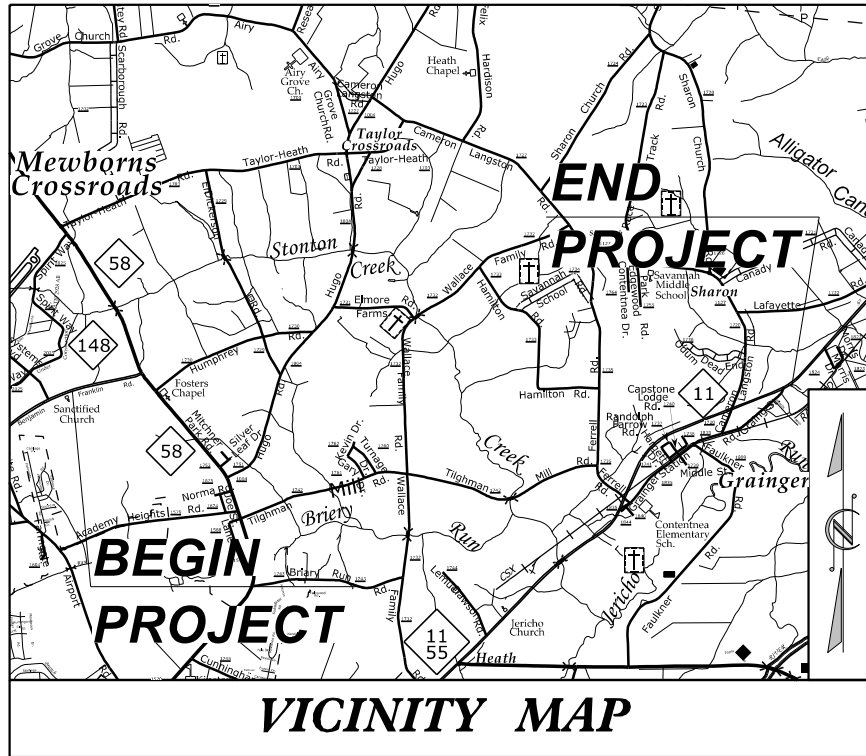


TIP PROJECT: R-5703

CONTRACT:

See Sheet 1-A For Index of Sheets



STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

LENOIR COUNTY

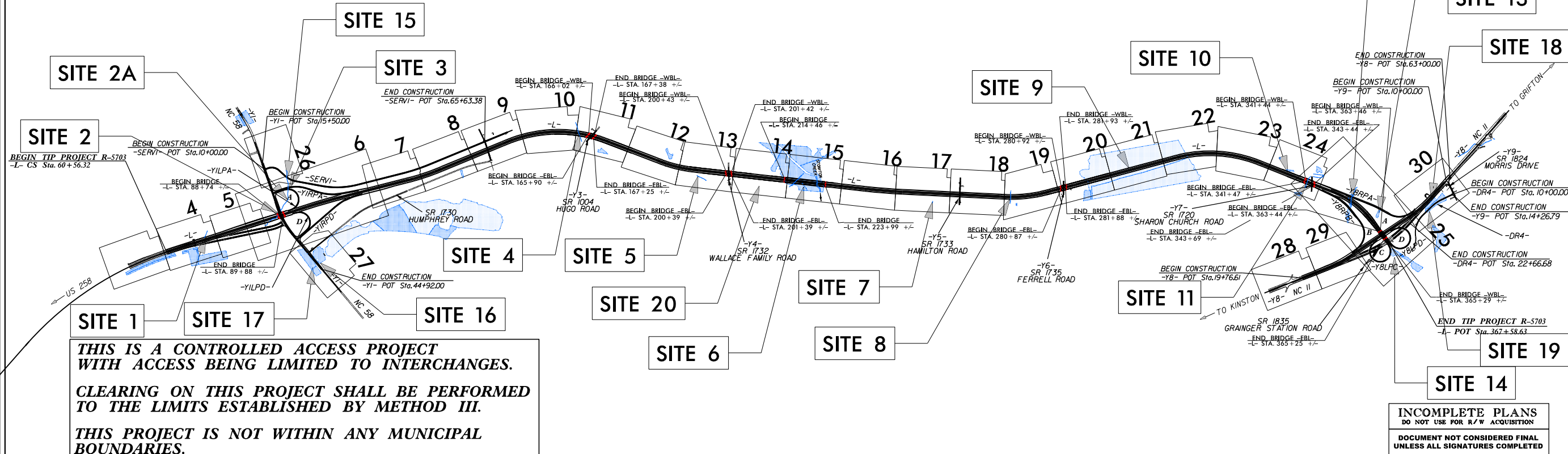
LOCATION: FROM THE INTERSECTION OF C.F. HARVEY PARKWAY
AND NC 58 TO INTERSECTION OF NC 11 AND GRAINGER STATION RD.

TYPE OF WORK: GRADING, PAVING, DRAINAGE, STRUCTURES AND SIGNALS.

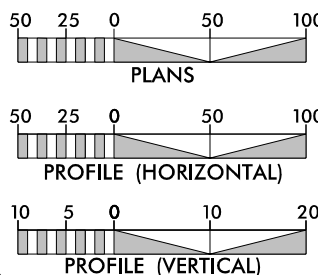
PERMIT DRAWING
SHEET 1 OF 58

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-5703	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
46375.1.1		PE	
46375.2.1		RW	

WETLAND AND SURFACE WATER IMPACTS PERMIT



GRAPHIC SCALES



DESIGN DATA

ADT 2017 = 4,000
ADT 2040 = 18,800
K = 9 %
D = 55 %
T = 8 % *
V = 70 MPH
* TTST = 4% DUAL 4%
FUNC CLASS = FREEWAY/INTERSTATE

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT R-5703 = 5.450 MILES
LENGTH STRUCTURE TIP PROJECT R-5703 = 0.338 MILES
TOTAL LENGTH TIP PROJECT R-5703 = 5.788 MILES

Prepared in the Office of:

Michael Baker
INTERNATIONAL

Michael Baker International, Inc.
8000 Regency Parkway, Suite 600
Cary, NC 27518
Professional Corporation License Number:
F-1084

DIVISION OF HIGHWAYS

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
FEBRUARY 6, 2017

LETTING DATE:
DECEMBER 20, 2017

TODD BUCKNER, P.E.
PROJECT ENGINEER

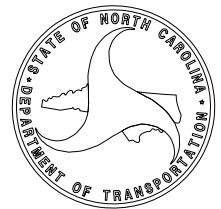
SUSAN LANCASTER, P.E.
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: _____ P.E.

ROADWAY DESIGN
ENGINEER

SIGNATURE: _____ P.E.



8/17/99

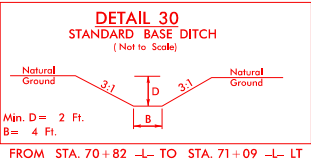
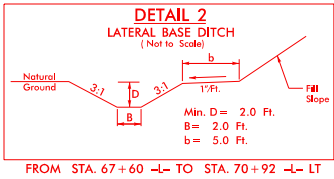
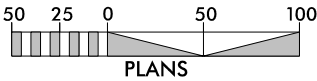
2/28/2017
R5703-Hyd-prm-wet.psh.04.dgn
jbarveu

REVISIONS

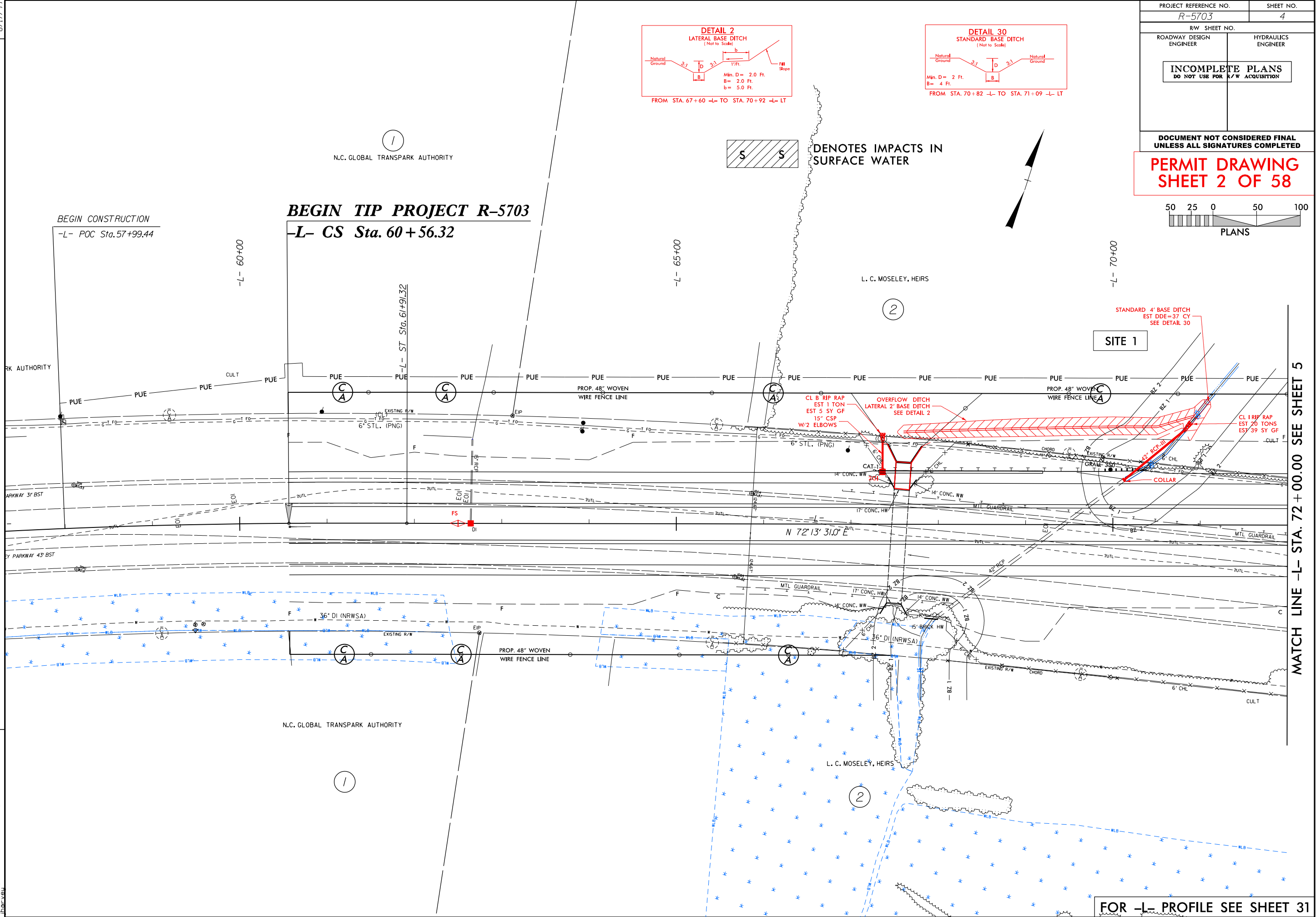
PROJECT REFERENCE NO.	SHEET NO.
R-5703	4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING
SHEET 2 OF 58



DENOTES IMPACTS IN
SURFACE WATER



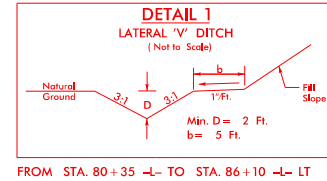
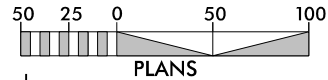
FOR -L- PROFILE SEE SHEET 31

8/17/99

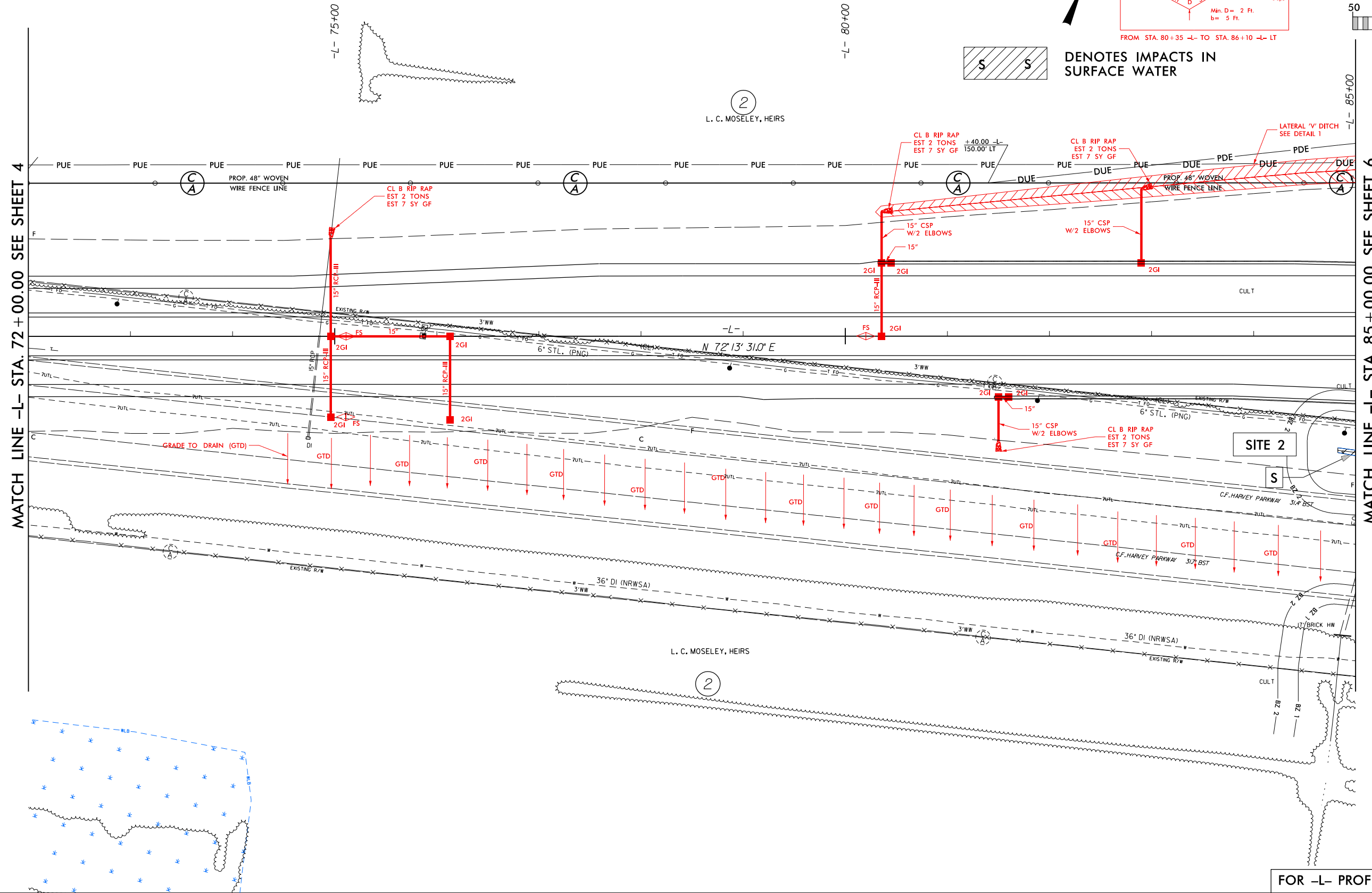
3/4/2017
R5703 Hyd_prm_wet.psh.05.dgn
harvey

PERMIT DRAWING
SHEET 4 OF 58

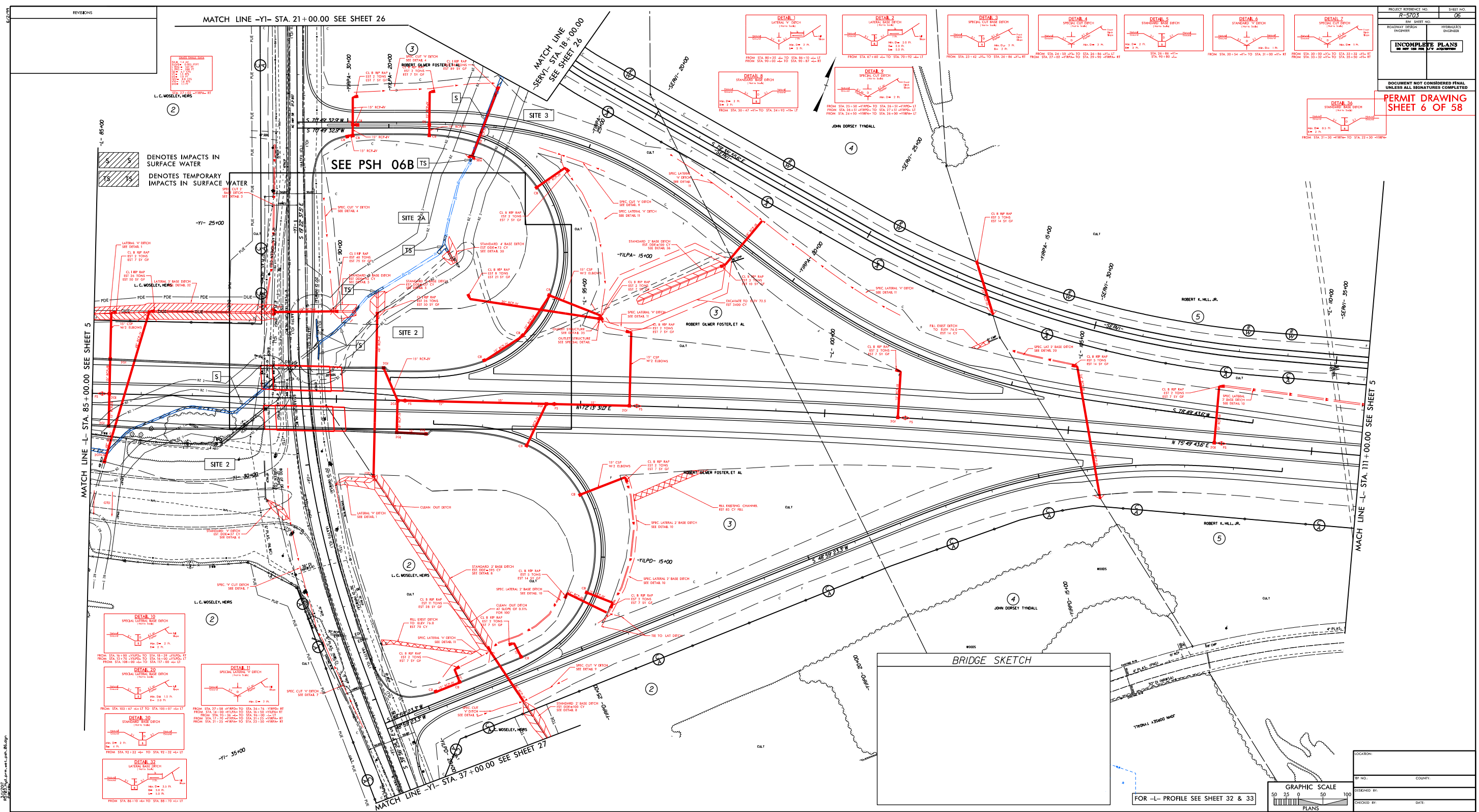
PROJECT REFERENCE NO.	SHEET NO.
R-5703	5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



DENOTES IMPACTS IN
SURFACE WATER



FOR -L- PROFILE SEE SHEET 31 & 32



REVISIONS	
1	ISSUED FOR PERMIT
2	REVISED FOR PERMIT
3	REVISED FOR PERMIT
4	REVISED FOR PERMIT
5	REVISED FOR PERMIT
6	REVISED FOR PERMIT
7	REVISED FOR PERMIT
8	REVISED FOR PERMIT
9	REVISED FOR PERMIT
10	REVISED FOR PERMIT

PROJECT REFERENCE NO. 2-5703

SHEET NO. 06

REV. SHEET NO.

ROADWAY DESIGN INCHES

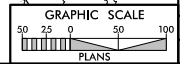
HYDRAULICS INCHES

INCOMPLETE PLANS NO REV FOR THE 24% ADJUSTMENT

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING SHEET 6 OF 58

10/15/2015 10:00 AM



LOCATION:	
TRP NO.:	COUNTY:
DESIGNED BY:	
CHECKED BY:	DATE:



TS TS

DENOTES IMPACTS IN SURFACE WATER

DENOTES TEMPORARY IMPACTS IN SURFACE WATER

10
JAMES H JR &
EDWARD W FIELDS

SITE 4

TS

- SHEET 9 —

MATCH LINE - L- STA. 163 + 00.00 SEE SHEET 17

CL B RIP RAP
EST 3 TONS
EST 10 SY GF

CL B RIP RAP
EST 2 TONS
EST 7 SY GF

CL B RIP RAP
EST 5 TONS
EST 14 SY GF

LATERAL 4'
BASE DITCH
SEE DETAIL 21

DETAIL 12
SPECIAL LATERAL BASE DITCH
(Not to Scale)

Natural Ground

3:1

D

4:1 or flatter

Slope

B

Min. D = 2 Ft.
B = 4 Ft.

FROM STA. 155+00 — TO STA. 158+50 — RT

DETAIL 21
LATERAL BASE DITCH
(Not to Scale)

Natural Ground
3:1
D
B
b
1' Ft.
3:1
Ft. Slope

Min. D = 2 Ft.
B = 4 Ft.
b = 5 Ft.

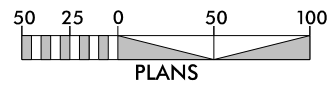
FROM STA. 158+50 —L— TO STA. 164+50 —L—

GRASS SWALE DATA

DA = 12.8 AC
SLOPE = 0.003 FT/FT
L REQ. = 1,280 FT
L PRO. = 600 FT
Q2 = 14.1 CFS
V2 = 1.9 FPS
D2 = 1.0 FT
Q10 = 18.2 CFS
V10 = 2.0 FPS
D10 = 1.2 FT

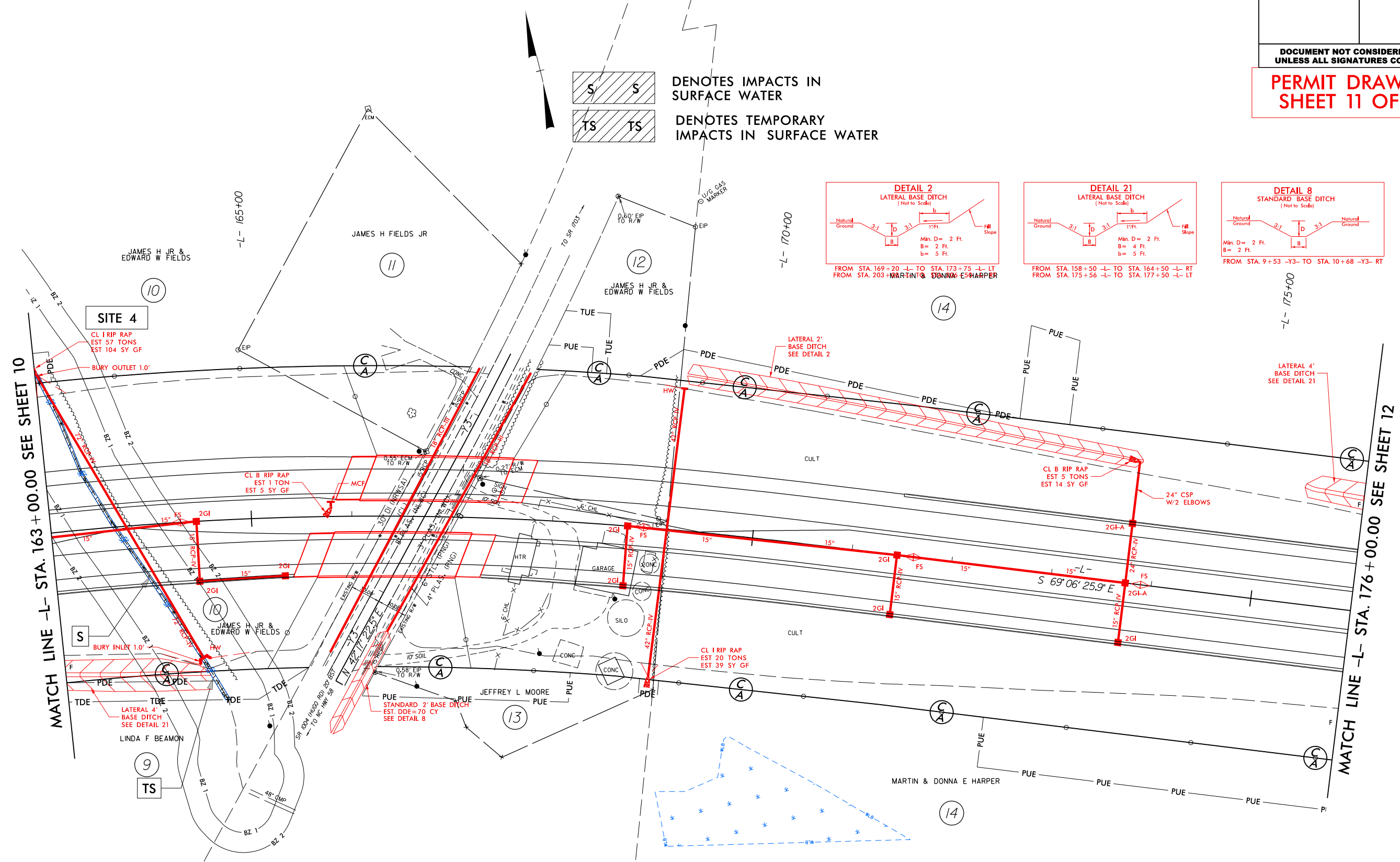
STA. 164 + 50 -L- R

FOR -L- PROFILE SEE SHEET 34 & 35



PROJECT REFERENCE NO.	SHEET NO.
R-5703	11
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

PERMIT DRAWING
SHEET 11 OF 58

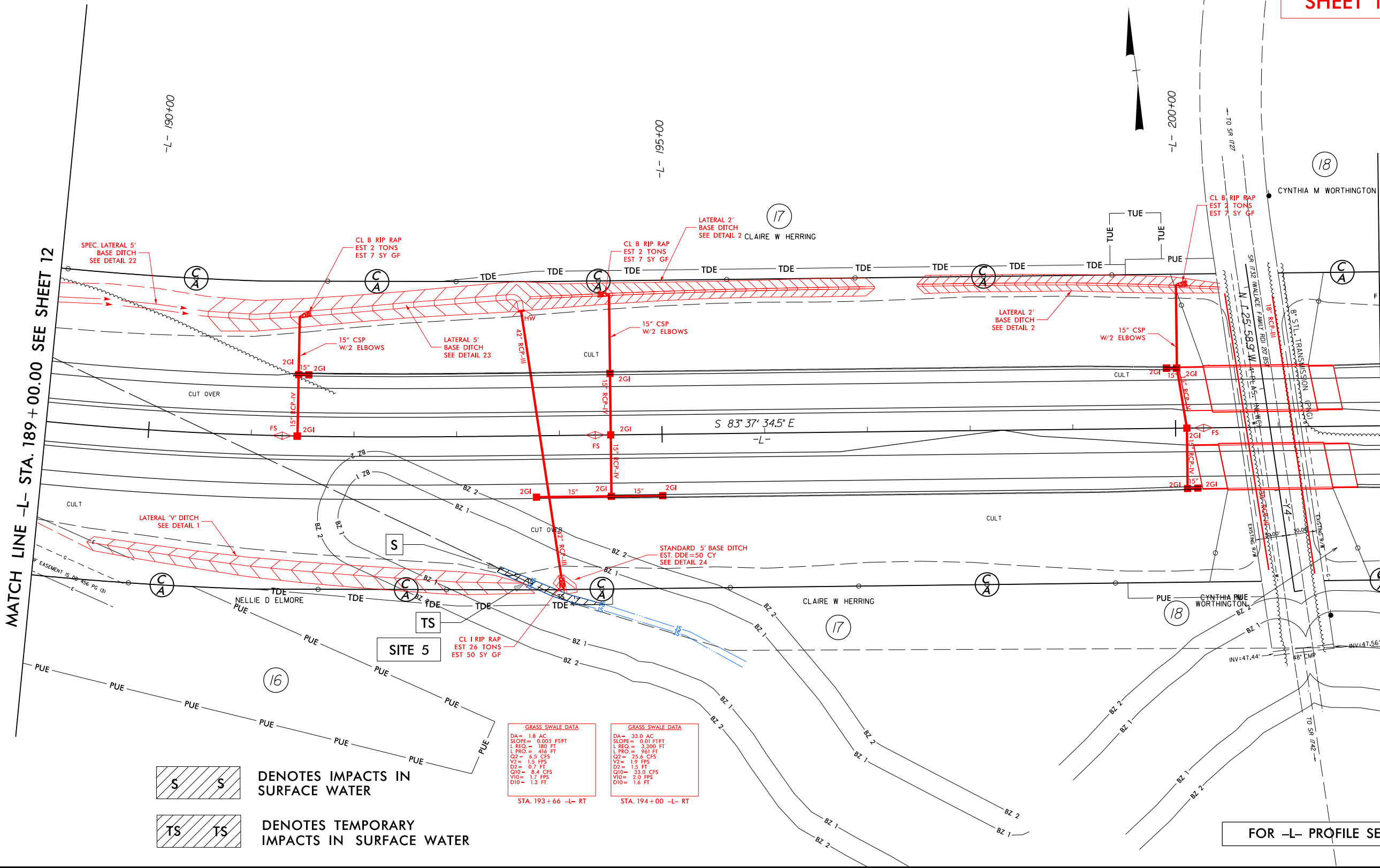
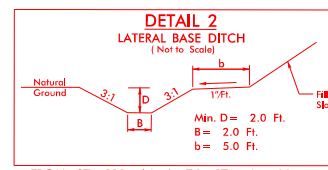
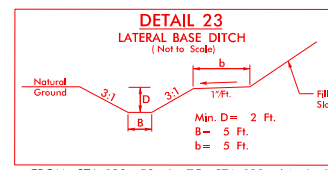
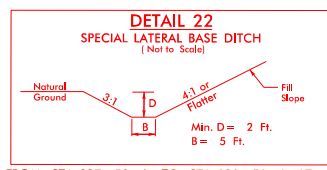
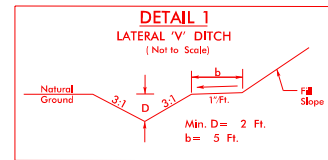
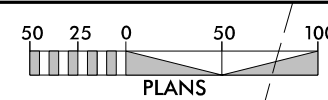


FOR -L- PROFILE SEE SHEET 35

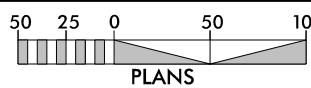
MATCH LINE -L- STA. 189+00.00 SEE SHEET 12

MATCH LINE -L- STA. 202+00.00 SEE SHEET 14

PROJECT REFERENCE NO. R-5703		SHEET NO. 13	
RW SHEET NO.		HYDRAULICS ENGINEER	
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION			
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			
PERMIT DRAWING SHEET 14 OF 58			



FOR -L- PROFILE SEE SHEET 36



PLANS



DENOTES EXCAVATION IN WETLAND



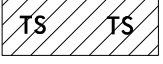
DENOTES FILL IN WETLAND



DENOTES MECHANIZED CLEARING



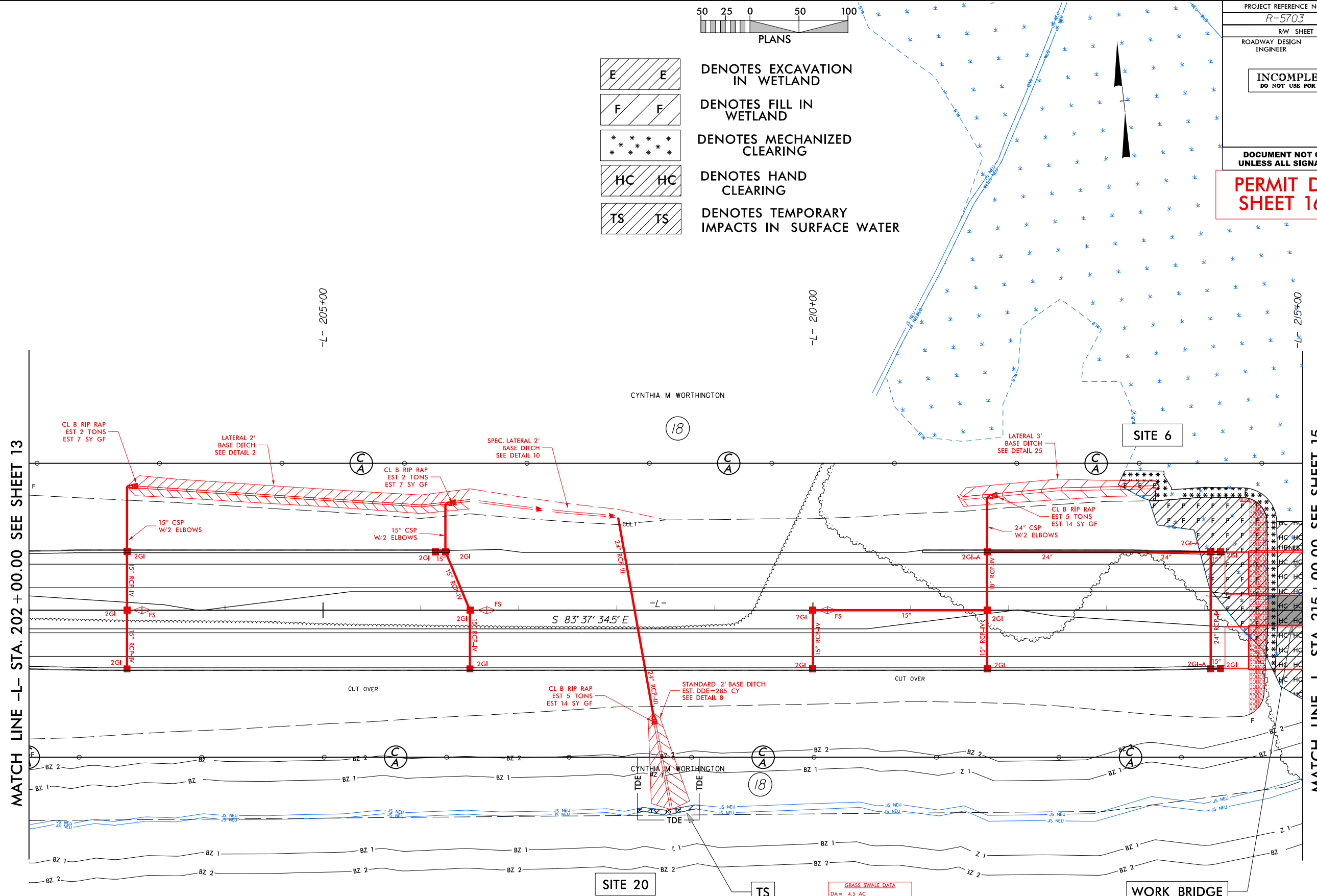
DENOTES HAND CLEARING



DENOTES TEMPORARY IMPACTS IN SURFACE WATER

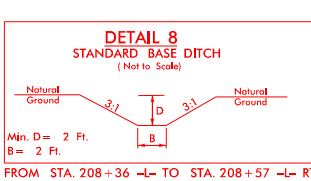
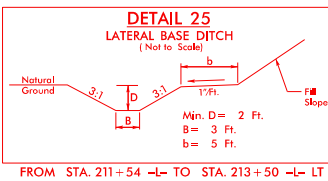
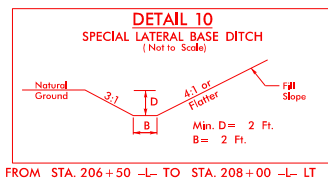
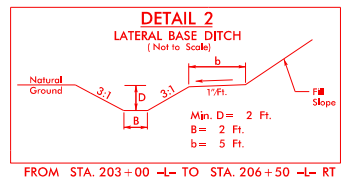
PROJECT REFERENCE NO.	SHEET NO.
R-5703	14
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

PERMIT DRAWING
SHEET 16 OF 58



MATCH LINE -L- STA. 202 + 00.00 SEE SHEET 13

MATCH LINE -L- STA. 215 + 00.00 SEE SHEET 15

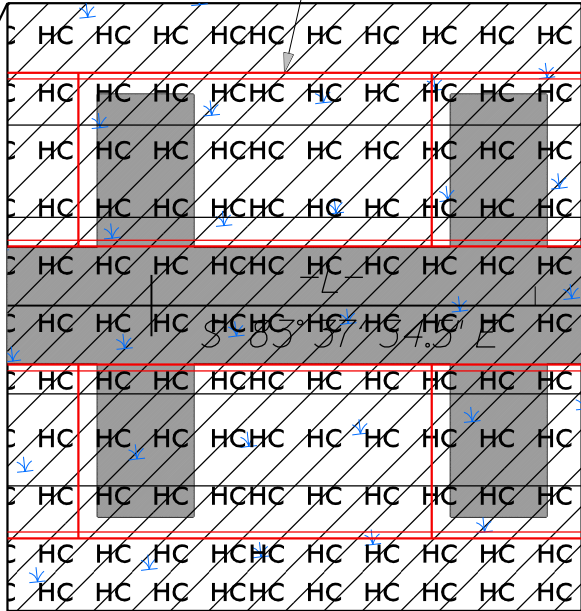
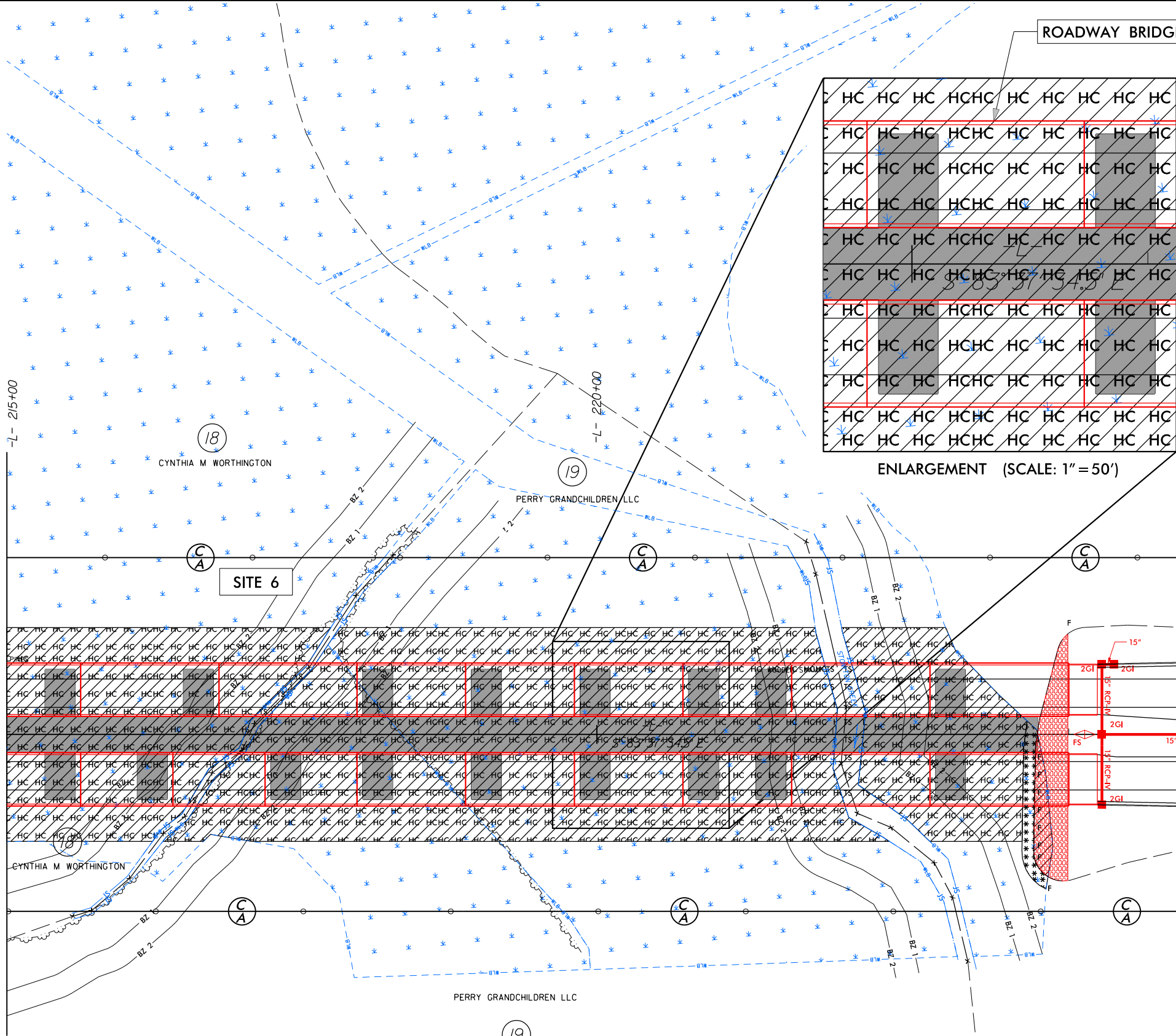


GRASS SWALE DATA
DA= 4.5 AC
SLOPE= 0.01 FT/FT
L REQ= 440 FT
L PRO= 400 FT
Q2= 9.4 CFS
Q2= 1.8 FPS
Q10= 1.0 FT
Q10= 12.0 CFS
V10= 1.9 FPS
D10= 1.2 FT
STA. 208+50 -L- RT

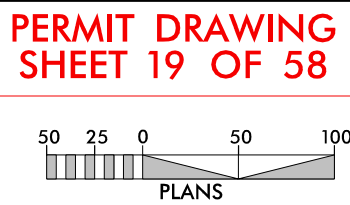
WORK BRIDGE

FOR -L- PROFILE SEE SHEET 36 & 37

MATCH LINE -L- STA. 215 + 00.00 SEE SHEET 14



ENLARGEMENT (SCALE: 1"= 50')



WORK BRIDGE

PROJECT REFERENCE NO. <i>U-5703</i>		SHEET NO. <i>15</i>	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION			
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			



TS	TS
HC	HC
F	F
*	*

TS TS
DENOTES TEMPORARY
IMPACTS IN SURFACE WATER

HC HC
DENOTES HAND
CLEARING

F F
DENOTES FILL IN
WETLAND

* * *
DENOTES MECHANIZED
CLEARING

FOR -L- PROFILE SEE SHEET 37

MATCH LINE -L- STA. 228 + 00.00 SEE SHEET 16

5/28/99

PERMIT DRAWING
SHEET 21 OF 58

PROJECT REFERENCE NO.
R-5703

SHEET NO.
37

ROADWAY DESIGN
ENGINEER

HYDRAULICS
ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

BRIDGE HYDRAULIC DATA

DESIGN DISCHARGE = 1660 CFS

DESIGN FREQUENCY = 50 YRS

DESIGN HW ELEVATION = 42.8 FT

BASE DISCHARGE = 2050 CFS

BASE FREQUENCY = 100 YRS

BASE HW ELEVATION = 43.1 FT

OVERTOPPING DISCHARGE = >3160 CFS

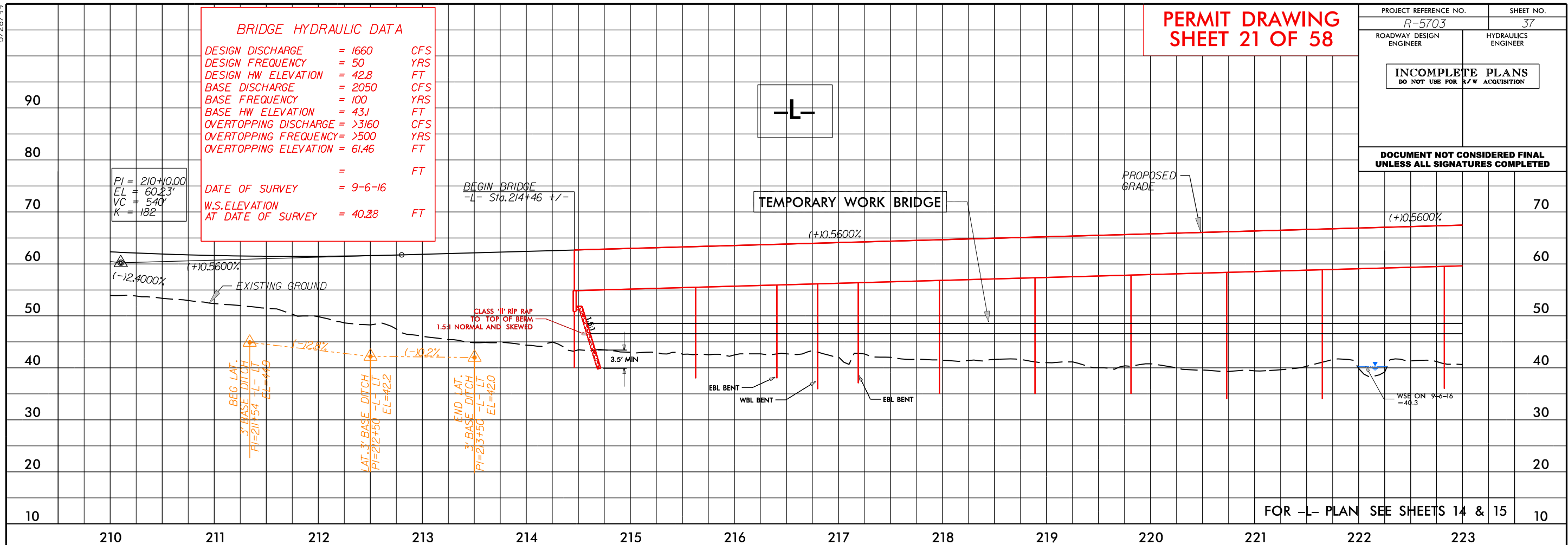
OVERTOPPING FREQUENCY = >500 YRS

OVERTOPPING ELEVATION = 61.46 FT

DATE OF SURVEY = 9-6-16

W.S.ELEVATION AT DATE OF SURVEY = 40.28 FT

PI = 210+10.00
EL = 60.23'
VC = 540'
K = 182



PIPE HYDRAULIC DATA

36" RCP-III Sta. 234+49

DRAINAGE AREA = 17.0 AC

DESIGN FREQUENCY = 50 YRS

DESIGN DISCHARGE = 33 CFS

DESIGN HW ELEVATION = 62.3 FT

100 YEAR DISCHARGE = 39 CFS

100 YEAR HW ELEVATION = 62.60 FT

OVERTOPPING FREQUENCY = 500 YRS

OVERTOPPING DISCHARGE = 65 CFS

OVERTOPPING ELEVATION = 68.8 FT

PIPE HYDRAULIC DATA

24" RCP-III Sta. 227+19

DRAINAGE AREA = 3.2 AC

DESIGN FREQUENCY = 50 YRS

DESIGN DISCHARGE = 10 CFS

DESIGN HW ELEVATION = 62.4 FT

100 YEAR DISCHARGE = 11 CFS

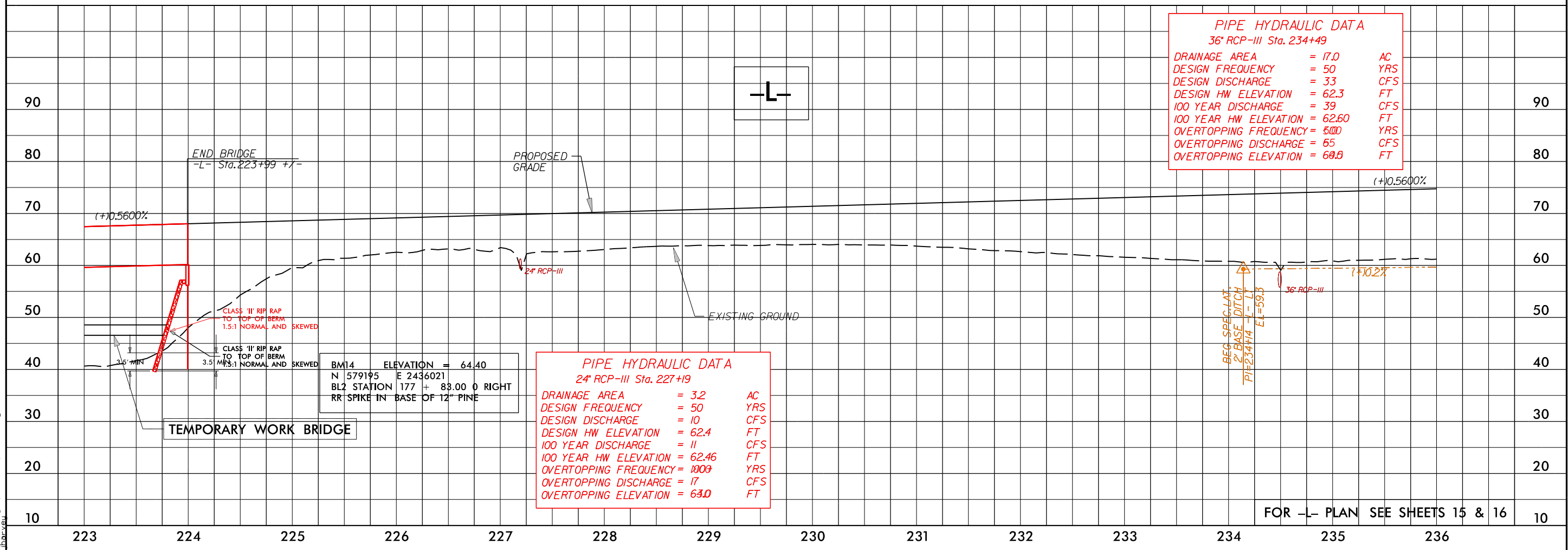
100 YEAR HW ELEVATION = 62.46 FT

OVERTOPPING FREQUENCY = 1000 YRS

OVERTOPPING DISCHARGE = 17 CFS

OVERTOPPING ELEVATION = 63.0 FT

BM14 ELEVATION = 64.40
N 579195 E 2436021
BL2 STATION 177 + 83.00 0 RIGHT
RR SPIKE IN BASE OF 12" PINE

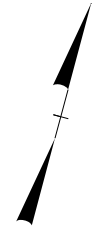
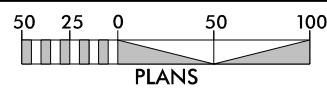




3/1/2017 15103_Hyd_prm_wet.psh.17.dgn inbr.wsh	8/17/99
--	---------

8/17/99

3/1/2017 R5703 Hyd.prm.wet.psh.19.dgn

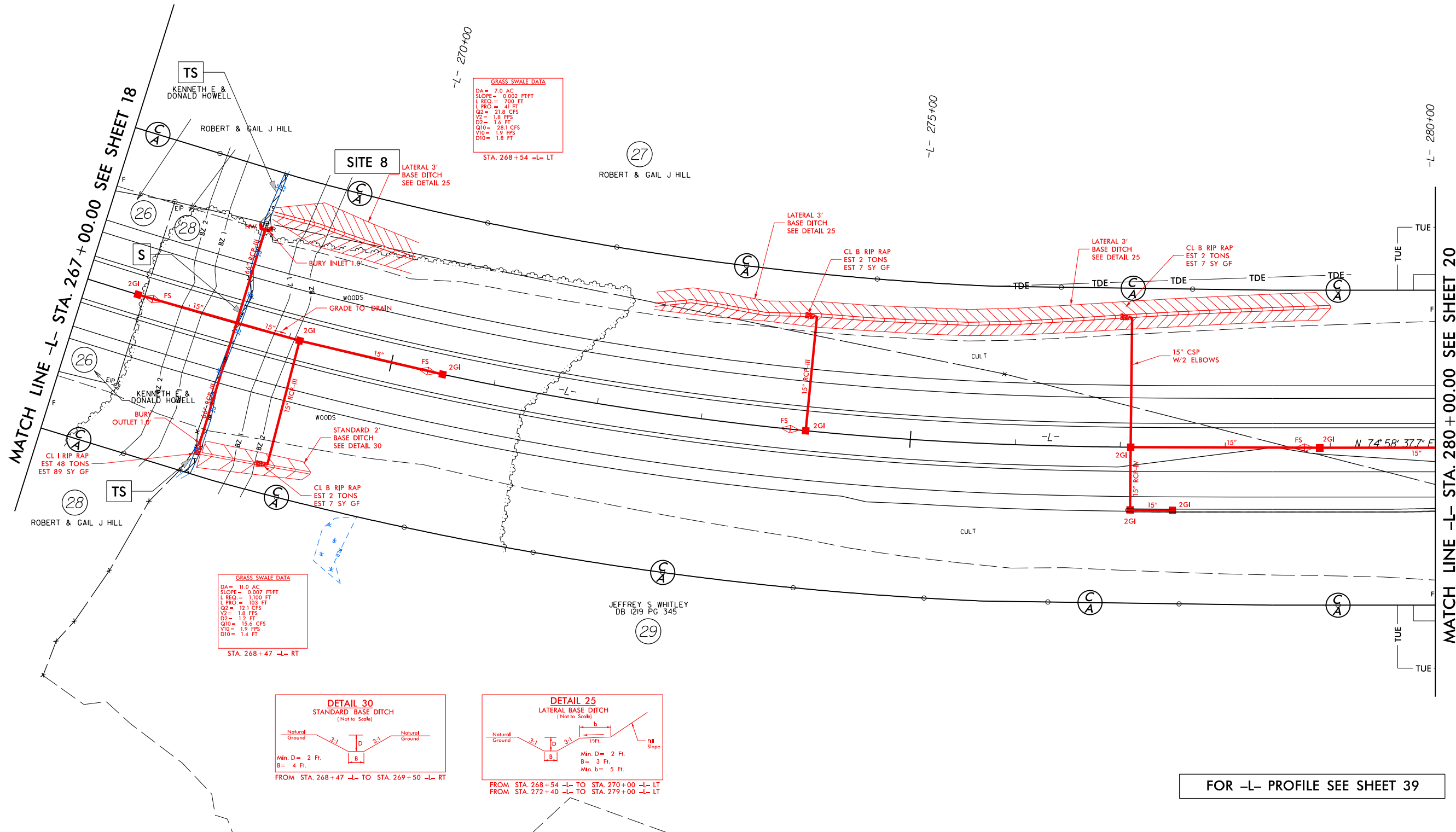


PROJECT REFERENCE NO. <i>R-5703</i>		SHEET NO. <i>19</i>	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION			
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			

PERMIT DRAWING
SHEET 24 OF 58

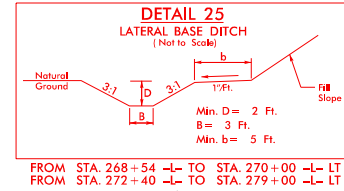
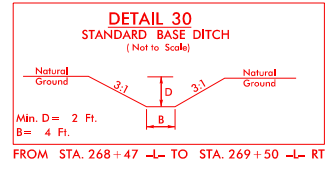
 DENOTES IMPACTS IN SURFACE WATER

 DENOTES TEMPORARY IMPACTS IN SURFACE WATER



GRASS SWALE DATA
DA = 7.0 AC
SLOPE = 0.002 FT/FT
L REQ = 700 FT
L PRO = 41 FT
Q2 = 21.8 CFS
V2 = 1.8 FPS
D2 = 1.6 FT
Q10 = 28.1 CFS
V10 = 1.9 FPS
D10 = 1.8 FT
STA. 268+54 -L- LT

GRASS SWALE DATA
DA = 11.0 AC
SLOPE = 0.007 FT/FT
L REQ = 1,100 FT
L PRO = 103 FT
Q2 = 12.1 CFS
V2 = 1.8 FPS
D2 = 1.2 FT
Q10 = 15.4 CFS
V10 = 1.9 FPS
D10 = 1.4 FT
STA. 268+47 -L- RT

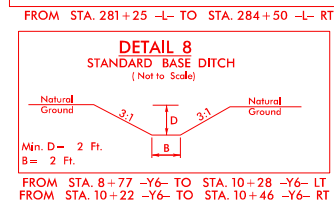
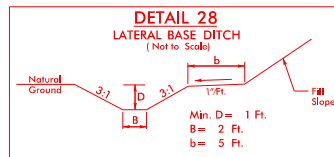


FOR -L- PROFILE SEE SHEET 39

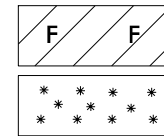
MATCH LINE -L- STA. 280+00.00 SEE SHEET 20

8/17/99

3/1/2017 R-5703 Hyd-prm-wet.psh.20.dgn
harvey

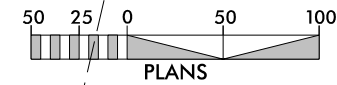


FROM STA. 281+25 -L- TO STA. 284+50 -L- RT
FROM STA. 8+77 -Y6- TO STA. 10+28 -Y6- LT
FROM STA. 10+22 -Y6- TO STA. 10+46 -Y6- RT



DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING



PLANS

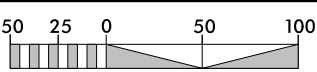
PROJECT REFERENCE NO.		SHEET NO.	
R-5703		20	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION			
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			

PERMIT DRAWING
SHEET 27 OF 58

MATCH LINE -L- STA. 280 + 00.00 SEE SHEET 19

MATCH LINE -L- STA. 293 + 00.00 SEE SHEET 21

FOR -L- PROFILE SEE SHEET 39 & 40



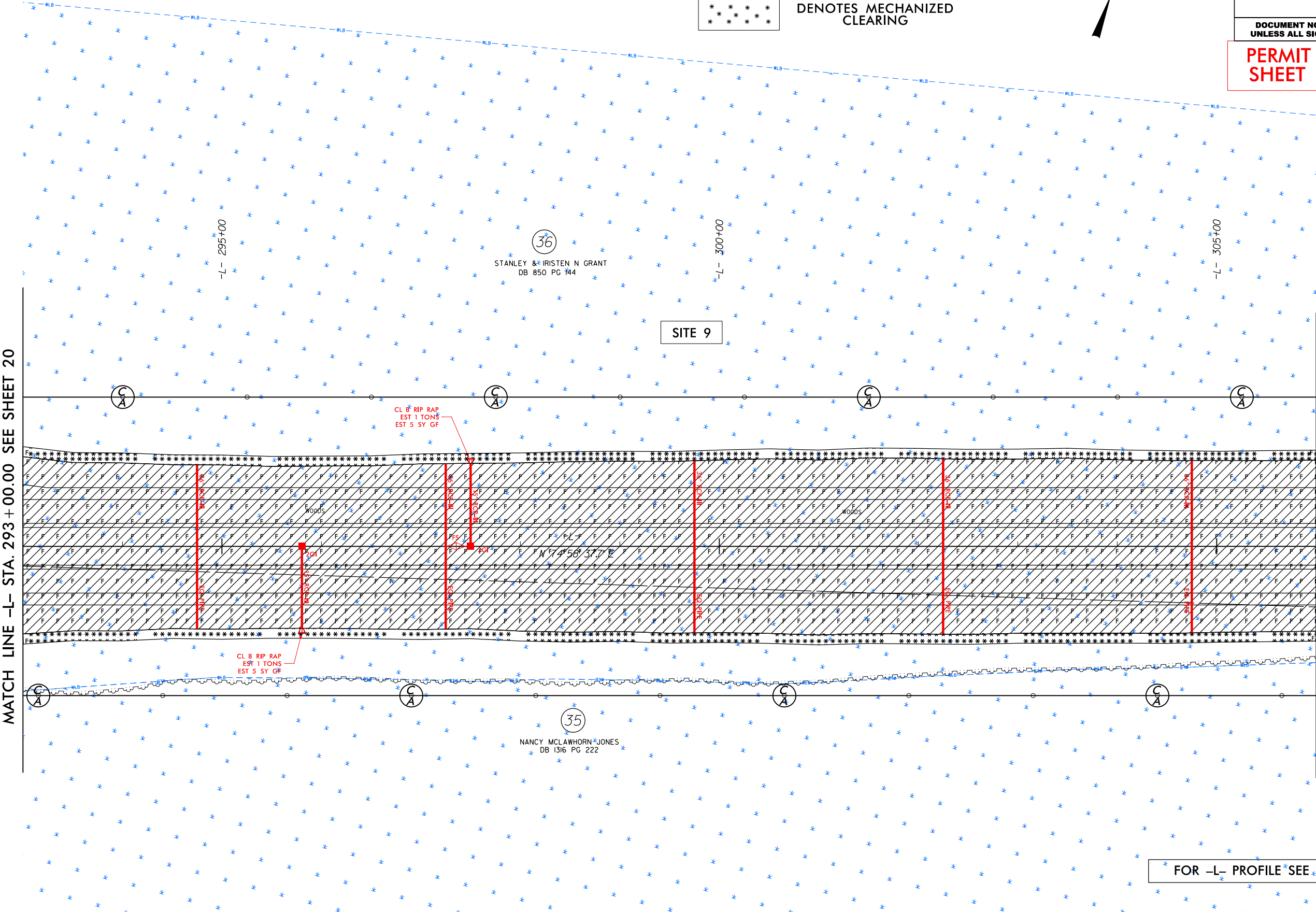
DENOTES FILL IN WETLAND



DENOTES MECHANIZED CLEARING

PROJECT REFERENCE NO. <i>R-5703</i>		SHEET NO. <i>21</i>	
R/W SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION			
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			

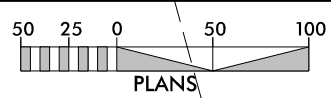
PERMIT DRAWING
SHEET 29 OF 58



FOR -L- PROFILE SEE SHEET 40

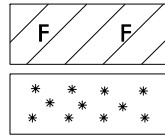
8/17/99

3/1/2017 R-5703 Hyd-prm-wet.psh, 22.dgn



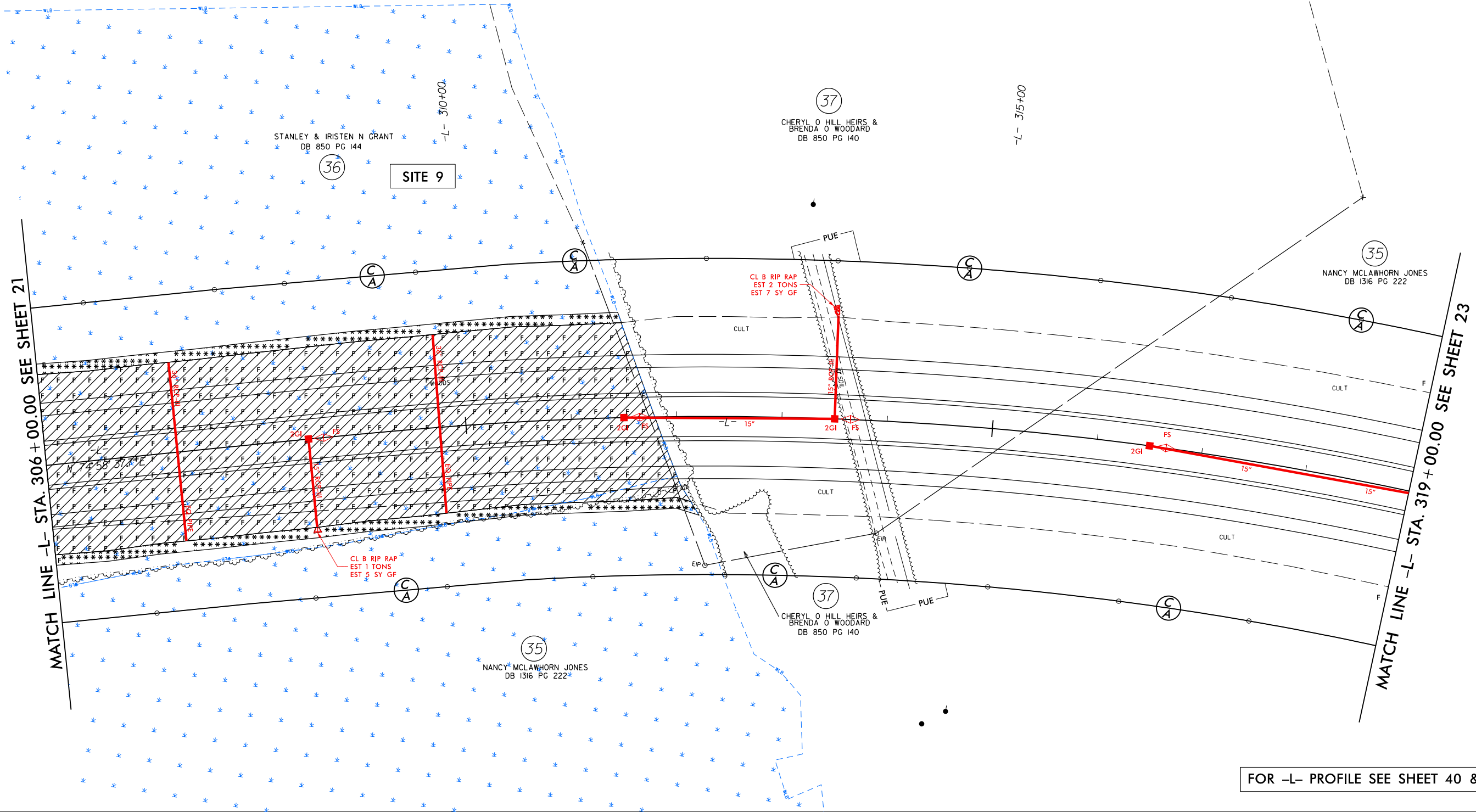
PROJECT REFERENCE NO. <i>R-5703</i>		SHEET NO. <i>22</i>	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION			
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			

PERMIT DRAWING
SHEET 31 OF 58

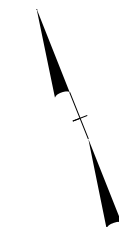


DENOTES FILL IN
WETLAND

DENOTES MECHANIZED
CLEARING

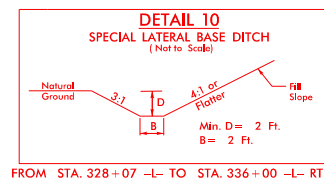


FOR -L- PROFILE SEE SHEET 40 & 41

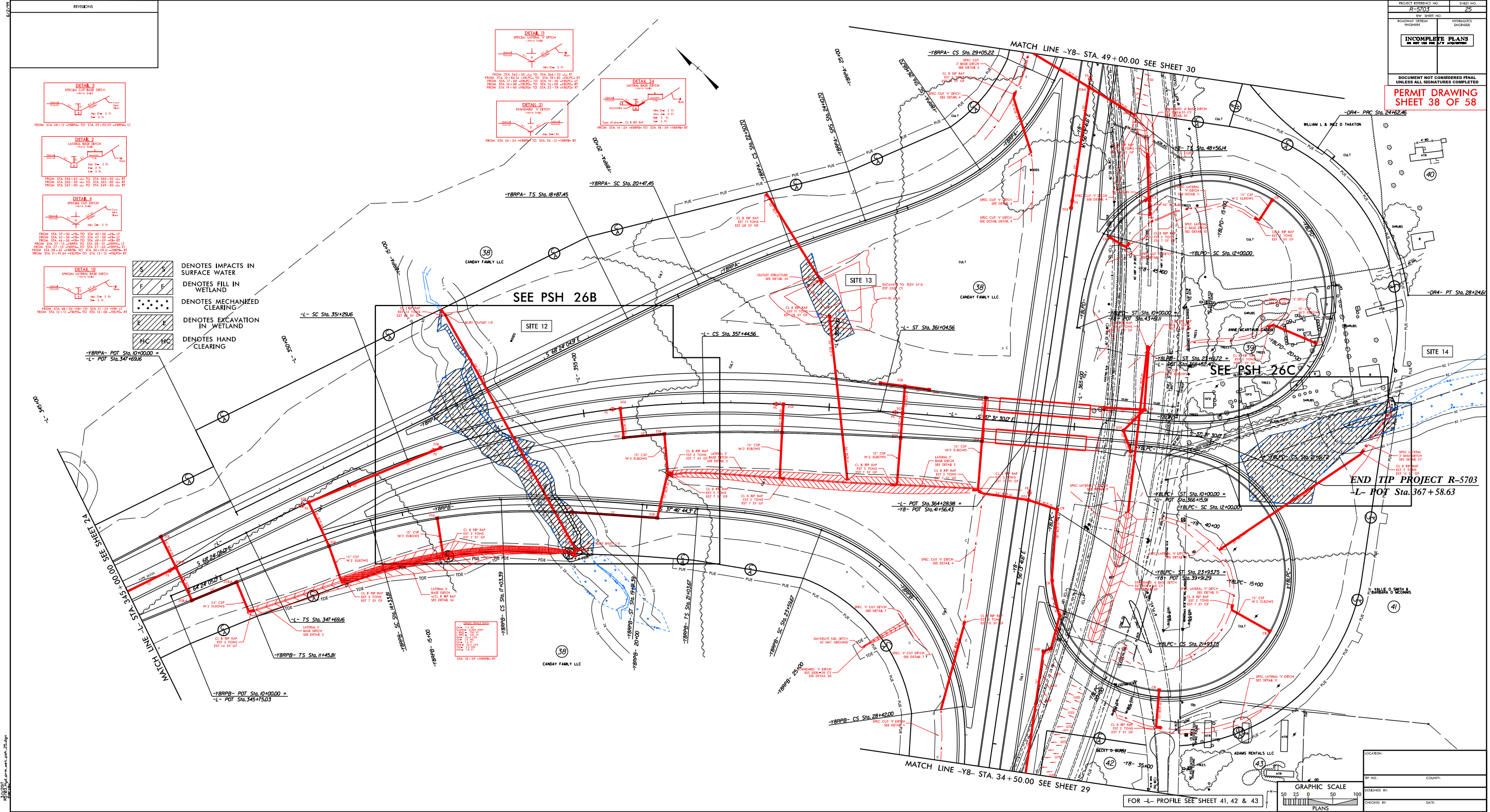


MATCH LINE -L- STA. 332+00.00 SEE SHEET 23

MATCH LINE -L- STA. 345 + 00.00 SEE SHEET 25



FOR -L- PROFILE SEE SHEET 41 & 42



REVISIONS

DETAIL 3
SPECIAL CUT BASE DITCH
FROM STA. 28+12 TO STA. 29+03.59 -YBRPA-LT
W/2 Ditch 2 ft.
W/2 Ditch 2 ft.

DETAIL 3
LATERAL BASE DITCH
FROM STA. 28+12 TO STA. 29+03.59 -YBRPA-LT
W/2 Ditch 2 ft.
W/2 Ditch 2 ft.

DETAIL 4
SPECIAL CUT DITCH
FROM STA. 27+00 TO STA. 28+12 -YBRPA-LT
W/2 Ditch 2 ft.
W/2 Ditch 2 ft.

DETAIL 10
SPECIAL LATERAL BASE DITCH
FROM STA. 28+12 TO STA. 29+03.59 -YBRPA-LT
W/2 Ditch 2 ft.
W/2 Ditch 2 ft.

DETAIL 11
SPECIAL LATERAL V DITCH
FROM STA. 28+12 TO STA. 29+03.59 -YBRPA-LT
W/2 Ditch 2 ft.
W/2 Ditch 2 ft.

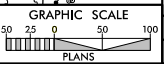
DETAIL 12
STANDARD V DITCH
FROM STA. 28+12 TO STA. 29+03.59 -YBRPA-LT
W/2 Ditch 2 ft.
W/2 Ditch 2 ft.

DETAIL 14
LATERAL V DITCH
FROM STA. 28+12 TO STA. 29+03.59 -YBRPA-LT
W/2 Ditch 2 ft.
W/2 Ditch 2 ft.

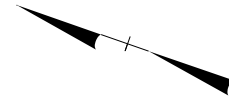
- DENOTES IMPACTS IN SURFACE WATER
- DENOTES FILL IN WETLAND
- DENOTES MECHANIZED CLEARING
- DENOTES EXCAVATION IN WETLAND
- DENOTES HAND CLEARING

PROJECT REFERENCE NO.	R-5703
SHEET NO.	25
REV. SHEET NO.	
ROADWAY DESIGN	HYDRAULICS
INCOMPLETE PLANS	INCOMPLETE
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
PERMIT DRAWING SHEET 38 OF 58	

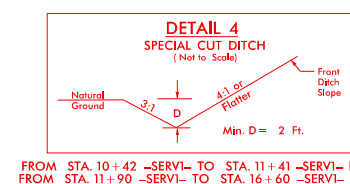
END TIP PROJECT R-5703
-L- POT Sta. 367+58.63



LOCATION:	
TP NO.:	
COUNTY:	
DESIGNED BY:	
CHECKED BY:	
DATE:	



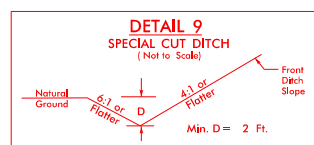
 DENOTES IMPACTS IN SURFACE WATER
DENOTES TEMPORARY IMPACTS IN SURFACE WATER



DETAIL 9
SPECIAL CUT DITCH
(Not to Scale)

Natural Ground
6:1 or Flatter
D
1:1 or Flatter
Front Ditch Slope
Min. D = 2 Ft.

FROM STA. 15+50 -YI- TO STA. 16+43 -YI- RT
FROM STA. 15+50 -YI- TO STA. 16+75 -YI- LT



ROBERT GILMER FOSTER, ET AL

③

NEUSE REGIONAL WATER & SEWER

-YI- 15+00

N 70° 37' 22.5" E

SPEC. CUT 'V' DITCH
SEE DETAIL 4

SPEC. CUT 'V' DITCH —
SEE DETAIL 9

C C
20° DI (NRWSA)

SPEC. CUT 'V' DITCH
SEE DETAIL 4

GRASS SWALE DATA

DA= 3.0 AC
SLOPE= 0.018 FT/FT
L REQ.= 300 FT
L PRO.= 470 FT
Q2= 7.7 CFS
V2= 1.9 FPS
D2= 1.1 FT
Q10= 10.8 CFS
V10= 2.0 FPS
D10= 1.2 FT

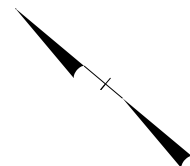
STA 16+60 -SERV1- RT

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000 1001 1002 1003 1004 1005 1006 1007 1008 1009 1010 1011 1012 1013 1014 1015 1016 1017 1018 1019 1020 1021 1022 1023 1024 1025 1026 1027 1028 1029 1030 1031 1032 1033 1034 1035 1036 1037 1038 1039 1040

FOR -Y1- PROFILE SEE SHEET 6, 43 & 44

8/17/99

3/1/2017
35703_Hyd-prm_wet_psh-26.dgn



PERMIT DRAWING
SHEET 51 OF 58



A rectangular area is divided into two equal parts by a vertical line. Each part is labeled with the letter 'E'.

DENOTES EXCAVATION
IN WETLAND

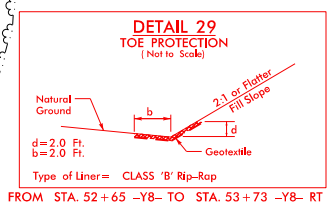
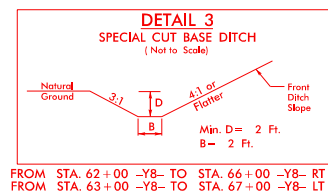
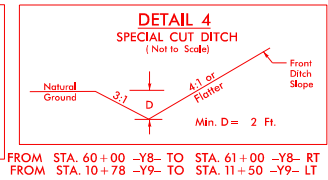
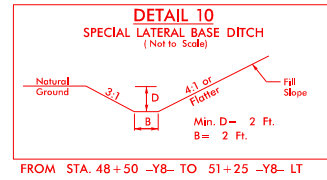
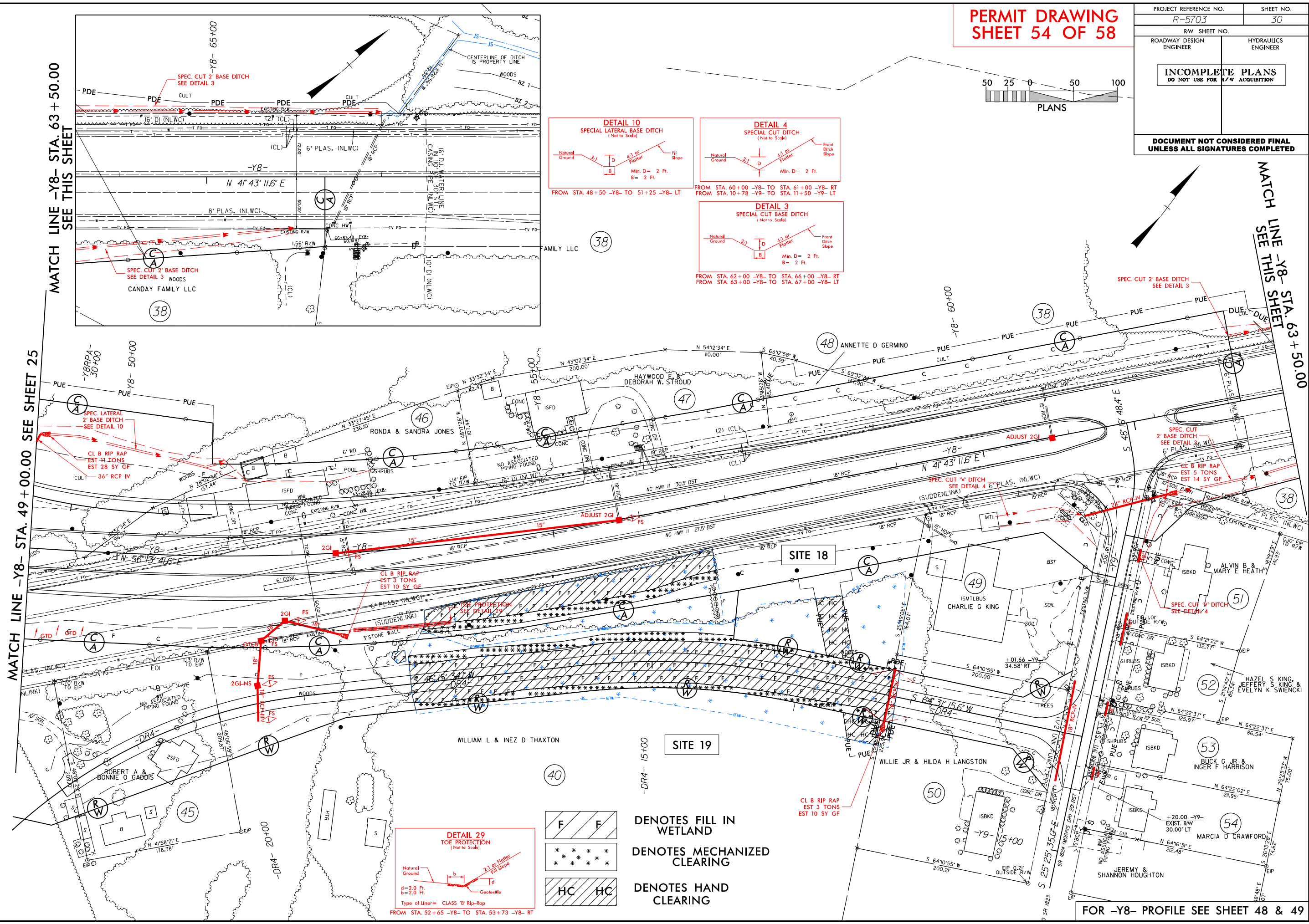
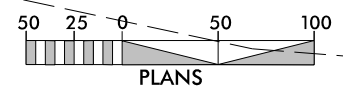
-YI- 50+00



8/17/99
3/1/2017 Hyd.prm.wet.psh, 30.dgn
harvey

PERMIT DRAWING
SHEET 54 OF 58

PROJECT REFERENCE NO.		SHEET NO.	
R-5703		30	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION			
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			



- F F DENOTES FILL IN WETLAND
- * * * DENOTES MECHANIZED CLEARING
- HC HC DENOTES HAND CLEARING

FOR -Y8- PROFILE SEE SHEET 48 & 49

WETLAND PERMIT IMPACT SUMMARY													
Site No.	Station (From/To)	Structure Size / Type	Feature Label (NRTR)	WETLAND IMPACTS					SURFACE WATER IMPACTS				
				Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
1	70+14-70+95 -L- LT	42" RCP	SAA-UT to Stonyton Creek						0.01		142		
2	84+81-90+20 -L-	ROAD FILL	SAB-UT to Stonyton Creek						0.06	< 0.01	709	36	
2A	15+00 -Y1LPA- RT	ROAD FILL	SAB-UT to Stonyton Creek							< 0.01		55	
3	27+21 -Y1PRA-	66" RCP	SAB-UT to Stonyton Creek						0.02	< 0.01	170	10	
4	163+05-164+48 -L-	72" RCP	SAC-UT to Stonyton Creek						0.02	< 0.01	339	58	
5	193+38-194+24 -L- RT	42" RCP	23-UT to Stonyton Creek						< 0.01	0.01	14	84	
6	221+55-223+86-L-	BRIDGE	W/SA to Stonyton Cr SAD-UT to Stonyton Cr	0.25		0.01	0.11	3.37		0.09		289	
7	250+00 -L- RT	42" RCP	26-UT to Stonyton Creek						< 0.01		11		
8	268+50 -L- LT RT	66" RCP	SAG-UT to Stonyton Creek						0.02	< 0.01	226	76	
9	286+40-312+21-L-	ROAD FILL	WK	10.29			1.14						
10	336+03-338+00 -L- LT	ROAD FILL	WM	0.13									
11	341+83 -L-	BRIDGE	SBA-UT to Beaverdam Branch							< 0.01		30	
12	352+00-354+79 -L-	54" RCP	WP/SBC-UT to Beaverdam Branch	0.61		< 0.01	0.01		0.12		640		
13	359+70-360+40 -L- LT	36" RCP	WQ	0.18									
14	12+16-13+57 -Y8LPC- RT	ROAD FILL	WR/33-UT to Neuse River	0.67		0.02	< 0.01	0.01	0.03	< 0.01	98	12	
15	16+20 -SERV1-	54" RCP	SAB-UT to Stonyton Creek						0.02	< 0.01	122	51	
16	40+61-43+50 -Y1- LT	ROAD FILL	WD	0.10			0.06						
17	36+97-45+27 -Y1- RT	ROAD FILL	WC	0.25		< 0.01	0.14	0.47					
18	53+38-56+75 -Y8- RT	ROAD FILL	WS	0.20			0.07						
19	11+17-16+96 -DR4-	ROAD FILL	WS	0.60			0.10	0.07					
20	208+21-208+84-L-RT	ROAD FILL	SAD-UT to Stonyton Creek							< 0.01		64	
TOTALS*:				13.26		0.05	1.65	3.92	0.30	0.15	2473	766	0

*Rounded totals are sum of actual impacts

NOTES:
SITE 6: IMPACTS OF 612 SF (0.014 AC) DUE TO BRIDGE PILES

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
3-2-17
LENOIR COUNTY
R-5703
46375.2.1
SHEET 58 OF 58