

**SR I OVER SCOTT RUN  
 GENERAL PLAN & ELEVATION I**

**INDEX OF DRAWINGS**

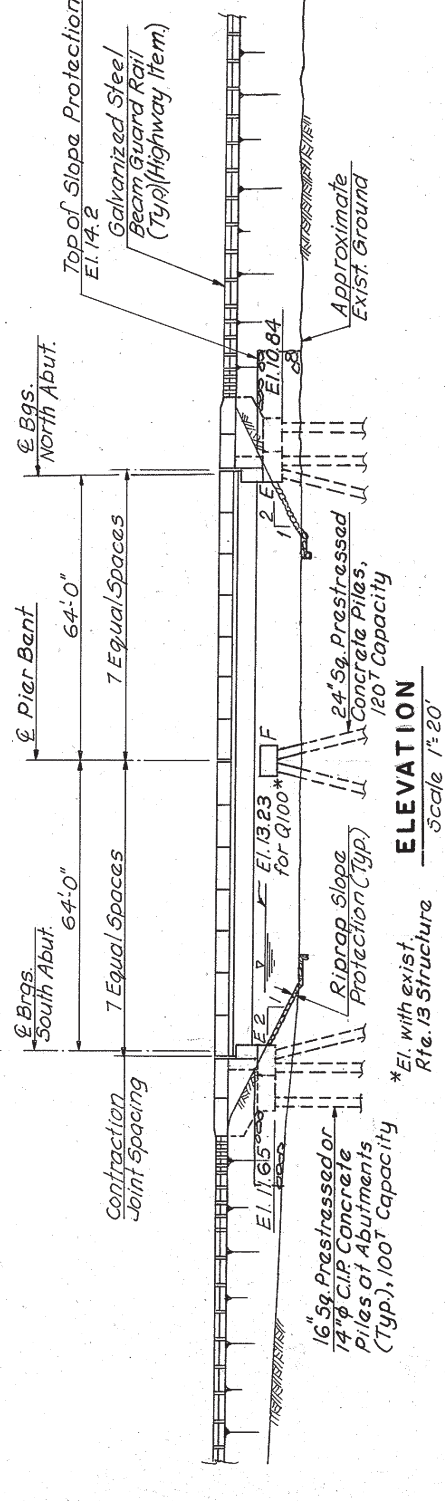
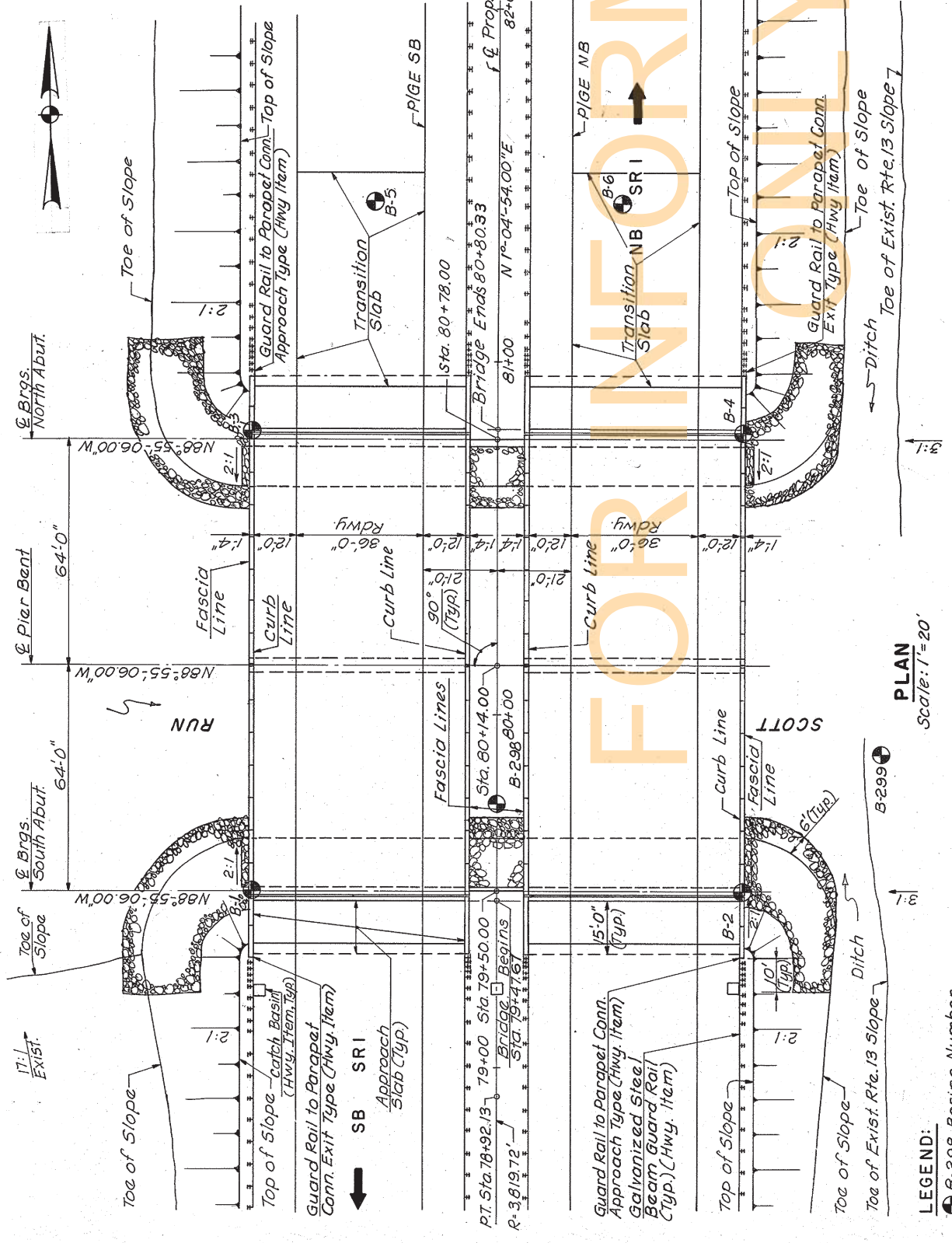
| DWG. NO. | Description                              |
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**GENERAL NOTES:**

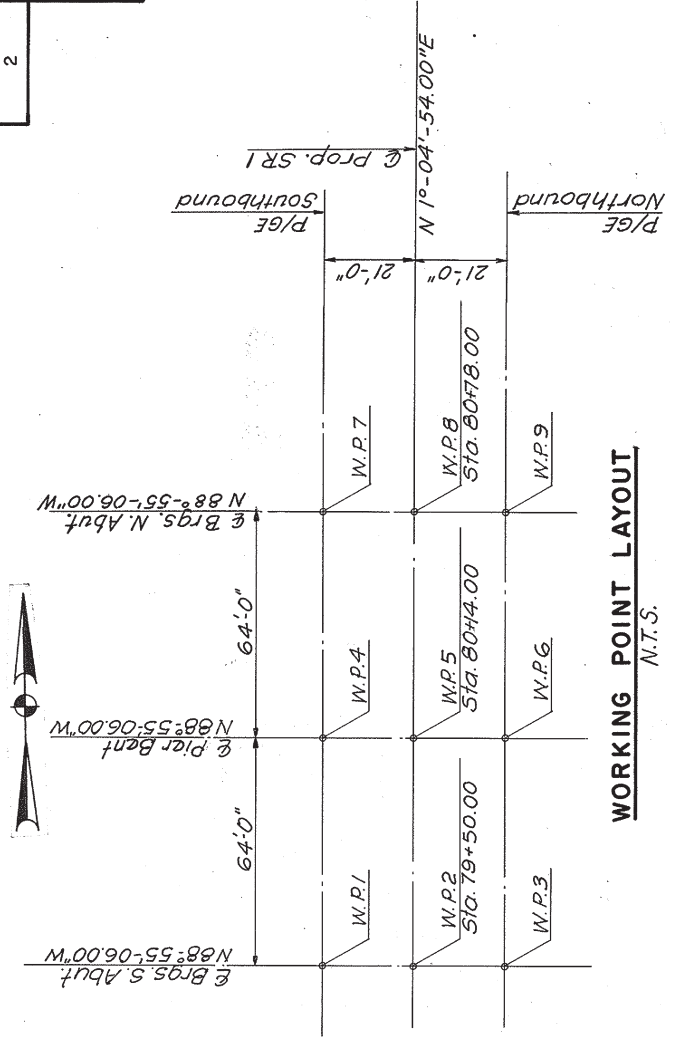
- DESIGN SPECIFICATION:**  
 1989 AASHTO Standard Specifications for Highway Bridges including Interims. Welding shall conform to 1988 AASHTO/AWS Bridge Welding Code D1.5-88.
- DESIGN:**  
 Load Factor Design Method.
- LOADING:**  
 Live Load: AASHTO HS20-44 or Delaware Legal Load whichever governs. Dead load includes 25 Pounds per Square Foot provision for future overlay and deck forms.
- MATERIAL AND FABRICATION:**  
 Delaware Department of Transportation Standard Specifications dated July 1985, with current modifications, additions and special provisions.
- CONCRETE:**  
 Specified Compressive Strength (f<sub>c</sub>)  
 Deck Slab: 4500 psi Class 'D'  
 Concrete for Prestressed Beams: 5000 psi (f<sub>c</sub>=4500psi)  
 Concrete above Footings & Parapets: 4500psi Class 'A'  
 Concrete in Footings: 3000 psi Class 'B'  
 Chamfer exposed edges 3/4" unless shown otherwise.
- REINFORCEMENT STEEL:**  
 AASHTO M31, Gr. 60 (ASTM A615). All deck slab, approach slabs, parapet bars, vert. bars in diaphragm, and bars in top of backwall shall be epoxy coated. Epoxy coated bars shall not contact uncoated bars.
- STRUCTURAL STEEL:**  
 Structural steel for Expansion Devices shall conform to AASHTO M270, Gr. 36 (ASTM A36).
- PRESTRESSING STEEL:**  
 Prestressing steel shall be seven wire Low-Relaxation strands, Grade 270 conforming to AASHTO M203 (ASTM A416).
- DRAINAGE:**  
 Deck drainage shall be provided by openings through the parapet.
- FOUNDATION:**  
 24" Sq. Prestressed Conc. Piles at Pier Bent. 16" Sq. Prestressed Conc. Piles or 14" φ C.I.P. Piles at Abuts.
- WAVE EQUATION NOTE:**  
 The Contractor will be responsible for submitting a wave equation analysis in accordance with the modifications to the Standard Specifications, Subsection 618.15. The wave equation analysis must be certified by a Professional Engineer.
- EARTHQUAKE DESIGN:**  
 Method in accordance with AASHTO Guide Specifications for Seismic Design of Highway Bridges, Category A.

**HYDRAULIC DATA**

Drainage Area 3.3 Sq. Mi.  
 100 Yr. Discharge:  
 Design Discharge = 1,591 cfs.  
 Design Velocity = 0.83 ft/sec.  
 Water Surface = El. 13.1  
 Cross Section Flow Area thru Bridge = 1921 S.F.  
 Mannings Roughness Coef. = 0.12

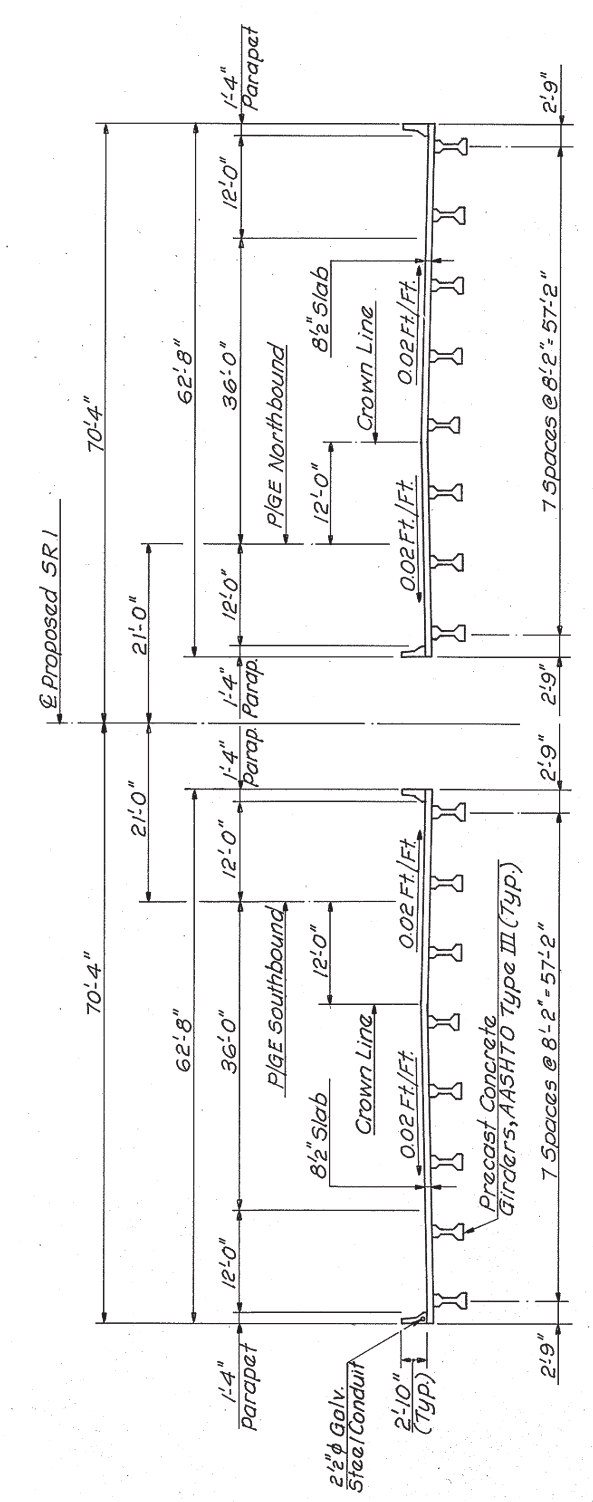


INFORMATION FOR THE CONTRACTOR

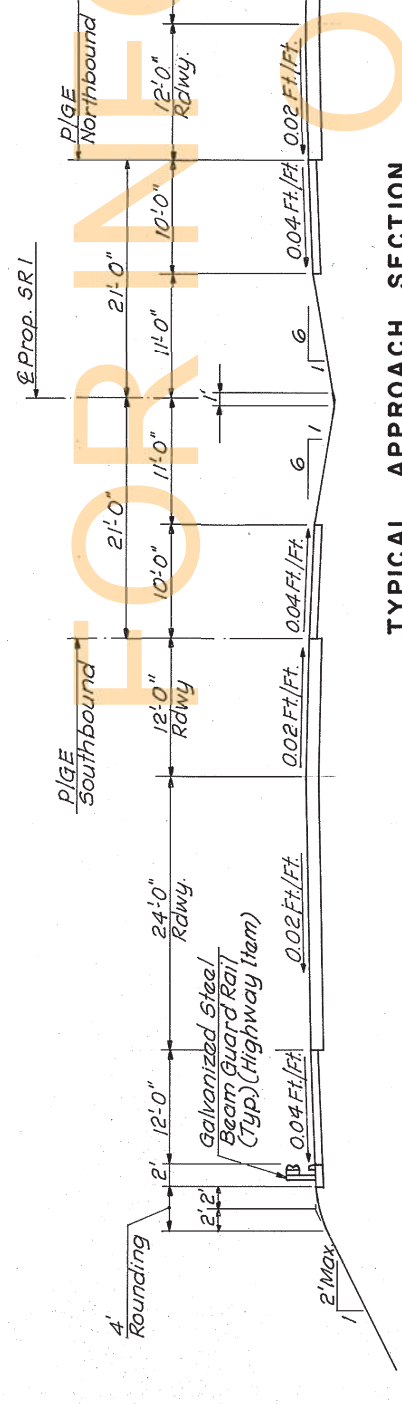


**WORKING POINT LAYOUT**  
N.T.S.

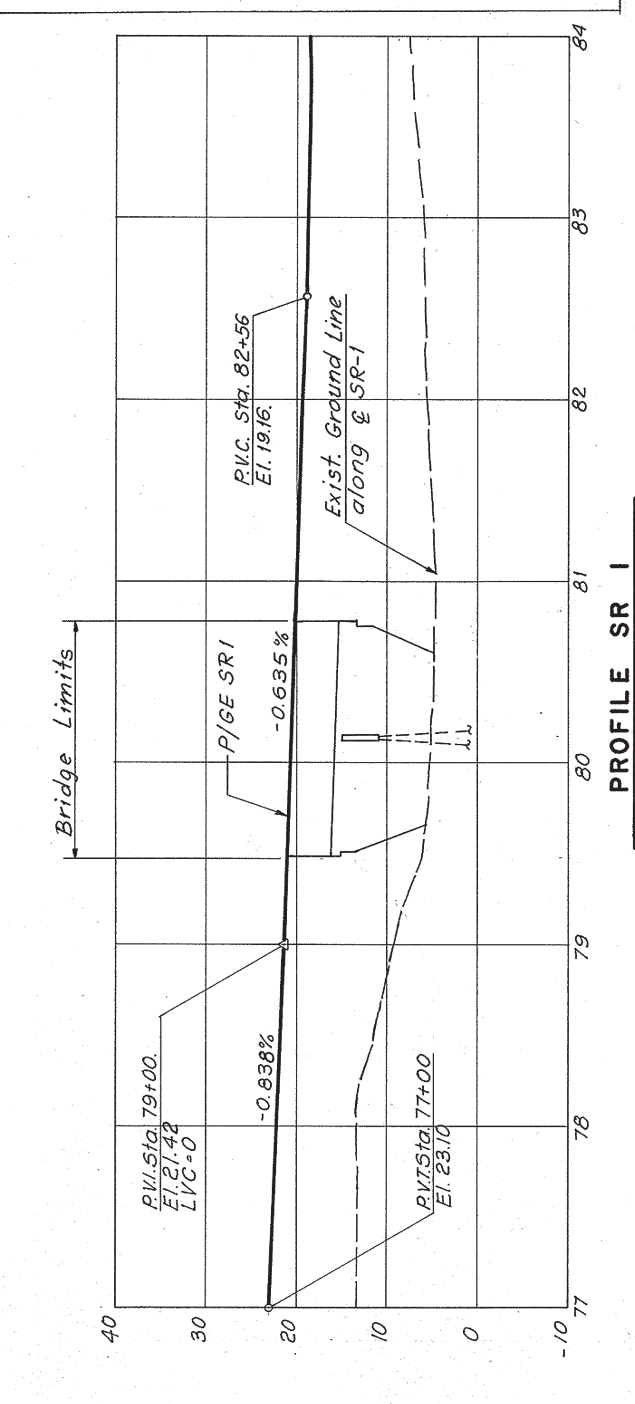
| POINT | STATION           | COORDINATES |            |
|-------|-------------------|-------------|------------|
|       |                   | NORTH       | EAST       |
| W.P.1 | 79+50.00, 21' Lt. | 559,273.97  | 434,186.97 |
| W.P.2 | 79+50.00          | 559,273.57  | 434,207.96 |
| W.P.3 | 79+50.00, 21' Rt. | 559,273.18  | 434,228.96 |
| W.P.4 | 80+14.00, 21' Lt. | 559,337.96  | 434,188.18 |
| W.P.5 | 80+14.00          | 559,337.56  | 434,209.17 |
| W.P.6 | 80+14.00, 21' Rt. | 559,337.16  | 434,230.17 |
| W.P.7 | 80+78.00, 21' Lt. | 559,401.95  | 434,189.38 |
| W.P.8 | 80+78.00          | 559,401.55  | 434,210.38 |
| W.P.9 | 80+78.00, 21' Rt. | 559,401.15  | 434,231.38 |



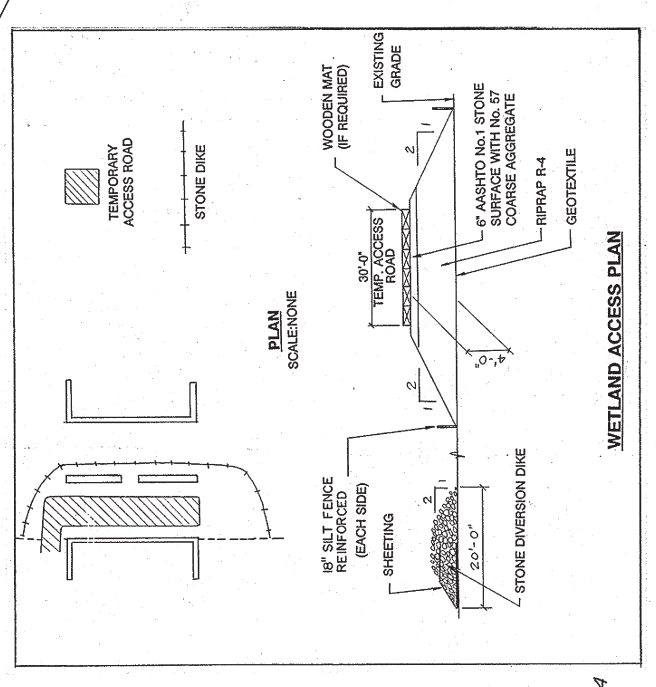
**TYPICAL SECTION**  
Scale: 3/32" = 1'-0"



**TYPICAL APPROACH SECTION**  
Scale: 8" = 1'-0"



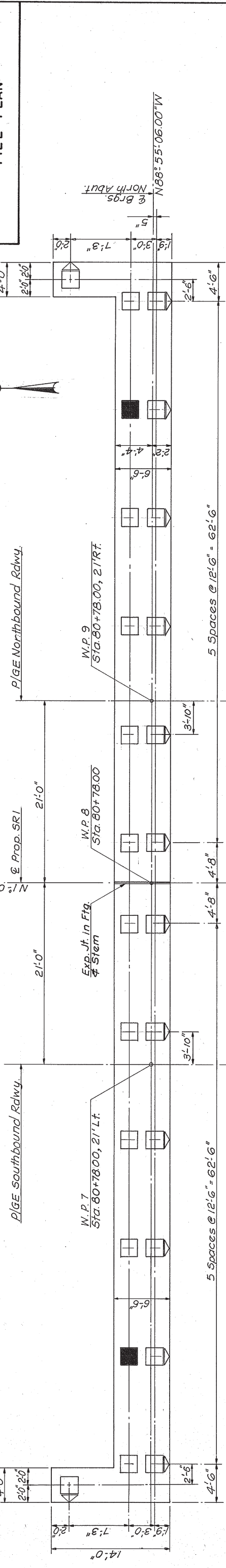
**PROFILE SR I**  
Scale: Horiz. 1" = 50'; Vert. 1" = 10'



**WETLAND ACCESS PLAN**

| SECTION  | DESCRIPTION  | UNIT   | QUANTITY |
|----------|--|--------|----------|
|          |  |        | C.Y.     |
| 207000   | Excavation and Backfill of Structures                                  | C.Y.   | 165      |
| 209003   | Borrow, Type 'C'   | C.Y.   | 450      |
| **602004 | Portland Cement Concrete Masonry, Abutment Footing, Class 'B'          | C.Y.   | 315      |
| **602007 | Portland Cement Concrete Masonry, Pier above Footing, Class 'A'        | C.Y.   | 140      |
| **602009 | Portland Cement Concrete Masonry, Approach Slab, Class 'A'             | C.Y.   | 225      |
| **602013 | Portland Cement Concrete Masonry, Superstructure, Class 'D'            | C.Y.   | 500      |
| **602015 | Portland Cement Concrete Masonry, Abutment above Footing, Class 'A'    | C.Y.   | 115      |
| **602017 | Portland Cement Concrete Masonry, Parapet, Class 'A'                   | C.Y.   | 58       |
| **602520 | Epoxy Protective Coating for Concrete                                  | S.Y.   | 1100     |
| 602547   | Waterproofing Bridge Deck, Sidewalk, Etc.                              | S.F.   | 1200     |
| **603000 | Bar Reinforcement  | Lbs.   | 59000    |
| **604000 | Bar Reinforcement, Epoxy Coated  | Lbs.   | 174,286  |
| **605511 | Prefabricated Expansion Joint System, 3"                               | L.F.   | 255      |
| **620002 | Cast-in-Place Concrete Piles, 14" (Abutment Alternate A)               | L.F.   | 310      |
| **620006 | Steel Shell Test Piles, 14" (Abutment Alternate A)                     | L.F.   | 1680     |
| 620523   | Precast Prestressed Concrete Pile, 24"x24"                             | L.F.   | 168      |
| 620524   | Precast Prestressed Concrete Test Pile, 24"x24"                        | L.F.   | 168      |
| 623001   | Precast Reinforced Concrete Members, I-Beam (2055 L.F.)                | L.S.   | -        |
| 712504   | Riprap, R-5  | S.Y.   | 1470     |
| 715001   | 6" Perforated Pipe Underdrain  | L.F.   | 375      |
| 746545   | Bridge Electrical System   | L.F.   | 165      |
| 620502   | Precast Prestressed Concrete Pile, 16"x16" (Abutment Alternate B)      | L.F.   | 3290     |
| 620505   | Precast Prestressed Concrete Test Pile, 16"x16" (Abutment Alternate B) | L.F.   | 310      |
| 302500   | Del. No. 3 Stone   | Ton    | 300      |
| 202508   | Wetland Access, Type II (Temporary Road)                               | L.S.   | -        |
| **620528 | Production Pile Restrike   | EO.    | 5        |
| **620529 | Test Pile Restrike   | EO/day | 10       |

\* Denotes Estimated Fixed Quantities.  
 \*\* Denotes C.I.P. Pile (Option I) at Abutment only.  
 \*\*\* Denotes Fixed cost items.



**LEGEND:**

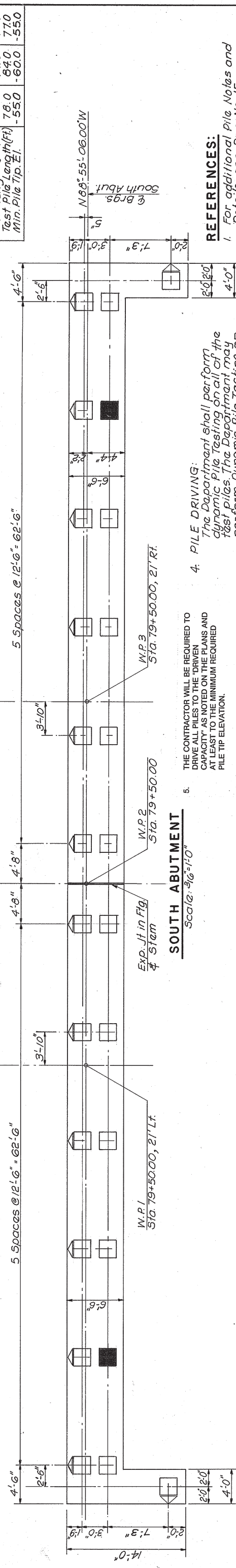
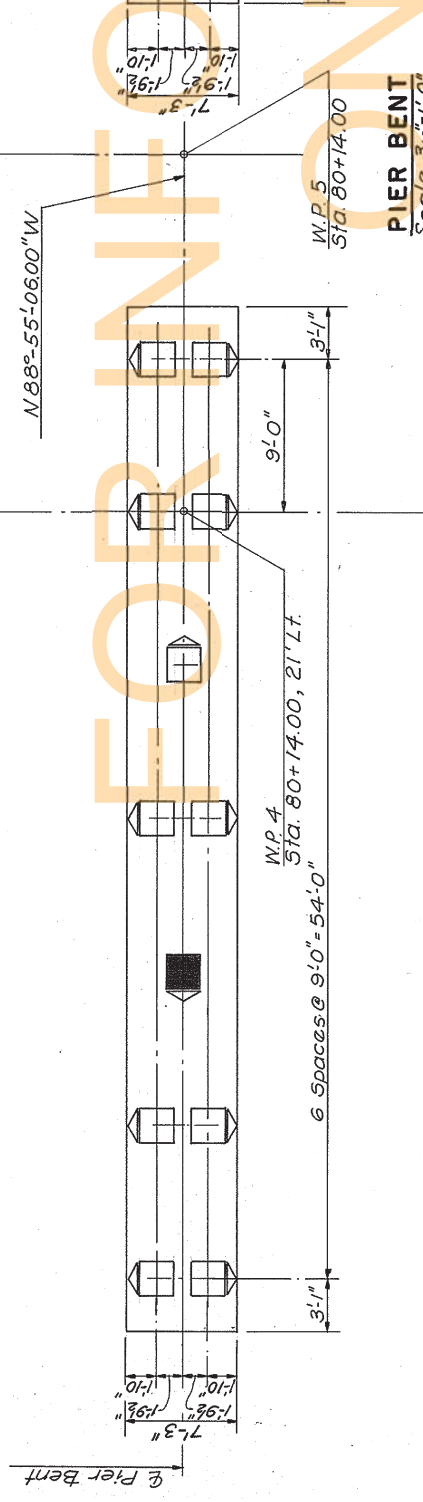
- Indicates Vertical Pile.
- ▤ Indicates Pile Battered 1:4 in Direction of Arrow.
- Indicates Test Pile

**NOTES:**

- Abutment Piles shall be either 16" Sq. Precast Prestressed Concrete Piles conforming to Section 620510 of the special Provisions or 14" C.I.P. Concrete Piles conforming to Section 620000 of the Standard Specifications and have: Min. allowable Bearing Capacity = 100 Tons Driven Capacity = 250 Tons
- Pier Piles shall be 24" Sq. Precast Prestressed Concrete Piles conforming to Section 620510 of the Standard Specifications and have: Min. allowable Bearing Capacity = 120 Tons Driven Capacity = 300 Tons
- Average Estimated Pile Length: (Both Abt.)

|                       | South Abut. | Pier Abut. | North Abut. |
|-----------------------|-------------|------------|-------------|
| Pile Length (Ft)      | 68.0        | 74.0       | 67.0        |
| Test Pile Length (Ft) | 78.0        | 64.0       | 77.0        |
| Min. Pile Tip El.     | -55.0       | -60.0      | -55.0       |

**NORTH ABUTMENT**  
 Scale: 3/16"=1'-0"  
 N 88° 55' 06.00" W



**REFERENCES:**

- For additional Pile Notes and Details, see Dwg. No. 15.
- For Expansion Joint Detail, see Dwg. No. 8.

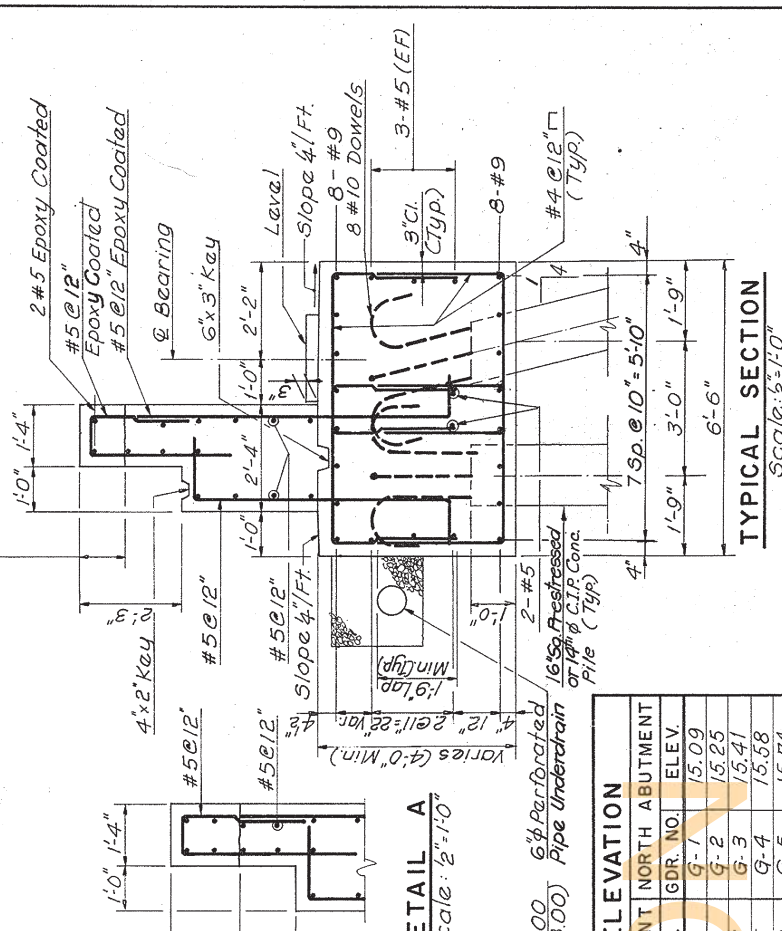
**PILE DRIVING:**  
 The Department shall perform dynamic Pile Testing on all of the test piles. The Department may perform Dynamic Pile Testing on upto five production piles. Testing shall be performed in accordance with special Provision 621502-Dynamic Pile Testing by Del. D.O.T. Payment for this item will be incidental to the Contract unit Price bid for the selected Pile Types.

5. THE CONTRACTOR WILL BE REQUIRED TO DRIVE ALL PILES TO THE "DRIVEN CAPACITY" AS NOTED ON THE PLANS AND AT LEAST TO THE MINIMUM REQUIRED PILE TIP ELEVATION.

6. FOR ESTIMATING PURPOSES, THE CONTRACTOR SHALL FIGURE CUTTING OFF EVERY PILE TO THE DESIGN CUT-OFF ELEVATION.

SR 1 OVER SCOTT RUN ABUTMENT I

1'-0" Concrete Header to be Constructed after Deck Slab is in place (see Detail "A" for Header at Median)



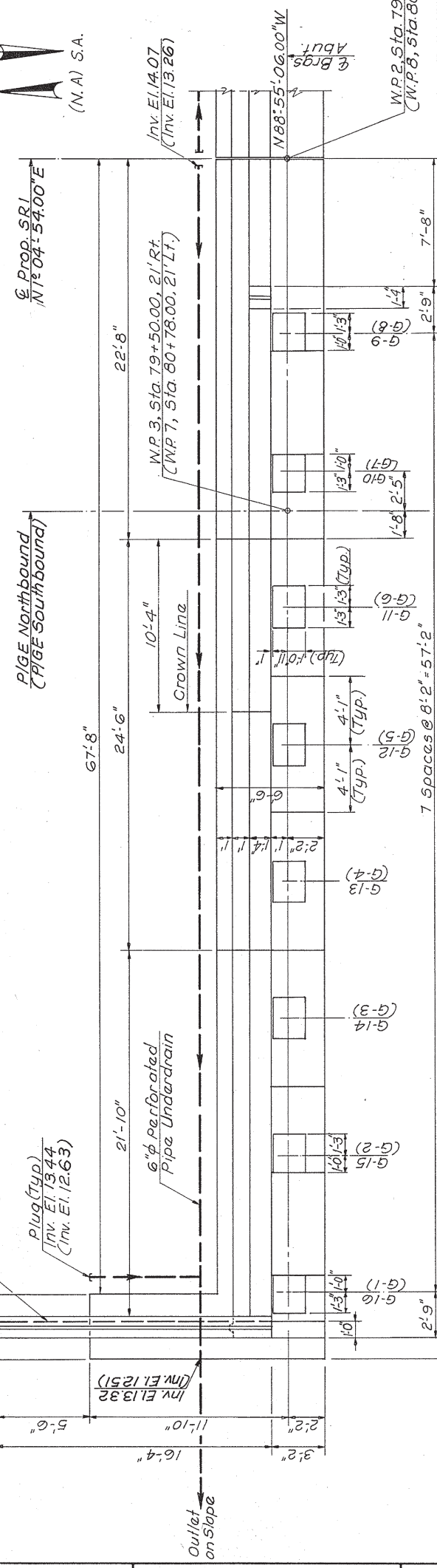
| PAD ELEVATION  |       | NORTH ABUTMENT |       |
|----------------|-------|----------------|-------|
| SOUTH ABUTMENT | ELEV. | GDR. NO.       | ELEV. |
| G-9            | 16.14 | G-1            | 15.09 |
| G-10           | 16.30 | G-2            | 15.25 |
| G-11           | 16.47 | G-3            | 15.41 |
| G-12           | 16.55 | G-4            | 15.58 |
| G-13           | 16.39 | G-5            | 15.74 |
| G-14           | 16.23 | G-6            | 15.66 |
| G-15           | 16.06 | G-7            | 15.49 |
| G-16           | 15.90 | G-8            | 15.33 |

NOTES:

- 6" Perforated Underdrain to be sloped 1/8" / Ft. (Typ)
- Masonry Pads to be Roured Monolithic With Pile Cap
- Reinforcement Suffix "E" Denotes Epoxy Coated Bars
- Shear Blocks to be poured after Prestressed Beams have been placed.

REFERENCES:

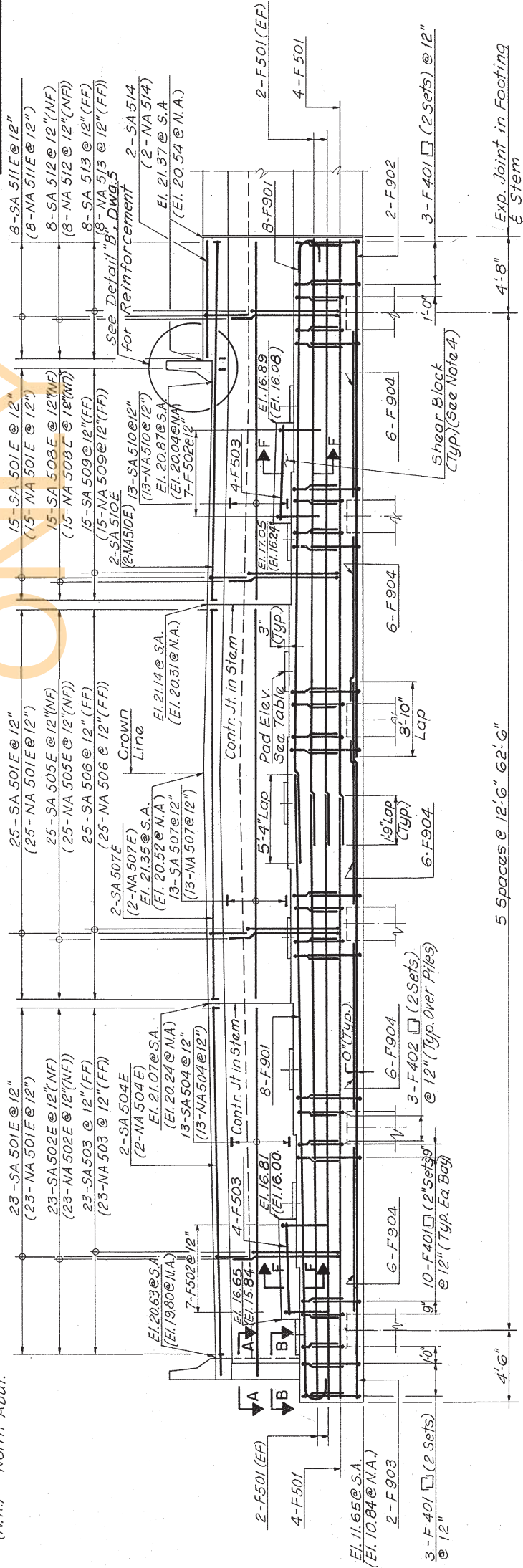
- For General Notes, See Dwg. No. 1.
- For Layout of Working Points, See Dwg. No. 2.
- For Pile Plan, See Dwg. No. 3.
- For Pile Details, See Dwg. No. 15.
- For Deck Details, See Dwg. No. 12.
- For Deck Joint Details, See Dwg. No. 12.
- For Wingwall Elevations, See Dwg. No. 6.
- For Substructure Details, See Dwg. No. 8.
- For Limits of Epoxy Coating for Concrete, See Pay Limit Notes Dwg. No. 8.
- For Bar Lists, See Dwg. No. 19-21.
- For Sections A-A & B-B, See Dwg. No. 6.
- For Detail B, See Dwg. No. 5.
- For Section F-F, see Dwg. No. 5.
- For Expansion / Contraction Joint Detail, see Dwg. No. 8.



ABBREVIATIONS:  
 (NF) = Near Face  
 (FF) = Far Face  
 (EF) = Each Face  
 (T) = Top  
 (B) = Bottom  
 S.A. = South Abut.  
 (N.A.) = North Abut.

PLAN - SOUTH ABUTMENT NORTHBOUND ROADWAY (NORTH ABUTMENT SOUTHBOUND ROADWAY SIMILAR)

Scale: 4" = 10'



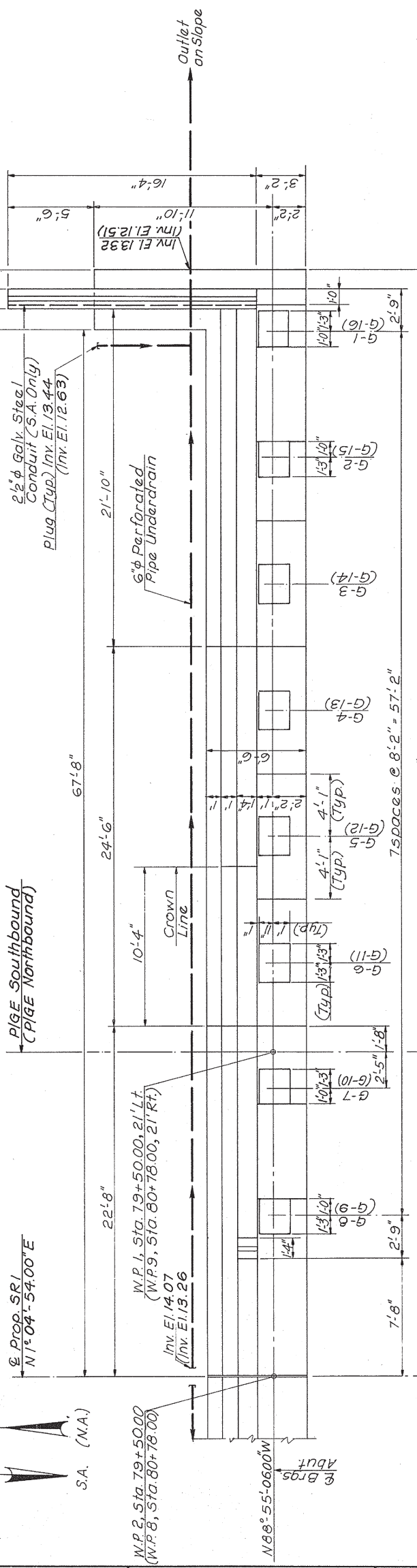
ELEVATION - SOUTH ABUTMENT NORTHBOUND ROADWAY (NORTH ABUTMENT SOUTHBOUND ROADWAY SIMILAR)

Scale: 4" = 10'

REVISIONS

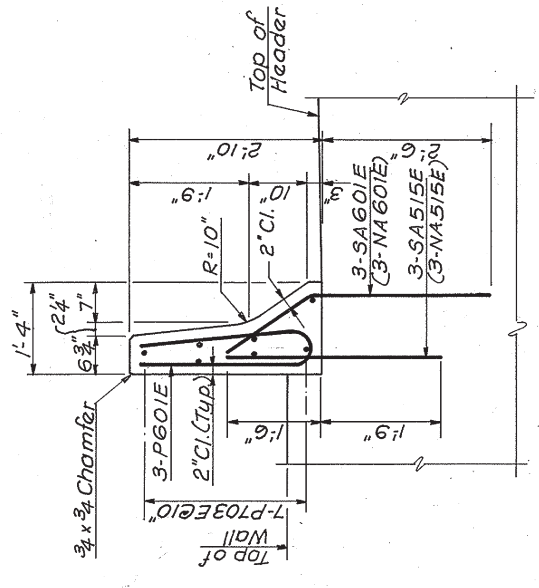
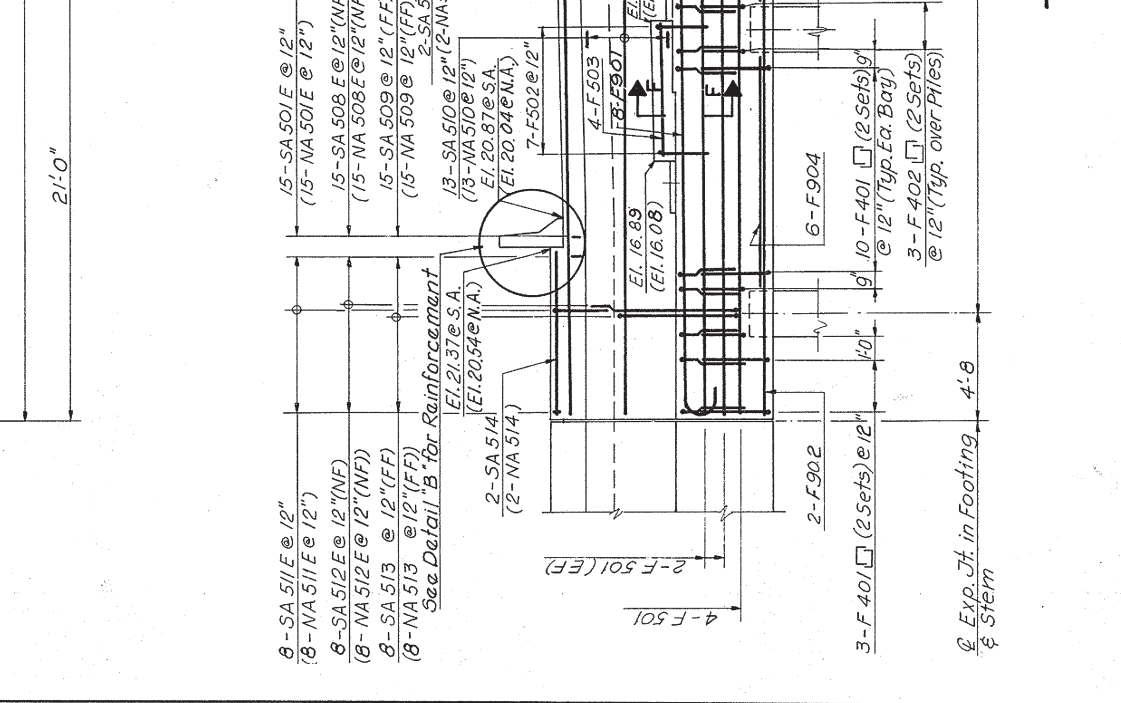
SR I OVER SCOTT RUN  
ABUTMENT II

| PAD ELEVATION  |                |       |
|----------------|----------------|-------|
| SOUTH ABUTMENT | NORTH ABUTMENT |       |
| GDR. NO.       | GDR. NO.       | ELEV. |
| G-1            | G-9            | 15.90 |
| G-2            | G-10           | 15.06 |
| G-3            | G-11           | 16.23 |
| G-4            | G-12           | 16.39 |
| G-5            | G-13           | 16.55 |
| G-6            | G-14           | 16.47 |
| G-7            | G-15           | 16.30 |
| G-8            | G-16           | 16.14 |
|                | G-16           | 15.09 |



FOR INFORMATION ONLY

**PLAN - SOUTH ABUTMENT SOUTHBOUND ROADWAY**  
(NORTH ABUTMENT NORTHBOUND ROADWAY SIMILAR)  
Scale: 4"=1'-0"



**DETAIL B**  
Scale: 3/4"=1'-0"

- REFERENCES:**
1. For Typical Section, see Dwg. No. 4.
  2. For Abbreviations, see Dwg. No. 4.
  3. For Section C-C & D-D, See Dwg. No. 6.
  4. For Additional References, See Dwg. No. 4.

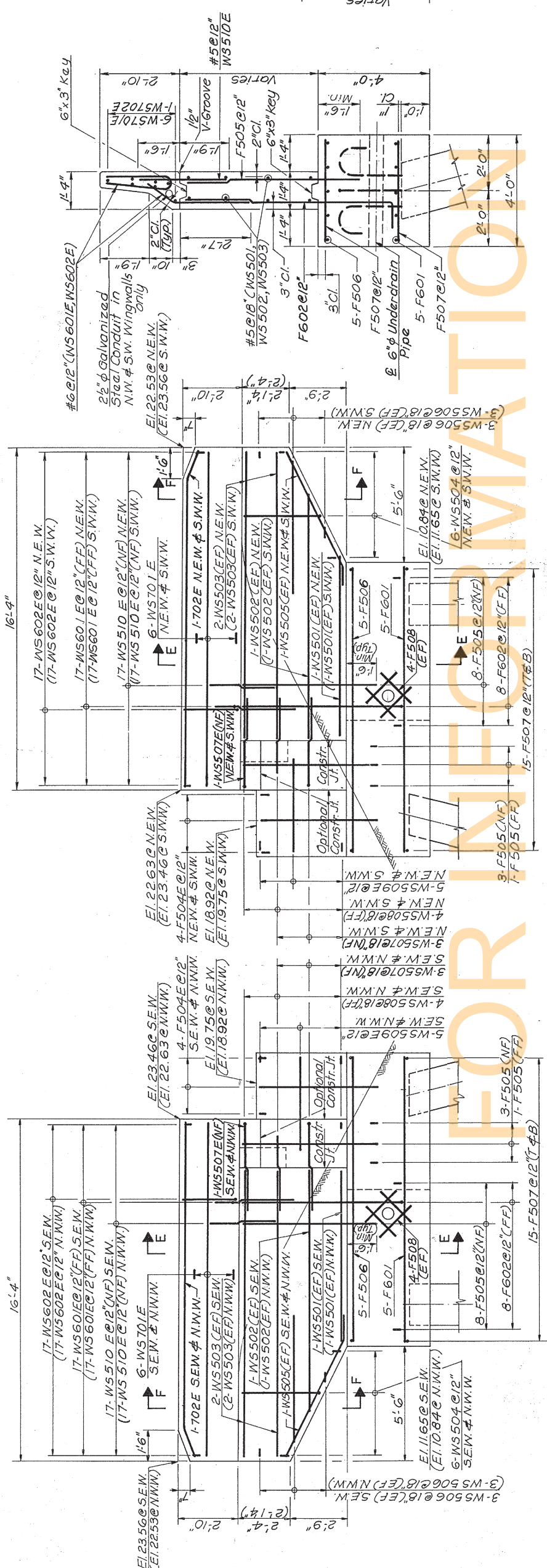
- NOTES:**
1. Shear Blocks to be poured after Prestressed beams have been placed.

**ELEVATION - SOUTH ABUTMENT SOUTHBOUND ROADWAY**  
(NORTH ABUTMENT NORTHBOUND ROADWAY SIMILAR)  
Scale: 4"=1'-0"

REVISIONS

| NO. | DESCRIPTION |
|-----|-------------|
|     |             |
|     |             |

SR I OVER SCOTT RUN WINGWALLS



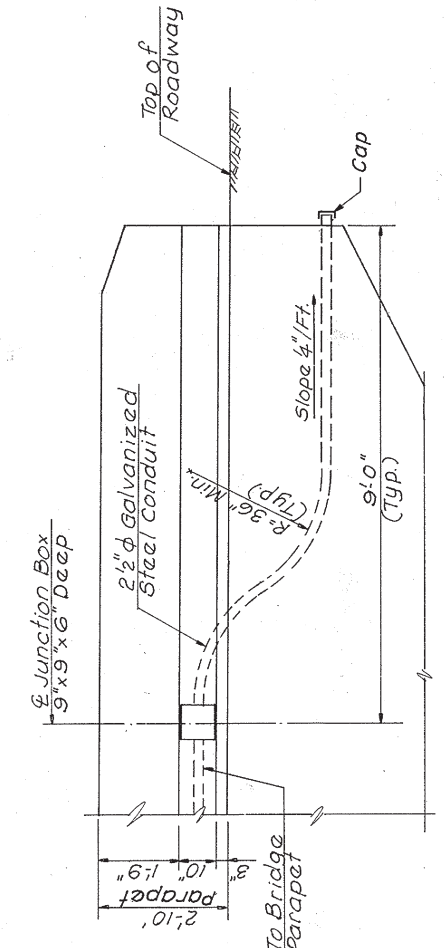
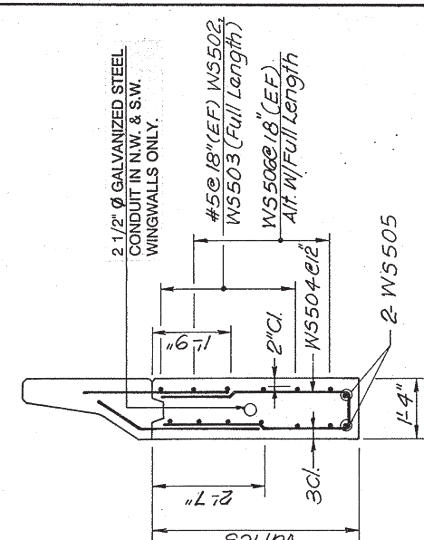
SECTION E-E  
Scale: 1/2" = 1'-0"

SECTION F-F  
Scale: 1/2" = 1'-0"

SOUTHEAST WINGWALL (NORTHWEST WINGWALL)  
Scale: 3/8" = 1'-0"

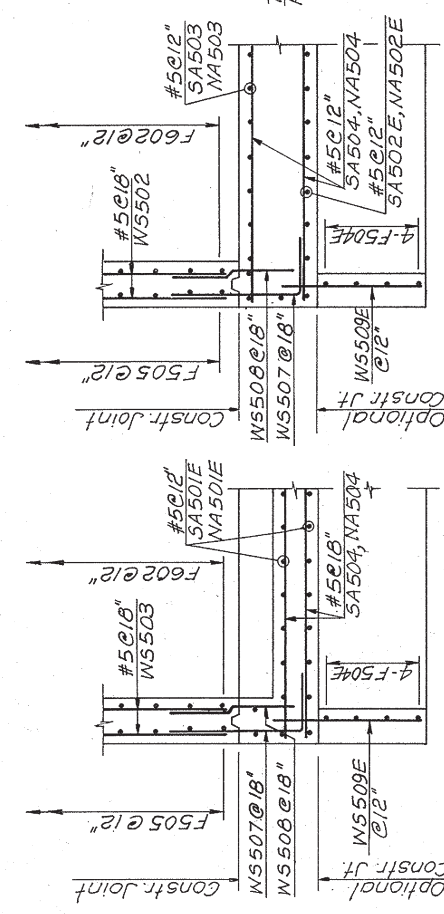
NORTHEAST WINGWALL (SOUTHWEST WINGWALL)  
Scale: 3/8" = 1'-0"

NOTE: See Section E-F For Parapet Reinf.



JUNCTION BOX DETAIL IN WINGWALL PARAPET  
N.T.S.

NOTE: Applies to SW# NW Wingwall Parapets only.

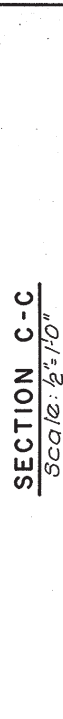
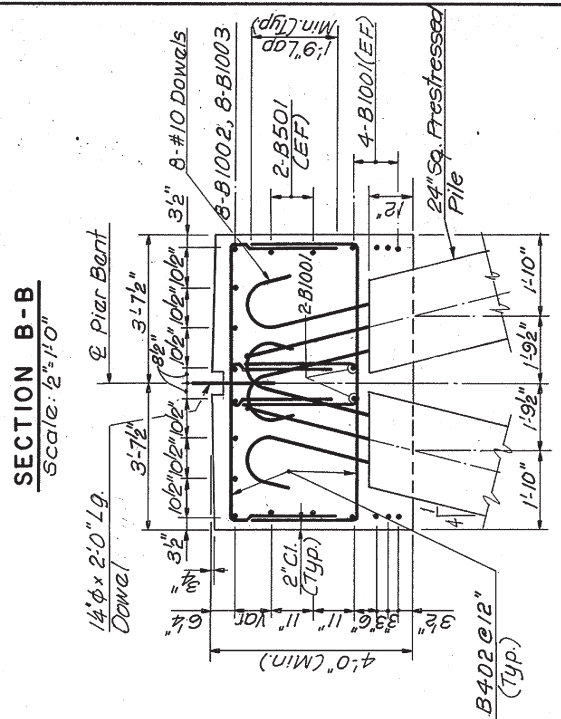
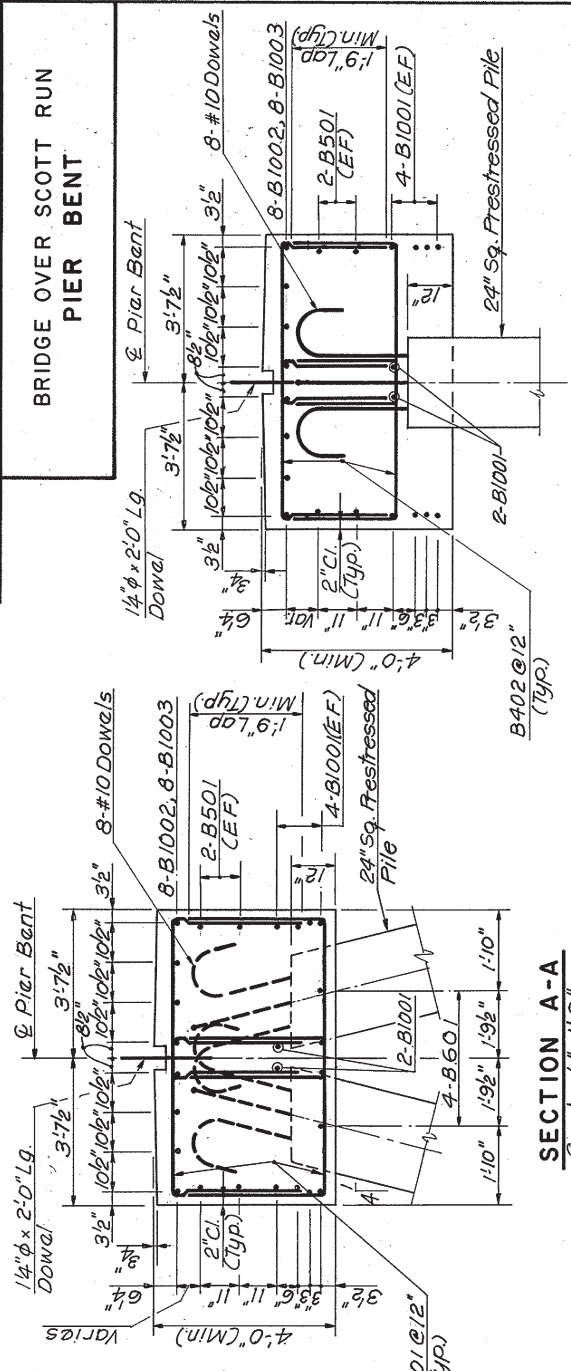


SECTION A-A (SECTION C-C OPP. HAND)  
Scale: 3/8" = 1'-0"

SECTION B-B (SECTION D-D OPP. HAND)  
Scale: 3/8" = 1'-0"

|          |   |          |           |        |            |                       |            |       |    |              |    |
|----------|---|----------|-----------|--------|------------|-----------------------|------------|-------|----|--------------|----|
| DWG. NO. | 7 | CONTRACT | 92-110-07 | COUNTY | NEW CASTLE | FEDERAL AID PROJECT # | NH-NO67(2) | SHEET | 46 | TOTAL SHEETS | 46 |
|----------|---|----------|-----------|--------|------------|-----------------------|------------|-------|----|--------------|----|

**BRIDGE OVER SCOTT RUN  
PIER BENT**

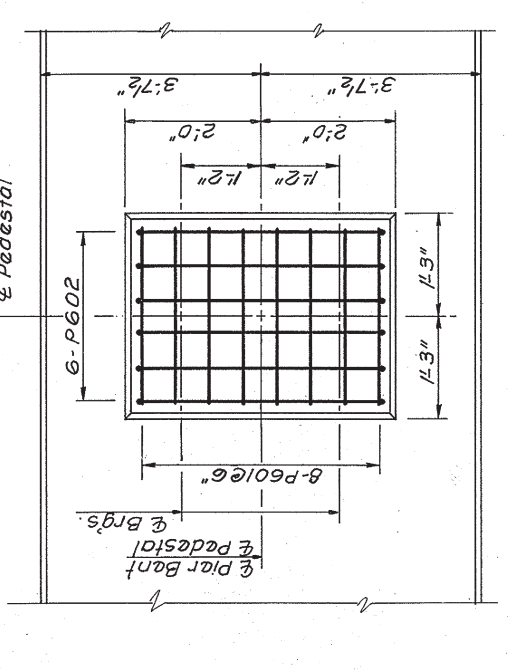
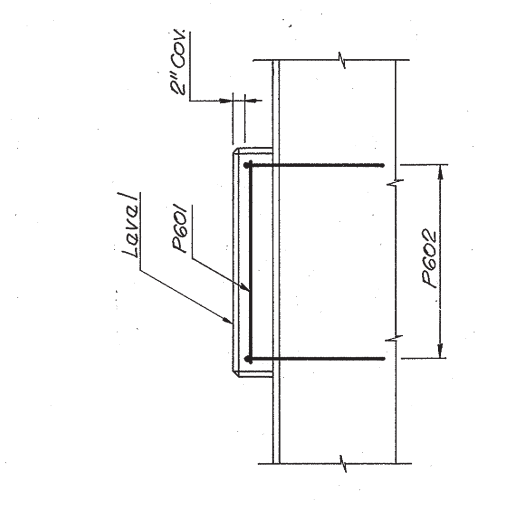
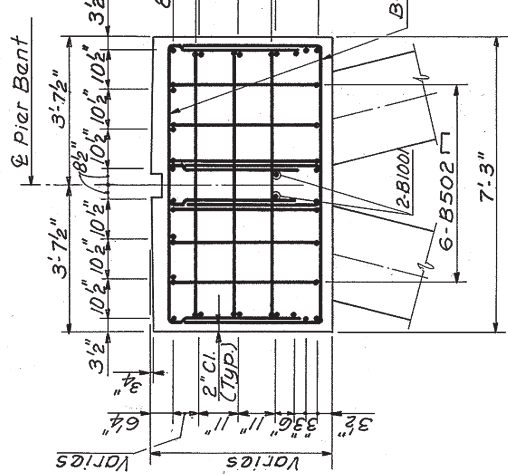
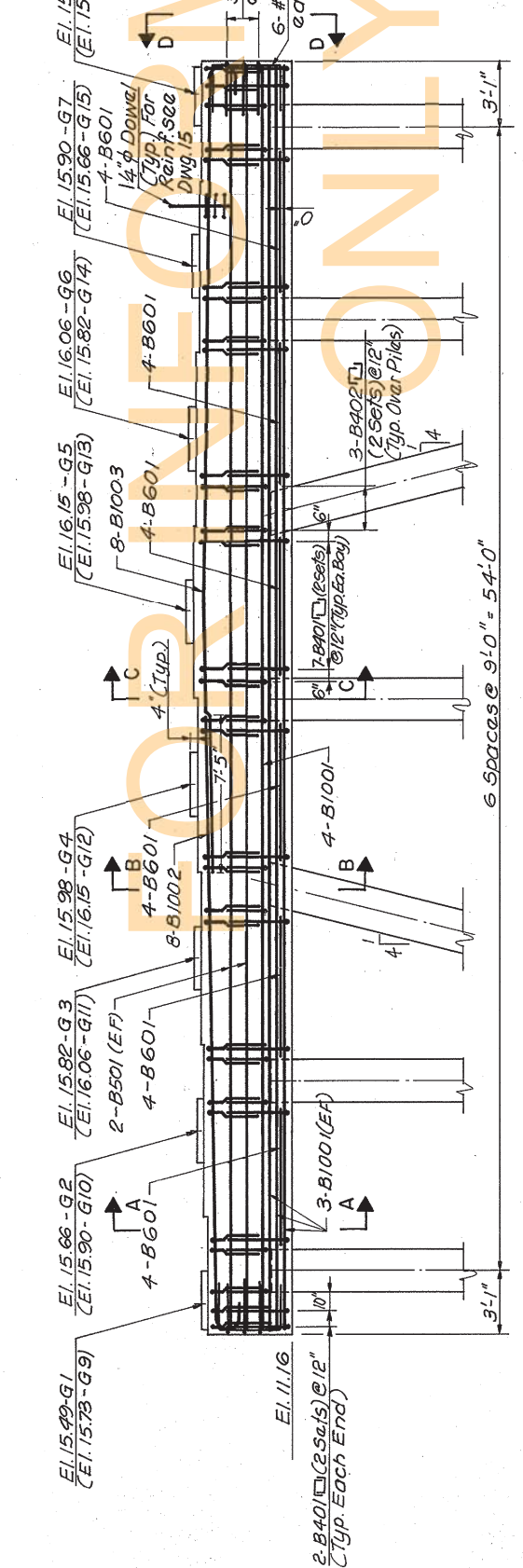
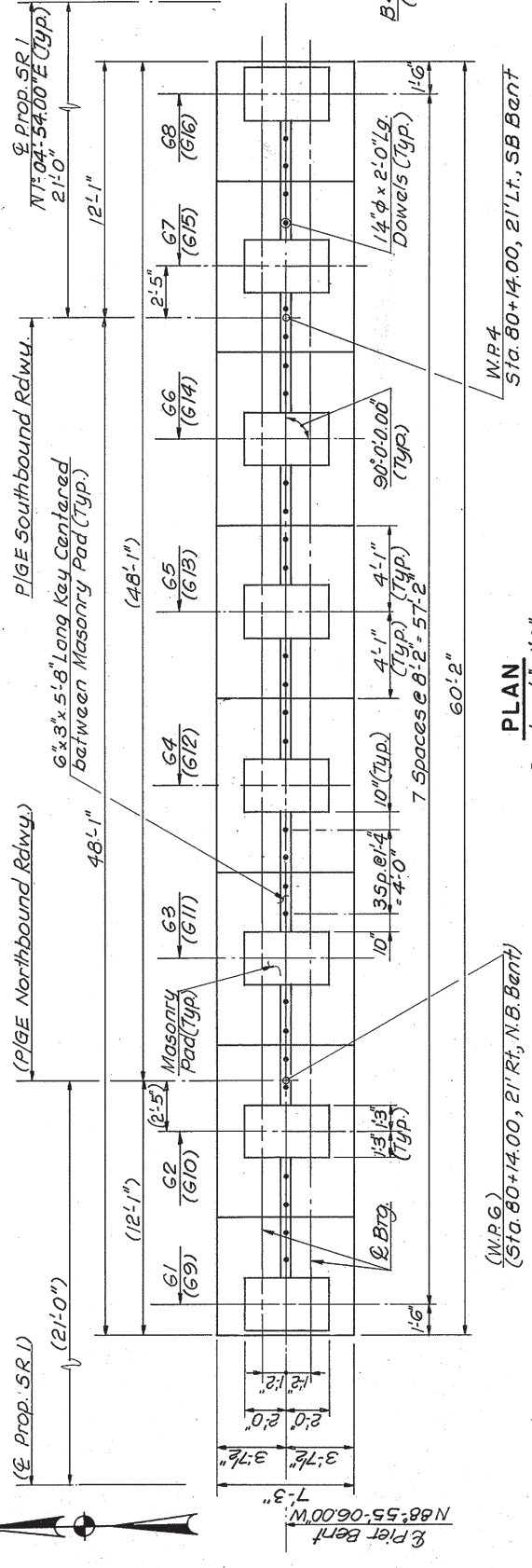


**REFERENCES:**

1. For General Notes, See Dwg. No. 1.
2. For Layout of Working Points, See Dwg. No. 2.
3. For File Plan, see Dwg. No. 3.
4. For File Details, See Dwg. No. 15.
5. For Abbreviations, See Dwg. No. 4.
6. For Bar List, See Dwg. No. 21.
7. For Dowel Details, see Dwg. No. 15.

**NOTE:**

1. Masonry Pad to be poured monolithic with cap.



**MASONRY PAD REINFORCEMENT**

**ELEVATION D-D**

**ELEVATION**

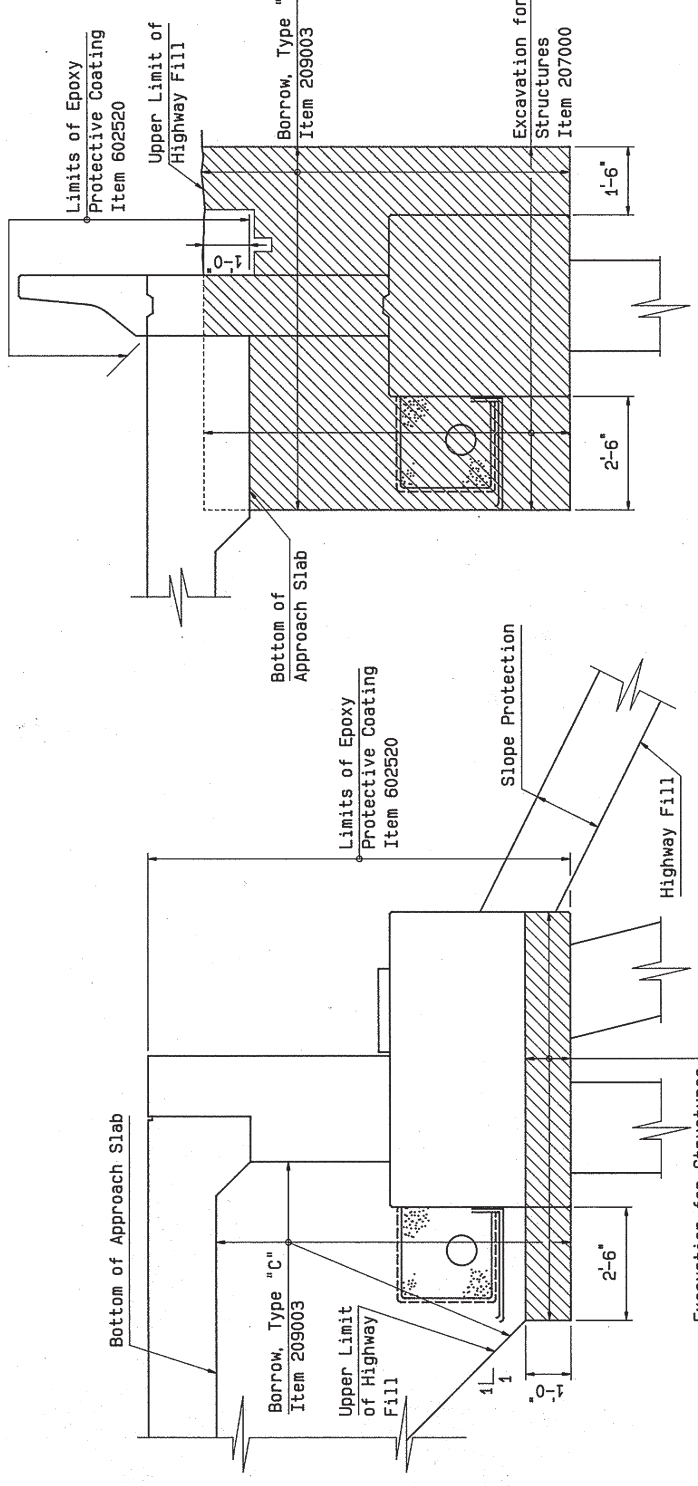
**PLAN**

**ELEVATION**

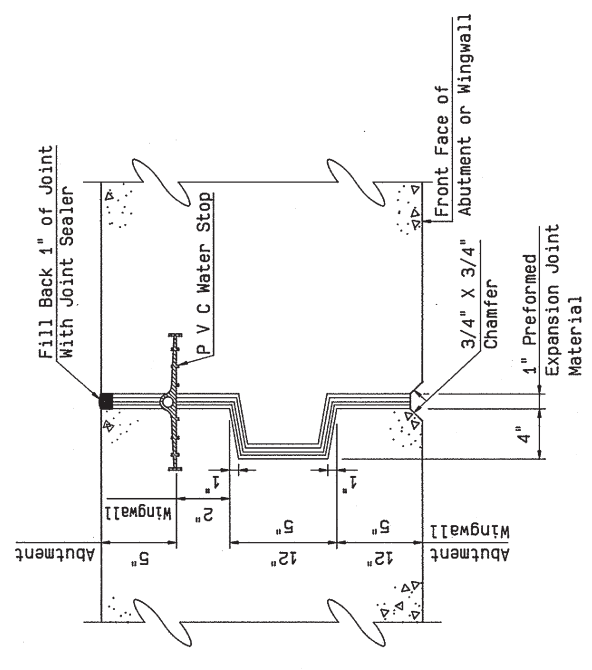
**ELEVATION**

REVISIONS

SR 1 OVER SCOTT RUN  
SUBSTRUCTURE DETAILS



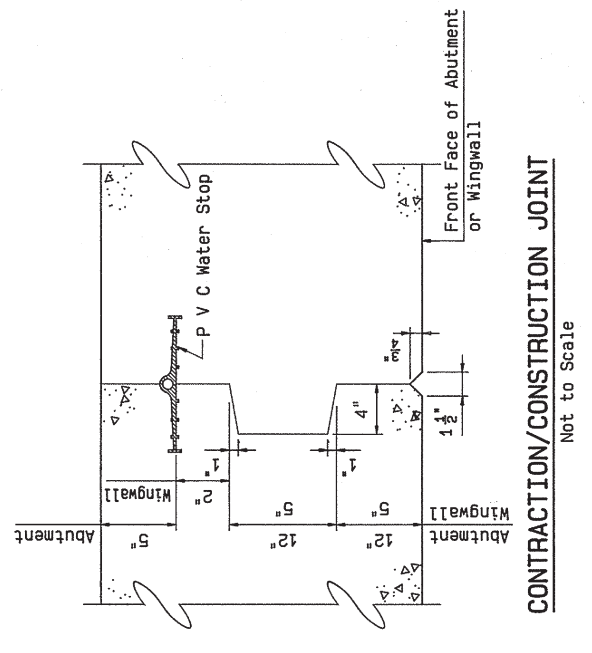
WINGWALL



EXPANSION JOINT DETAIL  
Not to Scale

PAY LIMITS  
Not to Scale

- PAY LIMIT NOTES:**
1. Borrow, Type "C" (Item 209003) Shall be Placed and Compacted in Accordance with Section 207.05 of the Standard Specifications.
  2. [Hatched Box Symbol] Denotes Excavation for Structures (Item 207000).
  3. An Epoxy Protective Coating shall be Applied to the Finished Concrete Surfaces. The Surfaces to be Coated Include the Face of Bridge Abutments and Median Walls Down to the Bottom of the Footing, Bridge Seats, Exposed Vertical Surfaces of Backwall, Face of Wingwalls to 1' Below Finished Grade, Cheekwalls, and All Exposed Surfaces of Parapet, Outside Edge of Deck Slab from Parapet to Flange on Exterior Beam, (Item 602520).
  4. Waterproofing Bridge Decks (Item 602547), shall be Applied to All Pier Bent Piles from bottom of Pier Cap up to 5'-0" Below M.L.W.(EL. 1.0±)

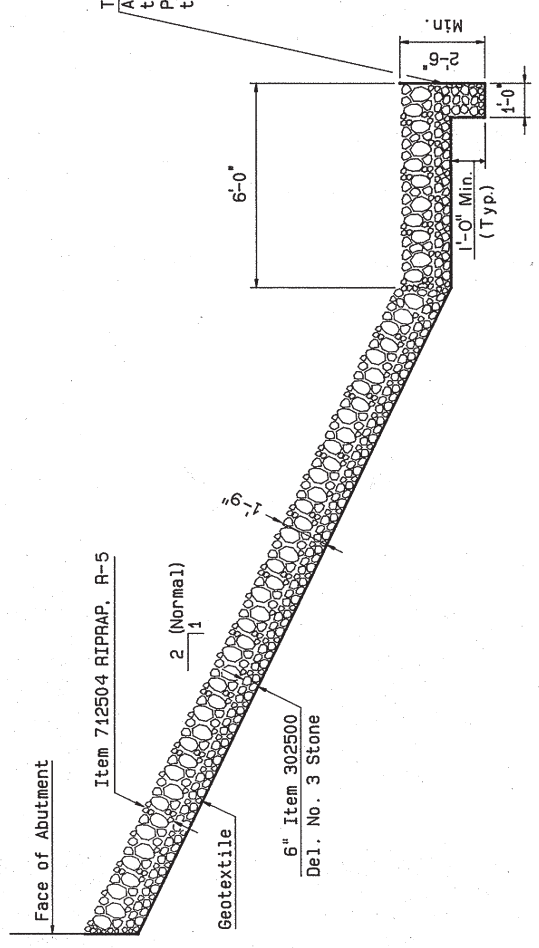


CONTRACTION/CONSTRUCTION JOINT  
Not to Scale

NOTES:

1. Reinforcing Shall Pass Through Construction Joint.
2. Reinforcing Shall Not Pass Through Expansion Joints or Contraction Joints.

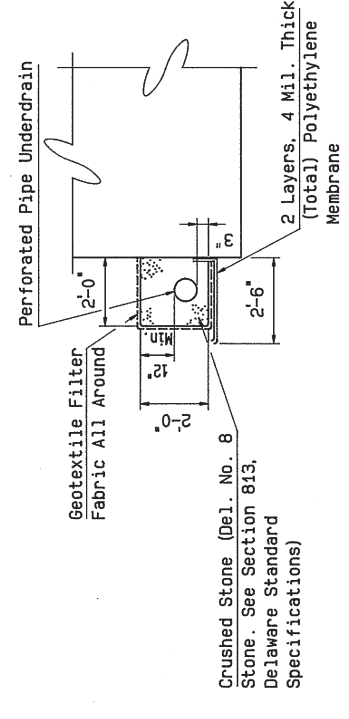
FOR INFORMATION ONLY



Typical (Toe Wall or Cutoff Wall) Around Perimeter of RIPRAP to Limits Shown on General Plan. Payment Shall be Incidental to Price Bid for Item 712504.

TYPICAL RIPRAP SLOPE PROTECTION DETAIL

Scale: 3/8" = 1'-0"



UNDERDRAIN DITCH DETAIL  
Not to Scale

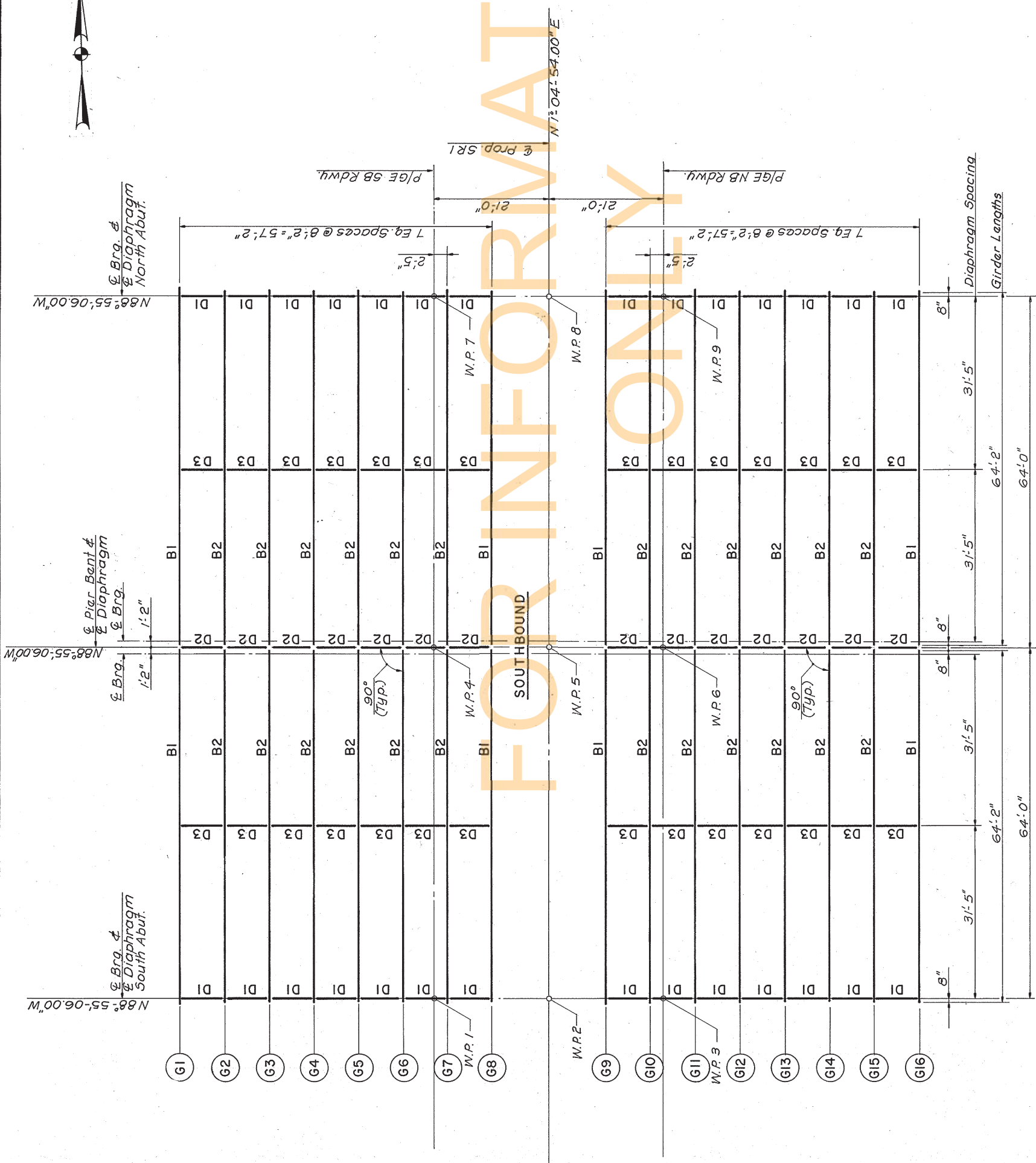
NOTE:

All Underdrain Ditch Detail Items Shown in this Sketch Shall be Incidental to the Price Bid for 6" Perforated Pipe Underdrain (Item 715004).

| NO. | REVISIONS |
|-----|-----------|
|     |           |
|     |           |



|   |   |          |           |        |            |                       |            |         |    |              |    |
|---|---|----------|-----------|--------|------------|-----------------------|------------|---------|----|--------------|----|
| DWG. NO.                                    | 9 | CONTRACT | 92-110-07 | COUNTY | NEW CASTLE | FEDERAL AID PROJECT # | NH-NO67(2) | SHEET # | 48 | TOTAL SHEETS | 48 |
| <b>SR 1 OVER SCOTT RUN<br/>FRAMING PLAN</b> |   |          |           |        |            |                       |            |         |    |              |    |



**REFERENCES:**

1. For Working Point Layout, see Dwg. No. 2.
2. For Deck Cross Section, see Dwg. Nos. 11, 13 & 14.
3. For Prestressed Beam Details, see Dwg. No. 10.
4. For Diaphragm Details, see Dwg. No. 11.

| NO. | DESCRIPTION | DATE |
|-----|-------------|------|
|     |             |      |
|     |             |      |

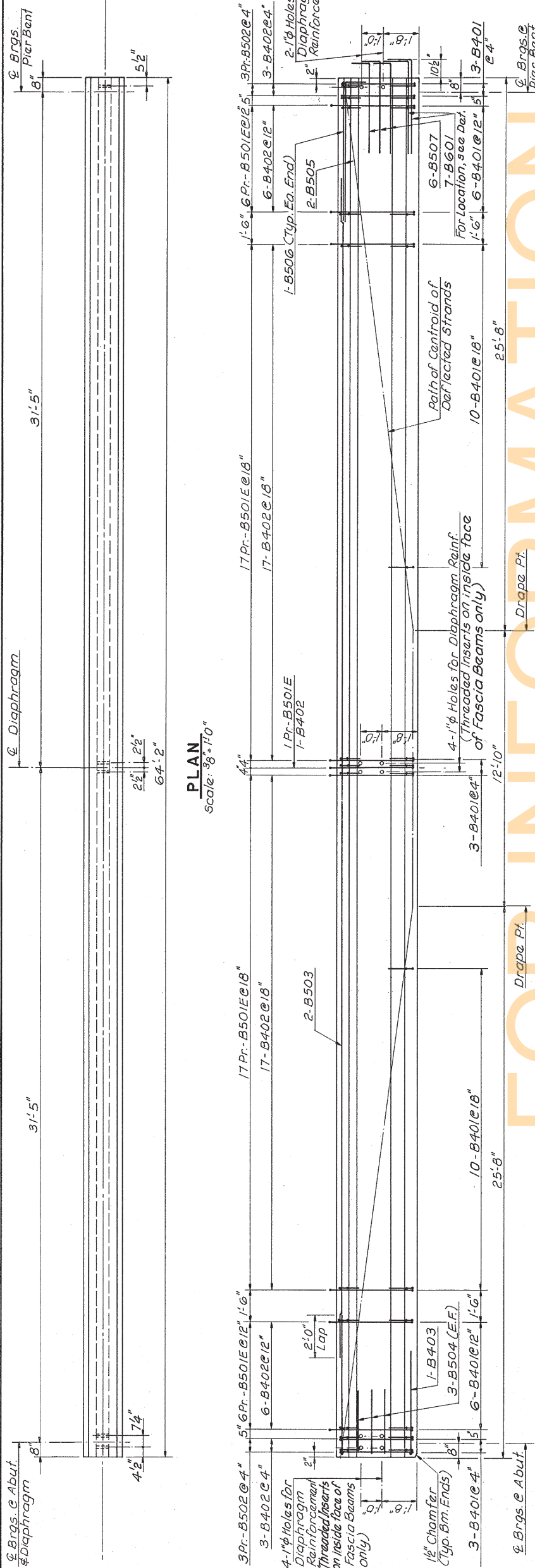
PREL. TRACING PM DESIGN AH JTS CHKD. Scale: 1/8" = 1'-0"

FOR INFORMATION ONLY

**SR I OVER SCOTT RUN  
PRESTRESSED BEAMS**

**NOTES:**  
**1. CONCRETE STRENGTH:**  
 $f'_c = 5000$  psi @ 28 Days  
 $f'_{ci} = 4500$  psi @ Strand Release  
 Extreme Fiber in Compression: 2000psi Max  
 2700psi Release Max.

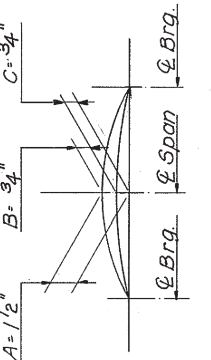
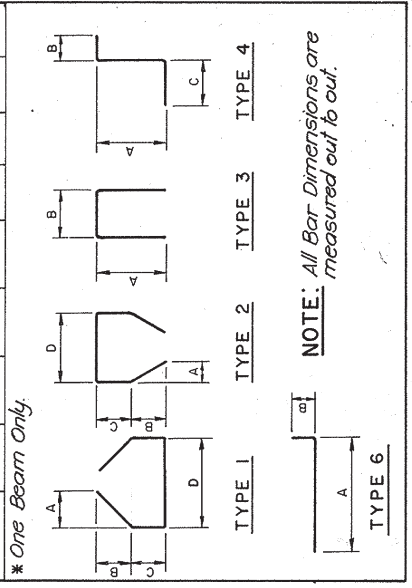
**2. PRESTRESSING STEEL:**  
 All strand 1/2" diameter, seven wire strand, 0.153 sq. in. nominal area, Grade 270, Low Relaxation Strands in accordance with ASTM Designation A416 Initial pull per Strand: 30,980 Lbs. Any change in the system of prestressing shall be accompanied by complete calculations for approval by the Engineer.  
 3. Reinforcement bars shall conform to ASTM A615, Grade 60  
 4. Ends of prestressed beams at roadway joints to be vertical. All other ends to be normal to profile grade.  
 5. Top surface of all beams shall be "stiff broom" finished transversely to remove laitance and to roughen surface.  
 6. Threaded Inserts shall have a Minimum Ultimate Pullout Capacity of 1,900 Lbs each. Bars to have threads cut to match threads of inserts.  
 7. Metal Inserts shall be provided along the top Flange of Prestressed Concrete Beams to support SIP Forms. Size, Spacing and Location of Inserts as required by SIP Forms Manufacturer.  
 8. Reinforcing Mark B501E is Epoxy Coated.



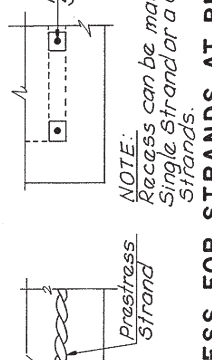
**REFERENCES:**  
 1. For General Notes, see Dwg No. 1.  
 2. For Framing Plan, see Dwg. No. 9  
 3. For Bearing Details, see Dwg No. 15.  
 4. For S.I.P. Form Details, see Dwg. No. 12.

# FOR INFORMATION ONLY

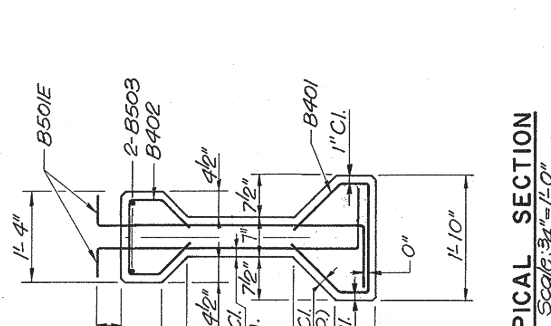
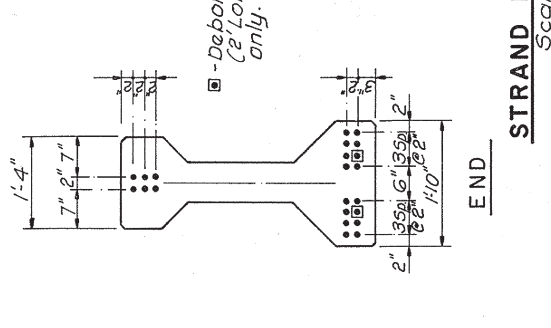
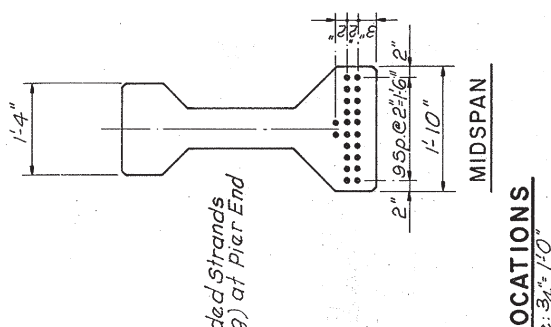
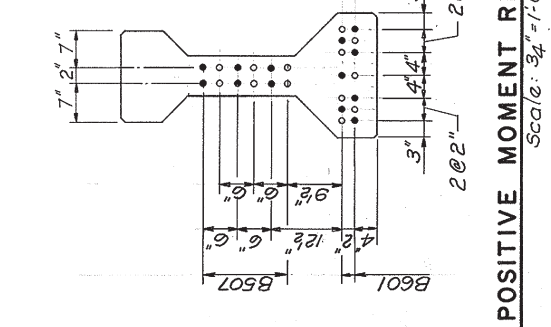
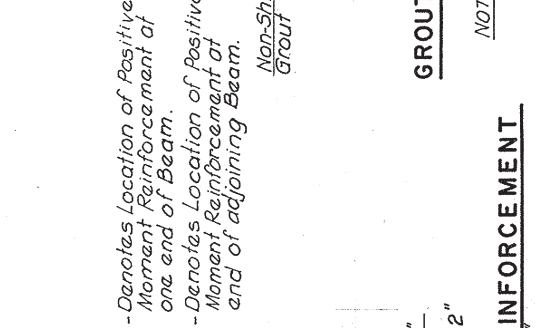
| MARK  | SIZE | NO. REQ'D | LENGTH  | TYPE | A          | B         | C          | D     |
|-------|------|-----------|---------|------|------------|-----------|------------|-------|
| B401  | 4    | 41        | 4'-6"   | 1    | 0'-9"      | 0'-9"     | 0'-4 3/8"  | 1'-8" |
| B402  | 4    | 53        | 3'-2"   | 2    | 0'-5 3/8"  | 0'-5 3/8" | 0'-4 3/8"  | 1'-1" |
| B403  | 4    | 1         | 10'-11" | 3    | 4'-9"      | 1'-5"     |            |       |
| B501E | 5    | 94        | 5'-4"   | 4    | 3'-11 1/2" | 0'-6"     | 0'-10 1/2" |       |
| B502  | 5    | 12        | 4'-9"   | 4    | 3'-6"      | 0'-4 3/8" | 0'-10 1/2" |       |
| B503  | 5    | 2         | 55'-0"  | SIP  |            |           |            |       |
| B504  | 5    | 6         | 3'-8"   | SIP  |            |           |            |       |
| B505  | 5    | 2         | 7'-4"   | 6    | 6'-6"      | 0'-10"    |            |       |
| B506  | 5    | 2         | 14'-0"  | 3    | 6'-6"      | 1'-0"     |            |       |
| B507  | 5    | 6         | 5'-2"   | 6    | 4'-4"      | 0'-10"    |            |       |
| B601  | 6    | 7         | 5'-4"   | 6    | 4'-4"      | 1'-0"     |            |       |



**CAMBER DIAGRAM**  
 N.T.S.  
 A = Estimated Prestress Camber less Deflection due to Dead Load of Beam Times Creep Factor.  
 B = Deflection due to Dead Load of Slab, Parapets, SIP Forms & Future Paving Allowances.  
 C = A-B = Final Camber (Net)

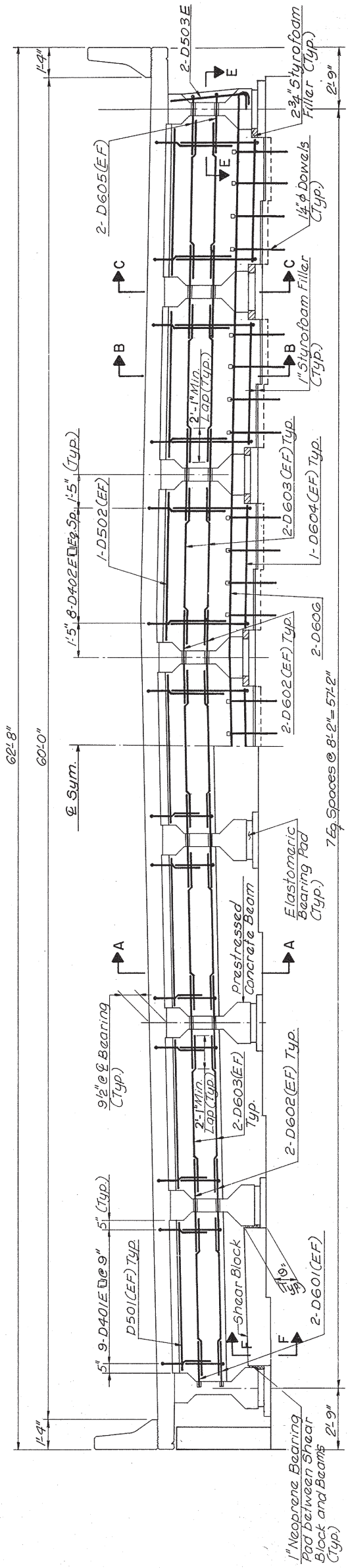


**NOTE:** As an option to a grouted recess, when the ends of Beams are incorporated in the Pier Diaphragm paint end of strands with Polymer Cement Grout or Zinc Rich Primer.



|          |           |            |                         |           |              |
|----------|-----------|------------|-------------------------|-----------|--------------|
| DWG. NO. | CONTRACT  | COUNTY     | FEDERAL AID PROJECT NO. | SHEET NO. | TOTAL SHEETS |
| II       | 92-110-07 | NEW CASTLE | NH-N067(2)              | 50        |              |

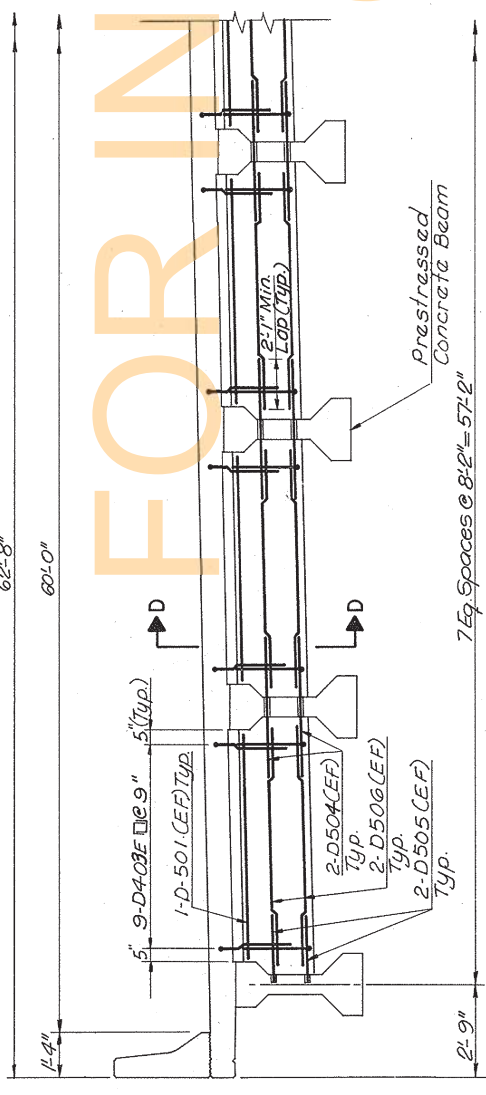
SR I OVER SCOTT RUN  
SUPERSTRUCTURE DETAILS



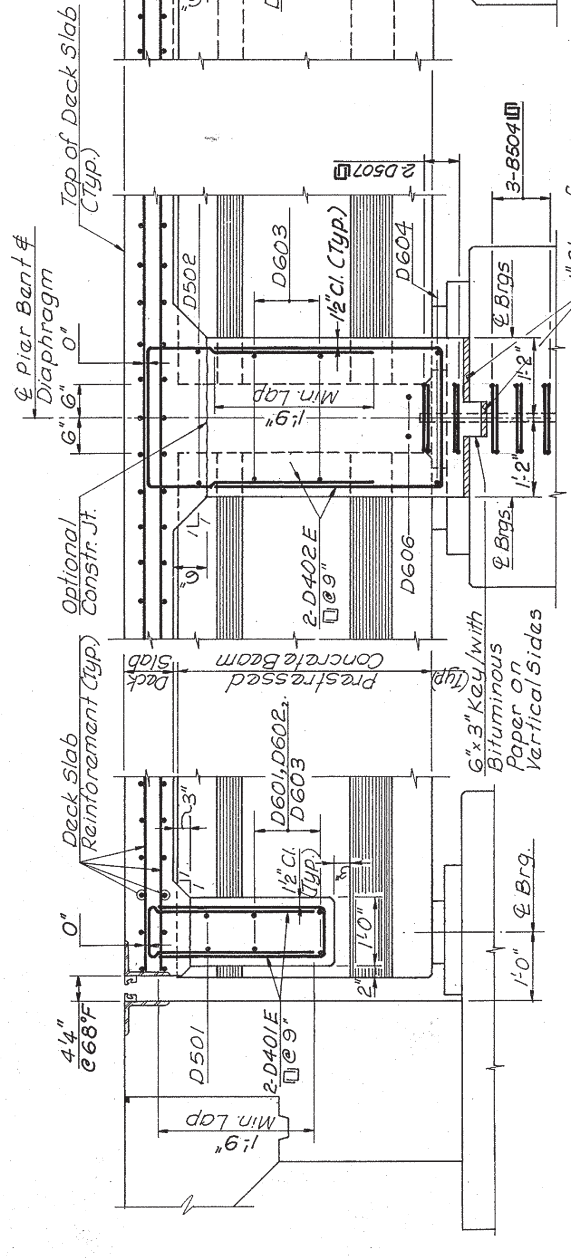
PIER BENT DIAPHRAGM (D2)

TYPICAL CROSS SECTION  
Scale: 3/4" = 1'-0"

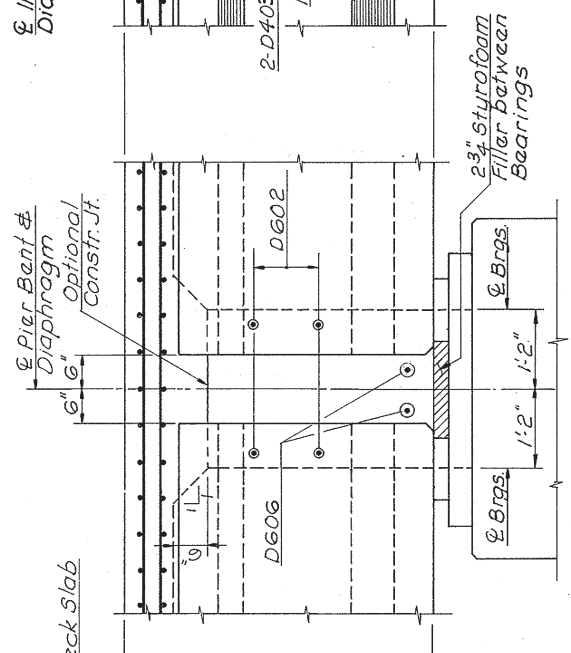
END DIAPHRAGM (D1)



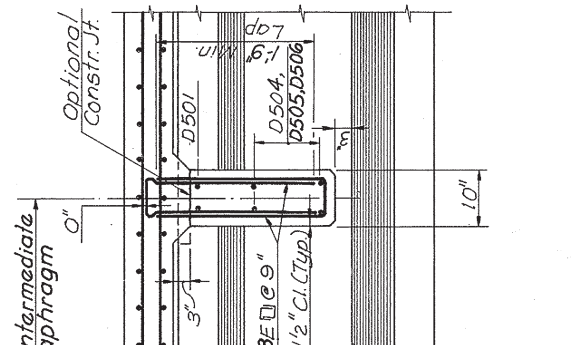
INTERMEDIATE DIAPHRAGM (D3)



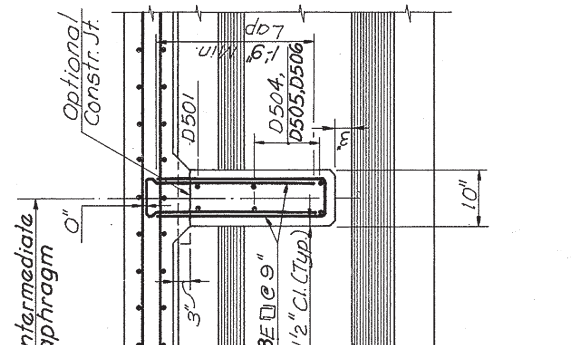
SECTION A-A  
Scale: 3/4" = 1'-0"



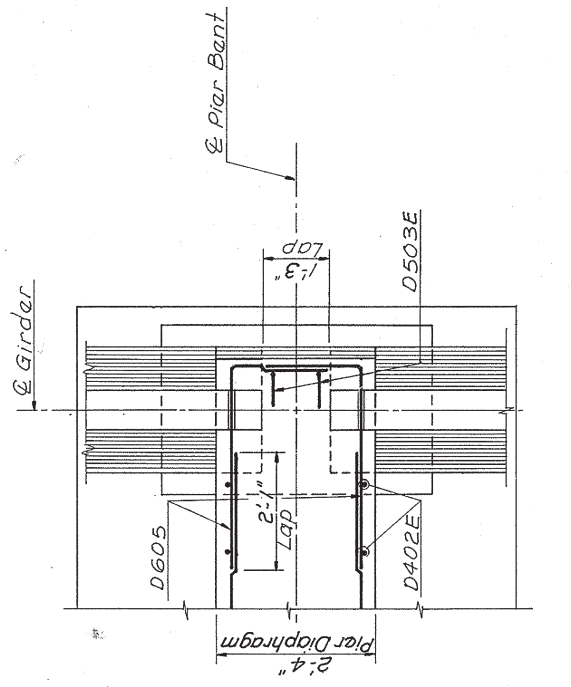
SECTION B-B  
Scale: 3/4" = 1'-0"



SECTION C-C  
Scale: 3/4" = 1'-0"



SECTION D-D  
Scale: 3/4" = 1'-0"



SECTION E-E  
Scale: 3/4" = 1'-0"

REVISIONS

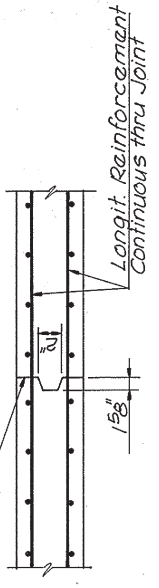
FOR INFORMATION ONLY

REFERENCES:

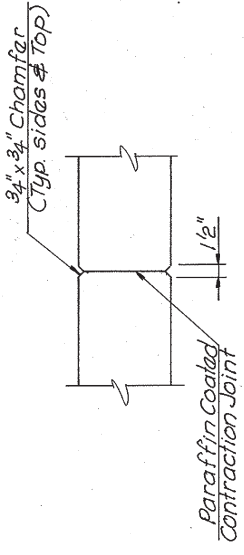
1. For General Notes, see Dwg. No. 1.
2. For Prestressed Beam Details, see Dwg. No. 10.
3. For Elastomeric Bearing, Dowel, and Styrofoam Filler Details, see Dwg. No. 15.
4. For Deck Slab Reinforcement, see Dwg. Nos. 13 & 14.
5. For Deck Joint and Form Details, see Dwg. No. 12.
6. For Framing Plan, see Dwg. No. 9.
7. For Section F-F, see Dwg. No. 5.
8. For Bar List, see Dwg. Nos. 21 & 22.



Roughen Surface blast clean, then apply a neat cement grout or other suitable bonding material immediately prior to placing adjacent pour



**SECTION B-B**  
Not to Scale



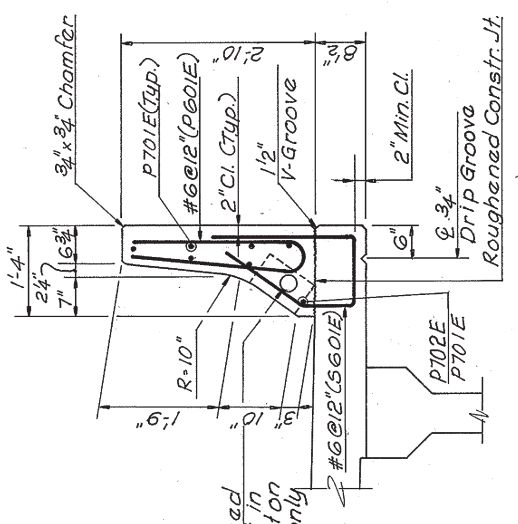
**PARAPET JOINT DETAIL**  
Not to Scale

**REFERENCES:**

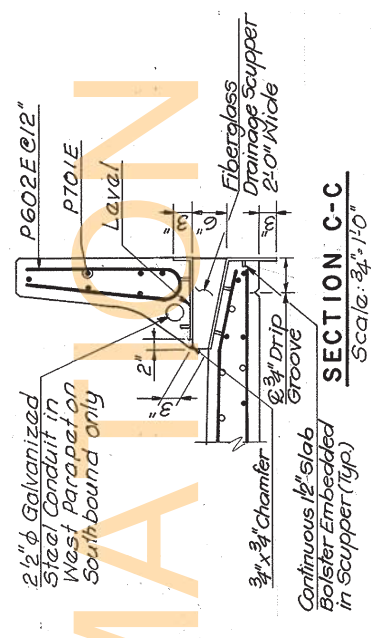
1. For General Notes, see Dwg No. 1
2. For Section A-A, see Dwg No. 14
3. For Expansion Joint Details, see Dwg. No. 12
4. For Stay-in-Place Steel Form Details, see Dwg. No. 12
5. For Top of Slab Elevations, see Dwg. No. 16
6. For Approach Slabs, see Dwg. No. 17
7. For Abbraviations, see Dwg. No. 4
8. For Bar List, see Dwg. No. 21 & 22.
9. For Deck slab pouring Sequence, see Dwg. No. 14
10. For Parapet Construction Note, see Dwg. No. 16
11. For Conduit Expansion Joint Detail, see Dwg. No. 14
12. FOR BRIDGE DECK FINISH NOTES, SEE DWG. No. 16.

**NOTES:**

1. Reinforcing shall not pass through contraction joint in Parapet.

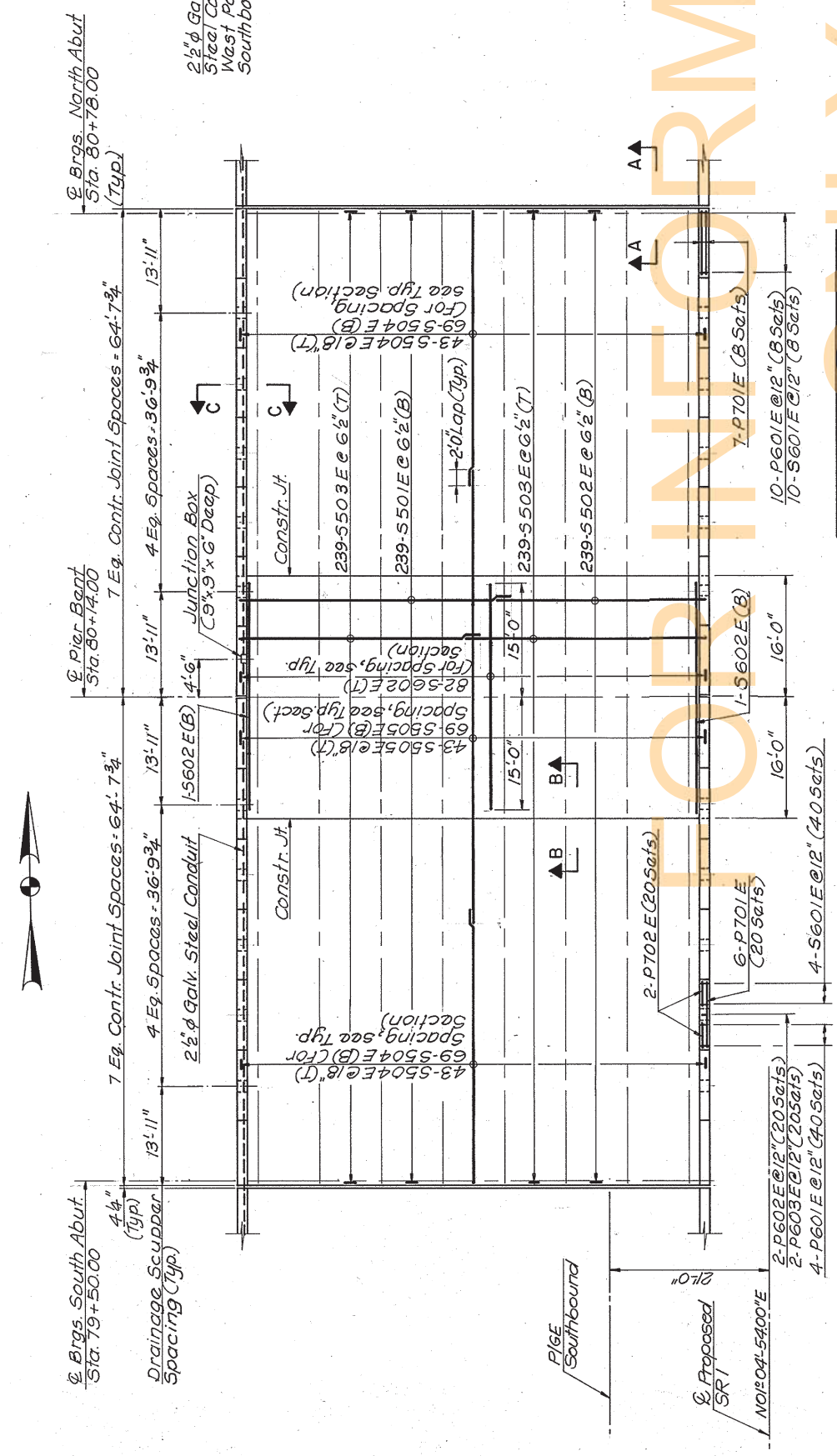


**PARAPET DETAIL**  
Scale: 3/4"=1'-0"



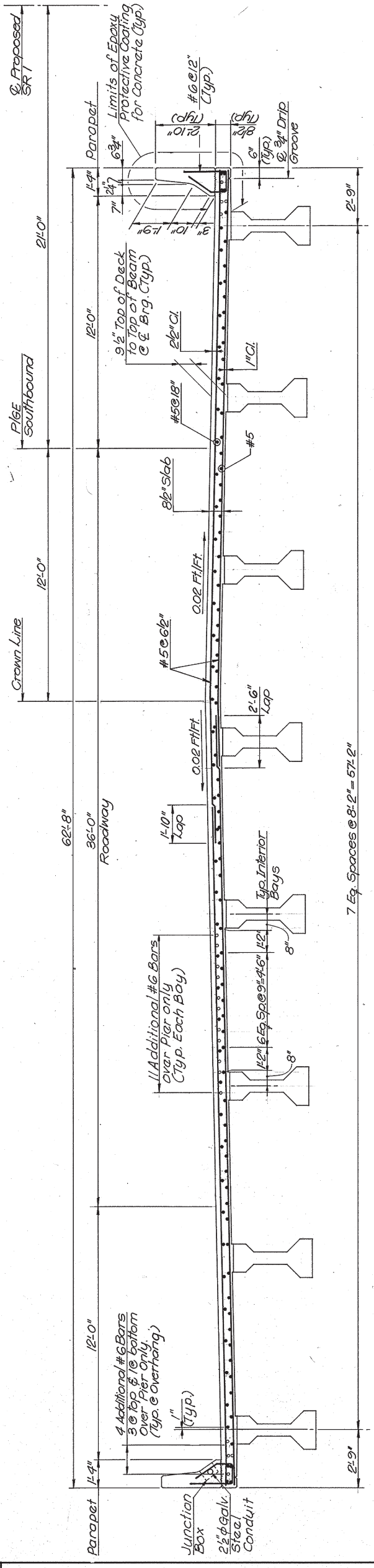
**SECTION C-C**  
Scale: 3/4"=1'-0"

NOTE: Top Reinforcing in deck to be bent and or adjusted to clear Scupper.



**PLAN**  
Scale: 1"=10'-0"

NOTE: All Reinforcing Bars in Deck Slab and Parapet are Epoxy Coated.

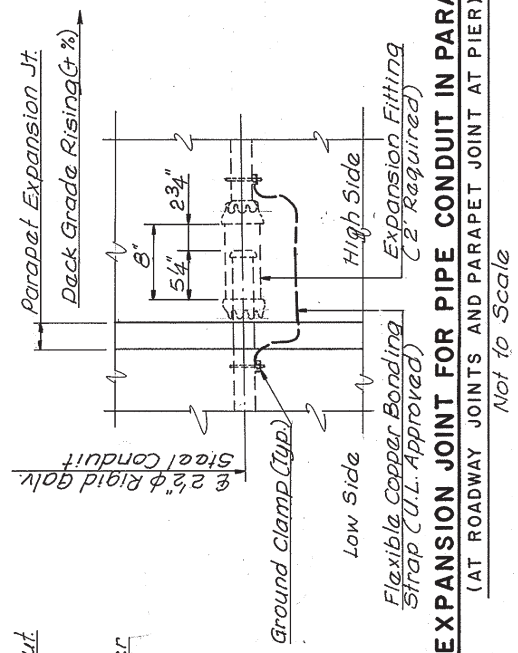


**TYPICAL SECTION**  
Scale: 3/8"=1'-0"

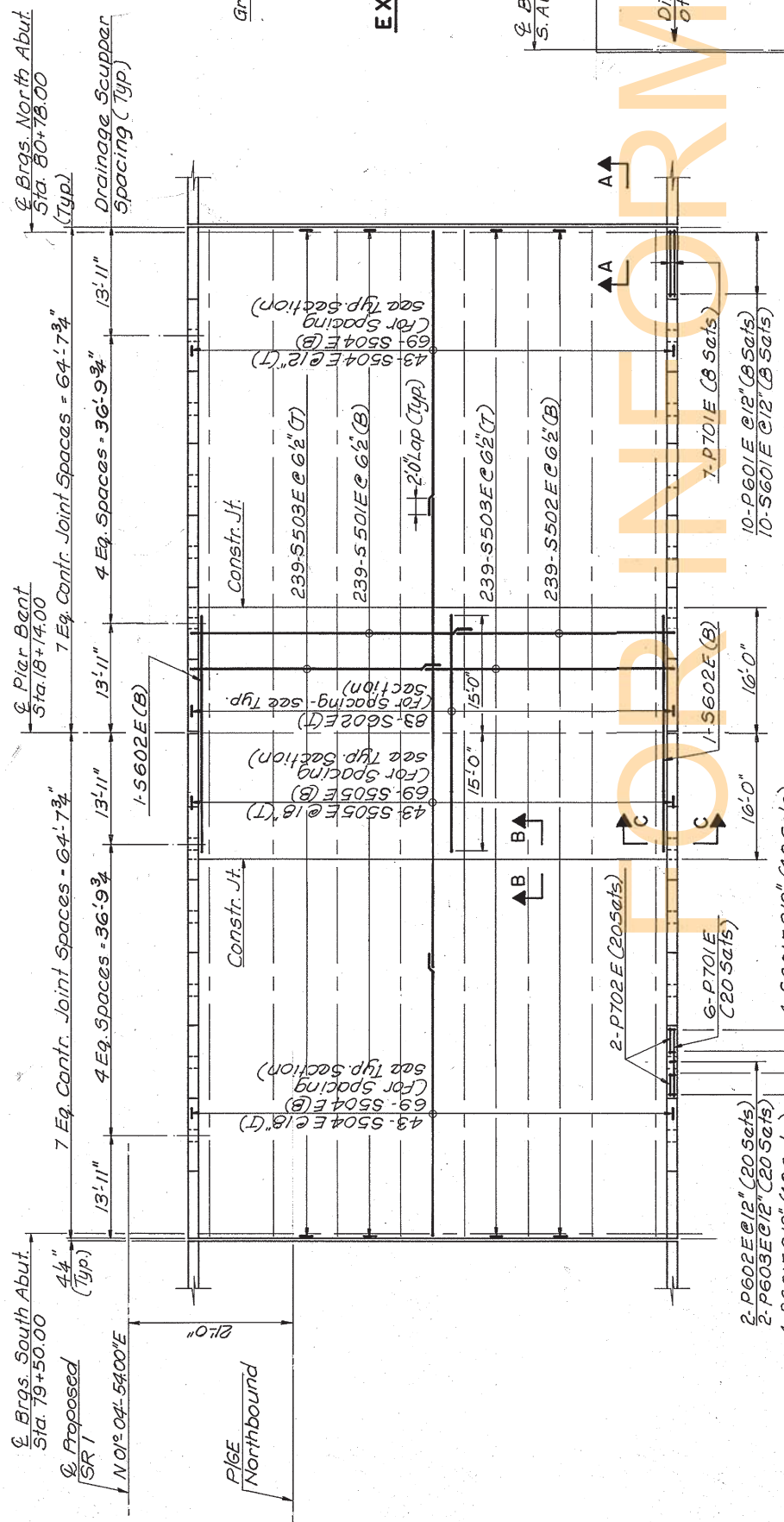


| NO. | DESCRIPTION |
|-----|-------------|
|     |             |
|     |             |
|     |             |

**SR 1 OVER SCOTT RUN  
 DECK SLAB PLAN & CROSS SECTION  
 NORTHBOUND ROADWAY**

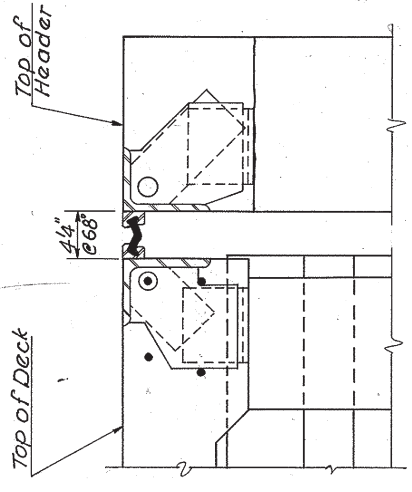


**EXPANSION JOINT FOR PIPE CONDUIT IN PARAPET  
 (AT ROADWAY JOINTS AND PARAPET JOINT AT PIER)**  
 Not to Scale



**NOTE:**  
 All Reinforcing Bars in Deck Slab  
 and Parapet are Epoxy Coated.

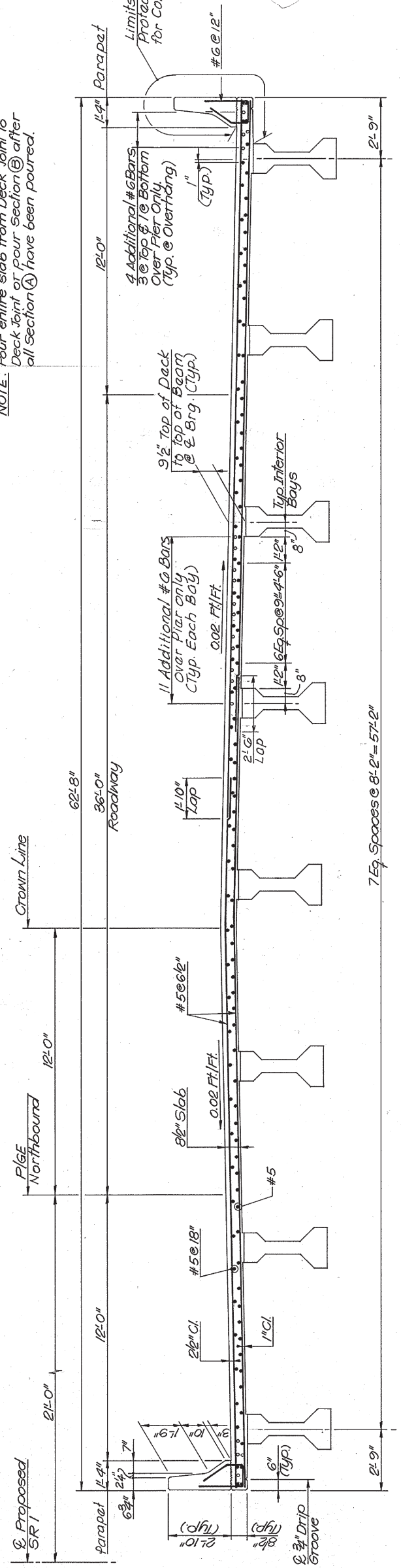
**PLAN**  
 Scale: 1"=10'-0"



**SECTION A-A**  
 N.T.S.

**DECK SLAB POURING SEQUENCE**  
 Not to Scale

**NOTE:** Pour entire slab from Deck Joint to Deck Joint or pour Section (A) after all Section (A) have been poured.



7 Eq. Spaces @ 8'-2\"/>

**TYPICAL SECTION**  
 Scale: 3/8\"/>

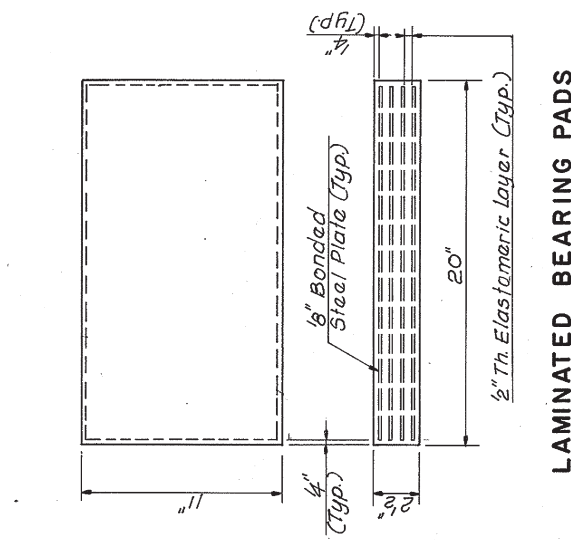
**REFERENCES:**

1. For Parapet Detail, see Dwg. No. 13
2. For Section B-B and C-C, see Dwg. No. 13
3. For Additional References, see Dwg. No. 13
4. For Parapet Joint Detail, see Dwg. No. 13
5. FOR BRIDGE DECK FINISH NOTES, SEE DWG. NO. 16.

| NO. | DESCRIPTION |
|-----|-------------|
|     |             |
|     |             |

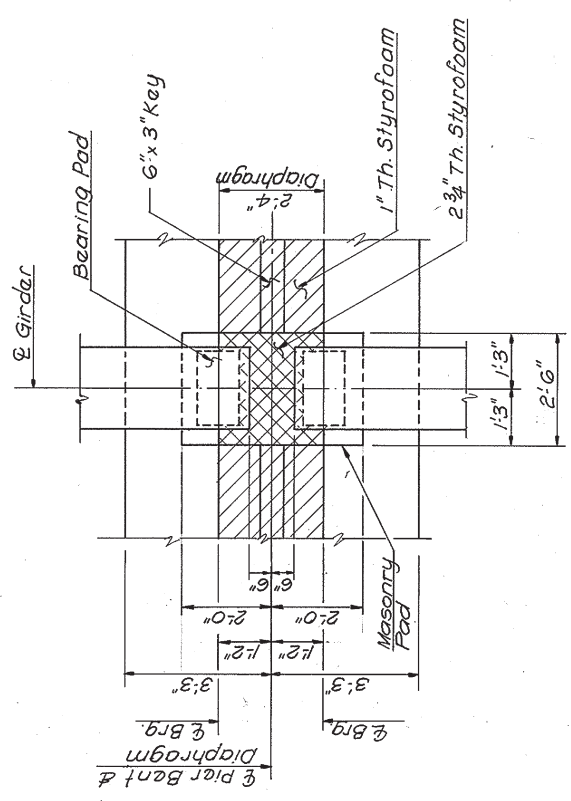
**REFERENCES:**

1. For Dowel Location, see Dwg. No. 7
2. For Estimated Pile Lengths, see Dwg. No. 3
3. For Pile Plan, see Dwg. No. 3



**BEARING NOTES:**

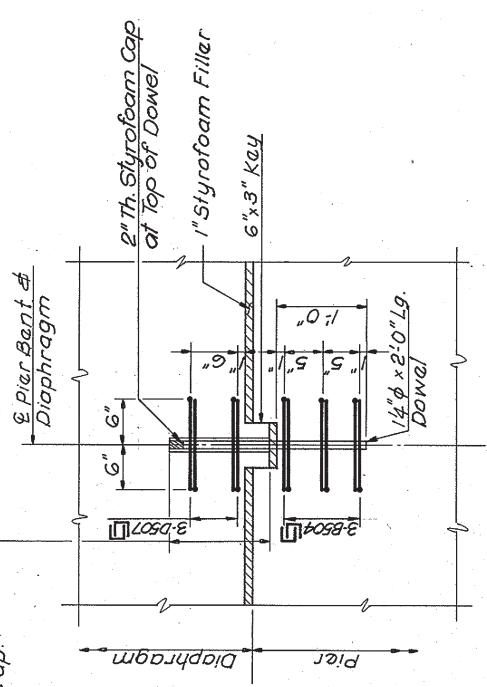
1. All Elastomeric Bearing Pads shall be Virgin Chloroprene in accordance with Section 623.04 of the Standard Specifications (60 Durometer Hardness).
2. Elastomeric Bearing Pads shall be attached to the bottom of the beam and top of the concrete bearing pedestal with an approved Epoxy Glue.



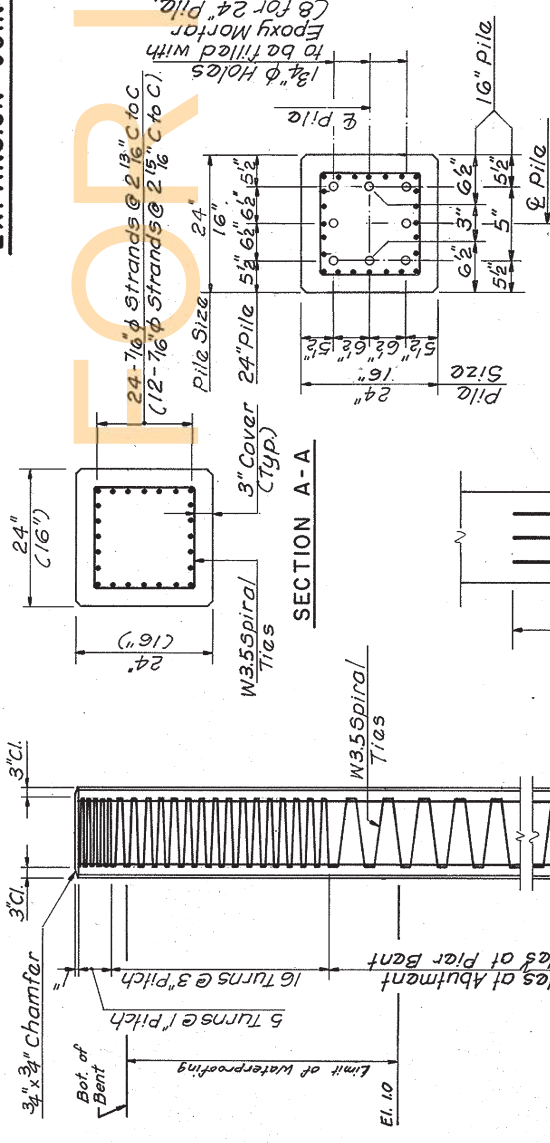
**EXPANSION JOINT MATERIAL PLACEMENT AT PIER**

**PRESTRESSED CONCRETE PILE NOTES:**

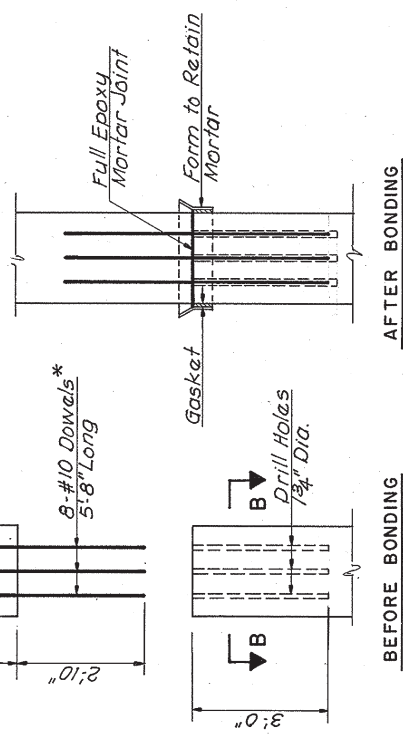
1. CONCRETE STRENGTH:  
 $f_c = 5000$  psi @ 28 days  
 $f_c = 4000$  psi @ Strand Release
2. PRESTRESSING STEEL:  
 All strands 7/8 diameter, seven-wire strand  
 0.115 Square inch nominal area,  
 Low-Relaxation strands in accordance with  
 AASHTO M203 (ASTM A416) Grade 270.  
 Initial pull per strand: 20,500 lbs.
3. REINFORCEMENT:  
 Reinforcement bars shall conform to  
 AASHTO M31 (ASTM 615, Grade 60) and Spiral  
 Reinforcement shall conform to AASHTO M32 (ASTM A82)



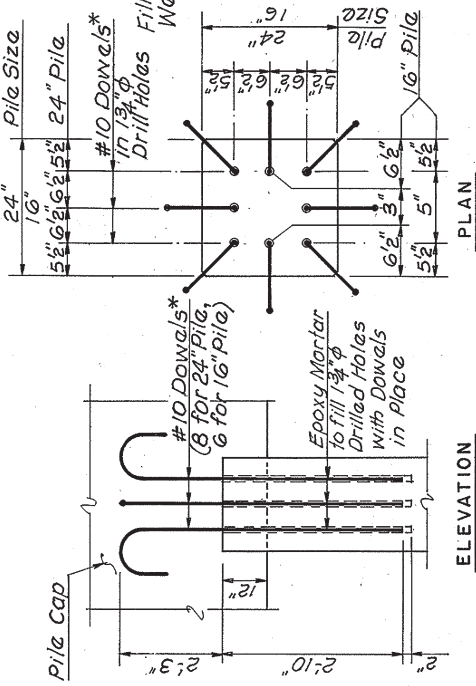
**DOWEL DETAIL**



**SECTION B-B**



**ELEVATION**



**PILE HEAD ANCHORAGE DETAILS**

\*Paid for in unit price bid for  
 Precast Prestressed Concrete  
 Piles.

**PRESTRESSED CONCRETE PILE**  
 Not to Scale

\*\* Paid for in Unit Price Bid  
 for Cast-in-Place Concrete  
 Piles.

**CIP CONCRETE PILE NOTES:**

1. All Piles shall conform to Section 620 Cast-in-Place Concrete Piles\* of the Standard Specifications, except Concrete shall be class A with  $f_c = 4,500$  psi.

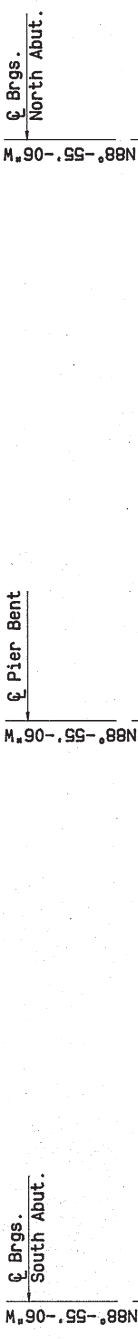
**CIP CONCRETE PILE (ALT.)**  
 AT ABUTMENTS ONLY  
 Not to Scale

Limits of 24 Gage  
 Metal Wrap

REVISIONS

**BRIDGE DECK FINISH NOTES**

- ALL CONCRETE BRIDGE DECKS AND APPROACH SLABS SHALL BE CURED BY "WATER METHODS" AS DESCRIBED IN SUBSECTION 602.34 OF THE STANDARD SPECIFICATIONS. MEMBRANE CURING COMPOUND SHALL NOT BE USED ON BRIDGE DECKS AND APPROACH SLABS.
- IN THE "REVISIONS AND CORRECTIONS TO DELAWARE STANDARD SPECIFICATIONS" (SUPPLEMENTAL SPECIFICATIONS), SUBSECTION 602.25-BRIDGE DECK CONSTRUCTION, DELETE THE PARAGRAPH IN ITS ENTIRETY AND INSERT THE FOLLOWING:  
  
BRIDGE DECK SURFACES SHALL BE TEXTURED WITH UNIFORMLY PRONOUNCED GROOVES SAWN TRANSVERSELY TO THE CENTERLINE. AFTER FINAL SCREEDING OF THE DECK, THE CONTRACTOR SHALL DRAG A MULTIPLE-PLY DAMP FABRIC OVER THE DECK SURFACE TO PROVIDE A GRITTY TEXTURE. THE GROOVING OPERATION SHALL NOT BE STARTED UNTIL THE BRIDGE DECK HAS BEEN CURED AND ATTAINED 75% OF THE 28 DAY DESIGN COMPRESSIVE STRENGTH.  
  
GROOVES SHALL BE SAWN APPROXIMATELY 1/8 INCH WIDE, 3/16 INCH PLUS OR MINUS 1/16 INCH DEEP AND ON 3/4" (NOMINAL) CENTERS. GROOVES SHALL TERMINATE 18" PLUS OR MINUS 1" FROM THE FACE OF PARAPET. GROOVES SHALL NOT BE SAWN ANY CLOSER THAN 2" NOR FURTHER THAN 3" FROM THE EDGE OF ANY JOINT. WHEN THE WIDTH OF THE CUTTING HEAD ON THE GROOVING MACHINE IS SUCH THAT GROOVES CANNOT BE PRACTICALLY SAWN TO WITHIN THE REQUIRED TOLERANCE FOR A SKEWED TRANSVERSE JOINT, GROOVING SHALL BE NO CLOSER THAN 2" NOR MORE THAN 36" FROM THE EDGE OF THE JOINT. ON CURVED DECKS, EACH PASS OF THE GROOVING MACHINE SHALL BEGIN ON THE SIDE OF THE DECK HAVING THE SMALLER RADIUS, AND THE NOMINAL SPACING OF THE GROOVES AT THE STARTING POINT SHALL BE 3/4" ON CENTER. IN THE EVENT THAT A SINGLE PASS OF THE GROOVING MACHINE CAN NOT BE MADE ACROSS THE WIDTH OF THE BRIDGE THEN THE MATING ENDS OF SUBSEQUENT PASSES SHALL NOT OVERLAP PREVIOUS GROOVES NOR LEAVE MORE THAN 1" OF SURFACE UNGROOVED.  
  
THE REMOVAL OF ALL DEBRIS (SLURRY, ETC.) RESULTING FROM THE GROOVING OPERATIONS SHALL BE CONTINUOUS. DECKS MUST BE IMMEDIATELY LEFT IN A WASHED CLEAN CONDITION, FREE OF ALL SLIPPERINESS FROM THE SLURRY, ETC. ALL DEBRIS AND SURPLUS MATERIAL REMOVED FROM THE GROOVING OPERATIONS SHALL BE DEPOSITED IN A TRUCK, OR OTHER CONVEYANCE, AND REMOVED FROM THE PROJECT.  
  
PAYMENT FOR FINISHING BRIDGE DECK SURFACES, INCLUDING ALL GROOVING OPERATIONS DESCRIBED ABOVE, WILL BE INCIDENTAL TO THE PRICE BID FOR ITEM 602013 - P.C.C. MASONRY, SUPERSTRUCTURE, CLASS "D".



|     |        |        |        |        |                  |        |        |        |        |        |        |                  |
|-----|--------|--------|--------|--------|------------------|--------|--------|--------|--------|--------|--------|------------------|
| G1  | 20.587 | 20.524 | 20.460 | 20.397 | 20.333<br>20.270 | 20.244 | 20.206 | 20.143 | 20.079 | 20.016 | 19.952 | 19.889<br>19.836 |
| G2  | 20.814 | 20.751 | 20.687 | 20.624 | 20.487<br>20.433 | 20.408 | 20.370 | 20.306 | 20.243 | 20.179 | 20.116 | 20.052<br>20.001 |
| G3  | 20.977 | 20.914 | 20.850 | 20.787 | 20.660<br>20.596 | 20.571 | 20.553 | 20.469 | 20.406 | 20.342 | 20.279 | 20.215<br>20.165 |
| G4  | 21.141 | 21.077 | 20.950 | 20.887 | 20.823<br>20.760 | 20.734 | 20.696 | 20.653 | 20.569 | 20.506 | 20.442 | 20.379<br>20.326 |
| G5  | 21.304 | 21.241 | 21.114 | 21.050 | 20.987<br>20.923 | 20.888 | 20.860 | 20.796 | 20.733 | 20.669 | 20.606 | 20.542<br>20.491 |
| G6  | 21.217 | 21.154 | 21.027 | 20.963 | 20.900<br>20.836 | 20.811 | 20.773 | 20.709 | 20.646 | 20.582 | 20.519 | 20.455<br>20.405 |
| G7  | 21.054 | 20.991 | 20.864 | 20.800 | 20.737<br>20.673 | 20.648 | 20.610 | 20.546 | 20.483 | 20.419 | 20.356 | 20.292<br>20.241 |
| G8  | 20.881 | 20.827 | 20.700 | 20.637 | 20.573<br>20.510 | 20.494 | 20.446 | 20.383 | 20.319 | 20.255 | 20.192 | 20.129<br>20.078 |
| G9  | 20.681 | 20.627 | 20.700 | 20.637 | 20.573<br>20.510 | 20.484 | 20.446 | 20.383 | 20.319 | 20.256 | 20.192 | 20.129<br>20.078 |
| G10 | 21.054 | 20.991 | 20.864 | 20.800 | 20.737<br>20.673 | 20.648 | 20.610 | 20.546 | 20.483 | 20.419 | 20.356 | 20.292<br>20.241 |
| G11 | 21.217 | 21.154 | 21.027 | 20.963 | 20.900<br>20.836 | 20.811 | 20.773 | 20.709 | 20.646 | 20.582 | 20.519 | 20.455<br>20.405 |
| G12 | 21.304 | 21.241 | 21.114 | 21.050 | 20.987<br>20.923 | 20.888 | 20.860 | 20.796 | 20.733 | 20.669 | 20.606 | 20.542<br>20.491 |
| G13 | 21.141 | 21.077 | 20.950 | 20.887 | 20.823<br>20.760 | 20.734 | 20.696 | 20.653 | 20.569 | 20.506 | 20.442 | 20.379<br>20.326 |
| G14 | 20.977 | 20.914 | 20.787 | 20.723 | 20.660<br>20.596 | 20.571 | 20.553 | 20.469 | 20.406 | 20.342 | 20.279 | 20.215<br>20.165 |
| G15 | 20.814 | 20.751 | 20.624 | 20.560 | 20.497<br>20.433 | 20.408 | 20.370 | 20.306 | 20.243 | 20.179 | 20.116 | 20.052<br>20.001 |
| G16 | 20.651 | 20.587 | 20.460 | 20.397 | 20.333<br>20.270 | 20.244 | 20.206 | 20.143 | 20.079 | 20.016 | 19.952 | 19.889<br>19.836 |

**TOP OF DECK ELEVATIONS**  
SCALE: 1"=10'-0"

**PARAPET CONSTRUCTION NOTE:**

The contractor shall have the option of constructing the Bridge Parapet by selecting Cast-in-Place or Slip-Form methods.  
Payment for the selected method will be per the price bid for Item 602017.

If the contractor elects to construct the Bridge Parapet by selecting Slip-Form method, the following requirements shall be met.

- A test section of 25' in length shall be constructed in an approved area for Engineer's approval prior to constructing the Bridge Parapet at the intended locations. Slip-Form machine must be wire guided.
- Dimensional tolerance for all accepted Bridge Parapet shall be 1/4" for all dimensions except the tolerance for the height shall be 3/4" to -1/4"; and the variation in height shall be less than 1/2" in any 20' section. The constructed Parapet shall be free of cavities, cracks and other irregularities.
- Joints shall be saw cut 3/16" wide and 2" deep with no chamfer at the spacing shown on the Plans. The Joints must be sawed before any shrinkage cracking occurs. The Joints shall be sawed across the front, top and back sides of the Parapet, and shall be premarked on the Bridge Deck to prevent forming a weak plane or cracked section through the rebar. Sawing into the Deck Slab will not be permitted.
- From the start of Bridge Parapet Placement until 48 hours after placement is complete, No Vehicle or Equipment Loading will be permitted on the Bridge Deck with the exception of the vehicles and equipment required for the actual Parapet Placement Operation. Only one concrete truck will be permitted on the Bridge Deck during Parapet Placement Operations and this truck must exit from the opposite end of the Bridge it entered.

6. PRIOR TO SAWCUTTING AND BEFORE FINAL SET OF THE SET-UP-FORMED PARAPET CONCRETE, 1/4" WIDE BY 3/4" DEEP JOINTS SHALL BE FORMED INTO THE CONCRETE USING HAND TOOLING DEVICES OR OTHER APPROVED METHODS. HAND TOOLED JOINTS SHALL BE FORMED AT THE SAME LOCATIONS DESIGNATED ON THE PLANS FOR SAW CUT CONTRACTION JOINTS.

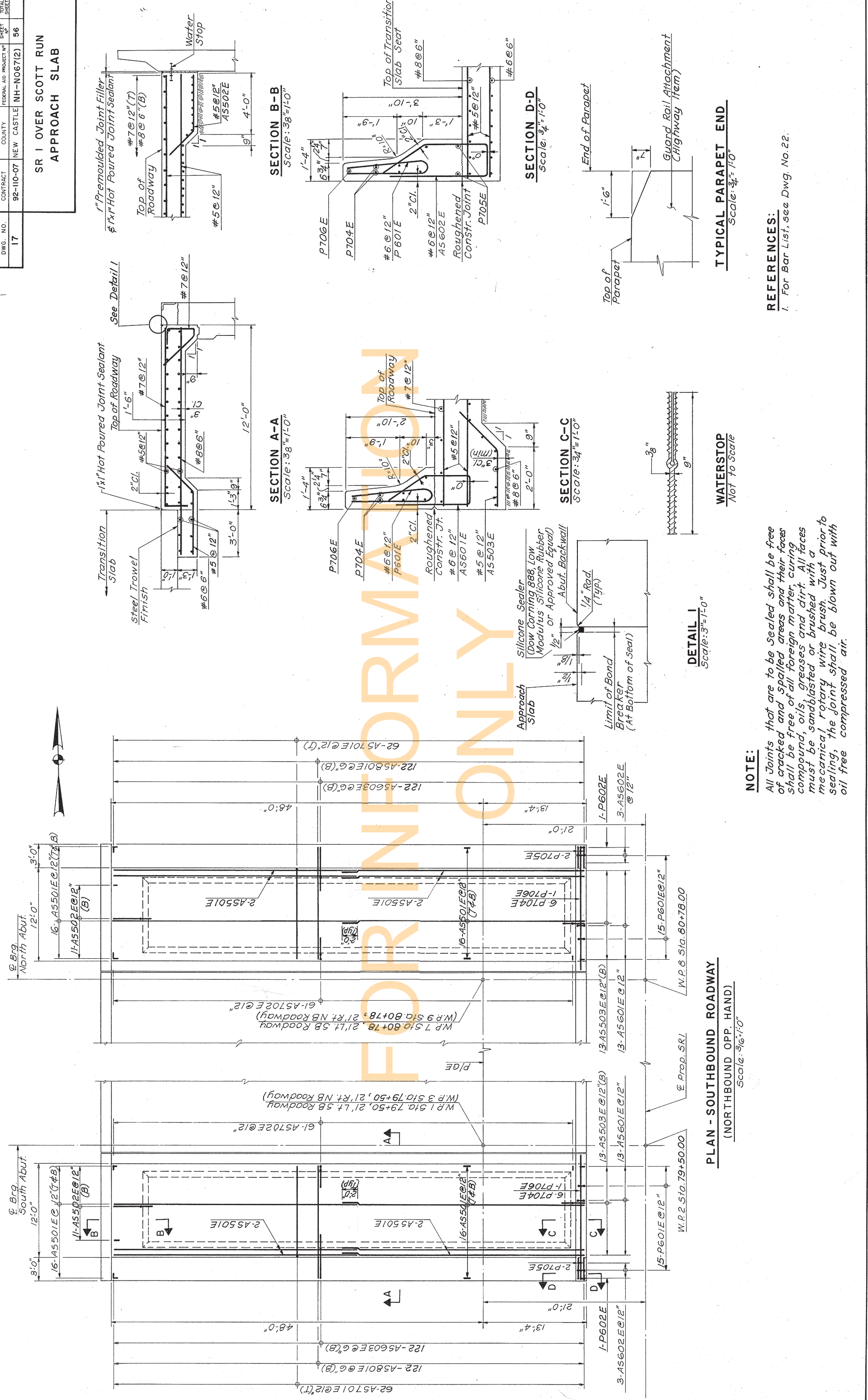
ONLY ONE CONTINUOUS RUN OF PARAPET MAY BE PLACED ON A DECK SURFACE IN A DAY. A WAITING TIME OF 48 HOURS IS REQUIRED FROM THE START OF ONE PARAPET PLACEMENT TO THE START OF THE NEXT PARAPET PLACEMENT ON THE SAME DECK SURFACE.

REVISIONS

REVISID PARAPET NOTES, 1/19/93 (DBD)



SR 1 OVER SCOTT RUN  
APPROACH SLAB



REFERENCES:  
1. For Bar List, see Dwg. No. 22.



SR 1 OVER SCOTT RUN BAR LIST 2

Main table with columns: LOCATION OF BARS, MARK, SIZE, NO. REQ'D, LENGTH, TYPE, DIMENSIONS (A-O), REMARKS, LOCATION. Rows are grouped by location: NORTH ABUTMENT - SOUTHBOUND, NORTH ABUTMENT - NORTHBOUND, STEM, SOUTH EAST WINGWALL, and PARAPET.

NOTES:

- 1. All bar dimensions are measured out to out except "A" and "G" on standard 180° and 135° hooks.
2. Dimensions for hooks and bends shall be in accordance with the Manual of Standard Practice for Detailing Reinforced Concrete Structures (ACI 315) for grade 60 Reinforcement.





South Abutment

Pier

B-1 Station 79+50, 70'Lt & SR 1

B-2 Station 79+50, 70'Rt & SR 1

B-298 Station 79+75, at & SR 1

B-299 Station 79+87, 110'Rt & SR 1

| (a)              | (b)         | (c)  | (d)              | (e)   | (f) | (g)              |
|------------------|-------------|--|------------------|-------|-----|------------------|
| GROUND ELEVATION |             |  | GROUND ELEVATION |       |     | GROUND ELEVATION |
| 5'-6 1/2'        | 5'-6 1/2'   | A-1-b(0) BROWN, LOOSE GRAVEL, SOME FINE TO COARSE SAND AND SILT 12" RECOVERY                             | 1                | 3/3   | 6/6 | -1.0             |
| 10'-11 1/2'      | 10'-11 1/2' | BROWN AND GRAY, LOOSE CLAYEY FINE TO COARSE SAND, TRACE GRAVEL AND SILT, 14" RECOVERY                    | 2                | 1/1   | 6/6 | -4.0             |
| 15'-16 1/2'      | 15'-16 1/2' | A-2-4(0) 12" RECOVERY  | 3                | 1/2   | 6/6 | -9.0             |
| 20'-21 1/2'      | 20'-21 1/2' | A-2-4(0) 18" RECOVERY  | 4                | 1/2   | 6/6 | -14.0            |
| 25'-26 1/2'      | 25'-26 1/2' | A-1(0) GRAY, MEDIUM STIFF CLAY, TRACE COARSE SAND, TRACE GRAVEL AND ORGANICS, 17" RECOVERY               | 5                | 2/2   | 6/6 | -19.0            |
| 30'-31 1/2'      | 30'-31 1/2' | GRAY, LOOSE, SILTY FINE SAND, TRACE COARSE SAND AND ORGANICS 15" RECOVERY                                | 6                | 2/4   | 6/6 | -24.0            |
| 35'-36 1/2'      | 35'-36 1/2' | A-1(0) DARK GRAY, AND STIFF TO COARSE SAND, FINE TO COARSE SAND, TRACE GRAVEL AND ORGANICS, 18" RECOVERY | 7                | 4/5   | 6/6 | -29.0            |
| 40'-41 1/2'      | 40'-41 1/2' | A-4(0) 18" RECOVERY  | 8                | 4/6   | 6/6 | -34.0            |
| 45'-46 1/2'      | 45'-46 1/2' | A-2-4(0) DARK GRAY, MEDIUM DENSE, SILTY, FINE TO COARSE SAND, ORGANICS AND GRAVEL 18" RECOVERY           | 9                | 5/8   | 6/6 | -39.0            |
| 50'-51 1/2'      | 50'-51 1/2' | A-2-4(0) 16" RECOVERY  | 10               | 6/9   | 6/6 | -44.0            |
| 55'-56 1/2'      | 55'-56 1/2' | A-7-6(24) DARK GRAY, STIFF CLAY, SOME FINE TO COARSE SAND, SOME ORGANICS AND SILT 18" RECOVERY           | 11               | 9/10  | 6/6 | -49.0            |
| 60'-61 1/2'      | 60'-61 1/2' | A-2-4(0) DARK GRAY, DENSE, SILTY, FINE TO COARSE SAND, TRACE GRAVEL AND ORGANICS 18" RECOVERY            | 12               | 10/13 | 6/6 | -54.0            |
| 65'-66 1/2'      | 65'-66 1/2' | A-2-4(0) 17" RECOVERY  | 13               | 10/17 | 6/6 | -59.0            |
|                  |             |  |                  |       |     | -64.0            |

| (a)              | (b)         | (c)   | (d)              | (e)   | (f) | (g)              |
|------------------|-------------|---|------------------|-------|-----|------------------|
| GROUND ELEVATION |             |   | GROUND ELEVATION |       |     | GROUND ELEVATION |
| 0'-1 1/2'        | 0'-1 1/2'   | A-4(8) BROWN, MEDIUM TO STIFF CLAYEY SILT, SOME FINE SAND 12" RECOVERY          | 1                | 2/2   | 6/6 | 2.5              |
| 3 1/2'-5'        | 3 1/2'-5'   | A-4(8) 18" RECOVERY   | 2                | 4/5   | 6/6 | -2.5             |
| 8 1/2'-10'       | 8 1/2'-10'  | A-2-7(0) REDDISH BROWN, LOOSE FINE SAND, LITTLE SILT, TRACE GRAVEL 18" RECOVERY | 3                | 8/1   | 6/6 | -7.5             |
| 13 1/2'-15'      | 13 1/2'-15' | A-2-7(0) GRAY, MEDIUM DENSE, FINE SAND, SOME SILT, TRACE GRAVEL, 18" RECOVERY   | 4                | 4/5   | 6/6 | -12.5            |
| 18 1/2'-20'      | 18 1/2'-20' | A-2-7(0) 18" RECOVERY   | 5                | 5/7   | 6/6 | -17.5            |
| 23 1/2'-25'      | 23 1/2'-25' | A-2-7(0) 18" RECOVERY   | 6                | 4/4   | 6/6 | -22.5            |
| 28 1/2'-30'      | 28 1/2'-30' | A-2-7(0) 18" RECOVERY   | 7                | 7/10  | 6/6 | -27.5            |
| 33 1/2'-35'      | 33 1/2'-35' | A-2-7(0) 18" RECOVERY   | 8                | 9/13  | 6/6 | -32.5            |
| 38 1/2'-40'      | 38 1/2'-40' | A-2-7(0) DARK GRAY, MEDIUM TO DENSE FINE SAND, SOME CLAY 18" RECOVERY           | 9                | 12/14 | 6/6 | -37.5            |
| 43 1/2'-45'      | 43 1/2'-45' | A-2-7(0) 18" RECOVERY   | 10               | 10/14 | 6/6 | -42.5            |
| 48 1/2'-50'      | 48 1/2'-50' | A-2-7(0) DARK GRAY, MEDIUM TO DENSE FINE SAND, SOME SILT 14" RECOVERY           | 11               | 10/15 | 6/6 | -47.5            |
| 53 1/2'-55'      | 53 1/2'-55' | A-2-7(0) 12" RECOVERY   | 12               | 14/17 | 6/6 | -52.5            |
| 58 1/2'-60'      | 58 1/2'-60' | A-2-7(0) 12" RECOVERY   | 13               | 17/23 | 6/6 | -57.5            |
|                  |             |   |                  |       |     | -64.0            |

| (a)              | (b)         | (c)   | (d)              | (e)   | (f) | (g)              |
|------------------|-------------|---|------------------|-------|-----|------------------|
| GROUND ELEVATION |             |   | GROUND ELEVATION |       |     | GROUND ELEVATION |
| 0'-1 1/2'        | 0'-1 1/2'   | A-8 HIGHLY ORGANIC, DECOMPOSED WOOD AND PEAT, 4" RECOVERY                   | 1                | 0/0   | 6/6 | 2.5              |
| 3 1/2'-5'        | 3 1/2'-5'   | A-8 18" RECOVERY  | 2                | 3/4   | 6/6 | -2.5             |
| 8 1/2'-10'       | 8 1/2'-10'  | A-1-b(0) BROWN, MEDIUM DENSE, COARSE TO FINE SAND, SOME GRAVEL, 5" RECOVERY | 3                | 8/10  | 6/6 | -7.5             |
| 13 1/2'-15'      | 13 1/2'-15' | A-1-a(0) GRAY, MEDIUM DENSE, FINE GRAVEL, TRACE SAND 16" RECOVERY           | 4                | 6/6   | 6/6 | -12.5            |
| 18 1/2'-20'      | 18 1/2'-20' | A-2-7(0) GRAY, COARSE TO FINE GRAVEL, SOME SILT, LITTLE SAND 4" RECOVERY    | 5                | 12/8  | 6/6 | -17.5            |
| 23 1/2'-25'      | 23 1/2'-25' | A-1-a(0) GRAY, DENSE, FINE GRAVEL, SOME SAND 14" RECOVERY                   | 6                | 18/18 | 6/6 | -22.5            |
| 28 1/2'-30'      | 28 1/2'-30' | A-2-7(0) GRAY, MEDIUM TO VERY DENSE FINE SAND, SOME SILT 14" RECOVERY       | 7                | 11/10 | 6/6 | -27.5            |
| 33 1/2'-35'      | 33 1/2'-35' | A-2-7(0) 16" RECOVERY   | 8                | 11/11 | 6/6 | -32.5            |
| 38 1/2'-40'      | 38 1/2'-40' | A-2-7(0) 16" RECOVERY   | 9                | 12/14 | 6/6 | -37.5            |
| 43 1/2'-45'      | 43 1/2'-45' | A-2-7(0) 14" RECOVERY   | 10               | 17/27 | 6/6 | -42.5            |
| 48 1/2'-50'      | 48 1/2'-50' | A-2-7(0) 18" RECOVERY   | 11               | 24/50 | 6/6 | -47.5            |
| 53 1/2'-55'      | 53 1/2'-55' | A-2-7(0) 16" RECOVERY   | 12               | 25/40 | 6/6 | -52.5            |
| 58 1/2'-60'      | 58 1/2'-60' | A-2-7(0) 16" RECOVERY   | 13               | 27/38 | 6/6 | -57.5            |
|                  |             |   |                  |       |     | -64.0            |

LEGEND

- (a) Auger Used to Advance Casing.
- (b) Sample Depth.
- (c) Classification, Description and Recovery.
- (d) Sample Number.
- (e) Blows on Sample Spoon.
- (f) Penetration of Sample Spoon.
- (g) Elevation.

GM Observed Ground Water Table.

REVISIONS

NOTES:

1. BORING LOGS MADE BY DELAWARE STATE HIGHWAY DEPARTMENT, MATERIALS AND RESEARCH DIVISION FROM AUGUST 1986 TO SEPTEMBER 1986.
2. CASING: 2 3/4" I.D. HOLLOW STEM AUGER.
3. SOIL SAMPLING: 2-1/2" O.D. SPILT SPOON SAMPLER, DRIVEN WITH A 140 LB. HAMMER FALLING 30".
4. THE INFORMATION ON BORING LOGS IS BASED ON LIMITED INVESTIGATIONS AND IS IN NO WAY WARRANTED TO INDICATE THE TRUE CONDITIONS WHICH WILL BE ENCOUNTERED DURING CONSTRUCTION.

REFERENCES:

1. FOR BORING LOCATIONS, SEE GENERAL PLAN & ELEVATION DRAWING.

SR 1 OVER SCOTT RUN BORING LOGS II

North Abutment

B-3 Station 80+80, 70' Lt of SR 1

B-4 Station 80+80, 90' Rt of SR 1

| (a)              | (b)   | (c)          | (d) | (e)   | (f) | (g)   |
|------------------|---|--------------|-----|-------|-----|-------|
| GROUND ELEVATION | 6.0   |              |     |       |     |       |
| 5'-6 1/2'        | A-B BROWNISH-GRAY, SOFT, ORGANIC SILTY CLAY, TRACE FINE SAND  | 5" RECOVERY  | 1   | 0/0   | 6/6 | -4.0  |
| 10'-11 1/2'      | A-1-b (0) BROWN, VERY DENSE GRAVEL, SOME COARSE TO FINE SAND  | 3" RECOVERY  | 2   | 49/40 | 6/6 | -9.0  |
| 15'-16 1/2'      | A-2-4 (0) GRAY TO DARK GRAY, MEDIUM DENSE TO DENSE, SILTY, FINE TO COARSE SAND, TRACE GRAVEL, MICA AND ORGANICS | 16" RECOVERY | 3   | 3/2   | 6/6 | -14.0 |
| 20'-21 1/2'      | A-2-4 (0)   | 17" RECOVERY | 4   | 2/2   | 6/6 | -19.0 |
| 25'-26 1/2'      | A-2-4 (0)   | 18" RECOVERY | 5   | 2/3   | 6/6 | -24.0 |
| 30'-31 1/2'      | A-2-4 (0)   | 18" RECOVERY | 6   | 2/3   | 6/6 | -29.0 |
| 35'-36 1/2'      | A-2-4 (0)   | 18" RECOVERY | 7   | 3/4   | 6/6 | -34.0 |
| 40'-41 1/2'      | A-2-4 (0)   | 18" RECOVERY | 8   | 7/11  | 6/6 | -39.0 |
| 45'-46 1/2'      | A-2-4 (0)   | 18" RECOVERY | 9   | 10/14 | 6/6 | -44.0 |
| 50'-51 1/2'      | A-2-4 (0)   | 18" RECOVERY | 10  | 7/9   | 6/6 | -49.0 |
| 55'-56 1/2'      | A-2-4 (0) DARK GRAY, STIFF SILTY CLAY, SOME ORGANICS AND FINE TO COARSE SAND, TRACE MICA, 18" RECOVERY          |              | 11  | 6/9   | 6/6 | -54.0 |
| 60'-61 1/2'      | A-2-4 (0) DARK GRAY, DENSE MICACEAS, SILTY, FINE TO COARSE SAND, SOME ORGANICS, TRACE GRAVEL, 18" RECOVERY      |              | 12  | 13/   | 6/6 | -55.5 |

| (a)              | (b)   | (c)          | (d) | (e)  | (f) | (g)   |
|------------------|---|--------------|-----|------|-----|-------|
| GROUND ELEVATION | 6.0   |              |     |      |     |       |
| 5'-6 1/2'        | A-B DARK BROWN, VERY SOFT, ORGANIC CLAYEY SILT, SOME SAND   | 12" RECOVERY | 1   | 0/0  | 6/6 | -4.0  |
| 10'-11 1/2'      | A-B   | 9" RECOVERY  | 2   | 0/0  | 6/6 | -9.0  |
| 15'-16 1/2'      | A-1-b (0) BROWN, LOOSE, COARSE TO FINE SAND AND GRAVEL, TRACE SILT, 7" RECOVERY   |              | 4   | 4/3  | 6/6 | -14.0 |
| 20'-21 1/2'      | A-2-4 (0) DARK GRAY, LOOSE, MICACEAS, SILTY, FINE SAND, TRACE CLAY, ORGANICS, AND COARSE SAND AND GRAVEL, 18" RECOVERY          |              | 5   | 2/1  | 6/6 | -19.0 |
| 25'-26 1/2'      | A-2-4 (0)   | 17" RECOVERY | 6   | 2/3  | 6/6 | -24.0 |
| 30'-31 1/2'      | A-2-4 (0)   | 18" RECOVERY | 7   | 4/5  | 6/6 | -29.0 |
| 35'-36 1/2'      | A-4 (0) DARK GRAY, STIFF MICACEAS, FINE, SILTY SAND SOME CLAY AND ORGANICS, TRACE COARSE SAND                                   | 11" RECOVERY | 8   | 7/10 | 6/6 | -34.0 |
| 40'-41 1/2'      | A-2-4 (0) DARK GRAY, MEDIUM DENSE, MICACEAS SILTY FINE SAND, SOME ORGANICS AND CLAY, TRACE COARSE SAND AND GRAVEL, 18" RECOVERY |              | 9   | 6/10 | 6/6 | -39.0 |
| 45'-46 1/2'      | A-2-4 (0)   | 18" RECOVERY | 10  | 9/13 | 6/6 | -44.0 |
| 50'-51 1/2'      | A-2-4 (0)   | 18" RECOVERY | 11  | 6/8  | 6/6 | -49.0 |
| 55'-56 1/2'      | A-7-6 (3) DARK GRAY, STIFF SILTY CLAY, SOME ORGANICS AND FINE SAND, TRACE SHELLS, COARSE SAND AND GRAVEL, 18" RECOVERY          |              | 12  | 7/10 | 6/6 | -54.0 |
| 60'-61 1/2'      | A-2-4 (0) DARK GRAY, DENSE MICACEAS FINE SAND, SOME SILT, TRACE ORGANICS, COARSE SAND AND GRAVEL, 18" RECOVERY                  |              | 13  | 6/16 | 6/6 | -55.5 |

LEGEND

- (a) Auger Used to Advance Casing.
- (b) Sample Depth.
- (c) Classification, Description and Recovery.
- (d) Sample Number.
- (e) Blows on Sample Spoon.
- (f) Penetration of Sample Spoon.
- (g) Elevation.

GM → Observed Ground Water Table.

REFERENCES:

- 1. FOR NOTES SEE DRAWING NO. 24.
- 2. FOR BORING LOCATIONS, SEE GENERAL PLAN & ELEVATION DRAWING.

REVISIONS