

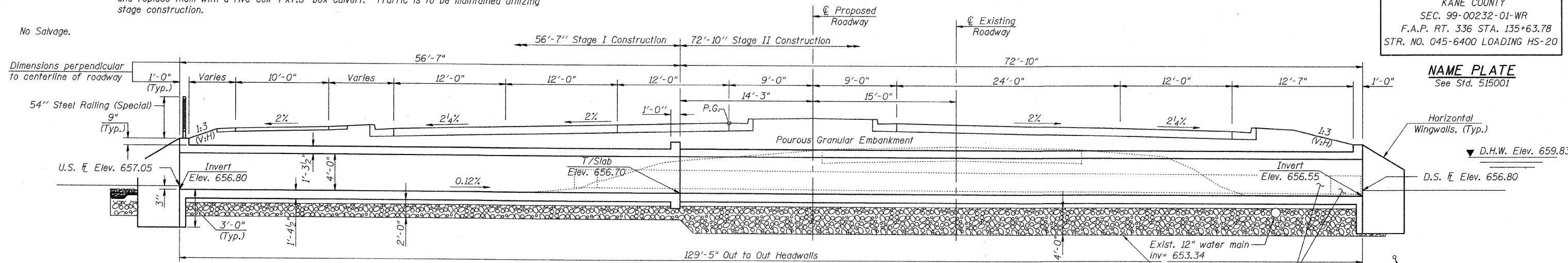
Bench Mark: Chiseled Square in west end of concrete pipe, 0.5 miles south of Jericho Road, Elevation 664.92.

Existing Structure: Two 36" x 24" elliptical reinforced concrete pipes, 118' long. The contractor shall remove and replace them with a five-cell 4'x7.6' box culvert. Traffic is to be maintained utilizing stage construction.

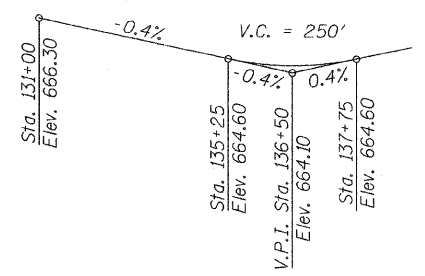
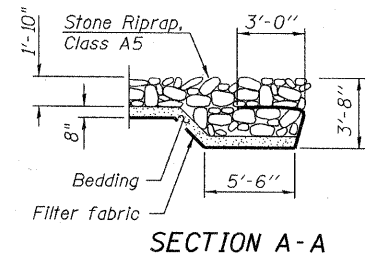
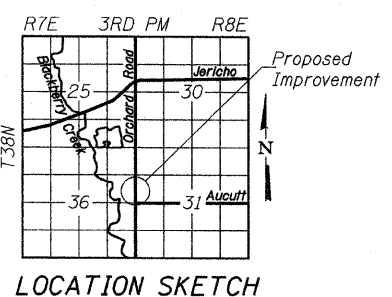
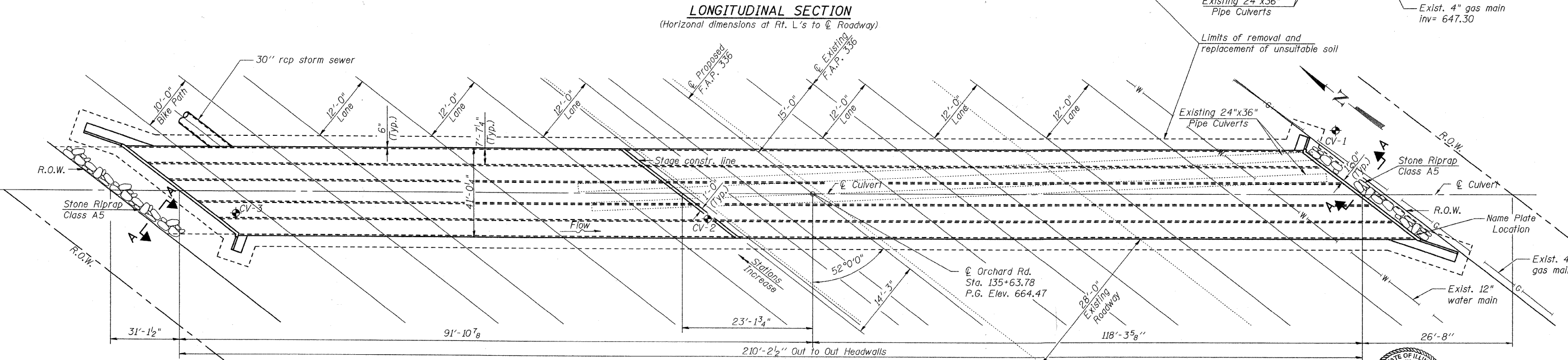
No Salvage.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

JERICO LAKE DIVERSION
BUILT 20__ BY
KANE COUNTY
SEC. 99-00232-01-WR
F.A.P. RT. 336 STA. 135+63.78
STR. NO. 045-6400 LOADING HS-20



NAME PLATE
See Std. 515001



WATERWAY INFORMATION

Drainage Area: N/A		Low Grade Elev. 664.35 ft. @ Sta. 136+50							
Flood	Freq. Yr.	Q c.f.s.	Opening ft. ²		Nat. H.W.E.	Head - ft.		Headwater Elev.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	10	42	10.2	152	659.83	0.63	.02	660.46	659.85
Base	100	550	10.2	152	661.85	0.53	.54	662.38	662.39
Overtopping	-	-	-	-	-	-	-	-	-
Max. Calc.	500	3200	10.2	152	664.42	0.99	1.54	665.41	665.97

LOADING HS20-44
Allow 50#/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS
AASHTO 17th Edition (2002)

DESIGN STRESSES

FIELD UNITS
 $f_c = 3,500$ psi
 $f_y = 60,000$ psi (reinforcement)

I certify that to the best of knowledge, information and belief, this box culvert design is structurally adequate for the design loading 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.

GENERAL PLAN
ORCHARD RD. OVER DRAINAGE DITCH
FAP 336, SECTION 99-00232-00-WR
KANE COUNTY
STATION 135+63.78
STRUCTURE NO. 045-6400

DESIGNED	PRD
CHECKED	AWW
DRAWN	PRD
CHECKED	AWW

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	U.S. Invert	D.S. Invert
	653.80	653.55

rjngroup
Excellence through Ownership
200 West Front Street
Wheaton, IL 60187

SHEET NO. 1
9 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	99-00232-01-WR	Kane	215	139
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		CONTRACT NO. 63541

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