

BENCHMARK

Square cut on S.W. wingwall of 028-0065,
Elev. 400.99

EXISTING STRUCTURE

028-0065. Built in 1925 as S.B.I. Route 14, Section 4B at Station 579+05 as a 1-span R.C. slab bridge, closed abutments, spread footing. 1947 superstructure replacement, and widening.

PROPOSED STRUCTURE

Existing structure to be removed and replaced with a double barrel 10'x10' box culvert. Traffic to be maintained using stage construction with one lane of traffic open at all times.

No salvage of existing structure.

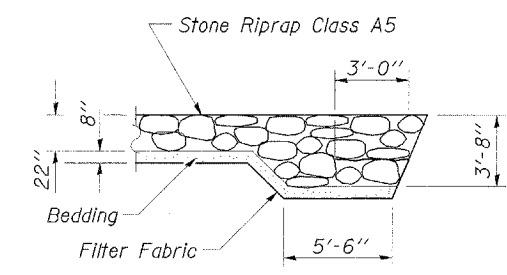
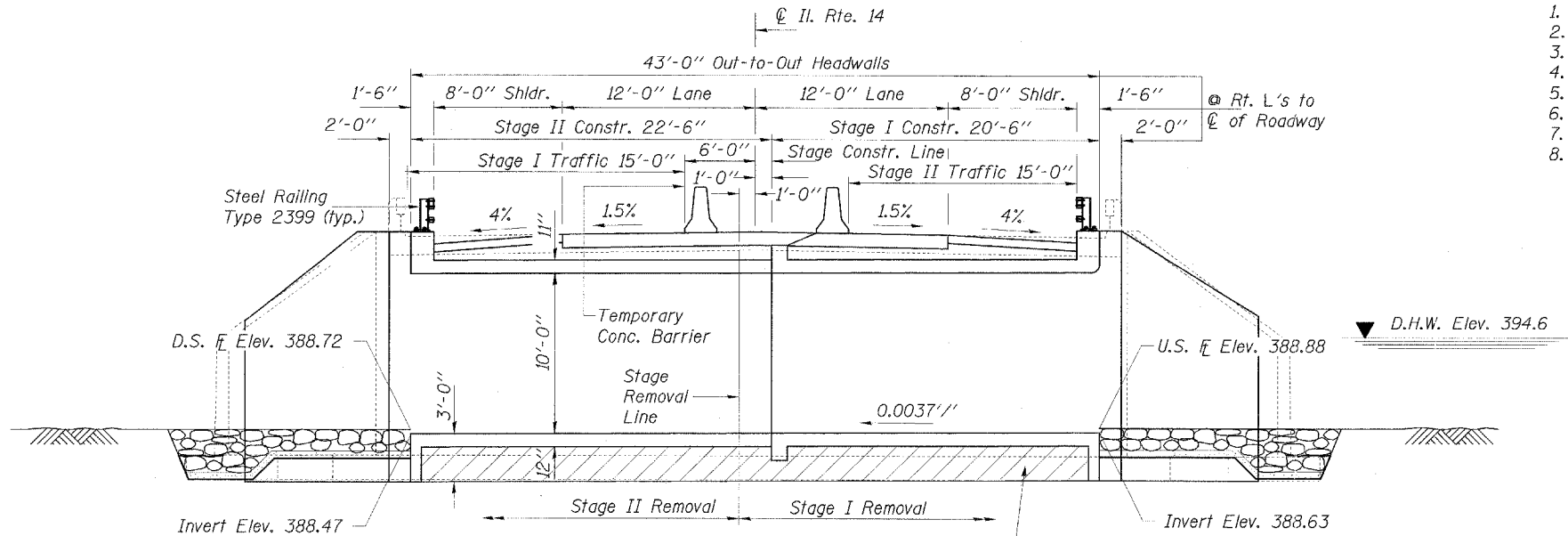
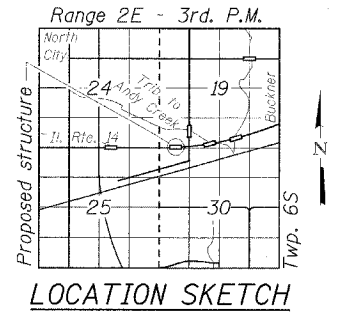
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
869	104B-1	FRANKLIN	56	18
STA.		TO STA.		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				
Contract #98775				SHEET 1 OF 8

INDEX OF SHEETS

SHEET NO.	TITLE
1.	General Plan
2.	Stage Construction Details
3.	Temporary Concrete Barrier
4.	Box Culvert Details - 1
5.	Box Culvert Details - 2
6.	Steel Railing, Type 2399 details
7.	Bar Splicer Assembly Details
8.	Boring Logs

STATION 579+10.00
BUILT 200_ BY
STATE OF ILLINOIS
F.A.P. RT 869 SEC. 104B-1
LOADING HS 20
STR. NO. 028-2016

NAME PLATE
See Std. 515001



SECTION A-A

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

DESIGN SPECIFICATIONS
2002 AASHTO "Standard Specifications for Highway Bridges"

DESIGN STRESSES
FIELD UNITS
f_c' = 3,500 psi
f_y = 60,000 psi (reinforcement)

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Porous Granular Embankment	Cu. Yd.	413
Stone Riprap, Class A1	Ton	192
Stone Riprap, Class A5	Sq. Yd.	160
Filter Fabric	Sq. Yd.	160
Removal of Existing Structures	Each	1
Reinforcement Bars, Epoxy Coated	Pound	29,260
Steel Railing, Type 2399	Foot	46
Name Plates	Each	1
Concrete Box Culverts	Cu. Yd.	148.5
Bar Splicers	Each	136
Temporary Soil Retention System	Sq. Ft.	835

WATERWAY INFORMATION

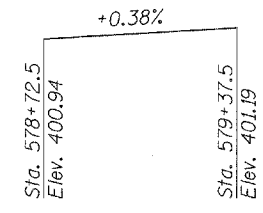
Exist. Low Grade Elev. 400.71 @ Sta. -
Drainage Area = 2.52 sq. mi. Prop. Low Grade Elev. 400.7 @ Sta. -

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Prop.	Nat. H.W.E.	Head - Ft. Exist.	Prop.	Headwater El. Exist.	Prop.
10	10	770	88.4	104.4	394.1	1.8	0.9	395.9	395.0
Design	50	1,150	98.4	114.4	394.6	3.0	1.8	397.6	396.4
Base	100	1,310	102.4	118.4	394.8	3.5	2.2	398.3	397.0
Overtopping									
Max. Calc.	500	1,680	110.4	126.4	395.2	4.6	3.3	399.8	398.5

10-Year Velocity through Existing Bridge = 8.71 fps
10-Year Velocity through Prop. Bridge = 7.38 fps

BORING DATA

Boring No.	Station	Offset
1-S	579+32.11	17' Lt.
2-S	578+82.68	16' Rt.

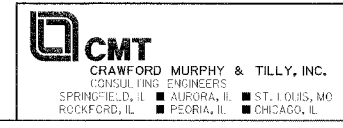
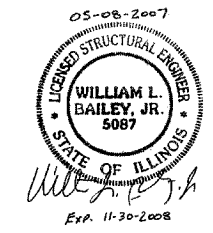


PROFILE GRADE

Design Scour Elevation (ft.)	Upstream	Downstream
	385.63	385.47

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Ralph E. Anderson (TSO)
ENGINEER OF BRIDGES AND STRUCTURES

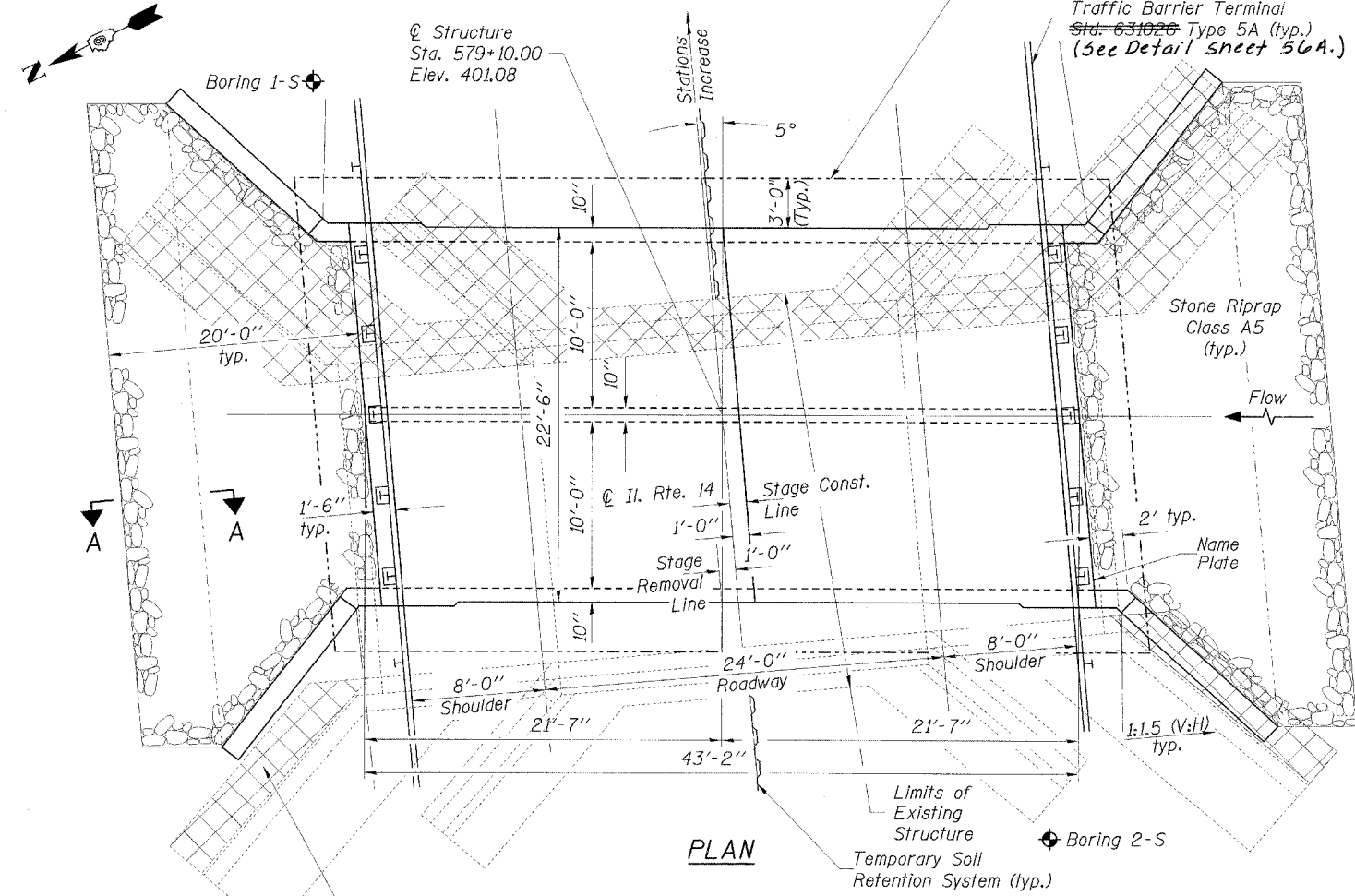


GENERAL NOTES:

- Reinforcement bars shall conform to the requirements of AASHTO M31 or M322 Grade 60.
- Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.
- All construction joints shall be bonded.
- Precast alternate is not allowed.
- Excavation behind existing abutment walls shall be done before removing the existing superstructure. The Contractor shall sawcut the existing abutments at the stage removal line before Stage 1 removal.
- A distance of half the length of the wingwall but not less than six feet of the barrel shall be poured monolithically with the wingwalls.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
GENERAL PLAN
F.A.P. ROUTE 869 (IL. RTE. 14)
ILLINOIS ROUTE 14 OVER
TRIBUTARY TO ANDY CREEK
SECTION 104B-1 STA. 579+10.00
STR. NO. 028-2016 - FRANKLIN COUNTY
SCALE: NONE DRAWN BY: GLD
DATE: 05/08/07 CHECKED BY: WLB



PLAN

Note: Cross-hatched portions indicate areas of existing concrete removal.