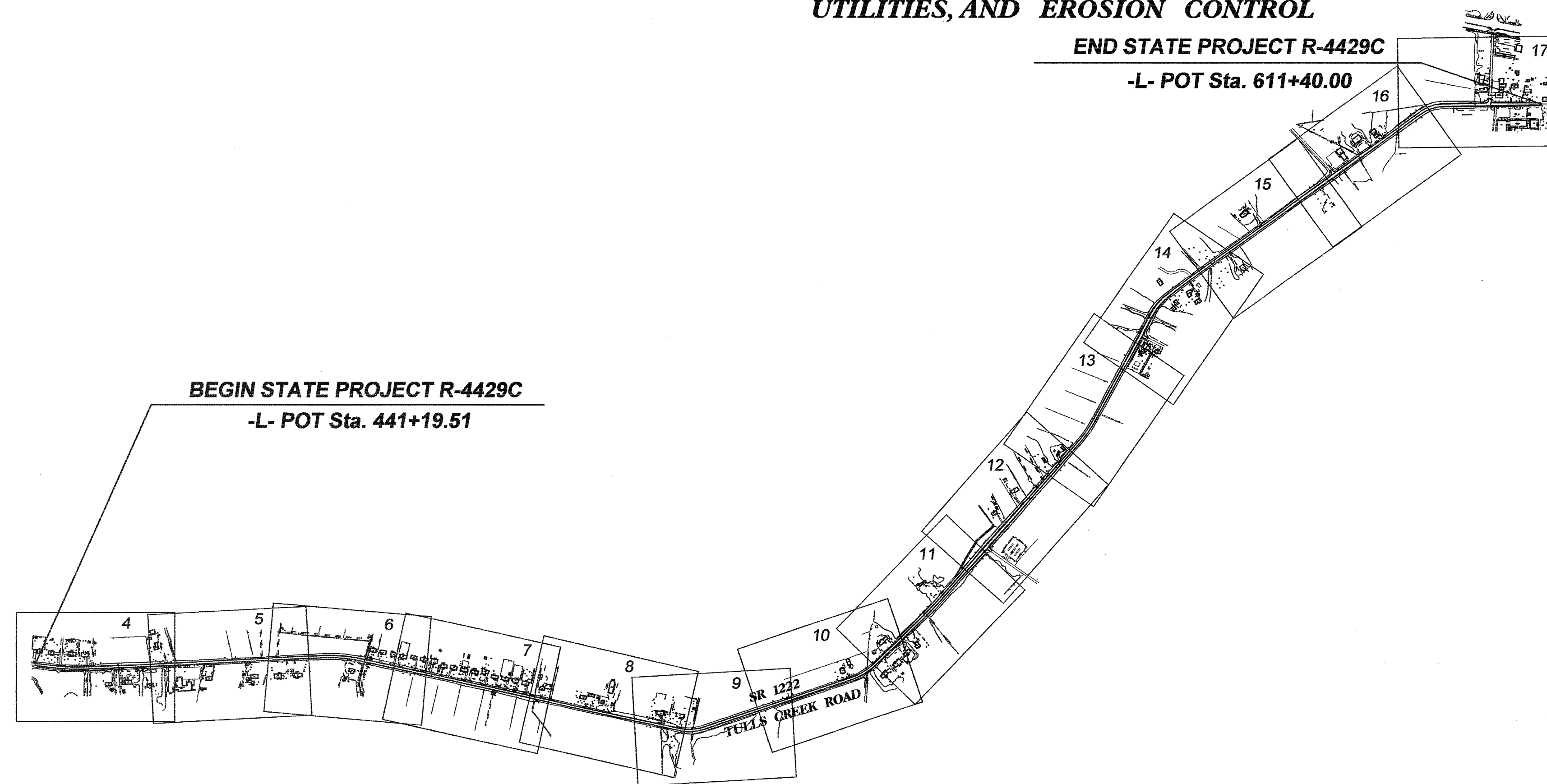
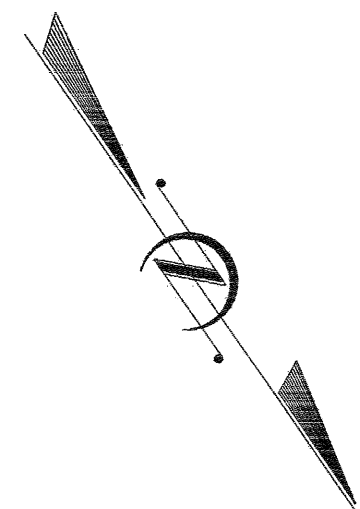


**TIP PROJECT: R-4429C**

STATE OF NORTH CAROLINA  
 DIVISION OF HIGHWAYS  
 PLAN FOR PROPOSED  
 HIGHWAY EROSION CONTROL  
**CURRITUCK COUNTY**

**LOCATION: SR 1222 (TULLS CREEK ROAD)  
 FROM SR 1214 (GUINEA ROAD)  
 TO SR 1216 (PUDDIN RIDGE ROAD)**  
**TYPE OF WORK: WIDENING, GRADING, PAVING, DRAINAGE  
 UTILITIES, AND EROSION CONTROL**

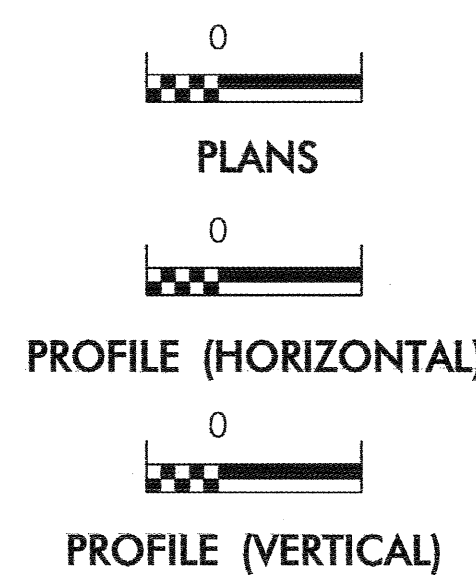


STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-4429C	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	

**EROSION AND SEDIMENT CONTROL MEASURES**

Std. #	Description	Symbol
	Streambank Reforestation.....	
1630.03	Temporary Silt Ditch.....	
1630.05	Temporary Diversion.....	
1605.01	Temporary Silt Fence.....	
1606.01	Special Sediment Control Fence.....	
1622.01	Temporary Berms and Slope Drains.....	
1630.01	Riser Basin.....	
1630.02	Silt Basin Type B.....	
1633.01	Temporary Rock Silt Check Type-A.....	
	Temporary Rock Silt Check Type-B.....	
1634.01	Temporary Rock Sediment Dam Type-A.....	
1634.02	Temporary Rock Sediment Dam Type-B.....	
1635.01	Rock Pipe Inlet Sediment Trap Type-A.....	
1635.02	Rock Pipe Inlet Sediment Trap Type-B.....	
1630.04	Stilling Basin.....	
	Rock Inlet Sediment Trap:	
1632.01	Type A.....	
1632.02	Type B.....	
1632.03	Type C.....	
	Skimmer Basin.....	
	Tiered Skimmer Basin.....	

**GRAPHIC SCALE**



**2006 STANDARD SPECIFICATIONS**

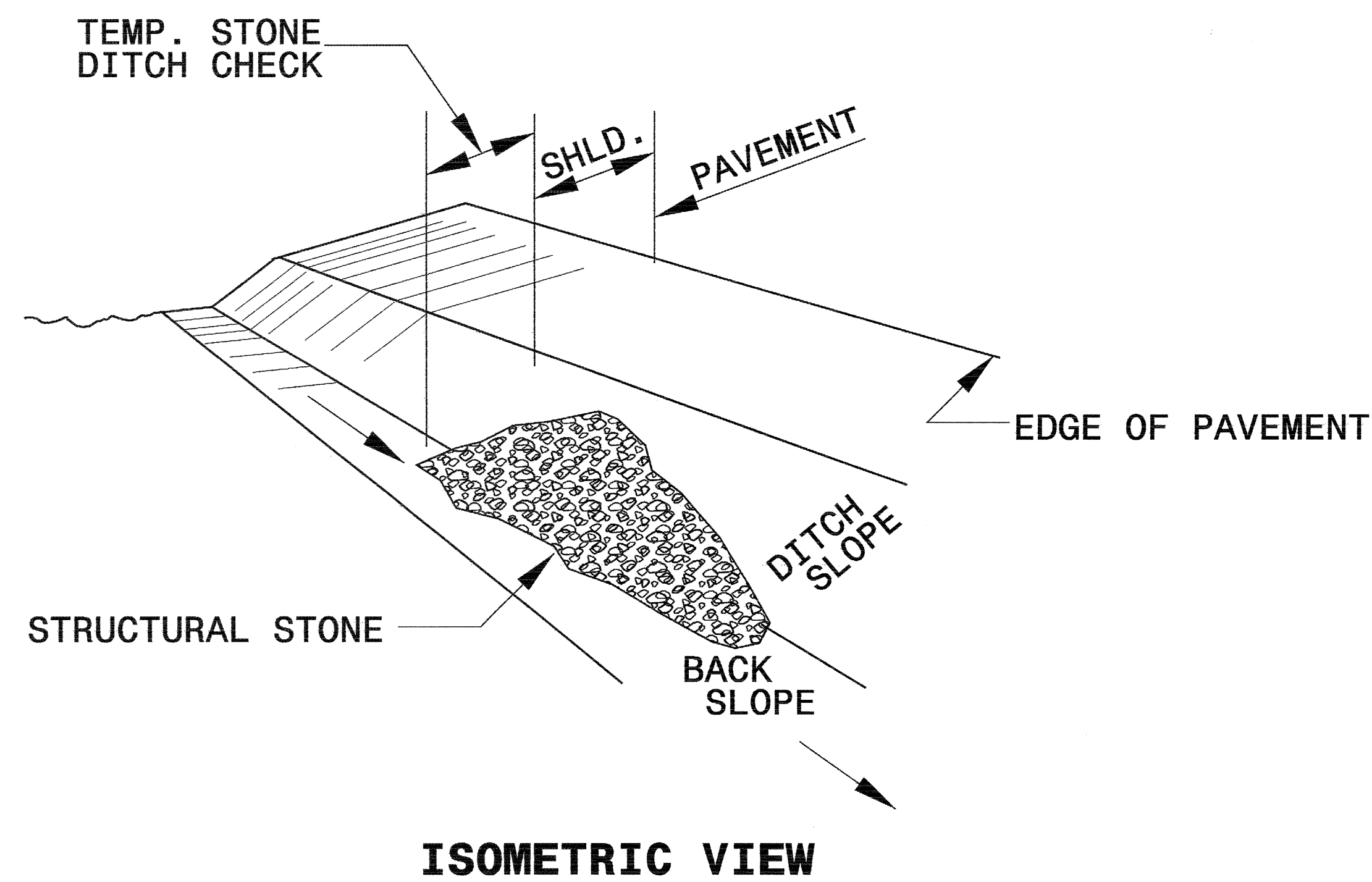
**Roadway Standard Drawings**

The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated July 18, 2006 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

1604.01 Railroad Erosion Control Detail	1630.06 Special Stilling Basin
1605.01 Temporary Silt Fence	1632.01 Rock Inlet Sediment Trap Type A
1606.01 Special Sediment Control Fence	1632.02 Rock Inlet Sediment Trap Type B
1607.01 Gravel Construction Entrance	1632.03 Rock Inlet Sediment Trap Type C
1622.01 Temporary Berms and Slope Drains	1633.01 Temporary Rock Silt Check Type A
1630.01 Riser Basin	1634.01 Temporary Rock Sediment Dam Type A
1630.02 Silt Basin Type B	1634.02 Temporary Rock Sediment Dam Type B
1630.03 Temporary Silt Ditch	1635.01 Rock Pipe Inlet Sediment Trap Type A
1630.04 Stilling Basin	1635.02 Rock Pipe Inlet Sediment Trap Type B
1630.05 Temporary Diversion	

PROJECT REFERENCE NO. <i>R-4429C</i>	SHEET NO. <i>EC-1A</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

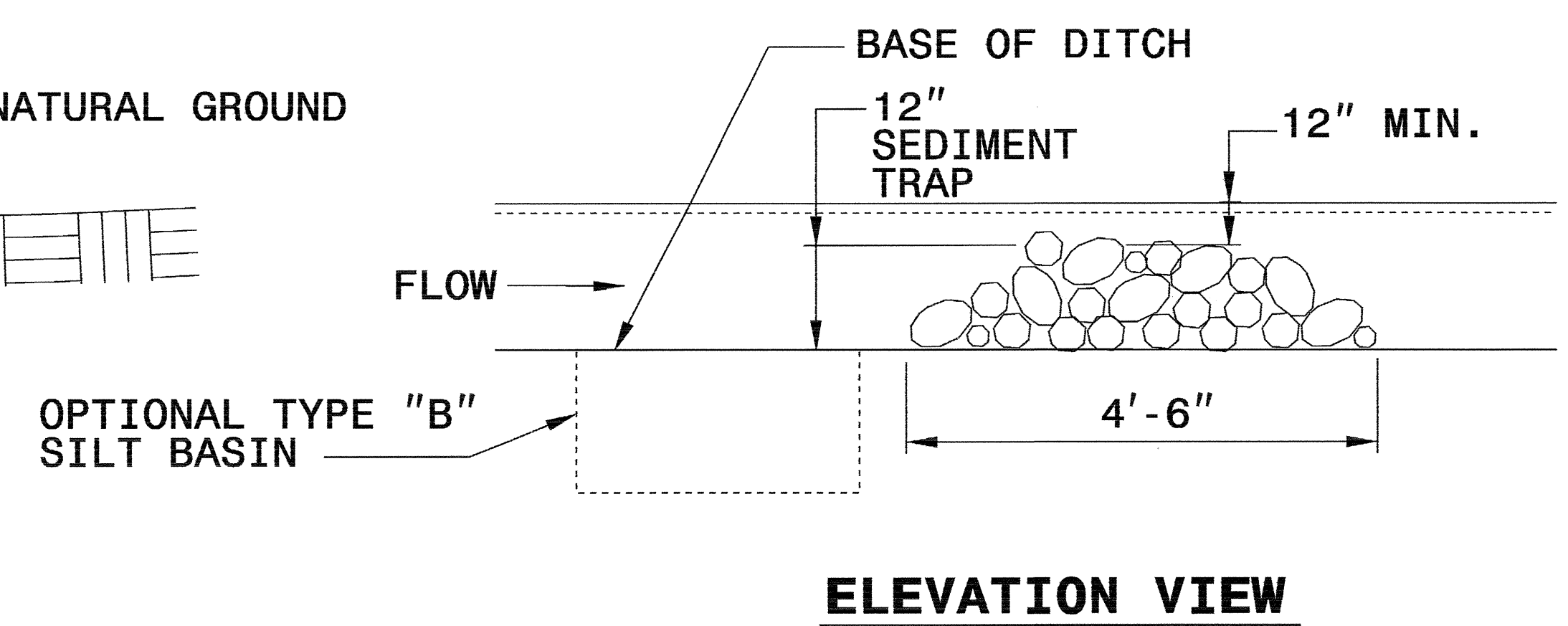
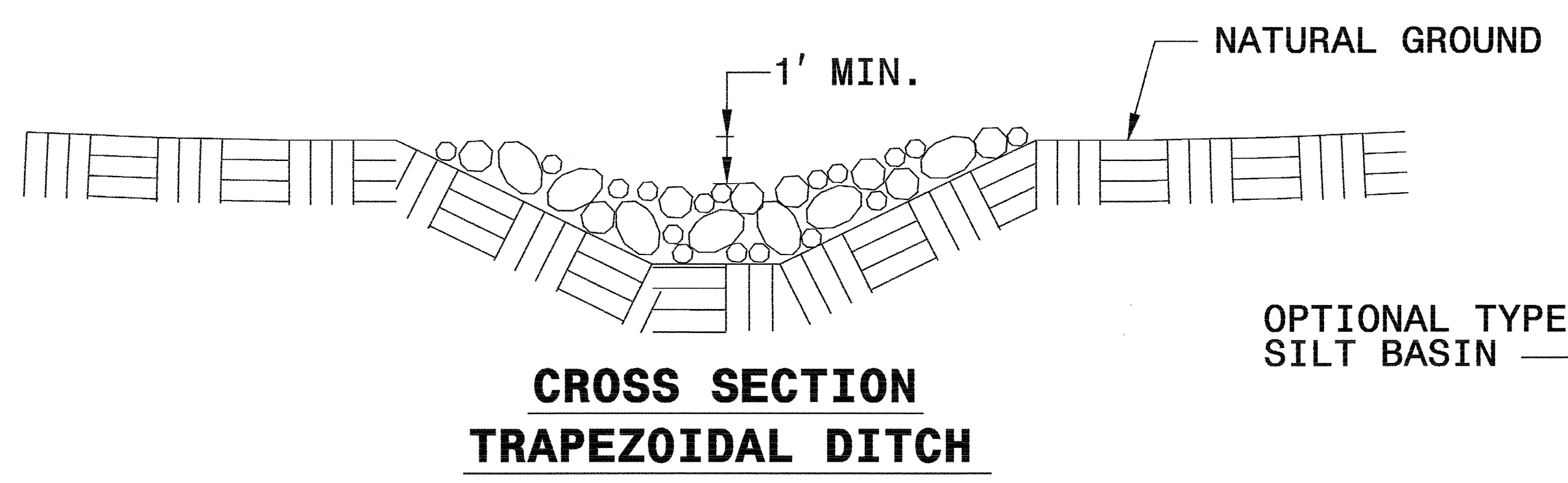
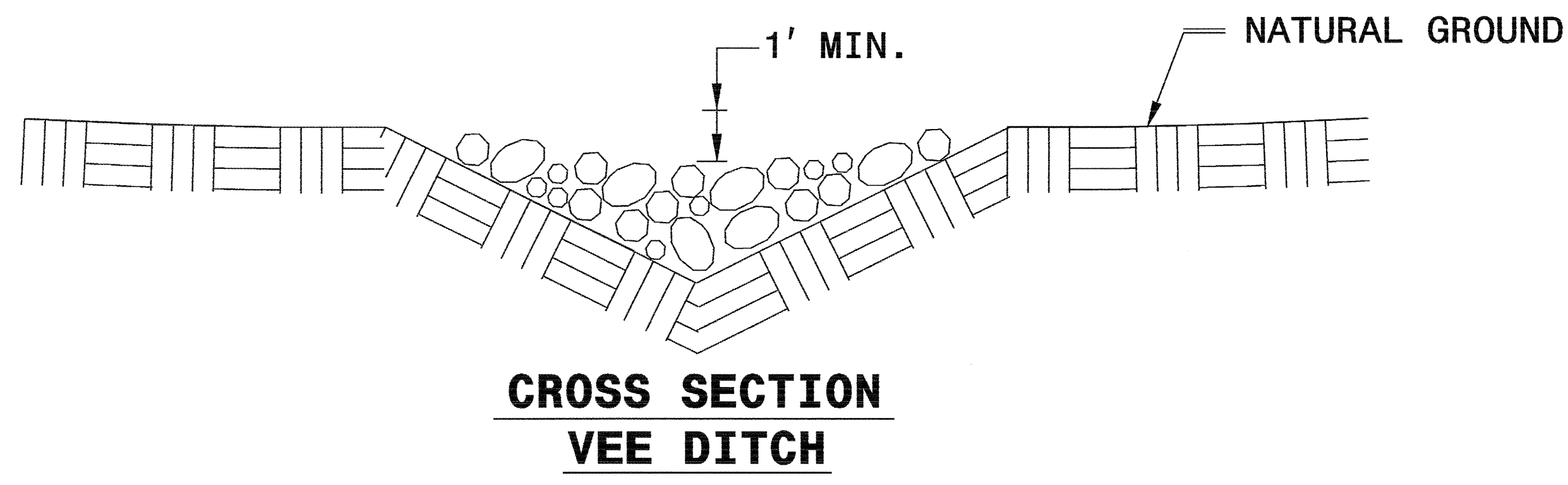
# TEMPORARY ROCK SILT CHECK TYPE 'B' DETAIL



**NOTES:**

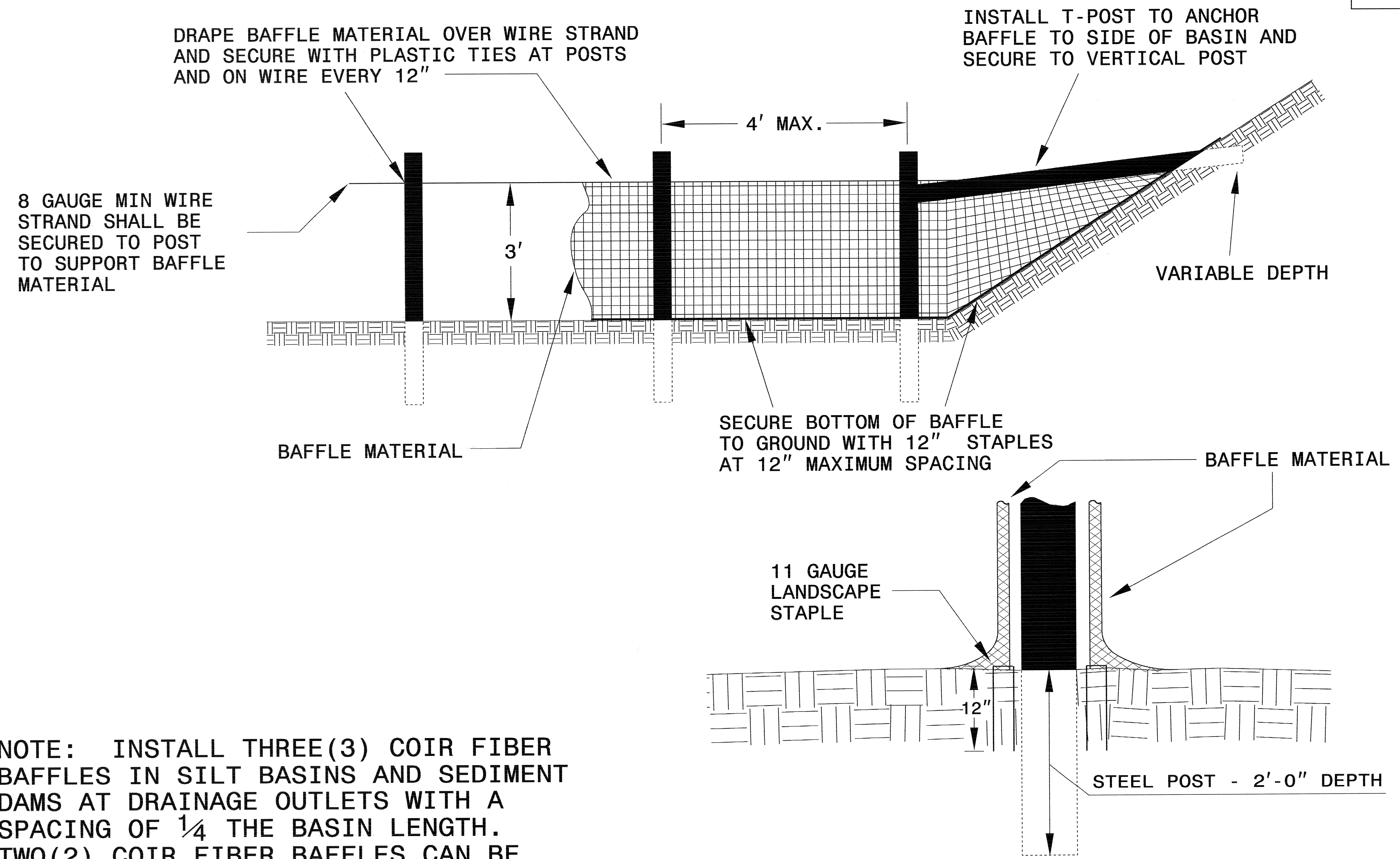
USE CLASS 'B' EROSION CONTROL STONE FOR STRUCTURAL STONE.

THE ENGINEER MAY DIRECT THE OPTION OF CLASS "A" STONE FOR SITES HAVING LESS THAN ONE (1) ACRE DRAINAGE AREA AND A DITCH GRADE LESS THAN 3%.



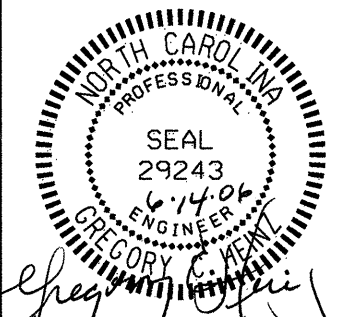
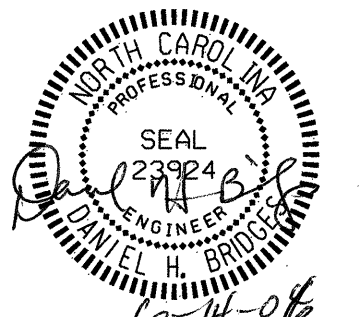
PROJECT REFERENCE NO. R-4429C	SHEET NO. EC-1B
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

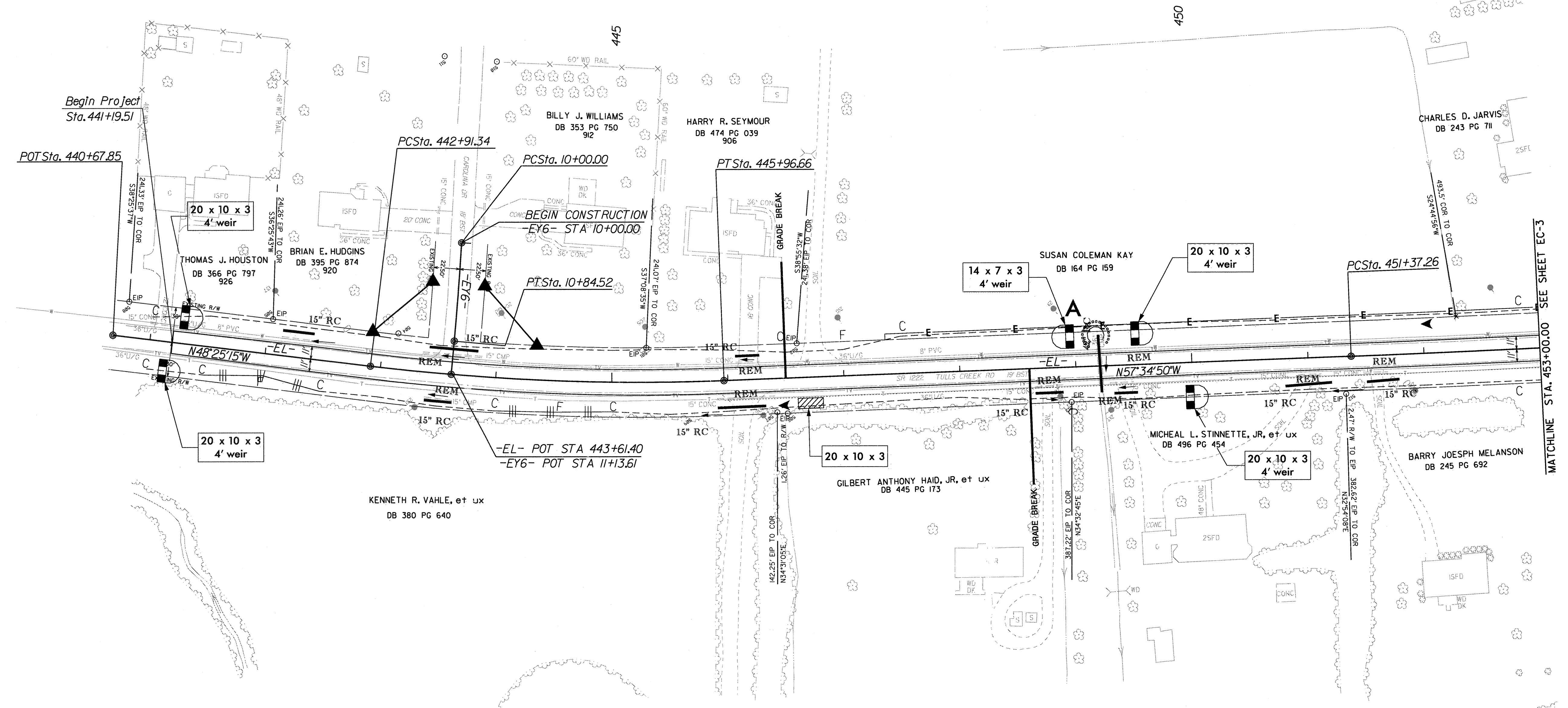
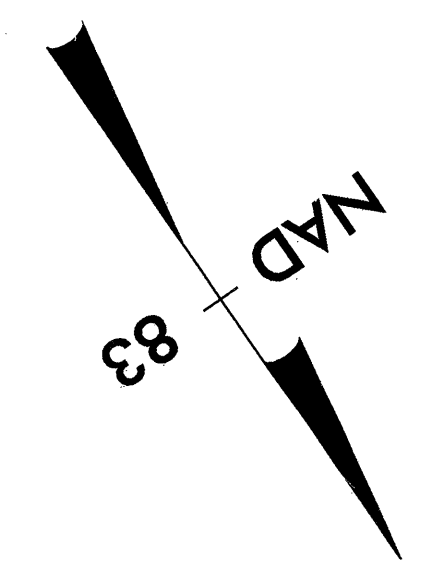
# COIR FIBER BAFFLE DETAIL



NOTE: INSTALL THREE (3) COIR FIBER BAFFLES IN SILT BASINS AND SEDIMENT DAMS AT DRAINAGE OUTLETS WITH A SPACING OF  $\frac{1}{4}$  THE BASIN LENGTH. TWO (2) COIR FIBER BAFFLES CAN BE INSTALLED IN SILT BASINS AND DAMS LESS THAN 20 FT. IN LENGTH WITH A SPACING OF  $\frac{1}{3}$  THE BASIN LENGTH.

BAFFLE MATERIAL SHALL BE SECURED TO THE BOTTOM AND SIDES OF BASIN USING 12" LANDSCAPE STAPLES

PROJECT REFERENCE NO. R-4429C	SHEET NO. EC-2/CONST-4
R / W SHEET NO.	
ROADWAY DESIGN ENGINEER 	HYDRAULICS ENGINEER 
<b>PB PARSONS BRINCKERHOFF</b>	

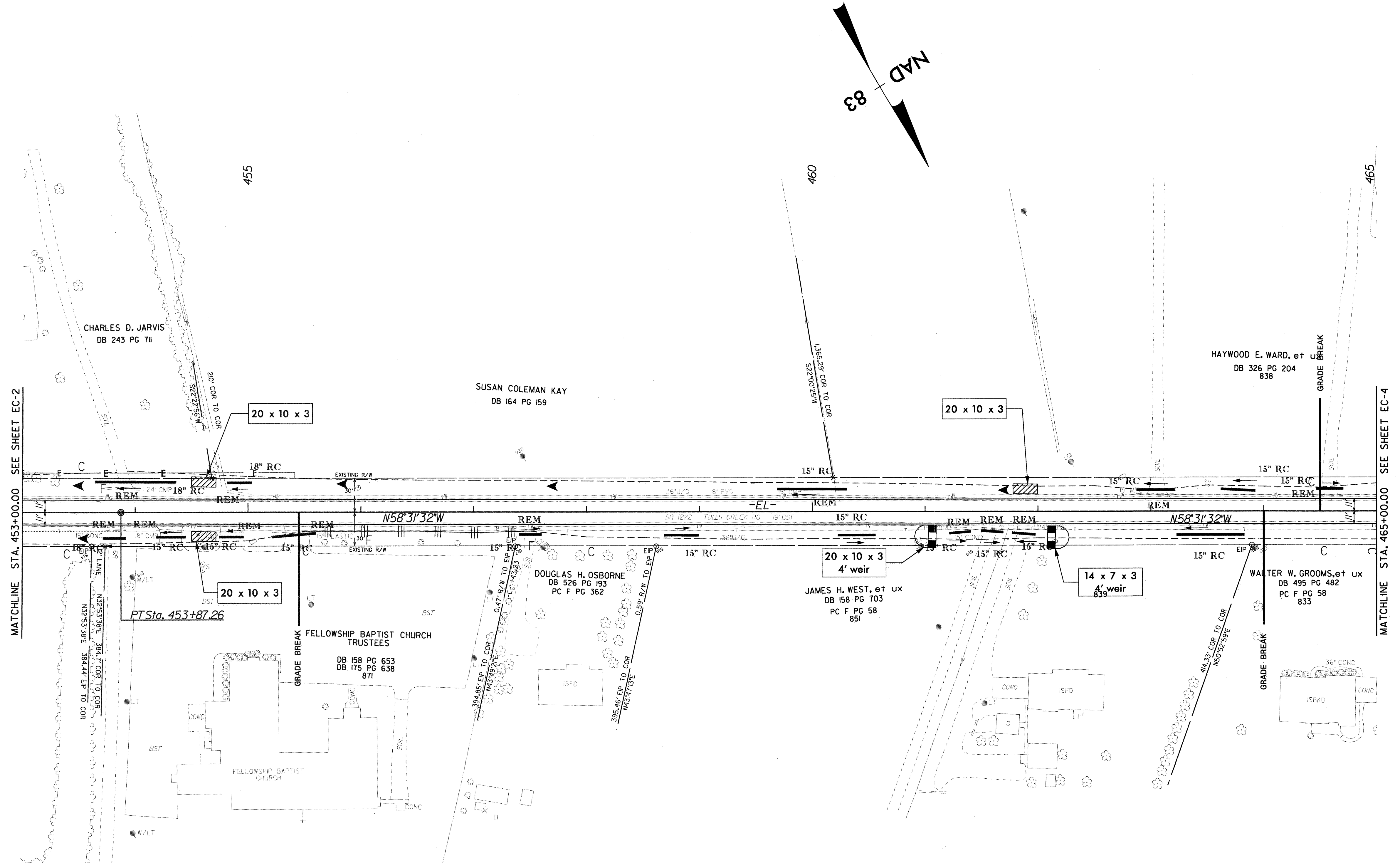


GRADE DITCHES AS FOLLOWS:

GRADE OF DITCHES ARE AVERAGE. SEE CROSS-SECTIONS

- 441+20 (TIE TO EXIST.) ← WATER FLOW ← 446+50 (GRADE BREAK) LEFT SIDE (GRADE - 0.21%)
- 441+20 (TIE TO EXIST.) ← WATER FLOW ← 448+60 (GRADE BREAK) RIGHT SIDE (GRADE - 0.41%)
- 446+50 (GRADE BREAK) → WATER FLOW → 449+20 (CROSS LINE) LEFT SIDE (GRADE - 0.44%)
- 448+60 (GRADE BREAK) → WATER FLOW → 449+20 (OUTLET DITCH) RIGHT SIDE (GRADE - 1.0%)
- 449+20 (CROSS LINE) ← WATER FLOW ← 464+50 (GRADE BREAK) LEFT SIDE (GRADE - 1.83%, EXCELSIOR MATTING)
- 449+20 (OUTLET DITCH) ← WATER FLOW ← 455+45 (GRADE BREAK) RIGHT SIDE (GRADE - 0.21%)

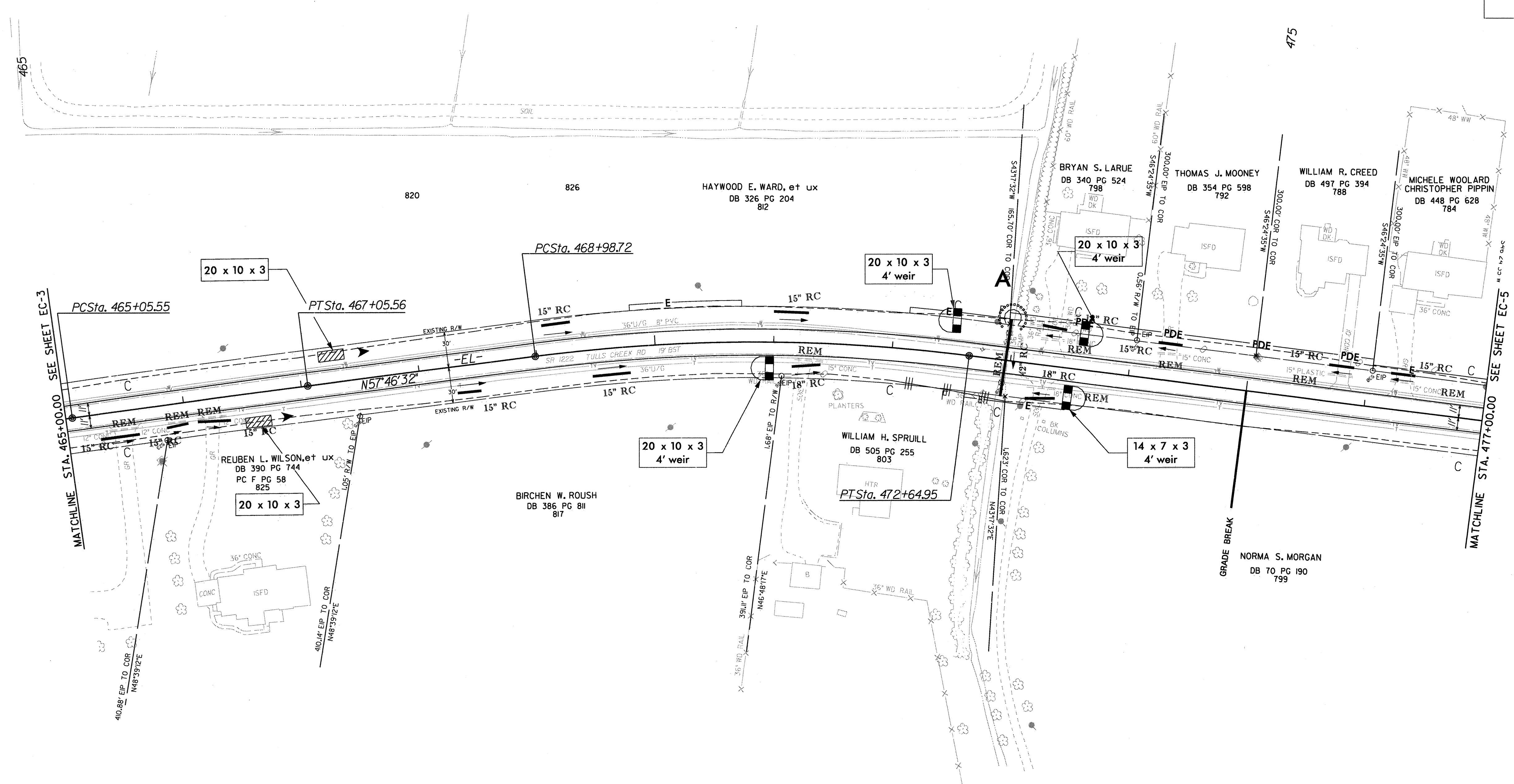
PROJECT REFERENCE NO. R-4429C	SHEET NO. EC-3/CONST-5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER 	HYDRAULICS ENGINEER 
<b>PB PARSONS BRINCKERHOFF</b>	



**GRADE DITCHES AS FOLLOWS:**

- GRADE OF DITCHES ARE AVERAGE. SEE CROSS-SECTIONS
- 449+20 (CROSS LINE) ← WATER FLOW ← 464+50 (GRADE BREAK) LEFT SIDE (GRADE - 1.83%, EXCELS)
  - 449+20 (OUTLET DITCH) ← WATER FLOW ← 455+45 (OUTLET DITCH) RIGHT SIDE (GRADE - 0.21%)
  - 455+45 (GRADE BREAK) → WATER FLOW → 461+75 (OUTLET DITCH) RIGHT SIDE (GRADE - 0.1%)
  - 464+50 (GRADE BREAK) → WATER FLOW → 472+95 (CROSS LINE) LEFT SIDE (GRADE - 0.22%)
  - 461+75 (OUTLET DITCH) ← WATER FLOW ← 464+00 (GRADE BREAK) RIGHT SIDE (GRADE - 0.18%)
  - 464+00 (GRADE BREAK) → WATER FLOW → 472+95 (OUTLET DITCH) RIGHT SIDE (GRADE - 0.36%)

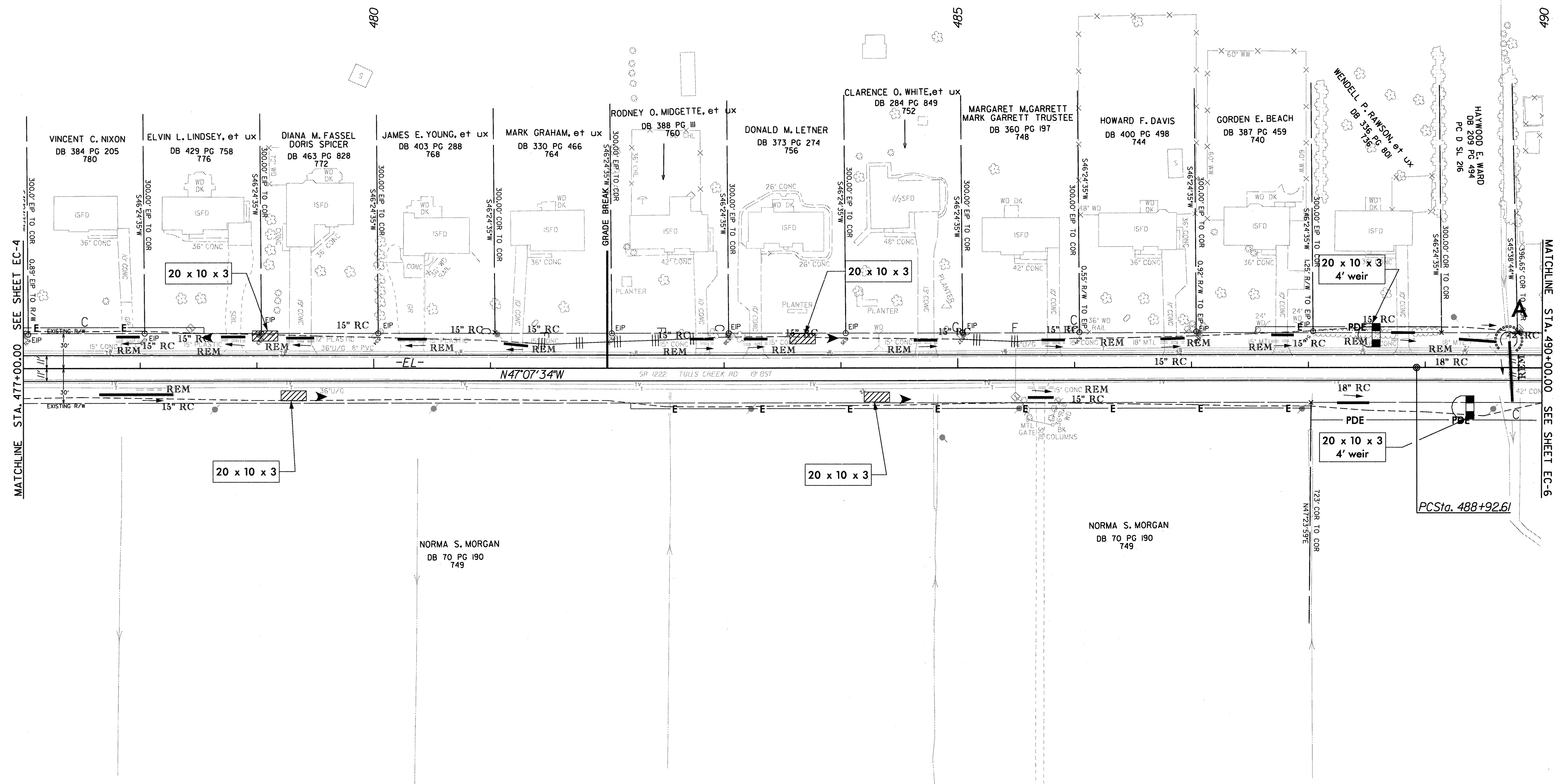
PROJECT REFERENCE NO. R-4429C	SHEET NO. EC-4/CONST-6
R / W SHEET NO.	
ROADWAY DESIGN ENGINEER 	HYDRAULICS ENGINEER 
<b>PB PARSONS BRINCKERHOFF</b>	



GRADE DITCHES AS FOLLOWS:

GRADE OF DITCHES ARE AVERAGE. SEE CROSS-SECTIONS

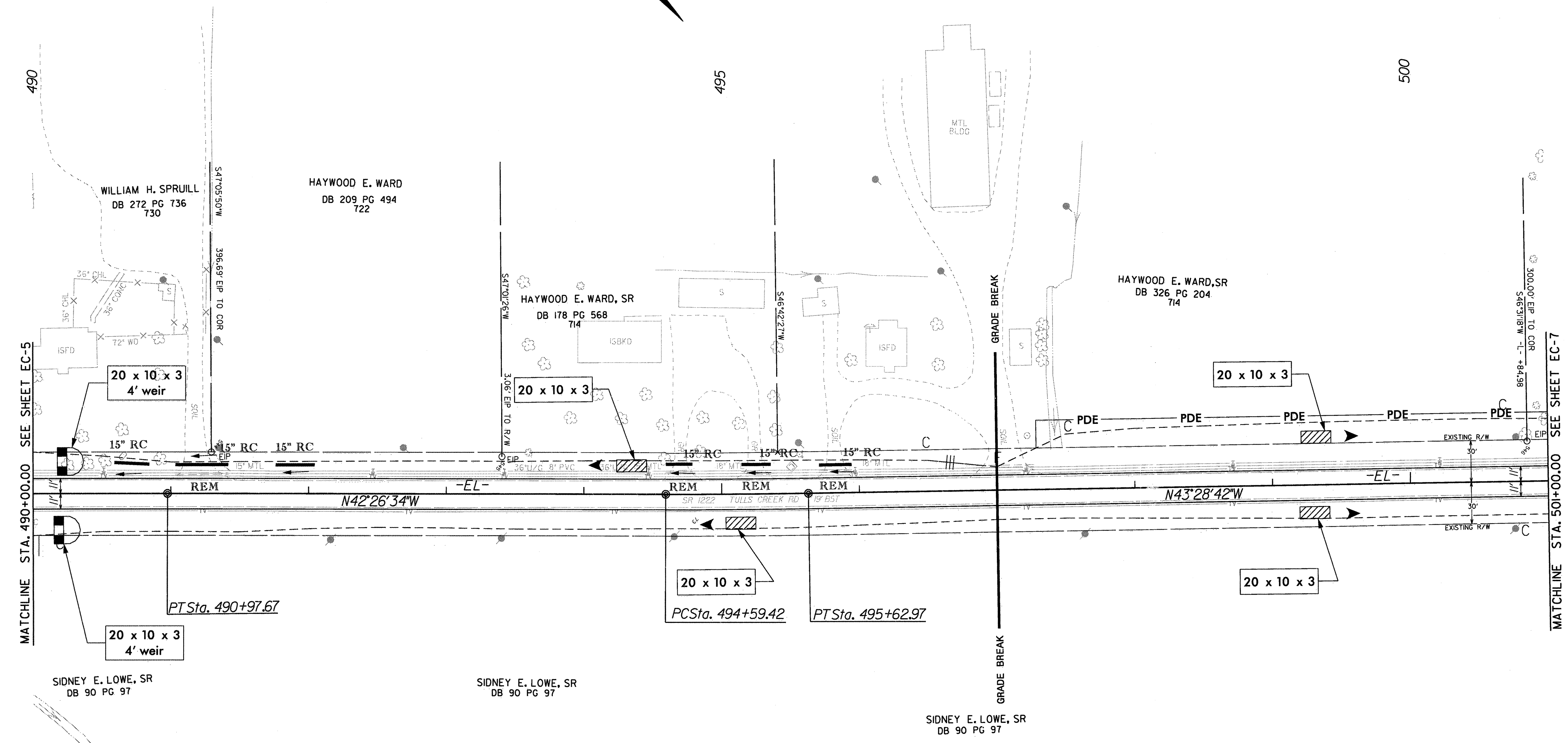
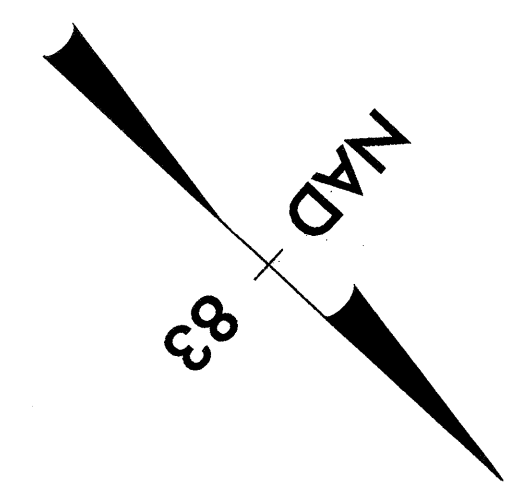
- 464+00 (GRADE BREAK) → WATER FLOW → 472+95 (OUTLET DITCH) RIGHT SIDE (GRADE - 0.36%)
- 464+50 (GRADE BREAK) → WATER FLOW → 472+95 (CROSS LINE) LEFT SIDE (GRADE - 0.22%)
- 472+95 (OUTLET DITCH) ← WATER FLOW ← 478+00 (GRADE BREAK) RIGHT SIDE (GRADE - 1.11%)
- 472+95 (CROSS LINE) ← WATER FLOW ← 482+00 (GRADE BREAK) LEFT SIDE (GRADE - 0.22%)
- 478+00 (GRADE BREAK) → WATER FLOW → 489+70 (OUTLET DITCH) RIGHT SIDE (GRADE - 0.27%)



**GRADE DITCHES AS FOLLOWS:**

- GRADE OF DITCHES ARE AVERAGE. SEE CROSS-SECTIONS
- 472+95 (CROSS LINE) ← WATER FLOW ← 482+00 (GRADE BREAK) LEFT SIDE (GRADE - 0.22%)
  - 482+00 (GRADE BREAK) → WATER FLOW → 489+70 (CROSS LINE) LEFT SIDE (GRADE - 0.29%)
  - 478+00 (GRADE BREAK) → WATER FLOW → 489+70 (OUTLET DITCH) RIGHT SIDE (GRADE - 0.27%)
  - 489+70 (CROSS LINE) ← WATER FLOW ← 497+00 (GRADE BREAK) LEFT SIDE (GRADE - 0.44%)
  - 489+70 (OUTLET DITCH) ← WATER FLOW ← 497+00 (GRADE BREAK) RIGHT SIDE (GRADE - 0.61%)

PROJECT REFERENCE NO. R-4429C	SHEET NO. EC-6/CONST-8
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

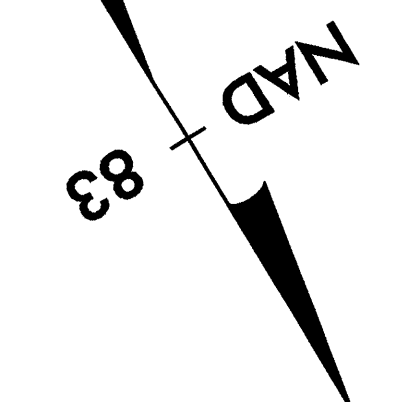
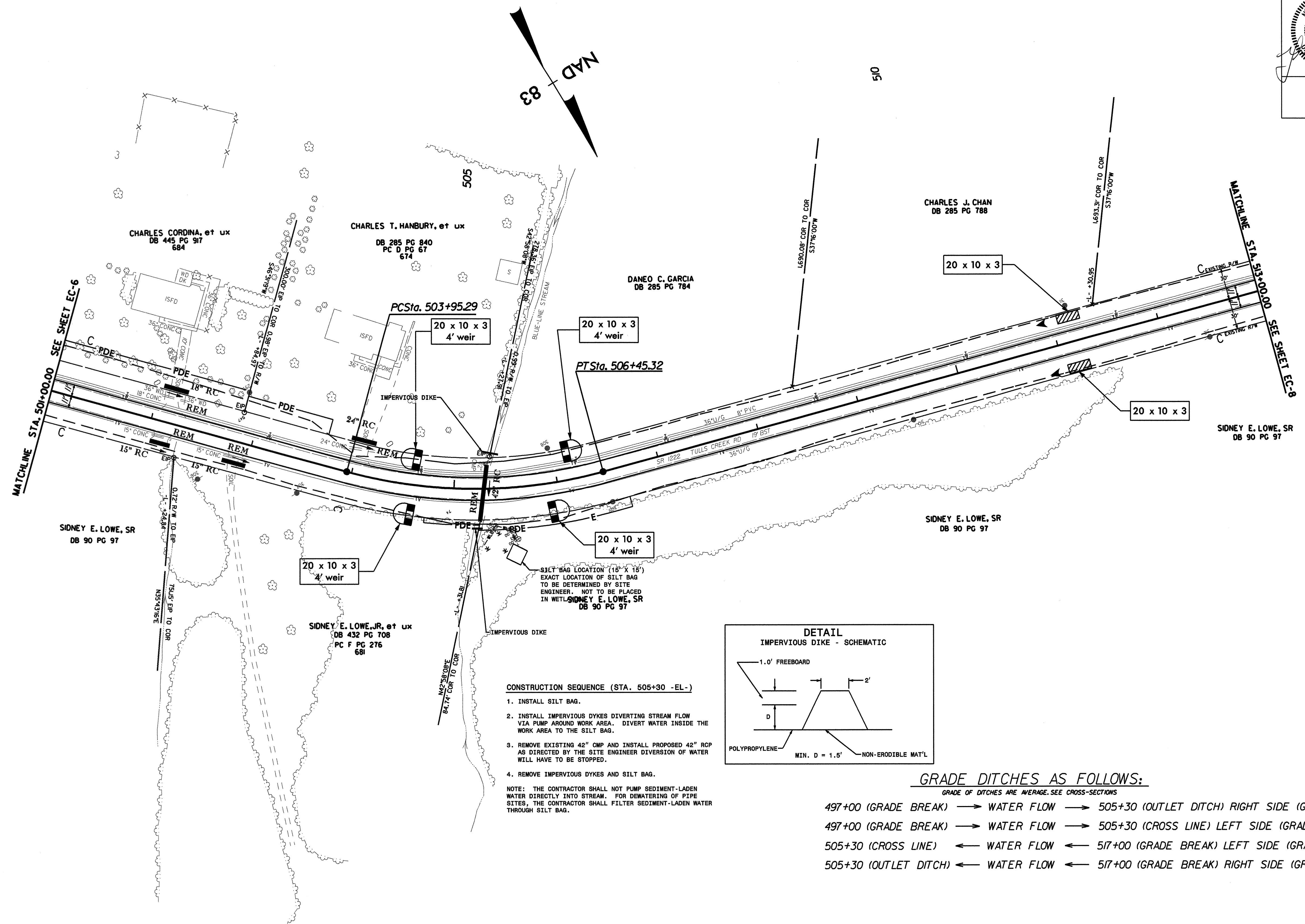


GRADE DITCHES AS FOLLOWS:

GRADE OF DITCHES ARE AVERAGE. SEE CROSS-SECTIONS

- 489+70 (CROSS LINE) ← WATER FLOW ← 497+00 (GRADE BREAK) LEFT SIDE (GRADE - 0.44%)
- 489+70 (OUTLET DITCH) ← WATER FLOW ← 497+00 (GRADE BREAK) RIGHT SIDE (GRADE - 0.61%)
- 497+00 (GRADE BREAK) → WATER FLOW → 505+30 (OUTLET DITCH) RIGHT SIDE (GRADE - 0.5%)
- 497+00 (GRADE BREAK) → WATER FLOW → 505+30 (CROSS LINE) LEFT SIDE (GRADE - 0.5%)

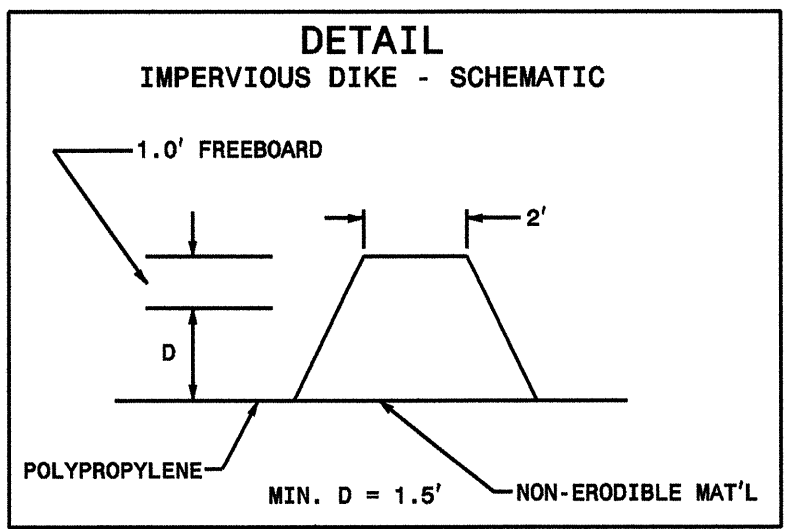




**CONSTRUCTION SEQUENCE (STA. 505+30 -EL-)**

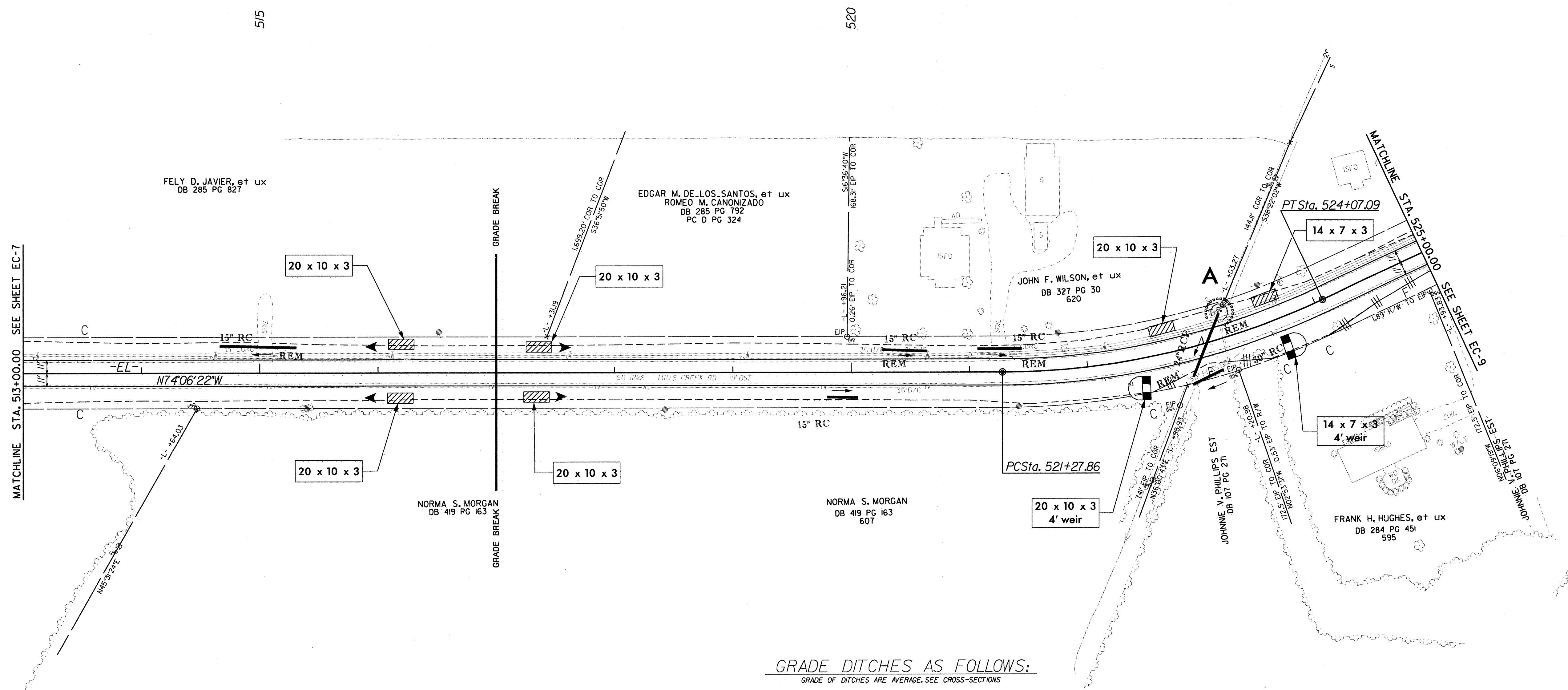
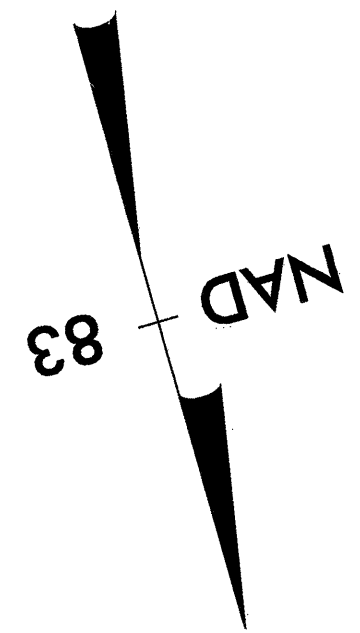
1. INSTALL SILT BAG.
2. INSTALL IMPERVIOUS DYKES DIVERTING STREAM FLOW VIA PUMP AROUND WORK AREA. DIVERT WATER INSIDE THE WORK AREA TO THE SILT BAG.
3. REMOVE EXISTING 42" CMP AND INSTALL PROPOSED 42" RCP AS DIRECTED BY THE SITE ENGINEER DIVERSION OF WATER WILL HAVE TO BE STOPPED.
4. REMOVE IMPERVIOUS DYKES AND SILT BAG.

NOTE: THE CONTRACTOR SHALL NOT PUMP SEDIMENT-LADEN WATER DIRECTLY INTO STREAM. FOR DEWATERING OF PIPE SITES, THE CONTRACTOR SHALL FILTER SEDIMENT-LADEN WATER THROUGH SILT BAG.



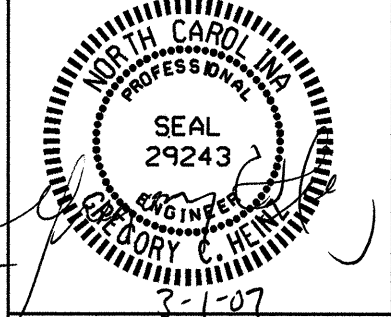
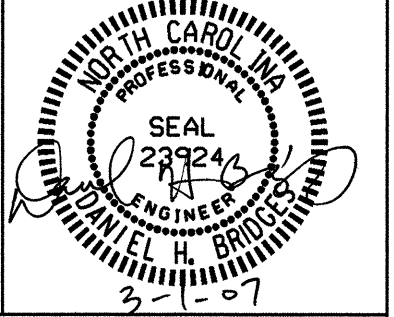
**GRADE DITCHES AS FOLLOWS:**

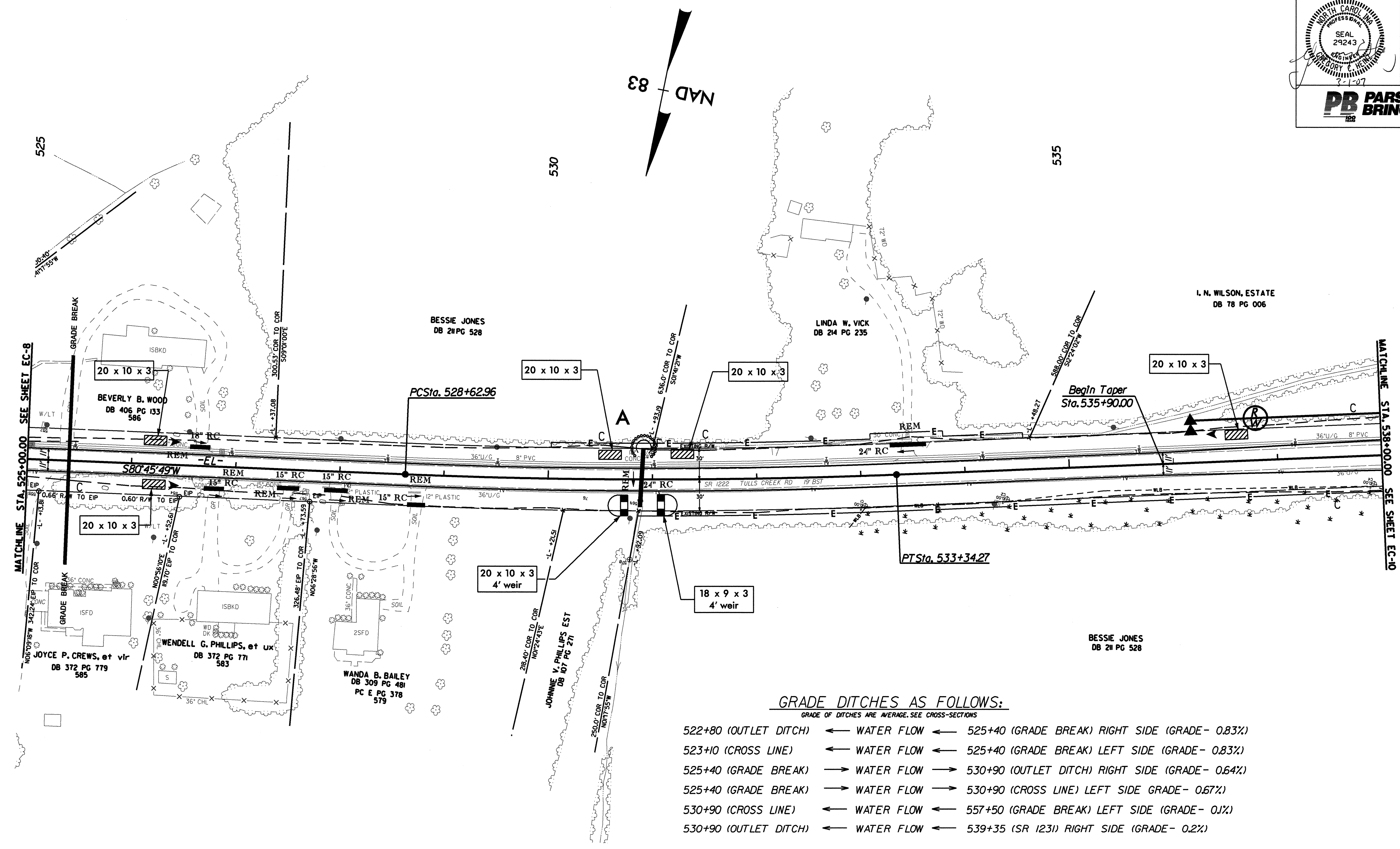
- GRADE OF DITCHES ARE AVERAGE. SEE CROSS-SECTIONS
- 497+00 (GRADE BREAK) → WATER FLOW → 505+30 (OUTLET DITCH) RIGHT SIDE (GRADE- 0.5%)
  - 497+00 (GRADE BREAK) → WATER FLOW → 505+30 (CROSS LINE) LEFT SIDE (GRADE- 0.5%)
  - 505+30 (CROSS LINE) ← WATER FLOW ← 517+00 (GRADE BREAK) LEFT SIDE (GRADE- 0.25%)
  - 505+30 (OUTLET DITCH) ← WATER FLOW ← 517+00 (GRADE BREAK) RIGHT SIDE (GRADE- 0.28%)



**GRADE DITCHES AS FOLLOWS:**  
GRADE OF DITCHES ARE AVERAGE, SEE CROSS-SECTIONS

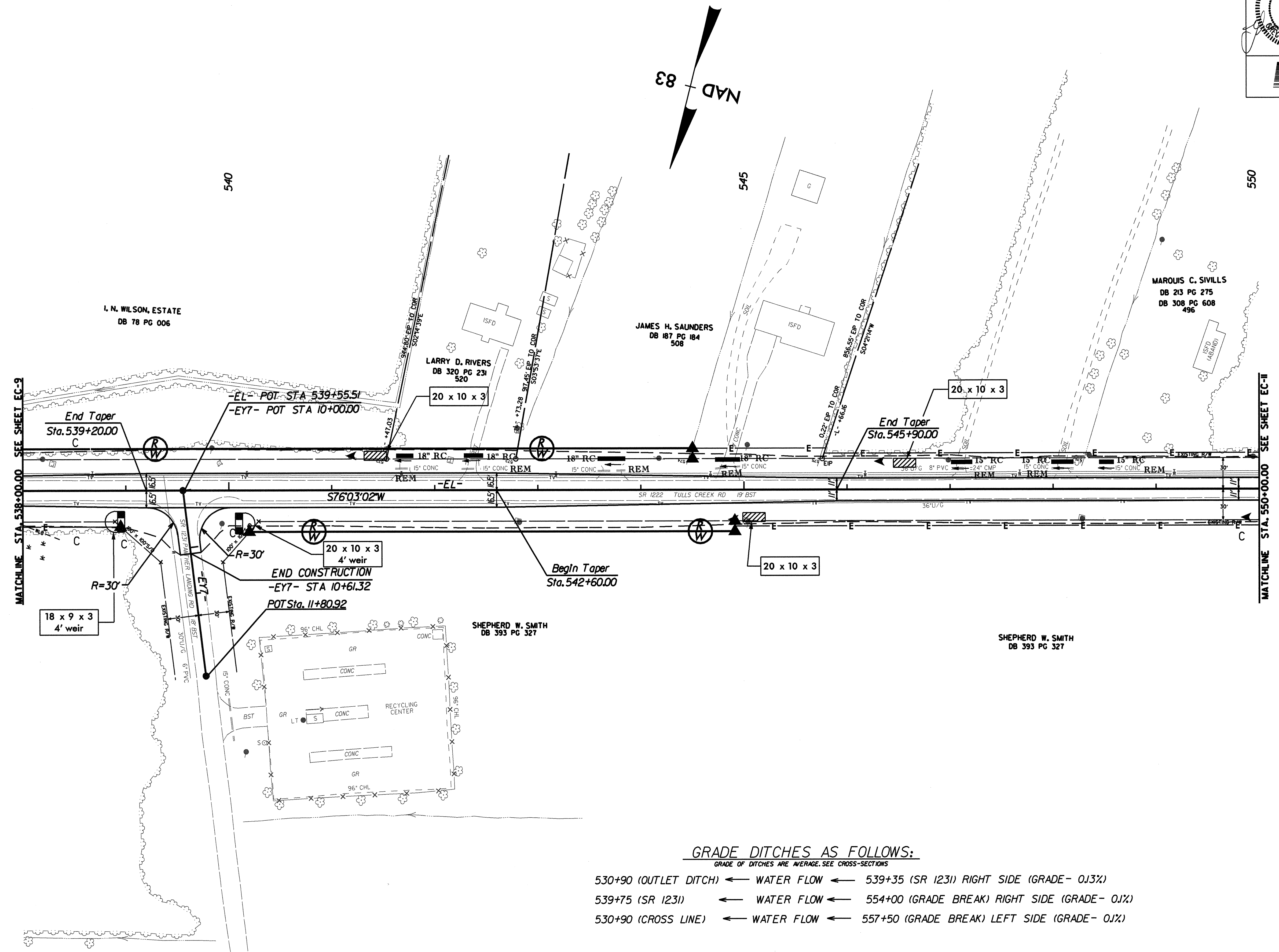
- 517+00 (GRADE BREAK) → WATER FLOW → 523+10 (CROSS LINE) LEFT SIDE (GRADE - 0.27%)
- 517+00 (GRADE BREAK) → WATER FLOW → 522+80 (OUTLET DITCH) RIGHT SIDE (GRADE - 0.37%)
- 523+10 (CROSS LINE) ← WATER FLOW ← 525+40 (GRADE BREAK) LEFT SIDE (GRADE - 0.83%)
- 522+80 (OUTLET DITCH) ← WATER FLOW ← 525+40 (GRADE BREAK) RIGHT SIDE (GRADE - 0.96%)

PROJECT REFERENCE NO. <b>R-4429C</b>	SHEET NO. <b>EC-9/CONST-II</b>
R/W SHEET NO. ---	
ROADWAY DESIGN ENGINEER 	HYDRAULICS ENGINEER 
<b>PARSONS BRINCKERHOFF</b>	



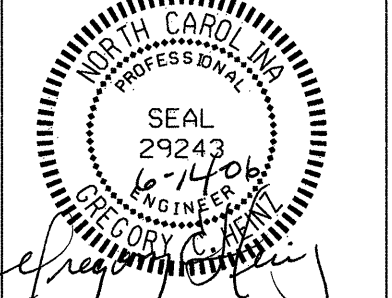
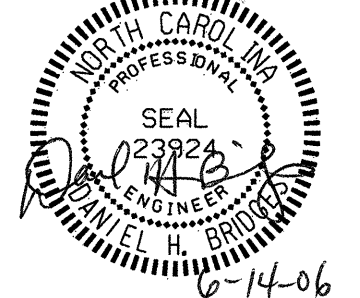
**GRADE DITCHES AS FOLLOWS:**

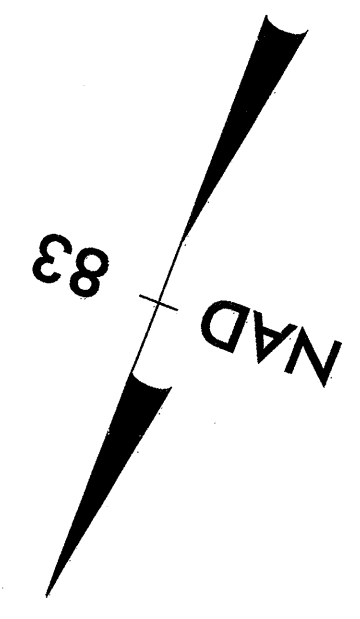
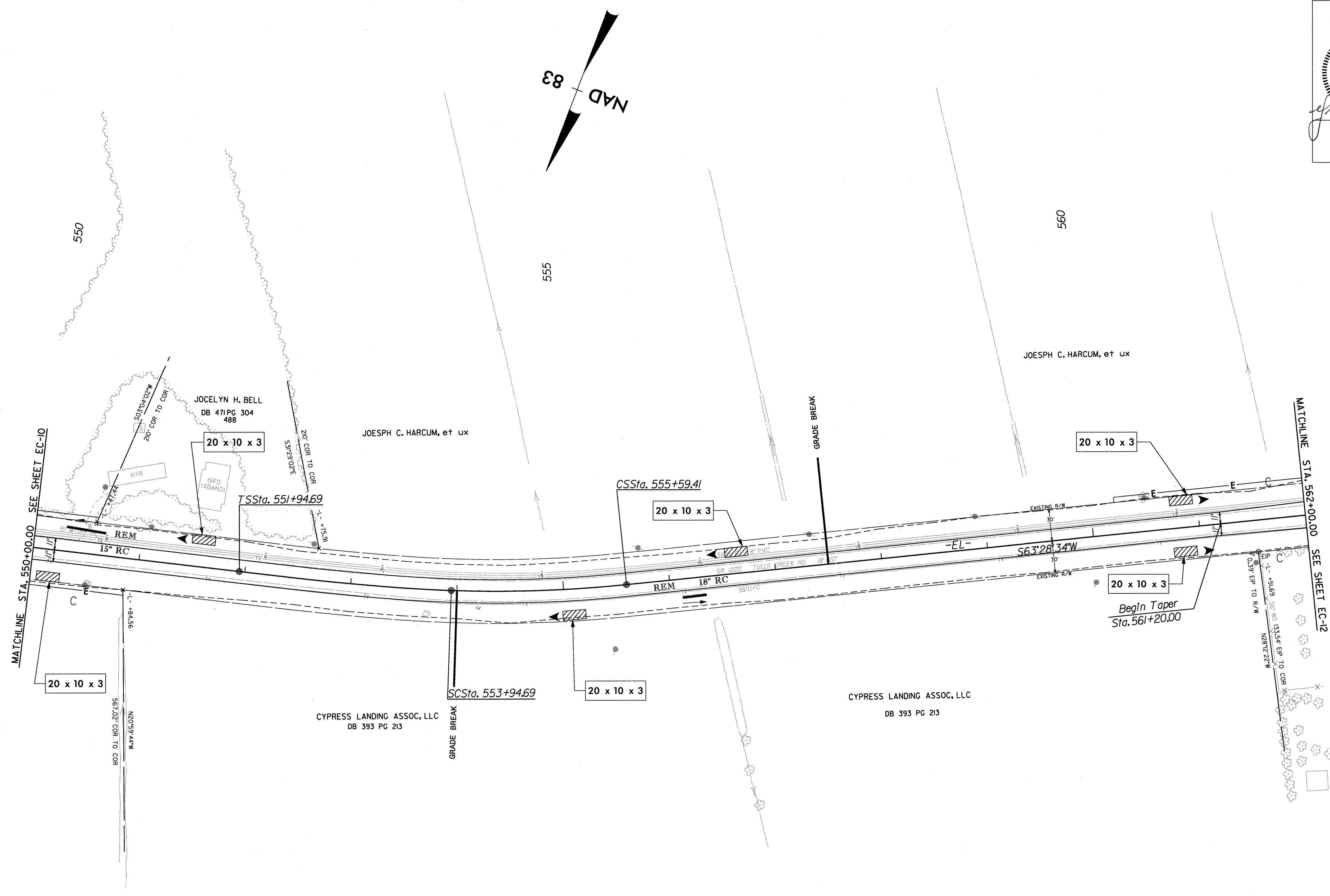
- GRADE OF DITCHES ARE AVERAGE. SEE CROSS-SECTIONS
- 522+80 (OUTLET DITCH) ← WATER FLOW ← 525+40 (GRADE BREAK) RIGHT SIDE (GRADE - 0.83%)
  - 523+10 (CROSS LINE) ← WATER FLOW ← 525+40 (GRADE BREAK) LEFT SIDE (GRADE - 0.83%)
  - 525+40 (GRADE BREAK) → WATER FLOW → 530+90 (OUTLET DITCH) RIGHT SIDE (GRADE - 0.64%)
  - 525+40 (GRADE BREAK) → WATER FLOW → 530+90 (CROSS LINE) LEFT SIDE (GRADE - 0.67%)
  - 530+90 (CROSS LINE) ← WATER FLOW ← 557+50 (GRADE BREAK) LEFT SIDE (GRADE - 0.1%)
  - 530+90 (OUTLET DITCH) ← WATER FLOW ← 539+35 (SR 1231) RIGHT SIDE (GRADE - 0.2%)



**GRADE DITCHES AS FOLLOWS:**

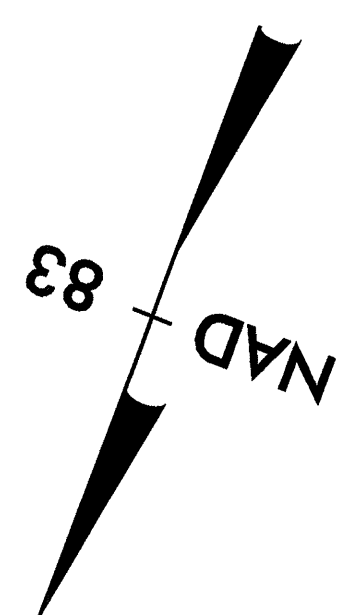
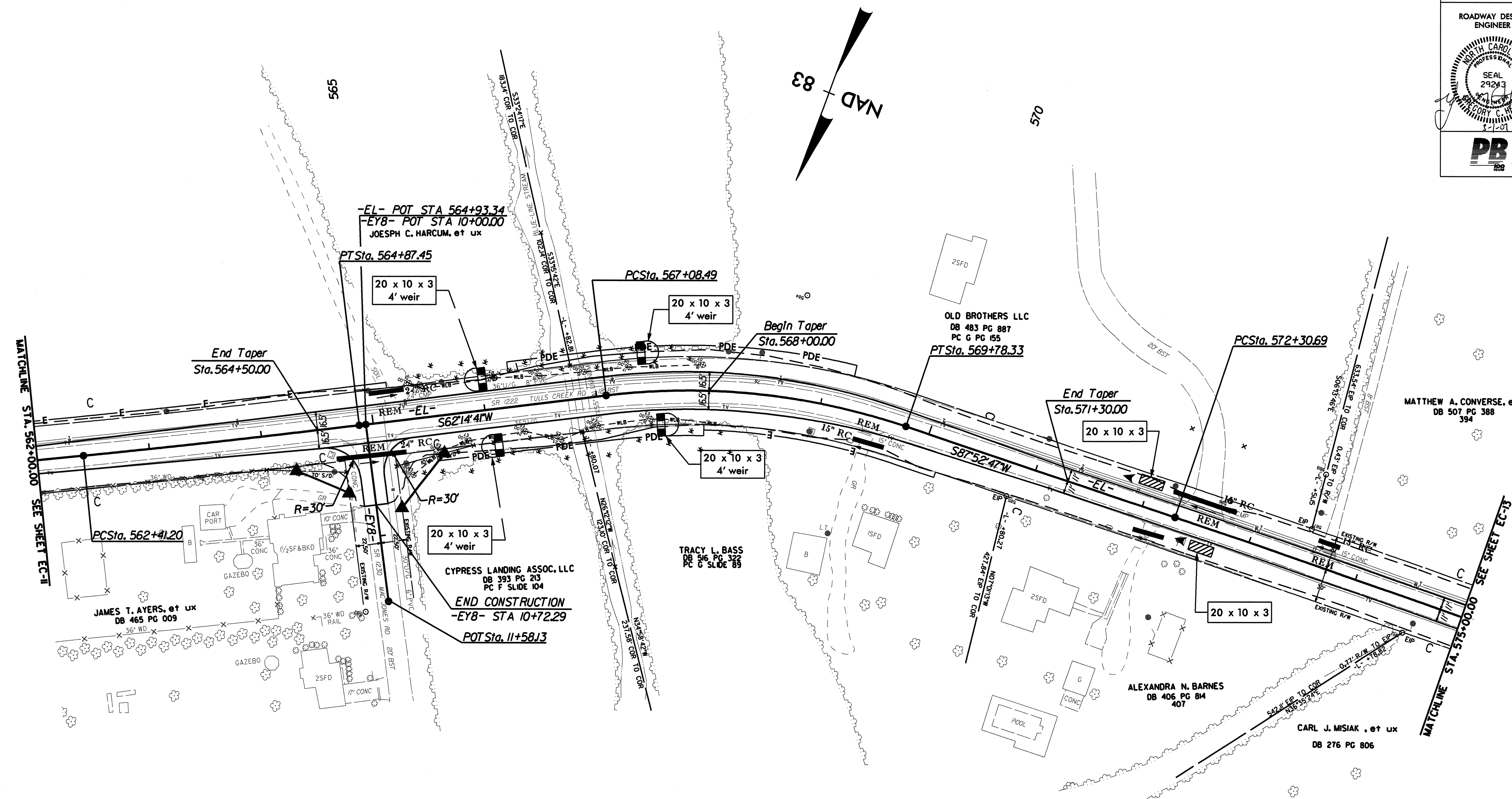
- GRADE OF DITCHES ARE AVERAGE. SEE CROSS-SECTIONS
- 530+90 (OUTLET DITCH) ← WATER FLOW ← 539+35 (SR 1231) RIGHT SIDE (GRADE- 0.13%)
  - 539+75 (SR 1231) ← WATER FLOW ← 554+00 (GRADE BREAK) RIGHT SIDE (GRADE- 0.1%)
  - 530+90 (CROSS LINE) ← WATER FLOW ← 557+50 (GRADE BREAK) LEFT SIDE (GRADE- 0.1%)

PROJECT REFERENCE NO. R-4429C	SHEET NO. EC-11/CONST-13
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER 	HYDRAULICS ENGINEER 
<b>PB PARSONS BRINCKERHOFF</b>	



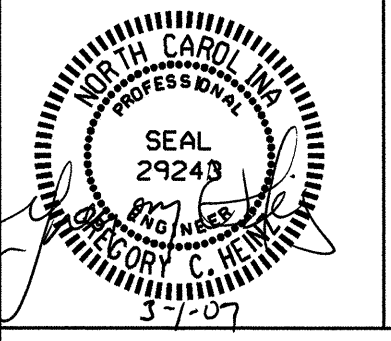
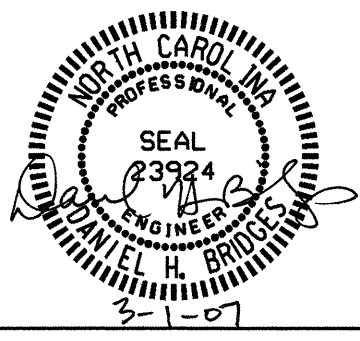
**GRADE DITCHES AS FOLLOWS:**  
GRADE OF DITCHES ARE AVERAGE. SEE CROSS-SECTIONS

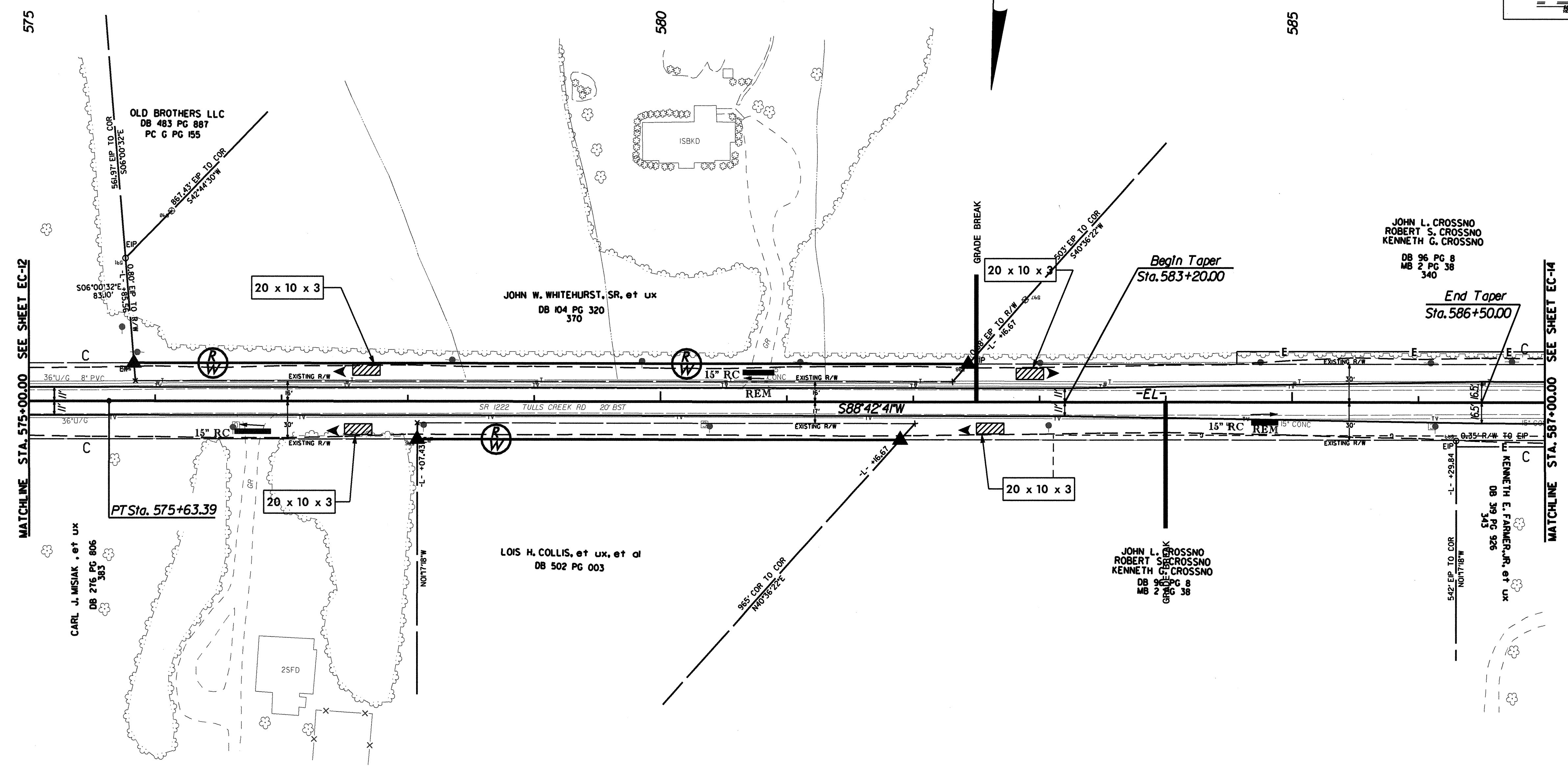
- 530+90 (CROSS LINE) ← WATER FLOW ← 557+50 (GRADE BREAK) LEFT SIDE (GRADE - 0.55%)
- 539+75 (SR 1231) ← WATER FLOW ← 554+00 (GRADE BREAK) RIGHT SIDE (GRADE - 0.5%)
- 557+50 (GRADE BREAK) → WATER FLOW → 566+80 (CROSS LINE) LEFT SIDE (GRADE - 0.55%)
- 554+00 (GRADE BREAK) → WATER FLOW → 566+80 (OUTLET DITCH) RIGHT SIDE (GRADE - 0.5%)



**GRADE DITCHES AS FOLLOWS:**  
GRADE OF DITCHES ARE AVERAGE. SEE CROSS-SECTIONS

557+50 (GRADE BREAK)	→ WATER FLOW →	566+80 (CROSS LINE) LEFT SIDE (GRADE - 0.55%)
554+00 (GRADE BREAK)	→ WATER FLOW →	566+80 (OUTLET DITCH) RIGHT SIDE (GRADE - 0.5%)
566+80 (CROSS LINE)	← WATER FLOW ←	582+50 (GRADE BREAK) LEFT SIDE (GRADE - 0.27%)
566+80 (OUTLET DITCH)	← WATER FLOW ←	584+00 (GRADE BREAK) RIGHT SIDE (GRADE - 0.29%)

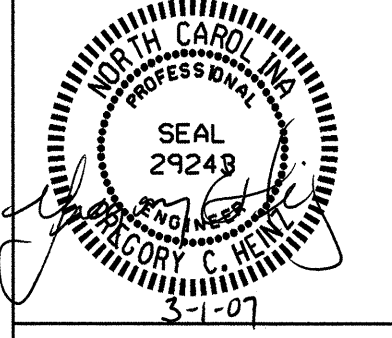
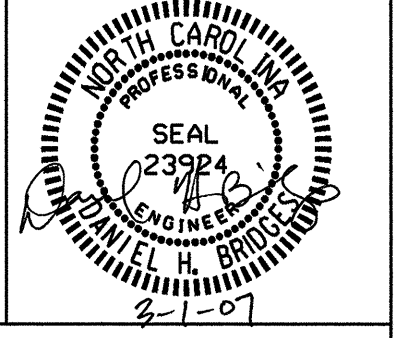
PROJECT REFERENCE NO. R-4429C	SHEET NO. EC-13/CONST-15
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER 	HYDRAULICS ENGINEER 
<b>PARSONS BRINCKERHOFF</b>	

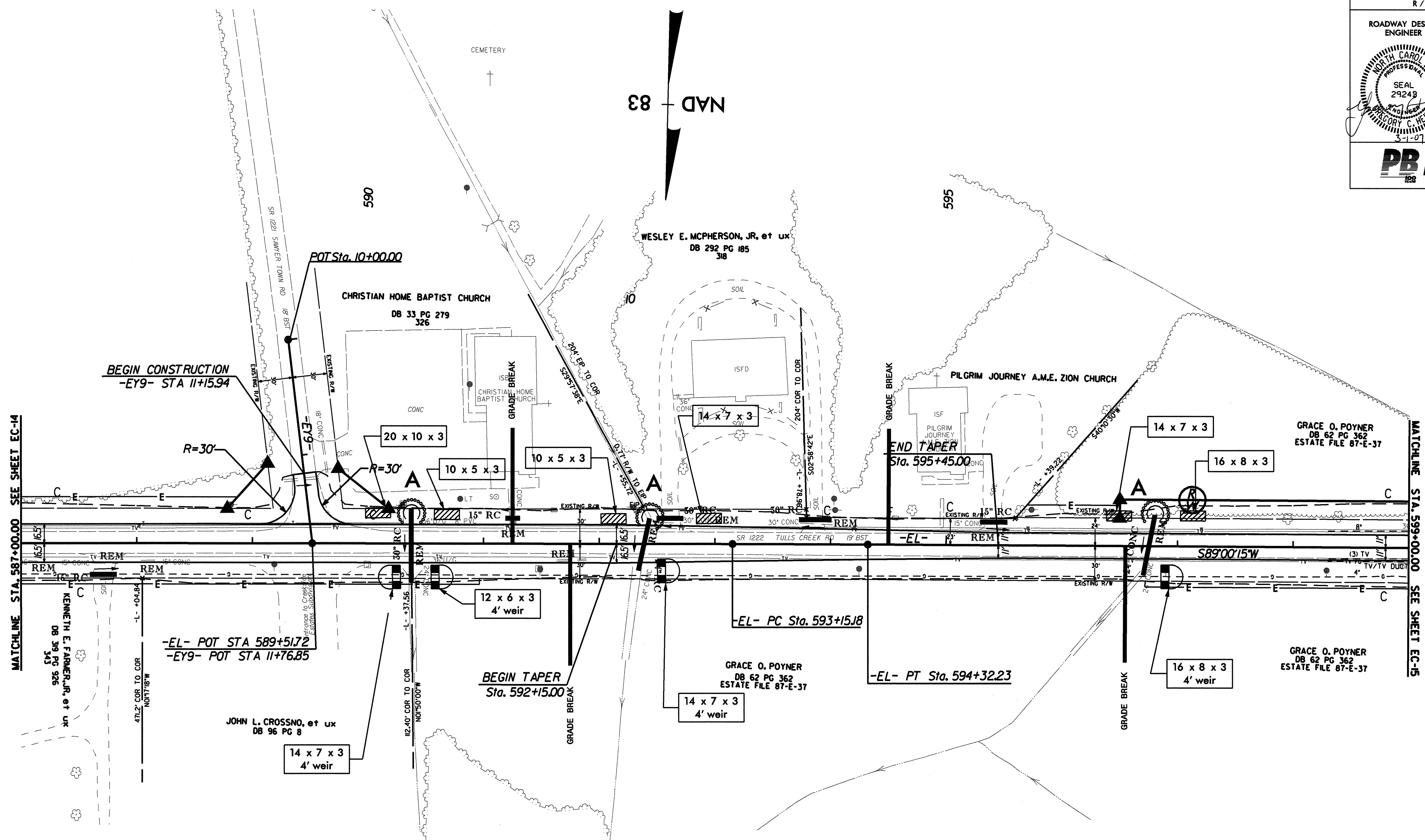


**GRADE DITCHES AS FOLLOWS:**

GRADE OF DITCHES ARE AVERAGE, SEE CROSS-SECTIONS

- 566+80 (CROSS LINE) ← WATER FLOW ← 582+50 (GRADE BREAK) LEFT SIDE (GRADE- 0.27%)
- 566+80 (OUTLET DITCH) ← WATER FLOW ← 584+00 (GRADE BREAK) RIGHT SIDE (GRADE- 0.29%)
- 582+50 (GRADE BREAK) → WATER FLOW → 590+40 (CROSS LINE) LEFT SIDE (GRADE- 0.31%)
- 584+00 (GRADE BREAK) → WATER FLOW → 590+40 (OUTLET DITCH) RIGHT SIDE (GRADE- 0.38%)

PROJECT REFERENCE NO. R-4429C	SHEET NO. EC-14/CONST-16
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER 	HYDRAULICS ENGINEER 
<b>PARSONS BRINCKERHOFF</b>	

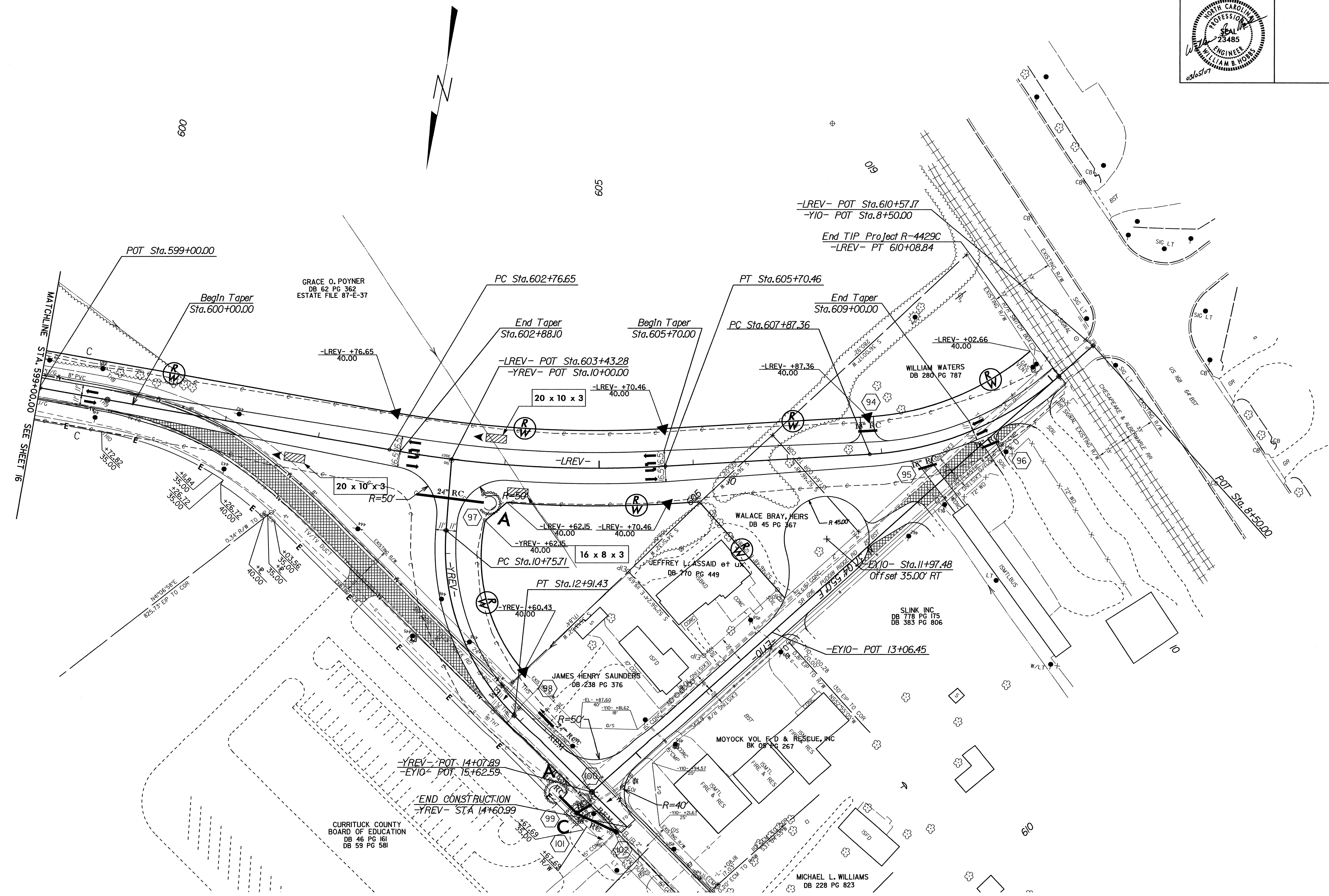


**GRADE DITCHES AS FOLLOWS:**

- GRADE OF DITCHES ARE AVERAGE. SEE CROSS-SECTIONS
- 582+50 (GRADE BREAK) → WATER FLOW → 590+40 (CROSS LINE) LEFT SIDE (GRADE- 0.31%)
  - 584+00 (GRADE BREAK) → WATER FLOW → 590+40 (OUTLET DITCH) RIGHT SIDE (GRADE- 0.38%)
  - 590+40 (CROSS LINE) ← WATER FLOW ← 591+25 (GRADE BREAK) LEFT SIDE (GRADE- 0.24%)
  - 590+40 (OUTLET DITCH) ← WATER FLOW ← 591+75 GRADE BREAK) RIGHT SIDE (GRADE- 1.22%)
  - 591+25 (GRADE BREAK) → WATER FLOW → 592+45 (CROSS LINE) LEFT SIDE (GRADE- 0.17%)
  - 591+75 (GRADE BREAK) → WATER FLOW → 592+35 (OUTLET DITCH) RIGHT SIDE (GRADE- 0.58%)
  - 592+35 (OUTLET DITCH) ← WATER FLOW ← 594+00 (GRADE BREAK) RIGHT SIDE (GRADE- 0.5%)
  - 592+45 (CROSS LINE) ← WATER FLOW ← 594+00 (GRADE BREAK) LEFT SIDE (GRADE- 0.45%)
  - 594+00 (GRADE BREAK) → WATER FLOW → 596+80 (OUTLET DITCH) RIGHT SIDE (GRADE- 1.24%)
  - 594+00 (GRADE BREAK) → WATER FLOW → 596+80 (CROSS LINE) LEFT SIDE (GRADE- 1.19%)
  - 596+80 (OUTLET DITCH) ← WATER FLOW ← 600+00 (GRADE BREAK) RIGHT SIDE (GRADE- 0.11%)
  - 596+80 (CROSS LINE) ← WATER FLOW ← 600+00 (GRADE BREAK) LEFT SIDE (GRADE- 0.16%)



PROJECT REFERENCE NO.	SHEET NO.
R-4429C	EC-15/CONST-17
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	



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