CONTRACT NO. 76279

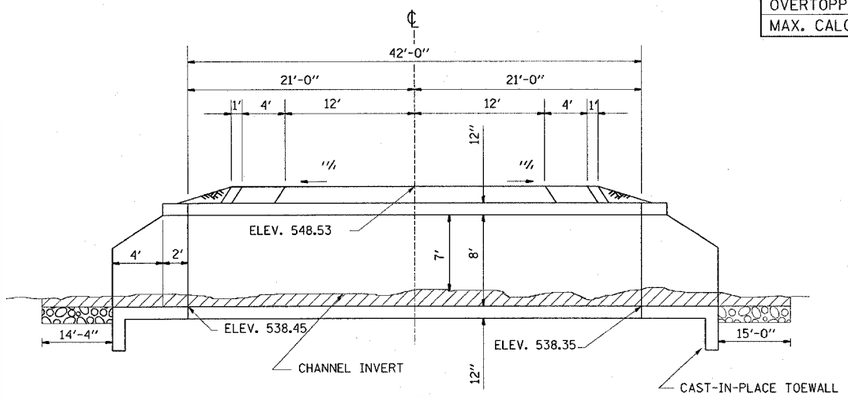
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
785	137BR	BOND	29	23
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

THE EXISTING STRUCTURE, SN 003-0050, WAS BUILT UNDER SECTION 137B SOMETIME BEFORE 1932. IT IS A SINGLE SPAN REINFORCED CONCRETE SLAB ON PINNED CONCRETE ABUTMENTS WITH ATTACHED WINGWALLS. THE ABUTMENTS AND WINGWALLS ARE ON SPREAD FOOTINGS SUPPORTED ON TIMEBER PILES. THE BACK TO BACK ABUTMENTS EQUAL 22 FT. THE EXISTING STRUCTURE IS TO BE REMOVED AND REPLACED WITH A PRECAST DOUBLE BARREL 12' x 8' BOX CULVERT WITH PRECAST END SECTIONS, UTILIZING STAGE CONSTRUCTION.

WATERWAY INFORMATION

DRAINAGE AREA = 1.97 SQ. MI. LOW GRADE ELEV. = 548.48/548.66 @ STA. 1531+15.3

FLOOD I	FREQ. YR.	Q C.F.S.	OPENING SQ. FT.		NAT. H.W.E.	HEAD - FT		HEADWATER ELEVATION	
			EXIST.	PROP.	EXIST.	EXIST.	PROP.	EXIST.	PROP.
DESIGN	50	926	121	168	546.58	1.52	0.75	548.10	547.33
BASE	100	1067	121	168	546.75	1.88	1.00	548.63	547.75
OVERTOPPING	83/400	1027/1374	121	168	546.71/547.08	1.77	1.59	548.48	548.67
MAX. CALC.	500	NA	NA	NA	NA	NA	NA	NA	NA



ELEVATION

GENERAL NOTES

1. THIS BOX CULVERT HAS A FILL HEIGHT OF 16 IN. THE PRECAST BOX CULVERT SHALL BE DESIGNED IN ACCORDANCE WITH AASHTO M273 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.
2. THE EXISTING STRUCTURE SHALL BE REMOVED IN ITS ENTIRETY.
3. THE CAST-IN-PLACE TOEWALL WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST FOR "BOX CULVERT END SECTIONS".
4. HATCHED AREA INDICATES CHANNEL EXCAVATION.
5. SOIL BEHIND THE ABUTMENTS WILL BE EXCAVATED PRIOR TO REMOVING THE TOP SLAB.
6. THE CONTRACTOR SHALL BACKFILL EITHER SIDE OF THE DUAL BOX CULVERT TO A MINIMUM DISTANCE OF 5' FROM THE FLOWLINE OF THE CULVERT PRIOR TO GROUTING BETWEEN THE BOX CULVERTS.
7. EXCAVATION BEHIND EXISTING ABUTMENT WALLS SHALL BE PREFORMED TO BALANCE FRONT AND BACK SOIL PRESSURE BEFORE REMOVING THE EXISTING STRUCTURE. THE CONTRACTOR SHALL SAWCUT THE UPPER PORTION OF THE EXISTING ABUTMENT AT THE STAGE REMOVAL LINE BEFORE STAGE 1 REMOVAL TO ENSURE THE REMAINING PORTION WILL NOT BE PREMATURELY DAMAGED

STATION 1532+25.50
REBUILT 200_ BY
STATE OF ILLINOIS
F.A.P. RT. 785 SEC 137BR
LOADINGHS 20
STR. NO. 003-2013

NAME PLATE
SEE STD. 515001-02

NOTE:
EXISTING NAME PLATE TO BE CLEANED AND RELOCATED NEXT TO THE NEW NAME PLATE. THE COST WILL BE CONSIDERED AS INCLUDED IN THE COST OF NAME PLATE

LOADING HS20-44

ALLOW 50 PSF FOR FUTURE WEARING SURFACE

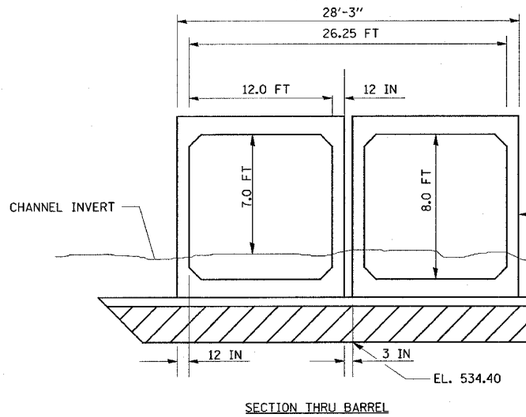
DESIGN SPECIFICATIONS

2002 AASHTO

DESIGN STRESSES

PRECAST UNIT

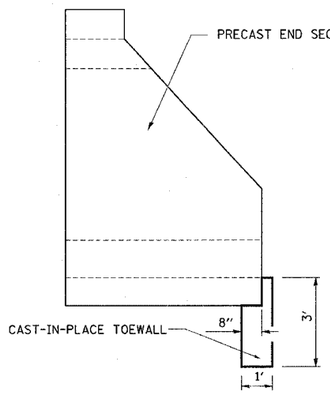
f'c = 5000 PSI
fy = 6500 PSI (WELDED WIRE FABRIC)



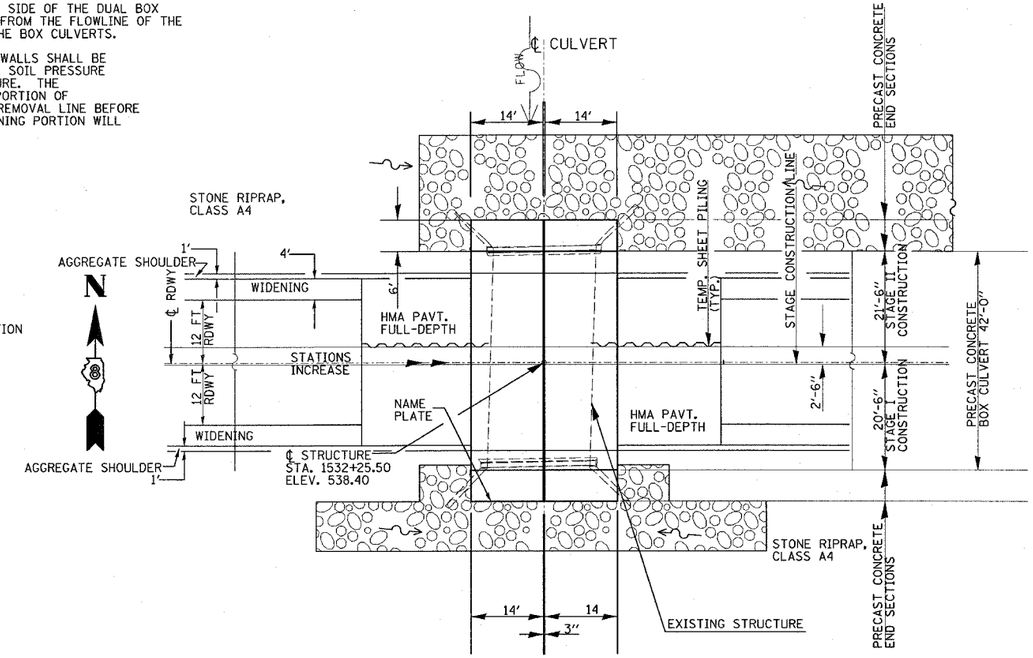
SECTION THRU BARREL

REMOVE UNSUITABLE SOIL BELOW BOTTOM OF CULVERT TO ELEVATION 534.40 AND 24in OUTSIDE THE FOOTPRINT OF THE BOX.

HATCHED AREA INDICATES UNSUITABLE MATERIAL TO BE REMOVED AND REPLACED W/ POROUS GRANUALR EMBANKMENT, SPECIAL.



END SECTION
SIDE VIEW



REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

STRUCTURE PLANS

FAP ROUTE 785
SECTION 137BR
BOND COUNTY

PLOT DATE = 5/3/2007
FILE NAME = c:\projects\sn003050\plan\pln4223a.dgn
PLOT SCALE = 200.000 / IN.
USER NAME = cmanstrm