

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET
F.A.U. 3706	00-00068-07-BR	LAKE	50	24
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	BRM-7003(876)

CONTRACT NO. 83806

GENERAL NOTES

Reinforcement bars shall conform to the requirements of AASHTO M-31 or M322 Grade 60. The Contractor shall drive two concrete test piles in permanent locations, one at the East Abutment and one at Pier 1, as directed by the Engineer before ordering the remainder of the piles.

Layout of riprap may be varied in the field to better suit existing ground conditions as directed by the Engineer. See Riprap and Slope Wall Layout sheet.

All proposed construction activity shall be in accordance with Regional Permit of the Department of the Army authorized under Section 404 of the Clean Water Act. The IEPA has issued Section 401 Water Quality Certification for this activity. See Special Provisions for conditions.

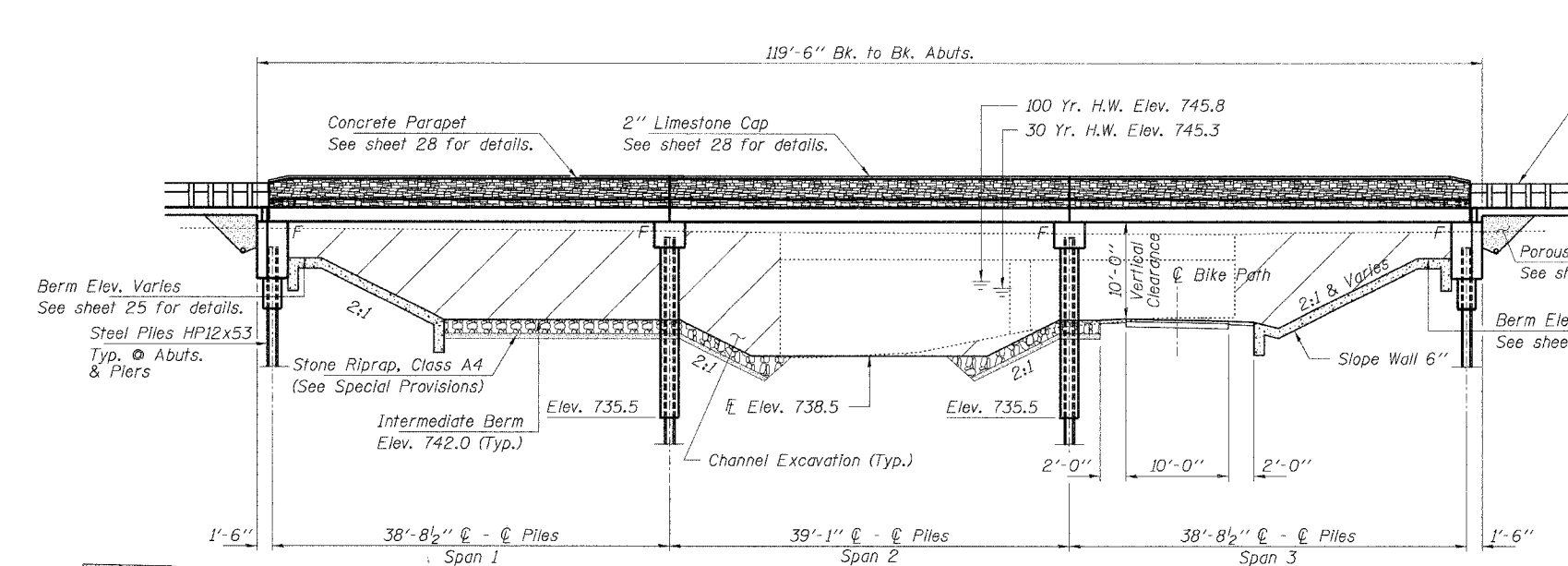
Protective Coat shall be applied to all exposed areas of the bridge surface and approach pavement.

** Concrete Superstructure in the parapets noted to receive Architectural Finish for Concrete Surfaces shall also have a color additive to match "Sandstone" color. (See Special Provisions for Architectural Finish for Concrete Surfaces)

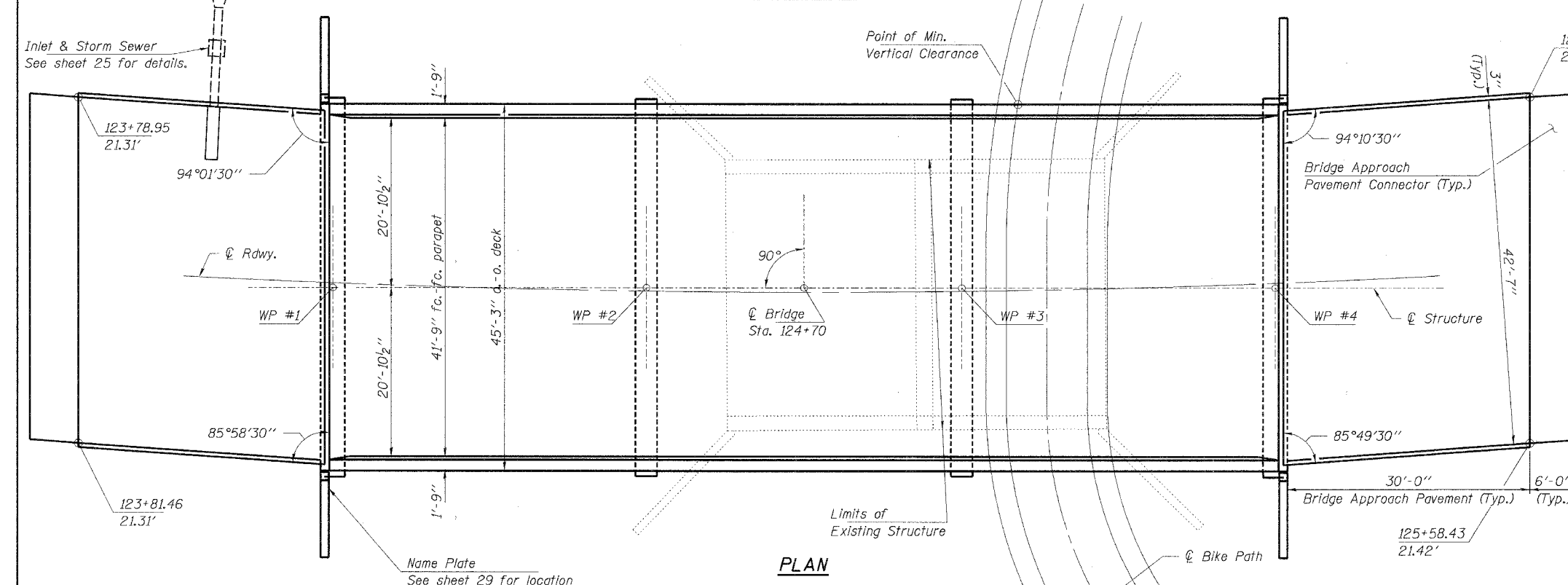
A Clear Protective Coating for concrete shall be applied to all exposed vertical surfaces of the structure and concrete slopewall.

See sheet 25 for Riprap & Slope Wall Layout.

See sheets 32 & 33 for Borings.



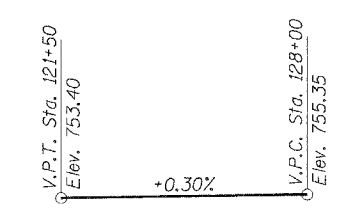
ELEVATION



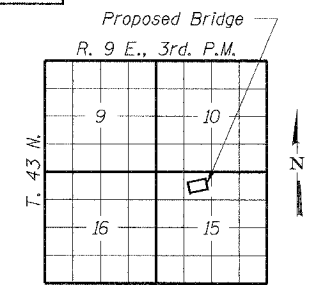
PLAN

FLINT CREEK
BUILT 200... BY
F.A.U. 3706 / C.H. 9
LAKE COUNTY
SEC. 00-00068-07-BR
F.A. PROJ. BRM-7003(876)
STR. NO. 049-3071 LOADING HS20

NAME PLATE
See Std. 515001



PROFILE GRADE



LOCATION SKETCH

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment	Ton		350	350
Stone Riprap, Class A4	Sq. Yd.			430
Filter Fabric	Sq. Yd.			430
Bridge Approach Pavement	Sq. Yd.			290
Concrete Wearing Surface	Sq. Yd.	544		544
Protective Coat	Sq. Yd.	544		544
Concrete Superstructure**	Cu. Yd.		37.8	37.8
Concrete Structures	Cu. Yd.		97.6	97.6
Bridge Deck Grooving	Sq. Yd.	544		544
Precast Prestressed Concrete Deck Beams (17" Depth)	Sq. Ft.	5,148		5,148
Slope Wall 6 Inch	Sq. Yd.		350	350
Reinforcement Bars, Epoxy Coated	Pound	11,060	10,490	21,550
Steel Piles HP12x53	Foot		1,560	1,560
Test Pile Steel HP12x53	Each		2	2
Concrete Encasement	Cu. Yd.		30.0	30.0
Name Plates	Each		1	1
Clear Protective Coating for Concrete	Sq. Ft.	1,710	1,930	3,640
Architectural Finish for Concrete Surfaces	Sq. Ft.	1,425	1,575	3,000
Limestone Cap	Foot	234		234

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinf.)

PRECAST PRESTRESSED UNITS

f'c = 5,000 psi
f'ci = 4,000 psi
f's = 270,000 psi (1/2" low lax. strands)
f'si = 201,960 psi (1/2" low lax. strands)
fy = 60,000 psi (Reinf.)

Loading HS 20-44
Design Specifications: 2002 AASHTO & all applicable interims.
25#/Sq. Ft. included in dead load for future wearing surface.

SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.035g
Site Coefficient (S) = 1.0

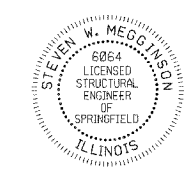
WATERWAY INFORMATION

Drainage Area = 31.6 Sq. Mi. Low Grade Elev. 753.35 @ Sta. 121+20

Flood Yr.	Freq.	C.F.S.	0	Opening	Sq. Ft.	Natural	Head - Ft.	Headwater	El.
			Exist.	Prop.		H.W.E.	Exist.	Prop.	
Design	30	1030	200	380	745.3	0.5	0.1	745.8	745.4
Base	100	1372	220	430	745.8	0.8	0.2	746.6	746.0
Overtopping	-	-	-	-	-	-	-	-	-
Max. Calc.	500	1925	240	480	746.4	1.3	0.4	747.7	746.8

I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current "AASHTO Standard Specifications for Highway Bridges".

Stuart W. Morrison 6-1-05
ILLINOIS STRUCTURAL NO. 6064



Expires 11-30-06

HLR
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Account Number 12-07-0047-1
Date: 05/23/05
DESIGNED: T.P.L. | CHECKED: S.W.M. | DRAWN: D.T.M.

GENERAL PLAN AND ELEVATION
SECTION 00-00068-07-BR
F.A.U. 3706 / C.H. 30 / KELSEY ROAD
LAKE COUNTY
STATION 124+70