DGN 0102DEL_P10a6 0001ADD_P10a6

TIP PROJECT: P-5208H

CONTRACT: C203148

See Sheet 1A For Index of Sheets
See Sheet 1B For Conventional Symbols

STATE OF NORTH CAROLINA
NCDOT RAIL DIVISION

PLAN FOR PROPOSED HIGHWAY EROSION CONTROL

MECKLENBURG COUNTY

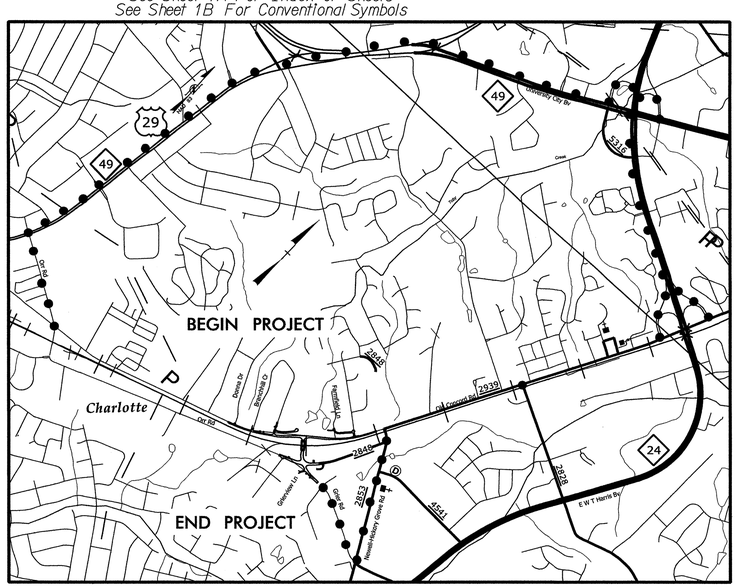
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	P-5208H	EC-1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
50000.1.STR13T1B		PE, UTIL PE
50000.1.STR14T3		PE, UTIL PE
43219.2.STR09P5208		R/W
50000.3.STR08T4F		UTIL CONST
	FRA-FR-HSR-0006-10-01-00	CONST

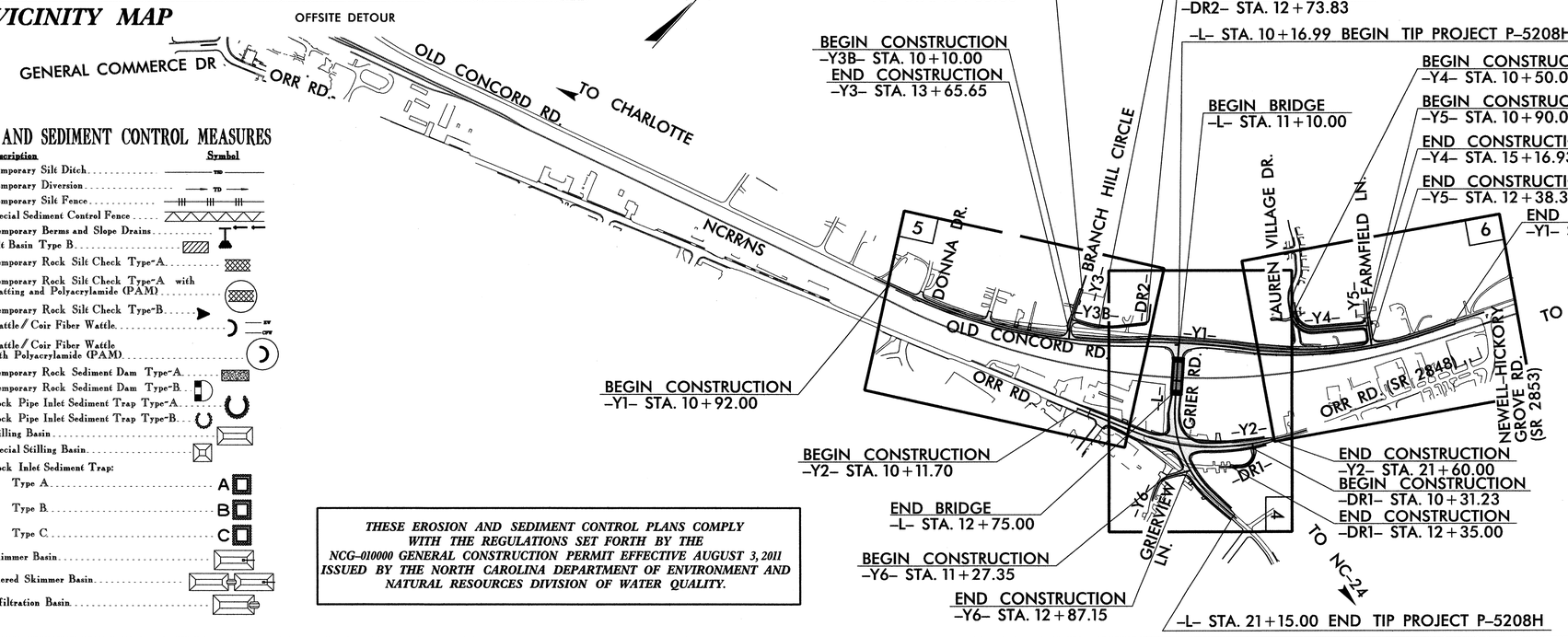
= Matting For Erosion Control

LOCATION: CHARLOTTE – GRIER RD. GRADE SEPARATION FROM SOUTH OF ORR RD. TO OLD CONCORD RD.

TYPE OF WORK: PAVING, GRADING, DRAINAGE, UTILTIES, STRUCTURES, SIGNALS & RAILROAD ROAD BED



VICINITY MAP



EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1630.03	Temporary Silt Ditch	TSD
1630.05	Temporary Diversion	TD
1605.01	Temporary Silt Fence	
1606.01	Special Sediment Control Fence	
1622.01	Temporary Berms and Slope Drains	
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	SW CFW
	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	
1635.02	Rock Pipe Inlet Sediment Trap Type-B	
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	

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.

NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED BY THE ENGINEER.

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

GRAPHIC SCALES

50 0 50 100
PLANS

50 0 50 100
PROFILE (HORIZONTAL)

10 0 10 20
PROFILE (VERTICAL)

DESIGN DATA

ADT 2012 = 11,400
ADT 2035 = 26,900
DHV = 10 %
D = 70 %
T = 15 % *
V = 40 MPH
* TTST = 2% DUAL 13%
FUNC CLASS = URBAN LOCAL
SUBREGIONAL TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT P-5208H..... 0.177 mi
LENGTH STRUCTURE TIP PROJECT P-5208H..... 0.031 mi
TOTAL LENGTH TIP PROJECT P-5208H..... 0.208 mi

Prepared In the Office of:

RK&K
RUMMEL, KLEPPER & KAHL, LLP
900 RIDGEFIELD DRIVE, SUITE 350
RALEIGH, NORTH CAROLINA 27609-3960
(919)878-9560 • NC LICENSE NO. F-0112

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
JUNE 29, 2012

LETTING DATE:
— MAY 21, 2013 —

J. T. Peacock, Jr., P.E.
PROJECT ENGINEER

Brandon J. McInnis, P.E.
PROJECT DESIGN ENGINEER

Matthew L. Cook, P.E.
EROSION CONTROL DESIGN ENGINEER
LEVEL IIIA CERTIFICATION NO. 117

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		

NC DEPARTMENT OF TRANSPORTATION
RAIL DIVISION
PLANNING AND DEVELOPMENT

4/29/2013
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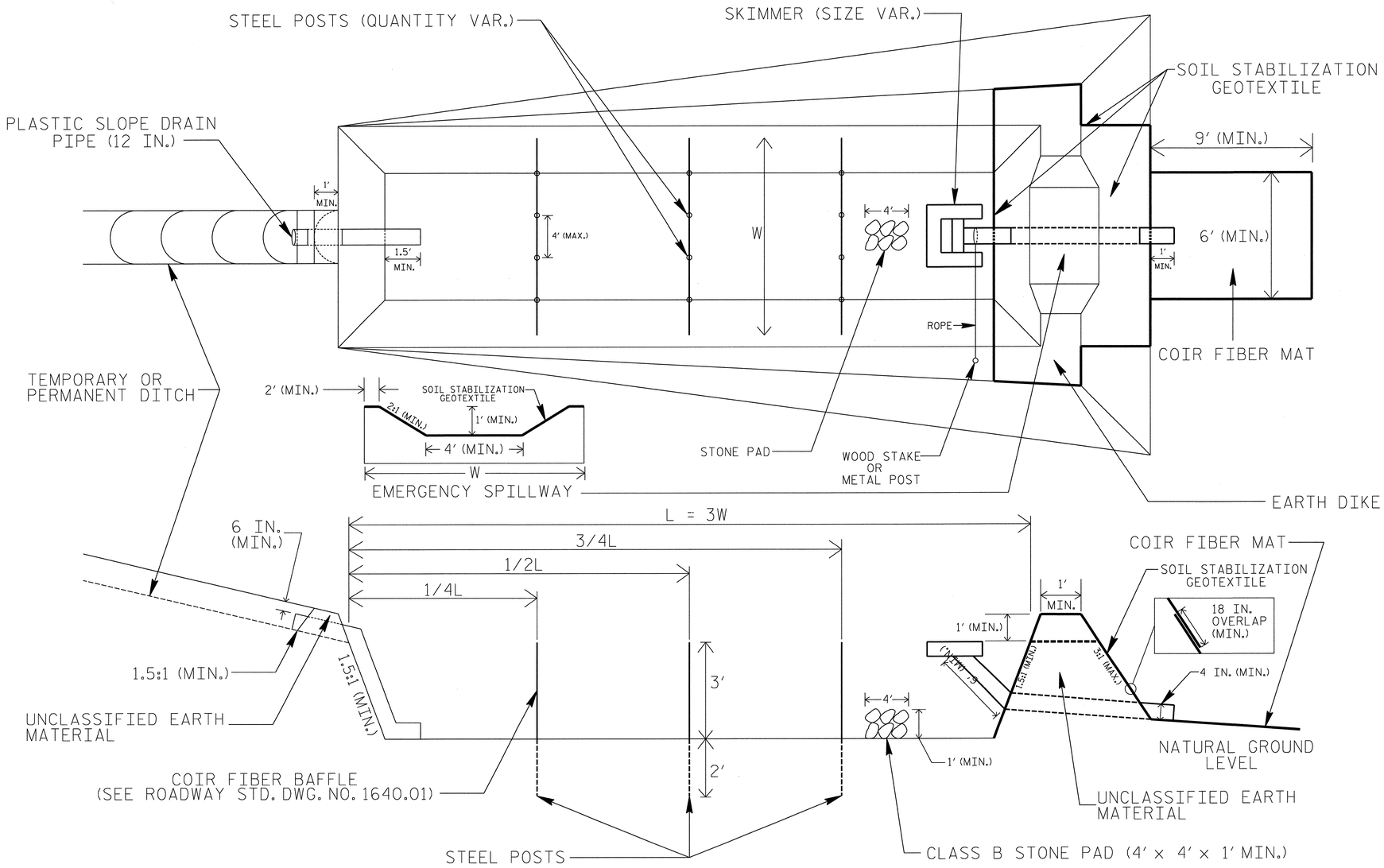
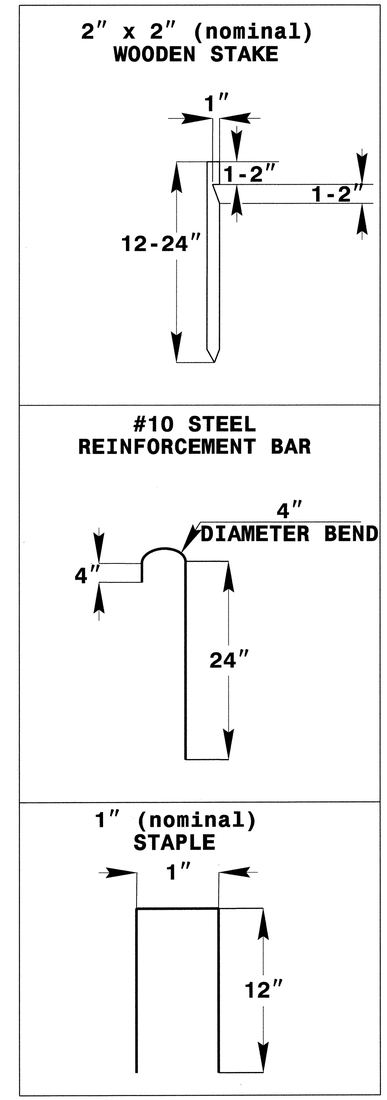
F.Keys

PROJECT REFERENCE NO.	SHEET NO.
P-5208H	EC-2
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SKIMMER BASIN WITH BAFFLES DETAIL





COIR FIBER MAT ANCHOR OPTIONS

NOTES

1. SEED AND PLACE MATTING FOR EROSION CONTROL ON INTERIOR AND EXTERIOR SIDESLOPES.
2. LIMIT EARTH DIKE HEIGHT TO 5 FT.
3. FOR BASIN DEPTH OF 3 FT., THE MINIMUM BASIN WIDTH SHALL BE 9 FT.
4. DETERMINE EMERGENCY SPILLWAY LENGTH (FT.) USING Q/0.8, WHERE Q IS FLOW RATE (CFS) INTO BASIN.
5. PLASTIC SLOPE DRAIN PIPE AT INLET OF BASIN MAY BE REPLACED BY FILTRATION GEOTEXTILE AS DIRECTED.
6. SOIL STABILIZATION GEOTEXTILE FOR EMERGENCY SPILLWAY SHALL BE ONE CONTINUOUS PIECE OF MATERIAL OR OVERLAPPED 18 IN. (MIN.).

NOT TO SCALE

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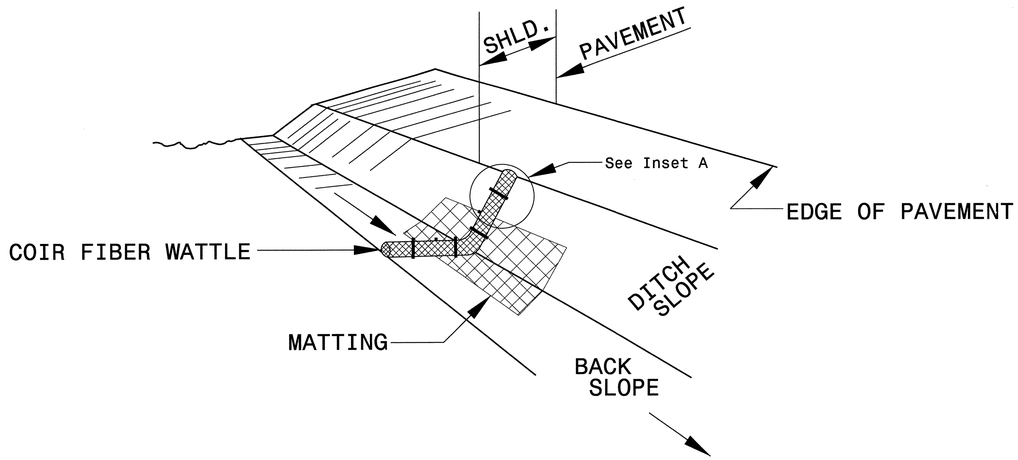
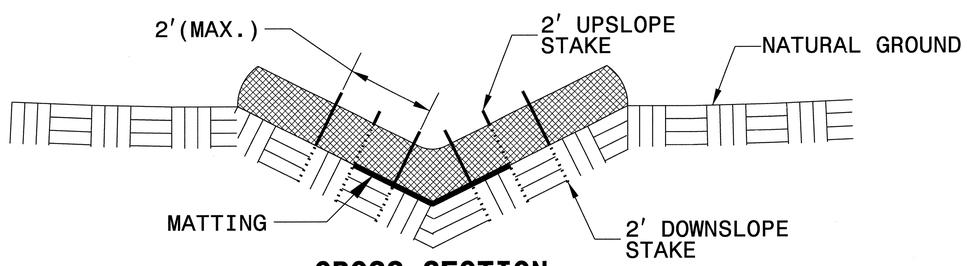
PROJECT REFERENCE NO.	SHEET NO.
P-5208H	EC-2A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

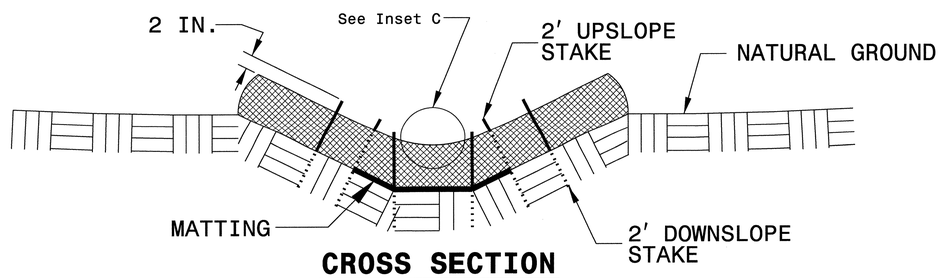
COIR FIBER WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL



ISOMETRIC VIEW



CROSS SECTION VEE DITCH



CROSS SECTION TRAPEZOIDAL DITCH

NOTES:

USE MINIMUM 12 IN. DIAMETER COIR FIBER (COCONUT FIBER) WATTLE.

USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.

ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.

INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.

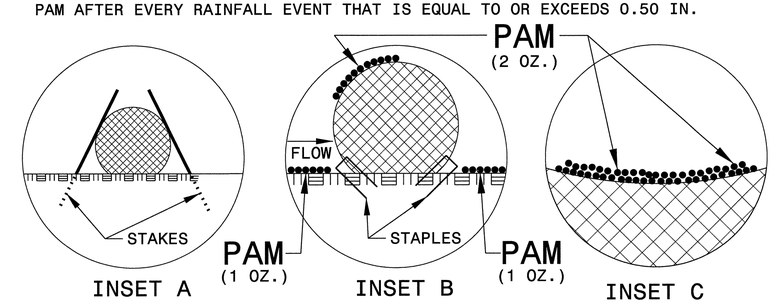
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12″ IN LENGTH.

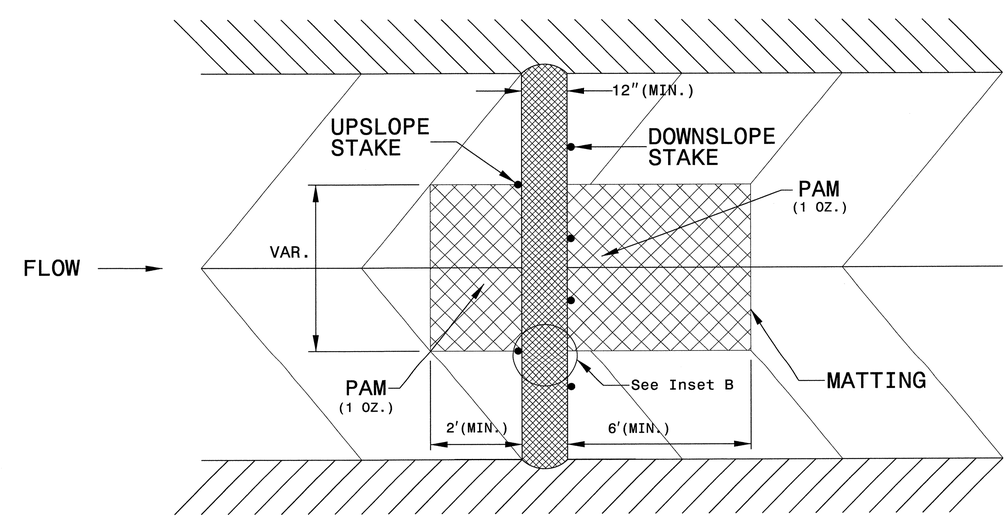
INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.

PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH WATTLE.

INITIALLY APPLY 2 OUNCES OF ANIONIC OR NEUTRALLY CHARGED PAM OVER WATTLE WHERE WATER WILL FLOW AND 1 OUNCE OF PAM ON MATTING ON EACH SIDE OF WATTLE. REAPPLY PAM AFTER EVERY RAINFALL EVENT THAT IS EQUAL TO OR EXCEEDS 0.50 IN.





TOP VIEW

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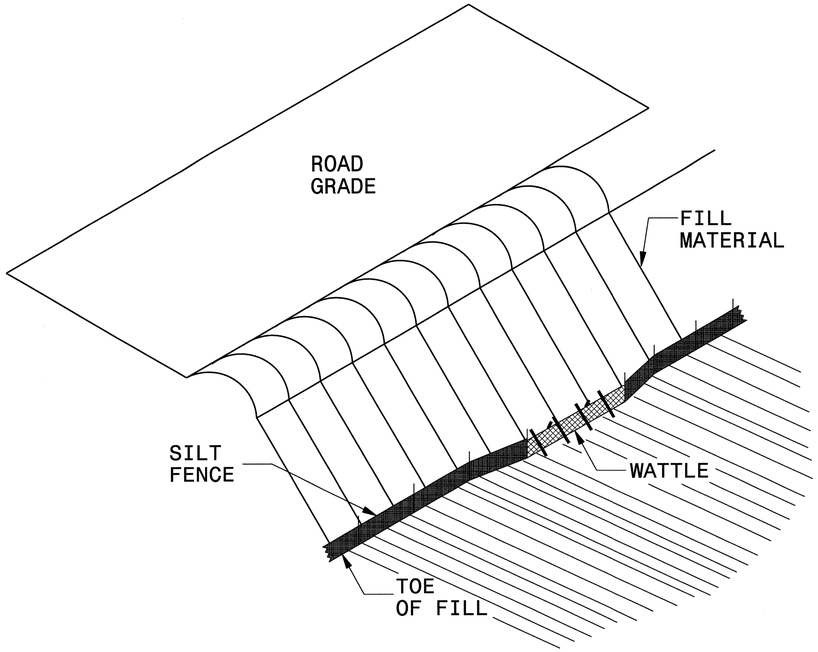
PROJECT REFERENCE NO.	SHEET NO.
P-5208H	EC-2B
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SILT FENCE COIR FIBER WATTLE BREAK DETAIL



ISOMETRIC VIEW

NOTES:

USE MINIMUM 12 IN. DIAMETER COIR FIBER (COCONUT FIBER) WATTLE AND LENGTH OF 10 FT.

EXCAVATE A 1 TO 2 INCH TRENCH FOR WATTLE TO BE PLACED.

DO NOT PLACE WATTLE ON TOE OF SLOPE.

USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.

INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO GROUND.

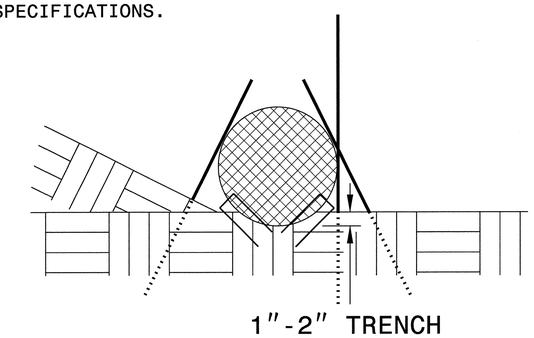
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12″ IN LENGTH.

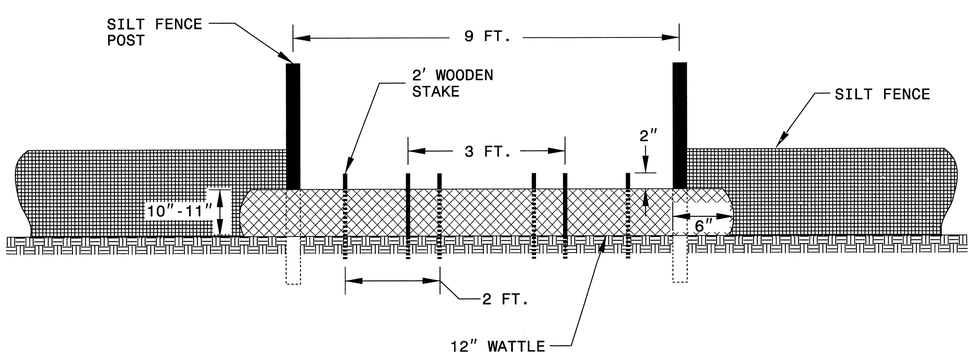
INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

WATTLE INSTALLATION CAN BE ON OUTSIDE OF THE SILT FENCE AS DIRECTED.

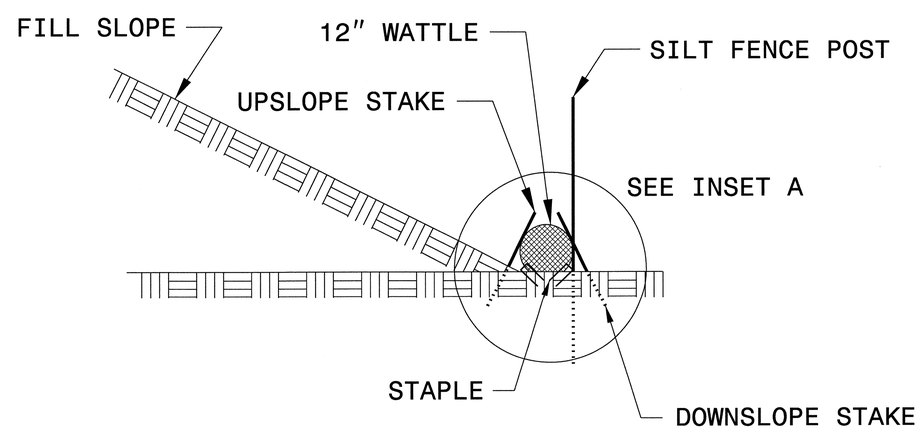
INSTALL TEMPORARY SILT FENCE IN ACCORDANCE WITH SECTION 1605 OF THE STANDARD SPECIFICATIONS.

INSET A





VIEW FROM SLOPE



SIDE VIEW

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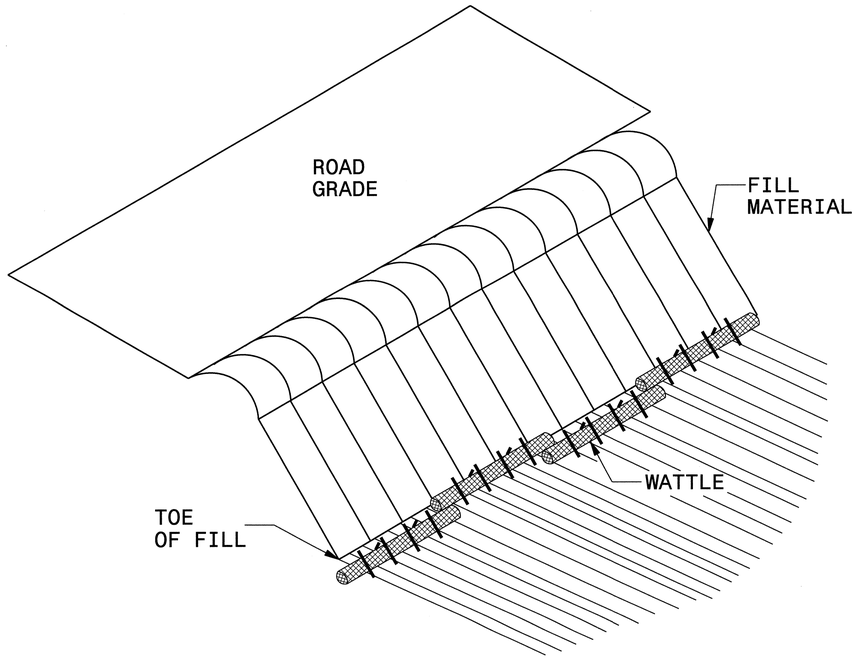
PROJECT REFERENCE NO.	SHEET NO.
P-5208H	EC-2C
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

COIR FIBER WATTLE BARRIER DETAIL



ISOMETRIC VIEW

NOTES:

USE MINIMUM 12 IN. DIAMETER COIR FIBER (COCONUT) WATTLE AND LENGTH OF 10 FT.

EXCAVATE A 1 TO 2 INCH TRENCH FOR WATTLE TO BE PLACED.

DO NOT PLACE WATTLES ON TOE OF SLOPE.

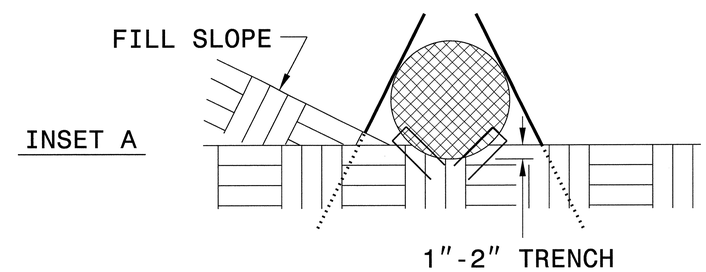
USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.

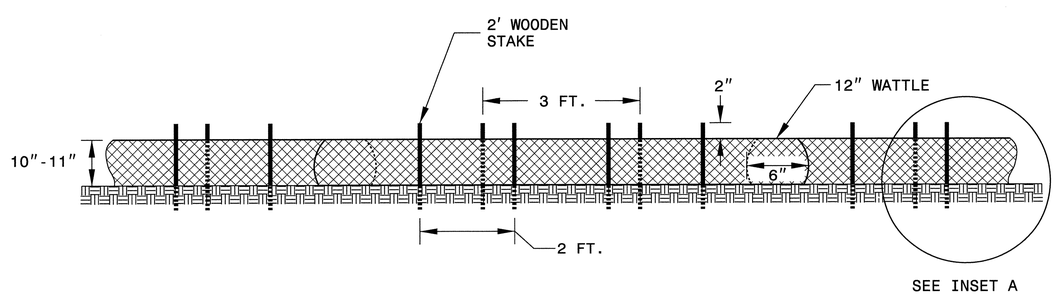
INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO GROUND.

PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12″ IN LENGTH.

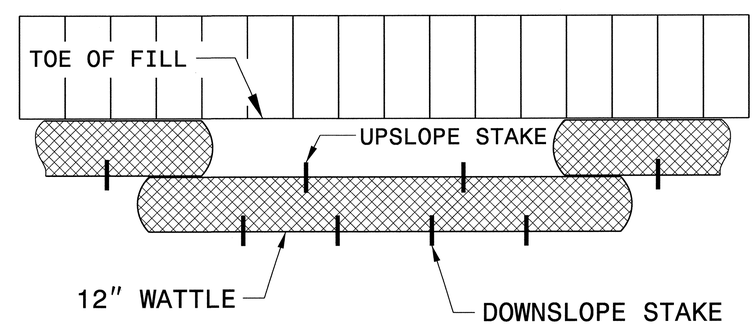
INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

FOR BREAKS ALONG LARGE SLOPES, USE MAXIMUM SPACING OF 20 FT.





FRONT VIEW



TOP VIEW

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PROJECT REFERENCE NO.	SHEET NO.
P-5208H	EC-3
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION SUMMARY SHEET

MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
4	-L-	17+75	20+00	RT	195
4	-L-	20+00	20+60	RT	55
4	-L-	20+60	21+15	RT	50
4-5	-Y1-	22+23	25+00	LT	195
4	-L-	13+50	14+50	LT	791
4	-L-	13+50	14+50	RT	612
4-6	-Y1-	22+00	37+50	LT	12,017
4-6	-Y1-	23+50	37+50	RT	6,175
5	-Y1-	14+65		LT	490
5	-Y1-	22+00	22+23	LT	15
6	-Y1-	11+40	12+00	RT	45
6	-Y1-	11+40	12+50	LT	80
6	-Y1-	13+00	16+67	RT	275
6	-Y1- TEMP DITCH	27+14	30+65	LT	175
				SUBTOTAL	21,170
MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER					25,400
				TOTAL	46,570
				SAY	46,570

PERMANENT SOIL REINFORCEMENT MAT

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
6	-Y1-	12+00	13+00	RT	70
6	-Y1- TEMP DITCH	33+90	38+86	LT	245
				SUBTOTAL	315
		ADDITIONAL PSRM TO BE INSTALLED			0
				TOTAL	315
				SAY	315

PROJECT REFERENCE NO.	SHEET NO.
P-5208H	EC-3A
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION TIMEFRAMES

SITE DESCRIPTION	STABILIZATION TIME	TIMEFRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) 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 HQW ZONES.

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FKeys

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PROJECT REFERENCE NO.	SHEET NO.
P-5208H	EC-4/CONST.4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET _4_

NOTE: PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE – B AND TEMPORARY ROCK SILT CHECKS TYPE – A AT DRAINAGE OUTLETS.

BEGIN BRIDGE
-L- STA.11+10.00 +/-

BEGIN APPROACH SLAB
-L- STA.10+85.83 +/-

END APPROACH SLAB
-L- STA.12+99.17 +/-

END BRIDGE
-L- STA.12+75.00 +/-

MATCHLINE -Y1- STA. 33+00 SEE SHEET EC-6

70 x 23 x 3
1.5 inch Skimmer
with 1.25 inch
Orifice Diameter
15 ft. weir
ID 102

64 x 32 x 3
1.5 inch Skimmer
with 1.25 inch
Orifice Diameter
24 ft. weir
ID 101

TRACK EROSION AND SEDIMENTATION CONTROL TO BE DESIGNED BY OTHERS

CONSTRUCT PERMANENT DITCH DURING CLEARING AND GRUBBING

RAILROAD DRAINAGE
FOR RAILROAD PLANS
SEE SHTS. RR1 TO RR16

PROPOSED TRACK 2
BY NSRR

PROPOSED TRACK 1
BY NSRR

ROADBED DETOUR TRACK
SLOPE STAKES
FOR RAILROAD PLANS
SEE SHTS. RR1 TO RR16

SIGNAL TO BE CONSTRUCTED
BY CITY OF CHARLOTTE

INSTALL PIPE(S) IN JURISDICTIONAL AREAS ACCORDING TO NCDOT BEST MANAGEMENT PRACTICES FOR CONSTRUCTION AND MAINTENANCE ACTIVITIES MANUAL.

-DRI-
PI Sta 11+32.29
Δ = 97° 58' 08.0" (RT)
D = 76° 23' 39.7"
L = 128.24'
T = 86.23'
R = 75.00'
SE = NC

-L-
PI Sta 16+85.61
Δ = 52° 10' 13.7" (LT)
D = 8° 48' 53.0"
L = 591.86'
T = 318.22'
R = 650.00'
SE = 0.02
R.O. = 50'

PI Sta 10+55.69
Δ = 16° 53' 34.7" (RT)
D = 15° 16' 43.9"
L = 110.56'
T = 55.69'
R = 375.00'

PI Sta 11+41.85
Δ = 45° 17' 00.7" (RT)
D = 76° 23' 39.7"
L = 59.28'
T = 31.28'
R = 75.00'

PI Sta 10+55.45
Δ = 11° 30' 48.9" (LT)
D = 10° 25' 02.7"
L = 110.52'
T = 55.45'
R = 550.00'
SE = RC

PI Sta 12+85.24
Δ = 78° 06' 41.9" (LT)
D = 190° 59' 09.4"
L = 40.90'
T = 24.34'
R = 30.00'
SE = RC

PI Sta 16+29.83
Δ = 26° 01' 48.0" (LT)
D = 5° 12' 31.3"
L = 499.74'
T = 254.26'
R = 1,100.00'
SE = NC

PI Sta 20+86.60
Δ = 13° 10' 19.6" (LT)
D = 3° 07' 51.3"
L = 420.71'
T = 211.29'
R = 1,830.00'
SE = NC

FOR –L– PROFILE SEE SHT. 7
FOR –Y1– PROFILE SEE SHT. 7 & 8
FOR –Y2– PROFILE SEE SHT. 9
FOR –Y6– PROFILE SEE SHT. 10
FOR –DR1– PROFILE SEE SHT. 10
FOR –DR2– PROFILE SEE SHT. 10
FOR DITCH DETAILS SEE SHT. 2D
FOR STRUCTURE PLANS SEE SHTS. S-1 THRU S-36
FOR RETAINING WALL DETAILS SEE SHTS. W-1 & W-5

MATCHLINE -DR2- STA. 11+00 SEE SHEET EC-5

MATCHLINE -Y1- STA. 24+50 SEE SHEET EC-5

MATCHLINE -Y2- STA. 12+50 SEE SHEET EC-5

PLANS PREPARED BY :
RK&K
RUMMEL, KLEPPER & KAHL, LLP
900 RIDGEFIELD DRIVE SUITE 350
RALEIGH, NORTH CAROLINA 27609-3960
NC LICENSE NO. F-0112 • (919) 878-9560

4/24/2013
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Projects\CADD\PSH\Erosion Control\P5208H_EC_psh04.dgn

0102DEL_P10a6
0001ADD_P10a6

PROJECT REFERENCE NO.	SHEET NO.
P-5208H	EC-5/CONST.5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-Y1-

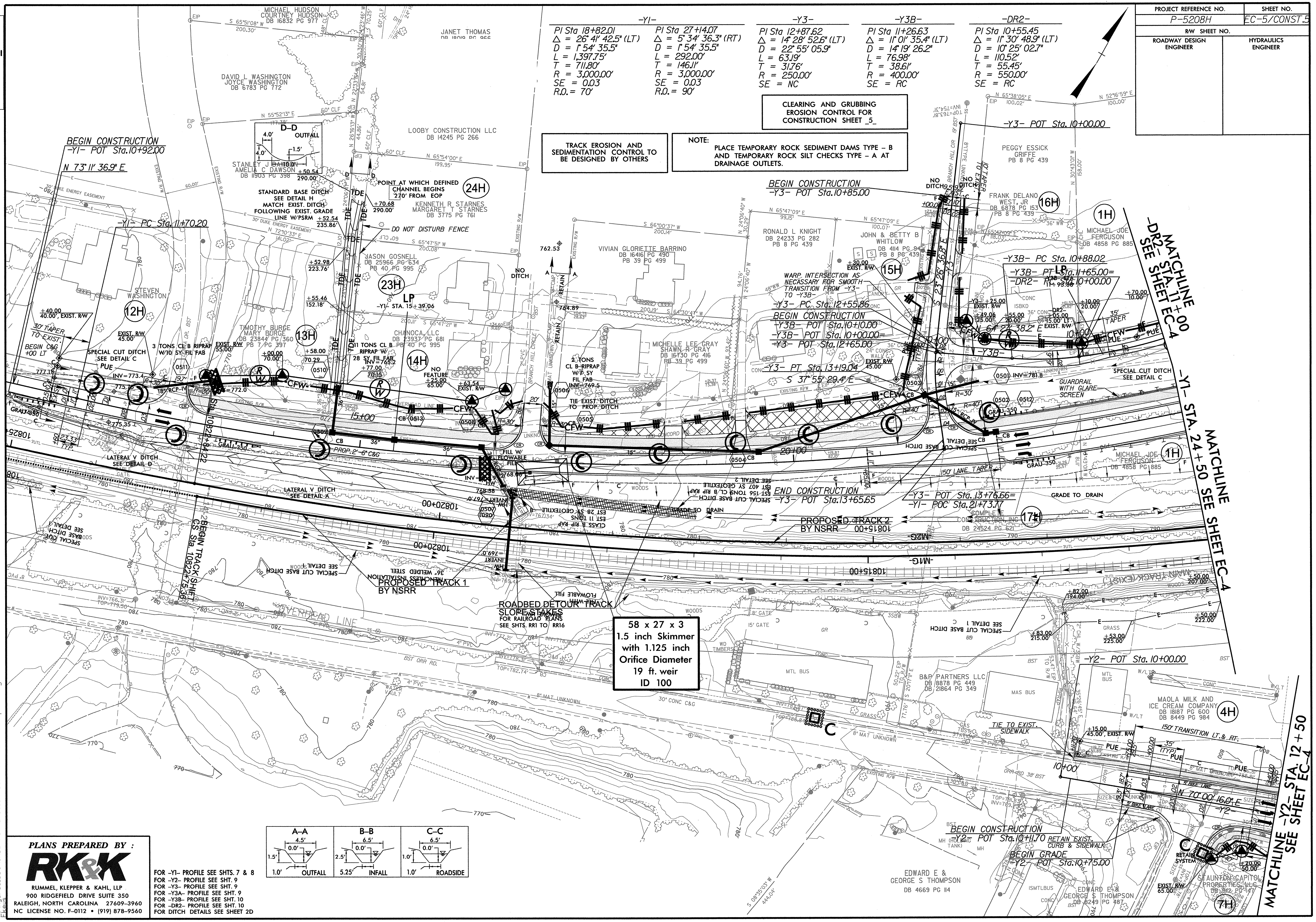
PI Sta 18+82.01	PI Sta 27+14.07
Δ = 26° 41' 42.5" (LT)	Δ = 5° 34' 36.3" (RT)
D = 1° 54' 35.5"	D = 1° 54' 35.5"
L = 1,397.75'	L = 292.00'
T = 711.80'	T = 146.11'
R = 3,000.00'	R = 3,000.00'
SE = 0.03	SE = 0.03
R.O. = 70'	R.O. = 90'

-Y3-	-Y3B-	-DR2-
PI Sta 12+87.62	PI Sta 11+26.63	PI Sta 10+55.45
Δ = 14° 28' 52.6" (LT)	Δ = 11° 01' 35.4" (LT)	Δ = 11° 30' 48.9" (LT)
D = 22° 55' 05.9"	D = 14° 19' 26.2"	D = 10° 25' 02.7"
L = 63.19'	L = 76.98'	L = 110.52'
T = 31.76'	T = 38.61'	T = 55.45'
R = 250.00'	R = 400.00'	R = 550.00'
SE = NC	SE = RC	SE = RC

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET _5_

TRACK EROSION AND SEDIMENTATION CONTROL TO BE DESIGNED BY OTHERS

NOTE: PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE – B AND TEMPORARY ROCK SILT CHECKS TYPE – A AT DRAINAGE OUTLETS.



A–A	B–B	C–C
4.5' / 0.0' / 1.5' / 1.0' OUTFALL	6.5' / 0.0' / 2.5' / 5.25' INFALL	6.5' / 0.0' / 1.0' / 1.0' ROADSIDE

D–D OUTFALL: 4.0' / 4.0' / 1.5' / 10.0'

FOR -Y1- PROFILE SEE SHTS. 7 & 8
FOR -Y2- PROFILE SEE SHT. 9
FOR -Y3- PROFILE SEE SHT. 9
FOR -Y3A- PROFILE SEE SHT. 9
FOR -Y3B- PROFILE SEE SHT. 10
FOR -DR2- PROFILE SEE SHT. 10
FOR DITCH DETAILS SEE SHEET 2D

PLANS PREPARED BY :

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PROJECT REFERENCE NO.	SHEET NO.
P-5208H	EC-6/CONST.6
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

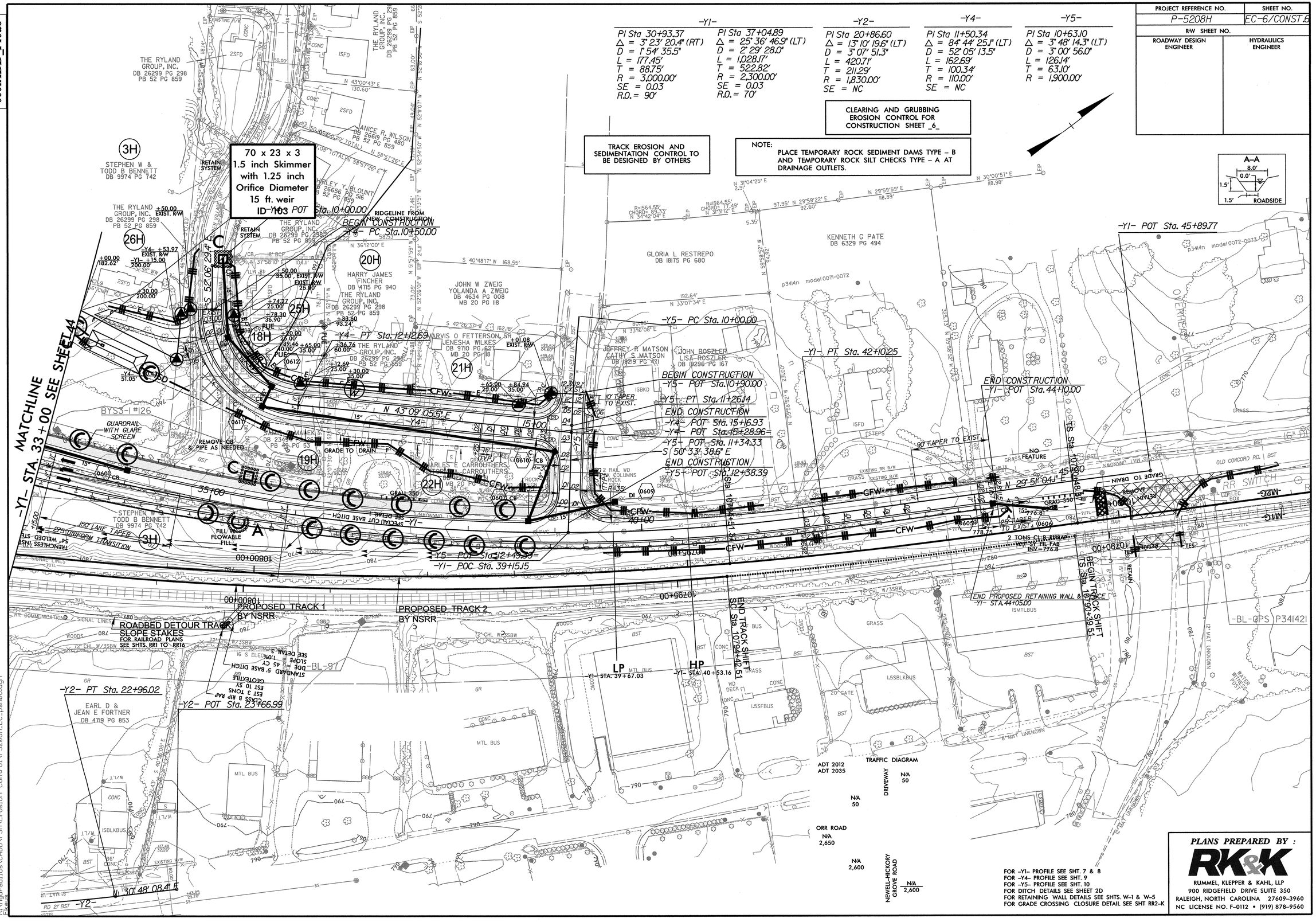
-Y1-	-Y2-	-Y4-	-Y5-
PI Sta 30+93.37	PI Sta 20+86.60	PI Sta 11+50.34	PI Sta 10+63.10
△ = 3° 23' 20.4" (RT)	△ = 13° 10' 19.6" (LT)	△ = 84° 44' 25.1" (LT)	△ = 3° 48' 14.3" (LT)
D = 1° 54' 35.5"	D = 3° 07' 51.3"	D = 52° 05' 13.5"	D = 3° 00' 56.0"
L = 177.45'	L = 420.71'	L = 162.69'	L = 126.14'
T = 88.75'	T = 211.29'	T = 100.34'	T = 63.10'
R = 3,000.00'	R = 1,830.00'	R = 110.00'	R = 1,900.00'
SE = 0.03	SE = NC	SE = NC	
R.O. = 90'			

-Y1-
PI Sta 37+04.89
△ = 25° 36' 46.9" (LT)
D = 2° 29' 28.0"
L = 1,028.17'
T = 522.82'
R = 2,300.00'
SE = 0.03
R.O. = 70'

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET _6_

TRACK EROSION AND SEDIMENTATION CONTROL TO BE DESIGNED BY OTHERS

NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE – B AND TEMPORARY ROCK SILT CHECKS TYPE – A AT DRAINAGE OUTLETS.



FOR –Y1– PROFILE SEE SHT. 7 & 8
FOR –Y4– PROFILE SEE SHT. 9
FOR –Y5– PROFILE SEE SHT. 10
FOR DITCH DETAILS SEE SHEET 2D
FOR RETAINING WALL DETAILS SEE SHTS. W-1 & W-5
FOR GRADE CROSSING CLOSURE DETAIL SEE SHT RR2-K

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RK&K

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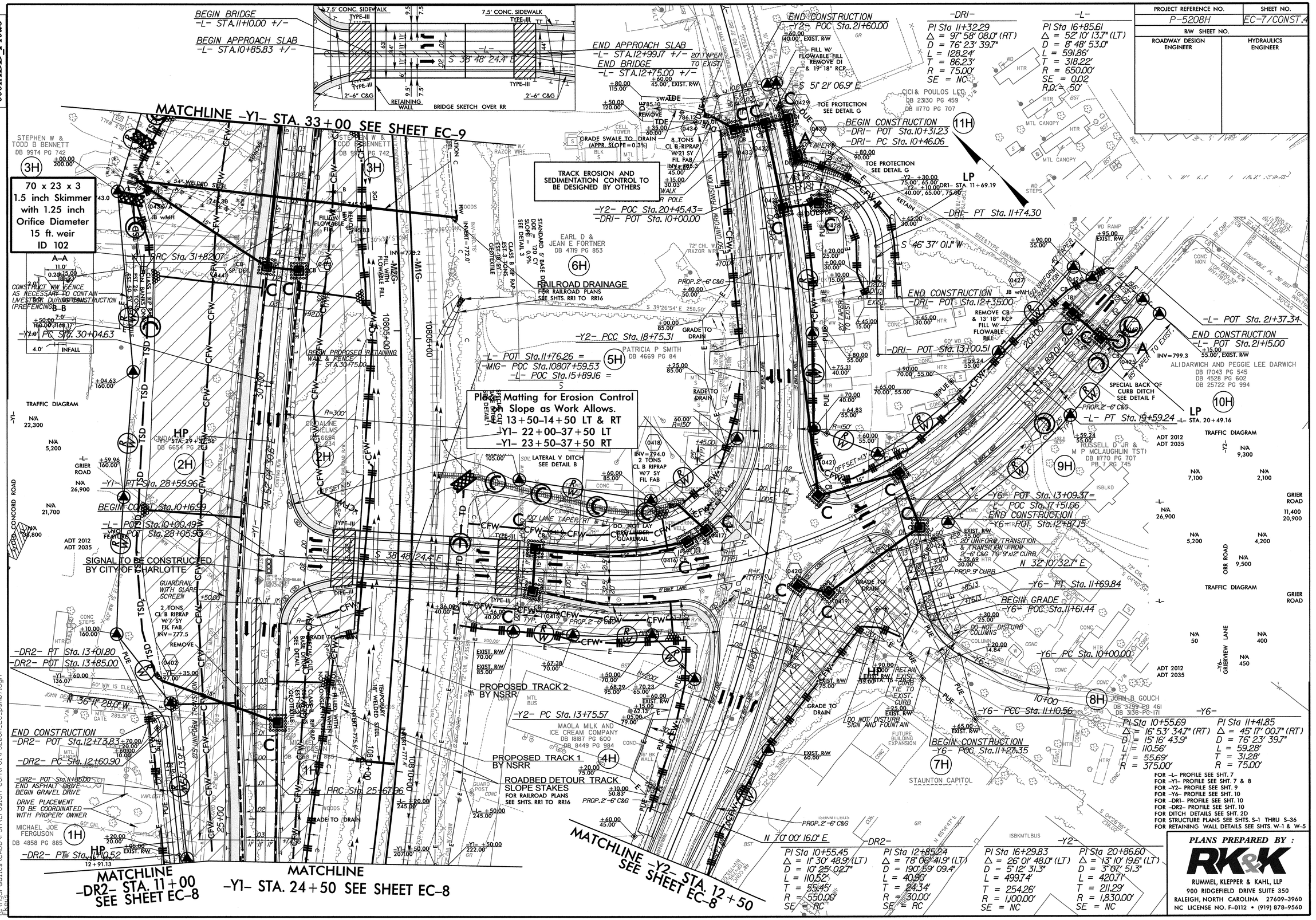
PROJECT REFERENCE NO.	SHEET NO.
P-5208H	EC-7/CONST.4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



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PROJECT REFERENCE NO.	SHEET NO.
P-5208H	EC-8/CONST.5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

Place Matting for Erosion Control on Slope as Work Allows.
-Y1- 22+00-37+50 LT
-Y1- 23+50-37+50 RT

-Y1-
PI Sta 18+82.01
Δ = 26° 41' 42.5" (LT)
D = 1° 54' 35.5"
L = 1,397.75'
T = 711.80'
R = 3,000.00'
SE = 0.03
R.O. = 70'

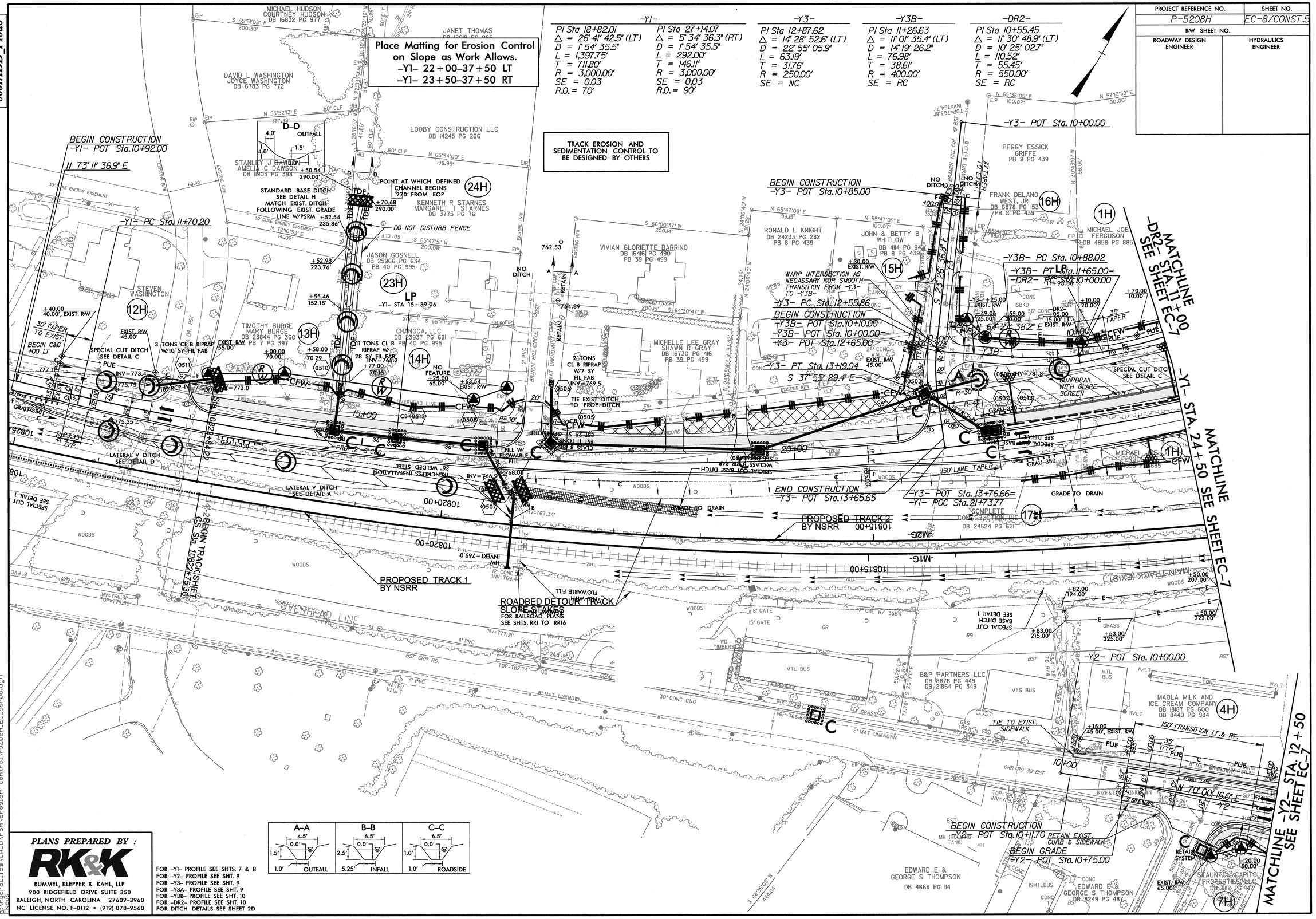
PI Sta 27+14.07
Δ = 5° 34' 36.3" (RT)
D = 1° 54' 35.5"
L = 292.00'
T = 146.11'
R = 3,000.00'
SE = 0.03
R.O. = 90'

-Y3-
PI Sta 12+87.62
Δ = 14° 28' 52.6" (LT)
D = 22° 55' 05.9"
L = 63.19'
T = 31.76'
R = 250.00'
SE = NC

-Y3B-
PI Sta 11+26.63
Δ = 11° 01' 35.4" (LT)
D = 14° 19' 26.2"
L = 76.98'
T = 38.61'
R = 400.00'
SE = RC

-DR2-
PI Sta 10+55.45
Δ = 11° 30' 48.9" (LT)
D = 10° 25' 02.7"
L = 110.52'
T = 55.45'
R = 550.00'
SE = RC

TRACK EROSION AND SEDIMENTATION CONTROL TO BE DESIGNED BY OTHERS



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A–A	B–B	C–C
4.5' / 0.0' / 1.5' / 1.0'	6.5' / 0.0' / 2.5' / 5.25'	6.5' / 0.0' / 1.0' / 1.0'
OUTFALL	INFALL	ROADSIDE

FOR -Y1- PROFILE SEE SHTS. 7 & 8
FOR -Y2- PROFILE SEE SHT. 9
FOR -Y3- PROFILE SEE SHT. 9
FOR -Y3A- PROFILE SEE SHT. 9
FOR -Y3B- PROFILE SEE SHT. 10
FOR -DR2- PROFILE SEE SHT. 10
FOR DITCH DETAILS SEE SHEET 2D

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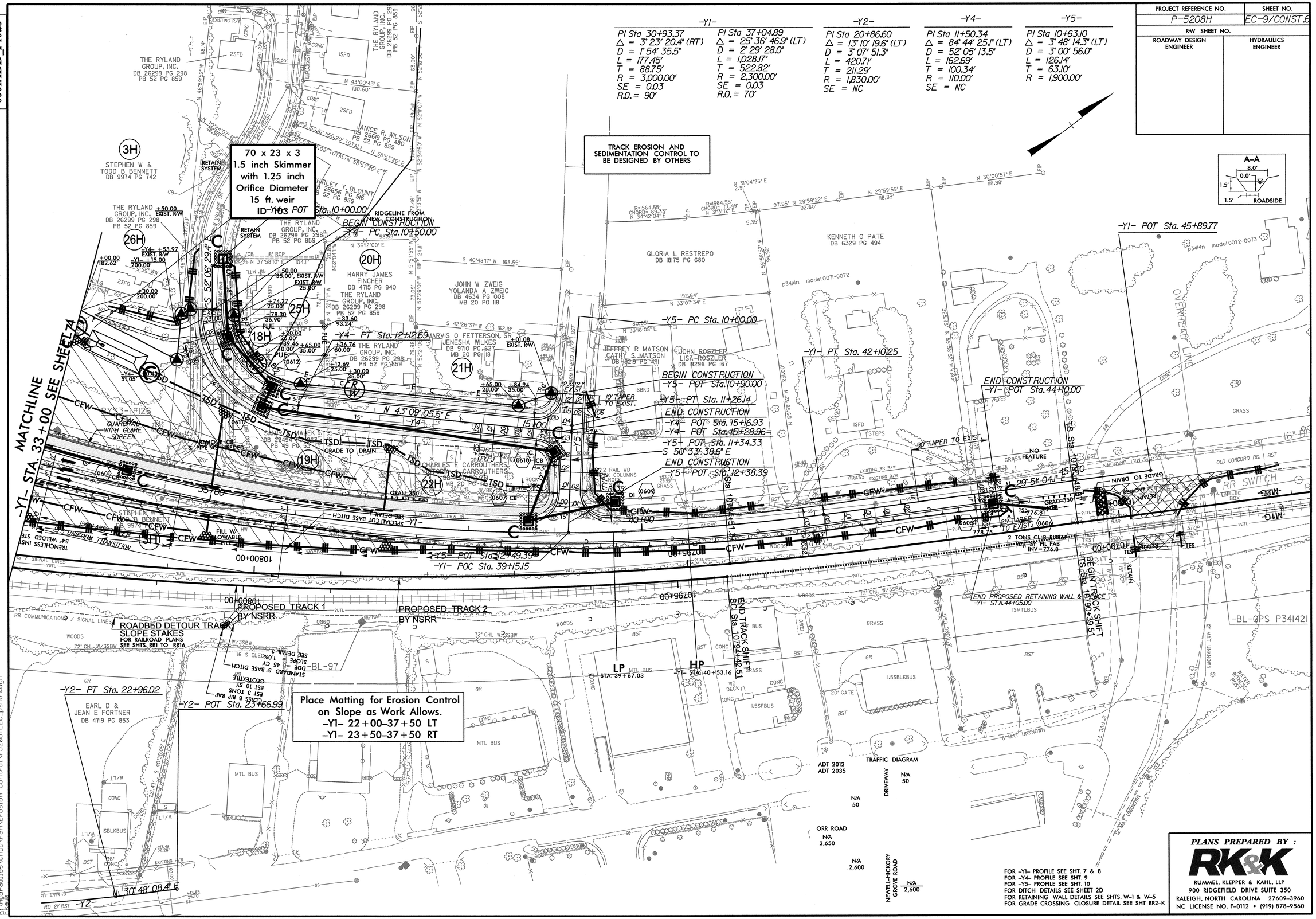
PROJECT REFERENCE NO.	SHEET NO.
P-5208H	EC-9/CONST.6
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-Y1-		-Y2-	-Y4-	-Y5-
PI Sta 30+93.37	PI Sta 37+04.89	PI Sta 20+86.60	PI Sta 11+50.34	PI Sta 10+63.10
Δ = 3° 23' 20.4" (RT)	Δ = 25° 36' 46.9" (LT)	Δ = 13° 10' 19.6" (LT)	Δ = 84° 44' 25.1" (LT)	Δ = 3° 48' 14.3" (LT)
D = 1° 54' 35.5"	D = 2° 29' 28.0"	D = 3° 07' 51.3"	D = 52° 05' 13.5"	D = 3° 00' 56.0"
L = 177.45'	L = 1,028.17'	L = 420.71'	L = 162.69'	L = 126.14'
T = 88.75'	T = 522.82'	T = 211.29'	T = 100.34'	T = 63.10'
R = 3,000.00'	R = 2,300.00'	R = 1,830.00'	R = 110.00'	R = 1,900.00'
SE = 0.03	SE = 0.03	SE = NC	SE = NC	
R.O. = 90'	R.O. = 70'			



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TIP PROJECT: P-5208H

CONTRACT: C203148

EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1630.03	Temporary Silt Ditch	TSD
1630.05	Temporary Diversion	TD
1605.01	Temporary Silt Fence	
1606.01	Special Sediment Control Fence	
1622.01	Temporary Berms and Slope Drains	
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	SW CFW
	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	
1635.02	Rock Pipe Inlet Sediment Trap Type-B	
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	

STATE OF NORTH CAROLINA
NCDOT RAIL DIVISION

PLAN FOR PROPOSED EROSION CONTROL

MECKLENBURG COUNTY

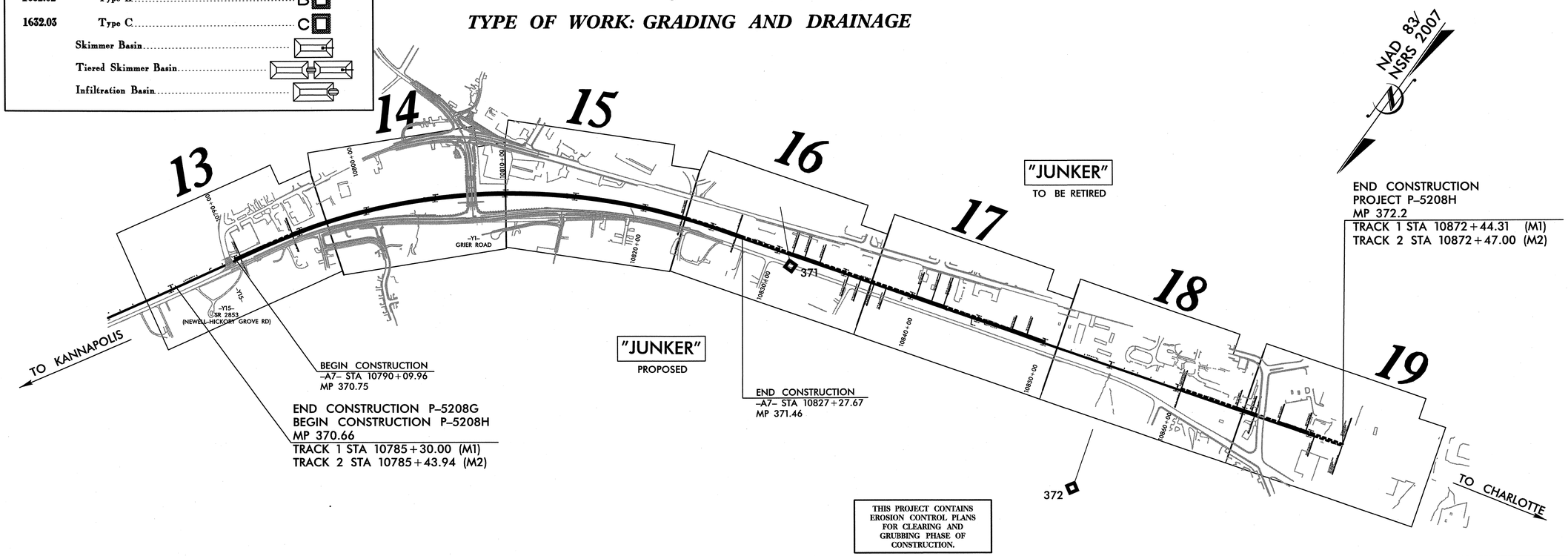
LOCATION: NCRR/NS MAINLINE RAILROAD ROADBED FROM NORTH OF NEWELL-HICKORY GROVE RD (SR 2853), MP 370.66 TO CP "JUNKER" (MP 372.2)

TYPE OF WORK: GRADING AND DRAINAGE

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	P-5208H	EC-10	

STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION
50000.1.STR13T1B		PE, UTIL PE
50000.1.STR14T3		PE, UTIL PE
43219.2.STR09P5208		R/W
50000.3.STR08T4F	FRA-FR-HSR-0006-10-01-00	UTIL CONST, CONST

NC DEPARTMENT OF TRANSPORTATION
RAIL DIVISION
PLANNING AND DEVELOPMENT



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

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:
AECOM
NC FIRM LICENSE No: F-0342
701 Corporate Center Drive, Suite 475
Raleigh, NC 27607
(919) 854-6200 - (919) 854-6259(FAX)

2012 STANDARD SPECIFICATIONS

EROSION CONTROL
LEVEL III
CERTIFICATION # 3135
RENE REMY, CPESC, CPSWQ

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 revison 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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PROJECT REFERENCE NO.	SHEET NO.
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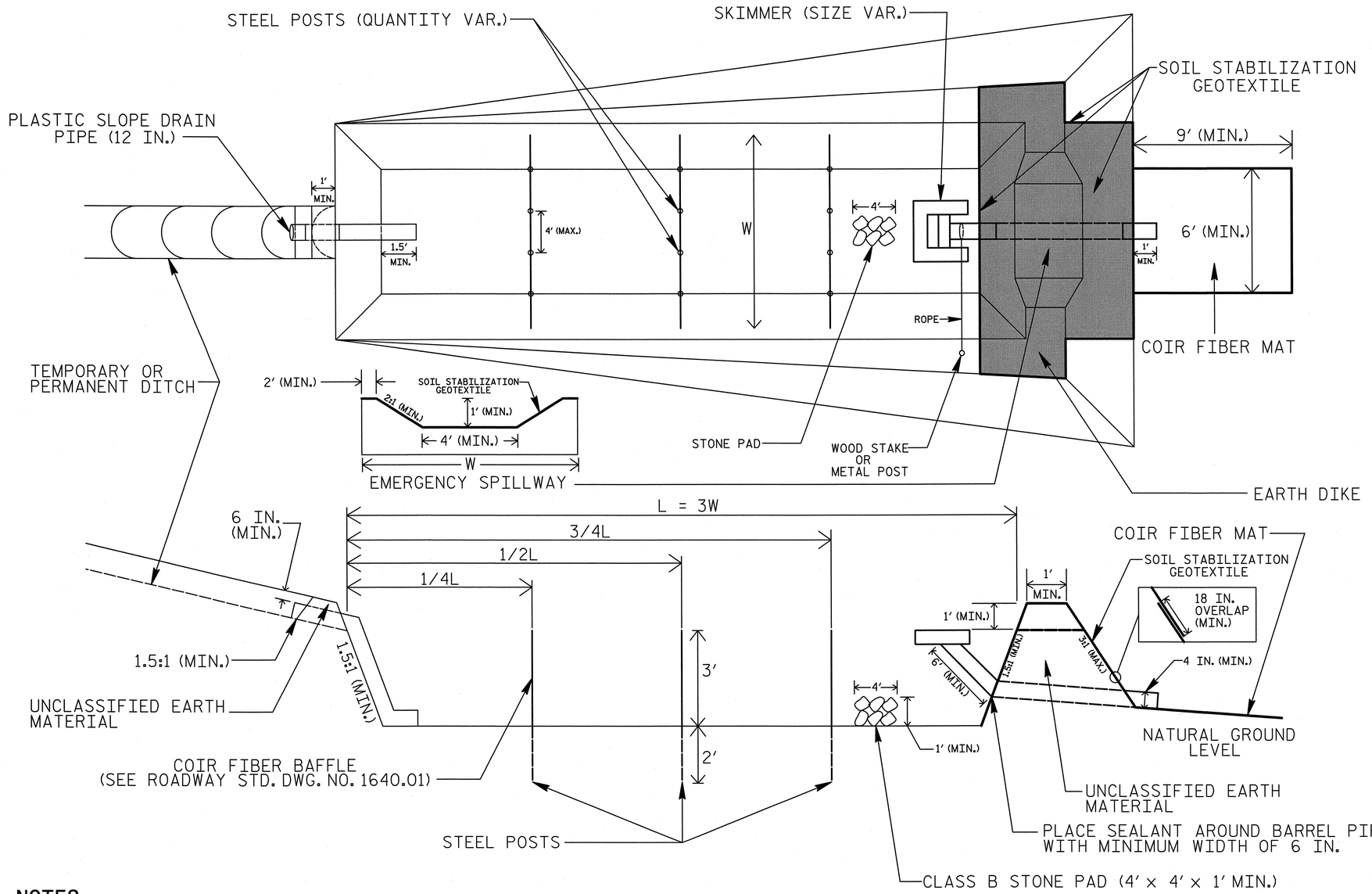
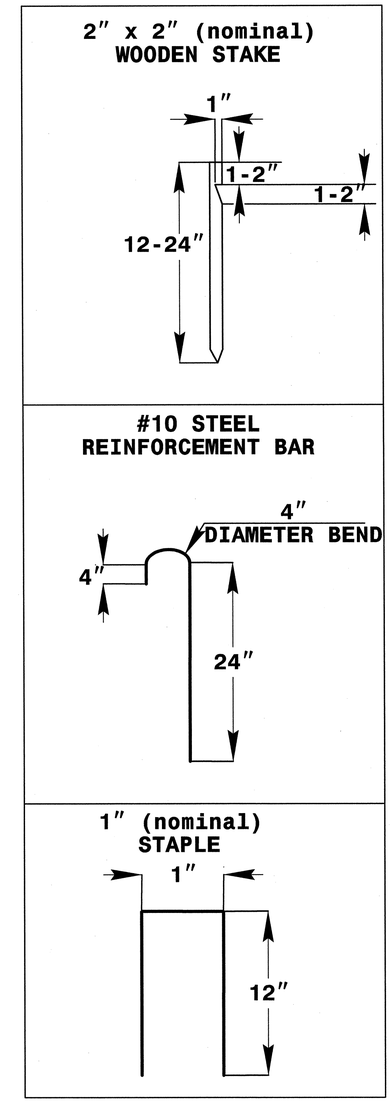
SKIMMER BASIN WITH BAFFLES DETAIL





COIR FIBER MAT ANCHOR OPTIONS

NOTES

1. SEED AND PLACE MATTING FOR EROSION CONTROL ON INTERIOR AND EXTERIOR SIDESLOPES.
2. LIMIT EARTH DIKE HEIGHT TO 5 FT.
3. FOR BASIN DEPTH OF 3 FT., THE MINIMUM BASIN WIDTH SHALL BE 9 FT.
4. DETERMINE EMERGENCY SPILLWAY LENGTH (FT.) USING Q/0.8, WHERE Q IS FLOW RATE (CFS) INTO BASIN.
5. PLASTIC SLOPE DRAIN PIPE AT INLET OF BASIN MAY BE REPLACED BY FILTRATION GEOTEXTILE AS DIRECTED.
6. SOIL STABILIZATION GEOTEXTILE FOR EMERGENCY SPILLWAY SHALL BE ONE CONTINUOUS PIECE OF MATERIAL OR OVERLAPPED 18 IN. (MIN.).

NOT TO SCALE

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PROJECT REFERENCE NO.	SHEET NO.
P-5208H	EC-11A

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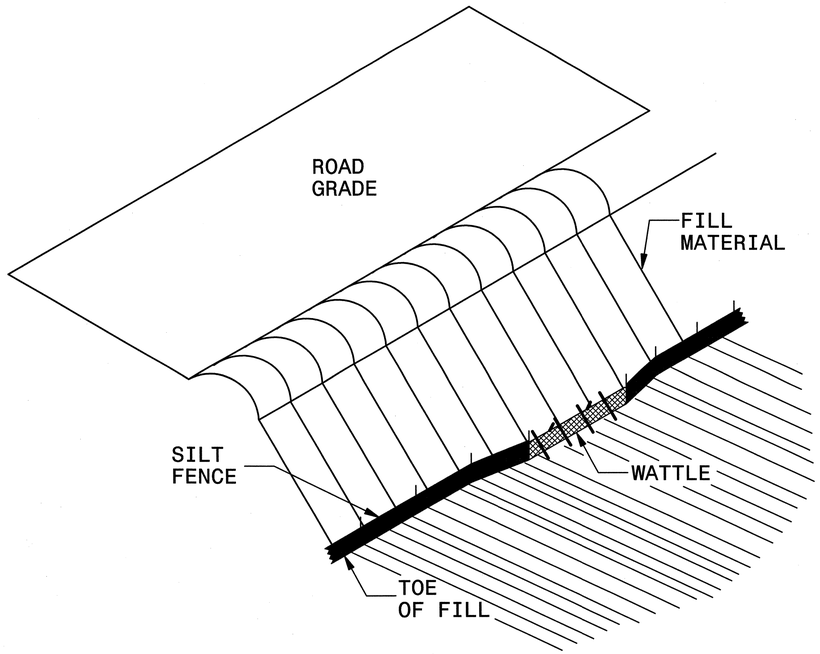
SILT FENCE COIR FIBER WATTLE BREAK DETAIL



ISOMETRIC VIEW

NOTES:

USE MINIMUM 12 IN. DIAMETER COIR FIBER (COCONUT FIBER) WATTLE AND LENGTH OF 10 FT.

EXCAVATE A 1 TO 2 INCH TRENCH FOR WATTLE TO BE PLACED.

DO NOT PLACE WATTLE ON TOE OF SLOPE.

USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.

INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO GROUND.

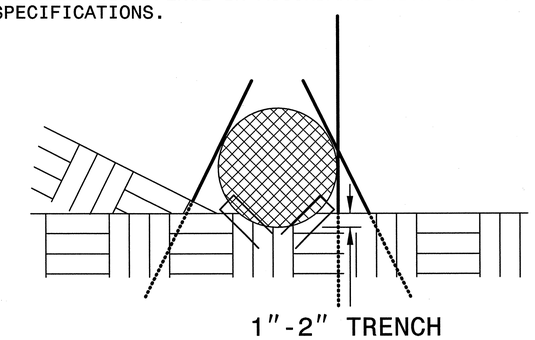
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12″ IN LENGTH.

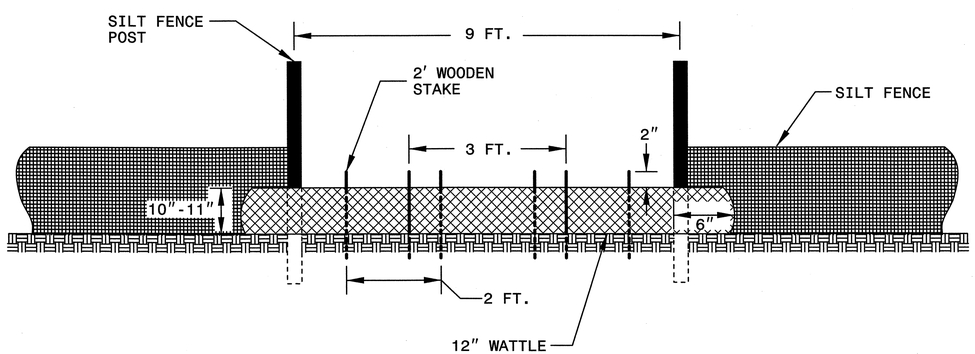
INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

WATTLE INSTALLATION CAN BE ON OUTSIDE OF THE SILT FENCE AS DIRECTED.

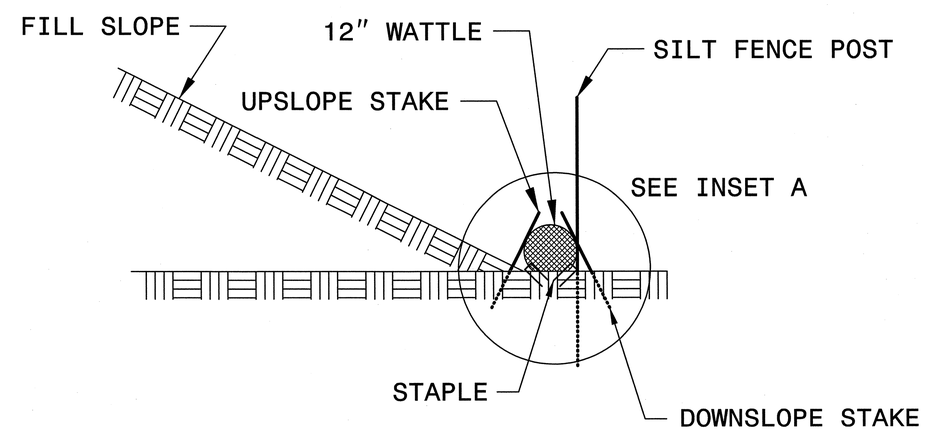
INSTALL TEMPORARY SILT FENCE IN ACCORDANCE WITH SECTION 1605 OF THE STANDARD SPECIFICATIONS.

INSET A





VIEW FROM SLOPE



SIDE VIEW

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PROJECT REFERENCE NO.	SHEET NO.
P-5208H	EC-11B

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Raleigh, NC 27607
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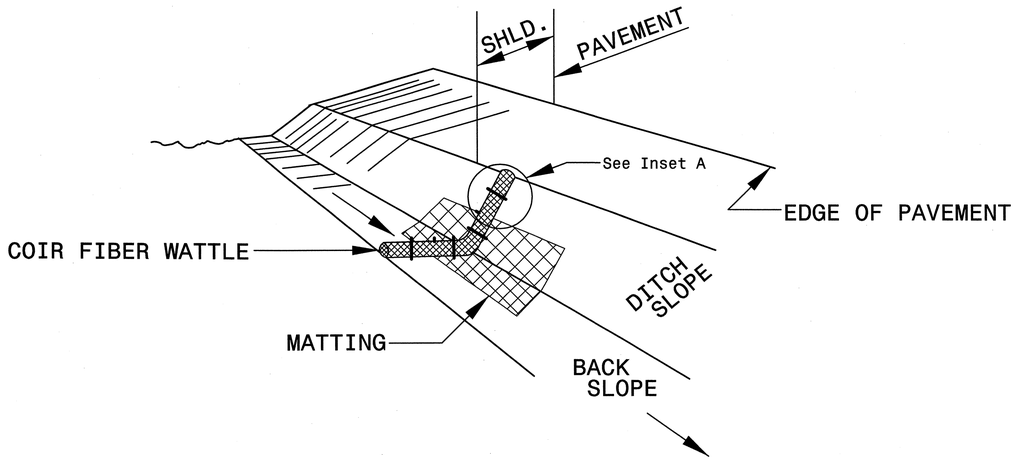
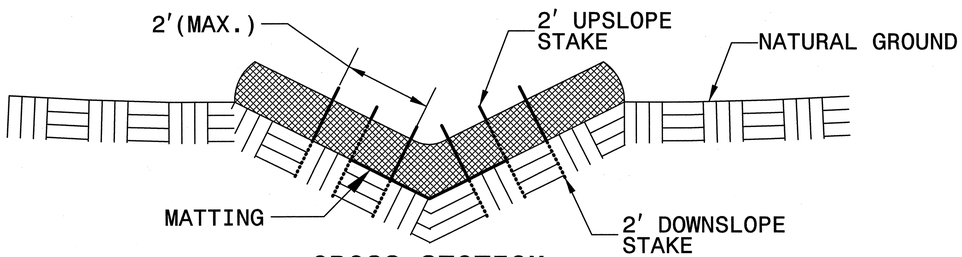
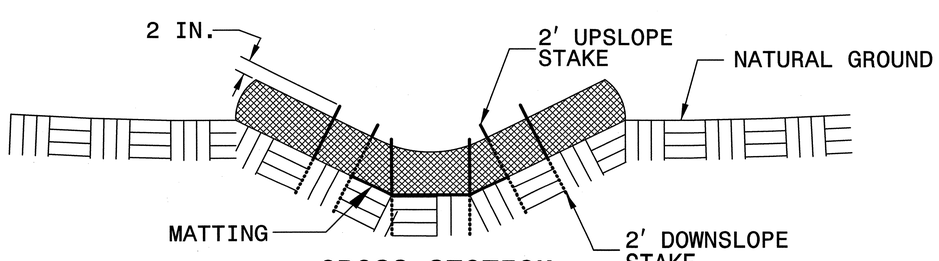
COIR FIBER WATTLE DETAIL



ISOMETRIC VIEW



CROSS SECTION VEE DITCH



CROSS SECTION TRAPEZOIDAL DITCH

NOTES:

USE MINIMUM 12 IN. DIAMETER COIR FIBER (COCONUT FIBER) WATTLE.

USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.

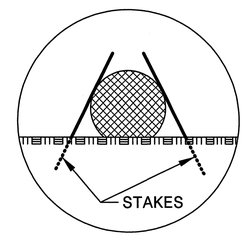
ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.

INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.

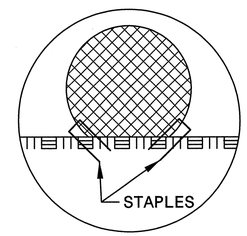
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.



INSET A



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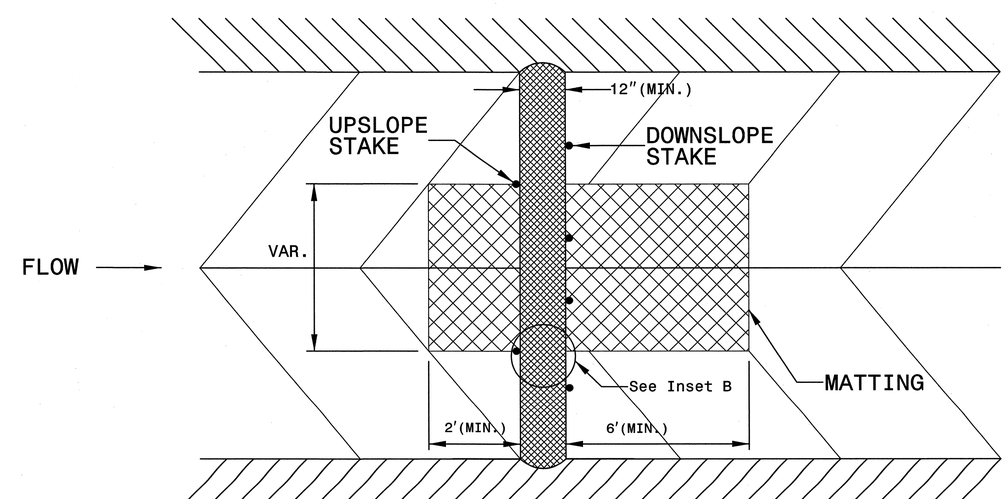

TOP VIEW

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PROJECT REFERENCE NO.	SHEET NO.
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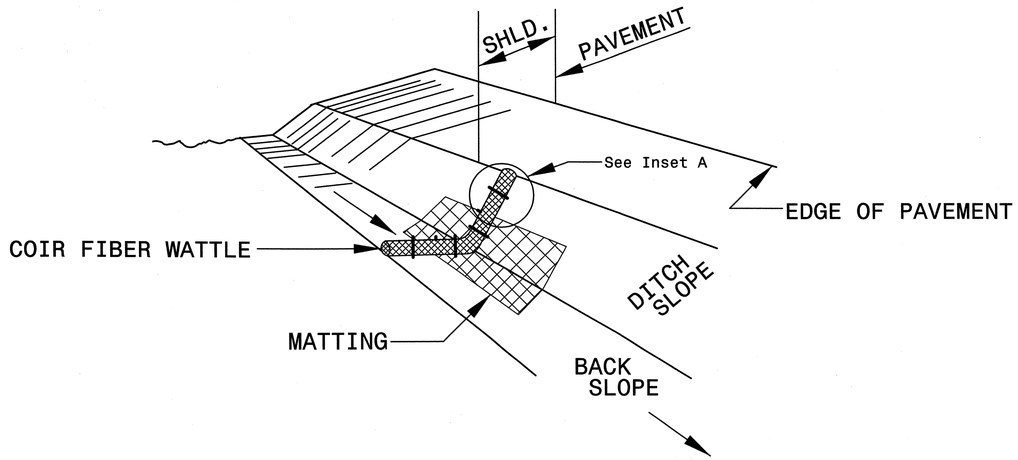
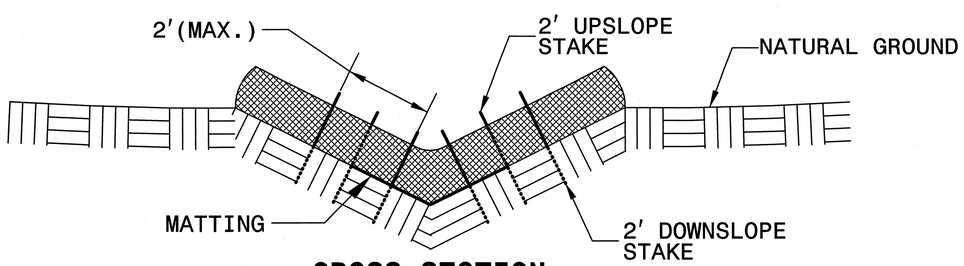
DGN 0102DEL_p10a6

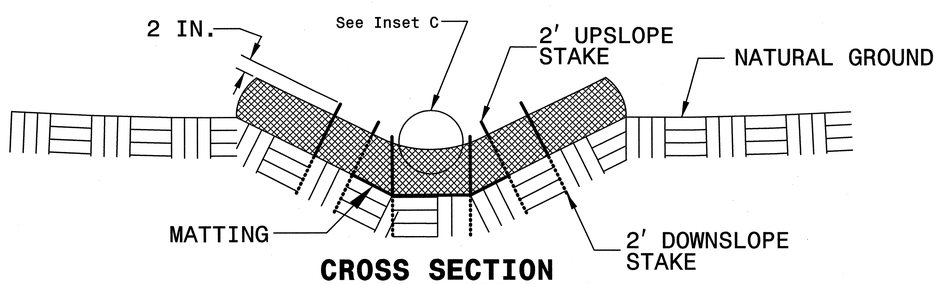
COIR FIBER WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL



ISOMETRIC VIEW



CROSS SECTION VEE DITCH



CROSS SECTION TRAPEZOIDAL DITCH

NOTES:

USE MINIMUM 12 IN. DIAMETER COIR FIBER (COCONUT FIBER) WATTLE.

USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.

ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.

INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.

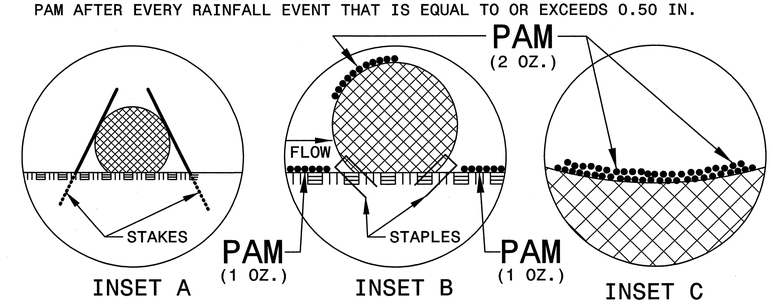
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

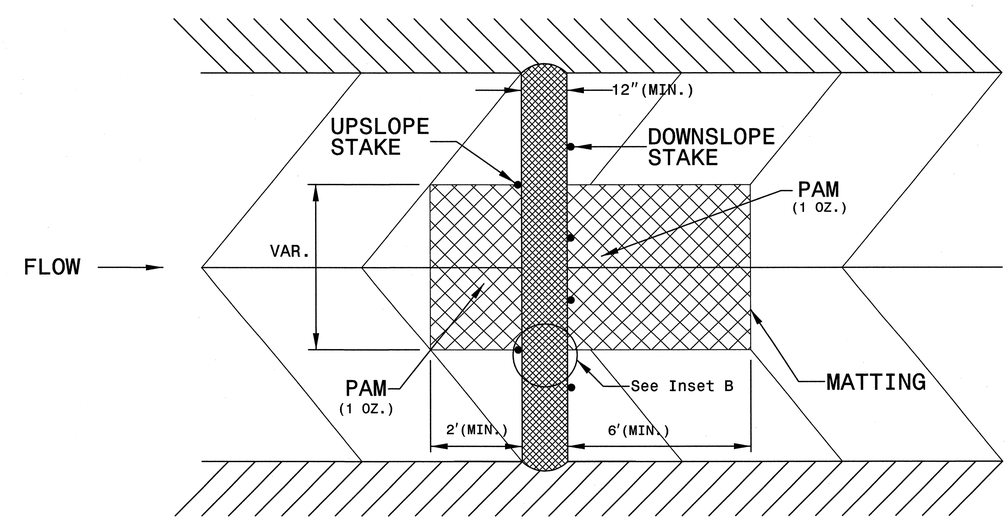
INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.

PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH WATTLE.

INITIALLY APPLY 2 OUNCES OF ANIONIC OR NEUTRALLY CHARGED PAM OVER WATTLE WHERE WATER WILL FLOW AND 1 OUNCE OF PAM ON MATTING ON EACH SIDE OF WATTLE. REAPPLY PAM AFTER EVERY RAINFALL EVENT THAT IS EQUAL TO OR EXCEEDS 0.50 IN.





TOP VIEW

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PROJECT REFERENCE NO.	SHEET NO.
P-5208H	EC-11D

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Raleigh, NC 27607
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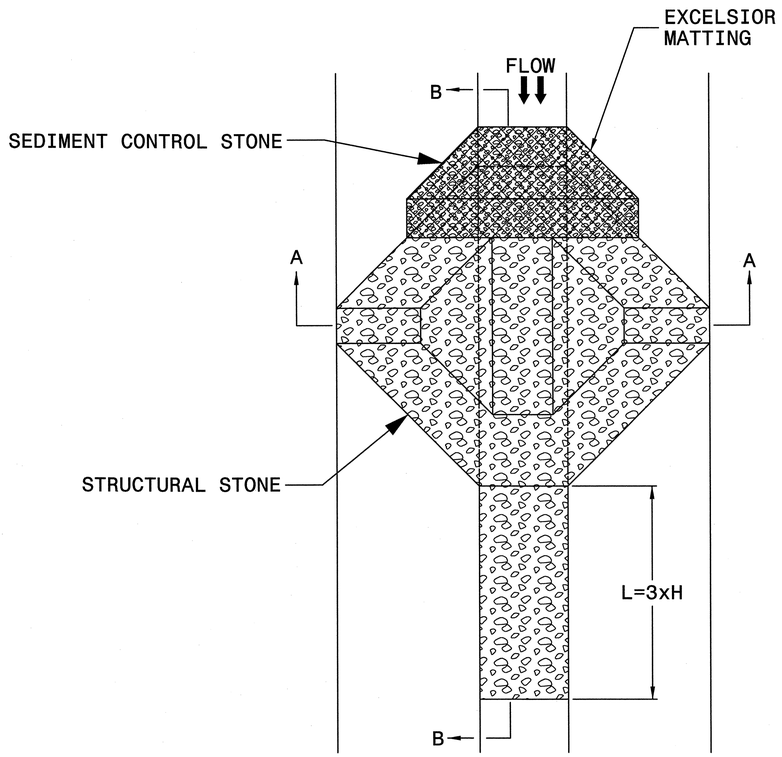
TEMPORARY ROCK SILT CHECK TYPE 'A' WITH EXCELSIOR MATTING AND POLYACRYLAMIDE (PAM)



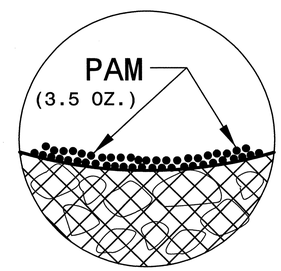
PLAN

NOTES

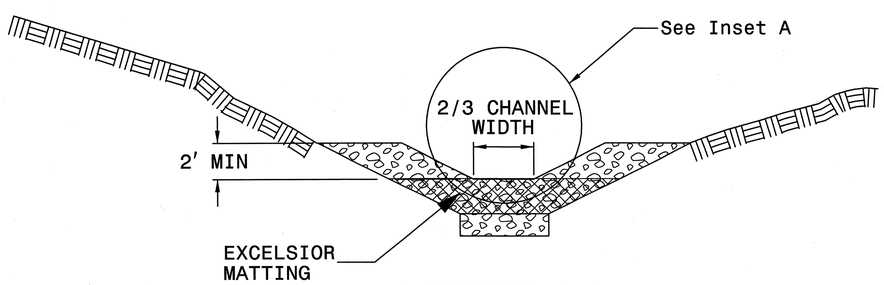
USE EXCELSIOR FOR MATTING MATERIAL AND ANCHOR MATTING SECTION AT TOP AND BOTTOM WITH CLASS B STONE.

PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH ROCK SILT CHECK.

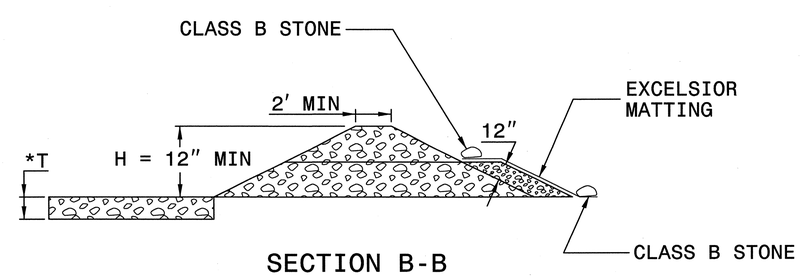
INITIALLY APPLY 3.5 OUNCES OF POLYACRYLAMIDE (PAM) TO TOP OF MATTING SECTION AND AFTER EVERY RAINFALL EVENT THAT EQUALS OR EXCEEDS 0.50 INCHES.



INSET A



SECTION A-A



SECTION B-B

*T = 12" MIN., 18" MAX.

NOT TO SCALE

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0102DEL_p10a6

DKN

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

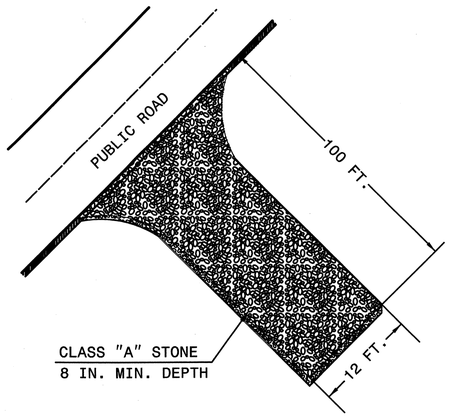
7-06

ENGLISH STANDARD DRAWING FOR

GRAVEL CONSTRUCTION ENTRANCE

SHEET 1 OF 1

1607.01



NOTES:
1. PROVIDE TURNING RADIUS SUFFICIENT TO ACCOMMODATE LARGE TRUCKS.
2. LOCATE ENTRANCE(S) TO PROVIDE FOR UTILIZATION BY ALL CONSTRUCTION VEHICLES.
3. MUST BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR DIRECT FLOW OF MUD ONTO STREETS. PERIODIC TOPDRESSING WITH STONE WILL BE NECESSARY.
4. ANY MATERIAL TRACKED ONTO THE ROADWAY MUST BE CLEANED UP IMMEDIATELY.
5. LOCATE GRAVEL CONSTRUCTION ENTRANCE AT ALL POINTS OF INGRESS AND EGRESS UNTIL SITE IS STABILIZED. PROVIDE FREQUENT CHECKS OF THE DEVICE AND TIMELY MAINTENANCE.
6. NUMBER AND LOCATION OF CONSTRUCTION ENTRANCES TO BE DETERMINED BY THE ENGINEER.
7. USE CLASS 'A' STONE OR OTHER COARSE AGGREGATE APPROVED BY THE ENGINEER.

NOTE: PLACE FILTER FABRIC BENEATH STONE

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

7-06

ENGLISH STANDARD DRAWING FOR

GRAVEL CONSTRUCTION ENTRANCE

SHEET 1 OF 1

1607.01

USER: rwwr
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DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION TIMEFRAMES

SITE DESCRIPTION	STABILIZATION TIME	TIMEFRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) 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 HQW ZONES.

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PROJECT REFERENCE NO.	SHEET NO.
P-5208H	EC-12A

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DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION SUMMARY SHEET

MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
13	-M1-	10790+00	10792+00	R	310
14	-M1-	10797+00	10804+00	R	1075
16	-M1-	10824+00	10831+00	R	1075
16	-M1-	10824+00	10825+00	L	185
16	-M1-	10825+75	10827+00	L	195
16	-M1-	10831+00	10833+65	R	320
16	-M1-	10826+00	10837+00	L	1845
17	-M1-	10840+00	10842+00	R	245
19	-M1-	10866+00	10871+00	R	770
				SUBTOTAL	6330
MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER					7530
				TOTAL	13860
				SAY	13860

PERMANENT SOIL REINFORCEMENT MAT

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)

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DGN
USER: nwyr
DATE: 4/15/2013
TIME: 5:02:48 PM
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PROJECT REFERENCE NO.	SHEET NO.
P-5208H	EC-13/CONST.13

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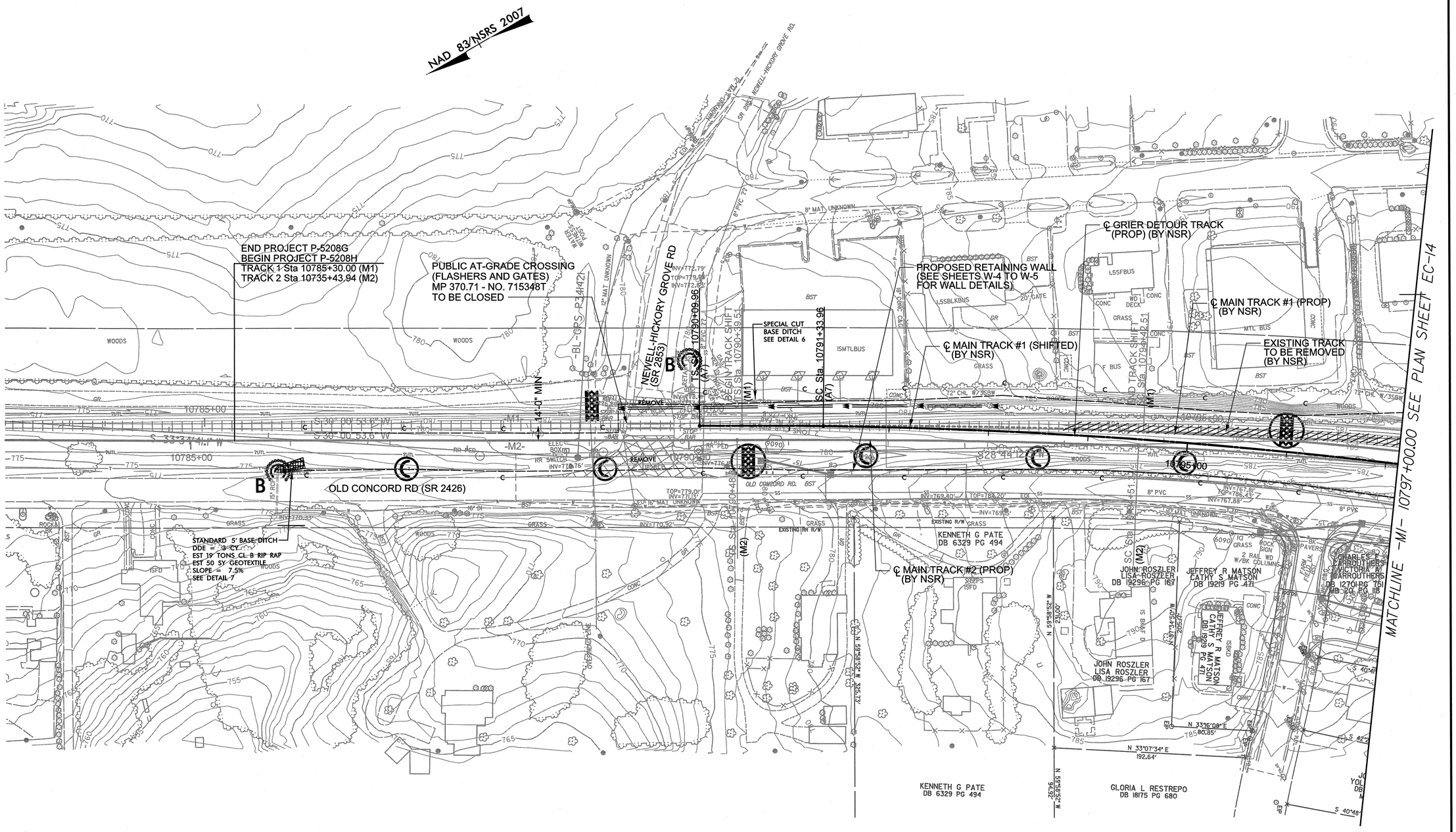
KANNAPOLIS

CHARLOTTE

NOTE:
PERIMETER EROSION CONTROL MEASURES SHALL BE INSTALLED DURING CLEARING AND GRUBBING PHASE.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 13



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PROJECT REFERENCE NO.	SHEET NO.
P-5208H	EC-14/CONST.J4

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DRN 0102DEL_p10a6

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NOTE:
PERIMETER EROSION CONTROL MEASURES SHALL BE INSTALLED DURING CLEARING AND GRUBBING PHASE.

INSTALL PIPE(S) IN JURISDICTIONAL AREAS ACCORDING TO NCDOT BEST MANAGEMENT PRACTICES FOR CONSTRUCTION AND MAINTENANCE ACTIVITIES MANUAL.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 14

SEE ROADWAY EC PLANS FOR EC MEASURES AT THE JURISDICTIONAL STREAM FROM STA 10803+00 RT TO STA 10804+30 RT

NAD 83/NSRS 2007

MATCHLINE -M1- 10797+00.00 SEE PLAN SHEET EC-13

MATCHLINE -M1- 10810+00.00 SEE PLAN SHEET EC-15

EXISTING TRACK TO BE REMOVED (BY NSR)

PROPOSED RETAINING WALL (SEE SHEETS W-4 TO W-6 FOR WALL DETAILS)

℄ GRIER DETOUR TRACK (PROP) (BY NSR)

℄ MAIN TRACK #2 (PROP) (BY NSR)

STANDARD 5' BASE DITCH DDE = 7 CY SLOPE = 0.9% SEE DETAIL 3

CLASS B RIP RAP EST 3 TONS EST 10 SY GEOTEXTILE

℄ MAIN TRACK #1 (PROP) (BY NSR) TRENCHLESS INSTALLATION 54" = 54" WELDED STEEL

FILL IN TO MIN. EL 772.0 PROVIDE POSITIVE DRAINAGE TO 54" PIPE INVERT SEE CROSS SECTIONS

STANDARD 5' BASE DITCH DDE = 120 CY SLOPE = 0.9% SEE DETAIL 3

CLASS B RIP RAP EST 3 TONS EST 10 SY GEOTEXTILE

SPECIAL CUT BASE DITCH SEE DETAIL 1

℄ MAIN TRACK #2/ GRIER DETOUR TRACK (PROP) (BY NSR)

STEPHEN W & TODD B BENNETT DB 9974 PG 742

OLD CONCORD RD (SR 2426)

PROPOSED MSE WALL (SEE SHEETS W-1 TO W-3 FOR WALL DETAILS)

CINDALINE F HELMS DB 6654 PG 234

SPECIAL CUT BASE DITCH SEE DETAIL 1

CLASS B RIP RAP EST 3 TONS EST 10 SY GEOTEXTILE

PROPOSED GRIER RD GRADE SEPARATION (OVERPASS) (SEE ROADWAY PLANS FOR DETAILS)

CLASS I RIP RAP ON BANKS ONLY EST 26 TONS EST 50 SY GEOTEXTILE

EARL D & JEAN E FORTNER DB 4719 PG 853

PATRICIA P SMITH DB 4669 PG 84

CHARLES E CARROUTHERS VICTORIA A CARROUTHERS DB 12701 PG 751 MB 20 PG 118

SAMIR C MALEK DB 23494 PG 263 PB 49 PG 53

THE RYLAND GROUP, INC. DB 26299 PG 298 PB 52 PG 859

HARRY JAMES FINCHER DB 4715 PG 940

MARVIS D FETTERSON SR JENESHA WILKES DB 9710 PG 927 MB 20 PG 118

JOHN W ZWEIG WANDA A ZWEIG DB 4634 PG 008 MB 20 PG 118

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PROJECT REFERENCE NO.	SHEET NO.
P-5208H	EC-15/CONST.15

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DGN 0102DEL_p10a6

KANNAPOLIS

CHARLOTTE

NOTE:
PERIMETER EROSION CONTROL MEASURES SHALL BE INSTALLED DURING CLEARING AND GRUBBING PHASE.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 15

NAD 83/NSRS 2007

MATCHLINE -M1- 10810+00.00 SEE PLAN SHEET EC-14

MATCHLINE -M1- 10823+00.00 SEE PLAN SHEET EC-16

EDWARD E. & GEORGE S. THOMPSON DB 4669 PG 114

MAOLA MILK AND ICE CREAM COMPANY
DB 18187 PG 600
DB 8449 PG 984

B&P PARTNERS LLC
DB 21864 PG 349
DB 8878 PG 449

EXISTING TRACK TO BE REMOVED (BY NSR)

℄ MAIN TRACK #1 (PROP) (BY NSR)

℄ GRIER DETOUR TRACK (PROP) (BY NSR)

SPECIAL CUT BASE DITCH SEE DETAIL 1

FILL WITH FLOWABLE FILL

REMOVE HW

TRENCHLESS INSTALLATION 84" WELDED STEEL

HW INVERT =769.0'

10815+00

10820+00

℄ MAIN TRACK #2/ GRIER DETOUR TRACK (PROP) (BY NSR)

CLASS B RIP RAP
EST 11 TONS CL B RIP RAP
EST 28 SY GEOTEXTILE

SPECIAL CUT BASE DITCH
EST 186 TONS CL B RIP RAP
EST 407 SY GEOTEXTILE
SEE DETAIL 2

COMPLETE CONSTRUCTION, INC
DB 24524 PG 621

OLD CONCORD RD (SR 2426)

℄ MAIN TRACK #2 (PROP) (BY NSR)

CS Sta. 10817+44.99 (A7)

SC Sta 10818+09.99 (A7)

MICHAEL JOE FERGUSON
DB 4858 PG 885

MICHELLE LEE GRAY
SHAWN B. GRAY
DB 16730 PG 416
PB 39 PG 499

CHANOCA, LLC
DB 23937 PG 681
PB 40 PG 995

TIMOTHY BURGE
MARY BURGE
DB 23844 PG 360
PB 7 PG 391

JASON GOSNELL
DB 25966 PG 634
PB 40 PG 995

FRANK DELANO WEST, JR
DB 6878 PG 153
PB 8 PG 439

JOHN & BETTY B WHITLOW
DB 4114 PG 94
PB 8 PG 439

RONALD L KNIGHT
DB 24233 PG 282
PB 8 PG 439

VIVIAN GLORIETTE BARRINO
DB 16416 PG 490
PB 39 PG 499

POINT AT WHICH DEFINED CHANNEL BEGINS 270' FROM EOP

MATCH EXIST. DITCH FOLLOWING EXIST. GRADE LINE W/PSRM

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PROJECT REFERENCE NO.	SHEET NO.
P-5208H	EC-16/CONST.16

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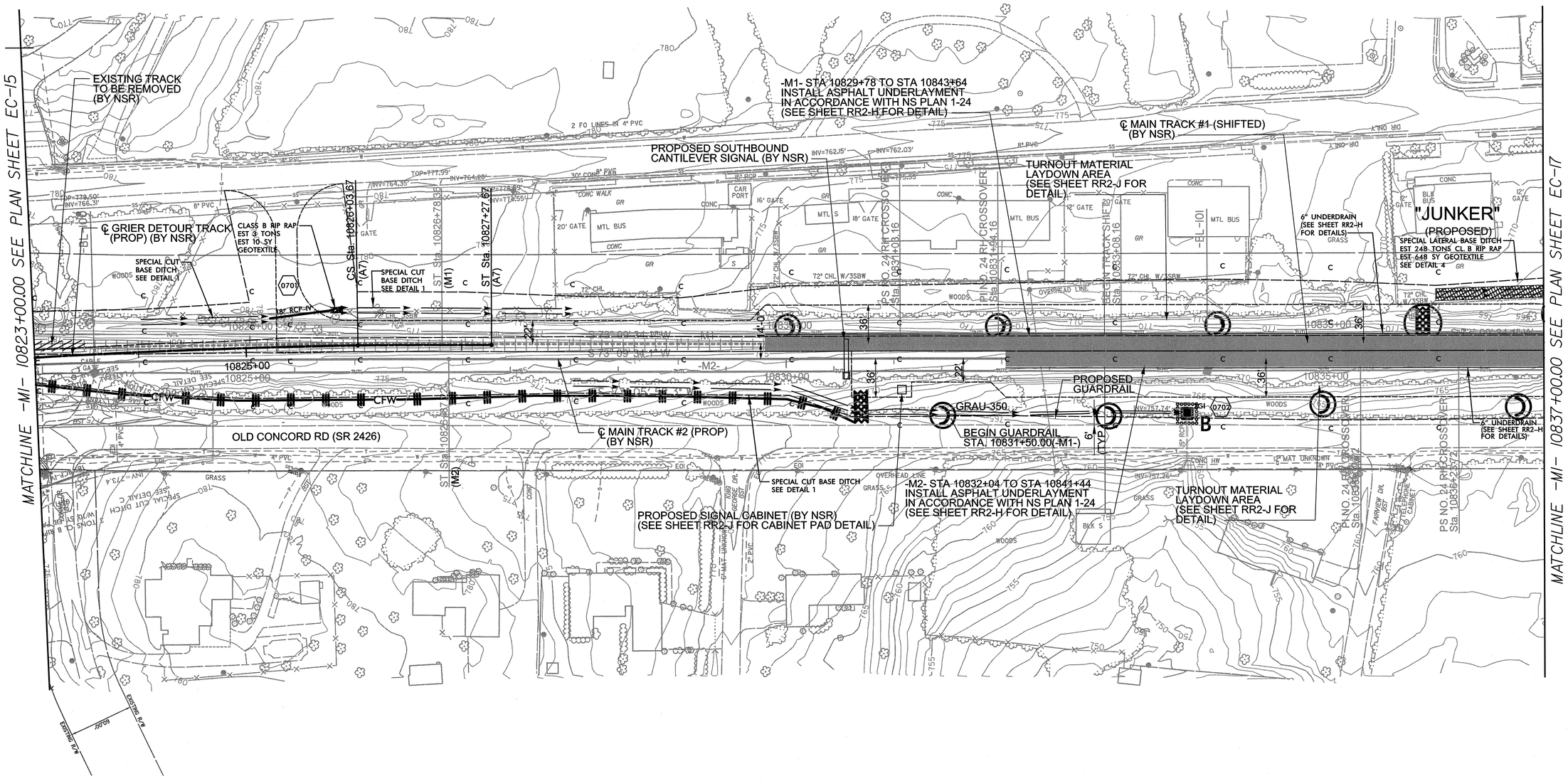
CHARLOTTE

NOTE:
PERIMETER EROSION CONTROL MEASURES SHALL BE INSTALLED DURING CLEARING AND GRUBBING PHASE.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 16

NAD 83/NSRS 2007



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PROJECT REFERENCE NO.	SHEET NO.
P-5208H	EC-17/CONST17

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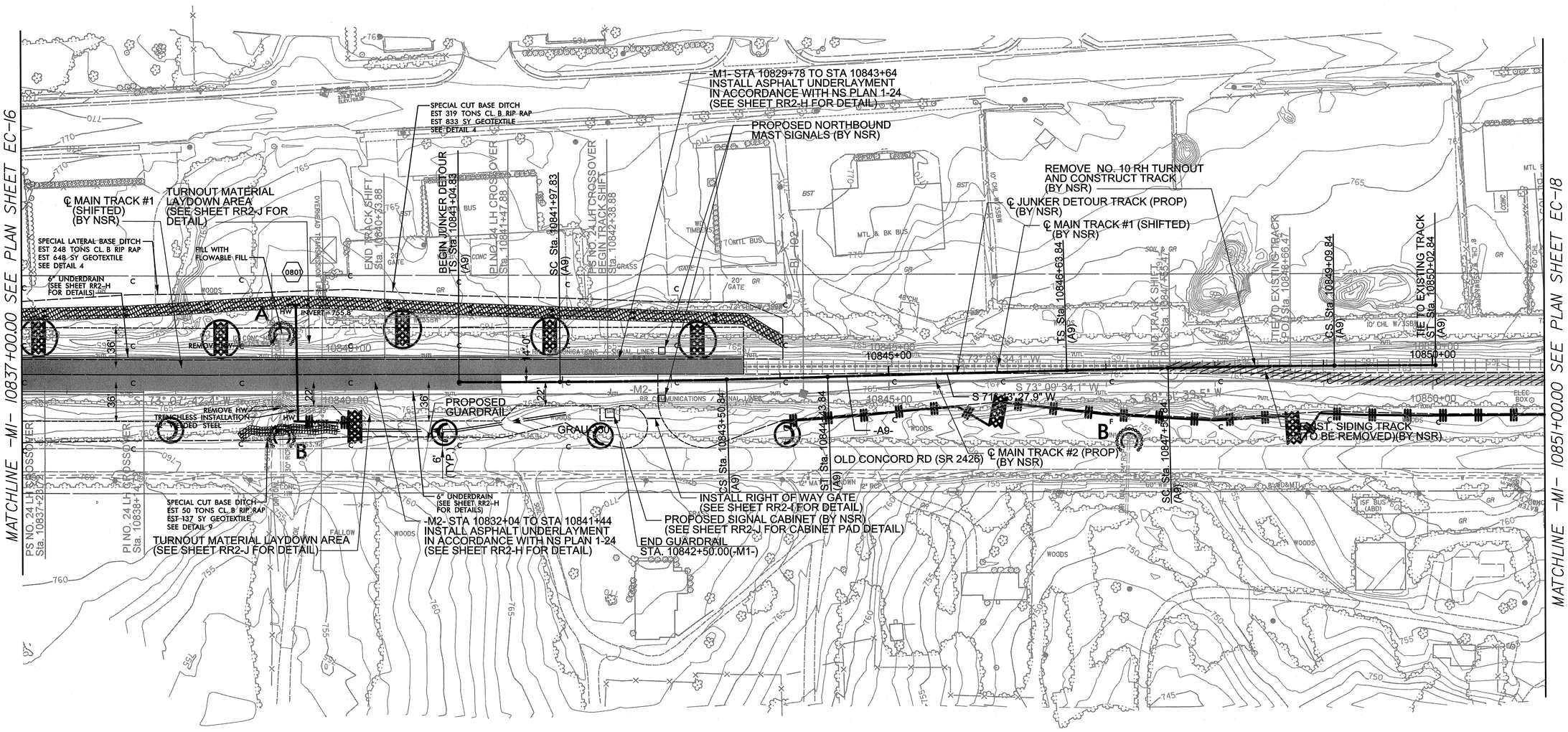
CHARLOTTE

NOTE:
PERIMETER EROSION CONTROL MEASURES SHALL BE INSTALLED DURING CLEARING AND GRUBBING PHASE.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 17

NAD 83/NSRS 2007



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PROJECT REFERENCE NO.	SHEET NO.
P-5208H	EC-18/CONSTJ8

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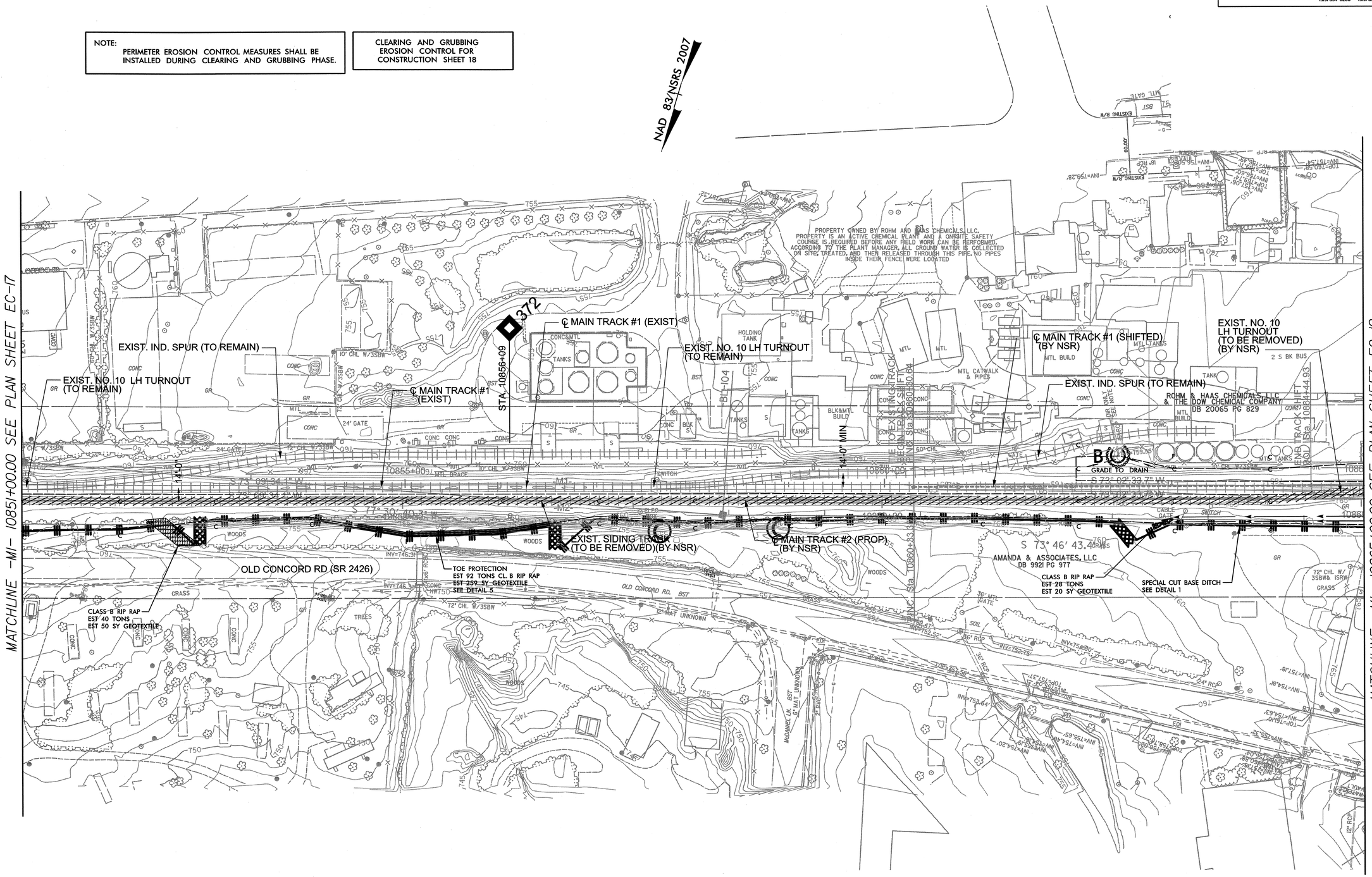
KANNAPOLIS

CHARLOTTE

NOTE:
PERIMETER EROSION CONTROL MEASURES SHALL BE INSTALLED DURING CLEARING AND GRUBBING PHASE.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 18

NAD 83/NSRS 2007



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PROJECT REFERENCE NO.	SHEET NO.
P-5208H	EC-19/CONST19

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0102DEL_p10a6

KANNAPOLIS

CHARLOTTE

NOTE:
PERIMETER EROSION CONTROL MEASURES SHALL BE INSTALLED DURING CLEARING AND GRUBBING PHASE.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 19

NAD 83/NSRS 2007

MATCHLINE -M1- 10865+00.00 SEE PLAN SHEET EC-18

-Y16- ORR RD

-M1- STA. 10866+32.06
ORR ROAD (SR 2848) PUBLIC AT-GRADE CROSSING
MP 372.19 - NO. 715350U (SEE P5208G FOR DETAIL)
(RUBBER/ASPHALT CROSSINGS (48 FT EACH) TO BE INSTALLED BY NSR, FLASHERS, GATES, CANTILEVER TO BE UPGRADED FOR SHIFTED FIRST MAIN TRACK AND NEW SECOND MAIN TRACK BY NSR)

CITY OF CHARLOTTE
DB 6398 PG 850
MB 23 PG 922

"JUNKER"
(TO BE RETIRED)

℄ MAIN TRACK #1 (SHIFTED)
(BY NSR)

℄ MAIN TRACK #1 (EXIST)

SPECIAL CUT-BASE DITCH
SEE DETAIL 1

STANDARD 5' BASE DITCH
DDE = 55 CY
SLOPE = 0.4%
SEE DETAIL 3

CLASS B RIP RAP
EST 15 TONS
EST 37 SY
GEOTEXTILE

STANDARD 4.0' BASE DITCH
DDE = 20 CY
SEE DETAIL 8

TRENCHLESS INSTALLATION
42" WELDED STEEL

FILL WITH FLOWABLE FILL

℄ MAIN TRACK #1 (PROP)
(BY NSR)

℄ MAIN TRACK #2 (PROP)
(BY NSR)

EXIST. NO. 20 EQUILATERAL TURNOUT TO BE REMOVED (BY NSR)

℄ MAIN TRACK #2 (EXIST)

RETAIN

SPECIAL CUT BASE DITCH
EST 298 TONS CL B RIP RAP
EST 777 SY GEOTEXTILE
SEE DETAIL 2

SPECIAL CUT BASE DITCH
SEE DETAIL 1

AMANDA & ASSOCIATES, LLC
DB 9921 PG 977

ROYAL REALTY II, LLC
DB 17971 PG 460

℄ MAIN TRACK #2 (SHIFTED)
(BY NSR)

BEGIN TRACK SHIFT
PINC Sta. 10865+55.93

END TRACK SHIFT
PINC Sta. 10867+67.02

BEGIN TRACK SHIFT
ROL Sta. 10867+67.02

END TRACK SHIFT
ROL Sta. 10871+41.31

TIE TO EXISTING TRACK
END TRACK SHIFT
END PROJECT
TRACK 1 Sta. 10872+47.00

TIE TO EXISTING TRACK
END TRACK SHIFT
END PROJECT
TRACK 2 Sta. 10872+47.00

CONC BUS

USER: nwyr
DATE: 4/15/2013
TIME: 5:43:30 PM
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PROJECT REFERENCE NO.	SHEET NO.
P-5208H	EC-20/CONST13

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NAD 83/NSRS 2007

END PROJECT P-5208G
BEGIN PROJECT P-5208H
TRACK 1 Sta 10785+30.00 (M1)
TRACK 2 Sta 10735+43.94 (M2)

PUBLIC AT-GRADE CROSSING
(FLASHERS AND GATES)
MP 370.71 - NO. 715348T
TO BE CLOSED

PROPOSED RETAINING WALL
(SEE SHEETS W-4 TO W-5
FOR WALL DETAILS)

℄ GRIER DETOUR TRACK
(PROP) (BY NSR)

℄ MAIN TRACK #1 (PROP)
(BY NSR)

EXISTING TRACK
TO BE REMOVED
(BY NSR)

℄ MAIN TRACK #1 (SHIFTED)
(BY NSR)

SPECIAL CUT
BASE DITCH
SEE DETAIL 6

NEWELL-HICKORY GROVE RD
(SR 2853)

OLD CONCORD RD (SR 2426)

STANDARD 5' BASE DITCH
DDE = 3 CY
EST 19 TONS CL. B RIP RAP
EST 50 SY GEOTEXTILE
SLOPE = 7.5%
SEE DETAIL 7

℄ MAIN TRACK #2 (PROP)
(BY NSR)

KENNETH G PATE
DB 6329 PG 494

JOHN ROSZLER
LISA ROSZLER
DB 19296 PG 167

JEFFREY R MATSON
CATHY S MATSON
DB 19219 PG 471

GLORIA L RESTREPO
DB 18175 PG 680

MATCHLINE -M1- 10797+00.00 SEE PLAN SHEET EC-21

USER: rwyr
DATE: 4/15/2013
TIME: 5:53:22 PM
DGN: R:\Environmental\P-5208H\Design\P-5208H_REV-EC20.dgn

PROJECT REFERENCE NO.	SHEET NO.
P-5208H	EC-21/CONST.14

Prepared in the Office of: AECOM — NC FIRM LICENSE No: F-0342, 701 Corporate Center Drive, Suite 475, Raleigh, NC 27607, (919) 854-6200 - (919) 854-6259 (FAX)

0102DEL_p10a6

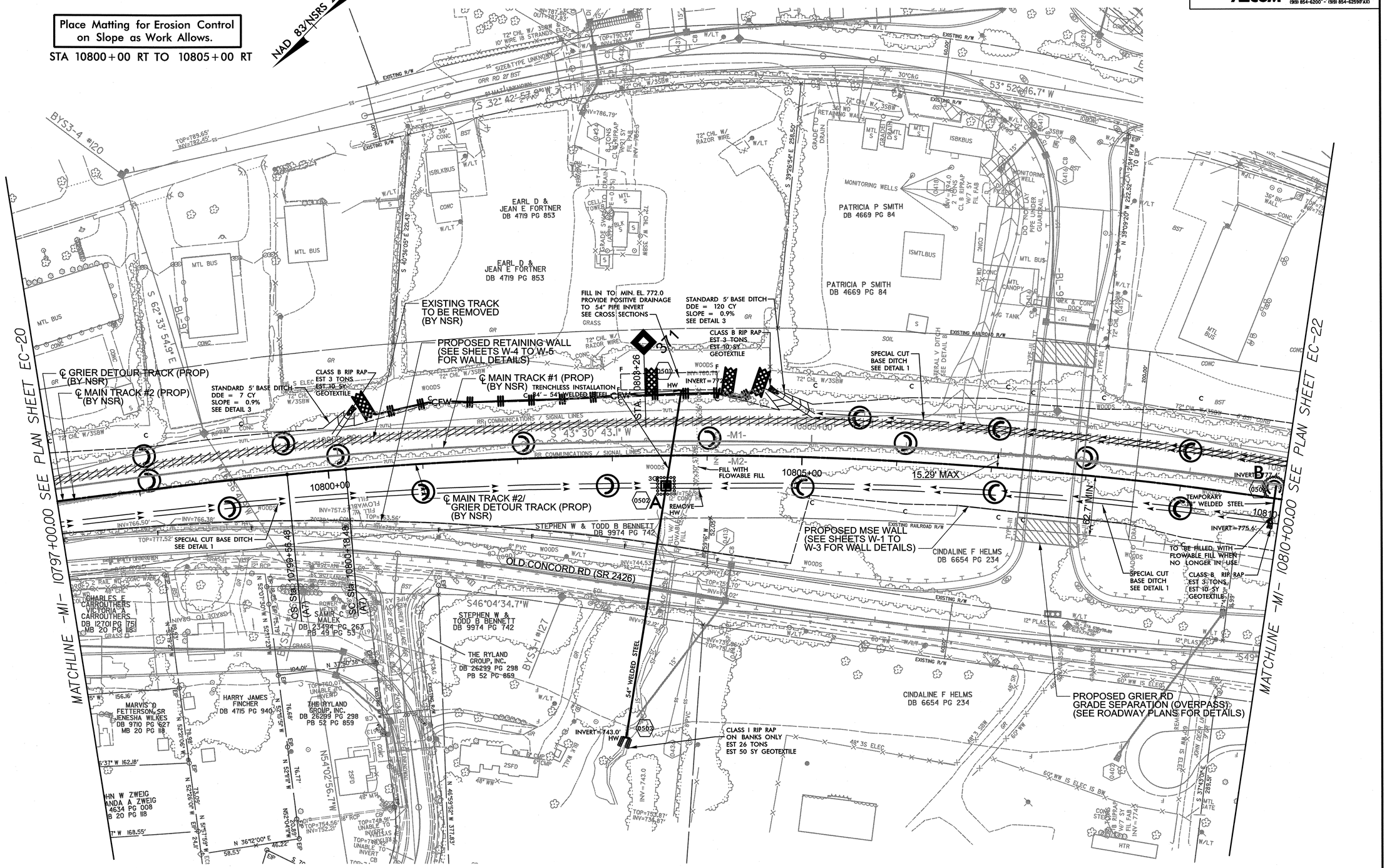
KANNAPOLIS

CHARLOTTE

Place Matting for Erosion Control on Slope as Work Allows.

STA 10800+00 RT TO 10805+00 RT

NAD 83/NSRS 2007



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PROJECT REFERENCE NO.	SHEET NO.
P-5208H	EC-22/CONSTJ5

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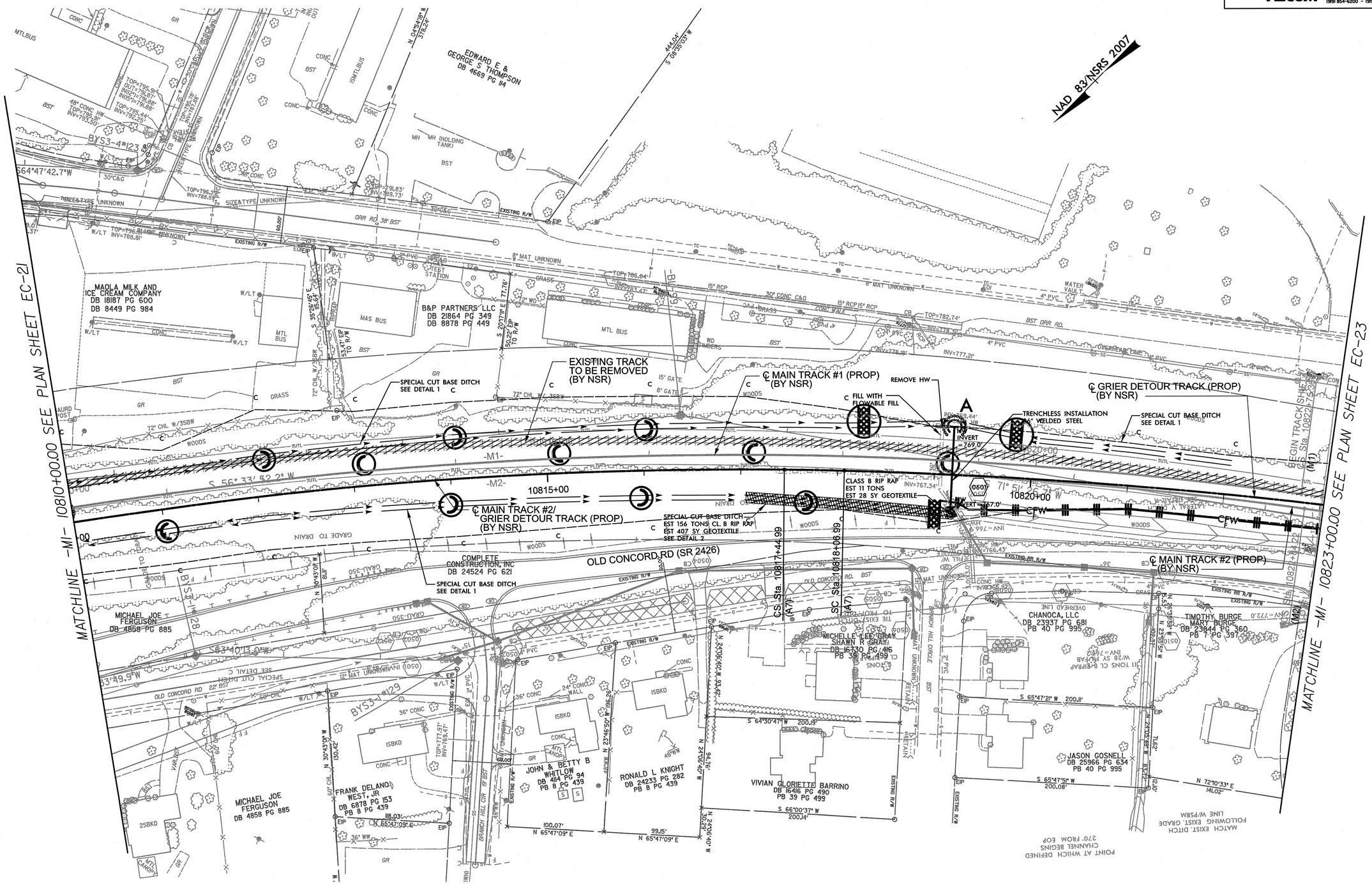
DGN 0102DEL_p10a6



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PROJECT REFERENCE NO.	SHEET NO.
P-5208H	EC-23/CONST.J6

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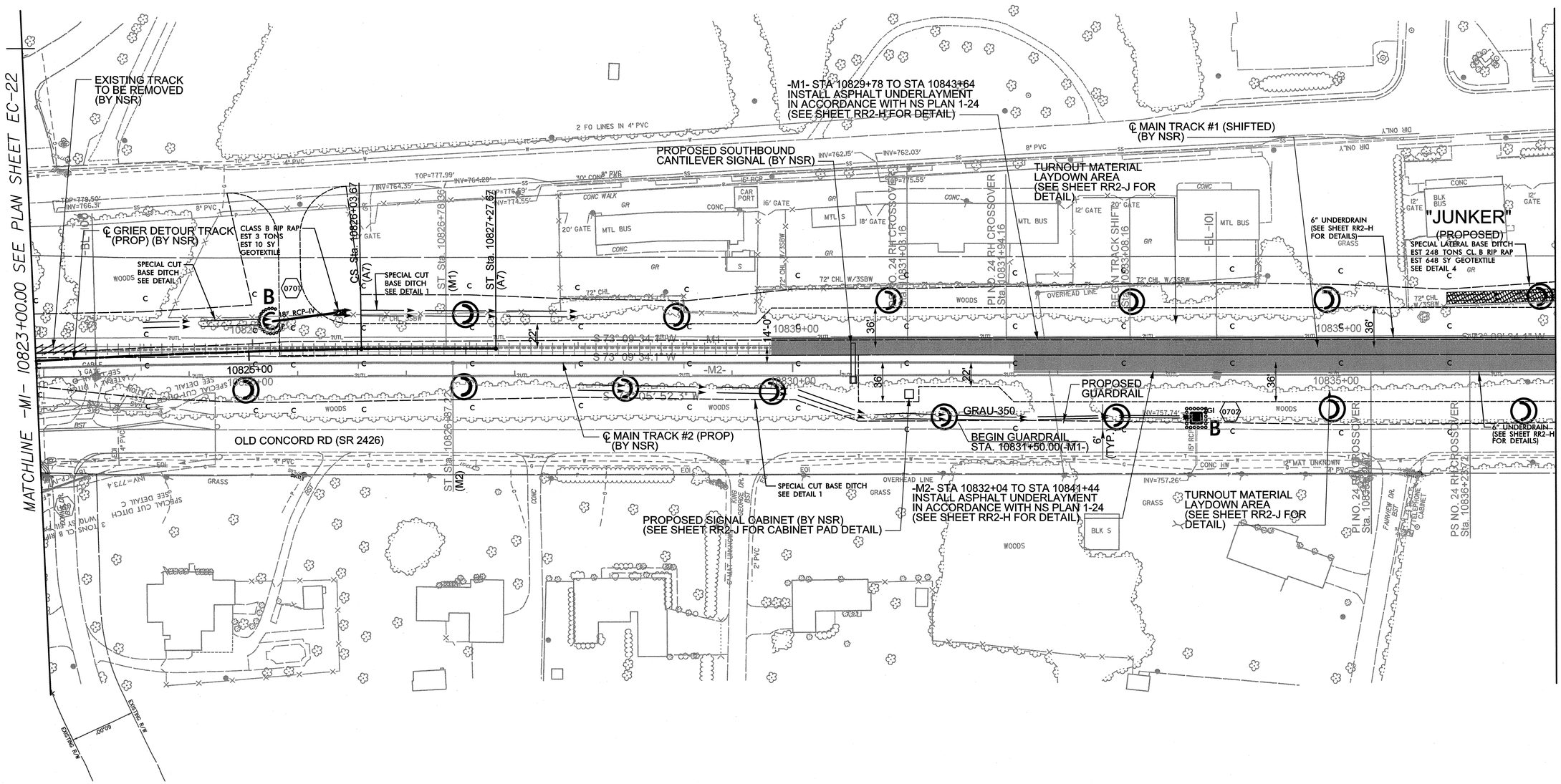
0102DEL_p10a6

KANNAPOLIS

CHARLOTTE

NAD 83/NSRS 2007



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PROJECT REFERENCE NO.	SHEET NO.
P-5208H	EC-24/CONST J7

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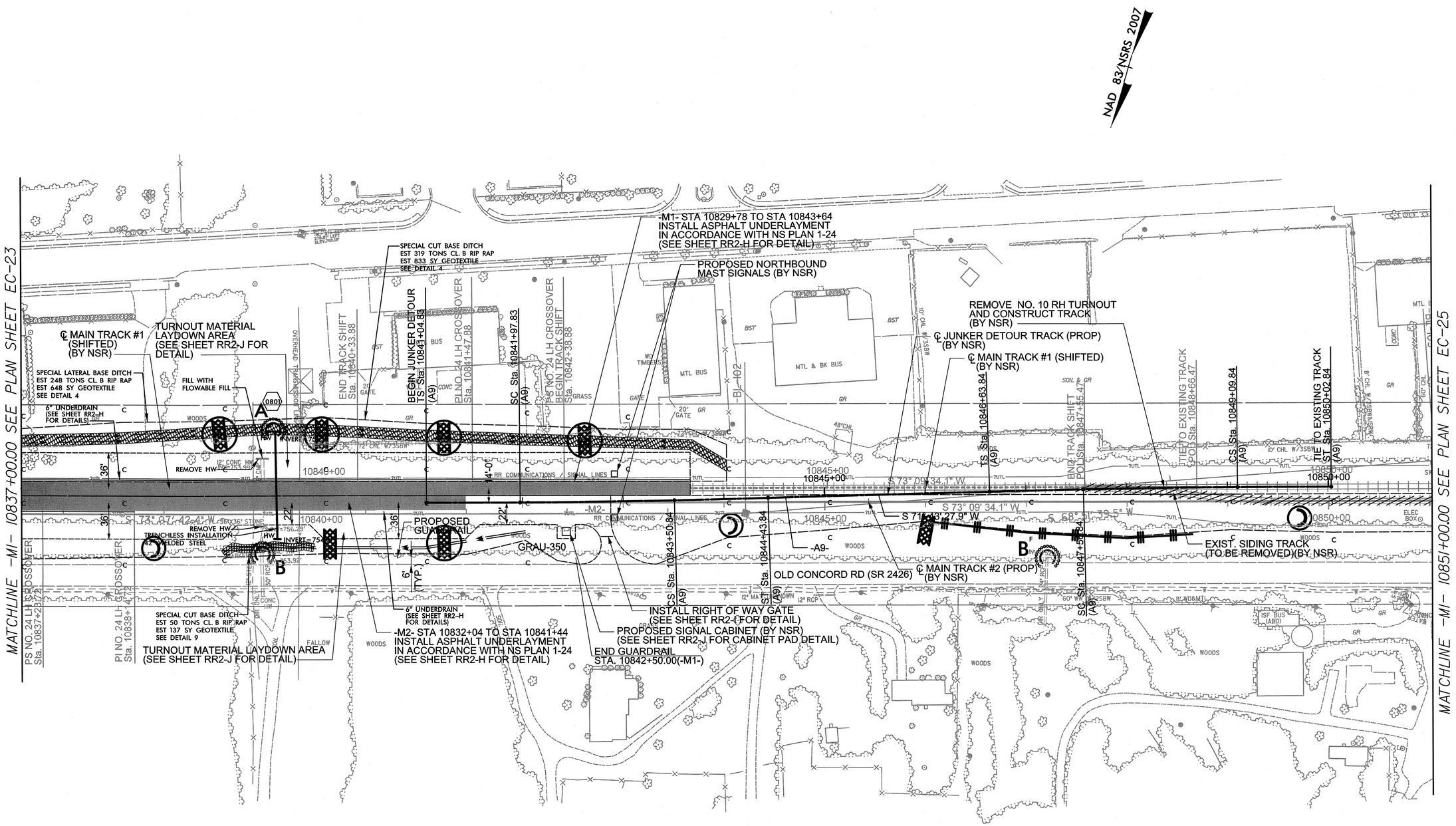
DGN 0102DEL_p10a6



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PROJECT REFERENCE NO.	SHEET NO.
P-5208H	EC-25/CONST J8

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701 Corporate Center Drive, Suite 475
Raleigh, NC 27610
(919) 854-6200 - (919) 854-6259(FAX)

0102DEL_p10a6

KANNAPOLIS

CHARLOTTE

NAD 83/NSRS 2007

MATCHLINE -M1- 10851+00.00 SEE PLAN SHEET EC-24

MATCHLINE -M1- 10865+00.00 SEE PLAN SHEET EC-26

EXIST. IND. SPUR (TO REMAIN)

EXIST. NO. 10 LH TURNOUT (TO REMAIN)

℄ MAIN TRACK #1 (EXIST)

STA. 10856+09

372

℄ MAIN TRACK #1 (EXIST)

EXIST. NO. 10 LH TURNOUT (TO REMAIN)

PROPERTY OWNED BY ROHM AND HAAS CHEMICALS, LLC. PROPERTY IS AN ACTIVE CHEMICAL PLANT AND A ONSITE SAFETY COURSE IS REQUIRED BEFORE ANY FIELD WORK CAN BE PERFORMED. ACCORDING TO THE PLANT MANAGER, ALL GROUND WATER IS COLLECTED ON SITE, TREATED, AND THEN RELEASED THROUGH THIS PIPE. NO PIPES INSIDE THEIR FENCE WERE LOCATED

℄ MAIN TRACK #1 (SHIFTED) (BY NSR)

EXIST. NO. 10 LH TURNOUT (TO BE REMOVED) (BY NSR)

EXIST. IND. SPUR (TO REMAIN)

ROHM & HAAS CHEMICALS, LLC & THE DOW CHEMICAL COMPANY DB 20065 PG 829

GRADE TO DRAIN

EXIST. SIDING TRACK (TO BE REMOVED)(BY NSR)

℄ MAIN TRACK #2 (PROP) (BY NSR)

AMANDA & ASSOCIATES, LLC DB 9921 PG 977

OLD CONCORD RD (SR 2426)

TOE PROTECTION
EST 92 TONS CL. B RIP RAP
EST 259 SY GEOTEXTILE
SEE DETAIL 5

CLASS B RIP RAP
EST 40 TONS
EST 50 SY GEOTEXTILE

CLASS B RIP RAP
EST 28 TONS
EST 20 SY GEOTEXTILE

SPECIAL CUT BASE DITCH
SEE DETAIL 1

USER: rwayr
DATE: 4/15/2013
TIME: 5:43:31 PM
DGN: R:\Environmental\P5208H\Design\P-5208H_REV-EC25.dgn

PROJECT REFERENCE NO.	SHEET NO.
P-5208H	EC-26/CONST J9

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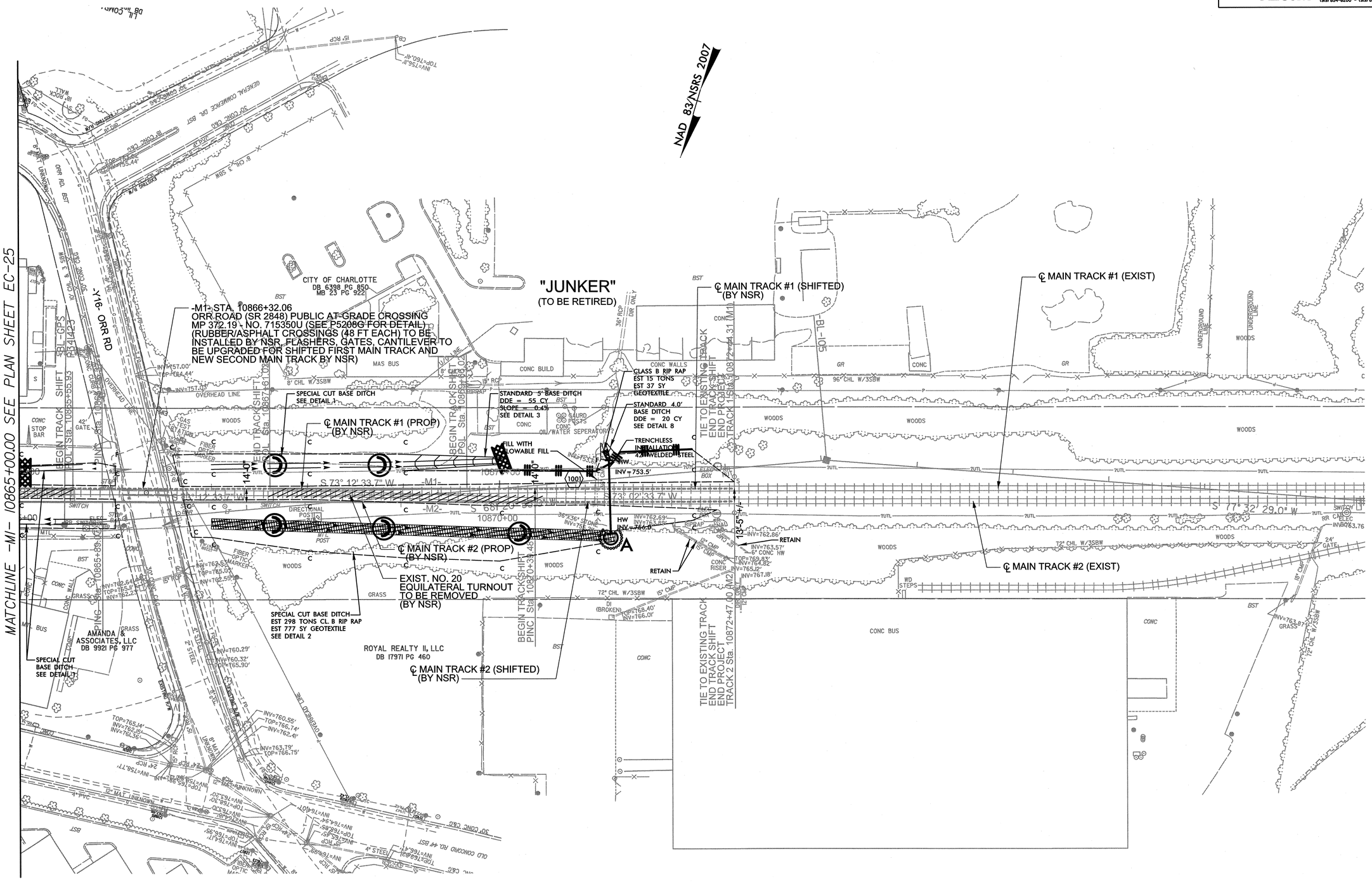

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