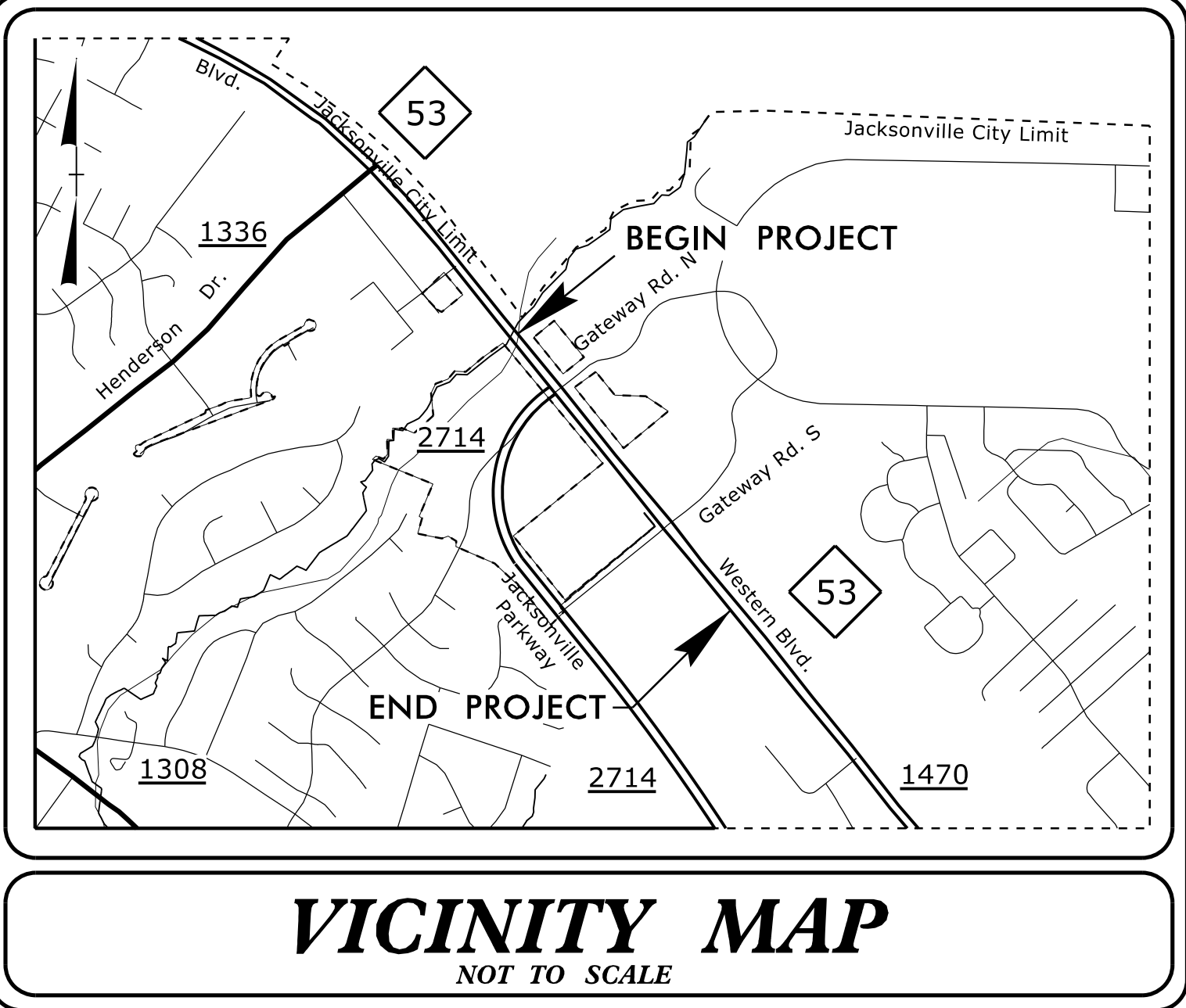


TIP PROJECT: U-5789

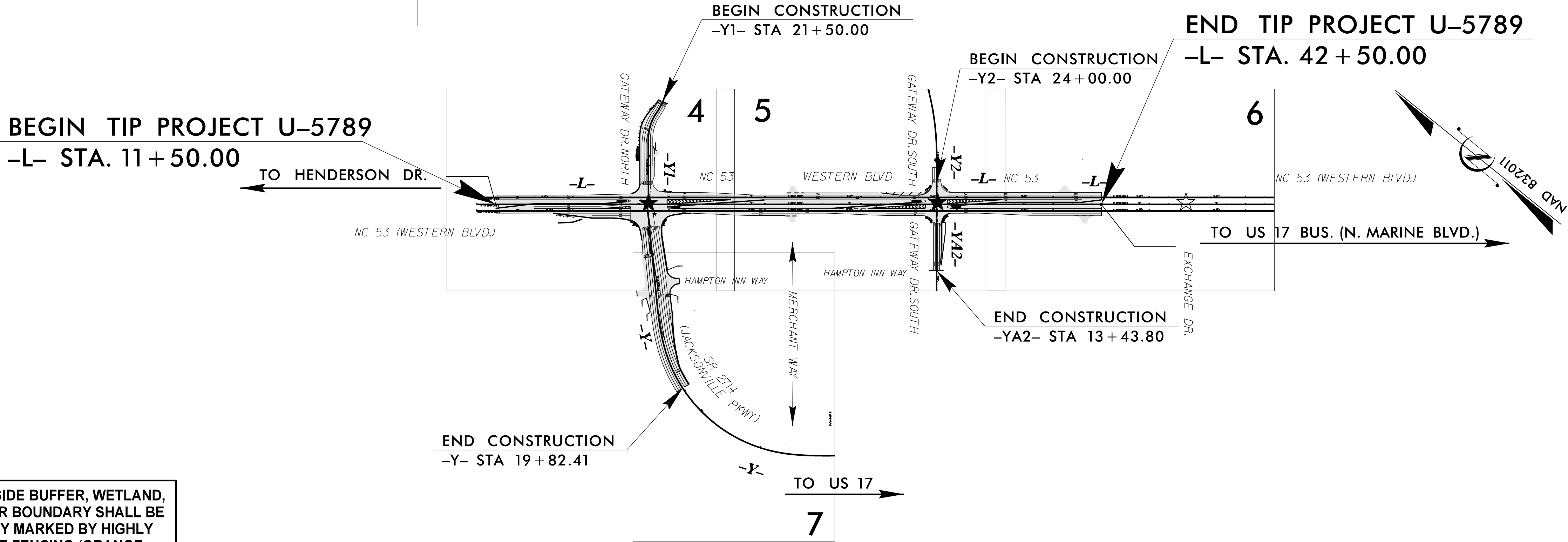


STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL
ON SLOW COUNTY

LOCATION: JACKSONVILLE - NC-53 (WESTERN BOULEVARD) AT SR 2714
(JACKSONVILLE PARKWAY) // GATEWAY DRIVE NORTH/SOUTH

TYPE OF WORK: WIDENING, GRADING, DRAINAGE, PAVING, RESURFACING, AND SIGNALS

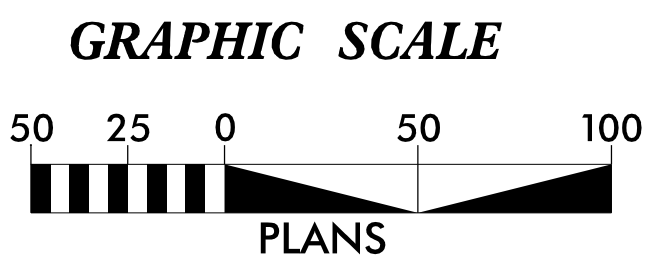
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-5789	EC-1	
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	



THE OUTSIDE BUFFER, WETLAND,
OR WATER BOUNDARY SHALL BE
CLEARLY MARKED BY HIGHLY
VISIBLE FENCING (ORANGE
SAFETY FENCE).

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

- ★ EXISTING SIGNAL TO BE UPGRADED
- ☆ EXISTING SIGNAL TO BE RETAINED



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

TRANSYSTEMS

1 Glenwood Avenue
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Tel: 919.789.9977
Fax: 919.789.9591
License: F-0453

Prepared in the Office of:
TranSystems
1 Glenwood Ave, Ste. 600
Raleigh, NC 27603

Designed by:
Brian A. Mazzochi, PE
NAME

3120
LEVEL III CERTIFICATION NO.

Roadway Standard Drawings

The "Roadway Standard Drawings"- Roadway Design 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.

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

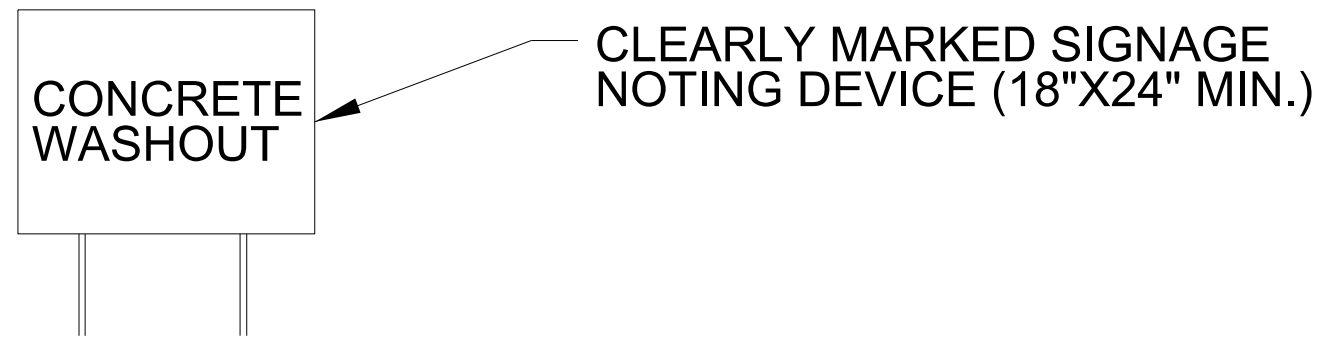
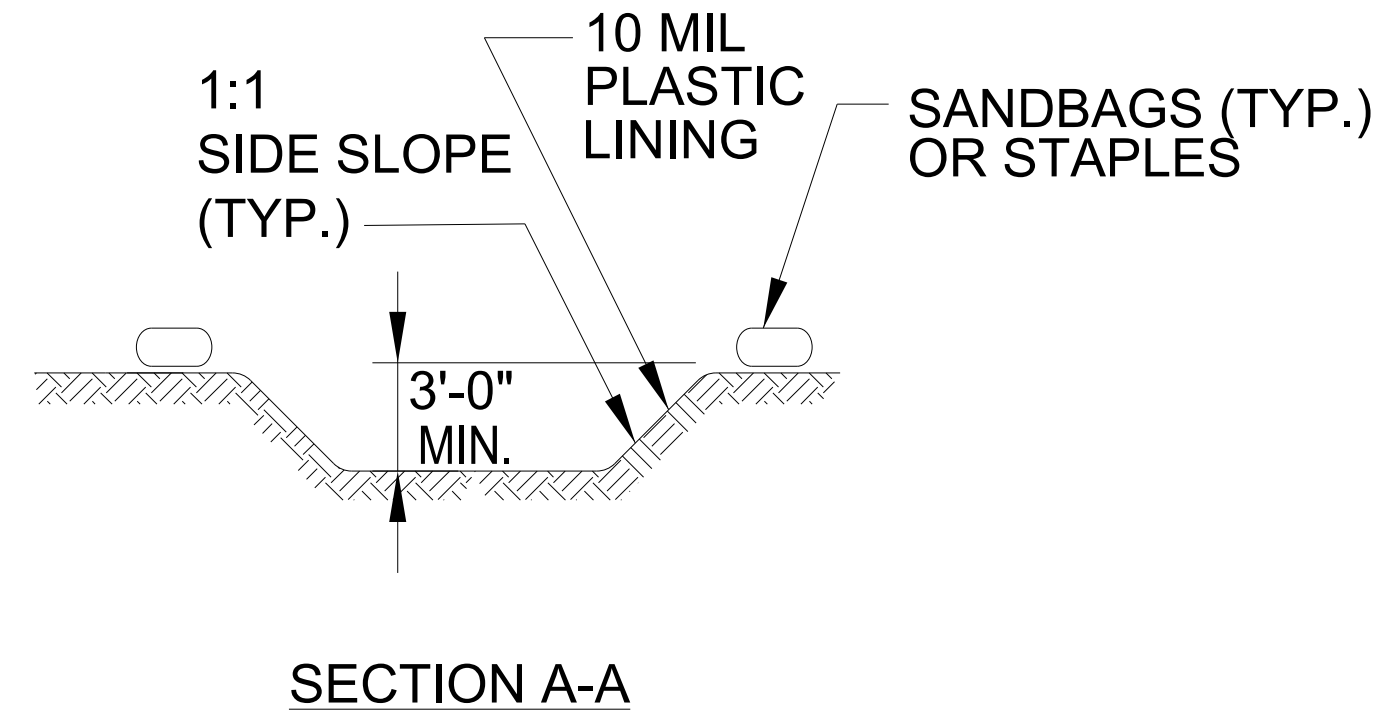
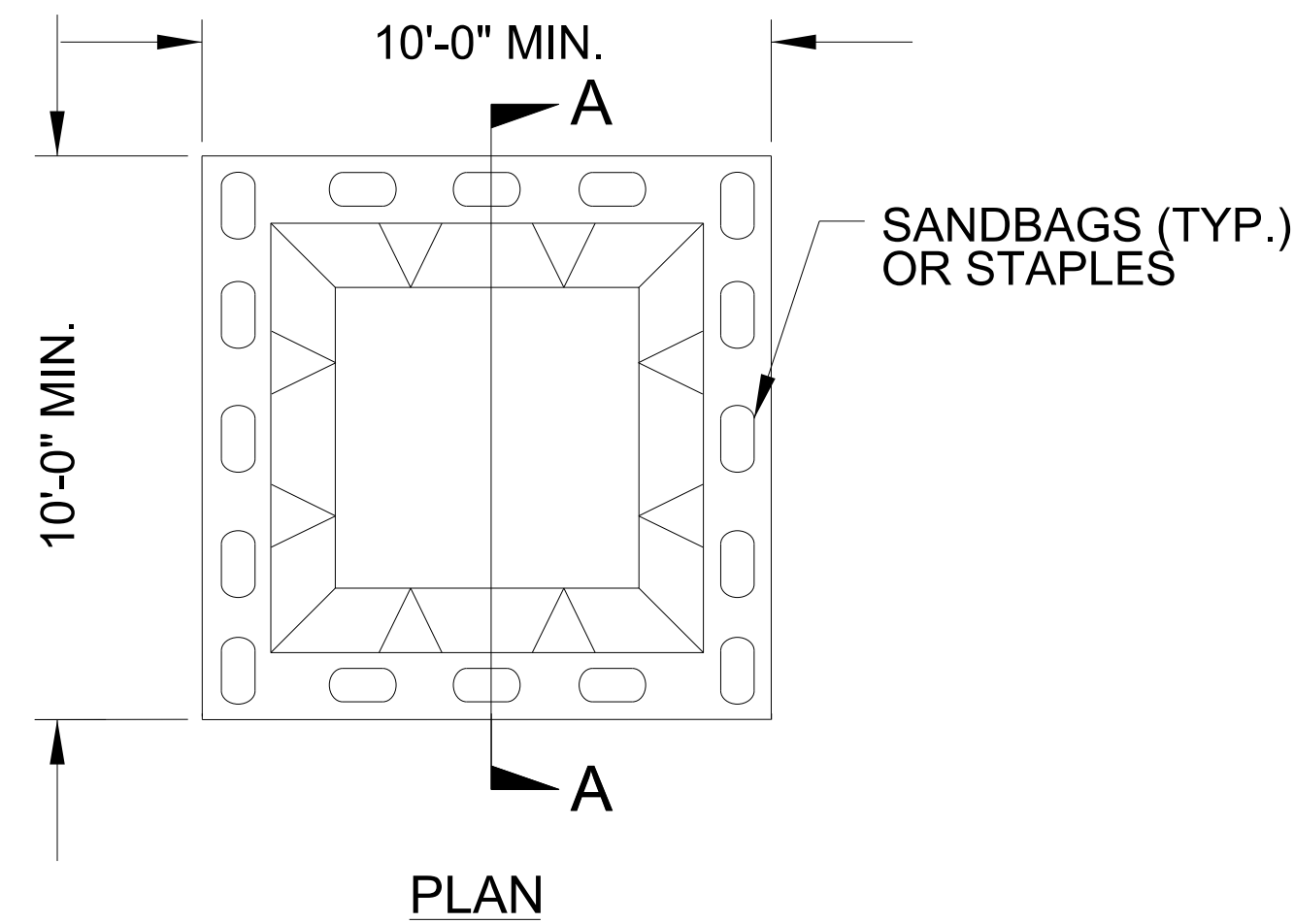
PROJECT REFERENCE NO.	SHEET NO.
U-5789	EC-02

EROSION & SEDIMENT CONTROL LEGEND

Std. #	Description	Symbol	Std. #	Description	Symbol
1605.01	Temporary Silt Fence		1633.01	Temporary Rock Silt Check Type A	
1606.01	Special Sediment Control Fence		1633.02	Temporary Rock Silt Check Type B	
1622.01	Temporary Berms and Slope Drains		1633.03	Temporary Rock Silt Check Type A with Excelsior Matting and Flocculant	
1630.02	Silt Basin Type B		1634.01	Temporary Rock Sediment Dam Type A	
1630.03	Temporary Silt Ditch		1634.02	Temporary Rock Sediment Dam Type B	
1630.04	Stilling Basin		1635.01	Rock Pipe Inlet Sediment Trap Type A	
1630.05	Temporary Diversion		1635.02	Rock Pipe Inlet Sediment Trap Type B	
1630.06	Special Stilling Basin		1636.01	Excelsior Wattle Check	
1630.07	Skimmer Basin		1636.01	Excelsior Wattle Check with Flocculant	
1630.08	Tiered Skimmer Basin		1636.01	Coir Fiber Wattle Check	
1630.09	Earthen Dam with Skimmer		1636.01	Coir Fiber Wattle Check with Flocculant	
	Infiltration Basin		1636.02	Silt Fence Excelsior Wattle Break	
	Rock Inlet Sediment Trap:			Silt Fence Coir Fiber Wattle Break	
1632.01	Type A		1636.03	Excelsior Wattle Barrier	
1632.02	Type B		1636.03	Coir Fiber Wattle Barrier	
1632.03	Type C				

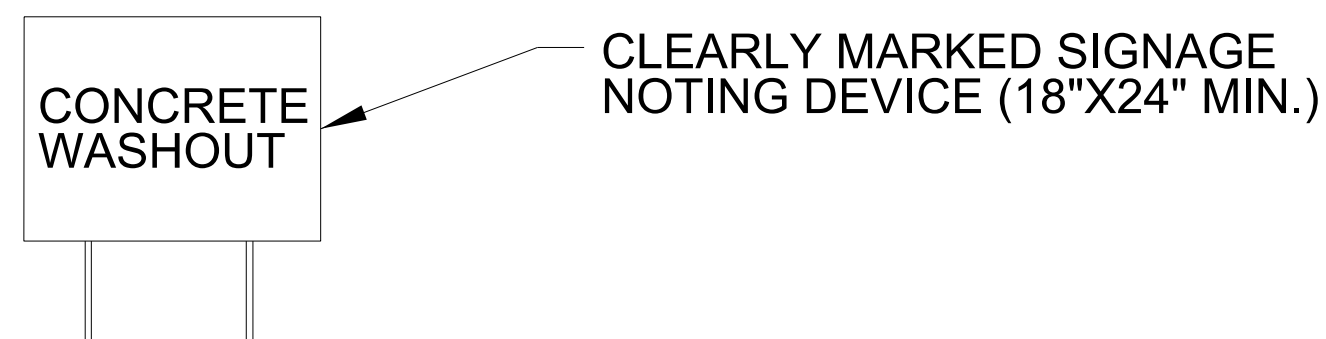
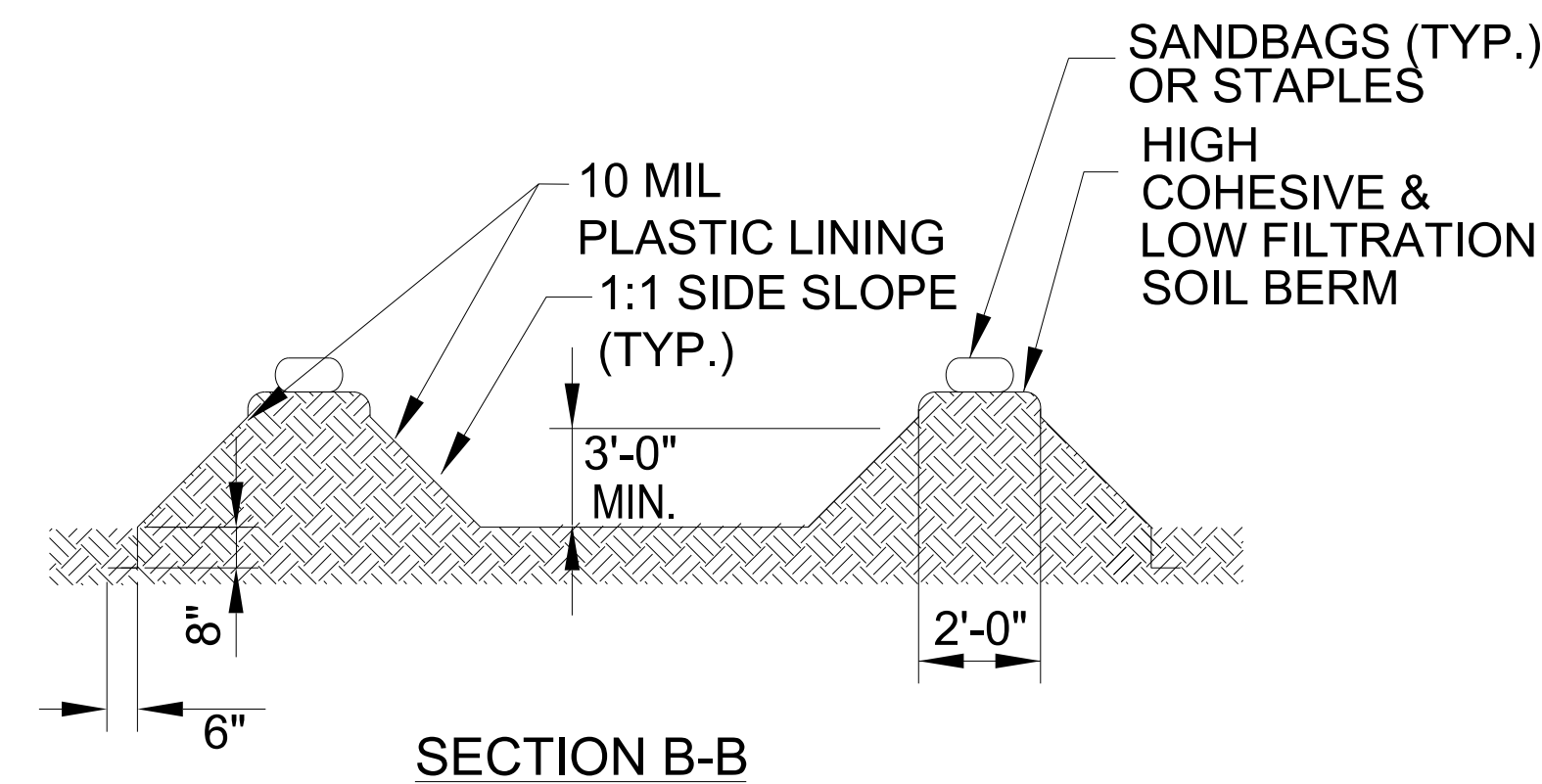
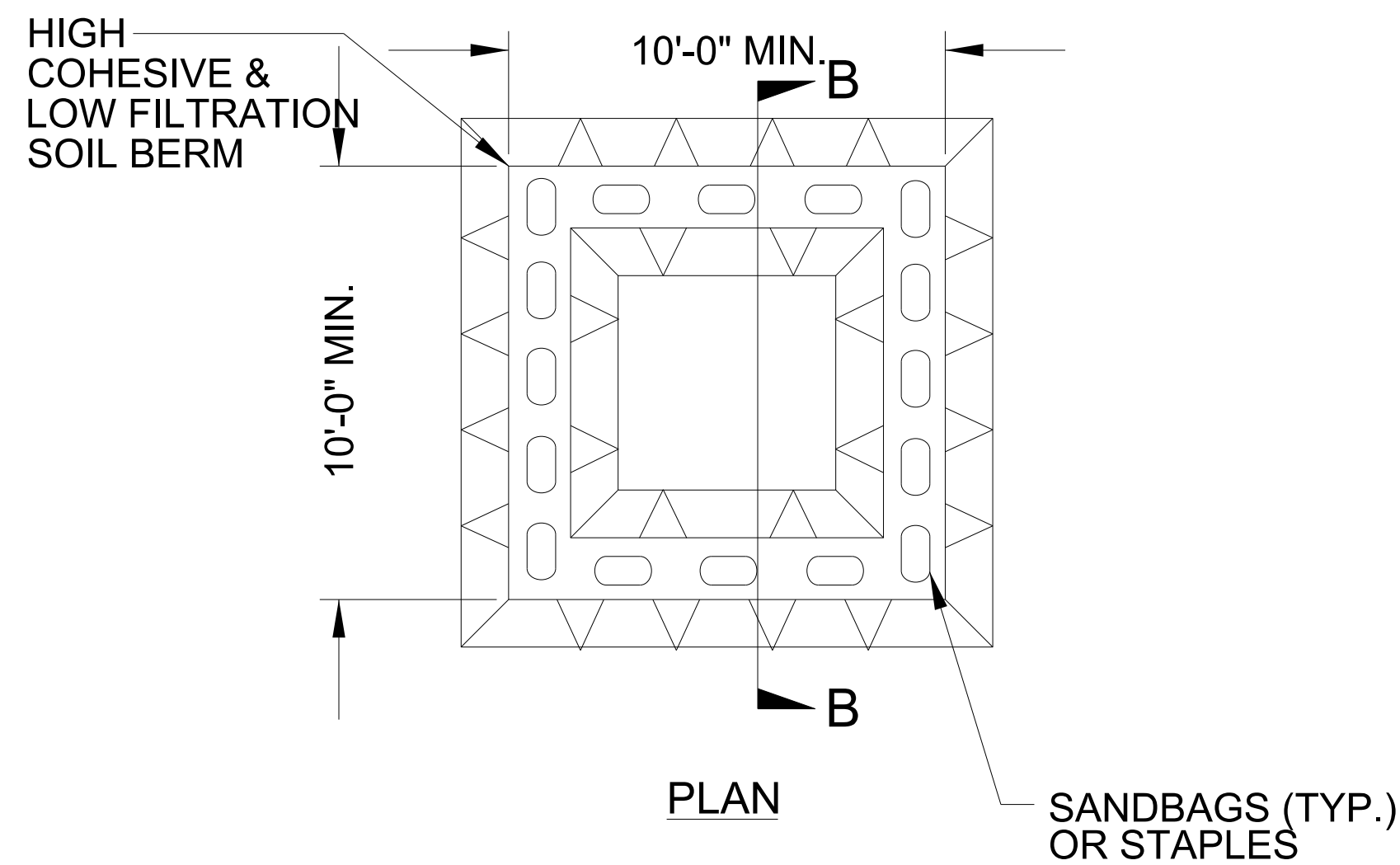
ONSITE CONCRETE WASHOUT STRUCTURE WITH LINER

PROJECT REFERENCE NO.	SHEET NO.
U-5789	EC-2A
TRANSYSTEMS 1 Glenwood Avenue Raleigh, NC 27603 Tel:919.789.9977 Fax:919.789.9591 License: F-0453	



BELOW GRADE WASHOUT STRUCTURE
NOT TO SCALE

- 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.

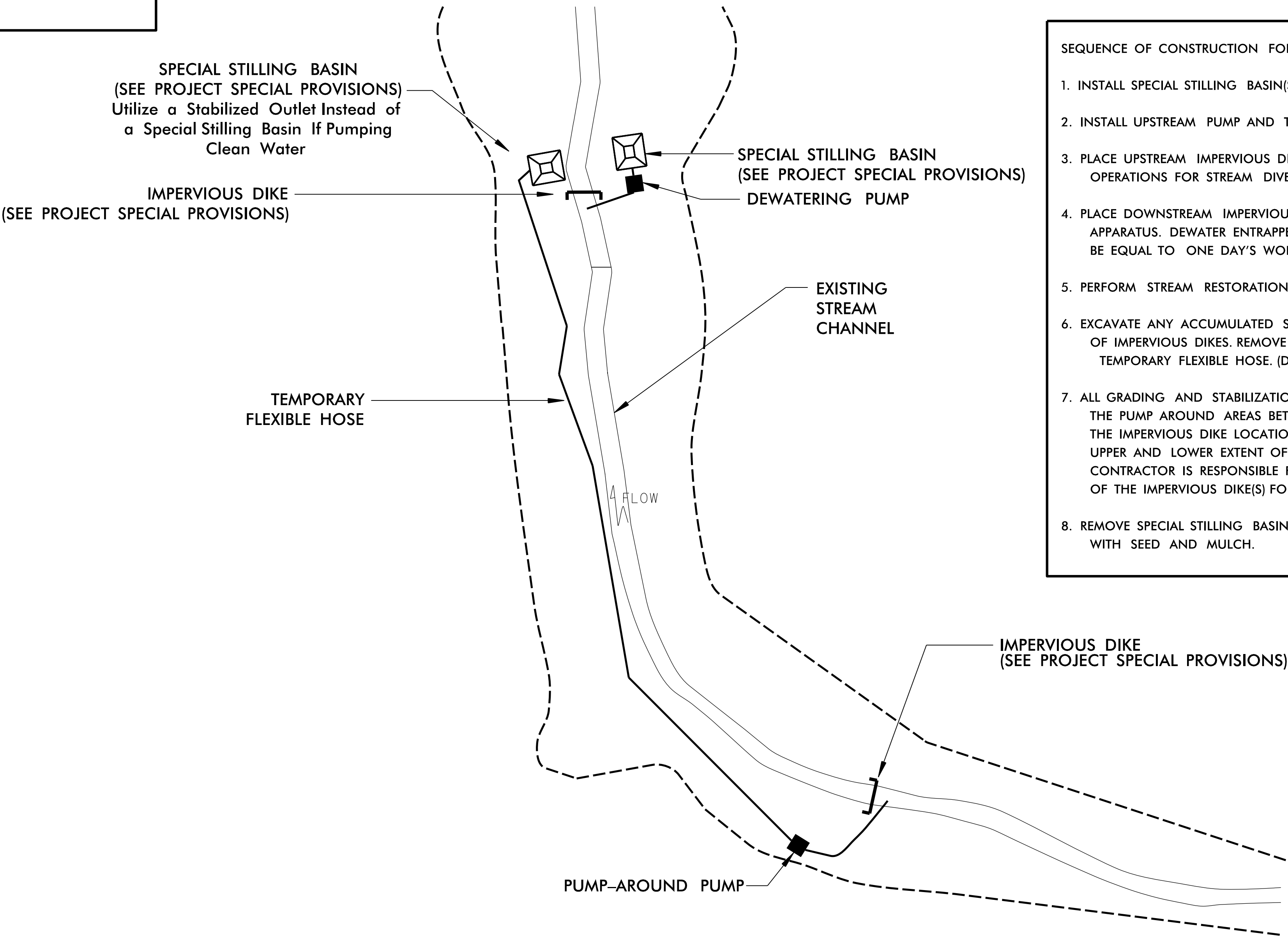


ABOVE GRADE WASHOUT STRUCTURE
NOT TO SCALE

- 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.

EXAMPLE OF PUMP-AROUND OPERATION

- NOTES:
- 1) All excavation shall be performed in only dry or isolated sections of channel.
 - 2) Impervious dikes are to be used to isolate work from stream flow when necessary.
 - 3) All graded areas shall be stabilized within 24 hours.
 - 4) Maintenance of stream flow operations shall be incidental to the work. This includes polyethylene sheeting, diversion pipes, pumps and hoses.
 - 5) Pumps and hoses shall be of sufficient size to dewater the work area.



- SEQUENCE OF CONSTRUCTION FOR TYPICAL WORK AREA
- 1. INSTALL SPECIAL STILLING BASIN(S).
 - 2. INSTALL UPSTREAM PUMP AND TEMPORARY FLEXIBLE HOSE.
 - 3. PLACE UPSTREAM IMPERVIOUS DIKE AND BEGIN PUMPING OPERATIONS FOR STREAM DIVERSION.
 - 4. PLACE DOWNSTREAM IMPERVIOUS DIKE AND PUMPING APPARATUS. DEWATER ENTRAPPED AREA. AREA TO BE DEWATERED SHALL BE EQUAL TO ONE DAY'S WORK.
 - 5. PERFORM STREAM RESTORATION WORK IN ACCORDANCE WITH THE PLANS.
 - 6. EXCAVATE ANY ACCUMULATED SILT AND DEWATER BEFORE REMOVAL OF IMPERVIOUS DIKES. REMOVE IMPERVIOUS DIKES, PUMPS, AND TEMPORARY FLEXIBLE HOSE. (DOWNSTREAM IMPERVIOUS DIKES FIRST).
 - 7. ALL GRADING AND STABILIZATION MUST BE COMPLETED IN ONE DAY WITHIN THE PUMP AROUND AREAS BETWEEN THE IMPERVIOUS DIKES. THE IMPERVIOUS DIKE LOCATIONS AS SHOWN ON THIS SHEET ONLY SHOW THE UPPER AND LOWER EXTENT OF WORK FOR EACH STREAM SEGMENT. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE LOCATION OF THE IMPERVIOUS DIKE(S) FOR EACH DAY'S WORK.
 - 8. REMOVE SPECIAL STILLING BASIN(S) AND BACKFILL. STABILIZE DISTURBED AREA WITH SEED AND MULCH.

REVISIONS

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Fax:919.789.9591
License: F-0453

U-5789

EC-3

SOIL STABILIZATION SUMMARY SHEET

MATTING FOR EROSION CONTROL

[illegible][illegible]

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA

PROJECT REFERENCE NO.	SHEET NO.
<i>U-5789</i>	<i>EC-3A</i>

1 Glenwood Avenue
Raleigh, NC 27603
Tel: 919.789.9977
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License: F-0453

TRANSYSTEMS

SOIL STABILIZATION TIMEFRAMES

<i>SITE DESCRIPTION</i>	<i>STABILIZATION TIME</i>	<i>TIMEFRAME EXCEPTIONS</i>
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

REVISIONS

SYTIME\$\$\$\$\$
SYSDGN\$\$\$\$\$
USERNAME\$\$\$\$\$

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

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 4

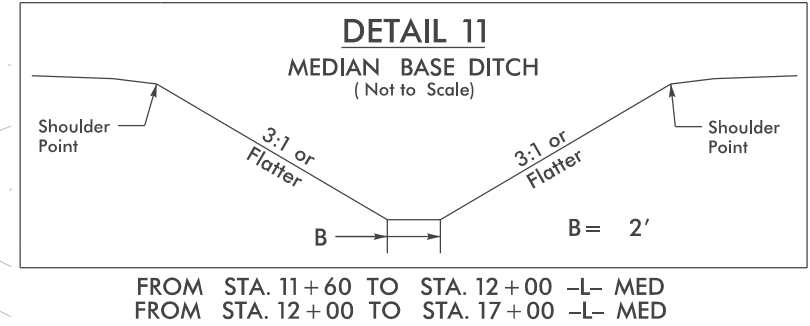
DETAIL 9 FALSE SUMP (Not to Scale)

Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'

S=Ditch Slope

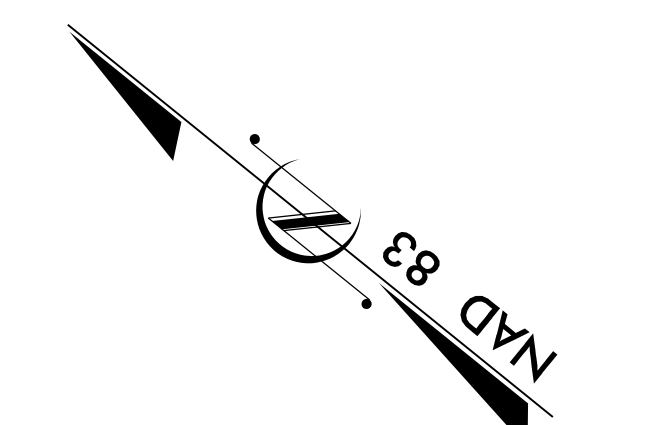
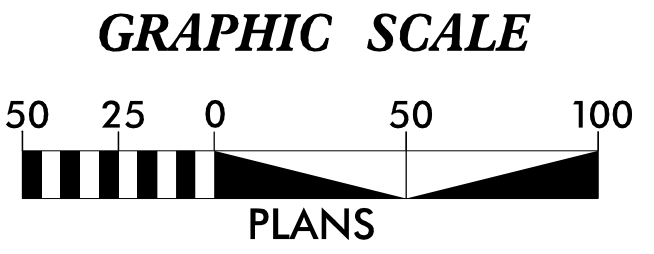
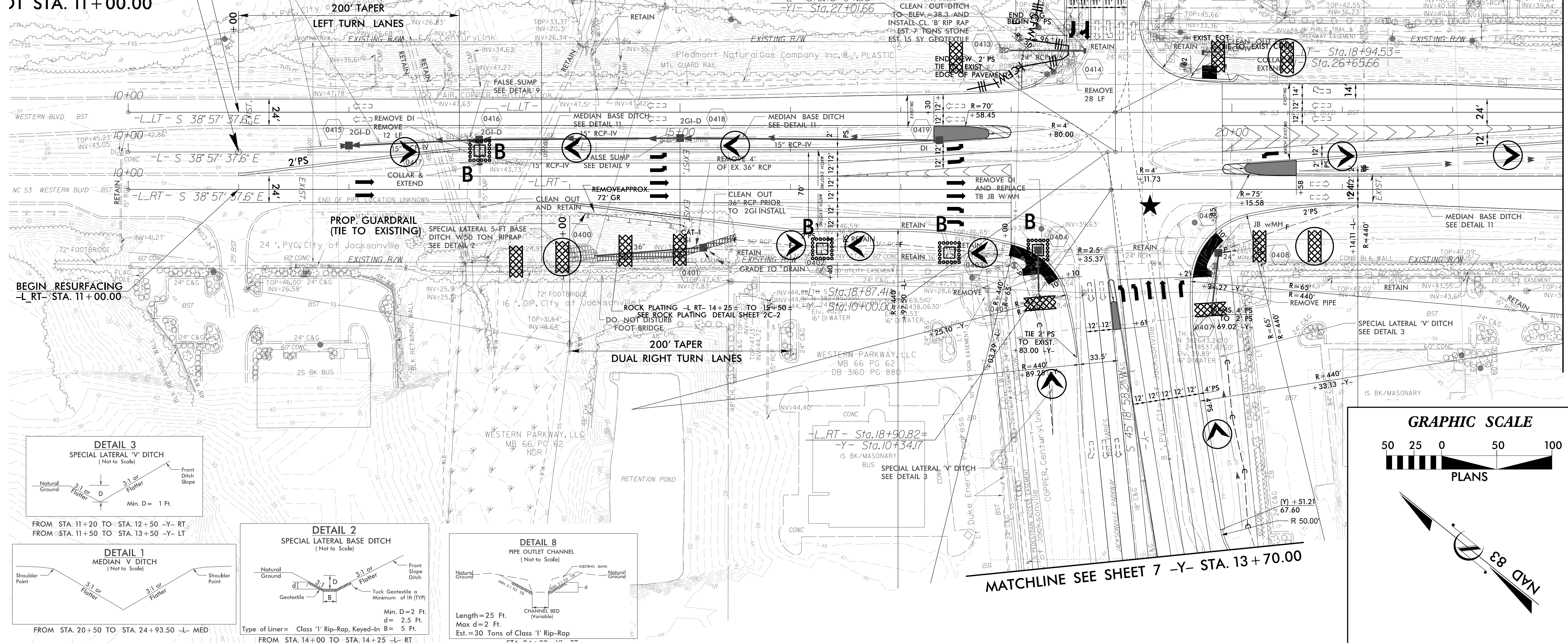
FROM STA. 12+96 TO STA. 13+16 -L- MED
FROM STA. 14+78 TO STA. 14+98 -L- MED

-YI-
PI Sta 22+92.85 Δ = 34° 55' 53.0" (LT)
D = 24' 54' 40.4"
L = 140.22'
T = 72.37'
R = 230.00'
PI Sta 20+38.07 Δ = 69° 55' 26.0" (RT)
D = 16' 22' 12.8"
L = 427.14'
T = 244.73'
R = 350.00'
SE = SEE CROSS-SECTIONS



BEGIN RESURFACING -L- STA. 11+00.00

TIP PROJECT U-5789
AT STA. 11+00.00



MATCHLINE SEE SHEET 7 -Y- STA. 13+70.00

MATCHLINE SEE SHEET 5 -L- STA. 23+00.00

8/17/99

REVISIONS

8/17/99

8/17/99

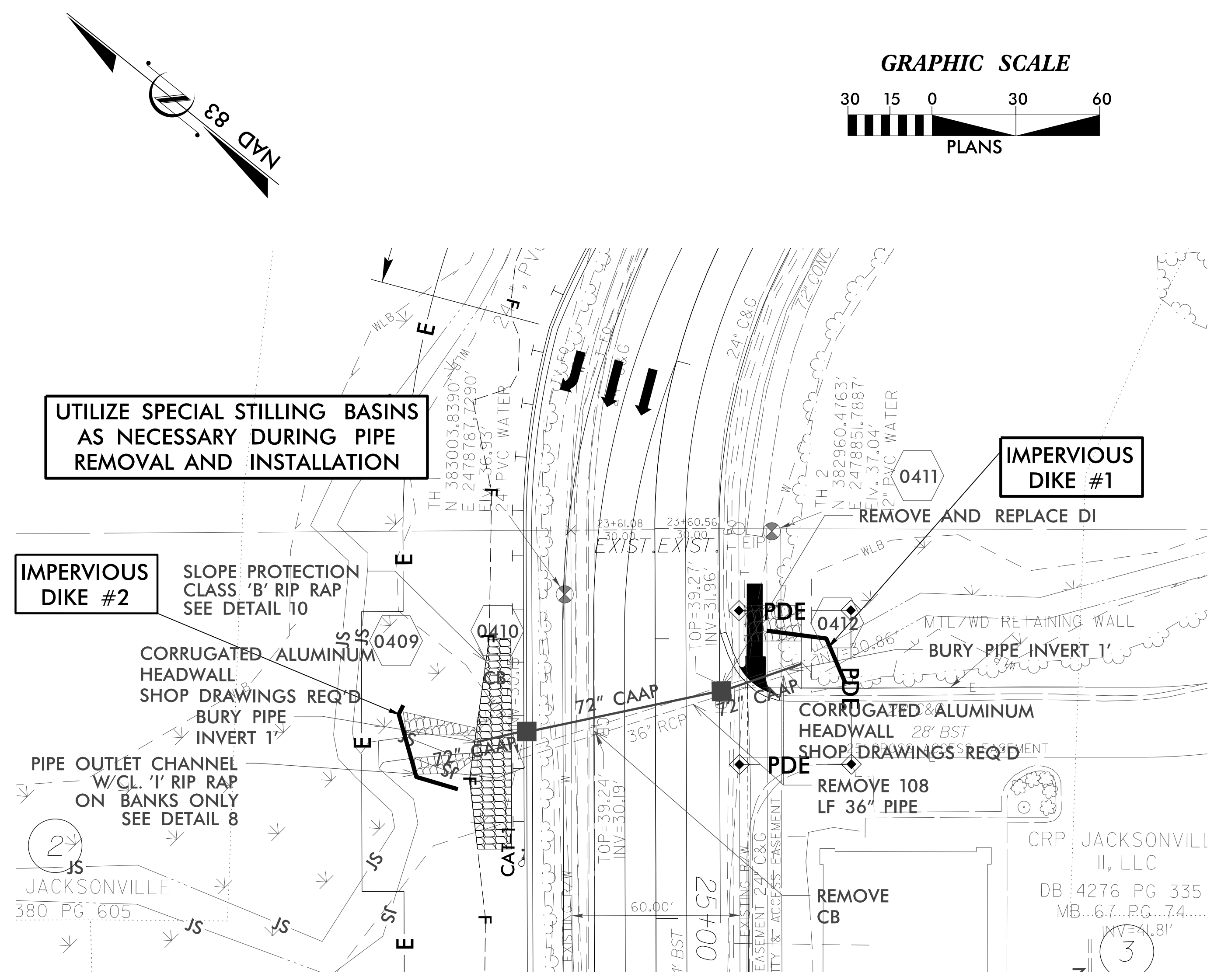
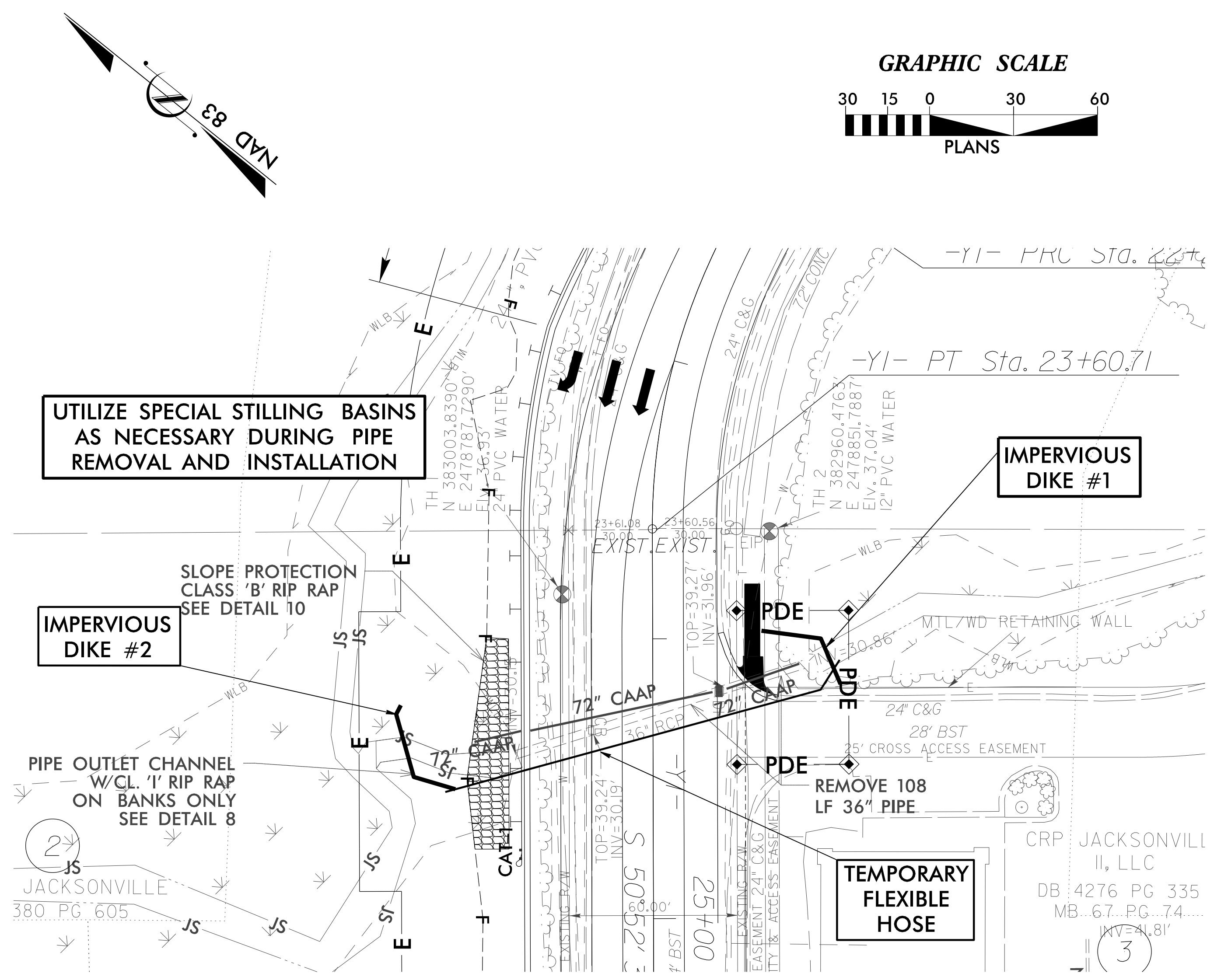
CULVERT CONSTRUCTION SEQUENCE STA. 24+24 -Y1-

PHASE I

1. INSTALL IMPERVIOUS DIKES UP AND DOWNSTREAM OF PROPOSED 72" CROSS PIPE AND RIP RAP OUTLET PROTECTION AS DETAILED BELOW.
2. INSTALL BYPASS PUMP WITH TEMPORARY FLEXIBLE HOSE AND FLOW DIFFUSER TO CARRY CLEAN, OFFSITE FLOW FROM A POINT UPSTREAM OF IMPERVIOUS DIKE #1 TO A POINT DOWNSTREAM OF IMPERVIOUS DIKE #2.
3. REMOVE EXISTING 36" PIPE AND EXISTING DROP INLET.
4. UTILIZE DEWATERING PUMP AND SPECIAL STILLING BASINS AS NECESSARY TO TREAT WATER FROM THE WORK AREA BEFORE DISCHARGING TO PERMITTED STREAMS AND/OR WETLANDS.

PHASE II

1. INSTALL PROPOSED 72" CROSS PIPE, INLET, RETAINING WALL AND RIP RAP OUTLET PROTECTION AS DETAILED BELOW.
2. UTILIZE SPECIAL STILLING BASINS AS NECESSARY DURING CROSS PIPE AND STORM DRAINAGE INSTALLATION.
3. PLACE FILL, REPAIR PAVEMENT AND COMMENCE FINISHED GRADE CONSTRUCTION ACTIVITIES.
4. UTILIZE MATTING FOR EROSION CONTROL ON SLOPES ADJACENT TO WETLANDS AS NECESSARY DURING CONSTRUCTION ACTIVITIES.
5. REMOVE IMPERVIOUS DIKES #1 AND #2, AND BYPASS PUMPING OPERATION.
6. MAKE REPAIRS AS NECESSARY, RESULTING FROM EARTH DISTURBING ACTIVITIES.



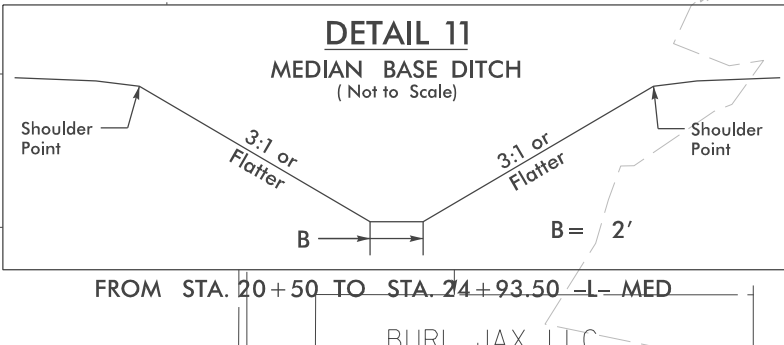
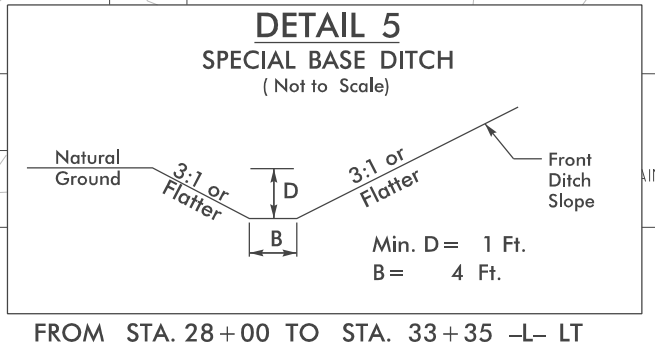
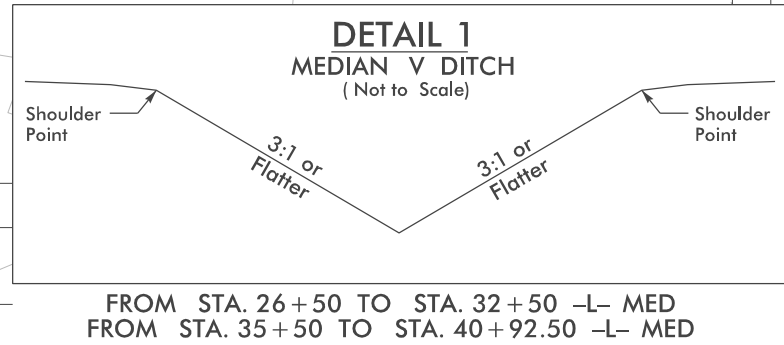
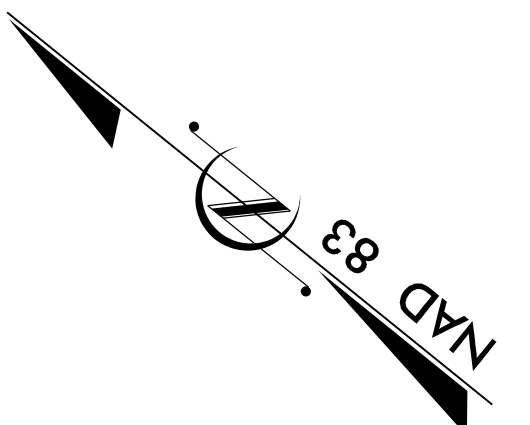
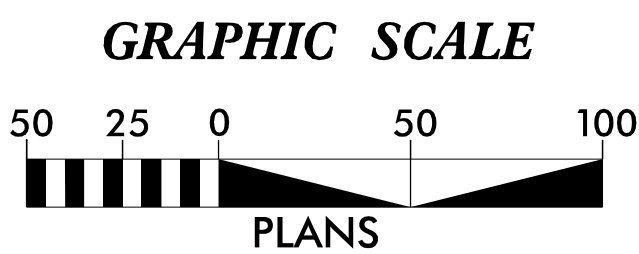
NOTE: PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B AND TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 5

-Y2-
PI Sta 21+40.61
 $\Delta = 16^{\circ} 39' 06.0''$ (RT)
D = 4' 06" 08.5"
L = 405.90'
T = 204.39'
R = 1,396.65'
SE = SEE X-SEC'S

MATCHLINE SEE SHEET 4 -L- STA. 23 + 00.00

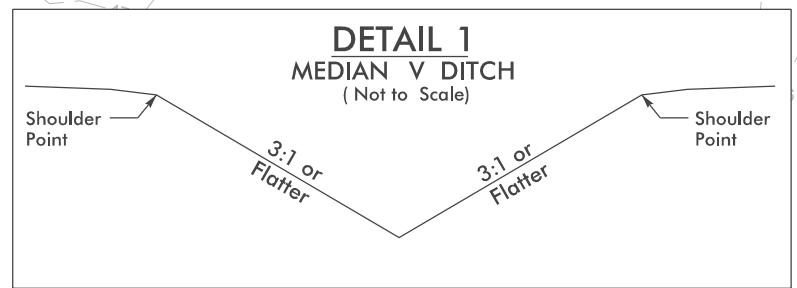
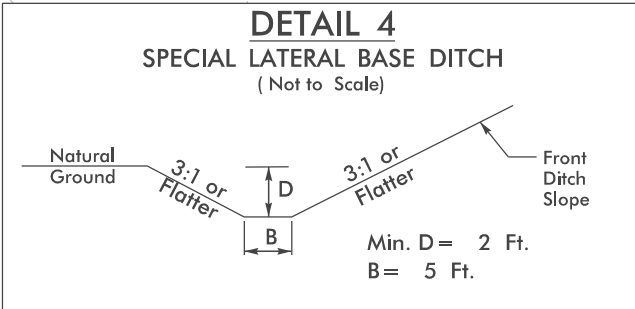
MATCHLINE SEE SHEET 6 -L- STA. 37 + 00.00



END CONSTRUCTION
END RESURFACING
-YA2- STA. 13 + 43.80

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

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 6



TRU 2005 RE I, LLC
DB 2600 PG 690
MB 42 PG 207

LHL JACKSONVILLE, LLC
DB 4253 PG 777
MB 68 PG 66

WOODROW W. WILLIS, JR., et al
DB 1910 PG 712
MB 36 PG 65

CROSS POINTE DEVELOPERS, LLC
DB 1445 PG 305
MB 36 PG 65

THE CHARLEY GROUP, LLC
DB 3188 PG 280
MB 34 PG 189
MB 36 PG 65

WALTER C. WHITEHURST, JR.
DB 1605 PG 453
MB 34 PG 189
MB 36 PG 65

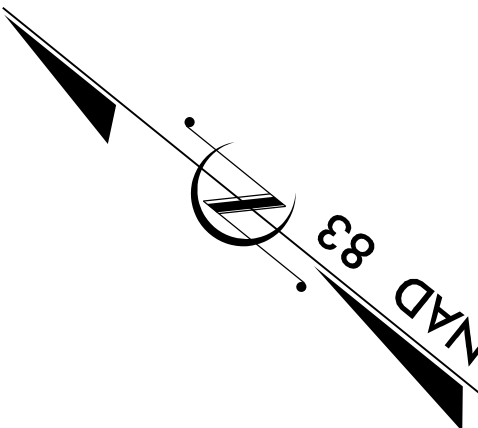
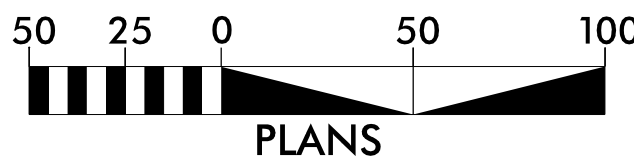
CROSS POINTE DEVELOPERS, LLC
DB 1445 PG 305
MB 36 PG 65

END RESURFACING
-L- LT- STA. 42+50.00

END TIP PROJECT U-5789
-L- STA. 42+50.00

END RESURFACING
-L- RT- STA. 42+50.00

GRAPHIC SCALE



★ EXISTING SIGNAL

MATCHLINE SEE SHEET 5 -L- STA. 37+00.00

REVISIONS

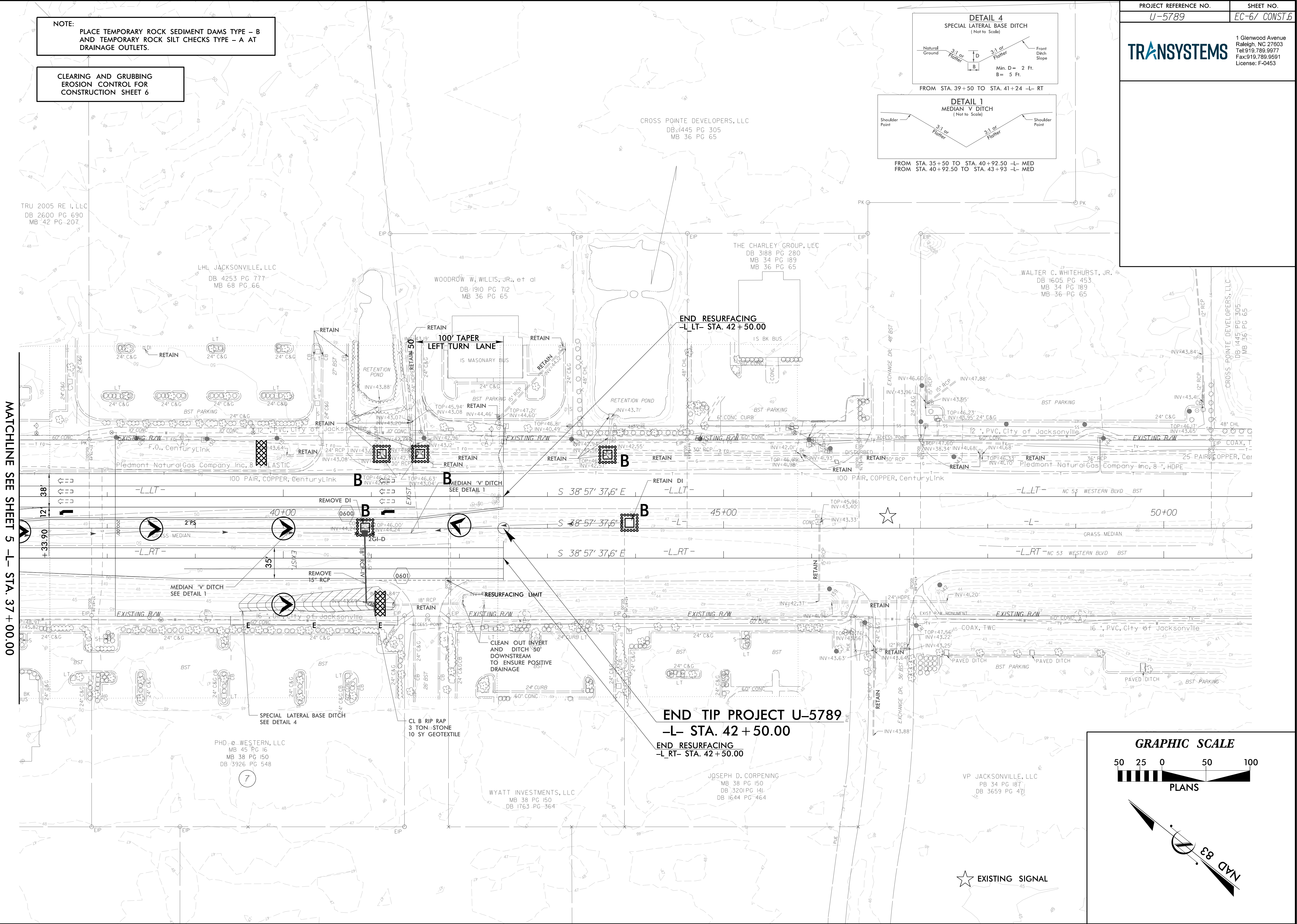
8/17/99

PHD - @ WESTERN, LLC
MB 45 PG 16
MB 38 PG 150
DB 3926 PG 548

WYATT INVESTMENTS, LLC
MB 38 PG 150
DB 1763 PG 364

JOSEPH D. CORPENING
MB 38 PG 150
DB 3201 PG 141
DB 1644 PG 464

VP JACKSONVILLE, LLC
PB 34 PG 187
DB 3659 PG 471



8/17/99

REVISIONS

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

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 7

BURL JAX, LLC
DB 4250 PG 14
MB 70 PG 7

BURL JAX, LLC
MB 70 PG 7
DB 4250 PG 14

KENNETH P. WHICHARD, JR.
MB 70 PG 7
DB 989 PG 520
DB 4250 PG 136

WINSTON JACKSONVILLE FUND OWNER, LLC
MB 63 PG 97
DB 4282 PG 285

JACKSONVILLE HOSPITALITY
MB 63 PG 97
NDR

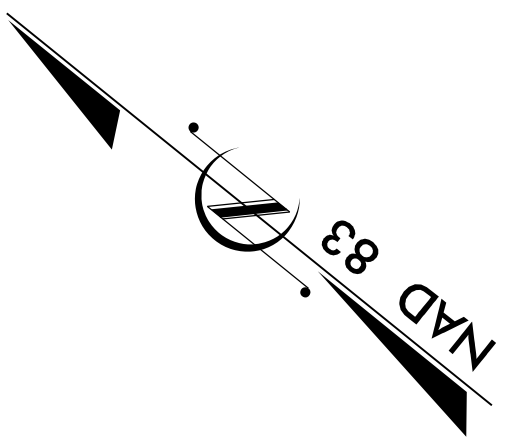
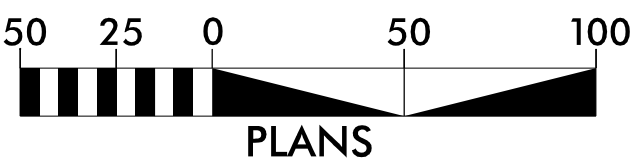
BURL JAX, LLC
MB 70 PG 7
DB 4253 PG 936

PROJECT REFERENCE NO. **U-5789**
SHEET NO. **EC-7/ CONST.**

TRANSYSTEMS

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License: F-0453

GRAPHIC SCALE



100' x 25' x 3'
1.5 inch Skimmer
with 1.375 inch
Orifice Diameter
13 ft. weir
ID 7.1

MATCHLINE SEE SHEET 4 -Y- STA. 13+70.00

END RESURFACING
-Y- OFFSET 125'

-Y- SC Sta. 17+71.80

300' TAPER

SPECIAL CUT DITCH
SEE DETAIL 6

END CONSTRUCTION
END RESURFACING
-Y- STA. 19+82.41 LT

END RESURFACING
-Y- STA. 19+82.41 RT

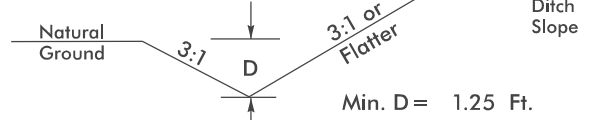
Pls Sta 16+72.21
Os = 11' 18' 30.2"
Ls = 300.00'
LT = 200.41'
ST = 100.37'

Pl Sta 22+27.82
Δ = 61' 55' 47.8" (LT)
D = 7' 32' 20.1"
L = 821.47'
T = 456.02'
R = 760.00'

Pls Sta 26+93.64
Os = 11' 18' 30.2"
Ls = 300.00'
LT = 200.41'
ST = 100.37'

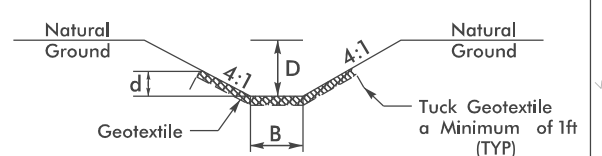
SE = SEE CROSS-SECTIONS

DETAIL 6
SPECIAL CUT DITCH
(Not to Scale)

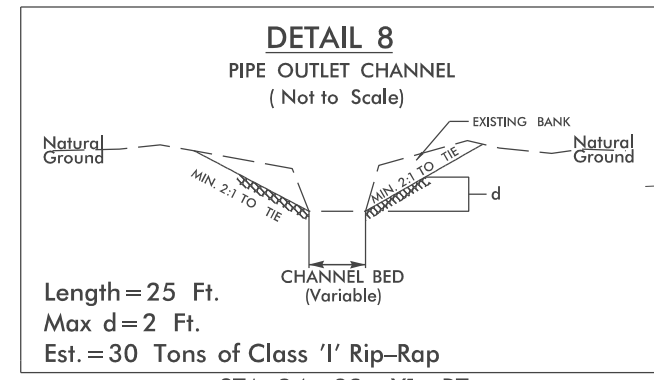


FROM STA. 15+50 TO STA. 18+45 -Y- LT

DETAIL 7
STANDARD BASE DITCH
(Not to Scale)



Detail Applies When B is < 6.0'
For Class I and II Rip-Rap;
And All Widths for Class B Rip-Rap
Type of Liner = Class B Rip-Rap, Keyed-In B = 2 Ft.
GRADE 50 LF HEAD DITCH STA. 18+50 -Y- LT
AT APPROX. 5% SLOPE

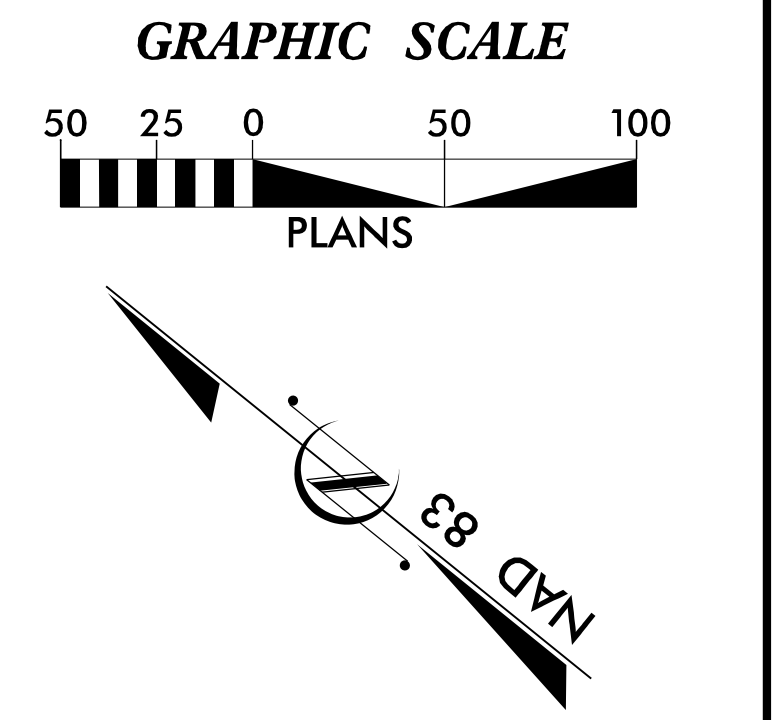


-Y2-
PI Sta 21+40.61
 $\Delta = 16^{\circ} 39' 06.0''$ (RT)
D = 4' 06" 08.5"
L = 405.90'
T = 204.39'
R = 1,396.65'
SE = SEE X-SEC'S

FINAL PHASE
EROSION CONTROL FOR
CONSTRUCTION SHEET 5

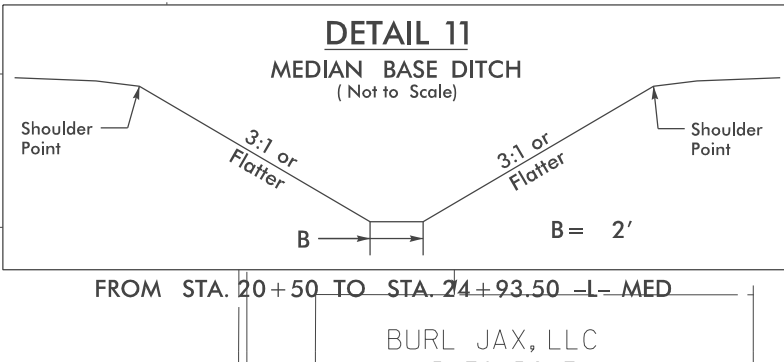
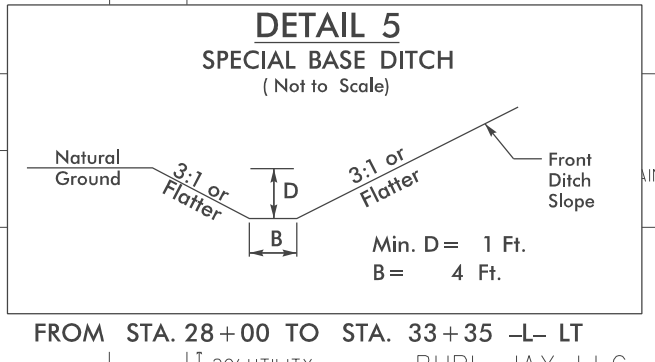
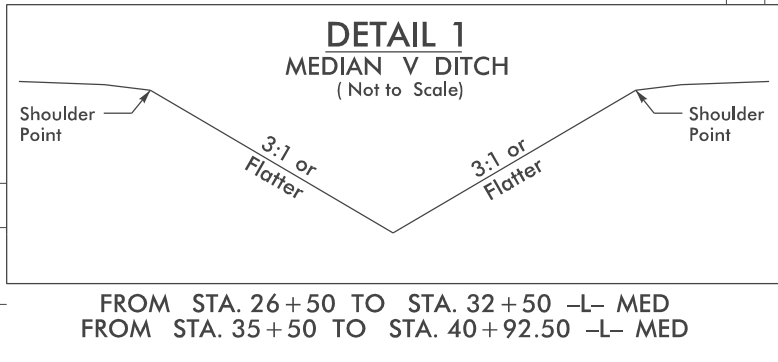
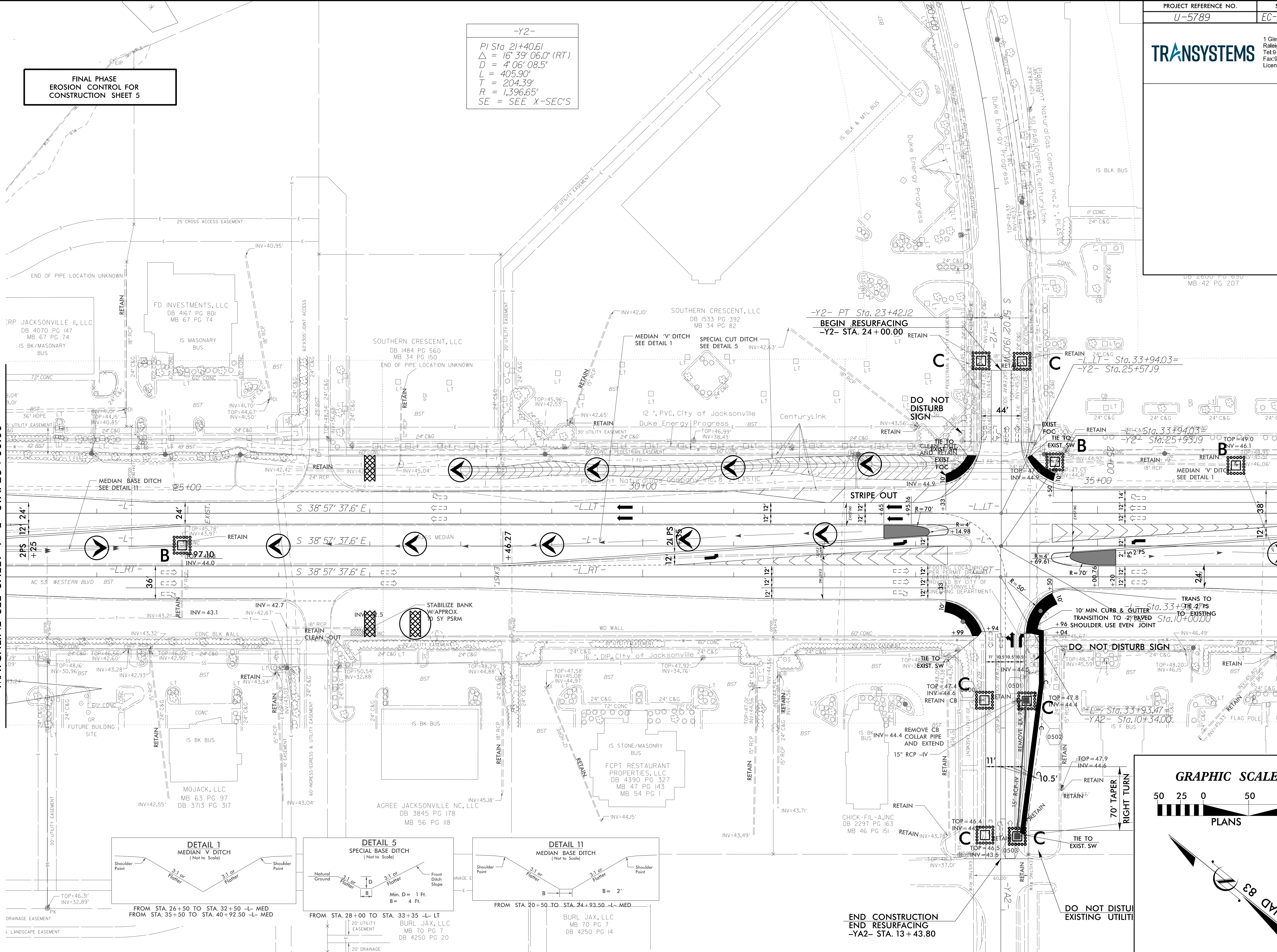
MATCHLINE SEE SHEET 4 -L- STA. 23 + 00.00

MATCHLINE SEE SHEET 6 -L- STA. 37 + 00.00



END CONSTRUCTION
END RESURFACING
-YA2- STA. 13 + 43.80

DO NOT DISTURB
EXISTING UTILITIES



8/17/99

FINAL PHASE
EROSION CONTROL FOR
CONSTRUCTION SHEET 6

TRU 2005 RE I, LLC
DB 2600 PG 690
MB 42 PG 207

LHL JACKSONVILLE, LLC
DB 4253 PG 777
MB 68 PG 66

WOODROW W. WILLIS, JR., et al
DB 1910 PG 712
MB 36 PG 65

CROSS POINTE DEVELOPERS, LLC
DB 1445 PG 305
MB 36 PG 65

THE CHARLEY GROUP, LLC
DB 3188 PG 280
MB 34 PG 189
MB 36 PG 65

WALTER C. WHITEHURST, JR.
DB 1605 PG 453
MB 34 PG 189
MB 36 PG 65

CROSS POINTE DEVELOPERS, LLC
DB 1445 PG 305
MB 36 PG 65

TRANSYSTEMS

1 Glenwood Avenue
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Fax: 919.789.9591
License: F-0453

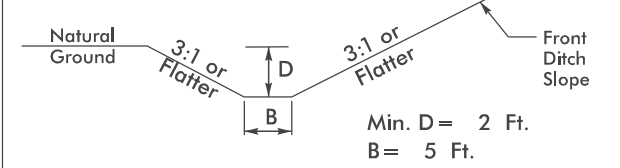
PROJECT REFERENCE NO.

U-5789

SHEET NO.

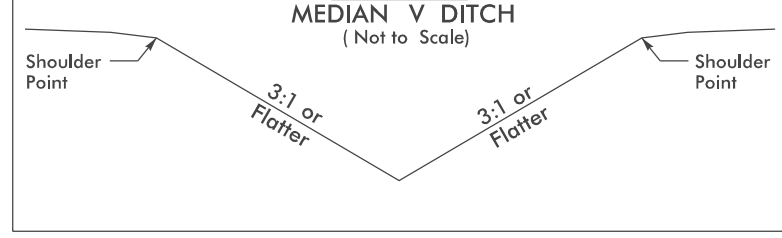
EC-10/ CONST. 6

DETAIL 4
SPECIAL LATERAL BASE DITCH
(Not to Scale)



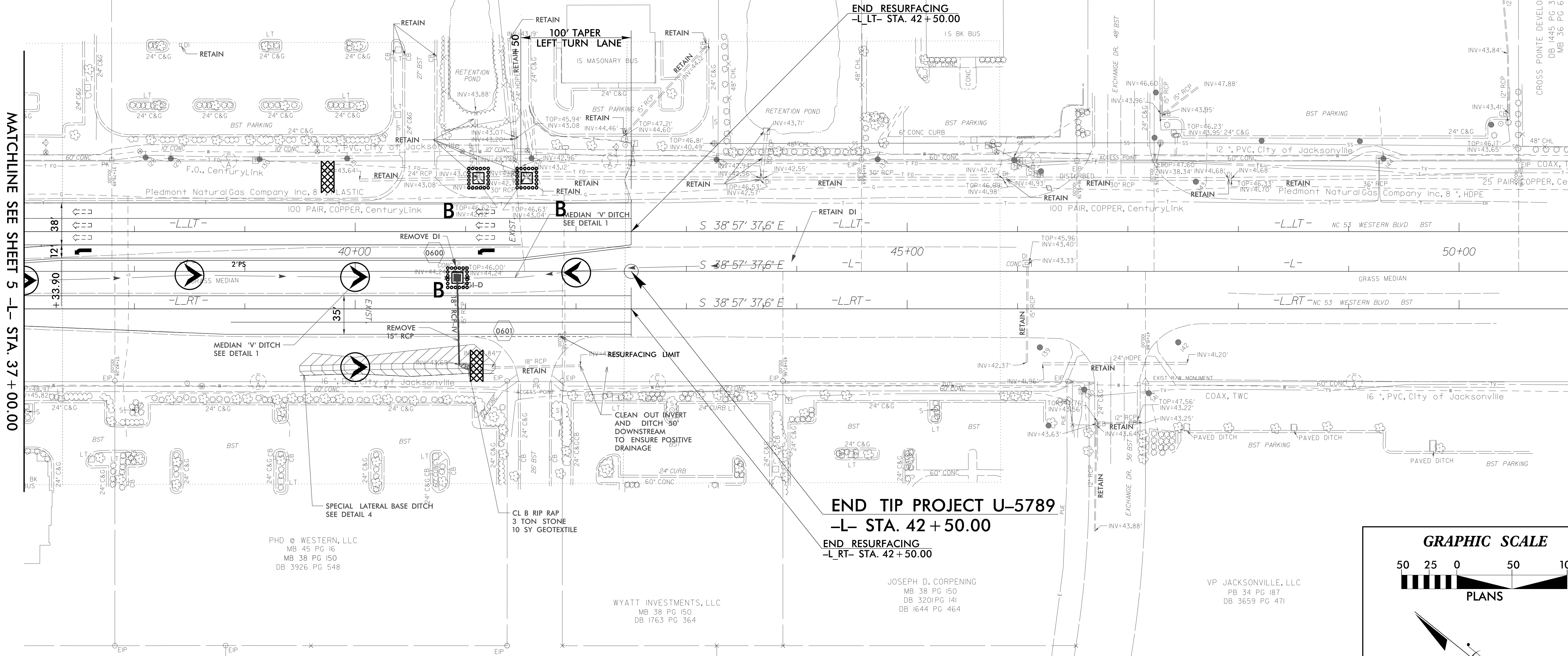
FROM STA. 39+50 TO STA. 41+24 -L- RT

DETAIL 1
MEDIAN V DITCH
(Not to Scale)



FROM STA. 35+50 TO STA. 40+92.50 -L- MED
FROM STA. 40+92.50 TO STA. 43+93 -L- MED

MATCHLINE SEE SHEET 5 -L- STA. 37+00.00

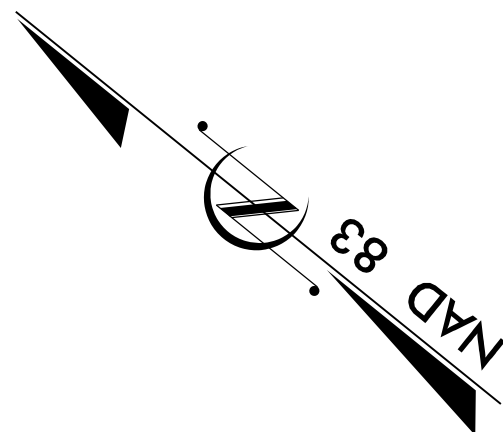
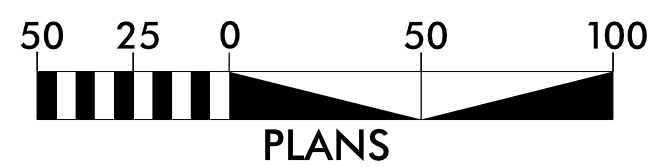


END RESURFACING
-L- LT- STA. 42+50.00

END TIP PROJECT U-5789
-L- STA. 42+50.00

END RESURFACING
-L- RT- STA. 42+50.00

GRAPHIC SCALE



REVISIONS

8/17/99

8/17/99

REVISIONS

DB 3845 PG 178
MB 56 PG 118

FINAL PHASE
EROSION CONTROL FOR
CONSTRUCTION SHEET 7

BURL JAX, LLC
DB 4250 PG 14
MB 70 PG 7

BURL JAX, LLC
MB 70 PG 7
DB 4250 PG 14

KENNETH P. WHICHARD, JR.
MB 70 PG 7
DB 919 PG 520
DB 858 PG 136

WINSTON JACKSONVILLE FUND OWNER, LLC
MB 63 PG 97
DB 4282 PG 285

JACKSONVILLE HOSPITALITY
MB 63 PG 97
NDR

100' x 25' x 3'
1.5 inch Skimmer
with 1.375 inch
Orifice Diameter
13 ft. weir
ID 7.1

MATCHLINE SEE SHEET 4 -Y- STA. 13+70.00

END RESURFACING
-Y- OFFSET 125'

-Y- SC Sta. 17+71.80

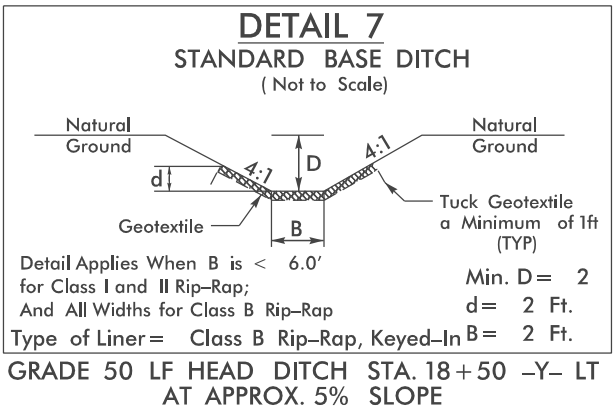
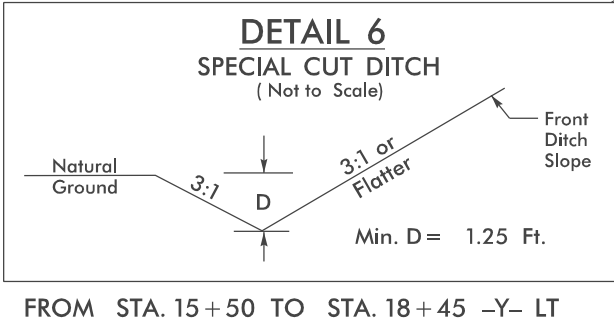
300' TAPER

SPECIAL CUT DITCH
SEE DETAIL 6

END CONSTRUCTION
END RESURFACING
-Y- STA. 19+82.41 LT

END RESURFACING
-Y- STA. 19+82.41 RT

P Sta 16+72.21	P Sta 22+27.82	P Sta 26+93.64
$\Theta s = 11^{\circ} 18' 30.2''$	$\Delta = 61^{\circ} 55' 47.8''$ (LT)	$\Theta s = 11^{\circ} 18' 30.2''$
$Ls = 300.00'$	$D = 7^{\circ} 32' 20.1''$	$Ls = 300.00'$
$LT = 200.41'$	$L = 821.47'$	$LT = 200.41'$
$ST = 100.37'$	$T = 456.02'$	$ST = 100.37'$
	$R = 760.00'$	
	$SE = SEE CROSS-SECTIONS$	



PROJECT REFERENCE NO. U-5789 SHEET NO. EC-II/ CONST. 7

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GRAPHIC SCALE



PLANS

