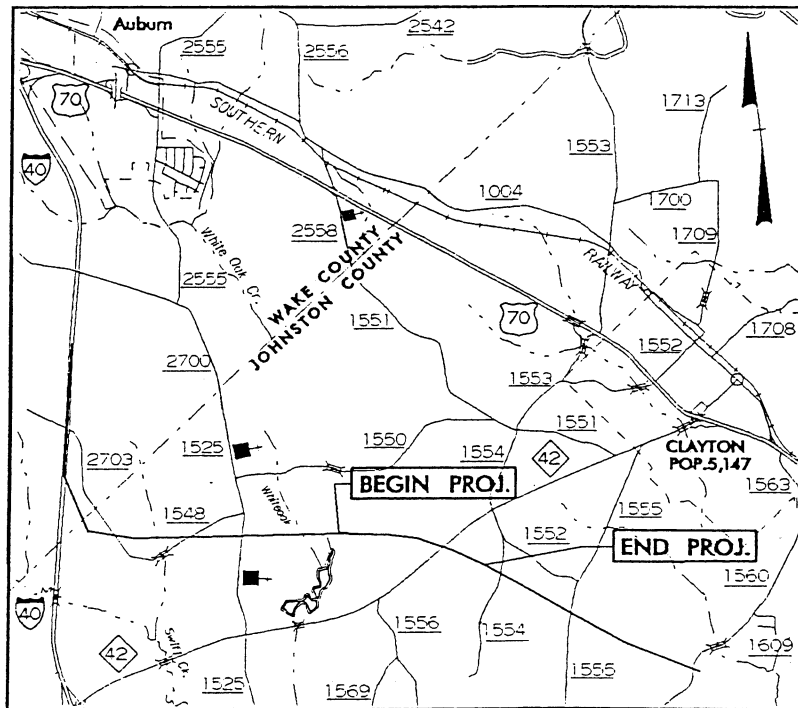
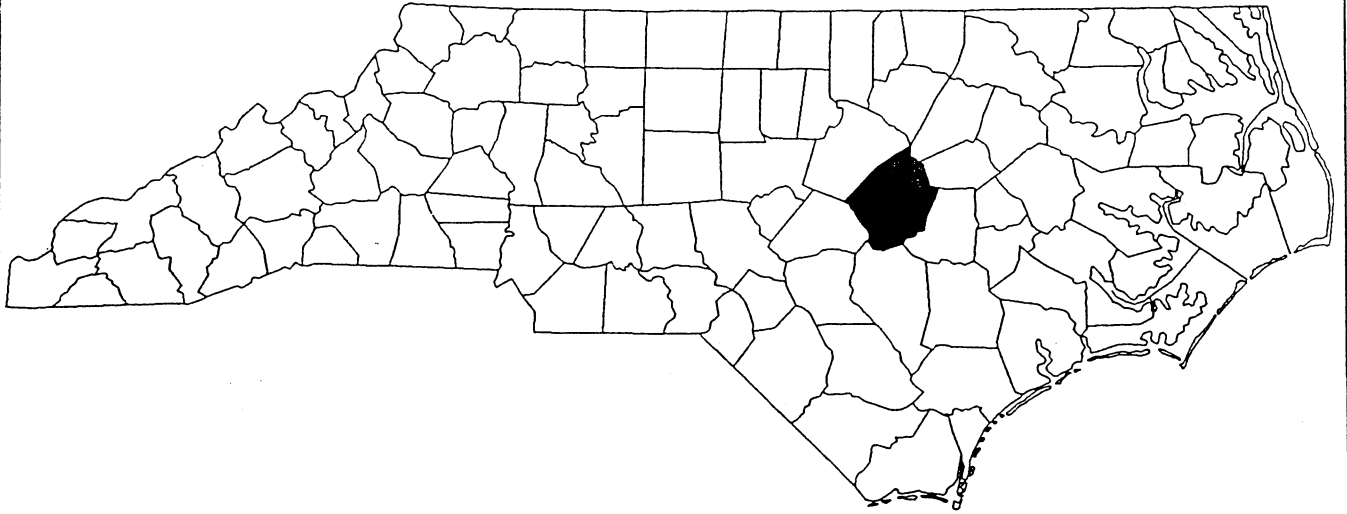


NORTH CAROLINA



NEUSE RIVER BUFFER

VICINITY
MAP

NCDOT

DIVISION OF HIGHWAYS

JOHNSTON COUNTY

PROJECT: WBS 34459.1.1 (R-2552AB)

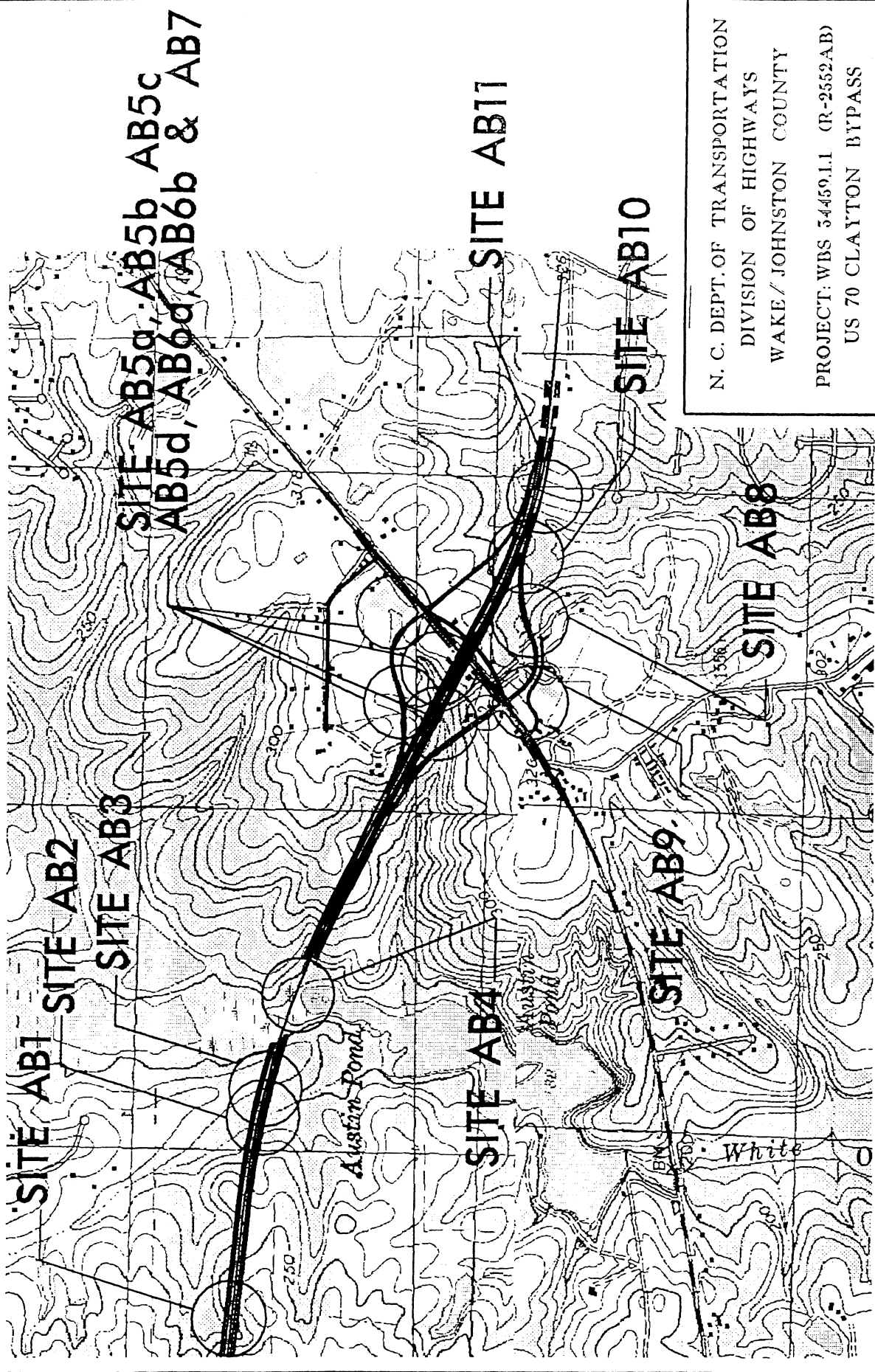
US 70 CLAYTON BYPASS

SHEET

1 OF

6

10/01/04



N. C. DEPT. OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 WAKE / JOHNSTON COUNTY

PROJECT: WBS 34459.1.1 (R-2552AB)
 US 70 CLAYTON BYPASS

SHEET 6 OF 6 10/01/04

SITE MAP

BUFFER IMPACTS SUMMARY

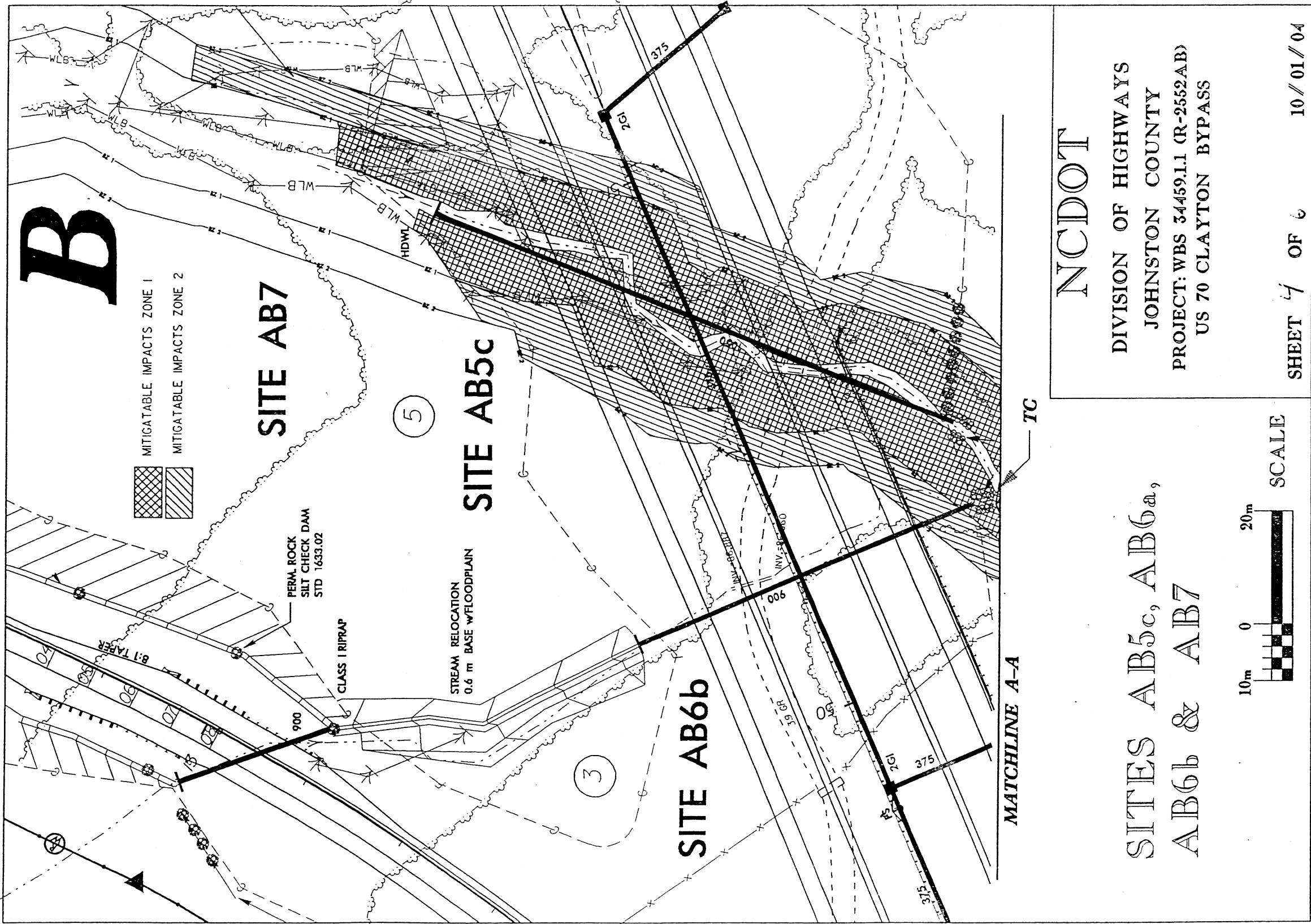
SITE NO.	STRUCTURE SIZE / TYPE	STATION (FROM/TO)	IMPACT						BUFFER REPLACEMENT		
			TYPE		ALLOWABLE		MITIGABLE		ZONE 1 (ft ²)	ZONE 2 (ft ²)	
			ROAD CROSSING	PARALLEL IMPACT	ZONE 1 (ft ²)	ZONE 2 (ft ²)	TOTAL (ft ²)	ZONE 1 (ft ²)			ZONE 2 (ft ²)
AB2	RCBC	L 37+10	X				24211.05	15173.35	39384.40		
AB4	BRIDGE	L	X				18477.87	13015.94	31493.81		
AB5c	1050 RCP	11Y1 13+70	X				58508.96	44229.66	102738.62		
AB5d	1350 CSP	11Y1 13+70	X				SEE AB5c FOR SITE TOTAL				
AB8	1350 RCP	11Y1 20+90	X		7294.38	4831.17			12125.55		
AB11	RCBC	FLYLEREV 29+50	X				20325.60	13774.79	34100.39		
PROJECT TOTAL:					7294.38	4831.17	12125.55	86193.74	207717.22		

NOTE : WETLAND IMPACT IN BUFFER ZONES

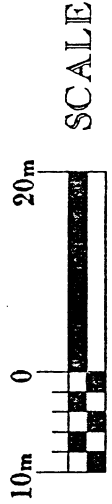
- SITE AB4	1	8179.27	2	0.00
- SITE AB7		9272.26		0.00
- SITE AB11		14760.87		0.00

N.C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS

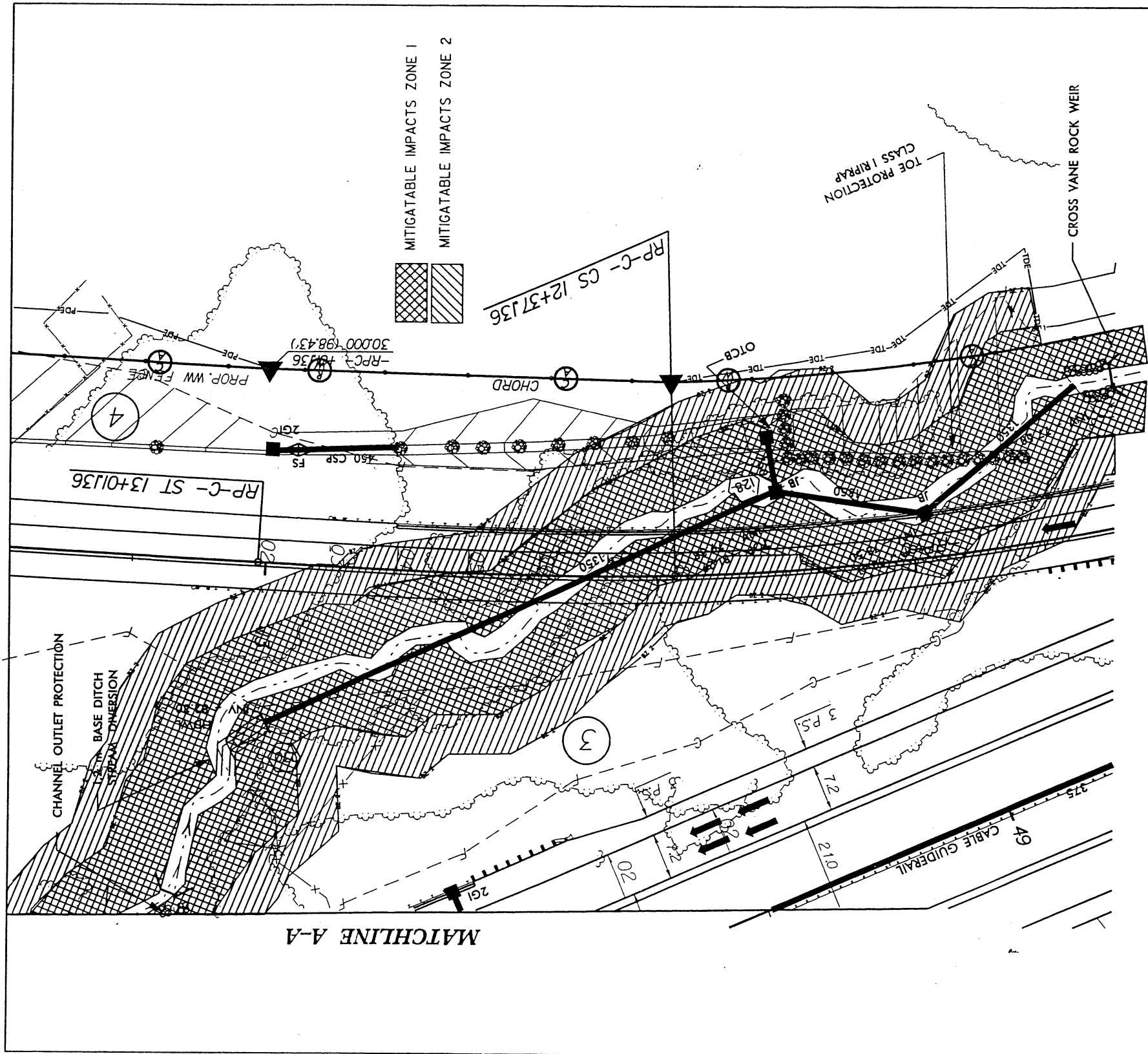
WAKE / JOHNSTON COUNTY
PROJECT # - WBS 34459.1.1 (R2552AB)
US 70 - CLAYTON BYPASS



SITES AB5_c, AB6_a,
 AB6_b & AB7



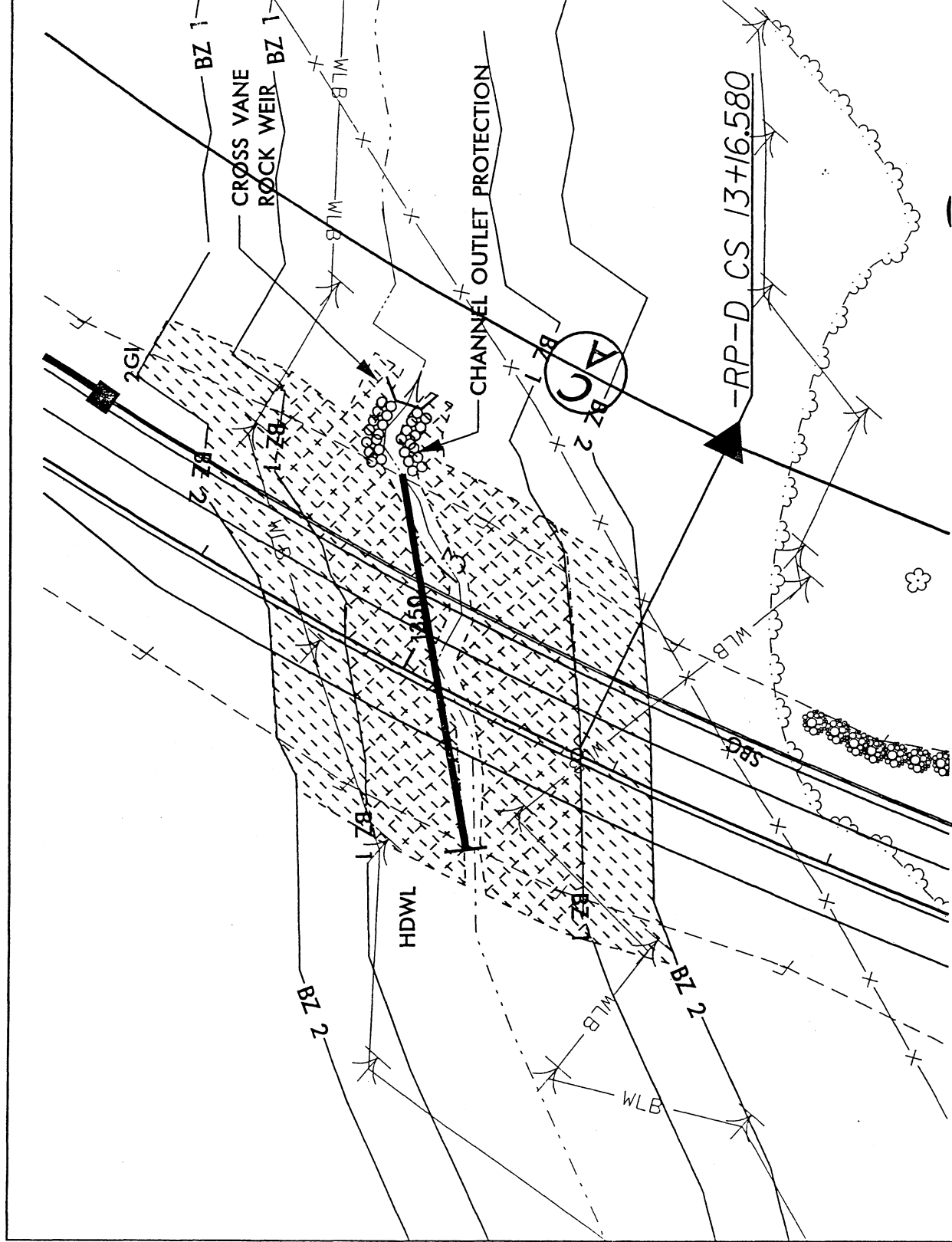
NCDOT
 DIVISION OF HIGHWAYS
 JOHNSTON COUNTY
 PROJECT: WBS 34459.1.1 (R-2552AB)
 US 70 CLAYTON BYPASS



NCDOT
 DIVISION OF HIGHWAYS
 JOHNSTON COUNTY
 PROJECT: WBS 34459.1.1 (R-2552AB)
 US 70 CLAYTON BYPASS

SHEET 5 OF 8 10/01/04

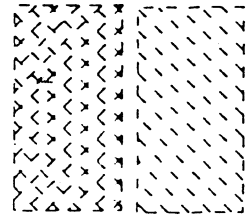
SITES AB5d



SITE ABS

ALLOWABLE IMPACTS ZONE 1

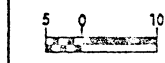
ALLOWABLE IMPACTS ZONE 2



NCDOT
 DIVISION OF HIGHWAYS
 JOHNSTON COUNTY
 PROJECT: WBS 34459.1.1 (R-2552AB)
 US 70 CLAYTON BYPASS

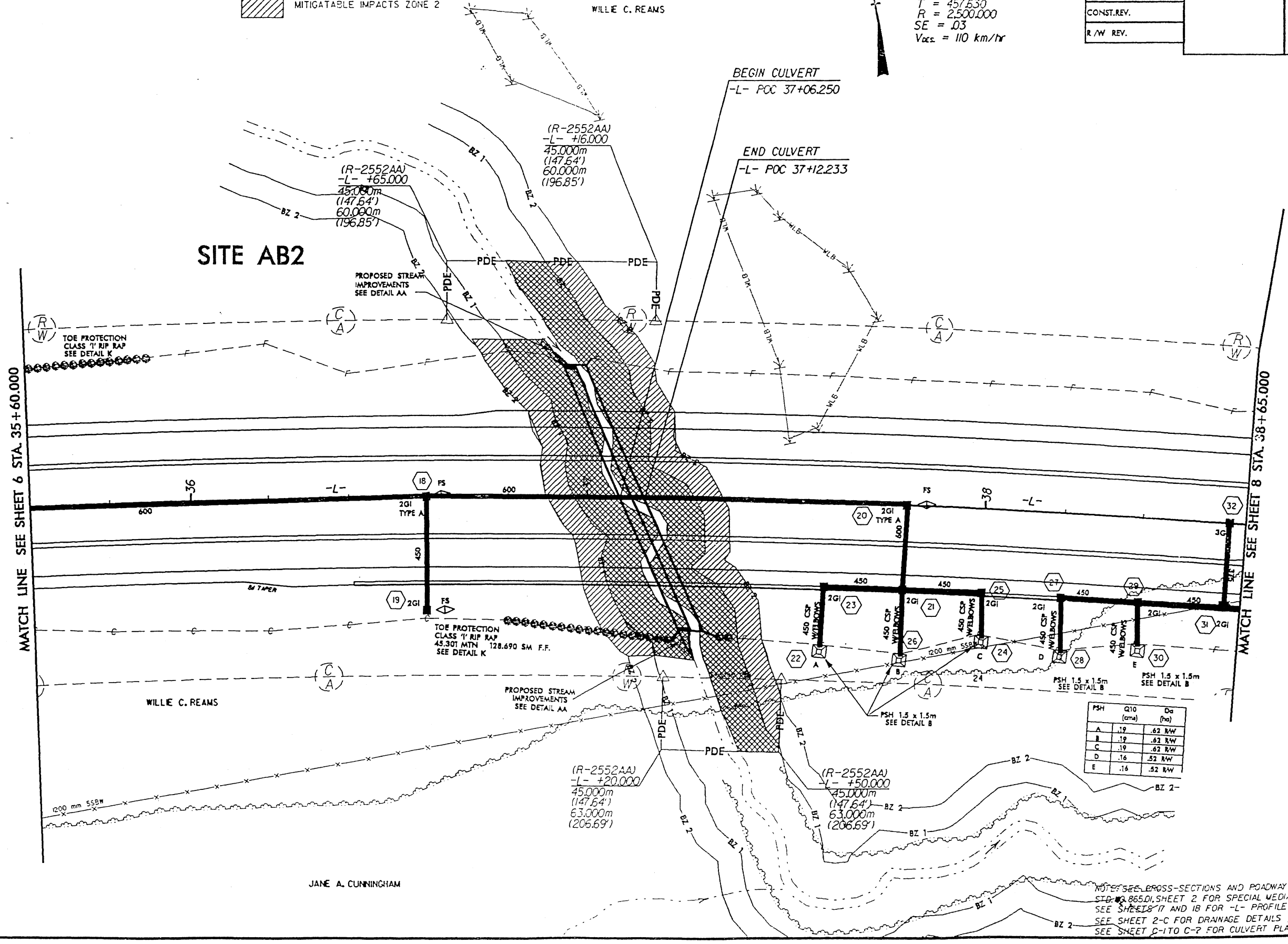


PROJECT REFERENCE NO.	SHEET NO.
R-2552AB	7
R/W SHEET NO. R-2552AA *21 & *22	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	
CONST. REV.	
R/W REV.	



-L-
 $PI = 38+81.623$
 $\Delta = 20' 4" 47.5' (RT)$
 $L = 905.237$
 $T = 457.630$
 $R = 2,500.000$
 $SE = .03$
 $V_{max} = 110 \text{ km/hr}$

MITIGATABLE IMPACTS ZONE 1
 MITIGATABLE IMPACTS ZONE 2



PSH	Q10 (cfs)	Da (ft)
A	.19	.62 RW
B	.19	.62 RW
C	.19	.62 RW
D	.16	.52 RW
E	.16	.52 RW

NOTE: SEE CROSS-SECTIONS AND ROADWAY STANDARD DRAWING STD. 865.01, SHEET 2 FOR SPECIAL MEDIAN GRADING. SEE SHEETS 17 AND 18 FOR -L- PROFILE. SEE SHEET 2-C FOR DRAINAGE DETAILS. SEE SHEET C-1 TO C-7 FOR CULVERT PLANS.

JANE A. CUNNINGHAM

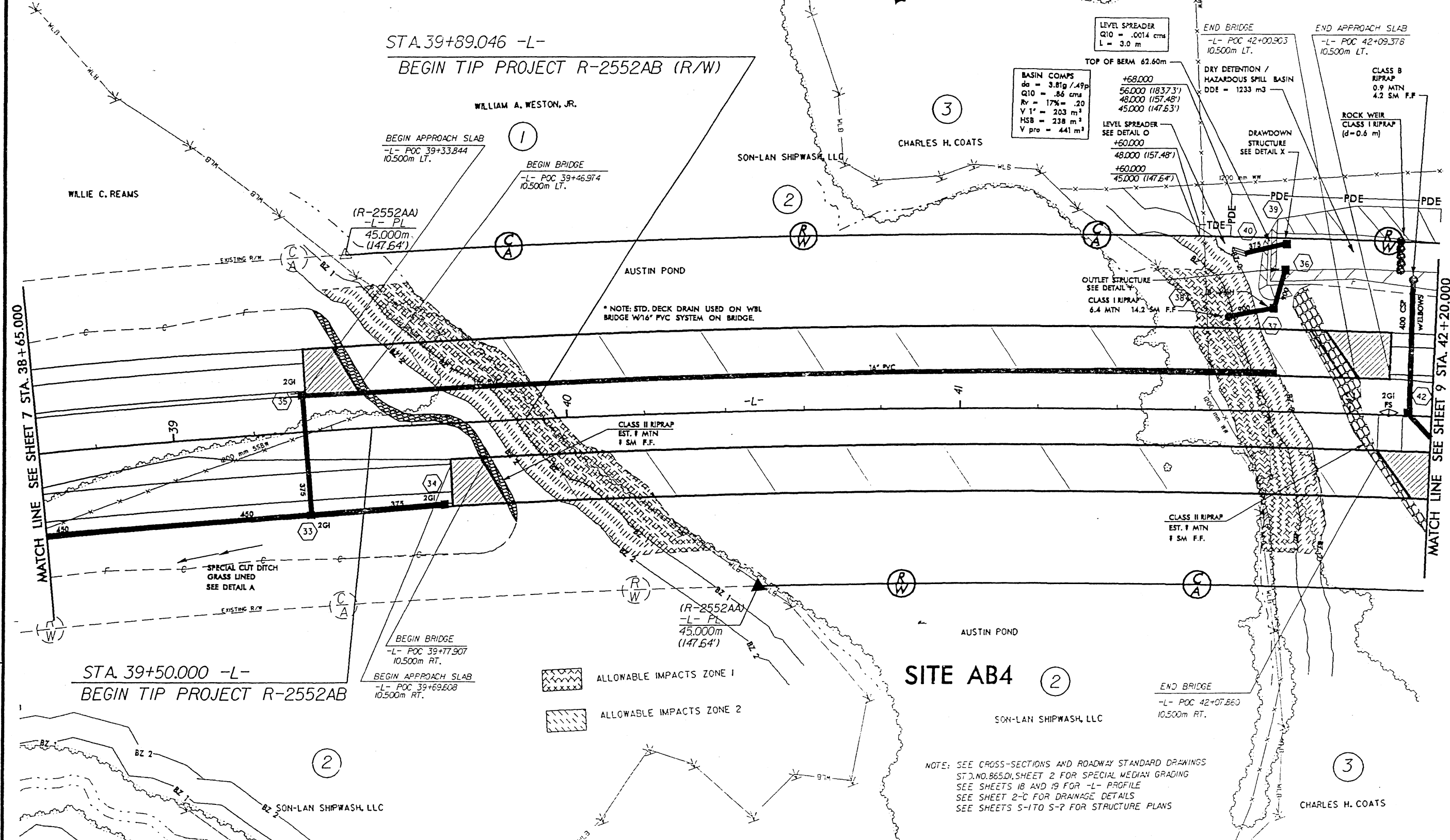
REVISIONS

*****SYTIMEPARE*****
 *****11/11/2011*****

-L-
 $PI = 38+81.623$
 $\Delta = 20' 44" 47.5' (RT)$
 $L = 905.237$
 $T = 457.630$
 $R = 2,500.000$
 $SE = .03$
 $V_{oc} = 110 \text{ km/hr}$



STA. 39+89.046 -L-
 BEGIN TIP PROJECT R-2552AB (R/W)



BASIN COMPS
 $d_o = 3.81g / .49p$
 $Q_{10} = .86 \text{ cms}$
 $R_v = 17\% = .20$
 $V_1' = 203 \text{ m}^3$
 $HSB = 238 \text{ m}^3$
 $V_{pro} = 441 \text{ m}^3$

LEVEL SPREADER
 $Q_{10} = .0014 \text{ cms}$
 $L = 3.0 \text{ m}$

TOP OF BERM 62.60m
 $+68.000$
 $56.000 (183.73')$
 $48.000 (157.48')$
 $45.000 (147.63')$

END BRIDGE
 -L- POC 42+00.963
 10.500m LT.

END APPROACH SLAB
 -L- POC 42+09.378
 10.500m LT.

CLASS B RIPRAP
 0.9 MTN
 4.2 SM F.F.

ROCK WEIR
 CLASS I RIPRAP
 (d=0.6 m)

OUTLET STRUCTURE
 SEE DETAIL Y
 CLASS I RIPRAP
 6.4 MTN 14.2 SM F.F.

* NOTE: STD. DECK DRAIN USED ON WBL BRIDGE W/16" PVC SYSTEM ON BRIDGE.

MATCH LINE SEE SHEET 7 STA. 38+65.000

MATCH LINE SEE SHEET 9 STA. 42+20.000

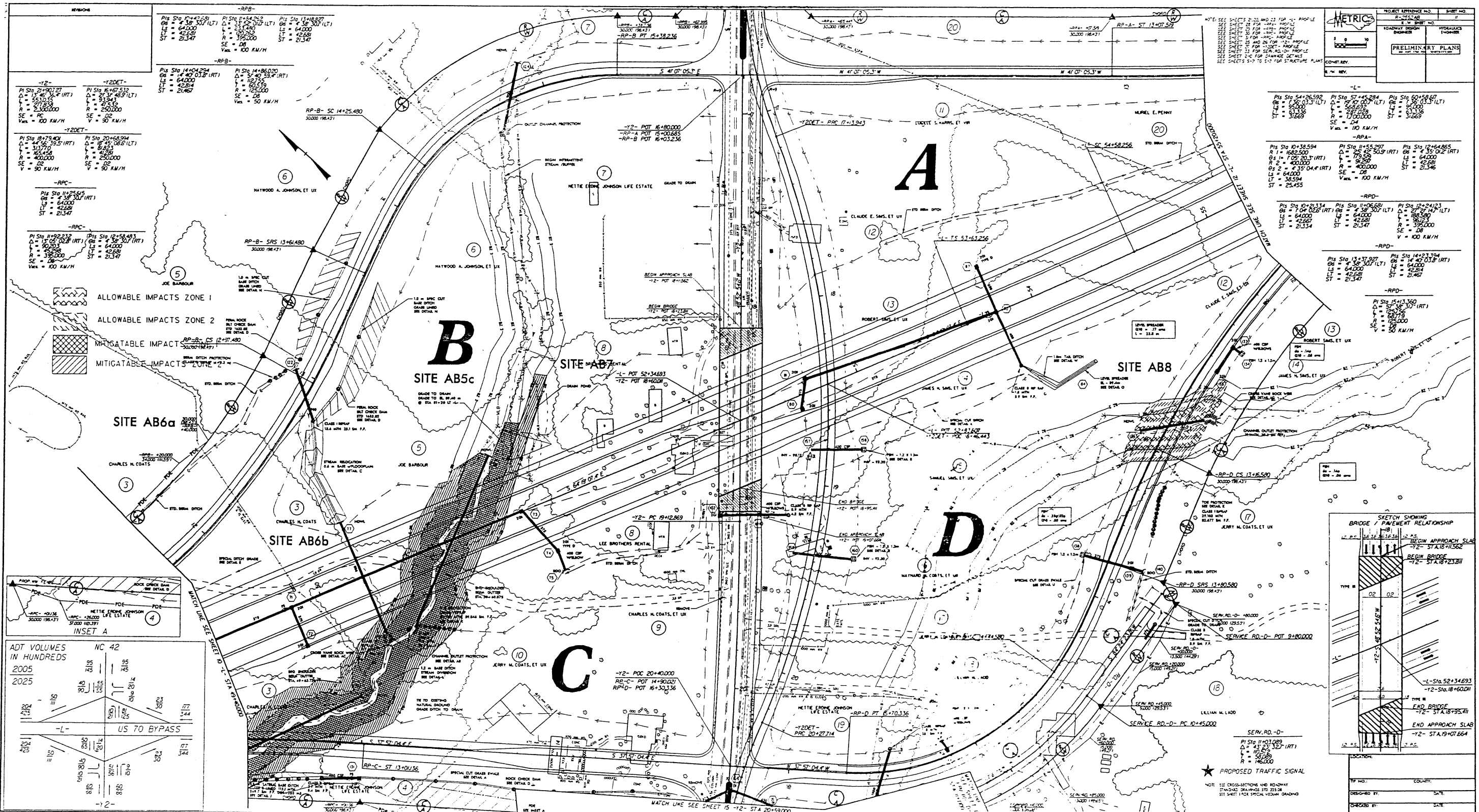
STA. 39+50.000 -L-
 BEGIN TIP PROJECT R-2552AB

SITE AB4 (2)

NOTE: SEE CROSS-SECTIONS AND ROADWAY STANDARD DRAWINGS
 ST. NO. 86501, SHEET 2 FOR SPECIAL MEDIUM GRADING
 SEE SHEETS 18 AND 19 FOR -L- PROFILE
 SEE SHEET 2-C FOR DRAINAGE DETAILS
 SEE SHEETS S-1 TO S-7 FOR STRUCTURE PLANS

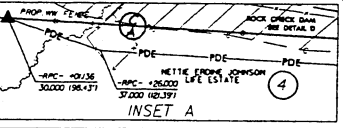
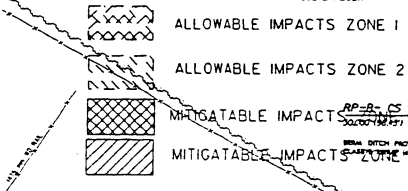
REVISIONS

DATE: 11/15/2011
 TIME: 10:00 AM
 DRAWN BY: [unreadable]
 CHECKED BY: [unreadable]



Curve Data

Station	PC	PT	PI	Curve Data
Sta 14+00.00	14+00.00	14+25.00	14+12.50	R=100, SE=0.00, V=50
Sta 14+25.00	14+25.00	14+50.00	14+37.50	R=100, SE=0.00, V=50
Sta 14+50.00	14+50.00	14+75.00	14+62.50	R=100, SE=0.00, V=50
Sta 14+75.00	14+75.00	15+00.00	14+87.50	R=100, SE=0.00, V=50



ADT VOLUMES IN HUNDREDS

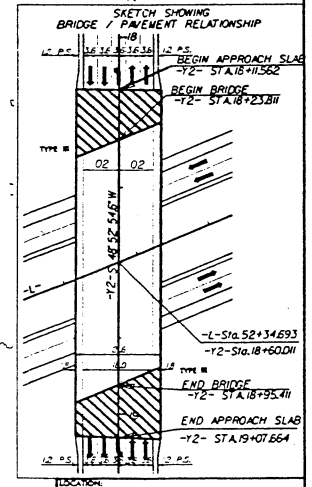
Year	NC 42	US 70 BYPASS
2005	318	177
2025	318	177

PROJECT INFORMATION

PROJECT REFERENCE NO.	11
SHEET NO.	11
ROADWAY DESIGN	ROADWAY
HYDRAULICS	HYDRAULICS
THROWER	THROWER
PRELIMINARY PLANS	PRELIMINARY PLANS

Curve Data (Right Side)

Station	PC	PT	PI	Curve Data
Sta 14+25.00	14+25.00	14+50.00	14+37.50	R=100, SE=0.00, V=50
Sta 14+50.00	14+50.00	14+75.00	14+62.50	R=100, SE=0.00, V=50
Sta 14+75.00	14+75.00	15+00.00	14+87.50	R=100, SE=0.00, V=50



★ PROPOSED TRAFFIC SIGNAL
 NOTE: SEE CROSS-SECTIONS AND ROADWAY PLAN DRAWINGS FOR SIGNAL LOCATIONS AND SPECIAL SIGNAL SHADING

DESIGNER INFORMATION

DESIGNED BY	DATE
CHECKED BY	DATE