

Bench Mark: Chiseled Square on Northwest Wingwall, El. 959.50.

Existing Structure: The existing structure was built in 1924 and extended in 1932. The existing structure was constructed using a two barrel precast box culvert. Total length of the culvert is 51'-6".

The existing structure shall be removed and replaced with a three barrel precast concrete box culvert utilizing staged construction.

No salvage.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET	SHEET NO. 1
F.A.P. 066	21B&G/R	McHENRY	66	33	8 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

#62391

STATION 110+00
BUILT BY
STATE OF ILLINOIS
FAP RT 066 SEC 21(B&G/R)
FA PROJ.
LOADING HS20
STR. NO. 056-0074
NAME PLATE
See Std. 515001

LOADING HS20-44
Allow 50#/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS
1996 AASHTO with 1997 thru 2002 Interims

DESIGN STRESSES

FIELD UNITS

$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (reinforcement)

PRECAST UNITS

$f'_c = 5,000$ psi
 $f_y = 65,000$ psi (Welded Wire Fabric)

WATERWAY INFORMATION

Drainage Area = 2.1 mi² Low Grade El. 960.43 @ Sta. 15+10

Flood	Freq. Yr.	C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	10	558	86.6	114.56	958.13	0.59	0.00	957.65	957.26
Base	50	958	100	147.52	959.14	1.38	0.00	960.53	958.34
Overtopping	100	1095	100	154.24	959.35	1.29	0.00	960.65	958.53
Max. Calc.	N/A	500	2006	100	960.16	1.15	0.00	961.31	959.89

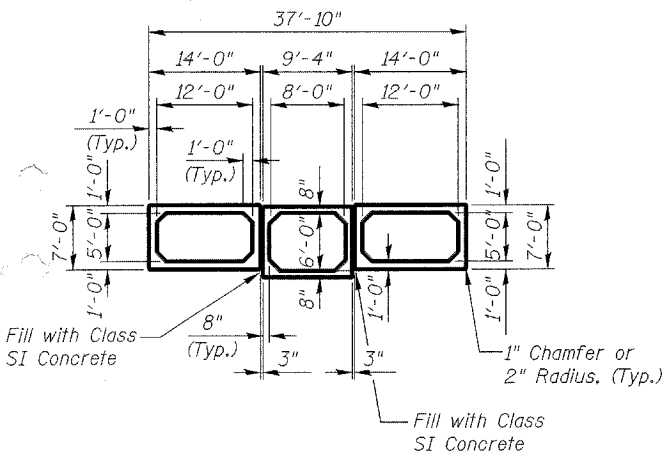
LEGEND

(A-1) Precast Concrete Box Culvert Cell Number

GENERAL NOTES

1. Reinforcement bars shall conform to the requirements of AASHTO M-31, M-42, or M-53 Grade 60.
2. The Contractor shall divert the water flow from the construction area using a suitable method as approved by the resident engineer prior to implementation. Cost incidental to "Precast Concrete Box Culverts."
3. Temporary concrete barriers shall be provided for Stage Construction. See Standard 704001. Pay item for Temporary Concrete Barriers is included in the Roadway Plans.
4. This box culvert has a fill height of less than 2.0 feet. The precast concrete box culvert shall conform to the requirement of AASHTO M-273.
5. Pay item for Steel Plate Beam Guardrail is included in the Roadway Plans. See Standard 630001.
6. Pay item for Sub Base Granular Material, Topsoil, and Seeding are included in the Roadway Plans.

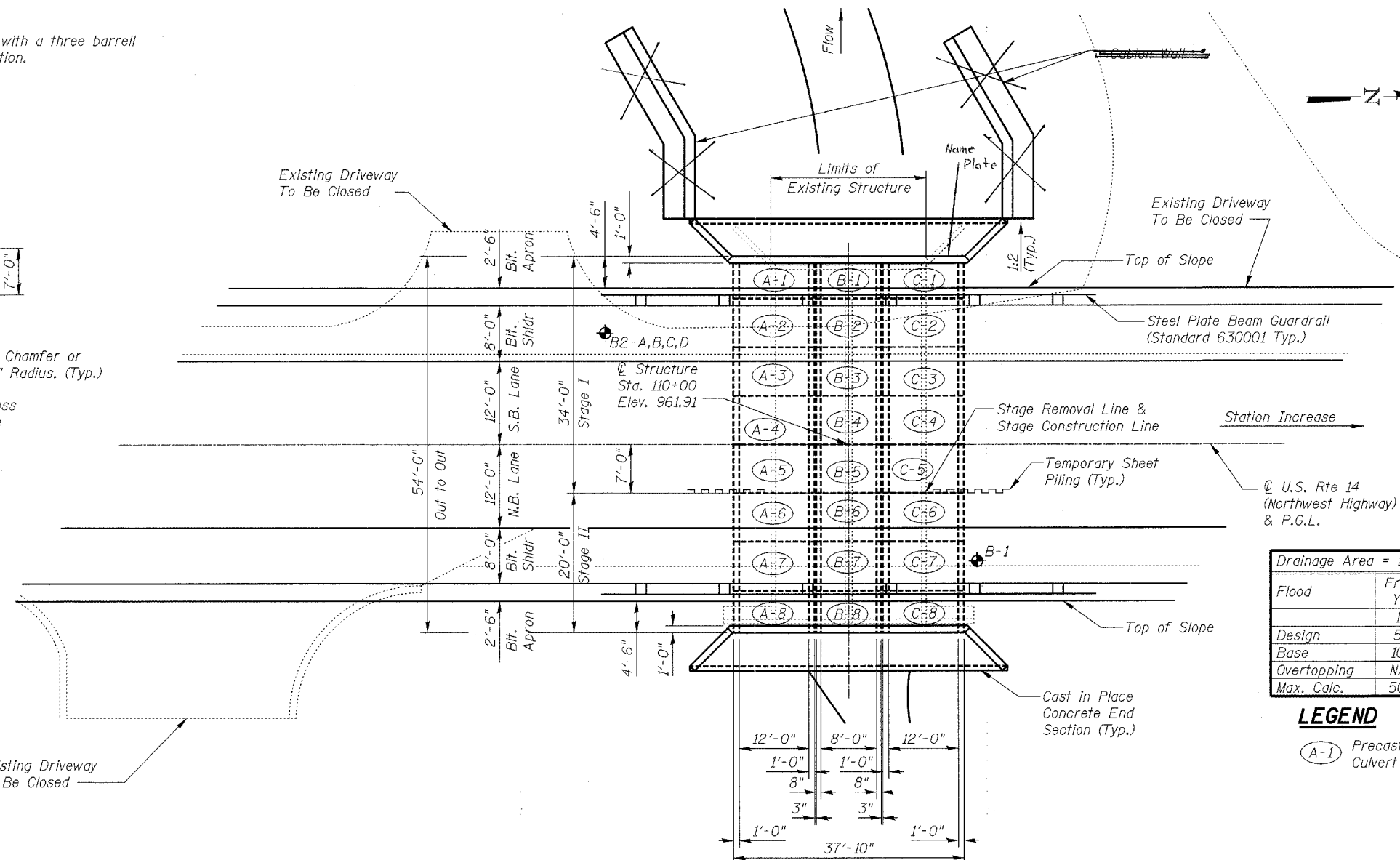
GENERAL PLAN
U.S. ROUTE 14
(NORTHWEST HIGHWAY)
OVER LAWRENCE CREEK
FAP 066 SECTION 21(B&G/R)
McHENRY COUNTY
STATION 110+00.00
STRUCTURE NO. 056-0074



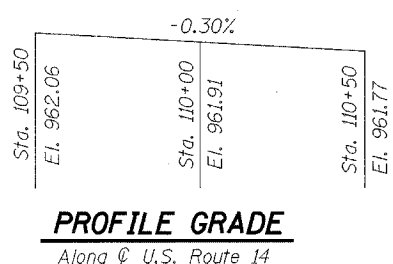
SECTION THRU CULVERT

INDEX OF SHEETS

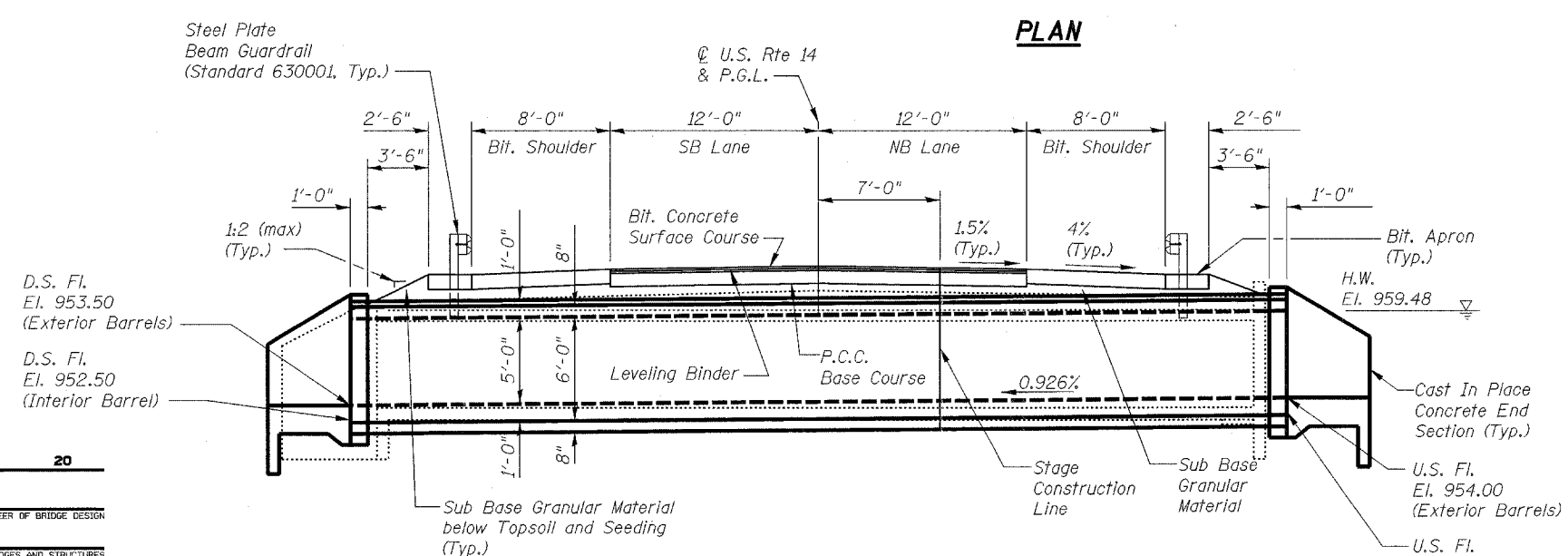
Sheet no.	Description
1	General Plan
2	Construction Details and Bill of Materials
3	Box Culvert End Section Details
4	Cables Details
5	Temporary Concrete Barrier for Stage Construction
6	Boring Log-1
7	Boring Log-2ABC
8	Boring Log-2D



PLAN

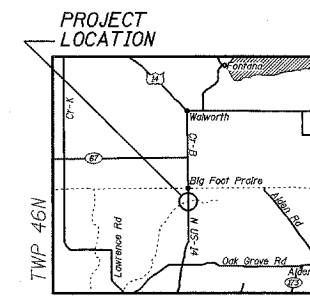


PROFILE GRADE



ELEVATION

(Looking North)



LOCATION SKETCH

DESIGNED	RFS	20
CHECKED	LLP	ENGINEER OF BRIDGE DESIGN
DRAWN	JPG	ENGINEER OF BRIDGES AND STRUCTURES
CHECKED	RFS	