

FBI ROUTE	IDOT SECTION	COUNTY
9380	02-00016-01-PV	ST. CLAIR
FEDERAL AID PROJECT	ILLINOIS	
IDOT JOB NO.	C-98-318-08	
IDOT CONTRACT NO.	97345	

THOUVENOT, WADE & MOERCHEN, INC.
ENGINEERS • SURVEYORS • PLANNERS



- CORPORATE OFFICE**
4940 OLD COLLINSVILLE RD.
SWANSEA, ILLINOIS 62226
TEL (618) 624-4488
FAX (618) 624-6688
corp@twm-inc.com
- EDWARDSVILLE OFFICE**
1015B CENTURY DRIVE
EDWARDSVILLE, ILLINOIS 62025
TEL (618) 656-4040
FAX (618) 656-4343
edwardsville@twm-inc.com
- ST. LOUIS OFFICE**
1001 CRAIG ROAD, SUITE 260
ST. LOUIS, MISSOURI 63146
TEL (314) 236-5052
FAX (314) 872-2194
stlouis@twm-inc.com
- WATERLOO OFFICE**
113 SOUTH MAIN STREET
WATERLOO, ILLINOIS 62298
TEL (618) 939-5050
FAX (618) 939-3938
waterloo@twm-inc.com

PROFESSIONAL REGISTRATIONS	LICENSE NO.
ILLINOIS PROFESSIONAL DESIGN FIRM	184-001220
PROFESSIONAL ENGINEERING CORP.	62-035370
PROFESSIONAL STRUCTURAL ENGR. CORP.	81-005202
ILLINOIS PROF. LAND SURVEYING CORP.	048-000029
MISSOURI PROFESSIONAL ENGR. CORP.	NC 001528
MISSOURI LAND SURVEYING CORP.	NC 000346

Signature: _____
Signature Date: _____
Expiration Date: _____

STATEMENT OF RESPONSIBILITY
I hereby confirm that the document herein to be authenticated by my seal is restricted to this sheet, and I hereby disclaim any responsibility for all other drawings, specifications, estimates, reports or other documents or instruments relating to or intended to be utilized for any other part of the architectural, engineering or survey project.

BOX CULVERT DETAIL
STA. 70+24.63

COUNTY ROAD RECONSTRUCTION - PHASE II
CITY OF MASCOUTAH
ST. CLAIR COUNTY, ILLINOIS

REV	DATE	DESCRIPTION

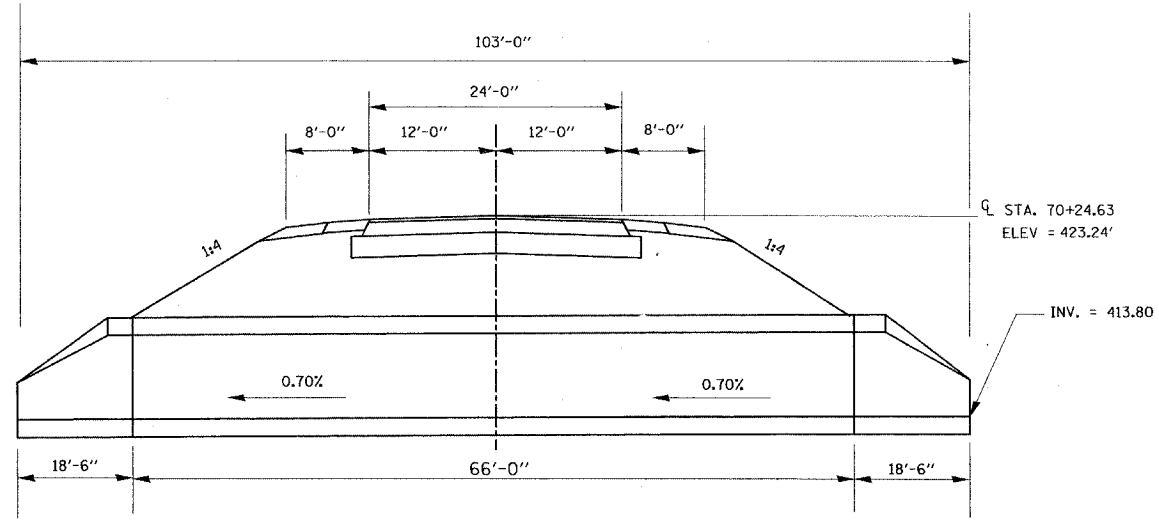
DRAWN BY: JWS
DESIGNED BY: JWS
CHECKED BY: SJK
APPROVED BY: _____
PROJECT NUMBER: 20-010154

SHEET 53 OF 113 SHEETS
PROJECT DESCRIPTION: COUNTY ROAD REALIGNMENT

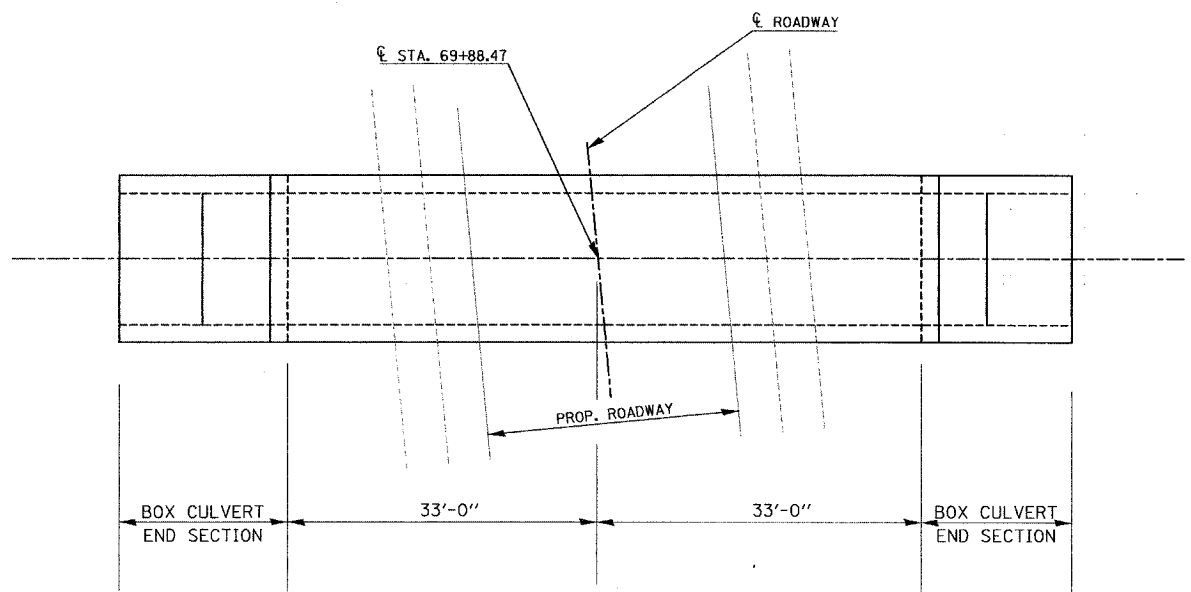
ISSUED FOR REVIEW ISSUED FOR BIDDING
 ISSUED FOR CONSTR. RECORD DRAWING

GENERAL NOTES

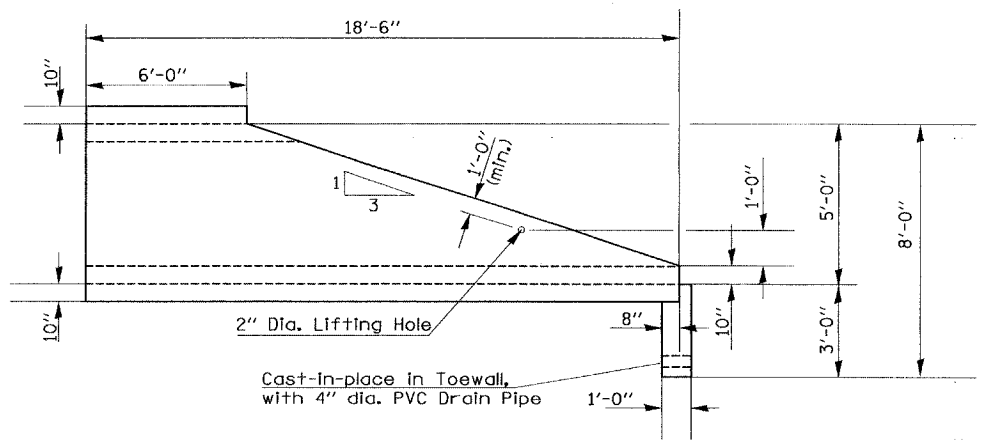
1. All dimensions are in feet except as noted. All elevations are in feet.
2. Exposed edges shall have a 3/4" chamfer unless otherwise noted.
3. Provide a light broom finish to the floor of the Precast Concrete Box Culvert and Box Culvert End Sections. Cost included with "Precast Concrete Box Culverts 10 ft. x 5 ft." and "Box Culvert End Section, Culvert No. 1".
4. The Cast-In-Place toewall will not be paid for separately, but shall be included in the cost for "Box Culvert End Section, Culvert No. 1". Approximately 2.0 cu. yd. of concrete will be required.
5. This box culvert has an approximate fill height of 4 feet 0 inches. The Precast Concrete Box Culvert shall be designed in accordance with AASHTO M259 except that the aggregate shall conform to the requirements of Article 1003.02 and 1004.02 of the Standard Specifications with the exception of gradation.
6. The contractor shall submit shop drawings and calculations for the Precast Concrete Box Culvert and Box Culvert End Sections. Shop drawings and calculations shall be sealed by a Structural Engineer registered in the State of Illinois.
7. Structure Excavation (Special), Porous Granular Embankment (Special), and Trench Backfill shall be included in the contract unit price of the "Precast Concrete Box Culvert 10 ft. x 5 ft." and "Box Culvert End Section, Culvert No. 1".
8. Should unstable soils be encountered upon Structure Excavation, the ENGINEER shall determine the necessary depth of excavation required to reach stable soils.



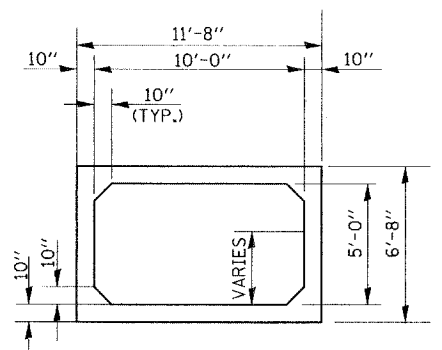
ELEVATION



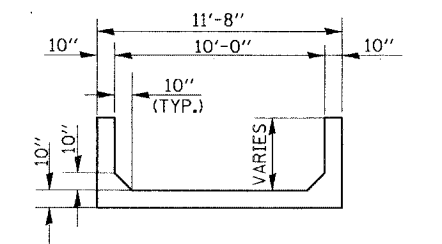
PLAN



END SECTION ELEVATION



SECTION THRU BARREL



SECTION THROUGH END SECTION

DESIGN STRESSES

PRECAST UNITS
f'_c = 5 ksi
f_y = 65 ksi (welded wire fabric)

LOADING HS20-44

DESIGN SPECIFICATIONS
2002 AASHTO Standard Specifications for Highway Bridges

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Precast Concrete Box Culverts 10 ft. x 5 ft	Ft.	66
Box Culvert End Section, Culvert No. 1	Each	2