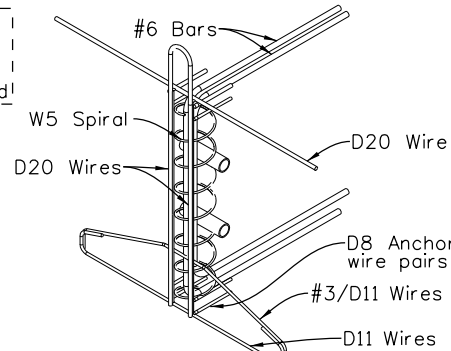
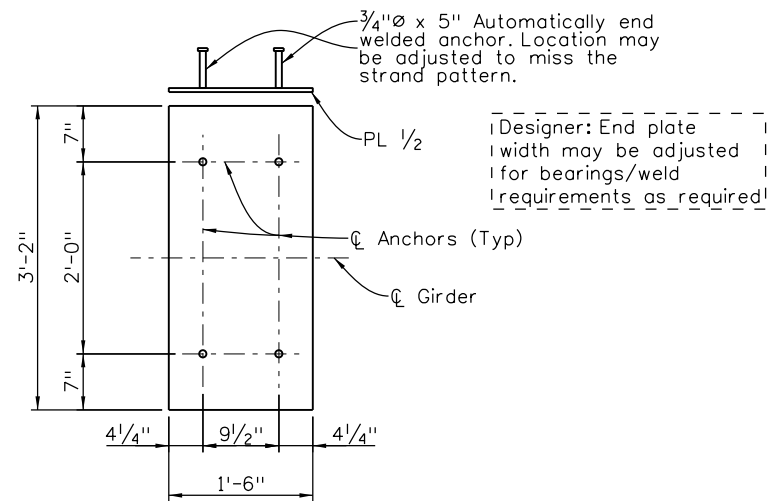
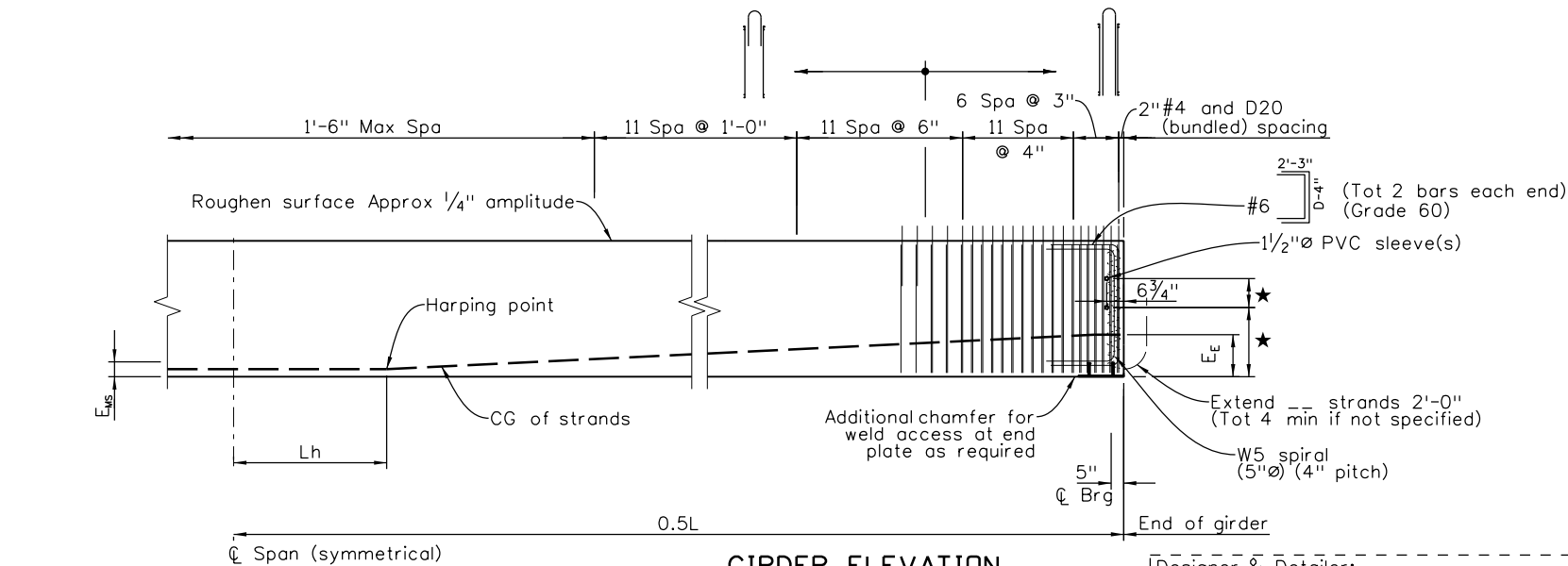
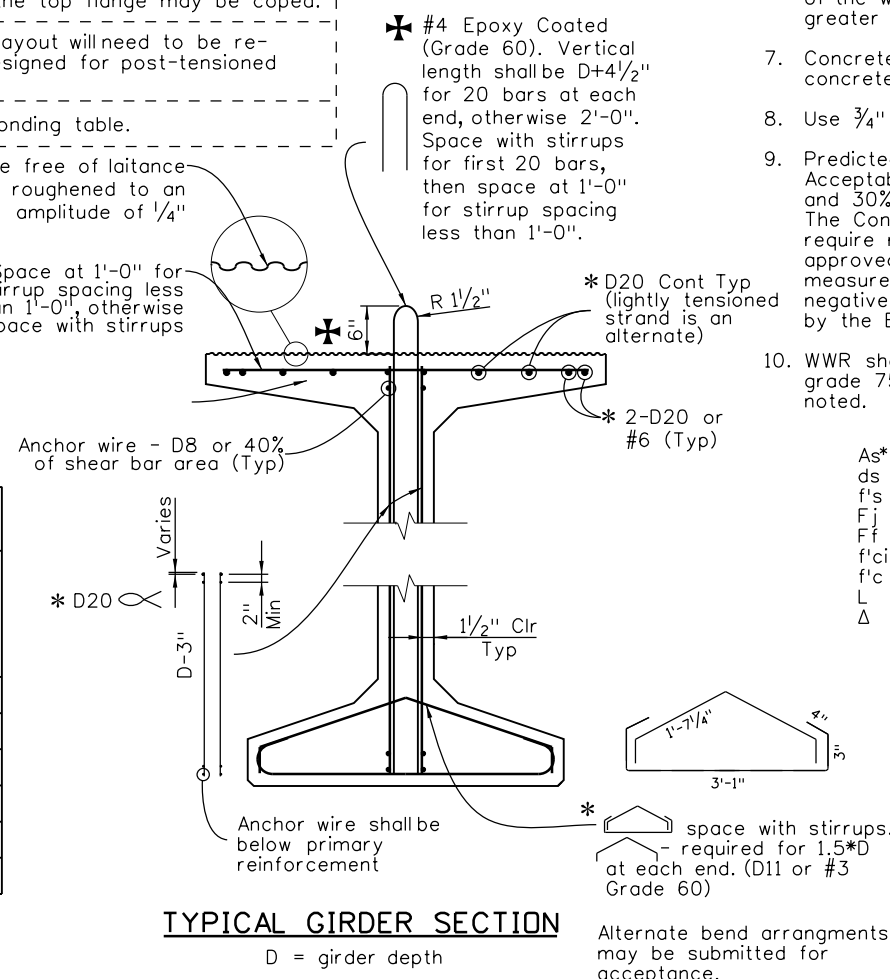


Revision Dates				
6/19	7/19	6/20	3/23	9/24

[illegible]

- NOTES:

1. All work necessary to fabricate and install the integral parts of the girder (including the intermediate diaphragms and leveling pads), as shown on the plans, shall be included in the bid price for Item No. 618, Prestressed Concrete I (CBT--), with a pay unit of LF which shall be measured by dimension L.
2. When approved by the Engineer, a minimum of tack welding will be permitted on ASTM A706 uncoated reinforcing steel.
3. Reinforcing projecting from the top of the girder and reinforcing within eight feet of an expansion device in the bridge deck shall be epoxy coated. Damaged coating on girder reinforcing within the girder need not be repaired. The minimum cover for the #3 confinement stirrup is $1/4$ " and all other reinforcing steel is $1/2$ ".
4. At girder ends not embedded in concrete diaphragms, cut strands off 1" below the surface of the concrete and finish with an approved epoxy grout. At girder ends embedded in concrete diaphragms, cut strands to project 3", except as shown. Do not make cosmetic repairs (damage less than $1/2$ " deep) to the parts of the girders embedded in concrete.
5. Use low relaxation strands meeting the requirements of ASTM A-416 Grade 270. The minimum clear distance between groups or individual strands shall be 2.3(ds) but not less than $1/4$ ".
6. A minimum of two harping points shall be used per girder. Harped strands shall be well distributed at the girder ends, starting $2/2$ " clear of the top of the girder and distributed such that there is no space between strands greater than 1'-0" at the end of the girder. As an alternate the Contractor may place #4 * x 10'-0" in the sides of the end of the web parallel to the harped strands such that there is no space greater than 1'-0".
7. Concrete shall be Class PS. Entrained air is not required for girder concrete.
8. Use $3/4$ " chamfer on all corners except as noted.
9. Predicted camber is the camber for the girder alone at 60 days. Acceptable camber variability is limited to 30% over the predicted camber and 30% under the predicted camber or ± 1 inch, whichever is greater. The Contractor shall report to the Engineer values of camber which require remedial measures. The remedial measures shall be reviewed and approved by the Engineer. The costs associated with all remedial measures shall be borne by the Contractor. Girders that provide a negative camber after deadload is applied will be rejected unless approved by the Engineer.
10. WWR shall be ASTM A1064 Grade 75 wire. In lieu of WWR, ASTM A615 grade 75 rebar or grade 60 at 1.25xAs shall be used, unless otherwise noted.

- As* = Minimum area of the prestressing steel
- ds = Nominal strand diameter, 0.6" unless noted otherwise
- f's = Ultimate strength of prestressing steel
- Fj = Jacking force per girder
- Ff = Final force per girder after all losses
- f'ci = Required concrete strength at release of prestress force
- f'c = Required concrete strength at 28 days of age
- L = Length of girder along the grade of the girder
- Δ = Deflection at centerline of span due to cast-in-place slab, diaphragms, asphalt, curbs, rails, and walks

* #3 may be used in lieu of D11 or W10.9 wires.
 #4 may be used in lieu of D20 wires.
 #5 may be used in lieu of D31 wires.
 2-D20 wires may be used in lieu of #6.
 If rebar is used as an alternative, standard
 hooks shall be used in lieu of anchor wire.

- ✦ Designer should adjust for Min haunch or deck thickness. 6" dimension given for 0" haunch, 8" deck, 2" clear.
- ★ Dimensions of insert locations from bottom of girder shall be defined by Designer to avoid conflict with strands and spiral.

This worksheet shows the minimum stirrup bar size and spacing, splitting reinforcement, and confinement reinforcement. The designer may modify this standard to fit specific design requirements.

All seals for this set of drawings are applied to the cover page(s)	Print Date: \$DATES\$	<div><div></div><div></div><div></div><div></div><div></div></div>	Sheet Revisions			Colorado Department of Transportation		As Constructed		PRESTRESSED CONCRETE i				Project No./Code	
	File Name: Sheet_B-618-CBT1.dgn		Date:	Comments	Init.	<div><div></div><div>2829 West Howard Place, 3rd Floor Denver, CO 80204 Phone: 303-512-4079 FAX: 303-757-9197</div></div> <div>Staff Bridge Branch</div>	No Revisions:						Project Number		
	Horiz. Scale: None Vert. Scale: As Noted						Revised:						Designer: XXXXXXXX Structure: X-XX-XX		Code
	Unit Information Unit Leader Initials							Void:		Detailer: XXXXXXXX Numbers: X-XX-XX		Sheet Number			
								Sheet Subset: BRIDGE Subset Sheets: BXX of XXX							