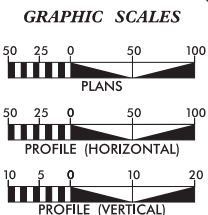
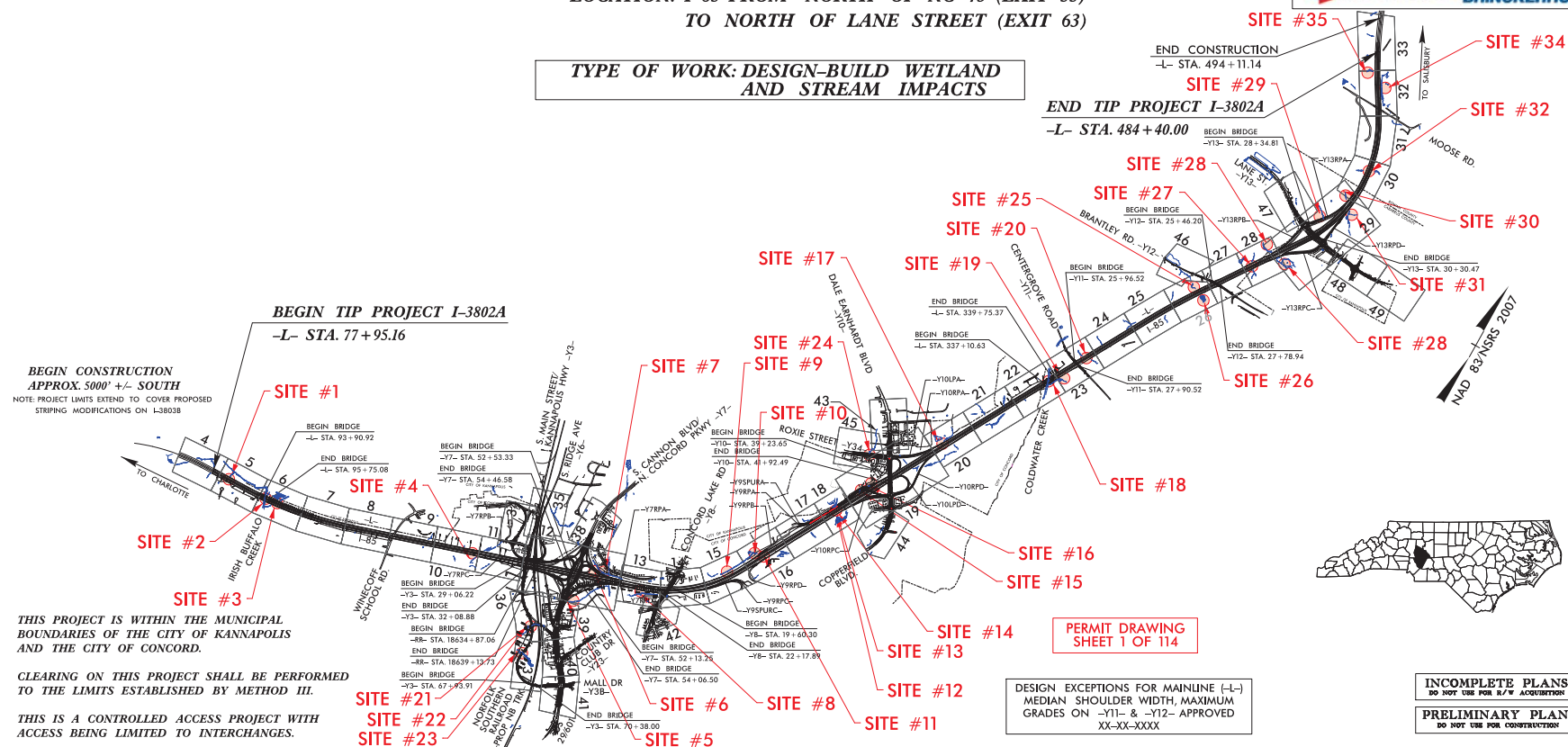


CONTRACT: C203328

CABARRUS & ROWAN COUNTIES

TYPE OF WORK: DESIGN-BUILD WETLAND AND STREAM IMPACTS

[illegible]

DESIGN DATA

ADT 2008 = 89,000
ADT 2035 = 193,000
D/HV = 8 %
D = 55 %
T = 19 % *
V = 70 MPH

*(TTST 14 + DUAL 5)

FUNCTIONAL CLASSIFICATION:
INTERSTATE
STATEWIDE TIER

PROJECT LENGTH

LENGTH OF ROADWAY TIP PROJECT I-3802A = 7.613 mi

LENGTH OF STRUCTURES TIP PROJECT I-3802A = 0.085 mi
(BRIDGES MEASURED FROM PROJECTED CENTERLINE STATION)

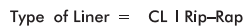
TOTAL LENGTH OF TIP PROJECT I-3802A = 7.698 mi

K ZAK HAMIDI, PE
DESIGN BUILD PROJECT ENGINEER -

NCDOT CONTACT:

Prepared In The Office of: PARSONS BRINCKERHOFF FOR THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION		121 WEST TRADE STREET SUITE 1950 CHARLOTTE, NC 28202 NC LIC. NO. F-0165
2012 STANDARD SPECIFICATIONS		
RIGHT OF WAY: APRIL 3, 2014	DANIEL H. BRIDGES, PE DESIGN PROJECT MANAGER	
LETTING DATE: APRIL 3, 2014	DAVID B. GOURLEY, PE PROJECT DESIGN ENGINEER	

HYDRAULICS ENGINEER	
SIGNATURE _____	P.E. _____
ROADWAY DESIGN ENGINEER	
SIGNATURE _____	P.E. _____



DENOTES TEMPORARY
 IMPACTS IN SURFACE WATER
 DENOTES IMPACTS IN
 SURFACE WATER



NAD 83/NRS 2007

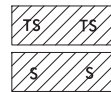
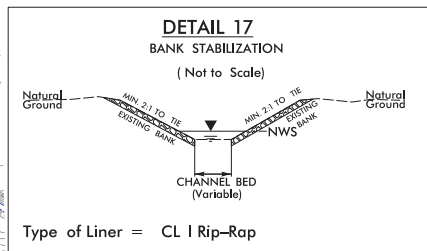


WATCHLINE SHEET 6 -L- STA. 93+00

8/17/09

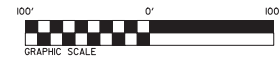
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PARSONS BRINCKERHOFF

MATCHLINE SHEET 4 -L- STA. 80 + 00



TS TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER

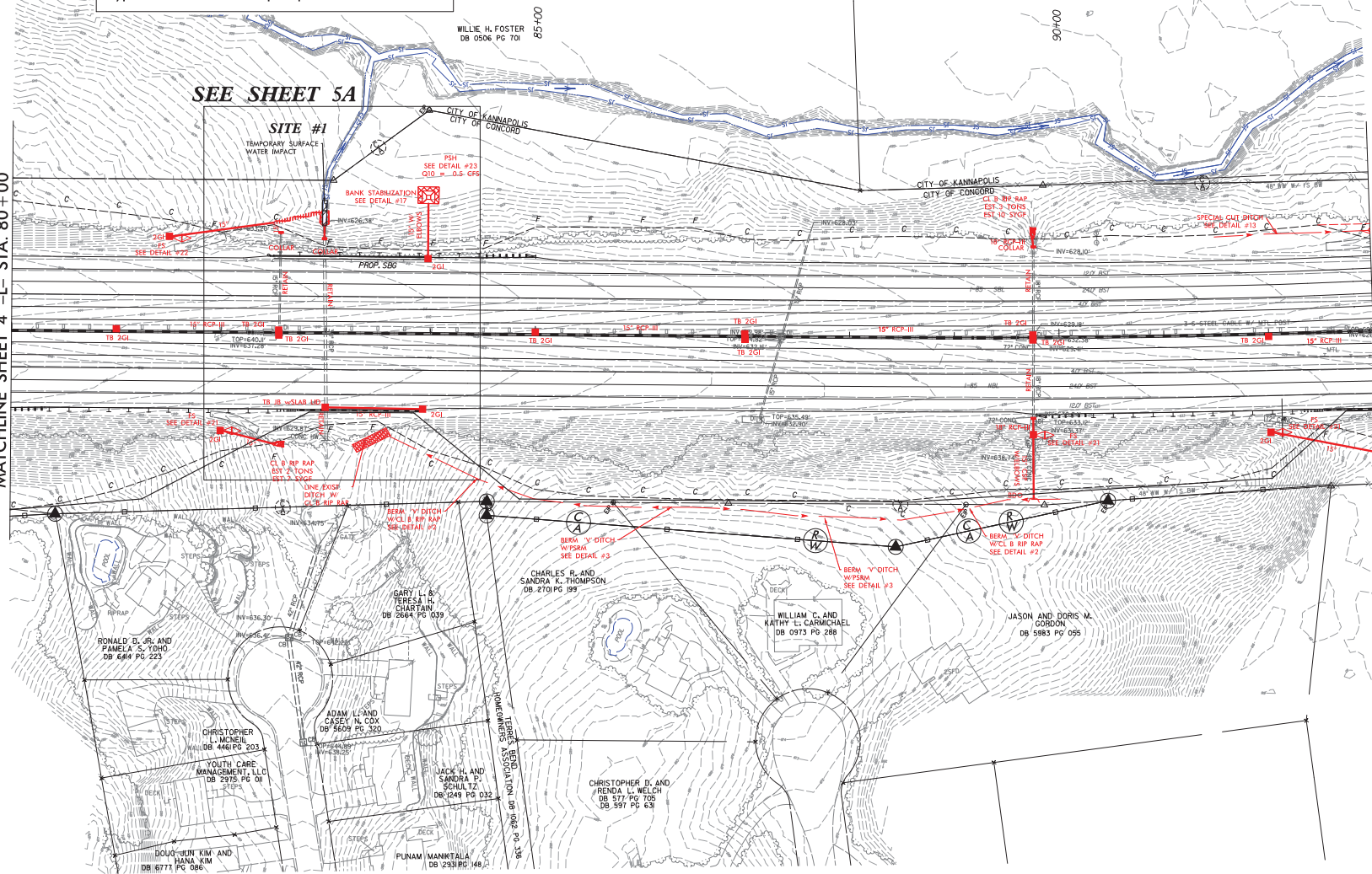
S S DENOTES IMPACTS IN SURFACE WATER



PERMIT DRAWING
SHEET 3 OF 114

NAD 83 NRS 2007

PROJECT REFERENCE NO.		SHEET NO.	
I-3802A		5	
RW SHEET NO.		HYDRAULICS ENGINEER	
ROADWAY DESIGN ENGINEER			
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION			

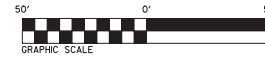


MATCHLINE SHEET 6 -L- STA. 93 + 00

8/17/09

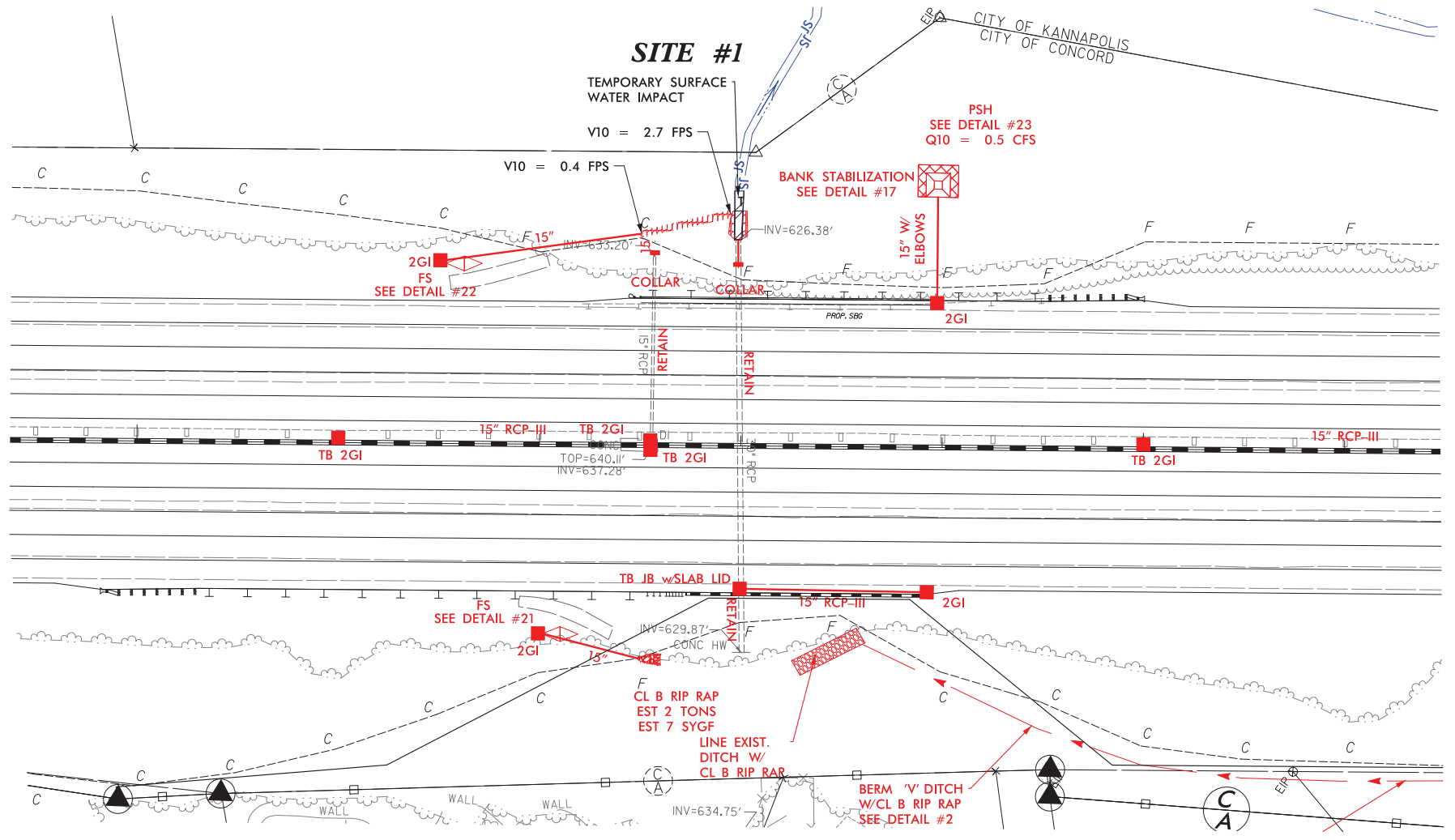
PERMIT DRAWING
SHEET 4 OF 114

TS TS
S S
DENOTES TEMPORARY
IMPACTS IN SURFACE WATER
DENOTES IMPACTS IN
SURFACE WATER



NAD 83 NSRS 2007

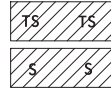
PROJECT REFERENCE NO. I-3802A	SHEET NO. 5A
RW SHEET NO. ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	
BLYTHE PARSONS BRINCKERHOFF	



I:\3802A\I-3802A\Hydraulics\PERMITS\Environmental\Drawings\sh-wc\contours\3802a-rdy-pah\B5A.dgn
PARSONS BRINCKERHOFF

8/17/99

PERMIT DRAWING
SHEET 5 OF 114



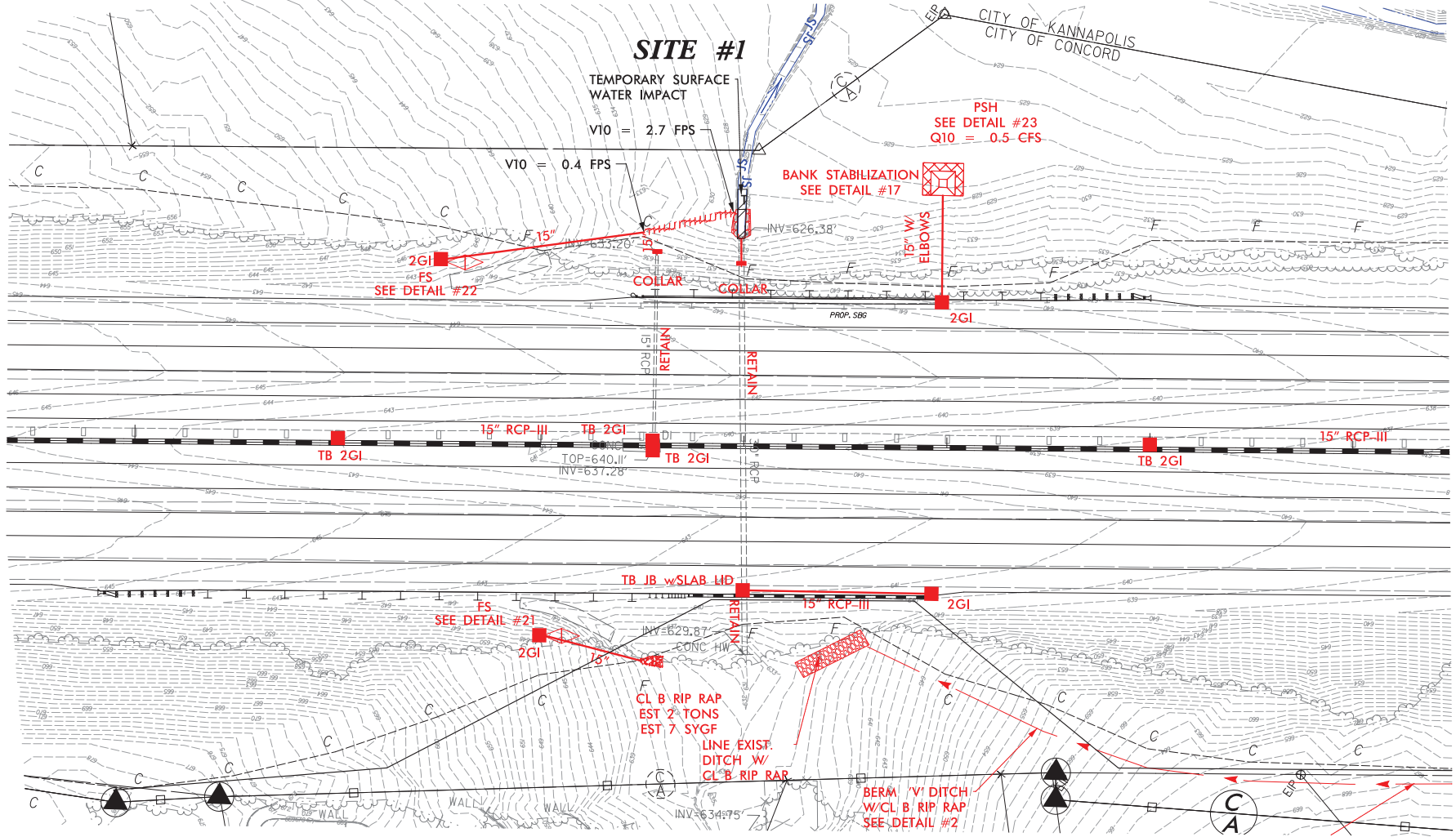
DENOTES TEMPORARY
IMPACTS IN SURFACE WATER

DENOTES IMPACTS IN
SURFACE WATER



NAD 83/NSRS 2007

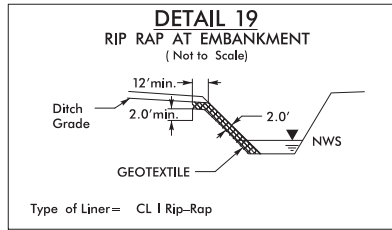
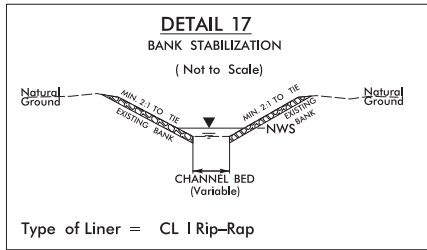
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R/W SHEET NO. ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	
BLYTHE PARSONS BRINCKERHOFF	



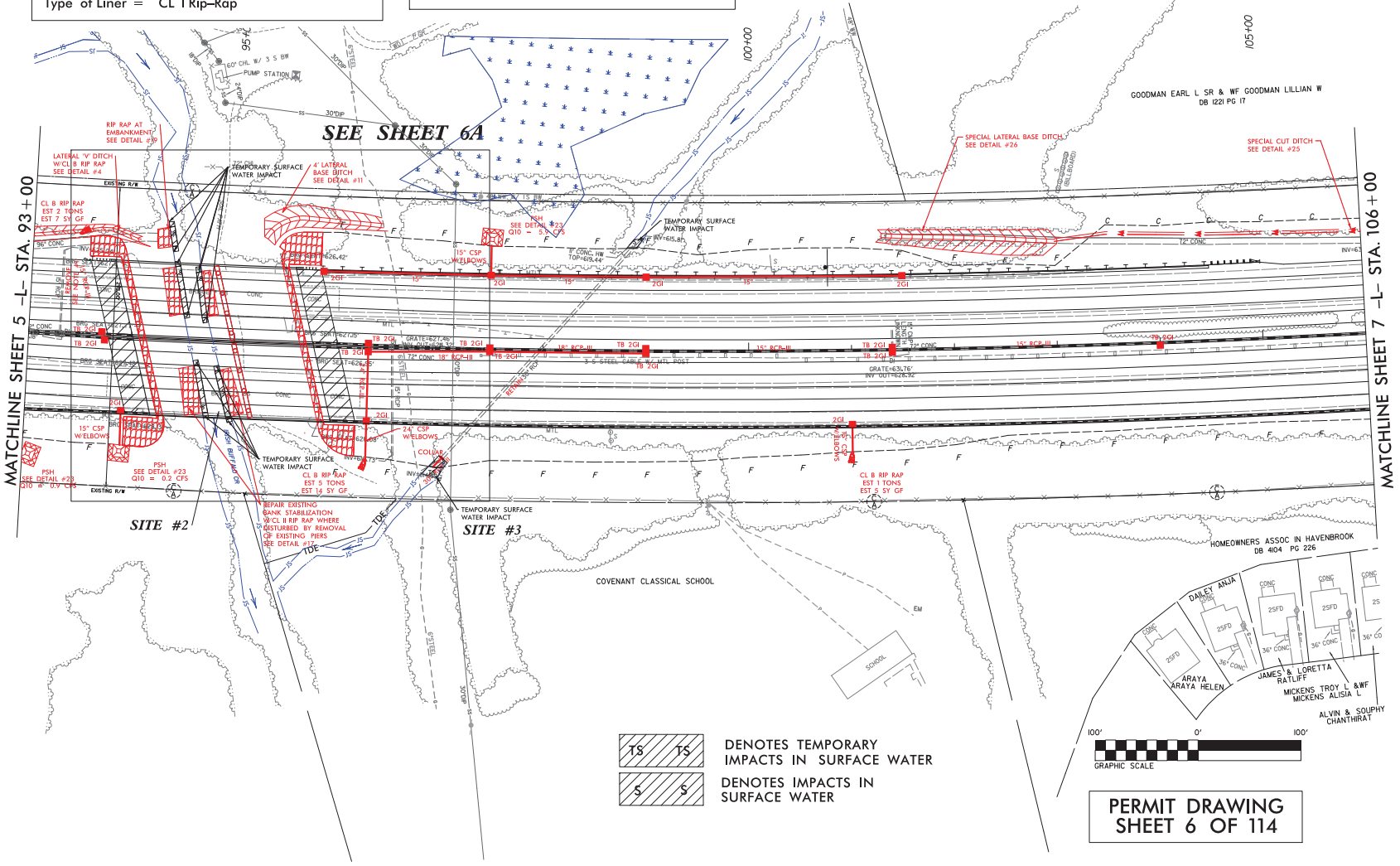
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PARSONS BRINCKERHOFF

8/17/09

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PROJECT REFERENCE NO.		SHEET NO.	
I-3802A		6	
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION			
BLYTHE		PARSONS BRINCKERHOFF	



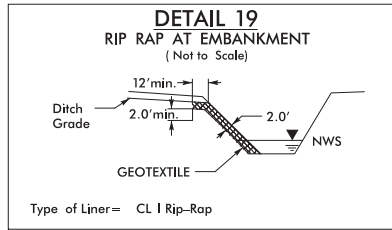
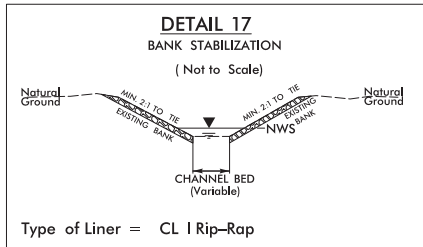
TS TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER

S S DENOTES IMPACTS IN SURFACE WATER

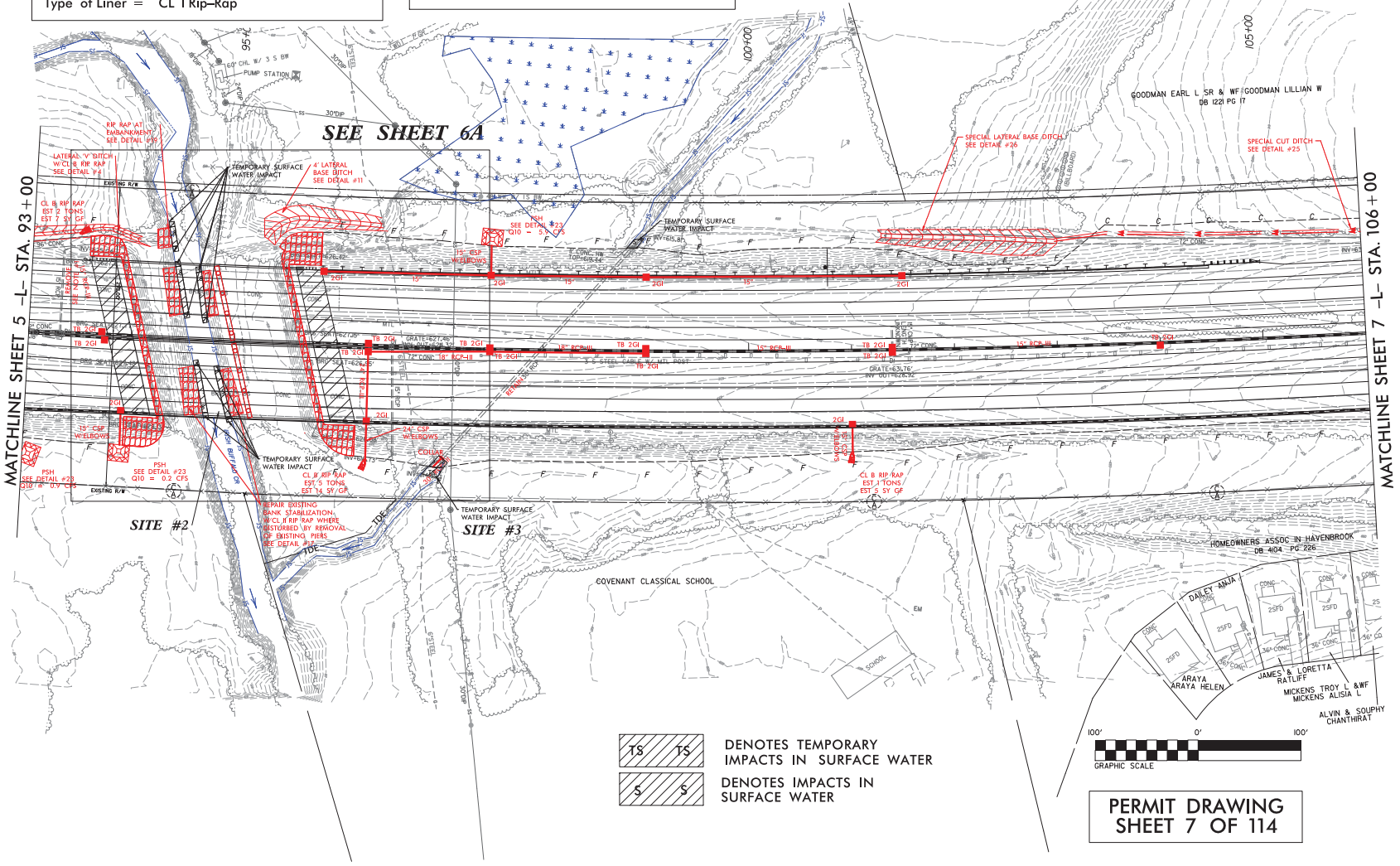


8/17/09

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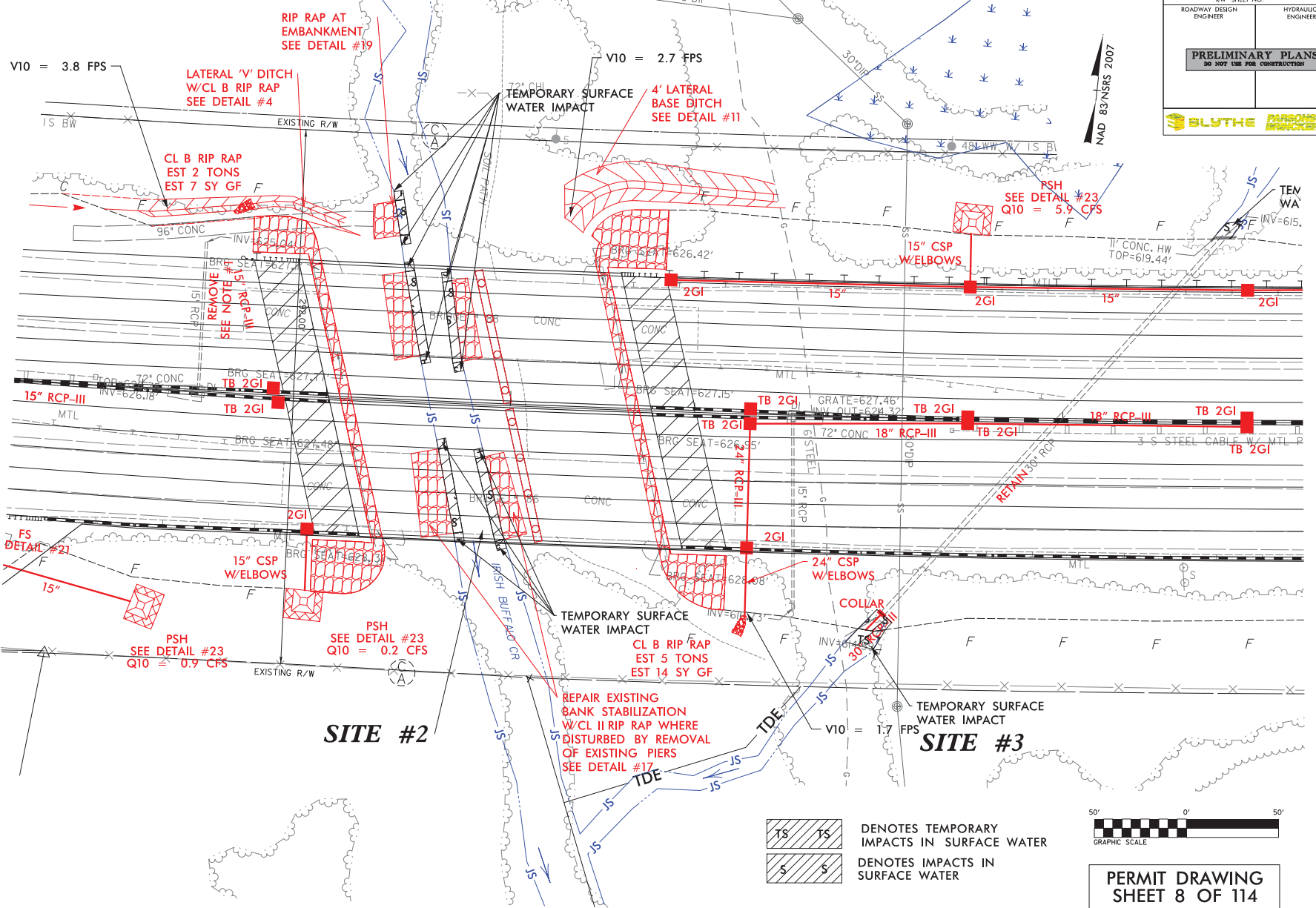
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RW SHEET NO.		HYDRAULICS ENGINEER	
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION			
SLYTHE		PARSONS BRINCKERHOFF	



8/17/09

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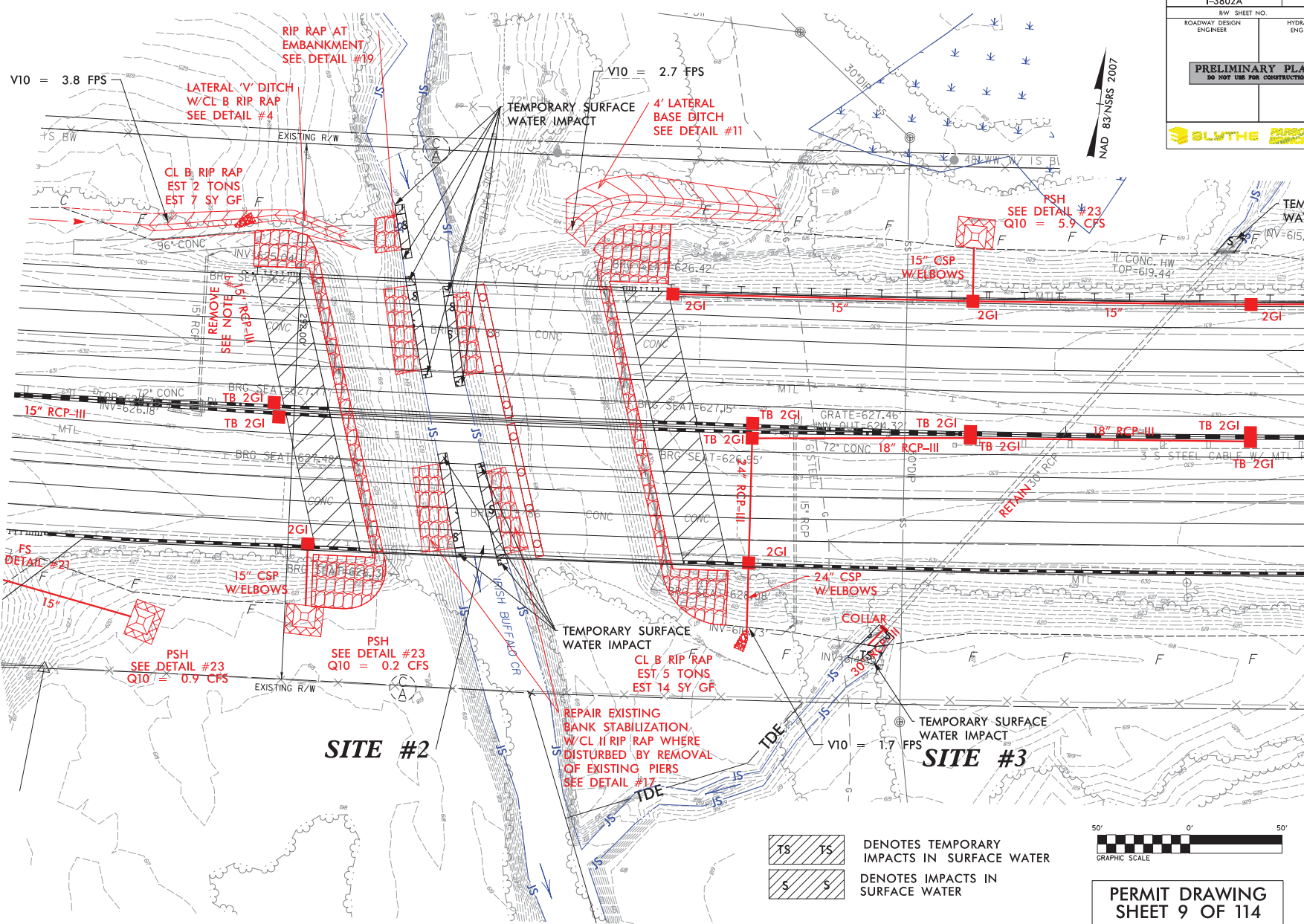
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I-3802A		6A	
RW SHEET NO.		HYDRAULICS	
ROADWAY DESIGN ENGINEER		ENGINEER	
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION			



**PERMIT DRAWING
SHEET 8 OF 114**

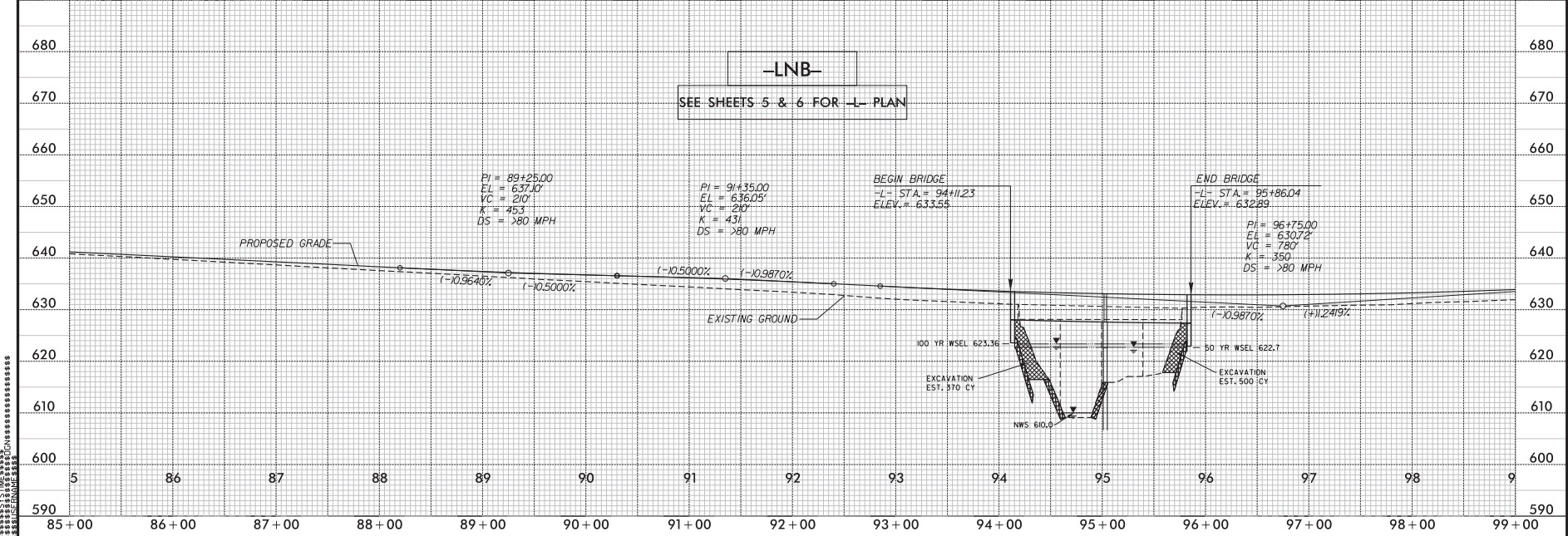
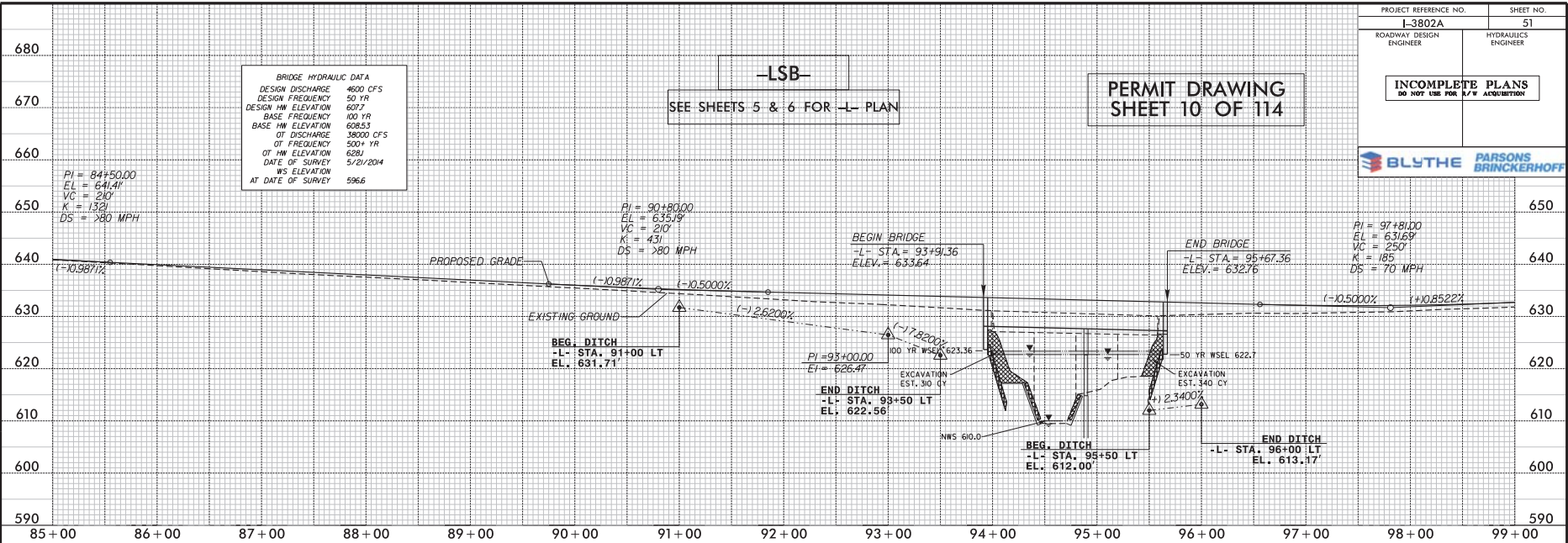
8/17/09

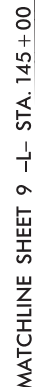
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I-3802A		6A	
RW SHEET NO.		HYDRAULICS	
ROADWAY DESIGN ENGINEER		ENGINEER	
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION			



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5/28/24



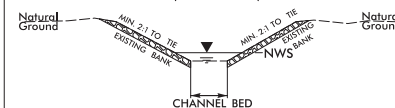


WATCHLINE SHEET 11 - STA. 158+00

PERMIT DRAWING
SHEET 11 OF 114

 DENOTES TEMPORARY IMPACTS IN SURFACE WATER
 DENOTES IMPACTS IN SURFACE WATER

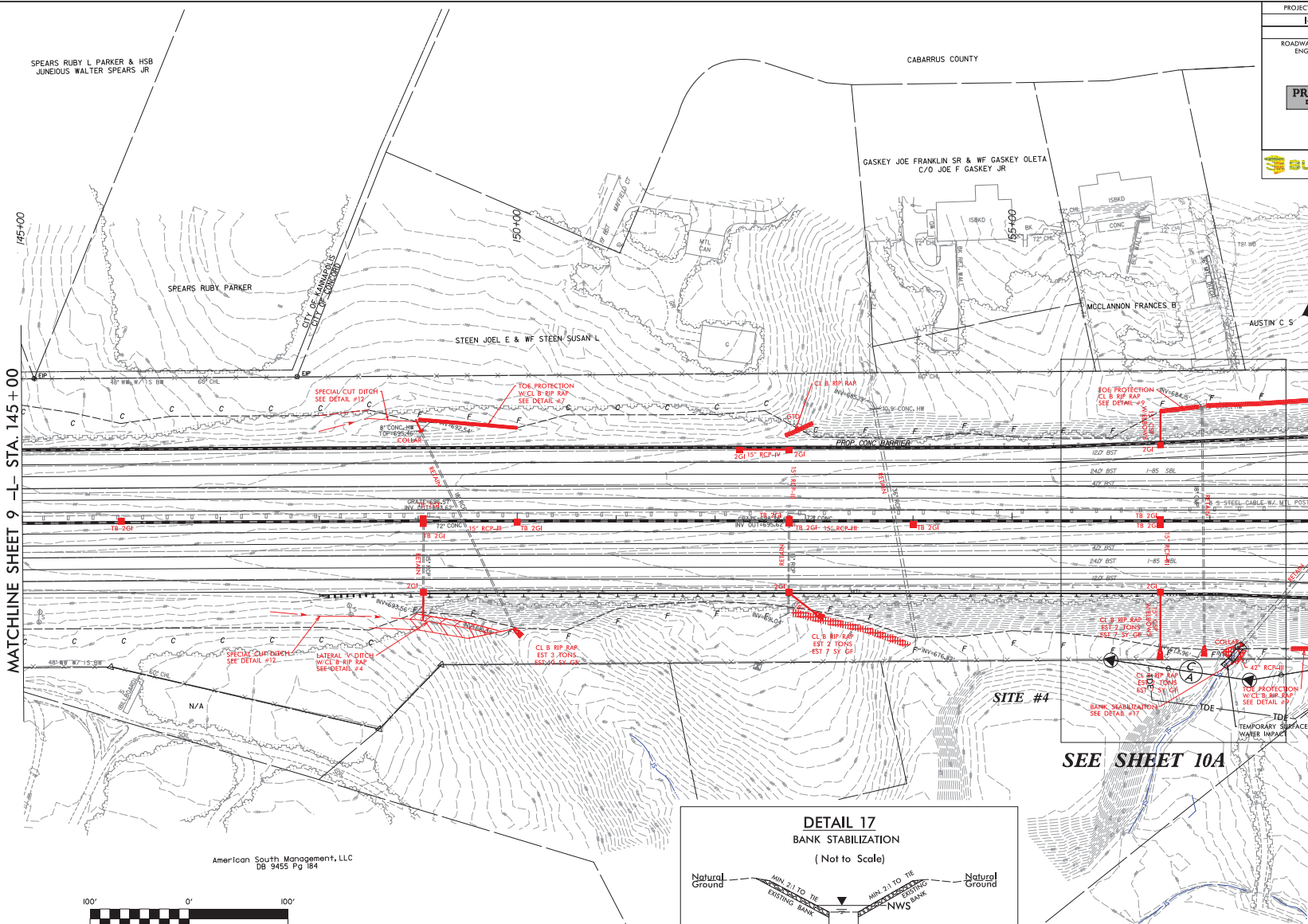
DETAIL 17
BANK STABILIZATION
(Not to Scale)



Type of Liner = CL I Rip-Rap

8/17/09

1/24/2010 1:38:02 PM I:\3802A\Hydraulics\PERMITS\Environmental\Drawings\ash-contour\13802a_rdy_pah18.dgn

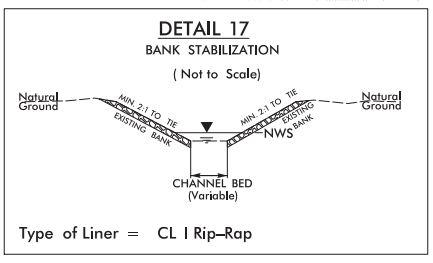


PERMIT DRAWING
SHEET 12 OF 114

TS TS
S S

DENOTES TEMPORARY
IMPACTS IN SURFACE WATER

DENOTES IMPACTS IN
SURFACE WATER



PROJECT REFERENCE NO.		SHEET NO.	
I-3802A		10	
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION			

NAD 83 NRS 2007

MATCHLINE SHEET 9 -L- STA. 145+00

MATCHLINE SHEET 11 -L- STA. 158+00

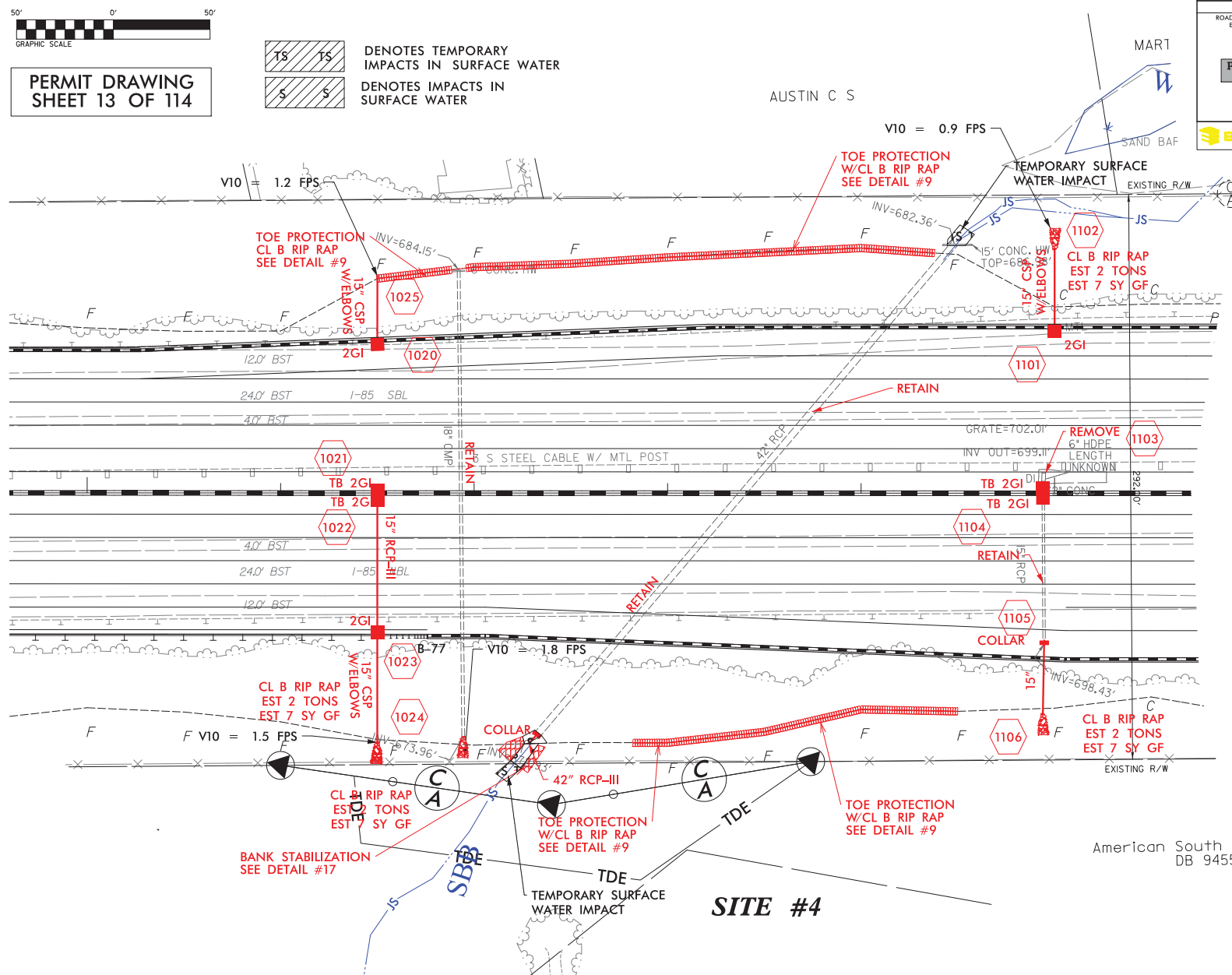
SEE SHEET 10A

LOUKOS CHRISTOPHER A



TS TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER

S S DENOTES IMPACTS IN SURFACE WATER



American South M
DB 9455

SITE #4



 DENOTES TEMPORARY IMPACTS IN SURFACE WATER
 DENOTES IMPACTS IN SURFACE WATER



DENOTES FILL IN
WETLAND

DENOTES HAND
CLEARING

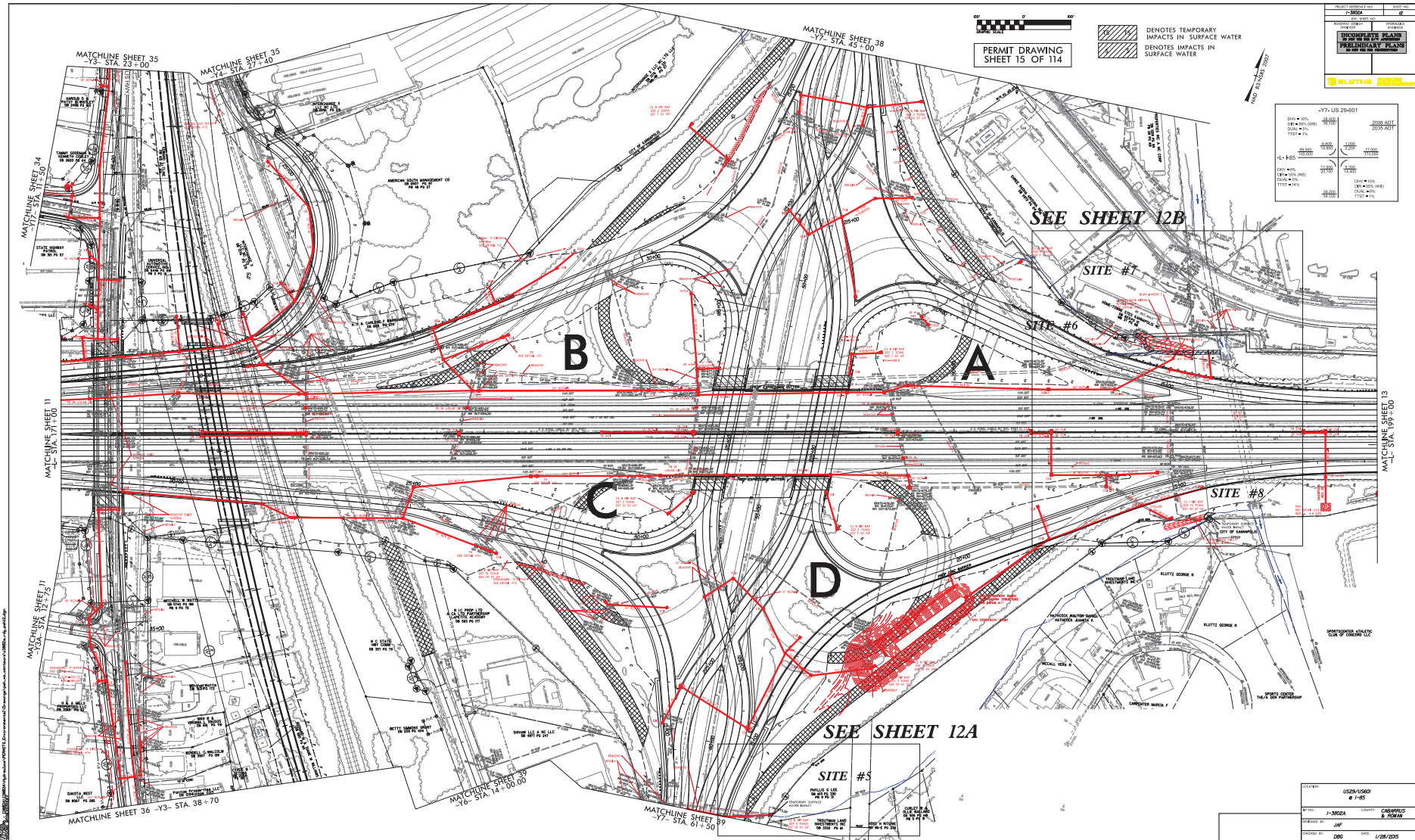
DENOTES TEMPORARY
IMPACTS IN SURFACE WATER

DENOTES IMPACTS IN
SURFACE WATER

PERMIT DRAWING
SHEET 15 OF 114

PROJECT NUMBER: 02	SHEET NO: 15
PROJECT NAME: I-405/US 101	DATE: 1/28/2015
PROJECT LOCATION: SAN DIEGO COUNTY, CALIFORNIA	PROJECT TYPE: HIGHWAY
SHEET TITLE: PERMIT DRAWING	
SHEET NUMBER: 15 OF 114	

-Y7- US 28-501	
DATE: 1/28/2015	DATE: 1/28/2015
BY: JWF	BY: JWF
CHECK: JWF	CHECK: JWF
DATE: 1/28/2015	DATE: 1/28/2015
BY: JWF	BY: JWF
CHECK: JWF	CHECK: JWF
DATE: 1/28/2015	DATE: 1/28/2015
BY: JWF	BY: JWF
CHECK: JWF	CHECK: JWF
DATE: 1/28/2015	DATE: 1/28/2015
BY: JWF	BY: JWF
CHECK: JWF	CHECK: JWF



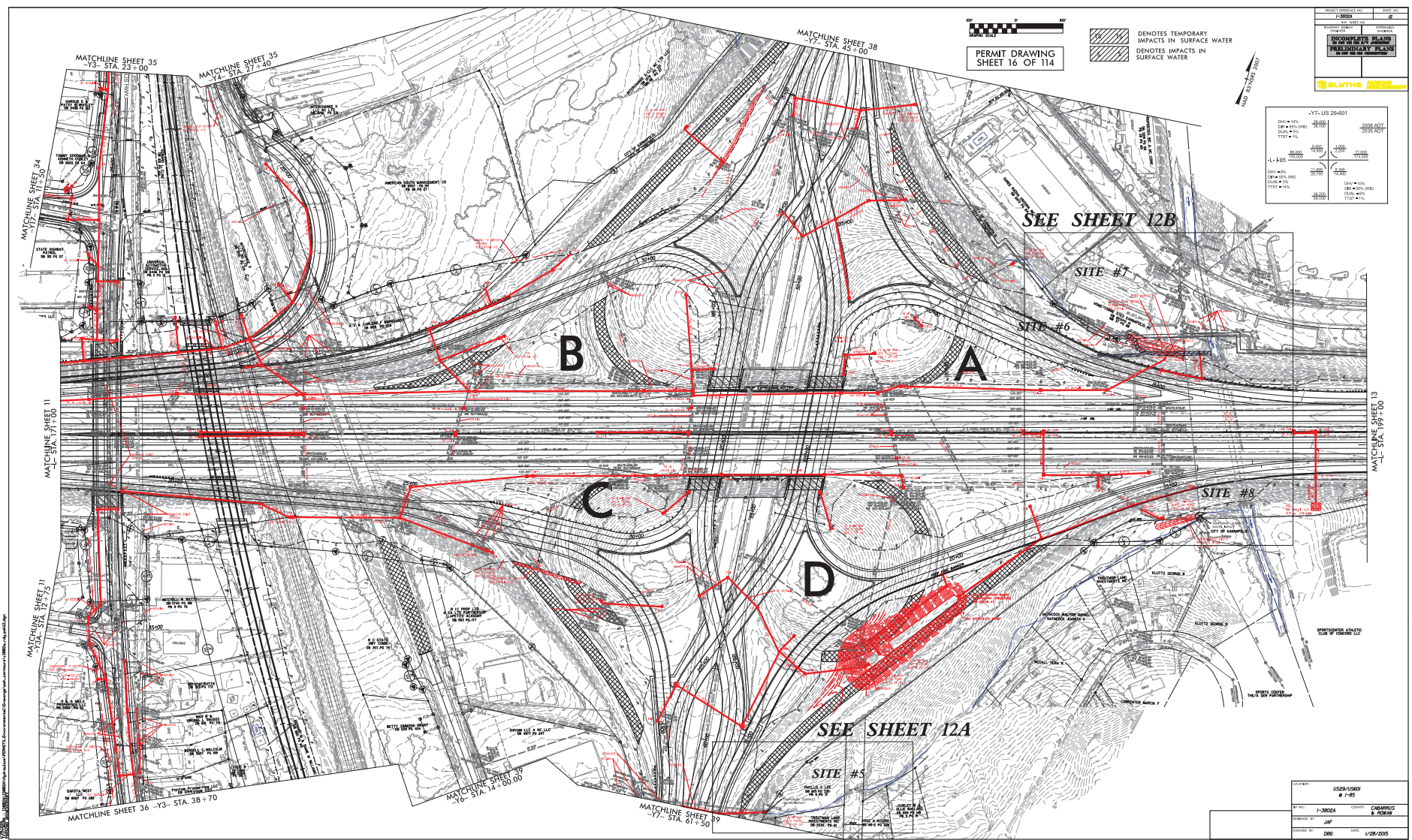
 DENOTES FILL IN WETLAND
 DENOTES HAND CLEARING

 DENOTES TEMPORARY IMPACTS IN SURFACE WATER
 DENOTES IMPACTS IN SURFACE WATER

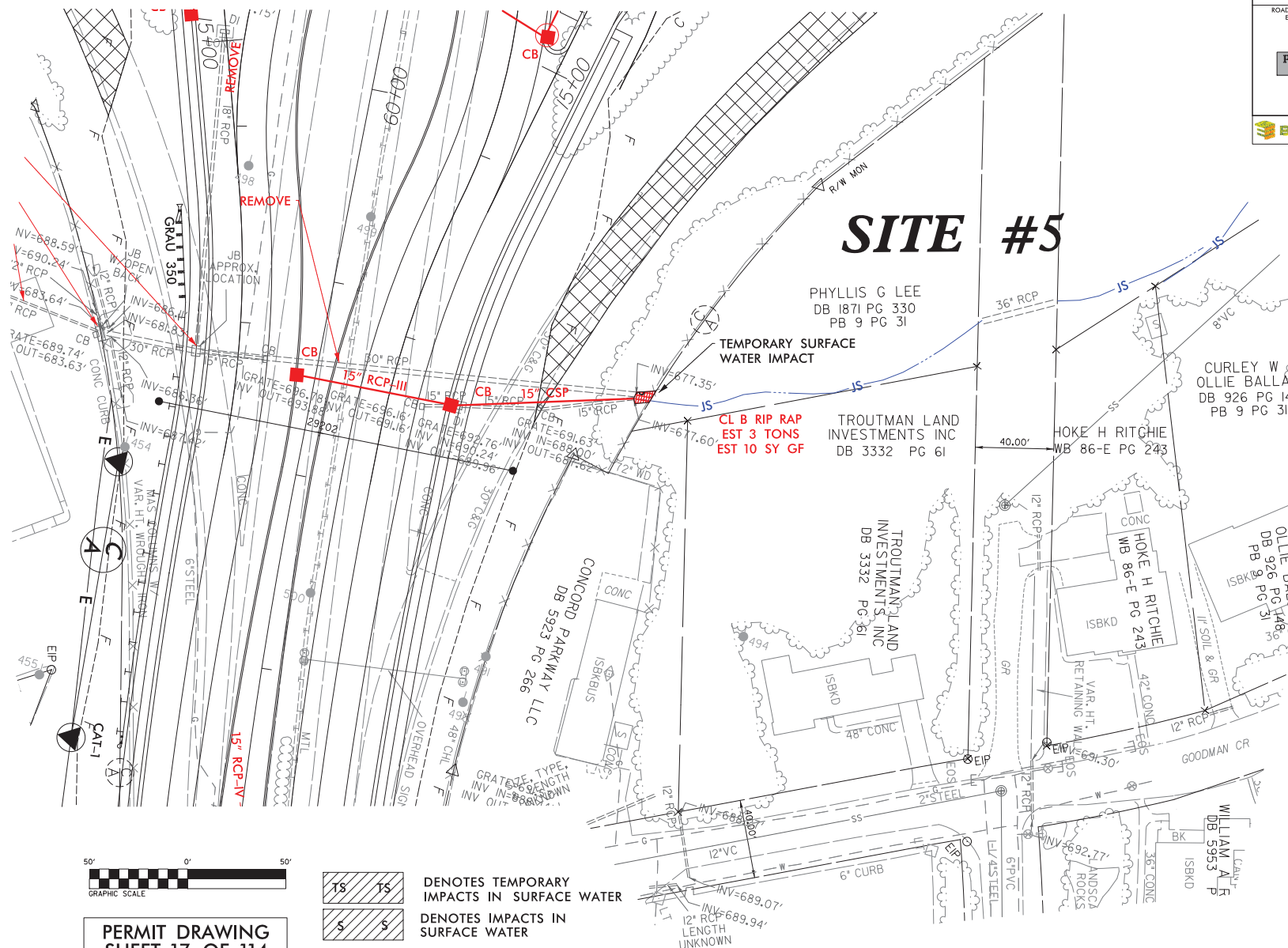
1" = 400'
 PERMIT DRAWING
 SHEET 16 OF 114

PROJECT NUMBER: 02	SHEET NO: 16
PROJECT NAME: I-77/US 29 INTERCHANGE	DATE: 1/14/2015
DESIGNER: BLUTHI	PROJECT: I-77/US 29 INTERCHANGE
DRAWN BY: JWF	CHECKED BY: JWF
DATE: 1/14/2015	DATE: 1/14/2015

I-77/US 29-001	
DATE: 1/14/2015	DATE: 1/14/2015
DESIGNER: BLUTHI	PROJECT: I-77/US 29 INTERCHANGE
DRAWN BY: JWF	CHECKED BY: JWF
DATE: 1/14/2015	DATE: 1/14/2015



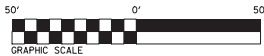
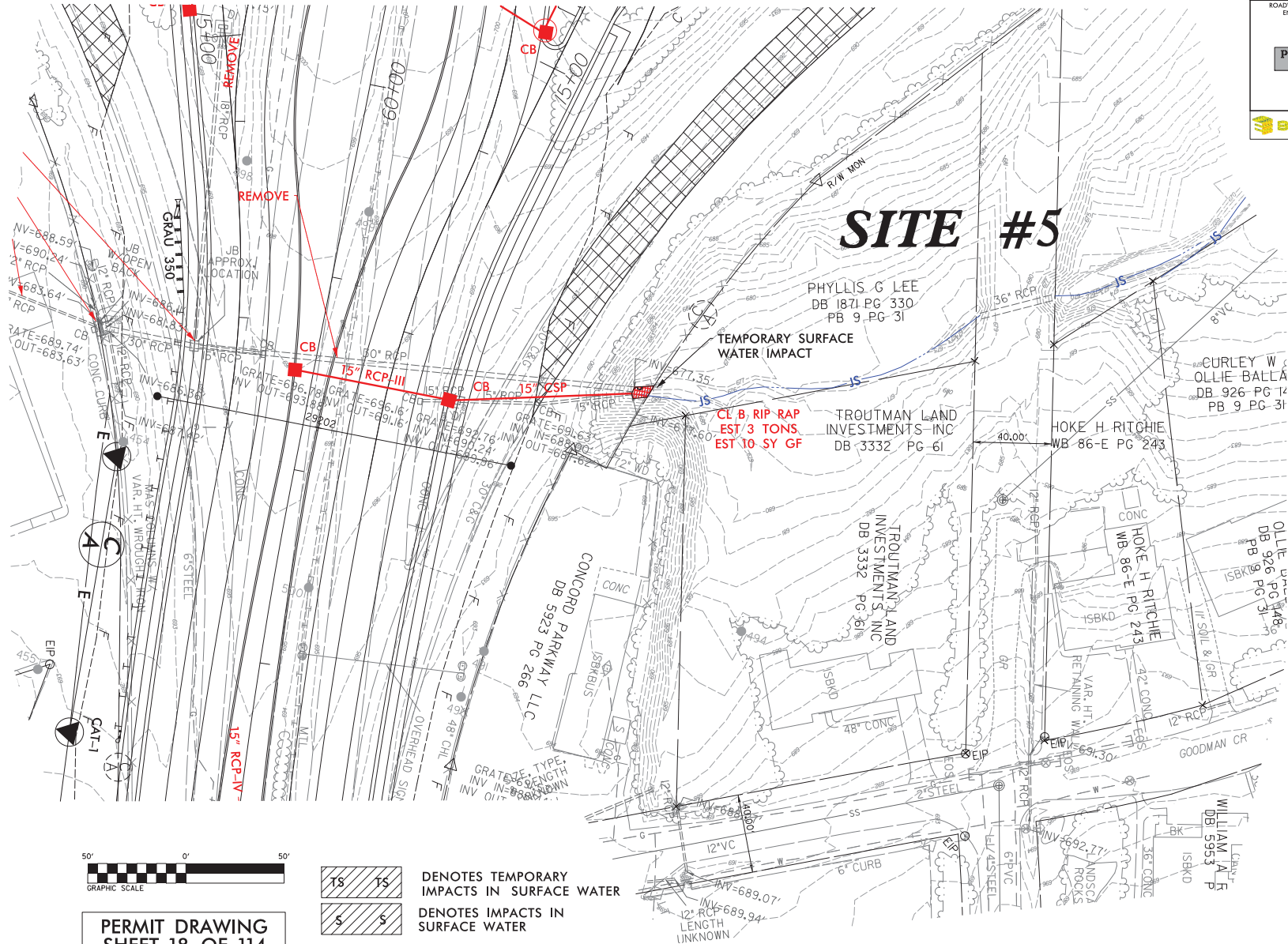
DESIGNER: BLUTHI	PROJECT: I-77/US 29 INTERCHANGE
DRAWN BY: JWF	CHECKED BY: JWF
DATE: 1/14/2015	DATE: 1/14/2015



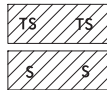
8/17/09

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PROJECT REFERENCE NO.		SHEET NO.	
I-3802A		12A	
RW SHEET NO.		HYDRAULICS	
ROADWAY DESIGN ENGINEER		ENGINEER	
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION			
BLTHE		PARSONS BRINCKERHOFF	



PERMIT DRAWING
SHEET 18 OF 114



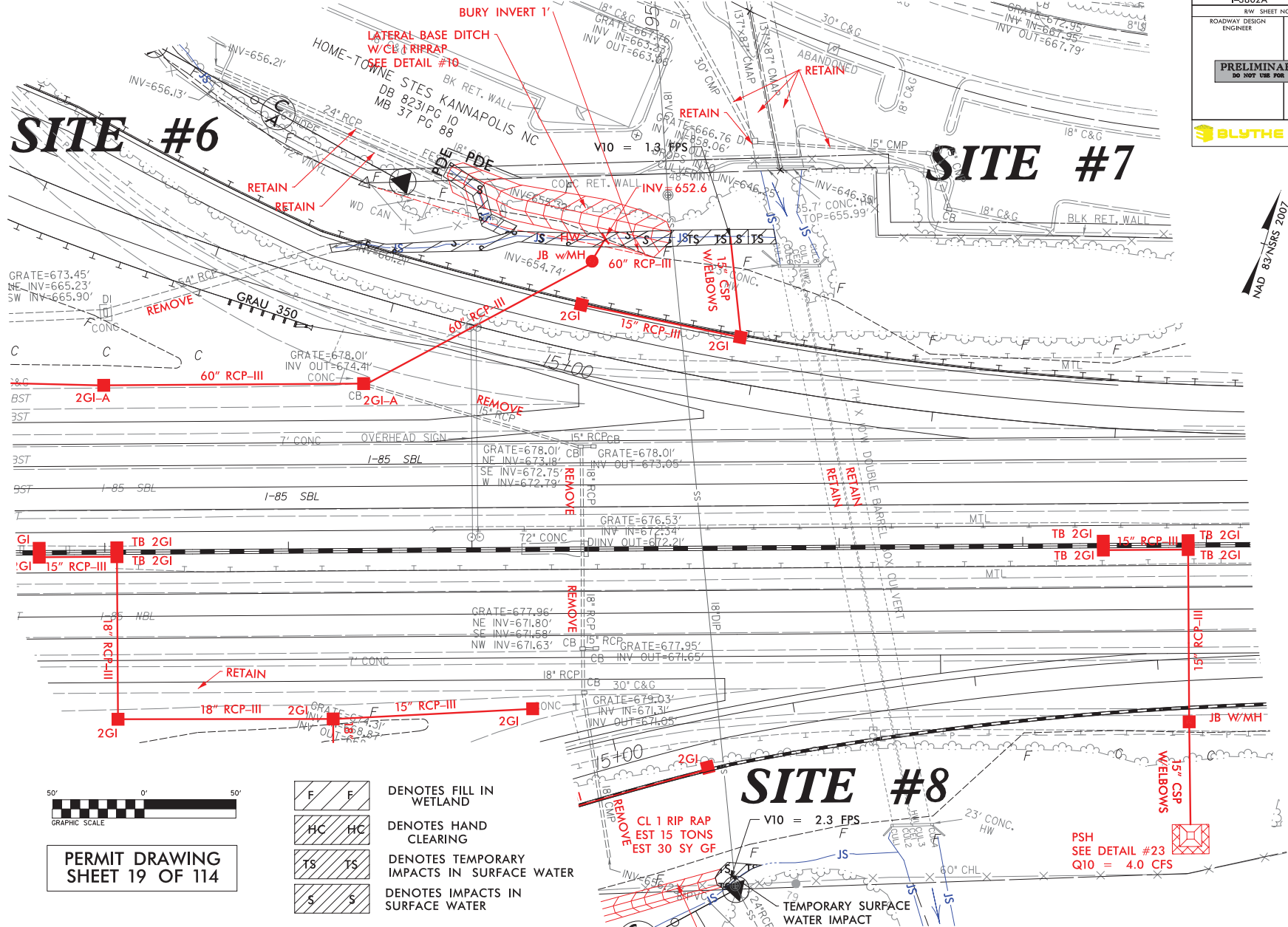
DENOTES TEMPORARY
IMPACTS IN SURFACE WATER

DENOTES IMPACTS IN
SURFACE WATER

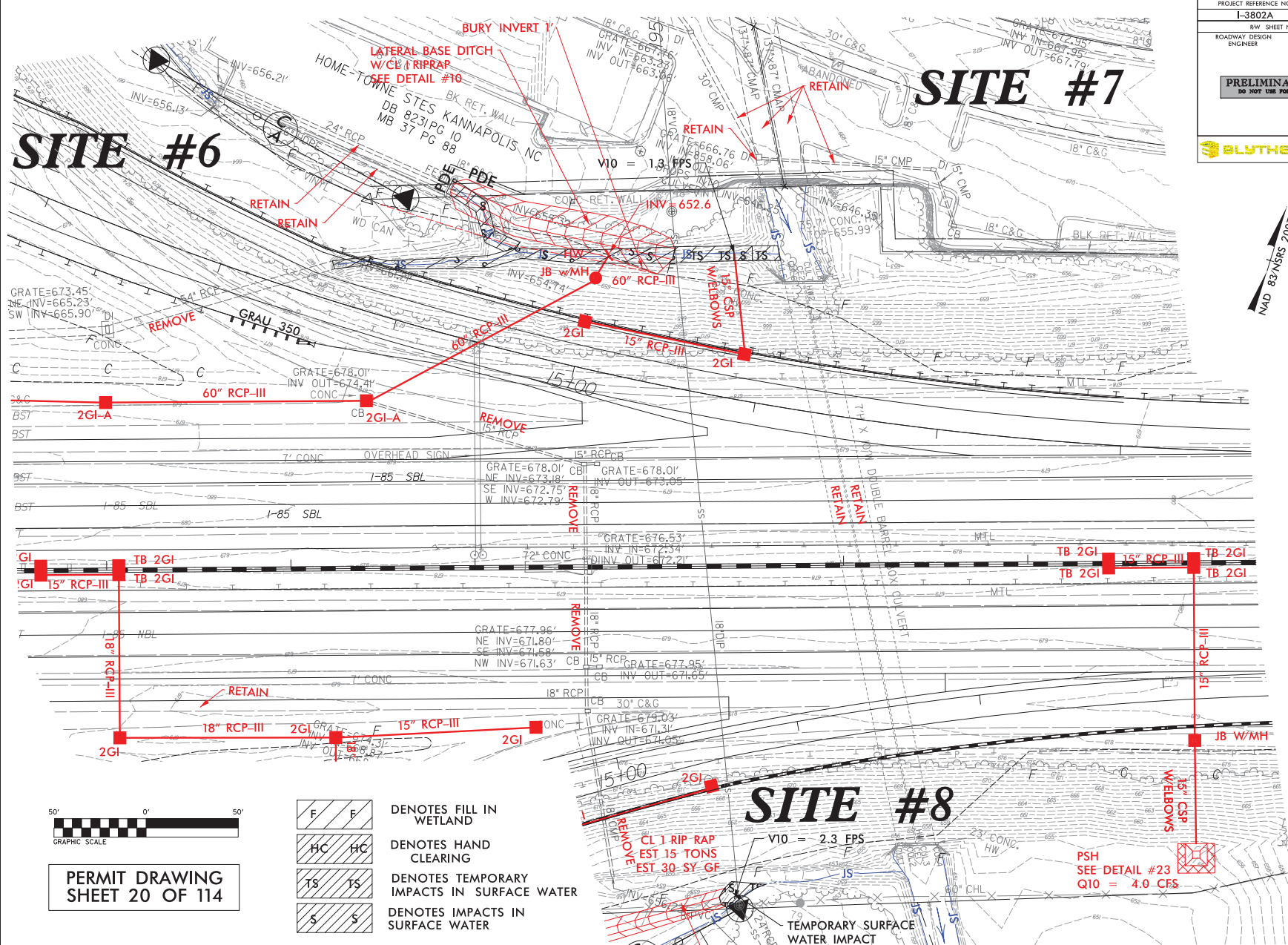
NAD 83 NRS 2007

8/17/09

PROJECT REFERENCE NO.	SHEET NO.
I-3802A	12B
RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	
BLYTHE PARSONS BRINCKERHOFF	



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 1/21/2009 1:38:02 PM
 PARSONS BRINCKERHOFF



50' 0' 50'



GRAPHIC SCALE

PERMIT DRAWING
SHEET 20 OF 114

F F	DENOTES FILL IN WETLAND
HC HC	DENOTES HAND CLEARING
TS TS	DENOTES TEMPORARY IMPACTS IN SURFACE WATER
S S	DENOTES IMPACTS IN SURFACE WATER

SITE #8

PSH
SEE DETAIL #23
Q10 = 4.0 CFS

TEMPORARY SURFACE
WATER IMPACT

AD 83/NSRS 22



8/2/2015
1:36:00 - I3802A\I3802A\Hydraulics\PERMITS_Environmental\Drawings\psh_wo_contours\I3802a_rdy_psh13.dgn
PARSONS BRINCKERHOFF

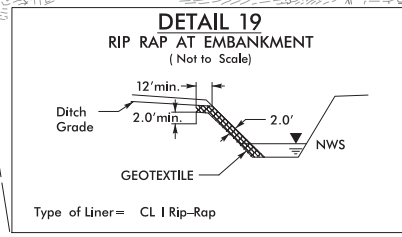
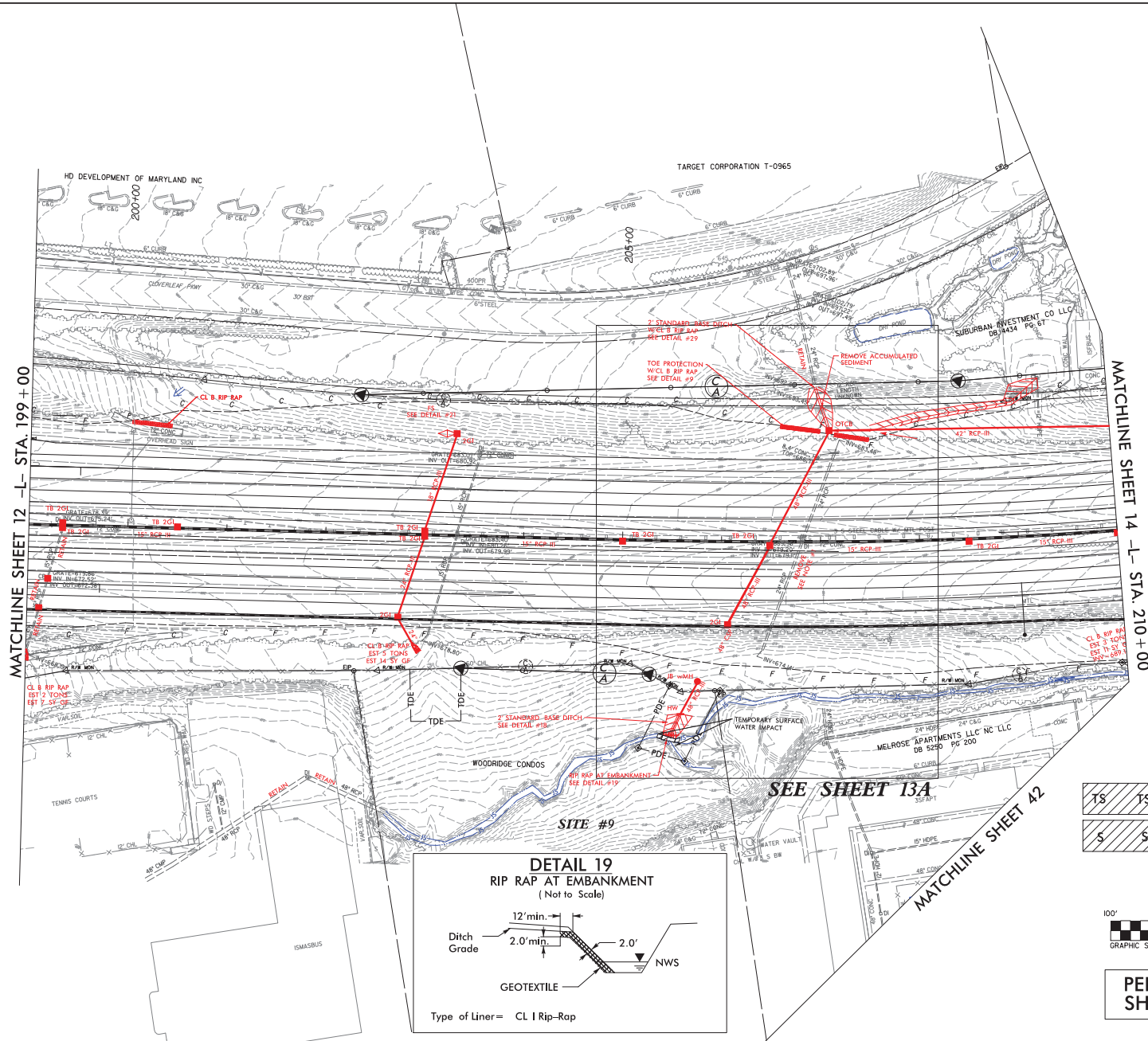
8/17/09

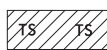
1/24/2009
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PARSONS BRINCKERHOFF

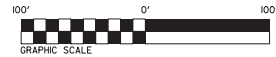
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I-3802A		13	
RW SHEET NO.		HYDRAULICS	
ROADWAY DESIGN ENGINEER		ENGINEER	
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION			
			

NAD 83 NRS 2007

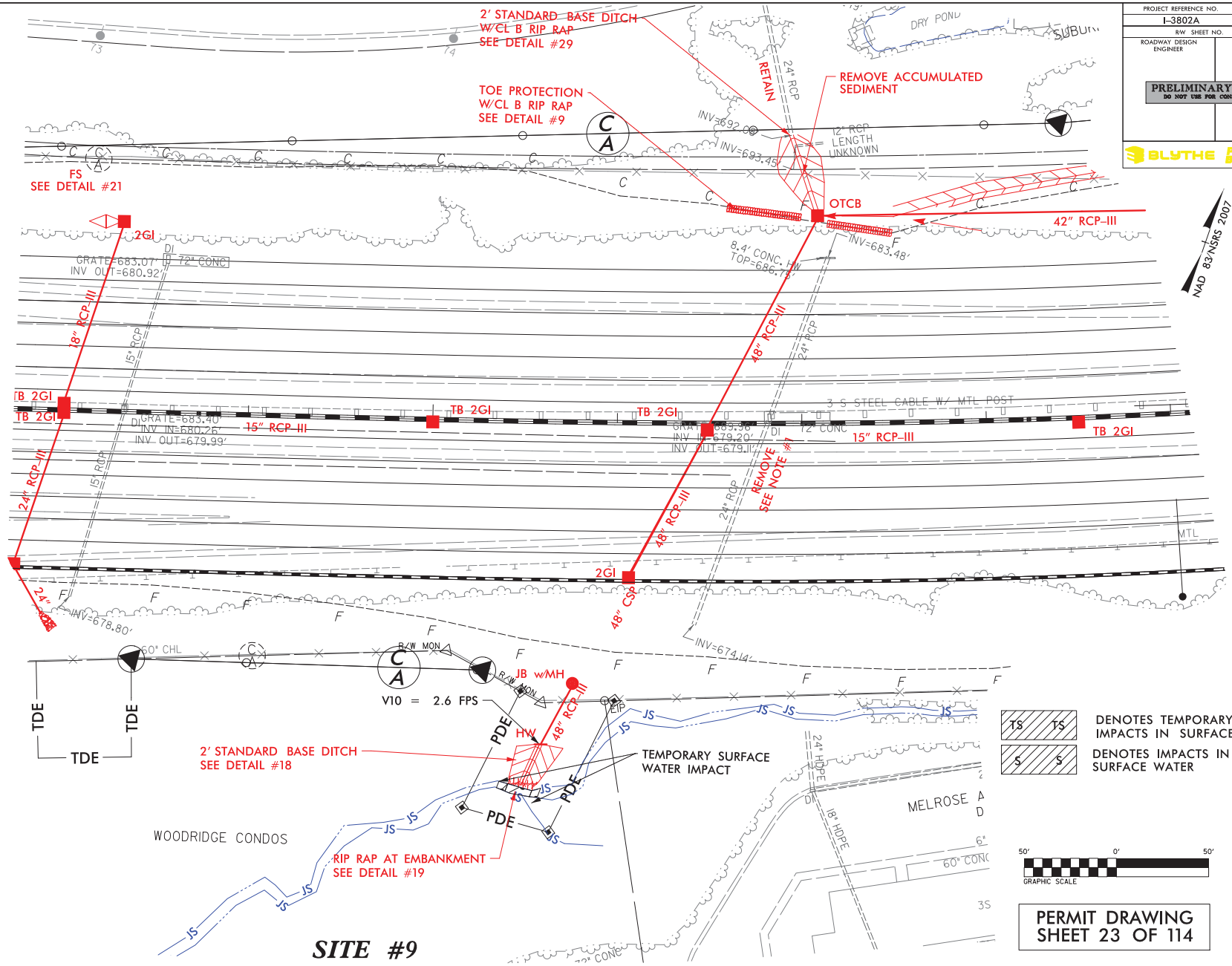
MATCHLINE SHEET 12 -L- STA. 199 + 00



 TS TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER
 S S DENOTES IMPACTS IN SURFACE WATER

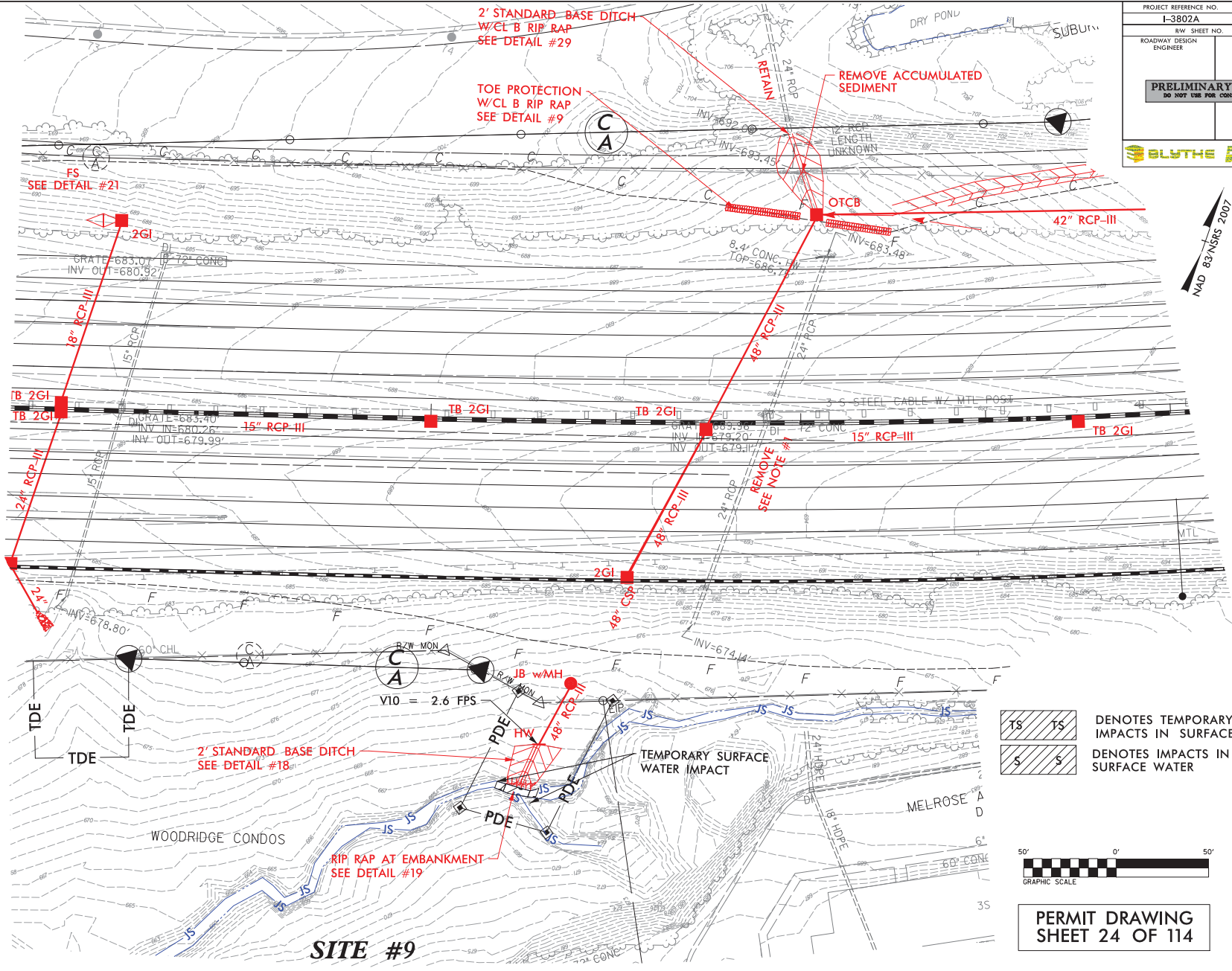


PERMIT DRAWING
SHEET 22 OF 114



8/17/09

13802A - 13802A-Hydraulics PERMITS-Environmental Drawings\sh-contour\13802a-rdy-pah13a.dgn
PARSONS BRINCKERHOFF



PROJECT REFERENCE NO. I-3802A		SHEET NO. 13A	
RDW SHEET NO.		HYDRAULICS ENGINEER	
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION			

TS TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER
 S S DENOTES IMPACTS IN SURFACE WATER



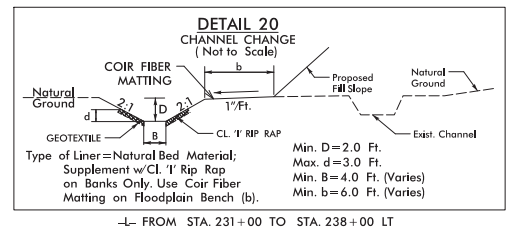
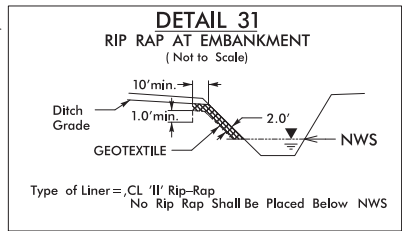
PERMIT DRAWING
SHEET 24 OF 114

SITE #9

8/17/09

1/24/2010 - I-3802A-Hydraulics PERMITS-Environmental Drawings\ash-wc\contours\3802a-rdy\pdl5.dgn
PARSONS BRINCKERHOFF

PROJECT REFERENCE NO.		SHEET NO.	
I-3802A		15	
RW SHEET NO.		HYDRAULICS ENGINEER	
ROADWAY DESIGN ENGINEER			
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION			
BLYTHE		PARSONS BRINCKERHOFF	



DENOTES TEMPORARY IMPACTS IN SURFACE WATER
 DENOTES IMPACTS IN SURFACE WATER

100' 0' 100'

GRAPHIC SCALE

**PERMIT DRAWING
SHEET 25 OF 114**

NAD 83/NRS 2007