BENCH MARK:

T.B.M. #4P R.R. spike northerly side power pole Sta. 716+24.37, 79.23' Lt. Elev. 588.71

C.P. #15 P.K. spike Sta. 725+05.18, 33.32' Rt. Elev. 593.42

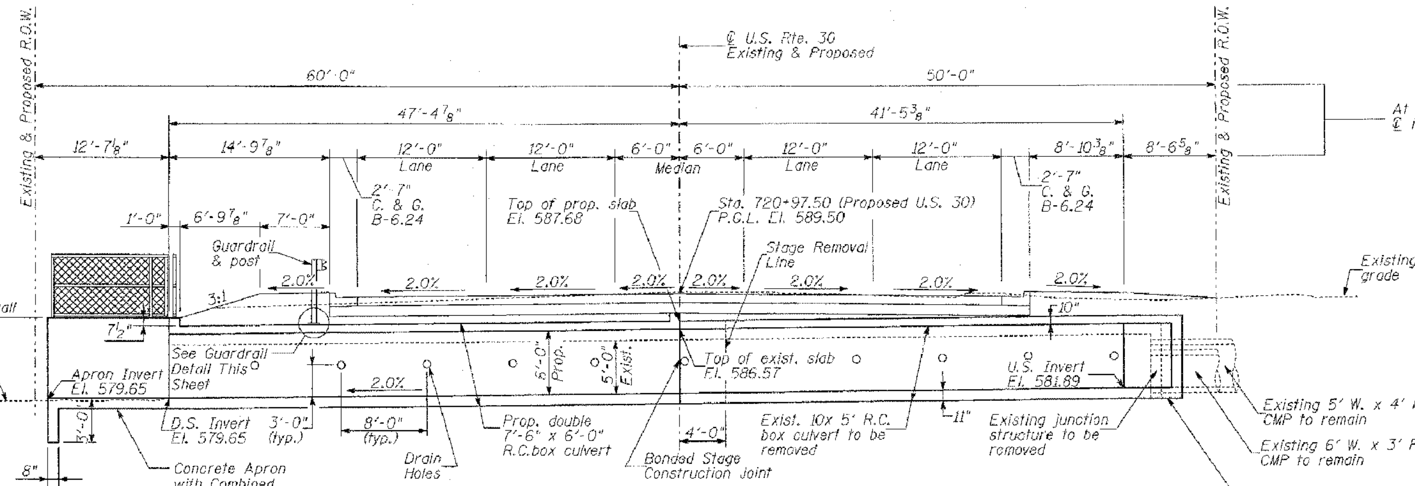
EXISTING STRUCTURE

The existing box culvert was built in 1973 under Section (G8.G2) W8.RS-1 Project U-239(16). Structure is a 10'X5' R.C. box culvert with a total length of 112'-1". Two C.M.P.'s 5' W. x 4' R. & 6' W. x 3' R. terminate at upstream end where a concrete collar was constructed to accomodate both pipes.

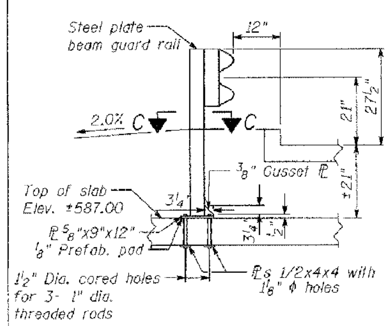
No salvage of existing structure

PROPOSED IMPROVEMENTS

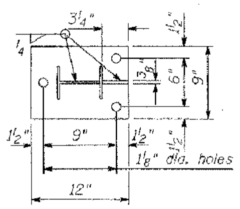
Existing structure to be removed (including concrete collar at upstream end) and replaced W/7'-6" X 6'-0" double barrel R.C. box culvert. The road shall be kept open to traffic at all times by utilizing staged construction, as shown on Sheet 4 of 8.



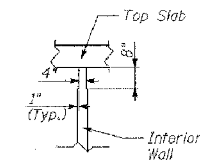
LONGITUDINAL SECTION



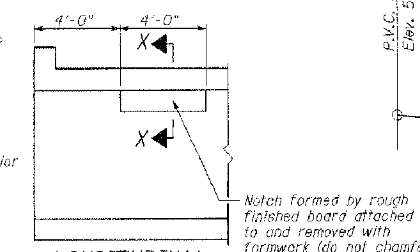
GUARDRAIL DETAIL



SECTION C-C



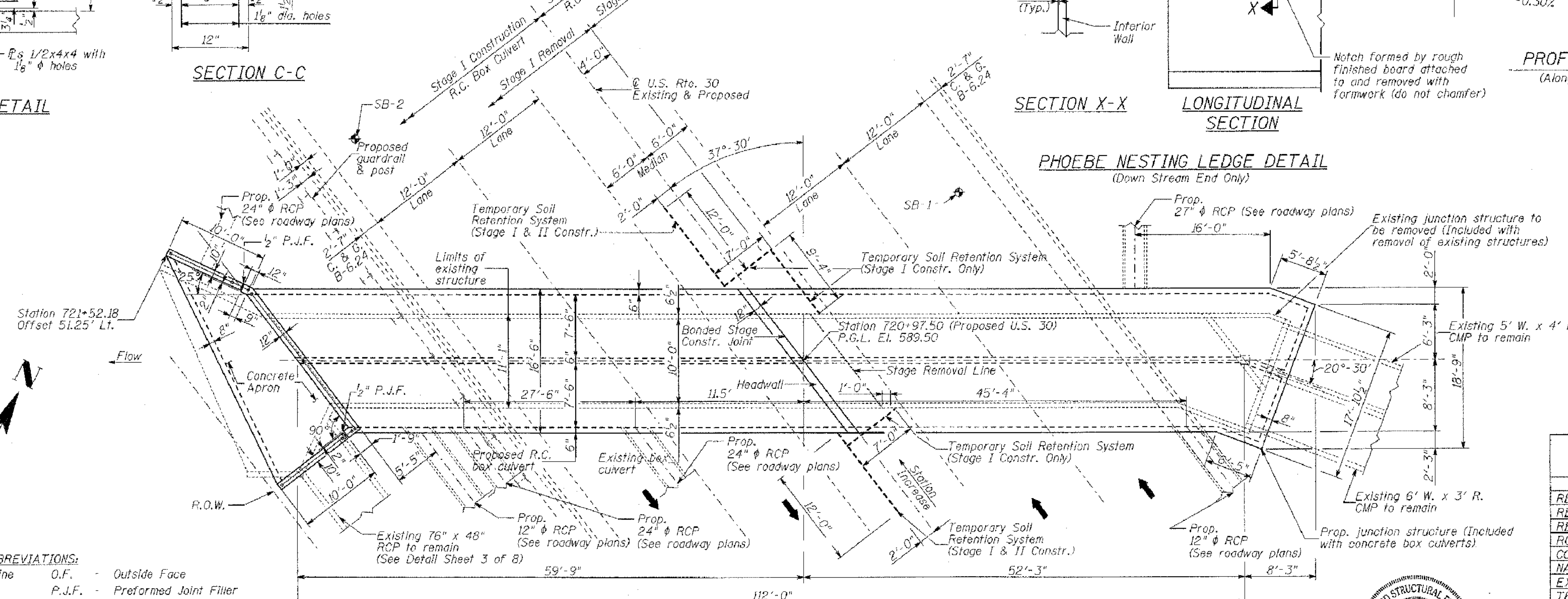
SECTION X-X



LONGITUDINAL SECTION

PHOEBE NESTING LEDGE DETAIL

(Down Stream End Only)

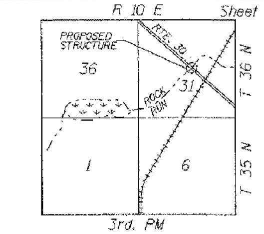


PLAN

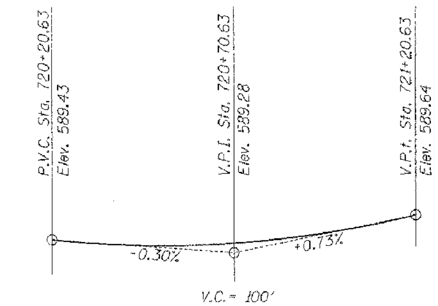
STATION 720+97.50
BUILT BY
STATE OF ILLINOIS
F.A. RT. 575 SEC. (8&14) R-3
F.A. PROJ.
LOADING HS20
STR. NO. 099-C002

NAME PLATE

See Std. 515001



LOCATION SKETCH



PROFILE GRADE

(Along ℄ Roadway)

DESIGN SPECIFICATIONS

1996 AASHTO "Standard Specifications for Highway Bridges" with 1997 thru 2001 Interims.

DESIGN STRESSES

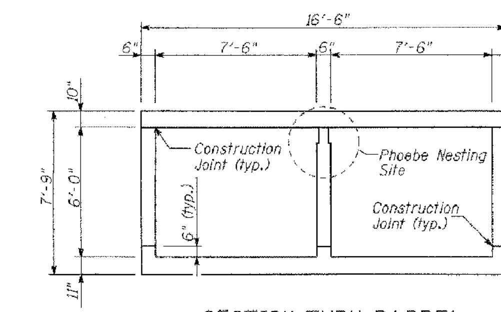
FIELD UNITS

f'c = 3,500 psi

fy = 60,000 psi (Reinforcement)

LOADING HS20-44

Allow 50#/Sq. Ft. for future wearing surface.



SECTION THRU BARREL

TOTAL BILL OF MATERIAL

Description	Unit	Quantity
REINFORCEMENT BARS	POUND	38,310
REINFORCEMENT BARS, EPOXY COATED	POUND	120
REMOVAL OF EXISTING STRUCTURES	EACH	1
ROCK EXCAVATION FOR STRUCTURES	CU. YD.	5
CONCRETE BOX CULVERTS	CU. YD.	181.2
NAME PLATES	EACH	1
EXPANSION BOLTS 3/4 INCH X 9 INCH	EACH	34
TEMPORARY SOIL RETENTION SYSTEM	SQ. FT.	570
BAR SPLICERS	EACH	78

BORING DATA

BORING NO.	STATION	OFFSET
SB-1	721+02.00	27.00' Rt.
SB-2	721+50.00	27.00' Lt.

ABBREVIATIONS:

P.G.L. - Profile Grade Line
E.F. - Each Face
F.F. - Front Face
B.F. - Back Face
I.F. - Inside Face
O.F. - Outside Face
P.J.F. - Preformed Joint Filler
B. - Bottom
T. - Top
Prop. - Proposed

WATERWAY INFORMATION TABLE

Drainage Area = 2.2 Sq. Mi. @ Sta. 720+49.78 Low Grade Elev. = 589.39 (Proposed); @ Sta. 720+65.41 Low Grade Elev. = 589.32 (Existing)

Flood	Freq. (year)	Q (ft³/s)	Opening (ft²) Exist	Opening (ft²) Prop	Natural* HWE	Head (ft) Exist	Head (ft) Prop	Head Water Elev. (ft) Exist	Head Water Elev. (ft) Prop
Design	50	315	50	90	586.91	1.76	0.00	588.67	586.91
Base	100	472	50	90	587.30	1.52	0.00	588.82	587.30
Overtopping	10	126	50	90	586.25	2.08	0.00	588.33	586.25
Max. Calc.	500	—	—	—	—	—	—	—	—

*Tail water at U.S. 30 culvert. The Village of Crest Hill F.I.S. was the basis of analysis and is 0.11 ft. higher in datum.

GENERAL NOTES:

1. The Contractor is to field verify all existing construction related conditions prior to starting demolition.
2. Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of work. However, the Contractor will be paid for the quantity actually furnished at the unit price for the work.
3. Reinforcement bars shall conform to the requirements of AASHTO M31, M42 or M53 Grade 60.
4. Expansion bolts shall be ¾" dia. hooked bolts. Hooked expansion bolts shall extend a minimum of 9" into new concrete.
5. See Standard Specifications for backfilling & embankment.
6. Precast alternative is not allowed.

LICENSED STRUCTURAL ENGINEER AHMAD TALAL S. IDRISS 081-005753 SPRINGFIELD ILLINOIS STATE OF ILLINOIS

Ahmad T. Idriss

Ahmad T. Idriss, P.E., S.E.
Illinois Licensed Structural Engineer
License Number: 081-005753
Expiration date: November 30, 2006

CMT
CRAWFORD MURPHY & TILLY, INC.
CONSULTING ENGINEERS
SPRINGFIELD, IL ■ AURORA, IL ■ ST. LOUIS, MO

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

GENERAL PLAN

FAP RTE. 575 (U.S.30)
U.S. ROUTE 30 OVER ROCK RUN CREEK
SECTION (B & 14) R-3 STA. 720+97.50
WILL COUNTY
S.N. 099-C002

SCALE: VERT. NONE HORIZ.
DATE: 3/1/05
DRAWN BY: GRS
CHECKED BY: ATI

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