

ROUTE NO.	SECTION	COUNTY	SHEET	SHEET
FAP 303	134(B&B-2)R-1	LAKE	137	82
IL. ETS				
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 2
23 SHEETS

GENERAL NOTES

Fasteners shall be AASHTO M164, Type 1, mechanically galvanized bolts. Bolts 22mm ϕ , holes 24mm ϕ , unless otherwise noted.

Calculated mass of Structural Steel = $\frac{6765}{79,485}$ Kg (Grade 250)
Kg (Grade 345)

No field welding is permitted except as specified in the Contract Documents.

The main load carrying member components subject to tensile stress shall conform to the Supplemental Requirements for Notch Toughness Zone 2. These components are the wide flange beams and all splice plate material except fill plates.

Reinforcement bars shall conform to the requirements of ASTM A 706m Gr. 420. See Special Provisions.

Reinforcement bars designated (E) shall be epoxy coated.

Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 3 mm. Adjustment shall be made either by grinding the surface or by shimming the bearings.

The Organic Zinc Rich Primer / Epoxy / Urethane Paint System shall be used for painting of new structural steel except where otherwise noted. The entire system shall be shop applied, with the exception that masked off connection surfaces, field installed fasteners and damaged areas shall be touched up in the field. The color of the final finish coat for all interior steel surfaces shall be Gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Gray, Munsell No. 5B 7/1. See Special Provision for "Cleaning and Painting New Metal Structures".

Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.

All cross frames or diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual cross frames or diaphragms at supports may be temporarily disconnected to install bearing anchor rods.

Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.

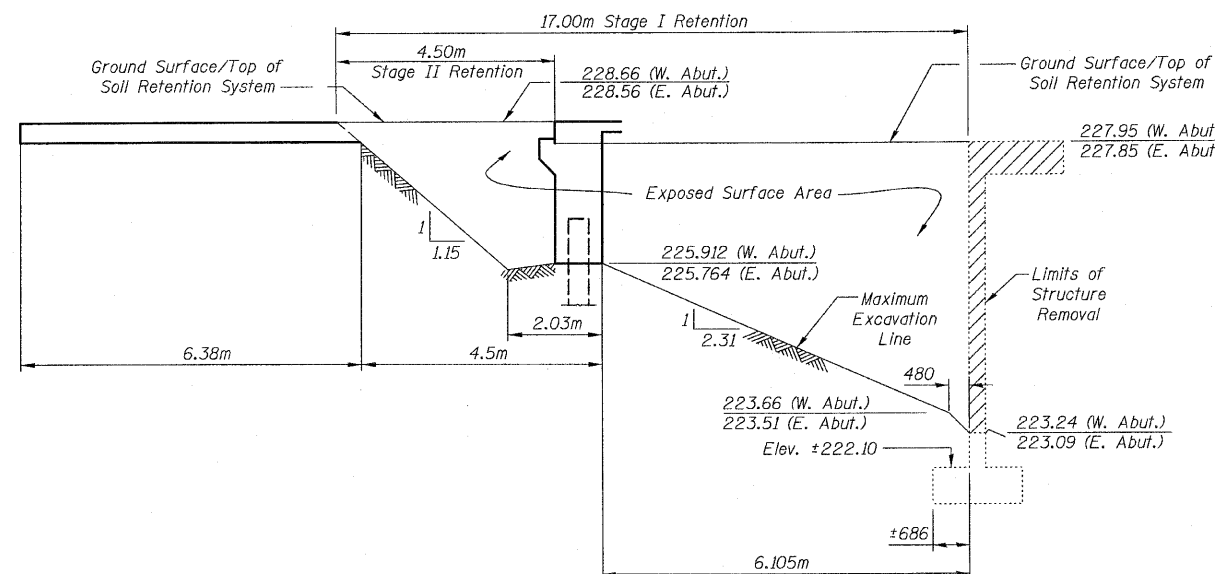
Two 3 mm adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing the existing superstructure. The Contractor shall sawcut the upper portion of the existing abutment at the stage removal line before Stage I removal to ensure the remaining portion will not be prematurely damaged.

All dimensions are in millimeters (mm) except as noted.

Slipforming of the parapets is not allowed.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



TEMPORARY SOIL RETENTION SYSTEM

- Slopes and distances shown along alignment of sheeting. (for structure with 30 degree skew).
- A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment, Special	m ³	0	230	230
Stone Riprap Class A4	m ²	0	1,005	1,005
Filter Fabric	m ²	0	1,065	1,065
Removal of Existing Structures	Each	1	0	1
Protective Shield	m ²	460	0	460
Structure Excavation	m ³	0	1,100	1,100
Underwater Structure Excavation Protection - Location 1*	Each	0	1	1
Temporary Soil Retention System	m ²	0	70	70
Concrete Encasement	m ³	0	7	7
Concrete Structures	m ³	0	117	117
Concrete Superstructure	m ³	270	0	270
Bridge Deck Grooving	m ²	780	0	780
Protective Coat	m ²	930	0	930
Erecting Structural Steel**	L. Sum	0.93	0	0.93
Stud Shear Connectors	Each	3,060	0	3,060
Bar Splicers	Each	751	126	877
Reinforcement Bars, Epoxy Coated	KG	38,790	8,090	46,880
Furnishing Steel Piles, HP310x79	Meter	0	380	380
Driving Piles	Meter	0	380	380
Test Pile Steel, HP310x79	Each	0	3	3
Name Plates	Each	1	0	1
Anchor Bolts, M24	Each	0	36	36
Geocomposite Wall Drain	m ²	0	100	100
Pipe Underdrains for Structures 100mm	m	0	60	60

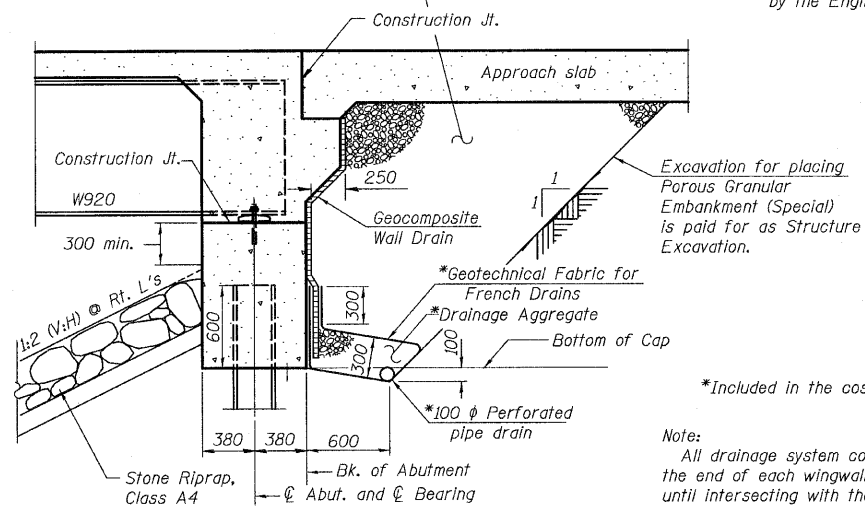
*Location 1: Pier

**Furnishing Structural Steel is paid for under a separate contract

DESIGNED	JRF
CHECKED	RCJ
DRAWN	RDS
CHECKED	JRF



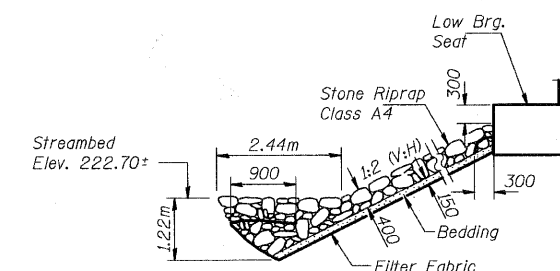
Backfill with Porous Granular Embankment (Special) by Bridge Contractor after superstructure is in place.



SECTION THRU INTEGRAL ABUTMENT
(Horiz. dim. @ Rt. L's)

Note:

All drainage system components shall extend to 600mm from the end of each wingwall except an outlet pipe shall extend until intersecting with the riprap slope as shown on the Plan view on Sheet 1. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101). Drainage components shall step at the change in elevation of the bottom of the abutment. Use a section of 100mm diameter perforated pipe at a 45 degree slope while maintaining the typical French Drain dimensions.



STONE RIPRAP ANCHOR DETAIL

**BILL OF MATERIAL,
GENERAL DATA
FAP 303 IL. ROUTE 173
OVER EAST BOAT CHANNEL
SECTION 134(B&B-2)R-1
LAKE COUNTY
STATION 26+271.906
STRUCTURE NO. 049-0198**