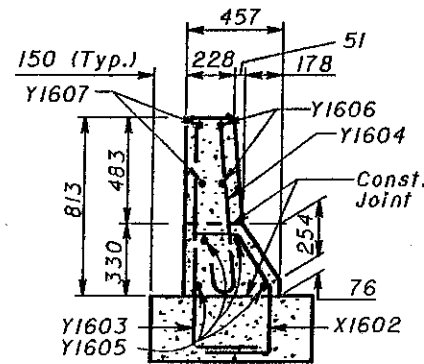
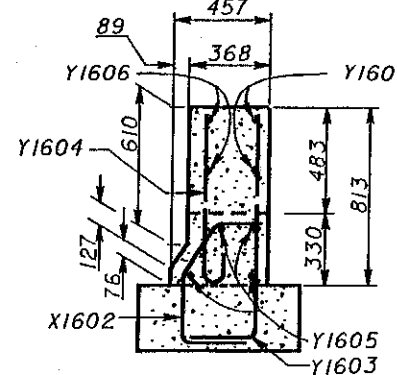


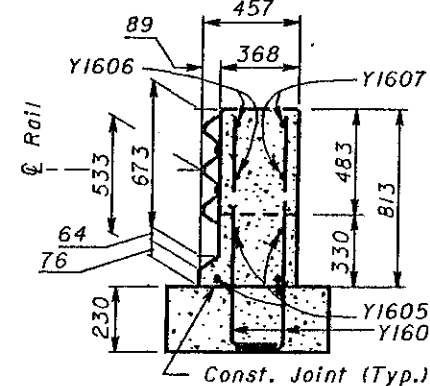
PLAN



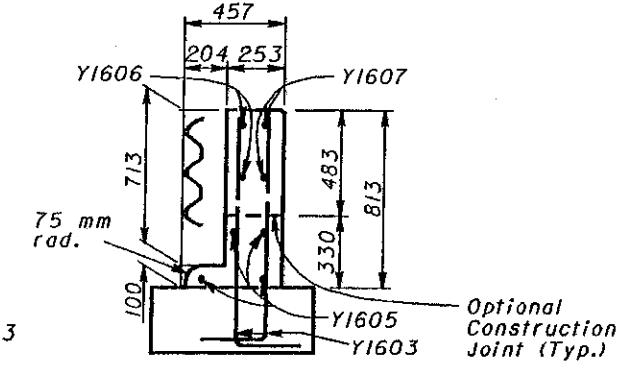
SECTION C-C



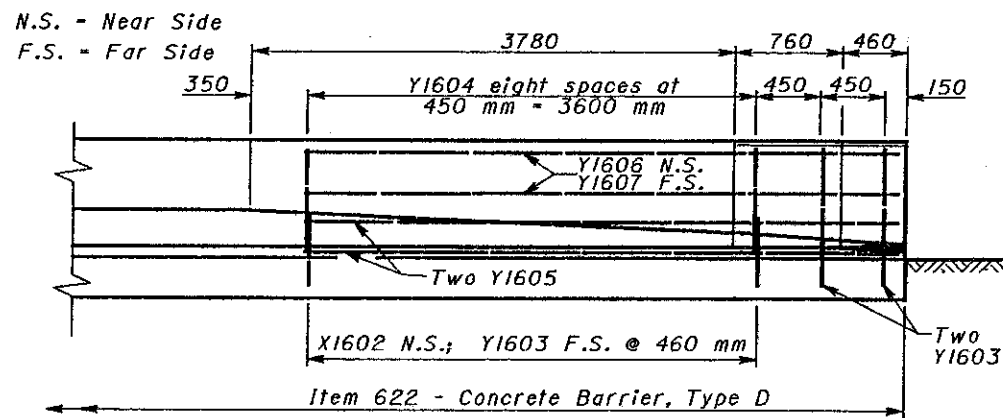
SECTION D-D



SECTION E-E



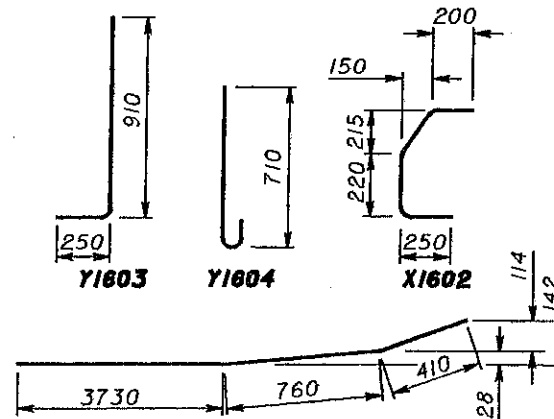
SECTION F-F



SECTION A-A

REINFORCING BAR LIST

| MARK                               | LENGTH (mm) | SHAPE | NO. | MASS (kg)  |
|------------------------------------|-------------|-------|-----|------------|
| X1602                              | 850         | Bent  | 9   | 12         |
| Y1603                              | 1120        | Bent  | 13  | 23         |
| Y1604                              | 880         | Bent  | 9   | 13         |
| Y1605                              | 4900        | Str.  | 4   | 31         |
| Y1606                              | 4900        | Bent  | 2   | 15         |
| Y1607                              | 4900        | Str.  | 2   | 15         |
| <b>TOTAL MASS (For Info. only)</b> |             |       |     | <b>109</b> |



BENDING DIAGRAMS

NOTES

**LOCATION:** Concrete barrier at obstructions shall be constructed with the toe of the barrier slope at the normal guardrail offset from the roadway. Installations within continuous runs shall be constructed so that no approach or trailing guardrail tapers are required to connect to the barrier.

Installations that cannot be constructed at the normal guardrail offset and are to be connected to approach or trailing guardrail runs shall have a 25:1 guardrail taper to meet the existing or normal guardrail offset.

Installations that are not to be connected to approach or trailing guardrail runs shall include the standard guardrail flare as per SCD GR-5.1M.

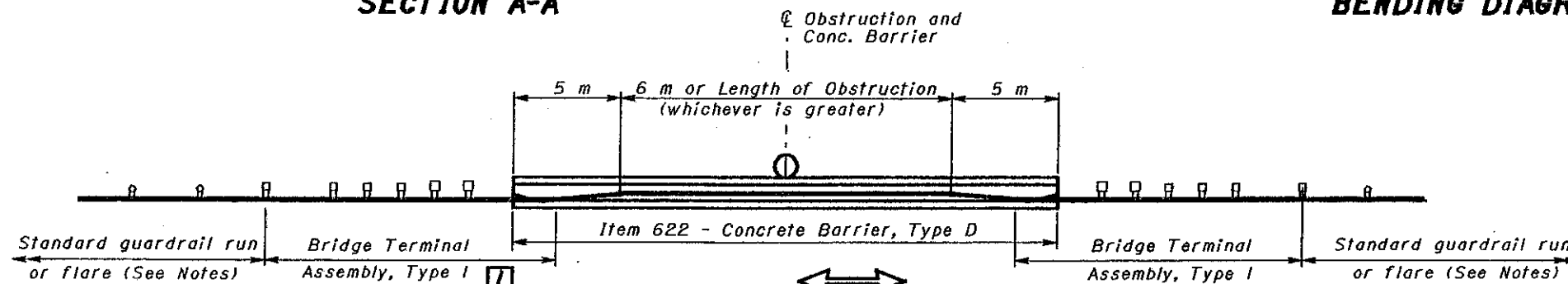
**INCORPORATED INSTALLATIONS:** For barrier installations that cannot be constructed at the normal guardrail offset, the incorporated installations shown may be installed at vertical walls, piers or other similar obstructions. For pier-incorporated installations the contractor may use the optional treatment, forming the back face of the Type D Concrete Barrier to the location shown (between piers only), with any additional cost being included in the cost of Item 622.

**REINFORCING:** All reinforcing bars shall be epoxy coated and shall meet the requirements of CMS 509.

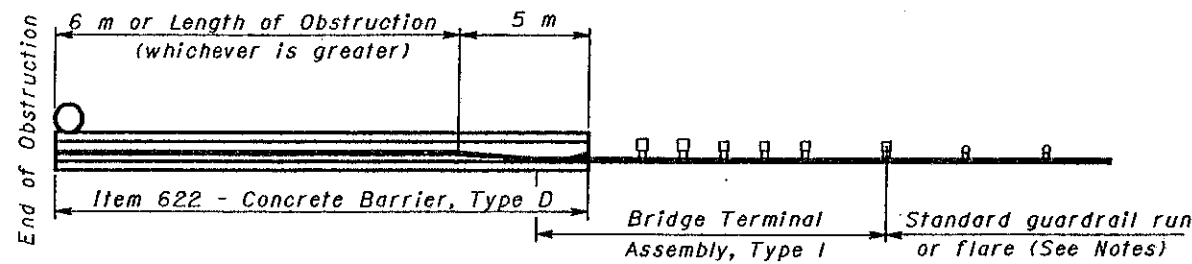
**MISCELLANEOUS:** For Bridge Terminal Assembly, Type 1 and Type 2 details and connections, see SCD's GR-3.1M and GR-3.2M, respectively. For Type D Concrete Barrier details see SCD RM-4.3M.

**PAYMENT:** Payment for Item 622, Concrete Barrier, Type D shall include all materials, labor and reinforcing steel required to construct the barrier as shown.

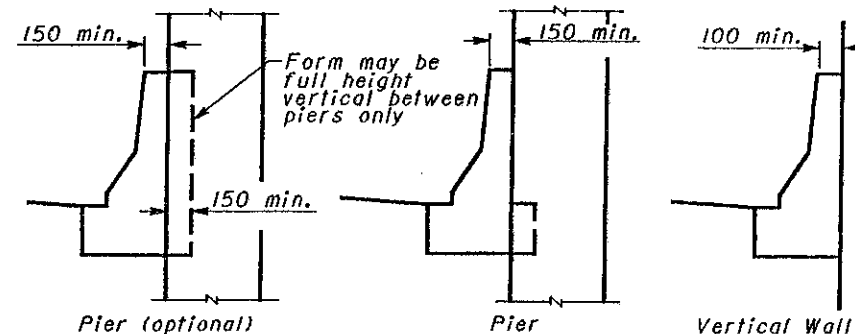
All dimensions are in millimeters unless otherwise noted.



Bi-directional Travel or Directional Travel where trailing guardrail is used.



Directional Travel where no trailing guardrail is used.  
TYPICAL INSTALLATIONS



INCORPORATED INSTALLATIONS

Bridge Terminal Assembly, Type 2 shall be used for directional roadways where trailing guardrail is used and is out of the clear zone of opposite direction traffic.



This Drawing Replaces GR-8J.

OHIO DEPARTMENT OF TRANSPORTATION

CONCRETE BARRIER AT OBSTRUCTIONS

DATE  
6-30-95  
10-21-97

STANDARD CONSTRUCTION DRAWING RM-4.5M

APPROVED: [Signature]