

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

WATAUGA COUNTY

**LOCATION: SR 1526B SAMPSON RD
FROM POINT 2.88 MILES TO POINT
STA 10+00 TO E.O.P. 152+50**

**TYPE OF WORK: GRADING, DRAINAGE, BASE
AND PAVING - 2.88 MILES**

BEGAN SURVEY: 06/26/08

END SURVEY: 09/19/08

**REVISED: 4/14/14 Extended EOP from 136+75 to 152+50; added Plan sheet 24 & 25
5/19/14 Added Slope Stake lines /poles /pipes from 136+75 to 152+50**

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	11C.095102	EC-1	9
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	

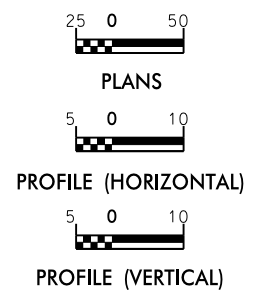
EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1630.03	Temporary Silt Ditch	---
1630.05	Temporary Diversion	TD
1605.01	Temporary Silt Fence	
1606.01	Special Sediment Control Fence	---X---
1622.01	Temporary Berms and Slope Drains	T
1630.02	Silt Basin Type B	▨
1633.01	Temporary Rock Silt Check Type-A	▩
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	▩
1633.02	Temporary Rock Silt Check Type-B	▩
	Wattle/Coir Fiber Wattle	~
	Wattle/Coir Fiber Wattle with Polyacrylamide (PAM)	~
1634.01	Temporary Rock Sediment Dam Type-A	▩
1634.02	Temporary Rock Sediment Dam Type-B	▩
1635.01	Rock Pipe Inlet Sediment Trap Type-A	U
1635.02	Rock Pipe Inlet Sediment Trap Type-B	U
1630.04	Stilling Basin	▭
1630.06	Special Stilling Basin	▭
	Rock Inlet Sediment Trap:	
1632.01	Type A	A
1632.02	Type B	B
1632.03	Type C	C
	Skimmer Basin	▭
	Tiered Skimmer Basin	▭
	Infiltration Basin	▭

**THIS PROJECT CONTAINS
EROSION CONTROL PLANS
FOR CLEARING AND
GRUBBING PHASE OF
CONSTRUCTION.**

**ENVIRONMENTALLY
SENSITIVE AREA(S) EXIST
ON THIS PROJECT**
*Refer To E. C. Special Provisions
for Special Considerations.*

GRAPHIC SCALE



ROADSIDE ENVIRONMENTAL UNIT
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

**THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY
WITH THE REGULATIONS SET FORTH BY THE
NCG-010000 GENERAL CONSTRUCTION PERMIT EFFECTIVE AUGUST 3, 2011
ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND
NATURAL RESOURCES DIVISION OF WATER QUALITY.**

Prepared in the Office of:
DIVISION OF HIGHWAYS
DIVISION 11, DISTRICT 2 BOONE
P.O. BOX 1460, BOONE, N.C. 28607
2012 STANDARD SPECIFICATIONS

Roadway Standard Drawings

The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated January 2012 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

1604.01 Railroad Erosion Control Detail	1632.01 Rock Inlet Sediment Trap Type A
1605.01 Temporary Silt Fence	1632.02 Rock Inlet Sediment Trap Type B
1606.01 Special Sediment Control Fence	1632.03 Rock Inlet Sediment Trap Type C
1607.01 Gravel Construction Entrance	1633.01 Temporary Rock Silt Check Type A
1622.01 Temporary Berms and Slope Drains	1633.02 Temporary Rock Silt Check Type B
1630.01 Riser Basin	1634.01 Temporary Rock Sediment Dam Type A
1630.02 Silt Basin Type B	1634.02 Temporary Rock Sediment Dam Type B
1630.03 Temporary Silt Ditch	1635.01 Rock Pipe Inlet Sediment Trap Type A
1630.04 Stilling Basin	1635.02 Rock Pipe Inlet Sediment Trap Type B
1630.05 Temporary Diversion	1640.01 Coir Fiber Baffle
1630.06 Special Stilling Basin	1645.01 Temporary Stream Crossing
1631.01 Matting Installation	

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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.

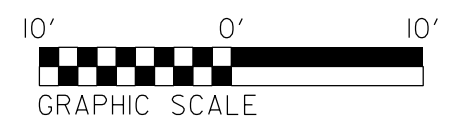
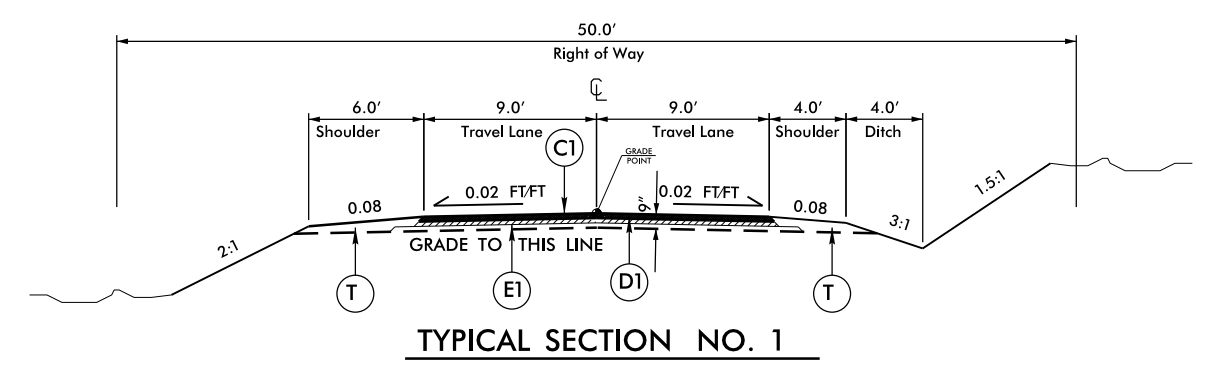
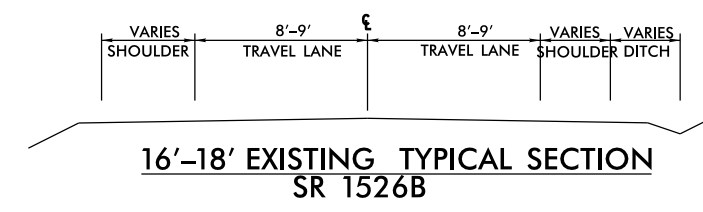
Flyrock protection such as blast mats should be provided for blasting in close proximity to streams.

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. WA-1526B	SHEET NO. 2
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	



**STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS**

PROJECT NO.	SHEET NO.
WA-1526b	3-A

Revised 6/18/2014

LIST OF PIPES, ENDWALLS, ETC. (FOR PIPES 48" & UNDER)

STATION	LOCATION (LT, RT, OR CL)	NEW PIPES								EXISTING PIPES								PIPE REMOVAL D.I. STD. 840.14 OR STD. 840.15 D.I. FRAME AND GRATE STD. 840.16 J.B. STD. 840.31 OR 840.32	REMARKS
		BITUMINOUS COATED C.S. PIPE TYPE B (UNLESS NOTED OTHERWISE)																	
		12"	15"	18"	24"	30"	36"	42"	48"	12"	15"	18"	24"	30"	36"	42"	48"		
12+09	RT		30'														0	ADD DRIVE PIPE	
14+77	CL																0	10" HDPE WET DO NOT DISTURB	
15+49	RT		30'														0	ADD DRIVE PIPE	
15+42	CL				40'							30'					30	REPLACE JURISDICTIONAL WET	
16+34	RT		30'														0	ADD DRIVE PIPE	
24+00	CL																0	DO NOT DISTURB	
27+75	LT		30'														0	ADD DRIVE PIPE	
30+48	LT		30'														0	ADD DRIVE PIPE	
30+74	RT		30'														0	ADD DRIVE PIPE	
32+97	CL			50'								45'					45	REPLACE	
36+90	CL			50'													0	ADDITION	
36+95	LT											30'					30	REMOVE DRIVE PIPE	
43+17	CL																0	DO NOT DISTURB WET	
51+62	LT		30'									30'					30	REPLACE DRIVE PIPE	
52+15	CL																0	DO NOT DISTURB WET	
55+30	CL			45'								35'					35	REPLACE	
60+14	CL																0	DO NOT DISTURB WET	
64+20	CL			50'													0	ADDITION	
69+88	CL																0	DO NOT DISTURB WET	
80+19	CL																0	RETAIN if in good shape	
82+50	CL																0	DO NOT DISTURB WET	
86+70	LT		30'									25'					25	REPLACE	
89+39	CL			40'								30'					30	REPLACE	
91+81	LT		40'									40'					40	REPLACE DRIVE PIPE	
92+38	CL				45'								25'				25	REPLACE JURISDIC WET@ 92+41	
97+22	CL			40'								30'					30	REPLACE	
101+12	LT		30'														0	ADDITION	
103+80	CL			60'													0	ADDITION	
108+50	CL			150'													0	ADDITION	
113+30	CL			50'													0	ADDITION	
116+25	CL				50'												0	ADDITION	
119+63	CL					50'							30'				30	REPLACE JURISDICTIONAL WET	
120+21	CL			20'								45'					45	REPLACE JURISDICTIONAL WET	
122+40	CL				120'												0	ADDITION	
125+96	CL			60'								40'					40	REPLACE	
127+09	LT		30'									20'					20	REPLACE DRIVE PIPE	
129+89	LT		30'														0	REPLACE DRIVE PIPE	
131+64	CL			60'								25'					25	REPLACE	
134+19	CL			50'								30'					30	REPLACE	
SHEET TOTALS			0	280	575	0	0	50	0	0	1160	0	85	310	0	0	0	470	

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION TIMEFRAMES

PROJECT REFERENCE NO. <i>SR-1526B</i>	SHEET NO. <i>EC-3B</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

<i>SITE DESCRIPTION</i>	<i>STABILIZATION TIME</i>	<i>TIMEFRAME EXCEPTIONS</i>
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HOW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' 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 WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETERS AND HOW ZONES.

PROJECT REFERENCE NO.	SHEET NO.
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R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

7 EDWARD H WATSON
861/724

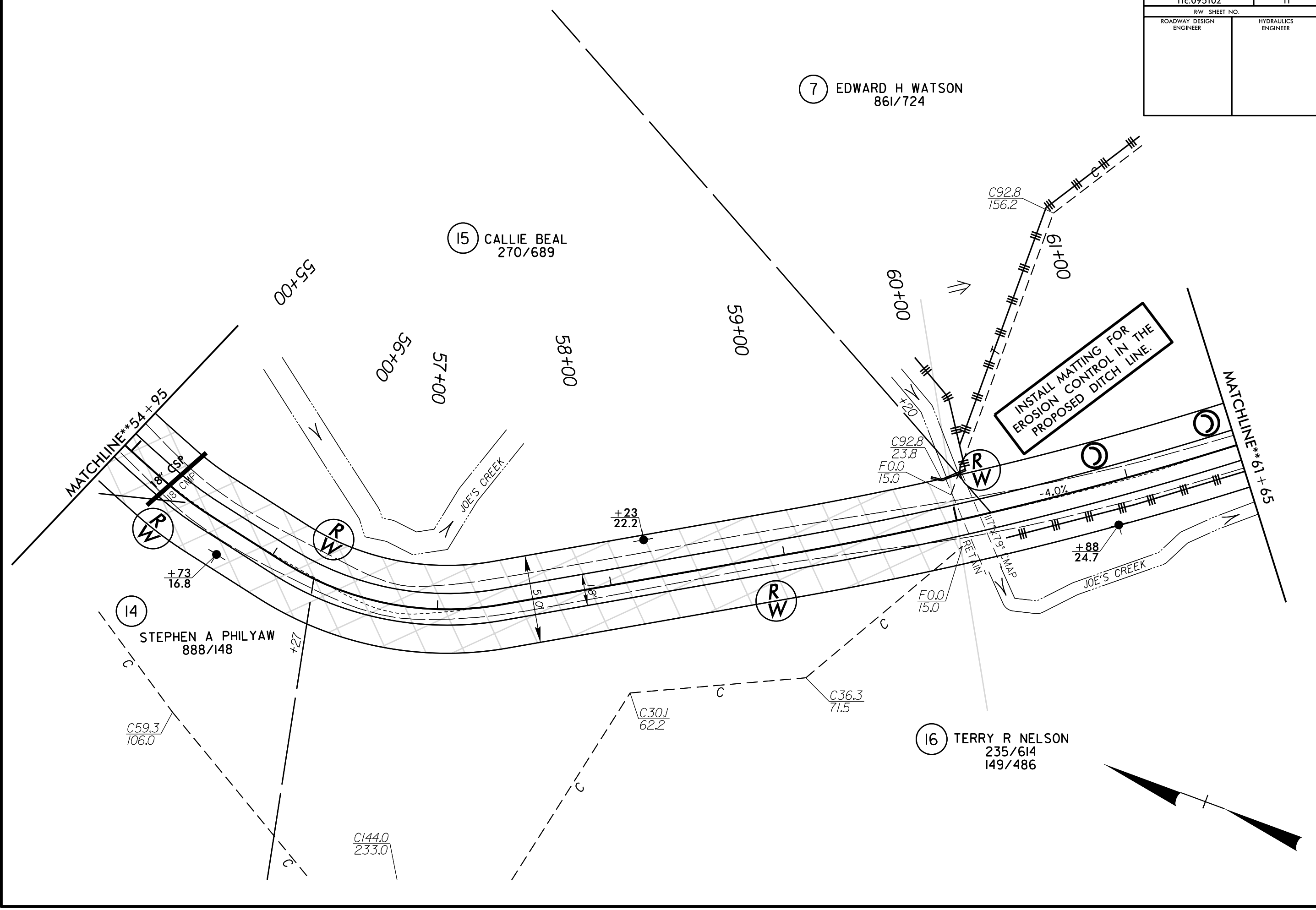
15 CALLIE BEAL
270/689

14 STEPHEN A PHILYAW
888/148

16 TERRY R NELSON
235/614
149/486

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PROJECT REFERENCE NO.	SHEET NO.
11c.095102	12
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

7 EDWARD H WATSON
861/724

17 REBA COBB
785/133

16 TERRY R NELSON
235/614
149/486

16 TERRY R NELSON
235/614
149/486

17 REBA COBB
785/133

INSTALL MATTING FOR
EROSION CONTROL IN THE
PROPOSED DITCH LINE.

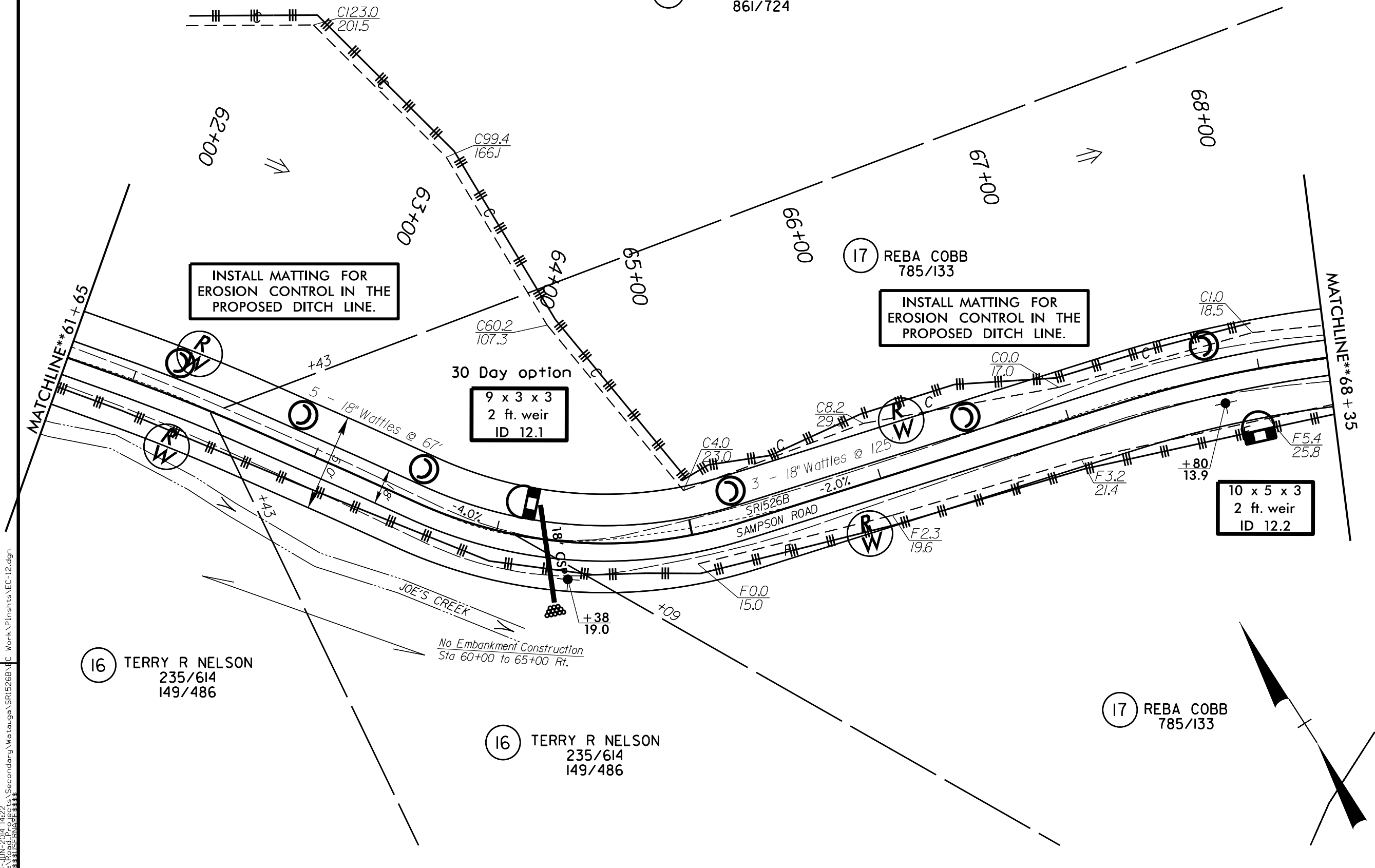
INSTALL MATTING FOR
EROSION CONTROL IN THE
PROPOSED DITCH LINE.

30 Day option
9 x 3 x 3
2 ft. weir
ID 12.1

10 x 5 x 3
2 ft. weir
ID 12.2

No Embankment Construction
Sta 60+00 to 65+00 Rt.

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 SUSAN BROWN



PROJECT REFERENCE NO.	SHEET NO.
11c.095102	13
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

17 REBA COBB
785/133

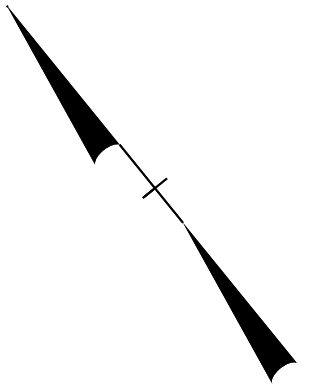
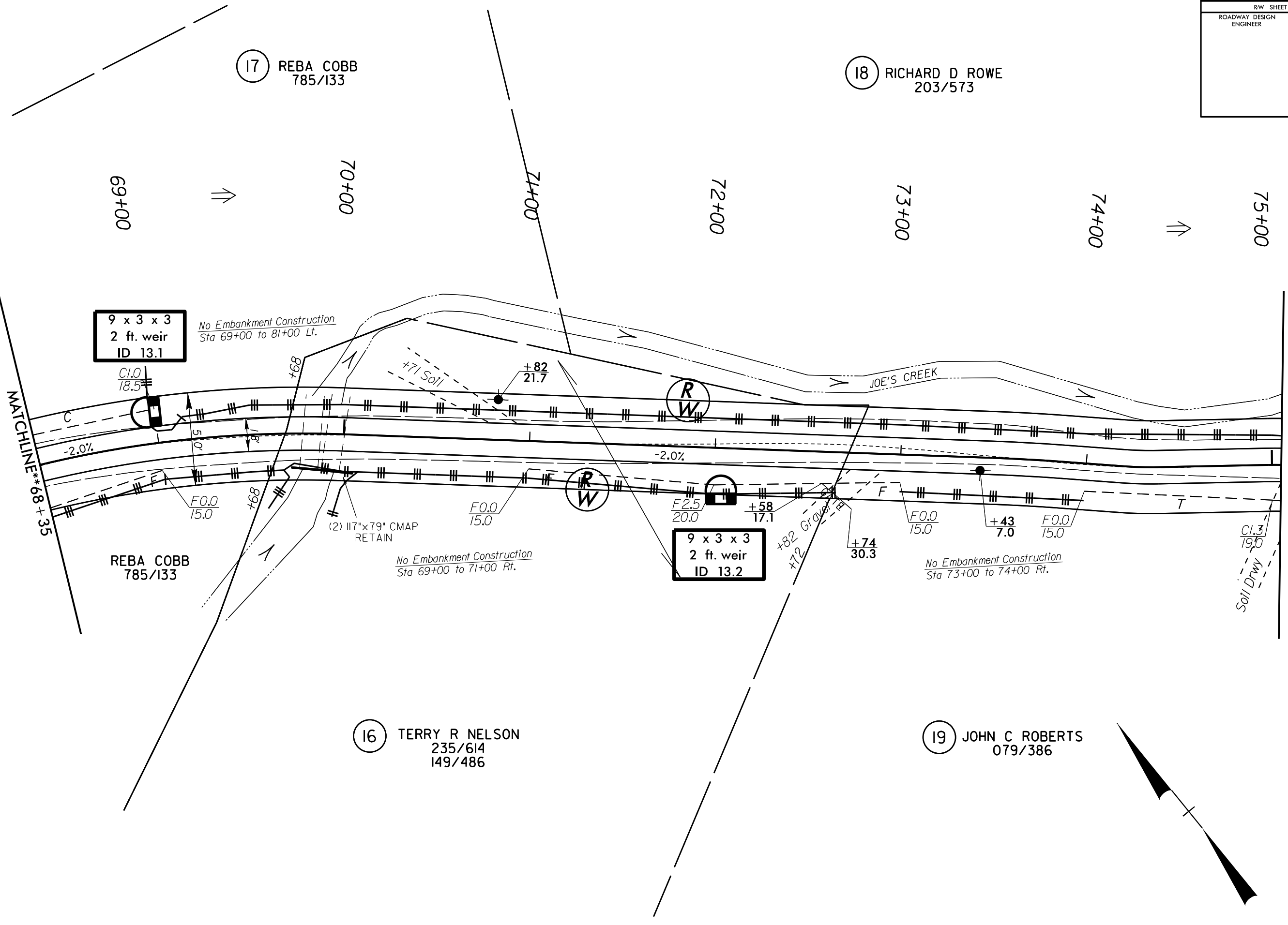
18 RICHARD D ROWE
203/573

16 TERRY R NELSON
235/614
149/486

19 JOHN C ROBERTS
079/386

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ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

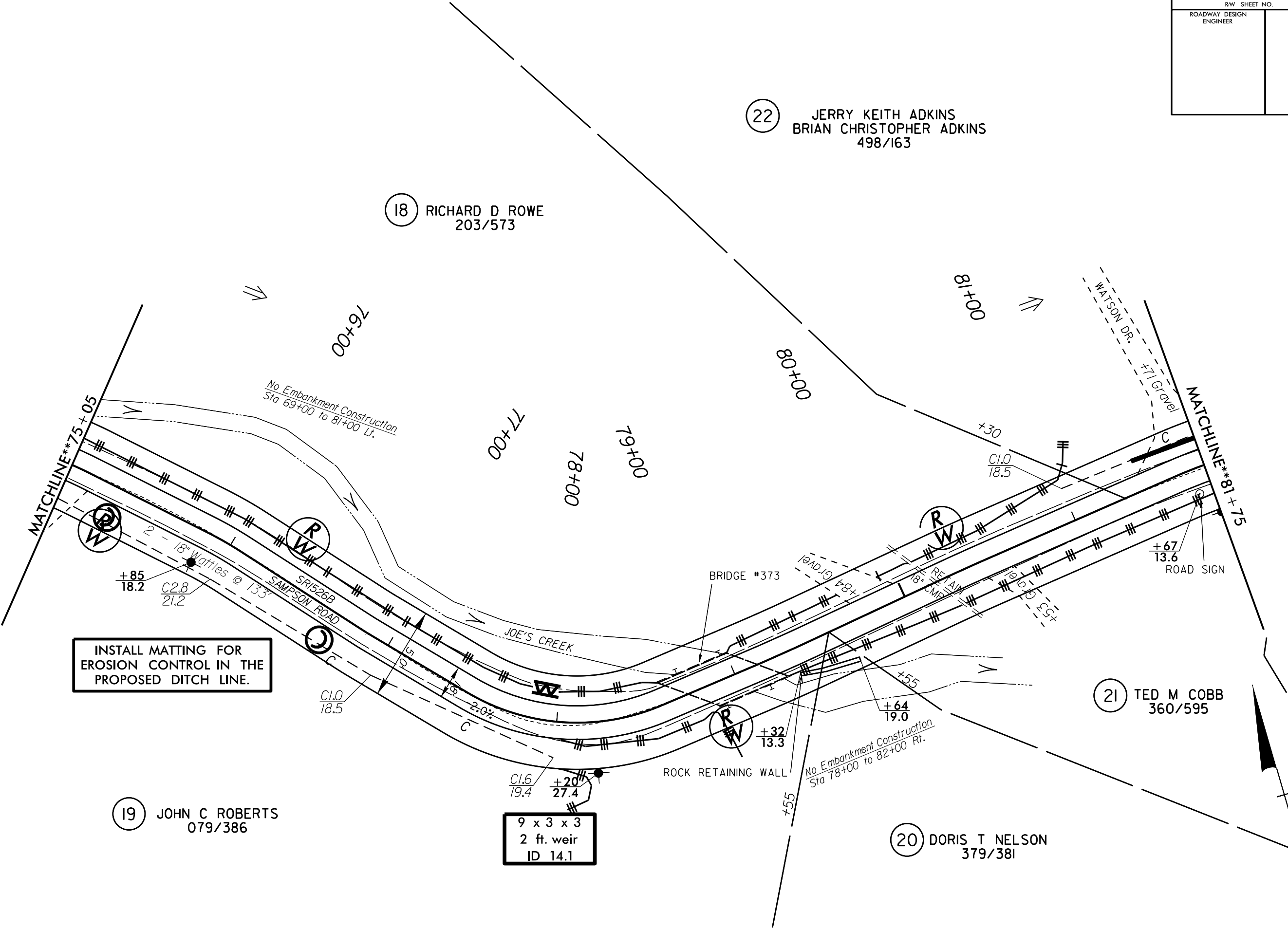
22 JERRY KEITH ADKINS
BRIAN CHRISTOPHER ADKINS
498/163

18 RICHARD D ROWE
203/573

19 JOHN C ROBERTS
079/386

21 TED M COBB
360/595

20 DORIS T NELSON
379/381



INSTALL MATTING FOR
EROSION CONTROL IN THE
PROPOSED DITCH LINE.

9 x 3 x 3
2 ft. weir
ID 14.1

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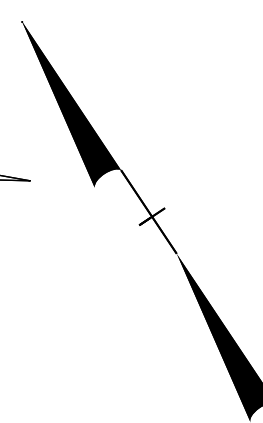
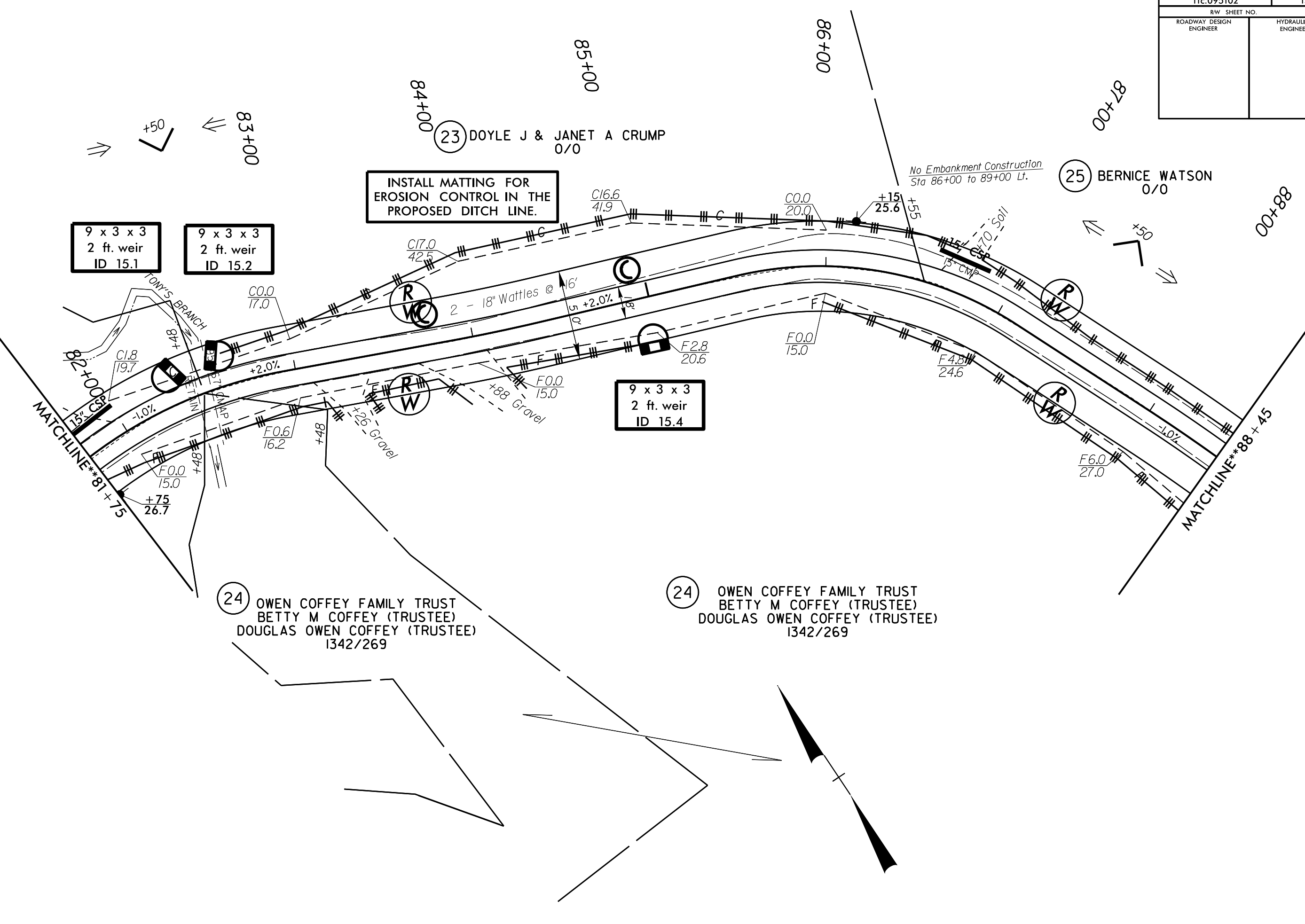
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RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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PROJECT REFERENCE NO.	SHEET NO.
11c.095102	16
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

26 STANLEY L. COFFEY
169/522

25 BERNICE WATSON
0/0

24 OWEN COFFEY FAMILY TRUST
BETTY M. COFFEY (TRUSTEE)
DOUGLAS OWEN COFFEY (TRUSTEE)
1342/269
INSTALL MATTING FOR
EROSION CONTROL IN THE
PROPOSED DITCH LINE.

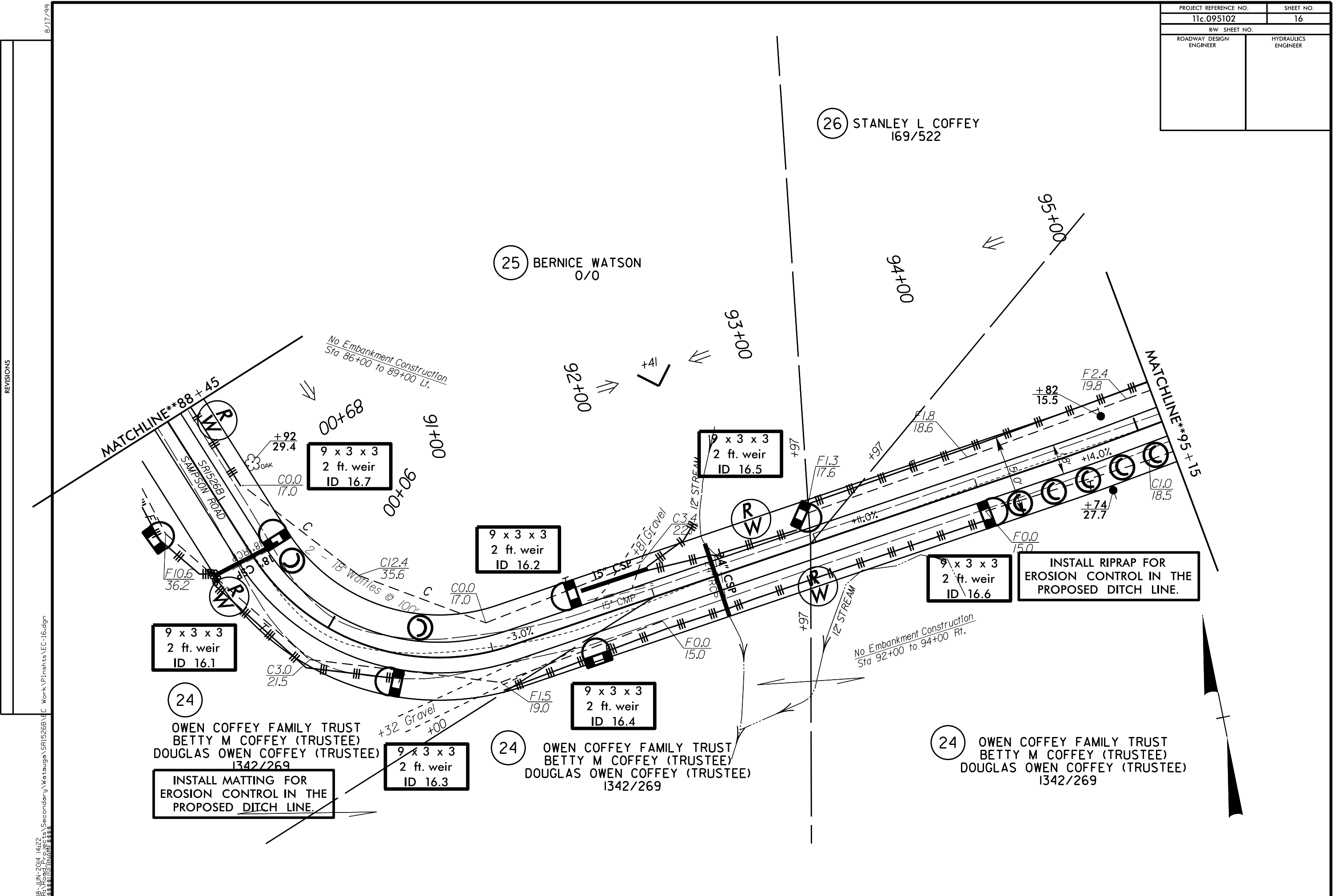
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BETTY M. COFFEY (TRUSTEE)
DOUGLAS OWEN COFFEY (TRUSTEE)
1342/269

24 OWEN COFFEY FAMILY TRUST
BETTY M. COFFEY (TRUSTEE)
DOUGLAS OWEN COFFEY (TRUSTEE)
1342/269

INSTALL RIPRAP FOR
EROSION CONTROL IN THE
PROPOSED DITCH LINE.

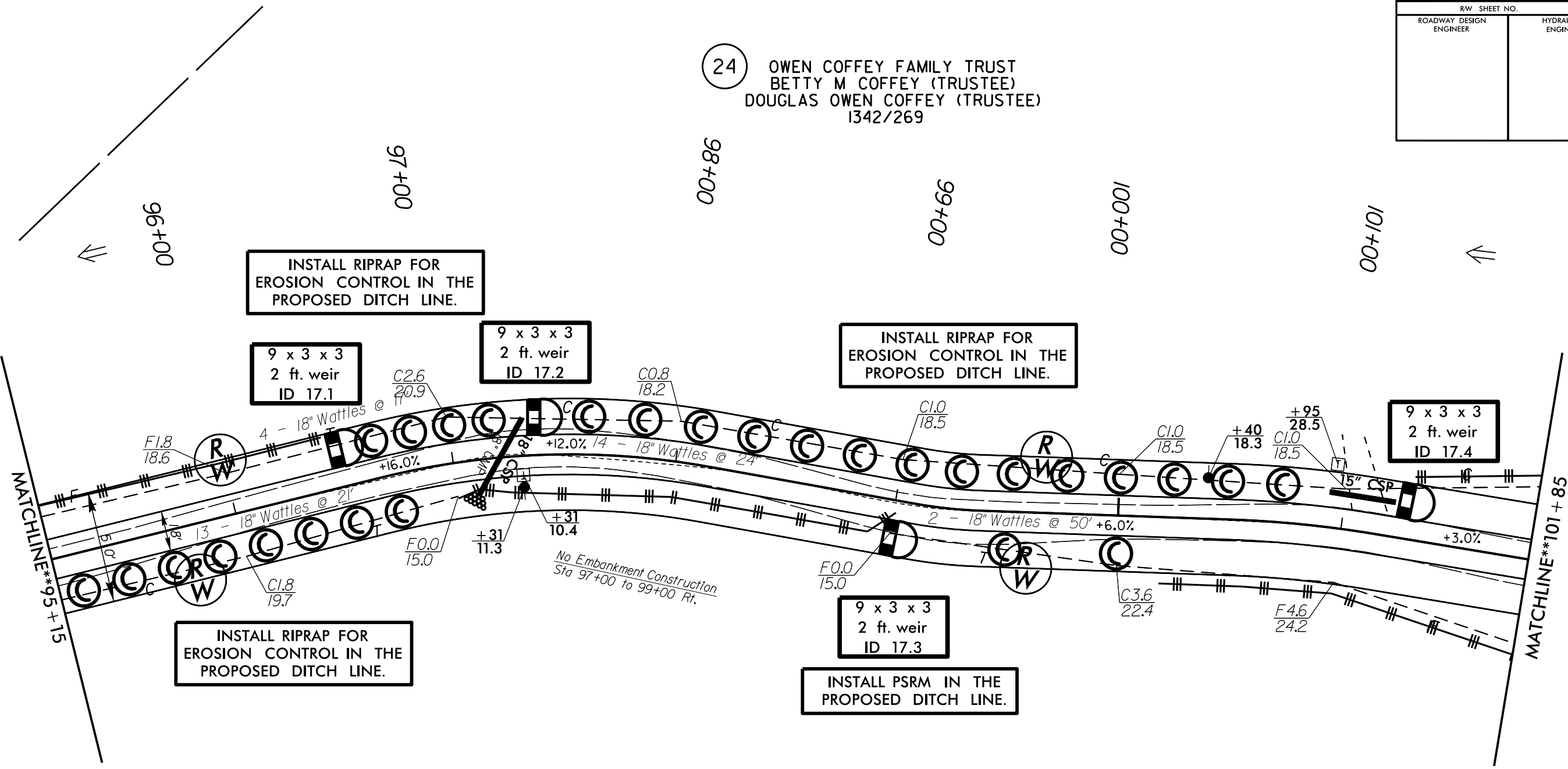
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PROJECT REFERENCE NO. 11c.095102	SHEET NO. 17
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

24 OWEN COFFEY FAMILY TRUST
 BETTY M COFFEY (TRUSTEE)
 DOUGLAS OWEN COFFEY (TRUSTEE)
 1342/269



24 OWEN COFFEY FAMILY TRUST
 BETTY M COFFEY (TRUSTEE)
 DOUGLAS OWEN COFFEY (TRUSTEE)
 1342/269



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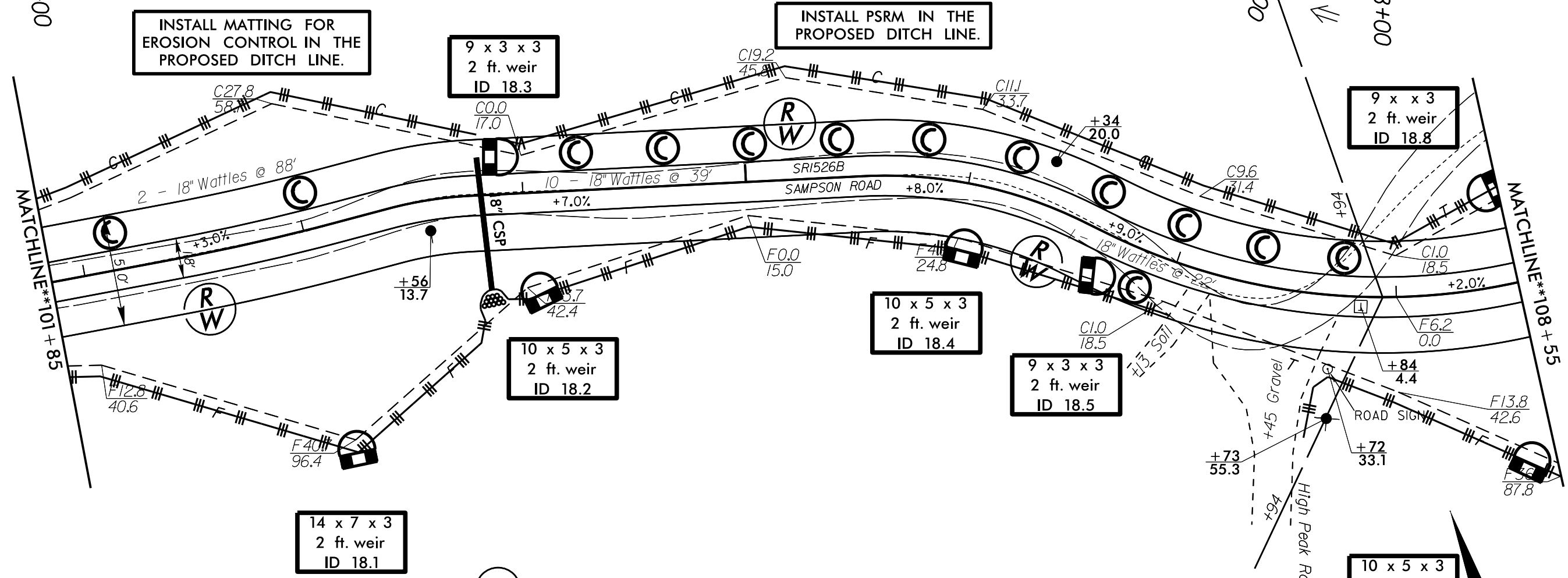
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R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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 BETTY M COFFEY (TRUSTEE)
 DOUGLAS OWEN COFFEY (TRUSTEE)
 1342/269

102+00 103+00 104+00 105+00 106+00 107+00 108+00

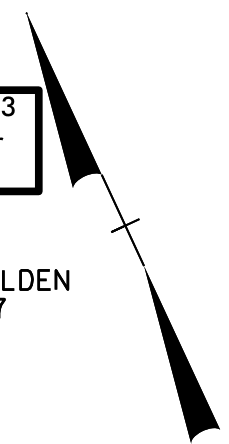
INSTALL MATTING FOR EROSION CONTROL IN THE PROPOSED DITCH LINE.

INSTALL PSRM IN THE PROPOSED DITCH LINE.



24 OWEN COFFEY FAMILY TRUST
 BETTY M COFFEY (TRUSTEE)
 DOUGLAS OWEN COFFEY (TRUSTEE)
 1342/269

34 TOYE S HOLDEN
 1128/147



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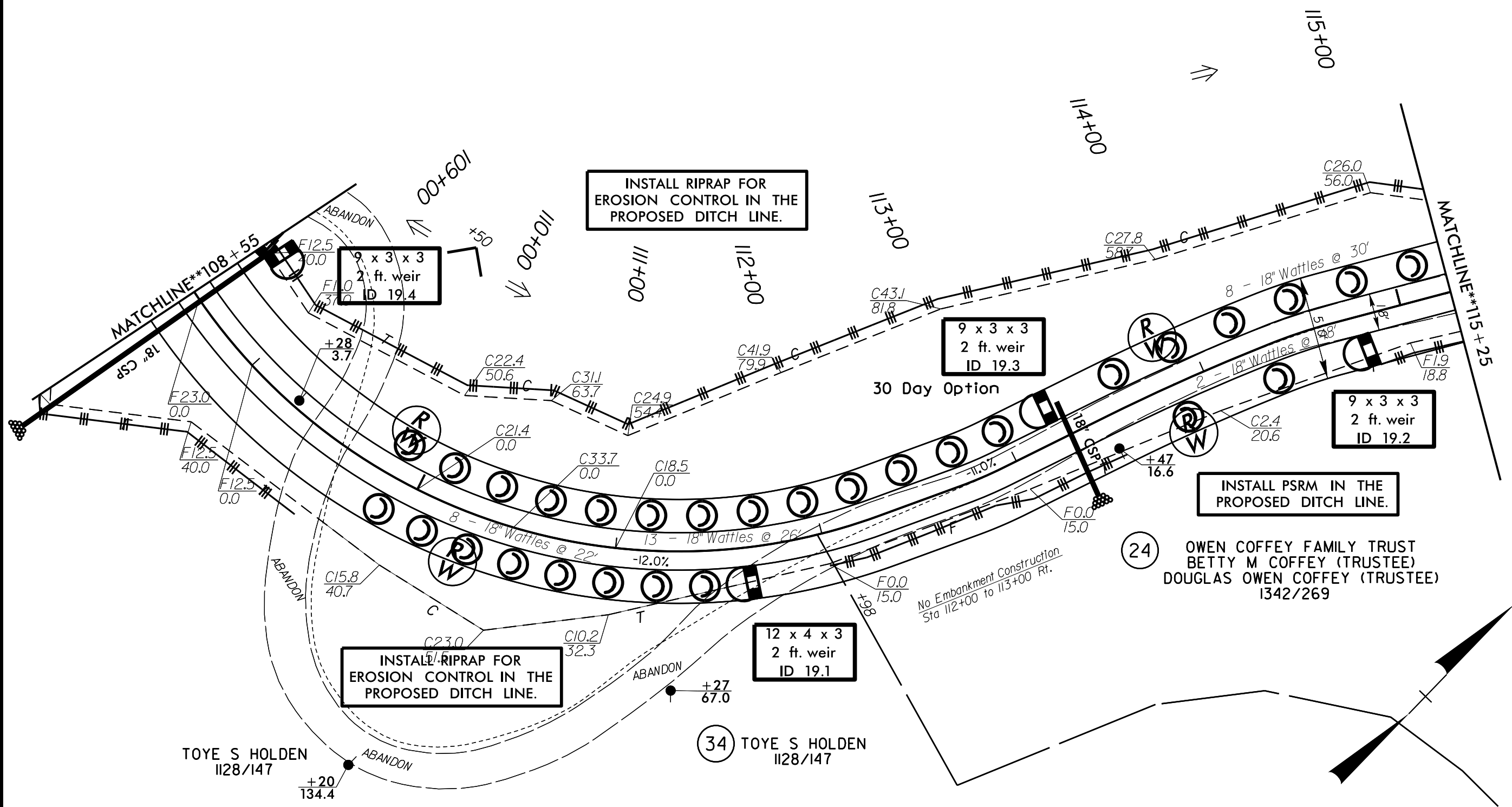
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RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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 BETTY M COFFEY (TRUSTEE)
 DOUGLAS OWEN COFFEY (TRUSTEE)
 1342/269

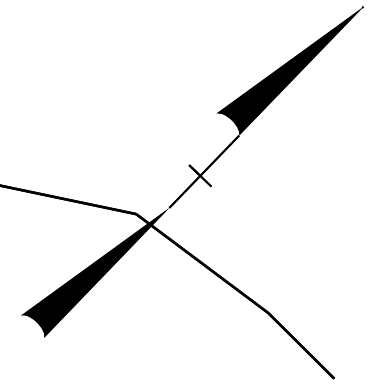
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 \$\$\$\$SUSANBENNETT\$\$\$\$



24 OWEN COFFEY FAMILY TRUST
 BETTY M COFFEY (TRUSTEE)
 DOUGLAS OWEN COFFEY (TRUSTEE)
 1342/269

34 TOYE S HOLDEN
 1128/147



PROJECT REFERENCE NO.	SHEET NO.
11c.095102	20
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

(24) OWEN COFFEY FAMILY TRUST
 BETTY M COFFEY (TRUSTEE)
 DOUGLAS OWEN COFFEY (TRUSTEE)
 1342/269

(27) TONY WAYNE HALL
 365/315

(34) TOYE S HOLDEN
 1128/147

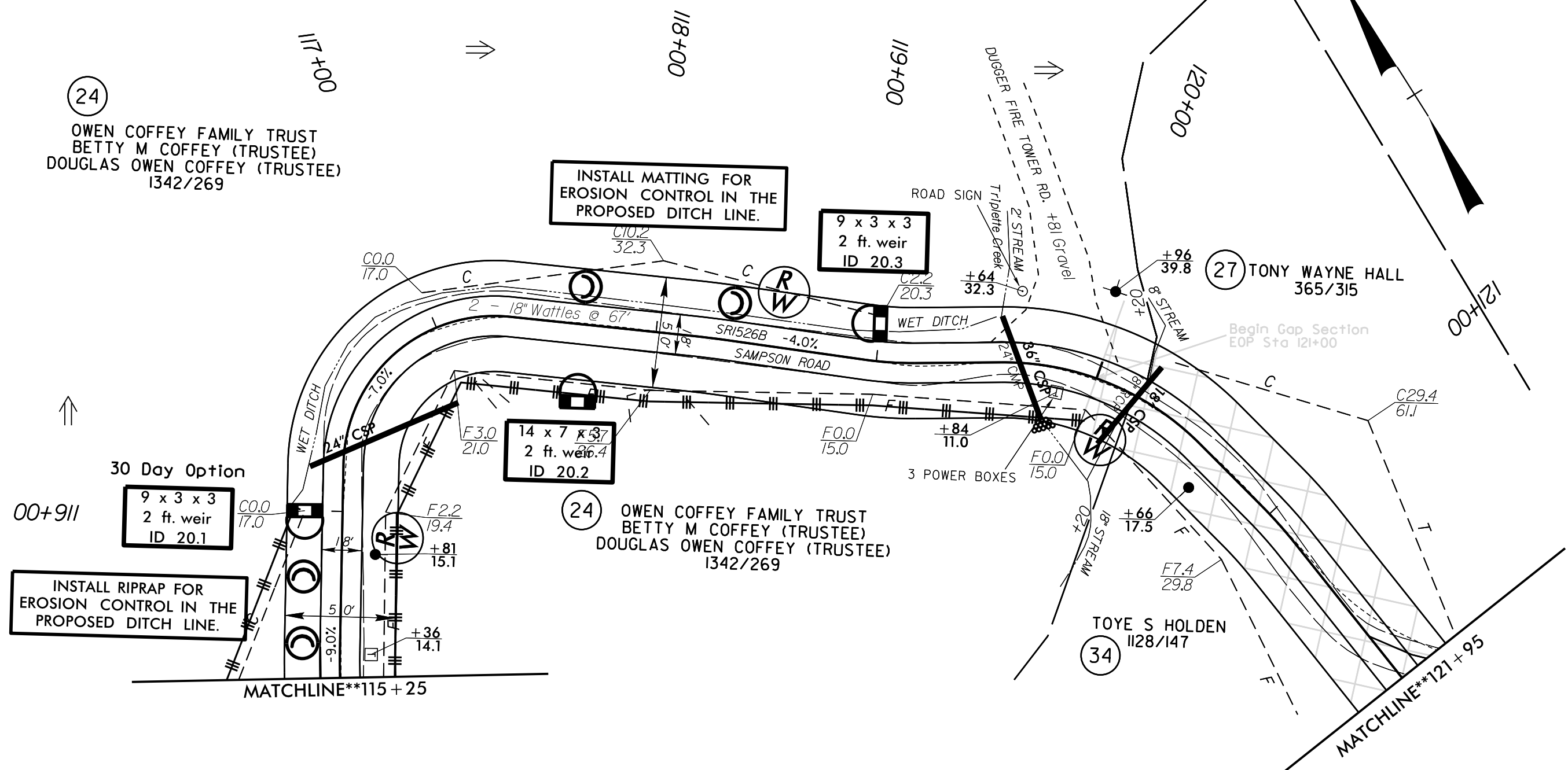
INSTALL MATTING FOR
 EROSION CONTROL IN THE
 PROPOSED DITCH LINE.

9 x 3 x 3
 2 ft. weir
 ID 20.3

14 x 7 x 3
 2 ft. weir
 ID 20.2

30 Day Option
 9 x 3 x 3
 2 ft. weir
 ID 20.1

INSTALL RIPRAP FOR
 EROSION CONTROL IN THE
 PROPOSED DITCH LINE.



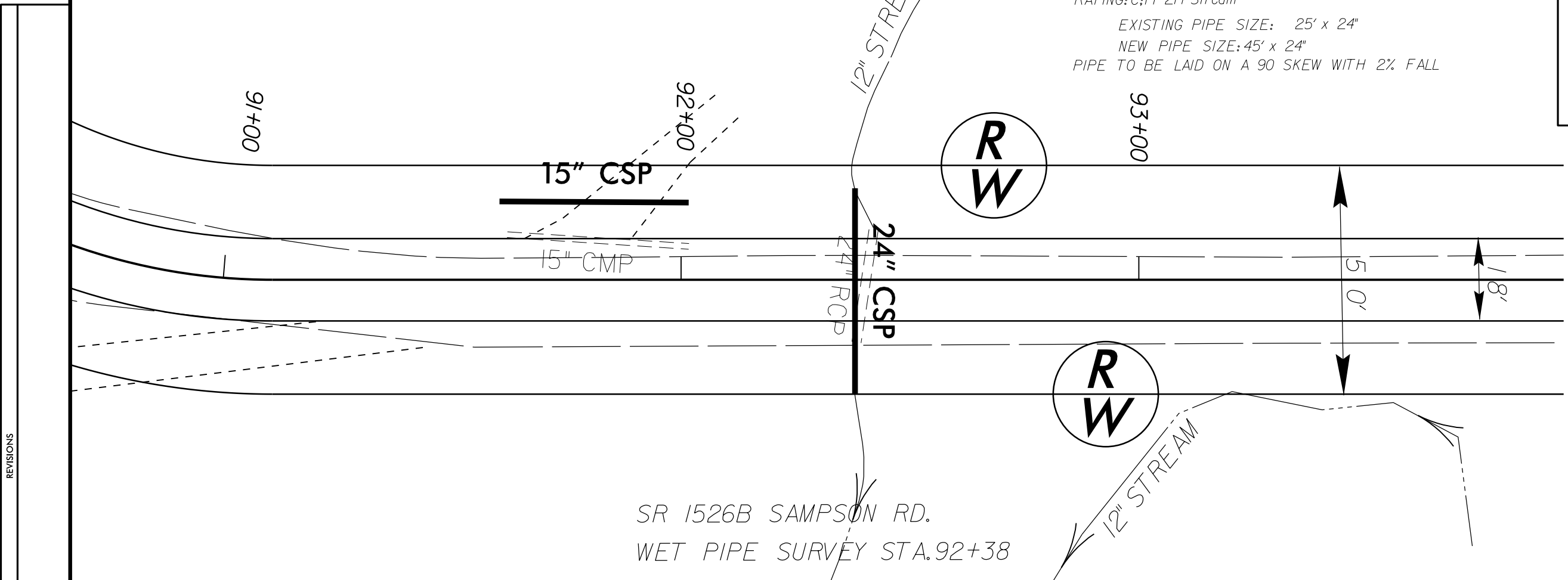
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8/17/99

PROJECT REFERENCE NO. 11C.095102 (CONST)	SHEET NO. SHEET 1 OF 2
R/W SHEET NO. 16	
ROADWAY DESIGN ENGINEER DATE: 6-17-14	HYDRAULICS ENGINEER

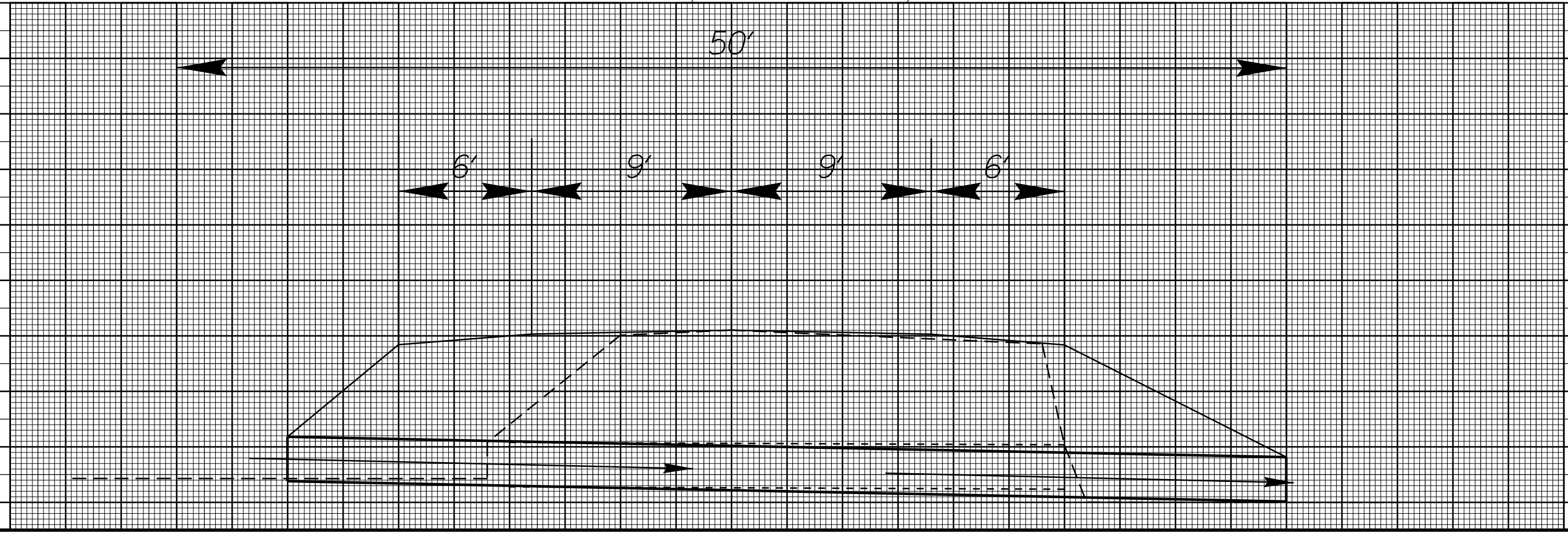
STREAM NAME: Un-named tributary to Joe's Creek (INDEX 12-19-II)
 RATING: C;Tr 2ft Stream
 EXISTING PIPE SIZE: 25' x 24"
 NEW PIPE SIZE: 45' x 24"
 PIPE TO BE LAID ON A 90 SKEW WITH 2% FALL



SR 1526B SAMPSON RD.
 WET PIPE SURVEY STA. 92+38

REVISIONS

18-JUN-2014 14:22
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 \$\$\$USERNAME\$\$\$



8/17/99

PROJECT REFERENCE NO. 11C.095102 (CONST)	SHEET NO. SHEET 2 OF 2
R/W SHEET NO. 20	
ROADWAY DESIGN ENGINEER DATE: 6-17-14	HYDRAULICS ENGINEER

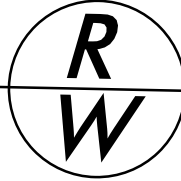
STREAM NAME: Triplette Creek (INDEX 12-19-11-3)
 RATING: C; Tr 2ft Stream
 EXISTING PIPE SIZE: 30' x 24"
 NEW PIPE SIZE: 50' x 36"
 PIPE TO BE LAID ON A 69° SKEW WITH 2% FALL

00+811

00+611

120+00

00+121



RD. +81 Gravel
 2' STREAM
 Triplette Creek

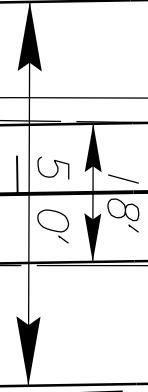
8" STREAM
 8" RCP
 18' CSP

Begin Gap S
 EOP Sta 121+

WET DITCH

SRI526B

SAMPSON ROAD



SR 1526B SAMPSON RD.
 WET PIPE SURVEY STA. 119+63

REVISIONS

18-JUN-2014 15:12
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