

6/09/04

BM#6 EL. 2.736  
RR SPIKE IN 24" GUM  
37.986m RT L STA. 196+64.699

GREENHORNE & O'MARA, INC.  
5565 CENTERVIEW DRIVE, SUITE 107  
RALEIGH, NORTH CAROLINA 27605  
(919) 851-1919



PROJECT REFERENCE NO. R-2539C	SHEET NO. 42
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST. REV.	R / W REV.

HYDRAULIC DATA

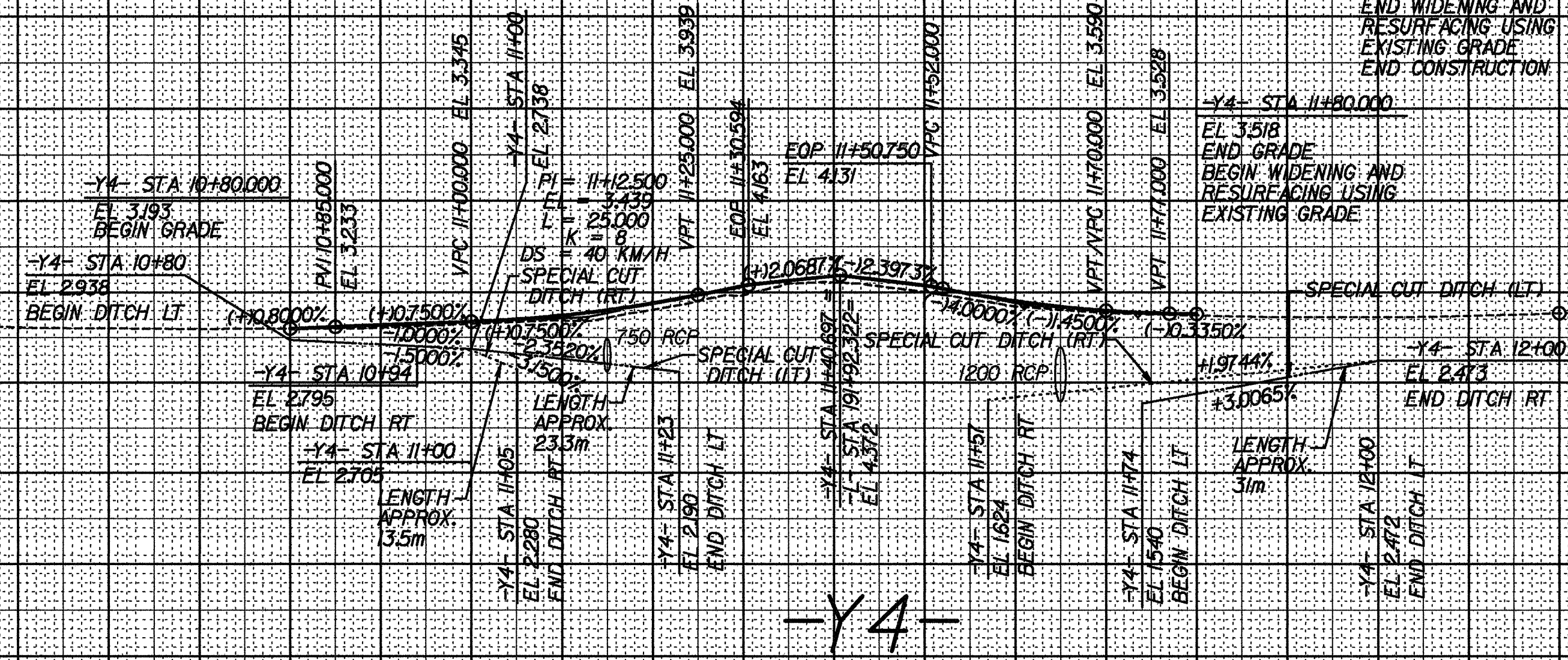
DRAINAGE AREA	=	5.0	HA
DESIGN FREQUENCY	=	25	YRS
DESIGN DISCHARGE	=	0.58	CMS
DESIGN HW. ELEVATION	=	2.99	M
100 YR. DISCHARGE	=	0.76	CMS
100 YR. ELEVATION	=	3.27	M
OVERTOPPING FREQUENCY	=	150	YRS
OVERTOPPING DISCHARGE	=	0.84	CMS
OVERTOPPING ELEVATION	=	3.27	M

PI = 11+61.000 EL = 3.721  
L = 180.000 K = 7  
DS = 40 KM/H

PI = 11+73.500 EL = 3.540  
L = 100.000 K = 6  
DS = 30 KM/H

HYDRAULIC DATA

DRAINAGE AREA	=	29.4	HA
DESIGN FREQUENCY	=	25	YRS
DESIGN DISCHARGE	=	1.86	CMS
DESIGN HW. ELEVATION	=	2.75	M
100 YR. DISCHARGE	=	2.48	CMS
100 YR. ELEVATION	=	3.00	M
OVERTOPPING FREQUENCY	=	375	YRS
OVERTOPPING DISCHARGE	=	3.84	CMS
OVERTOPPING ELEVATION	=	3.82	M



SEE SHEET NO. 14 FOR -Y4- PLAN.

10+00

11+00

12+00

12+50

BM#6 EL. 2.736  
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-Y5- STA 10+20.000  
BEGIN WIDENING AND RESURFACING USING EXISTING GRADE  
END CONSTRUCTION

-Y5- VPC 10+65.000  
EL. 2.734  
BEGIN GRADE

-Y5- STA 10+80.000  
EL. 2.822  
END WIDENING AND RESURFACING USING EXISTING GRADE

-Y5- STA 11+90.000  
END WIDENING AND RESURFACING USING EXISTING GRADE  
END CONSTRUCTION

-Y5- VPT 11+60.000  
EL. 3.316  
END GRADE

-Y5- STA 11+94.000  
EL. 2.304  
END DITCH LT

HYDRAULIC DATA

DRAINAGE AREA	=	6.72	HA
DESIGN FREQUENCY	=	25	YRS
DESIGN DISCHARGE	=	0.66	CMS
DESIGN HW. ELEVATION	=	2.64	M
100 YR. DISCHARGE	=	0.85	CMS
100 YR. ELEVATION	=	3.09	M
OVERTOPPING FREQUENCY	=	119	YRS
OVERTOPPING DISCHARGE	=	0.88	CMS
OVERTOPPING ELEVATION	=	3.20	M

HYDRAULIC DATA (INLET @ STA. 192+12 L. RT.)

DRAINAGE AREA	=	29.93	HA
DESIGN FREQUENCY	=	50	YRS
DESIGN DISCHARGE	=	2.47	CMS
DESIGN HW. ELEVATION	=	3.00	M
100 YR. DISCHARGE	=	2.81	CMS
100 YR. ELEVATION	=	3.28	M
OVERTOPPING FREQUENCY	=	231	YRS
OVERTOPPING DISCHARGE	=	3.54	CMS
OVERTOPPING ELEVATION	=	4.12	M

SEE SHEET NO. 15 FOR -Y5- PLAN.

10+00

11+00

12+00

-Y5-