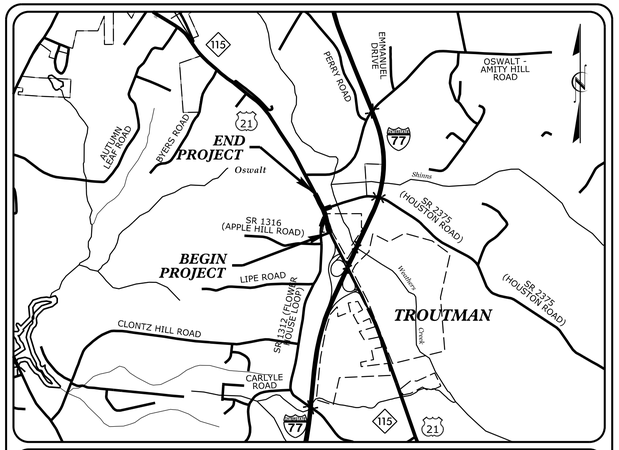
TIP PROJECT: R-5711



VICINITY MAP
NOT TO SCALE

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-5711	EC-1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
50207.1.1	N/A	P.E.
50207.2.1	N/A	R/W
50207.2.2	N/A	UTILITIES
50207.3.1	N/A	CONST.

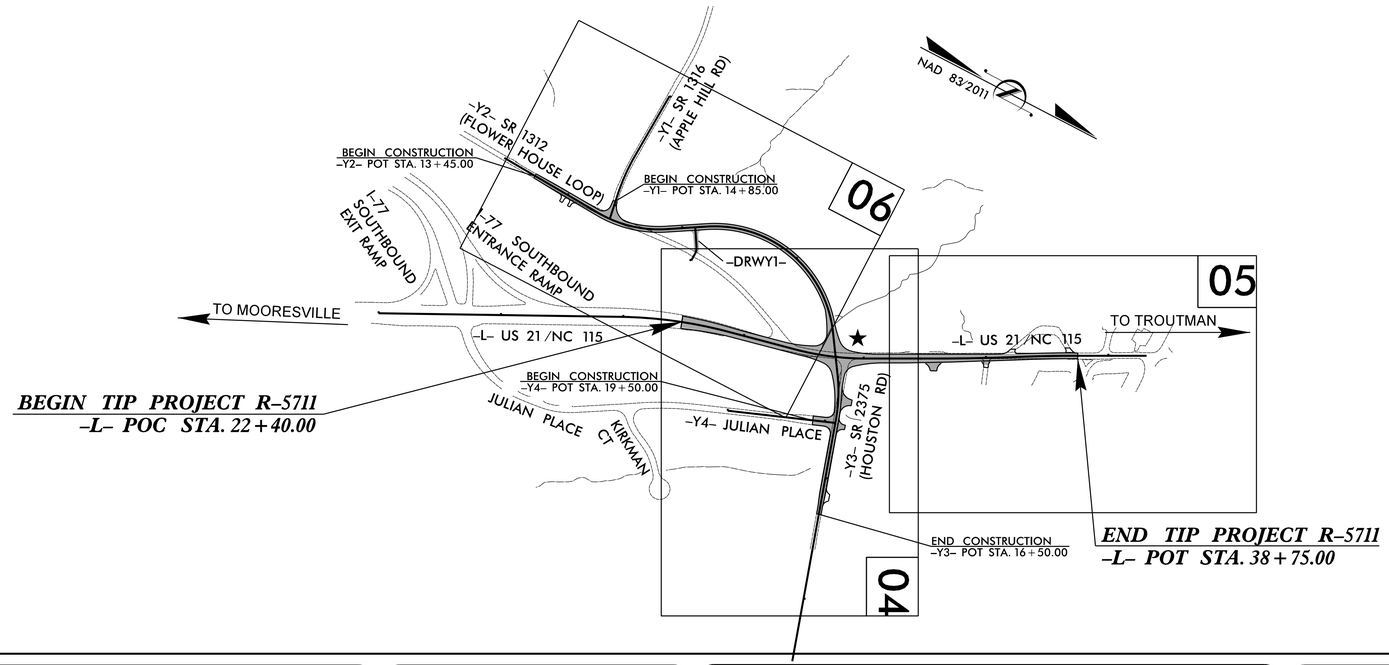
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL

IREDELL COUNTY

LOCATION: INTERSECTION IMPROVEMENTS AT US 21 AND SR 1312 (FLOWER HOUSE LOOP)/ SR 2375 (HOUSTON ROAD)

TYPE OF WORK: GRADING, PAVING, DRAINAGE, SIGNING, PAVEMENT MARKINGS, AND SIGNALS



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

GRAPHIC SCALE

50 25 0 50 100
PLANS

THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY WITH THE APPLICABLE REGULATIONS SET FORTH BY THE NCG-010000 GENERAL CONSTRUCTION PERMIT ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY DIVISION OF ENERGY, MINERAL, AND LAND RESOURCES.

DRMP
ENGINEERS SURVEYORS PLANNERS SCIENTISTS

Prepared in the Office of:

DRMP, INC

5808 FARINGDON PLACE
SUITE 100
RALEIGH, NORTH CAROLINA 27609
(919) 872-5115
NC LICENSE NO. F-1524

Designed by:

JENS S. MEYER, E.I. *4623*

NAME *LEVEL III CERTIFICATION NO.*

Roadway Standard Drawings

The "Roadway Standard Drawings"- Contract Standards and Development Unit - N. C. Department of Transportation - Raleigh, N. C., dated January 2024 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

9/23/2026
R-5711_EC_sh.dgn
User:jmeyer
PWidth:36.00in

PROJECT REFERENCE NO.	SHEET NO.
R-5711	EC-1A
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

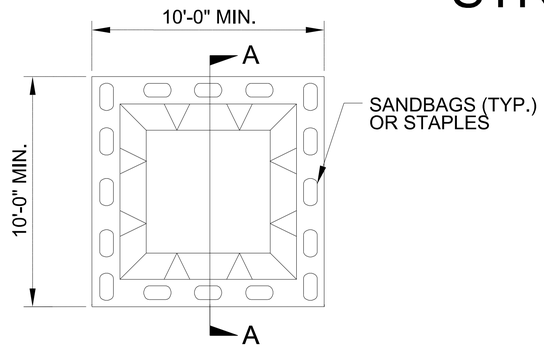
EROSION & SEDIMENT CONTROL LEGEND

Std. #	Description	Symbol
1605.01	Temporary Silt Fence	
1606.01	Special Sediment Control Fence	
1622.01	Temporary Berms and Slope Drains	
1630.02	Silt Basin Type B	
1630.03	Temporary Silt Ditch	TSD
1630.04	Stilling Basin	
1630.05	Temporary Diversion	TD
1630.06	Special Stilling Basin	
1630.07	Skimmer Basin	
1630.08	Tiered Skimmer Basin	
1630.09	Earthen Dam with Skimmer	
	Infiltration Basin	
	Rock Inlet Sediment Trap:	
1632.01	Type A	A
1632.02	Type B	B
1632.03	Type C	C

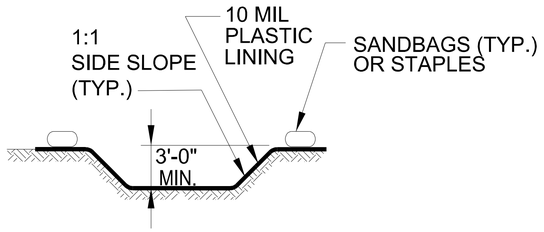
Std. #	Description	Symbol
1633.01	Temporary Rock Silt Check Type A	
1633.02	Temporary Rock Silt Check Type B	
1633.03	Temporary Rock Silt Check Type A with Excelsior Matting and Flocculant	
1634.01	Temporary Rock Sediment Dam Type A	
1634.02	Temporary Rock Sediment Dam Type B	
1635.01	Rock Pipe Inlet Sediment Trap Type A	A
1635.02	Rock Pipe Inlet Sediment Trap Type B	B
1636.01	Excelsior Wattle Check	
1636.01	Excelsior Wattle Check with Flocculant	
1636.01	Coir Fiber Wattle Check	
1636.01	Coir Fiber Wattle Check with Flocculant	
1636.02	Silt Fence Excelsior Wattle Break	EW
	Silt Fence Coir Fiber Wattle Break	CFW
1636.03	Excelsior Wattle Barrier	—EW—EW—EW—
1636.03	Coir Fiber Wattle Barrier	—CFW—CFW—CFW—

PROJECT REFERENCE NO.	SHEET NO.
R-5711	EC-2
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

ONSITE CONCRETE WASHOUT STRUCTURE WITH LINER



PLAN



SECTION A-A



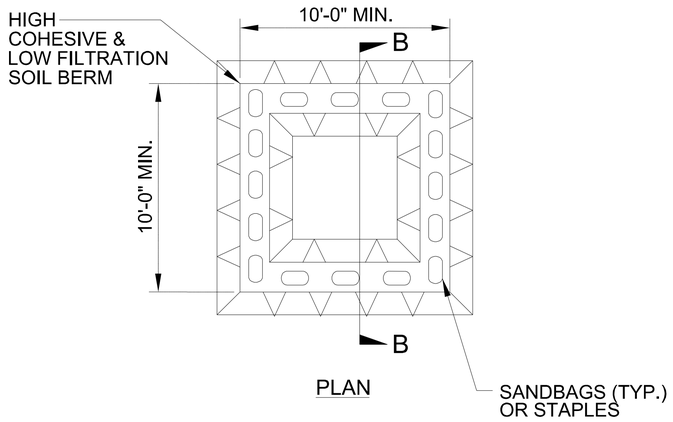
NOTES:
1. ACTUAL LOCATION DETERMINED IN FIELD

2. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY TO PROVIDE ADEQUATE HOLDING CAPACITY WITH A MINIMUM 12 INCHES OF FREEBOARD.

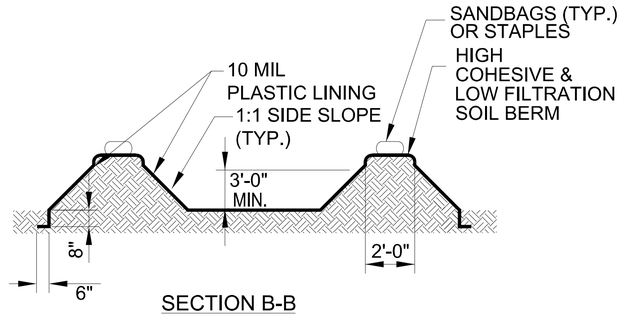
3.CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARLY MARKED WITH SIGNAGE NOTING DEVICE.

BELOW GRADE WASHOUT STRUCTURE

NOT TO SCALE



PLAN



SECTION B-B



NOTES:
1. ACTUAL LOCATION DETERMINED IN FIELD

2. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY TO PROVIDE ADEQUATE HOLDING CAPACITY WITH A MINIMUM 12 INCHES OF FREEBOARD.

3.CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARLY MARKED WITH SIGNAGE NOTING DEVICE.

ABOVE GRADE WASHOUT STRUCTURE

NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
R-5711	EC-3
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION SUMMARY SHEET

MATTING FOR EROSION CONTROL (STRAW)

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
4	-L-	25+00	25+50	LT	125
4	-L-	26+50	27+00	LT	125
4	-L-	30+00	31+50	RT	285
4	-Y2-	26+50	27+75	LT	185
4	-Y2-	26+50	27+50	RT	180
4	-Y3-	10+50	11+00	RT	40
5	-L-	37+50	38+00	LT	150
5	-L-	31+50	32+50	RT	250
6	-Y2-	13+45	16+50	LT	490
6	-Y2-	17+50	18+50	LT	160
6	-Y2-	24+00	25+00	LT	160
6	-Y2-	25+50	26+00	LT	80
6	-Y2-	13+45	16+00	RT	410
6	-Y2-	19+00	21+00	RT	300
6	-Y2-	24+00	24+50	RT	90
6	-Y2-	25+00	26+50	RT	270
			SUBTOTAL		3300
	MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER				2830

MATTING FOR EROSION CONTROL (EXCELSIOR)

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
4	-Y2-	27+50	28+50	RT	210
4	-Y3-	11+00	11+50	RT	80
6	-Y2-	22+85	24+00	LT	160
6	-Y2-	21+00	22+00	RT	180
			SUBTOTAL		630
	MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER				0
			TOTAL		6760
			SAY		6800

PROJECT REFERENCE NO.	SHEET NO.
R-5711	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 TO 4:1	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH WITH SLOPES STEEPER THAN 4:1. 7 DAYS FOR PERIMETER DIKES, SWALES, DITCHES PERIMETER SLOPES, AND HQW ZONES
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	7 DAYS FOR PERIMETER DIKES, SWALES, DITCHES PERIMETER SLOPES, AND HQW ZONES

PROJECT REFERENCE NO.	SHEET NO.
R-5711	EC-04/CONST.04
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PLANS PREPARED BY:

DRMP

DRMP, INC.
6210 UNIVERSITY EXECUTIVE PARK DR., SUITE 220
CHARLOTTE, NC 28262
NC LICENSE NO. P-1524 (704) 543-4260

MATCH LINE –L– STA. 31+50 SEE SHEET EC–05

NAD 83 2011

18 x 83 x 3
1.5 inch Skimmer
with 1.125 inch
Orifice Diameter
6 ft. weir
ID 4.2 B

107 x 24 x 3
1.5 inch Skimmer
with 1.375 inch
Orifice Diameter
10 ft. weir
ID 4.1 B

–L– PT Sta. 30+05.04

–L– POC STA.28+85.26=
–Y2– POT STA.29+45.00
–Y3– POT STA.10+00.00
N 56° 20' 32.8" E

–Y2– PT Sta. 28+43.56

–Y3– PT Sta. 12+56.35

–Y3– POT STA.12+70.79
–Y4– POT STA.20+42.67

BEGIN CONSTRUCTION
–Y4– POT STA.19+50.00

–L– PC Sta. 27+22.68

–Y3– PC Sta. 10+72.14

END CONSTRUCTION
–Y3– POT STA.16+50.00

–Y4– POT Sta. 16+00.00

–L– PT Sta. 24+24.41

BEGIN TIP PROJECT R–5711
POC –L– STA. 22+40.00

MATCH LINE
–Y2– STA. 26+50
SEE SHEET EC–06

TOE PROTECTION SEE DETAIL 'G'
PIPE OUTLET CHANNEL SEE DETAIL 'M'
LAT. BASE DITCH SEE DETAIL 'J'
SPEC. CUT DITCH SEE DETAIL 'B'
CUT DITCH SEE DETAIL 'C'
LAT. 'V' DITCH W/ RIP–RAP SEE DETAIL 'F'
SPEC. CUT DITCH SEE DETAIL 'A'
SPEC. CUT DITCH SEE DETAIL 'D'
SPEC. CUT DITCH SEE DETAIL 'N'
GRADE TO DRAIN
DO NOT DISTURB SIGN
REMOVE 18" RCP
REMOVE 18" HDPE
REMOVE DI (SLOTTED DRAIN)
RETAIN 30" RCP
RETAIN 36" RCP
COLLAR AND EXTEND 36" RCP–III
CUT DITCH SEE DETAIL 'H'
LAT. 'V' DITCH W/ RIP–RAP SEE DETAIL 'E'
CL. I RIP–RAP EST. 10 TONS EST. 23 SY
BEGIN JURISDICTIONAL STREAM
FLOWABLE FILL
REMOVE 18" CMP
GRADE ONLY
SEWER EASEMENT TOWN OF TROUTMAN

DONALD A. HANELINE
DB 1185 PG 124

RONALD E. OSTWALD
DB 654 PG 105

STEPHEN B. HUBBARD
DB 1827 PG 129

C. LYNN & SUSAN SHERRILL
DB 1142 PG 104

JOHN & ESTER KURTI
DB 1947 PG 1074
PB 52 PG 90

PUBLIC SERVICE COMPANY OF NC
DB 1262 PG 197
PB 37 PG 79

ONSRUD PROPERTIES
DB 1943 PG 2102
PB 52 PG 26 L10

RONNIE H. YEE
DB 1943 PG 58
PB 52 PG 90

ONSRUD PROPERTIES LP
DB 1943 PG 2102
PB 52 PG 26 L9

S+S FAMILY LPD PARTNERSHIP
DB 1959 PG 1224
PB 52 PG 90

HWG DEV. CO. LLC
DB 2048 PG 931

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 04

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

RIST TYPE–C INLET PROTECTION EROSION CONTROL MEASURES MAY BE SUBSTITUTED WITH FABRIC INSERT INLET PROTECTION DEVICES ON CATCH BASINS AT THE DISCRETION OF THE ENGINEER.

DETAIL A
SPECIAL CUT DITCH (Not to Scale)

Natural Ground, 2:1, D, d, 4:1 or Flatter, Front Ditch Slope, Geotextile
Min. D = 1 Ft.
Max. d = 1 Ft.
Type of Liner = B Rip–Rap

FROM STA. 11+50 TO STA. 12+39 –Y3– RT

DETAIL B
SPECIAL CUT DITCH (Not to Scale)

Natural Ground, 2:1, D, 4:1 or Flatter, Front Ditch Slope
Min. D = 1 Ft.

FROM STA. 26+50 TO STA. 27+00 –Y2– LT
FROM STA. 10+50 TO STA. 11+50 –Y3– RT
FROM STA. 11+50 –Y3– LT TO STA. 31+00 –L– RT

DETAIL C
SPECIAL CUT DITCH (Not to Scale)

Natural Ground, 3:1, D, 4:1 or Flatter, Front Ditch Slope
Min. D = 1 Ft.

FROM STA. 24+00 TO STA. 27+50 –Y2– RT

DETAIL D
SPECIAL CUT DITCH (Not to Scale)

Natural Ground, 5:1, D, 4:1 or Flatter, Front Ditch Slope
Min. D = 1 Ft.

FROM STA. 22+40 TO STA. 26+50 –L– RT

DETAIL E
LATERAL 'V' DITCH (Not to Scale)

Natural Ground, 2:1, d, b, 2:1, 1'/Ft., Fill Slope, Geotextile
Min. D = 1 Ft.
Max. d = 1 Ft.
b = 5 Ft.
Type of Liner = Class B Rip–Rap

FROM STA. 13+10 TO STA. 14+50 –Y3– RT

DETAIL F
LATERAL 'V' DITCH (Not to Scale)

Natural Ground, 2:1, d, b, 2:1, 1'/Ft., Fill Slope, Geotextile
Min. D = 1 Ft.
Max. d = 1 Ft.
b = 5 Ft.
Type of Liner = Class I Rip–Rap

FROM STA. 27+00 TO STA. 27+85 –L– LT

DETAIL M
PIPE OUTLET CHANNEL (Not to Scale)

Natural Ground, min. 2.5:1 SS, EXISTING SLOPE, min. 2.5:1 SS, Natural Ground, d, CHANNEL BED (Variable)
Length = 6 Ft.
d = 6 Ft.
Est. = 4 Tons of Class II Rip–Rap

AT STA. 25+79 –Y2– LT

DETAIL N
SPECIAL CUT DITCH wHINGE (Not to Scale)

Natural Ground, 2:1, 4:1, D, 6:1 or Flatter, Front Ditch Slope, 6.0'
Min. D = 2 Ft.

FROM STA. 23+00 TO STA. 24+00 –L– LT

DETAIL G
TOE PROTECTION (Not to Scale)

Natural Ground, d, 2:1 or Flatter, Fill Slope, Geotextile
d = 1 Ft.
Type of Liner = Class I Rip–Rap

FROM STA. 27+95 TO STA. 28+50 –Y2– LT
FROM STA. 27+50 TO STA. 28+40 –Y2– RT

DETAIL H
CUT DITCH (Not to Scale)

Natural Ground, 2:1, D, 10:1 or Flatter, Front Ditch Slope
Min. D = 1 Ft.

FROM STA. 16+09 TO STA. 16+50 –Y3– LT

DETAIL J
LATERAL BASE DITCH (Not to Scale)

Natural Ground, 2:1, d, D, 2:1, b, 1'/Ft., Fill Slope, GEOTEXTILE, B
Min. D = 1 Ft.
Max. d = 1 Ft.
B = 2 Ft.
b = 2 Ft.
*When B is < 6.0'
Type of Liner = Class B Rip–Rap

FROM STA. 27+00 TO STA. 27+75 –Y2– LT

–Y2–	–Y3–
PI Sta 25+67.20 △ = 87° 25' 10.7" (RT) D = 11° 48' 48.8" L = 739.99' T = 463.64' R = 485.00' SE = 0.06 R0 = 148.75 V = 40 MPH	PI Sta 11+64.88 △ = 16° 24' 50.1" (RT) D = 8° 54' 38.5" L = 184.20' T = 92.74' R = 643.00' SE = 0.06 R0 = 132'
–L–	
PI Sta 22+07.76 △ = 13° 51' 36.6" (RT) D = 3° 10' 59.2" L = 435.43' T = 218.78' R = 1,800.00' SE = 0.05 R0 = 120'	PI Sta 28+64.64 △ = 14° 42' 26.0" (LT) D = 5° 12' 31.3" L = 282.36' T = 141.96' R = 1,100.00' SE = 0.04 R0 = 96'

PROJECT REFERENCE NO.	SHEET NO.
R-5711	EC-05/CONST.05
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PLANS PREPARED BY:
DRMP
DRMP, INC.
8210 UNIVERSITY EXECUTIVE PARK DR., SUITE 220
CHARLOTTE, NC 28262
NC LICENSE NO. F-1524 (704) 548-6260

NAD 83/2011

MATCH LINE –L– STA. 31+50 SEE SHEET EC-04

PC Sta. 33+03.11

PRC Sta. 36+31.83

PT Sta. 38+73.43

POT Sta. 41+56.30

BUILDING OUTSIDE PUE LIMITS

SPEC. CUT DITCH SEE DETAIL 'B'

GRADE TO DRAIN

REMOVE

15" RCP-IV

0501

0502

0503

EXIST

–L–

N 27° 29' 26.1" W

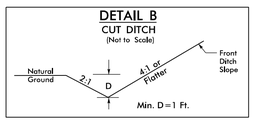
CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 05

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

END TIP PROJECT R-5711
POT –L– STA. 39+60.85

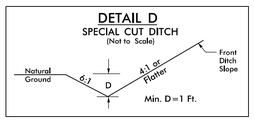
END TIP PROJECT R-5711
POT –L– STA. 38+75.00

DETAIL B
CUT DITCH
(Not to Scale)



FROM STA. 36+50 TO STA. 38+18 –L– LT
FROM STA. 38+57 TO STA. 39+61 –L– LT

DETAIL D
SPECIAL CUT DITCH
(Not to Scale)



FROM STA. 34+79 TO STA. 35+50 –L– LT

–L–	
PI Sta 34+67.49	PI Sta 37+52.65
△ = 2° 18' 39.4" (LT)	△ = 2° 18' 39.4" (RT)
D = 0° 42' 10.9"	D = 0° 57' 23.5"
L = 328.72'	L = 241.60'
T = 164.38'	T = 120.82'
R = 8,150.00'	R = 5,990.00'
SE = NC	SE = RC

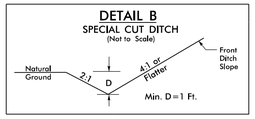
PROJECT REFERENCE NO.	SHEET NO.
R-5711	EC-06/CONST.06
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PLANS PREPARED BY:
DRMP
DRMP, INC.
8210 UNIVERSITY EXECUTIVE PARK DR., SUITE 220
CHARLOTTE, NC 28262
NC LICENSE NO. P-1524 (704) 549-4260

NAD 83/2011

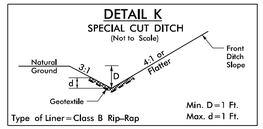
-Y1-	-Y2-		-DRW1-
PI Sta 13+70.70	PI Sta 17+94.37	PI Sta 25+67.20	PI Sta 10+45.99
△ = 12° 02' 39.3" (LT)	△ = 33° 54' 58.7" (LT)	△ = 87° 25' 10.7" (RT)	△ = 32° 41' 21.7" (LT)
D = 6° 50' 21.8"	D = 11° 48' 48.8"	D = 11° 48' 48.8"	D = 114° 35' 29.6"
L = 176.10'	L = 287.10'	L = 739.99'	L = 28.53'
T = 88.38'	T = 147.89'	T = 463.64'	T = 14.66'
R = 837.73'	R = 485.00'	R = 485.00'	R = 50.00'
	SE = 0.06	SE = 0.06	
	RO = 148.75'	RO = 148.75'	
	V = 40 MPH	V = 40 MPH	

DETAIL B
SPECIAL CUT DITCH
(Not to Scale)



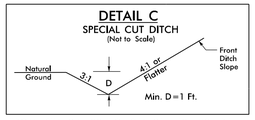
FROM STA. 13+45 -Y2- LT TO STA. 14+85 -Y1- RT
FROM STA. 17+50 TO STA. 18+50 -Y2- LT
FROM STA. 24+00 TO STA. 25+00 -Y2- LT
FROM STA. 13+62 TO STA. 16+00 -Y2- RT

DETAIL K
SPECIAL CUT DITCH
(Not to Scale)



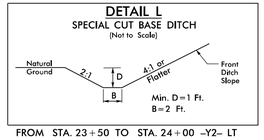
Type of Liner=Class B Rip-Rap
FROM STA. 22+00 TO STA. 24+00 -Y2- RT

DETAIL C
SPECIAL CUT DITCH
(Not to Scale)



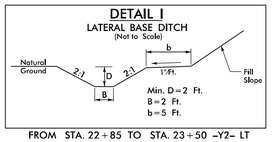
FROM STA. 24+00 TO STA. 27+50 -Y2- RT
FROM STA. 19+50 TO STA. 22+00 -Y2- RT

DETAIL L
SPECIAL CUT BASE DITCH
(Not to Scale)



FROM STA. 23+50 TO STA. 24+00 -Y2- LT

DETAIL I
LATERAL BASE DITCH
(Not to Scale)



FROM STA. 22+85 TO STA. 23+50 -Y2- LT

42 x 84 x 3
2.0 inch Skimmer
with 1.750 inch
Orifice Diameter
13 ft. weir
ID 6.1 B

-Y1- POT Sta. 10+00.00
S 87° 27' 23.3" E
-Y1- PC Sta. 12+82.32
-Y2- PC Sta. 21+03.57
-DRW1- POT Sta. 11+40.96=
-Y2- POT Sta.20+53.19
-Y2- PT Sta. 19+33.57
N 31° 04' 37.9" W
-Y1- PT Sta. 14+58.42
N 80° 29' 58.4" E
BEGIN CONSTRUCTION
-Y1- POT STA.14+85.00
BEGIN CONSTRUCTION
-Y2- POT
STA.13+45.00
-Y2- PC Sta. 16+46.47
-Y2- N 2° 50' 20.7" E
-Y1- POT Sta. 15+60.17=
-Y2- POC Sta.16+97.57
PT Sta. 10+59.85
S 58° 55' 22.1" W
PC Sta. 10+31.32
POT Sta. 10+00.00
N 88° 23' 16.2" W
PC Sta. 19+88.98
-L-

LAT. BASE DITCH SEE DETAIL 'I'
SPEC. CUT BASE DITCH SEE DETAIL 'L'
CL. B RIP-RAP EST. 5 TONS EST. 14 SY
CL. B RIP-RAP EST. 4 TONS EST. 13 SY
SPEC. CUT DITCH SEE DETAIL 'B'
SPEC. CUT DITCH W/ RIP-RAP SEE DETAIL 'K'
CUT DITCH SEE DETAIL 'C'
CUT DITCH SEE DETAIL 'C'
CUT DITCH SEE DETAIL 'C'
SPEC. CUT DITCH SEE DETAIL 'B'
SPEC. CUT DITCH SEE DETAIL 'B'
SPEC. CUT DITCH SEE DETAIL 'B'
SPEC. CUT DITCH SEE DETAIL 'B'
REMOVE 12" CMP
REMOVE 12" CMP
REMOVE
RETAIN
RETAIN
RETAIN
TEMPORARY 18" PIPE
CL. B RIP-RAP EST. 3 TONS EST. 10 SY
18" RCP-III
24" RCP-III
PUE
PDE
TSD
MATCH LINE -Y2- STA. 26+50 SEE SHEET EC-04

REGINALD K. OSTWALP DB 654 PG 103
HOWARD J. CULBRETH & SHARON M. CULBRETH DB 1526 PG 2045
COLEN P. MILLER DB 2248 PG 1588
HWG DEV. CO. LLC DB 2048 PG 931
STEPHEN R. HUBBARD DB 1827 PG 1293
JOHNNY R. DAGENHART & ERIC W. DAGENHART WB 07E PG 975
MOUNTAIN STATE INV. LLC DB 1668 PG 1022

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 06

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

PROJECT REFERENCE NO.	SHEET NO.
R-5711	EC-07/CONST.04
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PLANS PREPARED BY:
DRMP
DRMP, INC.
6210 UNIVERSITY EXECUTIVE PARK DR., SUITE 220
CHARLOTTE, NC 28262
NC LICENSE NO. P-1524 (704) 543-4260

MATCH LINE –L– STA. 31+50 SEE SHEET EC–08

MATCH LINE –Y2– STA. 26+50 SEE SHEET EC–09

NAD 83/2011

96 x 47 x 3
2.0 inch Skimmer
with 1.875 inch
Orifice Diameter
17 ft. weir
ID 4.2 B

107 x 24 x 3
1.5 inch Skimmer
with 1.375 inch
Orifice Diameter
10 ft. weir
ID 4.1 B

–L– PT Sta. 30+05.04

–L– POC STA.28+85.26=
–Y2– POT STA.29+45.00
–Y3– POT STA.10+00.00
N 56° 20' 32.8" E

–Y2– PT Sta. 28+43.56

–Y3– PT Sta. 12+56.35

–Y3– POT STA.12+70.79
–Y4– POT STA.20+42.67

BEGIN CONSTRUCTION
–Y4– POT STA.19+50.00

–Y3– PC Sta. 10+72.14

–L– PC Sta. 27+22.68

END CONSTRUCTION
–Y3– POT STA.16+50.00

–L– PT Sta. 24+24.41

–Y4– POT Sta. 16+00.00

BEGIN TIP PROJECT R–5711
POC –L– STA. 22+40.00

TOE PROTECTION SEE DETAIL 'G'
PIPE OUTLET CHANNEL SEE DETAIL 'M'
LAT. BASE DITCH SEE DETAIL 'J'
SPEC. CUT DITCH SEE DETAIL 'B'
REMOVE 18" RCP
REMOVE DI (SLOTTED DRAIN)
REMOVE 18" HDPE
RETAIN 30" RCP
RETAIN 36" RCP
CUT DITCH SEE DETAIL 'H'
COLLAR AND EXTEND 36" RCP-III
GRADE TO DRAIN
CL. I RIP-RAP EST. 10 TONS EST. 23 SY
LAT. 'V' DITCH W/ RIP-RAP SEE DETAIL 'E'
DO NOT DISTURB SIGN
GRADE TO DRAIN
SPEC. CUT DITCH SEE DETAIL 'A'
FLOWABLE FILL
CUT DITCH SEE DETAIL 'C'
LAT. 'V' DITCH W/ RIP-RAP SEE DETAIL 'F'
REMOVE 18" CMP
SPEC. CUT DITCH SEE DETAIL 'D'
SPEC. CUT DITCH SEE DETAIL 'N'
GRADE ONLY

Place Matting for Erosion Control on Slope as Work Allows.
Y2 Sta. 27+00 to Sta. 28+50 LT
Y3 Sta. 13+10 to Sta. 14+75 RT

RIST TYPE–C INLET PROTECTION EROSION CONTROL MEASURES MAY BE SUBSTITUTED WITH FABRIC INSERT INLET PROTECTION DEVICES ON CATCH BASINS AT THE DISCRETION OF THE ENGINEER.

–Y2–	–Y3–
PI Sta 25+67.20 Δ = 87° 25' 10.7" (RT) D = 11° 48' 48.8" L = 739.99' T = 463.64' R = 485.00' SE = 0.06 RO = 148.75 V = 40 MPH	PI Sta 11+64.88 Δ = 16° 24' 50.1" (RT) D = 8° 54' 38.5" L = 184.20' T = 92.74' R = 643.00' SE = 0.06 RO = 132'
–L–	
PI Sta 22+07.76 Δ = 13° 51' 36.6" (RT) D = 3° 10' 59.2" L = 435.43' T = 218.78' R = 1,800.00' SE = 0.05 RO = 120'	PI Sta 28+64.64 Δ = 14° 42' 26.0" (LT) D = 5° 12' 31.3" L = 282.36' T = 141.96' R = 1,100.00' SE = 0.04 RO = 96'

DETAIL A
SPECIAL CUT DITCH
(Not to Scale)
Natural Ground, 2:1, D, d, 6:1 or Flatter, Front Ditch Slope, Geotextile
Type of Liner = B Rip–Rap
Min. D = 1 Ft.
Max. d = 1 Ft.
FROM STA. 11+50 TO STA. 12+39 –Y3– RT

DETAIL B
SPECIAL CUT DITCH
(Not to Scale)
Natural Ground, 2:1, D, 6:1 or Flatter, Front Ditch Slope
Min. D = 1 Ft.
FROM STA. 26+50 TO STA. 27+00 –Y2– LT
FROM STA. 10+50 TO STA. 11+50 –Y3– RT
FROM STA. 11+50 –Y3– LT TO STA. 31+00 –L– RT

DETAIL C
SPECIAL CUT DITCH
(Not to Scale)
Natural Ground, 3:1, D, 6:1 or Flatter, Front Ditch Slope
Min. D = 1 Ft.
FROM STA. 24+00 TO STA. 27+50 –Y2– RT

DETAIL D
SPECIAL CUT DITCH
(Not to Scale)
Natural Ground, 6:1, D, 6:1 or Flatter, Front Ditch Slope
Min. D = 1 Ft.
FROM STA. 22+40 TO STA. 26+50 –L– RT

DETAIL E
LATERAL 'V' DITCH
(Not to Scale)
Natural Ground, 2:1, d, b, 2:1, 1'/Ft., Fill Slope, Geotextile
Min. D = 1 Ft.
Max. d = 1 Ft.
b = 5 Ft.
Type of Liner = Class B Rip–Rap
FROM STA. 13+10 TO STA. 14+50 –Y3– RT

DETAIL F
LATERAL 'V' DITCH
(Not to Scale)
Natural Ground, 2:1, d, b, 2:1, 1'/Ft., Fill Slope, Geotextile
Min. D = 1 Ft.
Max. d = 1 Ft.
b = 5 Ft.
Type of Liner = Class I Rip–Rap
FROM STA. 27+00 TO STA. 27+85 –L– LT

DETAIL M
PIPE OUTLET CHANNEL
(Not to Scale)
Natural Ground, Varies 2:1 to 10:1, Existing Ditch, d, CHANNEL BED (Variable)
Length = 6 Ft.
d = 6 Ft.
Est. = 4 Tons of Class II Rip–Rap
AT STA. 25+79 –Y2– LT

DETAIL N
SPECIAL CUT DITCH wHINGE
(Not to Scale)
Natural Ground, 2:1, 4:1, D, 6:1 or Flatter, Front Ditch Slope, 6.0'
Min. D = 2 Ft.
FROM STA. 23+00 TO STA. 24+00 –L– LT

DETAIL G
TOE PROTECTION
(Not to Scale)
Natural Ground, d, 2:1 or Flatter, Fill Slope, Geotextile
d = 1 Ft.
Type of Liner = Class I Rip–Rap
FROM STA. 27+95 TO STA. 28+50 –Y2– LT
FROM STA. 27+50 TO STA. 28+40 –Y2– RT

DETAIL H
CUT DITCH
(Not to Scale)
Natural Ground, 2:1, D, 10:1 or Flatter, Front Ditch Slope
Min. D = 1 Ft.
FROM STA. 16+09 TO STA. 16+50 –Y3– LT

DETAIL J
LATERAL BASE DITCH
(Not to Scale)
Natural Ground, 2:1, d, D, 2:1, b, 1'/Ft., Fill Slope, GEOTEXTILE, B
Min. D = 1 Ft.
Max. d = 1 Ft.
B = 2 Ft.
b = 2 Ft.
*When B is < 6.0'
Type of Liner = Class B Rip–Rap
FROM STA. 27+00 TO STA. 27+75 –Y2– LT

PROJECT REFERENCE NO.	SHEET NO.
R-5711	EC-08/CONST.05
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PLANS PREPARED BY:
DRMP
DRMP, INC.
8210 UNIVERSITY EXECUTIVE PARK DR., SUITE 220
CHARLOTTE, NC 28262
NC LICENSE NO. F-1524 (704) 548-6260

MATCH LINE –L– STA. 31+50 SEE SHEET EC-07

NAD 83/2011

PC Sta. 33+03.11

PRC Sta. 36+31.83

PT Sta. 38+73.43

POT Sta. 41+56.30

N 27° 29' 26.1" W

END TIP PROJECT R-5711
POT –L– STA. 39+60.85

END TIP PROJECT R-5711
POT –L– STA. 38+75.00

BUILDING OUTSIDE PUE LIMITS

SPEC. CUT DITCH SEE DETAIL 'B'

GRADE TO DRAIN

REMOVE

15" RCP-IV

18" CMP

DOUGLAS A. HANELINE
DB 9011 PG 1356
PB 19 PG 63

MOTORSPORTS PROPERTIES INC.
DB 1015 PG 697
PB 19 PG 63

STEVEN & DIANA ROGERS
DB 760 PG 314
PB 19 PG 63 L9

RONALD COMPTON
DB 777 PG 724
PB 19 PG 63 L10

RONALD COMPTON
DB 779 PG 331
PB 19 PG 63 L11

PRESTIGE OFFICE BUILDING
DB 2510 PG 1105
PB 19 PG 63 L12

PUBLIC SERVICE COMPANY OF NC
DB 1262 PG 1197
PB 37 PG 79

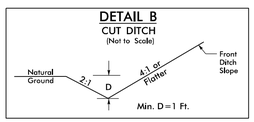
TIMELESS CUSTON GARAGE LLC
DB 2014 PG 302
PB 28 PG 49

TERRY F BRIDGERS
DB 1299 PG 1259
PB 28 PG 49

TOWN & COUNTRY STORAGE TROUTMAN LLC
DB 2404 PG 1942
PB 40 PG 110

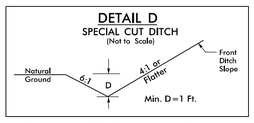
AMITY COMMERCIAL III LLC
DB 4729 PG 711
PB 39 PG 4 L5

DETAIL B
CUT DITCH
(Not to Scale)



FROM STA. 36+50 TO STA. 38+18 –L– LT
FROM STA. 38+57 TO STA. 39+61 –L– LT

DETAIL D
SPECIAL CUT DITCH
(Not to Scale)



FROM STA. 34+79 TO STA. 35+50 –L– LT

–L–	
PI Sta 34+67.49	PI Sta 37+52.65
△ = 2° 18' 39.4" (LT)	△ = 2° 18' 39.4" (RT)
D = 0° 42' 10.9"	D = 0° 57' 23.5"
L = 328.72'	L = 241.60'
T = 164.38'	T = 120.82'
R = 8,150.00'	R = 5,990.00'
SE = NC	SE = RC

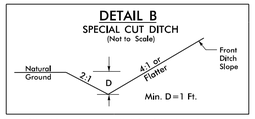
PROJECT REFERENCE NO.	SHEET NO.
R-5711	EC-09/CONST.06
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PLANS PREPARED BY:
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DRMP, INC.
6210 UNIVERSITY EXECUTIVE PARK DR., SUITE 220
CHARLOTTE, NC 28262
NC LICENSE NO. P-1524 (704) 549-4260

-Y1-	-Y2-		-DRW1-
PI Sta 13+70.70	PI Sta 17+94.37	PI Sta 25+67.20	PI Sta 10+45.99
△ = 12° 02' 39.3" (LT)	△ = 33° 54' 58.7" (LT)	△ = 87° 25' 10.7" (RT)	△ = 32° 41' 21.7" (LT)
D = 6° 50' 21.8"	D = 11° 48' 48.8"	D = 11° 48' 48.8"	D = 114° 35' 29.6"
L = 176.10'	L = 287.10'	L = 739.99'	L = 28.53'
T = 88.38'	T = 147.89'	T = 463.64'	T = 14.66'
R = 837.73'	R = 485.00'	R = 485.00'	R = 50.00'
	SE = 0.06	SE = 0.06	
	R0 = 148.75'	R0 = 148.75'	
	V = 40 MPH	V = 40 MPH	

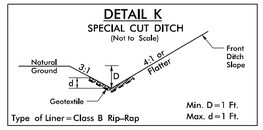
NAD 83/2011

DETAIL B
SPECIAL CUT DITCH
(Not to Scale)



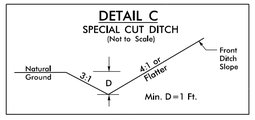
FROM STA. 13+45 –Y2– LT TO STA. 14+85 –Y1– RT
FROM STA. 17+50 TO STA. 18+50 –Y2– LT
FROM STA. 24+00 TO STA. 25+00 –Y2– LT
FROM STA. 13+62 TO STA. 16+00 –Y2– RT

DETAIL K
SPECIAL CUT DITCH
(Not to Scale)



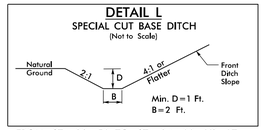
Type of Liner=Class B Rip-Rap
FROM STA. 22+00 TO STA. 24+00 –Y2– RT

DETAIL C
SPECIAL CUT DITCH
(Not to Scale)



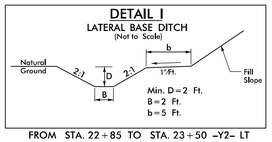
FROM STA. 24+00 TO STA. 27+50 –Y2– RT
FROM STA. 19+50 TO STA. 22+00 –Y2– RT

DETAIL L
SPECIAL CUT BASE DITCH
(Not to Scale)



FROM STA. 23+50 TO STA. 24+00 –Y2– LT

DETAIL I
LATERAL BASE DITCH
(Not to Scale)



FROM STA. 22+85 TO STA. 23+50 –Y2– LT

42 x 84 x 3
2.0 inch Skimmer
with 1.750 inch
Orifice Diameter
13 ft. weir
ID 6.1 B

-Y1- POT Sta. 10+00.00

S 87° 27' 22.3" E

-Y1- PC Sta. 12+82.32

-DRW1- POT Sta. 11+40.96=
-Y2- POT Sta.20+53.19

-Y2- PC Sta. 21+03.57

BEGIN CONSTRUCTION
-Y1- POT STA.14+85.00

BEGIN CONSTRUCTION
-Y2- POT STA.13+45.00

-Y2- PT Sta. 19+33.57
N 31° 04' 37.9" W

-Y1- PT Sta. 14+58.42
N 80° 29' 58.4" E

-Y2- PC Sta. 16+46.47

-Y2- N 2° 50' 20.7" E

-Y1- POT Sta. 15+60.17=
-Y2- POC Sta.16+97.57

PT Sta. 10+59.85
S 58° 55' 22.1" W

PC Sta. 10+31.32

POT Sta. 10+00.00
N 88° 23' 16.2" W

PC Sta. 19+88.98

MATCH LINE -Y2-
STA. 26+50 SEE SHEET EC-07

LAT. BASE DITCH SEE DETAIL 'I'

SPEC. CUT BASE DITCH SEE DETAIL 'L'
CL. B RIP-RAP EST. 5 TONS EST. 14 SY

SPEC. CUT DITCH SEE DETAIL 'B'

CL. B RIP-RAP EST. 4 TONS EST. 13 SY

SPEC. CUT DITCH W/ RIP-RAP SEE DETAIL 'K'

CUT DITCH SEE DETAIL 'C'

CUT DITCH SEE DETAIL 'C'

CUT DITCH SEE DETAIL 'C'

CL. B RIP-RAP EST. 3 TONS EST. 10 SY

SPEC. CUT DITCH SEE DETAIL 'B'

SPEC. CUT DITCH SEE DETAIL 'B'

SPEC. CUT DITCH SEE DETAIL 'B'

REMOVE 12" CMP

REMOVE 12" CMP

REMOVE

RETAIN

RETAIN

RETAIN

24" RCP-III

18" RCP-III

15" RCP-III

Place Matting for Erosion Control
on Slope as Work Allows.
Y2 Sta. 17+50 to Sta. 18+00 RT
Y2 Sta. 22+50 to Sta. 23+00 LT
Y2 Sta. 24+00 to Sta. 26+00 LT

REGINALD K. OSTWALP
DB 654 PG 103

HOWARD J. CULBRETH
& SHARON M. CULBRETH
DB 1626 PG 2045

COLEN P. MILLER
DB 2248 PG 1588

HWG DEV. CO. LLC
DB 2048 PG 931

STEPHEN B. HUBBARD
DB 1827 PG 1293

JOHNNY R. DAGENHART
& ERIC W. DAGENHART
WB 07E PG 913

MOUNTAIN STATE INV. LLC
DB 1668 PG 1022