Bench Mark: Standard tablet "REI 3 1944", Elev. 537.51

Existing Structure: The existing structure, S.N. 034-2007, built in 1991 under Section 24(B-1) replaced the original structure. It consists of a cast in place double cell box culvert with a clear height of 10'-0" and a clear width of 11'-0" per cell. The back to back headwall dimension is 64'-0". The existing wingwalls and aprons shall be removed and the barrel extended at both ends. The new wingwalls shall be designed as a combination horizontal and L-type vertical cantilever as per geotechnical recommendations. Traffic is to be maintained on existing roadway. Culvert will be extended upstream and the WB Roadway constructed. Traffic will then be diverted and the culvert extended downstream.

No salvage

Precast alternate is not allowed

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

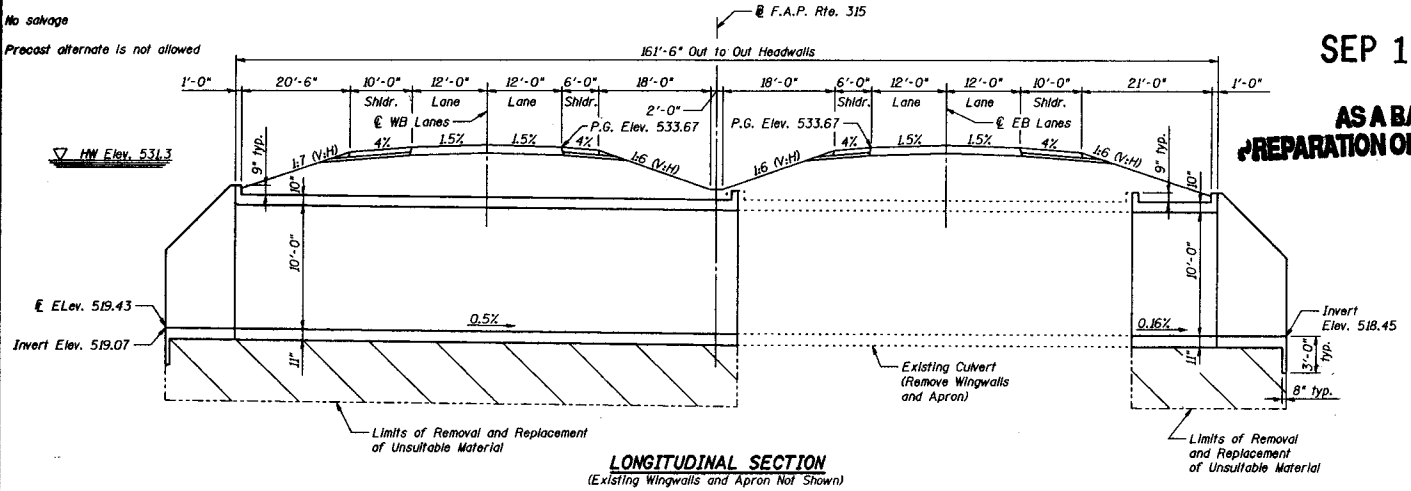
# APPROVED

SEP 15 2005

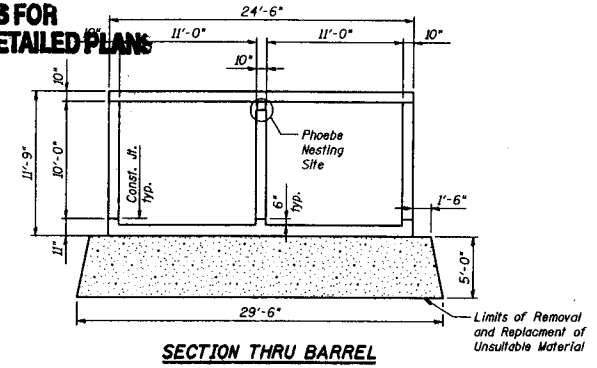
AS A BASIS FOR PREPARATION OF DETAILED PLANS

| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET |
|---|---|---|---|---|
| F.A.P. 315 | (31,32)I | HANCOCK | | |
| FED. ROAD DIST. NO. 7 | ILLINOIS | FED. AID PROJECT- | | |

SHEET NO. 1
1 SHEET

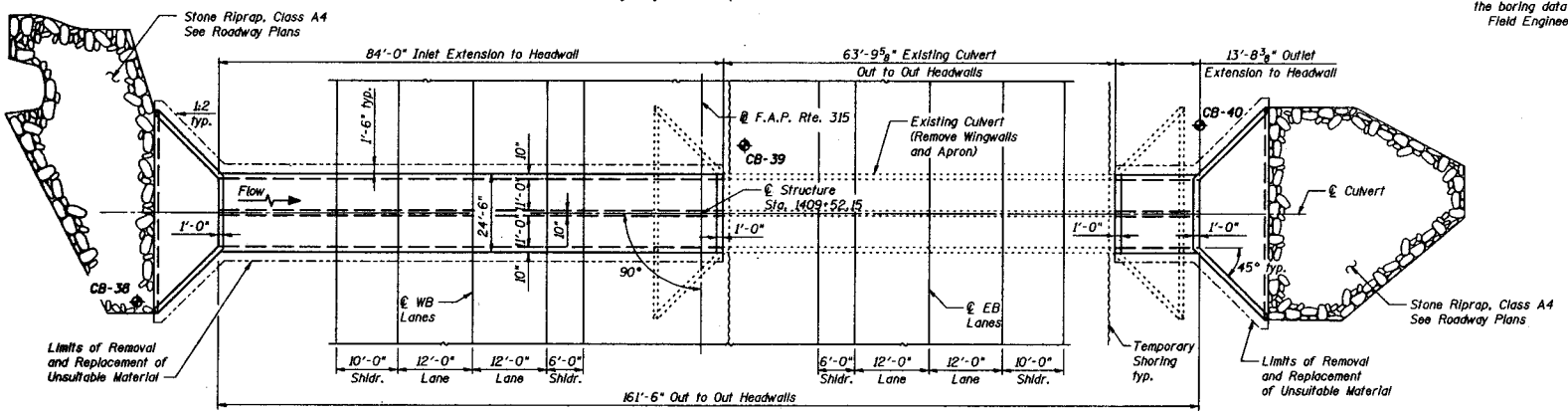



## LONGITUDINAL SECTION
(Existing Wingwalls and Apron Not Shown)




## SECTION THRU BARREL

The limits and quantities of removal and replacement are based on the boring data and may be modified by the District Geotechnical and Field Engineers for variable subsurface encountered in the field.




## PLAN

## HIGHWAY CLASSIFICATION

F.A.P. Rte. 315 - IL Rte. 336
Functional Class: Principle Arterial
ADT: 2700 (2003) ADT: 4500 (2028)
ADTT: 585 (2028)
Design Speed: 70 mph
Posted Speed: 65 mph
DHV: 450 (2028)

## LOADING HS20-44

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

## DESIGN SPECIFICATIONS

2002 AASHTO

## DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi (concrete)
fy = 60,000 psi (reinforcement)

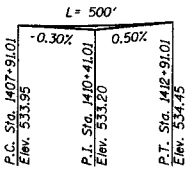
## SEISMIC DATA

Seismic Perfomance Category (S.P.C.) = A
Bedrock Acceleration Coefficient (A) = 0.04g
Site Coefficient (S) = 1.0

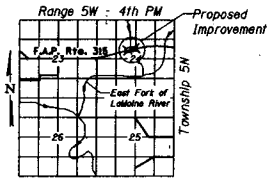
## WATERWAY INFORMATION

Drainage Area = 1.9 sq. mi. Low Grade Elev. 532.11 @ Sta. 690+88.70

| Flood | Freq. Yr. | Q C.F.S. | Opening Sq. Ft. Exist. | Opening Sq. Ft. Prop. | Nat. H.W.E. | Head - Ft. Exist. | Head - Ft. Prop. | Headwater El. Exist. | Headwater El. Prop. |
|---|---|---|---|---|---|---|---|---|---|
| Design | 50 | 1396 | 220 | 220 | 531.3 | 0.8 | 0.9 | 532.1 | 532.2 |
| Base | 100 | 1647 | 220 | 220 | 531.3 | - | 1.2 | - | 532.5 |
| Overtopping | 50 | 1406 | 220 | 220 | 531.3 | 0.8 | - | 532.1 | - |
| Max. Calc. | 500 | 2272 | 220 | 220 | 531.3 | - | 2.3 | - | 533.6 |




## PROFILE GRADE
Along @ Roadway




## LOCATION SKETCH

| | |
|---|---|
| DESIGNED | NJM |
| CHECKED | EML |
| DRAWN | NJM |
| CHECKED | EML |

GENERAL PLAN
ILLINOIS ROUTE 336 OVER TRIBUTARY
OF THE EAST FORK OF THE LAMOINE RIVER
F.A.P. ROUTE 315 - SECTION (31,32)I
HANCOCK COUNTY
STA. 1409+52.15
STRUCTURE NO. 034-2007