IN CHARGE OF RJS | DESIGNED BY RSO | DRAFTED BY JDHSr | CHECKED BY MDP/BSR | CHECKED BY RSO/BSR

jdh
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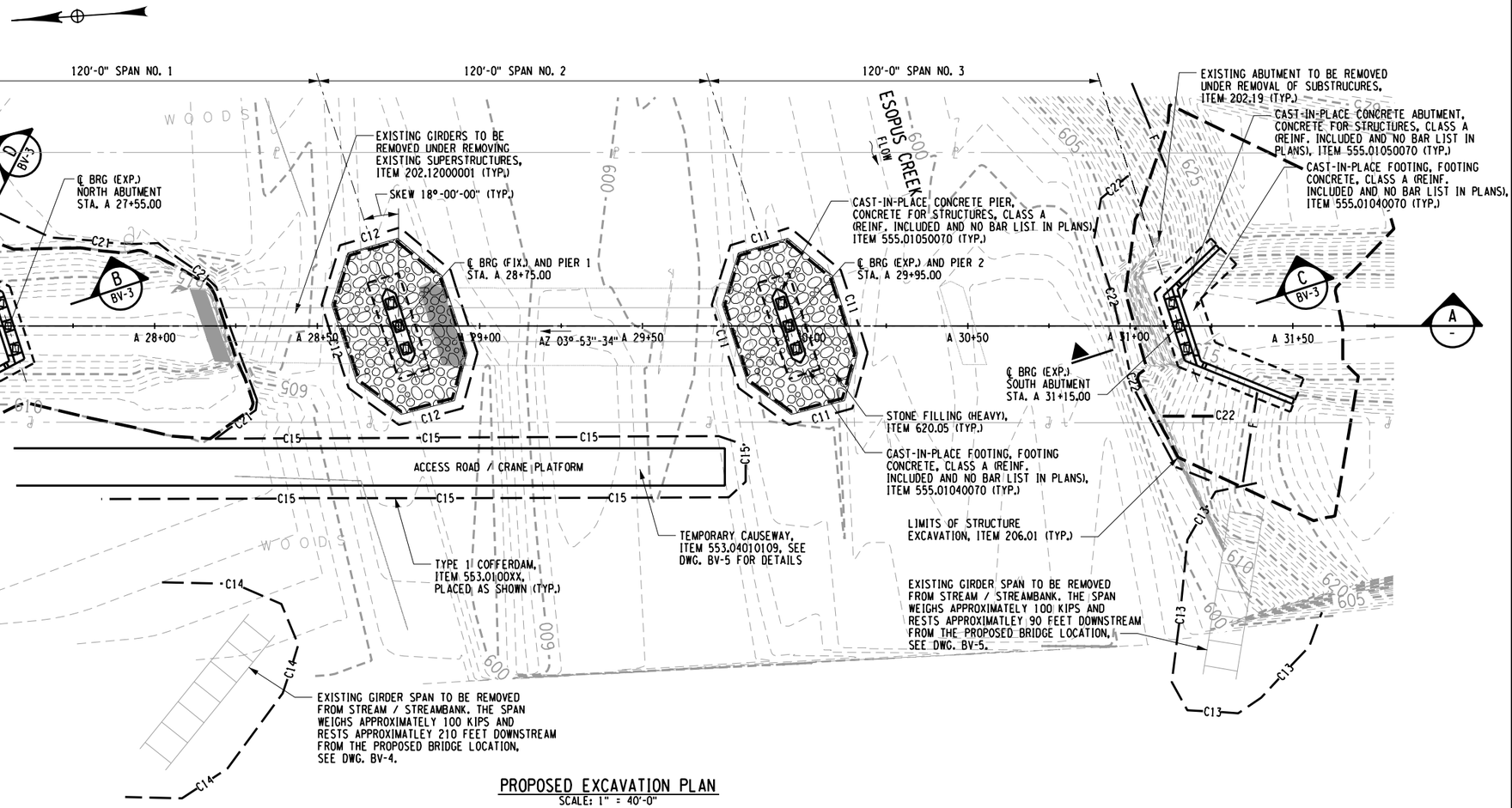
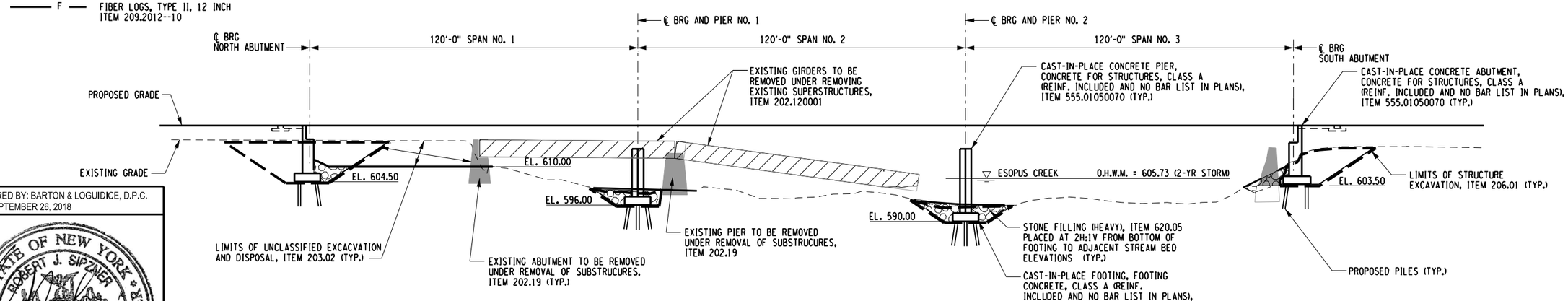


PROPOSED EXCAVATION PLAN
SCALE: 1" = 40'-0"



PROPOSED EXCAVATION SECTION
SCALE: 1" = 40'-0"

NOTES:

1. SEE DWGS. PL-3 AND PL-4 FOR PROFILE INFORMATION.
2. SEE DWGS. ESCP-3 AND ESCP-4 FOR GRADING PLAN.

PREPARED BY: BARTON & LOGUIDICE, D.P.C.
ON : SEPTEMBER 26, 2018

STATE OF NEW YORK * ROBERT J. SIPZNER * LICENSED PROFESSIONAL ENGINEER No. 064501

SURVEY AND MAPPING PROVIDED BY:
BROOKS & BROOKS, PC
SURVEYING, PLANNING, GIS

NO.	DATE	BY	REVISION

Barton & Loguidice

ASHOKAN RAIL TRAIL
BRIDGE REPLACEMENT
BOICEVILLE BRIDGE OVER ESOPUS CREEK
ULSTER COUNTY

BRIDGE EXCAVATION PLAN AND SECTION

SCALE: AS SHOWN
DATE ISSUED: 9/26/2018
DRAWING BV-2

IN CHARGE OF RJS DESIGNED BY RSO CHECKED BY MDP/BSR DRAFTED BY JDHSr CHECKED BY RSO/BSR

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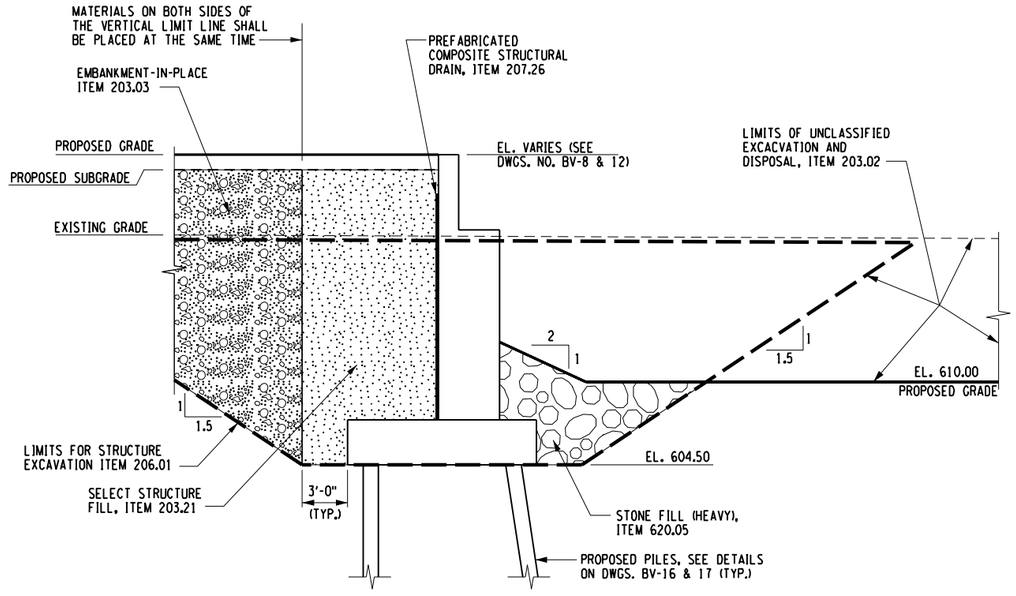
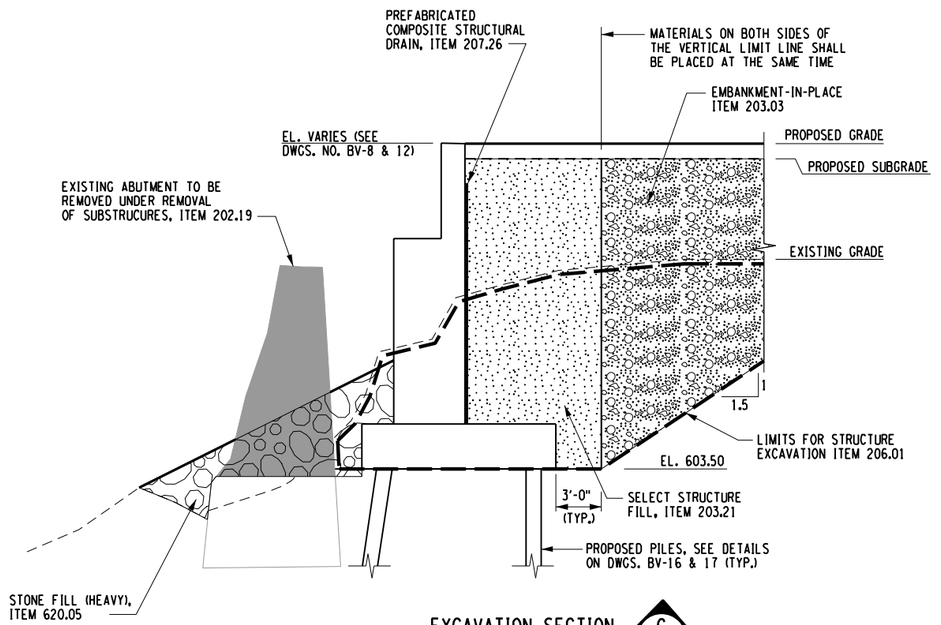
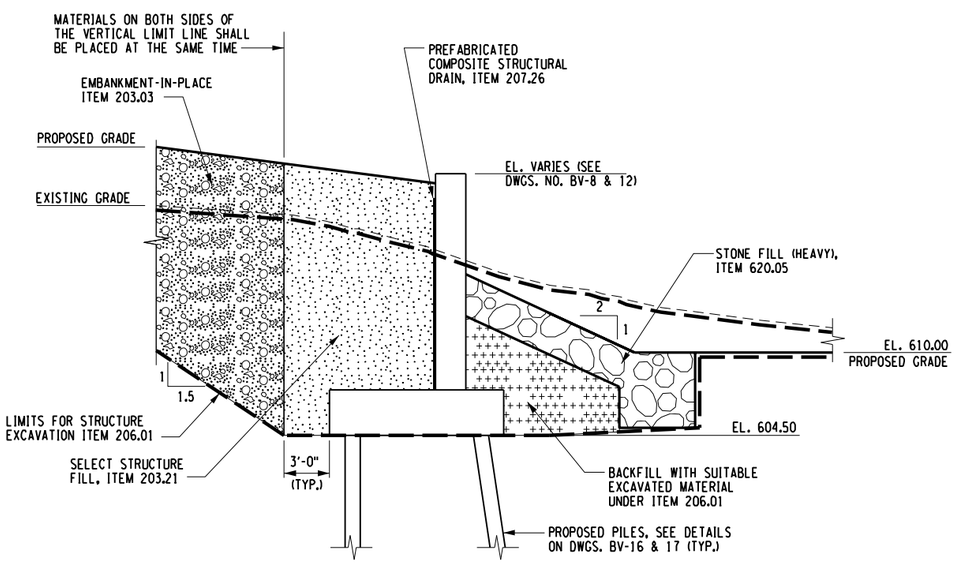


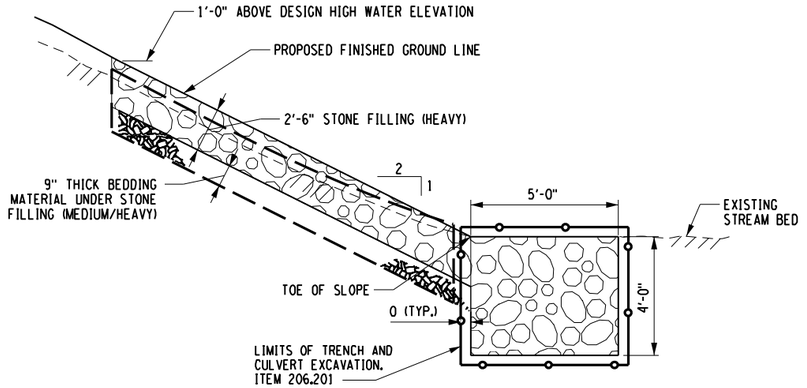
EXCAVATION SECTION B
BV-2
SCALE: 1" = 10'-0"
(NORTH ABUTMENT)



EXCAVATION SECTION C
BV-2
SCALE: 1" = 10'-0"
(SOUTH ABUTMENT)



EXCAVATION SECTION D
BV-2
SCALE: 1" = 10'-0"
(N.E. WINGWALL SHOWN, REMAINING WINGWALLS SIMILAR)



DETAIL 'A'
N.T.S.

LEGEND

- REMOVAL OF SUBSTRUCTURE ITEM 202.19
- EMBANKMENT-IN-PLACE ITEM 203.03
- STONE FILL (HEAVY), ITEM 620.05
- BACKFILL WITH SUITABLE EXCAVATED MATERIAL UNDER ITEM 206.01
- SELECT STRUCTURE FILL ITEM 203.21
- LIMITS OF STRUCTURE EXCAVATION, ITEM 206.01
- BEDDING MATERIAL ITEM 620.08

PREPARED BY: BARTON & LOGUIDICE, D.P.C.
ON : SEPTEMBER 26, 2018

STATE OF NEW YORK · ROBERT J. SIPZNER · LICENSED PROFESSIONAL ENGINEER · No. 064501

NO.	DATE	BY	REVISION

Barton & Loguidice

ASHOKAN RAIL TRAIL
BRIDGE REPLACEMENT
BOICEVILLE BRIDGE OVER ESOPUS CREEK
ULSTER COUNTY

EXCAVATION SECTIONS AND DETAILS

SCALE: AS SHOWN
DATE ISSUED: 9/26/2018
DRAWING
BV-3

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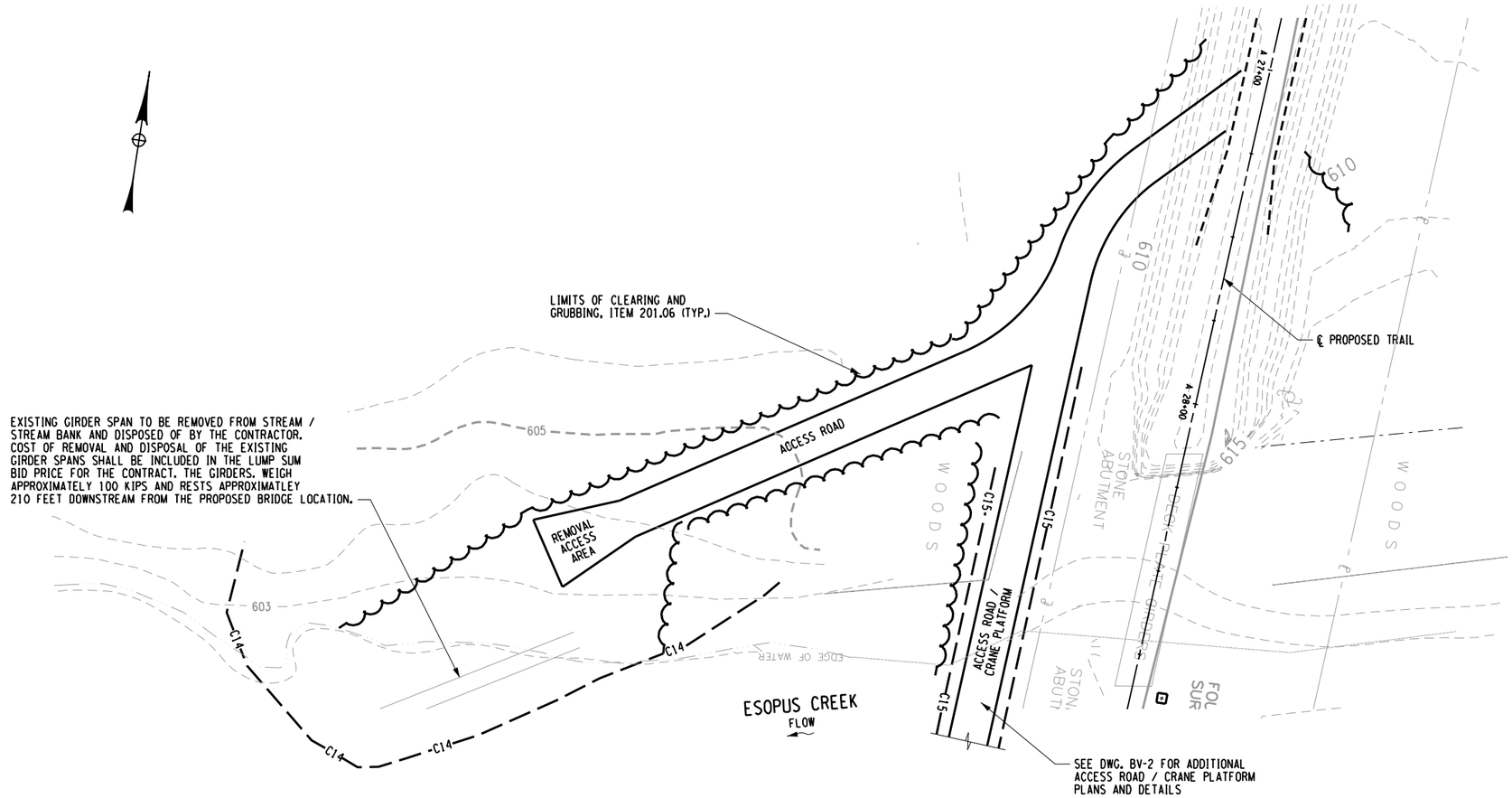
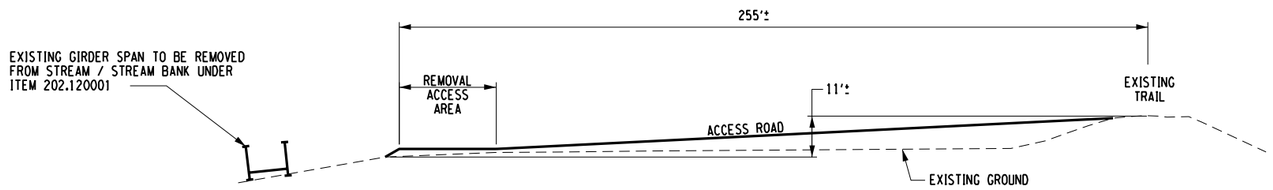


PROPOSED NORTH BANK GIRDER SPAN REMOVAL PLAN

SCALE: 1" = 40'-0"



PROPOSED NORTH BANK GIRDER SPAN REMOVAL ACCESS RD. PROFILE

N.T.S.

DOWNSTREAM GIRDER REMOVAL NOTES:

1. THE CONTRACTOR MAY ELECT TO USE AN ALTERNATE GIRDER ACCESS AND REMOVAL PLAN THAN SHOWN WITH PRIOR APPROVAL BY THE ENGINEER.
2. ALL REMOVAL WORK SHALL BE PERFORMED IN THE DRY AFTER INSTALLATION OF COFFERDAMS.
3. CONTRACTOR MAY CUT THE GIRDER INTO SMALLER SECTIONS IF NEEDED TO IMPROVE REMOVAL PROCESS, HANDLING, AND TRANSPORT.
4. GRADES ON TEMPORARY ACCESS ROADS SHALL NOT EXCEED 10% GRADE.
5. TEMPORARY ACCESS ROADS SHALL BE APPROXIMATELY 15 FEET IN WIDTH.
6. TEMPORARY ACCESS ROADS SHALL BE CONSTRUCTED OF STONE FILL AND SHALL BE COMPACTED SUCH THAT CONSTRUCTION VEHICLES CAN TRAVEL TO AND FROM THE GIRDER REMOVAL LOCATIONS SAFELY.
7. TEMPORARY ACCESS ROADS SHALL BE REMOVED UPON COMPLETION OF GIRDER REMOVALS AND IMPACTED AREAS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION.
8. COSTS ASSOCIATED WITH THE CONSTRUCTION AND REMOVAL OF TEMPORARY ACCESS ROADS AND GIRDER SPANS SHALL BE INCLUDED IN ITEM 202.120001.

SURVEY AND MAPPING PROVIDED BY:

BROOKS & BROOKS, PC
SURVEYING, PLANNING, GIS

PREPARED BY: BARTON & LOGUIDICE, D.P.C.
ON : SEPTEMBER 26, 2018

STATE OF NEW YORK * ROBERT J. SIPZNER * LICENSED No. 064501 PROFESSIONAL ENGINEER

NO.	DATE	BY	REVISION

Barton & Loguidice

ASHOKAN RAIL TRAIL
BRIDGE REPLACEMENT
BOICEVILLE BRIDGE OVER ESOPUS CREEK
ULSTER COUNTY

NORTH BANK GIRDER REMOVAL DETAILS

SCALE: AS SHOWN
DATE ISSUED: 9/26/2018
DRAWING BV-4

IN CHARGE OF RJS | DESIGNED BY RSO | CHECKED BY MDP/BSR | DRAFTED BY JDHSr | CHECKED BY RSO/BSR

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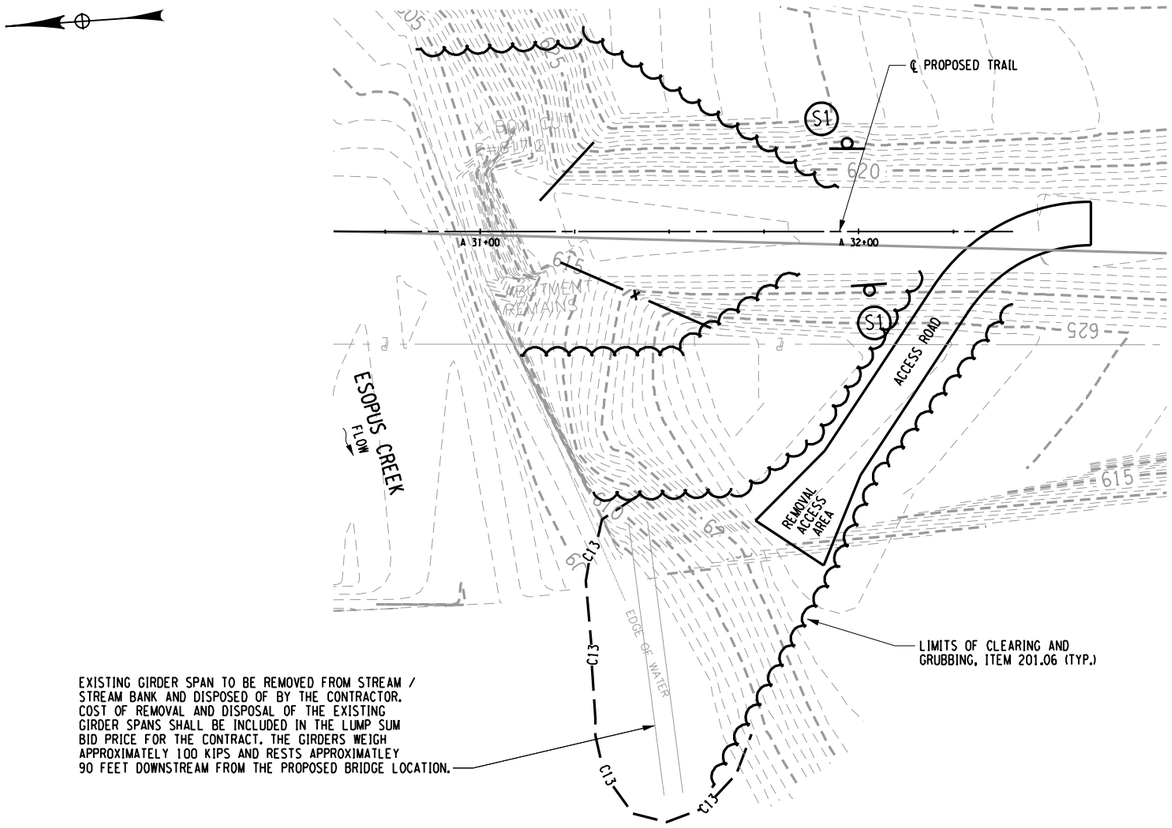
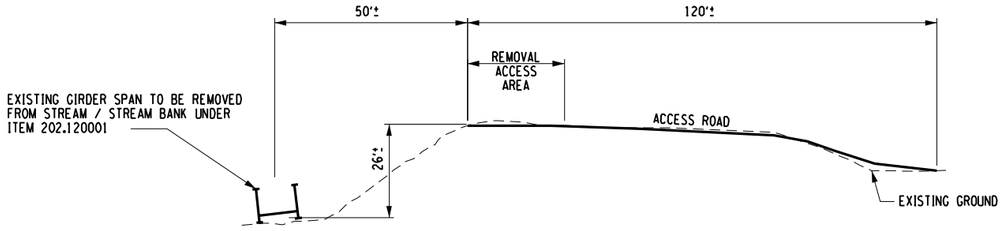


PROPOSED SOUTH BANK GIRDER SPAN REMOVAL PLAN

SCALE: 1" = 40'-0"



PROPOSED SOUTH BANK GIRDER SPAN REMOVAL ACCESS RD. PROFILE

N.T.S.

DOWNSTREAM GIRDER REMOVAL NOTES:

1. THE CONTRACTOR MAY ELECT TO USE AN ALTERNATE GIRDER ACCESS AND REMOVAL PLAN THAN SHOWN WITH PRIOR APPROVAL BY THE ENGINEER.
2. ALL REMOVAL WORK SHALL BE PERFORMED IN THE DRY AFTER INSTALLATION OF COFFERDAMS.
3. CONTRACTOR MAY CUT THE GIRDER INTO SMALLER SECTIONS IF NEEDED TO IMPROVE REMOVAL PROCESS, HANDLING, AND TRANSPORT.
4. GRADES ON TEMPORARY ACCESS ROADS SHALL NOT EXCEED 10% GRADE.
5. TEMPORARY ACCESS ROADS SHALL BE APPROXIMATELY 15 FEET IN WIDTH.
6. TEMPORARY ACCESS ROADS SHALL BE CONSTRUCTED OF STONE FILL AND SHALL BE COMPACTED SUCH THAT CONSTRUCTION VEHICLES CAN TRAVEL TO AND FROM THE GIRDER REMOVAL LOCATIONS SAFELY.
7. TEMPORARY ACCESS ROADS SHALL BE REMOVED UPON COMPLETION OF GIRDER REMOVALS AND IMPACTED AREAS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION.
8. COSTS ASSOCIATED WITH THE CONSTRUCTION AND REMOVAL OF TEMPORARY ACCESS ROADS AND GIRDER SPANS SHALL BE INCLUDED IN ITEM 202.120001.

PREPARED BY: BARTON & LOGUIDICE, D.P.C.
ON : SEPTEMBER 26, 2018

STATE OF NEW YORK · ROBERT J. SIPZNER · No. 066501 · LICENSED PROFESSIONAL ENGINEER

SURVEY AND MAPPING PROVIDED BY:
BROOKS & BROOKS, PC
SURVEYING, PLANNING, GIS

NO.	DATE	BY	REVISION

Barton & Loguidice

ASHOKAN RAIL TRAIL
BRIDGE REPLACEMENT
BOICEVILLE BRIDGE OVER ESOPUS CREEK
ULSTER COUNTY

SOUTH BANK GIRDER REMOVAL DETAILS

SCALE: AS SHOWN
DATE ISSUED: 9/26/2018
DRAWING
BV-5

IN CHARGE OF RJS DESIGNED BY RSO CHECKED BY MDP/BSR DRAFTED BY JDHSr CHECKED BY RSO/BSR

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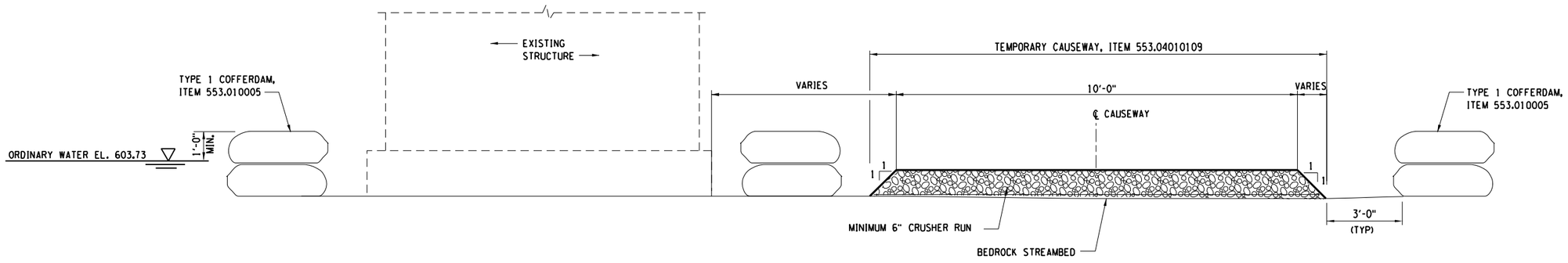

ACCESS ROAD / CRANE PLATFORM TYPICAL SECTION

NTS

PREPARED BY: BARTON & LOGUIDICE, D.P.C.
ON : SEPTEMBER 26, 2018

IN CHARGE OF RJS DESIGNED BY RSO CHECKED BY MDP/BSR DRAFTED BY JDHSr CHECKED BY RSO/BSR

FILE NAME = L:\MSTN Projects\0300\369.007 - Ashokan Rail Trail\MSTN\2018 Boiceville Bid Set\307.369007001 Boiceville access pad plan.dgndh
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NO.	DATE	BY	REVISION

38
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SEAL OF THE COUNTY OF ULSTER

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ASHOKAN RAIL TRAIL

BRIDGE REPLACEMENT

BOICEVILLE BRIDGE
OVER ESOPUS CREEK

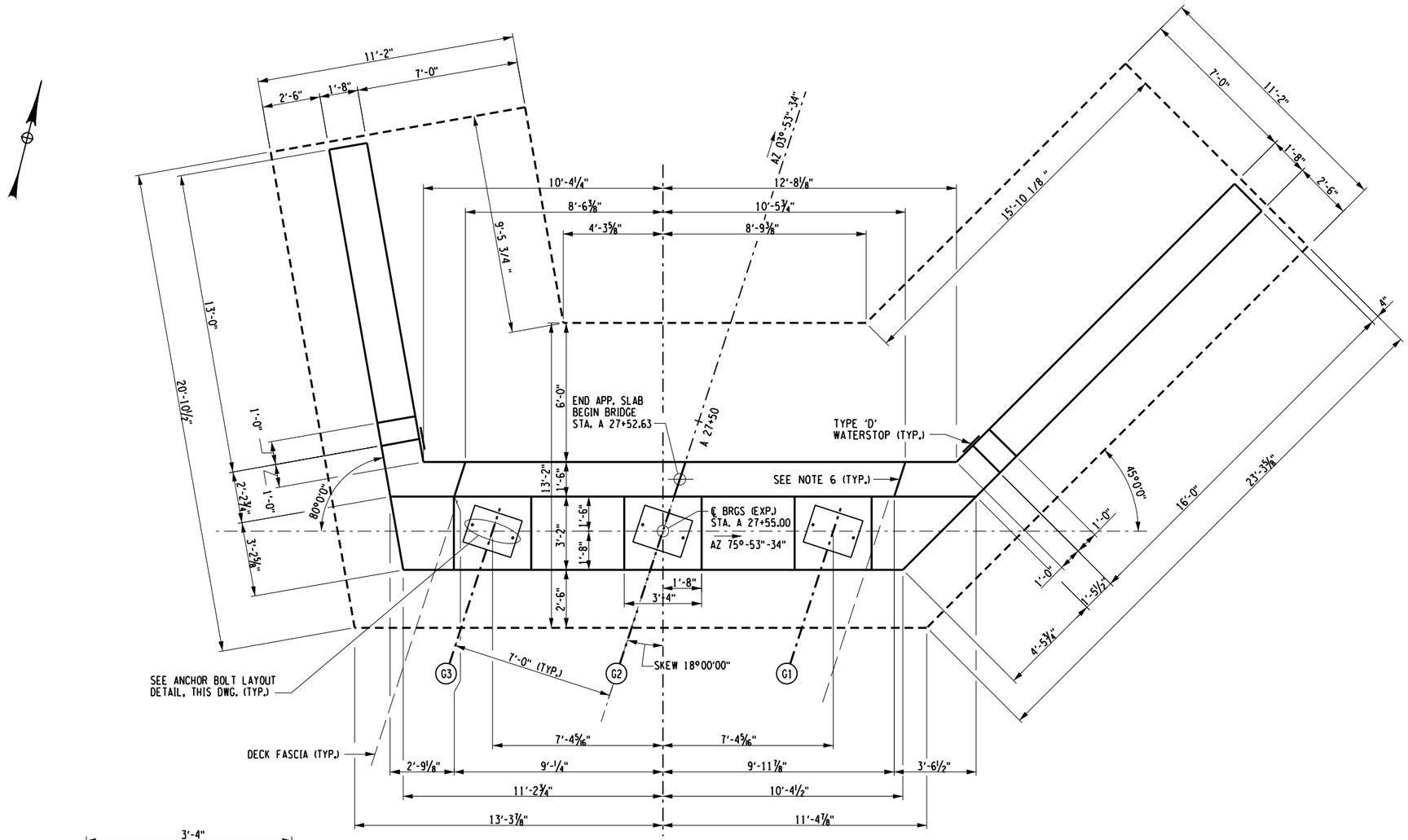
ULSTER COUNTY

ACCESS ROAD / CRANE PLATFORM SECTION

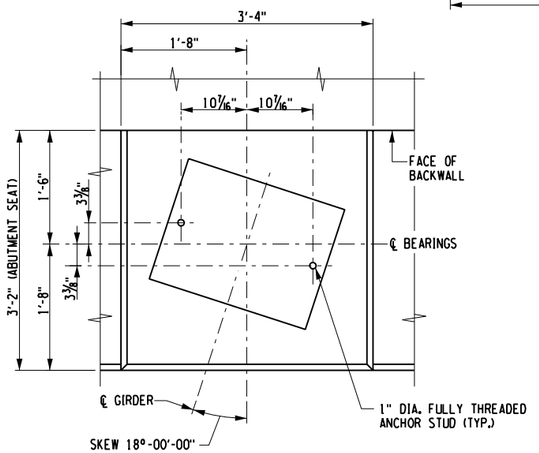
SCALE: AS SHOWN

DATE ISSUED: 9/26/2018

DRAWING
BV-6



NORTH ABUTMENT PLAN
SCALE: 3/16" = 1'-0"



TYPICAL ABUTMENT ANCHOR BOLT LAYOUT
SCALE: 1/2" = 1'-0"

NOTES:

1. FOR KEYWAY AND WATERSTOP DETAILS, SEE SHEET BV-13.
2. FOR ADDITIONAL WINGWALL AND FOOTING DETAILS , SEE DWGS. BV-8, BV-13 AND BV-14.
3. FOR PEDESTAL DETAILS, SEE DWG. BV-13
4. ALL EXPOSED CORNERS OF CONCRETE SHALL BE CHAMFERED 1", UNLESS NOTED OTHERWISE.
5. FOR PILE LAYOUT AND DETAILS, SEE DWG. BV-16.
6. 2" PREFORMED, CLOSED CELL FOAM MATERIAL, SPECIFICATION 705-08. COST INCLUDED IN UNDER ITEM 555.970100CA.

PREPARED BY: BARTON & LOGUIDICE, D.P.C.
ON : SEPTEMBER 26, 2018

STATE OF NEW YORK
ROBERT J. SIPZNER
No. 064501
LICENSED PROFESSIONAL ENGINEER

IN CHARGE OF RJS DESIGNED BY RSO CHECKED BY MDP/BSR DRAFTED BY JDHSr CHECKED BY RSO/BSR

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39
65

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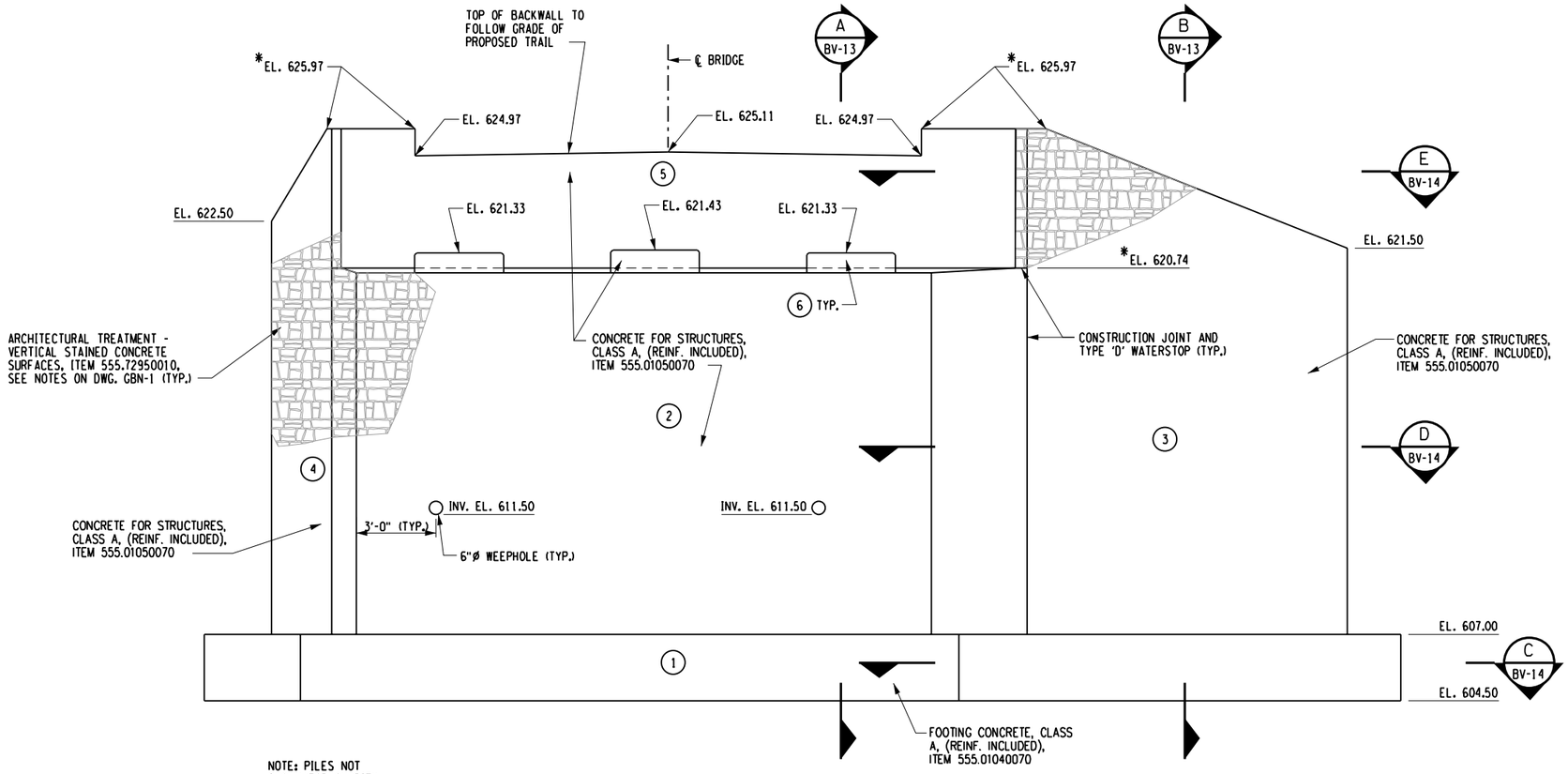
ASHOKAN RAIL TRAIL
BRIDGE REPLACEMENT
BOICEVILLE BRIDGE OVER ESOPUS CREEK
ULSTER COUNTY

NORTH ABUTMENT PLAN

SCALE: AS SHOWN
DATE ISSUED: 9/26/2018
DRAWING
BV-7

* INDICATES ELEVATIONS TAKEN AT THE FRONT FACE OF BACKWALL



NOTE: PILES NOT SHOWN FOR CLARITY

NORTH ABUTMENT ELEVATION

SCALE: 3/16" = 1'-0"

PREPARED BY: BARTON & LOGUIDICE, D.P.C.
ON : SEPTEMBER 26, 2018

CONCRETE TABLE - NORTH ABUT.		
PLACEMENT	QUANTITY (CY)	ITEM NO.
1	59.0	555.01040070
2	58.5	555.01050070
3	16.7	555.01050070
4	13.9	555.01050070
5	6.9	555.01050070
6	0.8	555.01050070

NOTES:

1. FOR KEYWAY AND WATERSTOP DETAILS, SEE SHEET BV-13.
2. FOR ADDITIONAL WINGWALL AND FOOTING DETAILS , SEE DWGS. BV-7, BV-13 AND BV-14.
3. FOR PEDESTAL DETAILS, SEE DWG. BV-13
4. ALL EXPOSED CORNERS OF CONCRETE SHALL BE CHAMFERED 1", UNLESS NOTED OTHERWISE.
5. FOR PILE LAYOUT AND DETAILS, SEE DWG. BV-16.

NO.	DATE	BY	REVISION

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ASHOKAN RAIL TRAIL
BRIDGE REPLACEMENT
BOICEVILLE BRIDGE OVER ESOPUS CREEK
ULSTER COUNTY

NORTH ABUTMENT ELEVATION

SCALE: AS SHOWN
DATE ISSUED: 9/26/2018
DRAWING BV-8

IN CHARGE OF RJS | DESIGNED BY RSO | DRAFTED BY JDHSr | CHECKED BY MDP/BSR | CHECKED BY RSO/BSR

FILE NAME = L:\MSTN Projects\0300\369.007 - Ashokan Rail Trail\MSTN\2018 Boiceville Bid Set\312.369007001 North Abutment Elev.dgn
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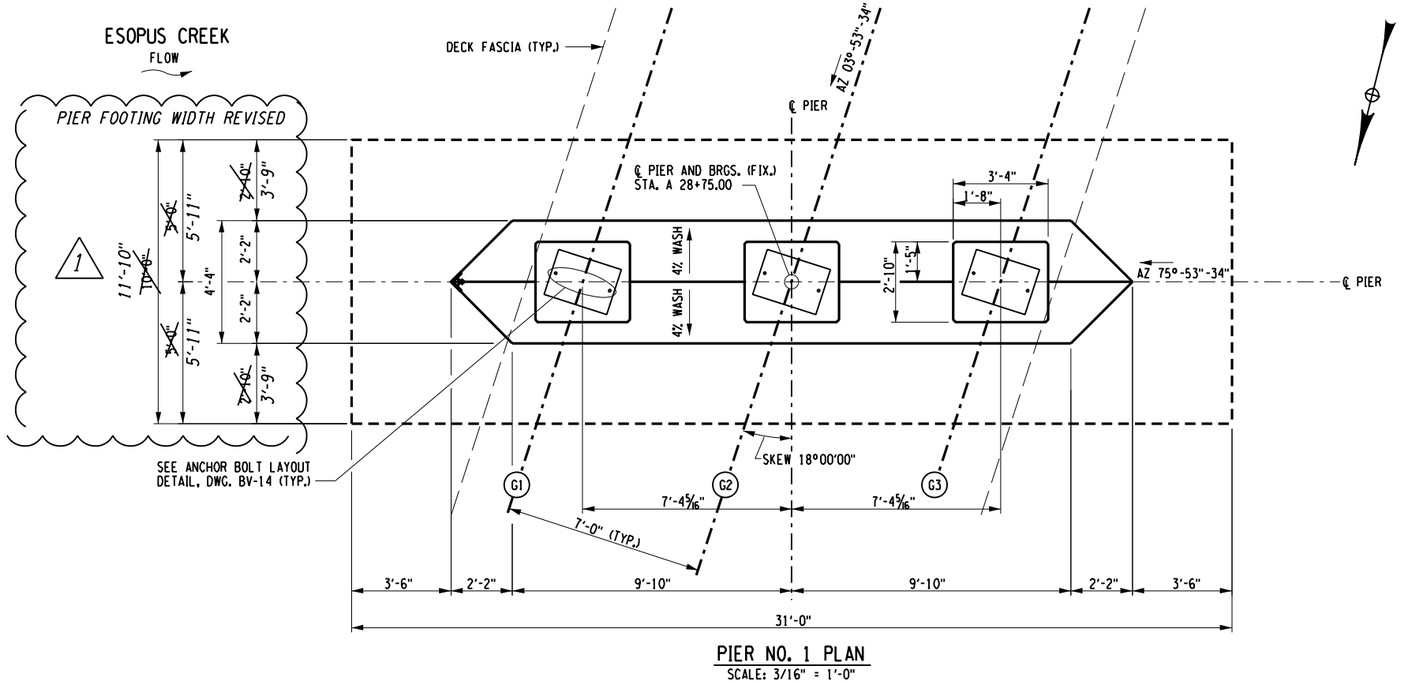


PIER NO. 1 PLAN
SCALE: 3/16" = 1'-0"

NOTES:

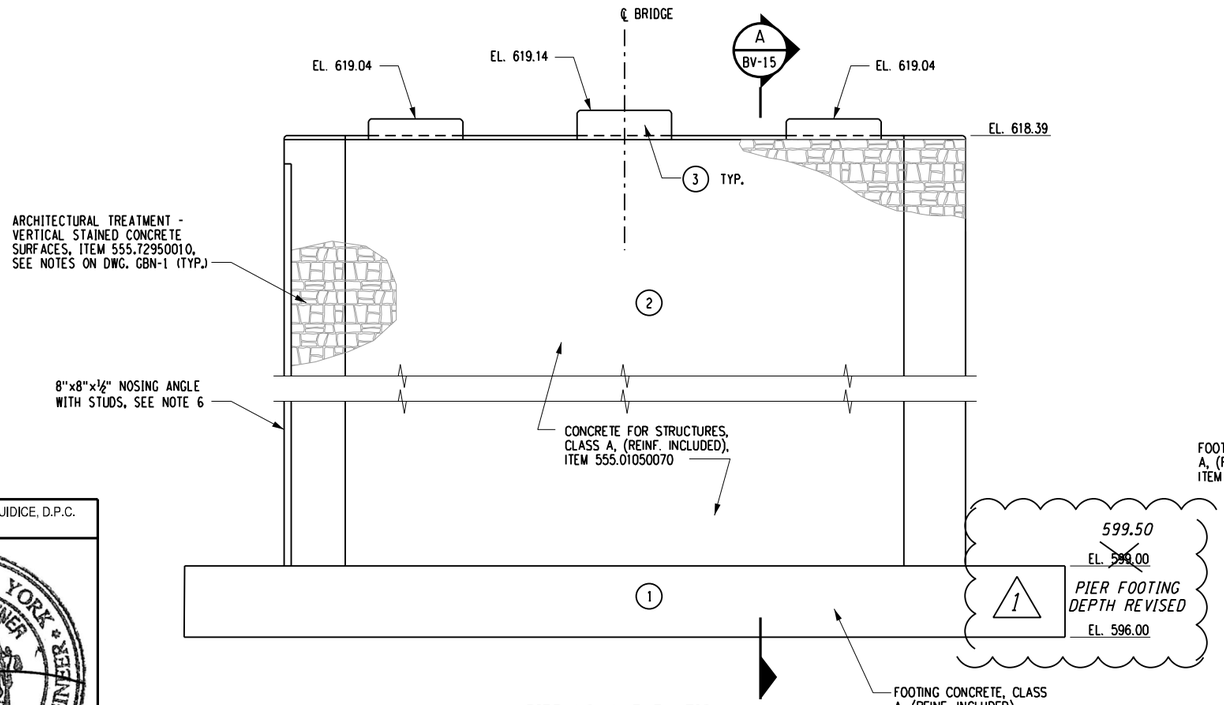
1. FOR KEYWAY AND WATERSTOP DETAILS, SEE SHEET BV-13.
2. FOR ADDITIONAL PIER AND FOOTING DETAILS , SEE DWGS. BV-15.
3. FOR PEDESTAL DETAILS, SEE DWG. BV-13.
4. ALL EXPOSED CORNERS OF CONCRETE SHALL BE CHAMFERED 1", UNLESS NOTED OTHERWISE.
5. FOR PILE LAYOUT AND DETAILS, SEE DWGS. BV-16 AND BV-17.
6. ALL CONCRETE ANCHOR STUDS WHICH ARE ATTACHED TO THE PIER NOSING SHALL MEET THE REQUIREMENTS LISTED MATERIAL SUBSECTION 709-05, STUD SHEAR CONNECTORS. PAYMENT FOR FURNISHING AND PLACING THE CONCRETE ANCHORS AND ANGLE WILL BE INCLUDED IN THE PRICE BID FOR THE CONCRETE ITEM TO WHICH THE ANCHORS ARE ATTACHED.

1 QUANTITIES REVISED

CONCRETE TABLE - PIER 1

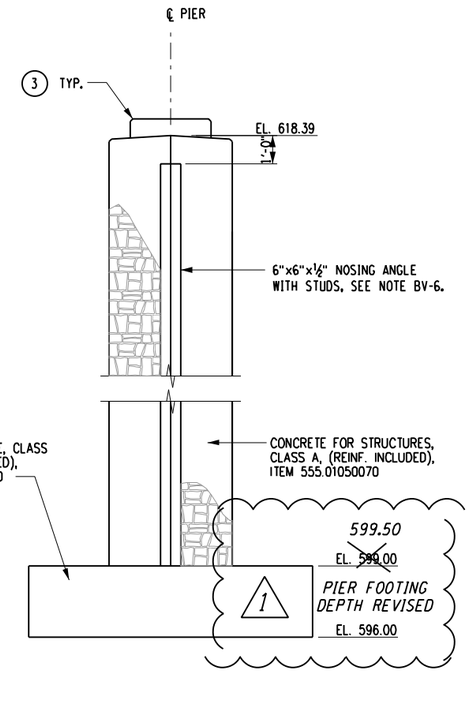
PLACEMENT	QUANTITY (CY)	ITEM NO.
1	~~34.41~~	555.01040070
2	~~57.94~~	555.01050070
3	0.72	555.01050070

47.55
66.18



PIER NO. 1 ELEVATION
SCALE: 3/16" = 1'-0"

NOTE: PILES NOT SHOWN FOR CLARITY



PIER NO. 1 UPSTREAM ELEVATION
SCALE: 3/16" = 1'-0"

NOTE: PILES NOT SHOWN FOR CLARITY

PREPARED BY: BARTON & LOGUIDICE, D.P.C.
ON : OCTOBER 3, 2018

NO.	DATE	BY	REVISION
1	10/3	BSR	AS SHOWN

41R1
65

Barton & Loguidice

ASHOKAN RAIL TRAIL
BRIDGE REPLACEMENT
BOICEVILLE BRIDGE OVER ESOPUS CREEK
ULSTER COUNTY

PIER NO. 1 PLAN AND ELEVATION

SCALE: AS SHOWN
DATE ISSUED: 10/3/2018
DRAWING BV-9 R1

IN CHARGE OF RJS | DESIGNED BY RSO | CHECKED BY MDP/BSR | DRAFTED BY JDHSr | CHECKED BY RSO/BSR

FILE NAME = L:\MSTN Projects\0300\369.007 - Ashokan Rail Trail\MSTN\2018 Boiceville Bid Set Addendum 1\314.369007001 Pier 1 R1.dgn
DATE = 10/5/2018
TIME = 1:51:25 PM
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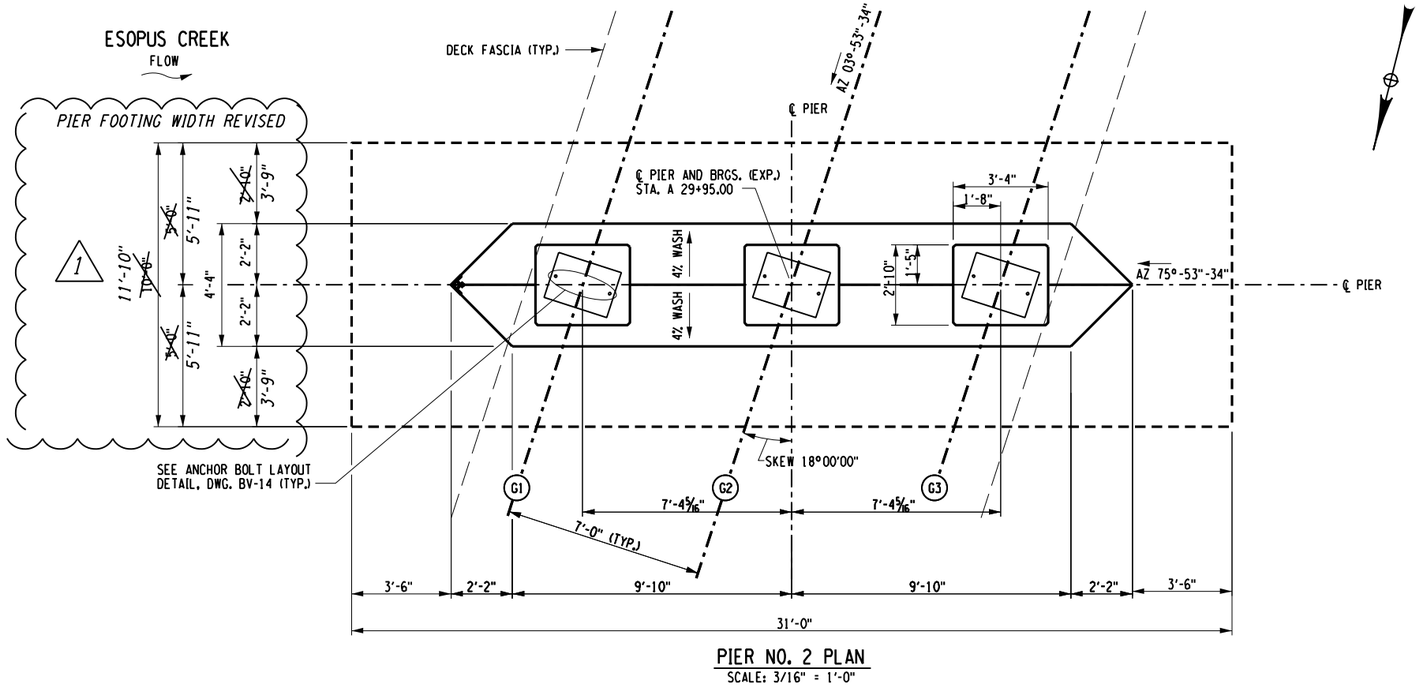

PIER NO. 2 PLAN
SCALE: 3/16" = 1'-0"

NOTES:

1. FOR KEYWAY AND WATERSTOP DETAILS, SEE SHEET BV-13.
2. FOR ADDITIONAL PIER AND FOOTING DETAILS , SEE DWGS. BV-15.
3. FOR PEDESTAL DETAILS, SEE DWG. BV-13.
4. ALL EXPOSED CORNERS OF CONCRETE SHALL BE CHAMFERED 1", UNLESS NOTED OTHERWISE.
5. FOR PILE LAYOUT AND DETAILS, SEE DWGS. BV-16 AND BV-17.
6. ALL CONCRETE ANCHOR STUDS WHICH ARE ATTACHED TO THE PIER NOSING SHALL MEET THE REQUIREMENTS LISTED MATERIAL SUBSECTION 709-05, STUD SHEAR CONNECTORS. PAYMENT FOR FURNISHING AND PLACING THE CONCRETE ANCHORS AND ANGLE WILL BE INCLUDED IN THE PRICE BID FOR THE CONCRETE ITEM TO WHICH THE ANCHORS ARE ATTACHED.

1 *QUANTITIES REVISED*

CONCRETE TABLE - PIER 2		
PLACEMENT	QUANTITY (CY)	ITEM NO.
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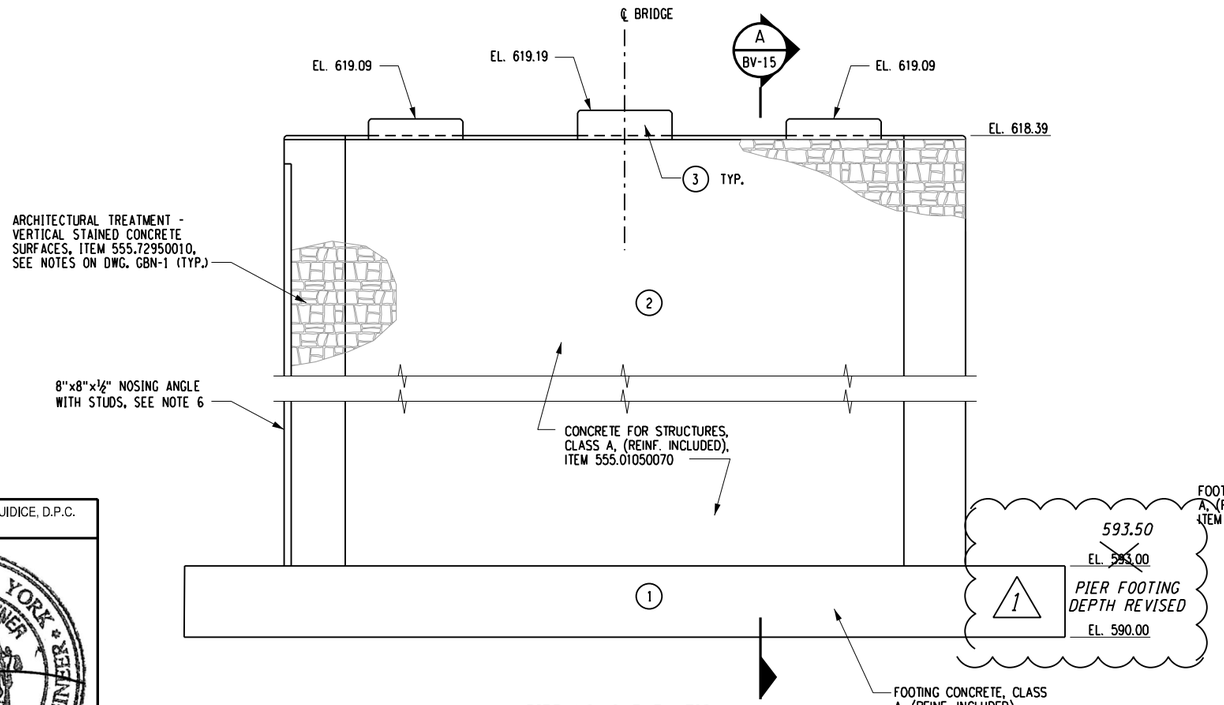
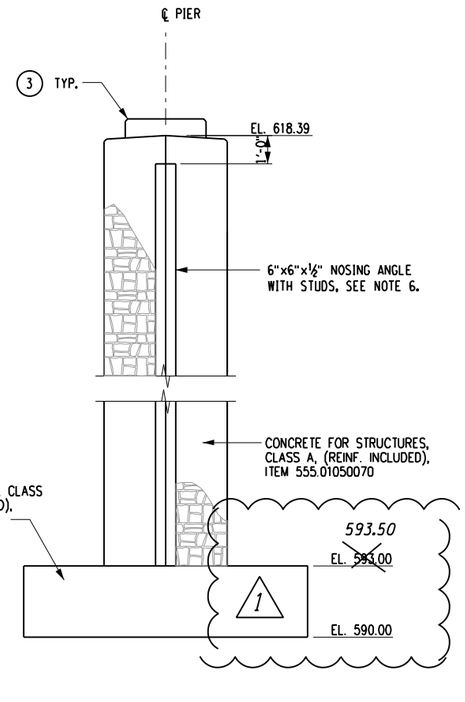
2	~~88.91~~ 87.21	555.01050070
3	0.77	555.01050070



PIER NO. 2 ELEVATION
SCALE: 3/16" = 1'-0"

NOTE: PILES NOT SHOWN FOR CLARITY



PIER NO. 2 UPSTREAM ELEVATION
SCALE: 3/16" = 1'-0"

NOTE: PILES NOT SHOWN FOR CLARITY

PREPARED BY: BARTON & LOGUIDICE, D.P.C.
ON : OCTOBER 3, 2018

STATE OF NEW YORK · ROBERT J. SIPZNER · No. 064501 · LICENSED PROFESSIONAL ENGINEER

NO.	DATE	BY	REVISION
1	10/3	BSR	AS SHOWN

42R1
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ASHOKAN RAIL TRAIL
BRIDGE REPLACEMENT
BOICEVILLE BRIDGE OVER ESOPUS CREEK
ULSTER COUNTY

PIER NO. 2 PLAN AND ELEVATION

SCALE: AS SHOWN
DATE ISSUED: 10/3/2018
DRAWING BV-10 R1

IN CHARGE OF RJS | DESIGNED BY RSO | CHECKED BY MDP/BSR | DRAFTED BY JDHSr | CHECKED BY RSO/BSR

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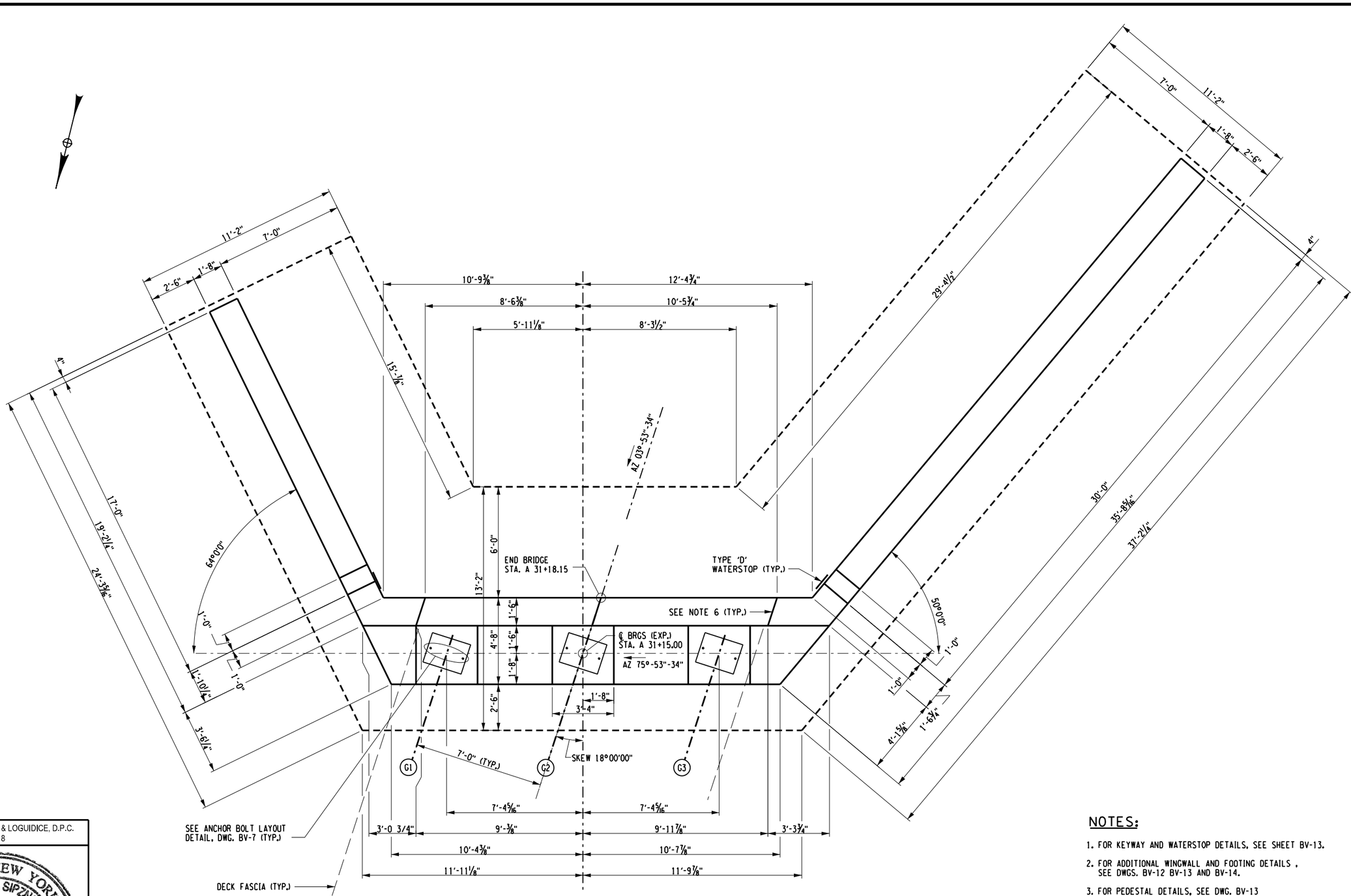

SOUTH ABUTMENT PLAN
SCALE: 3/16" = 1'-0"

NOTES:

1. FOR KEYWAY AND WATERSTOP DETAILS, SEE SHEET BV-13.
2. FOR ADDITIONAL WINGWALL AND FOOTING DETAILS , SEE DWGS. BV-12 BV-13 AND BV-14.
3. FOR PEDESTAL DETAILS, SEE DWG. BV-13
4. ALL EXPOSED CORNERS OF CONCRETE SHALL BE CHAMFERED 1", UNLESS NOTED OTHERWISE.
5. FOR PILE LAYOUT AND DETAILS, SEE DWGS. BV-16 AND BV-17.
6. 2" PREFORMED, CLOSED CELL FOAM MATERIAL, SPECIFICATION 705-08. COST INCLUDED IN UNDER ITEM 555.970100CA.

PREPARED BY: BARTON & LOGUIDICE, D.P.C.
ON : SEPTEMBER 26, 2018

STATE OF NEW YORK · ROBERT J. SIPZNER · LICENSED PROFESSIONAL ENGINEER · No. 064501

NO.	DATE	BY	REVISION

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ASHOKAN RAIL TRAIL
BRIDGE REPLACEMENT
BOICEVILLE BRIDGE OVER ESOPUS CREEK
ULSTER COUNTY

SOUTH ABUTMENT PLAN

SCALE: AS SHOWN
DATE ISSUED: 9/26/2018
DRAWING BV-11

IN CHARGE OF RJS | DESIGNED BY RSO | CHECKED BY MDP/BSR | DRAFTED BY JDHSr | CHECKED BY RSO/BSR

FILE NAME = L:\MSTN Projects\0300\369.007 - Ashokan Rail Trail\MSTN\2018 Boiceville Bid Set\316.369007001 South Abutment Plan.dgn
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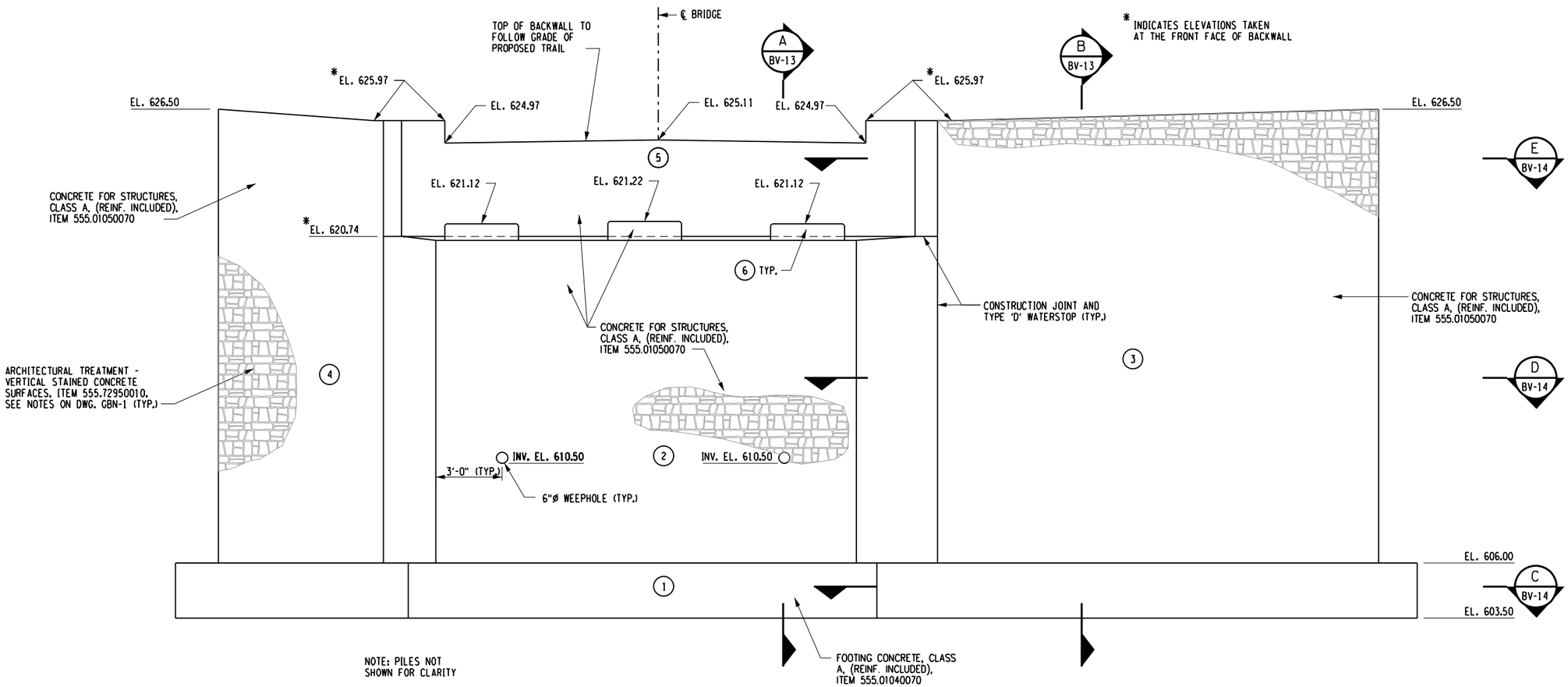

SOUTH ABUTMENT ELEVATION

SCALE: 3/16" = 1'-0"

PREPARED BY: BARTON & LOGUIDICE, D.P.C.
ON : SEPTEMBER 26, 2018

STATE OF NEW YORK * ROBERT J. SIPZNER * LICENSED PROFESSIONAL ENGINEER No. 064501

CONCRETE TABLE - SOUTH ABUT.		
PLACEMENT	QUANTITY (CY)	ITEM NO.
1	77.9	555.01040070
2	62.3	555.01050070
3	37.5	555.01050070
4	21.2	555.01050070
5	6.9	555.01050070
6	0.5	555.01050070

NOTES:

1. FOR KEYWAY AND WATERSTOP DETAILS, SEE SHEET BV-13.
2. FOR ADDITIONAL WINGWALL AND FOOTING DETAILS , SEE DWGS. BV-11 BV-13 AND BV-14.
3. FOR PEDESTAL DETAILS, SEE DWG. BV-13
4. ALL EXPOSED CORNERS OF CONCRETE SHALL BE CHAMFERED 1", UNLESS NOTED OTHERWISE.
5. FOR PILE LAYOUT AND DETAILS, SEE DWGS. BV-16 AND BV-17.

IN CHARGE OF RJS | DESIGNED BY RSO | CHECKED BY MDP/BSR | DRAFTED BY JDHSr | CHECKED BY RSO/BSR

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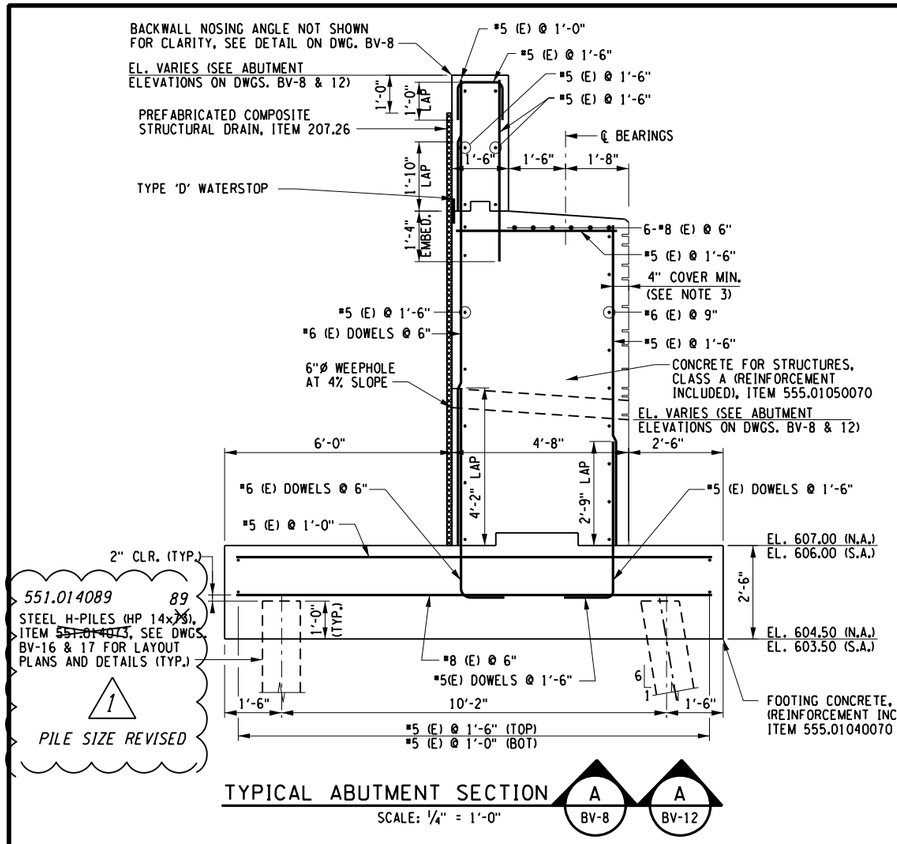
NO.	DATE	BY	REVISION

Barton & Loguidice

ASHOKAN RAIL TRAIL
BRIDGE REPLACEMENT
BOICEVILLE BRIDGE OVER ESOPUS CREEK
ULSTER COUNTY

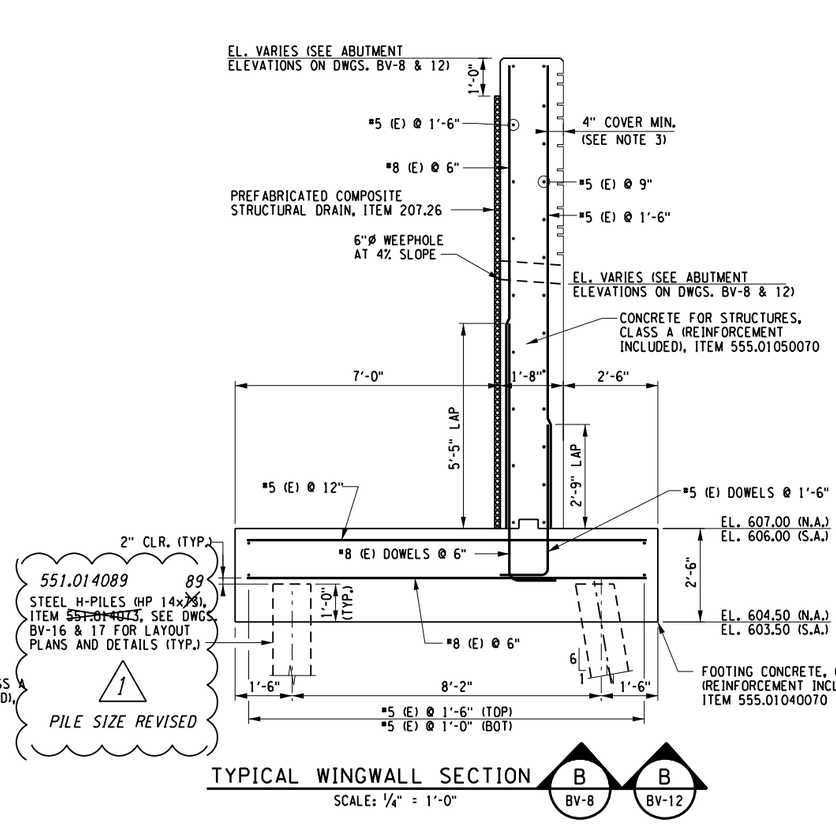
SOUTH ABUTMENT ELEVATION

SCALE: AS SHOWN
DATE ISSUED: 9/26/2018
DRAWING BV-12



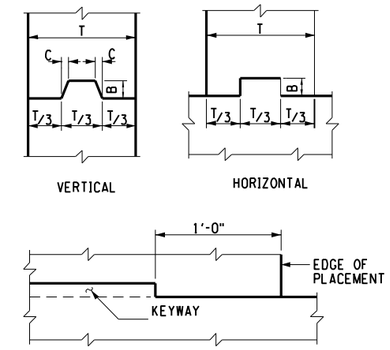
TYPICAL ABUTMENT SECTION A BV-8 A BV-12

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



TYPICAL WINGWALL SECTION B BV-8 B BV-12

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



HORIZONTAL KEYWAY LOCATION

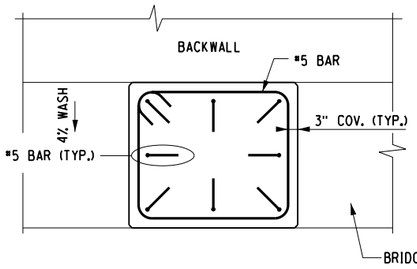
EXPANSION JOINTS		
C	B	T/3
3/8"	3 1/2"	0 TO 10"
3/4"	5 1/2"	10" AND OVER

CONSTRUCTION & CONTRACTION JOINTS		
C	B	T/3
3/16"	1 1/2"	0 TO 6"
3/8"	3 1/2"	6" TO 10"
3/4"	5 1/2"	10" AND OVER

KEYWAY DETAILS

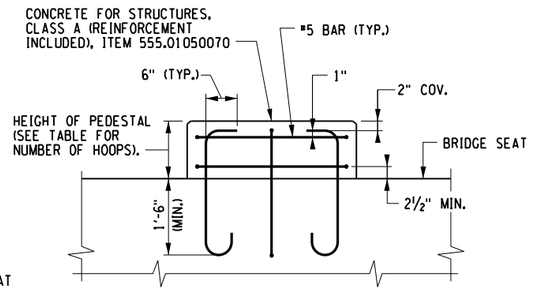
NTS

NOTE:
REINFORCEMENT AND WATERSTOPS NOT SHOWN FOR CLARITY.



PEDESTAL PLAN

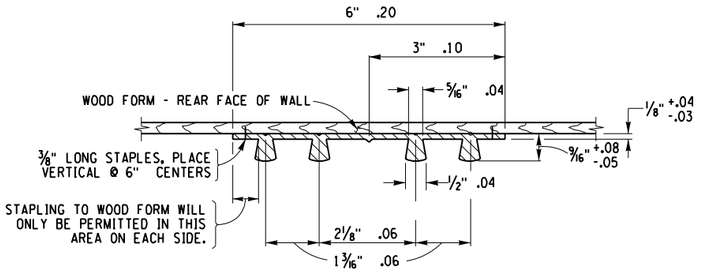
NOT TO SCALE



PEDESTAL ELEVATION

NOT TO SCALE

PEDESTAL HEIGHT	NUMBER OF HOOPS
6" TO 8"	1
8" TO 11"	2
11" TO 14"	3
14" TO 17"	4
17" TO 20"	5



TYPE D WATERSTOP

NOT TO SCALE

NOTES:

HOLES MUST NOT BE MADE IN WATERSTOP FOR ANY PURPOSE EXCEPT AS REQUIRED FOR STAPLING TO FORMS.

TYPE D WATERSTOP SHALL BE LIGHT GRAY IN COLOR.

THE COST OF FURNISHING AND PLACING WATERSTOPS SHALL BE INCLUDED IN THE UNIT PRICES BID FOR THE CONCRETE ITEMS.

FIELD SPLICES SHOULD BE AVOIDED IF POSSIBLE. HOWEVER, HEAT WELDED BUTT SPLICES WILL BE PERMITTED ON LONG STRAIGHT RUNS (GENERALLY IN EXCESS OF 50 FEET) AT POINTS APPROVED BY THE ENGINEER.

WATERSTOP SHALL BE SHIPPED IN STRAIGHT SECTIONS HAVING A MINIMUM LENGTH OF 10 FEET UNLESS SHORTER LENGTHS ARE REQUIRED.

PREMOULDED RESILIENT JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF N.Y.S. STANDARD SPECIFICATION SUBSECTION 705-07.

PVC USED IN WATERSTOPS SHALL CONFORM TO THE REQUIREMENTS OF N.Y.S. STANDARD SPECIFICATIONS SUBSECTION 705-11.

NOTES:

1. ALL STEEL REINFORCING BARS SHALL BE ASTM A615, GRADE 60, UNLESS OTHERWISE NOTED.
2. COVER FOR STEEL REINFORCEMENT IN FOOTING SHALL BE 3 INCHES UNLESS OTHERWISE NOTED. ALL OTHER COVER SHALL BE 2 INCHES UNLESS OTHERWISE NOTED.
3. 4" REINFORCEMENT COVER BASED ON A 2" REVEAL OF THE FORMLINER PATTERN. IF THE ACTUAL FORMLINER USED HAS A MAXIMUM REVEAL GREATER THAN 2", THE CONTRACTOR SHALL ADJUST THE WALL THICKNESS ACCORDINGLY TO MAINTAIN A MINIMUM REINFORCEMENT COVER OF 2" TO THE FORMLINER REVEAL. SEE DWG. GBN-1 FOR ADDITIONAL FORM LINER NOTES.
4. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 1 INCH UNLESS OTHERWISE NOTED.
5. (E) DENOTES EPOXY COATED BARS.

PREPARED BY: BARTON & LOGUIDICE, D.P.C.
ON: OCTOBER 3, 2018

STATE OF NEW YORK * ROBERT J. SIPZNER * No. 064501 LICENSED PROFESSIONAL ENGINEER

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NO.	DATE	BY	REVISION
1	10/3	BSR	AS SHOWN

Barton & Loguidice

ASHOKAN RAIL TRAIL
BRIDGE REPLACEMENT
BOICEVILLE BRIDGE OVER ESOPUS CREEK
ULSTER COUNTY

TYPICAL REINFORCEMENT DETAILS - 1

SCALE: AS SHOWN
DATE ISSUED: 10/3/2018
DRAWING
BV-13 R1

IN CHARGE OF RJS DESIGNED BY RSO CHECKED BY MDP/BSR DRAFTED BY JDHSr CHECKED BY RSO/BSR

FILE NAME = L:\MSTN Projects\0300\369.007 - Ashokan Rail Trail\MSTN\2018 Boiceville Bid Set Addendum 1\318.369007001 Reinf Sections 1.dgn
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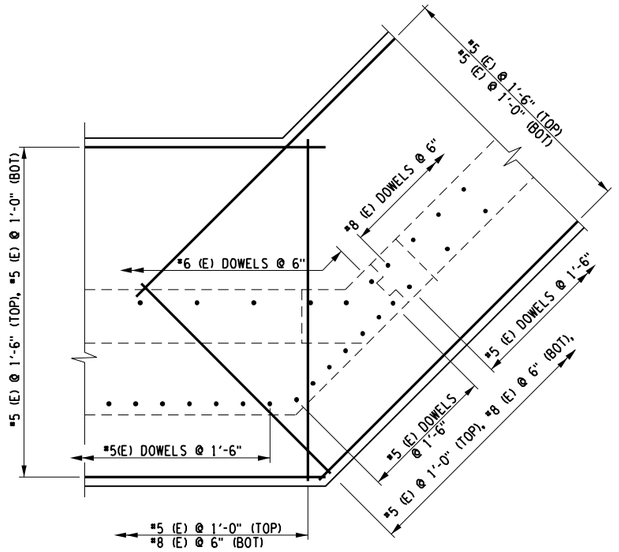
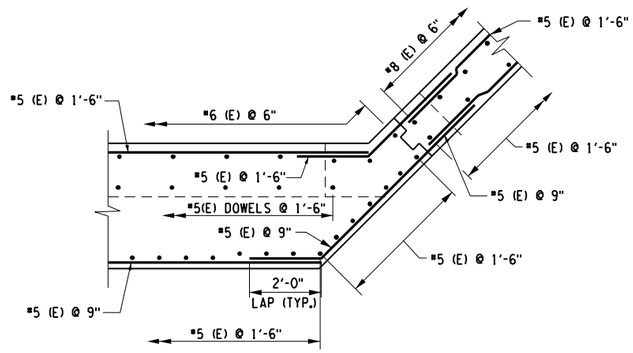


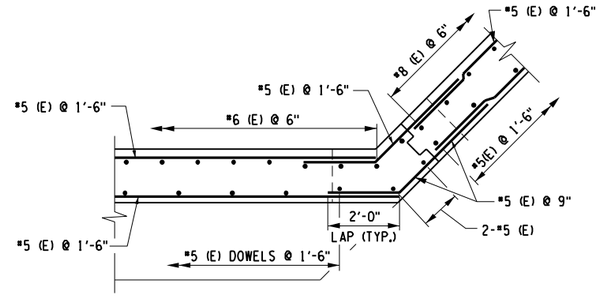
TYPICAL CORNER SECTION — C / BV-8, C / BV-12

(N.E. CORNER SHOWN, OTHERS SIMILAR)
N.T.S.



TYPICAL CORNER SECTION — D / BV-8, D / BV-12

(N.E. CORNER SHOWN, OTHERS SIMILAR)
N.T.S.



TYPICAL CORNER SECTION — E / BV-8, E / BV-12

(N.E. CORNER SHOWN, OTHERS SIMILAR)
N.T.S.

NOTES:

1. ALL STEEL REINFORCING BARS SHALL BE ASTM A615, GRADE 60, UNLESS OTHERWISE NOTED.
2. COVER FOR STEEL REINFORCEMENT IN FOOTING SHALL BE 3 INCHES UNLESS OTHERWISE NOTED. ALL OTHER COVER SHALL BE 2 INCHES UNLESS OTHERWISE NOTED.
3. 4" REINFORCEMENT COVER BASED ON A 2" REVEAL OF THE FORMLINER PATTERN. IF THE ACTUAL FORMLINER USED HAS A MAXIMUM REVEAL GREATER THAN 2", THE CONTRACTOR SHALL ADJUST THE WALL THICKNESS ACCORDINGLY TO MAINTAIN A MINIMUM REINFORCEMENT COVER OF 2" TO THE FORMLINER REVEAL. SEE DWG. GBN-1 FOR ADDITIONAL FORM LINER NOTES.
4. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 1 INCH UNLESS OTHERWISE NOTED.
5. (E) DENOTES EPOXY COATED BARS.

PREPARED BY: BARTON & LOGUIDICE, D.P.C.
ON : SEPTEMBER 26, 2018

STATE OF NEW YORK · ROBERT J. SIPZNER · No. 064501 · LICENSED PROFESSIONAL ENGINEER

46
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NO.	DATE	BY	REVISION

Barton & Loguidice

ASHOKAN RAIL TRAIL
BRIDGE REPLACEMENT
BOICEVILLE BRIDGE OVER ESOPUS CREEK
ULSTER COUNTY

TYPICAL REINFORCEMENT DETAILS - 2

SCALE: AS SHOWN
DATE ISSUED: 9/26/2018
DRAWING BV-14

IN CHARGE OF RJS | DESIGNED BY RSO | CHECKED BY MDP/BSR | DRAFTED BY JDHSr

FILE NAME = L:\MSTN Projects\0300\369.007 - Ashokan Rail Trail\MSTN\2018 Boiceville Bid Set\319.369007001 Reinf Sections 2.dgn
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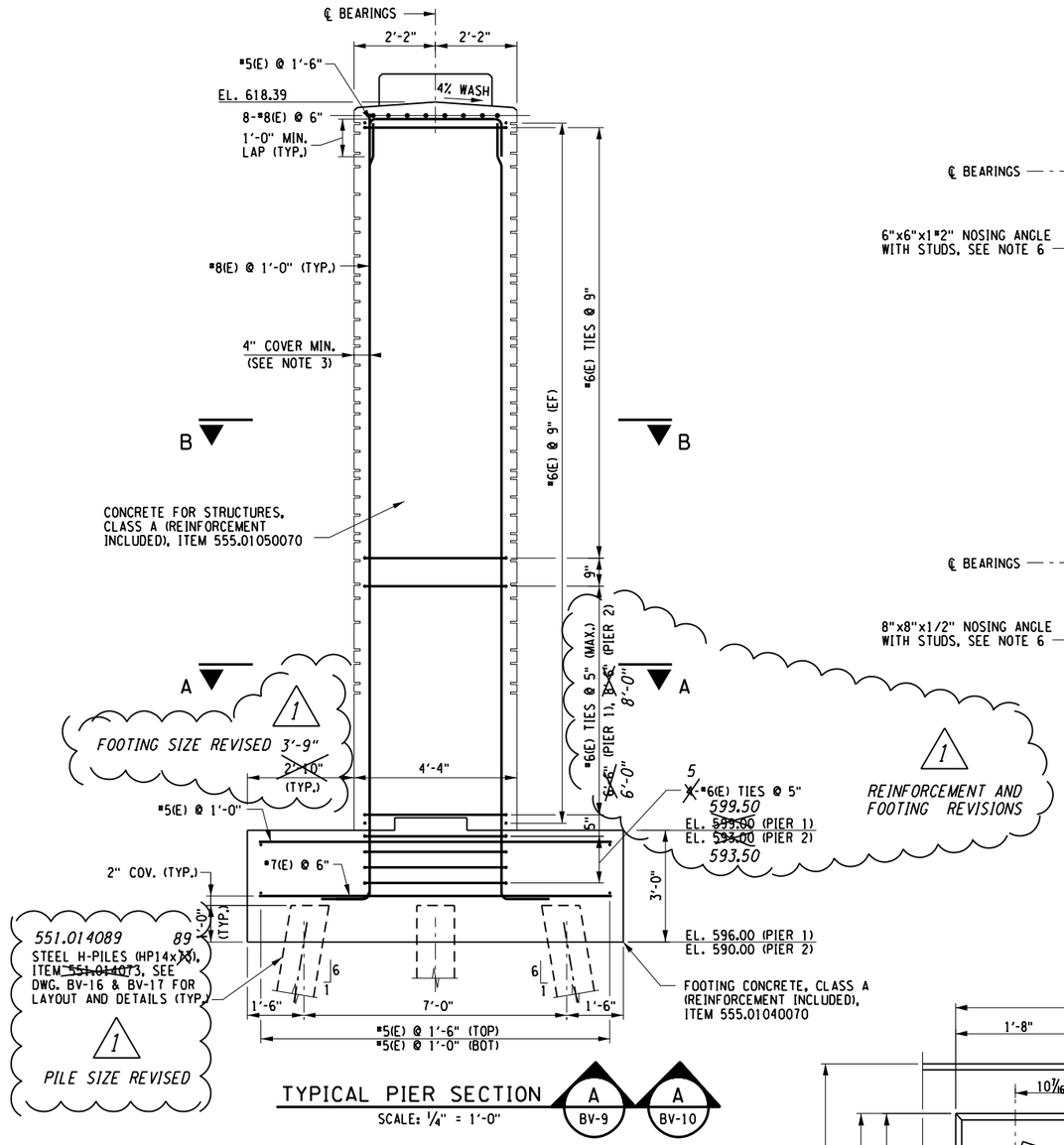
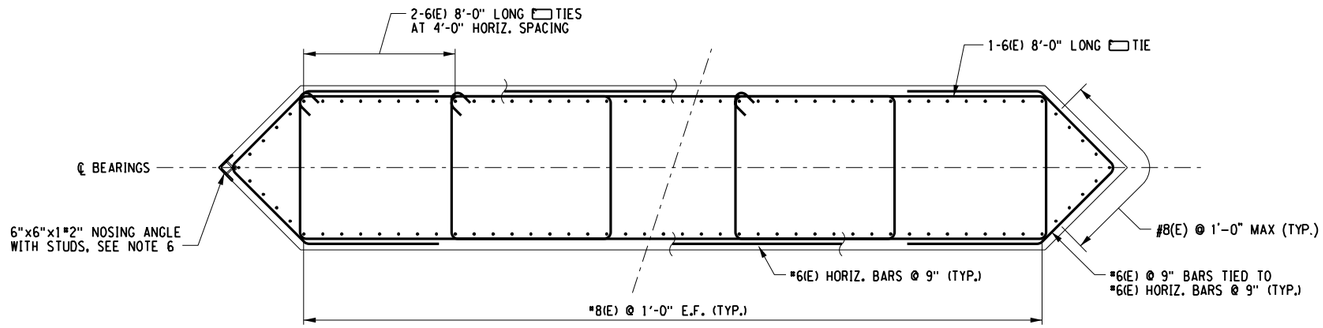
CHECKED BY RSO/BSR



TYPICAL PIER SECTION

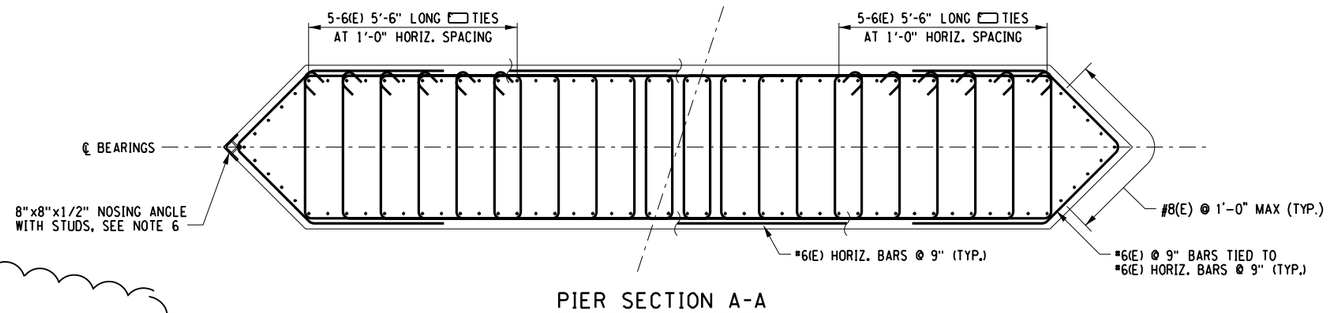
SCALE: 1/4" = 1'-0"

A BV-9 A BV-10



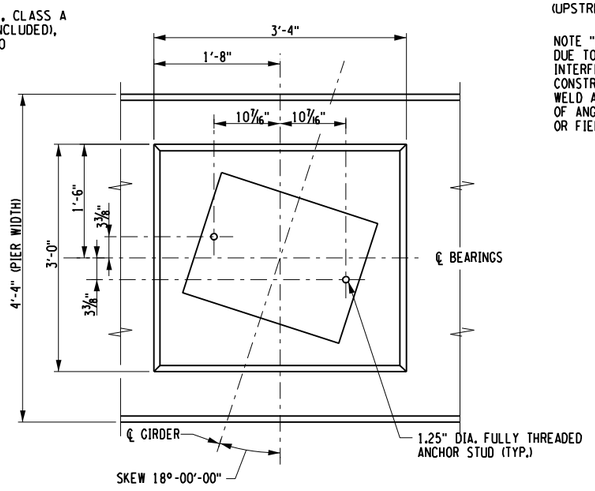
PIER SECTION B-B

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



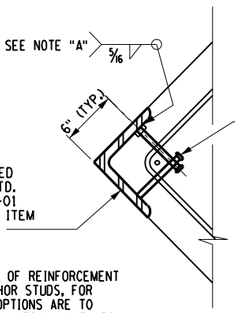
PIER SECTION A-A

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



TYPICAL PIER ANCHOR BOLT LAYOUT

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



NOTE "A"
DUE TO THE POSSIBILITY OF REINFORCEMENT INTERFERENCE WITH ANCHOR STUDS, FOR CONSTRUCTABILITY THE OPTIONS ARE TO WELD A563 GRADE A HEX NUTS ON ONE LEG OF ANGLE AND USE THREADED ANCHOR STUDS OR FIELD WELD ANCHOR STUDS TO ANGLE

PIER NOSING NOTES:

ALL CONCRETE ANCHOR STUDS WHICH ARE ATTACHED TO THE NOSING ANGLE SHALL MEET THE REQUIREMENTS LISTED IN N.Y.S. STD. SPEC. SUB-SECTION 709-05, STUD SHEAR CONNECTORS. PAYMENT FOR FURNISHING AND PLACING THE ANCHOR STUDS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 555.01050070.

PIER NOSE PROTECTION SHOULD BE EXTENDED FROM TOP OF FOOTING TO 1'-0" BELOW TOP OF PIER ELEVATION.

PIER NOSE DETAIL

NOT TO SCALE

NOTES:

1. ALL STEEL REINFORCING BARS SHALL BE ASTM A615, GRADE 60, UNLESS OTHERWISE NOTED.
2. COVER FOR STEEL REINFORCEMENT IN FOOTING SHALL BE 3 INCHES UNLESS OTHERWISE NOTED. ALL OTHER COVER SHALL BE 2 INCHES UNLESS OTHERWISE NOTED.
3. 4" REINFORCEMENT COVER BASED ON A 2" REVEAL OF THE FORMLINER PATTERN. IF THE ACTUAL FORMLINER USED HAS A MAXIMUM REVEAL GREATER THAN 2", THE CONTRACTOR SHALL ADJUST THE WALL THICKNESS ACCORDINGLY TO MAINTAIN A MINIMUM REINFORCEMENT COVER OF 2" TO THE FORMLINER REVEAL. SEE DWG. GBN-1 FOR ADDITIONAL FORM LINER NOTES.
4. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 1 INCH UNLESS OTHERWISE NOTED.
5. (E) DENOTES EPOXY COATED BARS.
6. ALL CONCRETE ANCHOR STUDS WHICH ARE ATTACHED TO THE PIER NOSING SHALL MEET THE REQUIREMENTS LISTED MATERIAL SUBSECTION 709-05, STUD SHEAR CONNECTORS. PAYMENT FOR FURNISHING AND PLACINGTHE CONCRETE ANCHORS AND ANGLE WILL BE INCLUDED IN THE PRICE BID FOR THE CONCRETE ITEM TO WHICH THE ANCHORS ARE ATTACHED.

PREPARED BY: BARTON & LOGUIDICE, D.P.C.
ON : OCTOBER 3, 2018

STATE OF NEW YORK ROBERT J. SIPZNER LICENSED PROFESSIONAL ENGINEER No. 064501

NO.	DATE	BY	REVISION
1	10/3	BSR	AS SHOWN

47R1
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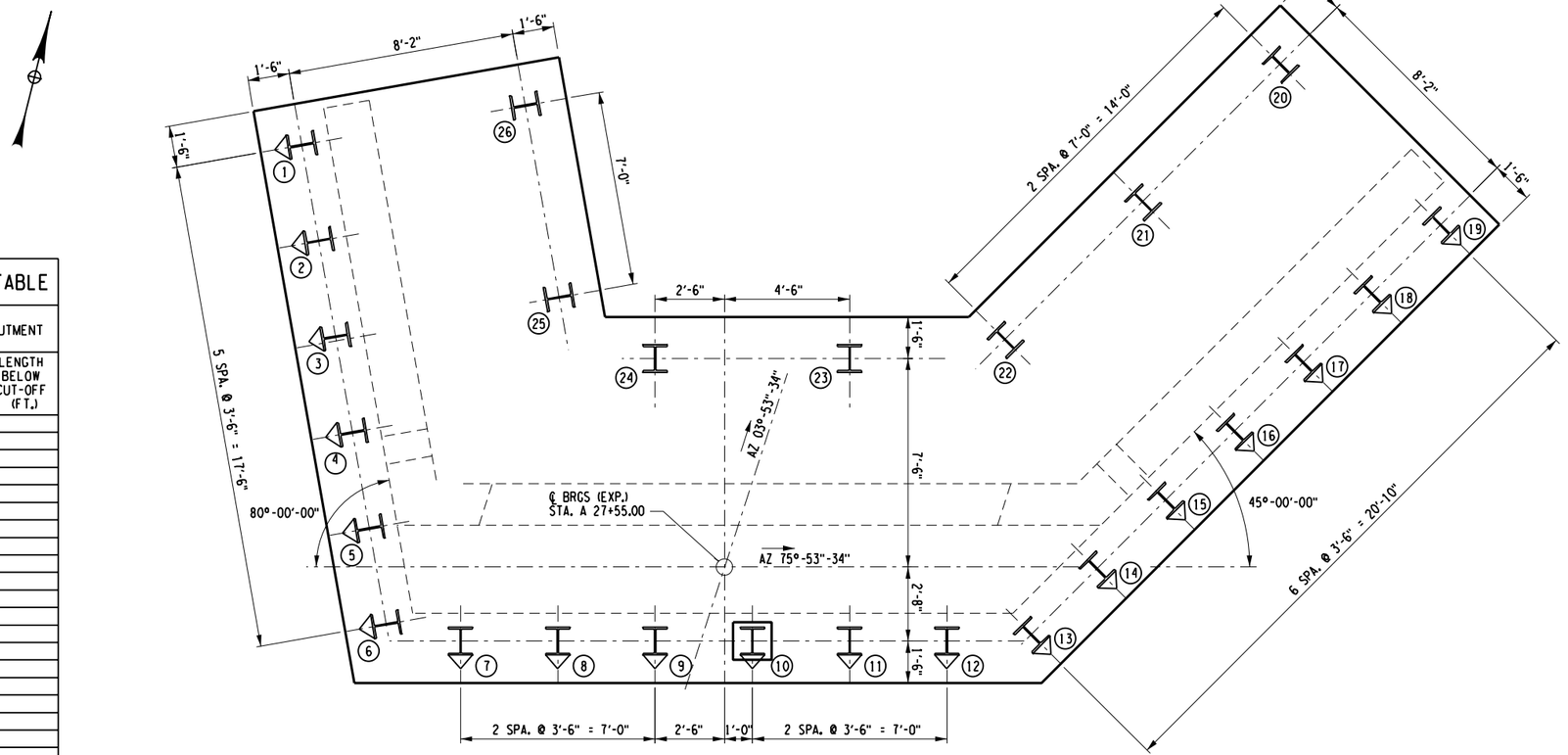
Barton & Loguidice

ASHOKAN RAIL TRAIL
BRIDGE REPLACEMENT
BOICEVILLE BRIDGE OVER ESOPUS CREEK
ULSTER COUNTY

TYPICAL REINFORCEMENT DETAILS - 3

SCALE: AS SHOWN
DATE ISSUED: 10/3/2018
DRAWING
BV-15 R1

PILE TABLE	
NORTH ABUTMENT	
PILE NO.	LENGTH BELOW CUT-OFF (FT.)
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	
26	



NORTH ABUTMENT PILE LAYOUT
SCALE: 3/16" = 1'-0"

PILE LEGEND:

- INDICATES HP14x~~73~~89 STEEL BEARING PILE, ITEM ~~551.014015~~ 551.014089
- INDICATES 1:6 BATTERED HP14x~~73~~89 STEEL BEARING PILE, ITEM ~~551.014015~~ 551.014089
- DYNAMIC PILE LOAD TESTING, ITEM 551.14
- (3) - INDICATES PILE NUMBER

ONE DYNAMIC PILE LOAD TEST SHALL BE PERFORMED FOR EACH ABUTMENT AND PIER (FOUR TOTAL). THE TEST SHALL BE PERFORMED ON THE FIRST PILE DRIVEN AT EACH ABUTMENT. ITEM 551.14.

ALL PILES SHALL BE ASTM A709, GRADE 50.

NORTH ABUTMENT:

PILES SHOWN SHALL BE DRIVEN TO A MINIMUM NOMINAL CAPACITY OF ~~234~~ 438 KIPS PER PILE.

PILE CUT-OFF ELEVATION IS 605.50.

THE MINIMUM PILE LENGTH AT THE NORTH ABUTMENT IS 33'.

PIER 1:

THE PIER 1 PILES SHOWN SHALL BE DRIVEN TO A MINIMUM NOMINAL CAPACITY OF ~~540~~ 522 KIPS PER PILE.

PIER 1 PILE CUT-OFF ELEVATION IS 597.00.

THE MINIMUM PILE LENGTH FOR PIER 1 IS ~~43'-0"~~ 31'-0".

PIER 2:

THE PIER 2 PILES SHOWN SHALL BE DRIVEN TO A MINIMUM NOMINAL CAPACITY OF ~~502~~ 483 KIPS PER PILE.

PIER 2 PILE CUT-OFF ELEVATION IS 591.00.

THE MINIMUM PILE LENGTH FOR PIER 2 IS ~~37'-0"~~ 25'-0".

SOUTH ABUTMENT:

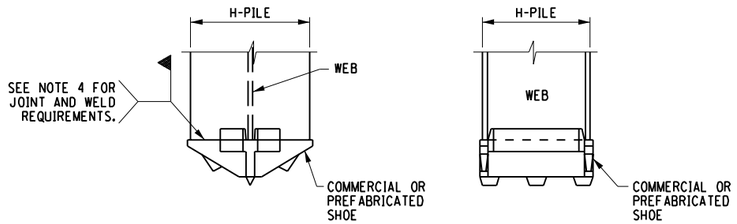
THE SOUTH ABUTMENT PILES SHOWN SHALL BE DRIVEN TO A MINIMUM NOMINAL CAPACITY OF ~~372~~ 388 KIPS PER PILE.

SOUTH ABUTMENT PILE CUT-OFF ELEVATION IS 604.50.

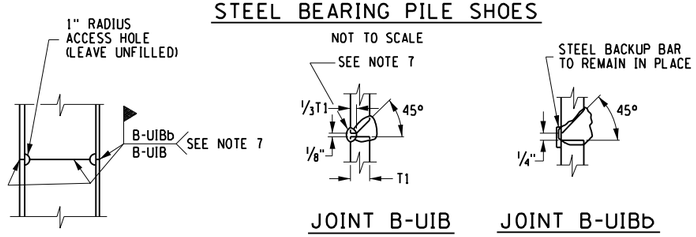
THE MINIMUM PILE LENGTH FOR THE SOUTH ABUTMENT IS ~~26'-0"~~ 23'-0"

1

PILE SIZE, LOADING AND MINIMUM LENGTH REVISED



STEEL BEARING PILE SHOES



JOINT B-UIB JOINT B-UIBb

SPLICE FOR STEEL BEARING PILE
NOT TO SCALE

PILE SHOE AND SPLICE NOTES:

1. COMMERCIAL OR PREFABRICATED SHOES ARE SUBJECT TO THE APPROVAL OF THE ENGINEER.
2. THE SHOE SHALL BE ATTACHED BY A NYSDOT CERTIFIED WELDER.
3. A "WELDING PROCEDURE SPECIFICATION" (WPS) APPROVED BY THE ENGINEER IS REQUIRED.
4. THE SHOE WELD JOINT DESIGN SHALL BE DONE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION, AND AS SHOWN ON THE APPROVED WPS.
5. IF SHOES ARE WELDED AT A LOCATION OTHER THAN THE PROJECT SITE, ALL OF THE ABOVE PROVISIONS SHALL APPLY TO THE OFFSITE FABRICATOR. THE ENGINEER SHALL BE NOTIFIED BY THE CONTRACTOR OF THE ACTUAL LOCATION WHERE THE WELDING WILL BE PERFORMED A MINIMUM OF 5 WORKING DAYS BEFORE WORK COMMENCES.
6. ALL WELDING SHALL BE PERFORMED BY A CERTIFIED WELDER IN CONFORMANCE WITH REQUIREMENTS FOR WELDING SPECIFIED IN THE N.Y.S. STEEL CONSTRUCTION MANUAL.
7. EITHER JOINT MAY BE USED AT CONTRACTOR'S OPTION.
8. B-UIB: AIR CARBON ARC GOUGE TO SOUND WELD METAL PRIOR TO WELDING THE SECOND SIDE. THE GOUGE SHALL HAVE A 1/4" MINIMUM RADIUS AT THE ROOT WITH THE TOP SLOPED BACK AT 45n MINIMUM.

PREPARED BY: BARTON & LOGUIDICE, D.P.C.
ON : OCTOBER 3, 2018

NO.	DATE	BY	REVISION
1	10/3	BSR	AS SHOWN

48R1
65

Barton & Loguidice

ASHOKAN RAIL TRAIL
BRIDGE REPLACEMENT
BOICEVILLE BRIDGE OVER ESOPUS CREEK
ULSTER COUNTY

NORTH ABUTMENT PILE PLAN AND DETAILS

SCALE: AS SHOWN
DATE ISSUED: 10/3/2018
DRAWING BV-16 R1

IN CHARGE OF RJS DESIGNED BY RSO DRAFTED BY JDHSr CHECKED BY MDP/BSR CHECKED BY RSO/BSR

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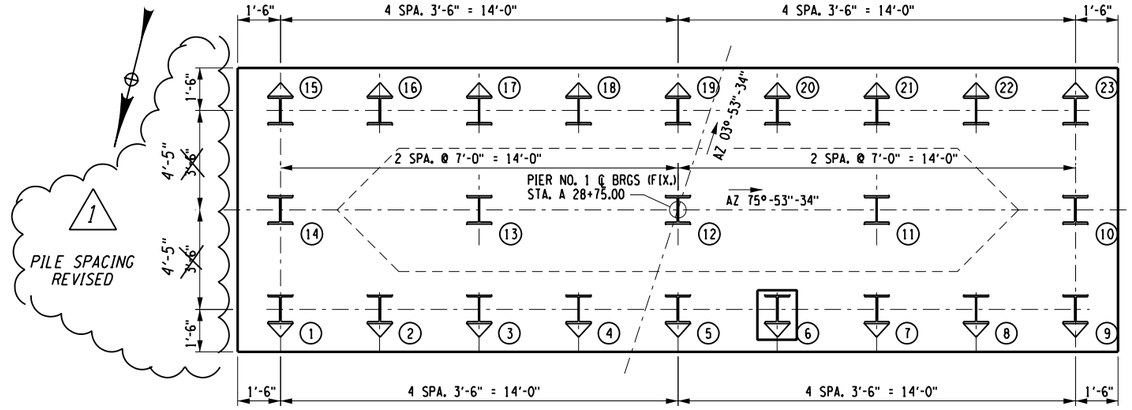
PILE TABLE

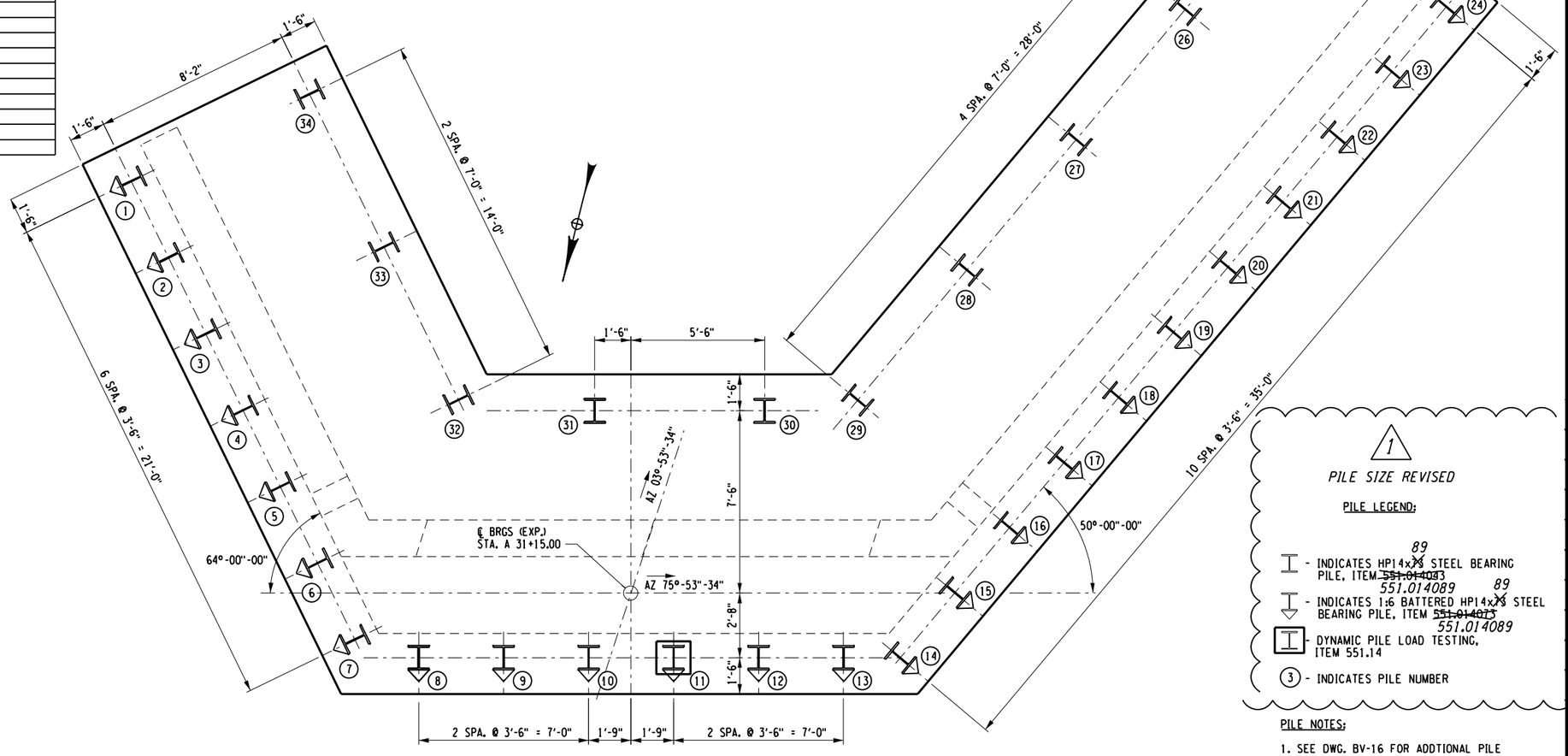
PIER NO. 1		PIER NO. 2		SOUTH ABUTMENT	
PILE NO.	LENGTH BELOW CUT-OFF (FT.)	PILE NO.	LENGTH BELOW CUT-OFF (FT.)	PILE NO.	LENGTH BELOW CUT-OFF (FT.)
1		1		1	
2		2		2	
3		3		3	
4		4		4	
5		5		5	
6		6		6	
7		7		7	
8		8		8	
9		9		9	
10		10		10	
11		11		11	
12		12		12	
13		13		13	
14		14		14	
15		15		15	
16		16		16	
17		17		17	
18		18		18	
19		19		19	
20		20		20	
21		21		21	
22		22		22	
23		23		23	
-		-		24	
-		-		25	
-		-		26	
-		-		27	
-		-		28	
-		-		29	
-		-		30	
-		-		31	
-		-		32	
-		-		33	
-		-		34	



PIER NO. 1 PILE LAYOUT

SCALE: 3/16" = 1'-0"

(PIER NO. 1 SHOWN, PIER NO. 2 SAME LAYOUT)



SOUTH ABUTMENT PILE LAYOUT

SCALE: 3/16" = 1'-0"

1 *PILE SIZE REVISED*

PILE LEGEND:

- I - INDICATES HP14x~~73~~ 89 STEEL BEARING PILE, ITEM ~~551.014073~~ 551.014089
- I - INDICATES 1:6 BATTERED HP14x~~73~~ 89 STEEL BEARING PILE, ITEM ~~551.014073~~ 551.014089
- DYNAMIC PILE LOAD TESTING, ITEM 551.14
- (3) - INDICATES PILE NUMBER

PILE NOTES:

1. SEE DWG. BV-16 FOR ADDTIONAL PILE NOTES, DETAILS AND TABLES.

PREPARED BY: BARTON & LOGUIDICE, D.P.C.
ON: OCTOBER 3, 2018

STATE OF NEW YORK · ROBERT J. SIPZNER · No. 066501 · LICENSED PROFESSIONAL ENGINEER

NO.	DATE	BY	REVISION
1	10/3	BSR	AS SHOWN

49R1
65

Barton & Loguidice

ASHOKAN RAIL TRAIL
BRIDGE REPLACEMENT
BOICEVILLE BRIDGE OVER ESOPUS CREEK
ULSTER COUNTY

SOUTH ABUTMENT AND PIER PLANS AND DETAILS

SCALE: AS SHOWN

DATE ISSUED: 10/3/2018

DRAWING
BV-17 R1

IN CHARGE OF RJS | DESIGNED BY RSO | CHECKED BY MDP/BSR | DRAFTED BY JDHSr | CHECKED BY RSO/BSR

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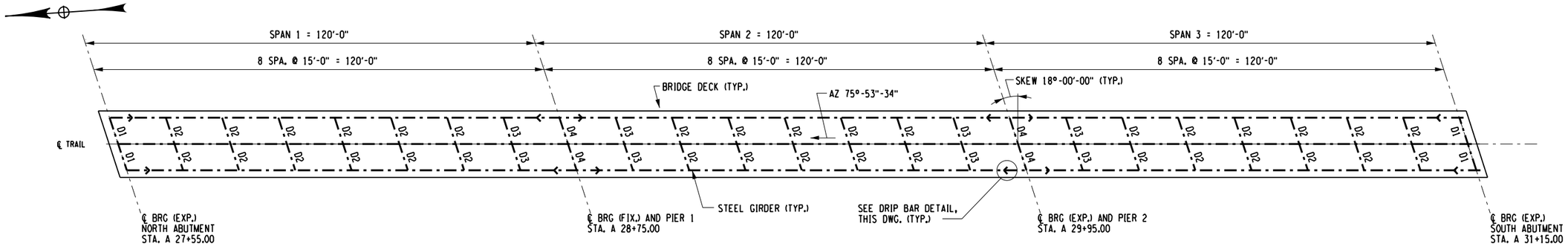
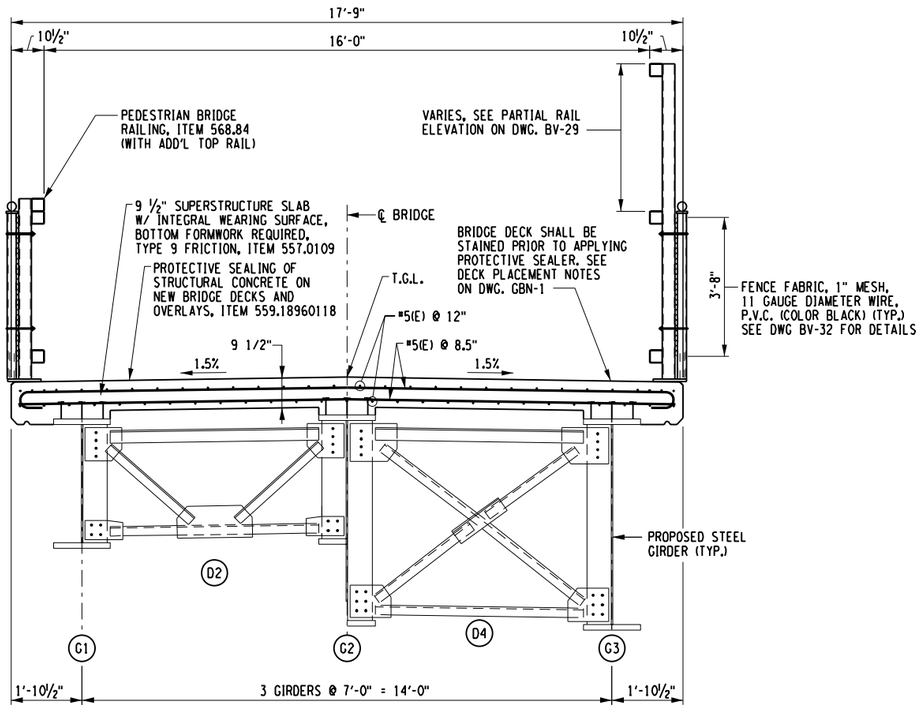
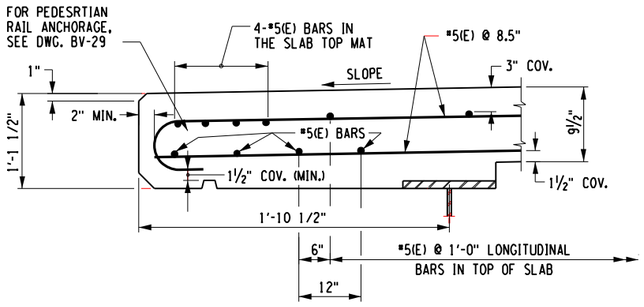


FRAMING PLAN
SCALE: 1" = 30'-0"



TRANSVERSE BRIDGE SECTION
SCALE: ¼" = 1'-0"
(FOR ADDTIONAL DIAPHRAGM DETAILS, SEE DWG. BV-20)



FASCIA DETAIL
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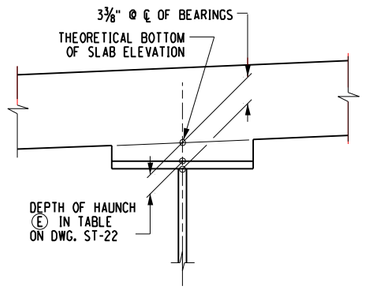
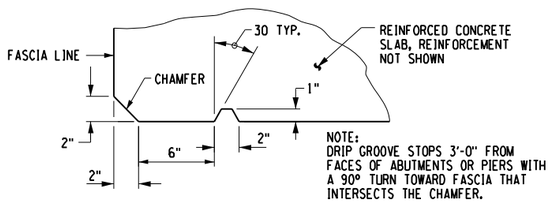


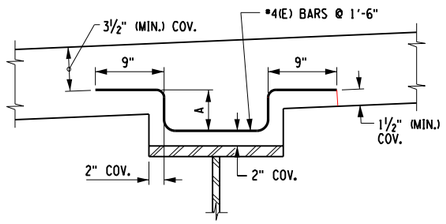
GIRDER HAUNCH DETAIL
NOT TO SCALE

NOTES:

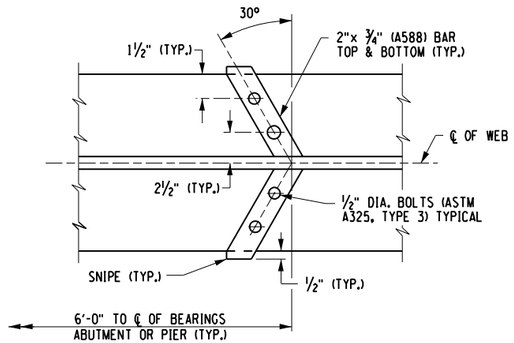
1. CONNECTIONS SHALL BE MADE ACCORDING TO THE NEW YORK STATE STEEL CONSTRUCTION MANUAL.
2. UNLESS OTHERWISE INDICATED, BOLTED CONNECTIONS SHALL BE MADE WITH 7/8" DIA., A325, TYPE 3 HIGH-STRENGTH BOLTS.
3. THE CONTRACTOR MAY PLACE DIAPHRAGMS ON EITHER SIDE OF THE BEARING STIFFENERS OR CONNECTION PLATES AS NECESSARY TO CORRECT ALIGNMENT PROVIDED THERE WILL BE NO INTERFERENCE WITH OTHER STRUCTURAL DETAILS.
4. ALL BOLT HEADS SHALL BE PLACED ON THE TOP SIDE OF CONNECTIONS UNLESS OTHERWISE NOTED.
5. THE ENDS OF ALL GIRDERS AND BEARING STIFFENERS SHALL BE VERTICAL. THE CONNECTION PLATES SHALL BE PERPENDICULAR TO THE TOP FLANGES.
6. TAPERED OR FLAT SHIM PLATES MAY BE USED IN THE CONNECTION BETWEEN SKEWED DIAPHRAGMS AND THE BEARING STIFFENERS, STIFFENER CONNECTION PLATES OR GUSSET PLATES. VARIABLE THICKNESSES OF SHIM PLATES MAY BE USED. THE MINIMUM THICKNESS OF SHIM PLATE SHALL BE 1/8 " WITH A MAXIMUM NUMBER OF THREE SHIM PLATES PERMITTED AT ANY CONNECTION. THE TOTAL THICKNESS OF ALL SHIM PLATES USED AT ANY CONNECTION SHALL NOT EXCEED 1". SHIM PLATES SHALL HAVE THE DIMENSIONS OF THE FAYING SURFACE. SHIM PLATES SHALL CONFORM TO ASTM DESIGNATION A709 FOR STEEL APLLICATIONS. NO ADDITIONAL PAYMENT WILL BE MADE FOR FURNISHING AND PLACING THE SHIM PLATES.
7. DIAPHRAGM MEMBERS SHALL BE BLOCKED AS SHOWN, WITH THEIR FLANGE CUT BACK ON ONE SIDE, AND CHIPPED OR GROUND FLUSH. IN LIEU OF BLOCKING THE DIAPHRAGM MEMBER, THE FABRICATOR SHALL HAVE THE OPTION OF COPING THE FLANGE.
8. THE CONTRACTOR SHALL PROVIDE FOR THE STABILITY OF STRUCTURAL STEEL DURING ALL PHASES OF ERECTION AND CONSTRUCTION, AS PROVIDED IN SUBSECTION 204 OF THE NEW YORK STATE STEEL CONSTRUCTION MANUAL (SCM). THE GIRDERS ON THIS BRIDGE SHALL BE STABILIZED DURING ERECTION BY USE OF FALSEWORK, TEMPORARY BRACING, COMPRESSION FLANGE STIFFENING TRUSSES, CHOOSING ALTERNATE PICKING POINTS, OR BY USE OF A HOLDING CRANE UNTIL A SUFFICIENT NUMBER OF GIRDERS HAVE BEEN ERECTED AND CROSS FRAMES INSTALLED. THE METHODS USED BY THE CONTRACTOR SHALL BE DOCUMENTED ON THE ERECTION DRAWINGS WITH ALL SUPPORTING STABILITY CALCULATIONS SUBMITTED AND STAMPED BY A LICENSED NEW YORK STATE PROFESSIONAL ENGINEER
9. SEE DWG. BV-20 FOR DIAPHRAGM DETAILS. MAKE NOTE THAT INTERMEDIATE DIAPHRAGMS ARE ATTACHED TO CONNECTION PLATES AND ARE PLACED PERPENDICULAR TO THE CENTERLINE OF THE ROAD WHILE END DIAPHRAGMS ARE CONNECTED TO BEARING SIFFENERS AND ARE PLACED PARALLEL TO THE CENTERLINE OF BEARINGS.



DRIP GROOVE DETAIL
N.T.S.



REINFORCED GIRDER HAUNCH DETAIL
NOT TO SCALE



DRIP BAR DETAIL
N.T.S.

PREPARED BY: BARTON & LOGUIDICE, D.P.C.
ON : SEPTEMBER 26, 2018

STATE OF NEW YORK · ROBERT J. SIPZNER · No. 066501 · LICENSED PROFESSIONAL ENGINEER

IN CHARGE OF RJS | DESIGNED BY RSO | DRAFTED BY JDHSr | CHECKED BY MDP/BSR | CHECKED BY RSO/BSR

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ULSTER COUNTY

Barton & Loguidice

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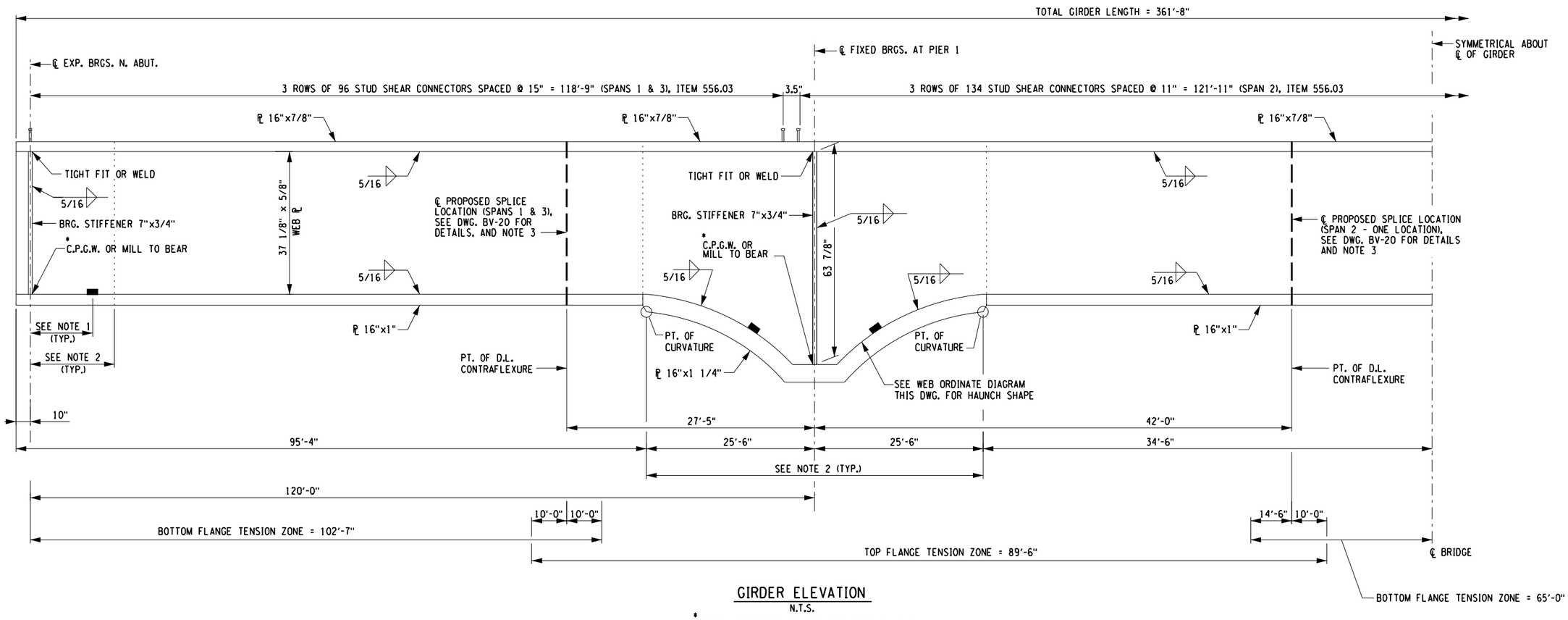
ASHOKAN RAIL TRAIL
BRIDGE REPLACEMENT
BOICEVILLE BRIDGE OVER ESOPUS CREEK
ULSTER COUNTY

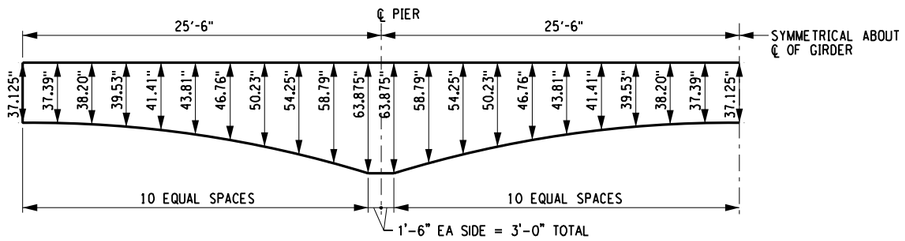
TRANSVERSE BRIDGE SECTION AND FRAMING PLAN

SCALE: AS SHOWN
DATE ISSUED: 9/26/2018
DRAWING
BV-18

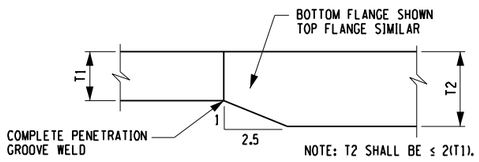


GIRDER ELEVATION
N.T.S.

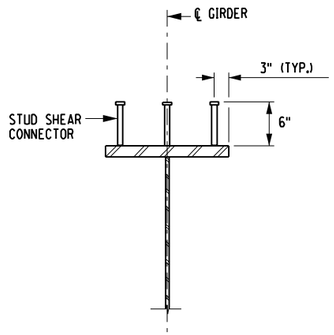
* C.P.G.W.-COMPLETE PENETRATION GROOVE WELD



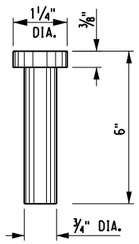
WEB ORDINATE DIAGRAM (TYP. BOTH HAUNCHES)
N.T.S.



FLANGE THICKNESS TAPER
N.T.S.



STUD SHEAR CONNECTOR DETAIL
NOT TO SCALE



STUD DETAIL
NOT TO SCALE

GIRDER NOTES:

1. DRIP BAR LOCATE 6' FROM ℄ BEARINGS AT ABUTMENTS AND PIERS, SEE DETAIL ON DWG. BV-18.
2. PAINTING LIMITS FROM ℄ OF BEAINGS IS 7'-0" AT ABUMENTS AND 25'-6" EACH SIDE AT PIERS, SEE PAINTING NOTES ON DWG. GBN-1.
3. THERE ARE THREE (3) TOTAL SPLICES PER GIRDER, 27'-5" NORTH OF PIER #1, 42'-0" SOUTH OF PIER #1, AND 27'-5" SOUTH OF PIER #2.

PREPARED BY: BARTON & LOGUIDICE, D.P.C.
ON : SEPTEMBER 26, 2018

IN CHARGE OF RJS | DESIGNED BY RSO | CHECKED BY MDP/BSR | DRAFTED BY JDHSr | CHECKED BY RSO/BSR

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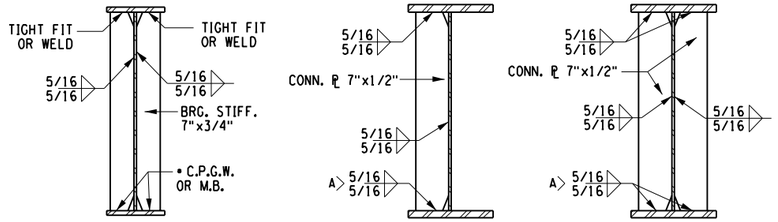
Barton & Loguidice

ASHOKAN RAIL TRAIL
BRIDGE REPLACEMENT
BOICEVILLE BRIDGE OVER ESOPUS CREEK
ULSTER COUNTY

GIRDER DETAILS - 1

SCALE: AS SHOWN
DATE ISSUED: 9/26/2018
DRAWING BV-19

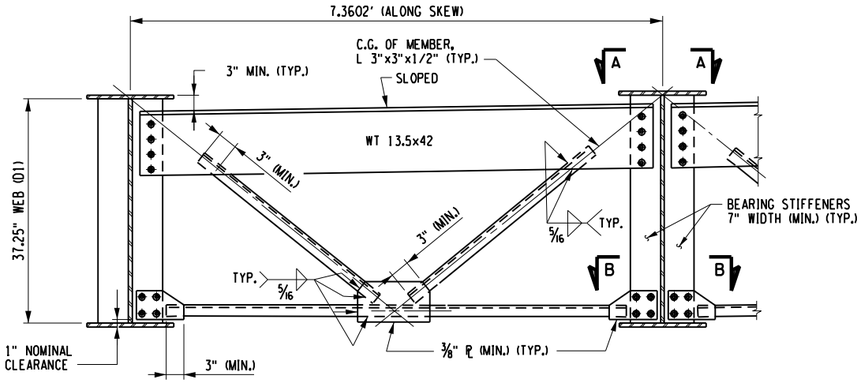


BEARING STIFFENER AT ABUTMENTS AND PIERS

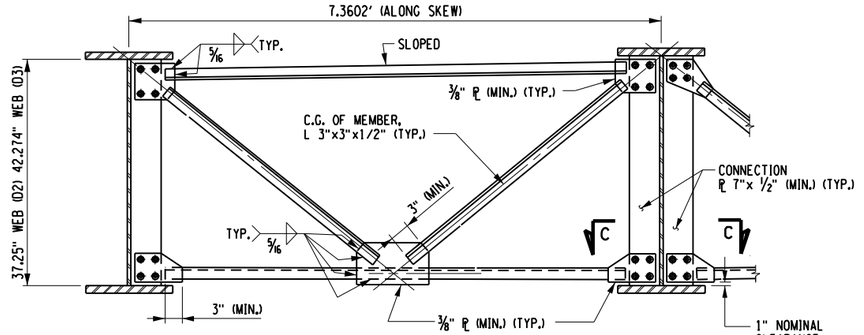
FASCIA GIRDER CONNECTION ℄

INTERIOR GIRDER CONNECTION ℄

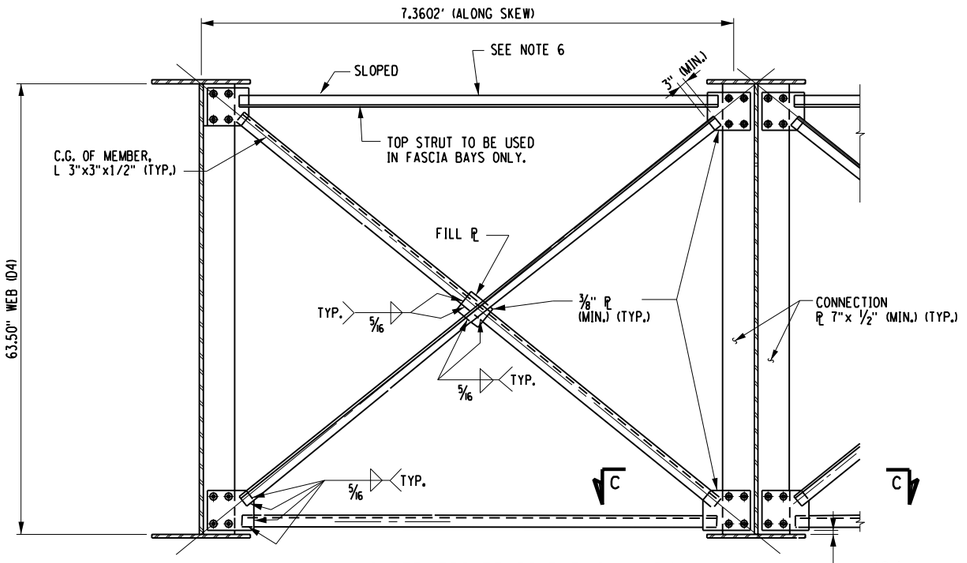
GIRDER SECTIONS
N.T.S.



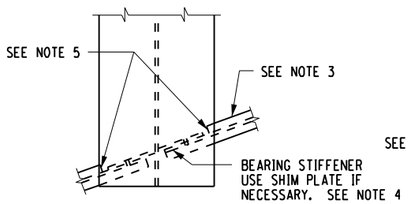
END DIAPHRAGM - D1
N.T.S.



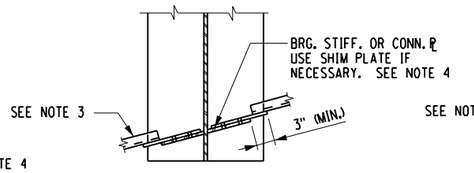
INTERMEDIATE DIAPHRAGMS D2 AND D3
N.T.S.



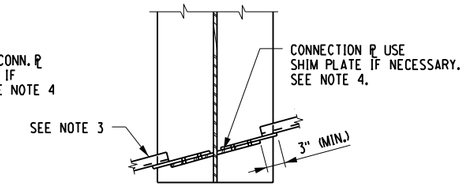
INTERMEDIATE DIAPHRAGM - D4
N.T.S.



SECTION A-A
N.T.S.



SECTION B-B
N.T.S.



SECTION C-C
N.T.S.

NOTES:

• C.P.G.W. = COMPLETE PENETRATION GROOVE WELD

• M.B. = MILL TO BEAR

NO WELDING SHALL BE ALLOWED WITHIN THE TENSION ZONES SHOWN UNLESS SPECIFICALLY NOTED. THE ATTACHMENT OF FORMING DEVICES OR OTHER CONSTRUCTION AIDS BY WELDING WITHIN THE TENSION AREA SHOWN IS PROHIBITED.

THE ENDS OF ALL GIRDERS AND THE BEARING STIFFENERS SHALL BE VERTICAL. ALL CONNECTION PLATES AND INTERMEDIATE STIFFENERS MAY BE PERPENDICULAR TO THE TOP FLANGES.

NOTES:

1. CONNECTIONS SHALL BE MADE ACCORDING TO THE NEW YORK STATE STEEL CONSTRUCTION MANUAL.
2. UNLESS OTHERWISE INDICATED, BOLTED CONNECTIONS SHALL BE MADE WITH ⅞" DIA. A325 HIGH-STRENGTH BOLTS.
3. THE CONTRACTOR MAY PLACE DIAPHRAGMS ON EITHER SIDE OF THE BEARING STIFFENERS OR CONNECTION PLATES AS NECESSARY TO CORRECT ALIGNMENT PROVIDED THERE WILL BE NO INTERFERENCE WITH OTHER STRUCTURAL DETAILS.
4. TAPERED OR FLAT SHIM PLATES MAY BE USED IN THE CONNECTION BETWEEN SKEWED DIAPHRAGMS AND THE BEARING STIFFENERS, STIFFENER CONNECTION PLATES OR GUSSET PLATES. VARIABLE THICKNESSES OF SHIM PLATES MAY BE USED. THE MINIMUM THICKNESS OF SHIM PLATE SHALL BE ⅛" WITH A MAXIMUM NUMBER OF THREE SHIM PLATES PERMITTED AT ANY CONNECTION. THE TOTAL THICKNESS OF ALL SHIM PLATES USED AT ANY CONNECTION SHALL NOT EXCEED 1". SHIM PLATES SHALL HAVE THE DIMENSIONS OF THE FAYING SURFACE. THE SHIM MATERIAL SHALL CONFORM TO ASTM DESIGNATION A588 FOR WEATHERING STEEL APPLICATIONS. NO ADDITIONAL PAYMENT WILL BE MADE FOR FURNISHING AND PLACING THE SHIM PLATES.
5. DIAPHRAGM MEMBERS SHALL BE BLOCKED AS SHOWN, WITH THEIR FLANGE CUT BACK ON ONE SIDE, AND CHIPPED OR GROUND FLUSH. IN LIEU OF BLOCKING THE DIAPHRAGM MEMBER, THE FABRICATOR SHALL HAVE THE OPTION OF COPING THE FLANGE.
6. IN ORDER TO MAXIMIZE THE DISTANCE BETWEEN THE OUTSTANDING LEG OF THE TOP STRUT AND THE BOTTOM OF THE STRUCTURAL SLAB, THIS STRUT SHALL BE ORIENTED AS SHOWN. IN ADDITION, ON STRUCTURES WITH STRAIGHT BEAMS OR GIRDERS, THE POSITION OF THIS STRUT SHALL BE LOWERED (TO THE EXTENT THAT IT DOES NOT INTERFERE WITH THE ALIGNMENT OF THE DIAGONAL STRUTS AS SHOWN).
7. FOR LONGITUDINAL JOINTS IN THE SLAB, E. G. CLOSURE POURS, ONLY ONE SIDE OF THE INTERMEDIATE DIAPHRAGMS UNDER THE JOINT SHALL BE CONNECTED WHEN ERECTED. AFTER ALL PORTIONS OF THE SLAB HAVE BEEN POURED AND SET TO THE SATISFACTION OF THE ENGINEER, THE OTHER SIDE OF THE DIAPHRAGMS SHALL BE CONNECTED.
8. ALL BOLT HEADS SHALL BE PLACED ON THE TOP SIDE OF CONNECTIONS UNLESS OTHERWISE NOTED.

PREPARED BY: BARTON & LOGUIDICE, D.P.C.
ON : SEPTEMBER 26, 2018

IN CHARGE OF RJS | DESIGNED BY RSO | CHECKED BY MDP/BSR | DRAFTED BY JDHSr | CHECKED BY RSO/BSR

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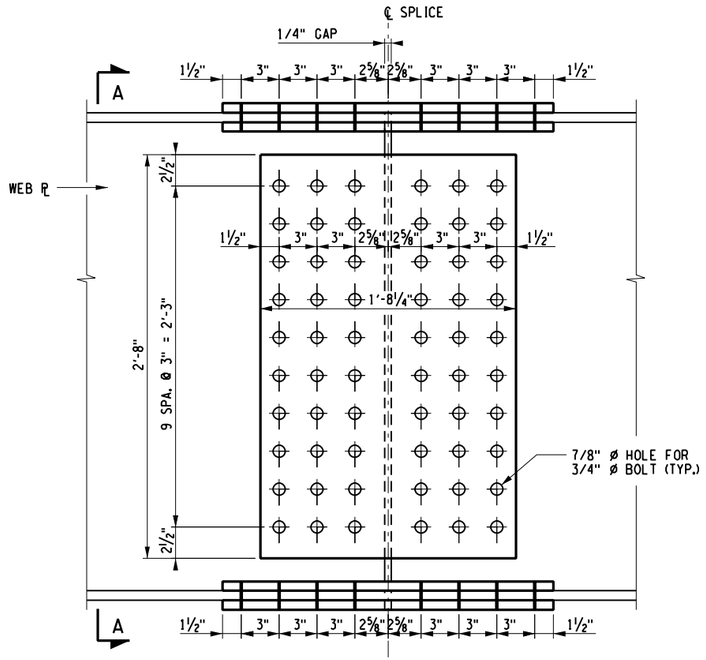
Barton & Loguidice

ASHOKAN RAIL TRAIL
BRIDGE REPLACEMENT
BOICEVILLE BRIDGE OVER ESOPUS CREEK
ULSTER COUNTY

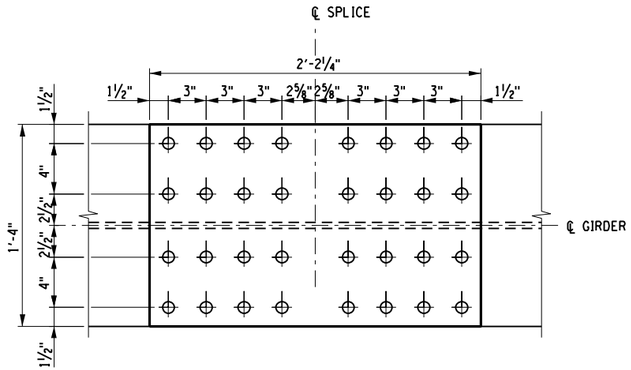
GIRDER DETAILS - 2

SCALE: AS SHOWN
DATE ISSUED: 9/26/2018
DRAWING BV-20



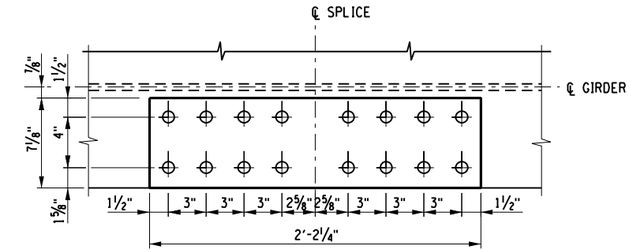
WEB SPLICE DETAIL

SCALE: 1" = 1'-0"



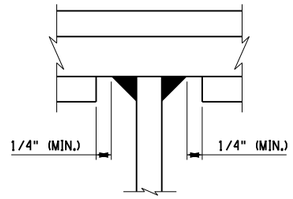
TOP & BOTTOM FLANGE - EXTERIOR SPLICE DETAIL

SCALE: 1" = 1'-0"



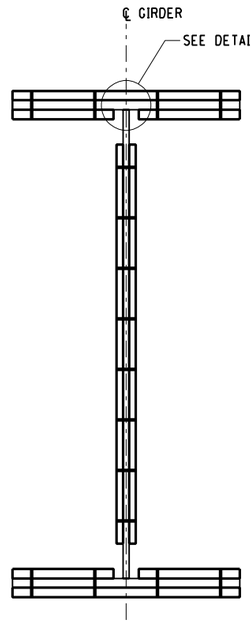
TOP & BOTTOM FLANGE - INTERIOR SPLICE DETAIL

SCALE: 1" = 1'-0"



DETAIL "A"

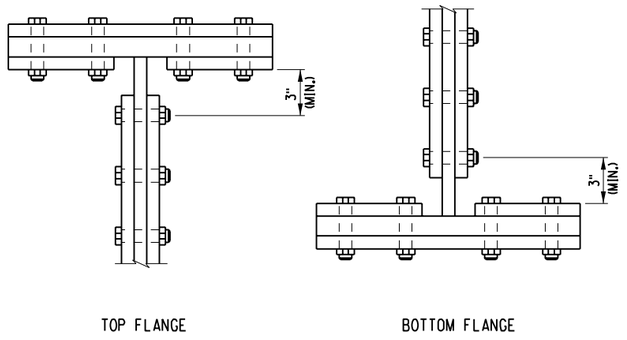
N.T.S.



SECTION A-A

SCALE: 1" = 1'-0"

	TOP FLANGE SPLICE	BOTTOM FLANGE SPLICE	WEB SPLICE
SPLICE PLATE	1-℄ 16"x0.75"x26.25" 2- ℄ 7.125"x0.75"x26.5"	1-℄ 16"x1.00"x26.25" 2- ℄ 7.5"x1.00"x26.25"	2-℄ 32"x0.5"x20.25"
NO. OF BOLTS	16 EACH SIDE	16 EACH SIDE	30 EACH SIDE



BOLT CLEARANCE DETAIL

N.T.S.

GIRDER SPLICE NOTES:

ALL COSTS FOR BOLTS, NUTS, AND WASHERS SHALL BE INCLUDED IN THE PRICE BID FOR STRUCTURAL STEEL.

SPLICE DESIGNS ARE BASED ON THE LOCATIONS INDICATED. THE CONTRACTOR HAS THE OPTION OF USING ALTERNATE SPLICE LOCATIONS. HOWEVER, RELOCATION REQUESTS MUST BE SUBMITTED TO THE D.C.E.S. FOR APPROVAL. NO ADDITIONAL COMPENSATION WILL BE MADE TO THE CONTRACTOR FOR RELOCATING THE SPLICE. FABRICATION SHALL CONFORM TO THE CURRENT NEW YORK STATE STEEL CONSTRUCTION MANUAL.

BOLTS NUTS & WASHERS:

WEATHERING STEEL APPLICATIONS:
ALL BOLTS SHALL BE ⅞" DIA. HIGH STRENGTH ASTM A325 (TYPE 3).
NUTS AND WASHERS SHALL BE A563 AND F436 RESPECTIVELY.

WEATHERING STEEL APPLICATIONS:
ALL SPLICE PLATES SHALL BE SAME GRADE STEEL AS THE GIRDERS.

SPLICE PLATES SHALL HAVE OXYGEN CUT EDGES, AS PER SECTION 609 OF THE NYS STEEL CONSTRUCTION MANUAL.

PREPARED BY: BARTON & LOGUIDICE, D.P.C.
ON : SEPTEMBER 26, 2018

NO.	DATE	BY	REVISION

ASHOKAN RAIL TRAIL
BRIDGE REPLACEMENT
BOICEVILLE BRIDGE OVER ESOPUS CREEK
ULSTER COUNTY

GIRDER DETAILS - 3

SCALE: AS SHOWN
DATE ISSUED: 9/26/2018
DRAWING
BV-21

IN CHARGE OF RJS | DESIGNED BY RSO | CHECKED BY MDP/BSR | DRAFTED BY JDHSr | CHECKED BY RSO/BSR

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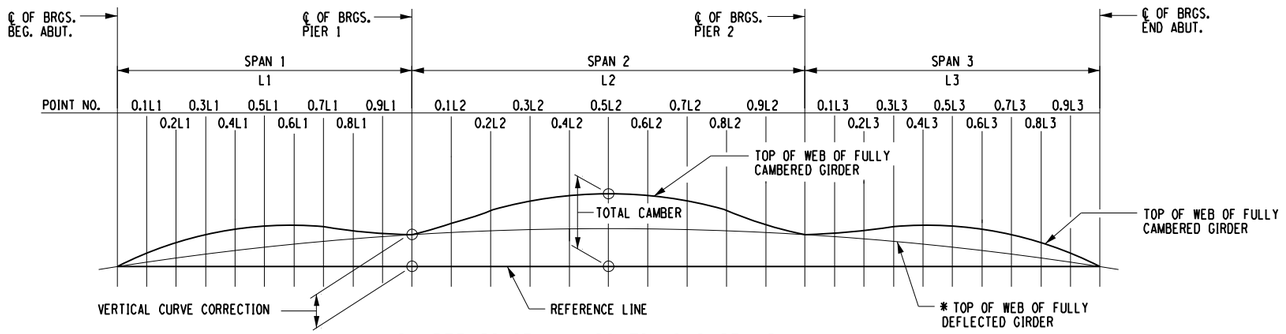
DATE = 9/26/2018
TIME = 4:14:30 PM

HAUNCH TABLE		CL OF BRGS. SOUTH ABUT.	0.1 L1	0.2 L1	0.3 L1	0.4 L1	0.5 L1	0.6 L1	0.7 L1	0.8 L1	0.9 L1	CL OF BRGS. PIER 1	0.1 L2	0.2 L2	0.3 L2	0.4 L2	0.5 L2	0.6 L2	0.7 L2	0.8 L2	0.9 L2	CL OF BRGS. PIER 2	0.1 L3	0.2 L3	0.3 L3	0.4 L3	0.5 L3	0.6 L3	0.7 L3	0.8 L3	0.9 L3	CL OF BRGS. NORTH ABUT.
GIRDER 1	(A) REQ'D BOTTOM OF SLAB ELEVATION	625.208	625.208	625.208	625.208	625.208	625.208	625.208	625.208	625.208	625.208	625.208	625.208	625.208	625.208	625.208	625.208	625.208	625.208	625.208	625.208	625.208	625.208	625.208	625.208	625.208	625.208	625.208	625.208	625.208	625.208	625.208
	(B) TOP OF STEEL EL. (FIELD MEASURE)																															
	(C) = (A) - (B)																															
	(D) CONCRETE + S.D.L. DEFLECTION (ft)	0.000	-0.147	-0.273	-0.362	-0.406	-0.402	-0.353	-0.269	-0.168	-0.072	0.000	0.049	0.070	0.072	0.068	0.066	0.068	0.073	0.071	0.050	0.000	-0.073	-0.169	-0.270	-0.353	-0.402	-0.406	-0.363	-0.274	-0.148	0.000
	(E) DEPTH OF HAUNCH REQ'D = (C) + (D) (ft)																															
GIRDER 2	(A) REQ'D BOTTOM OF SLAB ELEVATION	625.313	625.313	625.313	625.313	625.313	625.313	625.313	625.313	625.313	625.313	625.313	625.313	625.313	625.313	625.313	625.313	625.313	625.313	625.313	625.313	625.313	625.313	625.313	625.313	625.313	625.313	625.313	625.313	625.313	625.313	625.313
	(B) TOP OF STEEL EL. (FIELD MEASURE)																															
	(C) = (A) - (B)																															
	(D) CONCRETE + S.D.L. DEFLECTION (ft)	0.000	-0.177	-0.329	-0.436	-0.488	-0.483	-0.425	-0.325	-0.203	-0.087	0.000	0.060	0.086	0.088	0.084	0.082	0.084	0.089	0.086	0.060	0.000	-0.088	-0.204	-0.325	-0.426	-0.484	-0.488	-0.436	-0.329	-0.177	0.000
	(E) DEPTH OF HAUNCH REQ'D = (C) + (D) (ft)																															
GIRDER 3	(A) REQ'D BOTTOM OF SLAB ELEVATION	625.208	625.208	625.208	625.208	625.208	625.208	625.208	625.208	625.208	625.208	625.208	625.208	625.208	625.208	625.208	625.208	625.208	625.208	625.208	625.208	625.208	625.208	625.208	625.208	625.208	625.208	625.208	625.208	625.208	625.208	625.208
	(B) TOP OF STEEL EL. (FIELD MEASURE)																															
	(C) = (A) - (B)																															
	(D) CONCRETE + S.D.L. DEFLECTION (ft)	0.000	-0.147	-0.273	-0.362	-0.406	-0.402	-0.353	-0.269	-0.168	-0.072	0.000	0.049	0.070	0.072	0.068	0.066	0.068	0.073	0.071	0.050	0.000	-0.073	-0.169	-0.270	-0.353	-0.402	-0.406	-0.363	-0.274	-0.148	0.000
	(E) DEPTH OF HAUNCH REQ'D = (C) + (D) (ft)																															

CAMBER TABLE		CL OF BRGS. SOUTH ABUT.	0.1 L1	0.2 L1	0.3 L1	0.4 L1	0.5 L1	0.6 L1	0.7 L1	0.8 L1	0.9 L1	CL OF BRGS. PIER 1	0.1 L2	0.2 L2	0.3 L2	0.4 L2	0.5 L2	0.6 L2	0.7 L2	0.8 L2	0.9 L2	CL OF BRGS. PIER 2	0.1 L3	0.2 L3	0.3 L3	0.4 L3	0.5 L3	0.6 L3	0.7 L3	0.8 L3	0.9 L3	CL OF BRGS. NORTH ABUT.
GIRDERS 1 & 3	I STEEL D.L. (ft.)	0.000	-0.031	-0.057	-0.076	-0.085	-0.083	-0.073	-0.055	-0.034	-0.015	0.000	0.010	0.014	0.013	0.012	0.011	0.012	0.014	0.014	0.010	0.000	-0.015	-0.035	-0.055	-0.073	-0.083	-0.085	-0.076	-0.057	-0.031	0.000
	II CONCRETE D.L. (ft.)	0.000	-0.024	-0.044	-0.058	-0.065	-0.064	-0.056	-0.043	-0.027	-0.011	0.000	0.008	0.011	0.011	0.009	0.009	0.009	0.011	0.011	0.008	0.000	-0.012	-0.027	-0.043	-0.056	-0.064	-0.065	-0.058	-0.044	-0.024	0.000
	III SUPERIMPOSED D.L. (ft.)	0.000	-0.124	-0.229	-0.304	-0.341	-0.337	-0.297	-0.227	-0.142	-0.061	0.000	0.042	0.060	0.062	0.059	0.057	0.059	0.062	0.060	0.042	0.000	-0.062	-0.142	-0.227	-0.297	-0.338	-0.341	-0.304	-0.230	-0.124	0.000
	IV VERTICAL CURVE (ft.)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	TOTAL = I + II + III + IV (ft.)	0.000	-0.178	-0.331	-0.438	-0.490	-0.485	-0.426	-0.325	-0.202	-0.087	0.000	0.059	0.084	0.086	0.080	0.077	0.080	0.086	0.085	0.060	0.000	-0.088	-0.203	-0.325	-0.426	-0.485	-0.491	-0.439	-0.331	-0.179	0.000
GIRDER 2	I STEEL D.L. (ft.)	0.000	-0.031	-0.057	-0.076	-0.085	-0.083	-0.073	-0.055	-0.034	-0.015	0.000	0.010	0.014	0.013	0.012	0.011	0.012	0.014	0.014	0.010	0.000	-0.015	-0.035	-0.055	-0.073	-0.083	-0.085	-0.076	-0.057	-0.031	0.000
	II CONCRETE D.L. (ft.)	0.000	-0.020	-0.037	-0.049	-0.054	-0.054	-0.047	-0.036	-0.022	-0.009	0.000	0.006	0.009	0.009	0.008	0.007	0.008	0.009	0.009	0.006	0.000	-0.010	-0.022	-0.036	-0.047	-0.054	-0.054	-0.049	-0.037	-0.020	0.000
	III SUPERIMPOSED D.L. (ft.)	0.000	-0.158	-0.292	-0.387	-0.434	-0.430	-0.378	-0.289	-0.181	-0.078	0.000	0.053	0.077	0.080	0.076	0.074	0.077	0.080	0.077	0.054	0.000	-0.079	-0.182	-0.290	-0.379	-0.430	-0.434	-0.387	-0.292	-0.158	0.000
	IV VERTICAL CURVE (ft.)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	TOTAL = I + II + III + IV (ft.)	0.000	-0.208	-0.386	-0.511	-0.573	-0.567	-0.498	-0.380	-0.237	-0.102	0.000	0.069	0.099	0.102	0.096	0.093	0.096	0.102	0.100	0.070	0.000	-0.103	-0.238	-0.381	-0.499	-0.567	-0.573	-0.512	-0.386	-0.208	0.000

MOMENT & SHEAR TABLE			CL OF BRGS. SOUTH ABUT.	0.1 L1	0.2 L1	0.3 L1	0.4 L1	0.5 L1	0.6 L1	0.7 L1	0.8 L1	0.9 L1	CL OF BRGS. PIER 1	0.1 L2	0.2 L2	0.3 L2	0.4 L2	0.5 L2	0.6 L2	0.7 L2	0.8 L2	0.9 L2	CL OF BRGS. PIER 2	0.1 L3	0.2 L3	0.3 L3	0.4 L3	0.5 L3	0.6 L3	0.7 L3	0.8 L3	0.9 L3	CL OF BRGS. NORTH ABUT.
GIRDERS 1 & 3	D.L.	MOMENT	0.0	452.3	770.2	953.8	1003.0	917.8	698.2	344.3	-144.1	-768.2	-1530.8	-919.7	-448.1	-112.2	89.2	156.2	88.8	-112.9	-449.1	-921.0	-1531.4	-767.2	-143.1	345.4	699.3	918.9	1004.1	954.9	771.3	453.4	0.0
		SHEAR	43.3	32.1	20.9	9.7	-1.5	-12.7	-23.9	-35.1	-46.3	-57.7	-69.4/56.8	45.0	33.6	22.4	11.2	0.0	-11.2	-22.4	-33.6	-45.0	-56.7/69.5	57.7	46.3	35.1	23.9	12.7	1.5	-9.7	-20.9	-32.1	-43.3
	S.D.L	MOMENT	0.0	36.4	62.0	76.8	80.7	73.9	56.3	27.9	-11.3	-61.3	-122.1	-73.5	-35.8	-8.8	7.4	12.8	7.4	-8.8	-35.8	-73.8	-122.2	-61.3	-11.3	27.9	56.3	73.9	80.7	76.8	62.0	36.4	0.0
		SHEAR	3.5	2.6	1.7	0.8	-0.1	-1.0	-1.9	-2.8	-3.7	-4.6	-5.5/4.5	3.6	2.7	1.8	0.9	0.0	-0.9	-1.8	-2.7	-3.6	-4.5/5.5	4.6	3.7	2.8	1.9	1.0	0.1	-0.8	-1.7	-2.6	-3.5
	PEDESTRIAN (+)	MOMENT	0.0	688.9	1173.2	1465.0	1585.4	1545.2	1356.1	1029.7	592.9	169.9	350.6	249.5	416.9	587.5	1146.6	1216.7	1146.2	868.8	578.5	168.4	351.2	316.1	485.5	1031.2	1357.3	1545.1	1584.4	1465.1	1172.7	688.1	0.0
		SHEAR	91.5	72.5	59.4	47.3	36.5	27.0	18.8	12.1	6.8	2.8	3.7/103.2	86.9	75.4	63.6	51.9	40.9	30.7	21.7	17.4	16.7	16.5/106.3	91.7	81.7	71.2	60.3	49.2	38.1	27.3	16.9	9.6	9.2
	PEDESTRIAN (-)	MOMENT	0.0	-86.3	-172.5	-258.8	-345.0	-431.3	-517.6	-603.8	-690.1	-776.4	-1592.9	-1126.6	-729.5	-449.9	-705.9	-622.1	-704.4	-735.4	-890.5	-1045.6	-1592.3	-966.3	-582.5	-605.1	-518.6	-432.0	-345.4	-258.8	-172.5	-86.8	0.0
		SHEAR	-9.2	-9.6	-16.9	-27.3	-38.1	-49.2	-60.3	-71.2	-81.7	-91.7	-106.3/-16.4	-16.4	-17.1	-21.7	-30.7	-40.9	-52.0	-63.6	-75.4	-86.9	-103.2/-3.7	-2.8	-6.9	-12.1	-18.8	-27.0	-36.5	-47.3	-59.4	-72.5	-91.5
GIRDER 2	D.L.	MOMENT	0.0	535.4	911.7	1129.0	1187.2	1086.4	826.5	407.5	-170.7	-909.2	-1810.8	-1088.4	-530.2	-132.4	106.2	185.8	106.3	-132.2	-529.9	-1088.0	-1810.2	-908.2	-169.9	408.1	826.9	1086.7	1187.4	1129.0	911.6	535.1	0.0
		SHEAR	51.2	38.0	24.7	11.5	-1.8	-15.0	-28.3	-41.5	-54.8	-68.3	-82/67.1	53.2	39.8	26.5	13.3	0.0	-13.3	-26.5	-39.8	-53.2	-67/82.1	68.3	54.8	41.5	28.3	15.0	1.8	-11.5	-24.7	-38.0	-51.3
	S.D.L	MOMENT	0.0	36.4	62.0	76.7	80.7	73.9	56.3	27.9	-11.3	-61.4	-122.2	-73.6	-35.8	-8.7	7.5	12.9	7.5	-8.7	-35.7	-73.5	-122.2	-61.3	-11.3	27.9	56.3	73.9	80.7	76.7	62.0	36.4	0.0
		SHEAR	3.5	2.6	1.7	0.8	-0.1	-1.0	-1.9	-2.8	-3.7	-4.6	-5.5/4.5	3.6	2.7	1.8	0.9	0.0	-0.9	-1.8	-2.7	-3.6	-4.5/5.5	4.6	3.7	2.8	1.9	1.0	0.1	-0.8	-1.7	-2.6	-3.5
	PEDESTRIAN (+)	MOMENT	0.0	497.8	853.0	1072.2	1166.8	1142.7	1006.3	763.8	452.7	103.3	277.1	187.0	260.3	356.0	821.9	876.2	821.5	637.3	421.2	106.2	277.5	249.7	345.3	765.4	1007.6	1144.0	1168.1	1073.3	854.1	498.7	0.3
		SHEAR	91.5	72.5	59.3	47.3	36.5	27.0	18.8	12.1	6.8	2.8	3.7/103.2	86.9	75.4	63.6	52.0	40.9	30.7	21.8	17.4	16.7	16.5/106.3	91.7	81.7	71.2	60.3	49.2	38.1	27.3	16.9	9.6	9.2
	PEDESTRIAN (-)	MOMENT	0.0	-64.7	-129.4	-194.0	-258.7	-323.4	-388.1	-452.7	-541.7	-609.4	-1339.7	-906.0	-541.4	-293.6	-563.1	-517.8	-563.0	-580.7	-703.3	-825.8	-1339.4	-799.7	-434.3	-453.9	-389.0	-324.1	-259.3	-194.4	-129.5	-64.8	-0.4
		SHEAR	-9.2	-9.6	-16.9	-27.3	-38.2	-49.2	-60.3	-71.2	-81.7	-91.7	-106.3/-16.5	-16.5	-17.2	-21.8	-30.8	-40.9	-52.0	-63.6	-75.4	-87.0	-103.2/-3.7	-2.8	-6.8	-12.1	-18.9	-27.0	-36.5	-47.3	-59.3	-72.5	-91.5

MOMENTS AND SHEARS ARE UNFACTORED
MOMENTS ARE EXPRESSED AS KIP-FEET
SHEARS ARE EXPRESSED AS KIPS



CAMBER DIAGRAM - CONTINUOUS SPANS
NOT TO SCALE

DESIGN LOAD TABLE			
		UNIT	LOAD (k/ft)
GIRDERS 1 & 3	D.L.	SLAB	0.64
		HAUNCH	0.04
		S.I.P. FORMS	0.02
		DIAPHRAGMS	0.01
		GIRDER	0.18
		TOTAL	0.90
	S.D.L.	RAILING	0.08
		FUTURE W.S.	0.00
		TOTAL	0.08
GIRDER 2	D.L.	SLAB	0.83
		HAUNCH	0.04
		S.I.P. FORMS	0.03
		DIAPHRAGMS	0.03
		GIRDER	0.18
		TOTAL	1.11
	S.D.L.	RAILING	0.08
		FUTURE W.S.	0.00
		TOTAL	0.08

ASSUMED LIVE LOAD = 90 PSF PEDESTRIAN LOAD
32.5 TON CONSTRUCTION VEHICLE
H-20 TRUCK

PREPARED BY: BARTON & LOGUIDICE, D.P.C.
ON : SEPTEMBER 26, 2018

NO.	DATE	BY	REVISION

54
65

Barton & Loguidice

UNAUTHORIZED ALTERATION OR ADDITION TO THIS DRAWING IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW ARTICLE 145 SECTION 7209

ASHOKAN RAIL TRAIL
BRIDGE REPLACEMENT
BOICEVILLE BRIDGE OVER ESOPUS CREEK
ULSTER COUNTY

GIRDER TABLES AND DETAILS

SCALE: AS SHOWN
DATE ISSUED: 9/26/2018
DRAWING
BV-22

IN CHARGE OF RJS DESIGNED BY RSO CHECKED BY MDP/BSR DRAFTED BY JDHSr CHECKED BY RSO/BSR

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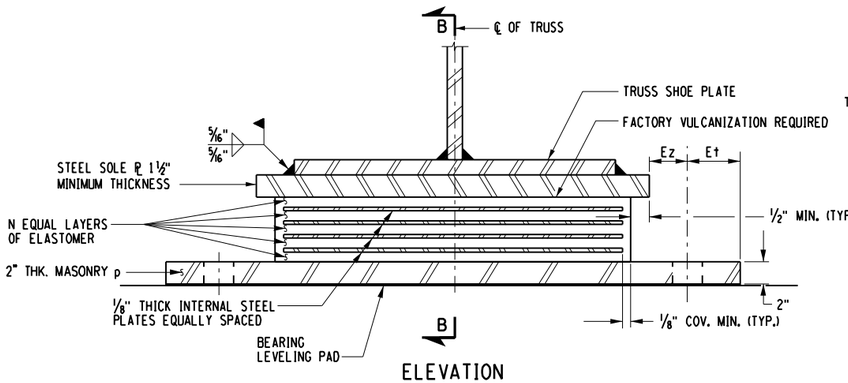
EXPANSION ELASTOMERIC BEARING (TYPE E.B.) TABLE

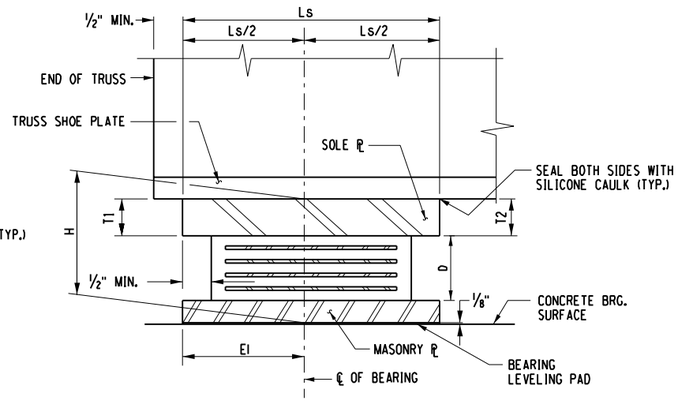
LOCATION	ITEM NO.	QUANTITY REQUIRED	DL + SDL (Kips)	LL W/O IMP. (Kips)	TOTAL DESIGN REACTION (Kips)	SHAPE FACTOR	ELASTOMER LAYERS					hrt	COMP. AREA (sq. in)	SHEAR AREA (sq. in)	MASONRY PLATE								ANCHOR BOLTS		WELD SIZE	WASHER PLATE		SOLE PLATE				BRG. H
							THK/LAYER	N LAYERS	L	W	D				Wm	Lm	Tm	Et	EI	Ez	Am	Bm	DIA.	STUDS/ BRG.		AWp	BWp	Ws	Ls	T1	T2	
NO. ABUT.	565.2033	3	54.60	86.34	140.94	7.88	0.5	4	14	18	2.375	2	244.06	252	26	20	2	2	10	1.5	2.50	1.375	1	2	0.3125	3.5	2.375	19	19	1.5	1.5	5.875
PIER 2	565.2035	3	159.20	95.98	255.18	9.00	0.5	4	18	18	2.375	2	315.06	324	28	20	2	2.875	10	1.625	2.75	1.625	1.25	2	0.3125	3.75	3.75	19	19	1.5	1.5	5.875
SO. ABUT.	565.2033	3	54.60	86.34	140.94	8.47	0.5	8	16	18	4.875	4	279.56	288	26	20	2	2	10	1.5	2.50	1.375	1	2	0.3125	3.5	3.375	19	19	1.5	1.5	8.375

TABLE DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED

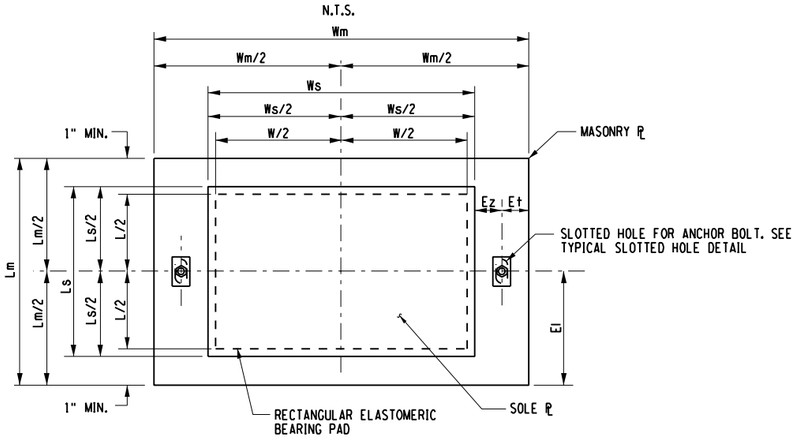
T2 IS UPSTATION OF T1



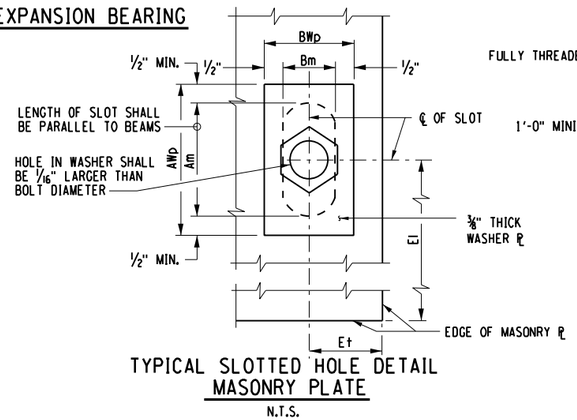
ELEVATION
TYPICAL EXPANSION BEARING
N.T.S.



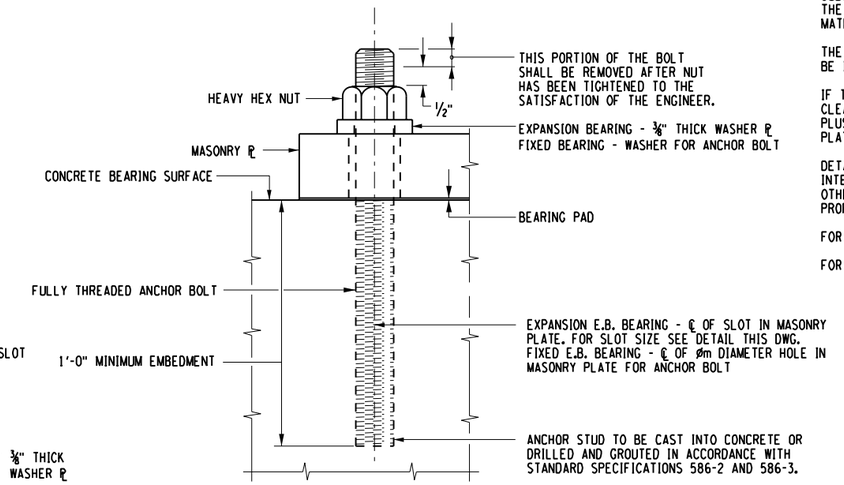
SECTION B-B
N.T.S.



PLAN
TYPICAL RECTANGULAR EXPANSION BEARING
N.T.S.



TYPICAL SLOTTED HOLE DETAIL
MASONRY PLATE
N.T.S.



ANCHOR BOLT

ANCHOR STUDS, WASHERS, WASHER PLATES, ANCHOR PLATES AND NUTS SHALL MEET THE REQUIREMENTS OF SUBSECTION 723-60. THEY SHALL BE GALVANIZED IN ACCORDANCE WITH THE REQUIREMENTS OF MATERIAL SUBSECTION 719-01, "GALVANIZED COATINGS AND REPAIR METHODS." THEIR COST (INCLUDING GALVANIZING) SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE BEARING ITEM.

** BEARING SOLE PLATE IS SIZED BASED ON THE BEARING DIMENSIONS SHOWN AND ASSUMED TRUSS SHOE PLATE DIMENSIONS (LENGTH & WIDTH) OF 14" (MIN) AND 16" (MAX). IF THE ACTUAL TRUSS SHOE PLATE PROVIDED EXCEEDS THE ASSUMED MAXIMUM DIMENSION; THE BEARING SOLE PLATE AND BEARING MASONRY PLATE MAY NEED TO BE RESIZED. ADDITIONALLY, ADJUSTMENTS MAY NEED TO BE MADE TO THE BRIDGE SEAT TO ACCOMMODATE THE LARGER MASONRY PLATE.

BEARING NOTES:

THE BEARINGS SHALL MEET THE REQUIREMENTS OF STANDARD SPECIFICATION SECTION 565 UNLESS OTHERWISE NOTED.

ALL ELASTOMER SHALL BE 50 DUROMETER HARDNESS ON THE SHORE A SCALE.

ALL STEEL EXCEPT THE INTERNAL STEEL PLATES SHALL CONFORM TO ASTM A709, GR. 50, UNLESS OTHERWISE NOTED. STEEL SOLE PLATES AND STEEL MASONRY PLATES SHALL BE GALVANIZED IN ACCORDANCE WITH SUBSECTION 719-01.

FIELD GALVANIZING REPAIRS SHALL BE PERFORMED IN AREAS DAMAGED FROM WELDING THE TRUSS SHOE PLATE TO THE BEARING SOLE PLATE. FIELD GALVANIZING REPAIRS SHALL BE MADE IN ACCORDANCE WITH SUBSECTION 719-01, "GALVANIZED COATINGS AND REPAIR METHODS".

BEARING PADS SHALL CONFORM TO ONE OF THE FOLLOWING MATERIAL SPECIFICATIONS: 728-01, 728-02 OR 728-03.

INSTALLATION ALIGNMENT:
THE MAXIMUM VARIATION FROM PERFECT ALIGNMENT UNDER FULL DEAD LOAD SHALL NOT EXCEED 3/8". THIS VARIATION SHALL BE MEASURED AS THE HORIZONTAL DISTANCE BETWEEN THE CENTERLINE OF THE HIGHEST ELASTOMER SURFACE AND THE CENTERLINE OF THE LOWEST ELASTOMER SURFACE.

CONCRETE SURFACES UNDER THE BEARINGS SHALL CONFORM TO SUBSECTION 565.3.02 "CONCRETE BEARING SURFACE PREPARATION" OF THE NEW YORK STATE STANDARD SPECIFICATIONS, CONSTRUCTION AND MATERIALS.

THE BEARING PAD, ANCHOR STUDS, WASHER PLATES AND NUTS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE BEARING ITEM.

IF THE ANCHOR STUDS ARE SET UNDER THE SOLE PLATE, A MINIMUM CLEARANCE EQUAL TO TWO TIMES THE THICKNESS OF ANCHOR NUT PLUS 1" SHALL BE MAINTAINED BETWEEN THE TOP OF MASONRY PLATE AND BOTTOM OF THE SOLE PLATE.

DETAILS ON THE DRAWINGS LABELED AS "NOT TO SCALE" ARE INTENTIONALLY DRAWN NOT TO SCALE FOR VISUAL CLARITY. ALL OTHER DETAILS, FOR WHICH NO SCALE IS SHOWN, ARE DRAWN PROPORTIONAL AND ARE FULLY DIMENSIONED.

FOR ABUTMENT BEARING LAYOUT, SEE DWG. BV-7.

FOR PIER BEARING LAYOUT, SEE DWG. BV-15.

PREPARED BY: BARTON & LOGUIDICE, D.P.C.
ON : SEPTEMBER 26, 2018

NO.	DATE	BY	REVISION

Barton & Loguidice

ASHOKAN RAIL TRAIL
BRIDGE REPLACEMENT
BOICEVILLE BRIDGE OVER ESOPUS CREEK
ULSTER COUNTY

EXPANSION ELASTOMERIC BEARING DETAILS

SCALE: AS SHOWN
DATE ISSUED: 9/26/2018
DRAWING
BV-23

IN CHARGE OF RJS DESIGNED BY RSO DRAFTED BY JDHSr CHECKED BY MDP/BSR CHECKED BY RSO/BSR

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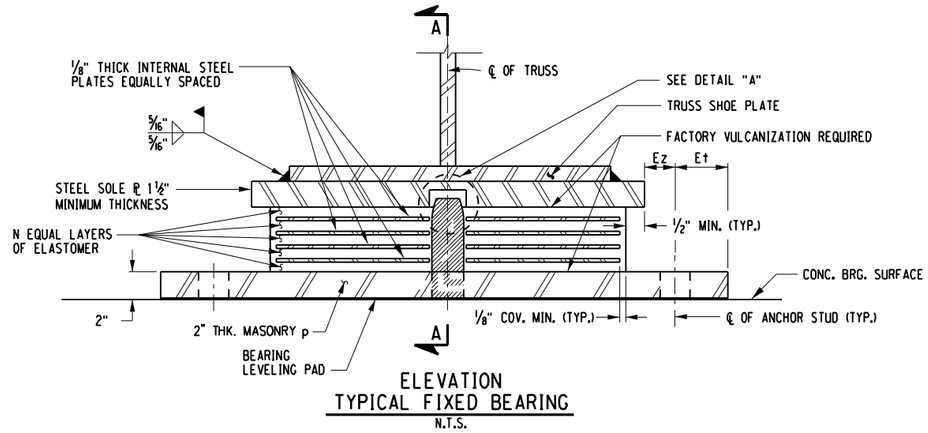
FIXED ELASTOMERIC BEARING (TYPE E.B.) TABLE

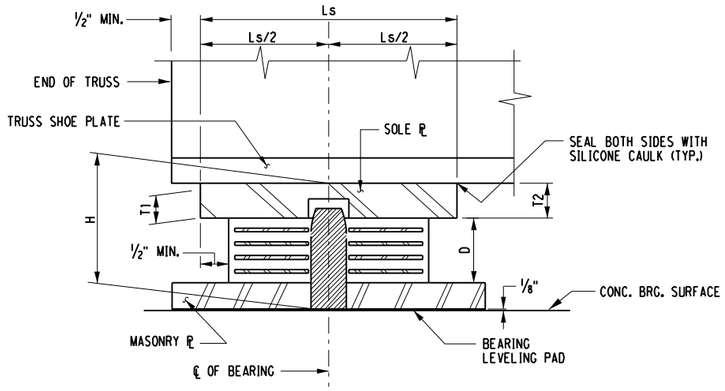
LOCATION	ITEM NO.	QUANTITY REQUIRED	DL + SDL (Kips)	LL W/O IMP. (Kips)	TOTAL DESIGN REACTION (Kips)	SHAPE FACTOR	ELASTOMER LAYERS					hrt	COMP. AREA (sq. in)	SHEAR AREA (sq. in)	MASONRY PLATE							ANCHOR STUDS		WELD SIZE	SOLE PLATE				BRG. H	⌀p (PIN DIA.)
							THK/LAYER	N LAYERS	L	W	D				Wm	Lm	Tm	Et	EI	Ez	⌀m	DIA.	STUDS/ BRG.		Ws	Ls	T1	T2		
PIER 1	565.2025	3	159.20	95.98	255.18	9	0.5	4	18	18	2.375	2	312.99	322.23	28	20	2	2.4	10	1.625	1.625	1.25	2	0.3125	19	19	1.5	1.5	5.875	2.625

TABLE DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED

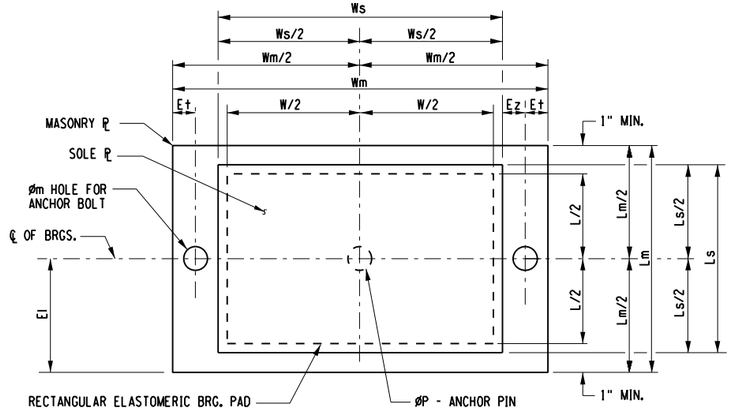
* T2 IS UPSTATION OF T1
* TM1 SHALL BE OREINTATED TOWARD CL OF THE BRIDGE



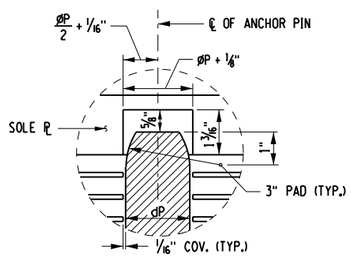
ELEVATION
TYPICAL FIXED BEARING
N.T.S.



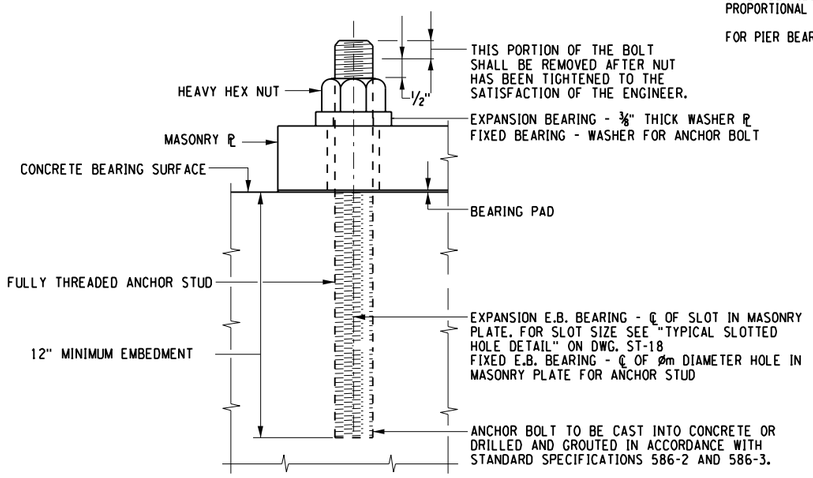
SECTION A-A
N.T.S.



PLAN
TYPICAL RECTANGULAR FIXED BEARING
N.T.S.



DETAIL "A"
FIXED BEARING ANCHOR PIN



ANCHOR BOLT DETAIL

ANCHOR STUDS, WASHERS, WASHER PLATES, ANCHOR PLATES AND NUTS SHALL MEET THE REQUIREMENTS OF SUBSECTION 723-60. THEY SHALL BE GALVANIZED IN ACCORDANCE WITH THE REQUIREMENTS OF MATERIAL SUBSECTION 719-01, "GALVANIZED COATINGS AND REPAIR METHODS." THEIR COST (INCLUDING GALVANIZING) SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE BEARING ITEM.

BEARING NOTES:

THE BEARINGS SHALL MEET THE REQUIREMENTS OF STANDARD SPECIFICATION SECTION 565 UNLESS OTHERWISE NOTED.

ALL ELASTOMER SHALL BE 50 DUROMETER HARDNESS ON THE SHORE A SCALE.

ALL STEEL EXCEPT THE INTERNAL STEEL PLATES SHALL CONFORM TO ASTM A709, GR. 50, UNLESS OTHERWISE NOTED. STEEL SOLE PLATES AND STEEL MASONRY PLATES SHALL BE GALVANIZED IN ACCORDANCE WITH SUBSECTION 719-01.

FIELD GALVANIZING REPAIRS SHALL BE PERFORMED IN AREAS DAMAGED FROM WELDING THE TRUSS SHOE PLATE TO THE BEARING SOLE PLATE. FIELD GALVANIZING REPAIRS SHALL BE MADE IN ACCORDANCE WITH SUBSECTION 719-01, "GALVANIZED COATINGS AND REPAIR METHODS".

BEARING PADS SHALL CONFORM TO ONE OF THE FOLLOWING MATERIAL SPECIFICATIONS: 728-01, 728-02 OR 728-03.

INSTALLATION ALIGNMENT:
THE MAXIMUM VARIATION FROM PERFECT ALIGNMENT UNDER FULL DEAD LOAD SHALL NOT EXCEED 3/16". THIS VARIATION SHALL BE MEASURED AS THE HORIZONTAL DISTANCE BETWEEN THE CENTERLINE OF THE HIGHEST ELASTOMER SURFACE AND THE CENTERLINE OF THE LOWEST ELASTOMER SURFACE.

CONCRETE SURFACES UNDER THE BEARINGS SHALL CONFORM TO SUBSECTION 565.3.02 "CONCRETE BEARING SURFACE PREPARATION" OF THE NEW YORK STATE STANDARD SPECIFICATIONS, CONSTRUCTION AND MATERIALS.

THE BEARING PAD, ANCHOR STUDS, WASHER PLATES AND NUTS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE BEARING ITEM.

IF THE ANCHOR STUDS ARE SET UNDER THE SOLE PLATE, A MINIMUM CLEARANCE EQUAL TO TWO TIMES THE THICKNESS OF ANCHOR NUT PLUS 1" SHALL BE MAINTAINED BETWEEN THE TOP OF MASONRY PLATE AND BOTTOM OF THE SOLE PLATE.

DETAILS ON THE DRAWINGS LABELED AS "NOT TO SCALE" ARE INTENTIONALLY DRAWN NOT TO SCALE FOR VISUAL CLARITY. ALL OTHER DETAILS, FOR WHICH NO SCALE IS SHOWN, ARE DRAWN PROPORTIONAL AND ARE FULLY DIMENSIONED.

FOR PIER BEARING LAYOUT, SEE DWG. BV-15.

PREPARED BY: BARTON & LOGUIDICE, D.P.C.
ON : SEPTEMBER 26, 2018

NO.	DATE	BY	REVISION

Barton & Loguidice

ASHOKAN RAIL TRAIL
BRIDGE REPLACEMENT
BOICEVILLE BRIDGE OVER ESOPUS CREEK
ULSTER COUNTY

FIXED ELASTOMERIC BEARING DETAILS

SCALE: AS SHOWN
DATE ISSUED: 9/26/2018
DRAWING
BV-24

IN CHARGE OF RJS | DESIGNED BY RSO | DRAFTED BY JDHSr | CHECKED BY MDP/BSR | CHECKED BY RSO/BSR

FILE NAME = L:\MSTN Projects\0300\369.007 - Ashoken Rail Trail\MSTN\2018 Boiceville Bid Set\334.369007001 Bearing Details Fixed.dgn
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TIME = 4:14:42 PM
jdh
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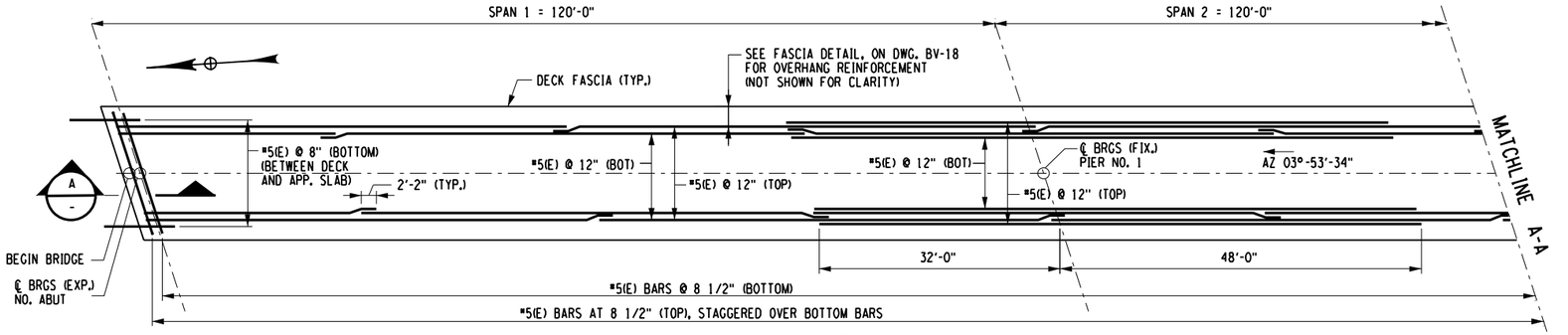
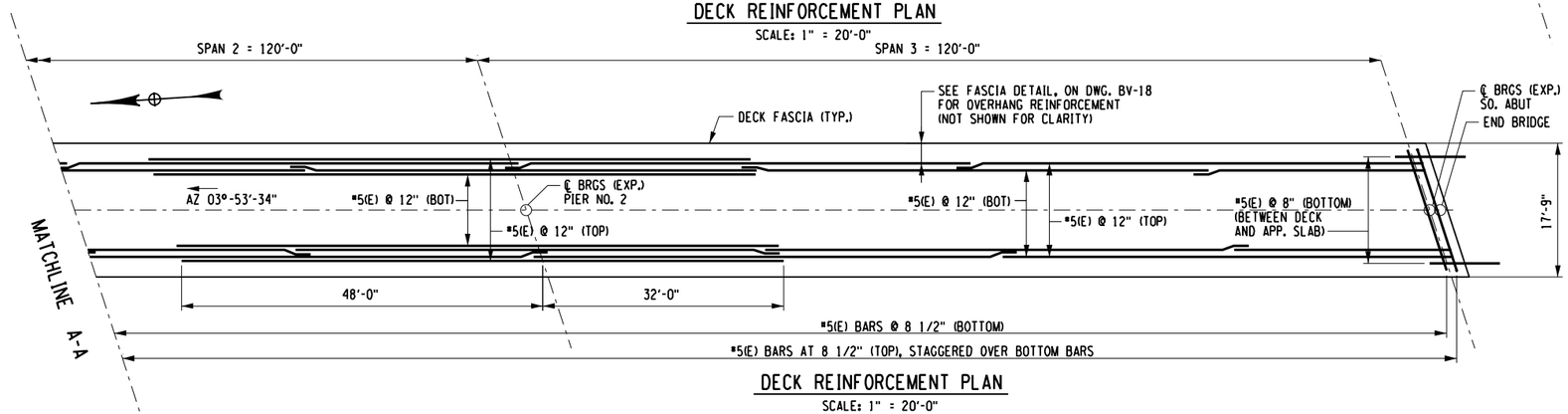


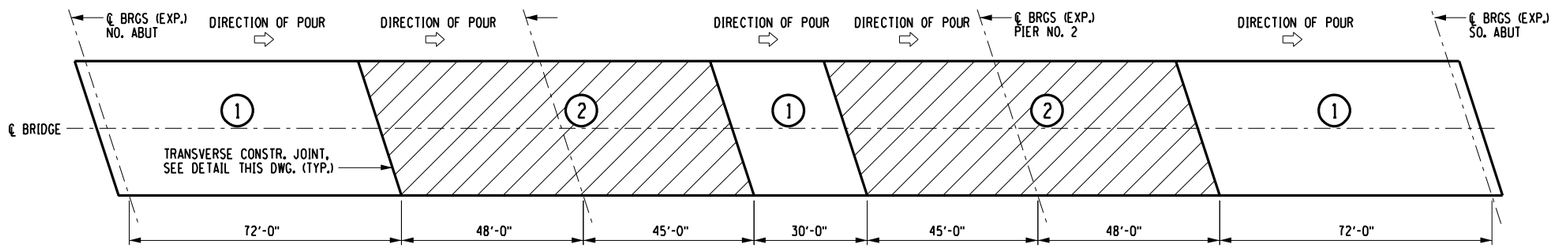
DECK REINFORCEMENT PLAN

SCALE: 1" = 20'-0"



DECK REINFORCEMENT PLAN

SCALE: 1" = 20'-0"



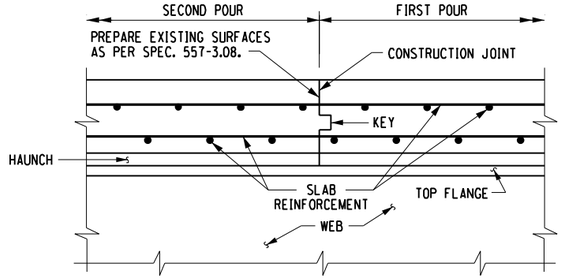
DECK CONCRETE PLACEMENT SEQUENCE PLAN

N.T.S.

DECK POUR SEQUENCE NOTES:

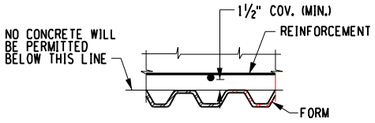
1. SEE DECK PLACEMENT NOTES ON GBN-1.

(1) - INDICATES POUR NUMBER

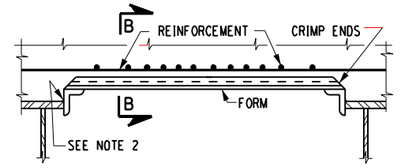


TRANSVERSE CONSTRUCTION JOINT IN SLAB

NOT TO SCALE



SECTION B-B

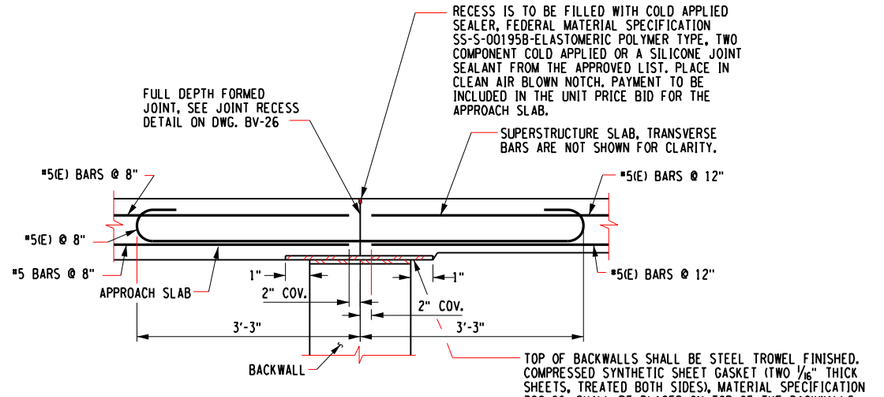


PERMANENT CORRUGATED METAL FORM DETAIL

NOT TO SCALE

FORM UNIT NOTES:

1. THE COST OF THE FORMING SYSTEM SHOWN ON THIS DRAWING SHALL BE INCLUDED IN THE UNIT PRICE BID FOR SUPERSTRUCTURE SLAB CONCRETE ITEM.
2. TACK WELDS SHALL BE ALLOWED IN THE COMPRESSION AREA OF THE STRINGER'S TOP FLANGE ONLY. FOR CONTINUOUS STRUCTURES, SEE STRINGER DETAILS FOR LIMITS OF TENSION ZONES FOR THE TOP FLANGE. WELDING SHALL CONFORM TO SECTION 7 OF THE N.Y.S. STEEL CONSTRUCTION MANUAL. (3/16" DIA. E7018 OR E8018-C3 ELECTRODES, PROPERLY CONDITIONED, SHALL BE USED.)
3. THE SUPPORT ANGLES AND/OR ZEES SHALL BE GALVANIZED IN ACCORDANCE WITH MATERIAL SPECIFICATION 719-01.



END DECK SECTION A

N.T.S.

PREPARED BY: BARTON & LOGUIDICE, D.P.C.
ON : SEPTEMBER 26, 2018

STATE OF NEW YORK · ROBERT J. SIPZNER · LICENSED PROFESSIONAL ENGINEER · No. 064501

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57
65

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ASHOKAN RAIL TRAIL
BRIDGE REPLACEMENT
BOICEVILLE BRIDGE OVER ESOPUS CREEK
ULSTER COUNTY

DECK REINFORCEMENT PLAN AND DETAILS

SCALE: AS SHOWN

DATE ISSUED: 9/26/2018

DRAWING
BV-25

IN CHARGE OF RJS | DESIGNED BY RSO | CHECKED BY MDP/BSR | DRAFTED BY JDHSr | CHECKED BY RSO/BSR

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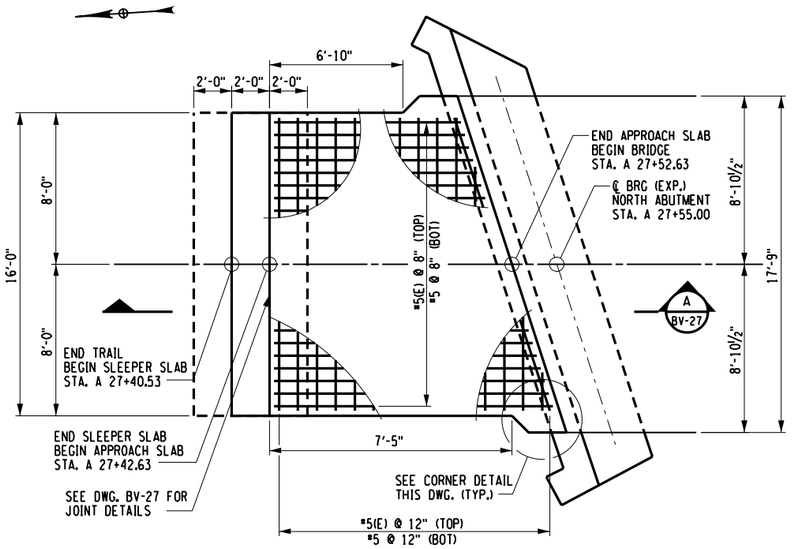
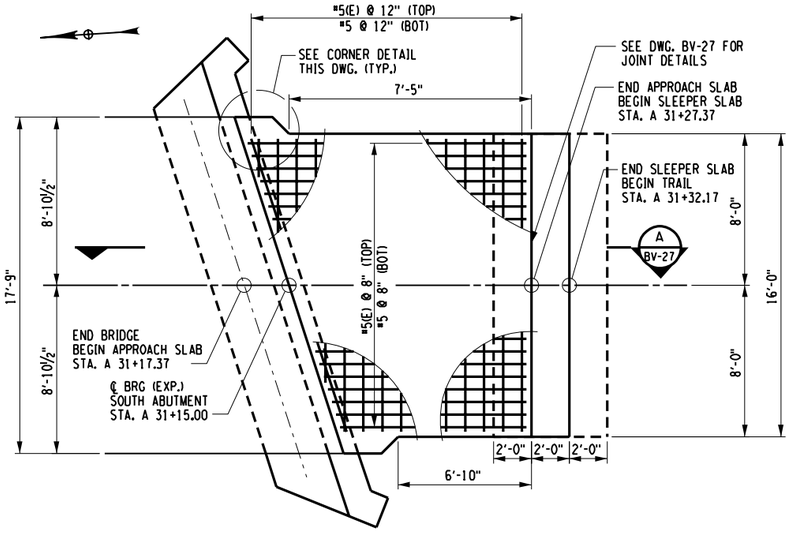


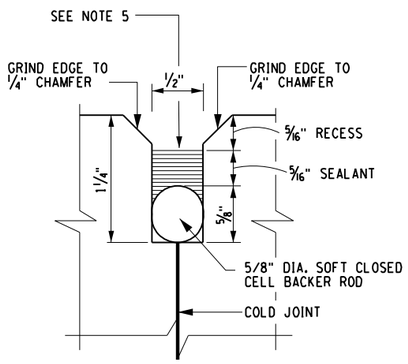
BEGIN APPROACH SLAB PLAN

SCALE: ⅛" = 1'-0"



END APPROACH SLAB PLAN

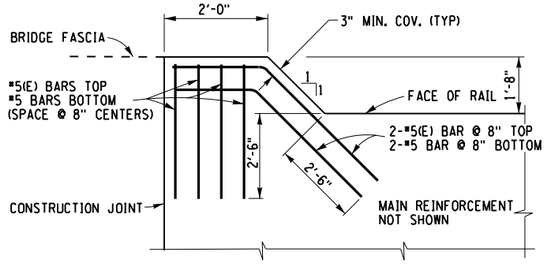
SCALE: ⅛" = 1'-0"



JOINT RECESS DETAIL

NTS

(SEE DWG. BV-25 FOR LOCATION)



APPROACH SLAB CORNER DETAIL

NTS

NOTES:

1. EXCAVATION FOR SLEEPER SLABS SHALL BE CAREFULLY MADE AFTER COMPACTED ABUTMENT EMBANKMENT IS IN PLACE. THE SLEEPER SLABS SHALL BE FOUNDED ON UNDISTURBED COMPACT MATERIAL OR RE-COMPACTED MATERIAL. NO LOOSE BACKFILL SHALL BE ALLOWED. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE SLEEPER SLAB FROM TEMPORARY LOADINGS OR ANY CONDITION WHICH COULD CAUSE MOVEMENTS OR UNEVEN SETTLEMENT OF THE SLEEPER SLAB.

2. TO PERMIT UNHINDERED LONGITUDINAL MOVEMENT OF SLAB, THE SURFACE OF THE SUBBASE COURSE MUST BE ACCURATELY CONTROLLED TO FOLLOW AND BE PARALLEL TO THE ROADWAY GRADE AND CROSS SLOPE.

3. POLYETHYLENE CURING COVERS (WHITE OPAQUE) IN ACCORDANCE WITH MATERIAL SPECIFICATION SUBSECTION 711-04 SHALL BE PLACED ON THE FINISHED SUBBASE COURSE THE FULL WIDTH OF THE APPROACH SLAB PRIOR TO PLACEMENT OF THE REINFORCEMENT. THE CURING COVERS SHALL BE 0.004 INCH THICK, AND LAPS SHALL BE 2'-0" MINIMUM.

4. TOP OF SLEEPER SLABS SHALL BE STEEL TROWEL FINISHED AND COATED WITH A 0.04 INCH NOMINAL THICKNESS OF PERFORMANCE GRADE ASPHALT AS INDICATED IN THE PROPOSAL, OR MATERIAL SPECIFICATION 702-3101. THE TOP OF SLEEPER SLABS SHALL FOLLOW THE CROSS SLOPE AND GRADE OF ROADWAY. COST TO BE INCLUDED IN THE UNIT PRICE BID FOR THE APPROACH SLAB ITEM.

5. FILL THE RECESS WITH A STRUCTURAL JOINT MATERIAL, SILICONE SEALANT, FROM THE DEPARTMENT'S APPROVED LIST FOR ITEM 567.51--16. IF THE RECESS IS SAW CUT, WATER BLAST IMMEDIATELY FOLLOWING CUTTING TO REMOVE ANY RESIDUAL SLURRY BEFORE IT DRIES. CLEAN THE VERTICAL FACES OF THE RECESS BY ABRASIVE BLAST, AND AIR BLOW THE RESIDUE FROM THE RECESS. PRIME THE VERTICAL FACES WITH THE MANUFACTURER'S RECOMMENDED PRIMER, AND ALLOW TO DRY. PLACE A 5/8" DIA. SOFT CLOSED CELL BACKER ROD IN THE BOTTOM OF THE RECESS. POUR THE SILICONE SEALANT TO A DEPTH OF APPROX. 5/16". PAYMENT TO BE INCLUDED IN THE UNIT PRICE BID FOR THE APPROACH SLAB.

6. TOP SURFACES OF STRUCTURAL SLABS, APPROACH SLABS AND EXPOSED TOP SURFACES OF SLEEPER SLABS SHALL BE GROOVED UNDER THE SAWCUT GROOVING OF STRUCTURAL SLAB SURFACE ITEM.

7. COMPRESSED SYNTHETIC SHEET GASKET (TREATED BOTH SIDES), MATERIAL SPECIFICATION 728-06, TWO 0.06 INCH THICK SHEETS. PRICE WILL BE INCLUDED IN THE UNIT PRICE BID FOR THE APPROACH SLAB ITEM. SEE DETAIL 'A' ON DWG. ST-18

PREPARED BY: BARTON & LOGUIDICE, D.P.C.
ON : SEPTEMBER 26, 2018

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58
65

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ASHOKAN RAIL TRAIL

BRIDGE REPLACEMENT

BOICEVILLE BRIDGE
OVER ESOPUS CREEK

ULSTER COUNTY

APPROACH
SLAB PLANS
AND DETAILS

SCALE: AS SHOWN

DATE ISSUED: 9/26/2018

DRAWING
BV-26

IN CHARGE OF RJS DESIGNED BY RSO CHECKED BY MDP/BSR DRAFTED BY JDHSr CHECKED BY RSO/BSR

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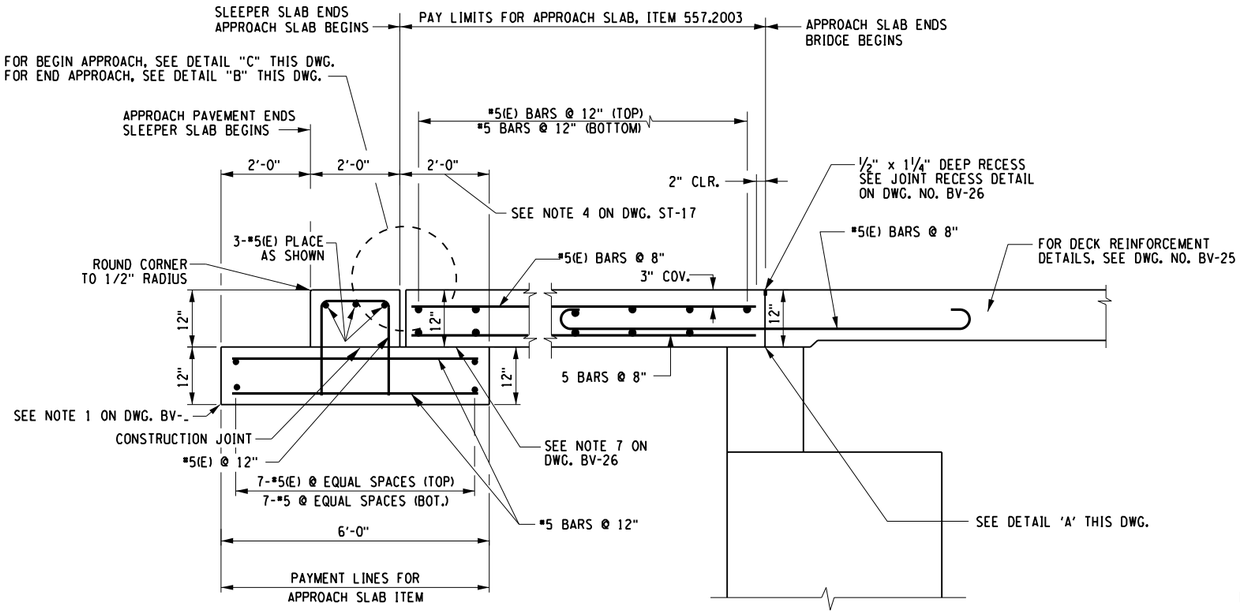
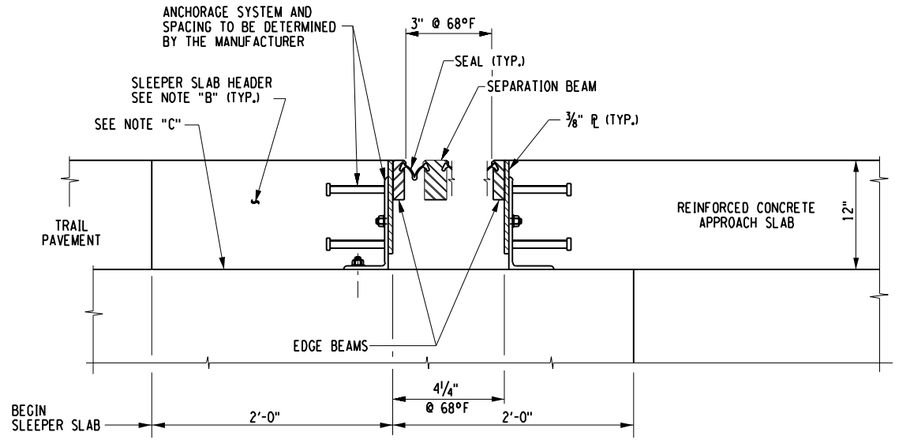


SLEEPER SLAB SECTION A / BV-26
NTS



JOINT DETAIL B
NTS

JOINT BETWEEN APPROACH
SLAB AND SLEEPER SLAB
AT SOUTH END OF BRIDGE

NOTE "B"

THE CONCRETE FURNISHED AND PLACED IN THE RECESSES FOR INSTALLING THE JOINT SYSTEM SHALL COMPLY WITH THE SPECIFICATIONS FOR THE CURRENT SLAB ITEM, EXCEPT THAT MACHINE FINISHING WILL NOT BE REQUIRED. THE COST FOR FURNISHING AND PLACING THIS CONCRETE SHALL BE INCLUDED IN THE UNIT PRICE OF THE SLAB ITEM.

NOTE "C"

PREPARE EXISTING SURFACES IN ACCORDANCE WITH STANDARD SPECIFICATION 566-3.03.

MODULAR JOINT NOTES:

IT IS DESIRABLE TO HAVE THE MODULAR JOINT WITH ITS SEAL ASSEMBLED IN THE SHOP AND DELIVERED TO THE JOB SITE ALL SET FOR INSTALLATION IN ITS PREFORMED RECESS IN THE STRUCTURAL SLAB. IN CASES WHERE THE JOINT CANNOT BE ASSEMBLED IN THE SHOP, DUE TO ITS EXCESSIVE LENGTH CAUSING SHIPPING PROBLEMS, THE JOINT SHALL HAVE THE SEAL IN PLACE BEFORE THE STRUCTURE IS OPENED TO TRAFFIC, INCLUDING CONSTRUCTION TRAFFIC, AND BEFORE DISCONTINUING OPERATION WHEN WORK IS SUSPENDED DURING THE WINTER.

MODULAR JOINT SHOWN IS FOR ILLUSTRATIVE PURPOSES ONLY. ACTUAL JOINT SUPPLIED MAY VARY SIGNIFICANTLY FROM THE ONE SHOWN HERE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ADJUST ALL REQUIRED DIMENSIONS IN THE FIELD, BASED ON FIELD VERIFIED DIMENSIONS, TO ACCOMODATE THE ACTUAL MODULAR JOINT SUPPLIED.

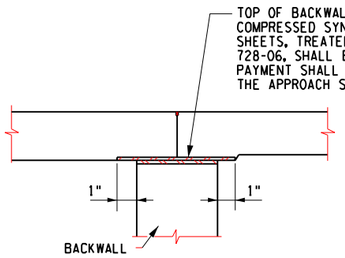
BLOCKOUT OR SUPPORT SYSTEM SHALL BE THE CONTRACTOR'S RESPONSIBILITY. NO ADDITIONAL PAYMENT WILL BE MADE FOR THE CHANGES TO THE BLOCKOUT OR SUPPORT SYSTEM AS A RESULT OF THE SUPPLIED JOINT SYSTEM.

ENDS OF BOX SEAL TO BE CAPPED WITH NEOPRENE SPONGE.

THE SUPPLIER OF THE JOINT SYSTEM MUST BE ON THE NYSDOT APPROVED LIST.

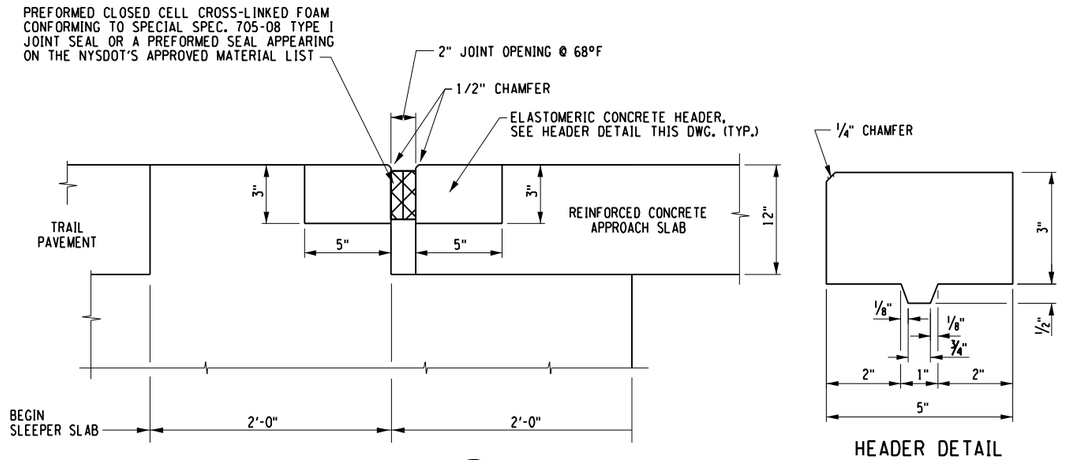
THE ASSUMED DIMENSIONS OF THE BLOCKOUT (DEPTH AND WIDTH) ARE PLACED ON THE PLANS. IF THE JOINT SYSTEM SUPPLIED BY THE FABRICATOR/CONTRACTOR REQUIRES A CHANGE TO THE BLOCKOUT SIZE OR SUPPORT SYSTEM DETAILED IN THE PLANS, THAT CHANGE TO THE

THE TOTAL NUMBER OF CELLS IS TWO (2) AND THE TOTAL EXPECTED MOVEMENT IS 3" 68 DEGREES F.



TOP OF BACKWALL DETAIL A
NTS

JOINT BETWEEN DECK AND
APPROACH SLAB AT
BOTH ENDS OF BRIDGE



JOINT DETAIL C
NTS

JOINT BETWEEN APPROACH
SLAB AND SLEEPER SLAB
AT NORTH END OF BRIDGE

HEADER DETAIL
NTS

PREPARED BY: BARTON & LOGUIDICE, D.P.C.
ON : SEPTEMBER 26, 2018

IN CHARGE OF RJS | DESIGNED BY RSO | CHECKED BY MDP/BSR | DRAFTED BY JDHSr

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NO.	DATE	BY	REVISION

59
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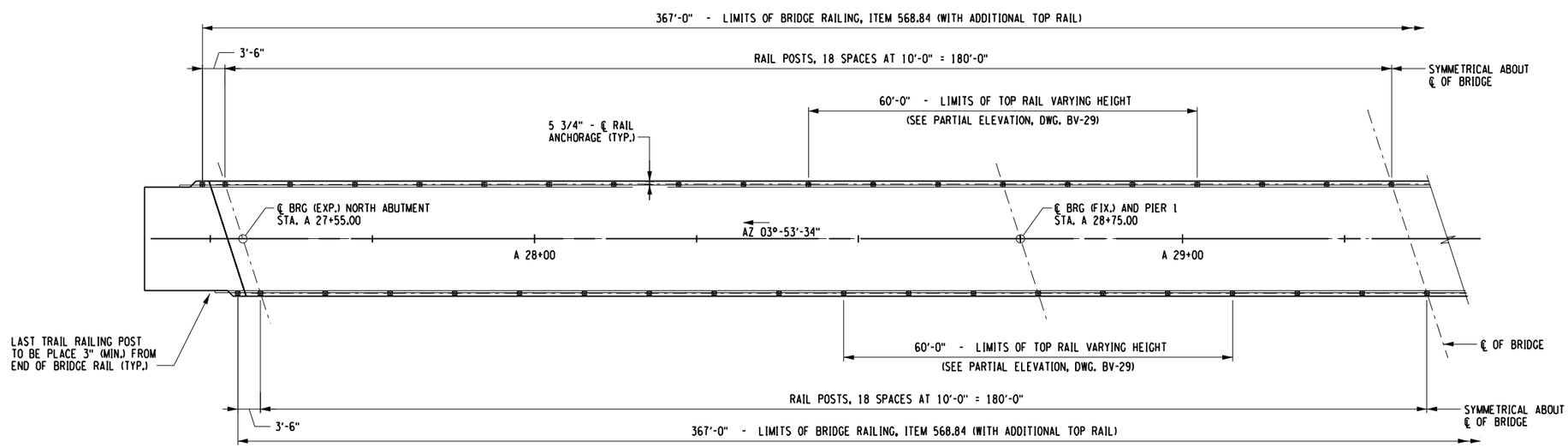
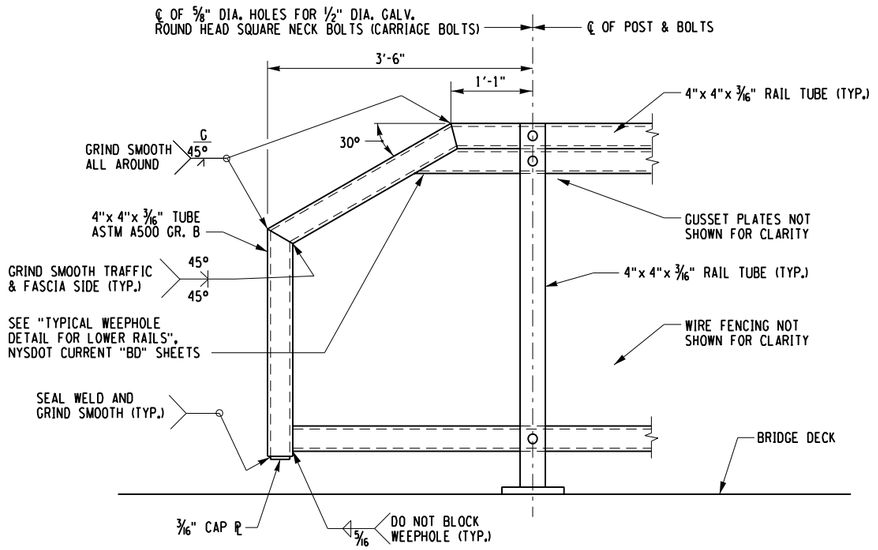
ASHOKAN RAIL TRAIL
BRIDGE REPLACEMENT
BOICEVILLE BRIDGE OVER ESOPUS CREEK
ULSTER COUNTY

APPROACH SLAB SECTIONS AND DETAILS

SCALE: AS SHOWN
DATE ISSUED: 9/26/2018
DRAWING
BV-27



BRIDGE RAIL PLAN
SCALE: 1" = 20'-0"



TYPICAL END ELEVATION
N.T.S.

NOTES:

1. SEE NOTES 6 AND 7 ON DWG. BV-29 FOR INFORMATION ON RAIL MATERIALS AND COATINGS.

PREPARED BY: BARTON & LOGUIDICE, D.P.C.
ON : SEPTEMBER 26, 2018

STATE OF NEW YORK · ROBERT J. SIPZNER · LICENSED PROFESSIONAL ENGINEER · No. 064501

IN CHARGE OF RJS | DESIGNED BY RSO | CHECKED BY MDP/BSR | DRAFTED BY JDHSr

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NO.	DATE	BY	REVISION

60
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SENDOVER IS THE COUNTY SEAT OF ULSTER COUNTY NEW YORK

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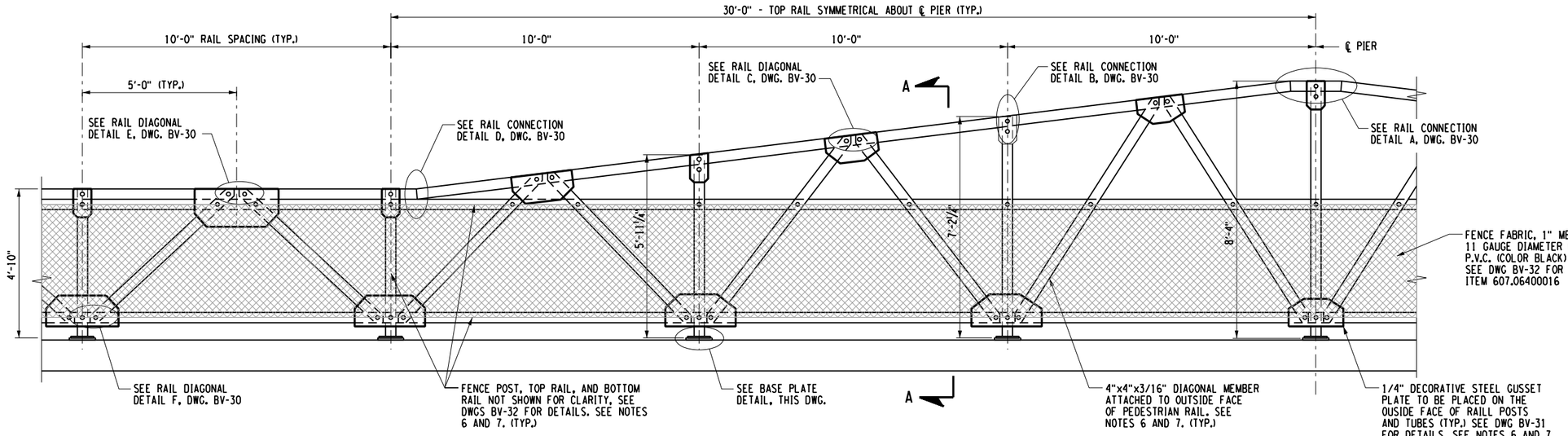
ASHOKAN RAIL TRAIL
BRIDGE REPLACEMENT
BOICEVILLE BRIDGE OVER ESOPUS CREEK
ULSTER COUNTY

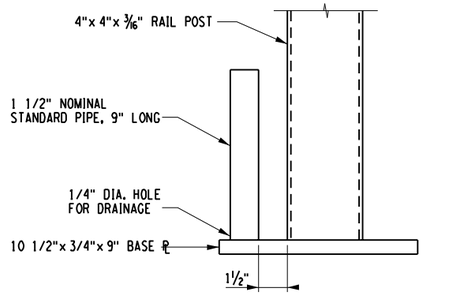
BRIDGE RAIL LAYOUT PLAN AND DETAILS

SCALE: AS SHOWN
DATE ISSUED: 9/26/2018
DRAWING
BV-28



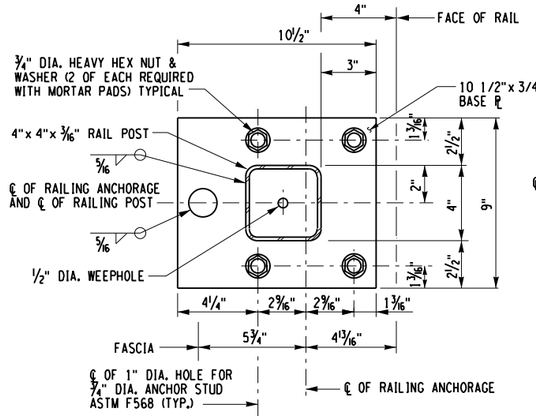
PARTIAL PEDESTRIAN RAIL ELEVATION

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



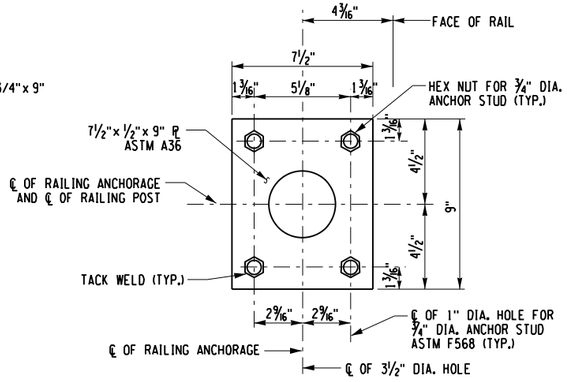
RAILING POST BASE PLATE ELEVATION

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



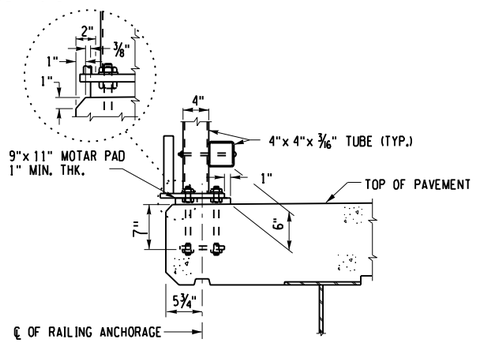
RAILING POST BASE PLATE PLAN

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



RAILING POST ANCHOR PLATE

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



BASE PLATE DETAIL

N.T.S.

NOTES:

1. ALL RAILING IS TO BE FABRICATED AND ERECTED SO THAT THE RAILS ARE PARALLEL TO EACH OTHER AND TO THE GRADE. THE POSTS ARE TO BE TRULY VERTICAL.
2. WHEN THE RAILING IS TO BE PLACED ON A PREFORMED SURFACE, THE BASE PLATE MAY BE PARALLEL TO THE GRADE OR MAY BE PERPENDICULAR TO THE POST AND MADE LEVEL BY THE USE OF (1:1 RATIO CEMENT TO SAND) MORTAR.
3. TUBULAR STEEL RAILS, RAIL POSTS, NUTS AND WASHERS, CARRIAGE BOLTS, BASE PLATE ASSEMBLIES, ANCHOR STUDS, ANCHOR PLATES, ANY NECESSARY SHIMS AND MORTAR PADS TO BE PAID FOR UNDER THE RAILING ITEM.
4. AFTER THE ANCHOR STUD NUTS HAVE BEEN PLACED AND TIGHTENED TO THE SATISFACTION OF THE ENGINEER, THE STUDS SHALL BE CUT OFF 1" ABOVE THE NUT AND THE THREADS SHALL BE DAMAGED SO THE NUT SHALL NOT BACK OFF.
5. RAIL SHALL SPAN A MINIMUM OF 3 POSTS, EXCEPT AT THE END OF THE BRIDGE RAILING WHERE THE RAIL MAY SPAN A MINIMUM OF 2 POSTS.
6. CEMENT MORTAR PADS SHALL BE PAID FOR UNDER THE RAILING ITEM.
7. BOTTOM RAIL AND BOTH TOP RAILS MEMBERS SHALL BE COATED WITH LINE-X, S350 POLYUREA SPRAY ELASTOMER SYSTEM, UNLESS SPECIFIED ELSEWHERE, OR EQUAL. EQUAL PRODUCT AS DEFINED BY BASIC PHYSICAL PROPERTIES THAT FOLLOW ASTM TESTING BY AN INDEPENDENT THIRD PARTY MATERIAL TEST LABORATORY, AND CHEMICAL RESISTANCE PER ASTM D543 (7 DAY IMMERSIONS). FIELD MODIFICATIONS, DAMAGE, SCRAPES, CHIPS, NICKS OR ANY OTHER LOSS OF MATERIAL SHALL BE REPAIRED AS PER THE COATING APPLICATORS SPECIFIC INSTRUCTIONS AND OBSERVATION. COLOR SHALL BE WEATHERING STEEL BROWN OR SIMILAR. CONTRACTOR SHALL SUBMIT COLOR AND MATERIAL TO BE USED TO ENGINEER FOR APPROVAL. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR APPROVAL PRIOR TO FABRICATION.
8. RAIL POSTS, DIAGONAL MEMBERS, AND DECORATIVE GUSSET PLATES SHALL BE WEATHERING STEEL.
9. FASTENERS SHALL BE AS FOLLOWS:
   WEATHERING STEEL BOLTS - ASTM A325, TYPE 3, HIGH STRENGTH BOLTS
   WEATHERING STEEL NUTS - A563, GRADE DH3
   WASHERS - F436 TYPE 3

PREPARED BY: BARTON & LOGUIDICE, D.P.C.
ON : SEPTEMBER 26, 2018

STATE OF NEW YORK · ROBERT J. SIPSNER · No. 064501 · LICENSED PROFESSIONAL ENGINEER

NO.	DATE	BY	REVISION

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Barton & Loguidice

ASHOKAN RAIL TRAIL
BRIDGE REPLACEMENT
BOICEVILLE BRIDGE OVER ESOPUS CREEK
ULSTER COUNTY

RAILING DETAILS - 1

SCALE: AS SHOWN
DATE ISSUED: 9/26/2018
DRAWING BV-29

IN CHARGE OF RJS | DESIGNED BY RSO | CHECKED BY MDP/BSR | DRAFTED BY JDHSr | CHECKED BY RSO/BSR

jdh
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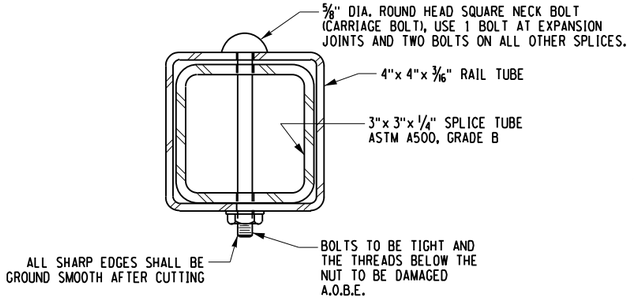
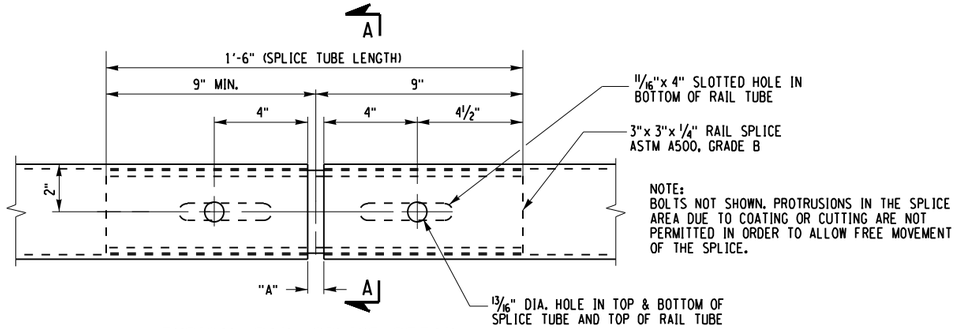


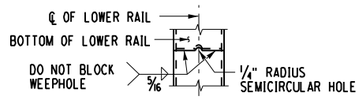
SECTION A-A
NOT TO SCALE



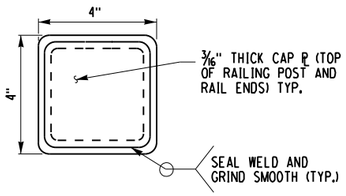
NOTE:
BOLTS NOT SHOWN. PROTRUSIONS IN THE SPLICE AREA DUE TO COATING OR CUTTING ARE NOT PERMITTED IN ORDER TO ALLOW FREE MOVEMENT OF THE SPLICE.

TYPICAL RAIL SPLICE DETAIL
NOT TO SCALE

NOTE "A"
FOR SPLICE JOINTS "A" = 1"
FOR EXPANSION JOINTS "A" = MAXIMUM BRIDGE THERMAL EXPANSION DIMENSION + 1/4" (1" MIN.) AND SPLICE LENGTH = 1'-5" + "A"

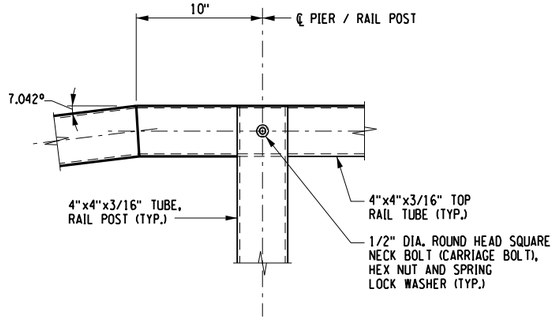


TYPICAL WEEP HOLE FOR LOWER RAILS
N.T.S.

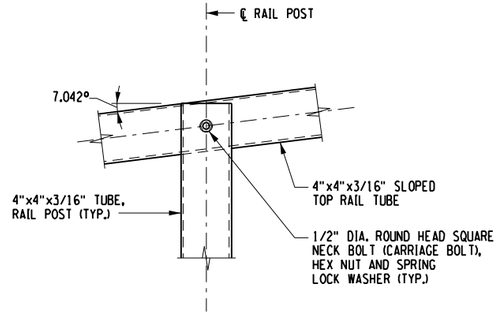


CAP PLATE DETAIL
(TYPICAL FOR TOP OF RAILING POSTS AND RAIL ENDS)
NOT TO SCALE

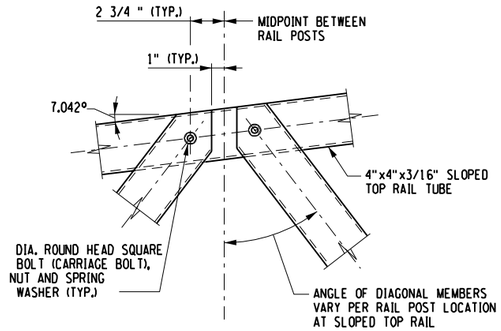
NOTE:
END CAPS FOR RAILINGS ARE TO BE USED ONLY WHERE THE RAIL TERMINATES AND AT THE TOPS OF ALL RAILING POSTS.



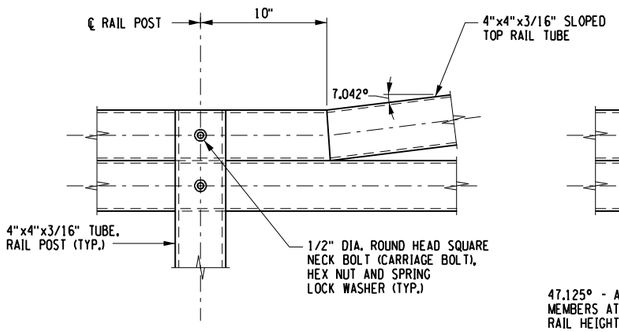
RAIL CONNECTION DETAIL 'A'
AT CENTERLINE PIER
SCALE: 1" = 1'-0"
(GUSSET PLATE AND FENCING NOT SHOWN FOR CLARITY)



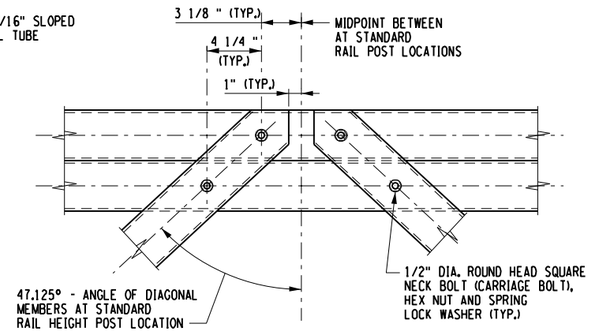
RAIL CONNECTION DETAIL 'B'
AT SLOPED TOP RAIL
SCALE: 1" = 1'-0"
(GUSSET PLATE AND FENCING NOT SHOWN FOR CLARITY)



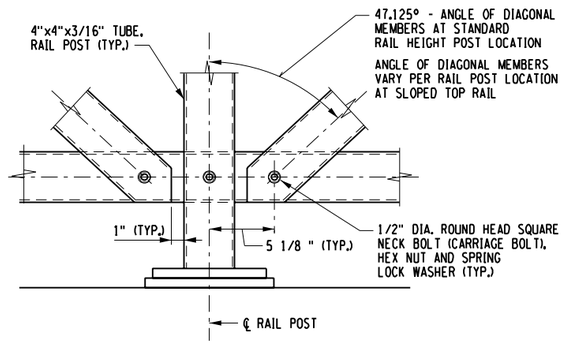
RAIL CONNECTION DETAIL 'C'
AT SLOPED TOP RAIL
SCALE: 1" = 1'-0"
(GUSSET PLATE AND FENCING NOT SHOWN FOR CLARITY)



RAIL CONNECTION DETAIL 'D'
AT TOP RAIL BREAK POINT
SCALE: 1" = 1'-0"
(GUSSET PLATE AND FENCING NOT SHOWN FOR CLARITY)



RAIL CONNECTION DETAIL 'E'
AT STANDARD TOP RAIL
SCALE: 1" = 1'-0"
(GUSSET PLATE AND FENCING NOT SHOWN FOR CLARITY)



RAIL CONNECTION DETAIL 'F'
AT STANDARD BOTTOM RAIL
SCALE: 1" = 1'-0"
(GUSSET PLATE AND FENCING NOT SHOWN FOR CLARITY)

NOTES:

1. SEE NOTES ON DWG. BV-29.
2. FOR ADDIONAL RAILING DETAILS, SEE DWGS. BV-29 AND BV-32. FOR ADDITIONAL TYPICAL RAIL DETAILS AND NOTES NOT SHOWN, SEE CURRENT N.Y.S.D.O.T. BD SHEETS.
3. FOR DECORATIVE GUSSET PLATE DETAILS, SEE DWG. BV-31.
4. FOR FENCING DETAILS, SEE DWG. BV-32.

PREPARED BY: BARTON & LOGUIDICE, D.P.C.
ON : SEPTEMBER 26, 2018

STATE OF NEW YORK * ROBERT J. SIPZNER * No. 066501 LICENSED PROFESSIONAL ENGINEER

NO.	DATE	BY	REVISION

Barton & Loguidice

ASHOKAN RAIL TRAIL
BRIDGE REPLACEMENT
BOICEVILLE BRIDGE OVER ESOPUS CREEK
ULSTER COUNTY

RAILING DETAILS - 2

SCALE: AS SHOWN
DATE ISSUED: 9/26/2018
DRAWING BV-30

IN CHARGE OF RJS | DESIGNED BY RSO | DRAFTED BY JDHSr | CHECKED BY MDP/BSR | CHECKED BY RSO/BSR

jdh
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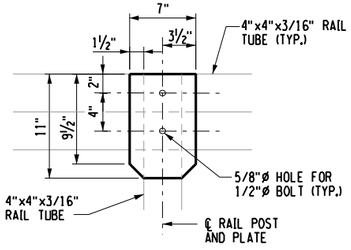
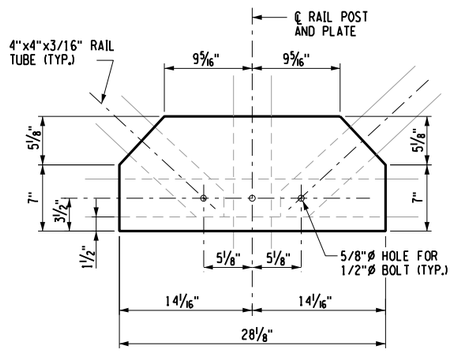
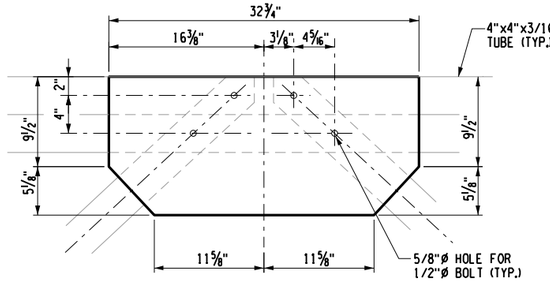


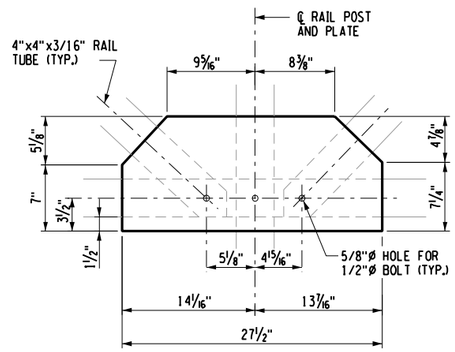
GUSSET PLATE DETAIL - 1
SCALE: 3/4" = 1'-0"



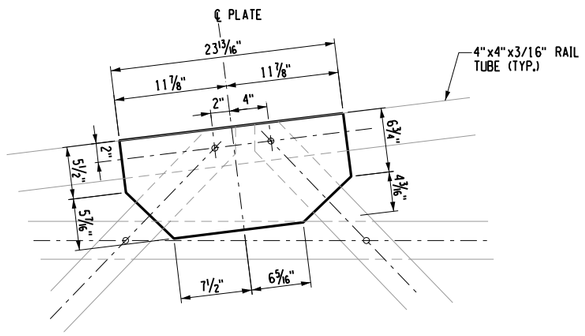
GUSSET PLATE DETAIL - 2
SCALE: 3/4" = 1'-0"



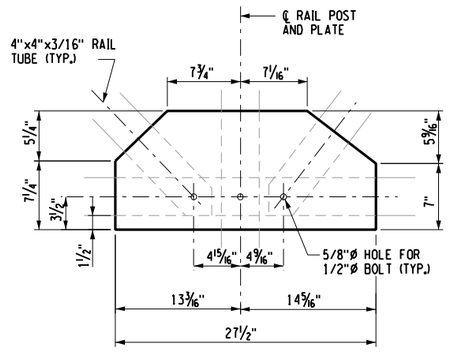
GUSSET PLATE DETAIL - 3
SCALE: 3/4" = 1'-0"



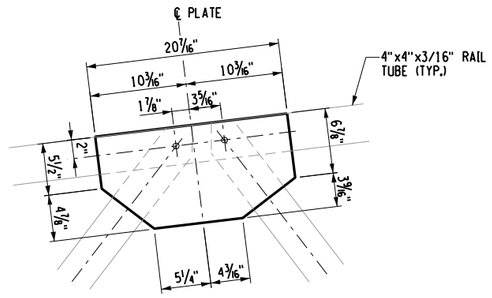
GUSSET PLATE DETAIL - 4
SCALE: 3/4" = 1'-0"



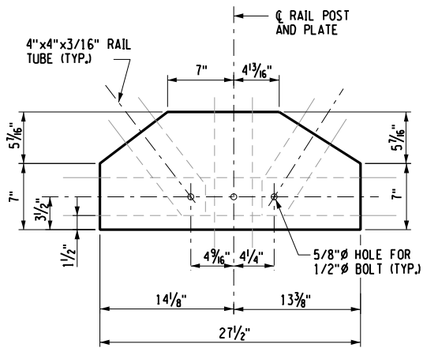
GUSSET PLATE DETAIL - 5
SCALE: 3/4" = 1'-0"



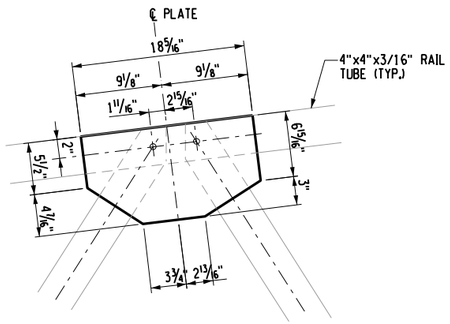
GUSSET PLATE DETAIL - 6
SCALE: 3/4" = 1'-0"



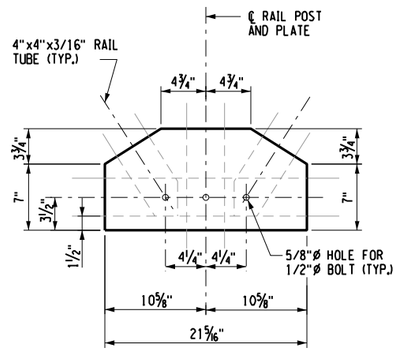
GUSSET PLATE DETAIL - 7
SCALE: 3/4" = 1'-0"



GUSSET PLATE DETAIL - 8
SCALE: 3/4" = 1'-0"



GUSSET PLATE DETAIL - 9
SCALE: 3/4" = 1'-0"



GUSSET PLATE DETAIL - 10
SCALE: 3/4" = 1'-0"

NOTES:

COST OF DECORATIVE GUSSET PLATES TO BE INCLUDED UNDER THE RAILING ITEM.

FOR RAILING DETAILS, SEE DWGS. BV-29 AND BV-30.

FOR FENCING DETAILS, SEE DWG. BV-32.

PREPARED BY: BARTON & LOGUIDICE, D.P.C.
ON : SEPTEMBER 26, 2018

NEW YORK STATE OF ROBERT J. SIPZNER LICENSED PROFESSIONAL ENGINEER No. 064501

NO.	DATE	BY	REVISION

Barton & Loguidice

ASHOKAN RAIL TRAIL
BRIDGE REPLACEMENT
BOICEVILLE BRIDGE OVER ESOPUS CREEK
ULSTER COUNTY

RAILING DETAILS - 3

SCALE: AS SHOWN
DATE ISSUED: 9/26/2018
DRAWING BV-31

IN CHARGE OF RJS | DESIGNED BY RSO | CHECKED BY MDP/BSR | DRAFTED BY JDHSr | CHECKED BY RSO/BSR

FILE NAME = L:\MSTN Projects\0300\369.007 - Ashokan Rail Trail\MSTN\2018 Boiceville Bid Set\344_369007001 Rail Details-3.dgn
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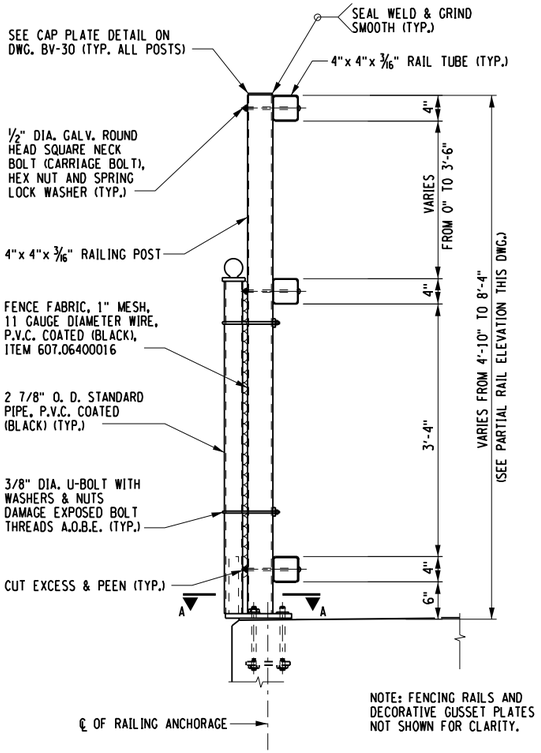
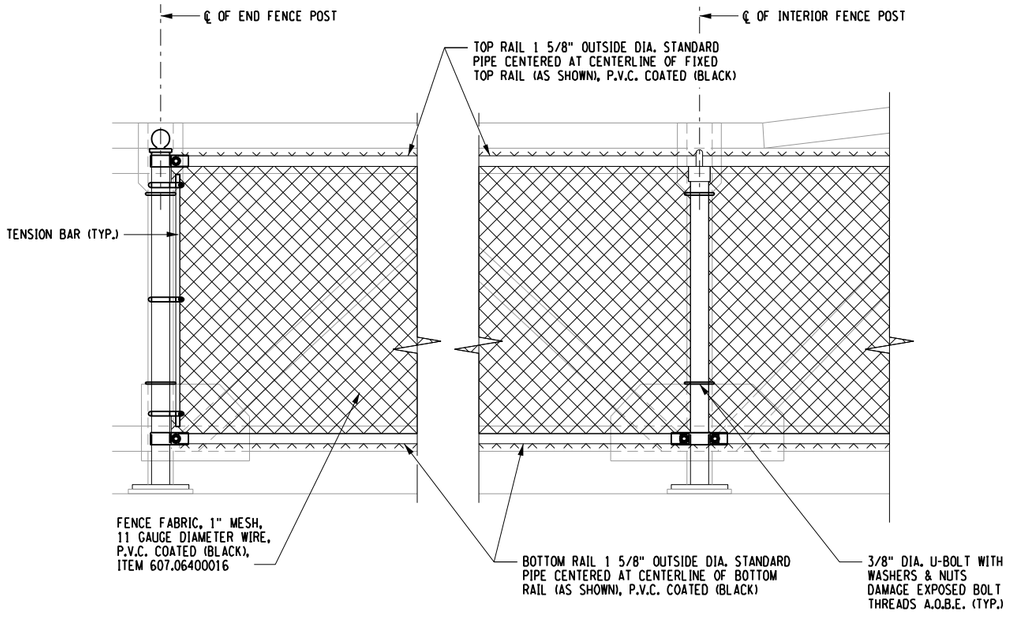
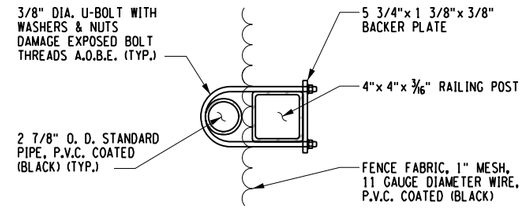


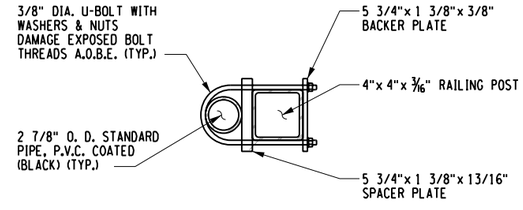
TYPICAL RAILING/FENCE POST SECTION
SCALE: 1/2" = 1'-0"



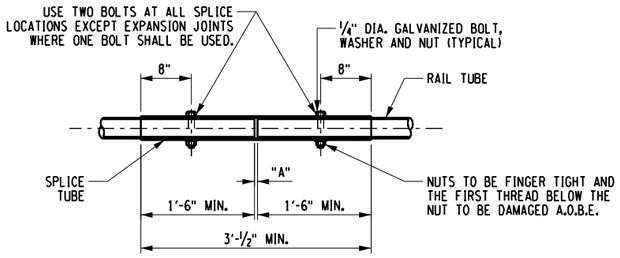
PARTIAL PEDESTRIAN FENCING ELEVATION
SCALE: 1/2" = 1'-0"



SECTION A-A (INTERIOR POSTS)
SCALE: 1" = 1'-0"



SECTION A-A (INTERIOR POSTS)
SCALE: 1" = 1'-0"



NOTE:
"A" = 1/4" EXCEPT FOR EXPANSION JOINT LOCATIONS WHERE THIS DIMENSION SHALL BE SET EQUAL TO THE BRIDGE DECK JOINT OPENING PLUS 1/4" MIN.

TYPICAL FENCE RAIL SPLICE DETAIL
N.T.S.

PREPARED BY: BARTON & LOGUIDICE, D.P.C.
ON : SEPTEMBER 26, 2018

NO.	DATE	BY	REVISION

Barton & Loguidice

ASHOKAN RAIL TRAIL
BRIDGE REPLACEMENT
BOICEVILLE BRIDGE OVER ESOPUS CREEK
ULSTER COUNTY

RAILING DETAILS - 4

SCALE: AS SHOWN
DATE ISSUED: 9/26/2018
DRAWING BV-32

IN CHARGE OF RJS | DESIGNED BY RSO | CHECKED BY MDP/BSR | DRAFTED BY JDHSr | CHECKED BY RSO/BSR

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DATE = 9/26/2018
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ASHOKAN RAIL TRAIL - BOICEVILLE BRIDGE
ESTIMATE OF QUANTITIES

ITEM NUMBER	DESCRIPTION	UNIT	TOTAL QUANTITY	FINAL
201.06	CLEARING AND GRUBBING	LS	1.0	
202.120001	REMOVING EXISTING SUPERSTRUCTURES	LS	1.0	
202.19	REMOVAL OF SUBSTRUCTURES	CY	400.0	
203.02	UNCLASSIFIED EXCAVATION AND DISPOSAL	CY	1,800.0	
203.03	EMBANKMENT IN PLACE	CY	4,500.0	
203.21	SELECT STRUCTURE FILL	CY	855.0	
203.51990006	ESTABLISHING NEW DITCHES AND SLOPES	LF	450.0	
205.0401	PETROLEUM CONTAMINATION PARAMETER ANALYSIS	EACH	5.0	
205.050101	DISPOSAL OF CONTAMINATED HAZARDOUS WASTE SOIL	TON	100.0	
206.01	STRUCTURE EXCAVATION	CY	4,000.0	
206.0201	TRENCH AND CULVERT EXCAVATION	CY	150.0	
207.24	GEOTEXTILE STABILIZATION	SY	1,100.0	
207.26	PREFABRICATED COMPOSITE STRUCTURAL DRAIN	SY	260.0	
209.100101	MULCH - TEMPORARY	SY	4,000.0	
209.13	SILT FENCE-TEMPORARY	LF	2,200.0	
209.1801	ROLLED EROSION CONTROL PRODUCT, CLASS 1 TYPE A, SHORT TERM	SY	1,500.0	
209.20120010	BIO-FIBER ROLLS, 12 INCH	LF	500.0	
209.22	CONSTRUCTION ENTRANCE	SY	200.0	
304.12	SUBBASE COURSE, TYPE 2	CY	225.0	
304.12UC	SUBBASE COURSE, TYPE 2 MODIFIED (BASE COURSE)	CY	1,100.0	
551.12	SPLICES FOR STEEL H-PILES	EACH	50.0	
551.13	FURNISHING EQUIPMENT FOR DRIVING PILES	LS	1.0	
551.14	DYNAMIC PILE TESTING	EACH	4.0	
551.014089	STEEL H-PILES (HP 14x89)	LF	2,928.0	
553.010001	COFFERDAMS, TYPE 1	EACH	1.0	
553.010002	COFFERDAMS, TYPE 1	EACH	1.0	
553.010003	COFFERDAMS, TYPE 1	EACH	1.0	
553.010004	COFFERDAMS, TYPE 1	EACH	1.0	
553.010005	COFFERDAMS, TYPE 1	EACH	1.0	
553.020001	COFFERDAMS, TYPE 2	EACH	1.0	
553.020002	COFFERDAMS, TYPE 2	EACH	1.0	
553.04010109	TEMPORARY CAUSEWAYS	LS	1.0	
555.01040070	FOOTING CONCRETE, CLASS A (REINFORCEMENT INCLUDED AND NO BAR LIST IN PLANS)	CY	233.0	
555.01050070	CONCRETE FOR STRUCTURES, CLASS A (REINFORCEMENT INCLUDED AND NO BAR LIST IN PLANS)	CY	383.0	
555.72950010	ARCHITECHURAL TREATMENT - VERTICAL STAINED CONCRETE SURFACE	SF	4,870.0	
556.03	STUD SHEAR CONNECTORS FOR BRIDGES	EACH	2,934.0	
557.0109	SUPERSTRUCTURE SLAB WITH INTEGRAL WEARING SURFACE - BOTTOM FORMWORK REQUIRED - TYPE 9 FRICTION	SY	716.0	
557.2009	STRUCTURAL APPAORACH SLAB WITH INTEGRAL WEARING SURFACE - TYPE 9 FRICTION	SY	47.0	
559.18960118	PROTECTIVE SEALING OF STRUCTURAL CONCRETE ON NEW BRIDGE	SF	8,650.0	
560.0401	STONE MASONRY	SF	125.0	
564.0501	STRUCTURAL STEEL, TYPE 1	LS	1.0	
565.2025	TYPE E.B. FIXED BEARING (OVER 225 KIPS)	EACH	3.0	
565.2033	TYPE E.B. EXPANSION BEARING (112-168 KIPS)	EACH	6.0	
565.2035	TYPE E.B. EXPANSION BEARING (OVER 225 KIPS)	EACH	3.0	
568.84	PEDESTRIAN AND BICYCLE RAILING (FIVE-RAIL)	LF	734.0	
570.090001	ENVIRONMENTAL GROUND PROTECTION	LS	1.0	
570.100001	ENVIRONMENTAL WATERWAY PROTECTION	LS	1.0	
603.9812	SMOOTH INTERIOR CORRUGATED POLYETHYLENE CULVERT AND STORM DRAIN 12 INCH DIAMETER	LF	40.0	
607.06400016	PEDESTRIAN FENCING FOR BRIDGES	LF	734.0	
607.41010010	TEMPORARY PLASTIC BARRIER FENCE	LF	1,125.0	
607.65020010	SPLIT RAIL FENCE	LF	8.0	
607.96000001	WOODEN PEDESTRIAN RAILING	LF	585.0	
610.16080124	TURF ESTABLISHMENT - SEED MIX AS SPECIFIED	SY	4,000.0	
620.03	STONE FILLING (LIGHT)	CY	30.0	
620.05	STONE FILL (HEAVY)	CY	670.0	
620.08	BEDDING MATERIAL	CY	180.0	
621.51000015	GRADING CLEANING AND RESHAPING EXISTING DITCHES	LF	1,250.0	
623.03	CRUSHED STONE, BY WEIGHT (TOP COURSE)	TON	4,250.0	
625.01	SURVEY OPERATIONS	LS	1.0	
637.12	ENGINEER'S FIELD OFFICE - TYPE 2	MNTH	5.0	
637.31UC	INSPECTION UTILITY TERRAIN VEHICLE (UTV)	MNTH	8.0	
637.34	OFFICE TECHNOLOGY AND SUPPLIES	DC	2,500.0	
645.5101	GROUND-MOUNTED SIGN PANELS WITHOUT Z-BARS	SF	22.0	
645.81	TYPE A SIGN POSTS	EACH	5.0	
697.03	FIELD CHANGE PAYMENT	DC	262,000.0	
698.05	FUEL PRICE ADJUSTMENT	DC	100.0	
698.06	STEEL/IRON PRICE ADJUSTMENT	DC	100.0	
699.040001	MOBILIZATION (MAXIMUM 4%)	LS	1.0	

1

REVISIONS TO ITEMS:
203.03 - EMBANKMENT IN PLACE
555.01040070 - FOOTING CONCRETE CLASS A
555.01050070 - CONCRETE FOR STRUCTURES
551.014089 - STEEL H-PILES (14X89)

PREPARED BY: BARTON & LOGUIDICE, D.P.C.
ON : OCTOBER 3, 2018

STATE OF NEW YORK ROBERT J. SIPZNER LICENSED PROFESSIONAL ENGINEER No. 064501

NO.	DATE	BY	REVISION
1	10/3	BSR	AS NOTED

65R1
65

Barton & Loguidice

ASHOKAN RAIL TRAIL
BRIDGE REPLACEMENT
BOICEVILLE BRIDGE OVER ESOPUS CREEK
ULSTER COUNTY

ESTIMATE OF QUANTITIES

SCALE: NONE
DATE ISSUED: 10/3/2018
DRAWING EQ-1 R1

IN CHARGE OF RJS DESIGNED BY RSO CHECKED BY MDP/BSR DRAFTED BY JDHSr
CHECKED BY RSO/BSR

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DATE = 10/5/2018
TIME = 2:08:06 PM
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