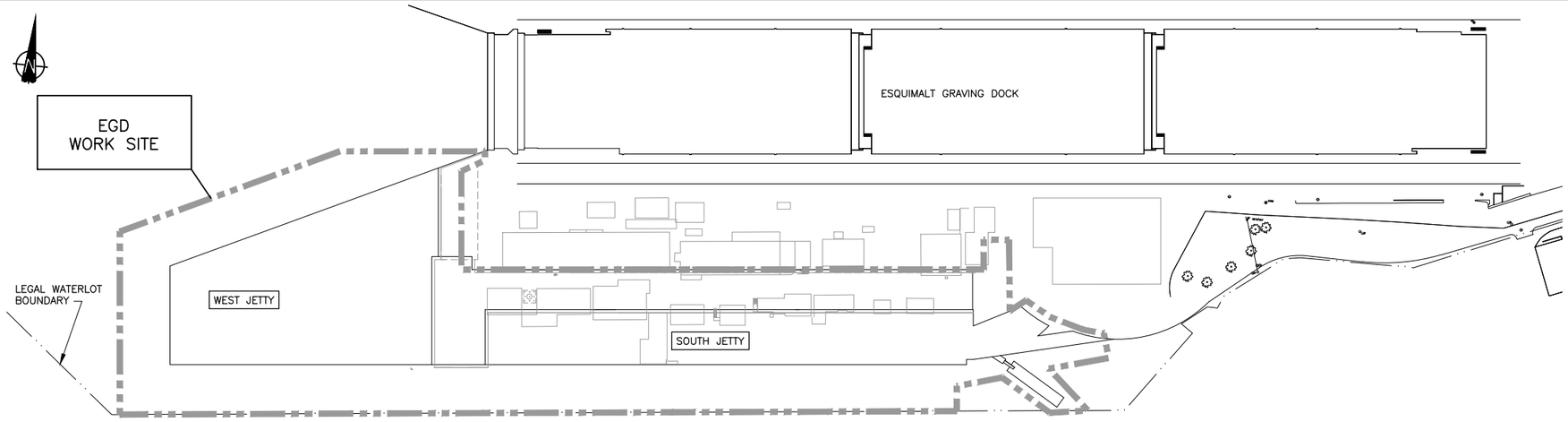

SITE PLAN
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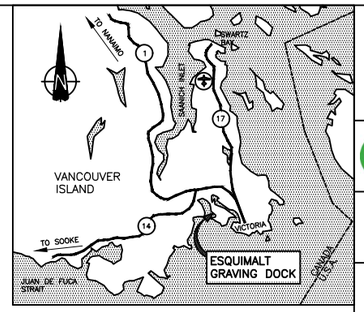
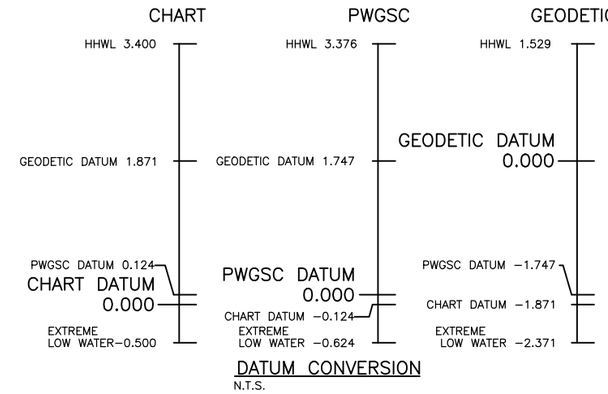


KEY PLAN
N.T.S.

DRAWING LIST

DRAWING NUMBER	TITLE
C 1	SITE PLAN AND DRAWING LIST
C 2	NOTES AND ABBREVIATIONS
C 3	EXISTING BATHYMETRY AND SURVEY INFORMATION
C 4	EXISTING CONDITIONS AND GEOTECHNICAL INFORMATION
C 5	WEST JETTY – GENERAL ARRANGEMENT – PLAN
C 6	SOUTH JETTY – GENERAL ARRANGEMENT – PLAN
C 7	WEST AND SOUTH JETTY – GENERAL ARRANGEMENT – SECTIONS
C 8	CONTRACTOR'S WORK AREA AND SITE ACCESS
C 9	NOT USED
C 10	SOUTH JETTY EXISTING AND MODIFIED PLANS
C 11 TO C 13	NOT USED
C 14	PHOTOGRAPHS OF EXISTING CONDITIONS – SHEET 1
C 15	PHOTOGRAPHS OF EXISTING CONDITIONS – SHEET 2
C 16	PHOTOGRAPHS OF EXISTING CONDITIONS – SHEET 3
C 17	PHOTOGRAPHS OF EXISTING CONDITIONS – SHEET 4
C 18 TO C 20	NOT USED
C 21	REQUIRED DREDGE PLAN
C 22	DREDGE CROSS SECTIONS – SHEET 1
C 23	DREDGE CROSS SECTIONS – SHEET 2
C 24	NOT USED
C 25	DREDGE DETAILS – SHEET 1
C 26	DREDGE DETAILS – SHEET 2
C 27	MATERIAL OFFLOADING, HANDLING, STORAGE, AND TURBIDITY CONTROL DETAILS
C 28	ENGINEERED CAPPING PLAN
C 29	ENGINEERED CAPPING CROSS SECTIONS – SHEET 1
C 30	ENGINEERED CAPPING CROSS SECTIONS – SHEET 2
C 31	NOT USED
C 32	ENGINEERED CAPPING DETAILS – SHEET 1
C 33	ENGINEERED CAPPING DETAILS – SHEET 2
C 34 TO C45	NOT USED
C 46	SERVICES TERMINATION PITS
C 47	PHOTOGRAPHS OF AS-BUILT CONDITIONS
C 48	WEST JETTY NAVIGATION MARKER DOLPHINS AS-BUILT
C 49	PILE REPAIRS AS-BUILTS – SHEET 1
C 50	PILE REPAIRS AS-BUILTS – SHEET 2
C 51	PILE REPAIRS AS-BUILTS – SHEET 3
CSM 1	WEST AND SOUTH JETTY – EXISTING CONDITIONS – FENDER REMOVAL – SHEET 1
CSM 2	WEST AND SOUTH JETTY – EXISTING CONDITIONS – FENDER REMOVAL – SHEET 2
CSM 3	WEST AND SOUTH JETTY – SHEET PILE WALL – EXISTING CONDITIONS
CSM 4	SHEET PILE WALL MODIFICATIONS – PLAN AND ELEVATIONS
CSM 5	SHEET PILE WALL MODIFICATIONS – NOTES AND SECTIONS
CSM 6	SHEET PILE WALL MODIFICATIONS – CONSTRUCTION SEQUENCE
CSM 7	SHEET PILE WALL MODIFICATIONS – DETAILS – SHEET 1
CSM 8	SHEET PILE WALL MODIFICATIONS – DETAILS – SHEET 2
CSM 9	SHEET PILE WALL MODIFICATIONS – DETAILS – SHEET 3
CSM 10	PILE DRIVING RECORDS – SHEET 1
CSM 11	PILE DRIVING RECORDS – SHEET 2
CSM 12	PILE DRIVING RECORDS – SHEET 3
CSM 13	PILE DRIVING RECORDS – SHEET 4
D 1	WEST JETTY – EXISTING DECK STRUCTURE AND DEMOLITION – PLAN
D 2	SOUTH JETTY – EXISTING DECK STRUCTURE AND DEMOLITION – PLAN
D 3	SOUTH JETTY – EXISTING DECK STRUCTURE AND DEMOLITION – SECTIONS
D 4	WEST JETTY – DEMOLITION ITEM DESCRIPTION AND ACTION TABLE
D 5	WEST AND SOUTH JETTY – DEMOLITION ITEM DESCRIPTION AND ACTION TABLE
D 6	SOUTH JETTY – EXISTING UNDER-DECK CONDITIONS AND DEMOLITION – PLAN
D 7	EXISTING HIGH MAST LIGHT AREA AND DEMOLITION – SHEET 1
D 8	EXISTING HIGH MAST LIGHT AREA AND DEMOLITION – SHEET 2
D 9	RECORD DRAWINGS VARIOUS
E 1	EXISTING SERVICES – CABLE TRAY LAYOUT – PLAN, SECTIONS AND DETAILS
E 2	EXISTING SERVICES – ELECTRICAL CABLES AND KIOSKS – PLAN AND PHOTOS
E 3	EXISTING SERVICES – SUBSTATION CABLE TRAY AND DUCTS – PLAN, SECTIONS AND DETAILS
E 4	SERVICES – CABLE TRAY AND CABLES LAYOUT – PLAN
E 5 TO E 8	NOT USED
E 9	EXISTING SERVICES – ELECTRICAL CABLE SCHEDULE
E 10	MODIFICATIONS TO SERVICES – ELECTRICAL CABLE SCHEDULE
E 11	SOUTH JETTY – MODIFICATIONS TO CATHODIC PROTECTION SYSTEM
E 12	SERVICES – ELECTRICAL – TERMINATION DETAILS
M 1	EXISTING SERVICES – FIRE WATER MAIN AND KIOSKS – PLAN, SECTIONS AND DETAIL
M 2	EXISTING SERVICES – SANITARY SEWER – PLAN
M 3	EXISTING SERVICES – COMPRESSED AIR – PLAN
M 4	SERVICES – FIRE WATER MAIN – PLAN AND DETAILS
M 5	SERVICES – SANITARY SEWER – PLAN AND SECTION
M 6	SERVICES – COMPRESSED AIR – PLAN
M 7	NOT USED
M 8	SERVICES FIRE WATER MAIN, SANITARY SEWER AND COMPRESSED AIR – DETAILS
M 9	NOT USED
M 10	NOT USED

DRAWING NUMBER	TITLE
S 1 TO S 109	NOT USED
S 110	CONSTRUCTION AT HIGH MAST LIGHT AREA
S 111 TO S 121	NOT USED
S 122	WEST AND SOUTH JETTY DECK – CHAIN LADDER AND ACCESS LADDERS MODIFICATIONS
S 123 TO S 127	NOT USED
S 128	FENDERING – SHEET 1
S 129	FENDERING – SHEET 2
S 130	HAND RAIL
S 131	ACCESS LADDERS AT NAVIGATION MARKER DOLPHINS
S 132 TO S 150	NOT USED
S 151	TUG BOAT WHARF – DETAILS



DATUM CONVERSION
N.T.S.

DRAWING ANNOTATIONS:

C = CIVIL
CSM = CIVIL & STRUCTURAL MODIFICATIONS
D = DEMOLITION
E = ELECTRICAL
M = MECHANICAL
S = STRUCTURAL

Public Works and Government Services Canada
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REAL PROPERTY SERVICES
Pacific Region
SERVICES IMMOBILIERS

Klohn Crippen Berger

ANCHOR QEA

Revision/ Revision	Description/Description	Date/Date
2	RECORD DRAWING	2017/03/29
1	ADDENDUM NO. 2	2015/03/20
0	ISSUED FOR TENDER	2014/12/19

Client/client

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

Consultant Signature Only

Designed by/Concept par
GEOFF COOPER

Drawn by/Dessine par
ARNIE RIST

PWGSC Project Manager/Administrateur de Projets TPSGC
ANDREW MYLLY

Regional Manager, Environmental Services
COLLIN KINGMAN

Drawing title/Titre du dessin
SITE PLAN AND DRAWING LIST

Project No./No. du projet	Sheet/	Revision no./
R.018400.002	C1	2

PWGSC – A1 – 841X594

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1. GENERAL NOTES:

1.1. DETAILED REQUIREMENTS FOR MATERIALS AND FABRICATION ARE DESCRIBED IN THE SPECIFICATIONS. FOR CONVENIENCE, CERTAIN EXTRACTS ARE REPRODUCED BELOW. IN THE EVENT OF A CONFLICT BETWEEN THE DRAWINGS & THE SPECIFICATIONS, THE SPECIFICATIONS SHALL GOVERN.

1.2. DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.ELEVATIONS ARE IN METRES, CHART DATUM.

1.3. DIMENSIONS, LAYOUT AND DETAILS OF EXISTING STRUCTURES ARE BASED ON DRAWINGS OBTAINED FROM PUBLIC WORKS AND GOVERNMENT SERVICES CANADA AND MAY BE SUBJECT TO CONSTRUCTION VARIATIONS AND MODIFICATIONS. THE CONTRACTOR SHALL VERIFY DIMENSIONS AND CONFIGURATION PRIOR TO ANY DEMOLITION AND REMOVAL AND BRING ANY DISCREPANCIES OR POTENTIAL CONFLICTS TO THE ATTENTION OF THE DEPARTMENTAL REPRESENTATIVE. REFERENCE DRAWINGS ARE LISTED IN THE SPECIFICATIONS.

1.4. CONTRACTOR SHALL COMPLETE PRE–CONSTRUCTION SURVEY TO MEET BATHYMETRY DATA COLLECTION REQUIREMENTS A MINIMUM OF TEN (10) WORKING DAYS PRIOR TO DREDGING OR DEBRIS REMOVAL WORK, AS DESCRIBED IN SECTION 02 21 13 – SURVEYING AND POSITIONING CONTROL.

1.5. THE CONTRACTOR SHALL COORDINATE ALL ACTIVITIES WITH THE DEPARTMENTAL REPRESENTATIVE. LOCATION OF THE CONTRACTOR'S SITE OFFICE AND MATERIAL STORAGE SHALL BE APPROVED BY THE DEPARTMENTAL REPRESENTATIVE.

1.6. TIDE ELEVATIONS (CHART DATUM):

EXTREME HIGH WATER LEVEL (EHWL)	3.8m
HIGHER HIGH WATER LEVEL (HHWL)	3.4m
MEAN WATER LEVEL (MWL)	1.9m
LOWER LOW WATER LEVEL (LLWL)	0.1m
EXTREME LOW WATER LEVEL	–0.5m

1.7. PWGSC SITE BENCHMARK IS "BOLT". FROM PWGSC PLAN SK4593–1 DATED OCTOBER 1989, "BOLT" IS ELEVATION 4.725m TO PWGSC DATUM, BOLT IS 4.849m ABOVE LLWL; LLWL IS 0.124m BELOW PWGSC DATUM 0.0; LLWL IS 1.871m BELOW GEODETIC ELEVATION.

TO CONVERT FROM GEODETIC DATUM TO CHART DATUM, ADD 1.871m.

TO CONVERT FROM GEODETIC DATUM TO PWGSC DATUM, ADD 1.747m.

TO CONVERT FROM PWGSC DATUM TO CHART DATUM, ADD 0.124m.

1.8. FOR CONTROL MONUMENT INFORMATION SEE DRAWING C3.

1.9. THE SOUTH JETTY REMEDIATION WORKS HAVE BEEN DESIGNED FOR FORCES ASSOCIATED WITH USAGE, E.G. LIVE LOADS, CRANE LOADS AND THE ENVIRONMENTAL FORCES SET FORTH IN THE NATIONAL BUILDING CODE OF CANADA, 2010. DESIGN LIVE LOADS FOR SPECIFIC STRUCTURAL COMPONENTS ARE AS SPECIFIED ON THE RELEVANT DRAWINGS. THE DESIGN SERVICE LIFE FOR MAJOR STRUCTURAL COMPONENTS IS:

HIGH MAST LIGHT	75 YEARS
BULL RAIL	20 YEARS
SAFETY LADDERS	20 YEARS
FENDER PILES	20 YEARS
HAND RAIL	20 YEARS

1.10. UNDERPIER AREA LOWER INTERTIDAL AND SUBTIDAL BATHYMETRY WITHIN THE TEMPORARY RE–SUSPENSION BARRIER CONTAINMENT AREA IS FROM FEBRUARY 2009, JUNE 2010 AND JANUARY 2011 CRA CANADA SURVEYS LTD. MULTI BEAM SURVEY. UPPER INTERTIDAL ELEVATIONS FROM SEPTEMBER 2009 AND JULY 2011 SURVEY BY FOCUS CORPORATION. OPEN WATER AREAS OUTSIDE OF THE TEMPORARY RE–SUSPENSION BARRIER CONTAINMENT AREA WERE DREDGED AS PART OF THE PHASE 1B OPEN–WATER REMEDIATION PROJECT. OPEN WATER BATHYMETRY SURVEY WAS CONDUCTED BY CRA CANADA SURVEYS INC. ON 2014/03/05 FOLLOWING COMPLETION OF PHASE 1B WORK.

1.11. SCALES INDICATED ON DRAWINGS ARE FULL SIZE A1 DRAWINGS.

1.12. THE EXISTING SOUTH JETTY SHEET PILE PERIMETER WALL WAS DESIGNED AS A TEMPORARY STRUCTURE WITH A DESIGN SERVICE LIFE FOR MAJOR STRUCTURAL COMPONENTS OF 10 YEARS. FOR DETAILS AND CONFIGURATION OF EXISTING SHEET PILE PERIMETER WALL, REFER TO THE PROJECT REFERENCE DRAWINGS. SEISMIC LOADS WERE NOT CONSIDERED FOR THE SHEET PILE CONTAINMENT WALL AS IT IS CONSIDERED A TEMPORARY STRUCTURE.

1.13. DESIGN LOADS ON SHEET PILE PERIMETER WALL WHEN RE–DRIVEN TO ELEVATION SHOWN ON THE DRAWINGS, AND WHEN JETTY DECK SUPPORT CONDITION HAS BEEN REMOVED:

PROPWASH LOADS:

A.) CONTRACTOR TUG (500 HP)
25% POWER
1 THRUSTER – 5m FROM WALL

B.) SEASPAN HAWK
10% POWER
2 THRUSTERS – 15m FROM WALL

1.14. FOR ALLOWABLE DECK LOADS, SEE APPENDIX TO THE SPECIFICATIONS. EGD LOAD RATING LAYOUT, SKETCH 2 (KM ENGINEERING GROUP INC. 2005), SUPPLEMENTED BY MORE RECENT RECORD DRAWINGS FOR WEST/SOUTH CRANE PAD REHABILITATION WORKS.

1.15 TYPICAL ABBREVIATIONS:

APPROX/~	APPROXIMATE(LY)	DWG	DRAWING
BC	BRITISH COLUMBIA	E	EASTING
BOT	BOTTOM	EF	EACH FACE
C/C	CENTRE TO CENTRE	EGD	ESQUIMALT GRAVING DOCK
CCTV	CLOSED CIRCUIT TELEVISION	EHWL	EXTREME HIGH WATER LEVEL
CD	CHART DATUM	EL	ELEVATION
C.I.P.	CAST IN PLACE	EQ SP	EQUALLY SPACED
CRB	CONCRETE ROAD BARRIER	EW	EACH WAY
CSRS	CANADIAN SPATIAL REFERENCE SYSTEM	EXP JT	EXPANSION JOINT
CL	CLEAR	FF	FAR FACE
C/W	COMPLETE WITH	GALV	GALVANIZED
CJ	CONSTRUCTION JOINT	H	HORIZONTAL
ø	DIAMETER	HA	HECTARES
DU	DREDGE UNIT	HHWL	HIGHER HIGH WATER LEVEL
℄	CENTERLINE	GALV	GALVANIZED

H	HORIZONTAL	NAD	NORTH AMERICAN DATUM
HA	HECTARES	NF	NEAR FACE
HHWL	HIGHER HIGH WATER LEVEL	No.	NUMBER
ID	INNER DIAMETER	NOM	NOMINAL
INV	INVERT	N.T.S.	NOT TO SCALE
LLWL	LOWER LOW WATER LEVEL	O.D.	OUTSIDE DIAMETER
LTD.	LIMITED	ℙ	PLATE
m	METRE	PROJ	PROJECTION
MAX	MAXIMUM	PWGSC	PUBLIC WORKS AND GOVERNMENT SERVICES CANADA
MIN	MINIMUM	RAD.,R	RADIUS
mm	MILLIMETRE	REF.	REFERENCE
MPa	MEGAPASCAL	REINF	REINFORCING
MWL	MEAN WATER LEVEL	REQ/REQ'D	REQUIRED
N	NORTHING		

REV	REVISION	TYP	TYPICAL
SIM.	SIMILAR	U.N.O.	UNLESS NOTED OTHERWISE
SQ	SQUARE	U/S	UNDER SIDE
STA	STATIONING	TYP.	TYPICAL
STD.	STANDARD	UHMW	ULTRA HIGH MOLECULAR WEIGHT POLYETHYLENE
SS	STAINLESS STEEL	UTM	UNIVERSAL TRANSVERSE MERCATOR
T	TOP	V	VERTICAL
TBD	TO BE DETERMINED	X	EASTING
T.O.	TOP OF	Y	NORTHING
T.O.C	TOP OF CONCRETE	Z	ELEVATION IN METRES
T.O.R.	TOP OF RAIL		
TRB	TEMPORARY RESUSPENSION BARRIER		
TRBCA	TEMPORARY RESUSPENSION BARRIER CONTAINMENT AREA		

2. TEMPORARY RE–SUSPENSION BARRIERS:

2.1. SEE SPECIFICATIONS FOR DESIGN REQUIREMENTS REGARDING TEMPORARY RE–SUSPENSION BARRIERS.

3. CONCRETE:

3.3. ALL DECK SLAB CONCRETE AT THE HIGH MAST LIGHT SHALL HAVE COMPRESSIVE STRENGTH OF 45 MPa @ 28 DAYS. ALL OTHER CONCRETE SHALL HAVE COMPRESSIVE STRENGTH OF 30 MPa @ 28 DAYS.

3.4. ALL EXPOSED EDGES SHALL HAVE 20mm CHAMFER, U.N.O.

4. CONCRETE REINFORCEMENT:

4.1. REINFORCING BARS SHALL BE UNCOATED BILLET STEEL BARS CONFORMING TO CAN/CSA G30.18–09, 400 MPa MIN. YIELD OR ASTM A615 GRADE 75 WHERE INDICATED.

4.2. DESIGNATION OF REINFORCING BARS:

3–10M0800 MEANS THREE 10M BARS 800 LONG. 2–C20M1500 MEANS TWO 20M BARS, EACH WITH A 90 DEGREE STANDARD HOOK ON EACH END AND A TOTAL LENGTH OF 1500 PER BAR.

— — — — — DENOTES BOTTOM BARS.
——————— DENOTES TOP BARS.

4.3. DIMENSIONS TO REINFORCEMENT ARE TO CENTRE LINES OF BARS, EXCEPT WHERE CONCRETE COVER OR CLEARANCE BETWEEN BARS IS SHOWN.

4.4. CONCRETE COVER FOR REINFORCEMENT (CAST–IN–PLACE): mm

TOP SURFACES OF JETTY STRUCTURES	70
ALL OTHER CONCRETE FACES, U.N.O.	70

5. STRUCTURAL STEEL AND STEEL FABRICATIONS:

5.1. STRUCTURAL STEEL SHALL MEET CAN/CSA G40.20–04 FOR GENERAL REQUIREMENTS, AND CAN/CSA G40.21–04 FOR QUALITY.

GRADES OF MATERIAL, UNLESS NOTED OTHERWISE:

STRUCTURAL STEEL AND MISC. METAL	350W
BOLTS, NUTS AND WASHERS	ASTM A325M
ANCHOR BOLTS	ASTM A307
CONCRETE ANCHOR RODS	ASTM A193 GRADE B7

5.2. ALL STEEL TO BE HOT DIPPED GALVANIZED, U.N.O.

5.3. EXPOSED METALWORK TO BE GROUNDED PER SPECIFICATION 26 05 27.

6. TIMBER AND TIMBER PILES:

6.1. THESE NOTES APPLY UNLESS NOTED OTHERWISE ON THE DRAWINGS.

6.2. ALL TIMBER WORK SHALL CONFORM TO CSA 086.01, DFO TECHNICAL REPORT GUIDELINES TO PROTECT FISH AND FISH HABITAT FROM TREATED WOOD USED IN AQUATIC ENVIRONMENTS IN THE PACIFIC REGION AND GOOD MARINE TIMBER PRACTICE.

6.3. DIMENSIONS TO AND OF EXISTING TIMBER ARE BASED ON REFERENCE DRAWINGS AND REQUIRE SITE CONFIRMATION BY THE CONTRACTOR.

6.4. SAWN TIMBER SHALL BE NO. 1 COASTAL DOUGLAS FIR.

6.5. PRESSURE TREATMENT OF TIMBER SHALL BE IN ACCORDANCE WITH CSA–080 SERIES–08 (R2012).

6.6. THE TOPS OF THE REINSTATED FENDER PILES AND DOLPHINS SHALL BE CUT AT 1 VERTICAL TO 5 HORIZONTAL TOWARDS THE WATER PRIOR TO CAPPING. THE CUT FACE SHALL BE TREATED WITH 2 COATS OF COPPER NAPHTHENATE AND ONE COAT OF TROWEL MASTIC AT LEAST 6mm THICK. THE PILE TOP SHALL THEN BE COVERED WITH A SHEET OF 0.8mm (22 GAUGE) ANNEALED CORROSION RESISTANT ALUMINUM CUT 150mm WIDER THAN THE DIAMETER OF THE PILE TOP. THE OVERHANGING EDGES SHALL BE CRIMPED AND TURNED DOWN AND NAILED WITH 8 ALUMINUM ROOFING NAILS.

6.7. ALL BOLT HOLES THROUGH TIMBER PILES SHALL BE TREATED WITH 2 COATS OF NAPHTHENATE PRIOR TO BOLTING. THIS APPLIES TO NEW HOLES AND TO RE–USED HOLES.

6.8. HOLES AND UNUSED BOLT HOLES IN EXISTING PILES SHALL BE PLUGGED FULL LENGTH WITH TAPERED TIGHT FITTING TREATED HARDWOOD DOWELS. COPPER NAPHTHENATE SHALL BE POURED OR SWABBED INTO THE HOLE AND THE DOWEL SHALL BE TREATED PRIOR TO INSTALLATION.

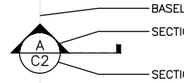
6.9. BOLTS IN TIMBERS AND PILES SHALL CONFORM TO ASTM A307 GRADE A WHEREVER STANDARD BOLT LENGTHS ARE SUITABLE. BOLTS SHALL BE TIGHTENED FROM THE NUT END.

6.10. BOLTS IN TIMBERS AND PILES FOR NON STANDARD LENGTHS SHALL BE THREADED CONFORMING TO ASTM A307 GRADE C. WASHERS SHALL BE PROVIDED AT BOTH NUT AND BOLT HEAD. WASHERS SHALL BE MALLEABLE IRON, OGEE, OR ROUND PLATE WASHERS. FOR ROUND PLATE WASHERS, WASHER DIAMETER BY THICKNESS SHALL BE 70X6 FOR 16 DIAMETER: 85x8 FOR 19 DIAMETER: AND 100x10 FOR 25 DIAMETER BOLTS. POLYURETHANE MASTIC SHALL BE PLACED UNDER ALL WASHERS.

6.11. LAG BOLTS SHALL CONFORM TO CSA STANDARD B34.

SYMBOLS:

PLAN VIEWS:



BASELINE
SECTION IDENTIFICATION
SECTION DESIGNATION DRAWING

△ CONTROL MONUMENT

\+ NORTHING AND EASTING COORDINATE (UTM ZONE 10 GRID, NAD 83)

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REAL PROPERTY SERVICES
Pacific Region
SERVICES IMMOBILIERS

Klohn Crippen Berger

ANCHOR QEA

Revision/ Revision	Description/Description	Date/Date
1	RECORD DRAWING	2017/03/29
0	ISSUED FOR TENDER	2014/12/19

Client/client

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet

ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

Consultant Signature Only

Designed by/Concept par
GEOFF COOPER

Drawn by/Dessine par
ARNIE RIST

PWGSC Project Manager/Administrateur de Projets TPSGC
ANDREW MYLLY

Regional Manager, Environmental Services
COLLIN KINGMAN

Drawing title/Titre du dessin

NOTES AND ABBREVIATIONS

Project No./No. du projet	Sheet/	Revision no./
R.018400.002	C2	1

PWGSC – A1 – 841X594

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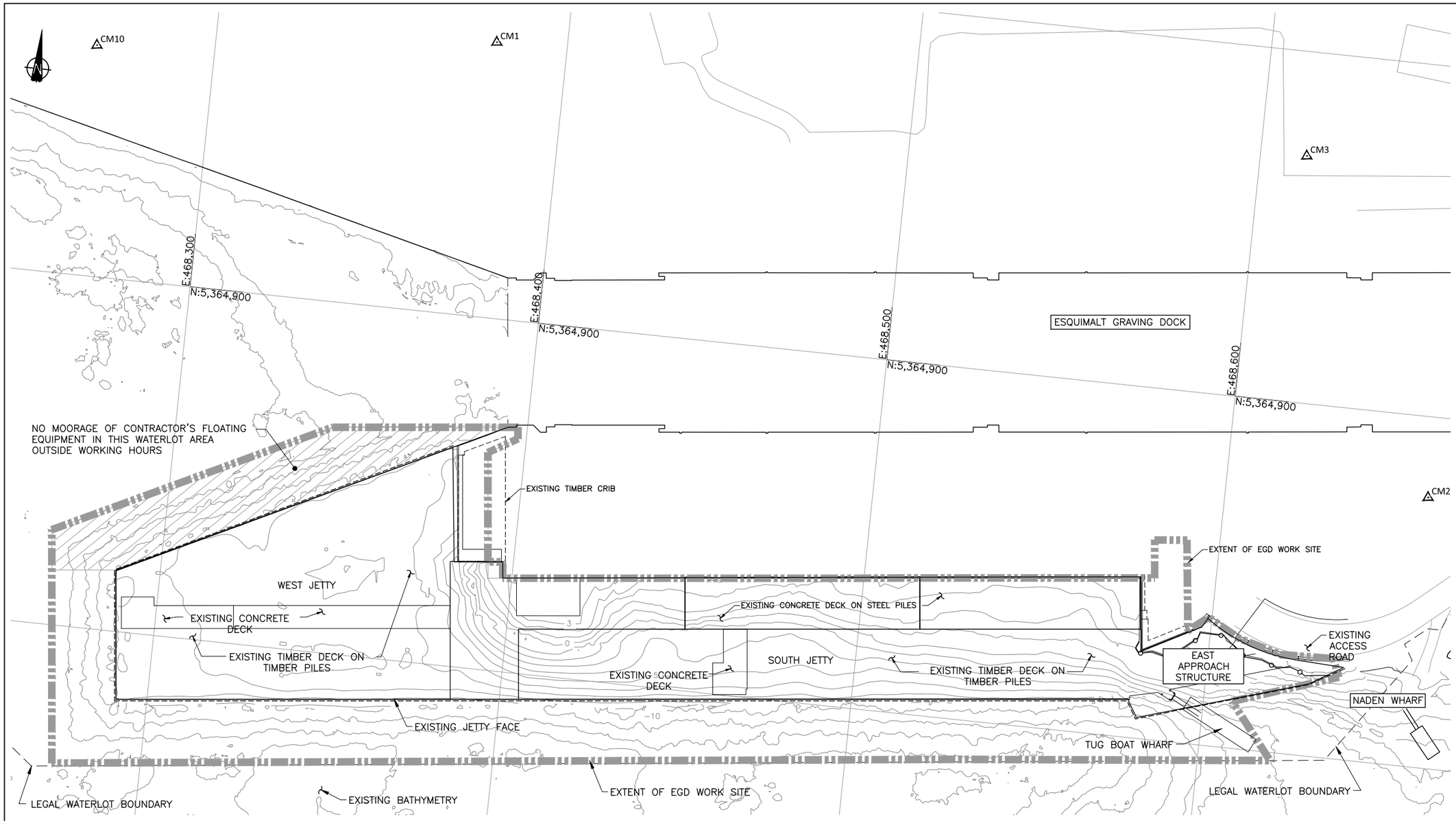

PLAN
1:600

CONTROL MONUMENT ID	MONUMENT CONTROLLER	COORDINATES		
		NORTHING (Y)	EASTING (X)	ELEVATION IN METRES (Z)
CM 1	EGD	5364978.464	468379.840	17.846
CM 2	EGD	5364877.036	468657.811	7.562
CM 3	EGD	5364970.304	468613.214	7.787
CM 10	EGD	5364965.758	468266.364	2.256

NOTES:
UPLAND HORIZONTAL DATUM: UTM NAD83 (CSRS)
UPLAND VERTICAL DATUM: GEODETIC
EGD: ESQUIMALT GRAVING DOCK
MASCOT: MANAGEMENT OF SURVEY CONTROL OPERATIONS AND TASKS (MINISTRY OF AGRICULTURE AND LANDS)

HORIZONTAL DATUM: UTM ZONE 10 GRID, NAD83.
VERTICAL DATUM: CHART DATUM (C.D.)

NOTES:

1. BASE MAP FROM GOLDER, JANUARY 2012.
2. EGD WORK SITE ALSO INCLUDES UPLAND AREAS OF THE EGD FACILITY AS SHOWN ON THE DRAWINGS AND DESCRIBED IN THE SPECIFICATIONS.
3. OPEN WATER AREAS OUTSIDE OF THE TEMPORARY RE-SUSPENSION BARRIER CONTAINMENT AREA WERE REMEDIATED AS PART OF THE PHASE 1B OPEN-WATER REMEDIATION PROJECT. SURVEY WAS CONDUCTED BY CRA CANADA SURVEYS INC. ON 2014/03/05.
4. CONTRACTOR TO COORDINATE WITH PWGSC REGARDING USE OF CONTROL MONUMENTS AS DESCRIBED ABOVE OR CAN-NET SURVEY DATUM CONTROL. SEE SECTION 02 21 13 SURVEY AND POSITIONING CONTROL.
5. CONTRACTOR TO VERIFY THE COORDINATES AND ELEVATION OF ALL CONTROL MONUMENTS USED PRIOR TO START OF WORK.
6. TUG BOAT WHARF LOCATION AND DIMENSIONS SURVEYED BY CRA CANADA SURVEYS INC. ON 2013/11/13. TUG BOAT WHARF TO BE RELOCATED ACCORDING TO THE SPECIFICATIONS.
7. THE GLOBAL TERM SOUTH JETTY, AS DEFINED IN THE SPECIFICATIONS, INCLUDES BOTH THE WEST JETTY AND SOUTH JETTY AREAS AS SHOWN ON THE DRAWINGS.

LEGEND:

- —14— PRE-CONSTRUCTION BATHYMETRY IN METERS
- – – – – TEMPORARY RE-SUSPENSION BARRIER CONTAINMENT AREA
- EXTENT OF EGD WORK SITE
- CM10 CONTROL MONUMENT LOCATION AND DESIGNATION
- ORDINARY HIGH WATER LINE
- JETTY SECTION DELINEATION

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Pacific Region
SERVICES IMMOBILIERS

ANCHOR QEA
Klohn Crippen Berger

Revision/ Revision	Description/Description	Date/Date
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Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

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Regional Manager, Environmental Services
COLLIN KINGMAN

Drawing title/Titre du dessin
EXISTING BATHYMETRY AND SURVEY INFORMATION

Project No./No. du projet	Sheet/	Revision no./
R.018400.002	C3	1

PWGSC – A1 – 841X594

0 10 20 30 40 50 60 70 80 90 100mm

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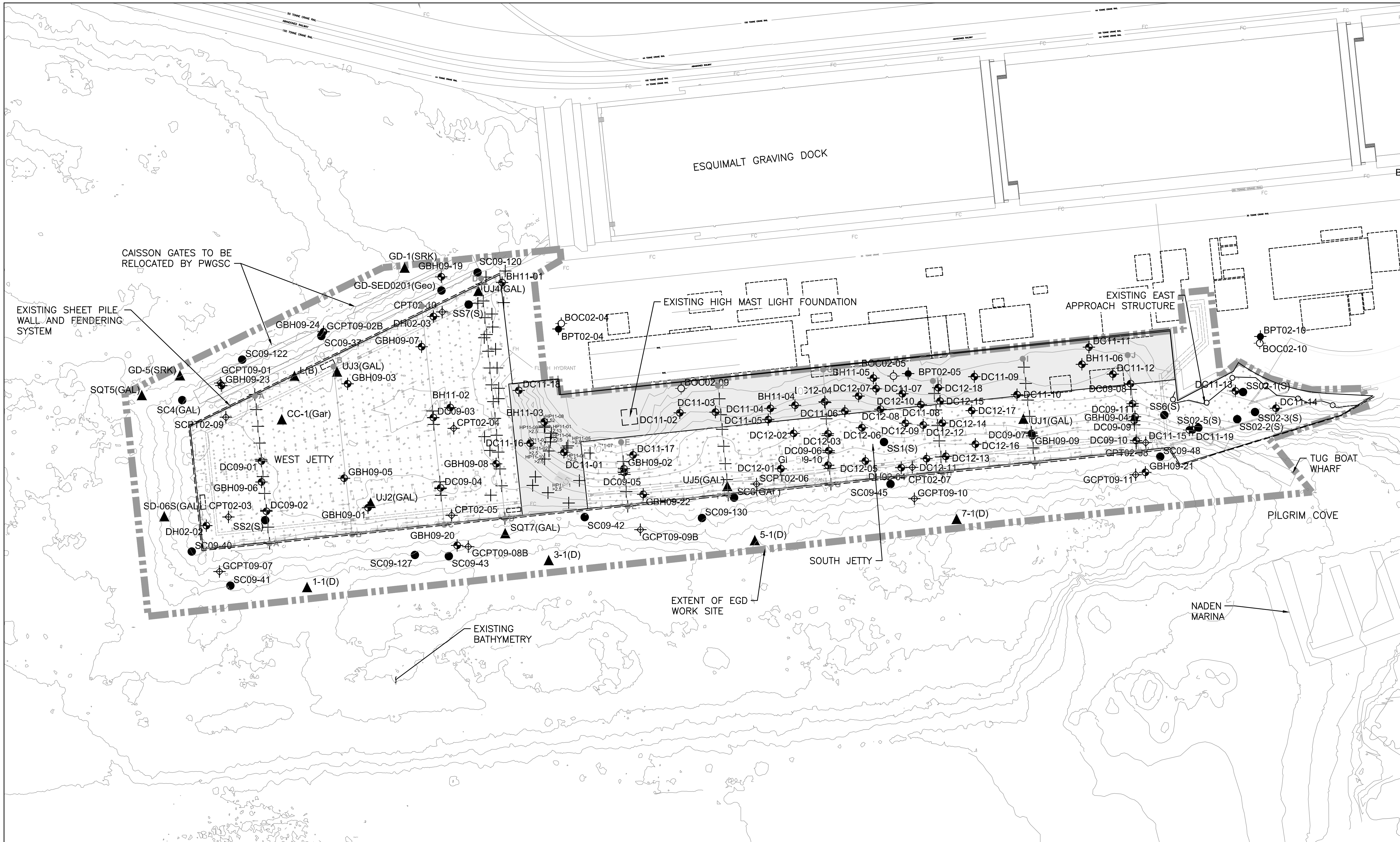

HORIZONTAL DATUM: UTM ZONE 10 GRID, NAD83.
VERTICAL DATUM: CHART DATUM (C.D.)

NOTES:

1. UNDERPIER AREA LOWER INTERTIDAL AND SUBTIDAL BATHYMETRY WITHIN THE TEMPORARY RE–SUSPENSION BARRIER CONTAINMENT AREA IS FROM FEBRUARY 2009, JUNE 2010 AND JANUARY 2011 CRA CANADA SURVEYS LTD. MULTI BEAM SURVEY. UPPER INTERTIDAL ELEVATIONS FROM SEPTEMBER 2009 AND JULY 2011 SURVEY BY FOCUS CORPORATION. OPEN WATER AREAS OUTSIDE OF THE TEMPORARY RE–SUSPENSION BARRIER CONTAINMENT AREA WERE DREDGED AS PART OF THE PHASE 1B OPEN–WATER REMEDIATION PROJECT. OPEN WATER BATHYMETRY SURVEY WAS CONDUCTED BY CRA CANADA SURVEYS INC. ON 2014/03/05 FOLLOWING COMPLETION OF PHASE 1B WORK.
2. BASE MAP FROM GOLDER, JANUARY 2012.
3. REFERENCE DWG C1 FOR DATUM INFORMATION.
4. SHEETPILE EXTENDS AROUND THE PERIMETER OF THE SOUTH JETTY (SEE SHEET PILE CONTRACT DRAWINGS ATTACHMENT IN THE APPENDIX).
5. CONTRACTOR TO CONFIRM LOCATIONS OF FIRE SPRINKLER OPENINGS AND CATWALK ACCESS HATCHES (SHOWN ON DWG S1) AND MAINTAIN ACCESS AT ALL TIMES.
6. EGD WORK SITE ALSO INCLUDES UPLAND AREAS OF THE EGD FACILITY AS SHOWN ON THE DRAWINGS AND DESCRIBED IN THE SPECIFICATIONS.
7. SEDIMENT CORE DATA FROM THE DETAILED SITE INVESTIGATION (GOLDER, FEBRUARY 2012), DATA REPORT LOCATED IN THE APPENDICES TO THE SPECIFICATIONS. GEOTECHNICAL INFORMATION IS AVAILABLE IN THE APPENDICES TO THE SPECIFICATIONS.
8. TUG BOAT WHARF LOCATION AND DIMENSIONS SURVEYED BY CRA CANADA SURVEYS INC. ON 2013/11/13. TUG BOAT WHARF TO BE RELOCATED ACCORDING TO THE SPECIFICATIONS.

PLAN

SCALE 1: 600

SCALE : 1:600

0m 10 20 30 40 50m

EXPLORATION LOCATIONS

- DC12-xx ▲ DIVER CORE (GOLDER)
- BH11-xx ⊕ BOREHOLE (GOLDER
- SC09-xx ● SEDIMENT CORE (GOLDER)
- GBH09-xx ⊕ SONIC BOREHOLE (GOLDER)
- + JET PROBE (GOLDER)
- SC-x (xxx) ● HISTORICAL SEDIMENT CORE
- #(xxx) ▲ HISTORICAL SEDIMENT GRAB SAMPLE
- DH02-02 ⊕ ⊕ CPT02-03 ADDITIONAL SAMPLING (KLOHN CRIPPEN BERGER)

LEGEND:

- —14.0— PRE–CONSRUCTION BATHYMETRY IN METERS
- — — — — TEMPORARY RE–SUSPENSION BARRIER CONTAINMENT AREA
- ▬ ▮ ▮ ▬ EXTENT OF EGD WORK SITE
- A●—●A' DIVER TRANSECTS
- + GOLDER 2009/2010 PUSH PROBE
- GBH09-01⊕ SC09-11● 2009/2010/2011/2012 GOLDER AND HISTORICAL SEDIMENT CORE LOCATIONS AND DESIGNATIONS
- 1-1(D)▲ HISTORICAL SEDIMENT GRAB SAMPLE LOCATIONS
- ▨ TIMBER PILED JETTY
- ▭ CONCRETE DECK WITH STEEL PILING
- ——o— ORDINARY HIGH WATER LINE
- ⬚ EXISTING STRUCTURE

PWGSC – A1 – 841X594

0 10 20 30 40 50 60 70 80 90 100mm

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Pacific Region
SERVICES IMMOBILIERS

ANCHOR QEA

Klohn Crippen Berger

Revision/Revision	Description/Description	Date/Date
2	RECORD DRAWING	2017/03/31
1	ADDENDUM NO. 2	2015/03/20
0	ISSUED FOR TENDER	2014/12/19

Client/client

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

Consultant Signature Only

Designed by/Concept par
MATT WOLTMAN

Drawn by/Dessine par
CHRIS HEWETT

PWGSC Project Manager/Administrateur de Projets TPSGC
ANDREW MYLLY

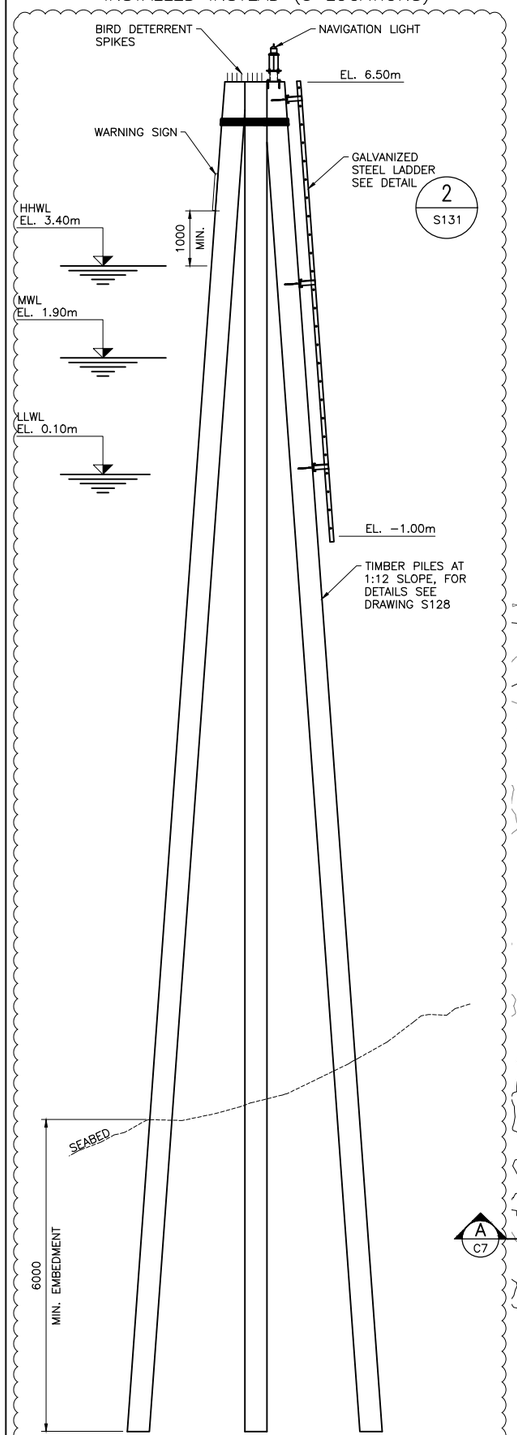
Regional Manager, Environmental Services
COLLIN KINGMAN

Drawing title/Titre du dessin
EXISTING CONDITIONS AND GEOTECHNICAL INFORMATION

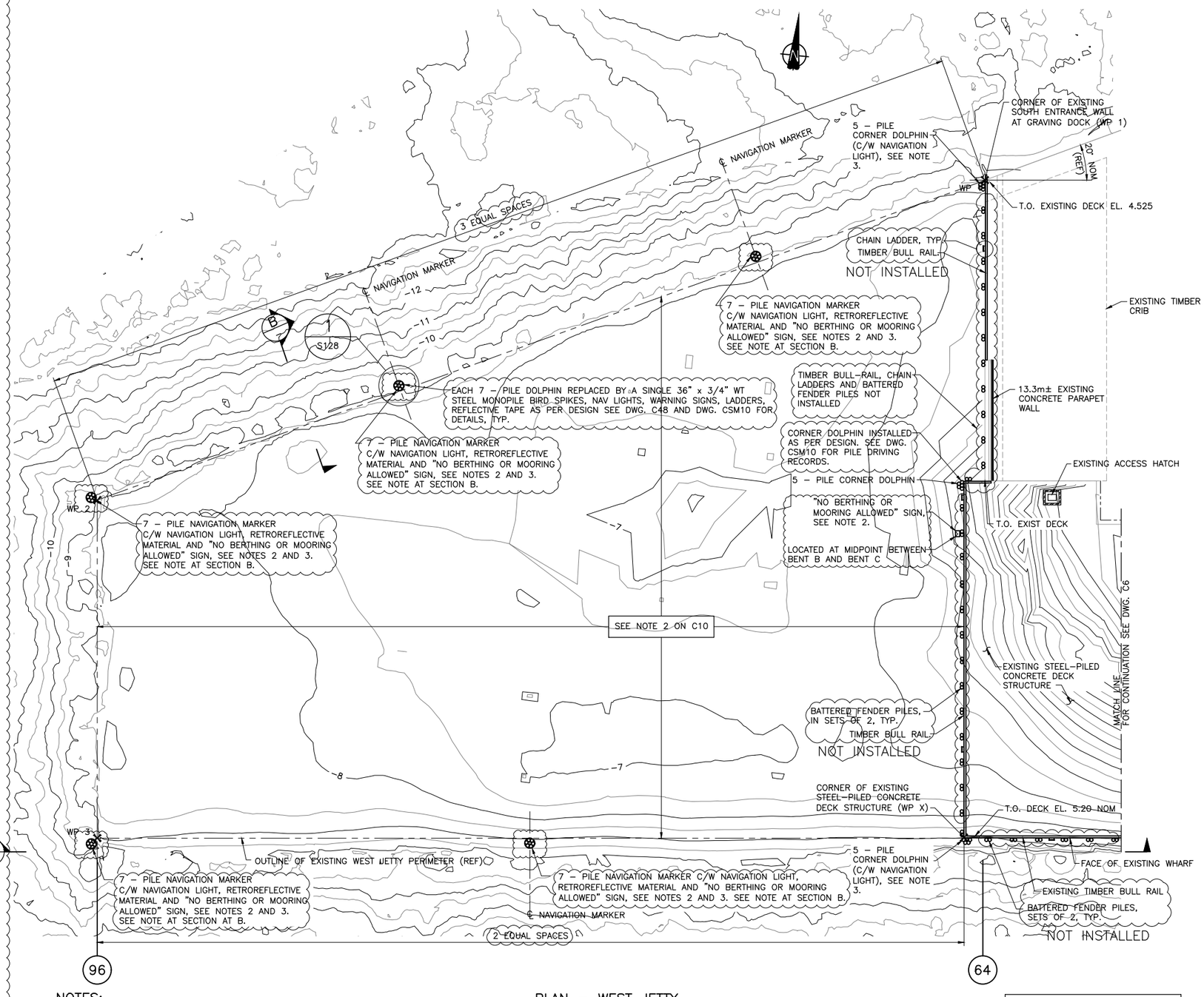
Project No./No. du projet	Sheet/	Revision no./
R.018400.002	C4	2

DM5XXXXXX

NOT INSTALLED – STEEL MONOPILE
INSTALLED INSTEAD (5 LOCATIONS)



SECTION B
SCALE 1: 200



PLAN – WEST JETTY
1:250

NOTES:

1. FOR EXISTING CONDITIONS SEE DRAWINGS D1 AND D2.
2. WARNING SIGN SHALL BE SECURED TO FENDER PILES, NAVIGATION MARKER PILES OR FACE OF WHARF FACE APPROXIMATELY 1.0m ABOVE HIGH TIDE ELEVATION. SIGN SHALL BE MIN. 900mm WIDE x 600mm HIGH DURABLE MATERIAL AND SHALL STATE THE FOLLOWING IN BLACK FONT ON WHITE BACKGROUND: "NO BERTHING OR MOORING ALLOWED" "L'USAGE DE CE POSTE D'AMARRAGE EST INTERDIT". FONT TYPE AND SIZE SHALL BE AS APPROVED BY DEPARTMENTAL REPRESENTATIVE.
3. NAVIGATION LIGHTS SHALL BE SOLAR–POWERED MARINE LANTERNS WITH YELLOW FLASHING LIGHT OF FLASHING CHARACTER FL4s (FL0.5s Ec3.5s), AND WITH A MINIMUM VISUAL RANGE OF 3.0 NAUTICAL MILES (INTENTIONALLY SET HIGHER THAN CANADIAN COAST GUARD'S MINIMUM REQUIREMENT OF 2.0 NAUTICAL MILES TO ENSURE PERFORMANCE). NAVIGATION LIGHTS SHALL HAVE A MINIMUM BATTERY CHARGE LIFE OF 14 HOURS IN TOTAL DARKNESS AND A MINIMUM BATTERY REPLACEMENT LIFE OF 5 YEARS. SEE SPECIFICATIONS.

WORK POINTS		
WP 1	N 5364863.011	E 468380.921
WP 2	N 5364817.446	E 468287.389
WP 3	N 5364780.766	E 468291.229
WP X	N 5364790.751	E 468386.166

REVISED COORDINATES

Public Works and Government Services Canada
Travaux publics et Services gouvernementaux Canada
REAL PROPERTY SERVICES
Pacific Region
SERVICES IMMOBILIERS

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Klohn Crippen Berger

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PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

Consultant Signature Only

Designed by/Concept par
GEOFF COOPER

Drawn by/Dessine par
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PWGSC Project Manager/Administrateur de Projets TPSGC
ANDREW MYLLY

Regional Manager, Environmental Services
COLLIN KINGMAN

Drawing title/Titre du dessin
WEST JETTY
GENERAL ARRANGEMENT
PLAN

Project No./No. du projet	Sheet/	Revision no./
R.018400.002	C5	2

PWGSC – A1 – 841X594

0 10 20 30 40 50 60 70 80 90 100mm

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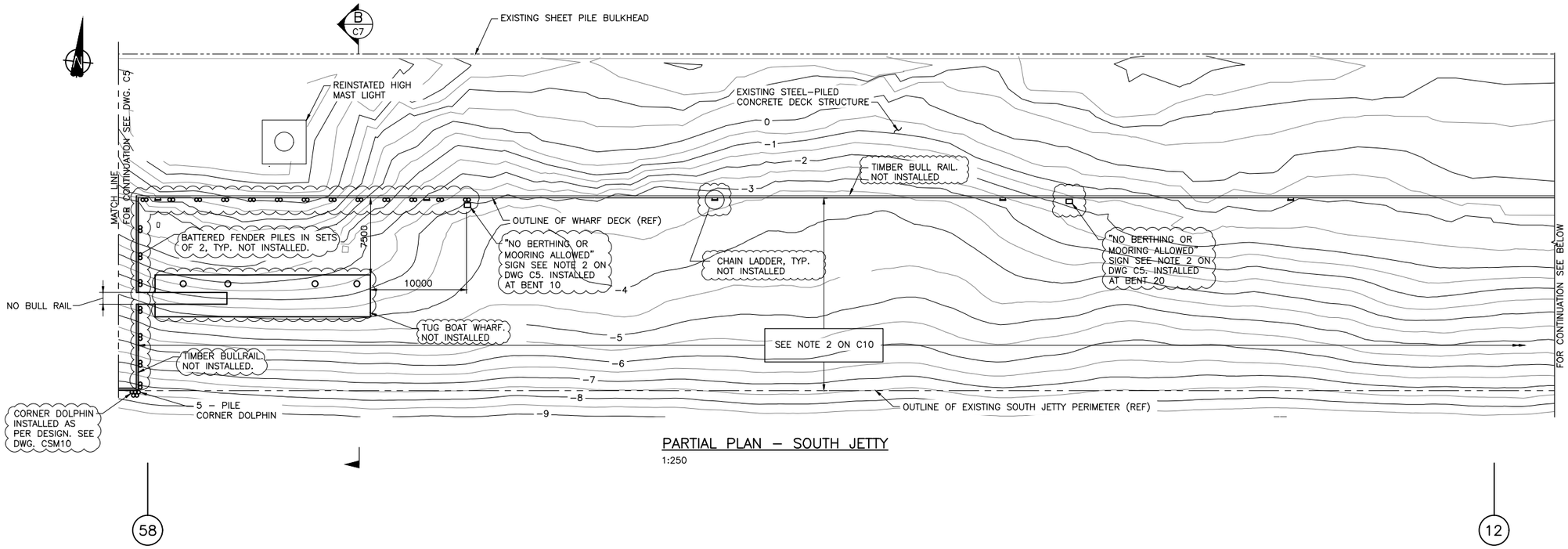
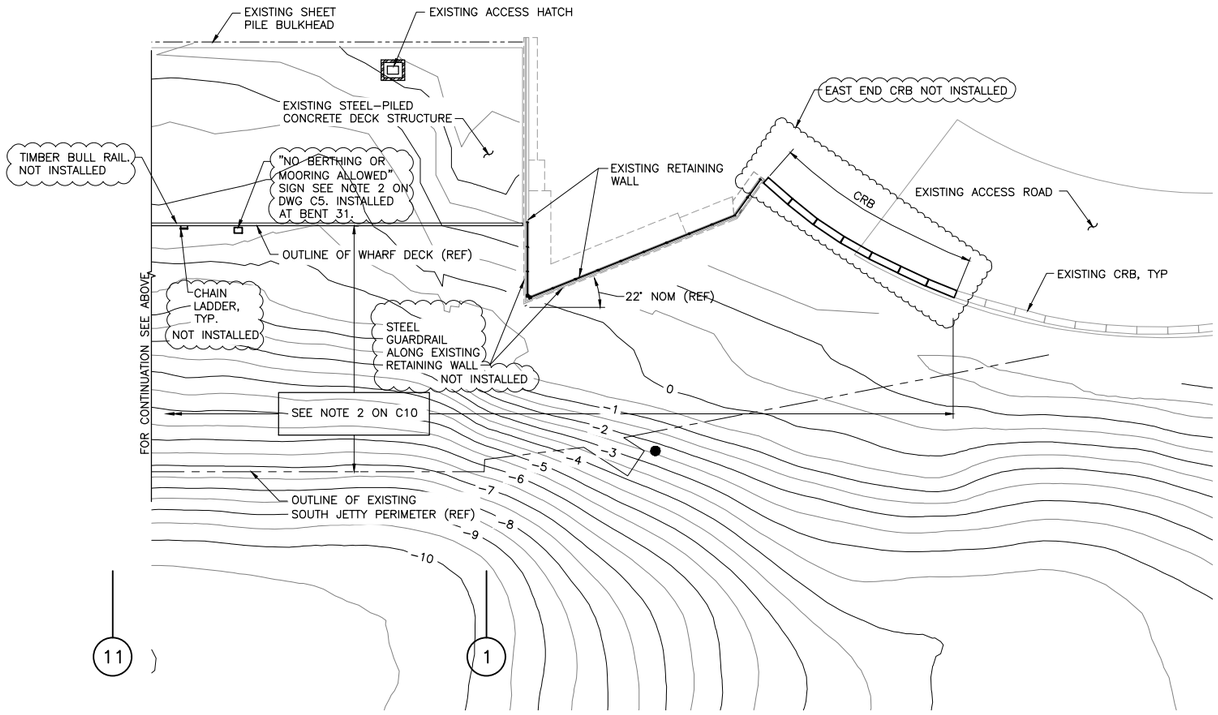


PARTIAL PLAN – SOUTH JETTY

1:250



PARTIAL PLAN – SOUTH JETTY

1:250

NOTES:

1. FOR EXISTING CONDITIONS SEE DRAWINGS D1 AND D2.

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ANCHOR QEA

Klohn Crippen Berger

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PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

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ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

Consultant Signature Only

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GEOFF COOPER

Drawn by/Dessine par
ARNIE RIST

PWGSC Project Manager/Administrateur de Projets TPSGC
ANDREW MYLLY

Regional Manager, Environmental Services
COLLIN KINGMAN

Drawing title/Titre du dessin

SOUTH JETTY GENERAL ARRANGEMENT PLAN

Project No./No. du projet	Sheet/	Revision no./
R.018400.002	C6	2

PWGSC – A1 – 841X594

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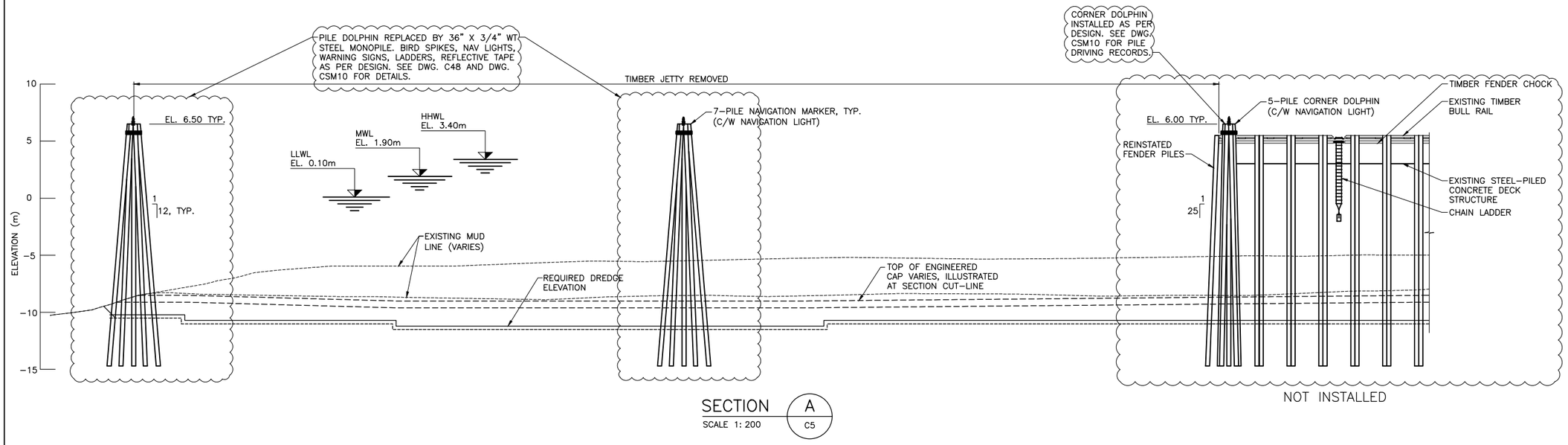
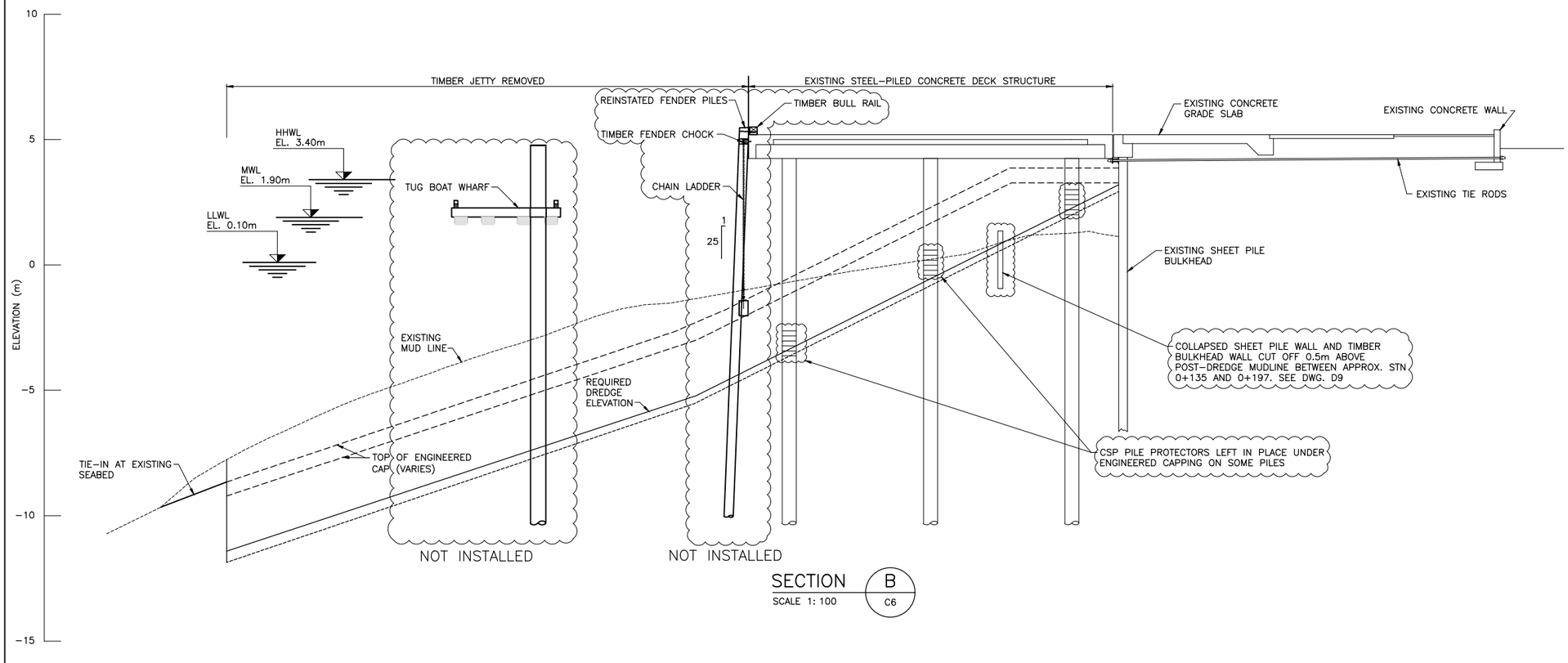
DM5XXXXXX



SECTION A
SCALE 1: 200
C5



SECTION B
SCALE 1: 100
C6

PWGSC – A1 – 841X594

0 10 20 30 40 50 60 70 80 90 100mm

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Klohn Crippen Berger

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Client/client

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

Consultant Signature Only

Designed by/Concept par
GEOFF COOPER

Drawn by/Dessine par
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PWGSC Project Manager/Administrateur de Projets TPSGC
ANDREW MYLLY

Regional Manager, Environmental Services
COLLIN KINGMAN

Drawing title/Titre du dessin
WEST AND SOUTH JETTY GENERAL ARRANGEMENT SECTIONS

Project No./No. du projet	Sheet/	Revision no./
R.018400.002	C7	2

DM5XXXXXX

SITE PLAN
1:4000

NORTH LANDING WHARF

EXISTING BATHYMETRY

ESQUIMALT GRAVING DOCK

EXISTING CAISSON GATES TO BE RELOCATED BY PWGSC

EXISTING SHEET PILE WALL AND FENDERING SYSTEM

EXISTING HIGH MAST LIGHT FOUNDATION

CONTRACTOR FENCE LINE

TEMPORARY LOAD LIMIT AREA (6kPa)

EXISTING EAST APPROACH STRUCTURE

PRIMARY CONTRACTOR ACCESS ROUTE

15.0m

15m

1m

5m

5m

29m

6m

15m

7.5m

178m

39m

20m

19m

WEST JETTY

SOUTH JETTY

EXISTING NADEN FLOAT

TUG BOAT WHARF

PILGRIM COVE

ON–SITE LAYDOWN/OFFICE STAGING AREA

EXISTING BATHYMETRY

EXISTING NADEN MARINA

HORIZONTAL DATUM: UTM ZONE 10 GRID, NAD83.
VERTICAL DATUM: CHART DATUM (C.D.)

NOTES:

1. UNDERPIER AREA LOWER INTERTIDAL AND SUBTIDAL BATHYMETRY WITHIN THE TEMPORARY RE–SUSPENSION BARRIER CONTAINMENT AREA IS FROM FEBRUARY 2009, JUNE 2010 AND JANUARY 2011 CRA CANADA SURVEYS LTD. MULTI BEAM SURVEY. UPPER INTERTIDAL ELEVATIONS FROM SEPTEMBER 2009 AND JULY 2011 SURVEY BY FOCUS CORPORATION. OPEN WATER AREAS OUTSIDE OF THE TEMPORARY RE–SUSPENSION BARRIER CONTAINMENT AREA WERE DREDGED AS PART OF THE PHASE 1B OPEN–WATER REMEDIATION PROJECT. OPEN WATER BATHYMETRY SURVEY WAS CONDUCTED BY CRA CANADA SURVEYS INC. ON 2014/03/05 FOLLOWING COMPLETION OF PHASE 1B WORK.
2. BASE MAP FROM GOLDER, JANUARY 2012.
3. REFERENCE DWG C1 FOR DATUM INFORMATION.
4. SHEET PILE EXTENDS AROUND THE PERIMETER OF SOUTH JETTY. SEE SHEET PILE CONTRACT DRAWINGS ATTACHMENT IN THE APPENDICES.
5. CONTRACTOR TO CONFIRM LOCATIONS OF FIRE SPRINKLER OPENINGS AND CATWALK ACCESS HATCHES AND MAINTAIN ACCESS AT ALL TIMES.
6. EGD WORK SITE ALSO INCLUDES UPLAND AREAS OF THE EGD FACILITY AS SHOWN ON THE DRAWINGS AND DESCRIBED IN THE SPECIFICATIONS.
7. TUG BOAT WHARF LOCATION AND DIMENSIONS SURVEYED BY CRA CANADA SURVEYS ON 2013/11/13. TUG BOAT WHARF TO BE RELOCATED ACCORDING TO THE SPECIFICATIONS.
8. ACCESS FROM WATER AS APPROVED BY QUEEN'S HARBOUR MASTER.
9. CONTRACTOR SHALL PROVIDE A 12.2–METRE BY 6.1–METRE (APPROXIMATELY 74m^2) AREA WITHIN THE CONTRACTOR STAGING AREA FOR THE DEPARTMENTAL REPRESENTATIVE'S CONSULTANT TEAM TRAILER AT THE REQUEST OF THE DEPARTMENTAL REPRESENTATIVE.
10. CONTRACTOR SHALL NOT OBSTRUCT BUILDING ACCESS ADJACENT TO THE CONTRACTOR ON–SITE STAGING AREA.

PLAN
SCALE 1: 600

SCALE : 1:600
0m 10 20 30 40 50m

LEGEND:

- 14.0 PRE–CONSTRUCTION BATHYMETRY IN METRES
- TEMPORARY RE–SUSPENSION BARRIER CONTAINMENT AREA
- EXTENT OF EGD WORK SITE
- PRIMARY CONTRACTOR ACCESS ROUTE
- ON–SITE STAGING AREA (WITH CONCRETE DECK WITH STEEL PILING TO REMAIN, SEE NOTE 10)
- STEEL–PILED CONCRETE
- TIMBER PILING PRE–SOUTH JETTY DEMOLITION
- TEMPORARY LOAD LIMIT AREA
- ORDINARY HIGH WATER LINE
- CONTRACTOR FENCE LINE

0 10 20 30 40 50 60 70 80 90 100mm

PWGSC – A1 – 841X594

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Pacific Region
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Klohn Crippen Berger

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Client/client

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

Consultant Signature Only

Designed by/Concept par
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Drawn by/Dessine par
CHRIS HEWETT

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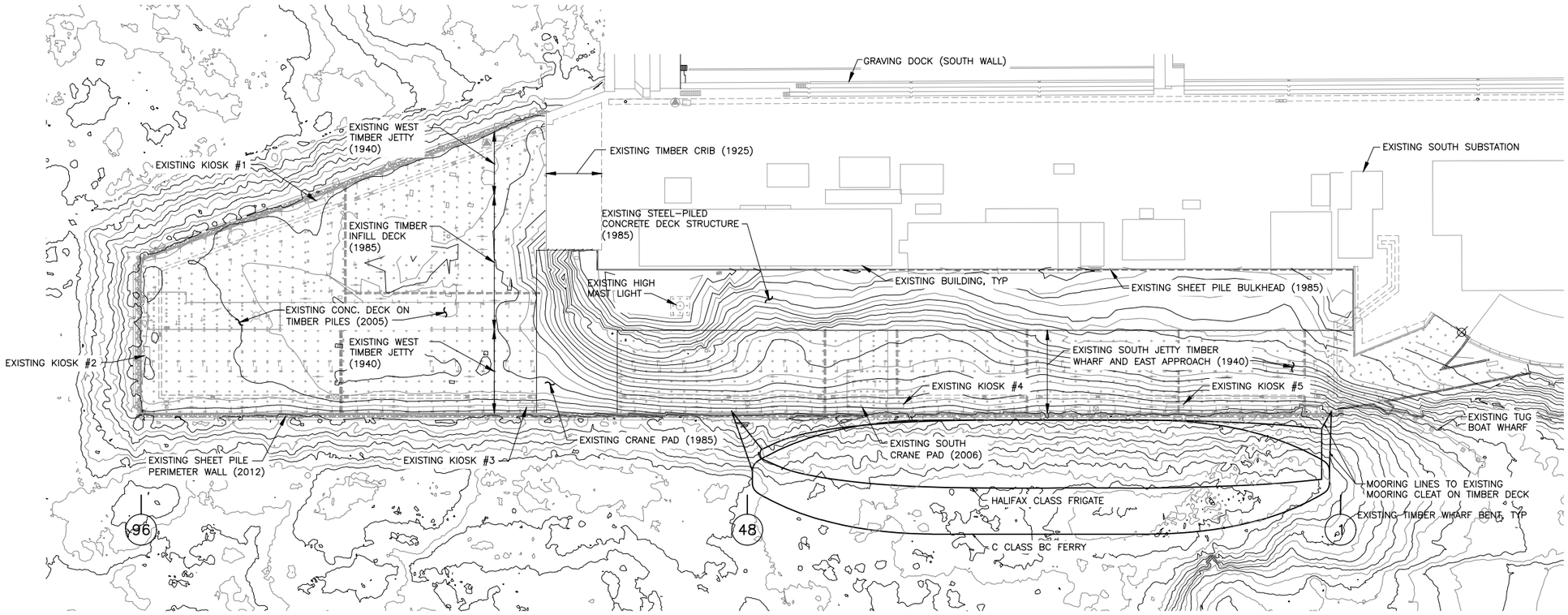
ANDREW MYLLY

Regional Manager, Environmental Services
COLLIN KINGMAN

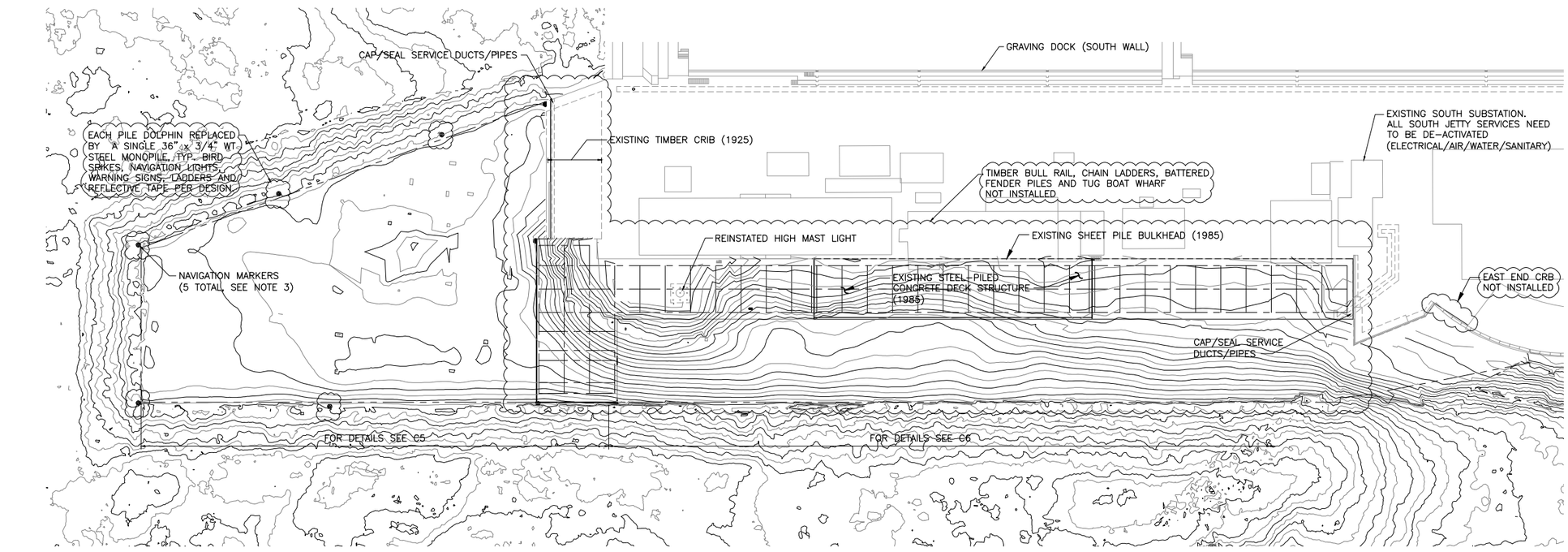
Drawing title/Titre du dessin
CONTRACTOR'S WORK AREA AND SITE ACCESS

Project No./No. du projet	Sheet/	Revision no./
R.018400.002	C8	2

DM5XXXXXX



EXISTING SOUTH JETTY GENERAL LAYOUT
1:600



MODIFIED SOUTH JETTY GENERAL LAYOUT
1:600

NOTES:

1. VERTICAL DATUM: CHART DATUM.
2. THE BATHYMETRY SHOWN IS BASED ON EXISTING CONDITIONS. THE MODIFIED BATHYMETRY WITHIN THE EXISTING SOUTH JETTY FOOTPRINT FOLLOWING DREDGING AND CAPPING WILL GENERALLY BE AT OR BELOW THE BATHYMETRY ELEVATIONS SHOWN.
3. NAVIGATION MARKERS ARE INTENDED TO INDICATE THE NAVIGATION CHANNEL AND ARE NOT DESIGNED TO BE BERTHING OR TURNING DOLPHINS.

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2	RECORD DRAWING	2017/03/29
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ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

Consultant Signature Only

Designed by/Concept par
GEOFF COOPER

Drawn by/Dessine par
ARNIE RIST

PWGSC Project Manager/Administrateur de Projets TPSGC
ANDREW MYLLY

Regional Manager, Environmental Services
COLLIN KINGMAN

Drawing title/Titre du dessin

SOUTH JETTY EXISTING AND MODIFIED PLANS

Project No./No. du projet	Sheet/	Revision no./
R.018400.002	C10	2

PWGSC – A1 – 841X594

0 10 20 30 40 50 60 70 80 90 100mm

DM5XXXXXX

PHOTO C14–01 SOUTH JETTY SHEET PILE WALL – NOTE SMALL BOAT ACCESS OPENING

PHOTO C14–02 STEEL PILED CONCRETE DECK LOOKING EAST – NOTE TIMBER PILE REMNANTS AND LOWER SHEET PILING

PHOTO C14–03 STEEL PILED CONCRETE DECK LOOKING EAST – NOTE BATTER PILES AND TIMBER PILE REMNANTS

PHOTO C14–04 STEEL PILED CONCRETE DECK LOOKING WEST – NOTE CATHODIC PROTECTION CABLES AT SLAB SOFFIT

PHOTO C14–05 STEEL PILED CONCRETE DECK NEXT TO TIMBER PILED WEST JETTY – NOTE TIMBER FIRE STOP WALL AND CROSS–BRACING

PHOTO C14–06 PAINTED SHEET PILE BULKHEAD – NOTE CATHODIC PROTECTION AND REMNANTS OF LOWER SHEET PILING (TIDE APPROX. EL+1.0M)

PHOTO C14–07 REMNANTS OF LOWER SHEET PILING – NOTE SHEET PILED BULKHEAD IN BACKGROUND

PHOTO C14–08 STORMWATER OUTFALL AT SHEET PILE BULKHEAD

PHOTO C14–09 OPEN STEEL PIPE PILE UNDER STEEL PILED CONCRETE DECK – NOTE SAFETY RISK

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825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

Consultant Signature Only

Designed by/Concept par
GEOFF COOPER

Drawn by/Dessine par
MIKE BRIDDEN

PWGSC Project Manager/Administrateur de Projets TPSGC
ANDREW MYLLY

Regional Manager, Environmental Services
COLLIN KINGMAN

Drawing title/Titre du dessin

PHOTOGRAPHS OF EXISTING CONDITIONS SHEET 1

Project No./No. du projet	Sheet/	Revision no./
R.018400.002	C14	1

PWGSC – A1 – 841X594

0 10 20 30 40 50 60 70 80 90 100mm

DM5XXXXXX

PHOTO C15–01 TIMBER PILED JETTY AT EAST APPROACH – NOTE RIPRAP FORESHORE SLOPE

PHOTO C15–02 TIMBER PILED JETTY – TYPICAL VIEW AT EAST APPROACH JETTY LOOKING WEST

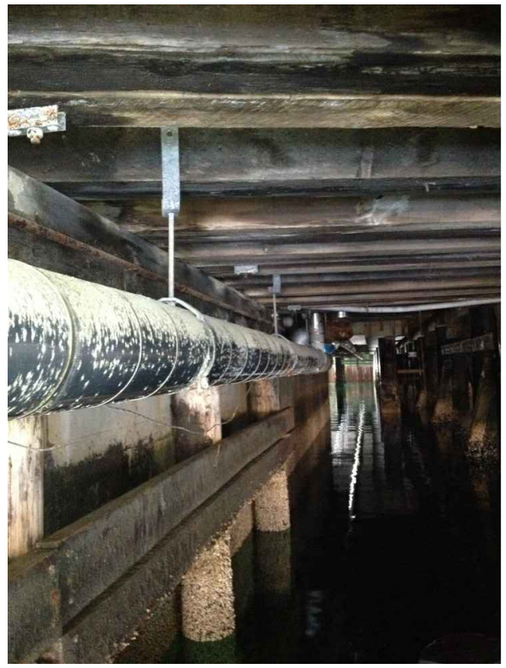

PHOTO C15–03 TIMBER PILED JETTY AT TIMBER CRIB LOOKING SOUTH – NOTE FENDERING AT FACE OF TIMBER CRIB

PHOTO C15–04 TIMBER PILED JETTY – TYPICAL VIEW LOOKING EAST (BEFORE SHEET PILE PERIMETER WALL WAS INSTALLED)

PHOTO C15–05 TIMBER PILED JETTY – VIEW AT EAST END FIRE STOP WALL AND CATWALK (BEFORE SHEET PILE PERIMETER WALL WAS INSTALLED)

PHOTO C15–06 TIMBER PILED JETTY AT INTERFACE WITH STEEL PILED DECK– NOTE RIPRAP ON FORESHORE AND MISCELLANEOUS CONCRETE FOOTINGS

PHOTO C15–07 TIMBER PILED JETTY – TYPICAL VIEW UNDER WEST CRANE PAD

PHOTO C15–08 TIMBER INFILL DECK CONSTRUCTION – NOTE CONDITION OF TIMBER AT THIS STRUCTURE

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825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

Consultant Signature Only

Designed by/Concept par
GEOFF COOPER

Drawn by/Dessine par
MIKE BRIDDEN

PWGSC Project Manager/Administrateur de Projets TPSGC
ANDREW MYLLY

Regional Manager, Environmental Services
COLLIN KINGMAN

Drawing title/Titre du dessin

PHOTOGRAPHS OF EXISTING CONDITIONS SHEET 2

Project No./No. du projet	Sheet/	Revision no./
R.018400.002	C15	1

PWGSC – A1 – 841X594

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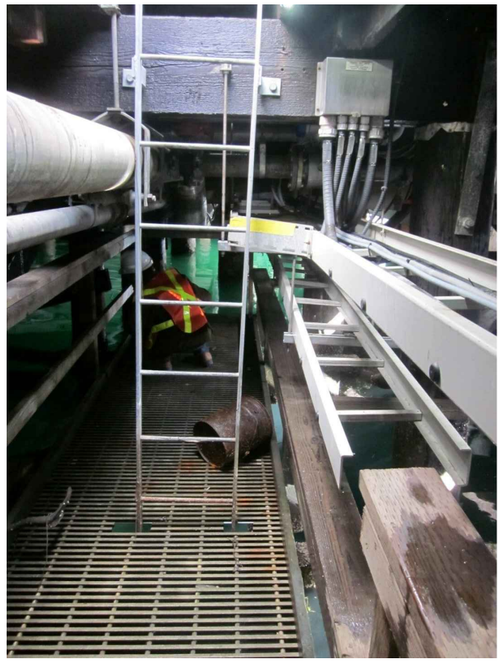

PHOTO C16–01 SOUTH JETTY CATWALK LADDER ACCESS AND CABLING LAYOUT

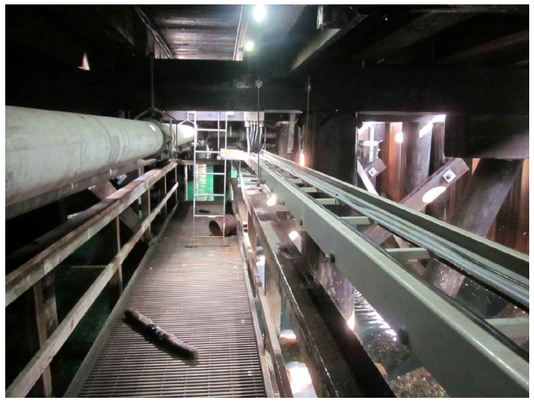

PHOTO C16–02 SOUTH JETTY CATWALK WITH MECHANICAL AND ELECTRICAL SERVICES

PHOTO C16–03 UNDER–PIER CATWALK – TYPICAL CABLE TRAY

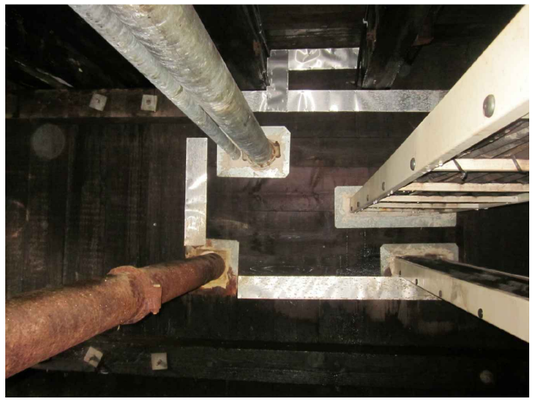

PHOTO C16–04 UNDER–PIER MECHANICAL AND ELECTRCIAL SERVICES AT TIMBER FIRE STOP WALL

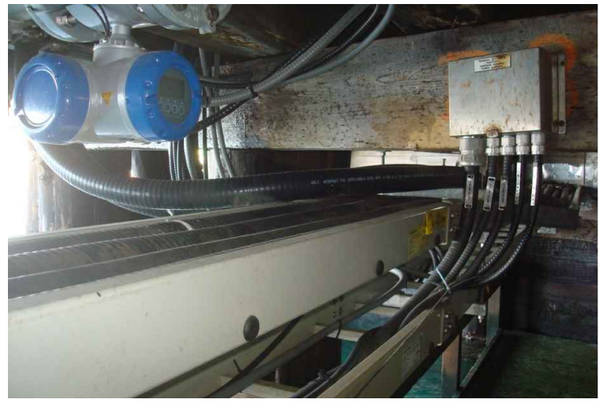

PHOTO C16–05 UNDER–PIER CATWALK AT KIOSK LOCATION – LOOKING WEST

PHOTO C16–06 CONCRETE–FACED TIMBER CRIB NEXT TO TIMBER JETTY PILINGS

PHOTO C16–07 UNDER–PIER CATWALK AT KIOSK LOCATION – LOOKING EAST

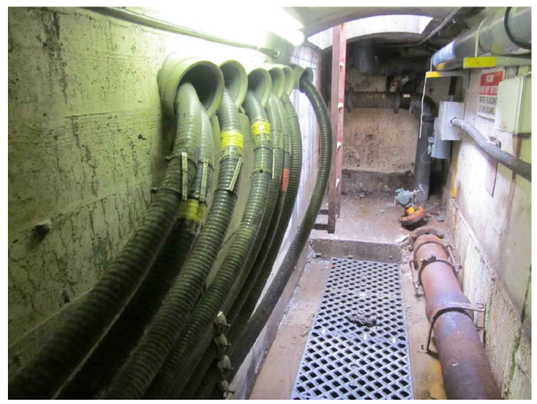

PHOTO C16–08 ELECTRICAL CABLING IN DOCK SERVICE TUNNEL (AT TUNNEL END, JUST EAST OF TIMBER CRIB)

Public Works and Government Services Canada
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REAL PROPERTY SERVICES
Pacific Region
SERVICES IMMOBILIERS

Klohn Crippen Berger

ANCHOR QEA

Revision/ Revision	Description/Description	Date/Date
1	RECORD DRAWING	2017/03/29
0	ISSUED FOR TENDER	2014/12/19

Client/client

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER-PIER

Consultant Signature Only

Designed by/Concept par
GEOFF COOPER

Drawn by/Dessine par
MIKE BRIDDEN

PWGSC Project Manager/Administrateur de Projets TPSGC
ANDREW MYLLY

Regional Manager, Environmental Services
COLLIN KINGMAN

Drawing title/Titre du dessin
PHOTOGRAPHS OF EXISTING CONDITIONS SHEET 3

Project No./No. du projet	Sheet/	Revision no./
R.018400.002	C16	1

PWGSC – A1 – 841X594

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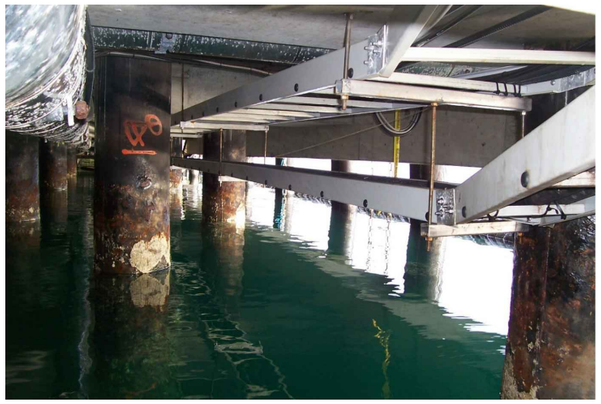

PHOTO C17–01 CABLE TRAY UNDER CONCRETE DECK LOOKING EAST FROM WEST TIMBER PILED JETTY (BEFORE SHEET PILE PERIMETER WALL WAS INSTALLED

PHOTO C17–02 HIGH MAST LIGHT ABOVE STEEL PILED CONCRETE DECK – NOTE LIMITED SIZE OF DECK OPENING

PHOTO C17–03 HIGH MAST LIGHT FOUNDATION UNDER STEEL PILED CONCRETE DECK – NOTE TIMBER FORMS LEFT IN PLACE

PHOTO C17–04 FORESHORE FILL MOUND UNDER STEEL PILED CRANE PAD – LOOKING WEST

PHOTO C17–05 FORESHORE FILL MOUND UNDER STEEL PILED CRANE PAD – LOOKING NORTHWEST TOWARDS TIMBER CRIB

PHOTO C17–06 SOUTH FACE OF TIMBER CRIB AND RIPRAP FORESHORE SLOPE

PHOTO C17–07 FORESHORE RIPRAP DIRECTLY UNDER STEEL PILED CONCRETE DECK

PHOTO C17–08 FORESHORE FILL MOUND UNDER STEEL PILED CONCRETE DECK – NOTE STEEL WALER AT RIGHT AND SEVERELY LIMITED HEADROOM

PHOTO C17–09 DETAIL VIEW OF STEEL WALER AND ANCHOR AT PAINTED SHEET PILED BULKHEAD WALL

Public Works and Government Services Canada
Travaux publics et Services gouvernementaux Canada

REAL PROPERTY SERVICES
Pacific Region
SERVICES IMMOBILIERS

Klohn Crippen Berger

ANCHOR QEA

Revision/ Revision	Description/Description	Date/Date
1	RECORD DRAWING	2017/03/29
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Client/client

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet

ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

Consultant Signature Only

Designed by/Concept par
GEOFF COOPER

Drawn by/Dessine par
MIKE BRIDDEN

PWGSC Project Manager/Administrateur de Projets TPSGC
ANDREW MYLLY

Regional Manager, Environmental Services
COLLIN KINGMAN

Drawing title/Titre du dessin

PHOTOGRAPHS OF EXISTING CONDITIONS SHEET 4

Project No./No. du projet	Sheet/	Revision no./
R.018400.002	C17	1

PWGSC – A1 – 841X594

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DREDGE AREA BOUNDARY POINT TABLE		
	NORTHING (m)	EASTING (m)
D1	5364862.3	468379.4
D2	5364817.2	468287.3
D3	5364780.8	468291.2
D4	5364796.1	468437.3
D5	5364809.3	468564.0
D6	5364811.0	468579.5
D7	5364807.0	468579.9
D8	5364809.7	468590.5
D9	5364820.2	468624.6
D10	5364827.1	468623.4
D11	5364830.0	468610.5
D12	5364836.1	468598.9

DREDGE AREA BOUNDARY POINT TABLE		
	NORTHING (m)	EASTING (m)
D13	5364832.2	468597.1
D14	5364830.4	468596.5
D15	5364824.2	468588.9
D16	5364825.3	468584.1
D17	5364824.5	468580.2
D18	5364824.3	468577.6
D19	5364845.7	468575.3
D20	5364830.5	468433.7
D21	5364826.7	468397.4
D22	5364831.3	468396.9
D23	5364829.8	468383.1

PROJECT BASELINE POINT TABLE		
	NORTHING (m)	EASTING (m)
BL1	5364805.7	468601.0
BL2	5364785.7	468577.5
BL3	5364765.1	468380.4
BL4	5364783.1	468357.6
BL5	5364761.1	468342.6
BL6	5364755.7	468290.8
BL7	5364805.4	468285.6
BL8	5364855.2	468280.4
BL9	5364866.6	468389.8
BL10	5364840.7	468392.6
BL11	5364833.6	468411.0
BL12	5364851.2	468579.1
BL13	5364841.6	468582.5
BL14	5364854.7	468619.6

PROJECT BASELINE DEFINES STATION 0+00 OF CROSS-SECTIONS. SEE DWGS C22/C23.

E:468300.0
+ N:5364900.0
E:468400.0
E:468500.0
E:468600.0
N:5364800.0

~~TEMPORARY SOIL SUPPORT SYSTEM AT STEP IN DREDGE CUT (SEE DWG CSM8)~~
(NOT USED)

TEMPORARY RE-SUSPENSION BARRIER 1 (SEE NOTE 8)

DU7 2H:1V

HIGH MAST LIGHT FOUNDATION

TIMBER CUTOFF PILES AND OTHER STRUCTURES LOCATED BENEATH STEEL-PILE SUPPORTED CONCRETE DECK (SEE NOTE 10)

TEMPORARY RE-SUSPENSION BARRIER 1 EXTENDS TO SHORELINE (SEE NOTE 8)

EDGE OF TIMBER CRIB

9 C26 HAZARDOUS WASTE MATERIAL AREA

RESTRICTED DREDGE ELEVATION: 1.5m

DU16 3H:1V

RESTRICTED DREDGE ELEVATION: 0.6m

DU12 3H:1V

RESTRICTED DREDGE ELEVATION: 3.0m

DU1 -10.0

DU2 -11.5

DU3 -11.0

DU4 -10.0

DU5 -11.0

DU6 -11.0

DU8 -9.0

DU9 2H:1V

DU10 2H:1V

DU11 3H:1V

DU13 3H:1V

DU14 -5.6

DU15 3H:1V

DU17 3H:1V

DU18 3H:1V

DU19 0.5M CUT

DREDGE ELEVATION: 2.2m BELOW TOP OF ROCK ARMOUR SLOPE OUTSIDE OF TRBCA

DREDGE PRISM MODIFIED (SEE DWG C23)

DREDGE PRISM MODIFIED (SEE DWG C22)

CONTINGENCY RE-DREDGING MAY BE REQUIRED BY DEPARTMENTAL REPRESENTATIVE INSIDE THE TEMPORARY RE-SUSPENSION BARRIER CONTAINMENT AREA (SEE NOTE 11)

TEMPORARY RE-SUSPENSION BARRIER 1 (SEE NOTE 8)

TEMPORARY RE-SUSPENSION BARRIER 1 (SEE NOTE 8)

~~RESIDUALS CONTINGENCY RE-DREDGING MAY BE REQUIRED BY DEPARTMENTAL REPRESENTATIVE OUTSIDE OF TEMPORARY RE-SUSPENSION BARRIER CONTAINMENT AREA~~ 8B C26
(NOT USED)

HORIZONTAL DATUM: UTM ZONE 10 GRID, NAD83.
VERTICAL DATUM: CHART DATUM (C.D.)

NOTES:

1. POST-DREDGE BATHYMETRY PROVIDED BY CONTRACTOR AND COMPILED IN 2016. BATHYMETRY PRESENTS POST-REQUIRED DREDGING AND POST-CONTIGENCY RE-DREDGING CONDITIONS AS A COMBINED SINGLE SURVEY COMPILED FROM CONTRACTOR POST-CONSTRUCTION SURVEYS.
2. BASE MAP FROM GOLDER, JANUARY 2012.
3. REFERENCE DWG C1 FOR DATUM INFORMATION.
4. EGD WORK SITE ALSO INCLUDES UPLAND AREAS OF THE EGD FACILITY AS SHOWN ON THE DRAWINGS AND DESCRIBED IN THE SPECIFICATIONS.
5. CONTRACTOR SHALL COMPLETE DREDGING ACTIVITIES ACCORDING TO SEQUENCING REQUIREMENTS SHOWN ON DRAWINGS AND DESCRIBED IN THE SPECIFICATIONS.
6. SEE APPENDIX D REFERENCE DRAWINGS FOR A COMPLETE LIST OF CONTROL POINTS USED TO DEFINE EXTENTS OF DREDGING FOR DREDGE UNITS. CONTRACTOR SHALL TRANSITION DREDGE CUTS FROM THESE EXTENTS TO THE EGD WORK SITE BOUNDARY AS SHOWN ON THE DRAWINGS.
7. DREDGE SURFACE 0.5m WITHIN HAZARDOUS WASTE AREA (DU13) AND DISPOSE OF MATERIAL AS HAZARDOUS WASTE. PWGSC TO SAMPLE TO DETERMINE WHETHER UNDERLYING MATERIAL IS HAZARDOUS WASTE. COMPLETE DREDGING TO ELEVATIONS AND GRADES. UNIT PRICE TABLE ASSUMES OTHER MATERIAL REMOVED TO ACHIEVE THE ELEVATIONS WILL BE DISPOSED AS IL+ MATERIAL.
8. TRB LOCATIONS SHOWN AS EXAMPLE ONLY. CONTRACTOR (AND 3RD PARTY VENDOR) SHALL DESIGN, INSTALL AND MAINTAIN TRBS IN ACCORDANCE WITH THE SPECIFICATIONS. CONTRACTOR TO PROVIDE TRB LAYOUT AND DESIGN DETAILS IN THE ENVIRONMENTAL PROTECTION PLAN.
9. OPEN PILES ARE PRESENT BENEATH SOUTH JETTY DECK POSE HEALTH AND SAFETY RISK. CONTRACTOR TO IDENTIFY IN HEALTH AND SAFETY PLAN APPROPRIATE RISK MITIGATION MEASURES THAT WILL BE IMPLEMENTED AT THESE LOCATIONS.
10. SEE DWGS C14, C15, AND D6, TIMBER PILES AND/OR OLD NON-FUNCTIONAL VERTICAL STRUCTURES INCLUDING BROKEN TIMBER PILES OR BROKEN STRUCTURAL ELEMENTS ARE PRESENT BENEATH THE STEEL-PILE SUPPORTED CONCRETE DECK IN DREDGE UNITS 6, 9, 10, 11, 12, 13, 16, AND 17. REMOVE TIMBER CUTOFF PILES AND OTHER STRUCTURES ENCOUNTERED DURING DREDGING IN ACCORDANCE WITH THE SPECIFICATIONS.
11. CONTINGENCY RE-DREDGING WAS PERFORMED FOR MISSED INVENTORY AND RESIDUALS MATERIAL REMOVAL WITHIN THE TEMPORARY RE-SUSPENSION BARRIER CONTAINMENT AREA AT LOCATIONS AS SHOWN, SEE DETAIL 8A AND 8B, DWG C26.

DREDGE PLAN

SCALE 1: 500

SCALE : 1:500
0m 10 20 30 40 50m

LEGEND:

- -14.0- POST-DREDGE BATHYMETRY IN METERS
- EGD WORK SITE BOUNDARY
- TEMPORARY RE-SUSPENSION BARRIER CONTAINMENT AREA
- ORDINARY HIGH WATER LINE
- DU4 -11.0 DREDGE UNIT BOUNDARY AND DREDGE ELEVATION
- DU10 2H:1V SLOPE DREDGING DREDGE UNIT (DU) BOUNDARY AND GRADE
- SLOPE DESIGNATION
- DREDGE AREA
- DREDGE AREA UNDER STEEL-PILE SUPPORTED CONCRETE DECK
- HAZARDOUS WASTE MATERIAL AREA
- NO DREDGE AREA
- MISSED INVENTORY/CONTINGENCY RE-DREDGE AREA
- RESIDUALS CONTINGENCY RE-DREDGE AREA
- BASE LINE CONTROL POINT
- DREDGE AREA CONTROL POINT

PWGSC – A1 – 841X594

0 10 20 30 40 50 60 70 80 90 100mm

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REAL PROPERTY SERVICES
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Région de Pacifique

ANCHOR QEA

Klohn Crippen Berger

Revision/ Revision	Description/Description	Date/Date
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1	ADDENDUM NO. 2	2015/03/20
0	ISSUED FOR TENDER	2014/12/19

Client/client

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

Consultant Signature Only

Designed by/Concept par
MATT WOLTMAN

Drawn by/Dessine par
CHRIS HEWETT

PWGSC Project Manager/Administrateur de Projets TPSGC
ANDREW MYLLY

Regional Manager, Environmental Services / Gestionnaire régionale, Services d'architectural et de génie, TPSGC
COLLIN KINGMAN

Drawing title/Titre du dessin
REQUIRED DREDGE PLAN

Project No./No. du projet	Sheet/Feuille	Revision no./ La Révision no.
R.018400.002	C21	2

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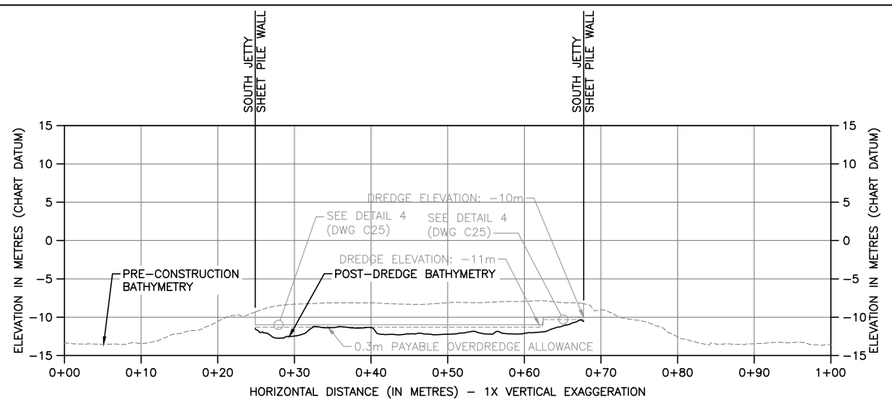

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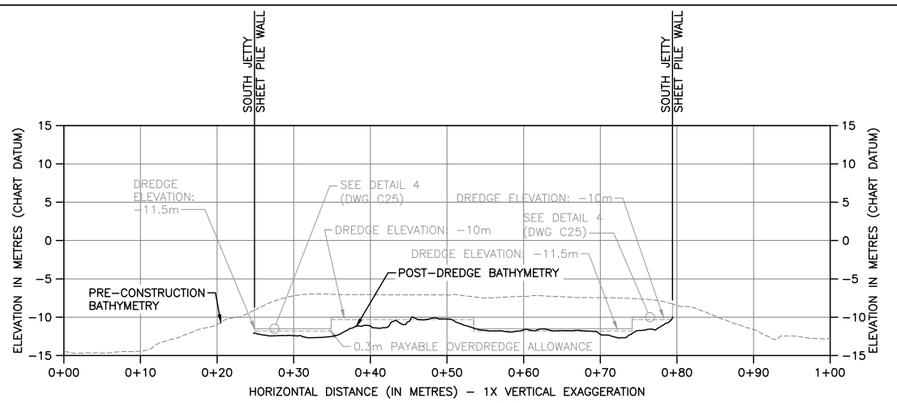

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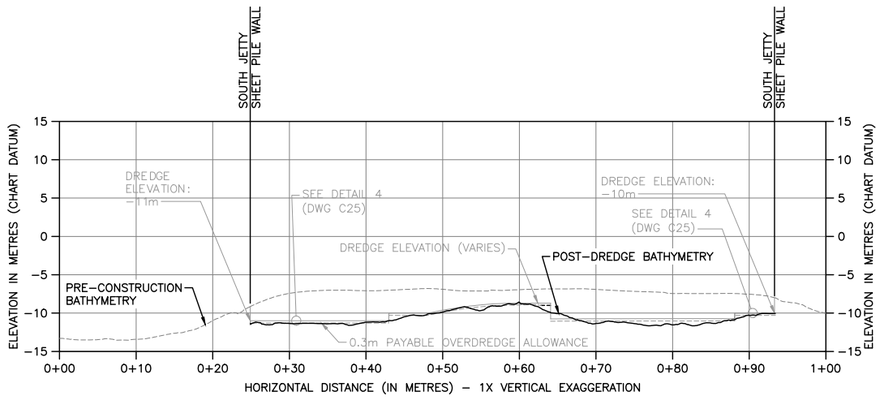

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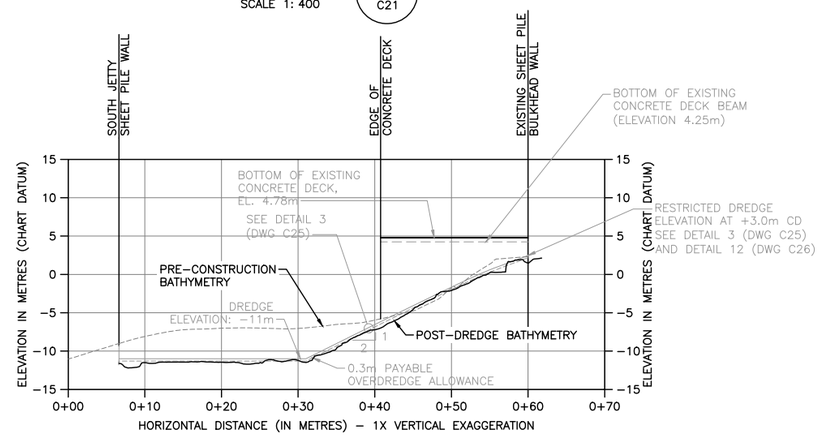

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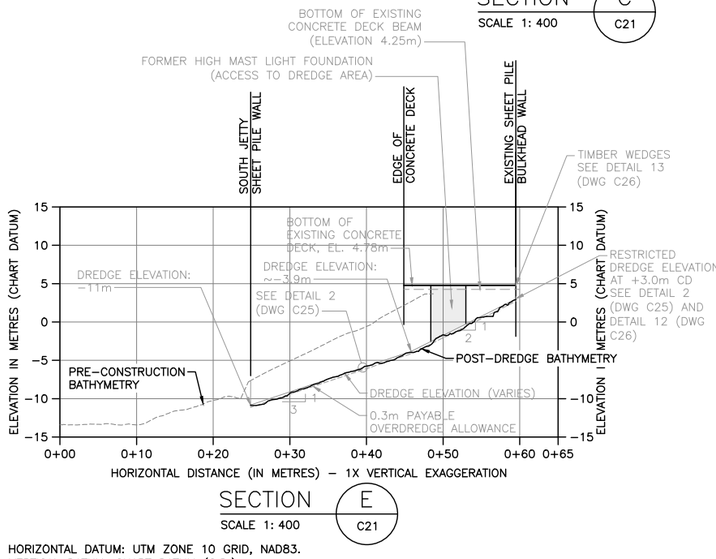

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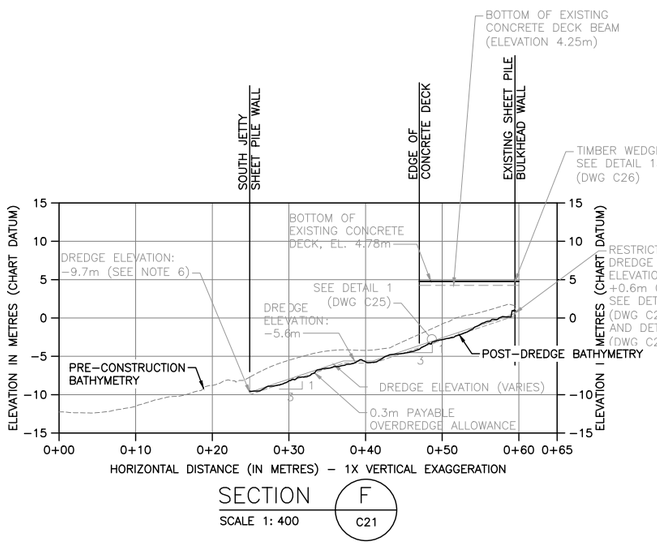

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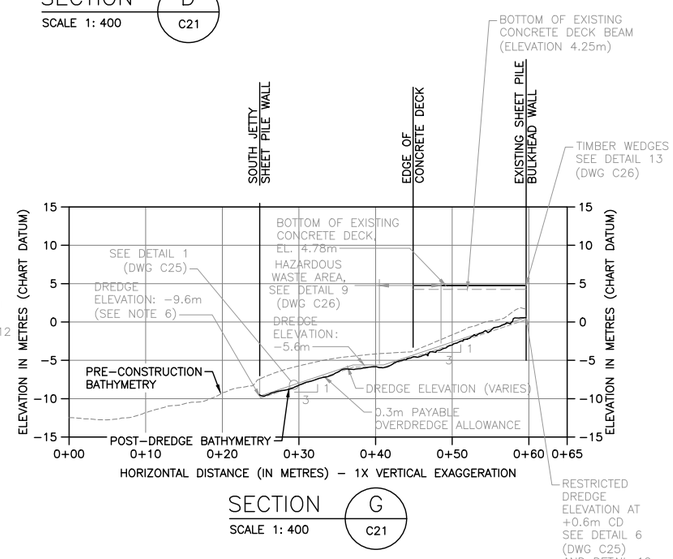

SECTION G
SCALE 1: 400 C21

HORIZONTAL DATUM: UTM ZONE 10 GRID, NAD83.
VERTICAL DATUM: CHART DATUM (C.D.)

NOTES:

1. POST−DREDGE BATHYMETRY PROVIDED BY CONTRACTOR AND COMPILED IN 2016. BATHYMETRY PRESENTS POST−REQUIRED DREDGING AND POST−CONTIGENCY RE−DREDGING CONDITIONS AS A COMBINED SINGLE SURVEY COMPILED FROM CONTRACTOR POST−CONSTRUCTION SURVEYS.
2. REFERENCE DWG C1 FOR DATUM INFORMATION.
3. EXISTING TIMBER−PILED STRUCTURE NOT SHOWN FOR CLARITY.
4. CONTRACTOR SHALL REFERENCE THE 1985 STEEL−PILED DECK AS−BUILT DRAWINGS FOR DETAILS REGARDING CROSS SECTIONS THROUGH THE STEEL−PILED JETTY STRUCTURE, SHEETPILE BULKHEAD WALL, AND CONCRETE L−WALL.
5. EXISTING GRADE IS APPROXIMATE. CONTRACTOR SHALL VERIFY EXISTING GRADES WITH PRE−CONSTRUCTION SURVEY. DREDGE ELEVATION IS APPROXIMATELY 2.2m BELOW EXISTING GRADE AT SOUTH JETTY SHEET PILE WALL FOR SECTIONS E, F, G, H, AND J.
6. SLOUGHING OF EXISTING MATERIAL IS ANTICIPATED TO OCCUR AT THE DREDGE UNIT BOUNDARIES FOR ELEVATION DREDGING. SLOUGH VOLUMES ARE INCLUDED IN THE DREDGE PAY VOLUME PROVIDED IN THE SPECIFICATIONS.
7. REQUIRED DREDGE PRISM RAISED BY 0.5M IN UNDER−PIER AREA OF DU9 TO ADDRESS EQUIPMENT ACCESS AND MATERIAL REMOVAL ACTIVITIES DURING CONSTRUCTION.

CROSS SECTIONS

SCALE 1: 400

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ANCHOR QEA

Klohn Crippen Berger

Revision/ Revision	Description/Description	Date/Date
1	RECORD DRAWING	2017/03/31
0	ISSUED FOR TENDER	2014/12/19

Client/client

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

Consultant Signature Only

Designed by/Concept par
MATT WOLTMAN

Drawn by/Dessine par
CHRIS HEWETT

PWGSC Project Manager/Administrateur de Projets TPSGC
ANDREW MYLLY

Regional Manager, Environmental Services
Gestionnaire régionale, Services d'architectural et de génie, TPSGC
COLLIN KINGMAN

Drawing title/Titre du dessin
DREDGE CROSS SECTIONS - SHEET 1

Project No./No. du projet	Sheet/ Feuille	Revision no./ La Révision no.
R.018400.002	C22	1

PWGSC – A1 – 841X594

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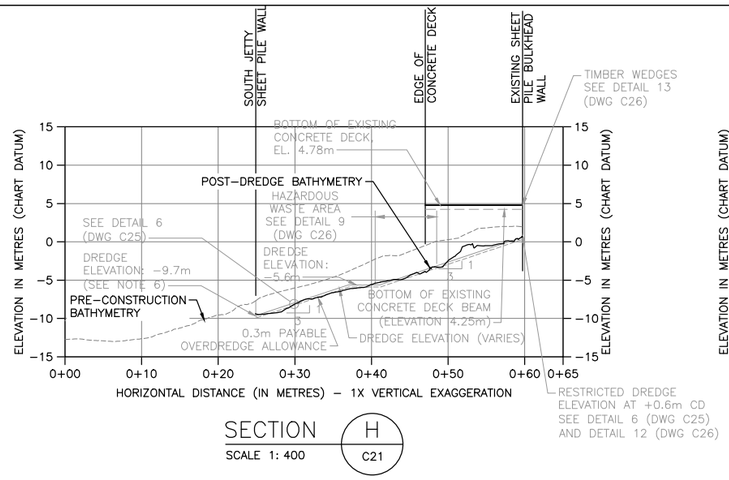

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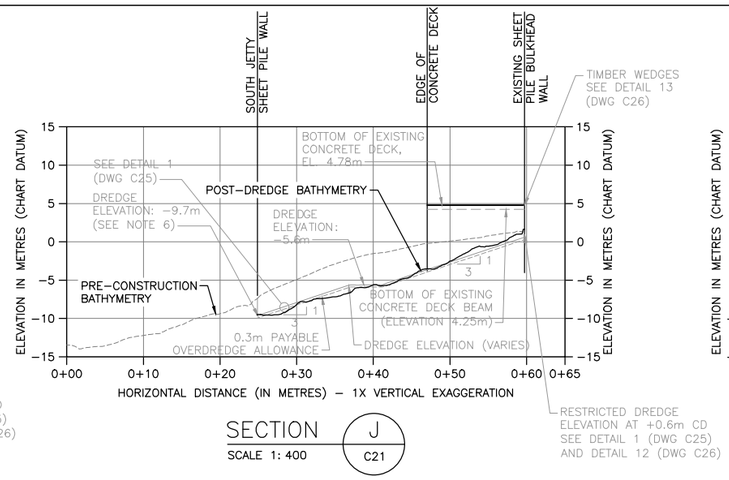

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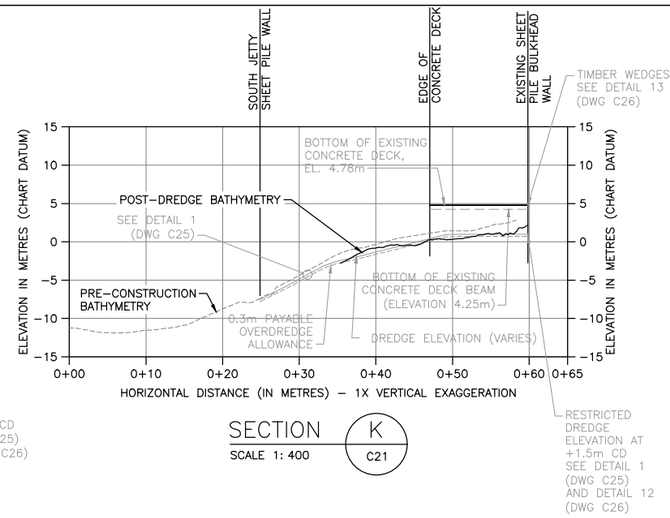

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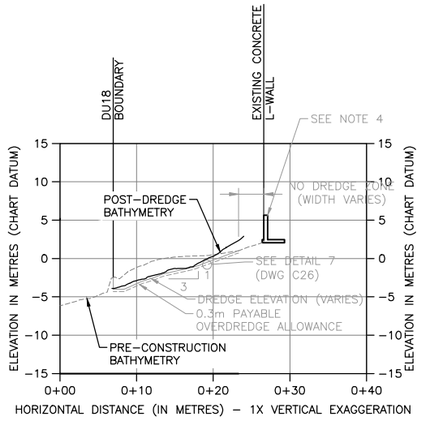

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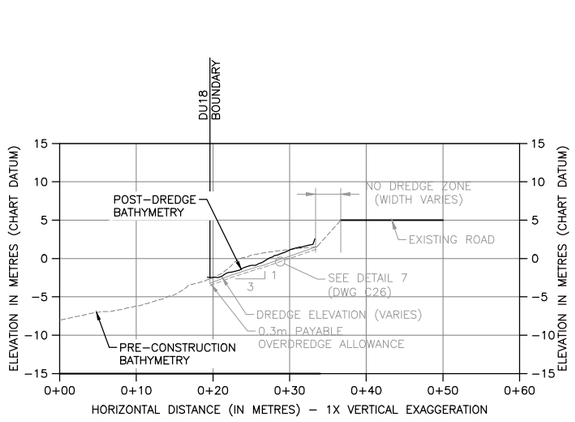

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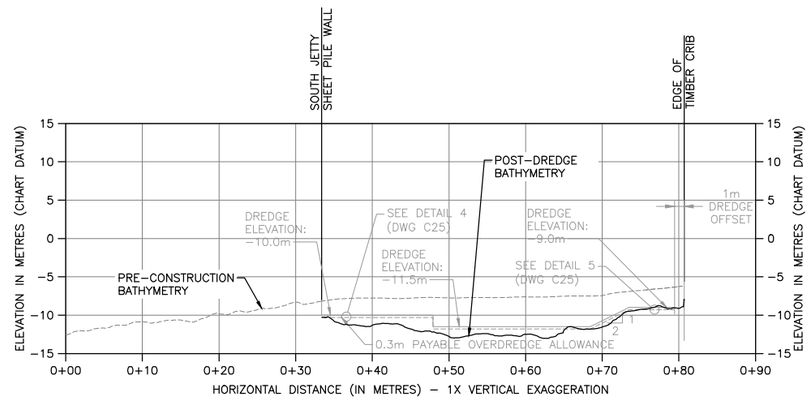

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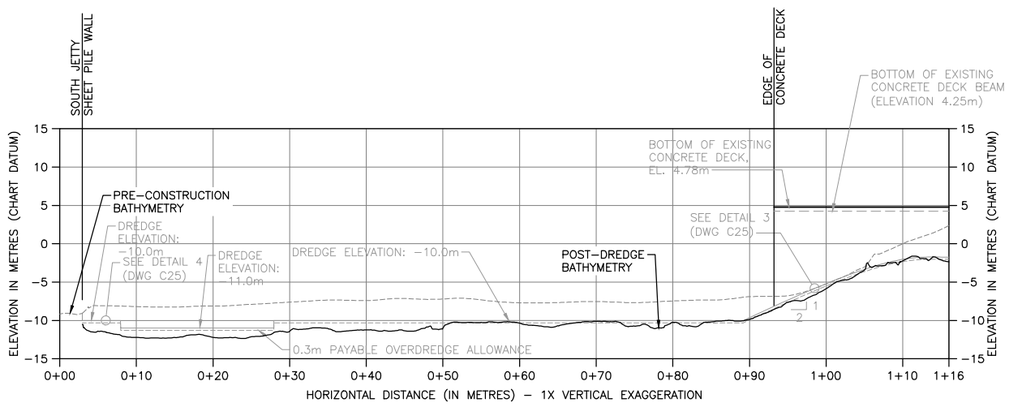
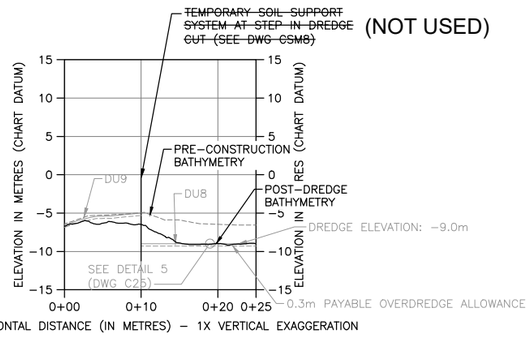


SECTION P
SCALE 1: 400
C21

CROSS SECTIONS
SCALE 1: 400



(NOT USED)

SECTION Q
SCALE 1: 400
C21

HORIZONTAL DATUM: UTM ZONE 10 GRID, NAD83.
VERTICAL DATUM: CHART DATUM (C.D.)

NOTES:

1. POST-DREDGE BATHYMETRY PROVIDED BY CONTRACTOR AND COMPILED IN 2016. BATHYMETRY PRESENTS POST-REQUIRED DREDGING AND POST-CONTIGENCY RE-DREDGING CONDITIONS AS A COMBINED SINGLE SURVEY COMPILED FROM CONTRACTOR POST-CONSTRUCTION SURVEYS.
2. REFERENCE DWG C1 FOR DATUM INFORMATION.
3. EXISTING TIMBER-PILED STRUCTURE NOT SHOWN FOR CLARITY.
4. CONTRACTOR SHALL REFERENCE THE 1985 STEEL-PILED DECK AS-BUILT DRAWINGS FOR DETAILS REGARDING CROSS SECTIONS THROUGH THE STEEL-PILED JETTY STRUCTURE, SHEETPILE BULKHEAD WALL, AND CONCRETE L-WALL.
5. EXISTING GRADE IS APPROXIMATE. CONTRACTOR SHALL VERIFY EXISTING GRADES WITH PRE-CONSTRUCTION SURVEY. DREDGE ELEVATION IS APPROXIMATELY 2.2m BELOW EXISTING GRADE AT SOUTH JETTY SHEET PILE WALL FOR SECTIONS E, F, G, H, AND J.
6. SLOUGHING OF EXISTING MATERIAL IS ANTICIPATED TO OCCUR AT THE DREDGE UNIT BOUNDARIES FOR ELEVATION DREDGING. SLOUGH VOLUMES ARE INCLUDED IN THE DREDGE PAY VOLUME PROVIDED IN THE SPECIFICATIONS.
7. REQUIRED DREDGE PRISM RAISED BY 0.5M IN UNDER-PIER AREA OF DU9 TO ADDRESS EQUIPMENT ACCESS AND MATERIAL REMOVAL ACTIVITIES DURING CONSTRUCTION.
8. REQUIRED DREDGE PRISM RAISED BY IN DU18 TO ADDRESS STRUCTURE AND SHORELINE STABILITY CONSIDERATIONS ENCOUNTERED DURING CONSTRUCTION.
9. POST-DREDGE SURFACE AREAS ABOVE THE REQUIRED DREDGING ELEVATION ARE REPRESENTATIVE OF AREAS WITH HARD MATERIAL AND/OR BLAST ROCK THAT WAS NOT REQUIRED FOR REMOVAL.

PWGSC – A1 – 841X594

0 10 20 30 40 50 60 70 80 90 100mm

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REAL PROPERTY SERVICES
Pacific Region
SERVICES IMMOBILIERS
Région de Pacifique

ANCHOR QEA

Klohn Crippen Berger

Revision/ Revision	Description/Description	Date/Date
1	RECORD DRAWING	2017/03/31
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Client/client

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

Consultant Signature Only

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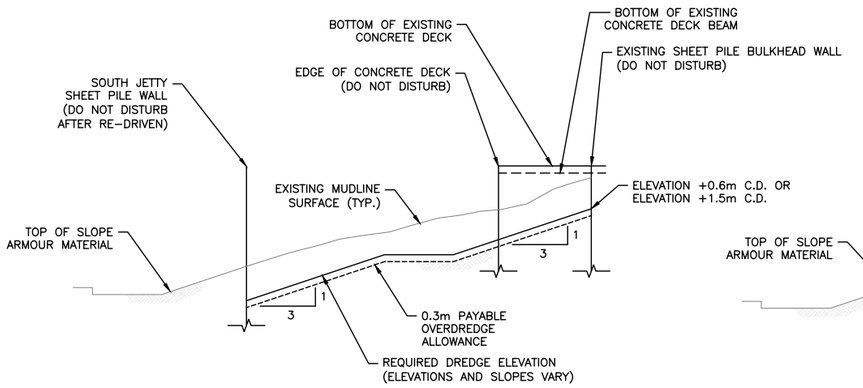
COLLIN KINGMAN

Drawing title/Titre du dessin
DREDGE CROSS SECTIONS - SHEET 2

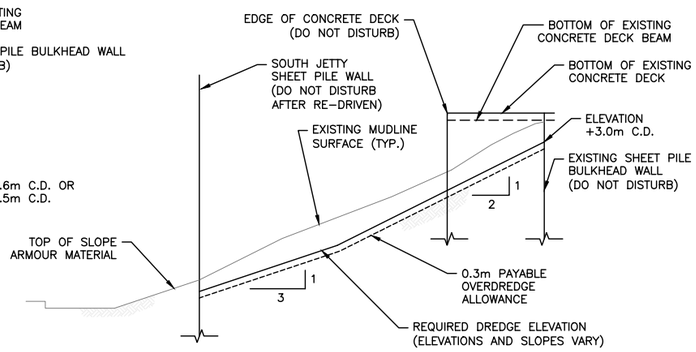
Project No./No. du projet	Sheet/Feuille	Revision no./ La Révision no.
R.018400.002	C23	1

DM5XXXXXX



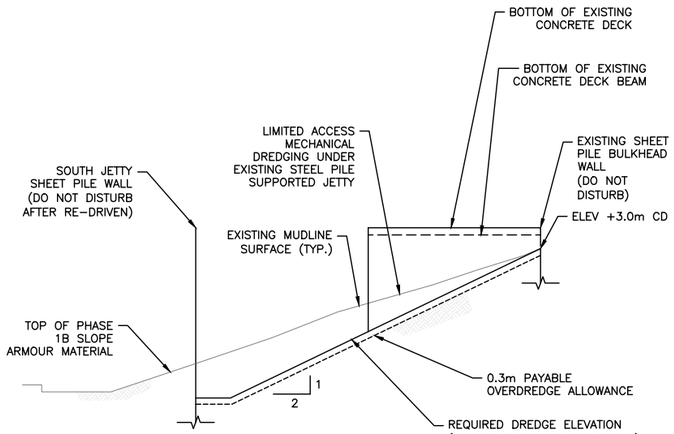
NOTE: CONTRACTOR TO ADHERE TO RESTRICTED ELEVATION REQUIREMENTS WHEN COMPLETING DREDGE ACTIVITIES ADJACENT TO BULKHEADS

DETAIL 1 — C22/C23
NOT TO SCALE



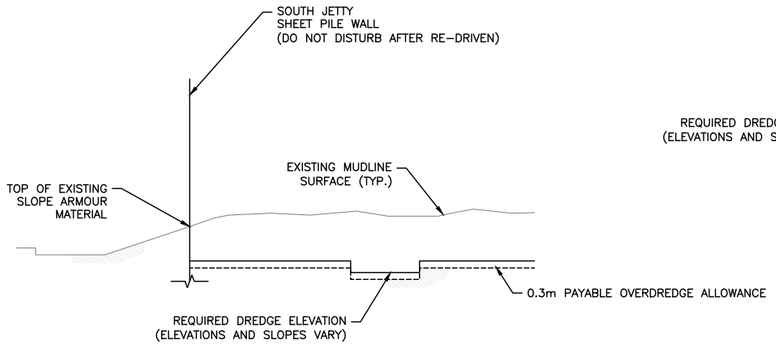
NOTE: CONTRACTOR TO ADHERE TO RESTRICTED ELEVATION REQUIREMENTS WHEN COMPLETING DREDGE ACTIVITIES ADJACENT TO BULKHEADS

DETAIL 2 — C22
NOT TO SCALE

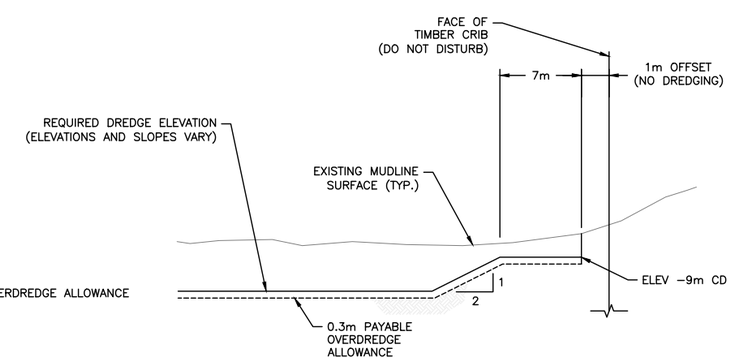


NOTE: CONTRACTOR TO ADHERE TO RESTRICTED ELEVATION REQUIREMENTS WHEN COMPLETING DREDGE ACTIVITIES ADJACENT TO BULKHEADS

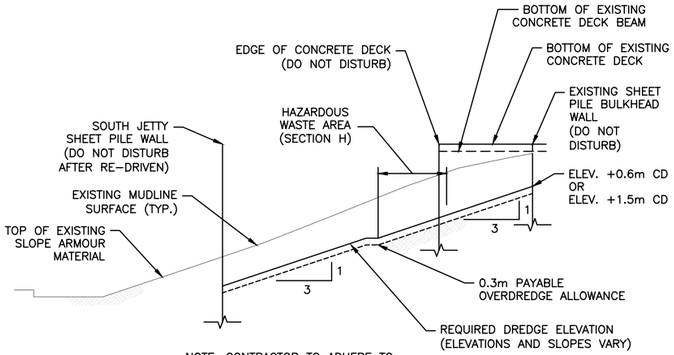
DETAIL 3 — C22/C23
NOT TO SCALE



DETAIL 4 — C22/C23
NOT TO SCALE



DETAIL 5 — C23
NOT TO SCALE



NOTE: CONTRACTOR TO ADHERE TO RESTRICTED ELEVATION REQUIREMENTS WHEN COMPLETING DREDGE ACTIVITIES ADJACENT TO BULKHEADS

DETAIL 6 — C23
NOT TO SCALE

NOTES:
1. EXISTING TIMBER-PILED STRUCTURE NOT SHOWN FOR CLARITY.
2. CONTRACTOR SHALL REFERENCE THE 1985 STEEL-PILE DECK AS-BUILT DRAWINGS FOR DETAILS REGARDING CROSS SECTIONS THROUGH THE STEEL-PILED JETTY STRUCTURE, SHEETPILE BULKHEAD WALL, AND CONCRETE L-WALL.

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0 10 20 30 40 50 60 70 80 90 100mm

Public Works and Government Services Canada
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REAL PROPERTY SERVICES
Pacific Region
SERVICES IMMOBILIERS

ANCHOR QEA

Klohn Crippen Berger

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PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

Consultant Signature Only

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ANDREW MYLLY

Regional Manager, Environmental Services
COLLIN KINGMAN

Drawing title/Titre du dessin
DREDGE DETAILS - SHEET 1

Project No./No. du projet	Sheet/	Revision no./
R.018400.002	C25	1

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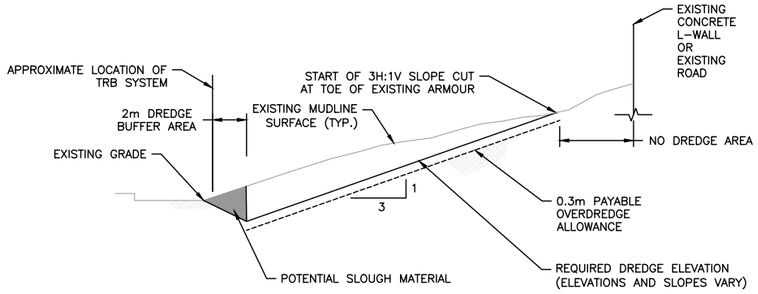
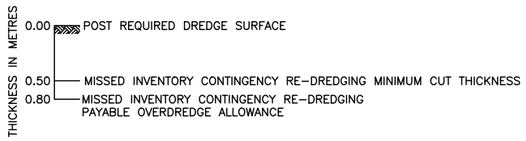
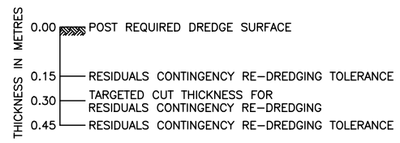


DETAIL 7 — NOT TO SCALE — C23



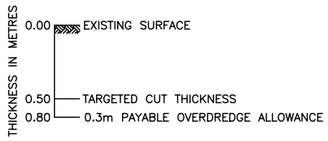
CONTINGENCY RE-DREDGE – MISSED INVENTORY

DETAIL 8A — NOT TO SCALE — C21



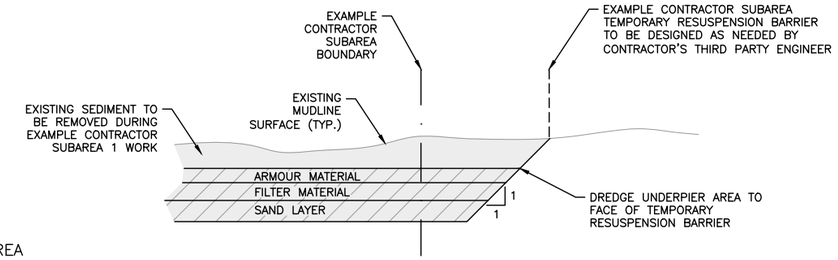
CONTINGENCY RE-DREDGE – RESIDUALS

DETAIL 8B — NOT TO SCALE — C21



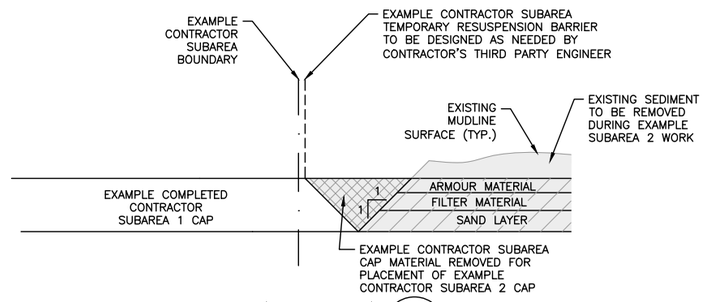
TARGETED CUT THICKNESS FOR HAZARDOUS WASTE AREA

DETAIL 9 — NOT TO SCALE — C21/C22/C23



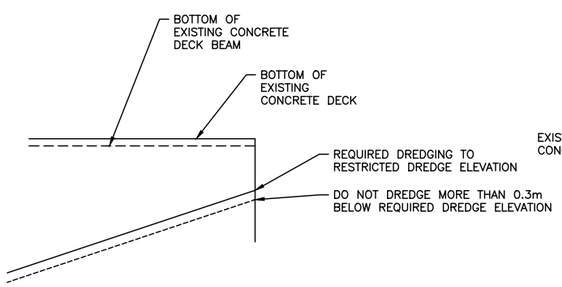
DETAIL (EXAMPLE) 10 — NOT TO SCALE

NOTE: DETAIL 10 AND 11 SHOW EXAMPLE CONTRACTOR SUBAREA TRANSITION AREA.



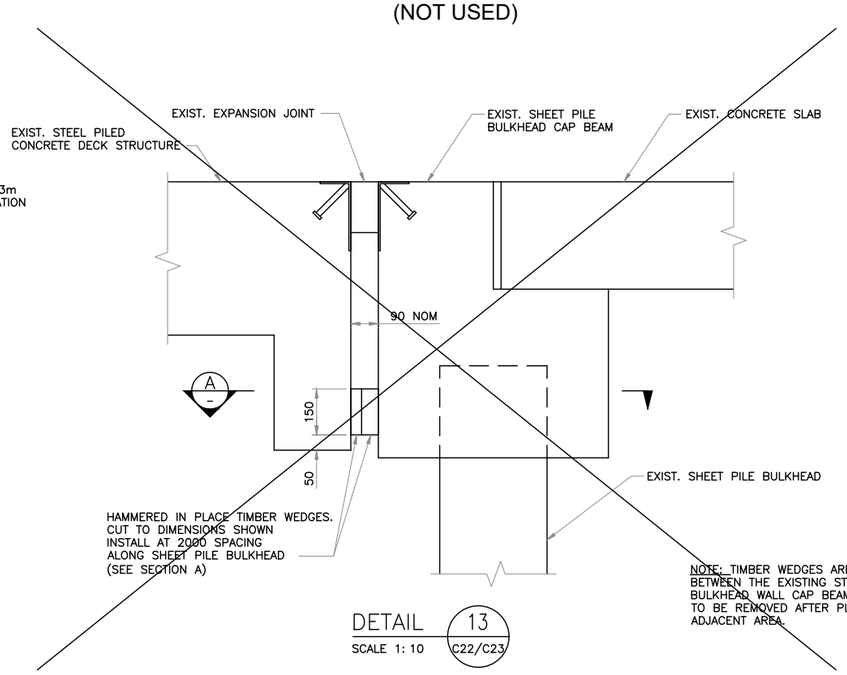
DETAIL (EXAMPLE) 11 — NOT TO SCALE

NOTE: DETAIL 10 AND 11 SHOW EXAMPLE CONTRACTOR SUBAREA TRANSITION AREA.



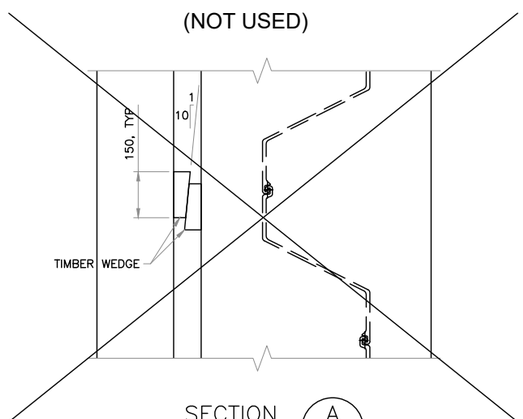
DETAIL 12 — NOT TO SCALE — C22/C23

(NOT USED)



DETAIL 13 — SCALE 1: 10 — C22/C23

(NOT USED)



SECTION A — SCALE 1: 10

NOTE: TIMBER WEDGES ARE TO BE INSTALLED IN THE MOVEMENT JOINT GAP BETWEEN THE EXISTING STEEL-PILED CONCRETE DECK AND THE ANCHORED BULKHEAD WALL CAP BEAM PRIOR TO START OF DREDGING. TIMBER WEDGES TO BE REMOVED AFTER PLACEMENT OF FILTER MATERIAL IN THE IMMEDIATE ADJACENT AREA.

NOTES:

1. EXISTING TIMBER-PILED STRUCTURE NOT SHOWN FOR CLARITY.
2. CONTRACTOR SHALL REFERENCE THE 1985 STEEL-PILES DECK AS-BUILT DRAWINGS FOR DETAILS REGARDING CROSS SECTIONS THROUGH THE STEEL-PILED JETTY STRUCTURE, SHEETPILE BULKHEAD WALL, AND CONCRETE L-WALL.
3. CONTRACTOR SUBAREAS 1 AND 2 ARE FOR EXAMPLE PURPOSES ONLY AND ARE NOT DEFINED LOCATIONS.

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Pacific Region
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Klohn Crippen Berger

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PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2
SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

Consultant Signature Only

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Drawn by/Dessine par
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ANDREW MYLLY

Regional Manager, Environmental Services
COLLIN KINGMAN

Drawing title/Titre du dessin
DREDGE DETAILS - SHEET 2

Project No./No. du projet	Sheet/	Revision no./
R.018400.002	C26	1

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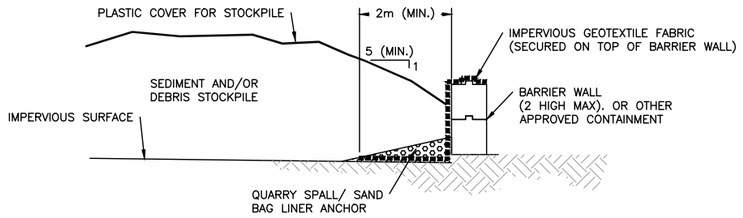
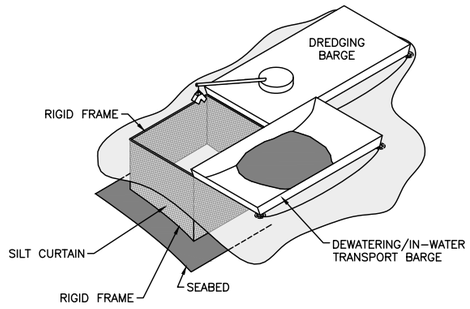
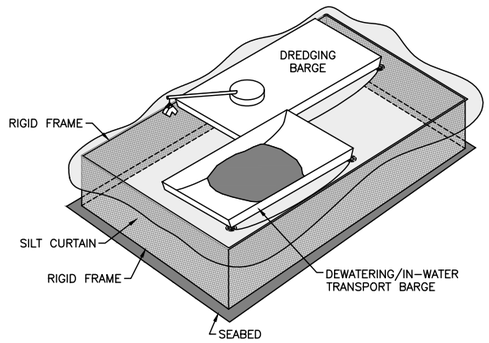


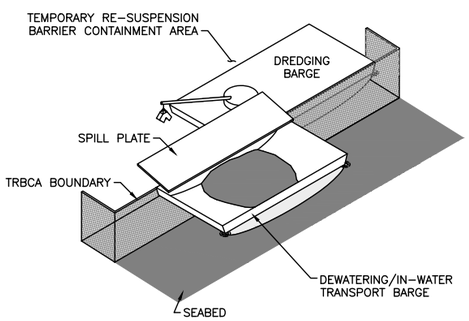
EXAMPLE STOCKPILE CONTAINMENT (NOT TO SCALE)



EXAMPLE ADDITIONAL TRB ARRANGEMENT #1 FOR MATERIAL TRANSFER (DREDGE BARGE TO MATERIAL BARGE): TRB AFFIXED TO DREDGE BARGE; DREDGE BARGE AND MATERIAL BARGE LOCATED WITHIN THE TEMPORARY RE-SUSPENSION BARRIER CONTAINMENT AREA
(NOT TO SCALE)



EXAMPLE ADDITIONAL TRB ARRANGEMENT #2 FOR MATERIAL TRANSFER (DREDGE BARGE TO MATERIAL BARGE): TRB SURROUNDING DREDGE BARGE AND MATERIAL BARGE; DREDGE BARGE AND MATERIAL BARGE LOCATED WITHIN THE TEMPORARY RE-SUSPENSION BARRIER CONTAINMENT AREA
(NOT TO SCALE)



EXAMPLE MATERIAL BARGE MOORAGE OUTSIDE OF TEMPORARY RE-SUSPENSION BARRIER CONTAINMENT AREA; USE OF SPILL PLATE ON MATERIAL BARGE TO PREVENT SPILLAGE OUTSIDE THE TRBCA; DREDGE BARGE LOCATED WITHIN THE TEMPORARY RE-SUSPENSION BARRIER CONTAINMENT AREA
(NOT TO SCALE)

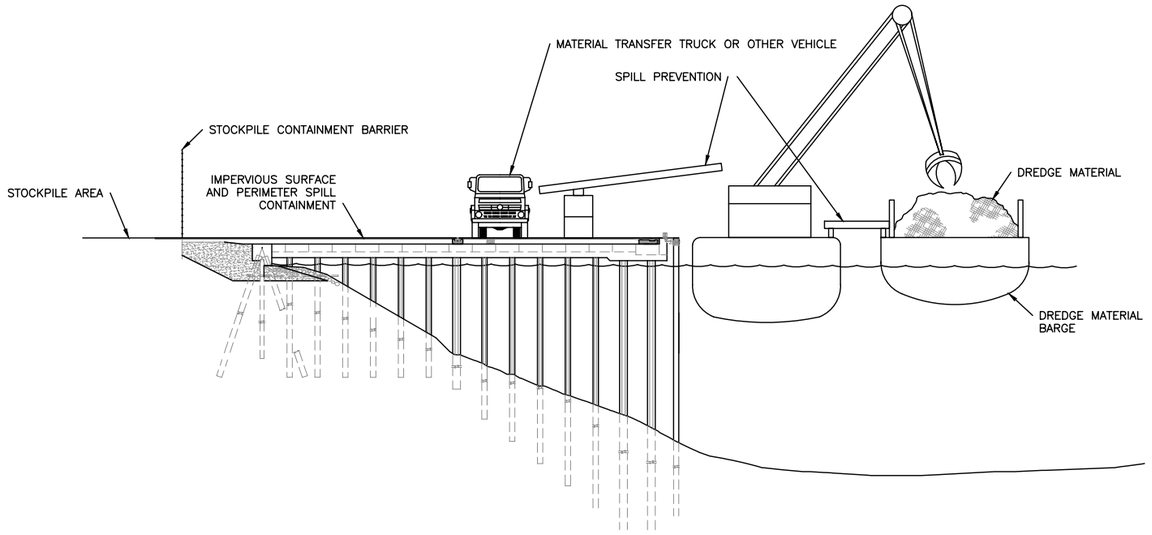


DIAGRAM 1: EXAMPLE OF OFFLOADING OPERATIONAL CONTROLS

PHOTO 1: EXAMPLE OF OFFLOADING OPERATIONAL CONTROLS

PHOTO 2: EXAMPLE OF OFFLOADING OPERATIONAL CONTROLS

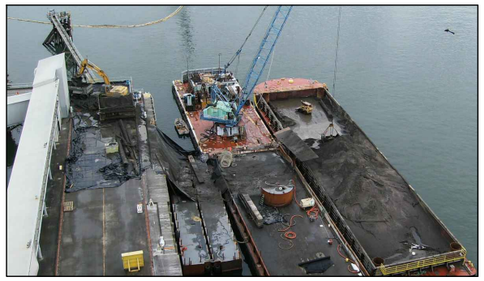


PHOTO 3: EXAMPLE OF OFFLOADING TO TRUCKS OPERATIONAL CONTROLS

EXAMPLE OFFLOAD FACILITY CONTROLS

NOTES:

1. EXAMPLE SILT CURTAIN ARRANGEMENTS ARE SHOWN AS CONCEPTUAL EXAMPLES OF TRB SYSTEMS ONLY. CONTRACTOR MAY ELECT TO USE ADDITIONAL TRB SYSTEMS AROUND THE DREDGE AND/OR DEWATERING BARGES TO ENSURE COMPLIANCE WITH WATER QUALITY CRITERIA.
2. EXAMPLES SHOWN ARE FOR CONTRACTOR INFORMATION ONLY AND INTENDED TO SHOW EXAMPLE BEST MANAGEMENT PRACTICES. DESIGN AND OPERATIONS OF STOCKPILE MANAGEMENT AND OFFLOADING OPERATIONS ARE THE RESPONSIBILITY OF THE CONTRACTOR. COMPLY WITH ALL CONTRACT DOCUMENTS, ENVIRONMENTAL MANAGEMENT PLAN, AND THE FEDERAL, PROVINCIAL, AND MUNICIPAL PERMIT REQUIREMENTS FOR OFFLOAD FACILITY AND STOCKPILING.
3. PLACEMENT OF SEDIMENT NO MORE THAN 1.5 METRE HIGH IMMEDIATELY AGAINST BARRIER WALL IS A TYPICAL STANDARD OF PRACTICE IN STOCKPILE CONTAINMENT.
4. MAINTAINING A SLOPE NO STEEPER THAN 5H:1V ADJACENT TO A BARRIER WALL IS A TYPICAL STANDARD OF PRACTICE IN STOCKPILE CONTAINMENT.
5. SPILLS THAT OCCUR DURING OFFLOADING AND TRANSFER SHALL DRAIN ONTO BARGE OR WITHIN A CONTAINED UPLAND AREA. SPILL PROTECTION SHALL BE CONSTRUCTED FROM IMPERVIOUS MATERIAL.
6. CONTRACTOR SHALL CLEAN OFFLOAD FACILITY DAILY.
7. STOCKPILE CONTAINMENT DETAIL SHOWS SEDIMENT STACKED GREATER THAN 1.5 METRE HIGH FOR ILLUSTRATIVE PURPOSES ONLY. DEPICTION OF STACKED SEDIMENT DOES NOT INDICATE POTENTIAL WORKABILITY AND FLOW BEHAVIOR OF DREDGED MATERIAL, AND SHALL NOT BE USED BY THE CONTRACTOR AS BASIS FOR ANTICIPATING DREDGE MATERIAL CONDITIONS DURING THE WORK.
8. CONTRACTOR SHALL SUBMIT STOCKPILE CONTAINMENT DESIGN DETAILS TO THE DEPARTMENTAL REPRESENTATIVE FOR REVIEW.
9. BUCKET SWING RADIUS SHOULD NOT EXTEND PAST SPILL PREVENTION FEATURES.

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ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

Consultant Signature Only

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Drawn by/Dessine par
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PWGSC Project Manager/Administrateur de Projets TPSGC
ANDREW MYLLY

Regional Manager, Environmental Services
COLLIN KINGMAN

Drawing title/Titre du dessin
MATERIAL OFFLOADING, HANDLING, STORAGE, AND TURBIDITY CONTROL DETAILS

Project No./No. du projet	Sheet/	Revision no./
R.018400.002	C27	1

PWGSC – A1 – 841X594

0 10 20 30 40 50 60 70 80 90 100mm

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CAP AREA POINT TABLE		
	NORTHING (m)	EASTING (m)
C1	5364862.3	468379.4
C2	5364817.4	468287.4
C3	5364780.8	468291.3
C4	5364790.0	468378.9
C5	5364796.1	468437.3
C6	5364810.9	468579.3
C7	5364807.0	468579.9
C8	5364820.4	468625.2
C9	5364827.1	468623.2
C10	5364830.0	468610.5
C11	5364836.1	468598.9
C12	5364833.5	468597.4
C13	5364824.8	468580.8

CAP AREA POINT TABLE		
	NORTHING (m)	EASTING (m)
C14	5364846.0	468578.6
C15	5364830.5	468433.7
C16	5364826.7	468397.4
C17	5364831.3	468396.9
C18	5364829.8	468383.4
C19	5364845.5	468381.5
C20	5364840.1	468376.0
C21	5364842.9	468370.7
C22	5364826.8	468354.5
C23	5364823.6	468354.9
C24	5364824.2	468359.3
C25	5364806.7	468365.0
C26	5364806.3	468361.8

PROJECT BASELINE POINT TABLE		
	NORTHING (m)	EASTING (m)
BL1	5364805.7	468601.0
BL2	5364785.7	468577.5
BL3	5364765.1	468380.4
BL4	5364783.1	468357.6
BL5	5364761.1	468342.6
BL6	5364755.7	468290.8
BL7	5364805.4	468285.6
BL8	5364855.2	468280.4
BL9	5364866.6	468389.8
BL10	5364840.7	468392.6
BL11	5364833.6	468411.0
BL12	5364851.2	468579.1
BL13	5364841.6	468582.5
BL14	5364854.7	468619.6

PROJECT BASELINE DEFINES STATION 0+00 OF CROSS-SECTIONS. SEE DWGS C29/C30.

E:468300.0
E:468400.0
E:468500.0
E:468600
N:5364900.0
N:5364800.0

TEMPORARY RE-SUSPENSION BARRIER 1 (SEE NOTE 5)
FOR CAP TRANSITION SEE DETAIL 28 (DWG C33)
TEMPORARY RE-SUSPENSION BARRIER 1 EXTENDS TO SHORELINE (SEE NOTE 5)
EAST END TEMPORARY CAP
TEMPORARY RE-SUSPENSION BARRIER 1 (SEE NOTE 5)
TEMPORARY RE-SUSPENSION BARRIER 1 (SEE NOTE 5)
POTENTIAL ~~RESIDUALS~~ MANAGEMENT COVER MATERIAL WITHIN EGD WORK SITE ~~AND OUTSIDE OF THE TEMPORARY RE-SUSPENSION BARRIER CONTAINMENT AREA~~
27 / C33 (NOT USED)

NOTES:

1. BATHYMETRY OBTAINED FROM POST-CONSTRUCTION SURVEY DATED DECEMBER 27, 2016.
2. BASE MAP FROM GOLDER, JANUARY 2012.
3. REFERENCE DWG C1 FOR DATUM INFORMATION.
4. REFER TO TECHNICAL SPECIFICATIONS REGARDING WORK SEQUENCING AND REMEDIATION ZONES.
5. CONTRACTOR (AND 3RD PARTY VENDOR) SHALL DESIGN, INSTALL AND MAINTAIN TRBS IN ACCORDANCE WITH THE SPECIFICATIONS. CONTRACTOR TO PROVIDE TRB LAYOUT AND DESIGN DETAILS IN THE ENVIRONMENTAL PROTECTION PLAN.
6. TYPE 3 ENGINEERED CAP DESIGN REVISED TO REDUCE MINIMUM SAND AND FILTER MATERIAL THICKNESSES WITHIN 3 METRES OF THE FACE OF THE UPLAND BULKHEAD WALL IN ZONES 2 AND 3 AND UNDER THE CONCRETE DECK AREA AT WESTERN BOUNDARY OF ZONE 3.

LEGEND:

- POST-ENGINEERED CAPPING MATERIAL PLACEMENT BATHYMETRY IN METRES
- TEMPORARY RE-SUSPENSION BARRIER CONTAINMENT AREA (SEE DWG C32 FOR CONTROL POINTS)
- EGD WORK SITE BOUNDARY
- CAP SLOPE DESIGNATION
- ORDINARY HIGH WATER LINE
- EXISTING STEEL-PILE SUPPORTED CONCRETE DECK
- TYPE 1 ENGINEERED CAP: 0.15-METRE ROCK ARMOUR LAYER OVER FILTER LAYER OVER SAND (TYPE 1) LAYER. SEE DETAIL 22 (DWG C33)
- TYPE 2 ENGINEERED CAP: 0.15-METRE ROCK ARMOUR LAYER OVER FILTER LAYER OVER SAND (TYPE 2) LAYER. SEE DETAIL 23 (DWG C33)
- TYPE 3 ENGINEERED CAP: 0.30-METRE ROCK ARMOUR LAYER OVER FILTER LAYER OVER SAND (TYPE 2) LAYER. SEE DETAIL 24 (DWG C33)
- TYPE 4 ENGINEERED CAP: 0.30-METRE ROCK ARMOUR LAYER OVER FILTER LAYER OVER SAND (TYPE 3) LAYER. SEE DETAIL 25 (DWG C33)
- IMPERMEABLE GEOSYNTHETIC MATERIAL

CAPPING PLAN

SCALE 1: 500

SCALE : 1:500

0m 10 20 30 40 50m

- BASE LINE CONTROL POINT
- CAPPING AREA CONTROL POINT
- 0.15M-METRE ROCK ARMOUR MATERIAL PLACEMENT AREA AT EAST END TEMPORARY CAP (0.3M MINIMUM REQUIRED THICKNESS AND 0.15M PAYABLE OVER-PLACEMENT ALLOWANCE)
- FILTER MATERIAL PLACEMENT AREA AT EAST END TEMPORARY CAP (0.3M MINIMUM REQUIRED THICKNESS AND 0.15M PAYABLE OVER-PLACEMENT ALLOWANCE)
- ADDITIONAL 0.30M ARMOUR ROCK SLOPE PROTECTION
- RMC MATERIAL PLACEMENT OUTSIDE THE TRBCA, SEE DETAIL 27 (DWG C33)

Public Works and Government Services Canada / Travaux publics et Services gouvernementaux Canada

REAL PROPERTY SERVICES
Pacific Region
SERVICES IMMOBILIERS
Région de Pacifique

ANCHOR QEA

Klohn Crippen Berger

Revision/ Revision	Description/Description	Date/Date
2	RECORD DRAWING	2017/03/31
1	ADDENDUM NO. 2	2015/03/20
0	ISSUED FOR TENDER	2014/12/19

Client/client

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet

ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

Consultant Signature Only

Designed by/Concept par: MATT WOLTMAN

Drawn by/Dessine par: CHRIS HEWETT

PWGSC Project Manager/Administrateur de Projets TPSGC: ANDREW MYLLY

Regional Manager, Environmental Services / Gestionnaire régionale, Services d'architectural et de génie, TPSGC: COLLIN KINGMAN

Drawing title/Titre du dessin

ENGINEERED CAPPING PLAN

Project No./No. du projet	Sheet/ Feuille	Revision no./ La Révision no.
R.018400.002	C28	2

PWGSC – A1 – 841X594

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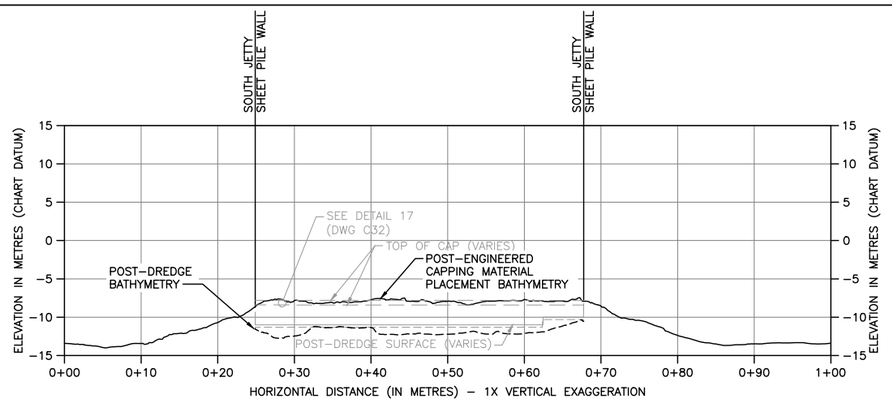

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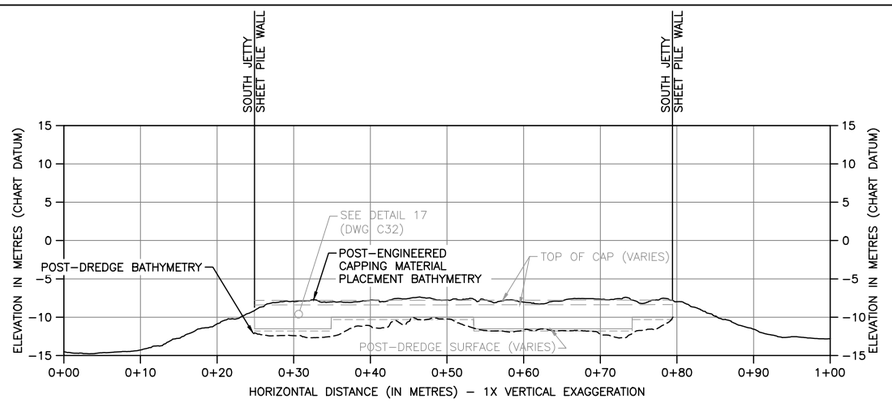

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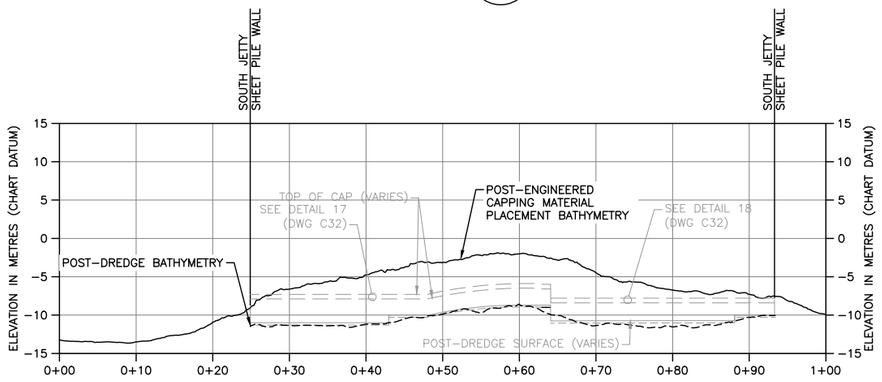

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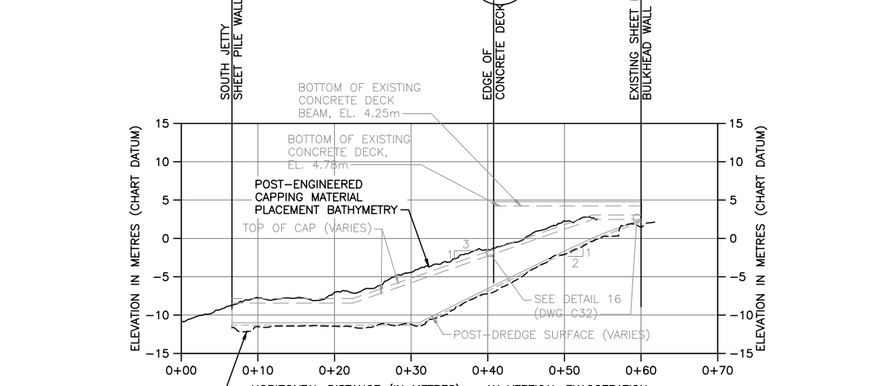

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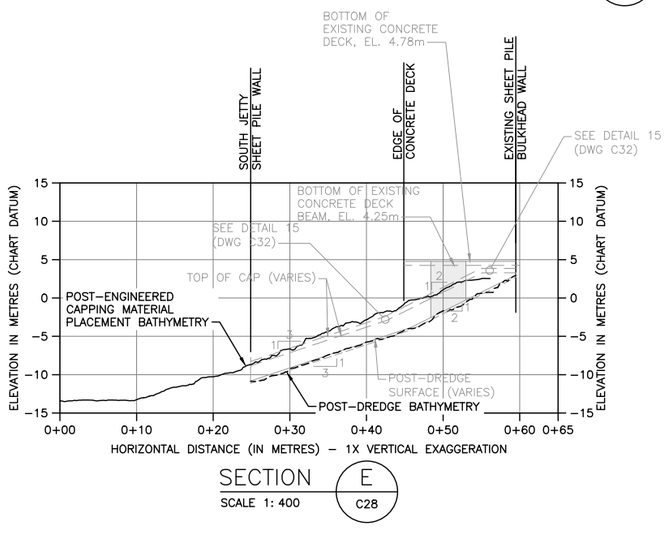

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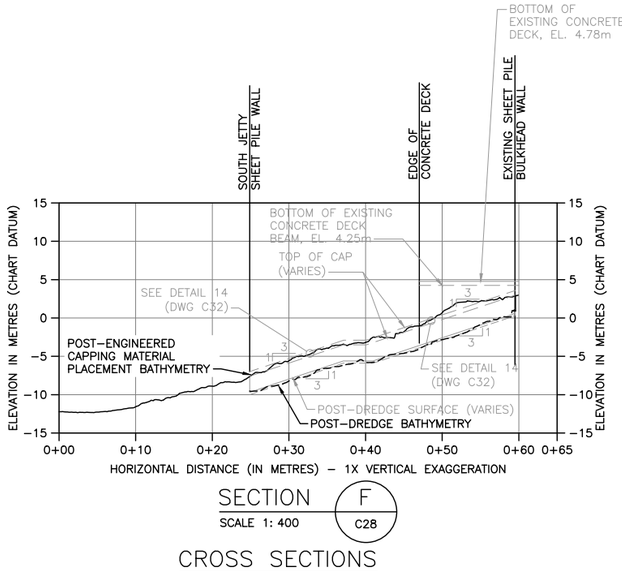

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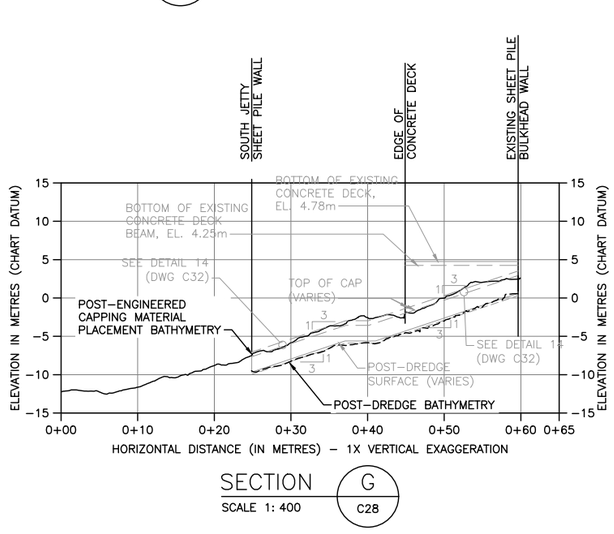

SECTION G
SCALE 1: 400 C28

CROSS SECTIONS
SCALE 1: 400

HORIZONTAL DATUM: UTM ZONE 10 GRID, NAD83.
VERTICAL DATUM: CHART DATUM (C.D.)

NOTES:
1. BATHYMETRY OBTAINED FROM POST–CONSTRUCTION SURVEY DATED DECEMBER 27, 2016.
2. REFERENCE DWG C1 FOR DATUM INFORMATION.
3. TOP OF DESIGN ENGINEERED CAP SURFACES REPRESENT MINIMUM PLACEMENT THICKNESS AND MAXIMUM OVERPLACEMENT ALLOWANCES.
4. TOP OF DESIGN ENGINEERED CAP SHOWN ON CROSS SECTIONS IN 2H:1V DREDGE SLOPE AREAS OF THE AREAS OF WORK NEAR EXISTING SHEET PILE BULKHEAD WALL HAVE VARIABLE THICKNESS REQUIREMENTS THAT ARE NEEDED TO CONSTRUCT THE TYPE 3 SEDIMENT CAP TO A STABLE 3H:1V GRADE.
5. EXISTING TIMBER–PILED STRUCTURE NOT SHOWN FOR CLARITY.
6. CONTRACTOR SHALL REFERENCE THE 1985 STEEL–PILED DECK AS–BUILT DRAWINGS FOR DETAILS REGARDING CROSS SECTIONS THROUGH THE STEEL–PILED JETTY STRUCTURE, SHEETPILE BULKHEAD WALL, AND CONCRETE L–WALL.

PWGSC – A1 – 841X594

0 10 20 30 40 50 60 70 80 90 100mm

Public Works and Government Services Canada / Travaux publics et Services gouvernementaux Canada
REAL PROPERTY SERVICES
Pacific Region
SERVICES IMMOBILIERS
Région de Pacifique

ANCHOR QEA

Klohn Crippen Berger

Revision/ Revision	Description/Description	Date/Date
2	RECORD DRAWING	2017/03/31
0	ISSUED FOR TENDER	2014/12/19

Client/client

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

Consultant Signature Only

Designed by/Concept par
MATT WOLTMAN

Drawn by/Dessine par
CHRIS HEWETT

PWGSC Project Manager/Administrateur de Projets TPSGC
ANDREW MYLLY

Regional Manager, Environmental Services
Gestionnaire régionale, Services d'architectural et de génie, TPSGC
COLLIN KINGMAN

Drawing title/Titre du dessin
ENGINEERED CAPPING
CROSS SECTIONS - SHEET 1

Project No./No. du projet	Sheet/ Feuille	Revision no./ La Révision no.
R.018400.002	C29	1

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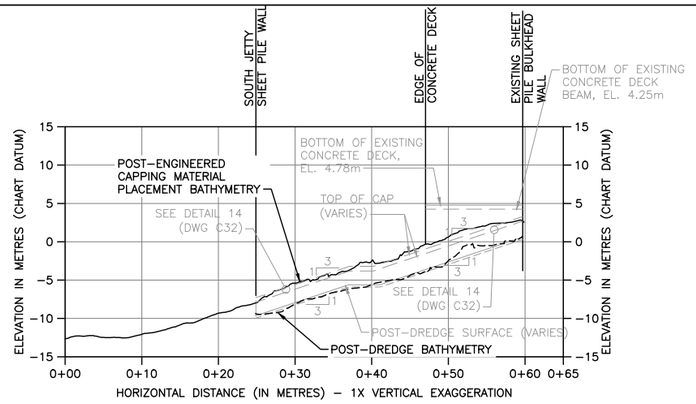

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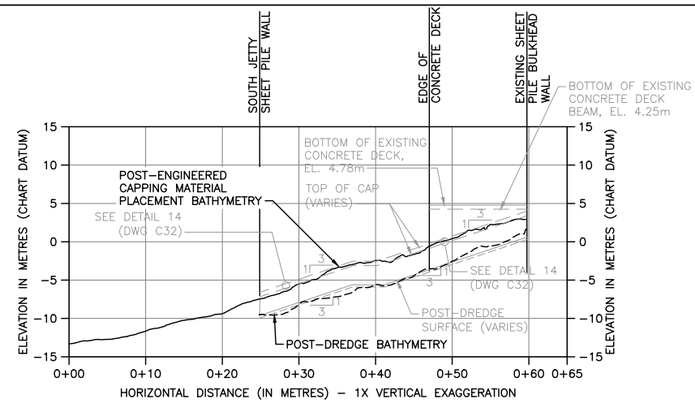

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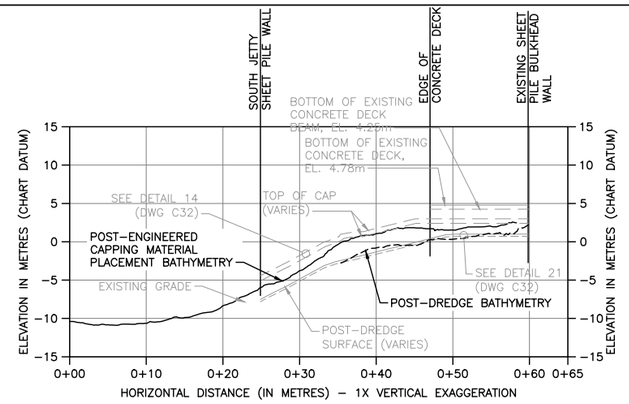

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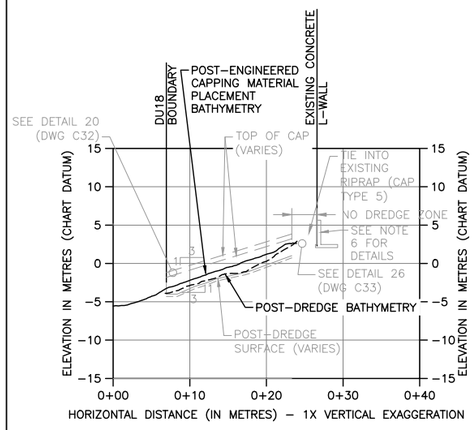

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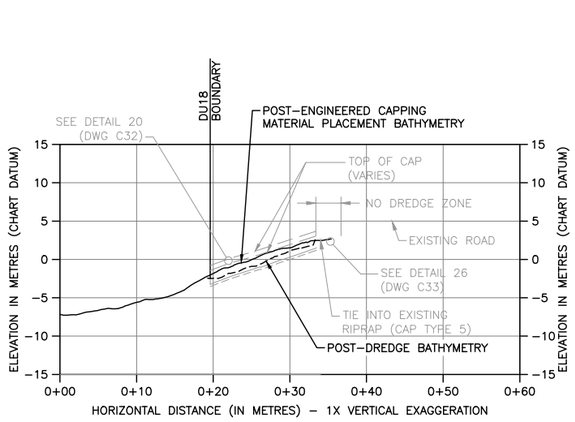

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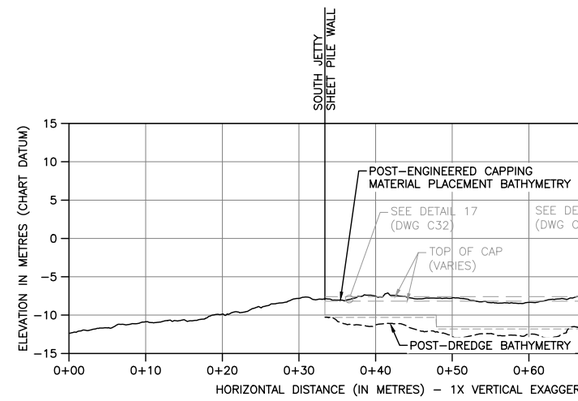
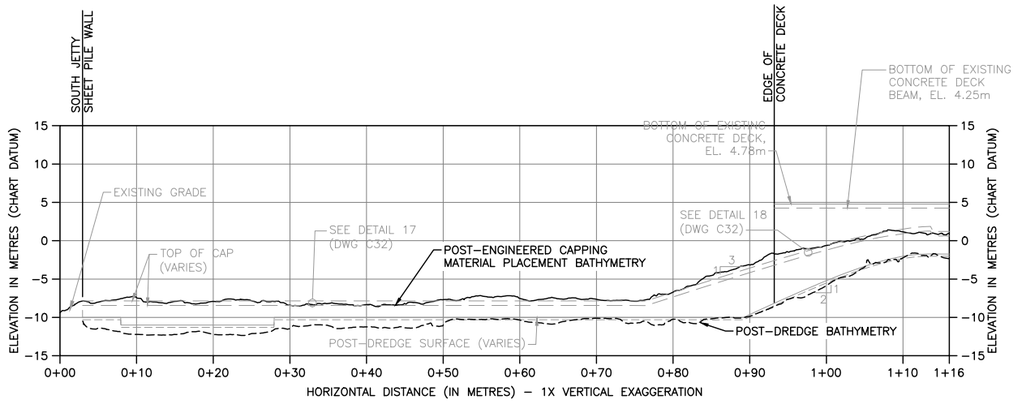


SECTION N
SCALE 1: 400
C28



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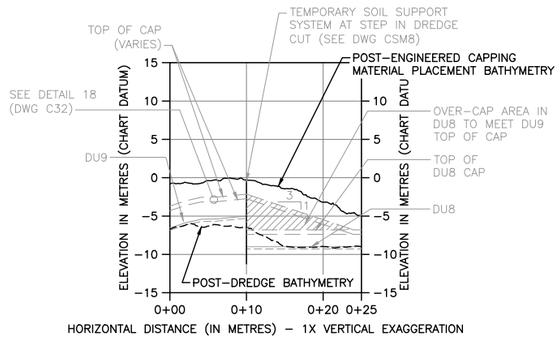

SECTION Q
SCALE 1: 400
C28

HORIZONTAL DATUM: UTM ZONE 10 GRID, NAD83.
VERTICAL DATUM: CHART DATUM (C.D.)

NOTES:
1. BATHYMETRY OBTAINED FROM POST-CONSTRUCTION SURVEY DATED DECEMBER 27, 2016.
2. REFERENCE DWG C1 FOR DATUM INFORMATION.
3. TOP OF DESIGN ENGINEERED CAP SURFACES REPRESENT MINIMUM PLACEMENT THICKNESS AND MAXIMUM OVERPLACEMENT ALLOWANCES.
4. TOP OF DESIGN ENGINEERED CAP SHOWN ON CROSS SECTIONS IN 2H:1V DREDGE SLOPE AREAS OF THE AREAS OF WORK NEAR EXISTING SHEET PILE BULKHEAD WALL HAVE VARIABLE THICKNESS REQUIREMENTS THAT ARE NEEDED TO CONSTRUCT THE TYPE 3 SEDIMENT CAP TO A STABLE 3H:1V GRADE.
5. EXISTING TIMBER-PILED STRUCTURE NOT SHOWN FOR CLARITY.
6. CONTRACTOR SHALL REFERENCE THE 1985 STEEL-PILED DECK AS-BUILT DRAWINGS FOR DETAILS REGARDING CROSS SECTIONS THROUGH THE STEEL-PILED JETTY STRUCTURE, SHEETPILE BULKHEAD WALL, AND CONCRETE L-WALL.

CROSS SECTIONS
SCALE 1: 400

PWGSC – A1 – 841X594

0 10 20 30 40 50 60 70 80 90 100mm

Public Works and Government Services Canada / Travaux publics et Services gouvernementaux Canada

REAL PROPERTY SERVICES
Pacific Region
SERVICES IMMOBILIERS
Région de Pacifique

ANCHOR QEA

Klohn Crippen Berger

Revision/ Revision	Description/Description	Date/Date
1	RECORD DRAWING	2017/03/31
0	ISSUED FOR TENDER	2014/12/19

Client/client

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

Consultant Signature Only

Designed by/Concept par
MATT WOLTMAN

Drawn by/Dessine par
CHRIS HEWETT

PWGSC Project Manager/Administrateur de Projets TPSGC
ANDREW MYLLY

Regional Manager, Environmental Services / Gestionnaire régionale, Services d'architectural et de génie, TPSGC
COLLIN KINGMAN

Drawing title/Titre du dessin
ENGINEERED CAPPING
CROSS SECTIONS - SHEET 2

Project No./No. du projet	Sheet/ Feuille	Revision no./ La Révision no.
R.018400.002	C30	1

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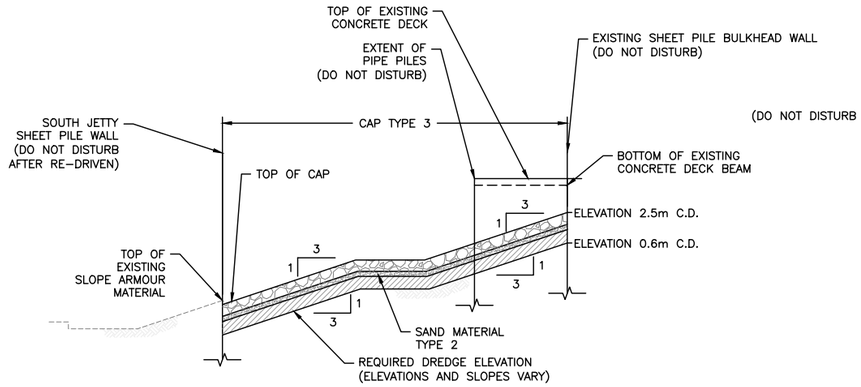
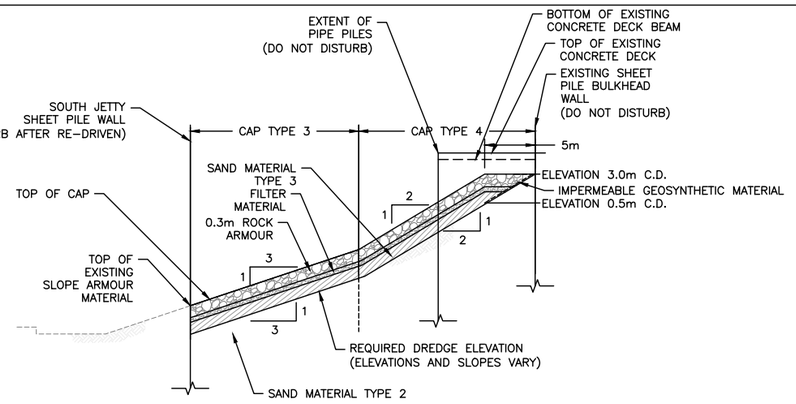


DETAIL 14
NOT TO SCALE C29/C30

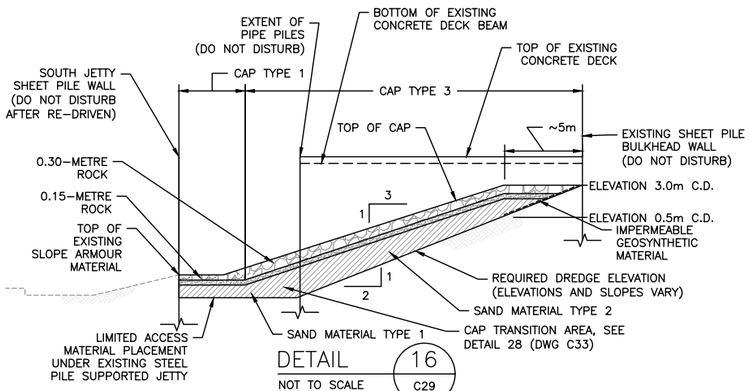
TYPE 3 ENGINEERED CAP



DETAIL 15
NOT TO SCALE C29

TYPE 3 AND TYPE 4 ENGINEERED CAP AND IMPERMEABLE GEOSYNTHETIC MATERIAL

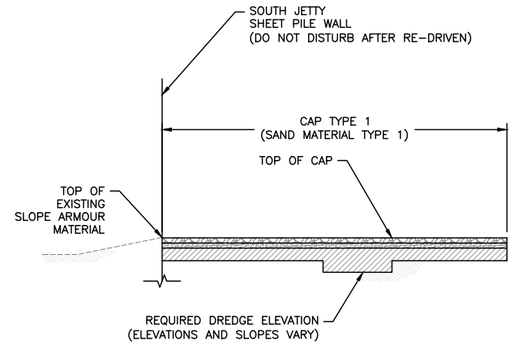
NOTE: IMPERMEABLE GEOSYNTHETIC MATERIAL REQUIRED FOR CAP TYPE 4 WHERE SAND MATERIAL TYPE 3 HAS A THICKNESS OF LESS THAN 1.0m NEAR EXISTING SHEET PILE BULKHEAD WALL.



DETAIL 16
NOT TO SCALE C29

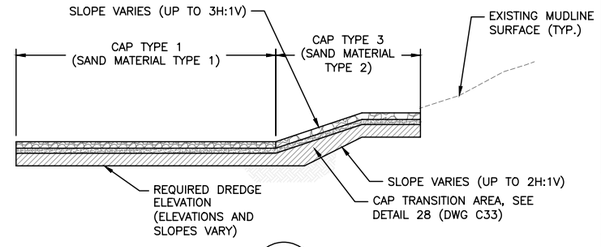
TYPE 1 AND TYPE 3 ENGINEERED CAP

NOTES:
1. IMPERMEABLE GEOSYNTHETIC MATERIAL REQUIRED FOR CAP TYPE 3 WHERE SAND MATERIAL TYPE 2 HAS A THICKNESS OF LESS THAN 1.0m NEAR EXISTING SHEET PILE BULKHEAD WALL.
2. CONTRACTOR SHALL PLACE A MINIMUM OF 1m OF SAND MATERIAL OVER ALL DREDGE AREAS EXCLUDING AREA REQUIRING IMPERMEABLE GEOSYNTHETIC MATERIAL.



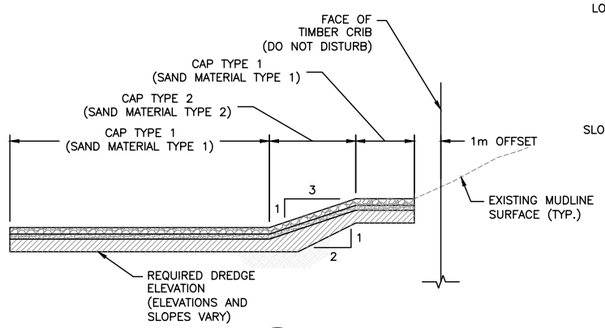
DETAIL 17
NOT TO SCALE C29/C30

TYPE 1 ENGINEERED CAP



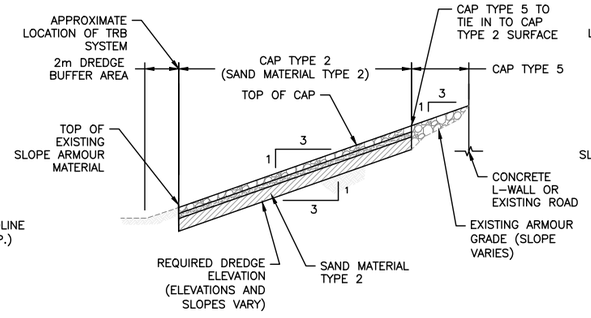
DETAIL 18
NOT TO SCALE C29/C30

TYPE 1 AND TYPE 3 ENGINEERED CAP



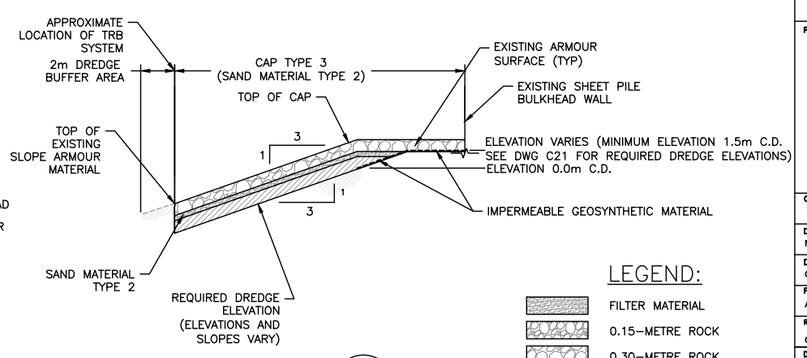
DETAIL 19
NOT TO SCALE C30

TYPE 1 ENGINEERED CAP



DETAIL 20
NOT TO SCALE C30

TYPE 2 AND TYPE 5 ENGINEERED CAP



DETAIL 21
NOT TO SCALE C30

TYPE 3 ENGINEERED CAP

LEGEND:
- FILTER MATERIAL
- 0.15-METRE ROCK
- 0.30-METRE ROCK
- SAND LAYER

NOTES:
1. EXISTING TIMBER-PILED STRUCTURE NOT SHOWN FOR CLARITY.
2. CONTRACTOR SHALL REFERENCE THE 1985 STEEL-PILES DECK AS-BUILT DRAWINGS FOR DETAILS REGARDING CROSS SECTIONS THROUGH THE STEEL-PILED JETTY STRUCTURE, SHEETPILE BULKHEAD WALL, AND CONCRETE L-WALL.

PWGSC – A1 – 841X594

0 10 20 30 40 50 60 70 80 90 100mm

Public Works and Government Services Canada / Travaux publics et Services gouvernementaux Canada

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PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

Consultant Signature Only

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Drawn by/Dessine par
CHRIS HEWETT

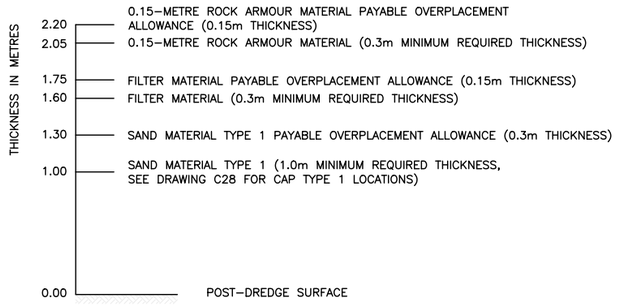
PWGSC Project Manager/Administrateur de Projets TPSGC
ANDREW MYLLY

Regional Manager, Environmental Services
COLLIN KINGMAN

Drawing title/Titre du dessin
ENGINEERED CAPPING DETAILS - SHEET 1

Project No./No. du projet	Sheet/	Revision no./
R.018400.002	C32	1

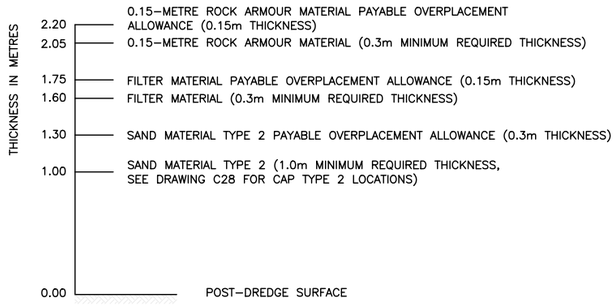
DM5XXXXXX



TYPE 1 ENGINEERED CAP: 0.15–METRE ROCK ARMOUR LAYER OVER FILTER MATERIAL OVER SAND LAYER

DETAIL 22 / NOT TO SCALE / C28

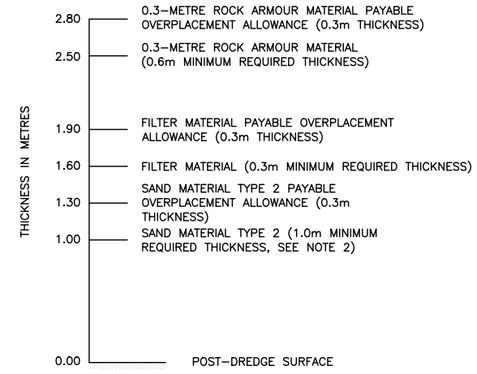
NOTE: MINIMUM REQUIRED THICKNESS AND PAYABLE OVERPLACEMENT ALLOWANCES SHOWN ON THE DETAIL REPRESENT GENERAL CONDITIONS REQUIRED TO MEET THE DESIGN AND GRADES AND ELEVATION REQUIREMENTS FOR PLACEMENT OF CAP TYPE 1 MATERIALS. THE MINIMUM REQUIRED THICKNESS AND PAYABLE OVERPLACEMENT ALLOWANCE FOR TYPE 1 SAND MATERIAL SHALL BE INCREASED IN SELECT AREAS OF THE EGD WORK SITE WHERE PLACEMENT OF ADDITIONAL TYPE 1 SAND MATERIAL IS REQUIRED TO MEET THE DESIGN GRADES AND ELEVATIONS SHOWN ON THE DRAWINGS. THE DEPARTMENTAL REPRESENTATIVE MAY DIRECT THE CONTRACTOR TO REMOVE EXCESSIVE OVERPLACEMENT MATERIAL THAT IS PLACED ABOVE THE DESIGN GRADES AND ELEVATIONS AT NO ADDITIONAL COST TO PWGSC.



TYPE 2 ENGINEERED CAP: 0.15–METRE ROCK ARMOUR LAYER OVER FILTER MATERIAL OVER SAND LAYER

DETAIL 23 / NOT TO SCALE / C28

NOTE: MINIMUM REQUIRED THICKNESS AND PAYABLE OVERPLACEMENT ALLOWANCES SHOWN ON THE DETAIL REPRESENT GENERAL CONDITIONS REQUIRED TO MEET THE DESIGN AND GRADES AND ELEVATION REQUIREMENTS FOR PLACEMENT OF CAP TYPE 2 MATERIALS. THE MINIMUM REQUIRED THICKNESS AND PAYABLE OVERPLACEMENT ALLOWANCE FOR TYPE 2 SAND MATERIAL SHALL BE INCREASED IN SELECT AREAS OF THE EGD WORK SITE WHERE PLACEMENT OF ADDITIONAL TYPE 2 SAND MATERIAL IS REQUIRED TO MEET THE DESIGN GRADES AND ELEVATIONS SHOWN ON THE DRAWINGS. THE DEPARTMENTAL REPRESENTATIVE MAY DIRECT THE CONTRACTOR TO REMOVE EXCESSIVE OVERPLACEMENT MATERIAL THAT IS PLACED ABOVE THE DESIGN GRADES AND ELEVATIONS AT NO ADDITIONAL COST TO PWGSC.



TYPE 3 ENGINEERED CAP: 0.30–METRE ROCK ARMOUR LAYER OVER FILTER MATERIAL OVER SAND MATERIAL TYPE 2 LAYER

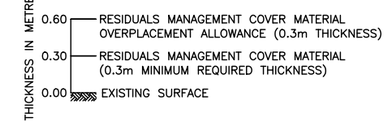
DETAIL 24 / NOT TO SCALE / C28

NOTES:
1. MINIMUM REQUIRED THICKNESS AND PAYABLE OVERPLACEMENT ALLOWANCES SHOWN ON THE DETAIL REPRESENT GENERAL CONDITIONS REQUIRED TO MEET THE DESIGN AND GRADES AND ELEVATION REQUIREMENTS FOR PLACEMENT OF CAP TYPE 3 MATERIALS (EXCLUDING AREAS REQUIRING IMPERMEABLE GEOSYNTHETIC MATERIAL). THE MINIMUM REQUIRED THICKNESS AND PAYABLE OVERPLACEMENT ALLOWANCE FOR TYPE 2 SAND MATERIAL SHALL BE INCREASED IN SELECT AREAS OF THE EGD WORK SITE WHERE PLACEMENT OF ADDITIONAL TYPE 2 SAND MATERIAL IS REQUIRED TO MEET THE DESIGN GRADES AND ELEVATIONS SHOWN ON THE DRAWINGS. THE DEPARTMENTAL REPRESENTATIVE MAY DIRECT THE CONTRACTOR TO REMOVE EXCESSIVE OVERPLACEMENT MATERIAL THAT IS PLACED ABOVE THE DESIGN GRADES AND ELEVATIONS AT NO ADDITIONAL COST TO PWGSC.
2. REQUIRED THICKNESS OF SAND MATERIAL TYPE 3 VARIES BETWEEN 0.0 AND 1.0m IN AREAS REQUIRING IMPERMEABLE GEOSYNTHETIC MATERIAL NEAR EXISTING SHEET PILE BULKHEAD WALL.
3. REQUIRED THICKNESS OF FILTER MATERIAL VARIES BETWEEN 0.0 AND 0.3m IN AREAS REQUIRING IMPERMEABLE GEOSYNTHETIC MATERIAL NEAR EXISTING SHEETPILE BULKHEAD.
4. SEE NOTE 6 ON DWG C28.

TYPE 5 ENGINEERED CAP: 0.15–METRE ROCK ARMOUR

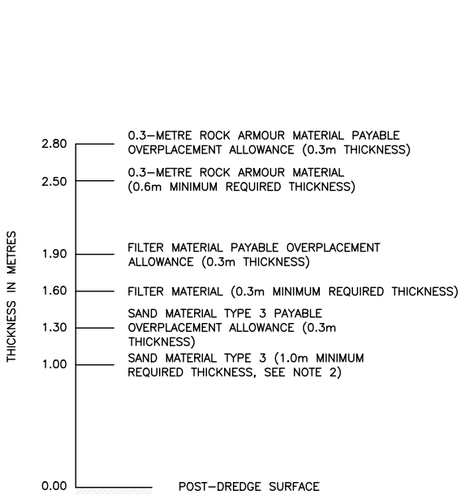
DETAIL 26 / NOT TO SCALE / C28/C30

NOTE: TOTAL ENGINEERED CAP PLACEMENT THICKNESS CAN VARY BETWEEN A MINIMUM TOTAL THICKNESS OF 0.0m AND UP TO 0.45m THICKNESS AND WILL BE PAYABLE. ADDITIONAL PLACEMENT ABOVE 0.45m WILL BE CONSIDERED EXCESSIVE OVERPLACEMENT AND WILL NOT BE PAID. THE DEPARTMENTAL REPRESENTATIVE MAY DIRECT THE CONTRACTOR TO REMOVE EXCESSIVE OVERPLACEMENT AT NO ADDITIONAL COST TO PWGSC.



RESIDUALS MANAGEMENT COVER PLACEMENT

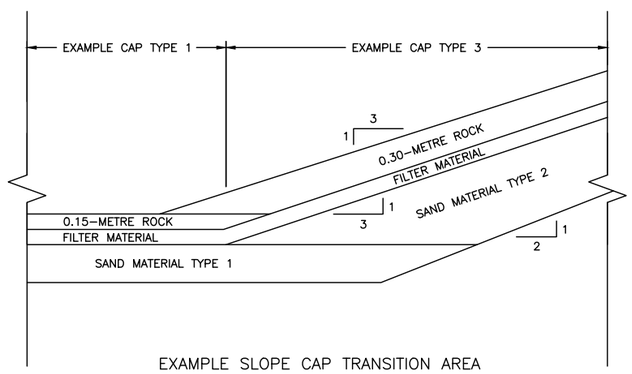
DETAIL 27 / NOT TO SCALE / C28



TYPE 4 ENGINEERED CAP: 0.30–METRE ROCK ARMOUR LAYER OVER FILTER MATERIAL OVER SAND MATERIAL TYPE 3 LAYER

DETAIL 25 / NOT TO SCALE / C28

NOTES:
1. TOTAL ENGINEERED CAP PLACEMENT THICKNESS CAN VARY BETWEEN A MINIMUM TOTAL THICKNESS OF 1.9m (EXCLUDING AREAS REQUIRING IMPERMEABLE GEOSYNTHETIC MATERIAL) AND UP TO 2.8m THICKNESS AND WILL BE PAYABLE. ADDITIONAL PLACEMENT ABOVE 2.8m WILL BE CONSIDERED EXCESSIVE OVERPLACEMENT AND WILL NOT BE PAID. THE DEPARTMENTAL REPRESENTATIVE MAY DIRECT THE CONTRACTOR TO REMOVE EXCESSIVE OVERPLACEMENT AT NO ADDITIONAL COST TO PWGSC.
2. REQUIRED THICKNESS OF SAND MATERIAL TYPE 2 VARIES BETWEEN 0.0 AND 1.0m IN AREAS REQUIRING IMPERMEABLE GEOSYNTHETIC MATERIAL NEAR EXISTING SHEET PILE BULKHEAD WALL.
3. REQUIRED THICKNESS OF FILTER MATERIAL VARIES BETWEEN 0.0 AND 0.3m IN AREAS REQUIRING IMPERMEABLE GEOSYNTHETIC MATERIAL NEAR EXISTING SHEETPILE BULKHEAD.



EXAMPLE SLOPE CAP TRANSITION AREA

DETAIL 28 / NOT TO SCALE / C32

NOTES:
1. CONTRACTOR SHALL DESCRIBE SEQUENCING OF CAP LAYER PLACEMENT AS PART OF THE CONSTRUCTION WORK PLAN.
2. CONTRACTOR SHALL PLACE A MINIMUM OF 1m OF SAND MATERIAL OVER ALL DREDGE AREAS EXCLUDING AREAS REQUIRING IMPERMEABLE GEOSYNTHETIC MATERIAL.

Public Works and Government Services Canada / Travaux publics et Services gouvernementaux Canada

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ANCHOR QEA

Klohn Crippen Berger

Revision/ Revision	Description/Description	Date/Date
2	RECORD DRAWING	2017/03/31
1	ADDENDUM NO. 2	2015/03/20
0	ISSUED FOR TENDER	2014/12/19

Client/client

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

Consultant Signature Only

Designed by/Concept par
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Drawn by/Dessine par
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ANDREW MYLLY

Regional Manager, Environmental Services
COLLIN KINGMAN

Drawing title/Titre du dessin
ENGINEERED CAPPING DETAILS - SHEET 2

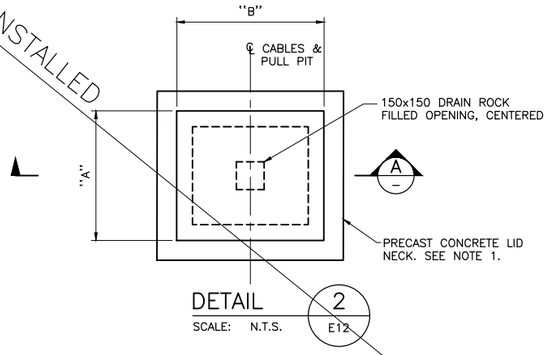
Project No./No. du projet	Sheet/	Revision no./
R.018400.002	C33	2

PWGSC – A1 – 841X594

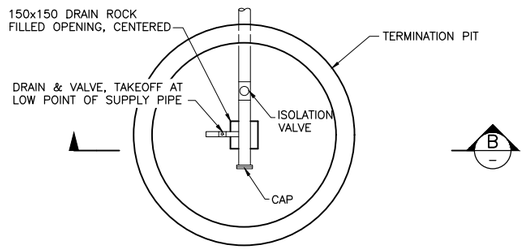
0 10 20 30 40 50 60 70 80 90 100mm

DM5XXXXXX

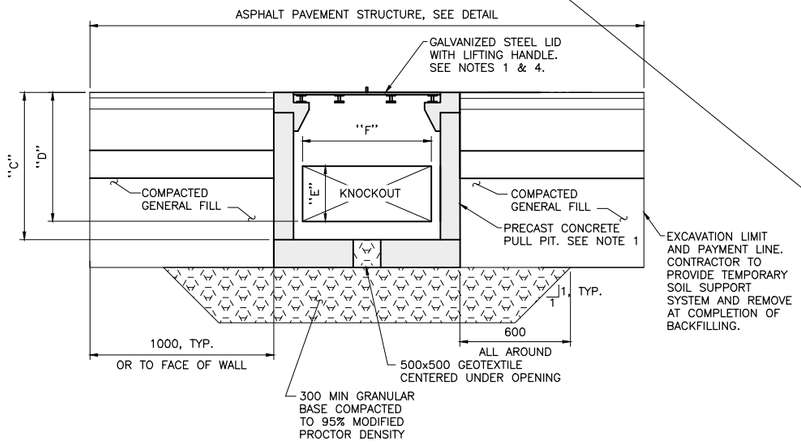
NOT INSTALLED

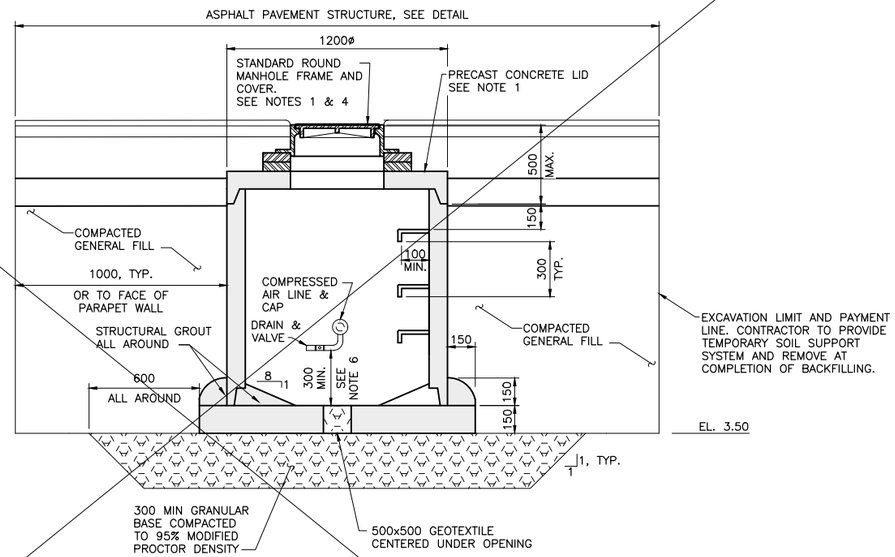


DETAIL 2 / E12
SCALE: N.T.S.



DETAIL 1 / M6 — 1 / M8
SCALE: N.T.S.





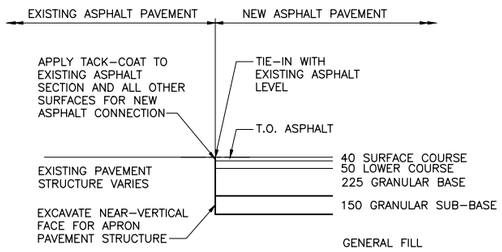
SECTION A / – — SCALE: N.T.S.

SECTION B / – — SCALE: N.T.S.

TYPICAL PRECAST CONCRETE PULL PIT

PULL PIT DIMENSIONS						
TERMINATION LOCATION	''A''	''B''	''C''	''D''	''E''	''F''
T1	700	900	800	700	300	800
T2	1000	1600	800	700	300	1500
T3	400	400	800	700	200	300
T4	1000	700	600	500	300	600
T5	700	1200	600	500	300	1100

TYPICAL 1200ø PRECAST CONCRETE TERMINATION PIT T6 & T7



ASPHALT PAVEMENT STRUCTURE TIE-IN

N.T.S.

COMPRESSED AIR TERMINATION PIT (T6) PROVIDED TO PWGSC. INSTALLATION OF PIT T6 NOT IN CONTRACT.

NOTES:

1. ALL TERMINATION PIT AND PULL PIT COMPONENTS, INCLUDING LIDS, MANHOLE FRAME AND COVER, AND PRECAST CONCRETE COMPONENTS SHALL BE DESIGNED FOR THE FOLLOWING SITE-SPECIFIC LIVE LOADS (ALL LOADS ARE UNFACTORED):
   1.1. UNIFORMLY DISTRIBUTED LOAD (UDL): 28.7kPa (600psf)
   1.2. UDL NEED NOT BE CONSIDERED COINCIDENT WITH VEHICLE WHEEL LOADS
   1.3. AXLE LOADING:
   TRUCK LOADING (CL-625 PER S6-06):
   FRONT AXLE 50kN (DISTRIBUTED TO 2 WHEELS)
   REAR AXLE 175kN (DISTRIBUTED TO 2 PAIRS OF WHEELS)
   ESQUIMALT FIRE TRUCK (TYPE 1), 1993 THIBAULT ENGINE:
   FRONT AXLE 75kN (DISTRIBUTED TO 2 WHEELS)
   REAR AXLES 100kN (DISTRIBUTED TO 2 PAIRS OF WHEELS)
   ESQUIMALT FIRE TRUCK (TYPE 2), 1999 E ONE LADDER TRUCK:
   FRONT AXLE 85KN (DISTRIBUTED TO 2 WHEELS)
   REAR AXLES 210KN (DISTRIBUTED TO 2 PAIRS OF WHEELS)
   ESQUIMALT FIRE TRUCK (TYPE 3), 2008 FORT GARY RESCUE TRUCK:
   FRONT AXLE 55KN (DISTRIBUTED TO 2 WHEELS)
   REAR AXLES 105KN (DISTRIBUTED TO 2 PAIRS OF WHEELS)
   DYNAMIC LOAD ALLOWANCE (DLA) SHOULD BE ADDED TO ALL AXLE/WHEEL LOADS.
2. SEAL ALL CONDUIT ENDS IN TERMINATION PIT WITH SUITABLE COMPOUND TO PREVENT ENTRANCE OF SALT WATER, MOISTURE OR GASES.
3. LOCATIONS FOR TERMINATION PITS AND PULL PITS SHOWN ON DRAWINGS ARE APPROXIMATE. CONTRACTOR SHALL LOCATE BASED ON SITE CONDITIONS AND COORDINATE WITH DEPARTMENTAL REPRESENTATIVE PRIOR TO COMMENCEMENT OF THIS WORK.
4. TERMINATION PIT COVERS AND PUL PIT COVERS SHALL BEAR A CLEAR MARKING NOT LESS THAN 100mm IN SIZE INDICATING THE SERVICE CONTAINED USING THE FOLLOWING LEGEND: ''AIR'' COMPRESSED AIR, ''ELEC'' ELECTRICAL.
5. CONTRACTOR TO LOCATE AND PROTECT ADJACENT ELECTRICAL CONDUITS DURING EXCAVATION WORK.
6. COMPRESSED AIR SHALL BE A MINIMUM OF 300mm ABOVE THE BOTTOM OF THE TERMINATION PIT. LOCAL ADJUSTMENT TO ELEVATION OF COMPRESSED AIR SHALL BE MADE IF NECESSARY.

NOT INSTALLED

Public Works and Government Services Canada / Travaux publics et Services gouvernementaux Canada
REAL PROPERTY SERVICES
Pacific Region
SERVICES IMMOBILIERS

Klohn Crippen Berger

Revision/ Revision	Description/Description	Date/Date
1	RECORD DRAWING	2017/03/29
0	ISSUED FOR TENDER	2014/12/19

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

Consultant Signature Only

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ANDREW MYLLY

Regional Manager, Environmental Services
COLLIN KINGMAN

Drawing title/Titre du dessin
SERVICES - TERMINATION PITS

Project No./No. du projet	Sheet/	Revision no./
R.018400.002	C46	1

PWGSC – A1 – 841X594

0 10 20 30 40 50 60 70 80 90 100mm

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PHOTO C47–01 EAST APPROACH STRUCTURE AND CONCRETE L–WALL – NOTE TIMBER BENT AND PILE CAP

PHOTO C47–02 UTILITIES TERMINATED AND CAPPED AT FACE OF CONCRETE L–WALL – NOTE TEMPORARY ELECTRICAL SERVICE TERMINATED WITH JUNCTION BOX AT DECK LEVEL

PHOTO C47–03 REMOVED MECHANICAL KIOSKS

PHOTO C47–04 NAVIGATIONAL DOLPHINS AND CORNER DOLPHIN AT THE NORTHWEST FACE OF THE TIMBER CRIB

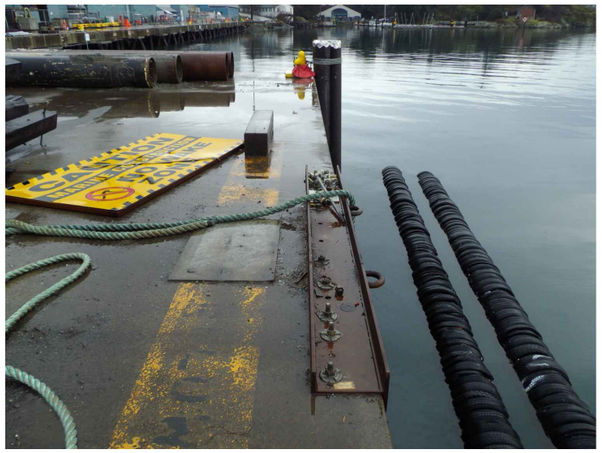

PHOTO C47–05 PILED DECK CRANE PAD SOUTH FACE – NOTE CORNER DOLPHIN AND STEEL BRACKET

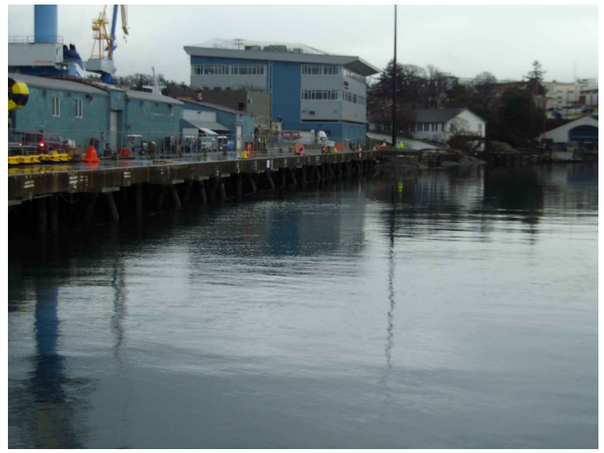

PHOTO C47–06 PILED DECK SOUTH FACE

PHOTO C47–07 UTILITIES TERMINATED AT THE WEST FACE OF THE TIMBER CRIB

PHOTO C47–08 TIMBER CRIB WEST FACE

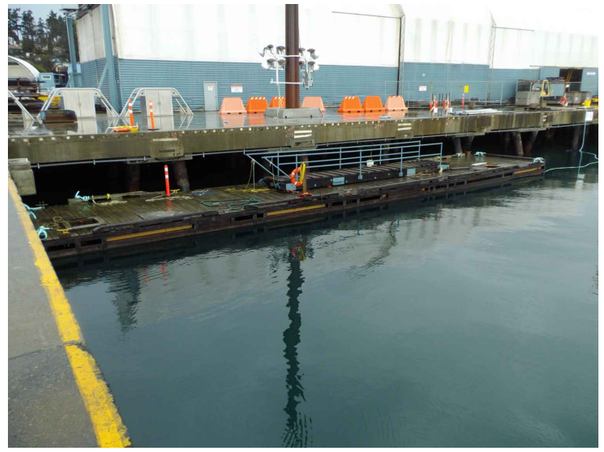

PHOTO C47–09 TUG BOAT WHARF AND SOUTH FACE OF PILED DECK – NOTE REINSTATED HIGH MAST LIGHT

Public Works and Government Services Canada
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REAL PROPERTY SERVICES
Pacific Region
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Klohn Crippen Berger

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0	RECORD DRAWING	2017/03/29

Client/client

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet

ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

Consultant Signature Only

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Drawn by/Dessine par
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PWGSC Project Manager/Administrateur de Projets TPSGC
ANDREW MYLLY

Regional Manager, Environmental Services
COLLIN KINGMAN

Drawing title/Titre du dessin

PHOTOGRAPHS OF AS-BUILT CONDITIONS

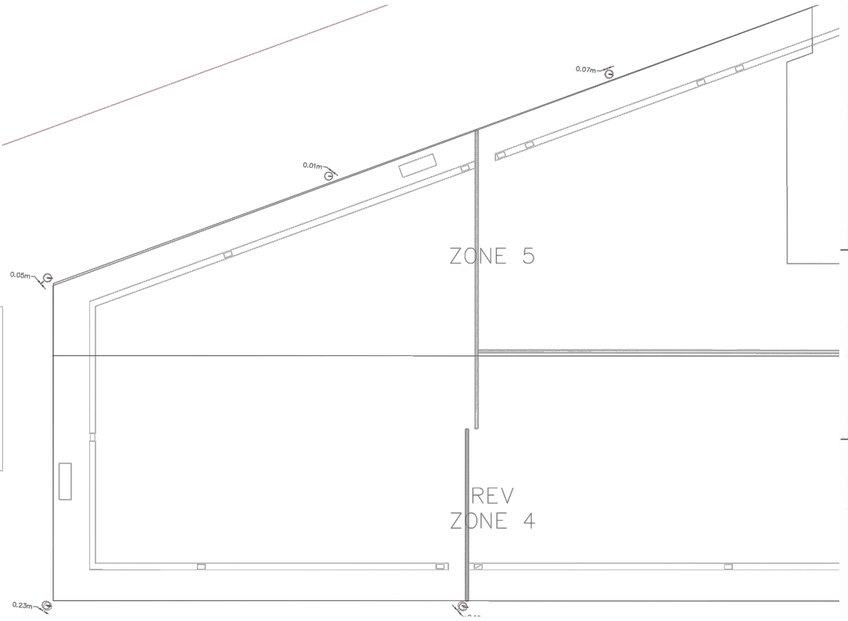
Project No./No. du projet	Sheet/	Revision no./
R.018400.002	C47	0

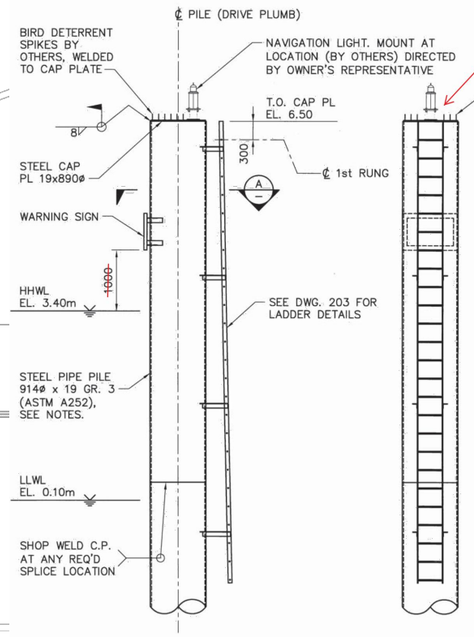
PWGSC – A1 – 841X594

0 10 20 30 40 50 60 70 80 90 100mm

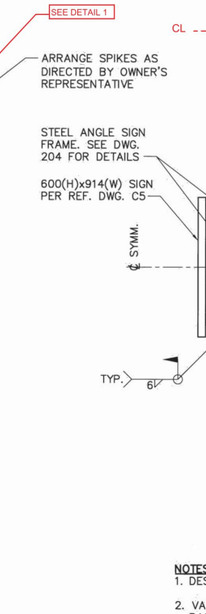
DM5XXXXXX

PT	NORTHING	EASTING	TOP ELEVATION	DESCRIPTION
11	5364785.174	468338.675	6.50	CALC PILE 36"
12	5364780.059	468290.635	6.50	CALC PILE 36"
13	5364818.003	468286.666	6.50	CALC PILE 36"
14	5364833.219	468317.98	6.50	CALC PILE 36"
15	5364848.435	468349.295	6.50	CALC PILE 36"
41	5364848.402	468349.228	6.51	AB PILE 15 @CO
45	5364833.213	468317.99	6.50	AB PILE 14 @CO
46	5364818.034	468286.633	7.28	AB PILE 13 @TOP CUT 0.78
47	5364780.163	468290.447	6.75	AB PILE 12 @TOP CUT0.25
48	5364785.051	468338.815	6.73	AB PILE 11 @TOP CUT0.23

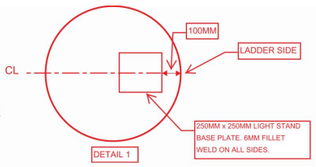


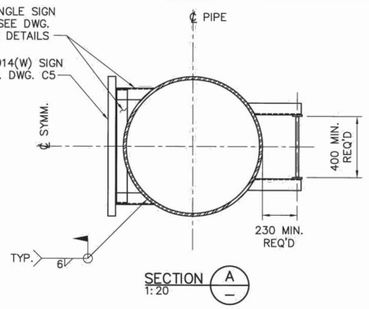


DETAILS AT UPPER END OF MONOPILE
1:50

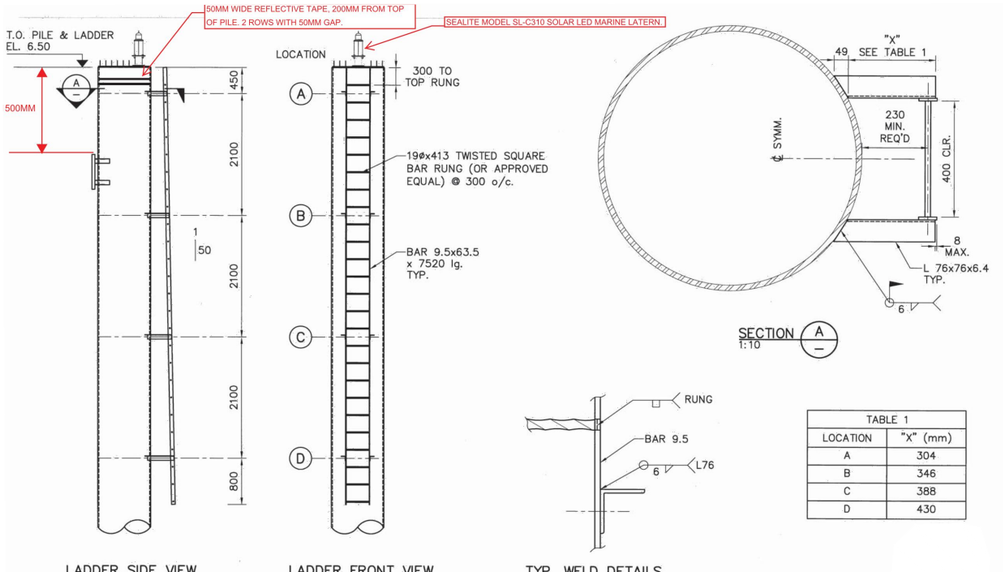


SIDE VIEW
1:50





NOTES:
1. DESIGN LIFE 10 YEARS.
2. VANCOUVER PILE DRIVING LTD. TO PROVIDE DETAILS FOR PASSIVE ANODES FOR CORROSION PROTECTION SYSTEM.
3. SIGN BRACKET DESIGN: 1:50 WIND
4. PIPE PILES WILL BE ASSEMBLED FROM MISC. LENGTHS OF USED PILES, ALL OF SAME CROSS-SECTION AND TO MIN. REQ'D AND COMPATIBLE GRADES. CONDITION ASSESSMENT OF ASSEMBLIES TO BE SUBMITTED FOR REVIEW.



LADDER SIDE VIEW
1:50

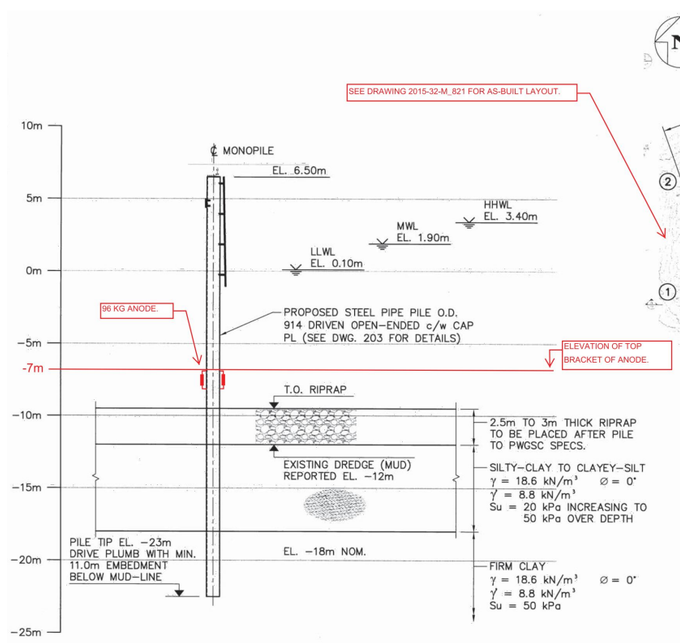
LADDER FRONT VIEW
1:50

SECTION A
1:10

TYP. WELD DETAILS
1:5

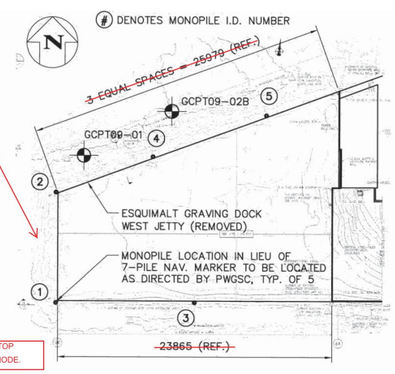
TABLE 1	
LOCATION	"X" (mm)
A	304
B	346
C	388
D	430

NOTES:
1. ALL STEEL SUPPLY AND FABRICATION TO CSA G40.20/G40.21-13, AND S16-14; ALL MAT'L GRADE 300W.
2. ALL WELDING IN ACCORDANCE WITH CSA W59-13. ALL WELDERS SHALL BE APPROPRIATELY CERTIFIED, AND ALL WELDING SHALL BE PERFORMED IN A SHOP CERTIFIED TO W47.1-09 (R2014).
3. GRIND SMOOTH ANY BURRS ON HANDHOLDS PRIOR TO GALVANIZING.
4. ASSEMBLY TO BE HOT DIPPED GALVANIZED IN CONFORMANCE WITH CSA-G164 AND TOUCHED-UP AROUND SITE WELDS AS DIRECTED BY OWNER'S REPRESENTATIVE.
5. DESIGN LIFE: 10 YEARS.
6. WORKSAFEBC CONFORMANCE PER PWGSC ADV-432 DATED 18 OCT. 2016.



TYPICAL MONOPILE PROFILE
1:200

MONOPILE NAVIGATION DOLPHIN ORIGINALLY DESIGNED AND SEALED BY ALL-SPAN ENGINEERING & CONSTRUCTION LTD. TYP.



KEY PLAN
N.T.S.

NOTES:
1. REF. PWGSC DOCUMENT ADV-403-2016-09-30-RS-EGD-WL... "NAVIGATION MARKER DOLPHIN ALTERNATE", AND RELATED CONTRACT DRAWINGS.
2. REFERENCE DWGS. DATED , 2015/03/31 PWGSC/ANCHOR QEA/KLOHN CRIPPEN BERGER: R.018400.002-C5-REV. 1, R.018400.002-C7-REV. 1, R.018400.002-S128-REV. 1, & R.018400.002-S131-REV. 0
3. DESIGN SOIL PARAMETERS PER SOIL LOG REFERENCES FROM BOREHOLES GCPT09-01 & GCPT09-02B (FIGURES F-1 AND F-2, REV. 2) IN GOLDER ASSOCIATES GEOTECH REPORT #09-1475-5008, DATED MARCH 3, 2010.
4. MONOPILE EMBEDMENT AND CROSS SECTION BASED ON COMPARABLE IMPACT RESISTANCE TO SPECIFIED 7-PILE, 14ø, TIMBER NAV. MARKER EMBEDDED 6m, PER REF. DWGS.
5. SEE PILE DRIVING RECORDS FOR PILE EMBEDMENT DEPTHS.
6. 2 ANODES PER PILE. 96KG ANODES INSTALLED AT 180 DEGREES TO EACH OTHER.

NAVIGATIONAL DOLPHIN PILES – AS-BUILTS

PWGSC – A1 – 841X594

0 10 20 30 40 50 60 70 80 90 100mm

Public Works and Government Services Canada / Travaux publics et Services gouvernementaux Canada

REAL PROPERTY SERVICES
Pacific Region
SERVICES IMMOBILIERS

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0	RECORD DRAWING	2017/03/29

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Drawn by/Dessine par
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ANDREW MYLLY

Regional Manager, Environmental Services
COLLIN KINGMAN

Drawing title/Titre du dessin
WEST JETTY
NAVIGATION MARKER
DOLPHINS AS-BUILT

Project No./No. du projet	Sheet/	Revision no./
R.018400.002	C48	0

DM5XXXXXX

VANCOUVER PILE DRIVING

Revised: Aug 2, 2016

Symbol	Observation #	Bent	Date of Observation	Divers Observations
	1	33D-E	11-May-16	No observed pile damage, CSP in moderate condition
			28-Jul-16	No new items of note
	2	33D-W	04-May-16	6' x 6' rip rap at base of pile which was moved
			28-Jul-16	No new items of note
	3	32D-E	11-May-16	No observed pile damage, CSP in moderate condition
			28-Jul-16	No new items of note
	4	32D-W	28-Jul-16	Missing CSP
	(North batter)		May-11-2016	- Light pile scrapes (no bare steel visible)
			May-11-2016	- Damage at approximately El. -6.1m CD
			May-11-2016	- 3 dents observed
			May-11-2016	- Southeast Dent (above hole): Inverted teardrop shape, soft edges, 550mm long x 280mm wide x (20-30)mm deep
			May-11-2016	- West Dent (upper): Inverted teardrop shape, soft edges, 610mm long x 260mm wide x 50mm deep
			May-11-2016	- West Dent (lower): Oval shape, hard edges, 280mm long x 200mm wide x 60mm deep.
			May-11-2016	- 2 hole observed
			May-11-2016	- Top of hole is 450mm below a pile splice
			May-11-2016	- Punctured steel is curled inwards
			28-Jul-16	- Hole #1 is 250mm in diameter and blends in with dent above
			28-Jul-16	- Hole #2 is 150mm in diameter with 350 diameter dent
			May-11-2016	- Internal mudline of pile is stiff about 350mm from bottom of bottom hole
			May-11-2016	- The hole is located on the southeast side of the pile
	5	31D	11-May-16	Light scrapes on pile above CSP, CSP has localized tear at top, pile coating in poor conidition
			28-Jul-16	No new items of note
	6	30D-W	11-May-16	Moderate damage to CSP, no observed pile damage
			28-Jul-16	No new items of note
	7	30C-N	11-May-16	Localized tear and small dents in CSP, pile coating in poor condition (blistering), no observed pile damage
			28-Jul-16	No new items of note
	8	29C-S	11-May-16	No CSP present and light scrapes on pile, no dents or bare steel observed
			28-Jul-16	No new items of note
	9	28D-E	28-Jul-16	1 Dent observed
			28-Jul-16	- 190mm diameter x 25mm deep @ El. -0.23m CD
	10	28D-W	04-May-16	Missing CSP, no observed pile damage
			28-Jul-16	No new items of note
	11	28B-N	04-May-16	Pile jacket, CSP in place, no observed pile damage
			28-Jul-16	No new items of note
	12	27D	04-May-16	Missing CSP, no observed pile damage
			28-Jul-16	No new items of note
	13	27C	11-May-16	Corner fold of CSP, no observed pile damage, pile coating in poor condition (blisters)
			28-Jul-16	No new items of note
	14	26D-E	28-Jul-16	1 Dent observed
			28-Jul-16	- 150mm x 200mm x 30mm deep @ El. -0.23m CD
	15	26D-W	11-May-16	Missing CSP, no observed pile damage
			28-Jul-16	No new items of note
	16	24D	04-May-16	Moderate damage to CSP, no observed pile damage
	17	23D-E	04-May-16	Scoring damage
	18	23D-W	11-May-16	Missing CSP
	(North batter)		11-May-16	- 1 hole observed
			04-May-16	- 350mm dia. dent with 250mm dia. hole @ mudline (El. -4.04m CD), hole partially filled with mud
			11-May-16	- 2 dents observed
			11-May-16	- West: teardrop shaped, soft edges, 580mm long x 250mm wide x 25 mm deep
			11-May-16	- Crescent shaped dent, soft edges, 270mm long x 120mm wide x 20mm deep
	19	22D	04-May-16	Missing CSP, scoring damage
	20	21D-E	11-May-16	CSP in good condition, light scrapes on pile, no bare steel observed
	21	21D-W	04-May-16	Missing CSP
	(North batter)		11-May-16	- 2 dents observed
			11-May-16	- Round shape, soft edges, 150mm in diameter, 25mm deep
			11-May-16	- Round shape, soft edges, 180mm in diameter, 25mm deep
	22	20D-E	04-May-16	Missing CSP, no observed pile damage
	23	22D-W	11-May-16	Moderate damage to CSP, light scratches on pile below CSP
	24	18D-E	11-May-16	Top CSP in good condition, bottom CSP has one corner fold, no observed pile damage
	25	18D-W	11-May-16	Minor damage to CSP, no observed pile damage
	26	18C-N	04-May-16	Scoring Damage
	27	17D-E	11-May-16	Moderate damage to CSP, light scrapes on pile
	28	17D-W	04-May-16	Missing CSP, light scoring
	29	16D-E	04-May-16	Missing CSP, light scoring
	30	16D-W	04-May-16	Missing CSP, light scoring
	31	16C-N	04-May-16	Missing CSP, light scoring
	32	15D	11-May-16	CSP in good condition, no observed pile damage
	33	15C	11-May-16	CSP in good condition, no observed pile damage
	34	14D-E	11-May-16	Minor damage to CSP and 1 corner fold, light scrapes on pile, no bare steel observed
	35	9D-W	11-May-16	CSP in good condition.
	(North batter)		11-May-16	- 1 dent observed
			04-May-16	- 250mm x 100mm dent, 25mm deep at mudline (El. -2.74m CD)
	36	8D-W	11-May-16	Minor damage to CSP.
	(North batter)		04-May-16	- 1 dent observed
			04-May-16	- 150mm diameter dent, 10mm deep at mudline (El. -2.74m CD)
	37	7D	04-May-16	Scoring
	38	6D-E	04-May-16	Scoring
	39	5D-E	04-May-16	Scoring
	40	4F-N	04-May-16	Missing CSP
	(west batter)		12-May-16	- 2 dents observed
			12-May-16	- 840mm long x 220mm wide x 12mm deep dent accros splice, 2m above mudline (El. -3.74m CD)
			12-May-16	- 560mm long x 210mm wide by 15mm deep dent, 2.5m above mudline (El. -3.24m CD)
	41	4G-N	04-May-16	Missing CSP
	(west batter)		12-May-16	- 3 dents observed
			12-May-16	- 185mm long x 160mm wide x 15mm deep dent, 4m above mudline (El. -2.59m CD)
			12-May-16	- 250mm x 120mm dent, 5-6mm deep, 3-4m above mudline (El. -3.59m to -2.59m CD)
			12-May-16	- 530mm long x 280mm x 50mm deep dent
	42	4H-N	04-May-16	Missing CSP
	(west batter)		12-May-16	- 1 hole observed
			12-May-16	- 360mm long x 220mm wide hole at mudline
			12-May-16	- 1 Dent Observed
			12-May-16	- 650mm x 380mm
	43	4I-N	04-May-16	Missing CSP
	(west batter)		12-May-16	- 1 hole observed
			12-May-16	- 320mm diameter hole at northwest corner, 2m above mudline (El. -7.24m CD)
			12-May-16	- 1 dent observed
			12-May-16	- 170mm diameter x 25mm deep dent at southwest corner, 1.5m above mudline

Summary

Symbol	Qty	Description
	16	No observed pile damage
	7	Dent only
	4	Dent with hole
	10	Scoring
	6	Light scrapes
	43	Items of note
	35	CSP installed, no dredging in area to date
	16	No CSP installed
	88	No pile damage, CSP in place
	139	No damaged observed total

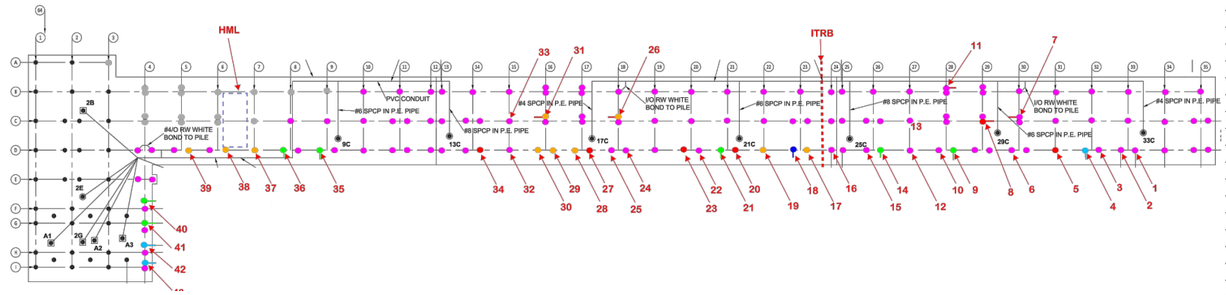
182	Piles in total

Hole Only - Quantity	
Pile #4	2
Pile #18	1
Pile #42	1
Pile #43	1
Total	5

Dent Only - Quantity		
Pile #4	3	
Pile #9	1	
Pile #14	1	
Pile #18	2	
Pile #21	1	1 Dent, 2 Holes
Pile #35	1	2 Dents
Pile #36	1	
Pile #40	2	
Pile #41	3	
Pile #43	1	
Total	17	

Total # of Damaged Piles
Pile #4
Pile #18
Pile #42
Pile #9
Pile #14
Pile #43
Pile #21
Pile #35
Pile #36
Pile #40
Pile #41
11

Notes:
- All piles from Bent 24 to Bent 35 were inspected on July 28, 2016. Only damaged piles were video taped.



PILE DAMAGE – PLAN

PILE REPAIRS ORIGINALLY DESIGNED AND SEALED BY ALL–SPAN ENGINEERING & CONSTRUCTION LTD. TYP.

PILE REPAIRS – SHEET 1

PWGSC – A1 – 841X594

0 10 20 30 40 50 60 70 80 90 100mm

Public Works and Government Services Canada
Travaux publics et Services gouvernementaux Canada

REAL PROPERTY SERVICES
Pacific Region
SERVICES IMMOBILIERS

Klohn Crippen Berger

Revision/ Revision	Description/Description	Date/Date
0	RECORD DRAWING	2017/03/29

Client/client

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

Consultant Signature Only

Designed by/Concept par
DANIEL LAWSON

Drawn by/Dessine par
ALEXANDER SCEKIC

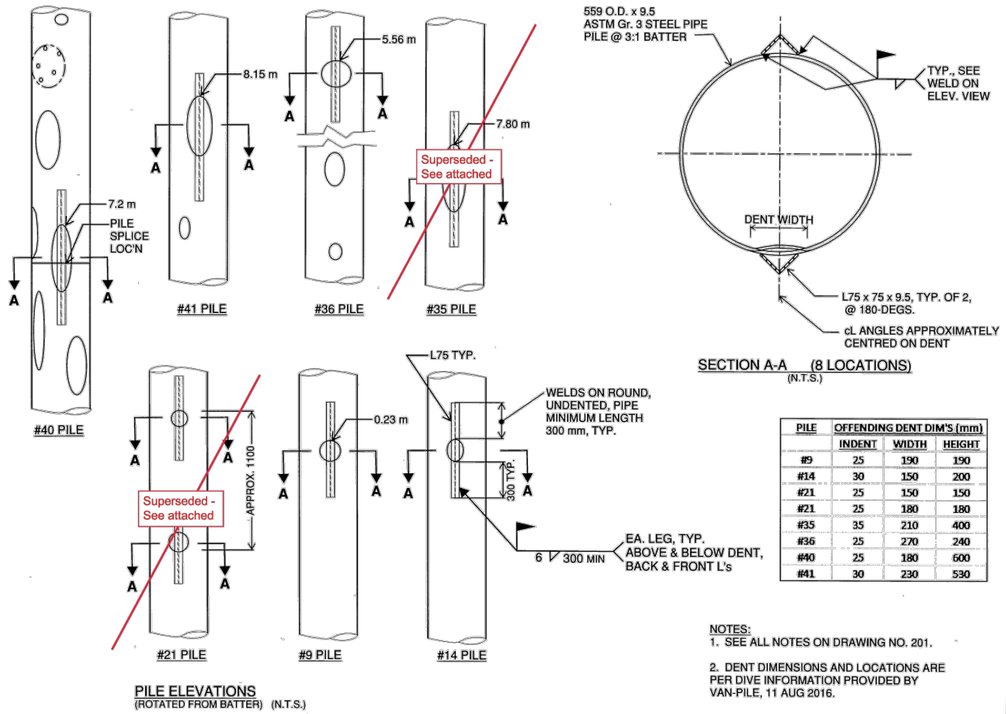
PWGSC Project Manager/Administrateur de Projets TPSGC
ANDREW MYLLY

Regional Manager, Environmental Services
COLLIN KINGMAN

Drawing title/Titre du dessin
PILE REPAIRS
AS-BUILTS
SHEET 1

Project No./No. du projet	Sheet/	Revision no./
R.018400.002	C49	0

DM5XXXXXX



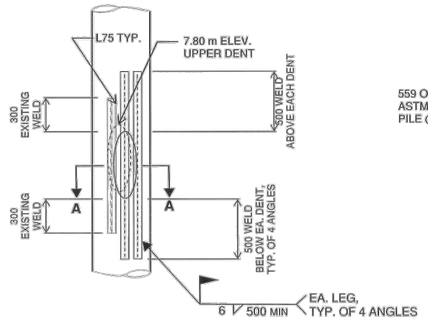
PILE ELEVATIONS
(ROTATED FROM BATTER) (N.T.S.)

SECTION A-A (8 LOCATIONS)
(N.T.S.)

PILE	OFFENDING DENT DIM'S (mm)		
	INDENT	WIDTH	HEIGHT
#9	25	190	190
#14	30	150	200
#21	25	150	150
#21	25	180	180
#35	35	210	400
#36	25	270	240
#40	25	180	600
#41	30	230	530

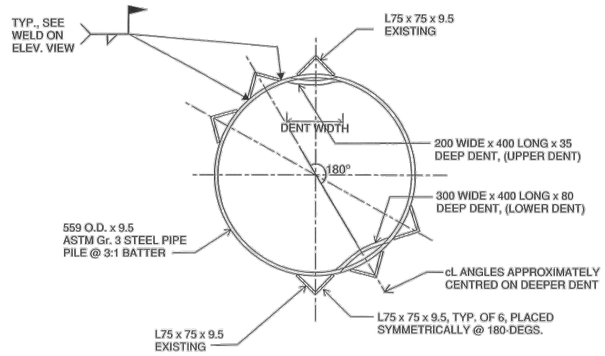
NOTES:
1. SEE ALL NOTES ON DRAWING NO. 201.

2. DENT DIMENSIONS AND LOCATIONS ARE PER DIVE INFORMATION PROVIDED BY VAN-PILE, 11 AUG 2016.



#35 PILE

PILE ELEVATION
(ROTATED FROM BATTER) (N.T.S.)



SECTION A-A
(N.T.S.)

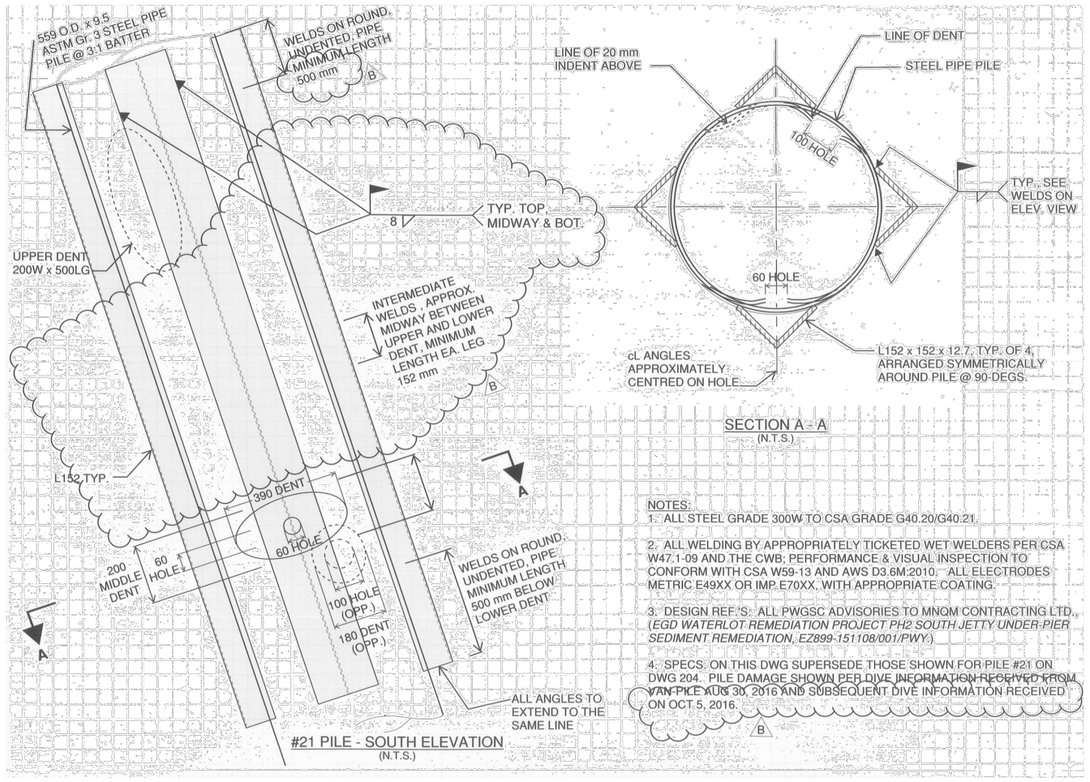
NOTES:
1. ALL STEEL GRADE 300W TO CSA GRADE G40.20/G40.21.

2. ALL WELDING BY APPROPRIATELY TICKETED WET WELDERS PER CSA W47.1-09 AND THE CWB; PERFORMANCE & VISUAL INSPECTION TO CONFORM WITH CSA W59-13 AND AWS D3.6M:2010. ALL ELECTRODES METRIC E49XX OR IMP E70XX, WITH APPROPRIATE COATING.

3. DESIGN REF.'S: ALL PWGSC ADVISORIES TO MNQM CONTRACTING LTD., (*EGD WATERLOT REMEDIATION PROJECT PH2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION, EZ899-151108/001/PWY.*)

4. SPECS. ON THIS DWG SUPERSEDE THOSE SHOWN FOR PILE #35 SHOWN ON DWG 204. PILE DAMAGE SHOWN PER DIVE INFORMATION RECEIVED FROM VAN-PILE SEPT 22, 2016.

PILE REPAIRS ORIGINALLY DESIGNED AND SEALED BY ALL–SPAN ENGINEERING & CONSTRUCTION LTD. TYP.



#21 PILE - SOUTH ELEVATION
(N.T.S.)

SECTION A - A
(N.T.S.)

NOTES:
1. ALL STEEL GRADE 300W TO CSA GRADE G40.20/G40.21.

2. ALL WELDING BY APPROPRIATELY TICKETED WET WELDERS PER CSA W47.1-09 AND THE CWB; PERFORMANCE & VISUAL INSPECTION TO CONFORM WITH CSA W59-13 AND AWS D3.6M:2010. ALL ELECTRODES METRIC E49XX OR IMP E70XX, WITH APPROPRIATE COATING.

3. DESIGN REF.'S: ALL PWGSC ADVISORIES TO MNQM CONTRACTING LTD., (*EGD WATERLOT REMEDIATION PROJECT PH2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION, EZ899-151108/001/PWY.*)

4. SPECS. ON THIS DWG SUPERSEDE THOSE SHOWN FOR PILE #21 ON DWG 204. PILE DAMAGE SHOWN PER DIVE INFORMATION RECEIVED FROM VAN-PILE AUG 30, 2016 AND SUBSEQUENT DIVE INFORMATION RECEIVED ON OCT 5, 2016.

PILE REPAIRS – SHEET 2

Public Works and Government Services Canada
Travaux publics et Services gouvernementaux Canada
REAL PROPERTY SERVICES
Pacific Region
SERVICES IMMOBILIERS

Klohn Crippen Berger

Revision/ Revision	Description/Description	Date/Date
0	RECORD DRAWING	2017/03/29

Client/client

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet

ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

Consultant Signature Only

Designed by/Concept par
DANIEL LAWSON

Drawn by/Dessine par
ALEXANDER SCEKIC

PWGSC Project Manager/Administrateur de Projets TPSGC
ANDREW MYLLY

Regional Manager, Environmental Services
COLLIN KINGMAN

Drawing title/Titre du dessin

PILE REPAIRS
AS-BUILTS
SHEET 2

Project No./No. du projet	Sheet/	Revision no./
R.018400.002	C50	0

PWGSC – A1 – 841X594

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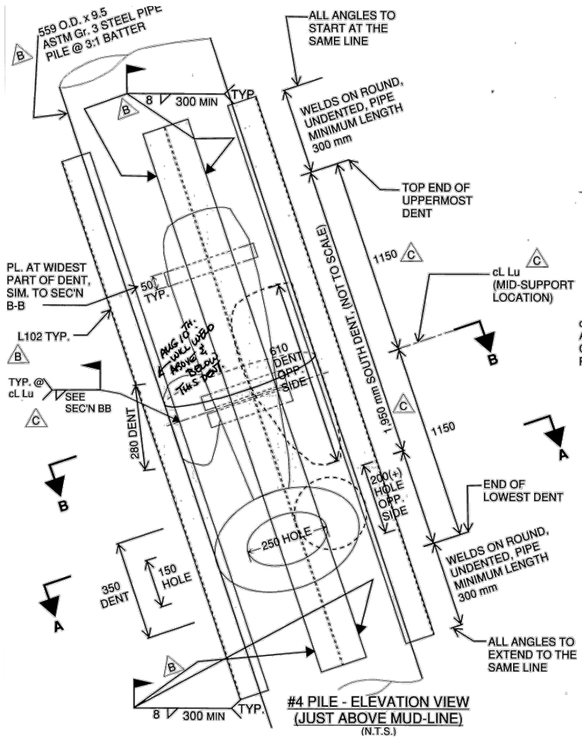
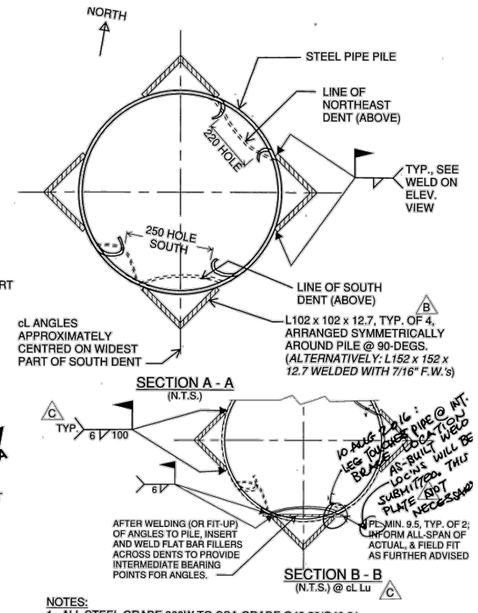
DM5XXXXXX



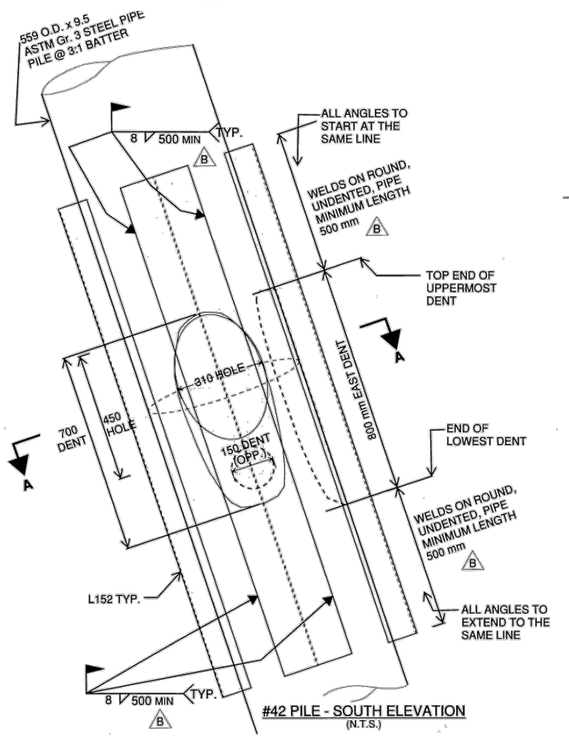
#4 PILE - ELEVATION VIEW
(JUST ABOVE MUD-LINE)
(N.T.S.)



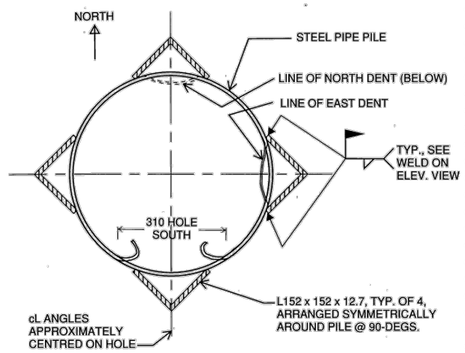
NOTES:
1. ALL STEEL GRADE 300W TO CSA GRADE G40.20/G40.21.

2. ALL WELDING BY APPROPRIATELY TICKETED WET WELDERS PER CSA W47.1-09 AND THE CWB; PERFORMANCE & VISUAL INSPECTION TO CONFORM WITH CSA W59-13 AND AWS D3.6M:2010. ALL ELECTRODES METRIC E49XX OR IMP E70XX, WITH APPROPRIATE COATING.

3. DESIGN REF.'S: ALL PWGSC ADVISORIES TO MNQM CONTRACTING LTD., (*EGD WATERLOT REMEDIATION PROJECT PH2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION, EZ899-151108/001/PWY.*)



#42 PILE - SOUTH ELEVATION
(N.T.S.)



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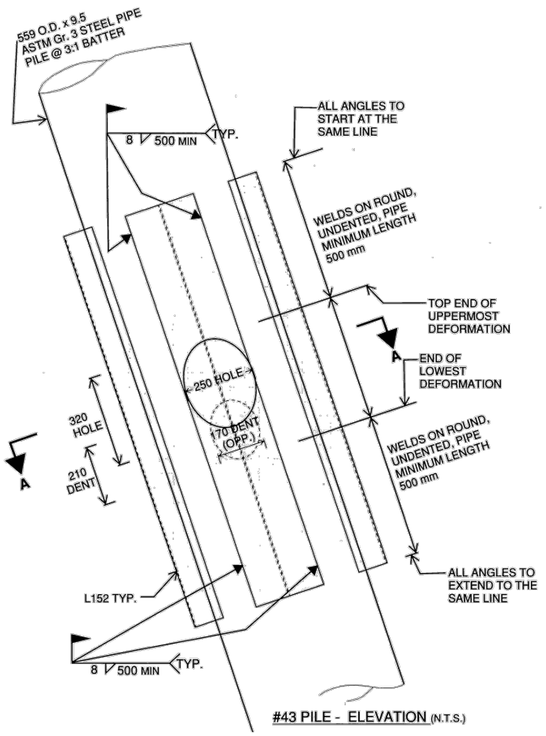
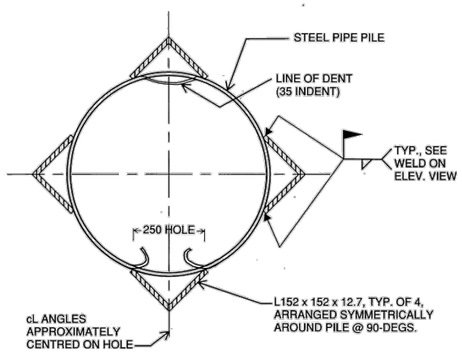
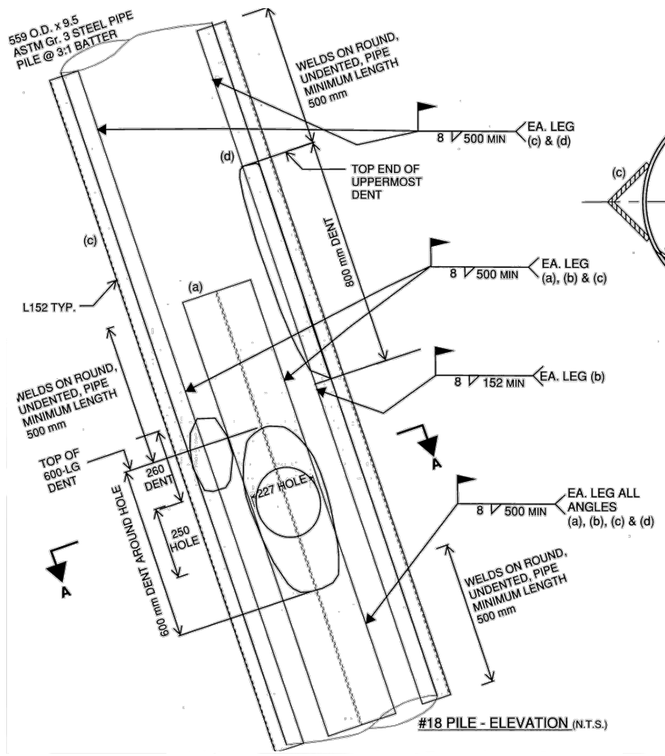


#43 PILE - ELEVATION (N.T.S.)

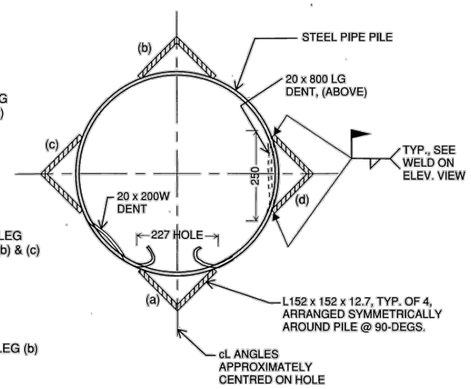


PILE REPAIRS ORIGINALLY DESIGNED AND SEALED BY ALL-SPAN ENGINEERING & CONSTRUCTION LTD. TYP.

NOTES:
1. SEE ALL NOTES ON DRAWING NO. 201.



#18 PILE - ELEVATION (N.T.S.)



NOTES:
1. SEE ALL NOTES ON DRAWING NO. 201.

PILE REPAIRS – SHEET 3

PWGSC – A1 – 841X594

0 10 20 30 40 50 60 70 80 90 100mm

Public Works and Government Services Canada / Travaux publics et Services gouvernementaux Canada

REAL PROPERTY SERVICES
Pacific Region
SERVICES IMMOBILIERS

Klohn Crippen Berger

Revision/ Revision	Description/Description	Date/Date
0	RECORD DRAWING	2017/03/29

Client/client

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

Consultant Signature Only

Designed by/Concept par
DANIEL LAWSON

Drawn by/Dessine par
ALEXANDER SCEKIC

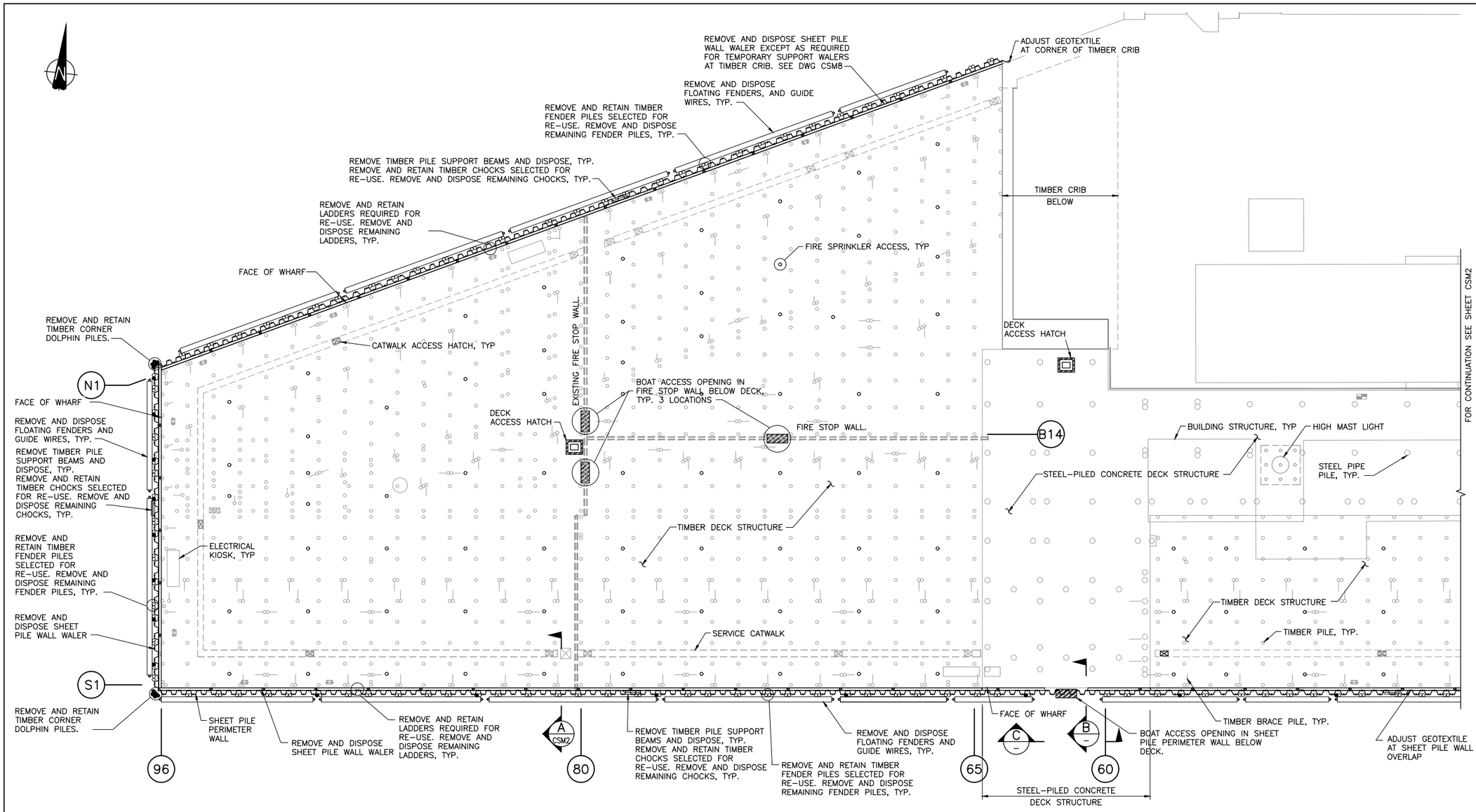
PWGSC Project Manager/Administrateur de Projets TPSGC
ANDREW MYLLY

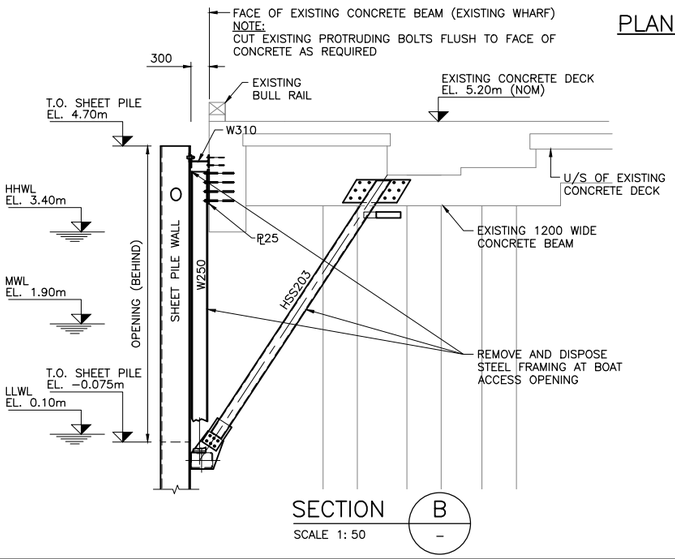
Regional Manager, Environmental Services
COLLIN KINGMAN

Drawing title/Titre du dessin
PILE REPAIRS
AS-BUILTS
SHEET 3

Project No./No. du projet	Sheet/	Revision no./
R.018400.002	C51	0

DM5XXXXXX

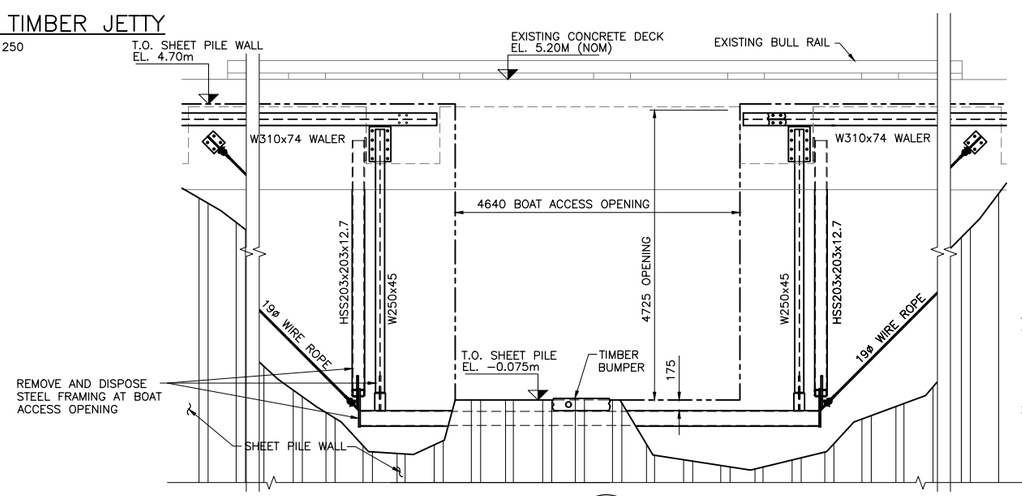




SECTION B
SCALE 1: 50

PLAN WEST TIMBER JETTY

SCALE 1: 250



VIEW C
SCALE 1: 50

NOTES:

1. THIS DRAWING SHOWS EXISTING ITEMS TO BE REMOVED, DISPOSED AND RETAINED TO FACILITATE RE–DRIVING OF THE EXISTING SHEET PILE PERIMETER WALL AT THE WEST AND SOUTH JETTY.
2. FOR SHEET PILE WALL AND BOAT ACCESS FRAME DETAILS SEE REFERENCE DRAWINGS.

0 10 20 30 40 50 60 70 80 90 100mm

PWGSC – A1 – 841X594

Public Works and Government Services Canada / Travaux publics et Services gouvernementaux Canada

REAL PROPERTY SERVICES
Pacific Region
SERVICES IMMOBILIERS

ANCHOR QEA

Klohn Crippen Berger

Revision/ Revision	Description/Description	Date/Date
1	RECORD DRAWING	2017/03/29
0	ISSUED FOR TENDER	2014/12/19

Client/client

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

Consultant Signature Only

Designed by/Concept par
JANET TONG

Drawn by/Dessine par
ARNIE RIST

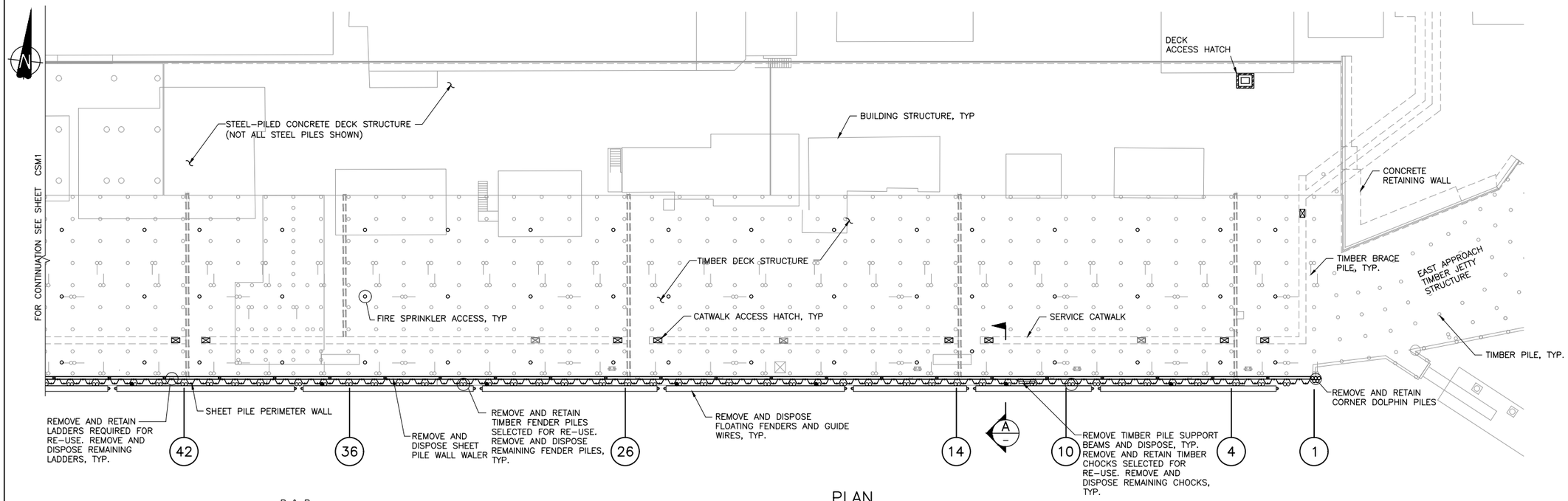
PWGSC Project Manager/Administrateur de Projets TPSGC
ANDREW MYLLY

Regional Manager, Environmental Services
COLLIN KINGMAN

Drawing title/Titre du dessin
WEST AND SOUTH JETTY
EXISTING CONDITIONS
FENDER REMOVAL
SHEET 1

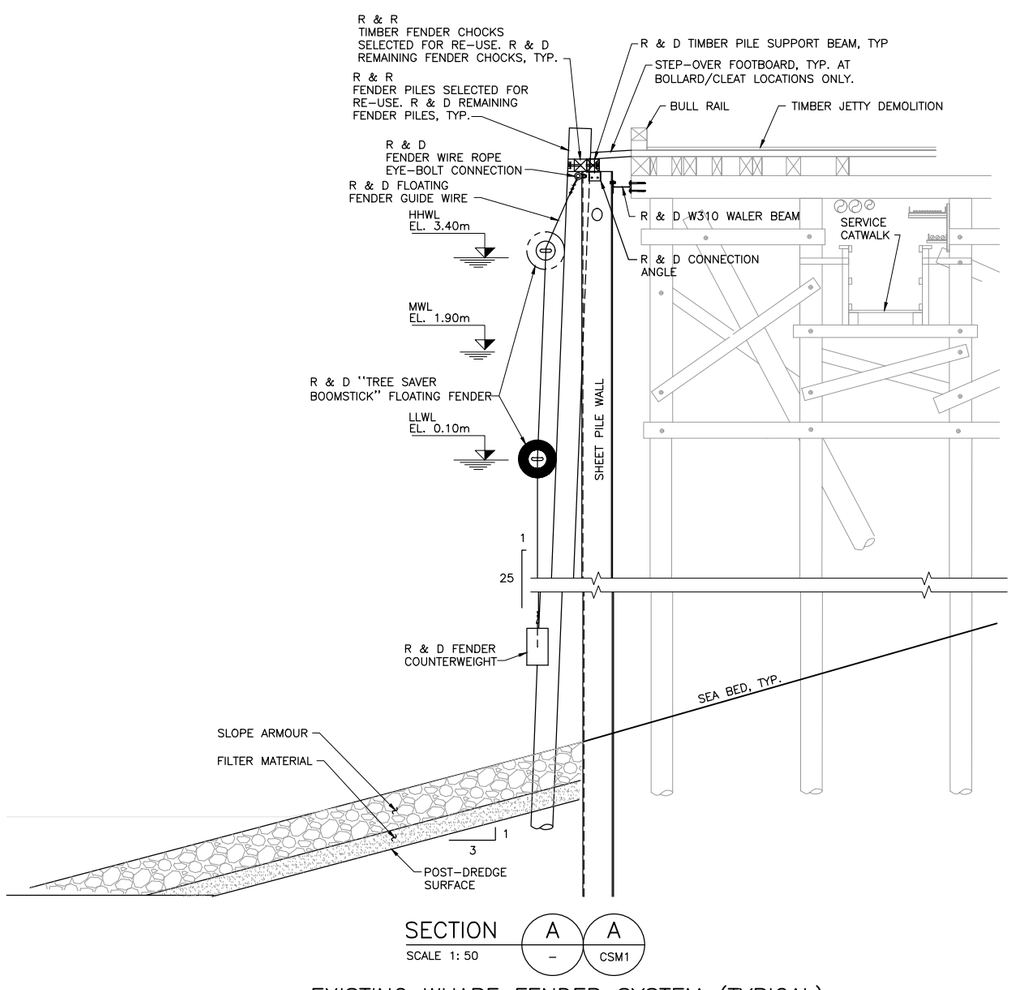
Project No./No. du projet	Sheet/	Revision no./
R.018400.002	CSM1	1

DM5XXXXXX



PLAN
SOUTH TIMBER JETTY

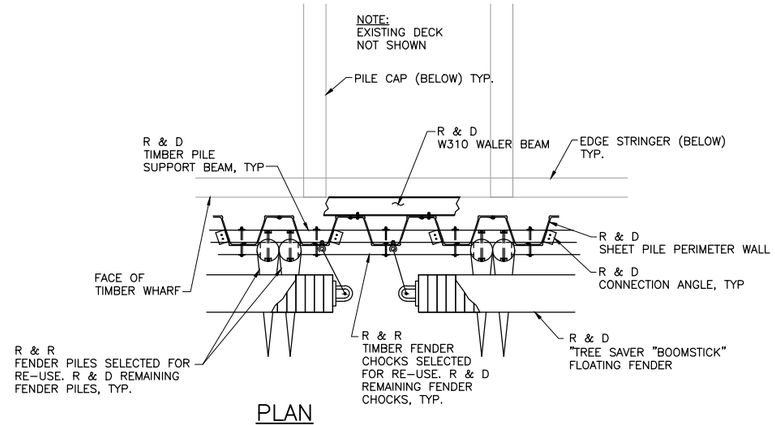
SCALE 1: 250



SECTION A – A CSM1

SCALE 1: 50

EXISTING WHARF FENDER SYSTEM (TYPICAL)



PLAN
EXISTING WHARF FENDER SYSTEM

SCALE 1: 50

LEGEND:

R & D DENOTES REMOVE AND DISPOSE
R & R DENOTES REMOVE AND RETAIN

NOTES:

1. THIS DRAWING SHOWS EXISTING ITEMS TO BE REMOVED, DISPOSED AND RETAINED TO FACILITATE RE-DRIVING OF THE EXISTING SHEET PILE PERIMETER WALL AT THE SOUTH JETTY.
2. FOR SHEET PILE WALL DETAILS SEE REFERENCE DRAWINGS.

Public Works and Government Services Canada / Travaux publics et Services gouvernementaux Canada

REAL PROPERTY SERVICES
Pacific Region
SERVICES IMMOBILIERS

ANCHOR QEA

Klohn Crippen Berger

Revision/ Revision	Description/Description	Date/Date
1	RECORD DRAWING	2017/03/29
0	ISSUED FOR TENDER	2014/12/19

Client/client

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

Consultant Signature Only

Designed by/Concept par
JANET TONG

Drawn by/Dessine par
ARNIE RIST

PWGSC Project Manager/Administrateur de Projets TPSGC
ANDREW MYLLY

Regional Manager, Environmental Services
COLLIN KINGMAN

Drawing title/Titre du dessin
WEST AND SOUTH JETTY
EXISTING CONDITIONS
FENDER REMOVAL
SHEET 2

Project No./No. du projet	Sheet/	Revision no./
R.018400.002	CSM2	1

PWGSC – A1 – 841X594

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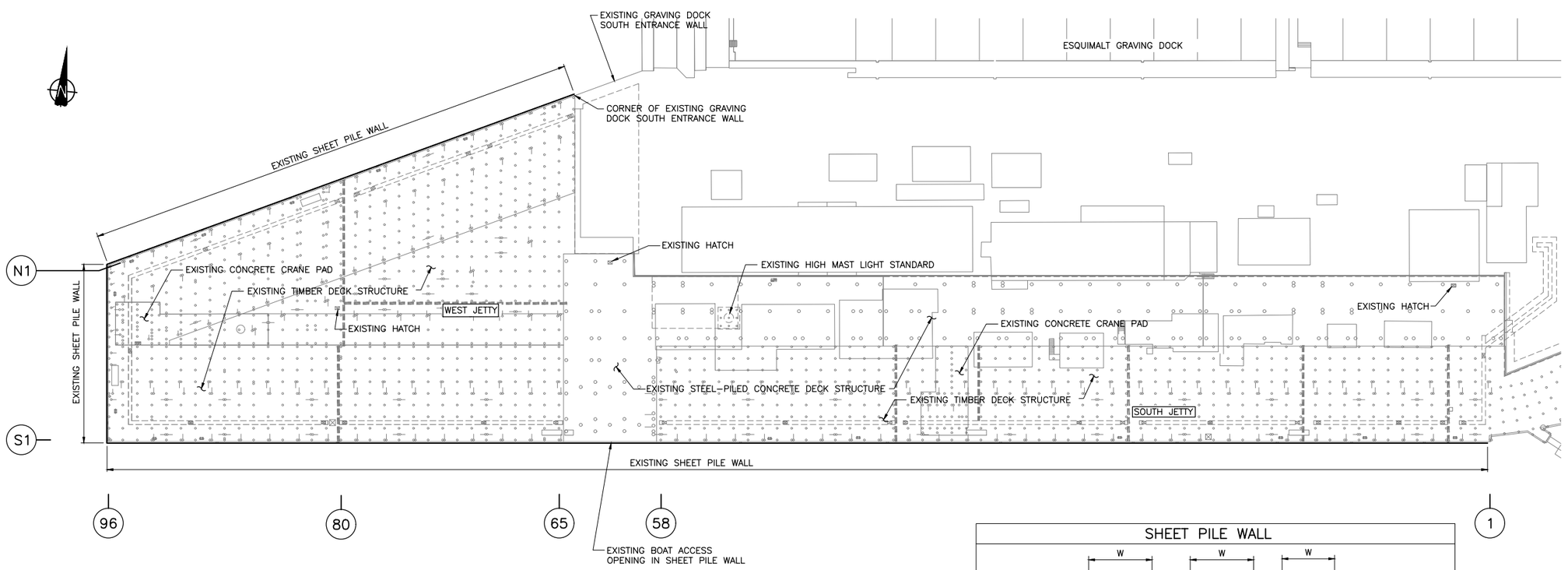
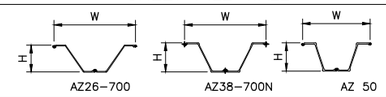
DM5XXXXXX



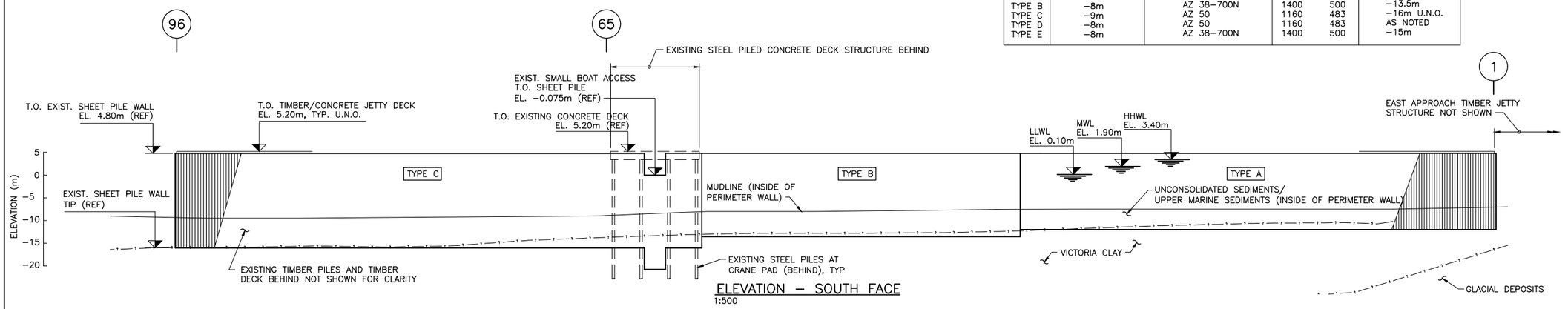
PLAN
1:500

NOTE:
FENDER PILES, CORNER DOLPHINS, "TREE SAVER BOOMSTICK" FLOATS, AND LADDERS NOT SHOWN

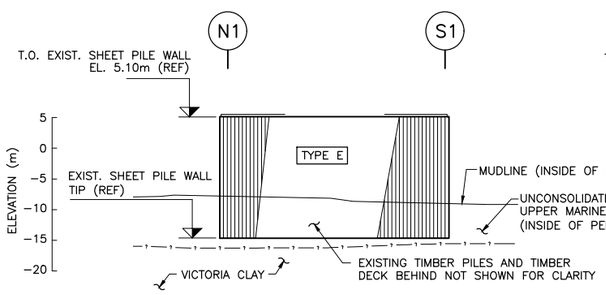
SHEET PILE WALL



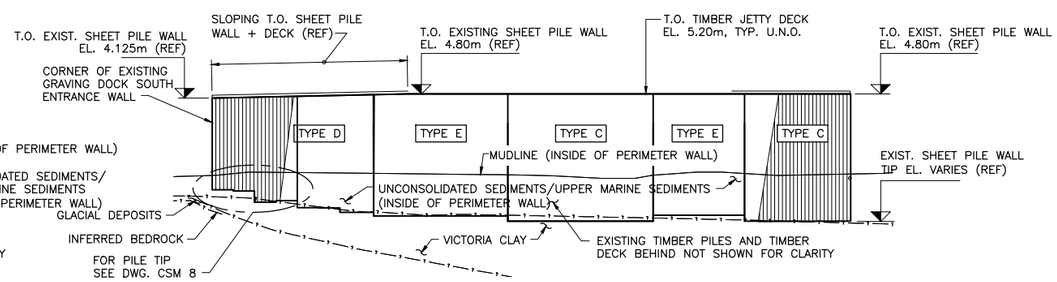
	DESIGN MUDLINE ELEVATION	SHEET PILE WALL SECTION	DIMENSIONS W	DIMENSIONS H	PILE TIP ELEVATION
TYPE A	–7m	AZ 26–700	1400	460	–12m
TYPE B	–8m	AZ 38–700N	1400	500	–13.5m
TYPE C	–9m	AZ 50	1160	483	–16m U.N.O.
TYPE D	–8m	AZ 50	1160	483	AS NOTED
TYPE E	–8m	AZ 38–700N	1400	500	–15m



ELEVATION – SOUTH FACE
1:500



ELEVATION – WEST FACE
1:500



ELEVATION – NORTH FACE
1:500

NOTES:
1. FOR SHEET PILE WALL DETAILS SEE REFERENCE DRAWINGS.

PWGSC – A1 – 841X594

0 10 20 30 40 50 60 70 80 90 100mm

DM5XXXXXX

Public Works and Government Services Canada / Travaux publics et Services gouvernementaux Canada
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ANCHOR QEA

Klohn Crippen Berger

Revision/ Revision	Description/Description	Date/Date
1	RECORD DRAWING	2017/03/29
0	ISSUED FOR TENDER	2014/12/19

Client/client

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

Consultant Signature Only

Designed by/Concept par
JANET TONG

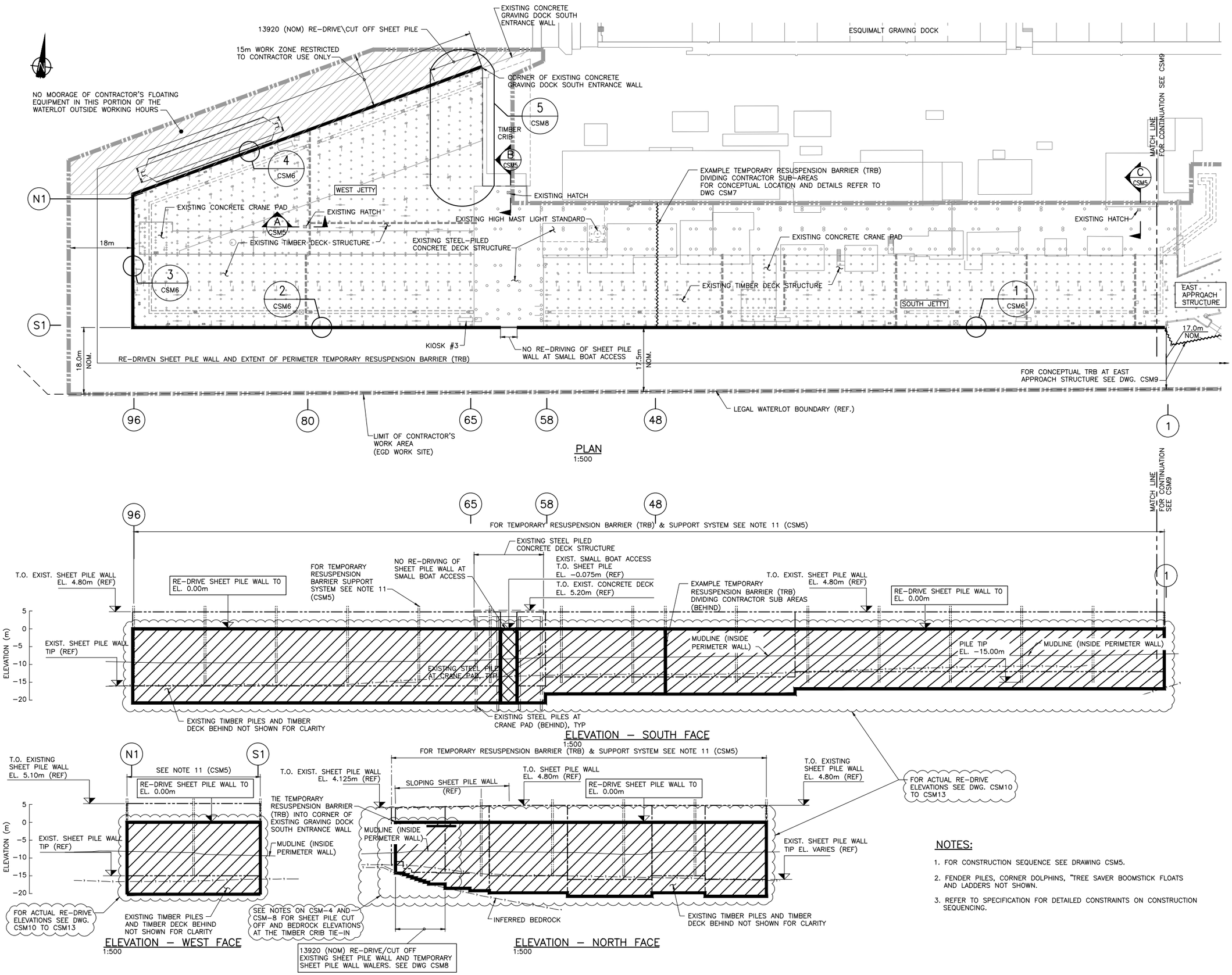
Drawn by/Dessine par
ARNIE RIST

PWGSC Project Manager/Administrateur de Projets TPSGC
ANDREW MYLLY

Regional Manager, Environmental Services
COLLIN KINGMAN

Drawing title/Titre du dessin
WEST AND SOUTH JETTY
SHEET PILE WALL
EXISTING CONDITIONS

Project No./No. du projet	Sheet/	Revision no./
R.018400.002	CSM3	1



NOTES:

1. FOR CONSTRUCTION SEQUENCE SEE DRAWING CSM5.
2. FENDER PILES, CORNER DOLPHINS, "TREE SAVER BOOMSTICK FLOATS AND LADDERS NOT SHOWN.
3. REFER TO SPECIFICATION FOR DETAILED CONSTRAINTS ON CONSTRUCTION SEQUENCING.

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PWGSC Project Manager/Administrateur de Projets TPSGC
ANDREW MYLLY

Regional Manager, Environmental Services
COLLIN KINGMAN

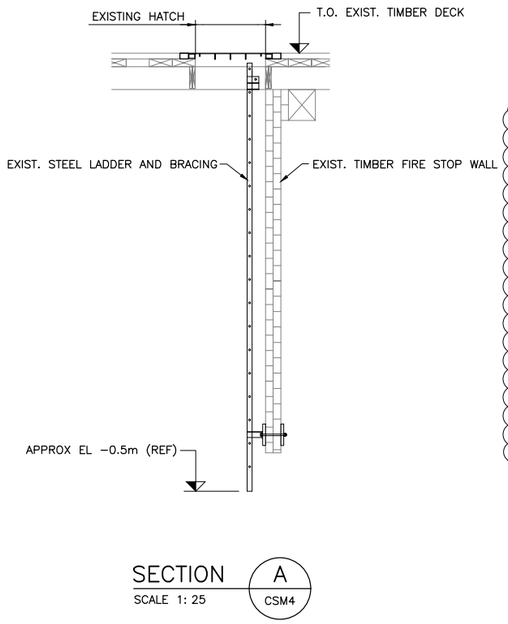
Drawing title/Titre du dessin

SHEET PILE WALL MODIFICATIONS PLAN AND ELEVATIONS

Project No./No. du projet	Sheet/	Revision no./
R.018400.002	CSM4	1

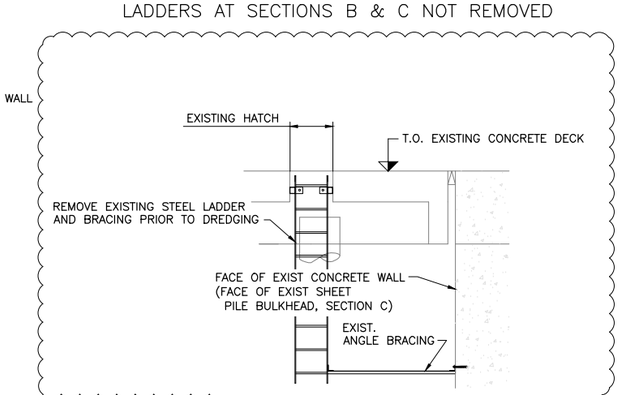
PWGSC – A1 – 841X594

DM5XXXXXX



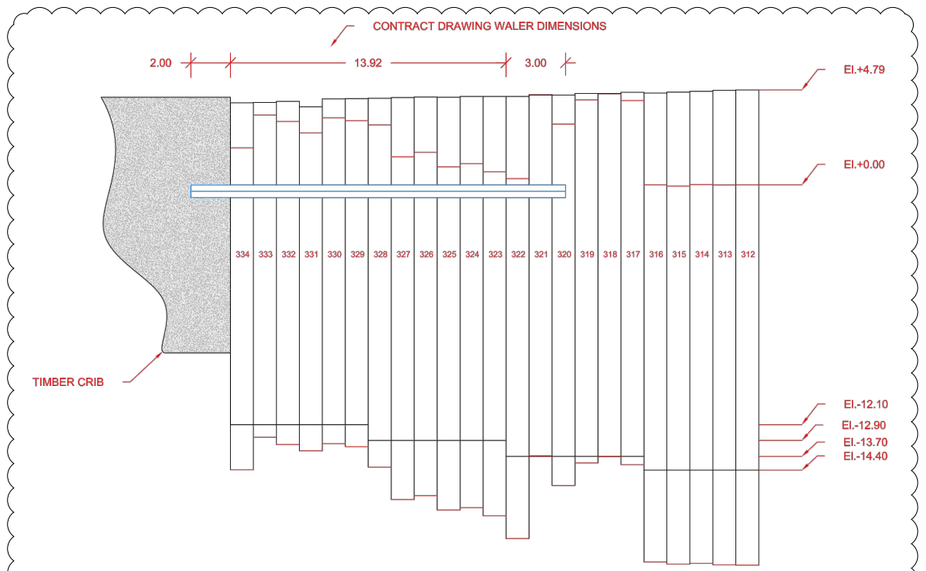
SECTION A
SCALE 1: 25
CSM4

LADDERS AT SECTIONS B & C NOT REMOVED



SECTION B
SCALE 1: 25
CSM4

SECTION C SIMILAR
SCALE 1: 25
CSM4



NORTH FACE PERIMETER SHEET PILE WALL PILE DRIVING RECORDS

Type	Pile Pair ID	Initial Top Elevation	Initial Tip Elevation	Final Top Elevation	Final Tip Elevation	Elevation of Bedrock
Type D	312	4.79	-14.40	0.00	-19.19	N/A
Type D	313	4.77	-14.40	-0.01	-19.18	N/A
Type D	314	4.72	-14.40	0.02	-19.10	N/A
Type D	315	4.68	-14.40	-0.06	-19.14	N/A
Type D	316	4.63	-14.40	0.00	-19.03	N/A
Type D	317	4.67	-13.70	4.25	-14.12	-14.12
Type D	318	4.61	-13.70	4.59	-13.72	-13.72
Type D	319	4.61	-13.70	4.28	-14.03	-14.03
Type D	320	4.53	-13.70	3.06	-15.17	-15.17
Type D	321	4.53	-13.70	4.55	-13.68	-13.68
Type D	322	4.46	-13.70	0.31	-17.85	-17.85
Type D	323	4.46	-12.90	0.66	-16.70	-16.70
Type D	324	4.46	-12.90	1.07	-16.29	-16.29
Type D	325	4.42	-12.90	0.91	-16.41	-16.41
Type D	326	4.43	-12.90	1.64	-15.69	-15.69
Type D	327	4.40	-12.90	1.42	-15.88	-15.88
Type D	328	4.37	-12.90	3.02	-14.25	-14.25
Type D	329	4.35	-12.10	3.24	-13.21	-13.21
Type D	330	4.34	-12.10	3.38	-13.06	-13.06
Type D	331	3.94	-12.10	2.62	-13.42	-13.42
Type D	332	4.21	-12.10	3.20	-13.11	-13.11
Type D	333	4.16	-12.10	3.52	-12.74	-12.74
Type D	334	4.14	-12.10	1.86	-14.38	-14.38
- Initial Top Elevation based on survey during SPW re-drive. No records for 319 and 321 therefore assumed adjacent sheet pile top elevation.						
- No pile driving records for piles 319, 320, and 321 however the pile driving foreman confirmed piles were driven to refusal.						
- Initial Tip Elevation for piles 312 and 313 assumed to be El. -14.40m.						
- Initial Tip Elevation based on record drawings.						
- Initial Top Elevation recorded on March 11, March 15, or March 19. Highest Initial Top Elevation shown above.						

INDICATIVE CONSTRUCTION SEQUENCE (SEE DWG CSM4):

1. TEMPORARY RESUSPENSION BARRIER (TRB) ELEMENTS AND CONFIGURATIONS ARE SHOWN FOR ILLUSTRATIVE PURPOSES ONLY. CONTRACTOR'S THIRD PARTY ENGINEER SHALL VERIFY SPECIFIC DESIGN APPROACH FOR TEMPORARY RESUSPENSION BARRIER (TRB) SYSTEM.
2. REMOVE "TREE SAVER BOOMSTICK" FENDER LOGS, GUIDE WIRES AND WEIGHTS AND DISPOSE OFF−SITE.

NOTE: FENDER PILES AND CHOCKS NOT RE−INSTALLED. SOME TIMBER PILES USED FOR CORNER DOLPHINS

3. REMOVE FENDER PILES, CORNER DOLPHINS AND CHOCKS AND STORE SELECTED FENDER PILES, CORNER DOLPHINS AND CHOCKS FOR RE−USE; DISPOSE OF REMAINING FENDER PILES AND CHOCKS. REMOVE TIMBER PILE SUPPORT BEAMS AND DISPOSE OFF−SITE.

NO LADDERS RE−USED

4. REMOVE LADDERS. STORE LADDERS REQUIRED FOR RE−USE, DISPOSE OF REMAINING LADDERS.
5. DISCONNECT SHEET PILE WALL FROM STEEL WALER, REMOVE STEEL WALER (EXCEPT AS SHOWN ON DRAWING CSM8) AND DISPOSE OFF−SITE.
6. INSTALL COVERS OVER VENT HOLES IN SHEET PILE WALL.
7. DISCONNECT AND REMOVE STEEL FRAMING AT BOAT ACCESS OPENING AND DISPOSE OFF−SITE.
8. RE−DRIVE EXISTING SHEET PILE WALL AS SHOWN.
9. DURING RE−DRIVING OF SHEET PILES, MAINTAIN AND ADJUST THE EXISTING GEOTEXTILE AT OVERLAP JOINTS IN THE EXISTING STEEL SHEET PILE WALL AND AT THE NORTH WEST CORNER OF THE TIMBER CRIB, TO PROVIDE A CONTINUOUS AND UNBROKEN BARRIER FOR THE FULL HEIGHT OF THE RE−DRIVEN SHEET PILE WALL ABOVE MUD LINE.
10. CUT EXISTING SHEET PILE WALL DOWN TO EL. 0.0m WHERE INDICATED.

NOT INSTALLED

11. INSTALL TEMPORARY STEEL SUPPORT BRACING AT TIMBER CRIB.
12. INSTALL TEMPORARY RESUSPENSION BARRIER (TRB) SYSTEM AS DESIGNED BY CONTRACTOR'S THIRD PARTY ENGINEER.
13. REMOVE TIMBER PILED WEST JETTY AND SOUTH JETTY STRUCTURES AND EAST APPROACH STRUCTURE.
14. REMOVE CONTAMINATED SEDIMENT BY DREDGING, AND INSTALL ENGINEERED CAPPING MATERIALS.
15. INSTALL TIMBER FENDER PILES, CORNER DOLPHINS AND NAVIGATION MARKER DOLPHINS PRIOR TO PLACING ARMOUR ROCK.
16. REMOVE TEMPORARY RESUSPENSION BARRIER (TRB) SYSTEM.
17. EXTRACT RE−DRIVEN SHEET PILES AND DISPOSE OFF−SITE.

NOTE:

1. REFER TO SPECIFICATION FOR DETAILED CONSTRAINTS ON CONSTRUCTION SEQUENCING.

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Pacific Region
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ANCHOR QEA

Klohn Crippen Berger

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825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

Consultant Signature Only

Designed by/Concept par
GEOFF COOPER

Drawn by/Dessine par
ARNIE RIST

PWGSC Project Manager/Administrateur de Projets TPSGC
ANDREW MYLLY

Regional Manager, Environmental Services
COLLIN KINGMAN

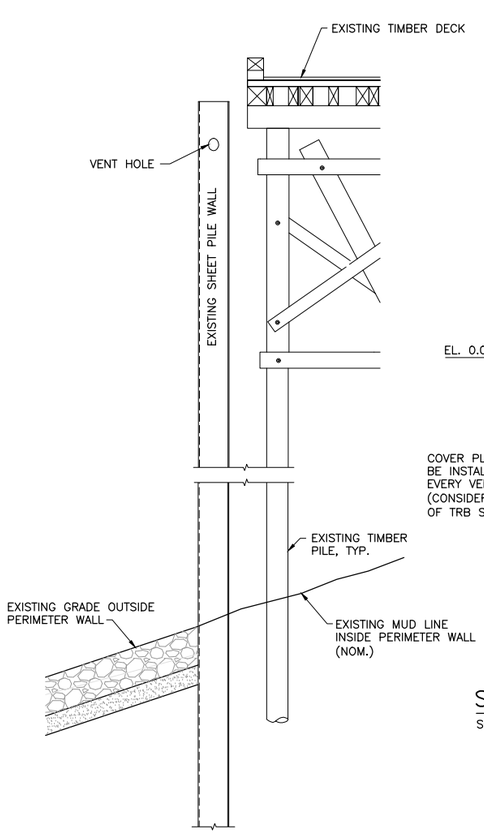
Drawing title/Titre du dessin
SHEET PILE WALL MODIFICATIONS NOTES AND SECTIONS

Project No./No. du projet	Sheet/	Revision no./
R.018400.002	CSM5	1

PWGSC – A1 – 841X594

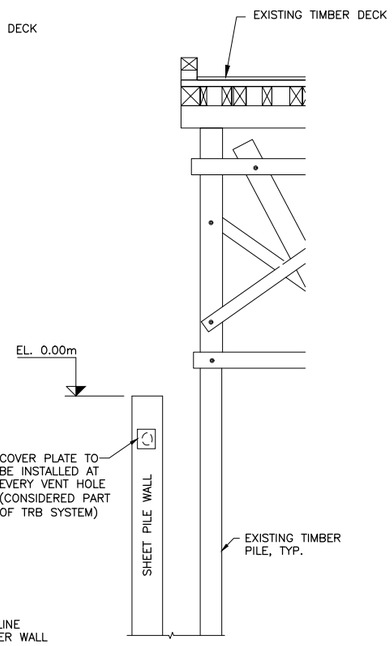
0 10 20 30 40 50 60 70 80 90 100mm

DM5XXXXXX



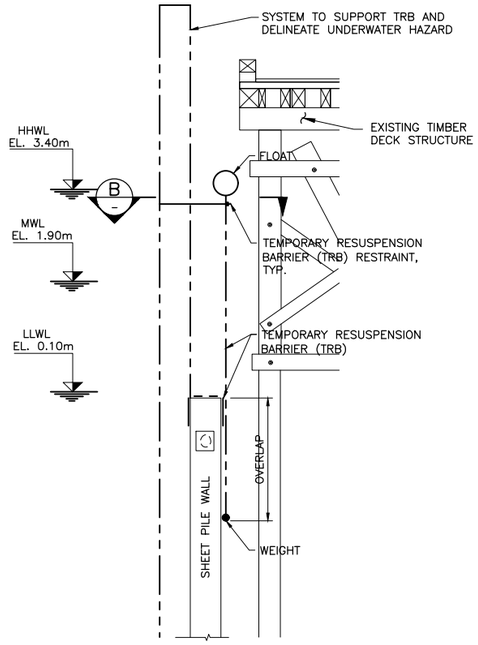
SECTION A – SCALE 1:50 — RE–DRIVE SHEET PILE WALL

CONSTRUCTION STEP 2



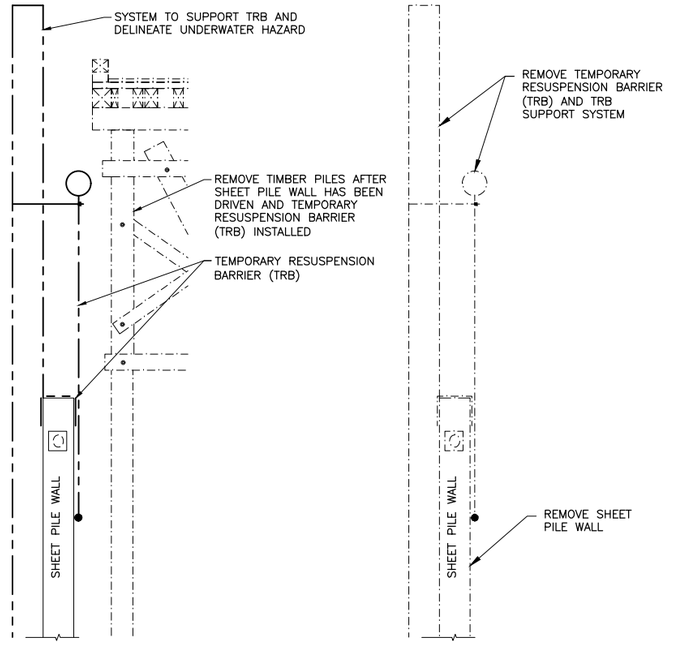
SECTION A – SCALE 1:50 — TEMPORARY RESUSPENSION BARRIER (TRB) (CONTRACTOR'S DESIGN)

CONSTRUCTION STEP 3



SECTION A – SCALE 1:50 — TIMBER DECK STRUCTURE REMOVED

CONSTRUCTION STEP 4

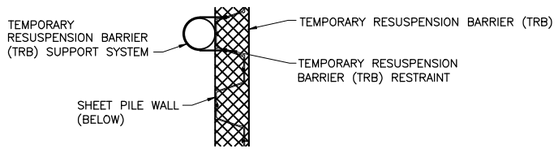


SECTION A – SCALE 1:50 — SHEET PILE WALL & TRB REMOVED

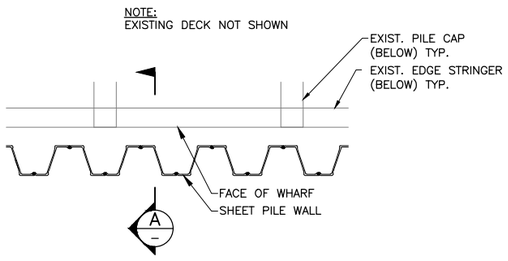
CONSTRUCTION STEP 5

SECTION A – SCALE 1:50 — BOOMSTICKS, GUIDE WIRES, COUNTERWEIGHTS, LADDERS, FENDER PILES, STEEL FABRICATIONS AND ALL CONNECTIONS REMOVED

CONSTRUCTION STEP 1



SECTION B – SCALE 1:50



DETAIL 1 CSM4 | 2 CSM4 | 3 CSM4 | 4 CSM4 – SCALE 1:50

NOTES:

1. CONTRACTOR TO ENSURE THAT THE SHEET PILE WALL ELEVATION AT THE SMALL BOAT ACCESS DOES NOT CHANGE DURING RE–DRIVING OF ADJACENT SHEET PILES.
2. TEMPORARY RESUSPENSION BARRIER (TRB) ELEMENTS AND CONFIGURATION ARE SHOWN FOR ILLUSTRATIVE PURPOSES ONLY.
3. TEMPORARY RESUSPENSION BARRIER (TRB) SYSTEM INCLUDING SUPPORTING SYSTEM IS TO BE DESIGNED BY THE CONTRACTOR'S THIRD PART ENGINEER. SEE SPECIFICATION FOR PERFORMANCE CRITERIA.
4. CONTRACTOR TO COVER VENT HOLES PRIOR TO RE–DRIVING SHEET PILES.
5. THE RE–DRIVEN SHEET PILE WALL IS DESIGNED TO RESIST ENVIRONMENTAL FORCES (BUT NOT VESSEL IMPACT) EXERTED AS PRESSURE DISTRIBUTIONS AGAINST ITS FACE. CONTRACTOR'S DESIGN FOR TEMPORARY RESUSPENSION BARRIER (TRB) SHALL NOT CAUSE ANY ADDITIONAL LATERAL LOADING ON RE–DRIVEN SHEET PILE WALL.
6. THE ELEVATION OF THE CONTRACTOR'S VESSEL PROPELLER MAY BE POSITIONED AT OR ABOVE THE SHEET PILE WALL ELEVATION DEPENDING ON WATER LEVEL. THE CONTRACTOR SHALL USE CAUTION WHEN OPERATING VESSELS DURING HIGH TIDE TO PREVENT PROPWASH FROM DISTURBING THE TRB IN ACCORDANCE WITH THE SPECIFICATIONS.

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SERVICES IMMOBILIERS

ANCHOR QEA

Klohn Crippen Berger

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Client/client

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet

ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

Consultant Signature Only

Designed by/Concept par
BILL CHRISTENSEN

Drawn by/Dessine par
ARNIE RIST

PWGSC Project Manager/Administrateur de Projets TPSGC
ANDREW MYLLY

Regional Manager, Environmental Services
COLLIN KINGMAN

Drawing title/Titre du dessin

SHEET PILE WALL MODIFICATIONS CONSTRUCTION SEQUENCE

Project No./No. du projet	Sheet/	Revision no./
R.018400.002	CSM6	1

PWGSC – A1 – 841X594

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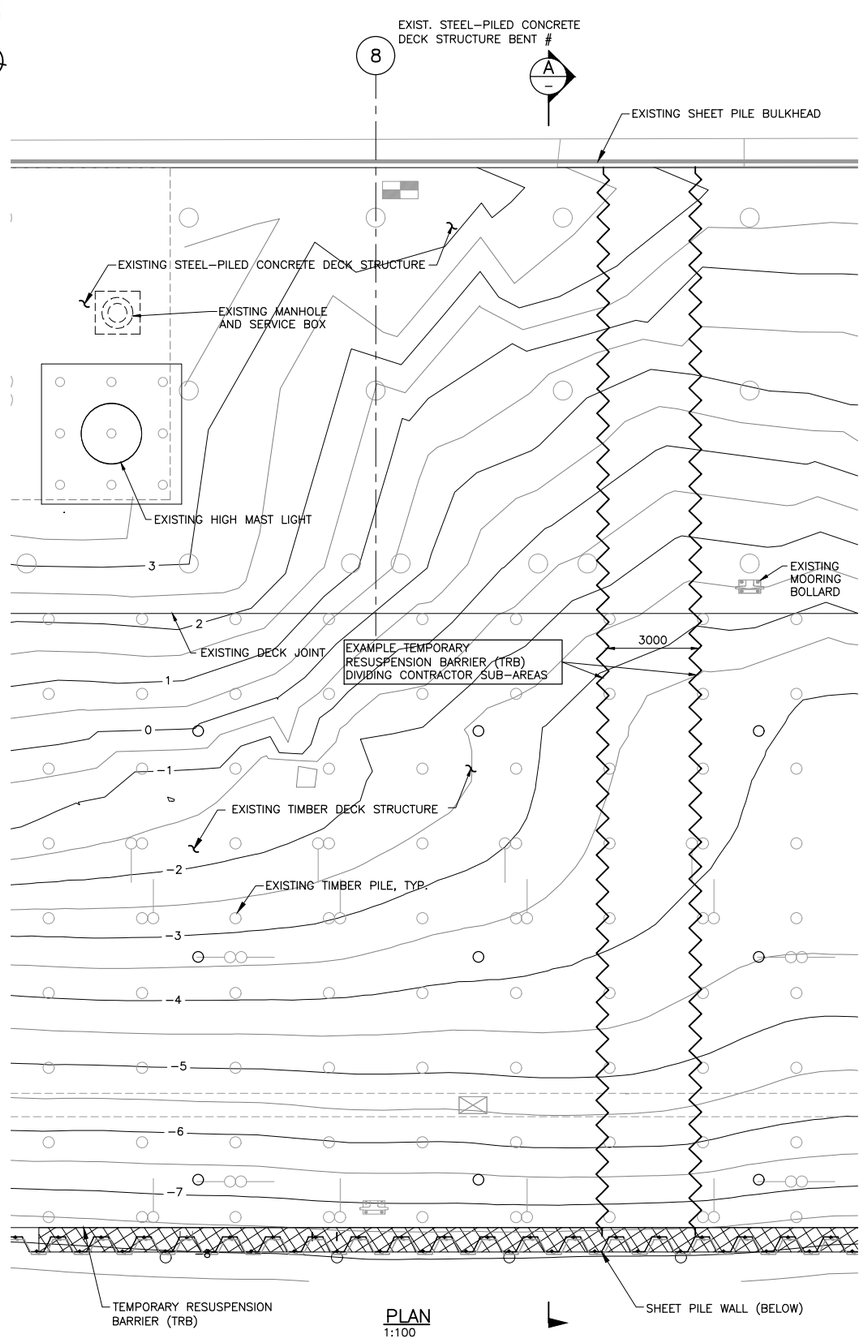
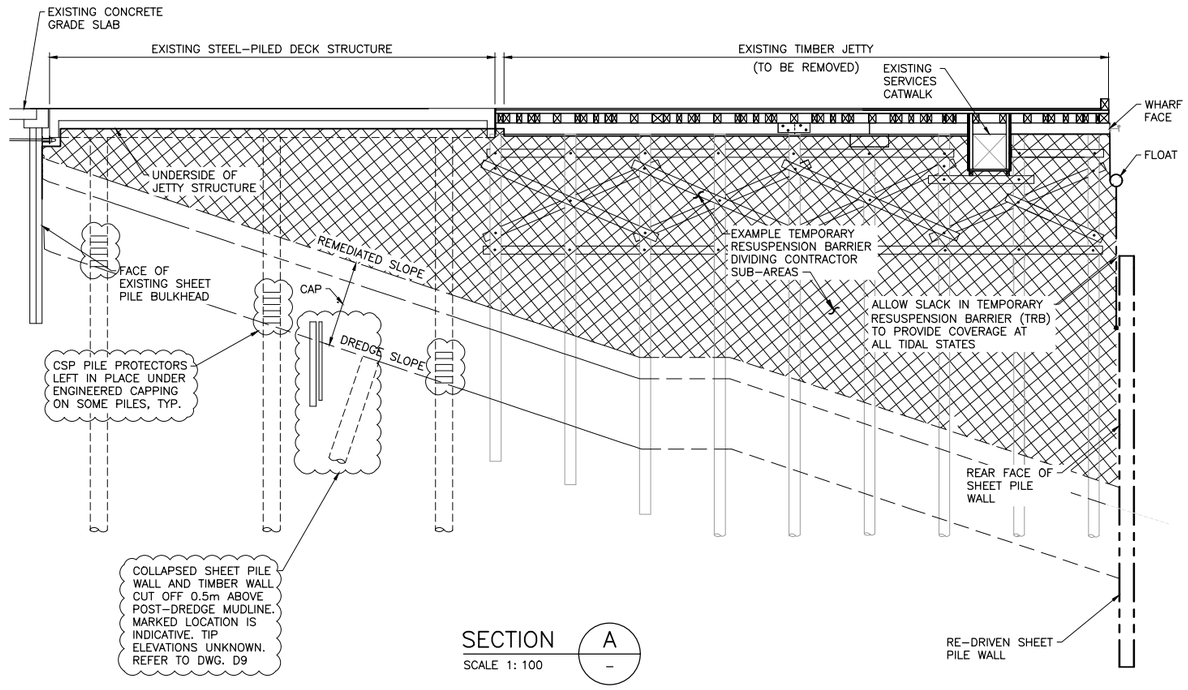


PLAN
1:100



SECTION A
SCALE 1: 100

NOTES:

1. TEMPORARY RESUSPENSION BARRIER (TRB) ELEMENTS AND CONFIGURATION ARE SHOWN FOR ILLUSTRATIVE PURPOSES ONLY.
2. TEMPORARY RESUSPENSION BARRIER (TRB) SYSTEM INCLUDING SUPPORTING SYSTEM IS TO BE DESIGNED BY THE CONTRACTOR'S THIRD PARTY ENGINEER. SEE SPECIFICATION FOR PERFORMANCE CRITERIA.

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PWGSC Project Manager/Administrateur de Projets TPSGC
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Regional Manager, Environmental Services
COLLIN KINGMAN

Drawing title/Titre du dessin
SHEET PILE WALL MODIFICATIONS DETAILS - SHEET 1

Project No./No. du projet	Sheet/	Revision no./
R.018400.002	CSM7	1

PWGSC – A1 – 841X594

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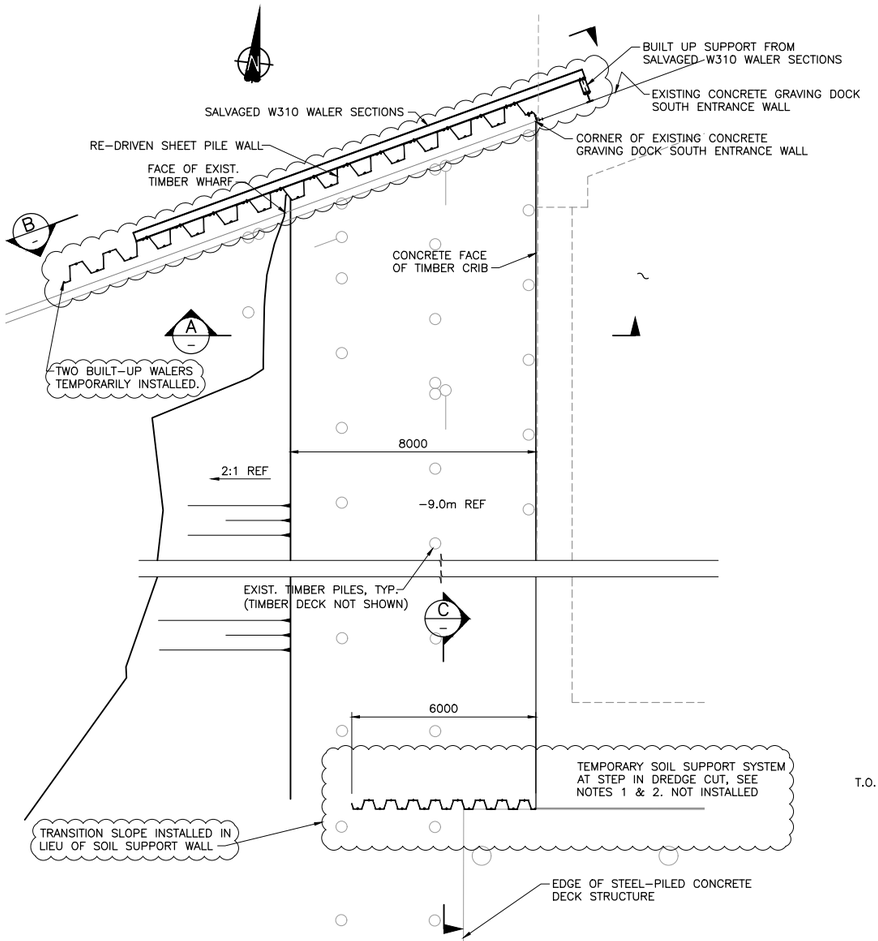
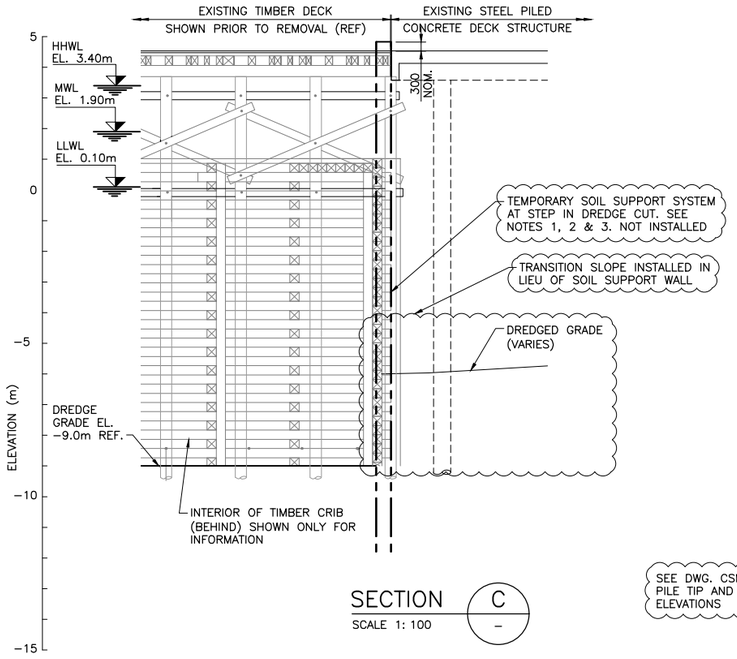
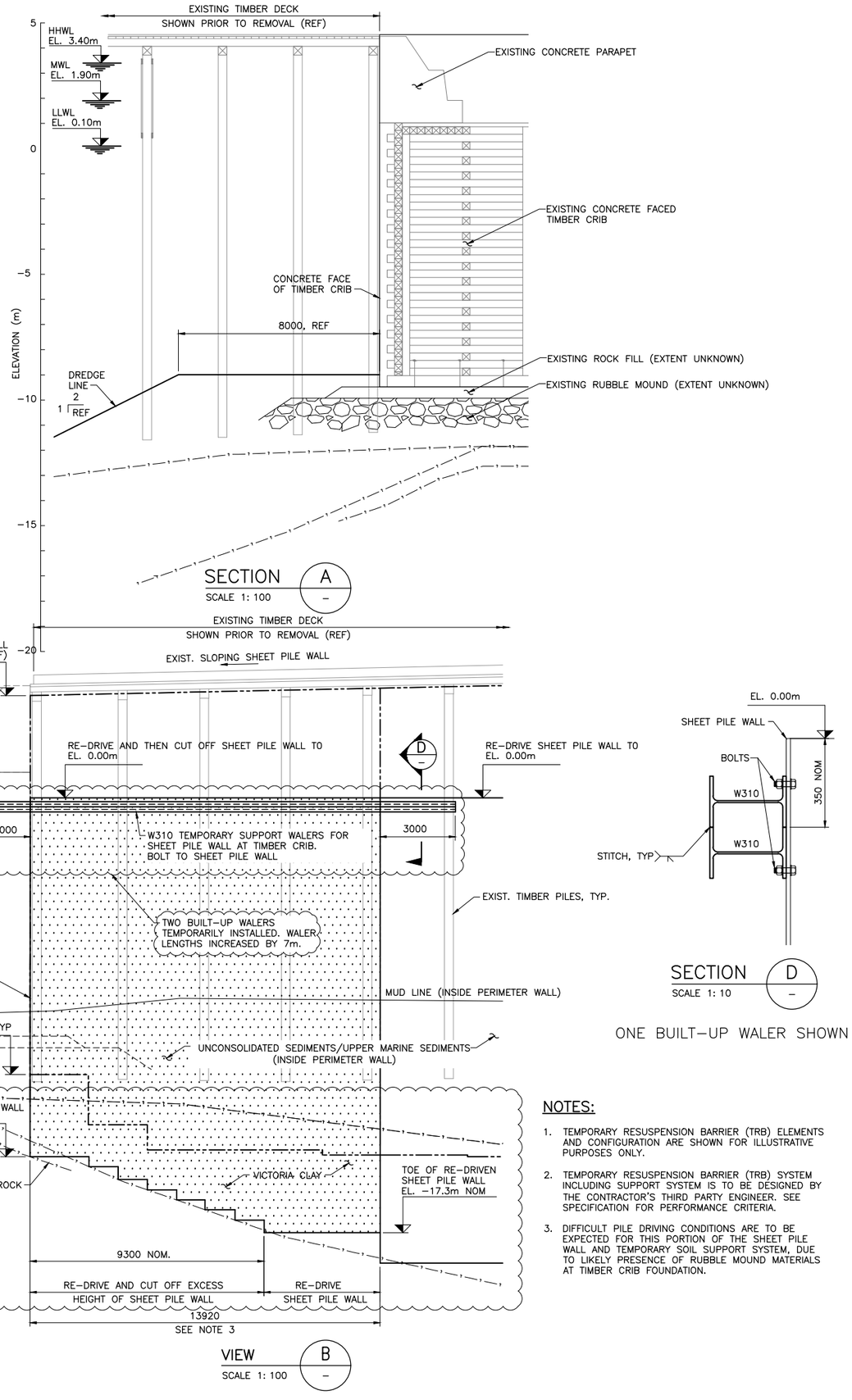


DETAIL 5 / SCALE 1: 100 / CSM4



SECTION C / SCALE 1: 100



VIEW B / SCALE 1: 100

SECTION D / SCALE 1: 10

ONE BUILT-UP WALER SHOWN

NOTES:

1. TEMPORARY RESUSPENSION BARRIER (TRB) ELEMENTS AND CONFIGURATION ARE SHOWN FOR ILLUSTRATIVE PURPOSES ONLY.
2. TEMPORARY RESUSPENSION BARRIER (TRB) SYSTEM INCLUDING SUPPORT SYSTEM IS TO BE DESIGNED BY THE CONTRACTOR'S THIRD PARTY ENGINEER. SEE SPECIFICATION FOR PERFORMANCE CRITERIA.
3. DIFFICULT PILE DRIVING CONDITIONS ARE TO BE EXPECTED FOR THIS PORTION OF THE SHEET PILE WALL AND TEMPORARY SOIL SUPPORT SYSTEM, DUE TO LIKELY PRESENCE OF RUBBLE MOUND MATERIALS AT TIMBER CRIB FOUNDATION.

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825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

Consultant Signature Only

Designed by/Concept par
BILL CHRISTENSEN

Drawn by/Dessine par
ARNIE RIST

PWGSC Project Manager/Administrateur de Projets TPSGC
ANDREW MYLLY

Regional Manager, Environmental Services
COLLIN KINGMAN

Drawing title/Titre du dessin

SHEET PILE WALL MODIFICATIONS DETAILS - SHEET 2

Project No./No. du projet	Sheet/	Revision no./
R.018400.002	CSM8	1

PWGSC – A1 – 841X594

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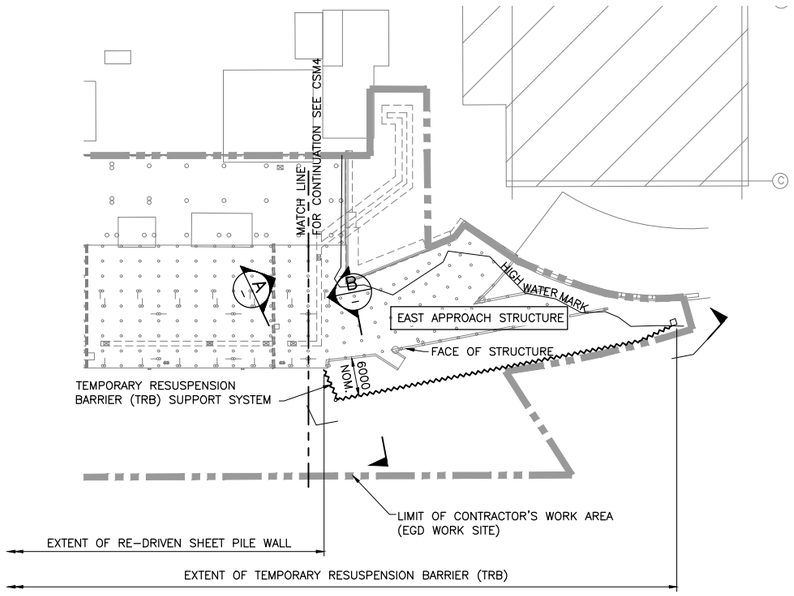
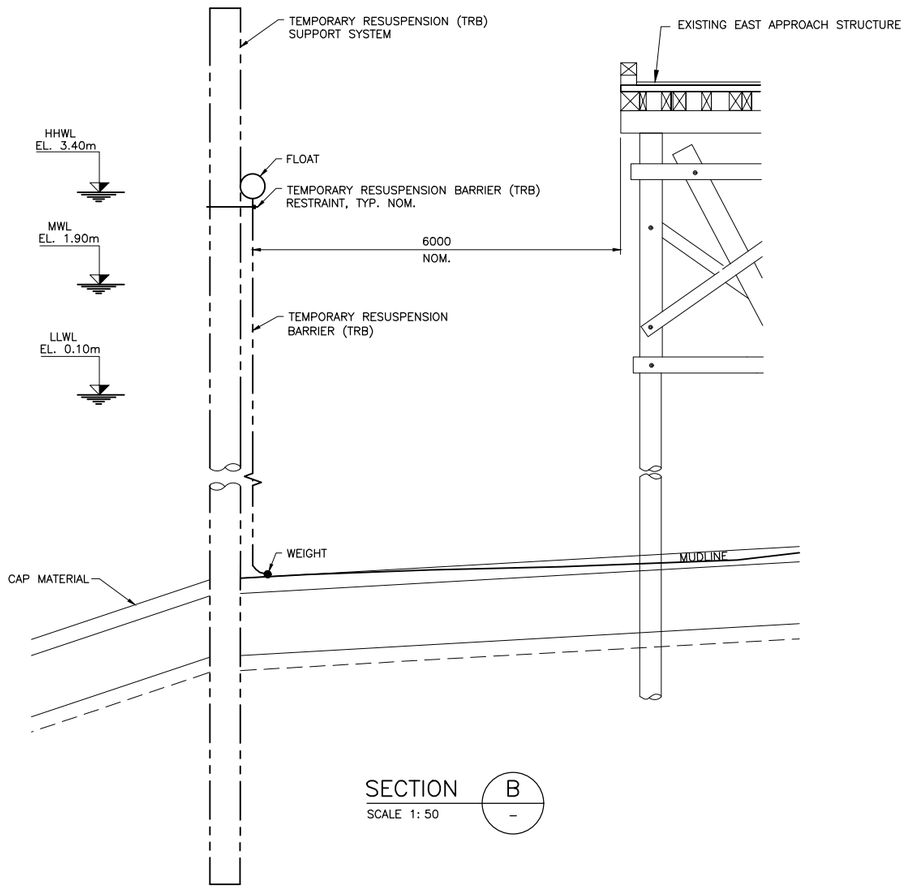
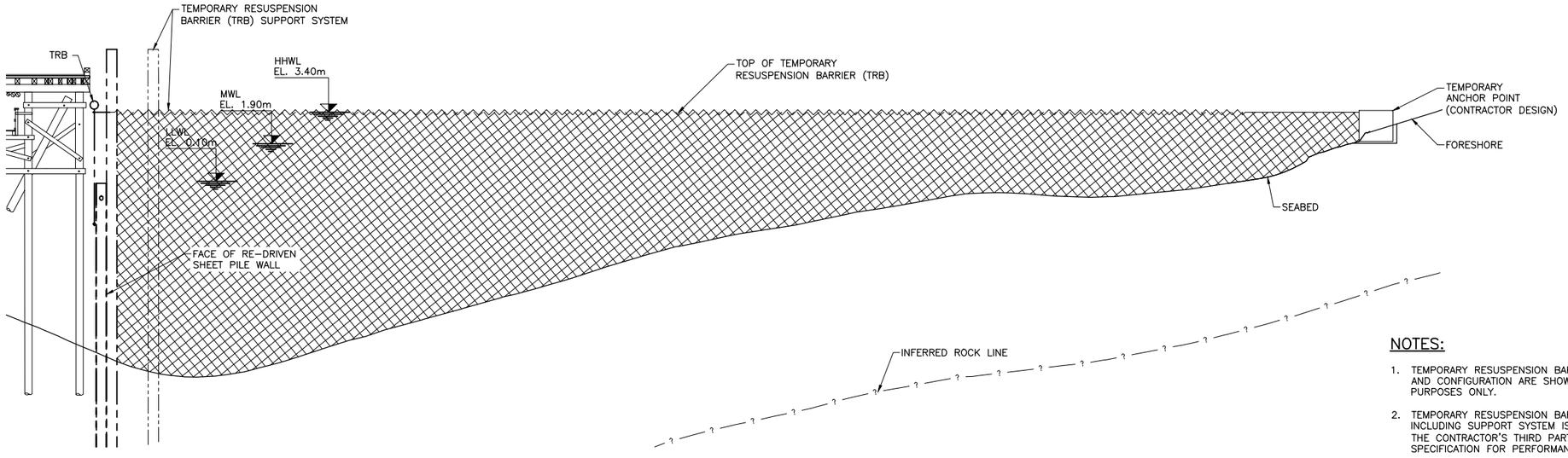
DM5XXXXXX



PLAN
1:250



SECTION B
SCALE 1: 50



ELEVATION – DEVELOPED A
SCALE 1:125

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NOTES:

1. TEMPORARY RESUSPENSION BARRIER (TRB) ELEMENTS AND CONFIGURATION ARE SHOWN FOR ILLUSTRATIVE PURPOSES ONLY.
2. TEMPORARY RESUSPENSION BARRIER (TRB) SYSTEM INCLUDING SUPPORT SYSTEM IS TO BE DESIGNED BY THE CONTRACTOR'S THIRD PARTY ENGINEER. SEE SPECIFICATION FOR PERFORMANCE CRITERIA.

Public Works and Government Services Canada
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REAL PROPERTY SERVICES
Pacific Region
SERVICES IMMOBILIERS

ANCHOR QEA

Klohn Crippen Berger

Revision/ Revision client/client	Description/Description	Date/Date
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825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

Consultant Signature Only

Designed by/Concept par
BILL CHRISTENSEN

Drawn by/Dessine par
ARNIE RIST

PWGSC Project Manager/Administrateur de Projets TPSGC
ANDREW MYLLY

Regional Manager, Environmental Services
COLLIN KINGMAN

Drawing title/Titre du dessin
SHEET PILE WALL MODIFICATIONS DETAILS - SHEET 3

Project No./No. du projet	Sheet/	Revision no./
R.018400.002	CSM9	1

PWGSC – A1 – 841X594

DM5XXXXXX

PILE DRIVING RECORD - CORNER DOLPHIN PILES

PILE TYPE: CREOSOTE TIMBER PILE (RE-USED MATERIAL)
EQUIPMENT: ICE 416L VIBRATORY HAMMER WITH TIMBER HEAD ATTACHMENT

PILE NUMBER:	LOCATION:	DATE:	PILE LENGTH:	FINAL CUT OFF ELEVATION:	EMBEDMENT:	NOTES:	LOCATION SKETCH:
1	NW CORNER OF TIMBER CRIB	08-Nov-16	21.6m	6.00m CHART DATUM	4.7m	PILE WAS DRIVEN TO REFUSAL	
2	NW CORNER OF TIMBER CRIB	08-Nov-16	21.9m	6.00m CHART DATUM	4.5m	PILE WAS DRIVEN TO REFUSAL	
3	NW CORNER OF TIMBER CRIB	08-Nov-16	21.9m	6.00m CHART DATUM	3.7m	PILE WAS DRIVEN TO REFUSAL	
4	NW CORNER OF TIMBER CRIB	09-Nov-16	21.9m	6.00m CHART DATUM	4.6m	PILE WAS DRIVEN TO REFUSAL IN TWO ATTEMPTS	
5	NW CORNER OF TIMBER CRIB	09-Nov-16	21.9m	6.00m CHART DATUM	3.7m	PILE WAS DRIVEN TO REFUSAL	

PILE NUMBER:	LOCATION:	DATE:	PILE LENGTH:	FINAL CUT OFF ELEVATION:	EMBEDMENT:	NOTES:	LOCATION SKETCH:
1	SW CORNER OF TIMBER CRIB	10-Nov-16	21.6m	6.00m CHART DATUM	7.9m	PILE DID NOT HIT REFUSAL	
2	SW CORNER OF TIMBER CRIB	10-Nov-16	21.6m	6.00m CHART DATUM	9.1m	PILE DID NOT HIT REFUSAL	
3	SW CORNER OF TIMBER CRIB	10-Nov-16	21.9m	6.00m CHART DATUM	7.3m	PILE DID NOT HIT REFUSAL	
4	SW CORNER OF TIMBER CRIB	10-Nov-16	22.0m	6.00m CHART DATUM	7.4m	PILE DID NOT HIT REFUSAL	
5	SW CORNER OF TIMBER CRIB	10-Nov-16	21.6m	6.00m CHART DATUM	9.8m	PILE DID NOT HIT REFUSAL	

PILE NUMBER:	LOCATION:	DATE:	PILE LENGTH:	FINAL CUT OFF ELEVATION:	EMBEDMENT:	NOTES:	LOCATION SKETCH:
1	SW CORNER OF CONC. JETTY	17-Nov-16	21.9m	6.00m CHART DATUM	6.1m	PILE DID NOT HIT REFUSAL	
2	SW CORNER OF CONC. JETTY	17-Nov-16	21.9m	6.00m CHART DATUM	6.1m	PILE DID NOT HIT REFUSAL	
3	SW CORNER OF CONC. JETTY	17-Nov-16	21.9m	6.00m CHART DATUM	6.1m	PILE DID NOT HIT REFUSAL	
4	SW CORNER OF CONC. JETTY	17-Nov-16	21.9m	6.00m CHART DATUM	6.1m	PILE DID NOT HIT REFUSAL	
5	SW CORNER OF CONC. JETTY	17-Nov-16	21.9m	6.00m CHART DATUM	6.1m	PILE DID NOT HIT REFUSAL	

PILE NUMBER:	LOCATION:	DATE:	PILE LENGTH:	FINAL CUT OFF ELEVATION:	EMBEDMENT:	NOTES:	LOCATION SKETCH:
1	SE CORNER OF CONC. JETTY	30-Nov-16	21.6m	6.00m CHART DATUM	5.5m	PILE DID NOT HIT REFUSAL	
2	SE CORNER OF CONC. JETTY	30-Nov-16	21.3m	6.00m CHART DATUM	5.5m	PILE DID NOT HIT REFUSAL	
3	SE CORNER OF CONC. JETTY	30-Nov-16	21.8m	6.00m CHART DATUM	5.8m	PILE DID NOT HIT REFUSAL	
4	SE CORNER OF CONC. JETTY	30-Nov-16	21.9m	6.00m CHART DATUM	5.8m	PILE DID NOT HIT REFUSAL	
5	SE CORNER OF CONC. JETTY	01-Dec-16	21.6m	6.00m CHART DATUM	5.5m	PILE DID NOT HIT REFUSAL	

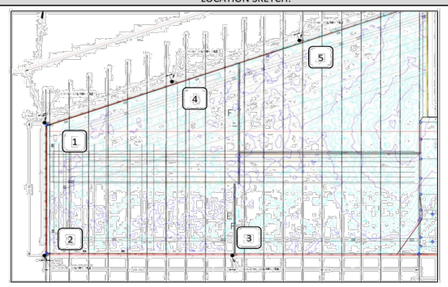
CORNER DOLPHINS – PILE DRIVING RECORDS

PILE DRIVING RECORD - NAVIGATION MARKER MONOPILES

PILE TYPE: 914mm O.D. x 19.1mm THICK WALL, STEEL PIPE PILE
EQUIPMENT: APE MODEL 300 VIBRATORY EXTRACTOR WITH CAISSON BEAM

PILE NUMBER:	LOCATION:	DATE:	PILE LENGTH:	FINAL CUT OFF ELEVATION:	EMBEDMENT:	NOTES:
1	FORMER WEST JETTY	03-Nov-16	31.9m	6.5m CHART DATUM	15.4m	DESIGN EMBEDMENT OF 13m EXCEEDED. 0.78m CUT OFF TOP.
2	FORMER WEST JETTY	04-Nov-16	31.2m	6.5m CHART DATUM	15.1m	DESIGN EMBEDMENT OF 13m EXCEEDED. 0.23m CUT OFF TOP.
3	FORMER WEST JETTY	04-Nov-16	31.4m	6.5m CHART DATUM	16.2m	DESIGN EMBEDMENT OF 13m EXCEEDED. 0.23m CUT OFF TOP.
4	FORMER WEST JETTY	04-Nov-16	31.2m	6.5m CHART DATUM	15.9m	DESIGN EMBEDMENT OF 13m EXCEEDED.
5	FORMER WEST JETTY	04-Nov-16	31.2m	6.5m CHART DATUM	17.2m	DESIGN EMBEDMENT OF 13m EXCEEDED.

LOCATION SKETCH:



NAVIGATION DOLPHIN PILES – PILE DRIVING RECORDS

PILE DRIVING RECORD - PERIMETER SHEET PILE WALL - 10NOV2015 TO 16NOV201

NOTES:
1) ALL ELEVATIONS IN CHART DATUM.
2) SHEET PILE WALL PILE DRIVING RECORDS ARE INCOMPLETE AND CONTAIN ERRORS
3) PILE PAIR ID NUMBERING STARTS (PILE PAIR ID #1) AT THE SOUTHEAST END OF THE WALL, AND FINISHES (PILE PAIR #335) AT THE NORTHWEST CORNER OF THE TIMBER CRIB
4) IN GENERAL, THE SHEET PILES WERE RE-DRIVEN IN A CLOCKWISE DIRECTION AROUND THE SOUTH JETTY PERIMETER

TYPE:	DATE:	PILE PAIR ID - REV 0:	PILE PAIR ID - REV 1:	SECTION TYPE:	LOCATION ON STRUCTURE:	INITIAL CUT-OFF ELEVATION:	INITIAL TIP ELEVATION:	FINAL CUT OFF ELEVATION:	FINAL TIP ELEVATION:	ELEVATION OF BEDROCK:	EQUIPMENT:
Type A	10-Nov-15	0.5	1	AZ 26-700	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	10-Nov-15	1	2	AZ 26-700	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	10-Nov-15	2	3	AZ 26-700	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	10-Nov-15	3	4	AZ 26-700	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	10-Nov-15	4	5	AZ 26-700	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	10-Nov-15	5	6	AZ 26-700	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	10-Nov-15	6	7	AZ 26-700	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	10-Nov-15	7	8	AZ 26-700	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	10-Nov-15	8	9	AZ 26-700	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	10-Nov-15	9	10	AZ 26-700	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	10-Nov-15	10	11	AZ 26-700	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	10-Nov-15	11	12	AZ 26-700	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	10-Nov-15	12	13	AZ 26-700	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	10-Nov-15	13	14	AZ 26-700	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	10-Nov-15	14	15	AZ 26-700	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	10-Nov-15	15	16	AZ 26-700	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	10-Nov-15	16	17	AZ 26-700	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	10-Nov-15	17	18	AZ 26-700	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	10-Nov-15	18	19	AZ 26-700	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	10-Nov-15	19	20	AZ 26-700	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	10-Nov-15	20	21	AZ 26-700	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	10-Nov-15	21	22	AZ 26-700	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	10-Nov-15	22	23	AZ 26-700	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	10-Nov-15	23	24	AZ 26-700	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	10-Nov-15	24	25	AZ 26-700	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	10-Nov-15	25	26	AZ 26-700	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	10-Nov-15	26	27	AZ 26-700	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	10-Nov-15	27	28	AZ 26-700	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	10-Nov-15	28	29	AZ 26-700	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	10-Nov-15	29	30	AZ 26-700	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	10-Nov-15	30	31	AZ 26-700	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	10-Nov-15	31	32	AZ 26-700	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	10-Nov-15	32	33	AZ 26-700	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	10-Nov-15	33	34	AZ 26-700	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	10-Nov-15	34	35	AZ 26-700	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	10-Nov-15	35	36	AZ 26-700	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	11-Nov-15	36	37	AZ 26-693	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	11-Nov-15	37	38	AZ 26-694	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	11-Nov-15	38	39	AZ 26-695	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	11-Nov-15	39	40	AZ 26-696	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	11-Nov-15	40	41	AZ 26-697	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	11-Nov-15	41	42	AZ 26-698	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	11-Nov-15	42	43	AZ 26-699	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	11-Nov-15	43	44	AZ 26-700	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	11-Nov-15	44	45	AZ 26-700	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	11-Nov-15	45	46	AZ 26-700	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	11-Nov-15	46	47	AZ 26-700	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	11-Nov-15	47	48	AZ 26-700	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	11-Nov-15	48	49	AZ 26-700	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	11-Nov-15	49	50	AZ 26-700	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	11-Nov-15	50	51	AZ 26-700	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	11-Nov-15	51	52	AZ 26-700	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	11-Nov-15	52	53	AZ 26-700	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	11-Nov-15	53	54	AZ 26-700	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	11-Nov-15	54	55	AZ 26-700	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	11-Nov-15	55	56	AZ 26-700	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	11-Nov-15	56	57	AZ 26-700	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	11-Nov-15	57	58	AZ 26-700	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	11-Nov-15	58	59	AZ 26-700	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	11-Nov-15	59	60	AZ 26-700	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	11-Nov-15	60	61	AZ 26-700	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	11-Nov-15	61	62	AZ 26-700	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	11-Nov-15	62	63	AZ 26-700	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	11-Nov-15	63	64	AZ 26-700	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	11-Nov-15	64	65	AZ 26-700	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	11-Nov-15	65	66	AZ 26-700	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	11-Nov-15	66	67	AZ 26-700	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	11-Nov-15	67	68	AZ 26-700	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	11-Nov-15	68	69	AZ 26-700	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	11-Nov-15	69	70	AZ 26-700	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	11-Nov-15	70	71	AZ 26-700	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	12-Nov-15	71	72	AZ 38-700N	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	12-Nov-15	72	73	AZ 38-700N	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type A	12-Nov-15	73	74	AZ 38-700N	South Face	4.8	-12.00	2	-14.80	None.	APE 50 VIBRATORY HAMMER
Type B	12-Nov-15	1	75	AZ 38-700N	South Face	4.8	-13.50	2	-16.30	None.	APE 50 VIBRATORY HAMMER
Type B	12-Nov-15	2	76	AZ 38-700N	South Face	4.8	-13.50	2	-16.30	None.	APE 50 VIBRATORY HAMMER
Type B	12-Nov-15	3	77	AZ 38-700N	South Face	4.8	-13.50	2	-16.30	None.	APE 50 VIBRATORY HAMMER
Type B	12-Nov-15	4	78	AZ 38-700N	South Face	4.8	-13.50	2	-16.30	None.	APE 50 VIBRATORY HAMMER
Type B	12-Nov-15	5	79	AZ 38-700N	South Face	4.8	-13.50	2	-16.30	None.	APE 50 VIBRATORY HAMMER
Type B	12-Nov-15	6	80	AZ 38-700N	South Face	4.8	-13.50	2	-16.30	None.	APE 50 VIBRATORY HAMMER
Type B	12-Nov-15	7	81	AZ 38-700N	South Face	4.8	-13.50	2	-16.30	None.	APE 50 VIBRATORY HAMMER
Type B	12-Nov-15	8	82	AZ 38-700N	South Face	4.8	-13.50	2	-16.30	None.	APE 50 VIBRATORY HAMMER
Type B	12-Nov-15	9	83	AZ 38-700N	South Face	4.8	-13.50	2	-16.30	None.	APE 50 VIBRATORY HAMMER
Type B	12-Nov-15	10	84	AZ 38-700N	South Face	4.8	-13.50	2	-16.30	None.	APE 50 VIBRATORY HAMMER
Type B	12-Nov-15	11	85	AZ 38-700N	South Face	4.8	-13.50	2	-16.30	None.	APE 50 VIBRATORY HAMMER
Type B	12-Nov-15	12	86	AZ 38-700N	South Face	4.8	-13.50	2	-16.30	None.	APE 50 VIBRATORY HAMMER
Type B	12-Nov-15	13	87	AZ 38-700N	South Face	4.8	-13.50	2	-16.30	None.	APE 50 VIBRATORY HAMMER
Type B	12-Nov-15	14	88	AZ 38-700N	South Face	4.8	-13.50	2	-16.30	None.	APE 50 VIBRATORY HAMMER
Type B	12-Nov-15	15	89	AZ 38-700N	South Face	4.8	-13.50	2	-16.30	None.	APE 50 VIBRATORY HAMMER
Type B	12-Nov-15	16	90	AZ 38-700N	South Face	4.8	-13.50	2	-16.30	None.	APE 50 VIBRATORY HAMMER
Type B	12-Nov-15	17	91	AZ 38-700N	South Face	4.8	-13.50	2	-16.30	None.	APE 50 VIBRATORY HAMMER
Type B	12-Nov-15	18	92	AZ 38-700N	South Face	4.8	-13.50	2	-16.30	None.	APE 50 VIBRATORY HAMMER
Type B	12-Nov-15	19	93	AZ 38-700N	South Face	4.8	-13.50	2	-16.30	None.	APE 50 VIBRATORY HAMMER
Type B	12-Nov-15	20	94	AZ 38-700N	South Face	4.8	-13.50	2	-16.30	None.	APE 50 VIBRATORY HAMMER
Type B	12-Nov-15	21	95	AZ 38-700N	South Face	4.8	-13.50	2	-16.30	None.	APE 50 VIBRATORY HAMMER
Type B	12-Nov-15	22	96	AZ 38-700N	South Face	4.8	-13.50	2	-16.30	None.	APE 50 VIBRATORY HAMMER
Type B	12-Nov-15	23	97	AZ 38-700N	South Face	4.8	-13.50	2	-16.30	None.	APE 50 VIBRATORY HAMMER
Type B	12-Nov-15	24	98	AZ 38-700N	South Face	4.8	-13.50	2	-16.30	None.	APE 50 VIBRATORY HAMMER
Type B	12-Nov-15	25	99	AZ 38-700N	South Face	4.8	-13.50	2	-16.30	None.	APE 50 VIBRATORY HAMMER
Type B	12-Nov-15	26	100	AZ 38-700N	South Face	4.8	-13.50	2	-16.30	None.	APE 50 VIBRATORY HAMMER
Type B	12-Nov-15	27	101	AZ 38-700N	South Face	4.8	-13.50	2	-16.30	None.	APE 50 VIBRATORY HAMMER
Type B	12-Nov-15	28	102	AZ 38-700N	South Face	4.8	-13.50	2	-16.30	None.	APE 50 VIBRATORY HAMMER
Type B	12-Nov-15	29	103	AZ 38-700N	South Face	4.8	-13.50	2	-16.30	None.	APE 50 VIBRATORY HAMMER
Type B	12-Nov-15	30	104	AZ 38-700N	South Face	4.8	-13.50	2	-16.30	None.	APE 50 VIBRATORY HAMMER
Type B	12-Nov-15	31	105	AZ 38-700N	South Face	4.8	-13.50	2	-16.30	None.	APE 50 VIBRATORY HAMMER
Type B	12-Nov-15	32	106	AZ 38-700N	South Face	4.8	-13.50	2	-16.30	None.	APE 50 VIBRATORY HAMMER
Type B	16-Nov-15	32	107	AZ 38-700N	South Face	4.8	-13.50	2	-16.30	None.	APE 50 VIBRATORY HAMMER
Type B	16-Nov-15	33	108	AZ 38-700N	South Face	4.8	-13.50	2	-16.30	None.	APE 50 VIBRATORY HAMMER
Type B	16-Nov-15	34	109	AZ 38-700N	South Face	4.8	-13.50	2	-16.30	None.	APE 50 VIBRATORY HAMMER
Type B	16-Nov-15	35	110	AZ 38-700N	South Face	4.8	-13.50	2	-16.30	None.	APE 50 VIBRATORY HAMMER
Type B	16-Nov-15	36	111	AZ 38-700N	South Face	4.8	-13.50	2	-16.30	None.	APE 50 VIBRATORY HAMMER
Type B	16-Nov-15	37	112	AZ 38-700N	South Face	4.8	-13.50	2	-16.30	None.	APE 50 VIBRATORY HAMMER
Type B	16-Nov-15	38	113	AZ 38-700N	South Face	4.8	-13.50	2	-16.30	None.	APE 50 VIBRATORY HAMMER
Type B	16-Nov-15	39	114	AZ 38-700N	South Face	4.8	-13.50	2	-16.30	None.	APE 50 VIBRATORY HAMMER
Type B	16-Nov-15	40	115	AZ 38-700N	South Face	4.8	-13.50	2	-16.30	None.	APE 50 VIBRATORY HAMMER
Type B	16-Nov-15	41	116	AZ 38-700N	South Face	4.8	-13.50	2	-16.30	None.	APE 50 VIBRATORY HAMMER
Type B	16-Nov-15	42	117	AZ 38-700N	South Face	4.8	-13.50	2	-16.30	None.	APE 50 VIBRATORY HAMMER
Type B	16-Nov-15	43	118	AZ 38-700N	South Face	4.8	-13.50	2	-16.30	None.	APE 50 VIBRATORY HAMMER
Type B	16-Nov-15	44	119	AZ 38-700N	South Face	4.8	-13.50	2	-16.30	None.	APE 50 VIBRATORY HAMMER
Type B	16-Nov-15	45	120	AZ 38-700N	South Face	4.8	-13.50	2	-16.30	None.	APE 50 VIBRATORY HAMMER
Type B	16-Nov-15	46	121	AZ 38-700N	South Face	4.8	-13.50	2	-16.30	None.	APE 50 VIBRATORY HAMMER
Type B	16-Nov-15	47	122	AZ 38-700N	South Face	4.8	-13.50	2	-16.30	None.	APE 50 VIBRATORY HAMMER
Type B	16-Nov-15	48	123	AZ 38-700N	South Face	4.8	-13.50	2	-16.30	None.	APE 50 VIBRATORY HAMMER
Type B	16-Nov-15	49	124	AZ 38-700N	South Face	4.8	-13.50	2	-16.30	None.	APE 50 VIBRATORY HAMMER
Type C	16-Nov-15	50	125	AZ 50	South Face	4.8	-16.00	2	-18.80	None.	APE 50 VIBRATORY HAMMER

PERIMETER SHEET PILE WALL PILE DRIVING RECORDS – SHEET 1

Public Works and Government Services Canada
Travaux publics et Services gouvernementaux Canada
REAL PROPERTY SERVICES
Pacific Region
SERVICES IMMOBILIERS

Klohn Crippen Berger

Revision/ Revision	Description/Description	Date/Date
0	RECORD DRAWING	2017/03/29

Client/client

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

Consultant Signature Only

Designed by/Concept par
DANIEL LAWSON

Drawn by/Dessine par
ALEXANDER SCEKIC

PWGSC Project Manager/Administrateur de Projets TPSGC
ANDREW MYLLY

Regional Manager, Environmental Services
COLLIN KINGMAN

Drawing title/Titre du dessin
PILE DRIVING RECORDS
SHEET 1

Project No./No. du projet	Sheet/	Revision no./
R.018400.002	CSM10	0

PWGSC – A1 – 841X594

0 10 20 30 40 50 60 70 80 90 100mm

DM5XXXXXX

PILE DRIVING RECORD - PERIMETER SHEET PILE WALL - 24NOV2015 TO 13JAN2016

NOTES:
1) ALL ELEVATIONS IN CHART DATUM.
2) SHEET PILE WALL PILE DRIVING RECORDS ARE INCOMPLETE AND CONTAIN ERRORS.
3) PILE PAIR ID NUMBERING STARTS (PILE PAIR ID #1) AT THE SOUTHEAST END OF THE WALL, AND FINISHES (PILE PAIR #335) AT THE NORTHWEST CORNER OF THE TIMBER CRIB.
4) IN GENERAL, THE SHEET PILES WERE RE-DRIVEN IN A CLOCKWISE DIRECTION AROUND THE SOUTH JETTY PERIMETER.

TYPE:	DATE:	PILE PAIR ID - REV 0:	PILE PAIR ID - REV 1:	SECTION TYPE:	LOCATION ON STRUCTURE:	TIME DRIVEN:	INITIAL CUT-OFF ELEVATION:	INITIAL TIP ELEVATION:	START ELEVATION:	FINAL CUT OFF ELEVATION:	FINAL TIP ELEVATION:	ELEVATION OF BEDROCK:	EQUIPMENT:	NOTES:
Type A	24-Nov-15	1	2	AZ 26-700	South Face	12:00	4.8	-12.00	2.83	0.02	-16.78	None.	APE 300 VIBRATORY HAMMER	
Type A	24-Nov-15	2	3	AZ 26-700	South Face	10:06	4.8	-12.00	2.87	0.02	-16.78	None.	APE 300 VIBRATORY HAMMER	
Type A	24-Nov-15	3	4	AZ 26-700	South Face	9:57	4.8	-12.00	2.83	1.01	-15.79	None.	APE 300 VIBRATORY HAMMER	
Type A	24-Nov-15	4	5	AZ 26-700	South Face	9:15	4.8	-12.00	2.88	1.01	-15.79	None.	APE 300 VIBRATORY HAMMER	
Type A	24-Nov-15	5	6	AZ 26-700	South Face	12:07	4.8	-12.00	2.85	0.02	-16.78	None.	APE 300 VIBRATORY HAMMER	
Type A	24-Nov-15	6	7	AZ 26-700	South Face	12:17	4.8	-12.00	2.82	0.02	-16.78	None.	APE 300 VIBRATORY HAMMER	
Type A	24-Nov-15	7	8	AZ 26-700	South Face	12:24	4.8	-12.00	2.78	0.01	-16.79	None.	APE 300 VIBRATORY HAMMER	
Type A	24-Nov-15	8	9	AZ 26-700	South Face	12:32	4.8	-12.00	2.79	0.03	-16.77	None.	APE 300 VIBRATORY HAMMER	
Type A	24-Nov-15	9	10	AZ 26-700	South Face	12:41	4.8	-12.00	2.85	0.03	-16.77	None.	APE 300 VIBRATORY HAMMER	
Type A	24-Nov-15	10	11	AZ 26-700	South Face	12:50	4.8	-12.00	2.83	0.02	-16.78	None.	APE 300 VIBRATORY HAMMER	
Type A	24-Nov-15	11	12	AZ 26-700	South Face	13:01	4.8	-12.00	2.82	0.01	-16.79	None.	APE 300 VIBRATORY HAMMER	
Type A	24-Nov-15	12	13	AZ 26-700	South Face	13:09	4.8	-12.00	2.84	0.03	-16.77	None.	APE 300 VIBRATORY HAMMER	
Type A	24-Nov-15	13	14	AZ 26-700	South Face	13:19	4.8	-12.00	2.95	0.02	-16.78	None.	APE 300 VIBRATORY HAMMER	
Type A	24-Nov-15	14	15	AZ 26-700	South Face	13:30	4.8	-12.00	2.99	0.03	-16.77	None.	APE 300 VIBRATORY HAMMER	
Type A	24-Nov-15	15	16	AZ 26-700	South Face	14:09	4.8	-12.00	2.94	0.02	-16.78	None.	APE 300 VIBRATORY HAMMER	
Type A	24-Nov-15	16	17	AZ 26-700	South Face	14:25	4.8	-12.00	2.93	0.1	-16.70	None.	APE 300 VIBRATORY HAMMER	
Type A	24-Nov-15	17	18	AZ 26-700	South Face	15:58	4.8	-12.00	2.88	0.08	-16.72	None.	APE 300 VIBRATORY HAMMER	
Type A	24-Nov-15	18	19	AZ 26-700	South Face	16:05	4.8	-12.00	2.91	0.08	-16.72	None.	APE 300 VIBRATORY HAMMER	
Type A	24-Nov-15	19	20	AZ 26-700	South Face	16:11	4.8	-12.00	2.9	0.09	-16.71	None.	APE 300 VIBRATORY HAMMER	
Type A	24-Nov-15	20	21	AZ 26-700	South Face	16:20	4.8	-12.00	2.89	0.1	-16.70	None.	APE 300 VIBRATORY HAMMER	
Type A	24-Nov-15	21	22	AZ 26-700	South Face	16:28	4.8	-12.00	2.99	0.09	-16.71	None.	APE 300 VIBRATORY HAMMER	
Type A	24-Nov-15	22	23	AZ 26-700	South Face	16:35	4.8	-12.00	3	0.09	-16.71	None.	APE 300 VIBRATORY HAMMER	
Type A	24-Nov-15	23	24	AZ 26-700	South Face	16:46	4.8	-12.00	3.05	0.09	-16.71	None.	APE 300 VIBRATORY HAMMER	
Type A	24-Nov-15	24	25	AZ 26-700	South Face	16:54	4.8	-12.00	3	0.1	-16.70	None.	APE 300 VIBRATORY HAMMER	
Type A	25-Nov-15	25	26	AZ 26-700	South Face	8:25	4.8	-12.00	2.99	0.02	-16.78	None.	APE 300 VIBRATORY HAMMER	
Type A	25-Nov-15	26	27	AZ 26-700	South Face	8:31	4.8	-12.00	2.96	0.08	-16.72	None.	APE 300 VIBRATORY HAMMER	
Type A	25-Nov-15	27	28	AZ 26-700	South Face	8:38	4.8	-12.00	2.9	0.08	-16.72	None.	APE 300 VIBRATORY HAMMER	
Type A	25-Nov-15	28	29	AZ 26-700	South Face	8:44	4.8	-12.00	2.92	0.08	-16.72	None.	APE 300 VIBRATORY HAMMER	
Type A	25-Nov-15	29	30	AZ 26-700	South Face	8:50	4.8	-12.00	2.95	0.09	-16.71	None.	APE 300 VIBRATORY HAMMER	
Type A	25-Nov-15	30	31	AZ 26-700	South Face	8:57	4.8	-12.00	2.95	0.1	-16.70	None.	APE 300 VIBRATORY HAMMER	COFFEE BREAK
Type A	25-Nov-15	31	32	AZ 26-700	South Face	9:25	4.8	-12.00	2.98	0.1	-16.70	None.	APE 300 VIBRATORY HAMMER	
Type A	25-Nov-15	32	33	AZ 26-700	South Face	9:50	4.8	-12.00	2.96	0.07	-16.73	None.	APE 300 VIBRATORY HAMMER	
Type A	25-Nov-15	33	34	AZ 26-700	South Face	9:57	4.8	-12.00	3.02	0.08	-16.72	None.	APE 300 VIBRATORY HAMMER	
Type A	25-Nov-15	34	35	AZ 26-700	South Face	10:03	4.8	-12.00	3.01	0.06	-16.74	None.	APE 300 VIBRATORY HAMMER	
Type A	25-Nov-15	35	36	AZ 26-700	South Face	10:07	4.8	-12.00	3.05	0.1	-16.70	None.	APE 300 VIBRATORY HAMMER	
Type A	25-Nov-15	36	37	AZ 26-700	South Face	10:12	4.8	-12.00	3.01	0.06	-16.74	None.	APE 300 VIBRATORY HAMMER	
Type A	25-Nov-15	37	38	AZ 26-700	South Face	10:20	4.8	-12.00	3.06	0.11	-16.69	None.	APE 300 VIBRATORY HAMMER	
Type A	25-Nov-15	38	39	AZ 26-700	South Face	10:26	4.8	-12.00	3.03	-0.77	-17.57	None.	APE 300 VIBRATORY HAMMER	WESTERN SINGLE SHEET SLID DOWN TO CUT OFF ELEVATION OF -0.77 DURING PAIR #39 DRIVING
Type A	25-Nov-15	39	40	AZ 26-700	South Face	10:33	4.8	-12.00	3	1.06	-15.74	None.	APE 300 VIBRATORY HAMMER	STOPPED AT CUT OFF ELEVATION 1.06 DUE TO #39 MOVEMENT
Type A	25-Nov-15	40	41	AZ 26-700	South Face	10:56	4.8	-12.00	2.98	0.1	-16.70	None.	APE 300 VIBRATORY HAMMER	
Type A	25-Nov-15	41	42	AZ 26-700	South Face	11:03	4.8	-12.00	2.9	0.07	-16.73	None.	APE 300 VIBRATORY HAMMER	
Type A	25-Nov-15	42	43	AZ 26-700	South Face	11:09	4.8	-12.00	2.84	0.08	-16.72	None.	APE 300 VIBRATORY HAMMER	#6 DERRICK ENCOUNTERED MECHANINCAL BREAKDOWN AFTER LUNCH BREAK. SHUT DOWN
Type A	26-Nov-15	43	44	AZ 26-700	South Face	12:45	4.8	-12.00	2.83	0.06	-16.74	None.	APE 300 VIBRATORY HAMMER	START LATE DUE TO MAINTENANCE/MECHANICAL
Type A	26-Nov-15	44	45	AZ 26-700	South Face	12:51	4.8	-12.00	2.88	0.08	-16.72	None.	APE 300 VIBRATORY HAMMER	
Type A	26-Nov-15	45	46	AZ 26-700	South Face	12:57	4.8	-12.00	2.95	0.06	-16.74	None.	APE 300 VIBRATORY HAMMER	
Type A	26-Nov-15	46	47	AZ 26-700	South Face	13:04	4.8	-12.00	2.97	0.1	-16.70	None.	APE 300 VIBRATORY HAMMER	
Type A	26-Nov-15	47	48	AZ 26-700	South Face	13:12	4.8	-12.00	2.94	0.1	-16.70	None.	APE 300 VIBRATORY HAMMER	
Type A	26-Nov-15	48	49	AZ 26-700	South Face	13:19	4.8	-12.00	2.95	0.1	-16.70	None.	APE 300 VIBRATORY HAMMER	
Type A	26-Nov-15	49	50	AZ 26-700	South Face	13:29	4.8	-12.00	2.99	0.08	-16.72	None.	APE 300 VIBRATORY HAMMER	
Type A	26-Nov-15	50	51	AZ 26-700	South Face	13:36	4.8	-12.00	3.02	0.08	-16.72	None.	APE 300 VIBRATORY HAMMER	SHUT DOWN FOR MECHANICAL ISSUES
Type A	26-Nov-15	51	52	AZ 26-700	South Face	16:18	4.8	-12.00	2.84	0.09	-16.71	None.	APE 300 VIBRATORY HAMMER	
Type A	26-Nov-15	52	53	AZ 26-700	South Face	16:22	4.8	-12.00	2.96	0.1	-16.70	None.	APE 300 VIBRATORY HAMMER	
Type A	26-Nov-15	53	54	AZ 26-700	South Face	16:26	4.8	-12.00	2.9	0.08	-16.72	None.	APE 300 VIBRATORY HAMMER	
Type A	26-Nov-15	54	55	AZ 26-700	South Face	16:33	4.8	-12.00	2.62	0.07	-16.73	None.	APE 300 VIBRATORY HAMMER	
Type A	26-Nov-15	55	56	AZ 26-700	South Face	16:37	4.8	-12.00	2.75	0.1	-16.70	None.	APE 300 VIBRATORY HAMMER	
Type A	26-Nov-15	56	57	AZ 26-700	South Face	16:42	4.8	-12.00	2.95	0.02	-16.78	None.	APE 300 VIBRATORY HAMMER	
Type A	26-Nov-15	57	58	AZ 26-700	South Face	16:47	4.8	-12.00	2.98	0.09	-16.71	None.	APE 300 VIBRATORY HAMMER	
Type A	26-Nov-15	58	59	AZ 26-700	South Face	16:51	4.8	-12.00	2.97	0.08	-16.72	None.	APE 300 VIBRATORY HAMMER	
Type A	26-Nov-15	59	60	AZ 26-700	South Face	16:56	4.8	-12.00	3.06	0.05	-16.75	None.	APE 300 VIBRATORY HAMMER	SHUT DOWN FOR NIGHT
Type A	01-Dec-15	60	61	AZ 26-700	South Face	15:36	4.8	-12.00	3.07	0.09	-16.71	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	START
Type A	01-Dec-15	61	62	AZ 26-700	South Face	15:45	4.8	-12.00	3.05	0.1	-16.70	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	COFFEE
Type A	01-Dec-15	62	63	AZ 26-700	South Face	16:14	4.8	-12.00	3.1	0.1	-16.70	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type A	01-Dec-15	63	64	AZ 26-700	South Face	16:21	4.8	-12.00	3.06	0.08	-16.72	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type A	01-Dec-15	64	65	AZ 26-700	South Face	16:26	4.8	-12.00	3.08	0.1	-16.70	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	SOFT / EASY DRIVING
Type A	01-Dec-15	65	66	AZ 26-700	South Face	16:30	4.8	-12.00	3.08	0.1	-16.70	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type A	01-Dec-15	66	67	AZ 26-700	South Face	16:34	4.8	-12.00	3.08	0.1	-16.70	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type A	01-Dec-15	67	68	AZ 26-700	South Face	16:44	4.8	-12.00	3.1	0.1	-16.70	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	HAD TO CUT BOLT FROM SHEET
Type A	01-Dec-15	68	69	AZ 26-700	South Face	16:49	4.8	-12.00	3.1	0.11	-16.69	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type A	01-Dec-15	69	70	AZ 26-700	South Face	16:52	4.8	-12.00	3.09	2.38	-14.42	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	BOLTS SHEARED OFF FROM HAMMER HEAD. STOP DRIVING AT CUT OFF ELEVATION 2.48M
Type A	02-Dec-15	69	70	AZ 26-700	South Face	9:07	4.8	-12.00	2.38	0.11	-16.69	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	START
Type A	02-Dec-15	70	71	AZ 26-700	South Face	9:13	4.8	-12.00	2.99	0.07	-16.73	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type A	02-Dec-15	71	72	AZ 26-700	South Face	9:39	4.8	-12.00	3.16	0.06	-16.74	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type A	02-Dec-15	72	73	AZ 26-700	South Face	9:43	4.8	-12.00	3.17	0.05	-16.75	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type A	02-Dec-15	73	74	AZ 26-700	South Face	9:46	4.8	-12.00	3.19	0.08	-16.72	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type B	02-Dec-15	74	75	AZ 38-700N	South Face	9:50	4.8	-13.50	3.26	0.11	-18.19	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type B	02-Dec-15	75	76	AZ 38-700N	South Face	9:57	4.8	-13.50	3.25	0.1	-18.20	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type B	02-Dec-15	76	77	AZ 38-700N	South Face	10:02	4.8	-13.50	3.15	0.09	-18.21	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	MOVE RIG
Type B	02-Dec-15	77	78	AZ 38-700N	South Face	10:45	4.8	-13.50	3.18	0.08	-18.22	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type B	02-Dec-15	78	79	AZ 38-700N	South Face	10:49	4.8	-13.50	3.03	0.1	-18.20	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type B	02-Dec-15	79	80	AZ 38-700N	South Face	10:53	4.8	-13.50	3.18	0.1	-18.20	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type B	02-Dec-15	80	81	AZ 38-700N	South Face	10:56	4.8	-13.50	3.19	0.08	-18.22	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type B	02-Dec-15	81	82	AZ 38-700N	South Face	11:00	4.8	-13.50	3.15	0.12	-18.18	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type B	02-Dec-15	82	83	AZ 38-700N	South Face	11:05	4.8	-13.50	3.13	0.09	-18.21	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	LUNCH
Type B	02-Dec-15	83	84	AZ 38-700N	South Face	11:53	4.8	-13.50	3.14	0.14	-18.16	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type B	02-Dec-15	84	85	AZ 38-700N	South Face	11:57	4.8	-13.50	3.12	0.08	-18.22	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type B	02-Dec-15	85	86	AZ 38-700N	South Face	12:03	4.8	-13.50	3.05	0.11	-18.19	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type B	02-Dec-15	86	87	AZ 38-700N	South Face	12:05	4.8	-13.50	3.13	0.05	-18.25	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type B	02-Dec-15	87	88	AZ 38-700N	South Face	12:08	4.8	-13.50	3.14	0.05	-18.25	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type B	02-Dec-15	88	89	AZ 38-700N	South Face	12:11	4.8	-13.50	3.14	0.07	-18.23	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type B	02-Dec-15	89	90	AZ 38-700N	South Face	12:14	4.8	-13.50	3.14	0.08	-18.22	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type B	02-Dec-15	90	91	AZ 38-700N	South Face	12:19	4.8	-13.50	3.15	0.09	-18.21	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type B	02-Dec-15	91	92	AZ 38-700N	South Face	12:23	4.8	-13.50	3.19	0.1	-18.20	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type B	02-Dec-15	92	93	AZ 38-700N	South Face	12:26	4.8	-13.50	3.18	0.11	-18.19	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	MOVE RIG
Type B	02-Dec-15	93	94	AZ 38-700N	South Face	13:07	4.8	-13.50	3.2	0.08	-18.22	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type B	02-Dec-15	94	95	AZ 38-700N	South Face	13:12	4.8	-13.50	3.23	0.1	-18.20	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type B	02-Dec-15	95	96	AZ 38-700N	South Face	13:15	4.8	-13.50	3.23	0.12	-18.18	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type B	02-Dec-15	96	97	AZ 38-700N	South Face	13:19	4.8	-13.50	3.23	0.1	-18.20	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type B	02-Dec-15	97	98	AZ 38-700N	South Face	13:22	4.8	-13.50	3.25	0.09	-18.21	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type B	02-Dec-15	98	99	AZ 38-700N	South Face	13:26	4.8	-13.50	3.27	0.1	-18.20	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type B	02-Dec-15	99	100	AZ 38-700N	South Face	13:29	4.8	-13.50	3.27	0.1	-18.20	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type B	02-Dec-15	100	101	AZ 38-700N	South Face	13:33	4.8	-13.50	3.28	0.1	-18.20	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	COFFEE
Type B	02-Dec-15	101	102	AZ 38-700N	South Face	14:03	4.8	-13.50	3.29	0.05	-18.25	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type B	02-Dec-15	102	103	AZ 38-700N	South Face	14:06	4.8	-13.50	3.31	0.1	-18.20	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type B	02-Dec-15	103	104	AZ 38-700N	South Face	14:10	4.8	-13.50	3.33	0.07	-18.23	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type B	02-Dec-15	104	105	AZ 38-700N	South Face	14:15	4.8	-13.50	3.3	0.1	-18.20	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	START NEW SHEET TYPE AT OVERLAP
Type B	02-Dec-15	105	106	AZ 38-700N	South Face	14:19	4.8	-13.50	3.3	0.03	-18.27	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type B	02-Dec-15	106	107	AZ 38-700N	South Face	14:22	4.8	-13.50	3.37	0.04	-18.26	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	WESTERN SHEET OF PAIR 105 DRAGGED FROM 0.10 TO 0.03 DURING DRIVING
Type B	02-Dec-15	107	108	AZ 38-700N	South Face	14:26	4.8	-13.50	3.37	0.08	-18.22	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type B	02-Dec-15	108	109	AZ 38-700N	South Face	14:30	4.8	-13.50	3.37	0.07	-18.23	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type B	02-Dec-15	109	110	AZ 38-700N	South Face	14:35	4.8	-13.50	3.35	0.1	-18.20	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type B	02-Dec-15	110	111	AZ 38-700N	South Face	14:39	4.8	-13.50	3.33	0.1	-18.20	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	MOVE RIG
Type B	02-Dec-15	111	112	AZ 38-700N	South Face	15:48	4.8	-13.50	3.32	0.1	-18.20	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type B	02-Dec-15	112	113	AZ 38-700N	South Face	15:52	4.8	-13.50	3.4	0.06	-18.24	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type B	02-Dec-15	113	114	AZ 38-700N	South Face	15:55	4.8	-13.50	3.12	0.03	-18.27	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type B	02-Dec-15	114	115	AZ 38-700N	South Face	15:58	4.8	-13.50	3.15	0	-18.30	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type B	02-Dec-15	115	116	AZ 38-700N	South Face	16:02	4.8	-13.50	4.7	0.1	-18.20	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	SHEETS AT FULL HEIGHT
Type B	02-Dec-15	116	117	AZ 38-700N	South Face	16:06	4.8	-13.50	4.9	0.1	-18.20	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	EASY DRIVING
Type B	02-Dec-15	117	118	AZ 38-700N	South Face	16:11	4.8	-13.50	4.9	0.05	-18.25	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type B	02-Dec-15	118	119	AZ 38-700N	South Face	16:14	4.8	-13.50	4.89	0.1	-18.20	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type B	02-Dec-15	119	120	AZ 38-700N	South Face	16:18	4.8	-13.50	4.9	0.05	-18.25	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type B	02-Dec-15	120	121	AZ 38-700N	South Face	16:23	4.8	-13.50	4.91	0.1	-18.20	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type B	02-Dec-15	121	122	AZ 38-700N	South Face	16:27	4.8	-13.50	4.88	0.09	-18.21	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type B	02-Dec-15	122	123	AZ 38-700N	South Face	16:30	4.8	-13.50	4.88	0.14	-18.16	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type B	02-Dec-15	123	124	AZ 38-700N	South Face	16:35	4.8	-13.50	4.9	0.07	-18.23	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type A	11-Jan-16	39 east	39 east	AZ 26-700	South Face	12:00	4.8	-12.00	-0.68	0.11	-16.69	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	DIVER ASSISTED. PULL SINGLE SHEET UP TO GRADE
Type A	11-Jan-16	39 west	39 west	AZ 26-700	South Face	12:22	4.8	-12.00	1.32	0.14	-16.66	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	DIVER ASSISTED. DRIVE SINGLE SHEET DOWN TO GRADE WHILE HOLDING 39 EAST WITH CRANE LINE
Type A	11-Jan-16	0.5	1	AZ 26-700	South Face	13:33	4.8	-12.00	3.72	0.09	-16.71	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	DRIVE FIRST SINGLE SHEET DOWN TO GRADE. DIVER ASSISTED.
Type A	11-Jan-16	3	4	AZ 26-700	South Face	13:45	4.8	-12.00	1	0.09	-16.71	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	DIVER ASSISTED. DRIVE PAIR TO GRADE
Type A	11-Jan-16	4	5	AZ 26-700	South Face	13:53	4.8	-12.00	0.99	0.09	-16.71	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	DIVER ASSISTED. DRIVE PAIR TO GRADE
Type B	13-Jan-16	122	123	AZ 38-700N	South Face	16:25	4.8	-13.50	0.14	0.08	-18.22	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	DIVER ASSISTED.
Type B	13-Jan-16	95	96	AZ 38-700N	South Face	16:52	4.8	-13.50	0.12	0.07	-18.23	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	DIVER ASSISTED.
Type B	13-Jan-16	92	93	AZ 38-700N	South Face	16:57	4.8	-13.50	0.11	0.08	-18.22	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	DIVER ASSISTED.

PERIMETER SHEET PILE WALL PILE DRIVING RECORDS – SHEET 2

Public Works and Government Services Canada
Travaux publics et Services gouvernementaux Canada
REAL PROPERTY SERVICES
Pacific Region
SERVICES IMMOBILIERS

Klohn Crippen Berger

Revision/ Revision	Description/Description	Date/Date
0	RECORD DRAWING	2017/03/29

Client/client

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

Consultant Signature Only

Designed by/Concept par
DANIEL LAWSON

Drawn by/Dessine par
ALEXANDER SCEKIC

PWGSC Project Manager/Administrateur de Projets TPSGC
ANDREW MYLLY

Regional Manager, Environmental Services
COLLIN KINGMAN

Drawing title/Titre du dessin
PILE DRIVING RECORDS
SHEET 2

Project No./No. du projet	Sheet/	Revision no./
R.018400.002	CSM11	0

PWGSC – A1 – 841X594

0 10 20 30 40 50 60 70 80 90 100mm

DM5XXXXXX

PILE DRIVING RECORD - PERIMETER SHEET PILE WALL - 14JAN2016 TO 26FEB2016

NOTES:
1) ALL ELEVATIONS IN CHART DATUM.
2) SHEET PILE WALL PILE DRIVING RECORDS ARE INCOMPLETE AND CONTAIN ERRORS.
3) PILE PAIR ID NUMBERING STARTS (PILE PAIR ID #1) AT THE SOUTHEAST END OF THE WALL, AND FINISHES (PILE PAIR #335) AT THE NORTHWEST CORNER OF THE TIMBER CRIB.
4) IN GENERAL, THE SHEET PILES WERE RE-DRIVEN IN A CLOCKWISE DIRECTION AROUND THE SOUTH JETTY PERIMETER.

TYPE:	DATE:	PILE PAIR ID - REV 0:	PILE PAIR ID - REV 1:	SECTION TYPE:	LOCATION ON STRUCTURE:	TIME DRIVEN:	INITIAL CUT-OFF ELEVATION:	INITIAL TIP ELEVATION:	START ELEVATION:	FINAL CUT OFF ELEVATION:	FINAL TIP ELEVATION:	ELEVATION OF BEDROCK:	EQUIPMENT:	NOTES:
Type A	14-Jan-16	37	43	AZ 26-700	South Face	8:39	4.8	-12.00	0.11	0.02	-16.78	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	START
Type A	14-Jan-16	38	44	AZ 26-700	South Face	8:51	4.8	-12.00	0.13	0.02	-16.78	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type A	14-Jan-16	39	45	AZ 26-700	South Face	8:54	4.8	-12.00	0.14	0	-16.80	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type A	14-Jan-16	46	46	AZ 26-700	South Face	9:47	4.8	-12.00	0.1	-1.01	-17.81	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	START GATE PIILES
Type A	14-Jan-16	47	47	AZ 26-700	South Face	9:54	4.8	-12.00	0.1	-1.01	-17.81	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type A	14-Jan-16	48	48	AZ 26-700	South Face	9:58	4.8	-12.00	0.1	-1.01	-17.81	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type A	14-Jan-16	49	49	AZ 26-700	South Face	10:10	4.8	-12.00	0.09	-1.02	-17.82	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type A	14-Jan-16	50	50	AZ 26-700	South Face	10:15	4.8	-12.00	0.08	-1.04	-17.84	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type A	14-Jan-16	51	51	AZ 26-700	South Face	10:20	4.8	-12.00	0.09	-1.05	-17.85	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type A	14-Jan-16	52	52	AZ 26-700	South Face	10:24	4.8	-12.00	0.1	-1.04	-17.84	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type A	14-Jan-16	53	53	AZ 26-700	South Face	10:35	4.8	-12.00	0.08	-1.05	-17.85	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	MOVE RIG
Type A	14-Jan-16	54	54	AZ 26-700	South Face	10:52	4.8	-12.00	0.07	-1.04	-17.84	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type A	14-Jan-16	55	55	AZ 26-700	South Face	10:55	4.8	-12.00	0.09	-1.06	-17.86	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type A	14-Jan-16	56	56	AZ 26-700	South Face	10:58	4.8	-12.00	0.02	-1.07	-17.87	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type A	14-Jan-16	57	57	AZ 26-700	South Face	11:03	4.8	-12.00	0.05	-1.06	-17.86	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type A	14-Jan-16	58	58	AZ 26-700	South Face	11:06	4.8	-12.00	0.08	-1.06	-17.86	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type A	14-Jan-16	59	59	AZ 26-700	South Face	11:09	4.8	-12.00	0.04	-1.06	-17.86	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	LUNCH
Type A	14-Jan-16	60	60	AZ 26-700	South Face	12:16	4.8	-12.00	0.09	-1.09	-17.89	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	BEARING PILE IN WAY. NEEDS TRIMMING
Type A	14-Jan-16	61	61	AZ 26-700	South Face	12:31	4.8	-12.00	0.09	-1.08	-17.88	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type A	14-Jan-16	62	62	AZ 26-700	South Face	12:35	4.8	-12.00	0.1	-1.09	-17.89	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type A	14-Jan-16	63	63	AZ 26-700	South Face	12:38	4.8	-12.00	0.07	-1.07	-17.87	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type A	14-Jan-16	64	64	AZ 26-700	South Face	12:41	4.8	-12.00	0.1	-1.08	-17.88	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type A	14-Jan-16	65	65	AZ 26-700	South Face	12:45	4.8	-12.00	0.09	-1.10	-17.90	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type A	14-Jan-16	66	66	AZ 26-700	South Face	12:47	4.8	-12.00	0.11	-1.08	-17.88	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type A	14-Jan-16	67	67	AZ 26-700	South Face	12:50	4.8	-12.00	0.08	-1.10	-17.90	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type A	14-Jan-16	68	68	AZ 26-700	South Face	12:53	4.8	-12.00	0.11	-1.08	-17.88	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type A	14-Jan-16	69	69	AZ 26-700	South Face	12:56	4.8	-12.00	0.11	-1.09	-17.89	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type A	14-Jan-16	70	70	AZ 26-700	South Face	12:59	4.8	-12.00	0.07	-1.11	-17.91	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	MOVE RIG
Type A	14-Jan-16	71	71	AZ 26-700	South Face	13:16	4.8	-12.00	0.06	-1.09	-17.89	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type A	14-Jan-16	72	72	AZ 26-700	South Face	13:20	4.8	-12.00	0.04	-1.08	-17.88	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type A	14-Jan-16	73	73	AZ 26-700	South Face	13:24	4.8	-12.00	0.06	-1.10	-17.90	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type A	14-Jan-16	74	74	AZ 26-700	South Face	13:28	4.8	-12.00	0.1	-1.10	-17.90	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type B	14-Jan-16	75	75	AZ 38-700N	South Face	13:31	4.8	-13.50	0.08	-1.11	-19.41	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type B	14-Jan-16	76	76	AZ 38-700N	South Face	13:38	4.8	-13.50	0.1	-1.10	-19.40	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	BREAK. MOVE RIG
Type B	14-Jan-16	77	77	AZ 38-700N	South Face	14:20	4.8	-13.50	0.08	-1.11	-19.41	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type B	14-Jan-16	78	78	AZ 38-700N	South Face	14:26	4.8	-13.50	0.12	-1.12	-19.42	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	END GATE PILES
Type B	14-Jan-16	81	79	AZ 38-700N	South Face	14:32	4.8	-13.50	0.12	0.07	-18.23	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type B	14-Jan-16	83	80	AZ 38-700N	South Face	14:36	4.8	-13.50	0.14	0.07	-18.23	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type B	14-Jan-16	85	81	AZ 38-700N	South Face	14:40	4.8	-13.50	0.11	0.06	-18.24	None.	ICE 44B VIBRATORY HAMMER (WITH APE EXTENSION)	
Type A	19-Jan-16	45	46	AZ 26-700	South Face	14:20	4.8	-12.00	0.06	-1.03	-17.83	None.	APE 300 VIBRATORY HAMMER	NEED TO LOWER PAIR TO ACCOMMODATE GATE OPENING BASED ON AS -BUILT LOCATION OF TRB
Type B	19-Jan-16	78	79	AZ 38-700N	South Face	14:51	4.8	-13.50	-1.12	0.09	-18.21	None.	APE 300 VIBRATORY HAMMER	NEED TO RAISE PAIR TO ACCOMMODATE GATE OPENING BY KEEPING 33 PAIRS LOWERED (TO KEEP 45M)
Type C	03-Feb-16	145	125	AZ 50	South Face	16:50	4.8	-16.00	4.81	-0.02	-20.82	None.	APE 200 VIBRATORY HAMMER	DRIVEN ON FEB 2 2016
Type C	03-Feb-16	142	126	AZ 50	South Face	7:28	4.8	-16.00	3.98	0.01	-20.79	None.	APE 200 VIBRATORY HAMMER	ENCOUNTERED BREAKDOWN
Type C	03-Feb-16	143	127	AZ 50	South Face	11:49	4.8	-16.00	4.58	0	-20.80	None.	APE 200 VIBRATORY HAMMER	HARD DRIVING
Type C	03-Feb-16	144	128	AZ 50	South Face	12:11	4.8	-16.00	4.88	0.01	-20.79	None.	APE 200 VIBRATORY HAMMER	
Type C	03-Feb-16	146	129	AZ 50	South Face	12:21	4.8	-16.00	4.88	-0.01	-20.81	None.	APE 200 VIBRATORY HAMMER	
Type C	03-Feb-16	147	130	AZ 50	South Face	12:29	4.8	-16.00	4.15	-0.01	-20.81	None.	APE 200 VIBRATORY HAMMER	
Type C	03-Feb-16	148	131	AZ 50	South Face	12:37	4.8	-16.00	4.88	-0.01	-20.81	None.	APE 200 VIBRATORY HAMMER	
Type C	03-Feb-16	149	132	AZ 50	South Face	12:48	4.8	-16.00	4.88	0	-20.80	None.	APE 200 VIBRATORY HAMMER	
Type C	03-Feb-16	150	133	AZ 50	South Face	12:54	4.8	-16.00	4.88	-0.02	-20.82	None.	APE 200 VIBRATORY HAMMER	
Type C	03-Feb-16	151	134	AZ 50	South Face	12:59	4.8	-16.00	4.88	-0.02	-20.82	None.	APE 200 VIBRATORY HAMMER	
Type C	03-Feb-16	152	135	AZ 50	South Face	13:07	4.8	-16.00	4.85	-0.02	-20.82	None.	APE 200 VIBRATORY HAMMER	
Type C	03-Feb-16	153	136	AZ 50	South Face	13:19	4.8	-16.00	4.77	0.01	-20.79	None.	APE 200 VIBRATORY HAMMER	COFFEE BREAK
Type C	03-Feb-16	154	137	AZ 50	South Face	13:57	4.8	-16.00	4.88	-0.01	-20.81	None.	APE 200 VIBRATORY HAMMER	
Type C	03-Feb-16	155	138	AZ 50	South Face	14:04	4.8	-16.00	3.12	-0.01	-20.81	None.	APE 200 VIBRATORY HAMMER	
Type C	03-Feb-16	156	139	AZ 50	South Face	14:10	4.8	-16.00	4.43	0	-20.80	None.	APE 200 VIBRATORY HAMMER	
Type C	03-Feb-16	157	140	AZ 50	South Face	14:23	4.8	-16.00	4.87	0	-20.80	None.	APE 200 VIBRATORY HAMMER	MOVE BARGE
Type C	03-Feb-16	158	141	AZ 50	South Face	14:44	4.8	-16.00	3.99	-0.06	-20.86	None.	APE 200 VIBRATORY HAMMER	
Type C	03-Feb-16	159	142	AZ 50	South Face	14:52	4.8	-16.00	4.88	-0.01	-20.81	None.	APE 200 VIBRATORY HAMMER	
Type C	03-Feb-16	160	143	AZ 50	South Face	14:58	4.8	-16.00	4.87	-0.01	-20.81	None.	APE 200 VIBRATORY HAMMER	
Type C	03-Feb-16	161	144	AZ 50	South Face	15:06	4.8	-16.00	4.86	0	-20.80	None.	APE 200 VIBRATORY HAMMER	
Type C	03-Feb-16	162	145	AZ 50	South Face	15:13	4.8	-16.00	4.86	0	-20.80	None.	APE 200 VIBRATORY HAMMER	
Type C	03-Feb-16	163	146	AZ 50	South Face	15:18	4.8	-16.00	4.89	-0.01	-20.81	None.	APE 200 VIBRATORY HAMMER	
Type C	03-Feb-16	164	147	AZ 50	South Face	15:23	4.8	-16.00	4.87	-0.03	-20.83	None.	APE 200 VIBRATORY HAMMER	
Type C	03-Feb-16	165	148	AZ 50	South Face	15:28	4.8	-16.00	4.88	-0.02	-20.82	None.	APE 200 VIBRATORY HAMMER	COFFEE BREAK
Type C	03-Feb-16	166	149	AZ 50	South Face	15:59	4.8	-16.00	4.87	0.01	-20.79	None.	APE 200 VIBRATORY HAMMER	
Type C	03-Feb-16	167	150	AZ 50	South Face	16:07	4.8	-16.00	4.86	-0.01	-20.81	None.	APE 200 VIBRATORY HAMMER	
Type C	03-Feb-16	168	151	AZ 50	South Face	16:13	4.8	-16.00	4.87	0	-20.80	None.	APE 200 VIBRATORY HAMMER	
Type C	03-Feb-16	169	152	AZ 50	South Face	16:17	4.8	-16.00	4.87	-0.01	-20.81	None.	APE 200 VIBRATORY HAMMER	
Type C	03-Feb-16	170	153	AZ 50	South Face	16:24	4.8	-16.00	4.87	0.01	-20.79	None.	APE 200 VIBRATORY HAMMER	SHUT DOWN DUE TO WIND BLOWING 60KM/HR
Type C	04-Feb-16	171	154	AZ 50	South Face	7:47	4.8	-16.00	4.87	-0.01	-20.81	None.	APE 200 VIBRATORY HAMMER	
Type C	04-Feb-16	172	155	AZ 50	South Face	7:51	4.8	-16.00	4.88	0	-20.80	None.	APE 200 VIBRATORY HAMMER	
Type C	04-Feb-16	173	156	AZ 50	South Face	7:56	4.8	-16.00	4.89	-0.01	-20.81	None.	APE 200 VIBRATORY HAMMER	
Type C	04-Feb-16	174	157	AZ 50	South Face	7:59	4.8	-16.00	4.88	0	-20.80	None.	APE 200 VIBRATORY HAMMER	
Type C	04-Feb-16	175	158	AZ 50	South Face	8:06	4.8	-16.00	4.87	0	-20.80	None.	APE 200 VIBRATORY HAMMER	
Type C	04-Feb-16	176	159	AZ 50	South Face	8:12	4.8	-16.00	4.87	-0.01	-20.81	None.	APE 200 VIBRATORY HAMMER	
Type C	04-Feb-16	177	160	AZ 50	South Face	8:17	4.8	-16.00	4.88	-1.02	-21.82	None.	APE 200 VIBRATORY HAMMER	START GATE PILES
Type C	04-Feb-16	178	161	AZ 50	South Face	8:22	4.8	-16.00	4.88	-1.02	-21.82	None.	APE 200 VIBRATORY HAMMER	
Type C	04-Feb-16	179	162	AZ 50	South Face	8:27	4.8	-16.00	4.87	-1.01	-21.81	None.	APE 200 VIBRATORY HAMMER	
Type C	04-Feb-16	180	163	AZ 50	South Face	8:31	4.8	-16.00	4.86	-1.02	-21.82	None.	APE 200 VIBRATORY HAMMER	
Type C	04-Feb-16	181	164	AZ 50	South Face	8:37	4.8	-16.00	4.88	-0.98	-21.78	None.	APE 200 VIBRATORY HAMMER	HAMMER BROKE DOWN
Type C	04-Feb-16	182	165	AZ 50	South Face	10:36	4.8	-16.00	4.87	-1.04	-21.84	None.	APE 200 VIBRATORY HAMMER	RESTART WITH FIXED HAMMER JAW
Type C	04-Feb-16	183	166	AZ 50	South Face	10:41	4.8	-16.00	4.87	-1.01	-21.81	None.	APE 200 VIBRATORY HAMMER	
Type C	04-Feb-16	184	167	AZ 50	South Face	10:47	4.8	-16.00	4.86	-1.00	-21.80	None.	APE 200 VIBRATORY HAMMER	
Type C	04-Feb-16	185	168	AZ 50	South Face	10:51	4.8	-16.00	3.73	-1.00	-21.80	None.	APE 200 VIBRATORY HAMMER	
Type C	04-Feb-16	186	169	AZ 50	South Face	10:54	4.8	-16.00	3.7	-0.99	-21.79	None.	APE 200 VIBRATORY HAMMER	
Type C	04-Feb-16	187	170	AZ 50	South Face	10:58	4.8	-16.00	4.86	-1.00	-21.80	None.	APE 200 VIBRATORY HAMMER	LUNCH & CRANE REPAIR
Type C	04-Feb-16	188	171	AZ 50	South Face	12:04	4.8	-16.00	4.87	-1.02	-21.82	None.	APE 200 VIBRATORY HAMMER	
Type C	04-Feb-16	189	172	AZ 50	South Face	12:08	4.8	-16.00	4.88	-0.98	-21.78	None.	APE 200 VIBRATORY HAMMER	
Type C	04-Feb-16	190	173	AZ 50	South Face	12:13	4.8	-16.00	4.88	-1.00	-21.80	None.	APE 200 VIBRATORY HAMMER	
Type C	04-Feb-16	191	174	AZ 50	South Face	12:17	4.8	-16.00	4.87	-0.99	-21.79	None.	APE 200 VIBRATORY HAMMER	
Type C	04-Feb-16	192	175	AZ 50	South Face	12:20	4.8	-16.00	4.88	-1.00	-21.80	None.	APE 200 VIBRATORY HAMMER	
Type C	04-Feb-16	193	176	AZ 50	South Face	12:24	4.8	-16.00	4.87	-1.01	-21.81	None.	APE 200 VIBRATORY HAMMER	
Type C	04-Feb-16	194	177	AZ 50	South Face	12:28	4.8	-16.00	4.88	-1.00	-21.80	None.	APE 200 VIBRATORY HAMMER	
Type C	04-Feb-16	195	178	AZ 50	South Face	12:31	4.8	-16.00	4.87	-1.02	-21.82	None.	APE 200 VIBRATORY HAMMER	
Type C	04-Feb-16	196	179	AZ 50	South Face	12:35	4.8	-16.00	4.87	-1.01	-21.81	None.	APE 200 VIBRATORY HAMMER	
Type C	04-Feb-16	197	180	AZ 50	South Face	12:38	4.8	-16.00	4.86	-1.02	-21.82	None.	APE 200 VIBRATORY HAMMER	
Type C	04-Feb-16	198	181	AZ 50	South Face	12:42	4.8	-16.00	4.87	-1.00	-21.80	None.	APE 200 VIBRATORY HAMMER	
Type C	04-Feb-16	199	182	AZ 50	South Face	12:46	4.8	-16.00	4.85	-0.99	-21.79	None.	APE 200 VIBRATORY HAMMER	
Type C	04-Feb-16	200	183	AZ 50	South Face	12:50	4.8	-16.00	4.87	-1.01	-21.81	None.	APE 200 VIBRATORY HAMMER	
Type C	04-Feb-16	201	184	AZ 50	South Face	12:55	4.8	-16.00	4.87	-1.00	-21.80	None.	APE 200 VIBRATORY HAMMER	
Type C	04-Feb-16	202	185	AZ 50	South Face	12:59	4.8	-16.00	4.88	-0.99	-21.79	None.	APE 200 VIBRATORY HAMMER	STOP DRIVING TO CLEAN WOOD DEBRIS
Type C	04-Feb-16	203	186	AZ 50	South Face	14:40	4.8	-16.00	4.87	-1.00	-21.80	None.	APE 200 VIBRATORY HAMMER	
Type C	04-Feb-16	204	187	AZ 50	South Face	14:43	4.8	-16.00	4.87	-1.04	-21.84	None.	APE 200 VIBRATORY HAMMER	
Type C	04-Feb-16	205	188	AZ 50	South Face	14:47	4.8	-16.00	4.89	-0.99	-21.79	None.	APE 200 VIBRATORY HAMMER	
Type C	04-Feb-16	206	189	AZ 50	South Face	14:51	4.8	-16.00	4.88	-1.00	-21.80	None.	APE 200 VIBRATORY HAMMER	
Type C	04-Feb-16	207	190	AZ 50	South Face	14:54	4.8	-16.00	4.87	-1.00	-21.80	None.	APE 200 VIBRATORY HAMMER	
Type C	04-Feb-16	208	191	AZ 50	South Face	14:59	4.8	-16.00	4.88	-1.00	-21.80	None.	APE 200 VIBRATORY HAMMER	
Type C	04-Feb-16	209	192	AZ 50	South Face	15:02	4.8	-16.00	4.87	-1.00	-21.80	None.	APE 200 VIBRATORY HAMMER	
Type C	04-Feb-16	210	193	AZ 50	South Face	15:05	4.8	-16.00	4.87	-1.00	-21.80	None.	APE 200 VIBRATORY HAMMER	
Type C	04-Feb-16	211	194	AZ 50	South Face	15:14	4.8	-16.00	4.86	-1.00	-21.80	None.	APE 200 VIBRATORY HAMMER	
Type C	04-Feb-16	212	195	AZ 50	South Face	15:19	4.8	-16.00	4.85	-1.00	-21.80	None.	APE 200 VIBRATORY HAMMER	
Type C	04-Feb-16	213	196	AZ 50	South Face	15:24	4.8	-16.00	4.88	-1.00	-21.80	None.	APE 200 VIBRATORY HAMMER	END GATE PILES. STOP DRIVING. CLEAN WOOD DEBRIS
Type C	05-Feb-16	214	197	AZ 50	South Face	7:31	4.8	-16.00	4.85	-0.01	-20.81	None.	APE 200 VIBRATORY HAMMER	START DRIVING.
Type C	05-Feb-16	215	198	AZ 50	South Face	7:36	4.8	-16.00	4.87	-0.02	-20.82	None.	APE 200 VIBRATORY HAMMER	
Type C	05-Feb-16	216	199	AZ 50	South Face	7:41	4.8	-16.00	4.86	0	-20.80	None.	APE 200 VIBRATORY HAMMER	
Type C	05-Feb-16	217	200	AZ 50	South Face	7:44	4.8	-16.00	4.43	0	-20.80	None.	APE 200 VIBRATORY HAMMER	
Type C	05-Feb-16	218	201	AZ 50	South Face	7:48	4.8	-16.00	4.88	-0.02	-20.82	None.	APE 200 VIBRATORY HAMMER	
Type C	05-Feb-16	219	202	AZ 50	South Face	7:52	4.8	-16.00	4.87	0.04	-20.76	None.	APE 200 VIBRATORY HAMMER	STOP DRIVING. LEAVING 4 PAIRS UNDRIVEN TO CONVER OF WEST JETTY.
Type B	26-Feb-16	124	124	AZ 50	South Face	unknown	4.8	-13.50	4.8	0	-18.30	None.	APE 200 VIBRATORY HAMMER	FINAL ELEVATIONS WERE SURVEYED IN AFTER THE PILE DRIVING WAS COMPLETED.
Type C	26-Feb-16	125	125	AZ 50	South Face	unknown	4.8	-16.00	4.8	-0.03	-20.83	None.	APE 200 VIBRATORY HAMMER	FINAL ELEVATIONS WERE SURVEYED IN AFTER THE PILE DRIVING WAS COMPLETED.
Type C	26-Feb-16	126	126	AZ 50	South Face	unknown	4.8	-16.00	4.8	-0.01	-20.81	None.	APE 200 VIBRATORY HAMMER	FINAL ELEVATIONS WERE SURVEYED IN AFTER THE PILE DRIVING WAS COMPLETED.
Type C	26-Feb-16	127	127	AZ 50	South Face	unknown	4.8	-16.00	4.8	-0.02	-20.82	None.	APE 200 VIBRATORY HAMMER	FINAL ELEVATIONS WERE SURVEYED IN AFTER THE PILE DRIVING WAS COMPLETED.
Type C	26-Feb-16	128	128	AZ 50	South Face	unknown	4.8	-16.00	4.8	-0.03	-20.83	None.	APE 200 VIBRATORY HAMMER	FINAL ELEVATIONS WERE SURVEYED IN AFTER THE PILE DRIVING WAS COMPLETED.
Type C	26-Feb-16	129	129	AZ 50	South Face	unknown	4.8	-16.00	4.8	-0.09	-20.89	None.	APE 200 VIBRATORY HAMMER	FINAL ELEVATIONS WERE SURVEYED IN AFTER THE PILE DRIVING WAS COMPLETED.
Type C	26-Feb-16	130	130	AZ 50	South Face	unknown	4.8	-16.00	4.8	-0.05	-20.85	None.	APE 200 VIBRATORY HAMMER	FINAL ELEVATIONS WERE SURVEYED IN AFTER THE PILE DRIVING WAS COMPLETED.
Type C	26-Feb-16	131	131	AZ 50	South Face	unknown	4.8	-16.00	4.8	0.02	-20.78	None.	APE 200 VIBRATORY HAMMER	FINAL ELEVATIONS WERE SURVEYED IN AFTER THE PILE DRIVING WAS COMPLETED.
Type C	26-Feb-16	132	132	AZ 50	South Face	unknown	4.8	-16.00	4.8	0	-20.80	None.	APE 200 VIBRATORY HAMMER	FINAL ELEVATIONS WERE SURVEYED IN AFTER THE PILE DRIVING WAS COMPLETED.
Type C	26-Feb-16	133	133	AZ 50	South Face	unknown	4.8	-16.00	4.8	0.02	-20.78	None.	APE 200 VIBRATORY HAMMER	FINAL ELEVATIONS WERE SURVEYED IN AFTER THE PILE DRIVING WAS COMPLETED.
Type C	26-Feb-16	134	134	AZ 50	South Face	unknown	4.8	-16.00	4.8	0.04	-20.76	None.	APE 200 VIBRATORY HAMMER	FINAL ELEVATIONS WERE SURVEYED IN AFTER THE PILE DRIVING WAS COMPLETED.
Type C	26-Feb-16	135	135	AZ 50	South Face	unknown	4.8	-16.00	4.8	-0.01	-20.81	None.	APE 200 VIBRATORY HAMMER	FINAL ELEVATIONS WERE SURVEYED IN AFTER THE PILE DRIVING WAS COMPLETED.
Type C	26-Feb-16	136	136	AZ 50	South Face	unknown	4.8	-16.00	4.8	-0.02	-20.82	None.	APE 200 VIBRATORY HAMMER	FINAL ELEVATIONS WERE SURVEYED IN AFTER THE PILE DRIVING WAS COMPLETED.
Type C	26-Feb-16	137	137	AZ 50	South Face	unknown	4.8	-16.00	4.8	-0.03	-20.83	None.	APE 200 VIBRATORY HAMMER	FINAL ELEVATIONS WERE SURVEYED IN AFTER THE PILE DRIVING WAS COMPLETED.
Type C	26-Feb-16	138	138	AZ 50	South Face	unknown	4.8	-16.00	4.8	0	-20.80	None.	APE 200 VIBRATORY HAMMER	FINAL ELEVATIONS WERE SURVEYED IN AFTER THE PILE DRIVING WAS COMPLETED.
Type C	26-Feb-16	139	139	AZ 50	South Face	unknown	4.8	-16.00	4.8	0	-20.80	None.	APE 200 VIBRATORY HAMMER	FINAL ELEVATIONS WERE SURVEYED IN AFTER THE PILE DRIVING WAS COMPLETED.
Type C	26-Feb-16	140	140	AZ 50	South Face	unknown	4.8	-16.00	4.8	0.01	-20.79	None.	APE 200 VIBRATORY HAMMER	FINAL ELEVATIONS WERE SURVEYED IN AFTER THE PILE DRIVING WAS COMPLETED.

PERIMETER SHEET PILE WALL PILE DRIVING RECORDS – SHEET 3

PWGSC – A1 – 841X594

0 10 20 30 40 50 60 70 80 90 100mm

DM5XXXXXX

Public Works and Government Services Canada
Travaux publics et Services gouvernementaux Canada

REAL PROPERTY SERVICES
Pacific Region
SERVICES IMMOBILIERS

Klohn Crippen Berger

Revision/ Revision	Description/Description	Date/Date
0	RECORD DRAWING	2017/03/29

Client/client

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

Consultant Signature Only

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Drawn by/Dessine par
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Drawing title/Titre du dessin
PILE DRIVING RECORDS
SHEET 3

Project No./No. du projet	Sheet/	Revision no./
R.018400.002	CSM12	0

PILE DRIVING RECORD - PERIMETER SHEET PILE WALL - 08MAR2016 TO 19MAR2016

NOTES:
1) ALL ELEVATIONS IN CHART DATUM.
2) SHEET PILE WALL PILE DRIVING RECORDS ARE INCOMPLETE AND CONTAIN ERRORS.
3) PILE PAIR ID NUMBERING STARTS (PILE PAIR ID #1) AT THE SOUTHEAST END OF THE WALL, AND FINISHES (PILE PAIR #335) AT THE NORTHWEST CORNER OF THE TIMBER CRIB.
4) IN GENERAL, THE SHEET PILES WERE RE-DRIVEN IN A CLOCKWISE DIRECTION AROUND THE SOUTH JETTY PERIMETER.

TYPE:	DATE:	PILE PAIR ID - REV 0:	PILE PAIR ID - REV 1:	SECTION TYPE:	LOCATION ON STRUCTURE:	TIME DRIVEN:	INITIAL CUT-OFF ELEVATION:	INITIAL TIP ELEVATION:	START ELEVATION:	FINAL CUT OFF ELEVATION:	FINAL TIP ELEVATION:	ELEVATION OF BEDROCK:	EQUIPMENT:	NOTES:
Type C	08-Mar-16	220	221	AZ 50	South Face	12:32	4.85	-16.00	4.85	-0.02	-20.87	None.	APE 200 VIBRATORY HAMMER	
Type C	08-Mar-16	221	222	AZ 50	South Face	12:39	4.86	-16.00	4.86	0	-20.86	None.	APE 200 VIBRATORY HAMMER	
Type C	08-Mar-16	222	223	AZ 50	South Face	12:46	4.86	-16.00	4.86	0	-20.86	None.	APE 200 VIBRATORY HAMMER	
Type C	08-Mar-16	223	224	AZ 50	South Face	12:52	4.87	-16.00	4.87	-0.01	-20.88	None.	APE 200 VIBRATORY HAMMER	
Type E	08-Mar-16	224	225	AZ 38-700N	West Face	13:04	4.88	-15.00	4.88	-0.01	-19.89	None.	APE 200 VIBRATORY HAMMER	
Type E	08-Mar-16	225	226	AZ 38-700N	West Face	13:10	5.1	-15.00	5.1	-0.01	-20.11	None.	APE 200 VIBRATORY HAMMER	
Type E	08-Mar-16	226	227	AZ 38-700N	West Face	13:13	5.01	-15.00	5.1	-0.03	-20.04	None.	APE 200 VIBRATORY HAMMER	
Type E	08-Mar-16	227	228	AZ 38-700N	West Face	13:18	5.1	-15.00	5.1	-0.06	-20.16	None.	APE 200 VIBRATORY HAMMER	
Type E	08-Mar-16	228	229	AZ 38-700N	West Face	13:21	5.15	-15.00	5.15	-0.05	-20.20	None.	APE 200 VIBRATORY HAMMER	LOCATION OF OVERLAP JOINT
Type E	08-Mar-16	229	230	AZ 38-700N	West Face	13:26	5.1	-15.00	5.1	0.04	-20.06	None.	APE 200 VIBRATORY HAMMER	
Type E	08-Mar-16	230	231	AZ 38-700N	West Face	13:29	5.2	-15.00	5.2	-0.01	-20.21	None.	APE 200 VIBRATORY HAMMER	
Type E	08-Mar-16	231	232	AZ 38-700N	West Face	13:33	5.2	-15.00	5.2	-0.01	-20.21	None.	APE 200 VIBRATORY HAMMER	COFFEE BREAK
Type E	08-Mar-16	232	233	AZ 38-700N	West Face	13:58	5.19	-15.00	5.19	0	-20.19	None.	APE 200 VIBRATORY HAMMER	
Type E	08-Mar-16	233	234	AZ 38-700N	West Face	14:02	5.2	-15.00	5.2	-0.01	-20.21	None.	APE 200 VIBRATORY HAMMER	
Type E	08-Mar-16	234	235	AZ 38-700N	West Face	14:05	5.12	-15.00	5.12	-0.03	-20.15	None.	APE 200 VIBRATORY HAMMER	
Type E	08-Mar-16	235	236	AZ 38-700N	West Face	14:07	5.17	-15.00	5.17	-0.02	-20.19	None.	APE 200 VIBRATORY HAMMER	STOP TO UNLOAD CSP
Type E	08-Mar-16	236	237	AZ 38-700N	West Face	14:33	5.2	-15.00	5.2	-0.02	-20.22	None.	APE 200 VIBRATORY HAMMER	
Type E	08-Mar-16	237	238	AZ 38-700N	West Face	14:36	5.2	-15.00	5.2	-0.02	-20.22	None.	APE 200 VIBRATORY HAMMER	
Type E	08-Mar-16	238	239	AZ 38-700N	West Face	14:39	5.16	-15.00	5.16	-0.02	-20.18	None.	APE 200 VIBRATORY HAMMER	
Type E	08-Mar-16	239	240	AZ 38-700N	West Face	14:42	5.15	-15.00	5.15	-0.02	-20.17	None.	APE 200 VIBRATORY HAMMER	
Type E	08-Mar-16	240	241	AZ 38-700N	West Face	14:45	5.16	-15.00	5.16	-0.01	-20.17	None.	APE 200 VIBRATORY HAMMER	
Type E	08-Mar-16	241	242	AZ 38-700N	West Face	14:48	5.17	-15.00	5.17	0	-20.17	None.	APE 200 VIBRATORY HAMMER	
Type E	08-Mar-16	242	243	AZ 38-700N	West Face	14:54	5.17	-15.00	5.17	0.04	-20.13	None.	APE 200 VIBRATORY HAMMER	
Type E	08-Mar-16	243	244	AZ 38-700N	West Face	14:58	5.16	-15.00	5.16	0	-20.16	None.	APE 200 VIBRATORY HAMMER	
Type E	08-Mar-16	244	245	AZ 38-700N	West Face	15:01	5.18	-15.00	5.18	-0.03	-20.21	None.	APE 200 VIBRATORY HAMMER	
Type E	08-Mar-16	245	246	AZ 38-700N	West Face	15:05	5.17	-15.00	5.17	0.01	-20.16	None.	APE 200 VIBRATORY HAMMER	
Type E	08-Mar-16	246	247	AZ 38-700N	West Face	15:09	5.2	-15.00	5.2	0	-20.20	None.	APE 200 VIBRATORY HAMMER	
Type E	08-Mar-16	247	248	AZ 38-700N	West Face	15:17	5.2	-15.00	5.2	-0.02	-20.22	None.	APE 200 VIBRATORY HAMMER	
Type E	08-Mar-16	248	249	AZ 38-700N	West Face	15:21	5.19	-15.00	5.19	-0.02	-20.21	None.	APE 200 VIBRATORY HAMMER	END DRIVING
Type C	10-Mar-16	176	176	AZ 50	South Face	9:57	-0.01	-16.00	-0.01	-1.01	-17.00	N/A	APE 200 VIBRATORY HAMMER	REDRIVE TO ACCOMMODATE TRB GATE
Type E	10-Mar-16	249	250	AZ38-700N	West Face	11:57	5.18	-15.00	5.18	-0.01	-20.19	N/A	APE 200 VIBRATORY HAMMER	LAST PAIR ON WEST FACE
Type E	10-Mar-16	250	251	AZ38-700N	West Face	12:03	4.88	-15.00	4.88	-0.02	-19.90	N/A	APE 200 VIBRATORY HAMMER	
Type C	10-Mar-16	250.5	252	AZ 50	North Face	19:20	4.88	-16.00	4.88	0.3	-20.58	N/A	APE 200 VIBRATORY HAMMER	
Type C	10-Mar-16	251	253	AZ 50	North Face	19:35	4.34	-16.00	4.34	0.05	-20.29	N/A	APE 200 VIBRATORY HAMMER	
Type C	10-Mar-16	252	254	AZ 50	North Face	12:28	4.87	-16.00	4.87	0	-20.87	N/A	APE 200 VIBRATORY HAMMER	
Type C	10-Mar-16	253	255	AZ 50	North Face	12:33	4.87	-16.00	4.87	0.01	-20.86	N/A	APE 200 VIBRATORY HAMMER	
Type C	10-Mar-16	254	256	AZ 50	North Face	12:37	4.87	-16.00	4.87	0	-20.87	N/A	APE 200 VIBRATORY HAMMER	
Type C	10-Mar-16	255	257	AZ 50	North Face	12:43	4.87	-16.00	4.87	0	-20.87	N/A	APE 200 VIBRATORY HAMMER	
Type C	10-Mar-16	256	258	AZ 50	North Face	12:49	4.85	-16.00	4.85	0.01	-20.84	N/A	APE 200 VIBRATORY HAMMER	STOP TO LOAD TRB
Type C	10-Mar-16	257	259	AZ 50	North Face	17:38	4.83	-16.00	4.83	0.04	-20.79	N/A	APE 200 VIBRATORY HAMMER	START DRIVING AGAIN
Type C	10-Mar-16	258	260	AZ 50	North Face	17:45	4.84	-16.00	4.84	-0.13	-20.97	N/A	APE 200 VIBRATORY HAMMER	
Type C	10-Mar-16	259	261	AZ 50	North Face	17:53	4.85	-16.00	4.85	0.04	-20.81	N/A	APE 200 VIBRATORY HAMMER	
Type C	10-Mar-16	260	262	AZ 50	North Face	18:09	4.87	-16.00	4.87	0.02	-20.85	N/A	APE 200 VIBRATORY HAMMER	
Type C	10-Mar-16	261	263	AZ 50	North Face	18:18	4.34	-16.00	4.34	0.01	-20.33	N/A	APE 200 VIBRATORY HAMMER	
Type C	10-Mar-16	262	264	AZ 50	North Face	18:27	4.86	-16.00	4.86	0.02	-20.84	N/A	APE 200 VIBRATORY HAMMER	
Type C	10-Mar-16	263	265	AZ 50	North Face	19:44	4.86	-16.00	4.86	0.01	-20.85	N/A	APE 200 VIBRATORY HAMMER	
Type C	10-Mar-16	264	266	AZ 50	North Face	19:56	4.86	-16.00	4.86	0.03	-20.83	N/A	APE 200 VIBRATORY HAMMER	
Type C	10-Mar-16	265	267	AZ 50	North Face	20:07	4.7	-16.00	4.7	0.01	-20.69	N/A	APE 200 VIBRATORY HAMMER	
Type C	10-Mar-16	266	268	AZ 50	North Face	20:16	4.86	-16.00	4.86	0.02	-20.84	N/A	APE 200 VIBRATORY HAMMER	
Type E	10-Mar-16	267	269	AZ38-700N	North Face	20:27	4.85	-15.00	4.85	0.03	-19.82	N/A	APE 200 VIBRATORY HAMMER	
Type E	10-Mar-16	268	270	AZ38-700N	North Face	20:35	4.84	-15.00	4.84	0.02	-19.82	N/A	APE 200 VIBRATORY HAMMER	
Type E	10-Mar-16	269	271	AZ38-700N	North Face	20:42	4.85	-15.00	4.85	0.01	-19.84	N/A	APE 200 VIBRATORY HAMMER	
Type E	10-Mar-16	270	272	AZ38-700N	North Face	20:54	4.84	-15.00	4.84	0.01	-19.83	N/A	APE 200 VIBRATORY HAMMER	
Type E	10-Mar-16	271	273	AZ38-700N	North Face	21:41	4.82	-15.00	4.82	0.02	-19.80	N/A	APE 200 VIBRATORY HAMMER	
Type E	10-Mar-16	272	274	AZ38-700N	North Face	21:47	4.83	-15.00	4.83	-0.01	-19.84	N/A	APE 200 VIBRATORY HAMMER	
Type E	10-Mar-16	273	275	AZ38-700N	North Face	21:53	4.81	-15.00	4.81	0.01	-19.80	N/A	APE 200 VIBRATORY HAMMER	
Type E	10-Mar-16	274	276	AZ38-700N	North Face	22:28	4.81	-15.00	4.81	0.04	-19.77	N/A	APE 200 VIBRATORY HAMMER	
Type E	10-Mar-16	275	277	AZ38-700N	North Face	22:34	4.85	-15.00	4.85	-0.01	-19.86	N/A	APE 200 VIBRATORY HAMMER	
Type E	10-Mar-16	276	278	AZ38-700N	North Face	22:40	4.8	-15.00	4.8	-0.02	-19.82	N/A	APE 200 VIBRATORY HAMMER	
Type C	10-Mar-16	277	279	AZ 50	North Face	22:45	4.88	-16.00	4.88	0.04	-20.84	N/A	APE 200 VIBRATORY HAMMER	
Type C	10-Mar-16	278	280	AZ 50	North Face	22:54	4.87	-16.00	4.87	0.02	-20.85	N/A	APE 200 VIBRATORY HAMMER	
Type C	10-Mar-16	279	281	AZ 50	North Face	22:59	4.85	-16.00	4.85	0.02	-20.83	N/A	APE 200 VIBRATORY HAMMER	
Type C	10-Mar-16	280	282	AZ 50	North Face	23:04	4.85	-16.00	4.85	-0.01	-20.86	N/A	APE 200 VIBRATORY HAMMER	
Type C	10-Mar-16	281	283	AZ 50	North Face	23:10	4.87	-16.00	4.87	0.01	-20.86	N/A	APE 200 VIBRATORY HAMMER	
Type C	10-Mar-16	282	284	AZ 50	North Face	23:18	4.88	-16.00	4.88	0.02	-20.86	N/A	APE 200 VIBRATORY HAMMER	
Type C	10-Mar-16	283	285	AZ 50	North Face	23:25	4.88	-16.00	4.88	0	-20.88	N/A	APE 200 VIBRATORY HAMMER	
Type C	10-Mar-16	284	286	AZ 50	North Face	0:02	4.87	-16.00	4.87	0.06	-20.81	N/A	APE 200 VIBRATORY HAMMER	
Type C	10-Mar-16	285	287	AZ 50	North Face	0:14	4.87	-16.00	4.87	-0.01	-20.88	N/A	APE 200 VIBRATORY HAMMER	
Type C	10-Mar-16	286	288	AZ 50	North Face	0:20	4.87	-16.00	4.87	0	-20.87	N/A	APE 200 VIBRATORY HAMMER	
Type C	10-Mar-16	287	289	AZ 50	North Face	0:28	4.88	-16.00	4.88	-0.08	-20.96	N/A	APE 200 VIBRATORY HAMMER	
Type C	10-Mar-16	288	290	AZ 50	North Face	0:45	4.88	-16.00	4.88	-0.06	-20.94	N/A	APE 200 VIBRATORY HAMMER	
Type C	10-Mar-16	289	291	AZ 50	North Face	0:52	4.87	-16.00	4.87	0.01	-20.86	N/A	APE 200 VIBRATORY HAMMER	
Type C	10-Mar-16	290	292	AZ 50	North Face	0:59	4.86	-16.00	4.86	0.06	-20.80	N/A	APE 200 VIBRATORY HAMMER	
Type C	10-Mar-16	291	293	AZ 50	North Face	1:06	4.87	-16.00	4.87	0.01	-20.86	N/A	APE 200 VIBRATORY HAMMER	
Type C	10-Mar-16	292	294	AZ 50	North Face	1:14	4.87	-16.00	4.87	0.02	-20.85	N/A	APE 200 VIBRATORY HAMMER	
Type C	10-Mar-16	293	295	AZ 50	North Face	1:23	4.87	-16.00	4.87	-0.01	-20.88	N/A	APE 200 VIBRATORY HAMMER	
Type C	10-Mar-16	294	296	AZ 50	North Face	1:50	4.87	-16.00	4.87	0.02	-20.85	N/A	APE 200 VIBRATORY HAMMER	
Type C	11-Mar-16	295	297	AZ 50	North Face	17:54	4.88	-16.00	4.88	0.02	-20.86	N/A	APE 200 VIBRATORY HAMMER	
Type C	11-Mar-16	296	298	AZ 50	North Face	18:04	4.88	-16.00	4.88	0.04	-20.84	N/A	APE 200 VIBRATORY HAMMER	
Type C	11-Mar-16	297	299	AZ 50	North Face	18:17	4.89	-16.00	4.89	0.03	-20.86	N/A	APE 200 VIBRATORY HAMMER	
Type E	11-Mar-16	298	300	AZ38-700N	North Face	18:30	4.89	-15.00	4.89	0.03	-19.86	N/A	APE 200 VIBRATORY HAMMER	
Type E	11-Mar-16	299	301	AZ38-700N	North Face	18:40	4.89	-15.00	4.89	0.01	-19.88	N/A	APE 200 VIBRATORY HAMMER	
Type E	11-Mar-16	300	302	AZ38-700N	North Face	18:53	4.89	-15.00	4.89	0	-19.89	N/A	APE 200 VIBRATORY HAMMER	
Type E	11-Mar-16	301	303	AZ38-700N	North Face	19:24	4.89	-15.00	4.89	0.02	-19.87	N/A	APE 200 VIBRATORY HAMMER	
Type E	11-Mar-16	302	304	AZ38-700N	North Face	19:36	4.87	-15.00	4.87	0.02	-19.85	N/A	APE 200 VIBRATORY HAMMER	
Type E	11-Mar-16	303	305	AZ38-700N	North Face	19:49	4.86	-15.00	4.86	0.01	-19.85	N/A	APE 200 VIBRATORY HAMMER	
Type E	11-Mar-16	304	306	AZ38-700N	North Face	20:02	4.86	-15.00	4.86	0.03	-19.83	N/A	APE 200 VIBRATORY HAMMER	DROVE 5' AND CAME BACK @ 21:55
Type E	11-Mar-16	305	307	AZ38-700N	North Face	20:13	4.85	-15.00	4.85	0.01	-19.84	N/A	APE 200 VIBRATORY HAMMER	DROVE 5' AND CAME BACK @ 22:02
Type E	11-Mar-16	306	308	AZ38-700N	North Face	20:25	4.84	-15.00	4.84	0.04	-19.80	N/A	APE 200 VIBRATORY HAMMER	DROVE 5' AND CAME BACK @ 22:10
Type E	11-Mar-16	307	309	AZ38-700N	North Face	20:35	4.83	-15.00	4.83	0.03	-19.80	N/A	APE 200 VIBRATORY HAMMER	DROVE 5' AND CAME BACK @ 22:18
Type E	11-Mar-16	308	310	AZ38-700N	North Face	20:45	4.82	-15.00	4.82	0.03	-19.79	N/A	APE 200 VIBRATORY HAMMER	DROVE 5' AND CAME BACK @ 22:29
Type E	11-Mar-16	309	311	AZ38-700N	North Face	20:58	4.81	-15.00	4.81	0.02	-19.79	N/A	APE 200 VIBRATORY HAMMER	DROVE 5' AND CAME BACK @ 22:40
Type E	11-Mar-16	310	312	AZ38-700N	North Face	21:35	4.8	-15.00	4.8	-0.04	-19.84	N/A	APE 200 VIBRATORY HAMMER	LUNCH
Type E	11-Mar-16	311	313	AZ38-700N	North Face	22:48	4.8	-14.40	4.8	0.05	-19.15	N/A	APE 200 VIBRATORY HAMMER	
Type E	11-Mar-16	312	314	AZ38-700N	North Face	23:04	4.79	-14.40	4.79	0	-19.19	N/A	APE 200 VIBRATORY HAMMER	
Type D	11-Mar-16	313	315	AZ 50	North Face	23:13	4.77	-14.40	4.77	-0.01	-19.18	N/A	APE 200 VIBRATORY HAMMER	
Type D	11-Mar-16	314	316	AZ 50	North Face	13:23	4.72	-14.40	4.72	0.02	-19.10	N/A	APE 200 VIBRATORY HAMMER	
Type D	11-Mar-16	315	317	AZ 50	North Face	23:55	4.68	-14.40	4.68	0.02	-19.06	N/A	APE 200 VIBRATORY HAMMER	
Type E	11-Mar-16	316	318	AZ 50	North Face	0:12	4.63	-13.70	4.63	0.16	-18.17	-18.17	APE 200 VIBRATORY HAMMER	HIT BEDROCK
Type D	11-Mar-16	317	319	AZ 50	North Face	0:31	4.67	-13.70	4.67	4.33	-14.04	N/A	APE 200 VIBRATORY HAMMER	HAMMER OVERHEATED - DID NOT COMPLETE
Type D	15-Mar-16	318	320	AZ 50	North Face			-13.70					APE 200 VIBRATORY HAMMER	
Type D	15-Mar-16	319	321	AZ 50	North Face			-13.70					APE 200 VIBRATORY HAMMER	
Type D	15-Mar-16	320	322	AZ 50	North Face	Not Available	4.53	-13.70	4.53	3.24	-14.99	N/A	APE 200 VIBRATORY HAMMER	STOPPED TO WELD VENT HOLE.
Type D	15-Mar-16	321	323	AZ 50	North Face			-13.70					APE 200 VIBRATORY HAMMER	
Type D	15-Mar-16	322	324	AZ 50	North Face			-12.90					APE 200 VIBRATORY HAMMER	
Type D	15-Mar-16	323	325	AZ 50	North Face			-12.90					APE 200 VIBRATORY HAMMER	
Type D	15-Mar-16	324	326	AZ 50	North Face	15:50	4.49	-12.90	4.49	4.47	-12.92	-12.92	APE 200 VIBRATORY HAMMER	HIT ASSUMED BEDROCK.
Type D	15-Mar-16	325	327	AZ 50	North Face			-12.90					APE 200 VIBRATORY HAMMER	
Type D	15-Mar-16	326	328	AZ 50	North Face			-12.90					APE 200 VIBRATORY HAMMER	
Type D	15-Mar-16	327	329	AZ 50	North Face			-12.90					APE 200 VIBRATORY HAMMER	
Type D	15-Mar-16	328	330	AZ 50	North Face	16:00	4.45	-12.10	4.45	4.43	-12.12	-12.12	APE 200 VIBRATORY HAMMER	HIT ASSUMED BEDROCK.
Type D	15-Mar-16	329	331	AZ 50	North Face			-12.10					APE 200 VIBRATORY HAMMER	
Type D	15-Mar-16	330	332	AZ 50	North Face			-12.10					APE 200 VIBRATORY HAMMER	
Type D	15-Mar-16	331	333	AZ 50	North Face			-12.10					APE 200 VIBRATORY HAMMER	
Type D	15-Mar-16	332	334	AZ 50	North Face			-12.10					APE 200 VIBRATORY HAMMER	
Type D	15-Mar-16	333	335	AZ 50	North Face			-12.10					APE 200 VIBRATORY HAMMER	
Type D	15-Mar-16	334	336	AZ 50	North Face			-13.70					APE 200 VIBRATORY HAMMER	
Type D	19-Mar-16	315	318	AZ 50	North Face	14:56	0.02	-19.06	0.02	-0.06	-19.14	N/A	APE 200 VIBRATORY HAMMER	
Type D	19-Mar-16	316	319	AZ 50	North Face	15:05	0.16	-18.17	0.16	0	-18.33	N/A	APE 200 VIBRATORY HAMMER	
Type D	19-Mar-16	317	320	AZ 50	North Face	16:07	4.33	-14.04	4.33	4.25	-14.12	-14.12	APE 200 VIBRATORY HAMMER	
Type D	19-Mar-16	318	321	AZ 50	North Face	16:13	4.61		4.61	4.59			APE 200 VIBRATORY HAMMER	
Type D	19-Mar-16	319	322	AZ 50	North Face	N/A		-13.70		4.28			APE 200 VIBRATORY HAMMER	
Type D	19-Mar-16	320	323	AZ 50	North Face	N/A	3.24	-14.99	3.24	3.06	-15.17	-15.17	APE 200 VIBRATORY HAMMER	
Type D	19-Mar-16	321	324	AZ 50	North Face	N/A		-13.70		4.55			APE 200 VIBRATORY HAMMER	
Type D	19-Mar-16	322	325	AZ 50	North Face	16:51	4.46	-12.90	4.46	0.31	-17.05	-17.05	APE 200 VIBRATORY HAMMER	HIT ASSUMED BEDROCK.
Type D	19-Mar-16	323	326	AZ 50	North Face	17:04	4.46	-12.90	4.46	0.66	-16.70	-16.70	APE 200 VIBRATORY HAMMER	STOPPED TO WELD VENT HOLE; FINISHED DRIVING @ 21:53
Type D	19-Mar-16	324	327	AZ 50	North Face	17:53	4.46	-12.90	4.46	1.07	-16.29	-16.29	APE 200 VIBRATORY HAMMER	STOPPED TO WELD VENT HOLE; FINISHED DRIVING @ 22:03
Type D	19-Mar-16	325	328	AZ 50	North Face	18:16	4.42	-12.90	4.42	0.91	-16.41	-16.41	APE 200 VIBRATORY HAMMER	STOPPED TO WELD VENT HOLE; FINISHED DRIVING @ 22:12
Type D	19-Mar-16	326	329	AZ 50	North Face	18:23	4.43	-12.90	4.43	1.64	-15.69	-15.69	APE 200 VIBRATORY HAMMER	STOPPED TO WELD VENT HOLE; FINISHED DRIVING @ 22:22
Type D	19-Mar-16	327	330	AZ 50	North Face	18:33	4.4	-12.90	4.4	1.42	-15.88	-15.88	APE 200 VIBRATORY HAMMER	STOPPED TO WELD VENT HOLE; FINISHED DRIVING @ 22:30
Type D	19-Mar-16	328	331	AZ 50	North Face	18:41	4.37	-12.10	4.37	3.02	-13.45	-13.45	APE 200 VIBRATORY HAMMER	HIT ASSUMED BEDROCK.
Type D	19-Mar-16	329	332	AZ 50	North Face	18:50	4.35	-12.10	4.35	3.24	-13.21	-13.21	APE 200 VIBRATORY HAMMER	HIT ASSUMED BEDROCK.
Type D	19-Mar-16	330	333	AZ 50	North Face	18:55	4.34	-12.10	4.34	3.38	-13.06	-13.06	APE 200 VIBRATORY HAMMER	HIT ASSUMED BEDROCK.
Type D	19-Mar-16	331	334	AZ 50	North Face	19:20	3.94	-12.10	3.94	2.62	-13.42	-13.42	APE 200 VIBRATORY HAMMER	STOPPED TO WELD VENT HOLE; FINISHED DRIVING @ 23:09
Type D	19-Mar-16	332	335	AZ 50	North Face	19:29	4.21	-12.10	4.21	3.2	-13.11	-13.11	APE 200 VIBRATORY HAMMER	HIT ASSUMED BEDROCK.
Type D	19-Mar-16	333	336	AZ 50	North Face	19:34	4.16	-12.10	4.16	3.52	-12.74	-12.74	APE 200 VIBRATORY HAMMER	HIT ASSUMED BEDROCK.
Type D	19-Mar-16	334	337	AZ 50	North Face	19:40	4.14	-13.70	4.14	1.86	-15.98	-15.979	APE 200 VIBRATORY HAMMER	STOPPED TO WELD VENT HOLE; FINISHED DRIVING @ 23:16

PERIMETER SHEET PILE WALL PILE DRIVING RECORDS – SHEET 4

PWGSC – A1 – 841X594

0 10 20 30 40 50 60 70 80 90 100mm

Public Works and Government Services Canada / Travaux publics et Services gouvernementaux Canada

REAL PROPERTY SERVICES
Pacific Region
SERVICES IMMOBILIERS

Klohn Crippen Berger

Revision/ Revision	Description/Description	Date/Date
0	RECORD DRAWING	2017/03/29

Client/client

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK
WATERLOT PHASE 2
SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

Consultant Signature Only

Designed by/Concept par
DANIEL LAWSON

Drawn by/Dessine par
ALEXANDER SCEKIC

PWGSC Project Manager/Administrateur de Projets TPSGC
ANDREW MYLLY

Regional Manager, Environmental Services
COLLIN KINGMAN

Drawing title/Titre du dessin
PILE DRIVING RECORDS
SHEET 4

Project No./No. du projet	Sheet/	Revision no./
R.018400.002	CSM13	0

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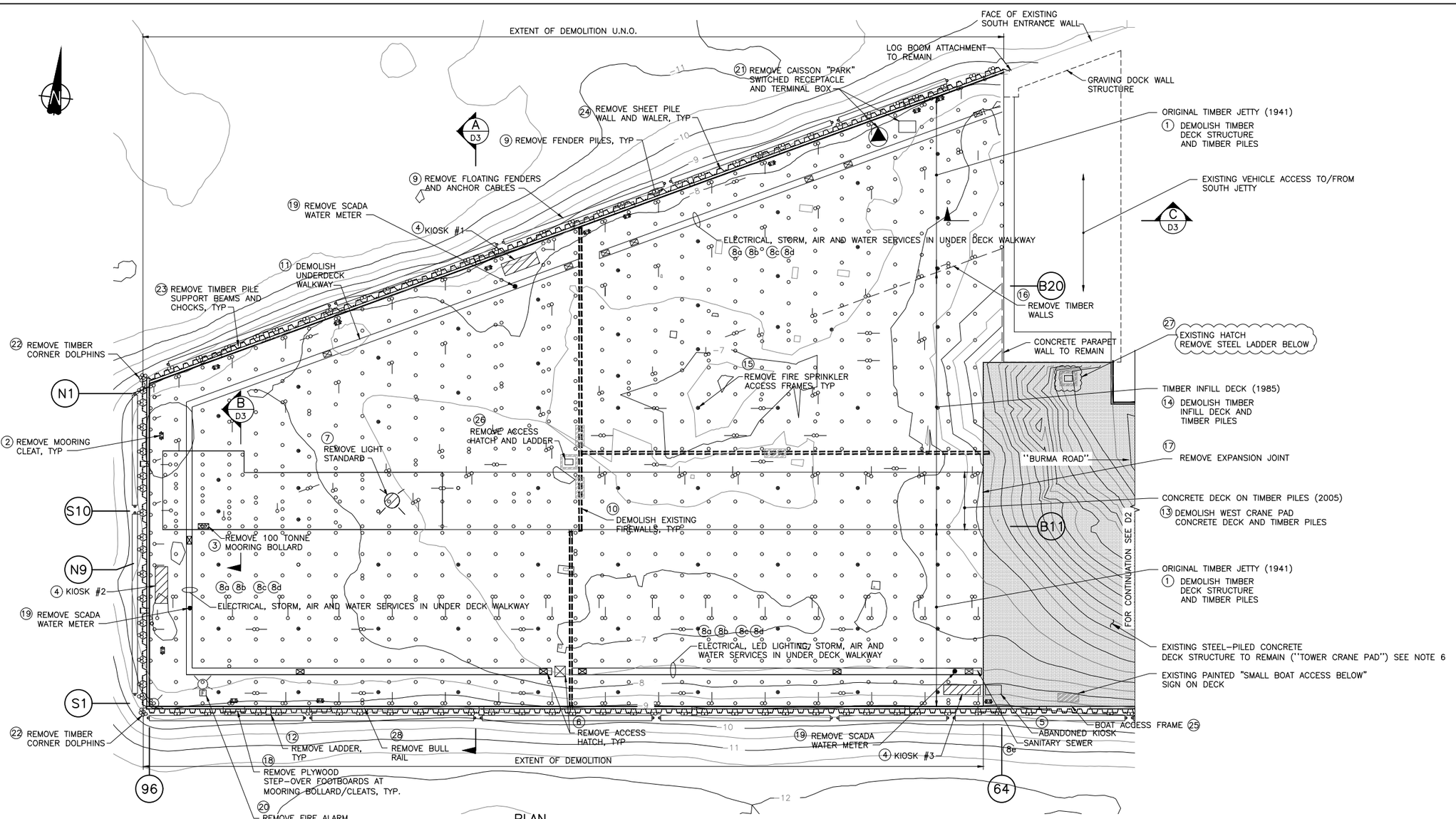

PLAN
WEST TIMBER JETTY
1:250

REFERENCE DRAWINGS:

1. KM ENGINEERING GROUP – AS–BUILTS, JANUARY 06, 2009. PROJECT #861231
   1.1. DRAWINGS;
   1.1.1. S2
   1.1.2. S3
   1.1.3. S4
   1.1.4. S5
   1.1.5. S7
2. PETERSON GALLOWAY LTD. – AS–BUILTS, AUGUST 23, 2005. PROJECT #846342
   2.1. DRAWINGS;
   2.1.1. S03
   2.1.2. S04
   2.1.3. S05
   2.1.4. S06
3. WESTMAR – RECORD DRAWINGS, MARCH 31, 2004. PROJECT #846342
   3.1. DRAWINGS;
   3.1.1. D–S2
   3.1.2. D–S3
   3.1.3. D–S5
   3.1.4. D–S6
   3.1.5. D–S7
   3.1.6. D–S8
   3.1.7. D–S9
4. KER PRIESTMAN & ASSOCIATES LTD. – AS–BUILTS, JULY 26, 1985 PROJECT #PR100772
   4.1. DRAWINGS;
   4.1.1. 35
   4.1.2. 38
   4.1.3. 39
   4.1.4. 40
   4.1.5. 41
5. ORIGINAL TIMBER JETTY DRAWINGS, 1941
   5.1. FULL DRAWING SET (NOT LABELED)

ADDITIONAL RECORD/AS–BUILTS ALSO AVAILABLE

NOTES:

1. TIMBER DECK STRUCTURE TYPICALLY CONSISTS OF:
   ASPHALT TOPPING
   102 DECK PLANKING
   305 DECK PLANKING
   305 STRINGERS
2. WEST CRANE PAD TYPICALLY CONSISTS OF:
   400 THICK REINFORCED CONCRETE SLAB
   12.7 PRESERVED PLYWOOD DECK FORMWORK
   102 STRINGERS
   WEST CRANE PAD APPROACH TYPICALLY CONSISTS OF:
   200 THICK REINFORCED CONCRETE SLAB
   20 PRESERVED PLYWOOD DECK FORMWORK
   305 STRINGERS
3. TIMBER INFILL DECK TYPICALLY CONSISTS OF:
   ASPHALT TOPPING
   100 DECKING
   300 STRINGERS
4. FOR NUMBERS DENOTED (X) REFER TO TABLE ON D4.
5. ALL EXISTING UTILITIES ARE SHOWN ACCORDING TO AVAILABLE RECORD DRAWINGS. THE CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION, INCLUDING UNDERGROUND FIRE WATER, SANITARY SEWER, COMPRESSED AIR, POWER AND TELEPHONE SERVICE DUCTS AND SHALL NOTIFY THE DEPARTMENTAL REPRESENTATIVE OF ANY DISCREPANCIES OR CONFLICTS A MINIMUM OF 72 HOURS PRIOR TO CONSTRUCTION. ANY ADDITIONAL WORK REQUIRED AS A RESULT OF FAILING TO PRE–LOCATE KNOWN OR POTENTIAL CONFLICTS WILL BE COMPLETED AT THE CONTRACTOR'S EXPENSE.
6. EXISTING "TOWER CRANE PAD" SOUTH FACE MISALIGNED BY APPROXIMATE 150 MM.
7. CONTRACTOR TO PERFORM FIELD SURVEY OF EXISTING CONDITIONS AND NOTIFY DEPARTMENTAL REPRESENTATIVE IF DISCREPANCIES ARE FOUND.
8. CONTRACTOR TO INSPECT AND DOCUMENT THE CONDITION OF THE FOLLOWING STRUCTURAL ITEMS PRIOR TO COMMENCING DEMOLITION WORK (REFER TO SPECIFICATIONS):
   8.1. STEEL PILED CONCRETE JETTY
   8.2. WEST AND SOUTH FACES OF TIMBER CRIB
   8.3. SHEET PILE PERIMETER WALL
   8.4. CONCRETE RETAINING WALL AT EAST APPROACH
   8.5. SHEET PILE BULKHEAD WALL
9. FOR MODIFIED CONDITIONS SEE DRAWINGS C5 AND C6.

LEGEND

- APPROXIMATE EXTENT OF "BURMA ROAD" & TOWER CRANE PAD
- TIMBER PILE
- TIMBER BRACE PILE
- FIRE SPRINKLER ACCESS FRAMES

Public Works and Government Services Canada / Travaux publics et Services gouvernementaux Canada

REAL PROPERTY SERVICES
Pacific Region
SERVICES IMMOBILIERS

Klohn Crippen Berger

Revision/ Revision	Description/Description	Date/Date
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0	ISSUED FOR TENDER	2014/12/19

Client/client

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
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825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

Consultant Signature Only

Designed by/Concept par
JANET TONG

Drawn by/Dessine par
ARNIE RIST

PWGSC Project Manager/Administrateur de Projets TPSGC
ANDREW MYLLY

Regional Manager, Environmental Services
COLLIN KINGMAN

Drawing title/Titre du dessin
WEST JETTY
EXISTING DECK STRUCTURE AND DEMOLITION
PLAN

Project No./No. du projet	Sheet/	Revision no./
R.018400.002	D1	1

PWGSC – A1 – 841X594

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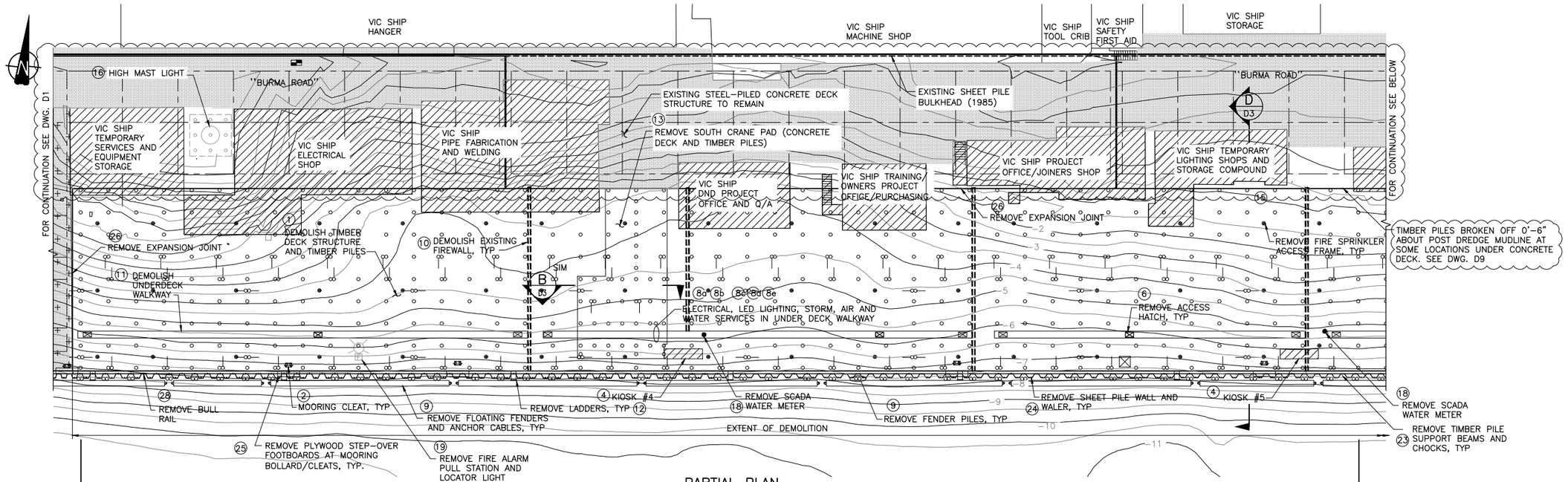
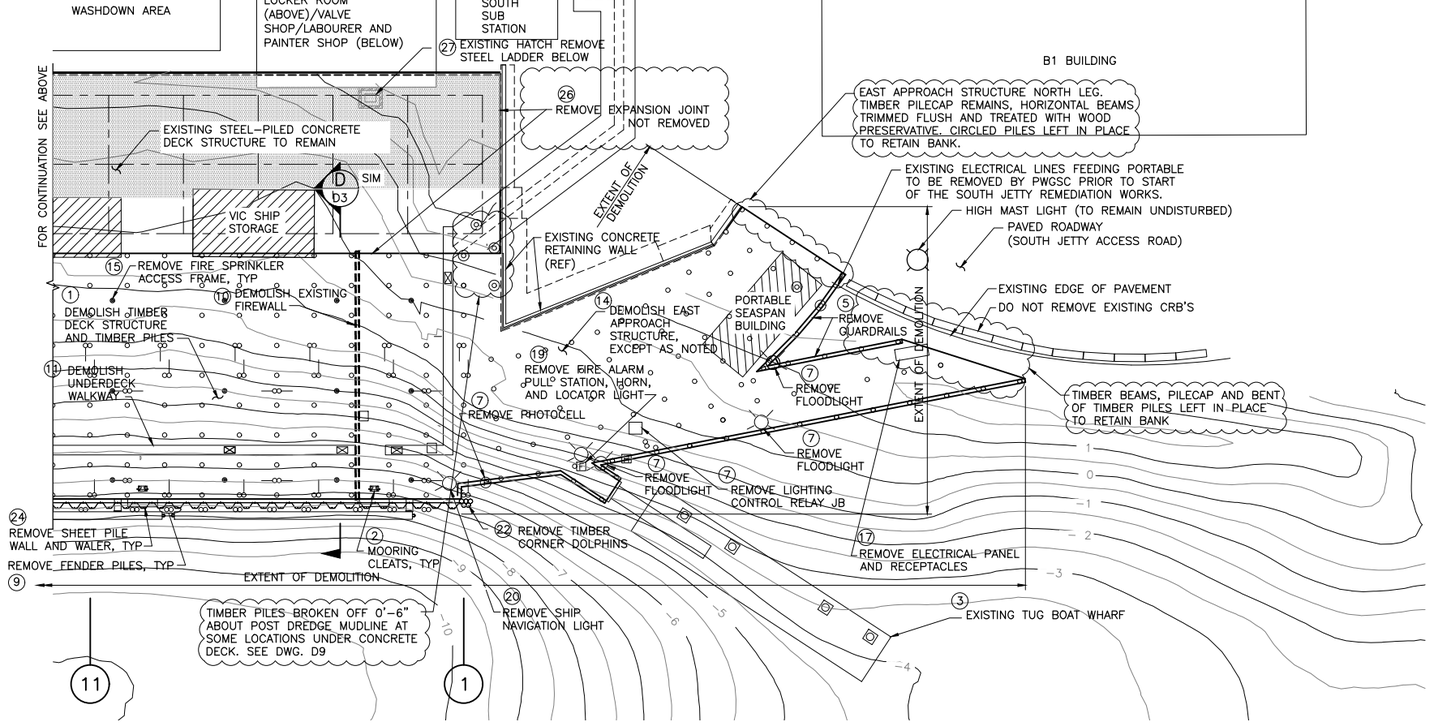


PARTIAL PLAN SOUTH TIMBER JETTY
1:250



PARTIAL PLAN SOUTH TIMBER JETTY
1:250

NOTES:

1. TIMBER DECK STRUCTURE TYPICALLY CONSISTS OF:
   ASPHALT TOPPING
   102 DECK PLANKING
   305 DECK PLANKING
   305 STRINGERS

2. SOUTH CRANE PAD TYPICALLY CONSISTS OF:
   400 THICK REINFORCED CONCRETE SLAB
   12.7 PRESERVED PLYWOOD DECK FORMWORK
   102 STRINGERS
   SOUTH CRANE PAD APPROACH TYPICALLY CONSISTS OF:
   200 THICK REINFORCED CONCRETE SLAB
   20 PRESERVED PLYWOOD DECK FORMWORK
   305 STRINGERS

3. EAST APPROACH STRUCTURE TYPICALLY CONSISTS OF:
   ASPHALT TOPPING
   90 DECKING
   290 STRINGERS

4. FOR NUMBERS DENOTED (X) REFER TO TABLE ON D5.

5. ALL EXISTING UTILITIES ARE SHOWN ACCORDING TO AVAILABLE RECORD DRAWINGS. THE CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION, INCLUDING UNDERGROUND FIRE WATER, SANITARY SEWER, COMPRESSED AIR, POWER AND TELEPHONE SERVICE DUCTS AND SHALL NOTIFY THE DEPARTMENTAL REPRESENTATIVE OF ANY DISCREPANCIES OR CONFLICTS A MINIMUM OF 72 HOURS PRIOR TO CONSTRUCTION. ANY ADDITIONAL WORK REQUIRED AS A RESULT OF FAILING TO PRE-LOCATE KNOWN OR POTENTIAL CONFLICTS WILL BE COMPLETED AT THE CONTRACTOR'S EXPENSE.

6. FOR MODIFIED CONDITIONS SEE DRAWINGS C5 AND C6.

LEGEND

- EXISTING STRUCTURES AND BUILDINGS TO BE REMOVED BY PWGSC PRIOR TO START OF THE SOUTH JETTY REMEDIATION WORKS.
- APPROXIMATE EXTENT OF "BURMA ROAD" & TOWER CRANE PAD
- TIMBER PILE
- TIMBER BRACE PILE
- FIRE SPRINKLER ACCESS FRAMES

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0	ISSUED FOR TENDER	2014/12/19

Client/client

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

Consultant Signature Only

Designed by/Concept par
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PWGSC Project Manager/Administrateur de Projets TPSGC
ANDREW MYLLY

Regional Manager, Environmental Services
COLLIN KINGMAN

Drawing title/Titre du dessin
SOUTH JETTY
EXISTING DECK STRUCTURE AND DEMOLITION
PLAN

Project No./No. du projet	Sheet/	Revision no./
R.018400.002	D2	1

PWGSC – A1 – 841X594

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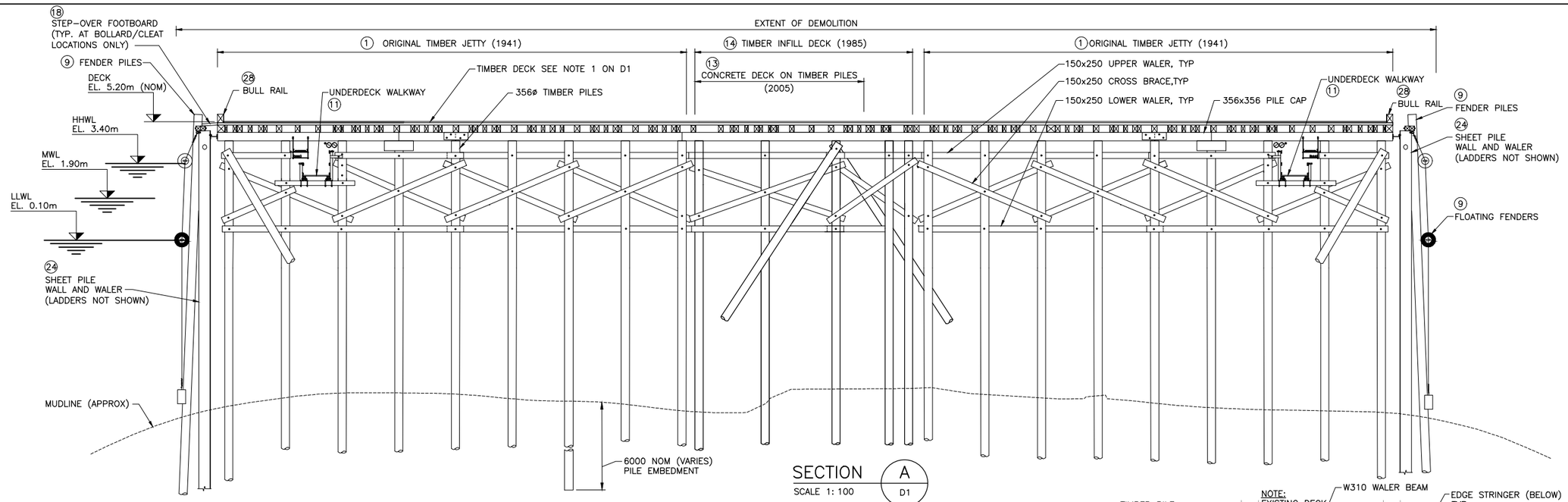
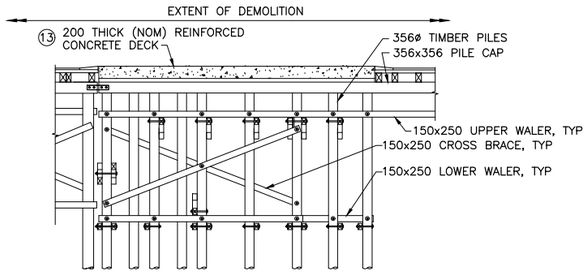
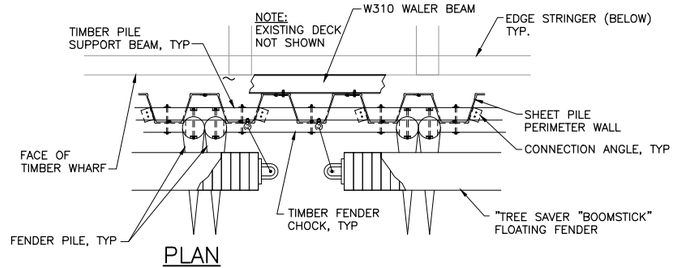


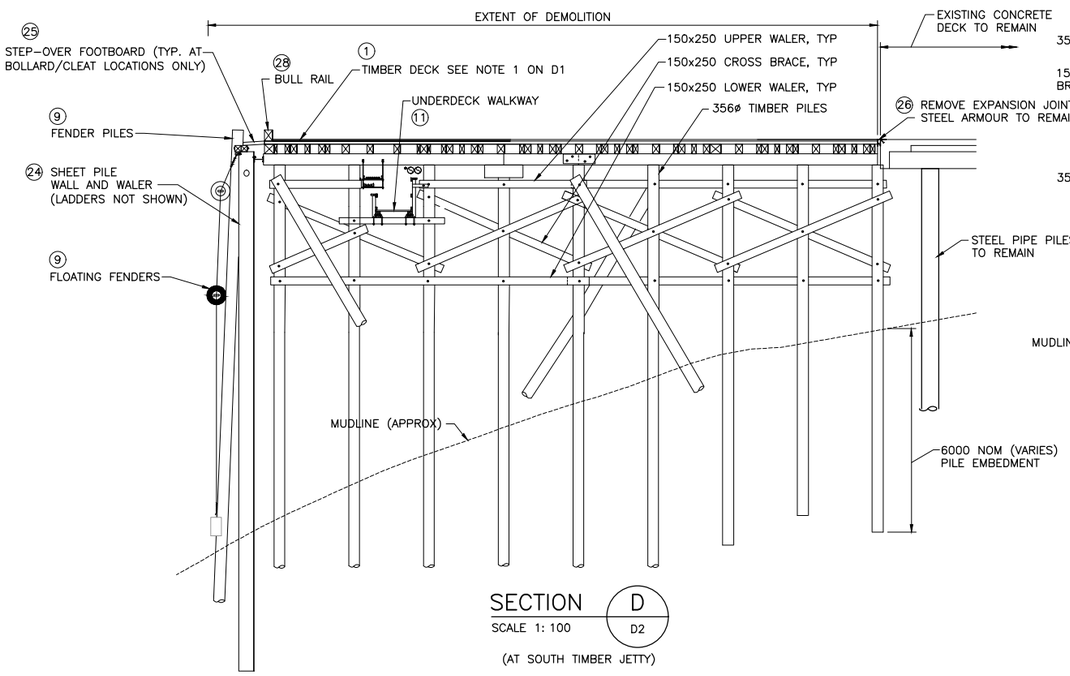
SECTION A
SCALE 1: 100
D1
(AT WEST TIMBER JETTY)



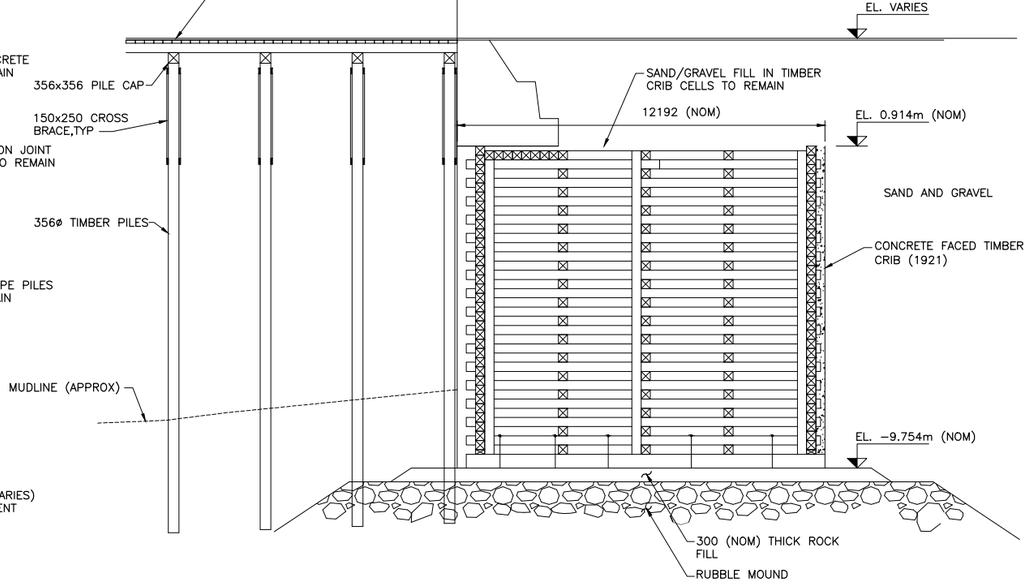
SECTION B B
SCALE 1: 100
D1 D2



PLAN
EXISTING WHARF FENDER SYSTEM
SCALE 1:50



SECTION D
SCALE 1: 100
D2
(AT SOUTH TIMBER JETTY)



SECTION C
SCALE 1: 100
D1
(AT WEST TIMBER JETTY)

PWGSC – A1 – 841X594

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PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
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825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

Consultant Signature Only

Designed by/Concept par
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Drawn by/Dessine par
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PWGSC Project Manager/Administrateur de Projets TPSGC
ANDREW MYLLY

Regional Manager, Environmental Services
COLLIN KINGMAN

Drawing title/Titre du dessin
WEST JETTY AND SOUTH JETTY EXISTING DECK STRUCTURE AND DEMOLITION SECTIONS

Project No./No. du projet	Sheet/	Revision no./
R.018400.002	D3	1

DM5XXXXXX

WEST TIMBER JETTY — ITEMS DEMOLISHED, REMOVED, RELOCATED, OR RETAINED

ITEM NUMBER	BRIEF DESCRIPTION OF ITEMS	ACTION
1	TIMBER DECK STRUCTURE AND TIMBER PILES	REMOVE TO DEMOLITION EXTENTS SHOWN AND DISPOSE. SEE NOTE 1 ON D1.
2	12 MOORING CLEATS	REMOVE AND RETURN TO PWGSC. STORE IN LOCATION DESIGNATED BY THE DEPARTMENTAL REPRESENTATIVE.
3	1 100 TONNE BOLLARD	REMOVE AND RETURN TO PWGSC. STORE IN LOCATION DESIGNATED BY THE DEPARTMENTAL REPRESENTATIVE.
4	3 KIOSKS AND JETTY MOUNT TERMINAL BOXES	REMOVE, PREPARE FOR STORAGE AND STORE IN LOCATION DESIGNATED BY DEPARTMENTAL REPRESENTATIVE. PREPARATION FOR STORAGE INCLUDES TIGHTLY PLUGGING ALL EXTERNAL OPENINGS. (e.g. PIPES AND SWITCHGEAR)
5	1 ABANDONED KIOSK WITH FIRE ALARM SIGA–CT2 CONTROL RELAY MODULE	REMOVE AND RETURN TO PWGSC. STORE IN LOCATION DESIGNATED BY THE DEPARTMENTAL REPRESENTATIVE.
6	14 ACCESS HATCHES INCLUDING FRAMES	REMOVE AND DISPOSE.
7	1 LIGHT STANDARD	REMOVE AND DISPOSE. SEE DWG E4 FOR POWER CABLE REMOVAL.
8a	ELECTRICAL SERVICES	REMOVE AND DISPOSE CABLES TO THE EXTENTS SHOWN ON DWG E1, E2 & E4. REMOVE AND RETAIN UNDER–DECK CABLE TRAY FOR RE–USE AS SHOWN ON DWG E4. REMOVE AND DISPOSE LED LIGHTING.
8b	STORM SERVICES	REMOVE AND DISPOSE.
8c	FIRE WATER MAIN	REMOVE TO THE EXTENTS SHOWN ON DWG M4. RETAIN FOR RE–USE ALL PVC PIPE MECHANICAL COUPLINGS, VALVES AND FITTINGS THAT CAN BE USED IN THE WORK. RETURN TO PWGSC ALL FLOW METERS WITH A TAG INDICATING THE ASSOCIATED KIOSK NUMBER. DISPOSE OF ALL OTHER FIRE WATER ITEMS.
8d	COMPRESSED AIR LINE	REMOVE AND DISPOSE TO EXTENTS SHOWN ON DWG M6.
8e	SANITARY SEWER	REMOVE AND DISPOSE TO EXTENTS SHOWN ON M5.
9	FLOATING FENDERS AND FENDER PILES	REMOVE AND DISPOSE FLOATING FENDERS INCLUDING ANCHOR CABLES. REMOVE AND RETAIN FENDER PILES SELECTED FOR RE–USE. REMOVE AND DISPOSE REMAINING FENDER PILES. SEE NOTE 2.
10	FIREWALLS	REMOVE AND DISPOSE.
11	UNDERDECK WALKWAY	REMOVE AND DISPOSE.
12	10 LADDERS	REMOVE AND MODIFY LADDERS REQUIRED FOR RE–USE AS SHOWN ON DWG S122. REMOVE AND DISPOSE REMAINING LADDERS.
13	WEST CRANE PAD CONCRETE DECK AND TIMBER PILES	REMOVE AND DISPOSE. SEE NOTE 2 ON DWG D1.
14	TIMBER INFILL DECK AND TIMBER PILES	REMOVE AND DISPOSE. SEE NOTE 3 ON DWG D1.
15	73 FIRE SPRINKLER ACCESS (LIDS AND FRAMES)	REMOVE AND DISPOSE.
16	TIMBER WALLS	REMOVE AND DISPOSE.
17	EXPANSION JOINT	REMOVE AND DISPOSE. STEEL ARMORING EMBEDDED IN CONCRETE DECK TO REMAIN.
18	PLYWOOD STEP–OVER FOOTBOARDS	REMOVE AND DISPOSE.
19	KIOSK SCADA WATER METERS	REMOVE AND RETURN TO PWGSC. CORRESPONDING LABELS TO BE REMOVED AND RETURNED TO PWGSC.
20	FIRE ALARM PULL STATION AND LOCATOR LIGHT	REMOVE AND RETURN TO PWGSC. STORE IN LOCATION DESIGNATED BY THE DEPARTMENTAL REPRESENTATIVE.
21	CAISSON "PARK" SWITCHED RECEPTACLE AND TERMINAL BOX	REMOVE AND DISPOSE.
22	CORNER TIMBER DOLPHINS	REMOVE AND RETAIN FOR RE–USE.
23	TIMBER SUPPORT BEAMS AND CHOCKS	REMOVE AND DISPOSE TIMBER SUPPORT BEAMS. REMOVE AND RETAIN CHOCKS SELECTED FOR RE–USE. REMOVE AND DISPOSE REMAINING FENDER CHOCKS.
24	SHEET PILE WALL AND WALER	REMOVE AND DISPOSE, EXCEPT FOR WALER REQUIRED FOR TEMPORARY SUPPORT AT TIMBER CRIB. SEE DWG CSM8.
25	BOAT ACCESS FRAME	REMOVE AND DISPOSE.
26	DECK ACCESS HATCH AND LADDER	REMOVE AND DISPOSE.
27	STEEL ACCESS LADDER	REMOVE, RETAIN AND MODIFY FOR RE–USE. (SEE DWG S122)
28	BULL RAIL	REMOVE AND RETAIN BULL RAIL SELECTED FOR RE–USE. REMOVE AND DISPOSE REMAINING BULL RAIL. SEE NOTE 2.

NOTES:

1. THIS TABLE INDICATES THE PRIMARY ITEMS FOR DEMOLITION AND GIVES GUIDANCE FOR ITEMS TO BE DEMOLISHED, REMOVED, RELOCATED OR RETAINED. ALL ITEMS WITHIN THE EXTENTS OF DEMOLITION, AS SHOWN ON DRAWING D1, ARE TO BE REMOVED.
2. RETAINED BULL RAIL AND CHOCKS RETURNED TO PWGSC. RETAINED FENDER PILES DISPOSED OF.

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PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet

ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

Consultant Signature Only

Designed by/Concept par
GEOFF COOPER

Drawn by/Dessine par
ARNIE RIST

PWGSC Project Manager/Administrateur de Projets TPSGC
ANDREW MYLLY

Regional Manager, Environmental Services
COLLIN KINGMAN

Drawing title/Titre du dessin

WEST JETTY
DEMOLITION ITEM DESCRIPTION AND ACTION TABLE

Project No./No. du projet	Sheet/	Revision no./
R.018400.002	D4	1

PWGSC – A1 – 841X594

0 10 20 30 40 50 60 70 80 90 100mm

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SOUTH TIMBER JETTY

ITEMS DEMOLISHED, REMOVED, RELOCATED, OR RETAINED

ITEM NUMBER	BRIEF DESCRIPTION OF ITEMS	ACTION
1	TIMBER DECK STRUCTURE AND TIMBER PILES	REMOVE TO DEMOLITION EXTENTS SHOWN AND DISPOSE. SEE NOTE 1 ON D2.
2	6 MOORING CLEATS	REMOVE AND RETURN TO PWGSC. STORE IN LOCATION DESIGNATED BY THE DEPARTMENTAL REPRESENTATIVE.
3	TUG BOAT WHARF, INCLUDING FLOATS, PILES AND GANGWAY	REMOVE, STORE AND RETAIN FOR RE-USE AT LOCATION SHOWN ON DRAWINGS. SEE NOTE 3.
4	2 KIOSKS AND JETTY MOUNT TERMINAL BOXES	REMOVE, PREPARE FOR STORAGE AND STORE IN LOCATION DESIGNATED BY DEPARTMENTAL REPRESENTATIVE. PREPARATION FOR STORAGE INCLUDES TIGHTLY PLUGGING ALL EXTERNAL OPENINGS. (e.g. PIPES AND SWITCHGEAR)
5	GUARDRAILS	REMOVE AND DISPOSE.
6	15 ACCESS HATCHES INCLUDING FRAMES	REMOVE AND DISPOSE.
7	3 FLOODLIGHTS, PHOTOCELL AND POWER CONTROL RELAY JB	REMOVE AND DISPOSE.
8a	ELECTRICAL SERVICES	REMOVE AND DISPOSE CABLES TO EXTENTS SHOWN ON DWG E1, E2 AND E4. REMOVE BURIED CONDUIT AND DUCT BANKS AS SHOWN ON DWG E1 AND E4. REMOVE AND RETAIN FOR RE-USE ALL ELECTRICAL SERVICES ON TUG WHARF FACILITY. REMOVE AND DISPOSE LED LIGHTING.
8b	STORM SERVICES	REMOVE AND DISPOSE.
8c	FIRE WATER MAIN	REMOVE TO THE EXTENTS SHOWN ON DWG M4. RETAIN FOR RE-USE ALL PVC PIPE MECHANICAL COUPLINGS, VALVES AND FITTINGS THAT CAN BE USED IN THE WORK. RETURN TO PWGSC ALL FLOW METERS WITH A TAG INDICATING THE ASSOCIATED KIOSK NUMBER. DISPOSE OF ALL OTHER FIRE WATER ITEMS.
8d	COMPRESSED AIR LINE	REMOVE AND DISPOSE TO EXTENTS SHOWN ON M6.
8e	SANITARY SEWER	REMOVE AND DISPOSE TO EXTENTS SHOWN ON M5.
9	FLOATING FENDERS AND FENDER PILES	REMOVE AND DISPOSE FLOATING FENDERS INCLUDING INCLUDING ANCHOR CABLES. REMOVE AND RETAIN FENDER PILES SELECTED FOR RE-USE. REMOVE AND DISPOSE REMAINING FENDER PILES.
10	FIREWALLS	REMOVE AND DISPOSE.
11	UNDERDECK WALKWAY	REMOVE AND DISPOSE.
12	8 LADDERS	REMOVE AND MODIFY LADDERS REQUIRED FOR RE-USE AS SHOWN ON DWG S122. REMOVE AND DISPOSE REMAINING LADDERS.
13	SOUTH CRANE PAD AND TIMBER PILES	REMOVE AND DISPOSE. SEE NOTE 2 ON DWG D2.
14	EAST APPROACH STRUCTURE AND TIMBER PILES	REMOVE TO DEMOLITION EXTENTS SHOWN AND DISPOSE. SEE NOTE 3 ON DWG D2.
15	63 FIRE SPRINKLER ACCESS (LIDS AND FRAMES)	REMOVE AND DISPOSE.
16	HIGH MAST LIGHT	REMOVE AND RETAIN FOR RE-USE. CCTV SYSTEM, INCLUDING CCTV CAMERA, TRANSFORMER AND ANTENNA, TO BE REMOVED PRIOR TO REMOVING THE HIGH MAST LIGHT POLE AND RETURNED TO DEPARTMENTAL REPRESENTATIVE. CCTV SYSTEM TO BE RE-INSTALLED AFTER HIGH MAST LIGHT POLE IS RE-ERECTED. SEE DRAWINGS D7, D8 AND S110.
17	ELECTRICAL PANEL AND RECEPTACLES	REMOVE AND DISPOSE.
18	KIOSK SCADA WATER METERS	REMOVE AND RETURN TO PWGSC. CORRESPONDING LABELS TO BE REMOVED AND RETURNED TO PWGSC.
19	FIRE ALARM PULL STATIONS, HORN AND LOCATOR LIGHTS	REMOVE AND RETAIN FOR RE-USE AT SOUTH JETTY.
20	SHIP NAVIGATION LIGHT	REMOVE AND DISPOSE.
21	PARTIAL DEMOLITION OF EXISTING ELECTRICAL DUCT CONCRETE PAD	REMOVE AND DISPOSE.
22	CORNER TIMBER DOLPHINS	REMOVE AND RETAIN FOR RE-USE.
23	TIMBER SUPPORT BEAMS AND CHOCKS	REMOVE AND DISPOSE TIMBER SUPPORT BEAMS. REMOVE AND RETAIN CHOCKS SELECTED FOR RE-USE. REMOVE AND DISPOSE REMAINING CHOCKS. SEE NOTE 2.
24	SHEET PILE WALL AND WALER	REMOVE AND DISPOSE.
25	PLYWOOD STEP-OVER FOOTBOARDS	REMOVE AND DISPOSE.
26	EXPANSION JOINT	REMOVE AND DISPOSE. STEEL ARMORING EMBEDDED IN CONCRETE DECK TO REMAIN.
27	STEEL ACCESS LADDER	REMOVE, RETAIN AND MODIFY FOR RE-USE. (SEE DWG S122). NOT REMOVED.
28	BULL RAIL	REMOVE AND RETAIN BULL RAIL SELECTED FOR RE-USE. REMOVE AND DISPOSE REMAINING BULL RAIL. SEE NOTE 2.
29	OLD COLLAPSED SHEET PILE WALL	REMOVE AND DISPOSE.
30	TIMBER CUT-OFF PILES	REMOVE AND DISPOSE.

NOTES:

1. THIS TABLE INDICATES THE PRIMARY ITEMS FOR DEMOLITION AND GIVES GUIDANCE FOR ITEMS TO BE DEMOLISHED, REMOVED, RELOCATED OR RETAINED. ALL ITEMS WITHIN THE EXTENTS OF DEMOLITION, AS SHOWN ON DRAWING D2, ARE TO BE REMOVED.
2. RETAINED BULL RAIL AND CHOCKS RETURNED TO PWGSC. RETAINED FENDER PILES DISPOSED OF.
3. TUG BOAT WHARF, GANGWAY, PILES, AND ANODES RETURNED TO PWGSC.

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PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet

ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

Consultant Signature Only

Designed by/Concept par
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ANDREW MYLLY

Regional Manager, Environmental Services
COLLIN KINGMAN

Drawing title/Titre du dessin

SOUTH JETTY
DEMOLITION ITEM DESCRIPTION AND ACTION TABLE

Project No./No. du projet	Sheet/	Revision no./
R.018400.002	D5	1

PWGSC – A1 – 841X594

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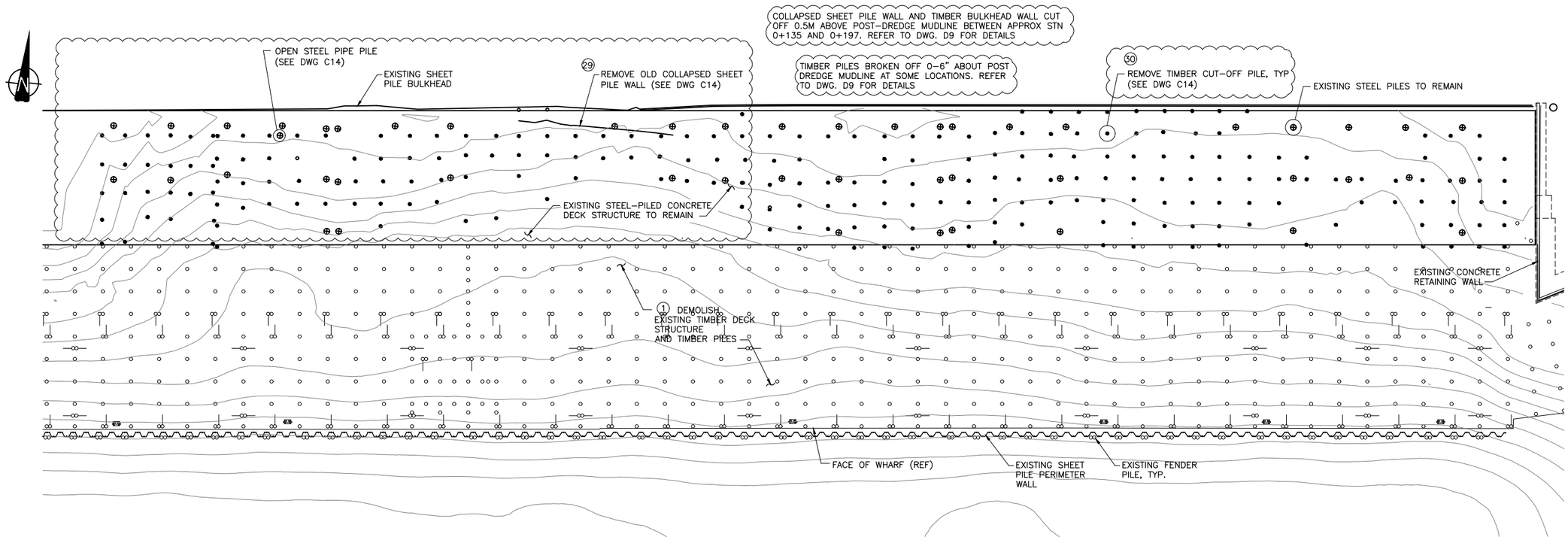

PLAN
SOUTH TIMBER JETTY UNDER–DECK
1:250

LEGEND

- ⊕ EXISTING STEEL PILE
- ● EXISTING CUT–OFF TIMBER PILE
- ○ TIMBER PILE
- ○—— TIMBER BRACE PILE

NOTES:

1. EXISTING STEEL PILE, CUT–OFF TIMBER PILE AND OLD COLLAPSED SHEET PILE WALL PILE LOCATIONS BASED ON FOCUS SURVEYS ON NOVEMBER 30, 2009 AND JANUARY 21, 2010. ONLY STEEL PILES SURVEYED BY FOCUS ARE SHOWN, i.e. NOT ALL STEEL PILES ARE SHOWN.
2. TOP OF TIMBER CUT–OFF PILE ELEVATION IS TYPICALLY BETWEEN EL. 2.9m AND EL. 3.1m.
3. FOR NUMBERS DENOTED (X) REFER TO TABLE ON D5.

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COLLIN KINGMAN

Drawing title/Titre du dessin
SOUTH JETTY
EXISTING UNDER-DECK CONDITIONS AND DEMOLITION - PLAN

Project No./No. du projet	Sheet/	Revision no./
R.018400.002	D6	1

PWGSC – A1 – 841X594

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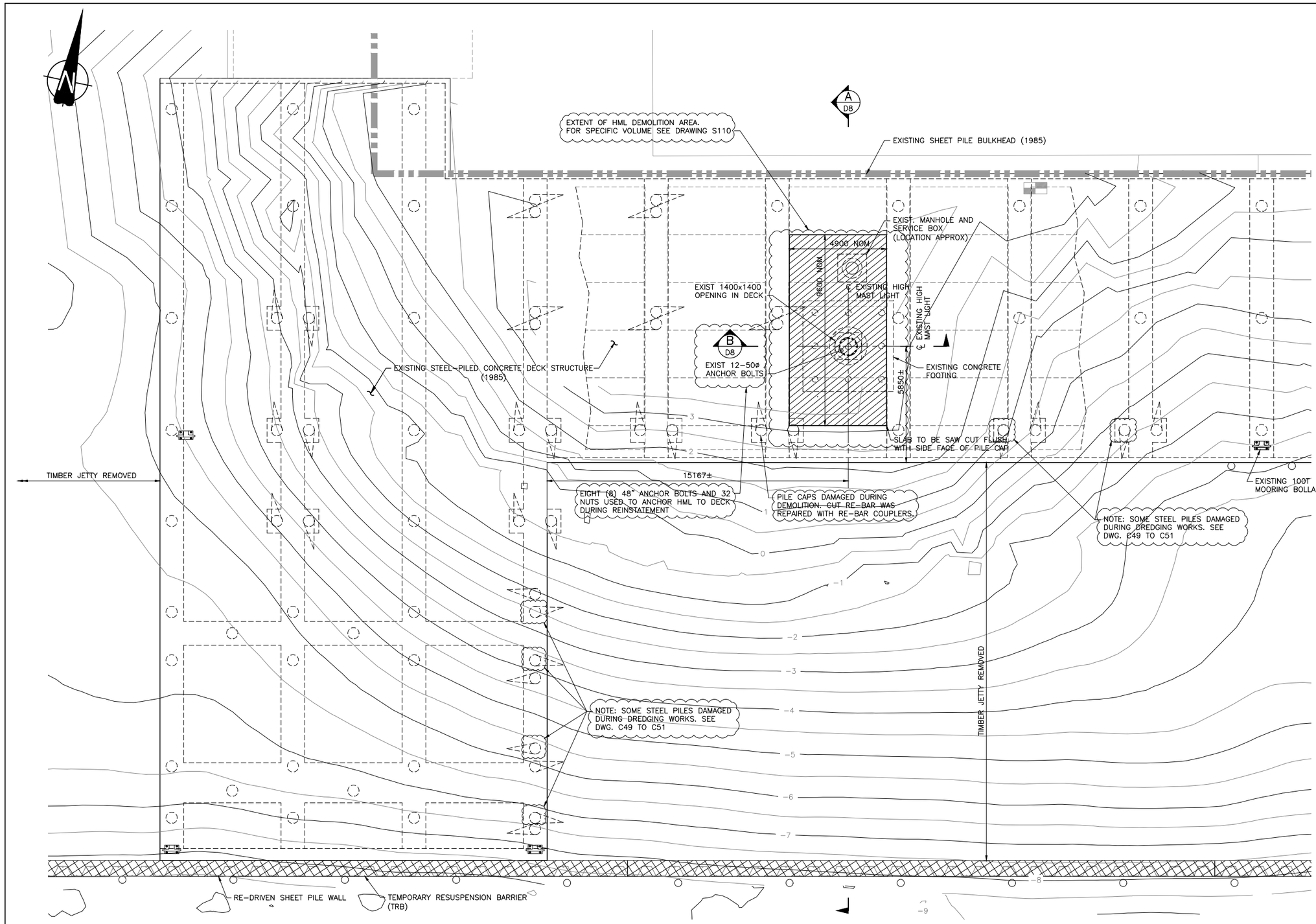

PLAN
1:100

LEGEND

SLAB DEMOLITION AND REBUILD AREA

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PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet

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ANDREW MYLLY

Regional Manager, Environmental Services
COLLIN KINGMAN

Drawing title/Titre du dessin

EXISTING HIGH MAST LIGHT AREA AND DEMOLITION SHEET 1

Project No./No. du projet	Sheet/	Revision no./
R.018400.002	**D7**	**1**

PWGSC – A1 – 841X594

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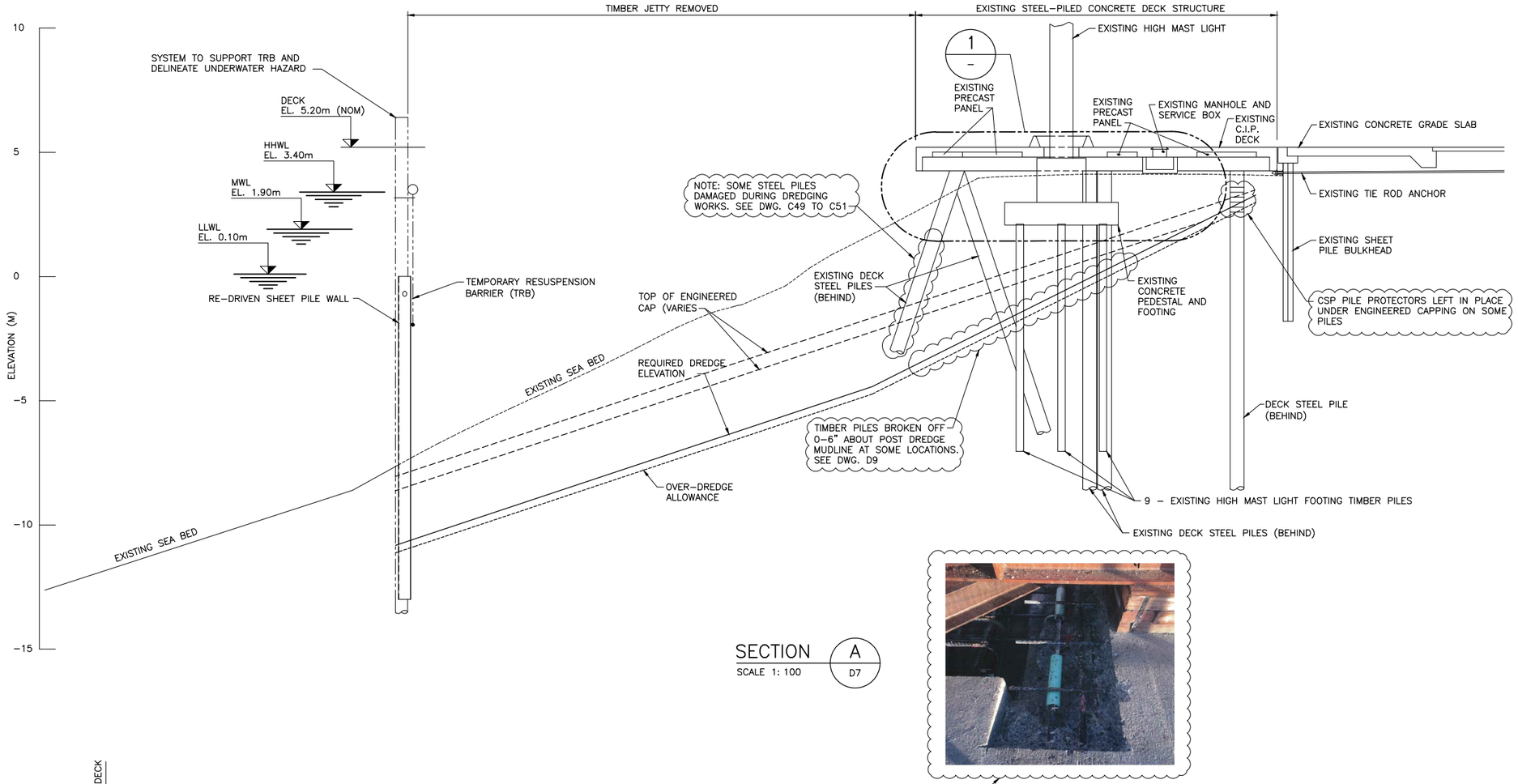
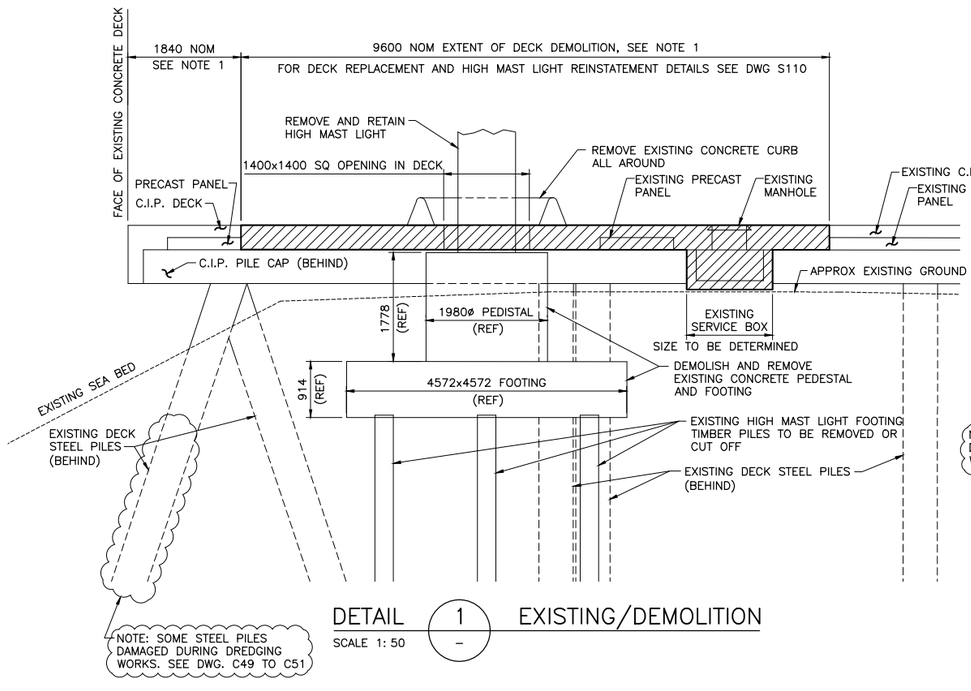
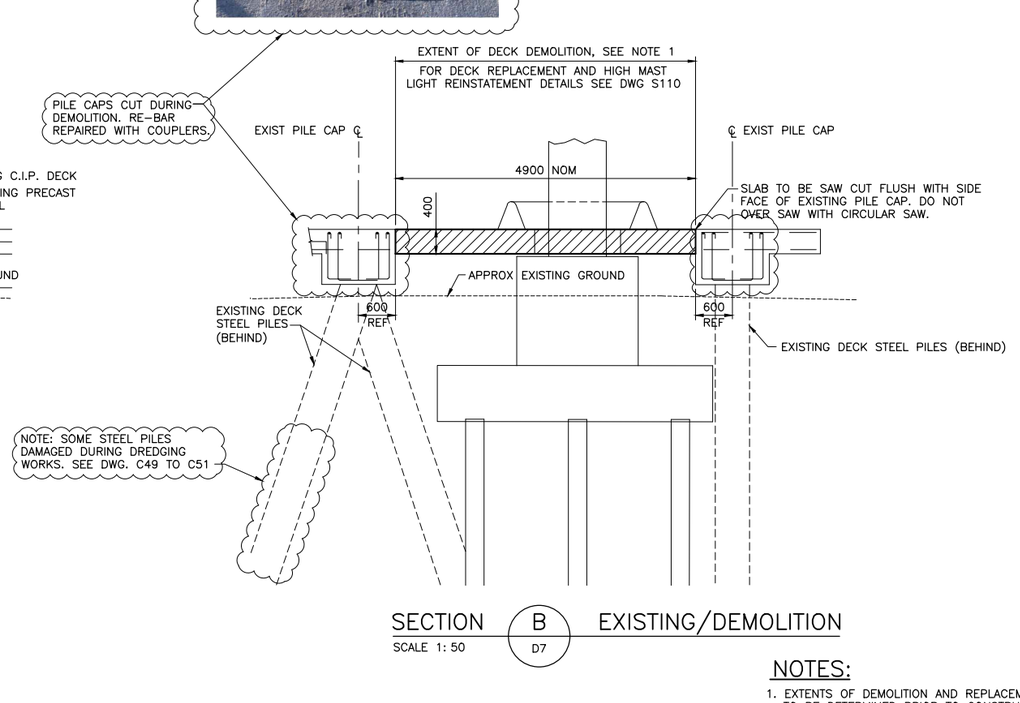


SECTION A
SCALE 1: 100
D7



DETAIL 1 – EXISTING/DEMOLITION
SCALE 1: 50



SECTION B EXISTING/DEMOLITION
SCALE 1: 50
D7

NOTES:

1. EXTENTS OF DEMOLITION AND REPLACEMENT DECK TO BE DETERMINED PRIOR TO CONSTRUCTION.

PWGSC – A1 – 841X594

0 10 20 30 40 50 60 70 80 90 100mm

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GEOFF COOPER

Drawn by/Dessiné par
ARNIE RIST

PWGSC Project Manager/Administrateur de Projets TPSGC
ANDREW MYLLY

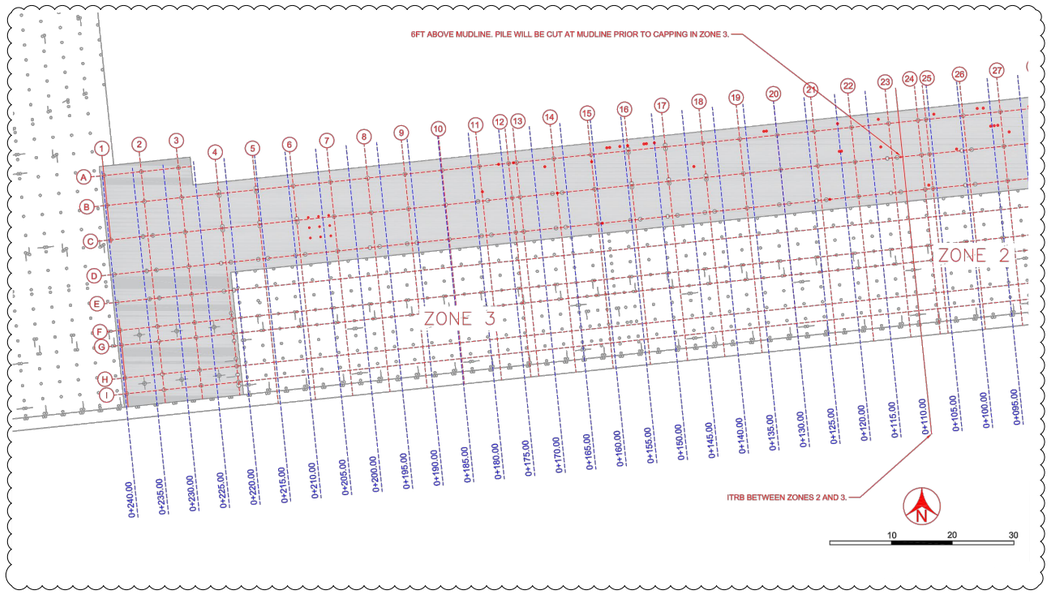
Regional Manager, Environmental Services
COLLIN KINGMAN

Drawing title/Titre du dessin

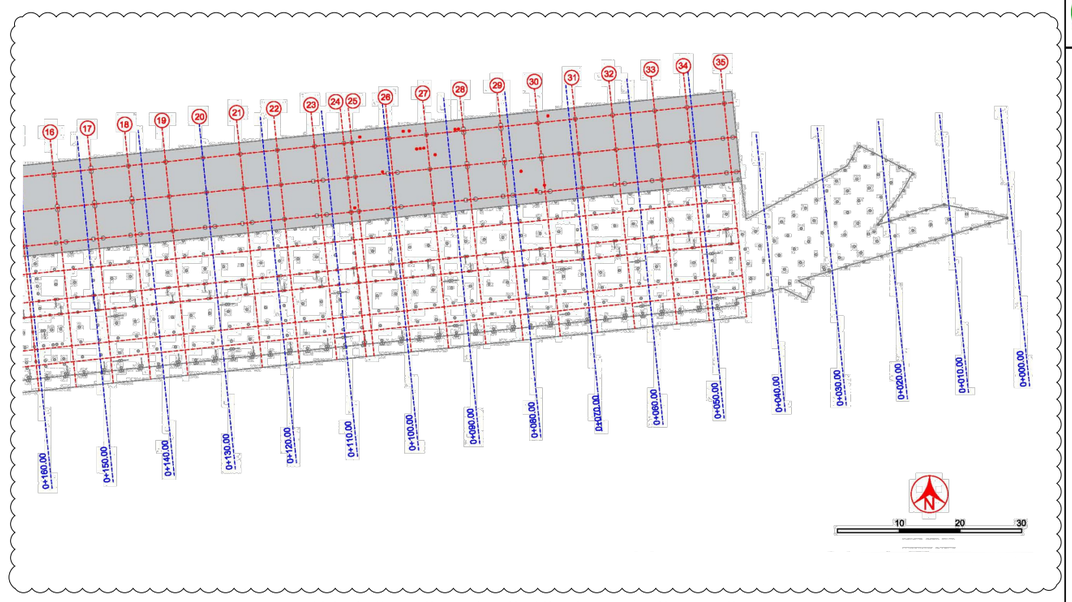
EXISTING HIGH MAST LIGHT LIGHT AREA AND DEMOLITION SHEET 2

Project No./No. du projet	Sheet/	Revision no./
R.018400.002	**D8**	**1**

DMSXXXXXX



TIMBER CUT–OFF PILES AS–BUILT – SHEET 1



TIMBER CUT–OFF PILES AS–BUILT – SHEET 2

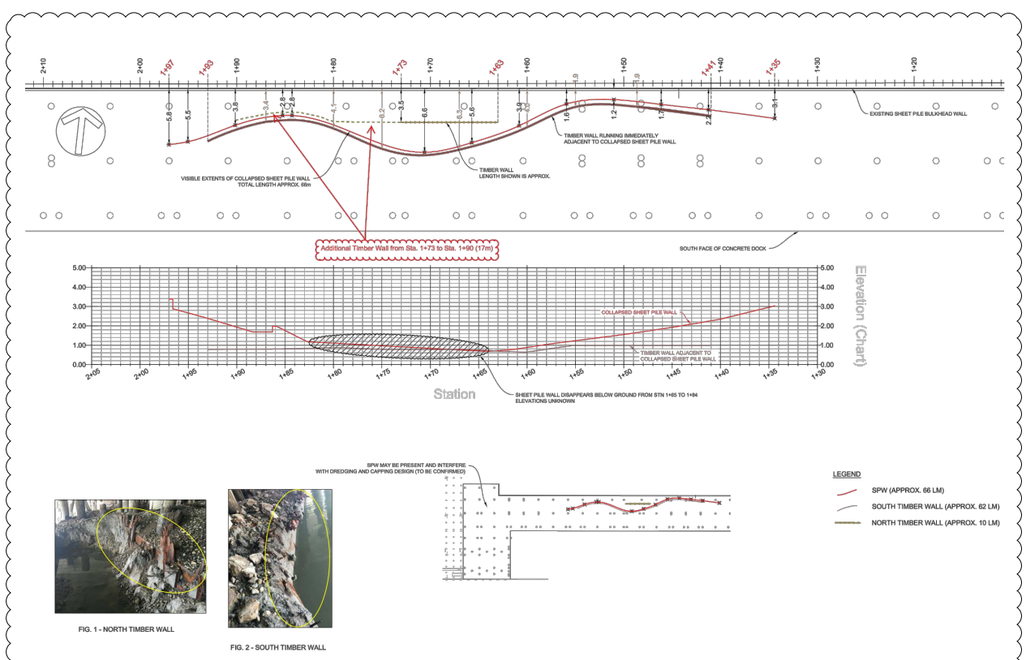
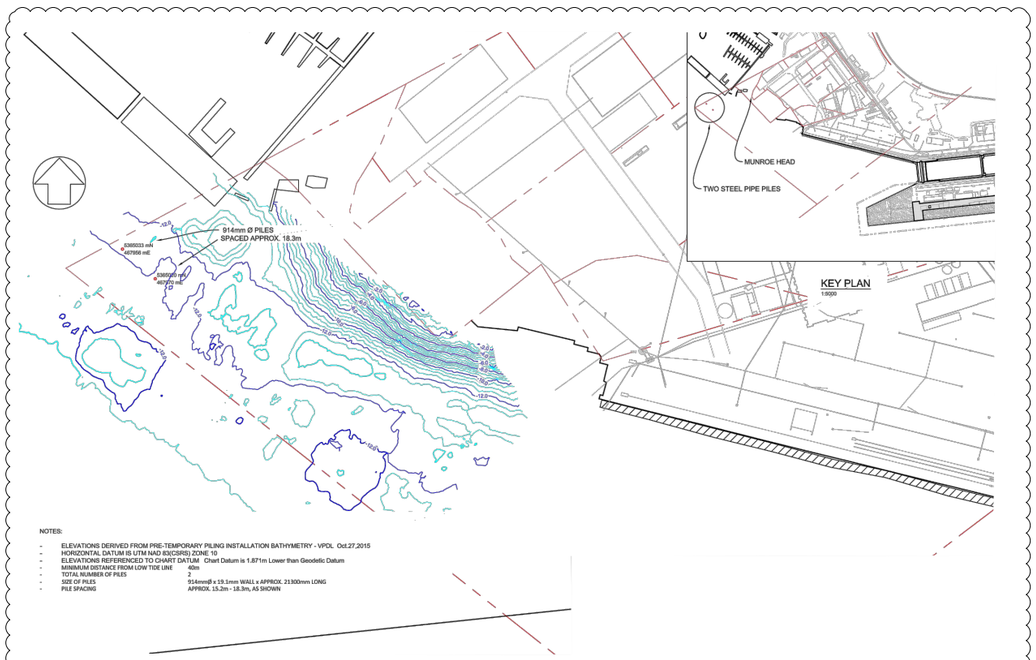


FIG. 1 - NORTH TIMBER WALL

FIG. 2 - SOUTH TIMBER WALL

COLLAPSED SHEET PILE WALL AS–BUILT



MUNROE HEAD MOORING PILE AS–BUILT

Public Works and Government Services Canada
Travaux publics et Services gouvernementaux Canada

REAL PROPERTY SERVICES
Pacific Region
SERVICES IMMOBILIERS

Klohn Crippen Berger

Revision/ Revision	Description/Description	Date/Date
0	RECORD DRAWING	2017/03/29

Client/client

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

Consultant Signature Only

Designed by/Concept par
DANIEL LAWSON

Drawn by/Dessine par
ALEXANDER SCEKIC

PWGSC Project Manager/Administrateur de Projets TPSGC
ANDREW MYLLY

Regional Manager, Environmental Services
COLLIN KINGMAN

Drawing title/Titre du dessin

RECORD DRAWINGS VARIOUS

Project No./No. du projet	Sheet/	Revision no./
R.018400.002	D9	0

PWGSC – A1 – 841X594

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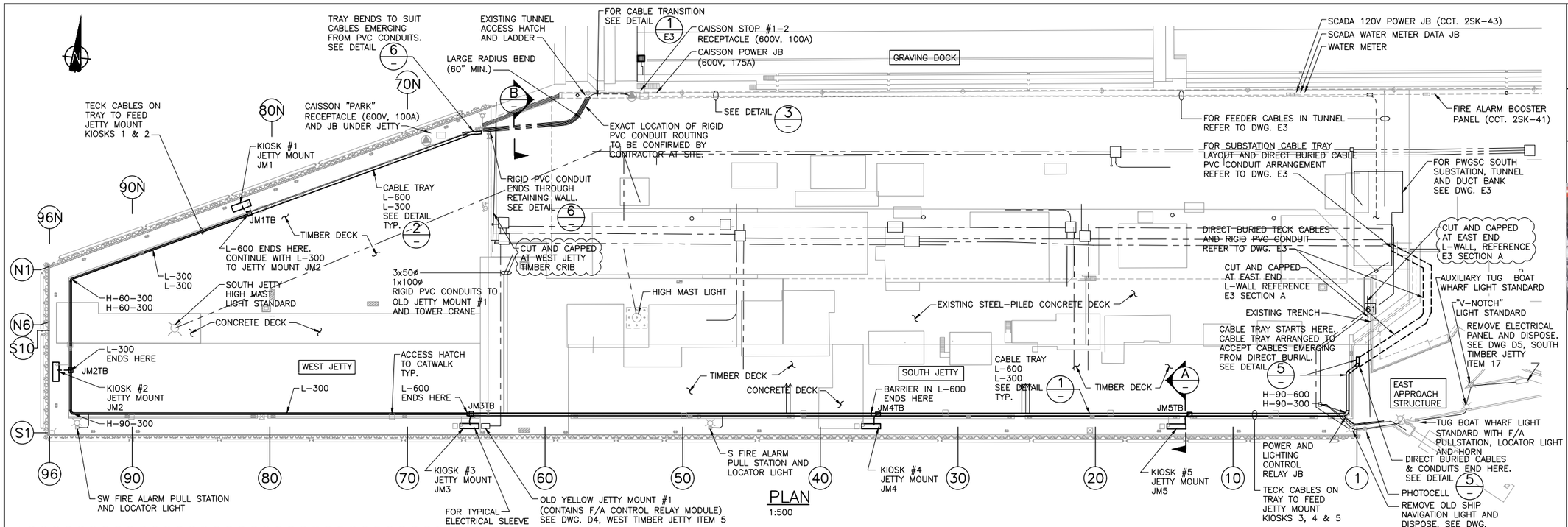
DM5XXXXXX



PLAN
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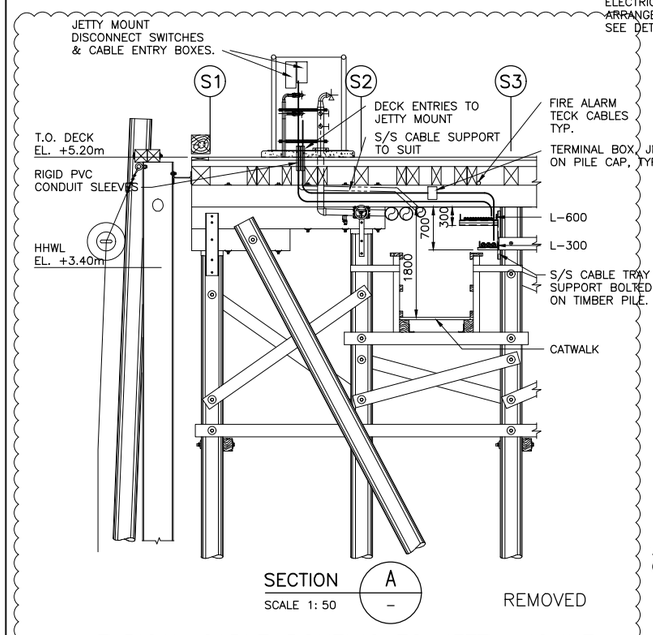
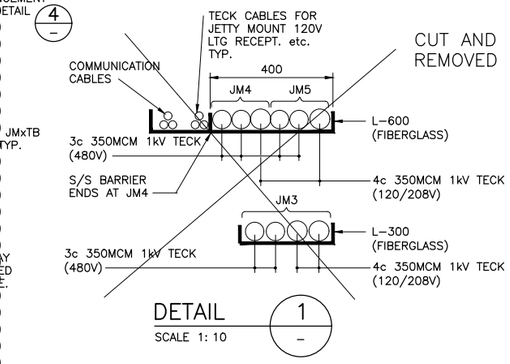


SECTION A
SCALE 1: 50

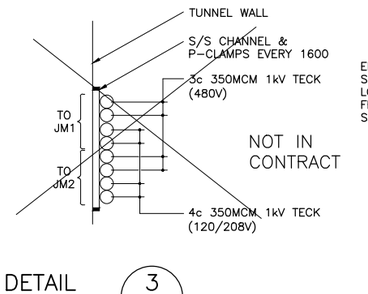
REMOVED

TYPICAL CABLE ROUTING TO JETTY MOUNT FROM TRAYS & TERMINAL BOX



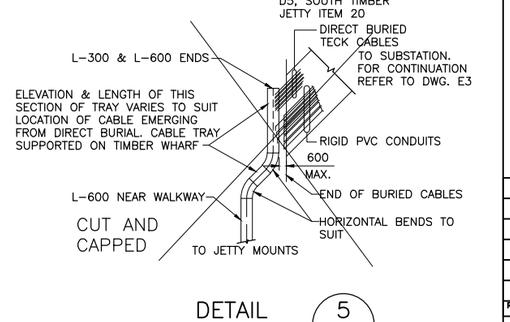
DETAIL 1
SCALE 1: 10

TYPICAL CABLE TRAY ARRANGEMENT ALONG CATWALK



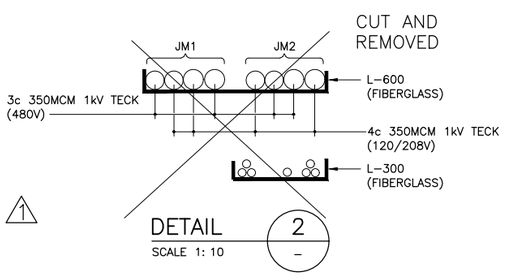
DETAIL 3
SCALE 1: 10

TYPICAL CABLE ARRANGEMENT IN EXISTING NORTH SIDE TUNNEL



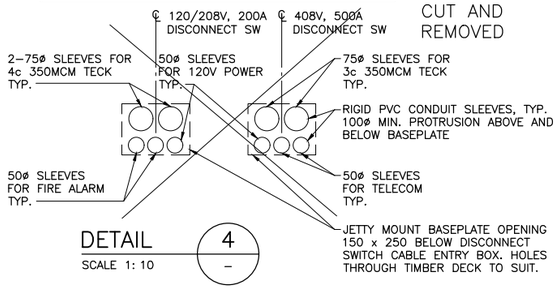
DETAIL 5
SCALE 1: 250

TYPICAL CABLE TRANSITION DIRECT BURIED CABLES TO TRAY



DETAIL 2
SCALE 1: 10

TYPICAL CABLE TRAY ARRANGEMENT

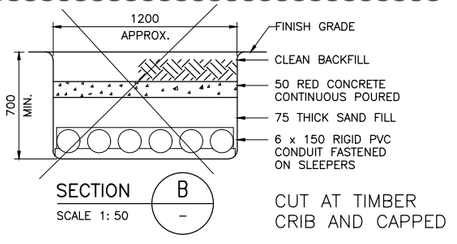


DETAIL 4
SCALE 1: 10

TYPICAL JETTY MOUNT SLEEVE ARRANGEMENT

DETAIL 6
SCALE 1: 250

TYPICAL CABLE TRANSITION BELOWGRADE CONDUIT TO TRAY



SECTION B
SCALE 1: 50

CUT AT TIMBER CRIB AND CAPPED

NOTES:

1. THE ELECTRICAL CABLES/SERVICES SHOWN ON THIS DRAWINGS ARE BASED ON WESTMAR DRAWING NO. 846342-D-E2 CIRCA 2002/3 AND MAY NOT BE REPRESENTATIVE OF EXISTING AS-BUILT CONDITIONS.
2. ALL EXISTING UTILITIES ARE SHOWN ACCORDING TO AVAILABLE RECORD DRAWINGS. THE CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION, INCLUDING UNDERGROUND FIRE WATER, SANITARY SEWER, COMPRESSED AIR, POWER AND TELEPHONE SERVICE DUCTS AND SHALL NOTIFY THE DEPARTMENTAL REPRESENTATIVE OF ANY DISCREPANCIES OR CONFLICTS A MINIMUM OF 72 HOURS PRIOR TO CONSTRUCTION. ANY ADDITIONAL WORK REQUIRED AS A RESULT OF FAILING TO PRE-LOCATE KNOWN OR POTENTIAL CONFLICTS WILL BE COMPLETED AT THE CONTRACTOR'S EXPENSE.
3. LOCATION OF JETTY MOUNT KIOSKS ILLUSTRATED ON THIS DRAWING ARE APPROXIMATE.
4. RETAIN JETTY MOUNT KIOSKS AND OTHER EQUIPMENT FOR RE-USE AS LISTED ON DWGS. D4 & D5 (i.e. ITEMS 4, 8a AND ALL OTHERS).

LEGEND

- E — XX — ELECTRICAL CABLE / PULL BOX
- DUPLEX RECEPTACLE
- SPECIAL PURPOSE RECEPTACLE
- F — FIRE ALARM PULL STATION / LOCATOR LIGHT
- H — FIRE ALARM HORN
- P — PHOTOCELL
- LIGHT STANDARD

Public Works and Government Services Canada / Travaux publics et Services gouvernementaux Canada

REAL PROPERTY SERVICES
Pacific Region
SERVICES IMMOBILIERS

Klohn Crippen Berger

Revision/ Revision	Description/Description	Date/Date
1	RECORD DRAWING	2017/03/29
0	ISSUED FOR TENDER	2014/12/16

Client/client

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

Consultant Signature Only

Designed by/Concept par
ALISON MANSFIELD / ROB JONES

Drawn by/Dessine par
GABE MENDES

PWGSC Project Manager/Administrateur de Projets TPSGC
ANDREW MYLLY

Regional Manager, Environmental Services
COLLIN KINGMAN

Drawing title/Titre du dessin
EXISTING SERVICES
CABLE TRAY LAYOUT
PLAN, SECTIONS AND DETAILS

Project No./No. du projet	Sheet/	Revision no./
R.018400.002	E1	1

PWGSC – A1 – 841X594

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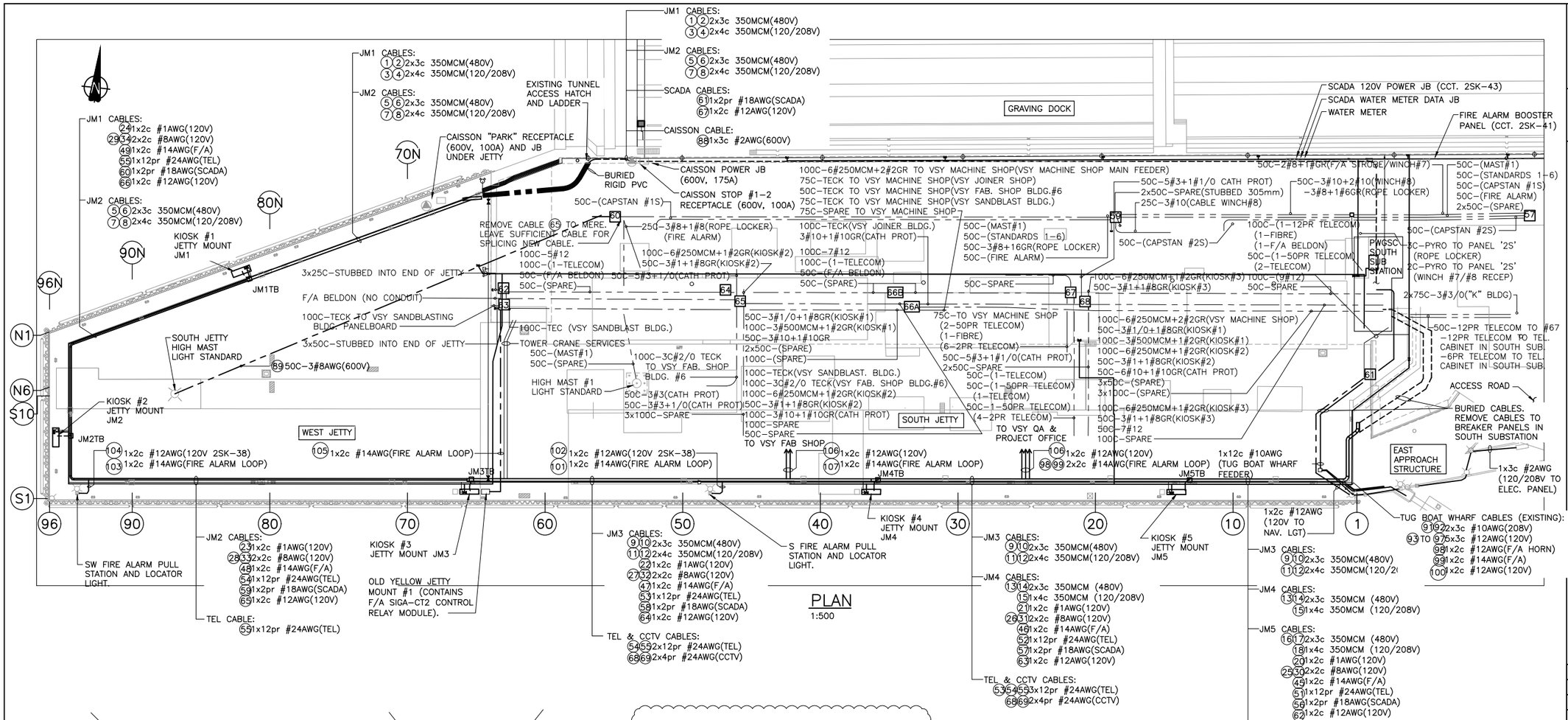


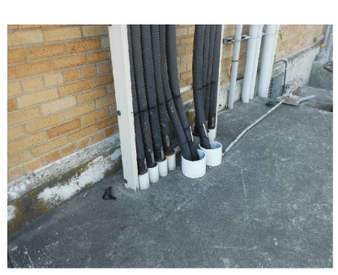
PLAN
1:500

TYPICAL JETTY MOUNT KIOSK – OVERALL VIEW

REMOVED

TYPICAL JETTY MOUNT KIOSK – POWER COMPARTMENT

REMOVED



CABLES & CONDUITS AT SOUTH SUBSTATION

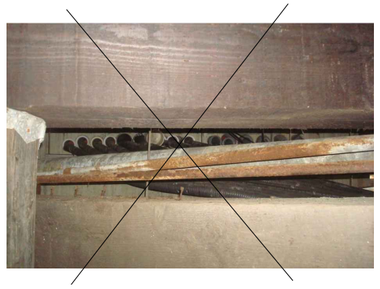
NOT IN CONTRACT. CABLES AND CONDUITS REMAIN.

TYPICAL JETTY MOUNT KIOSK – COMM COMPARTMENT

REMOVED

TYPICAL EXISTING SERVICES UNDER SOUTH JETTY

REMOVED



CABLES TRANSITIONING FROM SLEEVES/CONDUITS TO TRAY UNDER JETTY

CAPPED

HIGH MAST LIGHT (HML) ASSEMBLY & CCTV CAMERA SYSTEM

RE-INSTATED

NOTES:

1. THE ELECTRICAL CABLES/SERVICES SHOWN ON THIS DRAWINGS ARE BASED ON WESTMAR DRAWING NO. 846342-D-E2 CIRCA 2002/3 AND MAY NOT BE REPRESENTATIVE OF EXISTING AS-BUILT CONDITIONS.
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3. FOR EXISTING CABLE I.D. TAG NUMBER, REFER TO CABLE SCHEDULE ON DRAWING E9.
4. FOR LEGEND SEE DWG. E1.

Public Works and Government Services Canada
Travaux publics et Services gouvernementaux Canada
REAL PROPERTY SERVICES
Pacific Region
SERVICES IMMOBILIERS

Klohn Crippen Berger

Revision/ Revision	Description/Description	Date/Date
1	RECORD DRAWING	2017/03/29
0	ISSUED FOR TENDER	2014/12/19

Client/client

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet

ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETY UNDER-PIER SEDIMENT REMEDIATION

Consultant Signature Only

Designed by/Concept par
ALISON MANSFIELD / ROB JONES

Drawn by/Dessine par
GABE MENDES

PWGSC Project Manager/Administrateur de Projets TPSGC
ANDREW MYLLY

Regional Manager, Environmental Services
COLLIN KINGMAN

Drawing title/Titre du dessin

EXISTING SERVICES
ELECTRICAL CABLES AND KIOSKS
PLAN AND PHOTOS

Project No./No. du projet	Sheet/	Revision no./
R.018400.002	E2	1

PWGSC – A1 – 841X594

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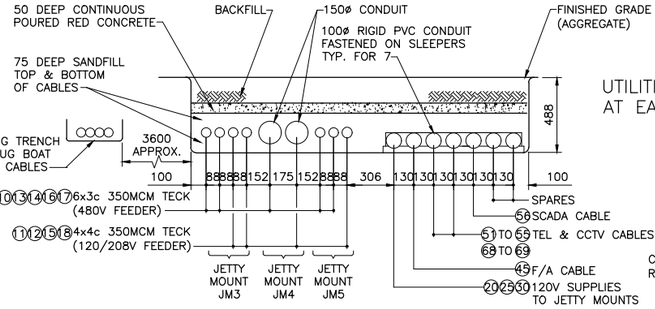
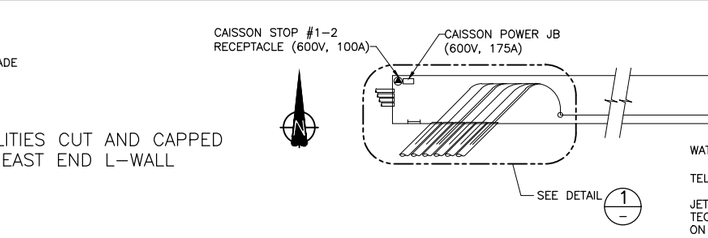
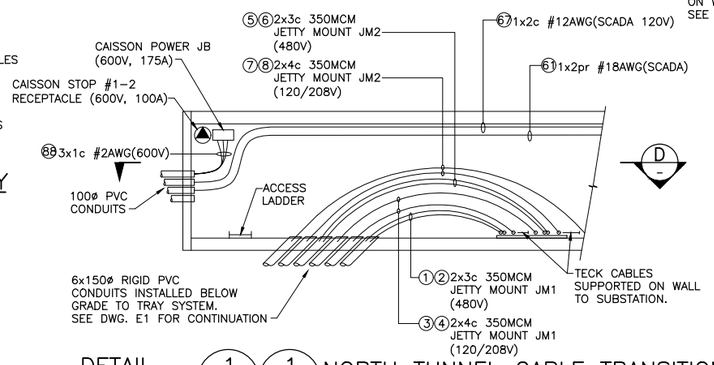


SECTION A – EXISTING CABLE TRENCH TO SOUTH JETTY LOOKING NORTH

SCALE 1: 20

UTILITIES CUT AND CAPPED AT EAST END L–WALL

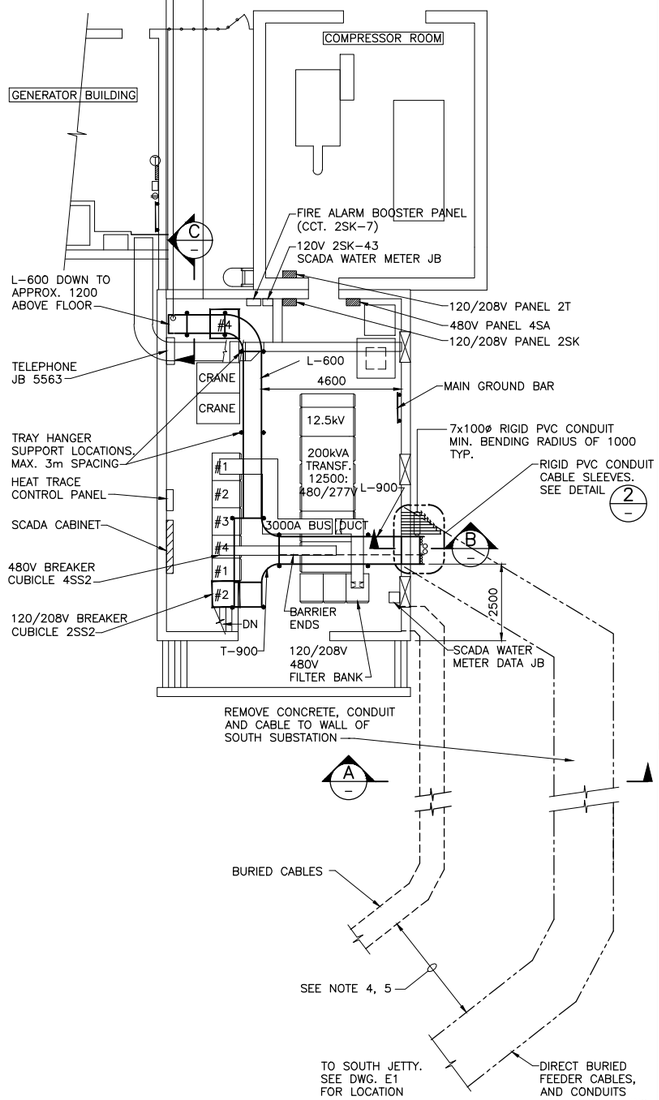




DETAIL 1 – 1 – E1 NORTH TUNNEL CABLE TRANSITION

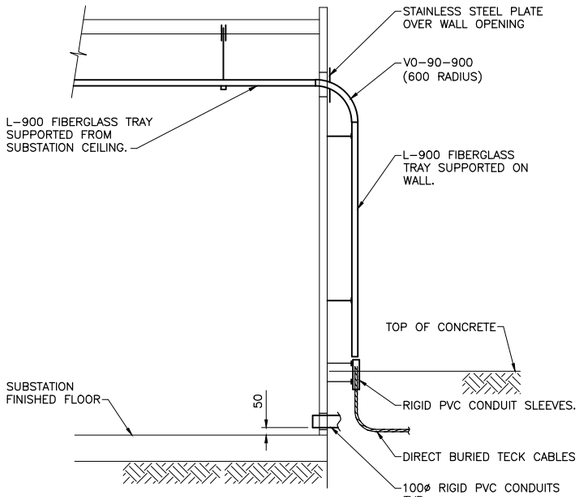
SCALE 1: 50

EXISTING, NOT IN CONTRACT



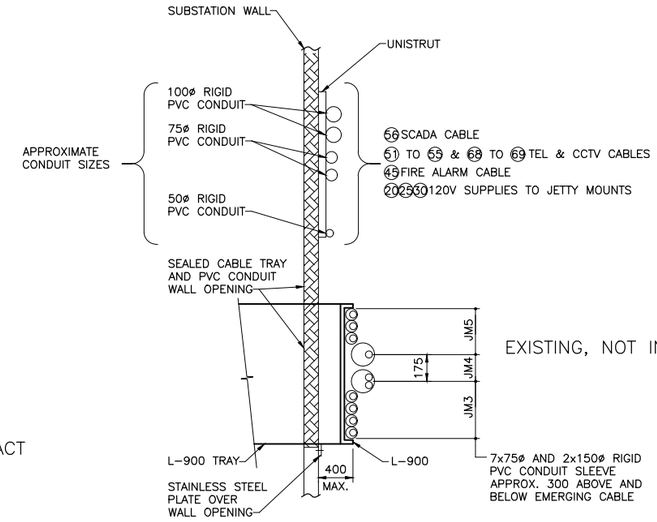
PLAN – PWGSC SOUTH SUBSTATION, TUNNEL AND DUCT BANK

1:100



SECTION B – EXISTING, NOT IN CONTRACT

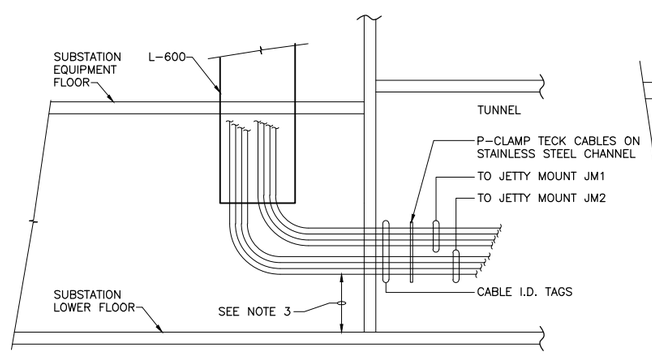
SCALE 1: 20



DETAIL 2 –

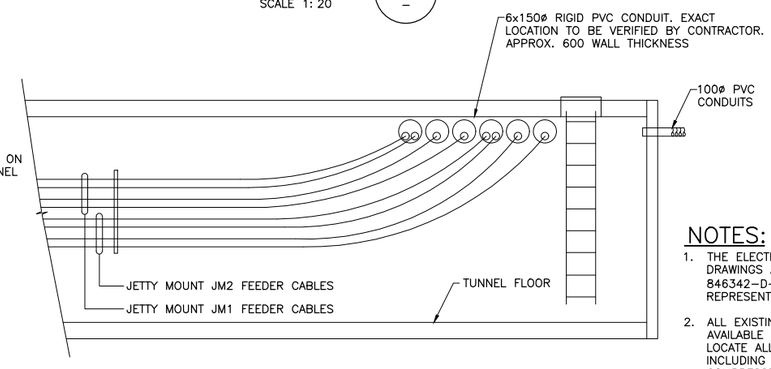
SCALE 1: 20

EXISTING, NOT IN CONTRACT



SECTION C – EXISTING, NOT IN CONTRACT

SCALE 1: 20



SECTION D – EXISTING, NOT IN CONTRACT

SCALE 1: 20

NOTES:

1. THE ELECTRICAL CABLES/SERVICES SHOWN ON THIS DRAWINGS ARE BASED ON WESTMAR DRAWING NO. 846342–D–E2 CIRCA 2002/3 AND MAY NOT BE REPRESENTATIVE OF EXISTING AS–BUILT CONDITIONS.
2. ALL EXISTING UTILITIES ARE SHOWN ACCORDING TO AVAILABLE RECORD DRAWINGS. THE CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION, INCLUDING UNDERGROUND FIRE WATER, SANITARY SEWER, COMPRESSED AIR, POWER AND TELEPHONE SERVICE DUCTS AND SHALL NOTIFY THE DEPARTMENTAL REPRESENTATIVE OF ANY DISCREPANCIES OR CONFLICTS A MINIMUM OF 72 HOURS PRIOR TO CONSTRUCTION. ANY ADDITIONAL WORK REQUIRED AS A RESULT OF FAILING TO PRE–LOCATE KNOWN OR POTENTIAL CONFLICTS WILL BE COMPLETED AT THE CONTRACTOR'S EXPENSE.
3. CABLES MOUNTED ON TUNNEL WALL VARY IN ELEVATION TO SUIT EXISTING DEVICES AND CABLES IN THE VICINITY.
4. LOCATION OF UNDERGROUND CABLE ROUTING SHOWN ON DRAWINGS ARE APPROXIMATE.
5. DETAILS OF CONDUITS AND CABLES ARE APPROXIMATELY BASED ON WESTMAR DRAWING NO. 8463462–D–E4. AS–BUILT DETAILS MAY VARY. CONDUITS NEAR SOUTH SUBSTATION DO NOT MATCH THE NUMBER OF CONDUITS EXISTING NEAR EAST APPROACH STRUCTURE.
6. FOR EXISTING CABLE I.D. TAG NUMBER, REFER TO CABLE SCHEDULE ON DRAWING E9.
7. FOR LEGEND SEE DWG. E1.

Public Works and Government Services Canada / Travaux publics et Services gouvernementaux Canada

REAL PROPERTY SERVICES
Pacific Region
SERVICES IMMOBILIERS

Klohn Crippen Berger

Revision/ Revision	Description/Description	Date/Date
1	RECORD DRAWING	2017/03/28
0	ISSUED FOR TENDER	2014/12/19

Client/client

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet

ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

Consultant Signature Only

Designed by/Concept par
ALISON MANSFIELD / ROB JONES

Drawn by/Dessine par
GABE MENDES

PWGSC Project Manager/Administrateur de Projets TPSGC
ANDREW MYLLY

Regional Manager, Environmental Services
COLLIN KINGMAN

Drawing title/Titre du dessin

EXISTING SERVICES
SUBSTATION CABLE TRAY AND DUCTS
PLAN, SECTIONS AND DETAILS

Project No./No. du projet	Sheet/	Revision no./
R.018400.002	E3	1

PWGSC – A1 – 841X594

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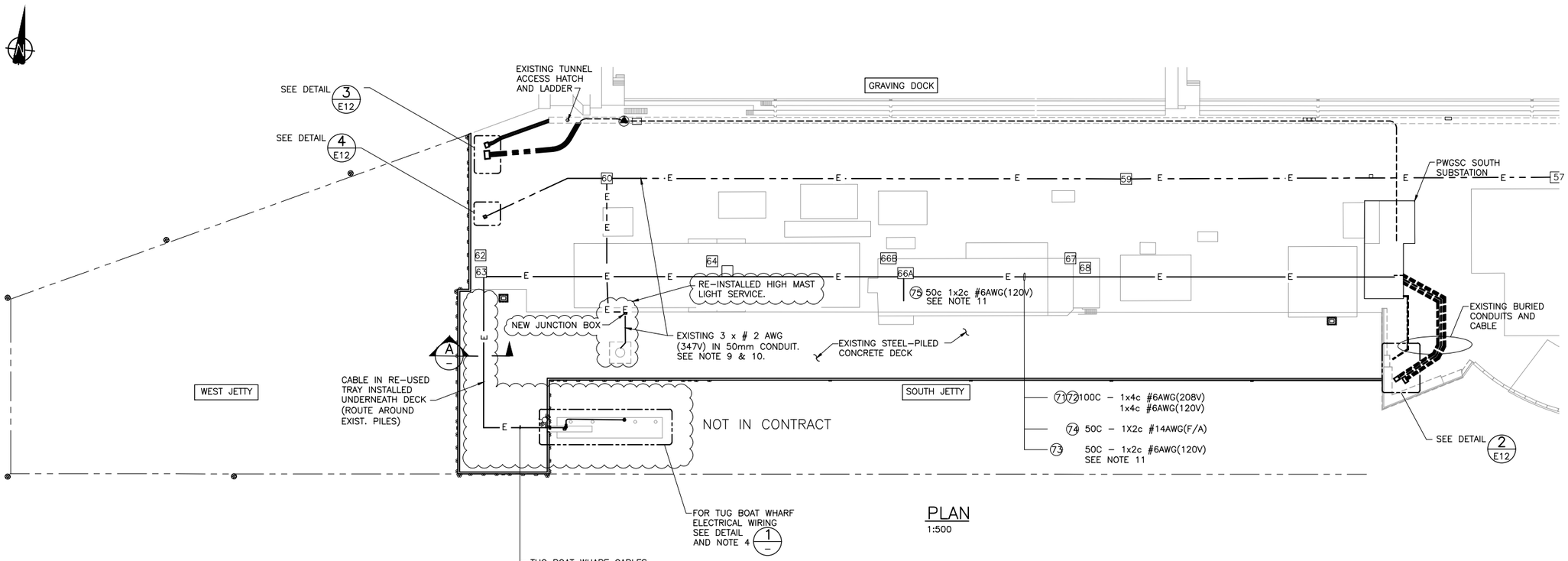
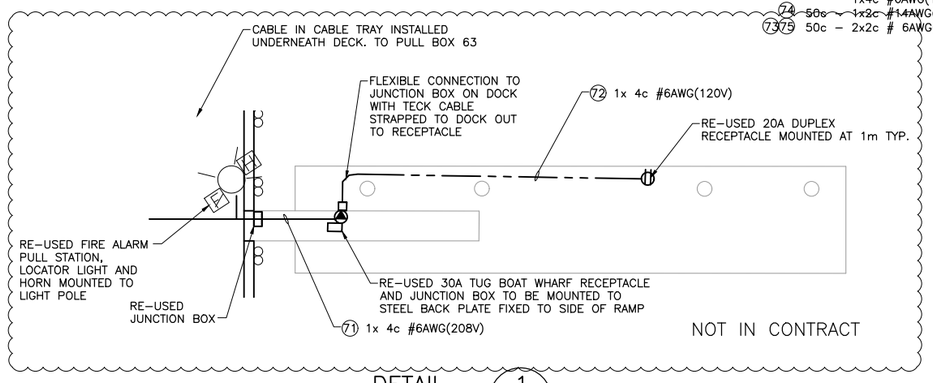
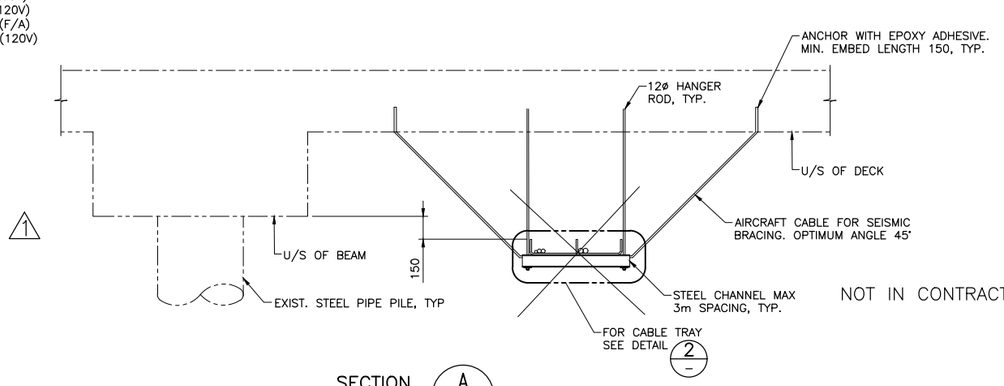


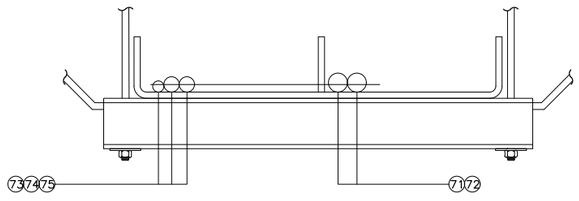
PLAN
1:500



DETAIL 1
SCALE 1: 125



SECTION A
SCALE 1: 20



DETAIL 2
SCALE 1: 5

NOTES:

1. ALL EXISTING UTILITIES ARE SHOWN ACCORDING TO AVAILABLE RECORD DRAWINGS. THE CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION, INCLUDING UNDERGROUND FIRE WATER, SANITARY SEWER, COMPRESSED AIR, POWER AND TELEPHONE SERVICE DUCTS AND SHALL NOTIFY THE DEPARTMENTAL REPRESENTATIVE OF ANY DISCREPANCIES OR CONFLICTS A MINIMUM OF 72 HOURS PRIOR TO CONSTRUCTION. ANY ADDITIONAL WORK REQUIRED AS A RESULT OF FAILING TO PRE-LOCATE KNOWN OR POTENTIAL CONFLICTS WILL BE COMPLETED AT THE CONTRACTOR'S EXPENSE.
2. ALL ELECTRICAL INSTALLATIONS SHALL BE PER THE LATEST EDITION OF THE CANADIAN ELECTRICAL CODE.
3. FOR MODIFIED CABLE I.D. TAG NUMBER, REFER TO CABLE SCHEDULE ON DWG. E10.
4. RE-USE EXISTING TUG BOAT WHARF RECEPTACLES, DISTRIBUTION, LIGHTING, FIRE ALARM STATION, HORN AND OTHER EQUIPMENT. RE-INSTALL TO MATCH EXISTING.
5. ALL ELECTRICAL EQUIPMENT TO BE NEMA 4X SUITABLE FOR A MARINE ENVIRONMENT.
6. ALL STEEL BRACKETS, SUPPORTS THREADED ROD, ETC. TO BE HOT DIPPED GALVANIZED AFTER FABRICATION UNLESS NOTED OTHERWISE.
7. ELECTRICAL EQUIPMENT TO BE SECURED WITH STAINLESS STEEL THREADED ROD ANCHOR BOLTS IN EPOXY ADHESIVE, QUANTITY AND SIZE AS FOLLOWS:

ELECTRICAL EQUIPMENT	No. x DIA.	HOLE DIA.	MIN. DEPTH
CABLE TRAY & SUPPORTS	4 x 12	14	150
WALL CABINETS & EQUIPMENT	4 x 12	14	150

8. CABLE TRAY SUPPORT MAXIMUM 3 METRES APART.
9. METALLIC PARTS ON TUG BOAT WHARF, IN LAMP STANDARDS, AND OTHER AREAS NOT INDICATED SHALL BE GROUNDED PER THE LATEST EDITION OF THE CANADIAN ELECTRICAL CODE.
10. CONTRACTOR TO DE-ENERGIZE WIRES BY OPENING AND LOCKING OUT CORRESPONDING HIGH MAST LIGHT BREAKER AT SUBSTATION 1 PRIOR TO DISCONNECTING WIRES FROM HIGH MAST. CONTRACTOR TO PULL BACK WIRE TO PULL BOX 60 AND PROPERLY STORE UNTIL THE CABLE IS RE-INSTALLED. THE 2 - 50mmø CONDUITS TO BE CUT BACK SO NEW HIGH MAST LIGHT FOOTING CAN BE CONSTRUCTED (SEE DRAWING D7). AFTER FOOTING CONSTRUCTED, RE-INSTATE THE 2 - 50mmø CONDUITS (1 - SPARE) AND RE-CONNECT THE WIRES AND MAKE HIGH MAST LIGHT FUNCTIONAL.
11. CONTRACTOR TO CONFIRM SPARE CONDUIT FOR TUG BOAT WHARF CABLES. CONTRACTOR SHALL CONSULT DEPARTMENTAL REPRESENTATIVE BEFORE PULLING INACTIVE CABLE IN ORDER TO MEET CONDUIT REQUIREMENT.

LEGEND

- E ---- EXISTING ELECTRICAL CABLE
- E ---- ELECTRICAL CABLE
- XX PULL BOX
- DUPLEX RECEPTACLE
- SPECIAL PURPOSE RECEPTACLE
- F FIRE ALARM PULL STATION AND LOCATOR LIGHT
- H FIRE ALARM HORN

Public Works and Government Services Canada
Travaux publics et Services gouvernementaux Canada
REAL PROPERTY SERVICES
Pacific Region
SERVICES IMMOBILIERS

Klohn Crippen Berger

Revision/ Revision	Description/Description	Date/Date
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PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

Consultant Signature Only

Designed by/Concept par
ALISON MANSFIELD / ROB JONES

Drawn by/Dessine par
GABE MENDES

PWGSC Project Manager/Administrateur de Projets TPSGC
ANDREW MYLLY

Regional Manager, Environmental Services
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Drawing title/Titre du dessin
SERVICES
CABLE TRAY AND CABLES LAYOUT PLAN

Project No./No. du projet	Sheet/	Revision no./
R.018400.002	E4	1

PWGSC – A1 – 841X594

0 10 20 30 40 50 60 70 80 90 100mm

DM5XXXXXX

EXISTING CABLE SCHEDULE

I.D. TAG	CABLE I.D. NUMBER	CABLE SIZE	CABLE TYPE	SERVICE DESCRIPTION	ORIGIN	DESTINATION	ROUTING
1	4SS271–JM1/1	3c 350 MCM	TECK 90	480V, FEEDER	SOUTH SUB BREAKER 4SS2–71	JETTY MOUNT JM1 – 500A DS	NORTH TUNNEL
2	4SS271–JM1/2	3c 350 MCM	TECK 90	480V, FEEDER	SOUTH SUB BREAKER 4SS2–71	JETTY MOUNT JM1 – 500A DS	NORTH TUNNEL
3	2SS261–JM1/1	4c 350 MCM	TECK 90	120/208V, FEEDER	SOUTH SUB BREAKER 2SS2–61	JETTY MOUNT JM1 – 200A DS	NORTH TUNNEL
4	2SS261–JM1/2	4c 350 MCM	TECK 90	120/208V, FEEDER	SOUTH SUB BREAKER 2SS2–61	JETTY MOUNT JM1 – 200A DS	NORTH TUNNEL
5	4SS272–JM2/1	3c 350 MCM	TECK 90	480V, FEEDER	SOUTH SUB BREAKER 4SS2–72	JETTY MOUNT JM2 – 500A DS	NORTH TUNNEL
6	4SS272–JM2/2	3c 350 MCM	TECK 90	480V, FEEDER	SOUTH SUB BREAKER 4SS2–72	JETTY MOUNT JM2 – 500A DS	NORTH TUNNEL
7	2SS262–JM2/1	4c 350 MCM	TECK 90	120/208V, FEEDER	SOUTH SUB BREAKER 2SS2–62	JETTY MOUNT JM2 – 200A DS	NORTH TUNNEL
8	2SS262–JM2/2	4c 350 MCM	TECK 90	120/208V, FEEDER	SOUTH SUB BREAKER 2SS2–62	JETTY MOUNT JM2 – 200A DS	NORTH TUNNEL
9	4SS273–JM3/1	3c 350 MCM	TECK 90	480V, FEEDER	SOUTH SUB BREAKER 4SS2–73	JETTY MOUNT JM3 – 500A DS	SOUTH JETTY
10	4SS273–JM3/2	3c 350 MCM	TECK 90	480V, FEEDER	SOUTH SUB BREAKER 4SS2–73	JETTY MOUNT JM3 – 500A DS	SOUTH JETTY
11	2SS263–JM3/1	4c 350 MCM	TECK 90	120/208V, FEEDER	SOUTH SUB BREAKER 2SS2–63	JETTY MOUNT JM3 – 200A DS	SOUTH JETTY
12	2SS263–JM3/2	4c 350 MCM	TECK 90	120/208V, FEEDER	SOUTH SUB BREAKER 2SS2–63	JETTY MOUNT JM3 – 200A DS	SOUTH JETTY
13	4SS274–JM4/1	3c 350 MCM	TECK 90	480V, FEEDER	SOUTH SUB BREAKER 4SS2–74	JETTY MOUNT JM4 – 500A DS	SOUTH JETTY
14	4SS274–JM4/2	3c 350 MCM	TECK 90	480V, FEEDER	SOUTH SUB BREAKER 4SS2–74	JETTY MOUNT JM4 – 500A DS	SOUTH JETTY
15	2SS264–JM4	4c 350 MCM	TECK 90	120/208V, FEEDER	SOUTH SUB BREAKER 2SS2–64	JETTY MOUNT JM4 – 200A DS	SOUTH JETTY
16	4SS275–JM5/1	3c 350 MCM	TECK 90	480V, FEEDER	SOUTH SUB BREAKER 4SS2–75	JETTY MOUNT JM5 – 500A DS	SOUTH JETTY
17	4SS275–JM5/2	3c 350 MCM	TECK 90	480V, FEEDER	SOUTH SUB BREAKER 4SS2–75	JETTY MOUNT JM5 – 500A DS	SOUTH JETTY
18	2SS265–JM5	4c 350 MCM	TECK 90	120/208V, FEEDER	SOUTH SUB BREAKER 2SS2–65	JETTY MOUNT JM5 – 200A DS	SOUTH JETTY
19	NOT USED						
20	2SS2JB–JM5TB/1	2c #1 AWG	TECK 90	120V, 15A FEEDER	SOUTH SUB BREAKER 2SS2JB	TERMINAL BOX #JM5TB	SOUTH JETTY
21	JM5TB–JM4TB/1	2c #1 AWG	TECK 90	120V	TERMINAL BOX #JM5TB	TERMINAL BOX #JM4TB	SOUTH JETTY
22	JM4TB–JM3TB/1	2c #1 AWG	TECK 90	120V	TERMINAL BOX #JM4TB	TERMINAL BOX #JM3TB	SOUTH JETTY
23	JM3TB–JM2TB/1	2c #1 AWG	TECK 90	120V	TERMINAL BOX #JM3TB	TERMINAL BOX #JM2TB	SOUTH JETTY
24	JM2TB–JM1TB/1	2c #1 AWG	TECK 90	120V	TERMINAL BOX #JM2TB	TERMINAL BOX #JM1TB	SOUTH JETTY
25	2SS2–JM5TB/2	2c #8 AWG	TECK 90	120V, 15A FEEDER	SOUTH SUB BREAKER 2SS2	TERMINAL BOX #JM5TB	SOUTH JETTY
26	JM5TB–JM4TB/2	2c #8 AWG	TECK 90	120V	TERMINAL BOX #JM5TB	TERMINAL BOX #JM4TB	SOUTH JETTY
27	JM4TB–JM3TB/2	2c #8 AWG	TECK 90	120V	TERMINAL BOX #JM4TB	TERMINAL BOX #JM3TB	SOUTH JETTY
28	JM3TB–JM2TB/2	2c #8 AWG	TECK 90	120V	TERMINAL BOX #JM3TB	TERMINAL BOX #JM2TB	SOUTH JETTY
29	JM2TB–JM1TB/2	2c #8 AWG	TECK 90	120V	TERMINAL BOX #JM2TB	TERMINAL BOX #JM1TB	SOUTH JETTY
30	2SKCCT42–JM5TB	2c #8 AWG	TECK 90	120V, 15A FEEDER	SOUTH SUB PANEL 2SK, CCT.42	TERMINAL BOX #JM5TB	SOUTH JETTY
31	JM5TB–JM4TB/3	2c #8 AWG	TECK 90	120V	TERMINAL BOX #JM5TB	TERMINAL BOX #JM4TB	SOUTH JETTY
32	JM4TB–JM3TB/3	2c #8 AWG	TECK 90	120V	TERMINAL BOX #JM4TB	TERMINAL BOX #JM3TB	SOUTH JETTY
33	JM3TB–JM2TB/3	2c #8 AWG	TECK 90	120V	TERMINAL BOX #JM3TB	TERMINAL BOX #JM2TB	SOUTH JETTY
34	JM2TB–JM1TB/3	2c #8 AWG	TECK 90	120V	TERMINAL BOX #JM2TB	TERMINAL BOX #JM1TB	SOUTH JETTY
35	JM5TB–JM5/1	4c #12 AWG	TECK 90	120V	TERMINAL BOX #JM5TB	JB FOR LIGHT & RECEP. IN JM5	SOUTH JETTY
36	JM5TB–JM5/2	2c #12 AWG	TECK 90	120V	TERMINAL BOX #JM5TB	F/A 120V TERMINALS IN JM5	SOUTH JETTY
37	JM4TB–JM4/1	4c #12 AWG	TECK 90	120V	TERMINAL BOX #JM4TB	JB FOR LIGHT & RECEP. IN JM4	SOUTH JETTY
38	JM4TB–JM4/2	2c #12 AWG	TECK 90	120V	TERMINAL BOX #JM4TB	F/A 120V TERMINALS IN JM4	SOUTH JETTY
39	JM3TB–JM3/1	4c #12 AWG	TECK 90	120V	TERMINAL BOX #JM3TB	JB FOR LIGHT & RECEP. IN JM3	SOUTH JETTY
40	JM3TB–JM3/2	2c #12 AWG	TECK 90	120V	TERMINAL BOX #JM3TB	F/A 120V TERMINALS IN JM3	SOUTH JETTY
41	JM2TB–JM2/1	4c #12 AWG	TECK 90	120V	TERMINAL BOX #JM2TB	JB FOR LIGHT & RECEP. IN JM2	SOUTH JETTY
42	JM2TB–JM2/2	2c #12 AWG	TECK 90	120V	TERMINAL BOX #JM2TB	F/A 120V TERMINALS IN JM2	SOUTH JETTY
43	JM1TB–JM1/1	4c #12 AWG	TECK 90	120V	TERMINAL BOX #JM1TB	JB FOR LIGHT & RECEP. IN JM1	SOUTH JETTY
44	JM1TB–JM1/2	2c #12 AWG	TECK 90	120V	TERMINAL BOX #JM1TB	F/A 120V TERMINALS IN JM1	SOUTH JETTY
45	F/A BOX–JM5	2c #14 AWG	TECK 90	FIRE ALARM	SIGA–IM F/A BOX @ SOUTH SUB	JETTY MOUNT 5 FIRE ALARM SYSTEM	SOUTH JETTY
46	JM5–JM4/FA	2c #14 AWG	TECK 90	FIRE ALARM	JETTY MOUNT 5 FIRE ALARM SYSTEM	JETTY MOUNT 4 FIRE ALARM SYSTEM	SOUTH JETTY
47	JM4–JM3/FA	2c #14 AWG	TECK 90	FIRE ALARM	JETTY MOUNT 4 FIRE ALARM SYSTEM	JETTY MOUNT 3 FIRE ALARM SYSTEM	SOUTH JETTY
48	JM3–JM2/FA	2c #14 AWG	TECK 90	FIRE ALARM	JETTY MOUNT 3 FIRE ALARM SYSTEM	JETTY MOUNT 2 FIRE ALARM SYSTEM	SOUTH JETTY
49	JM2–JM1/FA	2c #14 AWG	TECK 90	FIRE ALARM	JETTY MOUNT 2 FIRE ALARM SYSTEM	JETTY MOUNT 1 FIRE ALARM SYSTEM	SOUTH JETTY
50	NOT USED						
51	TEL BOX–JM5	12pr #24 AWG	TEL	TELEPHONE	TELEPHONE BOX @ SOUTH SUB	JETTY MOUNT 5 TELEPHONE TB	SOUTH JETTY
52	TEL BOX–JM4	12pr #24 AWG	TEL	TELEPHONE	TELEPHONE BOX @ SOUTH SUB	JETTY MOUNT 4 TELEPHONE TB	SOUTH JETTY
53	TEL BOX–JM3	12pr #24 AWG	TEL	TELEPHONE	TELEPHONE BOX @ SOUTH SUB	JETTY MOUNT 3 TELEPHONE TB	SOUTH JETTY
54	TEL BOX–JM2	12pr #24 AWG	TEL	TELEPHONE	TELEPHONE BOX @ SOUTH SUB	JETTY MOUNT 2 TELEPHONE TB	SOUTH JETTY
55	TEL BOX–JM1	12pr #24 AWG	TEL	TELEPHONE	TELEPHONE BOX @ SOUTH SUB	JETTY MOUNT 1 TELEPHONE TB	SOUTH JETTY
56	SCADA BOX–JM5–0400E1	2pr #18 AWG	STP RS485 AIA JKT	SCADA	SCADA PANEL @ SOUTH WATER METER JB	JETTY MOUNT 5 SCADA WATER METER JB	SOUTH JETTY
57	JM5–JM4/SCADA–0400E2	2pr #18 AWG	STP RS485 AIA JKT	SCADA	JETTY MOUNT 5 SCADA WATER METER JB	JETTY MOUNT 4 SCADA WATER METER JB	SOUTH JETTY
58	JM4–JM3/SCADA–0400E3	2pr #18 AWG	STP RS485 AIA JKT	SCADA	JETTY MOUNT 4 SCADA WATER METER JB	JETTY MOUNT 3 SCADA WATER METER JB	SOUTH JETTY
59	JM3–JM2/SCADA–0400E4	2pr #18 AWG	STP RS485 AIA JKT	SCADA	JETTY MOUNT 3 SCADA WATER METER JB	JETTY MOUNT 2 SCADA WATER METER JB	SOUTH JETTY
60	JM2–JM1/SCADA–0400E5	2pr #18 AWG	STP RS485 AIA JKT	SCADA	JETTY MOUNT 2 SCADA WATER METER JB	JETTY MOUNT 1 SCADA WATER METER JB	SOUTH JETTY
61	JM1–DRYDOCK SPARE	2pr #18 AWG	STP RS485 AIA JKT	SCADA	JETTY MOUNT 1 SCADA WATER METER JB	SERVICE TUNNEL SCADA WATER METER JB	NORTH TUNNEL
62	2SKCCT43–JM5 120V	2c #12 AWG	TECK 90	120V	SOUTH SUB PANEL 2SK, CCT. 43	JM5 120V 2SK–43 JB	SOUTH JETTY
63	JM5–JM4 120V 2SK–43	2c #12 AWG	TECK 90	120V	JM5 120V 2SK–43 JB	JM4 120V 2SK–43 JB	SOUTH JETTY
64	JM4–JM3 120V 2SK–43	2c #12 AWG	TECK 90	120V	JM4 120V 2SK–43 JB	JM3 120V 2SK–43 JB	SOUTH JETTY
65	JM3–JM2 120V 2SK–43	2c #12 AWG	TECK 90	120V	JM3 120V 2SK–43 JB	JM2 120V 2SK–43 JB	SOUTH JETTY
66	JM2–JM1 120V 2SK–43	2c #12 AWG	TECK 90	120V	JM2 120V 2SK–43 JB	JM1 120V 2SK–43 JB	SOUTH JETTY
67	JM1–TUNNEL 120V 2SK–43	2c #12 AWG	TECK 90	120V	JM1 120V 2SK–43 JB	SERVICE TUNNEL 2SK–43 JB	NORTH TUNNEL
68	TOWER CRANE CAMERA	4pr #24 AWG	UTP CAT5e	CCTV	SOUTH SUBSTATION (UNKNOWN)	SOUTH JETTY TOWER CRANE	SOUTH JETTY
69	TOWER CRANE CAMERA	4pr #24 AWG	UTP CAT5e	CCTV	SOUTH SUBSTATION (UNKNOWN)	SOUTH JETTY TOWER CRANE	SOUTH JETTY
70	NOT USED						
71	NOT USED						
72	NOT USED						
73	NOT USED						
74	NOT USED						
75	NOT USED						
76	NOT USED						
77	NOT USED						
78	NOT USED						
79	NOT USED						
80	NOT USED						
81	NOT USED						
82	NOT USED						
83	NOT USED						
84	NOT USED						
85	NOT USED						
86	NOT USED						
87	NOT USED						
88	CAISSON 1/2JB–PARKJM1	3c #2 AWG	TECK 90	600V	CAISSON 1/2 JB IN SERVICE TUNNEL	CAISSON PARK JETTY MOUNT 1	NORTH TUNNEL
89	6SHCCT26–SJ HIGH MAST	3c #1 AWG	RW90/TECK 90	347V	MAIN SUB PANEL 6SH CCT. 26	SOUTH JETTY HIGH MAST LIGHT	EXISTING DUCT BANK
90	NOT USED						
91	2SKCCT18/20–TUG1	4c #8 AWG	TECK 90	208V	SOUTH SUB PANEL 2SK, CCT. 18/20	TUG WHARF RECEPTACLE 30A	SOUTH JETTY
92	2SKCCT22/24–TUG2	4c #8 AWG	TECK 90	208V	SOUTH SUB PANEL 2SK, CCT. 22/24	TUG WHARF RECEPTACLE 30A	SOUTH JETTY
93	2SKCCT23–TUG3	4c #10 AWG	TECK 90	120V	SOUTH SUB PANEL 2SK, CCT. 23	TUG WHARF RECEPTACLE 20A	SOUTH JETTY
94	2SKCCT16–TUGPC	3c #12 AWG	TECK 90	120V	SOUTH SUB PANEL 2SK, CCT. 16	TUG WHARF PHOTOCELL & CONTROL RELAY	SOUTH JETTY
95	TUGPC–TUGLIGHT1	3c #12 AWG	TECK 90	120V	TUG WHARF PHOTOCELL	TUG FLOODLIGHT 1	SOUTH JETTY
96	TUGPC–TUGLIGHT2	3C #12 AWG	TECK 90	120V	TUG FLOODLIGHT 1	TUG FLOODLIGHT 2	SOUTH JETTY
97	TUGPC–TUGLIGHT3	3C #12 AWG	TECK 90	120V	TUG FLOODLIGHT 2	TUG FLOODLIGHT 3	SOUTH JETTY
98	F/A BOX – TUG F/A	2c #12 AWG	TECK 90	120V	VSY QA OFFICE 120V PANEL	TUG WHARF F/A HORN	SOUTH JETTY
99	F/A BOX TUG F/A HORN	2c #14 AWG	TECK 90	FIRE ALARM	VSY QA OFFICE F/A BOOSTER PANEL	TUG WHARF FIRE ALARM	SOUTH JETTY
100	2SKCCT38–F/A LOC LGT TUG	2c #12 AWG	TECK 90	120V	SOUTH SUB PANEL 2SK, CCT. 38	TUG WHARF LOCATOR LIGHT	SOUTH JETTY
101	SIGA–CT2 – JETTY F/A S	2c #14 AWG	TECK 90	FIRE ALARM	SIGA–CT2 F/A CONTROL RELAY KIOSK #3	JETTY FIRE ALARM S	SOUTH JETTY
102	F/A LOC LGT TUG – LOC LGT S	2c #12 AWG	TECK 90	120V	TUG WHARF LOCATOR LIGHT	JETTY LOCATOR LIGHT S	SOUTH JETTY
103	SIGA–CT2 – JETTY F/A SW	2c #14 AWG	TECK 90	FIRE ALARM	SIGA–CT2 F/A CONTROL RELAY KIOSK #3	JETTY FIRE ALARM SW	SOUTH JETTY
104	F/A LOC LGT S – LOC LGT SW	2c #12 AWG	TECK 90	120V	JETTY LOCATOR LIGHT S	JETTY LOCATOR LIGHT SW	SOUTH JETTY
105	SIGA–CT2 – F/A PULL PIT 63	2c #14 AWG	TECK 90	FIRE ALARM	SIGA–CT2 F/A CONTROL RELAY KIOSK #3	PULL PIT 63 F/A LOOP	SOUTH JETTY
106	F/A VSY FAB – QA OFFICE 120V	2c #12 AWG	TECK 90	120V	VSY FAB SHOP 120V PANEL	VSY QA OFFICE 120V PANEL	SOUTH JETTY
107	F/A VSY FAB – QA OFFICE F/A	2c #14 AWG	TECK 90	FIRE ALARM	VSY FAB SHOP F/A BOOSTER PANEL	VSY QA OFFICE F/A BOOSTER PANEL	SOUTH JETTY

NOTES:

1. CONTRACTOR TO FIELD VERIFY ALL DETAILS PRIOR TO ORDERING NEW CABLES. OBTAIN INSTRUCTION FROM DEPARTMENTAL REPRESENTATIVE BEFORE ORDERING MATERIAL IF THERE IS ANY DISCREPANCY OR IF ADDITIONAL CABLES NOT SHOWN ARE FOUND.
2. FOR CABLES 68 AND 69, EXACT ORIGIN AND DESTINATION IS UNKNOWN. FIELD VERIFY CABLE ROUTE WITH DEPARTMENTAL REPRESENTATIVE.
3. FOR CABLE SCHEDULE AFTER DEMOLITION SEE DWG. E10.

Public Works and Government Services Canada
Travaux publics et Services gouvernementaux Canada
REAL PROPERTY SERVICES
Pacific Region
SERVICES IMMOBILIERS

Klohn Crippen Berger

Revision/ Revision	Description/Description	Date/Date
1	RECORD DRAWING	2017/03/29
0	ISSUED FOR TENDER	2014/12/19

Client/client

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet

ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

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Drawing title/Titre du dessin

EXISTING SERVICES ELECTRICAL CABLE SCHEDULE

Project No./No. du projet	Sheet/	Revision no./
R.018400.002	E9	1

PWGSC – A1 – 841X594

0 10 20 30 40 50 60 70 80 90 100mm

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MODIFIED CABLE SCHEDULE

I.D. TAG	CABLE I.D. NUMBER	CABLE SIZE	CABLE TYPE	SERVICE DESCRIPTION	ORIGIN (SEE NOTE 2)	DESTINATION	ROUTING
1	4SS271-JM1/1	3c 350 MCM	TECK 90	480V, FEEDER	SOUTH SUB LOWER FLOOR	PULL PIT T2	NORTH TUNNEL
2	4SS271-JM1/2	3c 350 MCM	TECK 90	480V, FEEDER	SOUTH SUB LOWER FLOOR	PULL PIT T2	NORTH TUNNEL
3	2SS261-JM1/1	4c 350 MCM	TECK 90	120/208V, FEEDER	SOUTH SUB LOWER FLOOR	PULL PIT T2	NORTH TUNNEL
4	2SS261-JM1/2	4c 350 MCM	TECK 90	120/208V, FEEDER	SOUTH SUB LOWER FLOOR	PULL PIT T2	NORTH TUNNEL
5	4SS272-JM2/1	3c 350 MCM	TECK 90	480V, FEEDER	SOUTH SUB LOWER FLOOR	PULL PIT T2	NORTH TUNNEL
6	4SS272-JM2/2	3c 350 MCM	TECK 90	480V, FEEDER	SOUTH SUB LOWER FLOOR	PULL PIT T2	NORTH TUNNEL
7	2SS262-JM2/1	4c 350 MCM	TECK 90	120/208V, FEEDER	SOUTH SUB LOWER FLOOR	PULL PIT T2	NORTH TUNNEL
8	2SS262-JM2/2	4c 350 MCM	TECK 90	120/208V, FEEDER	SOUTH SUB LOWER FLOOR	PULL PIT T2	NORTH TUNNEL
9	4SS273-JM3/1	3c 350 MCM	TECK 90	480V, FEEDER	SOUTH SUB CABLE TRAY	OUTSIDE T4	SOUTH JETTY
10	4SS273-JM3/2	3c 350 MCM	TECK 90	480V, FEEDER	SOUTH SUB CABLE TRAY	OUTSIDE T4	SOUTH JETTY
11	2SS263-JM3/1	4c 350 MCM	TECK 90	120/208V, FEEDER	SOUTH SUB CABLE TRAY	OUTSIDE T4	SOUTH JETTY
12	2SS263-JM3/2	4c 350 MCM	TECK 90	120/208V, FEEDER	SOUTH SUB CABLE TRAY	OUTSIDE T4	SOUTH JETTY
13	4SS274-JM4/1	3c 350 MCM	TECK 90	480V, FEEDER	SOUTH SUB CABLE TRAY	PULL PIT T4	SOUTH JETTY
14	4SS274-JM4/2	3c 350 MCM	TECK 90	480V, FEEDER	SOUTH SUB CABLE TRAY	PULL PIT T4	SOUTH JETTY
15	2SS264-JM4	4c 350 MCM	TECK 90	120/208V, FEEDER	SOUTH SUB CABLE TRAY	OUTSIDE T4	SOUTH JETTY
16	4SS275-JM5/1	3c 350 MCM	TECK 90	480V, FEEDER	SOUTH SUB CABLE TRAY	OUTSIDE T4	SOUTH JETTY
17	4SS275-JM5/2	3c 350 MCM	TECK 90	480V, FEEDER	SOUTH SUB CABLE TRAY	OUTSIDE T4	SOUTH JETTY
18	2SS265-JM5	4c 350 MCM	TECK 90	120/208V, FEEDER	SOUTH SUB CABLE TRAY	OUTSIDE T4	SOUTH JETTY
19	NOT USED						
20	2SS2JB-JM5TB/1	2c #1 AWG	TECK 90	120V, 15A FEEDER	SOUTH SUB CABLE TRAY	PULL PIT T5	SOUTH JETTY
21	NOT USED						
22	NOT USED						
23	NOT USED						
24	NOT USED						
25	2SS2-JM5TB/2	2c #8 AWG	TECK 90	120V, 15A FEEDER	SOUTH SUB CABLE TRAY	PULL PIT T5	SOUTH JETTY
26	NOT USED						
27	NOT USED						
28	NOT USED						
29	NOT USED						
30	2SKCCT42-JM5TB	2c #8 AWG	TECK 90	120V, 15A FEEDER	SOUTH SUB CABLE TRAY	PULL PIT T5	SOUTH JETTY
31	NOT USED						
32	NOT USED						
33	NOT USED						
34	NOT USED						
35	NOT USED						
36	NOT USED						
37	NOT USED						
38	NOT USED						
39	NOT USED						
40	NOT USED						
41	NOT USED						
42	NOT USED						
43	NOT USED						
44	NOT USED						
45	F/A BOX-JM5	2c #14 AWG	TECK 90	FIRE ALARM	SOUTH SUB CABLE TRAY	PULL PIT T5	SOUTH JETTY
46	NOT USED						
47	NOT USED						
48	NOT USED						
49	NOT USED						
50	NOT USED						
51	TEL BOX-JM5	12pr #24 AWG	TEL	TELEPHONE	SOUTH SUB CABLE TRAY	PULL PIT T5	SOUTH JETTY
52	TEL BOX-JM4	12pr #24 AWG	TEL	TELEPHONE	SOUTH SUB CABLE TRAY	PULL PIT T5	SOUTH JETTY
53	TEL BOX-JM3	12pr #24 AWG	TEL	TELEPHONE	SOUTH SUB CABLE TRAY	PULL PIT T5	SOUTH JETTY
54	TEL BOX-JM2	12pr #24 AWG	TEL	TELEPHONE	SOUTH SUB CABLE TRAY	PULL PIT T5	SOUTH JETTY
55	TEL BOX-JM1	12pr #24 AWG	TEL	TELEPHONE	SOUTH SUB CABLE TRAY	PULL PIT T5	SOUTH JETTY
56	SCADA BOX-JM5-0400E1	2pr #18 AWG	STP RS485 AIA JKT	SCADA	SOUTH SUB CABLE TRAY	PULL PIT T5	SOUTH JETTY
57	NOT USED						
58	NOT USED						
59	NOT USED						
60	NOT USED						
61	JM1-DRYDOCK SPARE	2pr #18 AWG	STP RS485 AIA JKT	SCADA	PULL PIT T1	SERVICE TUNNEL SCADA WATER METER JB (SEE NOTE 2)	NORTH TUNNEL
62	2SKCCT43-JM5 120V	2c #12 AWG	TECK 90	120V	SOUTH SUB CABLE TRAY	PULL PIT T5	SOUTH JETTY
63	NOT USED						
64	NOT USED						
65	NOT USED						
66	NOT USED						
67	JM1-TUNNEL 120V 2SK-43	2c #12 AWG	TECK 90	120V	PULL PIT T1	SERVICE TUNNEL 2SK-43 JB (SEE NOTE 2)	NORTH TUNNEL
68	TOWER CRANE CAMERA	4pr #24 AWG	UTP CAT5e	CCTV	SOUTH SUB CABLE TRAY	PULL PIT T5	SOUTH JETTY
69	TOWER CRANE CAMERA	4pr #24 AWG	UTP CAT5e	CCTV	SOUTH SUB CABLE TRAY	PULL PIT T5	SOUTH JETTY
70	NOT USED						
71	2SKCCT22/24-TUG2	4c #6 AWG	TECK 90	208V	SOUTH SUB PANEL 2SK, CCT. 22/24	TUG WHARF RECEPTACLE 30A	EXISTING BURIED CONDUIT
72	2SKCCT23-TUG3	4c #6 AWG	TECK 90	120V	SOUTH SUB PANEL 2SK, CCT. 23	TUG WHARF RECEPTACLE 20A	EXISTING BURIED CONDUIT
73	F/A BOX - TUG F/A	2c #6 AWG	TECK 90	120V	SOUTH SUB PANEL 2SK, CCT. 16	TUG WHARF F/A HORN	EXISTING BURIED CONDUIT
74	F/A BOX TUG F/A HORN	2c #14 AWG	TECK 90	FIRE ALARM	SIGMA-IM BOX @ SOUTH SUB	TUG WHARF FIRE ALARM	EXISTING BURIED CONDUIT
75	VSY MAC-F/A LOC LGT TUG	2c #6 AWG	TECK 90	120V	VSY MACHINE SHOP PANEL 28M	TUG WHARF LOCATOR LIGHT	EXISTING BURIED CONDUIT
76	NOT USED						
77	NOT USED						
78	NOT USED						
79	NOT USED						
80	NOT USED						
81	NOT USED						
82	NOT USED						
83	NOT USED						
84	NOT USED						
85	NOT USED						
86	NOT USED						
87	NOT USED						
88	CAISSON 1/2JB-PARKJM1	3c #2 AWG	TECK 90	600V	CAISSON 1/2 JB IN SERVICE TUNNEL	PULL PIT T1	NORTH TUNNEL
89	6SHCCT26-SJ HIGH MAST	3c #1 AWG	RW90/TECK 90	347V	MAIN SUB PANEL 6SH CCT. 26	PULL PIT T3	EXISTING DUCT BANK
90	NOT USED						
91	2SKCCT18/20-TUG1	4c #8 AWG	TECK 90	208V	SOUTH SUB CABLE TRAY	NEAR PULL PIT T4	SOUTH JETTY
92	2SKCCT22/24-TUG2	4c #8 AWG	TECK 90	208V	SOUTH SUB CABLE TRAY	NEAR PULL PIT T4	SOUTH JETTY
93	2SKCCT23-TUG3	4c #10 AWG	TECK 90	120V	SOUTH SUB CABLE TRAY	NEAR PULL PIT T4	SOUTH JETTY
94	2SKCCT16-TUGPC	3c #12 AWG	TECK 90	120V	SOUTH SUB CABLE TRAY	NEAR PULL PIT T4	SOUTH JETTY
95	NOT USED						
96	NOT USED						
97	NOT USED						
98	NOT USED						
99	NOT USED						
100	2SKCCT38-F/A LOC LGT TUG	2c #12 AWG	TECK 90	120V	SOUTH SUB CABLE TRAY	NEAR PULL PIT T4	SOUTH JETTY
101	NOT USED						
102	NOT USED						
103	NOT USED						
104	NOT USED						
105	NOT USED						
106	NOT USED						
107	NOT USED						

CABLES CUT OFF FLUSH WITH JETTY. STILL CONNECTED AT SOUTH SUB. SHOULD NOT BE ENERGIZED.

NOT IN CONTRACT

NOT IN CONTRACT

CABLES PULLED BACK INTO SOUTH SUB.

CABLES CUT OFF FLUSH WITH JETTY. STILL CONNECTED AT SOUTH SUB. SHOULD NOT BE ENERGIZED.

CABLES CUT OFF FLUSH

CABLES CUT OFF FLUSH WITH JETTY. STILL CONNECTED AT SOUTH SUB. SHOULD NOT BE ENERGIZED.

NOT IN CONTRACT

CABLES CUT OFF FLUSH WITH JETTY. STILL CONNECTED AT SOUTH SUB. SHOULD NOT BE ENERGIZED.

NOTES:

1. CONTRACTOR TO FIELD VERIFY ALL DETAILS PRIOR TO ORDERING NEW CABLES. OBTAIN INSTRUCTION FROM DEPARTMENTAL REPRESENTATIVE BEFORE ORDERING MATERIAL IF THERE IS ANY DISCREPANCY OR IF ADDITIONAL CABLES NOT SHOWN ARE FOUND.
2. CABLES SHALL BE DISCONNECTED FROM EQUIPMENT, CAPPED AND SEALED. CABLES WITH A NORTH TUNNEL ROUTING SHALL BE MADE SAFE AND PULLED BACK ONTO THE SUBSTATION LOWER FLOOR. CABLES WITH A SOUTH JETTY ROUTING SHALL BE MADE SAFE AND PULLED BACK ONTO THE EXISTING CABLE TRAY IN THE SOUTH SUB. TAGGING SHALL REMAIN ON CABLES.

Public Works and Government Services Canada
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REAL PROPERTY SERVICES
Pacific Region
SERVICES IMMOBILIERS

Klohn Crippen Berger

Revision/ Revision	Description/Description	Date/Date
1	RECORD DRAWING	2017/03/29
0	ISSUED FOR TENDER	2014/12/19

Client/client

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet

ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

Consultant Signature Only

Designed by/Concept par
ALISON MANSFIELD / ROB JONES

Drawn by/Dessine par
GABE MENDES

PWGSC Project Manager/Administrateur de Projets TPSGC
ANDREW MYLLY

Regional Manager, Environmental Services
COLLIN KINGMAN

Drawing title/Titre du dessin

MODIFICATIONS TO SERVICES ELECTRICAL CABLE SCHEDULE

Project No./No. du projet	Sheet/	Revision no./
R.018400.002	E10	1

PWGSC – A1 – 841X594

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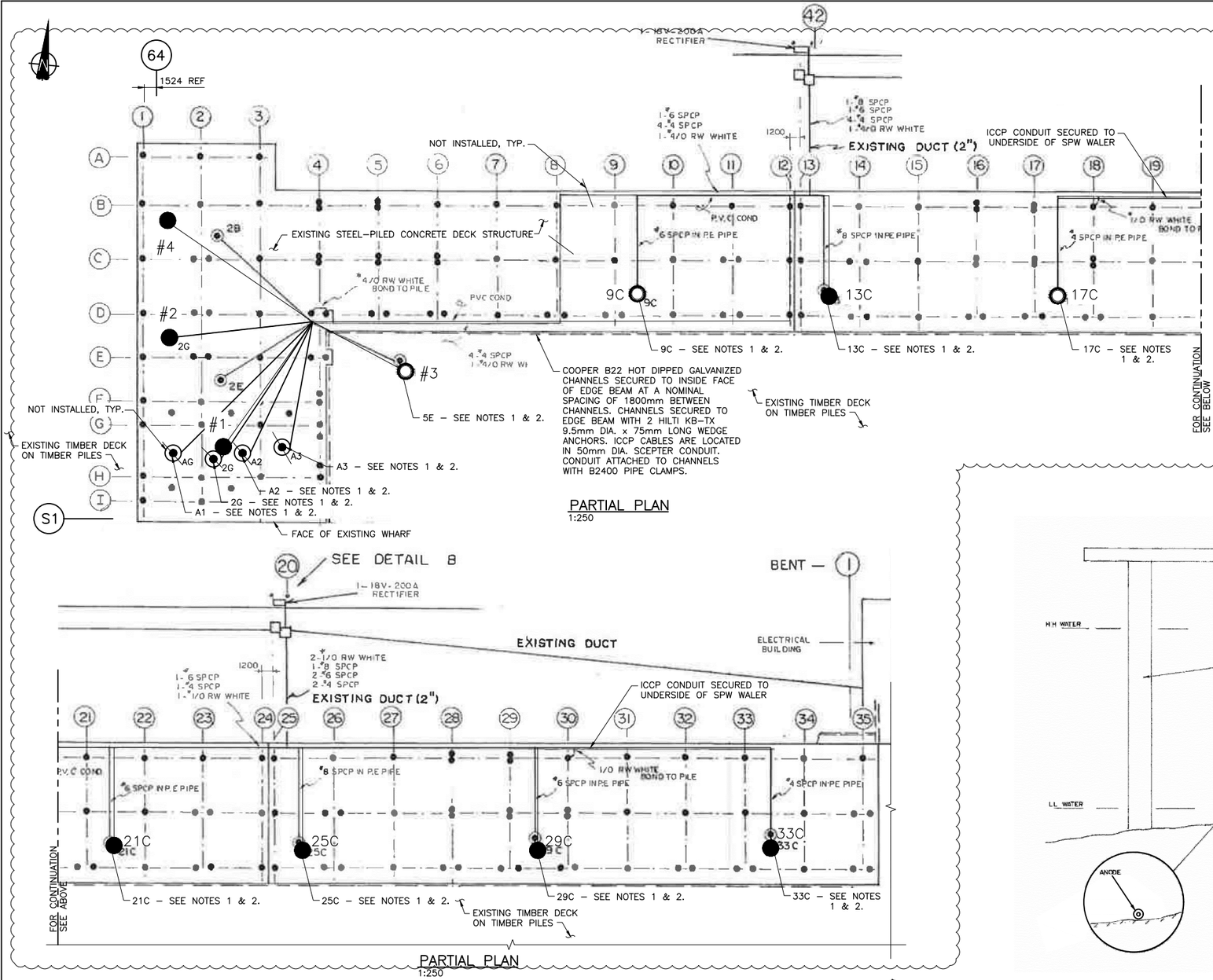
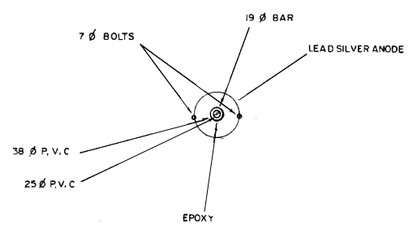


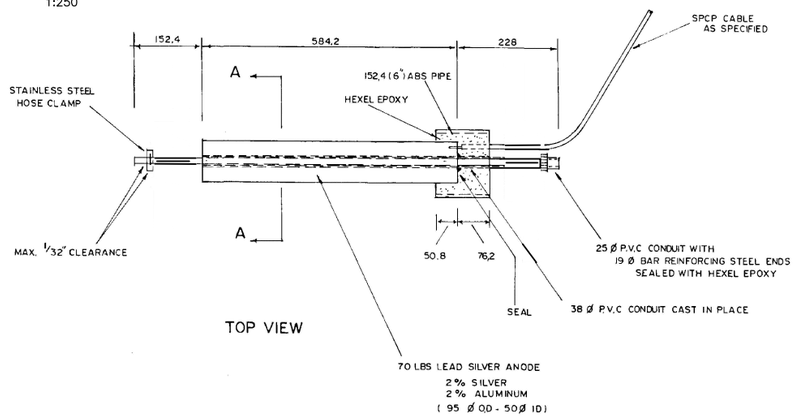
PARTIAL PLAN
1:250

PARTIAL PLAN
1:250

TYPICAL SECTION
N.T.S.



SECTION A-A



TOP VIEW

TYPICAL ANODE ASSEMBLY DETAILS
N.T.S.

LEGEND:

- LEAD SILVER ANODE
- EXISTING STEEL PIPE PILE

NOTES:

1. TEMPORARILY REMOVE, STORE AND REINSTATE ANODES TO ORIGINAL LOCATION AFTER DREDGING AND ENGINEERED CAPPING WORK ARE COMPLETED.
2. DO NOT DAMAGE THE INSULATION ON THE ANODE CABLE DURING REMOVAL AND REINSTATING.
3. DETAILS TAKEN FROM ESQUIMALT GRAVING DOCK IMPROVEMENTS, PROJECT NUMBER PR.100772 DRAWINGS 15 AND 16 OF 75, SUPPLEMENTED BY FIELD INFORMATION FROM EGD SEDIMENT REMEDIATION SOUTH JETTY UNDER-PIER EROSION PROTECTION RECORD DRAWINGS S15 (REFERENCE DRAWINGS).
4. REFER TO SPECIFICATION SECTION 02 41 13 FOR ICCP SYSTEM REQUIREMENTS.

CORROSION TESTING REQUIREMENTS:

1. SYSTEM NOT TESTED PRIOR TO REMOVAL. SYSTEM TESTED POST INSTALLATION.

New MMO Anode

Original ICCP Anode

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REAL PROPERTY SERVICES
Pacific Region
SERVICES IMMOBILIERS

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Revision/ Revision	Description/Description	Date/Date
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Client/client

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

Consultant Signature Only

Designed by/Concept par
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Drawn by/Dessine par
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Drawing title/Titre du dessin

SOUTH JETTY MODIFICATIONS TO CATHODIC PROTECTION SYSTEM

Project No./No. du projet	Sheet/	Revision no./
R.018400.002	E11	1

PWGSC – A1 – 841X594

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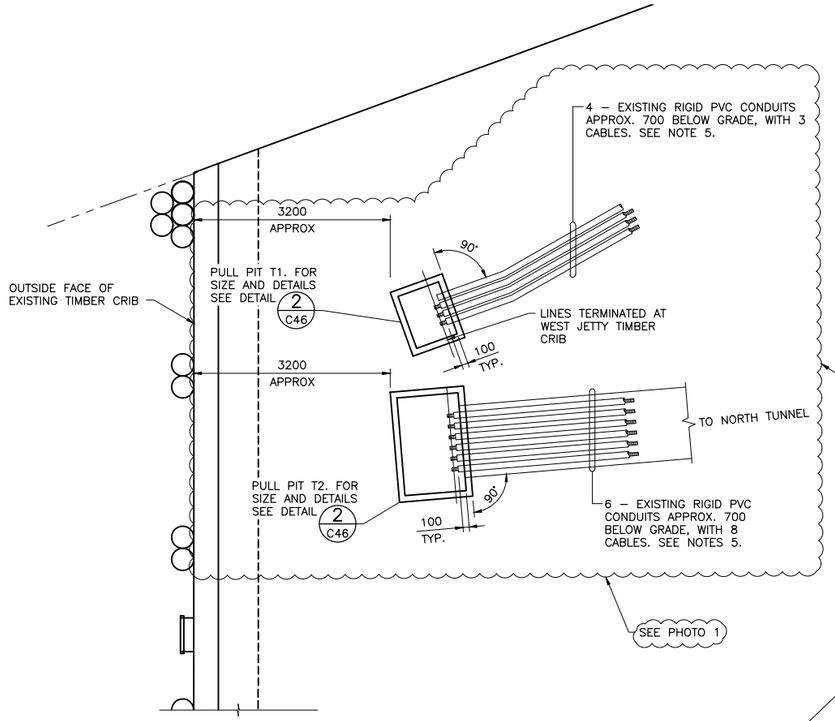
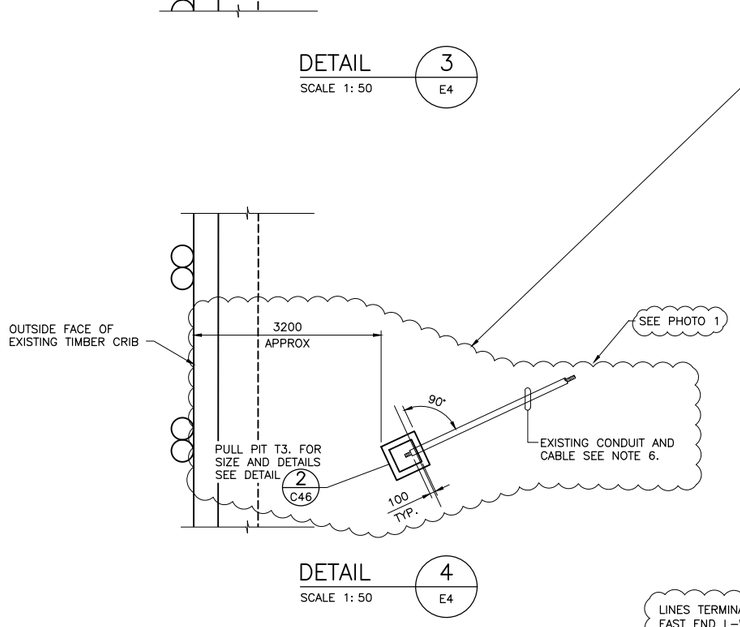


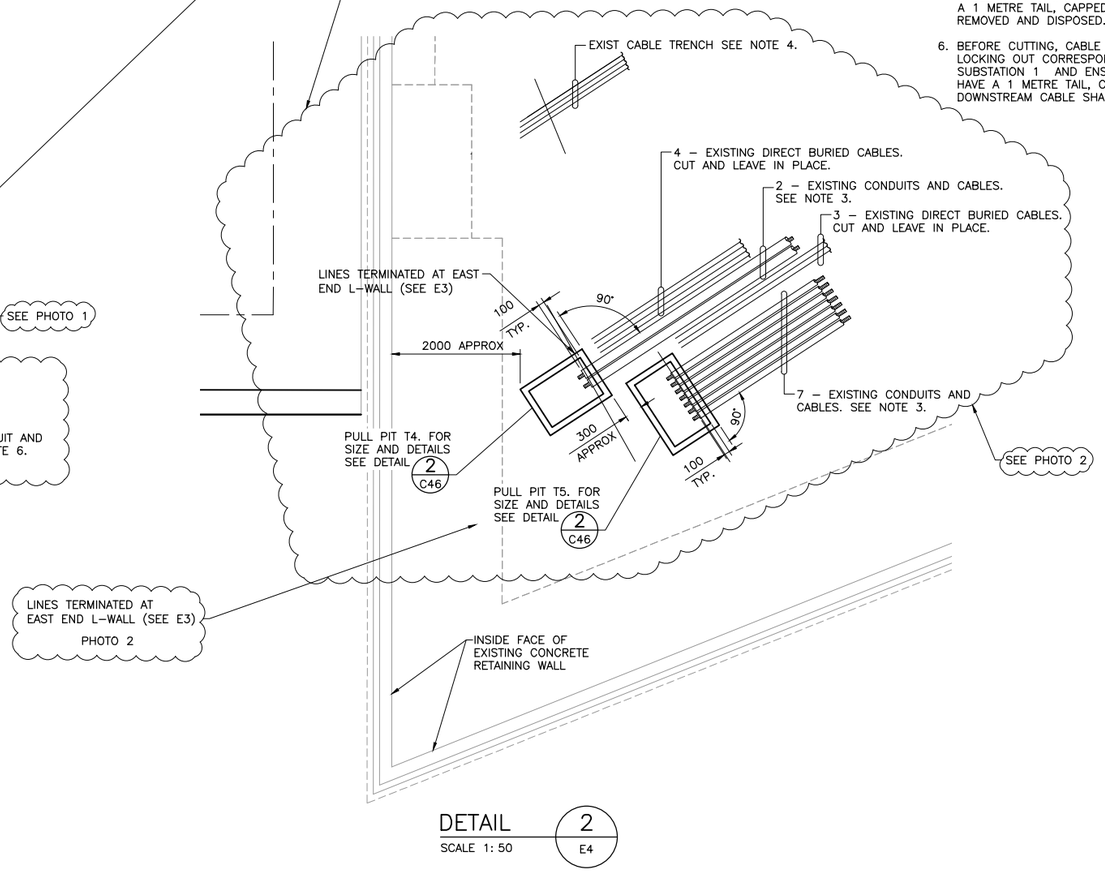
DETAIL 3 / E4
SCALE 1: 50

ALL LINES CUT AND CAPPED
TERMINATION PITS SUPPLIED TO PWGSC.
NOT IN CONTRACT TO INSTALL TERMINATION PITS.

LINES TERMINATED AT
WEST JETTY TIMBER CRIB



DETAIL 4 / E4
SCALE 1: 50



DETAIL 2 / E4
SCALE 1: 50

NOTES:

1. THE ELECTRICAL CABLES/SERVICES SHOWN ON THIS DRAWINGS ARE BASED ON WESTMAR DRAWING NO. 846342–D–E2 CIRCA 2002/3 AND MAY NOT BE REPRESENTATIVE OF EXISTING AS–BUILT CONDITIONS.
2. ALL EXISTING UTILITIES ARE SHOWN ACCORDING TO AVAILABLE RECORD DRAWINGS. THE CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION, INCLUDING UNDERGROUND FIRE WATER, SANITARY SEWER, COMPRESSED AIR, POWER AND TELEPHONE SERVICE DUCTS AND SHALL NOTIFY THE DEPARTMENTAL REPRESENTATIVE OF ANY DISCREPANCIES OR CONFLICTS A MINIMUM OF 72 HOURS PRIOR TO CONSTRUCTION. ANY ADDITIONAL WORK REQUIRED AS A RESULT OF FAILING TO PRE–LOCATE KNOWN OR POTENTIAL CONFLICTS WILL BE COMPLETED AT THE CONTRACTOR'S EXPENSE.
3. BEFORE CUTTING, CABLES SHALL BE DE–ENERGIZED BY OPENING AND LOCKING OUT THE FOLLOWING CIRCUIT BREAKERS AND ENSURED DEAD:
   a. 4SS2–73
   b. 2SS2–63
   c. 4SS2–74
   d. 2SS2–64
   e. 4SS2–75
   f. 2SS2–65
   g. 2SS2JB
   h. 2SS2
   i. SOUTH SUB PANEL 2SK, CCT. 42

   CABLE TERMINATING IN THE PULL PITS SHALL BE CUT SO AS TO HAVE A 1 METRE TAIL, CAPPED AND SEALED. CABLE SHALL BE PULLED BACK TO SUBSTATION WHERE POSSIBLE. DIRECT BURIED CABLE SHALL BE CUT NEAR PULL PIT, CAPPED, SEALED AND LEFT IN PLACE. DOWNSTREAM CABLE SHALL BE REMOVED AND DISPOSED.
4. BEFORE CUTTING, CABLES SHALL BE DE–ENERGIZED BY OPENING AND LOCKING OUT THE FOLLOWING CIRCUIT BREAKERS AND ENSURED DEAD:
   a. SOUTH SUB PANEL 2SK, CC18/20
   b. SOUTH SUB PANEL 2SK, CC22/24
   c. SOUTH SUB PANEL 2SK, CC23
   d. SOUTH SUB PANEL 2SK, CC16
   e. SOUTH SUB PANEL 2SK, CC38
   f. VSY QA OFFICE 120 V PANEL
   g. VSY QA OFFICE F/A BOOSTER PANEL

   DIRECT BURIED CABLE SHALL BE CUT NEAR PULL PIT, CAPPED, SEALED AND LEFT IN PLACE. DOWNSTREAM CABLE SHALL BE REMOVED AND DISPOSED.
5. BEFORE CUTTING, CABLES SHALL BE DE–ENERGIZED BY OPENING AND LOCKING OUT THE FOLLOWING CIRCUIT BREAKERS AND ENSURED DEAD:
   a. 4SS2–71
   b. 2SS2–61
   c. 4SS2–72
   d. 2SS2–72

   CABLE TERMINATING IN THE PULL PITS SHALL BE CUT SO AS TO HAVE A 1 METRE TAIL, CAPPED AND SEALED. DOWNSTREAM CABLE SHALL BE REMOVED AND DISPOSED.
6. BEFORE CUTTING, CABLE SHALL BE DE–ENERGIZED BY OPENING AND LOCKING OUT CORRESPONDING HIGH MAST LIGHT CIRCUIT BREAKER AT SUBSTATION 1 AND ENSURED DEAD. CABLE SHALL BE CUT SO AS TO HAVE A 1 METRE TAIL, CAPPED, SEALED AND PLACED IN PULL PIT. DOWNSTREAM CABLE SHALL BE REMOVED AND DISPOSED.

PHOTO 2

PHOTO 1

Revision/ Revision	Description/Description	Date/Date
1	RECORD DRAWING	2017/03/29
0	ISSUED FOR TENDER	2014/12/19

Client/client

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet

ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

Consultant Signature Only

Designed by/Concept par
LAWRENCE DUONG

Drawn by/Dessine par
MIKE BRIDDEN

PWGSC Project Manager/Administrateur de Projets TPSGC
ANDREW MYLLY

Regional Manager, Environmental Services
COLLIN KINGMAN

Drawing title/Titre du dessin

SERVICES
ELECTRICAL
TERMINATION DETAILS

Project No./No. du projet	Sheet/	Revision no./
R.018400.002	E12	1

Public Works and Government Services Canada / Travaux publics et Services gouvernementaux Canada
REAL PROPERTY SERVICES
Pacific Region
SERVICES IMMOBILIERS

Klohn Crippen Berger

PWGSC – A1 – 841X594

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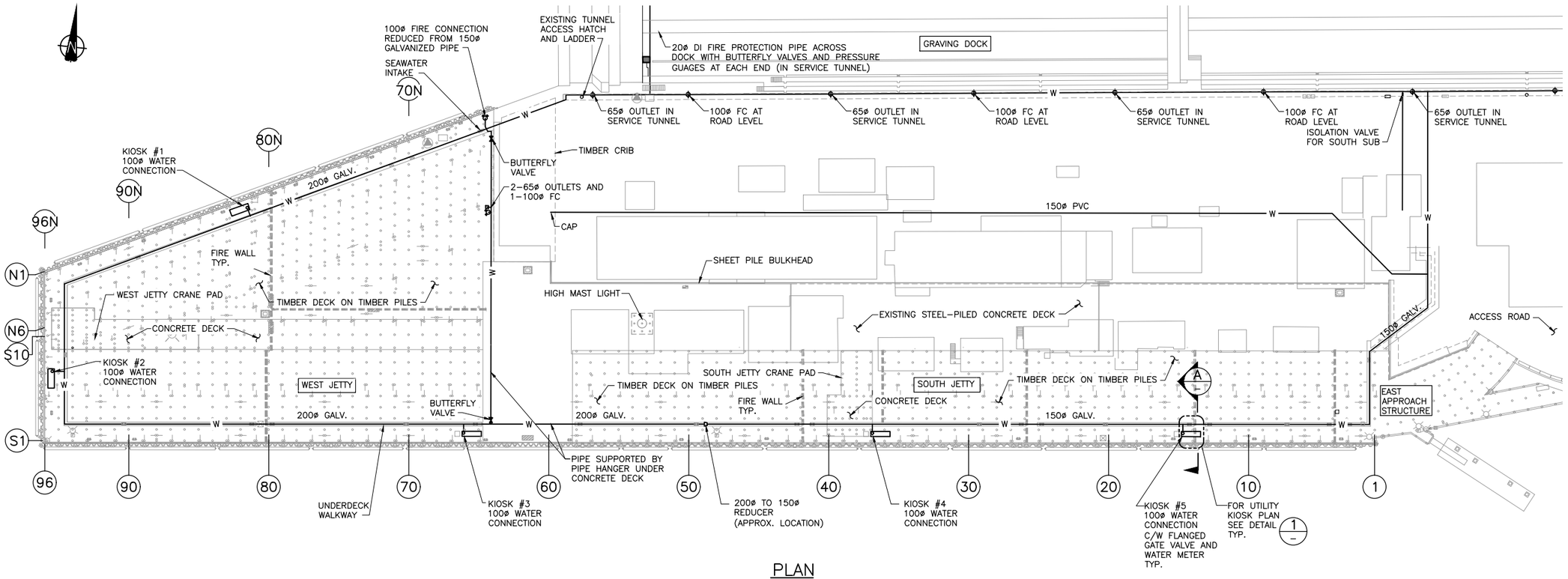
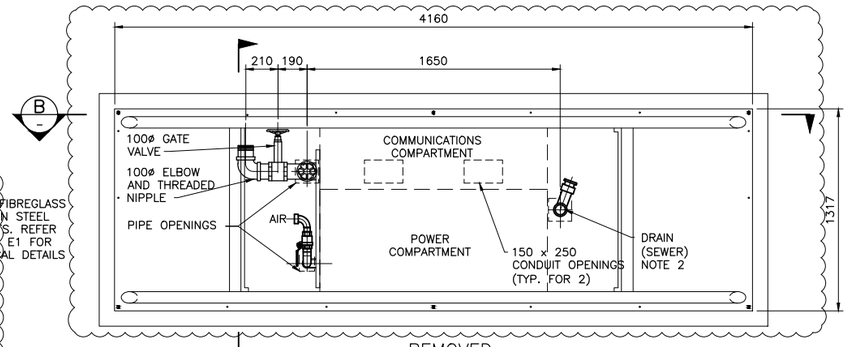
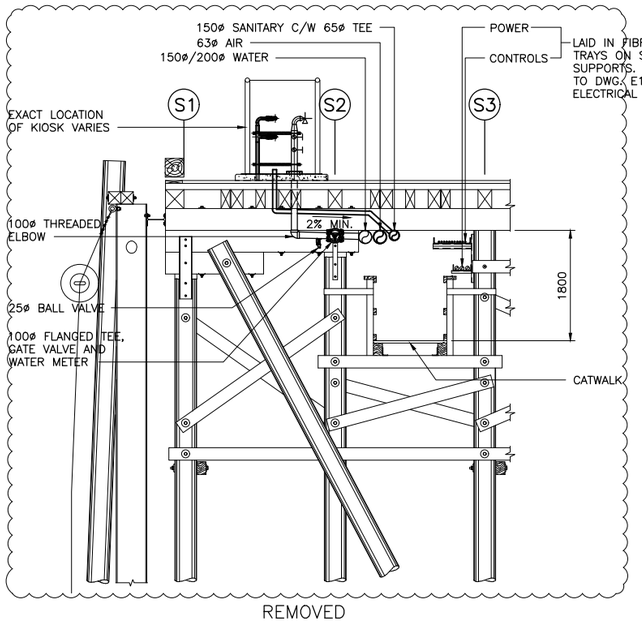


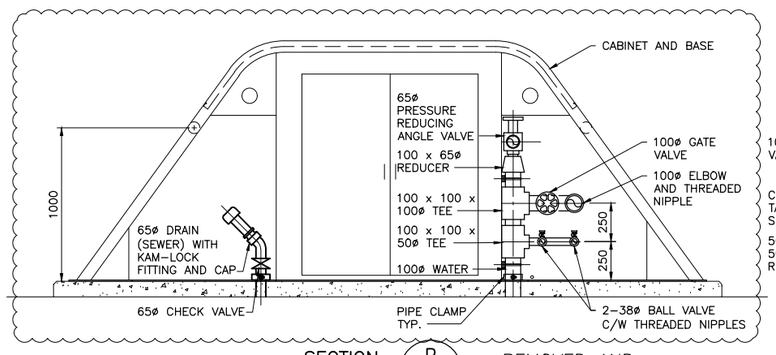
PLAN
1:500



DETAIL 1
SCALE 1: 20

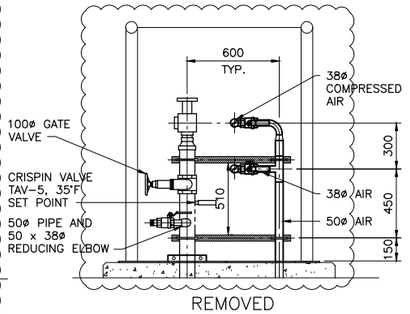


SECTION A
TYPICAL UTILITY ALIGNMENT IN WALKWAY
SCALE 1: 50



SECTION B
SCALE 1: 20

REMOVED AND RETURNED TO PWGSC



SECTION C
SCALE 1: 20

NOTES:

1. EXACT LAYOUT MAY VARY. CONTRACTOR TO FIELD VERIFY ALL DETAILS.
2. SEWER ON KIOSKS 3, 4 AND 5 ONLY.
3. ALL DIMENSIONS FOR REFERENCE ONLY. CONTRACTOR TO VERIFY.
4. DISCONNECT KIOSKS, REMOVE AND RETAIN FOR RE-USE.
5. REMOVE PIPE, MECHANICAL COUPLINGS, VALVES, FLOW METERS & FITTINGS. RETAIN, RE-USE OR DISPOSE AS DESCRIBED ON DWG. D4 AND D5.
6. ALL EXISTING UTILITIES ARE SHOWN ACCORDING TO AVAILABLE RECORD DRAWINGS. THE CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION, INCLUDING UNDERGROUND FIRE WATER, SANITARY SEWER, COMPRESSED AIR, POWER AND TELEPHONE SERVICE DUCTS AND SHALL NOTIFY THE DEPARTMENTAL REPRESENTATIVE OF ANY DISCREPANCIES OR CONFLICTS A MINIMUM OF 72 HOURS PRIOR TO CONSTRUCTION. ANY ADDITIONAL WORK REQUIRED AS A RESULT OF FAILING TO PRE-LOCATE KNOWN OR POTENTIAL CONFLICTS WILL BE COMPLETED AT THE CONTRACTOR'S EXPENSE.

LEGEND

W — EXISTING FIRE WATER MAIN / VALVE

Public Works and Government Services Canada / Travaux publics et Services gouvernementaux Canada

REAL PROPERTY SERVICES
Pacific Region
SERVICES IMMOBILIERS

Klohn Crippen Berger

Revision/ Revision	Description/Description	Date/Date
1	RECORD DRAWING	2017/03/29
0	ISSUED FOR TENDER	2014/12/19

Client/client

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

Consultant Signature Only

Designed by/Concept par
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Drawn by/Dessine par
GABE MENDES

PWGSC Project Manager/Administrateur de Projets TPSGC
ANDREW MYLLY

Regional Manager, Environmental Services
COLLIN KINGMAN

Drawing title/Titre du dessin
EXISTING SERVICES
FIRE WATER MAIN AND KIOSK PLAN, SECTIONS AND DETAIL

Project No./No. du projet	Sheet/	Revision no./
R.018400.002	M1	1

PWGSC – A1 – 841X594

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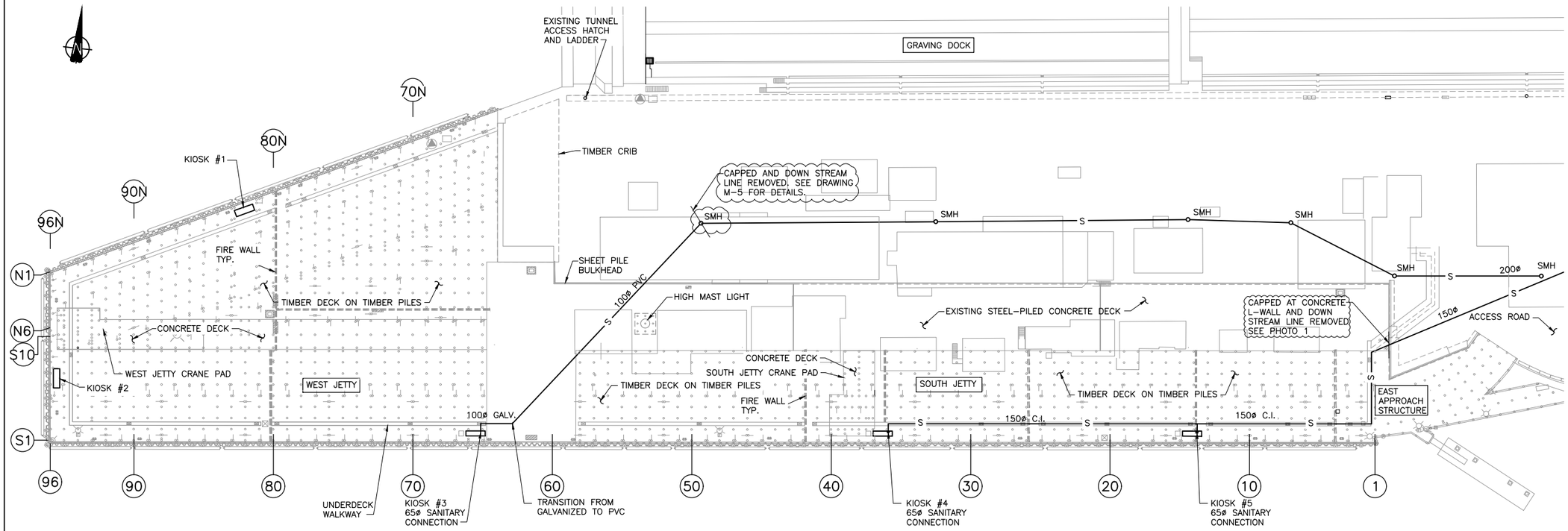

PLAN
1:500

PHOTO 1 – TEMPORARY SANITARY SEWER CONNECTION LEFT IN PLACE

NOTES:

1. EXACT LAYOUT MAY VARY. CONTRACTOR TO FIELD VERIFY ALL DETAILS.
2. FOR KIOSK CONNECTION DETAILS, SEE DWG. M1.
3. REFER TO DWGS. D4 & D5 FOR DEMOLITION.
4. ALL EXISTING UTILITIES ARE SHOWN ACCORDING TO AVAILABLE RECORD DRAWINGS. THE CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION, INCLUDING UNDERGROUND FIRE WATER, SANITARY SEWER, COMPRESSED AIR, POWER AND TELEPHONE SERVICE DUCTS AND SHALL NOTIFY THE DEPARTMENTAL REPRESENTATIVE OF ANY DISCREPANCIES OR CONFLICTS A MINIMUM OF 72 HOURS PRIOR TO CONSTRUCTION. ANY ADDITIONAL WORK REQUIRED AS A RESULT OF FAILING TO PRE-LOCATE KNOWN OR POTENTIAL CONFLICTS WILL BE COMPLETED AT THE CONTRACTOR'S EXPENSE.

LEGEND

—S—○ SMH EXISTING SANITARY SEWER / MANHOLE

Public Works and Government Services Canada
Travaux publics et Services gouvernementaux Canada

REAL PROPERTY SERVICES
Pacific Region
SERVICES IMMOBILIERS

Klohn Crippen Berger

Revision/ Revision	Description/Description	Date/Date
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Client/client

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet

ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

Consultant Signature Only

Designed by/Concept par
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Drawn by/Dessine par
GABE MENDES

PWGSC Project Manager/Administrateur de Projets TPSGC
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Regional Manager, Environmental Services
COLLIN KINGMAN

Drawing title/Titre du dessin

EXISTING SERVICES
SANITARY SEWER
PLAN

Project No./No. du projet	Sheet/	Revision no./
R.018400.002	M2	1

PWGSC – A1 – 841X594

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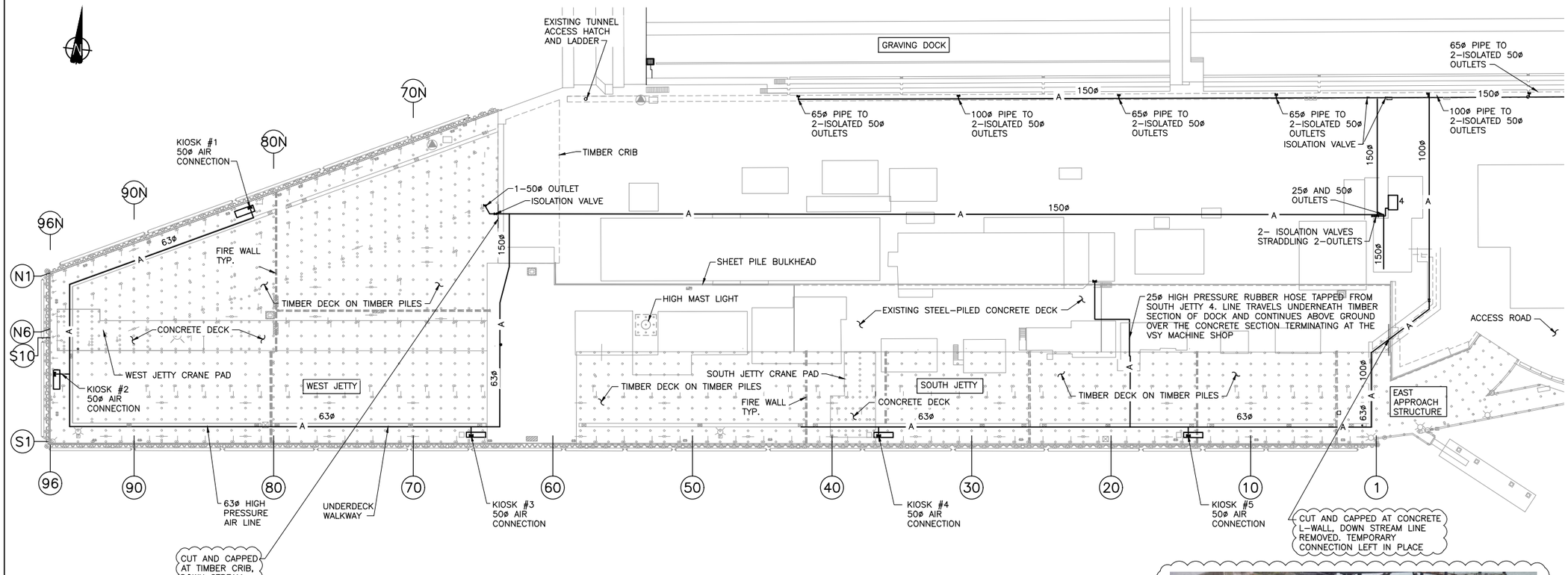

PLAN
1:500

NOTES:

1. EXACT LAYOUT MAY VARY. CONTRACTOR TO FIELD VERIFY ALL DETAILS.
2. FOR KIOSK CONNECTION DETAILS, SEE DWG. M1.
3. REFER TO DWGS. D4 & D5 FOR DEMOLITION.
4. ALL EXISTING UTILITIES ARE SHOWN ACCORDING TO AVAILABLE RECORD DRAWINGS. THE CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION, INCLUDING UNDERGROUND FIRE WATER, SANITARY SEWER, COMPRESSED AIR, POWER AND TELEPHONE SERVICE DUCTS AND SHALL NOTIFY THE DEPARTMENTAL REPRESENTATIVE OF ANY DISCREPANCIES OR CONFLICTS A MINIMUM OF 72 HOURS PRIOR TO CONSTRUCTION. ANY ADDITIONAL WORK REQUIRED AS A RESULT OF FAILING TO PRE–LOCATE KNOWN OR POTENTIAL CONFLICTS WILL BE COMPLETED AT THE CONTRACTOR'S EXPENSE.

LEGEND

A — EXISTING AIR LINE / VALVE

Public Works and Government Services Canada / Travaux publics et Services gouvernementaux Canada
REAL PROPERTY SERVICES
Pacific Region
SERVICES IMMOBILIERS

Klohn Crippen Berger

Revision/ Revision	Description/Description	Date/Date
1	RECORD DRAWING	2017/03/29
0	ISSUED FOR TENDER	2014/12/19

Client/client

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

Consultant Signature Only

Designed by/Concept par
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Drawn by/Dessine par
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Regional Manager, Environmental Services
COLLIN KINGMAN

Drawing title/Titre du dessin
EXISTING SERVICES
COMPRESSED AIR
PLAN

Project No./No. du projet	Sheet/	Revision no./
R.018400.002	M3	1

PWGSC – A1 – 841X594

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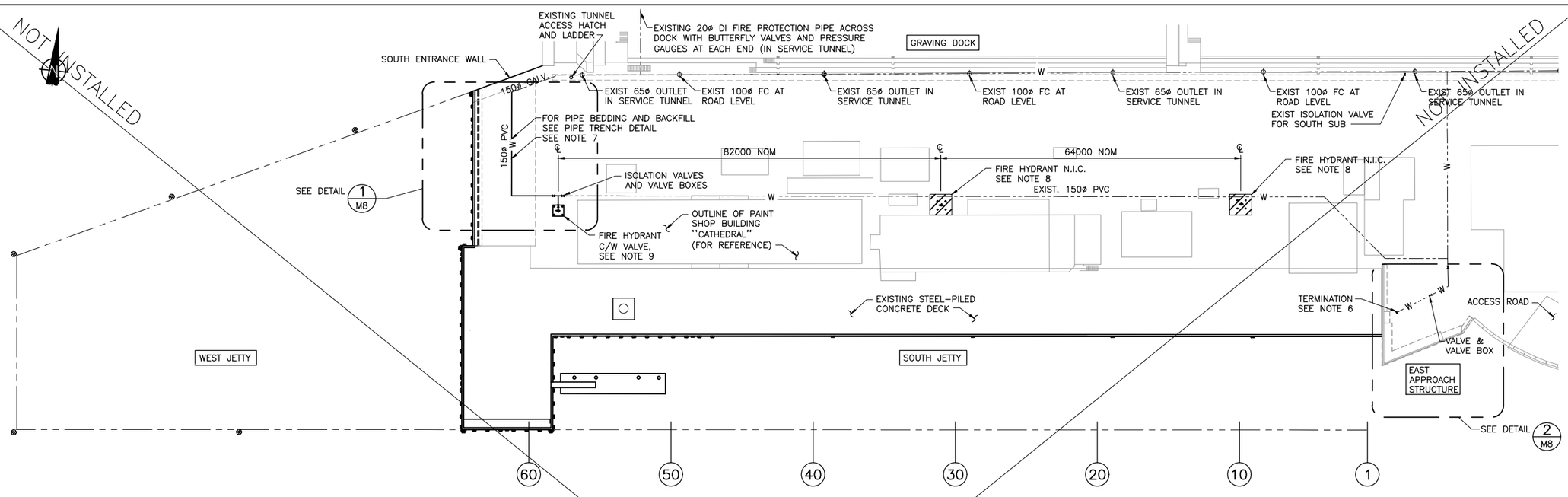
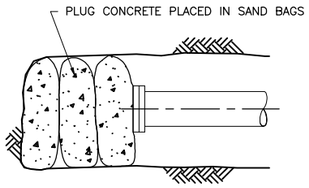
DM5XXXXXX

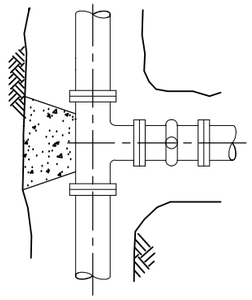


PLAN
1:500

FIRE WATER MAIN NOT IN CONTRACT



PLUG OR END CAP
N.T.S.



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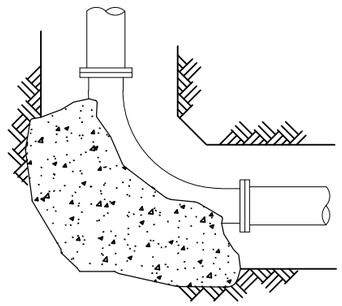
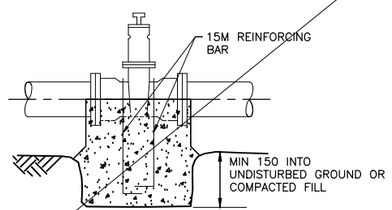
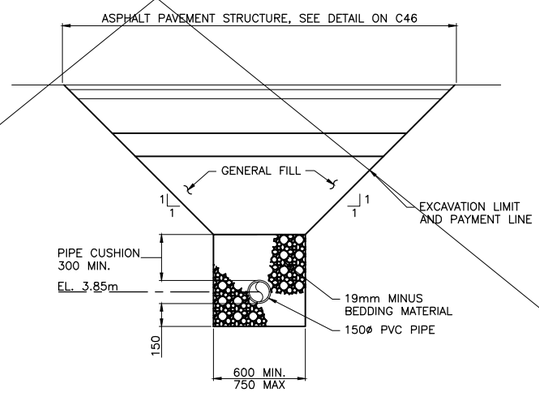


ELBOWS
N.T.S.



VALVES
N.T.S.



PIPE TRENCH DETAIL
N.T.S.

FIRE WATER MAIN TERMINATED AND CAPPED AT CONCRETE L-WALL

LEGEND

- W — FIRE WATER MAIN / VALVE
- W — EXISTING FIRE WATER MAIN
- NOT IN CONTRACT (N.I.C.)

NOTES:

1. ALL PIPEWORK AND FITTINGS TO BE RE-USED WHERE POSSIBLE.
2. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENTAL REPRESENTATIVE IN WRITING IF ANY PIPEWORK OR FITTING CANNOT BE REUSED. DAMAGE TO PIPEWORK OR FITTINGS CAUSED BY CONTRACTOR SHALL BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO PWGSC.
3. ALL STEEL PIPE, HANGERS, PIPE CLAMPS AND MISCELLANEOUS STEEL ITEMS TO BE HOT DIPPED GALVANIZED AFTER FABRICATION UNLESS NOTED OTHERWISE.
4. ALL EXISTING UTILITIES ARE SHOWN ACCORDING TO AVAILABLE RECORD DRAWINGS. THE CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION, INCLUDING UNDERGROUND FIRE WATER, SANITARY SEWER, COMPRESSED AIR, POWER AND TELEPHONE SERVICE DUCTS AND SHALL NOTIFY THE DEPARTMENTAL REPRESENTATIVE OF ANY DISCREPANCIES OR CONFLICTS A MINIMUM OF 72 HOURS PRIOR TO CONSTRUCTION. ANY ADDITIONAL WORK REQUIRED AS A RESULT OF FAILING TO PRE-LOCATE KNOWN OR POTENTIAL CONFLICTS WILL BE COMPLETED AT THE CONTRACTOR'S EXPENSE.
5. METALLIC PIPE, SUPPORTS AND OTHER MISCELLANEOUS METAL SHALL BE GROUNDED PER THE CANADIAN ELECTRICAL CODE.
6. 150mm FIRE WATER LINE TO BE TERMINATED AND CAPPED APPROXIMATELY 2.0m BEHIND THE CONCRETE L-WALL. PROVIDE WELDED END CAP AND LABEL "DCW".
7. WATERLINE BEHIND SOUTH ENTRANCE WALL TO BE RE-DIRECTED TO JOIN THE EXISTING 150mm FIRE WATER LINE ACROSS THE CENTRE OF THE JETTY TO FORM A LOOP SYSTEM.
8. FIRE PROTECTION DESIGN BASIS: AFTER DEMOLITION OF THE TIMBER JETTIES, PWGSC WILL PUT IN PLACE MITIGATIVE MEASURES FOR FIRE PROTECTION OF THE SOUTH JETTY AREAS NOT COVERED BY THE FIRE CODE REQUIREMENT OF 45m RADIUS AROUND REMAINING HYDRANTS AND FIRE CONNECTIONS. ALTERNATELY, ADDITIONAL HYDRANTS LABELED AS N.I.C. (NOT IN CONTRACT) COULD BE INSTALLED.
9. LOCATION OF FIRE HYDRANT IS APPROXIMATE. ACTUAL LOCATION TO BE DETERMINED IN THE FIELD TO AVOID CONFLICTS WITH ADJACENT SHEET PILE BULKHEAD TIE-RODS, EXISTING UNDER GROUND SERVICES AND EXISTING STRUCTURES. FINAL LOCATION TO BE APPROVED BY DEPARTMENTAL REPRESENTATIVE PRIOR TO INSTALLATION.
10. EXCAVATION LIMIT AND PAYMENT LINE FOR FIRE WATER LINE TERMINATION SHALL EXTEND 1000mm RADIUS AROUND CAP IN PLAN.

THRUST BLOCK NOTES:

1. CONCRETE THRUST BLOCK TO BE SET IN TRENCH BOTTOM, MIN. DEPTH 400.
2. MINIMUM SIZE OF THRUST BLOCKS TO BE AS NOTED IN THE TABLE.
3. ALL THRUST BLOCK BEARING SURFACES TO BE ON UNDISTURBED GROUND, COMPACTED FILL, OR ANCHORED WITH RODS AS SHOWN.
4. ALL THRUST BLOCKS SHALL HAVE CONCRETE PLACED TO CENTER LINE OF PIPE.

GUIDE TO THRUST BLOCK SIZING				
PIPE SIZE	TEES, ENDS, PLUGS, CROSSES & VALVES	90° BEND	70° BEND	45° BEND
(mm)	AREA (m^2)	AREA (m^2)	AREA (m^2)	AREA (m^2)
150	0.45	0.64	0.52	0.35
NOTE: AREAS ARE FOR 670 kPa TEST PRESSURE AND ALLOWABLE LATERAL BEARING STRESS OF 42kPa				

NOT INSTALLED

NOT INSTALLED

Public Works and Government Services Canada / Travaux publics et Services gouvernementaux Canada

REAL PROPERTY SERVICES
Pacific Region
SERVICES IMMOBILIERS

Klohn Crippen Berger

Revision/ Revision	Description/Description	Date/Date
1	RECORD DRAWING	2017/03/29
0	ISSUED FOR TENDER	2014/12/19

Client/client

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATER LOT PHASE 2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

Consultant Signature Only

Designed by/Concept par
ANDREW MACK / DOUG SHARPE

Drawn by/Dessine par
GABE MENDES

PWGSC Project Manager/Administrateur de Projets TPSGC
ANDREW MYLLY

Regional Manager, Environmental Services
COLLIN KINGMAN

Drawing title/Titre du dessin
SERVICES
FIRE WATER MAIN
PLAN AND DETAILS

Project No./No. du projet	Sheet/	Revision no./
R.018400.002	M4	1

PWGSC – A1 – 841X594

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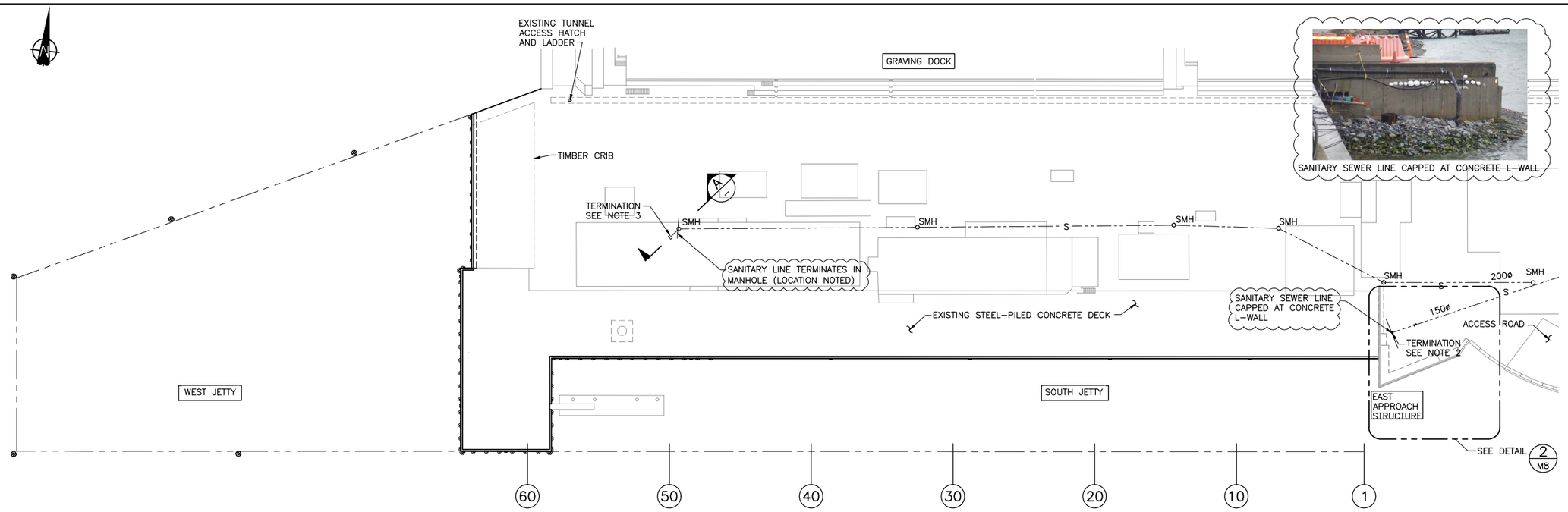
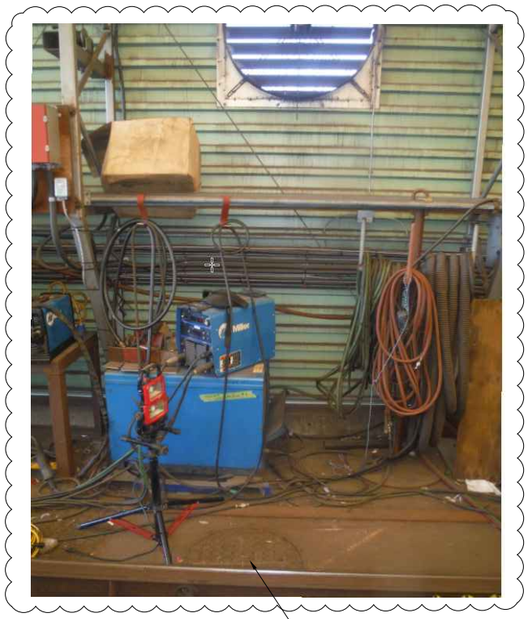
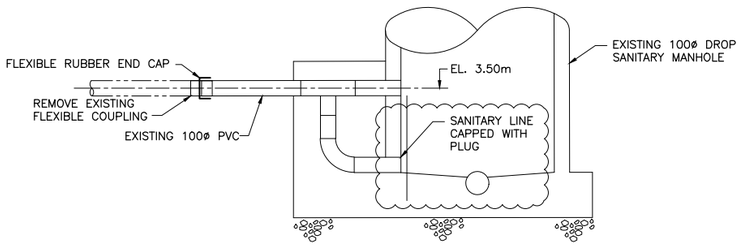
DM5XXXXXX



PLAN
1:500





SECTION A
SCALE 1: 20


SANITARY LINE PLUG

LEGEND

—S— SMH EXISTING SANITARY SEWER / MANHOLE

NOTES:

1. ALL EXISTING UTILITIES ARE SHOWN ACCORDING TO AVAILABLE RECORD DRAWINGS. THE CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION, INCLUDING UNDERGROUND FIRE WATER, SANITARY SEWER, COMPRESSED AIR, POWER AND TELEPHONE SERVICE DUCTS AND SHALL NOTIFY THE DEPARTMENTAL REPRESENTATIVE OF ANY DISCREPANCIES OR CONFLICTS A MINIMUM OF 72 HOURS PRIOR TO CONSTRUCTION. ANY ADDITIONAL WORK REQUIRED AS A RESULT OF FAILING TO PRE–LOCATE KNOWN OR POTENTIAL CONFLICTS WILL BE COMPLETED AT THE CONTRACTOR'S EXPENSE.
2. 150mmø SANITARY WATER LINE TO BE TERMINATED AND CAPPED WITH FLEXIBLE RUBBER END CAP APPROXIMATELY 2.0m BEHIND THE CONCRETE L–WALL.
3. 100mmø SANITARY WATER LINE RUNNING DIAGONALLY UNDER THE STEEL–PILED DECK FORMERLY SERVICING KIOSK #3 TO BE TERMINATED AND CAPPED WITH FLEXIBLE RUBBER END CAP AFTER TRANSITION FROM EXISTING DIAGONAL RUN, AT LOCATION OF EXISTING FLEXIBLE COUPLING UPSTREAM OF MANHOLE.
4. EXCAVATION LIMIT AND PAYMENT LINE FOR SANITARY SEWER TERMINATIONS SHALL EXTEND 1000mm RADIUS AROUND CAP IN PLAN.

Public Works and Government Services Canada
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REAL PROPERTY SERVICES
Pacific Region
SERVICES IMMOBILIERS

Klohn Crippen Berger

Revision/ Revision	Description/Description	Date/Date
1	RECORD DRAWING	2017/03/29
0	ISSUED FOR TENDER	2014/12/19

Client/client

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

Consultant Signature Only

Designed by/Concept par
ANDREW MACK / DOUG SHARPE

Drawn by/Dessine par
GABE MENDES

PWGSC Project Manager/Administrateur de Projets TPSGC
ANDREW MYLLY

Regional Manager, Environmental Services
COLLIN KINGMAN

Drawing title/Titre du dessin
SERVICES
SANITARY SEWER
PLAN AND SECTION

Project No./No. du projet	Sheet/	Revision no./
R.018400.002	M5	1

PWGSC – A1 – 841X594

0 10 20 30 40 50 60 70 80 90 100mm

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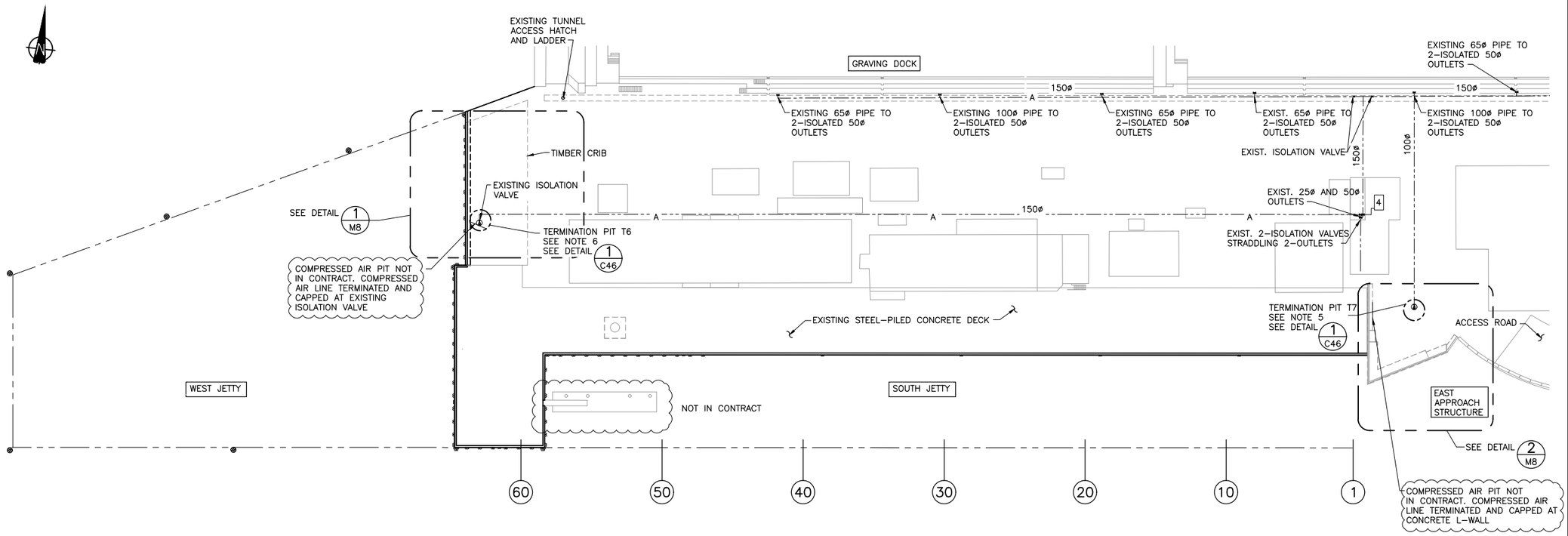

PLAN
1:500

LEGEND

A — EXISTING AIR LINE / VALVE

NOTES:

1. SURFACE RUN PIPE TO BE SCH 40 GALVANIZED STEEL WITH GROOVED END MECHANICAL CONNECTIONS.
2. BURIED PIPE TO BE SCH 10 316 SS WITH GROOVED END MECHANICAL CONNECTIONS.
3. ALL EXISTING UTILITIES ARE SHOWN ACCORDING TO AVAILABLE RECORD DRAWINGS. THE CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION, INCLUDING UNDERGROUND FIRE WATER, SANITARY SEWER, COMPRESSED AIR, POWER AND TELEPHONE SERVICE DUCTS AND SHALL NOTIFY THE DEPARTMENTAL REPRESENTATIVE OF ANY DISCREPANCIES OR CONFLICTS A MINIMUM OF 72 HOURS PRIOR TO CONSTRUCTION. ANY ADDITIONAL WORK REQUIRED AS A RESULT OF FAILING TO PRE–LOCATE KNOWN OR POTENTIAL CONFLICTS WILL BE COMPLETED AT THE CONTRACTOR'S EXPENSE.
4. METALLIC PIPE, SUPPORTS AND OTHER MISCELLANEOUS METAL SHALL BE GROUNDED PER THE CANADIAN ELECTRICAL CODE.
5. AIR LINE TO BE TERMINATED AND CAPPED BEHIND THE CONCRETE L–WALL IN A TERMINATION PIT. INSTALL 13mm DOWNWARD FACING PIPE WITH ISOLATION VALVE AND OPEN END FOR CLEARING LINE OF CONDENSATE.
6. AIR LINE THAT CROSSES UNDER STEEL PILED DECK TO BE REMOVED AND CAPPED DOWNSTREAM OF EXISTING ISOLATION VALVE IN A TERMINATION PIT. INSTALL 13mm DOWNWARD FACING PIPE WITH ISOLATION VALVE AND OPEN END OF CLEARING LINE OF CONDENSATE.

TERMINATION PIT PROVIDED TO PWGSC. INSTALLATION OF TERMINATION PIT (T6) NOT IN CONTRACT

PWGSC – A1 – 841X594

0 10 20 30 40 50 60 70 80 90 100mm

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REAL PROPERTY SERVICES
Pacific Region
SERVICES IMMOBILIERS

Klohn Crippen Berger

Revision/ Revision	Description/Description	Date/Date
1	RECORD DRAWING	2017/03/29
0	ISSUED FOR TENDER	2014/12/19

Client/client

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

Consultant Signature Only

Designed by/Concept par
ANDREW MACK / DOUG SHARPE

Drawn by/Dessine par
GABE MENDES

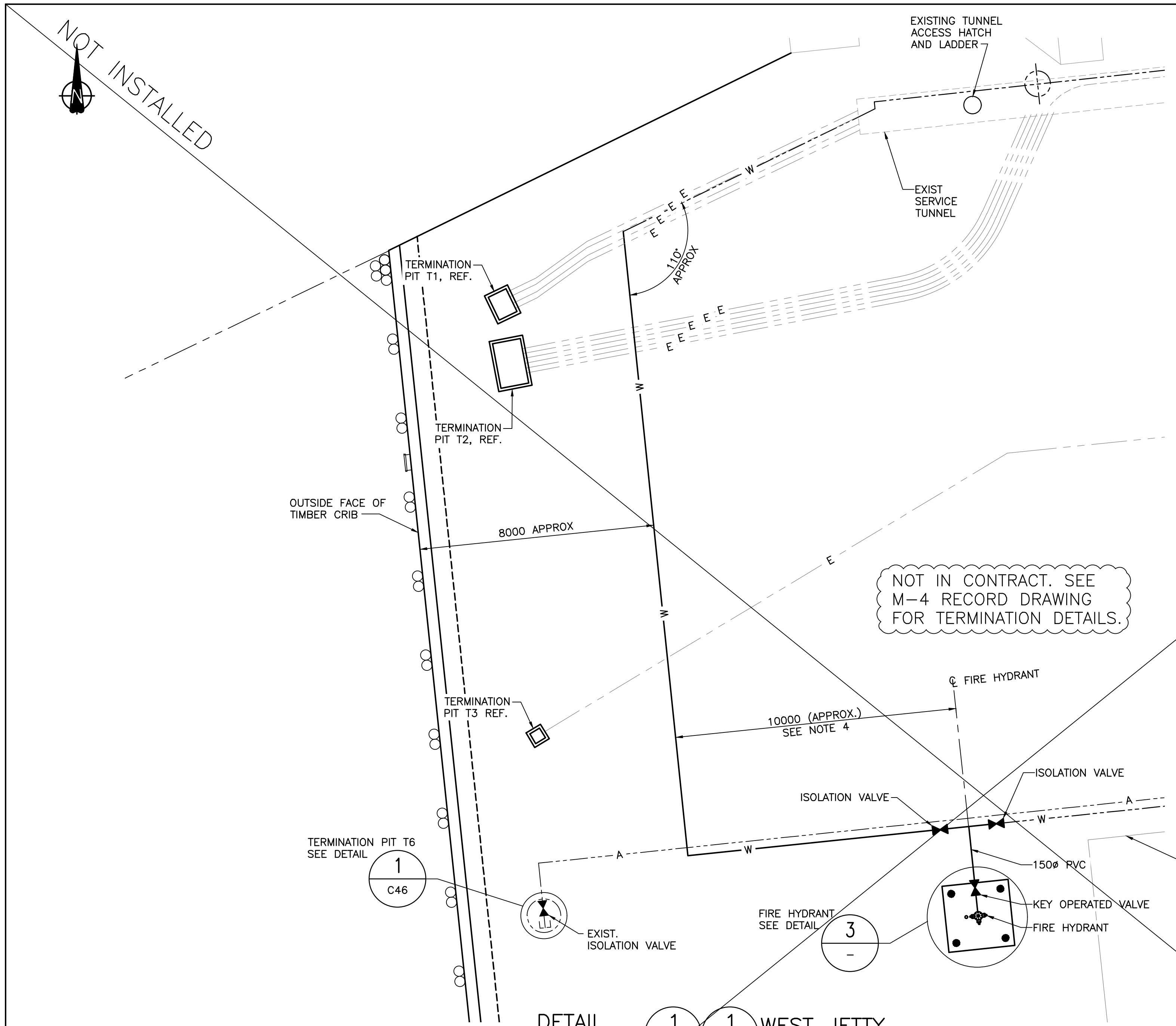
PWGSC Project Manager/Administrateur de Projets TPSGC
ANDREW MYLLY

Regional Manager, Environmental Services
COLLIN KINGMAN

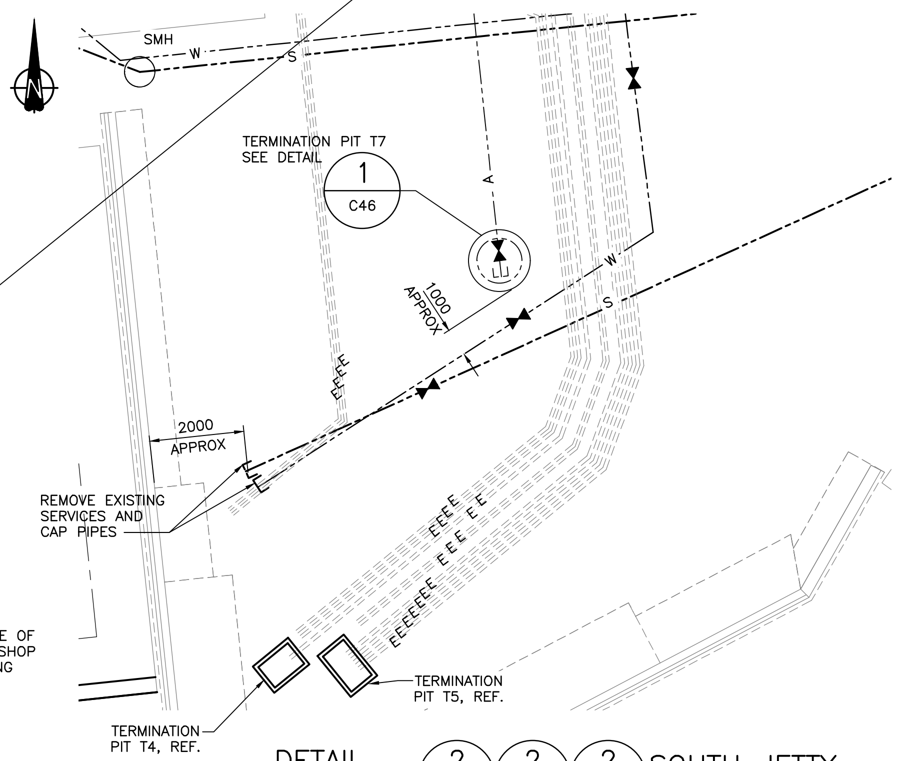
Drawing title/Titre du dessin
SERVICES
COMPRESSED AIR
PLAN

Project No./No. du projet	Sheet/	Revision no./
R.018400.002	M6	1

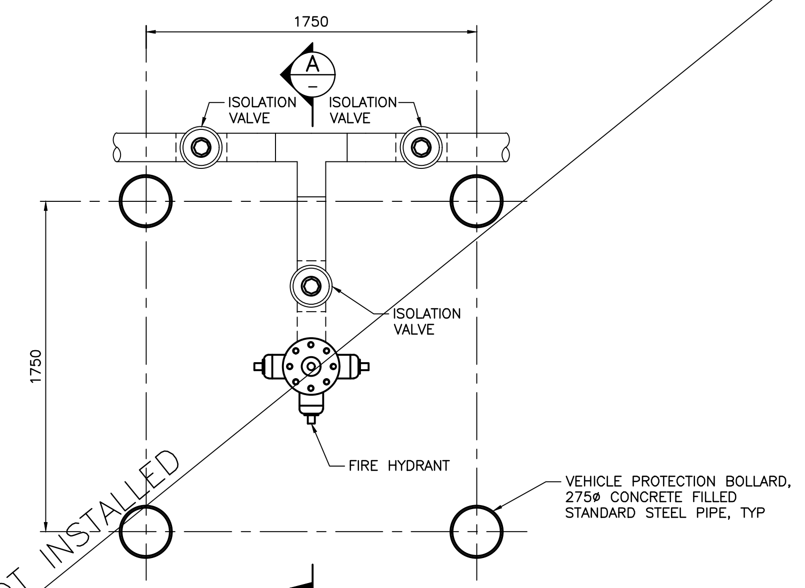
DM5XXXXXX



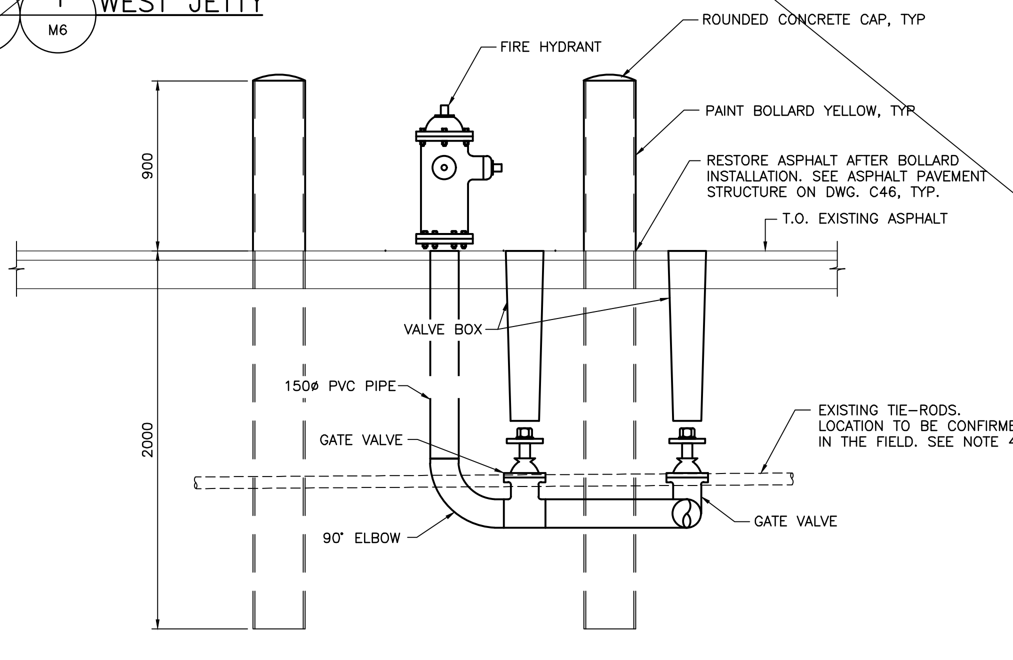
DETAIL 1/M4 1/M6 WEST JETTY
SCALE 1: 100



DETAIL 2/M4 2/M5 2/M6 SOUTH JETTY
SCALE 1: 100



DETAIL 3/–
SCALE 1: 20



SECTION A/–
SCALE 1: 20

LEGEND

—-·-— W —-·-—	EXISTING FIRE WATER MAIN
—-·-— A —-·-—	EXISTING COMPRESSED AIR LINE
—-·-— S —-·-—	EXISTING SANITARY SEWER
——— W ———	FIRE WATER MAIN
——— A ———	COMPRESSED AIR LINE
——— S ———	SANITARY SEWER
– – – E – – –	EXISTING ELECTRICAL

NOTES:

1. FOR ELECTRICAL DETAILS SEE ELECTRICAL DRAWINGS.
2. EXACT LOCATION OF EXISTING SERVICES UNKNOWN. CONTRACTOR TO VERIFY. LOCATION OF CONNECTION WILL DEPEND ON LOCATION OF EXISTING SERVICES.
3. ALL EXISTING UTILITIES ARE SHOWN ACCORDING TO AVAILABLE RECORD DRAWINGS. THE CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION, INCLUDING UNDERGROUND FIRE WATER, SANITARY SEWER, COMPRESSED AIR, POWER AND TELEPHONE SERVICE DUCTS AND SHALL NOTIFY THE DEPARTMENTAL REPRESENTATIVE OF ANY DISCREPANCIES OR CONFLICTS A MINIMUM OF 72 HOURS PRIOR TO CONSTRUCTION. ANY ADDITIONAL WORK REQUIRED AS A RESULT OF FAILING TO PRE-LOCATE KNOWN OR POTENTIAL CONFLICTS WILL BE COMPLETED AT THE CONTRACTOR'S EXPENSE.
4. LOCATION OF FIRE HYDRANT IS APPROXIMATE. ACTUAL LOCATION TO BE DETERMINED IN THE FIELD TO AVOID CONFLICTS WITH ADJACENT SHEET PILE BULKHEAD TIE-RODS, EXISTING UNDERGROUND SERVICES AND EXISTING STRUCTURES. FINAL LOCATION TO BE APPROVED BY DEPARTMENTAL REPRESENTATIVE PRIOR TO INSTALLATION.

Public Works and Government Services Canada / Travaux publics et Services gouvernementaux Canada
REAL PROPERTY SERVICES
Pacific Region
SERVICES IMMOBILIERS

Klohn Crippen Berger

Revision/Revision	Description/Description	Date/Date
1	RECORD DRAWING	2017/03/29
0	ISSUED FOR TENDER	2014/12/19

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

Consultant Signature Only

Designed by/Concept par
ANDREW MACK / DOUG SHARPE

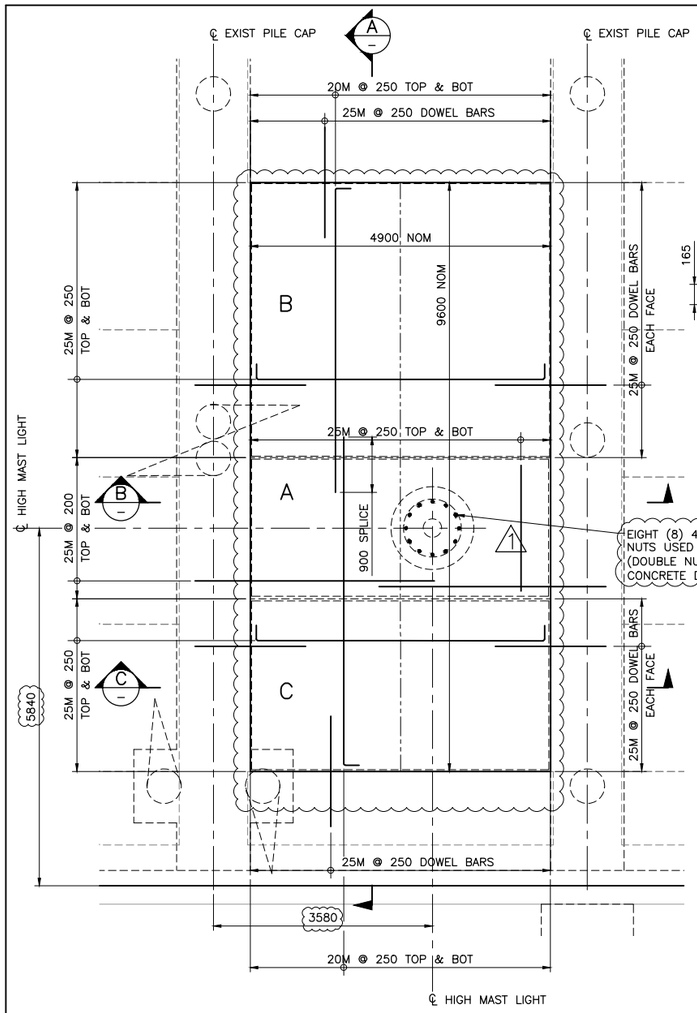
Drawn by/Dessine par
GABE MENDES

PWGSC Project Manager/Administrateur de Projets TPSGC
ANDREW MYLLY

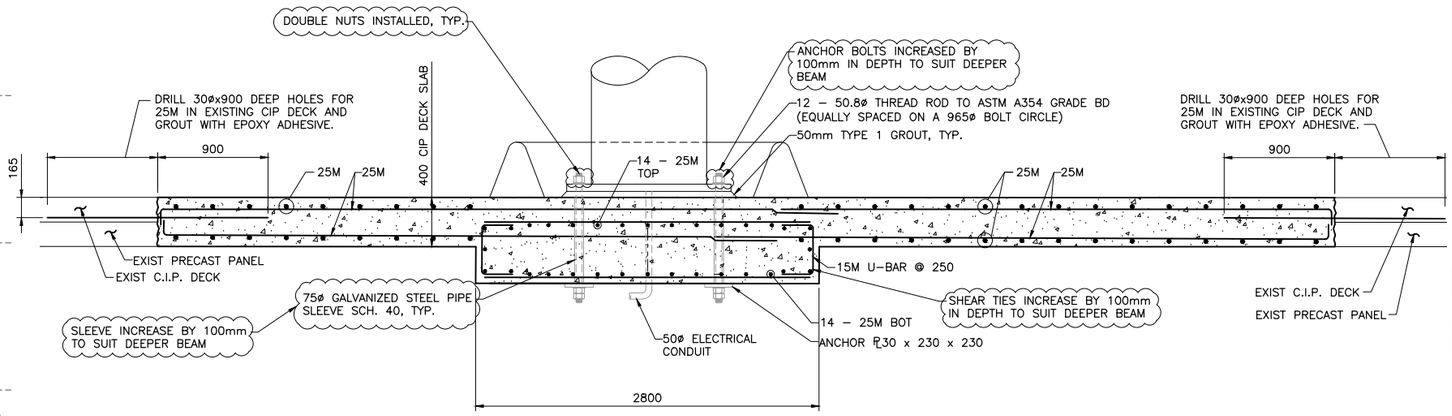
Regional Manager, Environmental Services
COLLIN KINGMAN

Drawing title/Titre du dessin
SERVICES
FIRE WATER MAIN, SANITARY SEWER AND COMPRESSED AIR DETAILS

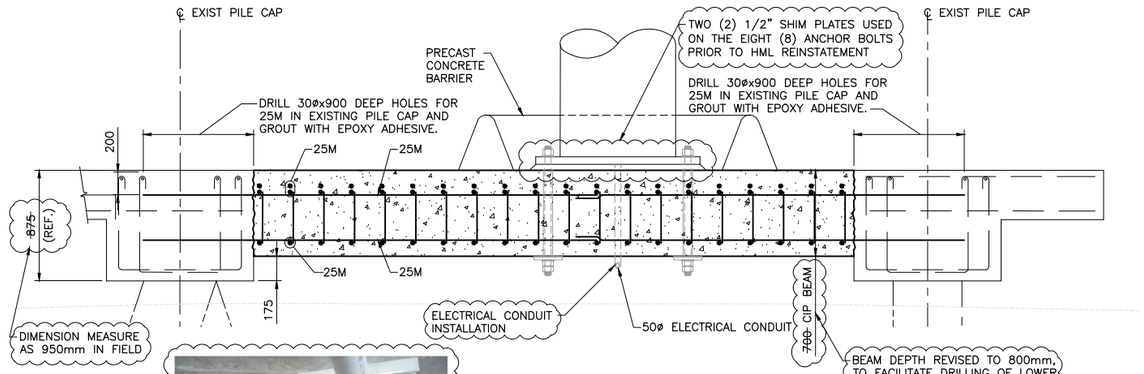
Project No./No. du projet: R.018400.002
Sheet/: M8
Revision no./: 1



PLAN – REPLACEMENT CAST–IN–PLACE CONCRETE DECK SLAB
1:50

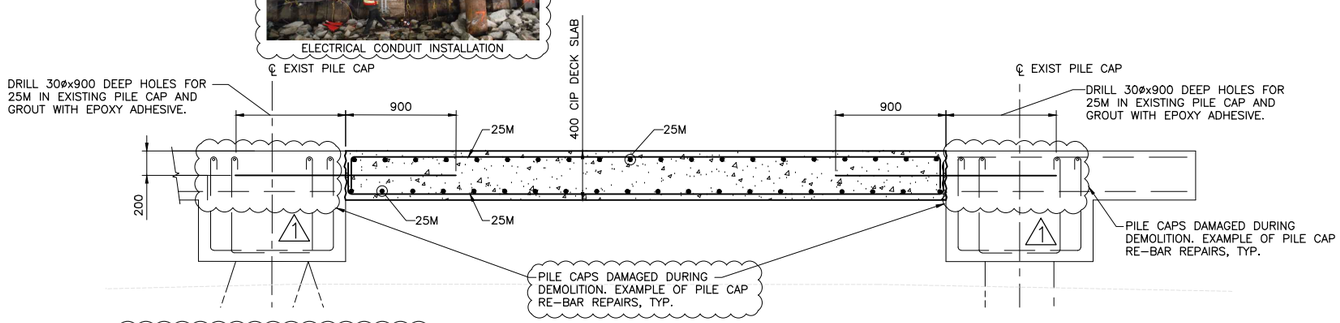


SECTION A
SCALE 1: 25

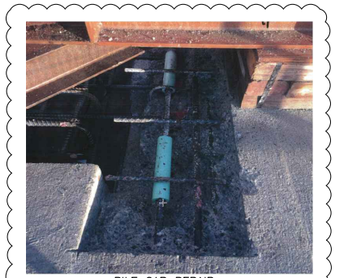


SECTION B
SCALE 1: 25


ELECTRICAL CONDUIT INSTALLATION



SECTION C
SCALE 1: 25


PILE CAP REPAIR

NOTES:

1. FOR NOTES SEE DWG. C2.
2. HIGH MAST LIGHT DECK SLAB DESIGNED FOR THE FOLLOWING LIVE LOADS (ALL LOADS ARE UNFACTORED):
   - 2.1. UNIFORMLY DISTRIBUTED LOAD (UDL) : 28.7 kPa (600 psf)
   - 2.2. TRUCK LOADING (CL–625 PER S6–06)
     FRONT AXLE 50 kN (DISTRIBUTED TO 2 WHEELS)
     REAR AXLE 175 kN (DISTRIBUTED TO 2 PAIRS OF WHEELS)
   - 2.3. SAME LIVE LOADS AS ADJACENT EXISTING STEEL PILED CONCRETE DECK STRUCTURE.
3. CONSTRUCTION JOINTS SHALL BE ROUGHENED BY MECHANICAL MEANS TO FULL AMPLITUDE OF 5mm TO CAN/CSA–A23.1–09 (R2014) CLAUSE 7.2.2 TO EXPOSE CLEAN AND SOUND AGGREGATE PRIOR TO CASTING THE SUBSEQUENT PART OF THE STRUCTURE. ROUGHEN CONCRETE SURFACE BY SUITABLE METHODS AUTHORIZED BY DEPARTMENTAL REPRESENTATIVE.

Public Works and Government Services Canada
Travaux publics et Services gouvernementaux Canada
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HML GROUTING


PRECAST CONCRETE BARRIERS

Revision/ Revision	Description/Description	Date/Date
1	RECORD DRAWING	2017/03/29
0	ISSUED FOR TENDER	2014/12/19

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

Consultant Signature Only

Designed by/Concept par
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Drawn by/Dessine par
ARNIE RIST

PWGSC Project Manager/Administrateur de Projets TPSGC
ANDREW MYLLY

Regional Manager, Environmental Services
COLLIN KINGMAN

Drawing title/Titre du dessin
CONSTRUCTION AT HIGH MAST LIGHT AREA

Project No./No. du projet	Sheet/	Revision no./
R.018400.002	**S110**	**1**

PWGSC – A1 – 841X594

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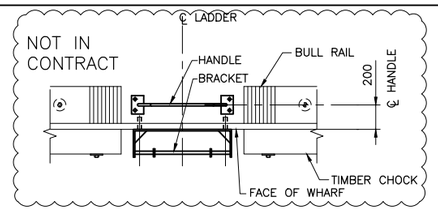
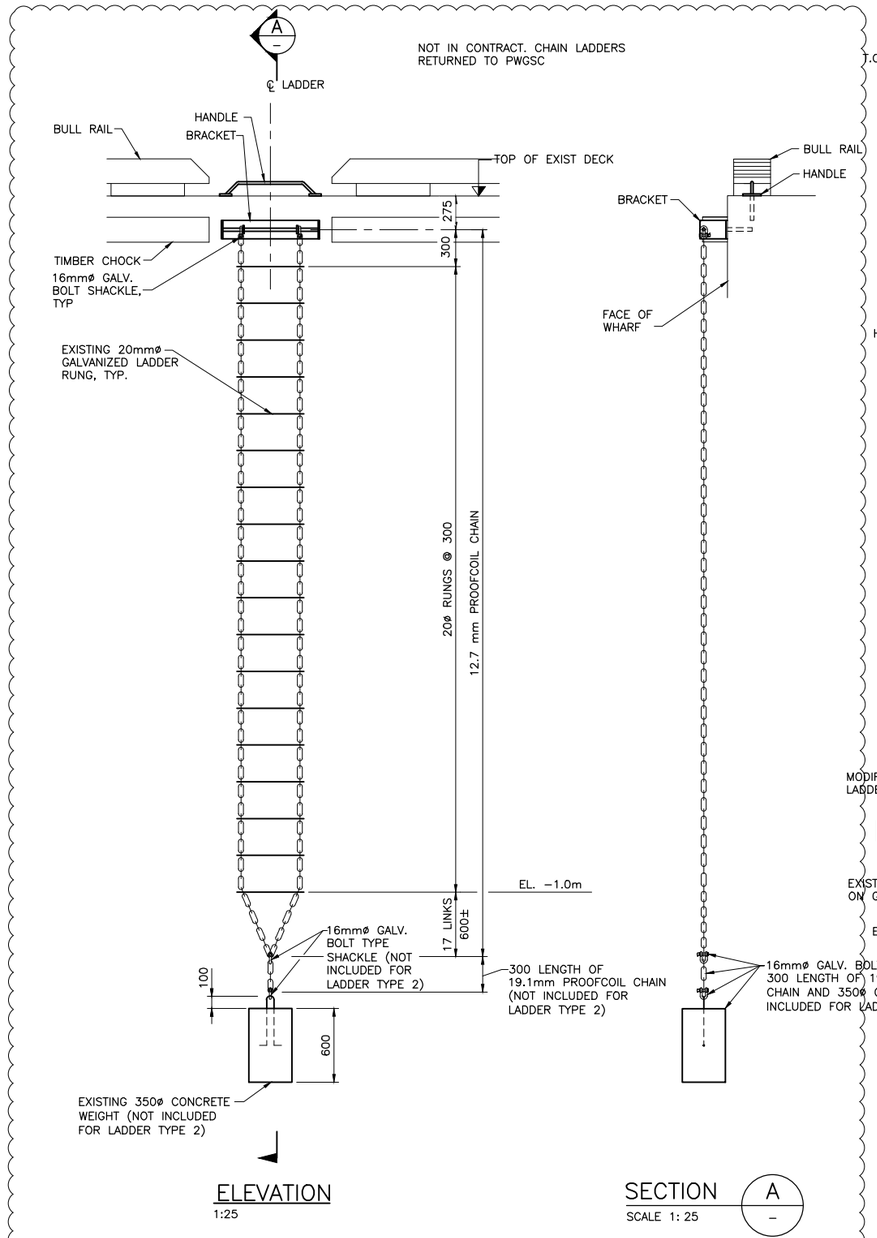


DETAIL 1
SCALE 1: 25 — S128

4 – TYPE 1 REQUIRED
6 – TYPE 2 REQUIRED

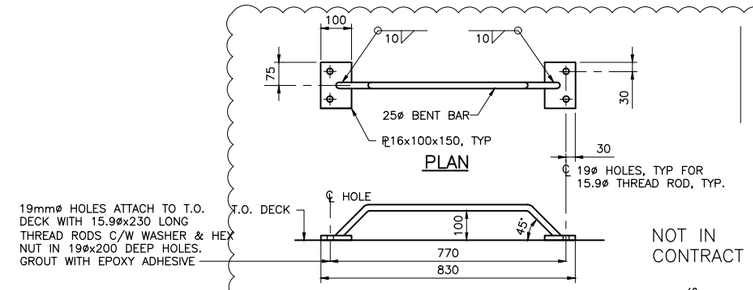


ELEVATION
1:25

SECTION A
SCALE 1: 25

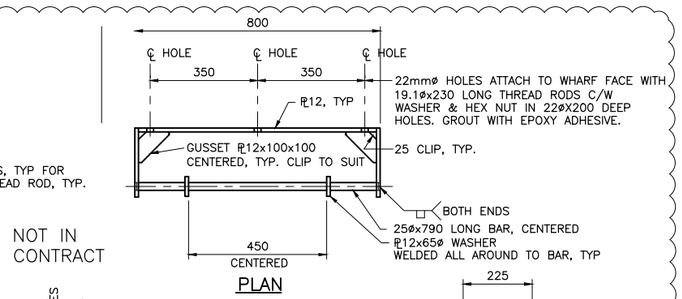
CHAIN LADDERS – MODIFICATIONS

LADDER TYPE 1 SHOWN
LADDER TYPE 2 SIMILAR, EXCEPT AS NOTED



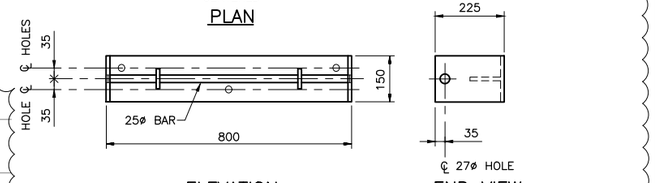
PLAN

ELEVATION
HANDLE
1:10

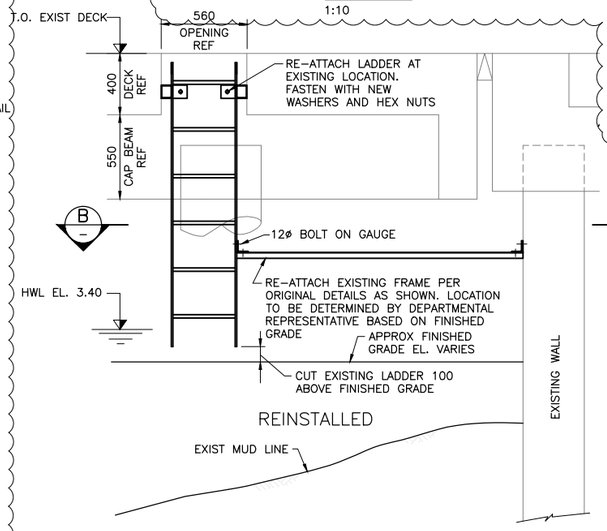


PLAN

NOT IN CONTRACT



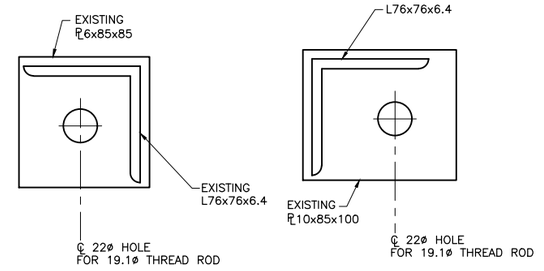
ELEVATION — END VIEW



BRACKET

1:10

NOTE:
ALL WELDS SHALL BE 6mm CONTINUOUS FILLET ALL AROUND U.N.O.



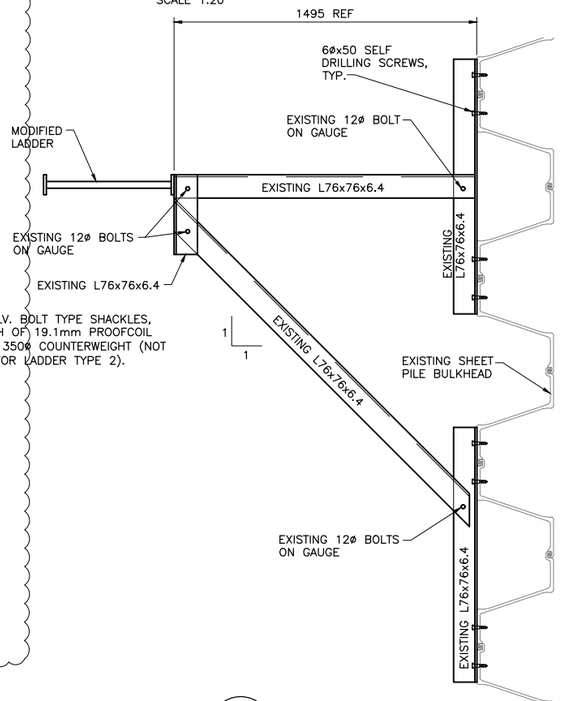
DETAIL 1
SCALE 1: 2

DETAIL 2
SCALE 1: 2

LADDER WAS NOT MODIFIED

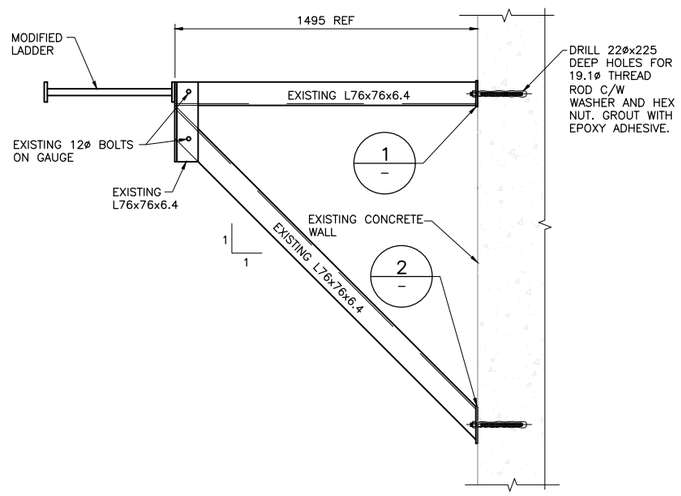
ACCESS LADDERS – MODIFICATIONS

SCALE 1:20



SECTION B AT SHEET PILE WALL
SCALE 1: 10

LADDER WAS NOT MODIFIED



SECTION B AT CONCRETE WALL
SCALE 1: 10

LADDER WAS NOT MODIFIED

Public Works and Government Services Canada
Travaux publics et Services gouvernementaux Canada
REAL PROPERTY SERVICES
Pacific Region
SERVICES IMMOBILIERS

Klohn Crippen Berger

Revision/ Revision	Description/Description	Date/Date
1	RECORD DRAWING	2017/03/29
0	ISSUED FOR TENDER	2014/12/19

Client/client

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

Consultant Signature Only

Designed by/Concept par
JANET TONG

Drawn by/Dessine par
ARNIE RIST

PWGSC Project Manager/Administrateur de Projets TPSGC
ANDREW MYLLY

Regional Manager, Environmental Services
COLLIN KINGMAN

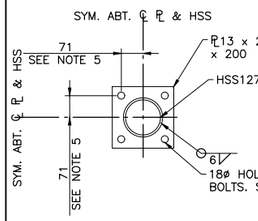
Drawing title/Titre du dessin
WEST AND SOUTH JETTY DECK CHAIN LADDER AND ACCESS LADDERS MODIFICATIONS

Project No./No. du projet	Sheet/	Revision no./
R.018400.002	S122	1

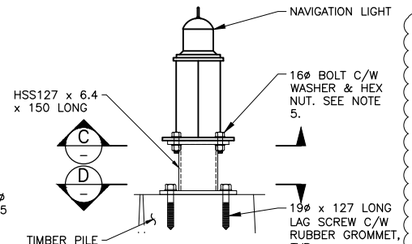
PWGSC – A1 – 841X594

0 10 20 30 40 50 60 70 80 90 100mm

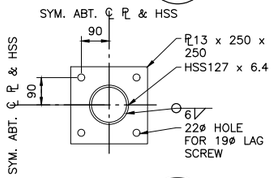
DM5XXXXXX



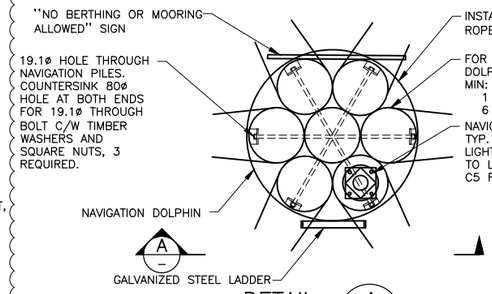
SECTION C
SCALE 1: 10



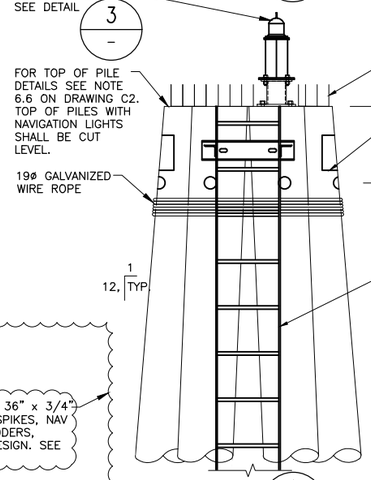
DETAIL 3
SCALE 1: 10



SECTION D
SCALE 1: 10

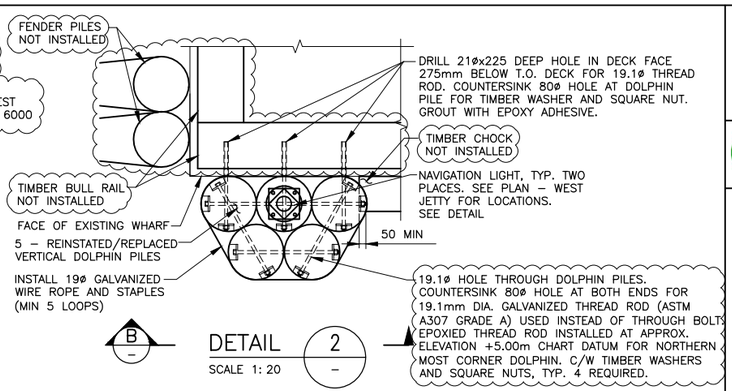


DETAIL 1
SCALE 1: 20

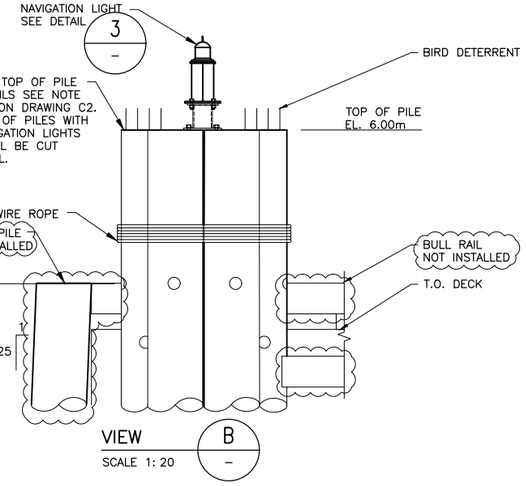


VIEW A
SCALE 1: 20

PILE DOLPHIN REPLACED BY 36" x 3/4" WT STEEL MONOPILE. BIRD SPIKES, NAV LIGHTS, WARNING SIGNS, LADDERS, REFLECTIVE TAPE AS PER DESIGN. SEE DWG. C48



B
DETAIL 2
SCALE 1: 20



VIEW B
SCALE 1: 20

PLAN – WEST JETTY
1:200

0 10 20 30 40 50 60 70 80 90 100mm

NOTES:

1. EMBEDMENT FOR FENDER PILES: 3600 NOM. EMBEDMENT FOR CORNER DOLPHINS: 6000 NOM. EMBEDMENT FOR NAVIGATION MARKER PILES: 6000 NOM.
2. NAVIGATION MARKERS ARE INTENDED TO INDICATE THE NAVIGATION CHANNEL AND ARE NOT DESIGNED TO BE BERTHING OR TURNING DOLPHINS.
3. RETROREFLECTIVE MATERIAL TO BE SECURELY FASTENED TO NAVIGATION MARKER PILES AT LEAST 1.0m ABOVE HIGH TIDE ELEVATION. SIZE AND COLOUR TO BE APPROVED BY DEPARTMENTAL REPRESENTATIVE.
4. ALL STRUCTURAL STEEL SHALL BE HOT–DIPPED GALVANIZED.
5. BOLTS, BOLT HOLES AND BOLT DIAMETER SHALL BE ADJUSTED AS NECESSARY TO SUIT SELECTED LIGHT.

Public Works and Government Services Canada / Travaux publics et Services gouvernementaux Canada
REAL PROPERTY SERVICES
Pacific Region
SERVICES IMMOBILIERS

Klohn Crippen Berger

Revision/ Revision	Description/Description	Date/Date
2	RECORD DRAWING	2017/03/29
1	ADDENDUM NO. 2	2015/03/31
0	ISSUED FOR TENDER	2014/12/19

Client/client

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

Consultant Signature Only

Designed by/Concept par
KRISTIN GREINACHER

Drawn by/Dessine par
ARNIE RIST

PWGSC Project Manager/Administrateur de Projets TPSGC
ANDREW MYLLY

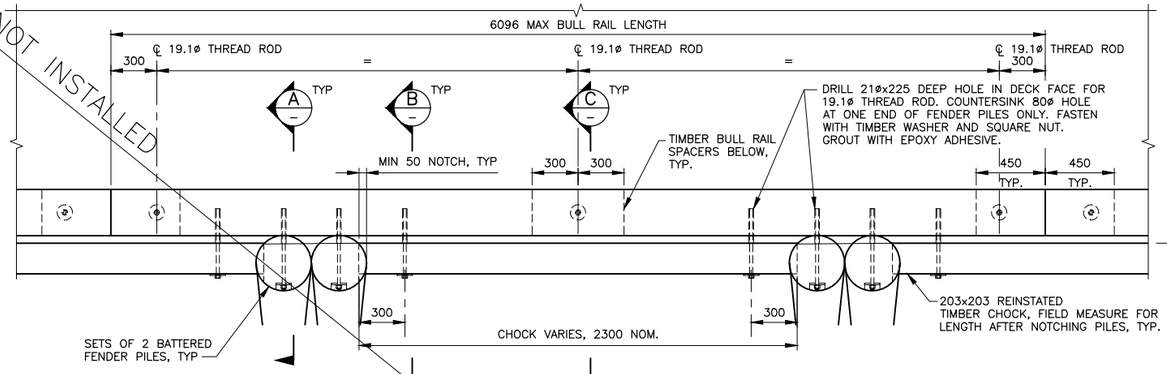
Regional Manager, Environmental Services
COLLIN KINGMAN

Drawing title/Titre du dessin
FENDERING
SHEET 1

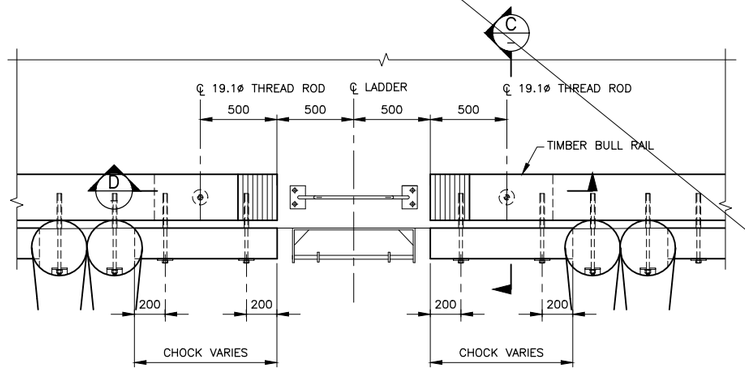
Project No./No. du projet	Sheet/	Revision no./
R.018400.002	S128	2

PWGSC – A1 – 841X594

NOT INSTALLED

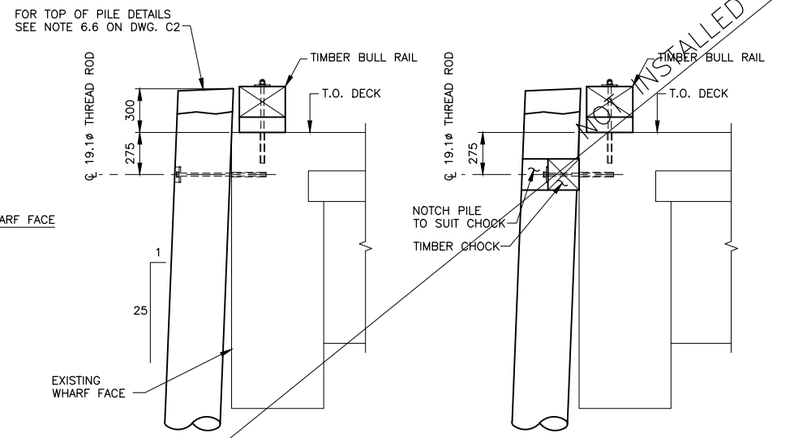


DETAIL 3 TYP BETWEEN LADDERS
SCALE 1: 20 S128



DETAIL 3 TYP AT LADDERS
SCALE 1: 20 S128

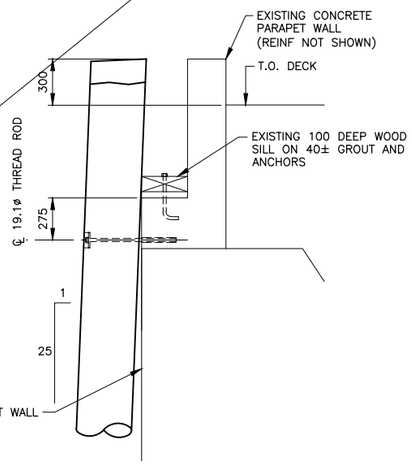
CONNECTIONS SIMILAR TO SECTION 'A' ABOVE EXCEPT AS SHOWN



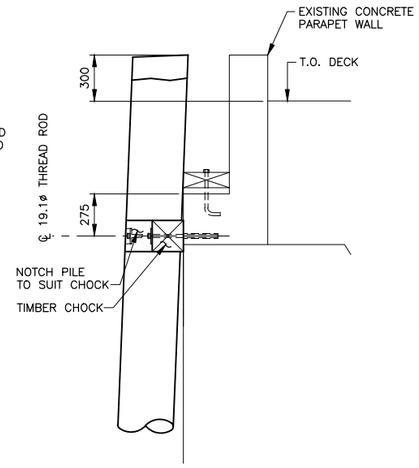
SECTION A
SCALE 1: 20

SECTION B
SCALE 1: 20

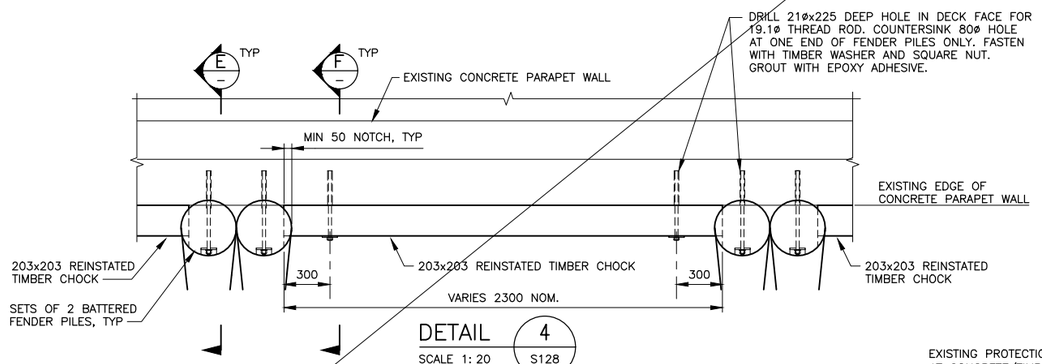
NOT IN CONTRACT



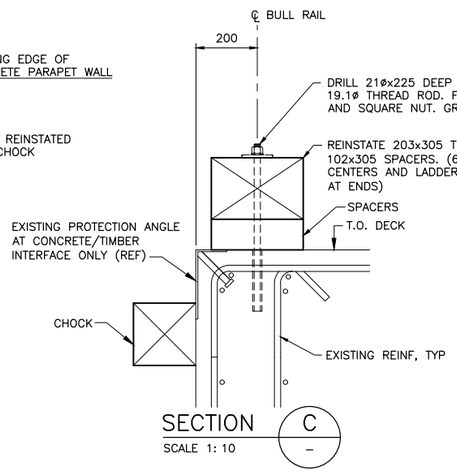
SECTION E
SCALE 1: 20



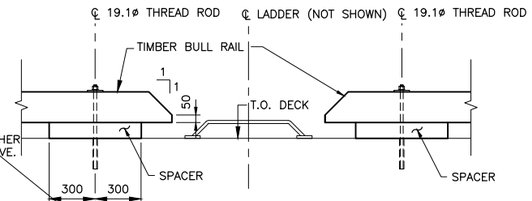
SECTION F
SCALE 1: 20



DETAIL 4
SCALE 1: 20 S128



SECTION C
SCALE 1: 10



SECTION D
SCALE 1: 20

NOTES:

1. SEE DRAWING C2 FOR NOTES.

NOT INSTALLED

NOT INSTALLED

PWGSC – A1 – 841X594

0 10 20 30 40 50 60 70 80 90 100mm

Public Works and Government Services Canada
Travaux publics et Services gouvernementaux Canada

REAL PROPERTY SERVICES
Pacific Region
SERVICES IMMOBILIERS

Klohn Crippen Berger

Revision/ Revision	Description/Description	Date/Date
1	RECORD DRAWING	2017/03/29
0	ISSUED FOR TENDER	2014/12/19

Client/client

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet

ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

Consultant Signature Only

Designed by/Concept par
KRISTIN GREINACHER

Drawn by/Dessine par
ARNIE RIST

PWGSC Project Manager/Administrateur de Projets TPSGC
ANDREW MYLLY

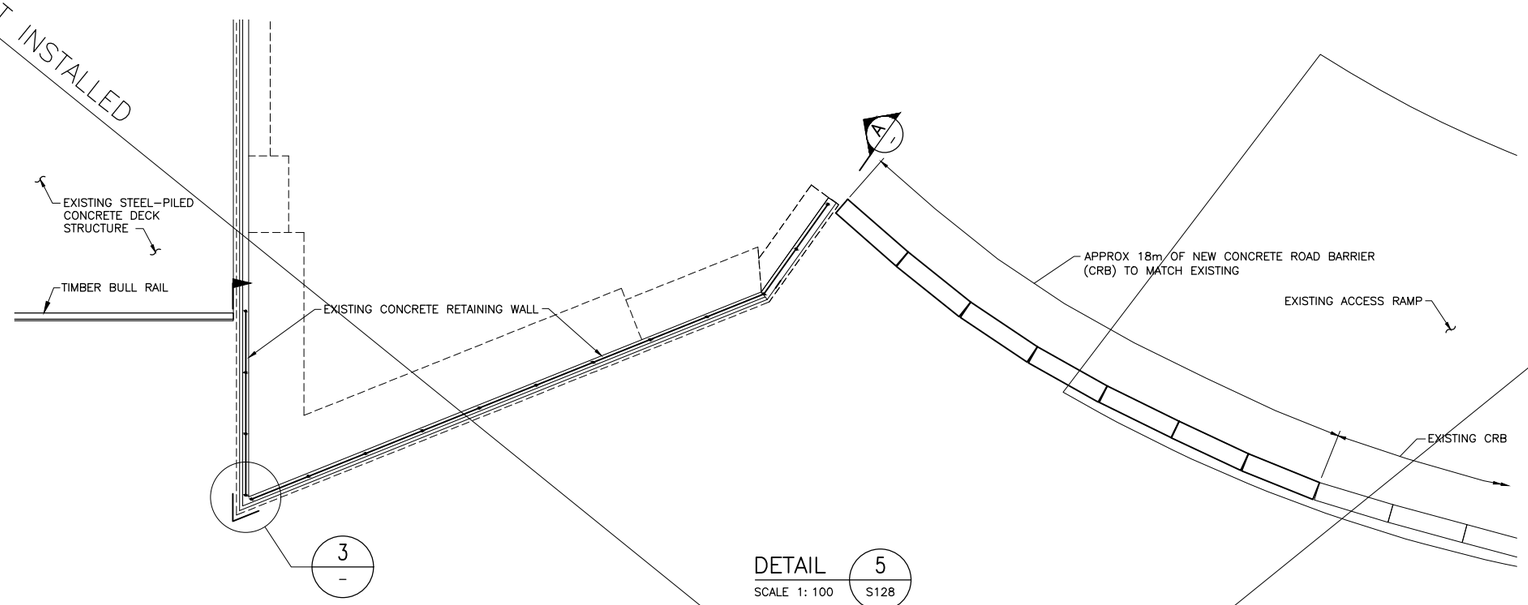
Regional Manager, Environmental Services
COLLIN KINGMAN

Drawing title/Titre du dessin
FENDERING
SHEET 2

Project No./No. du projet	Sheet/	Revision no./
R.018400.002	S129	1

DM5XXXXXX

NOT INSTALLED



DETAIL 5 / SCALE 1: 100 / S128

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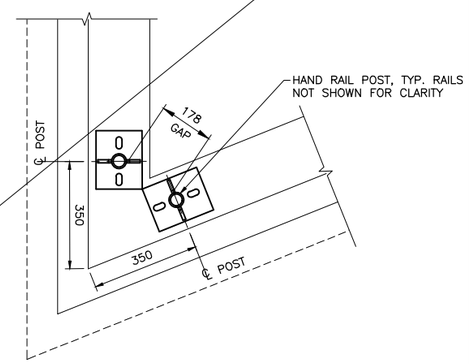
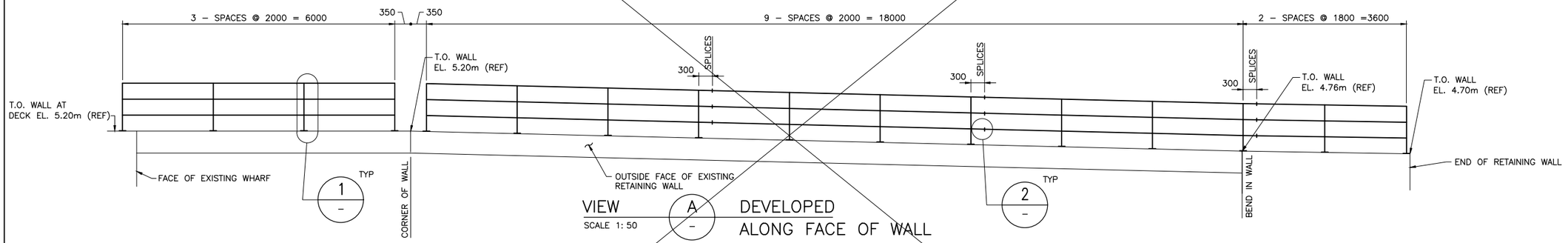
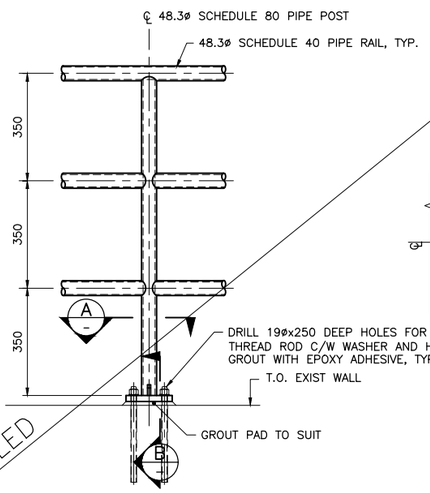


DETAIL 3 / SCALE 1: 10

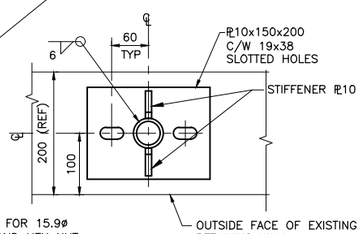


VIEW A – DEVELOPED ALONG FACE OF WALL / SCALE 1: 50

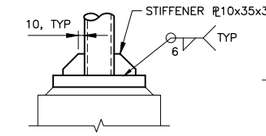
NOT IN CONTRACT



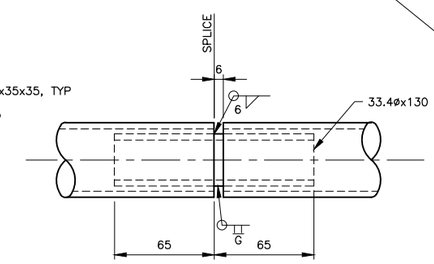
DETAIL 1 / SCALE 1: 10



SECTION A / SCALE 1: 5



SECTION B / SCALE 1: 5



DETAIL 2 / SCALE 1: 2

NOTES:

1. EXISTING WALL DIMENSIONS AND ELEVATIONS SHALL BE FIELD VERIFIED PRIOR TO FABRICATION OF HAND RAIL.
2. HAND RAIL SHALL BE HOT DIP GALVANIZED. FABRICATOR SHALL PROVIDE DRAIN/VENT HOLES IN PIPE SECTIONS AS REQUIRED.
3. AFTER INSTALLATION GRIND/CLEAN FIELD WELDED EDGES SMOOTH AND DAMAGED AREAS. TOUCH UP WITH 2 COATS OF GALVICON PAINT OR APPROVED EQUAL.

NOT INSTALLED

NOT INSTALLED

Public Works and Government Services Canada / Travaux publics et Services gouvernementaux Canada

REAL PROPERTY SERVICES
Pacific Region
SERVICES IMMOBILIERS

Klohn Crippen Berger

Revision/ Revision	Description/Description	Date/Date
1	RECORD DRAWING	2017/03/29
0	ISSUED FOR TENDER	2014/12/19

Client/client

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet

ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

Consultant Signature Only

Designed by/Concept par
KRISTIN GREINACHER

Drawn by/Dessine par
ARNIE RIST

PWGSC Project Manager/Administrateur de Projets TPSGC
ANDREW MYLLY

Regional Manager, Environmental Services
COLLIN KINGMAN

Drawing title/Titre du dessin

HAND RAIL

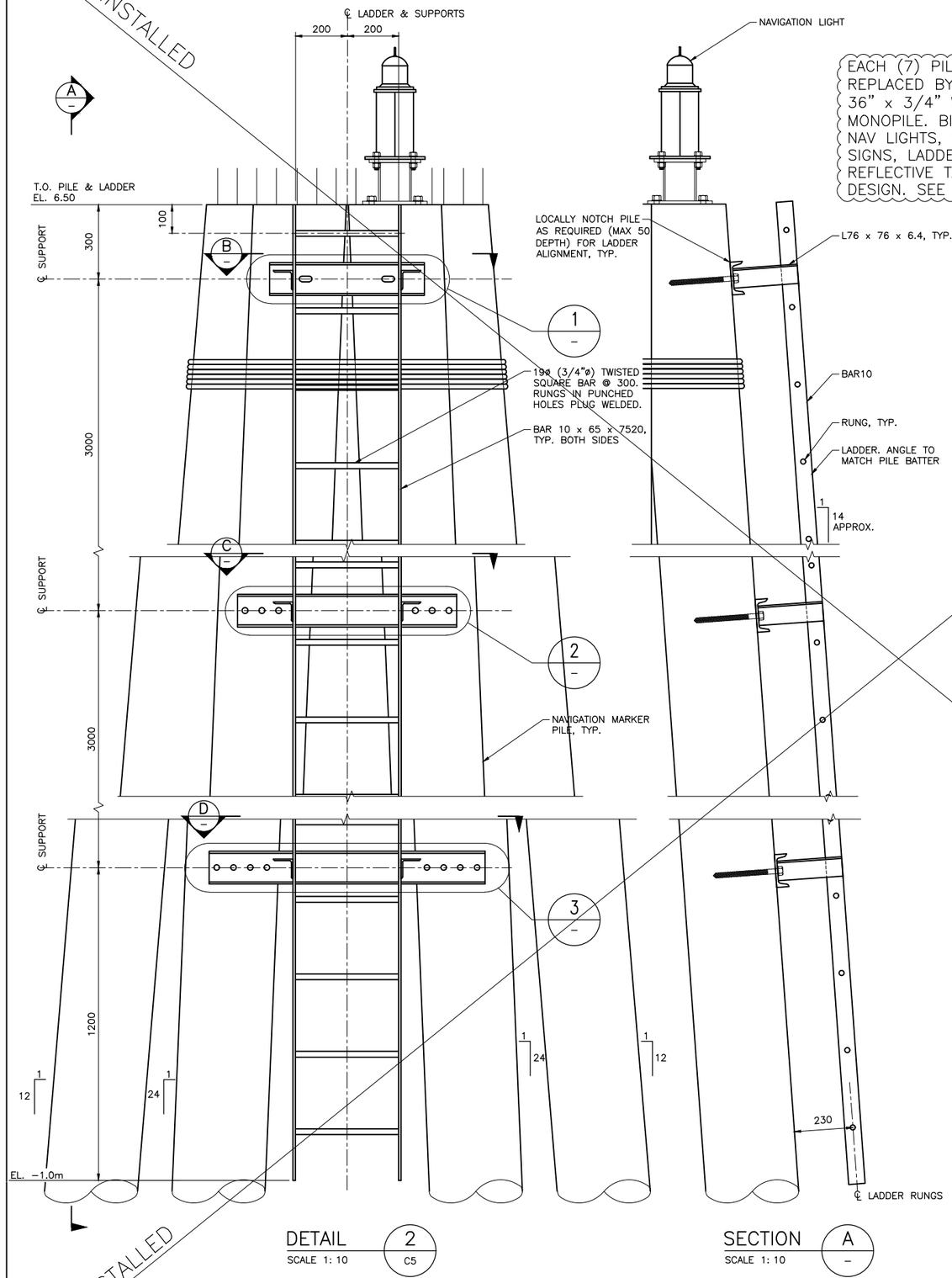
Project No./No. du projet	Sheet/	Revision no./
R.018400.002	S130	1

PWGSC – A1 – 841X594

0 10 20 30 40 50 60 70 80 90 100mm

DM5XXXXXX

NOT INSTALLED



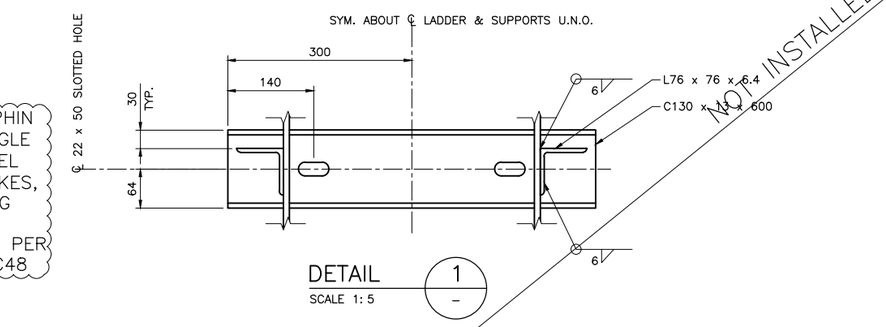
EACH (7) PILE DOLPHIN REPLACED BY A SINGLE 36" x 3/4" WT STEEL MONOPILE. BIRD SPIKES, NAV LIGHTS, WARNING SIGNS, LADDERS, REFLECTIVE TAPE AS PER DESIGN. SEE DWG. C48

DETAIL 2 — SCALE 1: 10 — C5

SECTION A — SCALE 1: 10

NAVIGATION MARKER DOLPHIN LADDER

NOT INSTALLED



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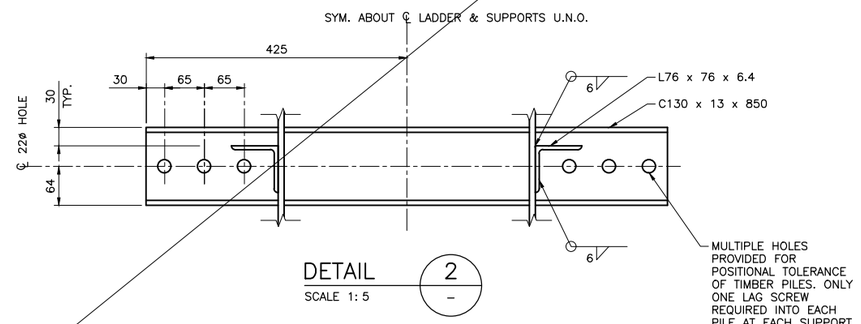
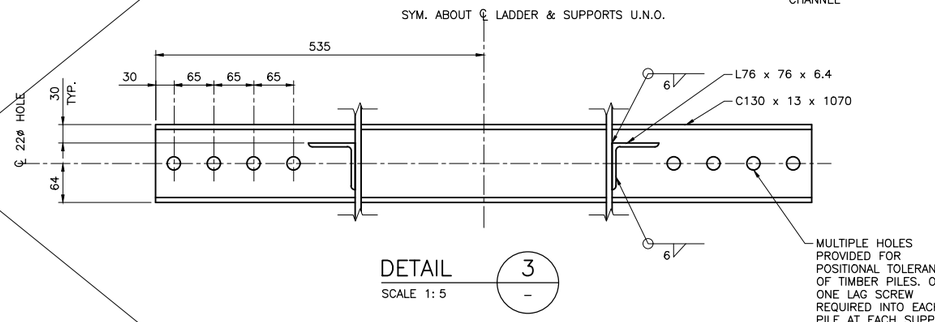
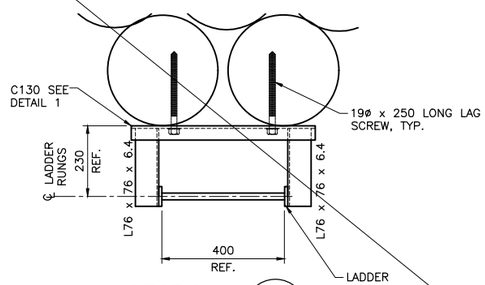


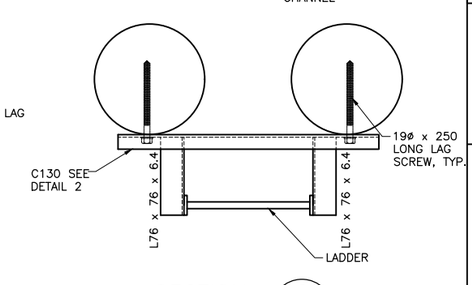
DETAIL 2 — SCALE 1: 5



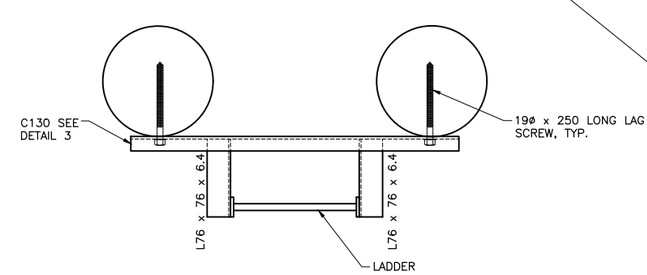
DETAIL 3 — SCALE 1: 5



SECTION B — SCALE 1: 10



SECTION C — SCALE 1: 10



SECTION D — SCALE 1: 10

NOTES:

1. FOR NOTES SEE DWG. C2.
2. ALL STRUCTURAL STEEL SHALL BE HOT-DIPPED GALVANIZED.
3. TREAT ALL PILE NOTCHES PER THE SPECIFICATION.

NOT INSTALLED

PWGSC — A1 — 841X594

0 10 20 30 40 50 60 70 80 90 100mm

Public Works and Government Services Canada / Travaux publics et Services gouvernementaux Canada

REAL PROPERTY SERVICES
Pacific Region
SERVICES IMMOBILIERS

Klohn Crippen Berger

Revision/ Revision	Description/Description	Date/Date
1	RECORD DRAWING	2017/03/29
0	ADDENDUM NO. 2	2015/03/31

Client/client

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

Consultant Signature Only

Designed by/Concept par
KRISTIN GREINACHER

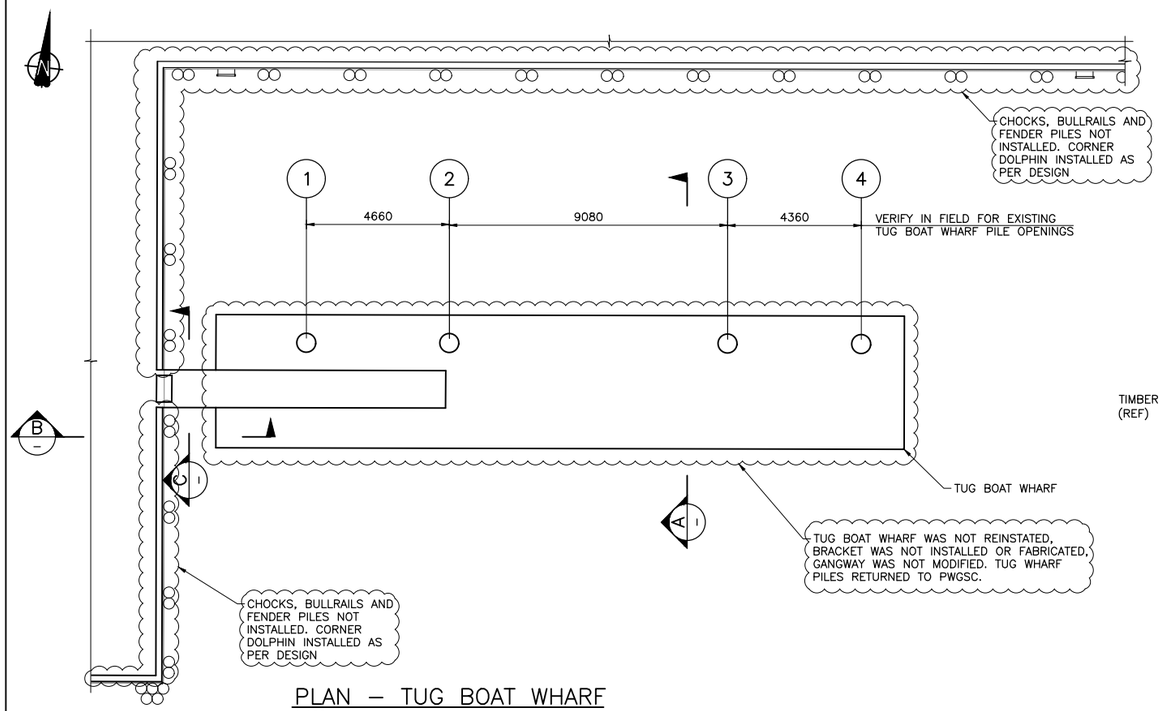
Drawn by/Dessine par
MIKE BRIDDEN

PWGSC Project Manager/Administrateur de Projets TPSGC
ANDREW MYLLY

Regional Manager, Environmental Services
COLLIN KINGMAN

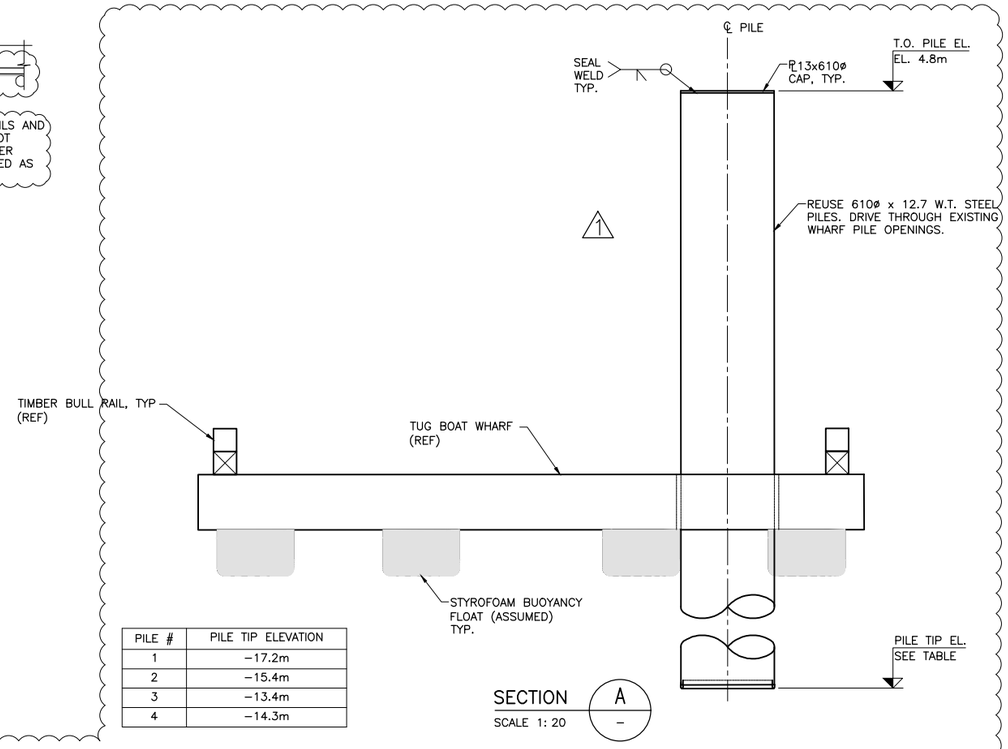
Drawing title/Titre du dessin
ACCESS LADDERS AT NAVIGATION MARKER DOLPHINS

Project No./No. du projet	Sheet/	Revision no./
R.018400.002	S131	1



PLAN – TUG BOAT WHARF

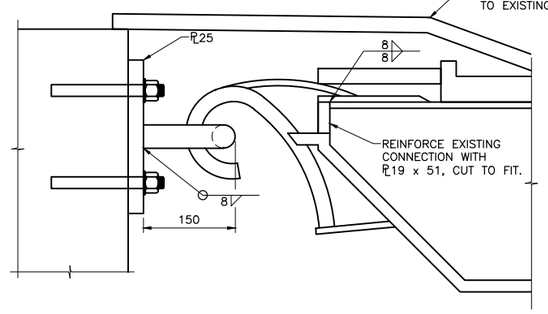
1:100



PILE #	PILE TIP ELEVATION
1	–17.2m
2	–15.4m
3	–13.4m
4	–14.3m

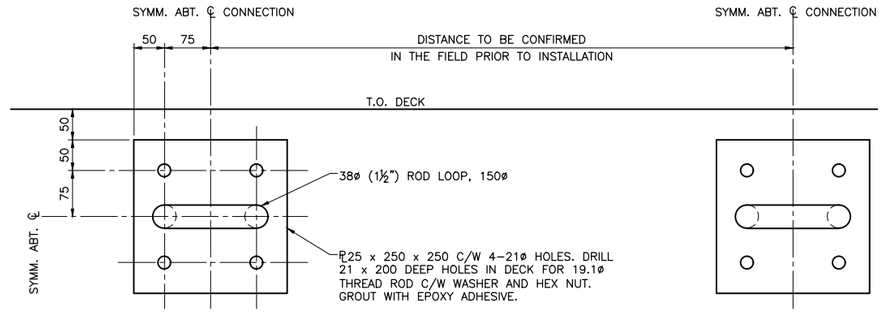
SECTION A

SCALE 1: 20



SECTION B

SCALE 1: 5



SECTION C

SCALE 1: 5

NOT IN CONTRACT

EXISTING GANGWAY HINGE DETAIL

EXISTING ANODE DETAIL

NOTES:

1. FOR NOTES SEE DWG. C2.
2. CONTRACTOR SHALL CONFIRM ALL CRITICAL MEASUREMENTS OF EXISTING TUG BOAT WHARF PRIOR TO RELOCATION.
3. CONNECTION FOR GANGWAY DESIGNED TO CARRY A UNIFORM LIVE LOAD OF 4.8 kPa.
4. REMOVE AND STORE ANODES PRIOR TO EXTRACTING PILES. REINSTALL ONE ANODE PER PILE APPROXIMATELY 0.5 – 1.5m ABOVE SEA BED.

Public Works and Government Services Canada / Travaux publics et Services gouvernementaux Canada

REAL PROPERTY SERVICES
Pacific Region
SERVICES IMMOBILIERS

Klohn Crippen Berger

Revision/ Revision	Description/Description	Date/Date
1	RECORD DRAWING	2017/03/28
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Client/client

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC

ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION

Consultant Signature Only

Designed by/Concept par
GEOFF COOPER

Drawn by/Dessine par
GABE MENDES

PWGSC Project Manager/Administrateur de Projets TPSGC
ANDREW MYLLY

Regional Manager, Environmental Services
COLLIN KINGMAN

Drawing title/Titre du dessin
TUG BOAT WHARF DETAILS

Project No./No. du projet	Sheet/	Revision no./
R.018400.002	S151	1

PWGSC – A1 – 841X594

0 10 20 30 40 50 60 70 80 90 100mm

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