

BENCH MARK: BM 226
STA. 287+87.64, 25.4' RT., EL. 710.578
3/4" DIA. IRON ROD AT EDGE OF SOUTHERLY STONE
SHOULDER OF ROUTE 30, 1'-100" EAST OF THE 16TH
AVENUE CENTERLINE.
EXISTING STRUCTURE: NO. 099-4637
SINGLE 18'-0" x 5'-0" x 32'-0" CONCRETE BOX CULVERT.
NO SALVAGE.
PROPOSED IMPROVEMENTS:
EXISTING STRUCTURE TO BE REMOVED AND
REPLACED WITH A TRIPLE 7'-0" x 4'-0" BOX
CULVERT IN STAGES MAINTAINING TWO LANES
OF TRAFFIC.

STATION 293+05.00
BUILT 200 BY
STATE OF ILLINOIS
FAP 353 SECT. (12 & 13) T-1
LOADING HS20
STR. NO. 099-4661

NAME PLATE

NOTE: SEE STANDARD DRAWING 515001
FOR NAME PLATE DETAILS.

DESIGN SPECIFICATIONS

AASHTO 2002 SPECIFICATIONS WITH INTERIMS.
LOADING HS20-44
ALLOW 50"/SQ.FT. FOR FUTURE WEARING SURFACE.

DESIGN STRESSES

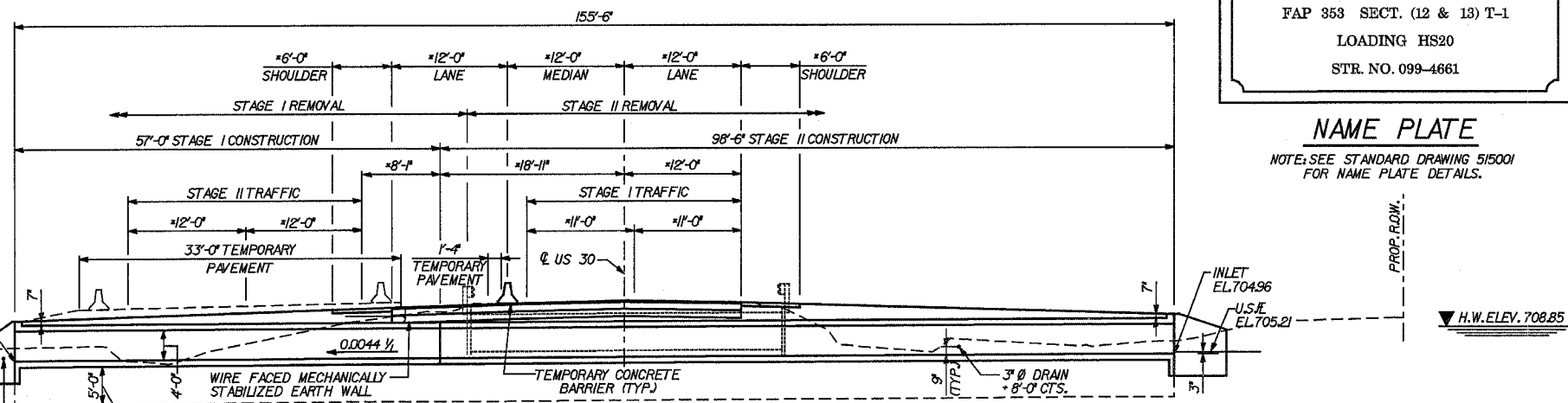
FIELD UNITS
f'c = 3,500 PSI
fy = 60,000 PSI (REINFORCEMENT)
PRECAST UNITS
f'c = 5,000 PSI
fy = 60,000 PSI (REINFORCEMENT)

TOTAL BILL OF MATERIALS

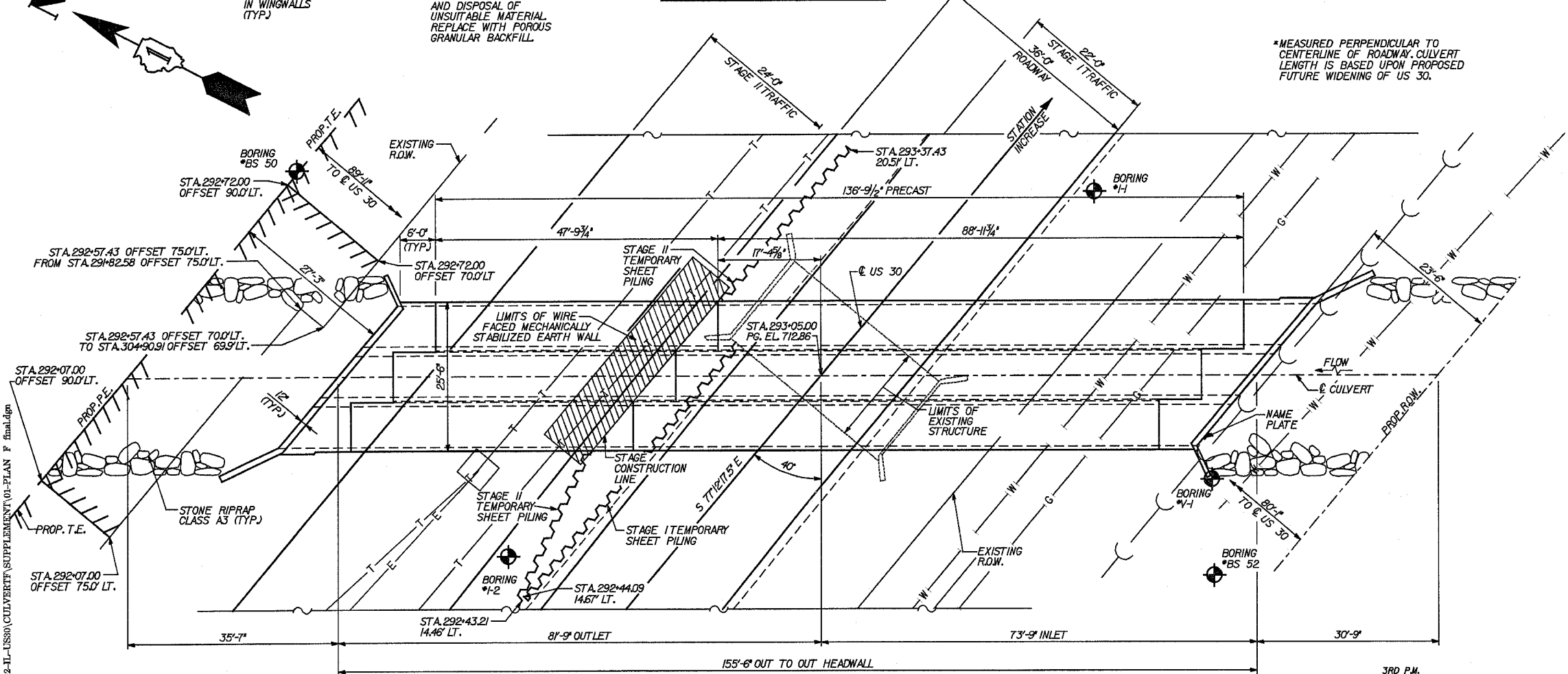
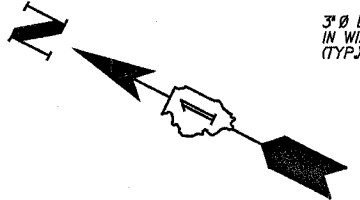
ITEM	UNIT	QUANTITY
CONCRETE BOX CULVERTS	CU. YD.	55.9
PRECAST CONCRETE BOX CULVERT 7' x 4'	FOOT	40.4
REINFORCEMENT BARS	POUND	9,055
NAME PLATES	EACH	1
REMOVAL OF EXISTING STRUCTURES	EACH	1
TEMPORARY SHEET PILING	SQ. FT.	3,845
STONE RIPRAP, CLASS A3	TON	140
FILTER FABRIC	SQ. YD.	251
REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU. YD.	1,110
POROUS GRANULAR BACKFILL	CU. YD.	2,615
WIRE FACED MECHANICALLY STABILIZED EARTH WALL	SQ. FT.	70

GENERAL NOTES

- REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M-31, M-42 OR M-53 GRADE 60.
- A DISTANCE NOT LESS THAN 6'-0" OF THE BARREL SHALL BE POURED MONOLITHICALLY WITH THE WING WALLS.
- EXPOSED EDGES SHALL HAVE A 3/4" CHAMFER.
- IN ACCORDANCE WITH ARTICLE 5400.4 OF THE STANDARD SPECIFICATIONS, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DIVERT STREAM FLOW DURING CONSTRUCTION IN ORDER TO KEEP THE CONSTRUCTION AREAS FREE OF WATER. THE METHOD OF WATER DIVERSION SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER AND THE COST SHALL BE INCLUDED WITH "REMOVAL OF EXISTING STRUCTURES". CLEAN FILL (GRANULAR) MATERIAL WILL ONLY BE ALLOWED.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ANY NECESSARY PERMITS FOR CULVERT CONSTRUCTION.
- STRUCTURE EXCAVATION REQUIRED FOR CONSTRUCTION OF THE PROPOSED BOX CULVERT SHALL BE INCLUDED IN THE BID ITEM "POROUS GRANULAR BACKFILL".
- UNDERCUT AND REPLACEMENT QUANTITIES HAVE BEEN PROVIDED FOR UNSTABLE SOILS THOUGHT TO BE PRESENT UNDER THE SOUTHERN END OF THE PROPOSED CULVERT BASED ON BORING B-52. THE PRESENCE OF THE POOR SOILS WILL BE VERIFIED BY THE ENGINEER AND SOILS INSPECTOR DURING CONSTRUCTION ONCE THE AREA HAS BEEN CLEARED.
- THE PRECAST CONCRETE BOX CULVERT SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M259 (DESIGN FILL HEIGHT - 2'-0")



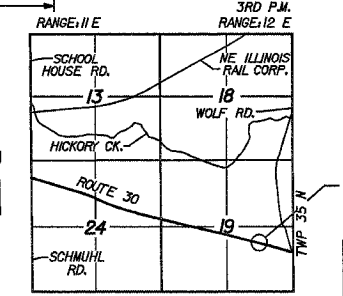
LONGITUDINAL SECTION



PLAN

WATERWAY INFORMATION										
DRAINAGE AREA (SQ. MI) - 0.60		LOW GRADE ELEV. (FEET) EXIST - 710.42 @ STA. 291+20				MAX. RECORDED H.W.E. -				
		PROPOSED - 712.75 @ STA. 292+44								
FLOOD	FREQ. YR.	DISCHARGE C.F.S.	WATERWAY OPENING		NATURAL H.W.E.		CREATED HEAD		HEADWATER ELEVATION	
			EXISTING (square feet)	PROPOSED (square feet)	EXISTING U/S Face	PROPOSED U/S Face	EXISTING (feet)	PROPOSED (feet)	EXISTING	PROPOSED
DESIGN	10	98	4573	6531	708.48	708.32	0.54	0.09	709.02	708.41
BASE	50	144	53.01	76.44	708.95	708.85	0.41	0.00	709.36	708.85
MAX. CALC.	100	162	54.71	80.22	709.06	709.03	0.40	0.00	709.46	709.03
OVERTOPPING	500	205	57.20	84.00	709.22	709.25	0.55	0.00	709.77	709.25

DESIGNED	ASP
CHECKED	CDS
DRAWN	BEM
CHECKED	ASP



LOCATION SKETCH

REVISIONS	
NAME	DATE

U.S. 30 OVER STREAM
0.3 MILES W. OF WOLF RD.
GENERAL PLAN
U.S. ROUTE 30 (LINCOLN HIGHWAY)
F.A.P. 353 (U.S. 30)
SECTION (12 & 13) T-1
STATION 293+05.00
WILL COUNTY
STRUCTURE NUMBER 099-4661