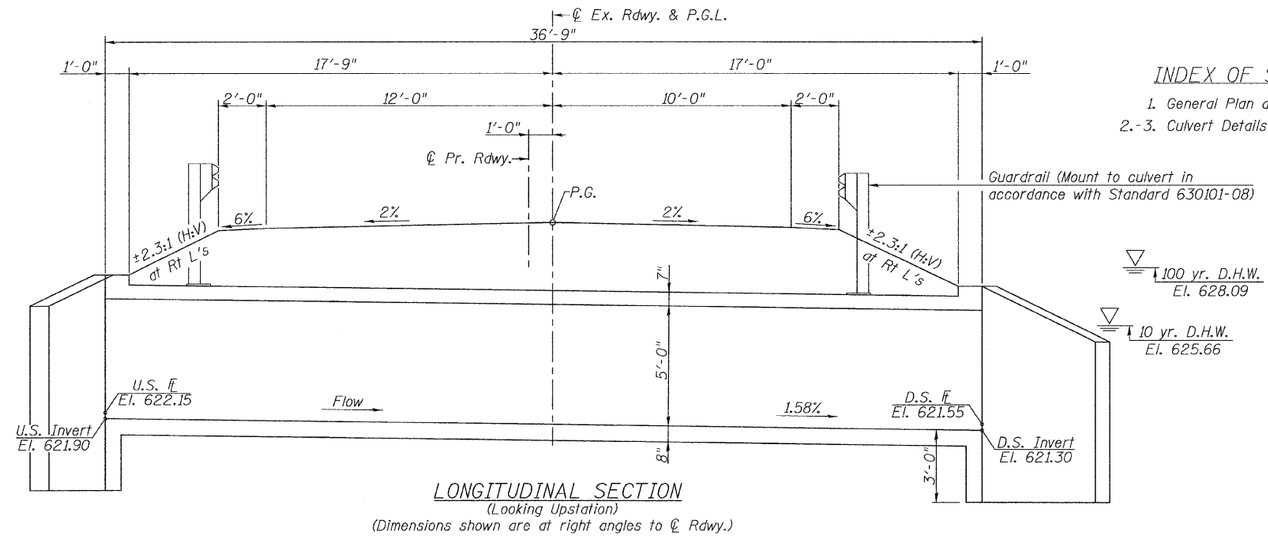


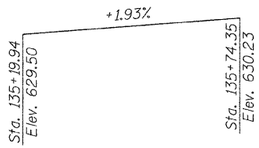
LONGITUDINAL SECTION

(Looking Upstation)
(Dimensions shown are at right angles to ℄ Rdwy.)

INDEX OF SHEETS

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Concrete Box Culverts	Cu. Yd.	28.6
Reinforcement Bars	Lb.	5360
Name Plates	Each	1
Granular Culvert Backfill	Cu. Yd.	62
Steel Plate Beam Guardrail, Attached to Structures	Foot	15



PROFILE GRADE

(Along ℄ Roadway)

STA. 135+67.51
BUILT 20__ BY
McDONOUGH COUNTY
ARGYLE LAKE STATE PARK
PARK ROADS
STR. NO. 055-2507
LOADING HS20-44

NAME PLATE

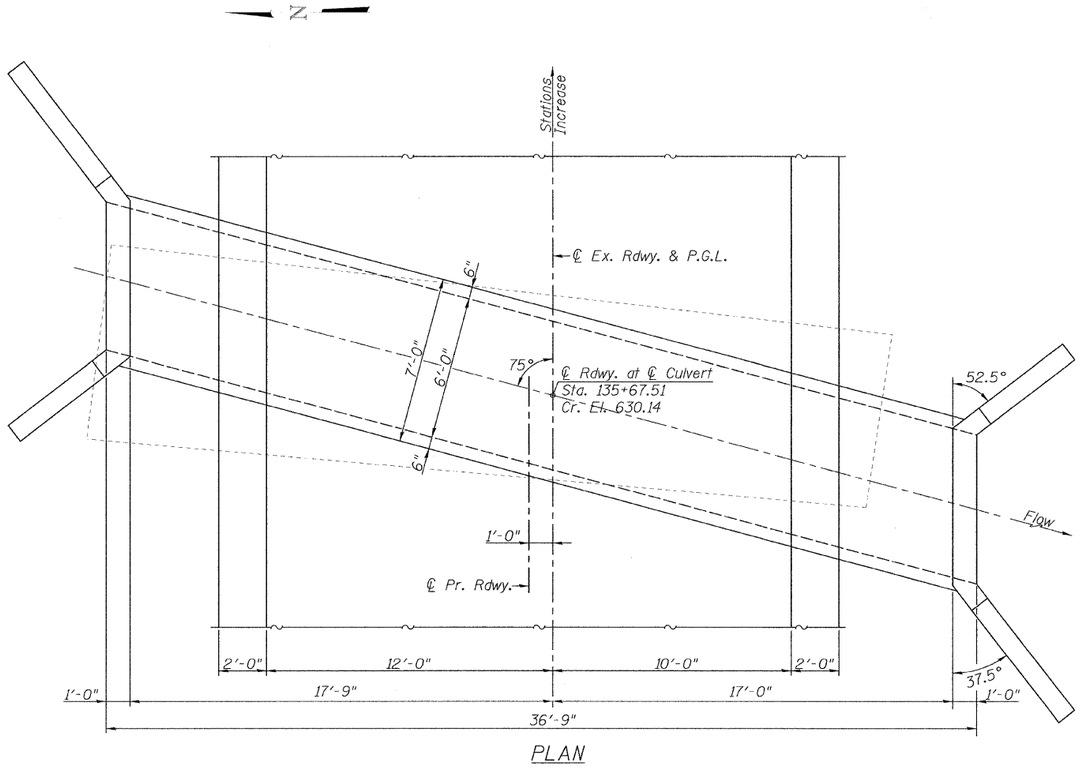
(Std. 515001)

WATERWAY INFORMATION

Drainage Area = 0.5 Sq. Mi.
Ex. Low Grade Elev. 628.31 @ Sta. 132+90
Pr. Low Grade Elev. 628.48 @ Sta. 132+90

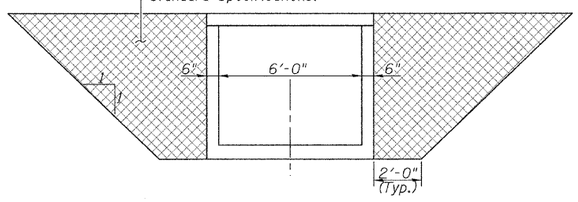
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Natural H.W.E.	Head - ft. Exist.	Head - ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
Design	10	169	22.8	25.5	625.66	2.24	0.76	627.90	626.42
	25	278	29.4/5.9	39.4	626.63	3.00	0.87	629.63	627.50
	50	385	36.7/37.2	50.4/0.8	627.34	2.97	1.20	630.31	628.54
Base	100	528	36.7/79.6	65.8/30.1	628.09	2.87	1.87	630.96	629.96

Culvert/Overtopping
Max. 10 Year Velocity through Existing Culverts = 6.0 fps
10 Year Velocity at Box Culvert Outlet = 5.9 fps
10 Year Velocity at Elliptical Culvert Outlet = 2.6 fps



PLAN

Granular Culvert Backfill within the limits of the proposed roadway and shoulders (26' total length). Outside limits of shoulders, the culvert shall be backfilled in accordance with Section 502 of the Standard Specifications.



SECTION THRU BARREL

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications for Highway Bridges.

DESIGN STRESSES

FIELD UNITS

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

LOADING HS20-44

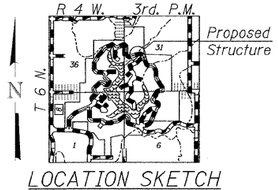
Allow 50#/sq. ft. for future wearing surface.

GENERAL NOTES

1. Reinforcement bar shall conform to the requirements of ASTM A 706 Gr. 60. See Special Provisions.
2. See Roadway Plans for layout of riprap and riprap quantities
3. All construction joints shall be bonded.
4. Exposed edges shall have a $\frac{3}{4}$" chamfer.
5. At least 8 ft. of barrel shall be poured monolithically with the wingwalls.
6. Precast alternative is not allowed.

MARK A. HENDERSON 5513 LICENSED STRUCTURAL ENGINEER STATE OF ILLINOIS

Mark A Henderson 12-8-2010
Expiration 11/30/2012



LOCATION SKETCH

GENERAL PLAN & ELEVATION
ARGYLE LAKE STATE PARK
OVER TRIBUTARY TO ARGYLE LAKE
McDONOUGH COUNTY
STA. 135+67.51
STRUCTURE NO.055-2507

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

SHEET NO. 1
3 SHEETS

RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	ARGYLE LAKE STATE PARK	McDONOUGH	162	101
* PARK ROADS		CONTRACT NO. 46158		
FED. ROAD DIST. NO.	ILLINOIS	JOB NO. C-30-005-11		