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# BRIDGE NO. 106

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| 17BP.14.R.127 | 4 |
| R/W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

NORTH CAROLINA PROFESSIONAL SEAL 039222 ENGINEERING INFRASTRUCTURE ANDREW D. MORROW 8/17/2015

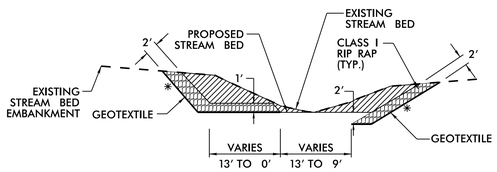
NORTH CAROLINA PROFESSIONAL SEAL 036188 ENGINEERING INFRASTRUCTURE MATT J. WEATHERSBEE 8/17/2015

NAD 83/NA 2011

RS&H

## -L- CURVE DATA

| PI Sta 13+20.14 | PI Sta 15+45.03 | PI Sta 16+79.00 |
|---|---|---|
| △ = 0° 30' 00.0" (RT) | △ = 15° 44' 31.0" (LT) | △ = 58° 51' 15.6" (LT) |
| D = 0° 30' 00.0" | D = 21° 30' 00.0" | D = 33° 07' 08.2" |
| L = 100.00' | L = 73.22' | L = 177.71' |
| T = 50.00' | T = 36.84' | T = 97.59' |
| R = 11,459.16' | R = 266.49' | R = 173.00' |
| SE = NC | SE = EXIST. | SE = EXIST. |



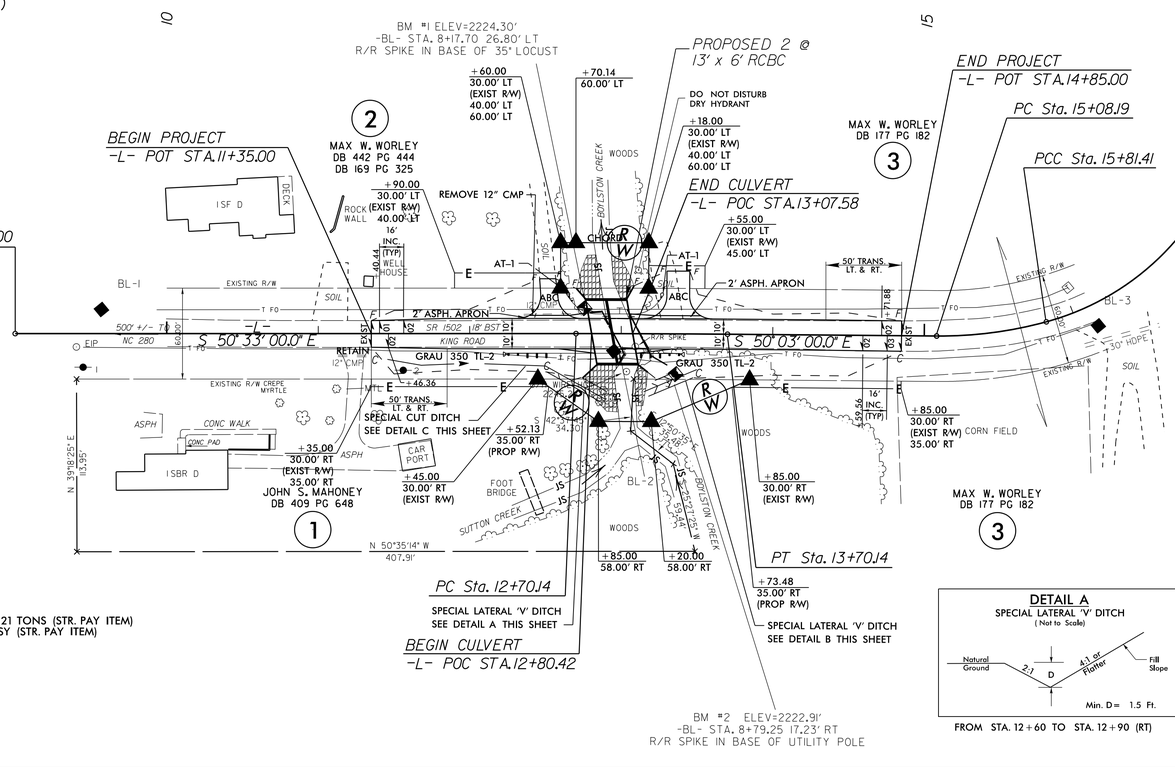

LENGTH OF RIP RAP = 30' MEASURED FROM END OF CULVERT

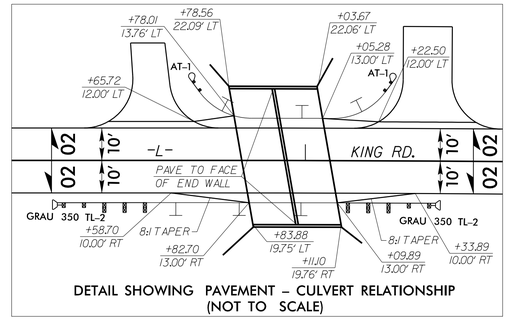
SECTION B-B

CHANNEL EXCAVATION

* SLOPE VARIES FROM 2:1 TO EXISTING

EST. CLASS I RIP RAP = 121 TONS (STR. PAY ITEM)
EST. GEOTEXTILE = 142 SY (STR. PAY ITEM)



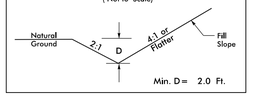

DETAIL SHOWING PAVEMENT – CULVERT RELATIONSHIP (NOT TO SCALE)

### DETAIL A
SPECIAL LATERAL 'V' DITCH
( Not to Scale)



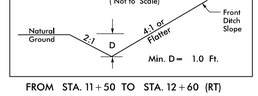

FROM STA. 12+60 TO STA. 12+90 (RT)

### DETAIL B
SPECIAL LATERAL 'V' DITCH
( Not to Scale)




FROM STA. 13+15 TO STA. 13+50 (RT)

### DETAIL C
SPECIAL CUT DITCH
( Not to Scale)




FROM STA. 11+50 TO STA. 12+60 (RT)

NOTE: 15' RADII USED AT DRIVEWAYS

FOR CULVERT PLANS, SEE SHEET C-1 THRU C-6

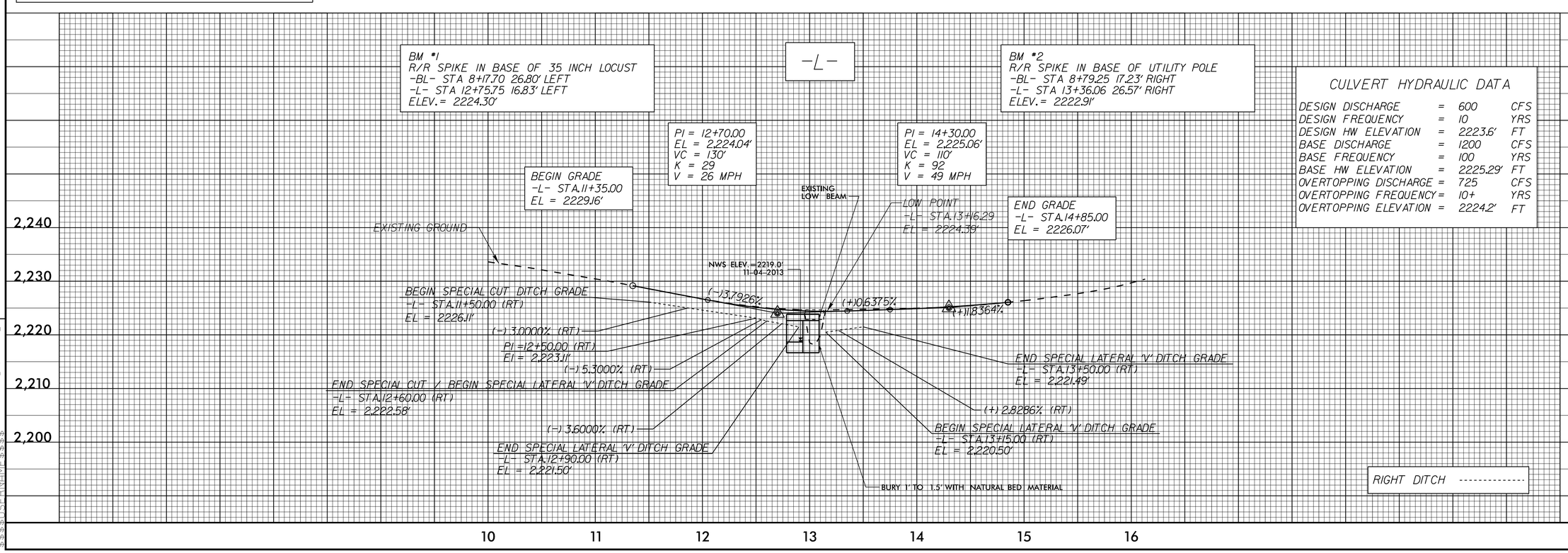
BM #1
R/R SPIKE IN BASE OF 35 INCH LOCUST
-BL- STA 8+17.70 26.80' LEFT
-L- STA 12+75.75 16.83' LEFT
ELEV.= 2224.30'

-L-

BM #2
R/R SPIKE IN BASE OF UTILITY POLE
-BL- STA 8+79.25 17.23' RIGHT
-L- STA 13+36.06 26.57' RIGHT
ELEV.= 2222.91'

### CULVERT HYDRAULIC DATA

| | | | |
|---|---|---|---|
| DESIGN DISCHARGE | = | 600 | CFS |
| DESIGN FREQUENCY | = | 10 | YRS |
| DESIGN HW ELEVATION | = | 2223.6' | FT |
| BASE DISCHARGE | = | 1200 | CFS |
| BASE FREQUENCY | = | 100 | YRS |
| BASE HW ELEVATION | = | 2225.29' | FT |
| OVERTOPPING DISCHARGE | = | 725 | CFS |
| OVERTOPPING FREQUENCY | = | 10+ | YRS |
| OVERTOPPING ELEVATION | = | 2224.2' | FT |




REVISIONS

8/17/99

08-DEC-2015 10:11 J:\871006_Rdy_psh.dgn
$$$$USERNAME$$$$