

Bench Mark: Iron Bar at Station 84+19.36, 48.20' Rt., Elev. 532.74

Existing Structure: S.N. 060-3053; Built in 1955 as FAU 8985 Section 103 B TR.
The structure is a single span steel wide flange beam with a concrete deck superstructure and closed timber abutments. The structure has an out-to-out width ±23'-0", a back-to-back abutment length of 30'-0" and a skew of 30°. To be removed.
The project includes roadway realignment, shifting the road to the east and relocating the crossing to accommodate the new alignment.

Traffic Control: The road will be closed during construction and detours will be posted accordingly.

Salvage: None

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|-----------|---------|---------|--------------|-----------|
| FAU 8985 | 103 B | MADISON | 61 | 32 |

3 SHEETS

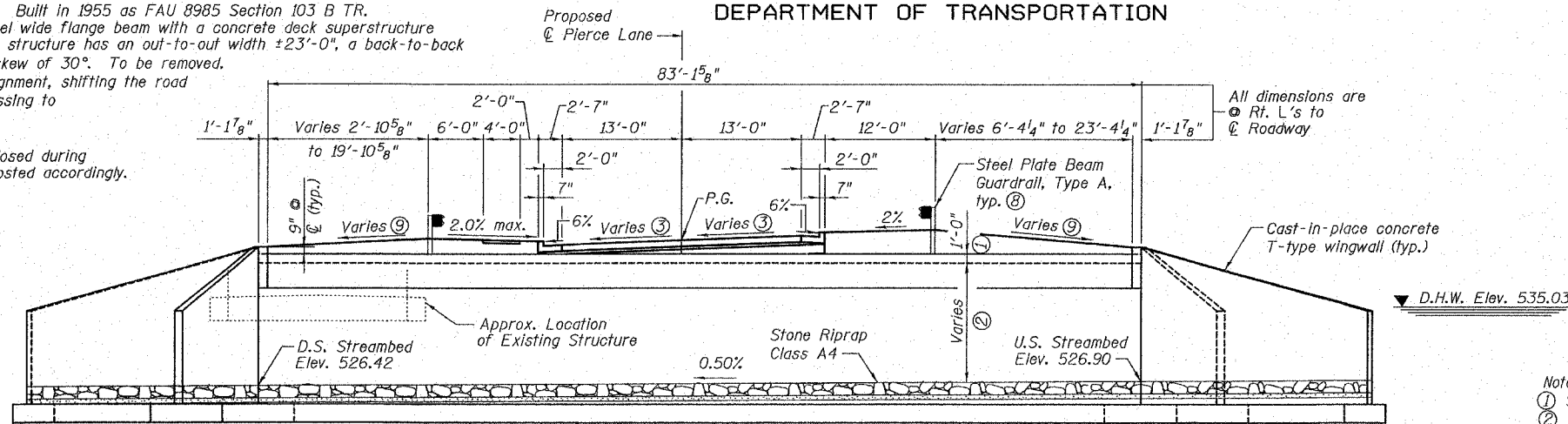
Contract #97343

TOTAL BILL OF MATERIAL

| ITEM | UNIT | TOTAL |
|---|---------|--------|
| Porous Granular Embankment | Cu. Yd. | 2,239 |
| Stone Riprap, Class A4 | Sq. Yd. | 706 |
| Filter Fabric | Sq. Yd. | 706 |
| Removal of Existing Structures | Each | 1 |
| Structure Excavation | Cu. Yd. | 2,345 |
| Concrete Structures | Cu. Yd. | 347.1 |
| Reinforcement Bars | Pound | 36,700 |
| Reinforcement Bars, Epoxy Coated | Pound | 6,830 |
| Name Plates | Each | 1 |
| Steel Plate Beam Guard Rail, Attached to Structures | Foot | 75 |
| Three-Sided Precast Concrete Structures, 32'x12' | Foot | 96 |

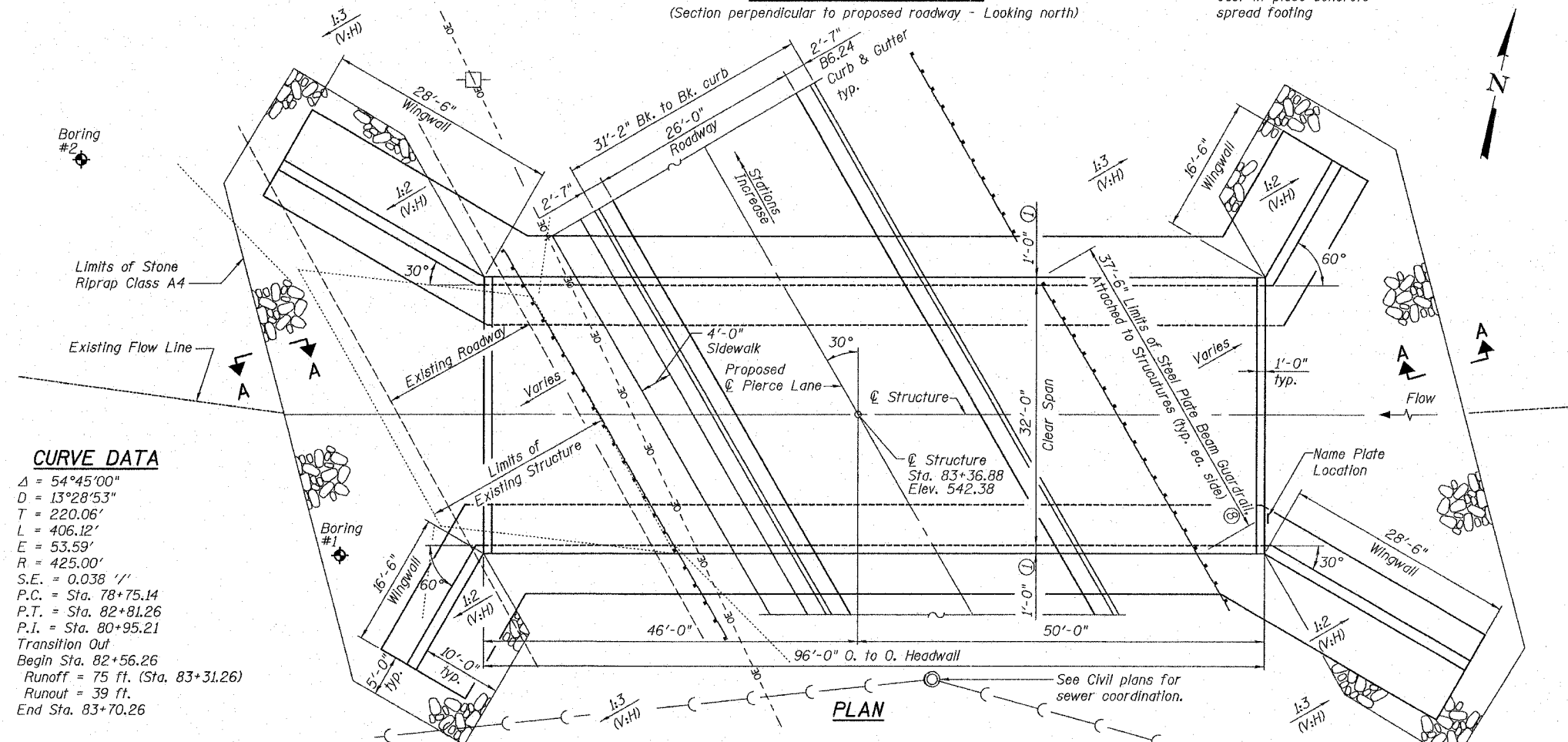
INDEX OF SHEETS

- General Plan
- Plan & Details
- Boring Logs



LONGITUDINAL SECTION

(Section perpendicular to proposed roadway - Looking north)



PLAN

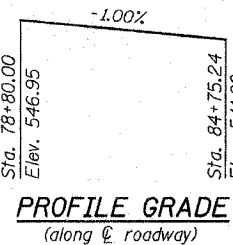
WATERWAY INFORMATION

Drainage Area = 2.42 sq. mi. Low Grade Elev. 540.70 @ Sta. 85+35.24

| Flood | Freq. Yr. | Q C.F.S. | Opening Sq. Ft. | | Nat. H.W.E. | | Head - Ft. | | Headwater El. | |
|-------------|-----------|----------|-----------------|-------|-------------|-------|------------|--------|---------------|-------|
| | | | Exist. | Prop. | Exist. | Prop. | Exist. | Prop. | Exist. | Prop. |
| Design | 10 | 1,711 | 147 | 246 | 534.59 | 2.80 | 0.01 | 537.39 | 534.60 | |
| Base | 30 | 2,237 | 147 | 278 | 535.03 | 2.81 | 0.59 | 537.84 | 535.62 | |
| Overtopping | 100 | 2,874 | 147 | 326 | 535.50 | 2.80 | 1.78 | 538.30 | 537.28 | |
| Max. Calc. | 500 | 3,859 | 147 | 374 | 536.05 | 2.81 | 3.59 | 538.86 | 539.64 | |

CURVE DATA

Δ = 54°45'00"
D = 13°28'53"
T = 220.06'
L = 406.12'
E = 53.59'
R = 425.00'
S.E. = 0.038 1/11
P.C. = Sta. 78+75.14
P.T. = Sta. 82+81.26
P.I. = Sta. 80+95.21
Transition Out
Begin Sta. 82+56.26
Runoff = 75 ft. (Sta. 83+31.26)
Runout = 39 ft.
End Sta. 83+70.26



DESIGN SCOUR ELEVATION TABLE

| Design Scour Elevation (ft.) | D.S. | U.S. |
|------------------------------|--------|--------|
| | 523.42 | 523.90 |

Notes:

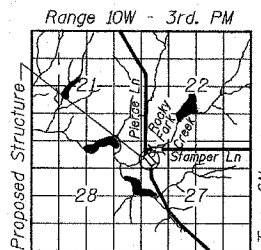
- Slab and wall thickness may vary as per manufacturer's design.
- Clear height at structure centerline varies from 13'-0" at upstream end to 13'-5 3/4" at downstream end.
- See Curve Data for superelevation transition.
- Max. allowable soil pressure under footing = 3,000 psf.
- Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See Special Provisions.
- Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.
- The three-sided structure footing design is based on the following maximum reactions applied at the top of the pedestal wall:
12.0 kip/ft vertical
6.3 kip/ft horizontal
The Contractor shall verify that the selected structure meets these design parameters. If the design parameters are exceeded, a complete footing design with calculations, details, and the required seals shall be submitted for review and approval.
- Contractor shall coordinate post spacing with the precast manufacturer. Where required, mount to top of three-sided structure using Std. 630101.
- Vary slope as required to match into top of headwall, 1:3 (V:H) maximum.

ROCKY FORK CREEK
BUILT 200_ BY
VILLAGE OF GODFREY
SECTION 103B
STATION 83+36.88
STRUCTURE NO. 060-6902
LOADING HS20

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

NAME PLATE
See Std. 515001

DESIGN SPECIFICATIONS
2002 AASHTO



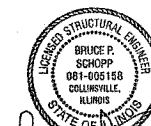
DESIGN STRESSES

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

PRECAST UNITS
f'c = 5,000 psi
fy = 65,000 psi (welded wire fabric)

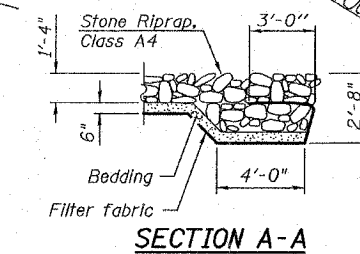
LOCATION SKETCH

Plans Prepared By:
Oates Associates, Inc.



BRUCE P. SCHOPP
04/17/08
EXPIRES 11/30/08

GENERAL PLAN
PIERCE LANE OVER
ROCKY FORK CREEK
FAU 8985 - SECTION 103B
MADISON COUNTY
STATION 83+36.88
STRUCTURE NO. 060-6902



SECTION A-A