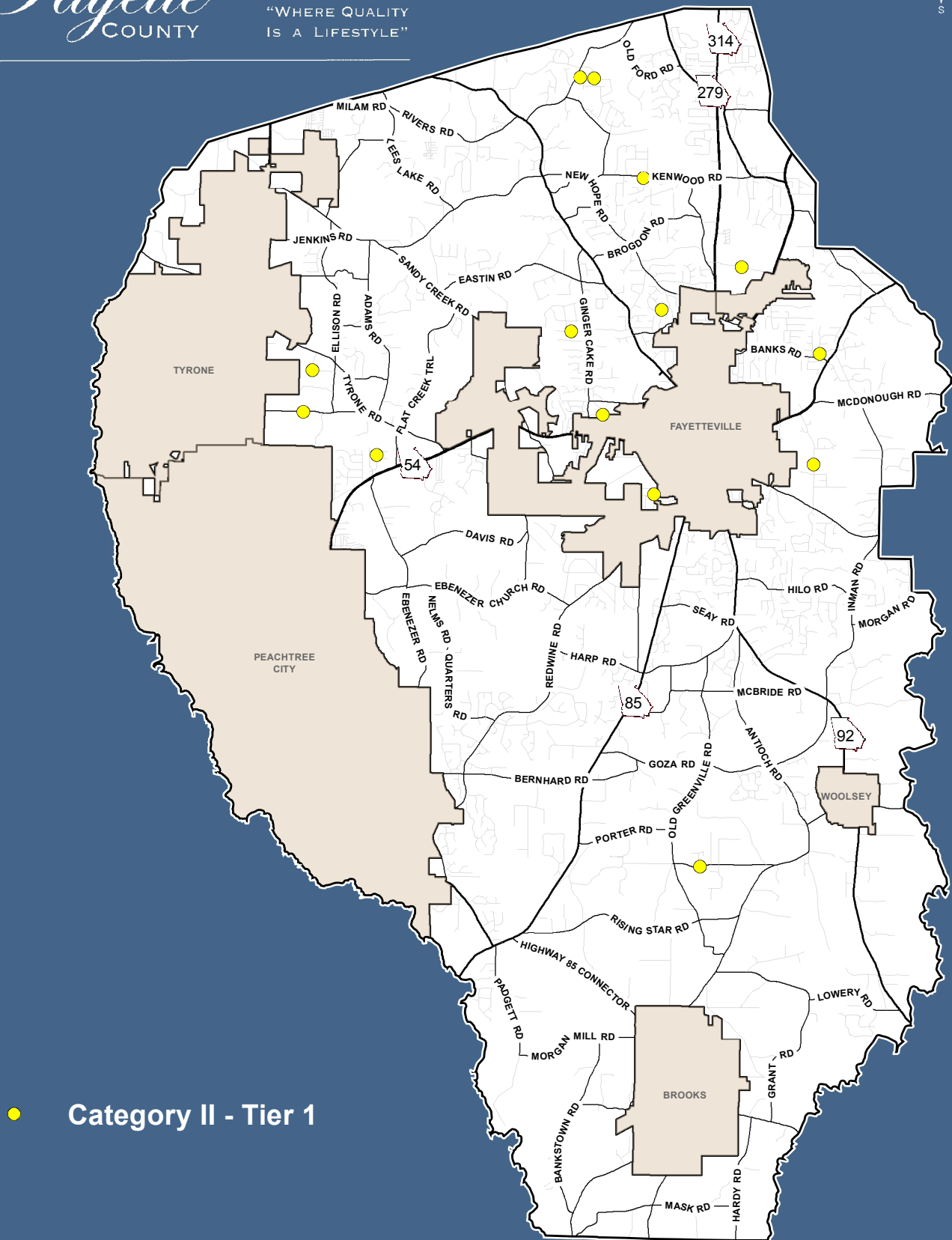




*Fayette*  
COUNTY

"WHERE QUALITY  
IS A LIFESTYLE"





## CATEGORY II - TIER 1

PROJECT NAME	PROJECT DESCRIPTION	ESTIMATED COST
514 Avalon Dr	48" RCP, 300'	\$169,118
215 Brandon Mill Cir - South	8'x4' RBC, 200'; system evaluation	\$437,648
266 Callaway Rd	trp 10'x4' RBC, 80'	\$533,218
364 Chappel Rd	dbl 8'x5' RBC, 70'	\$336,399
120 Deer Forest Trl	4'x3' RBC, 100'	\$145,508
315 Dogwood Trl	trp 7' x 7' RBC, 80'	\$595,879
120 Mercedes Trl	dbl 8'x4' RBC, 60'	\$224,070
130 Morning Dove Dr	dbl 10'x4' RBC, 70'	\$244,389
151 Patricia Ln	8'x4' RBC, 150'	\$295,527
199 Roberts Rd	7'x4' RBC, 85'	\$193,861
160 Scott Blvd	4'x2' RBC, 50'	\$99,114
175 Silver Leaf Dr	dbl 4'x3' RBC, 140'	\$247,827
503 Westbridge Dr	5'x3' RBC, 45'	\$89,733
517 Westbridge Dr	5'x3' RBC, 45'	\$93,082
<b>Tier 1 Subtotal</b>		<b>\$3,705,373</b>





General Information		Map											
Project ID													
Street Name	Avalon Dr												
Site Visit Date	6/11/2013												
Road Classification	Internal Local												
Project Notes													
Rural typical section													
Field Notes													
Design (Existing Site Features)													
Existing Road Laneage	2 - 12'												
Existing Shld Width (paved and grass) (feet)	4' (Grass)												
Existing Side Slopes	flat	<b>Stage Construction Options</b> <table border="1"> <tr> <td>Close Location to Traffic</td> <td>X</td> </tr> <tr> <td>Maintain One Lane - No Temp Pavement</td> <td></td> </tr> <tr> <td>Maintain One Lane - Temp Pavement</td> <td></td> </tr> <tr> <td colspan="2">Stage Construction Notes:</td> </tr> <tr><td colspan="2" rowspan="5"></td></tr> <tr></tr> <tr></tr> <tr></tr> <tr></tr> </table>		Close Location to Traffic	X	Maintain One Lane - No Temp Pavement		Maintain One Lane - Temp Pavement		Stage Construction Notes:			
Close Location to Traffic	X												
Maintain One Lane - No Temp Pavement													
Maintain One Lane - Temp Pavement													
Stage Construction Notes:													
Existing Guardrail	None												
Depth fm Pavement to Top of Culvert (ft):	\$ 4.00												
Pipe Type and Size	30", 300' CMP												
Pipe Condition (1-5) (1 is new)	\$ 3.00												
Pavement Type/Condition	Asphalt/Good												
Environmental Features													
Wetlands	None												
Ditches	X												
Utilities (Visual Inspection)													
Electric	Aerial												
Cable	Aerial												
Phone	Aerial												
Gas	None												
Water	X												
Sewer	None												
Other													
<b>Proposed Design</b>													
Roadway Section	Typical												
Culvert Size & Material	48" round RCP, 300' length												
Utility Relocations	Water main												
Guardrail Replacement													
Miscellaneous Features													
<b>Planning Cost Estimate</b>													
Type	Notes	Total											
Design	Includes 10% Construction Cost and surveying needs	\$17,783											
Right of Way Cost	Assuming 2,000 sf outside of ROW	\$8,000											
Utility Relocation Cost	50 ft of water main	\$5,500											
Construction Cost	Applying 1/10 acre clearing and grubbing cost	\$127,834											
Environmental Permits	Assuming minimal environmental permitting required	\$10,000											
<b>Total Planning Estimate</b>		<b>\$169,118</b>											

Avalon Dr



**Photo 1:**



**Photo 2:**

**Photo Date:**

7/2/2013

**Taken By:**

David King

**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	\$ 600.00	\$ 3,363.20
Curb and Gutter (LF)	\$ 28.56	30.60	\$ -	\$ -
Drain Inlet (EA)		3,000.00	\$ -	\$ -
4" Sidewalk (SY)	\$ 13.56	36.90	\$ -	\$ -
Guardrail (LF)	\$ 4.88	49.09	\$ -	\$ -
End Anchorage (EA)		1,380.00	\$ -	\$ -
Subtotal				\$ 3,363.20

Grading Complete (5% of Rwy Items & Drng Total \$) \$ 4,637.64

Roadway Total \$ 8,000.84

Drainage	Removal Unit Cost	Installation Unit Cost	Amount	Total Cost
Trench Excavation (CY)		10.38	\$ 600.00	\$ 6,228.00
30" CMP (LF)	\$ 19.62		\$ 300.00	\$ 5,886.00
48" RCP (LF)		193.20	\$ 300.00	\$ 57,960.00
Class A Conc (CY)		892.19	\$ 13.70	\$ 12,222.98
Steel (lb)		1.42	\$ -	\$ -
Pipe Bedding (CY)		48.60	\$ 66.67	\$ 3,240.00
Trench Backfill (CY)		2.99	\$ 477.04	\$ 1,425.40
Trench Compaction (CY)		6.36	\$ 381.63	\$ 2,427.18

Drainage Total \$ 89,389.55

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

Signing and Marking Total \$ -

Staging	Installation Unit Cost	Amount	Total Cost
Clearing and Grubbing (Acre)	10,260.00	\$ 0.10	\$ 1,026.00
Temporary Pavement			\$ -
Temporary Drainage (Stream Diversion)	4,428.00	\$ 1.00	\$ 4,428.00

Staging Total \$ 5,454.00

Erosion Control	Installation Unit Cost	Amount	Total Cost
Fine Grading and Seeding (SY)	4.39	\$ 766.67	\$ 3,367.20
Temporary Grassing (AC)	855.60	\$ -	\$ -
Type C Silt Fence (LF)	4.24	\$ 600.00	\$ 2,541.60
Check Dam Type C Silt Fence (LF)	6.79	\$ 600.00	\$ 4,075.20
Erosion Control Mats (SY)	1.87	\$ 200.00	\$ 374.40
Landscape Mulch (SY)	3.58	\$ 200.00	\$ 715.20
Perm Grassing (AC)	1,402.20	\$ -	\$ -
Rip Rap Type 3 12" (SY)	60.98	\$ 66.67	\$ 4,065.60
Plastic Filter Fabric (SY)	5.72	\$ 66.67	\$ 381.60
4" Ditch Paving (SY)	54.65	\$ -	\$ -

Erosion Control Total \$ 15,520.80

Construction Cost Total \$ 118,365.19

Traffic Control (8% of Construction Total \$) \$ 9,469.22

Construction Cost Grand Total \$ 127,834.41

Utility Relocation	Removal Unit Cost	Installation Unit Cost	Amount	Total Cost
Electric				
Aerial	\$ 11.00	55.00	\$ -	\$ -
Buried	\$ 16.50	82.50	\$ -	\$ -
Wooden Pole	\$ 82.50	605.00	\$ -	\$ -
Phone				
Aerial	\$ 11.00	27.50	\$ -	\$ -
Buried	\$ 16.50	55.00	\$ -	\$ -
Wooden Pole	\$ 82.50	605.00	\$ -	\$ -
Cable				
Aerial	\$ 11.00	27.50	\$ -	\$ -
Buried	\$ 16.50	55.00	\$ -	\$ -
Wooden Pole	\$ 82.50	605.00	\$ -	\$ -
Gas				
4" main	\$ 16.50	66.00	\$ -	\$ -
Water				
8" main	\$ 16.50	93.50	\$ 50.00	\$ 5,500.00
Relocate Fire Hydrant (EA)		2,609.22	\$ -	\$ -
Sewer				
12" main	\$ 16.50	82.50	\$ -	\$ -
Utility Relocation Total				\$ 5,500.00

Right of Way (Sq Ft)	Cost/ Sq Ft	Sq Ft	Total Cost
Permanent Easement		4.00 \$2,000.00	\$ 8,000.00
ROW Total			\$ 8,000.00





General Information		Map						
<b>Project ID</b>								
<b>Street Name</b>	<b>Brandon Mill Cir - South</b>							
<b>Site Visit Date</b>	5/22/13							
<b>Road Classification</b>	Minor road							
<b>Project Notes</b>								
Neighborhood drainage system evaluation and replacement. Urban typical section with valley gutter,								
<b>Field Notes</b>								
<b>Design (Existing Site Features)</b>								
<b>Existing Road Laneage</b>	2-10'							
<b>Existing Shld Width (paved and grass) (feet)</b>	4'							
<b>Existing Side Slopes</b>	flat							
<b>Existing Guardrail</b>	none							
<b>Depth fm Pavement to Top of Culvert (ft):</b>	4							
<b>Pipe Type and Size</b>	72" CMP							
<b>Pipe Condition (1-5) (1 is new)</b>	5 (Installation)							
Condition Notes: no headwall upstream or down; bends restrict capacity; signs of flooding; pipe condition due to installation								
<b>Pavement Type/Condition</b>	Asphalt/Good							
<b>Environmental Features</b>		<b>Stage Construction Options</b> <table border="1"> <tr> <td><b>Close Location to Traffic</b></td> <td>X</td> </tr> <tr> <td><b>Maintain One Lane - No Temp Pavement</b></td> <td></td> </tr> <tr> <td><b>Maintain One Lane - Temp Pavement</b></td> <td></td> </tr> </table> <p>Stage Construction Notes: Close roadway;</p> <p>driveway over pipe; replacement impacts property to the right</p>	<b>Close Location to Traffic</b>	X	<b>Maintain One Lane - No Temp Pavement</b>		<b>Maintain One Lane - Temp Pavement</b>	
<b>Close Location to Traffic</b>	X							
<b>Maintain One Lane - No Temp Pavement</b>								
<b>Maintain One Lane - Temp Pavement</b>								
<b>Wetlands</b>	None							
<b>Ditches</b>	None							
<b>Utilities (Visual Inspection)</b>								
<b>Electric</b>	Buried							
<b>Cable</b>	Buried							
<b>Phone</b>	Buried							
<b>Gas</b>								
<b>Water</b>	Buried							
<b>Sewer</b>								
<b>Other</b>								
<b>Proposed Design</b>								
<b>Roadway Section</b>	Typical. Private driveway removal/replacement costed as 9' x 20' section of 4" sidewalk							
<b>Culvert Size &amp; Material</b>	8' x 4' box, concrete, 200' length							
<b>Utility Relocations</b>	Electric, cable, phone, water							
<b>Guardrail Replacement</b>								
<b>Miscellaneous Features</b>	Assumed hydraulic analysis of existing system							
<b>Planning Cost Estimate</b>								
<b>Type</b>	<b>Notes</b>	<b>Total</b>						
<b>System Evaluation</b>		\$25,000						
<b>Design</b>	Includes 10% Construction Cost and surveying needs	\$42,841						
<b>Right of Way Cost</b>	Assuming project extends 7,500 sf beyond ROW	\$30,000						
<b>Utility Relocation Cost</b>	Buried utilities	\$26,400						
<b>Construction Cost</b>	Assuming 1/10 acre clearing and grubbing	\$303,407						
<b>Environmental Permits</b>	Assuming minimal environmental permitting required	\$10,000						
<b>Total Planning Estimate</b>		<b>\$437,648</b>						

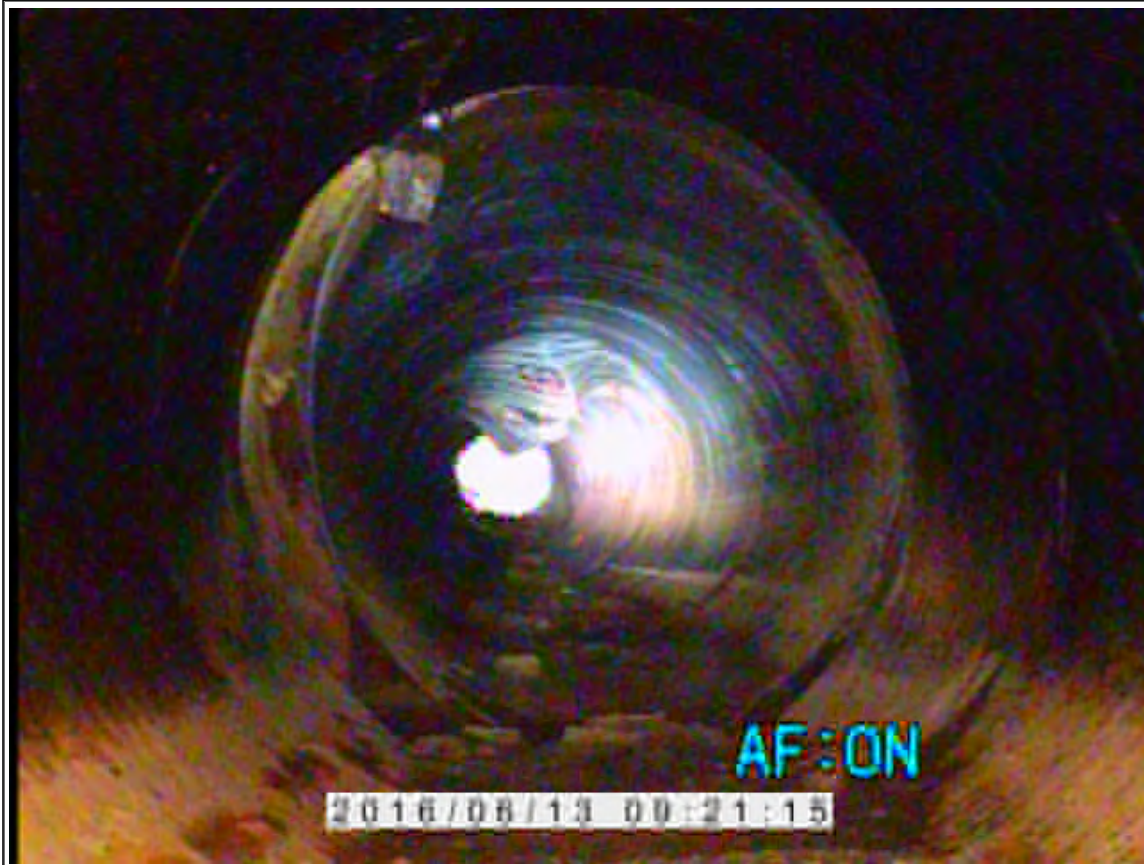


Photo 1:



Photo 2:

Brandon Mill Cir - South

Photo Date:

6/13/2016

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	200.00	\$ 1,121.07
Curb and Gutter (LF)	\$ 28.56	\$ 30.60	20.00	\$ 1,183.20
Drain Inlet (EA)		\$ 3,000.00	0.00	\$ -
4" Sidewalk (SY)	13.56	\$ 36.90	20.00	\$ 1,009.20
Guardrail (LF)	4.884	\$ 49.09	0.00	\$ -
End Anchorage (EA)		\$ 1,380.00	0.00	\$ -
Subtotal				\$ 3,313.47

Grading Complete (5% of Rwy Items & Drng Total \$) \$ 12,502.20

**Roadway Total \$ 15,815.67**

Drainage	Removal Unit Cost	Installation Unit Cost	Amount	Total Cost
Trench Excavation (CY)		\$ 10.38	814.81	\$ 8,457.78
72" CMP (LF)	\$ 54.00		200.00	\$ 32,400.00
72" RCP		\$ 390.00	0.00	\$ -
Class A Conc (CY)		\$ 892.19	183.68	\$ 163,877.09
Steel (lb)		\$ 1.42	21835.00	\$ 30,918.36
Pipe Bedding (CY)		\$ 48.60	74.80	\$ 3,635.28
Trench Backfill (CY)		\$ 2.99	921.50	\$ 2,753.43
Trench Compaction (CY)		\$ 6.36	737.20	\$ 4,688.57

**Drainage Total \$ 246,730.51**

Signing and Marking	Installation Unit Cost	Amount	Total Cost
Permanent Striping (LF)	\$ 0.71	0	\$ -

**Signing and Marking Total \$ -**

Staging	Installation Unit Cost	Amount	Total Cost
Clearing and Grubbing (Acre)	\$ 10,260.00	0.10	\$ 1,026.00
Temporary Pavement			0
Temporary Drainage (Stream Diversion)	\$ 4,428.00	1.00	\$ 4,428.00

**Staging Total \$ 5,454.00**

Erosion Control	Installation Unit Cost	Amount	Total Cost
Fine Grading and Seeding (SY)	\$ 4.39	200.00	\$ 878.40
Temporary Grassing (AC)	\$ 855.60	0.00	\$ -
Type C Silt Fence (LF)	\$ 4.24	800.00	\$ 3,388.80
Check Dam Type C Silt Fence (LF)	\$ 6.79	800.00	\$ 5,433.60
Erosion Control Mats (SY)	\$ 1.87	266.67	\$ 499.20
Landscape Mulch (SY)	\$ 3.58	266.67	\$ 953.60
Perm Grassing (AC)	\$ 1,402.20	0.00	\$ -
Rip Rap Type 3 12" (SY)	\$ 60.98	26.67	\$ 1,626.24
Plastic Filter Fabric (SY)	\$ 5.72	26.67	\$ 152.64
4" Ditch Paving (SY)	\$ 54.65	0.00	\$ -

**Erosion Control Total \$ 12,932.48**

**Construction Cost Total \$ 280,932.66**

**Traffic Control (8% of Construction Total \$) \$ 22,474.61**

**Construction Cost Grand Total \$ 303,407.27**

Utility Relocation	Removal Unit Cost	Installation Unit Cost	Amount	Total Cost
<b>Electric</b>				
Aerial	\$ 11.00	\$ 55.00	\$	-
Buried	\$ 16.50	\$ 82.50	75	\$ 7,425.00
Wooden Pole	\$ 82.50	\$ 605.00		\$ -
<b>Phone</b>				
Aerial	\$ 11.00	\$ 27.50	\$	-
Buried	\$ 16.50	\$ 55.00	75	\$ 5,362.50
Wooden Pole	\$ 82.50	\$ 605.00		\$ -
<b>Cable</b>				
Aerial	\$ 11.00	\$ 27.50	\$	-
Buried	\$ 16.50	\$ 55.00	75	\$ 5,362.50
Wooden Pole	\$ 82.50	\$ 605.00		\$ -
<b>Gas</b>				
4" main	\$ 16.50	\$ 66.00	\$	-
<b>Water</b>				
8" main	\$ 16.50	\$ 93.50	75	\$ 8,250.00
Relocate Fire Hydrant (EA)		\$ 2,609.22		\$ -
<b>Sewer</b>				
12" main	\$ 16.50	\$ 82.50	0.00	\$ -
<b>Utility Relocation Total</b>				<b>\$ 26,400.00</b>

Right of Way (Sq Ft)	Cost/ Sq Ft	Sq Ft	Total Cost
Permanent Easement	\$ 4.00	7500	\$ 30,000.00
<b>ROW Total</b>			<b>\$ 30,000.00</b>





General Information		Map							
Project ID									
Street Name	266 Callaway Rd.								
Site Visit Date	5/21/13								
Road Classification	Minor road								
Project Notes									
Rural Typical Section									
Field Notes									
Design (Existing Site Features)									
Existing Road Laneage	2 - 12'								
Existing Shld Width (paved and grass) (feet)	2' (Grass)								
Existing Side Slopes	2:1	<b>Stage Construction Options</b> <table border="1"> <tr> <td>Close Location to Traffic</td> <td>X</td> </tr> <tr> <td>Maintain One Lane - No Temp Pavement</td> <td></td> </tr> <tr> <td>Maintain One Lane - Temp Pavement</td> <td></td> </tr> </table> <p>Stage Construction Notes: 45 mph posted speed</p>		Close Location to Traffic	X	Maintain One Lane - No Temp Pavement		Maintain One Lane - Temp Pavement	
Close Location to Traffic	X								
Maintain One Lane - No Temp Pavement									
Maintain One Lane - Temp Pavement									
Existing Guardrail	None								
Depth fm Pavement to Top of Culvert (ft):	Assumed 3'								
Pipe Type and Size	60" CMP (egg)								
Pipe Condition (1-5) (1 is new)	4								
Condition Notes:									
Pavement Type/Condition	Asphalt/Good								
Environmental Features									
Wetlands	None								
Ditches	Noted								
Utilities (Visual Inspection)									
Electric	Aerial								
Cable	None								
Phone	Aerial								
Gas	None								
Water	Buried								
Sewer	None								
Other									
<b>Proposed Design</b>									
Roadway Section									
Culvert Size & Material	triple 10' x 4' box, concrete, 80' length. Cost of removing elliptical CMP assumed to be equal to circular CMP								
Utility Relocations	Water								
Guardrail Replacement	Need to install guardrail due to side slopes and culvert installation								
Miscellaneous Features	Zone A, Floodplain Analysis Required								
<b>Planning Cost Estimate</b>									
Type	Notes	Total							
Design	Includes 10% design cost and surveying needs	\$53,724							
Right of Way Cost	Assuming project extends 11,000 sf beyond ROW	\$44,000							
Utility Relocation Cost	Buried water main	\$8,250							
Construction Cost	Assuming 1/10 acre clearing and grubbing needed	\$412,243							
Environmental Permits	Includes Zone A Floodplain analysis	\$15,000							
<b>Total Planning Estimate</b>		<b>\$533,218</b>							



**Photo 1:**



**Photo 2:**

Callaway Road

**Photo Date:**

5/21/2013

**Taken By:**

David King

**Page:**

**1**



Callaway Road



**Photo 3:**



**Photo 4:**

**Photo Date:**

9/26/2012

**Taken By:**

Tony Hicks

**Page:**

**2**

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	864.00	\$ 4,843.01
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	600.00	\$ 32,385.60
End Anchorage (EA)		\$ 1,380.00	2.00	\$ 2,760.00
Subtotal				\$ 39,988.61

Grading Complete (5% of Rwy Items & Drng Total \$) \$ 17,173.56

Roadway Total \$ 57,162.17

Drainage	Removal Unit Cost	Installation Unit Cost	Amount	Total Cost
Trench Excavation (CY)		\$ 10.38	853.33	\$ 8,857.60
60" CMP (LF)	\$ 24.60		80.00	\$ 5,904.00
84" RCP		\$ 142.52	0.00	\$ -
Class A Conc (CY)		\$ 892.19	262.44	\$ 234,145.82
Steel (lb)		\$ 1.42	30,224.00	\$ 42,797.18
Pipe Bedding (CY)		\$ 48.60	97.20	\$ 4,723.92
Trench Backfill (CY)		\$ 2.99	873.47	\$ 2,609.92
Trench Compaction (CY)		\$ 6.36	698.77	\$ 4,444.20

Drainage Total \$ 303,482.64

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	0.10	\$ 1,026.00
Temporary Pavement			\$ -
Temporary Drainage (Stream Diversion)	\$ 4,428.00	1.00	\$ 4,428.00

Staging Total \$ 5,454.00

Erosion Control	Installation Unit Cost	Amount	Total Cost
Fine Grading and Seeding (SY)	\$ 4.39	224.00	\$ 983.81
Temporary Grassing (AC)	\$ 855.60	0.00	\$ -
Type C Silt Fence (LF)	\$ 4.24	640.00	\$ 2,711.04
Check Dam Type C Silt Fence (LF)	\$ 6.79	640.00	\$ 4,346.88
Erosion Control Mats (SY)	\$ 1.87	213.33	\$ 399.36
Landscape Mulch (SY)	\$ 3.58	213.33	\$ 762.88
Perm Grassing (AC)	\$ 1,402.20	0.00	\$ -
Rip Rap Type 3 12" (SY)	\$ 60.98	96.00	\$ 5,854.46
Plastic Filter Fabric (SY)	\$ 5.72	96.00	\$ 549.50
4" Ditch Paving (SY)	\$ 54.65	0.00	\$ -

Erosion Control Total \$ 15,607.94

Construction Cost Total \$ 381,706.75

Traffic Control (8% of Construction Total \$) \$ 30,536.54

Construction Cost Grand Total \$ 412,243.29

Utility Relocation	Removal Unit Cost	Installation Unit Cost	Amount	Total Cost
Electric				
Phone				
Cable				
Gas				
4" main	\$ 16.50	\$ 66.00		\$ -
Water				
8" main	\$ 16.50	\$ 93.50	75.00	\$ 8,250.00
Relocate Fire Hydrant (EA)		\$ 2,609.22		\$ -
Utility Relocation Total				\$ 8,250.00

Right of Way (Sq Ft)	Cost/ Sq Ft	Sq Ft	Total Cost
Permanent Easement	\$ 4.00	11,000.00	\$ 44,000.00
ROW Total			\$ 44,000.00



General Information		Map	
<b>Project ID</b>			
<b>Street Name</b>	<b>Chappell Rd.</b>		
<b>Site Visit Date</b>	5/21/13		
<b>Road Classification</b>	Minor arterial		
<b>Project Notes</b>			
Rural Typical Section			
<b>Field Notes</b>			
<b>Design (Existing Site Features)</b>			
<b>Existing Road Laneage</b>	2 - 12'		
<b>Existing Shld Width (paved and grass) (feet)</b>	1' - 2'		
<b>Existing Side Slopes</b>	1.5:1		
<b>Existing Guardrail</b>	None		
<b>Depth fm Pavement to Top of Culvert (ft):</b>	6'		
<b>Pipe Type and Size</b>	1-72" CMP		
<b>Pipe Condition (1-5) (1 is new)</b>	3		
Condition Notes:			
<b>Pavement Type/Condition</b>	Asphalt/Good		
<b>Environmental Features</b>			
<b>Wetlands</b>	Upstream (?)		
<b>Ditches</b>	Along road		
<b>Utilities (Visual Inspection)</b>			
<b>Electric</b>	Aerial		
<b>Cable</b>	Buried		
<b>Phone</b>	Buried		
<b>Gas</b>			
<b>Water</b>	Buried		
<b>Sewer</b>			
<b>Other</b>			
<b>Proposed Design</b>			
<b>Roadway Section</b>	Typical. For costing purposes, temporary road consists of 8" gravel fill		
<b>Culvert Size &amp; Material</b>	dbl 8' x 5' box, concrete, 70' length		
<b>Utility Relocations</b>	Cable, telephone, water		
<b>Guardrail Replacement</b>	Proposed Guardrail Installation due to proposed culvert(s) and side slopes		
<b>Miscellaneous Features</b>			
<b>Planning Cost Estimate</b>			
<b>Type</b>	<b>Notes</b>	<b>Total</b>	
<b>Design</b>	Includes 10% Construction Cost and surveying needs	\$28,964	
<b>Right of Way Cost</b>	Assuming project extends 16,250 sf beyond ROW	\$32,500	
<b>Utility Relocation Cost</b>	Buried utilities	\$25,300	
<b>Construction Cost</b>	Assuming 1/10 acre clearing and grubbing	\$239,635	
<b>Environmental Permits</b>	Permits, Zone A Floodplain Analysis	\$10,000	
<b>Total Planning Estimate</b>		<b>\$336,399</b>	



# 364 Chappell Road



**Photo 1:**



**Photo 2:**

**Photo Date:**

5/21/2013

**Taken By:**

David King

**Page:**

**1**



364 Chappell Road



**Photo 3:**



**Photo 4:**

**Photo Date:**

5/21/2013

**Taken By:**

David King

**Page:**

**2**

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	432.00	\$ 2,421.50
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	625.00	\$ 33,735.00
End Anchorage (EA)		\$ 1,380.00	2.00	\$ 2,760.00
Subtotal				\$ 38,916.50

Grading Complete (5% of Rwy Items & Drng Total \$)	\$ 10,164.98
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Roadway Total	\$ 49,081.49
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Drainage	Removal Unit Cost	Installation Unit Cost	Amount	Total Cost
Trench Excavation (CY)		\$ 10.38	606.67	\$ 6,297.20
72" CMP (LF)	\$ 63.00		70.00	\$ 13,230.00
72" RCP (LF)		\$ 390.00	0.00	\$ -
Class A Conc (CY)		\$ 892.19	132.51	\$ 118,223.83
Steel (lb)		\$ 1.42	13,383.00	\$ 18,950.33
Pipe Bedding (CY)		\$ 48.60	48.00	\$ 2,332.80
Trench Backfill (CY)		\$ 2.99	662.33	\$ 1,979.05
Trench Compaction (CY)		\$ 6.36	529.87	\$ 3,369.95

Drainage Total	\$ 164,383.16
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Signing and Marking	Installation Unit Cost	Amount	Total Cost
Permanent Striping (LF)	\$ 0.71	72.00	\$ 50.98

Signing and Marking Total	\$ 50.98
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Staging	Installation Unit Cost	Amount	Total Cost
Clearing and Grubbing (Acre)	\$ 10,260.00	0.10	\$ 1,026.00
Temporary Gravel Road (SY)	\$ 15.42	977.78	\$ 15,077.33
Temporary Drainage (Stream Diversion)	\$ 4,428.00	1.00	\$ 4,428.00

Staging Total	\$ 20,633.29
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Erosion Control	Installation Unit Cost	Amount	Total Cost
Fine Grading and Seeding (SY)	\$ 4.39	92.00	\$ 404.06
Temporary Grassing (AC)	\$ 855.60	0.00	\$ -
Type C Silt Fence (LF)	\$ 4.24	280.00	\$ 1,186.08
Check Dam Type C Silt Fence (LF)	\$ 6.79	280.00	\$ 1,901.76
Erosion Control Mats (SY)	\$ 1.87	93.33	\$ 174.72
Landscape Mulch (SY)	\$ 3.58	93.33	\$ 333.76
Perm Grassing (AC)	\$ 1,402.20	0.00	\$ -
Rip Rap Type 3 12" (SY)	\$ 60.98	48.00	\$ 2,927.23
Plastic Filter Fabric (SY)	\$ 5.72	48.00	\$ 274.75
4" Ditch Paving (SY)	\$ 54.65	0.00	\$ -

Erosion Control Total	\$ 7,202.37
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Construction Cost Total	\$ 241,351.28
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Traffic Control (8% of Construction Total \$)	\$ 19,308.10
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Construction Cost Grand Total	\$ 260,659.38
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Utility Relocation	Removal Unit Cost	Installation Unit Cost	Amount	Total Cost
Electric				
Aerial	\$ 11.00	\$ 55.00		\$ -
Buried	\$ 16.50	\$ 82.50	0.00	\$ -
Wooden Pole	\$ 82.50	\$ 605.00		\$ -
Phone				
Aerial	\$ 11.00	\$ 27.50		\$ -
Buried	\$ 16.50	\$ 55.00	100.00	\$ 7,150.00
Wooden Pole	\$ 82.50	\$ 605.00		\$ -
Cable				
Aerial	\$ 11.00	\$ 27.50		\$ -
Buried	\$ 16.50	\$ 55.00	100.00	\$ 7,150.00
Wooden Pole	\$ 82.50	\$ 605.00		\$ -
Gas				
4" main	\$ 16.50	\$ 66.00		\$ -
Water				
8" main	\$ 16.50	\$ 93.50	100.00	\$ 11,000.00
Relocate Fire Hydrant (EA)		\$ 2,609.22		\$ -
Sewer			0.00	
12" main	\$ 16.50	\$ 82.50	0.00	\$ -
Utility Relocation Total				\$ 25,300.00

Right of Way (Sq Ft)	Cost/ Sq Ft	Sq Ft	Total Cost
Permanent Easement	\$ 4.00	16,250.00	\$ 65,000.00
ROW Total			\$ 65,000.00



General Information		Map
Project ID		
Street Name	120 Deer Forest Trail	
Site Visit Date	5/21/13	
Road Classification	Minor road	
Project Notes		
Urban Typical Section with Valley Gutter		
Field Notes		
Design (Existing Site Features)		
Existing Road Laneage	2 - 12'	
Existing Shld Width (paved and grass) (feet)	None	
Existing Side Slopes	Flat	
Existing Guardrail	None	
Depth fm Pavement to Top of Culvert (ft):	2	
Pipe Type and Size	36" CMP, 100'	
Pipe Condition (1-5) (1 is new)	5	
Condition Notes: Headwall failed on downstream side, active erosion, effectively 0% capacity		
Pavement Type/Condition	Asphalt/Good	
Environmental Features		
Wetlands	None	
Ditches	None	
Utilities (Visual Inspection)		
Electric	Buried	
Cable	Buried	
Phone	Buried	
Gas		
Water	Buried	
Sewer		
Other		
Stage Construction Options		
Close Location to Traffic	X	
Maintain One Lane - No Temp Pavement		
Maintain One Lane - Temp Pavement		
Stage Construction Notes:		
Proposed Design		
Roadway Section		
Culvert Size & Material	4' x 3' box, concrete, 100' length. Cost of removing headwalls assumed equal to removal of entire length of pipe.	
Utility Relocations	Electric, cable, phone, water	
Guardrail Replacement		
Miscellaneous Features		
Planning Cost Estimate		
Type	Notes	Total
Design	Includes 10% Construction Cost and surveying needs	\$13,446
Right of Way Cost	Assuming project extends 3,000 sf beyond ROW	\$20,000
Utility Relocation Cost	Buried utilities	\$17,600
Construction Cost	Assuming 1/10 acre clearing and grubbing	\$84,461
Environmental Permits	Assuming minimal environmental permitting required	\$10,000
Total Planning Estimate		\$145,508



# Deer Forest Trail



**Photo 1:**



**Photo 2:**

**Photo Date:**

5/21/2013

**Taken By:**

David King

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# Deer Forest Trail



**Photo 3:**



**Photo 4:**

**Photo Date:**

5/21/2013

**Taken By:**

David King

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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	144.00	\$ 807.17
Curb and Gutter (LF)	\$ 28.56	\$ 30.60	20.00	\$ 1,183.20
Drain Inlet (EA)		\$ 3,000.00	0.00	\$ -
4" Sidewalk (SY)	\$ 13.56	\$ 36.90	0.00	\$ -
Guardrail (LF)	\$ 4.88	\$ 49.09	0.00	\$ -
End Anchorage (EA)		\$ 1,380.00	0.00	\$ -
Subtotal				\$ 1,990.37

Grading Complete (5% of Rwy Items & Drng Total \$) \$ 3,158.26

Roadway Total \$ 5,148.63

Drainage	Removal Unit Cost	Installation Unit Cost	Amount	Total Cost
Trench Excavation (CY)		\$ 10.38	133.33	\$ 1,384.00
36" CMP (LF)	\$ 19.62		200.00	\$ 11,772.00
36" RCP		\$ 142.52	0.00	\$ -
Class A Conc (CY)		\$ 892.19	44.61	\$ 39,800.51
Steel (lb)		\$ 1.42	4,295.00	\$ 6,081.72
Pipe Bedding (CY)		\$ 48.60	22.70	\$ 1,103.22
Trench Backfill (CY)		\$ 2.99	127.97	\$ 382.36
Trench Compaction (CY)		\$ 6.36	102.37	\$ 651.09

Drainage Total \$ 61,174.91

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	0.10	\$ 1,026.00
Temporary Pavement			\$ -
Temporary Drainage (Stream Diversion)	\$ 4,428.00	1.00	\$ 4,428.00

Staging Total \$ 5,454.00

Erosion Control	Installation Unit Cost	Amount	Total Cost
Fine Grading and Seeding (SY)	\$ 4.39	50.67	\$ 222.53
Temporary Grassing (AC)	\$ 855.60	0.00	\$ -
Type C Silt Fence (LF)	\$ 4.24	400.00	\$ 1,694.40
Check Dam Type C Silt Fence (LF)	\$ 6.79	400.00	\$ 2,716.80
Erosion Control Mats (SY)	\$ 1.87	133.33	\$ 249.60
Landscape Mulch (SY)	\$ 3.58	133.33	\$ 476.80
Perm Grassing (AC)	\$ 1,402.20	0.00	\$ -
Rip Rap Type 3 12" (SY)	\$ 60.98	16.00	\$ 975.74
Plastic Filter Fabric (SY)	\$ 5.72	16.00	\$ 91.58
4" Ditch Paving (SY)	\$ 54.65	0.00	\$ -

Erosion Control Total \$ 6,427.46

Construction Cost Total \$ 78,204.99

Traffic Control (8% of Construction Total \$) \$ 6,256.40

Construction Cost Grand Total \$ 84,461.39

Utility Relocation	Removal Unit Cost	Installation Unit Cost	Amount	Total Cost
Electric				
Aerial	\$ 11.00	\$ 55.00		\$ -
Buried	\$ 16.50	\$ 82.50	50.00	\$ 4,950.00
Wooden Pole	\$ 82.50	\$ 605.00		\$ -
Phone				
Aerial	\$ 11.00	\$ 27.50		\$ -
Buried	\$ 16.50	\$ 55.00	50.00	\$ 3,575.00
Wooden Pole	\$ 82.50	\$ 605.00		\$ -
Cable				
Aerial	\$ 11.00	\$ 27.50		\$ -
Buried	\$ 16.50	\$ 55.00	50.00	\$ 3,575.00
Wooden Pole	\$ 82.50	\$ 605.00		\$ -
Gas				
4" main	\$ 16.50	\$ 66.00		\$ -
Water				
8" main	\$ 16.50	\$ 93.50	50.00	\$ 5,500.00
Relocate Fire Hydrant (EA)		\$ 2,609.22		\$ -
Sewer			0.00	
12" main	\$ 16.50	\$ 82.50	0.00	\$ -
Utility Relocation Total				\$ 17,600.00

Right of Way (Sq Ft)	Cost/ Sq Ft	Sq Ft	Total Cost
Permanent Easement	\$ 4.00	5,000.00	\$ 20,000.00
ROW Total			\$ 20,000.00

General Information		Map	
<b>Project ID</b>			
<b>Street Name</b>	<b>Dogwood Trail</b>		
<b>Site Visit Date</b>	5/22/13		
<b>Road Classification</b>	Minor arterial		
<b>Project Notes</b>			
Rural Typical Section			
<b>Field Notes</b>			
<b>Design (Existing Site Features)</b>			
<b>Existing Road Laneage</b>	2-12'		
<b>Existing Shld Width (paved and grass) (feet)</b>	1' - 2'		
<b>Existing Side Slopes</b>	1.5:1		
<b>Existing Guardrail</b>	None		
<b>Depth fm Pavement to Top of Culvert (ft):</b>	12		
<b>Pipe Type and Size</b>	2-120" CMP		
<b>Pipe Condition (1-5) (1 is new)</b>	4		
Condition Notes: Large down stream drop; home in down stream flood plain; bottom of pipe rusted through			
<b>Pavement Type/Condition</b>	Asphalt/Good		
<b>Environmental Features</b>			
<b>Wetlands</b>	None		
<b>Ditches</b>	Noted		
<b>Utilities (Visual Inspection)</b>			
<b>Electric</b>	Aerial		
<b>Cable</b>	Aerial		
<b>Phone</b>	Aerial		
<b>Gas</b>			
<b>Water</b>	Buried		
<b>Sewer</b>	Buried		
<b>Other</b>			
<b>Proposed Design</b>			
<b>Roadway Section</b>			
<b>Culvert Size &amp; Material</b>	triple 7' x 7' box, concrete, 80' length		
<b>Utility Relocations</b>	Electric, cable, phone, water, sewer		
<b>Guardrail Replacement</b>	Need Guardrail due to side slopes and culvert installation		
<b>Miscellaneous Features</b>	Zone AE Floodplain and Floodway Analysis required		
<b>Planning Cost Estimate</b>			
<b>Type</b>	<b>Notes</b>	<b>Total</b>	
<b>Design</b>	Includes 10% Construction Cost and surveying needs	\$55,456	
<b>Right of Way Cost</b>	Assuming project extends 13,900 sf beyond ROW	\$55,600	
<b>Utility Relocation Cost</b>	Aerial and buried utilities	\$37,263	
<b>Construction Cost</b>	Assuming 1/5 acre clearing and grubbing	\$429,561	
<b>Environmental Permits</b>	Permits, Zone AE flood study	\$18,000	
<b>Total Planning Estimate</b>		<b>\$595,879</b>	





**Photo 1:**



**Photo 2:**

## Dogwood Trail

**Photo Date:**

5/21/2013

**Taken By:**

David King

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**Photo 3:**



**Photo 4:**

## Dogwood Trail

**Photo Date:**

5/21/2013

**Taken By:**

David King

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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	1,104.00	\$ 6,188.29
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	600.00	\$ 32,385.60
End Anchorage (EA)		\$ 1,380.00	4.00	\$ 5,520.00
Subtotal				\$ 44,093.89

Grading Complete (5% of Rwy Items & Dmg Total \$) \$ 17,795.14

Roadway Total \$ 61,889.03

Drainage	Removal Unit Cost	Installation Unit Cost	Amount	Total Cost
Trench Excavation (CY)		\$ 10.38	2,112.59	\$ 21,928.71
120" CMP (LF)	\$ 90.00		160.00	\$ 43,200.00
120" RCP		\$ 142.52	0.00	\$ -
Class A Conc (CY)		\$ 892.19	212.60	\$189,679.17
Steel (lb)		\$ 1.42	23,893.00	\$ 33,832.49
Pipe Bedding (CY)		\$ 48.60	69.90	\$ 3,397.14
Trench Backfill (CY)		\$ 2.99	2,448.17	\$ 7,315.14
Trench Compaction (CY)		\$ 6.36	1,958.54	\$ 12,456.31

Drainage Total \$311,808.96

Signing and Marking	Installation Unit Cost	Amount	Total Cost
Permanent Striping (LF)	\$ 0.71	92.00	\$ 65.14

Signing and Marking Total \$ 65.14

Staging	Installation Unit Cost	Amount	Total Cost
Clearing and Grubbing (Acre)	\$ 10,260.00	0.20	\$ 2,052.00
Temporary Gravel Road (SY)	\$ 15.42	0.00	\$ -
Temporary Drainage (Stream Diversion)	\$ 4,428.00	2.00	\$ 8,856.00

Staging Total \$ 11,038.27

Erosion Control	Installation Unit Cost	Amount	Total Cost
Fine Grading and Seeding (SY)	\$ 4.39	143.11	\$ 628.54
Temporary Grassing (AC)	\$ 855.60	0.00	\$ -
Type C Silt Fence (LF)	\$ 4.24	640.00	\$ 2,711.04
Check Dam Type C Silt Fence (LF)	\$ 6.79	640.00	\$ 4,346.88
Erosion Control Mats (SY)	\$ 1.87	213.33	\$ 399.36
Landscape Mulch (SY)	\$ 3.58	213.33	\$ 762.88
Perm Grassing (AC)	\$ 1,402.20	0.00	\$ -
Rip Rap Type 3 12" (SY)	\$ 60.98	61.33	\$ 3,740.35
Plastic Filter Fabric (SY)	\$ 5.72	61.33	\$ 351.07
4" Ditch Paving (SY)	\$ 54.65	0.00	\$ -

Erosion Control Total \$ 12,940.13

Construction Cost Total \$397,741.53

Traffic Control (8% of Construction Total \$) \$ 31,819.32

Construction Cost Grand Total \$429,560.85

Utility Relocation	Removal Unit Cost	Installation Unit Cost	Amount	Total Cost
Electric				
Aerial	\$ 11.00	\$ 55.00	100.00	\$ 6,600.00
Buried	\$ 16.50	\$ 82.50	0.00	\$ -
Wooden Pole	\$ 82.50	\$ 605.00	3.00	\$ 2,062.50
Phone				
Aerial	\$ 11.00	\$ 27.50	100.00	\$ 3,850.00
Buried	\$ 16.50	\$ 55.00	0.00	\$ -
Wooden Pole	\$ 82.50	\$ 605.00		\$ -
Cable				
Aerial	\$ 11.00	\$ 27.50	100.00	\$ 3,850.00
Buried	\$ 16.50	\$ 55.00	0.00	\$ -
Wooden Pole	\$ 82.50	\$ 605.00		\$ -
Gas				
4" main	\$ 16.50	\$ 66.00		\$ -
Water				
8" main	\$ 16.50	\$ 93.50	100.00	\$ 11,000.00
Relocate Fire Hydrant (EA)		\$ 2,609.22		\$ -
Sewer			0.00	
12" main	\$ 16.50	\$ 82.50	100.00	\$ 9,900.00
Utility Relocation Total				\$ 37,262.50

Right of Way (Sq Ft)	Cost/ Sq Ft	Sq Ft	Total Cost
Permanent Easement	\$ 4.00	13,900.00	\$ 55,600.00
ROW Total			\$ 55,600.00

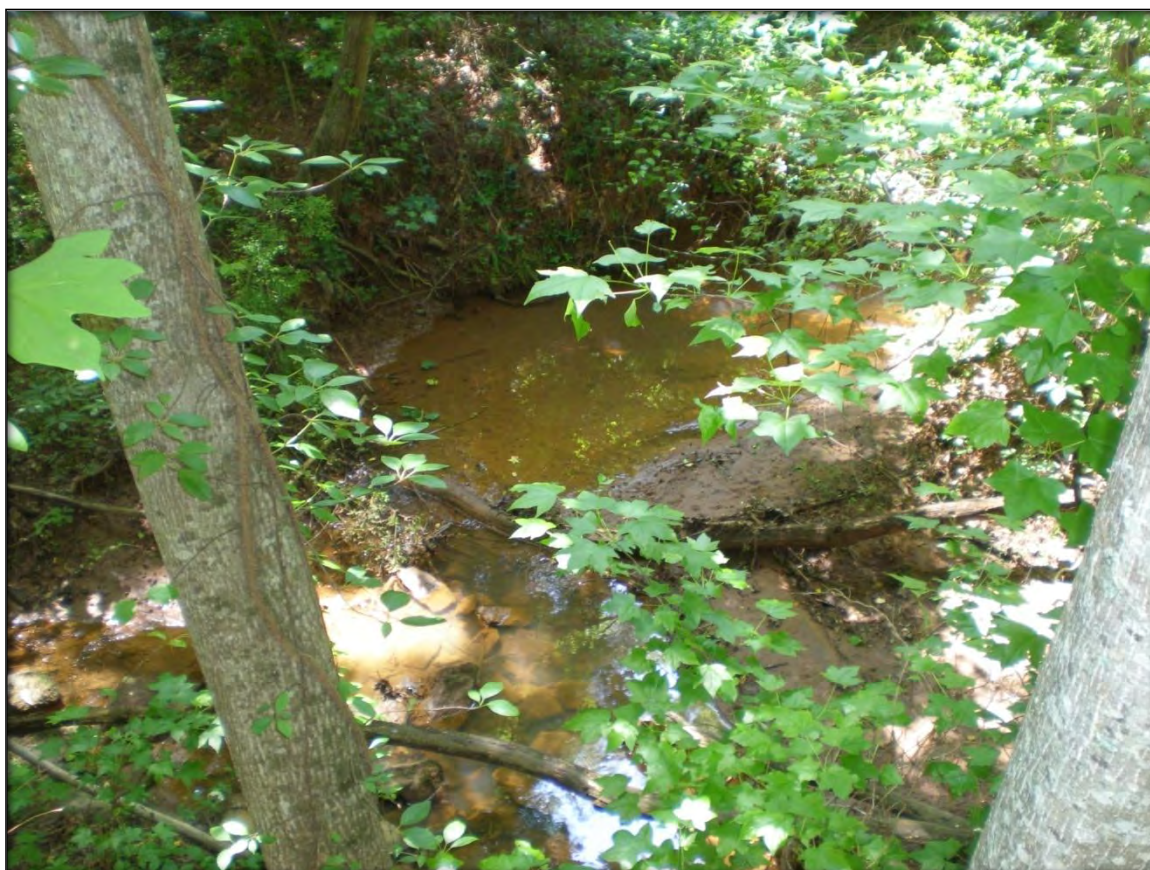


General Information		Map	
<b>Project ID</b>			
<b>Street Name</b>	<b>120 Mercedes Trail</b>		
<b>Site Visit Date</b>	5/22/13		
<b>Road Classification</b>	Internal Local		
<b>Project Notes</b>			
Urban typical with valley gutter; subdivision street			
<b>Field Notes</b>			
<b>Design (Existing Site Features)</b>			
<b>Existing Road Laneage</b>	2-12'		
<b>Existing Shld Width (paved and grass) (feet)</b>	4'		
<b>Existing Side Slopes</b>	flat		
<b>Existing Guardrail</b>	none		
<b>Depth fm Pavement to Top of Culvert (ft):</b>	5		
<b>Pipe Type and Size</b> (ellip. CMP)	2-48"x72",55'		
<b>Pipe Condition (1-5) (1 is new)</b>	5		
Condition Notes: Both up to 25% blocked, structurally unsound, sag in top of pipe, debris/rip rap in pipe			
<b>Pavement Type/Condition</b>	Asphalt/Good		
<b>Environmental Features</b>			
<b>Wetlands</b>	None		
<b>Ditches</b>	None		
<b>Utilities (Visual Inspection)</b>			
<b>Electric</b>	Buried		
<b>Cable</b>	Buried		
<b>Phone</b>	Buried		
<b>Gas</b>			
<b>Water</b>	Buried		
<b>Sewer</b>			
<b>Other</b>			
<b>Proposed Design</b>			
<b>Roadway Section</b>			
<b>Culvert Size &amp; Material</b>	dbl 8' x 4' box, concrete, 60' length. Cost of elliptical pipe removal assumed to equal to removal of round 60" CMP.		
<b>Utility Relocations</b>	Electric, cable, phone, water		
<b>Guardrail Replacement</b>			
<b>Miscellaneous Features</b>			
<b>Planning Cost Estimate</b>			
<b>Type</b>	<b>Notes</b>	<b>Total</b>	
<b>Design</b>	Includes 10% Construction Cost and surveying needs	\$21,679	
<b>Right of Way Cost</b>	Assuming project extends 2,000 sf beyond ROW	\$8,000	
<b>Utility Relocation Cost</b>	Buried utilities	\$17,600	
<b>Construction Cost</b>	Assuming 1/5 acre clearing and grubbing	\$166,790	
<b>Environmental Permits</b>	Assuming minimal environmental permitting required	\$10,000	
<b>Total Planning Estimate</b>		<b>\$224,070</b>	

# Mercedes Trail



**Photo 1:**



**Photo 2:**

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5/21/2013

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David King

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# Mercedes Trail



**Photo 3:**



**Photo 4:**

**Photo Date:**

5/21/2013

**Taken By:**

David King

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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	432.00	\$ 2,421.50
Curb and Gutter (LF)	\$ 28.56	\$ 30.60	36.00	\$ 2,129.76
Drain Inlet (EA)		\$ 3,000.00	0.00	\$ -
4" Sidewalk (SY)	\$ 13.56	\$ 36.90	0.00	\$ -
Guardrail (LF)	\$ 4.88	\$ 49.09	0.00	\$ -
End Anchorage (EA)		\$ 1,380.00	0.00	\$ -
Subtotal				\$ 4,551.26

Grading Complete (5% of Rwy Items & Drng Total \$) \$ 6,723.90

Roadway Total \$ 11,275.17

Drainage	Removal Unit Cost	Installation Unit Cost	Amount	Total Cost
Trench Excavation (CY)		\$ 10.38	400.00	\$ 4,152.00
60" CMP (LF)	\$ 24.60		110.00	\$ 8,118.00
60" RCP		\$ 259.20	0.00	\$ -
Class A Conc (CY)		\$ 892.19	108.16	\$ 96,499.05
Steel (lb)		\$ 1.42	11,182.00	\$ 15,833.71
Pipe Bedding (CY)		\$ 48.60	41.30	\$ 2,007.18
Trench Backfill (CY)		\$ 2.99	410.70	\$ 1,227.17
Trench Compaction (CY)		\$ 6.36	328.56	\$ 2,089.64

Drainage Total \$ 129,926.76

Signing and Marking	Installation Unit Cost	Amount	Total Cost
Permanent Striping (LF)	\$ 0.71	72.00	\$ 50.98

Signing and Marking Total \$ 50.98

Staging	Installation Unit Cost	Amount	Total Cost
Clearing and Grubbing (Acre)	\$ 10,260.00	0.20	\$ 2,052.00
Temporary Pavement			\$ -
Temporary Drainage (Stream Diversion)	\$ 4,428.00	1.00	\$ 4,428.00

Staging Total \$ 6,581.95

Erosion Control	Installation Unit Cost	Amount	Total Cost
Fine Grading and Seeding (SY)	\$ 4.39	72.00	\$ 316.22
Temporary Grassing (AC)	\$ 855.60	0.00	\$ -
Type C Silt Fence (LF)	\$ 4.24	240.00	\$ 1,016.64
Check Dam Type C Silt Fence (LF)	\$ 6.79	240.00	\$ 1,630.08
Erosion Control Mats (SY)	\$ 1.87	80.00	\$ 149.76
Landscape Mulch (SY)	\$ 3.58	80.00	\$ 286.08
Perm Grassing (AC)	\$ 1,402.20	0.00	\$ -
Rip Rap Type 3 12" (SY)	\$ 60.98	48.00	\$ 2,927.23
Plastic Filter Fabric (SY)	\$ 5.72	48.00	\$ 274.75
4" Ditch Paving (SY)	\$ 54.65	0.00	\$ -

Erosion Control Total \$ 6,600.77

Construction Cost Total \$ 154,435.62

Traffic Control (8% of Construction Total \$) \$ 12,354.85

Construction Cost Grand Total \$ 166,790.47

Utility Relocation	Removal Unit Cost	Installation Unit Cost	Amount	Total Cost
Electric				
Aerial	\$ 11.00	\$ 55.00		\$ -
Buried	\$ 16.50	\$ 82.50	50.00	\$ 4,950.00
Wooden Pole	\$ 82.50	\$ 605.00		\$ -
Phone				
Aerial	\$ 11.00	\$ 27.50		\$ -
Buried	\$ 16.50	\$ 55.00	50.00	\$ 3,575.00
Wooden Pole	\$ 82.50	\$ 605.00		\$ -
Cable				
Aerial	\$ 11.00	\$ 27.50		\$ -
Buried	\$ 16.50	\$ 55.00	50.00	\$ 3,575.00
Wooden Pole	\$ 82.50	\$ 605.00		\$ -
Gas				
4" main	\$ 16.50	\$ 66.00		\$ -
Water				
8" main	\$ 16.50	\$ 93.50	50.00	\$ 5,500.00
Relocate Fire Hydrant (EA)		\$ 2,609.22		\$ -
Sewer			0.00	
12" main	\$ 16.50	\$ 82.50	0.00	\$ -
Utility Relocation Total				\$ 17,600.00

Right of Way (Sq Ft)	Cost/ Sq Ft	Sq Ft	Total Cost
Permanent Easement	\$ 4.00	2,000.00	\$ 8,000.00
ROW Total			\$ 8,000.00

General Information		
Project ID		
Street Name	Morning Dove Dr.	
Site Visit Date	5/21/13	
Road Classification	Minor road	
Project Notes		
Urban typical section valley gutter		
Field Notes		
Design (Existing Site Features)		
Existing Road Laneage	2-12'	
Existing Shld Width (paved and grass) (feet)	4'	
Existing Side Slopes	flat	
Existing Guardrail	none	
Depth fm Pavement to Top of Culvert (ft):	2'	
Pipe Type and Size	1-72", 1-84"	
Pipe Condition (1-5) (1 is new)	4	
Condition Notes:		
Pavement Type/Condition	Asphalt/Good	
Environmental Features		
Wetlands	None identified	
Ditches	None	
Utilities (Visual Inspection)		
Electric	Buried	
Cable	Buried	
Phone	Buried	
Gas	Not Sighted	
Water	Buried	
Sewer	Buried	
Other		
Proposed Design		
Roadway Section	Replace in kind. For costing purposes, temporary road consists of 8" gravel fill	
Culvert Size & Material	double 10' x 4' box, concrete, 70' length	
Utility Relocations	Electric, Cable, Phone, Water, Sewer	
Guardrail Replacement	No	
Miscellaneous Features		
Planning Cost Estimate		
Type	Notes	Total
Design	Includes 10% Construction Cost and surveying needs	\$22,779
Right of Way Cost	Assuming project does not extend beyond ROW	\$0
Utility Relocation Cost	Buried utilities	\$33,825
Construction Cost	Assuming 1/10 acre clearing and grubbing	\$177,785
Environmental Permits	Assuming minimal environmental permitting required	\$10,000
Total Planning Estimate		\$244,389

Map

Stage Construction Options

Close Location to Traffic	
Maintain One Lane - No Temp Pavement	
Maintain One Lane - Temp Road	X

Stage Construction Notes:  
Approx. 200' of gravel road



130 Morning Dove Drive



**Photo 1:**



**Photo 2:**

**Photo Date:**

5/17/1013

**Taken By:**

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**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	528.00	\$ 2,959.62
Curb and Gutter (LF)	\$ 28.56	\$ 30.60	44.00	\$ 2,603.04
Drain Inlet (EA)		\$ 3,000.00	0.00	\$ -
4" Sidewalk (SY)	\$ 13.56	\$ 36.90	0.00	\$ -
Guardrail (LF)	\$ 4.88	\$ 49.09	0.00	\$ -
End Anchorage (EA)		\$ 1,380.00	0.00	\$ -
Subtotal				\$ 5,562.66

Grading Complete (5% of Rwy Items & Drng Total \$)	\$ 6,949.20
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Roadway Total	\$ 12,511.86
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Drainage	Removal Unit Cost	Installation Unit Cost	Amount	Total Cost
Trench Excavation (CY)		\$ 10.38	570.37	\$ 5,920.44
72" CMP (LF)	\$ 54.00		70.00	\$ 3,780.00
84" CMP	\$ 63.00		70.00	\$ 4,410.00
Class A Conc (CY)		\$ 892.19	106.88	\$ 95,357.05
Steel (lb)		\$ 1.42	11,505.00	\$ 16,291.08
Pipe Bedding (CY)		\$ 48.60	58.70	\$ 2,852.82
Trench Backfill (CY)		\$ 2.99	595.60	\$ 1,779.64
Trench Compaction (CY)		\$ 6.36	476.48	\$ 3,030.39

Drainage Total	\$ 133,421.43
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Signing and Marking	Installation Unit Cost	Amount	Total Cost
Permanent Striping (LF)	\$ 0.71	0.00	\$ -

Signing and Marking Total	\$ -
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Staging	Installation Unit Cost	Amount	Total Cost
Clearing and Grubbing (Acre)	\$ 10,260.00	0.10	\$ 1,026.00
Temporary Gravel Road (SY)	\$ 15.42	222.22	\$ 3,426.67
Temporary Drainage (Stream Diversion)	\$ 4,428.00	1.00	\$ 4,428.00

Staging Total	\$ 8,880.67
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Erosion Control	Installation Unit Cost	Amount	Total Cost
Fine Grading and Seeding (SY)	\$ 4.39	112.44	\$ 493.86
Temporary Grassing (AC)	\$ 855.60	0.00	\$ -
Type C Silt Fence (LF)	\$ 4.24	420.00	\$ 1,779.12
Check Dam Type C Silt Fence (LF)	\$ 6.79	420.00	\$ 2,852.64
Erosion Control Mats (SY)	\$ 1.87	140.00	\$ 262.08
Landscape Mulch (SY)	\$ 3.58	140.00	\$ 500.64
Perm Grassing (AC)	\$ 1,402.20	0.00	\$ -
Rip Rap Type 3 12" (SY)	\$ 60.98	58.67	\$ 3,577.73
Plastic Filter Fabric (SY)	\$ 5.72	58.67	\$ 335.81
4" Ditch Paving (SY)	\$ 54.65	0.00	\$ -

Erosion Control Total	\$ 9,801.87
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Construction Cost Total	\$ 164,615.83
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Traffic Control (8% of Construction Total \$)	\$ 13,169.27
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Construction Cost Grand Total	\$ 177,785.10
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Utility Relocation	Removal Unit Cost	Installation Unit Cost	Amount	Total Cost
Electric				
Aerial	\$ 11.00	\$ 55.00		\$ -
Buried	\$ 16.50	\$ 82.50	75.00	\$ 7,425.00
Wooden Pole	\$ 82.50	\$ 605.00		\$ -
Phone				
Aerial	\$ 11.00	\$ 27.50		\$ -
Buried	\$ 16.50	\$ 55.00	75.00	\$ 5,362.50
Wooden Pole	\$ 82.50	\$ 605.00		\$ -
Cable				
Aerial	\$ 11.00	\$ 27.50		\$ -
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	75.00	\$ 8,250.00
Relocate Fire Hydrant (EA)		\$ 2,609.22		\$ -
Sewer			0.00	
12" main	\$ 16.50	\$ 82.50	75.00	\$ 7,425.00
Utility Relocation Total				\$ 33,825.00

Right of Way (Sq Ft)	Cost/ Sq Ft	Sq Ft	Total Cost
Permanent Easement	\$ 4.00	0.00	\$ -
ROW Total			\$ -





General Information		Map	
<b>Project ID</b>			
<b>Street Name</b>	<b>Patricia Lane</b>		
<b>Site Visit Date</b>	5/22/13		
<b>Road Classification</b>	Minor road		
<b>Project Notes</b>			
Urban typical section with curb and gutter			
<b>Field Notes</b>			
<b>Design (Existing Site Features)</b>			
<b>Existing Road Laneage</b>	2 - 10'		
<b>Existing Shld Width (paved and grass) (feet)</b>	4'		
<b>Existing Side Slopes</b>	Flat		
<b>Existing Guardrail</b>	None		
<b>Depth fm Pavement to Top of Culvert (ft):</b>	2.5		
<b>Pipe Type and Size</b>	54" CMP		
<b>Pipe Condition (1-5) (1 is new)</b>	4		
Condition Notes: Joint failure, signs of rust, downstream plunge pool needed, eroded drop, holes from scour on top, rip rap/debris inside of pipe			
<b>Pavement Type/Condition</b>	Asphalt/Good		
<b>Environmental Features</b>		<b>Stage Construction Options</b>	
<b>Wetlands</b>	None	<b>Close Location to Traffic</b>	
<b>Ditches</b>	None	<b>Maintain One Lane - No Temp Pavement</b>	X
		<b>Maintain One Lane - Temp Pavement</b>	
		Stage Construction Notes:	
<b>Utilities (Visual Inspection)</b>			
<b>Electric</b>	Aerial		
<b>Cable</b>	Aerial		
<b>Phone</b>	Buried		
<b>Gas</b>			
<b>Water</b>			
<b>Sewer</b>			
<b>Other</b>			
Proposed Design			
<b>Roadway Section</b>			
<b>Culvert Size &amp; Material</b>	8' x 4' box, concrete, 150' length		
<b>Utility Relocations</b>	Pole next to pipe, phone, cable, electric		
<b>Guardrail Replacement</b>			
<b>Miscellaneous Features</b>			
Planning Cost Estimate			
<b>Type</b>	<b>Notes</b>	<b>Total</b>	
<b>Design</b>	Includes 10% Construction Cost and surveying needs	\$26,254	
<b>Right of Way Cost</b>	Assuming project extends 10,000 sf beyond ROW	\$40,000	
<b>Utility Relocation Cost</b>	Buried utilities, pole	\$6,738	
<b>Construction Cost</b>	Assuming 1/10 acre clearing and grubbing	\$212,536	
<b>Environmental Permits</b>	Assuming minimal environmental permitting required	\$10,000	
<b>Total Planning Estimate</b>		<b>\$295,527</b>	

151 Patricia Lane



**Photo 1:**



**Photo 2:**

**Photo Date:**

5/21/2013

**Taken By:**

David King

**Page:**

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151 Patricia Lane



**Photo 3:**



**Photo 4:**

**Photo Date:**

5/21/2013

**Taken By:**

David King

**Page:**

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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	200.00	\$ 1,121.07
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	0.00	\$ -
End Anchorage (EA)		\$ 1,380.00	0.00	\$ -
Subtotal				\$ 1,121.07

Grading Complete (5% of Rwy Items & Drng Total \$)	\$ 8,629.47
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Roadway Total	\$ 9,750.54
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Drainage	Removal Unit Cost	Installation Unit Cost	Amount	Total Cost
Trench Excavation (CY)		\$ 10.38	444.44	\$ 4,613.33
54" CMP (LF)	\$ 24.60		150.00	\$ 11,070.00
54" RCP		\$ 233.28	0.00	\$ -
Class A Conc (CY)		\$ 892.19	141.03	\$ 125,825.27
Steel (lb)		\$ 1.42	16,505.00	\$ 23,371.08
Pipe Bedding (CY)		\$ 48.60	56.30	\$ 2,736.18
Trench Backfill (CY)		\$ 2.99	477.03	\$ 1,425.38
Trench Compaction (CY)		\$ 6.36	381.63	\$ 2,427.15

Drainage Total	\$ 171,468.39
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Signing and Marking	Installation Unit Cost	Amount	Total Cost
Permanent Striping (LF)	\$ 0.71	0.00	\$ -

Signing and Marking Total	\$ -
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Staging	Installation Unit Cost	Amount	Total Cost
Clearing and Grubbing (Acre)	\$ 10,260.00	0.10	\$ 1,026.00
Temporary Pavement			\$ -
Temporary Drainage (Stream Diversion)	\$ 4,428.00	1.00	\$ 4,428.00

Staging Total	\$ 5,454.00
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Erosion Control	Installation Unit Cost	Amount	Total Cost
Fine Grading and Seeding (SY)	\$ 4.39	144.44	\$ 634.40
Temporary Grassing (AC)	\$ 855.60	0.00	\$ -
Type C Silt Fence (LF)	\$ 4.24	600.00	\$ 2,541.60
Check Dam Type C Silt Fence (LF)	\$ 6.79	600.00	\$ 4,075.20
Erosion Control Mats (SY)	\$ 1.87	200.00	\$ 374.40
Landscape Mulch (SY)	\$ 3.58	200.00	\$ 715.20
Perm Grassing (AC)	\$ 1,402.20	0.00	\$ -
Rip Rap Type 3 12" (SY)	\$ 60.98	26.67	\$ 1,626.24
Plastic Filter Fabric (SY)	\$ 5.72	26.67	\$ 152.64
4" Ditch Paving (SY)	\$ 54.65	0.00	\$ -

Erosion Control Total	\$ 10,119.68
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Construction Cost Total	\$ 196,792.61
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Traffic Control (8% of Construction Total \$)	\$ 15,743.41
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Construction Cost Grand Total	\$ 212,536.02
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Utility Relocation	Removal Unit Cost	Installation Unit Cost	Amount	Total Cost
Electric				
Aerial	\$ 11.00	\$ 55.00		\$ -
Buried	\$ 16.50	\$ 82.50	25.00	\$ 2,475.00
Wooden Pole	\$ 82.50	\$ 605.00	1.00	\$ 687.50
Phone				
Aerial	\$ 11.00	\$ 27.50		\$ -
Buried	\$ 16.50	\$ 55.00	25.00	\$ 1,787.50
Wooden Pole	\$ 82.50	\$ 605.00		\$ -
Cable				
Aerial	\$ 11.00	\$ 27.50		\$ -
Buried	\$ 16.50	\$ 55.00	25.00	\$ 1,787.50
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	\$ -
Utility Relocation Total				\$ 6,737.50

Right of Way (Sq Ft)	Cost/ Sq Ft	Sq Ft	Total Cost
Permanent Easement	\$ 4.00	10,000.00	\$ 40,000.00
ROW Total			\$ 40,000.00



General Information		Map	
<b>Project ID</b>			
<b>Street Name</b>	<b>199 Roberts Road</b>		
<b>Site Visit Date</b>	5/21/13		
<b>Road Classification</b>	County Local		
<b>Project Notes</b>			
Local road with sub standard horizontal and vertical alignments			
<b>Field Notes</b>			
<b>Design (Existing Site Features)</b>			
<b>Existing Road Laneage</b>	2-10' (dirt/gravel)		
<b>Existing Shld Width (paved and grass) (feet)</b>	None		
<b>Existing Side Slopes</b>	flat		
<b>Existing Guardrail</b>	None		
<b>Depth fm Pavement to Top of Culvert (ft):</b>	None		
<b>Pipe Type and Size</b>	None		
<b>Pipe Condition (1-5) (1 is new)</b>	n/a		
Condition Notes:			
<b>Pavement Type/Condition</b>	gravel dirt/ poor		
<b>Environmental Features</b>		<b>Stage Construction Options</b>	
<b>Wetlands</b>	Noted	<b>Close Location to Traffic</b>	
<b>Ditches</b>	None	<b>Maintain One Lane - No Temp Pavement</b>	X
		<b>Maintain One Lane - Temp Pavement</b>	
		Stage Construction Notes:	
<b>Utilities (Visual Inspection)</b>			
<b>Electric</b>	Aerial		
<b>Cable</b>	Aerial		
<b>Phone</b>	Aerial		
<b>Gas</b>			
<b>Water</b>	Buried		
<b>Sewer</b>			
<b>Other</b>			
<b>Proposed Design</b>			
<b>Roadway Section</b>			
<b>Culvert Size &amp; Material</b>	7'x4' box, concrete, 85' length		
<b>Utility Relocations</b>	Two utility poles. Aerial electric, cable, phone. Buried water main		
<b>Guardrail Replacement</b>			
<b>Miscellaneous Features</b>			
<b>Planning Cost Estimate</b>			
<b>Type</b>	<b>Notes</b>	<b>Total</b>	
<b>Design</b>	Includes 10% Construction Cost and surveying needs	\$17,381	
<b>Right of Way Cost</b>	Assuming project extends 4,000 sf beyond ROW	\$16,000	
<b>Utility Relocation Cost</b>	Aerial utilities, poles, and buried water main	\$26,675	
<b>Construction Cost</b>	Assuming 1/10 acre clearing and grubbing	\$123,805	
<b>Environmental Permits</b>	Assuming minimal environmental permitting required	\$10,000	
<b>Total Planning Estimate</b>		<b>\$193,861</b>	





**Photo 1:**



**Photo 2:**

**199 Roberts Road**

**Photo Date:**

**5/21/2013**

**Taken By:**

**David King**

**Page:**

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## 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	0.00	\$ -
Gravel Road (SY)		\$ 15.42	83.11	\$ 1,281.57
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	0.00	\$ -
End Anchorage (EA)		\$ 1,380.00	0.00	\$ -
Subtotal				\$ 1,281.57
Grading Complete (5% of Rwy Items & Drng Total \$)				\$ 4,773.36
Roadway Total				\$ 6,054.94
Drainage	Removal Unit Cost	Installation Unit Cost	Amount	Total Cost
Trench Excavation (CY)		\$ 10.38	279.08	\$ 2,896.89
60" CMP (LF)	\$ 24.60		85.00	\$ 6,273.00
60" RCP		\$ 259.20	0.00	\$ -
Class A Conc (CY)		\$ 892.19	77.53	\$ 69,171.34
Steel (lb)		\$ 1.42	8,370.00	\$ 11,851.92
Pipe Bedding (CY)		\$ 48.60	29.00	\$ 1,409.40
Trench Backfill (CY)		\$ 2.99	319.85	\$ 955.72
Trench Compaction (CY)		\$ 6.36	255.88	\$ 1,627.42
Drainage Total				\$ 94,185.68
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	0.20	\$ 2,052.00
Temporary Pavement				\$ -
Temporary Drainage (Stream Diversion)		\$ 4,428.00	1.00	\$ 4,428.00
Staging Total				\$ 6,480.00
Erosion Control		Installation Unit Cost	Amount	Total Cost
Fine Grading and Seeding (SY)		\$ 4.39	119.00	\$ 522.65
Temporary Grassing (AC)		\$ 855.60	0.00	\$ -
Type C Silt Fence (LF)		\$ 4.24	340.00	\$ 1,440.24
Check Dam Type C Silt Fence (LF)		\$ 6.79	340.00	\$ 2,309.28
Erosion Control Mats (SY)		\$ 1.87	113.33	\$ 212.16
Landscape Mulch (SY)		\$ 3.58	113.33	\$ 405.28
Perm Grassing (AC)		\$ 1,402.20	0.00	\$ -
Rip Rap Type 3 12" (SY)		\$ 60.98	45.33	\$ 2,764.61
Plastic Filter Fabric (SY)		\$ 5.72	45.33	\$ 259.49
4" Ditch Paving (SY)		\$ 54.65	0.00	\$ -
Erosion Control Total				\$ 7,913.70
Construction Cost Total				\$ 114,634.32
Traffic Control (8% of Construction Total \$)				\$ 9,170.75
Construction Cost Grand Total				\$ 123,805.07
Utility Relocation	Removal Unit Cost	Installation Unit Cost	Amount	Total Cost
Electric				
Aerial	\$ 11.00	\$ 55.00	100.00	\$ 6,600.00
Buried	\$ 16.50	\$ 82.50	0.00	\$ -
Wooden Pole	\$ 82.50	\$ 605.00	2.00	\$ 1,375.00
Phone				
Aerial	\$ 11.00	\$ 27.50	100.00	\$ 3,850.00
Buried	\$ 16.50	\$ 55.00	0.00	\$ -
Wooden Pole	\$ 82.50	\$ 605.00		\$ -
Cable				
Aerial	\$ 11.00	\$ 27.50	100.00	\$ 3,850.00
Buried	\$ 16.50	\$ 55.00	0.00	\$ -
Wooden Pole	\$ 82.50	\$ 605.00		\$ -
Gas				
4" main	\$ 16.50	\$ 66.00		\$ -
Water				
8" main	\$ 16.50	\$ 93.50	100.00	\$ 11,000.00
Relocate Fire Hydrant (EA)		\$ 2,609.22		\$ -
Sewer			0.00	
12" main	\$ 16.50	\$ 82.50	0.00	\$ -
Utility Relocation Total				\$ 26,675.00
Right of Way (Sq Ft)		Cost/ Sq Ft	Sq Ft	Total Cost
Permanent Easement		\$ 4.00	4,000.00	\$ 16,000.00
ROW Total				\$ 16,000.00



General Information		Map	
<b>Project ID</b>			
<b>Street Name</b>	<b>Scott Blvd.</b>		
<b>Site Visit Date</b>	5/22/13		
<b>Road Classification</b>	Internal Local		
<b>Project Notes</b>			
Rural typical section. Point is close to FEMA Zone A flood boundary. Including cost of Zone A flood study based on limited location information.			
<b>Field Notes</b>			
<b>Design (Existing Site Features)</b>			
<b>Existing Road Laneage</b>	2-10.5'		
<b>Existing Shld Width (paved and grass) (feet)</b>	4' Grass		
<b>Existing Side Slopes</b>	6:1 to flat		
<b>Existing Guardrail</b>	None		
<b>Depth fm Pavement to Top of Culvert (ft):</b>	10 - 11		
<b>Pipe Type and Size</b>	18" CMP		
<b>Pipe Condition (1-5) (1 is new)</b>	5		
Condition Notes:			
<b>Pavement Type/Condition</b>	Asphalt/Good		
<b>Environmental Features</b>			
<b>Wetlands</b>	Upstream		
<b>Ditches</b>	Noted		
<b>Utilities (Visual Inspection)</b>			
<b>Electric</b>	Aerial		
<b>Cable</b>	Aerial		
<b>Phone</b>	Aerial		
<b>Gas</b>	None		
<b>Water</b>	Buried		
<b>Sewer</b>			
<b>Other</b>			
<b>Proposed Design</b>			
<b>Roadway Section</b>	Typical rural. Driveway removal/replacement costed as 20' x 9' concrete sidewalk		
<b>Culvert Size &amp; Material</b>	4' x 2' box, concrete, 50'		
<b>Utility Relocations</b>	Utility poles, aerial electric, cable, phone, buried water		
<b>Guardrail Replacement</b>			
<b>Miscellaneous Features</b>	Series of three, 18" pipes. Upper two are within reasonable sizes, second one in series could be upsized to 24". Downstream-most culvert is primary replacement need.		
<b>Planning Cost Estimate</b>			
<b>Type</b>	<b>Notes</b>	<b>Total</b>	
<b>Design</b>	Includes 10% Construction Cost and surveying needs	\$17,008	
<b>Right of Way Cost</b>	Assuming project extends 2,000 sf beyond ROW	\$8,000	
<b>Utility Relocation Cost</b>	Aerial utilities, poles, and buried water main	\$14,025	
<b>Construction Cost</b>	Assuming 1/10 acre clearing and grubbing	\$45,081	
<b>Environmental Permits</b>	Permitting, Zone A flood study	\$15,000	
<b>Total Planning Estimate</b>		<b>\$99,114</b>	





**Photo 1:**



**Photo 2:**

**160 Scott Blvd.**

**Photo Date:**

**5/21/2013**

**Taken By:**

**David King**

**Page:**

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160 Scott Blvd.



**Photo 3:**



**Photo 4:**

**Photo Date:**

5/21/2013

**Taken By:**

David King

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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	126.00	\$ 706.27
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	20.00	\$ 1,009.20
Guardrail (LF)	\$ 4.88	\$ 49.09	0.00	\$ -
End Anchorage (EA)		\$ 1,380.00	0.00	\$ -
Subtotal				\$ 1,715.47

Grading Complete (5% of Rwy Items & Drng Total \$) \$ 1,550.79

Roadway Total \$ 3,266.27

Drainage	Removal Unit Cost	Installation Unit Cost	Amount	Total Cost
Trench Excavation (CY)		\$ 10.38	150.00	\$ 1,557.00
18" CMP (LF)	\$ 5.74		50.00	\$ 860.40
18" RCP		\$ 36.00	0.00	\$ -
Class A Conc (CY)		\$ 892.19	24.56	\$ 21,912.14
Steel (lb)		\$ 1.42	2,189.00	\$ 3,099.62
Pipe Bedding (CY)		\$ 48.60	11.60	\$ 563.76
Trench Backfill (CY)		\$ 2.99	161.90	\$ 483.76
Trench Compaction (CY)		\$ 6.36	129.52	\$ 823.75

Drainage Total \$ 29,300.43

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	0.10	\$ 1,026.00
Temporary Pavement			\$ -
Temporary Drainage (Stream Diversion)	\$ 4,428.00	1.00	\$ 4,428.00

Staging Total \$ 5,454.00

Erosion Control	Installation Unit Cost	Amount	Total Cost
Fine Grading and Seeding (SY)	\$ 4.39	19.33	\$ 84.91
Temporary Grassing (AC)	\$ 855.60	0.00	\$ -
Type C Silt Fence (LF)	\$ 4.24	200.00	\$ 847.20
Check Dam Type C Silt Fence (LF)	\$ 6.79	200.00	\$ 1,358.40
Erosion Control Mats (SY)	\$ 1.87	66.67	\$ 124.80
Landscape Mulch (SY)	\$ 3.58	66.67	\$ 238.40
Perm Grassing (AC)	\$ 1,402.20	0.00	\$ -
Rip Rap Type 3 12" (SY)	\$ 60.98	16.00	\$ 975.74
Plastic Filter Fabric (SY)	\$ 5.72	16.00	\$ 91.58
4" Ditch Paving (SY)	\$ 54.65	0.00	\$ -

Erosion Control Total \$ 3,721.04

Construction Cost Total \$ 41,741.73

Traffic Control (8% of Construction Total \$) \$ 3,339.34

Construction Cost Grand Total \$ 45,081.07

Utility Relocation	Removal Unit Cost	Installation Unit Cost	Amount	Total Cost
Electric				
Aerial	\$ 11.00	\$ 55.00	50.00	\$ 3,300.00
Buried	\$ 16.50	\$ 82.50	0.00	\$ -
Wooden Pole	\$ 82.50	\$ 605.00	2.00	\$ 1,375.00
Phone				
Aerial	\$ 11.00	\$ 27.50	50.00	\$ 1,925.00
Buried	\$ 16.50	\$ 55.00	0.00	\$ -
Wooden Pole	\$ 82.50	\$ 605.00	0.00	\$ -
Cable				
Aerial	\$ 11.00	\$ 27.50	50.00	\$ 1,925.00
Buried	\$ 16.50	\$ 55.00	0.00	\$ -
Wooden Pole	\$ 82.50	\$ 605.00	0.00	\$ -
Gas				
4" main	\$ 16.50	\$ 66.00	0.00	\$ -
Water				
8" main	\$ 16.50	\$ 93.50	50.00	\$ 5,500.00
Relocate Fire Hydrant (EA)		\$ 2,609.22		\$ -
Sewer			0.00	
12" main	\$ 16.50	\$ 82.50	0.00	\$ -
Utility Relocation Total				\$ 14,025.00

Right of Way (Sq Ft)	Cost/ Sq Ft	Sq Ft	Total Cost
Permanent Easement	\$ 4.00	2,000.00	\$ 8,000.00
ROW Total			\$ 8,000.00



General Information		Map	
Project ID			
Street Name	Silver Leaf Drive		
Site Visit Date	5/21/13		
Road Classification	Internal Local		
Project Notes			
Urban typical w/ valley gutter. Point is close to FEMA Zone A flood boundary. Adding cost of Zone A flood study given limited location information			
Field Notes			
Design (Existing Site Features)			
Existing Road Laneage	2-12'		
Existing Shld Width (paved and grass) (feet)	10' Grass		
Existing Side Slopes	4:1		
Existing Guardrail	None		
Depth fm Pavement to Top of Culvert (ft):	5		
Pipe Type and Size	1-54" CMP		
Pipe Condition (1-5) (1 is new)	4		
Condition Notes:			
Pavement Type/Condition	Good		
Environmental Features			
Wetlands	X (downstream)		
Ditches	None		
Utilities (Visual Inspection)			
Electric	Aerial		
Cable	Buried		
Phone	Buried		
Gas	Buried		
Water	Buried		
Sewer			
Other			
Proposed Design			
Roadway Section			
Culvert Size & Material	dbl 4' x 3' box, concrete, 140'		
Utility Relocations	Phone, cable, gas, water		
Guardrail Replacement			
Miscellaneous Features			
Planning Cost Estimate			
Type	Notes	Total	
Design	Includes 10% Construction Cost and surveying needs	\$29,259	
Right of Way Cost	Assuming project extends 4,800 sf beyond ROW	\$19,200	
Utility Relocation Cost	Buried utilities	\$16,775	
Construction Cost	Assuming 1/10 acre clearing and grubbing	\$167,593	
Environmental Permits	Permitting, Zone A flood study	\$15,000	
Total Planning Estimate		\$247,827	



175 Silver Leaf Drive



**Photo 1:**



**Photo 2:**

**Photo Date:**

5/21/2013

**Taken By:**

David King

**Page:**

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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	240.00	\$ 1,345.28
Curb and Gutter (LF)	\$ 28.56	\$ 30.60	20.00	\$ 1,183.20
Drain Inlet (EA)		\$ 3,000.00	2.00	\$ 6,000.00
4" Sidewalk (SY)	\$ 13.56	\$ 36.90	0.00	\$ -
Guardrail (LF)	\$ 4.88	\$ 49.09	0.00	\$ -
End Anchorage (EA)		\$ 1,380.00	0.00	\$ -
Subtotal				\$ 8,528.48

Grading Complete (5% of Rwy Items & Drng Total \$) \$ 6,675.57

Roadway Total \$ 15,204.05

Drainage	Removal Unit Cost	Installation Unit Cost	Amount	Total Cost
Trench Excavation (CY)		\$ 10.38	544.44	\$ 5,651.33
54" CMP (LF)	\$ 24.60		140.00	\$ 10,332.00
54" RCP		\$ 217.35	0.00	\$ -
Class A Conc (CY)		\$ 892.19	92.81	\$ 82,803.97
Steel (lb)		\$ 1.42	13,265.00	\$ 18,783.24
Pipe Bedding (CY)		\$ 48.60	52.60	\$ 2,556.36
Trench Backfill (CY)		\$ 2.99	601.29	\$ 1,796.65
Trench Compaction (CY)		\$ 6.36	481.03	\$ 3,059.36

Drainage Total \$ 124,982.91

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	0.10	\$ 1,026.00
Temporary Pavement			\$ -
Temporary Drainage (Stream Diversion)	\$ 4,428.00	1.00	\$ 4,428.00

Staging Total \$ 5,454.00

Erosion Control	Installation Unit Cost	Amount	Total Cost
Fine Grading and Seeding (SY)	\$ 4.39	128.89	\$ 566.08
Temporary Grassing (AC)	\$ 855.60	0.00	\$ -
Type C Silt Fence (LF)	\$ 4.24	560.00	\$ 2,372.16
Check Dam Type C Silt Fence (LF)	\$ 6.79	560.00	\$ 3,803.52
Erosion Control Mats (SY)	\$ 1.87	186.67	\$ 349.44
Landscape Mulch (SY)	\$ 3.58	186.67	\$ 667.52
Perm Grassing (AC)	\$ 1,402.20	0.00	\$ -
Rip Rap Type 3 12" (SY)	\$ 60.98	26.67	\$ 1,626.24
Plastic Filter Fabric (SY)	\$ 5.72	26.67	\$ 152.64
4" Ditch Paving (SY)	\$ 54.65	0.00	\$ -

Erosion Control Total \$ 9,537.60

Construction Cost Total \$ 155,178.56

Traffic Control (8% of Construction Total \$) \$ 12,414.28

Construction Cost Grand Total \$ 167,592.85

Utility Relocation	Removal Unit Cost	Installation Unit Cost	Amount	Total Cost
Electric				
Aerial	\$ 11.00	\$ 55.00		\$ -
Buried	\$ 16.50	\$ 82.50	0.00	\$ -
Wooden Pole	\$ 82.50	\$ 605.00		\$ -
Phone				
Aerial	\$ 11.00	\$ 27.50		\$ -
Buried	\$ 16.50	\$ 55.00	50.00	\$ 3,575.00
Wooden Pole	\$ 82.50	\$ 605.00		\$ -
Cable				
Aerial	\$ 11.00	\$ 27.50		\$ -
Buried	\$ 16.50	\$ 55.00	50.00	\$ 3,575.00
Wooden Pole	\$ 82.50	\$ 605.00		\$ -
Gas				
4" main	\$ 16.50	\$ 66.00	50.00	\$ 4,125.00
Water				
8" main	\$ 16.50	\$ 93.50	50.00	\$ 5,500.00
Relocate Fire Hydrant (EA)		\$ 2,609.22		\$ -
Sewer			0.00	
12" main	\$ 16.50	\$ 82.50	0.00	\$ -
Utility Relocation Total				\$ 16,775.00

Right of Way (Sq Ft)	Cost/ Sq Ft	Sq Ft	Total Cost
Permanent Easement	\$ 4.00	4,800.00	\$ 19,200.00
ROW Total			\$ 19,200.00





General Information		Map	
Project ID			
Street Name	503 Westbridge Drive		
Site Visit Date	5/22/13		
Road Classification	Internal Local		
Project Notes			
Urban typical section with Curb and gutter			
Field Notes			
Design (Existing Site Features)			
Existing Road Laneage	2-12'		
Existing Shld Width (paved and grass) (feet)	None		
Existing Side Slopes	Flat		
Existing Guardrail	None		
Depth fm Pavement to Top of Culvert (ft):	3		
Pipe Type and Size (with headwall, 45°)	48" CMP; 45'		
Pipe Condition (1-5) (1 is new)	4		
Condition Notes: Debris in channel; approx. 1.5' drop in last section of pipe; US filled/damaged to 3.5'			
Pavement Type/Condition	Good/Asphalt		
Environmental Features		Stage Construction Options	
Wetlands	None	Close Location to Traffic	
Ditches	None	Maintain One Lane - No Temp Pavement	X
		Maintain One Lane - Temp Pavement	
		Stage Construction Notes: Stage construction such that one lane is open at all times; street light next to crossing	
Utilities (Visual Inspection)			
Electric	Buried		
Cable	Buried		
Phone	Buried		
Gas			
Water	Buried		
Sewer			
Other			
Proposed Design			
Roadway Section			
Culvert Size & Material	5' x 3' box, concrete, 45' Length		
Utility Relocations	Electric, cable, phone, water		
Guardrail Replacement			
Miscellaneous Features			
Planning Cost Estimate			
Type	Notes	Total	
Design	Includes 10% Construction Cost and surveying needs	\$10,078	
Right of Way Cost	Assuming project extends 1,200 sf beyond ROW	\$4,800	
Utility Relocation Cost	Buried utilities	\$14,080	
Construction Cost	Assuming 1/10 acre clearing and grubbing	\$50,776	
Environmental Permits	Assuming minimal environmental permitting required	\$10,000	
Total Planning Estimate		\$89,733	



**Photo 1:**



**Photo 2:**

503 Westbridge Drive

**Photo Date:**

5/21/2013

**Taken By:**

David King

**Page:**

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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	168.00	\$941.70
Curb and Gutter (LF)	\$28.56	\$30.60	20.00	\$1,183.20
Drain Inlet (EA)		\$3,000.00	0.00	\$0.00
4" Sidewalk (SY)	\$13.56	\$36.90	0.00	\$0.00
Guardrail (LF)	\$4.88	\$49.09	0.00	\$0.00
End Anchorage (EA)		\$1,380.00	0.00	\$0.00
Subtotal				\$2,124.90

Grading Complete (5% of Rwy Items & Drng Total \$)	\$1,806.26
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Roadway Total	\$3,931.16
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Drainage	Removal Unit Cost	Installation Unit Cost	Amount	Total Cost
Trench Excavation (CY)		\$10.38	93.33	\$968.80
48" CMP (LF)	\$24.60		45.00	\$3,321.00
48" RCP		\$193.20	0.00	\$0.00
Class A Conc (CY)		\$892.19	27.85	\$24,842.97
Steel (lb)		\$1.42	2,529.50	\$3,581.77
Pipe Bedding (CY)		\$48.60	12.20	\$592.92
Trench Backfill (CY)		\$2.99	85.80	\$256.37
Trench Compaction (CY)		\$6.36	68.64	\$436.55

Drainage Total	\$34,000.39
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Signing and Marking	Installation Unit Cost	Amount	Total Cost
Permanent Striping (LF)	\$0.71	0.00	\$0.00

Signing and Marking Total	\$0.00
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Staging	Installation Unit Cost	Amount	Total Cost
Clearing and Grubbing (Acre)	\$10,260.00	0.10	\$1,026.00
Temporary Pavement			\$0.00
Temporary Drainage (Stream Diversion)	\$4,428.00	1.00	\$4,428.00

Staging Total	\$5,454.00
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Erosion Control	Installation Unit Cost	Amount	Total Cost
Fine Grading and Seeding (SY)	\$4.39	16.33	\$71.74
Temporary Grassing (AC)	\$855.60	0.00	\$0.00
Type C Silt Fence (LF)	\$4.24	180.00	\$762.48
Check Dam Type C Silt Fence (LF)	\$6.79	180.00	\$1,222.56
Erosion Control Mats (SY)	\$1.87	60.00	\$112.32
Landscape Mulch (SY)	\$3.58	60.00	\$214.56
Perm Grassing (AC)	\$1,402.20	0.00	\$0.00
Rip Rap Type 3 12" (SY)	\$60.98	18.67	\$1,138.37
Plastic Filter Fabric (SY)	\$5.72	18.67	\$106.85
4" Ditch Paving (SY)	\$54.65	0.00	\$0.00

Erosion Control Total	\$3,628.87
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Construction Cost Total	\$47,014.42
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Traffic Control (8% of Construction Total \$)	\$3,761.15
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Construction Cost Grand Total	\$50,775.57
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Utility Relocation	Removal Unit Cost	Installation Unit Cost	Amount	Total Cost
Electric				
Aerial	\$11.00	\$55.00		\$0.00
Buried	\$16.50	\$82.50	40.00	\$3,960.00
Wooden Pole	\$82.50	\$605.00		\$0.00
Phone				
Aerial	\$11.00	\$27.50		\$0.00
Buried	\$16.50	\$55.00	40.00	\$2,860.00
Wooden Pole	\$82.50	\$605.00		\$0.00
Cable				
Aerial	\$11.00	\$27.50		\$0.00
Buried	\$16.50	\$55.00	40.00	\$2,860.00
Wooden Pole	\$82.50	\$605.00		\$0.00
Gas				
4" main	\$16.50	\$66.00		\$0.00
Water				
8" main	\$16.50	\$93.50	40.00	\$4,400.00
Relocate Fire Hydrant (EA)		\$2,609.22		\$0.00
Sewer			0.00	
12" main	\$16.50	\$82.50	0.00	\$0.00
Utility Relocation Total				\$14,080.00

Right of Way (Sq Ft)	Cost/ Sq Ft	Sq Ft	Total Cost
Permanent Easement	\$4.00	1,200.00	\$4,800.00
ROW Total			\$4,800.00





General Information		Map	
Project ID			
Street Name	517 Westbridge Drive		
Site Visit Date	5/22/13		
Road Classification	Internal Local		
Project Notes			
Urban typical section with Curb and gutter			
Field Notes			
Design (Existing Site Features)			
Existing Road Laneage	2-12'		
Existing Shld Width (paved and grass) (feet)	None		
Existing Side Slopes	Flat		
Existing Guardrail	None		
Depth fm Pavement to Top of Culvert (ft):	3		
Pipe Type and Size	54" CMP		
Pipe Condition (1-5) (1 is new)	4		
Condition Notes: 0.5' drop; 1' of sand in pipe (45' pipe length); Capacity Issue			
Pavement Type/Condition			
Environmental Features		Stage Construction Options	
Wetlands	None	Close Location to Traffic	
Ditches	None	Maintain One Lane - No Temp Pavement	X
		Maintain One Lane - Temp Pavement	
		Stage Construction Notes: Stage const. such that one lane is open at all times	
Utilities (Visual Inspection)			
Electric	Buried		
Cable	Buried		
Phone	Buried		
Gas			
Water	Buried		
Sewer			
Other			
Proposed Design			
Roadway Section			
Culvert Size & Material	5' x 3' box, concrete, 45' length		
Utility Relocations	Electric, cable, phone, water		
Guardrail Replacement			
Miscellaneous Features			
Planning Cost Estimate			
Type	Notes	Total	
Design	Includes 10% Construction Cost and surveying needs	\$10,091	
Right of Way Cost	Assuming project extends 2,000 sf beyond ROW	\$8,000	
Utility Relocation Cost	Buried utilities	\$14,080	
Construction Cost	Assuming 1/10 acre clearing and grubbing	\$50,911	
Environmental Permits	Assuming minimal environmental permitting required	\$10,000	
Total Planning Estimate		\$93,082	

517 Westbridge Drive

**Photo Date:**

5/21/2013

**Taken By:**

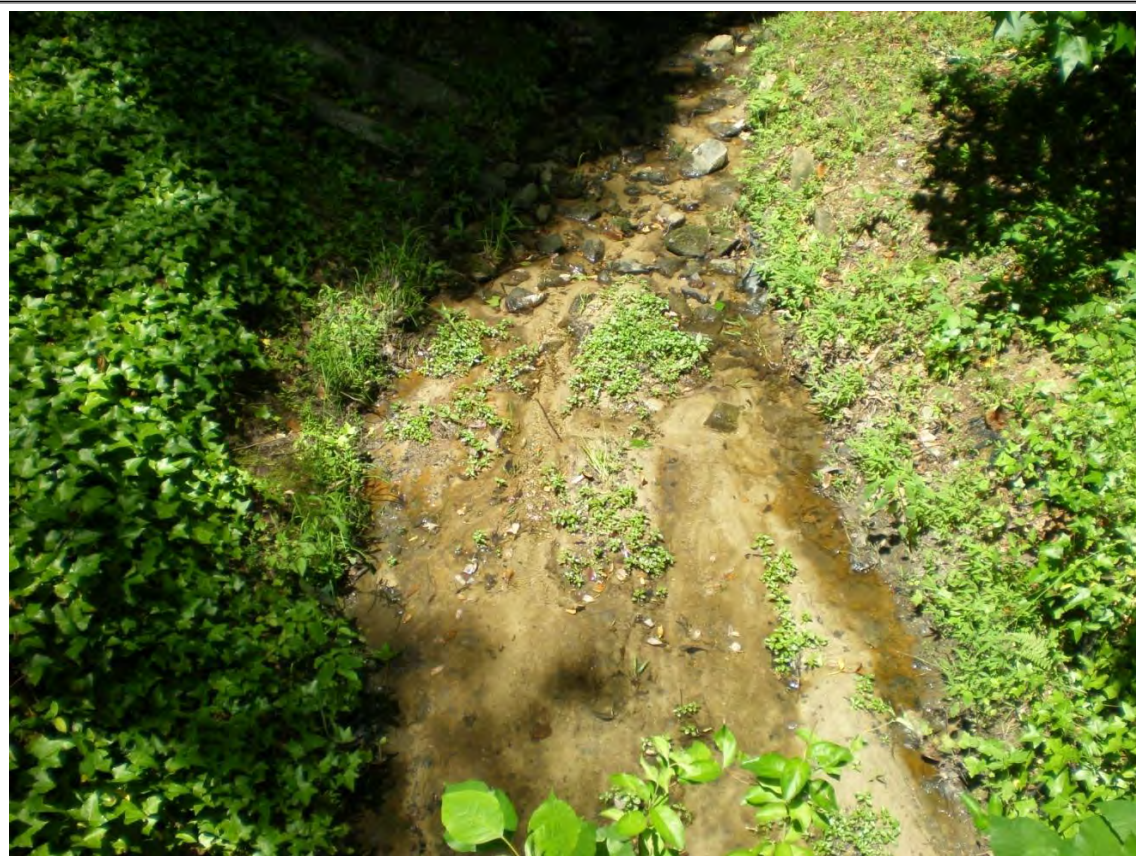
David King

**Page:**

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**Photo 1:**



**Photo 2:**



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	168.00	\$ 941.70
Curb and Gutter (LF)	\$ 28.56	\$ 30.60	20.00	\$ 1,183.20
Drain Inlet (EA)		\$ 3,000.00	0.00	\$ -
4" Sidewalk (SY)	\$ 13.56	\$ 36.90	0.00	\$ -
Guardrail (LF)	\$ 4.88	\$ 49.09	0.00	\$ -
End Anchorage (EA)		\$ 1,380.00	0.00	\$ -
Subtotal				\$ 2,124.90

Grading Complete (5% of Rwy Items & Drng Total \$)	\$ 1,812.24
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Roadway Total	\$ 3,937.13
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Drainage	Removal Unit Cost	Installation Unit Cost	Amount	Total Cost
Trench Excavation (CY)		\$ 10.38	99.17	\$ 1,029.35
54" CMP (LF)	\$ 24.60		45.00	\$ 3,321.00
54" RCP		\$ 233.28	0.00	\$ -
Class A Conc (CY)		\$ 892.19	27.85	\$ 24,842.97
Steel (lb)		\$ 1.42	2,529.50	\$ 3,581.77
Pipe Bedding (CY)		\$ 48.60	12.20	\$ 592.92
Trench Backfill (CY)		\$ 2.99	93.09	\$ 278.16
Trench Compaction (CY)		\$ 6.36	74.47	\$ 473.65

Drainage Total	\$ 34,119.83
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Signing and Marking	Installation Unit Cost	Amount	Total Cost
Permanent Striping (LF)	\$ 0.71	0.00	\$ -

Signing and Marking Total	\$ -
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Staging	Installation Unit Cost	Amount	Total Cost
Clearing and Grubbing (Acre)	\$ 10,260.00	0.10	\$ 1,026.00
Temporary Pavement			\$ -
Temporary Drainage (Stream Diversion)	\$ 4,428.00	1.00	\$ 4,428.00

Staging Total	\$ 5,454.00
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Erosion Control	Installation Unit Cost	Amount	Total Cost
Fine Grading and Seeding (SY)	\$ 4.39	16.33	\$ 71.74
Temporary Grassing (AC)	\$ 855.60	0.00	\$ -
Type C Silt Fence (LF)	\$ 4.24	180.00	\$ 762.48
Check Dam Type C Silt Fence (LF)	\$ 6.79	180.00	\$ 1,222.56
Erosion Control Mats (SY)	\$ 1.87	60.00	\$ 112.32
Landscape Mulch (SY)	\$ 3.58	60.00	\$ 214.56
Perm Grassing (AC)	\$ 1,402.20	0.00	\$ -
Rip Rap Type 3 12" (SY)	\$ 60.98	18.67	\$ 1,138.37
Plastic Filter Fabric (SY)	\$ 5.72	18.67	\$ 106.85
4" Ditch Paving (SY)	\$ 54.65	0.00	\$ -

Erosion Control Total	\$ 3,628.87
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Construction Cost Total	\$ 47,139.83
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Traffic Control (8% of Construction Total \$)	\$ 3,771.19
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Construction Cost Grand Total	\$ 50,911.02
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Utility Relocation	Removal Unit Cost	Installation Unit Cost	Amount	Total Cost
Electric				
Aerial	\$ 11.00	\$ 55.00		\$ -
Buried	\$ 16.50	\$ 82.50	40.00	\$ 3,960.00
Wooden Pole	\$ 82.50	\$ 605.00		\$ -
Phone				
Aerial	\$ 11.00	\$ 27.50		\$ -
Buried	\$ 16.50	\$ 55.00	40.00	\$ 2,860.00
Wooden Pole	\$ 82.50	\$ 605.00		\$ -
Cable				
Aerial	\$ 11.00	\$ 27.50		\$ -
Buried	\$ 16.50	\$ 55.00	40.00	\$ 2,860.00
Wooden Pole	\$ 82.50	\$ 605.00		\$ -
Gas				
4" main	\$ 16.50	\$ 66.00		\$ -
Water				
8" main	\$ 16.50	\$ 93.50	40.00	\$ 4,400.00
Relocate Fire Hydrant (EA)		\$ 2,609.22		\$ -
Sewer			0.00	
12" main	\$ 16.50	\$ 82.50	0.00	\$ -
Utility Relocation Total				\$ 14,080.00

Right of Way (Sq Ft)	Cost/ Sq Ft	Sq Ft	Total Cost
Permanent Easement	\$ 4.00	2,000.00	\$ 8,000.00
ROW Total			\$ 8,000.00



