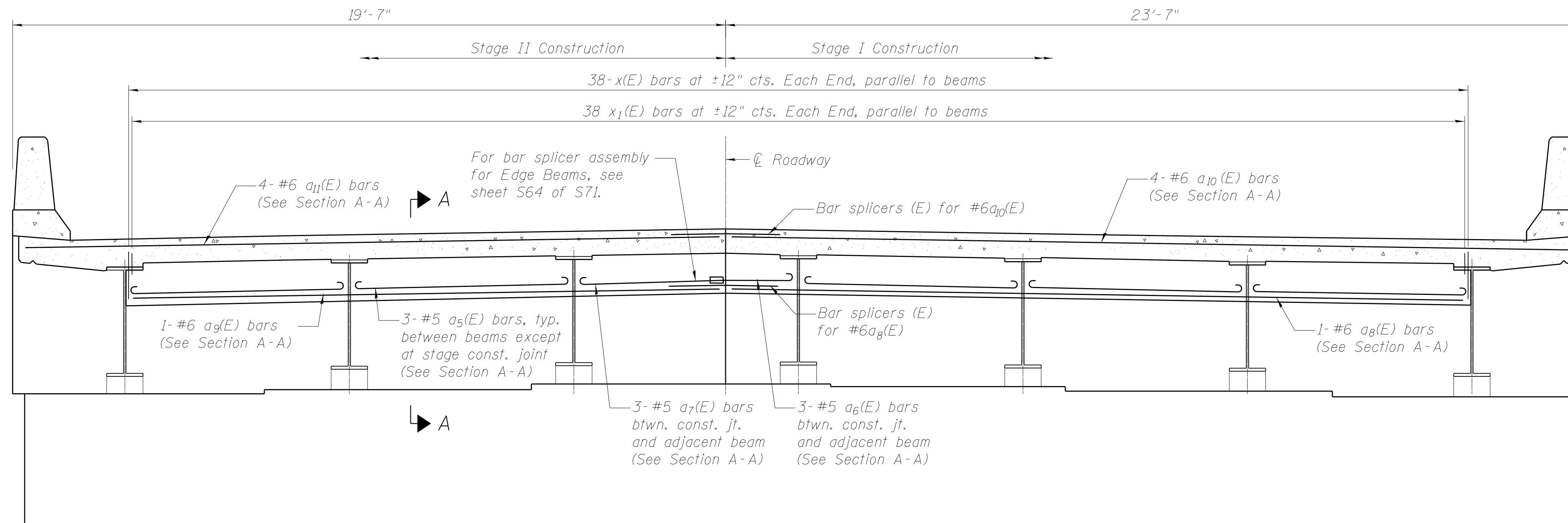


**SUPERSTRUCTURE  
BILL OF MATERIAL,  
TWO STRUCTURES**

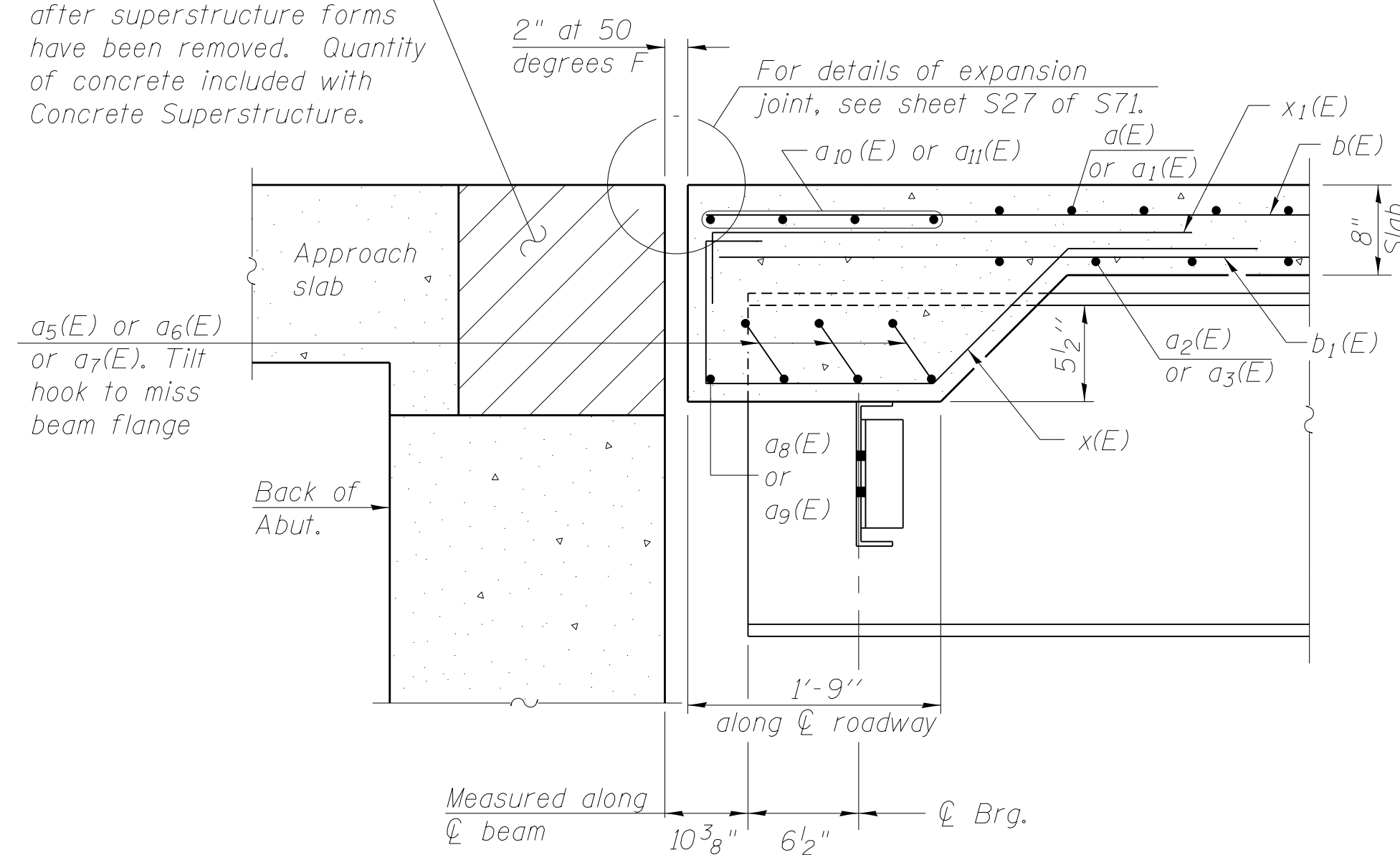


**EDGE BEAM ELEVATION**

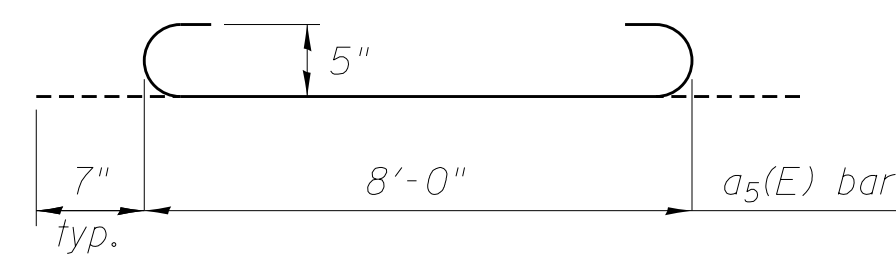
(East edge beam shown, looking north, west edge beam similar)

Note:  $a_5(E)$ ,  $a_6(E)$ ,  $a_7(E)$ ,  $a_{10}(E)$  and  $a_{11}(E)$  bars are parallel to the abutments

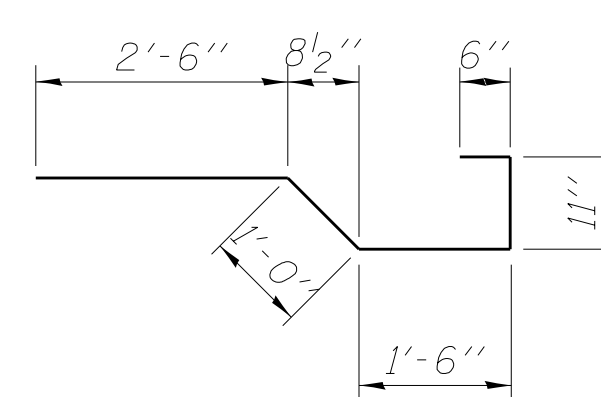
Hatched area to be poured after superstructure forms have been removed. Quantity of concrete included with Concrete Superstructure.



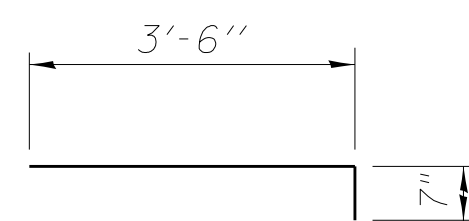
**SECTION A-A**



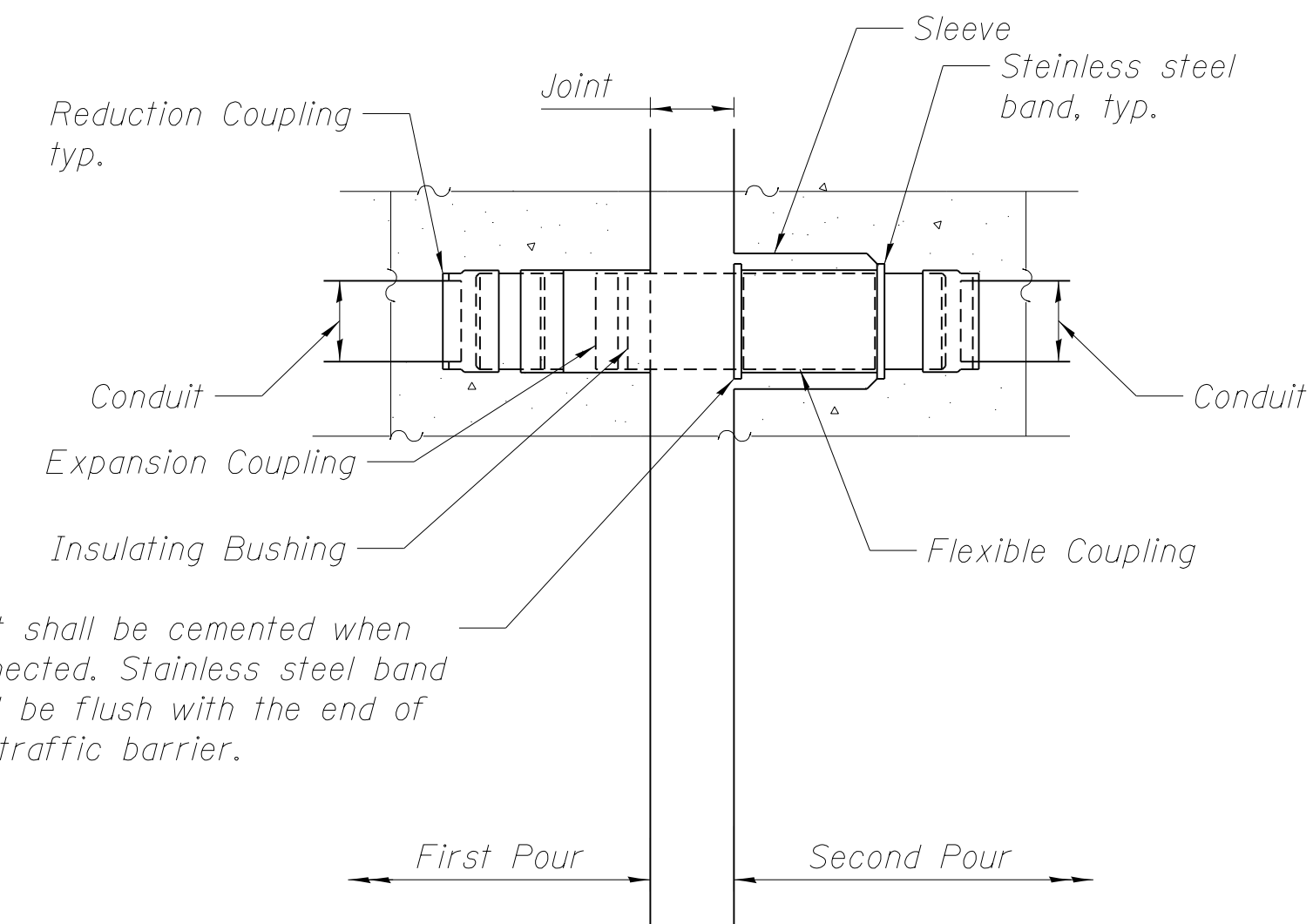
**BAR  $a_5(E)$**



**BAR  $x(E)$**



**BAR  $x_1(E)$**



**CONDUIT EXPANSION JOINT**

Joint shall be cemented when connected. Stainless steel band shall be flush with the end of the traffic barrier.

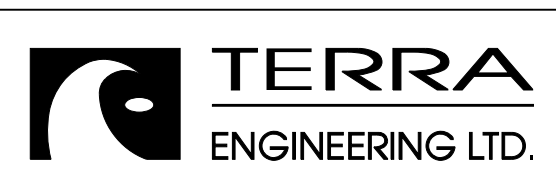
1. All materials (fitting, couplings, conduit, etc.), included with Conduit Embedded in Structure, 2" Dia. PVC.
2. All couplings shall be watertight.
3. Expansion assembly shall be installed in all expansion joints unless otherwise shown or as directed by the Engineer. Expansion couplings shall have a total minimum movement of 5" or the movement capacity of the structural joint, whichever is greater.
4. Expansion coupling types shall be approved by the Engineer.
5. Conduit expansion joints shall be installed at all locations where conduit goes through an expansion joint.

| Bar         | No.  | Size | Length  | Shape |
|-------------|------|------|---------|-------|
| $a(E)$      | 1364 | #5   | 23'-1"  | —     |
| $a_1(E)$    | 1364 | #5   | 19'-1"  | —     |
| $a_2(E)$    | 888  | #5   | 22'-8"  | —     |
| $a_3(E)$    | 888  | #5   | 18'-8"  | —     |
| $a_4(E)$    | 2724 | #6   | 6'-6"   | —     |
| $a_5(E)$    | 60   | #5   | 9'-2"   | —     |
| $a_6(E)$    | 12   | #5   | 3'-1"   | —     |
| $a_7(E)$    | 12   | #5   | 6'-1"   | —     |
| $a_8(E)$    | 4    | #6   | 27'-0"  | —     |
| $a_9(E)$    | 4    | #6   | 21'-8"  | —     |
| $a_{10}(E)$ | 16   | #6   | 30'-11" | —     |
| $a_{11}(E)$ | 16   | #6   | 25'-7"  | —     |
| $a_{20}(E)$ | 64   | #5   | 1'-6"   | —     |
| $b(E)$      | 1288 | #5   | 28'-10" | —     |
| $b_1(E)$    | 168  | #6   | 39'-0"  | —     |
| $b_2(E)$    | 168  | #6   | 53'-0"  | —     |
| $b_3(E)$    | 1568 | #5   | 25'-5"  | —     |
| $d(E)$      | 1616 | #5   | 5'-7"   | —     |
| $d_1(E)$    | 1616 | #5   | 7'-8"   | —     |
| $e_1(E)$    | 224  | #4   | 17'-1"  | —     |
| $e_2(E)$    | 168  | #4   | 18'-0"  | —     |
| $e_3(E)$    | 56   | #4   | 17'-5"  | —     |
| $e_4(E)$    | 128  | #4   | 8'-8"   | —     |
| $e_5(E)$    | 128  | #4   | 11'-10" | —     |
| $e_6(E)$    | 16   | #4   | 28'-1"  | —     |
| $e_7(E)$    | 16   | #8   | 29'-8"  | —     |
| $e_8(E)$    | 16   | #4   | 27'-0"  | —     |
| $e_9(E)$    | 16   | #8   | 28'-7"  | —     |
| $e_{10}(E)$ | 12   | #4   | 25'-1"  | —     |
| $e_{11}(E)$ | 12   | #8   | 27'-2"  | —     |
| $e_{12}(E)$ | 16   | #8   | 8'-8"   | —     |
| $e_{13}(E)$ | 16   | #8   | 11'-10" | —     |
| $v(E)$      | 172  | #5   | 2'-10"  | —     |
| $x(E)$      | 152  | #5   | 6'-5"   | —     |
| $x_1(E)$    | 152  | #5   | 4'-1"   | —     |

| Item                                      | Unit    | Quantity |
|---|---------|----------|
| Reinforcement Bars, Epoxy Coated          | Pound   | 267,340  |
| Concrete Superstructure                   | Cu. Yd. | 981.0    |
| Conduit Embedded in Structure, 2" Dia PVC | Foot    | 748      |
| Floor Drains                              | Each    | 20       |
| Bridge Deck Grooving                      | Sq. Yd. | 3696     |
| Protective Coat                           | Sq. Yd. | 4472     |

Bars indicated thus 1 x 14 - #5 etc. indicates 1 line of bars with 14 lengths per line.

M:\E7\_DIVER\CNR & OLLI\_45\Drawings\Structural\Final Plans\SHS\0366942-023-super\_details.dgn



|              |               |         |
|--------------|---------------|---------|
| USER NAME =  | DESIGNED - EA | REVISED |
| PLOT SCALE = | CHECKED - OY  | REVISED |
| PLOT DATE    | DRAWN - CM    | REVISED |
|              | CHECKED - JB  | REVISED |

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE DETAILS 2  
STRUCTURE NOS. 038 - 0013 & 0014**

SHEET NO. S23 OF S71 SHEETS

|                           |                 |          |              |           |
|---------------------------|-----------------|----------|--------------|-----------|
| F.A.I. RTE.               | SECTION         | COUNTY   | TOTAL SHEETS | SHEET NO. |
| 57                        | 38-2HWB, HVBR-1 | IROQUOIS | 146          | 62        |
| CONTRACT NO. 66942        |                 |          |              |           |
| ILLINOIS FED. AID PROJECT |                 |          |              |           |