

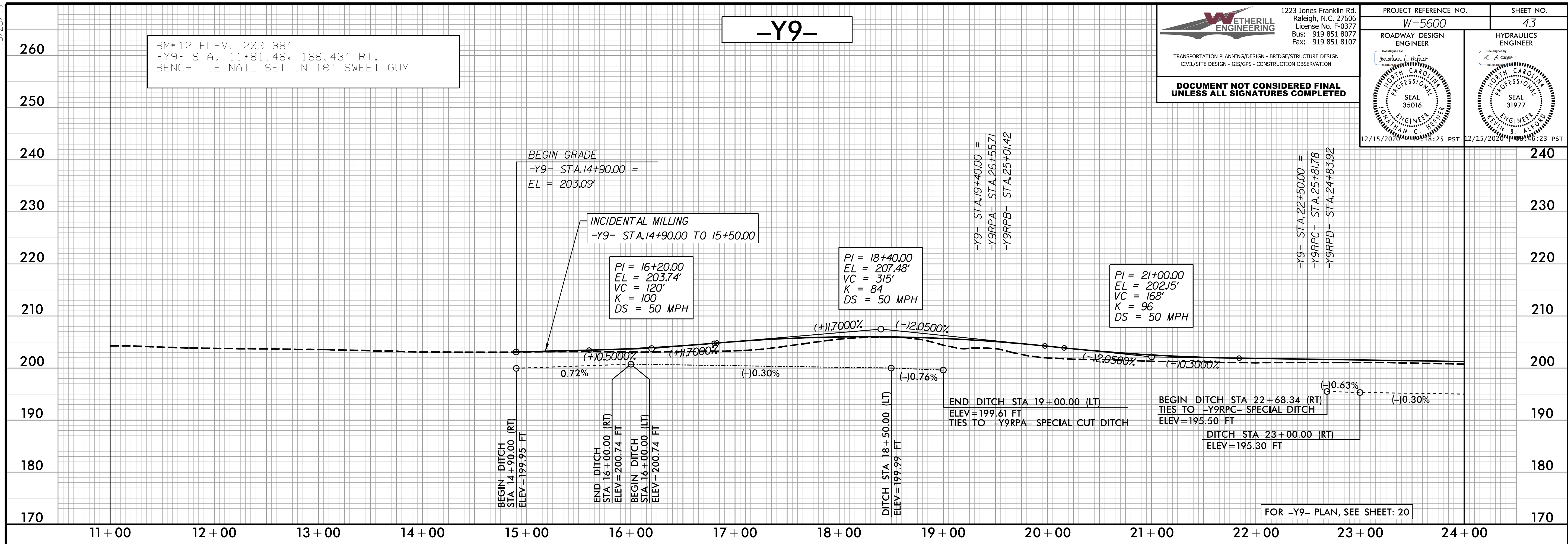
5/28/2020

WETHERILL ENGINEERING
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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
 CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

**DOCUMENT NOT CONSIDERED FINAL
 UNLESS ALL SIGNATURES COMPLETED**

PROJECT REFERENCE NO. W-5600	SHEET NO. 43
ROADWAY DESIGN ENGINEER <i>Jonathan L. Heiser</i>	HYDRAULICS ENGINEER <i>K. A. Clegg</i>
SEAL 35016 12/15/2020 12:28:25 PST	SEAL 31977 12/15/2020 12:28:23 PST



BM#12 ELEV. 203.88'
 -Y9- STA. 11+81.46, 168.43' RT.
 BENCH TIE NAIL SET IN 18" SWEET GUM

INCIDENTAL MILLING
 -Y9- STA. 14+90.00 TO 15+50.00

PI = 16+20.00
 EL = 203.74'
 VC = 120'
 K = 100
 DS = 50 MPH

PI = 18+40.00
 EL = 207.48'
 VC = 315'
 K = 84
 DS = 50 MPH

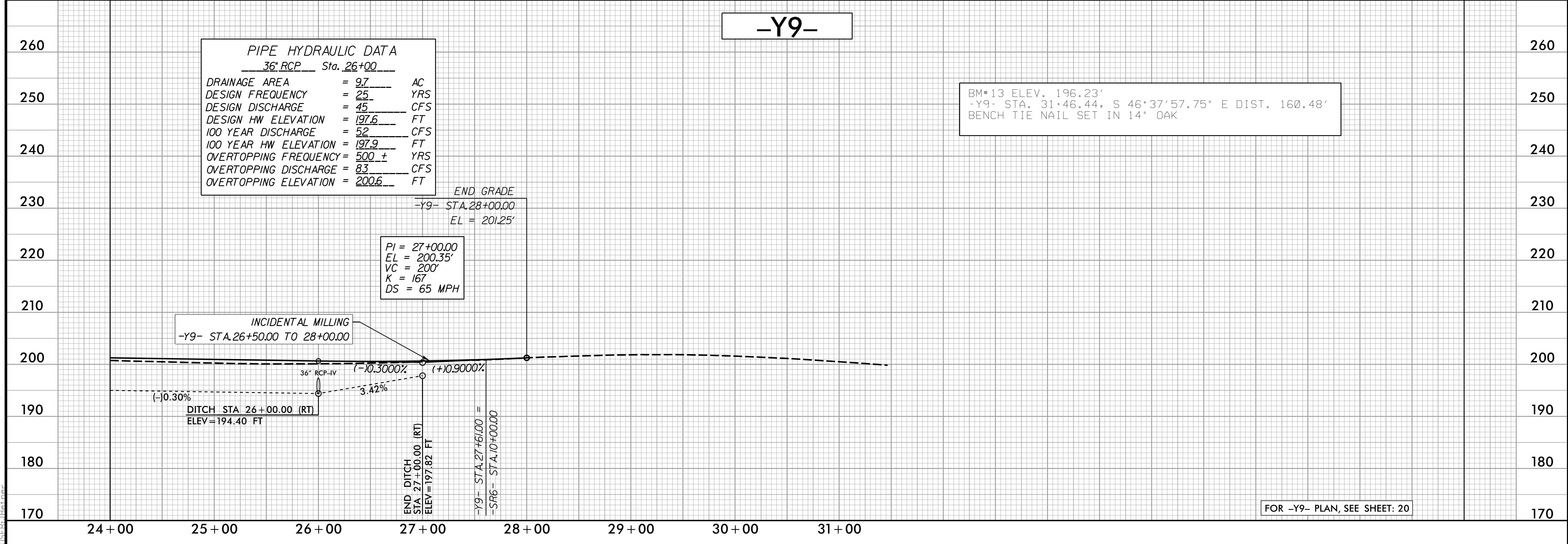
PI = 21+00.00
 EL = 202.15'
 VC = 168'
 K = 96
 DS = 50 MPH

END DITCH STA 19+00.00 (LT)
 ELEV=199.61 FT
 TIES TO -Y9RPA- SPECIAL CUT DITCH

BEGIN DITCH STA 22+68.34 (RT)
 TIES TO -Y9RPC- SPECIAL DITCH
 ELEV=195.50 FT

DITCH STA 23+00.00 (RT)
 ELEV=195.30 FT

FOR -Y9- PLAN, SEE SHEET: 20



PIPE HYDRAULIC DATA
36" RCP Sta. 26+00

DRAINAGE AREA	= 9.7	AC
DESIGN FREQUENCY	= 25	YRS
DESIGN DISCHARGE	= 45	CFS
DESIGN HW ELEVATION	= 197.6	FT
100 YEAR DISCHARGE	= 52	CFS
100 YEAR HW ELEVATION	= 197.9	FT
OVERTOPPING FREQUENCY	= 500 ±	YRS
OVERTOPPING DISCHARGE	= 83	CFS
OVERTOPPING ELEVATION	= 200.6	FT

PI = 27+00.00
 EL = 200.35'
 VC = 200'
 K = 167
 DS = 65 MPH

INCIDENTAL MILLING
 -Y9- STA. 26+50.00 TO 28+00.00

DITCH STA 26+00.00 (RT)
 ELEV=194.40 FT

END DITCH STA 27+00.00 (RT)
 ELEV=197.82 FT

-Y9- STA. 27+61.00 =
 -SAG- STA. 10+00.00

BM#13 ELEV. 196.23'
 -Y9- STA. 31+46.44, S 46°37'57.75" E DIST. 160.48'
 BENCH TIE NAIL SET IN 14" OAK

FOR -Y9- PLAN, SEE SHEET: 20

12/14/2020 10:56:00 rdu_psh_43_p1.dgn