

RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
4th STR	05-00014-00-BR	HANCOCK	20	12
STA. 13+89.0		STA.		
FED. ROAD DIST.	ILLINOIS	FED. AID PROJECT		

Benchmark - BM#1 USGS Brass Tablet
Easterly Corner of 3rd and Elm
Elev. 537.305

Existing Structure - S.N. 034-6027 - Built in 1945. Single span bridge built on 45° skew with closed abutments. Distance between faces of backwalls is 20 feet. The contractor shall remove the structure and replace it with a 11' x 10' double barrel box culvert. The structure will be closed to traffic during construction

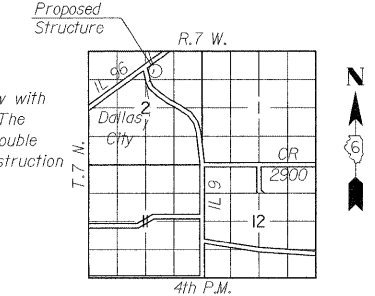
Salvage - All Salvagable Materials to Become The Property of the Contractor

Estimated Removal Quantities - 86 Cu. Yd. Concrete

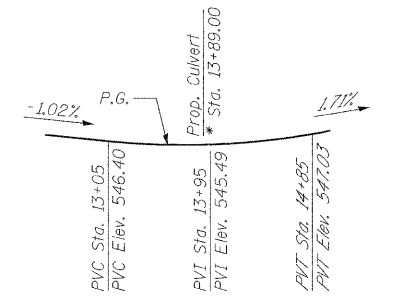
Precast alternate is not allowed.

INDEX OF SHEETS *STRUCTURAL*

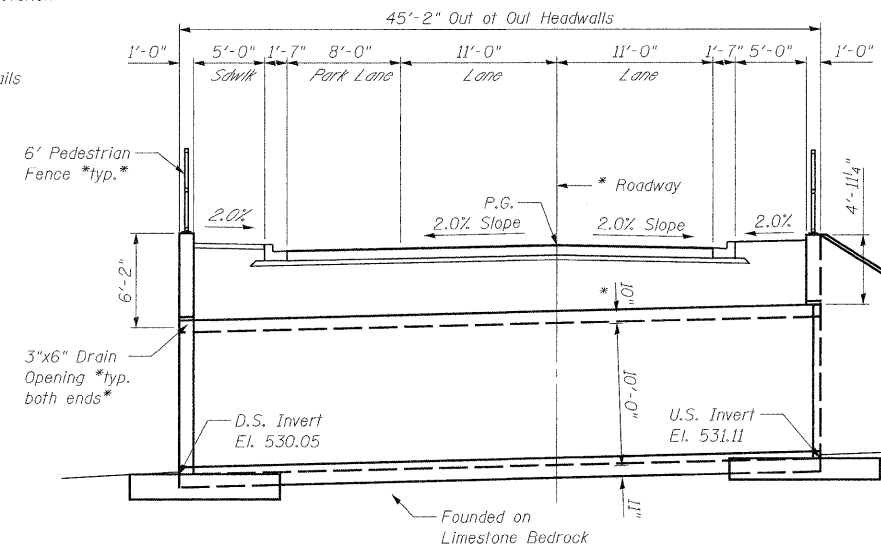
1. General Plan & Elevation
2. Culvert Layout
3. Culvert Details
4. Wingwall Details
5. Misc. Culvert Details



LOCATION SKETCH



PROFILE GRADE
*Along *Roadway*



LONGITUDINAL SECTION
Perpendicular to *Roadway

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation *ft.*	D.S. Invert	U.S. Invert
	530.05	531.11

HIGHWAY CLASSIFICATION

4th St.
Functional Class: Local Street
ADT *2009*: 398
ADT *2029*: 398
Design Speed: 30 MPH
Posted Speed: 25 MPH

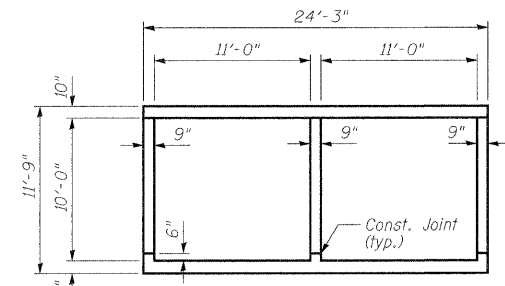
LOADING HS 20-44 & ALT.
Allow 50#*sq. ft. for future wearing surface

DESIGN SPECIFICATIONS

2002 AASHTO - 17th Ed.

DESIGN STRESSES

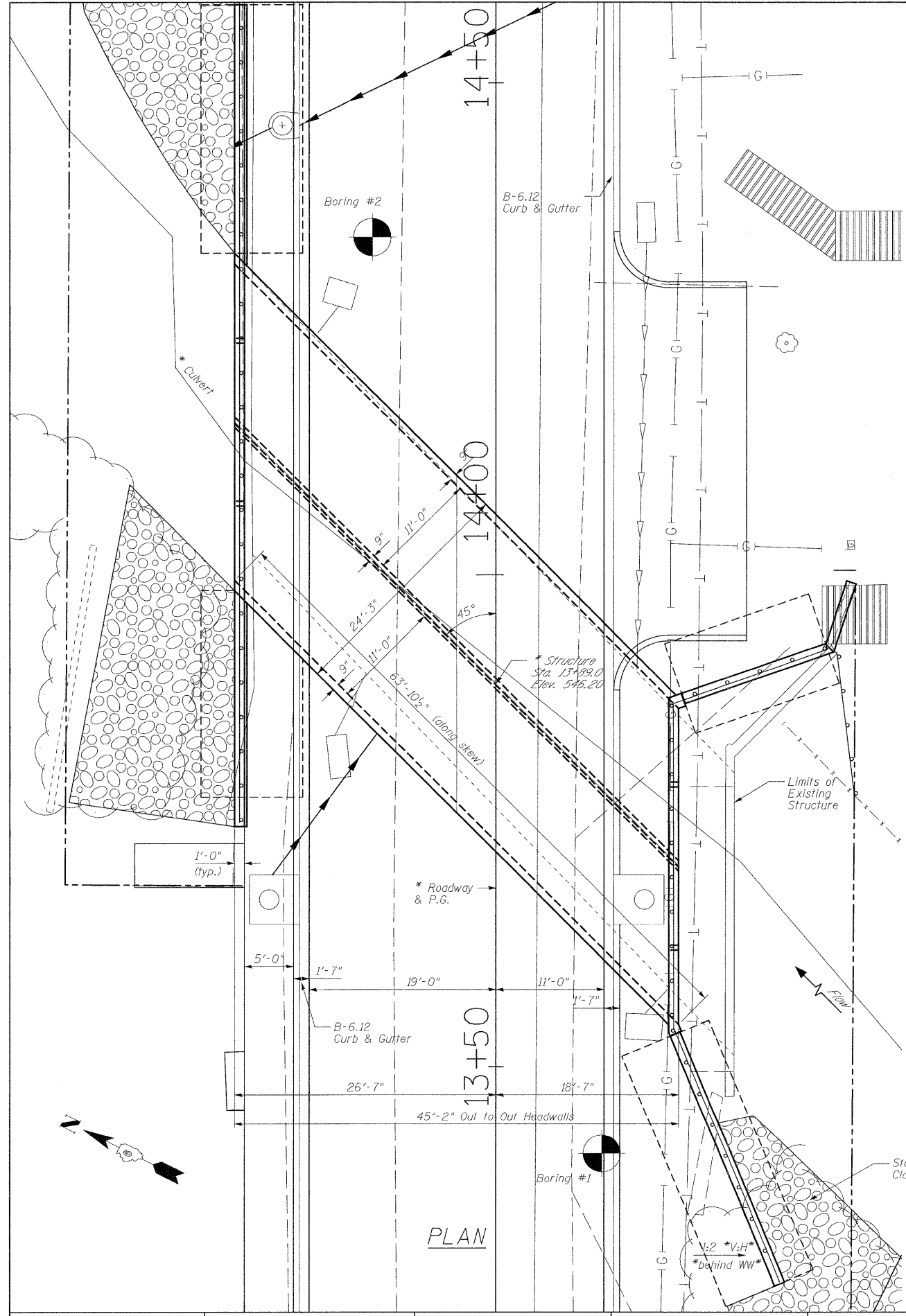
$f_y = 60,000$ psi *reinforcement*
 $f'_c = 3,500$ psi



SECTION THRU BARREL

WATERWAY INFORMATION

Drainage Area = 1.291 Sq. Mi.		Low Grade Elevation = 546.06		At Station 13+72.17		
Flood	Freq. Yr.	Q CFS	Opening Sq. Ft.	Natural H.W.E.	Head-Ft.	Headwater El.
			Exist. Prop.	Exist. Prop.	Exist. Prop.	Exist. Prop.
Min. Calc.	10	870	62 101	535.72	0.40 0.00	536.1 535.7
Design	30	1270	77 119	536.57	1.13 0.00	537.7 536.6
Base	100	1790	96 141	537.55	2.34 0.00	539.9 537.6
Overtopping	none					
Max. Calc.	500	2540	121 167	538.75	3.84 1.50	542.6 540.3



PLAN

DESIGNED - JLS	REVISED -
DRAWN - JLS	REVISED -
CHECKED - CSB	REVISED -
DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
DALLAS CITY CULVERT

SHEET 1 OF 5

COVERS SHEETS 12 TO 16
I CERTIFY THAT TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF, THIS BOX CULVERT DESIGN IS STRUCTURALLY ADEQUATE FOR THE DESIGN LOADS SHOWN ON THE PLANS. THE DESIGN IS AN ECONOMICAL ONE FOR THE STYLE OF STRUCTURE AND COMPLIES WITH REQUIREMENTS OF THE CURRENT AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES.
Charles J. Walsh 5/28/09
CHARLES J. WALSH, JR.
M.E. LICENSE NUMBER DATE IS NOVEMBER 30, 2005

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4TH	05-00014-00-BR	HANCOCK	20	12
SN 034-6028		CONTRACT NO. 93497		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		