

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TOTAL BILL OF MATERIAL

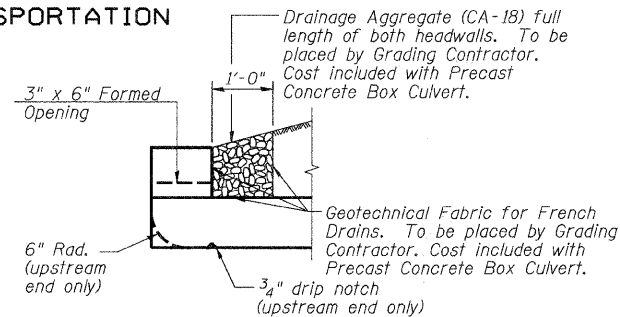
ITEM	UNIT	TOTAL
Porous Granular Embankment	Cu Yd	1125
Porous Granular Embankment, Subgrade	Cu Yd	1253
Stone Riprap, Class A4	Sq Yd	110
Filter Fabric	Sq Yd	110
Structure Excavation	Cu Yd	687
Name Plates	Each	1
Box Culvert End Sections, Culvert No. 2	Each	2
Precast Concrete Box Culvert 10' X 3'	Foot	257
Temporary Soil Retention System	Sq Ft	889

Bench Mark: "□" In foundation of Mast Arm,  
SE Quadrant of IL RTE 56  
and Orchard Rd  
Elev. 744.94

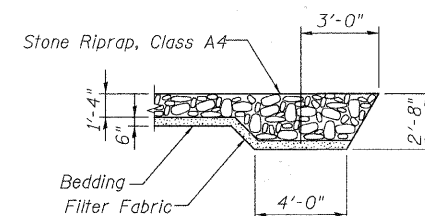
Existing Structure: None.

No salvage.

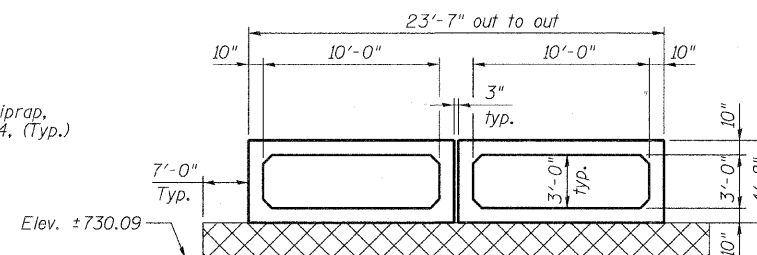
Traffic to be maintained using Stage Construction.



DRAIN DETAIL



SECTION A-A

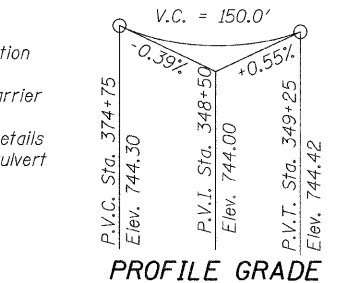


SECTION THRU BARREL

The limits and quantities of removal and replacement are based on the Structure Geotechnical Report and may be modified by the District Geotechnical Engineer and Field Engineers for variable subsurface encountered in the field.

GENERAL NOTES

- Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See special provision.
- Reinforcement bars designated (E) shall be epoxy coated.
- Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
- Precast Concrete Box Culvert sections shall conform to the requirements of Article 540.06 of the Standard Specifications and the applicable requirements of AASHTO M 273.
- Lifting holes shall be filled with concrete plugs and mastic after box sections are in place.
- Class SI Concrete shall be used for cast-in-place concrete.
- Exposed edges shall be beveled 3/4\".
- For backfilling and embankment see standard specifications.
- Precast End Sections are not allowed.
- The material used to replace the unsuitable material removed below the bottom of the proposed precast concrete box culvert and cast-in-place concrete aprons shall conform to the requirements of "Porous Granular Embankment, Subgrade."
- The required soil strength beneath the box culverts is 2500 psf and shall be verified at the time of construction.



LOADING HS20-44

Allow 50#/sq. ft. for future wearing surface.  
Design fill height < 2 ft.

DESIGN SPECIFICATIONS

2002 AASHTO 17th Edition

SEISMIC DATA

Seismic Performance Category (SPC) = A  
Bedrock Acceleration Coefficient (A) = 0.04g  
Site Coefficient (S) = 1.0

DESIGN STRESSES

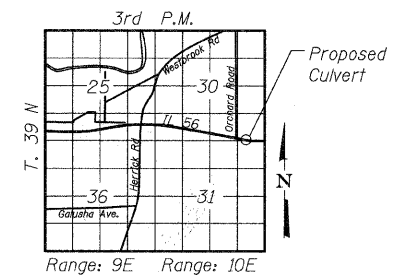
FIELD UNITS

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

PRECAST UNITS

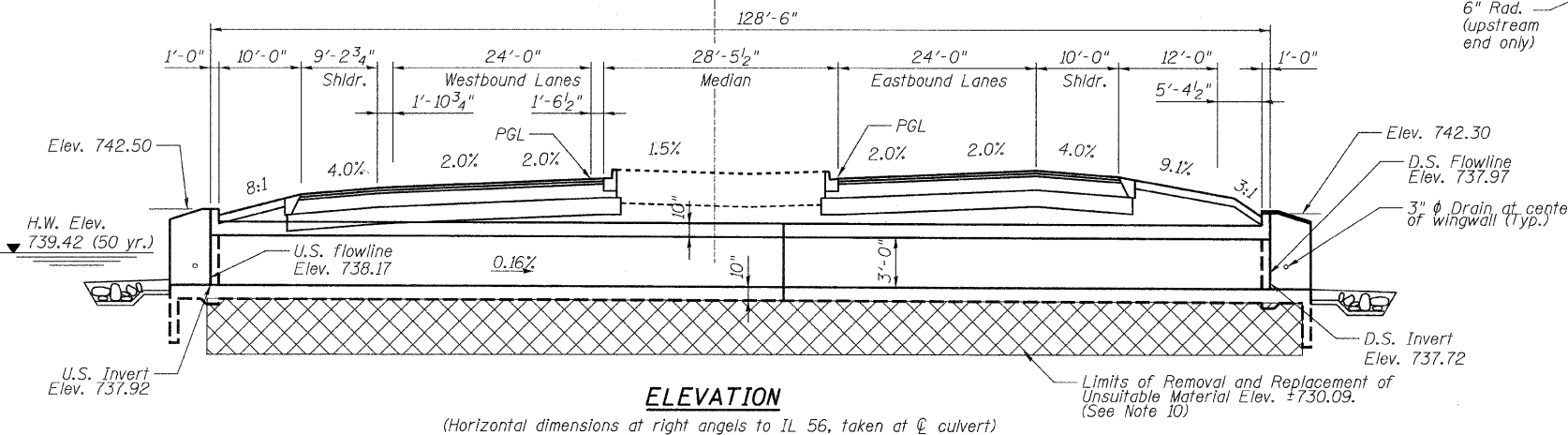
f'c = 5,000 psi  
fy = 65,000 psi (welded wire fabric)

◆ Indicates Soil Boring



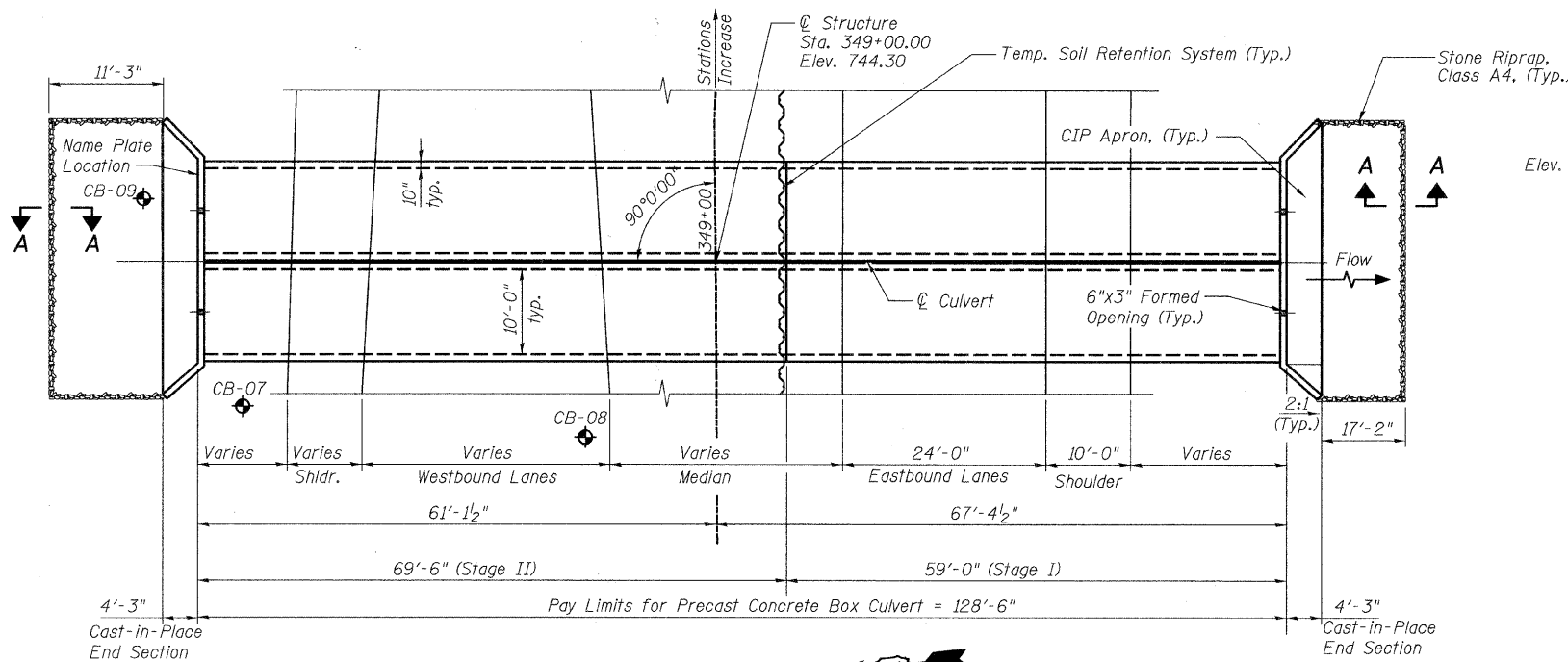
LOCATION SKETCH

GENERAL PLAN AND ELEVATION  
ILLINOIS RTE. 56 OVER DRAINAGE DITCH  
F.A.P. ROUTE 365 SEC (57 & 58) WRS-2  
DUPAGE COUNTY  
STATION 349+00.00  
STRUCTURE NO. 022-2028



ELEVATION

(Horizontal dimensions at right angles to IL 56, taken at centerline of culvert)



PLAN

WATERWAY INFORMATION

Drainage Area = 207.2 Acres Low Grade Elev. 744.29 @ Sta. 349+00									
Flood	Freq. Yr.	Q C.F.S.	Opening Exist.	Sq. Ft. Prop.	Nat. H.W.E. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.	
Design	10	196.44	0.92	29.80	739.42	2.67	1.00	742.09	740.42
Base	50	196.44	0.92	29.80	739.42	2.67	1.00	742.09	740.42
Overtopping Max. Calc.	100	295.68	1.41	33.00	739.57	2.66	1.61	742.09	741.18

STATION 349+00  
BUILT 20\_\_ BY  
STATE OF ILLINOIS  
F.A.P. RTE. 365  
SEC (57 & 58) WRS-2  
LOADING HS20  
STRUCTURE NO. 022-2028

NAME PLATE  
See Std. 515001

benesch

alfred benesch & company  
Engineers • Surveyors • Planners  
205 North Michigan Avenue, Suite 2400  
Chicago, Illinois 60601  
312-565-0450 Job No. 3733

SHEET NO.	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SB-1	365	(57 & 58)WRS-2	DUPAGE	681	343
SB-7 SHEETS					CONTRACT NO. 62419

ILLINOIS FED. AID PROJECT