

SCOPE OF WORK

REMOVAL AND REPLACEMENT OF THE BRIDGE CARRYING FIVE MILE ROAD (C.R. 19) OVER ISCHUA CREEK, INCLUDING THE RECONSTRUCTION OF APPROXIMATELY 200 FEET OF PAVEMENT ON EACH APPROACH.

SPECIFICATIONS

ALL WORK COMPLETED UNDER THIS CONTRACT IS TO BE COVERED BY AND IN CONFORMITY WITH THE NYSDOT 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."

CONTRACT PLANS HAVE BEEN DESIGNED IN ACCORDANCE WITH NYSDOT POLICIES AND GUIDELINES.

STANDARD SHEETS

THE LATEST REVISIONS OF THE STANDARD SHEETS MAINTAINED BY THE NYSDOT, 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.

HIGHWAY DESIGN DATA

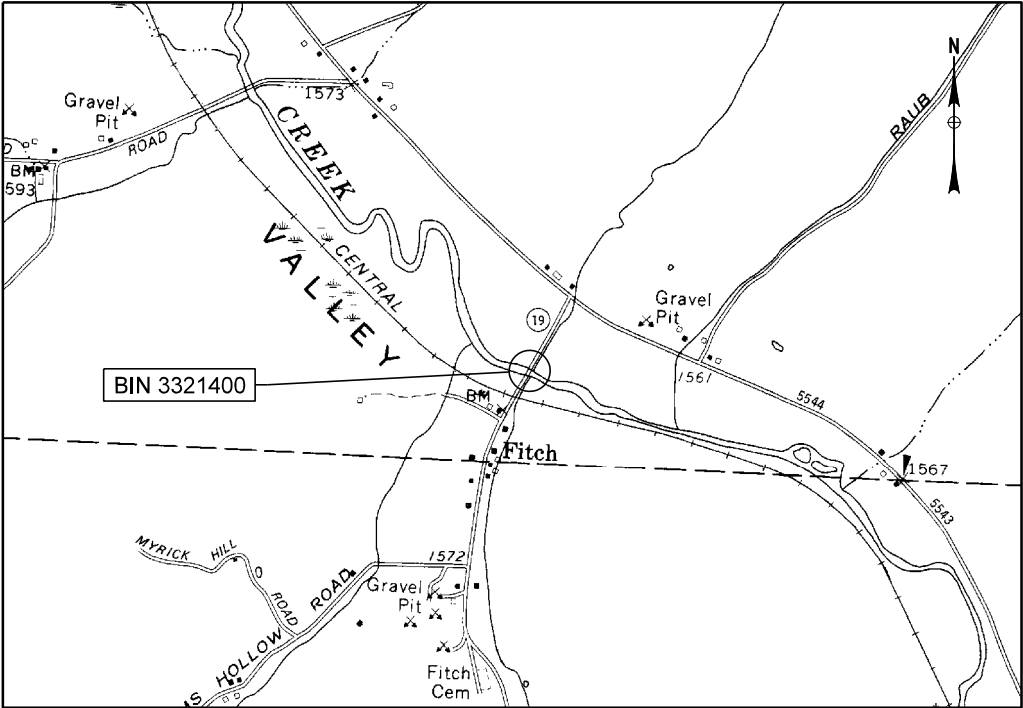
FUNCTIONAL CLASSIFICATION: RURAL MAJOR COLLECTOR
AADT: 509 VPD (2015)
DESIGN SPEED: 50 MPH

UTILITIES

UTILITY QUALITY LEVEL: C
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 AVAILABLE UTILITY RECORDS.



CATTARAUGUS COUNTY DEPARTMENT OF PUBLIC WORKS
FRANKLINVILLE BRIDGE NO. 22
REPLACEMENT PROJECT
FIVE MILE ROAD (C.R. 19) OVER ISCHUA CREEK
BIN 3321400
AUGUST 2018



PROJECT LOCATION
BIN 3321400 CARRIES FIVE MILE ROAD (C.R. 19) OVER
ISCHUA CREEK IN THE TOWN OF FRANKLINVILLE, CATTARAUGUS COUNTY

CONTRACTOR'S NAME _____	
AWARD DATE _____	
COMPLETION DATE _____	
FINAL ACCEPTANCE DATE _____	
RESPONSIBLE LOCAL OFFICIAL _____	
ENGINEER IN CHARGE _____	
FINAL COST TOTAL _____	
FISCAL SHARE	COST(S)

PREPARED AND RECOMMENDED BY



555 Penbrooke Drive • Penfield, NY 14526
main: 585.388.2060 • fax: 585.388.2070

Mark R. Laistner

8-10-2018


MARK R. LAISTNER, P.E.
NYS PE LIC. NO. 068874

DATE

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.


FRANKLINVILLE BRIDGE NO. 22 REPLACEMENT PROJECT		
TOWN OF FRANKLINVILLE, CATTARAUGUS COUNTY		
BIN: 3321400		
FED. ROAD REG. NO.	STATE	SHEET NO.
	N.Y.	1
INDEX ON SHEET NO. 2		

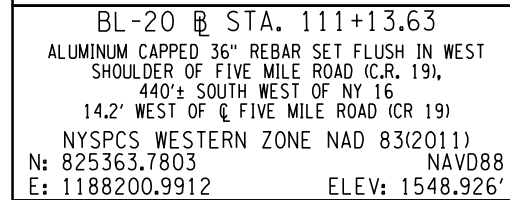
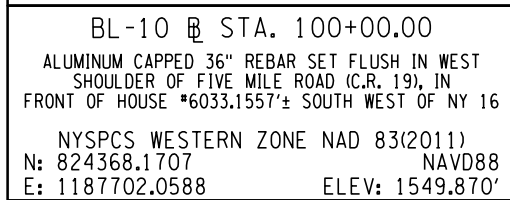
DRAWING INDEX		
SHEET NO.	DESCRIPTION	DRAWING NO.
1	TITLE	-
2	INDEX & ABBREVIATIONS	AB-01
3	LEGEND - 1	LEG-01
4	LEGEND - 2	LEG-02
5	SURVEY CONTROL AND BASELINE TIES	SUR-01
6	WORK ZONE TRAFFIC CONTROL DETOUR PLAN	WZTC-01
7	WORK ZONE TRAFFIC CONTROL DETOUR PROFILE	WZTC-02
8	GENERAL NOTES:	GN-01
9	EROSION & SEDIMENT CONTROL PLAN	ECP-01
10	ROADWAY PLAN	PL-01
11	TYPICAL SECTIONS	TYP-01
12	ROADWAY PROFILE	PR-01
13	BRIDGE GENERAL PLAN AND ELEVATION	BR-01
14	EXCAVATION AND BACKFILL DETAILS	BR-02
15	BEGIN ABUTMENT PLAN & ELEVATION	BR-03
16	END ABUTMENT PLAN & ELEVATION	BR-04
17	ABUTMENT TYPICAL SECTIONS & DETAILS	BR-05
18	TRANSVERSE SECTION AND DETAILS	BR-06
19	FRAMING PLAN AND GIRDER ELEVATION	BR-07
20	STEEL DETAILS-1	BR-08
21	STEEL DETAILS-2	BR-09
22	SHEAR, MOMENT AND MISC. STEEL TABLES	BR-10
23	DECK REINFORCEMENT PLAN	BR-11
24	APPROACH SLAB DETAILS	BR-12
25	RAILING LAYOUT PLAN	BR-13
26	RAILING DETAILS - 1	BR-14
27	RAILING DETAILS - 2	BR-15
28	RAILING DETAILS - 3	BR-16
29	RAILING DETAILS - 4	BR-17
30	ESTIMATE OF QUANTITIES	EST-01
31	SUBSURFACE LOG - 1	GEO-01
32	SUBSURFACE LOG - 2	GEO-02
33	SUBSURFACE LOG - 3	GEO-03

FRANKLINVILLE BRIDGE NO. 22 REPLACEMENT PROJECT	DATE ISSUED: AUG. 2018	BRIDGES BIN 3321400	CULVERTS	ALL DIMENSIONS IN FT UNLESS OTHERWISE NOTED	CONTRACT NO.	 POPLI DESIGN GROUP
FIVE MILE ROAD (C.R. 19) OVER ISCHUA CREEK				INDEX & ABBREVIATIONS	DRAWING NO. AB-01	
TOWN OF FRANKLINVILLE					SHEET NO. 2 OF 33	
COUNTY: CATTARAUGUS						

ALIGNMENT			LANDSCAPE			ROADWAY			TRAFFIC WORK ZONE		
STYLE	NAME	DESCRIPTION	STYLE	NAME	DESCRIPTION	STYLE	NAME	DESCRIPTION			
	AC	CONTROL (CENTERLINE)		LABL	AREA, BRUSH LINE		RCZ_P	CLEAR ZONE		TWZBT_P	BARRIER, TEMPORARY
	AD_P	DETOUR		LAHR	AREA, HEDGE ROW		RG	GUIDE RAIL, MISCELLANEOUS		TWZBTWL_P	BARRIER, TEMPORARY, W/ WARNING LIGHTS
	AT_P	TRANSITION CONTROL		LAPB	AREA, PLANTING BED		RGB	GUIDE RAIL, BOX BEAM		TWZCD_P	CHANNELIZING DEVICE
BRIDGE				LAWA	AREA, WOODED AREA OUTLINE		RGBM	GUIDE RAIL, BOX BEAM, MEDIAN		TWZPMRC_P	PAVEMENT MARKING REMOVAL OR COVERING
	BR	RAIL		LAW	AREA, WATERS EDGE		RGC	GUIDE RAIL, CABLE	UTILITIES		
	BSHT	SHEET PILING		LCUT_P	CUT LIMIT		RGCB	GUIDE RAIL, CONCRETE BARRIER	STYLE	NAME	DESCRIPTION
CONTROL				LFILL_P	FILL LIMIT		RGP_P	GUIDE POST		UC	CONDUIT, UNDERGROUND
	CB	BASELINE		LFNC	FENCE		RGW	GUIDE RAIL, W BEAM		UCH	CONDUIT, HANGING
	CBPR	BASELINE, PROJECTION		LTRC	TREE ROW, CONIFEROUS		RGWM	GUIDE RAIL, W BEAM, MEDIAN		UCO	CONDUIT, OVERHEAD
DRAINAGE				LTRD	TREE ROW, DECIDUOUS		RPB	PARKING BUMPER		UE	ELECTRIC LINE, UNDERGROUND
	DCP	CULVERT PIPE		LWH	WALL, H PILE		RRC	RAIL ROAD, CATENARY		UEH	ELECTRIC LINE, HANGING
	DCP_P	CULVERT PIPE (DIR)		LWR	WALL, RETAINING		RRER	RAIL ROAD, 3RD RAIL		UEO	ELECTRIC LINE, OVERHEAD
	DDG_P	DITCH, GRASS LINED		LWS	WALL, STONE		RRPLS_P	RAIL, PHOTO, LARGE SCALE		UETO	ELECTRIC TRANSMISSION, OVERHEAD
	DDP_P	DITCH, PAVED INVERT	ROW MAPPING				RRPSS	RAIL, PHOTO, SMALL SCALE		UESS	ELECTRIC, SUBSTATIONS
	DDS_P	DITCH, STONE LINED		MDL	DEED LINE		RRS	RUMBLE STRIP		UFO	FIBER OPTIC, UNDERGROUND
	DFL_P	FLOW LINE		ME	EASEMENT, EXISTING		RRSLSP	RAIL, SURVEY, LARGE SCALE		UFOH	FIBER OPTIC, HANGING
	DSSD	SLOTTED DRAIN		MEP_P	EASEMENT, PERMANENT		RRSSS	RAIL, SURVEY, SMALL SCALE		UFOO	FIBER OPTIC, OVERHEAD
	DUD_P	UNDERDRAIN		MEPA_P	EASEMENT, PERMANENT, APPROX.	SIGNS				UG	GAS, UNDERGROUND
ENVIRONMENTAL				MET_P	EASEMENT, TEMPORARY		SBLB	BILLBOARDS		UGH	GAS, HANGING
	EBLHS	BALE, STRAW		META_P	EASEMENT, TEMPORARY, APPROX.		SM	MULTIPLE POST		UGO	GAS, OVERHEAD
	ECT	CURTAIN, TURBIDITY		MF_P	FEE ACQUISITION, W/ ACCESS		SSO	STRUCTURE, OVERHEAD		UIC	INFORM CABLE, UNDERGROUND
	EDMC	DAM, COFFER		MFA_P	FEE ACQUISITION, APPROXIMATE		SSOC	STRUCTURE, OVHD. CANTILEVER		UICH	INFORM CABLE, HANGING
	EDMEC_P	DAM, EARTHEN CHECK		MFS_P	FEE ACQUISITION, SHAPE	STRIPING				UO	OIL LINE, UNDERGROUND
	EDMGSC_P	DAM, GRAVEL BAG/SAND BAG CHECK		MFWOA_P	FEE ACQUISITION, W/O ACCESS		STB*	BROKEN LINE		UOH	OIL LINE, HANGING
	EDMPC_P	DAM, PREFABRICATED CHECK		MHA	HISTORICAL, ACQUISITION		STDB*	DOUBLE BROKEN LINE		UPBP	POLE, BRACE, PUSH BRACE
	EDMSC_P	DAM, STONE CHECK		MHB	HIGHWAY BOUNDARY		STD*	DOTTED LINE LONG		UPGW	POLE, GUY WIRE
	EFNS	FENCE, SILT		MHBA	HIGHWAY BOUNDARY, APPROX.		STDS*	DOTTED LINE SHORT		USA	SANITARY SEWER, UNDERGROUND
	EFNSV	FENCE, SILT & VEGETATION		MHBW	HWY BOUNDARY, FACE OF WALL		STFB*	FULL BARRIER LINE		USAH	SANITARY SEWER, HANGING
	EFNV	FENCE, VEGETATION		MHBWOA	HIGHWAY BOUNDARY, W/O ACCESS		STH*	HATCH LINE		USAF	SANITARY SEWER, FORCE MAIN, UGNOD
	EWAA_P	WETLAND, ADJACENT AREA		MJC	JURISDICTION, CITY		STPB*	PARTIAL BARRIER LINE		USAFH	SANITARY SEWER, FORCE MAIN, HANG
	EWF	WETLAND, FEDERAL		MJCY	JURISDICTION, COUNTY		STRCT	ROUNDABOUT, CAT TRACKS		UT	TELEPHONE, UNDERGROUND
	EWFS	WETLAND, FEDERAL AND STATE		MJHD	JURISDICTION, HISTORIC DISTRICT		STRYL	ROUNDABOUT, YIELD LINE		UTH	TELEPHONE, HANGING
	EWM	WETLAND, MITIGATION AREA		MJLL	JURISDICTION, (GREAT, MILITARY) LOT LINE		STSB	STOP BAR		UTO	TELEPHONE, OVERHEAD
	EWS	WETLAND, STATE		MJN	JURISDICTION, NATION		STSE*	SOLID, EDGE		UTV	CABLE TV, UNDERGROUND
				MJPB	JURISDICTION, PUBLIC LANDS		STXL	X WALK, LADDER LINE		UTVH	CABLE TV, HANGING
				MJS	JURISDICTION, STATE		STXLB	X WALK, LADDER BAR LINE		UTVO	CABLE TV, OVERHEAD
				MJT	JURISDICTION, TOWN	* = W (WHITE) OR Y (YELLOW)				UUU	UNKNOWN, UNDERGROUND
				MJV	JURISDICTION, VILLAGE	TRAFFIC CONTROL				UUH	UNKNOWN, HANGING
				MPL	PROPERTY LOT LINE		TCSW	SIGNAL, SPAN WIRE		UUO	UNKNOWN, OVERHEAD
				MPLA	PROPERTY LOT LINE, APPROXIMATE					UW	WATER LINE, UNDERGROUND
				MSL	SUB LOT LINE					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 (0.015 in 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.


FRANKLINVILLE BRIDGE NO. 22 REPLACEMENT PROJECT	DATE ISSUED: AUG. 2018	BRIDGES	CULVERTS	ALL DIMENSIONS IN FT UNLESS OTHERWISE NOTED	CONTRACT NO.	 POPLI DESIGN GROUP
FIVE MILE ROAD (C.R. 19) OVER ISCHUA CREEK						
TOWN OF FRANKLINVILLE						
COUNTY: CATTARAUGUS REGION: 5						
				LEGEND-2	DRAWING NO. LEG-02	
					SHEET NO. 4 OF 33	
CATTARAUGUS COUNTY DEPARTMENT OF PUBLIC WORKS						
DOCUMENT NAME: CR19_brg22_cph_leg.dgn						



SURVEY BASELINE TIES
NOT TO SCALE

FIVE MILE ROAD (C.R. 19) CENTERLINE					
POINT	℄ STATION	NORTHING	EASTING	℄ STATION	℄ OFFSET
P.O.B.	0+00.00	824701.658	1187878.796	103+77.33	8.60 ft. RIGHT
P.O.L.	7+36.33	825357.292	1188213.938	111+13.63	14.48 ft. RIGHT

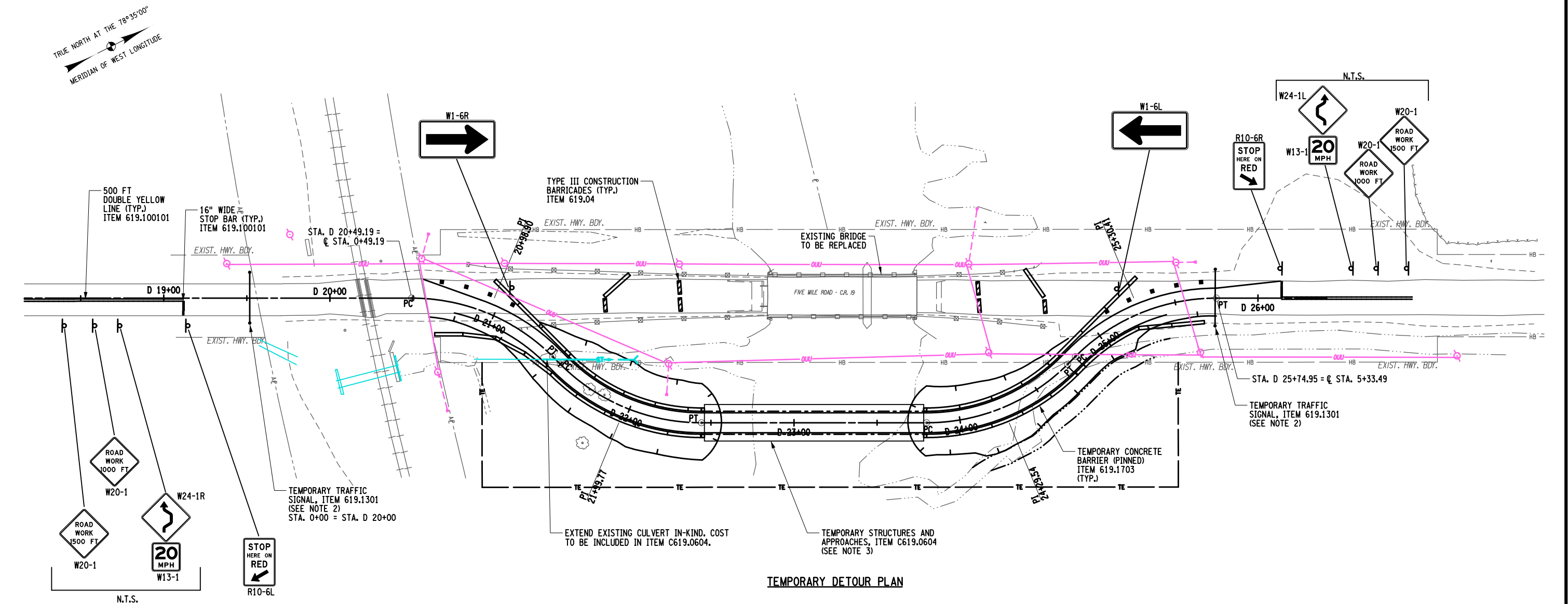
TABLE OF BENCHMARKS				
BM NO.	ELEVATION	NORTHING	EASTING	DESCRIPTION
BM-1	1551.66	824702.4	1187900.3	CHISELED "X" ON NORTH WEST BOLT OF RAILROAD GATE ARM POST, 250'± SOUTH WEST OF FIVE MILE ROAD (C.R. 19) OVER ISCHUA CREEK
BM-2	1549.21	825164.4	1188091.7	RAILROAD SPIKE IN EAST FACE OF UTILITY POLE 510 ON WEST SIDE OF FIVE MILE ROAD (C.R. 19), 670'± SOUTH WEST OF N.Y.S. RTE. 16
BM-3	1559.41	825717.2	1188423.9	BOX CUT ON WEST WING WALL OF CULVERT LOCATED IN THE SOUTH EAST INTERSECTION OF FIVE MILE ROAD (C.R. 19) AND NYS RTE 16

AFFIX SEAL: ON: 8/13/2018	ALTERED BY: ON:
	

CATTARAUGUS COUNTY DEPARTMENT OF PUBLIC WORKS
DOCUMENT NAME: CR19_brg22_cpb_blt.dgn

FILE NAME = CR19_brg22_cph_WZTC.dgn
DATE/TIME = 8/13/2018 1:08:53 PM
USER = \$USER\$

DESIGN SUPERVISOR
JOB MANAGER
DESIGN M. CRAWFORD
CHECK S. KETCH
DRAFTING M. CRAWFORD
CHECK S. KETCH
PROJECT MANAGER M. LAISTNER



TEMPORARY DETOUR PLAN

DETOUR CENTERLINE			
	POINT	STATION	NORTHING EASTING
CURVE 1	P.C.	D 20+49.19	824745.46 1187901.19
	P.T.	D 21+43.44	824805.02 1187971.10
CURVE 2	P.C.	D 21+50.06	824807.06 1187977.40
	P.T.	D 22+44.31	824866.61 1188047.32
CURVE 3	P.C.	D 23+79.83	824987.28 1188109.00
	P.T.	D 24+74.08	825078.83 1188116.33
CURVE 4	P.C.	D 24+80.70	825085.13 1188114.29
	P.T.	D 25+74.95	825176.68 1188121.62

DETOUR CURVE NO. 1			
PC	STA.	D 20+49.19	
PT	STA.	D 21+43.44	
Δ		45°0'0" RT	
R		120.00 FT	
L		94.25 FT	
T		49.71 FT	

DETOUR CURVE NO. 2			
PC	STA.	D 21+50.06	
PT	STA.	D 22+44.31	
Δ		45°0'0" LT	
R		120.00 FT	
L		94.25 FT	
T		49.71 FT	

DETOUR CURVE NO. 3			
PC	STA.	D 23+79.83	
PT	STA.	D 24+74.08	
Δ		45°0'0" LT	
R		120.00 FT	
L		94.25 FT	
T		49.71 FT	

DETOUR CURVE NO. 4			
PC	STA.	D 24+80.70	
PT	STA.	D 25+74.95	
Δ		45°0'0" RT	
R		120.00 FT	
L		94.25 FT	
T		49.71 FT	

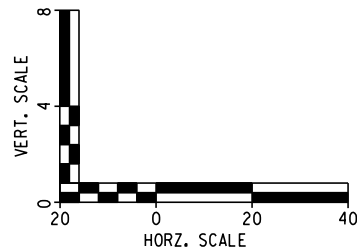
- NOTES:
1. THE TEMPORARY STRUCTURE AND APPROACHES SHALL BE PROVIDED IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF THE LATEST VERSION OF THE NYSDOT STANDARD SPECIFICATIONS (US CUSTOMARY UNITS) AND ALL APPLICABLE PERMITS.
 2. REFER TO NYSDOT STANDARD SHEET 619-62 FOR DETAILS AND NOTES PERTAINING TO THE INSTALLATION AND OPERATION OF THE TEMPORARY TRAFFIC SIGNALS.
 3. TEMPORARY STRUCTURES AND APPROACHES, ITEM C619.0604, INCLUDES THE INSTALLATION AND REMOVAL OF EMBANKMENT, PIPES, AND PAVEMENT AS WELL AS THE ASSOCIATED SITE RESTORATION.
 4. THE TEMPORARY STRUCTURE SHALL BE LOCATED DOWNSTREAM OF THE BRIDGE AND ON THE ALIGNMENT SHOWN.
 5. THE TEMPORARY STRUCTURE SHALL PROVIDE A MINIMUM CLEAR OPENING OF 100 FT PERPENDICULAR TO THE FLOW AND A MINIMUM ACCEPTABLE LOW BEAM ELEVATION OF 1547.0 FT.
 6. THE TEMPORARY STRUCTURE SHALL BE DESIGNED FOR A HS-20 LOADING. DETOUR SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER IN THE STATE OF NY SIGNED AND STAMPED, AND SUBMITTED TO THE ENGINEER FOR APPROVAL.
 7. TEMPORARY STRUCTURE SHALL BE INSTALLED DURING LOW FLOW CONDITIONS.

AFFIX SEAL: 8/13/18
ON:

ALTERED BY:
ON:

AS-BUILT REVISIONS DESCRIPTION OF ALTERATIONS:	FRANKLINVILLE BRIDGE NO. 22 REPLACEMENT PROJECT		BRIDGES	CULVERTS	ALL DIMENSIONS IN FT UNLESS OTHERWISE NOTED	CONTRACT NO.						
	FIVE MILE ROAD (C.R. 19) OVER ISCHUA CREEK											
	TOWN OF FRANKLINVILLE											
	COUNTY: CATTARAUGUS REGION: 5											
DATE ISSUED: AUG. 2018				BIN 3321400		WORK ZONE TRAFFIC CONTROL DETOUR PLAN						
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DRAWING NO. WZTC-01
SHEET NO. 6 OF 33



SCALE: 1"=5'

A circular professional engineer seal for the State of New York. The outer ring contains the text "STATE OF NEW YORK" at the top and "LICENSED PROFESSIONAL ENGINEER" at the bottom. Inside the ring, the name "STEVEN EINAR KETNER" is written in a larger font. Below the name is the New York State coat of arms, which features a shield with a sun, a river, and a plow, flanked by a Native American and a European figure. Above the shield is an eagle with spread wings. Below the coat of arms is the license number "080557".

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CATTARAUGUS COUNTY DEPARTMENT OF PUBLIC WORKS
DOCUMENT NAME: CR19-brg22-cph-WZTC Profile.dgn

GENERAL NOTES

- DESIGN SPECIFICATIONS: NYSDOT LRFD BRIDGE DESIGN SPECIFICATIONS WITH ALL PROVISIONS IN EFFECT AS OF NOVEMBER 2017 (FOR DESIGN PURPOSES, COMPRESSIVE STRENGTH OF CONCRETE FOR SUBSTRUCTURES AND DECK SLABS AT 28 DAYS: f'c = 3000 psi.)
- DESIGN LIVE LOAD: LIVE LOAD: AASHTO HL-93 AND NYSDOT DESIGN PERMIT VEHICLE.
- THE TEMPORARY STRUCTURE SHALL BE DESIGNED IN CONFORMANCE WITH THE STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES FOR A DESIGN LOAD OF HS20.
- CONSTRUCTION AND MATERIALS SPECIFICATIONS: STANDARD SPECIFICATIONS, CONSTRUCTION AND MATERIALS, NEW YORK STATE DEPARTMENT OF TRANSPORTATION, OFFICE OF ENGINEERING, DATED MAY 1, 2018, WITH CURRENT ADDITIONS AND MODIFICATIONS.
- 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.
- ALL SHOP DRAWINGS SUBMITTED FOR THIS PROJECT SHALL BE IN US CUSTOMARY UNITS.
- THE COST OF WATER USED FOR COMPACTION OF SELECT FILL ITEMS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 203.21 - SELECT STRUCTURE FILL.
- THE COST OF ALL JOINT MATERIAL SHALL BE INCLUDED IN THE UNIT PRICES BID FOR THE VARIOUS ITEMS OF THE CONTRACT, UNLESS OTHERWISE SPECIFIED ON THE PLANS.
- THE CONTRACTOR'S ATTENTION IS DIRECTED TO SUBSECTION 105-09, WORK AFFECTING RAILROADS, OF THE STANDARD SPECIFICATIONS.
- THE LOAD RATINGS ARE IN ACCORDANCE WITH THE AASHTO MANUAL FOR BRIDGE EVALUATION - SECOND EDITION 2011 WITH CURRENT INTERIMS.
- DIMENSIONS FOR THICKNESSES OF STEEL ROLLED ANGLE SHAPES AND STRUCTURAL TUBING ARE SHOWN ACCORDING TO THE AISC MANUAL.
- THIS BRIDGE SHALL BE MAINTAINED IN ACCORDANCE WITH THE GUIDELINES CONTAINED IN THE CURRENT EDITION OF THE AASHTO MAINTENANCE MANUAL: THE MAINTENANCE AND MANAGEMENT OF ROADWAYS AND BRIDGES.
- 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 WHICH NO PAYMENT ITEMS IS INDICATED SHALL BE INCLUDED IN THE UNIT PRICES BID FOR VARIOUS ITEMS OF THIS CONTRACT.
- UNLESS OTHERWISE INDICATED ON THE PLANS, WORK TO BE PERFORMED UNDER THIS CONTRACT DOES NOT REQUIRE THE DISTURBING, DESTRUCTION OR REMOVAL OF ANY KNOWN MATERIALS CONTAINING ASBESTOS.
- ALL KNOWN PUBLIC AND PRIVATE UTILITIES WITHIN OR ADJACENT TO THE SITE ARE SHOWN IN THEIR APPROXIMATE LOCATIONS ON THE CONTRACT PLANS. THE CONTRACTOR SHALL VERIFY THE UTILITY INFORMATION FOUND ON THE PLANS AND COORDINATE THEIR ACTIVITIES WITH THE VARIOUS UTILITY OWNERS INVOLVED.
- "BUY AMERICAN" REQUIREMENTS FOR STEEL PRODUCTS ARE WAIVED FOR THIS PROJECT.

FOUNDATION NOTES

- A GEOTECHNICAL REPORT HAS BEEN PREPARED FOR THIS PROJECT AND IS INCLUDED IN THE CONTRACT PROPOSAL BOOK. SUBSURFACE EXPLORATIONS HAVE BEEN MADE FOR THIS PROJECT AT THE LOCATIONS INDICATED ON THE PLANS. SOIL BORING LOGS ARE PROVIDED ON DRAWING NO.'S GEO-01 TO GEO-03.
- THE FOOTINGS FOR THE ABUTMENTS AND WINGWALLS HAVE BEEN DESIGNED TO EXERT A MAXIMUM PRESSURE OF 6,000 PSF AT THE STRENGTH LIMIT STATE AND 3,000 PSF AT THE SERVICE LIMIT STATE.

SUBSTRUCTURE NOTES

- ALL PLACEMENTS OF SELECT STRUCTURE FILL, ITEM 203.21, SHALL BE COMPACTED TO 95 PERCENT OF STANDARD PROCTOR MAXIMUM DENSITY.
- HIGHWAY EMBANKMENT MATERIAL (FROM HIGHWAY ESTIMATE OR FROM STRUCTURE EXCAVATION BACKFILL) AND SELECT STRUCTURE FILL, ITEM 203.21, SHALL BE PLACED SIMULTANEOUSLY, IN CONTACT, ON BOTH SIDES OF THE VERTICAL PAYMENT LINE.
- 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 GIRDER CENTERLINES.
- EXCAVATION BELOW PLANNED FOOTING ELEVATIONS WILL NOT BE PERMITTED WITHOUT WRITTEN PERMISSION FROM THE ENGINEER. BACKFILL OF UNAUTHORIZED EXCAVATIONS BELOW OR BEYOND PAYMENT LINES WILL BE AT THE CONTRACTOR'S EXPENSE. BACKFILL MATERIAL WILL BE AS DIRECTED BY THE ENGINEER.

COFFERDAM AND HYDRAULIC 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 UNIT PRICE BID FOR THE COFFERDAM ITEM.
- SHOULD FIELD CONDITIONS REQUIRE A CHANGE FROM THE TYPE OF COFFERDAM SYSTEM CALLED FOR ON THE PLANS, THE ENGINEER-IN-CHARGE SHALL CONTACT THE ENGINEER FOR COORDINATION WITH APPROPRIATE AGENCIES TO APPROVE THE CHANGE.
- DEWATERING OF THE COFFERDAM SHALL BE ACCOMPLISHED BY PUMPING THE WATER TO AN APPROVED UPLAND VEGETATED AREA OUTSIDE OF THE STREAMBED AS SHOWN ON THE PLANS AND/OR APPROVED BY THE E.J.C. TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL, SUCH AS STRAW BALES OR APPROVED EQUAL, MAY BE REQUIRED AS DETERMINED BY THE ENGINEER-IN-CHARGE.
- THE CONTRACTOR SHALL HAVE THE OPTION OF INSTALLING A SEPARATE COFFERDAM OR INCORPORATING THE PERMANENT SHEETING INTO THE COFFERDAM ITEM.
- IF THE CONTRACTOR ELECTS TO INCORPORATE THE PERMANENT SHEETING IN THE COFFERDAM ITEM, THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ANY ADDITIONAL BRACING REQUIRED TO STRENGTHEN THE PERMANENT SHEETING SYSTEM AND PROVIDE ANY WORK NECESSARY TO RETURN THE PERMANENT SHEETING TO ITS INTENDED FUNCTION AFTER THE COFFERDAM FUNCTION IS COMPLETE.
- ORDINARY HIGH WATER IS ESTIMATED TO BE 1544.9. 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 IS ESTIMATED TO BE 1544.0 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 IS ESTIMATED TO BE 1542.0. 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.

REMOVAL NOTES

- THE EXISTING BRIDGE SHALL BE REMOVED UNDER ITEM C202.1301 IN THE BRIDGE ESTIMATE.
- THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE REQUIREMENTS OF SUBSECTION 202-3.01 GENERAL AND SAFETY REQUIREMENTS, A REMOVAL PLAN, SIGNED BY A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF NEW YORK, SHALL BE SUBMITTED TO THE ENGINEER THIRTY (30) DAYS PRIOR TO BEGINNING THE DEMOLITION.
- RECORD PLANS FOR THIS STRUCTURE ARE AVAILABLE AT THE COUNTY OF CATTARAUGUS DEPARTMENT OF PUBLIC WORKS.
- LIMITS AND METHODS FOR REMOVAL OF PAINT AT LOCATIONS OF FASTENER REMOVAL OR FLAME CUTTING SHALL BE AS DESCRIBED IN SUBSECTIONS 202-3.05 AND 574 OF THE STANDARD SPECIFICATIONS. THE COST OF PAINT REMOVAL SHALL BE INCLUDED IN THE LUMP SUM PRICE(S) BID FOR THE SUPERSTRUCTURE REMOVAL ITEM(S) (OR THE UNIT PRICE BID FOR THE SUBSTRUCTURE REMOVAL ITEM). PAINT WASTE NOT COLLECTED BY VACUUM METHODS SHALL BE COLLECTED USING THE ENVIRONMENTAL GROUND AND/OR WATERWAY PROTECTION ITEM(S). WASTE SHALL BE DISPOSED OF USING THE TREATMENT AND DISPOSAL OF PAINT REMOVAL WASTE ITEM.
- REFER TO SUBSECTION 107-05 OF THE STANDARD SPECIFICATIONS FOR SAFETY AND HEALTH REQUIREMENTS.
- SPECIAL PROVISIONS ARE REQUIRED FOR THE REMOVAL OF THE CENTER PIER. SEE NOTE 18 ON DRAWING NO. ECP-01 FOR DETAILS.

SUPERSTRUCTURE NOTES

- ALL STRUCTURAL STEEL SHALL CONFORM TO ASTM A709 GRADE 50.
- 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 WILL BE PERMITTED: REMOVABLE FORMS.
- NO DEVIATIONS FROM THE HAUNCH DETAILS SHOWN ON THESE PLANS MAY BE MADE WITHOUT THE PERMISSION OF THE ENGINEER.
- FOR THE LUMP SUM STRUCTURAL STEEL ITEM IN THE CONTRACT, THE "TOTAL WEIGHT FOR PROGRESS PAYMENT" IS AS FOLLOWS:

ITEM	TOTAL WEIGHT FOR PROGRESS PAYMENT
564.0501	235,500 POUNDS

THESE WEIGHTS 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.
- DIAPHRAGMS SHALL BE FABRICATED TO FIT GIRDERS ERRECTED WITH THEIR WEBS PLUMB UNDER FULL DEAD LOAD CONDITIONS, ALSO KNOWN AS TOTAL DEAD LOAD FIT (TDLF).
- SHOP DRAWING SUBMITTALS ARE REQUIRED FOR THE FOLLOWING BRIDGE RAIL/TRANSITION ITEMS: 568.51 AND 568.70.
- 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.

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 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 ERRECTED 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 THE ERRECTED STEEL CONFORMS TO SUBSECTION 1213, 1214, AND 1215 OF THE NEW YORK STATE STEEL CONSTRUCTION MANUAL (SCM); ANY CORRECTIVE WORK NECESSARY TO RE-POSITION PREVIOUSLY ERRECTED STEEL TO ACHIEVE ACCEPTABLE ALIGNMENT AND PROFILE MUST BE APPROVED BY THE ENGINEER, AND SHALL BE PERFORMED AT NO ADDITIONAL COST TO THE COUNTY.

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. IF THE CONTRACTOR USES WATER FROM A STREAM, THE CONTRACTOR SHALL CONSTRUCT AN INTAKE OR TEMPORARY DAM REQUIRED TO PROTECT AND MAINTAIN WATER RIGHTS AND TO SUSTAIN FISH LIFE DOWNSTREAM.
- ISCHUA CREEK IS CLASSIFIED BY THE NYSDC AS A PROTECTED (C1) STREAM INDICATING THAT IN-STREAM WORK WILL BE PROHIBITED BEGINNING OCTOBER 1 AND ENDING MAY 31.

GALVANIZING NOTES

- ALL STRUCTURAL STEEL FABRICATED UNDER ITEM 564.0501 SHALL BE HOT DIPPED GALVANIZED UNDER ITEM 564.20010008 - HOT-DIP GALVANIZING OF STRUCTURAL STEEL.
- ALL BOLTS, NUTS, AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH THE NEW YORK STATE STEEL CONSTRUCTION MANUAL.
- GALVANIZING SHALL BE DONE PRIOR TO DRILLING OF HOLES OR AFTER SUB-SIZING. AFTER GALVANIZING, HOLES SHALL BE DRILLED OR REAMED FULL SIZE AS APPROPRIATE.
- STUD SHEAR CONNECTORS SHALL BE WELDED PRIOR TO GALVANIZING.
- REASONABLE ACCOMMODATIONS FOR THE PREVENTION OF WET STORAGE STAINING (WHITE RUST) OF HOT-DIPPED GALVANIZED (HDG) MATERIALS SHALL BE PROVIDED AT ALL TIMES. STORAGE OF HDG MATERIALS OUTDOORS SHOULD BE AVOIDED IF POSSIBLE. STORAGE (OR SHIPPING) OF HDG MATERIALS IN CONTACT WITH ONE ANOTHER SHOULD BE AVOIDED. IF OUTDOOR STORAGE IS UNAVOIDABLE, EXAMPLES OF REASONABLE ACCOMMODATIONS ARE AS FOLLOWS: STORE MATERIALS OFF OF THE GROUND AWAY FROM ALL VEGETATION, USE NON-RESINOUS WOODEN SPACERS TO ALLOW VENTILATION AND AVOID MOISTURE BUILD UP, INCLINE MEMBERS TO ALLOW DRAINAGE. EXAMPLES OF NON-RESINOUS WOODS ARE: POPLAR, ASH AND SPRUCE. WHITE RUST THAT IS DETERMINED TO BE DETRIMENTAL TO THE INTENDED USE OF THE MEMBER OR HAVE A NEGATIVE VISUAL IMPACT ON THE STRUCTURE WILL BE REPAIRED IN ACCORDANCE WITH THE NYS STEEL CONSTRUCTION MANUAL. WHITE RUST THAT IS DETERMINED TO BE CAUSED BY IMPROPER STORAGE OR SHIPPING OF HDG MATERIALS SHALL BE REPAIRED AT NO COST TO THE COUNTY.

RECONSTRUCTION NOTES

- 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 CONSTRUCTION DETAILS AND WORK QUANTITIES. THE CONTRACTOR SHALL PERFORM THE WORK IN ACCORDANCE WITH FIELD CONDITIONS.
- 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 PRICES BID 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 COUNTY.
- THE COST OF FURNISHING, INSTALLING, MAINTAINING, REMOVING AND DISPOSING OF ALL PLATFORMS, NETS, SCREENS OR OTHER PROTECTIVE DEVICES SHALL BE INCLUDED IN THE UNIT PRICES BID FOR THE APPROPRIATE ITEMS OF THE CONTRACT.
- THE EXISTING B.I.N. PLATE SHALL BE REMOVED, STORED AND REMOUNTED ON THE NEW BRIDGE SUBSTRUCTURE AFTER CONSTRUCTION IS COMPLETED. COST TO BE INCLUDED IN THE VARIOUS ITEMS OF THE CONTRACT.

UTILITY RELOCATIONS

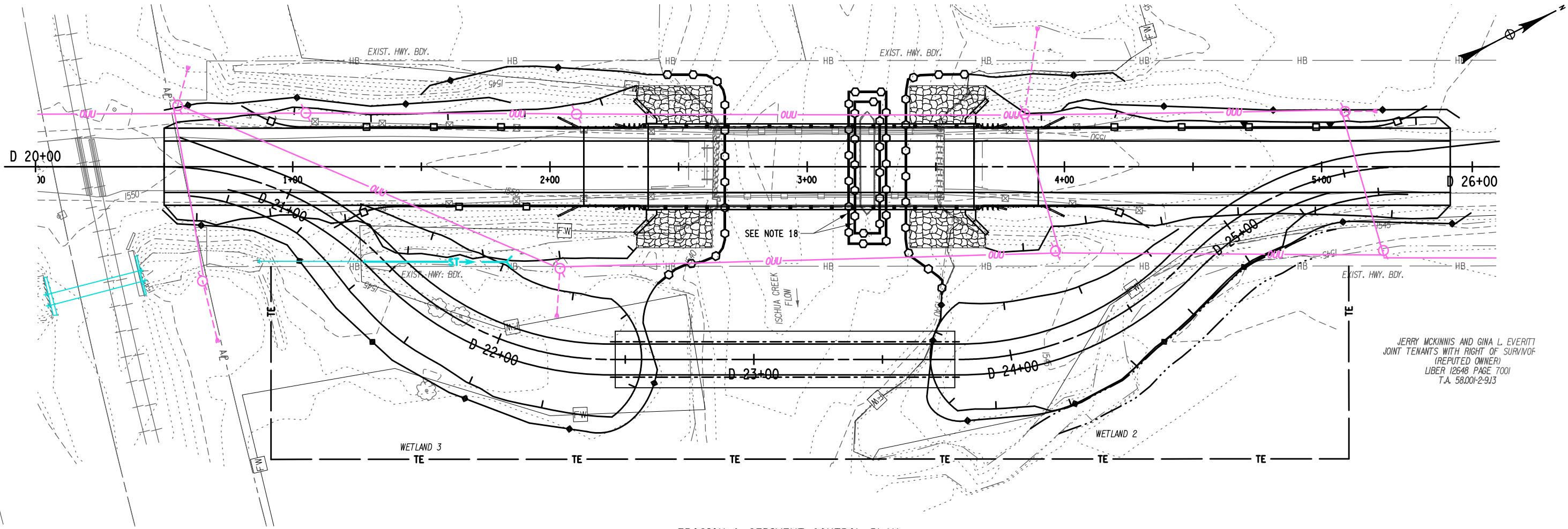
- THE APPROXIMATE LOCATION OF UTILITY POLES AT THE TIME OF DESIGN COMPLETION ARE SHOWN ON THE PLANS. UTILITY POLES IN CONFLICT WITH CONSTRUCTION ACTIVITIES WILL BE RELOCATED PRIOR TO THE CONTRACT BEING AWARDED.

AFFIX SEAL: ON: 8-10-2018	ALTERED BY: ON:

AS-BUILT REVISIONS DESCRIPTION OF ALTERATIONS:	FRANKLINVILLE BRIDGE NO. 22 REPLACEMENT PROJECT	BRIDGES	CULVERTS	ALL DIMENSIONS IN FT UNLESS OTHERWISE NOTED	CONTRACT NO.	
	FIVE MILE ROAD (C.R. 19) OVER ISCHUA CREEK					
	TOWN OF FRANKLINVILLE					
	COUNTY: CATTARAUGUS REGION: 5					
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.		CATTARAUGUS COUNTY DEPARTMENT OF PUBLIC WORKS DOCUMENT NAME: CR19_brg22_cph_gnn.dgn				

FILE NAME = CR19_brg22_cph_eep.dgn
DATE/TIME = 8/13/2018 1:08:56 PM
USER = \$USER\$

PROJECT MANAGER M. LAISTNER
CHECK M. LAISTNER
DRAFTING M. SAVINO
DESIGN M. SAVINO
JOB MANAGER
DESIGN SUPERVISOR



EROSION & SEDIMENT CONTROL PLAN

SCALE: 1" = 40'-0"

LEGEND

- SILT FENCE-TEMPORARY, ITEM 209.13
- TURBIDITY CURTAIN-TEMPORARY, ITEM 209.1501

NOTES:

- INSTALL SILT FENCE, ITEM 209.13, ALONG THE LIMITS OF GRADING AS NECESSARY TO INTERCEPT AND FILTER RUNOFF EXITING THE WORK AREA. REFER TO STANDARD DETAIL SHEET 209.01.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL IN ACCORDANCE WITH ITEM 209 SERIES, NOTES SHOWN ON THE NYSDOT STANDARD SHEETS AND A.D.B.E.
- ALL STREAM CHANNEL WORK SHALL BE LIMITED TO WITHIN THE DESIGNATED RIGHT-OF-WAY, PROJECT EASEMENTS, OR OTHER LIMITS OF RELEASE.
- ALL CONTROLS SHALL BE PLACED PRIOR TO STARTING EARTHWORK OPERATIONS AND SHALL REMAIN IN PLACE UNTIL THE NEW SLOPES ARE STABILIZED WITH SEEDING AND/OR SLOPE PROTECTION.
- REFER TO NYSDOT STANDARD SHEETS 209-1 FOR SOIL EROSION AND SEDIMENT CONTROL DETAILS.
- ALL NECESSARY PRECAUTIONS SHALL BE TAKEN TO PREVENT MIGRATION INTO WATER BY SILT, SEDIMENT, FUELS, SOLVENTS, LUBRICANTS, CONCRETE LEACHATE OR ANY OTHER POLLUTANT ASSOCIATED WITH CONSTRUCTION PROCEDURES.
- ANY DEBRIS OR EXCESS MATERIALS FROM CONSTRUCTION OF THIS PROJECT SHALL BE IMMEDIATELY AND COMPLETELY REMOVED FROM THE BED AND BANKS OF ALL WATER AREAS TO AN APPROPRIATE UPLAND AREA FOR DISPOSAL.
- PERIODIC CLEANING AND INSPECTION OF TEMPORARY SOIL EROSION AND SEDIMENT CONTROL DEVICES WILL BE NECESSARY. MAINTENANCE OF THESE DEVICES IS REQUIRED AFTER ANY STORM EVENT.
- THE COST OF INSTALLING, CLEANING AND REMOVING TEMPORARY SOIL EROSION AND SEDIMENT CONTROL DEVICES SHALL BE PAID FOR UNDER THE ITEMS SHOWN.
- WHERE SILT FENCE IS USED IN AREAS OF CONCENTRATED FLOW THE ENGINEER-IN-CHARGE MAY CALL FOR BRACING FENCE WITH HAY BALES OR WIRE FENCING. THIS ADDITIONAL MATERIAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR SILT FENCE - TEMPORARY, ITEM 209.13.
- ALL AREAS OF SOIL DISTURBANCES RESULTING FROM THIS PROJECT SHALL BE SEEDDED WITH AN APPROPRIATE PERENNIAL GRASS SEED AND MULCHED WITH HAY OR STRAW WITHIN ONE WEEK OF FINAL GRADING. MULCH SHALL BE MAINTAINED UNTIL A SUITABLE COVER IS ESTABLISHED.
- NO ROCK FOR USE OF CONSTRUCTION SHALL COME FROM THE STREAM BED.
- ALL DREDGED AND EXCAVATED MATERIAL SHALL BE DISPOSED OF ON AN UPLAND SITE AND BE SUITABLY STABILIZED SO THAT IT CANNOT REASONABLY RE-ENTER ANY BODY OF WATER.
- DURING CONSTRUCTION, NO WET OR FRESH CONCRETE OR LEACHATE SHALL BE ALLOWED TO ESCAPE INTO ANY WATERS, NOR SHALL WASHINGS FROM CONCRETE TRUCKS, MIXERS, OR OTHER DEVICES BE ALLOWED TO ENTER ANY WATERS.
- SILT FENCES INSTALLED ALONG WORK LIMITS FOR THE PURPOSE OF OVERLAND (SHEET) FLOW SHALL BE ARRANGED PERPENDICULAR TO THE DIRECTION OF THE SHEET FLOW. SUCH INSTALLATION MAY REQUIRE SHORT, STAGGERED SEGMENTS OF FENCE IN ORDER TO BE LOCATED WHOLLY WITHIN THE DESIGNATED WORK LIMITS.
- IN THE EVENT THAT A DEWATERING OPERATION BECOMES NECESSARY, A VEGETATED DISCHARGE AREA OR SETTLING BASIN WILL BE REQUIRED UNLESS THE PUMP DISCHARGE IS AS CLEAR AND FREE OF SEDIMENT AS THE FLOWING STREAM.
- NO DISCHARGE OF TEMPORARY FILL MATERIAL INTO THE WATERWAY IS PERMITTED. SHOULD THE CONTRACTOR WISH TO CONSTRUCT A TEMPORARY ACCESS OR CAUSEWAY IN THE WATER TO FACILITATE REMOVALS OR NEW CONSTRUCTION, ADDITIONAL PERMITS FROM THE U.S. ARMY CORPS OF ENGINEERS AND N.Y.S. DEPARTMENT OF ENVIRONMENTAL CONSERVATION MAY BE REQUIRED. ALL EFFORTS SHALL BE COORDINATED THROUGH THE REGIONAL ENVIRONMENTAL CONTACT. DELAYS OR EXTRA COSTS ASSOCIATED WITH SECURING APPROVALS, OR ADDITIONAL PERMITS, FOR THE PLACEMENT OF THE TEMPORARY FILLS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- A DOUBLE TURBIDITY CURTAIN IS REQUIRED DURING REMOVAL OF THE PIER. THE CONTRACTOR SHALL REMOVE ALL FILL MATERIAL FROM WITHIN THE PIER DOWN TO THE WATER LEVEL UTILIZING VACUUM METHODS PRIOR TO REMOVING THE STEEL PILES AND SHEETING.



AFFIX SEAL: 8/13/18
ON: ALTERED BY: ON:

AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

FRANKLINVILLE BRIDGE NO. 22 REPLACEMENT PROJECT

FIVE MILE ROAD (C.R. 19) OVER ISCHUA CREEK

TOWN OF FRANKLINVILLE

COUNTY: CATTARAUGUS REGION: 5

DATE ISSUED: AUG. 2018

BRIDGES

CULVERTS

BIN 3321400

ALL DIMENSIONS IN FT UNLESS OTHERWISE NOTED

EROSION & SEDIMENT
CONTROL PLAN

CONTRACT NO.

DRAWING NO. ECP-01

SHEET NO. 9 OF 33

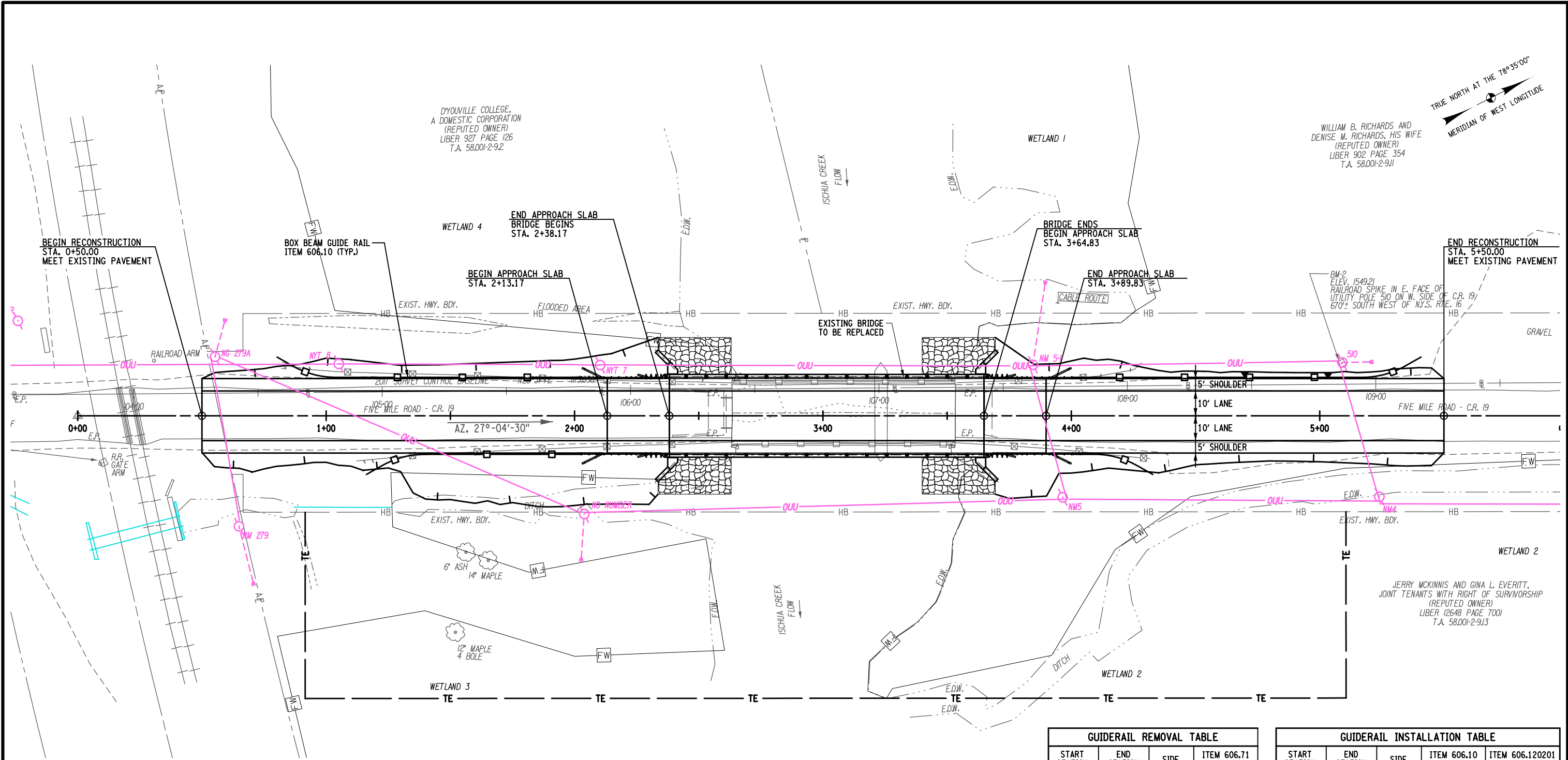


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CATTARAUGUS COUNTY DEPARTMENT OF PUBLIC WORKS
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USER = \$USER\$

PROJECT MANAGER M. LAISTNER
CHECK S. KETCH
DRAFTING M. CRAWFORD
CHECK S. KETCH
DESIGN M. CRAWFORD
JOB MANAGER
DESIGN SUPERVISOR



ROADWAY PLAN
SCALE: 1" = 40'-0"

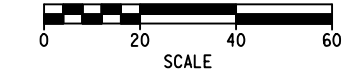
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1+12.0	1+89.0	RT	77	
4+27.8	4+28.5	LT	1	
4+26.6	4+31.6	RT	5	

NOTE: THE REMOVAL OF EXISTING BRIDGE, ITEM C202.1301, INCLUDES THE REMOVAL OF GUIDE RAILING AND GUIDE RAILING ANCHORAGES WITHIN 75 FT. OF EACH END OF THE EXISTING BRIDGE.

GUIDERAIL INSTALLATION TABLE				
START STATION	END STATION	SIDE	ITEM 606.10 (LF)	ITEM 606.120201 (EA)
0+80.2	1+03.8	LT	--	1
1+03.8	2+02.8	LT	99	--
1+16.2	1+39.8	RT	--	1
1+39.8	2+02.8	RT	63	--
4+00.2	5+17.2	LT	117	--
5+17.2	5+40.8	LT	--	1
4+00.2	4+09.2	RT	9	--
4+09.2	4+32.8	RT	--	1

AFFIX SEAL:
ON: 8/13/18

ALTERED BY:
ON:



AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

FRANKLINVILLE BRIDGE NO. 22 REPLACEMENT PROJECT

FIVE MILE ROAD (C.R. 19) OVER ISCHUA CREEK

TOWN OF FRANKLINVILLE

COUNTY: CATTARAUGUS REGION: 5

DATE ISSUED: AUG. 2018

BRIDGES
BIN 3321400

CULVERTS

ALL DIMENSIONS IN FT UNLESS OTHERWISE NOTED

ROADWAY PLAN

CONTRACT NO.

DRAWING NO. PL-01
SHEET NO. 10 OF 33

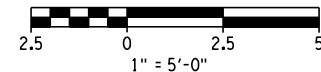
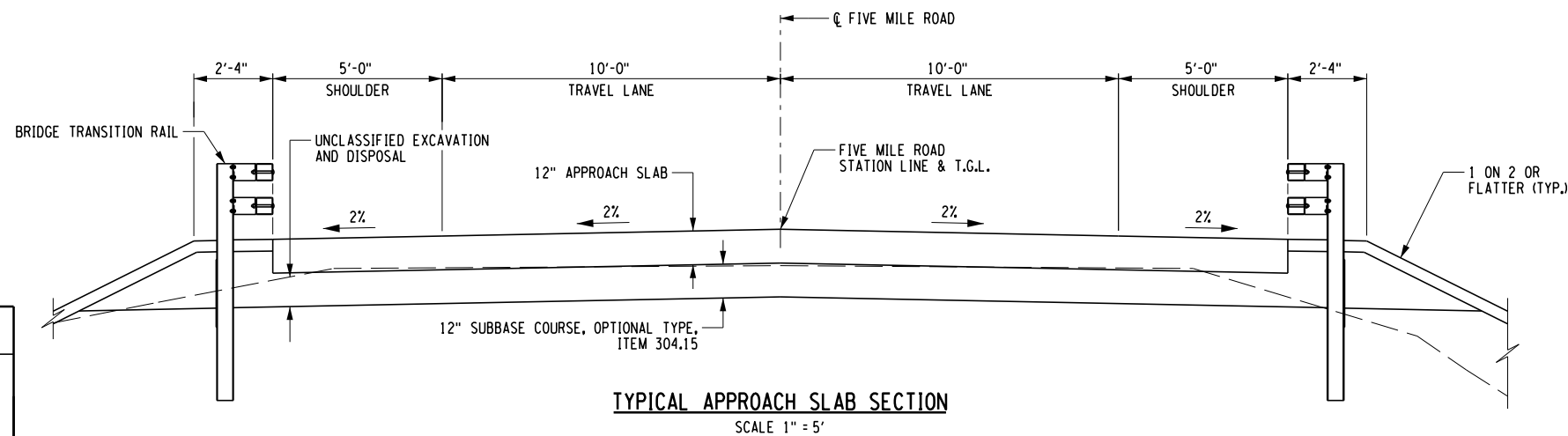
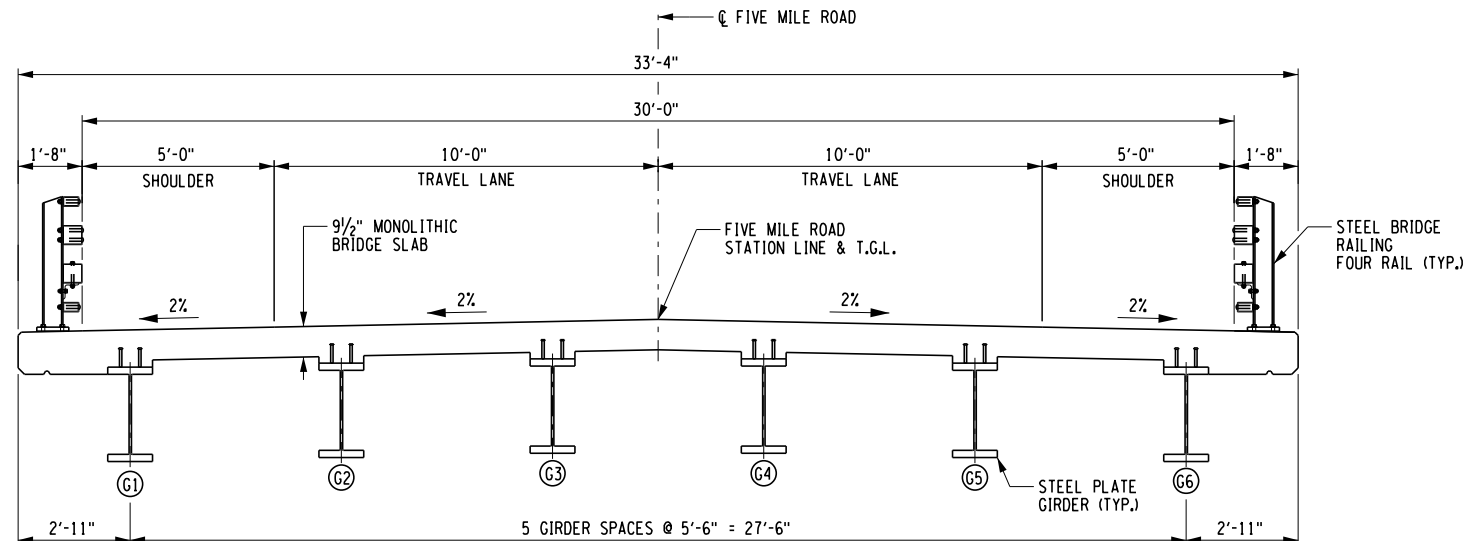
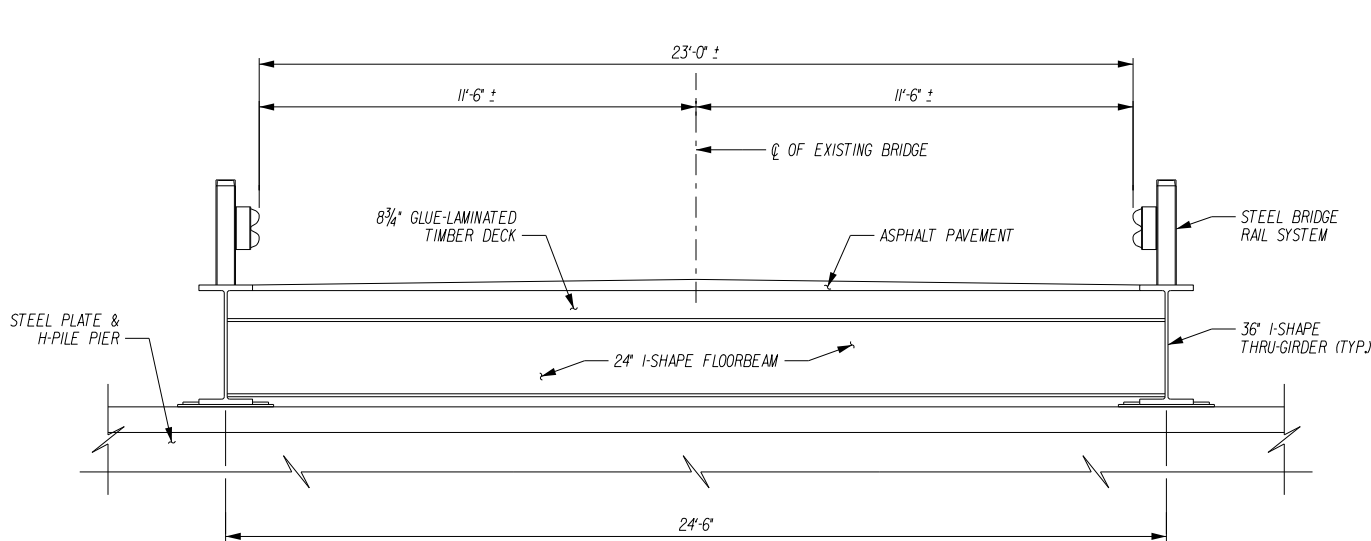
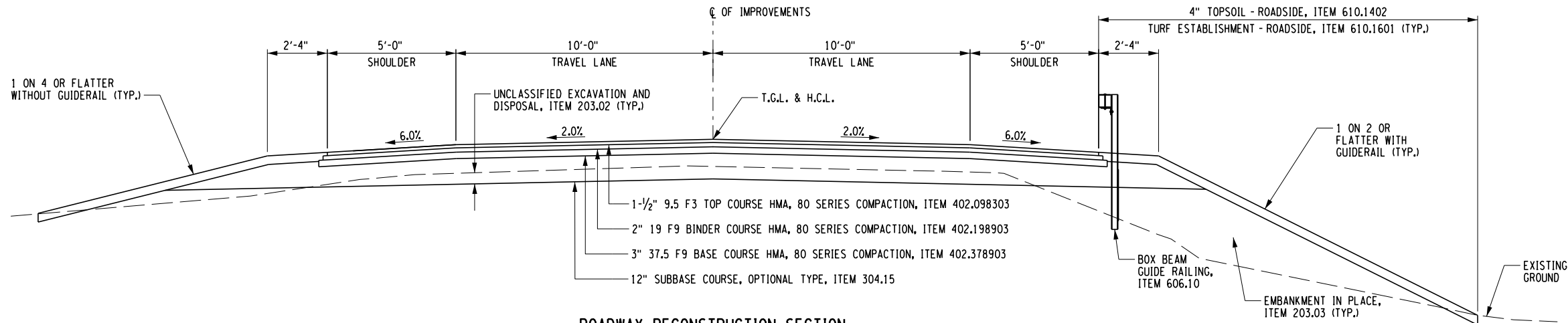
CATTARAUGUS COUNTY DEPARTMENT OF PUBLIC WORKS


DOCUMENT NAME: CR19_brg22_cph_PL-01.dgn


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PROJECT MANAGER M. LAISTNER
CHECK M. LAISTNER
DRAFTING M. SAVINO
CHECK D. JENKINSON
DESIGN M. SAVINO
JOB MANAGER
DESIGN SUPERVISOR

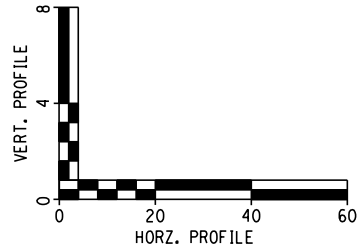
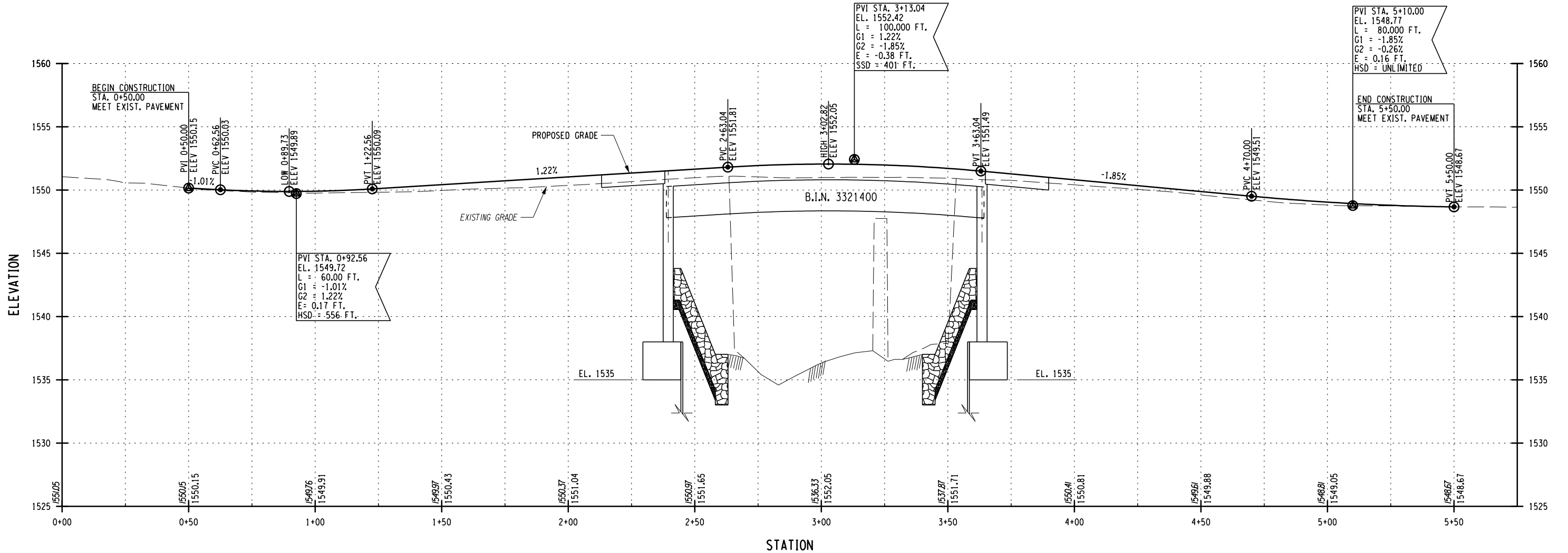


AFFIX SEAL: ON: 8/13/18	ALTERED BY: ON:
	

AS-BUILT REVISIONS DESCRIPTION OF ALTERATIONS:	FRANKLINVILLE BRIDGE NO. 22 REPLACEMENT PROJECT	DATE ISSUED: AUG. 2018	BRIDGES BIN 3321400	CULVERTS	ALL DIMENSIONS IN FT UNLESS OTHERWISE NOTED	CONTRACT NO.	
	FIVE MILE ROAD (C.R. 19) OVER ISCHUA CREEK				TYPICAL SECTIONS		
	TOWN OF FRANKLINVILLE					DRAWING NO. TYP-01	
	COUNTY: CATTARAUGUS REGION: 5					SHEET NO. 11 OF 33	
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.							CATTARAUGUS COUNTY DEPARTMENT OF PUBLIC WORKS DOCUMENT NAME: CR19_brg22_cpb_sec_typ.dgn

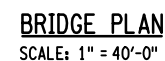
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DESIGN SUPERVISOR
JOB MANAGER
DESIGN M. CRAWFORD
CHECK S. KETCH
DRAFTING M. CRAWFORD
CHECK S. KETCH
PROJECT MANAGER M. LAISTNER

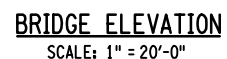


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AS-BUILT REVISIONS DESCRIPTION OF ALTERATIONS:	FRANKLINVILLE BRIDGE NO. 22 REPLACEMENT PROJECT	DATE ISSUED: AUG. 2018	BRIDGES	CULVERTS	ALL DIMENSIONS IN FT UNLESS OTHERWISE NOTED	CONTRACT NO.	
	FIVE MILE ROAD (C.R. 19) OVER ISCHUA CREEK		BIN 3321400			ROADWAY PROFILE	DRAWING NO. PR-01 SHEET NO. 12 OF 33
	TOWN OF FRANKLINVILLE						
	COUNTY: CATTARAUGUS REGION: 5						
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.							
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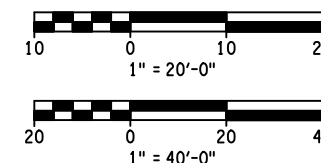
SCOUR DEPTH IS MEASURED FROM MINIMUM CHANNEL ELEVATION.



HS-20 LIVE LOADING - LOAD FACTOR RATING
INCLUDES FUTURE WEARING SURFACE OF 20 P.S.F.

HL-93 LIVE LOADING - LOAD RESISTANCE FACTOR RATING
INCLUDES FUTURE WEARING SURFACE OF 20 P.S.F.

1. REMOVE, STORE & RESET EXISTING DRY HYDRANT. COST TO BE INCLUDED IN REMOVAL OF EXISTING BRIDGE, ITEM C202.1301.



AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

FRANKLINVILLE BRIDGE NO. 22 REPLACEMENT PROJECT

FIVE MILE ROAD (C.R. 19) OVER ISCHUA CREEK

TOWN OF FRANKLINVILLE

REGION: 5

DATE ISSUED: AUG. 2018

	BRIDGES
--	---------

	CULVERTS
--	----------

BIN 3321400

ALL DIMENSIONS IN FT UNLESS OTHERWISE NOTED

BRIDGE GENERAL PLAN &
ELEVATION

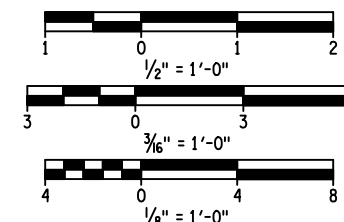
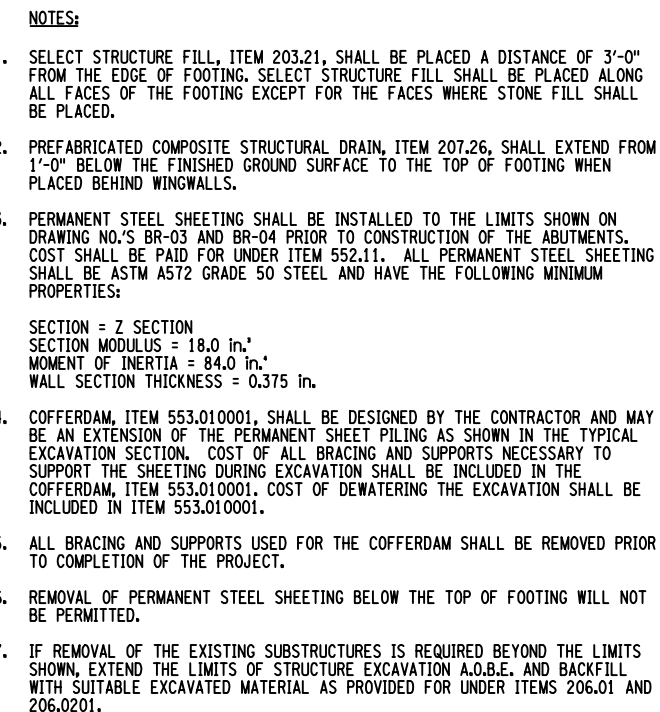
CONTRACT NO.	
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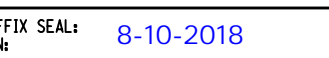
DRAWING NO. BR-01
SHEET NO. 13 OF

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.

CATTARAUGUS COUNTY DEPARTMENT OF PUBLIC WORKS

DOCUMENT NAME: CR19_brq22_cpb_gen.dgn



AFFIX SEAL: 8-10-2018 ON:		ALTERED BY: ON:	
			
AS-BUILT REVISIONS DESCRIPTION OF ALTERATIONS:		FRANKLINVILLE BRIDGE NO. 22 REPLACEMENT PROJECT	BRIDGES
		FIVE MILE ROAD (C.R. 19) OVER ISCHUA CREEK	BIN 3321400
		TOWN OF FRANKLINVILLE	DATE ISSUED: AUG. 2018
		COUNTY: CATTARAUGUS REGION: 5	CULVERTS
		ALL DIMENSIONS IN FT UNLESS OTHERWISE NOTED	
		EXCAVATION AND BACKFILL DETAILS	
		CONTRACT NO.	
		DRAWING NO. BR-02 SHEET NO. 14 OF 33	
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.			
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DESIGN SUPERVISOR

JOB MANAGER

DESIGN M. BEDFORD


CHECK D. JENKINSON

DRAFTING M. BEDFORD

CHECK M. SAVINO

PROJECT MANAGER M. LAISTNER

AFFIX SEAL:
ON: 8-10-2018



Mark R. Laistner
Licensed Professional Engineer

ALTERED BY:
ON:

AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

FRANKLINVILLE BRIDGE NO. 22 REPLACEMENT PROJECT

FIVE MILE ROAD (C.R. 19) OVER ISCHUA CREEK

TOWN OF FRANKLINVILLE

COUNTY: CATTARAUGUS REGION: 5

DATE ISSUED: AUG. 2018

BRIDGES
BIN 3321400

CULVERTS

ALL DIMENSIONS IN FT UNLESS OTHERWISE NOTED

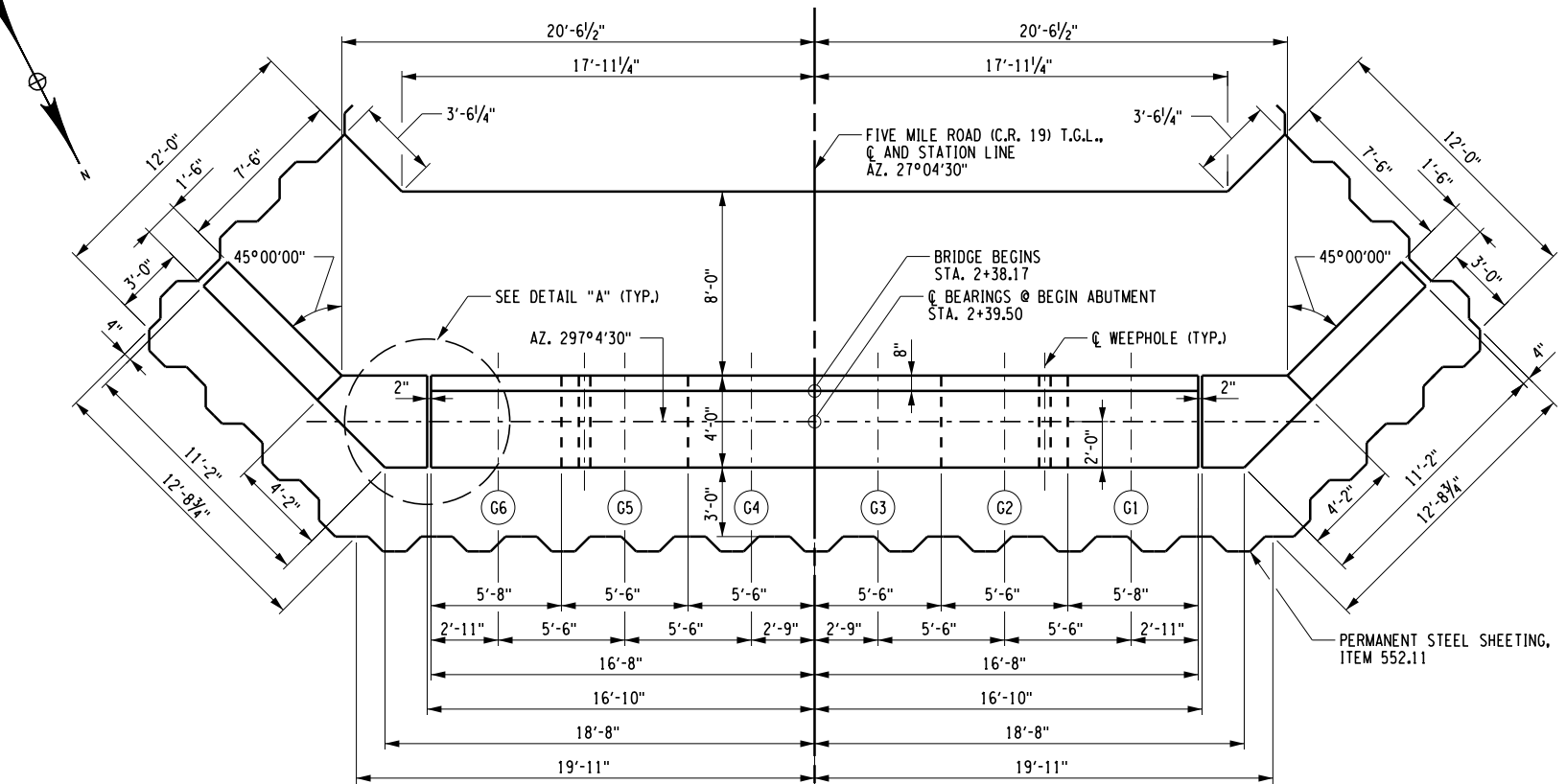
BEGIN ABUTMENT
PLAN & ELEVATION

CONTRACT NO.

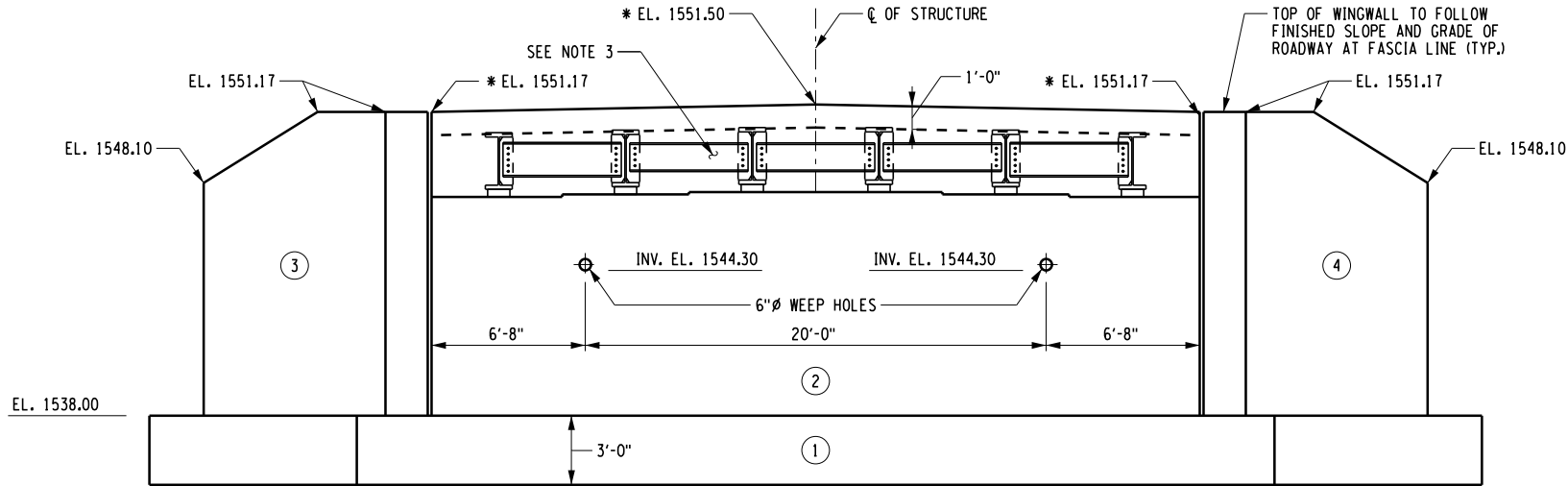
DRAWING NO. BR-03
SHEET NO. 15 OF 33

CATTARAUGUS COUNTY DEPARTMENT OF PUBLIC WORKS

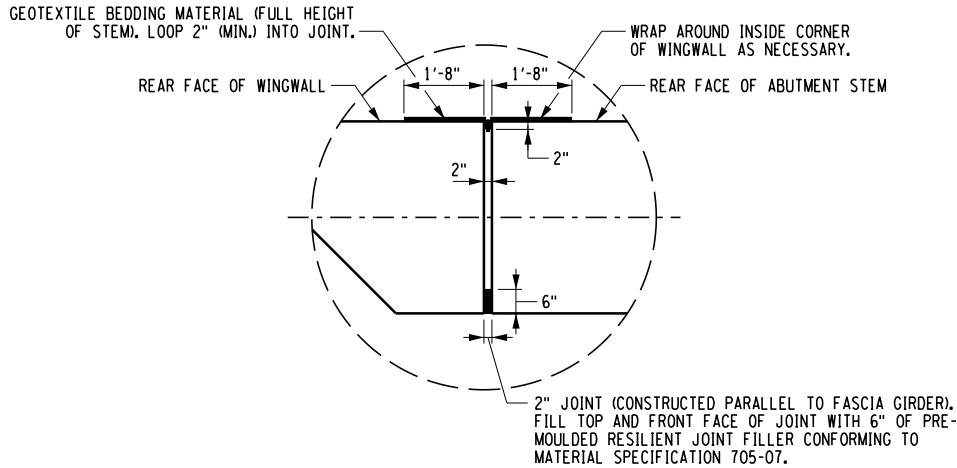
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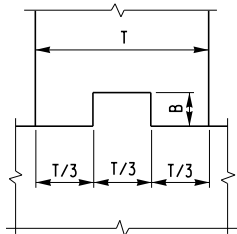
PLAN
SCALE: 1/8" = 1'-0"



ELEVATION
SCALE: 1/8" = 1'-0"



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



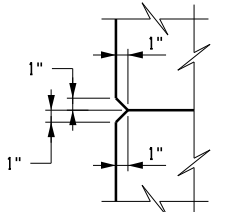
NOTE:
WATERSTOP NOT SHOWN.

HORIZONTAL

CONSTRUCTION AND CONTRACTION JOINTS	
B	T/3
1 1/2"	0 TO 6"
3 1/2"	6" TO 10"
5 1/2"	10" AND OVER

NOTE:
KEYWAY TO STOP 1'-0" FROM COTTON DUCK PAD OR CONSTRUCTION JOINT.

KEYWAY DETAILS
NOT TO SCALE



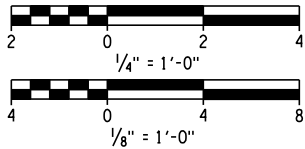
CHAMFER DETAIL
NOT TO SCALE

BRIDGE SEAT ELEV. TABLE		
LOCATION	ELEVATION	
G1	1547.48	
G2	1547.59	
G3	1547.70	
G4	1547.70	
G5	1547.59	
G6	1547.48	

CONCRETE TABLE		
PLACEMENT	QUANTITY	ITEM NO.
1	89.0 CY	555.08
2	47.4 CY	555.09
3	11.4 CY	555.09
4	11.4 CY	555.09

- NOTES:
- FOR TYPICAL ABUTMENT AND WINGWALL SECTIONS, SEE DWG. BR-05.
 - THE PORTION OF THE ABUTMENT ABOVE THE BEAM SEAT WILL BE PART OF THE DECK POUR. COST SHALL BE INCLUDED IN ITEM 557.0103.
 - FOR THE CONSTRUCTION PROCEDURE, SEE DWG. BR-11.
 - 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.

(NO.) - INDICATES CONCRETE PLACEMENT NUMBER



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DESIGN SUPERVISOR

JOB MANAGER

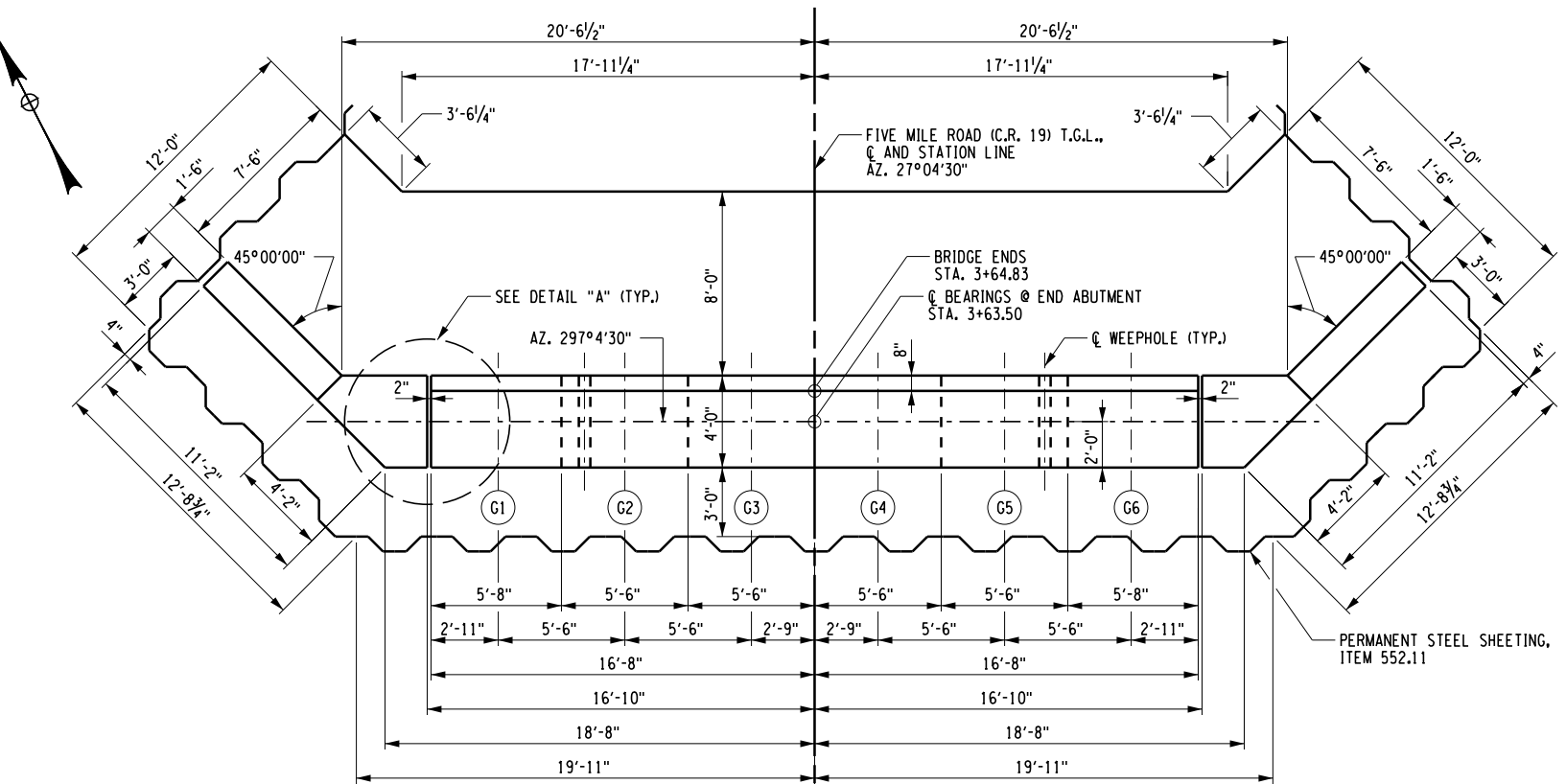
DESIGN M. BEDFORD

CHECK D. JENKINSON

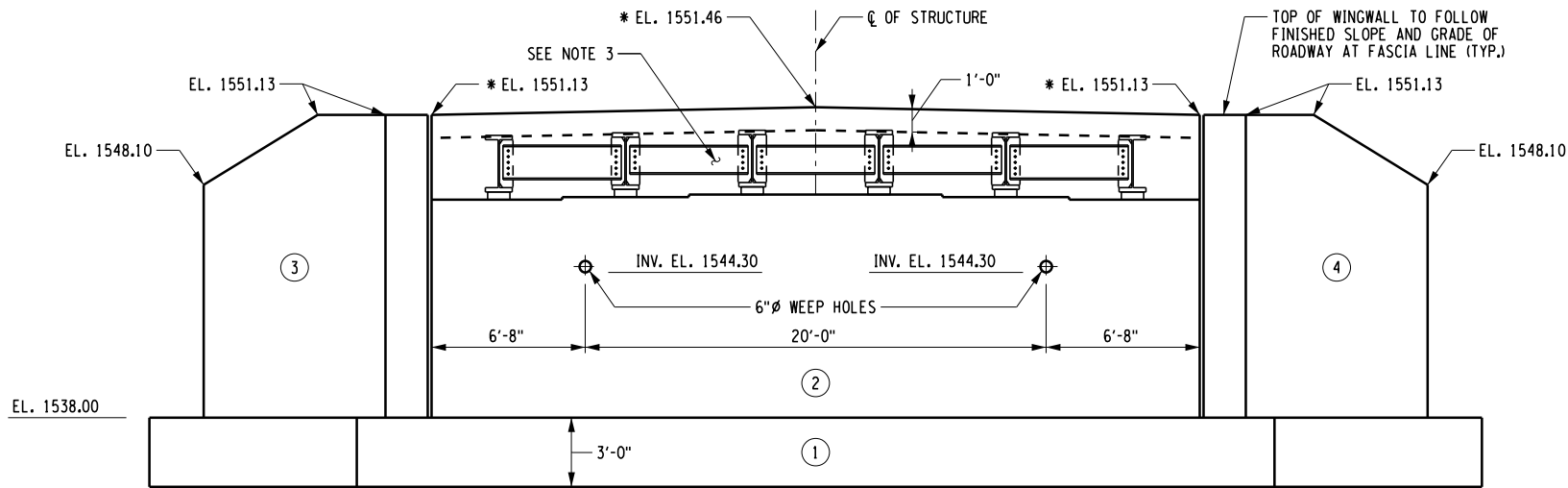
DRAFTING M. BEDFORD

CHECK M. SAVINO

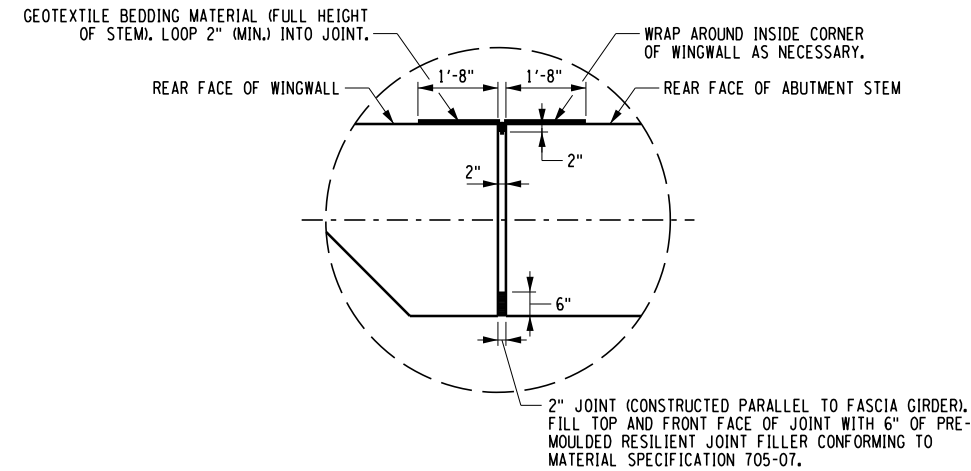
PROJECT MANAGER M. LAISTNER



PLAN
SCALE: 1/8" = 1'-0"



ELEVATION
SCALE: 1/8" = 1'-0"



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

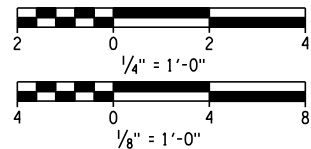
BRIDGE SEAT ELEV. TABLE		
LOCATION	ELEVATION	
G1	1547.45	
G2	1547.56	
G3	1547.67	
G4	1547.67	
G5	1547.56	
G6	1547.45	

CONCRETE TABLE		
PLACEMENT	QUANTITY	ITEM NO.
1	89.0 CY	555.08
2	47.2 CY	555.09
3	11.4 CY	555.09
4	11.4 CY	555.09

NOTES:

- FOR TYPICAL ABUTMENT AND WINGWALL SECTIONS, SEE DWG. BR-05.
- FOR KEYWAY DETAILS AND CHAMFER DETAILS, SEE DWG. BR-03.
- THE PORTION OF THE ABUTMENT ABOVE THE BEAM SEAT WILL BE PART OF THE DECK POUR. COST SHALL BE INCLUDED IN ITEM 557.0103.
- FOR THE CONSTRUCTION PROCEDURE, SEE DWG. BR-11.

(NO.) - INDICATES CONCRETE PLACEMENT NUMBER



AFFIX SEAL:
ON: 8-10-2018

ALTERED BY:
ON:

AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

FRANKLINVILLE BRIDGE NO. 22 REPLACEMENT PROJECT

FIVE MILE ROAD (C.R. 19) OVER ISCHUA CREEK

TOWN OF FRANKLINVILLE

COUNTY: CATTARAUGUS REGION: 5

DATE ISSUED: AUG. 2018

BIN 3321400

ALL DIMENSIONS IN FT UNLESS OTHERWISE NOTED

CONTRACT NO.

DRAWING NO. BR-04
SHEET NO. 16 OF 33

END ABUTMENT
PLAN & ELEVATION

CATTARAUGUS COUNTY DEPARTMENT OF PUBLIC WORKS
DOCUMENT NAME: CR19_brg22_cpb_abt.dgn

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DESIGN SUPERVISOR

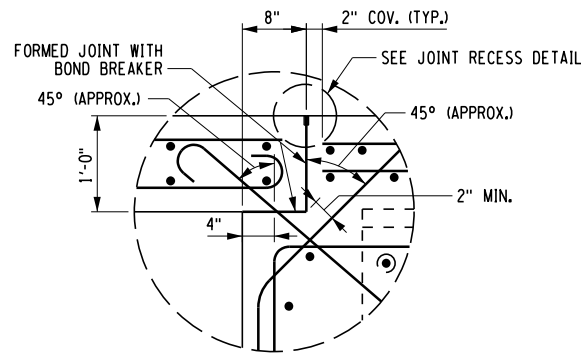
DESIGN M. BEDFORD

CHECK D. JENKINSON

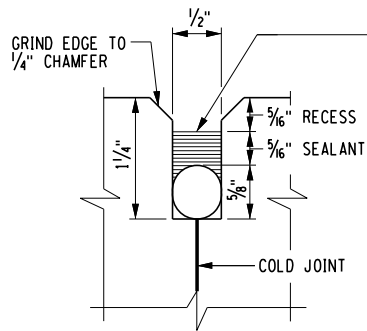
DRAFTING M. BEDFORD

CHECK M. SAVINO

PROJECT MANAGER M. LAISTNER

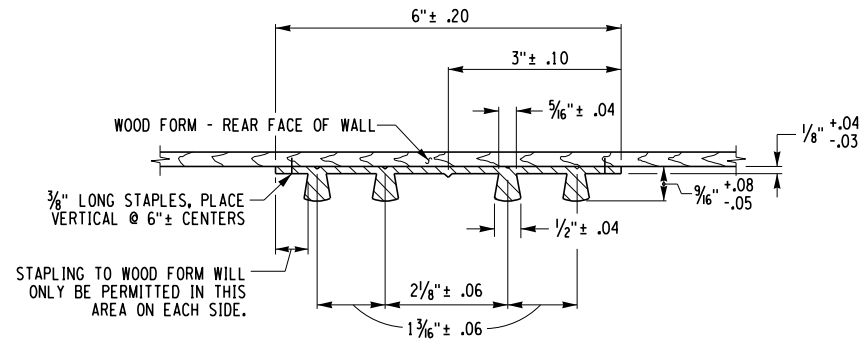


DETAIL "A"
SCALE: 1/2" = 1'-0"



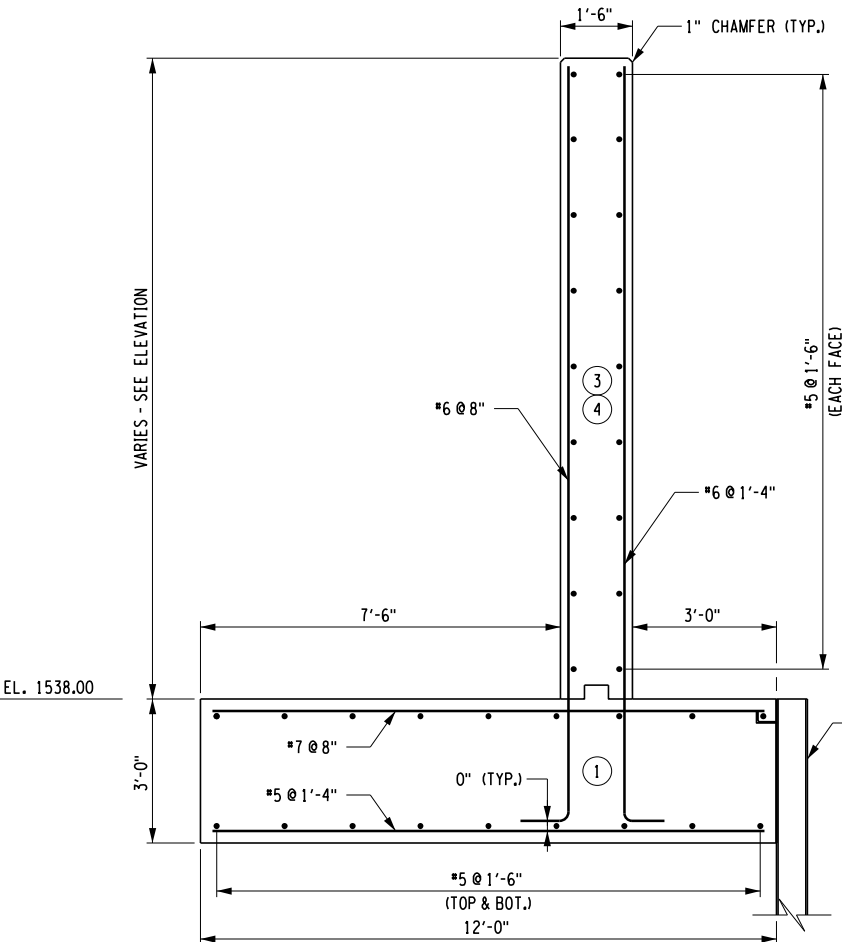
JOINT RECESS DETAIL
NOT TO SCALE

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.

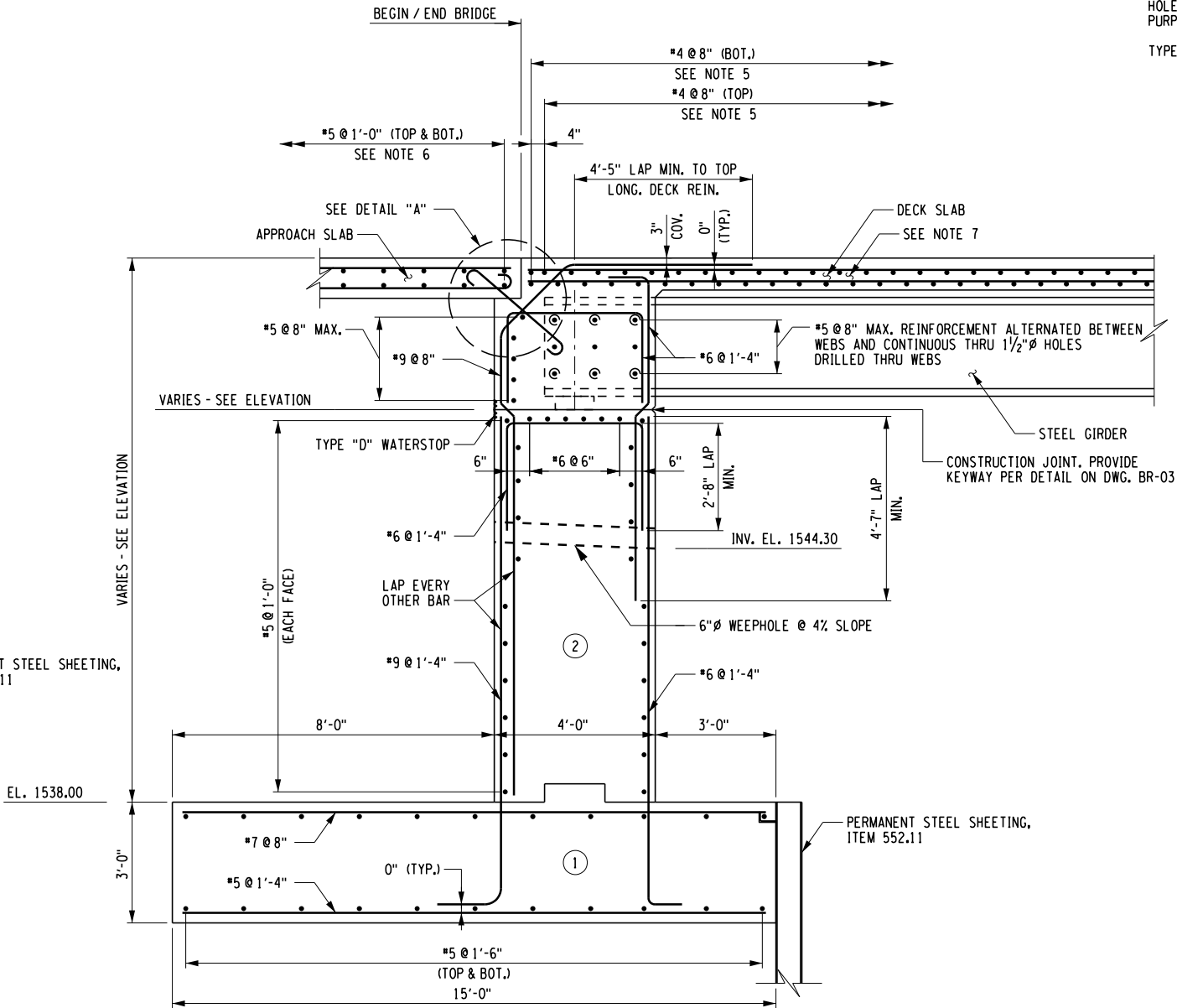


TYPE D WATERSTOP
NOT TO SCALE

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.



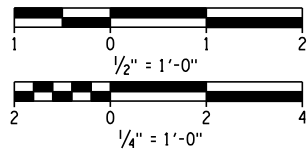
TYPICAL WINGWALL SECTION
SCALE: 1/4" = 1'-0"



TYPICAL ABUTMENT SECTION
SCALE: 1/4" = 1'-0"


- NOTES:
- ALL REINFORCEMENT SHALL BE ASTM A1035 GRADE 100 CORROSION RESISTANT REINFORCING STEEL AND PAID FOR UNDER ITEM 556.10013011.
 - COVER FOR STEEL REINFORCEMENT IN FOOTING SHALL BE 3" UNLESS OTHERWISE NOTED. ALL OTHER COVER SHALL BE 2" UNLESS OTHERWISE NOTED.
 - ALL REINFORCEMENT SHALL BE PLACED 3" MIN. FROM ALL JOINTS.
 - FOR KEYWAY DETAILS AND CHAMFER DETAILS, SEE DWG. BR-03.
 - FOR DECK SLAB REINFORCEMENT PLAN, SEE DWG. BR-11.
 - FOR APPROACH SLAB REINFORCEMENT, SEE DWG. BR-12.
 - THE PORTION OF THE ABUTMENT ABOVE THE BEAM SEAT WILL BE PART OF THE DECK POUR. COST SHALL BE INCLUDED IN ITEM 557.0103.
 - FOR THE CONSTRUCTION PROCEDURE, SEE DWG. BR-11.
 - PVC USED IN WATERSTOPS SHALL CONFORM TO THE REQUIREMENTS OF N.Y.S. STANDARD SPECIFICATIONS SUBSECTION 705-11.
 - 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.
 - 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.

(NO) - INDICATES CONCRETE PLACEMENT NUMBER



AFFIX SEAL: 8-10-2018
ON:

ALTERED BY: ON:

AS-BUILT REVISIONS DESCRIPTION OF ALTERATIONS:	FRANKLINVILLE BRIDGE NO. 22 REPLACEMENT PROJECT	DATE ISSUED: AUG. 2018	BRIDGES	CULVERTS	ALL DIMENSIONS IN FT UNLESS OTHERWISE NOTED	CONTRACT NO.	
	FIVE MILE ROAD (C.R. 19) OVER ISCHUA CREEK						
	TOWN OF FRANKLINVILLE						
COUNTY: CATTARAUGUS	REGION: 5				ABUTMENT TYPICAL SECTIONS AND DETAILS	DRAWING NO. BR-05	
SHEET NO. 17 OF 33							
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.							
CATTARAUGUS COUNTY DEPARTMENT OF PUBLIC WORKS							
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DESIGN SUPERVISOR

JOB MANAGER

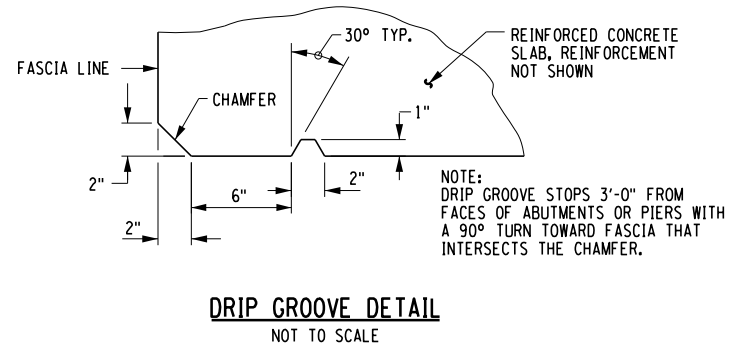
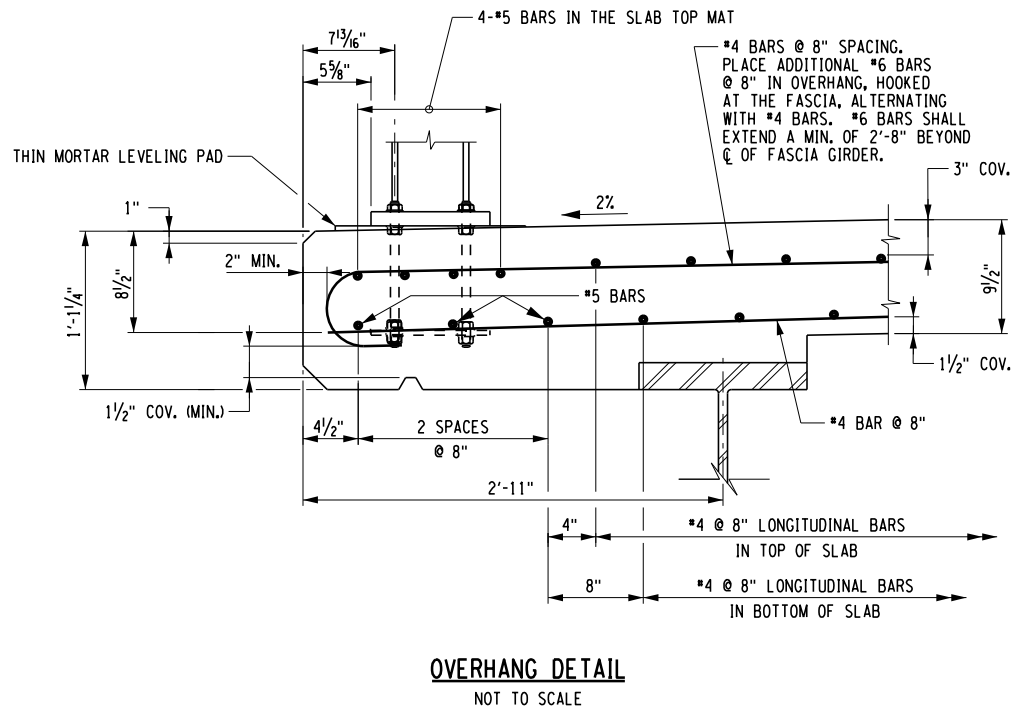
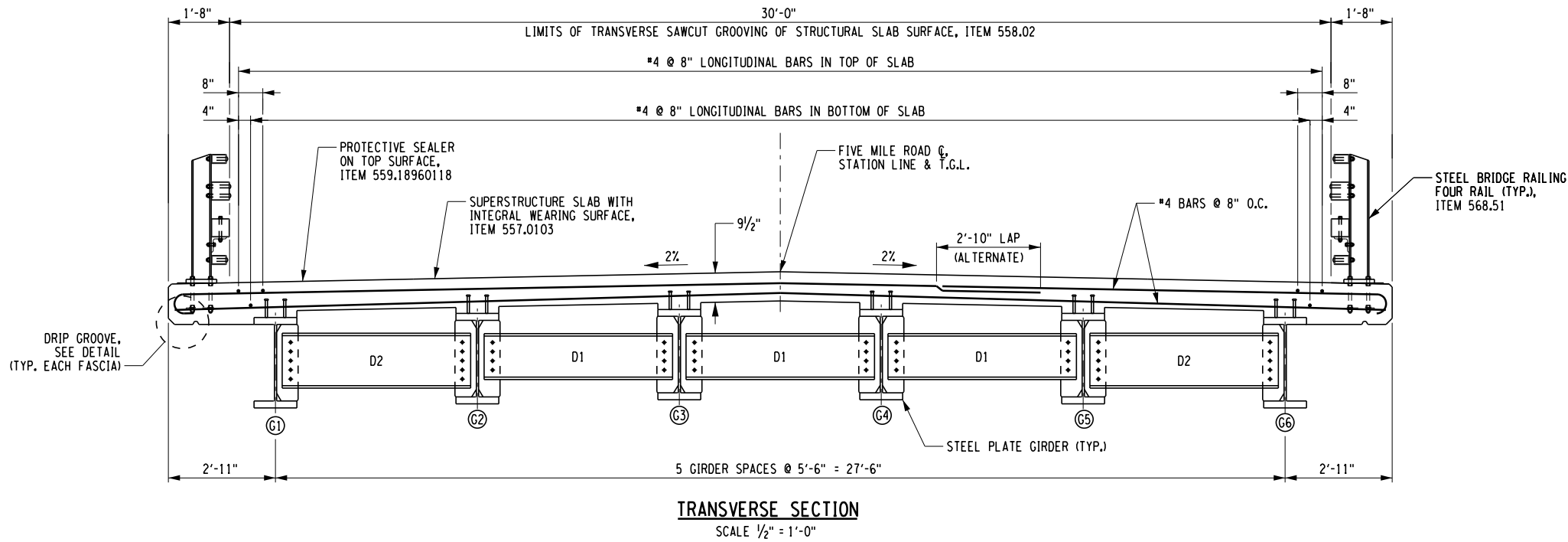
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CHECK D. JENKINSON

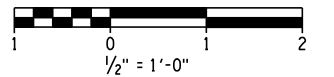
DRAFTING M. SAVINO

CHECK M. LAISTNER


PROJECT MANAGER M. LAISTNER



- NOTES:
- STUD SHEAR CONNECTORS ARE NOT SHOWN IN THE OVERHANG DETAIL FOR CLARITY.
 - DECK REINFORCING BARS SHALL BE ASTM A1035 GRADE 100 CORROSION RESISTANT REINFORCING STEEL AND PAID FOR UNDER ITEM 557.0103.
 - 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.



AFFIX SEAL: ON: 8-10-2018	ALTERED BY: ON:

AS-BUILT REVISIONS DESCRIPTION OF ALTERATIONS:	FRANKLINVILLE BRIDGE NO. 22 REPLACEMENT PROJECT	DATE ISSUED: AUG. 2018	BRIDGES	CULVERTS	ALL DIMENSIONS IN FT UNLESS OTHERWISE NOTED	CONTRACT NO.	 POPLI DESIGN GROUP	
	FIVE MILE ROAD (C.R. 19) OVER ISCHUA CREEK							
	TOWN OF FRANKLINVILLE							
	COUNTY: CATTARAUGUS				REGION: 5			
					TRANSVERSE SECTION AND DETAILS	DRAWING NO. BR-06 SHEET NO. 18 OF 33		
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.							CATTARAUGUS COUNTY DEPARTMENT OF PUBLIC WORKS DOCUMENT NAME: CR19_brg22_cpb_sec_trn.dgn	

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DESIGN SUPERVISOR

JOB MANAGER

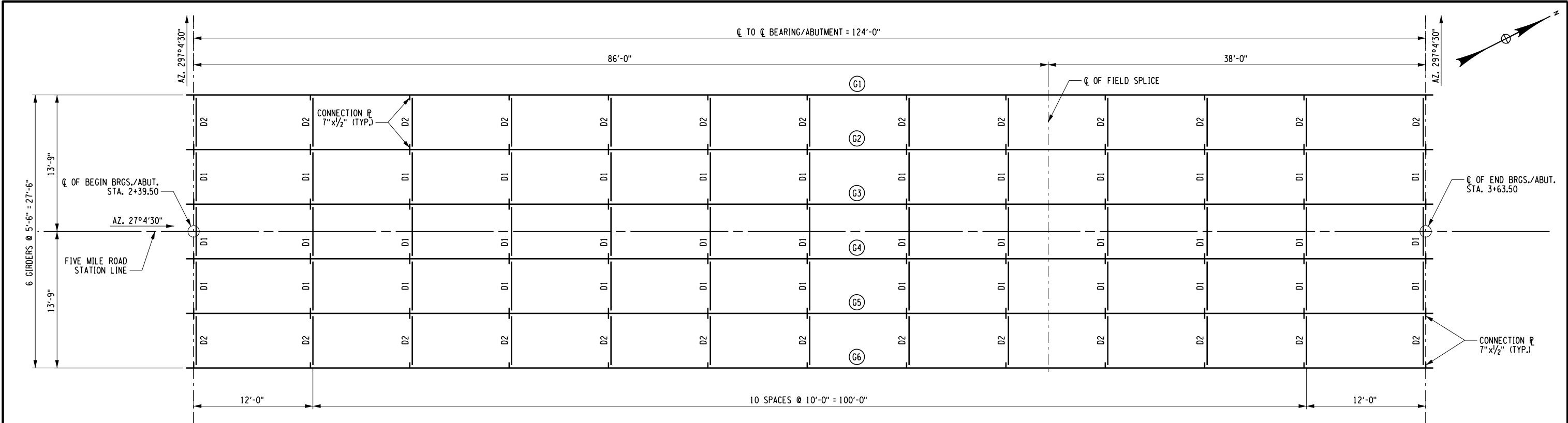
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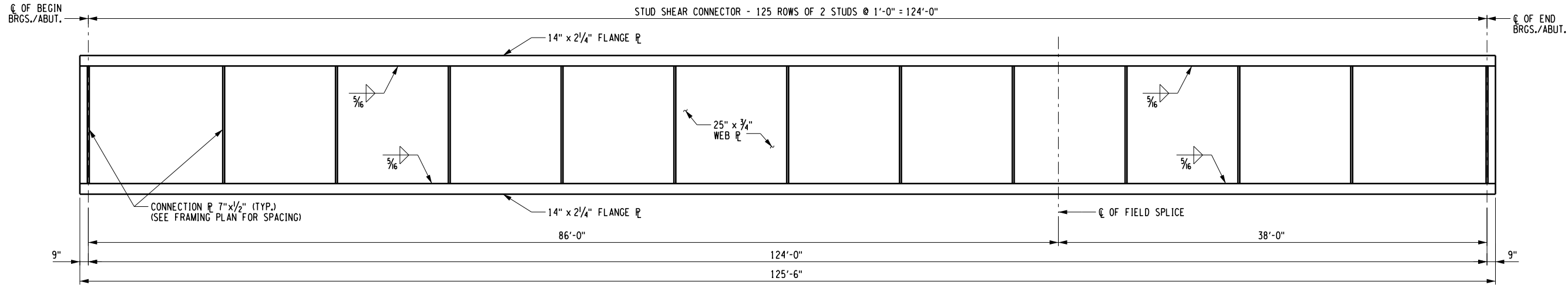
DRAFTING M. SAVINO

CHECK M. LAISTNER

PROJECT MANAGER M. LAISTNER



FRAMING PLAN
SCALE: 1" = 10'-0"



TYPICAL GIRDER ELEVATION
NOT TO SCALE

GIRDER NOTES:

- ALL STRUCTURAL STEEL SHAL CONFORM TO A709 GR. 50 AND BE PAID FOR UNDER ITEM 564.0501.
- ALL STRUCTURAL STEEL TO BE HOT-DIP GALVANIZED AND PAID FOR UNDER ITEM 564.20010008.
- THE ENDS OF ALL GIRDERS SHALL BE VERTICAL. ALL CONNECTION PLATES MAY BE PERPENDICULAR TO THE TOP FLANGES.

NOTES:

- SEE DWG. BR-08 FOR DIAPHRAGM DETAILS.
- SEE DWG. BR-09 FOR GIRDER SPLICE DETAILS.
- SEE DWG. BR-10 FOR GIRDER MOMENT, SHEAR, LOAD AND CAMBER TABLES.
- 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.

AFFIX SEAL: ON: 8-10-2018	ALTERED BY: ON:

AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

FRANKLINVILLE BRIDGE NO. 22 REPLACEMENT PROJECT

FIVE MILE ROAD (C.R. 19) OVER ISCHUA CREEK

TOWN OF FRANKLINVILLE

COUNTY: CATTARAUGUS

REGION: 5

DATE ISSUED: AUG. 2018

BRIDGES

BIN 3321400

CULVERTS

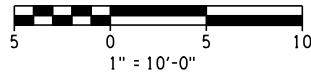
ALL DIMENSIONS IN FT UNLESS OTHERWISE NOTED

FRAMING PLAN AND
GIRDER ELEVATION

CONTRACT NO.

DRAWING NO. BR-07

SHEET NO. 19 OF 33



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.

CATTARAUGUS COUNTY DEPARTMENT OF PUBLIC WORKS
DOCUMENT NAME: CR19_brg22_cpb.stl.dgn

FILE NAME = CR19_brg22_cpb.stl.dgn
DATE/TIME = 8/10/2018 3:19:02 PM
USER = \$USER\$

DESIGN SUPERVISOR

JOB MANAGER

DESIGN M. SAVINO

CHECK

D. JENKINSON

DRAFTING M. SAVINO

CHECK M. LAISTNER

PROJECT MANAGER M. LAISTNER

AFFIX SEAL:
ON:

8-10-2018

ALTERED BY:
ON:

STATE OF NEW YORK
MARK R. LAISTNER
No. 068874
Licensed Professional Engineer

AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

FRANKLINVILLE BRIDGE NO. 22 REPLACEMENT PROJECT

FIVE MILE ROAD (C.R. 19) OVER ISCHUA CREEK

TOWN OF FRANKLINVILLE

COUNTY: CATTARAUGUS

REGION: 5

DATE ISSUED: AUG. 2018

BRIDGES

BIN 3321400

CULVERTS

ALL DIMENSIONS IN FT UNLESS OTHERWISE NOTED

STEEL DETAILS-1

CONTRACT NO.

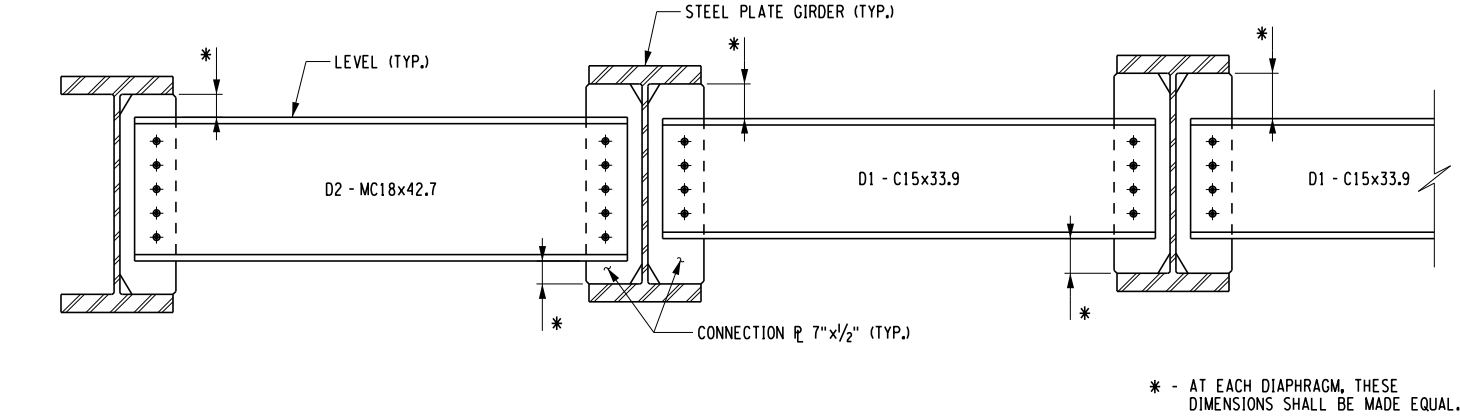
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SHEET NO. 20 OF 33

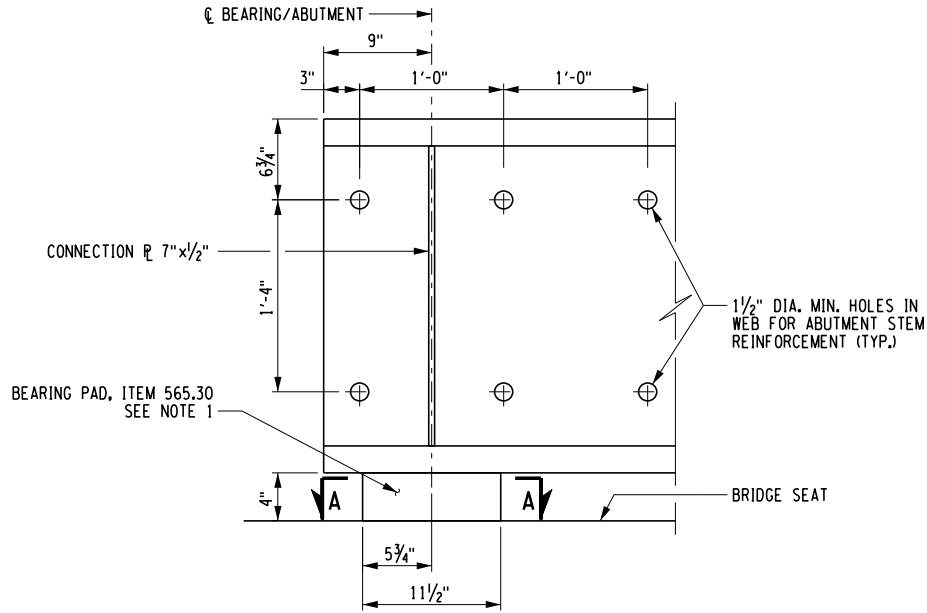
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, 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.

CATTARAUGUS COUNTY DEPARTMENT OF PUBLIC WORKS

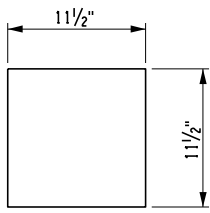
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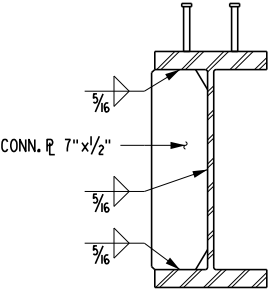
DIAPHRAGMS
NOT TO SCALE



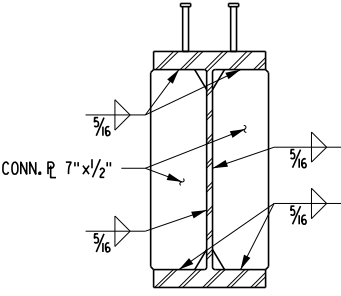
TYPICAL GIRDER END ELEVATION
NOT TO SCALE



BEARING PAD SECTION A-A
NOT TO SCALE

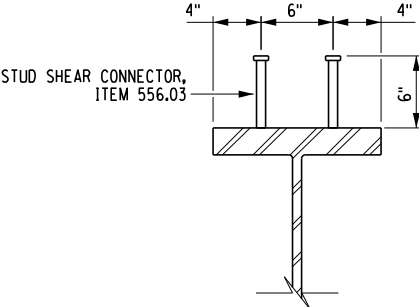


FASCIA GIRDER
CONNECTION 7/16

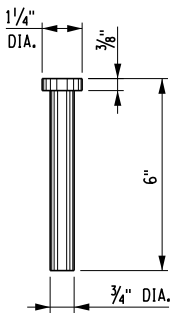


INTERIOR GIRDER
CONNECTION 7/16

GIRDER SECTIONS
NOT TO SCALE



STUD SHEAR
CONNECTOR DETAIL
NOT TO SCALE



DETAIL OF STUD
NOT TO SCALE

DIAPHRAGM NOTES:

1. CONNECTIONS SHALL BE MADE ACCORDING TO THE NEW YORK STATE STEEL CONSTRUCTION MANUAL.
2. 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.
3. UNLESS OTHERWISE INDICATED, BOLTED CONNECTIONS SHALL BE MADE WITH 7/8" DIA. ASTM F3125, GRADE A325, TYPE 1 (HOT DIPPED GALVANIZED).
4. ALL BOLTS, NUTS, AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH THE NEW YORK STATE STEEL CONSTRUCTION MANUAL.
5. ALL COSTS FOR BOLTS, NUTS, AND WASHERS SHALL BE INCLUDED IN THE PRICE BID FOR STRUCTURAL STEEL.
6. ALL STRUCTURAL STEEL SHALL CONFORM TO A709 GR. 50 AND BE PAID FOR UNDER ITEM 564.0501.
7. ALL STRUCTURAL STEEL TO BE HOT-DIP GALVANIZED AND PAID FOR UNDER ITEM 564.20010008.

NOTES:

1. BEARING PAD TO MEET THE REQUIREMENTS OF NYS MATERIAL SPEC. 728-01, RUBBER-IMPREGNATED WOVEN COTTON-POLYESTER FABRIC BEARING PAD. BEARING PAD TO BE PAID FOR UNDER ITEM 565.30.
2. 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.

FILE NAME = CR19_brg22_cpb.stl.dgn
DATE/TIME = 8/10/2018 3:19:04 PM
USER = \$USER\$

DESIGN SUPERVISOR

JOB MANAGER

DESIGN M. SAVINO

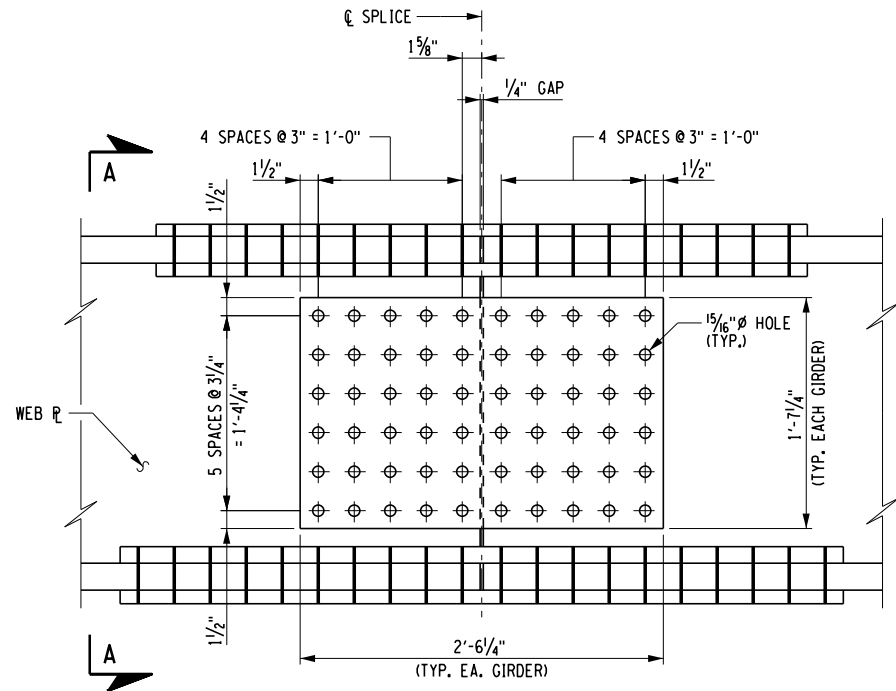
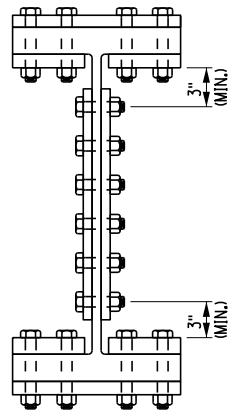
CHECK D. JENKINSON

DRAFTING M. SAVINO

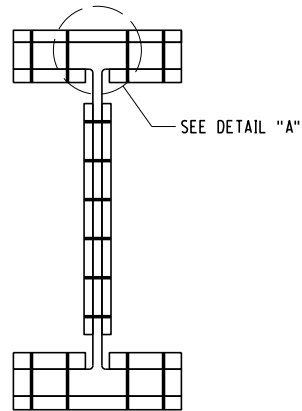
CHECK D. JENKINSON

PROJECT MANAGER M. LAISTNER

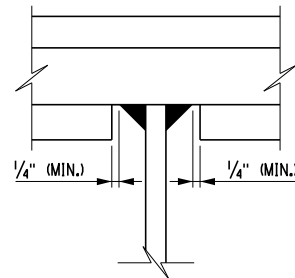
7/8" DIAMETER BOLT ENTERING
AND TIGHTENING CLEARANCES
SCALE: 3/4" = 1'-0"



WEB SPLICE DETAIL
SCALE: 3/4" = 1'-0"



SECTION A-A
SCALE: 3/4" = 1'-0"



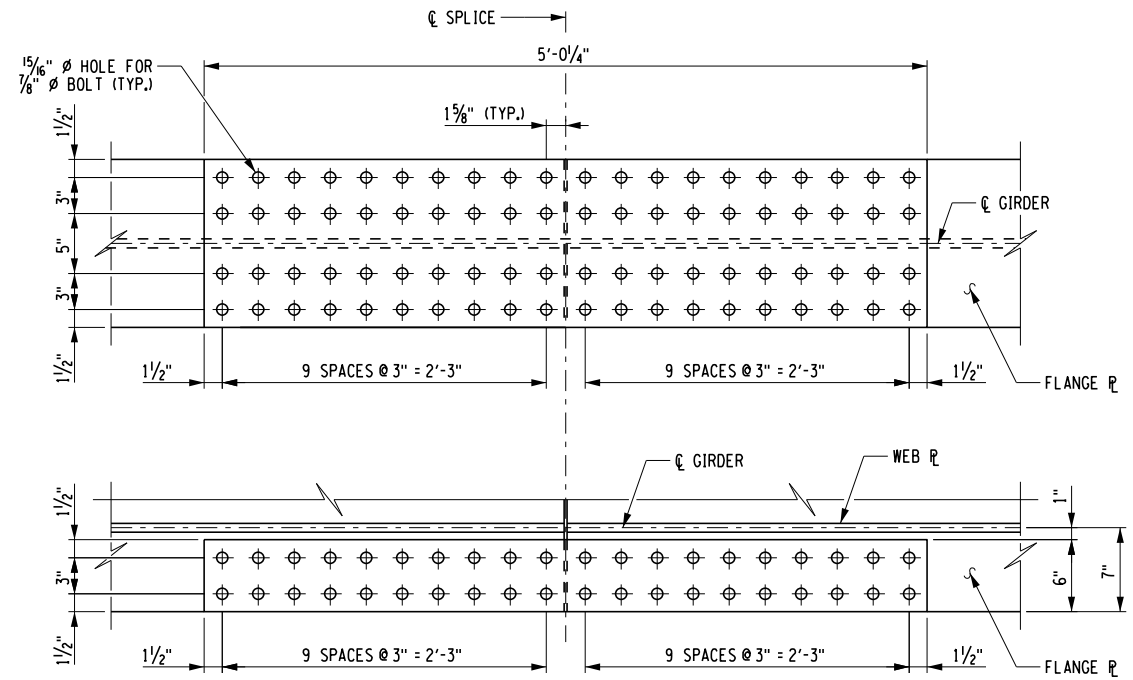
DETAIL "A"
NOT TO SCALE

GIRDER SPLICE NOTES:

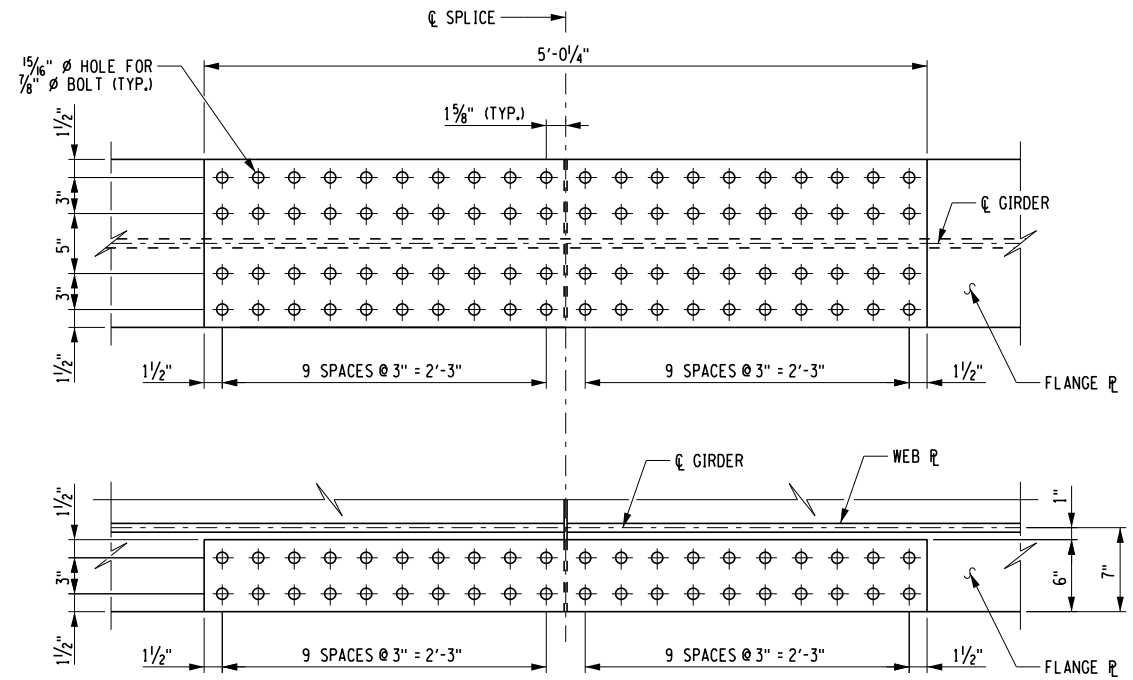
1. ALL COSTS FOR BOLTS, NUTS, AND WASHERS SHALL BE INCLUDED IN THE PRICE BID FOR STRUCTURAL STEEL.
2. SPLICE DESIGNS ARE BASED ON THE LOCATIONS INDICATED. THE CONTRACTOR HAS THE OPTION OF USING ALTERNATE SPLICE LOCATIONS. HOWEVER, RELOCATION REQUESTS MUST BE SUBMITTED TO THE ENGINEER FOR APPROVAL. FIELD SPLICE REVISIONS DUE TO SPLICE RELOCATION SHALL BE SEALED BY A LICENSED PROFESSIONAL ENGINEER. 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.
3. ALL SPLICE PLATES SHALL CONSIST OF THE SAME GRADE OF STEEL AS THE MEMBERS BEING SPLICED AND THEIR COST INCLUDED IN THE PRICE BID FOR THE STRUCTURAL STEEL.
4. SUBJECT TO ENGINEER APPROVAL, THE CONTRACTOR CAN PROPOSE THE USE OF A WELDED SPLICE. HOWEVER, ALL COSTS ASSOCIATED WITH THIS CHANGE WILL BE AT THE CONTRACTOR'S EXPENSE. ADDITIONALLY, A DETAILED WELDING PROCEDURE, AS PER NYS STEEL CONSTRUCTION MANUAL 203.5(B), OF THE NYS STEEL CONSTRUCTION MANUAL SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.
5. BOLT LOCATIONS SHOWN MAY HAVE TO BE MOVED Laterally ON THEIR FLANGE TO MEET SEALING REQUIREMENTS AS DESCRIBED IN SECTION 203.14 OF THE NYS STEEL CONSTRUCTION MANUAL.
6. ALL BOLTS SHALL BE 7/8" DIAMETER, UNLESS NOTED OTHERWISE.
7. BOLTS SHALL BE ASTM F3125, GRADE A325, TYPE 1 (HOT DIPPED GALVANIZED).
8. NUTS SHALL BE A563, GRADE DH (HOT DIPPED GALVANIZED); OR A194, GRADE 2H (HOT DIP GALVANIZED).
9. WASHERS SHALL BE F436, (HOT DIPPED GALVANIZED).

SPLICE PLATE TABLE

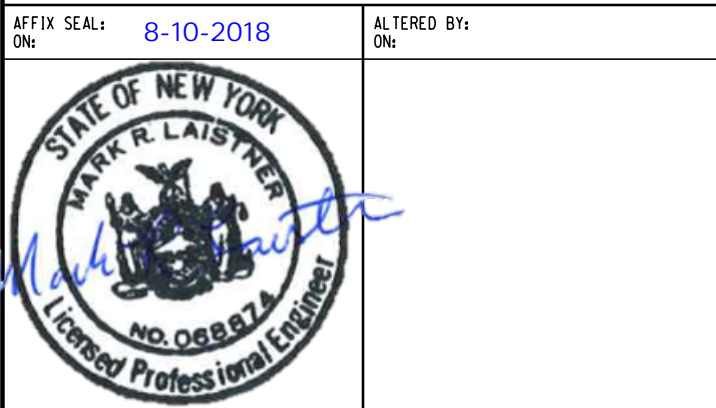
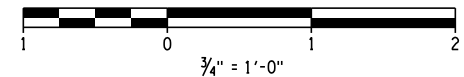
1 LOCATION	TOP FLANGE SPLICE	BOTTOM FLANGE SPLICE	WEB SPLICE
SPLICE PL	1 - PL 1" x 14" x 4'-6 1/4" 2 - PL 1 1/8" x 6" x 4'-6 1/4"	1 - PL 1 1/8" x 14" x 5'-0 1/4" 2 - PL 1 3/8" x 6" x 5'-0 1/4"	2 - PL 3/4" x 1'-7 1/4" x 2'-6 1/4"
NO. OF BOLTS	36 EACH SIDE / 72 TOTAL	40 EACH SIDE / 80 TOTAL	30 EACH SIDE / 60 TOTAL



TOP FLANGE SPLICE DETAIL
SCALE: 3/4" = 1'-0"



BOTTOM FLANGE SPLICE DETAIL
SCALE: 3/4" = 1'-0"



AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

FRANKLINVILLE BRIDGE NO. 22 REPLACEMENT PROJECT

FIVE MILE ROAD (C.R. 19) OVER ISCHUA CREEK

TOWN OF FRANKLINVILLE

COUNTY: CATTARAUGUS

REGION: 5

DATE ISSUED: AUG. 2018

BRIDGES

BIN 3321400

CULVERTS

ALL DIMENSIONS IN FT UNLESS OTHERWISE NOTED

STEEL DETAILS-2

CONTRACT NO.

DRAWING NO. BR-09

SHEET NO. 21 OF 33

CATTARAUGUS COUNTY DEPARTMENT OF PUBLIC WORKS

DOCUMENT NAME: CR19_brg22_cpb.stl.dgn

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MOMENT AND SHEAR TABLE			C.L. OF BRGS. BEGIN 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	C.L. OF BRGS. END ABUT.
Girders 1-6	DL	Moment	0.0	803.5	1428.4	1874.7	2142.6	2231.8	2142.6	1874.7	1428.4	803.5	0.0
		Shear	72.0	57.6	43.2	37.2	14.4	0.0	-14.4	-28.8	-43.2	-57.6	-72.0
	SDL	Moment	-176.2	-77.9	-1.5	53.1	85.8	96.8	85.8	53.1	-1.5	-77.9	-176.2
		Shear	8.8	7.0	5.3	3.5	1.8	0.0	-1.8	-3.5	-5.3	-7.0	-8.8
	HL-93 (+)	Moment	0.0	0.0	269.4	522.1	672.3	724.6	672.3	522.1	269.4	0.0	0.0
		Shear	81.6	70.4	59.5	47.9	36.8	25.1	26.7	27.8	29.3	30.2	31.3
	HL-93 (-)	Moment	-975.6	-533.0	-195.4	0.0	0.0	0.0	0.0	-195.4	-533.0	-975.6	
		Shear	-31.3	-30.2	-29.3	-27.8	-26.7	-25.1	-36.8	-47.9	-59.5	-70.4	-81.6
	D.P.V. (+)	Moment	0.0	165.7	479.4	848.7	1074.3	1150.2	1074.3	848.7	479.4	165.7	0.0
		Shear	140.6	122.9	106.1	87.6	70.5	52.1	70.5	87.6	106.1	122.9	140.6
	D.P.V. (-)	Moment	-1583.0	-937.1	-451.6	-131.7	-13.5	0.0	-13.5	-131.7	-451.6	-937.1	-1583.0
		Shear	-140.6	-122.9	-106.1	-87.6	-70.5	-52.1	-70.5	-87.6	-106.1	-122.9	-140.6

MOMENTS AND SHEARS ARE UNFACTORED
MOMENTS ARE EXPRESSED AS KIP-FEET
SHEARS ARE EXPRESSED AS KIPS
D.P.V. = DESIGN PERMIT VEHICLE

HAUNCH TABLE			C.L. OF BRGS. BEGIN 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	C.L. OF BRGS. END ABUT.
Girder 1	A. REQ'D BOTTOM OF SLAB ELEVATION			1550.45	1550.60	1550.76	1550.88	1550.96	1550.99	1550.97	1550.90	1550.79	1550.42
	B. TOP OF STEEL EL. (FIELD MEASURE)												
	C = A + B												
	D. CONCRETE + S.D.L. DEFLECTION			0.00	0.33	0.62	0.85	1.00	1.05	1.00	0.85	0.62	0.33
	E. DEPTH OF HAUNCH REQUIRED												
Girder 2	A. REQ'D BOTTOM OF SLAB ELEVATION			1550.56	1550.71	1550.87	1550.99	1551.07	1551.10	1551.08	1551.01	1550.90	1550.53
	B. TOP OF STEEL EL. (FIELD MEASURE)												
	C = A + B												
	D. CONCRETE + S.D.L. DEFLECTION			0.00	0.26	0.50	0.69	0.81	0.85	0.81	0.69	0.50	0.26
	E. DEPTH OF HAUNCH REQUIRED												
Girder 3	A. REQ'D BOTTOM OF SLAB ELEVATION			1550.67	1550.82	1550.98	1551.10	1551.18	1551.21	1551.19	1551.12	1551.01	1550.85
	B. TOP OF STEEL EL. (FIELD MEASURE)												
	C = A + B												
	D. CONCRETE + S.D.L. DEFLECTION			0.00	0.26	0.50	0.69	0.81	0.85	0.81	0.69	0.50	0.26
	E. DEPTH OF HAUNCH REQUIRED												
Girder 4	A. REQ'D BOTTOM OF SLAB ELEVATION			1550.67	1550.82	1550.98	1551.10	1551.18	1551.21	1551.19	1551.12	1551.01	1550.85
	B. TOP OF STEEL EL. (FIELD MEASURE)												
	C = A + B												
	D. CONCRETE + S.D.L. DEFLECTION			0.00	0.26	0.50	0.69	0.81	0.85	0.81	0.69	0.50	0.26
	E. DEPTH OF HAUNCH REQUIRED												
Girder 5	A. REQ'D BOTTOM OF SLAB ELEVATION			1550.56	1550.71	1550.87	1550.99	1551.07	1551.10	1551.08	1551.01	1550.90	1550.53
	B. TOP OF STEEL EL. (FIELD MEASURE)												
	C = A + B												
	D. CONCRETE + S.D.L. DEFLECTION			0.00	0.26	0.50	0.69	0.81	0.85	0.81	0.69	0.50	0.26
	E. DEPTH OF HAUNCH REQUIRED												
Girder 6	A. REQ'D BOTTOM OF SLAB ELEVATION			1550.45	1550.60	1550.76	1550.88	1550.96	1550.99	1550.97	1550.90	1550.79	1550.42
	B. TOP OF STEEL EL. (FIELD MEASURE)												
	C = A + B												
	D. CONCRETE + S.D.L. DEFLECTION			0.00	0.33	0.62	0.85	1.00	1.05	1.00	0.85	0.62	0.33
	E. DEPTH OF HAUNCH REQUIRED												

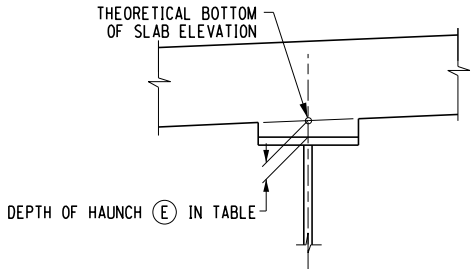
CAMBER TABLE			C.L. OF BRGS. BEGIN ABUT.	0.1 L1	0.2 L1	0.3 L1	0.4 L1	0.5 L1	0.6 L1	0.7 L1	0.8 L1	0.9 L1	C.L. OF BRGS. END ABUT.
Girders 1 & 6	I) Steel DL (ft)		0.00	0.12	0.22	0.30	0.35	0.37	0.35	0.30	0.22	0.12	0.00
	II) Concrete DL (ft)		0.00	0.32	0.61	0.84	0.98	1.03	0.98	0.84	0.61	0.32	0.00
	III) SDL (ft)		0.00	0.00	0.01	0.02	0.02	0.02	0.02	0.02	0.01	0.00	0.00
	IV) Vert Curve (ft)		0.00	0.15	0.31	0.44	0.52	0.55	0.54	0.47	0.36	0.20	0.00
	V) I + II + III + IV (ft)		0.00	0.60	1.15	1.59	1.87	1.97	1.89	1.62	1.20	0.65	0.00
Girders 2 - 5	I) Steel DL (ft)		0.00	0.13	0.24	0.33	0.38	0.40	0.38	0.33	0.24	0.13	0.00
	II) Concrete DL (ft)		0.00	0.26	0.49	0.67	0.79	0.83	0.79	0.67	0.49	0.26	0.00
	III) SDL (ft)		0.00	0.00	0.01	0.02	0.02	0.02	0.02	0.02	0.01	0.00	0.00
	IV) Vert Curve (ft)		0.00	0.15	0.31	0.44	0.52	0.55	0.54	0.47	0.36	0.20	0.00
	V) I + II + III + IV (ft)		0.00	0.54	1.06	1.46	1.71	1.80	1.73	1.49	1.10	0.59	0.00

DESIGN LOAD TABLE			
UNIT		LOAD K/ft.	
Girders 1 & 6	D.L.	SLAB	0.819
		HAUNCH	0.036
		GIRDER	0.278
		S.I.P. FORMS	0.000
		DIAPHRAGMS	0.013
		UTILITIES	0.000
	TOTAL		1.146
	S.D.L.	SIDEWALK	0.000
		RAILING	0.028
		FUTURE W.S.	0.113
		TOTAL	

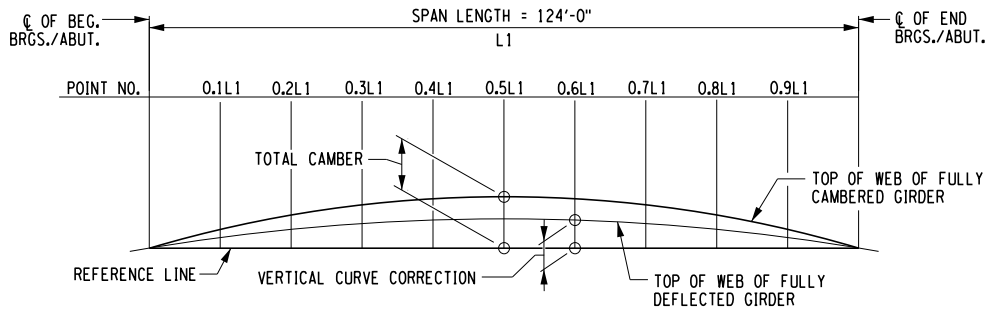
ASSUMED LIVE LOAD = HL-93 AND NYSDOT PERMIT VEHICLE FOR LRFD

DESIGN LOAD TABLE			
UNIT		LOAD K/ft.	
Girders 2 - 5	D.L.	SLAB	0.653
		HAUNCH	0.036
		GIRDER	0.278
		S.I.P. FORMS	0.000
		DIAPHRAGMS	0.023
		UTILITIES	0.000
	TOTAL		0.99
	S.D.L.	SIDEWALK	0.000
		RAILING	0.028
		FUTURE W.S.	0.113
		TOTAL	

ASSUMED LIVE LOAD = HL-93 AND NYSDOT PERMIT VEHICLE FOR LRFD



GIRDER HAUNCH DETAIL
NOT TO SCALE



CAMBER DIAGRAM
NOT TO SCALE

AFFIX SEAL:
ON: 8-10-2018

ALTERED BY:
ON:

AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

FRANKLINVILLE BRIDGE NO. 22 REPLACEMENT PROJECT

FIVE MILE ROAD (C.R. 19) OVER ISCHUA CREEK

TOWN OF FRANKLINVILLE

COUNTY: CATTARAUGUS

DATE ISSUED: AUG. 2018

BRIDGES
BIN 3321400

CULVERTS

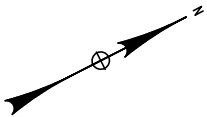
ALL DIMENSIONS IN FT UNLESS OTHERWISE NOTED

SHEAR, MOMENT AND MISCELLANEOUS STEEL TABLES

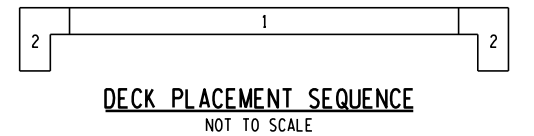
CONTRACT NO.

DRAWING NO. BR-10
SHEET NO. 22 OF 33

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.



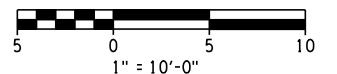
SCALE: 1" = 10'-0"




SUPERSTRUCTURE SLAB TABLE		
CONCRETE ITEM 557.0103	LONGITUDINAL SAWCUT GROOVING ITEM 558.02	PROTECTIVE SEALER ITEM 559.18960118
469 SY	422 SY	4,221 SF

NOTES:

1. DECK AND APPROACH SLAB REINFORCING BARS SHALL BE ASTM A1035 GRADE 100 CORROSION RESISTANT REINFORCING STEEL AND PAID FOR UNDER ITEMS 557.0103 AND 557.2003, RESPECTIVELY.
2. TOP SURFACES OF DECK AND APPROACH SLABS SHALL BE GROOVED UNDER THE SAWCUT GROOVING OF STRUCTURAL SLAB SURFACE ITEM.
3. DECK & APPROACH SLABS SHALL BE SEALED WITH PROTECTIVE SEALING FOR STRUCTURAL CONCRETE, ITEM 559.18960118.




AFFIX SEAL: ON:	8-10-2018	ALTERED BY: ON:	
			

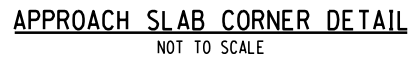
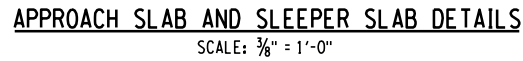
- DECK PLACEMENT NOTES:

1. 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.
2. LONGITUDINAL CONSTRUCTION JOINTS WILL NOT BE PERMITTED.
3. FINISHING MACHINE(S) SHALL BE OPERATED AS CLOSE TO THE SKEW ANGLE AS PRACTICABLE FOR SKEW ANGLES BETWEEN 0° AND 50°. WHEN THE SKEW ANGLE IS GREATER THAN 50° THE FINISHING MACHINE(S) SHALL BE OPERATED AT AN ANGLE OF 50°.
4. 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.
5. 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.

CONSTRUCTION PROCEDURE:

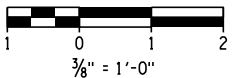
1. PLACE ABUTMENT STEM CONCRETE TO BRIDGE SEAT ELEVATION.
2. BACKFILL ABUTMENT STEMS TO 6" BELOW THE BRIDGE SEAT ELEVATION. NO BACKFILL OF THE ABUTMENT STEMS ALLOWED UNTIL THE ABUTMENTS HAVE CURED FOR 7 DAYS.
3. PLACE STONE FILLING (HEAVY).
4. ERECT GIRDERS AND INSTALL ALL DIAPHRAGMS. GIRDERS SHALL BE FABRICATED AND ERECTED SUCH THAT THE WEBS WILL BE VERTICAL UNDER FULL DEAD LOAD CONDITIONS.
5. AT EACH END OF THE BRIDGE, PLACE CONCRETE FOR DECK SLAB TO WITHIN 12 ft. OF THE CENTERLINE OF BEARINGS/ABUTMENT.
6. PLACE ABUTMENT BACKWALL AND REMAINING PORTION OF DECK CONCRETE. (ABUTMENT BACKWALL SHALL NOT BE PLACED UNTIL DECK SLAB HAS CURED FOR 3 DAYS.)
7. BACKFILL ABUTMENT BACKWALLS. NO BACKFILLING OF THE ABUTMENT IS ALLOWED UNTIL BACKWALLS HAVE CURED FOR 7 DAYS. BACKFILLING SHALL BE CONDUCTED SUCH THAT THE MAXIMUM DIFFERENTIAL IN FILL HEIGHT BETWEEN THE TWO STEMS (AS MEASURED FROM THE BOTTOM OF THE STEM) DOES NOT EXCEED 2 ft. IN ADDITION, THE FILL HEIGHT BEHIND ANY SINGLE ABUTMENT STEM SHALL NOT VARY MORE THAN 2 ft.
8. PLACE CONCRETE APPROACH FOR APPROACH SLABS.

AS-BUILT REVISIONS DESCRIPTION OF ALTERATIONS:	FRANKLINVILLE BRIDGE NO. 22 REPLACEMENT PROJECT	BRIDGES	CULVERTS	ALL DIMENSIONS IN FT UNLESS OTHERWISE NOTED	CONTRACT NO.	
	FIVE MILE ROAD (C.R. 19) OVER ISCHUA CREEK					
	TOWN OF FRANKLINVILLE					
	COUNTY: CATTARAUGUS REGION: 5					
DATE ISSUED: AUG. 2018		BIN 3321400	DECK REINFORCEMENT PLAN		DRAWING NO. BR-11 SHEET NO. 23 OF 33	
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.						CATTARAUGUS COUNTY DEPARTMENT OF PUBLIC WORKS DOCUMENT NAME: CR19-br-g22.cpb.slb.sup.dgn



NOTES:

1. 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. 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 .004 in. THICK, AND LAPS SHALL BE 2 ft. MINIMUM.
2. TOP SURFACES OF DECK AND APPROACH SLABS SHALL BE GROOVED UNDER THE SAWCUT GROOVING OF STRUCTURAL SLAB SURFACE ITEM.
3. DECK & APPROACH SLABS SHALL BE SEALED WITH PROTECTIVE SEALING FOR STRUCTURAL CONCRETE, ITEM 559.18960118.
4. ALL REINFORCEMENT SHALL HAVE 3 in. COVER UNLESS OTHERWISE NOTED.
5. DECK AND APPROACH SLAB REINFORCING BARS SHALL BE ASTM A1035 GRADE 100 CORROSION RESISTANT REINFORCING STEEL AND PAID FOR UNDER ITEMS 557.0103 AND 557.2003, RESPECTIVELY.
6. FOR THE CONSTRUCTION PROCEDURE, SEE DWG. BR-11.
7. 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.



AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

FRANKLINVILLE BRIDGE NO. 22 REPLACEMENT PROJECT

FIVE MILE ROAD (C.R. 19) OVER ISCHUA CREEK

TOWN OF FRANKLINVILLE

REGION: 5

DATE ISSUED: AUG. 2018

BRIDGES

BIN 3321400

CULVERTS

ALL DIMENSIONS IN FT UNLESS OTHERWISE NOTED

APPROACH SLAB DETAILS

CONTRACT NO.	
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DRAWING NO. BR-12

SHEET NO. 24 OF 33

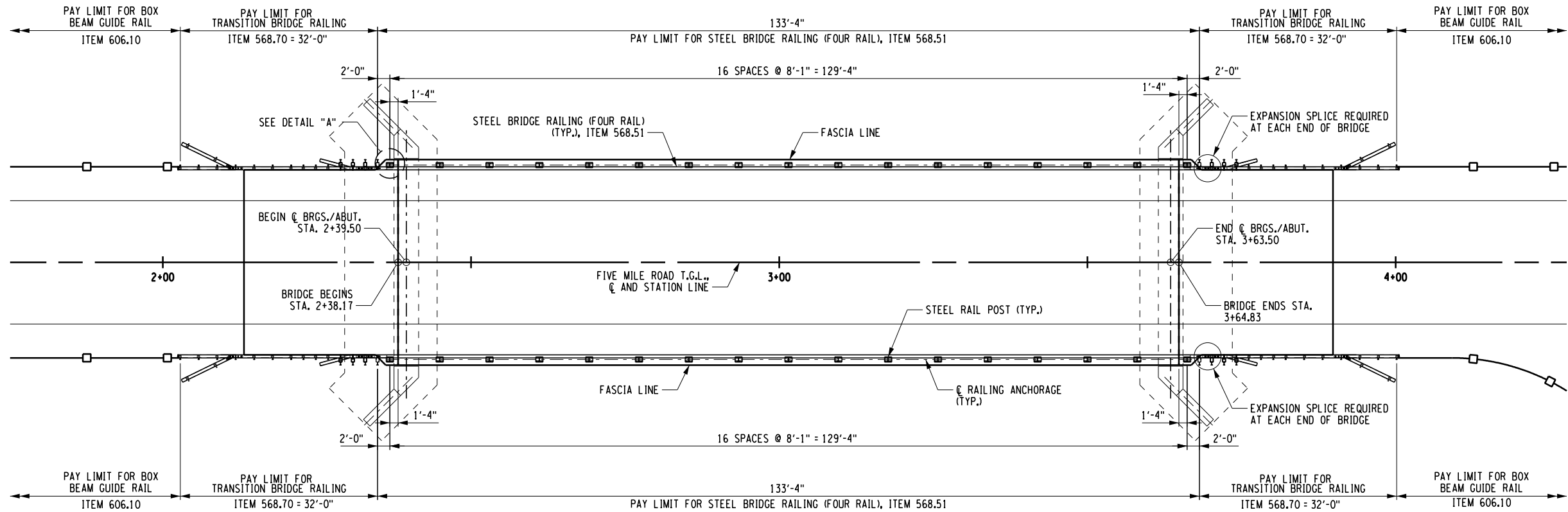
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CATTARAUGUS COUNTY DEPARTMENT OF PUBLIC WORKS

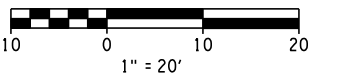
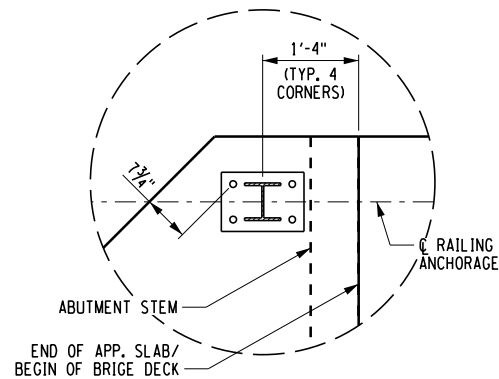
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DESIGN SUPERVISOR
JOB MANAGER
DESIGN M. SAVINO
CHECK D. JENKINSON
DRAFTING M. SAVINO
CHECK M. LAISTNER
PROJECT MANAGER M. LAISTNER



RAILING LAYOUT PLAN
SCALE: 1" = 20'-0"



AFFIX SEAL: ON: 8-10-2018	ALTERED BY: ON:
	

AS-BUILT REVISIONS DESCRIPTION OF ALTERATIONS:	FRANKLINVILLE BRIDGE NO. 22 REPLACEMENT PROJECT	BRIDGES	CULVERTS	ALL DIMENSIONS IN FT UNLESS OTHERWISE NOTED	CONTRACT NO.
	FIVE MILE ROAD (C.R. 19) OVER ISCHUA CREEK	BIN 3321400		RAILING LAYOUT PLAN	DRAWING NO. BR-13
	TOWN OF FRANKLINVILLE	DATE ISSUED: AUG. 2018			SHEET NO. 25 OF 33
	COUNTY: CATTARAUGUS REGION: 5				
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.					
CATTARAUGUS COUNTY DEPARTMENT OF PUBLIC WORKS DOCUMENT NAME: CR19_brg22_cpb.rlg.dgn					

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DESIGN SUPERVISOR

JOB MANAGER

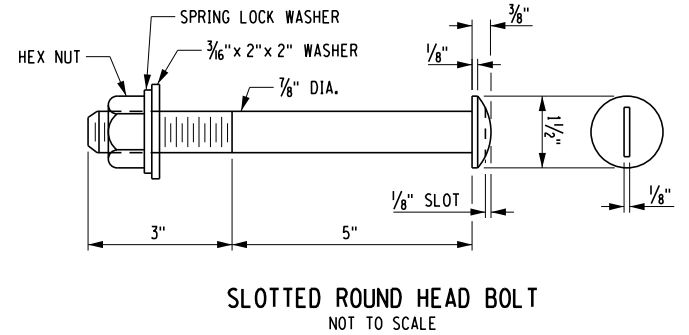
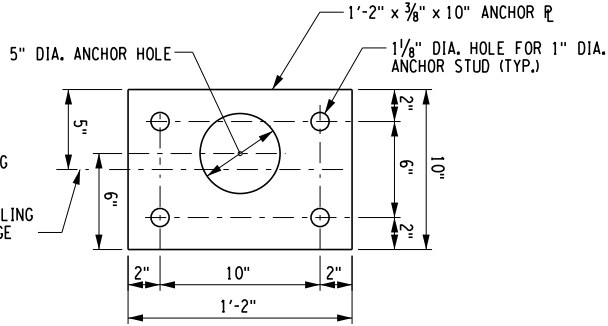
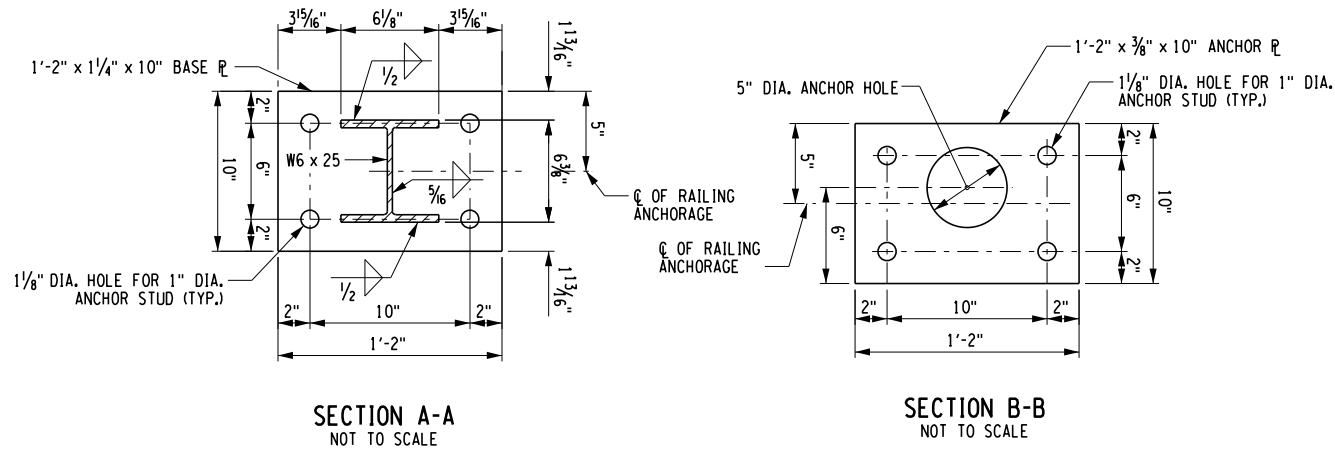
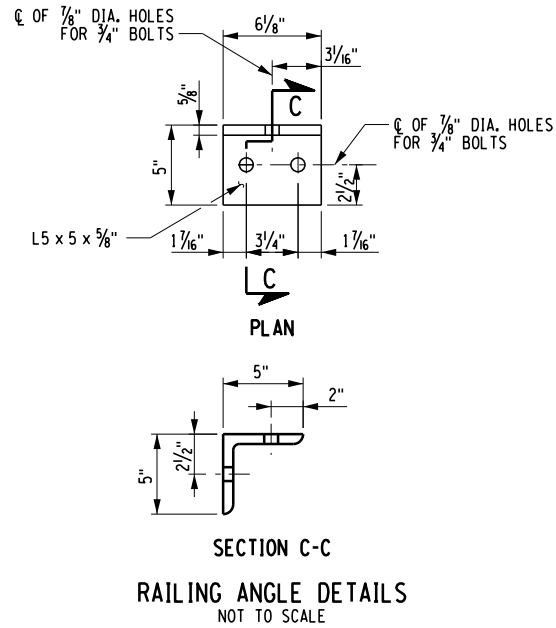
DESIGN M. SAVINO

CHECK D. JENKINSON

DRAFTING M. SAVINO


CHECK M. LAISTNER

PROJECT MANAGER M. LAISTNER



- NOTES:
1. ALL RAILING IS TO BE FABRICATED AND ERECTED ACCORDING TO SECTION 568 OF THE STANDARD SPECIFICATIONS.
 2. PRIOR TO GALVANIZING THE ASSEMBLED POST, GRIND ALL EDGES TO A MINIMUM RADIUS OF 1/16".
 3. BOLTS SHALL BE TORQUED SNUG TIGHT (APPROXIMATELY 100 ft-lb.)
 4. 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.

AFFIX SEAL: ON: 8-10-2018	ALTERED BY: ON:

AS-BUILT REVISIONS DESCRIPTION OF ALTERATIONS:	FRANKLINVILLE BRIDGE NO. 22 REPLACEMENT PROJECT	DATE ISSUED: AUG. 2018	BRIDGES	CULVERTS	ALL DIMENSIONS IN FT UNLESS OTHERWISE NOTED	CONTRACT NO.	
	FIVE MILE ROAD (C.R. 19) OVER ISCHUA CREEK		BIN 3321400	RAILING DETAILS-1			DRAWING NO. BR-14
	TOWN OF FRANKLINVILLE						SHEET NO. 26 OF 33
	COUNTY: CATTARAUGUS REGION: 5						
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USER = \$USER\$

DESIGN SUPERVISOR

JOB MANAGER

DESIGN M. SAVINO

CHECK D. JENKINSON

DRAFTING M. SAVINO

CHECK M. LAISTNER

PROJECT MANAGER M. LAISTNER

AFFIX SEAL:
ON: 8-10-2018

ALTERED BY:
ON:



AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

FRANKLINVILLE BRIDGE NO. 22 REPLACEMENT PROJECT

FIVE MILE ROAD (C.R. 19) OVER ISCHUA CREEK

TOWN OF FRANKLINVILLE

COUNTY: CATTARAUGUS

REGION: 5

DATE ISSUED: AUG. 2018

BRIDGES

CULVERTS

BIN 3321400

ALL DIMENSIONS IN FT UNLESS OTHERWISE NOTED

RAILING DETAILS-2

CONTRACT NO.

DRAWING NO. BR-15

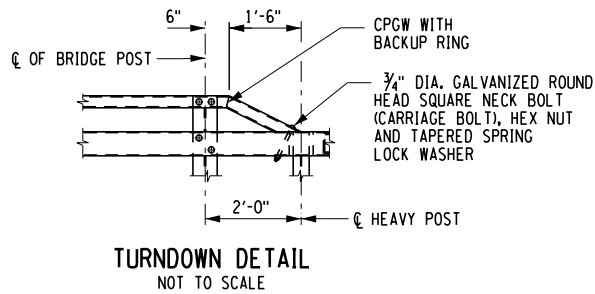
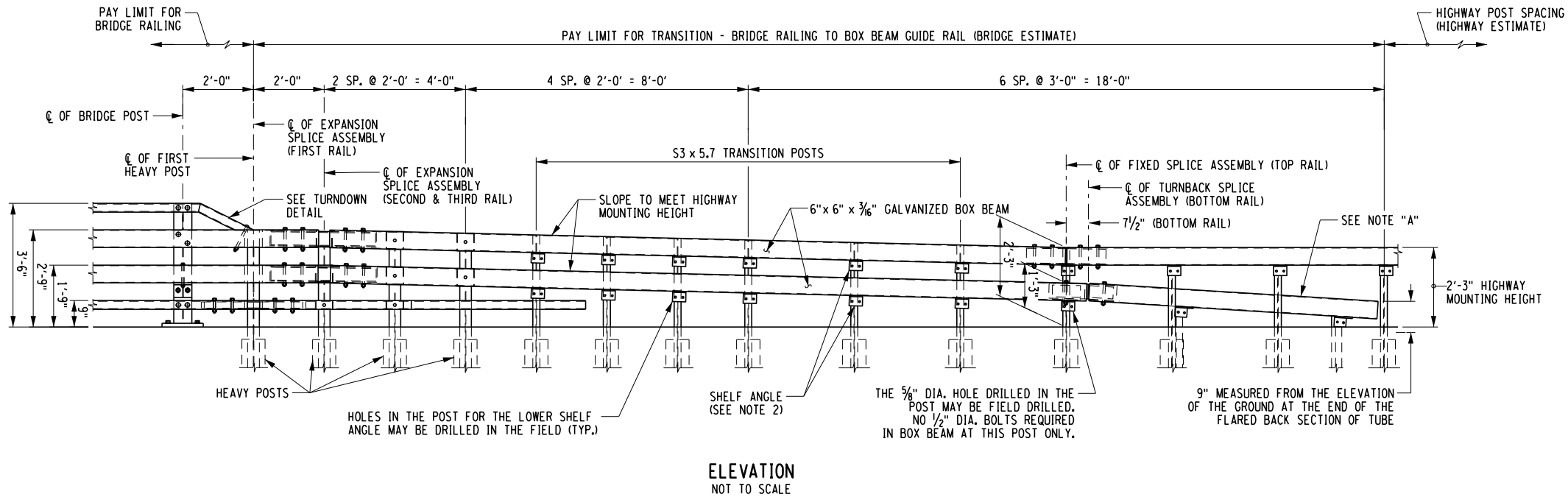
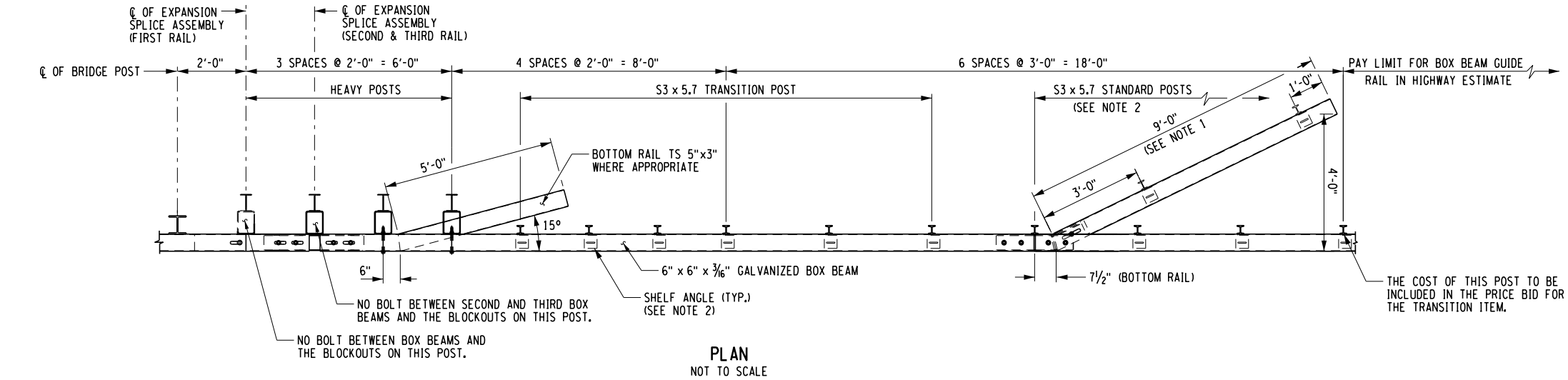
SHEET NO. 27 OF 33



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.

CATTARAUGUS COUNTY DEPARTMENT OF PUBLIC WORKS

DOCUMENT NAME: CR19_brg22_cpb.r1g.dgn



NOTES:

1. THE COST OF THE POSTS, SPLICE TUBE AND RAIL FOR THE LOWER TUBE FLARE SECTION IS INCLUDED IN THE PRICE BID FOR THE TRANSITION ITEM.
2. SEE TYPICAL RAIL TO POST CONNECTION DETAIL ON CURRENT HIGHWAY STANDARD SHEET TITLED "BOX BEAM GUIDE RAIL".
3. PROTRUSIONS CAUSED BY WELDING OR GALVANIZING ARE NOT PERMITTED ON THE ADJOINING SURFACES OF THE BOX BEAM RAILS, SPLICE TUBES AND FILL PLATES.
4. 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.

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DESIGN SUPERVISOR

DESIGN M. SAVINO

CHECK

D. JENKINSON

DRAFTING M. SAVINO

CHECK M. LAISTNER

PROJECT MANAGER M. LAISTNER

AFFIX SEAL:
ON: 8-10-2018



ALTERED BY:
ON:

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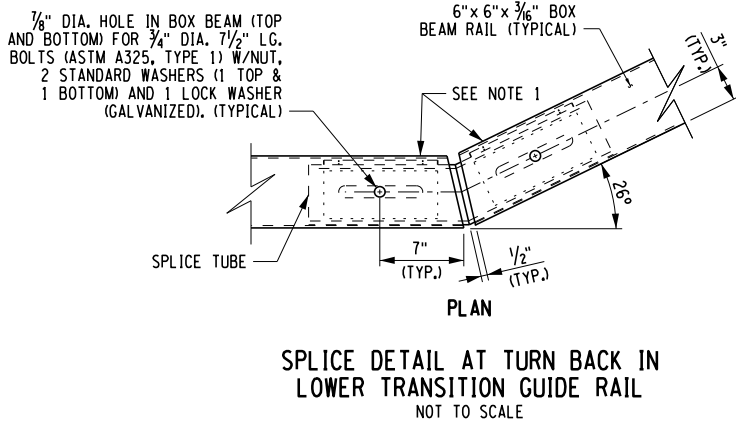
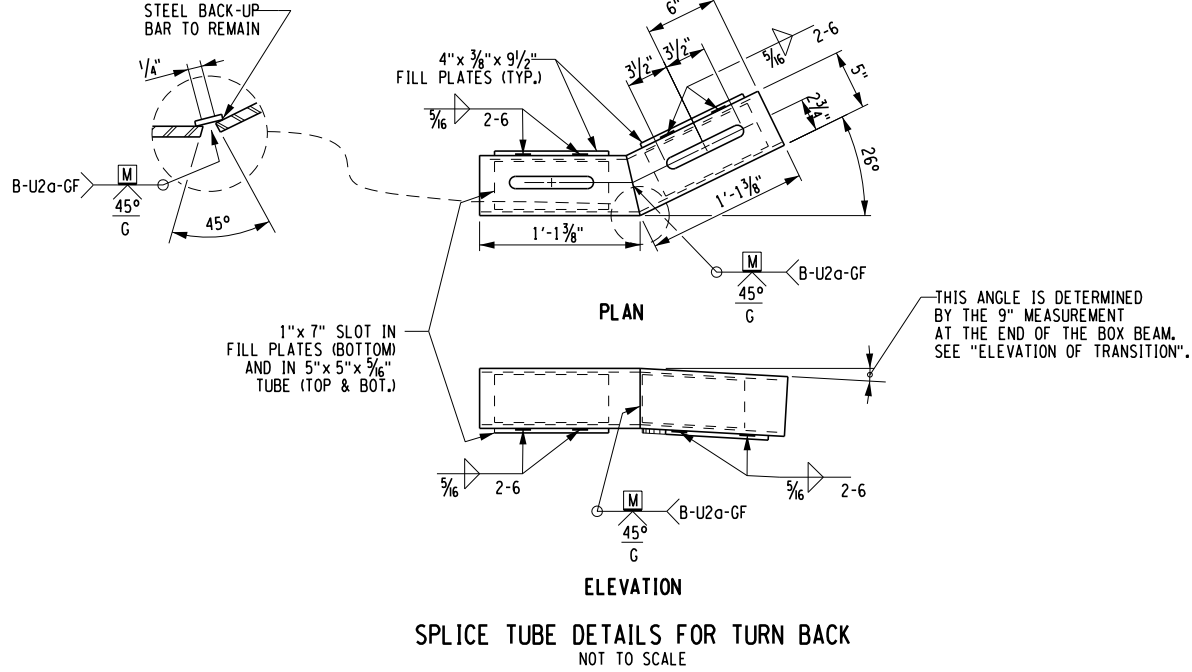
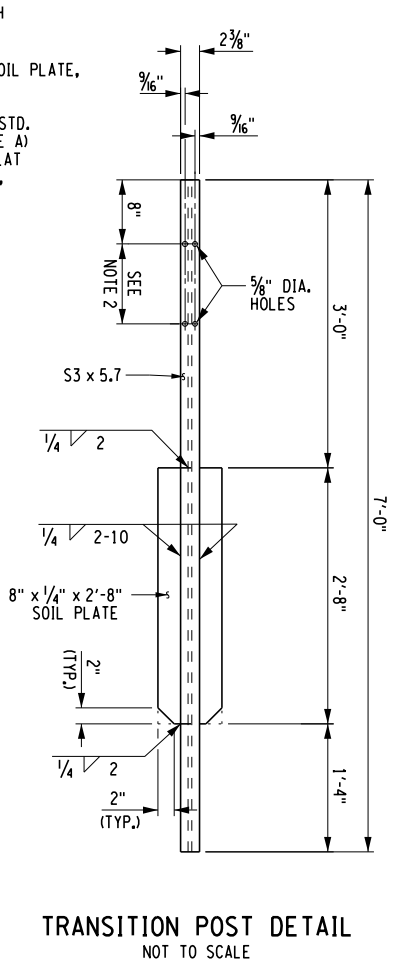
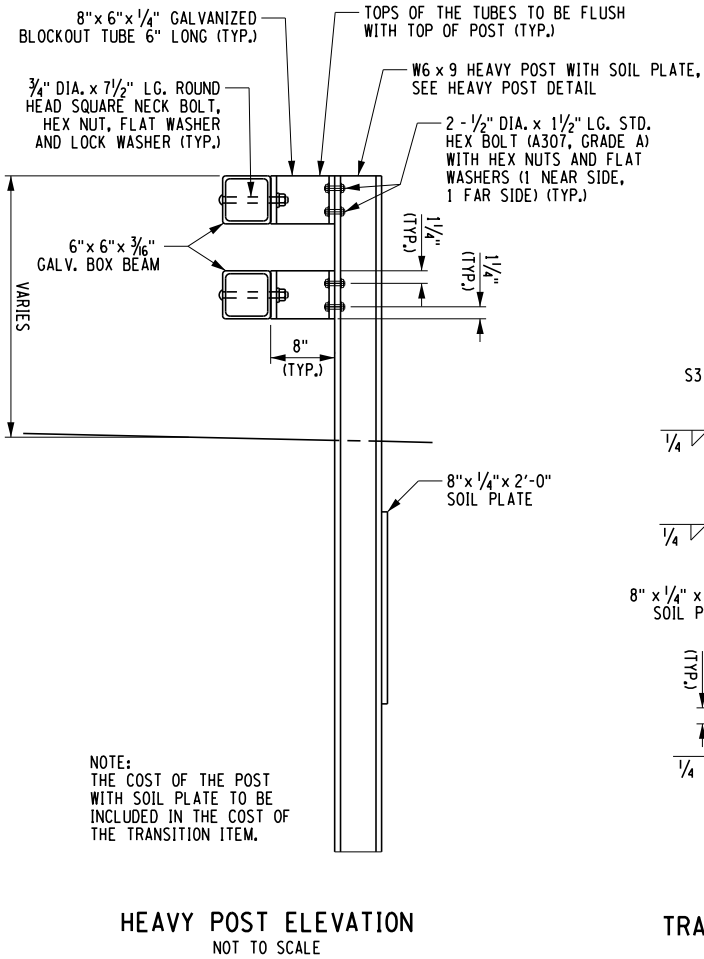
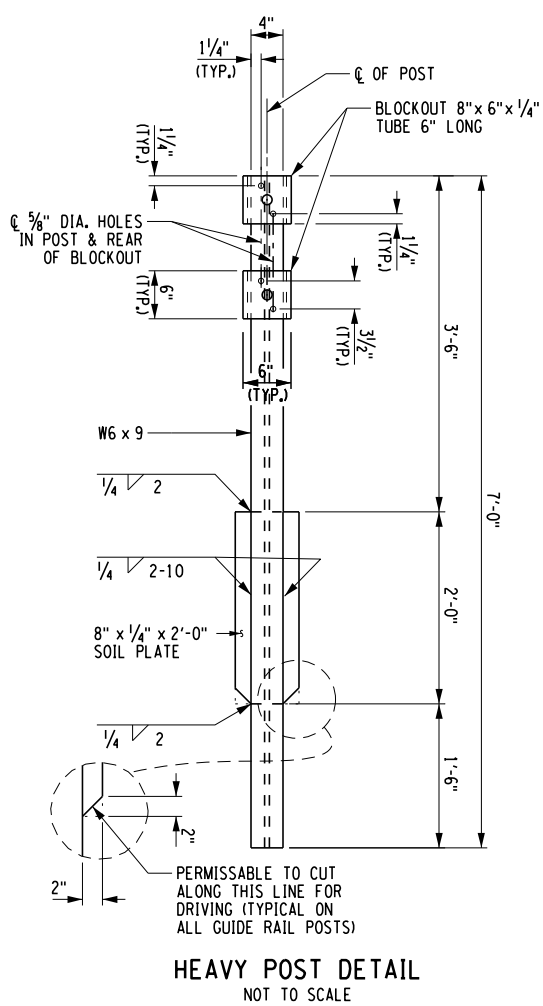
FRANKLINVILLE BRIDGE NO. 22 REPLACEMENT PROJECT

FIVE MILE ROAD (C.R. 19) OVER ISCHUA CREEK

TOWN OF FRANKLINVILLE

COUNTY: CATTARAUGUS REGION: 5

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.



- NOTES:
- PROTRUSIONS CAUSED BY WELDING OR GALVANIZING ARE NOT PERMITTED ON THE ADJOINING SURFACES OF THE BOX BEAM RAILS, SPLICE TUBES AND FILL PLATES.
 - HOLES IN THE POST FOR THE LOWER RAIL MAY BE LOCATED AND DRILLED IN THE FIELD. IF SO, THE GALVANIZING SHALL BE REPAIRED IN ACCORDANCE WITH SUBSECTION 719-01.
 - 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.

DATE ISSUED: AUG. 2018	BRIDGES BIN 3321400	CULVERTS	ALL DIMENSIONS IN FT UNLESS OTHERWISE NOTED	CONTRACT NO.
				DRAWING NO. BR-16 SHEET NO. 28 OF 33

CATTARAUGUS COUNTY DEPARTMENT OF PUBLIC WORKS
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DESIGN SUPERVISOR

DESIGN M. SAVINO


CHECK D. JENKINSON

DRAFTING M. SAVINO

CHECK M. LAISTNER


PROJECT MANAGER M. LAISTNER

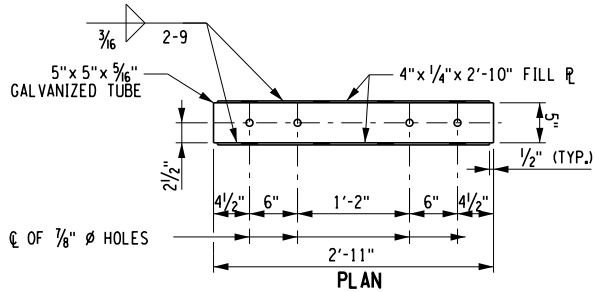
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ON: 8-10-2018



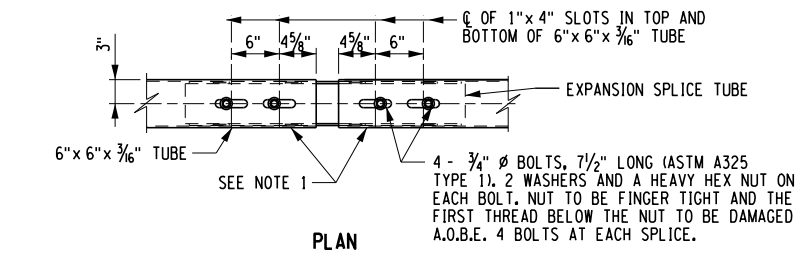
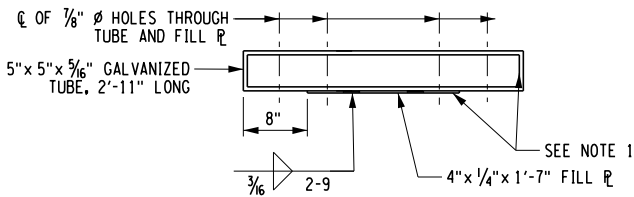
Mark R. Laistner
Licensed Professional Engineer

ALTERED BY:
ON:

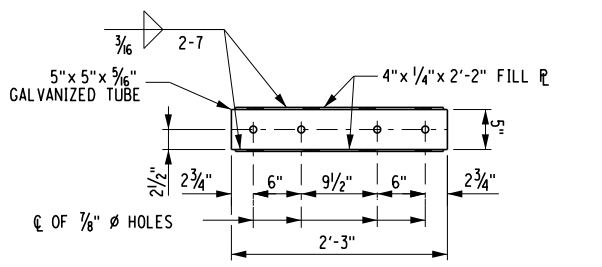
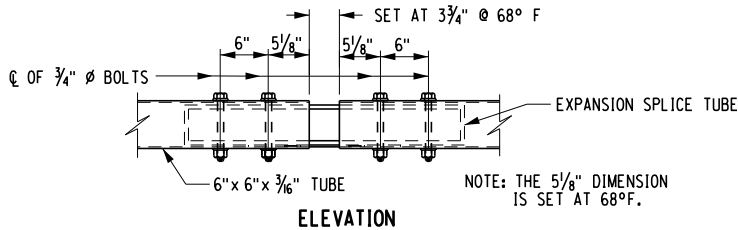
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			BIN 3321400	RAILING DETAILS-4			
	FIVE MILE ROAD (C.R. 19) OVER ISCHUA CREEK						
	TOWN OF FRANKLINVILLE					DRAWING NO. BR-17	
	COUNTY: CATTARAUGUS REGION: 5					SHEET NO. 29 OF 33	
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING 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.							CATTARAUGUS COUNTY DEPARTMENT OF PUBLIC WORKS
							DOCUMENT NAME: CR19_brg22_cpb.rlg.dgn



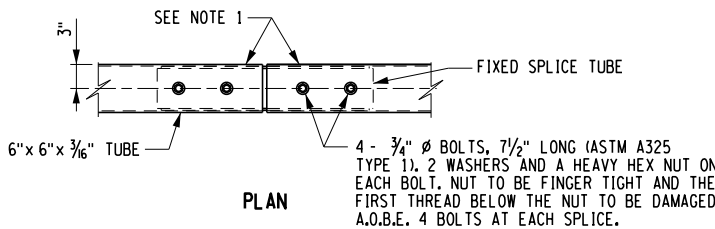
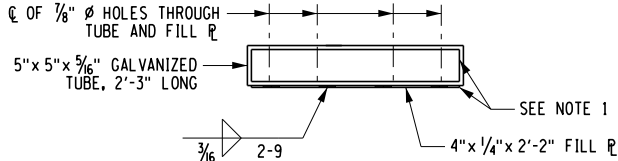
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EXPANSION SPLICE TUBE



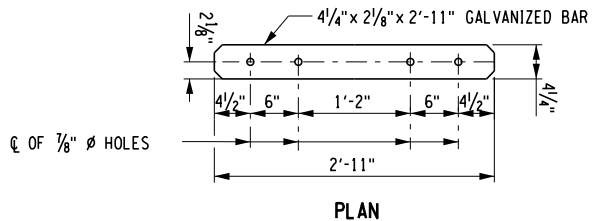
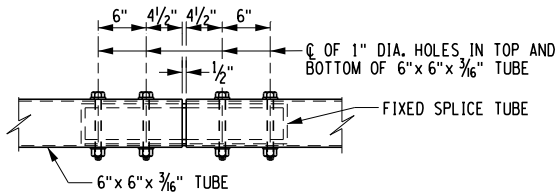
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EXPANSION SPLICE TUBE ASSEMBLY



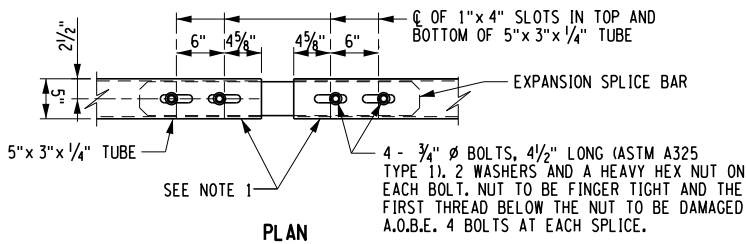
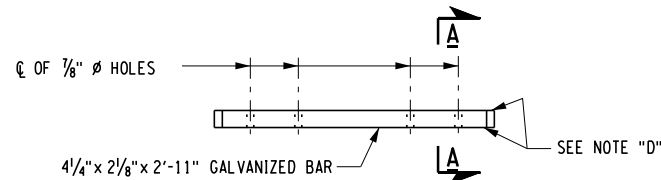
ELEVATION
FIXED SPLICE TUBE



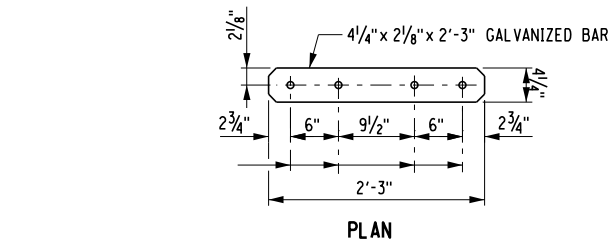
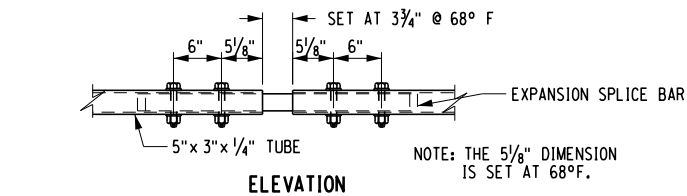
ELEVATION
FIXED SPLICE TUBE ASSEMBLY



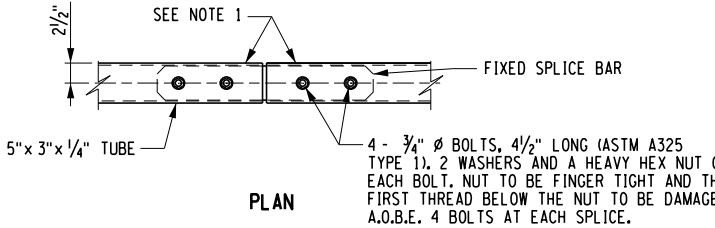
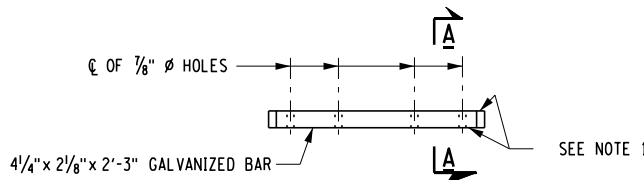
ELEVATION
EXPANSION SPLICE BAR



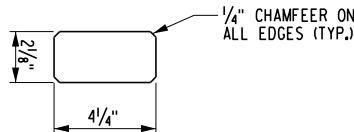
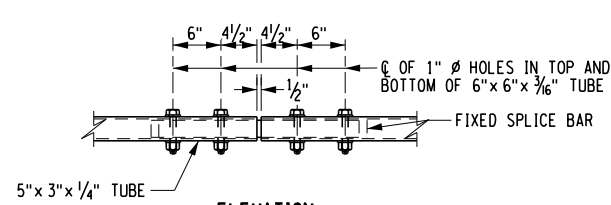
ELEVATION
EXPANSION SPLICE BAR ASSEMBLY



ELEVATION
FIXED SPLICE BAR



ELEVATION
FIXED SPLICE BAR ASSEMBLY




SECTION A-A


NOTES:

1. PROTRUSIONS CAUSED BY WELDING OR GALVANIZING ARE NOT PERMITTED ON THE ADJOINING SURFACES OF THE BOX BEAM RAILS, SPLICE TUBES AND FILL PLATES.
2. 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.

ESTIMATE OF QUANTITIES				
ITEM NO.	DESCRIPTION	UNIT	ESTIMATE	FINAL
619.01	BASIC WORK ZONE TRAFFIC CONTROL	LS	1	
619.04	TYPE III CONSTRUCTION BARRICADE	EACH	12	
0619.0604	TEMPORARY STRUCTURES AND APPROACHES	EACH	1	
619.100101	INTERIM PAVEMENT MARKINGS, STRIPES (TRAFFIC PAINT)	LF	3,185	
619.1301	TEMPORARY TRAFFIC SIGNALS	ELOC	1	
619.1703	TEMPORARY CONCRETE BARRIER, (PINNED)	LF	710	
620.05	STONE FILLING (HEAVY)	CY	325	
620.08	BEDDING MATERIAL	CY	50	
625.01	SURVEY OPERATIONS	LS	1	
637.03	CONCRETE CYLINDER CURING BOX	EACH	1	
637.11	ENGINEER'S FIELD OFFICE - TYPE 1	MNTH	6	
637.34	OFFICE TECHNOLOGY AND SUPPLIES	DC	1,000	
698.04	ASPHALT PRICE ADJUSTMENT	DC	100	
698.05	FUEL PRICE ADJUSTMENT	DC	100	
698.06	STEEL/IRON PRICE ADJUSTMENT	DC	100	
699.040001	MOBILIZATION	LS	1	

FRANKLINVILLE BRIDGE NO. 22 REPLACEMENT PROJECT	DATE ISSUED: AUG. 2018	BRIDGES BIN 3321400	CULVERTS	ALL DIMENSIONS IN FT UNLESS OTHERWISE NOTED	CONTRACT NO.	
FIVE MILE ROAD (C.R. 19) OVER ISCHUA CREEK				ESTIMATE OF QUANTITIES	DRAWING NO. EST-01 SHEET NO. 30 OF 33	
TOWN OF FRANKLINVILLE						
COUNTY: CATTARAUGUS						

DATE
STARTED
FINISHED
SHEET OF



SJB SERVICES, INC.
SUBSURFACE LOG

PROJ. No.
HOLE No.
SURF. ELEV.
G.W. DEPTH

PROJECTLOCATION

DEPTH (ft)
SAMPLES
SAMPLE NO.
BLOWS ON SAMPLER
BLOWS ON CASING C

0	6	12	18	24	N
1	3	3	4	8	7
10					
15					
50/5					
5					
6					
7					
8					
9					
10					

SOIL OR ROCK CLASSIFICATION

NOTES

TABLE I

Split Spoon Sample

Shelby Tube Sample

Geoprobe Macro-Core

Auger or Test Pit Sample

Rock Core

TABLE II

Identification of soil type is made on basis of an estimate of particle sizes, and in the case of fine grained soils also on basis of plasticity.

Soil Type	Soil Particle Size	
Boulder	>12"	
Cobble	3" - 12"	
Gravel - Coarse	3/4" - 3/4"	Coarse Grained (Granular)
- Fine	#4 - #4	
Sand - Coarse	#4 - #10	
- Medium	#10 - #40	
- Fine	#40 - #200	
Silt - Non Plastic (Granular)	<#200	Fine Grained
Clay - Plastic (Cohesive)		

TABLE III

The following terms are used in classifying soils consisting of mixtures of two or more soil types. The estimate is based on weight of total sample.

Term	Percent of Total Sample
"and"	35 - 50
"some"	20 - 35
"little"	10 - 20
"trace"	less than 10

(When sampling gravelly soils with a standard split spoon, the true percentage of gravel is often not recovered due to the relatively small sampler diameter.)

TABLE IV

The relative compactness or consistency is described in accordance with the following terms:

Granular Soils	Cohesive Soils		
Term	Blows per Foot, N	Term	Blows per Foot, N
Loose	0 - 4	Very Soft	0 - 2
Loose	4 - 10	Soft	2 - 4
Firm	10 - 30	Medium	4 - 8
Compact	30 - 50	Stiff	8 - 15
Very Compact	>50	Very Stiff	15 - 30
		Hard	>30

(Large particles in the soils will often significantly influence the blows per foot recorded during the penetration test)

TABLE V

Varved

Horizontal uniform layers or seams of soil(s).

Layer

Soil deposit more than 6" thick.

Seam

Soil deposit less than 6" thick.

Parting

Soil deposit less than 1/8" thick.

Laminated

Irregular, horizontal and angled seams and partings of soil(s).


TABLE VI

Rock Classification Term	Meaning	Rock Classification Term	Meaning
Hardness	- Soft - Medium Hard - Hard - Very Hard	Bedding	- Laminated (<1") - Thin Bedded (1" - 4") - Bedded (4" - 12") - Thick Bedded (12" - 36") - Massive (>36")
Weathering	- Very Weathered - Weathered - Sound		

Judged from the relative amounts of disintegration, iron staining, core recovery, clay seams, etc.

(Fracturing refers to natural breaks in the rock oriented at some angle to the rock layers)

DATE
START
FINISH
SHEET OF



SJB SERVICES, INC.
SUBSURFACE LOG

HOLE NO. B-1
SURF. ELEV. 1543.7'
G.W. DEPTH See Notes

PROJECT: FRANKLINVILLE BRIDGE NO. 22 REPLACEMENT LOCATION: CR 19 OVER ISCHUA CREEK
PROJ. NO.: BE-17-049CATTARAUGUS COUNTY, NY

DEPTH
FT.

	SAMPL NO.	B/S	6/12	12/18	N
	1	2	1		
		3	4		4
	2	4	2		
		2	4		4
	3	2	8		
		4	1		12
	4	3	10		
		10	5		20
	5	4	8		
		10	9		18
	6	4	5		
		6	8		11
	7	6	7		
		8	11		15
	8	3	7		
		8	9		15
	9	6	8		
		10	12		18
	10	3	5		
		6	4		11
	11	4	5		
		3	3		8


SOIL OR ROCK CLASSIFICATION

NOTES

N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW
DRILLER: B. DELUDE / S. WOLKIEWICZ
METHOD OF INVESTIGATION ASTM D-1586 USING HOLLOW STEM AUGERS

CLASSIFIED BY: Geologist
DRILL RIG TYPE: DIEDRICH D-50 / CME-550X

DATE
START
FINISH
SHEET OF



SJB SERVICES, INC.
SUBSURFACE LOG

HOLE NO. B-1
SURF. ELEV. 1543.7'
G.W. DEPTH See Notes

PROJECT: FRANKLINVILLE BRIDGE NO. 22 REPLACEMENT LOCATION: CR 19 OVER ISCHUA CREEK
PROJ. NO.: BE-17-049CATTARAUGUS COUNTY, NY

DEPTH
FT.

	SAMPL NO.	B/S	6/12	12/18	N
	12	4	24		
		28	15		52
	13	8	15		
		25	24		40
	14	1	2		
		3	3		5
	15	WOH	WOH		WOH
		WOH	4		WOH
	16	2	2		
		3	4		5
	17	WOH	WOH		
		2	3		2
	18	2	2		
		2	2		4
	19	2	2		
		3	4		5

SOIL OR ROCK CLASSIFICATION

NOTES

N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW
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CLASSIFIED BY: Geologist
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FRANKLINVILLE BRIDGE NO. 22 REPLACEMENT PROJECT

FIVE MILE ROAD (C.R. 19) OVER ISCHUA CREEK

TOWN OF FRANKLINVILLE

COUNTY: CATTARAUGUS

DATE ISSUED: AUG. 2018

BRIDGES
BIN 3321400

CULVERTS

ALL DIMENSIONS IN FT UNLESS OTHERWISE NOTED

SUBSURFACE LOG-1

CONTRACT NO.

DRAWING NO. GEO-01


SHEET NO. 31 OF 33

CATTARAUGUS COUNTY DEPARTMENT OF PUBLIC WORKS

DOCUMENT NAME: CR19_brg22_cpb_geo_gsp.dgn

DATE:
START 3/30/2017
FINISH 3/31/2017
SHEET 1 OF 3

SJB SERVICES, INC.
SUBSURFACE LOG



HOLE NO. B-2
SURF. ELEV 1550.8'
G.W. DEPTH See Notes


PROJECT: FRANKLINVILLE BRIDGE NO. 22 REPLACEMENT LOCATION: CR 19 OVER ISCHUA CREEK
PROJ. NO.: BE-17-049 CATTARAUGUS COUNTY, NY

DEPTH FT.	SAMPL NO.	BLOWS ON SAMPLER				SOIL OR ROCK CLASSIFICATION	NOTES
		0/6	6/12	12/18	N		
5	1	-	31			ASPHALT	Driller noted Asphalt at the ground surface
		25	25		56	Brown f-c GRAVEL and f-c Sand, tr.silt (moist, FILL)	
	2	16	10			Brown Silty CLAY, some f-c Gravel, some f-c Sand (moist, FILL)	
		5	5		15	Brown f-c SAND, some f-c Gravel, some Clayey Silt (moist, FILL)	
	3	6	5			Brown Silty CLAY and f-c Sand, little f-c Gravel (moist, FILL)	
10	4	4	6			Brown Silty CLAY, little f-c Sand, little f-c Gravel (moist, FILL)	Contains some f-c Gravel, some f-c Sand (v.stiff)
		4	3		10	Brown Silty CLAY, little f-c Sand, little f-c Gravel (moist, medium, CL)	
	5	3	2				
		5	4		7		
	6	4	6				
15		10	16		16		Poor Recovery Sample #7
	7	8	10				
		9	9		19		
20	8	2	6			Brown f-c GRAVEL, some f-c Sand, little Clayey Silt (wet, firm, GM-GC)	
		10	11		16		
25	9	6	12			Brown f-c SAND, little f-c Gravel, little Clayey Silt (wet, firm, SM-SC)	
		10	9		22		
30	10	9	18			Contains tr.clayey silt (compact, SP)	
		27	21		45		
35	11	15	14			Brown f-c GRAVEL, little f-c Sand, tr.clayey silt (wet, firm, GM-GC)	
		16	22		30		
40							

N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW CLASSIFIED BY: Geologist
DRILLER: B. DELUDE DRILL RIG TYPE: DIEDRICH D-50
METHOD OF INVESTIGATION ASTM D-1586 USING HOLLOW STEM AUGERS

DATE:
START 3/30/2017
FINISH 3/31/2017
SHEET 2 OF 3

SJB SERVICES, INC.
SUBSURFACE LOG



HOLE NO. B-2
SURF. ELEV 1550.8'
G.W. DEPTH See Notes


PROJECT: FRANKLINVILLE BRIDGE NO. 22 REPLACEMENT LOCATION: CR 19 OVER ISCHUA CREEK
PROJ. NO.: BE-17-049 CATTARAUGUS COUNTY, NY

DEPTH FT.	SAMPL NO.	BLOWS ON SAMPLER				SOIL OR ROCK CLASSIFICATION	NOTES
		0/6	6/12	12/18	N		
45	12	7	11			Brown f-c SAND, some f-c Gravel, little Clayey Silt (wet, firm, SM-SC)	
		12	17		23		
50	13	8	10			Brown f-c GRAVEL, little f-c Sand, little Clayey Silt (wet, firm, GM-GC)	
		15	14		25		
55	14	3	4			Gray Clayey SILT, tr.sand (moist-wet, stiff, ML)	
		7	7		11		
60	15	4	5				
		6	6		11		
65	16	3	3				(medium)
		5	5		8		
70	17	4	3				(soft)
		3	3		6		
75	18	1	1				(wet)
		2	4		3		
80	19	2	1				
		2	3		3		

N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW CLASSIFIED BY: Geologist
DRILLER: B. DELUDE DRILL RIG TYPE: DIEDRICH D-50
METHOD OF INVESTIGATION ASTM D-1586 USING HOLLOW STEM AUGERS

DATE:
START 3/30/2017
FINISH 3/31/2017
SHEET 3 OF 3

SJB SERVICES, INC.
SUBSURFACE LOG



HOLE NO. B-2
SURF. ELEV 1550.8'
G.W. DEPTH See Notes


PROJECT: FRANKLINVILLE BRIDGE NO. 22 REPLACEMENT LOCATION: CR 19 OVER ISCHUA CREEK
PROJ. NO.: BE-17-049 CATTARAUGUS COUNTY, NY

DEPTH FT.	SAMPL NO.	BLOWS ON SAMPLER				SOIL OR ROCK CLASSIFICATION	NOTES
		0/6	6/12	12/18	N		
85	20	WOH	2			Contains some f-c Gravel, some f-c Sand (medium)	WOH = Weight of Hammer and Rods
		3	3		5		
90	21	3	4			Contains tr.sand, tr.gravel (moist-wet, stiff)	
		4	7		8		
95	22	4	3			Gray Silty CLAY, tr.sand (wet, medium, CL)	
		3	5		6		
100	23	4	4				
		3	8		7		
	24	3	4			Gray Clayey SILT, tr.sand (moist-wet, stiff, ML)	
		4	8		8		
						Boring Complete at 100.0'	Free Standing Water recorded at 22' at Boring Completion

N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW CLASSIFIED BY: Geologist
DRILLER: B. DELUDE DRILL RIG TYPE: DIEDRICH D-50
METHOD OF INVESTIGATION ASTM D-1586 USING HOLLOW STEM AUGERS

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FRANKLINVILLE BRIDGE NO. 22 REPLACEMENT PROJECT	DATE ISSUED: AUG. 2018	BRIDGES	CULVERTS	ALL DIMENSIONS IN FT UNLESS OTHERWISE NOTED	CONTRACT NO.	
FIVE MILE ROAD (C.R. 19) OVER ISCHUA CREEK		BIN 3321400	SUBSURFACE LOG-2	DRAWING NO. GEO-02 SHEET NO. 32 OF 33		
TOWN OF FRANKLINVILLE						
COUNTY: CATTARAUGUS REGION: 5						

CATTARAUGUS COUNTY DEPARTMENT OF PUBLIC WORKS
DOCUMENT NAME: CR19_brg22_cpb_geo_gsp.dgn

DATE:
START
FINISH
SHEET


3/30/2017

3/31/2017

3 OF 3

SJB SERVICES, INC.

SUBSURFACE LOG



HOLE NO. B-2

SURF. ELEV 1550.8'

G.W. DEPTH See Notes

PROJECT: FRANKLINVILLE BRIDGE NO. 22 REPLACEMENT

LOCATION: CR 19 OVER ISCHUA CREEK

PRCJ. NO.: BE-17-049

CATTARAUGUS COUNTY, NY

DEPTH FT.	SMPL NO.	BLOWS ON SAMPLER				SOIL OR ROCK CLASSIFICATION	NOTES
		6/6	6/12	12/18	N		
	20	WOH	2			Contains some F-c Gravel, some F-c Sand (medium)	WOH = Weight of Hammer and Rods
		3	3		5		
85	21	3	4			Contains tr.sand, tr.gravel (moist-wet, stiff)	
		4	7		8		
90	22	4	3			Gray Silty CLAY, tr.sand (wet, medium, CL)	
		3	5		6		
95	23	4	4				
		3	8		7		
100	24	3	4			Gray Clayey SILT, tr.sand (moist-wet, stiff, ML)	
		4	8		8		
						Boring Complete at 100.0'	Free Standing Water recorded at 22' at Boring Completion

N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW

CLASSIFIED BY: Geologist


DRILLER: B. DELUDE

DRILL RIG TYPE: DIEDRICH D-50

METHOD OF INVESTIGATION ASTM D-1586 USING HOLLOW STEM AUGERS

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FRANKLINVILLE BRIDGE NO. 22 REPLACEMENT PROJECT	DATE ISSUED: AUG. 2018	BRIDGES	CULVERTS	ALL DIMENSIONS IN FT UNLESS OTHERWISE NOTED	CONTRACT NO.	
FIVE MILE ROAD (C.R. 19) OVER ISCHUA CREEK		BIN 3321400	SUBSURFACE LOG-3		DRAWING NO. GEO-03	
TOWN OF FRANKLINVILLE					SHEET NO. 33 OF 33	
COUNTY: CATTARAUGUS		REGION: 5	CATTARAUGUS COUNTY DEPARTMENT OF PUBLIC WORKS			

DOCUMENT NAME: CR19_brg22_cpb_geo_gsp.dgn