

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	HB-0004	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	

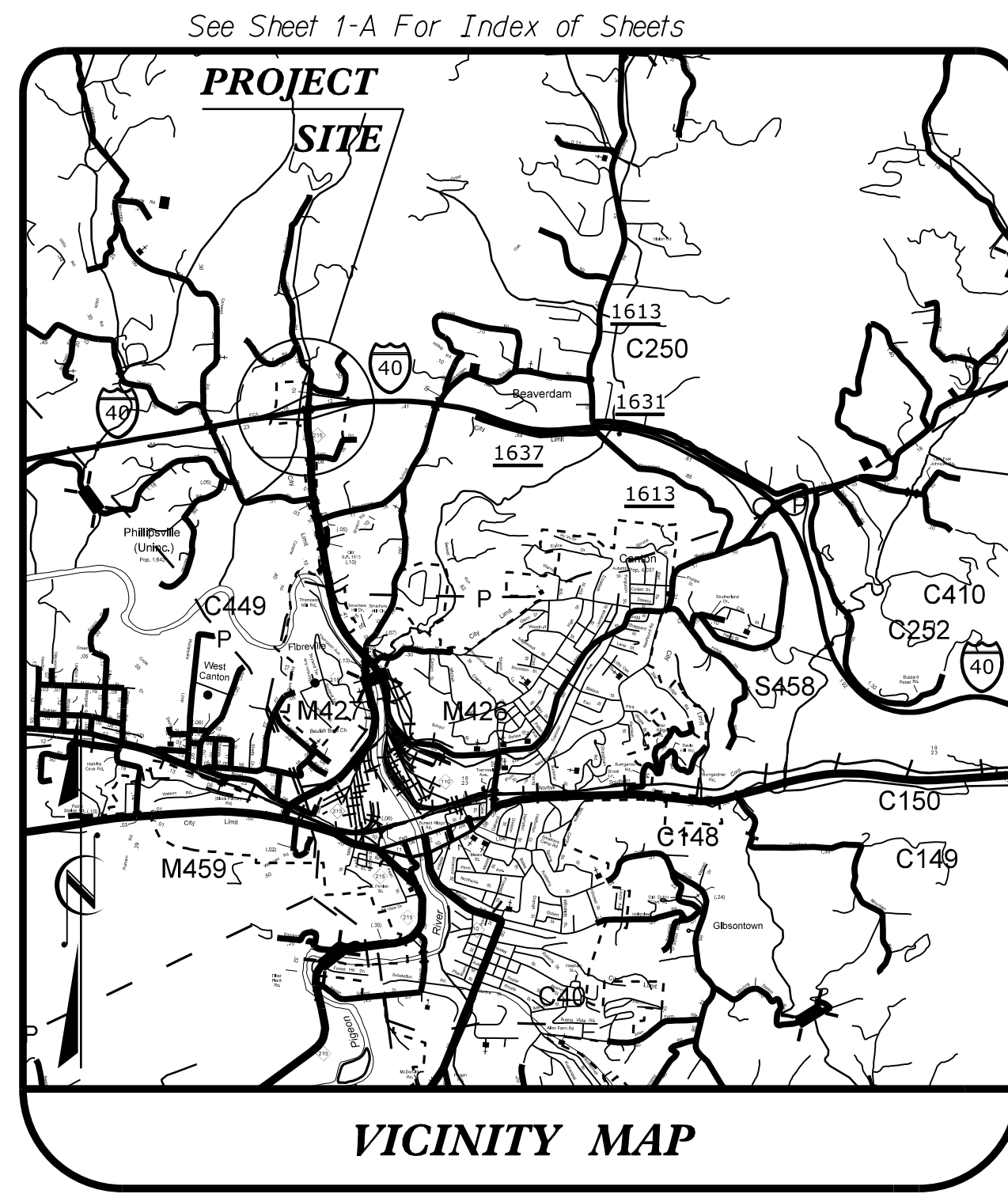
THIS PROJECT CONTAINS EROSION CONTROL PLANS FOR CLEARING AND GRUBBING PHASE OF CONSTRUCTION.

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

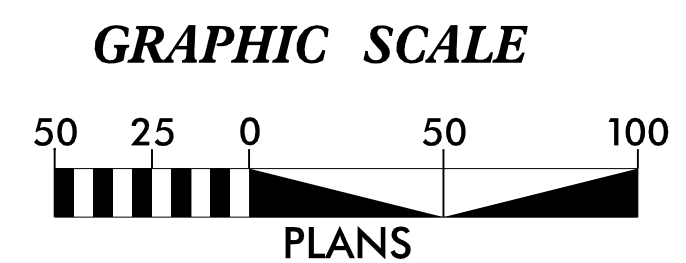
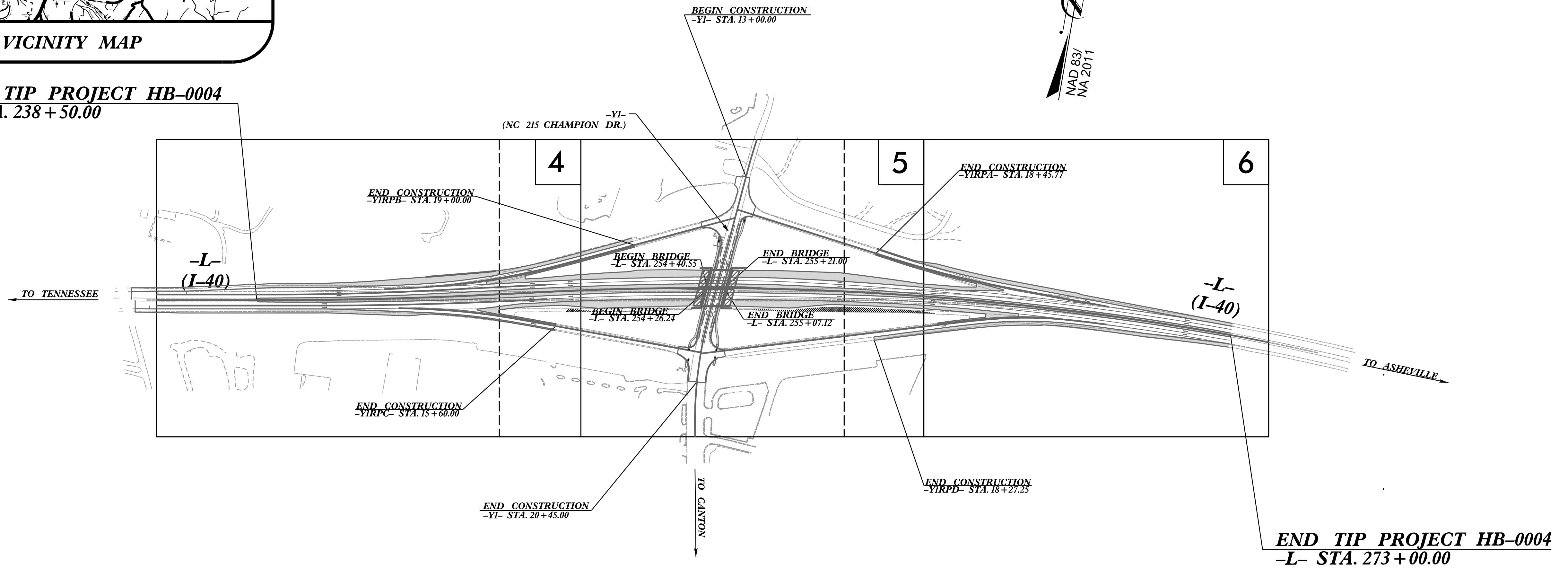
HAYWOOD COUNTY

LOCATION: REPLACE BRIDGE NO. 243 OVER NC 215
 (CHAMPION DRIVE)

TYPE OF WORK: GRADING, DRAINAGE, PAVING & STRUCTURES



BEGIN TIP PROJECT HB-0004
 -L- STA. 238 + 50.00



THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY WITH THE APPLICABLE REGULATIONS SET FORTH BY THE NCG-010000 GENERAL CONSTRUCTION PERMIT EFFECTIVE APRIL 1, 2019 AND ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY DIVISION OF WATER RESOURCES.



Prepared in the Office of:
WETHERILL ENGINEERING, INC.
 1223 JONES FRANKLIN ROAD
 RALEIGH, NC 27606

Designed by:
KATIE ESTEP 4485
 NAME 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.

CONTRACT: C204865 TIP PROJECT: HB-0004

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DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA

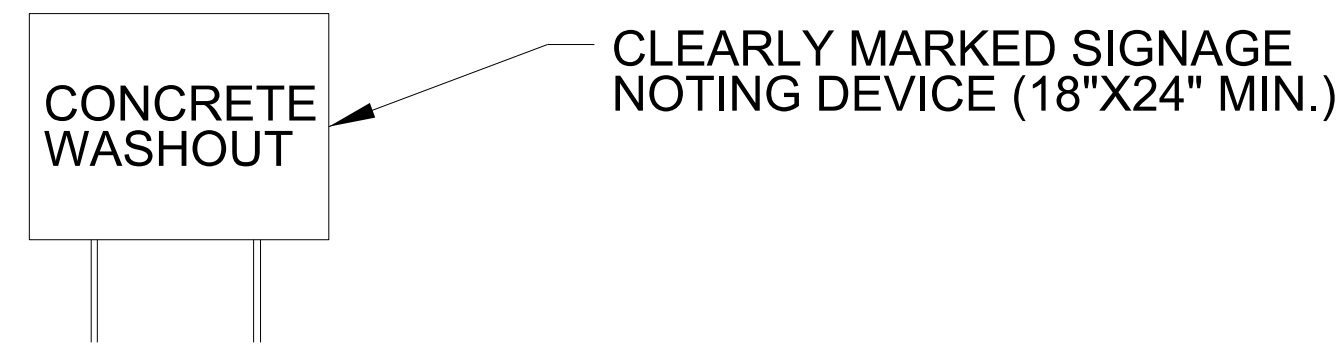
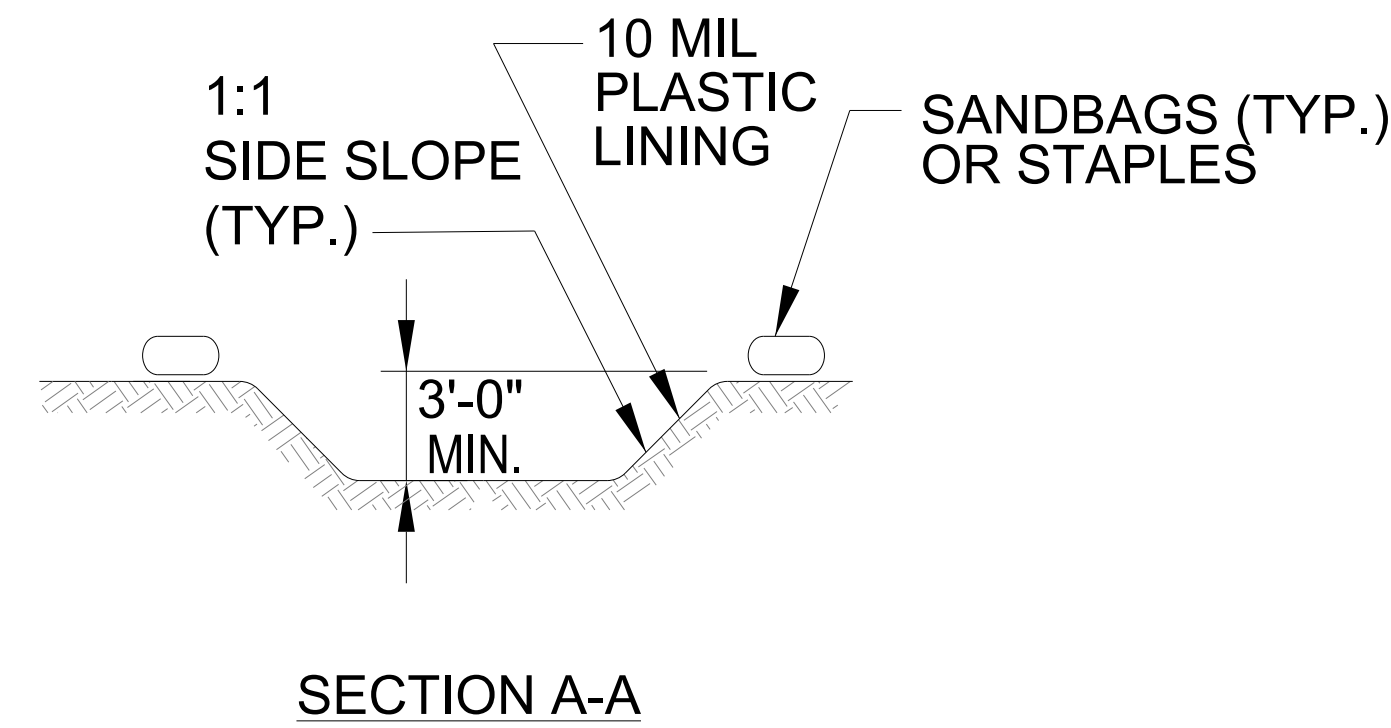
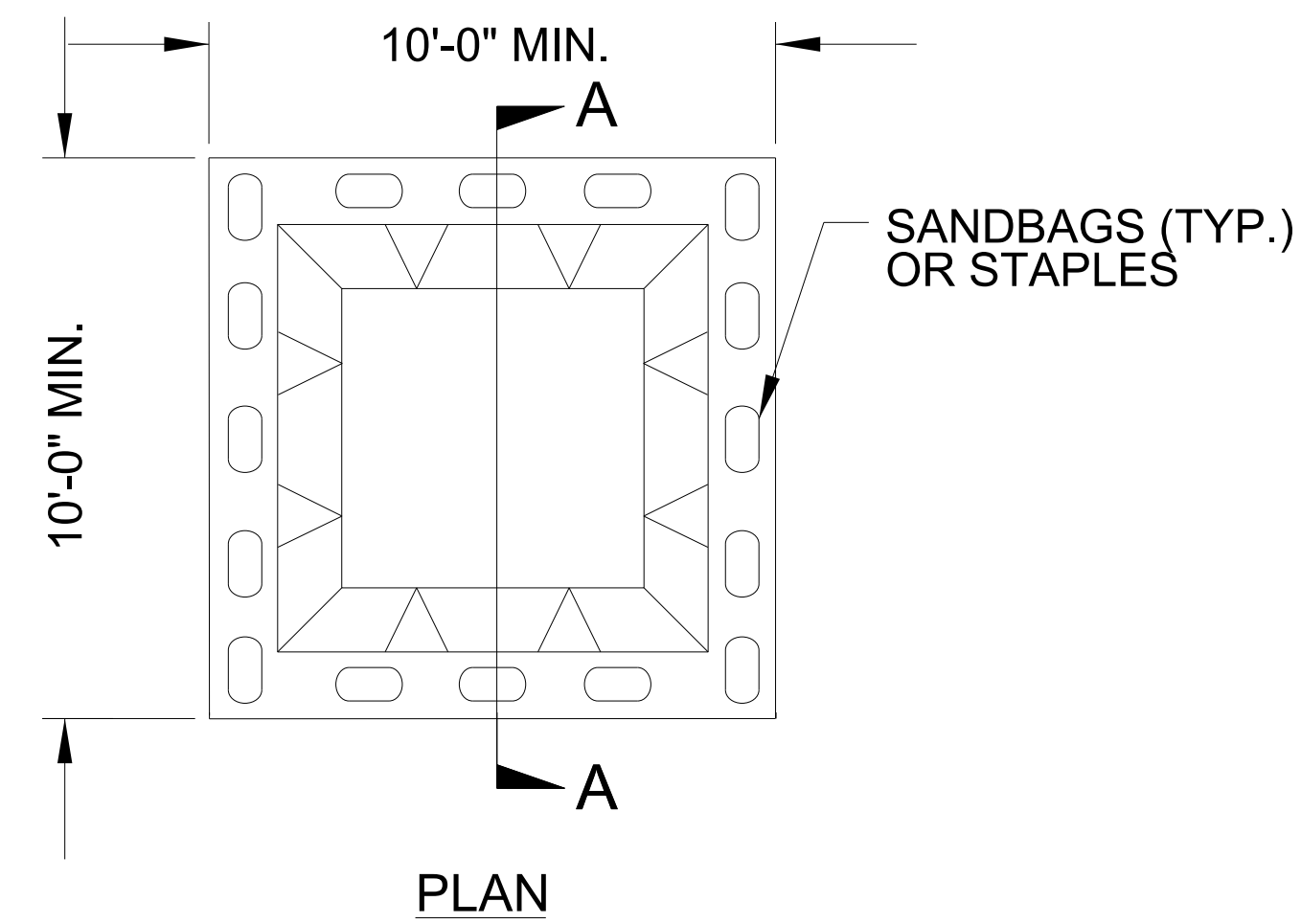
PROJECT REFERENCE NO. HB-0004	SHEET NO. EC-02
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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		1636.02	Silt Fence Excelsior Wattle Break	
1632.02	Type B		1636.03	Excelsior Wattle Barrier	
1632.03	Type C		1636.03	Coir Fiber Wattle Barrier	

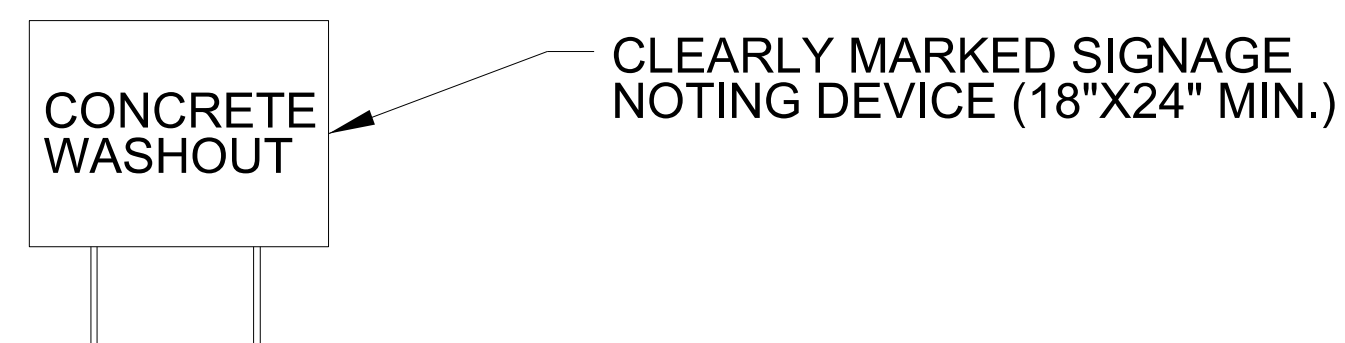
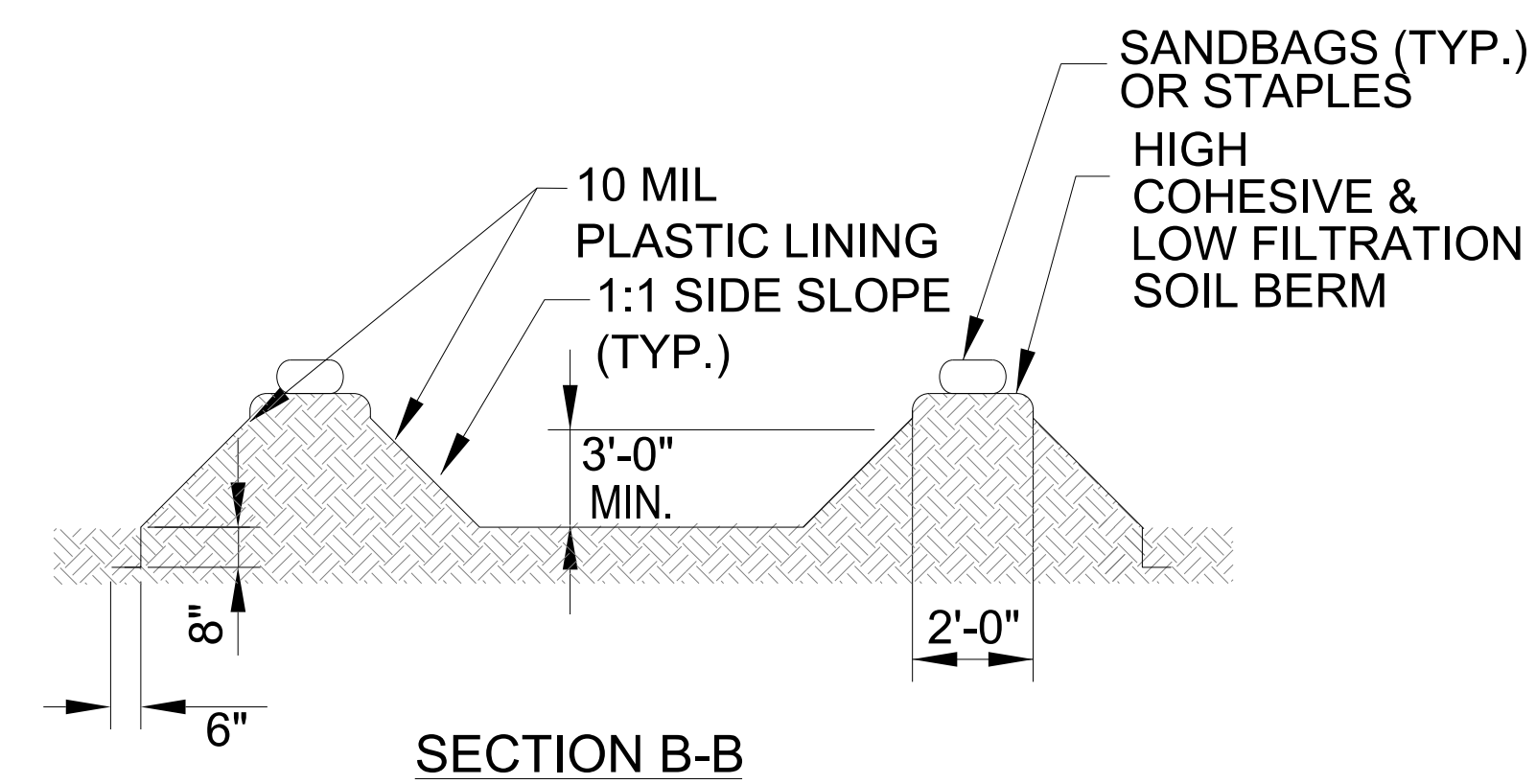
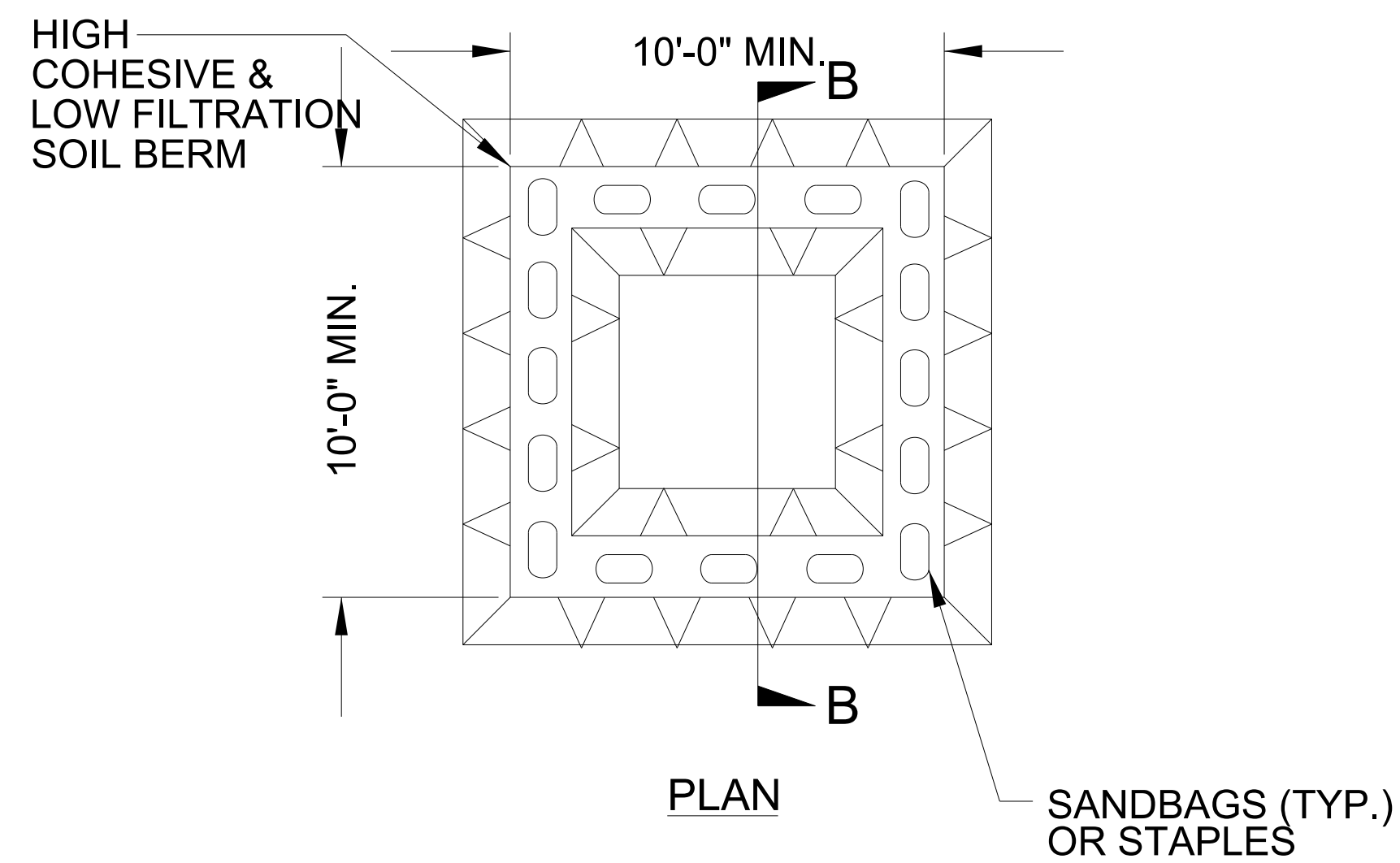
PROJECT REFERENCE NO. <i>HB-0004</i>	SHEET NO. <i>EC-2A</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

ONSITE CONCRETE WASHOUT STRUCTURE WITH LINER



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.

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PROJECT REFERENCE NO. <i>HB-0004</i>	SHEET NO. <i>EC-3</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SOIL STABILIZATION SUMMARY SHEET

MATTING FOR EROSION CONTROL (DITCHES)

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
4	-Y1 RPC-	11+50	12+50	RT	50
4	-Y1 RPC-	10+04	11+50	RT	150
6	-L-	266+00	267+50	LT	245
6	-L-	267+50	270+50	LT	445
<i>SUBTOTAL FOR MATTING (DITCHES)</i>					890

EXCELSIOR MATTING FOR EROSION CONTROL (DITCHES)

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
4	-L-	241+50	243+50	RT	200
5	-Y1 RPØ-	19+00	19+50	RT	65
6	-L-	270+50	271+50	LT	150
6	-Y1 RPA-	14+40	16+00	RT	130
<i>SUBTOTAL FOR MATTING (DITCHES)</i>					890
<i>SUBTOTAL FOR MATTING (SLOPES)</i>					28,936
<i>SUBTOTAL FOR EXCELSIOR MATTING (DITCHES)</i>					545
<i>MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER</i>					14,000
<i>TOTAL</i>					44,371
<i>SAY</i>					45,000

MATTING FOR EROSION CONTROL (SLOPES)


CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
4	-L-	238+50	241+50	RT	2391
4	-L-	238+50	242+00	LT	2897
4	-Y1 RPØ-	11+49	14+40	LT	1527
5	-Y1 RPØ-	14+49	18+58	LT	2896
5	-L-	253+00	254+58	LT	1269
5	-L-	253+66	254+20	RT	316
5	-L-	255+27	258+00	LT	2078
5	-Y1-	17+00	18+00	RT	506
6	-L-	266+50	273+00	LT	8781
6	-L-	266+50	273+00	RT	3528
6	-Y1 RPA-	12+61	16+04	RT	1656
6	-Y1 RPA-	16+65	18+46	RT	1093
<i>SUBTOTAL FOR MATTING (SLOPES)</i>					28,936

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PROJECT REFERENCE NO. <i>HB-0004</i>	SHEET NO. <i>EC-3A</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SOIL STABILIZATION TIMEFRAMES

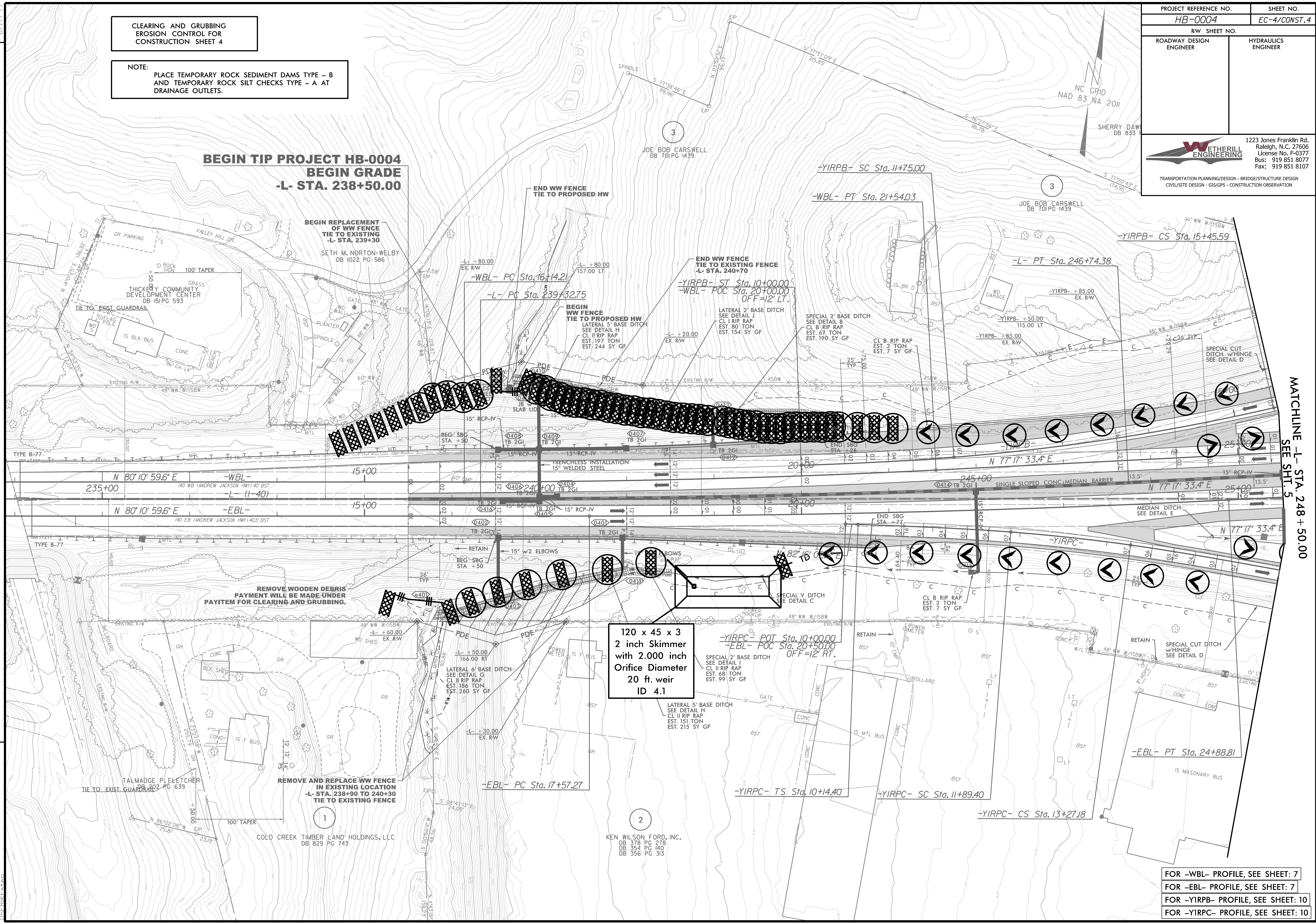
<i>SITE DESCRIPTION</i>	<i>STABILIZATION TIME</i>	<i>TIMEFRAME EXCEPTIONS</i>
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 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

PROJECT REFERENCE NO. HB-0004		SHEET NO. EC-4/CONST.4	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
		1223 Jones Franklin Rd. Raleigh, N.C. 27606 License No. F-0377 Bus: 919 851 8077 Fax: 919 851 8107	
		TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION	

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 TIP PROJECT HB-0004
BEGIN GRADE
-L- STA. 238+50.00**



REVISIONS

MATCHLINE -L- STA. 248 + 50.00
SEE SH. 5

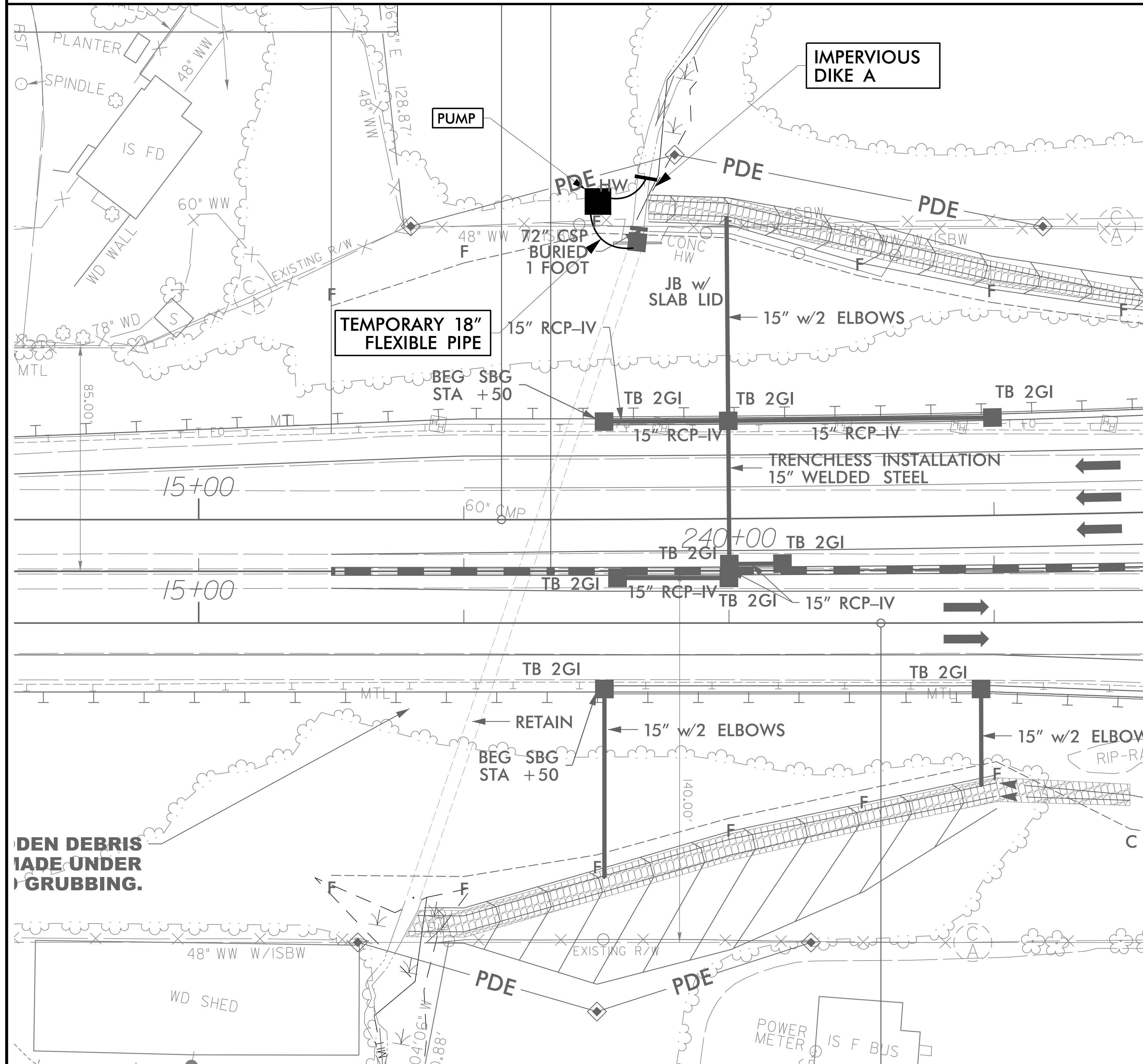
**120 x 45 x 3
2 inch Skimmer
with 2.000 inch
Orifice Diameter
20 ft. weir
ID 4.1**

FOR -WBL- PROFILE, SEE SHEET: 7
FOR -EBL- PROFILE, SEE SHEET: 7
FOR -YIRPB- PROFILE, SEE SHEET: 10
FOR -YIRPC- PROFILE, SEE SHEET: 10

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PROJECT REFERENCE NO. HB-0004	SHEET NO. EC-4A/CONST.4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

STA. -L- 239 + 23 PIPE CONSTRUCTION SEQUENCE




1. UTILIZE SPECIAL STILLING BASIN(S) AS NEEDED DURING PIPE INSTALLATION
2. INSTALL IMPERVIOUS DIKE A AND IMPLEMENT TEMPORARY PUMP-AROUND TO DIVERT FLOW INTO EXISTING 60" CMP
3. COMPLETE 60" CMP EXTENSION AND INSTALL JUNCTION BOX
4. COMPLETE PROPOSED BASE DITCH
5. REMOVE IMPERVIOUS DIKE A AND TEMPORARY PUMP-AROUND
6. REMOVE SPECIAL STILLING BASIN(S)
7. COMPLETE ROADWAY

REMOVE DEBRIS MADE UNDER GRUBBING.

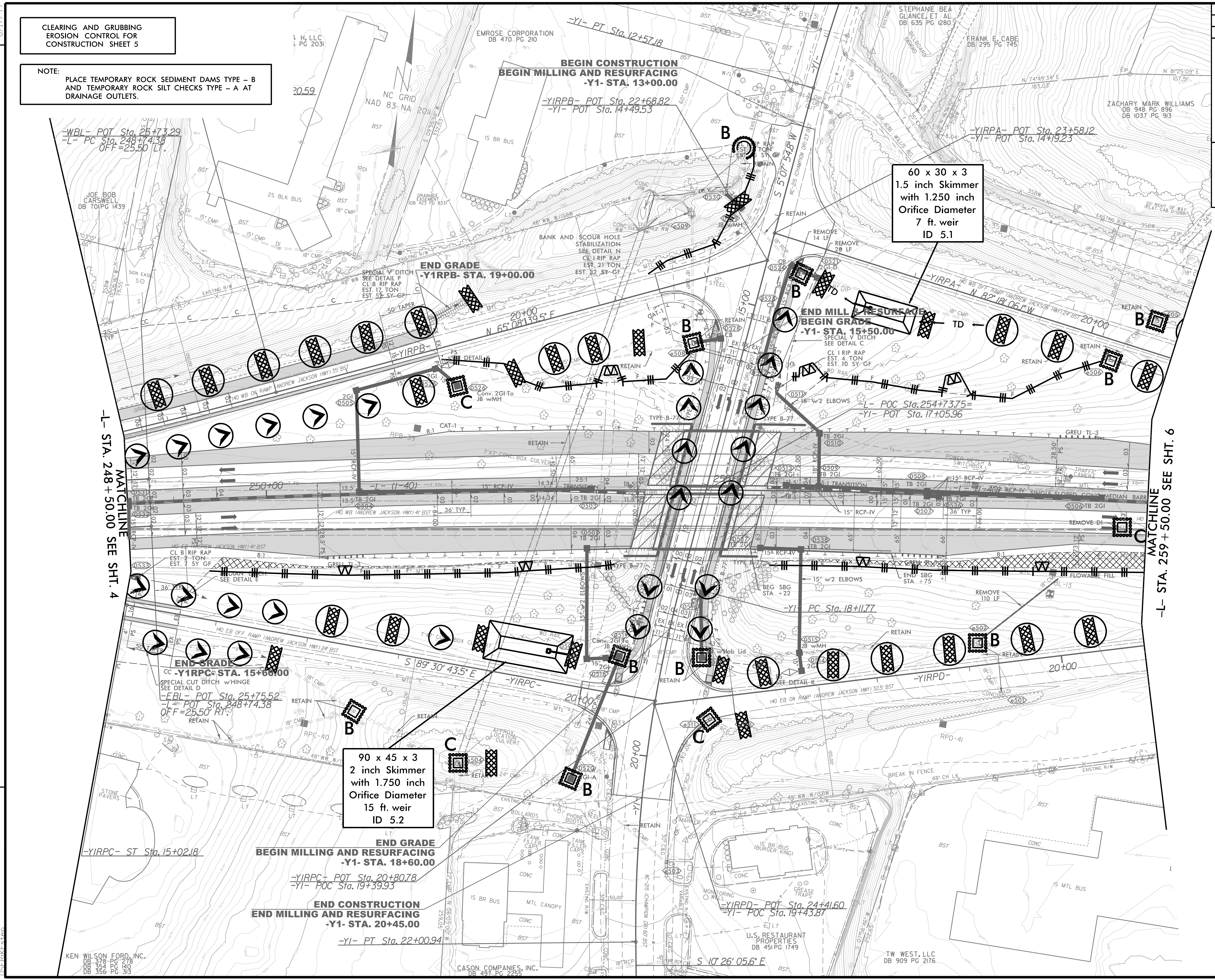
**CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 5**

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

PROJECT REFERENCE NO. <i>HB-0004</i>		SHEET NO. <i>EC-5/CONST.5</i>	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
			
1223 Jones Franklin Rd. Raleigh, N.C. 27606 License No. F-0377 Bus: 919 851 8077 Fax: 919 851 8107			
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION			

**60 x 30 x 3
1.5 inch Skimmer
with 1.250 inch
Orifice Diameter
7 ft. weir
ID 5.1**

**90 x 45 x 3
2 inch Skimmer
with 1.750 inch
Orifice Diameter
15 ft. weir
ID 5.2**



MATCHLINE
-L- STA. 248 + 50.00 SEE SHT. 4

MATCHLINE
-L- STA. 259 + 50.00 SEE SHT. 6


- FOR -WBL- PROFILE, SEE SHEET: 7
- FOR -EBL- PROFILE, SEE SHEET: 7
- FOR -L- PROFILE, SEE SHEETS: 8-10
- FOR -YI- PROFILE, SEE SHEET: 12
- FOR -YIRPA- PROFILE, SEE SHEET: 12
- FOR -YIRPB- PROFILE, SEE SHEET: 13
- FOR -YIRPC- PROFILE, SEE SHEET: 13
- FOR -YIRPD- PROFILE, SEE SHEET: 14

REVISIONS

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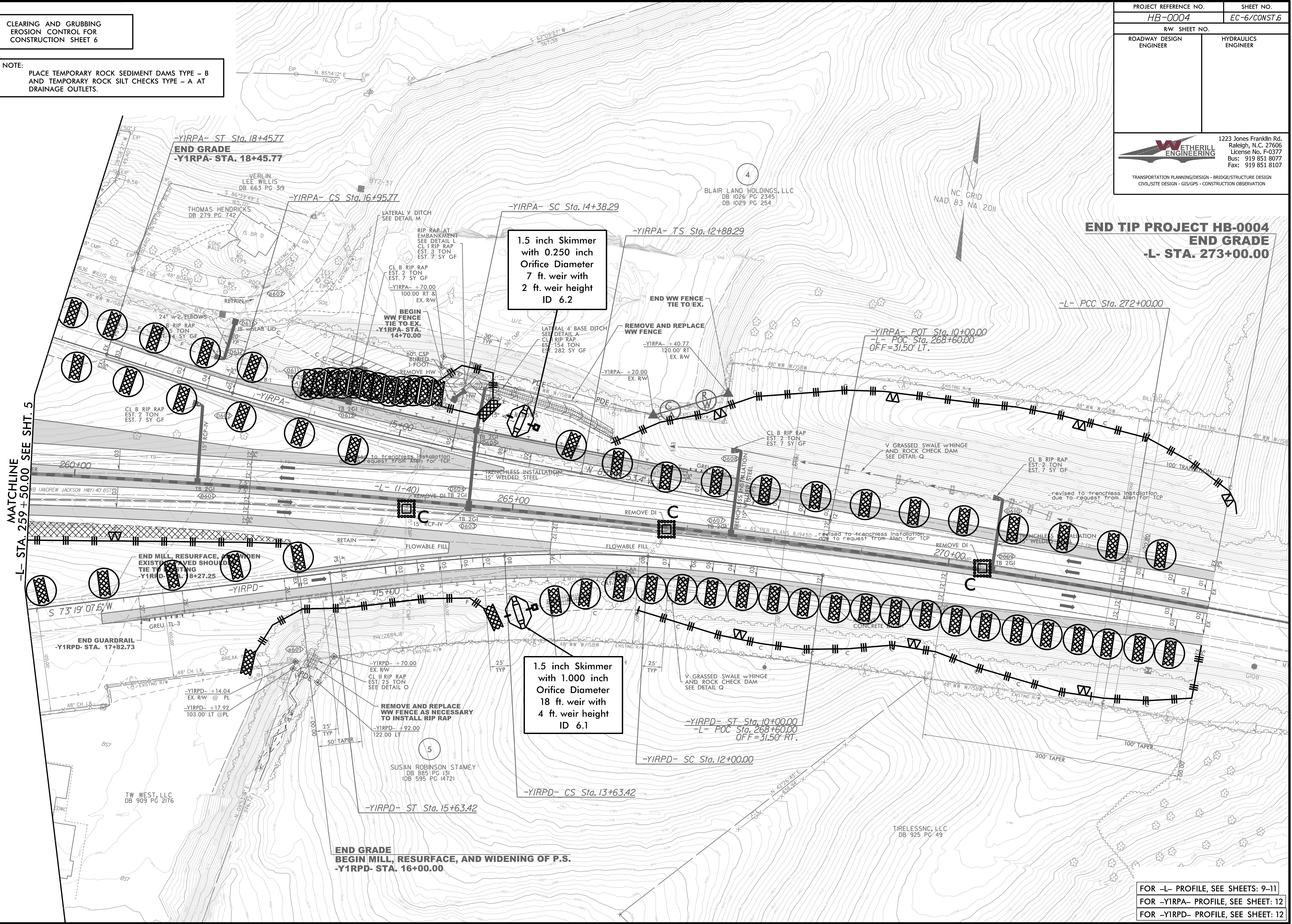
**CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 6**

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

PROJECT REFERENCE NO. HB-0004	SHEET NO. EC-6/CONST.6
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
	
1223 Jones Franklin Rd. Raleigh, N.C. 27606 License No. F-0377 Bus: 919 851 8077 Fax: 919 851 8107	
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION	

**END TIP PROJECT HB-0004
END GRADE
-L- STA. 273+00.00**

MATCHLINE
 -L- STA. 259+50.00 SEE SHT. 5



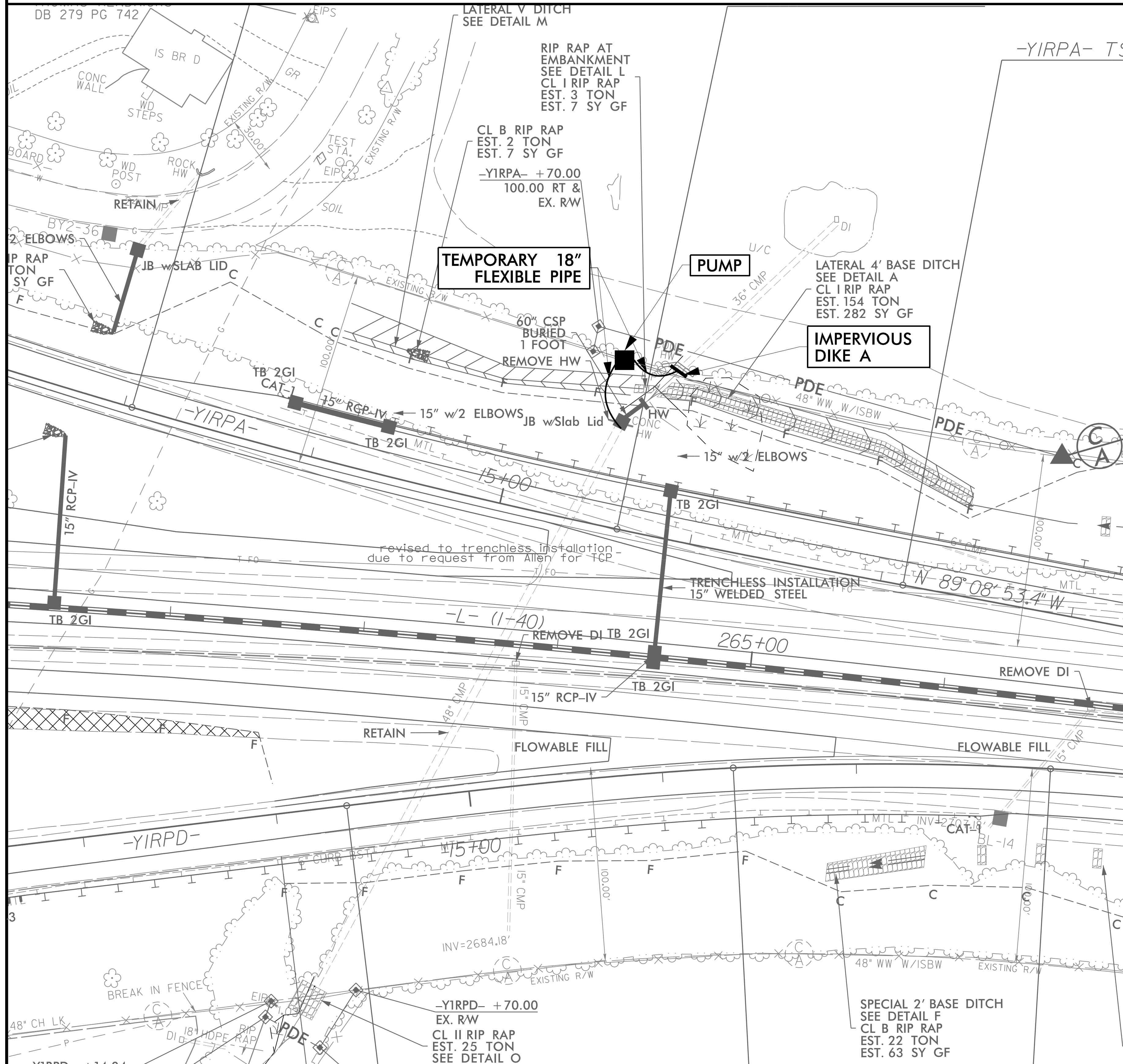
REVISIONS

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FOR -L- PROFILE, SEE SHEETS: 9-11
 FOR -YIRPA- PROFILE, SEE SHEET: 12
 FOR -YIRPD- PROFILE, SEE SHEET: 12

PROJECT REFERENCE NO.	SHEET NO.
HB-0004	EC-6A/CONST.6
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

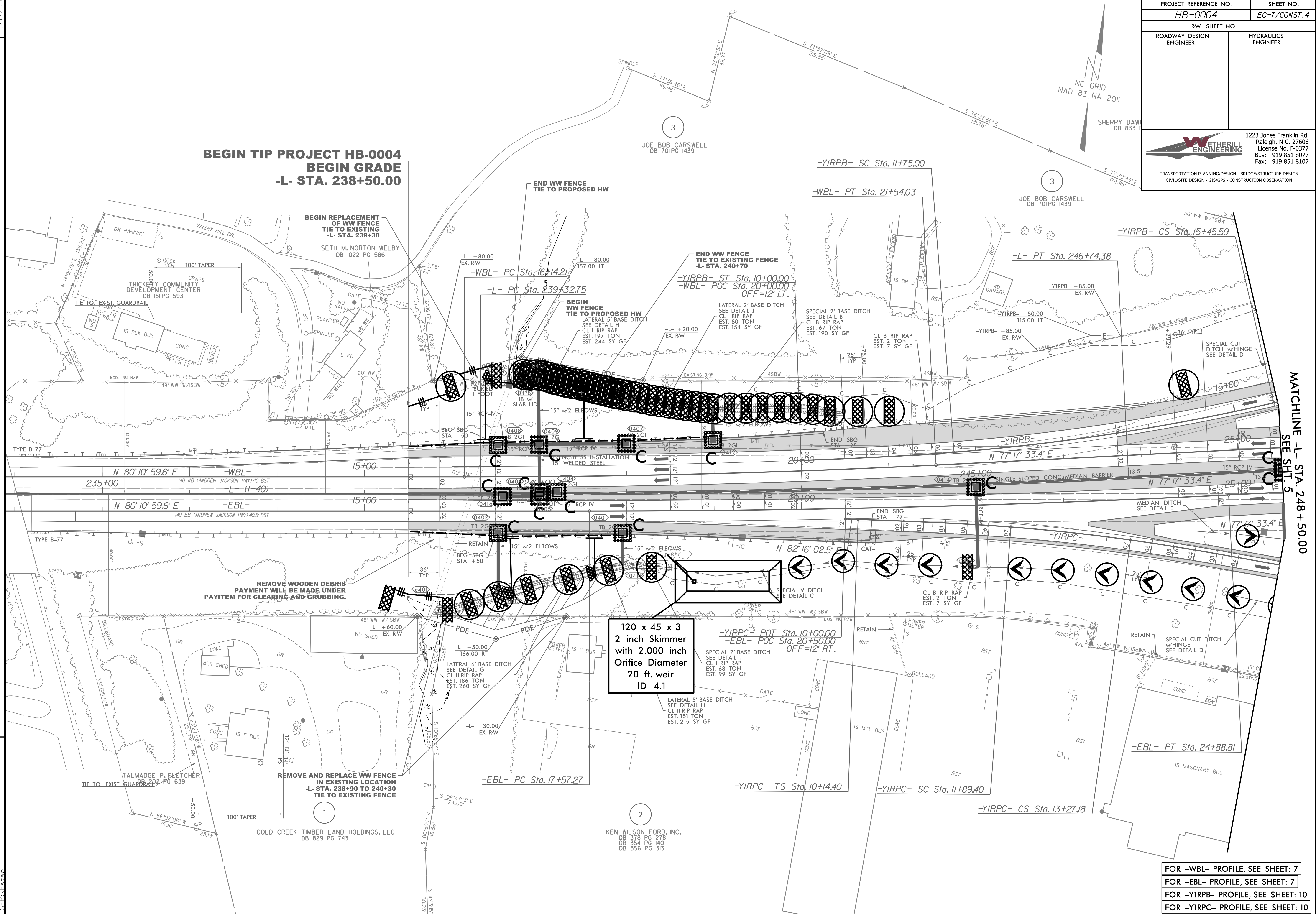
STA. -L- 263 + 71 PIPE CONSTRUCTION SEQUENCE



1. UTILIZE SPECIAL STILLING BASIN(S) AS NEEDED DURING PIPE INSTALLATION
2. INSTALL IMPERVIOUS DIKE A AND IMPLEMENT TEMPORARY PUMP-AROUND TO DIVERT FLOW INTO EXISTING 48" CMP
3. INSTALL PROPOSED JUNCTION BOX AND 60" CSP EXTENSION
4. COMPLETE PROPOSED BASE AND V DITCH
5. REMOVE IMPERVIOUS DIKE A AND TEMPORARY PUMP-AROUND
6. REMOVE SPECIAL STILLING BASIN(S)
7. COMPLETE ROADWAY

PROJECT REFERENCE NO. HB-0004		SHEET NO. EC-7/CONST. 4	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
		1223 Jones Franklin Rd. Raleigh, N.C. 27606 License No. F-0377 Bus: 919 851 8077 Fax: 919 851 8107	
		TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION	

**BEGIN TIP PROJECT HB-0004
BEGIN GRADE
-L- STA. 238+50.00**




120 x 45 x 3
2 inch Skimmer
with 2.000 inch
Orifice Diameter
20 ft. weir
ID 4.1

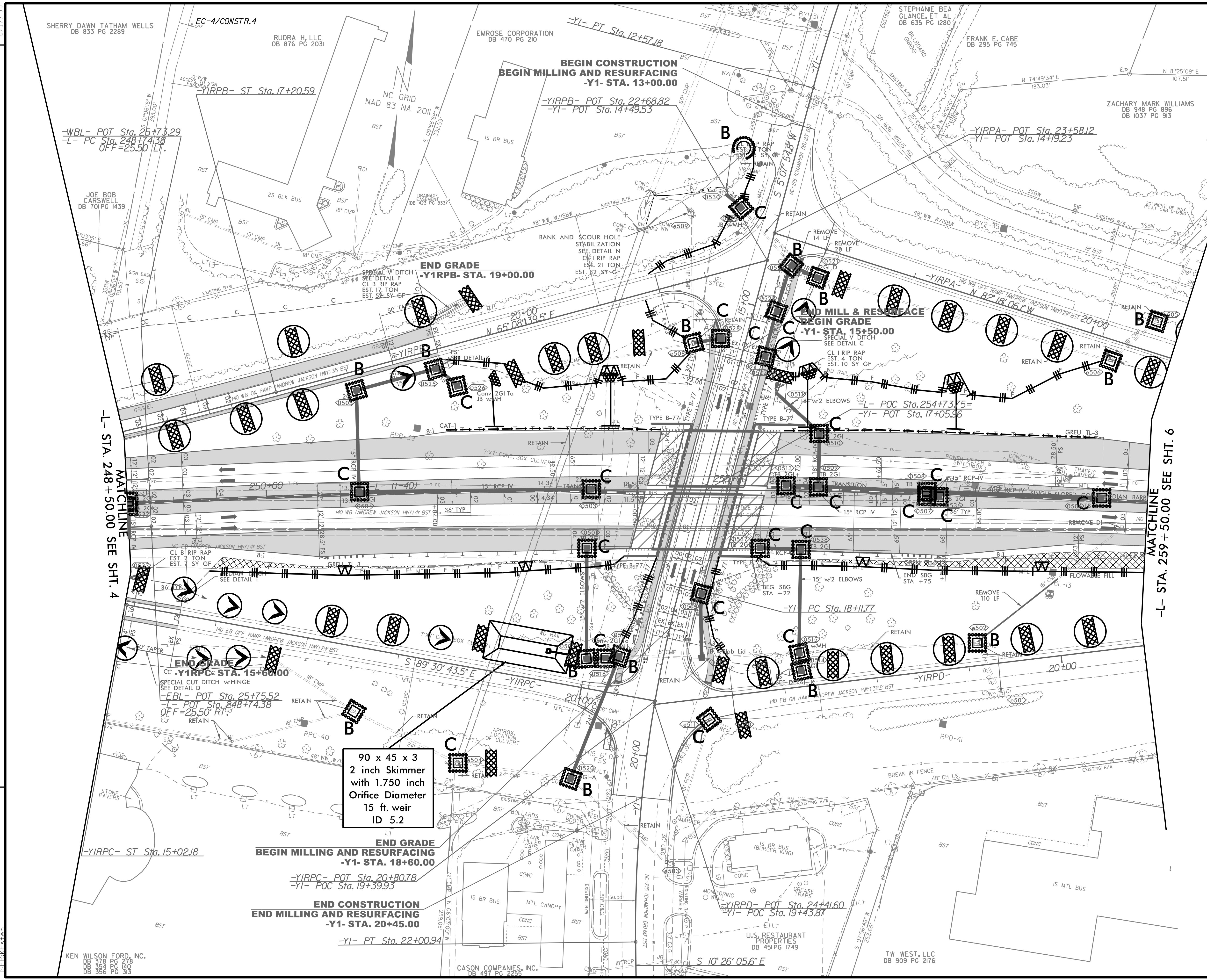
REVISIONS

MATCHLINE -L- STA. 248 + 50.00
SEE SHIT 5

FOR -WBL- PROFILE, SEE SHEET: 7
FOR -EBL- PROFILE, SEE SHEET: 7
FOR -YIRPB- PROFILE, SEE SHEET: 10
FOR -YIRPC- PROFILE, SEE SHEET: 10

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PROJECT REFERENCE NO.	SHEET NO.
HB-0004	EC-8/CONST.5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
	
1223 Jones Franklin Rd. Raleigh, N.C. 27606 License No. F-0377 Bus: 919 851 8077 Fax: 919 851 8107	
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION	



90 x 45 x 3
 2 inch Skimmer
 with 1.750 inch
 Orifice Diameter
 15 ft. weir
 ID 5.2

- FOR -WBL- PROFILE, SEE SHEET: 7
- FOR -EBL- PROFILE, SEE SHEET: 7
- FOR -L- PROFILE, SEE SHEETS: 8-10
- FOR -Y1- PROFILE, SEE SHEET: 12
- FOR -Y1RPA- PROFILE, SEE SHEET: 12
- FOR -Y1RPB- PROFILE, SEE SHEET: 13
- FOR -Y1RPC- PROFILE, SEE SHEET: 13
- FOR -Y1RPD- PROFILE, SEE SHEET: 14

REVISIONS


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KEN WILSON FORD, INC.
 DB: 315 PG 1478
 DB: 356 PG 313

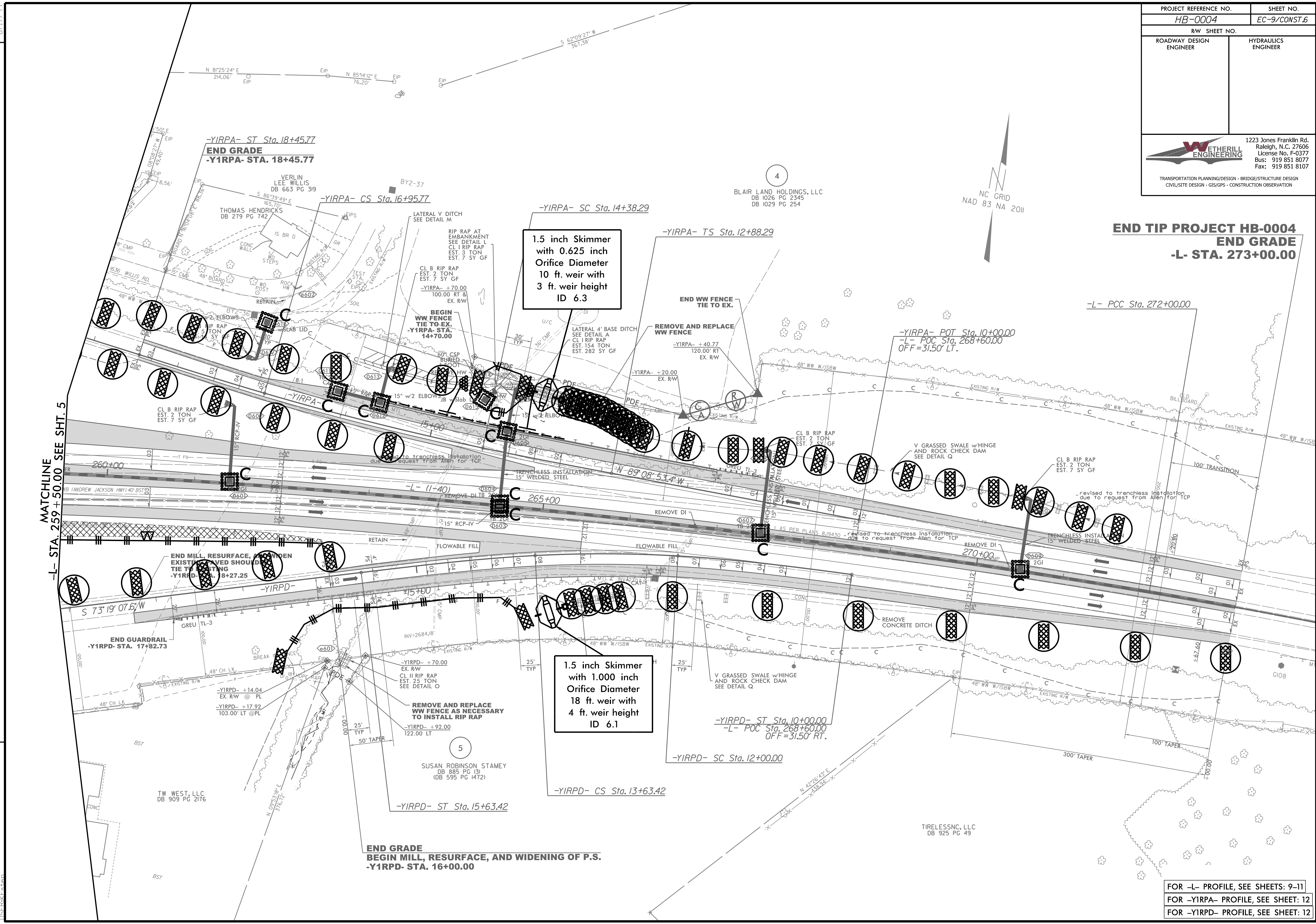
CASON COMPANIES, INC.
 DB: 497 PG 2289

TW WEST, LLC
 DB: 909 PG 2176

8/17/99

PROJECT REFERENCE NO. HB-0004	SHEET NO. EC-9/CONST.6
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
	
1223 Jones Franklin Rd. Raleigh, N.C. 27606 License No. F-0377 Bus: 919 851 8077 Fax: 919 851 8107	
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION	

END TIP PROJECT HB-0004
END GRADE
-L- STA. 273+00.00



REVISIONS

MATCHLINE
 -L- STA. 259 + 50.00 SEE SHT. 5

3/5/2024
 HB0004_EC_psh_09_FINAL.dgn
 TTS:RKF

FOR -L- PROFILE, SEE SHEETS: 9-11
 FOR -YIRPA- PROFILE, SEE SHEET: 12
 FOR -YIRPD- PROFILE, SEE SHEET: 12