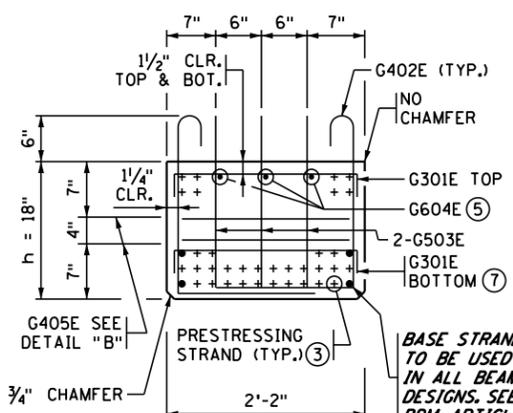


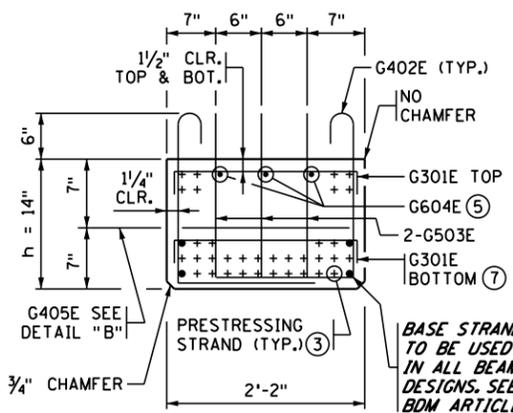
END VIEW - 22" RB

CUT STRANDS FLUSH WITH CONCRETE. COVER ENDS WITH ONE COMPONENT POLYURETHANE SEALANT PER APPROVED PRODUCT LIST.



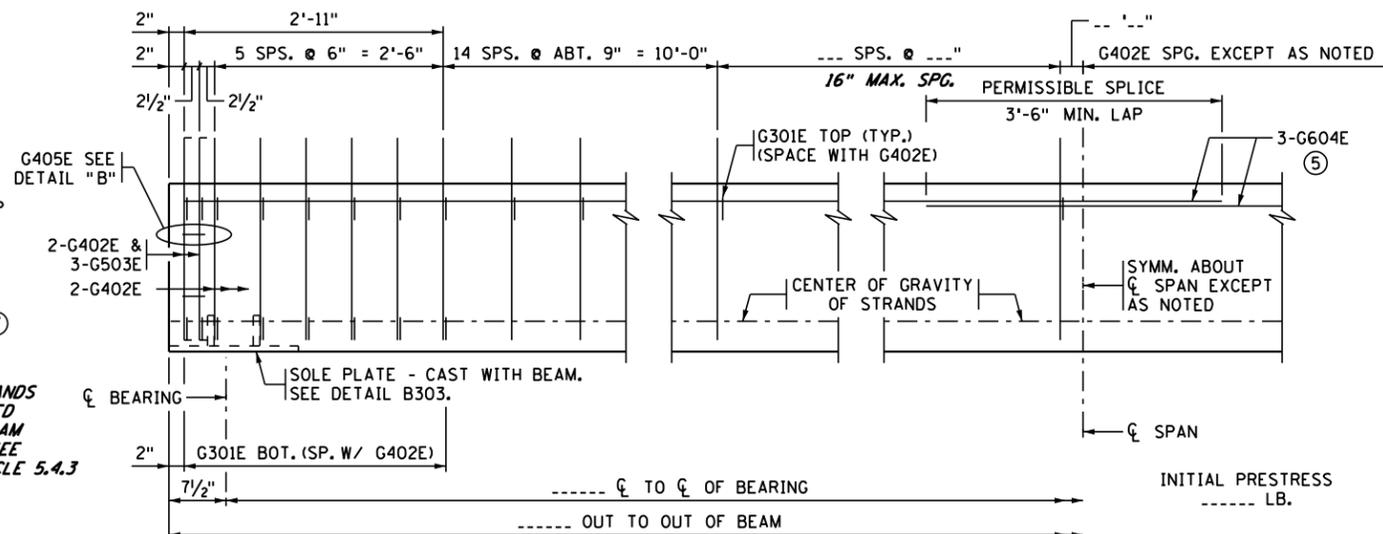
END VIEW - 18" RB

CUT STRANDS FLUSH WITH CONCRETE. COVER ENDS WITH ONE COMPONENT POLYURETHANE SEALANT PER APPROVED PRODUCT LIST.

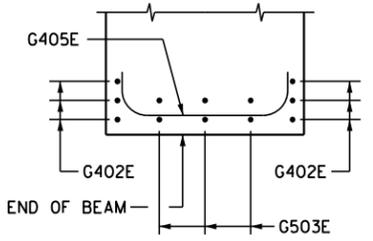


END VIEW - 14" RB

CUT STRANDS FLUSH WITH CONCRETE. COVER ENDS WITH ONE COMPONENT POLYURETHANE SEALANT PER APPROVED PRODUCT LIST.

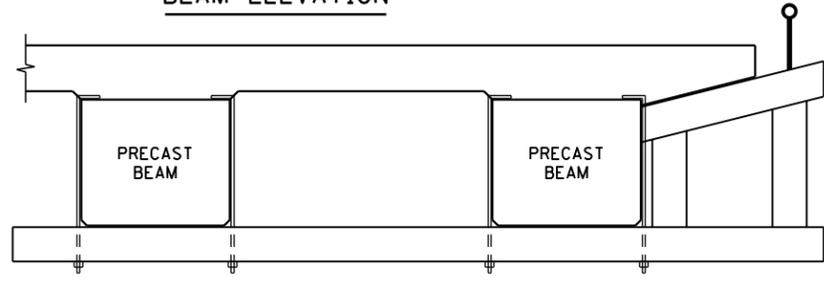


BEAM ELEVATION



DETAIL "B"

PLAN VIEW SHOWING PLACEMENT OF G405E BAR

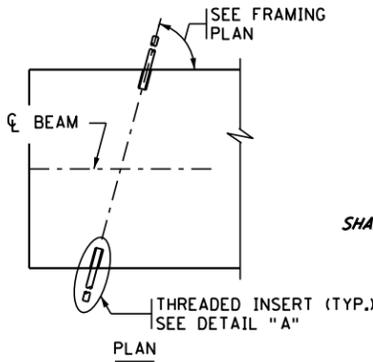


OVERHANG SUPPORT CONCEPT SKETCH

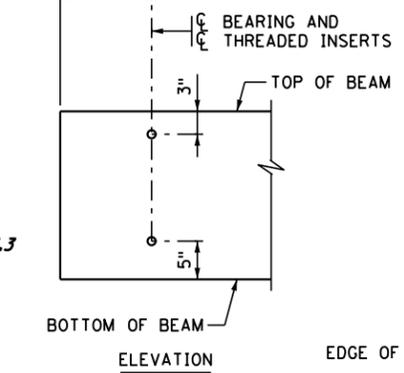
SEE THE "CONSTRUCTION NOTES" ON FRONT PORTION OF THE BRIDGE PLANS. THIS CONCEPT HAS BEEN USED SUCCESSFULLY ON PREVIOUS PROJECTS. CONTRACTORS MAY CONSIDER THIS OR ANOTHER SYSTEM AT THEIR DISCRETION.

CONTRACTOR SHALL VERIFY STABILITY OF FASCIA BEAMS FROM OVERTURNING (NO PERMANENT BEAM DIAPHRAGMS ARE PRESENT). CONTRACTOR SHALL PROVIDE TEMPORARY BRACING.

DESIGNER NOTE: FOR BRIDGES WITH SEMI-INTEGRAL OR PARAPET ABUTMENTS, DESIGN THE CONCRETE END DIAPHRAGM TO ACCOMMODATE THE SHALLOW BEAM DEPTH, AS NO STANDARD END DIAPHRAGM DETAILS EXIST.

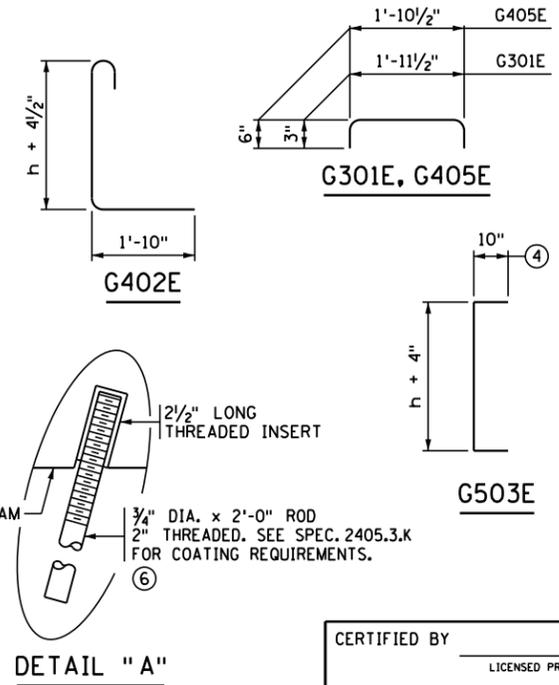


CONCRETE END DIAPHRAGM ANCHORAGES

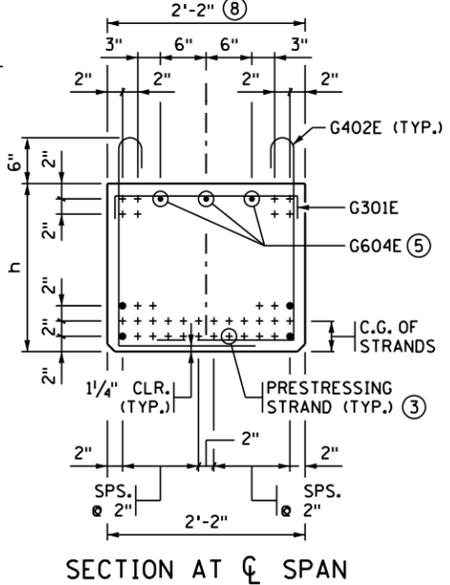


CONCRETE END DIAPHRAGM ANCHORAGES

INTEGRAL ABUTMENT (SEE DETAIL B816 FOR CONCRETE END DIAPHRAGM DETAILS)



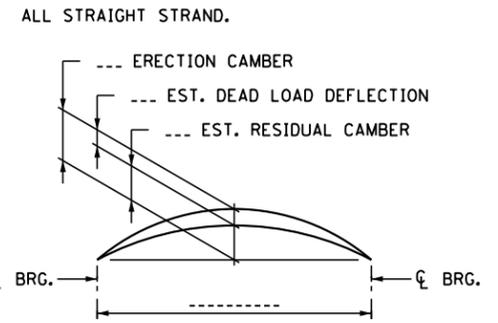
DETAIL "A"



SECTION AT CL SPAN

STRAND ARRANGEMENT	
LOCATION	NO. OF STRANDS
TOP ROW	----
2ND ROW FROM TOP	----
3RD ROW FROM BOTTOM	----
2ND ROW FROM BOTTOM	----
BOTTOM ROW	----
TOTAL	----
C.G. OF STRANDS = ---- INCHES	

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



CAMBER DIAGRAM

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.

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

DESIGNER NOTE: ADD STANDARD TEMPORARY BRACING NOTE FOR RECTANGULAR PCB TO THE "CONSTRUCTION NOTES" ON THE FRONT PORTION OF THE PLANS.

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 STENCILED 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".
- 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.

- ① MINIMUM CONCRETE STRENGTH AT TIME OF PRESTRESS TRANSFER.
- ② MINIMUM CONCRETE STRENGTH WHEN BEAM CAN BE TRANSPORTED AND INSTALLED.
- ③ USE 7-WIRE LOW RELAXATION PRESTRESSING STRAND, CONFORMING TO ASTM A416, GRADE 270.
- ④ MAY STAGGER BARS TO AVOID INTERFERENCE.
- ⑤ PROVIDE 2" CLEARANCE AT ENDS OF BEAM.
- ⑥ FOR INSERTS IN THE OUTSIDE OF FASCIA BEAM, ADJUST THE ROD LENGTH ACCORDING TO THE OVERHANG DIMENSION.
- ⑦ PLACE G301E BAR ON TOP OF THE TOP ROW OF PRESTRESSING STRANDS IN THE BOTTOM OF THE BEAM.
- ⑧ ROUGH FLOAT AND BROOM TRANSVERSELY FOR BOND IN ACCORDANCE WITH SPEC. 2405.3.D.

SECTION HEIGHT "h"	
14" <input type="checkbox"/>	18" <input type="checkbox"/>
22" <input type="checkbox"/>	

AN "X" IN THE BOX INDICATES THE SECTION HEIGHT.

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

MINIMUM CONCRETE STRENGTH - KSI	
① f'cl	② f'c
---- KSI	---- KSI

PRESTRESSING STRAND DIAMETER	
③ 1/2" <input type="checkbox"/>	
③ 0.60" <input type="checkbox"/>	

DESIGNER NOTE: PLACE AN "X" IN THE APPROPRIATE BOX TO INDICATE THE STRAND DIAMETER USED FOR THE DESIGN. ROUND CONCRETE STRENGTH TO ONE TENTH KSI.

REVISED: OCTOBER 22, 2019

APPROVED: JANUARY 13, 2015

Nancy S. Amburger
STATE BRIDGE ENGINEER

CERTIFIED BY _____ DATE _____
LICENSED PROFESSIONAL ENGINEER
NAME: _____ LIC. NO. _____

TITLE: 14", 18" & 22" RECTANGULAR PRESTRESSED CONCRETE BEAM (PRETENSIONED) RB-

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

BRIDGE NO. _____

BEAMS ----- FIG. 5-397.550