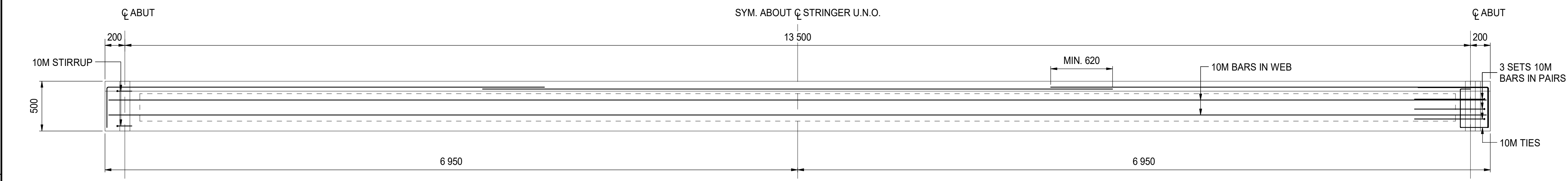
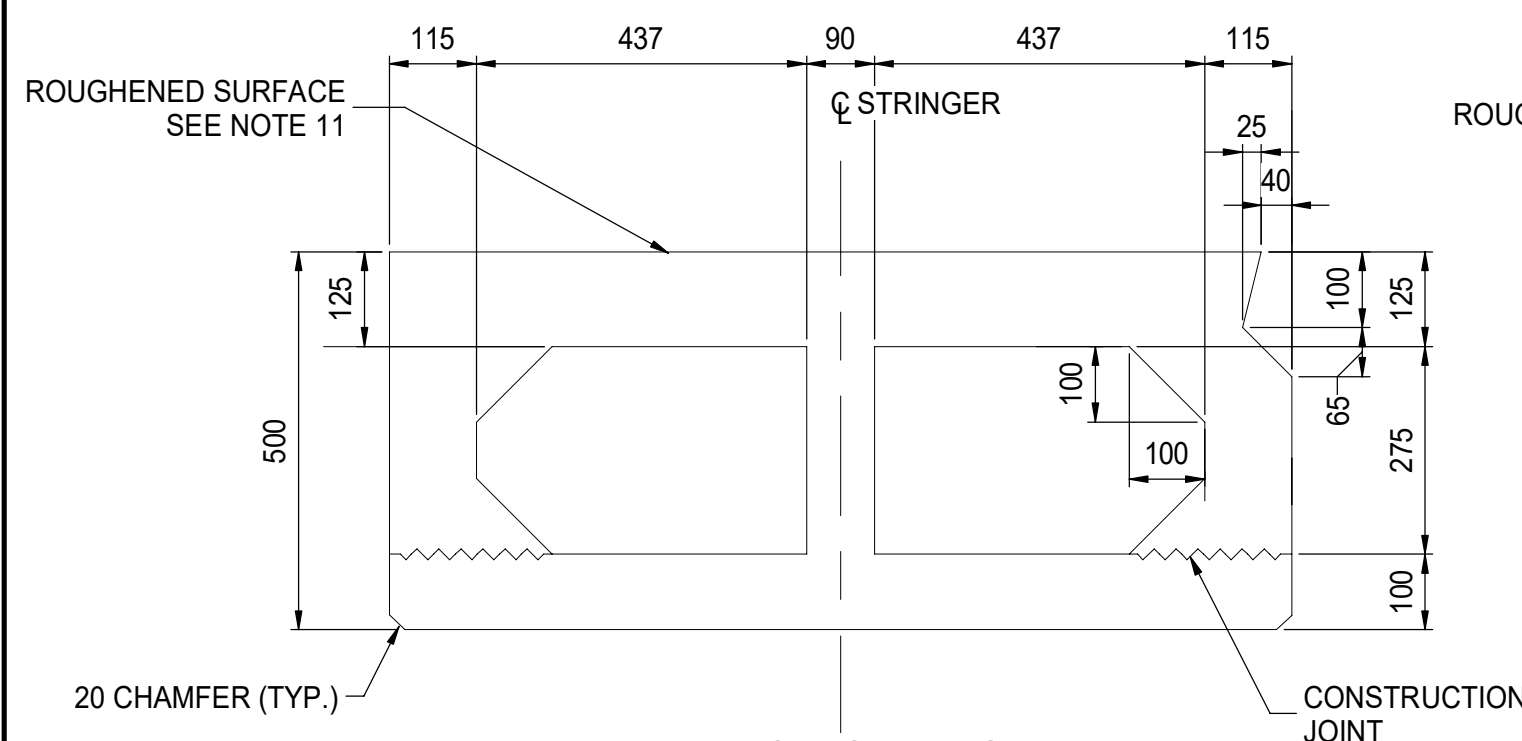


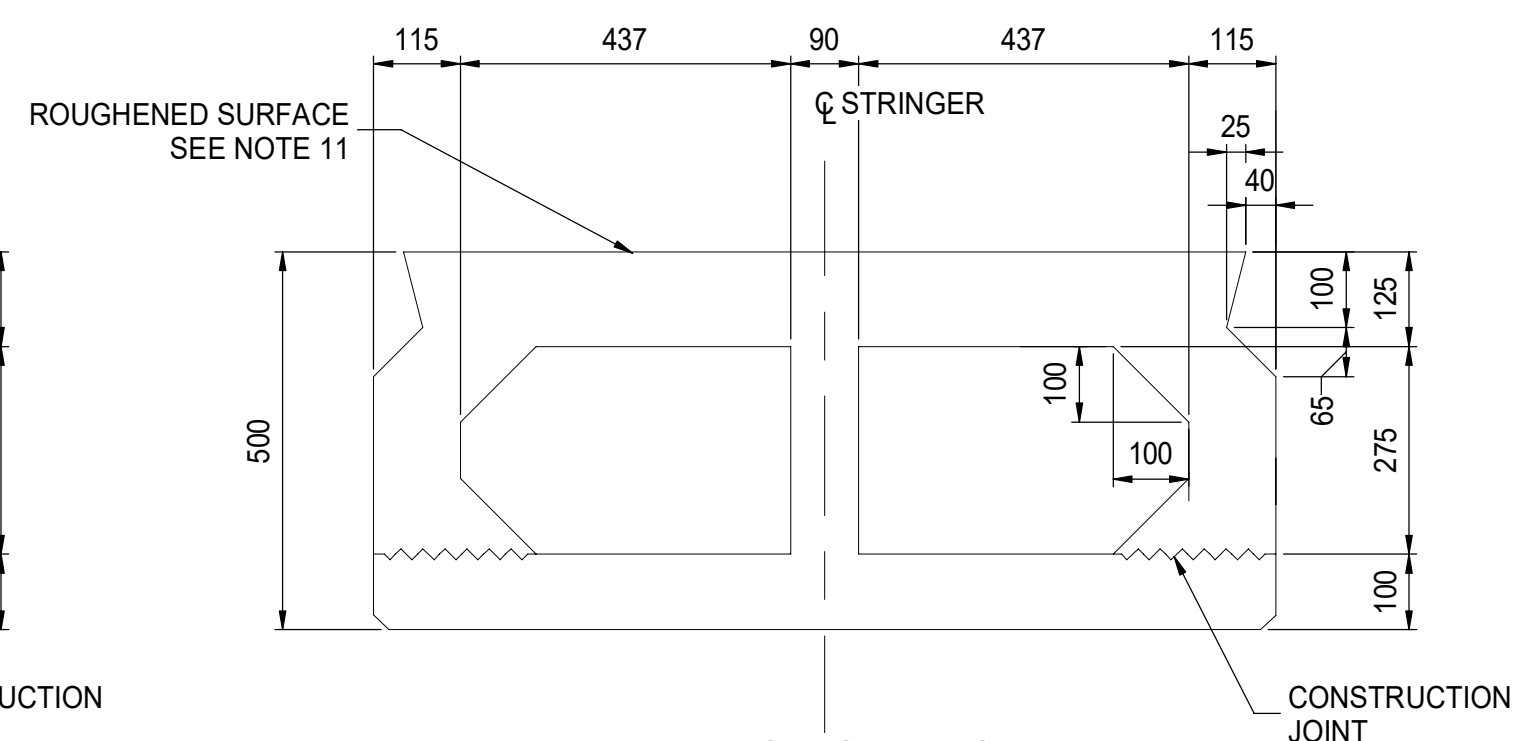
PLAN - STRINGER
SCALE 1 : 25



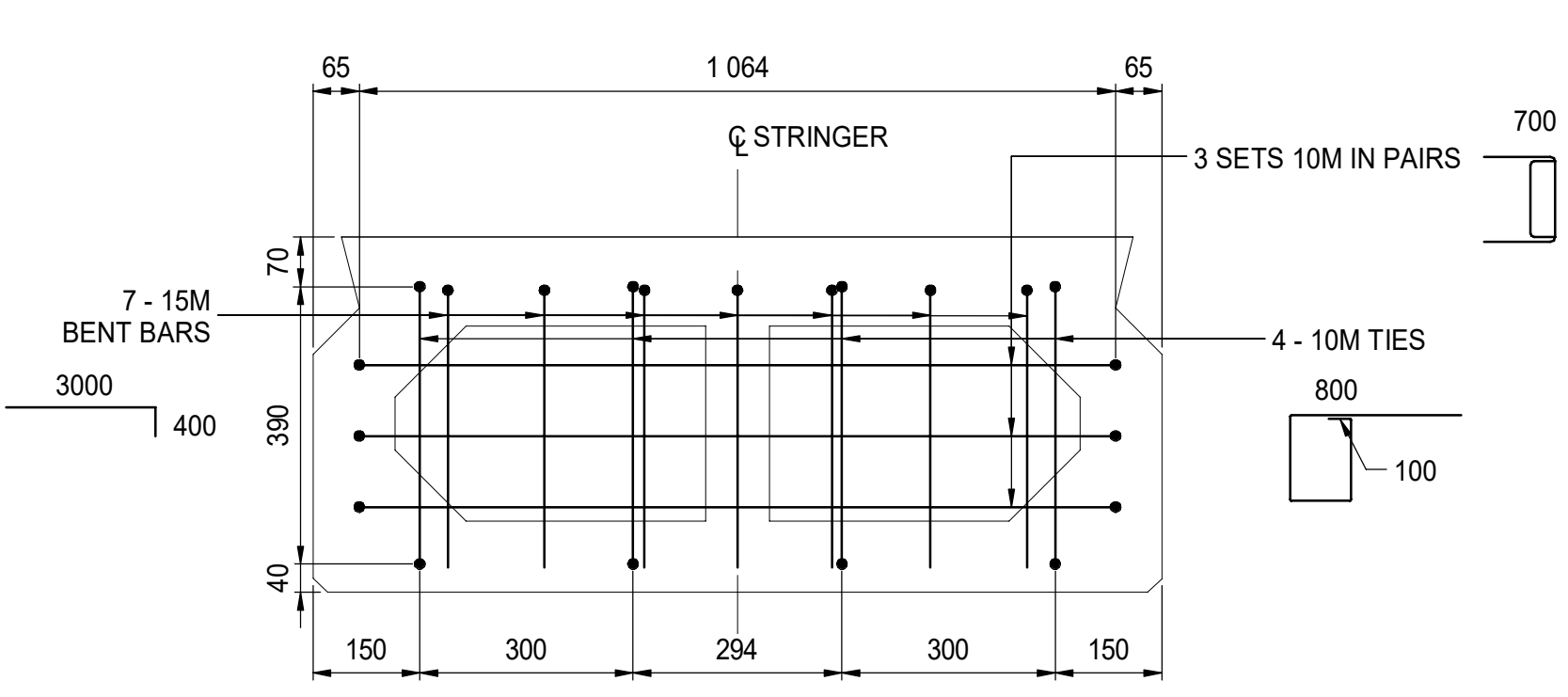
ELEVATION - STRINGER
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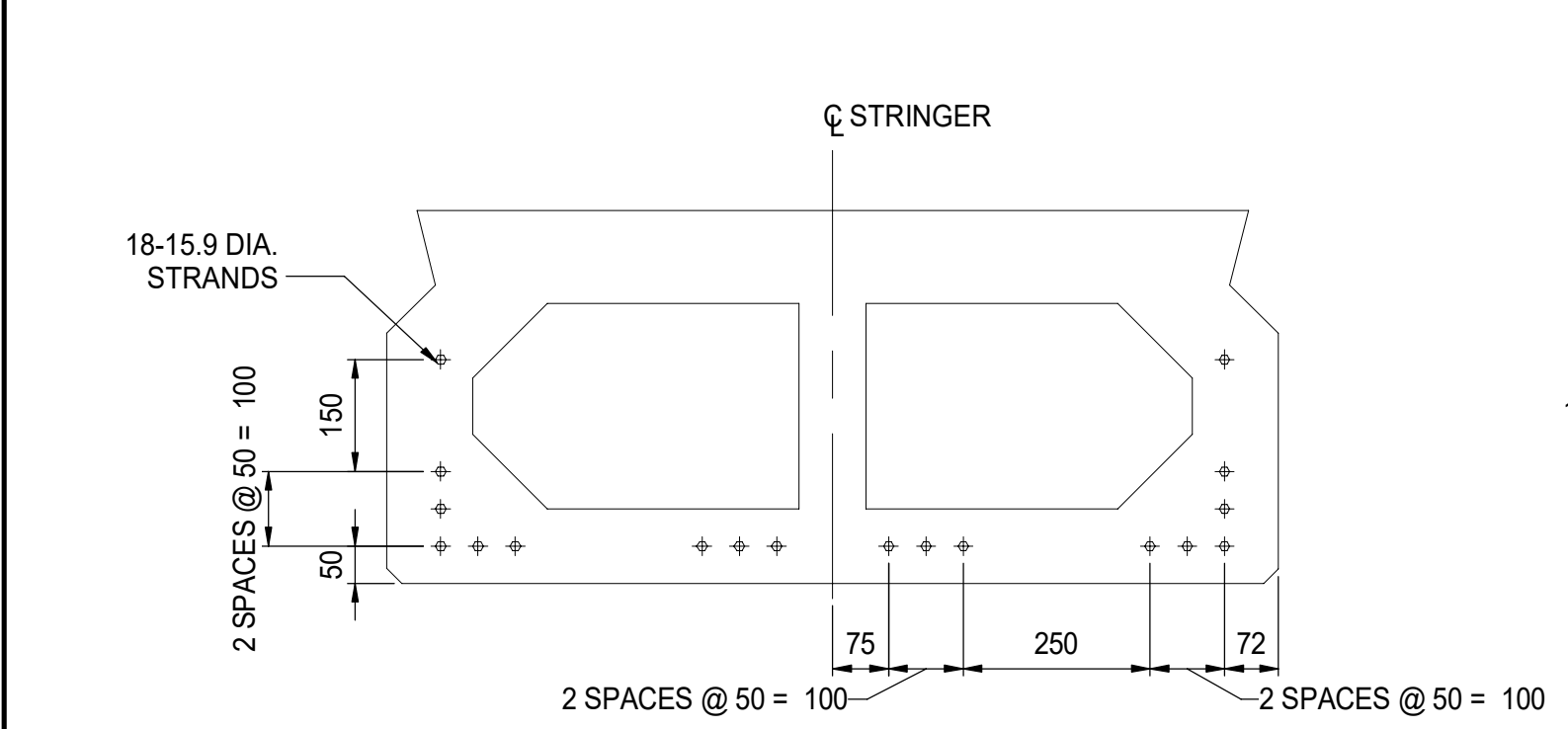
EXTERIOR STRINGER CONCRETE OUTLINE (2 REQUIRED)
SCALE 1 : 10



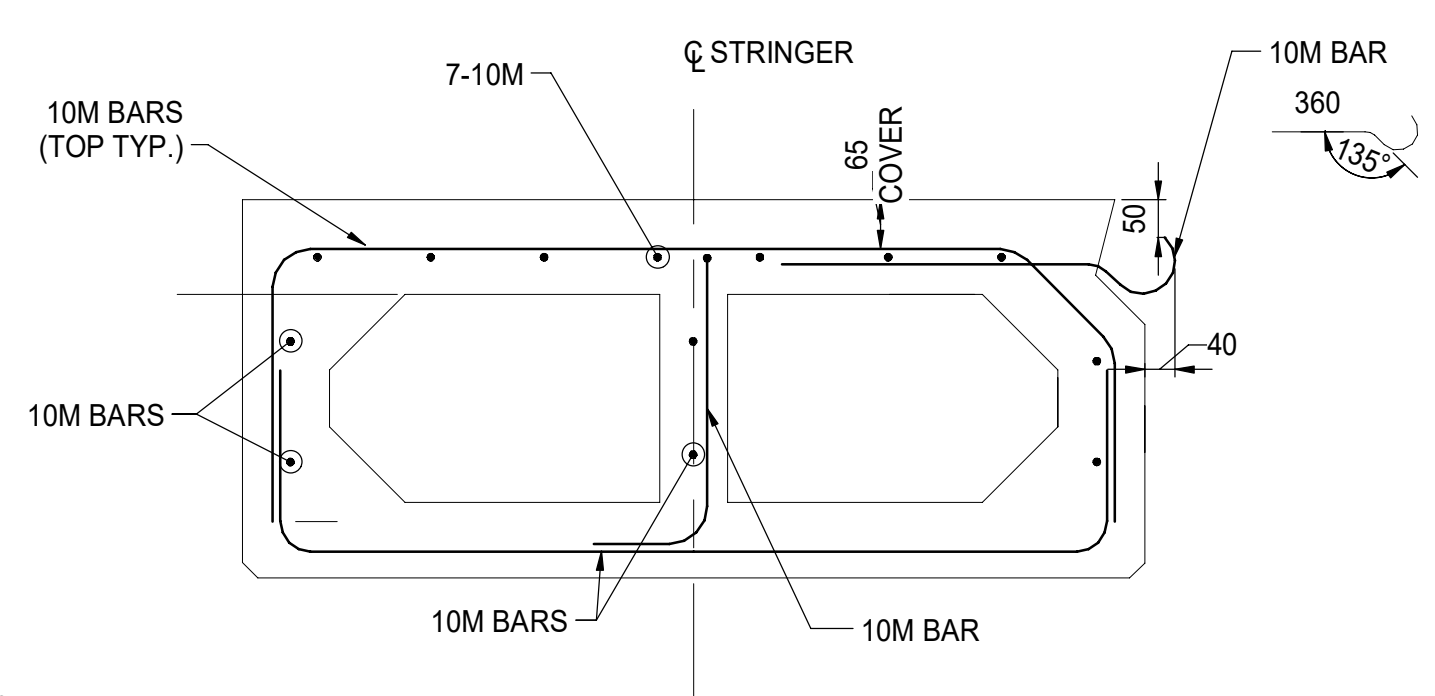
INTERIOR STRINGER CONCRETE OUTLINE (18 REQUIRED)
SCALE 1 : 10



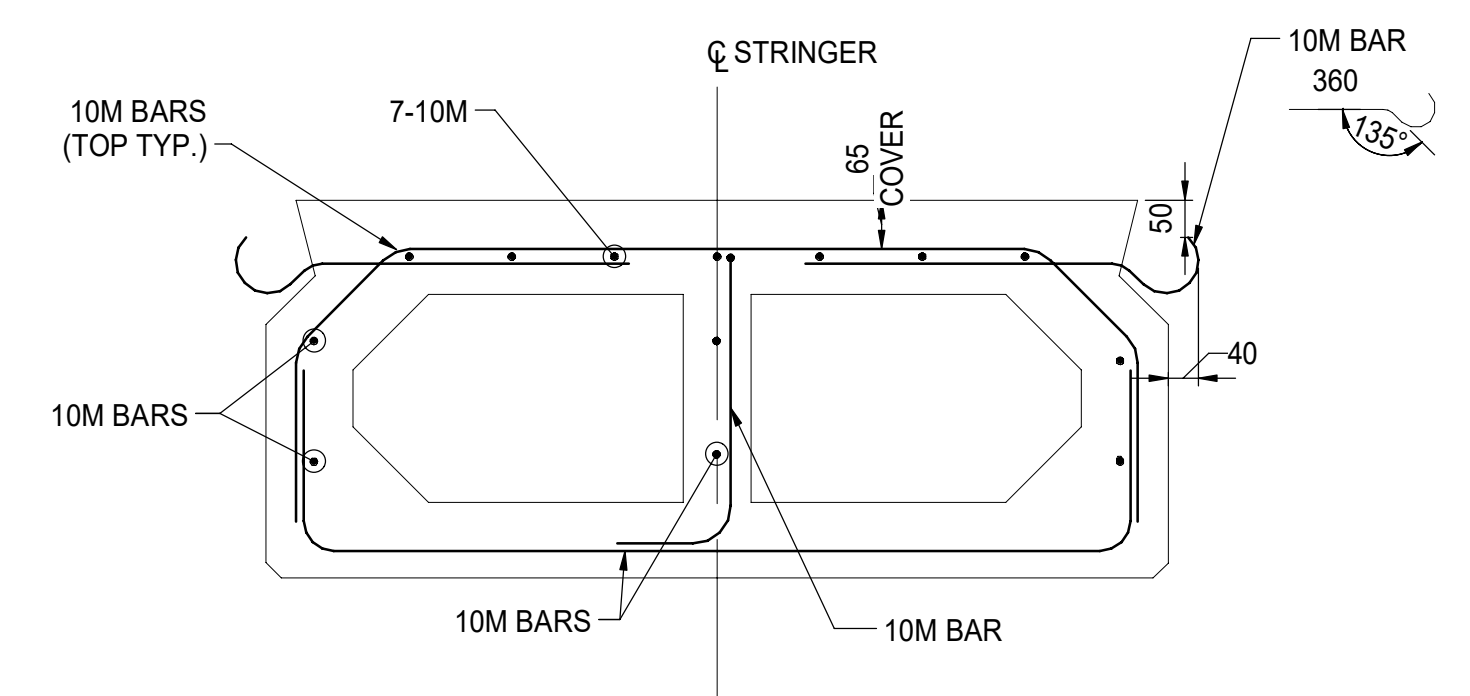
STRINGER END
SCALE 1 : 10



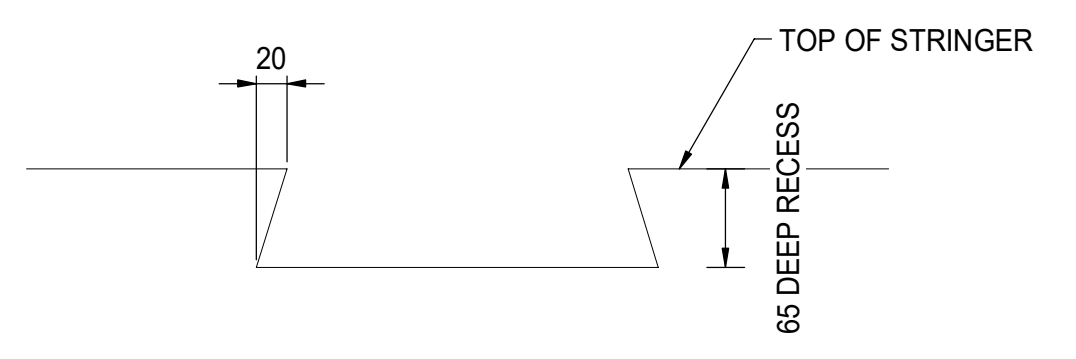
PRESTRESSING STRAND LAYOUT
SCALE 1 : 10



TYPICAL SECTION THROUGH EXTERIOR STRINGER AT MIDSPAN
SCALE 1 : 10



TYPICAL SECTION THROUGH INTERIOR STRINGER AT MIDSPAN
SCALE 1 : 10



LIFTING DEVICE RECESS DETAIL
SCALE 1 : 5

- PRECAST CONCRETE STRINGER NOTES**
- ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS NOTED OTHERWISE.
 - STRINGERS SHALL BE MANUFACTURED IN ACCORDANCE WITH THE SPECIAL PROVISIONS AND SS 415.
 - STRINGER CONCRETE SHALL MEET THE FOLLOWING MINIMUM COMPRESSIVE STRENGTH REQUIREMENTS:
COMPRESSIVE STRENGTH AT TIME OF RELEASE: 40 MPa
COMPRESSIVE STRENGTH AT 28 DAYS: 55 MPa
 - PRESTRESSING STRANDS SHALL BE 15.2mm DIAMETER UNCOATED 7-WIRE LOW-RELAXATION STRANDS IN ACCORDANCE WITH ASTM A416 GRADE 1860 MPa. MINIMUM ULTIMATE TENSILE STRENGTH = 260 kN / STRAND. STRAND TENSION IMMEDIATELY BEFORE RELEASE = 195 kN / STRAND.
 - PRESTRESSING STRANDS SHALL BE PLACED AT THE LOCATIONS INDICATED WITHIN A TOLERANCE OF +/- 5mm.
 - REINFORCING STEEL SHALL BE CSA G30.18 GRADE 400W.
 - CONCRETE COVER TO REINFORCEMENT IN PRECAST CONCRETE STRINGERS SHALL BE AS FOLLOWS UNLESS INDICATED OTHERWISE (mm):
VERTICAL SURFACES 40
SOFFITS 30
INSIDE SURFACES 30
REINFORCEMENT SHALL BE PLACED TO THE SPECIFIED COVERS WITHIN A TOLERANCE OF +/- 5mm.
 - SPLICES FOR REINFORCING BARS SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED:
10M BARS - 450mm
15M BARS - 620mm
 - ENDS OF PRESTRESSING STRANDS SHALL BE COATED WITH A MINIMUM 3mm OF THIXOTROPIC EPOXY. MANUFACTURER'S INSTRUCTIONS TO BE STRICTLY ADHERED TO. PLAN DIMENSIONS ARE GIVEN AS A SLOPED LENGTH MEASURED ALONG THE SOFFIT OF THE STRINGER. ALLOWANCE IN LENGTH SHALL BE MADE FOR THE EFFECTS OF ELASTIC SHORTENING, SHRINKAGE AND CREEP. ENDS OF STRINGERS SHALL BE PLUMB FOLLOWING ERECTION.
 - DIMENSIONAL TOLERANCES FOR CONCRETE STRINGERS SHALL BE IN ACCORDANCE WITH SS 415.46
 - SURFACES OF PRECAST CONCRETE STRINGERS SHALL RECEIVE THE FOLLOWING FINISHES:
TOP SURFACES ROUGHENED IN ACCORDANCE WITH SS 415.41
KEYWAYS AND LIFTING DEVICE RECESS ROUGHENED IN ACCORDANCE WITH SS 415.41
OTHER SURFACES CLASS 2 OR BETTER
VERTICAL SURFACES OF EXTERIOR STRINGERS CLASS 1 OR BETTER
OTHER SURFACES CLASS 1 OR BETTER
 - ALL STRINGERS SHALL BE CAST A MINIMUM OF 30 DAYS PRIOR TO SHIPPING AND ERECTION.
 - STRINGERS SHALL BE KEPT IN AN UPRIGHT POSITION DURING HANDLING AND TRANSPORTING.
 - LIFTING DEVICES SATISFACTORY TO THE MINISTRY REPRESENTATIVE SHALL BE PROVIDED OVER THE CENTERLINE OF BEARINGS. STRINGERS SHALL ONLY BE LIFTED BY LIFTING HOOKS. LIFTING APPARATUS SHALL LIFT STRINGERS WITH RIGGING CAPABLE OF MAINTAINING AN INCLINATION ANGLE OF NOT GREATER THAN 30 DEGREES FROM VERTICAL. CARE SHALL BE TAKEN TO PREVENT ANY SUDDEN IMPACT LOADS ON THE STRINGER.
 - LIFTING DEVICE SHALL BE BURNT OFF AT THE BOTTOM OF THE RECESS AND THE RECESS SHALL BE PATCHED WITH AN APPROVED NON-SHRINK GROUT.
 - STRINGERS SHALL BE SUPPORTED ONLY AT POINTS DIRECTLY BELOW LIFTING HOOKS WHILE BEING STORED OR TRANSPORTED.



Rev	Date	Description	Init

REVISIONS



Ministry of Transportation & Infrastructure
Southern Interior Region

SOUTHERN INTERIOR REGION
Highway 97
CRRP CACHE CREEK CULVERT REPLACEMENT
CONCRETE BOX STRINGER

PREPARED UNDER THE DIRECTION OF	DESIGNED <u>CC</u> DATE <u>2023-08-16</u>
TOM NOTT	CHECKED <u>TN</u> DATE <u>2023-08-16</u>
ENGINEER OF RECORD	DRAWN <u>CN</u> DATE <u>2023-08-16</u>
EGBC P2P #1000200	SCALE AS SHOWN
DATE <u>2023-08-16</u>	NEGATIVE No.
FILE No.	PROJECT No. <u>26239</u>
REG. <u>2</u>	DRAWING No. <u>MOTI PROJ 26239-301</u>

DATE: 8/16/2023 12:16:29 PM (CN)
PATH: AutodesK Docs/221-11730-00 - Cariboo Road Recovery - R22/Cache Creek bridge model.rvt