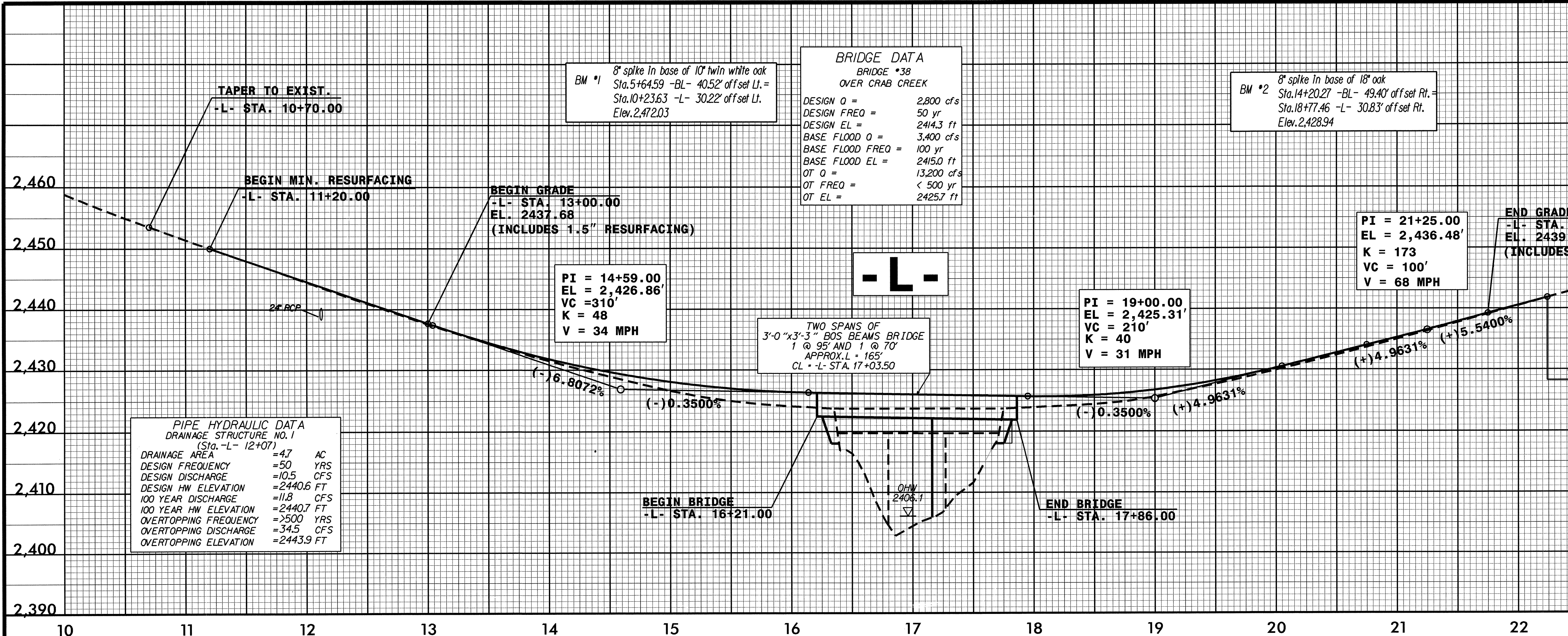


5/28/09

PROJECT REFERENCE NO. B-4007	SHEET NO. 5
ROADWAY DESIGN ENGINEER <i>(Signature)</i>	HYDRAULICS ENGINEER <i>(Signature)</i>
NORTH CAROLINA PROFESSIONAL SEAL 2022 MICHAEL JAMES BERRY ENGINEER 1/23/09	NORTH CAROLINA PROFESSIONAL SEAL 26306 ANA M. PASSMAN ENGINEER 1/23/09



PIPE HYDRAULIC DATA
DRAINAGE STRUCTURE NO. 1
(Sta. -L- 12+07)

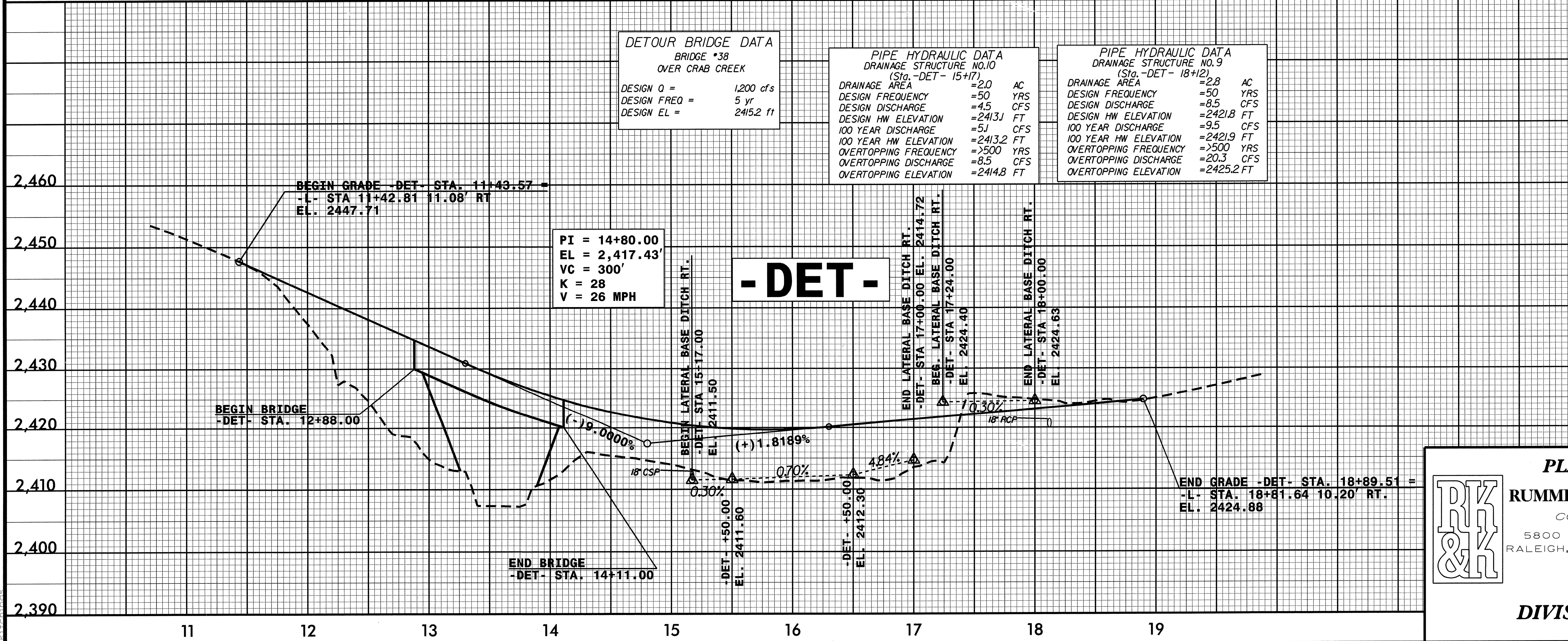
DRAINAGE AREA	=47	AC
DESIGN FREQUENCY	=50	YRS
DESIGN DISCHARGE	=10.5	CFS
DESIGN HW ELEVATION	=2440.6	FT
100 YEAR DISCHARGE	=11.8	CFS
100 YEAR HW ELEVATION	=2440.7	FT
OVERTOPPING FREQUENCY	=500	YRS
OVERTOPPING DISCHARGE	=34.5	CFS
OVERTOPPING ELEVATION	=2443.9	FT

BRIDGE DATA
BRIDGE #38
OVER CRAB CREEK

DESIGN Q =	2,800	cfs
DESIGN FREQ =	50	yr
DESIGN EL =	2414.3	ft
BASE FLOOD Q =	3,400	cfs
BASE FLOOD FREQ =	100	yr
BASE FLOOD EL =	2415.0	ft
OT Q =	13,200	cfs
OT FREQ =	< 500	yr
OT EL =	2425.7	ft

BM #1 8" spk In base of 10' hwn white oak
Sta. 5+64.59 -BL- 40.52' off set Lt.
Sta. 10+23.63 -L- 30.22' off set Lt.
Elev. 2,472.03

BM #2 8" spk In base of 18" oak
Sta. 14+20.27 -BL- 49.40' off set Rt.
Sta. 18+77.46 -L- 30.83' off set Rt.
Elev. 2,428.94



DETOUR BRIDGE DATA
BRIDGE #38
OVER CRAB CREEK

DESIGN Q =	1,200	cfs
DESIGN FREQ =	5	yr
DESIGN EL =	2415.2	ft

PIPE HYDRAULIC DATA
DRAINAGE STRUCTURE NO. 10
(Sta. -DET- 15+17)

DRAINAGE AREA	=20	AC
DESIGN FREQUENCY	=50	YRS
DESIGN DISCHARGE	=4.5	CFS
DESIGN HW ELEVATION	=2413	FT
100 YEAR DISCHARGE	=5.1	CFS
100 YEAR HW ELEVATION	=2413.2	FT
OVERTOPPING FREQUENCY	=500	YRS
OVERTOPPING DISCHARGE	=8.5	CFS
OVERTOPPING ELEVATION	=2414.8	FT

PIPE HYDRAULIC DATA
DRAINAGE STRUCTURE NO. 9
(Sta. -DET- 18+12)

DRAINAGE AREA	=2.8	AC
DESIGN FREQUENCY	=50	YRS
DESIGN DISCHARGE	=8.5	CFS
DESIGN HW ELEVATION	=2421.8	FT
100 YEAR DISCHARGE	=9.5	CFS
100 YEAR HW ELEVATION	=2421.9	FT
OVERTOPPING FREQUENCY	=500	YRS
OVERTOPPING DISCHARGE	=20.3	CFS
OVERTOPPING ELEVATION	=2425.2	FT



PLANS PREPARED BY :
RUMMEL • KLEPPER & KAHL, LLP
consulting engineers
5800 FARINGDON PLACE • SUITE 105
RALEIGH, NORTH CAROLINA 27609-3960
(919) 878-9560
FOR
DIVISION OF HIGHWAYS

1/23/2006
K:\Roadway\Proj\B4007_rdy\p1.dgn