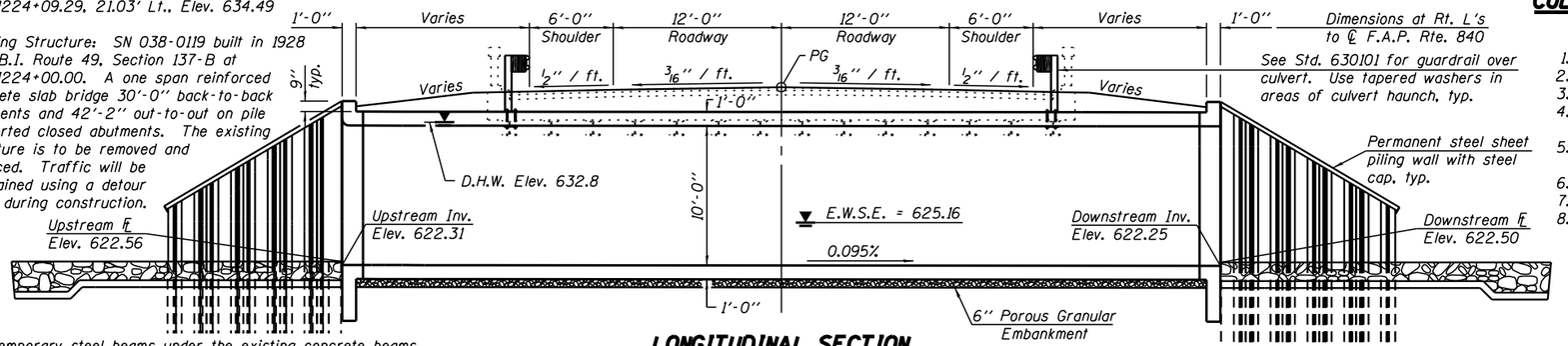
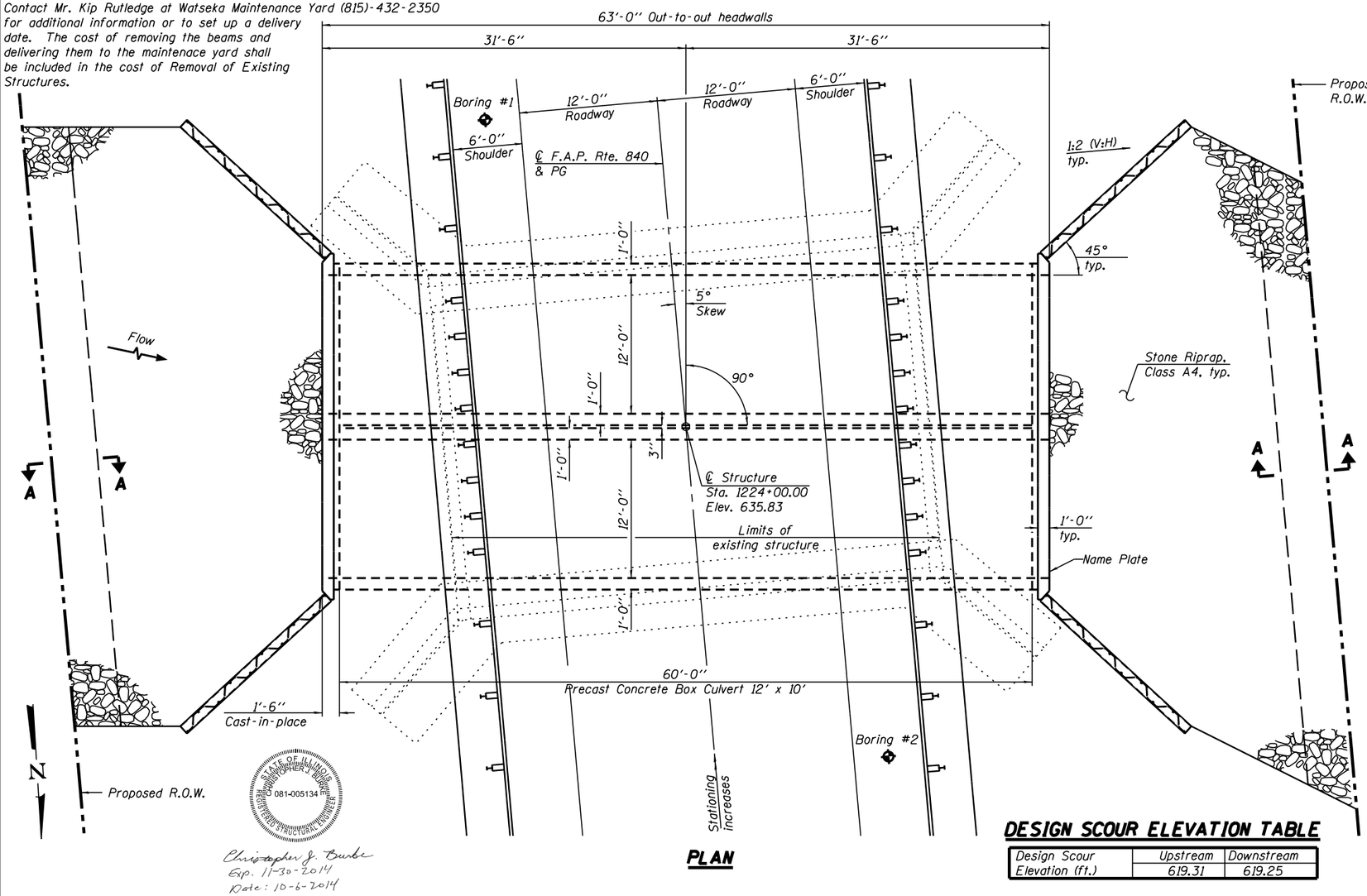
Benchmark: BM #119 - Chiseled "□" on SE wingwall:
Sta. 1224+09.29, 21.03' Lt., Elev. 634.49

Existing Structure: SN 038-0119 built in 1928 as S.B.I. Route 49, Section 137-B at Sta. 1224+00.00. A one span reinforced concrete slab bridge 30'-0" back-to-back abutments and 42'-2" out-to-out on pile supported closed abutments. The existing structure is to be removed and replaced. Traffic will be maintained using a detour route during construction.

The temporary steel beams under the existing concrete beams shall be salvaged and delivered to a District 3 maintenance yard. Contact Mr. Kip Rutledge at Watseka Maintenance Yard (815)-432-2350 for additional information or to set up a delivery date. The cost of removing the beams and delivering them to the maintenace yard shall be included in the cost of Removal of Existing Structures.



LONGITUDINAL SECTION



PLAN

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	Upstream	Downstream
	619.31	619.25

Christopher J. Burbe
Exp. 11-30-2014
Date: 10-6-2014

CULVERT CONSTRUCTION SEQUENCE

1. Remove existing structure
2. Build cutoff wall
3. Prepare bed
4. Place precast box culvert sections.
5. Form and place concrete in end section
6. Drive sheeting
7. Backfill culvert and wings
8. Install sheet pile cap

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Removal of Existing Structures	Each	1
Name Plates	Each	1
Box Culvert End Sections, Culvert No. 1	Each	2
Precast Concrete Box Culvert 12' x 10'	Foot	120.0
Stone Riprap, Class A4	Sq. yd.	246
Filter Fabric	Sq. yd.	246
Membrane Waterproofing for Culverts	Sq. yd.	208.2

WATERWAY INFORMATION

Drainage Area = 5.75 sq. mi.
Existing Low Grade Elev. 635.25 @ Sta. 1224+00
Proposed Low Grade Elev. 635.25 @ Sta. 1224+00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	10	448	167	200	630.9	0.0	0.0	630.9	630.9
Design	50	718	219	240	632.8	0.1	0.1	632.9	632.9
Base	100	839	219	240	633.4	0.2	0.2	633.6	633.6
Overtopping	-	-	-	-	-	-	-	-	-
Max. Calc.	500	1136	219	240	634.2	0.4	0.4	634.6	634.6

Existing 10-year velocity = 2.5 ft./sec.
Proposed 10-year velocity = 2.2 ft./sec.

STATION 1224+00.00
BUILT 201 BY
STATE OF ILLINOIS
F.A.P. RTE. 840 SEC. 137-BR
LOADING HL-93
STRUCTURE NO. 038-2026

NAME PLATE

See Std. 515001

INDEX OF SHEETS

DESIGN SPECIFICATIONS

2012 AASHTO LRFD Bridge Design Specifications, 6th Edition
ASTM C1577

DESIGN STRESSES

FIELD UNITS

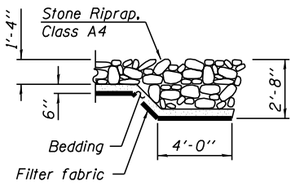
f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (Permanent sheet piling)
fy = 50,000 psi (AASHTO M270, Grade 50W)

PRECAST UNITS

f'c = 5,000 psi
fy = 65,000 psi (Welded wire fabric)

LOADING HL-93

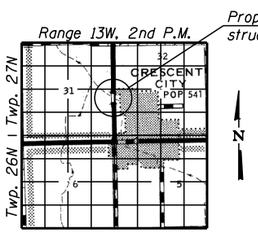
Allow 50#/sq. ft. for future wearing surface.



PROFILE GRADE

(Along ℄ F.A.P. Rte. 840)

SECTION A-A



LOCATION SKETCH

GENERAL PLAN & ELEVATION
IL. RTE. 49 OVER UNNAMED DRAINAGE DITCH
F.A.P. RTE. 840 - SEC. 137-BR
IROQUOIS COUNTY
STATION 1224+00.00
STRUCTURE NO. 038-2026

FILE NAME =	USER NAME =	DESIGNED - CJB	REVISED ___
		CHECKED - CCF	REVISED ___
	PLOT SCALE =	DRAWN - CCF	REVISED ___
	PLOT DATE =	CHECKED - CJB	REVISED ___

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 1 OF 5 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	137-BR	IROQUOIS	24	14
		CONTRACT NO. 66B92		
		ILLINOIS FED. AID PROJECT		

SN 0382026-66B92_Final_Rev.dgn 10/6/2014 2:34:46 PM