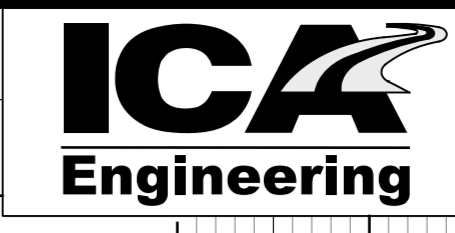


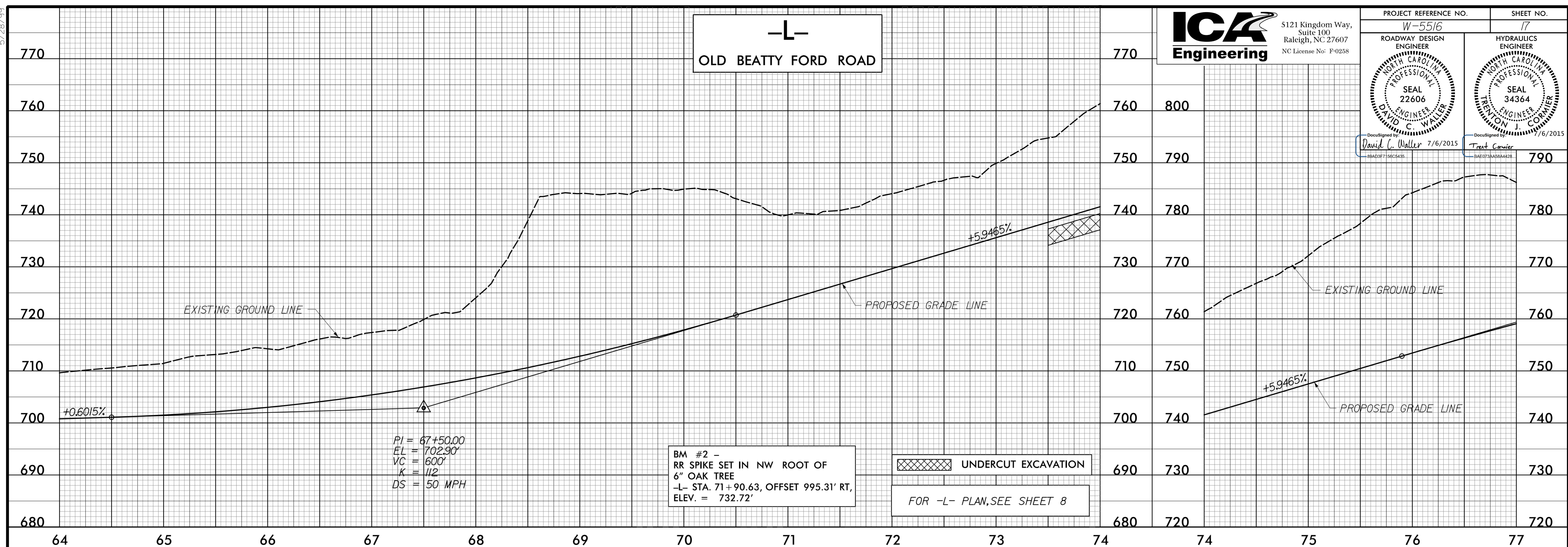
5/28/09

### -L- OLD BEATTY FORD ROAD



5121 Kingdom Way,  
Suite 100  
Raleigh, NC 27607  
NC License No: F-0258

PROJECT REFERENCE NO. W-5516	SHEET NO. 17
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
SEAL 22606 DAVID C. WALLER	SEAL 34364 TRENT C. COMIER
DocuSigned by: David C. Waller 7/6/2015	DocuSigned by: Trent Comier 7/6/2015

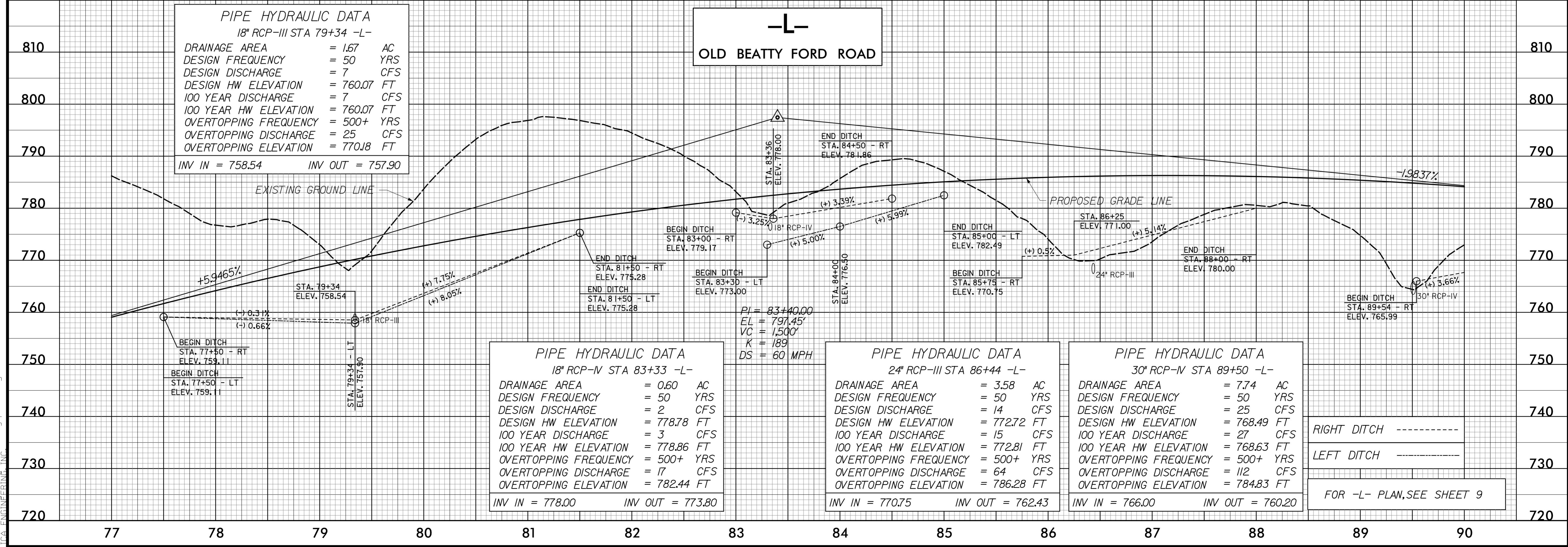


BM #2 -  
RR SPIKE SET IN NW ROOT OF  
6" OAK TREE  
-L- STA. 71+90.63, OFFSET 995.31' RT,  
ELEV. = 732.72'

FOR -L- PLAN, SEE SHEET 8

PIPE HYDRAULIC DATA	
18" RCP-III STA 79+34 -L-	
DRAINAGE AREA	= 1.67 AC
DESIGN FREQUENCY	= 50 YRS
DESIGN DISCHARGE	= 7 CFS
DESIGN HW ELEVATION	= 760.07 FT
100 YEAR DISCHARGE	= 7 CFS
100 YEAR HW ELEVATION	= 760.07 FT
OVERTOPPING FREQUENCY	= 500+ YRS
OVERTOPPING DISCHARGE	= 25 CFS
OVERTOPPING ELEVATION	= 770.18 FT
INV IN	= 758.54
INV OUT	= 757.90

### -L- OLD BEATTY FORD ROAD



PIPE HYDRAULIC DATA	
18" RCP-IV STA 83+33 -L-	
DRAINAGE AREA	= 0.60 AC
DESIGN FREQUENCY	= 50 YRS
DESIGN DISCHARGE	= 2 CFS
DESIGN HW ELEVATION	= 778.78 FT
100 YEAR DISCHARGE	= 3 CFS
100 YEAR HW ELEVATION	= 778.86 FT
OVERTOPPING FREQUENCY	= 500+ YRS
OVERTOPPING DISCHARGE	= 17 CFS
OVERTOPPING ELEVATION	= 782.44 FT
INV IN	= 778.00
INV OUT	= 773.80

PIPE HYDRAULIC DATA	
24" RCP-III STA 86+44 -L-	
DRAINAGE AREA	= 3.58 AC
DESIGN FREQUENCY	= 50 YRS
DESIGN DISCHARGE	= 14 CFS
DESIGN HW ELEVATION	= 772.72 FT
100 YEAR DISCHARGE	= 15 CFS
100 YEAR HW ELEVATION	= 772.81 FT
OVERTOPPING FREQUENCY	= 500+ YRS
OVERTOPPING DISCHARGE	= 64 CFS
OVERTOPPING ELEVATION	= 786.28 FT
INV IN	= 770.75
INV OUT	= 762.43

PIPE HYDRAULIC DATA	
30" RCP-IV STA 89+50 -L-	
DRAINAGE AREA	= 7.74 AC
DESIGN FREQUENCY	= 50 YRS
DESIGN DISCHARGE	= 25 CFS
DESIGN HW ELEVATION	= 768.49 FT
100 YEAR DISCHARGE	= 27 CFS
100 YEAR HW ELEVATION	= 768.63 FT
OVERTOPPING FREQUENCY	= 500+ YRS
OVERTOPPING DISCHARGE	= 112 CFS
OVERTOPPING ELEVATION	= 784.83 FT
INV IN	= 766.00
INV OUT	= 760.20

RIGHT DITCH -----  
LEFT DITCH -----

FOR -L- PLAN, SEE SHEET 9

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