

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 753	143RS-6	CHRISTIAN	127	81
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	SHEET NO. 1 OF 6 SHEETS	

Contract No. 72624  
SHEET 11 OF 26

Benchmark: Chiseled "X" in Top S.E. Bolt of Fire Hydrant set in N.E. Corner of IL 104 & Division Street  
Sta. 146+28 44.5' Lt. El. 566.74

Existing Structure: Existing 2'x2' Conc. Box Culvert, 36" R.C.C.P., & 2 - 30" C.M.P.  
Existing culvert and pipes to be removed.  
No salvage.

Proposed Structure: Triple 5'x3' precast box culvert with cast in place end sections.

- INDEX OF SHEETS**
1. GENERAL PLAN & ELEVATION
  2. STAGE CONSTRUCTION TRAFFIC DETAILS
  3. STAGE CONSTRUCTION DETAILS
  4. TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
  5. CULVERT DETAILS
  6. BORINGS

**GENERAL NOTES**

Reinforcement bars shall conform to the requirements of A.S.T.M. A 706, Grade 60 (IL Modified). See Special Provisions.  
For backfilling and embankment, see Special Provisions.  
See Section 540.06 of the Standard Specifications for Porous Granular Bedding requirements.  
Concrete required for the construction of the end sections is included in the quantity for Concrete Box Culverts.  
Layout of the riprap may be varied in the field to suit ground conditions as directed by the Engineer.  
Lifting holes shall be filled with concrete plugs and mastic after box sections are in place.  
Precast concrete box culvert sections shall conform to the requirements of Article 540.06 of the Standard Specifications and the applicable requirements of A.A.S.H.T.O. M 273 (ASTM C850).  
Precast End Sections will not be allowed.  
Cast in place concrete exposed edges shall be beveled 3/4".  
All construction joints shall be bonded.  
Outside end of precast sections at the ends of the culvert shall not have a bell or spigot.

**LOADING HS20-44**

Allow 50#/sq.ft. for future wearing surface

**DESIGN SPECIFICATIONS**

2002 A.A.S.H.T.O.

**DESIGN STRESSES**

**FIELD UNITS**

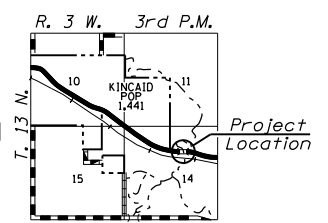
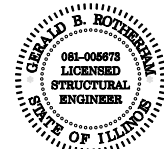
f'c = 3,500 psi  
fy = 60,000 psi (reinforcement)

**PRECAST UNITS**

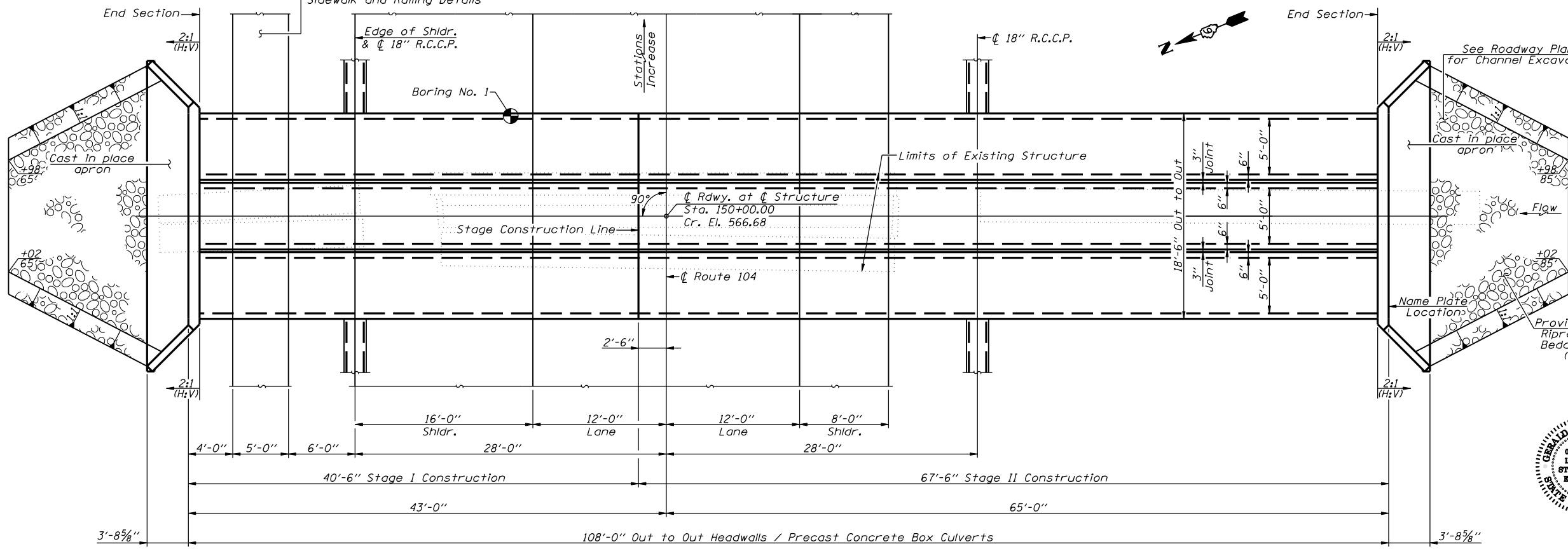
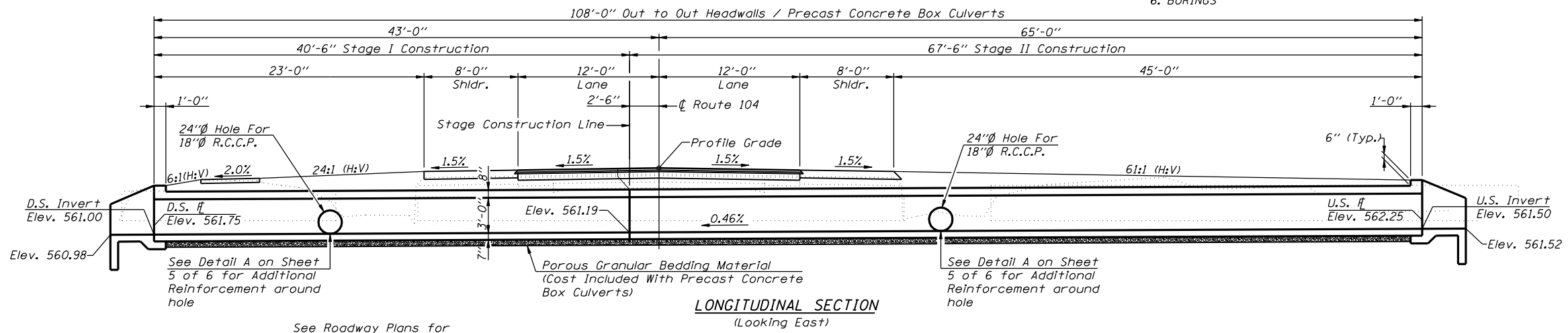
f'c = 5,000 psi  
fy = 65,000 psi (welded wire fabric)

STA. 150+00.00  
BUILT 200 BY  
STATE OF ILLINOIS  
F.A.P. RTE. 753  
SECTION 143RS-6  
LOADING HS 20  
STR. NO. 011-7056

**NAME PLATE**  
(Standard 515001)



**GENERAL PLAN & ELEVATION**  
IL ROUTE 104 OVER UNNAMED TRIBUTARY  
SOUTH FORK SANGAMON RIVER  
F.A.P. ROUTE 753 - SECTION 143RS-6  
CHRISTIAN COUNTY  
STA. 150+00.00  
S.N. 011-7056



**PLAN**

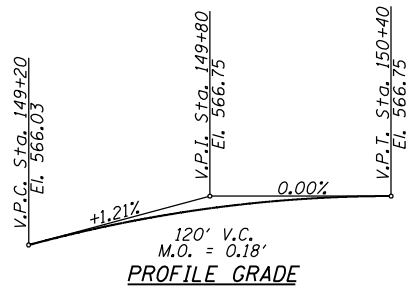
**WATERWAY INFORMATION**

Drainage Area = 0.102 Sq. Mi.		Ex. Low Grade Elev. 565.10 ft. @ Sta. ....+-		Pr. Low Grade Elev. .... ft. @ Sta. ...+-					
Flood	Freq. Yr.	0 C.F.S.	Opening Sq. Ft.	Natural H.W.E.	Head - ft.	Headwater El.			
			Exist.	Prop.	Exist.	Prop.			
Design	10	97	14	45	564.89	1.7	1.0	566.59	565.93
Base	50	162	14/7	45/6	565.56	1.2	1.1	566.77	566.70
Overtopping	100	191	14/8	45/7	565.72	1.1	1.1	566.82	566.77
Max. Calc.	500	264	14/11	14/11	565.99	1.0	1.0	566.98	566.94

**TOTAL BILL OF MATERIAL**

Item	Unit	Quantity
Precast Concrete Box Culverts 5' x 3' (M273)	Foot	324
Concrete Box Culverts	Cu. Yd.	11.2
Reinforcement Bars	Pound	740
Granular Culvert Backfill	Cu. Yd.	137
Temporary Sheet Piling	Sq. Ft.	437
Name Plates	Each	1
Stone Riprap, Class A3	Sq. Yd.	82
Filter Fabric	Sq. Yd.	82
Removal of Existing Structures	L. Sum	1
Pipe Culvert Removal*	Foot	164

\*See Roadway Plans for Schedule



Designed: F.L.L.  
Checked: G.B.R.  
Drawn: F.L.L.  
Checked: G.B.R.