



Beaufort County Public Works Stormwater Infrastructure Project Summary

Project Summary: Duncan Farms Outfall

Project #: 2003-047

Completed: Dec-09

Narrative Description of Project:

Project improved 11,971 L.F. of drainage system. Shinn cut 2,250 L.F. of outfall ditch. Grubbed 1,395 L.F. of outfall ditch. Cleaned out 4,186 L.F. of roadside ditch, 4,547 L.F. of outfall ditch and 865 L.F. of lateral ditch. Reconstructed 1,518 L.F. of lateral ditch. Installed (12) access pipes, (9) bleeder pipes, and (2) access gates. Replaced (1) driveway pipe and repaired (1) crossline pipe. Jetted (2) access pipes, (3) crossline pipes, (3) driveway pipes. Installed rip rap and hydroseeded for erosion control.

Material Cost, Rental Equipment Summary, and Labor

Material	Unit	Cost/Unit	Qty	Cost
15" RCP Pipe	linear feet	\$10.17	24.0	\$244.08
12" HDPE Pipe	linear feet	\$4.86	220.0	\$1,069.20
15" HDPE Pipe	linear feet	\$6.22	80.0	\$497.60
18" HDPE Pipe	linear feet	\$8.71	160.0	\$1,393.60
24" HDPE Pipe	linear feet	\$13.89	100.0	\$1,389.00
Fill Dirt	ton	\$1.00	1,137	\$1,137.38
Rip Rap	ton	\$47.08	48.5	\$2,281.38
#57 Stone	ton	\$36.09	6.8	\$246.31
Silt Fence	sy	\$0.78	28.4	\$22.14
Filter Blanket	sy	\$0.63	361.1	\$227.50
Turf Staples	each	\$0.03	365.0	\$10.95
10-10-10 Fertilizer	bag	\$12.83	10.0	\$128.30
Hydrogel	cup	\$2.82	10.0	\$28.20
Hydromax	cup	\$2.54	10.0	\$25.40
Hydromulch	bale	\$12.22	20.0	\$244.40
Annual Rye Grass Seed	bag	\$26.22	10.0	\$262.20
Water	gallon	\$0.01	9,500	\$95.00
Type "S" Cement	bag	\$9.35	0.5	\$4.68
Concrete Bricks	each	\$0.36	3.0	\$1.08
All Purpose Sand	bag	\$3.80	0.5	\$1.90
Pin Flags	each	\$0.06	152.0	\$9.12
4ft Flagger	each	\$0.34	12.0	\$4.08
Flagging Tape	roll	\$1.34	0.1	\$0.13

Site Photographs

Before



During



After



Duncan Farms Lane Outfall Project Summary Con't

Project #: 2003-047

Material Cost, Rental Equipment Summary, and Labor

Material	Unit	Cost/Unit	Qty	Cost
16ft Gate	each	\$148.73	2.0	\$297.46
6x6x12 Post	each	\$31.00	2.0	\$62.00
Debris Disposal	ton	\$16.00	154.2	\$2,467.68
Professional Services				\$655.00
Gas	gallon	\$2.40	286.0	\$686.40
Diesel	gallon	\$2.41	3380.8	\$8,147.73
Labor	hours		2,829.5	\$97,699.14
Total Cost of Materials, Rental Equip., and Labor				\$119,339.04

Note: Labor cost includes the employee's salary plus fringe benefits.

Equipment Cost

Item	Asset	Cost/Hou	Hrs.	Cost
Shinn Cutter	22943	\$31.34	21.0	\$441.00
Volvo 290 Excavator	22870	\$49.56	61.0	\$3,023.16
Komatsu Mini Excavator	23000	\$18.65	104.0	\$1,939.60
JCB Urban Excavator	23364	\$40.53	37.0	\$1,499.61
CAT Dozer	23125	\$35.50	37.0	\$1,313.50
JD Loader 444J	23271	\$29.75	5.0	\$148.75
Bobcat T200	22782	\$17.40	5.0	\$87.00
Bobcat T300	22847	\$20.10	11.0	\$221.10
Bobcat T320	23388	\$21.00	12.0	\$252.00
Bush Hog	21300	\$35.00	5.0	\$175.00
Lowboy	23118	\$34.64	11.0	\$381.04
Vacuum Truck	22812	\$20.30	11.0	\$223.30
Hydroseeder	18909	\$7.35	14.0	\$102.90
Motor Grader	19597	\$49.90	8.0	\$399.20
Dump Trucks		\$16.68	709.0	\$11,826.12
Pickup Trucks		\$4.17	777.0	\$3,240.09
Total Equipment Cost				\$25,273.37

Cost/hour excludes fuel cost.

Total Cost: \$144,612.41

Site Photographs

Before



During



After



Project: Duncan
Farms Outfall
Map 1

Activity: Drainage
Maintenance














Project #:
2003-047

Township:
Sheldon

Completed:
December 2009

Legend

Drainage Type

-  River
-  Stream
-  Outfall
-  Lateral
-  Lateral Pipe
-  Roadside
-  Roadside Pipe
-  Crossline
-  D/W
-  Access
-  Piped
-  Bleeder
-  Parcels

Cleaned out 4,186 LF
of roadside ditch.

Shinn cut and grubbed
1,395 LF of outfall ditch.

Reconstructed 648
LF of lateral ditch.

Cleaned out
865 LF of
lateral ditch.

Reconstructed 870
LF of lateral ditch.

Cleaned out 4,547
LF of outfall ditch.

0 175 350 700 1,050 1,400
Feet

1 inch = 522 feet

Prepared By: BC Stormwater Management Utility

Date Print: 10/22/10

File: C:/sethdata/projects/projectmaps/Duncan Farms 2003-047 Map1

Project: Duncan
Farms Outfall
Map 2

Activity: Drainage
Maintenance














Project #:
2003-047

Township:
Sheldon

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December 2009

Legend

Drainage Type

-  River
-  Stream
-  Outfall
-  Lateral
-  Lateral Pipe
-  Roadside
-  Roadside Pipe
-  Crossline
-  D/W
-  Access
-  Piped
-  Bleeder
-  Parcels

Repaired (1) crossline
pipe and replaced (1)
driveway pipe.

Installed (3) access pipes
and (4) bleeder pipes.

Installed (1)
access gate.

Installed (1)
access gate.

Installed (4)
bleeder pipes.

Installed (1) access pipe
and (1) bleeder pipe.

Installed (2) access
pipes.

Installed (6) access
pipes.

0 175 350 700 1,050 1,400
Feet

1 inch = 522 feet

Prepared By: BC Stormwater Management Utility

Date Print: 10/22/10

File: C:/sethdata/projects/projectmaps/Duncan Farms 2003-047 Map2

Project: Duncan
Farms Outfall
Map 3

Activity: Drainage
Maintenance














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Legend

Drainage Type

-  River
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-  Access
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-  Bleeder
-  Parcels

Shinn cut 855 LF
of outfall ditch.



Prepared By: BC Stormwater Management Utility

Date Print: 10/22/10

File: C:/sethdata/projects/projectmaps/Duncan Farms 2003-047 Map3