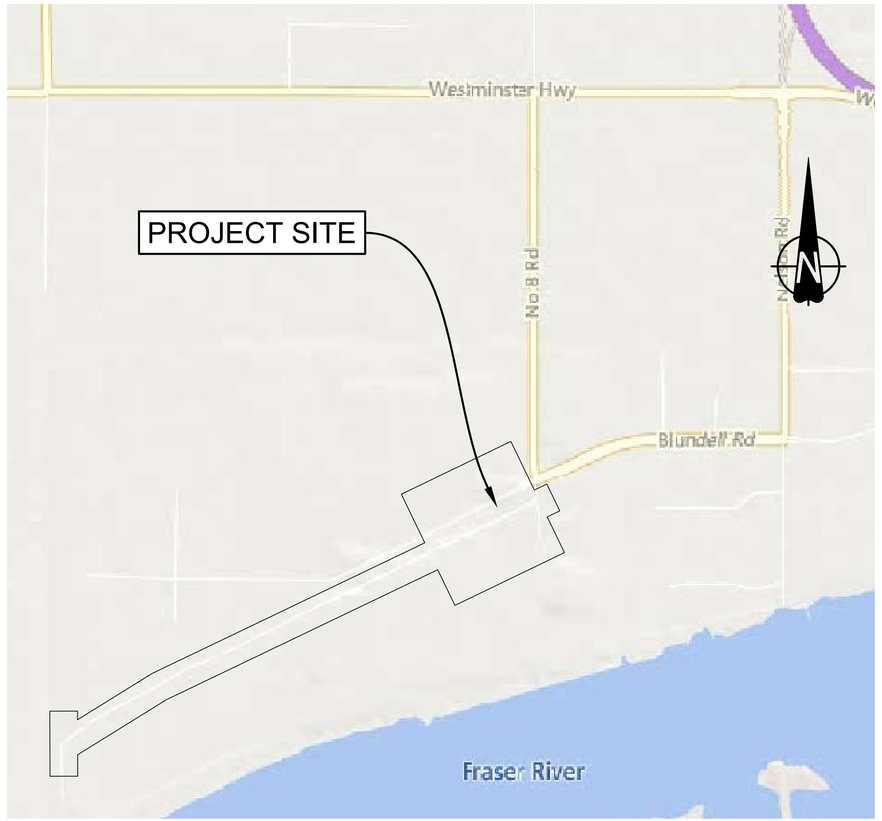
Client: VANCOUVER FRASER PORT AUTHORITY

Description: PORTSIDE / BLUNDELL ROAD IMPROVEMENT PROJECT
PORTSIDE OVERPASS

Project No: 2111-40118-00



PORT of vancouver

Vancouver Fraser Port Authority

DRAWING INDEX				
DRAWING No.	DRAWING TYPE	STREET	SHEET No.	REV No.
356-135-ST-100	COVER SHEET		1 / 21	C
356-135-ST-101	GENERAL NOTES – SHEET 1	PORTSIDE OVERPASS	2 / 21	C
356-135-ST-102	GENERAL NOTES – SHEET 2	PORTSIDE OVERPASS	3 / 21	C
356-135-ST-103	SITE PLAN	PORTSIDE OVERPASS	4 / 21	C
356-135-ST-104	GENERAL ARRANGMENT – SHEET 1	PORTSIDE OVERPASS	5 / 21	C
356-135-ST-105	GENERAL ARRANGEMENT – SHEET 2	PORTSIDE OVERPASS	6 / 21	B
356-135-ST-151	FOUNDATION LAYOUT	PORTSIDE OVERPASS	7 / 21	B
356-135-ST-152	PILE REINFORCING	PORTSIDE OVERPASS	8 / 21	B
356-135-ST-201	PIER OUTLINES	PORTSIDE OVERPASS	9 / 21	B
356-135-ST-202	PIER REINFORCING	PORTSIDE OVERPASS	10 / 21	B
356-135-ST-251	ABUTMENT OUTLINES	PORTSIDE OVERPASS	11 / 21	B
356-135-ST-351	FRAMING PLAN AND GIRDER ELEVATION	PORTSIDE OVERPASS	12 / 21	B
356-135-ST-352	GIRDER DETAILS – SHEET 1	PORTSIDE OVERPASS	13 / 21	B
356-135-ST-353	GIRDER DETAILS – SHEET 2	PORTSIDE OVERPASS	14 / 21	B
356-135-ST-354	GIRDER DETAILS – SHEET 3	PORTSIDE OVERPASS	15 / 21	B
356-135-ST-401	DECK LAYOUT	PORTSIDE OVERPASS	16 / 21	B
356-135-ST-402	PRECAST LAYOUT	PORTSIDE OVERPASS	17 / 21	B
356-135-ST-403	PRECAST DETAILS	PORTSIDE OVERPASS	18 / 21	B
356-135-ST-404	DECK REINFORCING	PORTSIDE OVERPASS	19 / 21	B
356-135-ST-501	DIAPHRAGM OUTLINES	PORTSIDE OVERPASS	20 / 21	B
356-135-ST-551	APPROACH SLAB LAYOUT	PORTSIDE OVERPASS	21 / 21	B

LEDCOR GROUP

McElhanney

COWI

GENERAL NOTES:

1. DESIGN SPECIFICATIONS

THE BRIDGE DESIGN IS IN ACCORDANCE WITH THE FOLLOWING DESIGN SPECIFICATIONS:

- CSA S6–19 "CANADIAN HIGHWAY BRIDGE DESIGN CODE"
- BC MoTI's BRIDGE STANDARDS AND PROCEDURES MANUAL, INCLUDING THE BC SUPPLEMENT TO CSA S6–19
- BC MoTI's DESIGN BUILD STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, 2018
- BC MoTI's EGBC "PROFESSIONAL PRACTICE GUIDELINES – PERFORMANCE–BASED SEISMIC DESIGN OF BRIDGES IN BC", VERSION 1.0 (MARCH 2018)

2. DESIGN/SERVICE LIFE

- DESIGN LIFE = 75 YEARS
- SERVICE LIFE = 75 YEARS FOR ALL MAIN STRUCTURAL COMPONENTS (FOUNDATIONS, PIERS, ABUTMENTS, SUPERSTRUCTURE, AND DECK)
- SERVICE LIFE = 100 YEARS FOR TIME DEPENDENT DESIGN CALCULATIONS (CREEP/ SHRINKAGE/ CORROSION/ FATIGUE EFFECTS)

3. DESIGN LOADS

3.1 LIVE LOADS

- VEHICLE LIVE LOADING: GOVERNING EFFECT OF BCL–625 OR CL–800
- PEDESTRIAN LOADING: DISTRIBUTED OVER THE WIDTH OF MUP IN ACCORDANCE WITH CSA S6–19 CLAUSE 3.8.9. MAINTENANCE VEHICLE NOT CONSIDERED ON MUP.
- BRIDGE BARRIER CLASSIFICATION: TL–4
- DEFLECTION LIMITS BASED ON STRUCTURE WITH SIDEWALKS WITH OCCASIONAL PEDESTRIAN USE.
- HIGHWAY CLASS: CLASS A

3.2 WIND LOADS

- REFERENCE WIND PRESSURE: q_{50} = 480 Pa, q_{10} = 360 Pa
- GUST EFFECT COEFFICIENT, Cg = 2.0
- EXPOSURE COEFFICIENT, Ce = $(0.1H)^{0.2}$, WHERE 'H' IS THE HEIGHT ABOVE GROUND

3.3 TEMPERATURE EFFECTS

- EFFECTIVE CONSTRUCTION TEMPERATURE = 15°C
- MAXIMUM EFFECTIVE TEMPERATURE = 46°C
- MINIMUM EFFECTIVE TEMPERATURE = –20°C

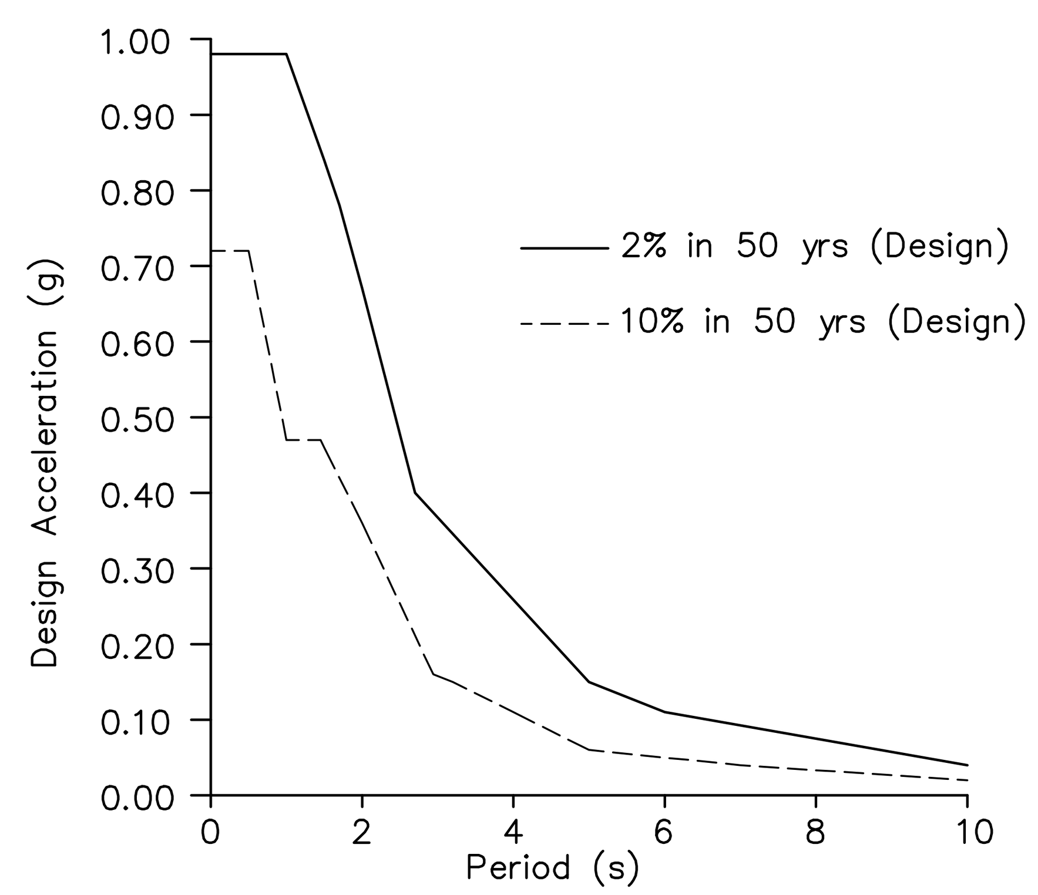
3.4 EARTHQUAKE EFFECTS

- BRIDGE IMPORTANCE CATEGORY: OTHER
- SEISMIC PERFORMANCE CATEGORY: 3
- SEISMIC PERFORMANCE CRITERIA:

DESIGN EARTHQUAKE RETURN PERIOD	SERVICE	DAMAGE
475 YEARS	LIMITED	REPAIRABLE
2475 YEARS	LIFE SAFETY	PROBABLE REPLACEMENT

- SITE CLASS E AS CLASSIFIED BY THURBER ENGINEERING LTD..

DESIGN SPECTRUM:



THE DESIGN SPECTRA IS OBTAINED BY:

(1) A SITE SPECIFIC RESPONSE SPECTRA GENERATED BY THURBER ENGINEERING LTD.

(2) USING THE REQUIREMENTS OF CSA S6–19 TO MODIFY THE REFERENCE SPECTRAL ACCELERATIONS OBTAINED FROM THE NBC OF CANADA (2015) HAZARD MAPS

- IF THE SITE SPECIFIC RESPONSE SPECTRA (1) IS LESS THAN 80% OF THE CODE–BASED SPECTRA (2) FOR A GIVEN PERIOD, THEN 80% OF THE CODE BASED SPECTRA SHALL GOVERN FOR THAT PERIOD.

3.5 CONSTRUCTION LIVE LOAD

- CONSTRUCTION LIVE LOAD FOR GLOBAL EFFECTS: 0.50 kPa.
- CONSTRUCTION LIVE LOAD FOR LOCAL EFFECTS: 2.4 kPa.
- CONSTRUCTION LIVE LOAD FACTOR SHALL BE 85% OF THE APPLICABLE ULS LIVE LOAD FACTOR.
- THE TOTAL FACTORED LOAD EFFECT FOR EACH LOAD COMBINATION FOR CONSTRUCTION SHALL NOT BE LESS THAN 125% OF THE SUM OF THE UNFACTORED LOAD EFFECTS.

4. GEOTECHNICAL DESIGN CRITERIA

GEOTECHNICAL INFORMATION PER: "PORTSIDE–BLUNDELL IMPROVEMENT PROJECT/ PORTSIDE/BLUNDELL OVERPASS/ SEISMIC ANALYSIS AND CELLULAR CONCRETE APPROACH EMBANKMENTS", THURBER ENGINEERING LTD., 2022–NOV–25.

5. MATERIALS

5.1 CONCRETE

- ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH CSA A23.1–19 AND THE DESIGN BUILD STANDARD SPECIFICATIONS, SECTIONS 211 AND 413.
- CONCRETE MIXES SHALL BE IN ACCORDANCE WITH THE BC SUPPLEMENT TO S6–19, TABLE 8.4 AND MEET THE REQUIREMENTS IN THE FOLLOWING TABLE:

COMPONENT/ LOCATION	MIN. COMPRESSIVE STRENGTH AT 28 DAYS	CONCRETE EXP. CLASS	NOMINAL MAX. SIZE OF COARSE AGGREGATE (mm)	MAX. W/CM RATIO
PILE INFILL	30 MPa	F–1	14	0.45
SUBSTRUCTURE INC. DIAPHRAGMS	35 MPa	C–1	20	0.40
SUPERSTRUCTURE INC DECK (b), PRECAST DECK PANELS, AND APPROACH SLABS	45 MPa	C–1	20	0.38
BARRIERS	50 MPa @ 56 DAYS	C–XL	20	0.38

- C3A CONTENT OF CEMENT FOR CLASS C–XL AND C–1 CONCRETE SHALL BE GREATER THAN 4.0% DECK CONCRETE SHALL MEET THE REQUIREMENTS OF CSA A23.1–19, LOW SHRINKAGE CONCRETE
- CONCRETE SURFACE FINISHING SHALL CONFORM TO BC SUPPLEMENT TO CSA S6–19 TABLE 8.11.2.1.7
- CONCRETE ELEMENTS WITH A MINIMUM DIMENSION GREATER THAN 1.0 m SHALL INCORPORATE REQUIREMENTS OF A23.1–19 SECTION 7.6.3 FOR MASS CONCRETE.

5.2 GROUT

- NON–SHRINK GROUT FOR GROUTING AROUND ANCHOR DOWELS SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 50 MPa AT 28 DAYS.

5.3 REINFORCING STEEL

- REINFORCING STEEL SHALL BE IN ACCORDANCE WITH CSA–G30.18 GRADE 400W WITH PLAIN FINISH (BLACK STEEL), UNLESS NOTED OTHERWISE. BLACK REINFORCING BARS ARE DENOTED "M".
- STAINLESS STEEL REINFORCING BARS SHALL BE DEFORMED BARS CONFORMING TO ASTM A955M GRADE 420. STAINLESS STEEL REINFORCING BARS ARE DENOTED "MS".
- MECHANICAL ANCHORS SHALL COMPLY WITH THE REQUIREMENTS OF ASTM A970/A970M.

5.4 PRESTRESSING STEEL

- PRESTRESSING STRAND SHALL BE 15.2 mm OR 9.5 mm DIAMETER SEVEN WIRE AS SPECIFIED, UNCOATED, STABILIZED, LOW RELAXATION STRANDS CONFORMING TO THE REQUIREMENTS OF ASTM A416–M GRADE 1860 MPa.

5.5 ELASTOMERIC BEARING STRIPS

- ELASTOMERIC BEARING STRIPS SHALL BE OZONE RESISTING NATURAL RUBBER CONFORMING TO THE REQUIREMENTS OF CSA S6–19.

5.6 STRUCTURAL STEEL AND CONNECTIONS

- PLATES AND ROLLED SECTIONS SHALL BE WEATHERING (ATMOSPHERIC) STEEL CONFORMING TO CSA G40.21– GRADE 350AT OR 350A, UNLESS NOTED OTHERWISE.
- MEMBERS IDENTIFIED AS FRACTURE CRITICAL (FC) SHALL BE GRADE 350AT AND COMPLY WITH NOTCH–TOUGHNESS REQUIREMENTS OF CATEGORY 2 AS PER CSA G40.21.
- MEMBERS IDENTIFIED AS PRIMARY TENSION (PT) MEMBERS SHALL BE GRADE 350AT AND COMPLY WITH NOTCH–TOUGHNESS REQUIREMENTS OF CATEGORY 1 AS PER CSA G40.21
- MISCELLANEOUS STEEL INCLUDING BEARING PLATES, GIRDER SOLE PLATES, AND RAILINGS/FENCES SHALL CONFORM TO CSA G40.21 GRADE 300W OR 350W AND SHALL BE HOT–DIP GALVANIZED.
- STEEL PIPE PILES SHALL CONFORM TO ASTM A252 GRADE 3 (310 MPa) AND SHALL BE WELDED TO CARRY FULL CAPACITY ACROSS THE WELD.
- HIGH–STRENGTH STRUCTURAL BOLTS SHALL BE ASTM F3125 GRADE A325 WITH THREADS EXCLUIDED FROM SHEAR PLANES. BOLTS INSTALLED IN 350A OR 350AT STEEL SHALL BE TYPE 3. BOLTS INSTALLED IN GALVANIZED STEEL SHALL BE TYPE 1 AND HOT–DIPPED GALVANIZED.
- ANCHOR BOLTS SHALL CONFORM TO ASTM F1554, GRADE 55 AND SHALL BE HOT DIP GALVANIZED.
- SHEAR STUDS SHALL CONFORM TO THE REQUIREMENTS OF CSA W59–18 ANNEX H FOR TYPE B STUDS WELDED TO STEEL PLATES AS PER THE MANUFACTURER'S INSTRUCTIONS.
- FIELD WELDING IS NOT PERMITTED.
- EXCEPT FOR WELDING OF A252 STEEL PIPE PILES, WELDING SHALL COMPLY WITH THE REQUIREMENTS OF CSA W59–18 CLAUSE 12 (CYCLIC LOADS)
- GALVANIZATION OF MISCELLANEOUS STEEL AND OTHER COMPONENTS SHALL BE IN ACCORDANCE WITH ASTM A123. REPAIRS TO GALVANIZATION SHALL BE IN ACCORDANCE WITH ASTM A780.
- STEEL PIPE PILES EXPOSED TO NATIVE SOILS SHALL HAVE A CORROSION ALLOWANCE OF 4.5 mm ON EXPOSED SURFACES.

Ref. No.	REFERENCE

LEDCOR GROUP

COWI

PRELIMINARY NOT FOR CONSTRUCTION

THIS DRAWING HAS NOT BEEN APPROVED AND MAY CONTAIN ERRORS AND OMISSIONS

No.	Date	REVISION	Dr'n	Ch'd
C	2022-11-25	INDICATIVE DESIGN	DC	MR
B	2022-09-30	INDICATIVE DESIGN SUBMISSION DRAFT FOR IDR	DC	MR
A	2022-06-30	PRELIMINARY DESIGN	DC	MR

PORT of vancouver

Vancouver Fraser Port Authority

ENGINEERING DEPARTMENT

DESIGN BY	M. REYNOLDS
DRAWN BY	D. CROWLEY
APPROVED	H. IBRAHIM
DATE	2022-11-25
SCALE	AS SHOWN
VFPA SITE	356

GREATER VANCOUVER GATEWAY 2030
PORTSIDE / BLUNDELL ROAD IMPROVEMENT PROJECT
PORTSIDE OVERPASS
GENERAL NOTES - SHEET 1

SIZE	DWG.	SHEET	REV.
D	365-135-ST-101	2 / 21	C

TITLE BLOCK DL-TB.dwg

DATE: 2022/11/25 - 3:14pm
PATH: C:\pwwork\dklypw2\decr\d0863233\356-135-ST-101_General-Notes-Sheet-1.dwg

GENERAL NOTES CONTINUED:

6. CONSTRUCTION

6.1 DIMENSIONS

- DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
- ELEVATIONS ARE IN METRES (m) TO GEODETIC DATUM

6.2 CONCRETE

- EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 20 mm UNLESS NOTED OTHERWISE.
- ALL CONSTRUCTION JOINT SURFACES SHALL BE FREE OF LAITANCE AND INTENTIONALLY ROUGHENED TO A FULL AMPLITUDE OF 5 mm AT A MAXIMUM SPACING OF 15 mm.
- UNLESS OTHERWISE NOTED, SURFACE FINISHES SHALL BE IN ACCORDANCE WITH SECTION 8.11.2.1.7 OF THE BC SUPPLEMENT TO CSA S6–19.

6.3 CONCRETE COVER

UNLESS NOTED OTHERWISE, SPECIFIED COVER TO REINFORCING STEEL SHALL BE AS FOLLOWS:

- TOP SURFACES OF DECK, DIAPHRAGMS AND APPROACH SLABS: 50 mm
- VERTICAL SURFACES OF CAST IN PLACE CONCRETE: 60 mm
- CONCRETE DECK SLAB SOFFIT: 50 mm FOR REINFORCING STEEL REBAR
  40 mm FOR PRESTRESSING STRANDS
- CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: 100 mm
- BARRIERS: 70 mm
- PILE INFILL: 60 mm
- OTHER SURFACES NOT SPECIFIED ABOVE: 70 mm

6.4 REINFORCEMENT

- ALL REINFORCEMENT SHALL BE FABRICATED IN ACCORDANCE WITH CSA A23.1.

6.5 STAINLESS STEEL REINFORCEMENT

- ALL REINFORCEMENT WITHIN 100 mm OF THE TOP SURFACE OF THE DECK, ALL PARAPET REINFORCEMENT AND ALL OTHER REINFORCEMENT INDICATED ON THE DRAWINGS AS "MS" SHALL BE STAINLESS STEEL. STAINLESS STEEL REINFORCEMENT MAY BE SUBSTITUTED WITH THE EQUIVALENT–SIZED STAINLESS STEEL IMPERIAL BAR SHOWN IN THE TABLE BELOW.

CANADIAN BAR SIZE	IMPERIAL BAR SIZE
10MS	#4
15MS	#5
20MS	#7
25MS	#8
30MS	#10
35MS	#11

6.6 REBAR SPLICES

- LAP SPLICE LENGTH OF REINFORCING BARS SHALL BE AS FOLLOWS (mm) UNLESS NOTED OTHERWISE:

BAR SIZE	UNCOATED BARS f'c = 35 MPa	UNCOATED TOP BARS f'c = 35 MPa	SS BARS f'c = 35 MPa	SS TOP BARS f'c = 35 MPa
10M	390	470	390	490
15M	510	660	540	700
20M	620	810	650	850
25M	1000	1300	1050	1370
30M	1190	1540	1250	1620
35M	1420	1840	1490	1930

- ALL REINFORCING STEEL FOR WHICH MORE THAN 300 mm OF FRESH CONCRETE IS CAST IN THE COMPONENT BELOW THE DEVELOPMENT LENGTH OF SPLICE SHALL BE CONSIDERED TOP BARS FOR THE PURPOSE OF DETERMINING LAP SPLICE LENGTHS.
- REINFORCING STEEL SHALL NOT BE SPLICED AT LOCATIONS OTHER THAN THOSE SHOWN ON THE DRAWINGS UNLESS REVIEWED AND ACCEPTED BY THE ENGINEER.
- NOT MORE THAN 50% OF REINFORCING STEEL SHALL BE SPLICED AT ONE LOCATION UNLESS NOTED OTHERWISE.
- REINFORCING BAR LAP SPLICES SHALL BE STAGGERED BY A MINIMUM OF ONE SPLICE LENGTH.
- WELDED REINFORCING BAR SPLICES ARE NOT PERMITTED.
- MECHANICAL CONNECTIONS FOR REINFORCING BARS (MECHANICAL COUPLERS) SHALL ONLY BE USED AT LOCATIONS SHOWN ON THE DRAWINGS UNLESS REVIEWED AND ACCEPTED BY THE ENGINEER.

6.8 PRECAST DECK PANELS

- PRECAST DECK PANELS SHALL BE MANUFACTURED IN ACCORDANCE WITH THE DESIGN BUILD STANDARD SPECIFICATIONS, SECTION 415 "MANUFACTURE AND ERECTION OF PRECAST AND PRECAST PRESTRESSED CONCRETE MEMBERS".
- TOP SURFACE OF PRECAST PANELS SHALL BE ROUGHENED TO 5 mm FULL AMPLITUDE AT A MAXIMUM SPACING OF 15 mm CENTRE TO CENTRE. ALL VERTICAL SURFACES AND SOFFIT SHALL RECEIVE A SMOOTH FORMED FINISH. TOP SURFACES OF PRECAST PANELS SHALL BE CLEAN AND FREE OF LAITANCE AT THE TIME OF CASTING DECK SLAB.
- LIFTING DEVICES SHALL BE PROVIDED AT THE PANEL QUARTER POINTS. DESIGN OF LIFTING DEVICES SHALL BE BY THE CONTRACTOR. LIFTING SHALL BE DONE ONLY BY LIFTING HOOKS. CARE SHALL BE TAKEN TO PREVENT ANY SUDDEN IMPACT LOADS ON THE PANELS.
- PRECAST DECK PANELS SHALL BE CAST A MINIMUM OF 45 DAYS PRIOR TO CASTING OF THE DECK SLAB.

7. ABBREVIATIONS

ABUT	ABUTMENT
AZ	AZIMUTH
ADD'L	ADDITIONAL
ALT	ALTERNATE
APPROX	APPROXIMATE
BOT	BOTTOM
B.O.W.	BOTTOM OF WALL
BRG	BEARING
B.S.	BOTH SIDES
C/C	CENTER TO CENTER
C/W	COMPLETE WITH
CIP	CAST IN PLACE
CJ	CONSTRUCTION JOINT
CL	CENTERLINE
CONC	CONCRETE
CONT	CONTINUOUS
CSP	CORRUGATED STEEL PIPE
DIA	DIAMETER
DWG	DRAWING
EA	EACH
E.F.	EACH FACE
EL	ELEVATION
EMBED	EMBEDMENT
EQ	EQUAL
E.S.	EACH SIDE
E.W.	EACH WAY
EXP	EXPANSION
F.F.	FAR FACE
FIN	FINISHED
FXD	FIXED
FO	FIBRE OPTIC
FTG	FOOTING
GALV	GALVANIZED
H1E	HOOKED 1 END
H2E	HOOKED 2 ENDS
HORIZ	HORIZONTAL
HWL	HIGH WATER LEVEL
HWY	HIGHWAY
I.D.	INSIDE DIAMETER
LG	LONG
LWL	LOW WATER LEVEL
MAX	MAXIMUM
MIN	MINIMUM
N.F.	NEAR FACE
No.	NUMBER
NOM	NOMINAL
NTS	NOT TO SCALE
O/C	ON CENTER
O.D.	OUTSIDE DIAMETER
OPP	OPPOSITE
O/O	OUT TO OUT
PERF	PERFORATED
PERP	PERPENDICULAR
PGL	PROPOSED GRADE LINE
PL	PLATE
PROJ	PROJECTED
REINF	REINFORCED
REQ'D	REQUIRED
R.O.W.	RIGHT OF WAY
SHLD	SHOULDER
SIB	SEISMIC ISOLATION BEARING
SIM	SIMILAR
SK	SKEW, SKEWED
SP	SPACE, SPACED, SPACES
SS	STAINLESS STEEL
STA	STATION
STD	STANDARD
STIF	STIFFENER
SYM	SYMMETRICAL
THK	THICK
T/O	TOP OF
T.O.W.	TOP OF WALL
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
U/S	UNDERSIDE
VERT	VERTICAL
WP	WORK POINT
W/	WITH

Ref. No.	REFERENCE

LEDCOR GROUP
COWI

PRELIMINARY
NOT FOR
CONSTRUCTION

THIS DRAWING HAS NOT BEEN APPROVED AND MAY CONTAIN ERRORS AND OMISSIONS

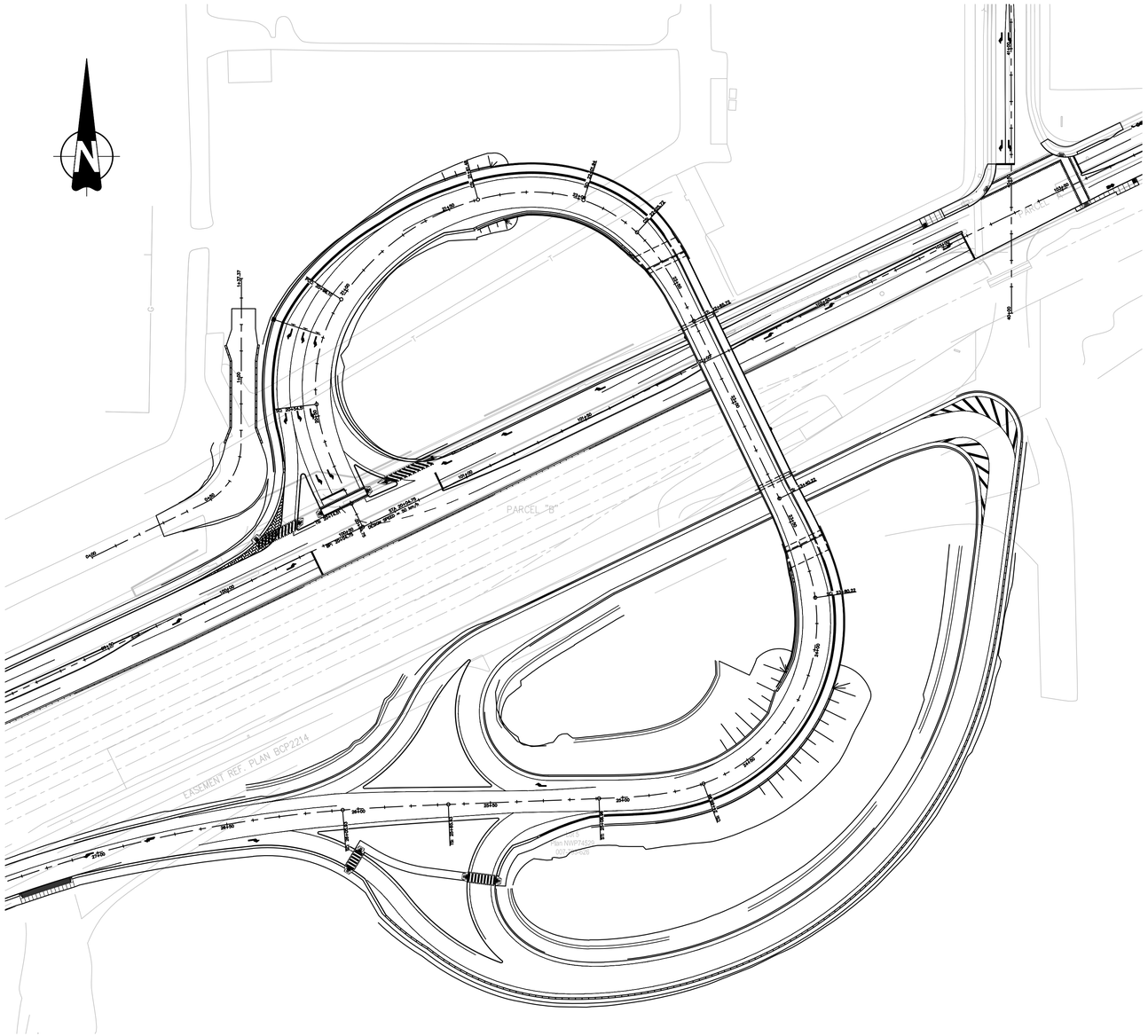
No.	Date	REVISION	Dr'n	Ch'd
C	2022-11-25	INDICATIVE DESIGN	DC	MR
B	2022-09-30	INDICATIVE DESIGN SUBMISSION DRAFT FOR IDR	DC	MR
A	2022-06-30	PRELIMINARY DESIGN	DC	MR

PORT of vancouver
Vancouver Fraser Port Authority
ENGINEERING DEPARTMENT

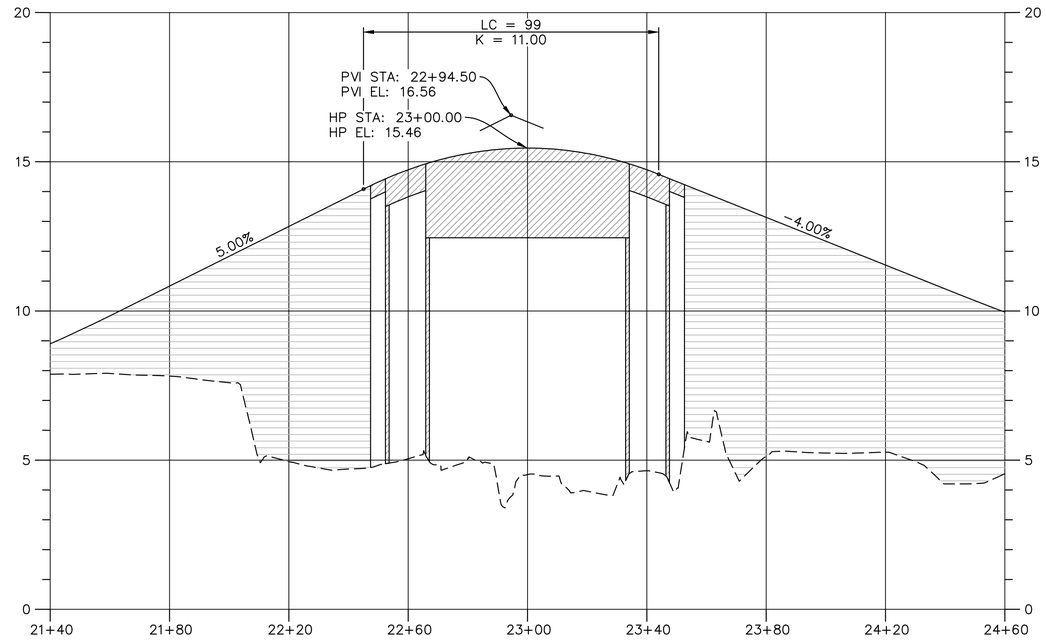
DESIGN BY	M. REYNOLDS
DRAWN BY	D. CROWLEY
APPROVED	H. IBRAHIM
DATE	2022-11-25
SCALE	AS SHOWN
VFPA SITE	356

GREATER VANCOUVER GATEWAY 2030
PORTSIDE / BLUNDELL ROAD IMPROVEMENT PROJECT
PORTSIDE OVERPASS
GENERAL NOTES - SHEET 2

SIZE	DWG.	SHEET	REV.
D	365-135-ST-102	3 / 21	C



SITE PLAN
1:1000



PORTSIDE OVERPASS PROFILE
H: 1:1000 / V: 1:100

TITLE BLOCK: DL-TB.dwg

DATE: 2022/11/24 - 3:35pm
PATH: C:\pwwork\dklypw2\decrid0863233\356-135-ST-103_Site-Plan-Profile.dwg

Ref. No.	REFERENCE

PRELIMINARY
NOT FOR
CONSTRUCTION

THIS DRAWING HAS NOT BEEN APPROVED AND MAY CONTAIN ERRORS AND OMISSIONS

No.	Date	REVISION	Dr'n	Ch'd
C	2022-11-25	INDICATIVE DESIGN	DC	MR
B	2022-09-30	INDICATIVE DESIGN SUBMISSION DRAFT FOR IDR	DC	MR
A	2022-06-30	PRELIMINARY DESIGN	DC	MR

PORT of vancouver
Vancouver Fraser Port Authority
ENGINEERING DEPARTMENT

DESIGN BY	M. REYNOLDS
DRAWN BY	D. CROWLEY
APPROVED	H. IBRAHIM
DATE	2022-11-25
SCALE	AS SHOWN
VFPA SITE	356

GREATER VANCOUVER GATEWAY 2030
PORTSIDE / BLUNDELL ROAD IMPROVEMENT PROJECT
PORTSIDE OVERPASS
SITE PLAN AND PROFILE

SIZE	DWG.	SHEET	REV.
D	356-135-ST-103	4 / 21	C

PLAN
1:200

ELEVATION
1:200

Ref. No.	REFERENCE

LEDCOR GROUP
COWI

PRELIMINARY NOT FOR CONSTRUCTION

THIS DRAWING HAS NOT BEEN APPROVED AND MAY CONTAIN ERRORS AND OMISSIONS

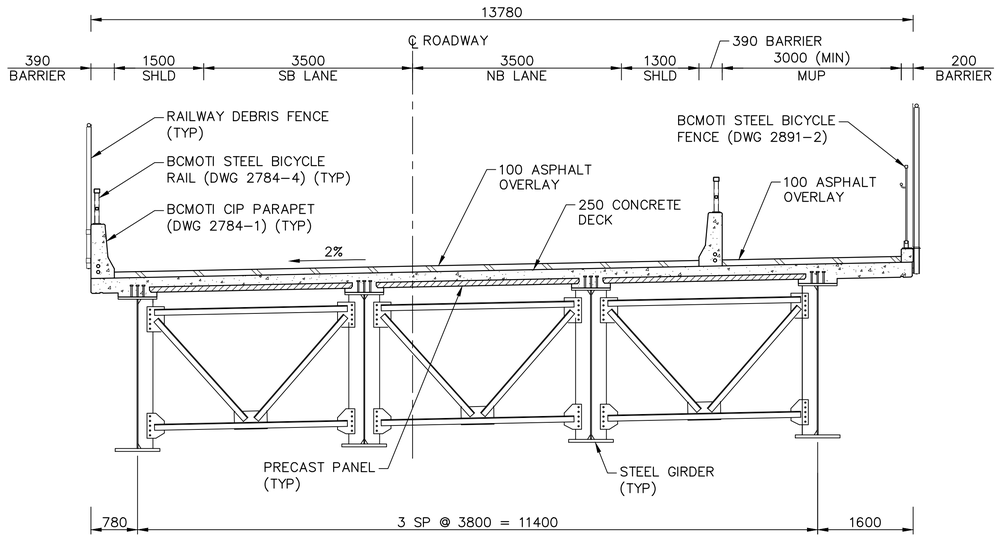
No.	Date	REVISION	Dr'n	Ch'd
C	2022-11-25	INDICATIVE DESIGN	DC	MR
B	2022-09-30	INDICATIVE DESIGN SUBMISSION DRAFT FOR IDR	DC	MR
A	2022-06-30	PRELIMINARY DESIGN	DC	MR

PORT of vancouver
Vancouver Fraser Port Authority
ENGINEERING DEPARTMENT

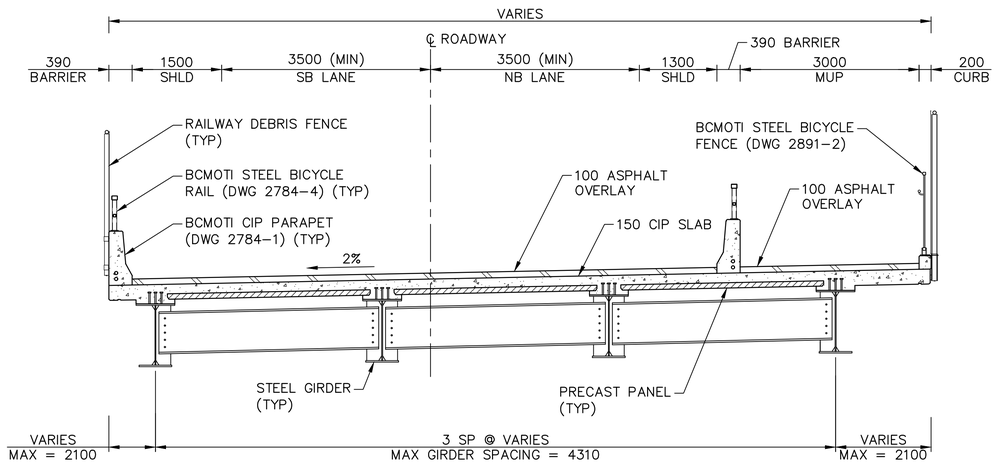
DESIGN BY	M. REYNOLDS
DRAWN BY	D. CROWLEY
APPROVED	H. IBRAHIM
DATE	2022-11-25
SCALE	AS SHOWN
VFPA SITE	356

GREATER VANCOUVER GATEWAY 2030
PORTSIDE / BLUNDELL ROAD IMPROVEMENT PROJECT
PORTSIDE OVERPASS
GENERAL ARRANGEMENT - SHEET 1

SIZE	DWG.	SHEET	REV.
D	356-135-ST-104	5 / 21	C



TYPICAL SECTION – MAIN SPAN
1:50



TYPICAL SECTION – APPROACH SPAN
1:50

Ref. No.	REFERENCE

LEDCOR GROUP
COWI

PRELIMINARY
NOT FOR
CONSTRUCTION

THIS DRAWING HAS NOT BEEN APPROVED AND MAY CONTAIN ERRORS AND OMISSIONS

No.	Date	REVISION	Dr'n	Ch'd
C	2022-11-25	INDICATIVE DESIGN	DC	MR
B	2022-09-30	INDICATIVE DESIGN SUBMISSION DRAFT FOR IDR	DC	MR
A	2022-06-30	PRELIMINARY DESIGN	DC	MR

PORT of vancouver
Vancouver Fraser Port Authority
ENGINEERING DEPARTMENT

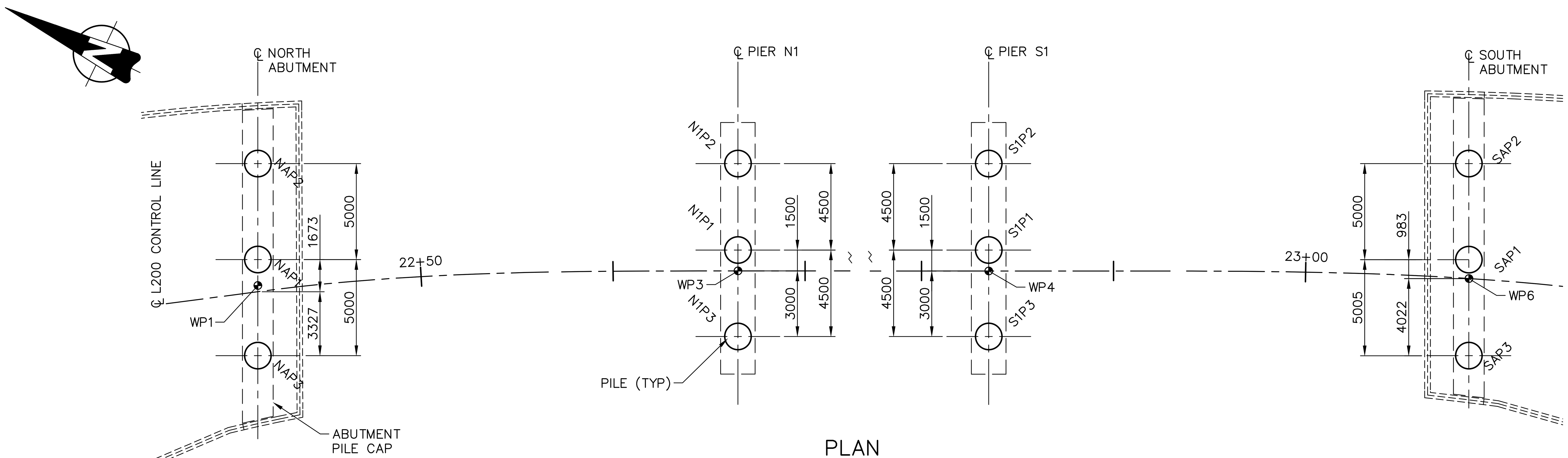
DESIGN BY	M. REYNOLDS
DRAWN BY	D. CROWLEY
APPROVED	H. IBRAHIM
DATE	2022-11-25
SCALE	AS SHOWN
VFPA SITE	356

GREATER VANCOUVER GATEWAY 2030
PORTSIDE / BLUNDELL ROAD IMPROVEMENT PROJECT
PORTSIDE OVERPASS
GENERAL ARRANGEMENT - SHEET 2

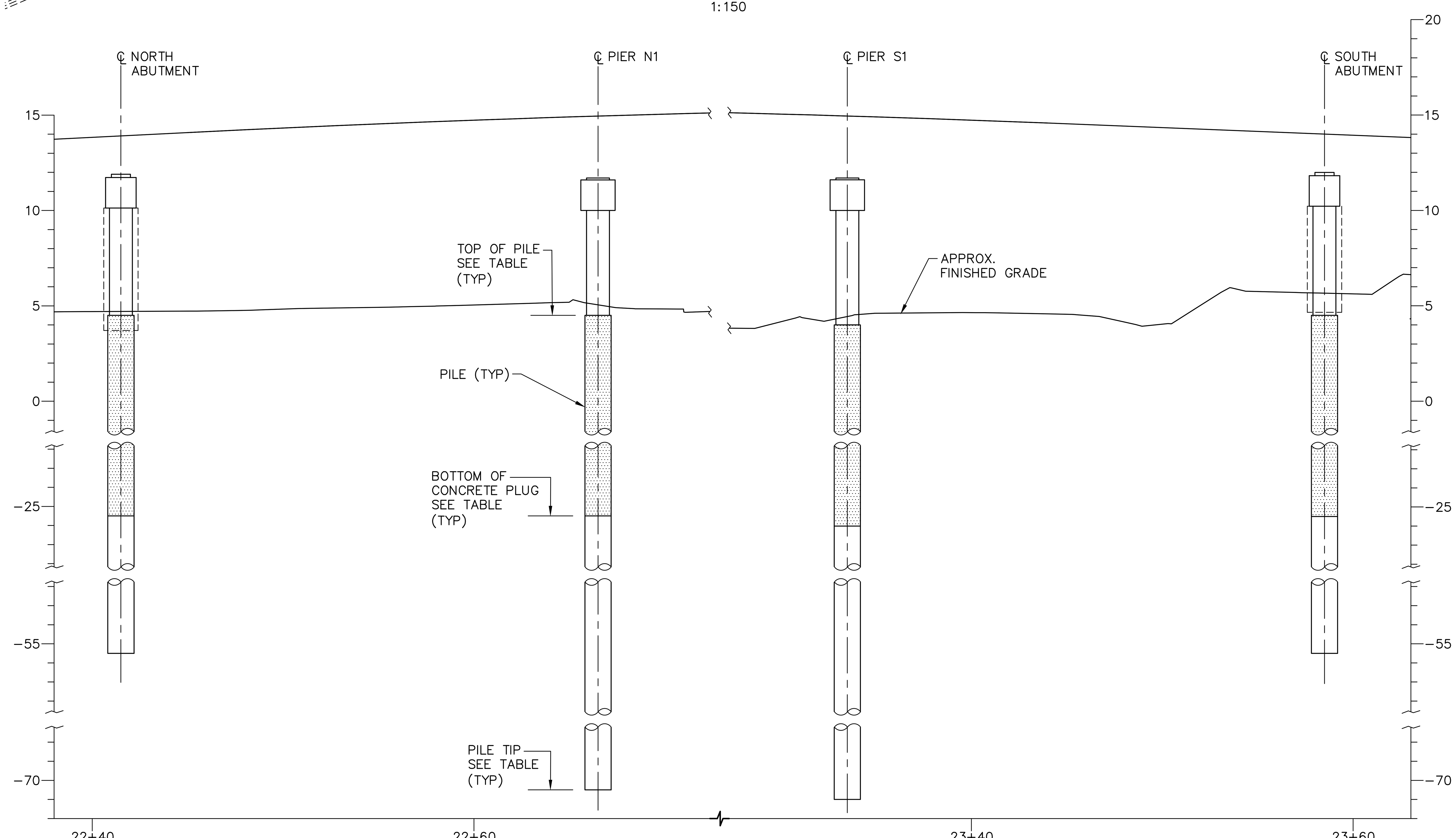
SIZE	DWG.	SHEET	REV.
D	356-135-ST-105	6 / 21	B

TITLE BLOCK_DL-TB.dwg

DATE: 2022/11/24 - 3:20pm
PATH: C:\pwworkdir\pw2\decrl\08632233\356-135-ST-105_GA-Sections.dwg



PLAN
1:150



PROFILE ALONG L200
1:150

WORKPOINTS		
WORKPOINT	NORTHING	EASTINGS
WP 1	XXX	XXX
WP 2	XXX	XXX
WP 3	XXX	XXX
WP 4	XXX	XXX
WP 5	XXX	XXX
WP 6	XXX	XXX

NOTES:

1. FOR GENERAL NOTES, SEE DRAWINGS 356–135–ST–101 AND 356–135–ST–102.
2. GOVERNING PILE AXIAL DEMAND AT TOP OF PILES:

	PIERS		ABUTMENTS	
LOAD COMBINATION	Pmax (kN)	Pmin (kN)	Pmax (kN)	Pmin (kN)
ULS (NON-SEISMIC)	6550	2480	3250	830
ULS (SEISMIC)	5700	1400	3100	-125

NOTE:
POSITIVE P DENOTES COMPRESSION: NEGATIVE P DENOTES TENSION

PILE ELEVATIONS			
PIER	TOP OF PILE ELEVATION (m)	BOTTOM OF CONCRETE PLUG ELEVATION (m)	PILE TIP ELEVATION (m)
NORTH ABUT	+ 4.50	-25.50	-55.50
PIER N1	+ 4.50	-25.50	-70.50
PIER S1	+ 4.00	-26.00	-71.00
SOUTH ABUT	+ 4.50	-25.50	-55.50

Ref. No.	REFERENCE

LEDCOR GROUP
COWI

PRELIMINARY
NOT FOR
CONSTRUCTION

THIS DRAWING HAS NOT BEEN APPROVED AND MAY CONTAIN ERRORS AND OMISSIONS

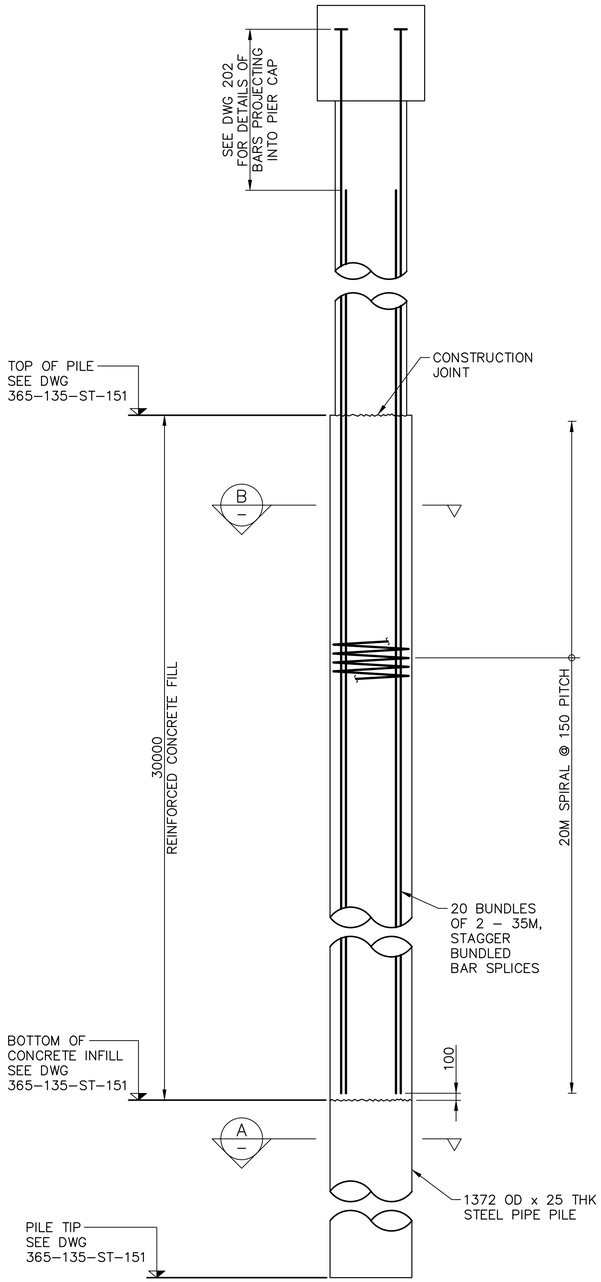
No.	Date	REVISION	Dr'n	Ch'd
B	2022-11-25	INDICATIVE DESIGN	DC	MR
A	2022-09-30	INDICATIVE DESIGN SUBMISSION DRAFT FOR IDR	DC	MR

PORT of vancouver
Vancouver Fraser Port Authority
ENGINEERING DEPARTMENT

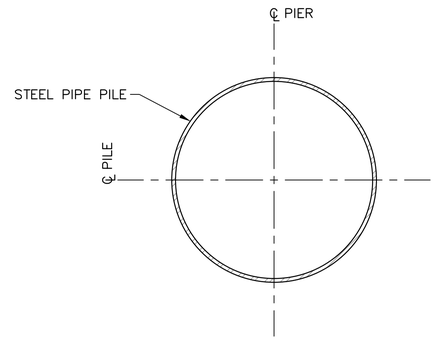
DESIGN BY	M. REYNOLDS
DRAWN BY	D. CROWLEY
APPROVED	H. IBRAHIM
DATE	2022-11-25
SCALE	AS SHOWN
VFPA SITE	356

GREATER VANCOUVER GATEWAY 2030
PORTSIDE / BLUNDELL ROAD IMPROVEMENT PROJECT
PORTSIDE OVERPASS
FOUNDATION LAYOUT

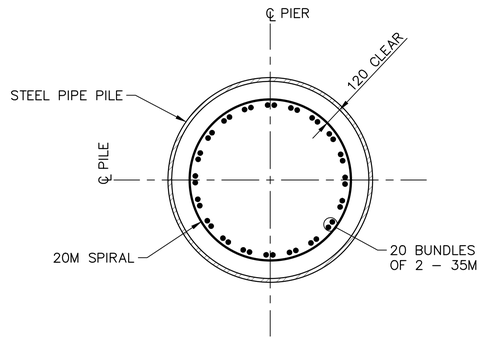
SIZE	DWG.	SHEET	REV.
D	356-135-ST-151	7 / 21	B



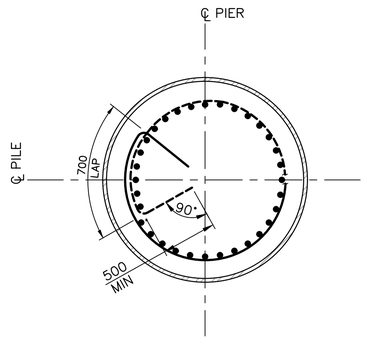
TYPICAL PILE ELEVATION
1:50



A – SECTION
1:20



B – SECTION
1:20



SPIRAL LAP DETAIL
1:20

Ref. No.	REFERENCE

LEDCOR GROUP
COWI

PRELIMINARY
NOT FOR
CONSTRUCTION

THIS DRAWING HAS NOT BEEN APPROVED AND MAY CONTAIN ERRORS AND OMISSIONS

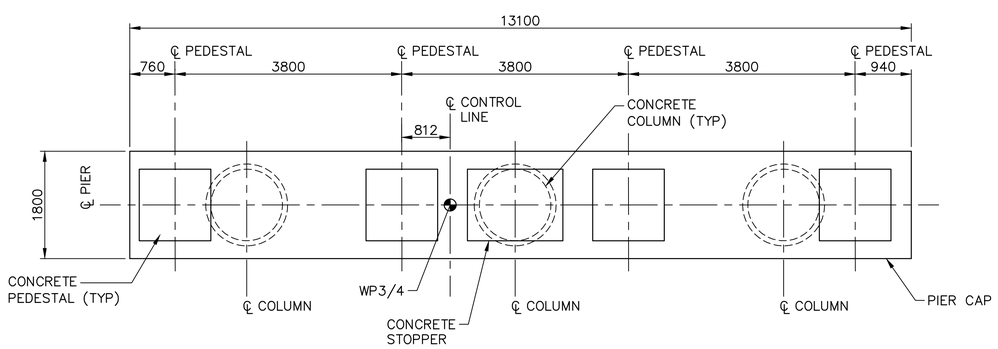
No.	Date	REVISION	Dr'n	Ch'd
B	2022-11-25	INDICATIVE DESIGN	DC	MR
A	2022-09-30	INDICATIVE DESIGN SUBMISSION DRAFT FOR IDR	DC	MR

PORT of vancouver
Vancouver Fraser Port Authority
ENGINEERING DEPARTMENT

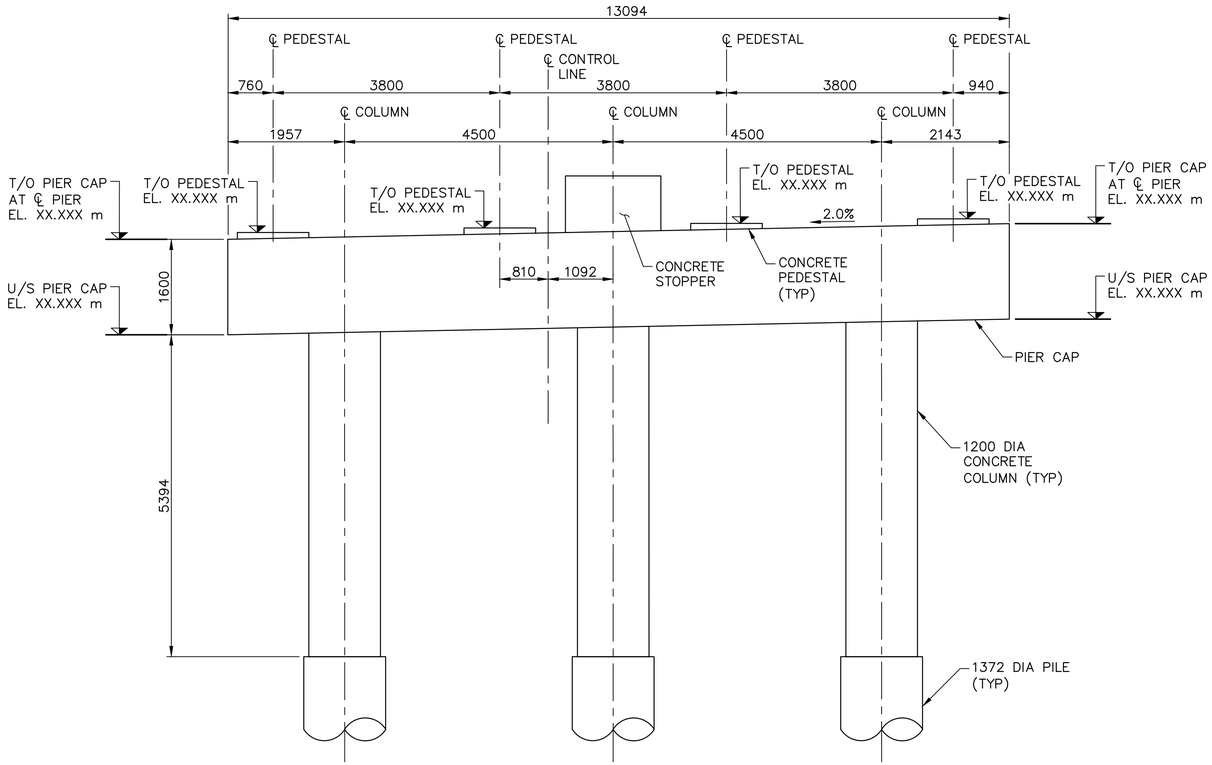
DESIGN BY	M. REYNOLDS
DRAWN BY	J. MILNE
APPROVED	H. IBRAHIM
DATE	2022-11-25
SCALE	AS SHOWN
VFPA SITE	356

GREATER VANCOUVER GATEWAY 2030
PORTSIDE / BLUNDELL ROAD IMPROVEMENT PROJECT
PORTSIDE OVERPASS
PILE REINFORCING

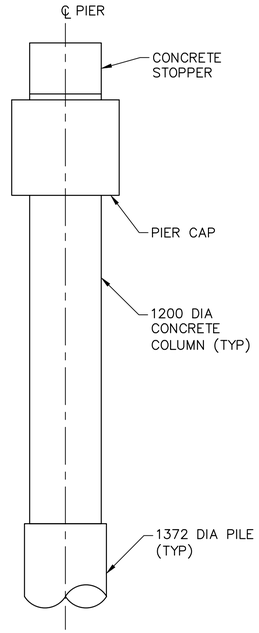
SIZE	DWG.	SHEET	REV.
D	356-135-ST-152	8 / 21	B



PIER N1/S1 OUTLINE – PLAN
1:50



PIER N1/S1 OUTLINE – ELEVATION
1:50



PIER N1/S1 OUTLINE – SIDE ELEVATION
1:50

Ref. No.	REFERENCE

PRELIMINARY NOT FOR CONSTRUCTION

THIS DRAWING HAS NOT BEEN APPROVED AND MAY CONTAIN ERRORS AND OMISSIONS

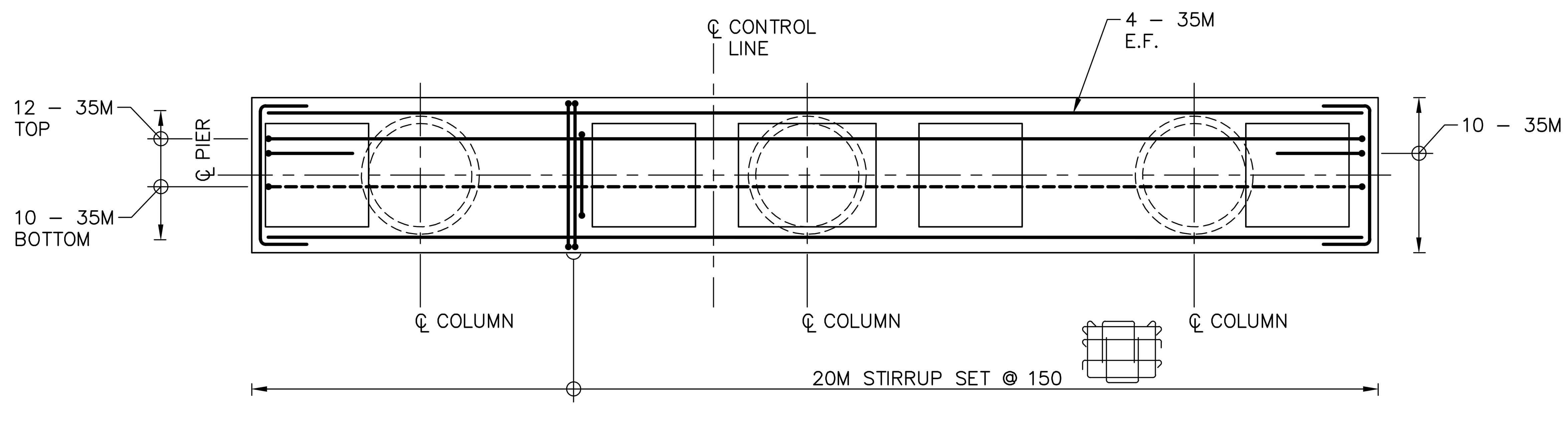
No.	Date	REVISION	Dr'n	Ch'd
B	2022-11-25	INDICATIVE DESIGN	DC	MR
A	2022-09-30	INDICATIVE DESIGN SUBMISSION DRAFT FOR IDR	DC	MR

PORT of vancouver
Vancouver Fraser Port Authority
ENGINEERING DEPARTMENT

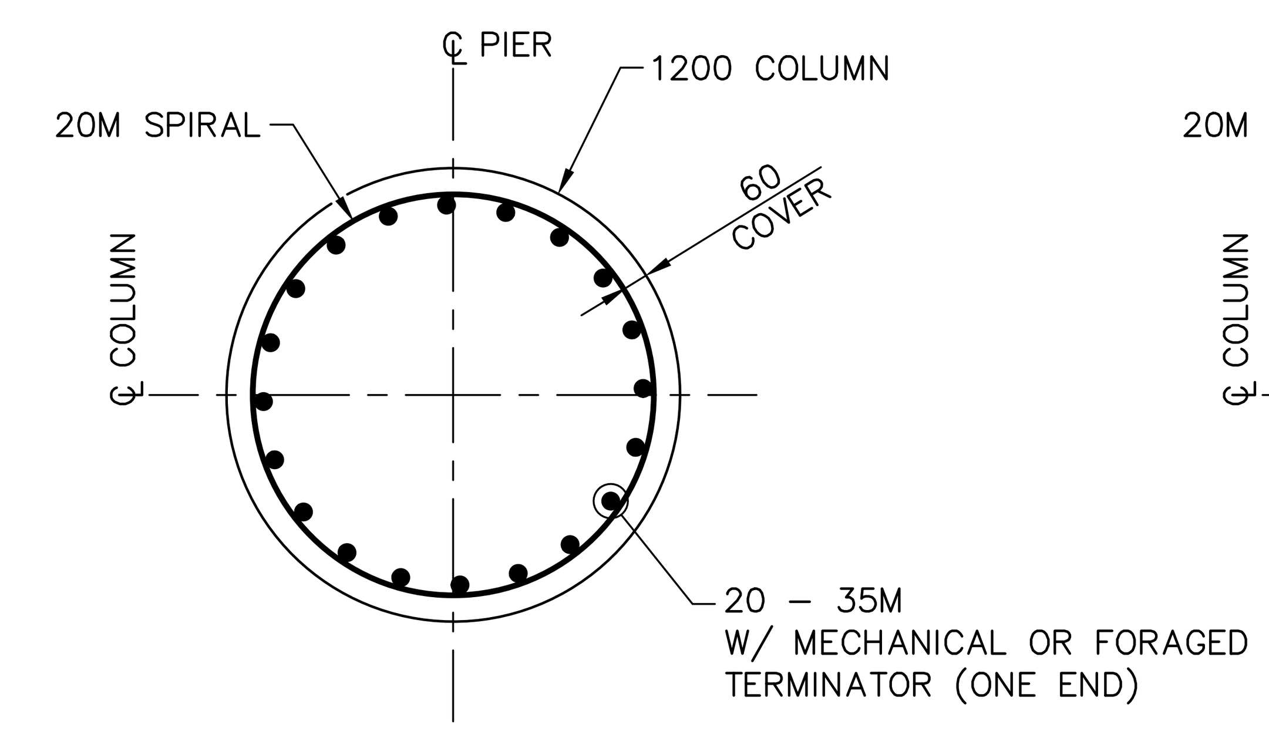
DESIGN BY	M. REYNOLDS
DRAWN BY	C. SHAIGEC
APPROVED	H. IBRAHIM
DATE	2022-11-25
SCALE	AS SHOWN
VFPA SITE	356

GREATER VANCOUVER GATEWAY 2030
PORTSIDE / BLUNDELL ROAD IMPROVEMENT PROJECT
PORTSIDE OVERPASS
PIER OUTLINES

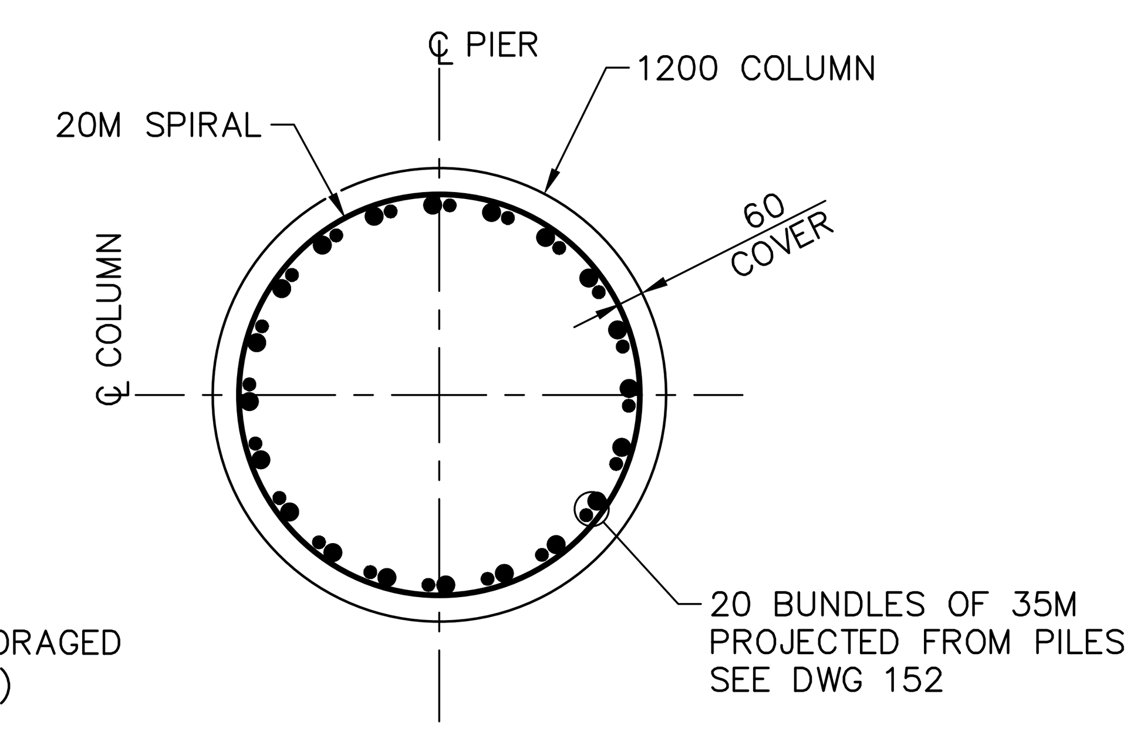
SIZE	DWG.	SHEET	REV.
D	356-135-ST-201	9 / 21	B



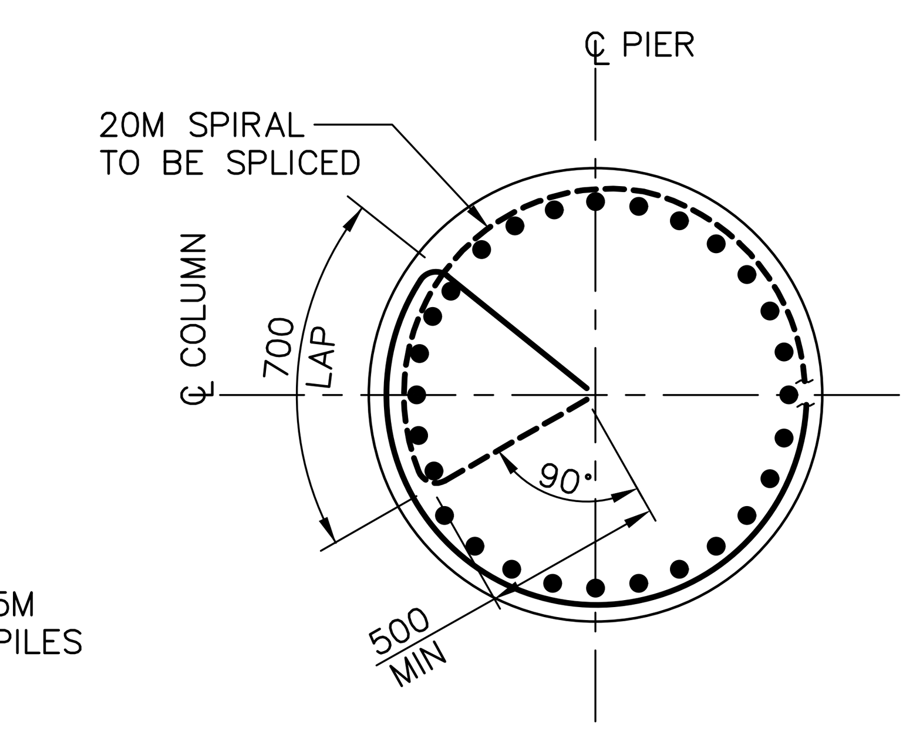
TYPICAL PIER REINFORCING
(ABUTMENTS SIMILAR) 1:50



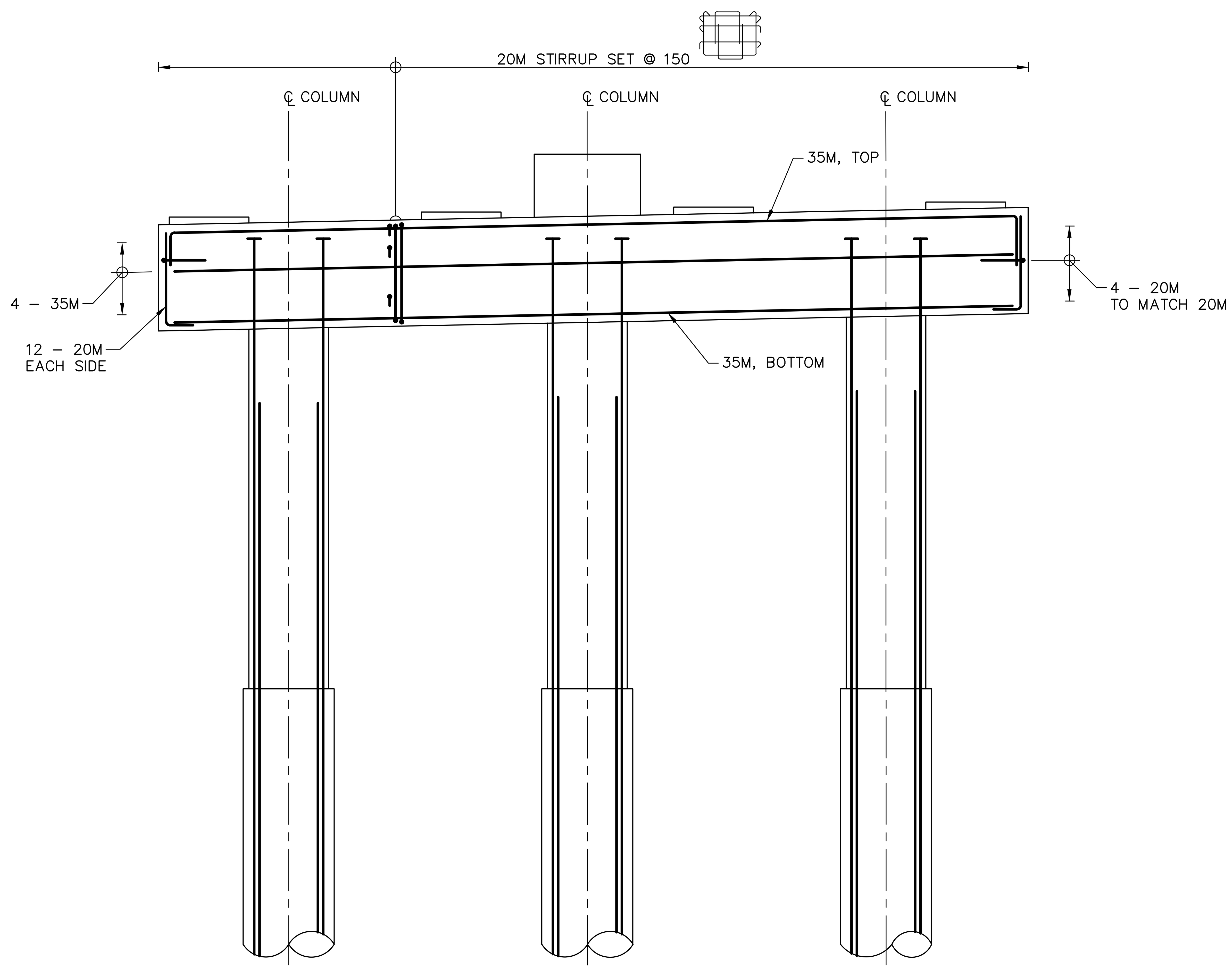
A SECTION 1:20



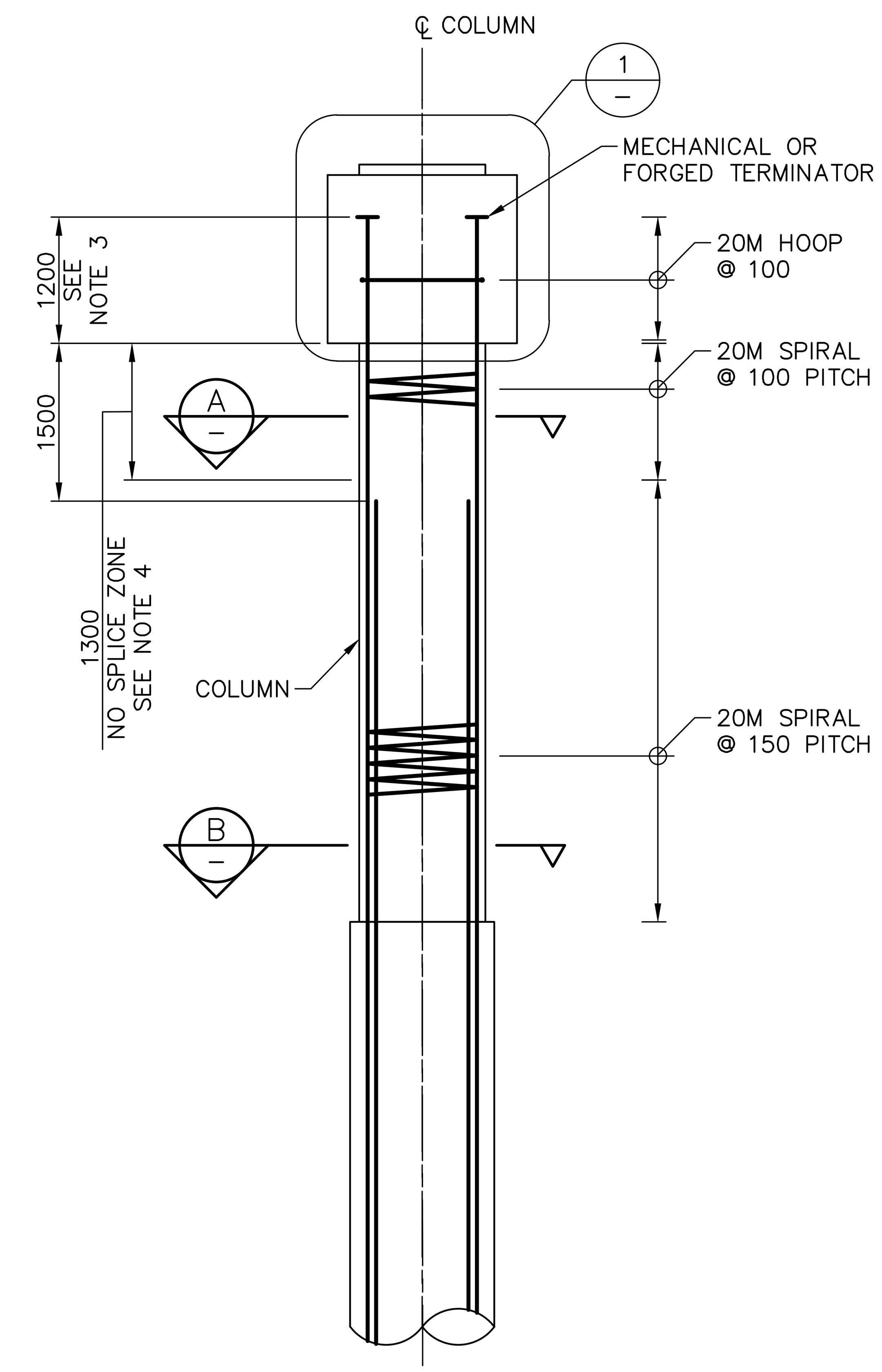
B SECTION 1:20



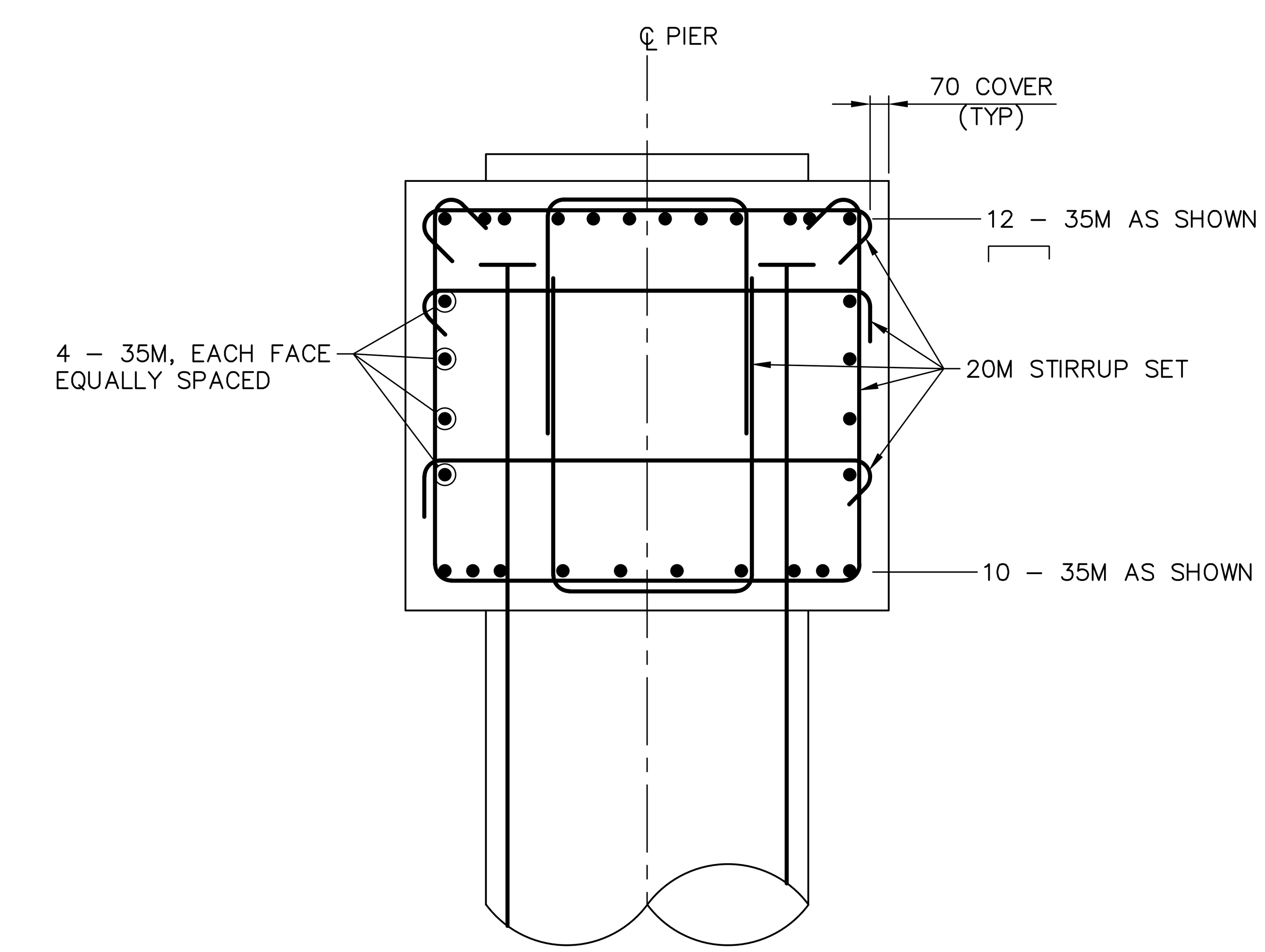
SPIRAL LAP DETAIL 1:20



TYPICAL PIER REINFORCEMENT – ELEVATION
(ABUTMENTS SIMILAR) 1:50



TYPICAL PIER REINFORCEMENT – SIDE ELEVATION
(ABUTMENTS SIMILAR) 1:50



1 DETAIL 1:20

NOTES:

1. FOR GENERAL NOTES, SEE DRAWINGS 356–135–ST–101 AND 356–135–ST–102.
2. PROJECTION LENGTH ALTERNATES SUCH THAT ADJACENT TERMINATORS ARE STAGGERED VERTICALLY 100 mm.
3. SPLICING OF VERTICAL LONGITUDINAL BARS NOT PERMITTED.

No.	Date	REVISION	Dr'n	Ch'd
B	2022-11-25	INDICATIVE DESIGN	DC	MR
A	2022-09-30	INDICATIVE DESIGN SUBMISSION DRAFT FOR IDR	DC	MR

Ref. No. REFERENCE

LEDCOR GROUP
COWI

PRELIMINARY NOT FOR CONSTRUCTION

THIS DRAWING HAS NOT BEEN APPROVED AND MAY CONTAIN ERRORS AND OMISSIONS

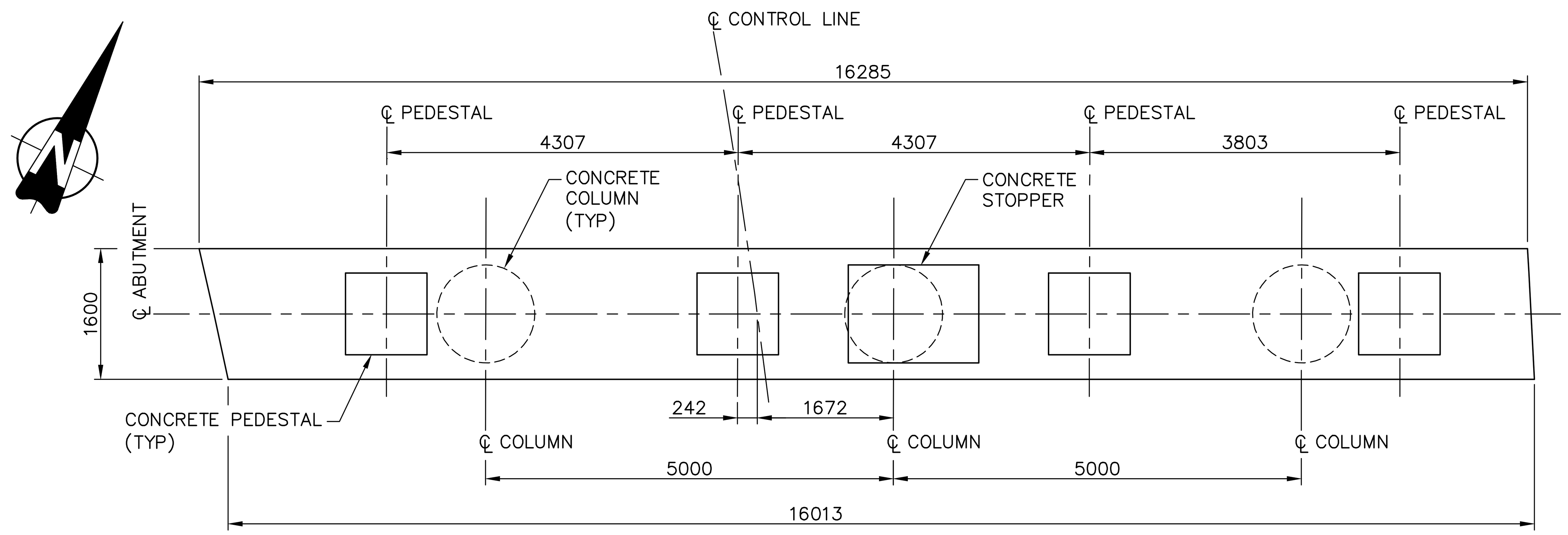
PORT of vancouver
Vancouver Fraser Port Authority
ENGINEERING DEPARTMENT

DESIGN BY M. REYNOLDS
DRAWN BY J. MILNE
APPROVED H. IBRAHIM
DATE 2022-11-25
SCALE AS SHOWN
VFPA SITE 356

GREATER VANCOUVER GATEWAY 2030
PORTSIDE / BLUNDELL ROAD IMPROVEMENT PROJECT
PORTSIDE OVERPASS
PIER REINFORCING

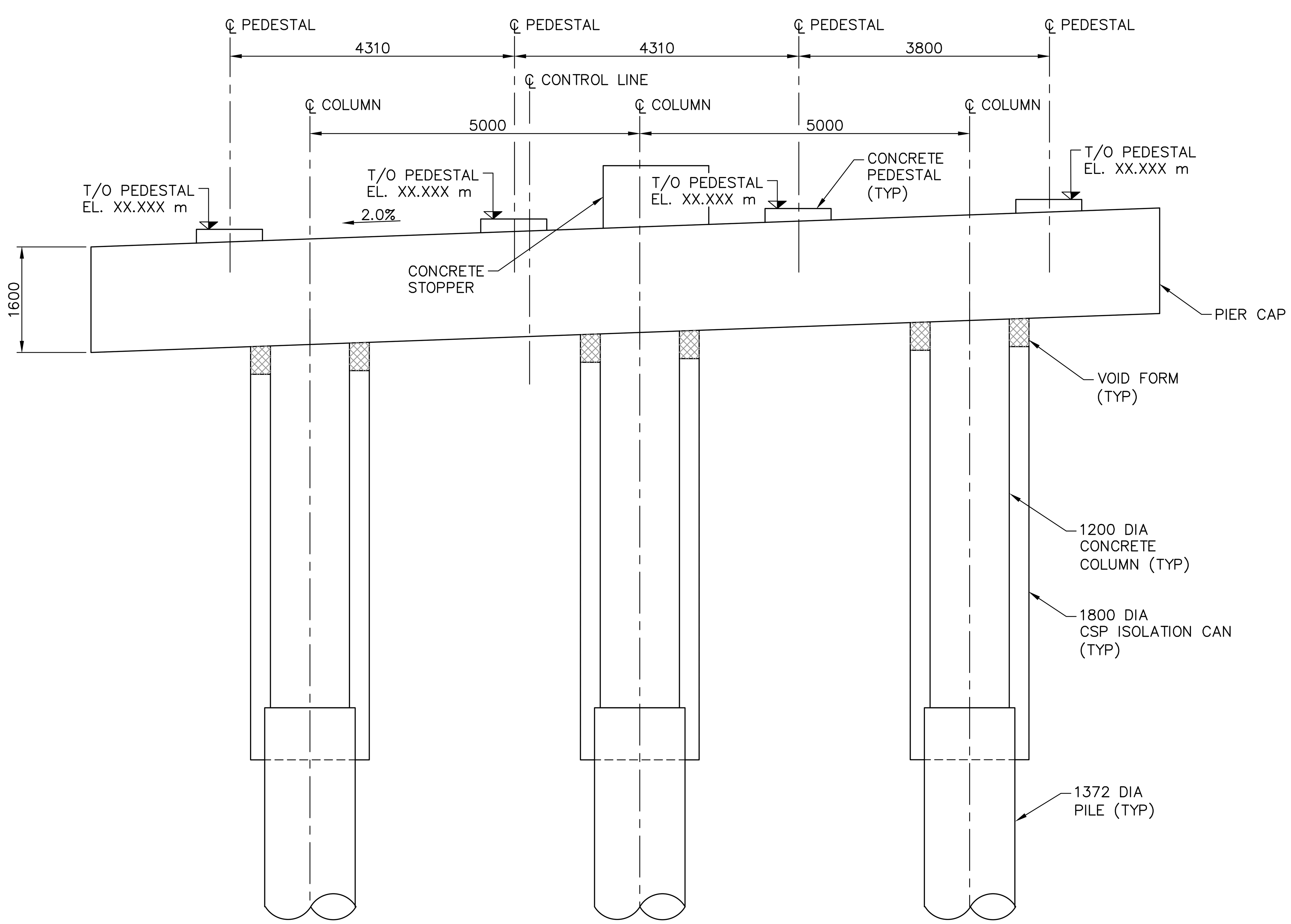
SIZE D DWG. 356-135-ST-202 SHEET 10 / 21 REV. B

TITLE BLOCK: DL-TB.dwg
DATE: 2022/11/25 - 3:25pm
PATH: C:\pwwork\dklypw2\decr\d0863233\356-135-ST-202_Pier-Reinforcing.dwg



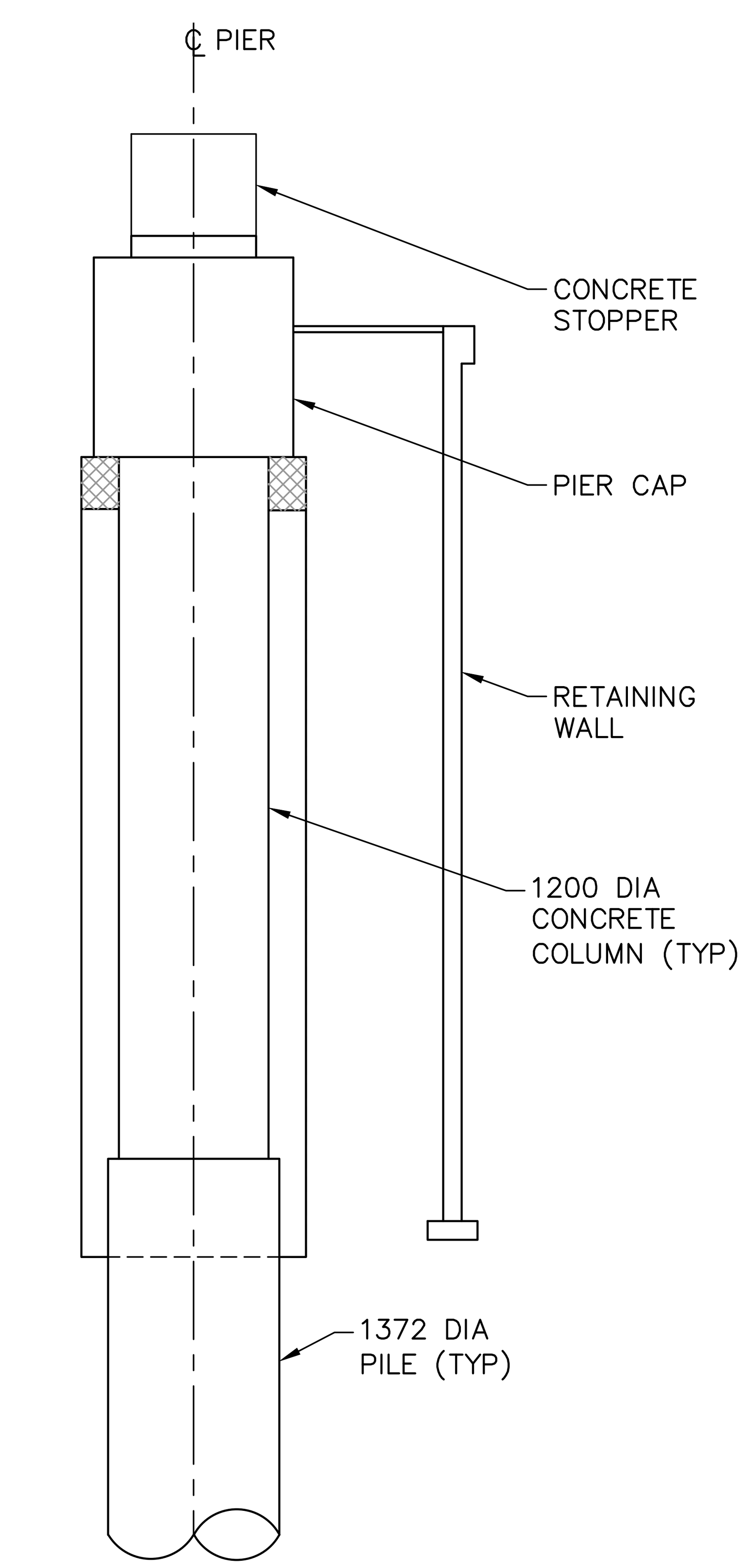
ABUTMENT OUTLINE – PLAN

1:50



ABUTMENT OUTLINE – ELEVATION

1:50



ABUTMENT OUTLINE – SIDE ELEVATION

1:50

Ref. No.	REFERENCE

LEDCOR GROUP
COWI

PRELIMINARY NOT FOR CONSTRUCTION

THIS DRAWING HAS NOT BEEN APPROVED AND MAY CONTAIN ERRORS AND OMISSIONS

No.	Date	REVISION	Dr'n	Ch'd
B	2022-11-25	INDICATIVE DESIGN	DC	MR
A	2022-09-30	INDICATIVE DESIGN SUBMISSION DRAFT FOR IDR	DC	MR

PORT of vancouver
Vancouver Fraser Port Authority
ENGINEERING DEPARTMENT

DESIGN BY	M. REYNOLDS
DRAWN BY	C. SHAIGEC
APPROVED	H. IBRAHIM
DATE	2022-11-25
SCALE	AS SHOWN
VFPA SITE	356

GREATER VANCOUVER GATEWAY 2030
PORTSIDE / BLUNDELL ROAD IMPROVEMENT PROJECT
PORTSIDE OVERPASS
ABUTMENT OUTLINES

SIZE	DWG.	SHEET	REV.
D	356-135-ST-251	11 / 21	B

TITLE BLOCK: DL-TB.dwg

DATE: 2022/11/25 - 2:07pm
PATH: C:\pwwork\dklypw2\decr\d0863233\356-135-ST-251_Abutment-Outlines-Expansion-Joint.dwg

PLAN
1:150

GIRDER ELEVATION
1:150

NOTES:

1. FOR GENERAL NOTES, SEE DRAWINGS 356-135-ST-101.
2. TEMPORARY BRACING, C/W GUSSET ℙ'S, IS TO BE REMOVED AFTER DECK CONSTRUCTION IS COMPLETE AND ALL EMPTY BOLT HOLES SHALL BE FILLED WITH BOLTS C/W WASHERS UNDER THE NUT AND BOLT HEAD.
3. LOCATION OF TEMPORARY BRACING IS SHOWN ASSUMING GIRDERS A AND B ARE ERECTED FIRST IN PAIRS. CONTRACTOR MAY SELECT TO INSTALL TEMPORARY BRACING IN A DIFFERENT BAY TO SUIT ACTUAL ERECTION SCHEME.

Ref. No.	REFERENCE

LEDCOR GROUP
COWI

PRELIMINARY NOT FOR CONSTRUCTION

THIS DRAWING HAS NOT BEEN APPROVED AND MAY CONTAIN ERRORS AND OMISSIONS

No.	Date	REVISION	Dr'n	Ch'd
B	2022-11-25	INDICATIVE DESIGN	DC	MR
A	2022-09-30	INDICATIVE DESIGN SUBMISSION DRAFT FOR IDR	DC	MR

PORT of vancouver
Vancouver Fraser Port Authority
ENGINEERING DEPARTMENT

DESIGN BY	M. REYNOLDS
DRAWN BY	D. CROWLEY
APPROVED	H. IBRAHIM
DATE	2022-11-25
SCALE	AS SHOWN
VFPA SITE	356

GREATER VANCOUVER GATEWAY 2030
PORTSIDE / BLUNDELL ROAD IMPROVEMENT PROJECT
PORTSIDE OVERPASS
FRAMING PLAN AND GIRDER ELEVATION

SIZE	DWG.	SHEET	REV.
D	356-135-ST-351	12 / 21	B

NOTES:

1. FOR GENERAL NOTES, SEE DRAWINGS 356–135–ST–101, AND 356–135–ST–102.

Ref. No.	REFERENCE

LEDCOR GROUP
COWI

PRELIMINARY NOT FOR CONSTRUCTION

THIS DRAWING HAS NOT BEEN APPROVED AND MAY CONTAIN ERRORS AND OMISSIONS

No.	Date	REVISION	Dr'n	Ch'd
B	2022-11-25	INDICATIVE DESIGN	DC	MR
A	2022-09-30	INDICATIVE DESIGN SUBMISSION DRAFT FOR IDR	DC	MR

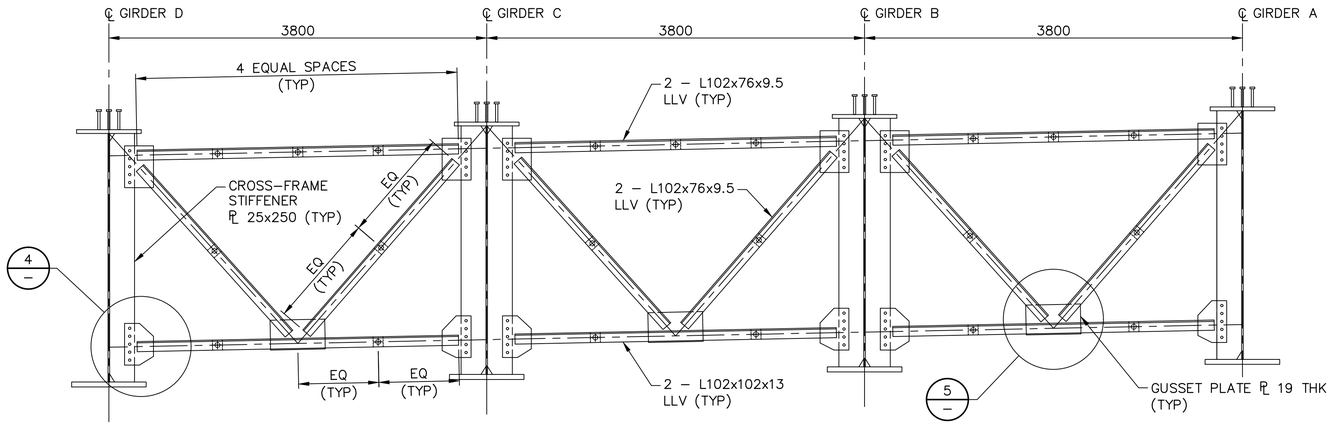
PORT of vancouver
Vancouver Fraser Port Authority
ENGINEERING DEPARTMENT

DESIGN BY	M. REYNOLDS
DRAWN BY	J. MILNE
APPROVED	H. IBRAHIM
DATE	2022-11-25
SCALE	AS SHOWN
VFPA SITE	356

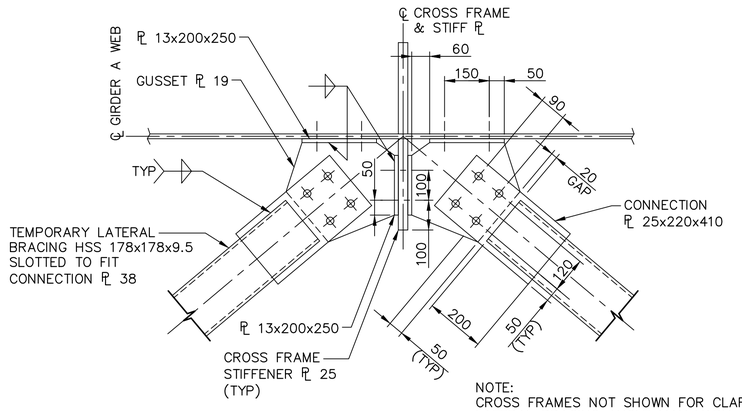
GREATER VANCOUVER GATEWAY 2030
PORTSIDE / BLUNDELL ROAD IMPROVEMENT PROJECT
PORTSIDE OVERPASS
GIRDER DETAILS - SHEET 1

SIZE	DWG.	SHEET	REV.
D	356-135-ST-352	13 / 21	B

TITLE BLOCK: DL-TB.dwg
DATE: 2022/11/24 - 6:21pm
PATH: C:\pwworking\ypw2\dec\d0863233\356-135-ST-352_Girder-Details-Sheet-1.dwg

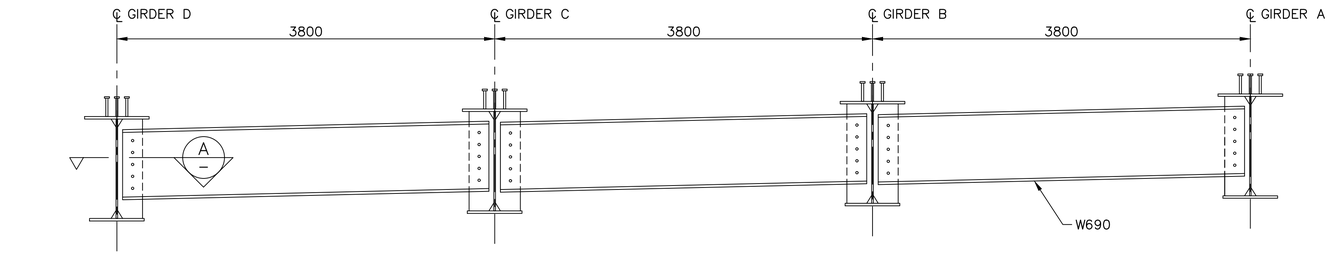


CROSS FRAME – TYPE C1
1:30

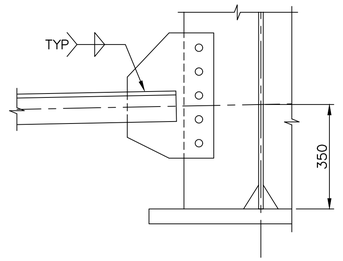


NOTE:
CROSS FRAMES NOT SHOWN FOR CLARITY
LATERAL BRACING ANGLE MAY VARY

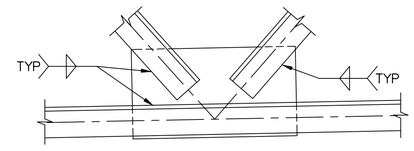
3/351 DETAIL
1:10



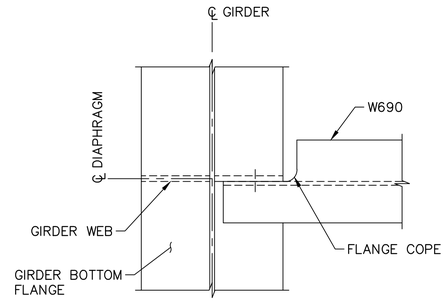
CROSS FRAME – TYPE D1
1:30



4 DETAIL
1:10



5 DETAIL
1:10



A SECTION
1:10

Ref. No.	REFERENCE

PRELIMINARY
NOT FOR CONSTRUCTION

THIS DRAWING HAS NOT BEEN APPROVED AND MAY CONTAIN ERRORS AND OMISSIONS

No.	Date	REVISION	Dr'n	Ch'd
B	2022-11-25	INDICATIVE DESIGN	DC	MR
A	2022-09-30	INDICATIVE DESIGN SUBMISSION DRAFT FOR IDR	DC	MR

PORT of vancouver
Vancouver Fraser Port Authority
ENGINEERING DEPARTMENT

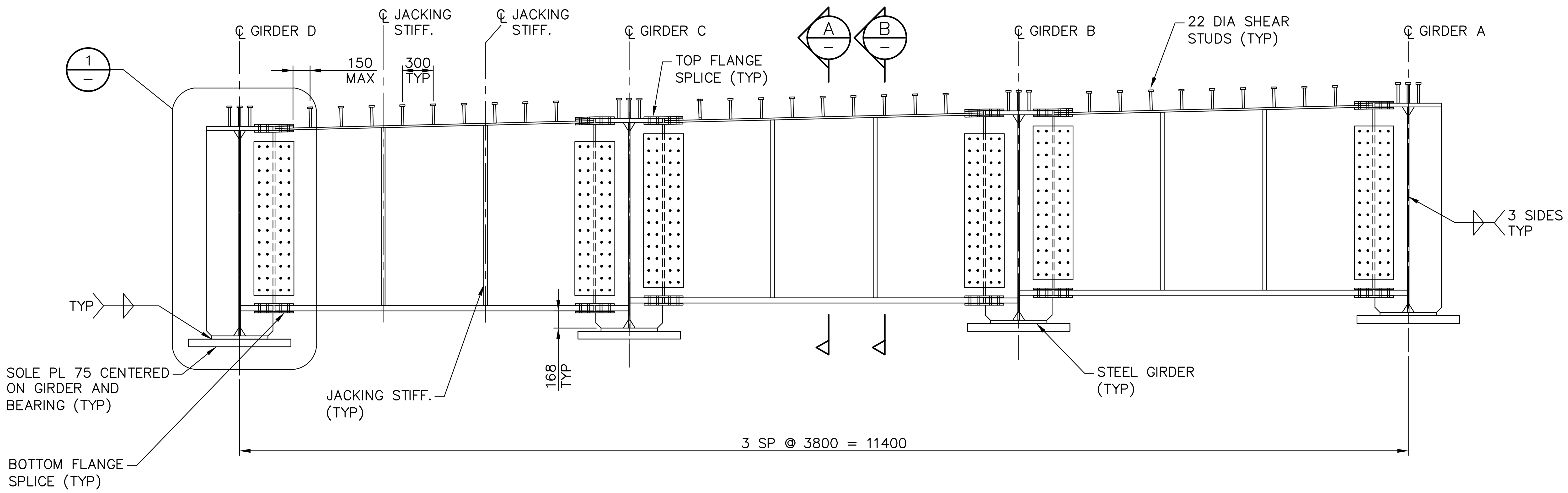
DESIGN BY	M. REYNOLDS
DRAWN BY	J. MILNE
APPROVED	H. IBRAHIM
DATE	2022-11-25
SCALE	AS SHOWN
VFPA SITE	356

GREATER VANCOUVER GATEWAY 2030
PORTSIDE / BLUNDELL ROAD IMPROVEMENT PROJECT
PORTSIDE OVERPASS
GIRDER DETAILS - SHEET 2

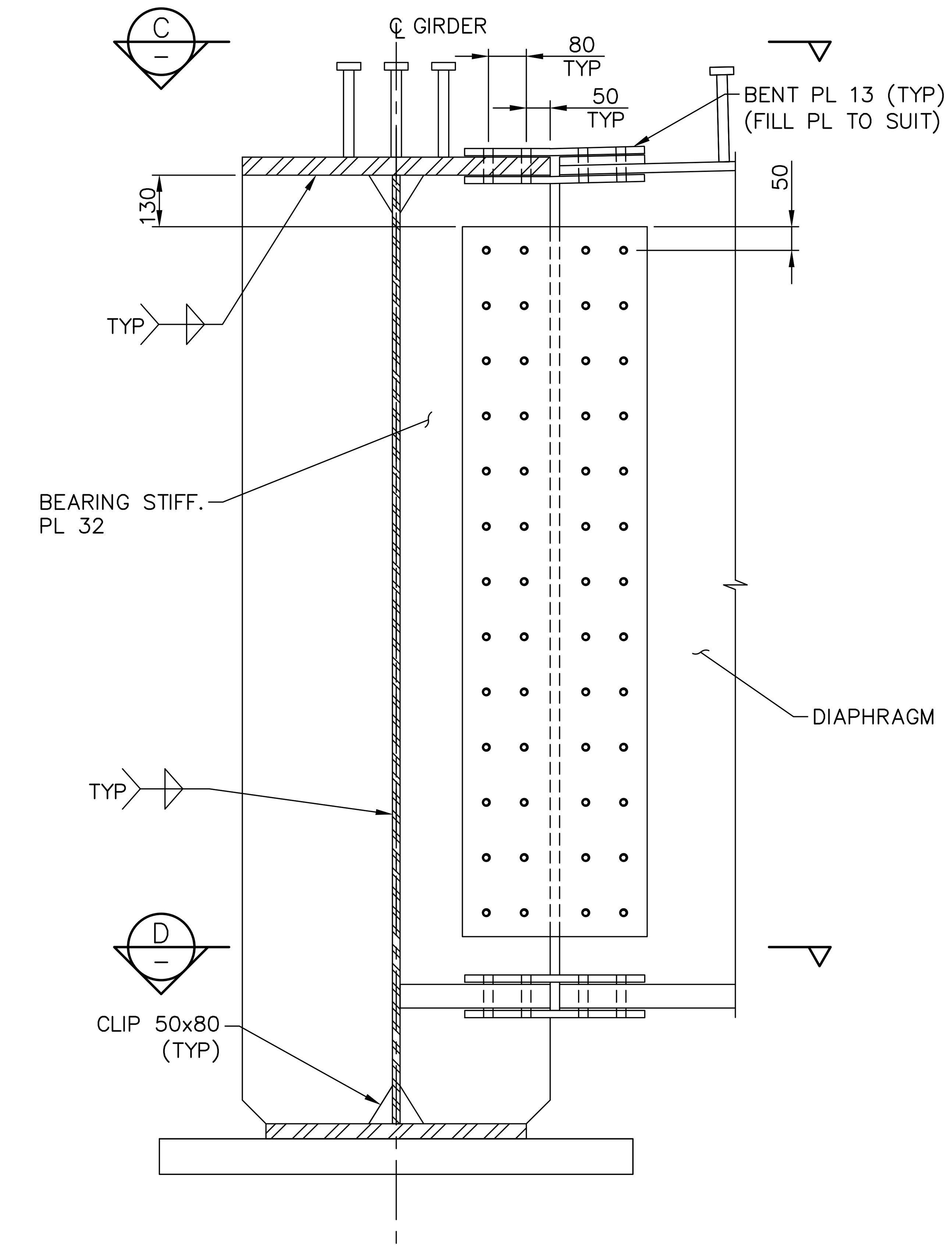
SIZE	DWG.	SHEET	REV.
D	356-135-ST-353	14 / 21	B

TITLE BLOCK DL-TB.dwg

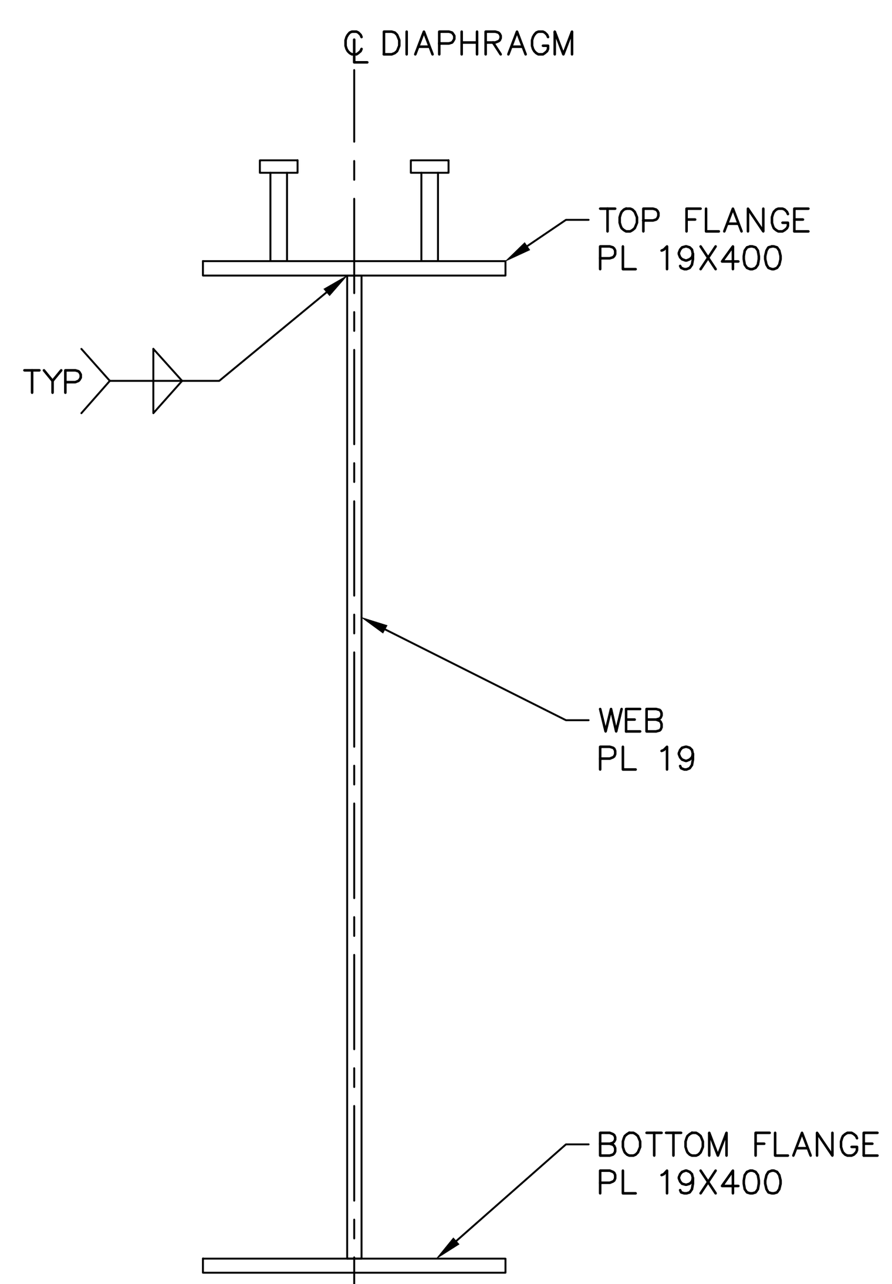
DATE: 2022/11/24 - 4:52pm
PATH: C:\pwwork\dklypyk2\decnd0863233\356-135-ST-353_Girder-Details-Sheet-2.dwg



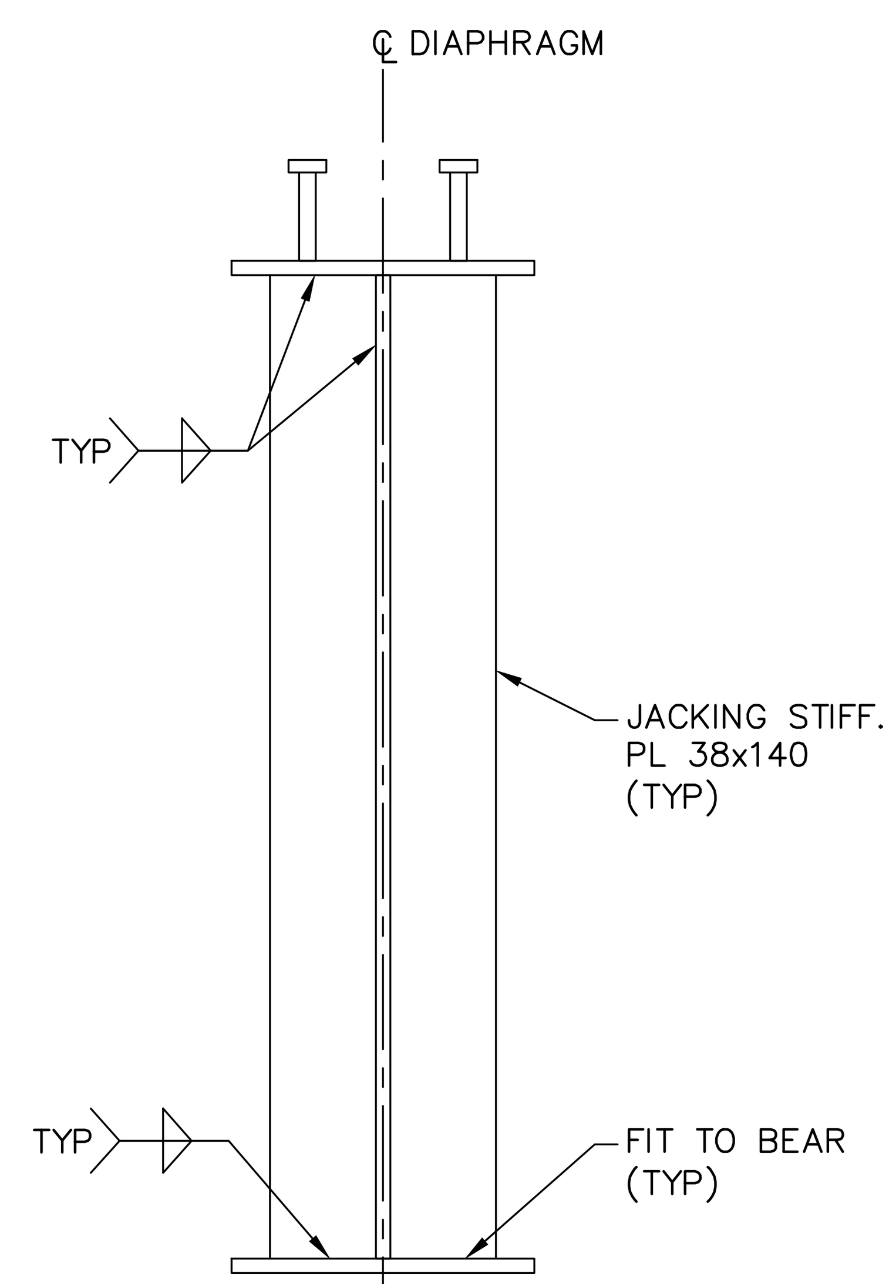
DIAPHRAGM TYPE D2 – AT PIER
1:30



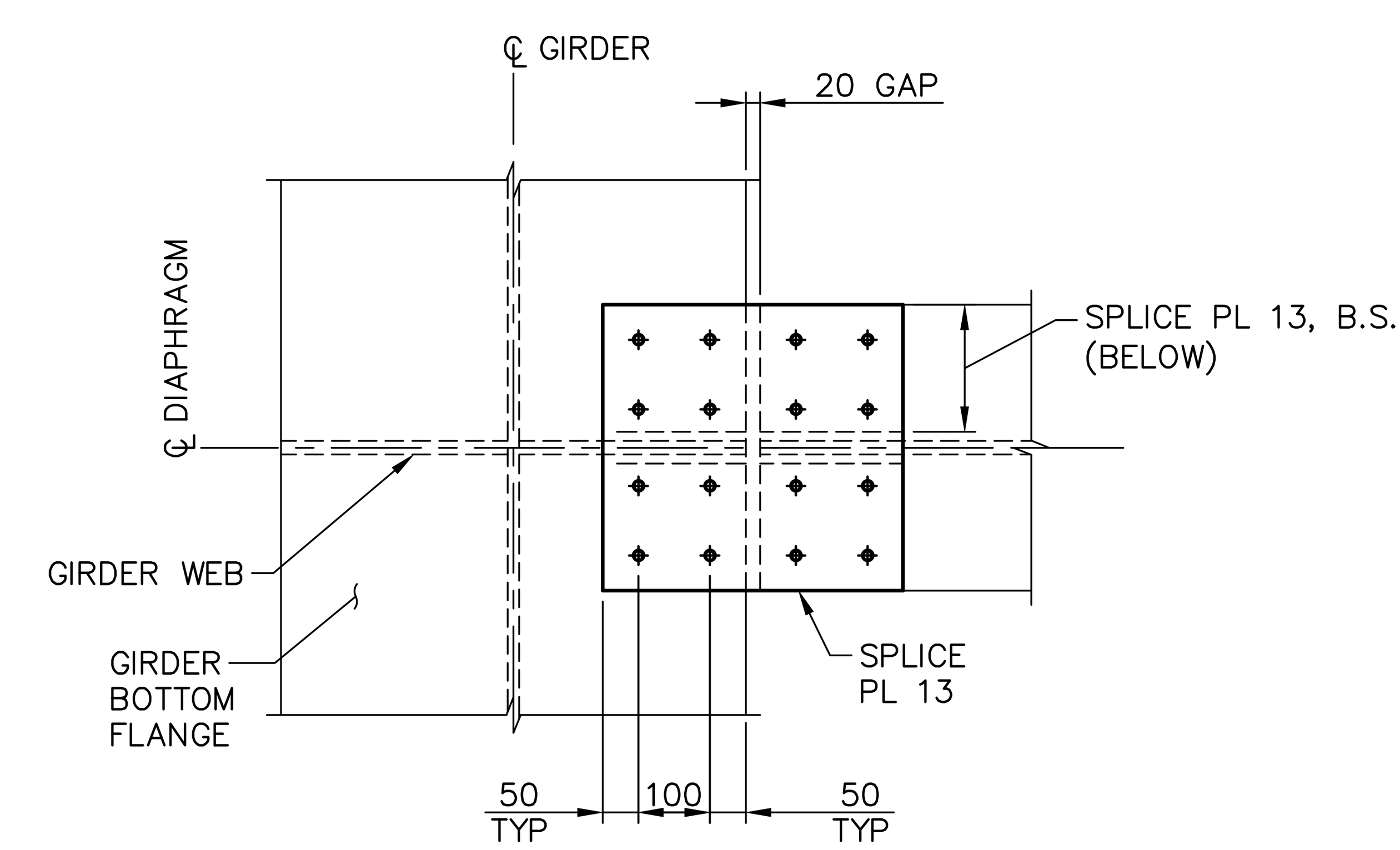
1 DETAIL
1:10



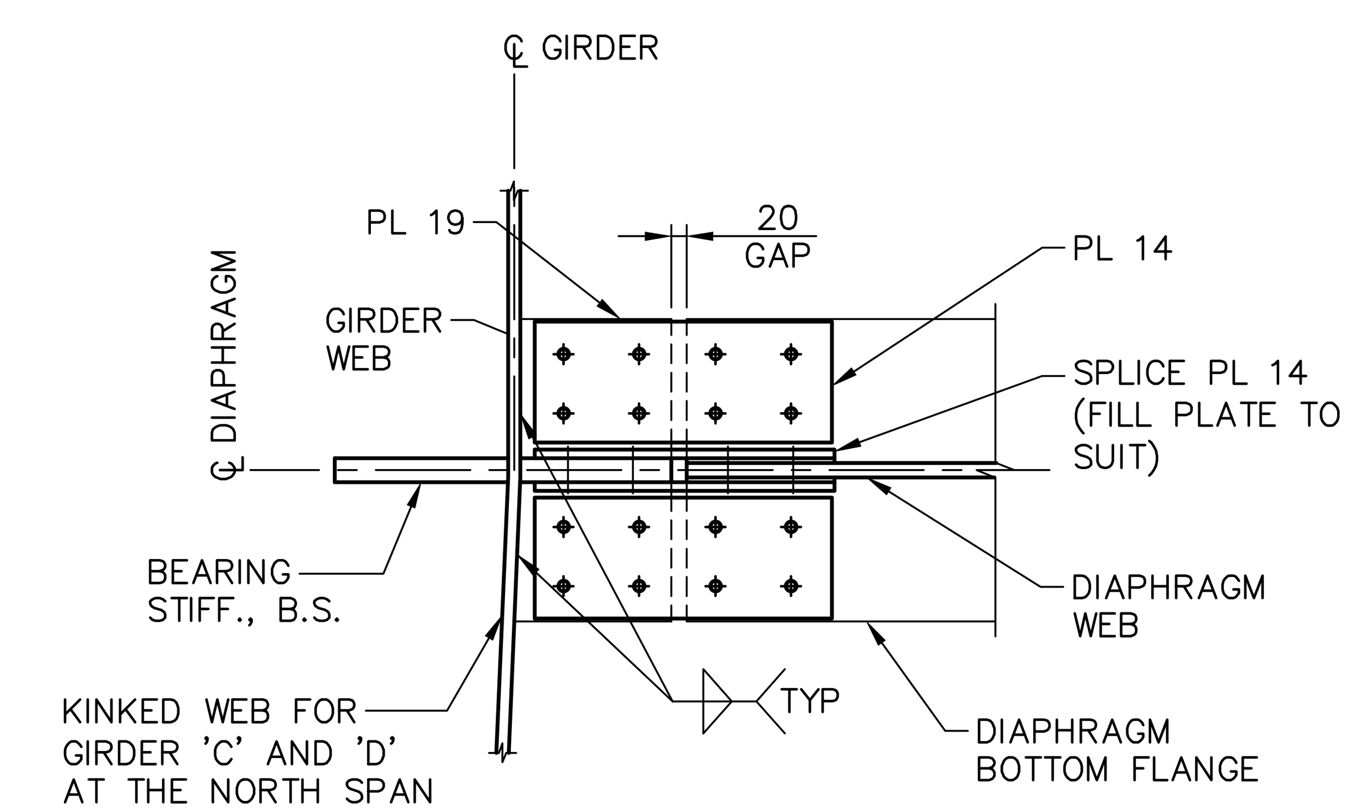
A SECTION
1:10



B SECTION
1:10



C SECTION
1:10



D SECTION
1:10

TITLE BLOCK: DL-TB.dwg

DATE: 2022/11/24 - 4:51pm
PATH: C:\pwwork\klypw2\decr\d0863233\356-135-ST-354_Girder-Details-Sheet-3.dwg

Ref. No.	REFERENCE

LEDCOR GROUP
COWI

PRELIMINARY NOT FOR CONSTRUCTION

THIS DRAWING HAS NOT BEEN APPROVED AND MAY CONTAIN ERRORS AND OMISSIONS

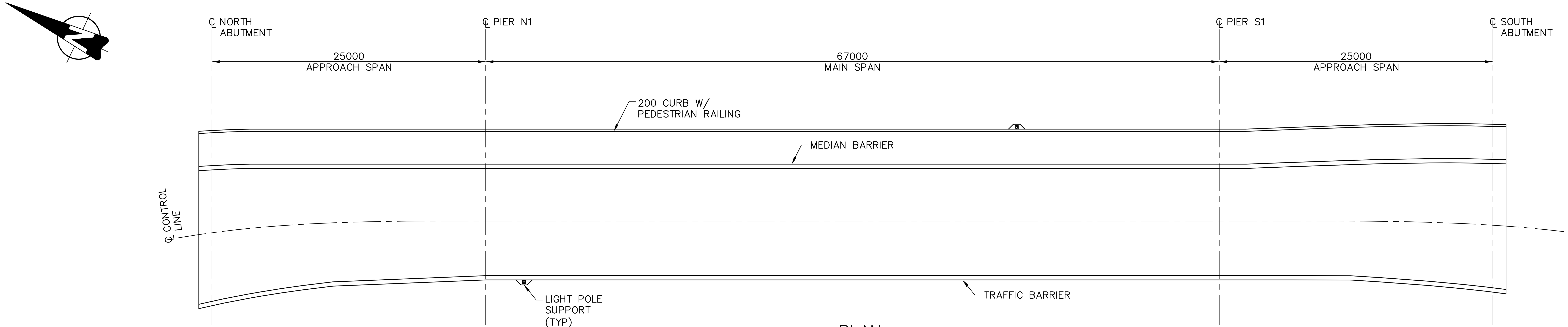
No.	Date	REVISION	Dr'n	Ch'd
B	2022-11-25	INDICATIVE DESIGN	DC	MR
A	2022-09-30	INDICATIVE DESIGN SUBMISSION DRAFT FOR IDR	DC	MR

PORT of vancouver
Vancouver Fraser Port Authority
ENGINEERING DEPARTMENT

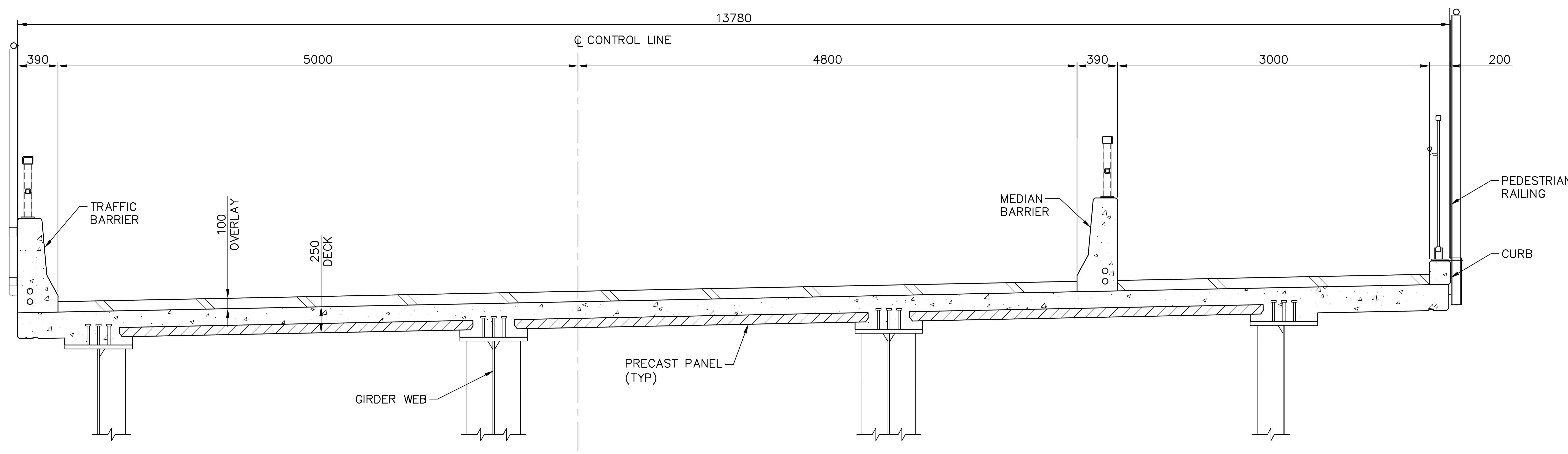
DESIGN BY	M. REYNOLDS
DRAWN BY	J. MILNE
APPROVED	H. IBRAHIM
DATE	2022-11-25
SCALE	AS SHOWN
VFPA SITE	356

GREATER VANCOUVER GATEWAY 2030
PORTSIDE / BLUNDELL ROAD IMPROVEMENT PROJECT
PORTSIDE OVERPASS
GIRDER DETAILS - SHEET 3

SIZE	DWG.	SHEET	REV.
D	356-135-ST-354	15 / 21	B



PLAN
1:200



TYPICAL SECTION
1:25

No.	Date	REVISION	Dr'n	Ch'd
B	2022-11-25	INDICATIVE DESIGN	DC	MR
A	2022-09-30	INDICATIVE DESIGN SUBMISSION DRAFT FOR IDR	DC	MR

Ref. No. | REFERENCE

LEDCOR GROUP
COWI

PRELIMINARY
NOT FOR
CONSTRUCTION

THIS DRAWING HAS NOT BEEN APPROVED AND MAY CONTAIN ERRORS AND OMISSIONS

PORT of vancouver
Vancouver Fraser Port Authority
ENGINEERING DEPARTMENT

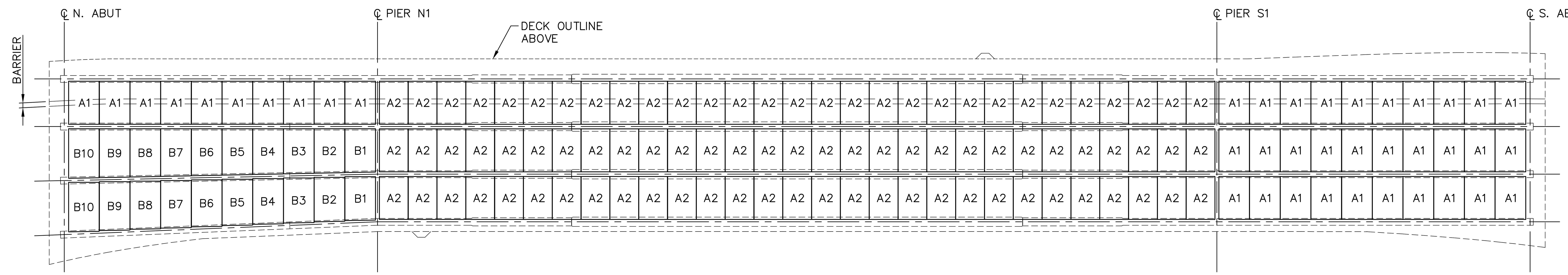
DESIGN BY	M. REYNOLDS
DRAWN BY	J. MILNE
APPROVED	H. IBRAHIM
DATE	2022-11-25
SCALE	AS SHOWN
VFPA SITE	356

GREATER VANCOUVER GATEWAY 2030
PORTSIDE/BLUNDELL ROAD IMPROVEMENT PROJECT
PORTSIDE OVERPASS
DECK LAYOUT

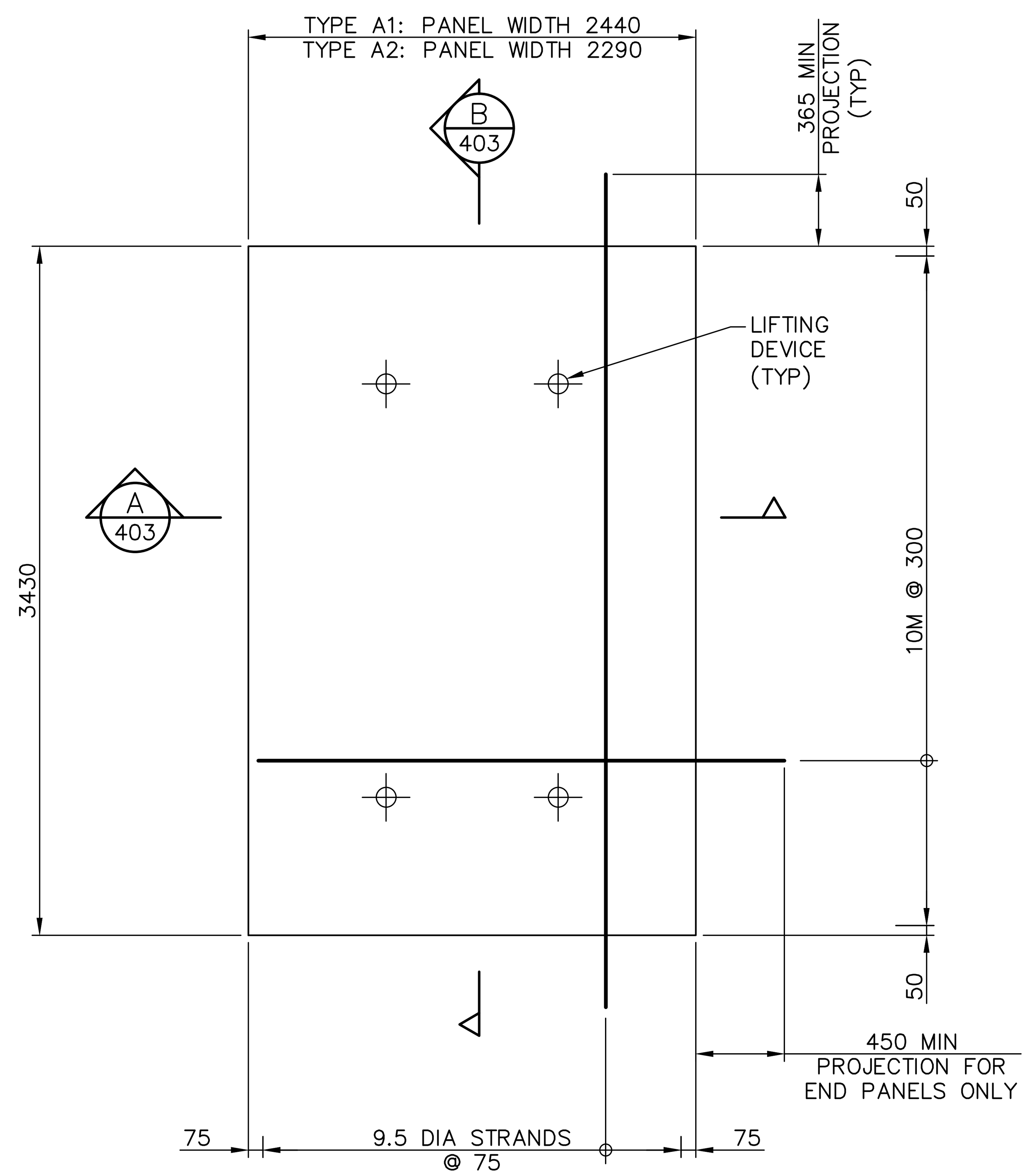
SIZE	DWG.	SHEET	REV.
D	356-135-ST-401	16 / 21	B

TITLE BLOCK: DL-TB.dwg

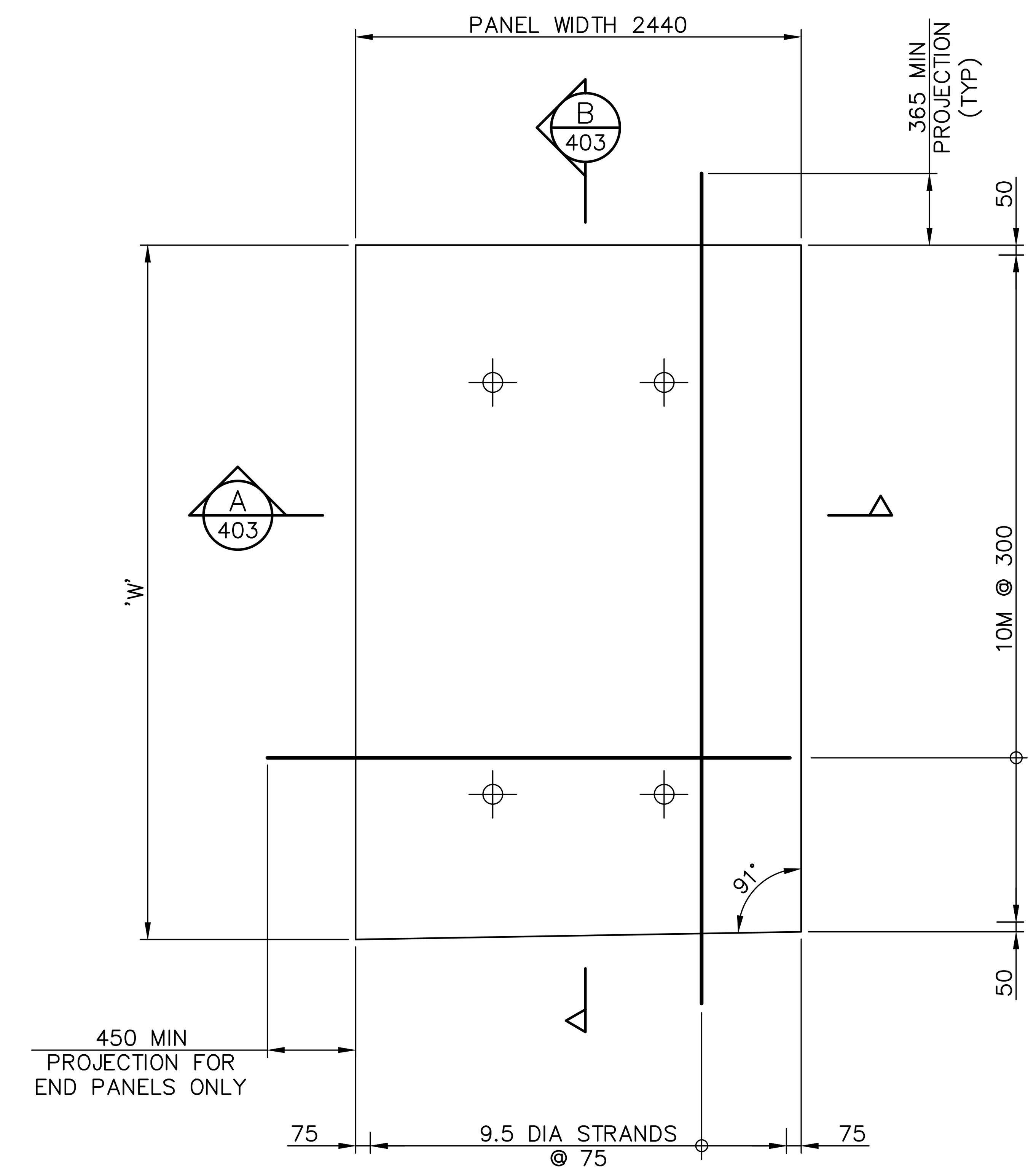
DATE: 2022/11/25 - 2:58pm
PATH: C:\pwwork\dk\pw2\decr\d0863233\356-135-ST-401_Deck-Layout.dwg



PRECAST PANEL LAYOUT – PLAN
1:200



TYPE A DECK PANEL – PLAN
1:25



TYPE B DECK PANEL – PLAN
1:25

DIM 'W' – PANEL TYPE B	
B1	3500
B2	3550
B3	3600
B4	3650
B5	3700
B6	3750
B7	3800
B8	3850
B9	3900
B10	3950

PANEL QUANTITY	
A1	40
A2	87
B1	2
B2	2
B3	2
B4	2
B5	2
B6	2
B7	2
B8	2
B9	2
B10	2

NOTES:

1. FOR GENERAL NOTES, SEE DRAWINGS 356–135–ST–101, AND 56–135–ST–102.
2. HIGH DENSITY EXPANDED POLYSTYRENE GEOFOAM (EPS) BEDDING MATERIAL SHALL CONFORM TO ASTM D6817 WITH THE FOLLOWING SPECIFICATIONS:
   MIN DENSITY = 28.8 kg/m^3
   MIN COMP. RESISTANCE @ 1% DEFORMATION = 75 kPa
   MAX WATER ABSORPTION = 2%
   MIN OXYGEN INDEX = 24%
3. USE SILICONE ADHESIVE OR EQUAL TO GLUE THE FOAM TO GIRDER FLANGE AND PRECAST PANEL.
4. USE SHIMS OR CONCRETE BLOCKS TO STABILIZE EPS STRIPS WHEN ITS HEIGHT EXCEEDS 75 mm.

Ref. No.	REFERENCE

LEDCOR GROUP
COWI

PRELIMINARY NOT FOR CONSTRUCTION

THIS DRAWING HAS NOT BEEN APPROVED AND MAY CONTAIN ERRORS AND OMISSIONS

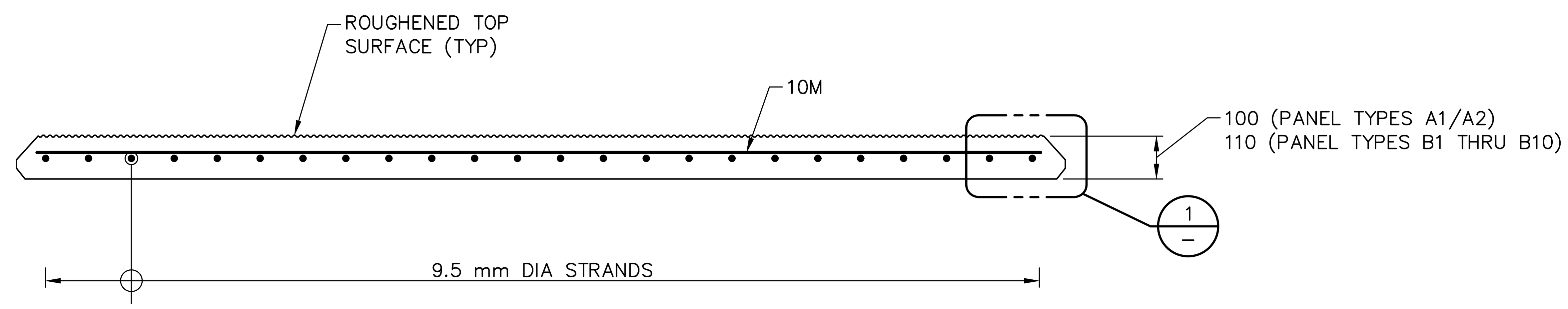
No.	Date	REVISION	Dr'n	Ch'd
B	2022-11-25	INDICATIVE DESIGN	DC	MR
A	2022-09-30	INDICATIVE DESIGN SUBMISSION DRAFT FOR IDR	DC	MR

PORT of vancouver
Vancouver Fraser Port Authority
ENGINEERING DEPARTMENT

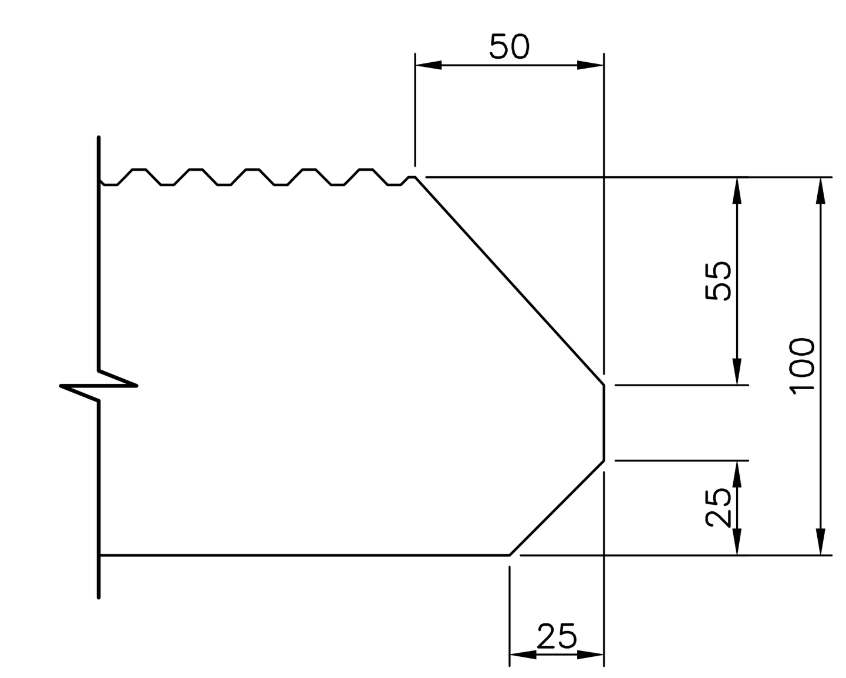
DESIGN BY	M. REYNOLDS
DRAWN BY	D. CROWLEY
APPROVED	H. IBRAHIM
DATE	2022-11-25
SCALE	AS SHOWN
VFPA SITE	356

GREATER VANCOUVER GATEWAY 2030
PORTSIDE / BLUNDELL ROAD IMPROVEMENT PROJECT
PORTSIDE OVERPASS
PRECAST LAYOUT

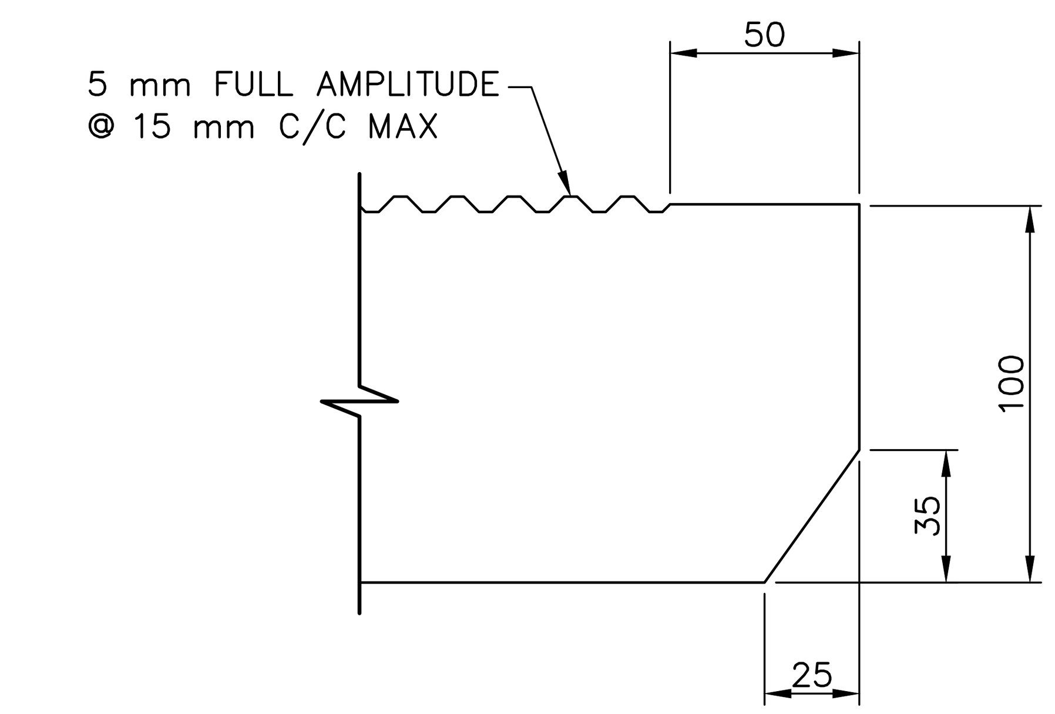
SIZE	DWG.	SHEET	REV.
D	356-135-ST-402	17 / 21	B



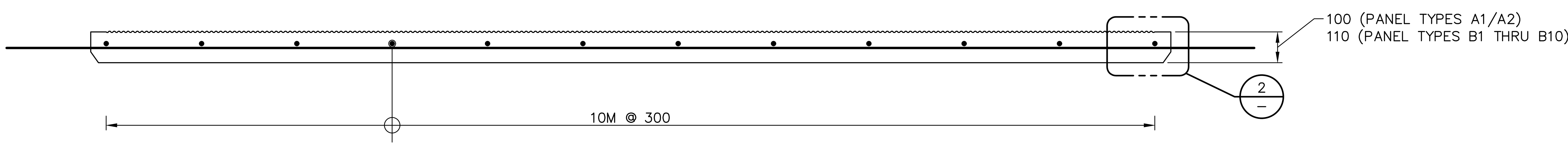
A SECTION
1:10



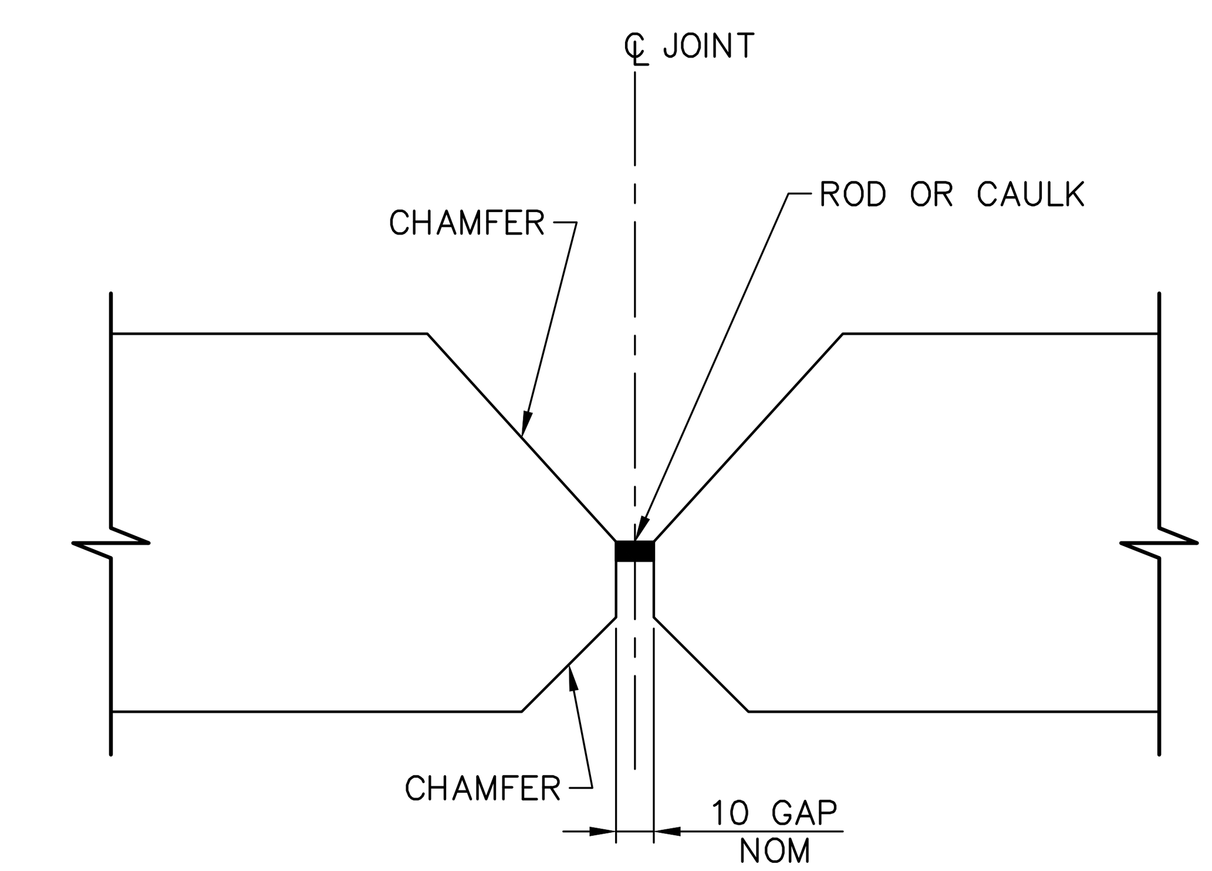
1 DETAIL
1:2



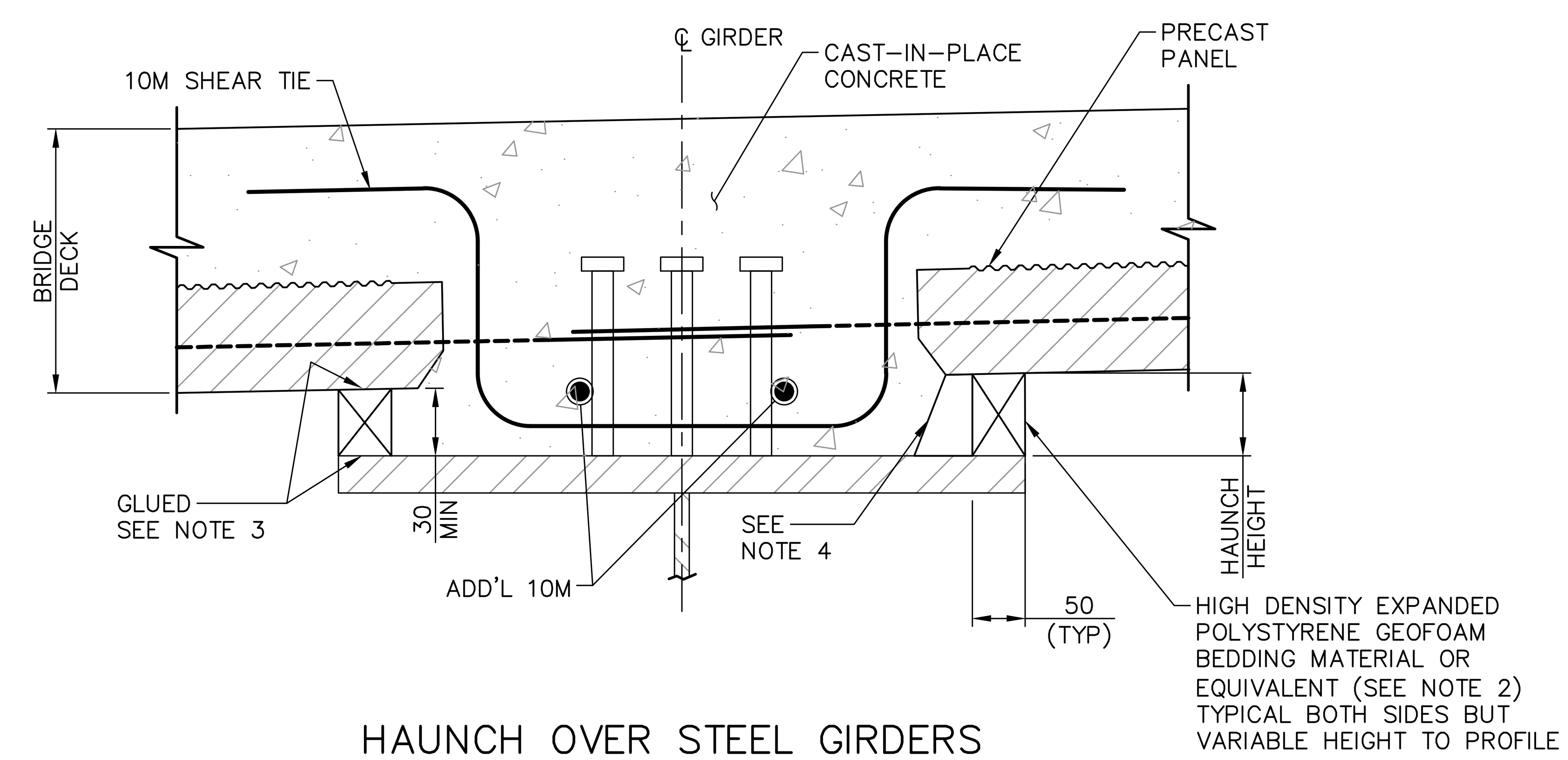
2 DETAIL
1:2



B SECTION
1:10



TYPICAL PANEL TO PANEL TRANSFER JOINT
1:2



HAUNCH OVER STEEL GIRDERS
(DECK REINFORCEMENT 1:5
NOT SHOWN FOR CLARITY)

NOTES:

1. FOR GENERAL NOTES, SEE DRAWINGS 356-135-ST-101, AND 356-135-ST-102.
2. HIGH DENSITY EXPANDED POLYSTYRENE GEOFOAM (EPS) BEDDING MATERIAL SHALL CONFORM TO ASTM D6817 WITH THE FOLLOWING SPECIFICATIONS:
   - MIN DENSITY = 28.2 kg/m^3
   - MIN COMP. RESISTANCE @ 1% DEFORMATION = 75 kPa
   - MAX WATER ABSORPTION = 2%
   - MIN OXYGEN INTAKE = 24%
3. USE SILICONE ADHESIVE OR EQUAL TO GLUE THE FOAM TO GIRDER FLANGE AND PRECAST PANEL.
4. USE SHIMS OR CONCRETE BLOCKS TO STABILIZE EPS STRIPS WHEN ITS HEIGHT EXCEEDS 75 mm.

No.	Date	REVISION	Dr'n	Ch'd
B	2022-11-25	INDICATIVE DESIGN	DC	MR
A	2022-09-30	INDICATIVE DESIGN SUBMISSION DRAFT FOR IDR	DC	MR

Ref. No.	REFERENCE

LEDCOR GROUP
COWI

PRELIMINARY
NOT FOR
CONSTRUCTION

THIS DRAWING HAS NOT BEEN APPROVED AND MAY CONTAIN ERRORS AND OMISSIONS

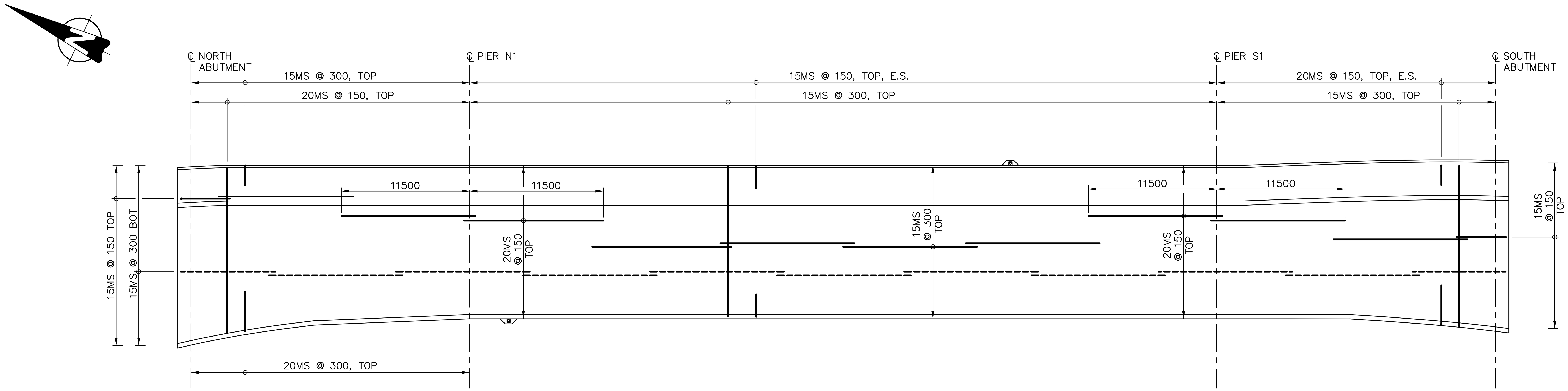
PORT of vancouver
Vancouver Fraser Port Authority
ENGINEERING DEPARTMENT

DESIGN BY	M. REYNOLDS
DRAWN BY	J. MILNE
APPROVED	H. IBRAHIM
DATE	2022-11-25
SCALE	AS SHOWN
VFPA SITE	356

GREATER VANCOUVER GATEWAY 2030
PORTSIDE / BLUNDELL ROAD IMPROVEMENT PROJECT
PORTSIDE OVERPASS
PRECAST DETAILS

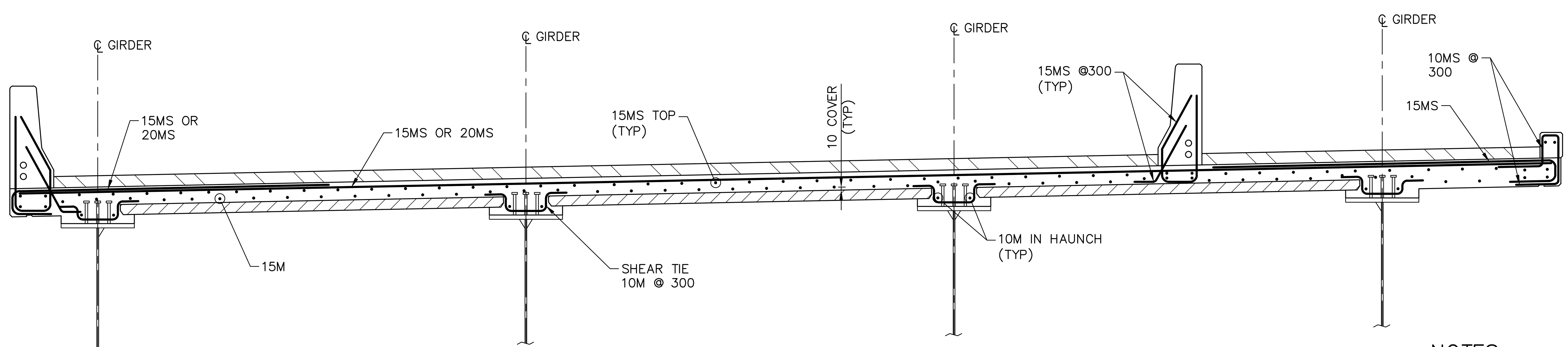
SIZE	DWG.	SHEET	REV.
D	356-135-ST-403	18 / 21	B

DATE: 2022/11/25 - 11:26am
PATH: C:\pwwork\dklypw2\decr\d0863233\356-135-ST-403_Precast-Details.dwg
TITLE BLOCK: DL-TB.dwg



MAIN SPAN DECK REINFORCEMENT – PLAN

(CURB AND BARRIER REINFORCEMENT NOT SHOWN) 1:200



TYPICAL DECK SECTION

1:25

NOTES:

1. FOR GENERAL NOTES, SEE DRAWINGS 356–135–ST–101 AND 356–135–ST–102.
2. FOR ROADWAY SUPERELEVATION REFER TO HIGHWAY DRAWINGS
3. FOR WATERPROOFING MEMBRANE DETAILS AT BARRIER, SEE DRAWING SP419–01 OF BCMoTI 2018 DBSS
4. WICK DRAIN TO BE INSTALLED FOR FULL LENGTH OF DECK AT THE ROADWAY EDGE OF EXTERIOR PARAPET
5. SEE GENERAL NOTES FOR REQUIRED SPLICE LENGTHS AND DETAILS

Ref. No.	REFERENCE

LEDCOR GROUP
COWI

PRELIMINARY NOT FOR CONSTRUCTION

THIS DRAWING HAS NOT BEEN APPROVED AND MAY CONTAIN ERRORS AND OMISSIONS

No.	Date	REVISION	Dr'n	Ch'd
B	2022-11-25	INDICATIVE DESIGN	DC	MR
A	2022-09-30	INDICATIVE DESIGN SUBMISSION DRAFT FOR IDR	DC	MR

PORT of vancouver
Vancouver Fraser Port Authority
ENGINEERING DEPARTMENT

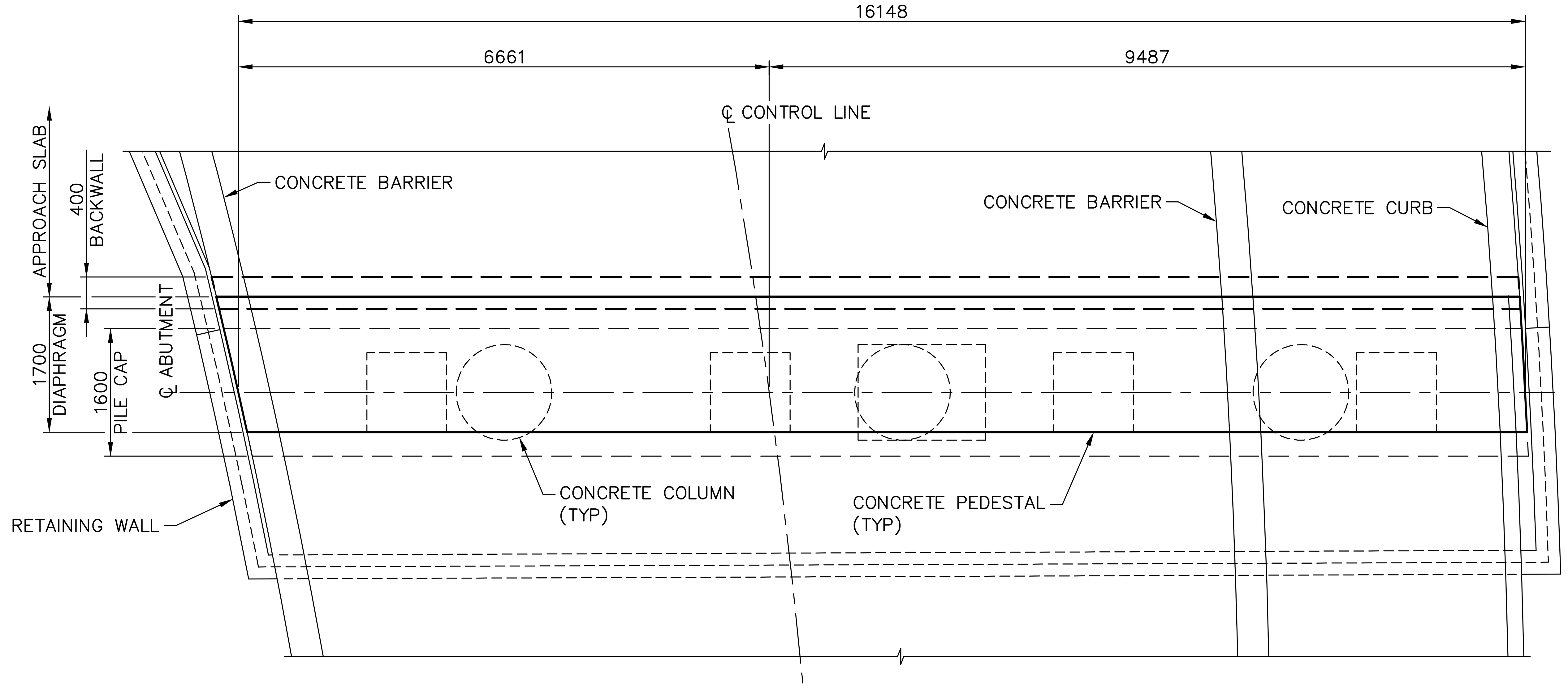
DESIGN BY	M. REYNOLDS
DRAWN BY	C. SHAIGEC
APPROVED	H. IBRAHIM
DATE	2022-11-25
SCALE	AS SHOWN
VFPA SITE	356

GREATER VANCOUVER GATEWAY 2030
PORTSIDE / BLUNDELL ROAD IMPROVEMENT PROJECT
PORTSIDE OVERPASS
DECK REINFORCING

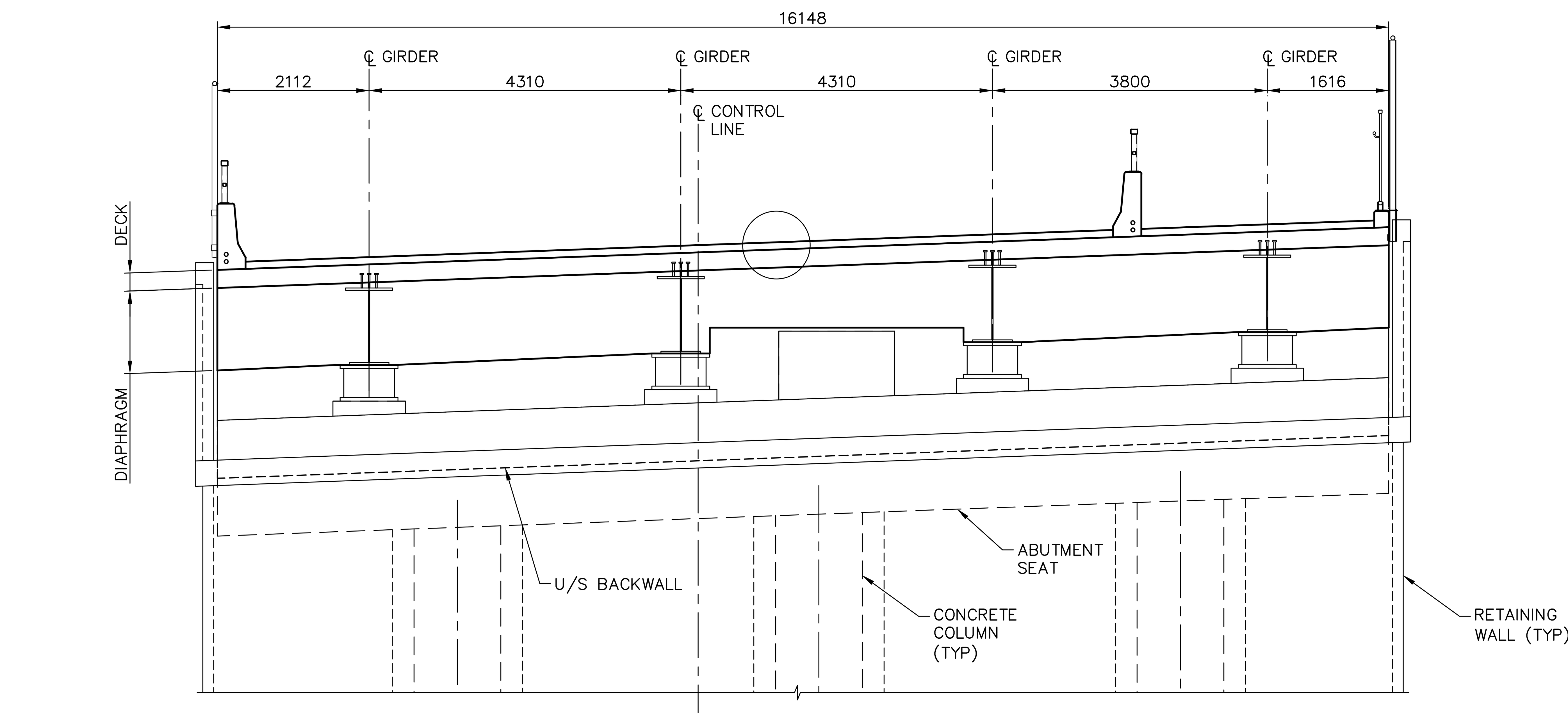
SIZE	DWG.	SHEET	REV.
D	356-135-ST-404	19 / 21	B

TITLE BLOCK: DL-TB.dwg

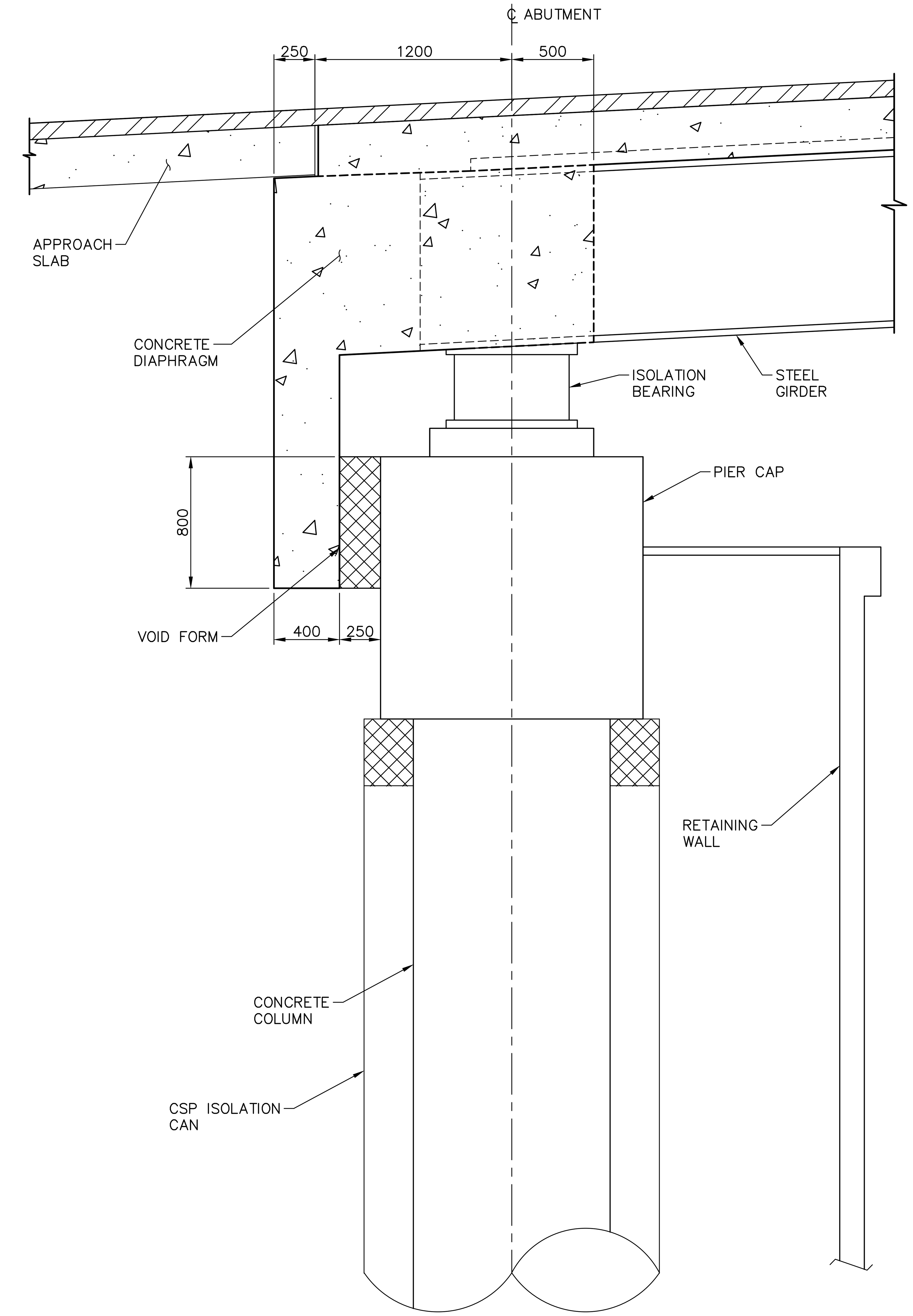
DATE: 2022/11/25 - 11:35am
PATH: C:\pwwork\dklypw2\decr\d0863233\356-135-ST-404_Deck-Reinforcing.dwg



PLAN
1:50



ELEVATION
1:50



TYPICAL SECTION
1:20

TITLE BLOCK: DL-TB.dwg

DATE: 2022/11/25 - 2:40pm
PATH: C:\pwwork\dk\ypw2\decr\d0863233\356-135-ST-501_Diaphragm-Outlines.dwg

Ref. No.	REFERENCE

LEDCOR GROUP
COWI

PRELIMINARY
NOT FOR
CONSTRUCTION

THIS DRAWING HAS NOT BEEN APPROVED AND MAY CONTAIN ERRORS AND OMISSIONS

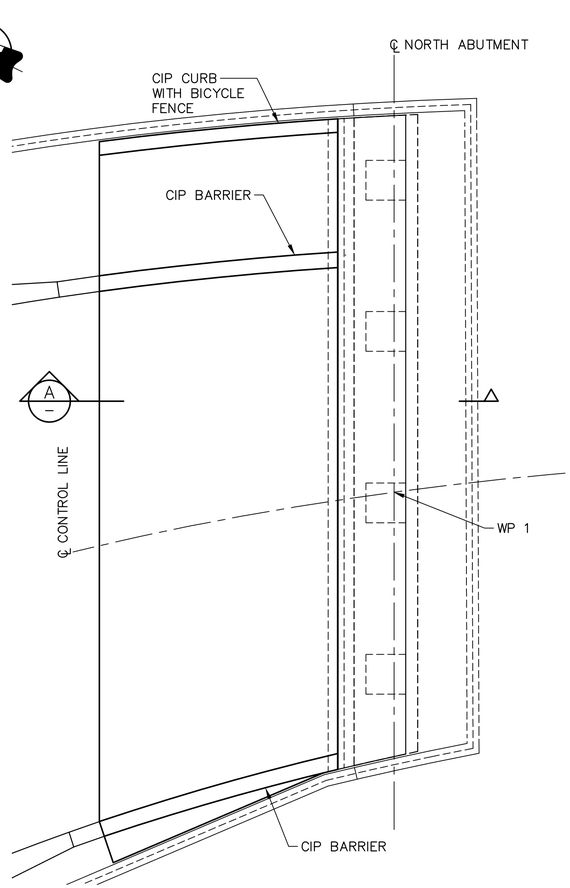
No.	Date	Revision	Dr'n	Ch'd
B	2022-11-25	INDICATIVE DESIGN	DC	MR
A	2022-09-30	INDICATIVE DESIGN SUBMISSION DRAFT FOR IDR	DC	MR

PORT of vancouver
Vancouver Fraser Port Authority
ENGINEERING DEPARTMENT

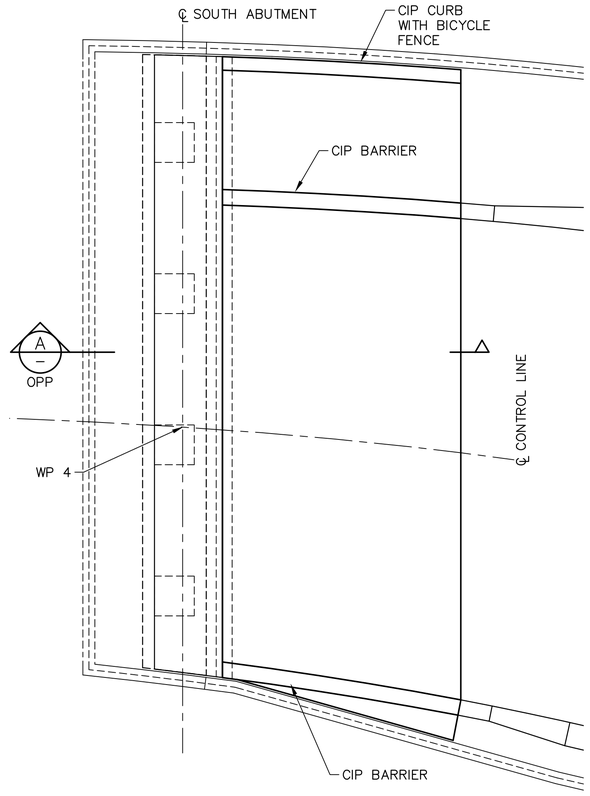
DESIGN BY	M. REYNOLDS
DRAWN BY	C. SHAIGEC
APPROVED	H. IBRAHIM
DATE	2022-11-25
SCALE	AS SHOWN
VFPA SITE	356

GREATER VANCOUVER GATEWAY 2030
PORTSIDE / BLUNDELL ROAD IMPROVEMENT PROJECT
PORTSIDE OVERPASS
DIAPHRAGM OUTLINES

SIZE	DWG.	SHEET	REV.
D	356-135-ST-501	20 / 21	B



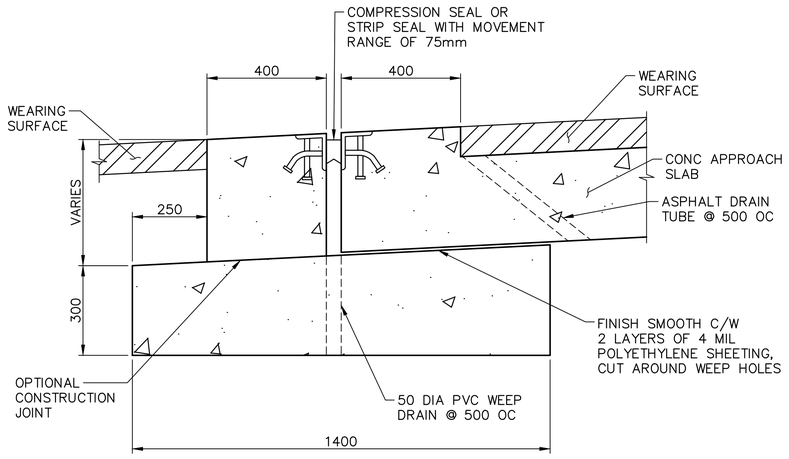
NORTH APPROACH SLAB – PLAN
NOTE: DECK NOT SHOWN
1:75



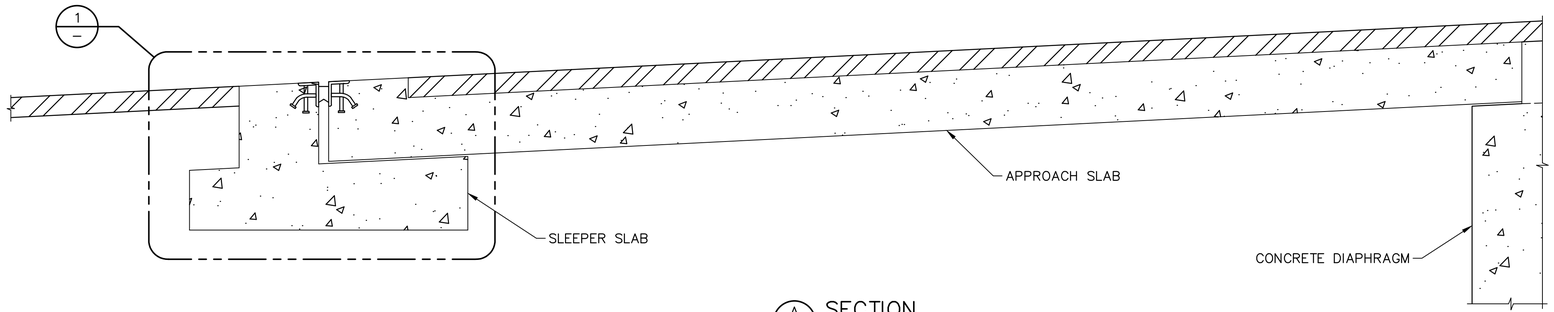
SOUTH APPROACH SLAB – PLAN
NOTE: DECK NOT SHOWN
1:75

NOTES:

1. FOR GENERAL NOTES, SEE DRAWINGS 356-135-ST-101 AND 356-135-ST-102.
2. FOR ROADWAY SUPERELEVATION REFER TO HIGHWAY DRAWINGS
3. FOR WATERPROOFING MEMBRANE DETAILS AT BARRIER, SEE DRAWING SP419-004 "FIXED JOINT OR CRACK" OF BCMoTI 2018 DBSS
4. FOR APPROACH SLAB TERMINATION WATERPROOFING MEMBRANE DETAIL, SEE DRAWING SP419-07 OF BCMoTI 2018 DBSS



1 DETAIL
1:10



A SECTION
1:15

Ref. No.	REFERENCE

PRELIMINARY NOT FOR CONSTRUCTION

THIS DRAWING HAS NOT BEEN APPROVED AND MAY CONTAIN ERRORS AND OMISSIONS

No.	Date	REVISION	Dr'n	Ch'd
B	2022-11-25	INDICATIVE DESIGN	DC	MR
A	2022-09-30	INDICATIVE DESIGN SUBMISSION DRAFT FOR IDR	DC	MR

PORT of vancouver
Vancouver Fraser Port Authority
ENGINEERING DEPARTMENT

DESIGN BY	M. REYNOLDS
DRAWN BY	C. SHAIGEC
APPROVED	H. IBRAHIM
DATE	2022-11-25
SCALE	AS SHOWN
VFPA SITE	356

GREATER VANCOUVER GATEWAY 2030
PORTSIDE / BLUNDELL ROAD IMPROVMENT PROJECT
PORTSIDE OVERPASS
APPROACH SLAB LAYOUT

SIZE	DWG.	SHEET	REV.
D	356-135-ST-551	21 / 21	B

TITLE BLOCK_DL-TB.dwg

DATE: 2022/11/25 - 3:48pm
PATH: C:\pwwork\dklpnpvl2\ecrid0863233\356-135-ST-551_Approach-Slab-Layout.dwg