



STATE OF DELAWARE
DEPARTMENT OF TRANSPORTATION
PO BOX 778
DOVER, DELAWARE 19903

JACK MARKELL
GOVERNOR

SHAILEN BHATT
SECRETARY

VIA WEBSITE POSTING

(302) 760-2030
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April 3, 2013

Contract No. T201307201.01
Federal Aid Project No. EBRN-K195(05)
Provide Beams for BR2-195A on West Railroad Avenue
Sussex County

Ladies and Gentlemen:

Enclosed is Addendum No. 1 for the referenced contract consisting of the following:

NOTE: The date for the receipt of bids has been moved to Tuesday, April 16, 2013.

1. One (1) page, Bid Proposal Cover, revised, to be substituted for the same page in the Proposal.
2. Three (3) sheets, Construction Plans, sheets 2, 3 and 4, revised, to be substituted for the same sheets in the Plan Set.

Please note the revisions listed above and submit your bid based upon this information.

Sincerely,

A handwritten signature in black ink, appearing to read "Scott S. Gottfried", is written over a faint circular stamp.

Scott S. Gottfried
Competitively Bid Contracts Coordinator
:ssg
Enclosures

STATE OF DELAWARE



DEPARTMENT OF TRANSPORTATION

BID PROPOSAL

for

CONTRACT T201307201.01

FEDERAL AID PROJECT NO. EBRN-K195(05)

PROVIDE BEAMS FOR BR 2-195A ON WEST RAILROAD AVE

SUSSEX COUNTY

ADVERTISEMENT DATE: February 11, 2013

Completion Date 51 Calendar Days

SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION
DELAWARE DEPARTMENT OF TRANSPORTATION
AUGUST 2001

Bids will be received in the Bidder's Room, Transportation Administration Center, 800 Bay Road, Dover, Delaware until 2:00 P.M. local time April 16, 2013

DESIGN PLANS - WORKING DRAWINGS

INFORMATION PERTAINING TO THE PRESTRESSED PRECAST REINFORCED CONCRETE NEXT BEAMS IS INTENDED TO SERVE AS AN INDICATION OF THE TYPE OF CONSTRUCTION ACCEPTABLE FOR USE. THE FABRICATOR WILL BE REQUIRED TO PREPARE AND SUBMIT, FOR APPROVAL, A COMPLETE SET OF DETAILED SHOP PLANS FOR THE PRESTRESSED PRECAST CONCRETE UNITS.

HANDLING

PRESTRESSED BEAMS SHALL BE HANDLED ONLY BY LIFTING STRANDS PROVIDED ESPECIALLY FOR THIS PURPOSE. THE APPROXIMATE DEAD WEIGHT OF EXTERIOR UNIT IS 61.14 TONS AND INTERIOR UNIT IS 49.64 TONS.

CONCRETE STRESSES

THE MINIMUM COMPRESSIVE STRENGTH AT TIME OF INITIAL PRESTRESS EQUALS 7500 psf. THE MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS EQUALS 10000 psf.

BAR REINFORCEMENT

MATERIALS REQUIREMENT: ASTM M31 - GRADE 60 ALL BAR REINFORCEMENT TO HAVE 2" MINIMUM COVER EXCEPT AS NOTED OR DETAILED. ALL BAR REINFORCEMENT AND CHAIR SUPPORTS SHALL BE PROTECTED WITH FUSION BONDED EPOXY. PAYMENT FOR REINFORCING BARS IS INCIDENTAL TO ITEM #623000 - PRECAST PRESTRESSED CONCRETE MEMBERS.

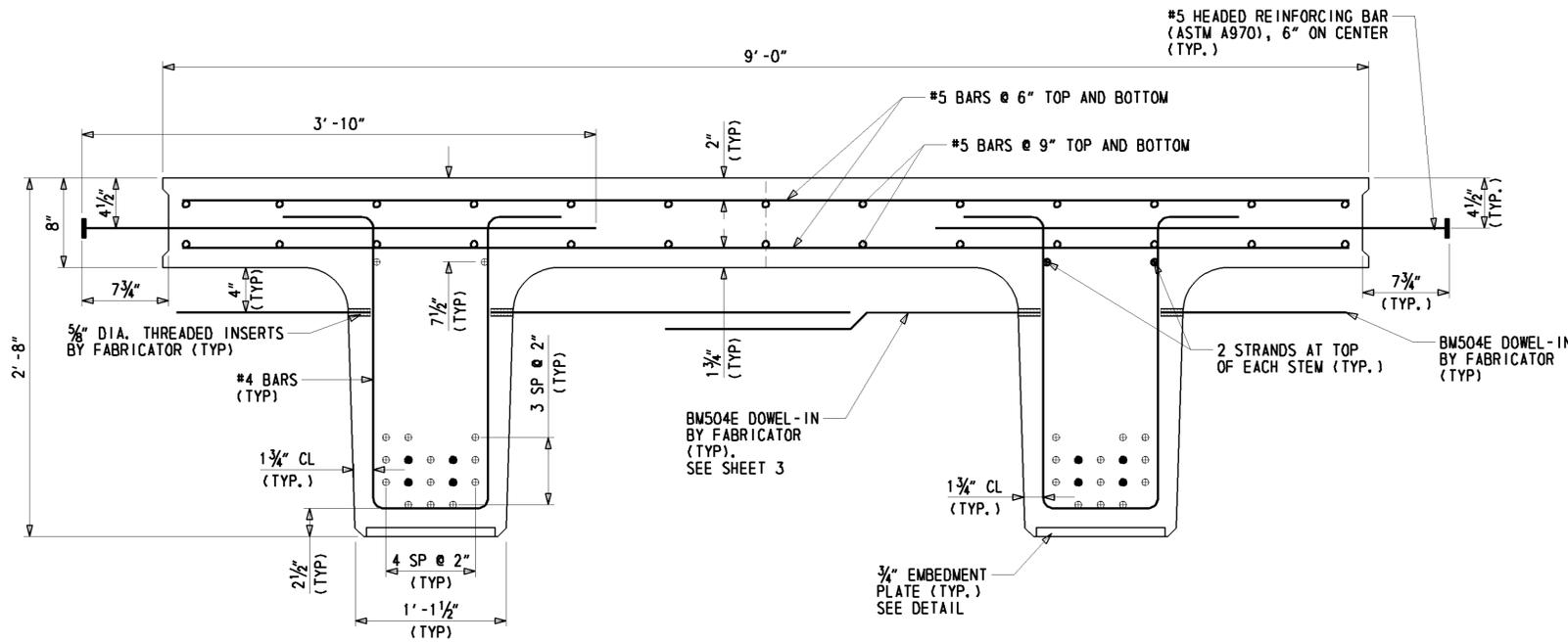
STRAND

INITIAL PRESTRESSES ON EACH .6" DIA. 270 KSI LOW RELAXATION STRAND EQUALS 43940 lbs MINIMUM ULTIMATE STRENGTH EQUALS 58590 lbs PER STRAND.

CONCRETE FINISH

TOP OF BEAMS ARE TO HAVE A SMOOTH FINISH. BOTTOM AND SIDES OF BEAMS SHALL BE PROTECTED WITH A WATER MISCIBLE, PENETRATING ALKYL EPOXY SILANE SEALER. PAYMENT INCIDENTAL TO ITEM #623000 - PRECAST PRESTRESSED CONCRETE MEMBERS.

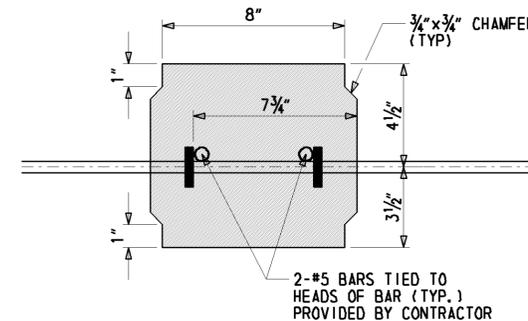
NOTE: 5 TOTAL REQUIRED (2 EXTERIOR & 3 INTERIOR) 5'-9"0"x2'-8"



TYPICAL INTERIOR BEAM REINFORCING

LEGEND

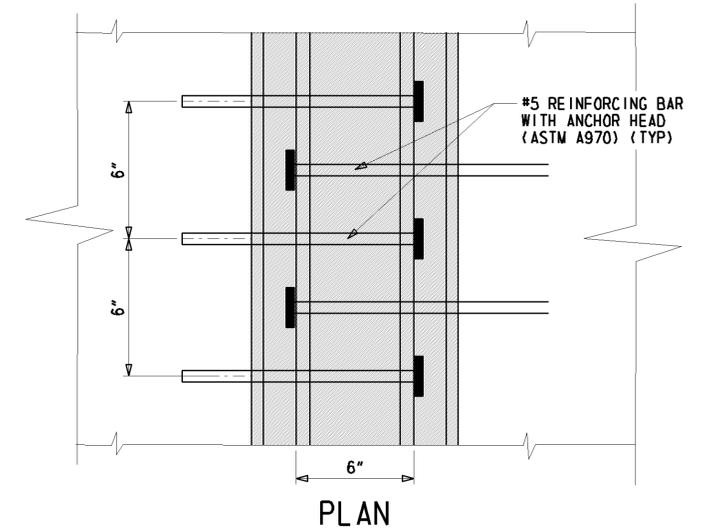
- FULLY BONDED STRANDS
- DEBONDED STRANDS
- REINFORCEMENTS



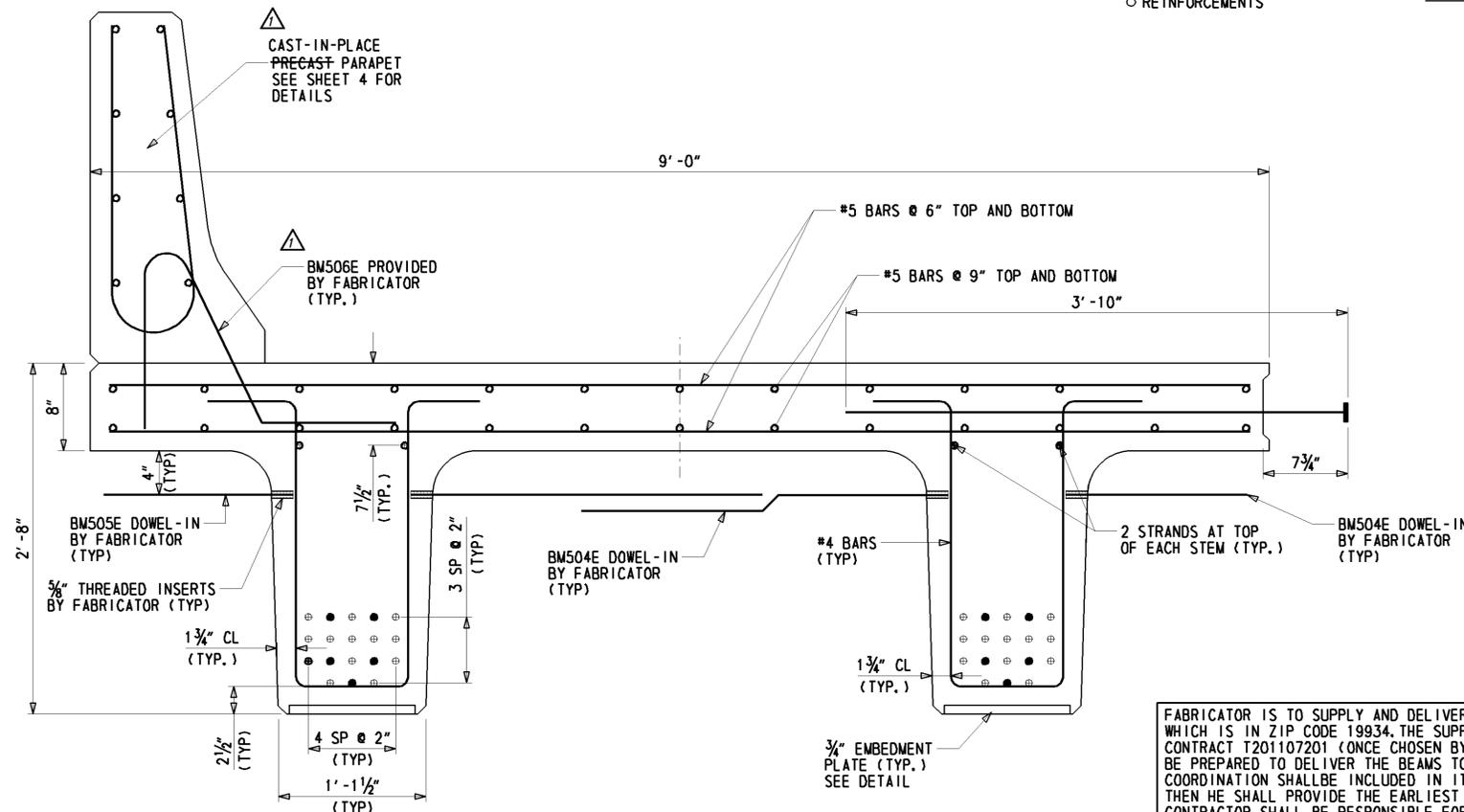
SECTION

FLANGE CONNECTOR DETAILS

1/4" = 1'



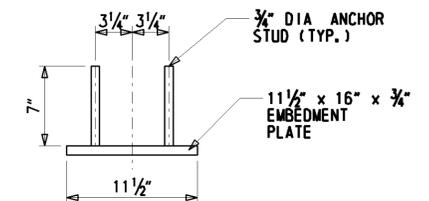
PLAN



TYPICAL EXTERIOR BEAM REINFORCING

DEBONDING SCHEDULE

BEAM	STRAND #	LENGTH
INTERIOR	15 & 16	12'-0"
	17 & 18	12'-0"
	35 & 36	15'-0"
	37 & 38	15'-0"
EXTERIOR	9 & 10	9'-0"
	15 & 16	12'-0"
	17 & 18	12'-0"
	35 & 36	15'-0"
	37 & 38	15'-0"



EMBEDMENT PLATE DETAIL

NOT TO SCALE

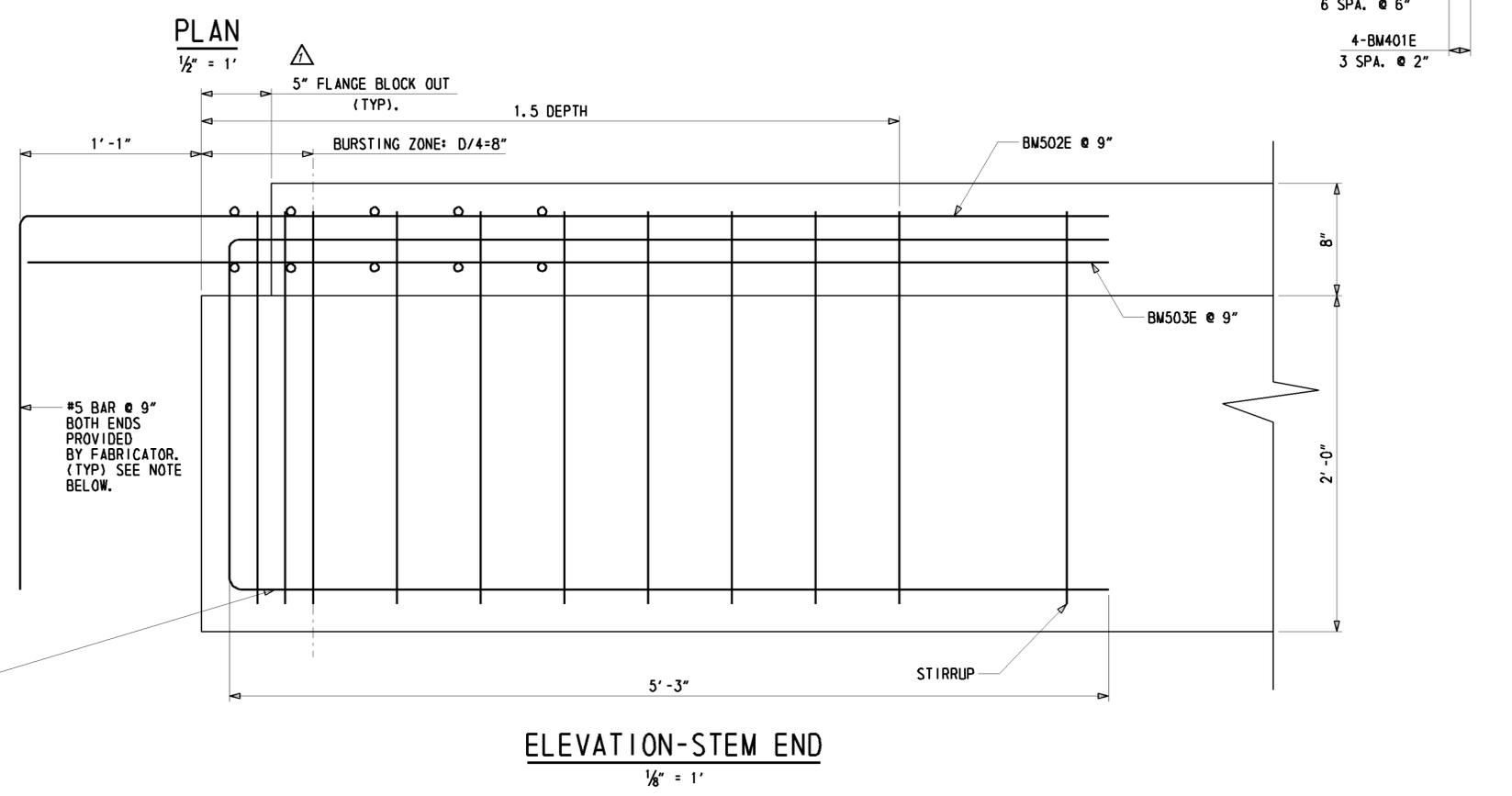
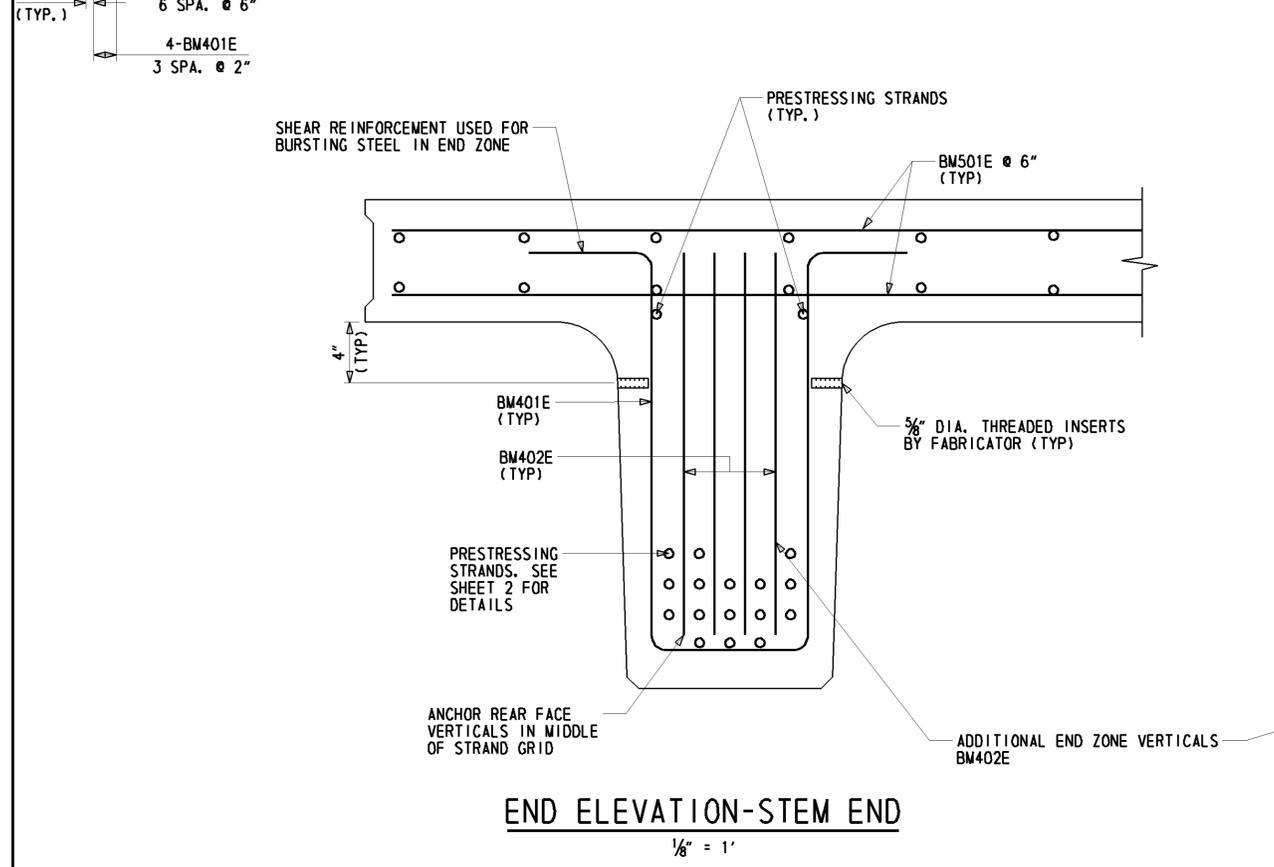
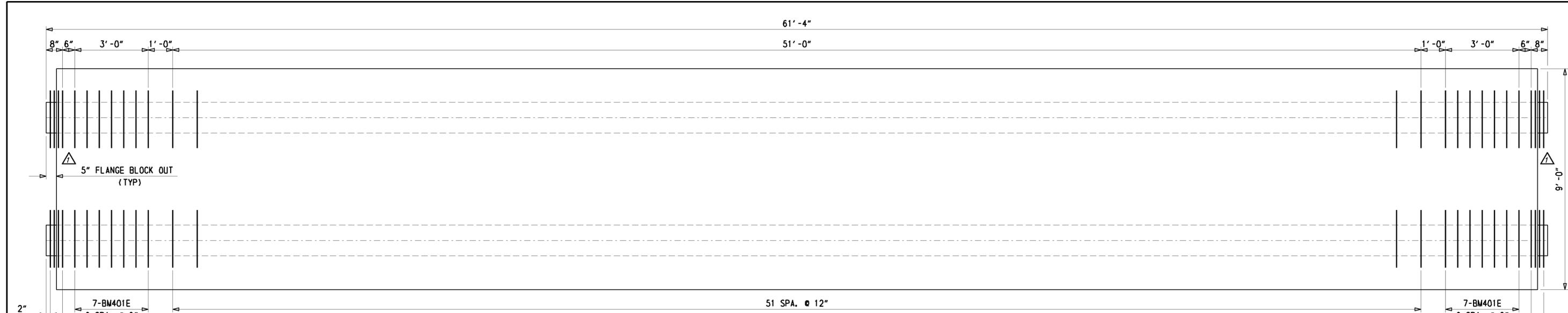
FABRICATOR IS TO SUPPLY AND DELIVER THE BEAMS TO THE JOB SITE (SEE MAP ON TITLE SHEET) WHICH IS IN ZIP CODE 19934. THE SUPPLIER SHALL COORDINATE WITH THE CONTRACTOR OF CONTRACT T201107201 (ONCE CHOSEN BY THE DEPARTMENT) FOR DELIVERY. THE SUPPLIER MUST BE PREPARED TO DELIVER THE BEAMS TO THE SITE ON JULY 18, 2013. PAYMENT FOR DELIVERY AND COORDINATION SHALL BE INCLUDED IN ITEM #623000. IF THE SUPPLIER CAN NOT MEET THIS DATE, THEN HE SHALL PROVIDE THE EARLIEST DATE IN WHICH HE CAN PROVIDE THE BEAMS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OFFLOADING THE BEAMS FROM THE TRUCKS AT THE SITE. BEAMS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 623 OF THE STANDARD SPECIFICATIONS (ATTACHED). BIDS SHALL BE RECEIVED BY THE DEPARTMENT BY 12:00 PM ON FRIDAY, MARCH 1, 2013. THE DEPARTMENT WILL EVALUATE ALL BIDS BASED ON TIME OF DELIVERY AND BID PRICE. AN AWARD WILL BE MADE BY APRIL 1, 2013 WITH A NOTICE TO PROCEED TO BE ISSUED BY APRIL 15, 2013.

NOTES:

1. CONNECTOR REINFORCING TO BE PLACED ALONG THE ENTIRE SPAN WITH 6" SPACING.
2. METHOD OF FORMING CLOSURE POUR TO BE DETERMINED BY THE CONTRACTOR. THE FORMS NEED TO BE REMOVABLE AND ABLE TO ACCOMMODATE DIFFERENTIAL CAMBER. FORM SUPPORTS SHOULD NOT PENETRATE THROUGH TOP OF POUR UNLESS APPROVED BY THE ENGINEER. PAYMENT INCIDENTAL TO ITEM #623000-PRESTRESSED PRECAST CONCRETE MEMBER.
3. CLOSURE POUR MATERIAL TO BE A NON-SHRINK MIX THAT HAS A MINIMUM COMPRESSIVE STRENGTH OF 7000 PSF. THE GROUT SHOULD BE EXTENDED WITH AGGREGATE. PAYMENT INCIDENTAL TO ITEM #623000-PRESTRESSED PRECAST CONCRETE MEMBER.
4. SAND BLASTING OF THE FACES OF THE KEYS JUST PRIOR TO INSTALLATION SHALL BE DONE TO IMPROVE GROUT BOND. PAYMENT INCIDENTAL TO ITEM #623000-PRESTRESSED PRECAST CONCRETE MEMBER.

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<p>DELAWARE DEPARTMENT OF TRANSPORTATION</p>	ADDENDUMS / REVISIONS ▲ CHANGED PRECAST PARAPET TO CAST-IN-PLACE	SCALE 0 6667 13333 2 FEET	<p>PROVIDE BEAMS FOR BR. 2-195A ON WEST RAILROAD AVE OVER ISAAC RUN, WYOMING</p>	CONTRACT T201307201 COUNTY KENT	BRIDGE NO. 2-195A DESIGNED BY: PAM CHECKED BY: MJG	<p>BEAM DETAILS</p>	SHEET NO. 2 TOTAL SHTS. 4
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CAMBER TABLE BEAMS 1 & 5		IN.
CAMBER DUE TO PRESTRESSED FORCE AT TRANSFER		2 1/8"
DEFLECTION DUE TO BEAM DEAD LOAD AT TRANSFER		3/4"
DEFLECTION DUE TO SUPERIMPOSED DEAD LOAD		3/8"
NET TOTAL CAMBER AT BEAM MIDSPAN		1 1/4"

CAMBER TABLE BEAMS 2, 3 & 4		IN.
CAMBER DUE TO PRESTRESSED FORCE AT TRANSFER		1 3/8"
DEFLECTION DUE TO BEAM DEAD LOAD AT TRANSFER		3/4"
DEFLECTION DUE TO SUPERIMPOSED DEAD LOAD		3/8"
NET TOTAL CAMBER AT BEAM MIDSPAN		1

NOTES:
 THE FABRICATOR HAS THE OPTION OF PROVIDING THREADED INSERTS AND DOWEL-IN IN PLACE OF REBARS EXTENDING BEYOND END OF THE BEAMS. PAYMENT FOR REBARS OR THREADED INSERTS AND DOWEL-IN SHALL BE INCLUDED IN THE BID PRICE FOR ITEM #623000-PRECAST PRESTRESSED CONCRETE MEMBERS.

THIS CONTRACT SHALL PROVIDE BEAMS FOR THE REPLACEMENT OF BRIDGE 2-195A. THE BEAMS AND THESE DETAILS WILL BE INCORPORATED INTO THE COMPLETE BRIDGE PLANS.

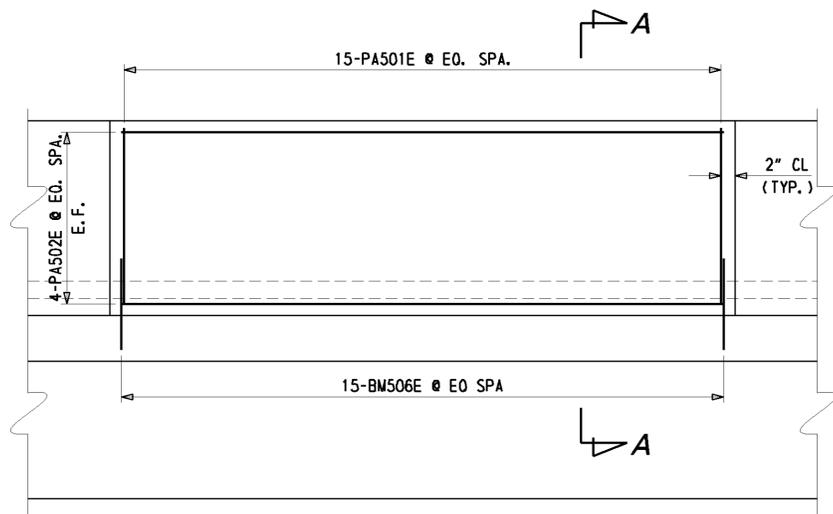
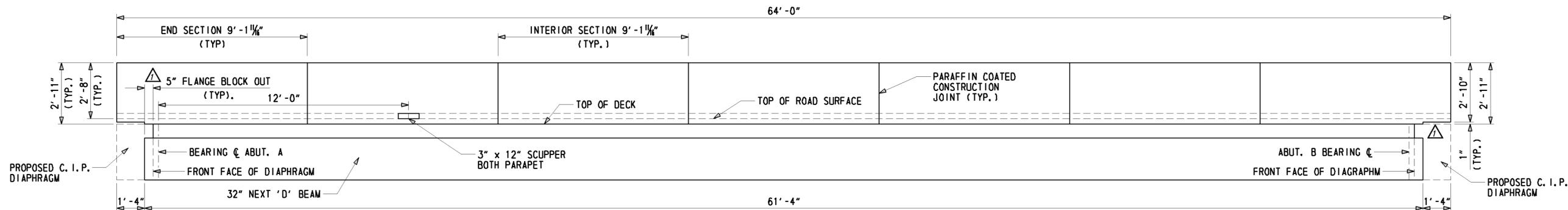
THE LIFTING STRANDS SHALL BE SPACED SO THAT THEY DO NOT INTERFERE WITH THE REINFORCEMENT SPACING. THE PRECASTER SHALL INCLUDE DETAILS OF THE PLACEMENT OF THESE ITEMS IN THEIR SUBMITTED SHOP DRAWINGS.

REINFORCING BAR LIST (EACH BEAM)											
MARK	LENGTH	NO. BARS	TYPE	A	B	C	D	E	F/R	G	H
BM401E	7'-0"	148	S4	1'-0"	2'-1"	0'-10"	2'-1"			1'-0"	
BM402E	12'-5"	16	17		5'-3"	1'-11"	5'-3"				
BM501E	8'-7"	124	STR		8'-7"						
BM502E	68'-0"	13	17		2'-3"	63'-6"	2'-3"				
BM503E	63'-6"	13	STR			63'-6"					
BM504E	3'-0"	6/8	STR			3'-0"					
BM505E	1'-4"	2	STR			1'-4"					

ALL DIMENSIONS ARE OUT TO OUT.

NOTE: BM505E APPLIES ONLY TO EXTERIOR BEAMS. BM504E HAS A TOTAL OF 6 BARS FOR EXTERIOR BEAMS AND TOTAL OF 8 BARS FOR INTERIOR BEAMS.

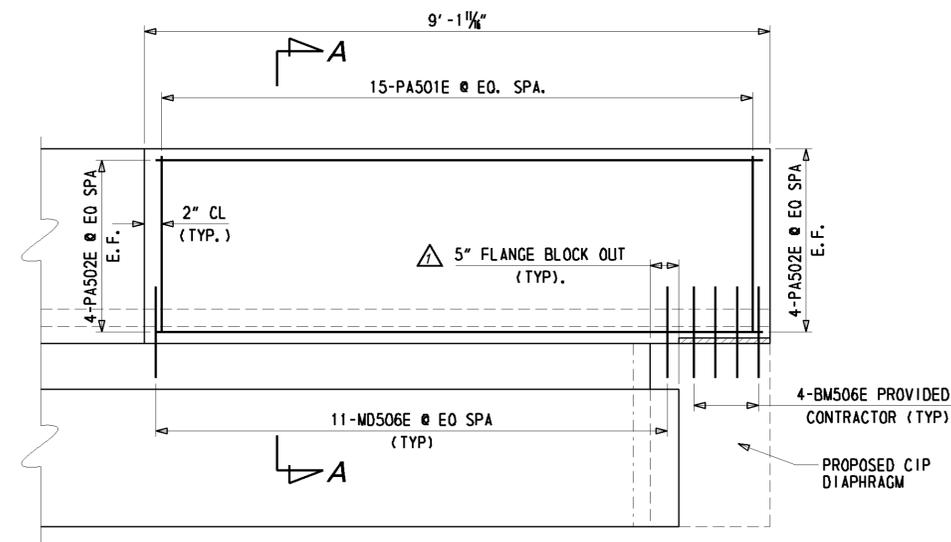
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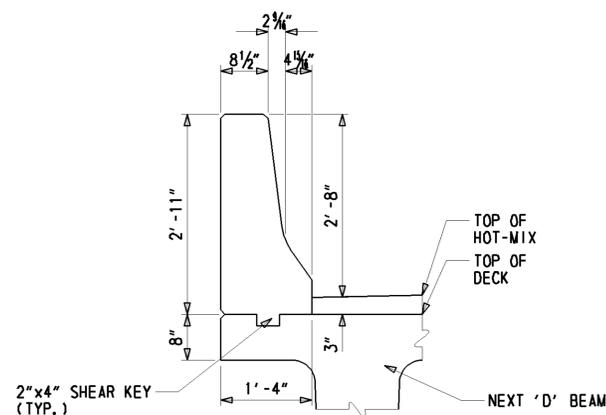
TYPICAL INTERIOR SECTION
3/8" = 1'

ELEVATION
3/8" = 1'

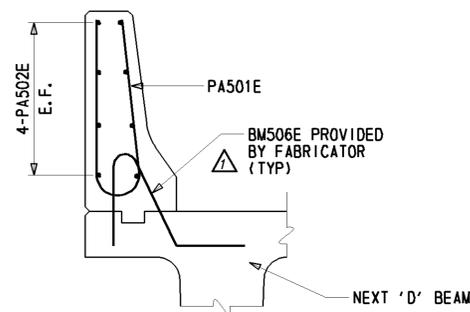
NOTE:
PARAPET IS TO BE PLACED BY THE CONTRACTOR AFTER THE BEAMS ARE PLACED ON-SITE



TYPICAL END SECTION
3/8" = 1'



TYPICAL SECTION
3/4" = 1'



SECTION A-A
3/4" = 1'

REINFORCING BAR LIST									
MARK	LENGTH	NO. BARS	TYPE	A	B	C	D	F/R	H
BM506E	4'-4 1/2"	194-210	T15		1'-0"	1'-9 1/2"	1'-7"		
PA501E	23'-11"	210	H1		2'-3 3/4"	0'-11 3/8"	2'-3 1/2"	0'-3 3/4"	0'-4 3/8"
PA502E	8'-10 1/2"	112	STR.		8'-10 1/2"				

ALL DIMENSIONS ARE OUT TO OUT.

NOTES:
PAYMENT FOR REBARS SHALL BE INCLUDED IN THE BID PRICE FOR ITEM #623000-PRECAST PRESTRESSED CONCRETE MEMBERS
PAYMENT FOR SCUPPERS SHALL BE INCLUDED IN THE BID PRICE FOR ITEM #623000-PRECAST PRESTRESSED CONCRETE MEMBERS
ADJUST REBARS AROUND SCUPPERS

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