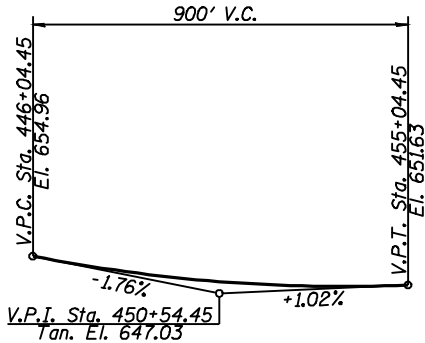
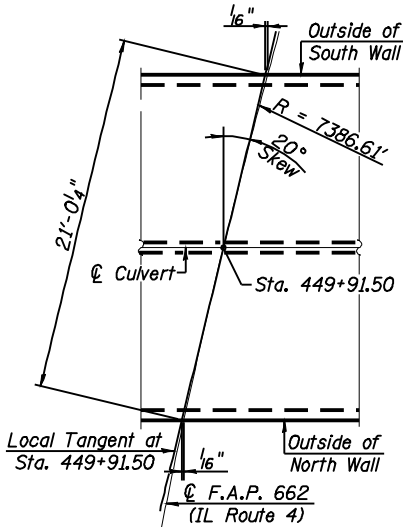


RIPRAP FLANK DETAIL



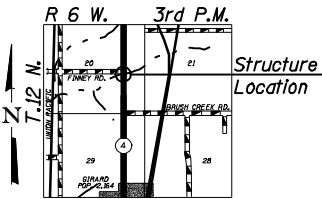
PROFILE GRADE
(Along C Rdwy.)



OFFSET SKETCH

STA. 449+91.50
BUILT 20 BY
STATE OF ILLINOIS
F.A.P. RTE. 662-SECTION D(W-3,RS-11)
LOADING HS20
STR. NO. 059-7101

NAME PLATE
(Standard 515001)



LOCATION SKETCH

GENERAL DATA
STRUCTURE NO. 059-7101

TOTAL BILL OF MATERIAL

Item	Unit	Quantity
Concrete Box Culverts	Cu. Yd.	182.3
Reinforcement Bars	Pound	41360
Granular Culvert Backfill	Cu. Yd.	234
Temporary Soil Retention System	Sq. Ft.	399
Name Plates	Each	1
Rockfill-Foundation	Ton	354
Bar Splacers	Each	101
Removal of Existing Structures	Each	1

WATERWAY INFORMATION

Drainage Area = 1.76 Sq. Mi.					Ex. Low Grade Elev. 646.18 ft. @ Sta. 450+00					
					Pr. Low Grade Elev. 649.95 ft. @ Sta. 452+00					
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Natural H.W.E.		Head - ft.		Headwater El.	
	10	491	31.6	82.1	645.2	645.3	0.1	0.6	645.3	645.9
Design	50	787	31.6	94.3	645.9	646.0	0.4	1.2	646.3	647.2
Base	100	919	31.6	98.6	646.1	646.2	0.5	1.5	646.6	647.7
Overtopping	-	-	-	-	-	-	-	-	-	-
Max. Calc.	500	1240	31.6	107.6	646.6	646.7	0.6	2.4	647.3	649.1

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation	D.S. Invert	U.S. Invert
	637.2	637.5

GENERAL NOTES

Reinforcement bars shall conform to the requirements of A.S.T.M. A 706, Grade 60. See Special Provisions.

For backfilling and embankment, see Special Provisions.

Cast in place concrete exposed edges shall be beveled 3/4".

Precast alternative is not allowed.

A distance of half the length of the wingwall but not less than six feet of the barrel shall be poured monolithically with wingwalls

LOADING HS20-44

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

DESIGN SPECIFICATIONS

2002 A.A.S.H.T.O. Standard Specifications for Highway Bridges.

DESIGN STRESSES

FIELD UNITS

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



Allen Henderson & Associates, Inc.
Civil and Structural Engineers Springfield, IL.
62703 Phone: (217)544-8033 IL. Design Firm
No. 184-001907

SHEET NO. 2
9 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	D(W-3,RS-11,CR)	MACOUPIN	102	65
CONTRACT NO. 72765				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				