



**Details:**

Stormwater pipes have physical invert damage and contain fairly large amounts of sediment. The pipes are out of round and have large number of trees potentially encroaching on the system.



**Details:**

Three (3) 72" metal pipes



<b>Project:</b>	130 Darren Drive	<b>Page</b>  1
<b>Date:</b>	July 18, 2018	

General Information		Map	
Project ID			
Street Name	Darren Drive		
Site Visit Date	5/8/13		
Road Classification	Minor road		
Project Notes			
Rural Typical Section			
Field Notes			
Design (Existing Site Features)			
Existing Road Laneage	2-10'		
Existing Shld Width (paved and grass) (feet)	2'		
Existing Side Slopes	2:1		
Existing Guardrail	None		
Depth fm Pavement to Top of Culvert (ft):	3		
Pipe Type and Size	3-96" CMP		
Pipe Condition (1-5) (1 is new)	3		
Condition Notes:			
Pavement Type/Condition	Asphalt/Good		
Environmental Features			
Wetlands	None		
Ditches	None		
Utilities (Visual Inspection)			
Electric	Yes		
Cable	Yes		
Phone	Yes		
Gas	Unknown		
Water	Yes		
Sewer	No		
Other			
Proposed Design			
Roadway Section	Replace in kind		
Proposed Design	Triple 8' x 8' box culvert		
Utility Relocations	Phone, cable		
Guardrail Replacement	Need to add guardrail due to sideslopes and culvert installation		
Miscellaneous Features	Zone AE Floodplain Analysis Required		
Planning Cost Estimate			
Type	Notes	Total	
Design	Includes 10% Construction Cost and surveying needs	\$42,264	
Right of Way Cost	Assuming project extends 3,750 sf beyond ROW	\$15,000	
Utility Relocation Cost	Buried phone and cable	\$10,725	
Construction Cost	1/3 acre clearing and grubbing, Guardrails	\$297,641	
Environmental Permits	Permits, Zone AE Floodway Analysis	\$18,000	
<b>Total Planning Estimate</b>		<b>\$383,630</b>	



**Photo 1:**



**Photo 2:**

**130 Darren Drive**

**Photo Date:**

6/03/2013

**Taken By:**

Tony Hicks

**Page:**

**1**

Roadway Construction, Utility Relocation and ROW Quantity Calculations

Roadway Construction	Removal Unit Cost	Installation Unit Cost	Amount	Total Cost
Pavement (SF)	\$ 0.73	\$ 4.87	1,040.00	\$ 5,829.55
Curb and Gutter (LF)	\$ 28.56	\$ 30.60	0.00	\$ -
Drain Inlet (EA)		\$ 3,000.00	0.00	\$ -
4" Sidewalk (SY)	\$ 13.56	\$ 36.90	0.00	\$ -
Guardrail (LF)	\$ 4.88	\$ 49.09	104.00	\$ 5,613.50
End Anchorage (EA)		\$ 1,380.00	4.00	\$ 5,520.00
<b>Subtotal</b>				<b>\$ 16,963.05</b>

Grading Complete (5% of Rwy Items & Drng Total \$) \$ 11,996.39

Roadway Total \$ 28,959.44

Drainage	Removal Unit Cost	Installation Unit Cost	Amount	Total Cost
Trench Excavation (CY)		\$ 10.38	755.56	\$ 7,842.67
96" CMP (LF)	\$ 63.00		70.00	\$ 13,230.00
96" RCP		\$ 455.00	0.00	\$ -
Class A Conc (CY)		\$ 892.19	184.86	\$ 164,929.87
Steel (lb)		\$ 1.42	19,942.00	\$ 28,237.87
Pipe Bedding (CY)		\$ 48.60	50.10	\$ 2,434.86
Trench Backfill (CY)		\$ 2.99	778.79	\$ 2,327.02
Trench Compaction (CY)		\$ 6.36	623.03	\$ 3,962.48

Drainage Total \$ 222,964.77

Signing and Marking	Installation Unit Cost	Amount	Total Cost
Permanent Striping (LF)	\$ 0.71	0.00	\$ -

Signing and Marking Total \$ -

Staging	Installation Unit Cost	Amount	Total Cost
Clearing and Grubbing (Acre)	\$ 10,260.00	0.33	\$ 3,385.80
Temporary Pavement			\$ -
Temporary Drainage (Stream Diversion)	\$ 4,428.00	2.00	\$ 8,856.00

Staging Total \$ 12,241.80

Erosion Control	Installation Unit Cost	Amount	Total Cost
Fine Grading and Seeding (SY)	\$ 4.39	86.67	\$ 380.64
Temporary Grassing (AC)	\$ 855.60	0.00	\$ -
Type C Silt Fence (LF)	\$ 4.24	500.00	\$ 2,118.00
Check Dam Type C Silt Fence (LF)	\$ 6.79	500.00	\$ 3,396.00
Erosion Control Mats (SY)	\$ 1.87	166.67	\$ 312.00
Landscape Mulch (SY)	\$ 3.58	166.67	\$ 596.00
Perm Grassing (AC)	\$ 1,402.20	0.00	\$ -
Rip Rap Type 3 12" (SY)	\$ 60.98	69.33	\$ 4,228.22
Plastic Filter Fabric (SY)	\$ 5.72	69.33	\$ 396.86
4" Ditch Paving (SY)	\$ 54.65	0.00	\$ -

Erosion Control Total \$ 11,427.73

Construction Cost Total \$ 275,593.74

Traffic Control (8% of Construction Total \$) \$ 22,047.50

Construction Cost Grand Total \$ 297,641.24

Utility Relocation	Removal Unit Cost	Installation Unit Cost	Amount	Total Cost
Electric				
Aerial	\$ 11.00	\$ 55.00	0.00	\$ -
Buried	\$ 16.50	\$ 82.50	0.00	\$ -
Wooden Pole	\$ 82.50	\$ 605.00	0.00	\$ -
Phone				
Aerial	\$ 11.00	\$ 27.50	0.00	\$ -
Buried	\$ 16.50	\$ 55.00	75.00	\$ 5,362.50
Wooden Pole	\$ 82.50	\$ 605.00		\$ -
Cable				
Aerial	\$ 11.00	\$ 27.50	0.00	\$ -
Buried	\$ 16.50	\$ 55.00	75.00	\$ 5,362.50
Wooden Pole	\$ 82.50	\$ 605.00		\$ -
Gas				
4" main	\$ 16.50	\$ 66.00		\$ -
Water				
8" main	\$ 16.50	\$ 93.50	0.00	\$ -
Relocate Fire Hydrant (EA)		\$ 2,609.22		\$ -
Sewer			0.00	\$ -
12" main	\$ 16.50	\$ 82.50	0.00	\$ -
<b>Utility Relocation Total</b>				<b>\$ 10,725.00</b>

Right of Way (Sq Ft)	Cost/ Sq Ft	Sq Ft	Total Cost
Permanent Easement	\$ 4.00	3,750.00	\$ 15,000.00
<b>ROW Total</b>			<b>\$ 15,000.00</b>