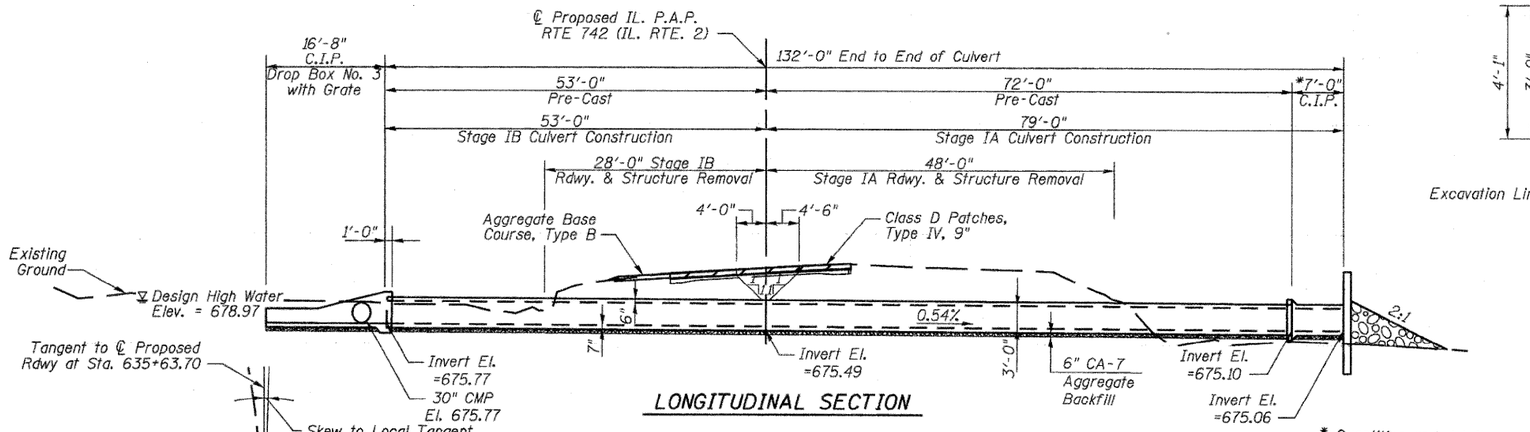
Benchmark:

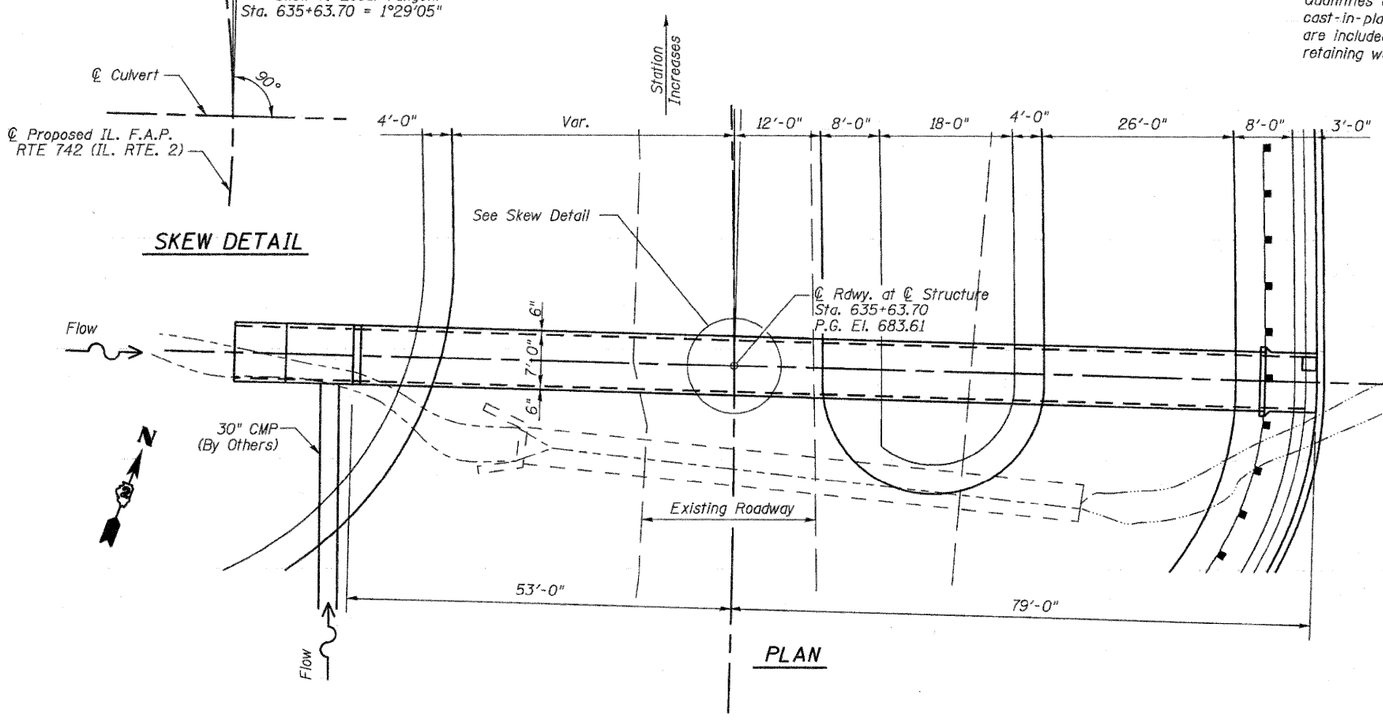
Existing Structure: Built in 1952 as a single barrel 5'-0" x 4'-0" R.C. Box Culvert with a length of 76'-0". Traffic to be Maintained Utilizing Stage Construction. No Salvage.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



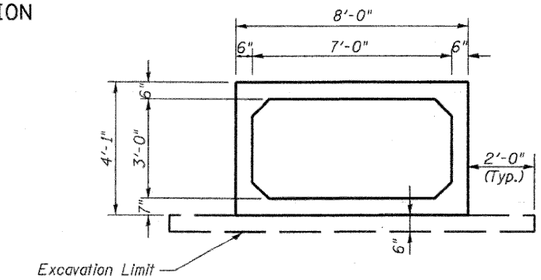
LONGITUDINAL SECTION

* Quantities and details for cast-in-place end section are included with the retaining wall.



SKEW DETAIL

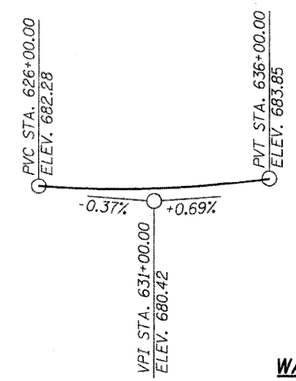
PLAN



HORIZONTAL CURVE DATA

PI STA. = 638+41.48
Δ = 31° 54' 45.1" (LT)
D = 4° 00' 00"
R = 1,432.40'
T = 409.56'
L = 797.84'
E = 57.40'
P.C. STA. = 634+31.91
P.T. STA. = 642+29.75
S.E. = 0.0508'/'

PROFILE GRADE



DESIGN STRESSES

fy = 60,000 psi
fy = 65,000 psi (Welded Wire Fabric)
f'c = 3,500 psi
f'c = 5,000 psi (Precast)

DESIGN SPECIFICATIONS

2002 A.A.S.H.T.O. Specifications & Supplements

LOADING HS 20-44

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

GENERAL NOTES

Precast Box shall conform to the requirements of A.A.S.H.T.O. M259 (A.S.T.M. C789). The maximum design fill height for this structure is 6'-0".

Culvert Concrete thickness shown shall be considered the minimum acceptable. Other thickness will be allowed if approved by the engineer.

Work this sheet with Staging sheets.

STATION 635+63.70
BUILT 20__ BY
STATE OF ILLINOIS
F.A.P. RTE. 742 SEC. 37R-3
LOADING HS20-44
STRUCTURE NO. 071-1133

NAME PLATE

See Std. 515001

TOTAL BILL OF MATERIALS

DESCRIPTION	UNIT	QTY.
Removal of Existing Structures No. 3	Each	1
Drop Box, No. 3	Each	1
Precast Concrete Box Culvert 7' X 3' Special	Foot	125

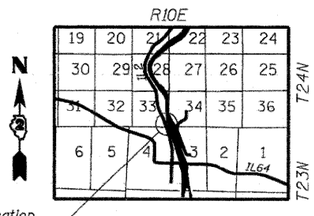
WATERWAY INFORMATION TABLE

Drainage Area = 131.9 Acres

Existing Low Grade Elevation: 682.42 ft. @ Sta. 631+00
Proposed Low Grade Elevation: 681.74 ft. @ Sta. 631+00

	Frequency Year	Discharge (cfs)	Waterway Opening Sq. Ft.		Natural H.W.E.	Head (ft)		Headwater Elev. (ft)	
			Existing	Proposed		Existing	Proposed	Existing	Proposed
Ten-Year	10	49	20.0	21.0		2.86	2.80	678.07	678.58
Design	50	86	20.0	21.0		3.67	3.19	678.88	678.97
Base	100	101	20.0	21.0		4.06	3.33	679.27	679.11
EX OVT									
PR OVT									
Max Calc	500	139		21.0		5.03	3.33	680.24	679.11

10-Year Velocity through Existing Structure= 2.4 fps
10-Year Velocity through Proposed Structure= 6.0 fps



LOCATION SKETCH

DESIGNED	CTH
CHECKED	DSG
DRAWN	EBS
CHECKED	DFM

STATE OF ILLINOIS
DAVID F. MAXWELL
081-005455
ST. LOUIS, MO.
LICENSED STRUCTURAL ENGINEER

David F. Maxwell, S.E. Reg. No. 081-005455
Date: 2/19/09
My registration expires November 30, 2010.

Howard R. Green Company

GENERAL PLAN & ELEVATION
IL. RTE. 2 OVER
TRIBUTARY TO ROCK RIVER
STA. 635+63.70

SHEET NO. 1	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1 SHEETS	742	37 R-3	OGLE	345	185
	SN 071-1133		CONTRACT NO. 84788		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		