B.M.: "X" Cut on S.W. corner of S.E. end of bumper guard on existing bridge. Elev. 337.17

Existing Structure: #1002-0019 Built as F.A. Rte. 146, Section 121B at Station 281+60 in 1940. 3 Spans, Bk. to Bk. of Abuts. 115'-7½", R.C. Slab on I beams : , -structure, Roadway width 24'-0". Contractor shall remove the entire structure in stages to maintain one way traffic at all times. The existing slopewall should remain in place.

No Salvage

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21B-1	ALEXANDER	24	11

SHEET NO. 1
14 SHEETS

GENERAL NOTES

See Proposal for Boring Data.

Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to minor construction variations. It shall be the Contractors responsibility to verify such dimensions and details in the field and make necessary concrete adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

The top surface of the beams shall be finished in accordance with Article 505.06 of the Standard Specification except that the surface shall not be roughened by brooming. The finished surface shall be free of depressions or high spots with sharp corners, and the top edge of keys shall be rounded or chamfered a minimum of ½".

Protective Coat shall not be applied to surfaces to which Membrane Waterproofing Membrane System is applied.

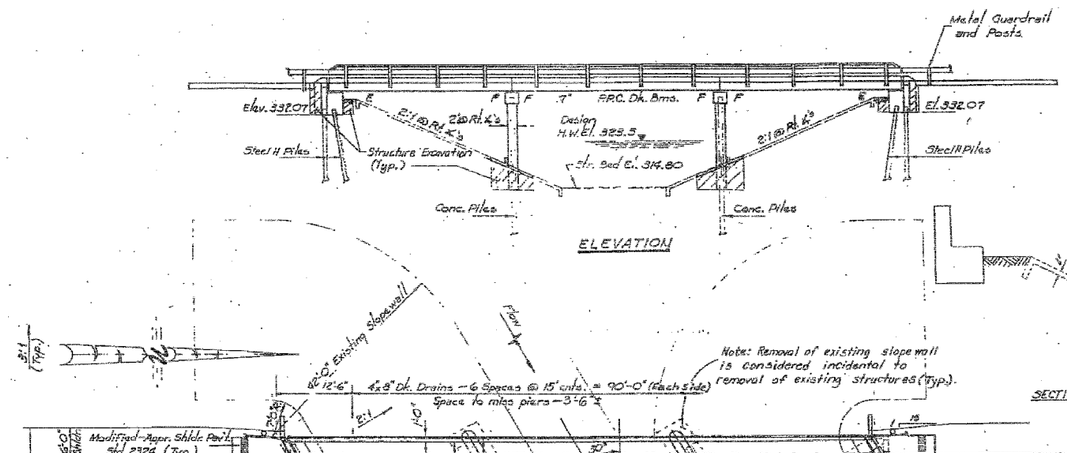
Reinforcement bars shall conform to the requirements of AASHTO M-31 or M-53 Grade 60.

The contractor shall drive 1 steel HP10x42 test pile at the South Abutment and 1 concrete test pile at Pier #2 in a permanent location as directed by the Engineer before ordering the remainder of piles.

A Calcium Nitrite Corrosion Inhibitor, as covered in the Special Provision, shall be used in the concrete for precast prestressed concrete deck beams.

The existing slopewall and embankment shall remain in place.

Slope wall shall be reinforced with welded wire fabric, 6"x6" - W4.0 x W4.0, weighing 58 lbs. per 100 sq. ft.

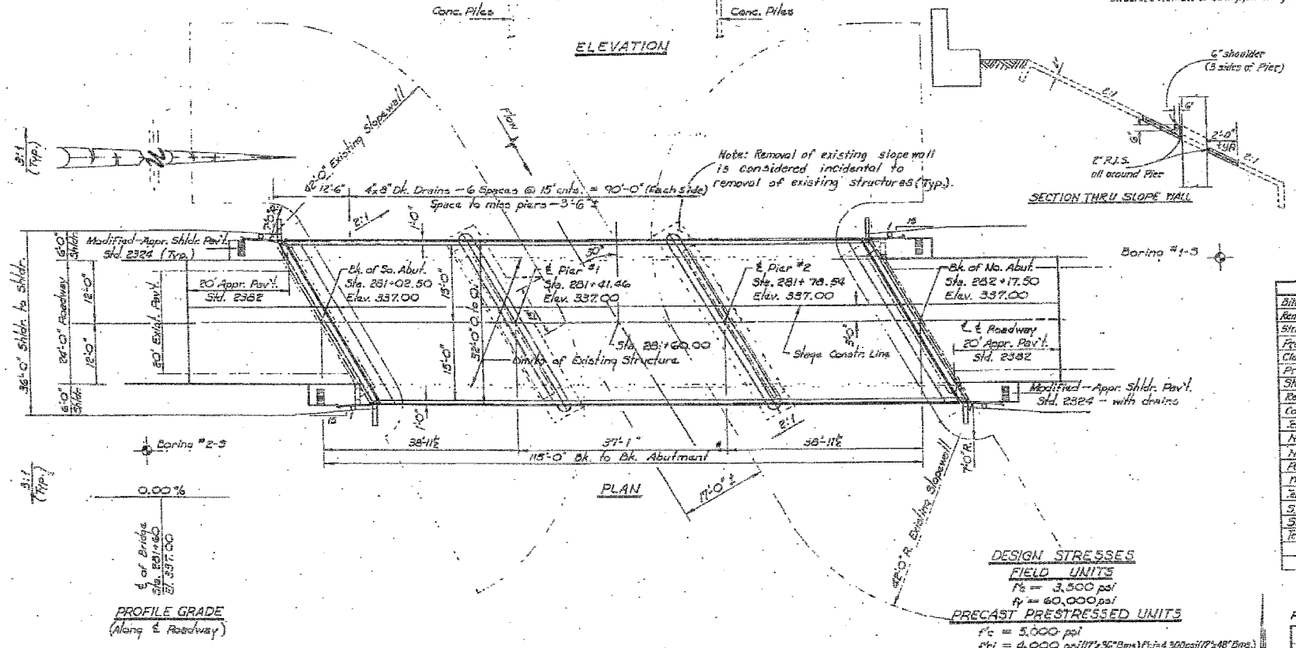


ELEVATION

STATION 281+60
HOGSKIN CREEK
BUILT 19?
F.A.S. RT. 1907 SEC. 21B-1
PROJ. BR-3-1907(104)
LOADING HS20
STR. NO.

NAME PLATE
See Std. 2113

Structure Number to be supplied by District.



PLAN

PROFILE GRADE
(Along ℄ Roadway)

SECTION THRU SLOPE WALL

DESIGN STRESSES

FIELD UNITS
f'c = 3,500 psi
fy = 60,000 psi

PRECAST PRESTRESSED UNITS
f'c = 5,000 psi
f'ci = 4,000 psi (17"x36" Bms.) f'ci = 4,500 psi (17"x48" Bms.)
f's = 270,000 psi (½" ϕ Strands)
f'si = 189,000 psi (½" ϕ Strands)

LOADING HS 20-44

Allow 25#/sq. ft. for future wearing surface.

Design Specifications: 1977 AASHTO; 1978, 1979, 1980 and 1981 Interim Specifications.

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub	Total
Bituminous Concrete Surface Course, Class 2	Ton	32		32
Removal of Existing Structures	Each			1
Structure Excavation	Cu. Yd.		128	128
Protective Coat	Sq. Yd.	38		38
Class A Concrete	Cu. Yd.	8.8	152.6	161.4
Precast Prestressed Concrete Deck Beams (17" Depth)	Sq. Ft.	3552		3552
Steel Railing, Type T-1	Lin. Ft.	222		222
Reinforcement, Bars	Pound	590	12040	12630
Concrete Piles	Lin. Ft.		1209	1209
Test Pile (Concrete)	Each		1	1
Name Plates	Each		1	1
Neoprene Expansion Joint (2")	Lin. Ft.	73		73
Portland Cement Mortar Patching Course	Lin. Ft.	999		999
Waterproofing Membrane System	Sq. Yd.	390		390
Temporary Relief Pail	Lin. Ft.	169		169
Slope Wall (4")	Sq. Yd.		56	56
Steel Piles HP10x42	Lin. Ft.		1056	1056
Test Pile (Steel HP10x42)	Each		1	1

WATERWAY INFORMATION

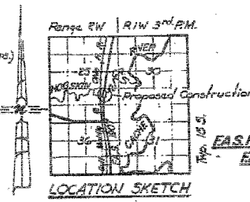
Drainage Area 4.77 sq. mi. Low Grade Elev. 332.2 @ Sta. 281+50

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Prop.	Net. H.W.E.	Head = Ft. Exist.	Prop.	Headwater El. Exist.	Prop.
Design	50	1895	*286	286	323.5	0.44	0.44	323.94	323.94
Base	100	1927	300	300	323.8	0.74	0.74	324.54	324.54
Overtopping									
Max. Calc.	500	2486	315	315	324.0	0.95	0.95	324.95	324.95

* This area doesn't include the 87.5 ft.² available in the adjacent 10'x10' R.C. box culvert.

DESIGNED	Patrick M. Patrick
CHECKED	Darryl J. Brown
DRAWN	paul srt
CHECKED	A. L. B.

July 9, 19 87
EXAMINED: James T. Rayburn
PASSED:
APPROVED:
ENGINEER OF BRIDGES AND STRUCTURES
DIRECTOR OF HIGHWAYS
STATE OF ILLINOIS 2291



GENERAL PLAN
F.A.S. Rte. 1907 (IL 127) Over HOGSKIN CR.
F.A.S. Rte. 1907 Section 21 B-1
ALEXANDER COUNTY
Sta. 281+60.00

FOR INFORMATION ONLY

MODJESKI and MASTERS
Consulting Engineers
SINCE 1893

FILE NAME = #FILEL#	USER NAME = #USER#	DESIGNED - JMH	REVISED -
		DRAWN - AEC	REVISED -
	PLOT SCALE = #SCALE#	CHECKED - JMH	REVISED -
	PLOT DATE = #DATE#	DATE - 03/04/08	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE PLANS

SCALE: NONE | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1907	21BR-1	ALEXANDER	82	29
		CONTRACT NO. 78032		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		