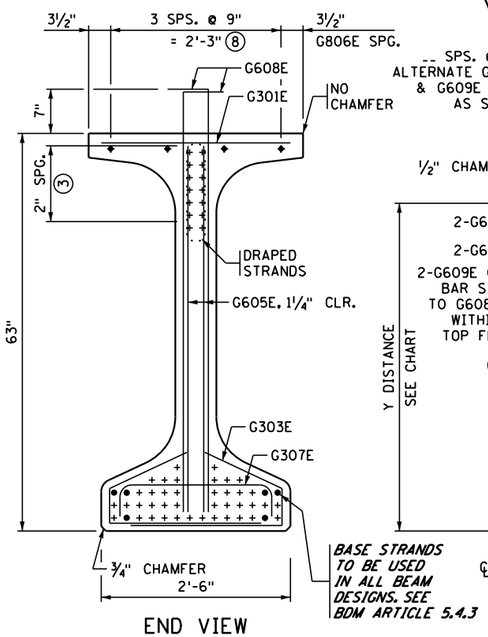
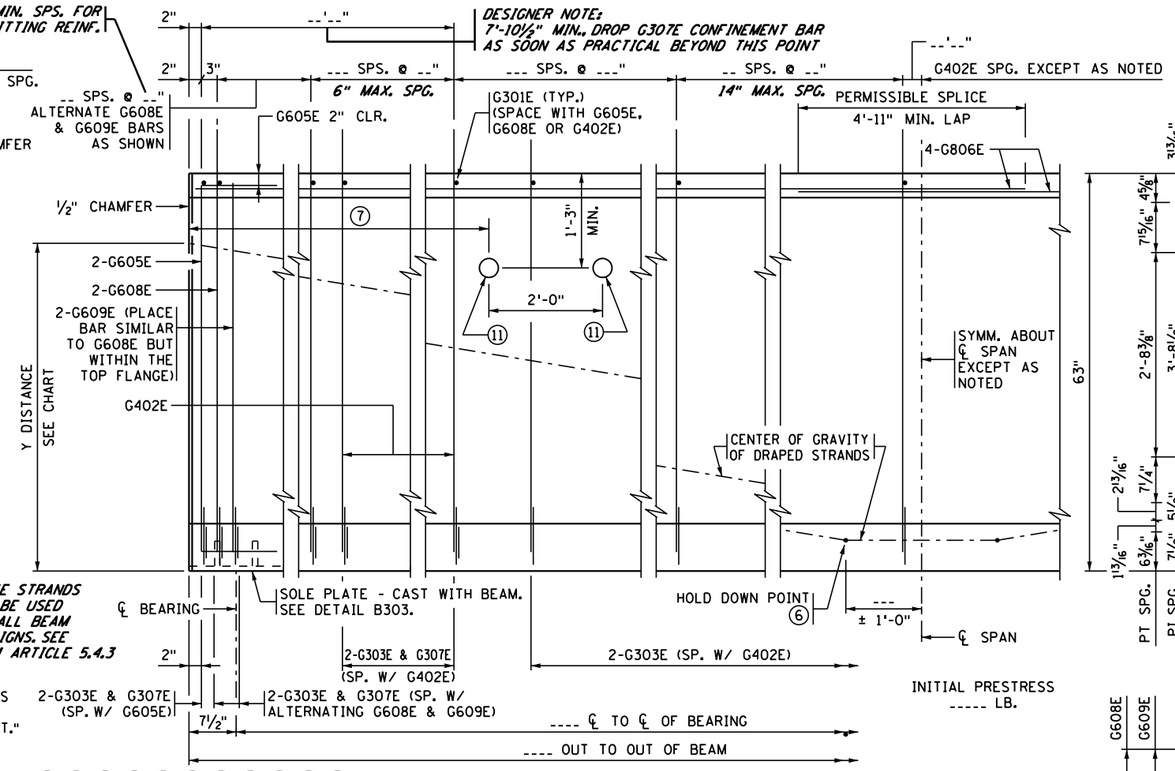


END VIEW

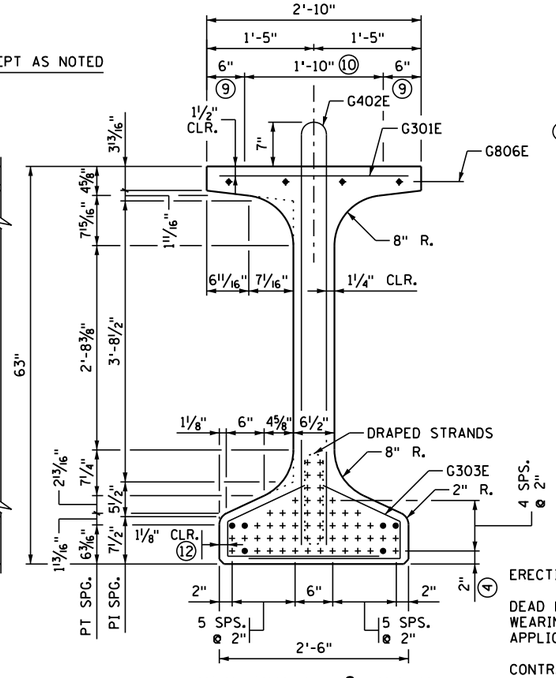
CUT STRANDS FLUSH WITH CONCRETE. COVER ENDS WITH SEALANT PER APPROVED PRODUCTS LIST "BRIDGE-PRESTRESSED BEAMS-CUT STRAND SEALANT."



INITIAL PRESTRESS
----- LB.

BEAM ELEVATION

TEXT IN ITALICS ARE DESIGNER NOTES. REMOVE PRIOR TO PLOTTING FINAL PLAN.

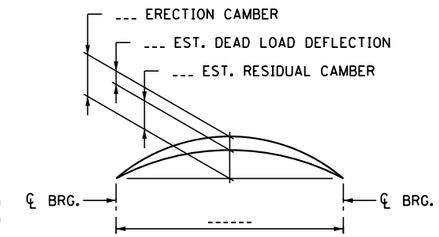


SECTION AT ℄ SPAN

Y DISTANCES (INCHES)			
	NO.	℄ SPAN	END
STRAIGHT STRANDS	---	---	
DRAPED STRANDS	---	---	--- ▫
(5) TOTAL STRANDS	---	---	

Y = DISTANCE TO CENTER OF GRAVITY OF STRANDS FROM BOTTOM OF BEAM. ALL STRANDS SPACED 2" CENTER TO CENTER, HORIZONTALLY AND VERTICALLY, EXCEPT AS NOTED.

▫ A TOLERANCE OF ± 1" WILL BE PERMITTED IN THIS DIMENSION.



CAMBER DIAGRAM

ERECTION CAMBER SHOWN IS AFTER DIAPHRAGMS ARE IN PLACE.

DEAD LOAD DEFLECTION SHOWN IS FOR WEIGHT OF SLAB, WEARING COURSE, BARRIER, SIDEWALK AND MEDIAN WHERE APPLICABLE.

CONTRACTOR WILL TAKE ELEVATIONS AT TOP OF BEAMS AFTER ERECTION AND WILL ALLOW FOR DEFLECTION SHOWN TO ENABLE BUILDING FORMS TO CORRECT GRADE AND SPECIFIED SLAB THICKNESS. PROVIDE COPY OF ELEVATIONS TO THE ENGINEER.

GENERAL NOTES

PROVIDE HANDLING HOOKS OR DEVICES AS REQUIRED BY CONTRACTOR.

MARK EACH BEAM SHOWING BRIDGE NUMBER, CASTING DATE, AND INDIVIDUAL IDENTIFICATION LETTERS AND NUMBERS ON THE FACE OF THE BEAM, NEAR THE END, SO LOCATED THAT THEY WILL BE EXPOSED AFTER THE END DIAPHRAGMS HAVE BEEN CAST. MARK FASCIA BEAMS ON THE INSIDE FACE. ENSURE ALL MARKINGS ARE STENCILLED AND CLEARLY LEGIBLE. FOR LOCATION OF BEAMS, SEE FRAMING PLAN.

ALL MATERIAL AND WORK SHOWN OR NOTED ON THIS SHEET IS INCLUDED IN UNIT PRICE BID FOR PRESTRESSED CONCRETE BEAMS. SEE SPEC. 2405.

SEE FRAMING PLAN FOR BEAM END MARKED "X" AND DIAPHRAGM SPACING.

AS AN ALTERNATE TO THE END DIAPHRAGM ANCHORAGES SHOWN, THE CONTRACTOR MAY SUBMIT DETAILS OF A CAST-IN-PLACE ANCHORAGE TO THE ENGINEER FOR APPROVAL. ANCHORAGE MUST PROVIDE AN ULTIMATE PULL OUT STRENGTH OF 15 KIPS PER ANCHORAGE.

APPLY AN APPROVED SEALER TO THE SIDES OF THE BEAM NEAR EACH END PER THE SPECIAL PROVISIONS.

(1) MINIMUM CONCRETE STRENGTH AT TIME OF PRESTRESS TRANSFER.

(2) MINIMUM CONCRETE STRENGTH WHEN BEAM CAN BE TRANSPORTED AND INSTALLED.

(3) DRAPED STRANDS.

(4) STRAIGHT STRANDS.

(5) USE 0.6" DIA. 7-WIRE LOW RELAXATION PRESTRESSING STRAND, CONFORMING TO ASTM A416, GRADE 270.

(6) CENTER OF GRAVITY OF HOLD DOWNS WHEN MULTIPLE HOLD DOWNS ARE USED.

(7) DIMENSION DETERMINED BY CONTRACTOR. MAINTAIN 2" MINIMUM CLEAR FROM STRANDS.

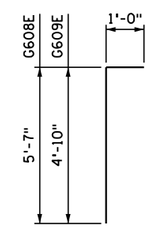
(8) TWO INSIDE BARS MAY BE PLACED ADJACENT TO VERTICAL STIRRUP FOR TYING CONVENIENCE.

(9) STEEL TROWEL TO SMOOTH FINISH AND APPLY BOND BREAKER PER APPROVED PRODUCTS LIST.

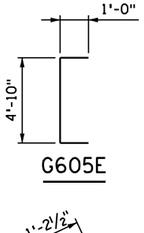
(10) ROUGH FLOAT AND BROOM TRANSVERSELY FOR BOND IN ACCORDANCE WITH SPEC. 2405.3.D.

(11) OPTIONAL: 3" MAX. DIA. SLEEVE FOR HAULING (AFTER INSTALLATION, COAT WITH APPROVED EPOXY BONDING AGENT & FILL WITH APPROVED NON-SHRINK GROUT).

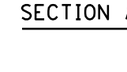
(12) TYP. CLR. FOR ENTIRE BOTTOM FLANGE.



G608E & G609E

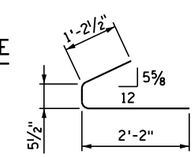


G402E

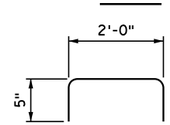


G301E

G605E



G303E



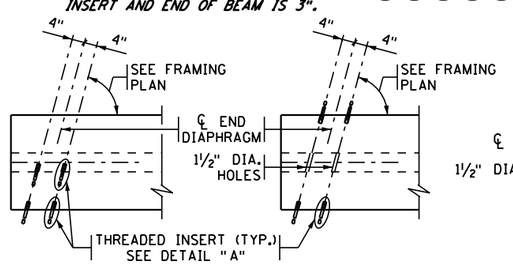
G307E

CALCULATED PRESTRESS LOSSES	
ELASTIC SHORTENING LOSS	--- KSI
LONG TERM LOSSES	--- KSI
TOTAL LOSSES	--- KSI

MINIMUM CONCRETE STRENGTH - KSI	
(1) f'ci	(2) f'c
--- KSI	--- KSI

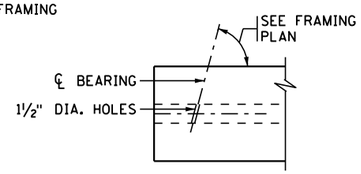
DESIGNER NOTE: INDICATE MIN. REQUIRED CONCRETE STRENGTH, ROUND CONCRETE STRENGTH TO ONE TENTH KSI.

DESIGNER NOTE: MIN. DISTANCE BETWEEN THREADED INSERT AND END OF BEAM IS 3".

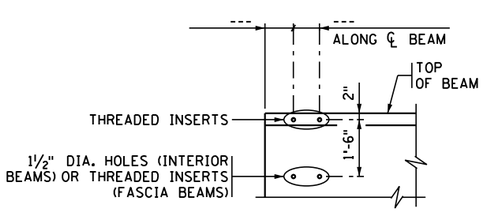


PLAN AT FASCIA BEAMS

PLAN AT INTERIOR BEAMS



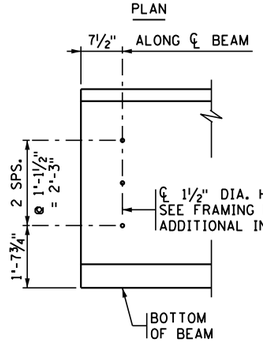
PLAN



ELEVATION

CONCRETE END DIAPHRAGM

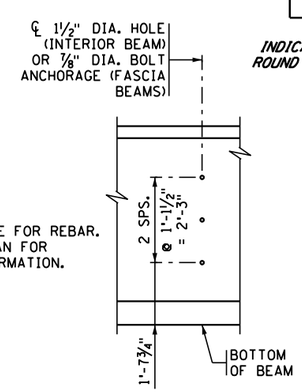
PARAPET ABUTMENT
(SEE DETAIL B814 FOR DIAPHRAGM DETAILS)



ELEVATION

CONCRETE END DIAPHRAGM

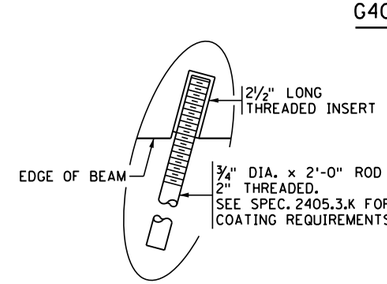
INTEGRAL & SEMI-INTEGRAL ABUTMENT. SEE SUPERSTRUCTURE DETAILS AND REINFORCEMENT FOR DIAPHRAGM DETAILS.



ELEVATION

STEEL INTERMEDIATE DIAPHRAGM

(SEE DETAIL B403 FOR DIAPHRAGM DETAILS)



DETAIL "A"

REVISED: OCTOBER 22, 2019

APPROVED: JANUARY 13, 2015

Nancy Daubenberger
STATE BRIDGE ENGINEER

CERTIFIED BY _____ _____
LICENSED PROFESSIONAL ENGINEER

NAME: LIC. NO.

TITLE: MN63" PRESTRESSED CONCRETE BEAM (PRETENSIONED) MN63-

BEAMS

DES:	DR:	APPROVED:
CHK:	CHK:	
SHEET NO. OF SHEETS		

FIG. 5-397.509

BRIDGE NO.