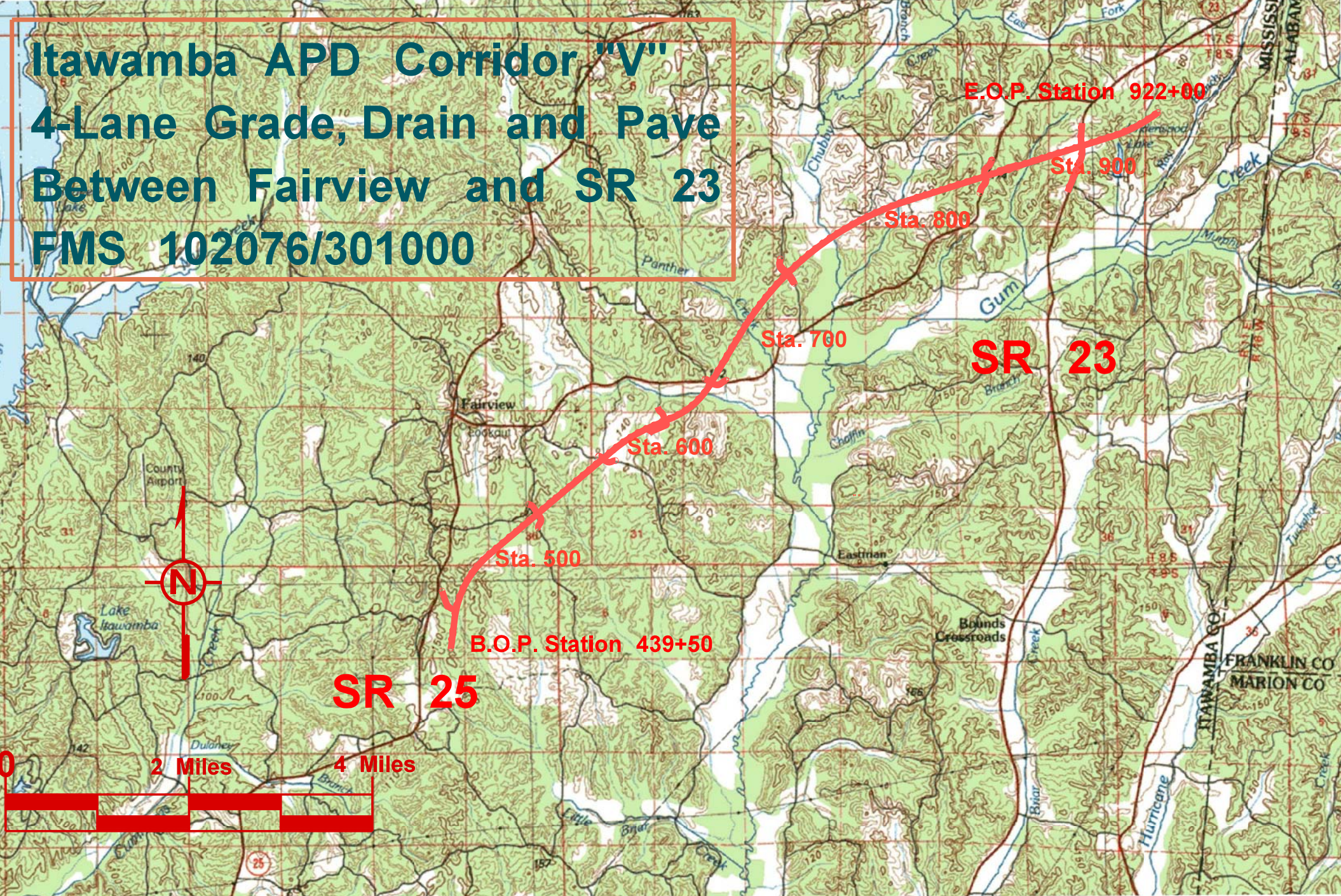
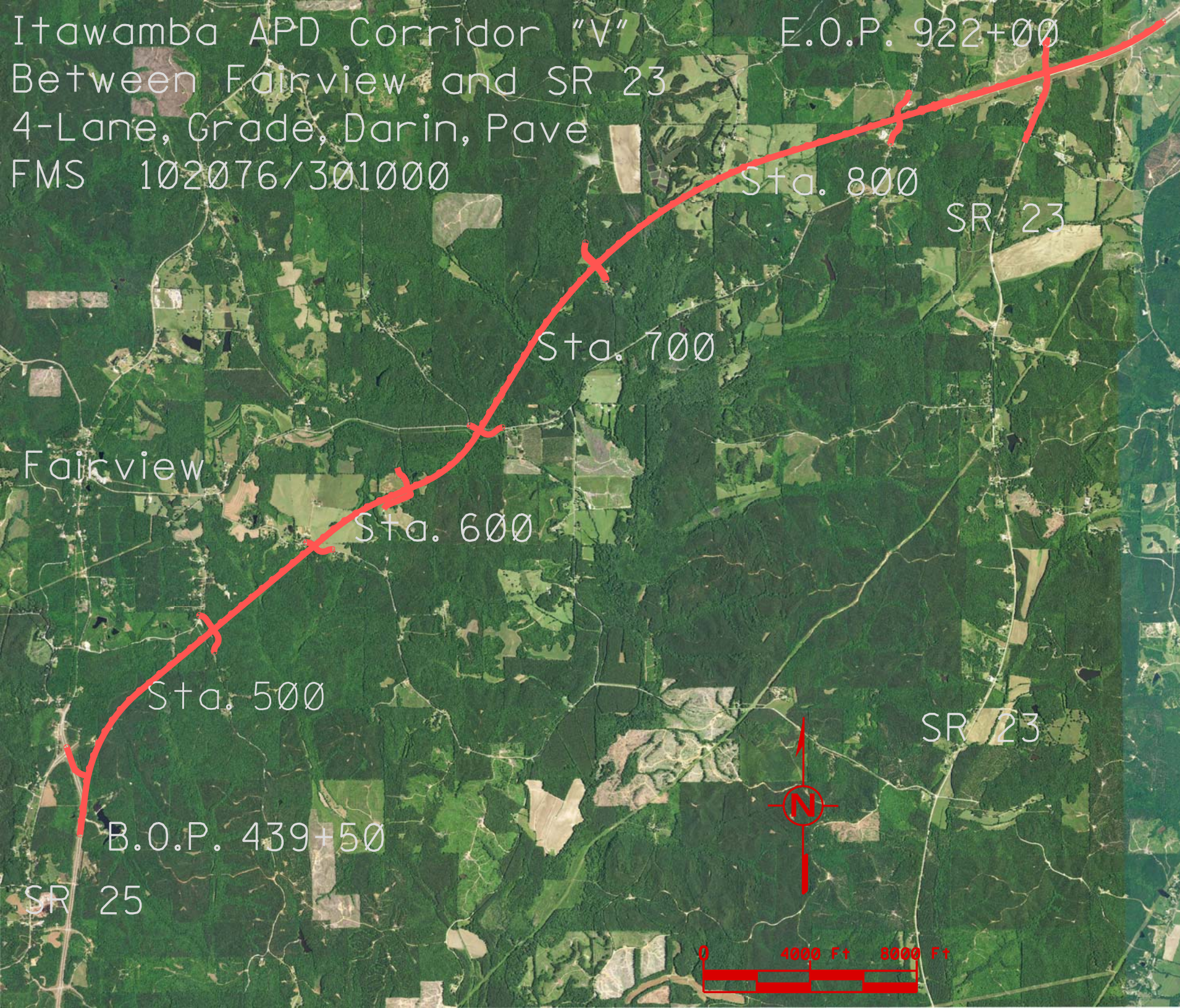
Itawamba App. Cor. V
NH-ADP-0078-01(011)N; 102076-301000

Location Map


Itawamba APD Corridor "V"
4-Lane Grade, Drain and Pave
Between Fairview and SR 23
FMS 102076/301000
E.O.P. Station 922+00
Sta. 900
Sta. 800
Sta. 700
Sta. 600
Sta. 500
B.O.P. Station 439+50
SR 23
SR 25
Fairview
Eastman
Bounds Crossroads
County Airport
Lake Itawamba
N
0
2 Miles
4 Miles
ITAWAMBA CO
FRANKLIN CO
MARION CO


Itawamba APD Corridor "V"
Between Fairview and SR 23
4-Lane, Grade, Darin, Pave
FMS 102076/301000
E.O.P. 922+00
Sta. 800
SR 23
Sta. 700
Fairview
Sta. 600
Sta. 500
SR 23
B.O.P. 439+50
SR 25
N
0
4000 Ft
8000 Ft

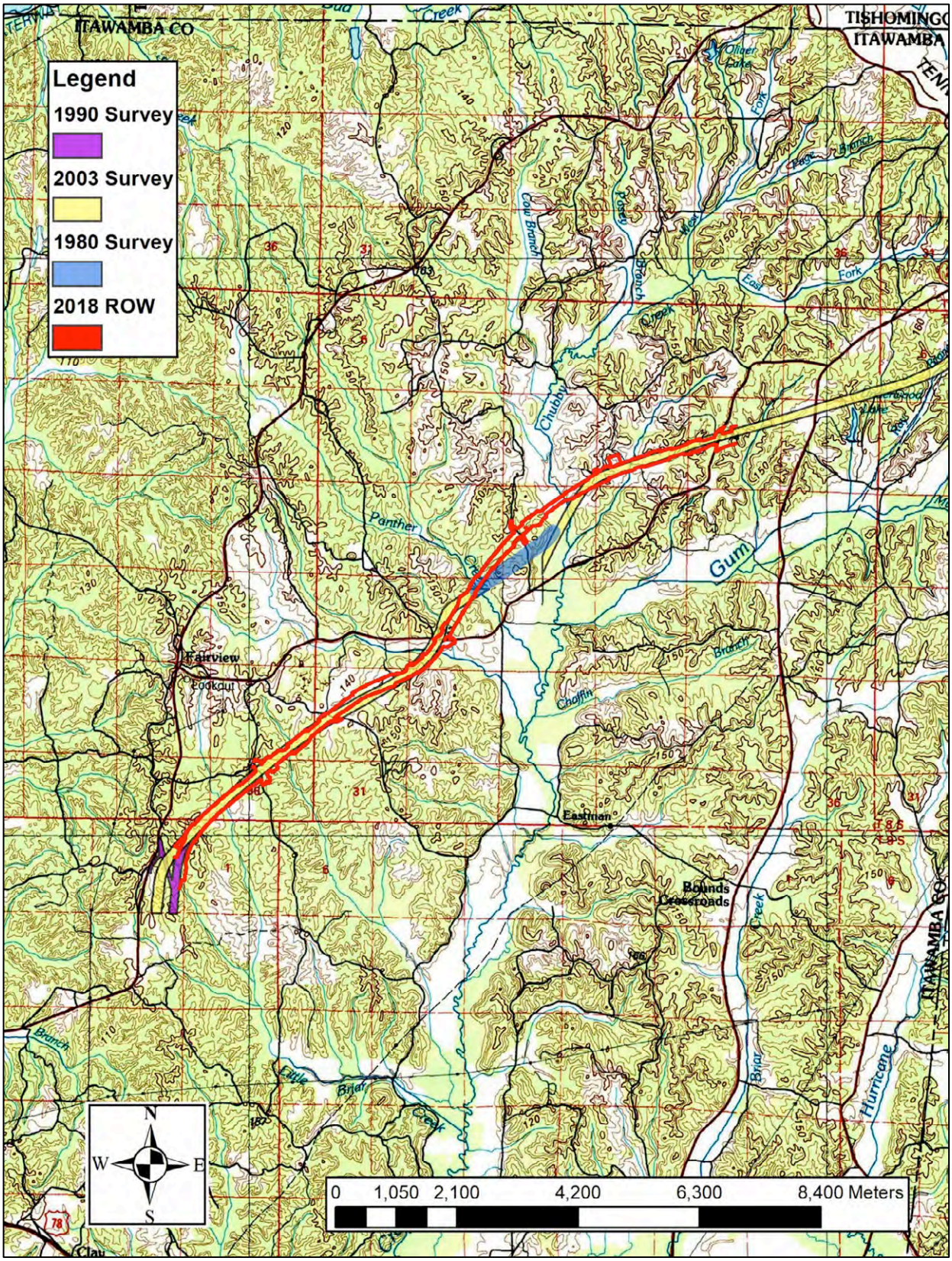


Figure 1-01. The Appalachian Corridor "V" project area, with earlier surveys indicated (base map: 1984 Tupelo 1:100,000 map).

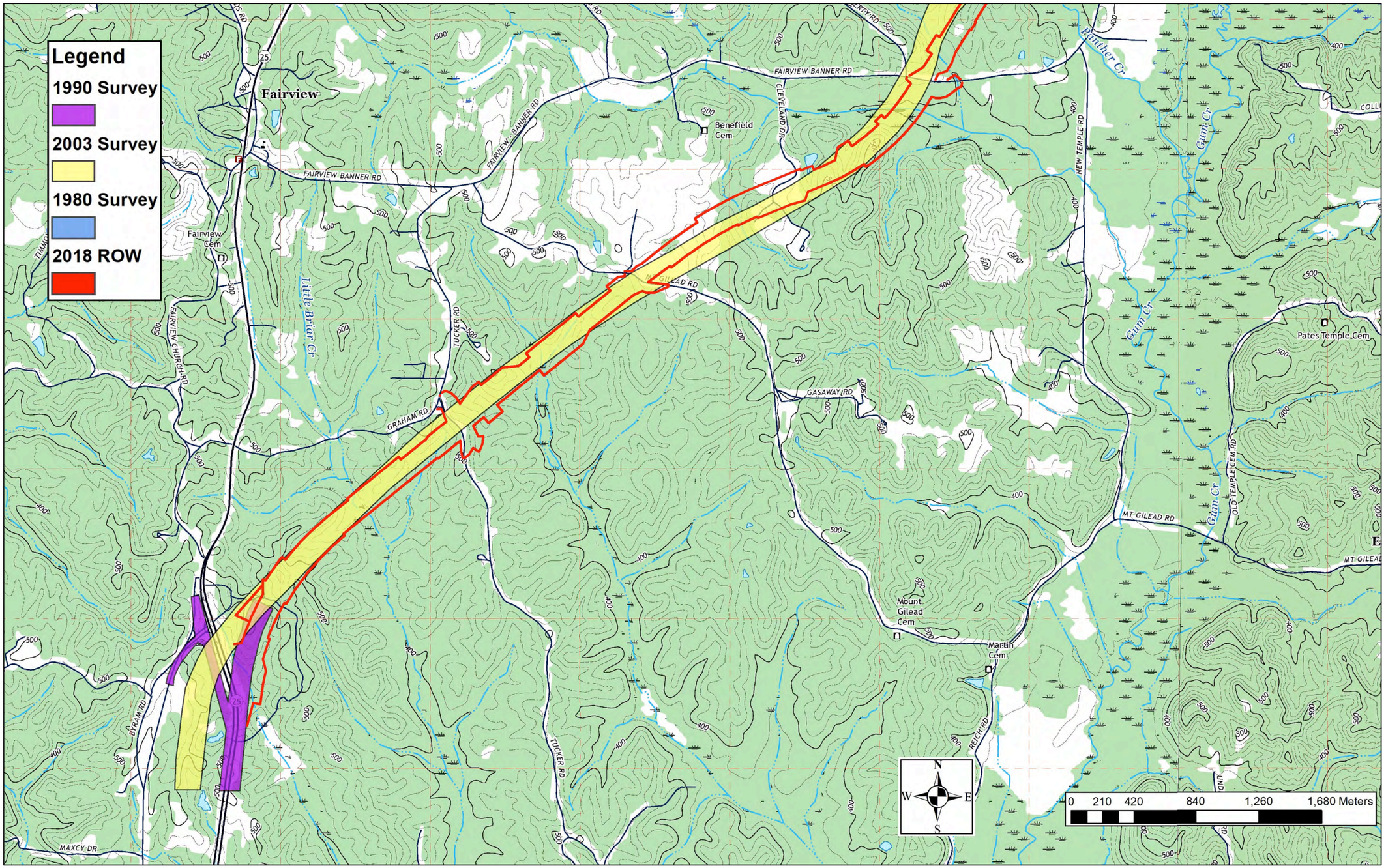


Figure 1-02. Southwestern half of the Appalachian Corridor "V" project area, with earlier surveys indicated (base maps: U.S. Geological Survey Fulton SE, Fulton NE, Red Bay, and Shottsville, MS 7.5-min. quads).

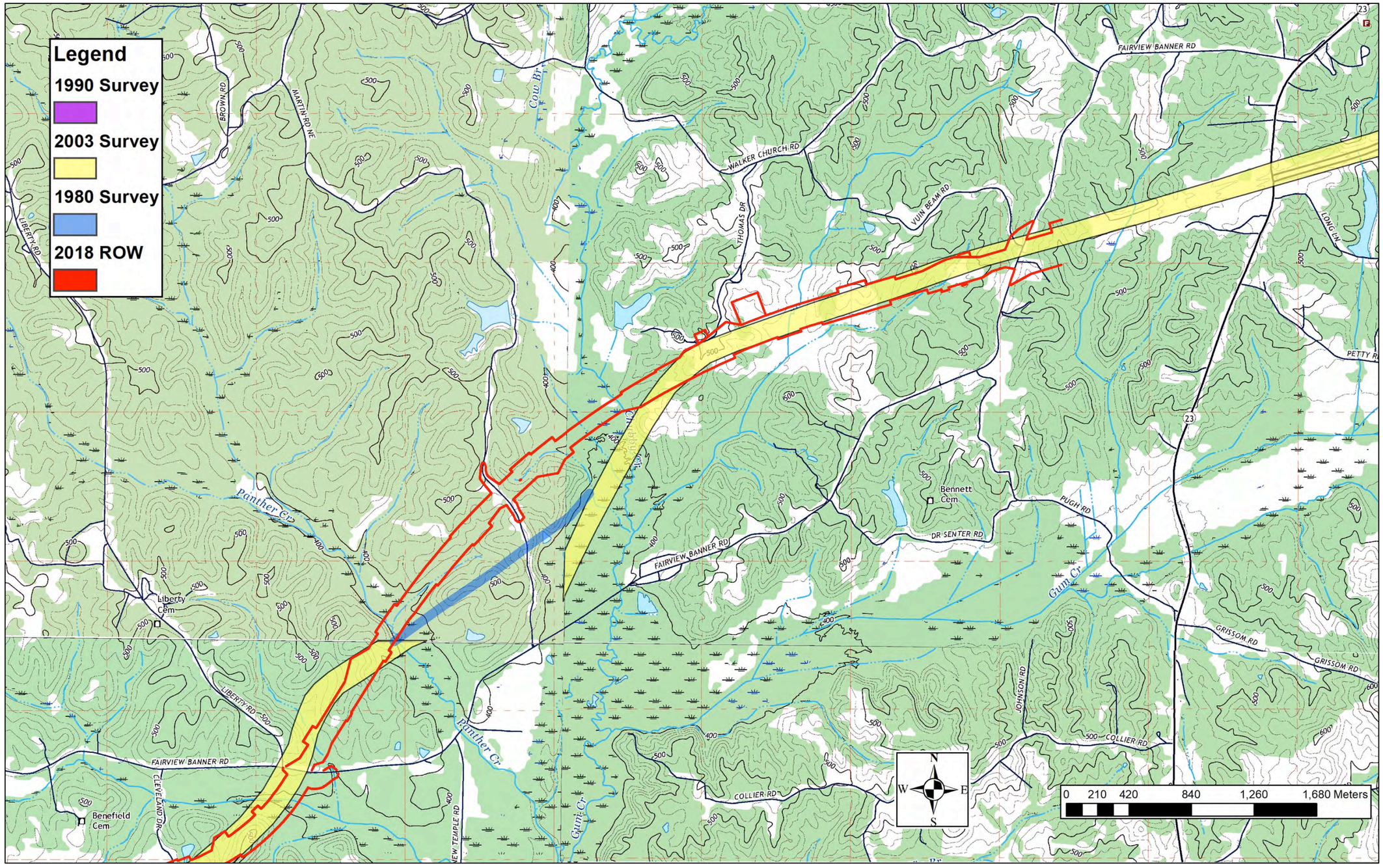


Figure 1-03. Northeastern half of the Appalachian Corridor "V" project area, with earlier surveys indicated (base maps: U.S. Geological Survey Fulton SE, Fulton NE, Red Bay, and Shottsville, MS 7.5-min. quads).

Table of Impacts

Table 1. Wetland Data Point Summary Table

Data Point	Wetland ID#	Site #	Latitude	Longitude	Sta.	Section-Township-Range	Impacted Area (Acres)	Cowardin Classification	
DP-1	W1	1	34.33120	88.31810	445+00	2-9S-9E	4.32	PSS	4.32 acres will be permanently filled; No temporary fill; All wetlands outside clearing limits will remain. Site will be graded to restore natural drainage to the best extent possible; WK3
DP-2	W2	2	34.33930	88.31250	492+00	35-8S-9E	1.55	PF	1.55 acres permanently filled inside clearing limits; No temporary fill; All wetlands outside clearing limits will remain; Site will be graded to restore natural drainage to the best extent possible; WK5
DP-3	W3	3	34.34717	88.30083	537+00	36-9S-9E	1.82	PF	1.82 acres permanently filled inside clearing limits; No temporary fill; All wetlands outside clearing limits will remain; Site will be graded to restore natural drainage to the best extent possible. WK6
DP-4	W4	4	34.34950	88.29750	549+00	25-8S-9E	0.42	PF	0.42 acres permanently filled inside clearing limits; 0.10 acres temporary fill;. All wetlands outside clearing limits will remain; Site will be graded to restore natural drainage to the best extent possible. WK6
DP-5	W5	4	34.34983	88.29710	554+00	25-8S-9E	3.86	PF	3.86 acres permanently filled inside clearing limits; No temporary fill; All wetlands outside clearing limits will remain; Site will be graded to restore natural drainage to the best extent possible. WK7
DP-6	W6	5	34.35817	88.28467	600+00	30-8S-10E	0.65	PEM	0.65 acres permanently filled inside clearing limits; No temporary fill; All wetlands outside clearing limits will remain; Site will be graded to restore natural drainage to the best extent possible. WK8
DP-7	W7	5	34.35933	88.28233	607+00	30-8S-10E	0.85	PF	0.85 acres permanently filled inside clearing limits; No temporary fill; All wetlands outside clearing limits will remain; Site will be graded to restore natural drainage to the best extent possible. WK8

DP-8	W8	6	34.36210	88.27483	633+00	30-8S-10E	0.90	PF	0.90 acres permanently filled inside clearing limits; No temporary fill; All wetlands outside clearing limits will remain; Site will be graded to restore natural drainage to the best extent possible. WK9
DP-9	W9	7	34.36450	88.27133	647+00	20-8S-10E	1.88	PSS	1.88 acres permanently filled inside clearing limits; No temporary fill; All wetlands outside clearing limits will remain; Site will be graded to restore natural drainage to the best extent possible. WK10
DP-10	W10	8	34.37583	88.26250	699+00	20-8S-10E	0.81	PF	0.81 acres permanently filled inside clearing limits; No temporary fill; All wetlands outside clearing limits will remain. Site will be graded to restore natural drainage to the best extent possible. WK11
DP-11	W11	9-10	34.38767	88.24933	757+00	16-8S-10E	4.31	PSS	4.31 acres permanently filled inside clearing limits; No temporary fill; All wetlands outside clearing limits will remain; Site will be graded to restore natural drainage to the best extent possible. WK13 & 14
DP-12	W12	12	34.39533	88.22717	829+00	10-8S-10E	0.17	PF	0.17 acres permanently filled inside clearing limits; No temporary fill; All wetlands outside clearing limits will remain; Site will be graded to restore natural drainage to the best extent possible. WK16
DP-13	W13	12	34.39233	88.23510	841+00	10-8S-10E	1.30	PF	1.30 acres permanently filled inside clearing limits; All wetlands outside clearing limits will remain. Site will be graded to restore natural drainage to the best extent possible. WK16
DP-14	W14	12	34.39667	88.22433	843+00	11-8S-10E	0.19	PSS	0.19 acres permanently filled inside clearing limits; No temporary fill; All wetlands outside clearing limits will remain; Site will be graded to restore natural drainage to the best extent possible. WK16

DP- Data point- collection point for sampling data for wetland assessment
W- Wetland- areas described as wetlands
PF- Palustrine Forested
PEM- Palustrine Emergent
PSS- Palustrine Shrub-Scrub
Station Numbers are approximate

Notes: Temporary haul roads and bridges will be allowed on either side of the bridges. They will be removed after construction and natural ground restored. However, ECD-17 will be omitted from the plans and will not be considered.

Wetland Summary:	**14 Total Impacted**	**Temporary Fill**	**Permanent Fill**
Total	**23.03 acres**	**0.00 acres**	**23.03 acres**
Emergent:	0.65 acres	0.00 acres	0.65 acres
Shrub-Scrub:	10.70 acres	0.00 acres	10.70 acres
Forested:	11.68 acres	0.00 acres	11.68 acres

Table 2. Other Waters Assessment Table

OW #	Site #	Latitude	Longitude	Sta.	Section-Township-Range	Type	Length in Project Area (feet)	Channel Width (feet)	Name	Impact
1	1	34.33158	88.31867	456+50	**2-9S-9E**	E	1,900	5	N/A	1,802 ft- Fill Channel and Relocate
2	2	34.34106	88.31022	500+80	**35-8S-9E**	E	1,086	5	N/A	496 ft- Fill channel and relocate
3	2	34.34175	88.30935	502+50	**35-8S-9E**	E	335	6	N/A	185 ft- New RBC DBL 10X8; 46 ft of 3:1 Wingwalls
4	2	34.34368	88.06447	515+50	**35-8S-9E**	E	792	6	N/A	200 ft- 36" RCP; 2- 36" FES
5	3	34.34479	88.30110	537+30	**36-9S-9E**	E	120	5	N/A	360 ft – 54" RCP; 2- FES; WK6
6	4	34.35030	88.29679	553+00	**25-8S-9E**	E	600	15	N/A	201 ft - 10X6 RCB w/ 46 ft of 3:1 wingwalls 600 ft - Fill channel and relocate
7	5	34.35953	88.27171	607+00	**30-8S-10E**	E	220	6	N/A	224 ft- 72" RCP w/ 2FES 220 ft- Fill channel and relocate
8	7	34.36532	88.27171	650+00	**30-8S-10E**	P	200	8	Gum Creek Trib.	140 ft- New Shading for new bridge site; 300 ft of riprap armoring on embankment slopes to toe
9	7	34.36874	88.26818	664+80	**20-8S-10E**	E	760	5	N/A	422 ft- New 8X6 RCB; 46 ft of 3:1 wingwalls 760 ft – Fill Channel and Relocate
10	8	34.37612	88.26304	696+00	**20-8S-10E**	P	200	12	Panther Creek	140 ft – New Shading for new bridge site; 200 ft of temporary sediment stone berm along top of banks; WK11
11	9	34.38488	88.25363	737+70	**16-8S-10E**	E	630	4	N/A	630 ft – Fill channel and Relocate
12	9	34.38623	88.25089	742+80	**16-8S-10E**	E	1200	5	N/A	1200 ft – Fill channel and Relocate
13	9	34.38857	88.24939	756+00	**16-8S-10E**	P	200	8	Chubby Creek Tribs.	140 ft – New shading for new bridge site; WK13
14	10	34.39081	88.24732	766+50	**16-8S-10E**	P	200	20	Chubby Creek	140 ft – New Shading for new bridge site; 170 ft of temporary sediment stone berm along top of banks; WK14
15	11	34.39429	88.23553	803+70	**10-8S-10E**	E	890	4	N/A	890 ft – Fill channel and relocate; 344 ft 54' RCP w/ 2 FES; WK15
16	11	34.39516	88.23351	808+50	**10-8S-10E**	E	705	4	N/A	705 ft – Fill channel and relocate; 235' DBL 8X6 RCB w/ 46 ft of 3:1 Wingwalls; WK15
17	12	34.39685	88.22766	830+00	**10-8S-10E**	E	638	5	N/A	344 ft 54" RCP with FES; 638 ft – Fill channel and Relocate; Wk16
18	13	34.39756	88.22267	841+00	**10-8S-10E**	E	600	5	N/A	264 ft of 60" RCP with FES; WK16
19	14	34.39847	88.22152	845+00	**10-8S-10E**	E	530	5	N/A	530 ft – Fill channel and Relocate

OW- Other Waters- Other Water assessment point location
Type:
P-Perennial
I-Intermittent
E-Ephemeral
FES – Flared End Section
OHWM-Ordinary High Water Mark
Station numbers (Sta.) are approximate

OW Summary	Total Impacts	New Bridge Shade	Culvert Fill	Relocate and Fill	Riprap Armor
Total	**11,994 lf**	**560 lf**	**2,963 lf**	**8,471 lf**	**300 lf**
Perennial:	560 lf	560 lf	0.00 lf	0.00 lf	300 lf
Intermittent:	0.00 lf	0.00 lf	0.00 lf	0.00 lf	0.00 lf
Ephemeral:	11,434 lf	0.00 lf	2,963 lf	8,471 lf	0.00 lf

Table 3. Pond Assessment Table

Pond ID #	Latitude	Longitude	Sta.	Section-Township-Range	Size (Acres)	Impact
1	34.39555	88.23750	798+00-803+00	10-8S-10E	5.2	Manmade; Drain and Fill
2	34.39783	88.22178	843+60-848+70	11-8S-10E	5.3	Manmade; Drain and Fill
3	34.39762	88.21966	849+50-852+60	11-8S-10E	0.93	Manmade; Drain and Fill

Pond Summary: 11.43 acres Total

Roadway and Bridge Plans

STATE	PROJECT NUMBER	SHEET NO.
MISSISSIPPI	NH-APD-0078-01(011)N	1

STATE OF MISSISSIPPI

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE OF PROPOSED STATE HIGHWAY

FEDERAL AID PROJECT NO.: NH-APD-0078-01(011)N

S.R. 76
BETWEEN FAIRVIEW AND S.R. 23
ITAWAMBA COUNTY

FMS CON. NO. 102076/301000

PRELIMINARY NOT FOR CONSTRUCTION

GENERAL INDEX

INCLUDED THIS PROJECT		BEGIN WITH SHEET
☒	ROADWAY	1
☒	PERMANENT SIGNS	1001
☐	TRAFFIC SIGNALS	2001
☐	ITS COMPONENTS	3001
☐	LIGHTING	4001
☐	(RESERVED)	5001
☒	ROADWAY STANDARD DWGS	6001
☒	BOX CULVERT STD. DRAWINGS (LRFD)	7001
☒	BOX CULVERT STD. DRAWINGS (STD. SPEC.)	7501
☒	BRIDGE	8001
☒	CROSS SECTIONS	9001

BRIDGE STRUCTURES REQ'D.

(A) STA. 647+76.55 – STA. 651+93.38 LT. LN.
STA. 648+57.58 – STA. 652+66.38 RT. LN.
SPANS: 2@100', 1@110', 1@100'
LENGTH: 412.78'
SKEW: 35° RIGHT FORWARD

(B) STA. 694+47.84 – STA. 698+79.06 LT LN
STA. 694+43.83 – STA. 698+77.27 RT LN
SPANS: 1@60', 1@130', 3@80'
LENGTH: 432.33'
SKEW: 15° LEFT FORWARD

(C) STA. 753+90.88 – STA. 759+31.74 LT LN
STA. 753+90.87 – STA. 759+34.51 RT LN
SPANS: 9@60'
LENGTH: 542.25'

(D) STA. 765+58.21 – STA. 768+19.31 LT LN
STA. 765+58.21 – STA. 768+20.46 RT LN
SPANS: 3@40', 1@100', 1@40'
LENGTH: 261.58'

BOX BRIDGES REQ'D.

(E) STA. 502+46 MAINLINE
185' – DBL. 10'x8' RCB REQ'D.
LENGTH ALONG C.L. 22.25'

(F) STA. 38+40 FAIRVIEW BANNER RD.
72' – DBL. 10'x4' RCB REQ'D.
LENGTH ALONG C.L. 21.75'

CONVENTIONAL SYMBOLS

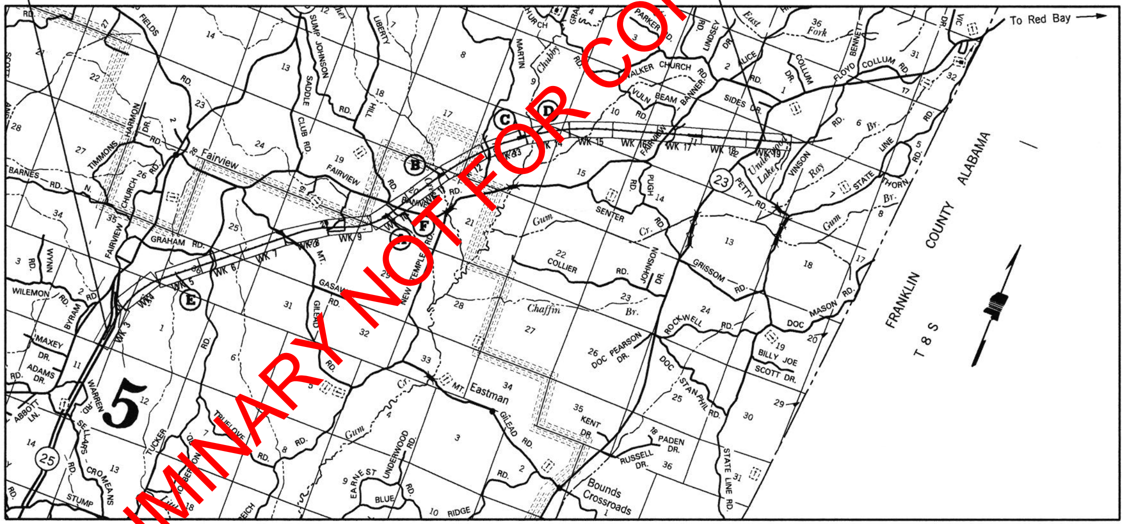
COUNTY LINE
TOWN CORPORATION LINE
SECTION LINE
EXISTING ROAD OR TRAVELED WAY
PROPOSED ROAD OR TRAVELED WAY
RAILROAD
SURVEY LINE
BRIDGES

SCALES

PLAN		1 IN.= 100 FT.
PROFILE	HOR.	1 IN.= 100 FT.
	VERT.	1 IN.= 10 FT.
LAYOUT		1 IN.= 4000 FT.

B.O.P. STA. 439+50.000

E.O.P. STA. 922+00.000



EQUATIONS

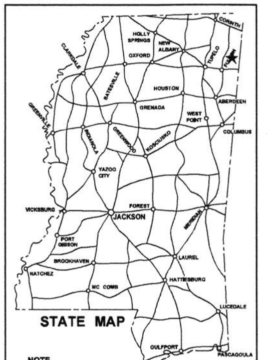
815+26.892 BK = 815+07.644 AH. +19.248

EXCEPTIONS

NONE

LENGTH DATA

LENGTH OF ROADWAY	46619.238	FT.	8.829	MI.
LENGTH OF BRIDGES	1650.010	FT.	0.313	MI.
LENGTH OF PROJECT (NET)			9.161	MI.
LENGTH OF EXCEPTIONS	0.000	FT.		MI.
LENGTH OF PROJECT (GROSS)			9.161	MI.



NOTE
★ INDICATES APPROXIMATE LOCATION OF PROJECT.

LAT. 34°22' LONG. 88°16'
(APPROX. MIDDLE OF PROJECT)

DESIGN CONTROL

65 MPH = V (SPEED DESIGN)

ADT (2019) = 2000 : ADT (2039) = 2700
DHV = 300 : D = 60 % T= 32 %

PERMITS ACQUIRED BY MDOT

WETLANDS AND WATERS PERMITS

	WATERS	WETLANDS
NATIONWIDE #14	☐	☐
NATIONWIDE (OTHER)*	☐	☐
GENERAL*	☐	☐
INDIVIDUAL (404)*	☐	☐

STORMWATER PERMIT ☐

Y	REQUIRED, CNOI SUBMITTED BY MDOT (DISTURBED AREA = 5 ACRES)
S	REQUIRED, SCNOI TO BE SUBMITTED BY CONTRACTOR (1 TO 4.99 ACRES)
N	NO STORMWATER PERMIT REQUIRED (<1 ACRE)

APPROVED BY:

ACCESS CONTROL

NOTES:

1. Access to and exit from this highway will be permitted only through interchange or such other points as may established by public authority and as shown on the plans.
2. This note applies the following station limits: STA. 441+07.012 to STA. 877+50
This project is declared by the Transportation Commision to be Type 2B Controlled Access Facility, as defined in and subject to all restrictions shown by order of said Commission dated 22 day of November, 2005 in minute book 11, page 847 and authorized under section 65-1-10(I)MCA (1972, as ammended).

P S & E DATE: 06/27/2019

APPROVED:

DEPUTY EXECUTIVE DIRECTOR / CHIEF ENGINEER

EXECUTIVE DIRECTOR

REVISIONS BY DATE

GRAHAM WESLEY LEGATE LICENSED PROFESSIONAL ENGINEER 28758 STATE OF MISSISSIPPI

MDOT MISSISSIPPI DEPARTMENT OF TRANSPORTATION

6/27/2019 8:14 AM TITLE.DGN

TITLE ROADWAY DESIGN DIVISION MISSISSIPPI DEPARTMENT OF TRANSPORTATION

FMS CON: 102076/301000

STATE	PROJECT NO.
MISS.	NH-APD-0078-01(011)N

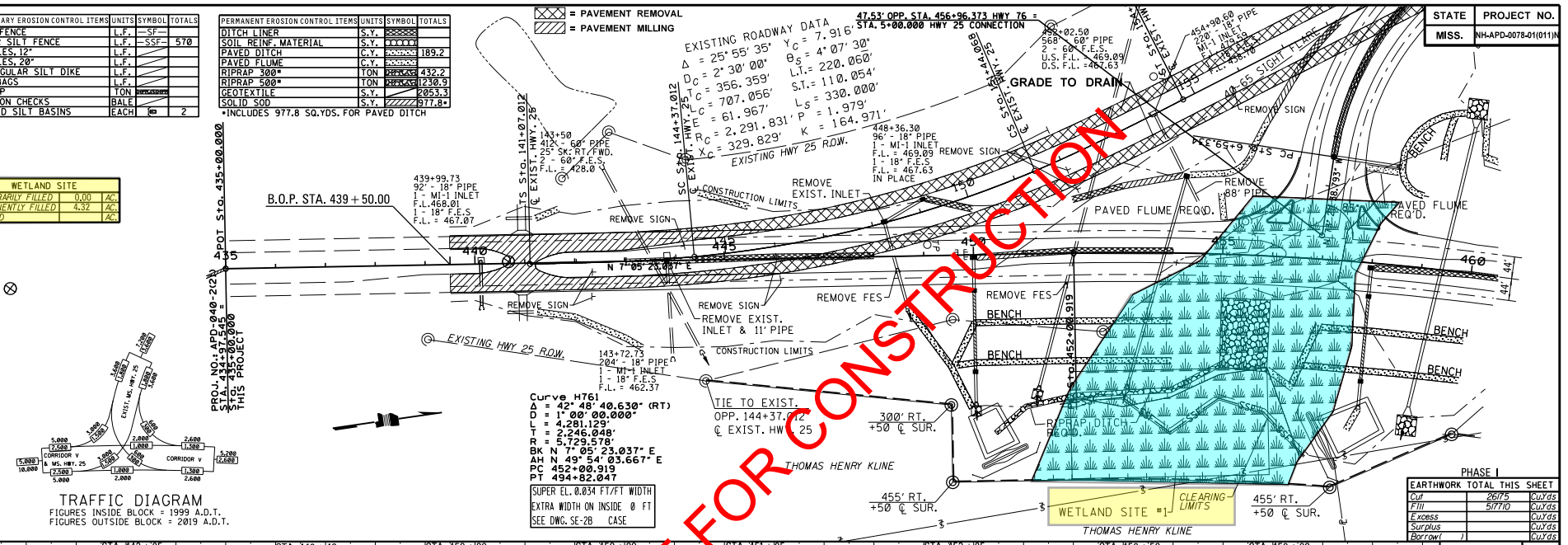
TEMPORARY EROSION CONTROL ITEMS	UNITS	SYMBOL	TOTALS
SILT FENCE	L.F.	-SF-	
SUPER SILT FENCE	L.F.	-SSF-	570
WATTLES, 12"	L.F.		
WATTLES, 20"	L.F.		
TRIANGULAR SILT DIKE	L.F.		
SANDBAGS	L.F.		
RIPRAP	TON		
EROSION CHECKS	BALE		
TYPE D SILT BASINS	EACH		2

PERMANENT EROSION CONTROL ITEMS	UNITS	SYMBOL	TOTALS
DITCH LINER	S.Y.		
SOIL REINF. MATERIAL	S.Y.		
PAVED DITCH	C.Y.		189.2
PAVED FLUME	C.Y.		
RIPRAP 300#	TON		432.2
RIPRAP 500#	TON		1230.9
GEOTEXTILE	S.Y.		2053.3
SOLID SOD	S.Y.		977.8*

*INCLUDES 977.8 SQ.YDS. FOR PAVED DITCH

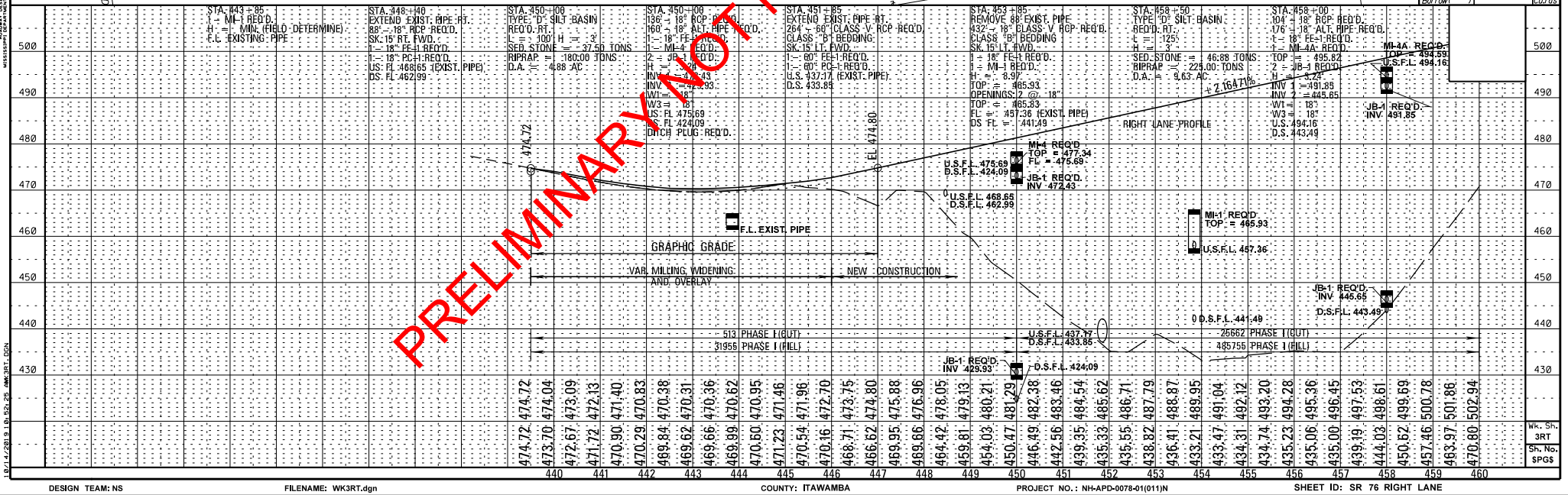
= PAVEMENT REMOVAL
= PAVEMENT MILLING

WETLAND SITE		
TEMPORARILY FILLED	0.00	AC.
PERMANENTLY FILLED	4.32	AC.
BRIDGED		AC.



TRAFFIC DIAGRAM
FIGURES INSIDE BLOCK = 1999 A.D.T.
FIGURES OUTSIDE BLOCK = 2019 A.D.T.

PHASE I EARTHWORK TOTAL THIS SHEET		
Cut	26775	Cu.yds
Fill	51770	Cu.yds
Excess		Cu.yds
Surplus		Cu.yds
Borrow ( )		Cu.yds



PLAN-PROFILE
ROADWAY DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

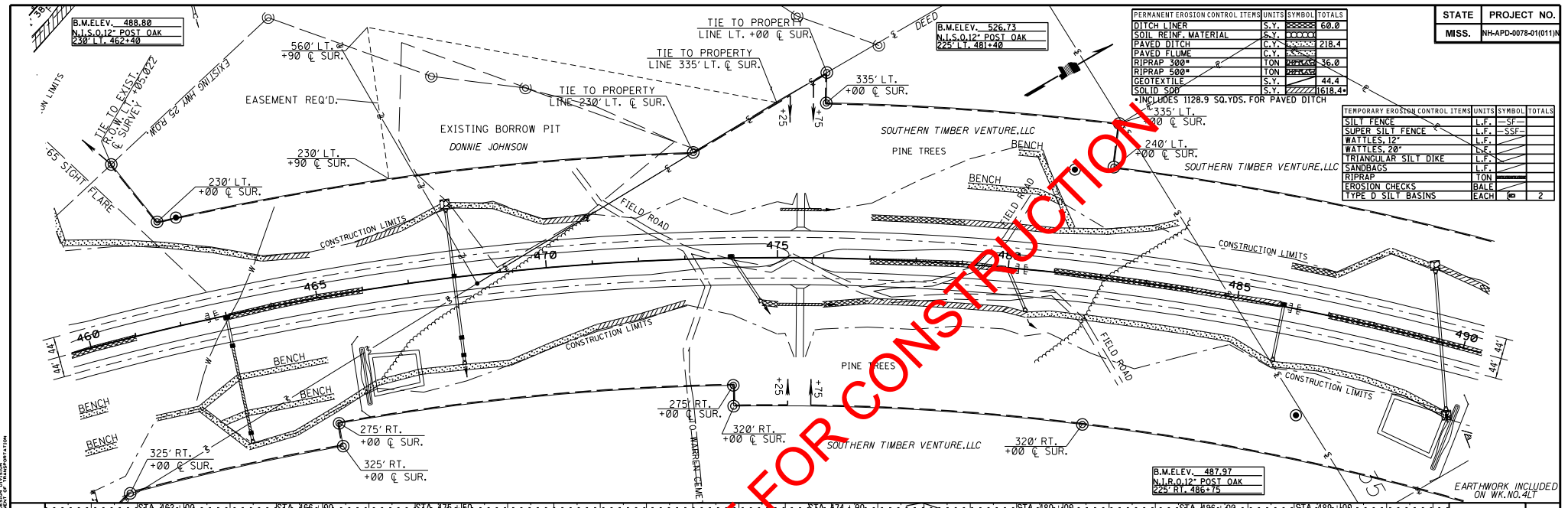
10/14/2019 10:52:25 AM 3RT.DGN

Wk. Sh. 3RT
Sh. No. SPGS

DESIGN TEAM: NS | FILENAME: WK3RT.dgn | COUNTY: ITAWAMBA | PROJECT NO.: NH-APD-0078-01(011)N | SHEET ID: SR 76 RIGHT LANE

FMS CON: 102076/301000

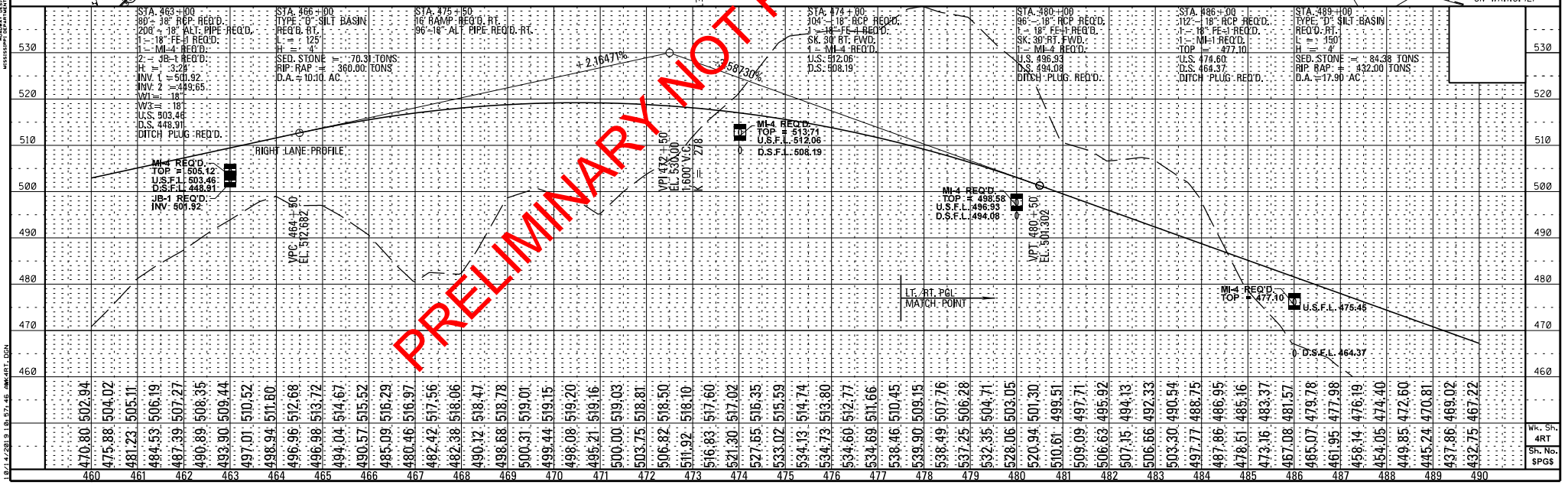
STATE	PROJECT NO.
MISS.	NH-APD-0078-01(011)N



PERMANENT EROSION CONTROL ITEMS	UNITS	SYMBOL	TOTALS
DITCH LINER	S.Y.		60.0
SOIL REINF. MATERIAL	S.Y.		
PAVED DITCH	C.Y.		218.4
PAVED FLUME	C.Y.		
RIPRAP 300#	TON		36.0
RIPRAP 500#	TON		
GEOTEXTILE	S.Y.		44.4
SOLID SOD	S.Y.		1618.4*

*INCLUDES 1128.9 SQ.YDS. FOR PAVED DITCH

TEMPORARY EROSION CONTROL ITEMS	UNITS	SYMBOL	TOTALS
SILT FENCE	L.F.	SF	
SUPER SILT FENCE	L.F.	SSF	
WATTLES, 12"	L.F.		
WATTLES, 20"	L.F.		
TRIANGULAR SILT DIKE	L.F.		
SANDBAGS	L.F.		
RIPRAP	TON		
EROSION CHECKS	BALE		
TYPE D SILT BASINS	EACH		2



460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490
470.80	475.88	481.23	484.53	486.96	496.98	494.04	490.57	485.09	480.46	492.42	482.38	490.12	498.68	500.31	498.44	498.08	495.21	500.00	503.75	506.82	511.92	516.83	521.30	527.65	533.02	534.13	534.73	534.60	534.69	538.46	539.90	538.49	537.25	532.35	528.06	520.94	510.61	509.09	506.63	507.15	506.66	503.30	497.77	487.86	478.51	473.16	467.08	465.07	461.95	458.14	454.05	449.85	445.24	437.86	432.75
502.94	504.02	505.11	506.19	507.27	508.35	509.44	510.52	511.60	512.68	513.72	514.67	515.52	516.29	516.97	517.56	518.06	518.47	518.78	519.01	519.15	519.20	519.16	519.03	518.81	518.50	518.10	517.60	517.02	516.35	515.59	514.74	513.80	512.77	511.66	510.45	509.15	507.76	506.28	504.71	503.05	501.30	499.51	497.71	495.92	494.13	492.33	490.54	488.75	486.95	485.16	483.37	481.57	479.78	477.98	476.19	474.40	472.60	470.81	469.02	467.22

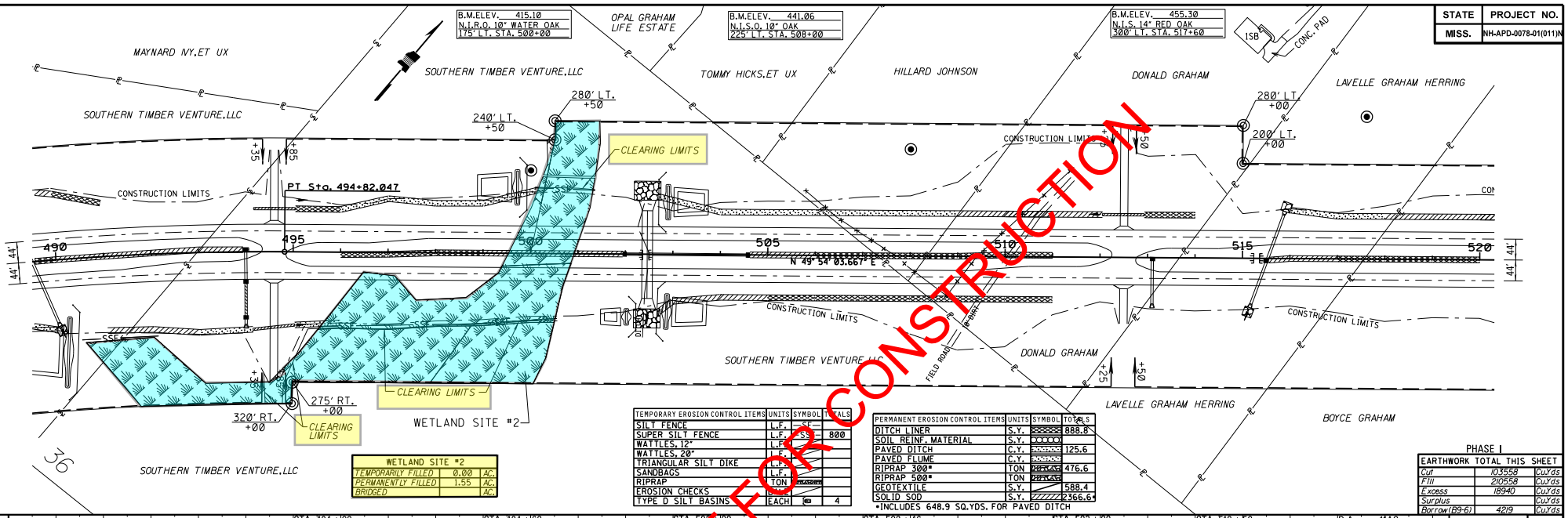
Wk. Sh.
4RT
Sh. No.
PG

10/14/2015 10:57:46 AM K:\4RT.DGN

DESIGN TEAM: NS | FILENAME: WK4RT.dgn | COUNTY: ITAWAMBA | PROJECT NO.: NH-APD-0078-01(011)N | SHEET ID: SR 76 RIGHT LANE

FMS CON: 102076/301000

STATE	PROJECT NO.
MISS.	NH-APD-0078-01(011)N



PRELIMINARY NOT FOR CONSTRUCTION

WETLAND SITE #2		
TEMPORARILY FILLED	0.00	AC.
PERMANENTLY FILLED	1.55	AC.
BRIDGED		AC.

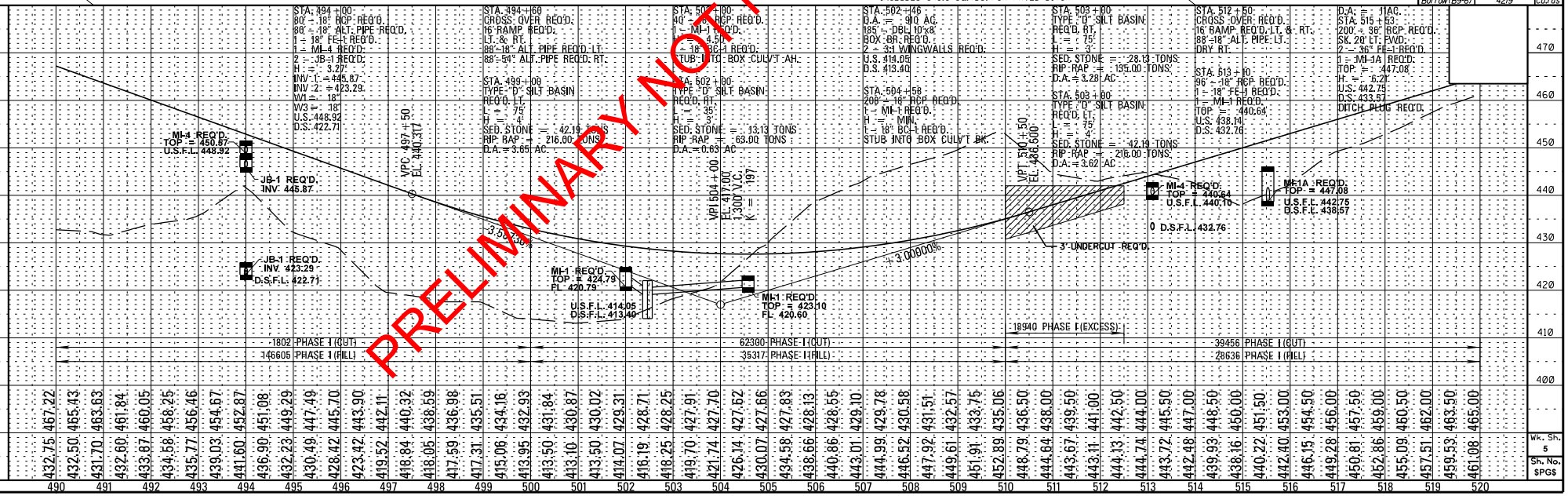
TEMPORARY EROSION CONTROL ITEMS	UNITS	SYMBOL	TOTALS
SILT FENCE	L.F.	SF	
SUPER SILT FENCE	L.F.	SS	800
WATTLES, 12"	L.F.		
WATTLES, 20"	L.F.		
TRIANGULAR SILT DIKE	L.F.		
SANDBAGS	L.F.		
RIPRAP	TON		
EROSION CHECKS	EACH		
TYPE D SILT BASINS	EACH		4

PERMANENT EROSION CONTROL ITEMS	UNITS	SYMBOL	TOTALS
DITCH LINER	S.Y.		888.8
SOIL REINF. MATERIAL	S.Y.		
PAVED DITCH	C.Y.		125.6
PAVED FLUME	C.Y.		
RIPRAP 300#	TON		476.6
RIPRAP 500#	TON		
GEOTEXTILE	S.Y.		588.4
SOLID SOD	S.Y.		2366.6*

*INCLUDES 648.9 SQ.YDS. FOR PAVED DITCH

PHASE I

EARTHWORK TOTAL THIS SHEET		
Cut	103558	CuYds
Fill	210558	CuYds
Excess	18940	CuYds
Surplus		CuYds
Borrow (B9-6)	4219	CuYds

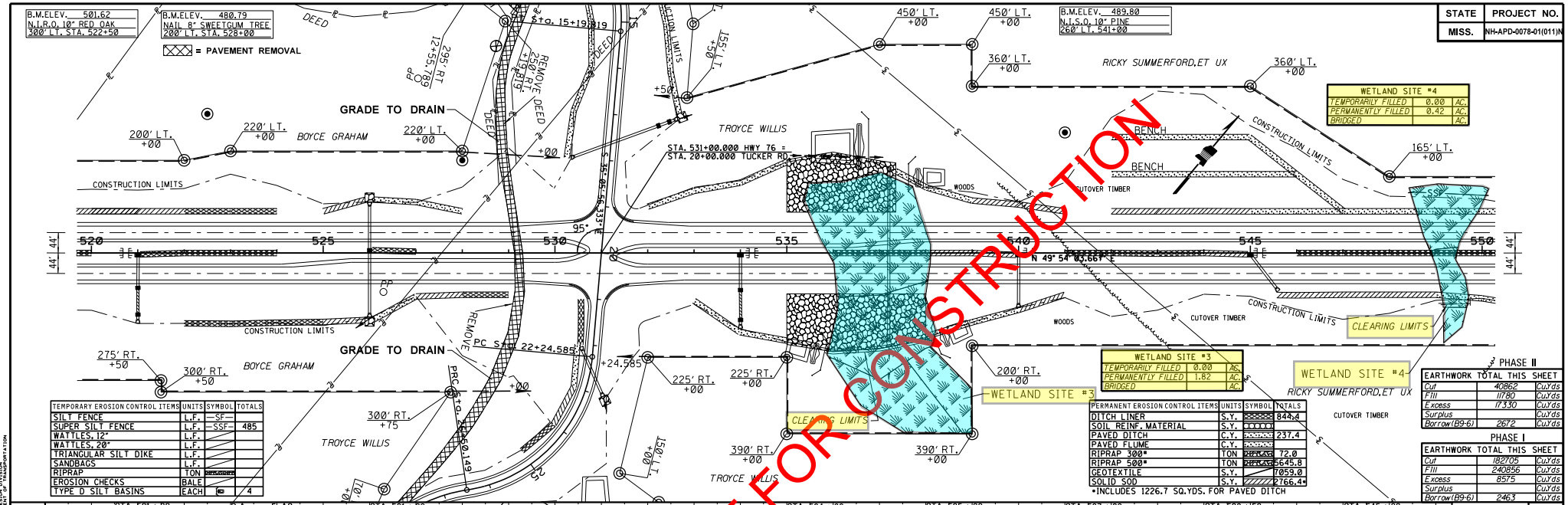


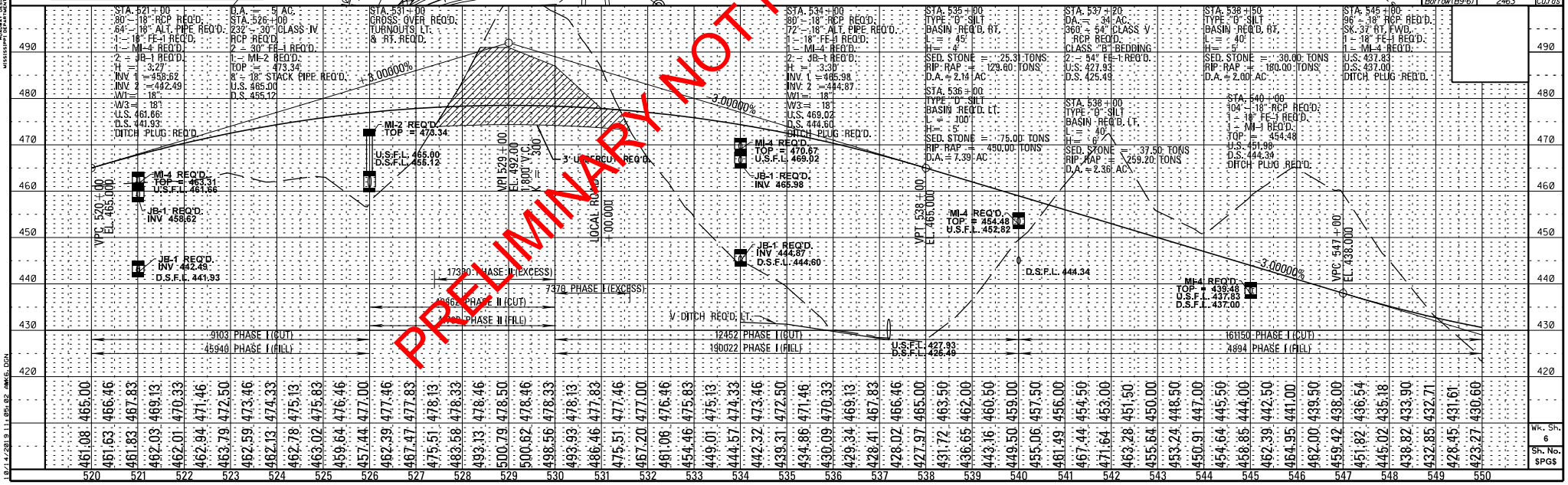
Wk. Sh. 5
Sh. No. SPGS

DESIGN TEAM: NS | FILENAME: WK5.dgn | COUNTY: ITAWAMBA | PROJECT NO.: NH-APD-0078-01(011)N | SHEET ID: SR 76

FMS CON: 102076/301000

STATE	PROJECT NO.
MISS.	NH-APD-0078-01(011)N



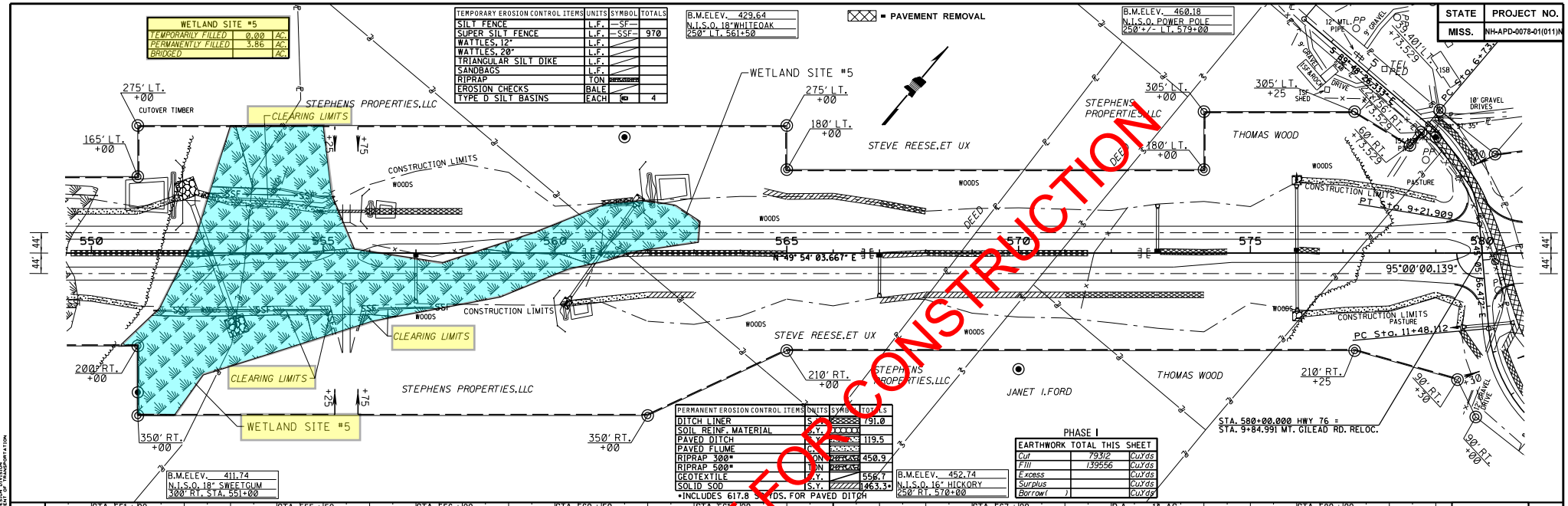


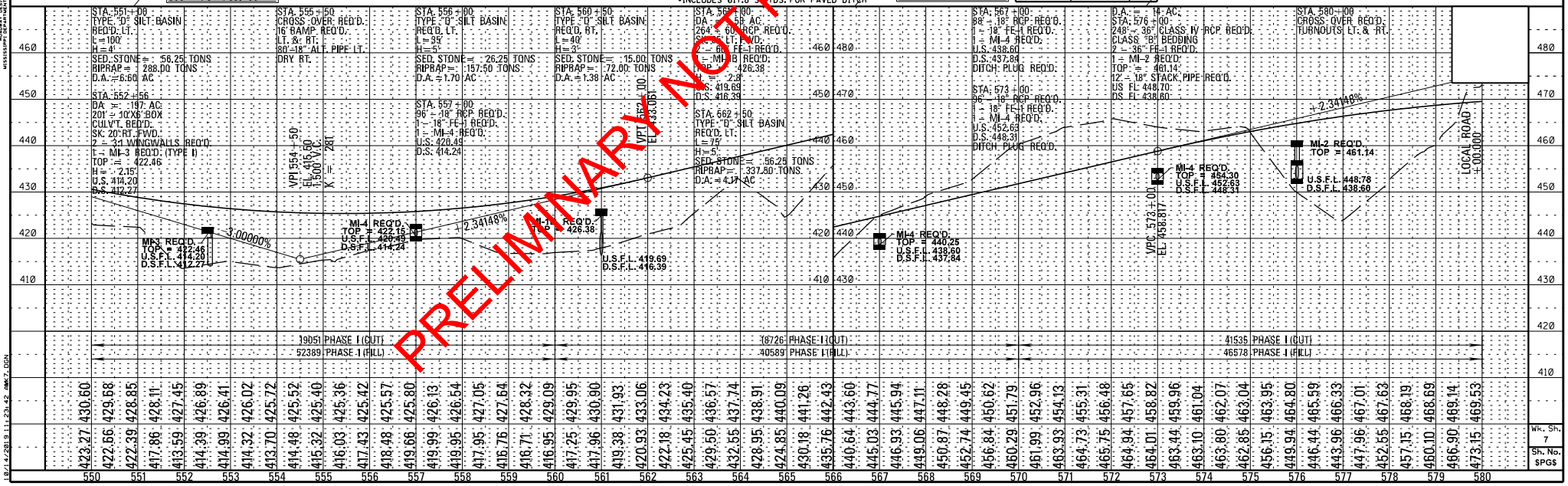
Wk. Sh. 6
Sh. No. SPGS

DESIGN TEAM: NS | FILENAME: WK6.dgn | COUNTY: ITAWAMBA | PROJECT NO.: NH-APD-0078-01(011)N | SHEET ID: SR 76

FMS CON: 102076/301000

STATE	PROJECT NO.
MISS.	NH-APD-0078-01(011)N





Wk. Sh. 7

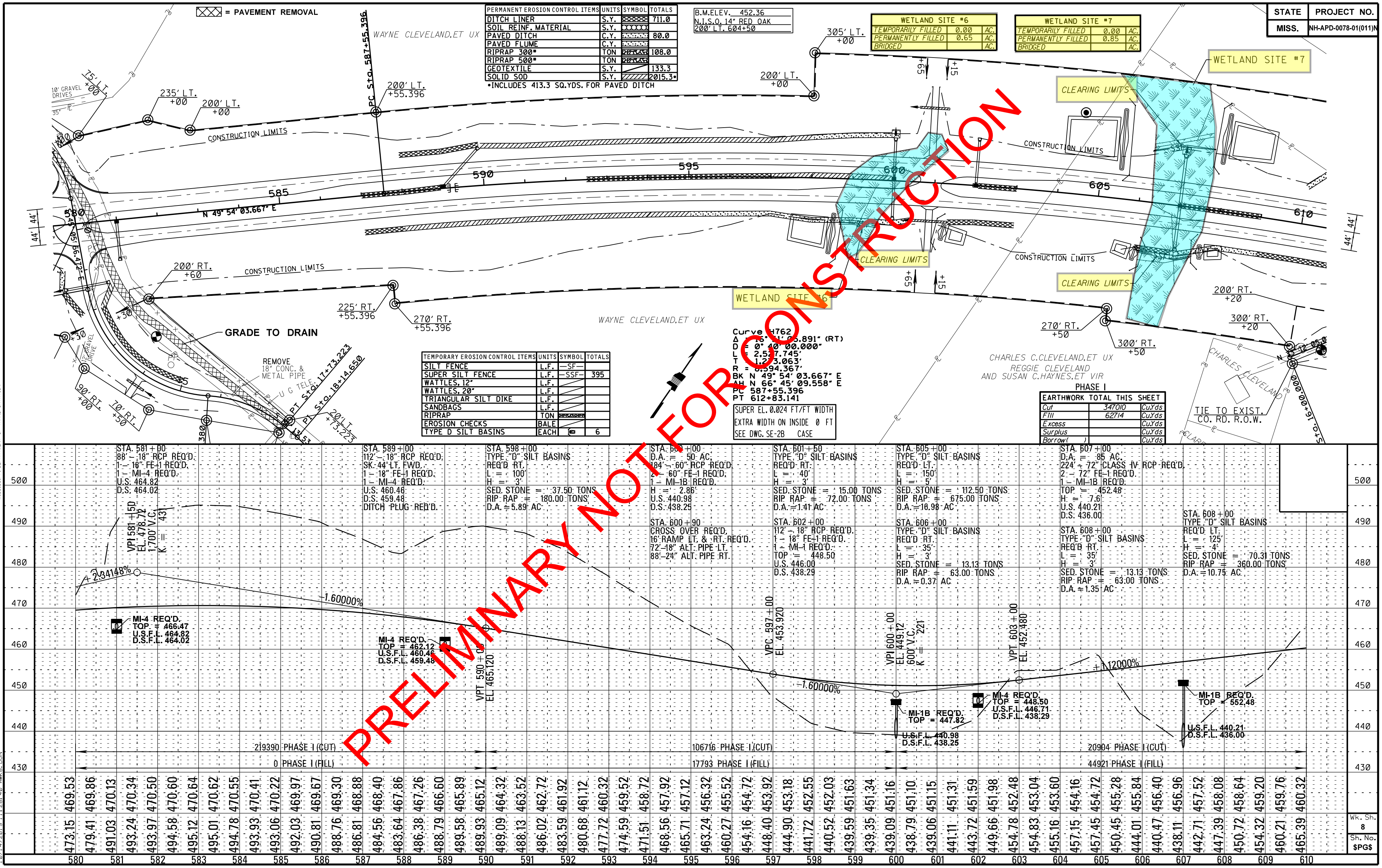
Sh. No. $PGS

10/14/2015 1:23:42 PM K:\7.DGN

DESIGN TEAM: NS | FILENAME: WK7.dgn | COUNTY: ITAWAMBA | PROJECT NO.: NH-APD-0078-01(011)N | SHEET ID: SR 76

FMS CON: 102076/301000

STATE	PROJECT NO.
MISS.	NH-APD-0078-01(011)N



PERMANENT EROSION CONTROL ITEMS	UNITS	SYMBOL	TOTALS
DITCH LINER	S.Y.		711.0
SOIL REINF. MATERIAL	S.Y.		
PAVED DITCH	C.Y.		80.0
PAVED FLUME	C.Y.		
RIPRAP 300#	TON		108.0
RIPRAP 500#	TON		
GEOTEXTILE	S.Y.		133.3
SOLID SOD	S.Y.		2015.3•

•INCLUDES 413.3 SQ.YDS. FOR PAVED DITCH

B.M.ELEV. 452.36
N.I.S.O. 14" RED OAK
200' LT. 604+50

WETLAND SITE #6		
TEMPORARILY FILLED	0.00	AC.
PERMANENTLY FILLED	0.65	AC.
BRIDGED		AC.

WETLAND SITE #7		
TEMPORARILY FILLED	0.00	AC.
PERMANENTLY FILLED	0.85	AC.
BRIDGED		AC.

TEMPORARY EROSION CONTROL ITEMS	UNITS	SYMBOL	TOTALS
SILT FENCE	L.F.	—SF—	
SUPER SILT FENCE	L.F.	—SSF—	395
WATTLES, 12"	L.F.		
WATTLES, 20"	L.F.		
TRIANGULAR SILT DIKE	L.F.		
SANDBAGS	L.F.		
RIPRAP	TON		
EROSION CHECKS	BALE		
TYPE D SILT BASINS	EACH		6

PHASE I

EARTHWORK TOTAL THIS SHEET		
Cut	347010	Cu.Yds
Fill	62714	Cu.Yds
Excess		Cu.Yds
Surplus		Cu.Yds
Borrow( )		Cu.Yds

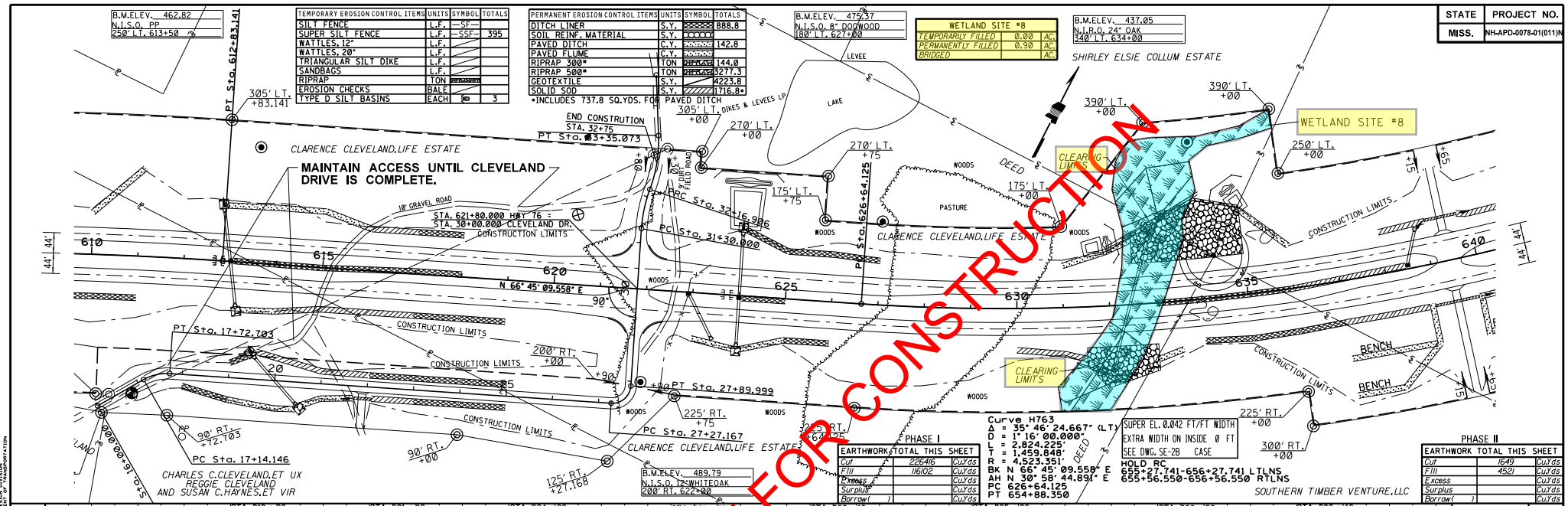
Wk. Sh. 8

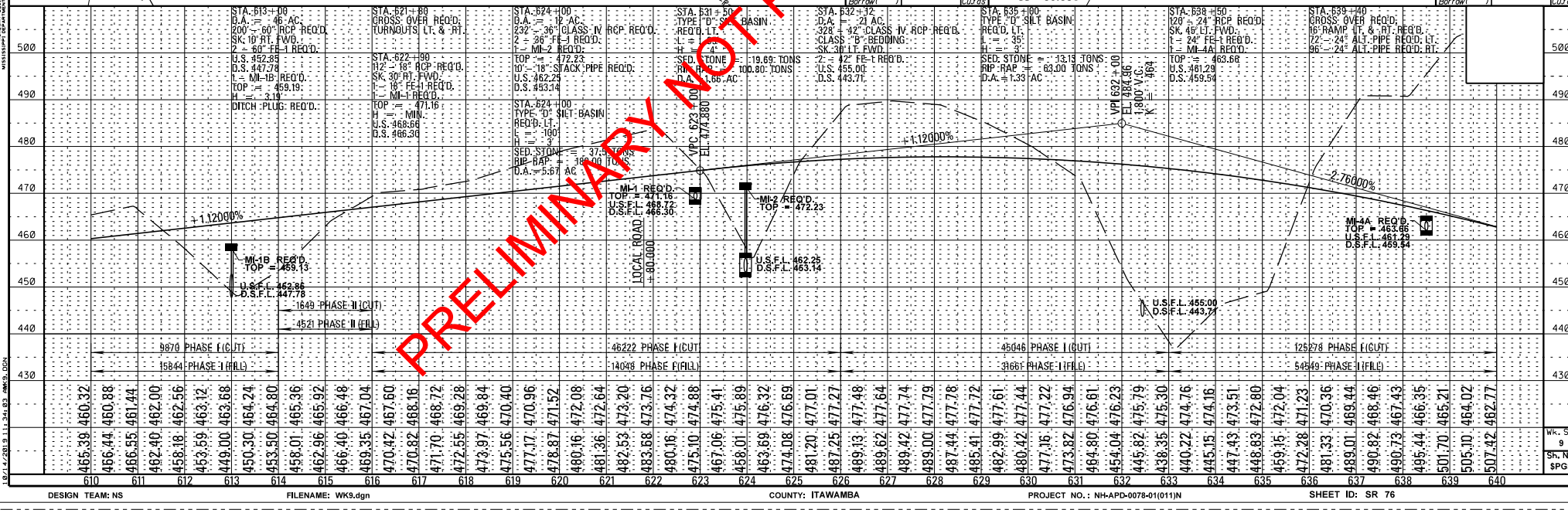
Sh. No. PG

DESIGN TEAM: NS FILENAME: WK8.dgn COUNTY: ITAWAMBA PROJECT NO.: NH-APD-0078-01(011)N SHEET ID: SR 76

FMS CON: 102076/301000

STATE	PROJECT NO.
MISS.	NH-APD-0078-01(011)N



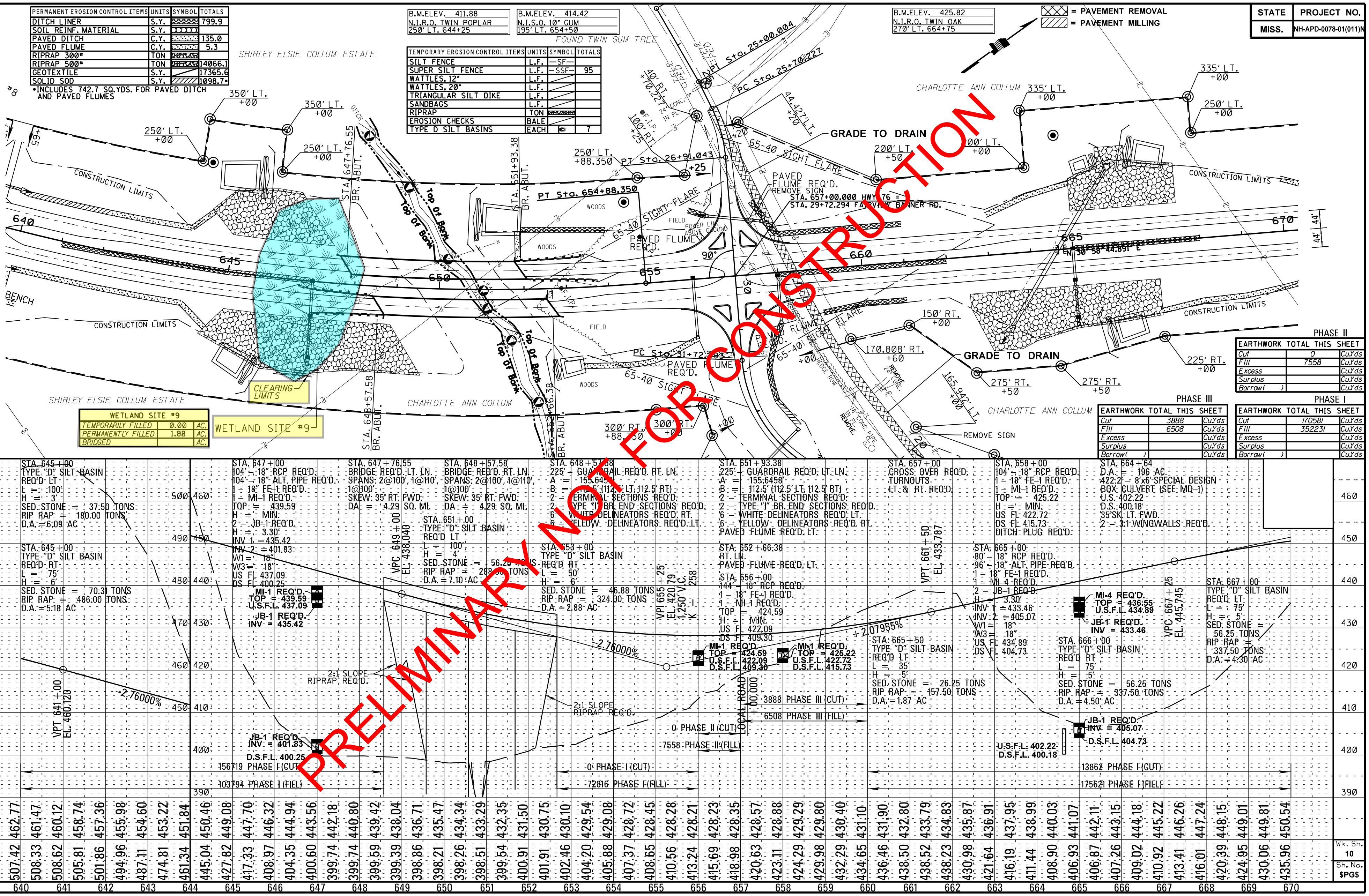


Wk. Sh.	9
Sh. No.	$PGS

DESIGN TEAM: NS | FILENAME: WK9.dgn | COUNTY: ITAWAMBA | PROJECT NO.: NH-APD-0078-01(011)N | SHEET ID: SR 76

FMS CON: 102076/301000

STATE	PROJECT NO.
MISS.	NH-APD-0078-01(011)N



PERMANENT EROSION CONTROL ITEMS	UNITS	SYMBOL	TOTALS
DITCH LINER	S.Y.		799.9
SOIL REINF. MATERIAL	S.Y.		
PAVED DITCH	C.Y.		135.0
PAVED FLUME	C.Y.		5.3
RIPRAP 300#	TON		
RIPRAP 500#	TON		14066.1
GEOTEXTILE	S.Y.		17365.6
SOLID SOD	S.Y.		1098.7*

*INCLUDES 742.7 SQ.YDS. FOR PAVED DITCH AND PAVED FLUMES

TEMPORARY EROSION CONTROL ITEMS	UNITS	SYMBOL	TOTALS
SILT FENCE	L.F.	—SF—	
SUPER SILT FENCE	L.F.	—SSF—	95
WATTLES, 12"	L.F.		
WATTLES, 20"	L.F.		
TRIANGULAR SILT DIKE	L.F.		
SANDBAGS	L.F.		
RIPRAP	TON		
EROSION CHECKS	BALE		
TYPE D SILT BASINS	EACH		7

WETLAND SITE #9		
TEMPORARILY FILLED	0.00	AC.
PERMANENTLY FILLED	1.88	AC.
BRIDGED		AC.

PHASE II

EARTHWORK TOTAL THIS SHEET		
Cut	0	CuYds
Fill	7558	CuYds
Excess		CuYds
Surplus		CuYds
Borrow( )		CuYds

PHASE III

EARTHWORK TOTAL THIS SHEET		
Cut	3888	CuYds
Fill	6508	CuYds
Excess		CuYds
Surplus		CuYds
Borrow( )		CuYds

PHASE I

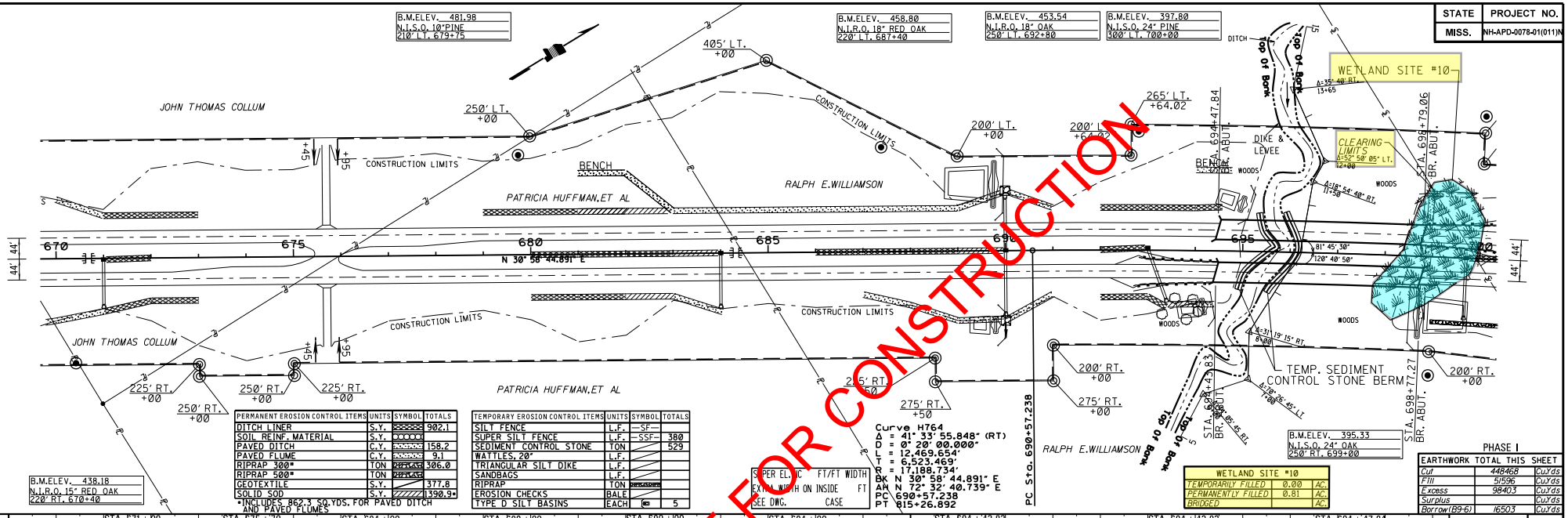
EARTHWORK TOTAL THIS SHEET		
Cut	170581	CuYds
Fill	352231	CuYds
Excess		CuYds
Surplus		CuYds
Borrow( )		CuYds

Wk. Sh. 10

DESIGN TEAM: NS FILENAME: WK10.dgn COUNTY: ITAWAMBA PROJECT NO.: NH-APD-0078-01(011)N SHEET ID: SR 76

FMS CON: 102076/301000

STATE	PROJECT NO.
MISS.	NH-APD-0078-01(011)N



PERMANENT EROSION CONTROL ITEMS	UNITS	SYMBOL	TOTALS
DITCH LINER	S.Y.		902.1
SOIL REINF. MATERIAL	S.Y.		
PAVED DITCH	C.Y.		158.2
PAVED FLUME	C.Y.		9.1
RIPRAP 300#	TON		306.0
RIPRAP 500#	TON		
GEOTEXTILE	S.Y.		377.8
SOLID SOD	S.Y.		390.9*

*INCLUDES 862.3 SQ.YDS. FOR PAVED DITCH AND PAVED FLUMES

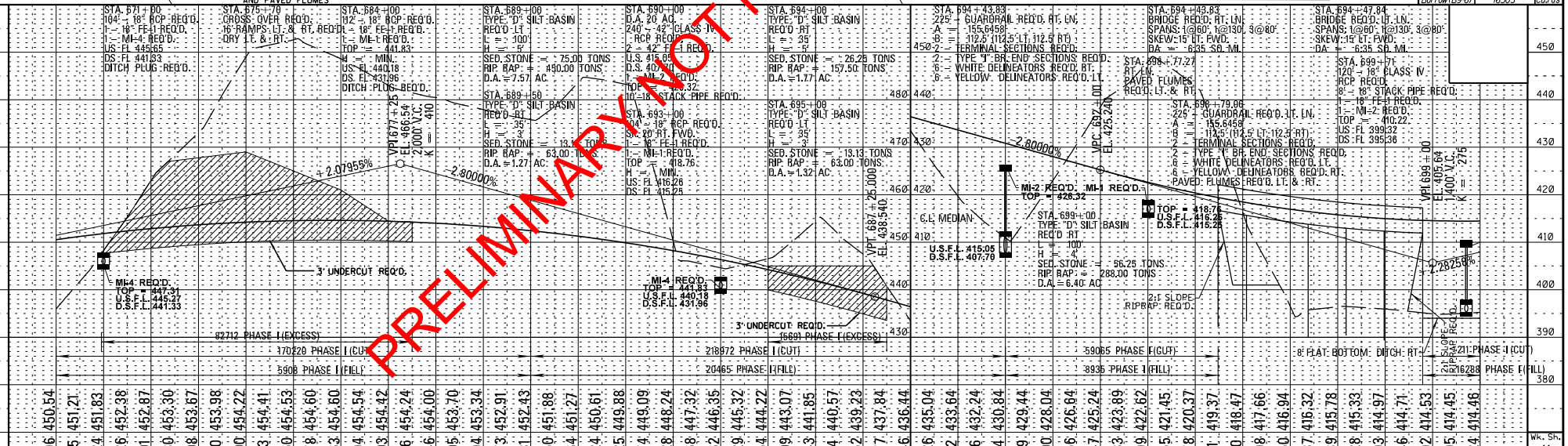
TEMPORARY EROSION CONTROL ITEMS	UNITS	SYMBOL	TOTALS
SILT FENCE	L.F.	SF	
SUPER SILT FENCE	L.F.	SSF	380
SEDIMENT CONTROL STONE	TON		529
WATTLES, 20"	L.F.		
TRIANGULAR SILT DIKE	L.F.		
SANDBAGS	L.F.		
RIPRAP	TON		
EROSION CHECKS	BALE		
TYPE D SILT BASINS	EACH	D	5

SUPER EL.	FT/FT	WIDTH
EXTRA WIDTH ON INSIDE		FT
SEE DWG.		CASE

WETLAND SITE #10		
TEMPORARILY FILLED	0.00	AC.
PERMANENTLY FILLED	0.81	AC.
BRIDGED		AC.

PHASE I

EARTHWORK TOTAL THIS SHEET		
Cut	448468	CuYds
Fill	5596	CuYds
Excess	98403	CuYds
Surplus		CuYds
Borrow(B9-6)	16503	CuYds

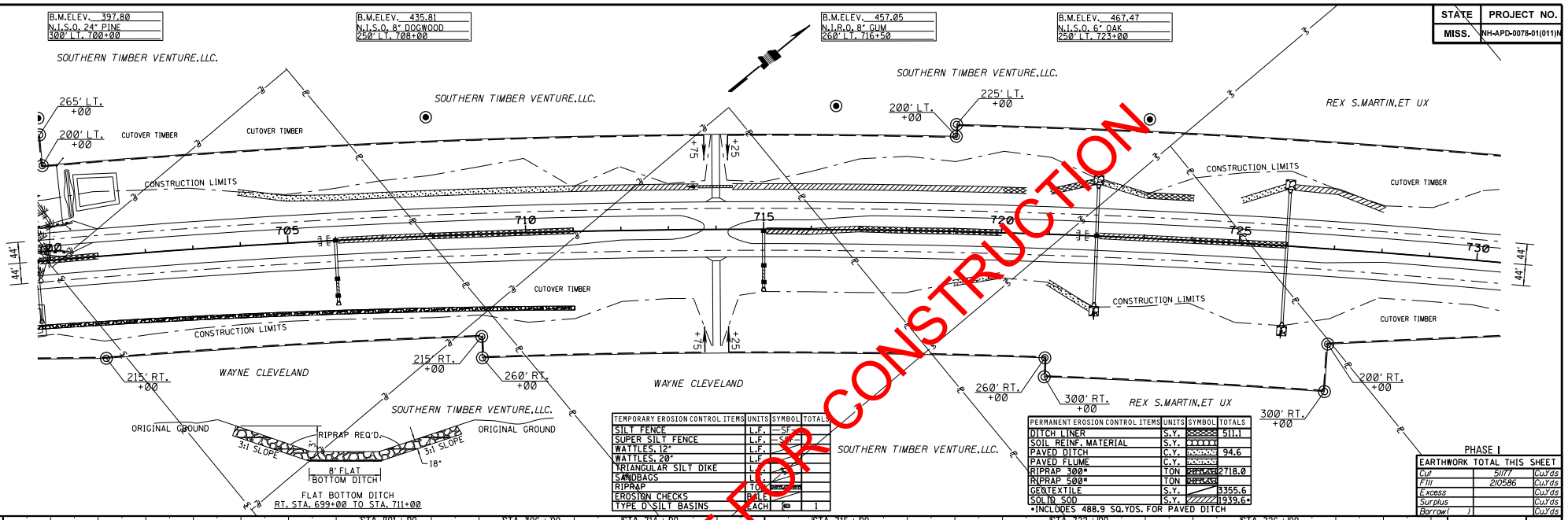


Wk. Sh. 11
Sh. No. $PGS

DESIGN TEAM: NS | FILENAME: WK11.dgn | COUNTY: ITAWAMBA | PROJECT NO.: NH-APD-0078-01(011)N | SHEET ID: SR 76

FMS CON:102076/301000

STATE	PROJECT NO.
MISS.	NH-APD-0078-01(011)N



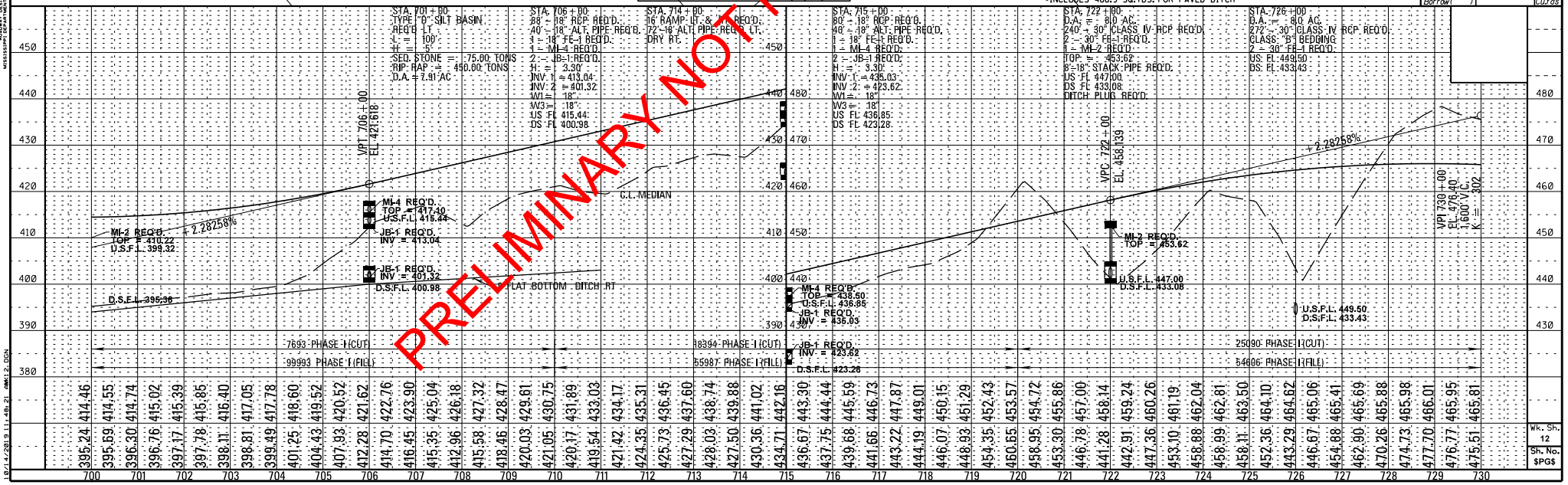
TEMPORARY EROSION CONTROL ITEMS	UNITS	SYMBOL	TOTALS
SILT FENCE	L.F.	SF	
SUPER SILT FENCE	L.F.	SSF	
WATTLES, 12"	L.F.		
WATTLES, 20"	L.F.		
TRIANGULAR SILT DIKE	L.F.		
SANDBAGS	L.F.		
RIPRAP	TON		
EROSION CHECKS	BALE		
TYPE D SILT BASINS	EACH		1

PERMANENT EROSION CONTROL ITEMS	UNITS	SYMBOL	TOTALS
DITCH LINER	S.Y.		511.1
SOIL REINF. MATERIAL	S.Y.		
PAVED DITCH	C.Y.		94.6
PAVED FLUME	C.Y.		
RIPRAP 300#	TON		2718.0
RIPRAP 500#	TON		
GEOTEXTILE	S.Y.		3355.6
SOLID SOD	S.Y.		1939.6*

*INCLUDES 488.9 SQ.YDS. FOR PAVED DITCH

PHASE I

EARTHWORK TOTAL THIS SHEET		
Cut	5177	CuYds
Fill	210586	CuYds
Excess		CuYds
Surplus		CuYds
Borrow( )		CuYds



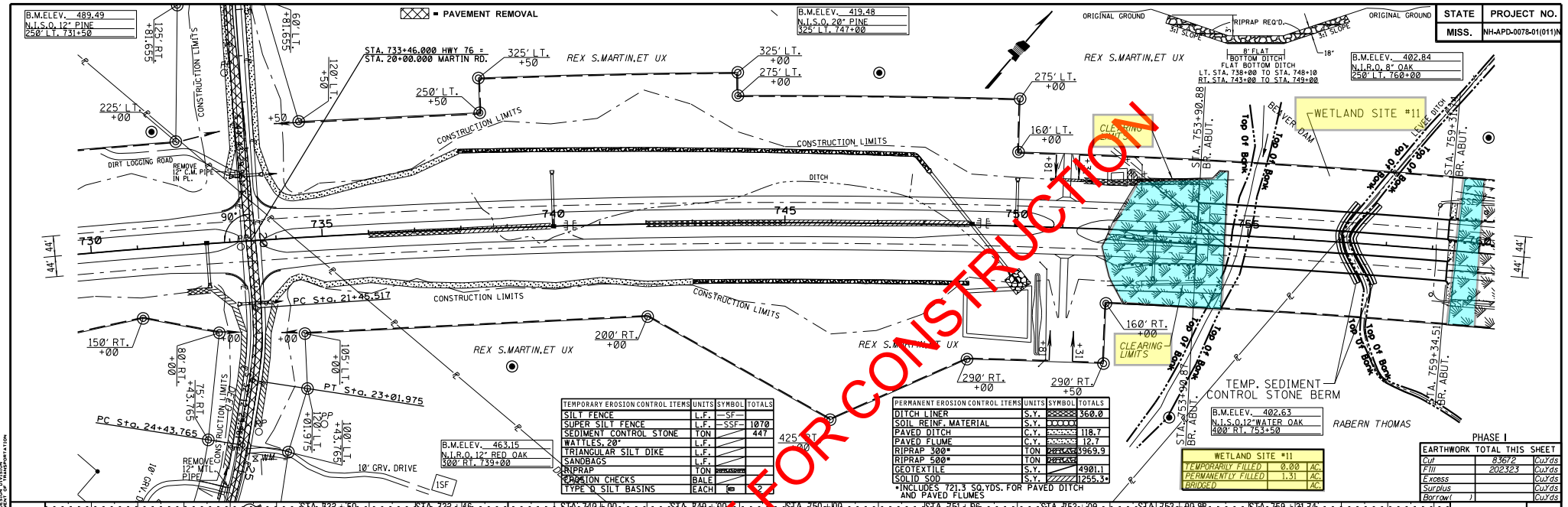
PLAN-PROFILE DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

10/14/2015 11:48:21 AM K12.DGN

DESIGN TEAM: NS | FILENAME: WK12.dgn | COUNTY: ITAWAMBA | PROJECT NO.: NH-APD-0078-01(011)N | SHEET ID: SR 76

FMS CON:102076/301000

STATE	PROJECT NO.
MISS.	NH-APD-0078-01(011)N



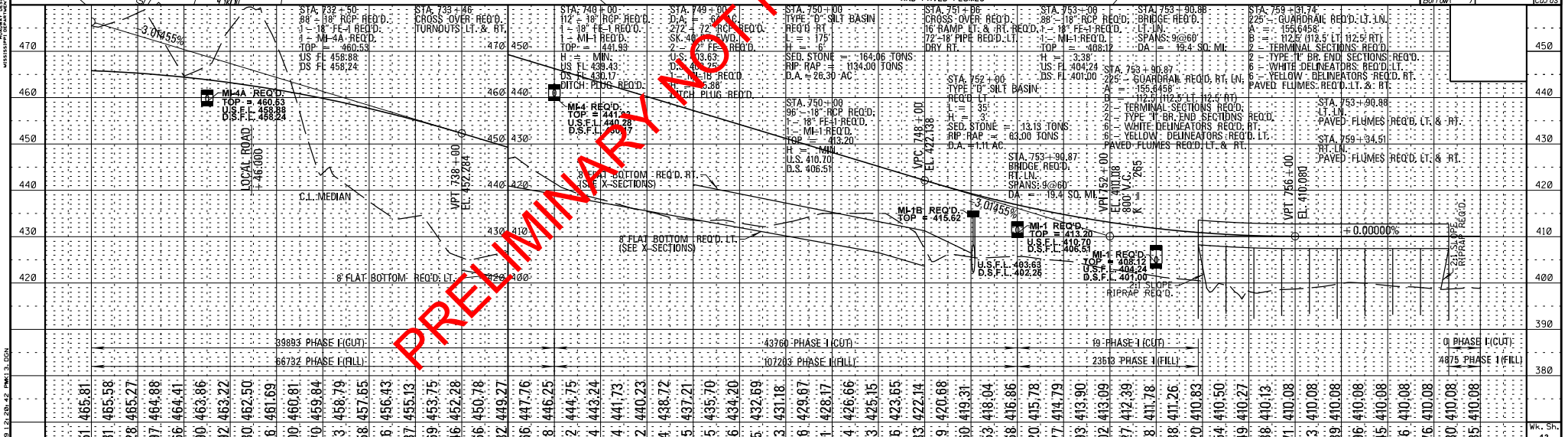
TEMPORARY EROSION CONTROL ITEMS	UNITS	SYMBOL	TOTALS
SILT FENCE	L.F.	SF	
SUPER SILT FENCE	L.F.	SSF	1070
SEDIMENT CONTROL STONE	TON		447
WATTLES, 20"	L.F.		
TRIANGULAR SILT DIKE	L.F.		
SANDBAGS	L.F.		
RIPRAP	TON		
EROSION CHECKS	BALE		
TYPE 'D' SILT BASINS	EACH		2

PERMANENT EROSION CONTROL ITEMS	UNITS	SYMBOL	TOTALS
DITCH LINER	S.Y.		360.0
SOIL REINF. MATERIAL	S.Y.		
PAVED DITCH	C.Y.		118.7
PAVED FLUME	C.Y.		12.7
RIPRAP 300*	TON		3969.9
RIPRAP 600*	TON		
GEOTEXTILE	S.Y.		4901.1
SOLID SOD	S.Y.		1255.3*

*INCLUDES 721.3 SQ.YDS. FOR PAVED DITCH AND PAVED FLUMES

WETLAND SITE #11		
TEMPORARILY FILLED	0.00	AC.
PERMANENTLY FILLED	1.31	AC.
BRIDGED		AC.

EARTHWORK TOTAL THIS SHEET		
Cut	83672	CuYds
Fill	202323	CuYds
Excess		CuYds
Surplus		CuYds
Borrow( )		CuYds



	730	731	732	733	734	735	736	737	738	739	740	741	742	743	744	745	746	747	748	749	750	751	752	753	754	755	756	757	758	759	760
	475.51	476.31	478.28	472.97	464.66	466.90	474.92	479.30	471.36	457.00	443.70	441.23	437.58	434.16	434.37	429.69	425.46	425.66	426.82	424.66	421.58	419.32	418.04	416.64	415.42	414.14	413.55	413.55	412.96	412.15	413.03
	465.81	465.58	465.27	464.88	464.41	463.86	463.22	462.50	461.69	460.81	459.84	458.79	457.65	456.43	455.13	453.75	452.28	450.78	449.27	447.76	446.25	444.75	443.24	441.73	440.23	438.72	437.21	435.70	434.20	432.69	431.18
	414.28	415.01	415.04	415.03	412.86	407.33	406.19	405.60	405.53	405.68	405.20	404.77	403.93	403.02	402.27	401.48	400.88	400.20	399.54	398.49	398.38	398.71	399.13	399.89	399.96	399.45	399.16	398.76	398.80	398.85	
	429.67	428.17	426.66	425.15	423.65	422.14	420.68	419.31	418.04	416.86	415.78	414.79	413.90	413.09	412.39	411.78	411.26	410.83	410.50	410.27	410.13	410.08	410.08	410.08	410.08	410.08	410.08	410.08	410.08	410.08	

DESIGN TEAM: NS	FILENAME: WK13.dgn	COUNTY: ITAWAMBA	PROJECT NO.: NH-APD-0078-01(011)N	SHEET ID: SR 76

Wk. Sh. 13
Sh. No. PG

10/14/2015 12:28:42 PM13.DGN

PERMANENT EROSION CONTROL ITEMS	UNITS	SYMBOL	TOTALS
DITCH LINER	S.Y.		395.5
SOIL REINF. MATERIAL	S.Y.		
PAVED DITCH	C.Y.		246.8
PAVED FLUME	C.Y.		6.0
RIPRAP 300*	TON		2059.2
RIPRAP 500*	TON		
GEOTEXTILE	S.Y.		2542.2
SOLID SOD	S.Y.		1923.5•

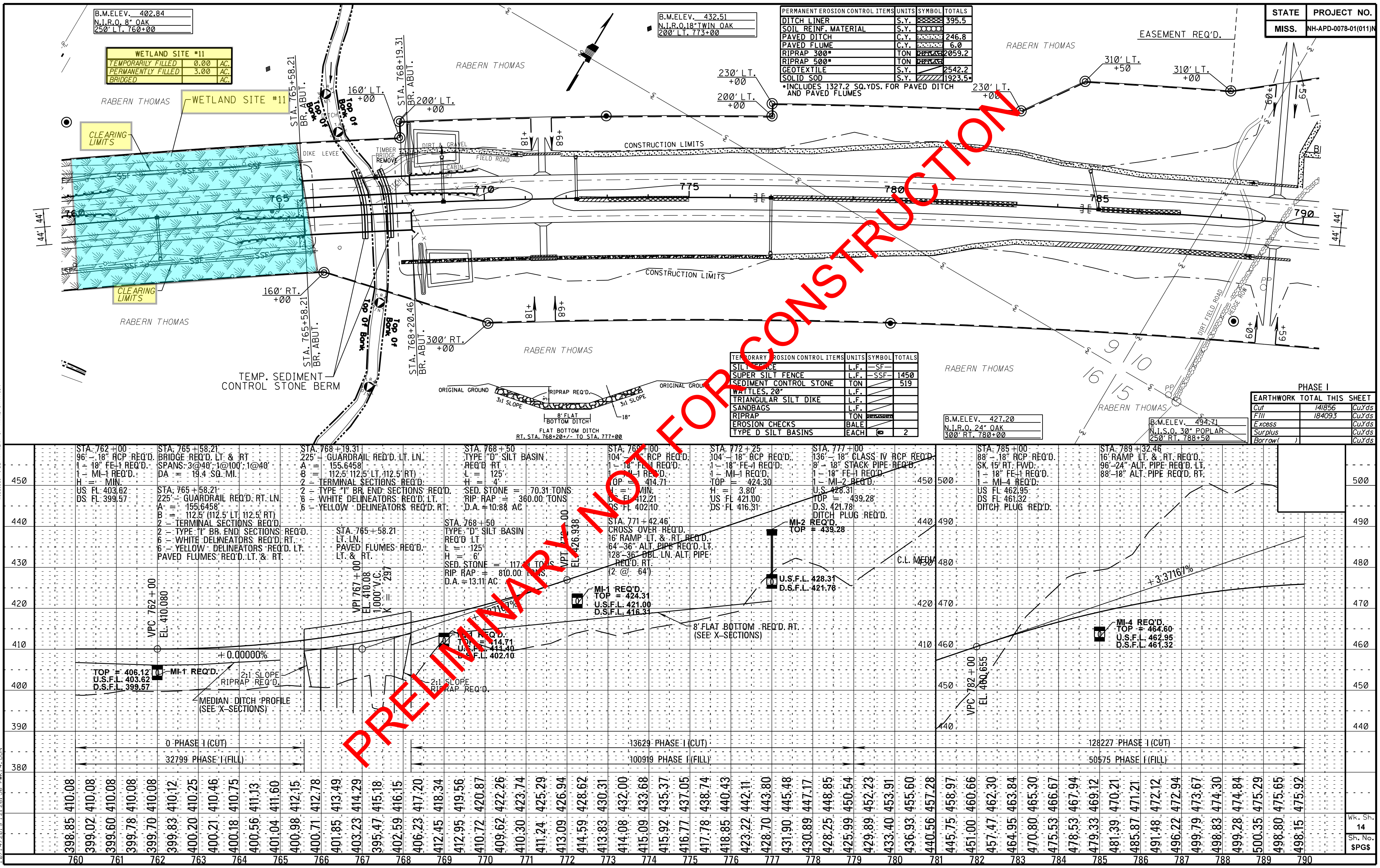
•INCLUDES 1327.2 SQ.YDS. FOR PAVED DITCH AND PAVED FLUMES

TEMPORARY EROSION CONTROL ITEMS	UNITS	SYMBOL	TOTALS
SILT FENCE	L.F.	—SF—	
SUPER SILT FENCE	L.F.	—SSF—	1450
SEDIMENT CONTROL STONE	TON		519
WATTLES, 20"	L.F.		
TRIANGULAR SILT DIKE	L.F.		
SANDBAGS	L.F.		
RIPRAP	TON		
EROSION CHECKS	BALE		
TYPE D SILT BASINS	EACH		2

PHASE I

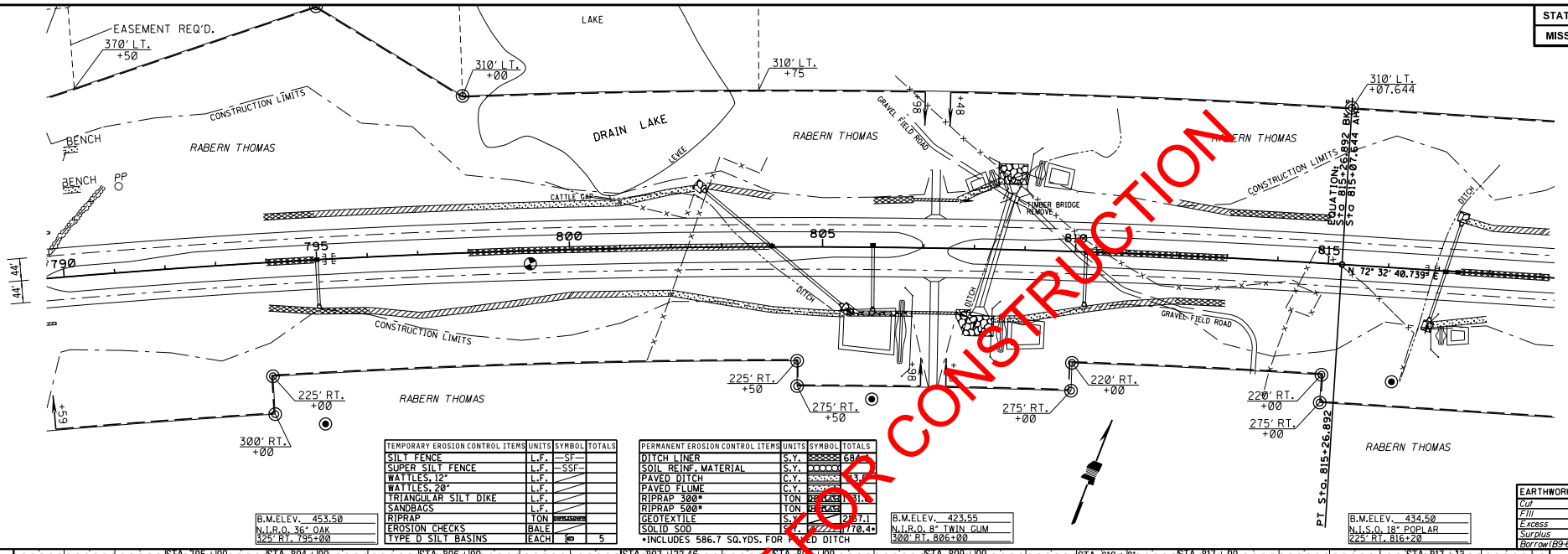
EARTHWORK TOTAL THIS SHEET		
Cut	141856	Cu.Yds
Fill	184093	Cu.Yds
Excess		Cu.Yds
Surplus		Cu.Yds
Borrow( )		Cu.Yds

WETLAND SITE #11		
TEMPORARILY FILLED	0.00	AC.
PERMANENTLY FILLED	3.00	AC.
BRIDGED		AC.



FMS CON:102076/301000

STATE	PROJECT NO.
MISS.	NH-APD-0078-01(011)N



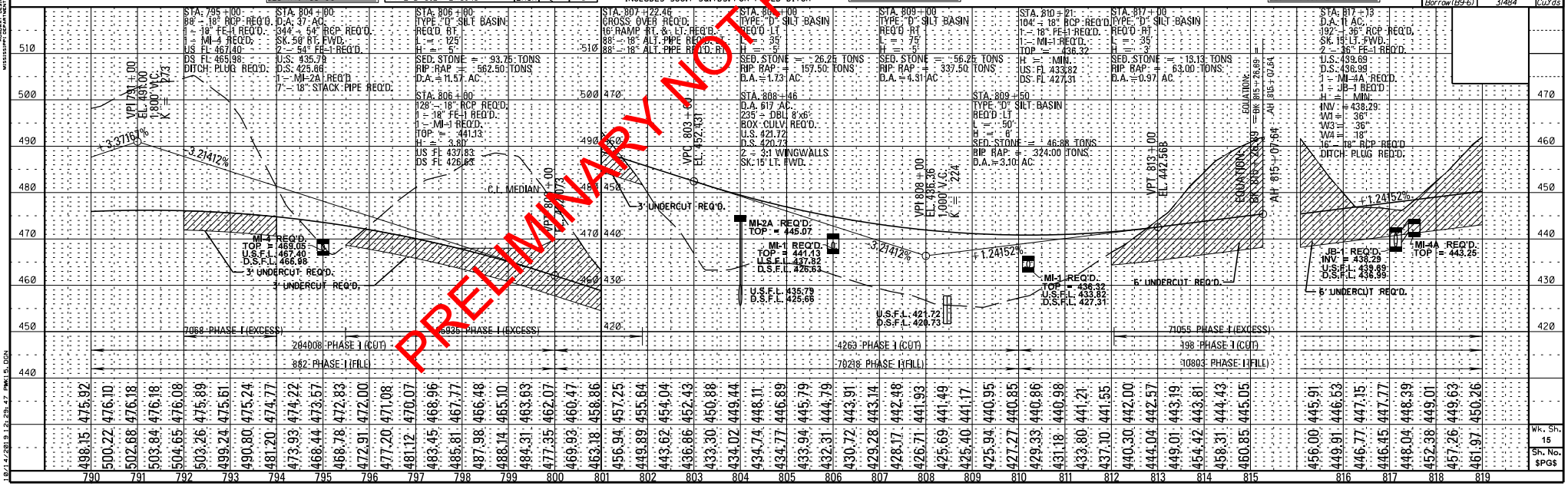
TEMPORARY EROSION CONTROL ITEMS	UNITS	SYMBOL	TOTALS
SILT FENCE	L.F.	—SF—	
SUPER SILT FENCE	L.F.	—SSF—	
WATTLES, 12"	L.F.		
WATTLES, 20"	L.F.		
TRIANGULAR SILT DIKE	L.F.		
SANDBAGS	L.F.		
RIPRAP	TON		
EROSION CHECKS	BALE		
TYPE D SILT BASINS	EACH		5

PERMANENT EROSION CONTROL ITEMS	UNITS	SYMBOL	TOTALS
DITCH LINER	S.Y.		684
SOIL REINF. MATERIAL	S.Y.		
PAVED DITCH	C.Y.		53
PAVED FLUME	C.Y.		
RIPRAP 300#	TON		31
RIPRAP 500#	TON		
GEOTEXTILE	S.Y.		287.1
SOLID SOD	S.Y.		1770.4*

*INCLUDES 586.7 SQ.YDS. FOR PAVED DITCH

PHASE I

EARTHWORK TOTAL THIS SHEET		
Cut	208469	CuYds
Fill	81903	CuYds
Excess	116106	CuYds
Surplus		CuYds
Borrow(B9-6)	31484	CuYds



PRELIMINARY NOT FOR CONSTRUCTION

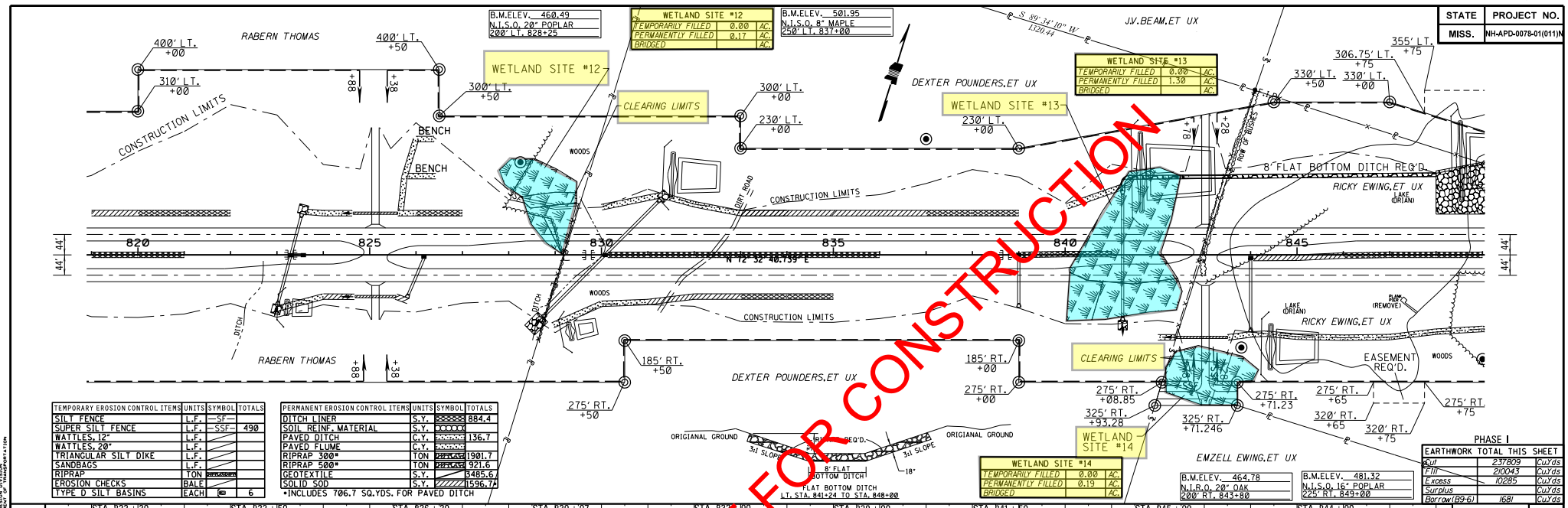
Wk. Sh. 15
Sh. No. SPGS

10/14/2015 12:29:47 PM L:\5_DGN

DESIGN TEAM: NS | FILENAME: WK15.dgn | COUNTY: ITAWAMBA | PROJECT NO.: NH-APD-0078-01(011)N | SHEET ID: SR 76

FMS CON:102076/301000

STATE	PROJECT NO.
MISS.	NH-APD-0078-01(011)N



WETLAND SITE #12		
TEMPORARILY FILLED	0.00	AC.
PERMANENTLY FILLED	0.17	AC.
BRIDGED		AC.

WETLAND SITE #13		
TEMPORARILY FILLED	0.00	AC.
PERMANENTLY FILLED	1.30	AC.
BRIDGED		AC.

WETLAND SITE #14		
TEMPORARILY FILLED	0.00	AC.
PERMANENTLY FILLED	0.19	AC.
BRIDGED		AC.

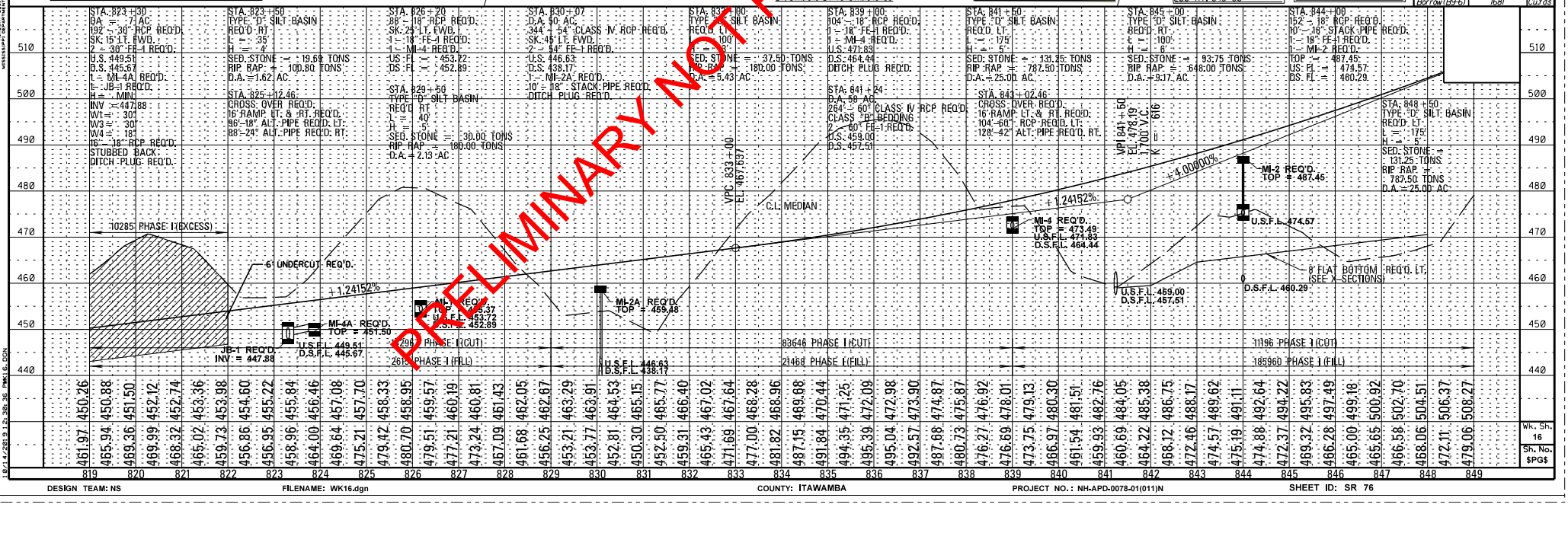
TEMPORARY EROSION CONTROL ITEMS	UNITS	SYMBOL	TOTALS
SILT FENCE	L.F.	SF	
SUPER SILT FENCE	L.F.	SSF	490
WATTLES, 12"	L.F.		
WATTLES, 20"	L.F.		
TRIANGULAR SILT DIKE	L.F.		
SANDBAGS	L.F.		
RIPRAP	TON		
EROSION CHECKS	BALE		
TYPE D SILT BASINS	EACH		6

PERMANENT EROSION CONTROL ITEMS	UNITS	SYMBOL	TOTALS
DITCH LINER	S.Y.		884.4
SOIL REINF. MATERIAL	S.Y.		
PAVED DITCH	C.Y.		136.7
PAVED FLUME	C.Y.		
RIPRAP 300*	TON		1901.7
RIPRAP 500*	TON		921.6
GEOTEXTILE	S.Y.		3485.6
SOLID SOD	S.Y.		596.7

*INCLUDES 706.7 SQ.YDS. FOR PAVED DITCH

PHASE I

EARTHWORK TOTAL THIS SHEET		
Cut	237809	CuYds
Fill	210043	CuYds
Excess	10285	CuYds
Surplus		CuYds
Borrow (B9-6)	1681	CuYds



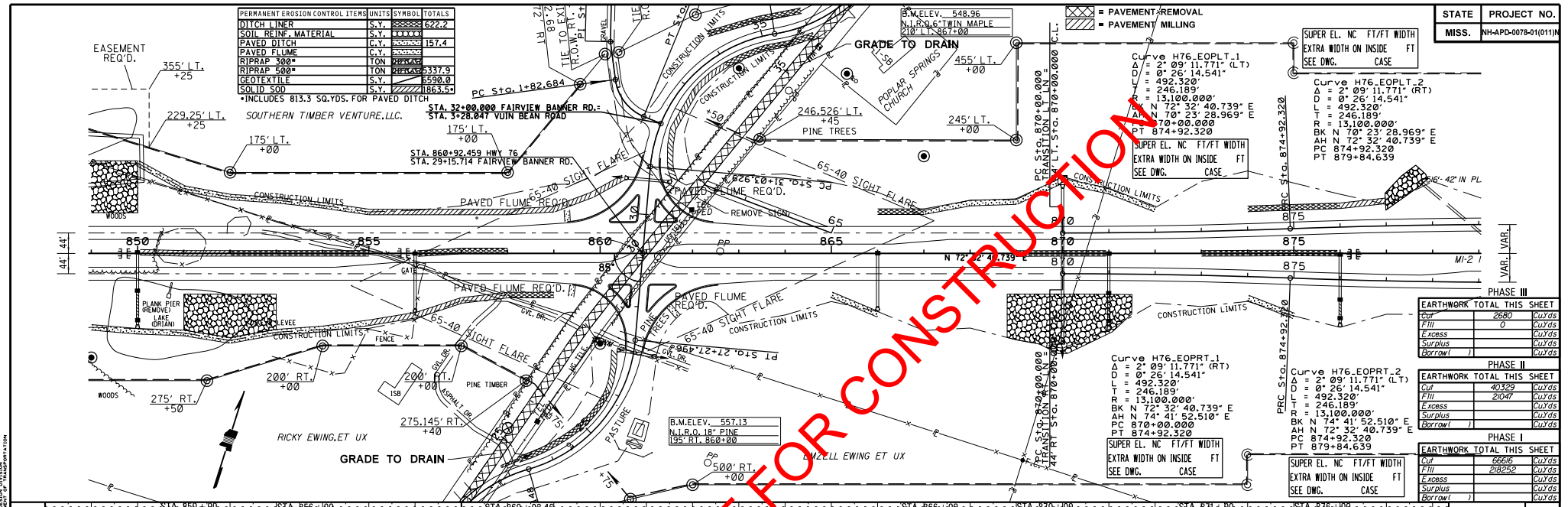
DESIGN TEAM: NS | FILENAME: WK16.dgn | COUNTY: ITAWAMBA | PROJECT NO.: NH-APD-0078-01(011)N | SHEET ID: SR 76

Wk. Sh. 16

Sh. No. PG

FMS CON:102076/301000

STATE	PROJECT NO.
MISS.	NH-APD-0078-01(011)N



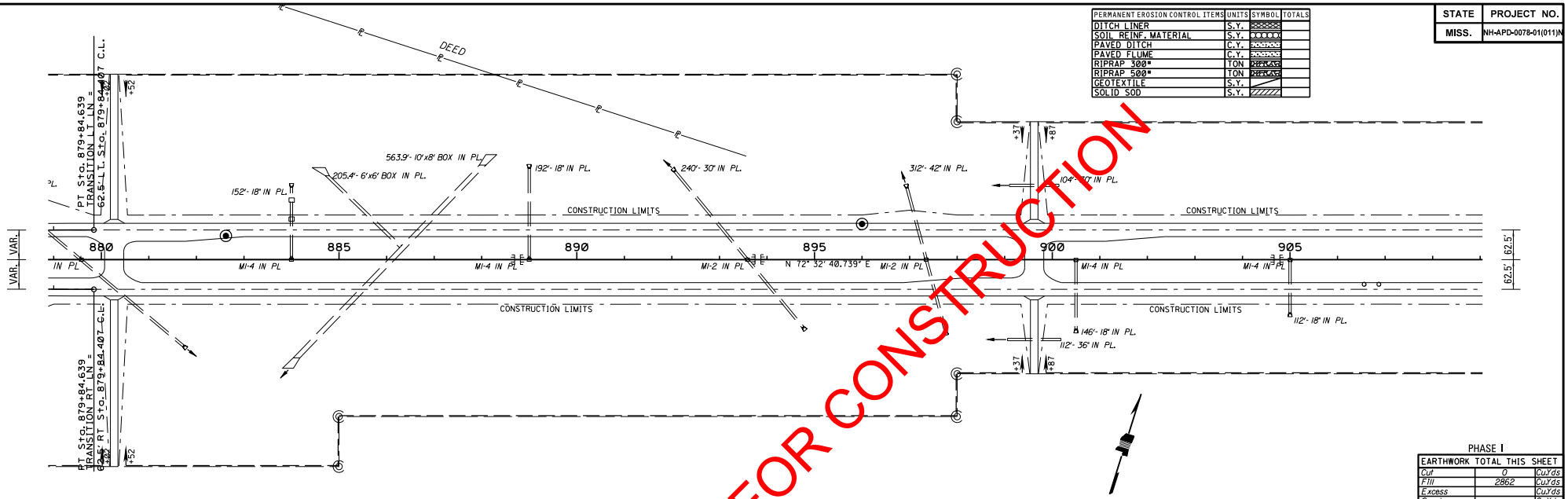
Wk. Sh. 17
Sh. No. PG

DESIGN TEAM: NS | FILENAME: WK17.dgn | COUNTY: ITAWAMBA | PROJECT NO.: NH-APD-0078-01(011)N | SHEET ID: SR 76

FMS CON: 102076/301000

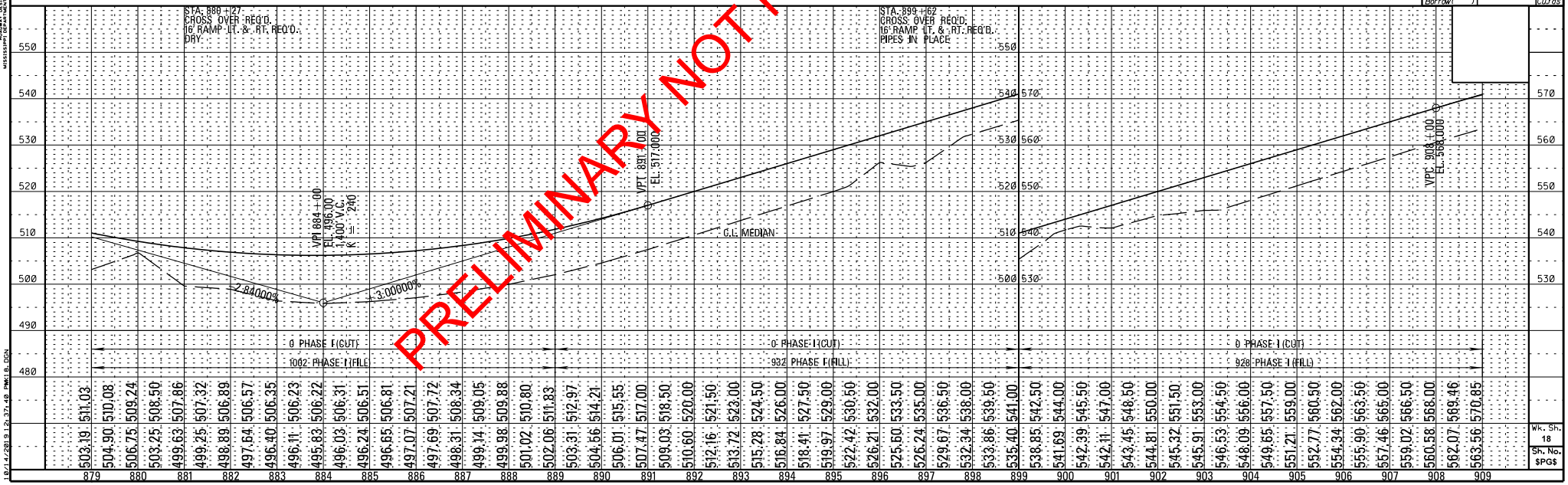
STATE	PROJECT NO.
MISS.	NH-APD-0078-01(011)N

PERMANENT EROSION CONTROL ITEMS	UNITS	SYMBOL	TOTALS
DITCH LINER	S.Y.		
SOIL REINF. MATERIAL	S.Y.		
PAVED DITCH	C.Y.		
PAVED FLUME	C.Y.		
RIPRAP 300#	TON		
RIPRAP 500#	TON		
GEOTEXTILE	S.Y.		
SOLID SOD	S.Y.		



PHASE I

EARTHWORK TOTAL THIS SHEET		
Cut	0	CuYds
Fill	2862	CuYds
Excess		CuYds
Surplus		CuYds
Borrow ( )		CuYds



879	880	881	882	883	884	885	886	887	888	889	890	891	892	893	894	895	896	897	898	899	900	901	902	903	904	905	906	907	908	909
503.19	511.03																													
504.90	510.08																													
506.75	509.24																													
503.25	508.50																													
499.63	507.86																													
499.25	507.32																													
498.89	506.89																													
497.64	506.57																													
496.40	506.35																													
496.11	506.23																													
495.83	506.22																													
496.03	506.31																													
496.24	506.51																													
496.65	506.81																													
497.07	507.21																													
497.69	507.72																													
498.31	508.34																													
499.14	509.05																													
499.98	509.88																													
501.02	510.80																													
502.06	511.83																													
503.31	512.97																													
504.56	514.21																													
506.01	515.55																													
507.47	517.00																													
509.03	518.50																													
510.60	520.00																													
512.16	521.50																													
513.72	523.00																													
515.28	524.50																													
516.84	526.00																													
518.41	527.50																													
519.97	529.00																													
522.42	530.50																													
526.21	532.00																													
525.60	533.50																													
526.24	535.00																													
529.67	536.50																													
532.34	538.00																													
533.86	539.50																													
535.40	541.00																													
538.85	542.50																													
541.69	544.00																													
542.39	545.50																													
542.11	547.00																													
543.45	548.50																													
544.81	550.00																													
545.32	551.50																													
545.91	553.00																													
546.53	554.50																													
548.09	556.00																													
549.65	557.50																													
551.21	559.00																													
552.77	560.50																													
554.34	562.00																													
555.90	563.50																													
557.46	565.00																													
559.02	566.50																													
560.58	568.00																													
562.07	569.46																													
563.56	570.85																													

Wk. Sh. 18
Sh. No. $PGS

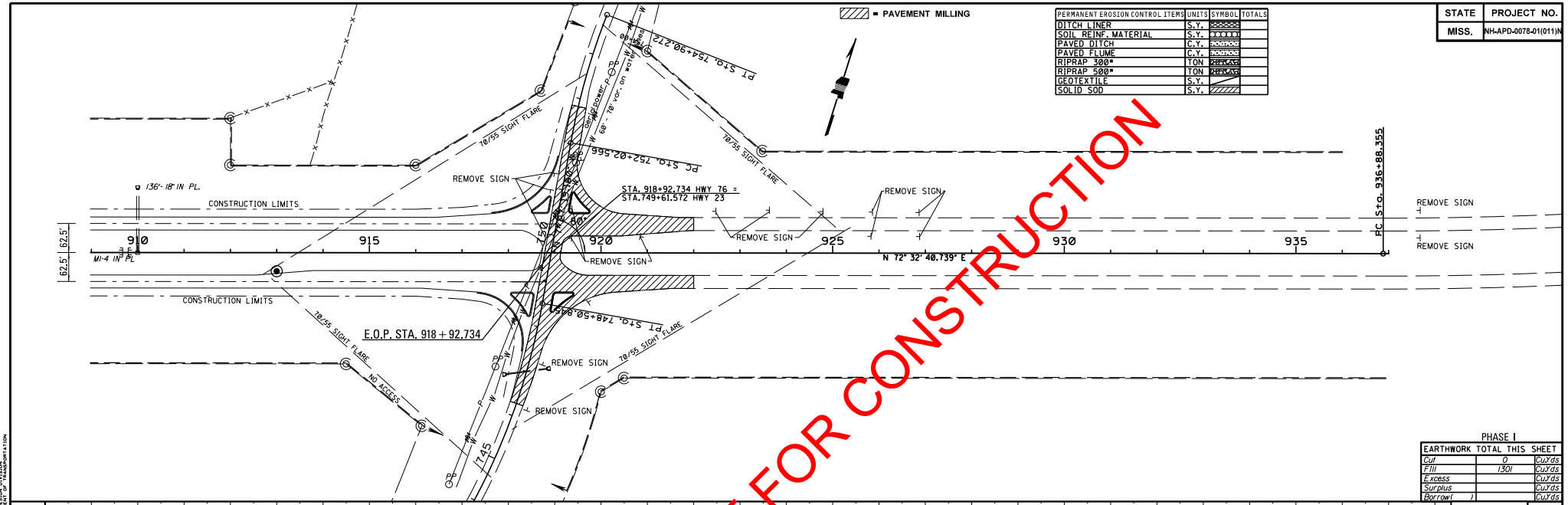
DESIGN TEAM: NS | FILENAME: WK18.dgn | COUNTY: ITAWAMBA | PROJECT NO.: NH-APD-0078-01(011)N | SHEET ID: SR 76

PLAN-PROFILE DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

10/14/2015 12:37:49 PM K:\8_DGN

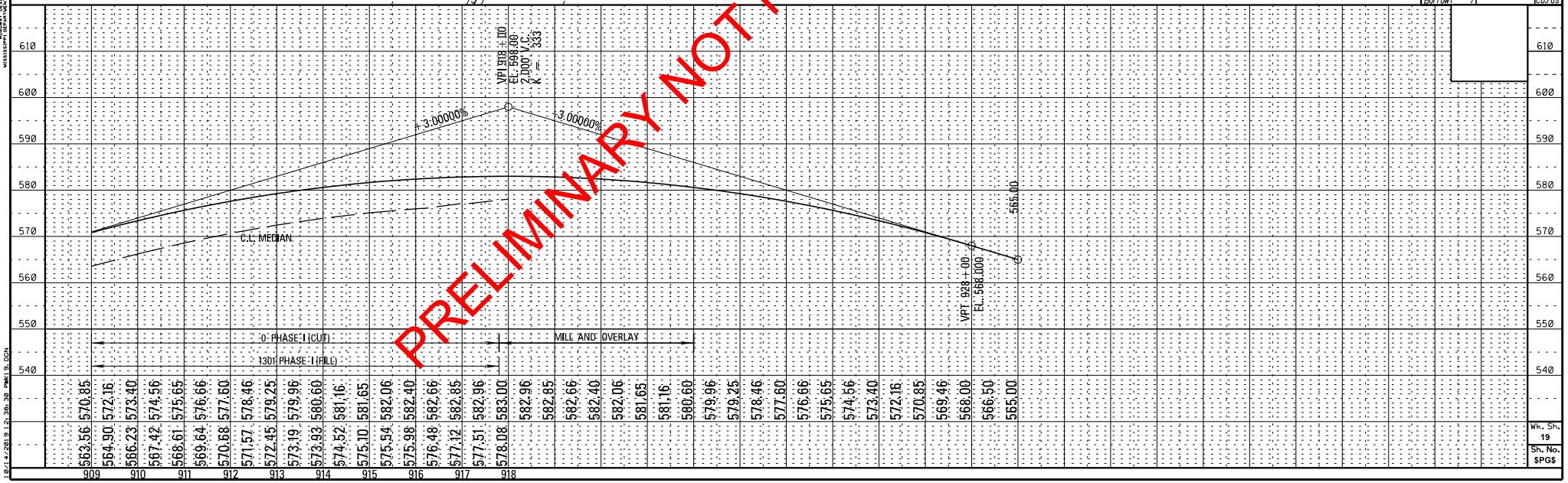
FMS CON: 102076/301000

STATE	PROJECT NO.
MISS.	NH-APD-0078-01(011)N



PHASE I

EARTHWORK TOTAL THIS SHEET		
Cut	0	CuYds
Fill	1301	CuYds
Excess		CuYds
Surplus		CuYds
Borrow ( )		CuYds

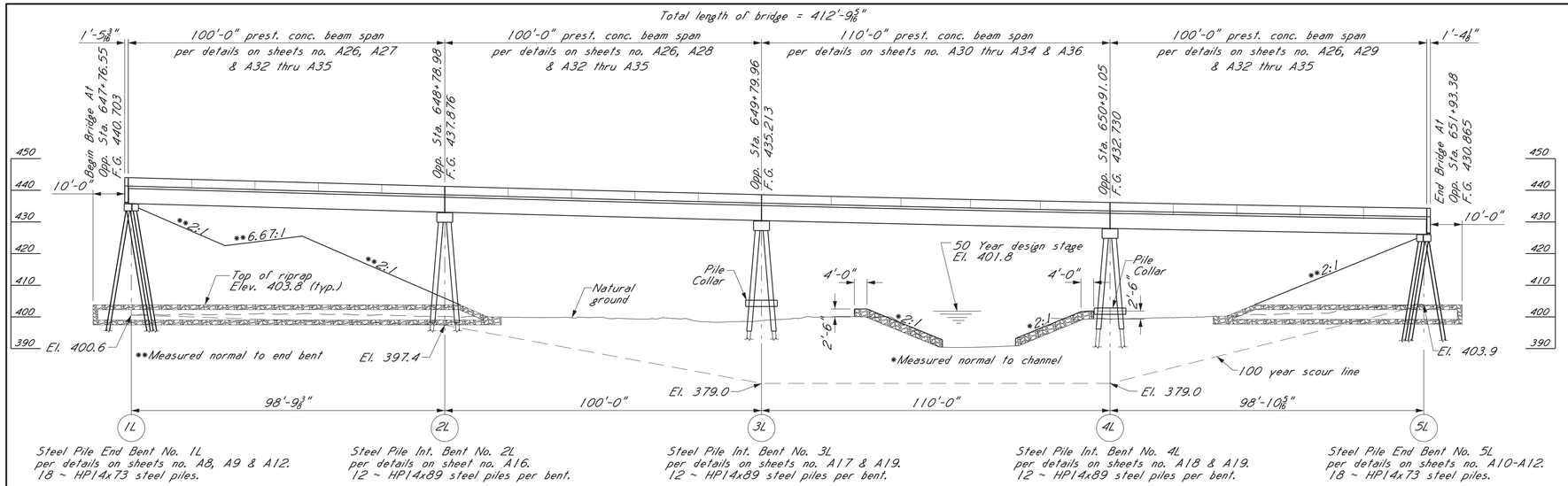


PLAN-PROFILE
RHODES-PERRY DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

Wk. Sh. 19
Sh. No. SPGS

DESIGN TEAM: NS | FILENAME: WK19.dgn | COUNTY: ITAWAMBA | PROJECT NO.: NH-APD-0078-01(011)N | SHEET ID: SR 76

STATE	PROJECT NO.
MISS.	NH-APD-0078-01(011)N



Steel Pile End Bent No. 1L per details on sheets no. A8, A9 & A12. 18 ~ HP14x73 steel piles.

Steel Pile Int. Bent No. 2L per details on sheet no. A16. 12 ~ HP14x89 steel piles per bent.

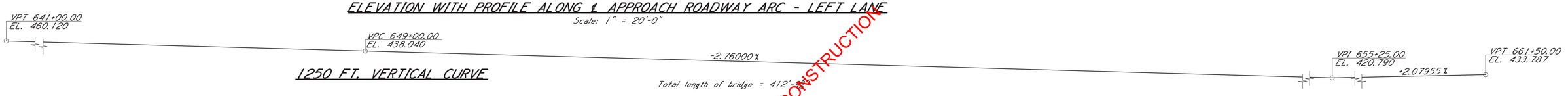
Steel Pile Int. Bent No. 3L per details on sheets no. A17 & A19. 12 ~ HP14x89 steel piles per bent.

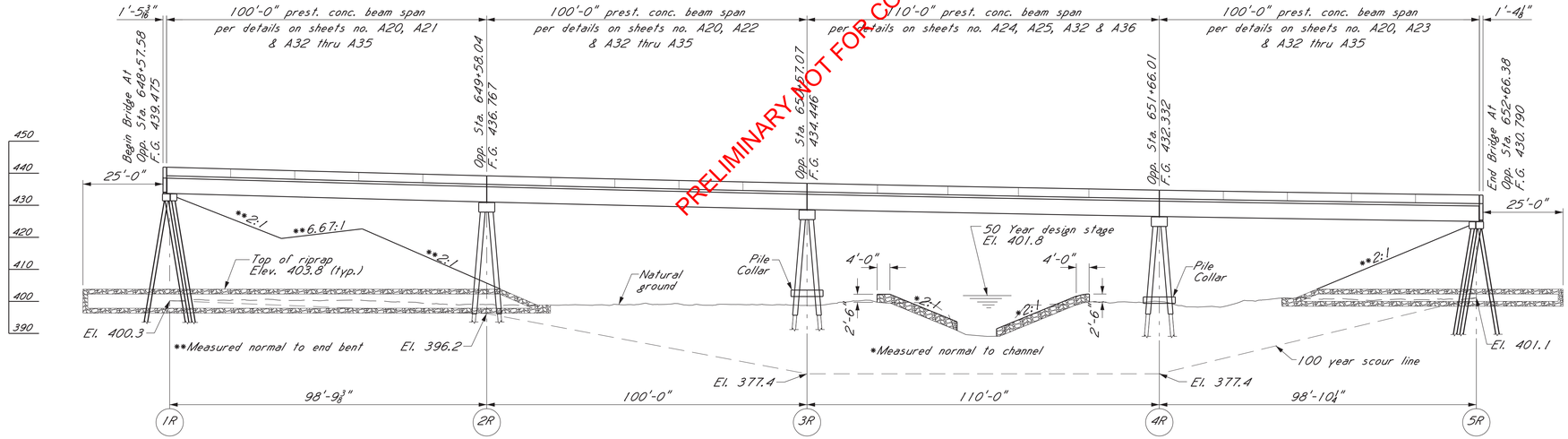
Steel Pile Int. Bent No. 4L per details on sheets no. A18 & A19. 12 ~ HP14x89 steel piles per bent.

Steel Pile End Bent No. 5L per details on sheets no. A10-A12. 18 ~ HP14x73 steel piles.

ELEVATION WITH PROFILE ALONG ℄ APPROACH ROADWAY ARC - LEFT LANE

Scale: 1" = 20'-0"





Steel Pile End Bent No. 1R per details on sheets no. A4, A5 & A12. 18 ~ HP14x73 steel piles.

Steel Pile Int. Bent No. 2R per details on sheet no. A13. 12 ~ HP14x89 steel piles per bent.

Steel Pile Int. Bent No. 3R per details on sheets no. A14 & A19. 12 ~ HP14x89 steel piles per bent.

Steel Pile Int. Bent No. 4R per details on sheets no. A15 & A19. 12 ~ HP14x89 steel piles per bent.

Steel Pile End Bent No. 5R per details on sheets no. A6, A7 & A12. 18 ~ HP14x73 steel piles.

ELEVATION WITH PROFILE ALONG ℄ APPROACH ROADWAY ARC - RIGHT LANE

Scale: 1" = 20'-0"

NOTES:

All horizontal dimensions are measured along ℄ Approach Roadway Arc.

Reshape channel banks on a 2:1 side slope and cover with geotextile fabric and 30" riprap layer thickness.

Riprap channel bank 120 feet upstream and 130 feet downstream.

Geotextile Fabric is required under all riprap.

Guide Banks not required.

500 Year Scour Left Lane

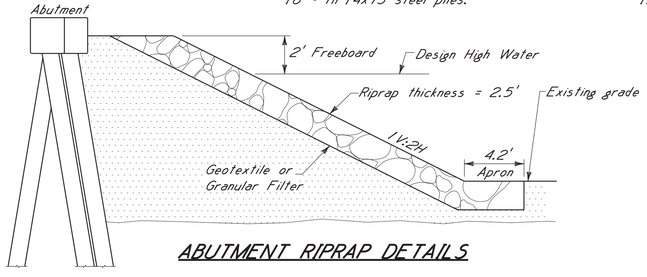
Bent No.	Elevation
1L	400.6
2L	397.0
3L	377.7
4L	377.7
5L	403.9

500 Year Scour Right Lane

Bent No.	Elevation
1R	400.3
2R	395.8
3R	375.0
4R	375.0
5R	401.1

DRAINAGE DATA:

Drainage Area ..... 4.29 Sq. Mi.
050 ..... 2,110 c.f.s.
Effective Area ..... 612 Sq. Ft.
0100 ..... 2,360 c.f.s.
100 year base flood elevation ..... 402.2 Ft.



ABUTMENT RIPRAP DETAILS

SEISMIC DESIGN DATA:

Seismic Performance Zone ..... Zone 2
Site Class Definition ..... Site Class D
Importance Category ..... Essential

DESIGN DATA:

Specifications ..... A.A.S.H.T.O., LFRD 2016
Loading HL-93
Roadway Width ..... 40'-0" Gutter To Gutter
Concrete ..... Class "AA" (4,000 p.s.i.)

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
BRIDGE AT OPP. STA. 647+76.55 LT. LN.
OPP. STA. 648+57.58 RT. LN.
APV CORR. V ACROSS
GUM CREEK TRIBUTARY
102076/301000
PROJECT NO. NH-APD-0078-01(011)N
ITAWAMBA COUNTY

REVISIONS | BY | DATE

MICHAEL BAKER INTL. - CONSULTING ENGINEERS
Jackson, Mississippi

WORKING NUMBER A2 OF 38

SHEET NUMBER

DESIGNED JDM DETAILED ROH TRACED CADD
CHECKED MKC ISSUED DATE 2019

STATE	PROJECT NO.
MISS.	NH-APD-0078-01(011)N

NOTE: The W.P. for the endbents is located at the intersection of ℄ joint and ℄ Approach Roadway arc.

NOTE: Abutment riprap shall be 300# with a 4.2 feet apron extented from toe and shall extend 25 feet back from the abutment on the downstream side and 10 feet back from the abutment on the upstream side to protect the approach embankment. Riprap channel bank 120 feet upstream and 130 feet downstream. Reshape channel banks on a 2:1 side slope and cover with geotextile fabric and 30-inch riprap layer thickness.

NOTE: Angles shown are measured from ℄ approach roadway chord to radial lines at ℄ joint.

CURVE DATA

Δ = 35° 46' 24.667" (LT)
D = 1° 16' 00.000"
L = 2,824.225'
R = 4,523.351'
PC Sta. 626+64.125
PT Sta. 654+88.350
S.E. = .042 Ft./Ft.

FOUNDATION PLAN

Scale: 1" = 20'-0"

Bent 1L Detail

Bent 1R Detail

Bent 5L Detail

Bent 5R Detail

BY	REVISIONS	DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
BRIDGE AT OPP. STA. 647+76.55 LT. LN.
OPP. STA. 648+57.58 RT. LN.

APV CORR. V ACROSS
GUM CREEK TRIBUTARY

102076/301000
PROJECT NO. NH-APD-0078-01(011)N
ITAWAMBA COUNTY

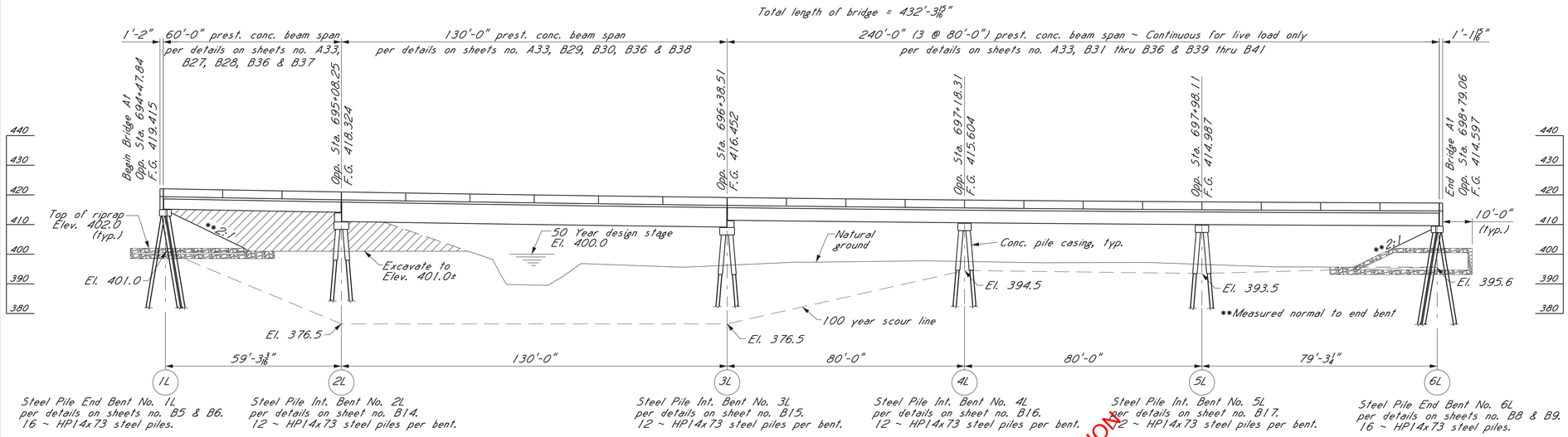
MICHAEL BAKER INTL. - CONSULTING ENGINEERS
Jackson, Mississippi

WORKING NUMBER A3 OF 38

SHEET NUMBER

DESIGNED JDM DETAILED ROH TRACED CADD
CHECKED MKC ISSUED DATE 2019

STATE	PROJECT NO.
MISS.	NH-APD-0078-01(011)N



Steel Pile End Bent No. 1L per details on sheets no. B5 & B6. 16 ~ HP14x73 steel piles.

Steel Pile Int. Bent No. 2L per details on sheet no. B14. 12 ~ HP14x73 steel piles per bent.

Steel Pile Int. Bent No. 3L per details on sheet no. B15. 12 ~ HP14x73 steel piles per bent.

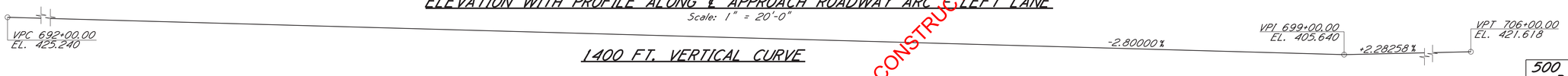
Steel Pile Int. Bent No. 4L per details on sheet no. B16. 12 ~ HP14x73 steel piles per bent.

Steel Pile Int. Bent No. 5L per details on sheet no. B17. 12 ~ HP14x73 steel piles per bent.

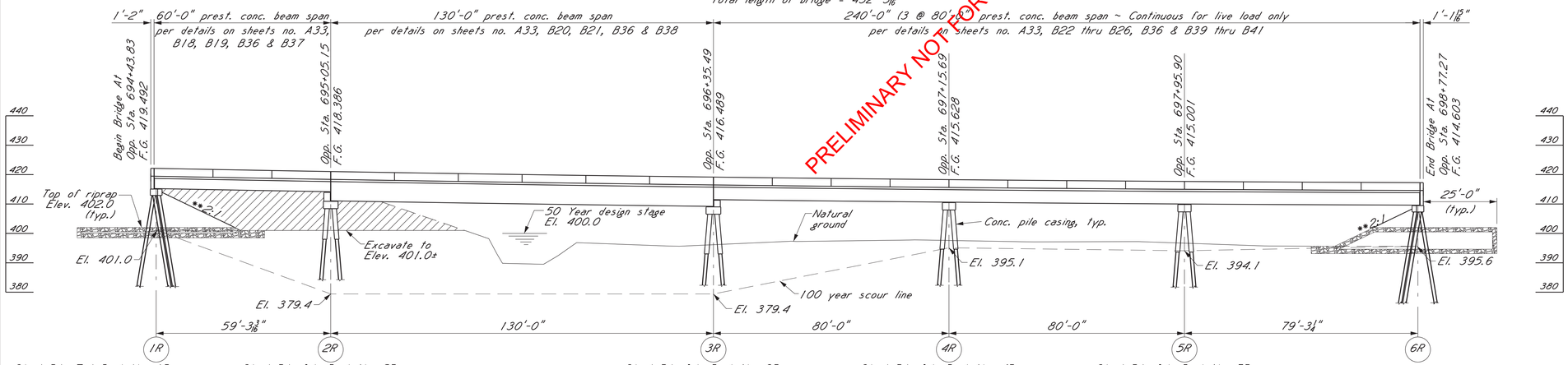
Steel Pile End Bent No. 6L per details on sheets no. B8 & B9. 16 ~ HP14x73 steel piles.

ELEVATION WITH PROFILE ALONG ℄ APPROACH ROADWAY ARC ℄ LEFT LANE

Scale: 1" = 20'-0"



1400 FT. VERTICAL CURVE



Steel Pile End Bent No. 1R per details on sheets no. B4 & B6. 16 ~ HP14x73 steel piles.

Steel Pile Int. Bent No. 2R per details on sheet no. B10. 12 ~ HP14x73 steel piles per bent.

Steel Pile Int. Bent No. 3R per details on sheet no. B11. 12 ~ HP14x73 steel piles per bent.

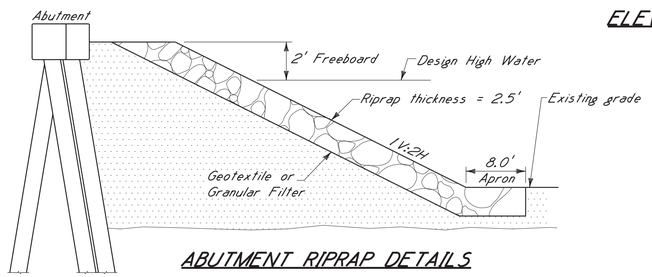
Steel Pile Int. Bent No. 4R per details on sheet no. B12. 12 ~ HP14x73 steel piles per bent.

Steel Pile Int. Bent No. 5R per details on sheet no. B13. 12 ~ HP14x73 steel piles per bent.

Steel Pile End Bent No. 6R per details on sheets no. B7 & B9. 16 ~ HP14x73 steel piles.

ELEVATION WITH PROFILE ALONG ℄ APPROACH ROADWAY ARC - RIGHT LANE

Scale: 1" = 20'-0"



ABUTMENT RIPRAP DETAILS

NOTES:

All horizontal dimensions are measured along ℄ Approach Roadway Arc.

Excavate existing high ground to elevation 401.0 between Sta. 694+34 and 695+50.

Geotextile Fabric is required under all riprap.

Guide Banks not required.

500 Year Scour Left Lane	
Bent No.	Elevation
1L	401.0
2L	374.7
3L	374.7
4L	394.3
5L	393.3
6L	395.6

500 Year Scour Right Lane	
Bent No.	Elevation
1R	401.0
2R	377.3
3R	377.3
4R	394.8
5R	393.8
6R	395.6

SEISMIC DESIGN DATA:

Seismic Performance Zone_____Zone 1
Site Class Definition_____Site Class C
Importance Category_____Essential

DRAINAGE DATA:

Drainage Area_____6.35 Sq. Mi.
Q50_____2,830 c.f.s.
Effective Area_____1,179 Sq. Ft.
Q100_____3,170 c.f.s.
100 year base flood elevation_____400.4 Ft.

DESIGN DATA:

Specifications_____A.A.S.H.T.O., LFRD 2016
Loading_____HL-93
Roadway Width_____40'-0" Gutter To Gutter
Concrete_____Class "AA" (4,000 p.s.i.)

BY | REVISIONS | DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
BRIDGE AT OPP. STA. 694+47.84 LT. LN.
OPP. STA. 694+43.83 RT. LN.
APV CORR. V ACROSS
PANTHER CREEK
102076/301000
PROJECT NO. NH-APD-0078-01(011)N
ITAWAMBA COUNTY

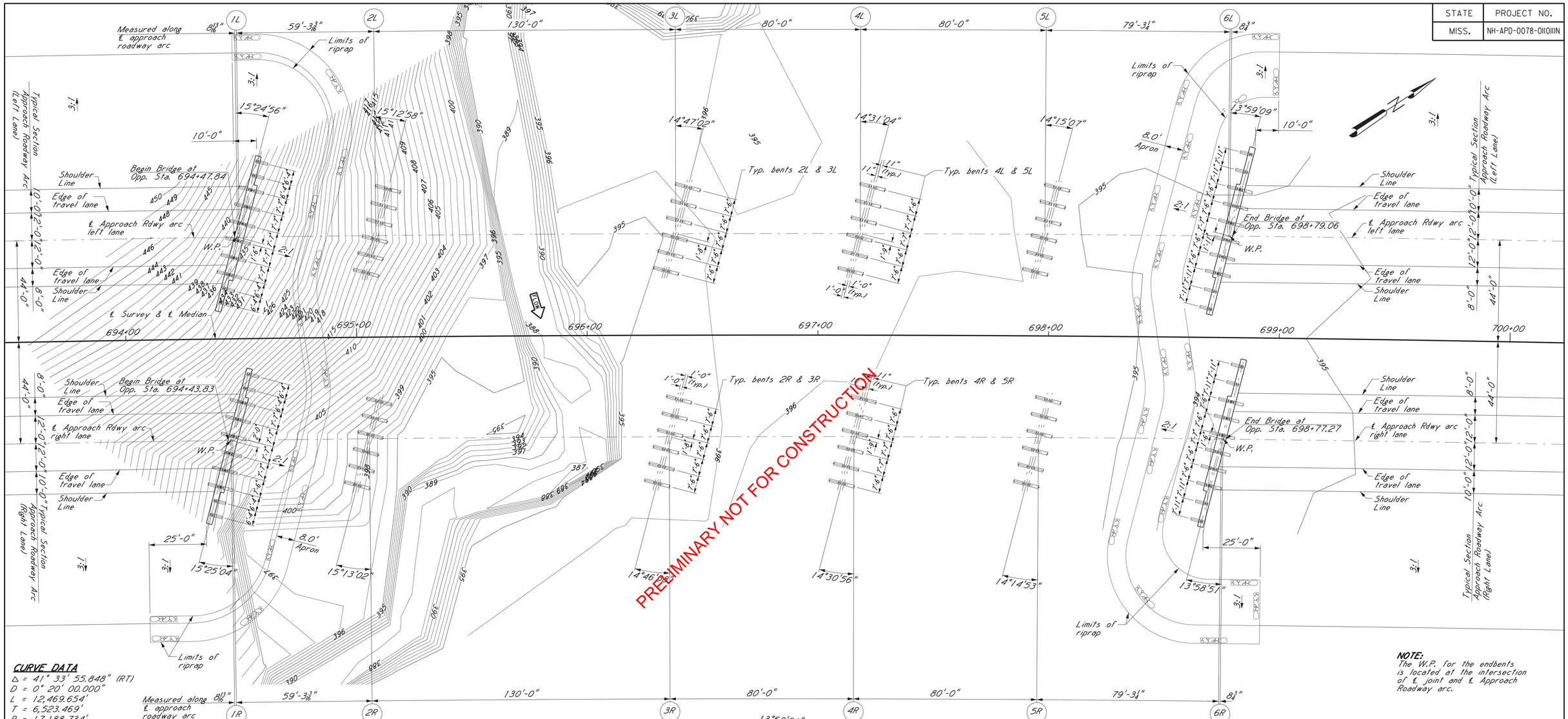
MICHAEL BAKER INTL. - CONSULTING ENGINEERS
Jackson, Mississippi

WORKING NUMBER B2 OF 42

DESIGNED JDM DETAILED ROH TRACED CADD
CHECKED MKC ISSUED DATE 2019

SHEET NUMBER

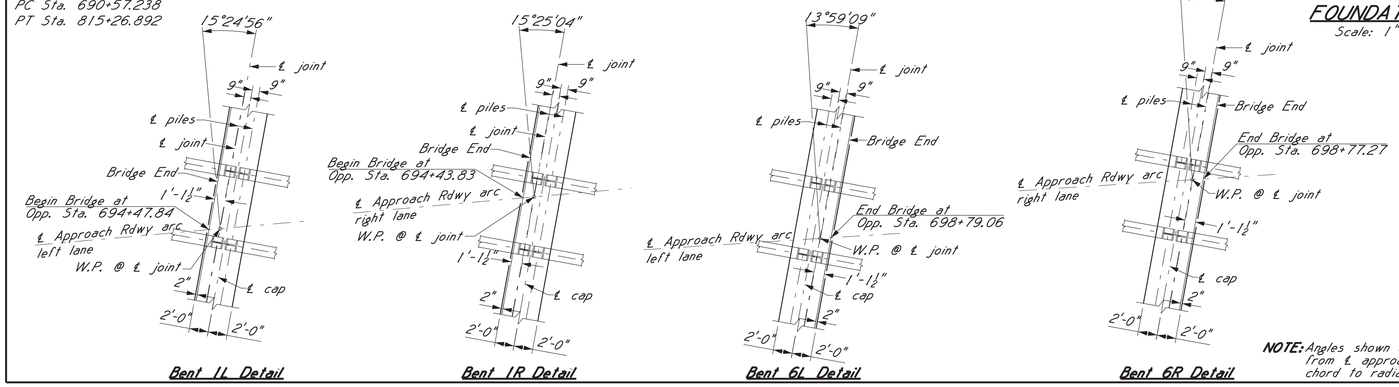
STATE	PROJECT NO.
MISS.	NH-APD-0078-01(011)N



CURVE DATA
Δ = 41° 33' 55.848" (RT)
D = 0° 20' 00.000"
L = 12,469.654'
T = 6,523.469'
R = 17,188.734'
PC Sta. 690+57.238
PT Sta. 815+26.892

NOTE:
The W.P. for the endbents is located at the intersection of ℄ joint and ℄ Approach Roadway arc.

FOUNDATION PLAN
Scale: 1" = 20'-0"



Bent 1L Detail **Bent 1R Detail** **Bent 6L Detail** **Bent 6R Detail**

NOTE: Angles shown are measured from ℄ approach roadway chord to radial lines at ℄ joint.

PRELIMINARY NOT FOR CONSTRUCTION

PRELIMINARY NOT FOR CONSTRUCTION

DEPARTMENT OF TRANSPORTATION MDOT MISSISSIPPI

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
BRIDGE AT OPP. STA. 694+47.84 LT. LN.
OPP. STA. 694+43.83 RT. LN.

APV CORR. V ACROSS
PANTHER CREEK

102076/301000
PROJECT NO. NH-APD-0078-01(011)N
ITAWAMBA COUNTY

MICHAEL BAKER INTL. - CONSULTING ENGINEERS
Jackson, Mississippi

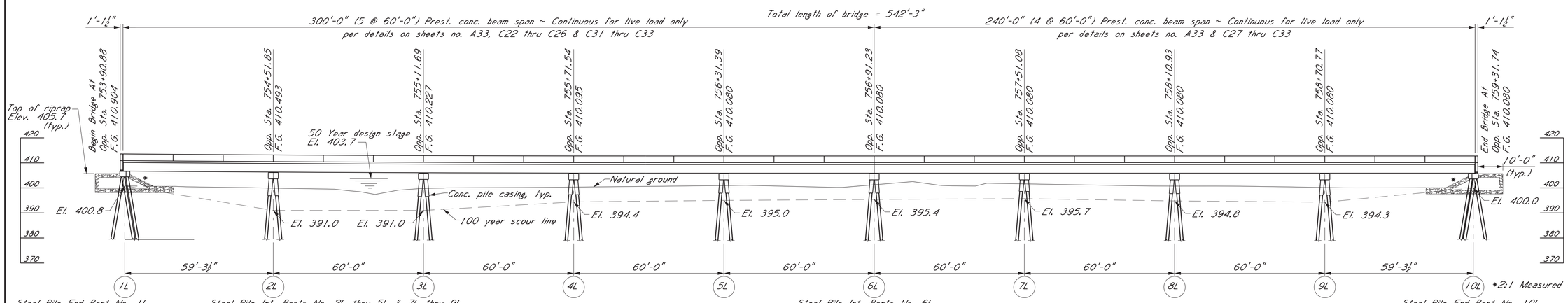
WORKING NUMBER B3 OF 42

SHEET NUMBER

REVISIONS | BY | DATE

DESIGNED JDM DETAILED ROH TRACED CADD
CHECKED MKC ISSUED DATE 2019

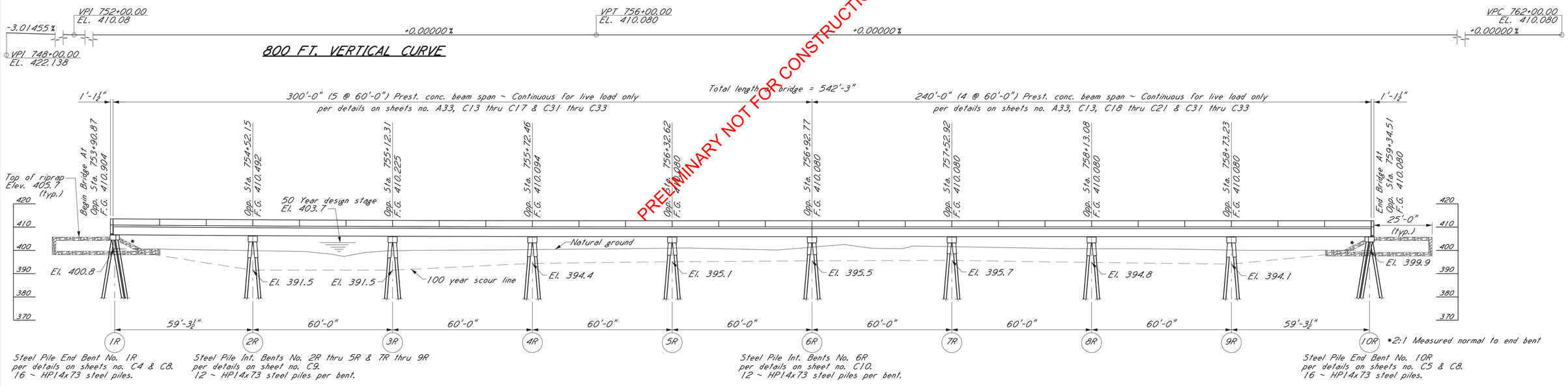
STATE	PROJECT NO.
MISS.	NH-APD-0078-01(011)N



ELEVATION WITH PROFILE ALONG ℄ APPROACH ROADWAY ARC - LEFT LANE

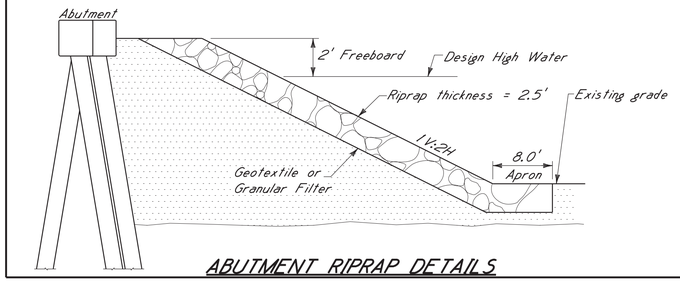
Scale: 1" = 20'-0"

500 Year Scour Left Lane	
Bent No.	Elevation
1L	400.8
2L	390.0
3L	390.0
4L	394.0
5L	394.6
6L	395.0
7L	395.3
8L	394.4
9L	393.9
10L	400.0



ELEVATION WITH PROFILE ALONG ℄ APPROACH ROADWAY ARC - RIGHT LANE

Scale: 1" = 20'-0"



ABUTMENT RIPRAP DETAILS

500 Year Scour Right Lane	
Bent No.	Elevation
1R	400.8
2R	390.4
3R	390.4
4R	394.0
5R	394.6
6R	395.1
7R	395.3
8R	394.4
9R	393.7
10R	399.9

NOTES:

All horizontal dimensions are measured along ℄ Approach Roadway Arc.

Geotextile Fabric is required under all riprap.

Guide Banks not required.

DRAINAGE DATA:

Drainage Area ..... 19.4 Sq. Mi.
050 ..... Shared Relief
Effective Area ..... 1,833 Sq. Ft.
0100 ..... Shared Relief
100 year base flood elevation ..... 404.0 Ft.

SEISMIC DESIGN DATA:

Seismic Performance Zone ..... Zone 1
Site Class Definition ..... Site Class C
Importance Category ..... Essential

DESIGN DATA:

Specifications ..... A.A.S.H.T.O., LFRD 2016
Loading HL-93
Roadway Width ..... 40'-0" Gutter To Gutter
Concrete ..... Class "AA" (4,000 p.s.i.)

PRELIMINARY NOT FOR CONSTRUCTION

REVISIONS	BY	DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
BRIDGE AT OPP. STA. 753+90.88 LT. LN.
OPP. STA. 753+90.87 RT. LN.

APV CORR. V ACROSS
CHUBBY CREEK RELIEF

102076/301000
PROJECT NO. NH-APD-0078-01(011)N
ITAWAMBA COUNTY

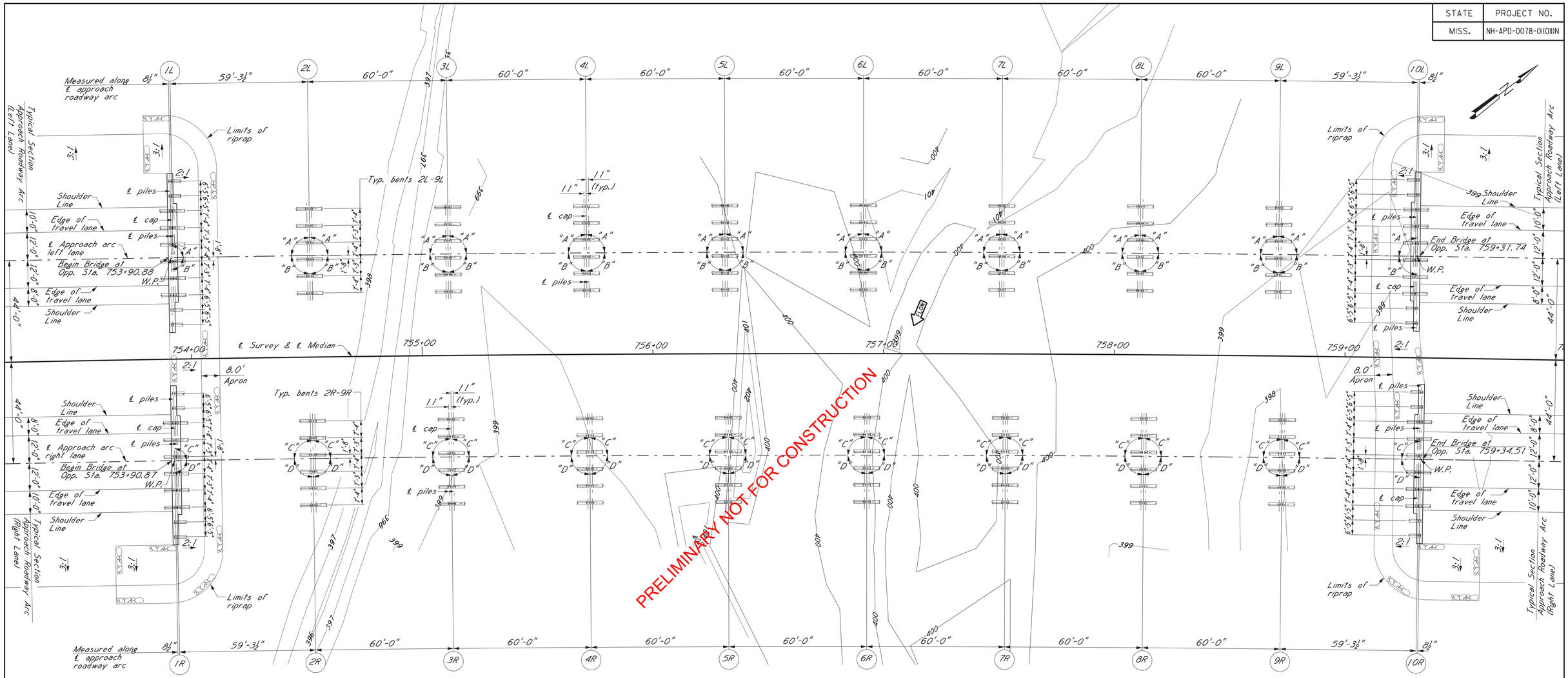
MICHAEL BAKER INTL. - CONSULTING ENGINEERS
Jackson, Mississippi

WORKING NUMBER C2 OF 34

SHEET NUMBER

DESIGNED JDM DETAILED ROH TRACED CADD
CHECKED MKC ISSUED DATE 2019

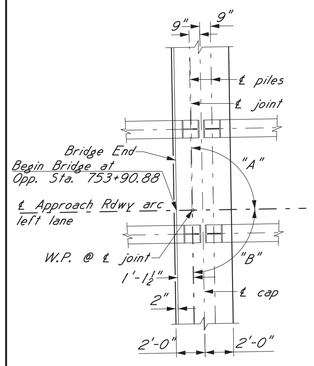
STATE	PROJECT NO.
MISS.	NH-APD-0078-01(011)N



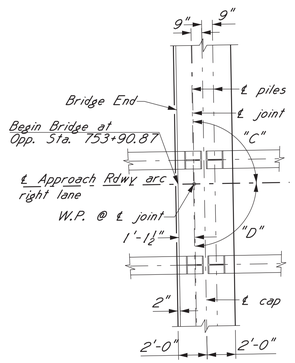
FOUNDATION PLAN

Scale: 1" = 20'-0"

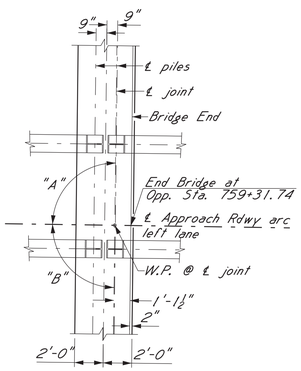
Bent 1L Detail



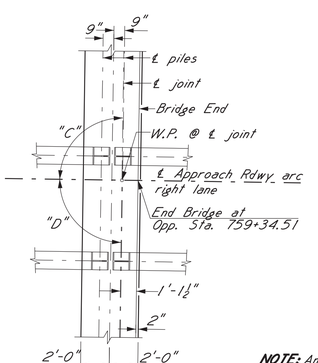
Bent 1R Detail



Bent 10L Detail



Bent 10R Detail



NOTE: Angles shown are measured from ℄ approach roadway chord to radial lines at ℄ joint.

CURVE DATA

△ = 41° 33' 55.848" (RT)
D = 0° 20' 00.000"
L = 12,469.654'
T = 6,523.469'
R = 17,188.734'
PC Sta. 690+57.238
PT Sta. 815+26.892

ANGLE DATA

"A" = 90°05'59"
"B" = 89°54'01"
"C" = 90°06'01"
"D" = 89°53'59"

NOTE:
The W.P. for the endbents is located at the intersection of ℄ joint and ℄ Approach Roadway arc.

DEPARTMENT OF TRANSPORTATION MDOT MISSISSIPPI

REVISIONS — BY — DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
BRIDGE AT OPP. STA. 753+90.88 LT. LN.
OPP. STA. 753+90.87 RT. LN.
APV CORR. V ACROSS
CHUBBY CREEK RELIEF

102076/301000
PROJECT NO. NH-APD-0078-01(011)N
ITAWAMBA COUNTY

MICHAEL BAKER INTL. - CONSULTING ENGINEERS
Jackson, Mississippi

WORKING NUMBER C3 OF 34

DESIGNED JDM DETAILED ROH TRACED CADD
CHECKED MKC ISSUED DATE 2019

SHEET NUMBER

US Army Corps of Engineers
Vicksburg District
4155 Clay Street
Vicksburg, MS 39183-3435
www.mvk.usace.army.mil

GENERAL PERMIT

FILE NO.: GENERAL PERMIT – 46
DATE: October 2, 2019
EXPIRES: October 2, 2024

FOR: **REGULATED ACTIVITIES ASSOCIATED WITH THE DISCHARGE OF DREDGED OR FILL MATERIAL IN WATERS OF THE UNITED STATES AND/OR STRUCTURES OR WORK AFFECTING NAVIGABLE WATERS OF THE UNITED STATES ASSOCIATED WITH THE CONSTRUCTION AND STABILIZATION OF ROADWAY EMBANKMENTS AND BRIDGE ABUTMENTS**

WHERE: **THE STATE OF MISSISSIPPI**

BY WHOM: **DISTRICT ENGINEER, VICKSBURG DISTRICT, ON BEHALF OF THE MISSISSIPPI DEPARTMENT OF TRANSPORTATION (MDOT)**

The U.S. Army Corps of Engineers (USACE), Vicksburg District, is hereby reissuing a Department of the Army General Permit for the discharge of dredged or fill material in waters of the United States and/or structures or work affecting navigable waters of the United States associated with the construction and stabilization of roadway embankments and bridge abutments performed by or having oversight from MDOT within the State of Mississippi. This General Permit shall authorize activities such as the repair and stabilization of existing roadway embankments and bridge abutments; the installation of additional traffic lanes to existing roadways; the upgrading of bridges and other stream-crossing structures; and, construction along new alignments.

This action is being taken pursuant to Federal regulations printed in the Federal Register on November 13, 1986, concerning permits for activities in waters of the United States (U.S.). These regulations state the U.S. Army Corps of Engineers' responsibility for regulating structures or work in or affecting waters of the United States under Section 10 of the Rivers and Harbors Act of 1899 (30 Stat. 1151; 33 U.S.C. 403); and discharges of dredged and/or fill material into waters of the United States under Section 404 of the Clean Water Act (33 U.S.C. 1344).

An agreement was finalized between MDOT, the Federal Highway Administration

(FHWA), and the U.S. Army Corps of Engineers with concurrence from the appropriate Districts on December 12, 2008, which specifies that all MDOT projects within the State will be evaluated by the Vicksburg District. The address is USACE, Vicksburg District, ATTN: Regulatory Branch, 4155 Clay Street, Vicksburg, Mississippi 39183-3435.

Upon expiration of the agreement, since portions of the State are within jurisdictional boundaries of five United States Army Corps of Engineers Districts (enclosure 1), subsequent authorizations to proceed with work proposed under this General Permit will be granted by letter from the appropriate District within whose boundaries the work will be located. The MDOT will be notified of any changes to the agreement and furnished the mailing address of each district.

This General Permit contains certain limitations intended to protect the environment and natural and cultural resources. Conformance with conditions contained in the General Permit does not necessarily guarantee authorization under this General Permit. In cases where the District Engineer considers it necessary, an application will be required for an individual permit.

Regulated construction, dredging, or fill operations not specifically covered by this General Permit are prohibited unless authorized by a separate permit.

General Permits may be issued for a category or categories of activities when: (1) those activities are substantially similar in nature and cause only minimal individual and cumulative environmental impacts; or (2) the General Permit would result in avoiding unnecessary duplication of the regulatory control exercised by another Federal, State, or local agency, provided it has been determined that the environmental consequences of the actions are individually and cumulatively minimal. The determination that the proposed activities comply with the requirements for the issuance of General Permits was made using information which is available for inspection at the office of the Vicksburg District's Regulatory Branch at 4155 Clay Street, Vicksburg, Mississippi.

In compliance with requirements of Section 401 of the Clean Water Act, the Vicksburg District has obtained water quality certification from the Mississippi Department of Environmental Quality (enclosure 2).

The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the U.S. to the maximum extent practicable at the project site (i.e., on site). Mitigation in all its forms (avoiding, minimizing, rectifying, reducing, or compensating for resource losses) will be required to the extent necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal.

In order to compensate for any unavoidable losses of functions of jurisdictional waters of the United States associated with the work authorized by this General Permit; the Mississippi Department of Transportation shall develop a compensatory mitigation plan. The compensatory mitigation plan will be fully described in accordance with 33 CFR

Parts 325 and 332, Compensatory Mitigation for Losses of Aquatic Resources; Final Rule, April 2008.

REQUEST FOR AUTHORIZATION UNDER THE GENERAL PERMIT: IN ORDER TO BE AUTHORIZED BY THIS GENERAL PERMIT, THE MISSISSIPPI DEPARTMENT OF TRANSPORTATION ARE REQUIRED TO SUBMIT TO THE DISTRICT ENGINEER, IN WRITING, THE FOLLOWING INFORMATION A MINIMUM OF 60 DAYS PRIOR TO THE PROPOSED BID ADVERTISEMENT DATE:

a. Statement that the work will be conducted in compliance with the terms and conditions of General Permit 46, will not adversely impact adjoining properties, and will be mitigated for in accordance with the terms of this General Permit.

b. A location map showing the proposed worksite (including Section, Township, Range, and County).

c. A brief description of the proposed worksite in its present condition.

d. For the selected site, a full set of construction plans (including quantities and types of any fill and quantities of any excavation), maps, and engineering drawings for the proposed activity at that site. These shall include a map of sufficient scale that illustrates an "overlay" of the proposed construction/development activity (e.g. construction roads, ditches, parking areas, lay-down pads, temporary work areas, remaining natural areas, etc.) on jurisdictional waters of the U.S.

e. The estimated starting and completion dates of the proposed construction.

f. Name, mailing address, telephone number, and email address, of the person acting as the point of contact for the requested authorization.

g. If wetlands or other waters of the U.S. are to be impacted, the following information is required:

(1) A map delineating the wetlands and other waters of the U.S. and copies of the associated data form(s) for routine wetland determinations from the 1987 Corps of Engineers Wetland Delineation Manual and its subsequent Regional Supplement Manual(s) covering the proposed project area(s).

(2) The type and date of approval of the NEPA documentation by the FHWA and a copy of their findings as required by Executive Order 11990.

h. A discussion of how adverse impacts to waters of the U.S. from the proposed activity will be avoided and minimized to the maximum extent practicable at the construction site.

i. If the loss or conversion to waters of the United States at a single and complete project site exceeds 0.1 acre, the application shall include a compensatory mitigation plan based on an approved wetland functional assessment methodology. Such recommendations should include copies of all factual information (e.g. worksheets) used in performing the calculations of the functional assessment. (Note: The District Engineer will consider this recommendation, however, the District Engineer retains discretionary authority in making the final decision on compensatory mitigation measures).

j. If impacts to a natural waterway at a single and complete project site exceed 100 linear feet, MDOT shall include a compensatory mitigation plan based on an approved stream functional assessment methodology. Such recommendations shall include copies of all factual information (e.g. worksheets) used in performing the calculations of the functional assessment. (Note: The District Engineer will consider this recommendation, however, the District Engineer retains discretionary authority in making the final decision on compensatory mitigation measures).

k. Comments from the Mississippi Department of Wildlife, Fisheries and Parks, Mississippi Department of Archives and History (including the results of any National Historic Preservation Act, Section 106, consultation actions), United States Fish and Wildlife Service (including the results of any Endangered Species Act, Section 7, consultation actions), and the Mississippi Department of Environmental Quality on the project.

l. Concurrence in writing from the Mississippi Department of Marine Resources (related to the Coastal Zone Management Act) and the National Marine Fisheries Service (including the results of any Magnuson-Steven Fisheries Conservation and Management Act, essential fish habitat consultation actions), if the project is located in Hancock, Harrison, or Jackson County, Mississippi. (See Special Condition h. below).

Upon receipt of this information, the District Engineer will: advise MDOT, in writing, either that the work will be evaluated for authorization under the General Permit 46; will request additional information, if needed; or will advise MDOT that the proposed activity will be evaluated as an individual permit.

Special Conditions:

a. No more than 7 acres of wetlands and other waters shall be directly impacted by the placement of fill at each single and complete crossing of a water of the United States where the proposed work involves either upgrading an existing highway within an established corridor or where the work is to be constructed along a new alignment. Any wetlands cut off from their natural hydrologic regime as a result of project work would be considered as directly impacted.

b. For stream or river crossings, discharges of permanent fill material and temporary

fill material shall be the minimum necessary to complete the crossing. The term fill refers to earthen material, riprap, concrete, and any other materials associated with the work.

c. The stabilization or construction work shall not interfere with navigation (including recreational boating) or adversely impact the flow-carrying capacity of the affected waterbody.

d. Material to be used for fill must be nonpolluting and may be obtained either offsite or from site preparation. Offsite material shall not be obtained from wetlands outside the 7-acre limit or from other areas which may adversely affect adjacent wetlands. Any excess material shall be placed in an upland area and properly contained or stabilized to prevent entry into adjacent water-bodies or wetlands.

e. Disturbed areas on the site shall be stabilized to minimize erosion. Stabilization of erodible areas shall be accomplished by seeding or sodding as soon as practicable to restore vegetative cover. If initial re-vegetation is unsuccessful, the area shall be reseeded or re-sodded until re-vegetation is successful. In areas subject to currents, riprap may be required for slope protection.

f. No activity that has the potential to cause effects to properties listed, or eligible for listing, in the National Register of Historic Places, or a site that has previously been unevaluated, shall be authorized by this General Permit until the requirements of Section 106 of the National Historic Preservation Act have been satisfied. Additional fill material should not be taken from a known historical or archaeological site within or outside of regulated areas. If the permittee, during prosecution of work authorized herein, inadvertently discovers or accidently destroys a cultural resource such as a cemetery, shipwreck, mound, historic structure, or archaeological site, within the area subject to Department of the Army jurisdiction, they must cease work in the immediate area and notify the District Engineer within 24 hours. The District Engineer, in consultation with the appropriate State Historic Preservation Officer and the Federally recognized Tribe, shall comply with the procedures set forth in 33 CFR 325, Appendix C, paragraph 11 (Historic Properties Discovered During Construction).

g. The work shall not occur in a National Wildlife Refuge, State Game Management Area, or other such Federal or State lands, or lands leased to those entities without the appropriate Federal or State authorization in writing.

h. For work within the Mississippi Coastal Zone Management Area, including all areas below Interstate I-10, a set of complete plans shall be sent to the three agencies listed below for review and/or approval as appropriate. Comments and concurrence resulting from this coordination should be submitted with the request for authorization under this General Permit.

1. The Mississippi Department of Marine Resources
   1141 Bayview Avenue
   Suite 101
   Biloxi, Mississippi 39530

2. National Marine Fisheries Service
   Southeast Regional Office
   Protected Resources
   Attention: Ms. Karla Reece
   263 13th Ave. S.
   St. Petersburg, Florida 33701
   Email: Karla.reece@noaa.gov

3. National Marine Fisheries Service
   Room 266, Military Science Building
   Attention: Mr. Brandon Howard
   South Stadium Drive
   La. State University
   Baton Rouge, Louisiana 70803-7535

i. All temporary fills must consist of non-erodible material or be protected to prevent erosion.

j. Any materials used for temporary structures such as cofferdams, equipment pads, or temporary crossings, shall be removed as soon as practicable, and the waterway should be restored to preconstruction contours.

k. Disturbance to riparian vegetation shall be kept to a minimum during construction.

l. No activity shall be authorized under this General Permit which is likely to directly or indirectly jeopardize the continued existence of a Federally-listed threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will likely directly or indirectly destroy or adversely modify the critical habitat of such species. No activity shall be authorized under this General Permit which "may affect" a listed species or critical habitat, unless Section 7 consultation addressing the effects of the proposed activity has been completed. No activity shall be authorized under this General Permit which "may affect" essential fish habitat as identified under Magnuson-Stevens Fishery Conservation and Management Act, unless essential fish habitat consultation addressing the effects of the proposed activity has been completed.

m. Discharges shall not restrict or impede the movement of aquatic species indigenous to the waters.

n. All work shall be performed in a manner that will minimize increased turbidity of the water in the project area and otherwise avoid adverse effects on water quality and aquatic life especially during fish spawning season. This may require avoiding construction activities during the peak spawning months of April, May, and June.

o. The discharge shall not adversely affect a public water supply intake or a National or State Fish Hatchery intake.

p. The discharge shall not contain unacceptable levels of pathogenic organisms (as prescribed in standards set by the Mississippi Department of Environmental Quality) in areas used for water-contact sports.

q. The construction activity shall not result in the permanent diversion or relocation of a stream or a river channel except where needed to align a waterway crossing to avoid potential damage to the roadway. In no case, should any realignment extend beyond 150 feet upstream and 150 feet downstream from the centerline of a crossing structure. The construction activity shall not result in stream flow impediment or drain adjacent wetlands.

r. Authorization under this General Permit is valid until the General Permit expires. Activities authorized under this General Permit which are under construction, or that are under contract to commence by the expiration of this General Permit, will remain authorized provided the activity is completed within 12 months of the date of expiration.

s. Current standards and practices shall be used to determine what type drainage structure is required at a particular stream crossing (box culvert, bridge, etc.).

t. To minimize potential adverse impacts to wetlands within the right-of-way or associated with the project, the Mississippi Department of Transportation shall incorporate into each project's design all practicable measures to:

(1) Minimize impact on hydrology in wetland areas.

(2) Minimize potential for toxic spills and leaching into wetland areas.

(3) Minimize discharge of materials, such as silt, into wetlands.

(4) Maintain adequate flow through wetlands by providing culverts, ditches, and other hydrologic structures.

(5) Provide berms, traps, or ditches to direct potential toxic spills away from wetlands.

(6) Provide for animal migration to and from wetland areas or habitat corridors.

(7) Provide erosion and sediment control features throughout the construction phase of a project which will minimize both short- and long-term impacts to water quality.

(8) Provide treatment facilities which may be required to treat highway runoff which would otherwise adversely affect wetlands.

(9) Provide contractual provisions for stopwork orders, project staging, and other specifications pertaining to minimizing impacts on wetlands and to onsite monitoring.

General Conditions:

a. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

b. This permit does not obviate the need to obtain other Federal, State, or local authorizations required by law.

c. This permit does not grant any property rights or exclusive privileges.

d. This permit does not authorize any injury to the property or rights of others.

e. This permit does not authorize interference with any existing or proposed Federal project.

f. In issuing this permit, the Federal Government does not assume any liability for the following:

(1) Damages to the permitted project, or uses thereof, as a result of other permitted or unpermitted activities or from natural causes.

(2) Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.

(3) Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.

(4) Design or construction deficiencies associated with the permitted work.

(5) Damage claims associated with any future modification, suspension, or revocation of this permit.

g. In issuing individual authorizations under this General Permit, the Government shall rely on the information and data which the permittee provides in connection with

the permit application. If, subsequent to the authorization, such information and data prove to be false, incomplete, or inaccurate, this authorization may be modified, suspended, or revoked, in whole or in part, and/or the Government may, in addition, institute appropriate legal proceedings.

h. This office may re-evaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:

(1) Failure to comply with the terms and conditions of this permit.

(2) The information provided in support of a request for authorization proves to have been false, incomplete, or inaccurate (See g. above).

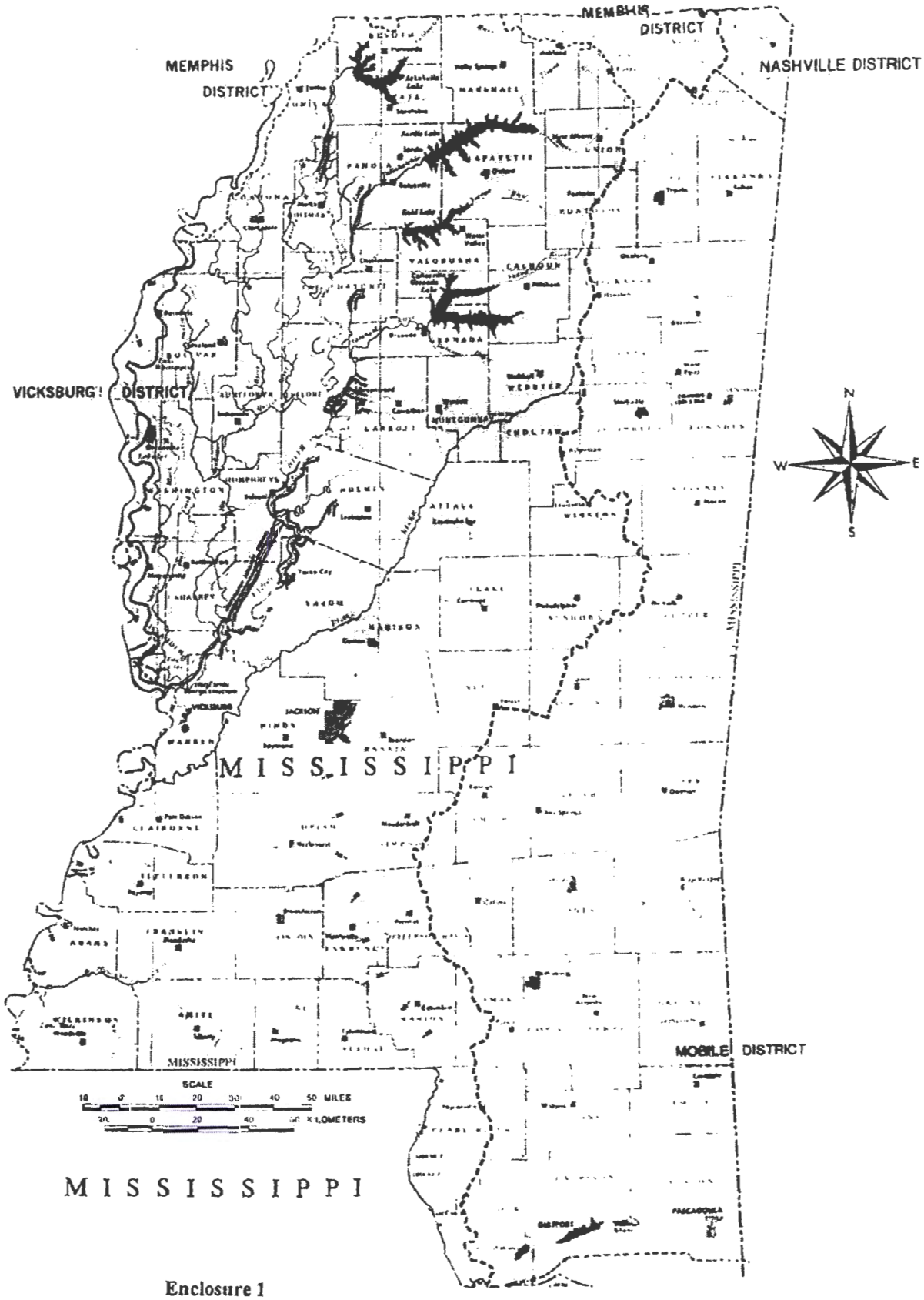
(3) Significant new information surfaces which was not considered in reaching the original public interest decision.

i. The General Permit is valid for 5 years from the date of the issuance. At the end of that time, the cumulative environmental effects of completed work will be reviewed and reissuance of the permit may be considered. However, if unforeseen adverse environmental effects result from the issuance of this General Permit, it may be modified or terminated at any time.

j. Authorization under this General Permit is valid until the General Permit expires. Activities authorized under this General Permit which are under construction, or that are under contract to commence by the expiration of this General Permit, will remain authorized provided the activity is completed within 12 months of the date of expiration.

Cori Carraway

Cori Carraway
Acting Chief, Regulatory Branch



Enclosure 1

(Encl 1)

STATE OF MISSISSIPPI

PHIL BRYANT

GOVERNOR

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

GARY C. RIKARD, EXECUTIVE DIRECTOR

January 30, 2019

Certified Mail No. 7017 0530 0000 5971 7466

Ms. Jennifer Mallard
U.S. Army Corps of Engineers
Vicksburg District
4155 Clay Street
Vicksburg, Mississippi 39183-3435

Dear Ms. Mallard:

Re: U. S. Army Corps of Engineers
Vicksburg District
General Permit 46. MDOT
Warren County
COE No. MVK20180808
WQC No. WQC2018047

Pursuant to Section 401 of the Federal Water Pollution Control Act (33 U. S. C. 1251, 1341), the Office of Pollution Control (OPC) issues this Certification, after public notice and opportunity for public hearing, to the U.S. Army Corps of Engineers, Vicksburg District, an applicant for a Federal License or permit to conduct the following activity:

> U.S. Army Corps of Engineers, Vicksburg District, General Permit 46: Proposed reissuance of a statewide General Permit for the discharge of dredged or fill material in waters of the United States and/or structures or work affecting navigable waters of the United States associated with the construction and stabilization of roadway embankments and bridge abutments. This General Permit would authorize activities such as the repair and stabilization of existing roadway embankments and bridge abutments; the installation of additional traffic lanes to existing roadways; the upgrading of bridges and other stream-crossing structures; and construction along new alignments.
>
> This proposed General Permit contains certain limitations intended to protect the environment and natural and cultural resources. Conformance with conditions contained in the General Permit does not necessarily guarantee authorization under this General Permit. In cases where the District Engineer considers it necessary, an application will be required for an individual permit. Regulated construction, dredging, or fill operations not specifically authorized by this General Permit would be prohibited unless authorized by a separate permit.

General Permits may be issued for a category or categories of activities when: (1) those activities are substantially similar in nature and cause only minimal individual and cumulative environmental impacts; or (2) the General Permit would result in avoiding unnecessary duplication of the regulatory control exercised by another Federal, State, or local agency, provided it has been determined that the environmental consequences of the actions are individually and cumulatively minimal.

In order to be authorized by this General Permit, the Mississippi Department of Transportation would be required to submit to the District Engineer in writing, the following information a minimum of 60 days prior to the proposed bid advertisement date:

a. Statement that the work would be conducted in compliance with the terms and conditions of General Permit 46, would not adversely impact adjoining properties, and would be mitigated for in accordance with the terms of this General Permit.

b. A location map showing the proposed worksite (including Section, Township, Range, and County).

c. A brief description of the proposed worksite in its present condition.

d. For the selected site, a full set of construction plans (including quantities and types of any fill and quantities of any excavation), maps, and engineering drawings for the proposed activity at that site. These shall include a map of sufficient scale that illustrates an "overlay" of the proposed construction/development activity (e.g. construction roads, ditches, parking areas, lay-down pads, temporary work areas, remaining natural areas, etc.) on jurisdictional waters of the U.S.

e. The estimated starting and completion dates of the proposed construction.

f. Name, mailing address, telephone number, and email address of the person acting as the point of contact for the requested authorization.

g. If wetlands or other waters of the U.S. are to be impacted, the following information is required:

    (1) A map delineating the wetlands and other waters of the U.S. and copies of the associated data form(s) for routine wetland determinations from the 1987 Corps of Engineers Wetland

Delineation Manual and its subsequent Regional Supplement Manual(s) covering the proposed project area(s).

(2) The type and date of approval of the NEPA documentation by the FHWA and a copy of their findings as required by Executive Order 11990.

h. A discussion of how adverse impacts to waters of the U.S. from the proposed activity will be avoided and minimized to the maximum extent practicable at the construction site.

i. If the loss or conversion to waters of the United States at a single and complete project site exceeds 0.1 acre, the application shall include a compensatory mitigation plan based on an approved wetland functional assessment methodology. Such recommendations should include copies of all factual information (e.g. worksheets) used in performing the calculations of the functional assessment. (Note: The District Engineer will consider this recommendation; however, the District Engineer retains discretionary authority in making the final decision on compensatory mitigation measures).

j. If impacts to a natural waterway at a single and complete project site exceed 100 linear feet, MDOT would include a compensatory mitigation plan based on an approved stream functional assessment methodology. Such recommendations would include copies of all factual information (e.g. worksheets) used in performing the calculations of the functional assessment. (Note: The District Engineer will consider this recommendation, however, the District Engineer retains discretionary authority in making the final decision on compensatory mitigation measures).

k. Comments from the Mississippi Department of Wildlife, Fisheries and Parks, Mississippi Department of Archives and History (including the results of any National Historic Preservation Act, Section 106, consultation actions), United States Fish and Wildlife Service (including the results of any Endangered Species Act, Section 7, consultation actions), and the Mississippi Department of Environmental Quality on the project.

l. Concurrence in writing from the Mississippi Department of Marine Resources (related to the Coastal Zone Management Act) and the National Marine Fisheries Service (including the results of any Magnuson-Steven Fisheries Conservation and Management Act, essential fish habitat consultation actions) if the project is located in

Hancock, Harrison, or Jackson County, Mississippi. (See Special Condition h. below).

Upon receipt of this information the District Engineer will: advise MDOT, in writing, either that the work will be evaluated for authorization under the General Permit 46; will request additional information, if needed; or will advise MDOT that the proposed activity will be evaluated as an individual permit.

Special Conditions of the General Permit:

a. No more than 7 acres of wetlands and other waters would be directly impacted by the placement of fill at each single and complete crossing of a water of the United States where the proposed work involves either upgrading an existing highway within an established corridor or where the work is to be constructed along a new alignment. Any wetlands cut off from their natural hydrologic regime as a result of project work would be considered as directly impacted.

b. For stream or river crossings, discharges of permanent fill material and temporary fill material would be the minimum necessary to complete the crossing. The term fill refers to earthen material, riprap, concrete, and any other materials associated with the work.

c. The stabilization or construction work would not interfere with navigation (including recreational boating) or adversely impact the flow-carrying capacity of the affected waterbody.

d. Material to be used for fill must be nonpolluting and may be obtained either offsite or from site preparation. Offsite material would not be obtained from wetlands outside the 7-acre limit or from other areas which may adversely affect adjacent wetlands. Any excess material would be placed in an upland area and properly contained or stabilized to prevent entry into adjacent water-bodies or wetlands.

e. Disturbed areas on the site would be stabilized to minimize erosion. Stabilization of erodible areas would be accomplished by seeding or sodding as soon as practicable to restore vegetative cover. If initial re-vegetation is unsuccessful, the area would be reseeded or re-sodded until re-vegetation is successful. In areas subject to currents, riprap may be required for slope protection.

f. No activity that may adversely affect a site listed in or eligible for listing in the National Register of Historic Places would be authorized by this General Permit until the requirements of Section 106 of the National Historic Preservation Act have been satisfied. Additional material would not be taken from a known historical or archaeological site. If you discover any previously

unknown historic, cultural or archeological remains and artifacts while accomplishing the activity authorized by this permit, you must immediately notify the District Engineer of what you have found, and to the maximum extent practicable, avoid construction activities that may affect the remains and artifacts until the required coordination has been completed. The District Engineer will initiate the Federal, Tribal, and state coordination required to determine if the items or remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

g. The work would not occur in a National Wildlife Refuge, State Game Management Area, or other such Federal or State lands, or lands leased to those entities without the appropriate Federal or State authorization in writing.

h. For work within the Mississippi Coastal Zone Management Area, including all areas below Interstate I-10, a set of complete plans would be sent to the two agencies listed below for review and/or approval as appropriate. Comments and concurrence resulting from this coordination would be submitted with the request for authorization under this General Permit.

1. Mississippi Department of Marine Resources
   1141 Bayview Avenue
   Suite 101
   Biloxi, Mississippi 39530

2. National Marine Fisheries Service
   Southeast Regional Office
   Protected Resources
   Attention: Ms. Karla Reece
   263 13th Avenue S.
   St. Petersburg, Florida 33701
   Email: Karla.reece@noaa.gov

3. National Marine Fisheries Service
   Room 266, Military Science Building
   Attention: Mr. Brandon Howard
   South Stadium Drive
   La. State University
   Baton Rouge, Louisiana 70803-7535

i. All temporary fills must consist of non-erodible material or be protected to prevent erosion.

j. Any materials used for temporary structures such as cofferdams, equipment pads, or temporary crossings, would be removed as soon as practicable, and the waterway would be restored to preconstruction contours.

k. Disturbance to riparian vegetation would be kept to a minimum during construction.

l. No activity shall be authorized under this General Permit which would likely directly or indirectly jeopardize the continued existence of a Federally-listed threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which would likely directly or indirectly destroy or adversely modify the critical habitat of such species. No activity shall be authorized under this General Permit which "may affect" a listed species or critical habitat, unless Section 7 consultation addressing the effects of the proposed activity has been completed. No activity shall be authorized under this General Permit which "may affect" essential fish habitat as identified under Magnuson-Stevens Fishery Conservation and Management Act, unless essential fish habitat consultation addressing the effects of the proposed activity has been completed.

m. Discharges would not restrict or impede the movement of aquatic species indigenous to the waters.

n. All work would be performed in a manner that would minimize increased turbidity of the water in the project area and otherwise avoid adverse effects on water quality and aquatic life especially during fish spawning season. This may require avoiding construction activities during the peak spawning months of April, May, and June.

o. The discharge would not adversely affect a public water supply intake or a National or State Fish Hatchery intake.

p. The discharge would not contain unacceptable levels of pathogenic organisms (as prescribed in standards set by the Mississippi Department of Environmental Quality) in areas used for water-contact sports.

q. The construction activity would not result in the permanent diversion or relocation of a stream or a river channel except where needed to align a waterway crossing to avoid potential damage to the roadway. In no case, would any realignment extend beyond 150 feet upstream and 150 feet downstream from the centerline of a crossing structure. The construction activity would result in neither stream flow impediment nor drain adjacent wetlands.

r. Authorizations under this General Permit would be valid for five (5) years from the date of the authorizing letter.

2. Prior to the start of construction activities, coverage under a Stormwater Construction General NPDES Permit shall be obtained. No construction activities shall begin until such approvals are obtained.

3. Extreme care shall be taken to prevent the permanent restriction or impedance of water flow. Pre-construction hydrology shall be maintained.

4. All stream impacts (including streams identified as ephemeral by the U.S. Army Corps of Engineers and described as non-relatively permanent waters) shall be mitigated in kind with stream mitigation elements. In the event that stream mitigation is not available and alternate mitigation proposals are provided, a pre-construction notification shall be provided to MDEQ and 10 working days shall be allowed to provide comments.

5. A pre-construction notification shall be provided to MDEQ for projects that include channel work within waterways found on the latest version of the State of Mississippi's Section 303(d) List of Impaired Water Bodies for sediment or biological impairment or waterways with a completed Total Maximum Daily Load (TMDL) for sediment or biological impairment. This notification shall include the following:

    a. Justification of why the impacts cannot be avoided;

    b. Proposed best management practices that would minimize the impacts to receiving sensitive waters; and

    c. Compensatory mitigation primarily along the same reach of stream or on another impaired stream within the same drainage basin.

6. The turbidity outside the limits of a 750-foot mixing zone shall not exceed the ambient turbidity by more than 50 Nephelometric Turbidity Units.

7. No sewage, oil, refuse, or other pollutants shall be discharged into the watercourse.

The Office of Pollution Control also certifies that there are no limitations under Section 302 nor standards under Sections 306 and 307 of the Federal Water Pollution Control Act which are applicable to the applicant's above-described activity.

This certification is valid for the project as proposed. Any deviations without proper modifications and/or approvals may result in a violation of the 401 Water Quality Certification. If we can be of further assistance, please contact us.

Sincerely,

Krystal Rudolph

Krystal Rudolph, P.E., BCEE
Chief, Environmental Permits Division

KR: chb

cc: Tony Lobred, U.S. Army Corps of Engineers, Vicksburg District
Willa Brantley, Department of Marine Resources
David Felder, U.S. Fish and Wildlife Service
Molly Martin, Environmental Protection Agency