

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Existing Structure: S.N. 057-0129 (W.B.)
Built in 1968 as F.A.I. Route 74, Section 57-22B-1 at Sta. 1127+12.92. Rehabilitated in 1975.
Two Span Structure, PPC I-Beams 109'-6" Bk to Bk of Abutments and 42'-0" O. to O. and skewed 21° left forward.
Existing Superstructure shall be removed and replaced, existing abutments to be converted to semi-integral abutments.

Bench Mark:
Chiseled "□" on top of southeast corner of southeast wingwall of south bridge (S.N. 057-0128) over Little Kickapoo Creek.
Elevation= 775.01
STA. 1127+52.58, 70.44' RT.

Traffic to be maintained using Stage Construction.

No salvage.

WATERWAY INFORMATION

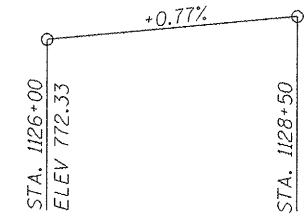
Drainage Area = 9.04 Sq. Mi. Low Grade Elev. 768.79 Ft. @ Sta. 1119+00

Flood	Freq. Yr.	Q CFS	Opening Sq. Ft.		Head - Ft.		Headwater Elev. - Ft.		
			Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	
	10	1266	409	409	764.2	0.3	0.3	764.5	764.5
Design	50	2059	576	576	766.2	0.3	0.3	766.5	766.5
Base	100	2415	642	642	766.9	0.4	0.4	767.3	767.3
Max. Calc.	500	3287	770	770	768.6	0.5	0.5	769.1	769.1

10 Yr. Velocity through Ex. Bridge= 3.5 fps 10 Yr. Velocity through Pr. Bridge= 3.5 fps

DESIGN SCOUR ELEVATION TABLE

	W. Abutment	Pier 1	E. Abutment
Design Scour Elevation	764.45	752.93	765.31



PROFILE GRADE

(Westbound)

The profile grade shows the final elevations after grinding. Up to 1/4" will be ground off the bridge slab and approach pavement.

NAME PLATE

See Std. 515001

Existing Name Plate shall be cleaned and relocated next to New Plate. Cost included with Name Plates.

APPROVED
For Structural Adequacy Only

Ralph E. Anderson
Engineer of Bridges & Structures

DESIGN SPECIFICATIONS

2007 AASHTO LRFD Bridge Design Specifications with 2008 Interims
1995 Seismic Retrofitting Manual for Highway Bridge FHWA-RD-94/052

LOADING HL - 93

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

SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.045 g
Site Coefficient (S) = 1.0

DESIGN STRESSES

FIELD UNITS

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

PRECAST PRESTRESSED UNITS

$f'_c = 6,000$ psi
 $f'_{cl} = 5,000$ psi
 $f_{pu} = 270,000$ psi (1/2" Low Lax. Strands)
 $f_{pbt} = 201,960$ psi (1/2" Low Lax. Strands)

EXISTING SUBSTRUCTURE FIELD UNITS

$f'_c = 1,400$ psi
 $f_s = 20,000$ psi (Reinforcement)



GENERAL PLAN AND ELEVATION

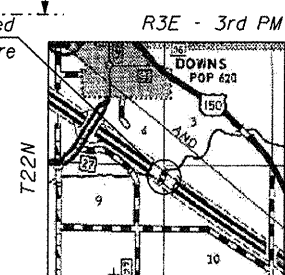
F.A.I. 74 OVER LITTLE KICKAPOO CREEK

McLEAN COUNTY

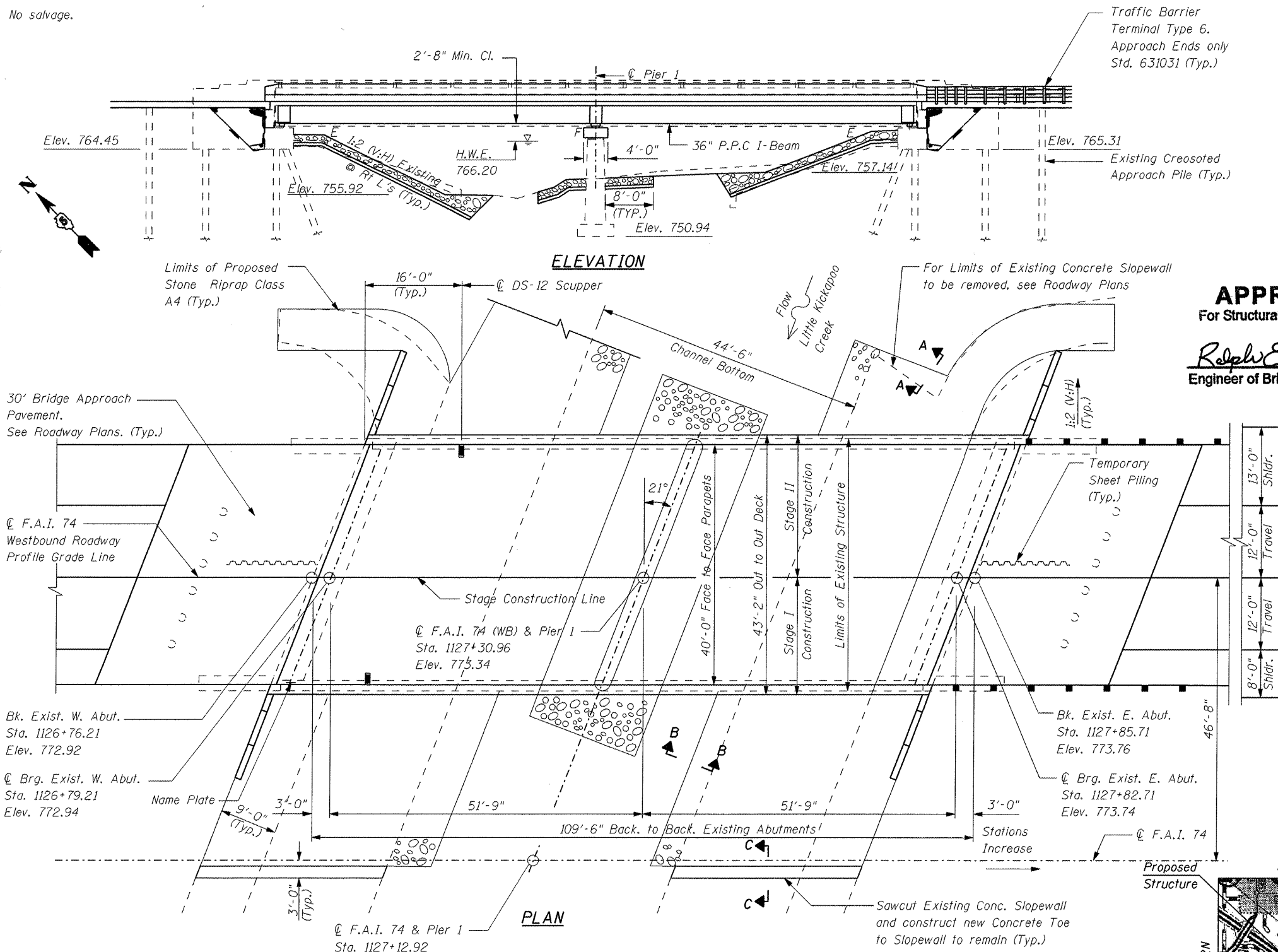
STATION 1127+12.92

STRUCTURE NO. 057-0129

Martin J. Silvester
MARTIN J. SILVESTER
STRUCTURAL ENGINEER
LICENSE EXP. DATE 11-30-10



THE UPCHURCH GROUP, INC.



Note:
See Sheet 2 of 26 for Section A-A, B-B and C-C