

EROSION CONTROL & PIPE INSTALLATION SCHEDULE

TROUT BUFFER ZONE SEQUENCE

GENERAL E&SC NOTES

GROUND STABILIZATION CHART

Erosion Control Schedule and Notes

1. Generally, the order of installation of the erosion control measures will be as follows:
 - A. Temporary silt basins shall be installed before clearing and grubbing begins.
 - B. Silt fences and temporary silt ditches shall be installed after clearing and before grading.
 - C. Temporary stone ditch checks with PAM or wattles with PAM shall be installed in all disturbed areas as soon as the disturbance begins.
 - D. Final stone ditch checks or wattles shall be installed as soon as ditch line is established.
 - E. Pipe outlet and inlet protection will be done as soon as the pipe is installed.
 - F. Other permanent erosion control measures are to be implemented as soon as practical.
2. Temporary rock silt checks, type B will be spaced by percent grade as shown in the erosion control plan.
3. No. 5 stone, or equivalent, will be used in conjunction with the temporary rock silt checks in locations where water is leaving the project or entering a pipe.
4. All devices are to be cleaned out when half full.
5. Establish permanent vegetation per ground stabilization chart.

Notes:

For silt basin size see the attached erosion control plans.

PAM is to be placed on all Type A checks and wattles in the erosion control chain except for the final device in HWQ and Trout projects.

Wet Pipe Installation Schedule and Notes

1. Prior to installing any E&SC measures identify permit conditions and impact area limits.
2. Install erosion control devices.
3. Manage the water course. The pipe must be placed in the dry. Install dewatering measures.
4. Remove material and existing pipe while limiting material and sediment from entering stream and escaping the project.
5. Excavation of stream channel shall not exceed 10' on either side of new pipe or culvert unless indicated on permit.
6. Per permit conditions for Corps of Engineers and the Wildlife Resources Commission, all pipes in streams 48" or greater must be buried 12" below streambed elevation. Pipes less than 48" must be buried with 20% of the diameter below streambed elevation.
7. Place the new pipe and compact backfill.
8. Install slope protection on the outlet and inlet ends of the pipe. Also complete installation of erosion control measures and perform maintenance as needed on existing measures.
9. Establish permanent vegetation per ground stabilization chart.
10. More information on wet pipe installation can be found in the BMP manual section 4.2 "Pipe & Culvert installation"

General Erosion Control Sequence & Notes for NC DOT Projects in Trout Buffer Zones

1. Prior to installing any E&SC measures identify permit conditions and impact area limits. Review trout buffer variance approval conditions for any special provisions.
2. All materials should be on the hand before work is commenced.
3. Install EC devices
4. Work within the buffer zone should be sequenced to minimize the length of time that disturbed areas are exposed. Stream bank stabilization, which includes the area from the edge of water to the top of bank, should be phased so that each day's work is a completed work, including provision of adequate ground cover.
5. Graded slopes and fills within the trout buffer zone will within 7 calendar days of completion of any phase of grading be planted or otherwise provided with temporary or permanent ground cover, devices, or structures sufficient to restrain erosion.
6. Graded slopes and fills within the trout buffer zone (excluding road shoulders) shall be protected with rolled erosion control product, bonded fiber matrix, or flexible growth medium after seeding.

Notes:

Silt fence backed by woven wire, with a post spacing of 6 feet, shall be used instead of standard silt fence in trout buffer zone. Special sediment control fence shall be used in areas where bedrock is encountered which prohibits the proper anchoring of fabric, and in low points of the silt fence in 3-foot sections to allow for concentrated flows.

The disturbed areas within the stream buffer shall be restored to native vegetation characteristic of an undisturbed buffer to the extent practical upon completion of construction.

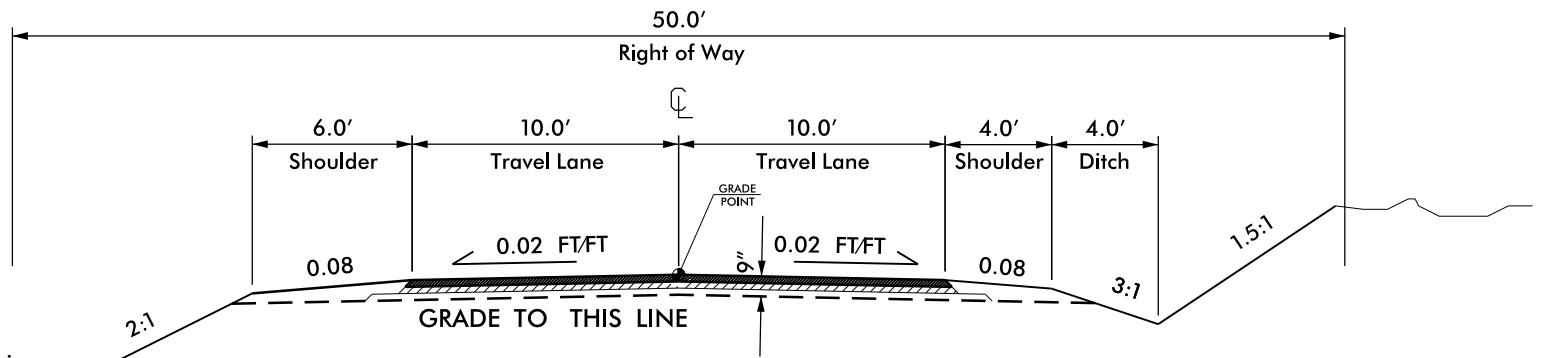
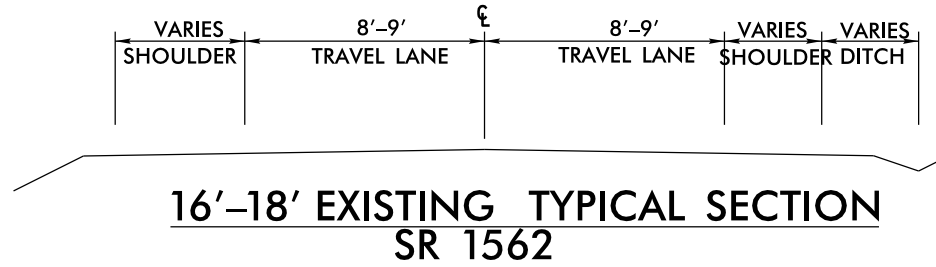
Flyrock protection such as blast mats should be provided for blasting in close proximity to streams.

PAM is to be placed on all Type A checks and wattles in the erosion control chain except for the final device in HWQ and Trout projects.

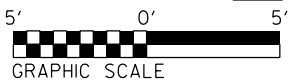
GROUND STABILIZATION CHART

Site Area Description	Stabilization Time Frame	Stabilization Time Frame Exceptions
Perimeter dikes, swales, ditches and slopes	7 days	None
High Quality Water Zones	7 days	None
Slopes steeper than 3:1	7 days	If slopes are 10 ft. or less in length and are not steeper than 2:1, 14 days are allowed
Slopes 3:1 or flatter	14 days	7 days for slopes greater than 50' in length
All other areas flatter than 4:1	14 days	None (except for perimeters and HQW zones)

PROJECT REFERENCE NO.	SHEET NO.
CA-1562	2
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER



GRAPHIC SCALE= 1"=7' letter size

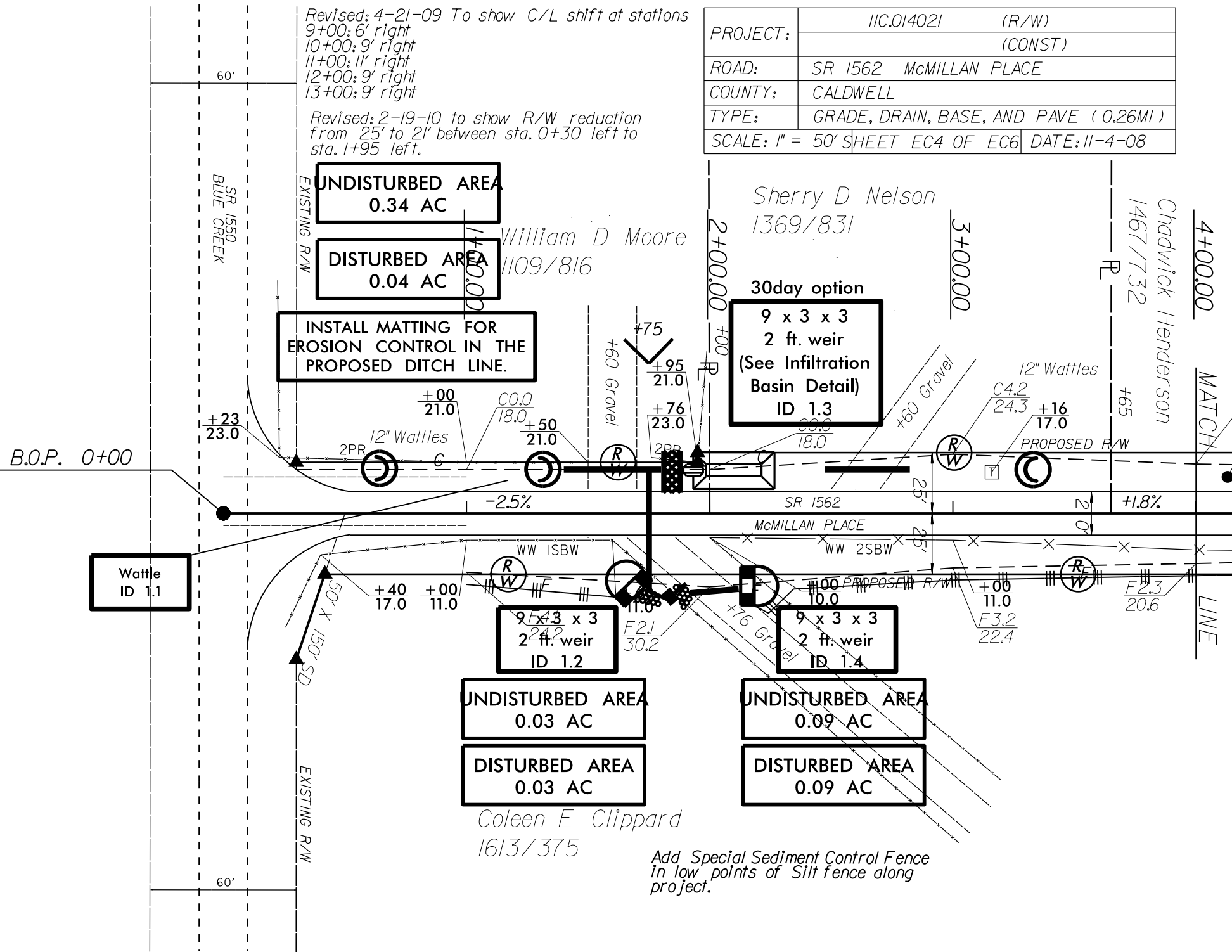


TYPICAL SECTION NO. 1

Revised: 4-21-09 To show C/L shift at stations
 9+00: 6' right
 10+00: 9' right
 11+00: 11' right
 12+00: 9' right
 13+00: 9' right

Revised: 2-19-10 to show R/W reduction
 from 25' to 21' between sta. 0+30 left to
 sta. 1+95 left.

PROJECT:	IIC.014021 (R/W)
	(CONST)
ROAD:	SR 1562 McMILLAN PLACE
COUNTY:	CALDWELL
TYPE:	GRADE, DRAIN, BASE, AND PAVE (0.26MI)
SCALE: 1" = 50'	SHEET EC4 OF EC6 DATE: 11-4-08



UNDISTURBED AREA
0.34 AC

DISTURBED AREA
0.04 AC

**INSTALL MATTING FOR
EROSION CONTROL IN THE
PROPOSED DITCH LINE.**

30day option
9 x 3 x 3
2 ft. weir
(See Infiltration
Basin Detail)
ID 1.3

William D Moore
1109/816

Sherry D Nelson
1369/831

UNDISTURBED AREA
0.03 AC

DISTURBED AREA
0.03 AC

UNDISTURBED AREA
0.09 AC

DISTURBED AREA
0.09 AC

Coleen E Clippard
1613/375

Add Special Sediment Control Fence
in low points of Silt fence along
project.

MATCH
LINE

Chadwick Henderson
1467/732

B.O.P. 0+00

60'

60'

SR 1562
BLUE CREEK

EXISTING R/W

EXISTING R/W

2+00.00

3+00.00

4+00.00

+23
23.0

+00
21.0

+50
21.0

+75

+95
21.0

+76
23.0

C4.2
24.3

+16
17.0

+65

+40
17.0

+00
11.0

F2.1
30.2

+00
10.0

+00
11.0

F3.2
22.4

F2.3
20.6

Wattle
ID 1.1

50' X 150' SD

9 x 3 x 3
2 ft. weir
ID 1.2

9 x 3 x 3
2 ft. weir
ID 1.4

R/W

R/W

R/W

R/W

R/W

R/W

+60 Gravel

+60 Gravel

SR 1562
McMILLAN PLACE

WW ISBW

WW 2SBW

PROPOSED R/W

12" Wattles

12" Wattles

C0.0
18.0

C0.0
18.0

2PR

2PR

2PR

-2.5%

+1.8%

EXISTING R/W

EXISTING R/W

2+00.00

3+00.00

4+00.00

+23
23.0

+00
21.0

+50
21.0

+75

+95
21.0

+76
23.0

C4.2
24.3

+16
17.0

+65

+40
17.0

+00
11.0

F2.1
30.2

+00
10.0

+00
11.0

F3.2
22.4

F2.3
20.6

Wattle
ID 1.1

50' X 150' SD

9 x 3 x 3
2 ft. weir
ID 1.2

9 x 3 x 3
2 ft. weir
ID 1.4

R/W

R/W

R/W

R/W

R/W

R/W

+60 Gravel

+60 Gravel

SR 1562
McMILLAN PLACE

WW ISBW

WW 2SBW

PROPOSED R/W

12" Wattles

12" Wattles

C0.0
18.0

C0.0
18.0

2PR

2PR

2PR

-2.5%

+1.8%

EXISTING R/W

EXISTING R/W

2+00.00

3+00.00

4+00.00

+23
23.0

+00
21.0

+50
21.0

+75

+95
21.0

+76
23.0

C4.2
24.3

+16
17.0

+65

+40
17.0

+00
11.0

F2.1
30.2

+00
10.0

+00
11.0

F3.2
22.4

F2.3
20.6

Wattle
ID 1.1

50' X 150' SD

9 x 3 x 3
2 ft. weir
ID 1.2

9 x 3 x 3
2 ft. weir
ID 1.4

R/W

R/W

R/W

R/W

R/W

R/W

+60 Gravel

+60 Gravel

SR 1562
McMILLAN PLACE

WW ISBW

WW 2SBW

PROPOSED R/W

12" Wattles

12" Wattles

C0.0
18.0

C0.0
18.0

2PR

2PR

2PR

-2.5%

+1.8%

EXISTING R/W

EXISTING R/W

2+00.00

3+00.00

4+00.00

+23
23.0

+00
21.0

+50
21.0

+75

+95
21.0

+76
23.0

C4.2
24.3

+16
17.0

+65

+40
17.0

+00
11.0

F2.1
30.2

+00
10.0

+00
11.0

F3.2
22.4

F2.3
20.6

Wattle
ID 1.1

50' X 150' SD

9 x 3 x 3
2 ft. weir
ID 1.2

9 x 3 x 3
2 ft. weir
ID 1.4

R/W

R/W

R/W

R/W

R/W

R/W

+60 Gravel

+60 Gravel

SR 1562
McMILLAN PLACE

WW ISBW

WW 2SBW

PROPOSED R/W

12" Wattles

12" Wattles

C0.0
18.0

C0.0
18.0

2PR

2PR

2PR

-2.5%

+1.8%

EXISTING R/W

EXISTING R/W

2+00.00

3+00.00

4+00.00

+23
23.0

+00
21.0

+50
21.0

+75

+95
21.0

+76
23.0

C4.2
24.3

+16
17.0

+65

+40
17.0

+00
11.0

F2.1
30.2

+00
10.0

+00
11.0

F3.2
22.4

F2.3
20.6

Wattle
ID 1.1

50' X 150' SD

9 x 3 x 3
2 ft. weir
ID 1.2

9 x 3 x 3
2 ft. weir
ID 1.4

R/W

R/W

R/W

R/W

R/W

R/W

+60 Gravel

+60 Gravel

SR 1562
McMILLAN PLACE

WW ISBW

WW 2SBW

PROPOSED R/W

12" Wattles

12" Wattles

C0.0
18.0

C0.0
18.0

2PR

2PR

2PR

-2.5%

+1.8%

EXISTING R/W

EXISTING R/W

2+00.00

3+00.00

4+00.00

+23
23.0

+00
21.0

+50
21.0

+75

+95
21.0

+76
23.0

C4.2
24.3

+16
17.0

+65

+40
17.0

+00
11.0

F2.1
30.2

+00
10.0

+00
11.0

F3.2
22.4

Chadwick Henderson
1467/732

Donnie M Allison
818/445

UNDISTURBED AREA
0.02 AC

DISTURBED AREA
0.02 AC

INSTALL PSRM FOR
EROSION CONTROL IN THE
PROPOSED DITCH LINE.

9 x 3 x 3
2 ft. weir
ID 2.3

UNDISTURBED AREA
8.32 AC

DISTURBED AREA
0.12 AC

INSTALL MATTING FOR
EROSION CONTROL IN THE
PROPOSED DITCH LINE.

UNDISTURBED AREA
0.04 AC

DISTURBED AREA
0.04 AC

9 x 3 x 3
2 ft. weir
ID 2.2

4+00.00

5+00.00

6+00.00

7+00.00

8+00.00

9+00.00

Kenneth Crutcher 1036/489

MATCH

MATCH

LINE

LINE

+1.8%

+7.0%

12 x 3 x 3
2 ft. weir
ID 2.1

30day option

UNDISTURBED AREA
0.92 AC

DISTURBED AREA
0.13 AC

INSTALL PSRM FOR
EROSION CONTROL IN THE
PROPOSED DITCH LINE.

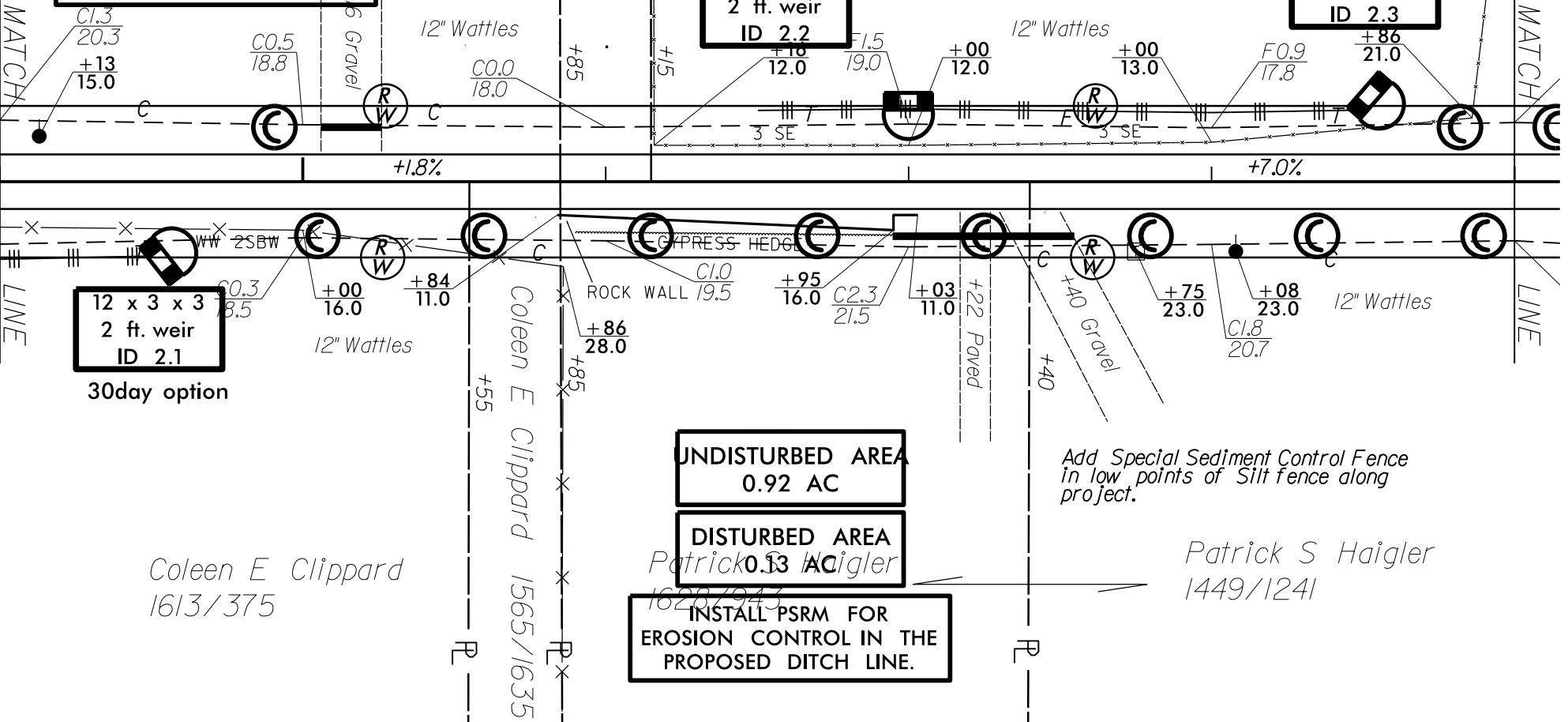
Add Special Sediment Control Fence
in low points of Silt fence along
project.

Coleen E Clippard
1613/375

Patrick S Haigler
1620/243

Patrick S Haigler
1449/1241

Coleen E Clippard 1565/1635



UNDISTURBED AREA
4.20 AC

DISTURBED AREA
0.01 AC

Donnie M Allison
818/445

SHEET EC6 OF EC6

Osborne R Macquire
832/609

UNDISTURBED AREA
0.02 AC

DISTURBED AREA
0.02 AC

INSTALL MATTING FOR
EROSION CONTROL IN THE
PROPOSED DITCH LINE.

INSTALL PSRM FOR
EROSION CONTROL IN THE
PROPOSED DITCH LINE.

UNDISTURBED AREA
0.01 AC

DISTURBED AREA
0.01 AC

30day option

9 x 3 x 3
X ft. weir
(See Infiltration
Basin Detail)
ID 3.1

Wattle
ID 3.3

9 x 3 x 3
2 ft. weir
ID 3.4

Wattle
ID 3.5

9 x 3 x 3
2 ft. weir
ID 3.2

UNDISTURBED AREA
0.07 AC

DISTURBED AREA
0.07 AC

Patrick S Haigler
1449/1241

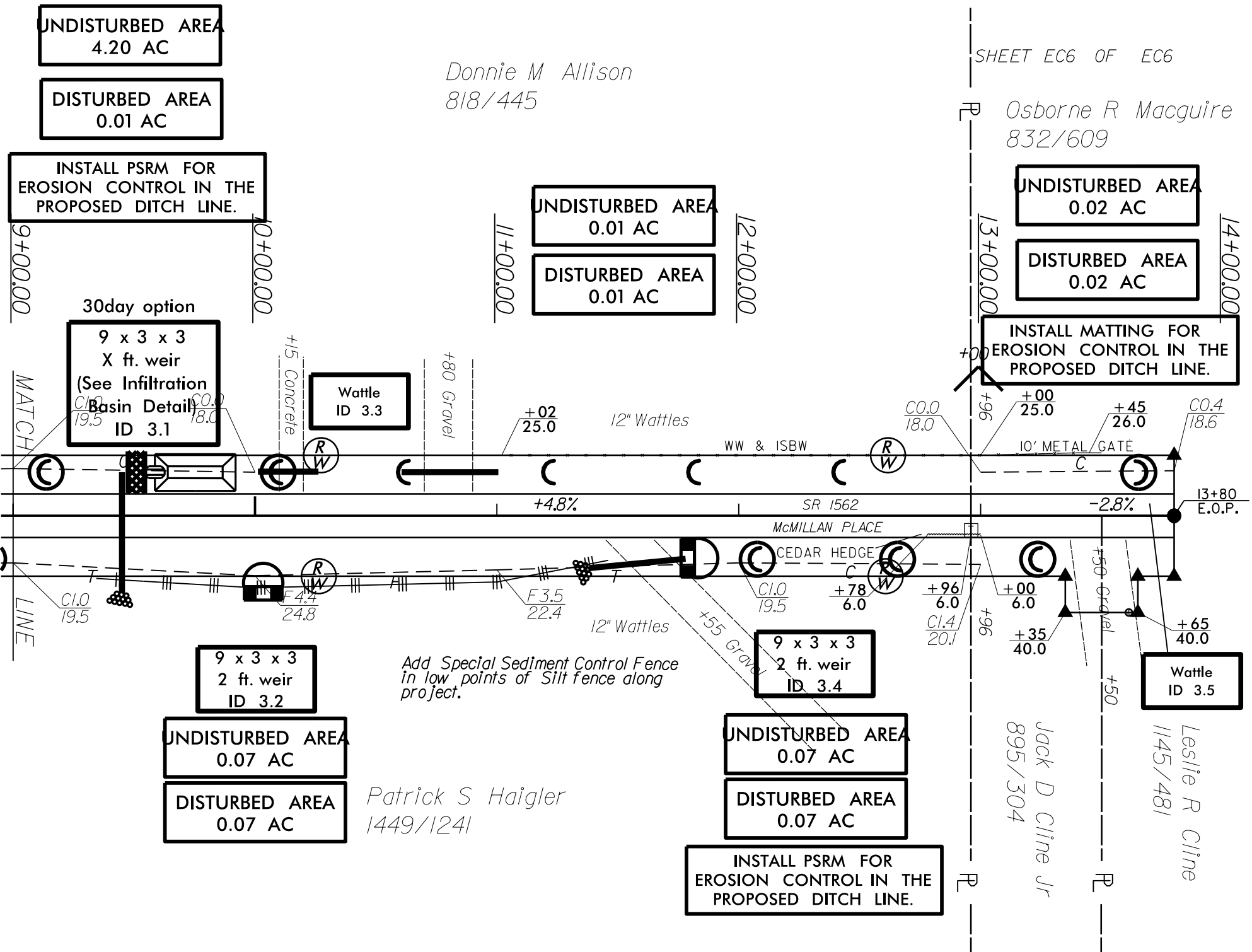
UNDISTURBED AREA
0.07 AC

DISTURBED AREA
0.07 AC

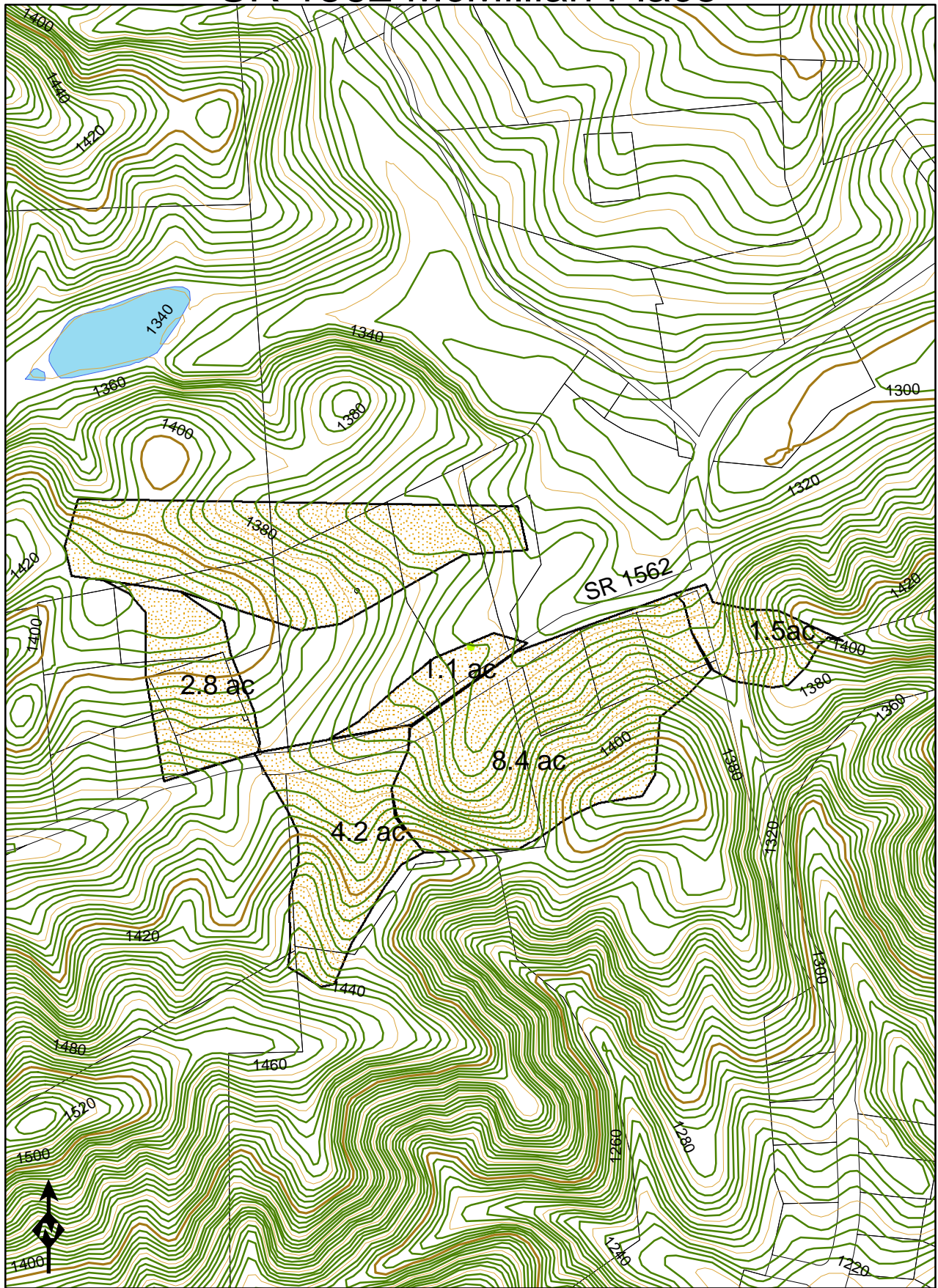
INSTALL PSRM FOR
EROSION CONTROL IN THE
PROPOSED DITCH LINE.

Jack D Cline Jr
895/304

Leslie R Cline
1145/481



SR 1562 McMillian Place



Legend

