



NOTE:
 The contractor or developer shall notify the owners of the property adjacent to Laura Hill Road (George and Joan Bartley) a minimum of forty eight (48) hours prior to commencement of work to replace the driveway entrance easement to said Bartley property.

Notes: Rip-rap shall be placed at all downstream flared end sections.

EXISTING	DESCRIPTION	PROPOSED
608	CONTOUR	(608)
10'-000	STORM SEWER INLET	
○	SANITARY SEWER MANHOLE	
▭	CONCRETE	
▭	ASPHALT	
	TO BE REMOVED	(T.B.R.)
	NOT TO SCALE	N.T.S.
+	POWER POLES	
⋄	FIRE HYDRANT	
	WATER VALVE	
	WATER MAIN	
	FLARED END SEC.	
	SINGLE CURB INL.	
	DOUBLE CURB INL.	

EXISTING	DESCRIPTION	PROPOSED
—	CONTOUR	(608)
▭	CONCRETE	
▭	ASPHALT	
	TO BE REMOVED	(T.B.R.)
	NOT TO SCALE	N.T.S.
	POWER POLES	
	FIRE HYDRANT	
	WATER VALVE	
	WATER MAIN	
	FLARED END SEC.	
	SINGLE CURB INL.	
	DOUBLE CURB INL.	

DETENTION BASIN 'A'
 Outfall Structure (05-1) Calc. Tributary Area = 6.56 Ac. Max. Flow = 6.56 x 1.7 = 11.15 cfs.
 Slot discharge - orifice rectangular
 $Q = C A \sqrt{2gh}$
 $Q = 0.6 \frac{8 \times 18}{144} \sqrt{64.4} (3.00)$
 $Q = 2.34 \text{ cfs} < 11.15 \text{ cfs}$
 Storage - Basin A
 Rectangular - 55' x 72'
 Provides 3,000 cu ft
 Storage = 55 x 72 x 4.5 = 12,528 cu ft
TOTAL DETENTION REQ.
 Required Detention = 10.48 (24-17) x 6 = 12,528 cu ft
 Storage Provided:
 Basin A = 12,528 cu ft
 Basin B = 4,200 cu ft
 Total = 16,728 cu ft > 12,528 cu ft

DETENTION BASIN 'B'
 Outfall Structure (05-2) Calc. Tributary Area = 4.02 Ac. Max. Flow = 4.02 x 1.7 = 6.83 cfs.
 Slot discharge - orifice rectangular
 $Q = C A \sqrt{2gh}$
 $Q = 0.6 \frac{8 \times 26}{144} \sqrt{64.4} (1.0)$
 $Q = 6.85 \text{ cfs} < 6.83 \text{ cfs}$
 Storage - Basin B
 Rectangular - 140 x 20
 Provides 1,512 cu ft
 Storage = 140 x 20 x 5.4 = 15,120 cu ft

OUTFALL STRUCTURE DETAIL

Cont. P.S. Spike to point from intersection of Laura Hill Road & Laura Hill Drive U.S.G.S. Elev. 591.77

HILLCREST ESTATES
 DEVELOPER: HILLCREST ENTERPRISES

DRAINAGE PLAN

ALLAN E. HEMMINGHAUS, P.E.
 ENGINEERING SERVICES
 P.O. Box 1208 St. Louis, Missouri 63031
 (314) 831-2570

	Design	Sheet No.
	Drawn	
	Checked	
	Scale	3

1" = 50'

Date 11/16/00 of 4 Sheets