

ANNUAL REPORT FOR 2021



**Surf City Bridge Temporary Impact Site
Pender County
TIP No. B-4929
CAMA Permit No. 60-16**



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North Carolina Department of Transportation
September 2021

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SUMMARY

The Surf City Bridge Temporary Impact Site is located in Pender County. This is an annual report for temporary impacts associated with the bridge replacement of Bridge No. 16 on NC 50-210 over the Intracoastal Waterway. The project was accepted as complete on October 4, 2019.

The temporary impacts encompass approximately 0.03 acres for roadway/bridge and 0.10 acres for utility temporary impacts from temporary fill and hand clearing in CAMA wetlands. The area that was impacted is being monitored to ensure that it re-attains jurisdictional wetland status. The areas to the North of the Intracoastal Waterway where the temporary work bridge pilings were removed and the temporary utility impact areas occurred adjacent to NC 50-210 were planted in June 2018. The temporary work bridge pilings to the South of the Intracoastal waterway and the temporary impact area from the NCDOT Geotechnical Unit's boring machine adjacent to the Surf City Park were planted in April 2021. All other temporary impact areas were left to re-vegetate naturally. Hydrologic monitoring is not required for this site; however, vegetation monitoring is required for three years.

After the third year of monitoring, the Surf City Bridge Temporary Impact Site shows by visual observation that the temporarily impacted areas are re-attaining jurisdictional wetland status. The area's most recently planted which include Site 4 (temp. work bridge impact area) at Photo Point #2 and temporary impact area from the Geotechnical Unit's boring machine adjacent to the Surf City Park at Photo Point #7 had marsh grass sprigs surviving at this time.

NCDOT proposes to discontinue monitoring at the site except for Site 4 at Photo Point #2 and the temporary impact area adjacent to the Surf City Park at Photo Point #7. All other sites have re-vegetated properly at this time. NCDOT will continue vegetation monitoring at the Surf City Bridge Temporary Impact Site in 2022.

1.0 INTRODUCTION

1.1 Project Description

The Surf City Bridge Temporary Impact Site is located in Pender County at Bridge No. 16 on NC 50-210 over the Intracoastal Waterway (Figure 1). The temporary impacts encompass approximately 0.03 acres for roadway/bridge and 0.10 acres for temporary utility impacts from temporary fill and hand clearing in CAMA wetlands. The area that was impacted is being monitored to ensure that it re-attains jurisdictional wetland status. Hydrologic monitoring is not required for this site; however, vegetation monitoring is required for three years.

1.2 Purpose

In order for a temporary impact site to be considered successful, a site must meet vegetation success criteria. This report details the vegetation monitoring in 2021 at the Surf City Bridge Temporary Impact Site. Hydrologic monitoring was not required for the site.

1.3 Project History

June 2018	Marsh Grass Planting
September 2019	Vegetation Monitoring (Year 1)
October 2019	Project Acceptance Date
August 2020	Vegetation Monitoring (Year 2)
April 2021	Marsh Grass Planting
August 2021	Vegetation Monitoring (Year 3)

1.4 Debit Ledger

The restoration of the Surf City Bridge temporary impact site was used entirely to compensate for temporary impacts on the B-4929 project. There were no wetland mitigation credits generated from the restoration of the impacted area.

2.0 VEGETATION: SURF CITY BRIDGE TEMPORARY IMPACT SITE (YEAR 3 MONITORING)

2.1 Success Criteria

CAMA Condition #25

Due to the possibility that shading, compaction, hand clearing, mechanized clearing, excavation, and/or other site alterations might prevent the temporary Coastal Wetland impacts from re-attaining pre-project wetland functions, the permittee shall provide an annual update on the Coastal Wetland areas temporarily impacted by this project. This annual update shall consist of photographs and a brief written report on the progress of these temporarily impacted areas in re-attaining their pre-project functions. The permittee shall schedule a meeting with DCM to verify the extent and location of the temporary impacts upon project completion. Within three years after project completion, the permittee shall hold another agency field meeting with DCM to determine if the Coastal Wetland areas temporarily impacted by this project have re-attained pre-project wetland functions, DCM will determine whether compensatory mitigation shall be required for these impacts.

2.2 Description of Species

The following wetland species were planted in the temporary impact areas to the North of the Intracoastal Waterway:

Juncus roemerianus, Black Needle Rush

Spartina alterniflora, Smooth Cordgrass

2.3 Results of Vegetation Monitoring

The area where the temporary impacts occurred is re-attaining jurisdictional wetland status. The planted marsh grass is surviving and marsh grass is re-vegetating throughout the temporary impact areas. Site 4 (temporary work bridge area) at Photo Point #2 and the temporary impact area from the Geotechnical Unit's boring machine adjacent to the Surf City Park at Photo Point #7 were recently planted in April 2021. Marsh grass sprigs were noted surviving within these recently planted areas. Other species noted within the temporary impacted areas included cattail, *Spartina patens*, glasswort, saltgrass, *Juncus* sp., big cordgrass, marsh-elder, and various marsh grass species.

2.4 Conclusions

There were approximately 0.03 acres for roadway/bridge and 0.10 acres for temporary utility impacts from temporary fill and hand clearing in CAMA wetlands. There were no plots established on the site. By visual observation, the Surf City Bridge Temporary Impact Site shows that the planted species are surviving and the impacted areas are re-attaining jurisdictional wetland status.

4.0 OVERALL CONCLUSIONS AND RECOMMENDATIONS

NCDOT proposes to discontinue monitoring at the site except for Site 4 at Photo Point #2 and the temporary impact area adjacent to the Surf City Park at Photo Point #7. All other sites have re-vegetated properly at this time. NCDOT will continue vegetation monitoring at the Surf City Bridge Temporary Impact Site in 2022.

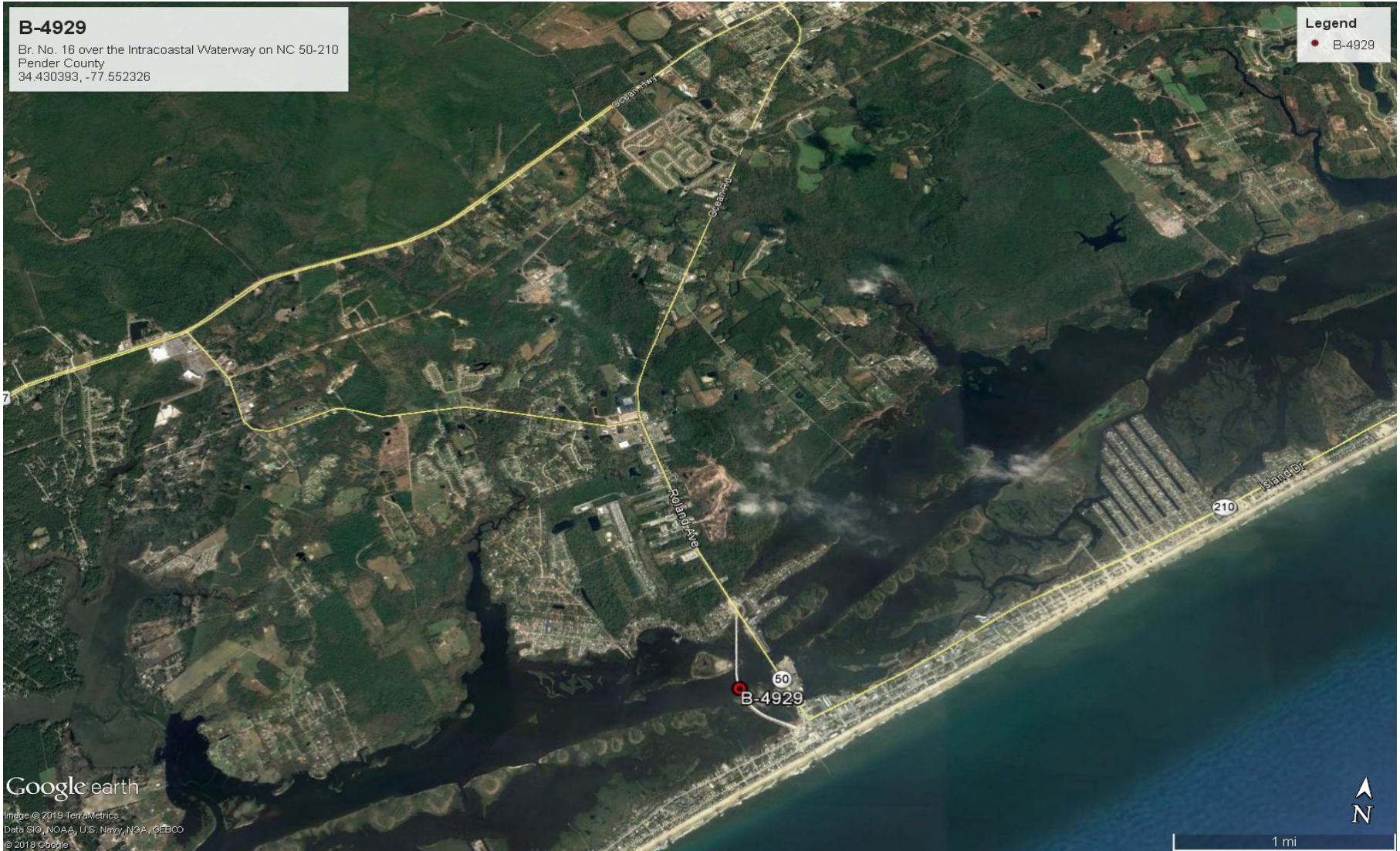


Figure 1. Vicinity Map

APPENDIX A

SITE PHOTOS, PERMIT DRAWINGS, & PHOTO POINT LOCATIONS

Surf City Bridge Temporary Impact Site



PP# 1 Site 4 (temporary work bridge)



PP#2 Site 4 (temporary work bridge)



PP#3 Site 6 (pipe cleanout area)



PP#4 Site 7 (pipe clean out area)



PP#5 Site 3CAMA (utility temp. impact)



PP#6 Site 3CAMA (utility temp. impact)

August 2021

Surf City Bridge Temporary Impact Site



PP# 7 (Geotech area adjacent to Surf City Park)

August 2021

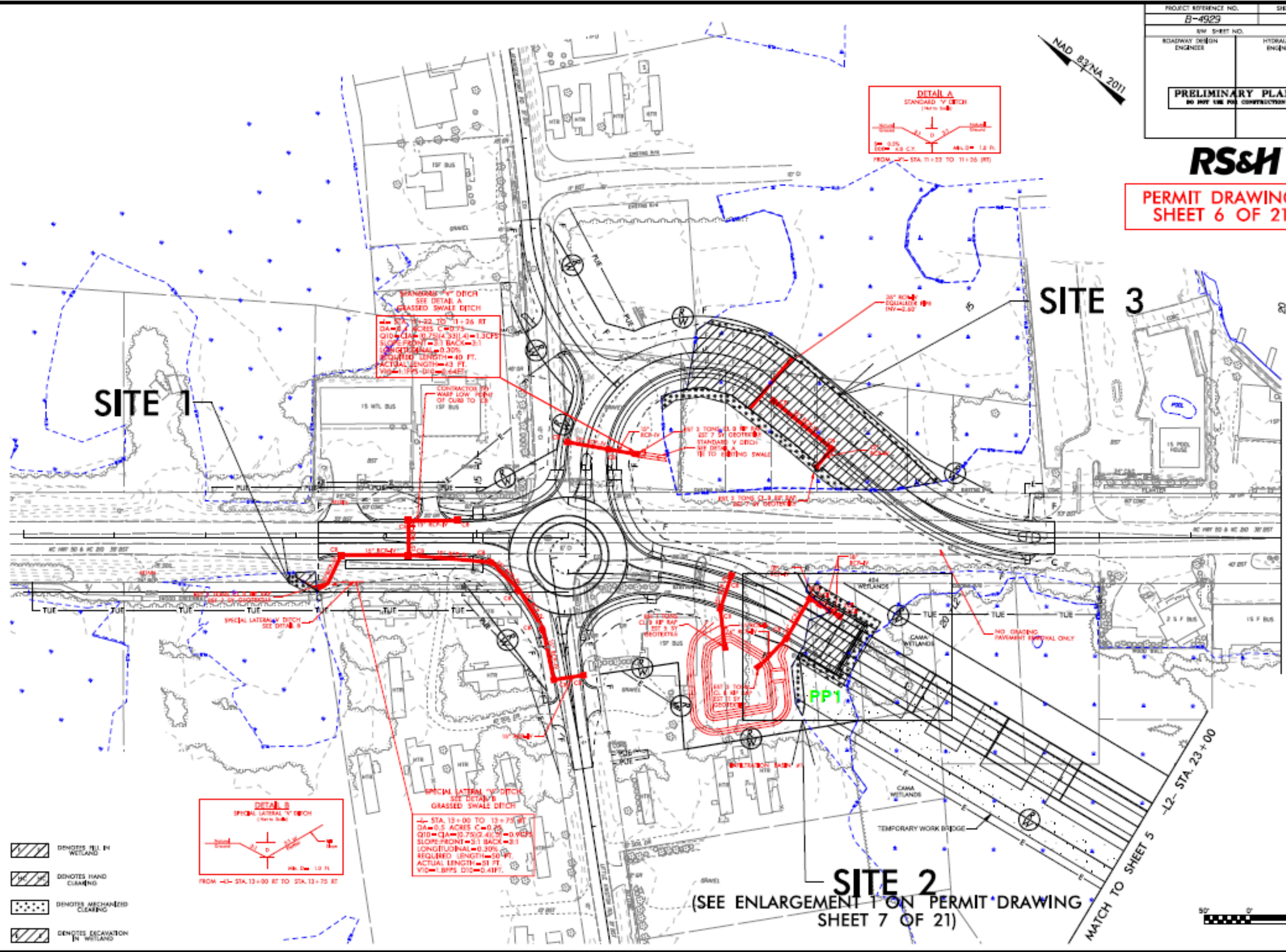
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PROJECT REFERENCE NO. B-4929	SHEET NO. 4
RDWY SHEET NO. ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

NAD 83/NA 2011



RS&H
PERMIT DRAWING
SHEET 6 OF 21



- DENOTES FILL IN WETLAND
- DENOTES HAND CLEANING
- DENOTES MECHANIZED CLEANING
- DENOTES EXCAVATION IN WETLAND



STA. 12+00 TO 13+75 RT
DA=0.5 ACRES C=0.25
Q10=CA=15.75(2.41)^2=9.96FS
SLOPE FRONT=0.31 BACK=0.31
LONGITUDINAL=0.30%
REQUIRED LENGTH=50 FT.
ACTUAL LENGTH=51 FT.
VIC=1.8FPS DIS=0.41FT.

SITE 2
(SEE ENLARGEMENT I ON PERMIT DRAWING SHEET 7 OF 21)



B.17/99

D:\Projects\2011\2011-05-25\2011-05-25-01\2011-05-25-01-01\2011-05-25-01-01-01.dwg

PROJECT REFERENCE NO. B-4929	SHEET NO. 5
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

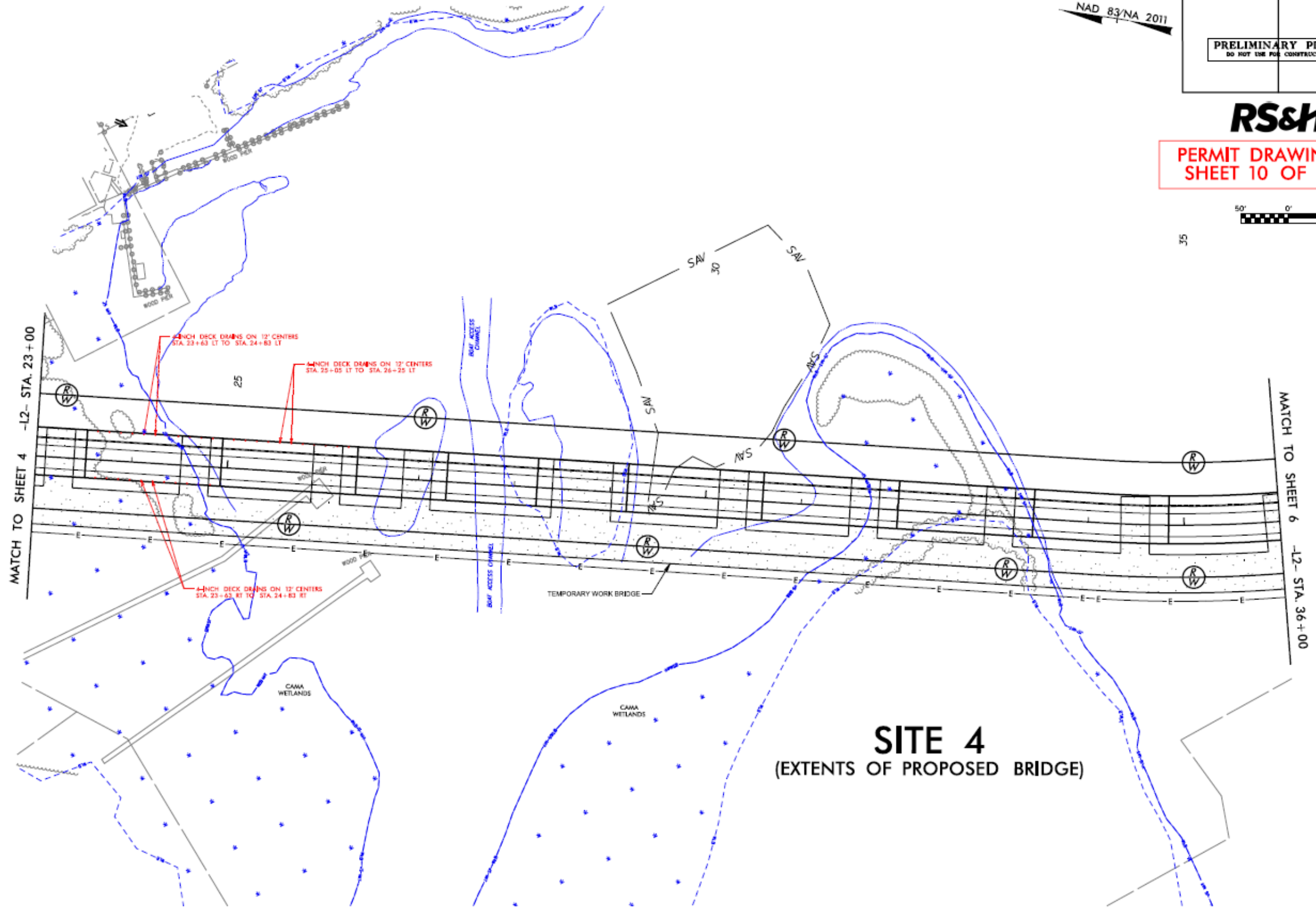
NAD 83/NA 2011

RS&H

**PERMIT DRAWING
SHEET 10 OF 21**



35



SITE 4
(EXTENTS OF PROPOSED BRIDGE)

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MATCH TO SHEET 8 -ICW- STA. 19+25

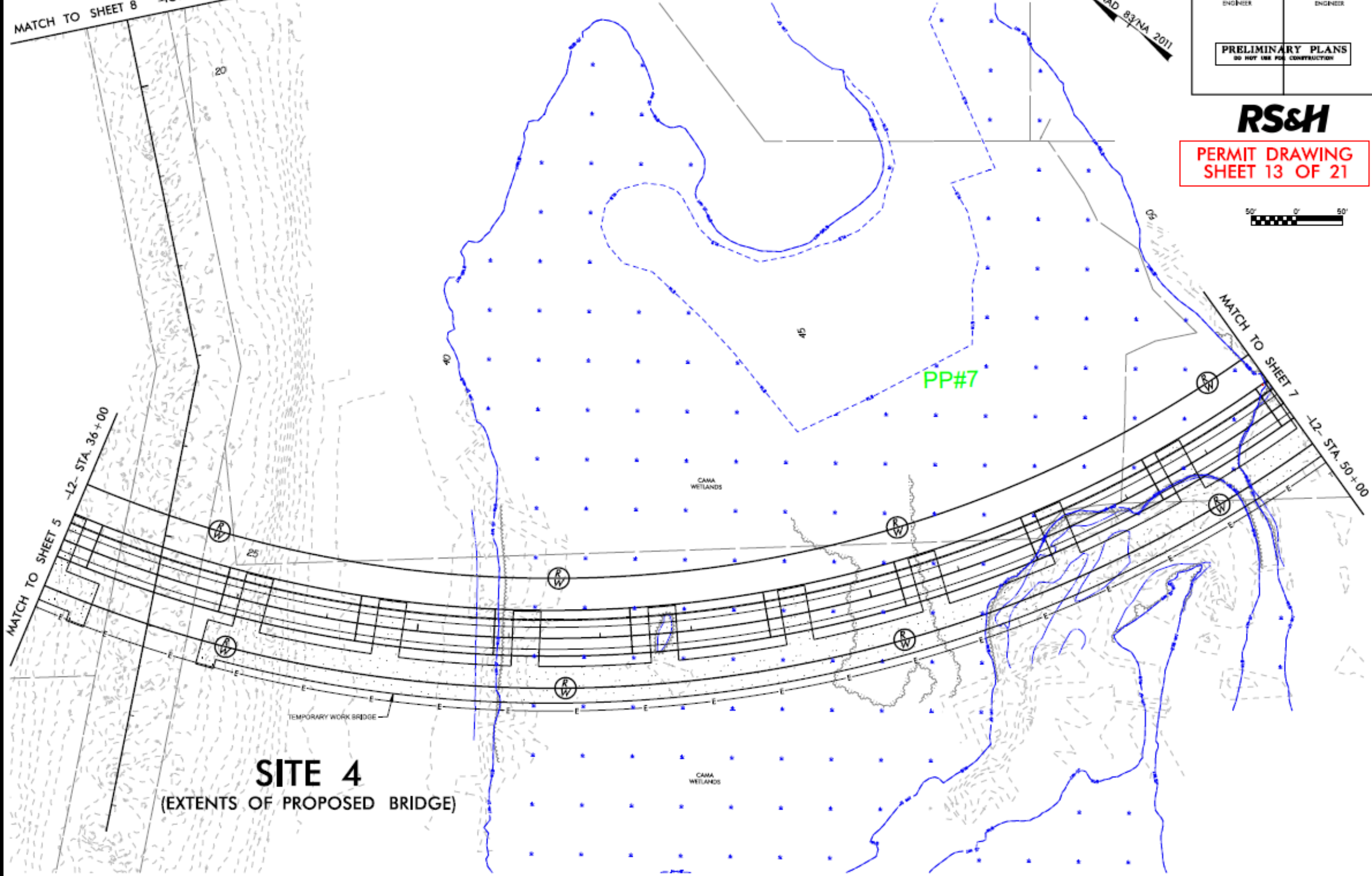
MATCH TO SHEET 5 -L2- STA. 36+00

PROJECT REFERENCE NO. B-4929	SHEET NO. 6
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

NAD 83/NA 2011

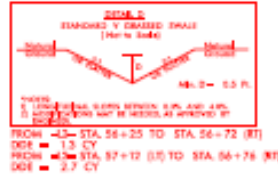
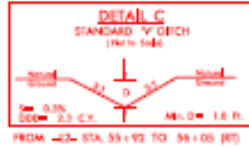


RS&H
PERMIT DRAWING
SHEET 13 OF 21



SITE 4
 (EXTENTS OF PROPOSED BRIDGE)

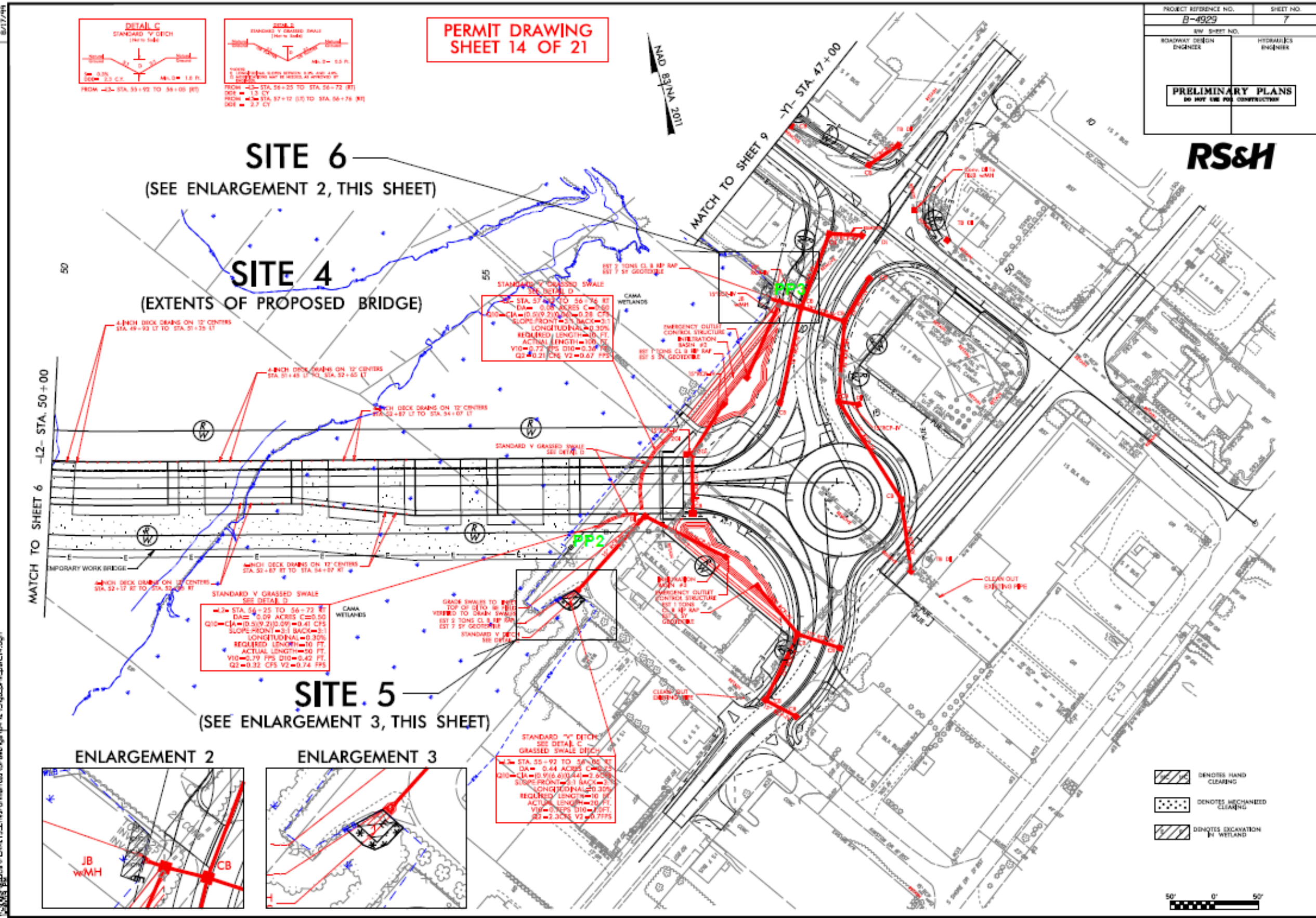
FOR -L2- PROFILE, SEE SHEET 11



**PERMIT DRAWING
SHEET 14 OF 21**

PROJECT REFERENCE NO. B-4929	SHEET NO. 7
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

RS&H

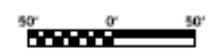


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PROJECT REFERENCE NO.	SHEET NO.
B-4929	9
RDW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS NO MAY USE FOR CONSTRUCTION	

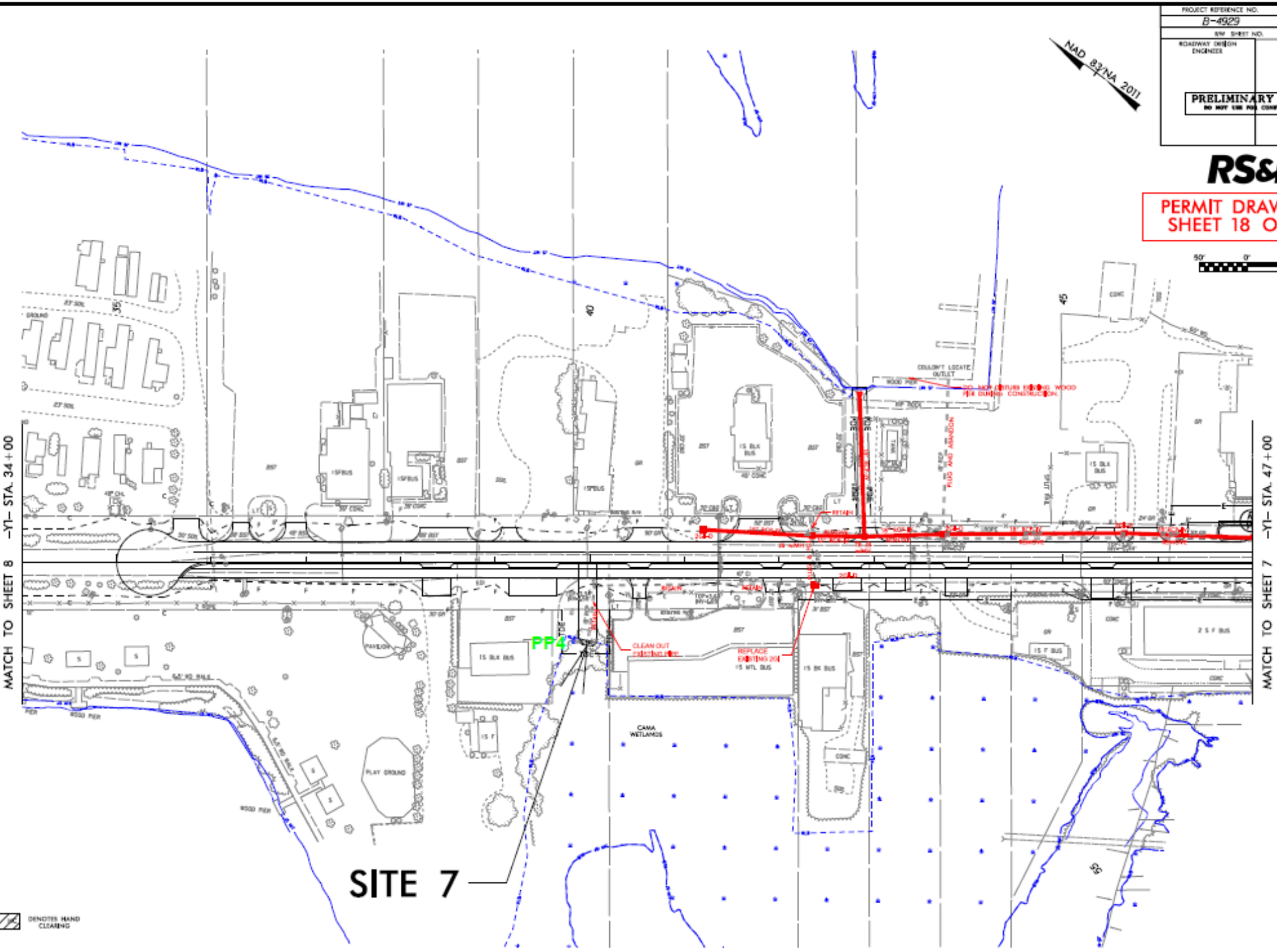
NAD 83/NA 2011

RS&H
PERMIT DRAWING
SHEET 18 OF 21



MATCH TO SHEET 8 -YI- STA. 34+00

MATCH TO SHEET 7 -YI- STA. 47+00

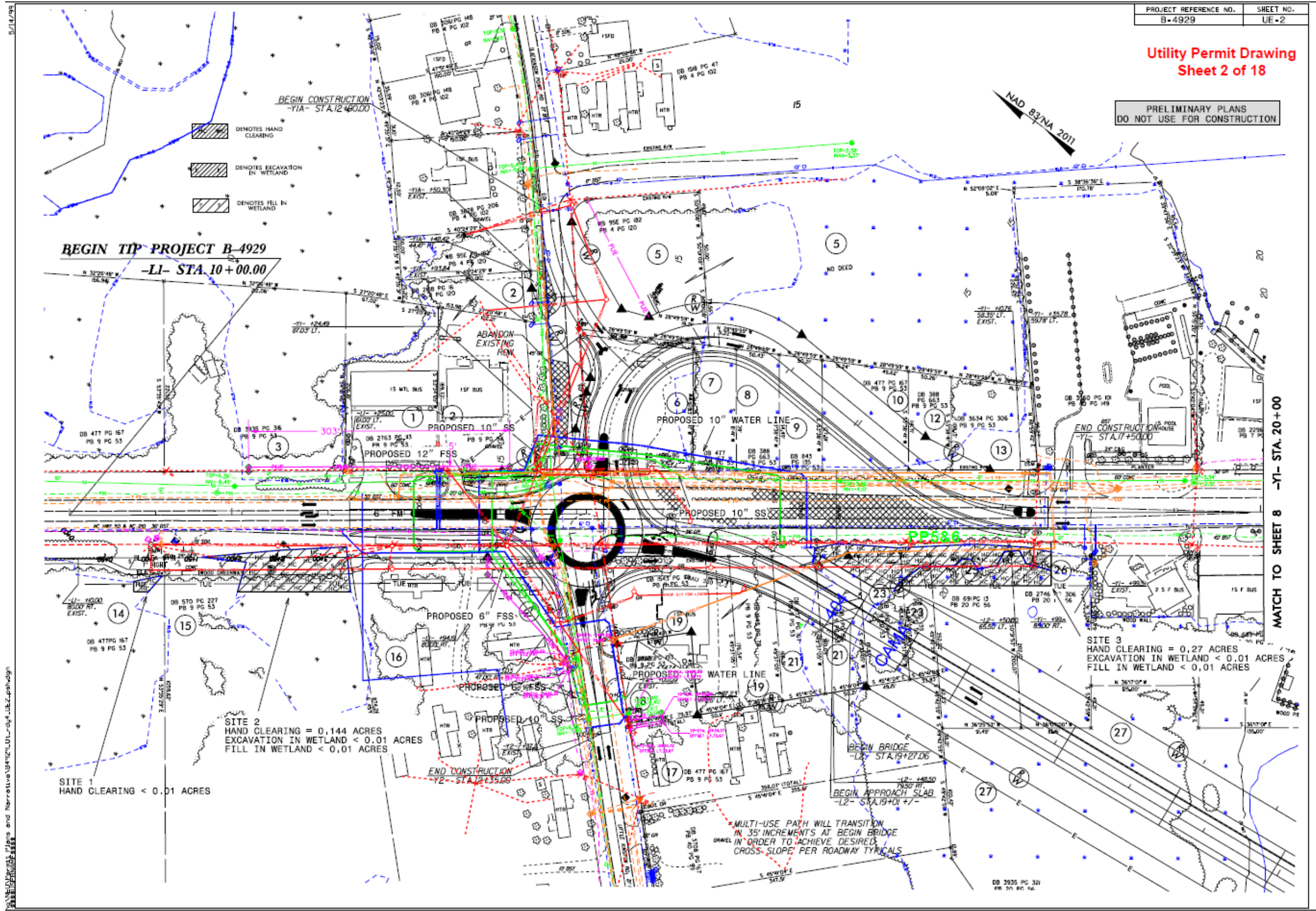


 DENOTES HAND CLEARING

SITE 7

Utility Permit Drawing
Sheet 2 of 18

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION



BEGIN TIP PROJECT B-4929
-LI- STA. 10+00.00

BEGIN CONSTRUCTION
-Y1A- STA. 12+80.00

END CONSTRUCTION
-Y1- STA. 17+50.00

MATCH TO SHEET 8 -Y1- STA. 20+00

SITE 2
HAND CLEARING = 0.144 ACRES
EXCAVATION IN WETLAND < 0.01 ACRES
FILL IN WETLAND < 0.01 ACRES

SITE 1
HAND CLEARING < 0.01 ACRES

SITE 3
HAND CLEARING = 0.27 ACRES
EXCAVATION IN WETLAND < 0.01 ACRES
FILL IN WETLAND < 0.01 ACRES

MULTI-USE PATH WILL TRANSITION
IN 35' INCREMENTS AT BEGIN BRIDGE
IN ORDER TO ACHIEVE DESIRED
CROSS-SLOPE PER ROADWAY TYPICALS

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