

NOT FOR CONSTRUCTION
2024-03-27

CAUTION!
EXCAVATION NEAR OVERHEAD UTILITY POLE
ANY UNDERGROUND EXCAVATION WITHIN SOIL FOUNDATION INTERACTION AREA REQUIRES TEMPORARY UTILITY POLE SUPPORT. REFER TO BC HYDRO STANDARD ES55 E3-04 GUIDE FOR CIVIL EXCAVATION NEAR DISTRIBUTION POLES FOR DETAILS. REFER TO BC HYDRO WORK ON WOOD POLES MANUAL (ON SAFEHUB) AND BC HYDRO 2017-1-F POLE HOLDING REQUIREMENTS FOR APPROVED TEMPORARY POLE SUPPORT METHODS. FOR MORE INFORMATION CONTACT workmethods@bchydro.com

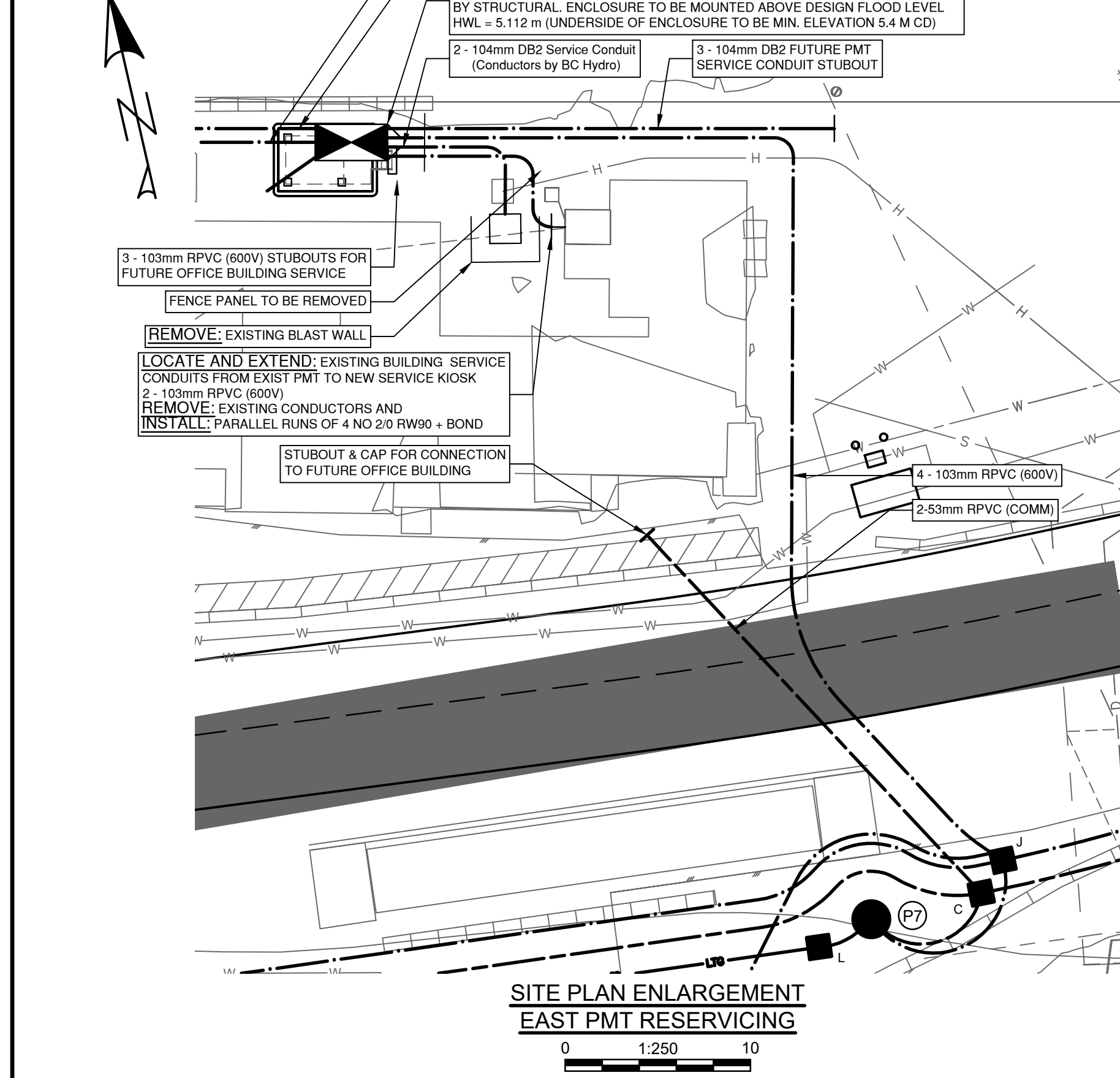
LOCATING EQUIPMENT
FOR CLARITY CONDUITS, JUNCTION BOXES AND STREETLIGHT POLES MAY NOT BE SHOWN AT DESIGN OFFSETS. CONTRACTOR SHALL LOCATE ALL EQUIPMENT BASED ON STATIONS AND/OR OFFSETS AS NOTED AND SHALL NOT RELY ON COORDINATES OBTAINED FROM DMD DIGITAL DRAWINGS. CONTRACTOR TO REPORT ANY CONFLICTS OR DISCREPANCIES TO DMD & ASSOCIATES **PRIOR TO ORDERING EQUIPMENT.**

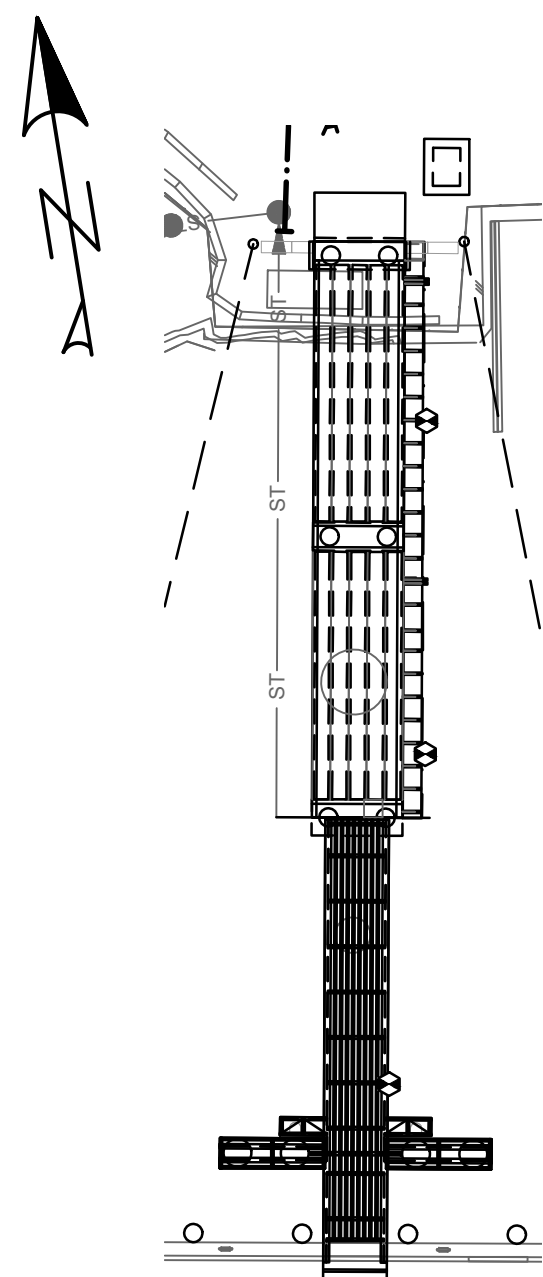
CHECK BEFORE YOU DIG
CONTRACTOR SHALL REFER TO MUNICIPAL RECORD / CIVIL DESIGN DRAWINGS FOR ALL OTHER UTILITIES, SERVICE LOCATIONS, AND DETAILS. THE EXACT LOCATION OF THESE UTILITIES SHALL BE DETERMINED ON SITE BY THE CONTRACTOR.
CONTRACTOR TO REPORT ANY CONFLICTS OR DISCREPANCIES TO DMD & ASSOCIATES **PRIOR TO ORDERING BASES.**

OVERHEAD POWER LINE CONFLICTS
CONTRACTOR SHALL CONFIRM ON SITE PRIOR TO CONSTRUCTION THAT POLES & EQUIPMENT WILL MEET WorkSafeBC CLEARANCE REQUIREMENTS FOR OVERHEAD PRIMARY AND SECONDARY LINES. CONTRACTOR TO REPORT ANY CONFLICTS OR DISCREPANCIES TO DMD & ASSOCIATES **PRIOR TO ORDERING POLES AND INSTALLING CONCRETE BASES.**

ELECTRICAL DRAWING INDEX				
DRAWING NUMBER	DESCRIPTION	REVISION	DWG FILE NAME	VFPA DRAWING NUMBER
105716-S00-DMD-ELE-DWG-0001	ELECTRICAL DEMOLITION PLAN	C	105716-S00-DMD-ELE-DWG-0001	332-004-EL-0001
105716-S00-DMD-ELE-DWG-0002	YARD LIGHTING & ELECTRICAL PLAN	C	105716-S00-DMD-ELE-DWG-0002 to 0006	332-004-EL-0002
105716-S00-DMD-ELE-DWG-0003	SITE ENLARGEMENTS & DETAILS	C	105716-S00-DMD-ELE-DWG-0002 to 0006	332-004-EL-0003
105716-S00-DMD-ELE-DWG-0004	LIGHTING CRITERIA AND POLE ELEVATION DETAILS	C	105716-S00-DMD-ELE-DWG-0002 to 0006	332-004-EL-0004
105716-S00-DMD-ELE-DWG-0005	ELECTRICAL SINGLE LINE DIAGRAM - WEST ELECTRICAL ROOM	C	105716-S00-DMD-ELE-DWG-0002 to 0006	332-004-EL-0005
105716-S00-DMD-ELE-DWG-0006	ELECTRICAL SINGLE LINE DIAGRAM - EAST ELECTRICAL ROOM	C	105716-S00-DMD-ELE-DWG-0002 to 0006	332-004-EL-0006

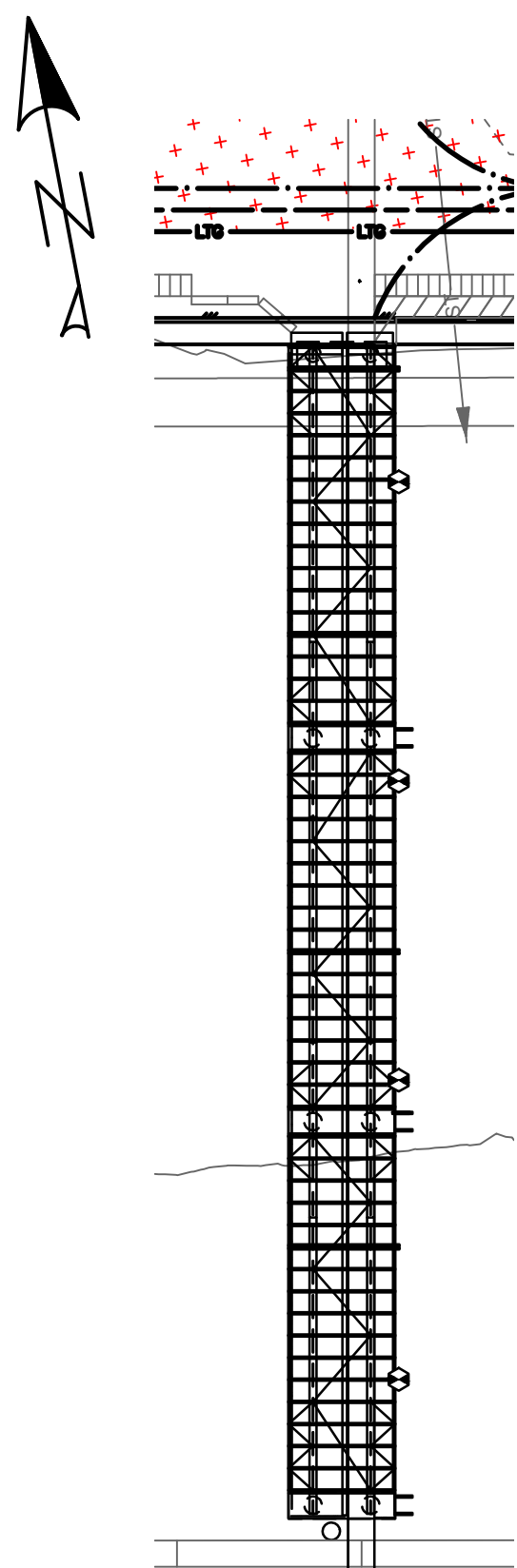
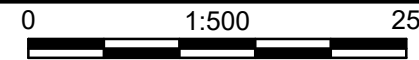
Ref. No.	REFERENCE				C	2024-03-27	ISSUED FOR PER PERMIT	DMS	MGDS	DESIGN BY DONATO SPEIDEL	DRAWN BY ED KITTSOON	APPROVED MARTIN STERLING	DATE 2023-08-02	SCALE 1:1000	VFPA SITE	SHEET 1 of 6	REV. C	VFPA DRAWING NUMBER: 332-004-EL-0001
WCD MARINE YARD BUILD-OUT COQUITLAM, BC ELECTRICAL DEMOLITION PLAN																		

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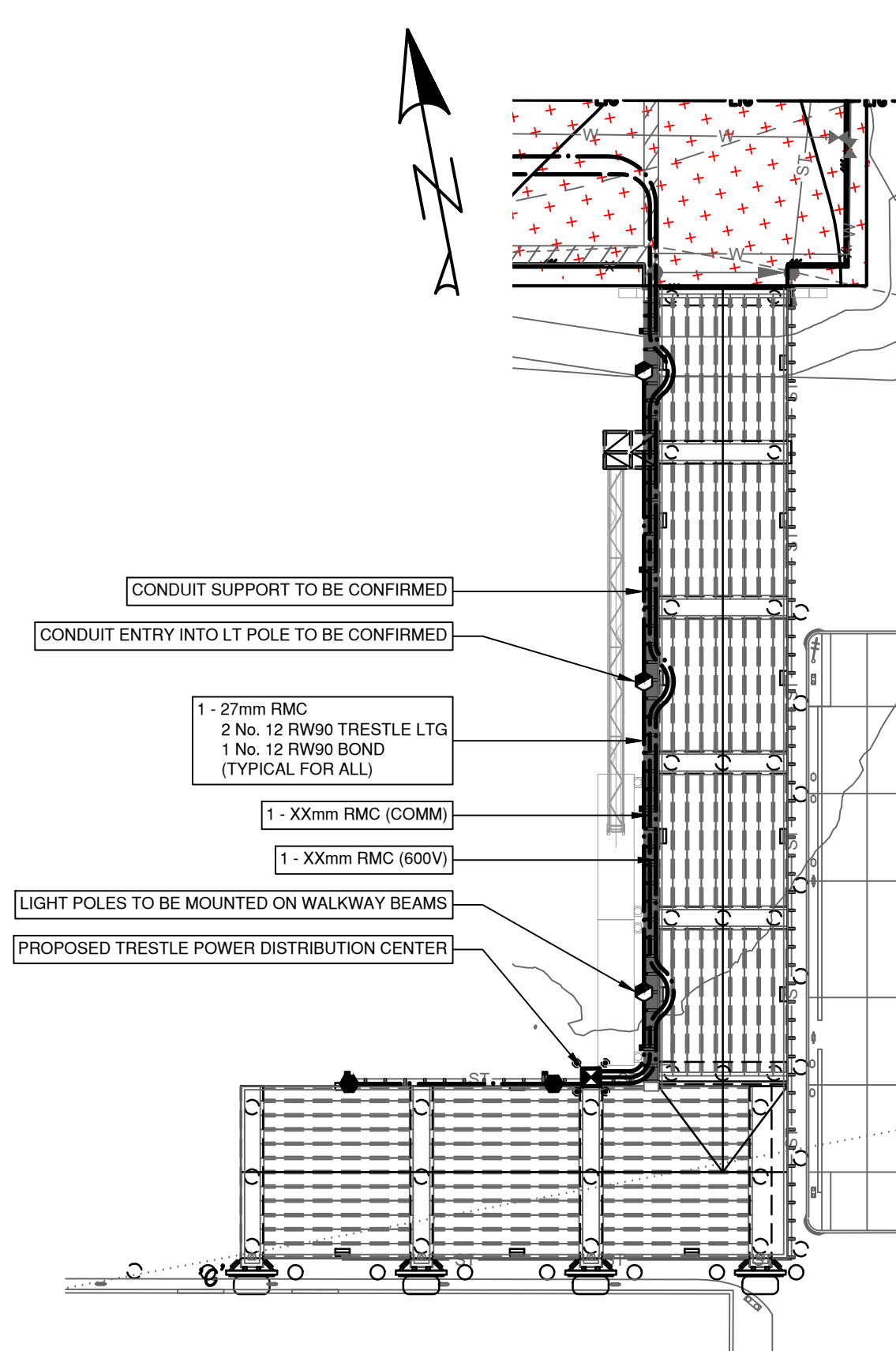
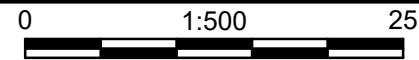


MLTB000 86.4x23.8x5.6m

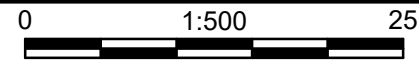
ROLL ON ROLL OFF STRUCTURE
SITE PLAN ENLARGEMENT



CONVEYOR STRUCTURE
SITE PLAN ENLARGEMENT



MARINE ACCESS TRESTLE
SITE PLAN ENLARGEMENT



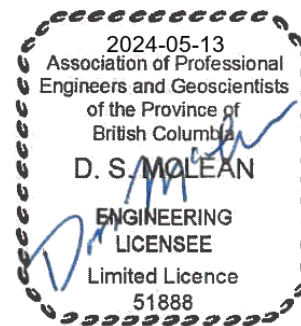
NOT FOR CONSTRUCTION

2024-03-27

DMD DWG. No.: 7925-23-03

VFPA DRAWING NUMBER:
332-004-EL-0003

Ref. No.	REFERENCE

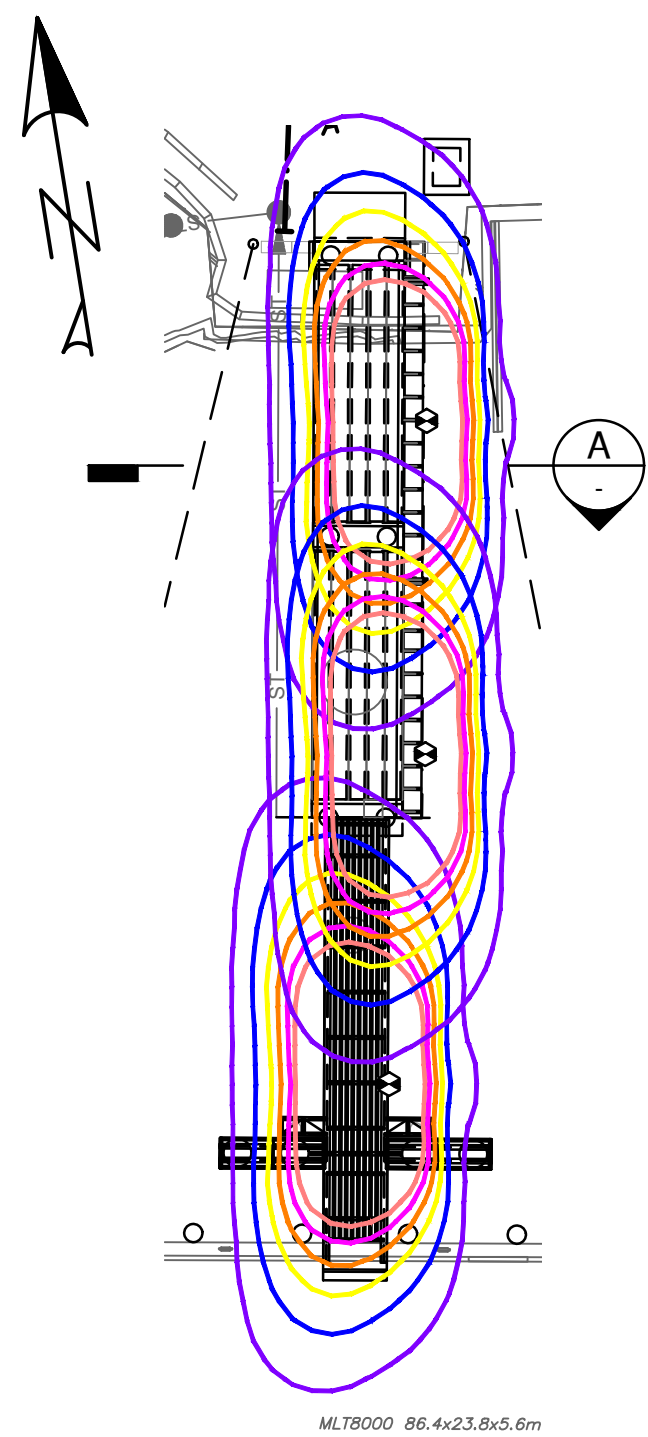


C	2024-03-27	ISSUED FOR PER PERMIT	DMS	MGDS	
B	2023-11-07	90% SUBMISSION	DMS	MGDS	
A	2023-09-08	50% SUBMISSION	DMS	MGDS	
No.	Date	REVISION	Dr'n	Ch'd	

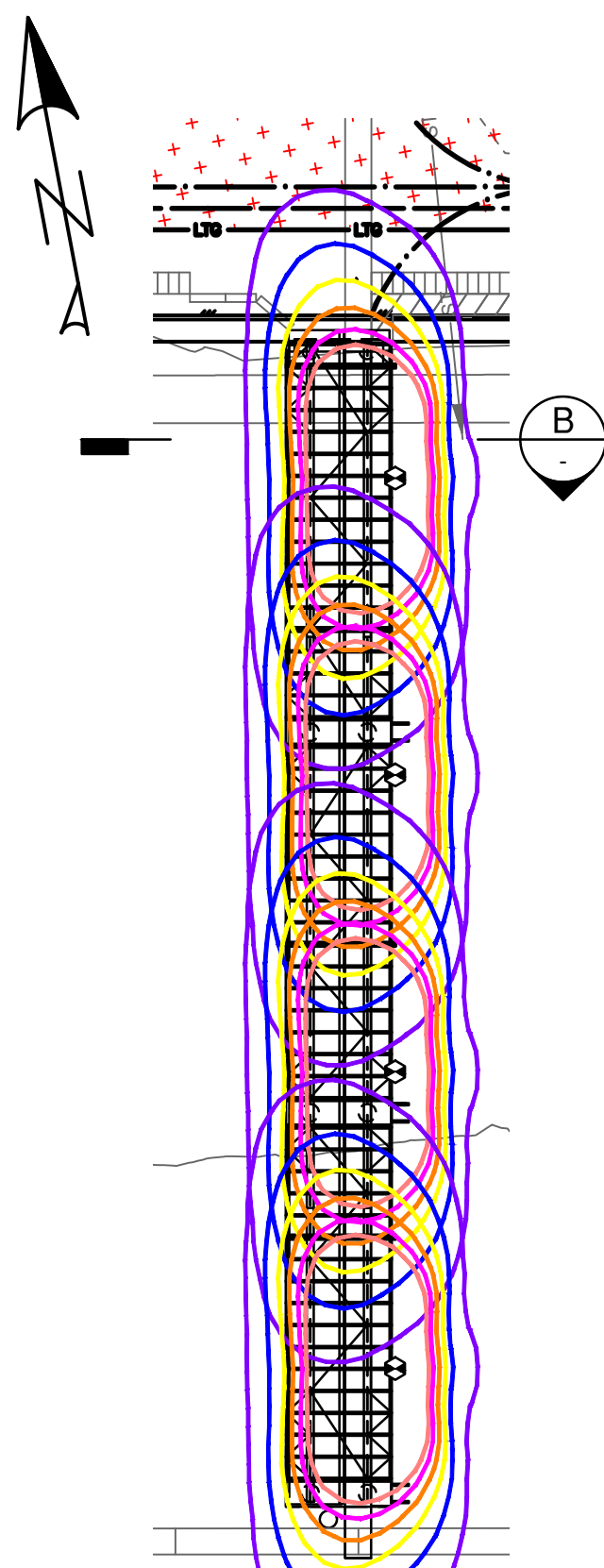
DESIGN BY	DONATO SPEIDEL
DRAWN BY	ED KITTSON
APPROVED	MARTIN STERLING
DATE	2023-08-02
SCALE	AS SHOWN
VFPA SITE	

WCD MARINE YARD BUILD-OUT
COQUITLAM, BC
SITE ENLARGEMENTS & DETAILS

SIZE	DWG	105716-S00-DMD-ELE-DWG-0003	SHEET	3 of 6	REV	C
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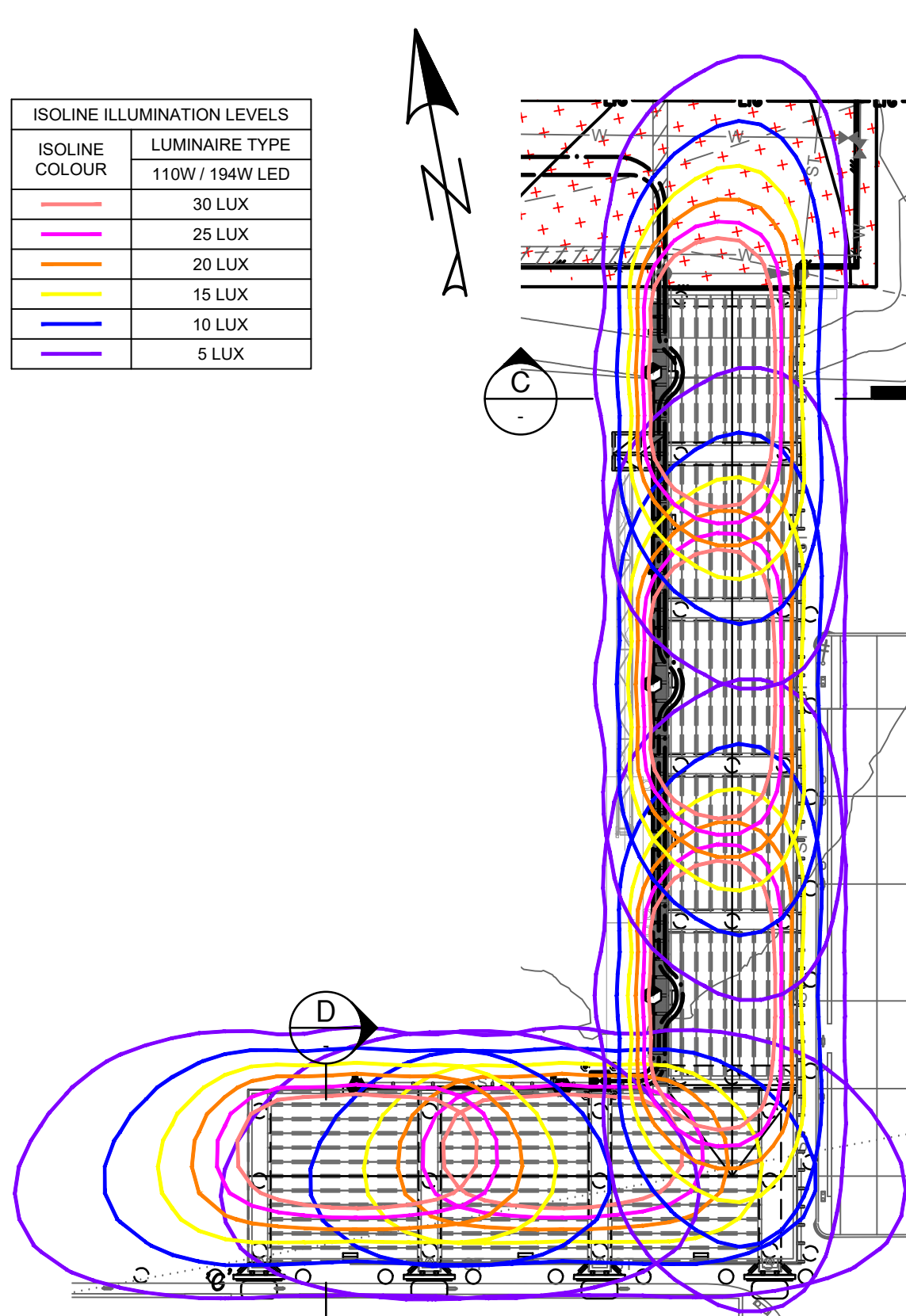


ROLL ON ROLL OFF STRUCTURE
ISOLUX ENLARGEMENT

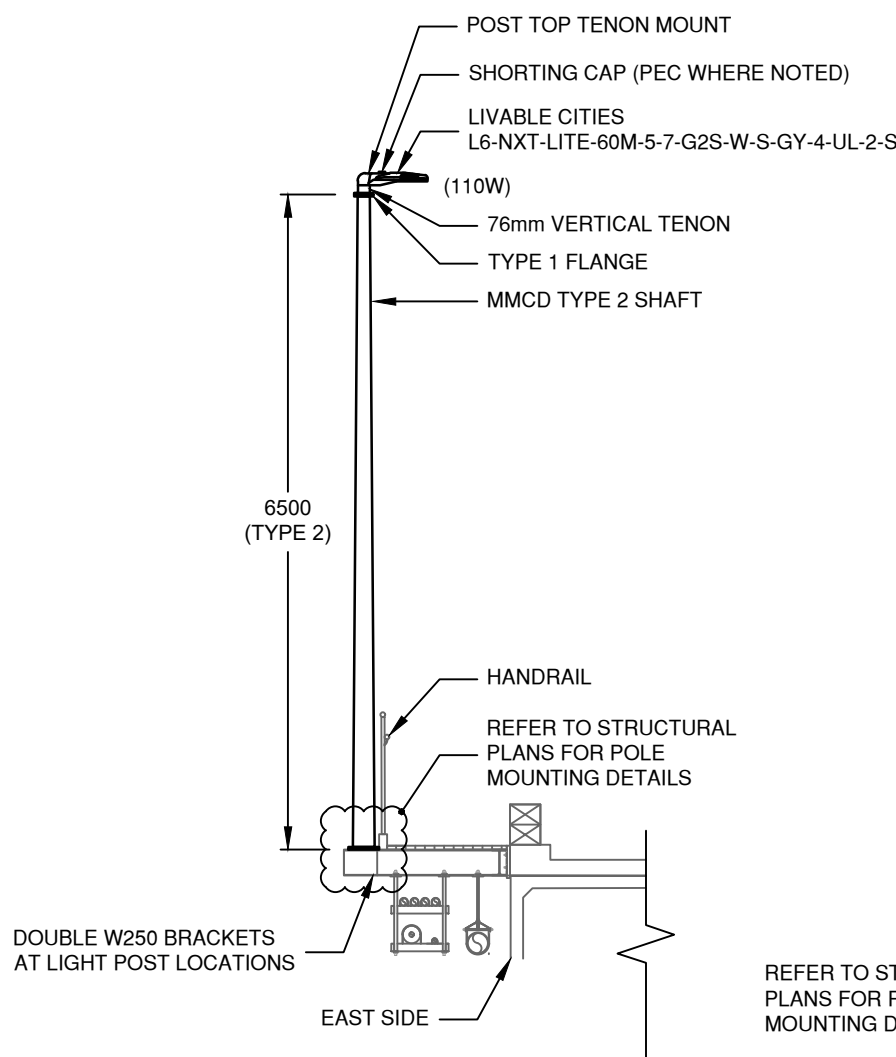


CONVEYOR STRUCTURE
ISOLUX ENLARGEMENT

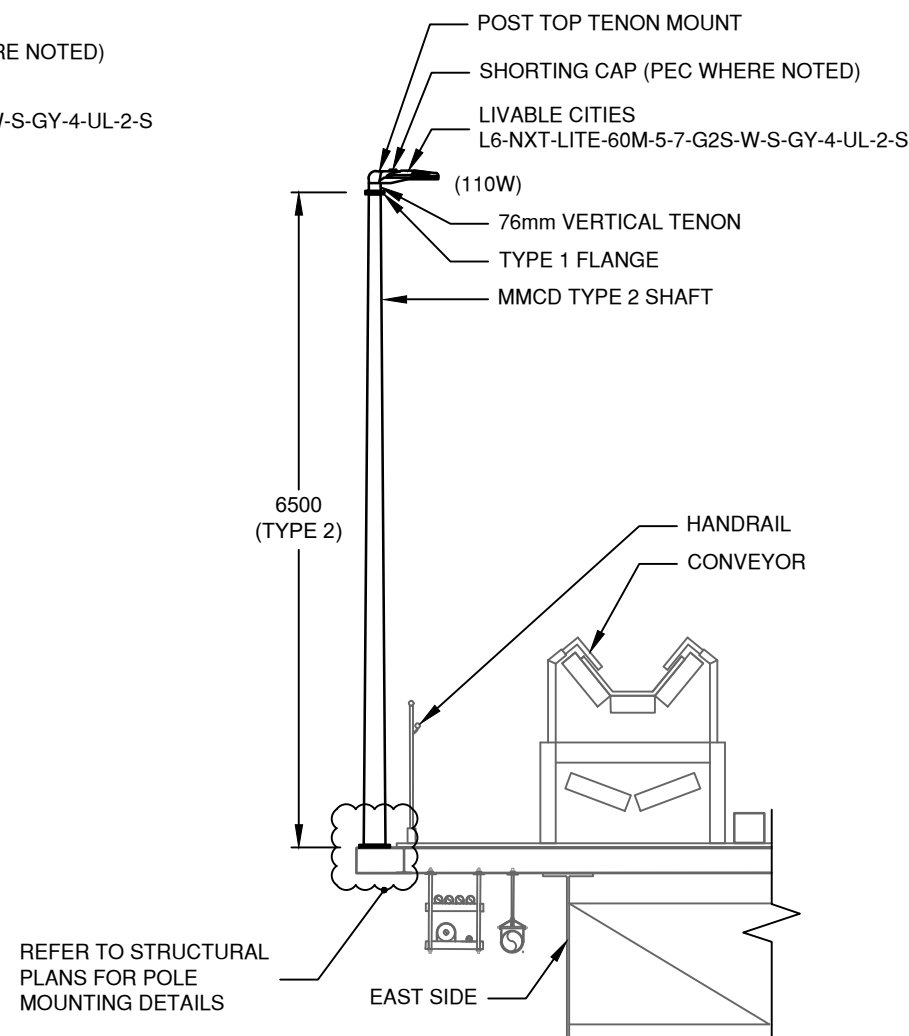
ISOLINE ILLUMINATION LEVELS	
ISOLINE COLOUR	LUMINAIRE TYPE
Red	30 LUX
Pink	25 LUX
Orange	20 LUX
Yellow	15 LUX
Green	10 LUX
Blue	5 LUX



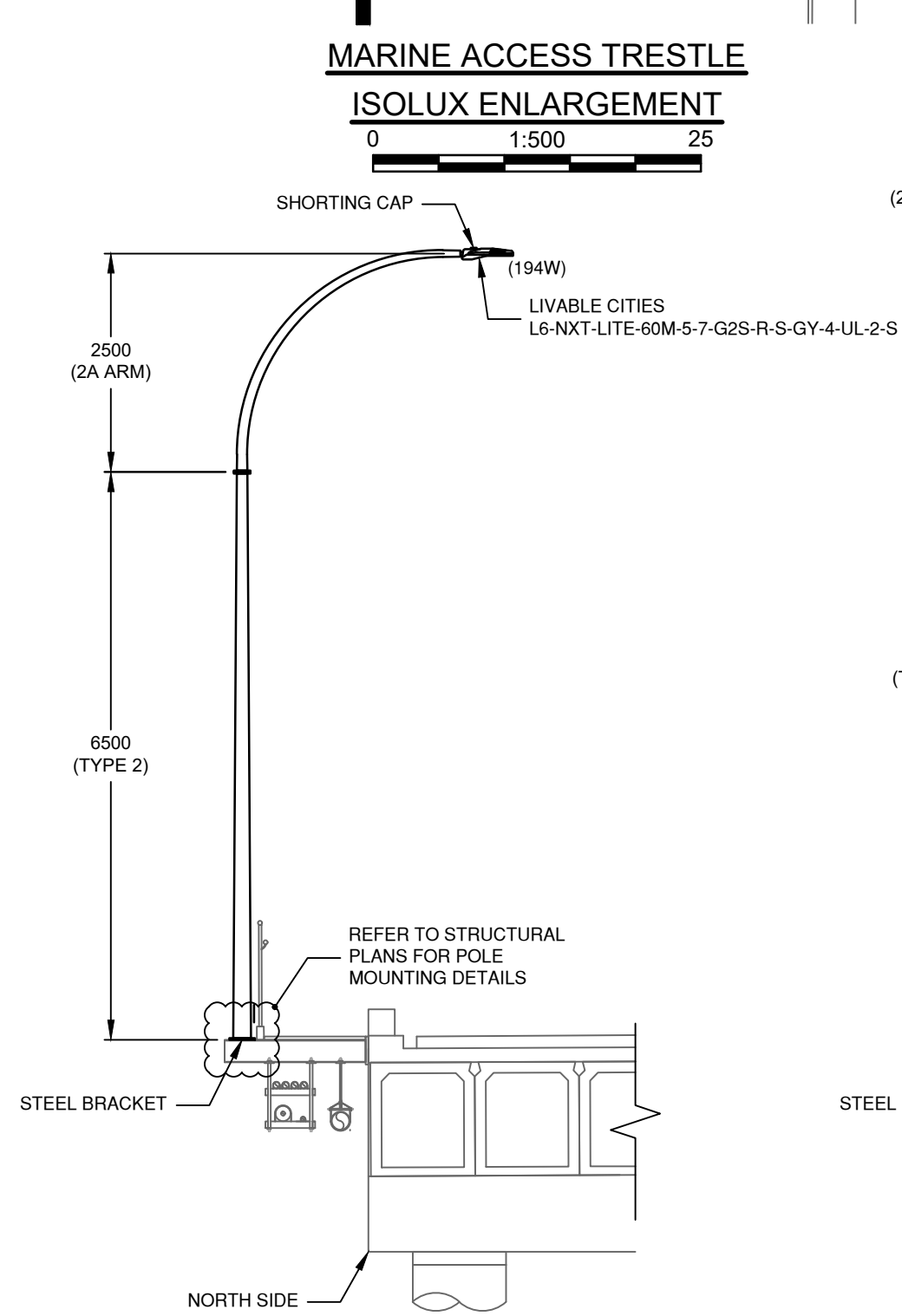
MARINE ACCESS TRESTLE
ISOLUX ENLARGEMENT



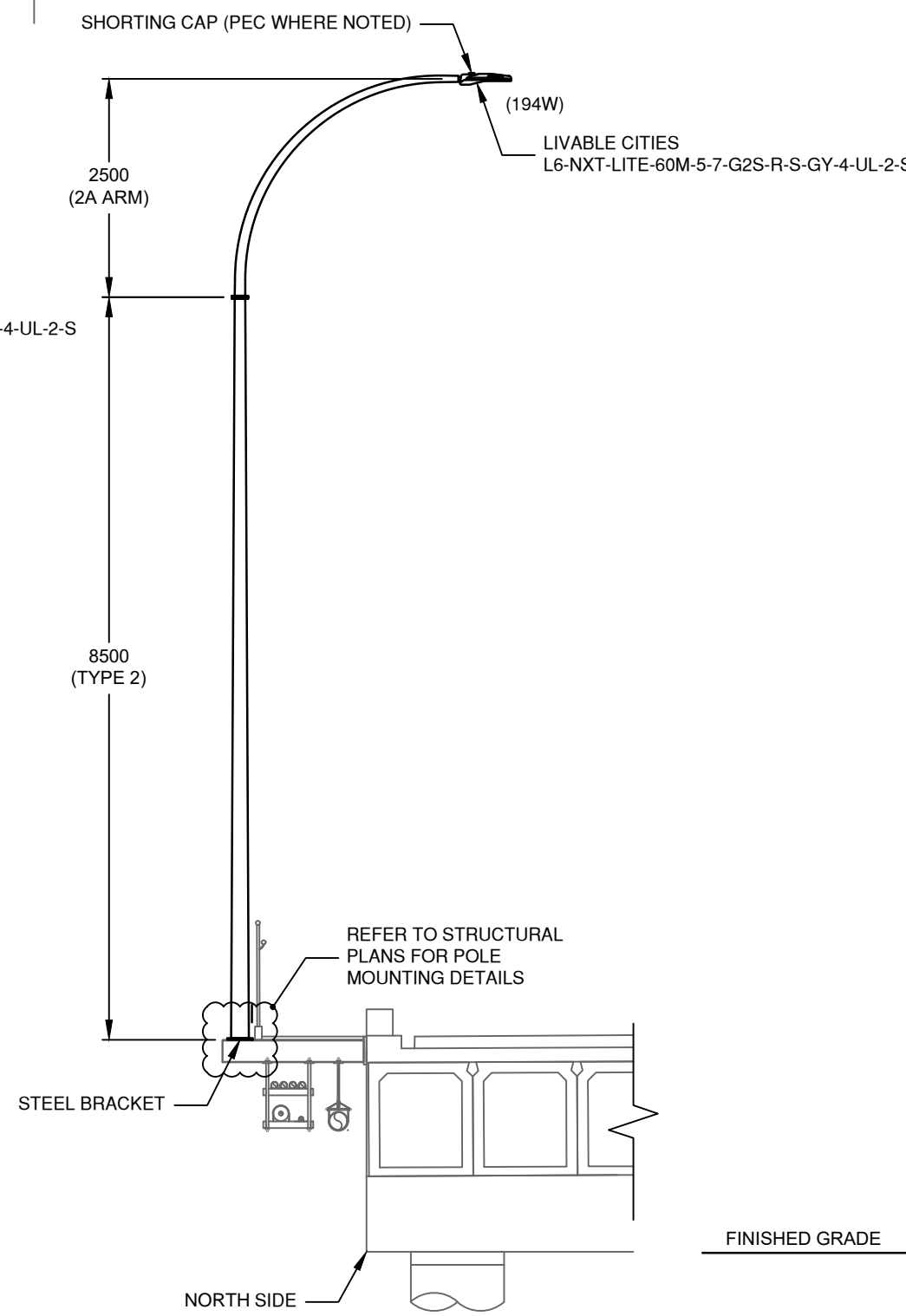
A ROLL ON ROLL OFF STRUCTURE
LIGHTING ELEVATION
(FACING SOUTH)



B CONVEYOR STRUCTURE
LIGHTING ELEVATION
(FACING SOUTH)

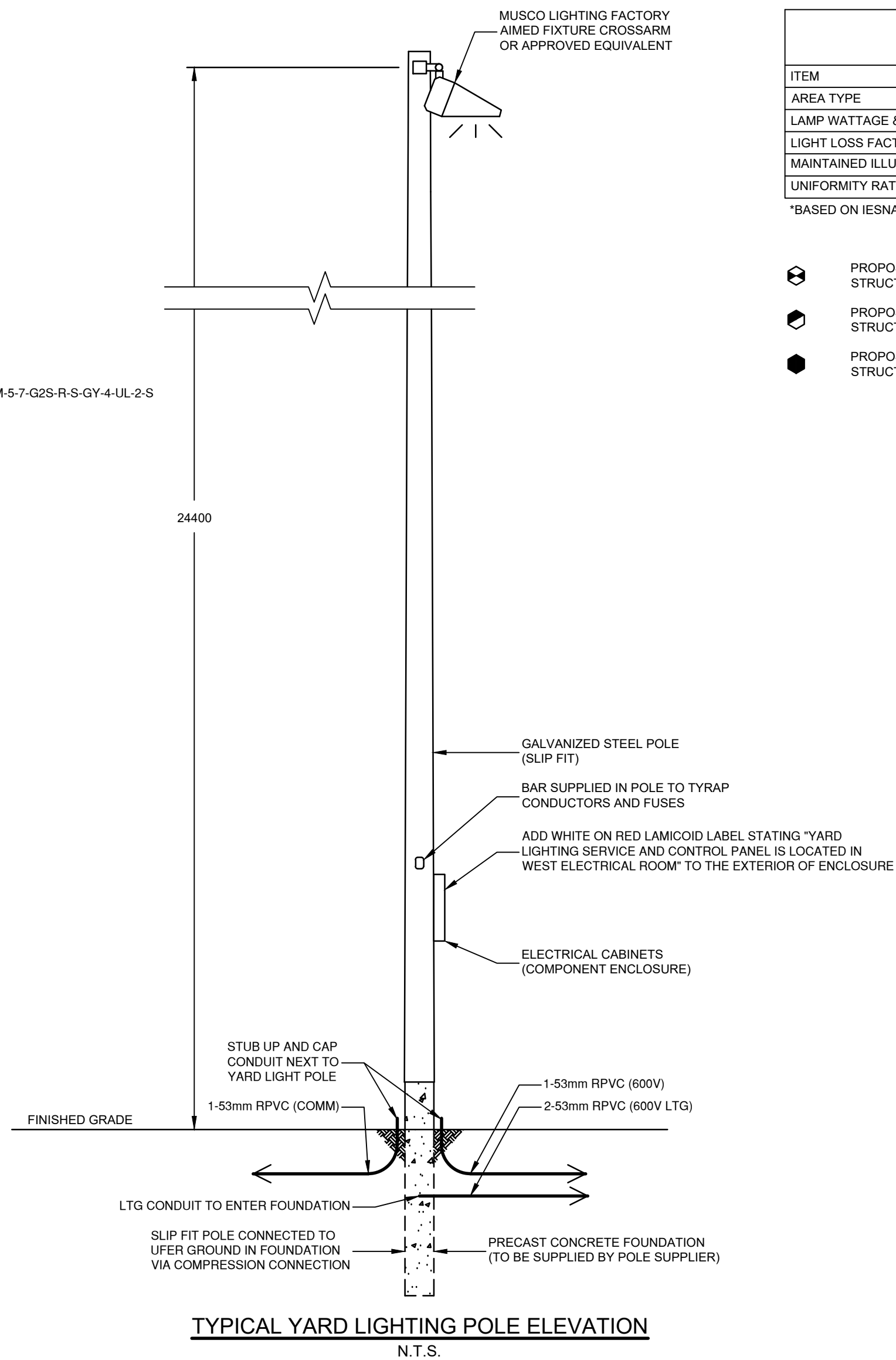


C MARINE ACCESS TRESTLE
LIGHTING ELEVATION
(WEST BERTH - FACING NORTH)



D MARINE ACCESS TRESTLE
LIGHTING ELEVATION
(SOUTH BERTH - FACING EAST)

RECOGNIZED PRODUCT LIST			
PRODUCT	MANUFACTURER	SPECIFICATION	ADDITIONAL INFO
YARD LIGHTING	MUSCO LIGHTING (OR APPROVED ALTERNATE)	TLC FOR LED	CONTROL LINK
ROLL ON - ROLL OFF, CONVEYOR AND TRESTLE STRUCTURE LIGHTING	LIVEABLE CITIES	REFER TO ELEVATIONS	
ROLL ON - ROLL OFF, CONVEYOR AND TRESTLE STRUCTURE LIGHT POLES	NOVA POLE / VALMONT WEST COAST ENGINEERING	REFER TO ELEVATIONS	
CONDUIT	IPEX	CSA C22-211.2	
PULL BOXES	FRASER WAY PRECAST		WITH F900 RATED LID
ELECTRICAL SERVICE SEA CAN			MUST MEET BC HYDRO STANDARD FOR ACCESS



TYPICAL YARD LIGHTING POLE ELEVATION
N.T.S.

LIGHTING DESIGN CRITERIA YARD		
ITEM	DESIGN REQUIREMENTS	DESIGN ACHIEVED
AREA TYPE	STORAGE YARDS	
EQUIPMENT TYPE	TLC-LED-550W - 24.4m MOUNTING	
MAINTAINED ILLUMINANCE LEVEL (AVG.)	50 LUX	51.9 LUX
UNIFORMITY RATIO (MAX.:MIN.)	5.0:1	5.0:1

*BASED ON IESNA RP-7-21 LIGHTING INDUSTRIAL FACILITIES

LIGHTING DESIGN CRITERIA MARINE ACCESS TRESTLE		
ITEM	DESIGN REQUIREMENTS	DESIGN ACHIEVED
AREA TYPE	STORAGE YARDS	
LAMP WATTAGE & LIGHT SOURCE	194W LED (4000K) - LRL L660M-5-7-G2S-R	
LIGHT LOSS FACTOR	0.857	
MAINTAINED ILLUMINANCE LEVEL (AVG.)	50.0 LUX	50.0 LUX
UNIFORMITY RATIO (MAX.:MIN.)	5.0:1	2.5:1

*BASED ON IESNA RP-7-21 LIGHTING INDUSTRIAL FACILITIES

LIGHTING DESIGN CRITERIA CONVEYOR STRUCTURE		
ITEM	DESIGN REQUIREMENTS	DESIGN ACHIEVED
AREA TYPE	STORAGE YARDS	
LAMP WATTAGE & LIGHT SOURCE	110W LED (4000K) - LRL L660M-5-7-G2S-W	
LIGHT LOSS FACTOR	0.857	
MAINTAINED ILLUMINANCE LEVEL (AVG.)	50.0 LUX	56.7 LUX
UNIFORMITY RATIO (MAX.:MIN.)	5.0:1	3.6:1

*BASED ON IESNA RP-7-21 LIGHTING INDUSTRIAL FACILITIES

LIGHTING DESIGN CRITERIA ROLL ON - ROLL OFF STRUCTURE		
ITEM	DESIGN REQUIREMENTS	DESIGN ACHIEVED
AREA TYPE	STORAGE YARDS	
LAMP WATTAGE & LIGHT SOURCE	110W LED (4000K) - LRL L660M-5-7-G2S-W	
LIGHT LOSS FACTOR	0.857	
MAINTAINED ILLUMINANCE LEVEL (AVG.)	50.0 LUX	57.8 LUX
UNIFORMITY RATIO (MAX.:MIN.)	5.0:1	4.5:1

*BASED ON IESNA RP-7-21 LIGHTING INDUSTRIAL FACILITIES

- PROPOSED LIGHT POLE (6.5m POST TOP - 110W LED LUMINAIRE) MOUNTED TO STRUCTURE.
- PROPOSED LIGHT POLE (9.0m DAVIT - 194W LED LUMINAIRE) MOUNTED TO STRUCTURE.
- PROPOSED LIGHT POLE (11.0m DAVIT - 194W LED LUMINAIRE) MOUNTED TO STRUCTURE.

HOLD POINT: CONTACT OWNER'S GEOTECHNICAL ENGINEER TO REVIEW SOIL AT PROPOSED POLE LOCATIONS TO CONFIRM DESIGN PARAMETERS OF FOUNDATION DESIGN BEFORE BACKFILL. PROVIDE STRUCTURAL SCHEDULES B & CB.

NOT FOR CONSTRUCTION

2024-03-27

DMD DWG. No.: 7925-23-04

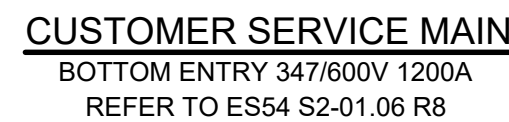
VFPA DRAWING NUMBER:
332-004-EL-0004



DESIGN BY	DONATO SPEIDEL
DRAWN BY	ED KITTSON
APPROVED	MARTIN STERLING
DATE	2023-08-02
SCALE	AS SHOWN
VFPA SITE	

WCD MARINE YARD BUILD-OUT
COQUITLAM, BC
LIGHTING CRITERIA AND POLE ELEVATION DETAILS

SIZE	DWG	105716-S00-DMD-ELE-DWG-0004	SHEET	4 of 6	REV.	C
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CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARATION OF THE SEA-CAN LOCATION ON SITE (IE. GRAVEL PAD). FINAL LOCATION OF THE SEA-CAN SHALL BE COORDINATED WITH KIEWIT

CONTRACTOR SHALL ENSURE THE SEA-CAN
MEETS ALL BC HYDRO STANDARDS



1. BC HYDRO UNDERGROUND DISTRIBUTION SERIES ES53 AND ES54, AND THE CANADIAN ELECTRICAL CODE AND ALL AMENDMENTS AS ISSUED BY THE ELECTRICAL SAFETY BRANCH.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR ELECTRICAL SAFETY ON SITE DURING CONSTRUCTION PERIOD.
3. CONTRACTOR SHALL KEEP A RECORD OF ALL ELECTRICAL INSTALLATION ON DEDICATED SET OF DRAWINGS AND SUBMIT AS BUILT INFORMATION TO ELECTRICAL CONSULTANT (DMD AND ASSOCIATES LTD.) WITHIN 2 WEEKS AFTER END OF CONSTRUCTION. THIS IS A CONDITION OF SUBSTANTIAL PERFORMANCE.
4. ALL EQUIPMENT SHALL BE NEW, C.S.A. APPROVED & SHALL BE SUBJECT TO APPROVAL OF THE ELECTRICAL SAFETY BRANCH INSPECTOR.
5. ALL EQUIPMENT SHALL BE BONDED & GROUNDED AS REQUIRED BY CODE.
6. ALL CONDUCTORS SHALL BE COPPER UNLESS OTHERWISE NOTED.
7. BEFORE DMD CAN PROVIDE A FINAL INSPECTION THE CONTRACTOR MUST ENSURE THAT THE ENTIRE ELECTRICAL SYSTEM IS FULLY FUNCTIONAL AND THAT SUBSTANTIAL COMPLETION HAS BEEN OBTAINED.
8. CONTRACTOR SHALL PAY ALL FEES AND OBTAIN ALL PERMITS INCLUDING THE PROVINCIAL ELECTRICAL PERMIT AND LICENSES IN CONNECTION WITH THIS WORK. SUBMIT ALL DRAWINGS REQUIRED BY THE INSPECTION AUTHORITY. FOR APPROVAL PRIOR TO START OF CONSTRUCTION AND PROMPTLY RETURN ANY COMMENTS TO THE ENGINEER.
9. CONCRETE PAD FOR SEA-CAN WILL BE PROVIDED BY CIVIL CONTRACTOR.



1. RPVC CONDUIT SHALL CONFORM TO C.S.A. C22.2 No. 211.2. COUPLINGS, ADAPTORS, BENDS AND FITTINGS SHALL BE RPVC AND SHALL CONFORM TO C.S.A. C22.2 No. 85. RPVC CONDUITS SHALL BE INSTALLED WITH C.S.A. CERTIFIED CEMENT.
2. CONDUITS SHALL BE INSTALLED SO THEY DRAIN TO PULL BOXES.
3. ALL EMPTY CONDUITS SHALL BE CAPPED AND HAVE 6mmØ NYLON PULL STRING.
4. TRENCHES SHALL BE BACKFILLED AND COMPACTED TO 98% SPMD. REFER TO GEOTECHNICAL REPORT FILE NO. 105716-S00-KIE-GEO-RPT-0001 PREPARED BY KIEWIT FOR BACKFILL AND COMPACTATION REQUIREMENTS.



024-03-27

FPA DRAWING NUMBER:
332-004-EL-0006

**WCD MARINE YARD BUILD-OUT
COQUITLAM, BC
ELECTRICAL SINGLE LINE DIAGRAM
EAST ELECTRICAL ROOM**

DESIGN BY	DONATO SPEIDEL
DRAWN BY	ED KITTSOON
APPROVED	MARTIN STERLING
DATE	2023-08-02
SCALE	AS SHOWN
VFPA SITE	

SIZE D	DWG. 105716-S00-DMD-ELE-DWG-0006	SHEET 6 of 6	REV. C
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office@dmdeng.com Fax 604/589-9012

C	2024-03-27	ISSUED FOR PER PERMIT	DMS	MGDS
B	2023-11-07	90% SUBMISSION	DMS	MGDS
A	2023-09-08	50% SUBMISSION	DMS	MGDS
No.	Date	REVISION	Dr'n	Ch'd