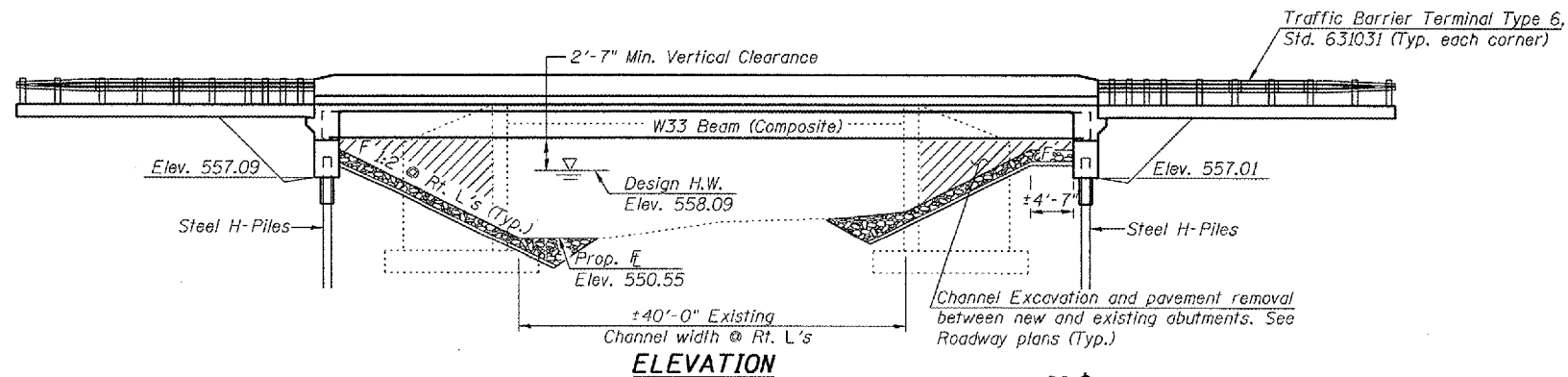


Bench Mark: #10A - chiseled "C" on N.E. wingwall of S.N. 068-0024. Elev. 563.69

Existing Structure:
S.N. 068-0024 built in 1928 as SBI Rte. 127, Section 106-B. Superstructure and substructure widened in 1959 as SBI Rte. 127, Section 106BY. Superstructure replaced in 1976 as FA Rte. 42, Section 106BR-2. Existing structure is a single span PPC deck beam bridge on closed abutments, 43'-0" bk. to bk. abutments, 46'-0" out to out, with no skew. The Contractor shall remove and replace the existing structure. Staged Construction shall be utilized to maintain one lane of traffic during construction.

No salvage.



INDEX OF SHEETS

1. General Plan
2. General Notes & Details
3. Stage Construction Details
4. Deck Elevations
5. Approach Pavement Elevations
6. Superstructure
7. Superstructure Details
8. Concrete End Diaphragms
9. Framing Plan & Steel Details
10. North Abutment
11. South Abutment
12. Temporary Concrete Barrier
13. Bar Splicer Assembly Details
14. Steel Pile Details
15. Soil Borings

DESIGN SPECIFICATIONS
2002 AASHTO

DESIGN STRESSES

FIELD UNITS
 $f'_c = 3,500$ psi
 $f_y = 60,000$ psi (reinforcement)
 $f_y = 50,000$ psi (structural steel, M270 Gr. 50W)

LOADING HS20-44

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

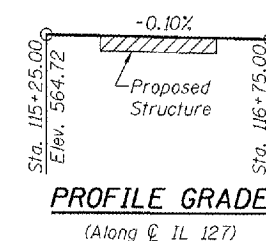
SEISMIC DATA

Seismic Performance Category (SPC) = A
 Bedrock Acceleration Coefficient (A) = 0.075g
 Site Coefficient (S) = 1.0

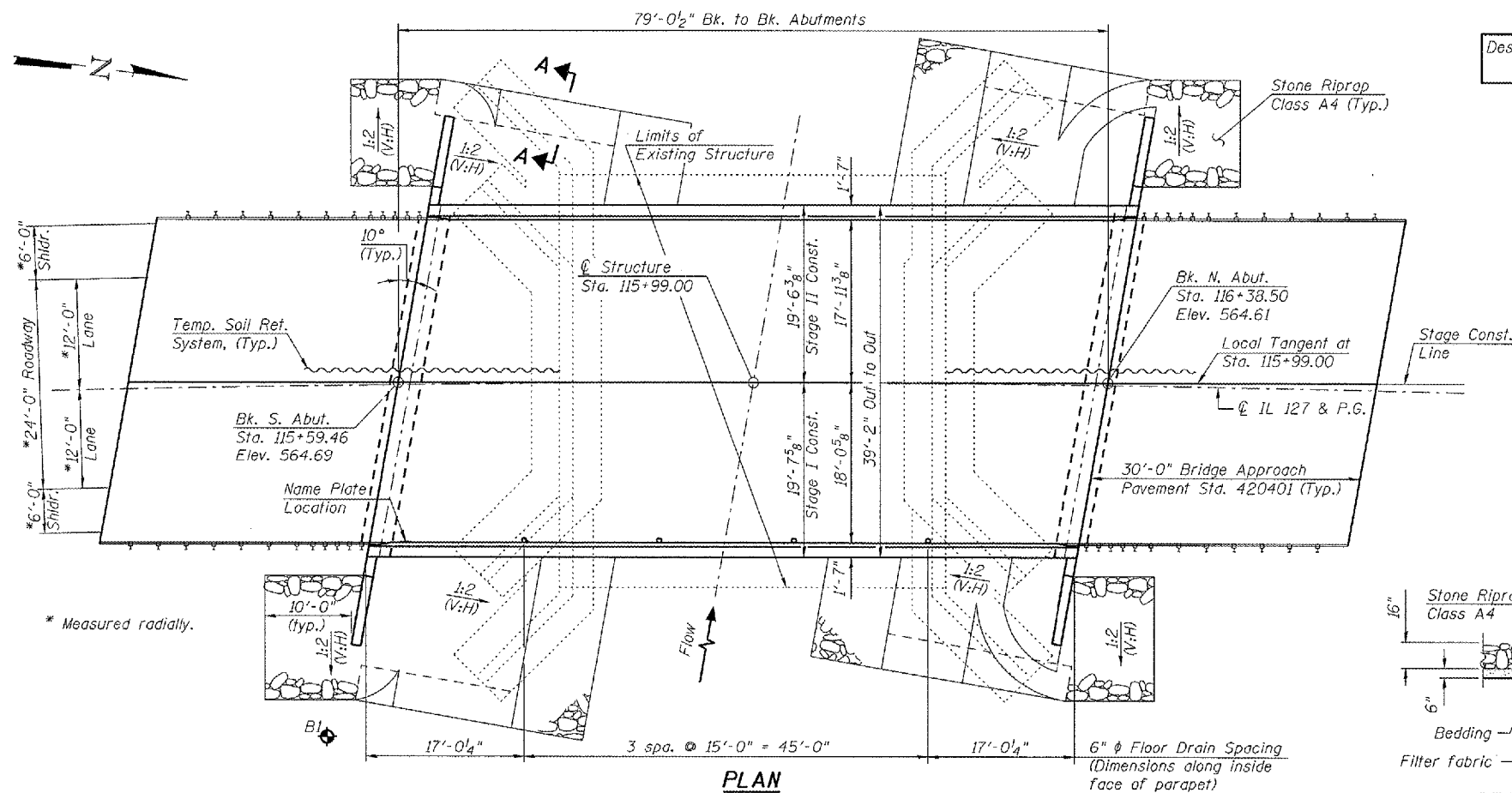
CURVE DATA

(Existing Curve 200)
 $\Delta = 7^\circ 39' 05''$ Rt.
 $D = 0^\circ 44' 31''$
 $T = 516.44'$
 $L = 1031.35'$
 $E = 17.25'$
 $R = 7722.91'$
 $S.E. = 0.0251'$
 P.C. = Sta. 114+82.52
 P.T. = Sta. 125+13.87
 P.I. = Sta. 119+98.96
 SE Attained - Match Existing
 SE Removed Sta. 124+25.00 to Sta. 125+28.00

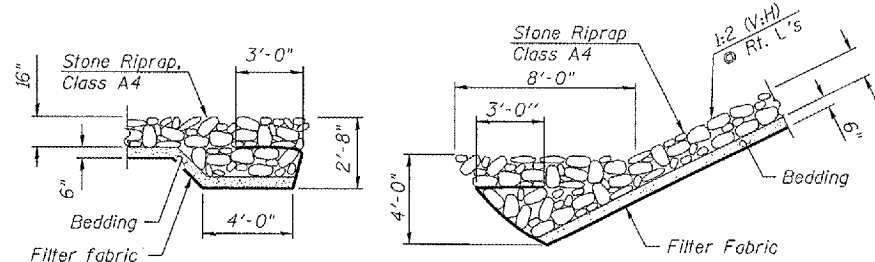
Design Scour Elevation (feet)	S. Abut.	N. Abut.
	557.09	557.01



PROFILE GRADE
(Along & IL 127)

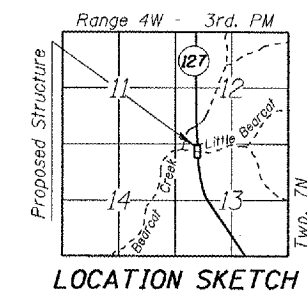


PLAN



SECTION A-A

STONE RIPRAP ANCHOR DETAIL



LOCATION SKETCH

WATERWAY INFORMATION

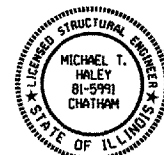
Drainage Area = 2.84 sq. mi. Exist. Low Grade Elev. 564.36 @ Sta. 118+00

Flood	Freq. Yr.	C.F.S.	Opening Sq. Ft.		Head - Ft.		Headwater El.		
			Exist.	Prop.	H.W.E. Exist.	Prop.	Exist.	Prop.	
Design	10	1085	152	290	557.41	0.83	0.50	558.24	557.91
Base	50	1695	176	332	558.09	1.41	0.93	559.50	559.02
Overtopping	100	1957	184	347	558.31	1.63	1.01	559.94	559.32
Max. Calc.	500	2588	200	337	558.76	2.65	1.21	561.41	559.97

10 Year Velocity through Exist. Bridge = 6.10 fps 10 Year Velocity through Prop. Bridge = 3.62 fps

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Ralph E. Andersen
ENGINEER OF BRIDGES AND STRUCTURES



Michael J. Haley 8-9-07
 Michael T. Haley
 Licensed Structural Engineer
 State of Illinois No. 81-5991
 Expires 11/30/2008

LIN ENGINEERING, LTD.
 Consulting Engineers
 Chatham, Illinois
 Designed By: RCM
 Checked By: MTH
 Date: 04/07
 Drawn By: AJP
 File: 068-0507.DWG

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
GENERAL PLAN
 ILLINOIS ROUTE 127 OVER
 LITTLE BEARCAT CREEK
 F.A.P. ROUTE 42 - SECTION 106 (B-2)
 MONTGOMERY COUNTY
 STATION 115+99.00
 STRUCTURE NO. 068-0507

...\\068-0507\Plans\068-0507.dgn

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8/9/2007