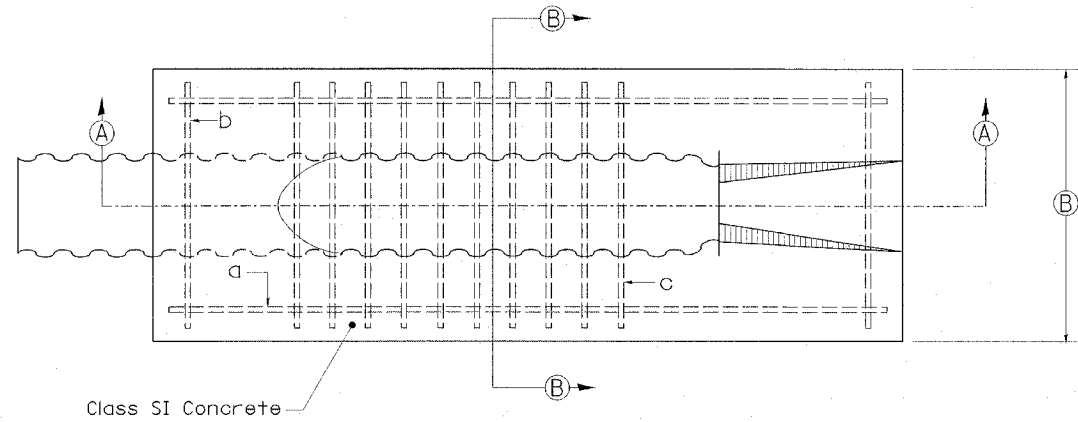
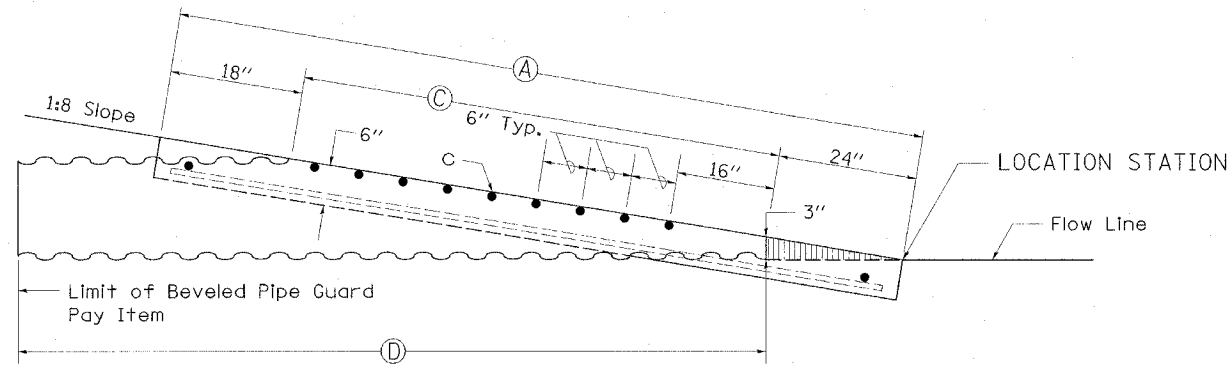


|                                       |          |                  |              |           |
|---------------------------------------|----------|------------------|--------------|-----------|
| F.A.I. RT.:                           | SECTION  | COUNTY           | TOTAL SHEETS | SHEET NO. |
| 80                                    |          | BUREAU           | 60           | 22        |
| STA.                                  | TO STA.  |                  |              |           |
| FED. ROAD DIST. NO.                   | ILLINOIS | FED. AID PROJECT |              |           |
| SECTION 106-5, 06-6, 06-7, 06 & 50-8M |          |                  |              |           |

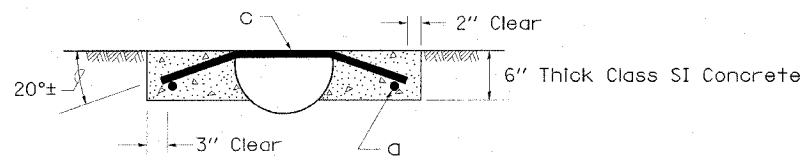
# BEVELED PIPE & GUARD DETAIL



PLAN VIEW



SECTION A-A



SECTION B-B

| PIPE SIZE | A         | B   | C        | D         |
|-----------|-----------|-----|----------|-----------|
| 12"       | 9' - 6"   | 36" | 6'       | 10'       |
| 15"       | 11' - 8"  | 39" | 8' - 2"  | 12'       |
| 18"       | 13' - 10" | 42" | 10' - 4" | 14' - 10" |

| Mark Req'd | Size | Length | Quantity |
|------------|------|--------|----------|
| a          | 5    | 110"   | 2        |
| b          | 5    | 32"    | 2        |
| c          | 8    | 34"    | 10       |

| Mark Req'd | Size | Length | Quantity |
|------------|------|--------|----------|
| a          | 5    | 136"   | 2        |
| b          | 5    | 35"    | 2        |
| c          | 8    | 37"    | 14       |

| Mark Req'd | Size | Length | Quantity |
|------------|------|--------|----------|
| a          | 5    | 162"   | 2        |
| b          | 5    | 38"    | 2        |
| c          | 8    | 40"    | 18       |

**GENERAL NOTES:**

Details shown hereon are for the construction of beveled pipe and guard. Alternate designs, methods of construction or materials may be submitted to the Engineer for approval. All methods of construction and materials involved shall conform to current Standard Specifications.

Reinforcing steel used in construction of "Beveled Pipe and Guard" shall be deformed bars meeting the requirements of Article 1006.10 of the Standard Specifications. All steel bars shall be hot-dip galvanized in accordance with ASTM A 123 specifications.

Concrete used in construction of the beveled pipe and guard shall be Class "SI" Concrete.

The corrugated metal pipe shall be cut to fit the 1:8 foreslope. Slots shall be cut into the C.M.P. for placement of the No. 8 bars. After the foreslope has been placed, the No. 8 bars shall be fitted into the slots cut in the C.M.P. so they will be in proper position when the concrete collar is poured.

This work shall be paid for at the contract unit price per Each for "Beveled Pipe and Guard", as shown hereon and as directed by the Engineer.

**SPECIAL NOTE:**

Inlet and pipe protection will be required on the upstream end of the culvert. Refer to Standard Road Plan 280001 for construction details.

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.