WCD MARINE YARD BUILD-OUT

COQUITLAM, BRITISH COLUMBIA

PROJECT NO. 105716

CIVIL DRAINAGE AND UTILITIES PACKAGE
ISSUED FOR VFPA PROJECT ENVIRONMENTAL REVIEW
APRIL 24, 2024

LOCATION PLAN
1:5000

N

KEY PLAN
1:2500

N

PRELIMINARY
NOT FOR CONSTRUCTION
2024–APR–24

VFPA DRAWING NUMBER:
332-004-CI-###

Ref. No.	REFERENCE

Kiewit

Permit to Practice: 1004520
PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — R. SHOSTAK # 51822
2024-04-24

No.	Date	REVISION	Dr'n	Ch'd
D	2024-APR-24	ISSUED FOR VFPA PER	C.F.	R.S.
C	2024-MAR-26	ISSUED FOR DFO FISHERIES ACT AUTHORIZATION REVIEW	C.F.	R.S.
B	2023-NOV-14	ISSUED FOR 90%	C.F.	R.S.
A	2023-AUG-23	ISSUED FOR 50%	C.F.	R.S.

DESIGN BY	C.F.
DRAWN BY	C.F.
APPROVED	K.B.
DATE	2024-APR-24
SCALE	AS NOTED
VFPA SITE	332-004

WCD MARINE YARD BUILD-OUT
COQUITLAM, BC
COVER SHEET

SIZE	DWG.	SHEET	REV.
D	105716-S00-KIE-CIV-DWG-0001	1 of 1	D

TITLE BLOCK: DL-TB.dwg

DATE: 2024/04/19 - 10:53am
PATH: C:\Users\Carson.Feng\DC\ACCDocs\Kiewit\WCD Marine Yard\Project Files\40 Design Eng\30 CIV\CAD\Sheets\105716-S00-KIE-CIV-DWG-0001.dwg

CIVIL DRAWING INDEX

DRAWING NUMBER	DESCRIPTION	REVISION	DWG FILE NAME	VFPA DRAWING NUMBER
105716-S00-KIE-CIV-DWG-0001	WCD MARINE YARD BUILD-OUT, COQUITLAM BC, COVER SHEET	D	105716-S00-KIE-CIV-DWG-0001.DWG	332-004-CI-###
105716-S00-KIE-CIV-DWG-0002	WCD MARINE YARD BUILD-OUT, COQUITLAM BC, DRAWING INDEX	D	105716-S00-KIE-CIV-DWG-0002.DWG	332-004-CI-###
105716-S00-KIE-CIV-DWG-0003	WCD MARINE YARD BUILD-OUT, COQUITLAM BC, LEGENDS AND ABBREVIATIONS	D	105716-S00-KIE-CIV-DWG-0003.DWG	332-004-CI-###
105716-S00-KIE-CIV-DWG-0004	WCD MARINE YARD BUILD-OUT, COQUITLAM BC, GENERAL NOTES	D	105716-S00-KIE-CIV-DWG-0004.DWG	332-004-CI-###
105716-S00-KIE-CIV-DWG-1001	WCD MARINE YARD BUILD-OUT, COQUITLAM BC, GENERAL ARRANGEMENT 1:500, SHEET 1 OF 2	E	105716-S00-KIE-CIV-DWG-1001 TO 1002.DWG	332-004-CI-###
105716-S00-KIE-CIV-DWG-1002	WCD MARINE YARD BUILD-OUT, COQUITLAM BC, GENERAL ARRANGEMENT 1:500, SHEET 2 OF 2	E	105716-S00-KIE-CIV-DWG-1001 TO 1002.DWG	332-004-CI-###
105716-S00-KIE-CIV-DWG-DEM-0001	WCD MARINE YARD BUILD-OUT, COQUITLAM BC, DEMOLITION PLAN, SHEET 1 OF 2	C	105716-S00-KIE-CIV-DWG-DEM-0001 to 0002.DWG	332-004-CI-D-###
105716-S00-KIE-CIV-DWG-DEM-0002	WCD MARINE YARD BUILD-OUT, COQUITLAM BC, DEMOLITION PLAN, SHEET 2 OF 2	C	105716-S00-KIE-CIV-DWG-DEM-0001 to 0002.DWG	332-004-CI-D-###
105716-S00-KIE-CIV-DWG-3001	WCD MARINE YARD BUILD-OUT, COQUITLAM BC, TYPICAL SECTIONS, SHEET 1 OF 13	E	105716-S00-KIE-CIV-DWG-3001 TO 3013.DWG	332-004-CI-###
105716-S00-KIE-CIV-DWG-3002	WCD MARINE YARD BUILD-OUT, COQUITLAM BC, TYPICAL SECTIONS, SHEET 2 OF 13	E	105716-S00-KIE-CIV-DWG-3001 TO 3013.DWG	332-004-CI-###
105716-S00-KIE-CIV-DWG-3003	WCD MARINE YARD BUILD-OUT, COQUITLAM BC, TYPICAL SECTIONS, SHEET 3 OF 13	E	105716-S00-KIE-CIV-DWG-3001 TO 3013.DWG	332-004-CI-###
105716-S00-KIE-CIV-DWG-3004	WCD MARINE YARD BUILD-OUT, COQUITLAM BC, TYPICAL SECTIONS, SHEET 4 OF 13	E	105716-S00-KIE-CIV-DWG-3001 TO 3013.DWG	332-004-CI-###
105716-S00-KIE-CIV-DWG-3005	WCD MARINE YARD BUILD-OUT, COQUITLAM BC, TYPICAL SECTIONS, SHEET 5 OF 13	E	105716-S00-KIE-CIV-DWG-3001 TO 3013.DWG	332-004-CI-###
105716-S00-KIE-CIV-DWG-3006	WCD MARINE YARD BUILD-OUT, COQUITLAM BC, TYPICAL SECTIONS, SHEET 6 OF 13	E	105716-S00-KIE-CIV-DWG-3001 TO 3013.DWG	332-004-CI-###
105716-S00-KIE-CIV-DWG-3007	WCD MARINE YARD BUILD-OUT, COQUITLAM BC, TYPICAL SECTIONS, SHEET 7 OF 13	E	105716-S00-KIE-CIV-DWG-3001 TO 3013.DWG	332-004-CI-###
105716-S00-KIE-CIV-DWG-3008	WCD MARINE YARD BUILD-OUT, COQUITLAM BC, TYPICAL SECTIONS, SHEET 8 OF 13	E	105716-S00-KIE-CIV-DWG-3001 TO 3013.DWG	332-004-CI-###
105716-S00-KIE-CIV-DWG-3009	WCD MARINE YARD BUILD-OUT, COQUITLAM BC, TYPICAL SECTIONS, SHEET 9 OF 13	C	105716-S00-KIE-CIV-DWG-3001 TO 3013.DWG	332-004-CI-###
105716-S00-KIE-CIV-DWG-3010	WCD MARINE YARD BUILD-OUT, COQUITLAM BC, TYPICAL SECTIONS, SHEET 10 OF 13	C	105716-S00-KIE-CIV-DWG-3001 TO 3013.DWG	332-004-CI-###
105716-S00-KIE-CIV-DWG-3011	WCD MARINE YARD BUILD-OUT, COQUITLAM BC, TYPICAL SECTIONS, SHEET 11 OF 13	C	105716-S00-KIE-CIV-DWG-3001 TO 3013.DWG	332-004-CI-###
105716-S00-KIE-CIV-DWG-3012	WCD MARINE YARD BUILD-OUT, COQUITLAM BC, TYPICAL SECTIONS, SHEET 12 OF 13	C	105716-S00-KIE-CIV-DWG-3001 TO 3013.DWG	332-004-CI-###
105716-S00-KIE-CIV-DWG-3013	WCD MARINE YARD BUILD-OUT, COQUITLAM BC, TYPICAL SECTIONS, SHEET 13 OF 13	C	105716-S00-KIE-CIV-DWG-3001 TO 3013.DWG	332-004-CI-###
105716-S00-KIE-CIV-DWG-5002	WCD MARINE YARD BUILD-OUT, COQUITLAM BC, DREDGING SPOT ELEVATIONS, SHEET 1 OF 2	C	105716-S00-KIE-CIV-DWG-5001 TO 5006.DWG	332-004-CI-###
105716-S00-KIE-CIV-DWG-5003	WCD MARINE YARD BUILD-OUT, COQUITLAM BC, DREDGING SPOT ELEVATIONS, SHEET 2 OF 2	C	105716-S00-KIE-CIV-DWG-5001 TO 5006.DWG	332-004-CI-###
105716-S00-KIE-CIV-DWG-5101	WCD MARINE YARD BUILD-OUT, COQUITLAM BC, TRUCK TURNING MOVEMENT ROLL-ON ROLL-OFF RAMP	B	105716-S00-KIE-CIV-DWG-5101 TO 5103.DWG	332-004-CI-###
105716-S00-KIE-CIV-DWG-5102	WCD MARINE YARD BUILD-OUT, COQUITLAM BC, TRUCK TURNING MOVEMENT TO STOCKPILE	B	105716-S00-KIE-CIV-DWG-5101 TO 5103.DWG	332-004-CI-###
105716-S00-KIE-CIV-DWG-5103	WCD MARINE YARD BUILD-OUT, COQUITLAM BC, TRUCK TURNING MOVEMENT AT EAST EXIT	B	105716-S00-KIE-CIV-DWG-5101 TO 5103.DWG	332-004-CI-###
105716-S00-KIE-CIV-DWG-5201	WCD MARINE YARD BUILD-OUT, COQUITLAM BC, PARKING AND ACCESS PLAN	A	105716-S00-KIE-CIV-DWG-5201.DWG	332-004-CI-###
105716-S00-KIE-CIV-DWG-8001	WCD MARINE YARD BUILD-OUT, COQUITLAM BC, ENVIRONMENTAL PLAN	B	105716-S00-KIE-CIV-DWG-8001.DWG	332-004-CI-###
105716-S00-KIE-CIV-DWG-8101	WCD MARINE YARD BUILD-OUT, COQUITLAM BC, ENVIRONMENTAL SECTIONS, SHEET 1 OF 3	B	105716-S00-KIE-CIV-DWG-8101 TO 8104.DWG	332-004-CI-###
105716-S00-KIE-CIV-DWG-8102	WCD MARINE YARD BUILD-OUT, COQUITLAM BC, ENVIRONMENTAL SECTIONS, SHEET 2 OF 3	B	105716-S00-KIE-CIV-DWG-8101 TO 8104.DWG	332-004-CI-###
105716-S00-KIE-CIV-DWG-8103	WCD MARINE YARD BUILD-OUT, COQUITLAM BC, ENVIRONMENTAL SECTIONS, SHEET 3 OF 3	B	105716-S00-KIE-CIV-DWG-8101 TO 8104.DWG	332-004-CI-###

DRAINAGE AND UTILITIES DRAWING INDEX

DRAWING NUMBER	DESCRIPTION	REVISION	DWG FILE NAME	VFPA DRAWING NUMBER
105716-S00-KIE-DAU-DWG-4101	WCD MARINE YARD BUILD-OUT, COQUITLAM BC, STORM OVERALL PLAN AND NOTES	E	105716-S00-KIE-DAU-DWG-4101.DWG	332-004-UT-###
105716-S00-KIE-DAU-DWG-4102	WCD MARINE YARD BUILD-OUT, COQUITLAM BC, STORM DETAILS	E	105716-S00-KIE-DAU-DWG-4102.DWG	332-004-UT-###
105716-S00-KIE-DAU-DWG-4103	WCD MARINE YARD BUILD-OUT, COQUITLAM BC, WATERLINE PLAN, DETAILS AND NOTES	C	105716-S00-KIE-DAU-DWG-4103.DWG	332-004-UT-###
105716-S00-KIE-DAU-DWG-4104	WCD MARINE YARD BUILD-OUT, COQUITLAM BC, STORMWATER MANAGEMENT PLAN	C	105716-S00-KIE-DAU-DWG-4104.DWG	332-004-UT-###
105716-S00-KIE-DAU-DWG-4105	WCD MARINE YARD BUILD-OUT, COQUITLAM BC, STORM PLAN AND PROFILE, SHEET 1 OF 3	C	105716-S00-KIE-DAU-DWG-4105.DWG	332-004-UT-###
105716-S00-KIE-DAU-DWG-4106	WCD MARINE YARD BUILD-OUT, COQUITLAM BC, STORM PLAN AND PROFILE, SHEET 2 OF 3	C	105716-S00-KIE-DAU-DWG-4106.DWG	332-004-UT-###
105716-S00-KIE-DAU-DWG-4107	WCD MARINE YARD BUILD-OUT, COQUITLAM BC, STORM PLAN AND PROFILE, SHEET 3 OF 3	C	105716-S00-KIE-DAU-DWG-4107.DWG	332-004-UT-###
105716-S00-KIE-DAU-DWG-4108	WCD MARINE YARD BUILD-OUT, COQUITLAM BC, TRESTLE DRAINAGE PLAN AND PROFILE	C	105716-S00-KIE-DAU-DWG-4108.DWG	332-004-UT-###
105716-S00-KIE-DAU-DWG-4109	WCD MARINE YARD BUILD-OUT, COQUITLAM BC, RORO RAMP DRAINAGE PLAN AND PROFILE	C	105716-S00-KIE-DAU-DWG-4109.DWG	332-004-UT-###
105716-S00-KIE-DAU-DWG-4110	WCD MARINE YARD BUILD-OUT, COQUITLAM BC, TRUCK SCALE DRAINAGE PLAN AND PROFILE	A	105716-S00-KIE-DAU-DWG-4110.DWG	332-004-UT-###
105716-S00-KIE-DAU-DWG-4201	WCD MARINE YARD BUILD-OUT, COQUITLAM BC, WATERLINE PLAN AND PROFILE, SHEET 1 OF 3	B	105716-S00-KIE-DAU-DWG-4201.DWG	332-004-UT-###
105716-S00-KIE-DAU-DWG-4202	WCD MARINE YARD BUILD-OUT, COQUITLAM BC, WATERLINE PLAN AND PROFILE, SHEET 2 OF 3	B	105716-S00-KIE-DAU-DWG-4202.DWG	332-004-UT-###
105716-S00-KIE-DAU-DWG-4203	WCD MARINE YARD BUILD-OUT, COQUITLAM BC, WATERLINE PLAN AND PROFILE, SHEET 3 OF 3	B	105716-S00-KIE-DAU-DWG-4203.DWG	332-004-UT-###

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WCD MARINE YARD BUILD-OUT
COQUITLAM, BC
DRAWING INDEX

SIZE	DWG.	SHEET	REV.
D	105716-S00-KIE-CIV-DWG-0002	1 of 1	D

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EXISTING FEATURES

- MANHOLE
- CATCH BASIN
- JUNCTION BOX
- LIGHT POLE
- TOP OF BANK
- BOTTOM OF BANK
- LOCKBLOCK WALL
- D — D — STORM SEWER PIPES
- W — W — WATER PIPES
- S — SANITARY PIPES
- H — HYDRO LINES
- OIL — OIL LINE
- X — FENCE
- CONCRETE MEDIAN / ROAD SIDE BARRIERS
- EDGE OF PAVEMENT
- RUN:RISE X.X% — GRADE / SLOPE
- GATE
- LEASE — VANCOUVER FRASER PORT AUTHORITY LEASE LOT BOUNDARY
- VFPA — VANCOUVER FRASER PORT AUTHORITY BOUNDARY
- HWL — HWL (HIGH WATER LINE 5.112m CD)
- LWL — LWL (LOW WATER LINE 0m CD)
- HHWLT — HHWLT (HIGHER HIGH WATER LARGE TIDE 3.435m CD)
- TREES

PROPOSED FEATURES

- X — FENCE
- CONCRETE MEDIAN / ROAD SIDE BARRIERS
- EDGE OF PAVEMENT
- RUN:RISE X.X% — GRADE / SLOPE
- LOCKBLOCK WALL
- BARRIER
- PROPOSED WALKWAY

PROPOSED STORM SEWER FEATURES

- ST — STORM SEWER PIPE
- D — D — STORM SEWER PIPE (BY OTHERS)
- DITCHES
- DITCHES (BY OTHERS)
- CB MANHOLE
- MANHOLE (BY OTHERS)
- SILT CONTROL CHAMBER
- OUTFALL

PROPOSED WATER FEATURES

- W — WATER PIPE
- W — WATER PIPE (BY OTHERS)
- WATER VALVES (DENOTE TYPE IN OBJECT DATA)
- WATER VALVES (BY OTHERS)
- A&M BLOWOFF VALVE
- FIRE HYDRANT
- FIRE HYDRANT (BY OTHERS)
- STANDPIPE

PROPOSED COMPRESSED AIR FEATURES

- AIR — COMPRESSED AIR PIPE
- BALL VALVES (FOR COMPRESSED AIR LINE)

ABBREVIATIONS

BW	BOTTOM OF WALL
BOP	BOTTOM OF PIPE
CB	CATCH BASIN
CD	CHART DATUM
CGVD	CANADIAN GEODETIC VERTICAL DATUM
CRB	CONCRETE ROADSIDE BARRIER
DAS	DISPOSAL AT SEA
EL.	ELEVATION
EX.	EXISTING
HHWLT	HIGHER HIGH WATER LARGE TIDE
HWL	HIGH WATER LINE
LWL	LOW WATER LINE
MH	MANHOLE
ROW	RIGHT OF WAY
TYP.	TYPICAL
TBC	TO BE CONFIRMED
TW	TOP OF WALL
VFPA	VANCOUVER FRASER PORT AUTHORITY
VOL	VOLUME

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WCD MARINE YARD BUILD-OUT
COQUITLAM, BC
LEGENDS AND ABBREVIATIONS

SIZE	DWG.	SHEET	REV.
D	105716-S00-KIE-CIV-DWG-0003	1 of 1	D

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GENERAL NOTES:

1. THE COORDINATE SYSTEM IN THIS DRAWING PACKAGE IS IN UTM ZONE 10 WITH NAD83 DATUM (GRID).
2. ALL DIMENSIONS, UNITS AND ELEVATIONS ARE IN METERS UNLESS NOTED OTHERWISE
3. UNLESS NOTED OTHERWISE, ELEVATIONS IN THIS DRAWING PACKAGE ARE IN CHART DATUM (CD). DATUM CONVERSIONS PER THE WCD-MARINE YARD_HYDRO TECHNICAL REPORT (DATE AND REV TBD) (105716-S00-KIE-RPT-0001) ARE SHOWN BELOW:

	CHART DATUM (CD)	CGVD28	CGVD2013
CHART DATUM (CD)	-	-1.135	-1.012
CGVD28	+1.135	-	-0.123
CGVD2013	+1.012	+0.123	-

4. UNDERGROUND FACILITIES, POLES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS. THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS AT PRESENT UNKNOWN. VERIFICATION OF ALL THE LOCATIONS, SHOWN OR NOT SHOWN, MUST BE PERFORMED PRIOR TO CONSTRUCTION.
5. PER THE WCD MARINE YARD HYDRAULIC MODELING REPORT, THE DESIGN EVENT FOR A 50-YEAR DESIGN IS 100-YEAR EVENT. THE DESIGN WATER LEVEL OF THE 100-YEAR EVENT PLUS CLIMATE CHANGE IS 5.1m CD.
6. TRIDEM END DUMP TRUCKS ARE CONSIDERED TO BE THE GOVERNING VEHICLE FOR VEHICLE SWEPT PATH ANALYSIS WITHIN THE PROJECT SITE.

SURVEY NOTES:

1. SURVEY SOURCE:
   - EXISTING GROUND AND BATHYMETRY SURVEY PROVIDED BY KLTP PHOTOGRAMMETRY SURVEY DATED MAY 25TH, 2023.
   - GROUND FEATURES AND SURFACE UTILITIES PROVIDED BY BINNIE DATED NOVEMBER 2ND, 2022.
2. SURVEY MONUMENTS IN THE PROJECT AREA ARE LISTED BELOW.
   - HORIZONTAL DATUM: NAD83(CSRS)4.0.0.BC.1.GVRD
   - VERTICAL DATUM: CVD28 GVRD2018

GIS ID	NORTHING	EASTING	ELEVATION
95H1994	5452413.501	511635.267	4.564

GRADE CONSTRUCTION:

1. ALL STRIPPING, ENGINEERED FILL MATERIALS AND COMPACTION THEREOF GRADE CONSTRUCTION AND ANY GROUND IMPROVEMENTS FOR GRADE CONSTRUCTION (PRE-LOADING, SOIL IMPROVEMENTS ETC.) SHALL BE APPROVED BY GEOTECHNICAL ENGINEERS.

ROADWORK

1. BARRIERS USED ONSITE SHALL BE CRB (PRECAST ROADSIDE BARRIER) SPECIFIED IN BC MoTI STANDARD SPECIFICATION SECTION SP941-01.02.01 AND SP941-01.02.02.

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COQUITLAM, BC
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PLAN VIEW

Scale: 1:750

NOTES:

1. COORDINATE SYSTEM: UTM WITH NAD83 DATUM, ZONE 10, (GRID)(METER). VERTICAL: CHART DATUM.
2. VERTICAL TRANSLATION GEODETIC (GCVD28(HTv2.0)) TO CHART DATUM PERFORMED BY MOVING OBJECTS FROM POINT (0,0,0) (X,Y,Z) TO (0,0,-1.135).
3. ALL ELEVATIONS ARE REFERENCED TO HYDROGRAPHIC CHART DATUM.
4. ALL DIMENSIONS, UNITS, AND ELEVATIONS IN METERS UNLESS NOTED OTHERWISE.
5. INFORMATION IN THESE DRAWINGS ARE BASED ON THE BEST AVAILABLE DATA. SOME DISCREPANCY BETWEEN DRAWINGS AND ACTUAL CONDITIONS IS EXPECTED.
6. LOCATIONS, INVERT ELEVATIONS AND MATERIALS OF THE CROSSING UTILITIES SHALL BE CONFIRMED BY SURVEYS PRIOR TO CONSTRUCTION.
7. CIVIL ENGINEERING DESIGN IS BASED ON SITE OPERATION REQUIREMENTS, HYDROTECHNICAL ANALYSIS,ENVIRONMENTAL REQUIREMENTS,GEOTECHNICAL CRITERIA AND STRUCTURAL DESIGN.
8. FOR STRUCTURAL DETAILS OF THE MARINE ACCESS TRESTLE SEE DRAWING 105716-S02-KIE-STR-DWG-0001
9. FOR STRUCTURAL DETAILS OF CONVEYOR STRUCTURE SEE DRAWING 105716-S03-KIE-STR-DWG-0001.
10. FOR STRUCTURAL DETAILS OF ROLL-ON / ROLL-OFF RAMP SEE DRAWING 105716-S04-KIE-STR-DWG-0001.
11. FOR PROPOSED MAINTENANCE SHOP GRADING PLAN AND DRAINAGE DETAILS SEE ALPINE & MARTIN DRAWINGS 22-194-C01-C04.
12. FOR MOORING PILE AND MOORING STRUCTURE DETAILS SEE DRAWING 105716-S00-KIE-DWG-STR-1001.
13. FOR STORM SYSTEM SEE DRAWING 105716-S00-KIE-DWG-DAU-4001.
14. FOR DETAILS OF ENVIRONMENTAL OFFSETTING AND RESTORATION AREAS, SEE *KIEWIT MARINE YARD SUPPLEMENTAL REPORT FOR FISHERIES ACT AUTHORIZATION APPLICATION* PREPARED BY HATFIELD CONSULTANTS LLP (DOCUMENT NUMBER: 105716-S00-HAT-RPT-ENV-0002). REFER TO ENVIRONMENTAL PLAN 105716-S00-KIE-CIV-DWG-8001 FOR DETAILS.
15. FOR HYDROTECHNICAL ANALYSIS SEE *HYDRAULIC MODELING REPORT* (DOCUMENT NUMBER: 105716-S00-KIE-HYD-RPT-0001).
16. THIS DOCUMENT SHALL BE READ IN CONJUNCTION WITH THE FOLLOWING DOCUMENTS:
    - GEOTECHNICAL REPORT (REV D) *BUILD-OUT PROJECT, WCD MARINE YARD,* DATED APRIL 2024 (DOCUMENT NUMBER: 105716-S00-KIE-GEO-0001).
    - DRAINAGE DESIGN MEMO - DRAINAGE REVIEW FOR MARINE YARD SITE (REV. A), DATED JUN. 29, 2023.
17. RIPRAP SHALL BE MoTI 100kg CLASS OR APPROVED EQUIVALENT.
18. FOR CIVIL DEMOLITION DETAILS SEE 105716-S00-KIE-CIV-DWG-DEM-0001 TO 0002.

PRELIMINARY
NOT FOR CONSTRUCTION
2024-APR-24

1:750 0 15 45m

VFPA DRAWING NUMBER: 332-004-CI-###

Ref. No.	REFERENCE

Kiewit

Permit to Practice: 1004520
PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — R. SHOSTAK # 51822
2024-04-24

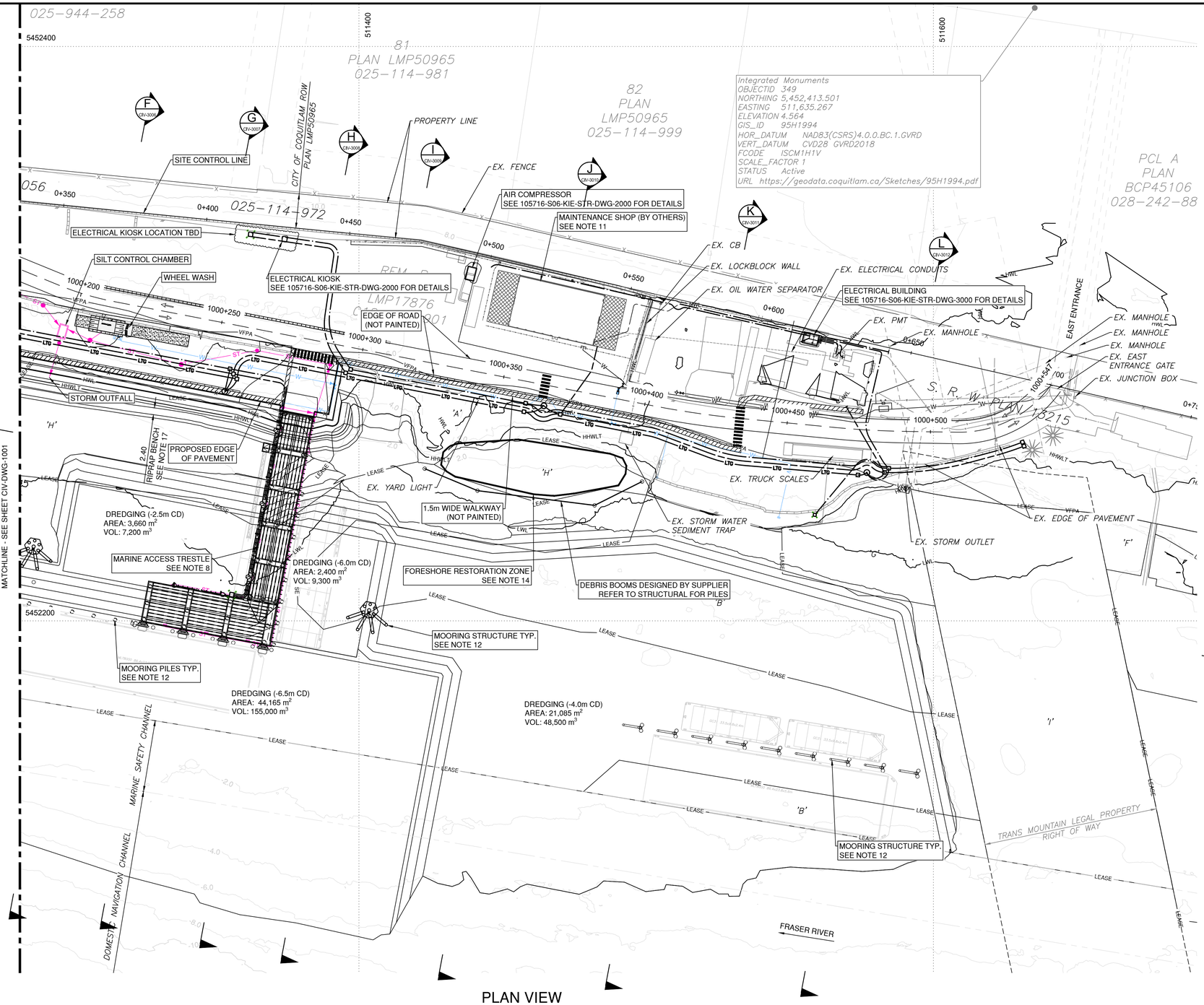
No.	Date	REVISION	Dr'n	Ch'd
E	2024-APR-24	ISSUED FOR VFPA PER	C.F.	R.S.
D	2024-MAR-26	ISSUED FOR DFO FISHERIES ACT AUTHORIZATION REVIEW	C.F.	R.S.
C	2023-NOV-14	ISSUED FOR 90%	C.F.	R.S.
B	2023-SEP-25	ISSUED FOR DFO FISHERIES ACT AUTHORIZATION REVIEW	C.F.	R.S.
A	2023-AUG-23	ISSUED FOR 50%	N.G.	R.S.

DESIGN BY	C.F.
DRAWN BY	C.F.
APPROVED	K.B
DATE	2024-APR-24
SCALE	1:750
VFPA SITE	332-004

WCD MARINE YARD BUILD-OUT
COQUITLAM, BC
GENERAL ARRANGEMENT
SHEET 1 OF 2

SIZE	DWG.	SHEET	REV.
D	105716-S00-KIE-CIV-DWG-1001	1 of 2	E

DATE: 2024/04/24 - 9:46am
PATH: C:\Users\Carson.Feng\DC\ACCDocs\Kiewit\WCD Marine Yard\Project Files\40 Design Eng\30 CIV\CAD\Sheets\105716-S00-KIE-CIV-DWG-1001 to 1002.dwg



PLAN VIEW

Scale: 1:750

NOTES:

1. COORDINATE SYSTEM: UTM WITH NAD83 DATUM, ZONE 10, (GRID)(METER). VERTICAL: CHART DATUM.
2. VERTICAL TRANSLATION GEODETIC (GCVD28(HTv2.0)) TO CHART DATUM PERFORMED BY MOVING OBJECTS FROM POINT (0,0,0) (X,Y,Z) TO (0,0,-1.135).
3. ALL ELEVATIONS ARE REFERENCED TO HYDROGRAPHIC CHART DATUM.
4. ALL DIMENSIONS, UNITS, AND ELEVATIONS IN METERS UNLESS NOTED OTHERWISE.
5. INFORMATION IN THESE DRAWINGS ARE BASED ON THE BEST AVAILABLE DATA. SOME DISCREPANCY BETWEEN DRAWINGS AND ACTUAL CONDITIONS IS EXPECTED.
6. LOCATIONS, INVERT ELEVATIONS AND MATERIALS OF THE CROSSING UTILITIES SHALL BE CONFIRMED BY SURVEYS PRIOR TO CONSTRUCTION.
7. CIVIL ENGINEERING DESIGN IS BASED ON SITE OPERATION REQUIREMENTS, HYDROTECHNICAL ANALYSIS,ENVIRONMENTAL REQUIREMENTS,GEOTECHNICAL CRITERIA AND STRUCTURAL DESIGN.
8. FOR STRUCTURAL DETAILS OF THE MARINE ACCESS TRESTLE SEE DRAWING 105716-S02-KIE-STR-DWG-0001
9. FOR STRUCTURAL DETAILS OF CONVEYOR STRUCTURE SEE DRAWING 105716-S03-KIE-STR-DWG-0001.
10. FOR STRUCTURAL DETAILS OF ROLL-ON / ROLL-OFF RAMP SEE DRAWING 105716-S04-KIE-STR-DWG-0001.
11. FOR PROPOSED MAINTENANCE SHOP GRADING PLAN AND DRAINAGE DETAILS SEE ALPINE & MARTIN DRAWINGS 22-194-C01-C04.
12. FOR MOORING PILE AND MOORING STRUCTURE DETAILS SEE DRAWING 105716-S00-KIE-DWG-STR-1001.
13. FOR STORM SYSTEM SEE DRAWING 105716-S00-KIE-DWG-DAU-4001.
14. FOR DETAILS OF ENVIRONMENTAL OFFSETTING AND RESTORATION AREAS, SEE *KIEWIT MARINE YARD SUPPLEMENTAL REPORT FOR FISHERIES ACT AUTHORIZATION APPLICATION* PREPARED BY HATFIELD CONSULTANTS LLP (DOCUMENT NUMBER: 105716-S00-HAT-RPT-ENV-0002). REFER TO ENVIRONMENTAL PLAN 105716-S00-KIE-CIV-DWG-8001 FOR DETAILS.
15. FOR HYDROTECHNICAL ANALYSIS SEE *HYDRAULIC MODELING REPORT* (DOCUMENT NUMBER: 105716-S00-KIE-HYD-RPT-0001).
16. THIS DOCUMENT SHALL BE READ IN CONJUNCTION WITH THE FOLLOWING DOCUMENTS:
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    - DRAINAGE DESIGN MEMO - DRAINAGE REVIEW FOR MARINE YARD SITE (REV. A), DATED JUN. 29, 2023.
17. RIPRAP SHALL BE MoTI 100kg CLASS OR APPROVED EQUIVALENT.
18. FOR CIVIL DEMOLITION DETAILS SEE 105716-S00-KIE-CIV-DWG-DEM-0001 TO 0002.

PRELIMINARY
NOT FOR CONSTRUCTION
2024-APR-24

1:750 0 15 45m

VFPA DRAWING NUMBER
332-004-CI-###

Ref. No.	REFERENCE

Kiewit

Permit to Practice: 1004520
PROFESSIONAL PROVINCE OF BRITISH COLUMBIA R. SHOSTAK # 51822 ENGINEER
2024-04-24

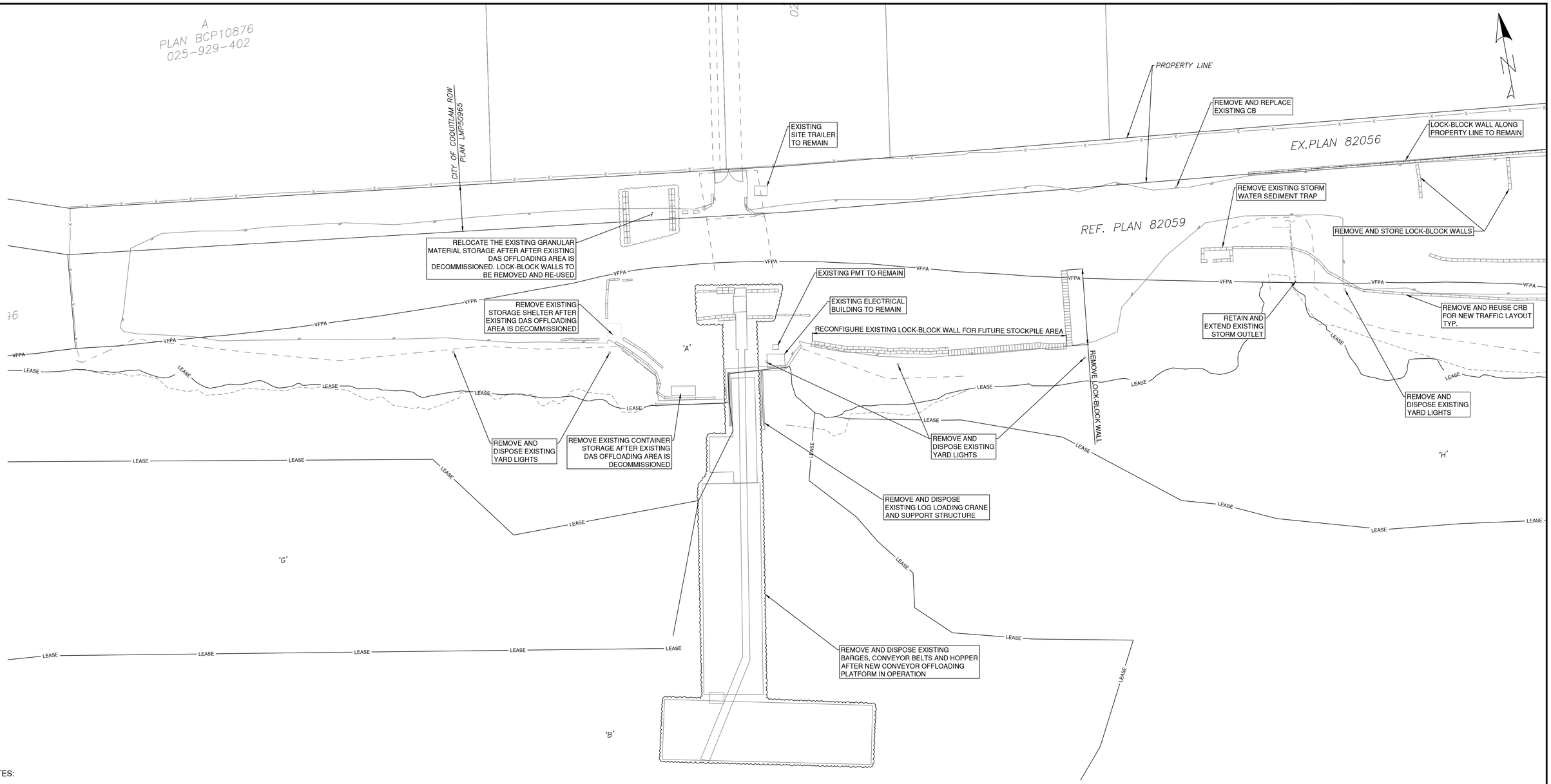
No.	Date	REVISION	Dr'n	Ch'd
E	2024-APR-24	ISSUED FOR VFPA PER	C.F.	R.S.
D	2024-MAR-26	ISSUED FOR DFO FISHERIES ACT AUTHORIZATION REVIEW	C.F.	R.S.
C	2023-NOV-14	ISSUED FOR 90%	C.F.	R.S.
B	2023-SEP-25	ISSUED FOR DFO FISHERIES ACT AUTHORIZATION REVIEW	C.F.	R.S.
A	2023-AUG-23	ISSUED FOR 50%	N.G.	R.S.

DESIGN BY	C.F.
DRAWN BY	C.F.
APPROVED	K.B
DATE	2024-APR-24
SCALE	1:750
VFPA SITE	332-004

WCD MARINE YARD BUILD-OUT
COQUITLAM, BC
GENERAL ARRANGEMENT
SHEET 2 OF 2

SIZE	DWG.	SHEET	REV.
D	105716-S00-KIE-CIV-DWG-1002	2 of 2	E

DATE: 2024/04/24 - 9:46am
PATH: C:\Users\Carson.Feng\DC\ACCDocs\Kiewit\WCD Marine Yard\Project Files\40 Design Eng\30 CIV\CAD\Sheets\105716-S00-KIE-CIV-DWG-1001 to 1002.dwg



PLAN VIEW

Scale: 1:500

NOTES:

1. THE EXISTING CONDITION WAS BASED ON TOPOGRAPHY SURVEY PROVIDED BY BINNIE DATED SEPTEMBER 22ND 2021. CONTRACTOR SHALL VERIFY THE EXISTING CONDITION PRIOR TO CONSTRUCTION.
2. ALL LOCK-BLOCKs AND CRBs TO BE REMAINED ON SITE OR STORED FOR FUTURE USES.
3. FOR ELECTRICAL REMOVALS AND RELOCATIONS, SEE ELECTRICAL DRAWINGS.
4. FOR UTILITY REMOVALS AND RELOCATIONS, SEE UTILITY DRAWINGS.

PRELIMINARY
NOT FOR CONSTRUCTION
2024–APR–24

1:500 0 10 30m

VFPA DRAWING NUMBER: 332-004-CI-D-###

Ref. No.	REFERENCE

Kiewit

Permit to Practice: 1004520
PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — R. SHOSTAK # 51822
2024-04-24

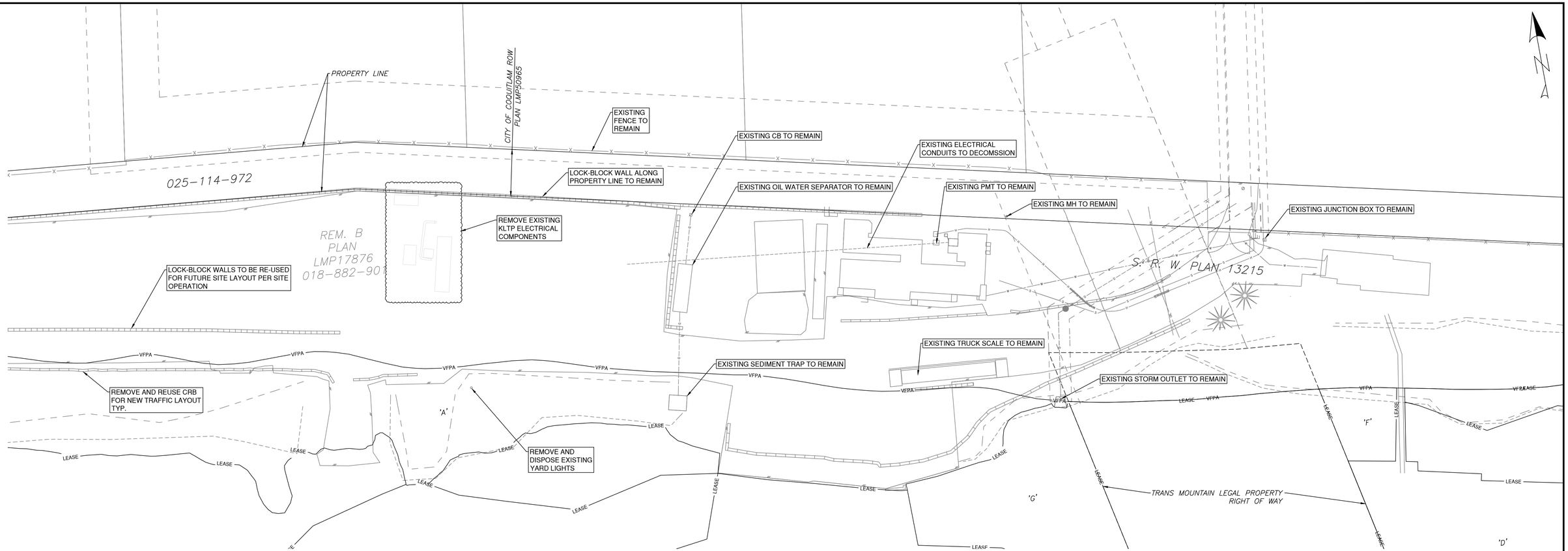
No.	Date	REVISION	Dr'n	Ch'd
C	2024-APR-24	ISSUED FOR VFPA PER	C.F.	R.S.
B	2024-MAR-26	ISSUED FOR DFO FISHERIES ACT AUTHORIZATION REVIEW	C.F.	R.S.
A	2023-NOV-14	ISSUED FOR 90%	C.F.	R.S.

DESIGN BY	C.F.
DRAWN BY	C.F.
APPROVED	K.B
DATE	2024-APR-24
SCALE	1:500
VFPA SITE	332-004

WCD MARINE YARD BUILD-OUT
COQUITLAM, BC
DEMOLITION PLAN
SHEET 1 OF 2

SIZE	DWG.	SHEET	REV.
D	105716-S00-KIE-CIV-DWG-DEM-0001	1 of 2	C

DATE: 2024/04/23 9:24am
PATH: C:\Users\Carson.Feng\DC\ACCDocs\Kiewit\WCD Marine Yard\Project Files\40 Design Eng\30 CIV\CAD\Sheets\105716-S00-KIE-CIV-DWG-DEM-0001 to 0002.dwg



PLAN VIEW

Scale: 1:500

NOTES:

1. THE EXISTING CONDITION WAS BASED ON TOPOGRAPHY SURVEY PROVIDED BY BINNIE DATED SEPTEMBER 22ND 2021. CONTRACTOR SHALL VERIFY THE EXISTING CONDITION PRIOR TO CONSTRUCTION.
2. ALL LOCK-BLOCKs AND CRBs TO BE REMAINED ON SITE OR STORED FOR FUTURE USES.
3. FOR ELECTRICAL REMOVALS AND RELOCATIONS, SEE ELECTRICAL DRAWINGS.
4. FOR UTILITY REMOVALS AND RELOCATIONS, SEE UTILITY DRAWINGS.

PRELIMINARY
NOT FOR CONSTRUCTION
2024-APR-24

1:500 0 10 30m

VFPA DRAWING NUMBER:
332-004-CI-D-###

Ref. No.	REFERENCE

Kiewit

Permit to Practice: 1004520
PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — R. SHOSTAK # 51822
2024-04-24

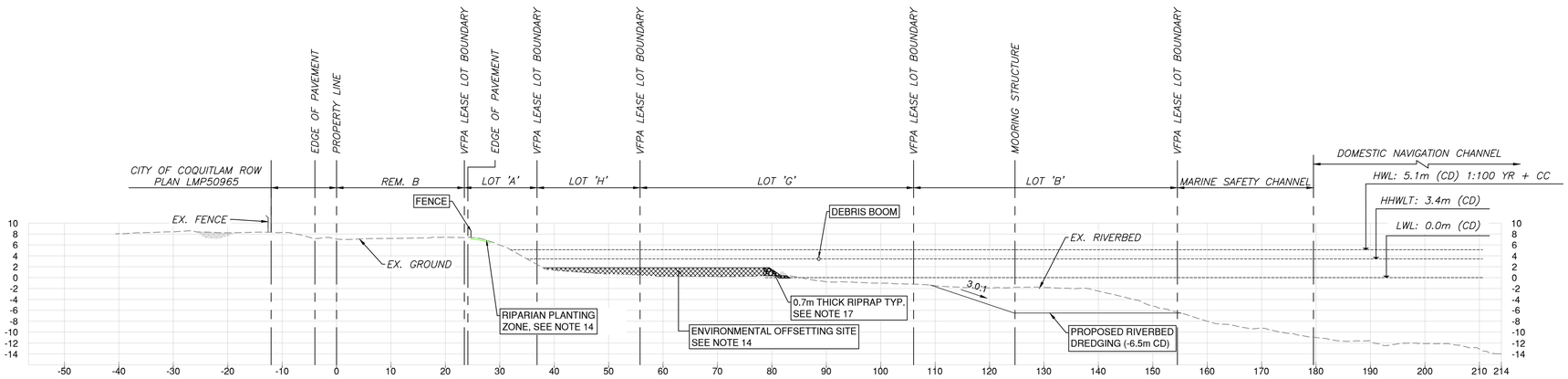
No.	Date	REVISION	Dr'n	Ch'd
C	2024-APR-24	ISSUED FOR VFPA PER	C.F.	R.S.
B	2024-MAR-26	ISSUED FOR DFO FISHERIES ACT AUTHORIZATION REVIEW	C.F.	R.S.
A	2023-NOV-14	ISSUED FOR 90%	C.F.	R.S.

DESIGN BY	C.F.
DRAWN BY	C.F.
APPROVED	K.B
DATE	2024-APR-24
SCALE	1:500
VFPA SITE	332-004

WCD MARINE YARD BUILD-OUT
COQUITLAM, BC
DEMOLITION PLAN
SHEET 2 OF 2

SIZE	DWG.	SHEET	REV.
D	105716-S00-KIE-CIV-DWG-DEM-0002	2 of 2	C

DATE: 2024/04/23 - 9:24am
PATH: C:\Users\Carson.Feng\DC\ACCDocs\Kiewit\WCD Marine Yard\Project Files\40 Design Eng\30 CIV\CAD\Sheets\105716-S00-KIE-CIV-DWG-DEM-0001 to 0002.dwg



SECTION A

Scale: 1:500

CIV-1001

NOTES:

1. COORDINATE SYSTEM: UTM WITH NAD83 DATUM, ZONE 10, (GRID)(METER). VERTICAL: CHART DATUM.
2. VERTICAL TRANSLATION GEODETIC (GCVD28(HTv2.0)) TO CHART DATUM PERFORMED BY MOVING OBJECTS FROM POINT (0,0,0) (X,Y,Z) TO (0,0,-1.135).
3. ALL ELEVATIONS ARE REFERENCED TO HYDROGRAPHIC CHART DATUM.
4. ALL DIMENSIONS, UNITS, AND ELEVATIONS IN METERS UNLESS NOTED OTHERWISE.
5. INFORMATION IN THESE DRAWINGS ARE BASED ON THE BEST AVAILABLE DATA. SOME DISCREPANCY BETWEEN DRAWINGS AND ACTUAL CONDITIONS IS EXPECTED.
6. LOCATIONS, INVERT ELEVATIONS AND MATERIALS OF THE CROSSING UTILITIES SHALL BE CONFIRMED BY SURVEYS PRIOR TO CONSTRUCTION.
7. CIVIL ENGINEERING DESIGN IS BASED ON SITE OPERATION REQUIREMENTS, HYDROTECHNICAL ANALYSIS, GEOTECHNICAL CRITERIA AND STRUCTURAL DESIGN.
8. FOR STRUCTURAL DETAILS OF THE MARINE ACCESS TRESTLE SEE DRAWING 105716-S02-KIE-STR-DWG-0001.
9. FOR STRUCTURAL DETAILS OF CONVEYOR STRUCTURE SEE DRAWING 105716-S03-KIE-STR-DWG-0001.
10. FOR STRUCTURAL DETAILS OF ROLL-ON / ROLL-OFF RAMP SEE DRAWING 105716-S04-KIE-STR-DWG-0001.
11. FOR PROPOSED MAINTENANCE SHOP GRADING PLAN AND DRAINAGE DETAILS SEE ALPINE & MARTIN DRAWINGS 22-194-C01-C04.
12. FOR MOORING PILE AND MOORING STRUCTURE DETAILS SEE DRAWING 105716-S00-KIE-DWG-STR-1001.
13. FOR STORM SYSTEM SEE DRAWING 105716-S00-KIE-DWG-DAU-4001.
14. FOR DETAILS OF ENVIRONMENTAL OFFSETTING AND RESTORATION AREAS, SEE *KIEWIT MARINE YARD SUPPLEMENTAL REPORT FOR FISHERIES ACT AUTHORIZATION APPLICATION* PREPARED BY HATFIELD CONSULTANTS LLP (DOCUMENT NUMBER: 105716-S00-HAT-RPT-ENV-0002). REFER TO ENVIRONMENTAL PLAN 105716-KIE-CIV-DWG-8001 TO 8102 FOR DETAILS.
15. FOR HYDROTECHNICAL ANALYSIS SEE *HYDRAULIC MODELING REPORT* (DOCUMENT NUMBER: 105716-S00-KIE-HYD-RPT-0001).
16. THIS DOCUMENT SHALL BE READ IN CONJUNCTION WITH THE FOLLOWING DOCUMENTS:
    - GEOTECHNICAL REPORT (REV D) *BUILD-OUT PROJECT, WCD MARINE YARD*, DATED APRIL 2024 (DOCUMENT NUMBER: 105716-S00-KIE-GEO-0001).
    - DRAINAGE DESIGN MEMO - DRAINAGE REVIEW FOR MARINE YARD SITE (REV. A), DATED JUN. 29, 2023.
17. RIPRAP SHALL BE MoTI 100kg CLASS OR APPROVED EQUIVALENT.

PRELIMINARY
NOT FOR CONSTRUCTION
2024–APR–24

1:500 0 10 30m

VFPA DRAWING NUMBER: 332-004-CI-###

Ref. No.	REFERENCE

Kiewit

Permit to Practice: 1004520

PROFESSIONAL PROVINCE OF BRITISH COLUMBIA R. SHOSTAK # 51822 ENGINEER 2024-04-24

No.	Date	REVISION	Dr'n	Ch'd
E	2024-APR-24	ISSUED FOR VFPA PER	C.F.	R.S.
D	2024-MAR-26	ISSUED FOR DFO FISHERIES ACT AUTHORIZATION REVIEW	C.F.	R.S.
C	2023-NOV-14	ISSUED FOR 90%	C.F.	R.S.
B	2023-SEP-25	ISSUED FOR DFO FISHERIES ACT AUTHORIZATION REVIEW	C.F.	R.S.
A	2023-AUG-23	ISSUED FOR 50%	N.G.	R.S.

DESIGN BY	C.F.
DRAWN BY	C.F.
APPROVED	K.B.
DATE	2024-APR-24
SCALE	1:500
VFPA SITE	332-004

WCD MARINE YARD BUILD-OUT
COQUITLAM, BC
TYPICAL SECTIONS
SHEET 1 OF 13

SIZE	DWG.	SHEET	REV.
D	105716-S00-KIE-CIV-DWG-3001	1 of 13	E

DATE: 2024/04/24 - 9:52am
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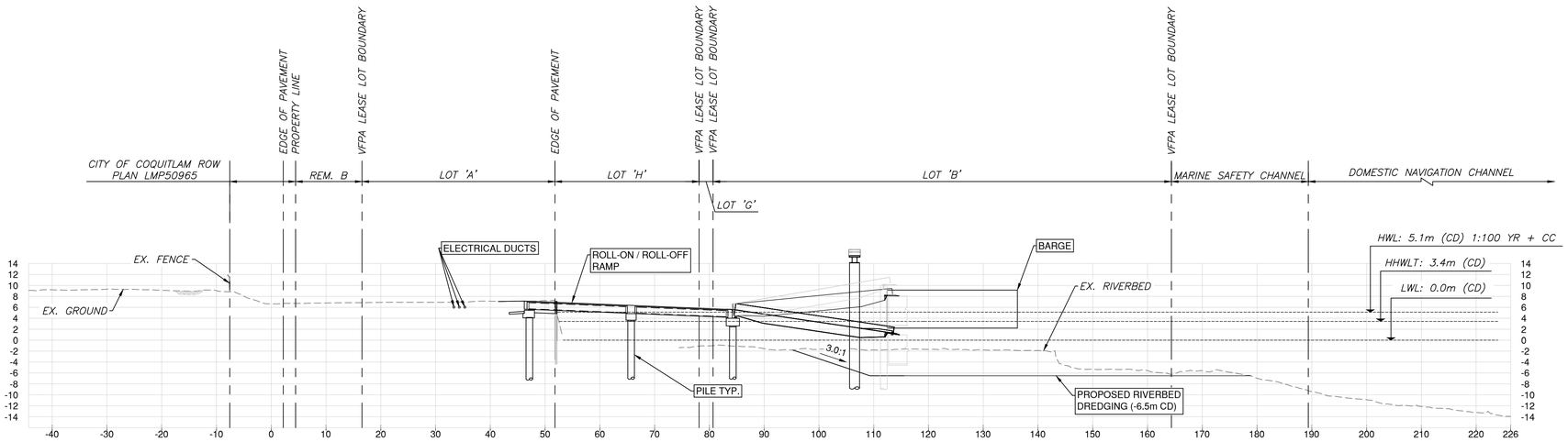

SECTION B

Scale: 1:500

CIV-1001

NOTES:

1. COORDINATE SYSTEM: UTM WITH NAD83 DATUM, ZONE 10, (GRID)(METER). VERTICAL: CHART DATUM.
2. VERTICAL TRANSLATION GEODETIC (GCVD28(HTv2.0)) TO CHART DATUM PERFORMED BY MOVING OBJECTS FROM POINT (0,0,0) (X,Y,Z) TO (0,0,-1.135).
3. ALL ELEVATIONS ARE REFERENCED TO HYDROGRAPHIC CHART DATUM.
4. ALL DIMENSIONS, UNITS, AND ELEVATIONS IN METERS UNLESS NOTED OTHERWISE.
5. INFORMATION IN THESE DRAWINGS ARE BASED ON THE BEST AVAILABLE DATA. SOME DISCREPANCY BETWEEN DRAWINGS AND ACTUAL CONDITIONS IS EXPECTED.
6. LOCATIONS, INVERT ELEVATIONS AND MATERIALS OF THE CROSSING UTILITIES SHALL BE CONFIRMED BY SURVEYS PRIOR TO CONSTRUCTION.
7. CIVIL ENGINEERING DESIGN IS BASED ON SITE OPERATION REQUIREMENTS, HYDROTECHNICAL ANALYSIS, GEOTECHNICAL CRITERIA AND STRUCTURAL DESIGN.
8. FOR STRUCTURAL DETAILS OF THE MARINE ACCESS TRESTLE SEE DRAWING 105716-S02-KIE-STR-DWG-0001.
9. FOR STRUCTURAL DETAILS OF CONVEYOR STRUCTURE SEE DRAWING 105716-S03-KIE-STR-DWG-0001.
10. FOR STRUCTURAL DETAILS OF ROLL-ON / ROLL-OFF RAMP SEE DRAWING 105716-S04-KIE-STR-DWG-0001.
11. FOR PROPOSED MAINTENANCE SHOP GRADING PLAN AND DRAINAGE DETAILS SEE ALPINE & MARTIN DRAWINGS 22-194-C01-C04.
12. FOR MOORING PILE AND MOORING STRUCTURE DETAILS SEE DRAWING 105716-S00-KIE-DWG-STR-1001.
13. FOR STORM SYSTEM SEE DRAWING 105716-S00-KIE-DWG-DAU-4001.
14. FOR DETAILS OF ENVIRONMENTAL OFFSETTING AND RESTORATION AREAS, SEE *KIEWIT MARINE YARD SUPPLEMENTAL REPORT FOR FISHERIES ACT AUTHORIZATION APPLICATION* PREPARED BY HATFIELD CONSULTANTS LLP (DOCUMENT NUMBER: 105716-S00-HAT-RPT-ENV-0002). REFER TO ENVIRONMENTAL PLAN 105716-KIE-CIV-DWG-8001 TO 8102 FOR DETAILS.
15. FOR HYDROTECHNICAL ANALYSIS SEE *HYDRAULIC MODELING REPORT* (DOCUMENT NUMBER: 105716-S00-KIE-HYD-RPT-0001).
16. THIS DOCUMENT SHALL BE READ IN CONJUNCTION WITH THE FOLLOWING DOCUMENTS:
    - GEOTECHNICAL REPORT (REV D) *BUILD-OUT PROJECT, WCD MARINE YARD*, DATED APRIL 2024 (DOCUMENT NUMBER: 105716-S00-KIE-GEO-0001).
    - DRAINAGE DESIGN MEMO - DRAINAGE REVIEW FOR MARINE YARD SITE (REV. A), DATED JUN. 29, 2023.
17. RIPRAP SHALL BE MoTI 100kg CLASS OR APPROVED EQUIVALENT.

PRELIMINARY
NOT FOR CONSTRUCTION
2024–APR–24

1:500 0 10 30m

VFPA DRAWING NUMBER
332-004-CI-###

Ref. No.	REFERENCE

Kiewit

Permit to Practice: 1004520

PROFESSIONAL PROVINCE OF BRITISH COLUMBIA R. SHOSTAK # 51822 ENGINEER 2024-04-24

No.	Date	REVISION	Dr'n	Ch'd
E	2024-APR-24	ISSUED FOR VFPA PER	C.F.	R.S.
D	2024-MAR-26	ISSUED FOR DFO FISHERIES ACT AUTHORIZATION REVIEW	C.F.	R.S.
C	2023-NOV-14	ISSUED FOR 90%	C.F.	R.S.
B	2023-SEP-25	ISSUED FOR DFO FISHERIES ACT AUTHORIZATION REVIEW	C.F.	R.S.
A	2023-AUG-23	ISSUED FOR 50%	N.G.	R.S.

DESIGN BY	C.F.
DRAWN BY	C.F.
APPROVED	K.B.
DATE	2024-APR-24
SCALE	1:500
VFPA SITE	332-004

WCD MARINE YARD BUILD-OUT
COQUITLAM, BC
TYPICAL SECTIONS
SHEET 2 OF 13

SIZE	DWG.	SHEET	REV.
D	105716-S00-KIE-CIV-DWG-3002	2 of 13	E

DATE: 2024/04/24 - 9:53am
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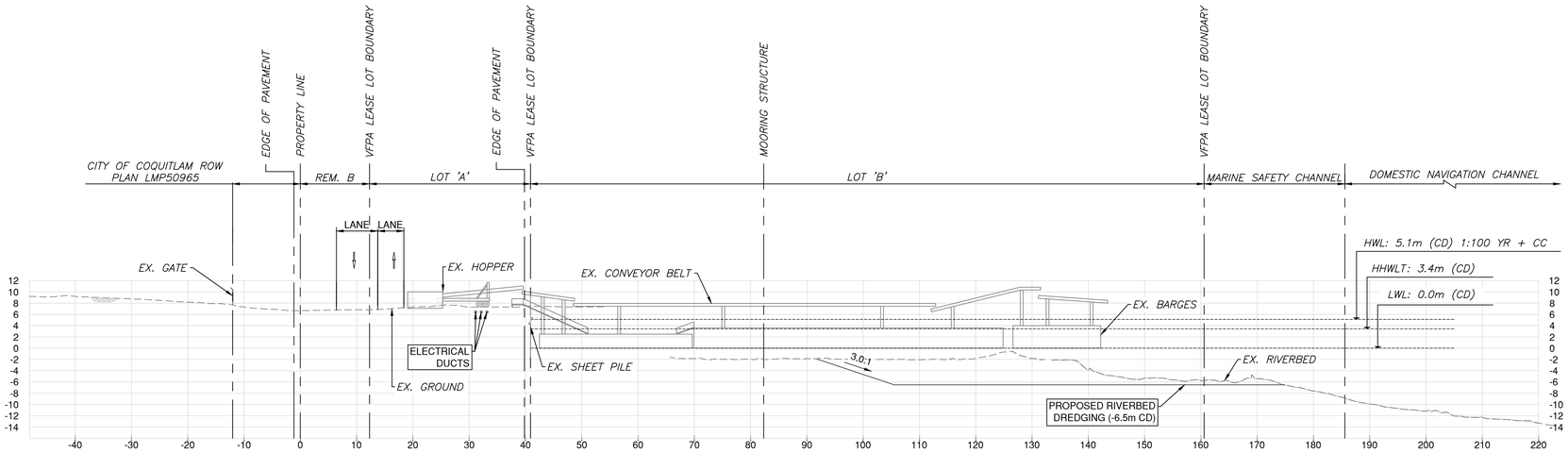

SECTION C

Scale: 1:500

CIV-1001

NOTES:

1. COORDINATE SYSTEM: UTM WITH NAD83 DATUM, ZONE 10, (GRID)(METER). VERTICAL: CHART DATUM.
2. VERTICAL TRANSLATION GEODETIC (GCVD28(HTv2.0)) TO CHART DATUM PERFORMED BY MOVING OBJECTS FROM POINT (0,0,0) (X,Y,Z) TO (0,0,-1.135).
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8. FOR STRUCTURAL DETAILS OF THE MARINE ACCESS TRESTLE SEE DRAWING 105716-S02-KIE-STR-DWG-0001.
9. FOR STRUCTURAL DETAILS OF CONVEYOR STRUCTURE SEE DRAWING 105716-S03-KIE-STR-DWG-0001.
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11. FOR PROPOSED MAINTENANCE SHOP GRADING PLAN AND DRAINAGE DETAILS SEE ALPINE & MARTIN DRAWINGS 22-194-C01-C04.
12. FOR MOORING PILE AND MOORING STRUCTURE DETAILS SEE DRAWING 105716-S00-KIE-DWG-STR-1001.
13. FOR STORM SYSTEM SEE DRAWING 105716-S00-KIE-DWG-DAU-4001.
14. FOR DETAILS OF ENVIRONMENTAL OFFSETTING AND RESTORATION AREAS, SEE *KIEWIT MARINE YARD SUPPLEMENTAL REPORT FOR FISHERIES ACT AUTHORIZATION APPLICATION* PREPARED BY HATFIELD CONSULTANTS LLP (DOCUMENT NUMBER: 105716-S00-HAT-RPT-ENV-0002), REFER TO ENVIRONMENTAL PLAN 105716-KIE-CIV-DWG-8001 TO 8102 FOR DETAILS.
15. FOR HYDROTECHNICAL ANALYSIS SEE *HYDRAULIC MODELING REPORT* (DOCUMENT NUMBER: 105716-S00-KIE-HYD-RPT-0001).
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17. RIPRAP SHALL BE MoTI 100kg CLASS OR APPROVED EQUIVALENT.

PRELIMINARY
NOT FOR CONSTRUCTION
2024–APR–24

1:500 0 10 30m

VFPA DRAWING NUMBER: 332-004-CI-###

Ref. No.	REFERENCE

Kiewit

Permit to Practice: 1004520

PROFESSIONAL PROVINCE OF BRITISH COLUMBIA R. SHOSTAK # 51822 ENGINEER 2024-04-24

No.	Date	REVISION	Dr'n	Ch'd
E	2024-APR-24	ISSUED FOR VFPA PER	C.F.	R.S.
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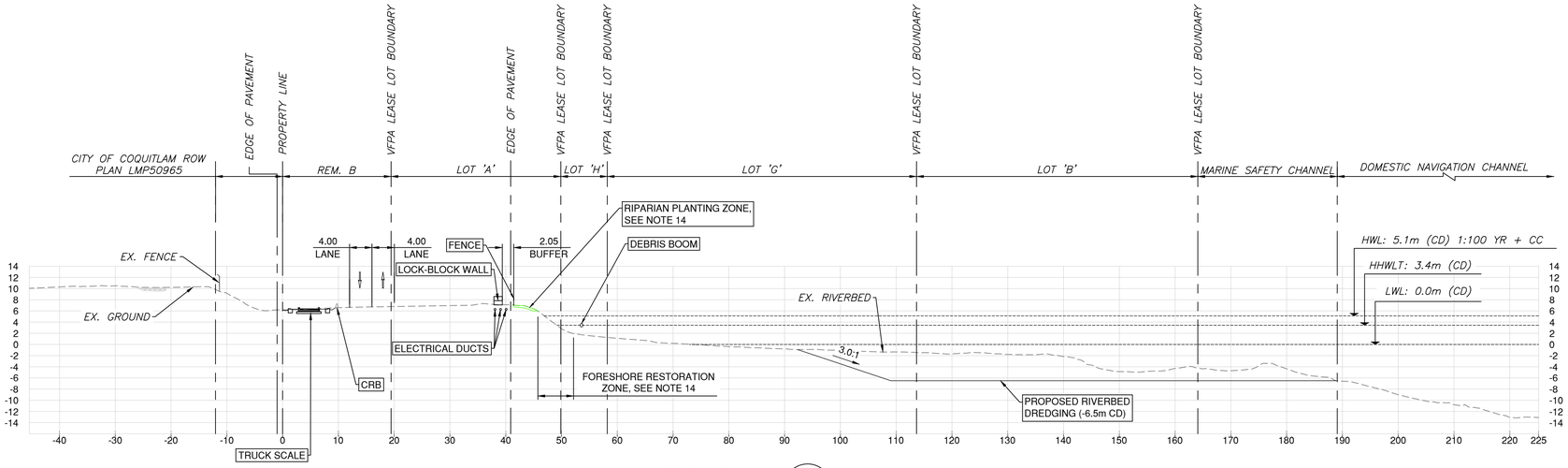
C	2023-NOV-14	ISSUED FOR 90%	C.F.	R.S.
B	2023-SEP-25	ISSUED FOR DFO FISHERIES ACT AUTHORIZATION REVIEW	C.F.	R.S.
A	2023-AUG-23	ISSUED FOR 50%	N.G.	R.S.

DESIGN BY	C.F.
DRAWN BY	C.F.
APPROVED	K.B.
DATE	2024-APR-24
SCALE	1:500
VFPA SITE	332-004

WCD MARINE YARD BUILD-OUT
COQUITLAM, BC
TYPICAL SECTIONS
SHEET 3 OF 13

SIZE	DWG.	SHEET	REV.
D	105716-S00-KIE-CIV-DWG-3003	3 of 13	E

DATE: 2024/04/24 - 9:53am
PATH: C:\Users\Carson.Feng\DC\ACCDocs\Kiewit\WCD Marine Yard\Project Files\40 Design Eng\30 CIV\CAD\Sheets\105716-S00-KIE-CIV-DWG-3001 to 3013.dwg



SECTION D

Scale: 1:500

CIV-1001

NOTES:

1. COORDINATE SYSTEM: UTM WITH NAD83 DATUM, ZONE 10, (GRID)(METER). VERTICAL: CHART DATUM.
2. VERTICAL TRANSLATION GEODETIC (GCVD28(HTv2.0)) TO CHART DATUM PERFORMED BY MOVING OBJECTS FROM POINT (0,0,0) (X,Y,Z) TO (0,0,-1.135).
3. ALL ELEVATIONS ARE REFERENCED TO HYDROGRAPHIC CHART DATUM.
4. ALL DIMENSIONS, UNITS, AND ELEVATIONS IN METERS UNLESS NOTED OTHERWISE.
5. INFORMATION IN THESE DRAWINGS ARE BASED ON THE BEST AVAILABLE DATA. SOME DISCREPANCY BETWEEN DRAWINGS AND ACTUAL CONDITIONS IS EXPECTED.
6. LOCATIONS, INVERT ELEVATIONS AND MATERIALS OF THE CROSSING UTILITIES SHALL BE CONFIRMED BY SURVEYS PRIOR TO CONSTRUCTION.
7. CIVIL ENGINEERING DESIGN IS BASED ON SITE OPERATION REQUIREMENTS, HYDROTECHNICAL ANALYSIS, GEOTECHNICAL CRITERIA AND STRUCTURAL DESIGN.
8. FOR STRUCTURAL DETAILS OF THE MARINE ACCESS TRESTLE SEE DRAWING 105716-S02-KIE-STR-DWG-0001.
9. FOR STRUCTURAL DETAILS OF CONVEYOR STRUCTURE SEE DRAWING 105716-S03-KIE-STR-DWG-0001.
10. FOR STRUCTURAL DETAILS OF ROLL-ON / ROLL-OFF RAMP SEE DRAWING 105716-S04-KIE-STR-DWG-0001.
11. FOR PROPOSED MAINTENANCE SHOP GRADING PLAN AND DRAINAGE DETAILS SEE ALPINE & MARTIN DRAWINGS 22-194-C01-C04.
12. FOR MOORING PILE AND MOORING STRUCTURE DETAILS SEE DRAWING 105716-S00-KIE-DWG-STR-1001.
13. FOR STORM SYSTEM SEE DRAWING 105716-S00-KIE-DWG-DAU-4001.
14. FOR DETAILS OF ENVIRONMENTAL OFFSETTING AND RESTORATION AREAS, SEE *KIEWIT MARINE YARD SUPPLEMENTAL REPORT FOR FISHERIES ACT AUTHORIZATION APPLICATION* PREPARED BY HATFIELD CONSULTANTS LLP (DOCUMENT NUMBER: 105716-S00-HAT-RPT-ENV-0002). REFER TO ENVIRONMENTAL PLAN 105716-KIE-CIV-DWG-8001 TO 8102 FOR DETAILS.
15. FOR HYDROTECHNICAL ANALYSIS SEE *HYDRAULIC MODELING REPORT* (DOCUMENT NUMBER: 105716-S00-KIE-HYD-RPT-0001).
16. THIS DOCUMENT SHALL BE READ IN CONJUNCTION WITH THE FOLLOWING DOCUMENTS:
    - GEOTECHNICAL REPORT (REV D) *BUILD-OUT PROJECT, WCD MARINE YARD*, DATED APRIL 2024 (DOCUMENT NUMBER: 105716-S00-KIE-GEO-0001).
    - DRAINAGE DESIGN MEMO - DRAINAGE REVIEW FOR MARINE YARD SITE (REV. A), DATED JUN. 29, 2023.
17. RIPRAP SHALL BE MoTI 100kg CLASS OR APPROVED EQUIVALENT.

PRELIMINARY
NOT FOR CONSTRUCTION
2024–APR–24

1:500 0 10 30m

VFPA DRAWING NUMBER: 332-004-CI-###

Ref. No.	REFERENCE

Kiewit

Permit to Practice: 1004520

PROFESSIONAL PROVINCE OF BRITISH COLUMBIA R. SHOSTAK # 51822 ENGINEER 2024-04-24

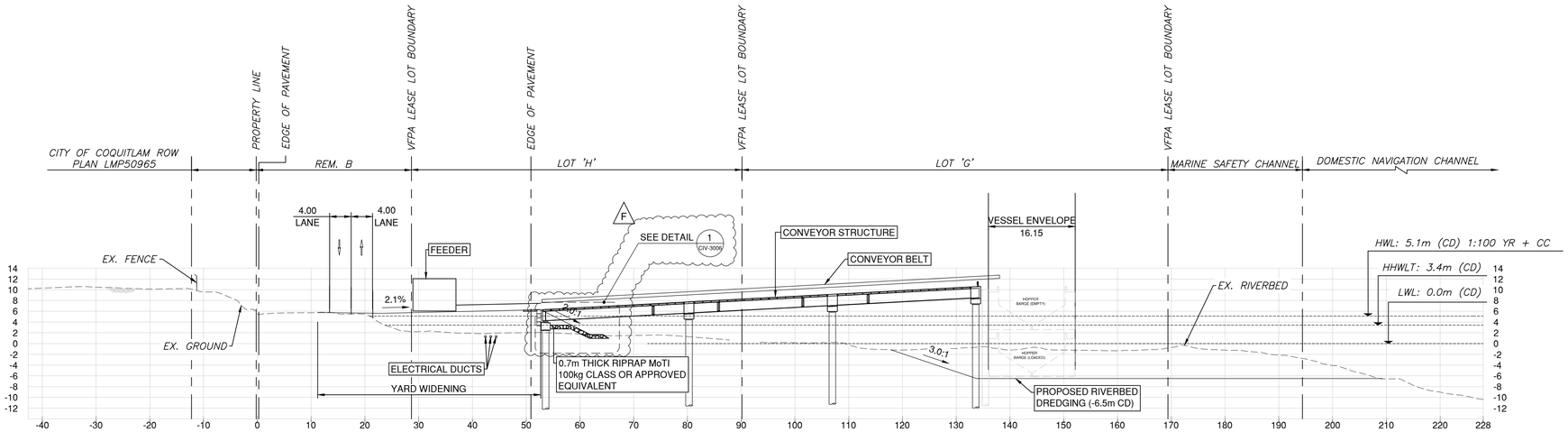
No.	Date	REVISION	Dr'n	Ch'd
E	2024-APR-24	ISSUED FOR VFPA PER	C.F.	R.S.
D	2024-MAR-26	ISSUED FOR DFO FISHERIES ACT AUTHORIZATION REVIEW	C.F.	R.S.
C	2023-NOV-14	ISSUED FOR 90%	C.F.	R.S.
B	2023-SEP-25	ISSUED FOR DFO FISHERIES ACT AUTHORIZATION REVIEW	C.F.	R.S.
A	2023-AUG-23	ISSUED FOR 50%	N.G.	R.S.

DESIGN BY	C.F.
DRAWN BY	C.F.
APPROVED	K.B.
DATE	2024-APR-24
SCALE	1:500
VFPA SITE	332-004

WCD MARINE YARD BUILD-OUT
COQUITLAM, BC
TYPICAL SECTIONS
SHEET 4 OF 13

SIZE	DWG.	SHEET	REV.
D	105716-S00-KIE-CIV-DWG-3004	4 of 13	E

DATE: 2024/04/24 - 9:53am
PATH: C:\Users\Carson.Feng\DC\ACCDocs\Kiewit\WCD Marine Yard\Project Files\40 Design Eng\30 CIV\CAD\Sheets\105716-S00-KIE-CIV-DWG-3001 to 3013.dwg



SECTION E

Scale: 1:500

CIV-1001

NOTES:

1. COORDINATE SYSTEM: UTM WITH NAD83 DATUM, ZONE 10, (GRID)(METER). VERTICAL: CHART DATUM.
2. VERTICAL TRANSLATION GEODETIC (GCVD28(HTv2.0)) TO CHART DATUM PERFORMED BY MOVING OBJECTS FROM POINT (0,0,0) (X,Y,Z) TO (0,0,-1.135).
3. ALL ELEVATIONS ARE REFERENCED TO HYDROGRAPHIC CHART DATUM.
4. ALL DIMENSIONS, UNITS, AND ELEVATIONS IN METERS UNLESS NOTED OTHERWISE.
5. INFORMATION IN THESE DRAWINGS ARE BASED ON THE BEST AVAILABLE DATA. SOME DISCREPANCY BETWEEN DRAWINGS AND ACTUAL CONDITIONS IS EXPECTED.
6. LOCATIONS, INVERT ELEVATIONS AND MATERIALS OF THE CROSSING UTILITIES SHALL BE CONFIRMED BY SURVEYS PRIOR TO CONSTRUCTION.
7. CIVIL ENGINEERING DESIGN IS BASED ON SITE OPERATION REQUIREMENTS, HYDROTECHNICAL ANALYSIS, GEOTECHNICAL CRITERIA AND STRUCTURAL DESIGN.
8. FOR STRUCTURAL DETAILS OF THE MARINE ACCESS TRESTLE SEE DRAWING 105716-S02-KIE-STR-DWG-0001.
9. FOR STRUCTURAL DETAILS OF CONVEYOR STRUCTURE SEE DRAWING 105716-S03-KIE-STR-DWG-0001.
10. FOR STRUCTURAL DETAILS OF ROLL-ON / ROLL-OFF RAMP SEE DRAWING 105716-S04-KIE-STR-DWG-0001.
11. FOR PROPOSED MAINTENANCE SHOP GRADING PLAN AND DRAINAGE DETAILS SEE ALPINE & MARTIN DRAWINGS 22-194-C01-C04.
12. FOR MOORING PILE AND MOORING STRUCTURE DETAILS SEE DRAWING 105716-S00-KIE-DWG-STR-1001.
13. FOR STORM SYSTEM SEE DRAWING 105716-S00-KIE-DWG-DAU-4001.
14. FOR DETAILS OF ENVIRONMENTAL OFFSETTING, RESTORATION AREAS, BOULDER CLUSTERS AND ROOT WADS, SEE *KIEWIT MARINE YARD SUPPLEMENTAL REPORT FOR FISHERIES ACT AUTHORIZATION APPLICATION* PREPARED BY HATFIELD CONSULTANTS LLP (DOCUMENT NUMBER: 105716-S00-HAT-RPT-ENV-0002). REFER TO ENVIRONMENTAL PLAN 105716-S00-KIE-CIV-DWG-8001 FOR DETAILS.
15. FOR HYDROTECHNICAL ANALYSIS SEE *HYDRAULIC MODELING REPORT* (DOCUMENT NUMBER: 105716-S00-KIE-HYD-RPT-0001).
16. THIS DOCUMENT SHALL BE READ IN CONJUNCTION WITH THE FOLLOWING DOCUMENTS:
    - GEOTECHNICAL REPORT (REV D) *BUILD-OUT PROJECT, WCD MARINE YARD*, DATED APRIL 2024 (DOCUMENT NUMBER: 105716-S00-KIE-GEO-0001).
    - DRAINAGE DESIGN MEMO - DRAINAGE REVIEW FOR MARINE YARD SITE (REV. A), DATED JUN. 29, 2023.

PRELIMINARY
NOT FOR CONSTRUCTION
2024–OCT–22

1:500 0 10 30m

VFPA DRAWING NUMBER: 332-004-CI-###

Ref. No.	REFERENCE

Kiewit

PERMIT TO PRACTICE 1004520

PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — R. SHOSTAK # 51822 — 2024-10-22

No.	Date	REVISION	Dr'n	Ch'd
F	2024-OCT-22	RESUBMITTED TO VFPA	C.F.	R.S.
E	2024-APR-24	ISSUED FOR VFPA PER	C.F.	R.S.
D	2024-MAR-26	ISSUED FOR DFO FISHERIES ACT AUTHORIZATION REVIEW	C.F.	R.S.
C	2023-NOV-14	ISSUED FOR 90%	C.F.	R.S.
B	2023-SEP-25	ISSUED FOR DFO FISHERIES ACT AUTHORIZATION REVIEW	C.F.	R.S.

DESIGN BY	C.F.
DRAWN BY	C.F.
APPROVED	K.B.
DATE	2024-OCT-22
SCALE	1:500
VFPA SITE	332-004

WCD MARINE YARD BUILD-OUT
COQUITLAM, BC
TYPICAL SECTIONS
SHEET 5 OF 13

SIZE	DWG.	SHEET	REV.
D	105716-S00-KIE-CIV-DWG-3005	5 of 13	F

DATE: 2024/10/22, 4:33pm
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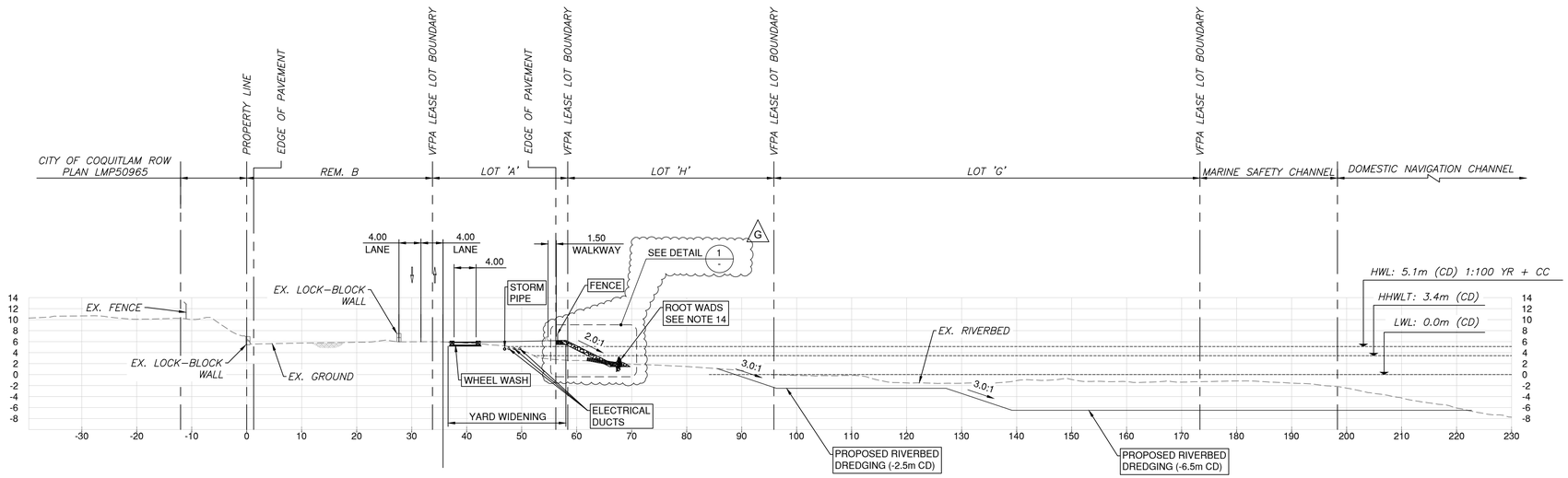
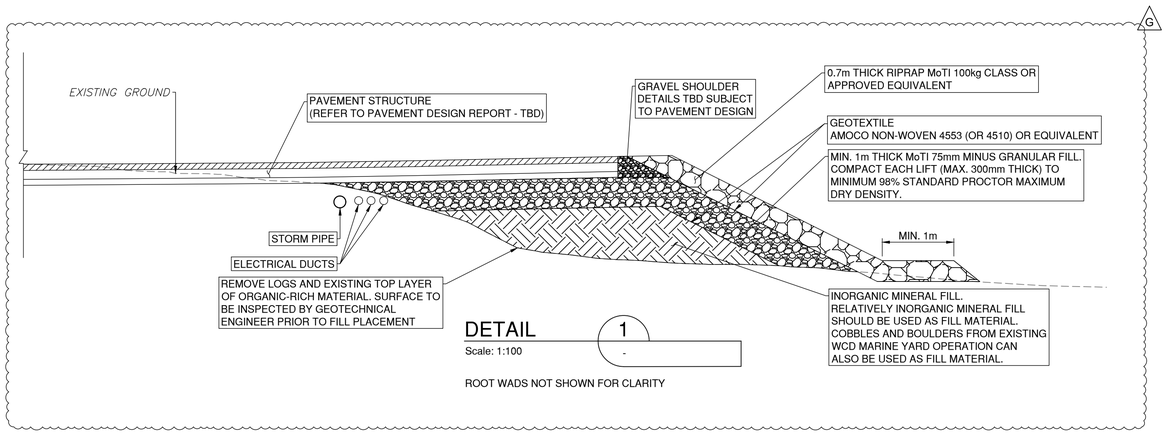


SECTION F

Scale: 1:500

CIV-1002



DETAIL 1

Scale: 1:100

-

ROOT WADS NOT SHOWN FOR CLARITY

NOTES:

1. COORDINATE SYSTEM: UTM WITH NAD83 DATUM, ZONE 10, (GRID)(METER). VERTICAL: CHART DATUM.
2. VERTICAL TRANSLATION GEODETIC (GCVD28(HTv2.0)) TO CHART DATUM PERFORMED BY MOVING OBJECTS FROM POINT (0,0,0) (X,Y,Z) TO (0,0,-1.135).
3. ALL ELEVATIONS ARE REFERENCED TO HYDROGRAPHIC CHART DATUM.
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5. INFORMATION IN THESE DRAWINGS ARE BASED ON THE BEST AVAILABLE DATA. SOME DISCREPANCY BETWEEN DRAWINGS AND ACTUAL CONDITIONS IS EXPECTED.
6. LOCATIONS, INVERT ELEVATIONS AND MATERIALS OF THE CROSSING UTILITIES SHALL BE CONFIRMED BY SURVEYS PRIOR TO CONSTRUCTION.
7. CIVIL ENGINEERING DESIGN IS BASED ON SITE OPERATION REQUIREMENTS, HYDROTECHNICAL ANALYSIS, GEOTECHNICAL CRITERIA AND STRUCTURAL DESIGN.
8. FOR STRUCTURAL DETAILS OF THE MARINE ACCESS TRESTLE SEE DRAWING 105716-S02-KIE-STR-DWG-0001.
9. FOR STRUCTURAL DETAILS OF CONVEYOR STRUCTURE SEE DRAWING 105716-S03-KIE-STR-DWG-0001.
10. FOR STRUCTURAL DETAILS OF ROLL-ON / ROLL-OFF RAMP SEE DRAWING 105716-S04-KIE-STR-DWG-0001.
11. FOR PROPOSED MAINTENANCE SHOP GRADING PLAN AND DRAINAGE DETAILS SEE ALPINE & MARTIN DRAWINGS 22-194-C01-C04.
12. FOR MOORING PILE AND MOORING STRUCTURE DETAILS SEE DRAWING 105716-S00-KIE-DWG-STR-1001.
13. FOR STORM SYSTEM SEE DRAWING 105716-S00-KIE-DWG-DAU-4001.
14. FOR DETAILS OF ENVIRONMENTAL OFFSETTING, RESTORATION AREAS, BOULDER CLUSTERS AND ROOT WADS, SEE *KIEWIT MARINE YARD SUPPLEMENTAL REPORT FOR FISHERIES ACT AUTHORIZATION APPLICATION* PREPARED BY HATFIELD CONSULTANTS LLP (DOCUMENT NUMBER: 105716-S00-HAT-RPT-ENV-0002). REFER TO ENVIRONMENTAL PLAN 105716-S00-KIE-CIV-DWG-8001 FOR DETAILS.
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    - DRAINAGE DESIGN MEMO - DRAINAGE REVIEW FOR MARINE YARD SITE (REV. A), DATED JUN. 29, 2023.

PRELIMINARY
NOT FOR CONSTRUCTION
2024-OCT-22

1:500 0 10 30m

VFPA DRAWING NUMBER: 332-004-CI-###

Ref. No.	REFERENCE

Kiewit

PERMIT TO PRACTICE 1004520
PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA R. SHOSTAK # 51822 2024-10-22

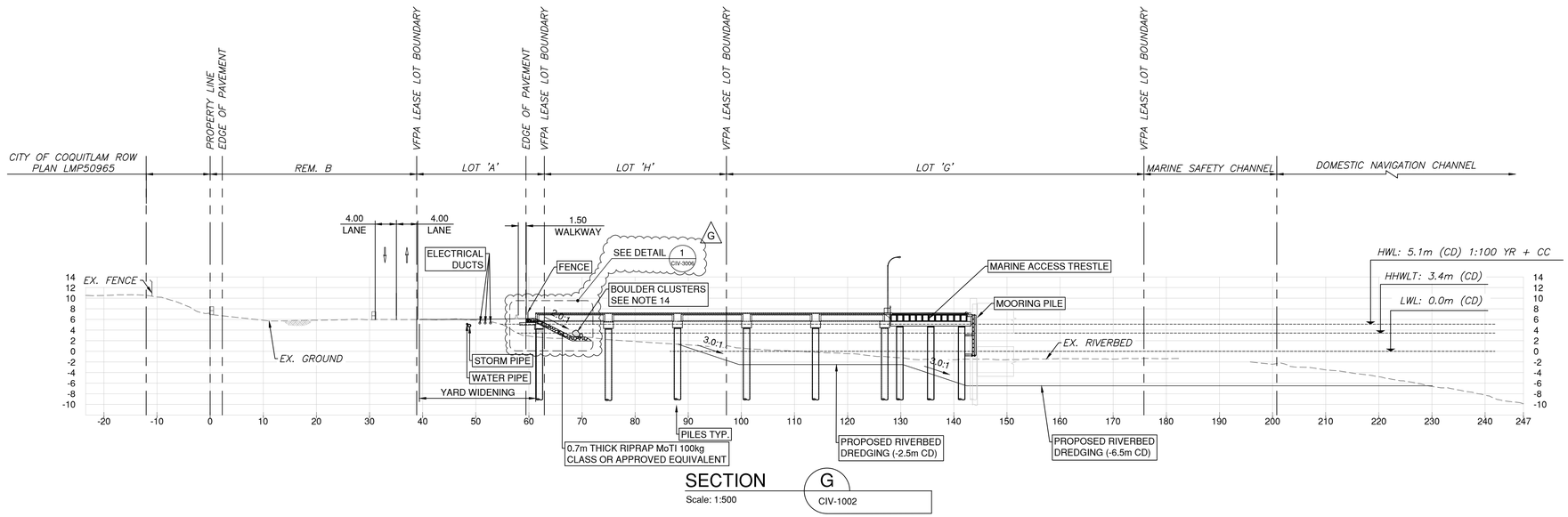
No.	Date	REVISION	Dr'n	Ch'd
G	2024-OCT-22	RESUBMITTED TO VFPA	C.F.	R.S.
F	2024-AUG-21	RESSUED FOR DFO FISHERIES ACT AUTHORIZATION REVIEW	C.F.	R.S.
E	2024-APR-24	ISSUED FOR VFPA PER	C.F.	R.S.
D	2024-MAR-26	ISSUED FOR DFO FISHERIES ACT AUTHORIZATION REVIEW	C.F.	R.S.
C	2023-NOV-14	ISSUED FOR 90%	C.F.	R.S.

DESIGN BY	C.F.
DRAWN BY	C.F.
APPROVED	K.B
DATE	2024-OCT-22
SCALE	AS SHOWN
VFPA SITE	332-004

WCD MARINE YARD BUILD-OUT
COQUITLAM, BC
TYPICAL SECTIONS
SHEET 6 OF 13

SIZE	DWG.	SHEET	REV.
D	105716-S00-KIE-CIV-DWG-3006	6 OF 13	G

DATE: 2024/10/22, 3:24pm
PATH: C:\Users\Carson.Feng\DC\ACCDocs\Kiewit\WCD Marine Yard\Project Files\40 Design Eng\30 CIV\CAD\Sheets\\105716-S00-KIE-CIV-DWG-3001 to 3013.dwg



SECTION G

Scale: 1:500

CIV-1002

NOTES:

1. COORDINATE SYSTEM: UTM WITH NAD83 DATUM, ZONE 10, (GRID)(METER). VERTICAL: CHART DATUM.
2. VERTICAL TRANSLATION GEODETIC (GCVD28(HTv2.0)) TO CHART DATUM PERFORMED BY MOVING OBJECTS FROM POINT (0,0,0) (X,Y,Z) TO (0,0,-1.135).
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5. INFORMATION IN THESE DRAWINGS ARE BASED ON THE BEST AVAILABLE DATA. SOME DISCREPANCY BETWEEN DRAWINGS AND ACTUAL CONDITIONS IS EXPECTED.
6. LOCATIONS, INVERT ELEVATIONS AND MATERIALS OF THE CROSSING UTILITIES SHALL BE CONFIRMED BY SURVEYS PRIOR TO CONSTRUCTION.
7. CIVIL ENGINEERING DESIGN IS BASED ON SITE OPERATION REQUIREMENTS, HYDROTECHNICAL ANALYSIS, GEOTECHNICAL CRITERIA AND STRUCTURAL DESIGN.
8. FOR STRUCTURAL DETAILS OF THE MARINE ACCESS TRESTLE SEE DRAWING 105716-S02-KIE-STR-DWG-0001.
9. FOR STRUCTURAL DETAILS OF CONVEYOR STRUCTURE SEE DRAWING 105716-S03-KIE-STR-DWG-0001.
10. FOR STRUCTURAL DETAILS OF ROLL-ON / ROLL-OFF RAMP SEE DRAWING 105716-S04-KIE-STR-DWG-0001.
11. FOR PROPOSED MAINTENANCE SHOP GRADING PLAN AND DRAINAGE DETAILS SEE ALPINE & MARTIN DRAWINGS 22-194-C01-C04.
12. FOR MOORING PILE AND MOORING STRUCTURE DETAILS SEE DRAWING 105716-S00-KIE-DWG-STR-1001.
13. FOR STORM SYSTEM SEE DRAWING 105716-S00-KIE-DWG-DAU-4001.
14. FOR DETAILS OF ENVIRONMENTAL OFFSETTING, RESTORATION AREAS, BOULDER CLUSTERS AND ROOT WADS, SEE *KIEWIT MARINE YARD SUPPLEMENTAL REPORT FOR FISHERIES ACT AUTHORIZATION APPLICATION* PREPARED BY HATFIELD CONSULTANTS LLP (DOCUMENT NUMBER: 105716-S00-HAT-RPT-ENV-0002). REFER TO ENVIRONMENTAL PLAN 105716-S00-KIE-CIV-DWG-8001 FOR DETAILS.
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    - DRAINAGE DESIGN MEMO - DRAINAGE REVIEW FOR MARINE YARD SITE (REV. A), DATED JUN. 29, 2023.

PRELIMINARY
NOT FOR CONSTRUCTION
2024-OCT-22

1:500 0 10 30m

VFPA DRAWING NUMBER: 332-004-CI-###

Ref. No.	REFERENCE

Kiewit

PERMIT TO PRACTICE 1004520

PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — R. SHOSTAK # 51822 — 2024-10-22

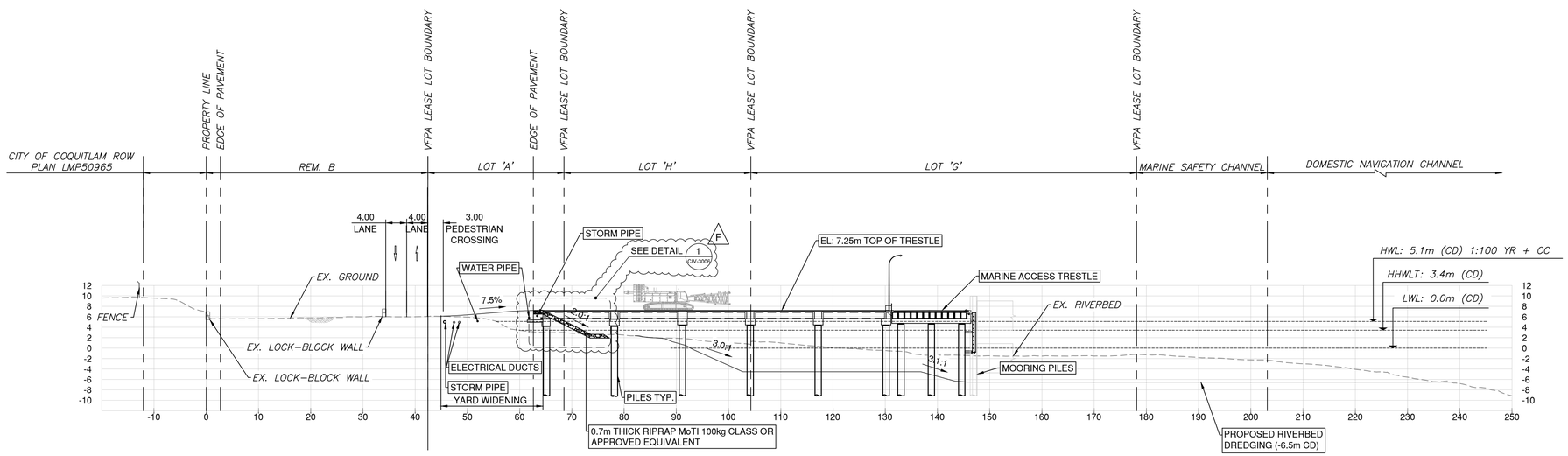
No.	Date	REVISION	Dr'n	Ch'd
G	2024-OCT-22	RESUBMITTED TO VFPA	C.F.	R.S.
F	2024-AUG-21	RESSUED FOR DFO FISHERIES ACT AUTHORIZATION REVIEW	C.F.	R.S.
E	2024-APR-24	ISSUED FOR VFPA PER	C.F.	R.S.
D	2024-MAR-26	ISSUED FOR DFO FISHERIES ACT AUTHORIZATION REVIEW	C.F.	R.S.
C	2023-NOV-14	ISSUED FOR 90%	C.F.	R.S.

DESIGN BY	C.F.
DRAWN BY	C.F.
APPROVED	K.B
DATE	2024-OCT-22
SCALE	AS SHOWN
VFPA SITE	332-004

WCD MARINE YARD BUILD-OUT
COQUITLAM, BC
TYPICAL SECTIONS
SHEET 7 OF 13

SIZE	DWG.	SHEET	REV.
D	105716-S00-KIE-CIV-DWG-3007	7 OF 13	G

DATE: 2024/10/22, 3:24pm
PATH: C:\Users\Carson.Feng\DC\ACCDocs\Kiewit\WCD Marine Yard\Project Files\40 Design Eng\30 CIV\CAD\Sheets\105716-S00-KIE-CIV-DWG-3001 to 3013.dwg



SECTION H

Scale: 1:500

CIV-1002

NOTES:

1. COORDINATE SYSTEM: UTM WITH NAD83 DATUM, ZONE 10, (GRID)(METER). VERTICAL: CHART DATUM.
2. VERTICAL TRANSLATION GEODETIC (GCVD28(HTv2.0)) TO CHART DATUM PERFORMED BY MOVING OBJECTS FROM POINT (0,0,0) (X,Y,Z) TO (0,0,-1.135).
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8. FOR STRUCTURAL DETAILS OF THE MARINE ACCESS TRESTLE SEE DRAWING 105716-S02-KIE-STR-DWG-0001.
9. FOR STRUCTURAL DETAILS OF CONVEYOR STRUCTURE SEE DRAWING 105716-S03-KIE-STR-DWG-0001.
10. FOR STRUCTURAL DETAILS OF ROLL-ON / ROLL-OFF RAMP SEE DRAWING 105716-S04-KIE-STR-DWG-0001.
11. FOR PROPOSED MAINTENANCE SHOP GRADING PLAN AND DRAINAGE DETAILS SEE ALPINE & MARTIN DRAWINGS 22-194-C01-C04.
12. FOR MOORING PILE AND MOORING STRUCTURE DETAILS SEE DRAWING 105716-S00-KIE-DWG-STR-1001.
13. FOR STORM SYSTEM SEE DRAWING 105716-S00-KIE-DWG-DAU-4001.
14. FOR DETAILS OF ENVIRONMENTAL OFFSETTING, RESTORATION AREAS, BOULDER CLUSTERS AND ROOT WADS, SEE *KIEWIT MARINE YARD SUPPLEMENTAL REPORT FOR FISHERIES ACT AUTHORIZATION APPLICATION* PREPARED BY HATFIELD CONSULTANTS LLP (DOCUMENT NUMBER: 105716-S00-HAT-RPT-ENV-0002). REFER TO ENVIRONMENTAL PLAN 105716-S00-KIE-CIV-DWG-8001 FOR DETAILS.
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    - GEOTECHNICAL REPORT (REV D) *BUILD-OUT PROJECT, WCD MARINE YARD*, DATED APRIL 2024 (DOCUMENT NUMBER: 105716-S00-KIE-GEO-0001).
    - DRAINAGE DESIGN MEMO - DRAINAGE REVIEW FOR MARINE YARD SITE (REV. A), DATED JUN. 29, 2023.

PRELIMINARY
NOT FOR CONSTRUCTION
2024-OCT-22

1:500 0 10 30m

VFPA DRAWING NUMBER: 332-004-CI-###

Ref. No.	REFERENCE

Kiewit

PERMIT TO PRACTICE 1004520
PROFESSIONAL PROVINCE OF BRITISH COLUMBIA R. SHOSTAK # 51822 ENGINEER
2024-10-22

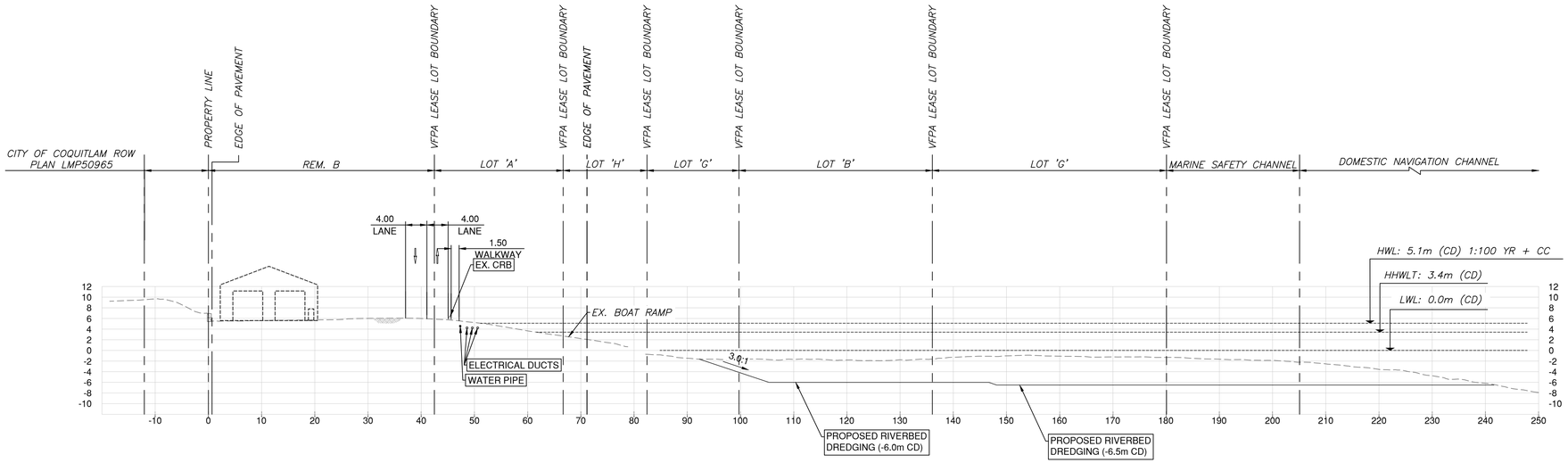
No.	Date	REVISION	Dr'n	Ch'd
F	2024-OCT-22	RESUBMITTED TO VFPA	C.F.	R.S.
E	2024-APR-24	ISSUED FOR VFPA PER	C.F.	R.S.
D	2024-MAR-26	ISSUED FOR DFO FISHERIES ACT AUTHORIZATION REVIEW	C.F.	R.S.
C	2023-NOV-14	ISSUED FOR 90%	C.F.	R.S.
B	2023-SEP-25	ISSUED FOR DFO FISHERIES ACT AUTHORIZATION REVIEW	C.F.	R.S.

DESIGN BY	C.F.
DRAWN BY	C.F.
APPROVED	K.B.
DATE	2024-OCT-22
SCALE	1:500
VFPA SITE	332-004

WCD MARINE YARD BUILD-OUT
COQUITLAM, BC
TYPICAL SECTIONS
SHEET 8 OF 13

SIZE	DWG.	SHEET	REV.
D	105716-S00-KIE-CIV-DWG-3008	8 of 13	F

DATE: 2024/10/22, 3:25pm
PATH: C:\Users\Carson.Feng\DC\ACCDocs\Kiewit\WCD Marine Yard\Project Files\40 Design Eng\30 CIV\CAD\Sheets\105716-S00-KIE-CIV-DWG-3001 to 3013.dwg



SECTION I

Scale: 1:500

CIV-1002

NOTES:

1. COORDINATE SYSTEM: UTM WITH NAD83 DATUM, ZONE 10, (GRID)(METER). VERTICAL: CHART DATUM.
2. VERTICAL TRANSLATION GEODETIC (GCVD28(HTv2.0)) TO CHART DATUM PERFORMED BY MOVING OBJECTS FROM POINT (0,0,0) (X,Y,Z) TO (0,0,-1.135).
3. ALL ELEVATIONS ARE REFERENCED TO HYDROGRAPHIC CHART DATUM.
4. ALL DIMENSIONS, UNITS, AND ELEVATIONS IN METERS UNLESS NOTED OTHERWISE.
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7. CIVIL ENGINEERING DESIGN IS BASED ON SITE OPERATION REQUIREMENTS, HYDROTECHNICAL ANALYSIS, GEOTECHNICAL CRITERIA AND STRUCTURAL DESIGN.
8. FOR STRUCTURAL DETAILS OF THE MARINE ACCESS TRESTLE SEE DRAWING 105716-S02-KIE-STR-DWG-0001.
9. FOR STRUCTURAL DETAILS OF CONVEYOR STRUCTURE SEE DRAWING 105716-S03-KIE-STR-DWG-0001.
10. FOR STRUCTURAL DETAILS OF ROLL-ON / ROLL-OFF RAMP SEE DRAWING 105716-S04-KIE-STR-DWG-0001.
11. FOR PROPOSED MAINTENANCE SHOP GRADING PLAN AND DRAINAGE DETAILS SEE ALPINE & MARTIN DRAWINGS 22-194-C01-C04.
12. FOR MOORING PILE AND MOORING STRUCTURE DETAILS SEE DRAWING 105716-S00-KIE-DWG-STR-1001.
13. FOR STORM SYSTEM SEE DRAWING 105716-S00-KIE-DWG-DAU-4001.
14. FOR DETAILS OF ENVIRONMENTAL OFFSETTING AND RESTORATION AREAS, SEE *KIEWIT MARINE YARD SUPPLEMENTAL REPORT FOR FISHERIES ACT AUTHORIZATION APPLICATION* PREPARED BY HATFIELD CONSULTANTS LLP (DOCUMENT NUMBER: 105716-S00-HAT-RPT-ENV-0002). REFER TO ENVIRONMENTAL PLAN 105716-KIE-CIV-DWG-8001 TO 8102 FOR DETAILS.
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    - DRAINAGE DESIGN MEMO - DRAINAGE REVIEW FOR MARINE YARD SITE (REV. A), DATED JUN. 29, 2023.
17. RIPRAP SHALL BE MoTI 100kg CLASS OR APPROVED EQUIVALENT.

PRELIMINARY
NOT FOR CONSTRUCTION
2024–APR–24

1:500 0 10 30m

VFPA DRAWING NUMBER: 332-004-CI-###

Ref. No.	REFERENCE

Kiewit

Permit to Practice: 1004520

PROFESSIONAL PROVINCE OF BRITISH COLUMBIA R. SHOSTAK # 51822 ENGINEER 2024-04-24

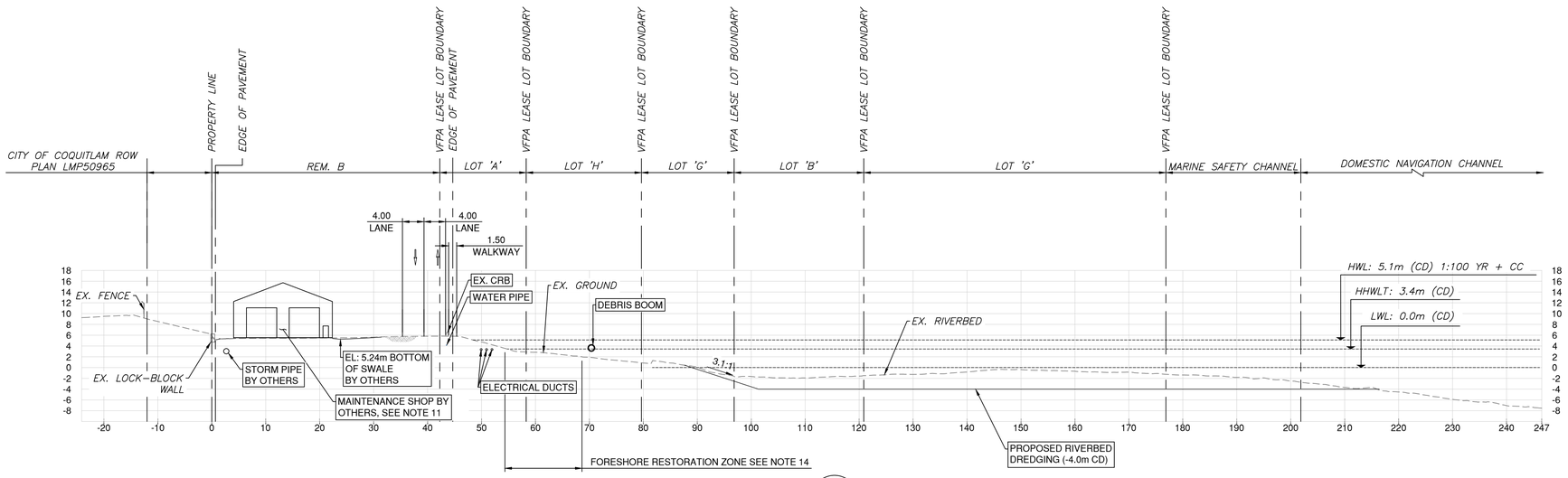
No.	Date	REVISION	Dr'n	Ch'd
C	2024-APR-24	ISSUED FOR VFPA PER	C.F.	R.S.
B	2024-MAR-26	ISSUED FOR DFO FISHERIES ACT AUTHORIZATION REVIEW	C.F.	R.S.
A	2023-NOV-14	ISSUED FOR 90%	C.F.	R.S.

DESIGN BY	C.F.
DRAWN BY	C.F.
APPROVED	K.B
DATE	2024-APR-24
SCALE	1:500
VFPA SITE	332-004

WCD MARINE YARD BUILD-OUT
COQUITLAM, BC
TYPICAL SECTIONS
SHEET 9 OF 13

SIZE	DWG.	SHEET	REV.
D	105716-S00-KIE-CIV-DWG-3009	9 of 13	C

DATE: 2024/04/24 - 9:53am
PATH: C:\Users\Carson.Feng\DC\ACCDocs\Kiewit\WCD Marine Yard\Project Files\40 Design Eng\30 CIV\CAD\Sheets\105716-S00-KIE-CIV-DWG-3001 to 3013.dwg



SECTION J

Scale: 1:500

CIV-1002

NOTES:

1. COORDINATE SYSTEM: UTM WITH NAD83 DATUM, ZONE 10, (GRID)(METER). VERTICAL: CHART DATUM.
2. VERTICAL TRANSLATION GEODETIC (GCVD28(HTv2.0)) TO CHART DATUM PERFORMED BY MOVING OBJECTS FROM POINT (0,0,0) (X,Y,Z) TO (0,0,-1.135).
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8. FOR STRUCTURAL DETAILS OF THE MARINE ACCESS TRESTLE SEE DRAWING 105716-S02-KIE-STR-DWG-0001.
9. FOR STRUCTURAL DETAILS OF CONVEYOR STRUCTURE SEE DRAWING 105716-S03-KIE-STR-DWG-0001.
10. FOR STRUCTURAL DETAILS OF ROLL-ON / ROLL-OFF RAMP SEE DRAWING 105716-S04-KIE-STR-DWG-0001.
11. FOR PROPOSED MAINTENANCE SHOP GRADING PLAN AND DRAINAGE DETAILS SEE ALPINE & MARTIN DRAWINGS 22-194-C01-C04.
12. FOR MOORING PILE AND MOORING STRUCTURE DETAILS SEE DRAWING 105716-S00-KIE-DWG-STR-1001.
13. FOR STORM SYSTEM SEE DRAWING 105716-S00-KIE-DWG-DAU-4001.
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17. RIPRAP SHALL BE MoTI 100kg CLASS OR APPROVED EQUIVALENT.

PRELIMINARY
NOT FOR CONSTRUCTION
2024-APR-24

1:500 0 10 30m

VFPA DRAWING NUMBER: 332-004-CI-###

Ref. No.	REFERENCE

Kiewit

Permit to Practice: 1004520

PROFESSIONAL PROVINCE OF BRITISH COLUMBIA R. SHOSTAK # 51822 ENGINEER 2024-04-24

No.	Date	REVISION	Dr'n	Ch'd
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B	2024-MAR-26	ISSUED FOR DFO FISHERIES ACT AUTHORIZATION REVIEW	C.F.	R.S.
A	2023-NOV-14	ISSUED FOR 90%	C.F.	R.S.

DESIGN BY	C.F.
DRAWN BY	C.F.
APPROVED	K.B
DATE	2024-APR-24
SCALE	1:500
VFPA SITE	332-004

WCD MARINE YARD BUILD-OUT
COQUITLAM, BC
TYPICAL SECTIONS
SHEET 10 OF 13

SIZE	DWG.	SHEET	REV.
D	105716-S00-KIE-CIV-DWG-3010	10 of 13	C

DATE: 2024/04/24 - 9:53am
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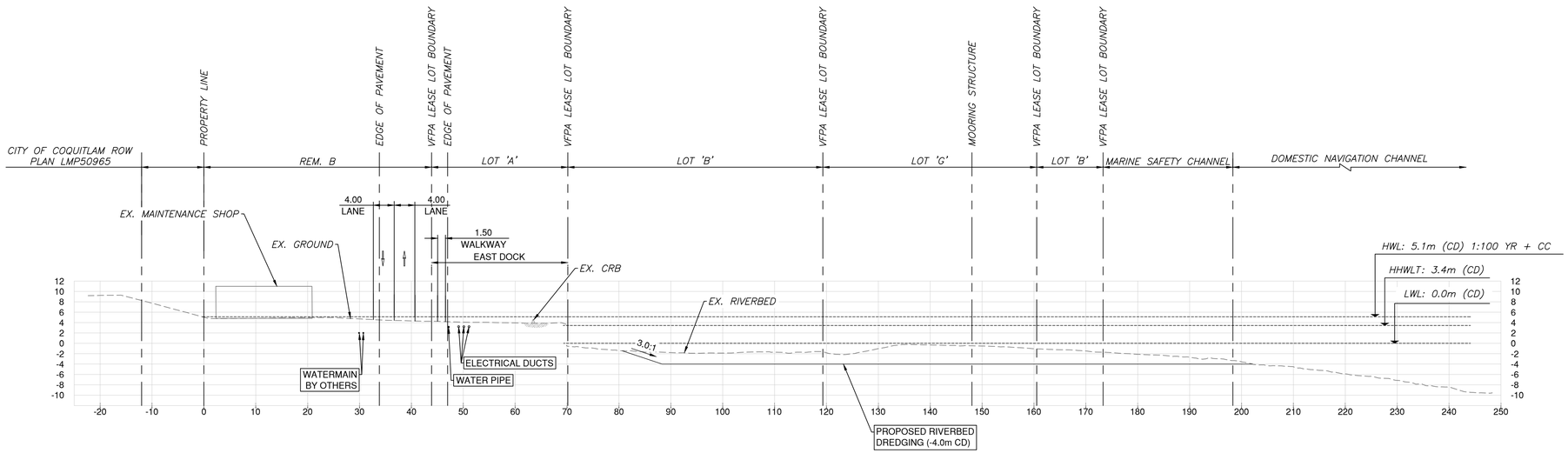

SECTION K

Scale: 1:500

CIV-1002

NOTES:

1. COORDINATE SYSTEM: UTM WITH NAD83 DATUM, ZONE 10, (GRID)(METER). VERTICAL: CHART DATUM.
2. VERTICAL TRANSLATION GEODETIC (GCVD28(HTv2.0)) TO CHART DATUM PERFORMED BY MOVING OBJECTS FROM POINT (0,0,0) (X,Y,Z) TO (0,0,-1.135).
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7. CIVIL ENGINEERING DESIGN IS BASED ON SITE OPERATION REQUIREMENTS, HYDROTECHNICAL ANALYSIS, GEOTECHNICAL CRITERIA AND STRUCTURAL DESIGN.
8. FOR STRUCTURAL DETAILS OF THE MARINE ACCESS TRESTLE SEE DRAWING 105716-S02-KIE-STR-DWG-0001.
9. FOR STRUCTURAL DETAILS OF CONVEYOR STRUCTURE SEE DRAWING 105716-S03-KIE-STR-DWG-0001.
10. FOR STRUCTURAL DETAILS OF ROLL-ON / ROLL-OFF RAMP SEE DRAWING 105716-S04-KIE-STR-DWG-0001.
11. FOR PROPOSED MAINTENANCE SHOP GRADING PLAN AND DRAINAGE DETAILS SEE ALPINE & MARTIN DRAWINGS 22-194-C01-C04.
12. FOR MOORING PILE AND MOORING STRUCTURE DETAILS SEE DRAWING 105716-S00-KIE-DWG-STR-1001.
13. FOR STORM SYSTEM SEE DRAWING 105716-S00-KIE-DWG-DAU-4001.
14. FOR DETAILS OF ENVIRONMENTAL OFFSETTING AND RESTORATION AREAS, SEE *KIEWIT MARINE YARD SUPPLEMENTAL REPORT FOR FISHERIES ACT AUTHORIZATION APPLICATION* PREPARED BY HATFIELD CONSULTANTS LLP (DOCUMENT NUMBER: 105716-S00-HAT-RPT-ENV-0002). REFER TO ENVIRONMENTAL PLAN 105716-KIE-CIV-DWG-8001 TO 8102 FOR DETAILS.
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17. RIPRAP SHALL BE MoTI 100kg CLASS OR APPROVED EQUIVALENT.

PRELIMINARY
NOT FOR CONSTRUCTION
2024–APR–24

1:500 0 10 30m

VFPA DRAWING NUMBER:
332-004-CI-###

Ref. No.	REFERENCE

Kiewit

Permit to Practice: 1004520
PROFESSIONAL PROVINCE OF BRITISH COLUMBIA R. SHOSTAK # 51822 ENGINEER
2024-04-24

No.	Date	REVISION	Dr'n	Ch'd
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B	2024-MAR-26	ISSUED FOR DFO FISHERIES ACT AUTHORIZATION REVIEW	C.F.	R.S.
A	2023-NOV-14	ISSUED FOR 90%	C.F.	R.S.

DESIGN BY	C.F.
DRAWN BY	C.F.
APPROVED	K.B
DATE	2024-APR-24
SCALE	1:500
VFPA SITE	332-004

WCD MARINE YARD BUILD-OUT
COQUITLAM, BC
TYPICAL SECTIONS
SHEET 11 OF 13

SIZE	DWG.	SHEET	REV.
D	105716-S00-KIE-CIV-DWG-3011	11 of 13	C

DATE: 2024/04/24 - 9:54am
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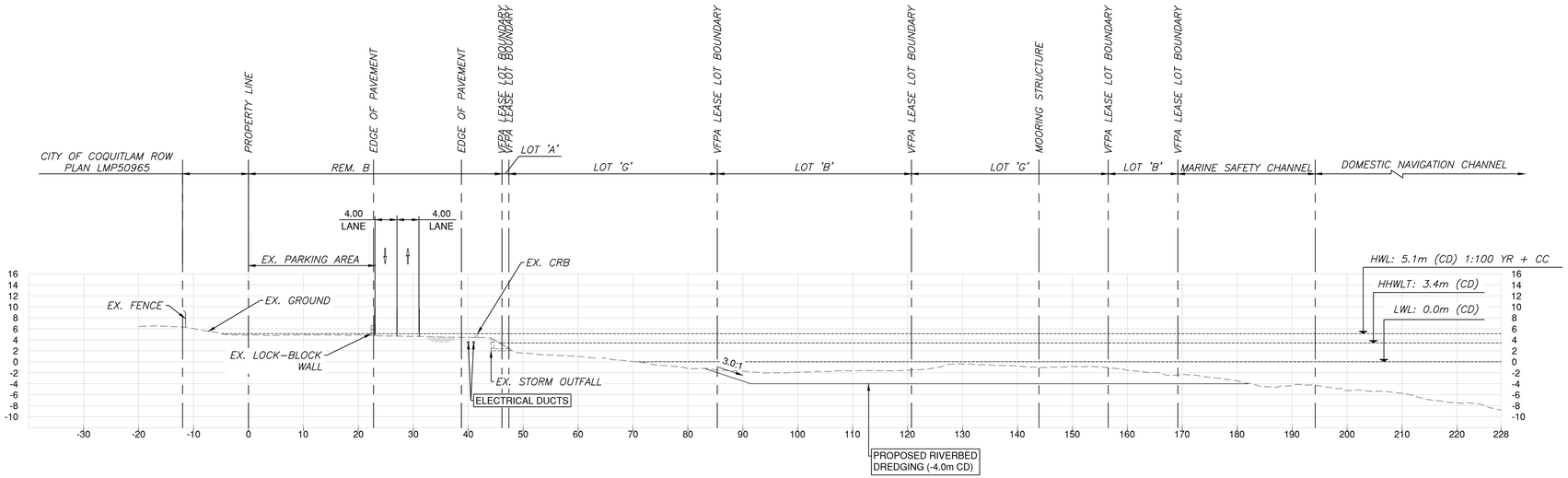

SECTION L

Scale: 1:500

CIV-1002

NOTES:

1. COORDINATE SYSTEM: UTM WITH NAD83 DATUM, ZONE 10, (GRID)(METER). VERTICAL: CHART DATUM.
2. VERTICAL TRANSLATION GEODETIC (GCVD28(HTv2.0)) TO CHART DATUM PERFORMED BY MOVING OBJECTS FROM POINT (0,0,0) (X,Y,Z) TO (0,0,-1.135).
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8. FOR STRUCTURAL DETAILS OF THE MARINE ACCESS TRESTLE SEE DRAWING 105716-S02-KIE-STR-DWG-0001.
9. FOR STRUCTURAL DETAILS OF CONVEYOR STRUCTURE SEE DRAWING 105716-S03-KIE-STR-DWG-0001.
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11. FOR PROPOSED MAINTENANCE SHOP GRADING PLAN AND DRAINAGE DETAILS SEE ALPINE & MARTIN DRAWINGS 22-194-C01-C04.
12. FOR MOORING PILE AND MOORING STRUCTURE DETAILS SEE DRAWING 105716-S00-KIE-DWG-STR-1001.
13. FOR STORM SYSTEM SEE DRAWING 105716-S00-KIE-DWG-DAU-4001.
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17. RIPRAP SHALL BE MoTI 100kg CLASS OR APPROVED EQUIVALENT.

PRELIMINARY
NOT FOR CONSTRUCTION
2024-APR-24

1:500 0 10 30m

VFPA DRAWING NUMBER: 332-004-CI-###

Ref. No.	REFERENCE

Kiewit

Permit to Practice: 1004520

PROFESSIONAL PROVINCE OF BRITISH COLUMBIA R. SHOSTAK # 51822 ENGINEER 2024-04-24

No.	Date	REVISION	Dr'n	Ch'd
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A	2023-NOV-14	ISSUED FOR 90%	C.F.	R.S.

DESIGN BY	C.F.
DRAWN BY	C.F.
APPROVED	K.B
DATE	2024-APR-24
SCALE	1:500
VFPA SITE	332-004

WCD MARINE YARD BUILD-OUT
COQUITLAM, BC
TYPICAL SECTIONS
SHEET 12 OF 13

SIZE	DWG.	SHEET	REV.
D	105716-S00-KIE-CIV-DWG-3012	12 of 13	C

DATE: 2024/04/24 - 9:54am
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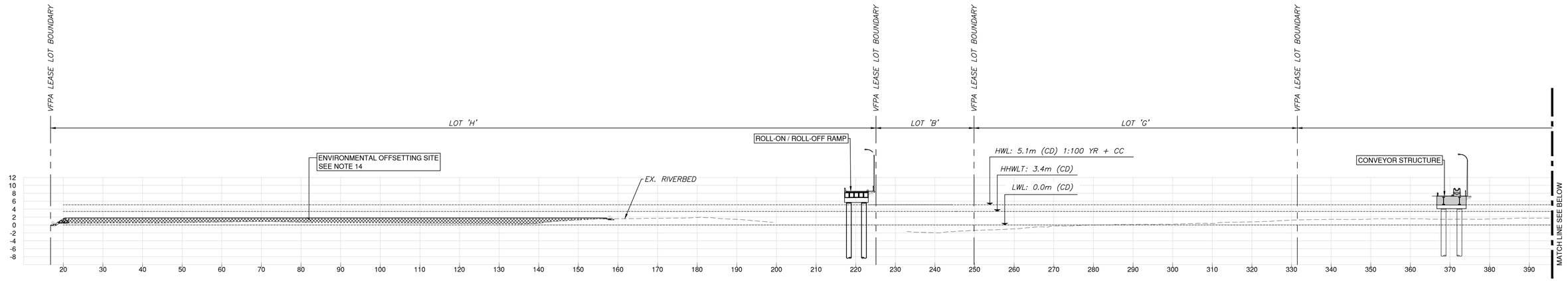

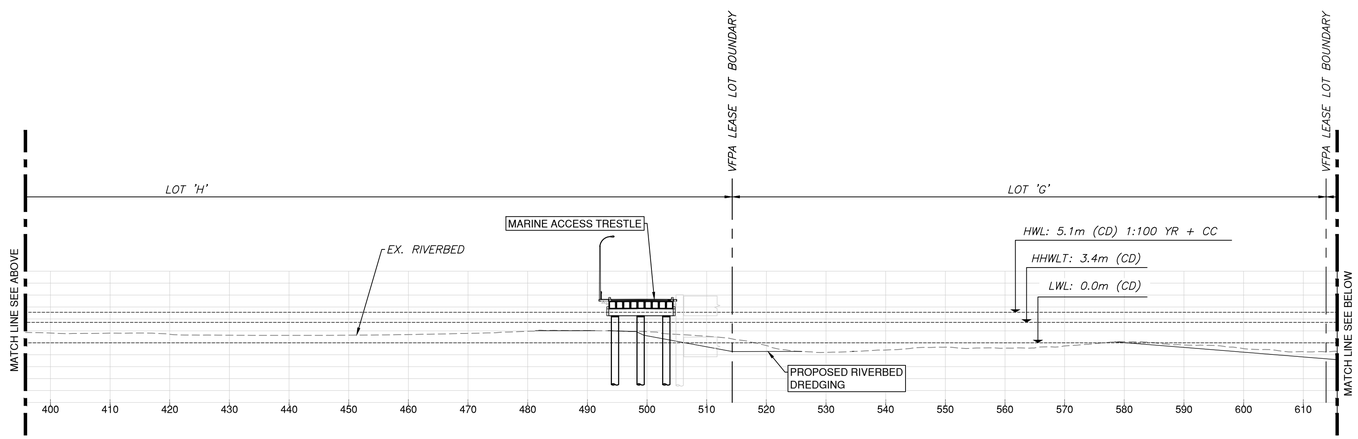

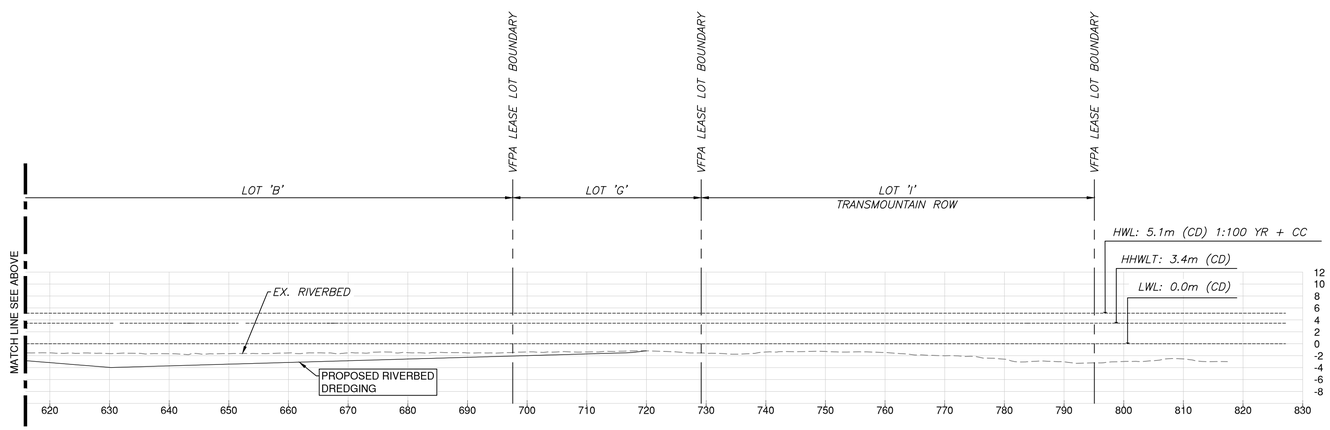

SECTION M
Scale: 1:500
CIV-1001/1002

NOTES:

1. COORDINATE SYSTEM: UTM WITH NAD83 DATUM, ZONE 10, (GRID)(METER). VERTICAL: CHART DATUM.
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PRELIMINARY
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2024-APR-24

1:500 0 10 30m

VFPA DRAWING NUMBER:
332-004-CI-###

Ref. No.	REFERENCE

Kiewit

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A	2023-NOV-14	ISSUED FOR 90%	C.F.	R.S.

DESIGN BY	C.F.
DRAWN BY	C.F.
APPROVED	K.B
DATE	2024-APR-24
SCALE	1:500
VFPA SITE	332-004

WCD MARINE YARD BUILD-OUT
COQUITLAM, BC
TYPICAL SECTIONS
SHEET 13 OF 13

SIZE	DWG.	SHEET	REV.
D	105716-S00-KIE-CIV-DWG-3013	13 of 13	C

DATE: 2024/04/24 - 9:54am
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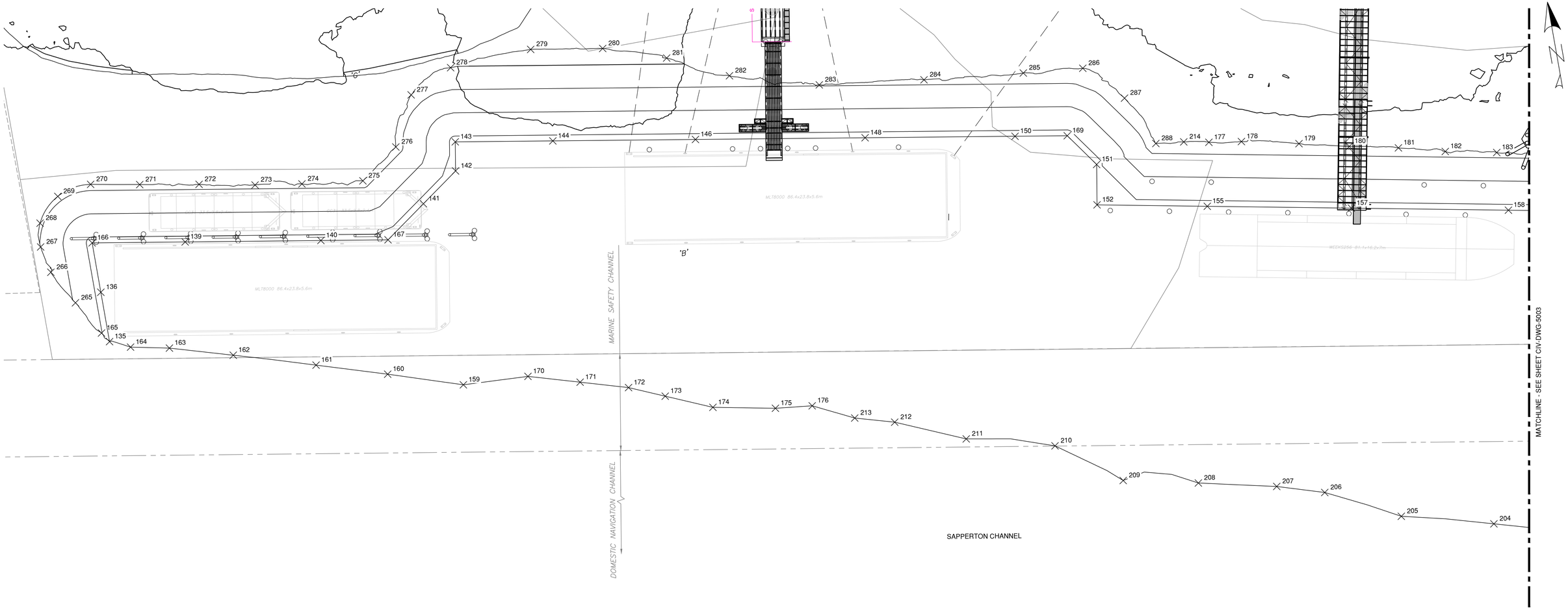


PLAN VIEW

Scale: 1:500

POINT TABLE			
POINT #	ELEVATION (m)	NORTHING	EASTING
135	-6.500	5452238.262	510915.946
136	-6.500	5452251.193	510915.946
139	-6.500	5452260.204	510939.616
140	-6.500	5452254.485	510974.140
141	-6.500	5452259.234	511001.823
142	-6.500	5452266.131	511011.462
143	-6.500	5452273.530	511012.687
144	-6.500	5452269.410	511037.505
146	-6.500	5452263.387	511073.785
148	-6.500	5452256.222	511116.944
150	-6.500	5452249.891	511155.079
151	-6.500	5452239.076	511174.541
152	-6.500	5452228.789	511172.833
155	-6.500	5452223.489	511200.768
157	-6.500	5452216.564	511237.274

POINT TABLE			
POINT #	ELEVATION (m)	NORTHING	EASTING
158	-6.500	5452209.016	511277.062
159	-6.500	5452211.446	511003.863
160	-6.500	5452217.533	510985.118
161	-6.500	5452223.042	510967.337
162	-6.500	5452229.266	510946.757
163	-6.500	5452233.930	510930.863
164	-6.500	5452235.923	510921.038
165	-5.949	5452240.798	510914.294
166	-6.500	5452264.124	510915.946
167	-6.500	5452251.654	510991.230
169	-6.500	5452247.685	511168.368
170	-6.500	5452210.699	511020.639
171	-6.500	5452206.883	511033.624
172	-6.500	5452203.340	511045.681
173	-6.500	5452199.517	511054.612

POINT TABLE			
POINT #	ELEVATION (m)	NORTHING	EASTING
174	-6.500	5452194.547	511066.223
175	-6.500	5452191.508	511082.050
176	-6.500	5452190.490	511091.503
177	-0.974	5452239.676	511204.042
178	-0.877	5452238.402	511212.333
179	-0.995	5452235.296	511226.855
180	-1.170	5452232.366	511239.531
181	-1.252	5452229.772	511251.915
182	-1.513	5452226.758	511263.649
183	-1.547	5452224.191	511276.670
204	-6.500	5452129.979	511259.324
205	-6.500	5452136.041	511236.142
206	-6.500	5452145.518	511217.775
207	-6.500	5452149.197	511205.845
208	-6.500	5452153.588	511186.108

POINT TABLE			
POINT #	ELEVATION (m)	NORTHING	EASTING
209	-6.500	5452157.590	511167.128
210	-6.500	5452169.442	511151.363
211	-6.500	5452175.181	511129.132
212	-6.500	5452182.638	511111.719
213	-6.500	5452185.475	511101.751
214	-0.967	5452240.904	511197.674
265	-4.195	5452249.643	510909.031
266	-2.569	5452258.510	510904.154
267	-2.061	5452265.386	510902.690
268	-1.712	5452271.465	510903.606
269	-1.529	5452277.467	510909.306
270	-1.465	5452279.062	510918.186
271	-1.529	5452276.805	510930.648
272	-1.560	5452274.213	510945.723
273	-1.669	5452271.531	510959.915

POINT TABLE			
POINT #	ELEVATION (m)	NORTHING	EASTING
274	-1.619	5452269.704	510971.865
275	-1.408	5452267.759	510987.486
276	-1.391	5452274.890	510997.362
277	-0.958	5452287.440	511003.579
278	-0.108	5452292.585	511014.837
279	1.384	5452293.641	511035.970
280	1.403	5452290.653	511054.312
281	0.527	5452285.364	511070.125
282	-1.054	5452278.041	511085.280
283	-1.913	5452271.710	511107.675
284	-1.570	5452268.302	511134.492
285	-1.068	5452265.589	511160.019
286	-0.545	5452264.136	511175.335
287	-0.748	5452254.671	511184.592
288	-1.134	5452241.749	511190.521

PRELIMINARY
NOT FOR CONSTRUCTION
2024–APR–24

1:500 0 10 30m

VFPA DRAWING NUMBER
332-004-CI-###

Ref. No. REFERENCE

Kiewit

Permit to Practice: 1004520
PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — R. SHOSTAK # 51822
2024-04-24

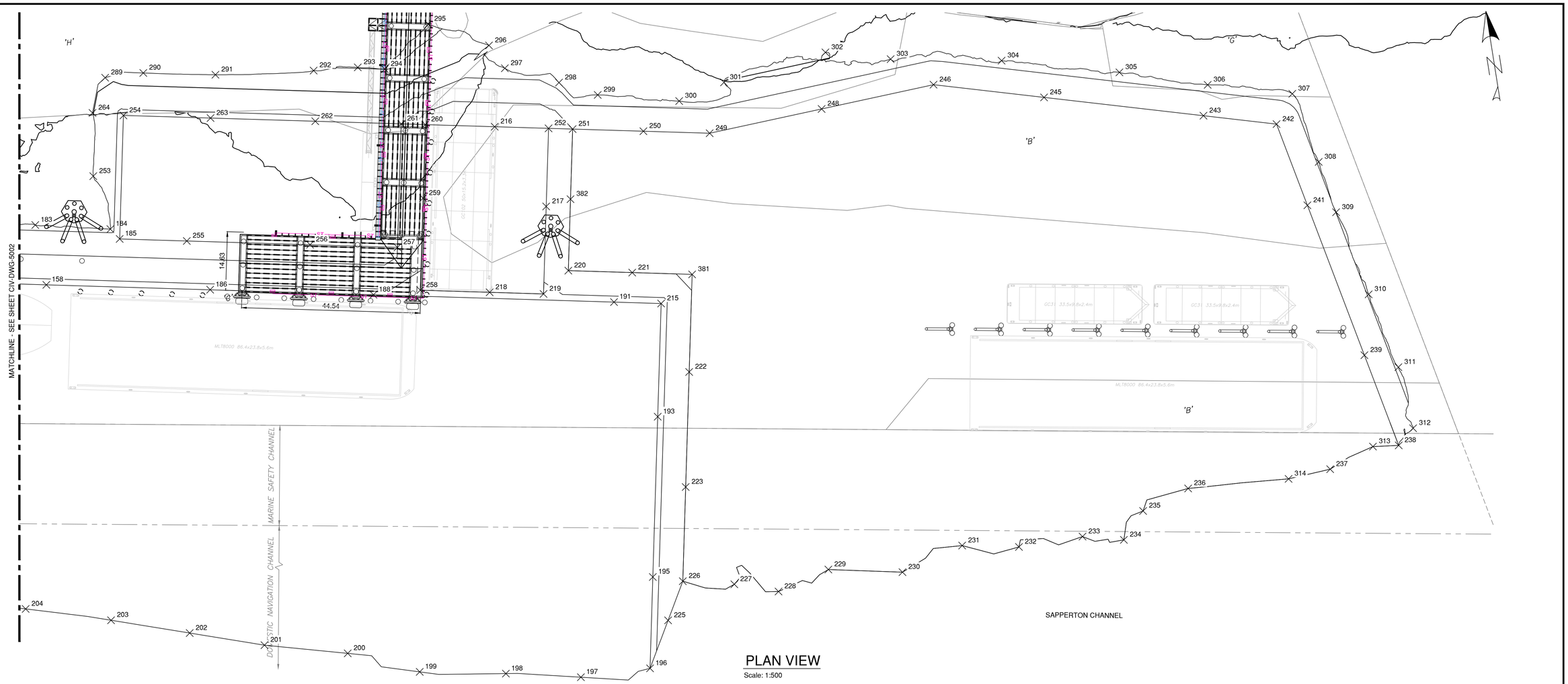
No.	Date	REVISION	Dr'n	Ch'd
C	2024-APR-24	ISSUED FOR VFPA PER	C.F.	R.S.
B	2024-MAR-26	ISSUED FOR DFO FISHERIES ACT AUTHORIZATION REVIEW	C.F.	R.S.
A	2023-NOV-14	ISSUED FOR 90%	C.F.	R.S.

DESIGN BY	C.F.
DRAWN BY	C.F.
APPROVED	K.B
DATE	2024-APR-24
SCALE	1:500
VFPA SITE	332-004

WCD MARINE YARD BUILD-OUT
COQUITLAM, BC
DREDGING SPOT ELEVATIONS
SHEET 1 OF 2

SIZE D | DWG. 105716-S00-KIE-CIV-DWG-5002 | SHEET 1 of 2 | REV. C

DATE: 2024/04/23 - 11:16am
PATH: C:\Users\Carson.Ferrig\DC\ACCDocs\Kiewit\WCD Marine Yard\Project Files\40 Design Eng\30 CIV\CAD\Sheets\105716-S00-KIE-CIV-DWG-5001 to 5007.dwg



PLAN VIEW

Scale: 1:500

POINT TABLE			
POINT #	ELEVATION (m)	NORTHING	EASTING
184	-1.703	5452220.248	511295.001
185	-2.500	5452217.465	511296.907
186	-6.490	5452201.429	511317.216
188	-6.494	5452193.827	511357.229
191	-6.499	5452182.628	511416.175
193	-6.500	5452152.682	511422.457
195	-6.500	5452113.383	511415.001
196	-6.500	5452090.990	511410.753
197	-6.500	5452091.499	511393.379
198	-6.500	5452095.320	511375.050
199	-6.500	5452099.105	511353.894
200	-6.500	5452106.467	511336.890
201	-6.500	5452111.734	511316.710
202	-6.500	5452117.641	511298.780
203	-6.500	5452123.859	511279.905

POINT TABLE			
POINT #	ELEVATION (m)	NORTHING	EASTING
215	-6.500	5452180.434	511427.721
216	-6.000	5452230.489	511393.624
217	-6.000	5452208.839	511403.203
218	-6.000	5452189.890	511385.922
219	-6.000	5452187.384	511399.133
220	-4.000	5452192.161	511406.146
221	-4.000	5452189.190	511421.806
222	-4.000	5452162.475	511431.948
223	-4.000	5452134.279	511426.599
225	-5.124	5452102.106	511417.064
226	-4.000	5452111.184	511422.218
227	-4.000	5452108.411	511434.782
228	-4.000	5452104.908	511445.378
229	-4.000	5452108.378	511458.515
230	-4.000	5452104.839	511476.657

POINT TABLE			
POINT #	ELEVATION (m)	NORTHING	EASTING
231	-4.000	5452109.063	511492.400
232	-4.000	5452106.507	511506.323
233	-4.000	5452106.591	511522.384
234	-4.000	5452104.162	511532.438
235	-4.000	5452110.532	511538.297
236	-4.000	5452114.326	511550.263
237	-4.000	5452113.530	511585.999
238	-4.000	5452116.721	511603.791
239	-4.000	5452140.283	511598.865
241	-4.000	5452179.436	511590.680
242	-4.000	5452200.641	511586.247
243	-4.000	5452205.559	511568.582
245	-4.000	5452216.289	511530.048
246	-4.000	5452223.730	511503.327
248	-4.000	5452222.112	511474.819

POINT TABLE			
POINT #	ELEVATION (m)	NORTHING	EASTING
249	-4.000	5452220.494	511446.311
250	-4.000	5452223.574	511430.074
251	-4.000	5452226.865	511412.729
252	-6.000	5452227.983	511406.835
253	-0.147	5452233.963	511292.852
254	-2.500	5452247.747	511302.652
255	-2.500	5452214.345	511313.353
256	-2.500	5452208.614	511343.563
257	-2.500	5452204.550	511364.983
258	-6.000	5452193.116	511368.921
259	-6.000	5452215.678	511373.201
260	-6.000	5452233.714	511376.623
261	-2.500	5452234.833	511370.728
262	-2.500	5452238.828	511349.667
263	-2.500	5452243.697	511324.004

POINT TABLE			
POINT #	ELEVATION (m)	NORTHING	EASTING
264	0.080	5452249.573	511295.132
289	0.080	5452257.755	511299.619
290	1.079	5452257.433	511309.203
291	1.113	5452254.180	511326.900
292	1.708	5452251.380	511351.235
293	2.085	5452250.446	511362.236
294	2.011	5452248.968	511368.829
295	2.355	5452258.340	511381.295
296	0.742	5452250.739	511395.402
297	-1.115	5452244.500	511398.406
298	-1.421	5452238.847	511411.186
299	-1.095	5452234.309	511420.244
300	-1.399	5452229.621	511440.056
301	-0.120	5452232.466	511451.814
302	0.530	5452235.903	511477.969

POINT TABLE			
POINT #	ELEVATION (m)	NORTHING	EASTING
303	-1.169	5452231.693	511493.762
304	-1.370	5452226.993	511521.016
305	-1.218	5452219.515	511549.583
306	-1.412	5452212.995	511570.824
307	-1.159	5452207.495	511591.311
308	-1.843	5452189.682	511595.148
309	-1.975	5452176.605	511597.478
310	-1.873	5452155.102	511602.285
311	-1.713	5452136.003	511606.769
312	-2.375	5452120.378	511608.006
313	-4.000	5452117.430	511597.401
314	-4.000	5452112.773	511575.375
381	-4.000	5452186.405	511436.488
382	-4.000	5452209.679	511409.469

PRELIMINARY
NOT FOR CONSTRUCTION
2024-APR-24

1:500 0 10 30m

VFPA DRAWING NUMBER:
332-004-CI-###

Ref. No.	REFERENCE

Kiewit

Permit to Practice: 1004520
PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — R. SHOSTAK # 51822
2024-04-24

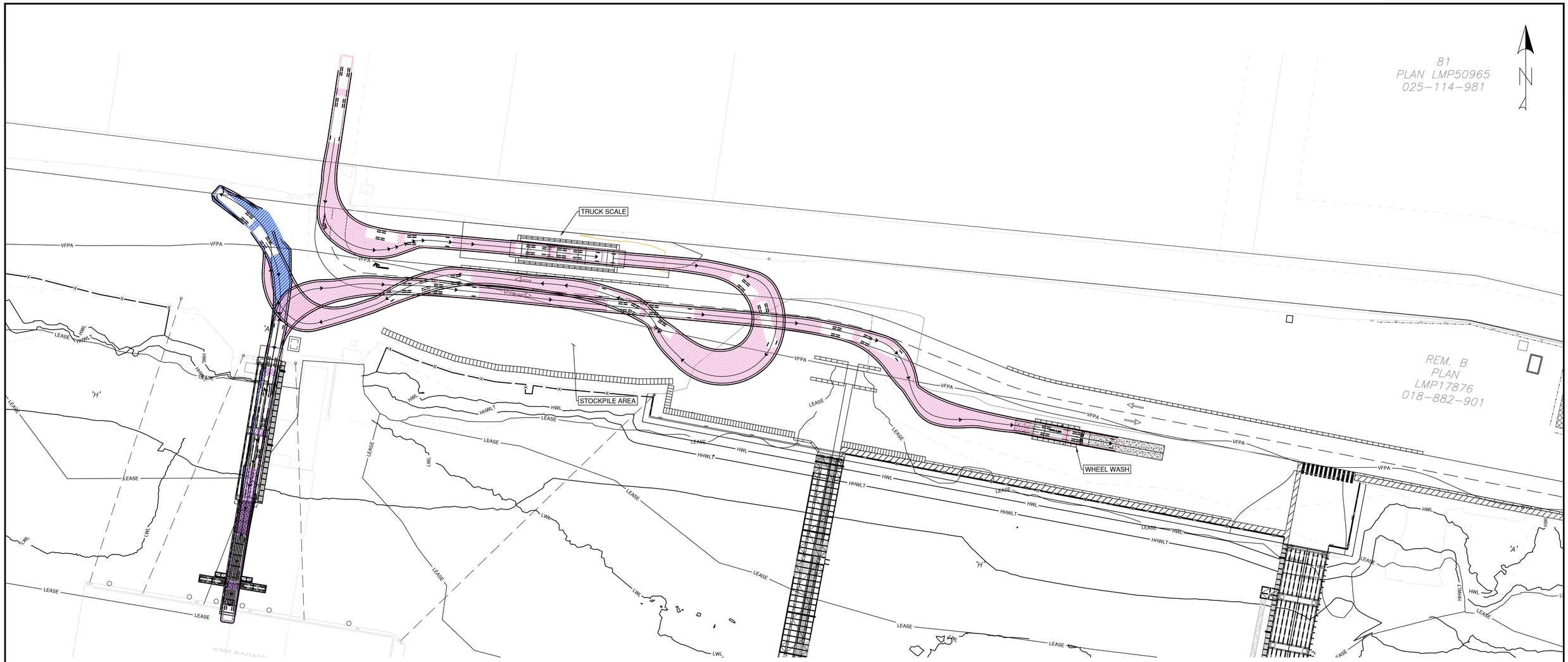
No.	Date	REVISION	Dr'n	Ch'd
C	2024-APR-24	ISSUED FOR VFPA PER	C.F.	R.S.
B	2024-MAR-26	ISSUED FOR DFO FISHERIES ACT AUTHORIZATION REVIEW	C.F.	R.S.
A	2023-NOV-14	ISSUED FOR 90%	C.F.	R.S.

DESIGN BY	C.F.
DRAWN BY	C.F.
APPROVED	K.B
DATE	2024-APR-24
SCALE	1:500
VFPA SITE	332-004

WCD MARINE YARD BUILD-OUT
COQUITLAM, BC
DREDGING SPOT ELEVATIONS
SHEET 2 OF 2

SIZE	DWG.	SHEET	REV.
D	105716-S00-KIE-CIV-DWG-5003	2 of 2	C

DATE: 2024/04/23 - 11:16am
PATH: C:\Users\Carson.Feng\DC\ACCDocs\Kiewit\WCD Marine Yard\Project Files\40 Design Eng\30 CIV\CAD\Sheets\105716-S00-KIE-CIV-DWG-5001 to 5007.dwg

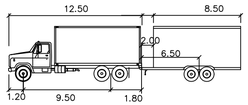


PLAN VIEW

Scale: 1:500

NOTES:

1. SIMULATION TURNING PATHS SHOWN DEPICT THE MOVEMENT OF TRUCK AND PONY TRAILER. FOR VEHICLE CHARACTERISTICS REFER TO THE SCHEMATICS BELOW:



Truck and Pony Trailer

	meters		
Tractor Width	: 2.60	Lock to Lock Time	: 6.0
Trailer Width	: 2.60	Steering Angle	: 40.0
Tractor Track	: 2.60	Articulating Angle	: 70.0
Trailer Track	: 2.60		

LEGENDS:

FORWARD MOVEMENT

REVERSE MOVEMENT

PRELIMINARY
NOT FOR CONSTRUCTION
2024-APR-24

1:500 0 10 30m

VFPA DRAWING NUMBER:
332-004-CI-###

Ref. No.	REFERENCE

Kiewit

Permit to Practice: 1004520

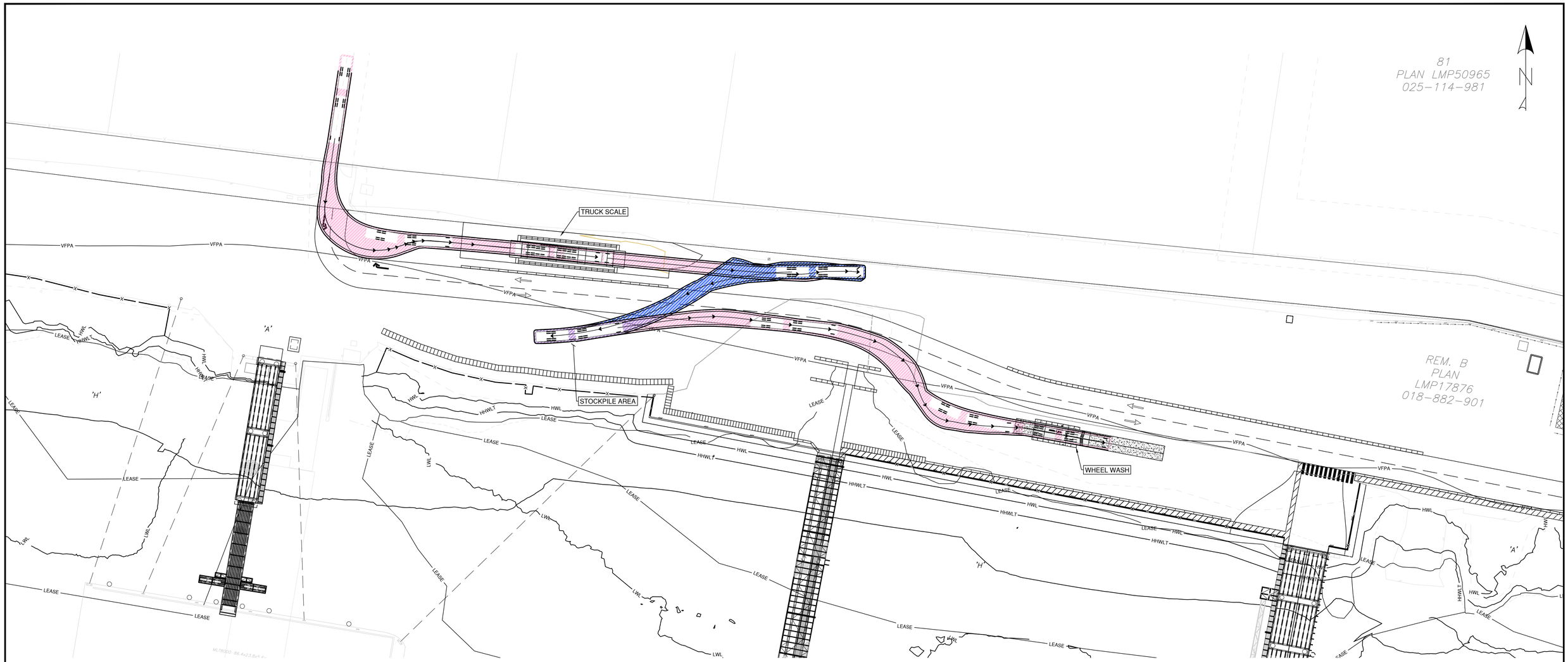
PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — R. SHOSTAK # 51822 — 2024-04-24

No.	Date	REVISION	Dr'n	Ch'd
B	2024-APR-24	ISSUED FOR VFPA PER	C.F.	R.S.
A	2023-NOV-14	ISSUED FOR 90%	C.F.	R.S.

DESIGN BY	C.F.
DRAWN BY	C.F.
APPROVED	K.B
DATE	2024-APR-24
SCALE	1:500
VFPA SITE	332-004

WCD MARINE YARD BUILD-OUT
COQUITLAM, BC
TRUCK TURNING MOVEMENT TO ROLL-ON ROLL-OFF RAMP

SIZE	DWG.	SHEET	REV.
D	105716-S00-KIE-CIV-DWG-5101	1 of 1	B

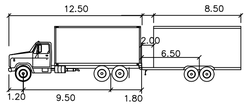


PLAN VIEW

Scale: 1:500

NOTES:

1. SIMULATION TURNING PATHS SHOWN DEPICT THE MOVEMENT OF TRUCK AND PONY TRAILER. FOR VEHICLE CHARACTERISTICS REFER TO THE SCHEMATICS BELOW:



Truck and Pony Trailer

	meters		
Tractor Width	: 2.60	Lock to Lock Time	: 6.0
Trailer Width	: 2.60	Steering Angle	: 40.0
Tractor Track	: 2.60	Articulating Angle	: 70.0
Trailer Track	: 2.60		

LEGENDS:

FORWARD MOVEMENT

REVERSE MOVEMENT

PRELIMINARY
NOT FOR CONSTRUCTION
2024-APR-24

1:500 0 10 30m

VFPA DRAWING NUMBER:
332-004-CI-###

Ref. No.	REFERENCE

Kiewit

Permit to Practice: 1004520

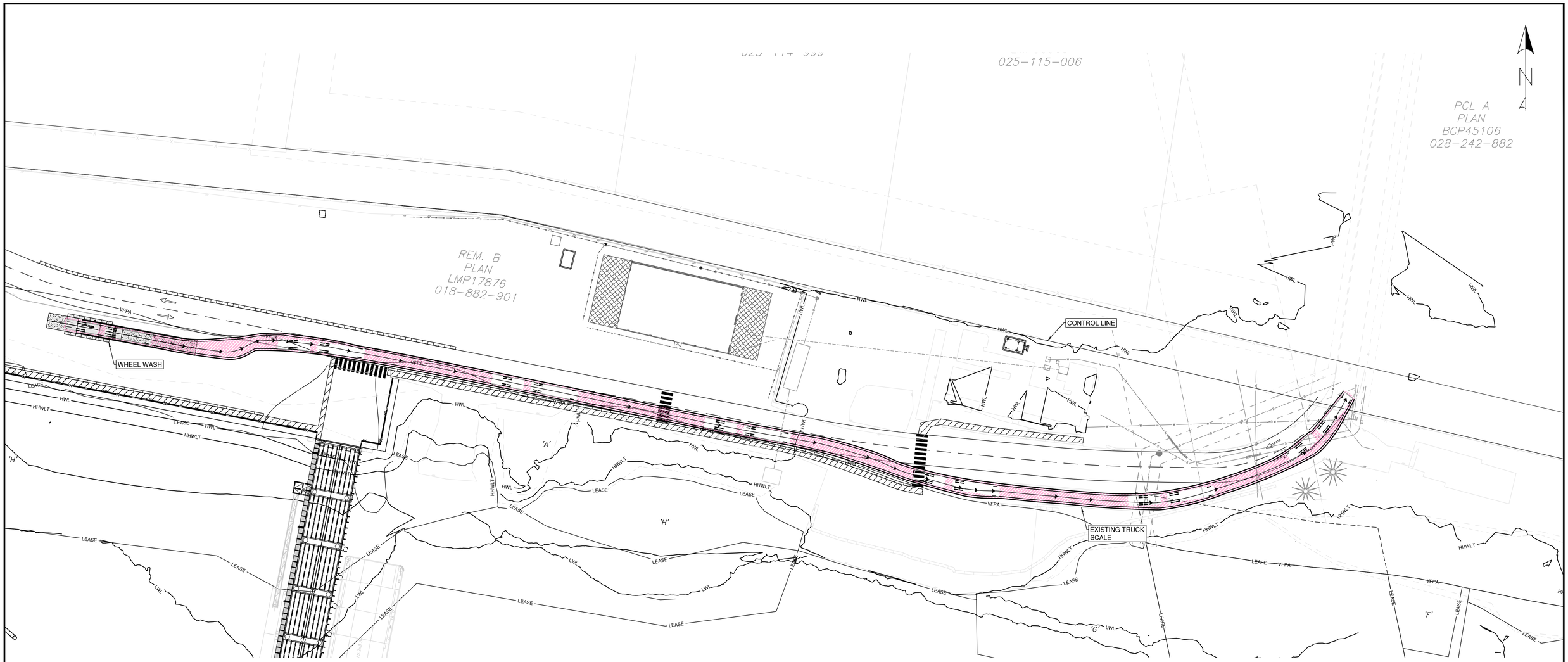
PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — R. SHOSTAK # 51822 — 2024-04-24

No.	Date	REVISION	Dr'n	Ch'd
B	2024-APR-24	ISSUED FOR VFPA PER	C.F.	R.S.
A	2023-NOV-14	ISSUED FOR 90%	C.F.	R.S.

DESIGN BY	C.F.
DRAWN BY	C.F.
APPROVED	K.B
DATE	2024-APR-24
SCALE	1:500
VFPA SITE	332-004

WCD MARINE YARD BUILD-OUT
COQUITLAM, BC
TRUCK TURNING MOVEMENT TO STOCKPILE

SIZE	DWG.	SHEET	REV.
D	105716-S00-KIE-CIV-DWG-5102	1 of 1	B

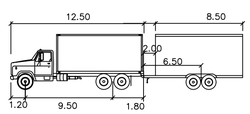


PLAN VIEW

Scale: 1:500

NOTES:

1. SIMULATION TURNING PATHS SHOWN DEPICT THE MOVEMENT OF TRUCK AND PONY TRAILER. FOR VEHICLE CHARACTERISTICS REFER TO THE SCHEMATICS BELOW:



Truck and Pony Trailer

	meters		
Tractor Width	: 2.60	Lock to Lock Time	: 6.0
Trailer Width	: 2.60	Steering Angle	: 40.0
Tractor Track	: 2.60	Articulating Angle	: 70.0
Trailer Track	: 2.60		

LEGENDS:

FORWARD MOVEMENT

REVERSE MOVEMENT

PRELIMINARY
NOT FOR CONSTRUCTION
2024-APR-24

1:500 0 10 30m

VFPA DRAWING NUMBER: 332-004-CI-###

Ref. No.	REFERENCE

Kiewit

Permit to Practice: 1004520

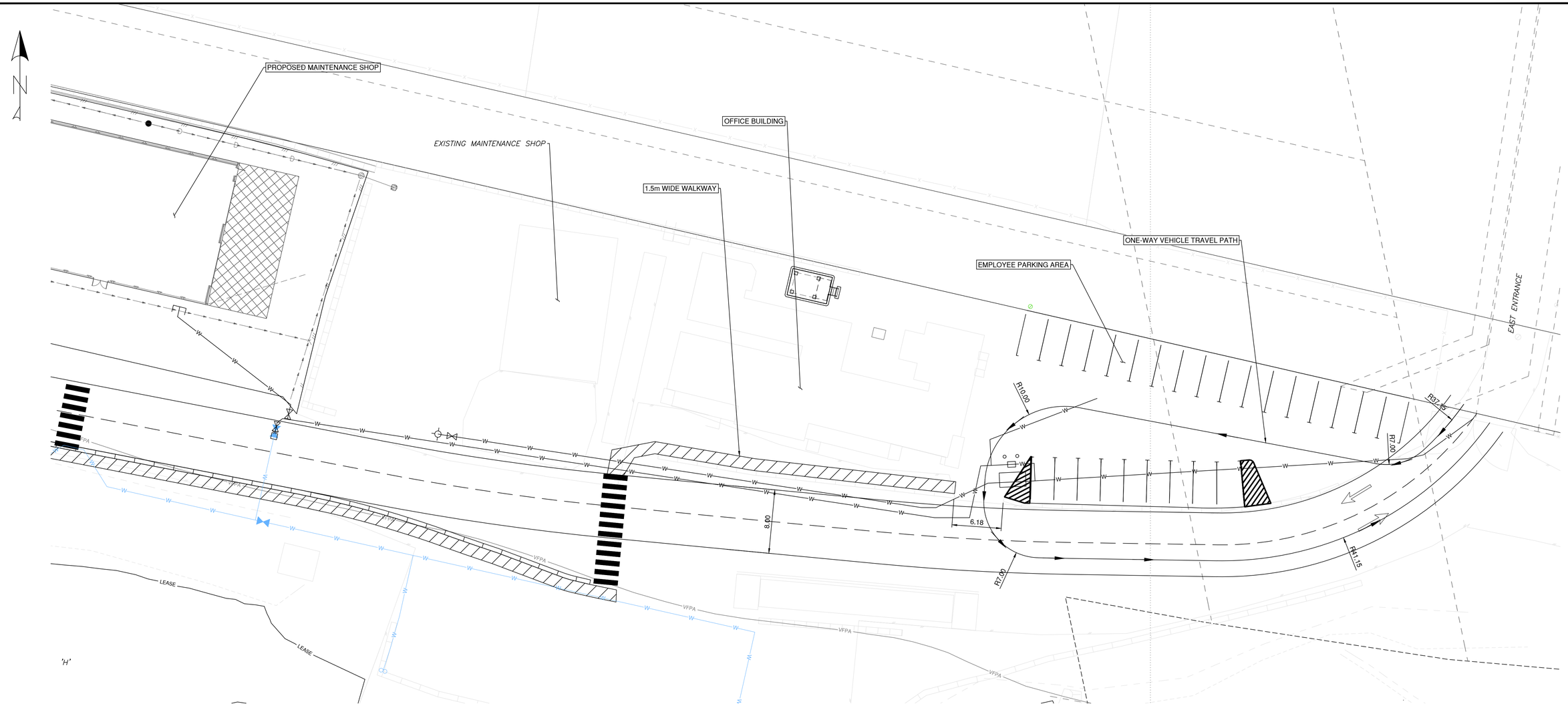
PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — R. SHOSTAK # 51822 — 2024-04-24

No.	Date	REVISION	Dr'n	Ch'd
B	2024-APR-24	ISSUED FOR VFPA PER	C.F.	R.S.
A	2023-NOV-14	ISSUED FOR 90%	C.F.	R.S.

DESIGN BY	C.F.
DRAWN BY	C.F.
APPROVED	K.B
DATE	2024-APR-24
SCALE	1:500
VFPA SITE	332-004

WCD MARINE YARD BUILD-OUT
COQUITLAM, BC
TRUCK TURNING MOVEMENT AT EAST EXIT

SIZE	DWG.	SHEET	REV.
D	105716-S00-KIE-CIV-DWG-5103	1 of 1	B



PLAN VIEW

Scale: 1:250

NOTES:

1. STAFF AND VISITOR VEHICLES WILL ONLY ENTER AND EXIT THE SITE AT THE EAST ENTRANCE.
2. STAFF AND VISITOR VEHICLES CAN ONLY PARK AT THE DESIGNATED PARKING AREA SHOWN IN THIS DRAWING.

PRELIMINARY
NOT FOR CONSTRUCTION
2024–APR–24

1:250 0 5 15m

VFPA DRAWING NUMBER: 332-004-CI-###

Ref. No.	REFERENCE

Kiewit

Permit to Practice: 1004520

PROFESSIONAL PROVINCE OF BRITISH COLUMBIA ENGINEER R. SHOSTAK # 51822 2024-04-24

No.	Date	REVISION	Dr'n	Ch'd
A	2024-APR-24	ISSUED FOR VFPA PER	S.H.	R.S.

DESIGN BY	C.F.
DRAWN BY	S.H.
APPROVED	K.B
DATE	2024-APR-24
SCALE	1:250
VFPA SITE	332-004

WCD MARINE YARD BUILD-OUT
COQUITLAM, BC
PARKING AND ACCESS PLAN

SIZE	DWG.	SHEET	REV.
D	105716-S00-KIE-CIV-DWG-5201	1 of 1	A

DATE: 2024/04/23 - 9:58am
PATH: C:\Users\Carson.Feng\DC\ACCDocs\Kiewit\WCD Marine Yard\Project Files\40 Design Eng\30 CIV\CAD\Sheets\105716-S00-KIE-CIV-DWG-5201.dwg

PLAN VIEW

Scale: 1:1000

NOTES:

1. COORDINATE SYSTEM: UTM WITH NAD83 DATUM, ZONE 10, (GRID)(METER). VERTICAL: CHART DATUM.
2. VERTICAL TRANSLATION GEODETIC (GCVD28(HTv2.0)) TO CHART DATUM PERFORMED BY MOVING OBJECTS FROM POINT (0,0,0) (X,Y,Z) TO (0,0,-1.135).
3. ALL ELEVATIONS ARE REFERENCED TO HYDROGRAPHIC CHART DATUM.
4. ALL DIMENSIONS, UNITS, AND ELEVATIONS IN METERS UNLESS NOTED OTHERWISE.
5. INFORMATION IN THESE DRAWINGS ARE BASED ON THE BEST AVAILABLE DATA. SOME DISCREPANCY BETWEEN DRAWINGS AND ACTUAL CONDITIONS IS EXPECTED.
6. LOCATIONS, INVERT ELEVATIONS AND MATERIALS OF THE CROSSING UTILITIES SHALL BE CONFIRMED BY SURVEYS PRIOR TO CONSTRUCTION.
7. CIVIL ENGINEERING DESIGN IS BASED ON SITE OPERATION REQUIREMENTS, HYDROTECHNICAL ANALYSIS, GEOTECHNICAL CRITERIA AND STRUCTURAL DESIGN.
8. FOR STRUCTURAL DETAILS OF THE MARINE ACCESS TRESTLE SEE DRAWING 105716-S02-KIE-STR-DWG-0001.
9. FOR STRUCTURAL DETAILS OF CONVEYOR STRUCTURE SEE DRAWING 105716-S03-KIE-STR-DWG-0001.
10. FOR STRUCTURAL DETAILS OF ROLL-ON / ROLL-OFF RAMP SEE DRAWING 105716-S04-KIE-STR-DWG-0001.
11. FOR PROPOSED MAINTENANCE SHOP GRADING PLAN AND DRAINAGE DETAILS SEE ALPINE & MARTIN DRAWINGS 22-194-C01-C04.
12. FOR MOORING PILE AND MOORING STRUCTURE DETAILS SEE DRAWING 105716-S00-KIE-DWG-STR-1001.
13. FOR STORM SYSTEM SEE DRAWING 105716-S00-KIE-DWG-DAU-4001.
14. FOR DETAILS OF ENVIRONMENTAL OFFSETTING AND RESTORATION AREAS, SEE *KIEWIT MARINE YARD SUPPLEMENTAL REPORT FOR FISHERIES ACT AUTHORIZATION APPLICATION* PREPARED BY HATFIELD CONSULTANTS LLP (DOCUMENT NUMBER: 105716-S00-HAT-RPT-ENV-0002). REFER TO ENVIRONMENTAL PLAN 105716-KIE-CIV-DWG-8001 TO 8102 FOR DETAILS.
15. FOR HYDROTECHNICAL ANALYSIS SEE *HYDRAULIC MODELING REPORT* (DOCUMENT NUMBER: 105716-S00-KIE-HYD-RPT-0001).
16. THIS DOCUMENT SHALL BE READ IN CONJUNCTION WITH THE FOLLOWING DOCUMENTS:
    - GEOTECHNICAL REPORT (REV D) *BUILD-OUT PROJECT, WCD MARINE YARD*, DATED APRIL 2024 (DOCUMENT NUMBER: 105716-S00-KIE-GEO-0001).
    - DRAINAGE DESIGN MEMO - DRAINAGE REVIEW FOR MARINE YARD SITE (REV. A), DATED JUN. 29, 2023

DISCLAIMER:
THESE DRAWINGS ARE PREPARED TO PROVIDE THE GRADING INFORMATION ASSOCIATED WITH THE ENVIRONMENTAL COMPONENTS OF THE PROJECT IN COORDINATION WITH THE QUALIFIED ENVIRONMENTAL PROFESSIONAL. KIEWIT ENGINEERING GROUP CANADA IS NOT RESPONSIBLE FOR ENVIRONMENTAL FEATURES OF ENVIRONMENTAL COMPONENTS DESIGNED BY OTHERS

PRELIMINARY
NOT FOR CONSTRUCTION
2024-APR-24

1:1000 0 20 60m

VFPA DRAWING NUMBER:
332-004-CI-###

Ref. No.	REFERENCE

Kiewit

Permit to Practice: 1004520
PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — R. SHOSTAK # 51822
2024-04-24

No.	Date	REVISION	Dr'n	Ch'd
B	2024-APR-24	ISSUED FOR VFPA PER	C.F.	R.S.
A	2024-MAR-26	ISSUED FOR DFO FISHERIES ACT AUTHORIZATION REVIEW	C.F.	R.S.

DESIGN BY	C.F.
DRAWN BY	C.F.
APPROVED	K.B
DATE	2024-APR-24
SCALE	1:1000
VFPA SITE	332-004

WCD MARINE YARD BUILD-OUT
COQUITLAM, BC
ENVIRONMENTAL PLAN

SIZE	DWG.	SHEET	REV.
D	105716-S00-KIE-CIV-DWG-8001	1 of 1	B

TITLE BLOCK: DL-TB.dwg

DATE: 2024/04/24 - 10:18am
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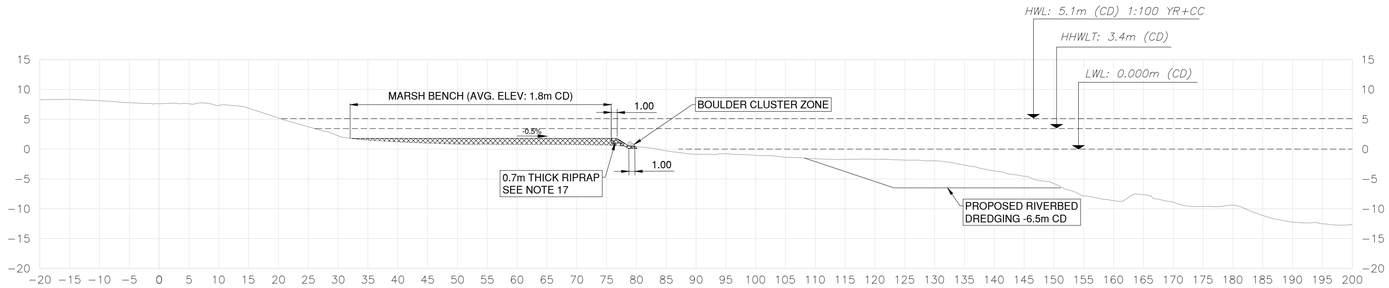

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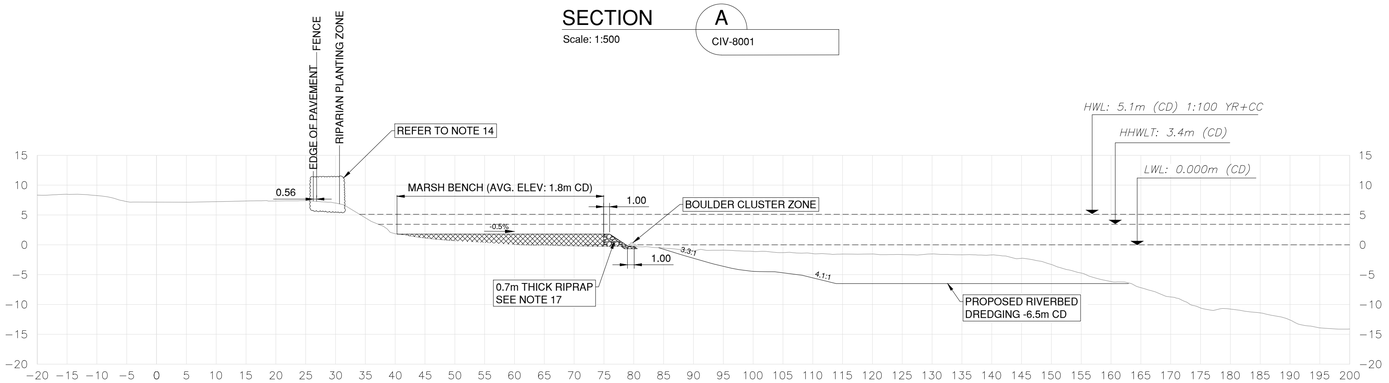
CIV-8001



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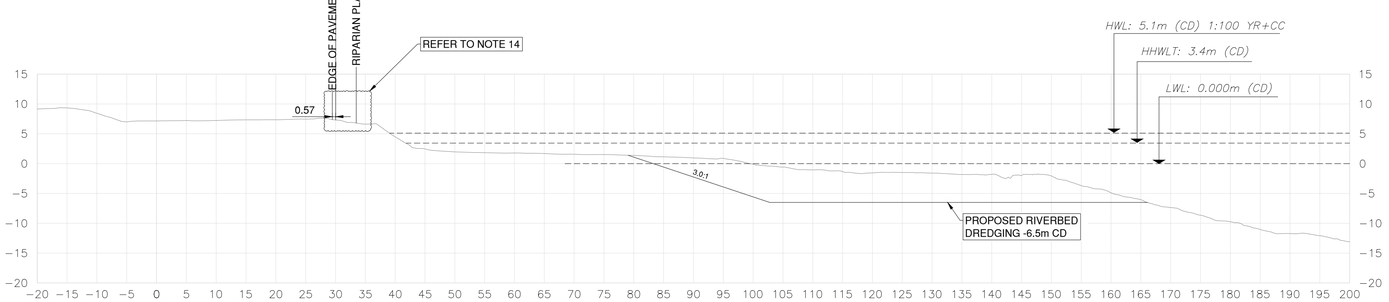

SECTION C
Scale: 1:500
CIV-8001

NOTES:

1. COORDINATE SYSTEM: UTM WITH NAD83 DATUM, ZONE 10, (GRID)(METER). VERTICAL: CHART DATUM.
2. VERTICAL TRANSLATION GEODETIC (GCVD28(HTv2.0)) TO CHART DATUM PERFORMED BY MOVING OBJECTS FROM POINT (0,0,0) (X,Y,Z) TO (0,0,-1.135).
3. ALL ELEVATIONS ARE REFERENCED TO HYDROGRAPHIC CHART DATUM.
4. ALL DIMENSIONS, UNITS, AND ELEVATIONS IN METERS UNLESS NOTED OTHERWISE.
5. INFORMATION IN THESE DRAWINGS ARE BASED ON THE BEST AVAILABLE DATA. SOME DISCREPANCY BETWEEN DRAWINGS AND ACTUAL CONDITIONS IS EXPECTED.
6. LOCATIONS, INVERT ELEVATIONS AND MATERIALS OF THE CROSSING UTILITIES SHALL BE CONFIRMED BY SURVEYS PRIOR TO CONSTRUCTION.
7. CIVIL ENGINEERING DESIGN IS BASED ON SITE OPERATION REQUIREMENTS, HYDROTECHNICAL ANALYSIS, GEOTECHNICAL CRITERIA AND STRUCTURAL DESIGN.
8. FOR STRUCTURAL DETAILS OF THE MARINE ACCESS TRESTLE SEE DRAWING 105716-S02-KIE-STR-DWG-0001.
9. FOR STRUCTURAL DETAILS OF CONVEYOR STRUCTURE SEE DRAWING 105716-S03-KIE-STR-DWG-0001.
10. FOR STRUCTURAL DETAILS OF ROLL-ON / ROLL-OFF RAMP SEE DRAWING 105716-S04-KIE-STR-DWG-0001.
11. FOR PROPOSED MAINTENANCE SHOP GRADING PLAN AND DRAINAGE DETAILS SEE ALPINE & MARTIN DRAWINGS 22-194-C01-C04.
12. FOR MOORING PILE AND MOORING STRUCTURE DETAILS SEE DRAWING 105716-S00-KIE-DWG-STR-1001.
13. FOR STORM SYSTEM SEE DRAWING 105716-S00-KIE-DWG-DAU-4001.
14. FOR DETAILS OF ENVIRONMENTAL OFFSETTING AND RESTORATION AREAS, SEE *KIEWIT MARINE YARD SUPPLEMENTAL REPORT FOR FISHERIES ACT AUTHORIZATION APPLICATION* PREPARED BY HATFIELD CONSULTANTS LLP (DOCUMENT NUMBER: 105716-S00-HAT-RPT-ENV-0002). REFER TO ENVIRONMENTAL PLAN 105716-KIE-CIV-DWG-8001 TO 8102 FOR DETAILS.
15. FOR HYDROTECHNICAL ANALYSIS SEE *HYDRAULIC MODELING REPORT* (DOCUMENT NUMBER: 105716-S00-KIE-HYD-RPT-0001).
16. THIS DOCUMENT SHALL BE READ IN CONJUNCTION WITH THE FOLLOWING DOCUMENTS:
    - GEOTECHNICAL REPORT (REV D) *BUILD-OUT PROJECT, WCD MARINE YARD*, DATED APRIL 2024 (DOCUMENT NUMBER: 105716-S00-KIE-GEO-0001).
    - DRAINAGE DESIGN MEMO - DRAINAGE REVIEW FOR MARINE YARD SITE (REV. A), DATED JUN. 29, 2023
17. RIPRAP SHALL BE MoTI 100kg CLASS OR APPROVED EQUIVALENT.

PRELIMINARY
NOT FOR CONSTRUCTION
2024-APR-24

DISCLAIMER:
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1:500 0 10 30m

VFPA DRAWING NUMBER:
332-004-CI-###

Ref. No.	REFERENCE

Kiewit

Permit to Practice: 1004520
PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — R. SHOSTAK # 51822
2024-04-24

No.	Date	REVISION	Dr'n	Ch'd
B	2024-APR-24	ISSUED FOR VFPA PER	C.F.	R.S.
A	2024-MAR-26	ISSUED FOR DFO FISHERIES ACT AUTHORIZATION REVIEW	C.F.	R.S.

DESIGN BY	C.F.
DRAWN BY	C.F.
APPROVED	K.B
DATE	2024-APR-24
SCALE	1:500
VFPA SITE	332-004

WCD MARINE YARD BUILD-OUT
COQUITLAM, BC
ENVIRONMENTAL SECTIONS
SHEET 1 OF 3

SIZE D | DWG. 105716-S00-KIE-CIV-DWG-8101 | SHEET 1 OF 3 | REV. B

TITLE BLOCK: DL-TB.dwg

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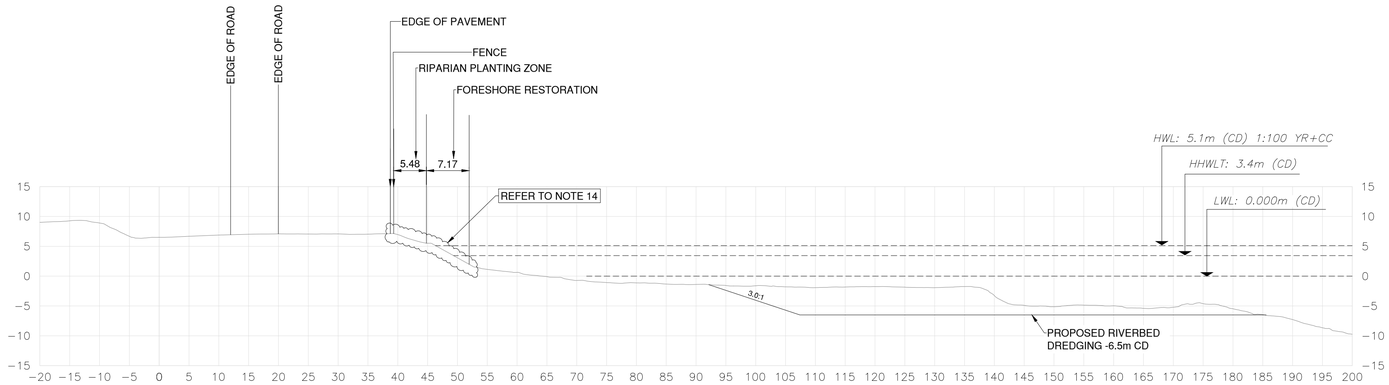

SECTION D
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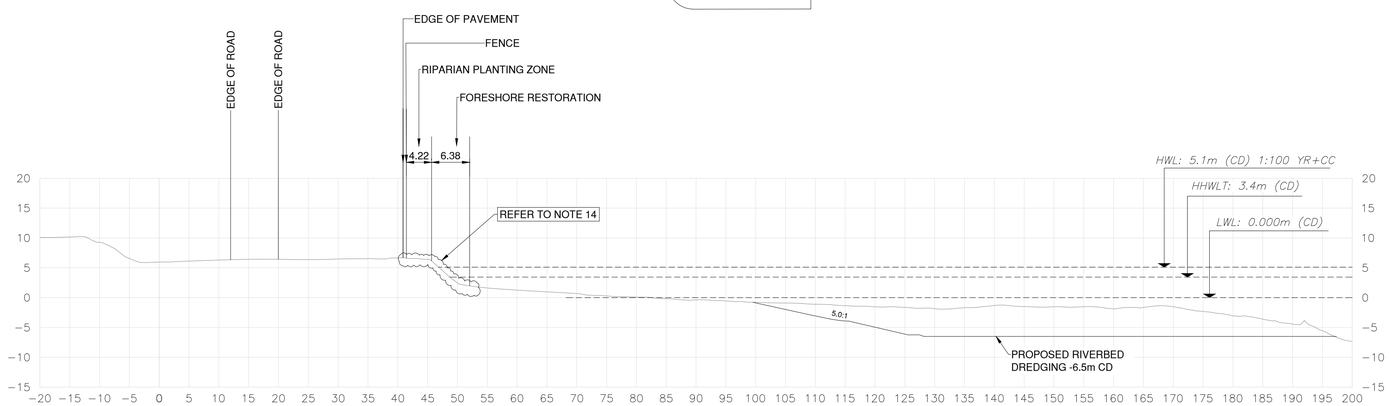
CIV-8001



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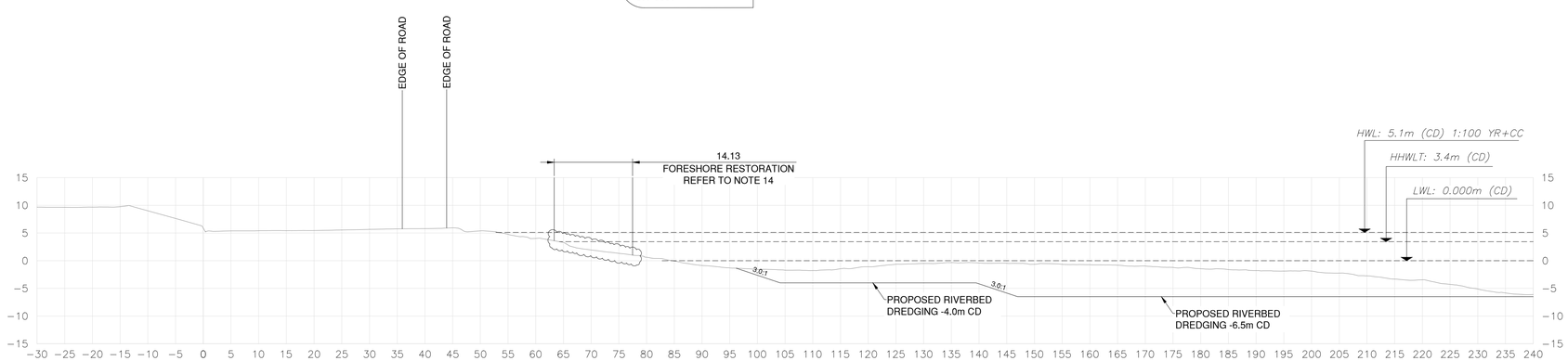
CIV-8001



SECTION F
Scale: 1:500
CIV-8001

NOTES:

1. COORDINATE SYSTEM: UTM WITH NAD83 DATUM, ZONE 10, (GRID)(METER). VERTICAL: CHART DATUM.
2. VERTICAL TRANSLATION GEODETIC (GCVD28(HTv2.0)) TO CHART DATUM PERFORMED BY MOVING OBJECTS FROM POINT (0,0,0) (X,Y,Z) TO (0,0,-1.135).
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7. CIVIL ENGINEERING DESIGN IS BASED ON SITE OPERATION REQUIREMENTS, HYDROTECHNICAL ANALYSIS, GEOTECHNICAL CRITERIA AND STRUCTURAL DESIGN.
8. FOR STRUCTURAL DETAILS OF THE MARINE ACCESS TRESTLE SEE DRAWING 105716-S02-KIE-STR-DWG-0001.
9. FOR STRUCTURAL DETAILS OF CONVEYOR STRUCTURE SEE DRAWING 105716-S03-KIE-STR-DWG-0001.
10. FOR STRUCTURAL DETAILS OF ROLL-ON / ROLL-OFF RAMP SEE DRAWING 105716-S04-KIE-STR-DWG-0001.
11. FOR PROPOSED MAINTENANCE SHOP GRADING PLAN AND DRAINAGE DETAILS SEE ALPINE & MARTIN DRAWINGS 22-194-C01-C04.
12. FOR MOORING PILE AND MOORING STRUCTURE DETAILS SEE DRAWING 105716-S00-KIE-DWG-STR-1001.
13. FOR STORM SYSTEM SEE DRAWING 105716-S00-KIE-DWG-DAU-4001.
14. FOR DETAILS OF ENVIRONMENTAL OFFSETTING AND RESTORATION AREAS, SEE *KIEWIT MARINE YARD SUPPLEMENTAL REPORT FOR FISHERIES ACT AUTHORIZATION APPLICATION* PREPARED BY HATFIELD CONSULTANTS LLP (DOCUMENT NUMBER: 105716-S00-HAT-RPT-ENV-0002). REFER TO ENVIRONMENTAL PLAN 105716-KIE-CIV-DWG-8001 TO 8102 FOR DETAILS.
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    - DRAINAGE DESIGN MEMO - DRAINAGE REVIEW FOR MARINE YARD SITE (REV. A), DATED JUN. 29, 2023
17. RIPRAP SHALL BE MoTI 100kg CLASS OR APPROVED EQUIVALENT.

DISCLAIMER:
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PRELIMINARY
NOT FOR CONSTRUCTION
2024-APR-24

1:500 0 10 30m

VFPA DRAWING NUMBER:
332-004-CI-###

Ref. No.	REFERENCE

Kiewit

Permit to Practice: 1004520
PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — R. SHOSTAK # 51822 — 2024-04-24

No.	Date	REVISION	Dr'n	Ch'd
B	2024-APR-24	ISSUED FOR VFPA PER	C.F.	R.S.
A	2024-MAR-26	ISSUED FOR DFO FISHERIES ACT AUTHORIZATION REVIEW	C.F.	R.S.

DESIGN BY	C.F.
DRAWN BY	C.F.
APPROVED	K.B
DATE	2024-APR-24
SCALE	1:500
VFPA SITE	332-004

WCD MARINE YARD BUILD-OUT
COQUITLAM, BC
ENVIRONMENTAL SECTIONS
SHEET 2 OF 3

SIZE	DWG.	SHEET	REV.
D	105716-S00-KIE-CIV-DWG-8102	2 OF 3	B

TITLE BLOCK: DL-TB.dwg

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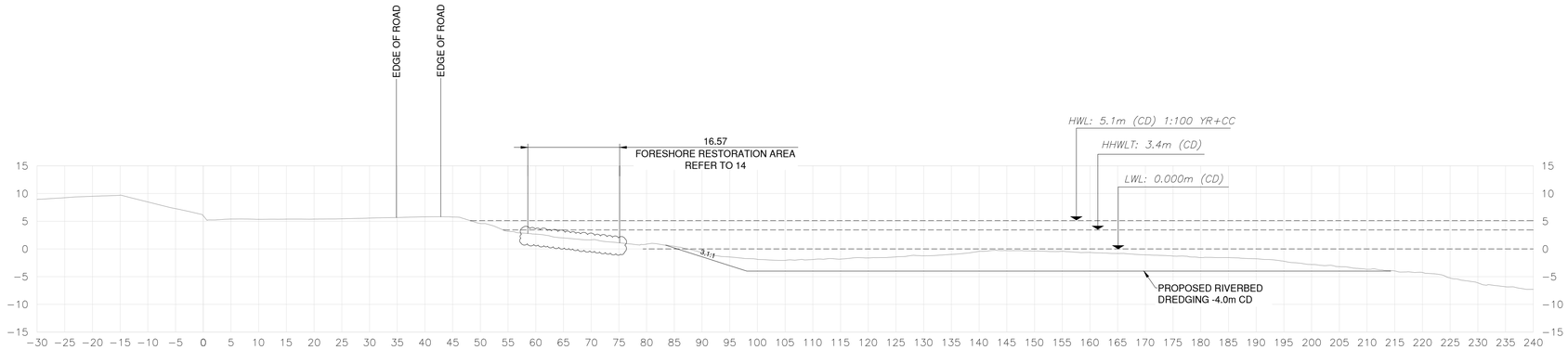

SECTION G

Scale: 1:500

CIV-8001

NOTES:

1. COORDINATE SYSTEM: UTM WITH NAD83 DATUM, ZONE 10, (GRID)(METER). VERTICAL: CHART DATUM.
2. VERTICAL TRANSLATION GEODETIC (GCVD28(HTv2.0)) TO CHART DATUM PERFORMED BY MOVING OBJECTS FROM POINT (0,0,0) (X,Y,Z) TO (0,0,-1.135).
3. ALL ELEVATIONS ARE REFERENCED TO HYDROGRAPHIC CHART DATUM.
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5. INFORMATION IN THESE DRAWINGS ARE BASED ON THE BEST AVAILABLE DATA. SOME DISCREPANCY BETWEEN DRAWINGS AND ACTUAL CONDITIONS IS EXPECTED.
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8. FOR STRUCTURAL DETAILS OF THE MARINE ACCESS TRESTLE SEE DRAWING 105716-S02-KIE-STR-DWG-0001.
9. FOR STRUCTURAL DETAILS OF CONVEYOR STRUCTURE SEE DRAWING 105716-S03-KIE-STR-DWG-0001.
10. FOR STRUCTURAL DETAILS OF ROLL-ON / ROLL-OFF RAMP SEE DRAWING 105716-S04-KIE-STR-DWG-0001.
11. FOR PROPOSED MAINTENANCE SHOP GRADING PLAN AND DRAINAGE DETAILS SEE ALPINE & MARTIN DRAWINGS 22-194-C01-C04.
12. FOR MOORING PILE AND MOORING STRUCTURE DETAILS SEE DRAWING 105716-S00-KIE-DWG-STR-1001.
13. FOR STORM SYSTEM SEE DRAWING 105716-S00-KIE-DWG-DAU-4001.
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    - DRAINAGE DESIGN MEMO - DRAINAGE REVIEW FOR MARINE YARD SITE (REV. A), DATED JUN. 29, 2023
17. RIPRAP SHALL BE MoTI 100kg CLASS OR APPROVED EQUIVALENT.

PRELIMINARY
NOT FOR CONSTRUCTION
2024−APR−24

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1:500 0 10 30m

VFPA DRAWING NUMBER: 332-004-CI-###

Ref. No.	REFERENCE

Kiewit

Permit to Practice: 1004520
PROFESSIONAL PROVINCE OF BRITISH COLUMBIA R. SHOSTAK # 51822 ENGINEER
2024-04-24

No.	Date	REVISION	Dr'n	Ch'd
B	2024-APR-24	ISSUED FOR VFPA PER	C.F.	R.S.
A	2024-MAR-26	ISSUED FOR DFO FISHERIES ACT AUTHORIZATION REVIEW	C.F.	R.S.

DESIGN BY	C.F.
DRAWN BY	C.F.
APPROVED	K.B
DATE	2024-APR-24
SCALE	1:500
VFPA SITE	332-004

WCD MARINE YARD BUILD-OUT
COQUITLAM, BC
ENVIRONMENTAL SECTIONS
SHEET 3 OF 3

SIZE	DWG.	SHEET	REV.
D	105716-S00-KIE-CIV-DWG-8103	3 OF 3	B

TITLE BLOCK: DL-TB.dwg

DATE: 2024/04/24 - 9:56am
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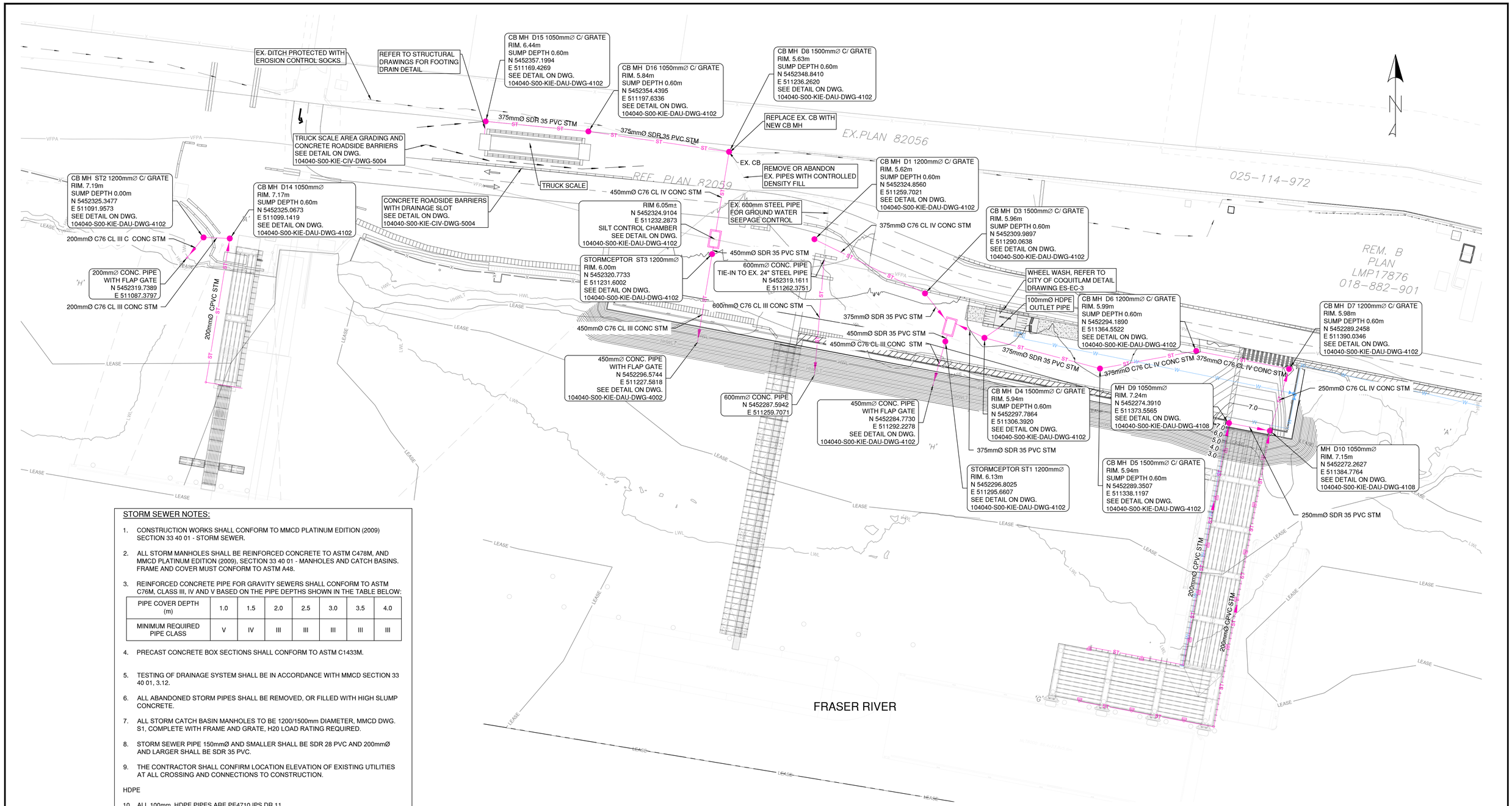


STORM SEWER NOTES:

1. CONSTRUCTION WORKS SHALL CONFORM TO MMCD PLATINUM EDITION (2009) SECTION 33 40 01 - STORM SEWER.
2. ALL STORM MANHOLES SHALL BE REINFORCED CONCRETE TO ASTM C478M, AND MMCD PLATINUM EDITION (2009), SECTION 33 40 01 - MANHOLES AND CATCH BASINS. FRAME AND COVER MUST CONFORM TO ASTM A48.
3. REINFORCED CONCRETE PIPE FOR GRAVITY SEWERS SHALL CONFORM TO ASTM C76M, CLASS III, IV AND V BASED ON THE PIPE DEPTHS SHOWN IN THE TABLE BELOW:

PIPE COVER DEPTH (m)	1.0	1.5	2.0	2.5	3.0	3.5	4.0
MINIMUM REQUIRED PIPE CLASS	V	IV	III	III	III	III	III

4. PRECAST CONCRETE BOX SECTIONS SHALL CONFORM TO ASTM C1433M.
5. TESTING OF DRAINAGE SYSTEM SHALL BE IN ACCORDANCE WITH MMCD SECTION 33 40 01, 3.12.
6. ALL ABANDONED STORM PIPES SHALL BE REMOVED, OR FILLED WITH HIGH SLUMP CONCRETE.
7. ALL STORM CATCH BASIN MANHOLES TO BE 1200/1500mm DIAMETER, MMCD DWG. S1, COMPLETE WITH FRAME AND GRATE, H20 LOAD RATING REQUIRED.
8. STORM SEWER PIPE 150mmØ AND SMALLER SHALL BE SDR 28 PVC AND 200mmØ AND LARGER SHALL BE SDR 35 PVC.
9. THE CONTRACTOR SHALL CONFIRM LOCATION ELEVATION OF EXISTING UTILITIES AT ALL CROSSING AND CONNECTIONS TO CONSTRUCTION.

HDPE

10. ALL 100mm HDPE PIPES ARE PE4710 IPS DR 11.
11. ALL HDPE JOINTS SHALL BE HEAT BUTT FUSION WELDED TO ASTM D2657 AND IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
12. ALL HDPE FITTINGS SHALL BE HDPE MITERED FITTINGS TO AWWA C906 OR HDPE MOLDED FITTINGS TO ASTM 3261 UNLESS NOTED OTHERWISE.

PRELIMINARY
NOT FOR CONSTRUCTION
2024-APR-24

VFPA DRAWING NUMBER: 332-004-UT-###

Ref. No.	REFERENCE

Kiewit

Permit to Practice: 1003169
PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA B. YANG # 34281
2024-04-24

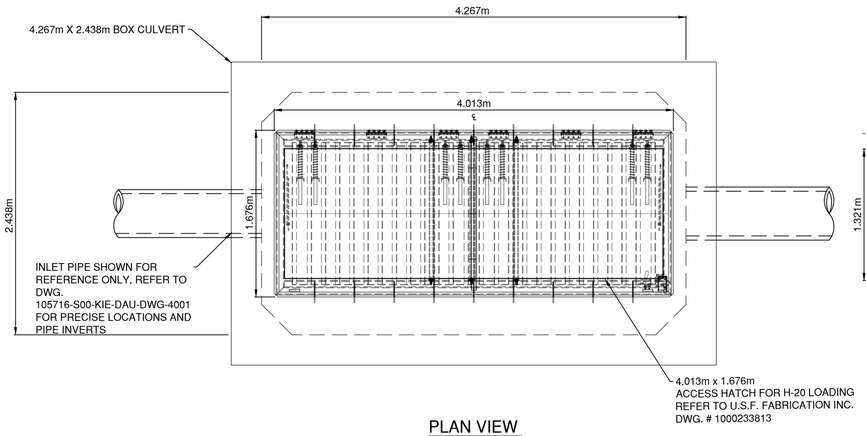
No.	Date	REVISION	Dr'n	Ch'd
E	2024-APR-24	ISSUED FOR VFPA PER	T.W.	B.Y.
D	2024-MAR-01	ISSUED FOR DFO FISHERIES ACT AUTHORIZATION REVIEW	T.W.	B.Y.
C	2023-NOV-14	ISSUED FOR 90%	T.W.	B.Y.
B	2023-SEP-27	ISSUED FOR DFO FISHERIES ACT AUTHORIZATION REVIEW	T.W.	B.Y.
A	2023-AUG-23		T.W.	B.Y.

DESIGN BY	B.Y.
DRAWN BY	T.W.
APPROVED	K.B.
DATE	2024-APR-24
SCALE	1:500
VFPA SITE	332-004

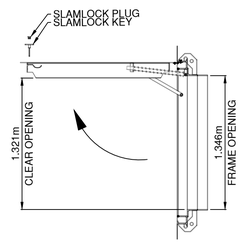
WCD MARINE YARD BUILD-OUT
COQUITLAM, BC
STORM OVERALL PLAN AND NOTES

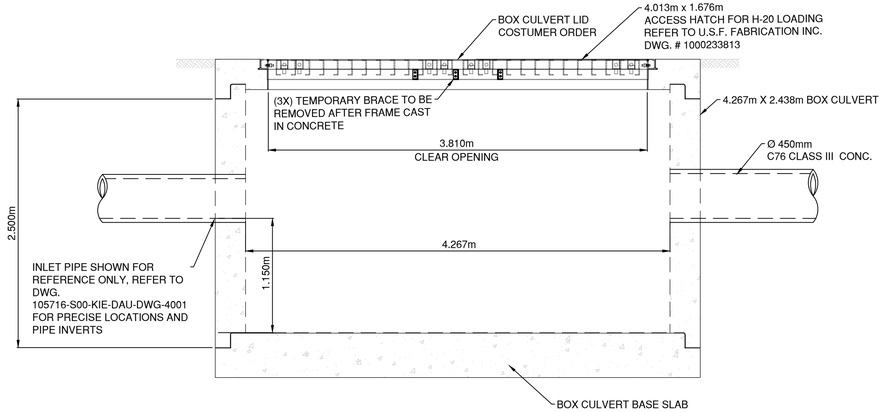
SIZE	DWG.	SHEET	REV.
D	105716-S00-KIE-DAU-DWG-4101	1 OF 1	E

DATE: 2024/04/22, 11:43am
PATH: C:\Users\ShunPa.Wang\DC\ACCDocs\Kiewit\WCD Marine Yard\Project Files\40 Design Eng\30 CIV\CAD\Sheets\105716-S00-KIE-DAU-DWG-4101.dwg



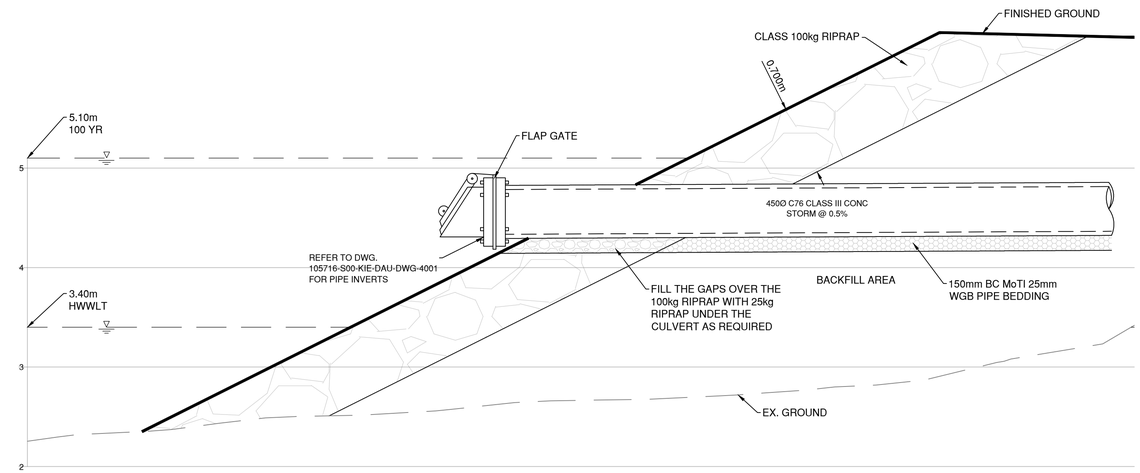
PLAN VIEW



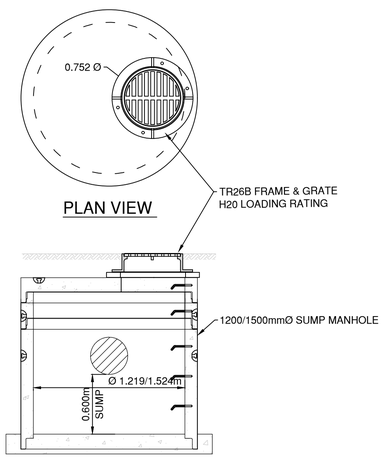


ELEVATION VIEW

SEDIMENT CHAMBER DETAILS



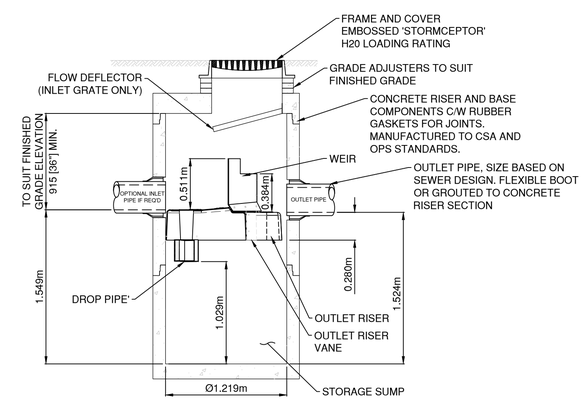
OUTFALL DETAILS



PLAN VIEW

ELEVATION VIEW

CATCH BASIN MANHOLE DETAILS



SECTION VIEW

STORMCEPTOR DETAILS

NOTES:

1. ALL HARDWARE SUCH AS NUTS, BOLTS, TIE RODS, ETC. ARE TO BE 316 STAINLESS STEEL. COAT ALL MECHANICAL HARDWARE WITH PRIMER AND PETROLATUM TAPE TO AWWA C217.

PRELIMINARY
NOT FOR CONSTRUCTION
2024–APR–24

VFPA DRAWING NUMBER: 332-004-UT-###

Ref. No.	REFERENCE

Kiewit

Permit to Practice: 1003169
PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA B. YANG # 34281
2024-04-24

No.	Date	REVISION	Dr'n	Ch'd
E	2024-APR-24	ISSUED FOR VFPA PER	T.W.	B.Y.
D	2024-MAR-01	ISSUED FOR DFO FISHERIES ACT AUTHORIZATION REVIEW	T.W.	B.Y.
C	2023-NOV-14	ISSUED FOR 90%	T.W.	B.Y.
B	2023-SEP-27	ISSUED FOR DFO FISHERIES ACT AUTHORIZATION REVIEW	T.W.	B.Y.
A	2023-AUG-23	ISSUED FOR 50%	T.W.	B.Y.

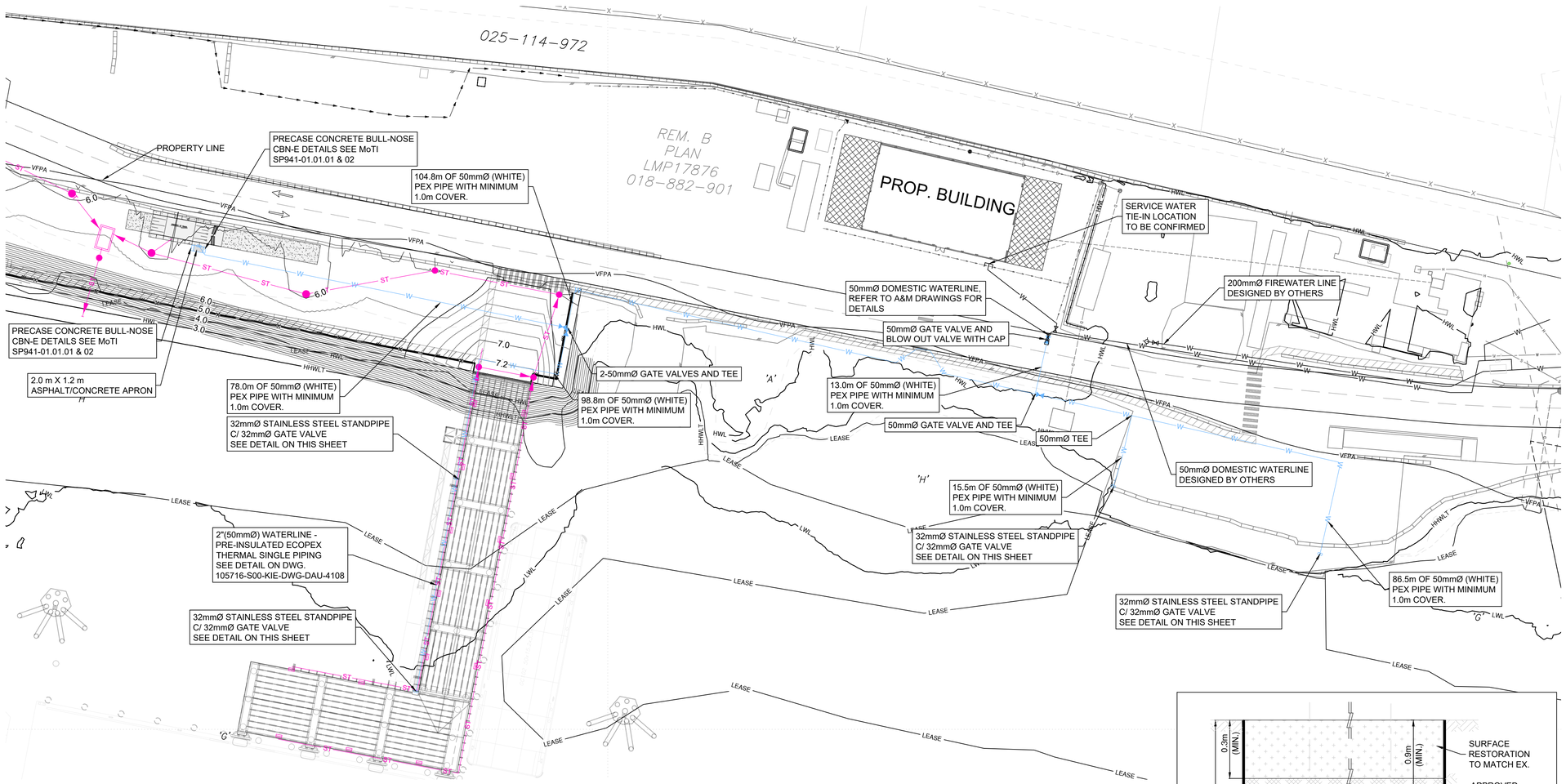
DESIGN BY	B.Y.
DRAWN BY	T.W.
APPROVED	K.B.
DATE	2024-APR-24
SCALE	1:30
VFPA SITE	332-004

WCD MARINE YARD BUILD-OUT
COQUITLAM, BC
STORM DETAILS

SIZE	DWG.	SHEET	REV.
D	105716-S00-KIE-DAU-DWG-4102	1 OF 1	E

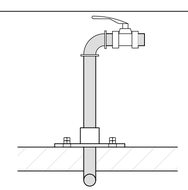
TITLE BLOCK: DL-TB.dwg

DATE: 2024/04/19 2:49pm
PATH: C:\Users\ShunPa.Wang\DC\ACCDocs\Kiewit\WCD Marine Yard\Project Files\40 Design Eng\30 CIVCAD\Sheets\105716-S00-KIE-DAU-DWG-4102.dwg

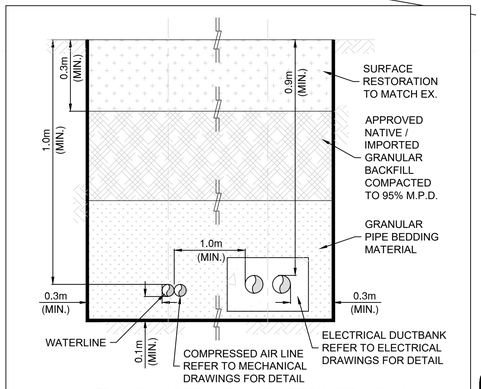


WATERMAIN NOTES:

1. CONSTRUCTION WORKS SHALL CONFORM TO THE MASTER MUNICIPAL CONSTRUCTION DOCUMENT AND STANDARD DETAIL DRAWINGS (MMCD), PLATINUM EDITION (2019) SECTION 33 11 01 WATERWORKS.
2. MINIMUM 1.0m COVER FOR ALL WATERWORKS.
3. MINIMUM OF 1.0m HORIZONTAL CLEARANCE AND 300mm CLEAR VERTICAL SEPARATION BETWEEN WATERMAINS AND ELECTRICAL/ COMMUNICATION CONDUITS EXCEPT WHERE NOTED.
4. DISINFECTION AND FLUSHING PROCEDURES SHALL BE IN ACCORDANCE WITH MMCD SECTION 33 11 01, 3.21.
5. THE CONTRACTOR SHALL CONFIRM LOCATION AND ELEVATION OF EXISTING UTILITIES AT ALL CROSSINGS AND CONNECTIONS PRIOR TO CONSTRUCTION
6. ALL 50mm WATERLINES MATERIAL TO BE UPONOR PEX WHITE OR EQUIVALENT.
7. ALL PEX FITTINGS SHALL BE ProPEX ENGINEERED POLYMER (EP) TO ASTM F2023 AND IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. (OR EQUIVALENT)
8. ALL PEX JOINTS SHALL BE ProPEX RINGS AND ProPEX TOOL IS REQUIRED. (OR EQUIVALEN)
9. ALL PEX JOINTS SHALL BE WRAPPED WITH DENSO PETROLATUM TAPE.



32mmØ STAINLESS STEEL STANDPIPE
C/ 32mmØ GATE VALVE
N.T.S.



50mmØ WATERLINE & COMPRESSED AIR LINE
& ELECTRICAL DUCTBANK
COMMON TRENCH DETAIL
N.T.S.

PRELIMINARY
NOT FOR CONSTRUCTION
2024–APR–24

VFPA DRAWING NUMBER:
332-004-UT-###

Ref. No.	REFERENCE

Kiewit

Permit to Practice: 1003169
PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
B. YANG
34281
2024-04-24

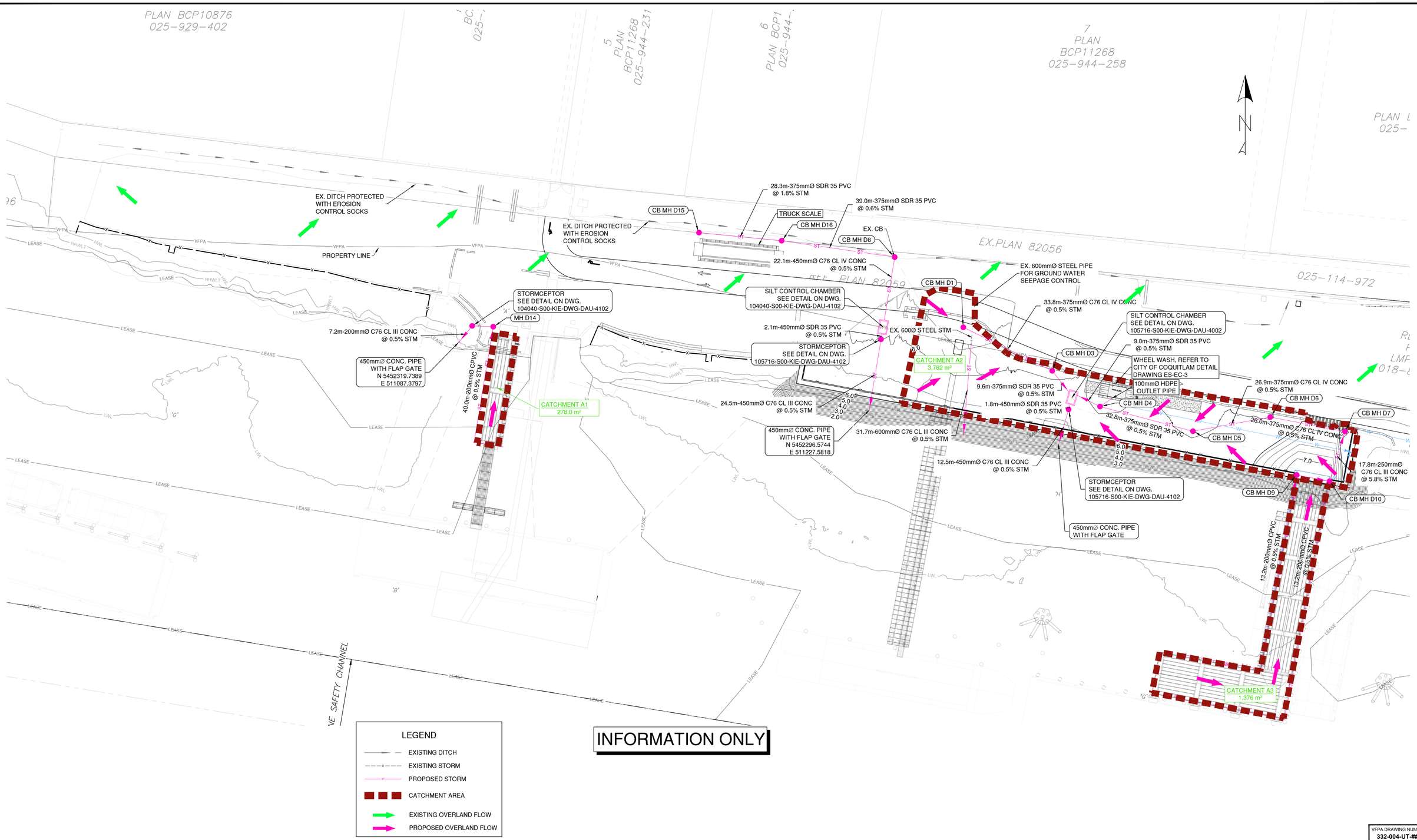
No.	Date	REVISION	Dr'n	Ch'd
C	2024-APR-24	ISSUED FOR VRPA PER	T.W.	B.Y.
B	2023-NOV-14	ISSUED FOR 90%	T.W.	B.Y.
A	2023-AUG-23	ISSUED FOR 50%	T.W.	B.Y.

DESIGN BY	B.Y.
DRAWN BY	T.W.
APPROVED	K.B.
DATE	2024-APR-24
SCALE	1:500
VFPA SITE	332-004

WCD MARINE YARD BUILD-OUT
COQUITLAM, BC
WATERLINE PLAN, DETAILS AND NOTES

SIZE	DWG.	SHEET	REV.
D	105716-S00-KIE-DAU-DWG-4103	1 OF 1	C

DATE: 2024/04/22 - 11:05am
PATH: C:\Users\ShunPa.Wang\DC\ACCDocs\Kiewit\WCD Marine Yard\Project Files\40 Design Eng\30 Civ\CAD\Sheets\105716-S00-KIE-DAU-DWG-4103.dwg



INFORMATION ONLY

LEGEND

- EXISTING DITCH
- EXISTING STORM
- PROPOSED STORM
- CATCHMENT AREA
- EXISTING OVERLAND FLOW
- PROPOSED OVERLAND FLOW

VFPA DRAWING NUMBER:
332-004-UT-###

Ref. No.	REFERENCE

Kiewit

Permit to Practice: 1003169
PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
B. YANG
34281
2024-04-24

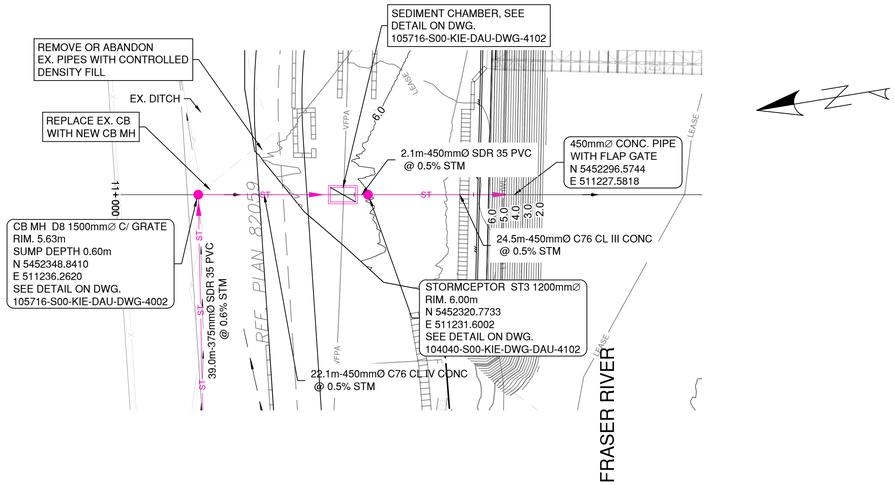
No.	Date	REVISION	Dr'n	Ch'd
C	2024-APR-24	ISSUED FOR VFPA PER	T.W.	B.Y.
B	2024-MAR-01	ISSUED FOR DFO FISHERIES ACT AUTHORIZATION REVIEW	T.W.	B.Y.
A	2023-NOV-14	ISSUED FOR 90%	T.W.	B.Y.

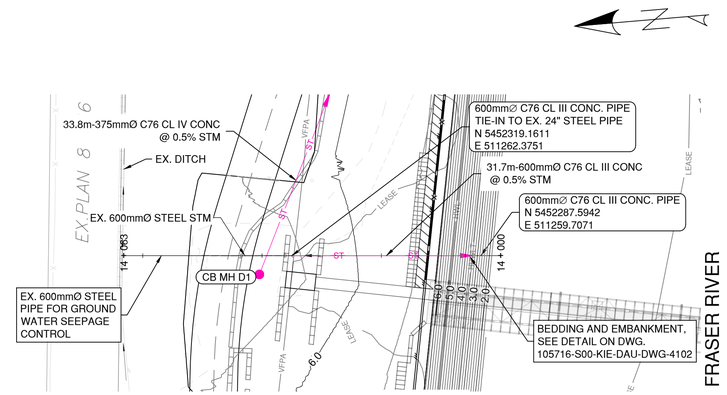
DESIGN BY	B.Y.
DRAWN BY	T.W.
APPROVED	K.B.
DATE	2024-APR-24
SCALE	1:600
VFPA SITE	332-004

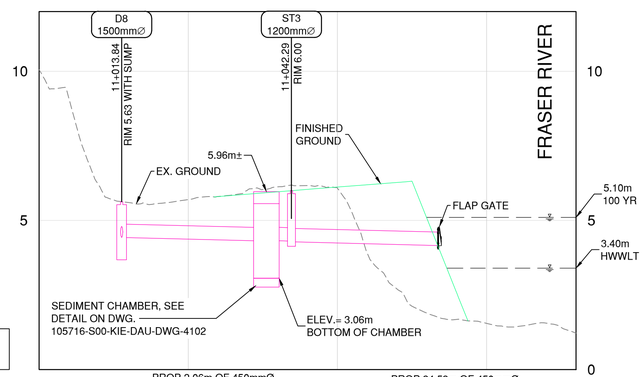
WCD MARINE YARD BUILD-OUT
COQUITLAM, BC
STORMWATER MANAGEMENT PLAN

SIZE	DWG.	SHEET	REV.
D	105716-S00-KIE-DAU-DWG-4104	1 OF 1	C

DATE: 2024/04/19 2:41pm
PATH: C:\Users\ShunPa.Wang\DC\ACCDocs\Kiewit\WCD Marine Yard\Project Files\40 Design Eng\30 CIV\CAD\Sheets\105716-S00-KIE-DAU-DWG-4104.dwg

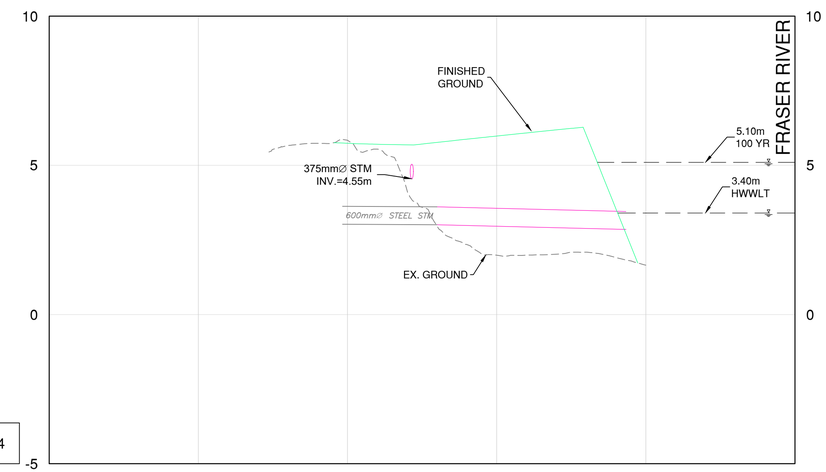






ALIGNMENT: MY STM 1

STORM TYPE, SIZE LENGTH AND GRADE		PROP 22.12m OF 450mmØ C76 CLASS IV CONC @ 0.5%		PROP 2.06m OF 450mmØ SDR35 PVC @ 0.5%	PROP 24.53m OF 450mmØ C76 CLASS III CONC @ 0.5%		
STORM SEWER INVERT ELEVATIONS		4.43 (S) 4.43 (W)	4.32 (N)	4.32 (S)	4.31 (N) 4.28 (S)	4.16 (N)	
GROUND ELEVATION	10.06	5.70	6.08	6.12	1.55	1.22	
CHAINAGE	11+000	11+013.84	11+025	11+035.96	11+040.23 11+042.29	11+050	11+066.82 11+075 11+090



ALIGNMENT: MY STM 4

STORM TYPE, SIZE LENGTH AND GRADE			PROP 31.68m OF 600mmØ C76 CLASS III CONC @ 0.5%	
STORM SEWER INVERT ELEVATIONS			3.01 (N) 3.01 (S)	2.85 (N)
GROUND ELEVATION	5.84	5.74	1.99 5.98	1.65
CHAINAGE	14+050.83	14+035		14+003.32

PRELIMINARY
NOT FOR CONSTRUCTION
2024–APR–24

VFPA DRAWING NUMBER: 332-004-UT-###

DATE: 2024/04/19, 2:35pm
PATH: C:\Users\ShunPa.Wang\DC\ACCDocs\Kiewit\WCD Marine Yard\Project Files\40 Design Eng\30 CIVCAD\Sheets\105716-S00-KIE-DAU-DWG-4105.dwg

Ref. No.	REFERENCE

Kiewit

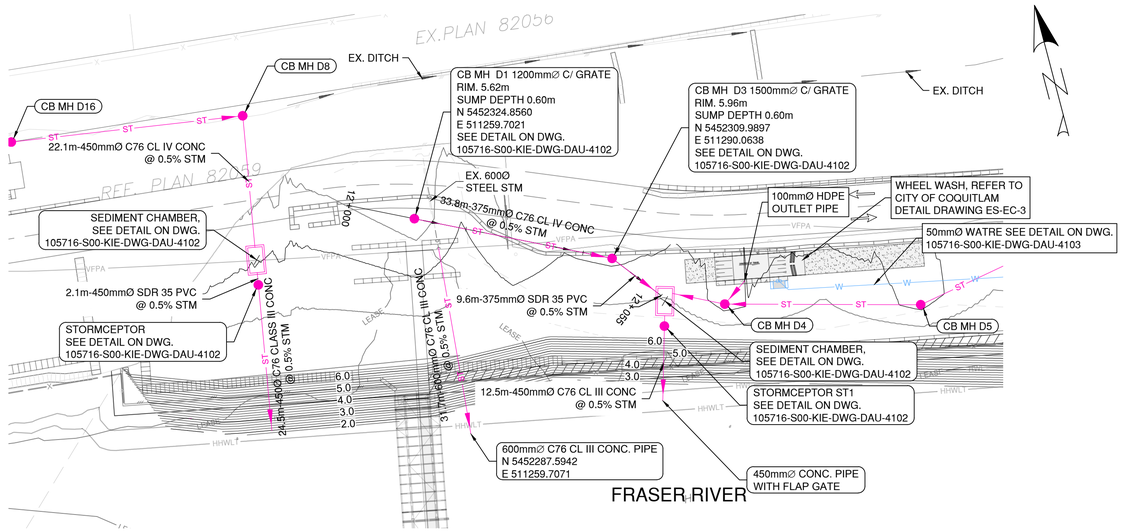
Permit to Practice: 1003169
PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA B. YANG # 34281
2024-04-24

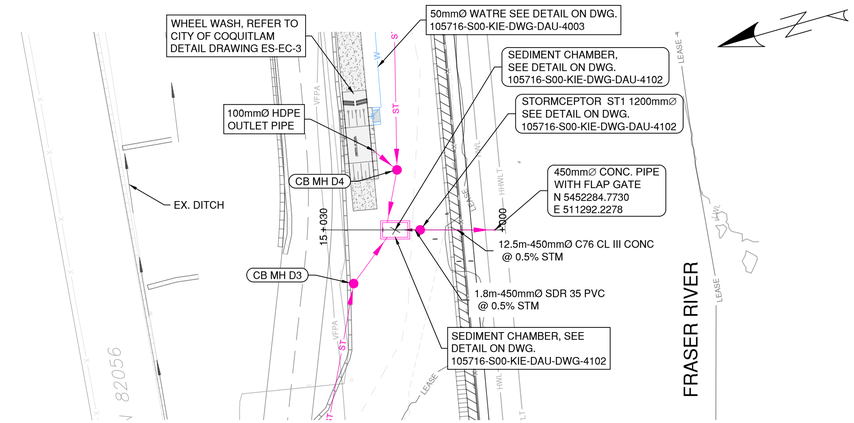
No.	Date	REVISION	Dr'n	Ch'd
C	2024-APR-24	ISSUED FOR VFPA PER	T.W.	B.Y.
B	2024-MAR-01	ISSUED FOR DFO FISHERIES ACT AUTHORIZATION REVIEW	T.W.	B.Y.
A	2023-NOV-14	ISSUED FOR 90%	T.W.	B.Y.

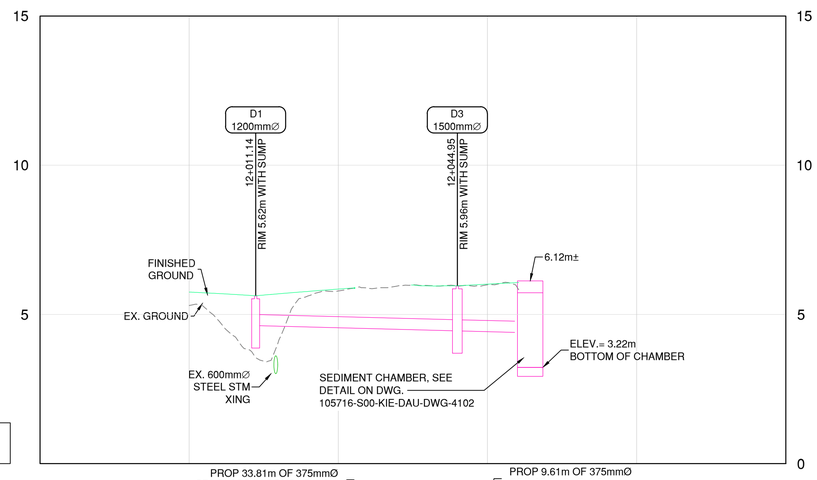
DESIGN BY	B.Y.
DRAWN BY	T.W.
APPROVED	K.B.
DATE	2024-APR-24
SCALE	H 1:500 V: 1:50
VFPA SITE	332-004

WCD MARINE YARD BUILD-OUT
COQUITLAM, BC
STORM PLAN AND PROFILE
SHEET 1 OF 3

SIZE	DWG.	SHEET	REV.
D	105716-S00-KIE-DAU-DWG-4105	1 OF 3	C

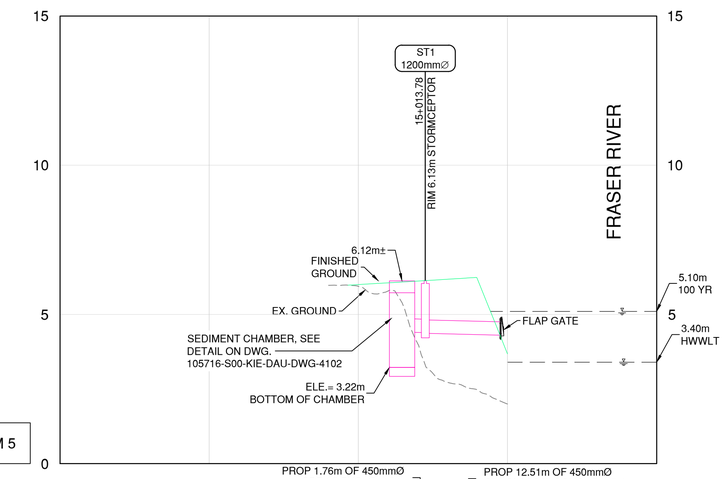






ALIGNMENT: MY STM 2

STORM TYPE, SIZE LENGTH AND GRADE								PROP 33.81m OF 375mmØ C76 CLASS IV CONC @ 0.5%					PROP 9.61m OF 375mmØ SDR 35 PVC @ 0.5%				
STORM SEWER INVERT ELEVATIONS								4.62 (SE)				4.45 (NW)	4.45 (SE)	4.40 (NW)			
GROUND ELEVATION			5.30	5.30			5.79	5.79				5.99	5.99				
CHAINAGE	11+975		12+000		12+011.14		12+025			12+044.95		12+050		12+054.56	12+075		12+100



ALIGNMENT: MY STM 5

STORM TYPE, SIZE LENGTH AND GRADE												PROP 1.76m OF 450mmØ SDR 35 PVC @ 0.5%		PROP 12.51m OF 450mmØ C76 CLASS III CONC @ 0.5%			
STORM SEWER INVERT ELEVATIONS												4.40 (S)	4.39 (N) 4.36 (S)	4.30 (N)			
GROUND ELEVATION						5.94	5.94				2.00	2.00					
CHAINAGE											15+015.54	15+013.78		15+001.27			

PRELIMINARY
NOT FOR CONSTRUCTION
2024–APR–24

VFPA DRAWING NUMBER:
332-004-UT-###

Ref. No.	REFERENCE

Kiewit

Permit to Practice: 1003169
PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — B. YANG # 34281
2024-04-24

No.	Date	REVISION	Dr'n	Ch'd
C	2024-APR-24	ISSUED FOR VFPA PER	T.W.	B.Y.
B	2024-MAR-01	ISSUED FOR DFO FISHERIES ACT AUTHORIZATION REVIEW	T.W.	B.Y.
A	2023-NOV-14	ISSUED FOR 90%	T.W.	B.Y.

DESIGN BY	B.Y.
DRAWN BY	T.W.
APPROVED	K.B.
DATE	2024-APR-24
SCALE	H 1:500 V: 1:50
VFPA SITE	332-004

WCD MARINE YARD BUILD-OUT
COQUITLAM, BC
STORM PLAN AND PROFILE
SHEET 2 OF 3

SIZE	DWG.	SHEET	REV.
D	105716-S00-KIE-DAU-DWG-4106	2 OF 3	C

DATE: 2024/04/19 - 2:31pm
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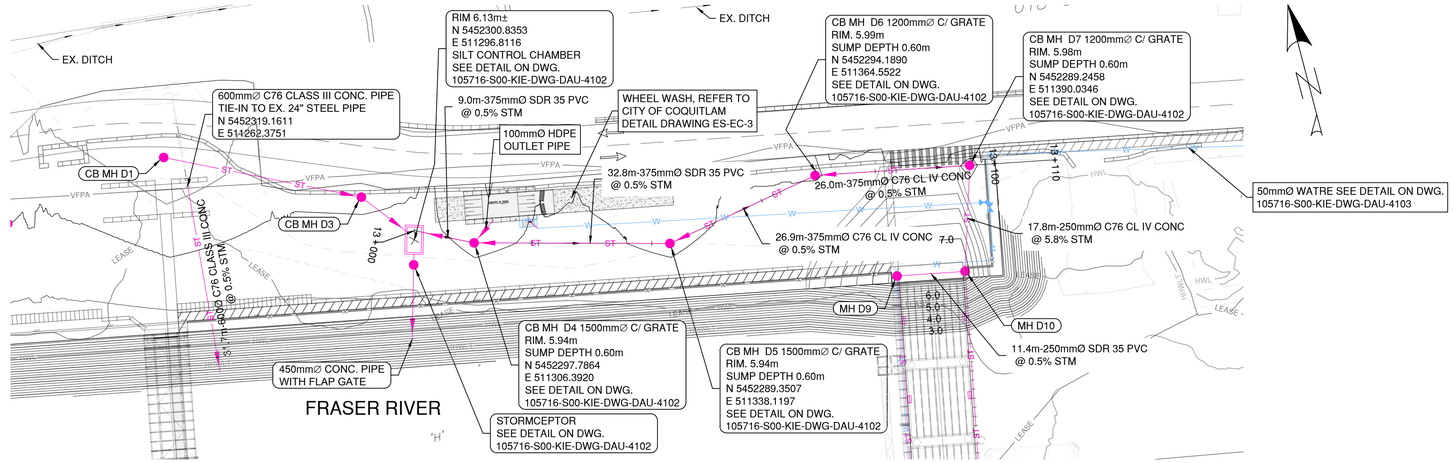

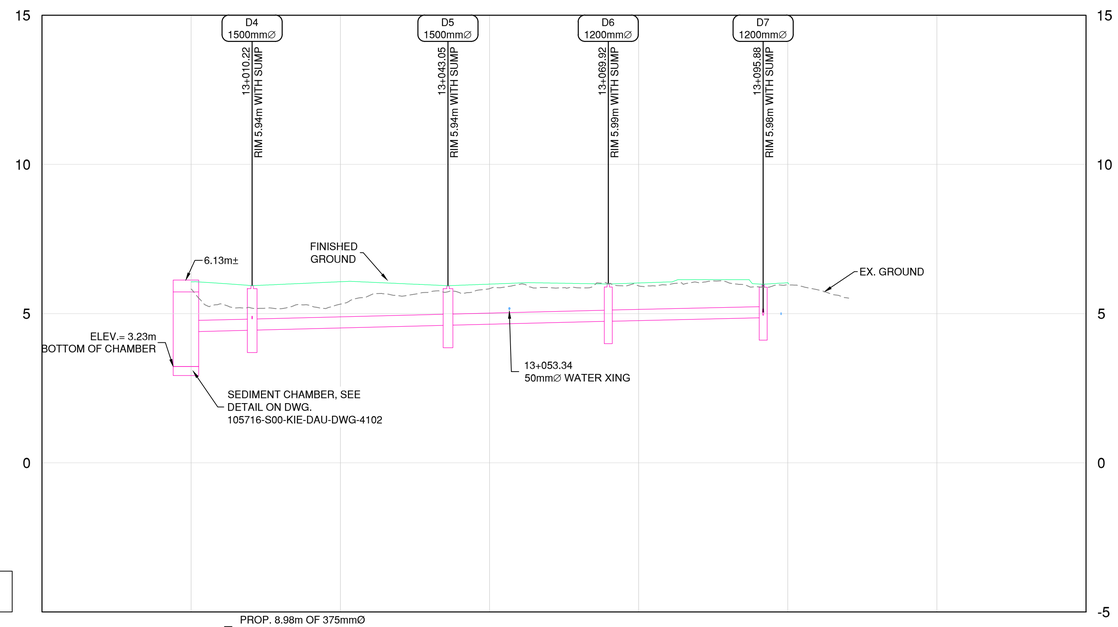

ALIGNMENT: MY STM 3

STORM TYPE, SIZE LENGTH AND GRADE	PROP. 8.98m OF 375mmØ C76 CL III PVC @ 0.5%	PROP. 32.83m OF 375mmØ C76 CL III PVC @ 0.5%	PROP. 26.87m OF 375mmØ C76 CL III CONC @ 0.5%	PROP. 25.96m OF 375mmØ C76 CL III CONC @ 0.5%
STORM SEWER INVERT ELEVATIONS	4.40 (SE), 4.44 (NW)	4.44 (E), 4.82 (NE), 4.61 (W), 4.61 (E)	4.74 (W), 4.74 (E)	4.86 (W), 4.94 (S)
GROUND ELEVATION	5.83, 6.06	5.32, 6.07, 5.83, 5.99	5.93, 6.03	5.97, 6.03

CHAINAGE: 12+975, 13+000, **13+001.24**, **13+010.22**, 13+025, **13+043.05**, 13+050, **13+069.92**, 13+075, **13+095.88**, 13+100, 13+125, 13+150

PRELIMINARY
NOT FOR CONSTRUCTION
2024–APR–24

VFPA DRAWING NUMBER:
332-004-UT-###

Ref. No.	REFERENCE

Kiewit

Permit to Practice: 1003169
PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA B. YANG # 34281
2024-04-24

No.	Date	REVISION	Dr'n	Ch'd
C	2024-APR-24	ISSUED FOR VFPA PER	T.W.	B.Y.
B	2024-MAR-01	ISSUED FOR DFO FISHERIES ACT AUTHORIZATION REVIEW	T.W.	B.Y.
A	2023-NOV-14	ISSUED FOR 90%	T.W.	B.Y.

DESIGN BY	B.Y.
DRAWN BY	T.W.
APPROVED	K.B.
DATE	2024-APR-24
SCALE	H 1:500 V: 1:50
VFPA SITE	332-004

WCD MARINE YARD BUILD-OUT
COQUITLAM, BC
STORM PLAN AND PROFILE
SHEET 3 OF 3

SIZE	DWG.	SHEET	REV.
D	105716-S00-KIE-DAU-DWG-4107	3 OF 3	C

DATE: 2024/04/22 - 11:58am
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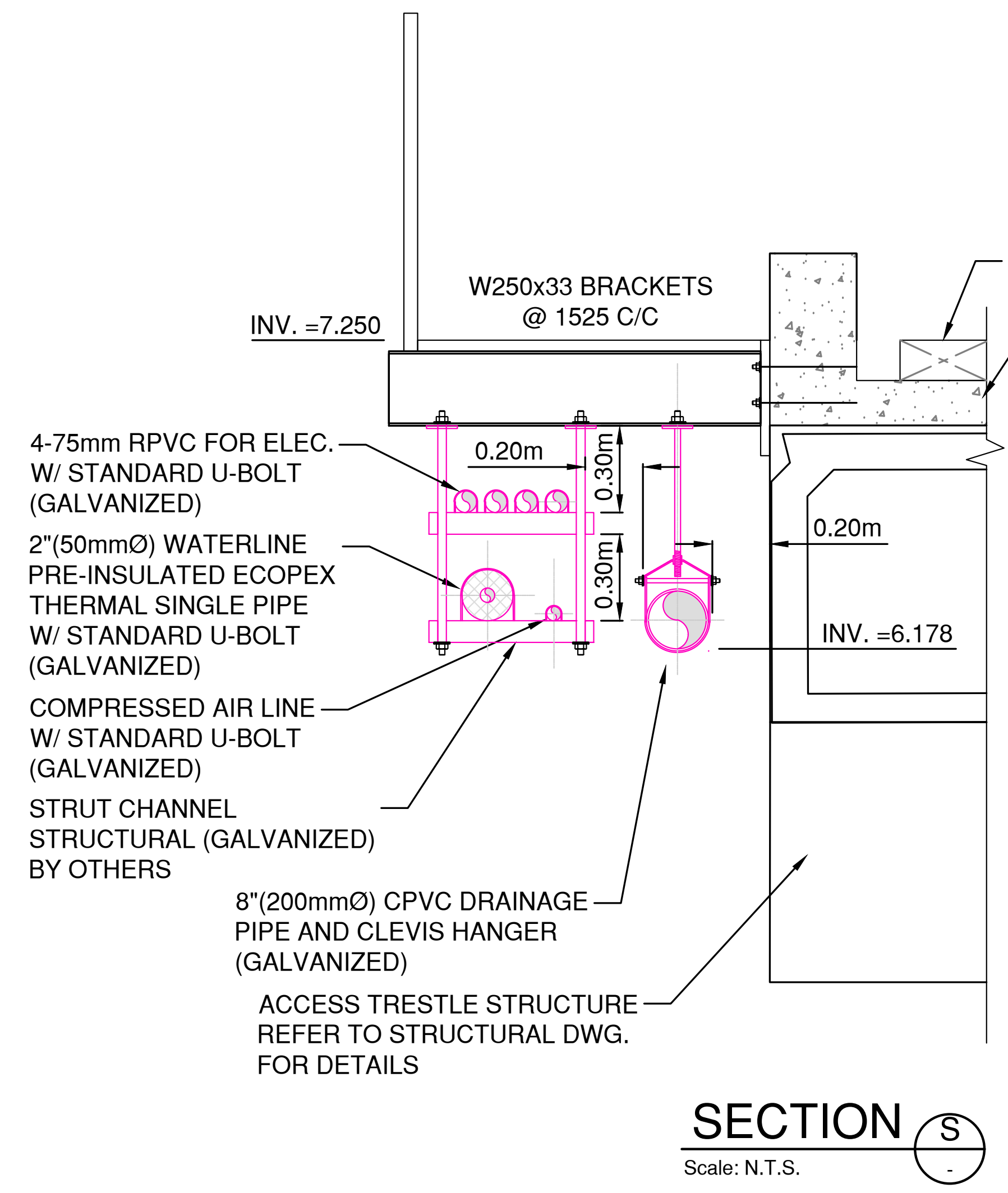

SECTION S
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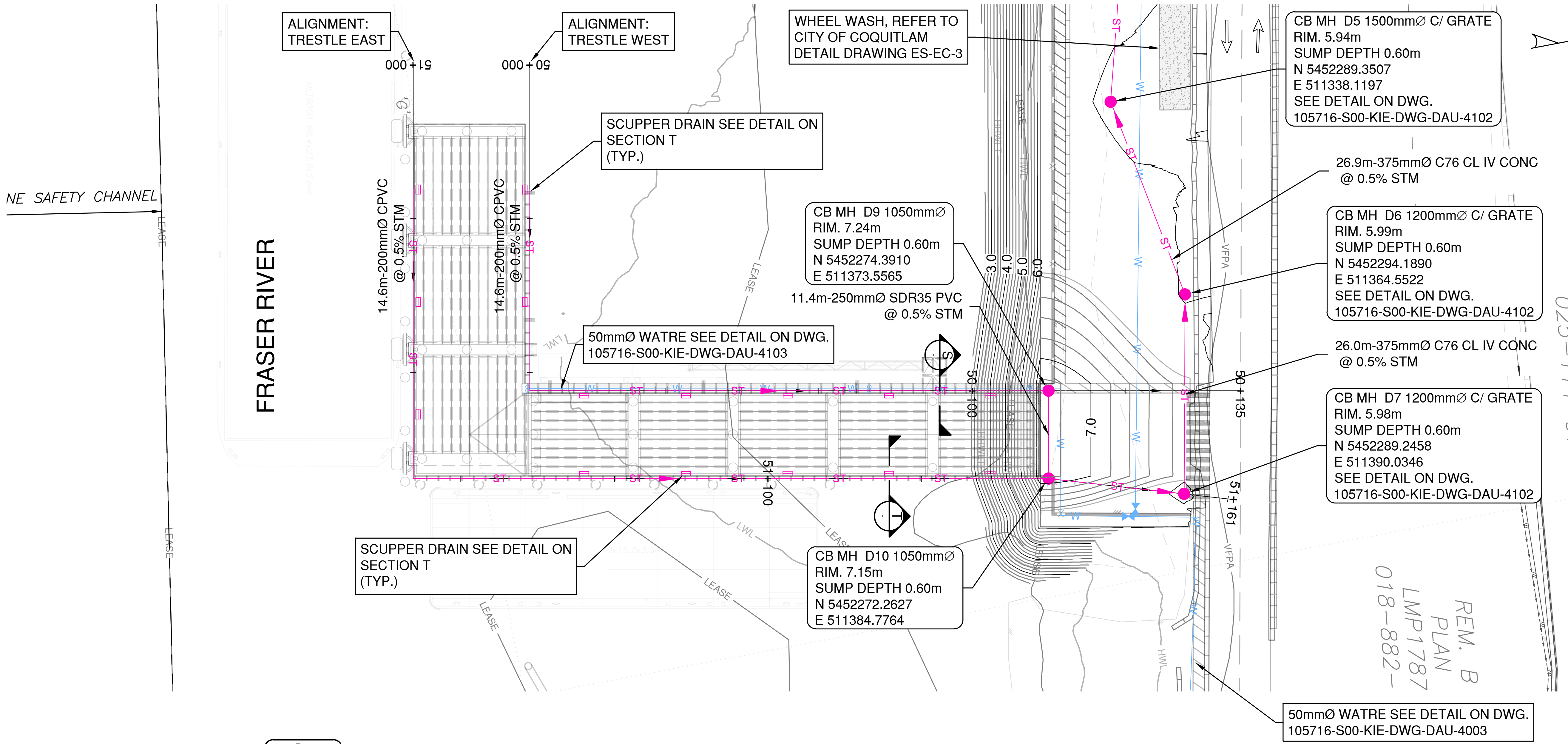

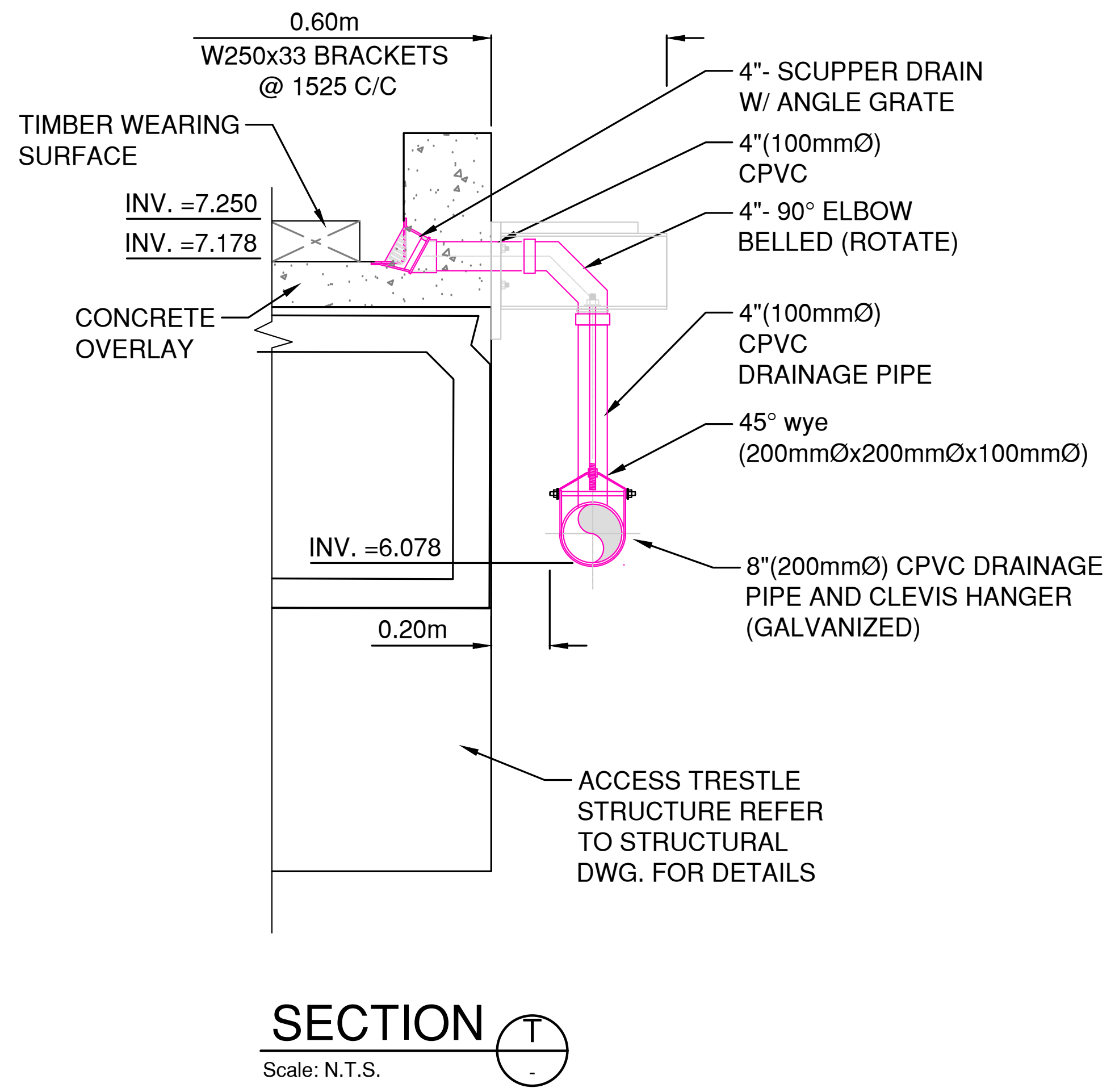

SECTION T
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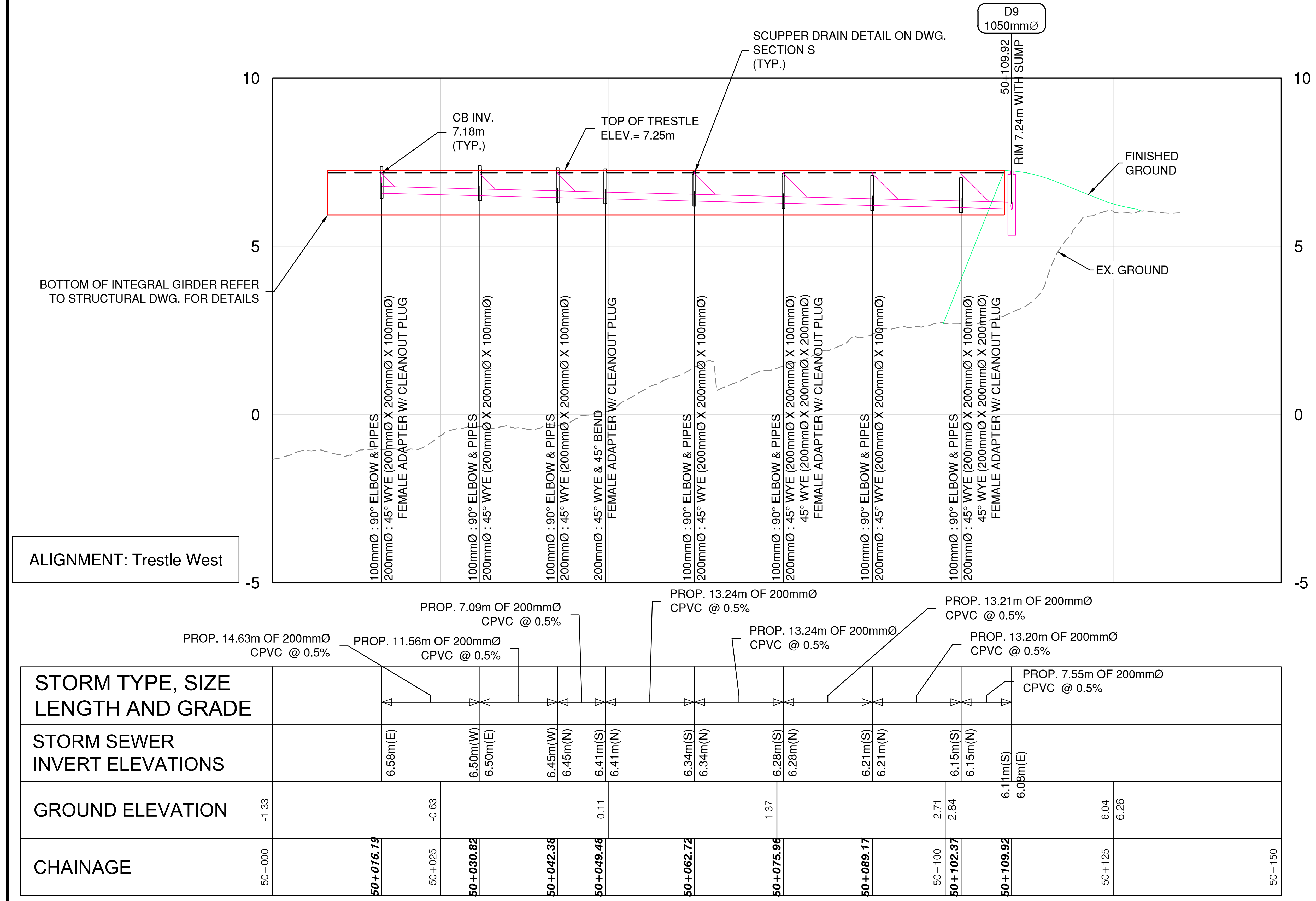
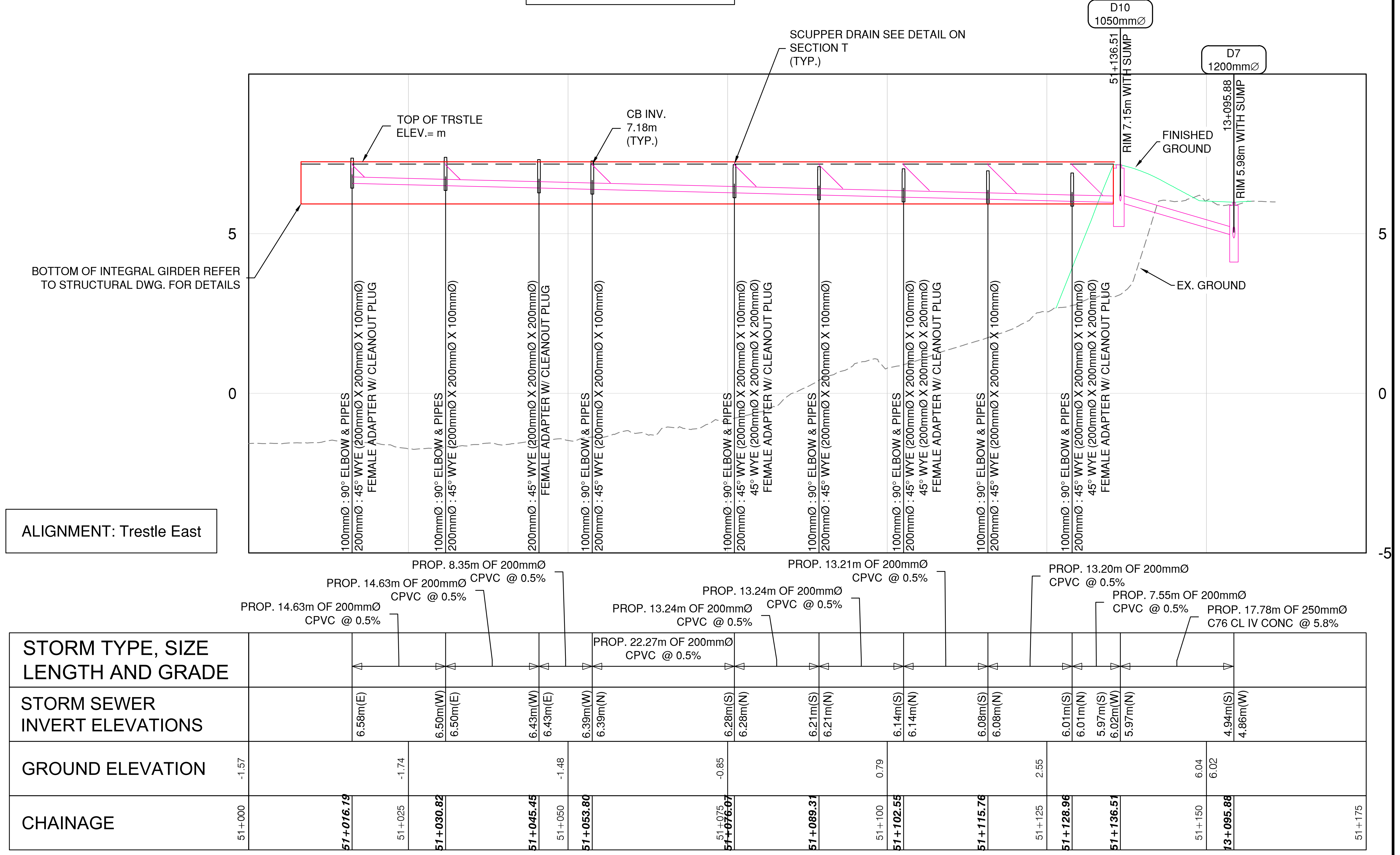
PRELIMINARY
NOT FOR CONSTRUCTION
2024-APR-24





VFPA DRAWING NUMBER:
332-004-UT-###

Ref. No.	REFERENCE

Kiewit

Permit to Practice: 1003169

B. YANG
34281
2024-04-24

No.	Date	REVISION	Dr'n	Ch'd
C	2024-APR-24	ISSUED FOR VFP PER	T.W.	B.Y.
B	2024-MAR-01	ISSUED FOR DFO FISHERIES ACT AUTHORIZATION REVIEW	T.W.	B.Y.
A	2023-NOV-14	ISSUED FOR 90%	T.W.	B.Y.

DESIGN BY B.Y,
DRAWN BY T.W.
APPROVED K.B.
DATE 2024-APR-24
SCALE H 1:500 V: 1:50
VFPA SITE 332-004

WCD MARINE YARD BUILD-OUT
COQUITLAM, BC
TRESTLE DRAINAGE PLAN AND PROFILE
.

SIZE D
DWG. **105716-S00-KIE-DAU-DWG-4108**
SHEET 1 OF 1
REV. C

DATE: 2024/04/19 - 2:22pm
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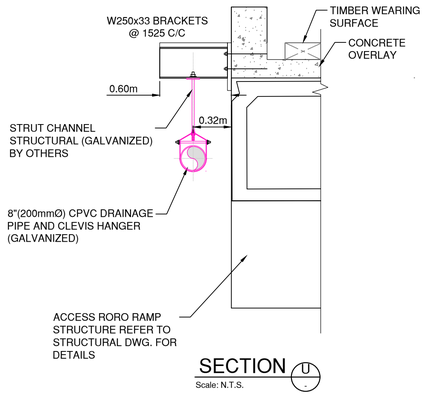

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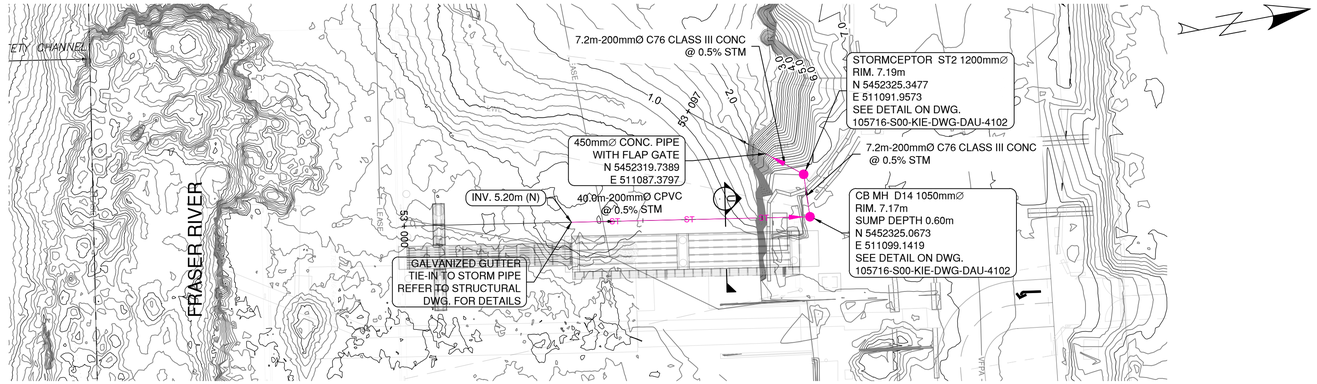

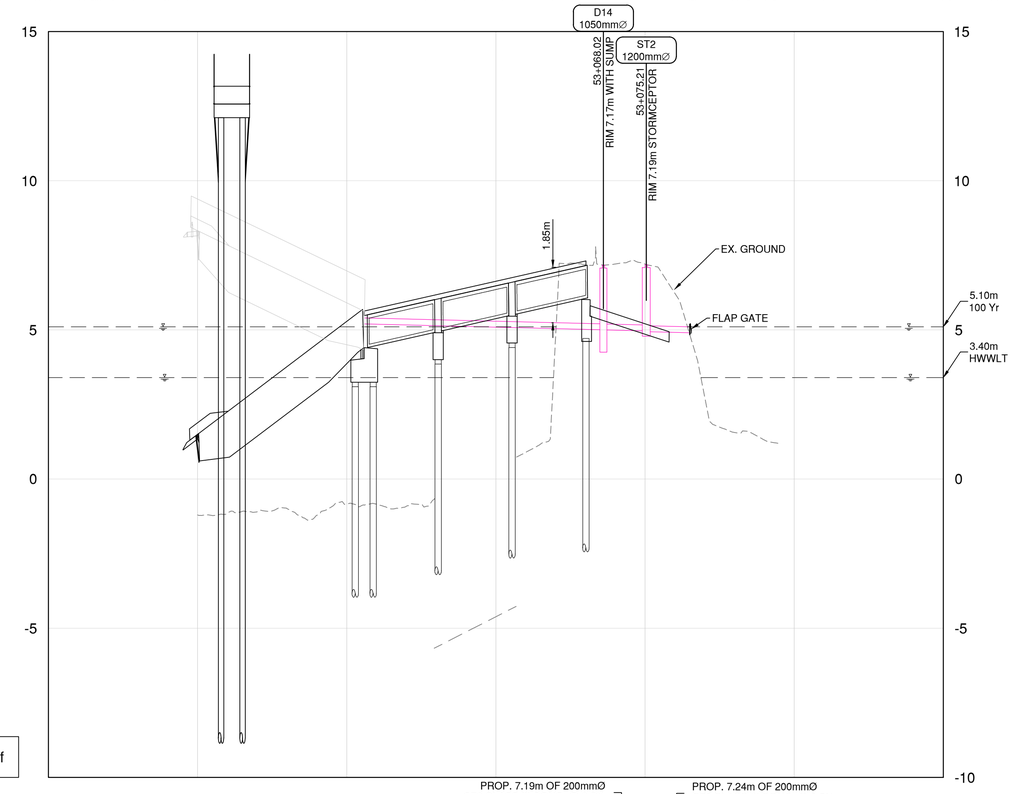

ALIGNMENT: Roll on off

STORM TYPE, SIZE LENGTH AND GRADE						PROP. 40.00m OF 200mmØ CPVC @ 0.5%			PROP. 7.19m OF 200mmØ C76 CLASS III CONC @ 0.5%		PROP. 7.24m OF 200mmØ C76 CLASS III CONC @ 0.5%				
STORM SEWER INVERT ELEVATIONS						5.20m(N)			5.00m(S)	5.00m(W)	4.99m(E)	4.94m(SW)	4.90m(NE)		
GROUND ELEVATION			-1.21	-1.21	-0.84	-0.84					7.20	7.20			
CHAINAGE	52+975		53+000		53+025	53+028.02	53+050		53+068.02	53+075.21		53+082.45	53+100		53+125

PRELIMINARY
NOT FOR CONSTRUCTION
2024–APR–24

VFPA DRAWING NUMBER:
332-004-UT-###

Ref. No.	REFERENCE

Kiewit

Permit to Practice: 1003169
PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA B. YANG # 34281
2024-04-24

No.	Date	REVISION	Dr'n	Ch'd
C	2024-APR-24	ISSUED FOR VFPA PER	T.W.	B.Y.
B	2024-MAR-01	ISSUED FOR DFO FISHERIES ACT AUTHORIZATION REVIEW	T.W.	B.Y.
A	2023-NOV-14	ISSUED FOR 90%	T.W.	B.Y.

DESIGN BY	B.Y.
DRAWN BY	T.W.
APPROVED	K.B.
DATE	2024-APR-24
SCALE	H 1:500 V: 1:50
VFPA SITE	332-004

WCD MARINE YARD BUILD-OUT
COQUITLAM, BC
RORO RAMP DRAINAGE PLAN AND PROFILE
.

SIZE	DWG.	SHEET	REV.
D	105716-S00-KIE-DAU-DWG-4109	1 OF 1	C

DATE: 2024/04/19 - 2:19pm
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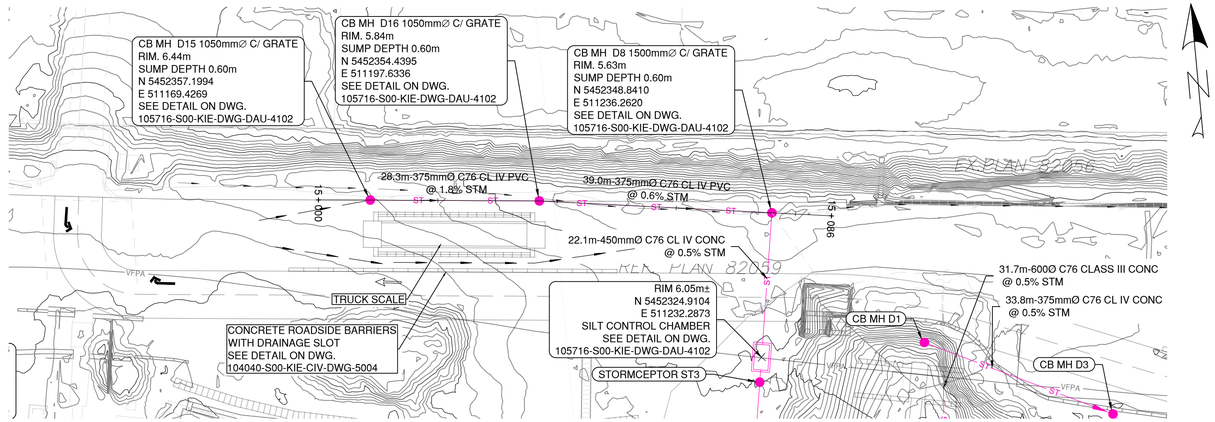

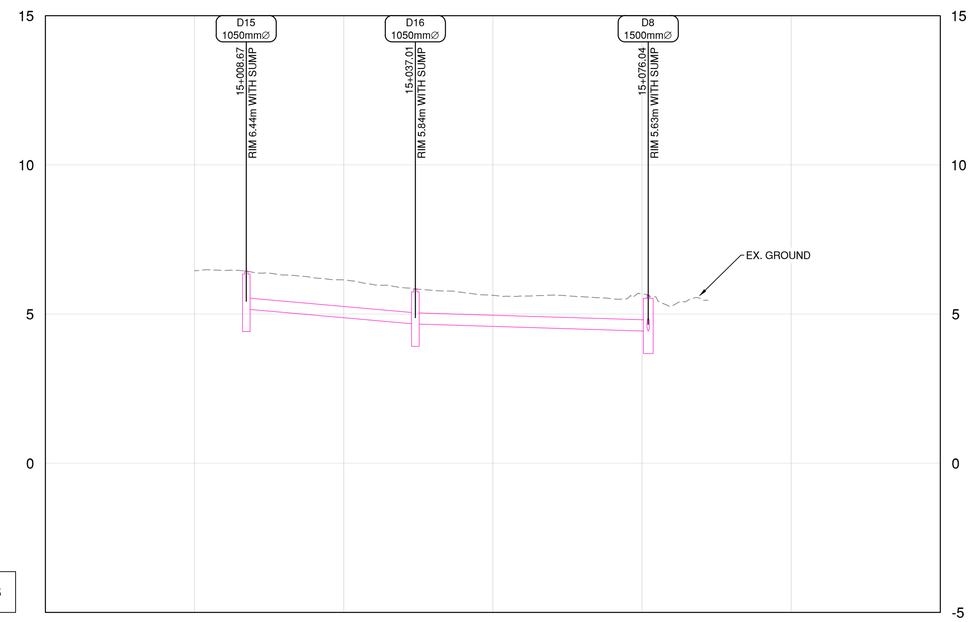

ALIGNMENT: MY STM 6

STORM TYPE, SIZE LENGTH AND GRADE			PROP. 28.34m OF 375mmØ SDR35 PVC @ 1.8%		PROP. 39.03m OF 375mmØ SDR35 PVC @ 0.6%			
STORM SEWER INVERT ELEVATIONS			5.17m(E)	4.67m(W) 4.67m(E)		4.43m(W) 4.43m(S)		
GROUND ELEVATION								
CHAINAGE	14+975	15+000	15+008.67	15+025	15+037.01	15+050	15+075 15+076.04	15+100	15+125

PRELIMINARY
NOT FOR CONSTRUCTION
2024–APR–24

VFPA DRAWING NUMBER:
332-004-UT-###

Ref. No.	REFERENCE

Kiewit

Permit to Practice: 1003169
PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA B. YANG # 34281
2024-04-24

No.	Date	REVISION	Dr'n	Ch'd
A	2024-APR-24	ISSUED FOR VFPA PER	T.W.	B.Y.

DESIGN BY	B.Y.
DRAWN BY	T.W.
APPROVED	K.B.
DATE	2024-APR-24
SCALE	H 1:500 V: 1:50
VFPA SITE	332-004

WCD MARINE YARD BUILD-OUT
COQUITLAM, BC
TRUCK SCALE DRAINAGE PLAN AND PROFILE
.

SIZE	DWG.	SHEET	REV.
D	105716-S00-KIE-DAU-DWG-4110	1 OF 1	A

DATE: 2024/04/19 2:15pm
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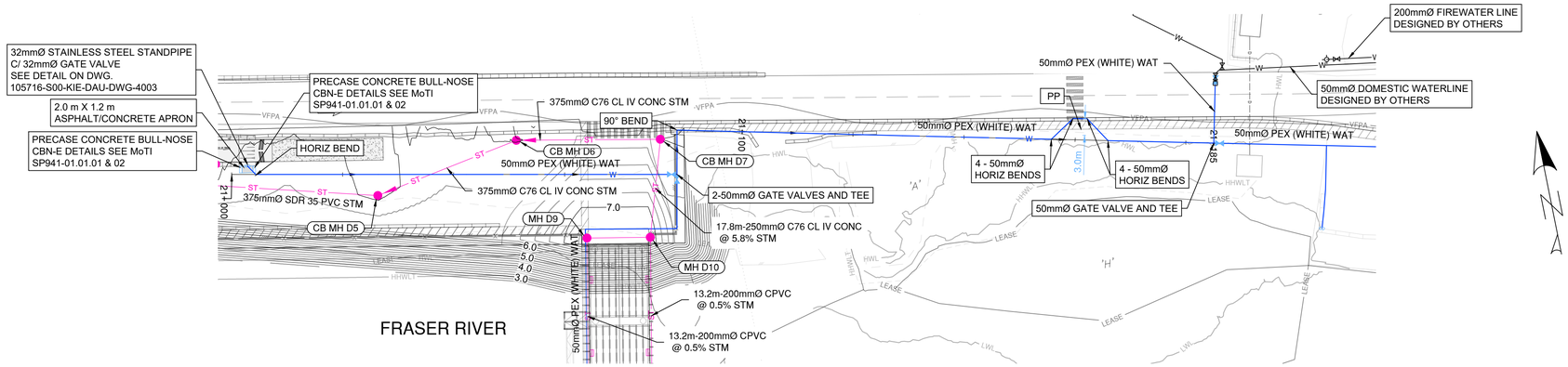

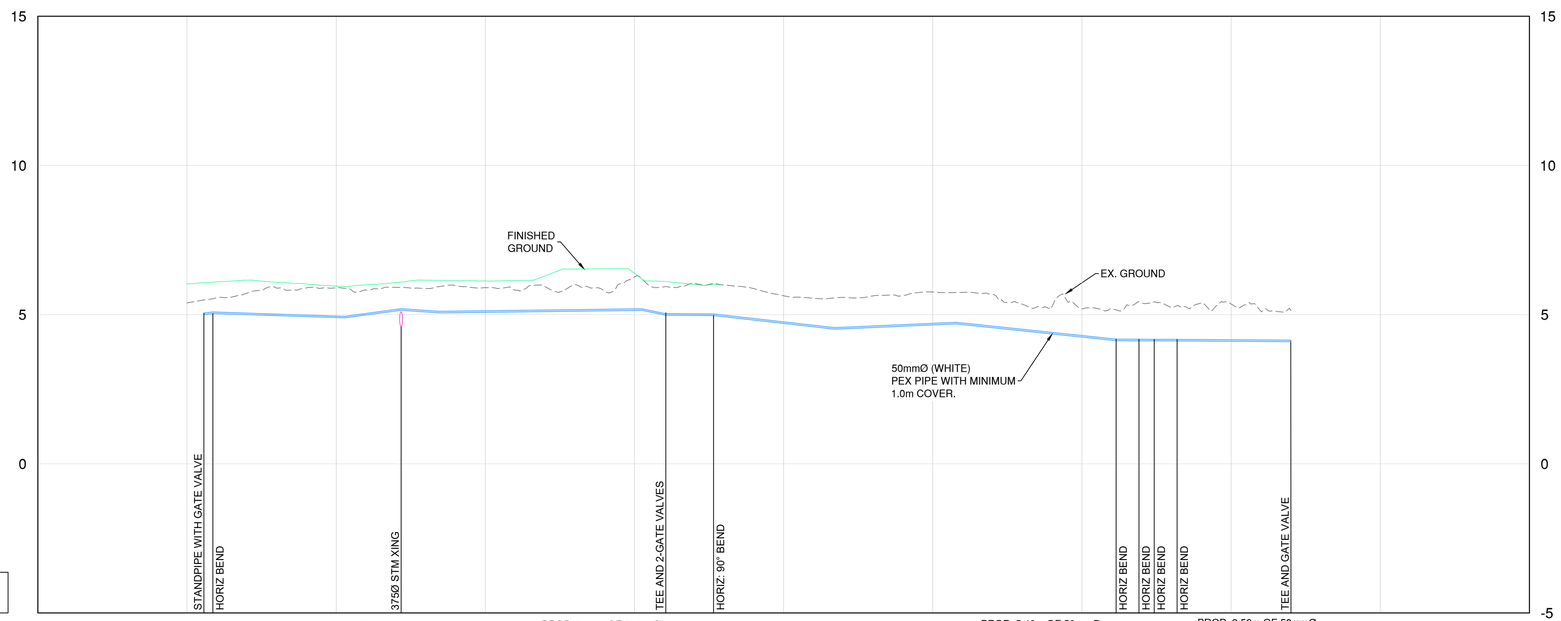

ALIGNMENT: MY WAT 1

STORM TYPE, SIZE LENGTH AND GRADE

PROP. 2.12m OF 50mmØ PEX (WHITE) @ 1.8%
PROP. 22.07m OF 50mmØ PEX (WHITE) @ 0.7%
PROP. 9.49m OF 50mmØ PEX (WHITE) @ 2.7%
PROP. 6.40m OF 50mmØ PEX (WHITE) @ 1.4%
PROP. 33.99m OF 50mmØ PEX (WHITE) @ 0.2%
PROP. 3.97m OF 50mmØ PEX (WHITE) @ 4.1%
PROP. 8.00m OF 50mmØ PEX (WHITE) @ 0.2%
PROP. 20.34m OF 50mmØ PEX (WHITE) @ 2.2%
PROP. 20.34m OF 50mmØ PEX (WHITE) @ 0.9%
PROP. 26.82m OF 50mmØ PEX (WHITE) @ 2.1%
PROP. 5.42m OF 50mmØ PEX (WHITE) @ 0.1%
PROP. 2.56m OF 50mmØ PEX (WHITE) @ 0.1%
PROP. 5.42m OF 50mmØ PEX (WHITE) @ 0.1%
PROP. 19.07m OF 50mmØ PEX (WHITE) @ 0.1%

CHAINAGE	STORM SEWER INVERT ELEVATIONS	GROUND ELEVATION
20+975		
21+000		5.39 6.03
21+002.83	5.00 (SE)	
21+004.33	5.04 (NW) 5.04 (E)	
21+025		5.91 5.96
21+026.40	4.89 (W) 4.89 (E)	
21+035.88	5.15 (W) 5.15 (E)	
21+042.29	5.06 (W) 5.06 (E)	
21+050		5.91 6.13
21+075		6.26 6.38
21+076.28	5.14 (W) 5.14 (E)	
21+080.24	4.98 (W) 4.98 (S) 4.98 (N)	
21+088.24	4.97 (S) 4.97 (E)	
21+100		5.63
21+108.58	4.51 (W) 4.51 (E)	
21+125		5.76
21+128.91	4.69 (W) 4.69 (E)	
21+150		5.19
21+155.73	4.13 (W) 4.13 (NE)	
21+159.55	4.12 (SW) 4.12 (E)	
21+162.12	4.12 (W)	
21+165.94	4.12 (NW) 4.12 (E)	
21+175		5.36
21+185.01	4.09 (W) 4.09 (N) 4.09 (E)	
21+200		
21+225		

PRELIMINARY
NOT FOR CONSTRUCTION
2024–APR–24

VFPA DRAWING NUMBER:
332-004-UT-###

Ref. No.	REFERENCE

Kiewit

Permit to Practice: 1003169
B. YANG
34281
2024-04-24

No.	Date	REVISION	Dr'n	Ch'd
B	2024-APR-24	ISSUED FOR VFPA PER	T.W.	B.Y.
A	2023-NOV-14	ISSUED FOR 90%	T.W.	B.Y.

DESIGN BY	B.Y,
DRAWN BY	T.W.
APPROVED	K.B.
DATE	2024-APR-24
SCALE	H 1:500 V: 1:50
VFPA SITE	332-004

WCD MARINE YARD BUILD-OUT
COQUITLAM, BC
WATERLINE PLAN AND PROFILE
SHEET 1 OF 3

SIZE	DWG.	SHEET	REV.
D	105716-S00-KIE-DAU-DWG-4201	1 OF 3	B

DATE: 2024/04/19 - 2:10pm
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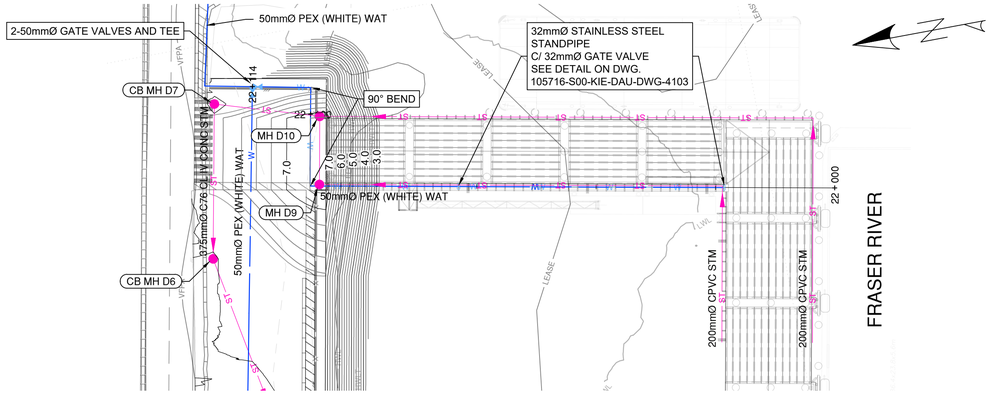
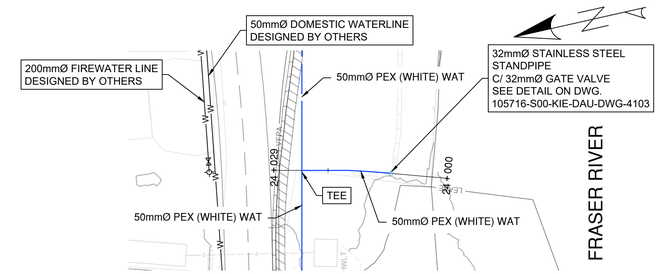
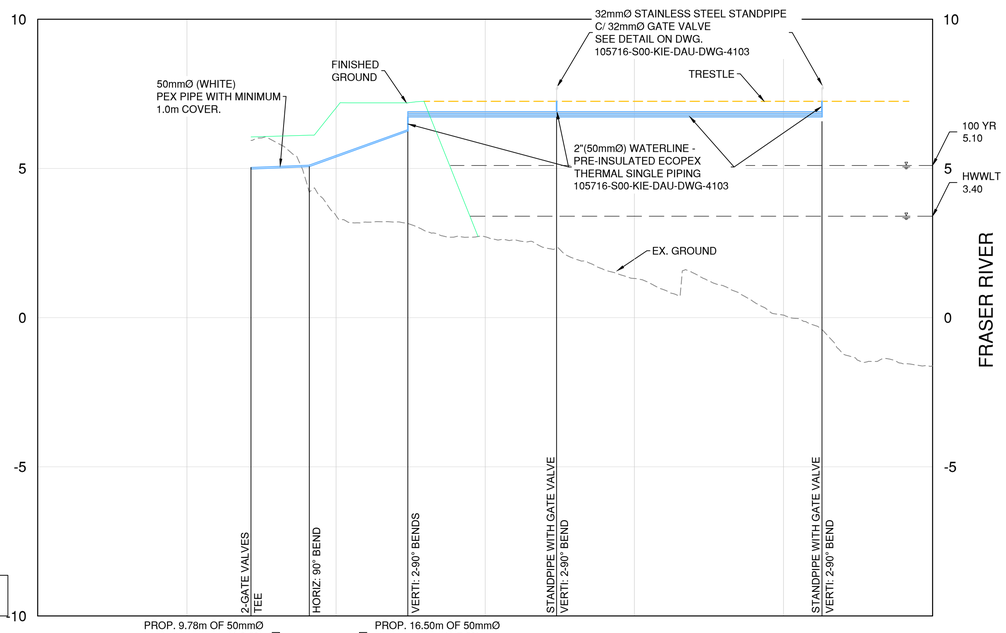
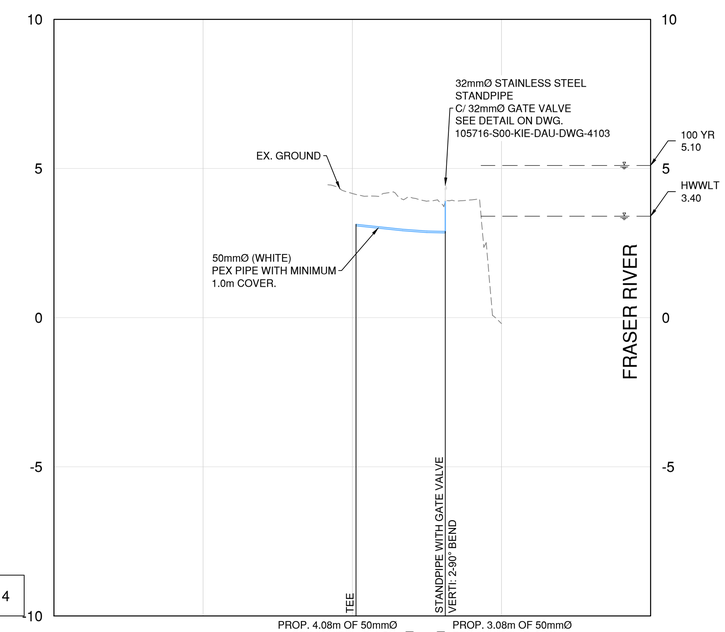






ALIGNMENT: MY WAT 2

WATER TYPE, SIZE LENGTH AND GRADE			PROP. 9.78m OF 50mmØ PEX (WHITE) @ 0.8%		PROP. 16.50m OF 50mmØ PEX (WHITE) @ 7.2%			PROP. 24.94m OF 50mmØ PEX (WHITE) @ 0.0%		PROP. 44.48m OF 50mmØ PEX (WHITE) @ 0.0%															
WATER SEWER INVERT ELEVATIONS			4.98 (N) 4.98 (W) 4.98 (S)		5.06 (N) 5.06 (W)			6.25 (E) 6.79 (S)		6.79 (S) 6.79 (N)													6.79 (N)		
GROUND ELEVATION						3.42 3.42			2.71 2.71			1.31 1.31				0.08 0.08						-1.62 -1.62			
CHAINAGE	22+150	22+125	**22+114.26**	**22+104.47**	22+100		**22+087.97**	22+075		**22+063.03**	22+050				22+025		**22+018.56**			22+000					



ALIGNMENT: MY WAT 4

WATER TYPE, SIZE LENGTH AND GRADE								PROP. 7.82m OF 50mmØ PEX (WHITE) @ 2.1%					PROP. 4.08m OF 50mmØ PEX (WHITE) @ 1.5%			PROP. 3.08m OF 50mmØ PEX (WHITE) @ 0.4%								
WATER SEWER INVERT ELEVATIONS								3.08 (E) 3.08 (W) 3.08 (S)					2.91 (N) 2.91 (S)			2.85 (N) 2.85 (S)			2.84 (N)					
GROUND ELEVATION										4.16											-0.20				
CHAINAGE	24+075			24+050						**24+024.39**			**24+016.57**			**24+012.50**			**24+009.42**		24+000			23+975	

PRELIMINARY
NOT FOR CONSTRUCTION
2024–APR–24

VFPA DRAWING NUMBER:
332-004-UT-###

Ref. No.	REFERENCE

Kiewit

Permit to Practice: 1003169
PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — B. YANG # 34281
2024-04-24

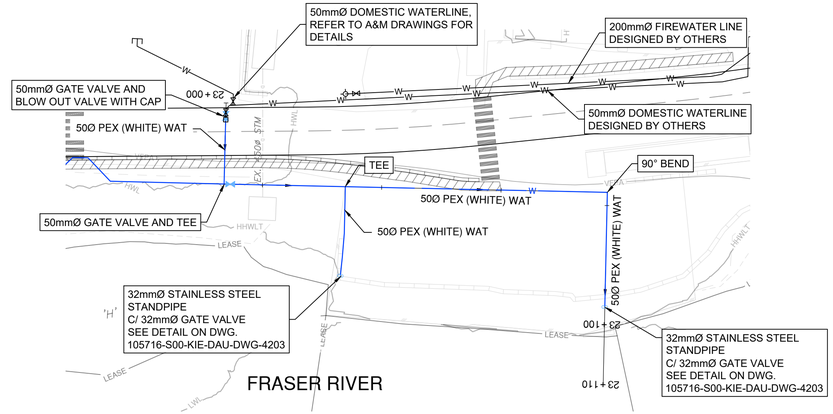
No.	Date	REVISION	Dr'n	Ch'd
B	2024-APR-24	ISSUED FOR VFPA PER	T.W.	B.Y.
A	2023-NOV-14	ISSUED FOR 90%	T.W.	B.Y.

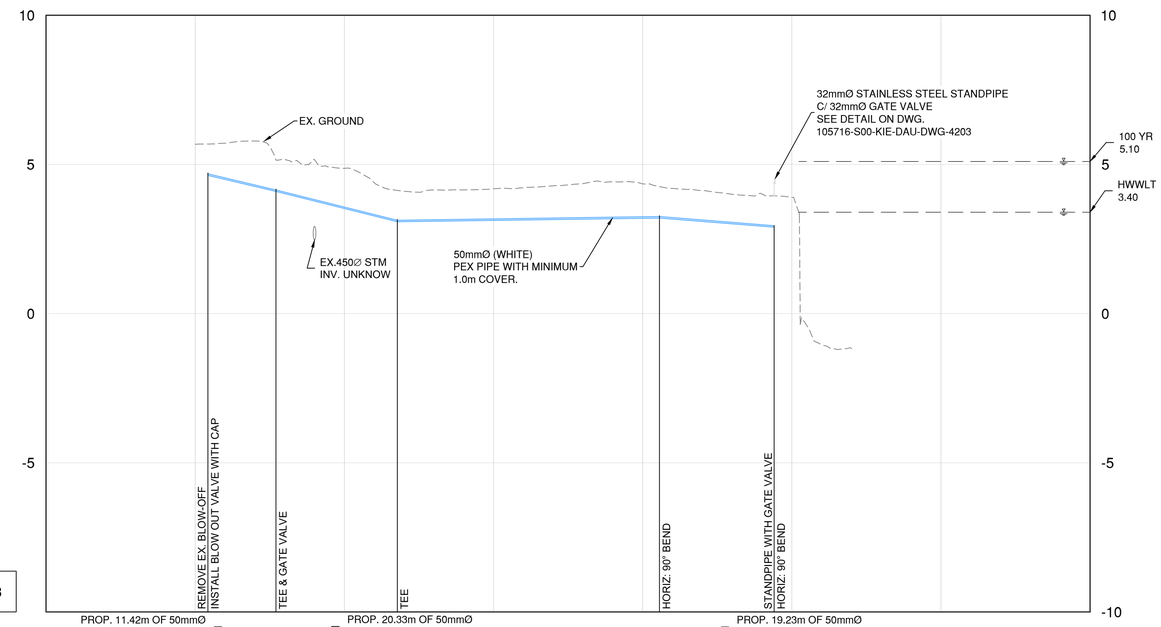
DESIGN BY	B.Y.
DRAWN BY	T.W.
APPROVED	K.B.
DATE	2024-APR-24
SCALE	H 1:500 V: 1:50
VFPA SITE	332-004

WCD MARINE YARD BUILD-OUT
COQUITLAM, BC
WATERLINE PLAN AND PROFILE
SHEET 2 of 3

SIZE	DWG.	SHEET	REV.
D	105716-S00-KIE-DAU-DWG-4202	2 OF 3	B

DATE: 2024/04/19 2:07pm
PATH: C:\Users\ShunPa.Wang\DC\ACCDocs\Kiewit\WCD Marine Yard\Project Files\40 Design Eng\30 CIVCAD\Sheets\\105716-S00-KIE-DAU-DWG-4202.dwg





ALIGNMENT: MY WAT 3

WATER TYPE, SIZE LENGTH AND GRADE							PROP. 11.42m OF 50mmØ PEX (WHITE) @ 4.7%			PROP. 20.33m OF 50mmØ PEX (WHITE) @ 5.0%		PROP. 43.93m OF 50mmØ PEX (WHITE) @ 0.3%				PROP. 19.23m OF 50mmØ PEX (WHITE) @ 1.6%			
WATER SEWER INVERT ELEVATIONS							4.63 (S)	4.09 (W) 4.09 (N)	4.09 (E)		3.08 (W) 3.08 (S)	3.08 (E)			3.20 (W) 3.20 (S)		2.90 (N)		
GROUND ELEVATION		5.68			4.87					4.19			4.35				3.90		
CHAINAGE	22+975		23+000	**23+002.12**		**23+013.54**	23+025				**23+033.87**	23+050		23+075	**23+077.81**		**23+097.04**	23+100	23+125	23+150

PRELIMINARY
NOT FOR CONSTRUCTION
2024–APR–24

VFPA DRAWING NUMBER: **332-004-UT-###**

Ref. No.	REFERENCE

Kiewit

Permit to Practice: 1003169
PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA B. YANG # 34281
2024-04-24

No.	Date	REVISION	Dr'n	Ch'd
B	2024-APR-24	ISSUED FOR VFPA PER	T.W.	B.Y.
A	2023-NOV-14	ISSUED FOR 90%	T.W.	B.Y.

DESIGN BY	B.Y.
DRAWN BY	T.W.
APPROVED	K.B.
DATE	2024-APR-24
SCALE	H 1:500 V: 1:50
VFPA SITE	332-004

WCD MARINE YARD BUILD-OUT
COQUITLAM, BC
WATERLINE PLAN AND PROFILE
SHEET 3 OF 3

SIZE **D** | DWG. **105716-S00-KIE-DAU-DWG-4203** | SHEET **3 OF 3** | REV. **B**

DATE: 2024/04/22 , 11:11am
PATH: C:\Users\ShunPa.Wang\DC\ACCDocs\Kiewit\WCD Marine Yard\Project Files\40 Design Eng\30 CIV\CAD\Sheets\105716-S00-KIE-DAU-DWG-4203.dwg