

11:07:52 AM

12/23/2009

B.M. 3014 - Railroad spike in 760 mm (30") diameter tree located near west edge of field.  
Sta. 35+362.7, 30.8 m Rtl., Elev. 149.445

Existing Structure: None

Indicates Soil Boring

# STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

STATION 35+291.000  
BUILT 200\_ BY  
STATE OF ILLINOIS  
F.A.P. RT. 310 SEC. 60-15B  
LOADING MS18  
STR. NO. 060-2043

### NAME PLATE

See Std. 515001

ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET NO.
F.A.P. 310	60-15B	MADISON	474	244
FED. ROAD DIST. NO. 7		ILLINOIS		FED. AID PROJECT-

SHEET NO. 1  
9 SHEETS

### GENERAL NOTES

Contract No. 76323

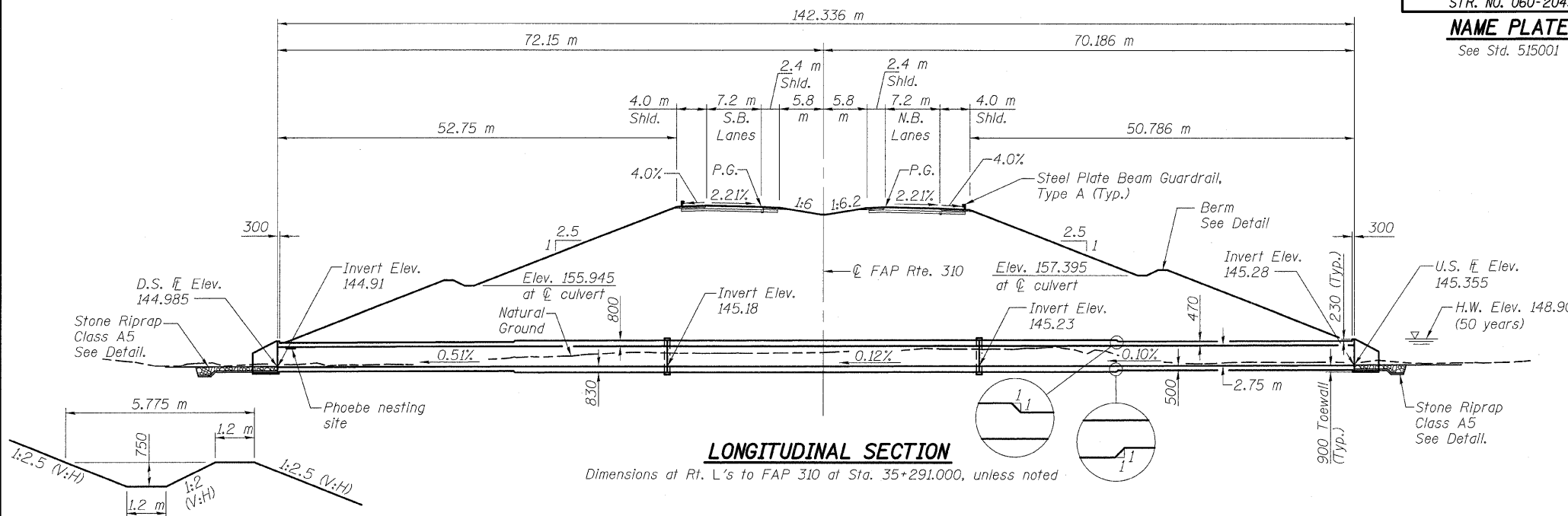
- All construction joints shall be bonded.
- Precast alternate is NOT allowed.
- Reinforcement bars shall conform to the requirements of ASTM A 706M Grade 420. See Special Provisions.
- Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.
- A distance of half the length of the wingwall but not less than 2 m of the barrel shall be poured monolithically with the wingwalls.
- All dimensions are in millimeters (mm) except as noted.

### TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Name Plates	each	1
Stone Riprap, Class A5	m <sup>2</sup>	432
Filter Fabric	m <sup>2</sup>	432
Concrete Box Culverts	m <sup>3</sup>	2878.2
Reinforcement Bars	kg	527,220

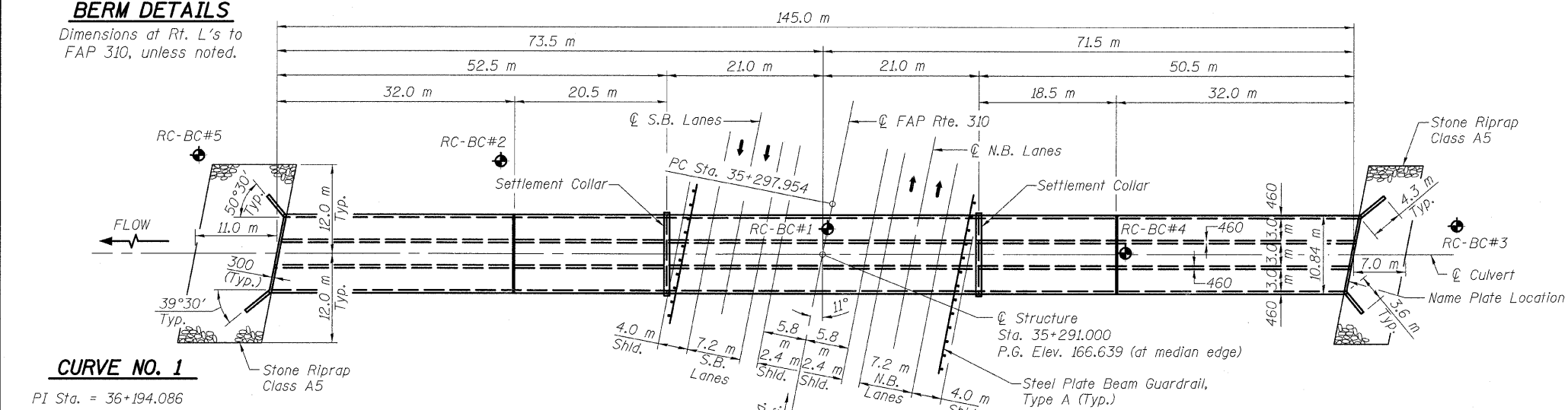
### LONGITUDINAL SECTION

Dimensions at Rt. L's to FAP 310 at Sta. 35+291.000, unless noted



### BERM DETAILS

Dimensions at Rt. L's to FAP 310, unless noted.



### PLAN

### CURVE NO. 1

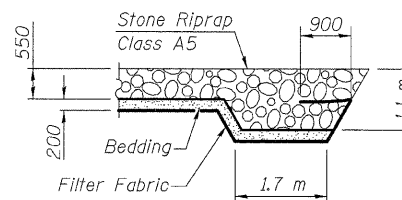
PI Sta. = 36+194.086  
 $\Delta = 70^\circ 24' 53''$  (RT)  
 R = 1270.000 m  
 T = 896.132 m  
 L = 1560.792 m  
 E = 284.333 m  
 PC Sta. = 35+297.954  
 PT Sta. = 36+858.745  
 SE = 4.1%  
 SE Attained Sta. 35+238.000 To Sta. 35+318.000  
 SE Removed Sta. 36+839.000 To Sta. 36+919.000

### WATERWAY INFORMATION

Drainage Area = 8.82 sq. km Low Grade Elev. 165.425 @ Sta. 35+496.180

Flood	Freq. Yr.	Q C.M.S.	Opening m <sup>2</sup>		Head - m		Headwater El.		
			Exist.	Prop.	Exist.	Prop.			
Design	50	72.4	n/a	24.75	148.90	n/a	0.00	n/a	148.90
Base	100	83.8	n/a	24.75	149.03	n/a	0.24	n/a	149.27
Overtopping	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Max. Calc.	500	111.9	n/a	24.75	142.28	n/a	1.10	n/a	150.38

① at upstream face of culvert



### FLANK STONE RIPRAP DETAIL

### INDEX OF SHEETS

- General Plan
- Plan and Elevation
- Plan and Wingwall Sections
- Longitudinal Section
- Details
- Details
- 7-9 Soil Boring Logs



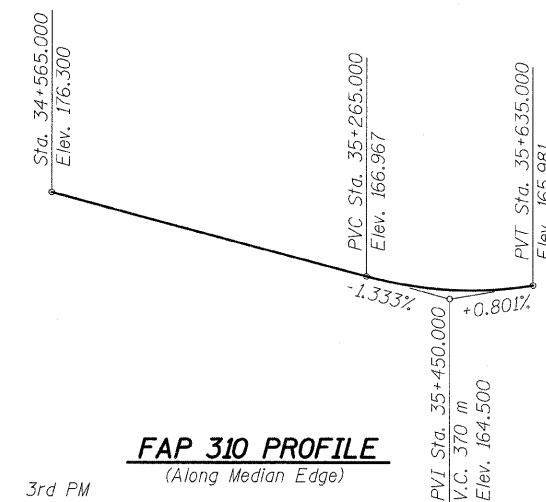
APPROVED  
FOR STRUCTURAL ADEQUACY ONLY

Alan D. Lukens  
ENGINEER OF BRIDGES AND STRUCTURES

Alan D. Lukens  
Licensed Structural Engineer  
State of Illinois No. 081-005167  
License Expires 11/30/10

12-28-09  
Date

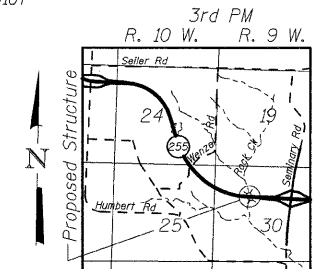
### FAP 310 PROFILE (Along Median Edge)



LOADING MS18  
Allow 2.4 kN/m<sup>2</sup> For future wearing surface.

DESIGN SPECIFICATIONS  
2002 AASHTO  
DESIGN STRESSES

FIELD UNITS  
f<sub>c</sub> = 24 MPa  
f<sub>y</sub> = 420 MPa (reinforcement)



### LOCATION SKETCH

GENERAL PLAN  
FAP RTE 310 (IL RTE 255)  
OVER ROCK CREEK  
SECTION 60-15B  
MADISON COUNTY  
STATION 35+291.000  
S.N. 060-2043

DESIGNED	ADL
CHECKED	WLW
DRAWN	ADL
CHECKED	WLW

### KLINGNER & ASSOCIATES, P.C.

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