



Project and Environmental Review Permit

PER No.:	20-055
Tenant/Permit Holder:	Vancouver Fraser Port Authority (Port Authority), Infrastructure Projects
Project:	Portside Blundell Road Improvements
Project location:	Along the south arm of the Fraser River and within the City of Richmond and Port Authority's Fraser Richmond Industrial Lands
Land use designation:	Industrial
Applicant:	Port Authority, Infrastructure Projects
Category of review:	C
Date of expiry:	October 31, 2027

Project description

For the purposes of this project permit, (the "Permit"), the project is understood to include the following works on Vancouver Fraser Port Authority ("Port Authority") property:

Demolition/removal

- Demolition and removal of the existing at grade level crossing
- Removal of trees and roadside vegetation along Portside Road to install a multi-use pathway
- Removal of various utilities to make way for Project components, and relocation of utilities where necessary

Temporary works – during construction

- Installation of a frontage road (detour) to divert traffic off Portside Road around the worksite
- Installation of pedestrian foot paths around the construction site on the north side of Blundell Road
- Diverted access for businesses on port authority lands along north side of Blundell Road
- Excavation and removal of unsuitable soils in some locations
- Placement of fill, and preload in various locations, and settlement monitoring instruments
- Laydown areas within the overpass footprint, in Area V (southwest of the proposed overpass, in currently unused areas)

Permanent works

- Installation of the Portside Road overpass – two lane bridge with a loop on either end, including
 - Ramps/abutments consisting of fill, and mechanically stabilized earth walls
 - 12 1372mm diameter steel pipe piles
 - Steel superstructure including girders, stingers, concrete panels
- Installation of the Portside Road multi-use pathway, crossings, and sidewalks throughout the Project area
- Installation of a new ramp access from the north side of Blundell Road to the Adesa site
- Re-establishment of driveway access from the south side of Blundell Road to the City of Richmond lift station and BC Hydro station
- Utility installations and relocations, including:
 - storm water swales, pipes, and oil water separators

- electrical system modifications
 - sanitary system modifications
 - telecommunications infrastructure, and
 - gas infrastructure
- Signage including roadside and overhead, throughout
 - Removal of temporary works required for construction
 - Landscaping including replacement trees, and possible hydroseeding of slopes near the overpass

Project and environmental conditions

The Port Authority has undertaken and completed a review of the Project in accordance with the *Canada Marine Act* and Section 5 of the *Port Authorities Operations Regulations* and, as applicable, Section 82 of the *Impact Assessment Act*.

If at any time the Permit Holder fails to comply with any of the project and environmental conditions set out in the Permit below, or if the Port Authority determines that the Permit Holder has provided any incomplete, incorrect or misleading information in relation to the Project, the Port Authority may, in its sole and absolute discretion, cancel its authorization for the Project or change the project and environmental conditions to which such authorization is subject.

Pursuant to Section 29 of the *Port Authorities Operations Regulations*, the Port Authority may also cancel its authorization for the Project, or change the project and environmental conditions to which such authorization is subject, if new information is made available to the Port Authority at any time in relation to the potential adverse environmental and other effects of the Project.

The following are the project and environmental conditions that must be followed by the Permit Holder to mitigate potential or foreseeable adverse environmental and other effects.

Port Authority Guidelines and Record Drawing Standards referenced in this document can be located at: <https://www.portvancouver.com/permitting-and-reviews/per/project-and-environment-review-applicant/guidelines/>.

No.	General conditions
(1)	The Permit Holder must have a valid lease, licence, or access agreement for the Project site prior to accessing the Project site or commencing construction or any other physical activities on the Project site. This Permit shall in no way limit any of the Permit Holder's obligations, or the Port Authority's rights, under such lease, licence, or access agreement.
(2)	The Permit Holder shall at all times and in all respects, comply with and abide by all applicable statutes, laws, regulations and orders from time to time in force and effect, including all applicable environmental, labour and safety laws and regulations.
(3)	This Permit in no way endorses or warrants the design, engineering, or construction of the Project and no person may rely upon this Permit for any purpose other than the fact that the Port Authority has permitted the construction of the Project, in accordance with the terms and conditions of this Permit.
(4)	The Permit Holder shall indemnify and save harmless the Port Authority in respect of all claims, losses, costs, fines, penalties or other liabilities, including legal fees, arising out of: (a) any bodily injury or death, property damage or any loss or damage arising out of or in any way connected with the Project; and (b) any breach by the Permit Holder of its obligations under this Permit.

(5)	The Permit Holder is responsible for locating all existing site services and utilities, including any located underground. The Permit Holder shall provide an Infrastructure Surveyed Data Drawing that includes topographic and utility locate data based on surveys in accordance with the Port Authority's Record Drawing Standards. The Permit Holder is responsible for repair or replacement of any damage to existing site services and utilities, to the satisfaction of the Port Authority, that result from construction and operation of the Project.
(6)	The Permit Holder shall undertake and deliver the Project to total completion in a professional, timely and diligent manner in accordance with applicable standards and specifications set out in the sections above entitled Project Description and Information Sources, including the attached plans and drawings numbered PER No. 20-055 – A to I. The Permit Holder shall not carry out any other physical activities unless expressly authorized by the Port Authority.
(7)	The Permit Holder shall cooperate fully with the Port Authority in respect of any review by the Port Authority of the Permit Holder's compliance with this Permit, including providing information and documentation in a timely manner, as required by the Port Authority. The Permit Holder is solely responsible for demonstrating the Permit Holder's compliance with this Permit.
(8)	The Permit Holder shall review the Permit with all employees, agents, contractors, licensees and invitees working on the Project site, prior to such parties participating in any construction or other physical activities on the Project site. The Permit Holder shall be solely responsible for ensuring that all such employees, agents, contractors, licensees and invitees comply with this Permit.
(9)	The Permit Holder shall make available upon request by any regulatory authority (such as a Fishery Officer) a copy of this Permit.
(10)	Unless otherwise specified, the Permit Holder shall provide plans, documents, and notices required under this Permit to our compliance and monitoring portal at https://eper.portvancouver.com .
(11)	Unless otherwise specified, all plans, schedules, and other Project-related documentation that the Permit Holder is required to provide under this Permit, and any subsequent updates, must be to the Port Authority's satisfaction.
(12)	The Permit Holder shall prepare and submit a self-report form to the Port Authority demonstrating compliance with conditions at each of the following project phases: (A) Prior to construction - shall be submitted a minimum of 15 business days prior to the commencement of construction, or any physical activities, to a maximum of 90 business days prior to construction, or any physical activities; (B) During construction - shall be submitted every 6 months during construction; (C) Upon project completion - shall be submitted within 60 business days of completion of construction.
(13)	The Port Authority shall have unfettered access to environmental compliance documentation and the Project site at all times during construction without notice.
(14)	The Permit Holder must maintain and retain any records associated with, or produced by, actions or activities undertaken to achieve compliance or that

	indicate non-compliance with project permit conditions. These records must be made available at the request of the Port Authority.	
(15)	All conditions in this Permit which expressly or by their nature survive expiration or termination of this Permit will remain in effect after the expiration or termination of this Permit.	
No.	Conditions – prior to commencing construction or any physical activities	
(16)	<p>The Permit Holder shall provide a Project construction schedule to the Port Authority showing the anticipated phases and start dates for all major Project components.</p> <p>The Permit Holder shall notify the Port Authority of any material changes to the Project schedule and, upon request, shall provide an updated Project schedule.</p>	20 business days before commencing construction or any physical activities
(17)	<p>The Permit Holder shall submit Issued For Construction Drawings for proposed works in accordance with the Port Authority's Record Drawing Standards. These drawings shall be signed and sealed and approved for construction by a professional engineer licensed to practice in the Province of British Columbia. Final design shall be in compliance with the most current edition of the applicable codes and standards.</p> <p>In addition, these drawings shall be submitted in both AutoCAD and PDF format and shall be named according to the record drawing index numbering system set out at Section 2.10 of the Port Authority's Record Drawing Standards.</p>	20 business days before commencing construction of project phases
(18)	The Permit Holder shall submit an invasive species management plan. The Permit Holder shall carry out the project in keeping with the plan, and any subsequent updates made to it, to the Port Authority's satisfaction.	20 business days before commencing construction or any physical activities
(19)	<p>The Permit Holder shall submit a draft construction communications plan and construction notification in accordance with the Port Authority's Public Engagement Guidelines.</p> <ul style="list-style-type: none"> • The plan shall outline how the Permit Holder will communicate with the public from the date of permit issuance to the completion of construction. The plan shall be updated as necessary and upon request by the Port Authority to ensure the public is provided with relevant information as it becomes available. The Permit Holder shall carry out the Project in accordance with the construction communications plan, and any subsequent updates made to the Port Authority's satisfaction. • The construction notification shall set out the activities anticipated to be conducted outside of standard construction hours and the anticipated schedule, if known. 	20 business days before commencing construction or any physical activities

Vancouver Fraser Port Authority
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(20)	The Permit Holder shall distribute a construction notification to residents and businesses to the area defined in the PER report (within 700 metres of the Project area). This shall be completed to the Port Authority's satisfaction. The Permit Holder shall notify the Port Authority when such distribution has been completed. The notification shall be posted on the Applicant's website.	10 business days before commencing construction or any physical activities
(21)	The Permit Holder shall submit a construction parking and traffic management plan to the Port Authority's satisfaction. The Permit Holder shall carry out the Project in accordance with the construction parking and traffic management plan, and any subsequent updates to the Port Authority's satisfaction.	20 business days before commencing construction or any physical activities
(22)	The Permit Holder shall submit an Archaeological Chance Find Procedure for the Project site, or shall adopt the Vancouver Fraser Port Authority Archaeological Chance Find Procedure, to the Port Authority's satisfaction. The Permit Holder shall carry out the Project in accordance with the Procedure, and any subsequent updates made to it, to the Port Authority's satisfaction.	30 business days before commencing construction or any physical activities
(23)	For buildings, structures and proposed interior changes to buildings that are reviewable under the National Building Code and National Fire Code, the Permit Holder shall apply for a Port Authority Building Permit.	40 days before commencing construction or any physical activities
(24)	The Permit Holder shall submit an updated Construction Environmental Management Plan to the Port Authority's satisfaction with the following plans appended: (A) Invasive species management plan (B) Erosion and sediment control plan The Permit Holder shall carry out the Project in accordance with the Construction Environmental Management Plan, and any subsequent updates made to the Port Authority's satisfaction.	30 days before commencing construction or any physical activities
(25)	The Permit Holder shall confirm that lateral or vertical preferential pathways for migration of contamination in groundwater will not be created by the project, including new utility corridors, to the Port Authority's satisfaction.	60 days before commencing construction or any physical activities
(26)	The Permit Holder shall assess how project activities such as compacting, filling, and final surface cover will affect overall leachate production in the area and propose measures to mitigate any effects of additional production to the Port Authority's satisfaction.	60 days before commencing construction or any physical activities
(27)	The Permit Holder shall confirm which soils on site are being considered for re-use as backfill and submit a sampling plan, to confirm that these soils meet applicable	60 days before commencing

	standards and guidelines, to the Port Authority's satisfaction.	construction or any physical activities
No.	Conditions – during construction or any physical activities	
(28)	The Permit Holder shall notify the Port Authority upon commencement of construction, or any physical activities (e.g., mobilization to the Project site).	
(29)	<p>All general construction and any physical activities related to the Project may be conducted between Monday to Saturday/Sunday between the hours of 7:00 am to 8:00 pm.</p> <p>For certain works including placement of structural steel, beams, and girders for the overpass, and paving for the entire Project, activities are permitted 24 hours a day, 7 days a week for the duration of the Project. No construction works shall occur during statutory holidays in the province of British Columbia or Canada other than what is described above. These hours shall not be modified without prior approval from the Port Authority.</p> <p>To request permission to conduct activities outside these hours, the Permit Holder must submit a written request no less than 30 business days prior to the desired start date.</p>	
(30)	The Permit Holder shall notify the Port Authority within two business days of any complaints received from the community and stakeholders during construction and indicate how the Permit Holder has responded to such complaints.	
(31)	The Permit Holder shall remove all abandoned utilities from the Project site, both underground and aboveground. At locations of connection to municipal works (i.e., at property lines), the abandoned utilities shall be capped. The Permit Holder shall provide detailed drawings of abandoned utilities and capped connections in both AutoCAD and PDF format in accordance with the Port Authority's Record Drawing Standards.	
(32)	Prior to and/or during construction, should there be works impacting native soils, the Permit Holder shall conduct an Archaeological Impact Assessment completed by a professional archaeologist, in the form of archaeological monitoring.	
(33)	The Permit Holder shall provide opportunities for interested Aboriginal groups to monitor and be present on the Project site during monitoring events carried out by the environmental monitor.	
(34)	<p>If the Permit Holder encounters, expects to encounter, or should expect to encounter an actual or potential archaeological resource, the Permit Holder shall:</p> <ul style="list-style-type: none"> (A) Immediately stop any activities that may disturb the archaeological resource or the site in which it is contained (Site) (B) Not move or otherwise disturb the archaeological resource or other remains present at the Site (C) Stake or flag the Site to prevent additional disturbance (D) Immediately notify the Port Authority by email and phone 	
(35)	The Permit Holder may place temporary construction trailers on the Project site while this permit remains in effect, provided such trailers meet all of the criteria set out in the Port Authority's Temporary Construction Trailer Criteria, available at:	

	https://www.portvancouver.com/permitting-and-reviews/building-permits/ . Should one or more of the criteria not be met, a Port Authority Building Permit is required.
(36)	Materials brought onto the project site or material sourced from the project site to be used/re-used for backfilling, site preparation, or other uses shall be from sources demonstrated to be clean and free of environmental contamination, invasive species and noxious weeds. The Permit Holder shall maintain records to verify this and provide documentation to the Port Authority upon completion.
(37)	The Permit Holder shall not dewater excavations unless a dewatering plan has been submitted to the Port Authority's satisfaction.
(38)	The Permit Holder shall dispose of any soils excavated from the project site that are not suitable for backfill at appropriate off-site facilities and maintain records of off-site disposal.
(39)	Without limiting the generality of Permit condition #2, if suspect contaminated materials are encountered, the Permit Holder shall contain, test and dispose of such materials at appropriate licensed off-site facilities and maintain records of off-site disposal. The Port Authority shall be notified of such activities and provided relevant documentation upon completion.
(40)	Without limiting the generality of Permit condition #2, the Permit Holder shall decommission any groundwater monitoring wells encountered within the Project footprint in compliance with the requirements set out in Appendix C of the Port Authority's Construction Environmental Management Plan Guideline.
(41)	Trees shall be felled by a qualified professional.
(42)	Without limiting the generality of permit condition #2, the Permit Holder shall not, directly or indirectly: (a) deposit or permit the deposit of a deleterious substance of any type in water frequented by fish in a manner contrary to Section 36(3) of the <i>Fisheries Act</i> ; or (b) adversely affect fish or fish habitat in a manner contrary to Section 35(1) of the <i>Fisheries Act</i> .
(43)	The Permit Holder shall engage a qualified environmental professional to monitor the Project in order to ensure that the works are carried out in compliance with this Permit. Environmental monitoring events shall take place as required by the environmental monitor, the Construction Environmental Management Plan, or the Port Authority, provided that monitoring will be full time when works are underway that have the potential to adversely affect fish or fish habitat.
(44)	The Permit Holder shall provide environmental monitoring reports to the Port Authority as specified in the Construction Environmental Management Plan or more frequently if the Port Authority requires. In addition, a summary report for the whole monitoring period shall be forwarded to the Port Authority within 30 days of the conclusion of the monitoring period.
(45)	The Permit Holder shall provide environmental monitoring reports to interested Indigenous Groups.
No.	Conditions – Prior to operation

(46)	Any area with exposed contaminated soil, groundwater or waste shall be either covered with a minimum one meter thick of clean topsoil with growing media or paved with asphalt/concrete, to the Port Authority's satisfaction.	
No.	Conditions – upon completion	Submission timing (business days)
(47)	The Permit Holder shall notify the Port Authority upon completion of the Project.	Upon substantial completion
(48)	Should there be works impacting native soils, the Permit Holder shall submit the results of an Archaeological Impact Assessment completed by a professional archaeologist, to the Port Authority's satisfaction.	Within 40 business days of completion
(49)	The Permit Holder shall submit the Certificate of Substantial Completion, documenting that the contractor has completed the works in accordance with the contract, and that the project is fit for the intended use, and operational.	Within 5 business days of completion
(50)	The Permit Holder shall provide record drawings, including a Project site plan that clearly identifies the location of works, in both AutoCAD and PDF format (with an Engineers stamp where applicable) in accordance with the Port Authority's Record Drawing Standards. All drawings shall be named according to the record drawing index numbering system set out at Section 2.10 of the Port Authority's Record Drawing Standards.	Within 40 business days of completion
The Port Authority reserves the right to rescind or revise these conditions at any time that new information warranting this action is made available to the Port Authority.		
Length of permit validity		
The Project must commence by October 31, 2024 (the "Commencement Date") and be completed no later than October 31, 2027 (the "Expiry Date").		
Amendments		
<ul style="list-style-type: none"> • Details of any material proposed changes to the Project, including days and hours when construction and any physical activities will be conducted, must be submitted to the Port Authority for consideration of an amendment to this Permit. • For an extension to the Commencement Date, the Permit Holder must apply to the Port Authority in writing no later than 40 business days prior to that date. • For an extension to the Expiry Date, the Permit Holder must apply in writing to the Port Authority no later than 40 business days prior to that date. 		
Failure to apply for an extension as required may, at the sole discretion of the Port Authority, result in termination of this Permit.		

Project and Environmental Review decision

In completing the project and environmental effects review, the Port Authority has reviewed and taken into account relevant information available on the proposed Project and has considered any adverse

impact that the Project may have on the rights of Indigenous peoples, Indigenous knowledge, community knowledge, comments received from the public, and measures that would mitigate any significant adverse environmental effects of the Project. We conclude that with the implementation of proposed mitigation measures and Permit conditions, the Project is not likely to cause significant adverse environmental effects.

The Port Authority concludes that the Project has appropriately addressed all identified concerns subject to conformance with the project and environmental conditions in the Permit.

Project Permit PER No. 20-055 is approved by:

ORIGINAL COPY SIGNED

10/13/2023

Andrea MacLeod
Director, Project and Environmental Review

Date of approval

Contact information

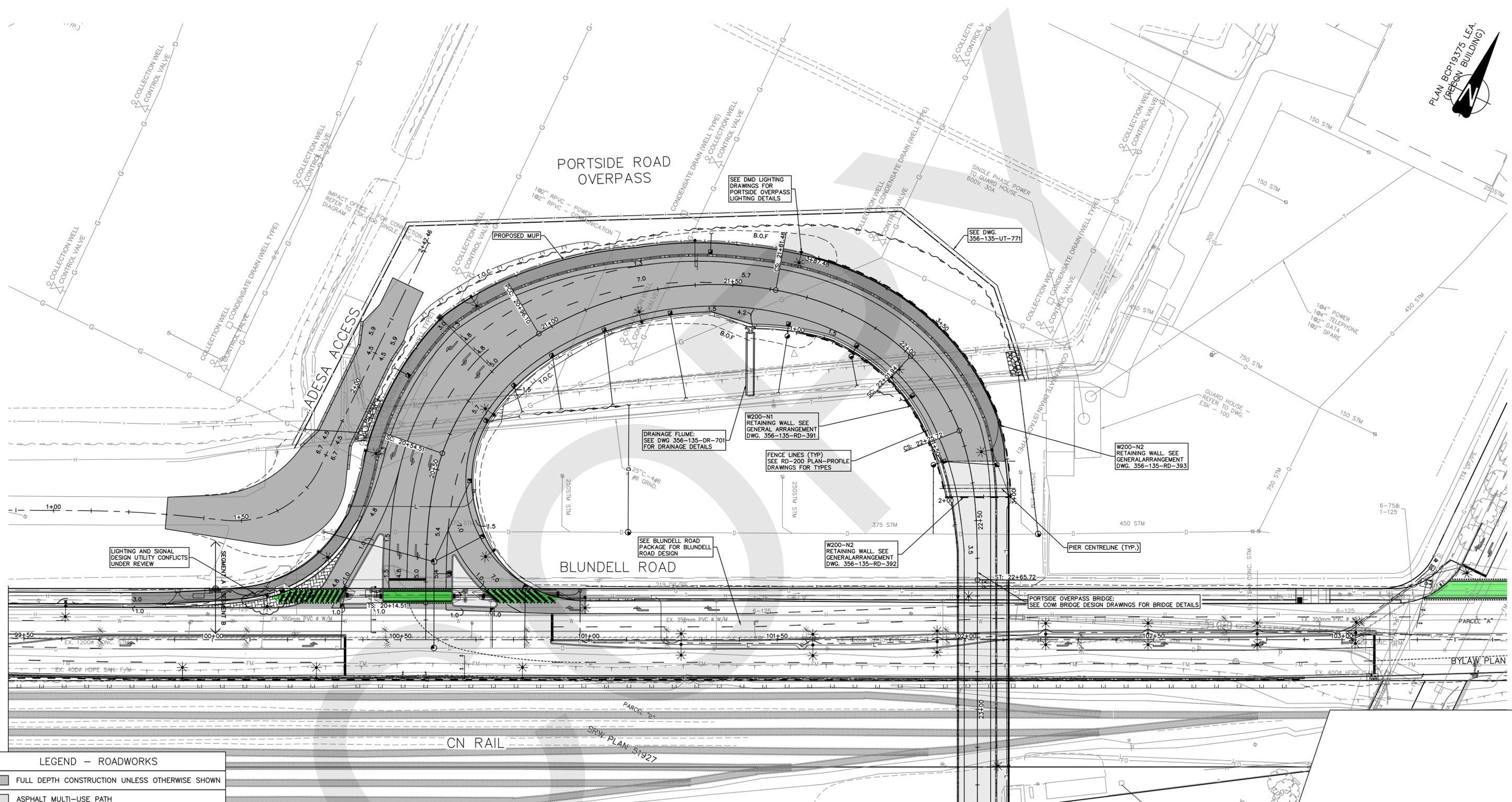
Vancouver Fraser Port Authority
100 The Pointe, 999 Canada Place
Vancouver BC V6C 3T4 Canada

Project and Environmental Review
Tel.: 604-665-9047
Fax: 1-866-284-4271
Email: PER@portvancouver.com
Website: www.portvancouver.com

After normal business hours:

In the event of any land or marine construction incidents or concerns related to works carried out on-site under this permit, please contact the 24/7 Port Operations Centre 604-665-9086. In the event of an emergency requiring 'First Responders', please call 911 first.

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LIGHTING AND SIGNAL DESIGN UTILITY CONFLICTS UNDER REVIEW

SEE DMD LIGHTING DRAWINGS FOR PORTSIDE OVERPASS LIGHTING DETAILS

SEE DWG. 356-135-UT-771

DRAINAGE FLUME: SEE DWG 356-135-DR-701 FOR DRAINAGE DETAILS

W200-N1 RETAINING WALL. SEE GENERAL ARRANGEMENT DWG. 356-135-RD-391

FENCE LINES (TYP) SEE RD-200 PLAN-PROFILE DRAWINGS FOR TYPES

SEE BLUNDELL ROAD PACKAGE FOR BLUNDELL ROAD DESIGN

W200-N2 RETAINING WALL. SEE GENERAL ARRANGEMENT DWG. 356-135-RD-392

W200-N2 RETAINING WALL. SEE GENERAL ARRANGEMENT DWG. 356-135-RD-393

PORTSIDE OVERPASS BRIDGE: SEE COWI BRIDGE DESIGN DRAWINGS FOR BRIDGE DETAILS

CONTINUED ON SHEET 356-135-RD-102

LEGEND - ROADWORKS

	FULL DEPTH CONSTRUCTION UNLESS OTHERWISE SHOWN
	ASPHALT MULTI-USE PATH
	CONCRETE SIDEWALK
	MEDIAN
	BOULEVARD
	BRICK PATTERN ADOBE RED COLOUR

Ref. No.	REFERENCE

VANCOUVER FRASER PORT AUTHORITY
 This drawing has been reviewed by the Vancouver Fraser Port Authority solely for the purpose of VFPA's issuance of a Project Permit. This permit in no way denotes design, engineering or structural approval or endorsement.



McElhanney
 Suite 2300
 13450 102nd Avenue
 Surrey BC
 Canada V3T 5X3
 T 604.596.0391

PRELIMINARY NOT FOR CONSTRUCTION

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

No.	Date	REVISION	Dr'n	Ch'd
C	2022-11-18	INDICATIVE DESIGN SUBMISSION	ST	LZ
B	2022-09-13	INDICATIVE DESIGN SUBMISSION DRAFT FOR IDR	HG	LZ
A	2022-06-30	PRELIMINARY DESIGN SUBMISSION	EY	LZ



Vancouver Fraser Port Authority
 ENGINEERING DEPARTMENT

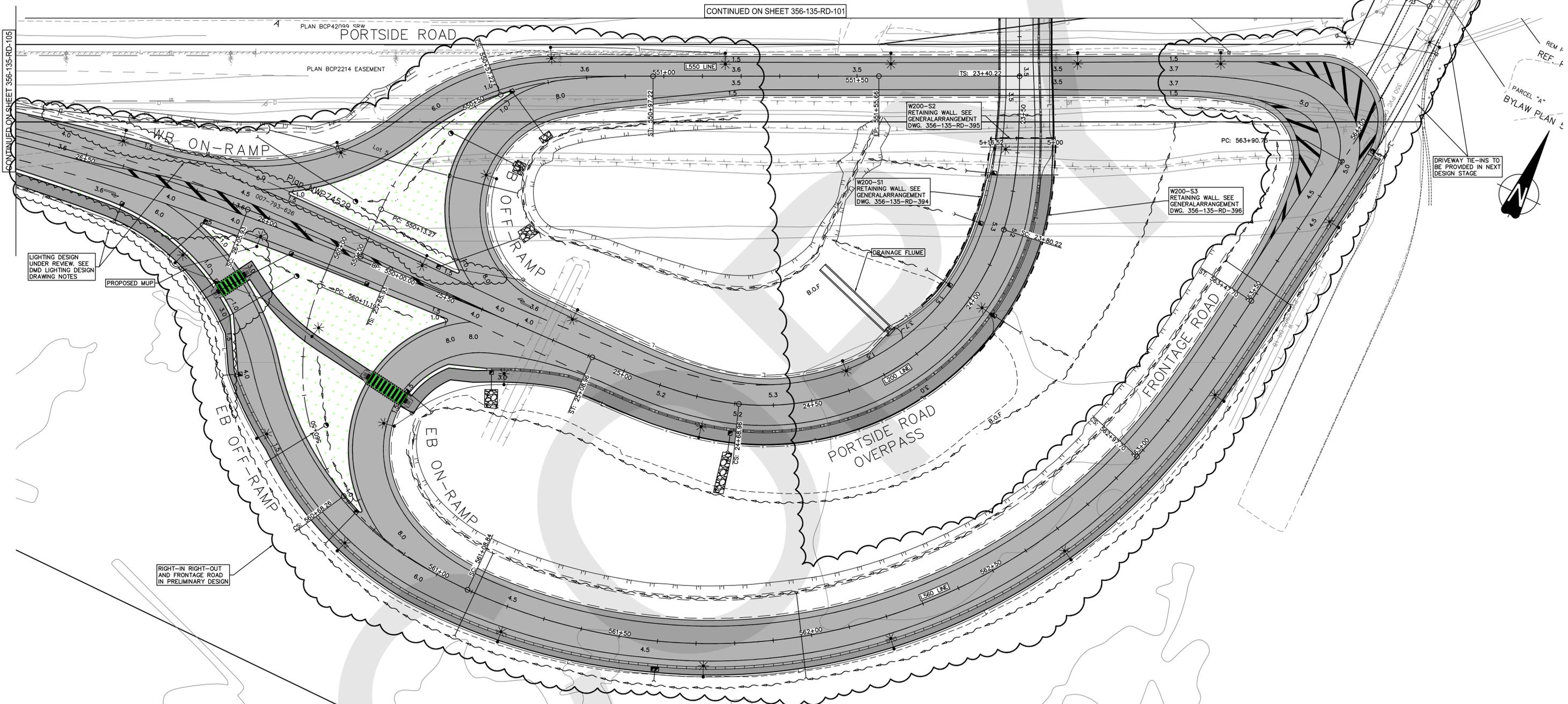
DESIGN BY	V. MAK
DRAWN BY	E. YANG
APPROVED	L. ZAREI
DATE	2022-06-30
SCALE	1:500
VFPA SITE	356

GREATER VANCOUVER GATEWAY 2030
PORTSIDE / BLUNDELL ROAD IMPROVEMENT PROJECT
PORTSIDE ROAD OVERPASS
KEY PLAN

SIZE	DWG	356-135-RD-101	SHEET	1 of 5	REV	C
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CONTINUED ON SHEET 356-135-RD-105

CONTINUED ON SHEET 356-135-RD-101

REM F
REF. F
PARCEL "A"
BYLAW PLAN 5

DRIVEWAY TIE-INS TO
BE PROVIDED IN NEXT
DESIGN STAGE

LIGHTING DESIGN
UNDER REVIEW. SEE
DMD LIGHTING DESIGN
DRAWING NOTES

PROPOSED MUP

RIGHT-IN RIGHT-OUT
AND FRONTAGE ROAD
IN PRELIMINARY DESIGN

LEGEND - ROADWORKS	
	FULL DEPTH CONSTRUCTION UNLESS OTHERWISE SHOWN
	ASPHALT MULTI-USE PATH
	CONCRETE SIDEWALK
	MEDIAN
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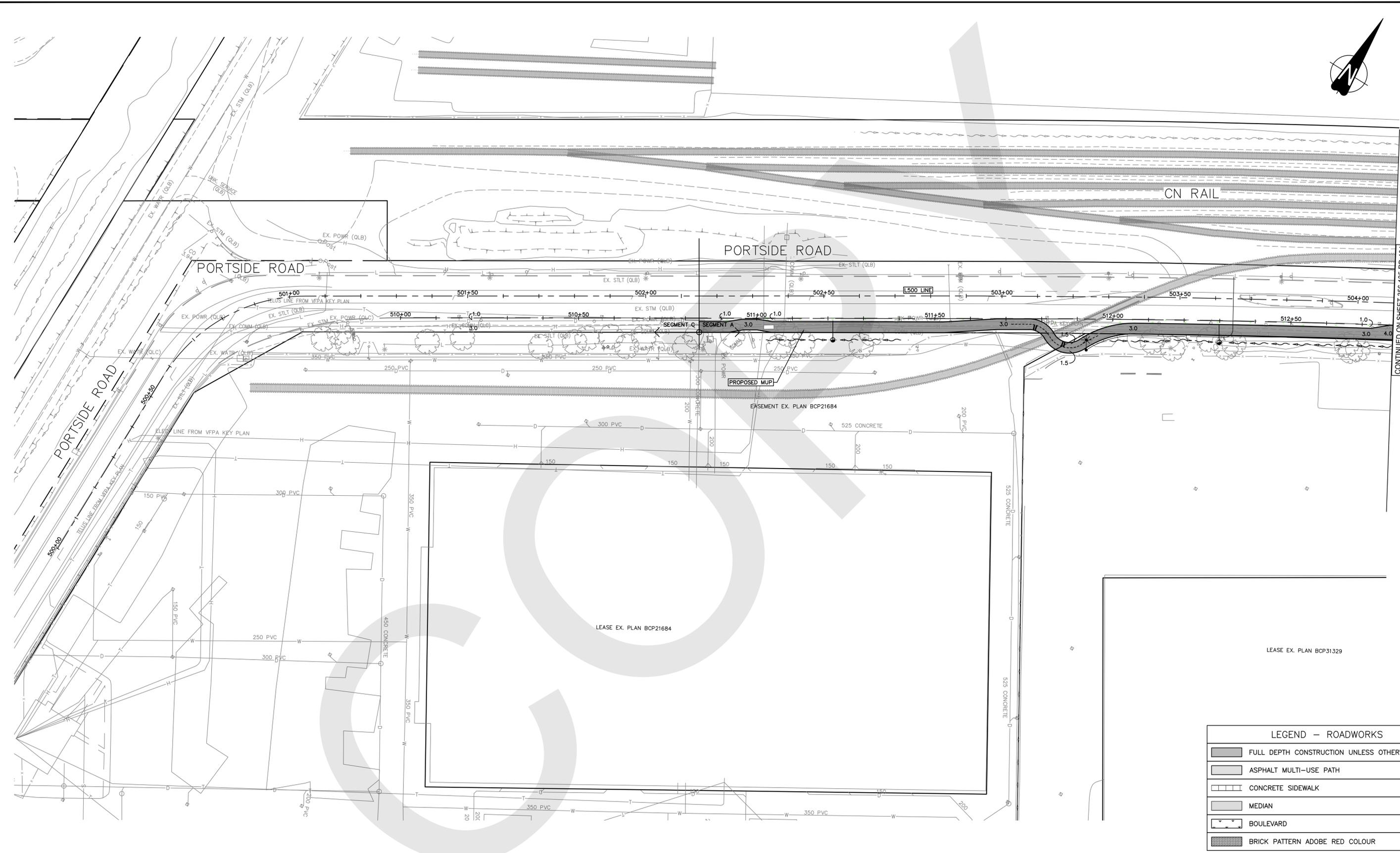
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**GREATER VANCOUVER GATEWAY 2030
PORTSIDE / BLUNDELL ROAD IMPROVEMENT PROJECT
PORTSIDE ROAD OVERPASS
KEY PLAN**

SIZE	DWG	356-135-RD-102	SHEET	2 of 5	REV	C
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CONTINUED ON SHEET 356-135-RD-104

LEGEND - ROADWORKS	
	FULL DEPTH CONSTRUCTION UNLESS OTHERWISE SHOWN
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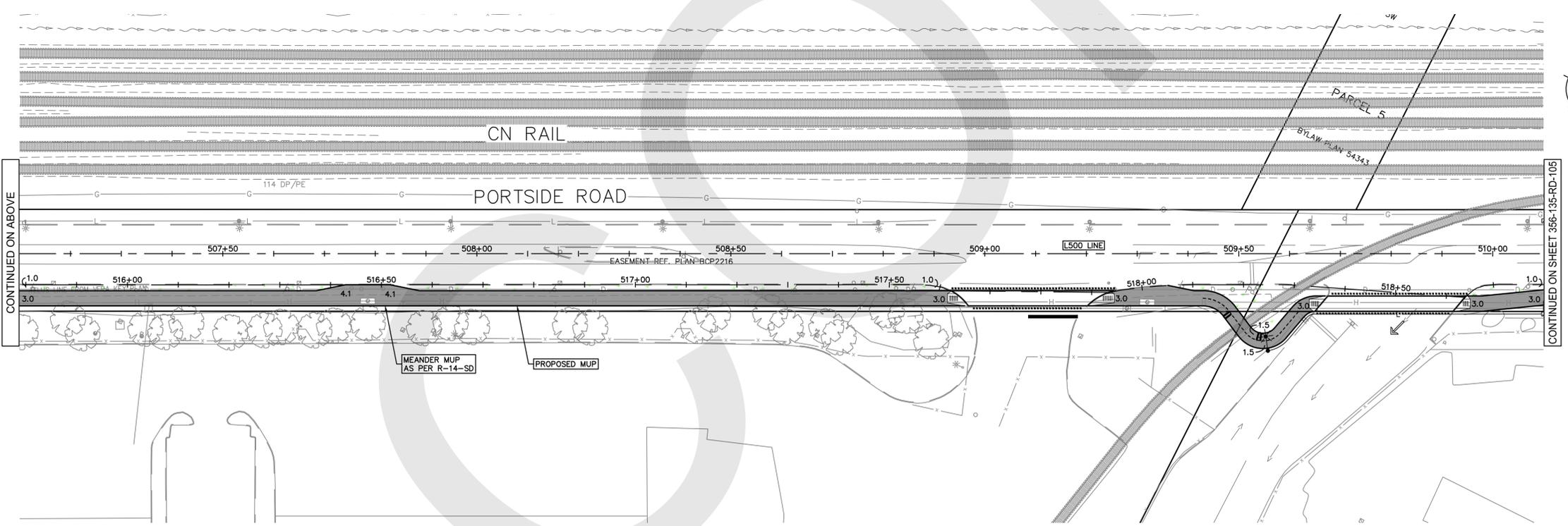
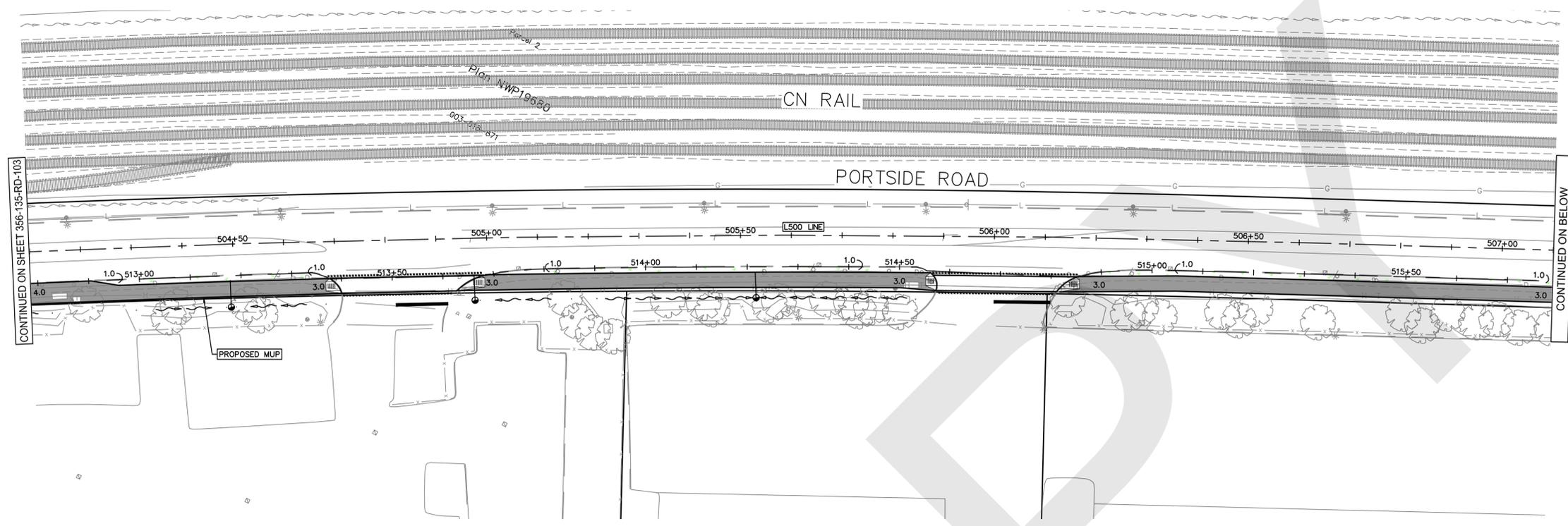
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GREATER VANCOUVER GATEWAY 2030
PORTSIDE / BLUNDELL ROAD IMPROVEMENT PROJECT
PORTSIDE ROAD
KEY PLAN

SIZE	DWG	356-135-RD-103	SHEET	3 of 5	REV	C
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LEGEND - ROADWORKS	
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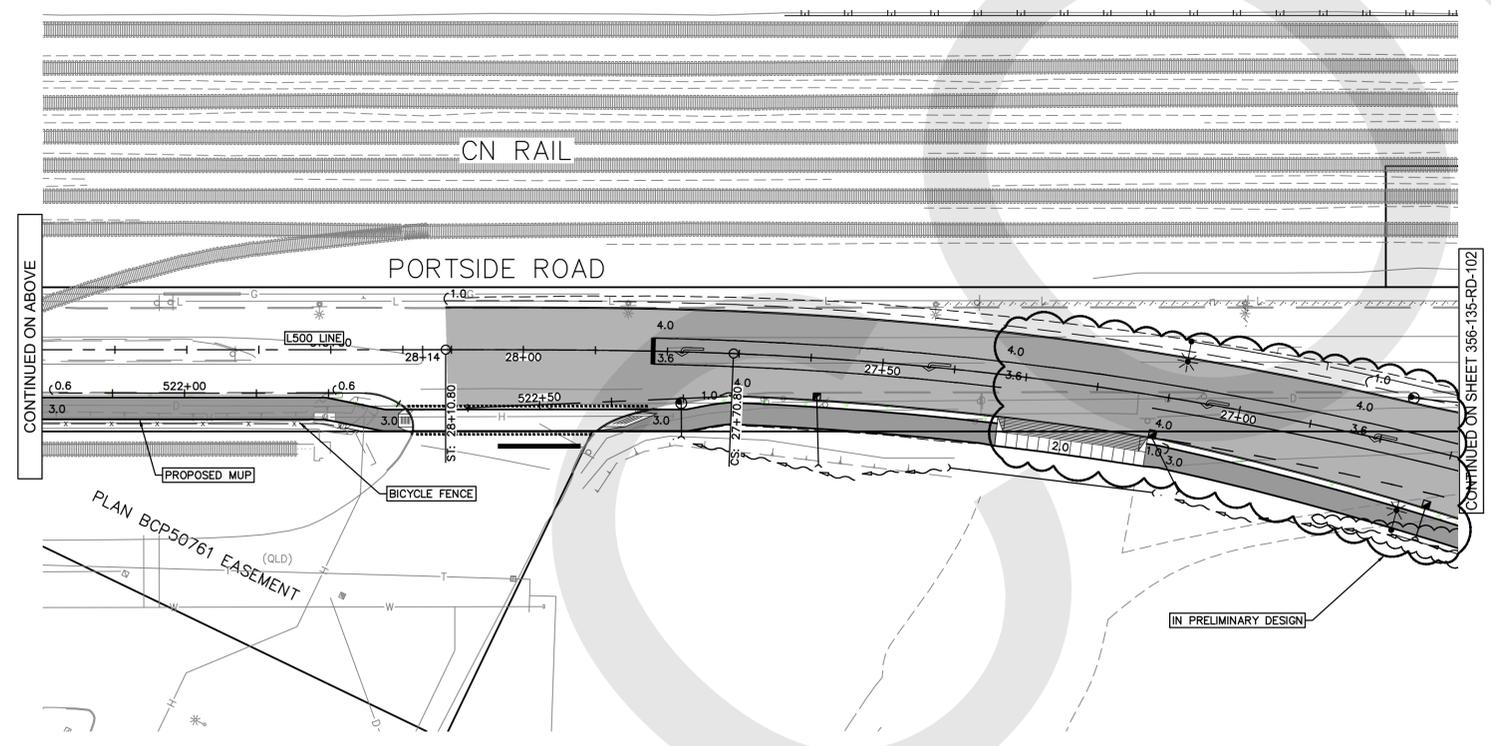
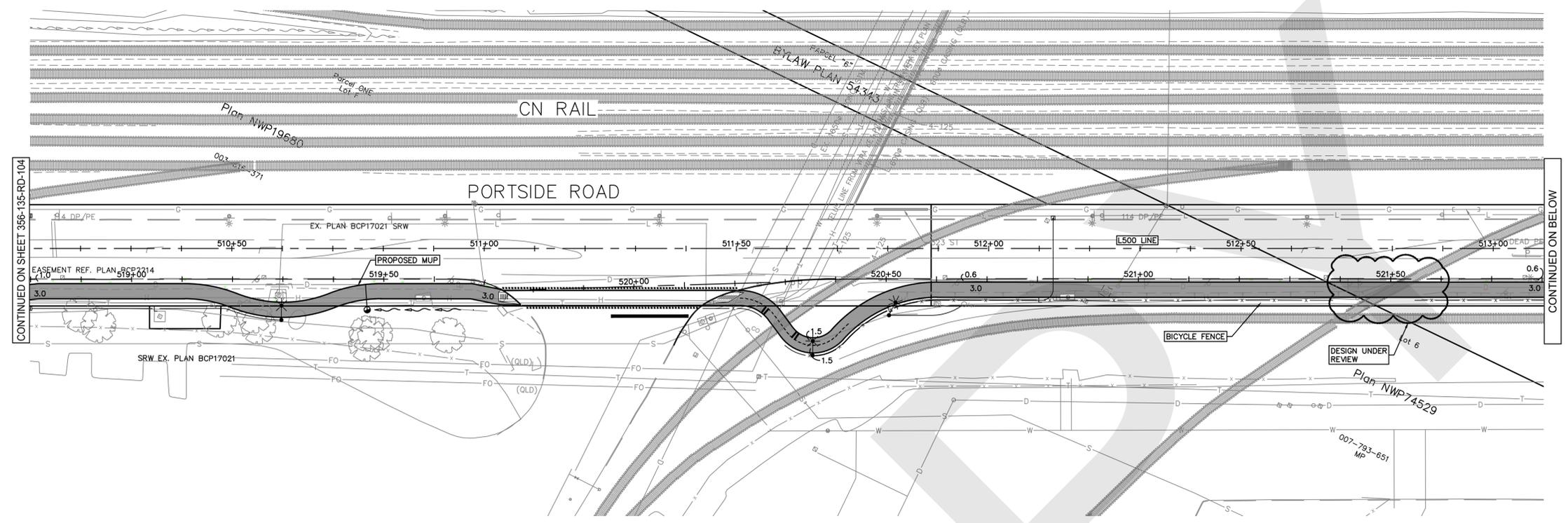
Vancouver Fraser Port Authority
 ENGINEERING DEPARTMENT

DESIGN BY	V. MAK
DRAWN BY	E. YANG
APPROVED	L. ZAREI
DATE	2022-06-30
SCALE	1:500
VFPA SITE	356

GREATER VANCOUVER GATEWAY 2030
PORTSIDE / BLUNDELL ROAD IMPROVEMENT PROJECT
PORTSIDE ROAD
KEY PLAN

SIZE	DWG	SHEET	REV
D	356-135-RD-104	4 of 5	C

TITLE BLOCK CLTB.rwg



LEGEND - ROADWORKS	
	FULL DEPTH CONSTRUCTION UNLESS OTHERWISE SHOWN
	ASPHALT MULTI-USE PATH
	CONCRETE SIDEWALK
	MEDIAN
	BOULEVARD
	BRICK PATTERN ADOBE RED COLOUR

DATE: 2022/11/18 - 4:59pm
 PATH: X:\2111\11.00 - DB Projects\2111-40118-00 Ledor - Portside-Blundell Rd Imp\10.0 DRAWINGS\10.2 Civil\10.2A\10.3.1 Sheets\10.2A-MECS-DWG-CV-100-KEY.dwg

Ref. No.	REFERENCE

VANCOUVER FRASER PORT AUTHORITY
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LEDOR GROUP

Suite 2300
 13450 102nd Avenue
 Surrey BC
 Canada V3T 5X3
 T 604 596 0391

PRELIMINARY NOT FOR CONSTRUCTION

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

No.	Date	REVISION	Dr'n	Ch'd
C	2022-11-18	INDICATIVE DESIGN SUBMISSION	ST	LZ
B	2022-09-13	INDICATIVE DESIGN SUBMISSION DRAFT FOR IDR	HG	LZ
A	2022-06-30	PRELIMINARY DESIGN SUBMISSION	EY	LZ

PORT of vancouver

Vancouver Fraser Port Authority

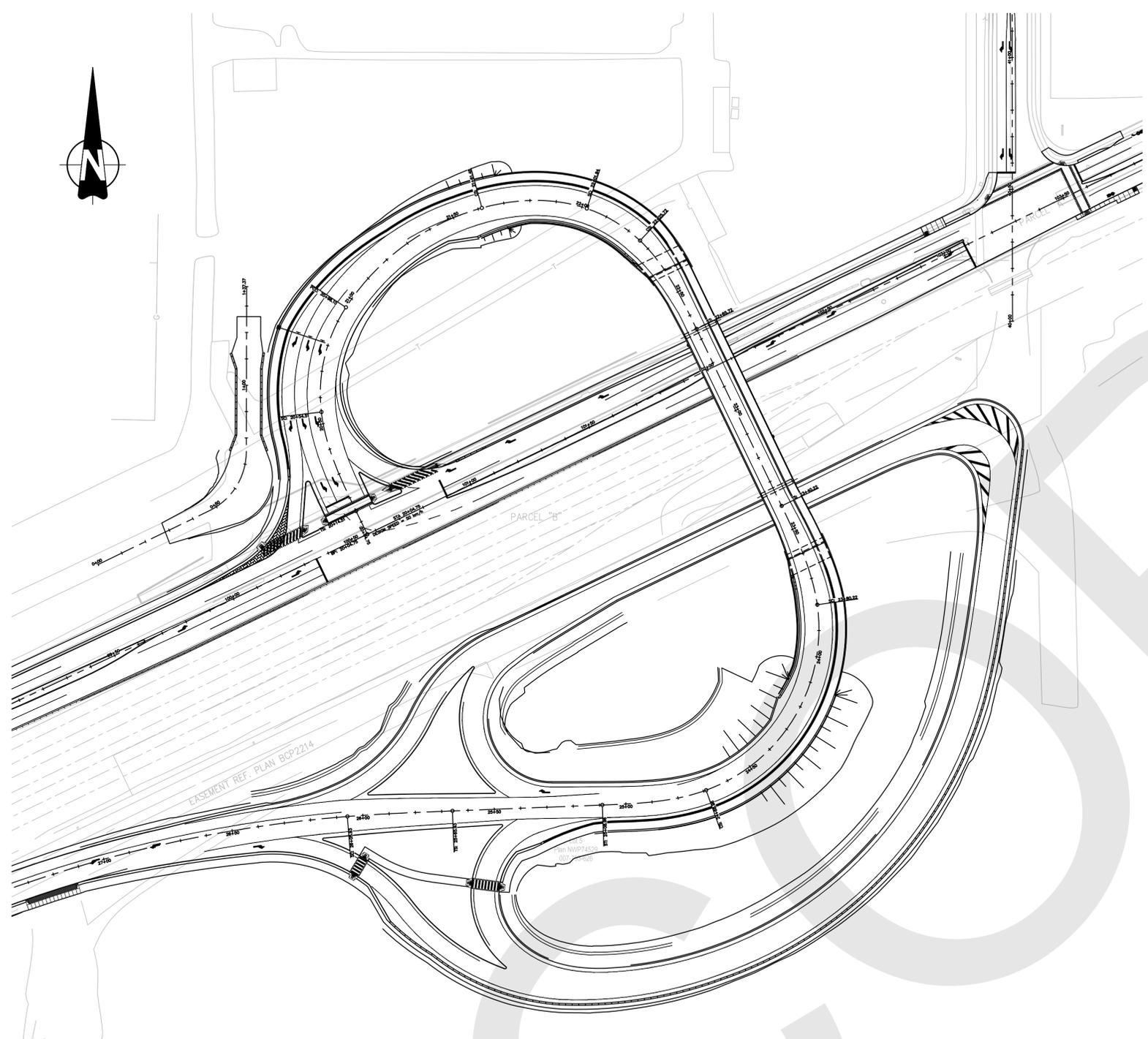
ENGINEERING DEPARTMENT

DESIGN BY	V. MAK
DRAWN BY	E. YANG
APPROVED	L. ZAREI
DATE	2022-06-30
SCALE	1:500
VFPA SITE	356

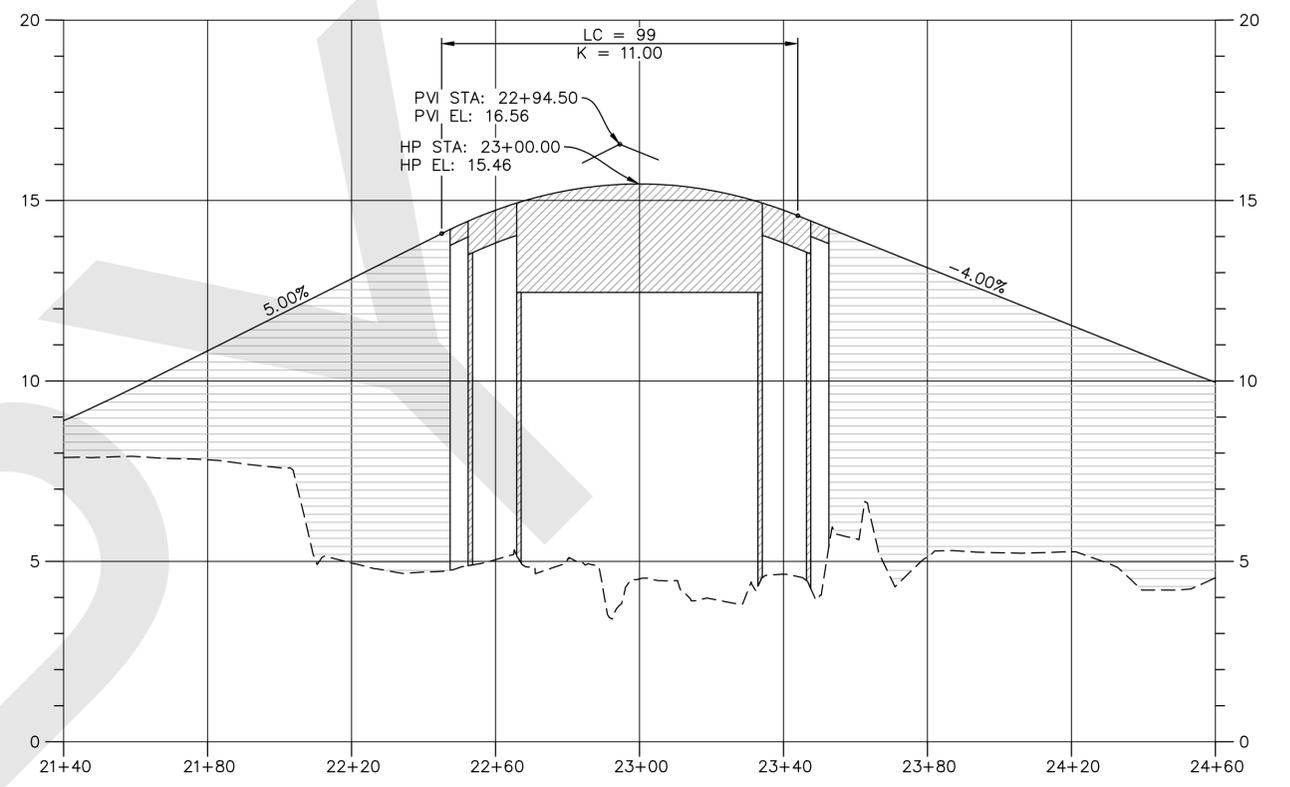
GREATER VANCOUVER GATEWAY 2030
PORTSIDE / BLUNDELL ROAD IMPROVEMENT PROJECT
PORTSIDE ROAD
KEY PLAN

SIZE	DWG	SHEET	REV
D	356-135-RD-105	5 of 5	C

TITLE BLOCK CLTB.rwg



SITE PLAN
1:1000



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

DATE: 2022/11/24 - 3:35pm
PATH: C:\pwworking\pwworking\client\0086323\356-135-ST-103_Site-Plan-Profile.dwg

Ref. No.	REFERENCE
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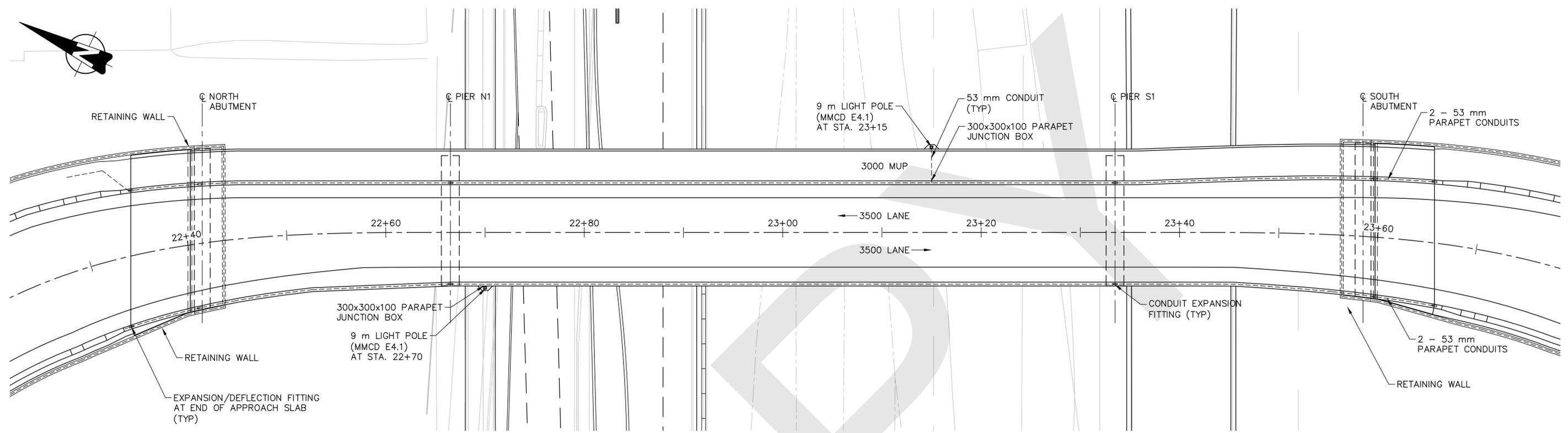
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AND MAY CONTAIN ERRORS AND OMISSIONS

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

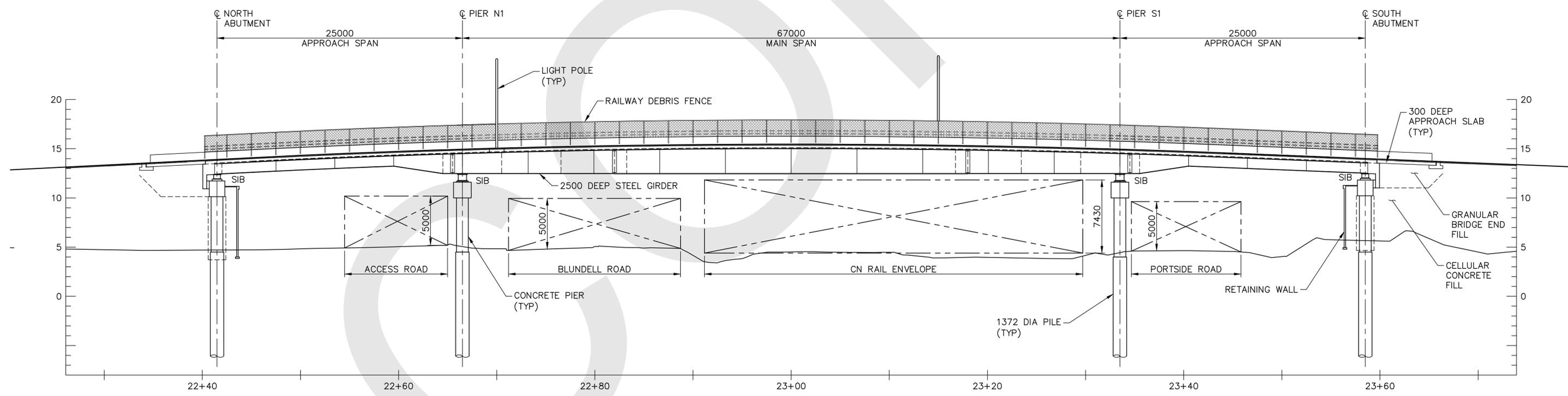


DESIGN BY	M. REYNOLDS
DRAWN BY	D. CROWLEY
APPROVED	H. IBRAHIM
DATE	2022-11-25
SCALE	AS SHOWN
VFPA SITE	356

GREATER VANCOUVER GATEWAY 2030	
PORTSIDE / BLUNDELL ROAD IMPROVEMENT PROJECT	
PORTSIDE OVERPASS	
SITE PLAN AND PROFILE	
SIZE	DWG
D	356-135-ST-103
SHEET	REV
4 / 21	C



PLAN
1:200



ELEVATION
1:200

TITLE BLOCK CLTB.rvt
DATE: 2022/11/24 - 3:23pm
PATH: C:\pwworking\pwworking\electrical\00863233\356-135-ST-104_GA-Plan-and-Profile.dwg

Ref. No.	REFERENCE

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A	2022-06-30	PRELIMINARY DESIGN	DC	MR

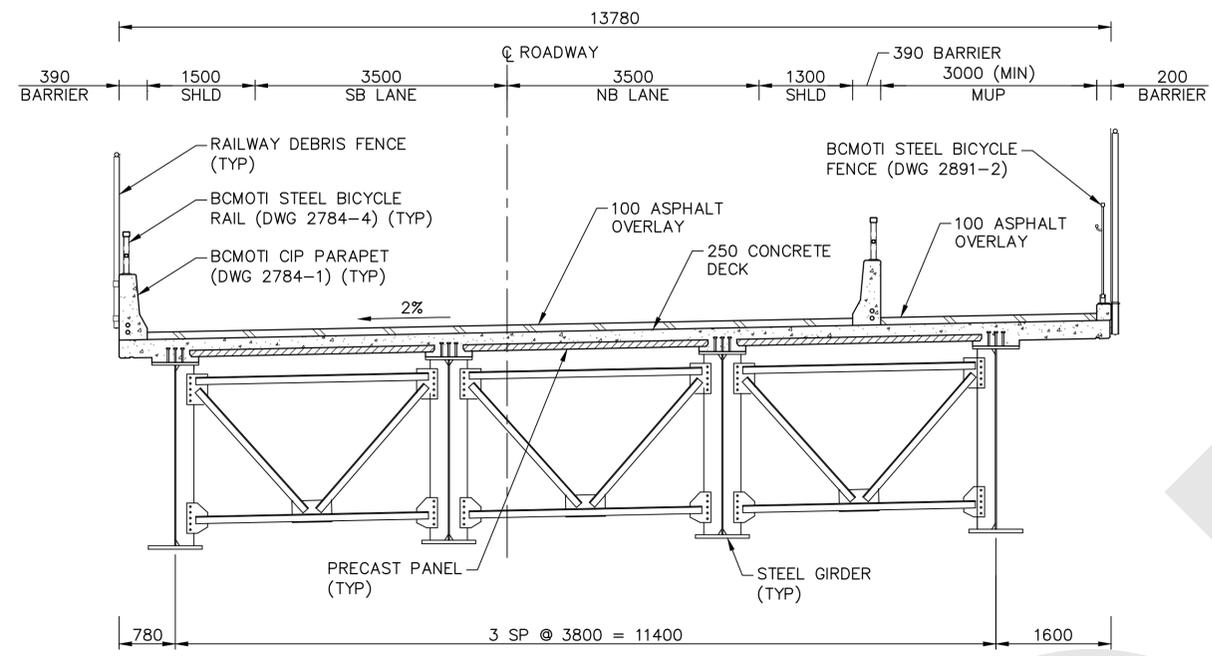


DESIGN BY	M. REYNOLDS
DRAWN BY	D. CROWLEY
APPROVED	H. IBRAHIM
DATE	2022-11-25
SCALE	AS SHOWN
VFPA SITE	356

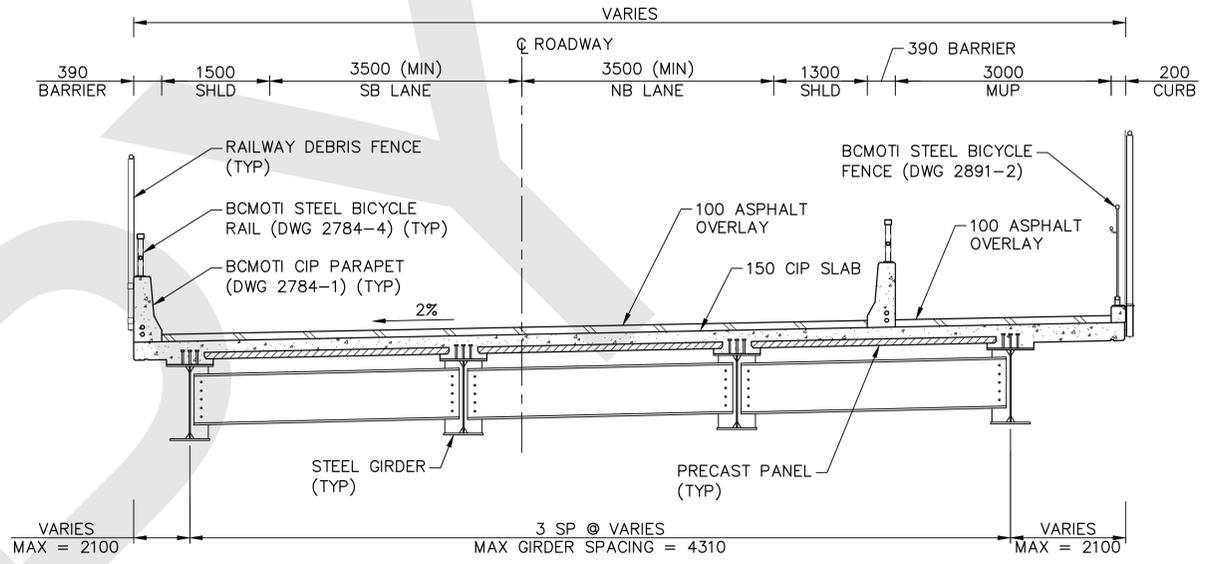
**GREATER VANCOUVER GATEWAY 2030
PORTSIDE / BLUNDELL ROAD IMPROVEMENT PROJECT
PORTSIDE OVERPASS
GENERAL ARRANGEMENT - SHEET 1**

SIZE	DWG	356-135-ST-104	SHEET	5 / 21	REV	C
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TITLE BLOCK.dwg



TYPICAL SECTION – MAIN SPAN
1:50



TYPICAL SECTION – APPROACH SPAN
1:50

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

Ref. No.	REFERENCE
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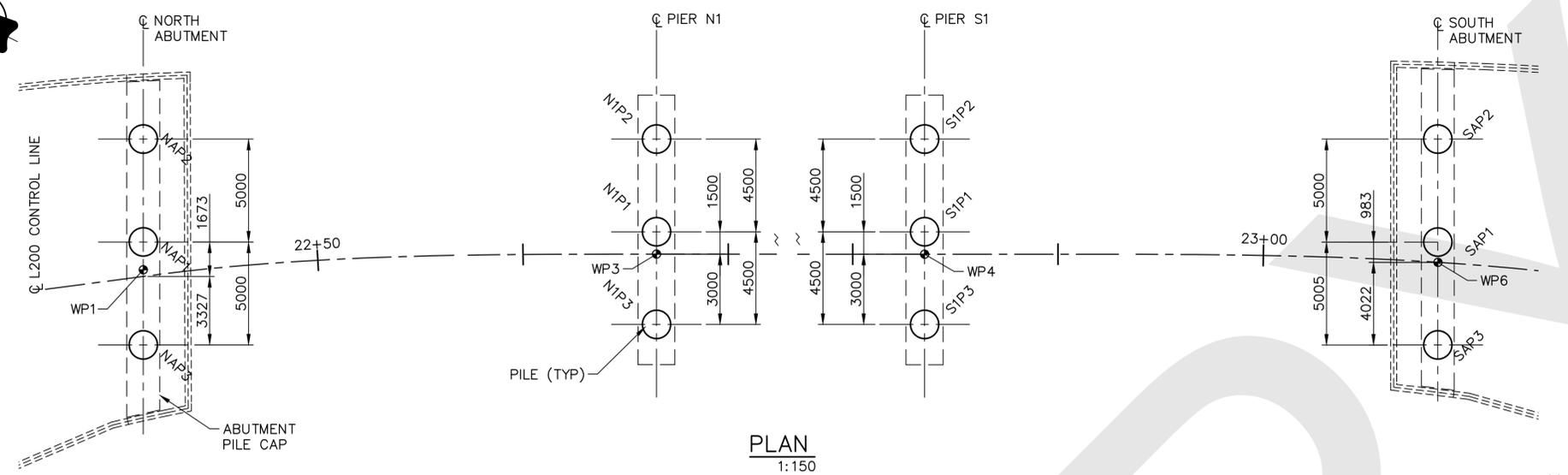
No.	Date	REVISION	Dr'n	Ch'd
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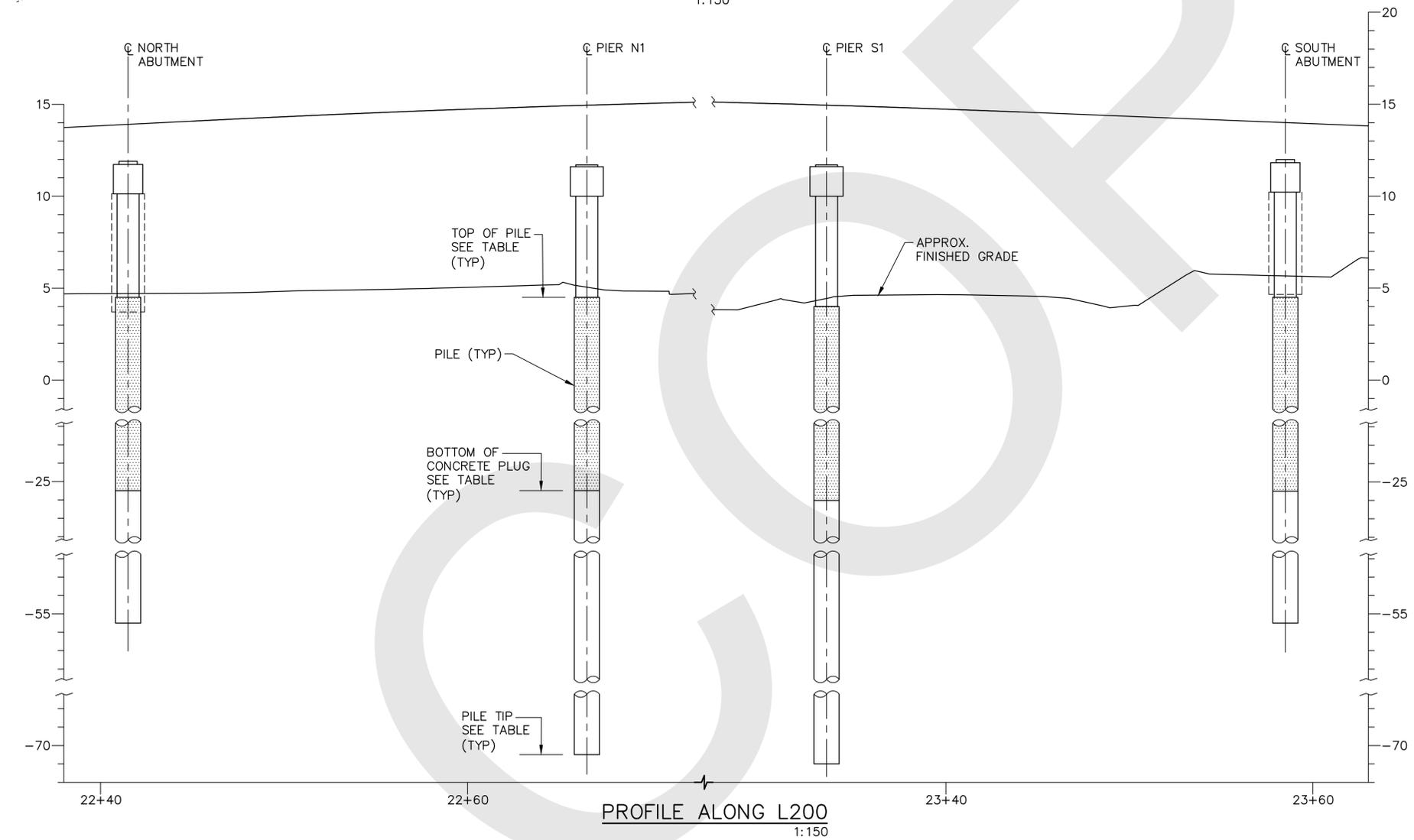
DESIGN BY	M. REYNOLDS
DRAWN BY	D. CROWLEY
APPROVED	H. IBRAHIM
DATE	2022-11-25
SCALE	AS SHOWN
VFPA SITE	356

GREATER VANCOUVER GATEWAY 2030 PORTSIDE / BLUNDELL ROAD IMPROVEMENT PROJECT PORTSIDE OVERPASS GENERAL ARRANGEMENT - SHEET 2	
SIZE	DWG
D	356-135-ST-105
SHEET	REV
6 / 21	B

TITLE BLOCK CLTB.rwg



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:

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

LOAD COMBINATION	PIERS		ABUTMENTS	
	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

DATE: 2022/11/25 - 3:03pm
PATH: C:\pwworking\pwworking\2022\11\25\356-135-ST-151_Foundation Layout.dwg

Ref. No.	REFERENCE

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