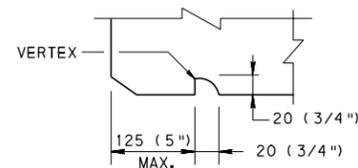
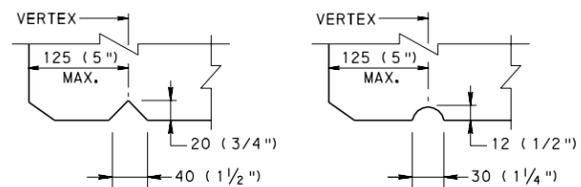


**BEAM NOTCH DETAIL  
SPREAD BOX BEAM**



**OPTION A**



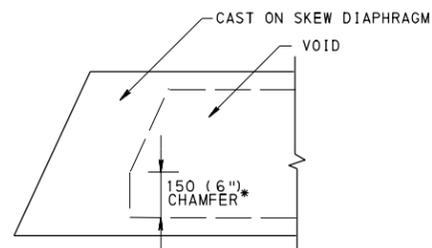
**OPTION B**

**OPTION C**

**ACCEPTABLE DRIP NOTCH DETAILS**

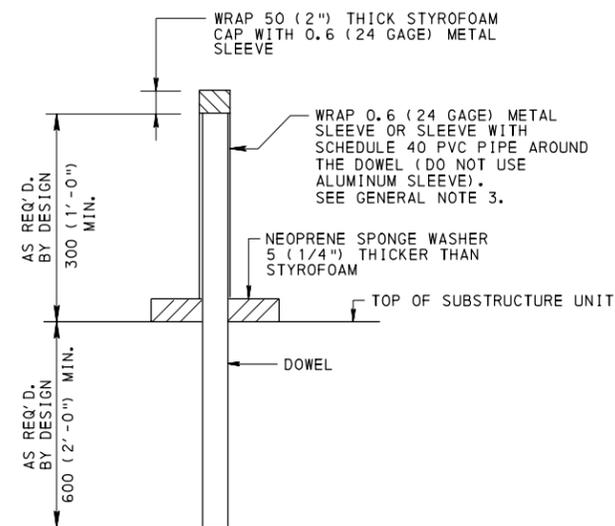
**NOTE:**

LOCATE THE VERTEX OF THE DRIP NOTCH AT THE MIDPOINT BETWEEN THE STRANDS



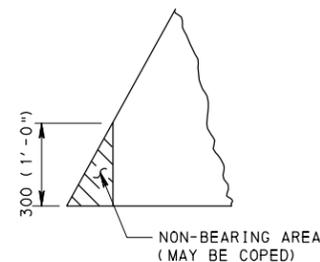
\* NO CHAMFER REQUIRED FOR SKEWS 75° TO 90°

**CHAMFER DETAIL FOR  
SKEWED END BLOCK**

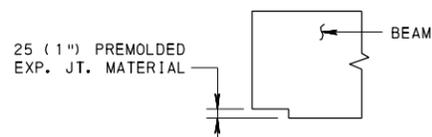


**DOWEL DETAIL**

(FOR DOWELS IN DIAPHRAGMS)



**PLAN**



**ELEVATION**

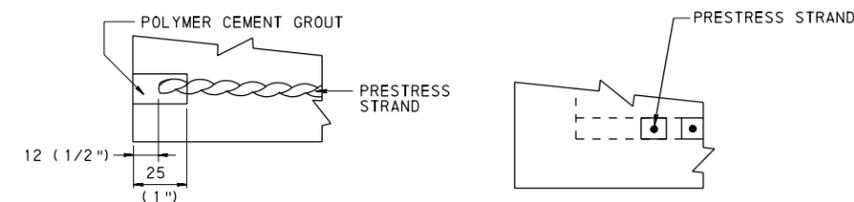
**TYPICAL CORNER  
BLOCKOUT-SKEWS < 85°**

**NOTES:**

- (1) MODIFY IF REQUIRED TO ACCOMMODATE BEARING PAD ARRANGEMENT FOR SHARP SKEWS.
- (2) NOT PERMITTED IN CONJUNCTION WITH DAPPING.

**GENERAL NOTES:**

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED. U.S. CUSTOMARY UNITS IN ( ) PARENTHESES.
2. INCLUDE APPLICABLE DETAILS SHOWN ON THESE SHEETS ON FABRICATOR'S SHOP DRAWINGS.
3. BITUMINOUS TAR PAPER OR SCHEDULE 40 P.V.C. PIPE ARE PERMITTED TO BE USED AS ALTERNATE BOND BREAKER MATERIALS IN LIEU OF THE METAL SLEEVE. OTHER BOND BREAKER MATERIALS MAY BE USED AROUND THE DOWEL ONLY WITH THE APPROVAL OF THE DISTRICT STRUCTURE CONTROL ENGINEER.



**NOTES:**

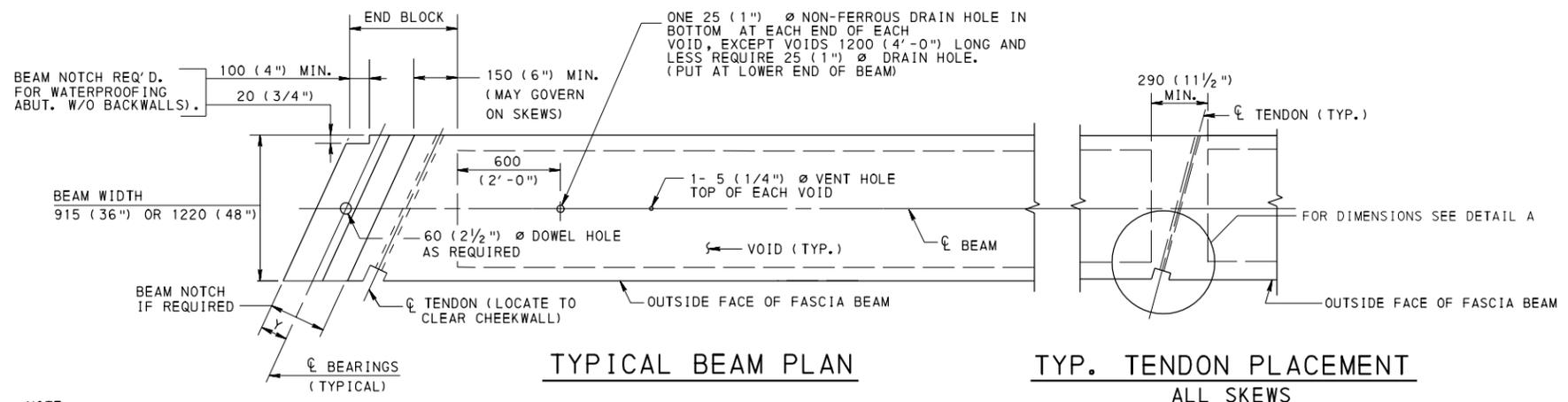
1. AS AN OPTION TO A GROUTED RECESS, WHEN THE ENDS OF THE BEAMS ARE TO BE INCORPORATED IN A CONTINUITY DIAPHRAGM (BRIDGES CONTINUOUS FOR LIVE LOADS), PAINT ENDS OF STRANDS WITH POLYMER CEMENT GROUT OR ZINC RICH PRIMER.
2. RECESS CAN BE MADE FOR A SINGLE STRAND OR A GROUP OF STRANDS.

**GROUTED RECESS FOR STRANDS AT BEAM ENDS**

NOTE: EITHER ALL METRIC OR ALL ENGLISH VALUES MUST BE USED ON PLANS. METRIC AND ENGLISH VALUES SHOWN MAY NOT BE MIXED.

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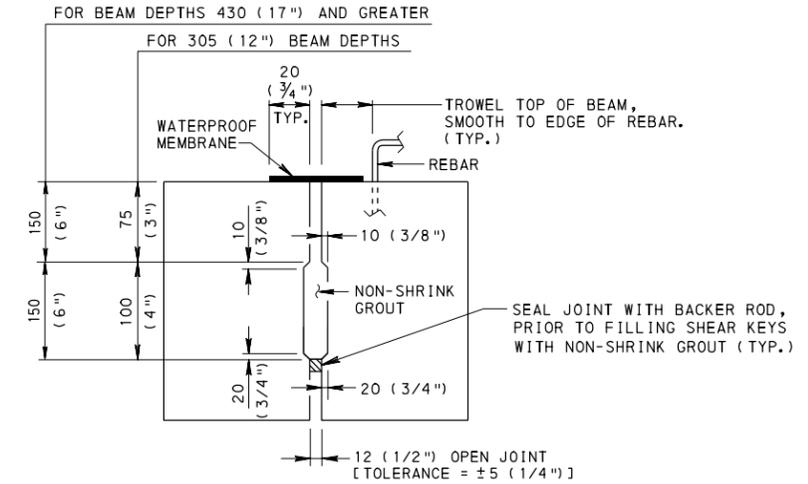
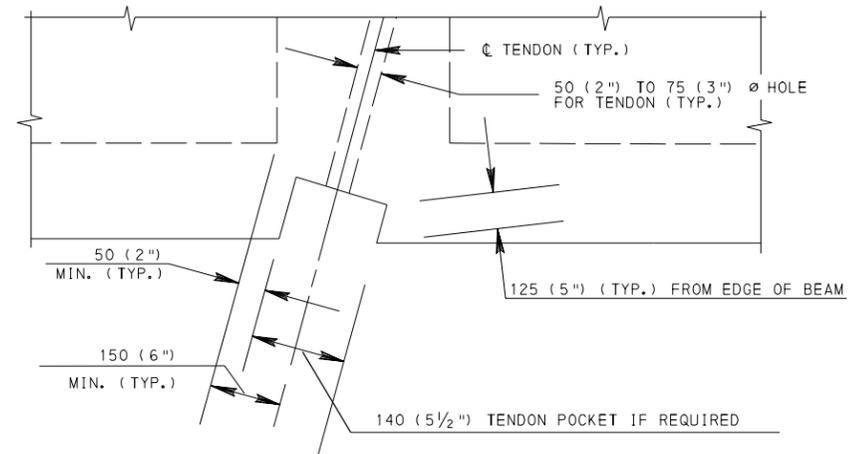
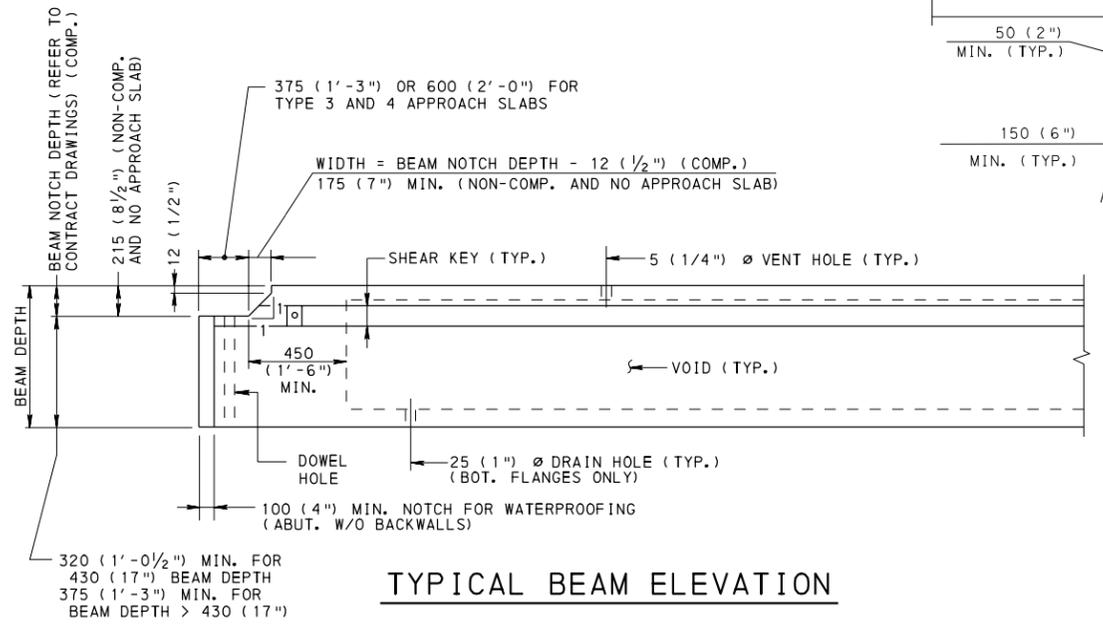
**STANDARD  
MISCELLANEOUS PRESTRESS DETAILS**



**NOTE:**  
 "Y" = 225 (9") MIN. (ABUTMENTS WITHOUT BACKWALLS AND WITH PAVING NOTCH)  
 "Y" = 150 (6") MIN. (PIERS WITH AN EXPANSION DAM)  
 "Y" = 150 (6") MIN. (ABUTMENTS WITH BACKWALLS)

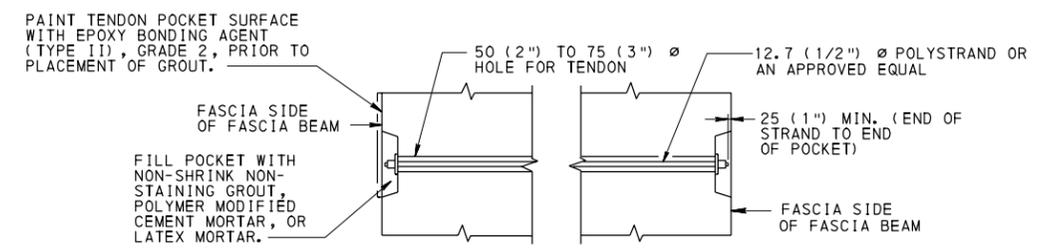
**ADJACENT BOX BEAM PRESTRESS DETAIL NOTES:**

1. WHEN THE COMMON EDGES OF TWO ADJOINING BEAMS ARE NOT AT THE SAME ELEVATION, ADJUST THE LOCATION OF THE SHEAR KEY SO THAT THE MAXIMUM ELEVATION DIFFERENCE BETWEEN THE BOTTOM OF THE SHEAR KEYS IS 25 (1") FOR 175 (7") SHEAR KEYS AND 50 (2") FOR 300 (12") SHEAR KEYS. APPLIES TO BRIDGES IN SUPERELEVATION TRANSITION ONLY.
2. TENDONS TO BE 12.7 (1/2") Ø STRANDS, 1860 MPa (270 KSI) POLYSTRAND OR AN APPROVED EQUAL AND TO BE TENSIONED TO A FORCE OF 133 kN (30,000 lbs) 48 HOURS AFTER THE PLACEMENT OF THE SHEAR KEYS BUT NOT BEFORE THE GROUT HAS OBTAINED ITS MINIMUM STRENGTH OF 17 MPa (2500 psi). TIGHTEN TENDON AT CENTERLINE IF PRESENT AND THEN PROGRESS TOWARD ENDS OF BEAM.
3. TENSION THE TENDONS IN ACCORDANCE WITH SECTION 1108.03(e) OF PUB. 408. SECTION 1108.01 OF PUB. 408 DOES NOT APPLY TO POST-TENSIONING OF ADJACENT BOX BEAMS.
4. FOR SHEAR KEY CLEANING AND GROUTING, SEE PUBLICATION 408.
5. FORM TENDON HOLES WITH NONMETALLIC PIPE.
6. PROVIDE SILICONE SEALANT MATERIAL IN ACCORDANCE WITH SECTION 705.4 (d) OF PUB. 408.
7. PLUG 5 (1/4") Ø VENT HOLE WITH NON-SHRINK GROUT AFTER REMOVAL OF BEAMS FROM THE FORMS.
8. PROVIDE WATERPROOF MEMBRANE MATERIAL IN ACCORDANCE WITH SECTION 680.2 (b) OF PUB. 408.

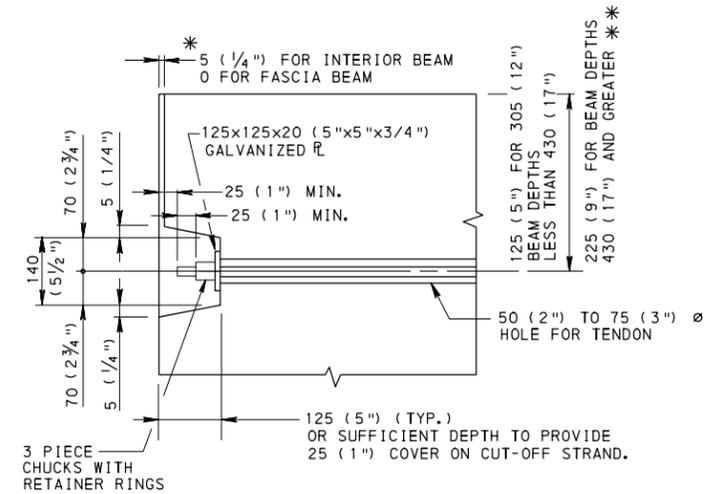


**NOTE:**  
 OMIT SHEAR KEYS ON OUTSIDE FACE OF FASCIA BEAM.

**NOTE:** EITHER ALL METRIC OR ALL ENGLISH VALUES MUST BE USED ON PLANS. METRIC AND ENGLISH VALUES SHOWN MAY NOT BE MIXED.



**TYPICAL SECTION OF TENDON PLACEMENT**

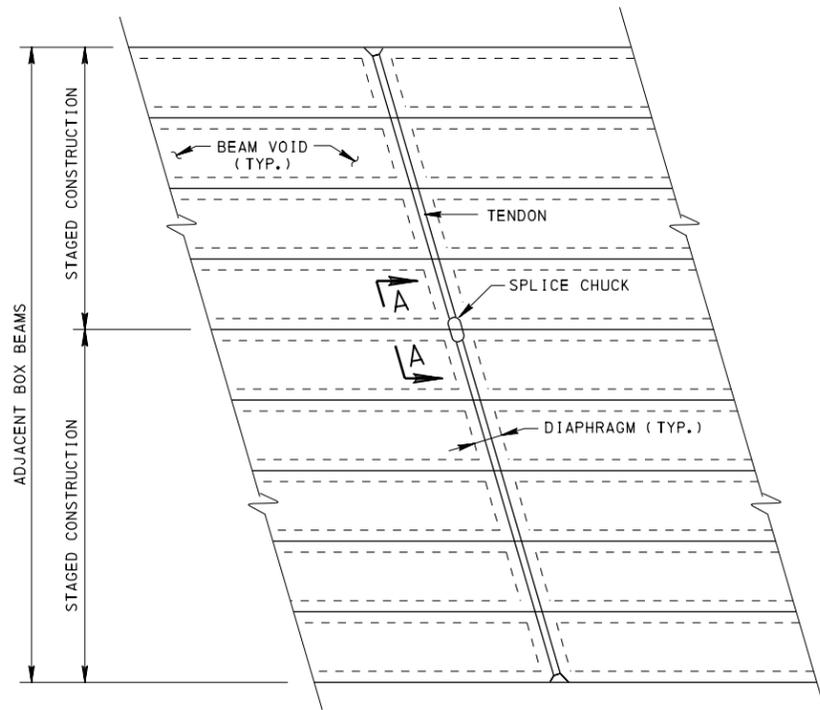


**TYPICAL SECTION OF TENDON POCKET**  
 CUT OFF TENDON 25 (1") MIN. FROM THE END OF CHUCK (BURNING THE TENDON OFF IS NOT PERMITTED).

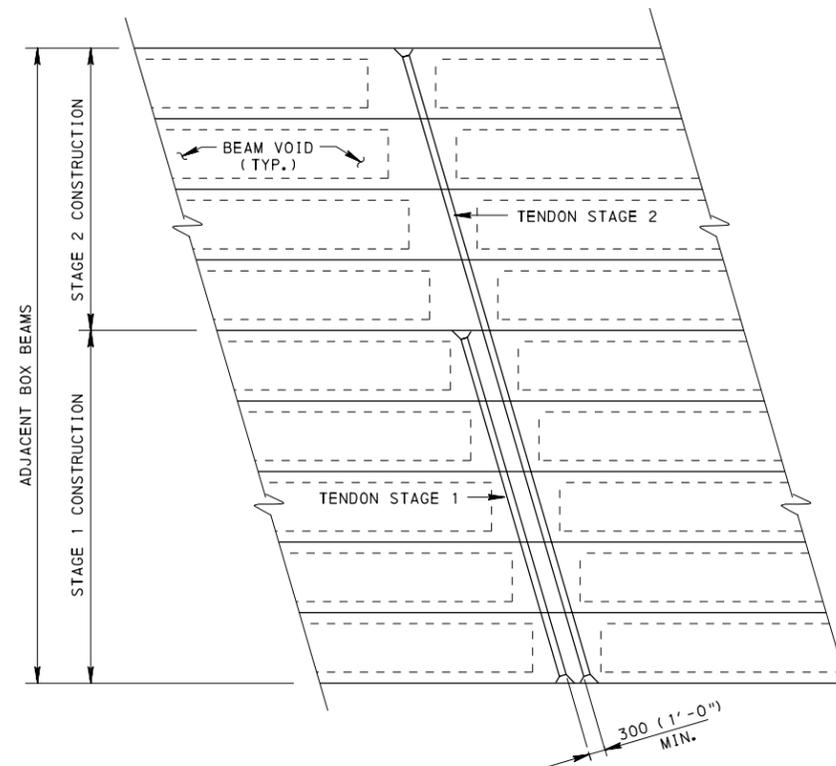
**LEGEND**  
 \* DENOTES STAGED CONSTRUCTION  
 \*\* SHIFTING OF TENDON BY UP TO 40 (1 1/2") IS PERMITTED TO AVOID LOSS OF STRAND POSITIONS.

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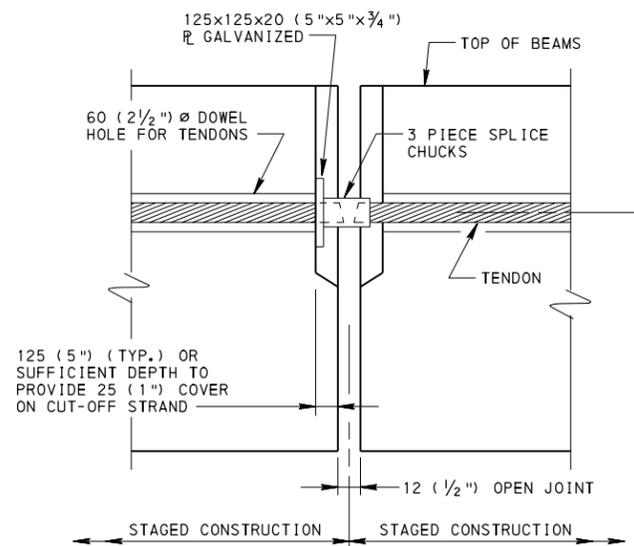
**STANDARD**  
**MISCELLANEOUS PRESTRESS DETAILS**  
**ADJACENT BOX BEAM**



PARTIAL PLAN - BEAMS FOR STAGED CONSTRUCTION  
SPLICE CHUCK ALTERNATE



PARTIAL PLAN - BEAMS FOR STAGED CONSTRUCTION  
DOUBLE DUCT ALTERNATE



SECTION A-A

**STAGED CONSTRUCTION NOTE:**

1. THE LOCATION OF THE TRANSVERSE TENDONS FOR STAGED CONSTRUCTION MUST BE SHOWN ON THE SHOP DRAWINGS TO ACCOUNT FOR DIFFERENCES IN CAMBER OF THE BEAMS IN EACH STAGE.
2. SHIFTING OF TENDON BY UP TO 40 (1 1/2") PERMITTED TO AVOID LOSS OF STRAND POSITIONS.

NOTE: EITHER ALL METRIC OR ALL ENGLISH VALUES MUST BE USED ON PLANS. METRIC AND ENGLISH VALUES SHOWN MAY NOT BE MIXED.

**COMMONWEALTH OF PENNSYLVANIA**  
**DEPARTMENT OF TRANSPORTATION**  
BUREAU OF DESIGN

STANDARD  
MISCELLANEOUS PRESTRESS DETAILS  
ADJACENT BOX BEAM

RECOMMENDED JULY 20, 2007  
*Thomas D. Maiore*  
CHIEF BRIDGE ENGINEER

RECOMMENDED JULY 20, 2007  
*Brenda Stroman*  
ACTING DIR. BUR. OF DESIGN

SHEET 3 OF 3  
BC-775M