A PORTION OF LOT 3, SECTION 23, TOWNSHIP 27 NORTH, RANGE 3 EAST, W.M.

NORTH PORTWALK & SEAWALL RECONSTRUCTION

300-336 ADMIRAL WAY
EDMONDS, WA 98020

OWNER

PORT OF EDMONDS
471 ADMIRAL WAY
EDMONDS, WA 98020
425.775.4588
CONTACT: ROBERT McCHESNEY
RMCCHESNEY@PORTOFEDMONDS.ORG

CONSULTANTS

ARCHITECT
MAKERS ARCHITECTURE & URBAN DESIGN
500 UNION ST, SUITE 700
SEATTLE, WA 98101
206.602.6244
CONTACT: STEFANI WILDHABER

CIVIL ENGINEER
CG ENGINEERING
250 4TH AVE S, SUITE 200
EDMONDS, WA 98020
425.778.8500 FAX 778.5536
CONTACT: JARED UNDERBRINK, PE

SOIL/GEOTECH ENGINEER
LANDAU & ASSOCIATES
130 2ND AVE S
EDMONDS, WA 98020
425.778.0907
CONTACT: STEVEN WRIGHT

SURVEYOR
DHA SURVEYORS
16928 WOODINVILLE-REDMOND RD, SUITE B-107
WOODINVILLE, WA 98072
206.571.8224
CONTACT: DOUG HARTMAN

STRUCTURAL ENGINEER
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CONTACT: DENNIS TITUS, PE, SE

PLUMBING
HARRIS GROUP
20201 CEDAR VALLEY RD
LYNNWOOD, WA 98036
425.238.9031
CONTACT: RANDY HINTON, PE

ELECTRICAL
HARBOR POWER ENGINEERS
815 1ST AVE, #343
SEATTLE, WA 98104
206.890.6557
CONTACT: ED DAVID, PE

UTILITIES

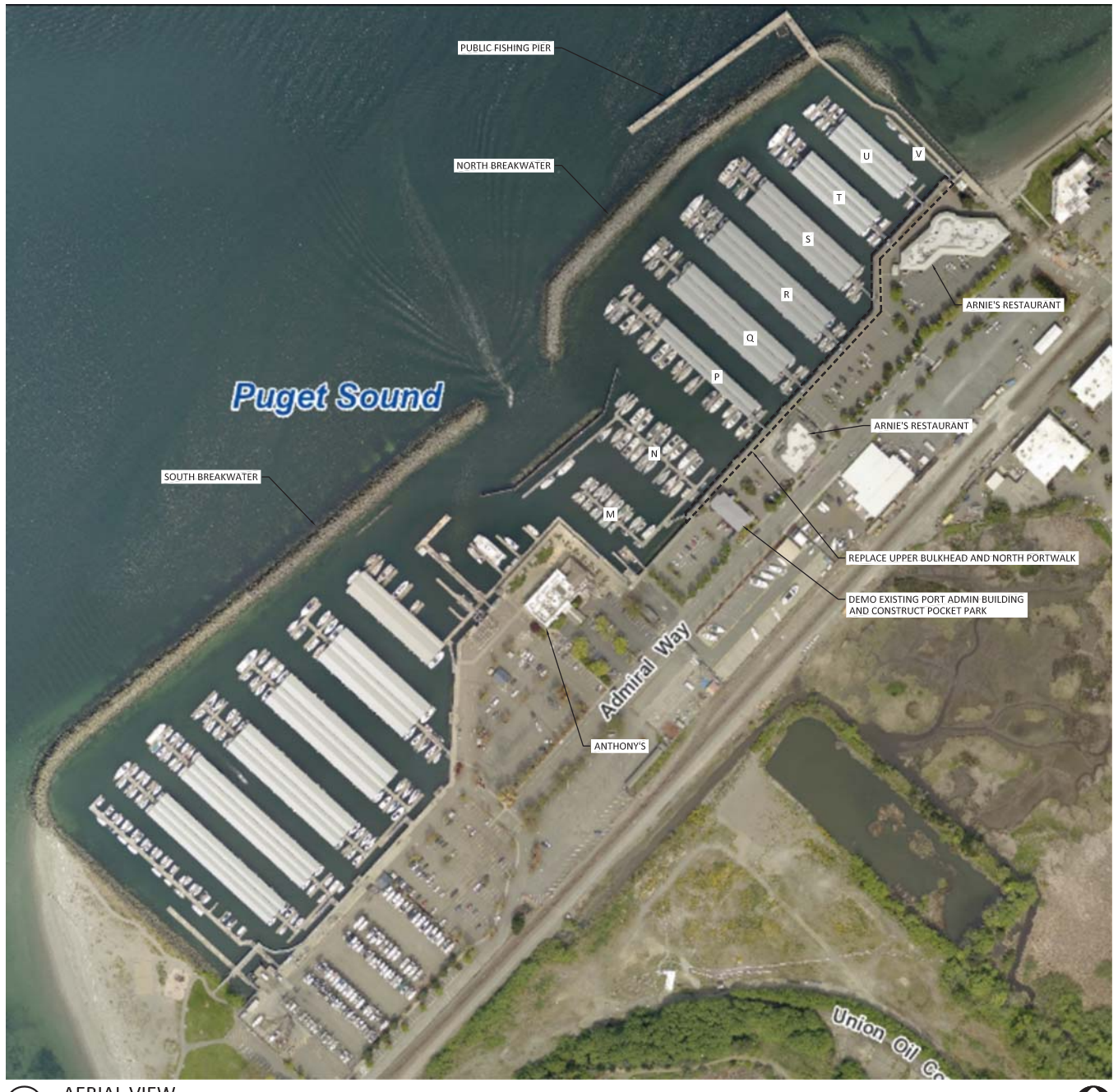
WATER/SEWER/STORM
CITY OF EDMONDS
121 5TH AVE N
EDMONDS, WA 98020
425.771.0241

GAS
PUGET SOUND ENERGY
PO BOX 91269
BELLEVUE, WA
1.888.225.5773

FIRE
FIRE DISTRICT ONE
12425 MERIDIAN AVE
EVERETT, WA 98208
425.551.1200

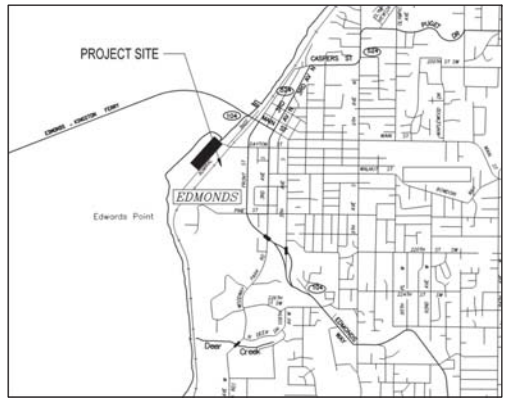
POWER
SNOHOMISH COUNTY PUD
PO BOX 1107
EVERETT, WA 98206
425.783.1000

CABLE & TELEPHONE
COMCAST
15815 25TH AVE W
LYNNWOOD, WA
877.824.2288



1 AERIAL VIEW
SCALE: NTS

SHEET INDEX



VICINITY MAP
NTS

CG ENGINEERING
250 4TH AVE. S., SUITE 200
EDMONDS, WASHINGTON 98020
PHONE (425) 778-8500
FAX (425) 778-5536

PRELIMINARY
NOT FOR CONSTRUCTION
DENNIS M. TITUS — STATE OF WASHINGTON — 19967 — REGISTERED PROFESSIONAL ENGINEER
XX/XX/XX

MARK	DATE	DESCRIPTION
	XX/XX/XX	60% PROGRESS SET

DESIGN: TAF
DRAWN: ATD
CHECK: JPU
JOB NO: 21060.20
DATE: XX/XX/XX

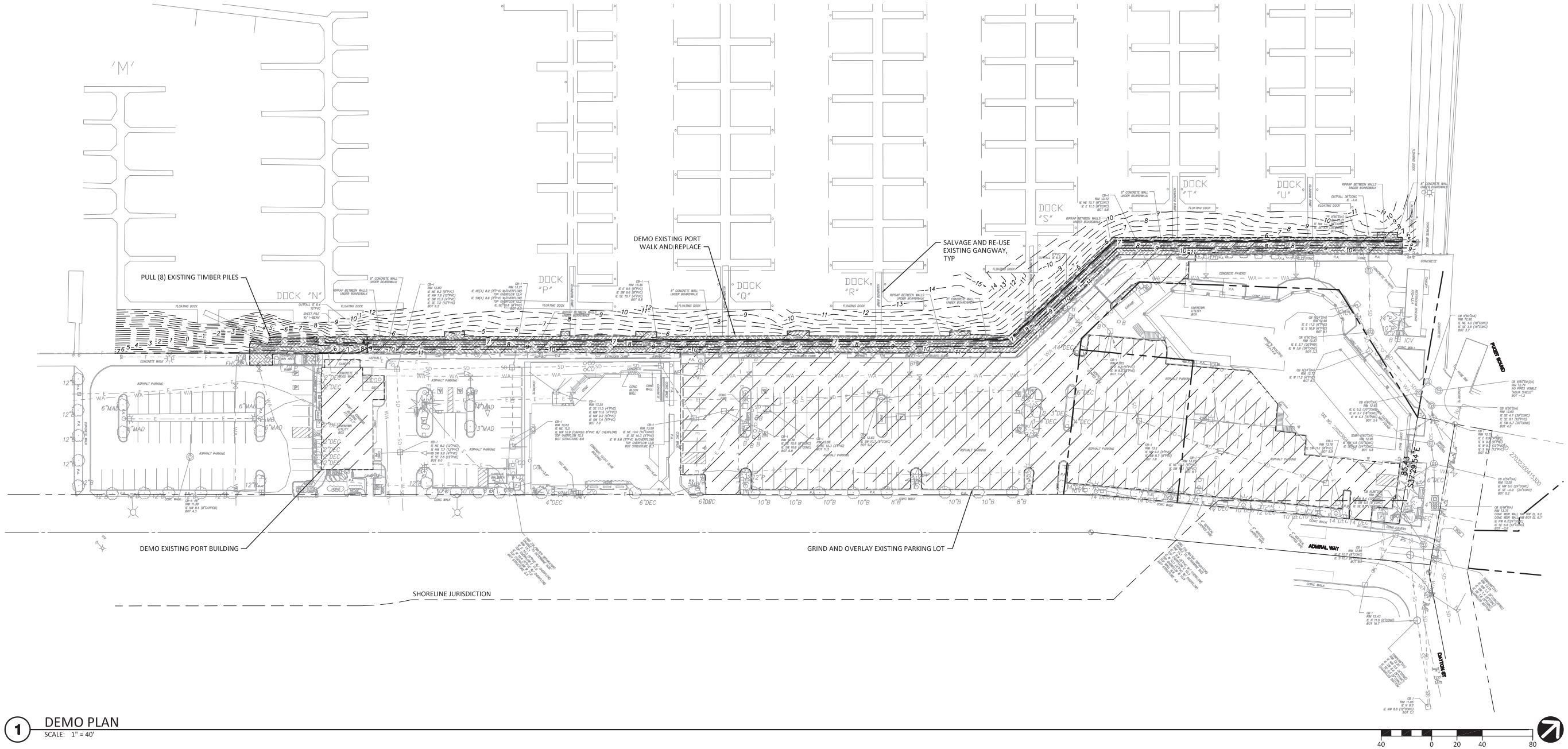
NORTH PORTWALK AND SEAWALL RECONSTRUCTION
300-336 ADMIRAL WAY
EDMONDS, WA 98020

COVER SHEET

FILE NAME:

SHEET:
G1.1

A PORTION OF LOT 3, SECTION 23, TOWNSHIP 27 NORTH, RANGE 3 EAST, W.M.



1 DEMO PLAN
SCALE: 1" = 40'

THIS PLAN SET IS FOR A 60% SUBMITTAL AND WILL BE FURTHER DETAILED FOR FUTURE PHASES OF THE PROJECT.

APPROVED FOR CONSTRUCTION
CITY OF EDMONDS
DATE: _____
BY: _____
CITY ENGINEERING DIVISION

CG ENGINEERING
250 4TH AVE. S., SUITE 200
EDMONDS, WASHINGTON 98020
PHONE (425) 778-8500
FAX (425) 778-5536

PRELIMINARY
NOT FOR CONSTRUCTION
XX/XX/XX

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300-336 ADMIRAL WAY
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DEMO PLAN

FILE NAME:

SHEET:
G2.1

A PORTION OF LOT 3, SECTION 23, TOWNSHIP 27 NORTH, RANGE 3 EAST, W.M.

NORTH PORTWALK & SEAWALL RECONSTRUCTION

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877.824.2288

DATUM

VERTICAL: NAVD 88
TO CONVERT ELEVATIONS TO MEAN LOWER LOW WATER DATUM (MLLW), ADD 2.03 FEET.

HORIZONTAL: WASHINGTON STATE COORDINATE SYSTEM, NORTH ZONE NAD 83/91 US FEET

LEGAL DESCRIPTION

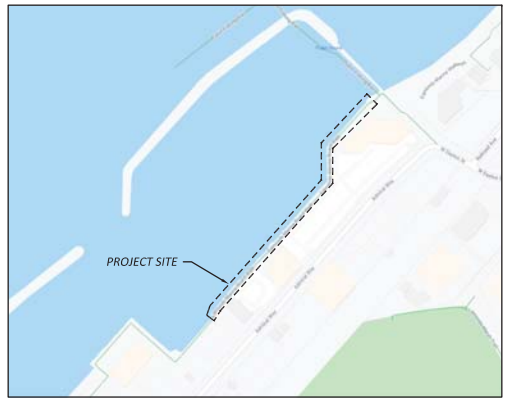
GOV LOT 3, STR 23-27-3

HAUL ROUTE

TO SITE: I-5 TO WA-104W
SLIGHT RIGHT TO CONTINUE ON WA-104W
L ON W DAYTON ST
W DAYTON ST BECOMES ADMIRAL WAY

FROM SITE: L ONTO ADMIRAL WAY
ADMIRAL WAY BECOMES W DAYTON ST
R ONTO WA-104E
CONTINUE ON WA-14E TO I-5

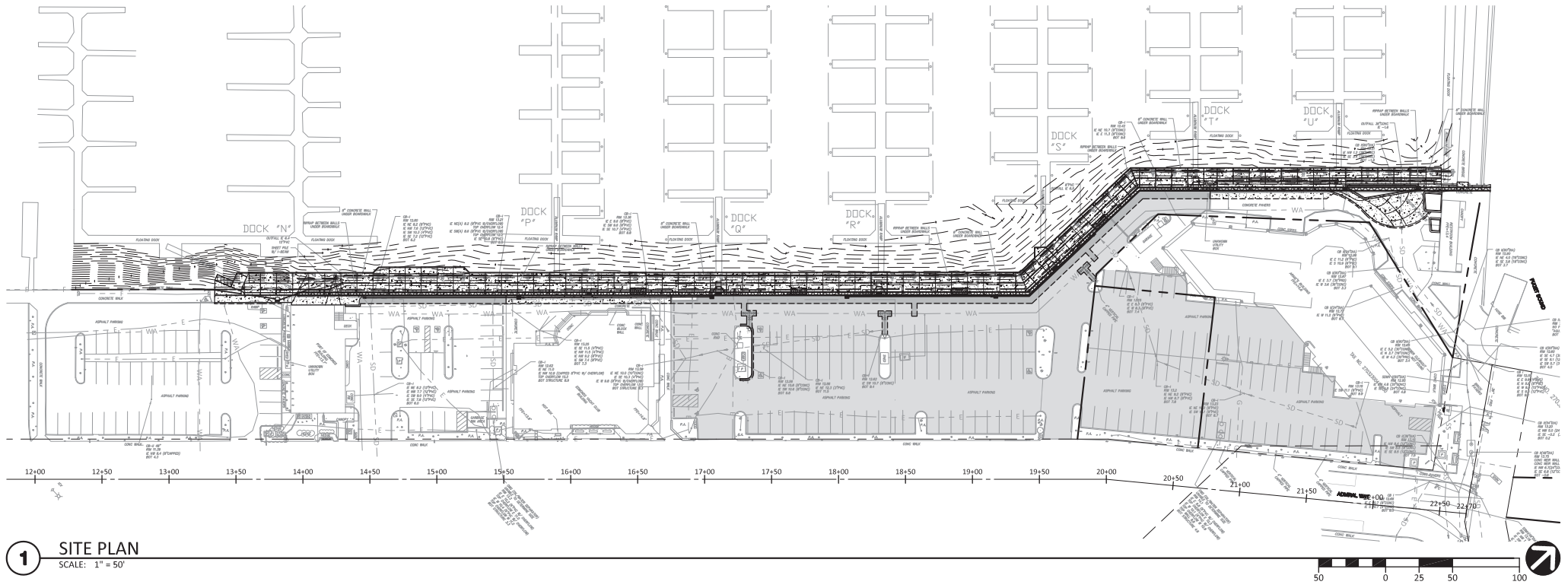
SHEET INDEX



VICINITY MAP
NTS

811

CAUTION!
CALL BEFORE YOU DIG!
BURIED UTILITIES EXIST IN THE AREA AND UTILITY INFORMATION SHOWN MAY NOT BE COMPLETE. CONTACT THE ONE- CALL UTILITY LOCATE SERVICE A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION
1-800-424-5555



1 SITE PLAN
SCALE: 1" = 50'

THIS PLAN SET IS FOR A 60% SUBMITTAL AND WILL BE FURTHER DETAILED FOR FUTURE PHASES OF THE PROJECT.

APPROVED FOR CONSTRUCTION
CITY OF EDMONDS
DATE: _____
BY: _____
CITY ENGINEERING DIVISION

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NORTH PORTWALK AND SEAWALL RECONSTRUCTION
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COVER SHEET AND SITE PLAN

FILE NAME:

SHEET:
C0.1

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C2.2	TEMPORARY EROSION CONTROL & DEMO DETAILS
C3.1	OVERALL GRADING & UTILITY PLAN
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C3.3	PARTIAL GRADING & UTILITY PLAN
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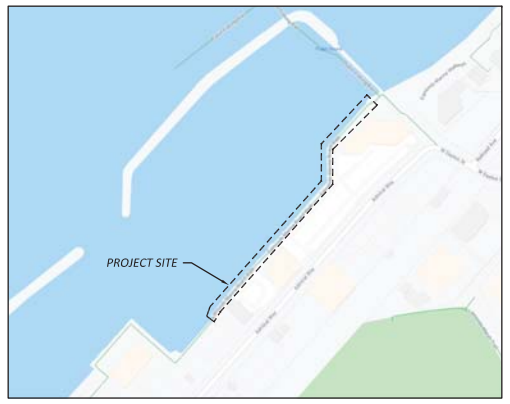
C4.4	PARTIAL SITE IMPROVEMENT & TRAFFIC CONTROL PLANS

	PHASING SHEETS
PH1.1	OVERALL PHASING PLAN



VICINITY MAP
NTS

GENERAL NOTES

GENERAL NOTES

1. ALL MATERIALS AND WORK SHOWN ON THESE PLANS SHALL CONFORM TO THE CITY OF EDMONDS STANDARD PLANS AND DETAILS, THE FOLLOWING SPECIFICATIONS AND CODES, AND ALL OTHER APPLICABLE LOCAL MUNICIPAL, STATE, AND FEDERAL CODES, RULES AND REGULATIONS:
   - CURRENT INTERNATIONAL BUILDING CODE (IBC)
   - CURRENT WSDOT/APWA STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION
   - WASHINGTON STATE DEPARTMENT OF ECOLOGY STORMWATER MANAGEMENT MANUAL FOR THE PUGET SOUND BASIN (CURRENT EDITION)
2. STANDARD PLAN AND TYPE NUMBERS INDICATED ON THESE DRAWINGS REFER TO CITY OF EDMONDS STANDARD DETAILS, UNLESS NOTED OTHERWISE
3. A COPY OF THESE APPROVED PLANS MUST BE ON THE JOBSITE WHENEVER CONSTRUCTION IS IN PROGRESS.
4. DEVIATIONS FROM THESE PLANS MUST BE APPROVED BY THE ENGINEER OF RECORD AND THE LOCAL GOVERNING AUTHORITY.
5. CONTRACTOR SHALL RECORD ALL APPROVED DEVIATIONS FROM THESE PLANS ON A SET OF "AS-BUILT" DRAWINGS AND SHALL SUMMARIZE ALL ASBUILT CONDITIONS ON ONE SET OF REPRODUCIBLE DRAWINGS FOR SUBMITTAL TO THE OWNER PRIOR PROJECT COMPLETION AND ACCEPTANCE. A SET OF AS-BUILT DRAWINGS SHALL BE SUBMITTED TO THE CITY OF EDMONDS PRIOR TO FINAL APPROVAL OF THE BUILDING OCCUPANCY/FINAL PROJECT APPROVAL.
6. ELEVATIONS SHOWN ARE IN FEET. SEE SURVEY FOR BENCHMARK INFORMATION.
7. THE LOCATIONS OF EXISTING UTILITIES AND SITE FEATURES SHOWN HEREON HAVE BEEN FURNISHED BY OTHERS BY FIELD SURVEY OR OBTAINED FROM AVAILABLE RECORDS AND SHOULD THEREFORE BE CONSIDERED APPROXIMATE ONLY AND NOT NECESSARILY COMPLETE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO INDEPENDENTLY VERIFY THE ACCURACY OF ALL UTILITY LOCATIONS SHOWN AND TO FURTHER DISCOVER AND PROTECT ANY OTHER UTILITIES NOT SHOWN HEREON WHICH MAY BE AFFECTED BY THE IMPLEMENTATION OF THIS PLAN. CONTRACTOR SHALL VERIFY LOCATION, DEPTH, SIZE, TYPE AND CONDITION OF EXISTING UTILITY LINES AT CONNECTION OR CROSSING POINTS BEFORE TRENCHING FOR NEW UTILITIES. ENGINEER ASSUMES NO RESPONSIBILITY FOR THE COMPLETENESS OR ACCURACY OF THE EXISTING UTILITIES AND SITE FEATURES PRESENTED ON THESE DRAWINGS. ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF CONFLICTS THAT ARISE.
8. CONTRACTOR SHALL LOCATE AND PROTECT ALL UTILITIES DURING CONSTRUCTION AND SHALL CONTACT THE UNDERGROUND UTILITIES REVISED 05.15.2017 LOCATION SERVICE (1-800-424-5555) AT LEAST 48 HOURS PRIOR TO CONSTRUCTION.
9. CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AT THE PROJECT SITE BEFORE STARTING WORK AND SHALL NOTIFY OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES.
10. PIPE LENGTHS WHERE SHOWN ARE APPROXIMATE AND MAY CHANGE DUE TO FIELD CONDITIONS.
11. CONTRACTOR SHALL OBTAIN A COPY OF THE GEOTECHNICAL REPORT (WHERE APPLICABLE) AND SHALL THOROUGHLY FAMILIARIZE HIMSELF WITH THE CONTENTS THEREOF. ALL SITE WORK SHALL BE PERFORMED IN STRICT COMPLIANCE WITH THE RECOMMENDATIONS OF THIS REPORT.
12. STRUCTURAL FILL MATERIAL AND PLACEMENT SHALL CONFORM TO THE RECOMMENDATIONS OF THE PROJECT GEOTECHNICAL REPORT.
13. SUBGRADE SOILS IN ALL AREAS WHERE RAIN GARDENS, INFILTRATION OR PERVIOUS PAVEMENT IS TO BE PLACED SHALL BE DELINEATED AND PROTECTED AT ALL TIMES FROM COMPACTIVE ACTIVITIES (I.E. HEAVY EQUIPMENT, STOCKPILING).
14. MANHOLES, CATCH BASINS, UTILITIES AND PAVEMENT SHALL BEAR ON MEDIUM DENSE TO VERY DENSE NATIVE SOIL OR COMPACTED STRUCTURAL FILL. IF SOIL IS DISTURBED, SOFT, LOOSE, WET OR IF ORGANIC MATERIAL IS PRESENT AT SUBGRADE ELEVATION, REMOVE AND REPLACE WITH COMPACTED STRUCTURAL FILL PER GEOTECHNICAL REPORT.
15. SEE SURVEY AND ARCHITECTURAL DRAWINGS FOR DIMENSIONS AND LOCATIONS OF BUILDINGS, LANDSCAPED AREAS AND OTHER PROPOSED OR EXISTING SITE FEATURES.
16. SEE ARCHITECTURAL DRAWINGS FOR PERIMETER FOUNDATION DRAINS. FOUNDATION DRAINS SHALL BE INDEPENDENT OF OTHER SITE DRAIN LINES AND SHALL BE TIGHTLINED TO THE STORM DRAIN SYSTEM WHERE INDICATED ON THE PLANS.
17. ALL REQUIRED STORMWATER FACILITIES MUST BE CONSTRUCTED AND IN OPERATION PRIOR TO INSTALLATION OF ANY PAVEMENT UNLESS OTHERWISE APPROVED BY THE ENGINEER.
18. ALL ROOF DRAINS, PERIMETER FOUNDATION DRAINS, CATCH BASINS AND OTHER EXTERNAL DRAINS SHALL BE CONNECTED TO THE STORM DRAINAGE SYSTEM, UNLESS NOTED OTHERWISE.
19. ALL FOOTING DRAINS SERVING BUILDINGS, WALLS, ROCKERIES, ETC. SHALL CONNECT TO THE DRAINAGE SYSTEM DOWNSTREAM OF THE SITE STORMWATER DETENTION SYSTEM.
20. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS REQUIRED FOR INSTALLATION OF ALL SITE IMPROVEMENTS INDICATED ON THESE DRAWINGS.
21. A SEPARATE IRRIGATION PERMIT MUST BE OBTAINED FROM THE CITY PUBLIC WORKS DEPARTMENT. PRIOR TO FINAL CONSTRUCTION ACCEPTANCE, PROVIDE TO THE CITY WATER QUALITY TECHNICIAN, A COPY OF THE BACKFLOW TEST REPORT. TEST REPORTS CAN BE FAXED TO 425-744-6057 OR EMAILED TO JEFF.KOBLYK@EDMONDSWA.GOV. BACKFLOW TESTING SHALL BE COMPLETED BY THE OWNER ANNUALLY THEREAFTER.
22. AS A MINIMUM REQUIREMENT, ALL DISTURBED AREAS ON AND OFF SITE SHALL BE RETURNED TO THE EQUIVALENT OF THEIR PRECONSTRUCTION CONDITION IN ACCORDANCE WITH APPROPRIATE REQUIREMENTS AND STANDARDS.
23. ALL DISTURBED SOIL AREAS SHALL BE COMPOST AMENDED AND SEEDED OR STABILIZED BY OTHER ACCEPTABLE METHODS FOR THE PREVENTION OF ONSITE EROSION AFTER THE COMPLETION OF CONSTRUCTION. SEE EROSION CONTROL PLANS FOR SPECIFIC GRADING AND EROSION CONTROL REQUIREMENTS.
24. THE CONTRACTOR SHALL KEEP OFF-SITE STREETS CLEAN AT ALL TIMES BY SWEEPING. WASHING OF THESE STREETS WILL NOT BE ALLOWED WITHOUT PRIOR APPROVAL.
25. THIS PROJECT IS NOT A BALANCED EARTHWORK PROJECT. BOTH EXPORT AND IMPORT OF SOIL AND ROCK MATERIALS ARE REQUIRED.
26. SLOPE OF FINISHED GRADE SHALL BE CONSTANT BETWEEN FINISHED CONTOURS OR SPOT ELEVATIONS SHOWN.
27. FINISHED GRADE SHALL SLOPE AWAY FROM BUILDING WALLS AT MINIMUM 5% SLOPE FOR A MINIMUM DISTANCE OF 10 FEET.
28. CONTRACTOR SHALL BE RESPONSIBLE FOR AND SHALL INSTALL AND MAINTAIN SHORING AND BRACING AS NECESSARY TO PROTECT WORKERS, EXISTING BUILDINGS, STREETS, WALKWAYS, UTILITIES AND OTHER EXISTING AND PROPOSED IMPROVEMENTS AND EXCAVATIONS AGAINST LOSS OF GROUND OR CAVING EMBANKMENTS. CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR REMOVAL OF SHORING AND BRACING, AS REQUIRED.
29. CONTRACTOR SHALL OBTAIN APPROVAL FROM THE CITY AND FOLLOW CITY PROCEDURES FOR ALL WATER SERVICE INTERRUPTIONS, HYDRANT SHUTOFFS, STREET CLOSURES OR OTHER ACCESS RESTRICTIONS. CONTRACTOR SHALL NOT RELOCATE OR ELIMINATE ANY HYDRANTS WITHOUT FIRST OBTAINING WRITTEN APPROVAL FROM THE FIRE MARSHAL.
30. COORDINATE AND ARRANGE FOR ALL UTILITY CONNECTIONS, UTILITY RELOCATIONS AND/OR SERVICE INTERRUPTIONS WITH THE AFFECTED OWNERS AND APPROPRIATE UTILITY COMPANIES. CONNECTIONS TO Revised 05.15.2017 EXISTING UTILITIES SHALL BE MADE ONLY WITH ADVANCE WRITTEN APPROVAL OF THE AUTHORITIES GOVERNING SAID UTILITIES.
31. ALL UTILITIES SHALL BE PLACED UNDERGROUND.
32. EXISTING UTILITY LINES IN SERVICE WHICH ARE DAMAGED DUE TO CONSTRUCTION WORK SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE AND INSPECTED AND ACCEPTED BY CITY OF EDMONDS AND OWNER'S REPRESENTATIVE PRIOR TO BACKFILLING.
33. NEW UTILITY LOCATIONS ARE GENERALLY SHOWN BY DIMENSION, WHERE NO DIMENSIONS ARE INDICATED, LOCATIONS MAY BE SCALED FROM DRAWINGS. FIELD ADJUSTMENTS SHALL BE APPROVED BY OWNER'S REPRESENTATIVE AND CITY.
34. FIELD STAKE ALL UTILITY STUBS AT THE PROPERTY LINE.
35. TRENCH BACKFILL OF UTILITIES LOCATED WITHIN THE CITY RIGHT-OF-WAY SHALL BE COMPACTED TO 95%. COMPACTION TEST REPORTS SHALL BE PROVIDED TO THE CITY PRIOR TO PAVING.
36. WHERE NEW PIPE CLEARS AN EXISTING OR NEW UTILITY BY 6" OR LESS, PLACE POLYETHYLENE PLASTIC FOAM AS A CUSHION BETWEEN THE UTILITIES.
37. SEE MECHANICAL DRAWINGS (WHERE APPLICABLE) FOR CONTINUATION OF SITE UTILITIES WITHIN THE BUILDING.
38. SEE ELECTRICAL DRAWINGS (WHERE APPLICABLE) FOR EXTERIOR ELECTRICAL WORK.
39. SEE LANDSCAPE DRAWINGS (WHERE APPLICABLE) FOR SITE IRRIGATION SYSTEM.
40. PIPE MATERIAL AND SIGNAGE SUBMITTALS SHALL BE PROVIDED TO CITY ENGINEERING DIVISION FOR APPROVAL PRIOR TO INSTALLATION.
41. A SEPARATE RIGHT-OF-WAY CONSTRUCTION PERMIT IS REQUIRED FOR ALL WORK WITHIN THE CITY RIGHT-OF-WAY.
42. UNDERGROUND WIRING REQUIREMENTS OF ECDC 18.05 SHALL BE FOLLOWED. ALL UTILITY SERVICES SHALL BE INSTALLED UNDERGROUND.

CONSTRUCTION SEQUENCE NOTES

1. SCHEDULE A PRE-CONSTRUCTION MEETING WITH CITY ENGINEERING DIVISION AT 425-771-0220, EXT. 1326. TWO DAY (48 HR) NOTICE IS REQUIRED.
2. REVIEW TEMPORARY EROSION AND SEDIMENT CONTROL NOTES.
3. CALL FOR UTILITY LOCATES.
4. INSTALL TESC MEASURES AND MAINTAIN DUST CONTROL WHILE PREVENTING DISTURBANCE OF ANY AREAS OF VEGETATIONOUTSIDE THE CONSTRUCTION ZONE.
5. HAVE EROSION CONTROL MEASURES INSPECTED BY CITY OF EDMONDS CITY ENGINEERING INSPECTOR. ALL TEMPORARY SEDIMENTATION AND EROSION CONTROL MEASURES MUST BE IN PLACE AND INSPECTED PRIOR TO ANY CONSTRUCTION OR SITE CLEARING. EROSION AND SEDIMENTATION CONTROL PRACTICES AND/OR DEVICES SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED.
6. ROUGH GRADE SITE AS REQUIRED TO INSTALL DRAINAGE FEATURES. ROUGH GRADING OF SITE IS TO FOLLOW ROUGH GRADING OF ADJACENT APARTMENT SITE.
7. INSTALL UTILITIES AND OTHER SITE IMPROVEMENTS, INCLUDING FRONTAGE IMPROVEMENTS.
8. CONSTRUCT BUILDING (ANTICIPATED TO BE IN TANDEM WITH ADJACENT APARTMENT SITE)
9. ESTABLISH LANDSCAPING AND PERMANENT VEGETATION. ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED UPON FINAL SITE STABILIZATION AND APPROVAL BY CITY INSPECTOR.

DATUM

VERTICAL: NAVD 88
TO CONVERT ELEVATIONS TO MEAN LOWER LOW WATER DATUM (MLLW), ADD 2.03 FEET.

HORIZONTAL: WASHINGTON STATE COORDINATE SYSTEM, NORTH ZONE NAD 83/91 US FEET

LEGAL DESCRIPTION

GOV LOT 3, STR 23-27-3

HAUL ROUTE

TO SITE: I-5 TO WA-104W
SLIGHT RIGHT TO CONTINUE ON WA-104W
L ON W DAYTON ST
W DAYTON ST BECOMES ADMIRAL WAY

FROM SITE: L ONTO ADMIRAL WAY
ADMIRAL WAY BECOMES W DAYTON ST
R ONTO WA-104E
CONTINUE ON WA-14E TO I-5

LEGEND

DESCRIPTION	EXISTING	PROPOSED
PROPERTY LINE		
ADJACENT PROPERTY LINE		
CENTERLINE		
CLEARING LIMITS		
SILT FENCE	X X	X X
CONTOUR LINE	100	100
FENCE		
SANITARY SEWER LINE	SS SS	SS SS
MANHOLE		
STORM DRAIN MAIN	SD SD	SD SD
STORM DRAIN PIPE		
ROOF DRAIN	R R	R R
FOOTING DRAIN	F F	F F
PRESSURE LINE	P P	P P
CATCH BASIN (TYPE 1)		
CATCH BASIN (TYPE 2)		
CLEANOUT		
CLEANOUT AND WYE		
GRADE BREAK		
SURFACE SWALE		
DRAINAGE ARROW		
WATER LINE	WA WA	WA WA
WATER METER		
FIRE HYDRANT		
FDC		
PIV		
GATE VALVE		
TEE		
90° BEND		
THRUST BLOCKING		
CAP		
CONCRETE PAVEMENT		
ASPHALT PAVEMENT		
CRUSHED SURFACING		
ROCKERY		
SPOT ELEVATION	20.0	20.0
TELEPHONE LINE	T T	T T
POWER LINE	E E	E E
GAS LINE	G G	G G
SIGN		

ABBREVIATIONS			
ABN	ABANDONED	MIN	MINIMUM
BLDG	BUILDING	MJ	MECHANICAL JOINT
BOW	BOTTOM OF WALL	MON	MONUMENT
℄	CENTERLINE	NTS	NOT TO SCALE
CB	CATCH BASIN	OC	ON CENTER
CMP	CORRUGATED METAL PIPE	PC	POINT OF CURVATURE
CO	CLEANOUT	PI	POINT OF INTERSECTION
CONC	CONCRETE	PIV	POST INDICATOR VALVE
CONST	CONSTRUCTION	ℙ	PROPERTY LINE
CP	CONCRETE PIPE	PT	POINT OF TANGENCY
CU YD	CUBIC YARD	PVC	POLYVINYL CHLORIDE PIPE
DDCVA	DOUBLE DETECTOR CHECK VALVE ASSEMBLY	PVI	POINT OF VERTICAL INTERSECTION
DI	DUCTILE IRON PIPE	PVMT	PAVEMENT
DIA	DIAMETER	PVT	POINT OF VERTICAL TANG.
DIP	DUCTILE IRON PIPE	R	RADIUS
EA	EACH	REINF	REINFORCEMENT
EJ	EXPANSION JOINT	RJ	RESTRAINED JOINT
ELEV	ELEVATION	RET	RETAINING
EOP	EDGE OF PAVEMENT	RT	RIGHT
EX	EXISTING	SD	STORM DRAIN
FDC	FIRE DEPT. CONNECTION	SECT	SECTION
FFE	FINISHED FLOOR ELEVATION	SDMH	STORM DRAIN MANHOLE
FH	FIRE HYDRANT	SIM	SIMILAR
FL	FLANGE	SQ	SQUARE
FT	FEET/FOOT	SS	SANITARY SEWER
GV	GATE VALVE	SSMH	SANITARY SEWER MANHOLE
HP	HIGH POINT	STA	STATION
HT	HEIGHT	STD	STANDARD
ID	INSIDE DIAMETER	STL	STEEL
IE	INVERT ELEVATION	TB	THRUST BLOCK
L	LENGTH/LINE	TOC	TOP OF CURB
LCPE	LINED CORRUGATED POLYETHYLENE PIPE	TOW	TOP OF WALL
LF	LINEAL FOOT	TOP	TOP ELEVATION
LP	LOW POINT	TYP	TYPICAL
LT	LEFT	VC	VERTICAL CURVE
MAX	MAXIMUM	W/	WITH
MECH	MECHANICAL	WM	WATER METER
MH	MANHOLE		

811

CAUTION!
CALL BEFORE YOU DIG!
BURIED UTILITIES EXIST IN THE AREA AND UTILITY INFORMATION SHOWN MAY NOT BE COMPLETE. CONTACT THE ONE- CALL UTILITY LOCATE SERVICE A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION
1-800-424-5555

THIS PLAN SET IS FOR A 60% SUBMITTAL AND WILL BE FURTHER DETAILED FOR FUTURE PHASES OF THE PROJECT.

APPROVED FOR CONSTRUCTION
CITY OF EDMONDS
DATE: _____
BY: _____
CITY ENGINEERING DIVISION

CG ENGINEERING
250 4TH AVE. S., SUITE 200
EDMONDS, WASHINGTON 98020
PHONE (425) 778-8500
FAX (425) 778-5536

PRELIMINARY
NOT FOR CONSTRUCTION
REGISTERED PROFESSIONAL ENGINEER
XX/XX/XX

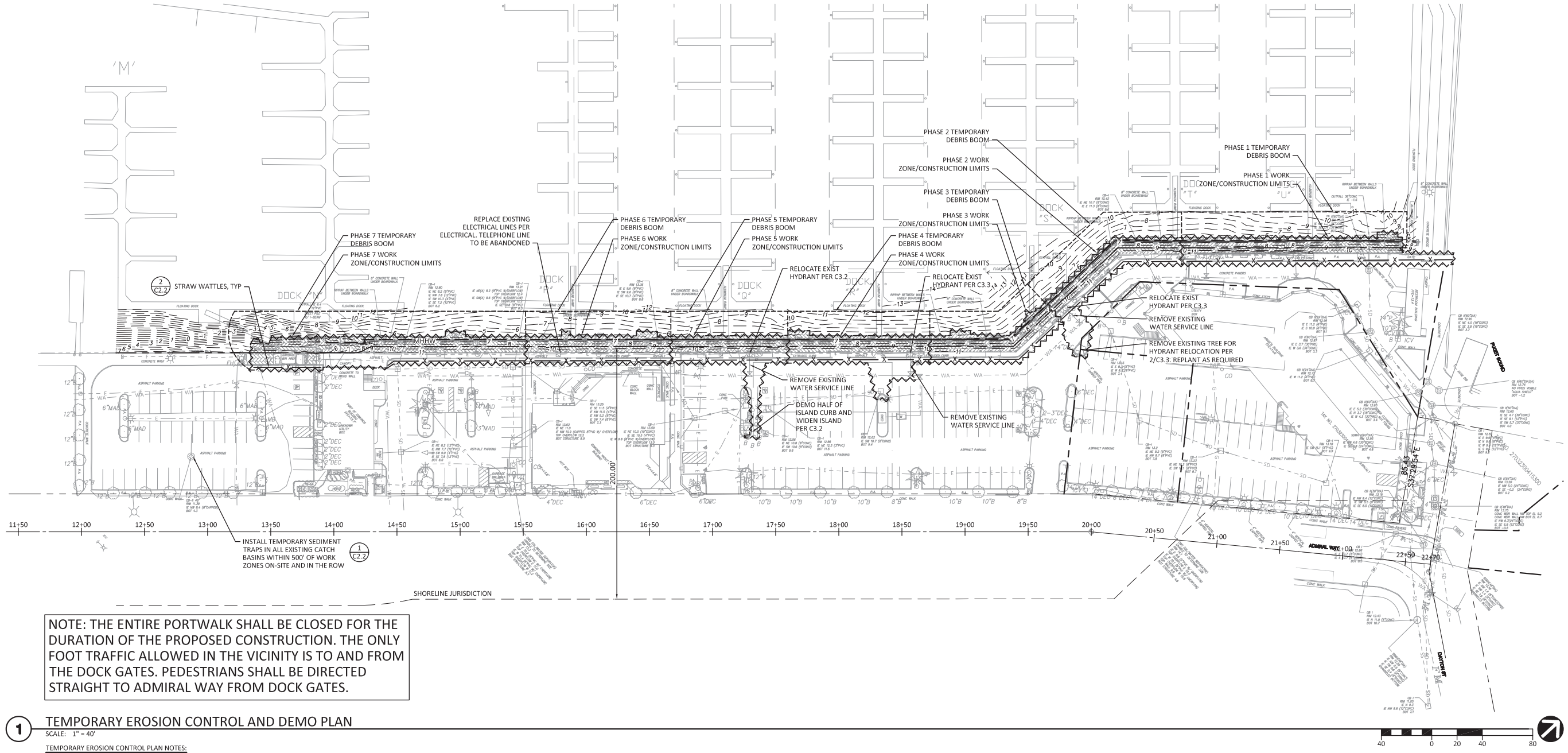
MARK	DATE	DESCRIPTION
	XX/XX/XX	60% PROGRESS SET

DESIGN: TAF
DRAWN: ATD
CHECK: JPU
JOB NO: 21060.20
DATE: XX/XX/XX

NORTH PORTWALK AND SEAWALL RECONSTRUCTION
300-336 ADMIRAL WAY
EDMONDS, WA 98020
COVER SHEET AND GENERAL NOTES
FILE NAME:

SHEET:
C1.1

A PORTION OF LOT 3, SECTION 23, TOWNSHIP 27 NORTH, RANGE 3 EAST, W.M.



NOTE: THE ENTIRE PORTWALK SHALL BE CLOSED FOR THE DURATION OF THE PROPOSED CONSTRUCTION. THE ONLY FOOT TRAFFIC ALLOWED IN THE VICINITY IS TO AND FROM THE DOCK GATES. PEDESTRIANS SHALL BE DIRECTED STRAIGHT TO ADMIRAL WAY FROM DOCK GATES.

1 TEMPORARY EROSION CONTROL AND DEMO PLAN

SCALE: 1" = 40'

TEMPORARY EROSION CONTROL PLAN NOTES:

1. CLEARLY MARK ALL CLEARING LIMITS/CONSTRUCTION ACTIVITY AREA PER COE BMP C103.
2. ANY DISTURBED LANDSCAPING AREAS ON AND OFF-SITE SHALL BE COMPOST-AMENDED PER THE REQUIREMENTS OF BMP T5.13 IN THE STORMWATER MANUAL VOLUME V, CHAPTER 5.
3. SOILS MUST BE STABILIZED AT THE END OF THE SHIFT BEFORE A HOLIDAY OR WEEKEND IF NEEDED BASED ON THE WEATHER FORECAST.
4. CONCRETE TRUCKS MUST NOT BE WASHED OUT ONTO THE GROUND, OR INTO STORM DRAINS, OPEN DITCHES, STREETS, OR STREAMS. EXCESS CONCRETE MUST NOT BE DUMPED ON-SITE.
5. INSTALL CATCH BASIN INLET PROTECTION PER DETAIL 1/C2.2 FOR ALL EXISTING INLETS WITHIN 500' OF WORK ZONES ON-SITE AND IN THE ROW.
6. ADDITIONAL BMPS MAY BE REQUIRED DURING CONSTRUCTION.
7. CITY INSPECTION REQUIRED ON ALL EROSION CONTROL METHODS BEFORE OTHER WORK CAN BEGIN.

THIS PLAN SET IS FOR A 60% SUBMITTAL AND WILL BE FURTHER DETAILED FOR FUTURE PHASES OF THE PROJECT.

APPROVED FOR CONSTRUCTION
CITY OF EDMONDS
DATE: _____
BY: _____
CITY ENGINEERING DIVISION

CG ENGINEERING
250 4TH AVE. S., SUITE 200
EDMONDS, WASHINGTON 98020
PHONE (425) 778-8500
FAX (425) 778-5536

PRELIMINARY NOT FOR CONSTRUCTION
REG. GUILLEN STATE OF WASHINGTON 25080 REGISTERED PROFESSIONAL ENGINEER
XX/XX/XX

MARK	DATE	DESCRIPTION
	XX/XX/XX	60% PROGRESS SET

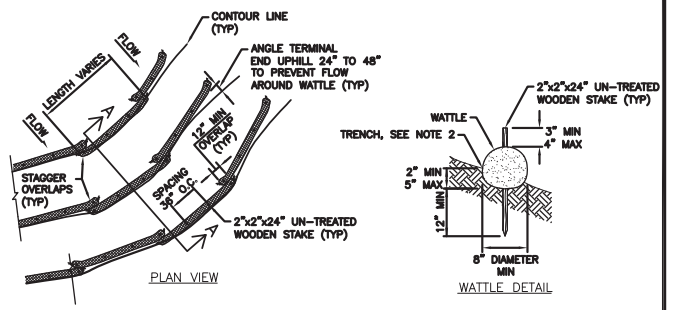
DESIGN:	TAF
DRAWN:	ATD
CHECK:	JPU
JOB NO:	21060.20
DATE:	XX/XX/XX

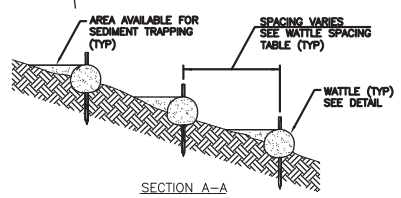
NORTH PORTWALK AND SEAWALL RECONSTRUCTION
300-336 ADMIRAL WAY
EDMONDS, WA 98020

TEMPORARY EROSION CONTROL AND DEMO PLAN

FILE NAME:

SHEET: C2.1





SECTION A–A
WATTLE INSTALLATION ON SLOPES

8" DIAMETER WATTLE SPACING TABLE	
SLOPE	MAXIMUM SPACING
1H:1V	10'–0"
2H:1V	20'–0"
3H:1V	30'–0"
4H:1V	40'–0"
>4H:1V	ONE RUN ONLY

NOTES:

1. COMPOST WATTLES RECOMMENDED ON SLOPES. USE STRAW WATTLES IN PAVEMENT APPLICATION.
2. ON SLOPES, INSTALL WATTLES PERPENDICULAR TO THE FLOW DIRECTION AND PARALLEL TO THE SLOPE CONTOURS. INSTALLATION SHALL BE IN ACCORDANCE WITH WSDOT STANDARD SPECIFICATION 8-01.3(10).
3. RUNOFF SHALL NOT RUN UNDER OR AROUND ROLL. ADDITIONAL STAKING MAY BE NECESSARY TO PREVENT UNDERCUTTING.
4. WATTLES SHALL BE INSPECTED REGULARLY, AND IMMEDIATELY AFTER A RAINFALL PRODUCES RUNOFF. REMOVE SEDIMENT AND ACCUMULATIONS WHEN EXCEEDING 1/2 HEIGHT BETWEEN THE TOP OF THE WATTLE AND THE GROUND SURFACE.

CITY OF EDMONDS
PUBLIC WORKS DEPARTMENT

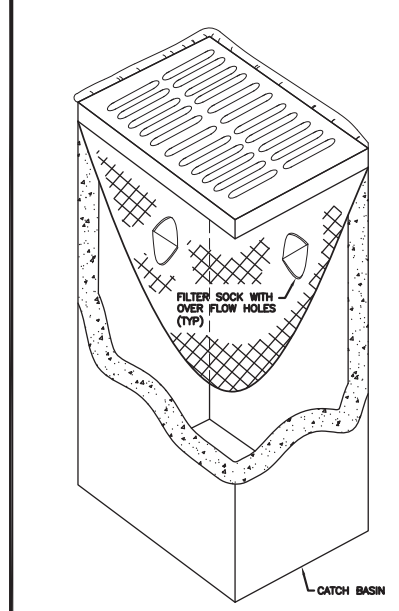
WATTLE INSTALLATION

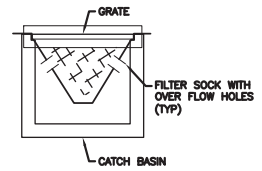
APPROVED BY: R. ENGLISH

REVISION DATE: JANUARY 2018

STANDARD DETAIL: ER–903

1 CITY OF EDMONDS STANDARD DETAIL
SCALE: NTS





NOTES:

1. CONTRACTOR/DEVELOPER SHALL MAINTAIN THIS APPLICATION AT ALL TIMES DURING CONSTRUCTION PERIOD.
2. ANY SEDIMENT IN CATCH BASIN INSERT SHALL BE REMOVED WHEN INSERT IS ONE-THIRD FULL.
3. CITY INSPECTION REQUIRED ON ALL EROSION CONTROL METHODS BEFORE OTHER WORK CAN BEGIN.

CITY OF EDMONDS
PUBLIC WORKS DEPARTMENT

TEMPORARY SEDIMENT TRAP FOR CATCH BASINS

APPROVED BY: R. ENGLISH

REVISION DATE: JANUARY 2018

STANDARD DETAIL: ER–902

2 CITY OF EDMONDS STANDARD DETAIL
SCALE: NTS

THIS PLAN SET IS FOR A 60% SUBMITTAL AND WILL BE FURTHER DETAILED FOR FUTURE PHASES OF THE PROJECT.

APPROVED FOR CONSTRUCTION
CITY OF EDMONDS
DATE: _____
BY: _____
CITY ENGINEERING DIVISION

CG ENGINEERING
250 4TH AVE. S., SUITE 200
EDMONDS, WASHINGTON 98020
PHONE (425) 778-8500
FAX (425) 778-5536

PRELIMINARY
NOT FOR CONSTRUCTION
REGISTERED PROFESSIONAL ENGINEER
XX/XX/XX

MARK	DATE	DESCRIPTION
	XX/XX/XX	60% PROGRESS SET

DESIGN:	TAF
DRAWN:	ATD
CHECK:	JPU
JOB NO:	21060.20
DATE:	XX/XX/XX

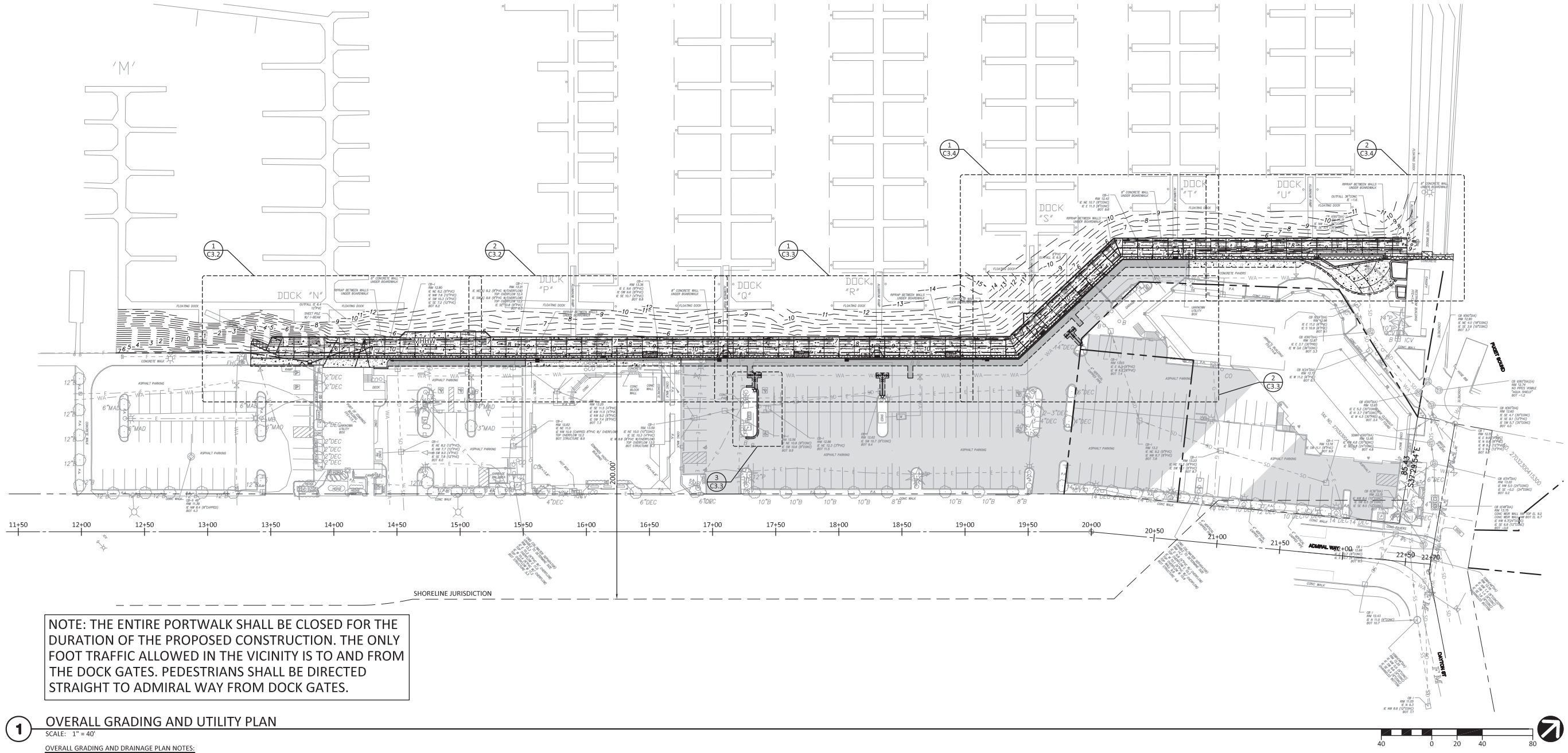
NORTH PORTWALK AND SEAWALL RECONSTRUCTION
300–336 ADMIRAL WAY
EDMONDS, WA 98020

TEMPORARY EROSION CONTROL AND DEMO DETAILS

FILE NAME:

SHEET: C2.2

A PORTION OF LOT 3, SECTION 23, TOWNSHIP 27 NORTH, RANGE 3 EAST, W.M.



NOTE: THE ENTIRE PORTWALK SHALL BE CLOSED FOR THE DURATION OF THE PROPOSED CONSTRUCTION. THE ONLY FOOT TRAFFIC ALLOWED IN THE VICINITY IS TO AND FROM THE DOCK GATES. PEDESTRIANS SHALL BE DIRECTED STRAIGHT TO ADMIRAL WAY FROM DOCK GATES.

1 OVERALL GRADING AND UTILITY PLAN

SCALE: 1" = 40'

OVERALL GRADING AND DRAINAGE PLAN NOTES:

1. GEOTECHNICAL ENGINEER OF RECORD: LANDAU & ASSOCIATES.
2. ALL DISTURBED LANDSCAPING AREAS ON AND OFF-SITE SHALL BE COMPOST- AMENDED PER THE REQUIREMENTS OF BMP T5.13 IN THE STORMWATER MANUAL VOLUME V, CHAPTER 5.
3. A MINIMUM OF 3' HORIZONTAL SEPARATION AND 1' VERTICAL SEPARATION IS REQUIRED BETWEEN DRY UTILITIES (POWER, GAS, PHONE, CABLE, ETC) AND SEWER, WATER AND STORM, AND A MINIMUM OF 5' HORIZONTAL SEPARATION AND 1' VERTICAL SEPARATION FROM ANY CITY-OWNED LINES.
4. NEW/REPLACED IMPERVIOUS SURFACE (INCLUDING ROW): 1,863 SF
   - -- REPLACED ASPHALT PAVEMENT: 1,445 SF. PAVEMENT WILL BE REPLACED AND RUNOFF WILL CONTINUE TO SHEET FLOW TO EXISTING CATCH BASINS.
   - -- REPLACED CONCRETE PAVEMENT: 418 SF. PAVEMENT WILL BE REPLACED AND RUNOFF WILL CONTINUE TO SHEET FLOW TO EXISTING CATCH BASINS.
5. THRUST BLOCKING PER DETAIL 2/C3.4.
6. SEE ARCHITECTURAL PLANS AND SPECIFICATIONS FOR DECORATIVE FEATURES WITHIN NEW CONCRETE PORTWALK.

PAVING LEGEND

- NEW ASPHALT
- OVERLAY EXISTING ASPHALT/UTILITY SAWCUT
- NEW CONCRETE

THIS PLAN SET IS FOR A 60% SUBMITTAL AND WILL BE FURTHER DETAILED FOR FUTURE PHASES OF THE PROJECT.

APPROVED FOR CONSTRUCTION
CITY OF EDMONDS
DATE: _____
BY: _____
CITY ENGINEERING DIVISION

CG ENGINEERING
250 4TH AVE. S., SUITE 200
EDMONDS, WASHINGTON 98020
PHONE (425) 778-8500
FAX (425) 778-5536

PRELIMINARY NOT FOR CONSTRUCTION
REGG GUILLEN STATE OF WASHINGTON 25985 REGISTERED PROFESSIONAL ENGINEER
XX/XX/XX

MARK	DATE	DESCRIPTION
	XX/XX/XX	60% PROGRESS SET

DESIGN:	TAF
DRAWN:	ATD
CHECK:	JPU
JOB NO:	21060.20
DATE:	XX/XX/XX

NORTH PORTWALK AND SEAWALL RECONSTRUCTION
300-336 ADMIRAL WAY
EDMONDS, WA 98020

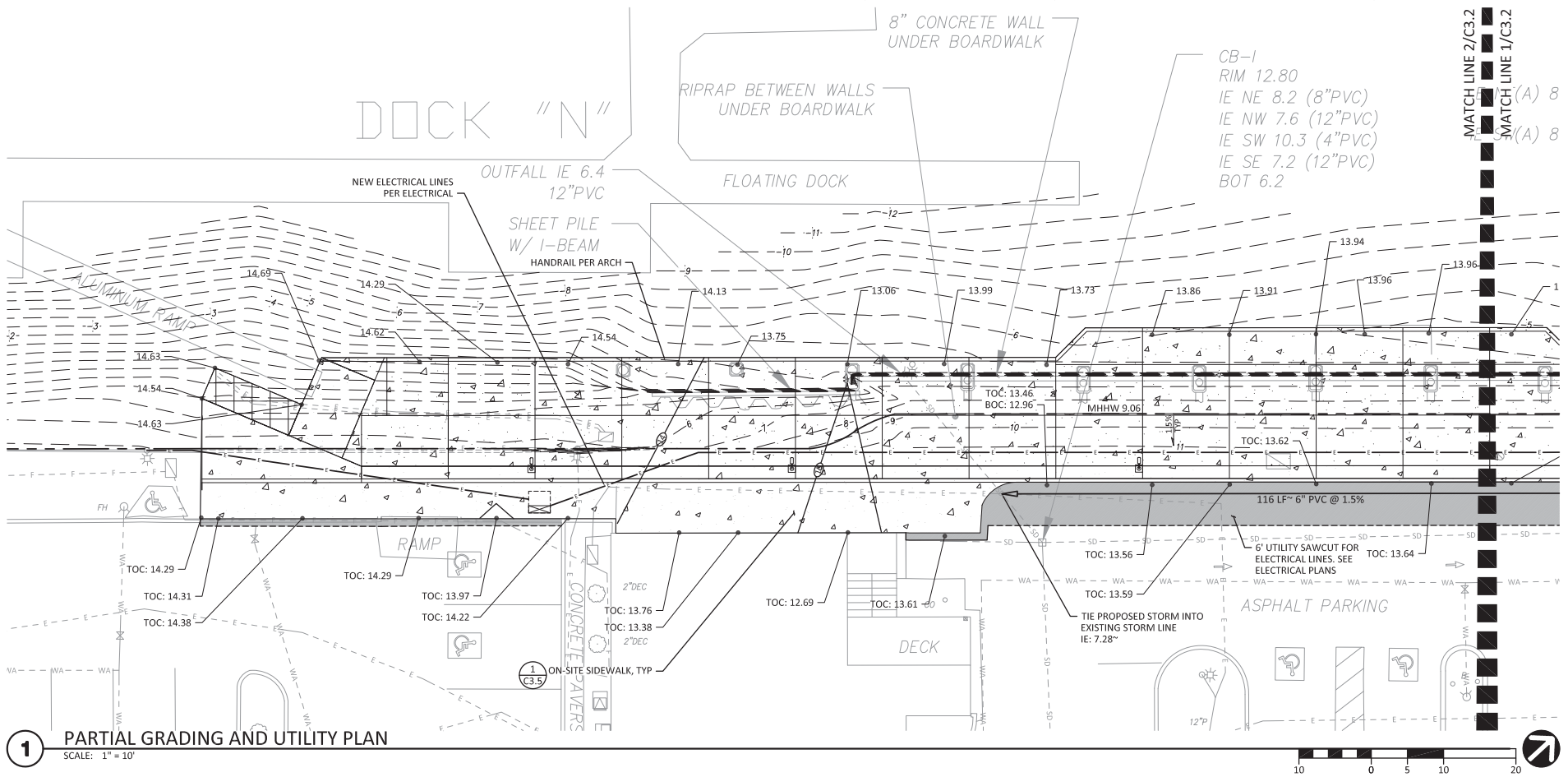
OVERALL GRADING AND UTILITY PLAN

FILE NAME:

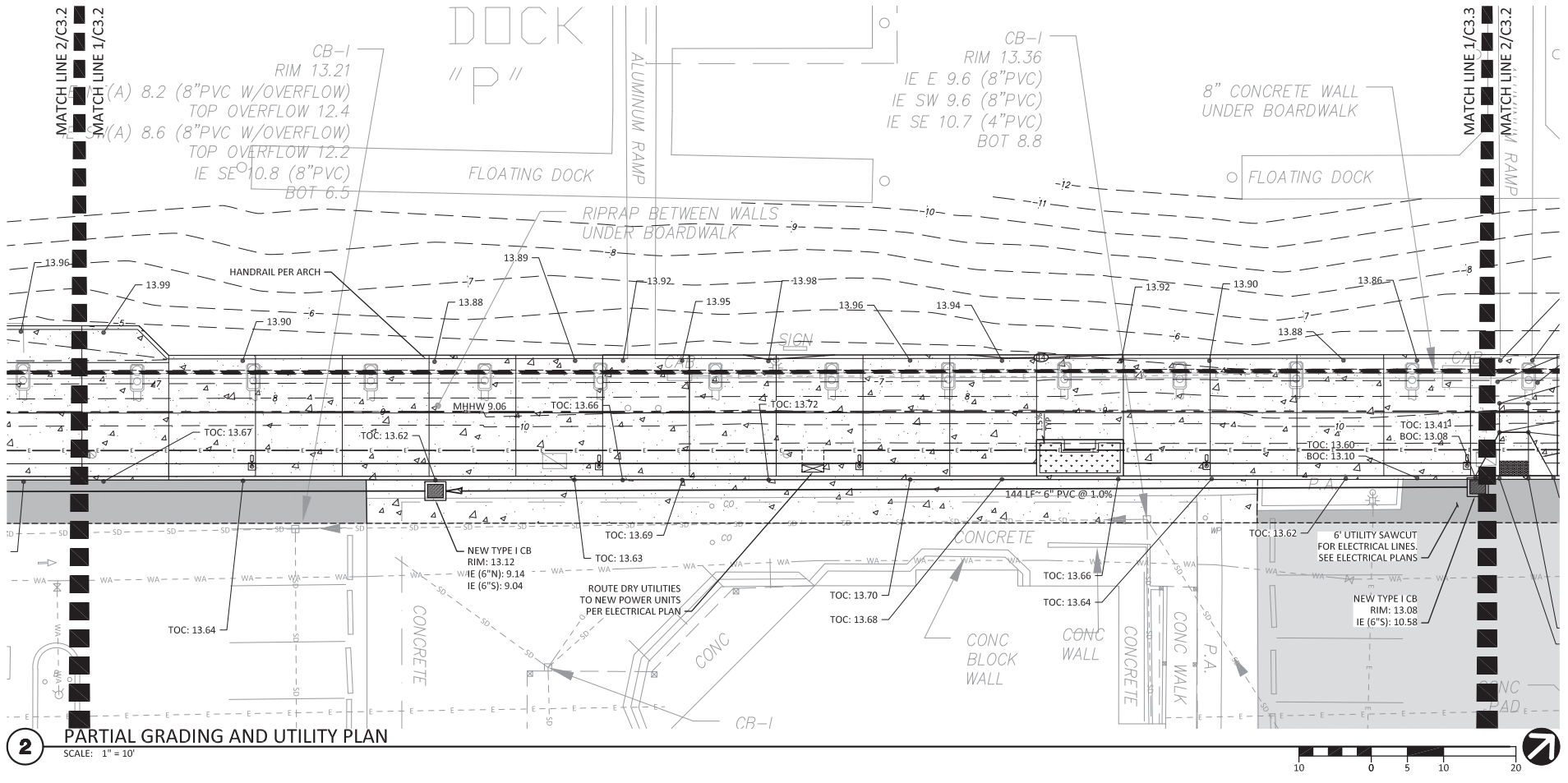
SHEET:

C3.1

A PORTION OF LOT 3, SECTION 23, TOWNSHIP 27 NORTH, RANGE 3 EAST, W.M.



1 PARTIAL GRADING AND UTILITY PLAN
SCALE: 1" = 10'



2 PARTIAL GRADING AND UTILITY PLAN
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EDMONDS, WASHINGTON 98020
PHONE (425) 778-8500
FAX (425) 778-5536

GREG GUILLEN — STATE OF WASHINGTON — 25985 — REGISTERED PROFESSIONAL ENGINEER

PRELIMINARY
NOT FOR CONSTRUCTION
XX/XX/XX

MARK	DATE	DESCRIPTION
	XX/XX/XX	60% PROGRESS SET

DESIGN: TAF
DRAWN: ATD
CHECK: JPU
JOB NO: 21060.20
DATE: XX/XX/XX

NORTH PORTWALK AND SEAWALL RECONSTRUCTION
300-336 ADMIRAL WAY
EDMONDS, WA 98020

GRADING AND UTILITY PLAN AND DETAILS

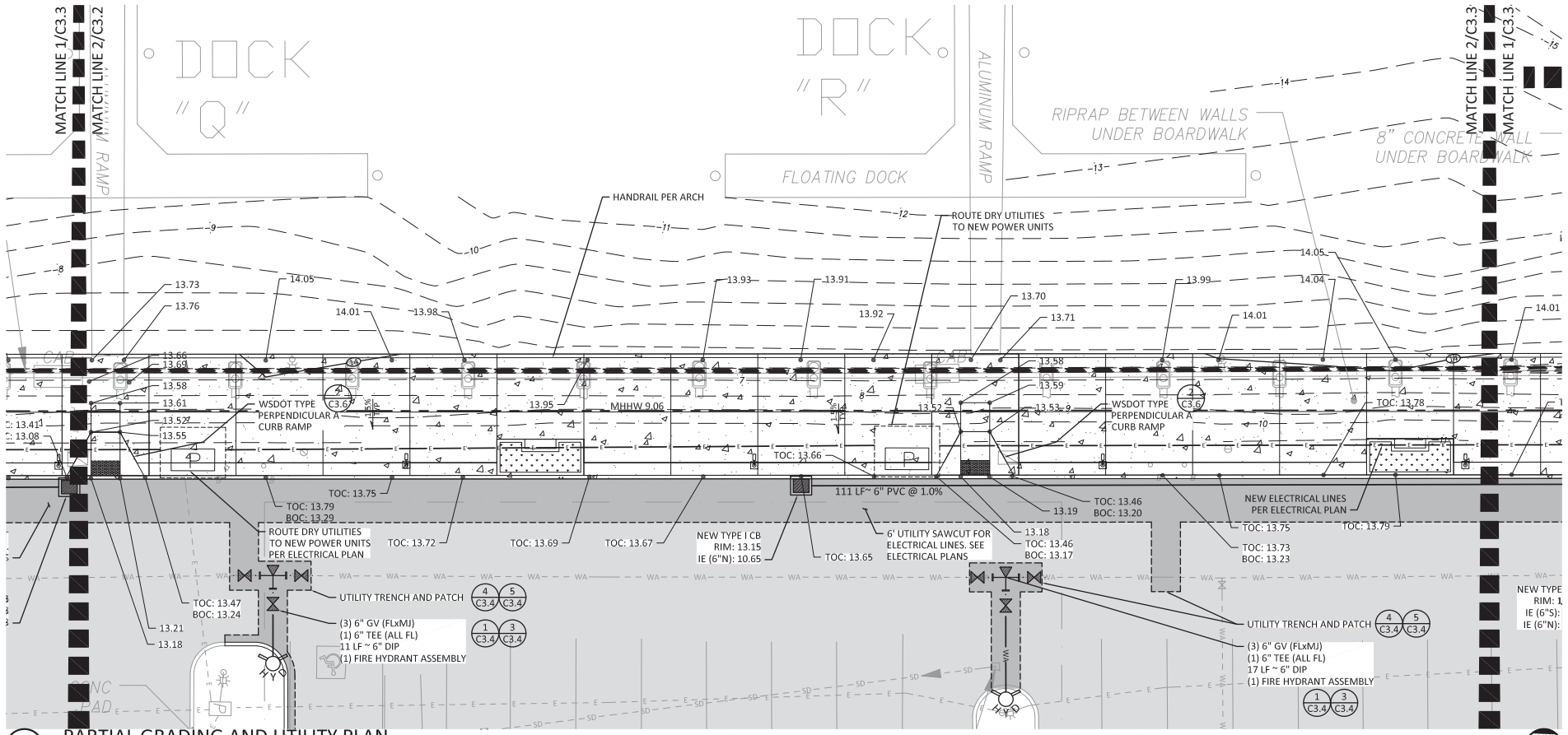
FILE NAME:

SHEET:

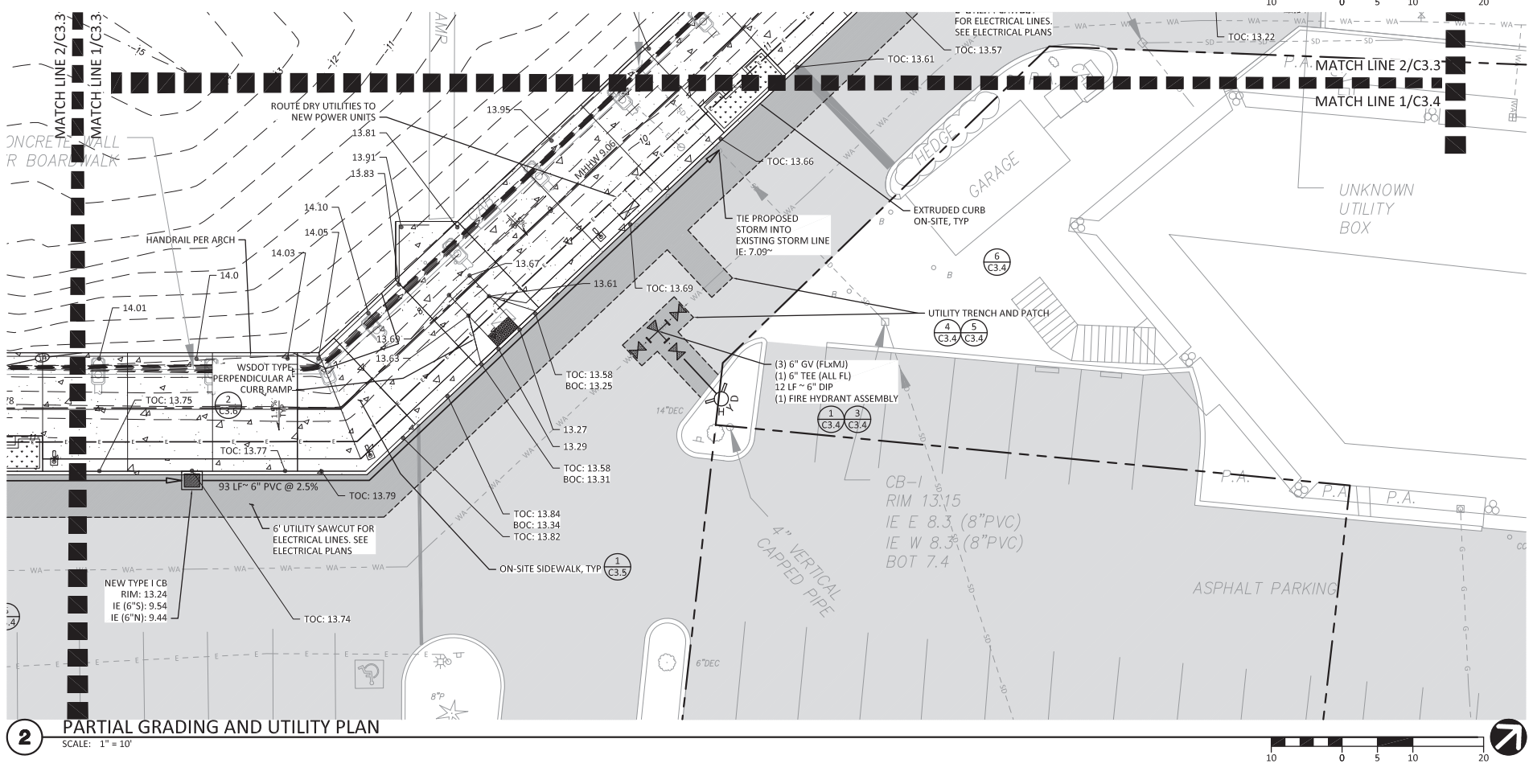
C3.2

A PORTION OF LOT 3, SECTION 23, TOWNSHIP 27 NORTH, RANGE 3 EAST, W.M.

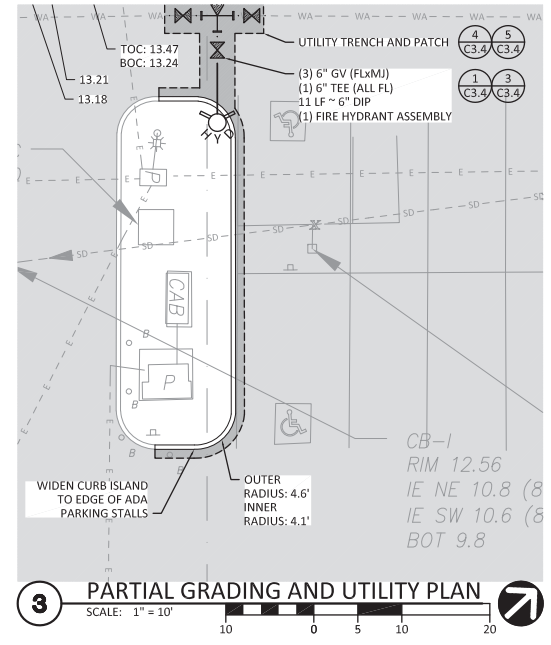
NOTE: THE ENTIRE PORTWALK SHALL BE CLOSED FOR THE DURATION OF THE PROPOSED CONSTRUCTION. THE ONLY FOOT TRAFFIC ALLOWED IN THE VICINITY IS TO AND FROM THE DOCK GATES. PEDESTRIANS SHALL BE DIRECTED STRAIGHT TO ADMIRAL WAY FROM DOCK GATES.



1 PARTIAL GRADING AND UTILITY PLAN
SCALE: 1" = 10'



2 PARTIAL GRADING AND UTILITY PLAN
SCALE: 1" = 10'



3 PARTIAL GRADING AND UTILITY PLAN
SCALE: 1" = 10'

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CG ENGINEERING
250 4TH AVE. S., SUITE 200
EDMONDS, WASHINGTON 98020
PHONE (425) 778–8500
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PRELIMINARY
NOT FOR CONSTRUCTION
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DATE:	XX/XX/XX

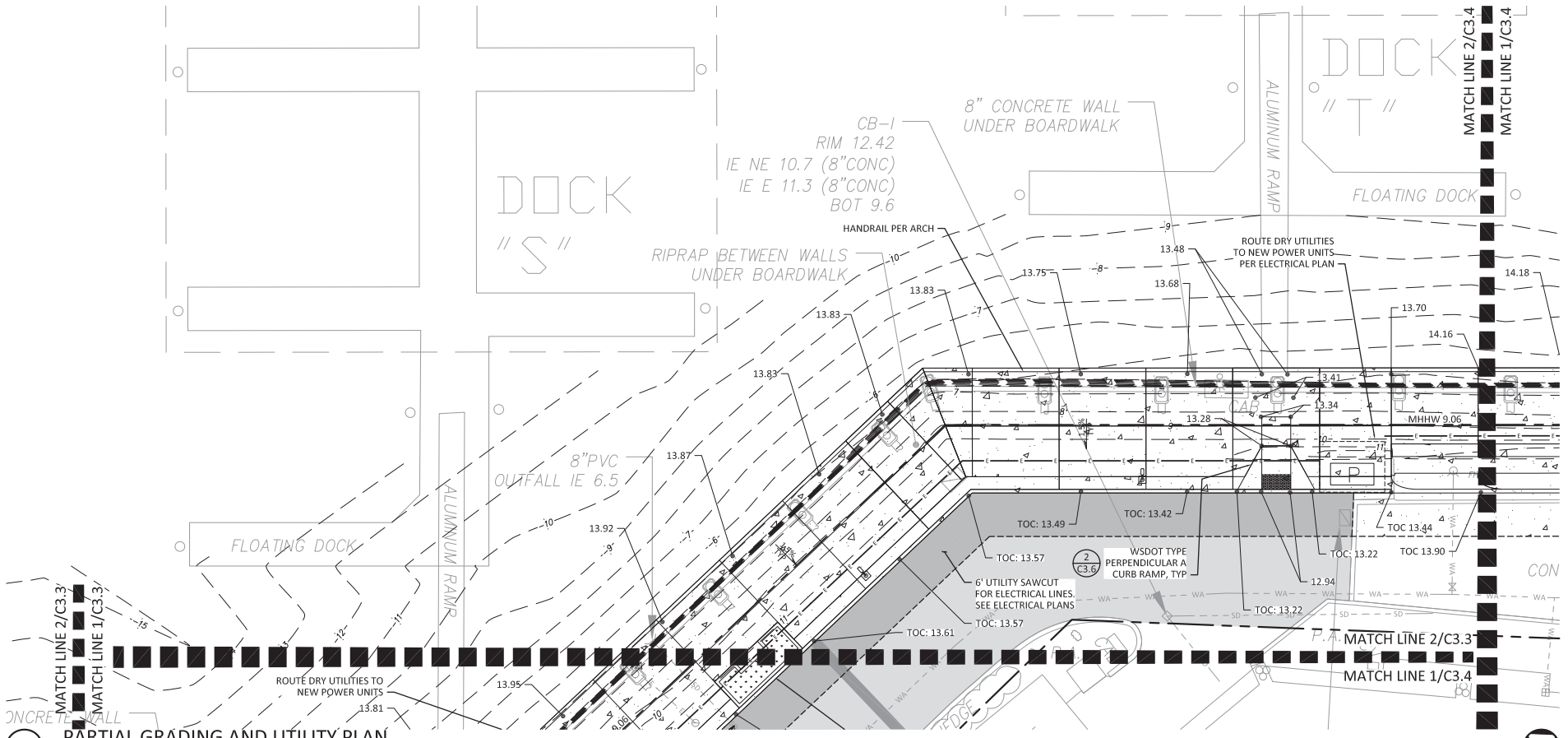
NORTH PORTWALK AND SEAWALL RECONSTRUCTION
300–336 ADMIRAL WAY
EDMONDS, WA 98020

GRADING AND UTILITY PLAN

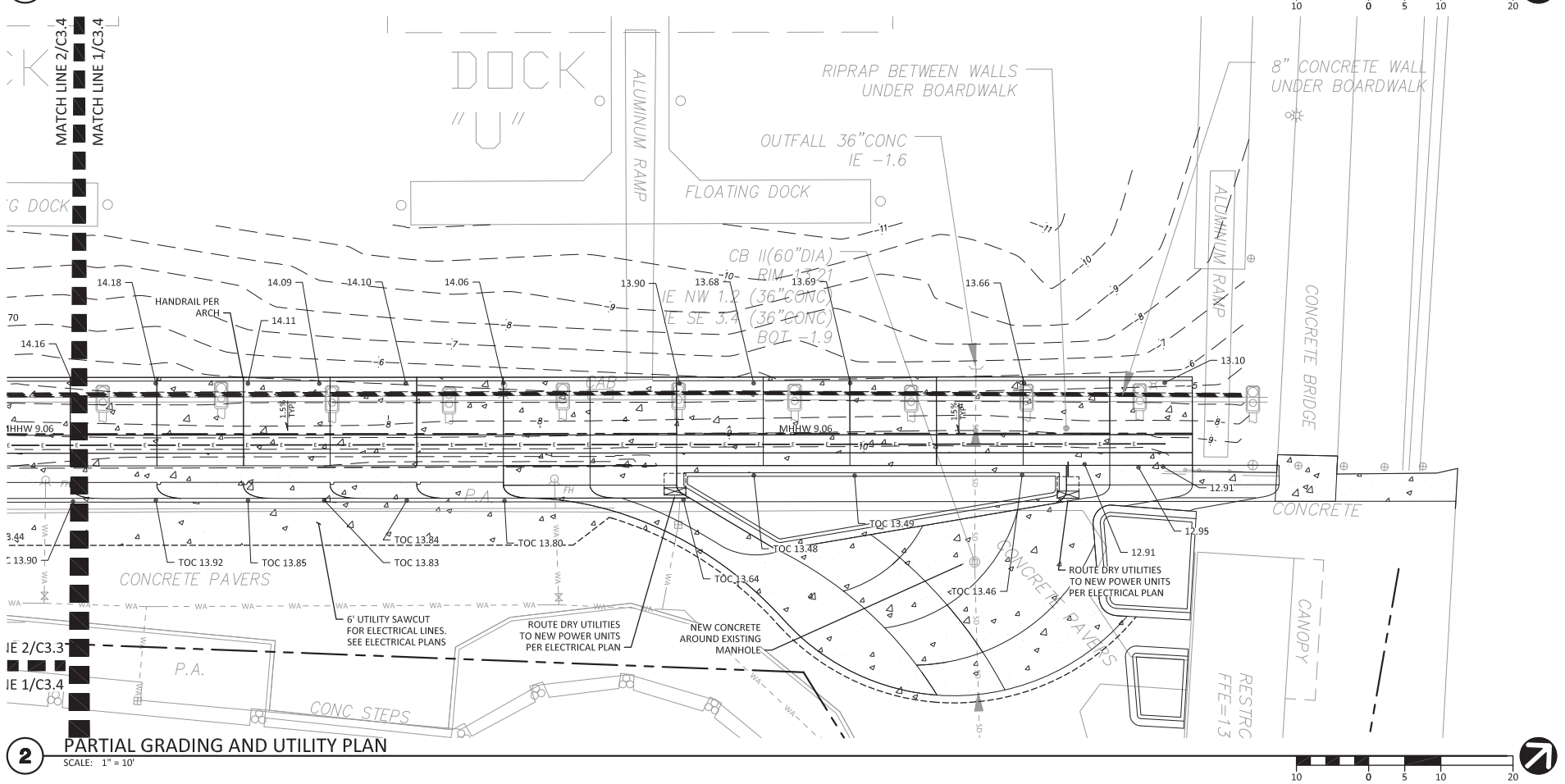
FILE_NAME

SHEET:
C3.3

A PORTION OF LOT 3, SECTION 23, TOWNSHIP 27 NORTH, RANGE 3 EAST, W.M.



1 PARTIAL GRADING AND UTILITY PLAN
SCALE: 1" = 10'



2 PARTIAL GRADING AND UTILITY PLAN
SCALE: 1" = 10'

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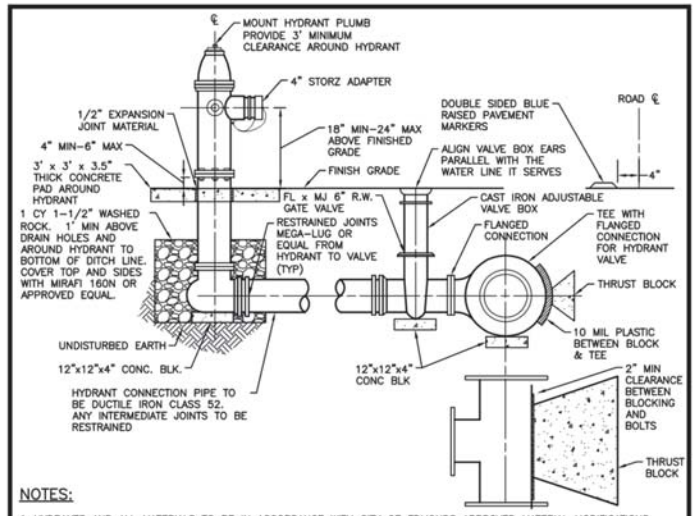
NORTH PORTWALK AND SEAWALL RECONSTRUCTION
300-336 ADMIRAL WAY
EDMONDS, WA 98020

GRADING AND UTILITY PLAN

FILE NAME:

SHEET:

C3.4



NOTES:

1. HYDRANTS AND ALL MATERIALS TO BE IN ACCORDANCE WITH CITY OF EDMONDS APPROVED MATERIAL MODIFICATIONS LISTINGS.
2. CONSTRUCT 3' X 3' X 3.5" THICK CONCRETE PAD AROUND HYDRANT PIPE. HYDRANTS SET IN CONCRETE REQUIRES AN EXPANSION STRIP AROUND HYDRANT BARREL. IN ADDITION, THE INSTALLATION OF THE HYDRANT ON PRIVATE PROPERTY SHALL EQUAL OR EXCEED STANDARDS SET FORTH FOR THE INSTALLATION OF PUBLIC FIRE HYDRANTS IN THE CITY OF EDMONDS.
3. ALL HYDRANTS SHALL HAVE A 6" MECHANICAL JOINT (MJ) BASE. TRAFFIC MODEL PROVIDED WITH (2) 2-1/2" HOSE NOZZLES AND (1) 4-1/2" NATIONAL STANDARD THREAD (NST) PUMPER NOZZLE WITH 4" STORZ QUICK COUPLING ADAPTER.
4. PUMPER PORT SHALL FACE THE STREET OR ROADWAY FOR FIRE ENGINE ACCESS.
5. THREE FOOT MINIMUM LEVEL CLEARANCE SHALL BE MAINTAINED AROUND HYDRANT WHEN PLACING LANDSCAPING.
6. FIRE HYDRANTS SHALL BE PAINTED SAFETY YELLOW BRAND: KELLY MOORE (1700-63 SUNBURST YELLOW) OR APPROVED EQUAL.
7. RAISED PAVEMENT MARKER TO BE PLACED 4" FROM PAVEMENT C/L OR PAINTED LINE ON HYDRANT SIDE OF ROAD.
8. FIRE HYDRANT LOCATION SHALL BE SHOWN ON THE PLANS AT A LOCATION APPROVED BY THE CITY ENGINEER.

CITY OF EDMONDS PUBLIC WORKS DEPARTMENT

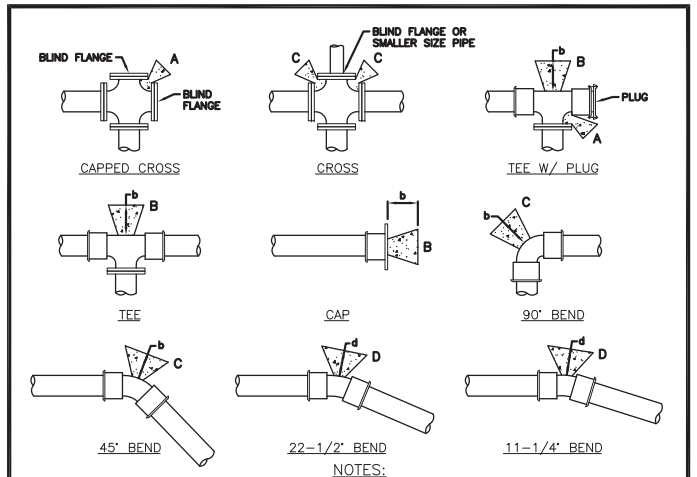
FIRE HYDRANT ASSEMBLY

APPROVED BY: **R. ENGLISH**

REVISION DATE: **JANUARY 2018**

STANDARD DETAIL: **WA-100**

1 CITY OF EDMONDS STANDARD DETAIL
SCALE: NTS



NOTES:

1. BEARING AREA OF CONCRETE THRUST BASED ON 200 PSI PRESSURE AND SAFE SOIL. BEARING LOAD OF 2,000 POUNDS PER SQUARE FOOT.
2. AREAS MUST BE ADJUSTED FOR OTHER PIPE SIZES, PRESSURES, AND SOIL CONDITIONS.
3. CONCRETE BLOCKING SHALL BE CAST IN PLACE AND HAVE A MINIMUM OF 1/4 SQUARE FOOT BEARING AGAINST THE FITTING.
4. THRUST BLOCK SHALL BEAR AGAINST FITTINGS AND UNDISTURBED SOIL. FITTING SHALL BE WRAPPED IN POLYETHYLENE FILM BEFORE PLACING CONCRETE.
5. CONTRACTOR SHALL INSTALL BLOCKING ADEQUATE TO WITHSTAND FULL TEST PRESSURE AS WELL AS TO CONTINUOUSLY WITHSTAND OPERATIONAL PRESSURE UNDER ALL CONDITIONS OF SERVICE.
6. BLOCKING MAY BE REDUCED WITH USE OF RESTRAINED JOINTS ADJACENT TO FITTINGS.
7. CONCRETE SHALL NOT COVER FITTING BOLT AND NUTS.

THRUST BLOCK TABLE
MIN BEARING AREA AGAINST UNDISTURBED SOIL

	SQUARE FEET					MIN DIST (IN FEET)	
PIPE SIZE	A	B	C	D	E	b	d
4"	3	1	1	1	1	1	0.5
6"	4	4	2	1	1	1	0.5
8"	7	6	4	2	1	1.3	0.7
10"	11	10	6	3	2	1.6	0.9
12"	16	14	9	5	3	1.9	1.1
16"	29	25	16	8	4	2.6	1.4

CITY OF EDMONDS PUBLIC WORKS DEPARTMENT

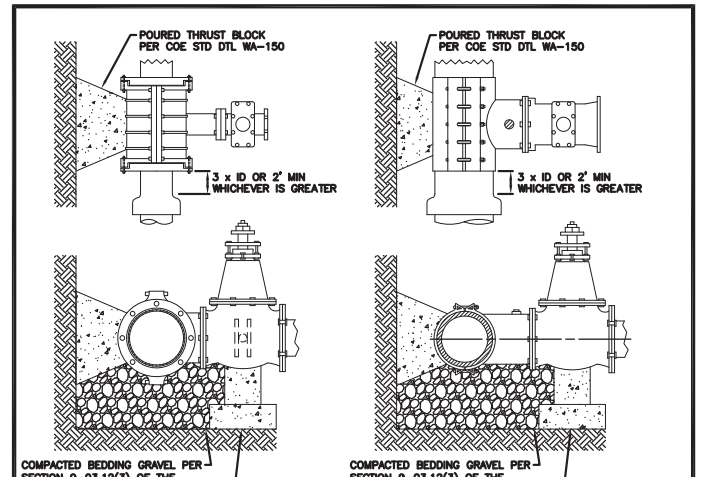
CONCRETE THRUST BLOCKING

APPROVED BY: **R. ENGLISH**

REVISION DATE: **JANUARY 2018**

STANDARD DETAIL: **WA-150**

2 CITY OF EDMONDS STANDARD DETAIL
SCALE: NTS



DUCTILE IRON TAPPING TEE
MECHANICAL JOINT SLEEVE
INSTALLED ON CAST IRON PIPE AND DUCTILE IRON PIPE

STAINLESS STEEL TAPPING TEE
INSTALLED ON CAST IRON PIPE AND DUCTILE IRON PIPE

STEEL TAPPING TEE
INSTALLED ON DUCTILE IRON PIPE ONLY

NOTES:

1. STAINLESS STEEL TAPPING TEES SHALL HAVE FULL CIRCLE SEAL. BOLTS AND NUTS SHALL BE STAINLESS STEEL.
2. STEEL TAPPING TEES SHALL BE EPOXY COATED. BOLTS AND NUTS SHALL BE COR-TEN, OR STAINLESS STEEL.
3. ALL TEES AND VALVES TO BE WATER TESTED BEFORE TAP.
4. TAPPING TEE MAY NOT BE SIZE ON SIZE. TAP SHALL BE AT LEAST 2" SMALLER DIAMETER THAN THE EXISTING MAIN.

CITY OF EDMONDS PUBLIC WORKS DEPARTMENT

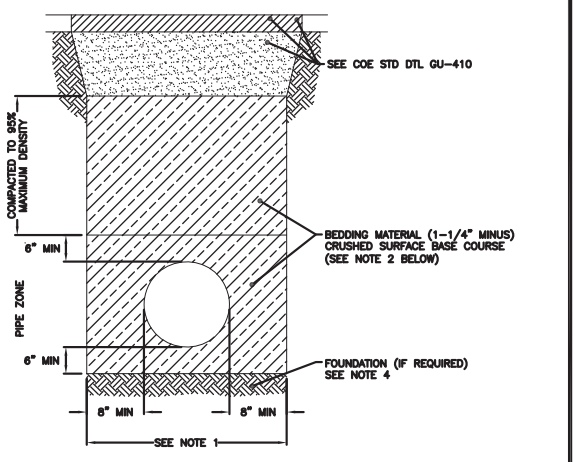
TAPPING TEES

APPROVED BY: **R. ENGLISH**

REVISION DATE: **MAY 2018**

STANDARD DETAIL: **WA-182**

3 CITY OF EDMONDS STANDARD DETAIL
SCALE: NTS



NOTES:

1. MAXIMUM WIDTH OF TRENCH AT TOP OF PIPE
   - 18" OR LESS FOR 8" AND SMALLER DIAMETER PIPE
   - 24" FOR 8" DIAMETER PIPE
   - 36" FOR 12" DIAMETER PIPE
   - O.D. PLUS 18" FOR PIPE LARGER THAN 12" NOMINAL DIAMETER
2. REFER TO DIVISION 9 OF WSDOT STANDARD SPECIFICATIONS FOR MATERIAL GRADATION AND ADDITIONAL INFORMATION.
3. TRENCH BACKFILL SHALL MEET A MINIMUM COMPACTION OF 95% DENSITY PER ASTM D 1557.
4. IF UNSTABLE MATERIAL IS ENCOUNTERED BELOW PIPE ZONE, CONTRACTOR SHALL REMOVE AND REPLACE AS REQUIRED BY CITY ENGINEER.

CITY OF EDMONDS PUBLIC WORKS DEPARTMENT

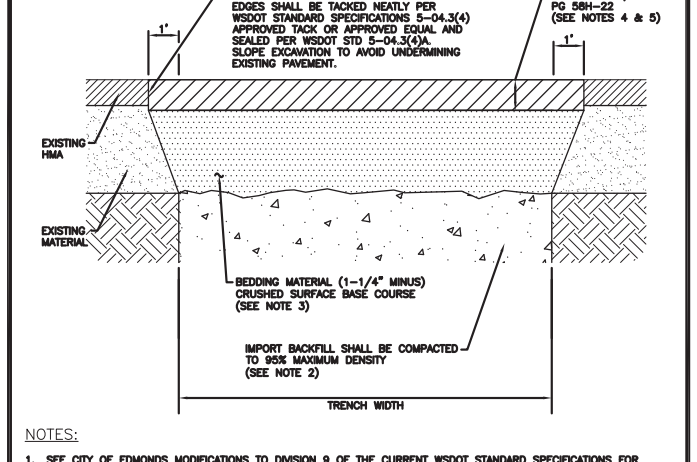
TYPICAL TRENCH SECTION

APPROVED BY: **R. ENGLISH**

REVISION DATE: **APRIL 2021**

STANDARD DETAIL: **GU-400**

4 CITY OF EDMONDS STANDARD DETAIL
SCALE: NTS



NOTES:

1. SEE CITY OF EDMONDS MODIFICATIONS TO DIVISION 9 OF THE CURRENT WSDOT STANDARD SPECIFICATIONS FOR BACKFILLING REQUIREMENTS.
2. SUBMIT PROCTOR AND DENSITY TESTS FROM CERTIFIED TESTING COMPANIES DOCUMENTING THAT THE BACKFILL MEETS A MINIMUM OF 95% DENSITY PER ASTM D 1557.
3. CSBC DEPTH SHALL BE A MINIMUM OF 6", AND SHALL BE INSTALLED IN MULTIPLE EQUAL THICKNESS LIFTS NOT EXCEEDING 6".
4. ROADWAY HMA DEPTH SHALL BE A MINIMUM OF 4" FOR RESIDENTIAL ROADS AND 6" FOR COLLECTORS/ARTERIALS.
5. ALLEY HMA DEPTH SHALL BE A MINIMUM OF 2" THICK. UNLESS APPROVED BY THE ENGINEER, ANY DEPTH GREATER THAN 2" SHALL MATCH EXISTING.
6. UNLESS APPROVED BY THE ENGINEER, THE HMA SHALL BE INSTALLED IN MULTIPLE EQUAL THICKNESS LIFTS NOT EXCEEDING 2".
7. FINAL PAVEMENT JOINTS SHALL BE NEATLY SAW CUT AND UNIFORMLY SEALED WITH WSDOT STANDARD SPECIFICATIONS 5-04.3(4)A APPROVED JOINT SEALANT OR APPROVED EQUAL.

CITY OF EDMONDS PUBLIC WORKS DEPARTMENT

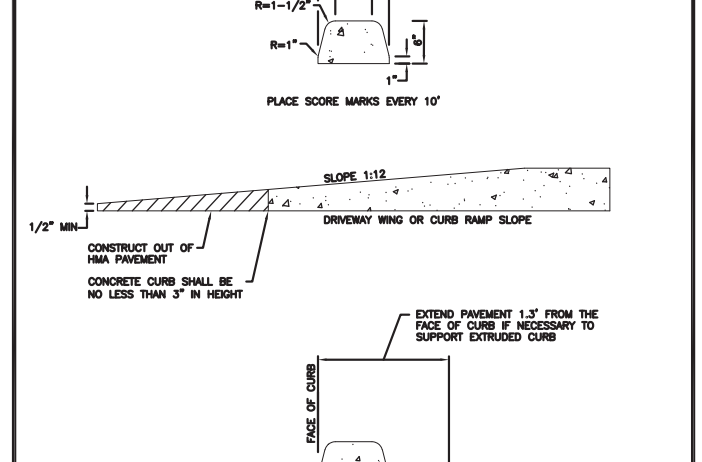
TYPICAL HMA AND UTILITY PATCH

APPROVED BY: **R. ENGLISH**

REVISION DATE: **APRIL 2021**

STANDARD DETAIL: **GU-410**

5 CITY OF EDMONDS STANDARD DETAIL
SCALE: NTS



NOTES:

1. NOT TO BE USED IN RIGHT-OF-WAY EXCEPT TO REPAIR EXISTING EXTRUDED CURB, AS APPROVED BY CITY ENGINEER.
2. BONDING AGENT IS THE ONLY ATTACHMENT METHOD TO BE USED BETWEEN HMA AND EXTRUDED CURB.
3. CONCRETE SHALL BE AIR-ENTRAINED CLASS 3000 PER WSDOT STANDARD SPECIFICATIONS.
4. NATIVE AND GRAVEL SUBGRADE SHALL BE COMPACTED TO A MINIMUM OF 95% MAX DENSITY.

CITY OF EDMONDS PUBLIC WORKS DEPARTMENT

CONCRETE EXTRUDED CURB

APPROVED BY: **R. ENGLISH**

REVISION DATE: **DECEMBER 2018**

STANDARD DETAIL: **TR-522**

6 CITY OF EDMONDS STANDARD DETAIL
SCALE: NTS

THIS PLAN SET IS FOR A 60% SUBMITTAL AND WILL BE FURTHER DETAILED FOR FUTURE PHASES OF THE PROJECT.

APPROVED FOR CONSTRUCTION
CITY OF EDMONDS
DATE: _____
BY: _____
CITY ENGINEERING DIVISION

CG ENGINEERING
250 4TH AVE. S., SUITE 200
EDMONDS, WASHINGTON 98020
PHONE (425) 778-8500
FAX (425) 778-5536

PRELIMINARY
NOT FOR CONSTRUCTION
STATE OF WASHINGTON GREG GUILLEN 25985 REGISTERED PROFESSIONAL ENGINEER
XX/XX/XX

MARK	DATE	DESCRIPTION
	XX/XX/XX	60% PROGRESS SET

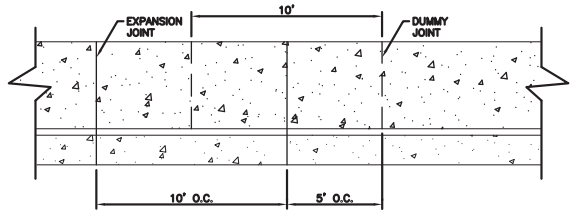
DESIGN: TAF
DRAWN: ATD
CHECK: JPU
JOB NO: 21060.20
DATE: XX/XX/XX

NORTH PORTWALK AND SEAWALL RECONSTRUCTION
300-336 ADMIRAL WAY
EDMONDS, WA 98020

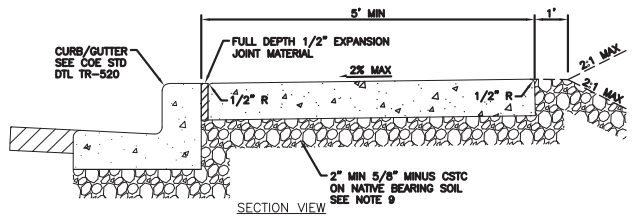
GRADING AND UTILITY DETAILS

FILE NAME:

SHEET:
C3.5



PLAN VIEW
(NOT TO SCALE)



SECTION VIEW
(NOT TO SCALE)

NOTES:

1. CITY INSPECTION REQUIRED ON FORM WORK PRIOR TO POUR.
2. CONCRETE SHALL BE CLASS 3000.
3. FINISH SHALL BE LIGHT BROOM.
4. SIDEWALK THICKNESS SHALL BE 4".
5. SIDEWALK THICKNESS AT DRIVEWAYS SHALL BE 6" THICK.
6. CURB AND GUTTER SHALL BE POURED SEPARATELY FROM SIDEWALK.
7. LIDS FOR JUNCTION BOXES AND UTILITY VAULTS SHALL BE NON-SKID AS SPECIFIED BY ENGINEER.
8. SEE COE STD DTL TR-550 FOR POSSIBLE ROOT BARRIER INSTALLATION.
9. SUBGRADE SHALL BE COMPACTED TO 95% MAXIMUM DENSITY.
10. ALL EDGES WITH EXPANSION JOINTS SHALL HAVE ½" RADIUS

CITY OF EDMONDS
PUBLIC WORKS DEPARTMENT
EST. 1890

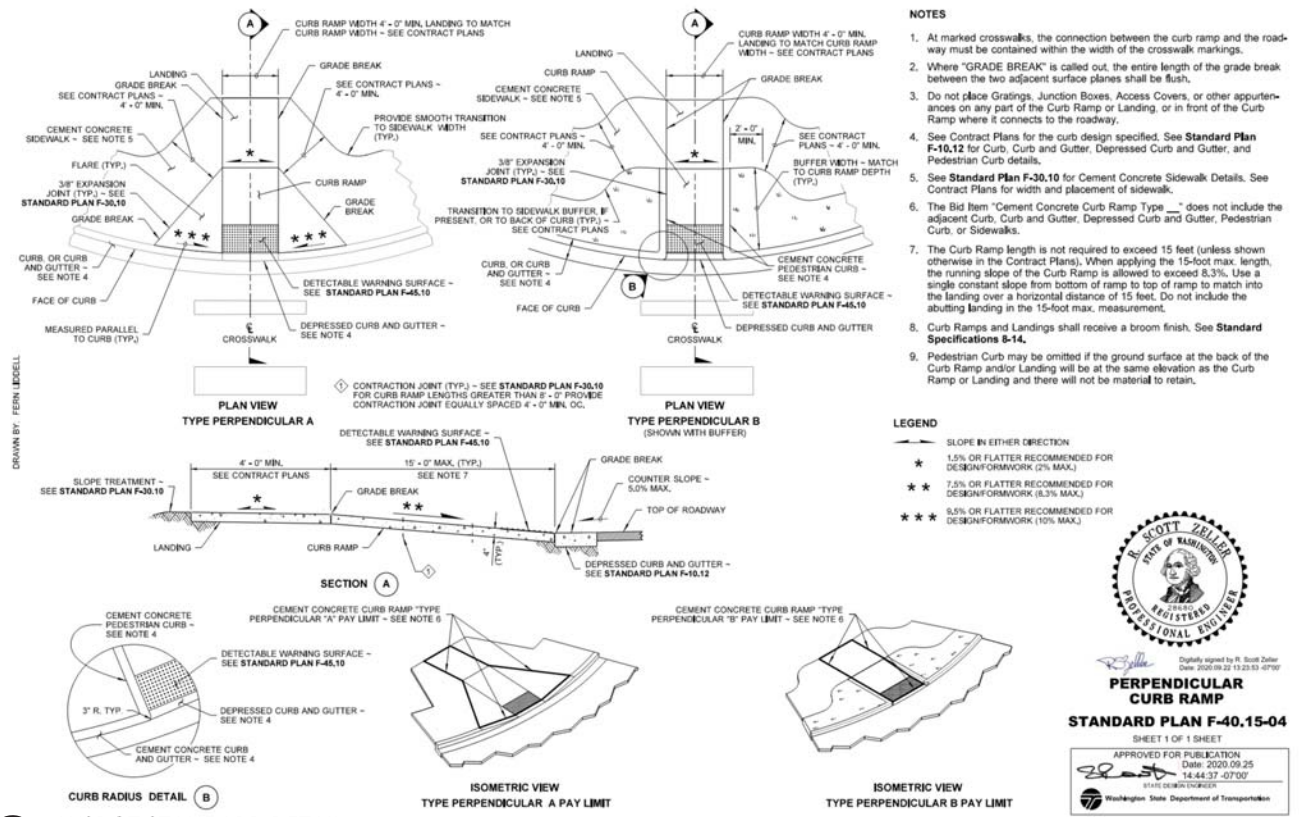
CONCRETE SIDEWALK

APPROVED BY: **R. ENGLISH**

REVISION DATE **JUNE 2019**

STANDARD DETAIL **TR-531**

1 CITY OF EDMONDS STANDARD DETAIL
SCALE: NTS



NOTES

1. At marked crosswalks, the connection between the curb ramp and the roadway must be contained within the width of the crosswalk markings.
2. Where "GRADE BREAK" is called out, the entire length of the grade break between the two adjacent surface planes shall be flush.
3. Do not place Gratings, Junction Boxes, Access Covers, or other appurtenances on any part of the Curb Ramp or Landing, or in front of the Curb Ramp where it connects to the roadway.
4. See Contract Plans for the curb design specified. See **Standard Plan F-10.12** for Curb, Curb and Gutter, Depressed Curb and Gutter, and Pedestrian Curb details.
5. See **Standard Plan F-30.10** for Cement Concrete Sidewalk Details. See Contract Plans for width and placement of sidewalk.
6. The Bid Item "Cement Concrete Curb Ramp Type __" does not include the adjacent Curb, Curb and Gutter, Depressed Curb and Gutter, Pedestrian Curb, or Sidewalks.
7. The Curb Ramp length is not required to exceed 15 feet (unless shown otherwise in the Contract Plans). When applying the 15-foot max. length, the running slope of the Curb Ramp is allowed to exceed 8.3%. Use a single constant slope from bottom of ramp to top of ramp to match into the landing over a horizontal distance of 15 feet. Do not include the abutting landing in the 15-foot max. measurement.
8. Curb Ramps and Landings shall receive a broom finish. See **Standard Specifications 8-14.**
9. Pedestrian Curb may be omitted if the ground surface at the back of the Curb Ramp and/or Landing will be at the same elevation as the Curb Ramp or Landing and there will not be material to retain.

LEGEND

- SLOPE IN EITHER DIRECTION
- ★ 1.5% OR FLATTER RECOMMENDED FOR DESIGN/FORMWORK (2% MAX.)
- ★★ 7.5% OR FLATTER RECOMMENDED FOR DESIGN/FORMWORK (8.3% MAX.)
- ★★★ 9.5% OR FLATTER RECOMMENDED FOR DESIGN/FORMWORK (10% MAX.)

R. SCOTT ZOLLER — STATE OF WASHINGTON — 25060 — REGISTERED PROFESSIONAL ENGINEER

Digitally signed by R. Scott Zoller
Date: 2020.09.22 13:03:53 -07'00'

PERPENDICULAR CURB RAMP

STANDARD PLAN F-40.15-04

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION
Date: 2020.09.25 14:44:37 -07'00'
STATE DESIGN ENGINEER
Washington State Department of Transportation

2 WSDOT STANDARD DETAIL
SCALE: NTS

THIS PLAN SET IS FOR A 60% SUBMITTAL AND WILL BE FURTHER DETAILED FOR FUTURE PHASES OF THE PROJECT.

APPROVED FOR CONSTRUCTION
CITY OF EDMONDS
DATE: _____
BY: _____
CITY ENGINEERING DIVISION

CG ENGINEERING
250 4TH AVE. S., SUITE 200
EDMONDS, WASHINGTON 98020
PHONE (425) 778-8500
FAX (425) 778-5536

REGISTERED PROFESSIONAL ENGINEER — JOSEPH PU — 21060 — STATE OF WASHINGTON

PRELIMINARY
NOT FOR CONSTRUCTION
XX/XX/XX

MARK	DATE	DESCRIPTION
	XX/XX/XX	60% PROGRESS SET

DESIGN:	TAF
DRAWN:	ATD
CHECK:	JPU
JOB NO:	21060.20
DATE:	XX/XX/XX

NORTH PORTWALK AND SEAWALL RECONSTRUCTION
300-336 ADMIRAL WAY
EDMONDS, WA 98020

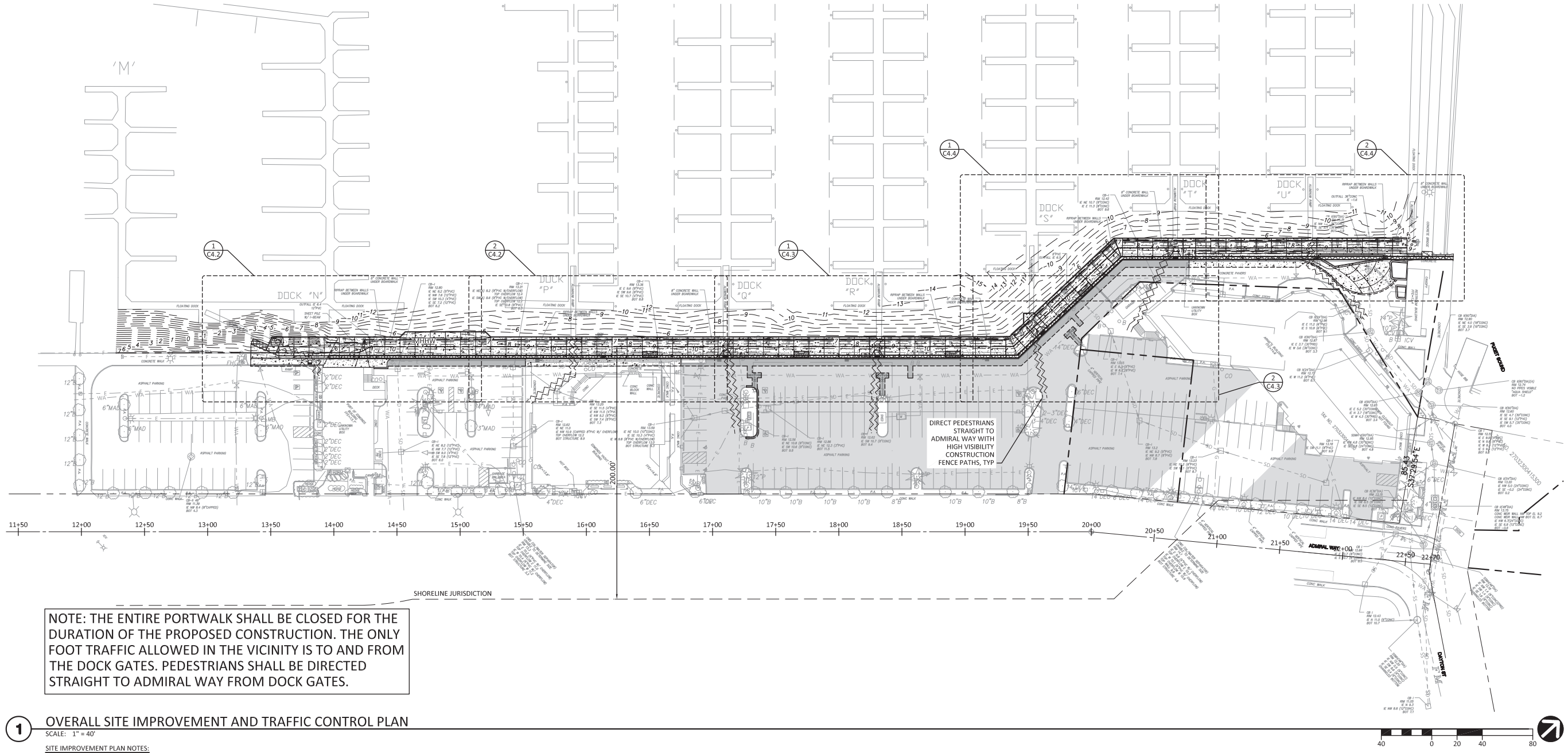
GRADING AND UTILITY DETAILS

FILE NAME:

SHEET:

C3.6

A PORTION OF LOT 3, SECTION 23, TOWNSHIP 27 NORTH, RANGE 3 EAST, W.M.



NOTE: THE ENTIRE PORTWALK SHALL BE CLOSED FOR THE DURATION OF THE PROPOSED CONSTRUCTION. THE ONLY FOOT TRAFFIC ALLOWED IN THE VICINITY IS TO AND FROM THE DOCK GATES. PEDESTRIANS SHALL BE DIRECTED STRAIGHT TO ADMIRAL WAY FROM DOCK GATES.

1 OVERALL SITE IMPROVEMENT AND TRAFFIC CONTROL PLAN

SCALE: 1" = 40'

SITE IMPROVEMENT PLAN NOTES:

1. ALL TRAFFIC CONTROL DEVICES, SIGNING, STRIPING AND OTHER PAVEMENT DELINEATION SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
2. REFERENCE DETAIL 2/C4.2 FOR TYPICAL TRAFFIC CONTROL SYMBOLS, SIGN SPACING, ETC.

THIS PLAN SET IS FOR A 60% SUBMITTAL AND WILL BE FURTHER DETAILED FOR FUTURE PHASES OF THE PROJECT.

APPROVED FOR CONSTRUCTION
CITY OF EDMONDS
DATE: _____
BY: _____
CITY ENGINEERING DIVISION

CG ENGINEERING
250 4TH AVE. S., SUITE 200
EDMONDS, WASHINGTON 98020
PHONE (425) 778-8500
FAX (425) 778-5536

PRELIMINARY
NOT FOR CONSTRUCTION
REG. GUILLEN STATE OF WASHINGTON 25985 REGISTERED PROFESSIONAL ENGINEER
XX/XX/XX

MARK	DATE	DESCRIPTION
	XX/XX/XX	60% PROGRESS SET

DESIGN:	TAF
DRAWN:	ATD
CHECK:	JPU
JOB NO:	21060.20
DATE:	XX/XX/XX

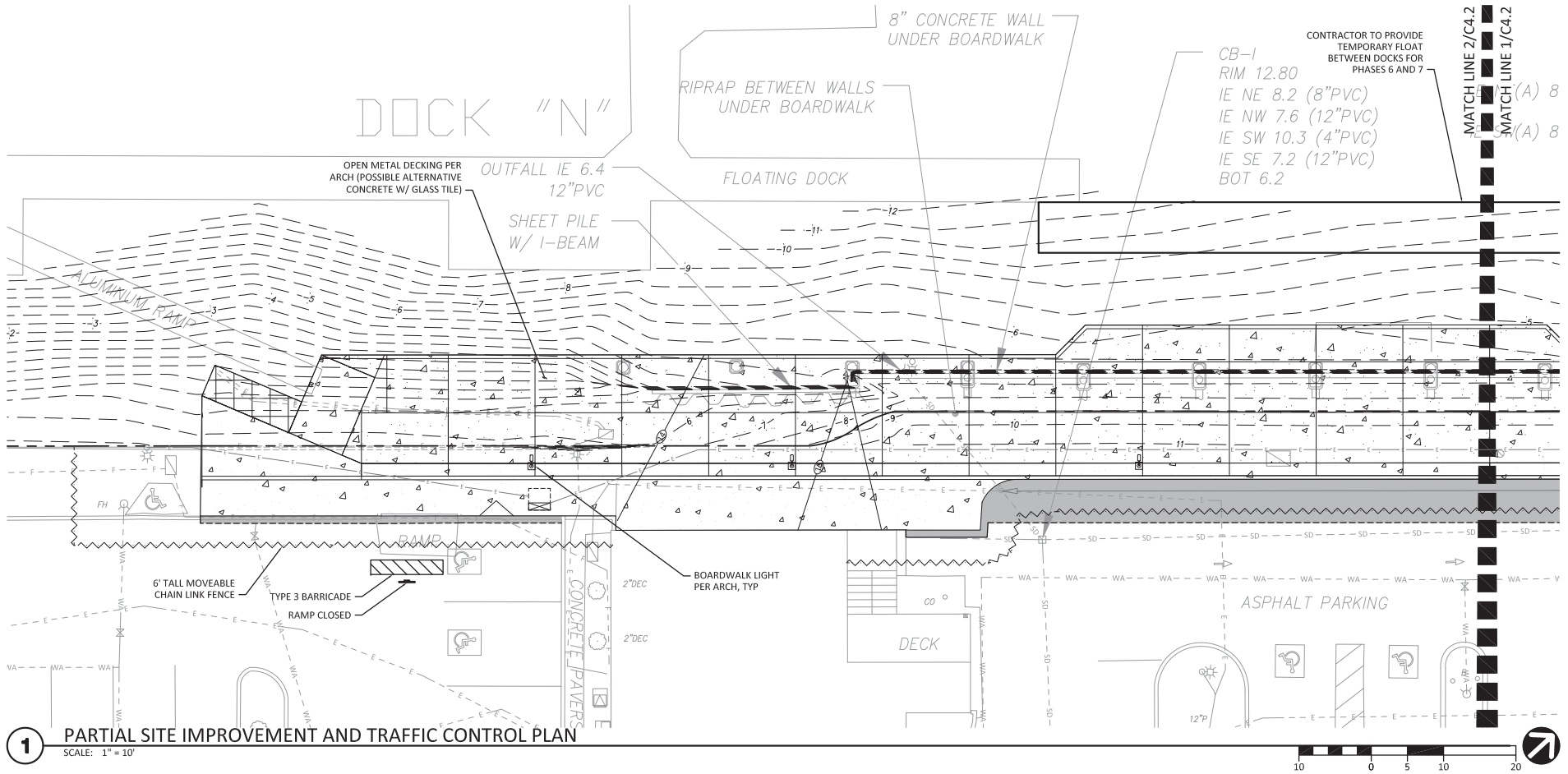
NORTH PORTWALK AND SEAWALL RECONSTRUCTION
300-336 ADMIRAL WAY
EDMONDS, WA 98020

SITE IMPROVEMENT AND TRAFFIC CONTROL PLAN

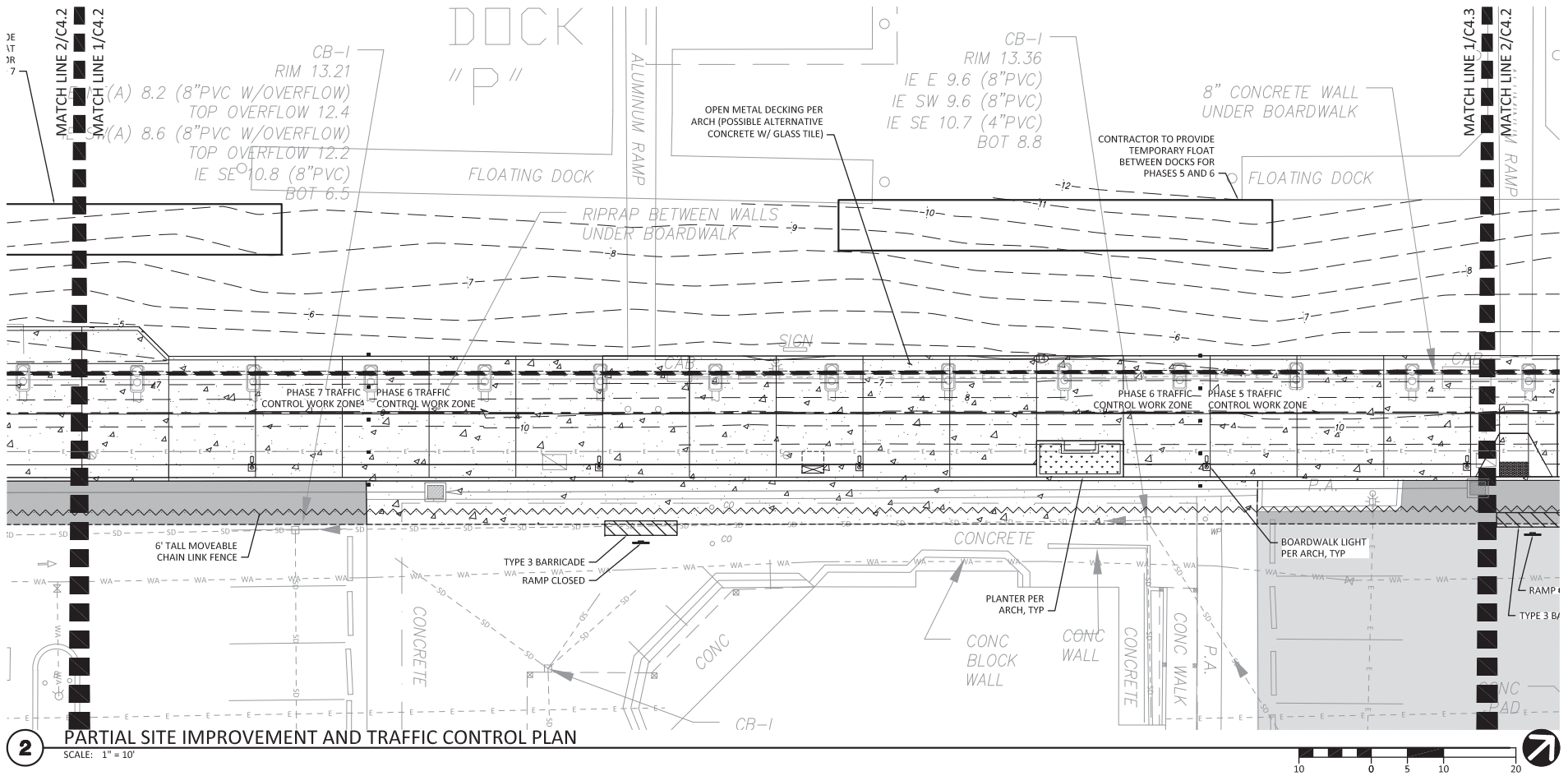
FILE NAME:

SHEET:
C4.1

A PORTION OF LOT 3, SECTION 23, TOWNSHIP 27 NORTH, RANGE 3 EAST, W.M.



1 PARTIAL SITE IMPROVEMENT AND TRAFFIC CONTROL PLAN
SCALE: 1" = 10'



2 PARTIAL SITE IMPROVEMENT AND TRAFFIC CONTROL PLAN
SCALE: 1" = 10'

NOTE: THE ENTIRE PORTWALK SHALL BE CLOSED FOR THE DURATION OF THE PROPOSED CONSTRUCTION. THE ONLY FOOT TRAFFIC ALLOWED IN THE VICINITY IS TO AND FROM THE DOCK GATES. PEDESTRIANS SHALL BE DIRECTED STRAIGHT TO ADMIRAL WAY FROM DOCK GATES.

Table 6H-2. Meaning of Symbols on Typical Application Diagrams

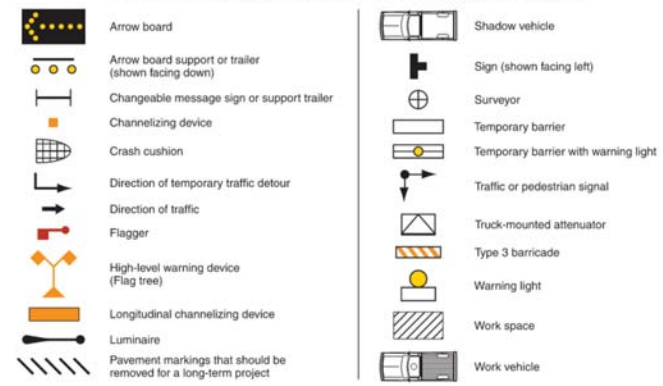


Table 6H-3. Meaning of Letter Codes on Typical Application Diagrams

Road Type	Distance Between Signs**		
	A	B	C
Urban (low speed)*	100 feet	100 feet	100 feet
Urban (high speed)*	350 feet	350 feet	350 feet
Rural	500 feet	500 feet	500 feet
Expressway / Freeway	1,000 feet	1,500 feet	2,640 feet

* Speed category to be determined by highway agency

** The column headings A, B, and C are the dimensions shown in Figures 6H-1 through 6H-46. The A dimension is the distance from the transition or point of restriction to the first sign. The B dimension is the distance between the first and second signs. The C dimension is the distance between the second and third signs. (The "first sign" is the sign in a three-sign series that is closest to the TTC zone. The "third sign" is the sign that is furthest upstream from the TTC zone.)

Table 6H-4. Formulas for Determining Taper Length

Speed (S)	Taper Length (L) in feet
40 mph or less	$L = \frac{WS^2}{60}$
45 mph or more	$L = WS$

Where: L = taper length in feet
W = width of offset in feet
S = posted speed limit, or off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph

3 CITY OF EDMONDS STANDARD DETAIL
SCALE: NTS

THIS PLAN SET IS FOR A 60% SUBMITTAL AND WILL BE FURTHER DETAILED FOR FUTURE PHASES OF THE PROJECT.

APPROVED FOR CONSTRUCTION
CITY OF EDMONDS
DATE: _____
BY: _____
CITY ENGINEERING DIVISION

CG ENGINEERING
250 4TH AVE. S., SUITE 200
EDMONDS, WASHINGTON 98020
PHONE (425) 778-8500
FAX (425) 778-5536

PRELIMINARY
NOT FOR CONSTRUCTION
REGISTERED PROFESSIONAL ENGINEER
STATE OF WASHINGTON
GREG GUILLEN
XX/XX/XX

MARK	DATE	DESCRIPTION
	XX/XX/XX	60% PROGRESS SET

DESIGN: TAF
DRAWN: ATD
CHECK: JPU
JOB NO: 21060.20
DATE: XX/XX/XX

NORTH PORTWALK AND SEAWALL RECONSTRUCTION
300-336 ADMIRAL WAY
EDMONDS, WA 98020

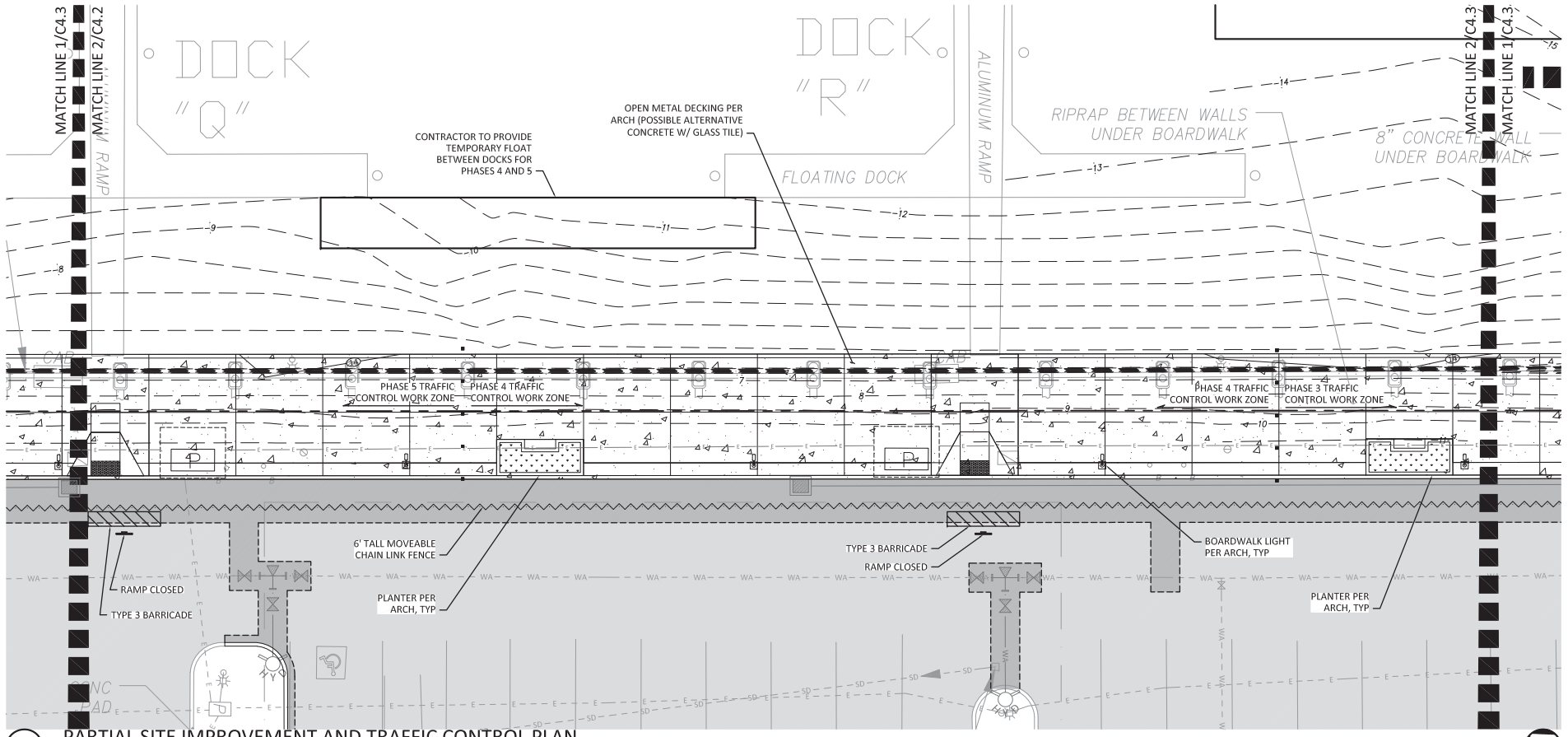
SITE IMPROVEMENT AND TRAFFIC CONTROL PLAN AND DETAILS

FILE NAME:

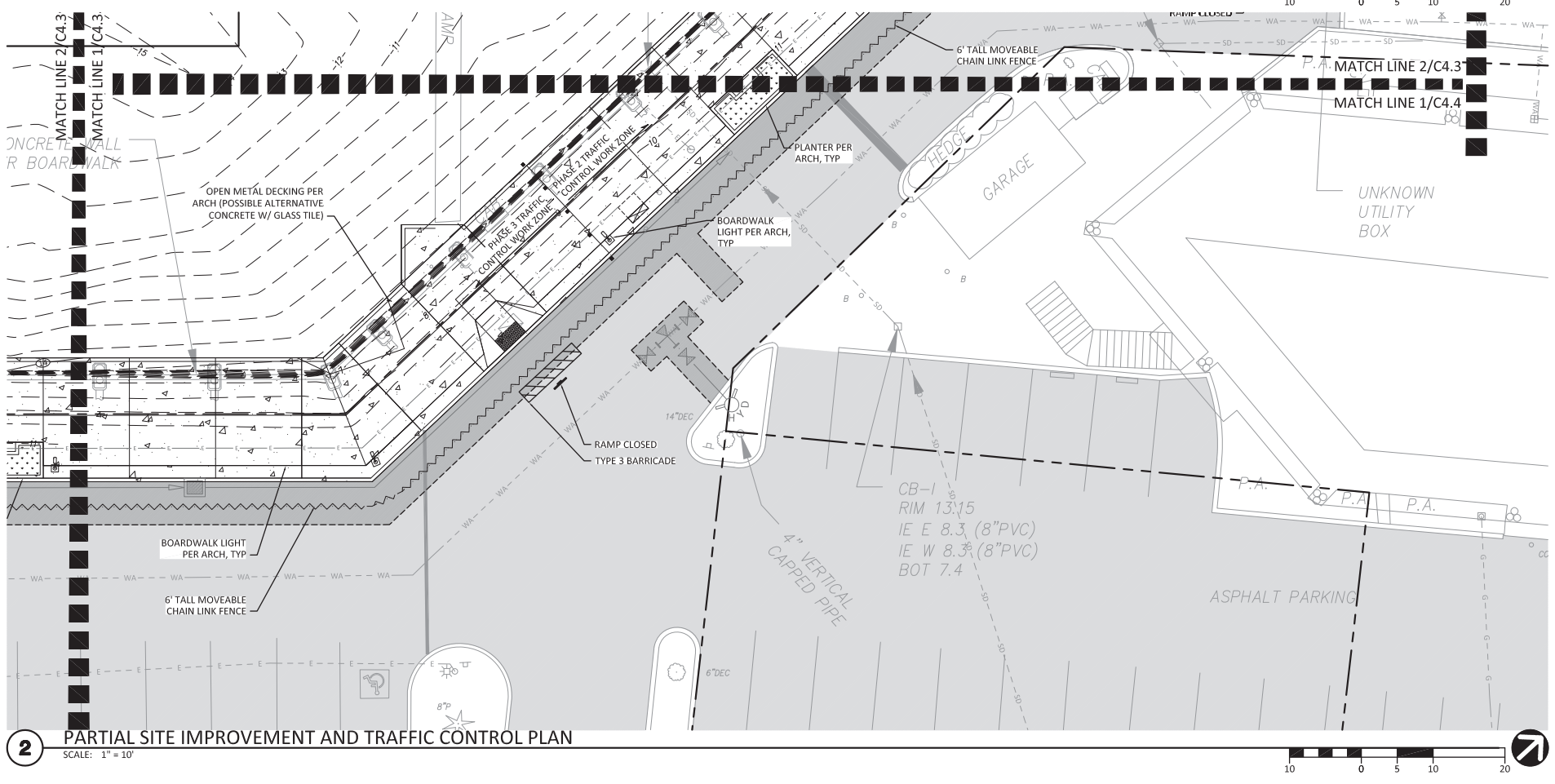
SHEET:
C4.2

A PORTION OF LOT 3, SECTION 23, TOWNSHIP 27 NORTH, RANGE 3 EAST, W.M.

NOTE: THE ENTIRE PORTWALK SHALL BE CLOSED FOR THE DURATION OF THE PROPOSED CONSTRUCTION. THE ONLY FOOT TRAFFIC ALLOWED IN THE VICINITY IS TO AND FROM THE DOCK GATES. PEDESTRIANS SHALL BE DIRECTED STRAIGHT TO ADMIRAL WAY FROM DOCK GATES.



1 PARTIAL SITE IMPROVEMENT AND TRAFFIC CONTROL PLAN
SCALE: 1" = 10'



2 PARTIAL SITE IMPROVEMENT AND TRAFFIC CONTROL PLAN
SCALE: 1" = 10'

THIS PLAN SET IS FOR A 60% SUBMITTAL AND WILL BE FURTHER DETAILED FOR FUTURE PHASES OF THE PROJECT.

APPROVED FOR CONSTRUCTION
CITY OF EDMONDS
DATE: _____
BY: _____
CITY ENGINEERING DIVISION

CG ENGINEERING
250 4TH AVE. S., SUITE 200
EDMONDS, WASHINGTON 98020
PHONE (425) 778-8500
FAX (425) 778-5536

PRELIMINARY
NOT FOR CONSTRUCTION
REGISTERED PROFESSIONAL ENGINEER
STATE OF WASHINGTON
GREG GUILLEN
XX/XX/XX

MARK	DATE	DESCRIPTION
	XX/XX/XX	60% PROGRESS SET

DESIGN:	TAF
DRAWN:	ATD
CHECK:	JPU
JOB NO:	21060.20
DATE:	XX/XX/XX

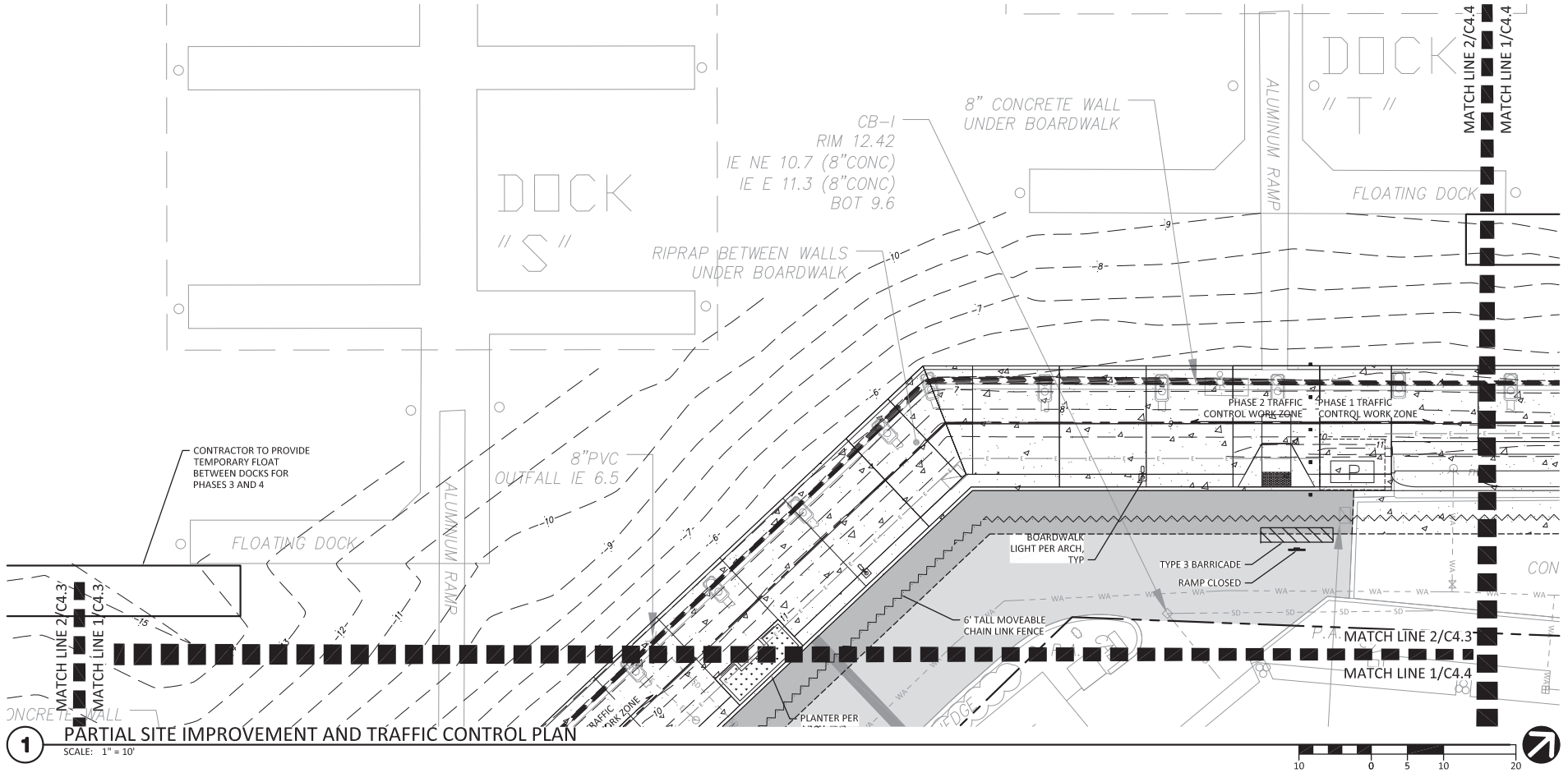
NORTH PORTWALK AND SEAWALL RECONSTRUCTION
300-336 ADMIRAL WAY
EDMONDS, WA 98020

SITE IMPROVEMENT AND TRAFFIC CONTROL PLAN

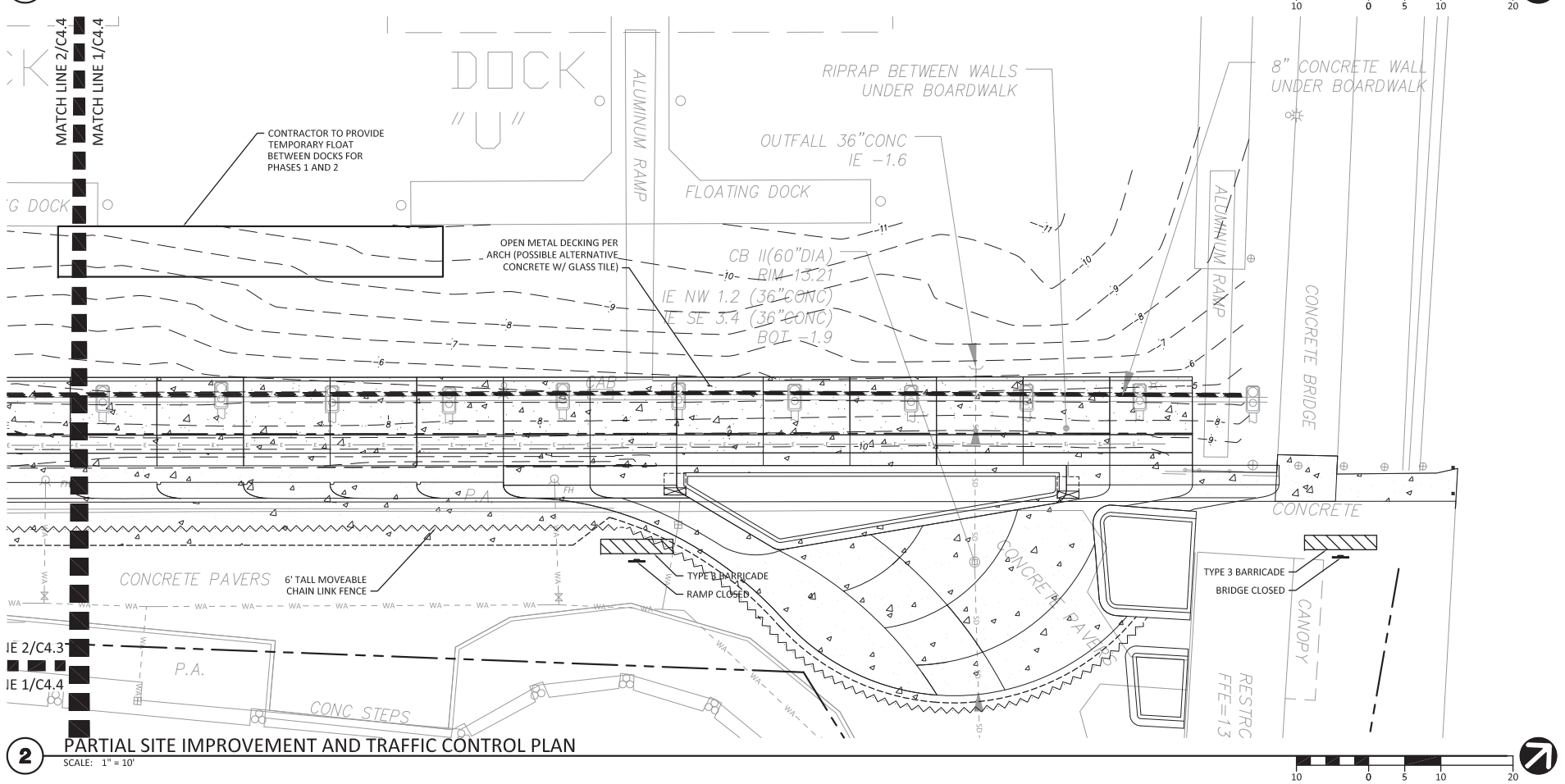
FILE_NAME

SHEET:
C4.3

A PORTION OF LOT 3, SECTION 23, TOWNSHIP 27 NORTH, RANGE 3 EAST, W.M.



1 PARTIAL SITE IMPROVEMENT AND TRAFFIC CONTROL PLAN
SCALE: 1" = 10'



2 PARTIAL SITE IMPROVEMENT AND TRAFFIC CONTROL PLAN
SCALE: 1" = 10'

NOTE: THE ENTIRE PORTWALK SHALL BE CLOSED FOR THE DURATION OF THE PROPOSED CONSTRUCTION. THE ONLY FOOT TRAFFIC ALLOWED IN THE VICINITY IS TO AND FROM THE DOCK GATES. PEDESTRIANS SHALL BE DIRECTED STRAIGHT TO ADMIRAL WAY FROM DOCK GATES.

THIS PLAN SET IS FOR A 60% SUBMITTAL AND WILL BE FURTHER DETAILED FOR FUTURE PHASES OF THE PROJECT.

APPROVED FOR CONSTRUCTION
CITY OF EDMONDS
DATE: _____
BY: _____
CITY ENGINEERING DIVISION

CG ENGINEERING
250 4TH AVE. S., SUITE 200
EDMONDS, WASHINGTON 98020
PHONE (425) 778-8500
FAX (425) 778-5536

PRELIMINARY
NOT FOR CONSTRUCTION
REGISTERED PROFESSIONAL ENGINEER
STATE OF WASHINGTON
GUILLEN
XX/XX/XX

MARK	DATE	DESCRIPTION
	XX/XX/XX	60% PROGRESS SET

DESIGN:	TAF
DRAWN:	ATD
CHECK:	JPU
JOB NO:	21060.20
DATE:	XX/XX/XX

NORTH PORTWALK AND SEAWALL RECONSTRUCTION
300-336 ADMIRAL WAY
EDMONDS, WA 98020

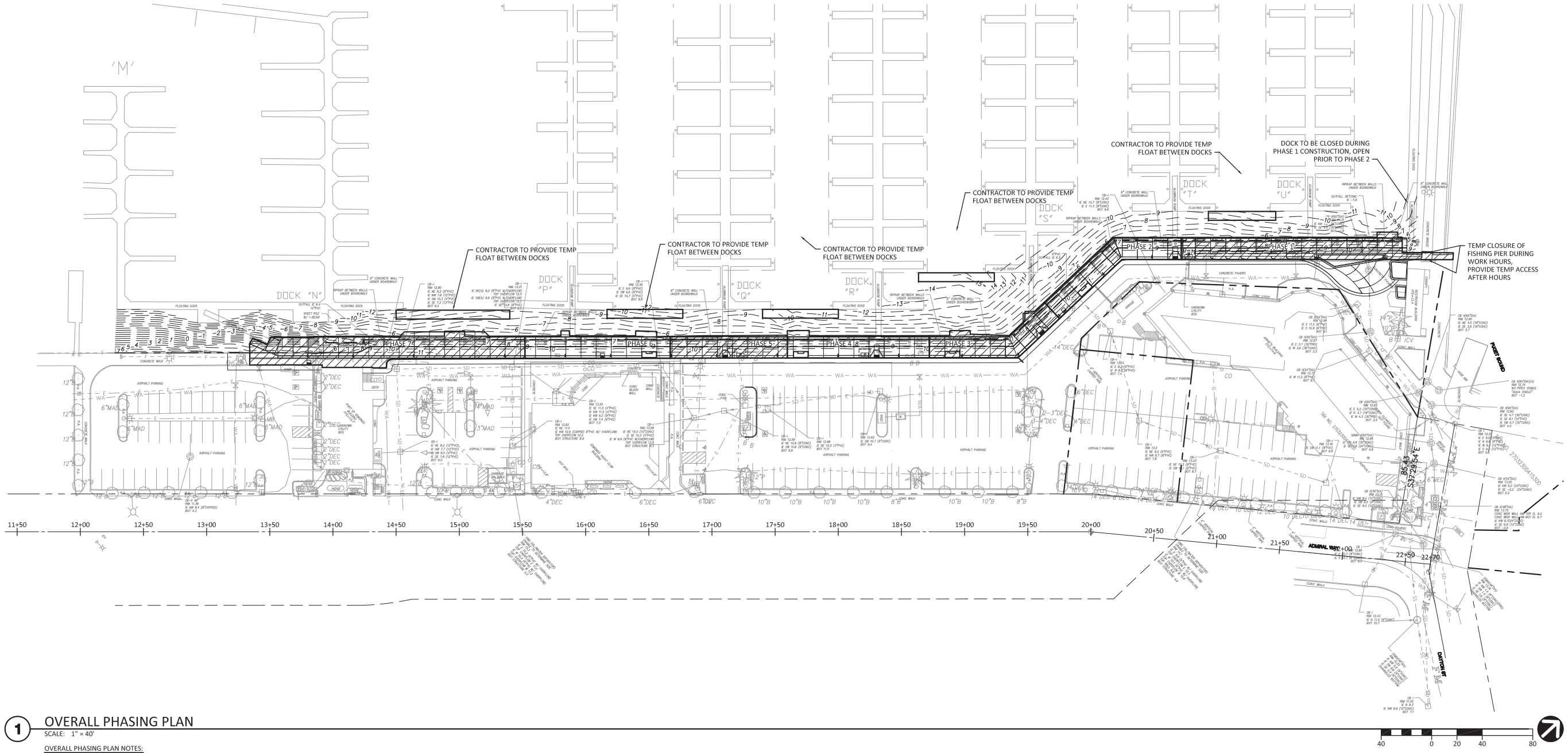
SITE IMPROVEMENT AND TRAFFIC CONTROL PLAN

FILE NAME:

SHEET:

C4.4

A PORTION OF LOT 3, SECTION 23, TOWNSHIP 27 NORTH, RANGE 3 EAST, W.M.



1 OVERALL PHASING PLAN

SCALE: 1" = 40'

OVERALL PHASING PLAN NOTES:

1. ALL IN-WATER WORK SHALL BE COMPLETED BETWEEN JULY XX AND JAN XX.
2. TEMPORARY POWER AND WATER SHALL BE PROVIDED TO MOORAGE DOCKS DURING CONSTRUCTION.

THIS PLAN SET IS FOR A 60% SUBMITTAL AND WILL BE FURTHER DETAILED FOR FUTURE PHASES OF THE PROJECT.

APPROVED FOR CONSTRUCTION
CITY OF EDMONDS
DATE: _____
BY: _____
CITY ENGINEERING DIVISION

CG ENGINEERING
250 4TH AVE. S., SUITE 200
EDMONDS, WASHINGTON 98020
PHONE (425) 778-8500
FAX (425) 778-5536

PRELIMINARY
NOT FOR CONSTRUCTION
GREG GUILLEN
STATE OF WASHINGTON
21580
REGISTERED PROFESSIONAL ENGINEER
XX/XX/XX

MARK	DATE	DESCRIPTION
	XX/XX/XX	60% PROGRESS SET

DESIGN:	TAF
DRAWN:	ATD
CHECK:	JPU
JOB NO:	21060.20
DATE:	XX/XX/XX

NORTH PORTWALK AND SEAWALL RECONSTRUCTION
300-336 ADMIRAL WAY
EDMONDS, WA 98020

OVERALL PHASING PLAN

FILE NAME:

SHEET:

PH1.1

TABLE OF CONTENTS	
UD0	COVER SHEET
UD01	GENERAL PORTWALK SITE PLAN
UD01.1	DETAILED PORTWALK SITE PLAN
UD01.2	PLAZA PLAN & SECTIONS
UD01.3	ENLARGED CENTRAL & UPPER PLAZA PLANS
UD02	PLANTER SECTION & BENCH DETAILS
UD03	PORTWALK GUARDRAIL DETAILS
UD04	SECURITY GATES
UD04.1	SECURITY GATE DETAILS
UD05	SURFACE TREATMENT DETAILS
UD06	PED LIGHT & TRASH ENCLOSURE DETAILS
UD07	PLANTING SITE PLAN & SCHEDULE
UD07.1	ENLARGED CENTRAL & UPPER PLAZA PLANTING PLANS
UD07.2	PLANTING PLAN - CALLOUTS
UD07.3	PLANTING DETAILS

PORT OF EDMONDS NORTH PORTWALK & SEAWALL RECONSTRUCTION

ABBREVIATIONS	
ARCH	ARCHITECT
AFF	ABOVE FINISH FLOOR
BLW	BELOW
BM	BEAM
BOT	BOTTOM
BTWN	BETWEEN
CIP	CAST IN PLACE
CLR	CLEAR
CONC	CONCRETE
CONT	CONTINUOUS
COORD	COORDINATE
DIA	DIAMETER
DIM	DIMENSION
DIR	DIRECTION
EA	EACH
ELEV	ELEVATION
ENCLOS	ENCLOSURE
ES	EACH SIDE
FLR	FLOOR
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GBCP	GLASS BLOCK & CONCRETE PANEL
L	ANGLE
MANUF	MANUFACTURER
MECH	MECHANICAL
NTS	NOT TO SCALE
OC	ON CENTER
PED	PEDESTRIAN
REQ'D	REQUIRED
SCHED	SCHEDULE
SIM	SIMILAR
STF	STANDARD
STL	STEEL
SYMM	SYMMETRICAL
TBD	TO BE DETERMINED
TOC	TOP OF CONCRETE
TOS	TOP OF STEEL
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VERT	VERTICAL
VFY	VERIFY

SYMBOL LEGEND	
	6X12 GLASS BLOCK & CONCRETE PANEL MODULE
	CAST IN PLACE CONCRETE
	DATUM
	DETAIL MARKER
	ELEVATION MARKER
	ELECTRICAL PANEL
P	ELECTRICAL SUBSTATION
#	FURNITURE ID
	GBCP CONCRETE
	GBCP GLASS BLOCK
	PEDESTRIAN LIGHT
	PLANTING AREA

PROJECT MAP
NTS

DESIGNED: MM/YY
DRAWN:
CHECKED:

PORT OF EDMONDS
NORTH PORTWALK AND SEAWALL RECONSTRUCTION
336 Admiral Way; Edmonds, Washington

NOTE: SCALES SHOWN ARE FOR 24"X36" SHEETS

DRAWING TITLE
COVER SHEET

MAKERS
ADDRESS: 500 UNION ST. SUITE 700
SEATTLE, WA 98101
TEL: (206) 652-5080
FAX: (206) 652-5079

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Project No.
2045

Drawing No.
UD0

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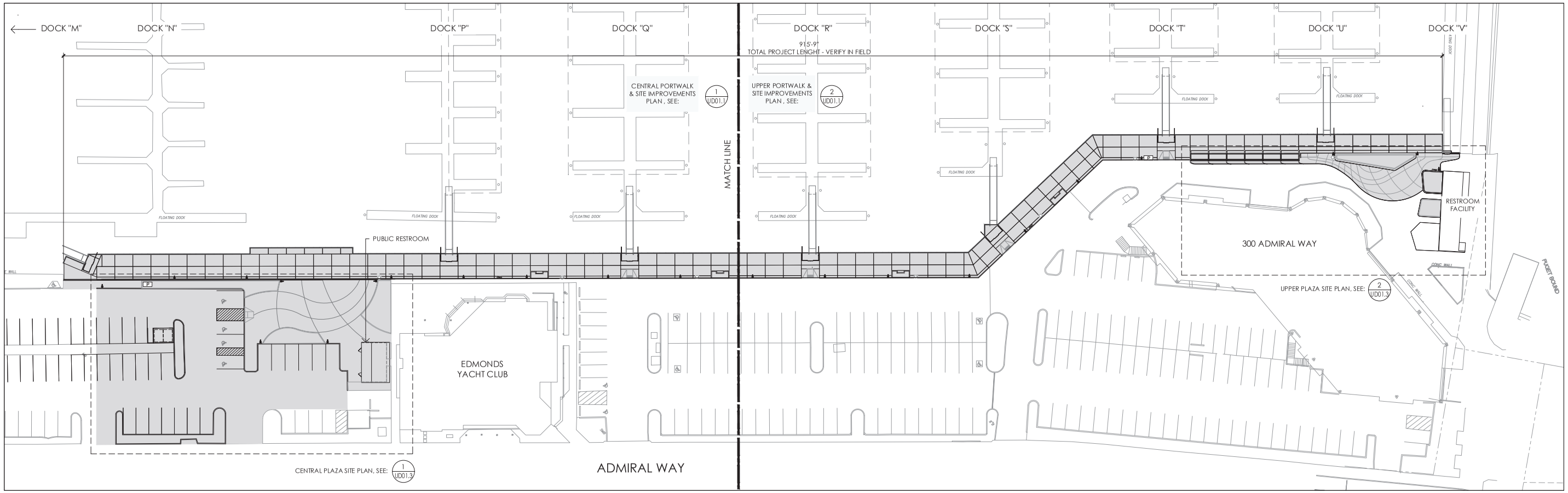

1 PORTWALK & SITE IMPROVEMENTS SITE PLAN
1"= 32'-0"

0' 16' 32' 64'

GENERAL NOTE:
HATCH DENOTES AREA OF PROPOSED WORK

DESIGNED: MM/YY
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PORT OF EDMONDS
NORTH PORTWALK AND SEAWALL RECONSTRUCTION
336 Admiral Way; Edmonds, Washington

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GENERAL PORTWALK SITE PLAN

MAKERS
ADDRESS: 500 UNION ST. SUITE 700
SEATTLE, WA 98101
TEL: (206) 652-5080
FAX: (206) 652-5079

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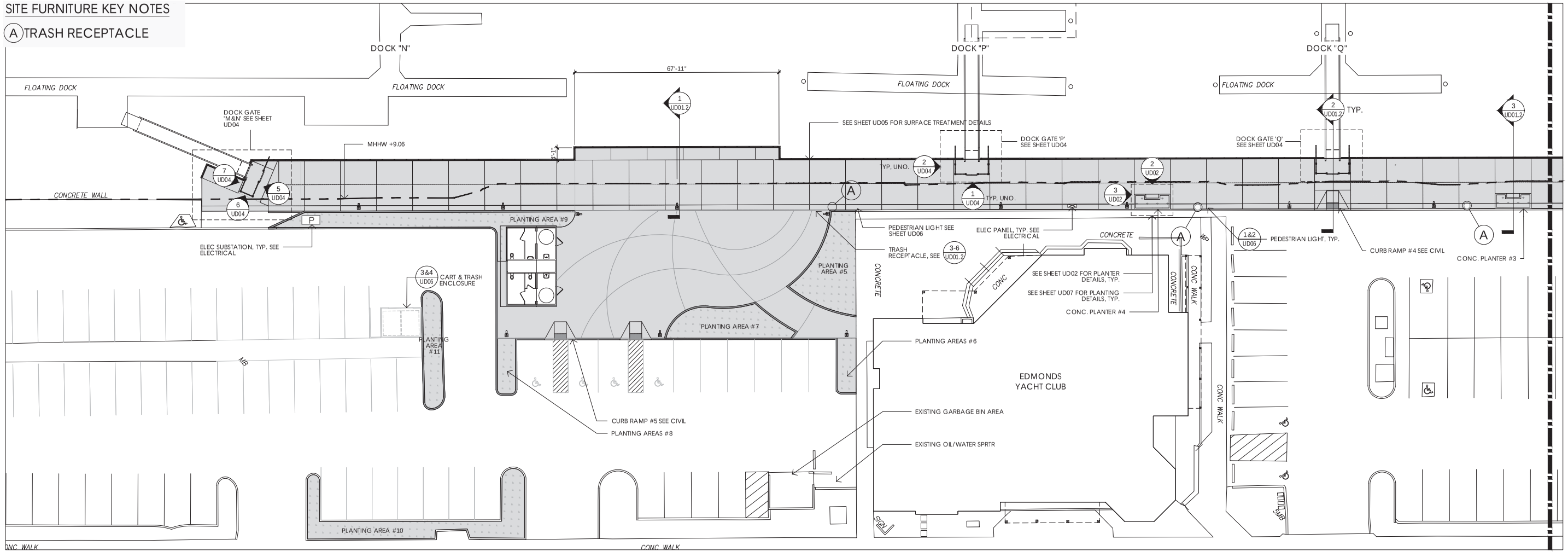
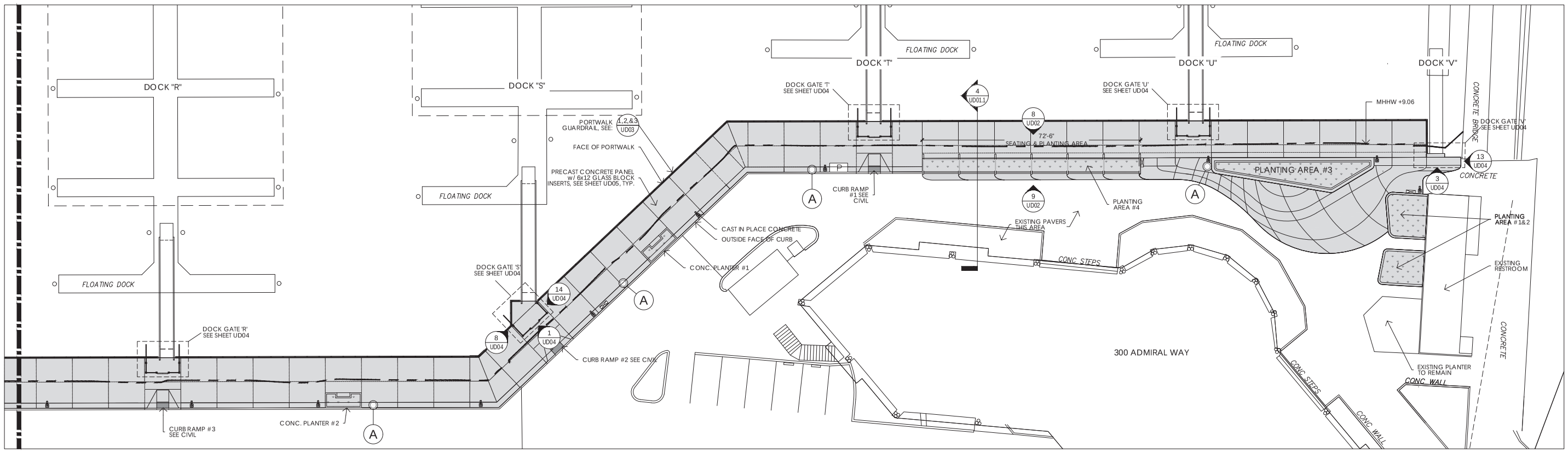
SITE FURNITURE KEY NOTES

(A) TRASH RECEPTACLE



1 CENTRAL PORTWALK & SITE IMPROVEMENTS PLAN
1/16" = 1'-0"

0 8' 16' 32'



2 UPPER PORTWALK & SITE IMPROVEMENTS PLAN
1/16" = 1'-0"

0 8' 16' 32'

DESIGNED: MM/YY
DRAWN:
CHECKED:

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PORT OF EDMONDS
NORTH PORTWALK AND SEAWALL RECONSTRUCTION
336 Admiral Way; Edmonds, Washington

DRAWING TITLE
DETAILED PORTWALK SITE PLAN

MAKERS
ADDRESS: 500 UNION ST. SUITE 700
SEATTLE, WA 98101
TEL: (206) 652-5080
FAX: (206) 652-5079

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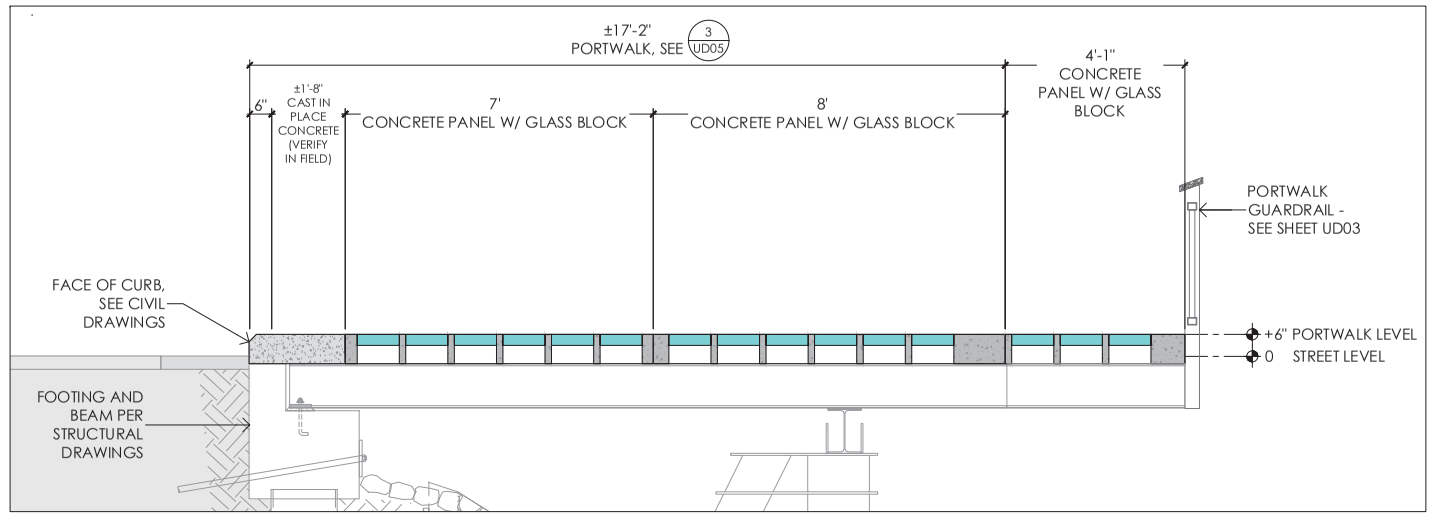
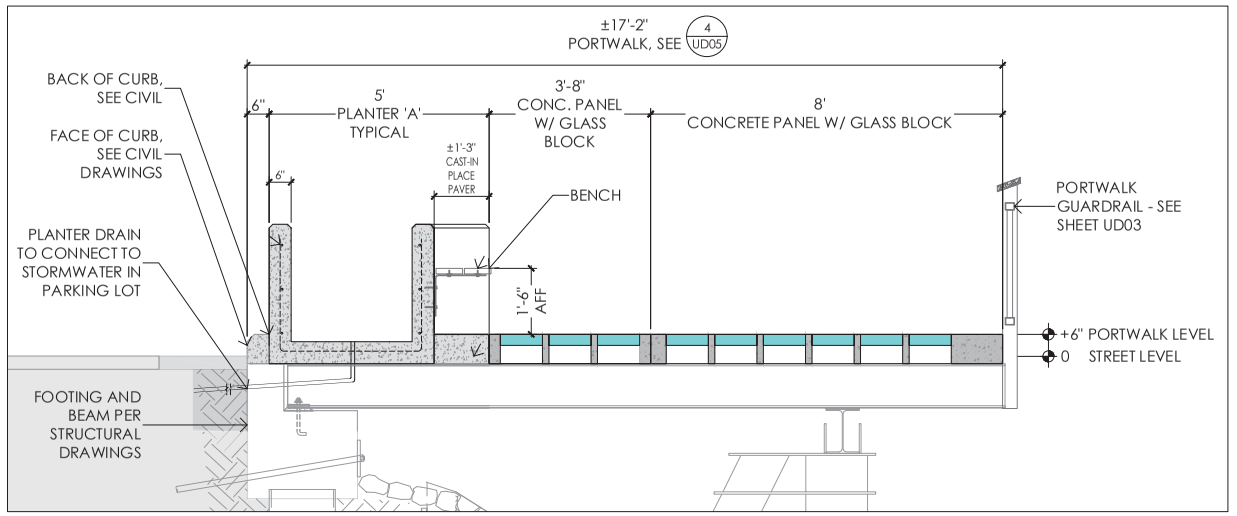
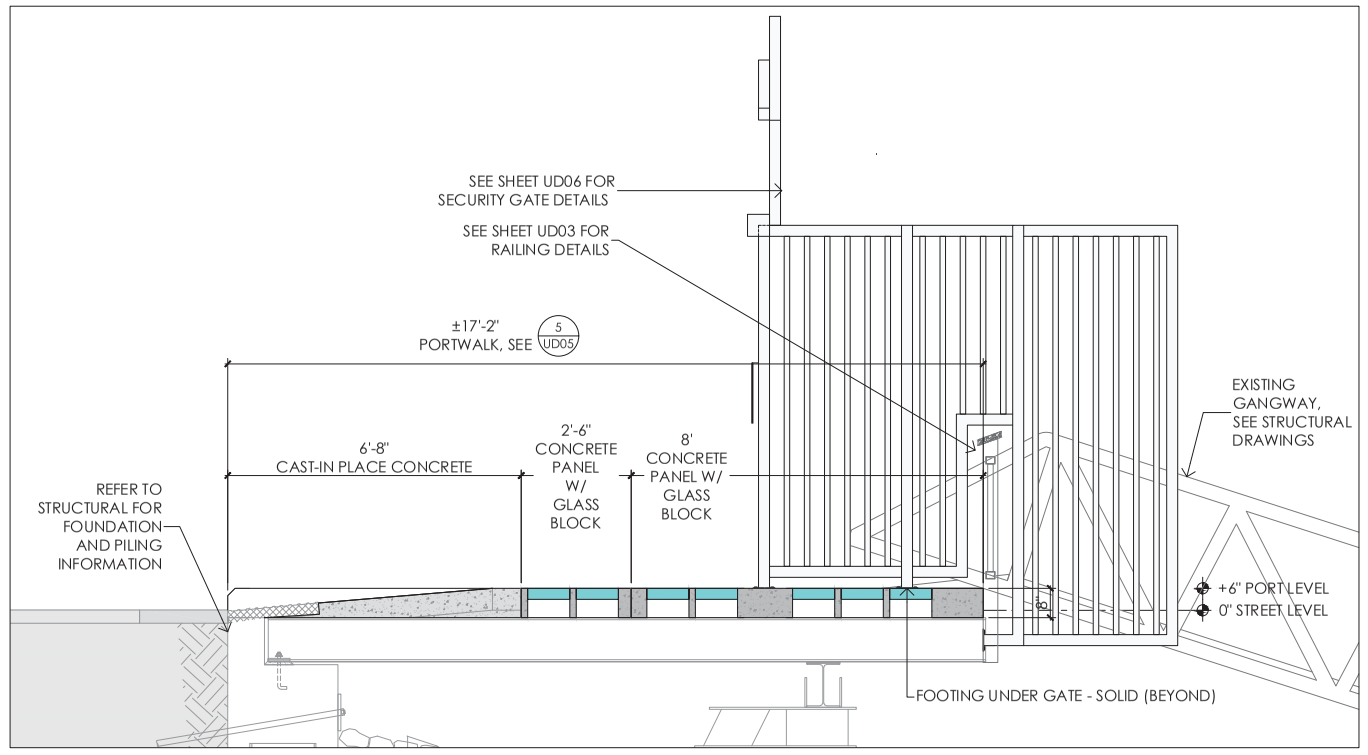


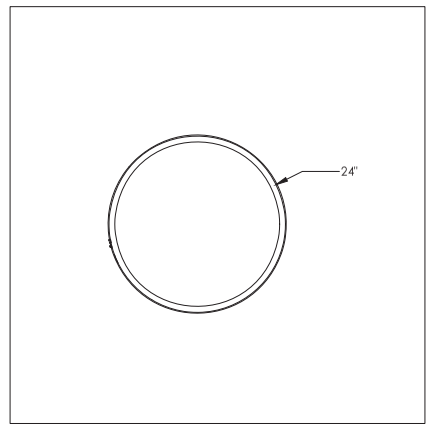
1 TYPICAL SECTION THROUGH PORTWALK
1/2" = 1'-0"



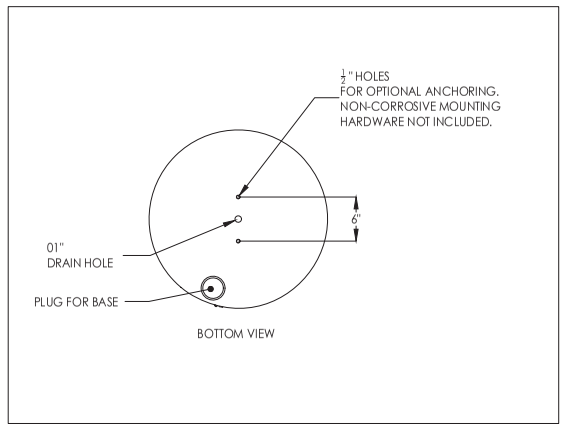
3 TYPICAL SECTION THROUGH THE PORTWALK AND PLANTER
1/2" = 1'-0"



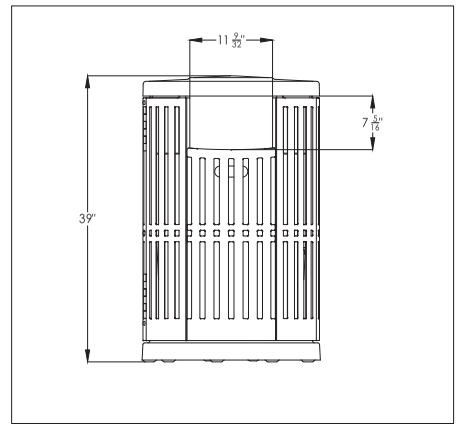
2 TYPICAL SECTION THROUGH RAMP, GATE AND GANGWAY
1/2" = 1'-0"



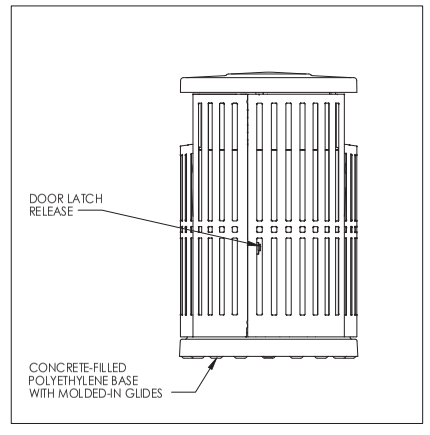
3 TRASH RECEPTACLE 'A' TOP VIEW
1" = 1'-0"



4 TRASH RECEPTACLE 'A' BOTTOM VIEW
1" = 1'-0"



5 TRASH RECEPTACLE 'A' SIDE VIEW 1
1" = 1'-0"



6 TRASH RECEPTACLE 'A' SIDE VIEW 2
1" = 1'-0"

NOTE:
TRASH RECEPTACLE 'A' TO BE CHASE PARK 36 GALLON, SIDE-OPENING W/ PANGARD II SILVER COLOR POWDERCOAT FINISH .

DESIGNED: MM/YY
DRAWN:
CHECKED:

NOTE: SCALES SHOWN ARE FOR 24"X36" SHEETS

PORT OF EDMONDS
NORTH PORTWALK AND SEAWALL RECONSTRUCTION
336 Admiral Way; Edmonds, Washington

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PLAZA PLAN & SECTIONS

MAKERS
ADDRESS: 500 UNION ST. SUITE 700
SEATTLE, WA 98101
TEL: (206) 652-5080
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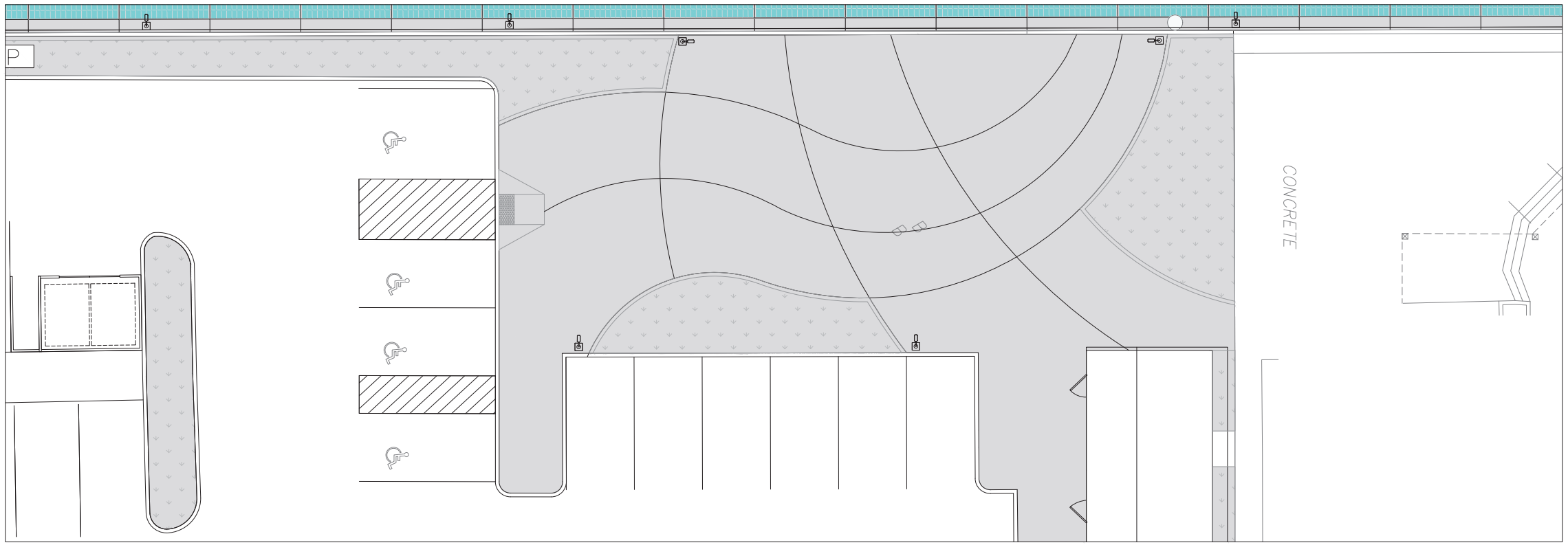
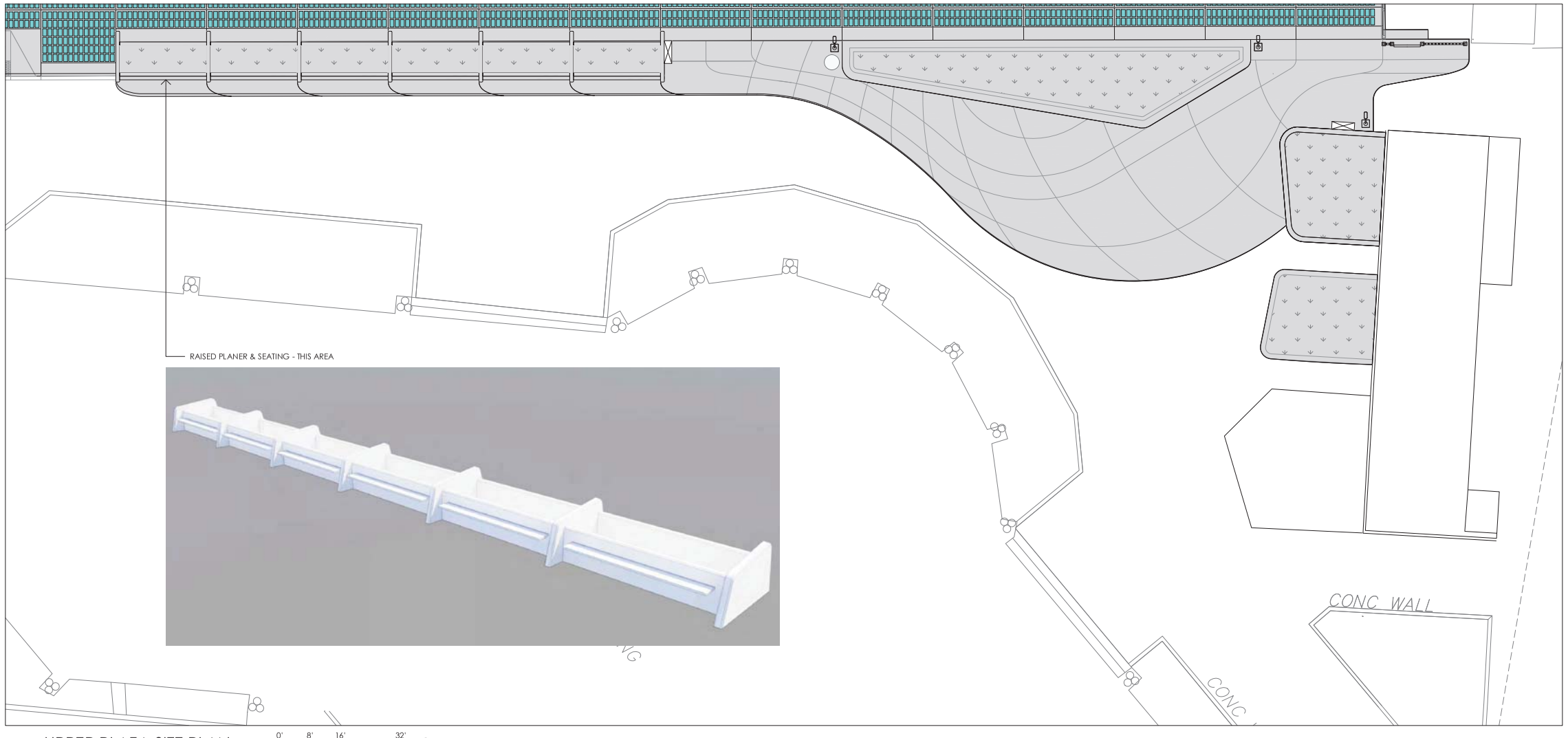


1 CENTRAL PLAZA SITE PLAN
1"= 16'-0"
0' 8' 16' 32'



2 UPPER PLAZA SITE PLAN
1"= 16'-0"
0' 8' 16' 32'

GENERAL NOTES:

1. A 10-YEAR WARRANTY IS REQUIRED FOR SITE FURNISHINGS.
2. ALL METHODS, MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE 2018 BUILDING CODE (IBC) AS AMENDED AND ADOPTED BY THE LOCAL BUILDING AUTHORITY.
3. ALL REFERENCE TO OTHER CODES, ACI, ASTM, ETC. SHALL BE FOR THE LATEST OR MOST CURRENT EDITION AVAILABLE.

DESIGNED: MM/YY
DRAWN:
CHECKED:

PORT OF EDMONDS
NORTH PORTWALK AND SEAWALL RECONSTRUCTION
336 Admiral Way; Edmonds, Washington

NOTE: SCALES SHOWN ARE FOR 24"X36" SHEETS

DRAWING TITLE
ENLARGED CENTRAL & UPPER PLAZA PLANS

MAKERS
ADDRESS: 500 UNION ST. SUITE 700
SEATTLE, WA 98101
TEL: (206) 652-5080
FAX: (206) 652-5079

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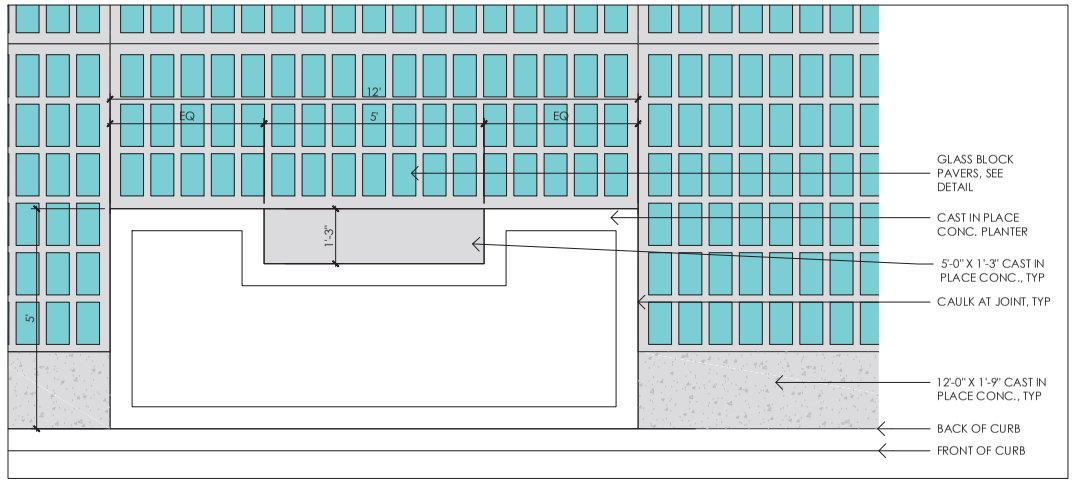
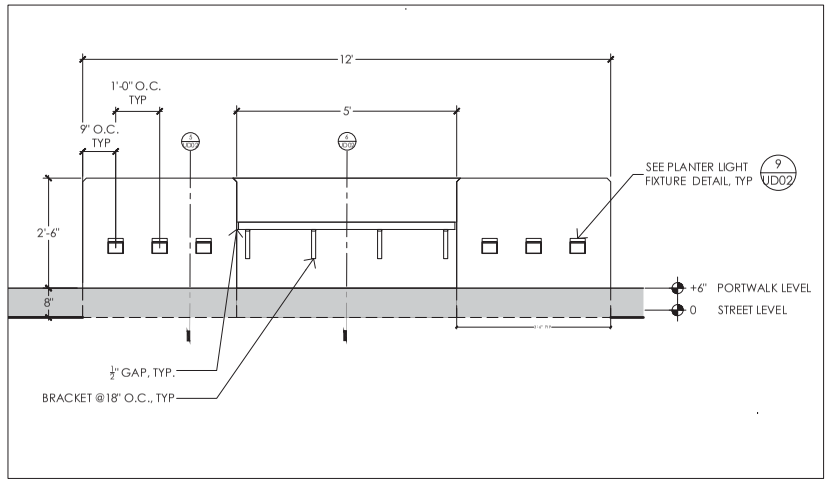
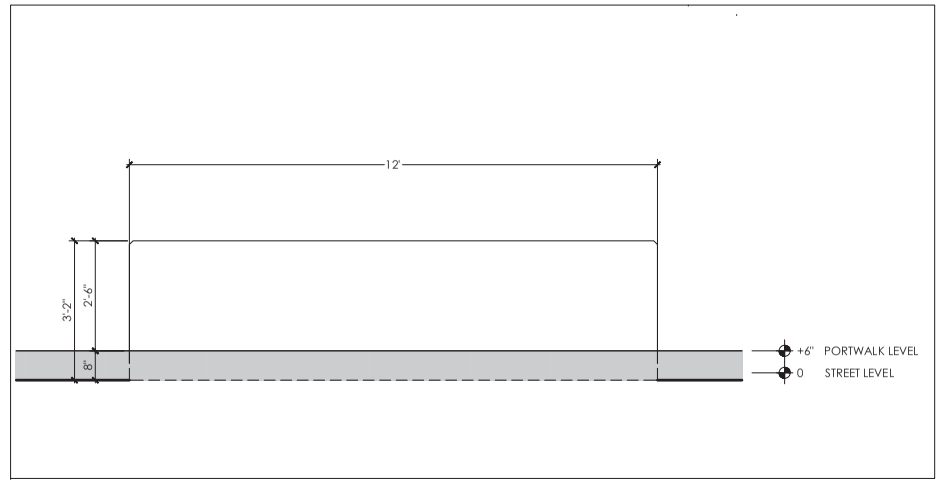


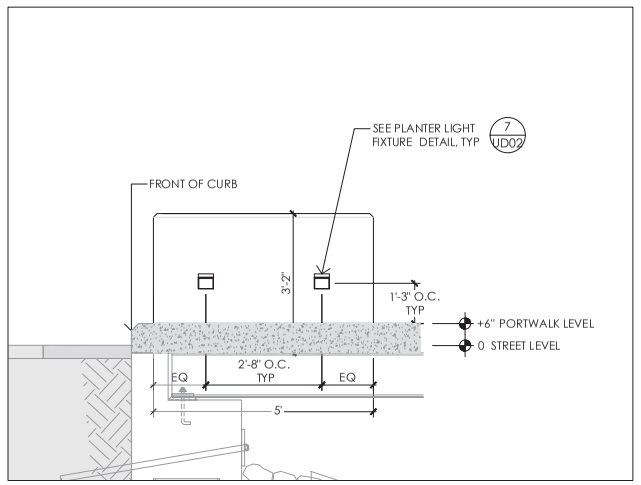
1 CONC PLANTERS #1-4 PLAN VIEW
1/2" = 1'-0"



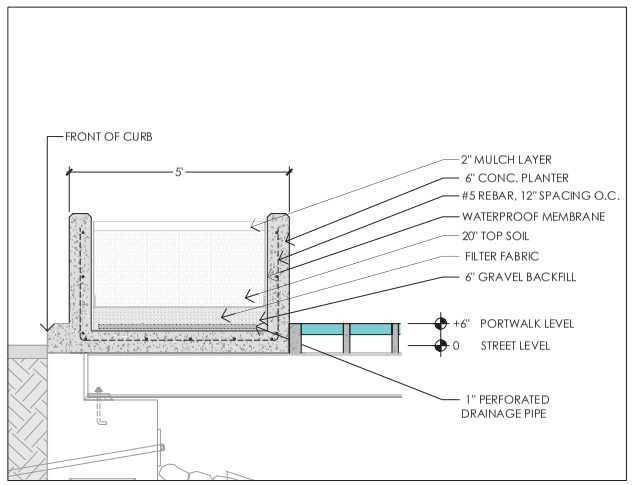
2 CONC PLANTERS #1-4 FRONT ELEVATION
1/2" = 1'-0"



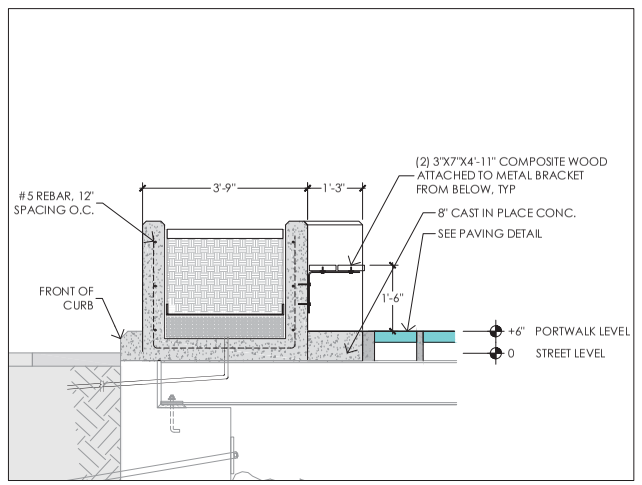
3 CONC PLANTERS #1-4 BACK ELEVATION
1/2" = 1'-0"



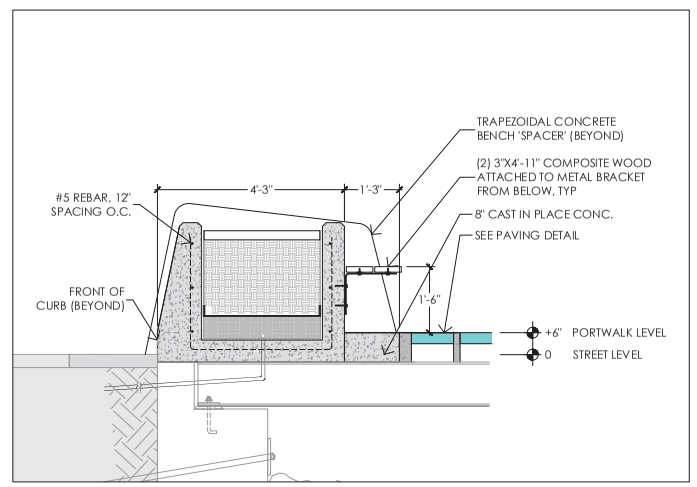
4 CONC PLANTERS #1-4 SIDE ELEVATION
1/2" = 1'-0"



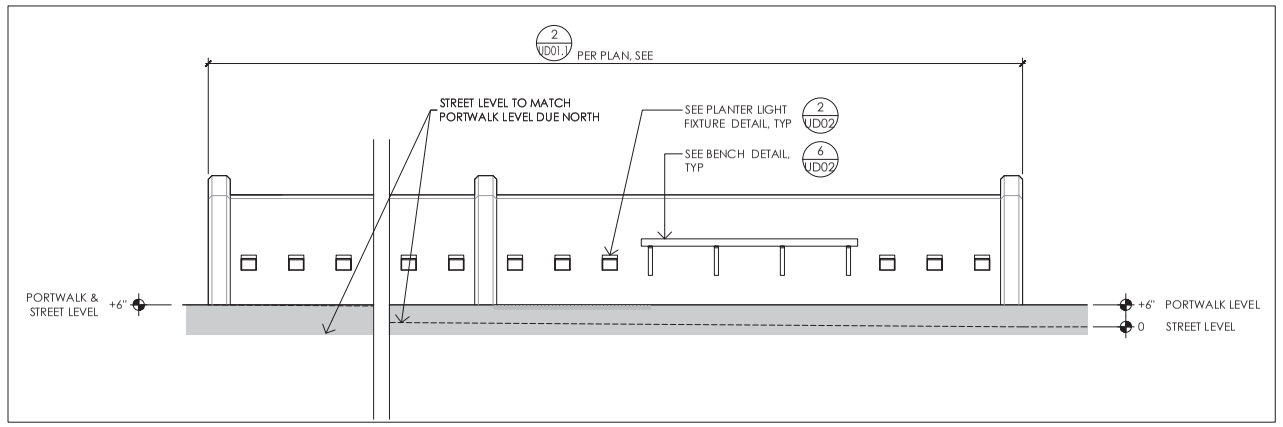
5 PLANTER SECTION THROUGH PLANTING AREA, TYP. - CONC PLANTERS #1-4
1/2" = 1'-0"



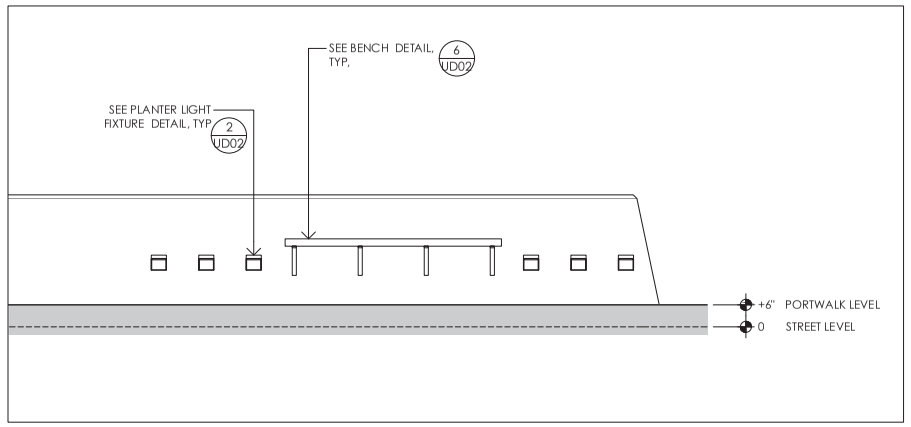
6 PLANTER SECTION CUT THROUGH BENCH, TYP. - CONC PLANTERS #1-4
1/2" = 1'-0"



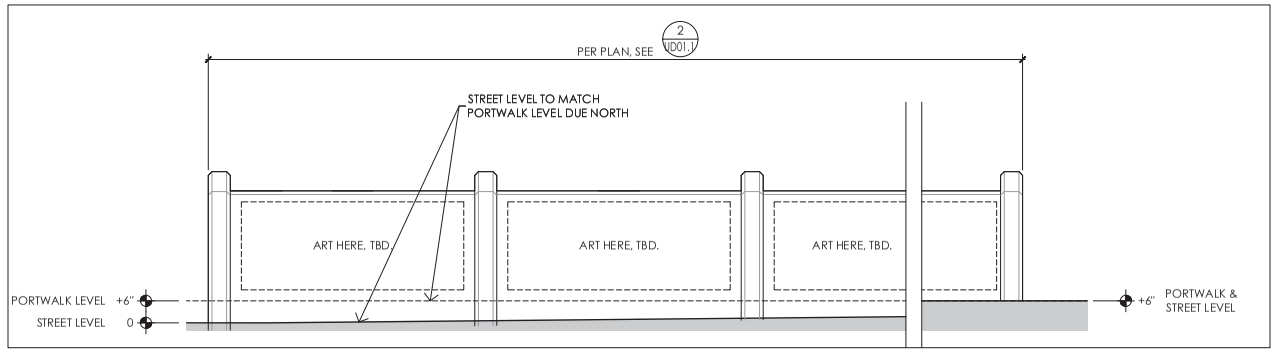
7 PLANTER SECTION CUT THROUGH PLANTING AREA #4
1/2" = 1'-0"



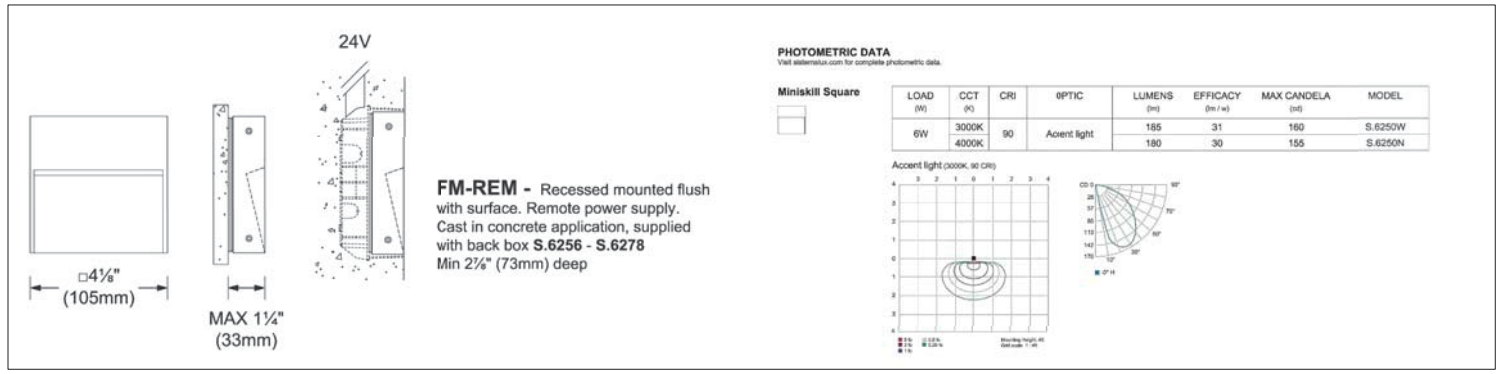
8 UPPER PLAZA PLANTING AREA #4 FRONT ELEVATION
1/2" = 1'-0"



10 UPPER PLAZA PLANTING AREA #3 FRONT ELEVATION - WORK IN PROGRESS
1/2" = 1'-0"



9 UPPER PLAZA PLANTING AREA #4 BACK ELEVATION
1/2" = 1'-0"



11 PLANTER LIGHTING FIXTURE, TYP.
NTS

DESIGNED: MM/YY
DRAWN:
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NOTE: SCALES SHOWN ARE FOR 24"X36" SHEETS

PORT OF EDMONDS
NORTH PORTWALK AND SEAWALL RECONSTRUCTION
336 Admiral Way; Edmonds, Washington

DRAWING TITLE
PLANTER SECTION & BENCH DETAILS

MAKERS
ADDRESS: 500 UNION ST. SUITE 700
SEATTLE, WA 98101
TEL: (206) 652-5080
FAX: (206) 652-5079

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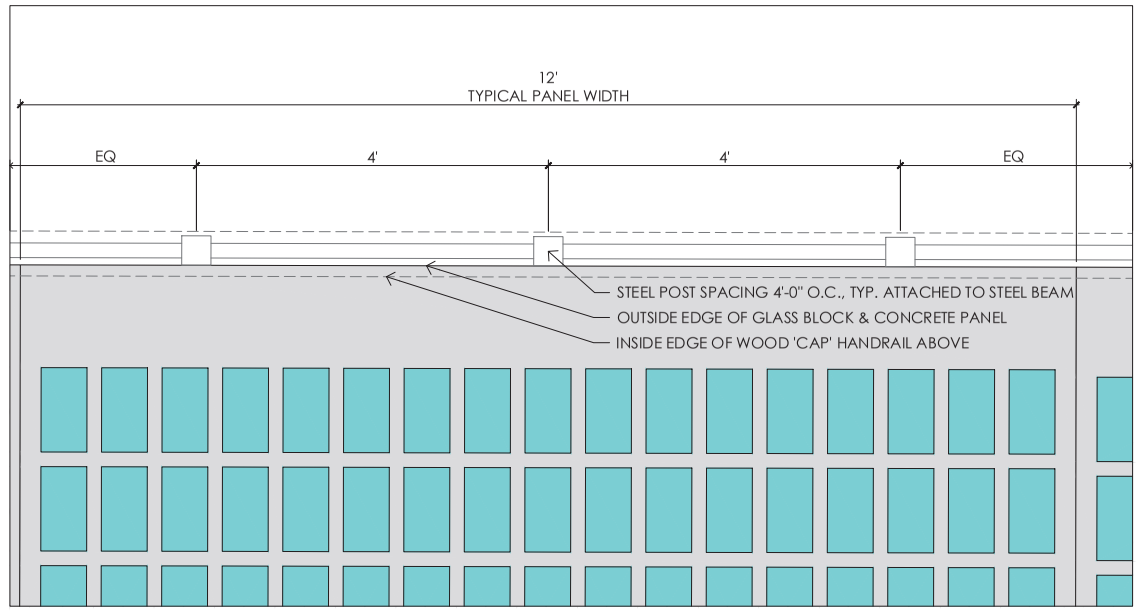
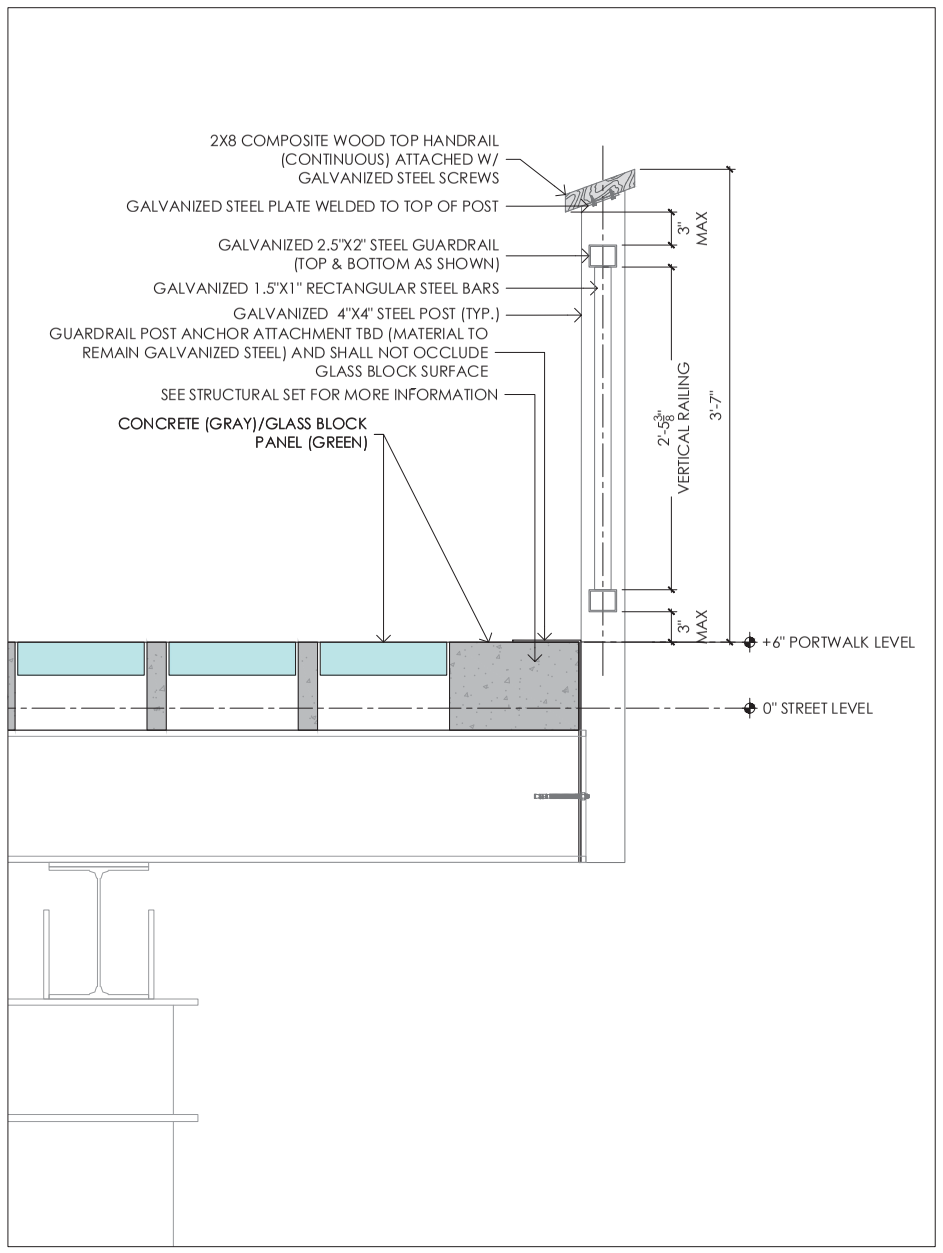
Sheet 6 of

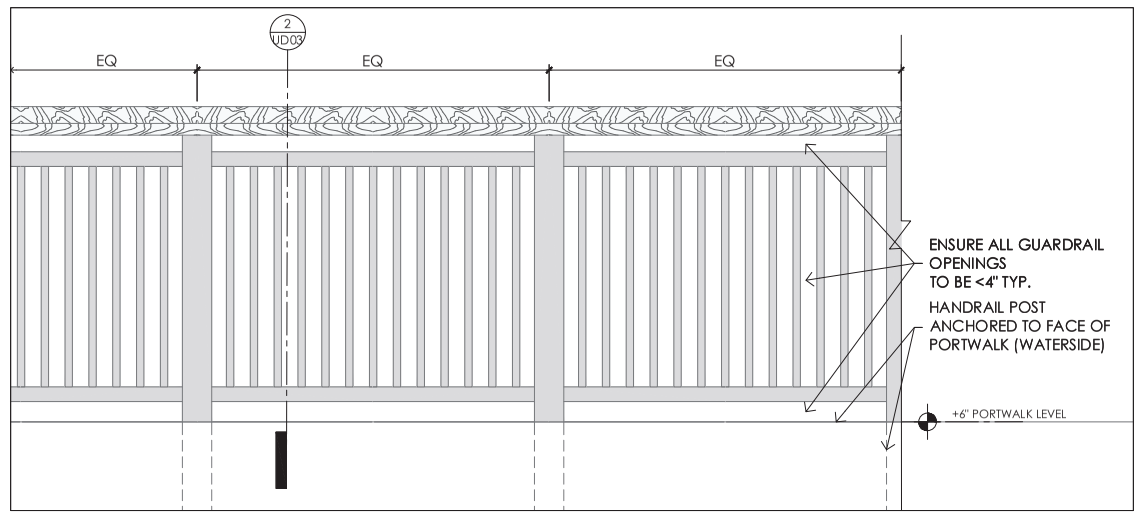
GENERAL NOTES:
1. SMALL WOODEN MEMBERS SHALL HAVE PRE-DRILLED HOLES TO PREVENT SPLITTING DURING CONSTRUCTION.
2. ALL BOLTS, NUTS, WASHERS, ETC. SHALL BE HOT DIPPER GALVANIZED AFTER FABRICATION IN ACCORDANCE W/ ASTM A153.



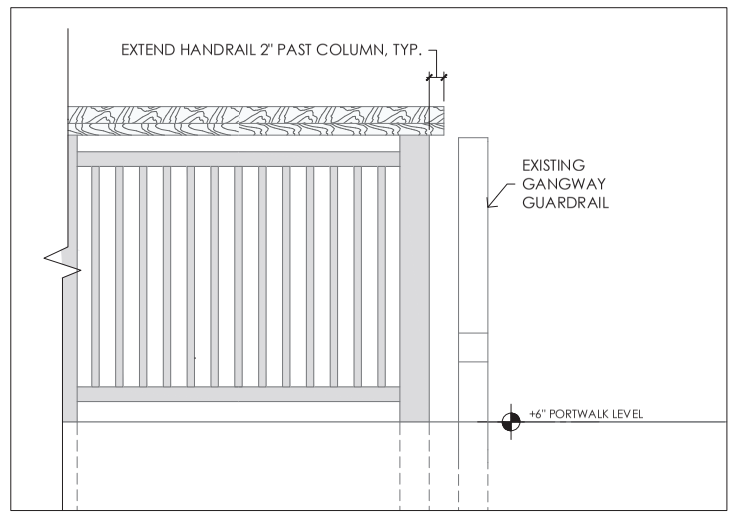
5 TYPICAL GUARDRAIL PLAN
1" = 1'-0"



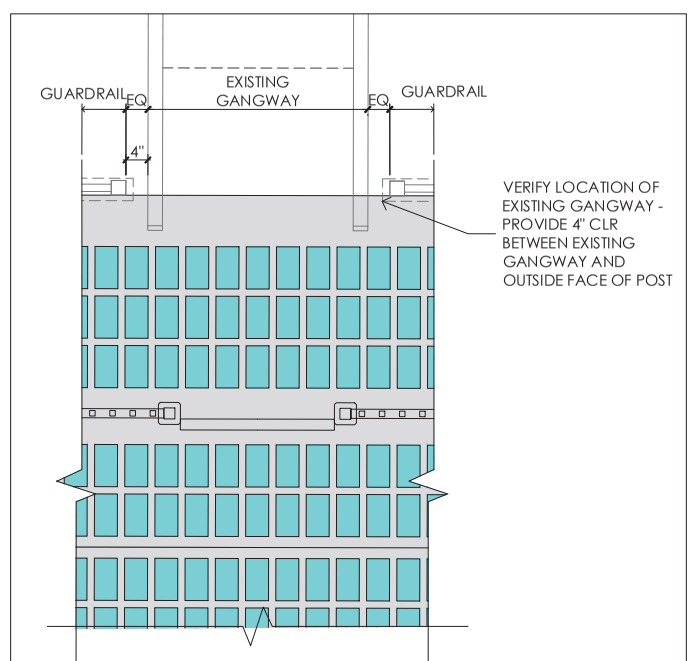
2 PORTWALK GUARDRAIL SECTION AT POST
1 1/2" = 1'-0"



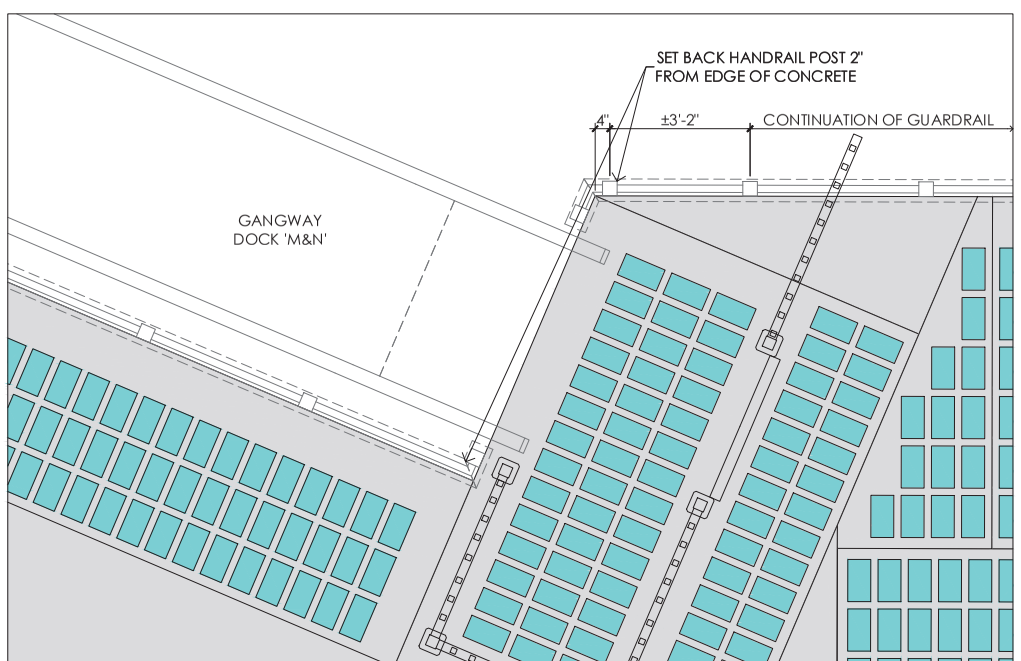
1 TYPICAL PORTWALK GUARDRAIL ELEVATION
1" = 1'-0"



6 TYPICAL PORTWALK GUARDRAIL ELEVATION AT GANGWAY, TYP.
1" = 1'-0"



3 TYPICAL GUARDRAIL ALIGNMENT w/ RESPECT TO GANGWAY PLAN
1/2" = 1'-0"



4 GUARDRAIL ALIGNMENT ON DOCK 'M&N'
1/2" = 1'-0"

DESIGNED: MM/YY
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PORT OF EDMONDS
NORTH PORTWALK AND SEAWALL RECONSTRUCTION
336 Admiral Way; Edmonds, Washington

NOTE: SCALES SHOWN ARE FOR 24"X36" SHEETS

DRAWING TITLE
PORTWALK GUARDRAIL DETAILS

MAKERS
ADDRESS: 500 UNION ST. SUITE 700
SEATTLE, WA 98101
TEL: (206) 652-5080
FAX: (206) 652-5079

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2045

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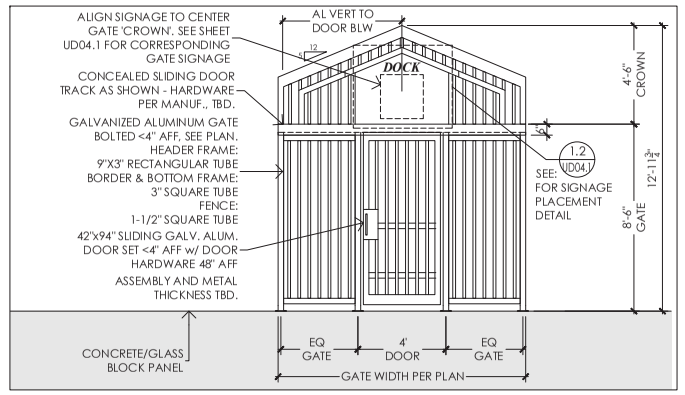
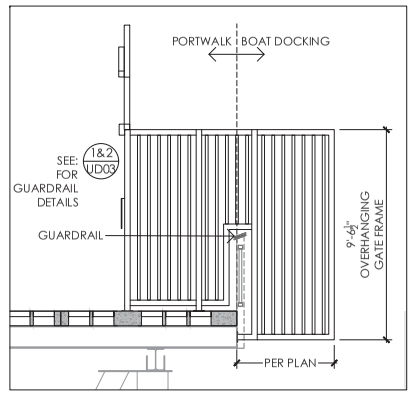
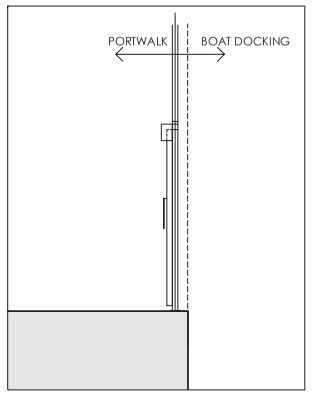


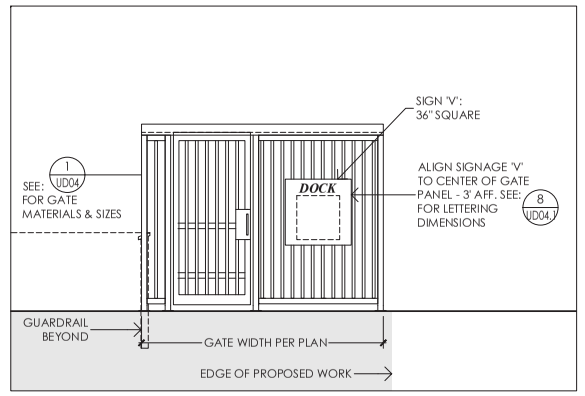
1 SECURITY GATE 'P','Q','R','T' &'U' FRONT ELEVATION
1/4" = 1'-0"



2 SECURITY GATE 'P','Q','R','T' &'U' ELEVATION
1/4" = 1'-0"

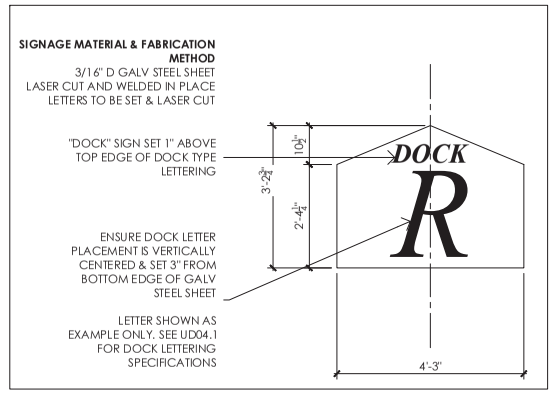


3 SECURITY GATE 'V' SIDE ELEVATION
1/4" = 1'-0"

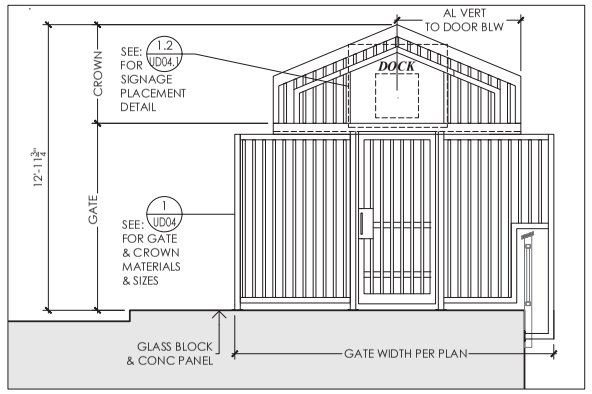


13 SECURITY GATE 'V' FRONT ELEVATION
1/4" = 1'-0"

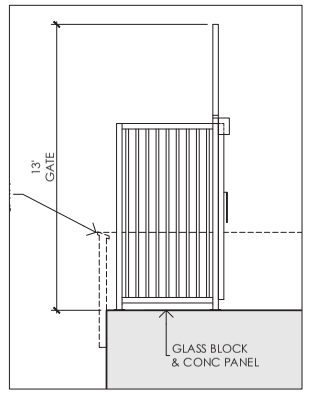
GENERAL NOTES
1. VERIFY IN FIELD GANGWAY LOCATIONS THEN PROVIDE 3'-0" CLEARWAY IN-BETWEEN RAILINGS INSIDE METAL GATES.



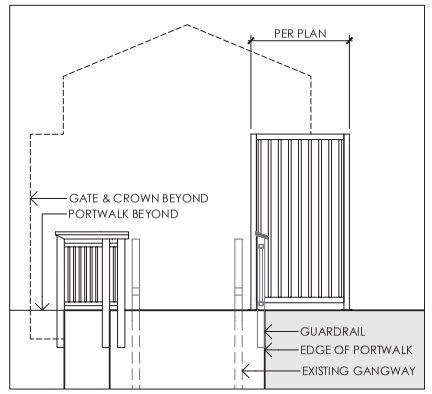
4 GATE SIGNAGE DETAIL
1/2" = 1'-0"



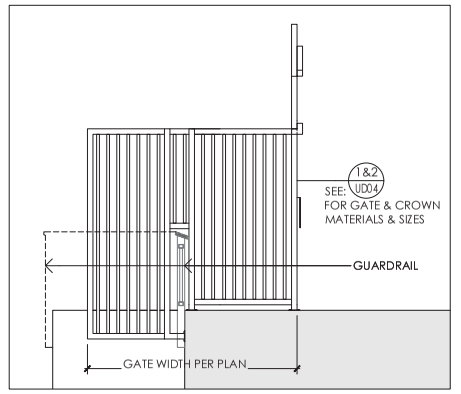
5 SECURITY GATE 'M&N' FRONT ELEVATION
1/4" = 1'-0"



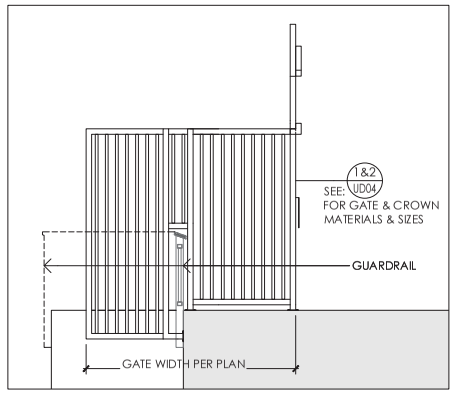
6 SECURITY GATE 'M &N' EAST ELEV
1/4" = 1'-0"



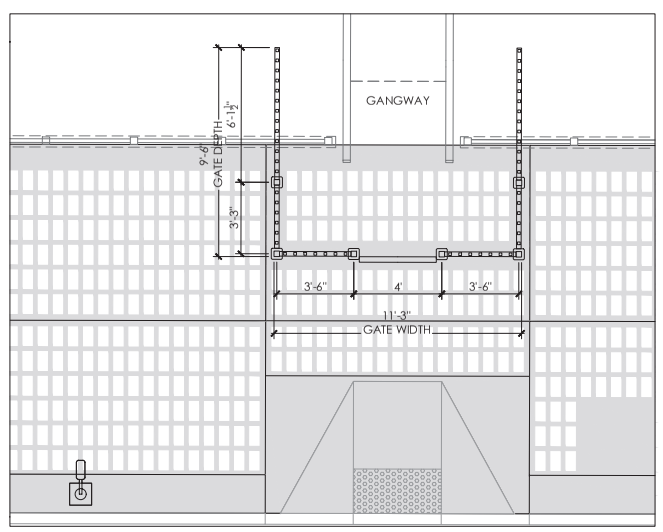
7 SECURITY GATE 'M &N' WEST ELEVATION
1/4" = 1'-0"



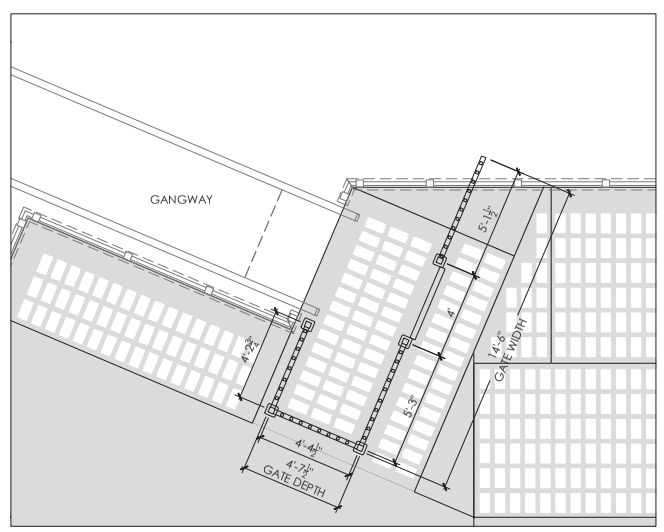
8 SECURITY GATE 'S' SOUTH ELEVATION
1/4" = 1'-0"



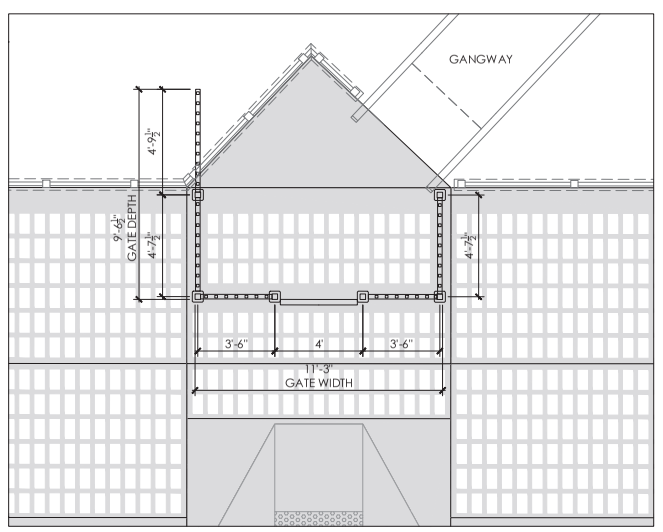
14 SECURITY GATE 'S' NORTH ELEVATION
1/4" = 1'-0"



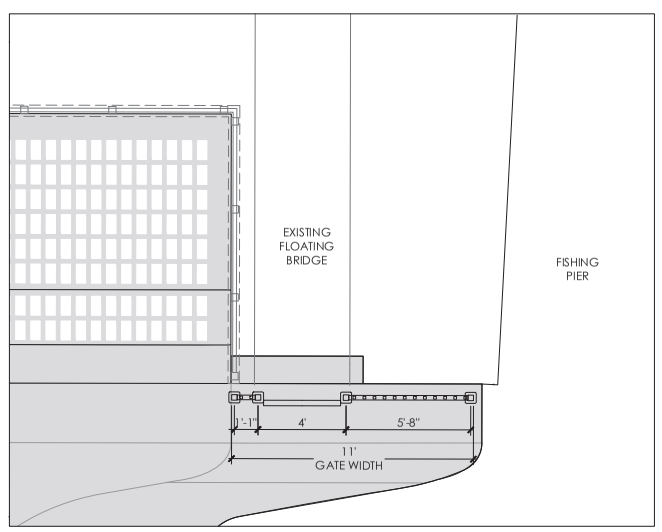
9 SECURITY GATE 'P','Q','R','T',& 'U' PLAN LAYOUT
1/4" = 1'-0"



10 SECURITY GATE 'M&N' PLAN LAYOUT
1/4" = 1'-0"



11 SECURITY GATE 'S' PLAN LAYOUT
1/4" = 1'-0"



12 SECURITY GATE 'V' PLAN LAYOUT
1/4" = 1'-0"

DESIGNED: MM/YY
DRAWN:
CHECKED:

PORT OF EDMONDS
NORTH PORTWALK AND SEAWALL RECONSTRUCTION
336 Admiral Way; Edmonds, Washington

DRAWING TITLE
SECURITY GATES

NOTE: SCALES SHOWN ARE FOR 24"X36" SHEETS

MAKERS
ADDRESS: 500 UNION ST. SUITE 700
SEATTLE, WA 98101
TEL: (206) 652-5080
FAX: (206) 652-5079

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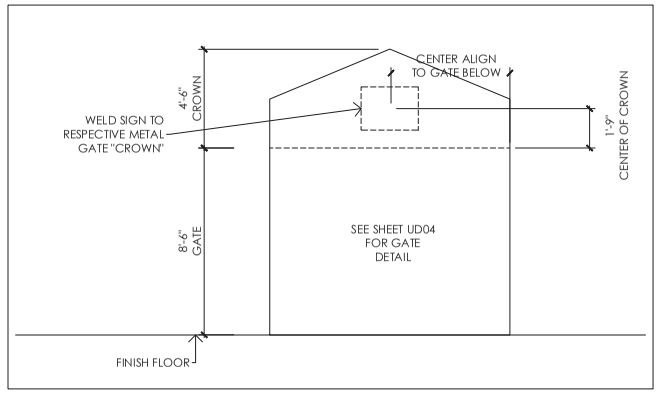
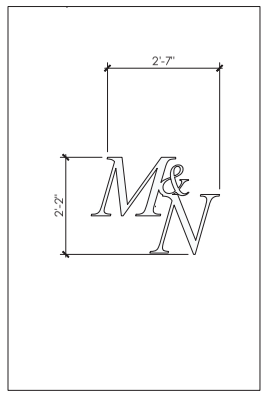
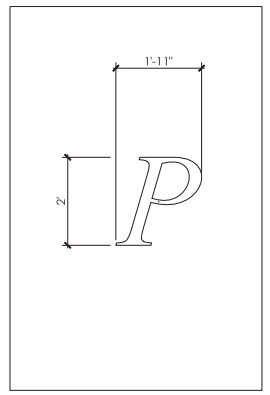


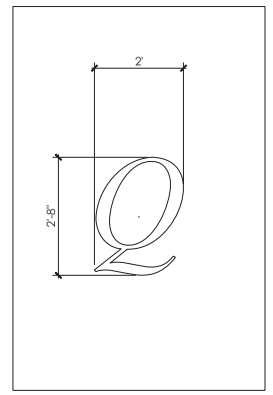
1 GATE SIGNAGE REFERENCE FRONT VIEW
1/4" = 1'-0"



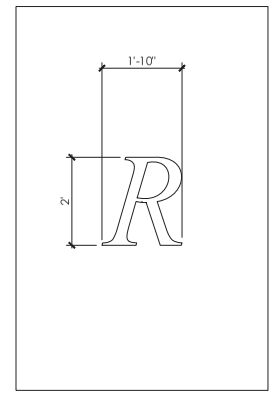
2 GATE SIGNAGE 'M&N'
1/2" = 1'-0"



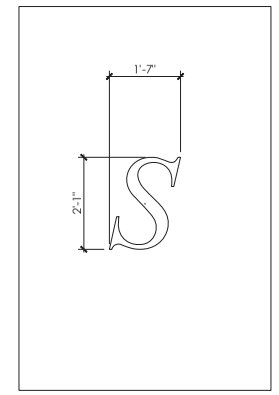
GATE SIGNAGE 'P'
1/2" = 1'-0"



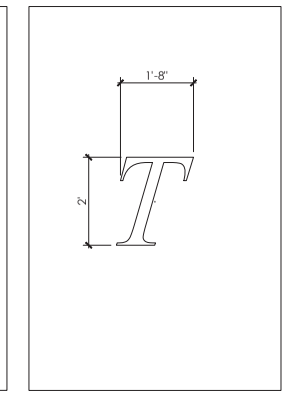
3 GATE SIGNAGE 'Q'
1/2" = 1'-0"



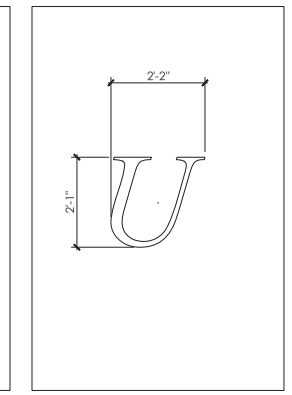
4 GATE SIGNAGE 'R'
1/2" = 1'-0"



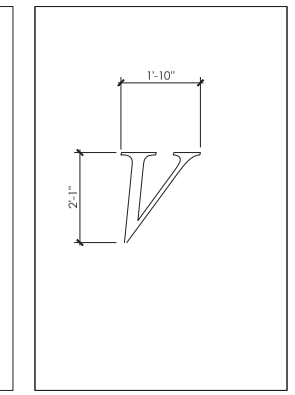
5 GATE SIGNAGE 'S'
1/2" = 1'-0"



6 GATE SIGNAGE 'T'
1/2" = 1'-0"



7 GATE SIGNAGE 'U'
1/2" = 1'-0"



8 GATE SIGNAGE 'V'
1/2" = 1'-0"

DESIGNED: MM/YY
DRAWN:
CHECKED:

NOTE: SCALES SHOWN ARE FOR 24"X36" SHEETS

PORT OF EDMONDS
NORTH PORTWALK AND SEAWALL RECONSTRUCTION
336 Admiral Way; Edmonds, Washington

DRAWING TITLE
SECURITY GATE DETAILS

MAKERS
ADDRESS: 500 UNION ST. SUITE 700
SEATTLE, WA 98101
TEL: (206) 652-5080
FAX: (206) 652-5079

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Project No.
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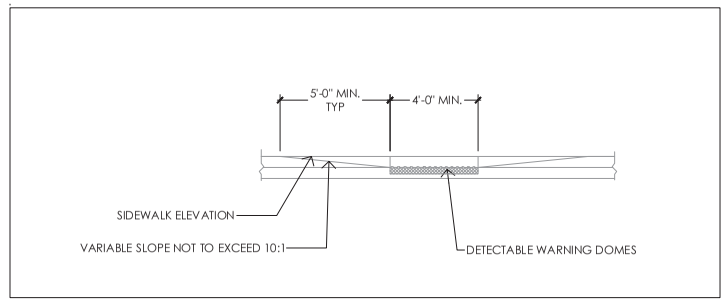
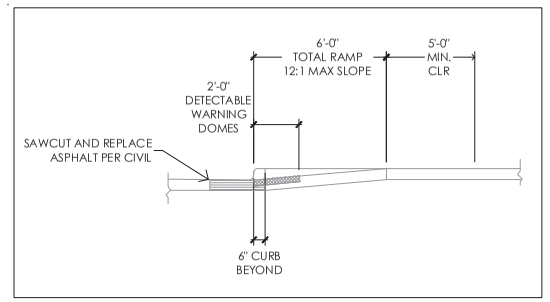
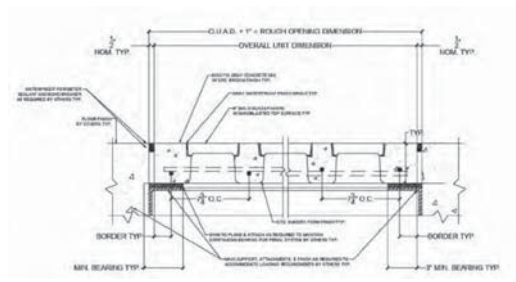


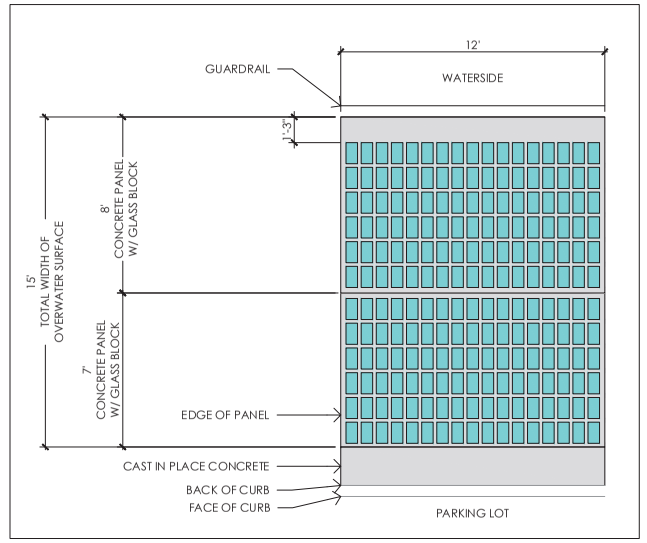
1 RAMP ELEVATION FRONT VIEW, TYP.
1/4" = 1'-0"



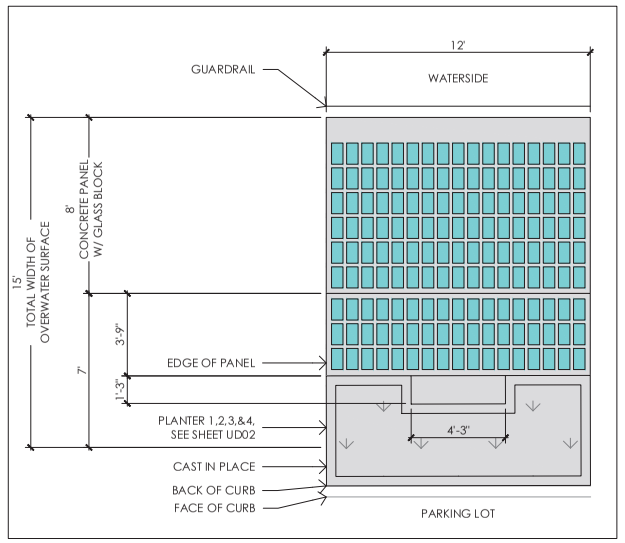
2 RAMP ELEVATION SECTION VIEW, TYP.
1/4" = 1'-0"



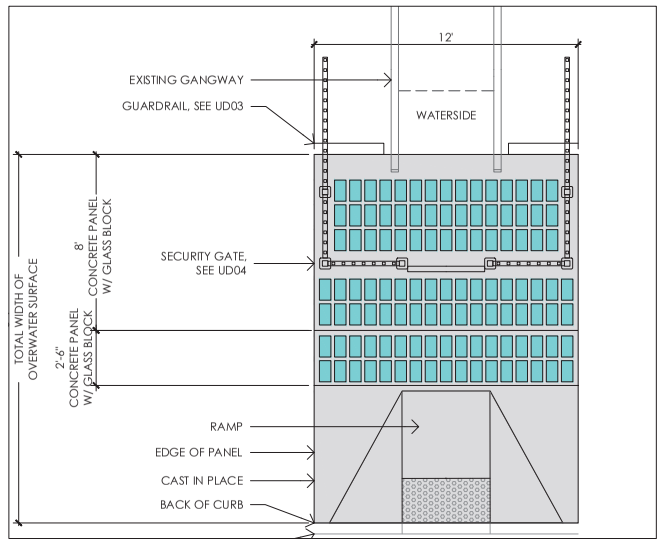
6 TYPICAL SECTION OF GLASS BLOCK & CONCRETE PAVERS
NTS



3 TYPICAL CONCRETE & GLASS BLOCK - TYPICAL PANEL PATTERN PLAN
1/4" = 1'-0"



4 TYPICAL CONCRETE & GLASS BLOCK PANEL PATTERN PLAN AT PLANTER
1/4" = 1'-0"



5 TYPICAL CONCRETE & GLASS BLOCK PANEL PATTERN AT RAMPS
1/4" = 1'-0"

8 CONCRETE FINISH - FOR REFERENCE ONLY
NTS

GENERAL NOTES:

1. ALL OVERWATER PAVING TO BE SPECIFIED WITH '71R' STRUCTURAL-GRADE GLASS BLOCK, CONFIGURED WITH MORE THAN OR EQUAL TO 50% LIGHT TRANSMISSION.
2. ALL PANELS TO HAVE 2" MINIMUM CONCRETE PERIMETER ON ALL SIDES OF GLASS BLOCK PAVER PANEL.
3. ALL PANELS TO HAVE CONCRETE WITH NATURAL GREY FINISH. (VERIFY)

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NORTH PORTWALK AND SEAWALL RECONSTRUCTION
336 Admiral Way; Edmonds, Washington

NOTE: SCALES SHOWN ARE FOR 24"X36" SHEETS

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SURFACE TREATMENT DETAILS

MAKERS
ADDRESS: 500 UNION ST. SUITE 700
SEATTLE, WA 98101
TEL: (206) 652-5080
FAX: (206) 652-5079

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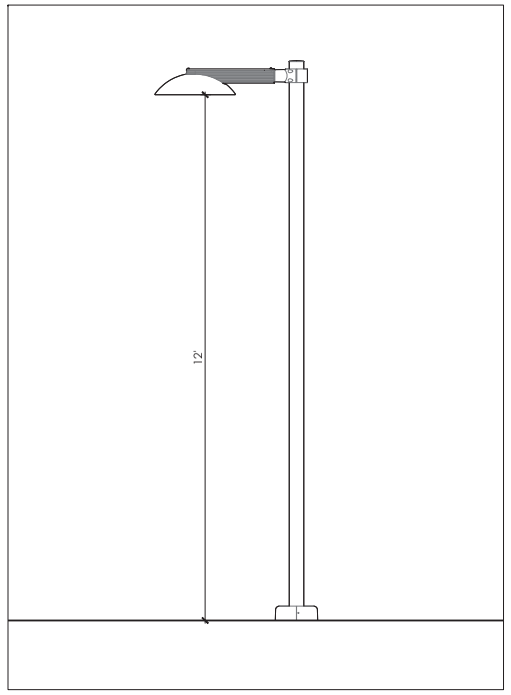
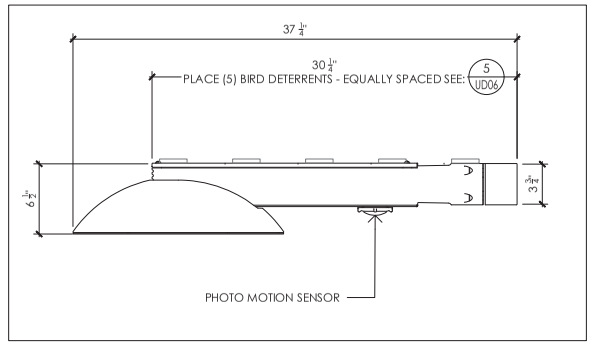
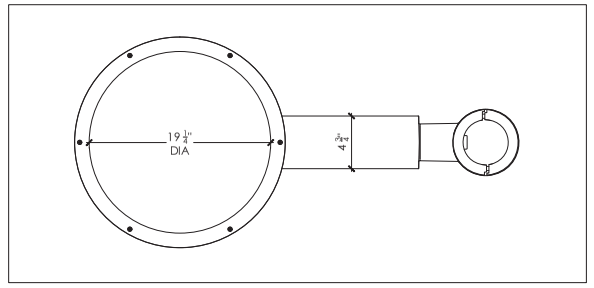


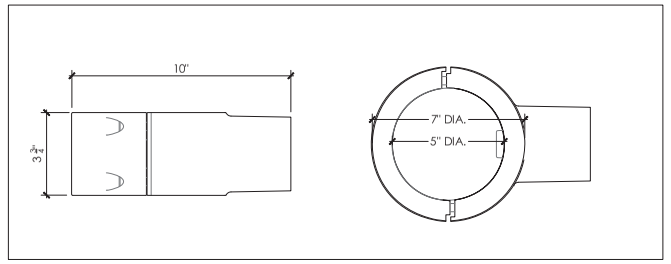
1 PEDESTRIAN LIGHT FRONT VIEW
1/2" = 1'-0"



2 PEDESTRIAN LIGHT DETAILED SIDE VIEW
1 1/2" = 1'-0"



3 PEDESTRIAN LIGHT DETAILED BOTTOM VIEW
1 1/2" = 1'-0"



4 PEDESTRIAN LIGHT BRACKET DETAIL
1 1/2" = 1'-0"

NOTE:
'PEDESTRIAN LIGHT' TO BE LEO AREA LIGHT LE SERIES:

POLE: 12FT
WT: 40 LB
EPA: 1.14 FT2
PHOTO/MOTION SENSOR

LEO Area Light

landscapeforms

Product Data Sheet | LE330 & LE350

General Description
- Single, double, or staggered configurations
- Offered in 4 standard pole heights (12', 16', 20', and 25')
- Simple clamping mechanism mounts to 4", 5", and 6" diameter poles
- Optional ANSI C136.41 7-pin twist lock receptacle
- Optional photo/motion sensor
- Mounting template and anchor hardware included
- Cast aluminum luminaire ships prewired and fully assembled
- Zero up-light, International Dark-Sky approved
- UL Listed, suitable for wet locations

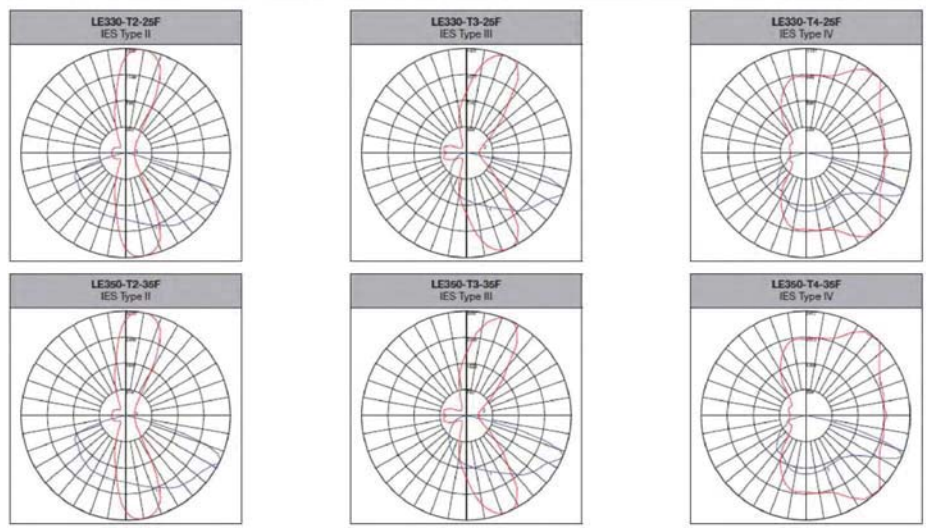
Distributions

Electrical
Surge protected 100V-277V 50/60 Hz, dimmable Class 2 LED driver mounted within cast aluminum driver compartment. LED cartridge with weatherproof quick-disconnect provides ease of installation and serviceability. LEO ships prewired.

Housing
Luminaire components are cast aluminum. Acrylic lens seals to the LED cartridge housing. Luminaire mounts to 4", 5", and 6" diameter poles with a simple clamping mechanism and is secured with four screws. Driver compartment cover is secured by two screws on top of the luminaire. All hardware is magni-coated.

LEO Area Light
Light Source: Nichia LEDs
Color Temperature: 3000K, 3500K, 4000K
CRI: 80 min
Optics: PMMA
Lens: Clear or Frosted Acrylic

Model	Distribution Type	Drive Current	Lumens	Watts	Efficacy	BUG Rating
LE330-T2-25F-LO	Type II	250mA	2929	24	122	B1-U0-G1
LE330-T2-37F-HO	Type II	375mA	4245	37	115	B1-U0-G1
LE330-T3-25F-LO	Type III	250mA	2819	24	117	B1-U0-G1
LE330-T3-37F-HO	Type III	375mA	4085	37	110	B1-U0-G1
LE330-T4-25F-LO	Type IV	250mA	2787	24	116	B1-U0-G1
LE330-T4-37F-HO	Type IV	375mA	4039	37	109	B1-U0-G1
LE350-T2-34F-LO	Type II	340mA	6259	55	114	B2-U0-G2
LE350-T2-46F-HO	Type II	460mA	8119	73	113	B2-U0-G2
LE350-T3-34F-LO	Type III	340mA	6024	55	110	B1-U0-G1
LE350-T3-46F-HO	Type III	460mA	7814	73	107	B2-U0-G2
LE350-T4-34F-LO	Type IV	340mA	5956	55	108	B2-U0-G2
LE350-T4-46F-HO	Type IV	460mA	7726	73	106	B2-U0-G2



6 PEDESTRIAN LIGHT PRODUCT SHEET
1 1/2" = 1'-0"

5 BIRD DETERRENT PRODUCT SHEET
1 1/2" = 1'-0"

DESIGNED: MM/YY
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NORTH PORTWALK AND SEAWALL RECONSTRUCTION
336 Admiral Way; Edmonds, Washington

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PEDESTRIAN LIGHT & TRASH ENCLOSURE DETAILS

NOTE: SCALES SHOWN ARE FOR 24"X36" SHEETS

MAKERS
ADDRESS: 500 UNION ST. SUITE 700
SEATTLE, WA 98101
TEL: (206) 652-5080
FAX: (206) 652-5079

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Project No.
2045

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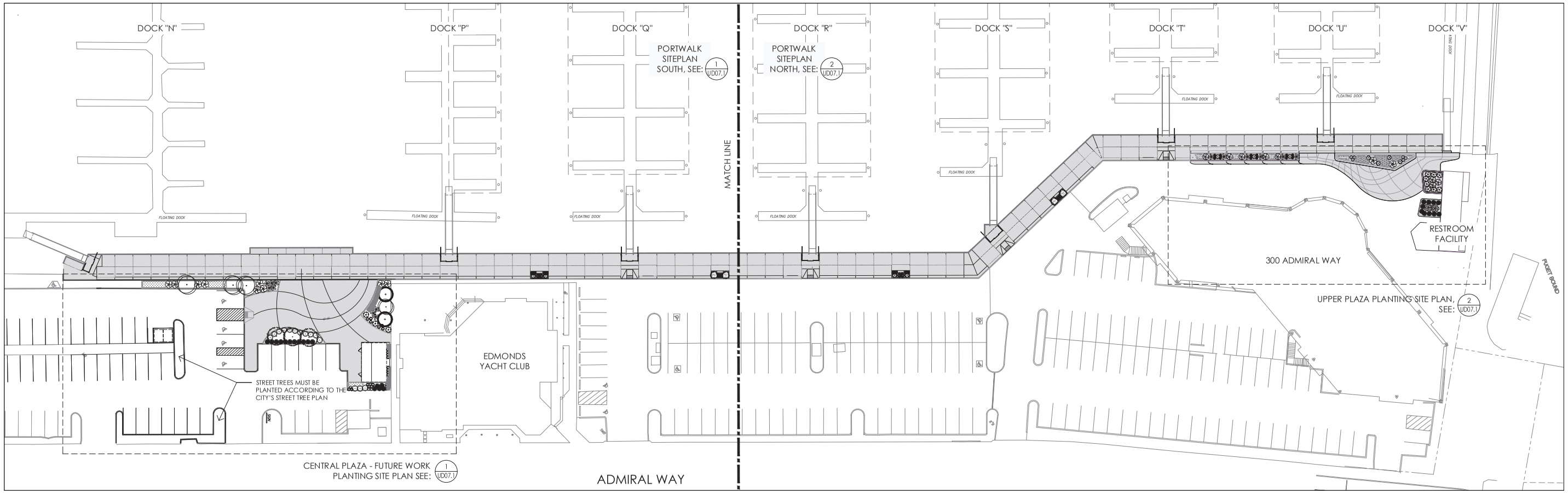

1 GENERAL PLANTING SITE PLAN
1"= 32'-0"
0' 16' 32' 64'

	Scientific Name	Common Name	Size	Quantity
	Acer palmatum 'Shishigashira'	Japanese Maple	3" cal	3
	Cornus nuttallii	Pacific Dogwood	3" cal	4
	Pinus contorta	Shore Pine	3" cal	2
	Acer palmatum 'Mikawa Yatsubusa'	Japanese Maple	10 gal	
	Ceanothus sanguineus	Red Stem Ceanothus	5 gal	14
	Cornus sericea	Red Osier Dogwood	5 gal	3
	Gaultheria shallon	Salal	3 gal	26
	Hosta "Guacamole"	Hosta		
	Lupinus litooralis	Broadleaf Lupine	3 gal	12
	Mahonia (Berberis) aquifolium	Tall Oregon grape	5 gal	22
	Nandina domestica	Heavenly Bamboo	5 gal	23
	Ribes sanguineum	Flowering Currant	5 gal	11
	Rosa nutkana	Nootka Rose	5 gal	14
	Pinus mugo 'Tannenbaum'	Mugo Pine	5 gal	2
	Polystichum munitum	Sword fern	3 gal	6
	Prunus laurocerasus 'Monarone'	Cherry Laurel	3 gal	
	Armeria maritima	Thrif/Sea Pink		
	Deschampsia cespitosa	Tufted Hairgrass	12"x12"	150 SF
	Arctostaphylos uva-ursi	Kinnikinnik	12"x12"	120 SF

2 PLANTING SCHEDULE

NOTES:
1 CONTRACTOR SHALL ARRANGE TO MEET ON SITE WITH THE PROJECT REP TO DISCUSS LIMITS OF WORK AND METHODS. CONSTRUCTION ACTIVITIES SHALL NOT COMMENCE UNTIL ACCESS, LMITS OF WORK, AND METHODS ARE APPROVED. ALL SAFETY FENCING AND TESC MEASURES MUST BE INSTALLED PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES.
2 ALL PLANTS TO BE SAVED AND PROTECTED WITHIN PLANTING AREAS WILL BE FLAGGED BY ENGINEER. NOTIFY ENGINEER FIVE (5) DAYS PRIOR TO START OF CLEARING ACTIVITY.
3 MITIGATION PLANTING PLANS REPRESENT A CONCEPTUAL PLANT LAYOUT. FINAL PLANT LOCATIONS SHALL BE APPROVED BY PROJECT REP PRIOR TO PLANTING, COORDINATE DATA WILL BE PROVIDED ELECTRONICALLY FOR LOCATION OF PLANTING AREA BOUNDARIES.
4 ALL PLANTS SHALL BE NURSERY GROWN A MINIMUM OF ONE YEAR, PLANT MATERIAL IS TO BE SUPPLIED BY COMMERCIAL NURSERIES. PLANT SUBSTITUTIONS ARE SUBJECT TO APPROVAL BY PROJECT REP.
5 MITIGATION PLANTING SHALL TAKE PLACE DURING THE DORMANT SEASON (OCTOBER 1ST TO MARCH 1ST). PLANTING MAY BE ALLOWED AT OTHER TIMES AFTER REVIEW AND WRITTEN APPROVAL BY PROJECT REP.
6 THE CONTRACTOR SHALL BE RESPONSIBLE FOR DISPOSING OF ALL DEBRIS AND EXCESS SOIL OCCASIONED BY THIS PROJECT.
7 CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO EXCAVATION.
8 ALL DIMENSIONS FOR LISTED HEIGHT, LEGNTH, AND CONTAINER SIZE ARE MINIMUM REQUIREMENTS.
9 EXISTING AREAS DISTURBED BY CONSTRUCTION ACTIVITIES AND NOT SHOWN TO BE RE-VEGETATED ON THESE PLANS SHALL BE RESTORED AND SEEDED.
10 DISCREPANCIES BETWEEN THE PLANS AND SITE CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT REP PRIOR TO PROCEEDING WITH EFFECTED WORK.
11 SEE SP SHEETS FOR TEMPORARY EROSION CONTROL MEASURES.
12 CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING PLANTS FOR THE FIRST YEAR AFTER ACCEPTANCE OF COMPLETION OF PLANTING FOR THE PROJECT. COUNTY WILL MAKE PROVISIONS FOR WATERING AS NEEDED FOR THE REMAINDER OF THE ESTABLISHMENT PERIOD AFTER THE FIRST YEAR.
12 CONTRACTOR SHALL REMOVE ALL TREE STAKES AT THE END OF ONE (1) YEAR.

TEMPORARY IRRIGATION NOTES:
1 VERIFY LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.
2 ALL WORK SHALL BE IN ACCORDANCE WITH SPECIFICATIONS SECTION 8-03 "IRRIGATION SYSTEMS".
3 CONTRACTOR SHALL PROTECT ALL EXISTING IMPROVEMENTS. DAMAGE TO THE EXISTING IMPROVEMENTS SHALL BE REPAIRED OR REPLACED TO THE SOLE SATISFACTION OF THE OWNER AT NO COST.
4 CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A SCALED IRRIGATION PLAN AND APPLICABLE CONSTRUCTION DETAILS WHICH GRAPHICALLY IDENTIFIES THE LOCATION, SIZES, AND TYPES OF IRRIGATION EQUIPMENT PROPOSED FOR REVIEW AND APPROVAL BY OWNER'S REP. CONTRACTOR SHALL ALSO FIELD VERIFY STATIC PRESSURE PRIOR TO DESIGN PREPARTION.
5 ALL WORK SHALL BE IN COMPLIANCE WITH STATE AND LOCAL CODES.
6 LOCATE ALL VALVES WITHIN ONE (1) FOOT OF THE MAINLINE.
7 FIELD VERIFY ALL SPRINKLER HEAD LOCATIONS (FLAGGING) FOR REVIEW AND APPROVAL BY OWNER'S REP BEFORE TRENCHING.

DESIGNED: MM/YY
DRAWN:
CHECKED:

PORT OF EDMONDS
NORTH PORTWALK AND SEAWALL RECONSTRUCTION
336 Admiral Way; Edmonds, Washington

NOTE: SCALES SHOWN ARE FOR 24"X36" SHEETS

DRAWING TITLE
PLANTING SITE PLAN & SCHEDULE

MAKERS
ADDRESS: 500 UNION ST. SUITE 700
SEATTLE, WA 98101
TEL: (206) 652-5080
FAX: (206) 652-5079

7/28/21

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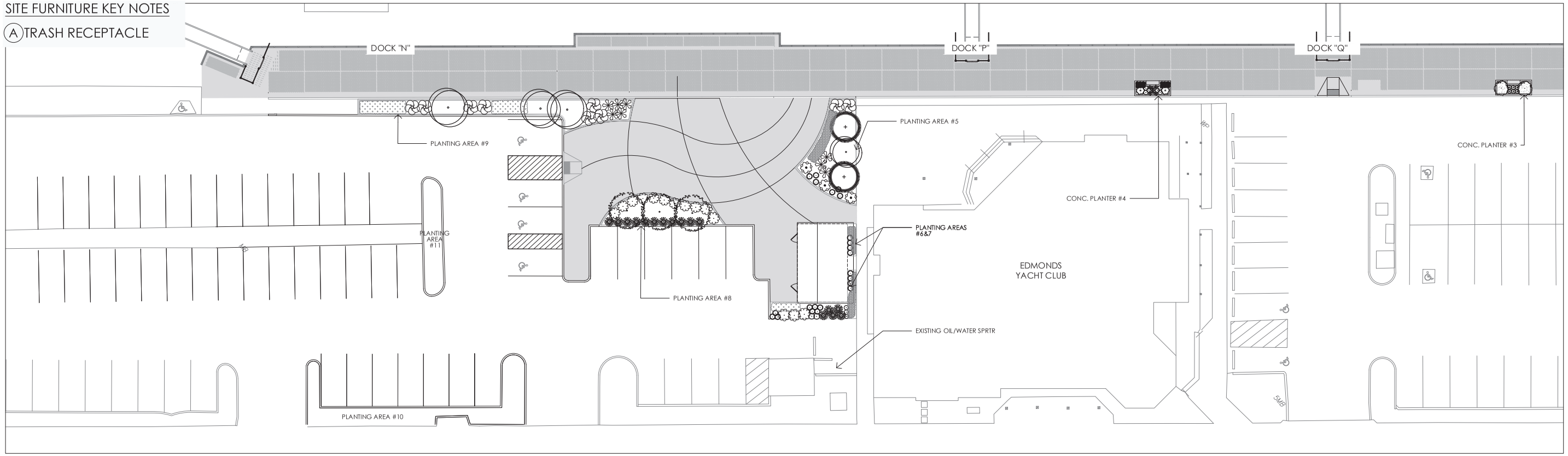
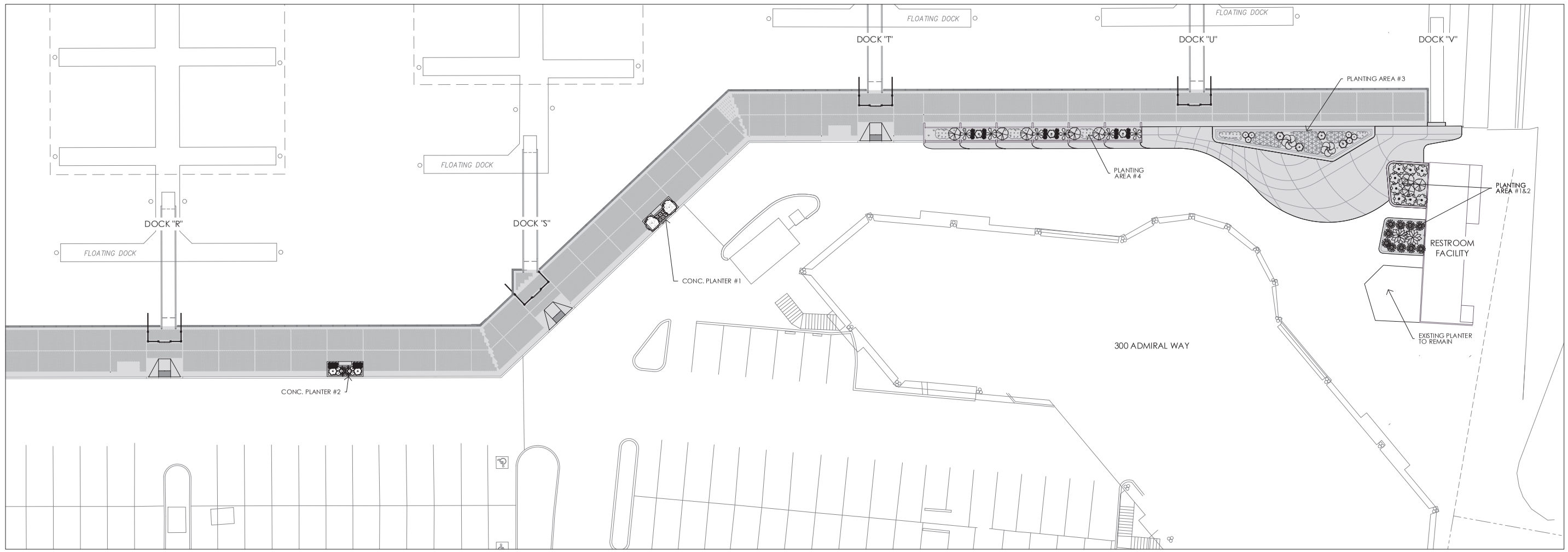
SITE FURNITURE KEY NOTES

Ⓐ TRASH RECEPTACLE



1 CENTRAL PLAZA - FUTURE WORK PLANTING SITE PLAN
1"= 16'-0"
0 8' 16' 32'



2 UPPER PLAZA PLANTING SITE PLAN
1"= 16'-0"
0 8' 16' 32'

DESIGNED: MM/YY
DRAWN:
CHECKED:

NOTE: SCALES SHOWN ARE FOR 24"X36" SHEETS

PORT OF EDMONDS
NORTH PORTWALK AND SEAWALL RECONSTRUCTION
336 Admiral Way; Edmonds, Washington

DRAWING TITLE
ENLARGED CENTRAL & UPPER PLAZA PLANTING PLANS

MAKERS
ADDRESS: 500 UNION ST. SUITE 700
SEATTLE, WA 98101
TEL: (206) 652-5080
FAX: (206) 652-5079

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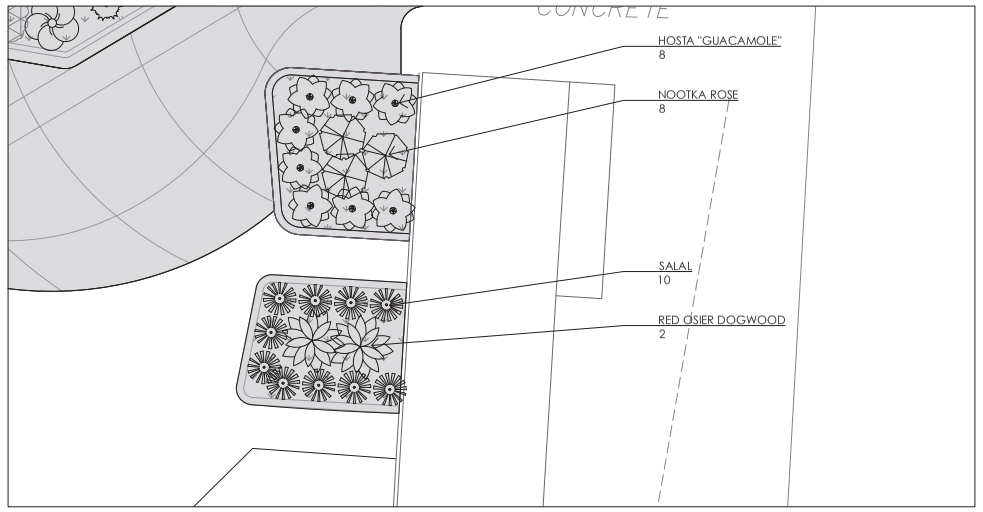
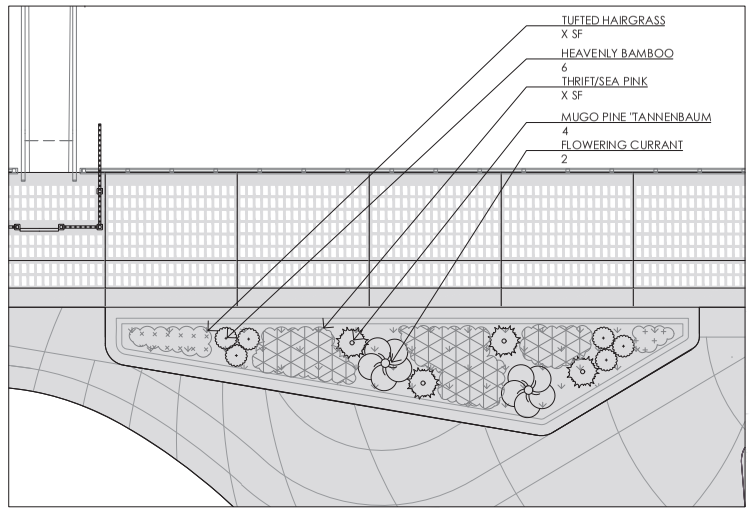
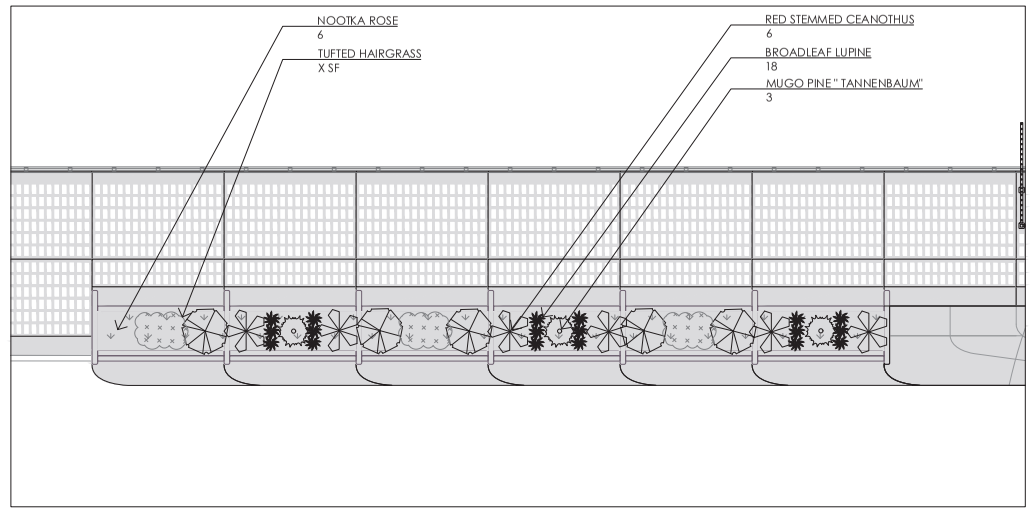


1 PLANTING AREA 1&2
1/8" = 1'-0"



2 PLANTING AREA 3
1/8" = 1'-0"



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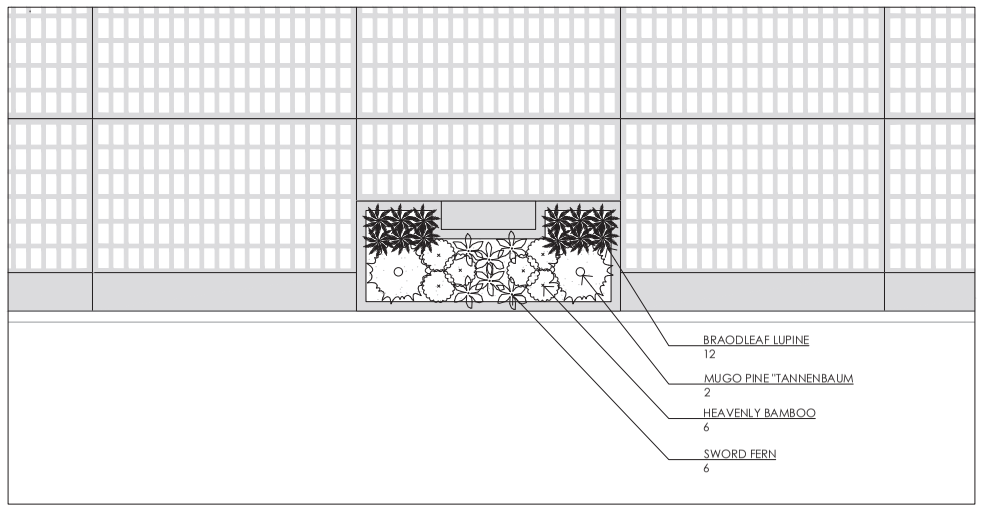
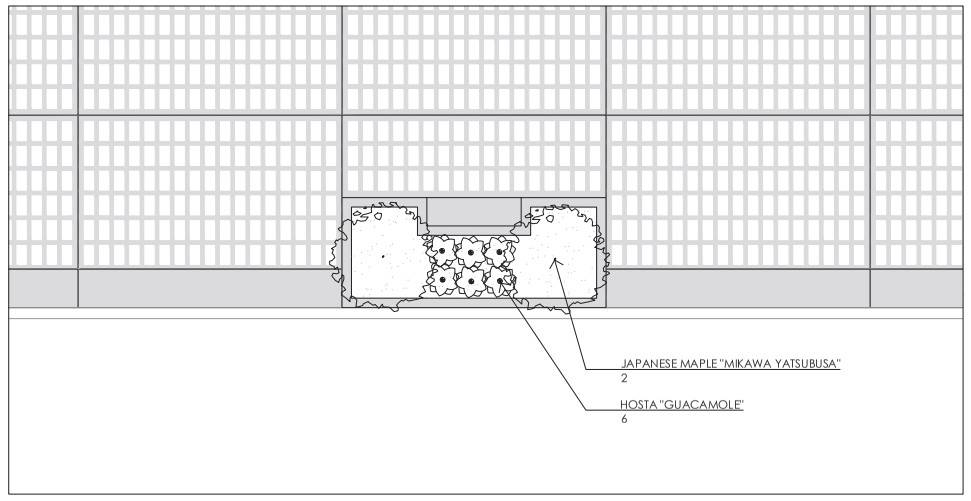
1/8" = 1'-0"



4 CONC. PLANTER 1&3
1/4" = 1'-0"



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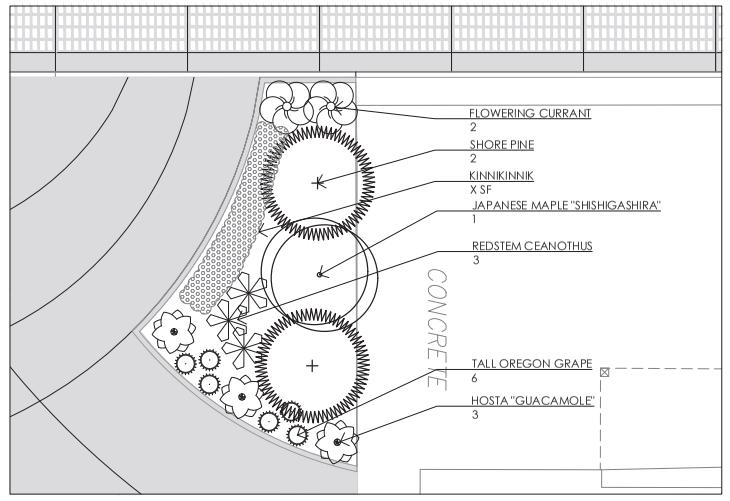
1/4" = 1'-0"



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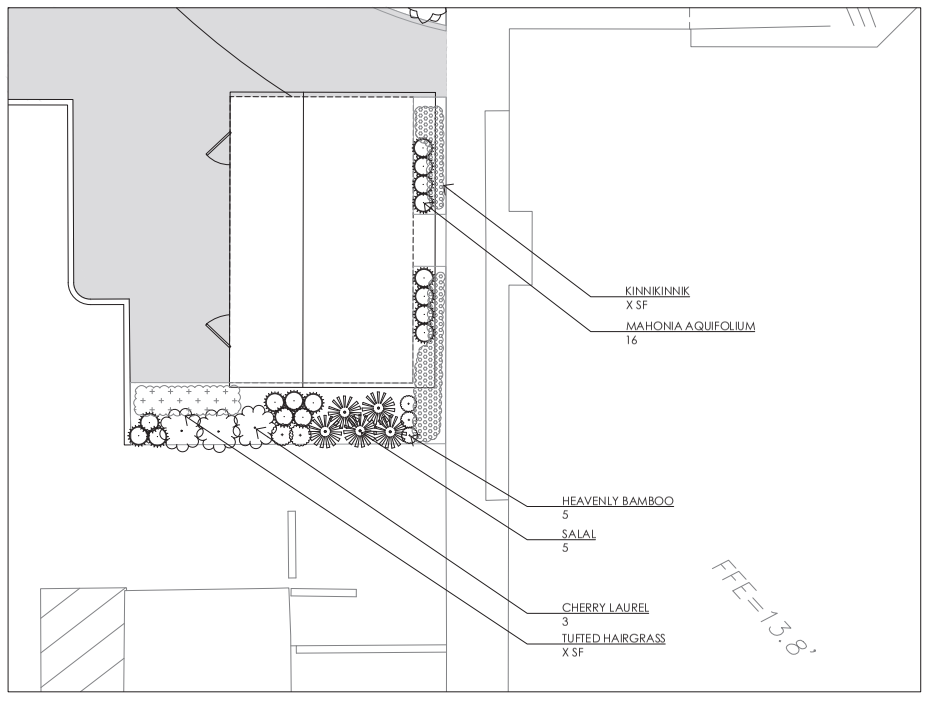
1/8" = 1'-0"



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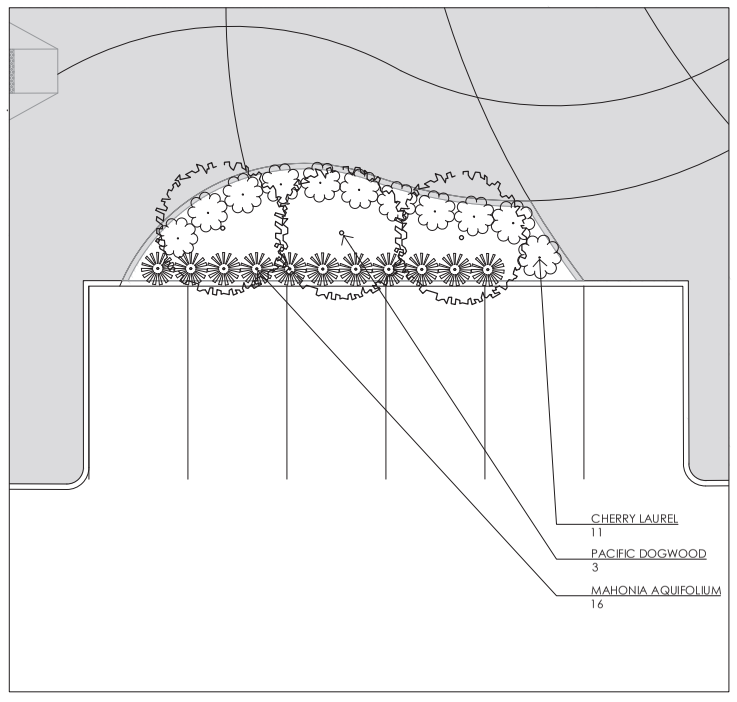
1/8" = 1'-0"



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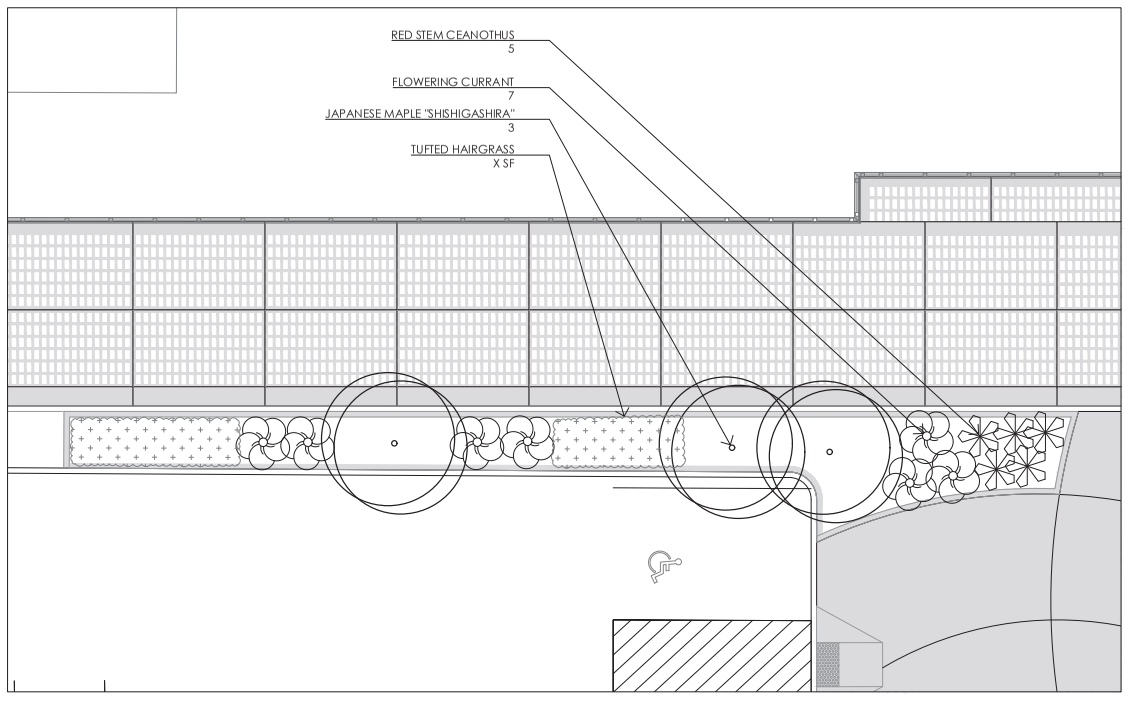
1/8" = 1'-0"



9 PLANTING AREA 9
1/8" = 1'-0"

DESIGNED: MM/YY
DRAWN:
CHECKED:

NOTE: SCALES SHOWN ARE FOR 24"X36" SHEETS

PORT OF EDMONDS
NORTH PORTWALK AND SEAWALL RECONSTRUCTION
336 Admiral Way; Edmonds, Washington

DRAWING TITLE
PLANTING PLAN CALLOUTS

MAKERS
ADDRESS: 500 UNION ST. SUITE 700
SEATTLE, WA 98101
TEL: (206) 652-5080
FAX: (206) 652-5079

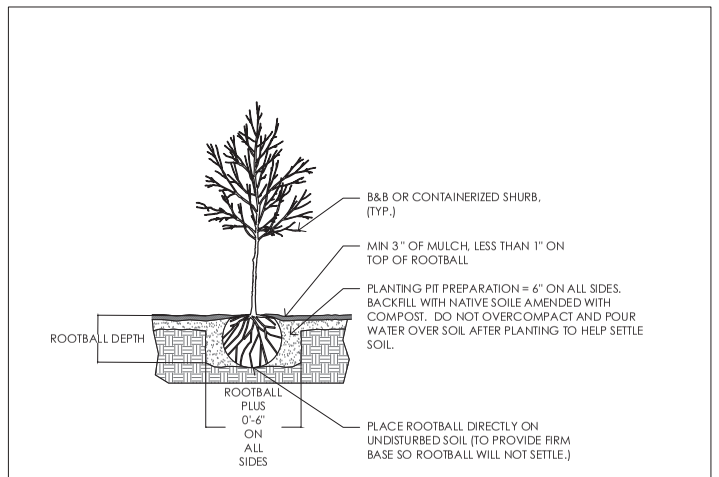
7/28/21

REVISIONS
DESCRIPTION
APPROVED
DATE

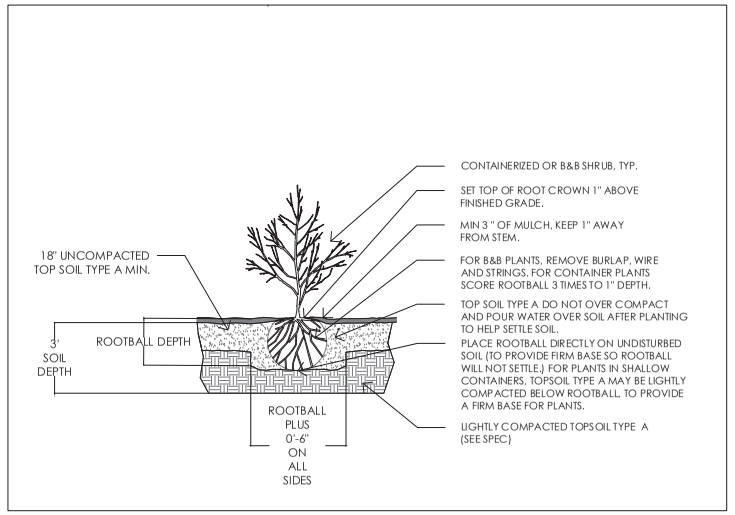
Project No.
2045

Drawing No.
UD07.2

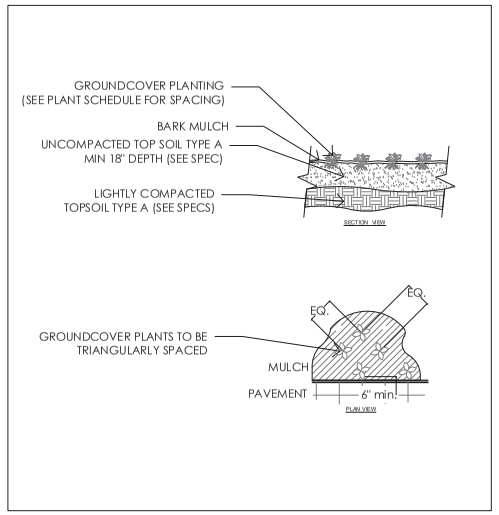
Sheet of



1 TREE PLANTING
NTS



2 SHRUB PLANTING
NTS



3 GROUNDCOVER PLANTING
NTS

DESIGNED: MM/YY
DRAWN:
CHECKED:

PORT OF EDMONDS
NORTH PORTWALK AND SEAWALL RECONSTRUCTION
336 Admiral Way; Edmonds, Washington

DRAWING TITLE
PLANTING DETAILS

NOTE: SCALES SHOWN ARE FOR 24"X36" SHEETS

MAKERS
ADDRESS: 500 UNION ST. SUITE 700
SEATTLE, WA 98101
TEL: (206) 652-5080
FAX: (206) 652-5079

7/28/21

REVISIONS

DATE	DESCRIPTION	APPROVED

Project No.
2045

Drawing No.
UD07.3

Sheet of

STRUCTURAL NOTES

(THESE NOTES ARE TYPICAL UNLESS NOTED OR DETAILED OTHERWISE ON DRAWINGS)

CODE

ALL MATERIALS, WORKMANSHIP, DESIGN, AND CONSTRUCTION SHALL CONFORM TO THE DRAWINGS, SPECIFICATIONS, AND THE INTERNATIONAL BUILDING CODE (IBC), 2018 EDITION. SPECIFICATIONS AND STANDARDS WHERE REFERENCED ON THE DRAWINGS ARE TO BE THE LATEST EDITION.

DESIGN LOADS

DEAD LOADS:
BOARDWALK 20 PSF + PRE-CAST PANEL WEIGHT

LIVE LOADS:
SNOW LOAD 25 PSF
SIDEWALK 250 PSF OR 8,000 LBS CONCENTRATED

STATEMENT OF SPECIAL INSPECTIONS

SPECIAL INSPECTIONS ARE REQUIRED AS INDICATED IN THE FOLLOWING TABLE. THE CONTRACTOR SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL AND OWNER PRIOR TO COMMENCEMENT OF WORK IN ACCORDANCE WITH SECTION 1704.4 OF THE IBC.

STEEL CONSTRUCTION - SPECIAL INSPECTION IS REQUIRED IN CONFORMANCE WITH IBC SECTION 1705.2.

CONCRETE CONSTRUCTION - SPECIAL INSPECTION IS REQUIRED IN CONFORMANCE WITH IBC SECTION 1705.3 AND TABLE 1705.3.

SPECIAL INSPECTION FOR THE ABOVE SYSTEMS SHALL BE AS INDICATED IN THE SPECIAL INSPECTION TABLE BELOW.

STRUCTURAL OBSERVATION OF THE STRUCTURAL SYSTEM BY THE ENGINEER IS NOT REQUIRED.

FREQUENCY AND DISTRIBUTION OF REPORTS - INSPECTION REPORTS SHALL BE PROVIDED FOR EACH DAY ON SITE BY SPECIAL INSPECTOR. STRUCTURAL OBSERVATION REPORTS SHALL BE PROVIDED AFTER EACH OBSERVATION. REPORTS SHALL BE DISTRIBUTED TO THE CONTRACTOR, ARCHITECT, ENGINEER AND BUILDING OFFICIAL.

SPECIAL INSPECTION

OPERATION	CONT	PERIODIC	REMARKS
SOILS			
SHORING		X	GEOTECH ENGINEER
EXCAVATION & FILL		X	GEOTECH ENGINEER
PILING REFUSAL VERIFICATION		X	
ANCHOR INSTALLATION	X		
ANCHOR LOAD TESTING	X		
CONCRETE			
REINFORCING PLACEMENT		X	
ANCHOR BOLTS		X	
CONCRETE TEST SPECIMENS	X		
CONCRETE PLACEMENT	X		
ADHESIVE ANCHORS	X		IF REQ'D
EXPANSION ANCHORS		X	IF REQ'D
EMBEDDED PLATES		X	
STRUCTURAL STEEL			
FABRICATION & ERECTION		X	
HIGH STRENGTH BOLTING		X	
SHOP & FIELD WELDING			
SINGLE PASS FILLET WELDS ≤ 5/16"		X	
FILLET WELDS > 5/16"	X		
PARTIAL & COMPLETE PENETRATION	X		
OTHER WELDING		X	

NOTE:
ALL ITEMS MARKED WITH AN "X" SHALL BE INSPECTED IN ACCORDANCE WITH IBC CHAPTER 17. SPECIAL INSPECTION SHALL BE PERFORMED BY A QUALIFIED TESTING AGENCY DESIGNATED BY THE OWNER. THE ARCHITECT, STRUCTURAL ENGINEER, AND BUILDING OFFICIAL SHALL BE FURNISHED WITH COPIES OF ALL RESULTS. ANY INSPECTION FAILING TO MEET THE PROJECT SPECIFICATIONS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE DESIGN TEAM.

SHOP DRAWINGS

SHOP DRAWINGS FOR THE FOLLOWING ITEMS SHALL BE SUBMITTED TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR REVIEW PRIOR TO FABRICATION:

1. REINFORCING STEEL
2. CONCRETE MIX DESIGN
3. GROUT MIX DESIGN
4. PRECAST CONCRETE
5. STRUCTURAL STEEL
6. HANDRAILS AND GUARDRAILS
7. SHEET PILES
8. GROUTED TIE-BACKS

SHOP DRAWINGS SHALL BE REVIEWED, REVISED AS REQUIRED FOR FIELD CONDITIONS, AND DATE STAMPED BY THE CONTRACTOR PRIOR TO REVIEW BY THE ENGINEER. CONTRACTOR SHALL PROVIDE (3) SETS OF SHOP DRAWINGS FOR ENGINEER'S REVIEW. ALLOW TWO WEEKS FOR SHOP DRAWING APPROVAL BY ENGINEER.

ENGINEER'S SHOP DRAWING REVIEW IS FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT AND CONTRACT DOCUMENTS. MARKINGS OR COMMENTS SHALL NOT BE CONSTRUED AS RELIEVING THE CONTRACTOR FROM COMPLIANCE WITH THE PROJECT PLANS AND SPECIFICATIONS. THE CONTRACTOR REMAINS RESPONSIBLE FOR DETAILS AND ACCURACY, FOR CONFORMING AND CORRELATING ALL QUANTITIES AND DIMENSIONS, FOR SELECTING FABRICATION PROCESSES, FOR TECHNIQUES OF ASSEMBLY, AND FOR PERFORMING THE WORK IN A SAFE MANNER.

ENGINEER'S SHOP DRAWING REVIEW OF STRUCTURAL COMPONENTS DESIGNED BY OTHERS IS FOR LOADS IMPOSED ON THE BASIC STRUCTURE. THE COMPONENT DESIGNER IS RESPONSIBLE FOR CODE CONFORMANCE AND ALL CONNECTIONS TO THE BASIC STRUCTURE. SHOP DRAWINGS SHALL INDICATE MAGNITUDE AND DIRECTION OF THE LOADS IMPOSED ON THE BASIC STRUCTURE AND SHALL BE STAMPED & SIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE SAME STATE AS THE PROJECT.

FABRICATION SHALL BEGIN ONLY AFTER SHOP DRAWINGS BEARING THE STAMP AND SIGNATURE OF THE PROJECT ARCHITECT, ENGINEER OF RECORD, AND CONTRACTOR HAVE BEEN RECEIVED.

DEFERRED APPROVAL ITEMS

SUBMITTAL DOCUMENTS FOR DEFERRED SUBMITTAL ITEMS SHALL BE SUBMITTED TO THE ARCHITECT OR ENGINEER OF RECORD WHO SHALL REVIEW THEM AND INDICATE THAT THE DEFERRED SUBMITTAL DOCUMENTS HAVE BEEN REVIEWED AND THAT THEY HAVE BEEN FOUND TO BE IN GENERAL CONFORMANCE WITH THE DESIGN OF THE BUILDING. THE DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THEIR DESIGN AND SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY THE BUILDING OFFICIAL.

1. HANDRAILS AND GUARDRAILS
2. PRECAST CONCRETE

FOUNDATIONS

SOILS REPORT: REPORT NO:
PREPARED BY:
DATED:

ALLOWABLE SOIL PRESSURE: 2000 PSF

LATERAL EARTH PRESSURE:
UNRESTRAINED: 35 PCF + ANY APPLICABLE SURCHARGE
RESTRAINED: 50 PCF + ANY APPLICABLE SURCHARGE
PASSIVE: 300 PCF
COEFFICIENT OF FRICTION: 0.35

BACKFILL BEHIND ALL RETAINING WALLS WITH WELL-DRAINING, GRANULAR FILL AND PROVIDE FOR SUBSURFACE DRAINAGE. PROVIDE DAMPPROOFING AT EXTERIOR FACE OF ALL FOUNDATION WALLS EXPOSED TO EARTH PER ARCHITECTURAL SPECIFICATIONS.

EXCAVATIONS AND DRAINAGE INSTALLATION SHALL BE OBSERVED BY A SOILS ENGINEER RETAINED BY THE OWNER. IF EXCAVATION SHOWS SOIL CONDITIONS TO BE OTHER THAN THOSE ASSUMED ABOVE NOTIFY THE STRUCTURAL ENGINEER FOR POSSIBLE FOUNDATION REDESIGN.

CONCRETE

ALL CONCRETE SHALL BE MIXED, PROPORTIONED, CONVEYED, AND PLACED IN ACCORDANCE WITH CHAPTER 26 OF ACI 318 AND THE AMERICAN CONCRETE INSTITUTE'S SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS (ACI 301).

ALL CONCRETE SHALL BE STONE-AGGREGATE CONCRETE HAVING A UNIT WEIGHT OF APPROXIMATELY 150 POUNDS PER CUBIC FOOT.

CONCRETE STRENGTHS AT 28 DAYS ($f'c$) AND MIX CRITERIA SHALL BE AS FOLLOWS:

TYPE OF CONSTRUCTION	f'c	MAXIMUM WATER/CEMENT RATIO	MIN CEMENT CONTENT PER CUBIC YARD	MAXIMUM SHRINKAGE STRAIN
SLABS ON GRADE	5000 PSI	0.55	5 1/2 SACK	N/A
GRADE BEAMS	5000 PSI	0.50	5 1/2 SACK	N/A
ELEVATED SLABS	5000 PSI	0.45	6 1/2 SACK	0.034%

THE MINIMUM AMOUNT OF CEMENT LISTED ABOVE MAY BE CHANGED IF A CONCRETE PERFORMANCE MIX IS SUBMITTED TO THE ENGINEER AND THE BUILDING DEPARTMENT FOR APPROVAL TWO WEEKS PRIOR TO PLACING ANY CONCRETE. THE PERFORMANCE MIX SHALL INCLUDE THE AMOUNTS OF CEMENT, FINE AND COARSE AGGREGATE, WATER, AND ADMIXTURES AS WELL AS THE WATER-CEMENT RATIO, SLUMP, CONCRETE YIELD, AND SUBSTANTIATING STRENGTH DATA IN ACCORDANCE WITH CHAPTER 26 OF ACI 318.

ALL CONCRETE EXPOSED TO WEATHER OR TO FREEZING TEMPERATURES SHALL BE AIR-ENTRAINED IN ACCORDANCE WITH ACI 318 TABLE 19.3.3.1 FOR MODERATE EXPOSURE CLASS F1.

REINFORCING STEEL

REINFORCING STEEL SHALL BE DEFORMED BILLET STEEL CONFORMING TO ASTM A615, AND SHALL BE GRADE 60 (Fy = 60,000 PSI), UNLESS NOTED OTHERWISE. GRADE 60 REINFORCING BARS INDICATED ON DRAWINGS TO BE WELDED SHALL CONFORM TO ASTM A706. REINFORCING COMPLYING WITH ASTM A615 MAY BE WELDED IF MATERIAL PROPERTY REPORTS INDICATING CONFORMANCE WITH WELDING PROCEDURES SPECIFIED IN AWS D1.4 ARE SUBMITTED.

WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185. PROVIDE WELDED WIRE FABRIC IN SHEETS NOT ROLLS. LAP WELDED WIRE FABRIC 12" AT SIDES AND ENDS.

REINFORCING STEEL SHALL BE DETAILED INCLUDING HOOKS AND BENDS IN ACCORDANCE WITH ACI SP-66 AND ACI 318, LATEST EDITIONS. UNLESS OTHERWISE NOTED, REINFORCING SPLICE LENGTHS AND DEVELOPMENT LENGTHS SHALL BE PER SCHEDULE.

REINFORCING SHALL BE PLACED AND ADEQUATELY SUPPORTED PRIOR TO PLACING CONCRETE. WET-SETTING EMBEDDED ITEMS IS NOT ALLOWED WITHOUT PRIOR ENGINEER APPROVAL. BARS PARTIALLY EMBEDDED IN HARDENED CONCRETE SHALL NOT BE FIELD BENT UNLESS SO DETAILED OR APPROVED BY THE STRUCTURAL ENGINEER. REFER TO CHAPTER 25 OF ACI 318 FOR OTHER REINFORCING STEEL REQUIREMENTS.

MINIMUM LAPS AND EMBEDMENT

UNLESS OTHERWISE NOTED, REINFORCING SPLICE LENGTHS AND DEVELOPMENT LENGTHS SHALL BE AS TABULATED BELOW:

f'c = 5000 PSI						
BAR SIZE	DEVELOPMENT LENGTH			LAP SPLICE		
	TENSION		COMPRESSION	TENSION		COMPRESSION
	TOP BARS	OTHER BARS	ALL BARS	TOP BARS	OTHER BARS	ALL BARS
#3	17	13	7	22	17	12
#4	23	17	9	29	23	15
#5	28	22	11	36	28	19
#6	34	26	13	43	34	23
#7	49	38	15	63	49	27
#8	56	43	17	72	56	30

NOTE:
1. ALL LENGTHS ARE IN INCHES.
2. ALL LAP SPLICES ARE CLASS B.
3. "TOP BARS" ARE HORIZONTAL REINFORCEMENT PLACED SUCH THAT MORE THAN 12 INCHES OF CONCRETE IS CAST IN THE MEMBER BELOW THE BAR.

CONCRETE COVER ON REINFORCING

CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: 3"

CONCRETE EXPOSED TO EARTH AND WEATHER:
#6 BARS AND LARGER 2 1/2"
#5 BARS AND SMALLER 2 1/2"

CONCRETE NOT EXPOSED TO EARTH OR WEATHER:
SLABS, WALLS AND JOISTS 3"
COLUMN TIES OR SPIRALS AND BEAM STIRRUPS 2 1/2"

PANEL JOINT GROUT

GROUT SHALL CONSIST OF CEMENT AND PAVING SAND WITH A MINIMUM COMPRESSIVE STRENGTH OF 5000 PSI WHEN TESTED IN ACCORDANCE WITH ASTM C-109 UNO BY PANEL MANUFACTURER. USE A MAXIMUM OF FIVE GALLONS OF WATER PER SACK OF CEMENT. GROUT SHALL BE MIXED AND PLACED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

PRE-CAST CONCRETE PANELS

PRE-CAST CONCRETE PANELS SHALL BE SIZED AND DETAILED TO FIT DIMENSIONS AND LOADS INDICATED ON THE STRUCTURAL DRAWINGS. ALL DESIGN SHALL BE IN ACCORDANCE WITH ACI STANDARD 318, CHAPTER 19 OF THE INTERNATIONAL BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE, AND ANY APPLICABLE LOCAL BUILDING CODE REQUIREMENTS, ALL LATEST EDITIONS. SHOP DRAWINGS AND CALCULATIONS SHALL BE SUBMITTED TO ENGINEER OF RECORD FOR REVIEW AND APPROVAL TWO WEEKS PRIOR TO MANUFACTURING.

PROVIDE ADEQUATE WALL SHORING AND BRACING UNTIL PANELS ARE PERMANENTLY INSTALLED. VERIFY THAT CONDITIONS ARE SATISFACTORY FOR PROPER INSTALLATION OF SLABS PRIOR TO DELIVERY. MANUFACTURER SHALL PROVIDE ALL SPECIALTY ITEMS REQUIRED FOR A COMPLETE INSTALLATION OF PANELS. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

CONCRETE GENERAL NOTES

VERTICAL BARS SHALL START FROM TOP OF FOOTING. HORIZONTAL BARS SHALL START A DISTANCE OF 1/2 THE NORMAL BAR SPACING FROM TOP OF FOOTING AND TOP OF FRAMED SLABS. IN ADDITION, THERE SHALL BE A HORIZONTAL BAR AT A MAXIMUM OF 3" FROM TOP OF WALL AND BOTTOM OF FRAMED SLABS.

PROVIDE CORNER BARS TO MATCH THE HORIZONTAL REINFORCING WITH TENSION LAP SPLICE AT EACH SIDE PER TABLE, OR BEND ONE SIDE OVER TO PROVIDE TENSION LAP.

PROVIDE CONTROL OR CONSTRUCTION JOINTS IN SLABS ON GRADE TO BREAK UP SLAB INTO RECTANGULAR AREAS OF NOT MORE THAN 400 SQUARE FEET EACH. AREAS TO BE AS SQUARE AS PRACTICAL AND HAVE NO ACUTE ANGLES. JOINT LOCATIONS TO BE APPROVED BY THE ARCHITECT.

ALL CONSTRUCTION JOINTS SHALL BE THOROUGHLY CLEANED AND PROPERLY PREPARED IMMEDIATELY PRIOR TO POURING OF CONCRETE. DOWEL STEEL SHALL BE THE SAME SIZE AND SPACING AS MAIN REINFORCING DETAILED BEYOND JOINT.

SEE ARCHITECTURAL DRAWINGS AND MECHANICAL DRAWINGS FOR EXACT LOCATIONS AND DIMENSIONS OF OPENINGS IN CONCRETE WALLS, FLOORS AND ROOF. UNLESS INDICATED OTHERWISE, REINFORCE AROUND OPENINGS GREATER THAN 12" IN EITHER DIRECTION WITH (2) #5 EACH SIDE AND (1) #5 x 4'-0" DIAGONAL AT EACH CORNER. EXTEND BARS 2'-0" BEYOND EDGE OF OPENING. IF 2'-0" IS UNAVAILABLE, EXTEND AS FAR AS POSSIBLE AND HOOK. HOOK ALL REINFORCING INTERRUPTED BY OPENINGS.

BARS PARTIALLY EMBEDDED IN HARDENED CONCRETE SHALL NOT BE FIELD BENT UNLESS SO DETAILED OR APPROVED BY THE STRUCTURAL ENGINEER.

SEE ARCHITECTURAL DRAWINGS FOR ALL GROOVES, NOTCHES, CHAMFERS, FEATURE STRIPS, COLOR, TEXTURE AND OTHER FINISH DETAILS AT ALL EXPOSED CONCRETE SURFACES. PROVIDE 3/4" CHAMFER AT ALL CORNERS EXCEPT AS NOTED.

NON-SHRINK GROUT

NON-SHRINK GROUT SHALL BE CEMENT-BASED WITH A MINIMUM COMPRESSIVE STRENGTH OF 5000 PSI WHEN TESTED IN ACCORDANCE WITH ASTM C-109. GROUT SHALL BE MIXED AND PLACED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

STRUCTURAL STEEL

STRUCTURAL STEEL DESIGN, FABRICATION AND ERECTION SHALL BE IN ACCORDANCE WITH THE AISC "SPECIFICATION FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS", LATEST EDITION.

WIDE FLANGE SHAPES SHALL CONFORM TO ASTM A992, Fy = 50 KSI.

PLATES, ANGLES, CHANNELS, AND RODS SHALL CONFORM TO ASTM A36, Fy = 36 KSI.

STRUCTURAL TUBING SHALL CONFORM TO ASTM A500 GRADE B, Fy = 46 KSI.

STEEL PIPE SHALL CONFORM TO ASTM A53 GRADE B, Fy = 35 KSI.

BOLTS CONNECTING STEEL MEMBERS SHALL CONFORM TO ASTM A325-N. BOLTS SHALL BE 3/4"Ø MINIMUM, UNO ANCHOR BOLTS SHALL CONFORM TO ASTM A307.

CONTRACTOR SHALL PROVIDE CONNECTION ADJUSTMENT TOLERANCES TO SATISFY THE REQUIREMENTS OF AISC MANUAL OF STEEL CONSTRUCTION.

UNLESS SPECIFIED AS STAINLESS STEEL, ALL STEEL MEMBERS, SHAPES, BOLTS, AND ACCESSORIES EXPOSED TO WEATHER SHALL BE HOT DIP GALVANIZED.

WELDING

WELDING SHALL CONFORM TO AWS "STRUCTURAL WELDING CODE", LATEST EDITION. ALL WELDING SHALL BE DONE WITH 70 KSI LOW HYDROGEN ELECTRODES. WHERE NOT CALLED OUT, MINIMUM FILLET WELD SIZE SHALL BE PER TABLE 5.8 IN AWS D1.1, LATEST EDITION.

WELDING OF REINFORCING BARS SHALL NOT BE PERMITTED UNLESS SPECIFICALLY CALLED OUT ON DRAWINGS OR APPROVED BY STRUCTURAL ENGINEER. WELDING OF GRADE 60 REINFORCING BARS SHALL BE PERFORMED USING LOW HYDROGEN ELECTRODES. WELDING OF GRADE 40 REINFORCING BARS SHALL BE PERFORMED USING E70XX ELECTRODES. SEE REINFORCING NOTES FOR MATERIAL REQUIREMENTS OF WELDED BARS. WELDING WITHIN 4" OF COLD BENDS IN REINFORCING BARS IS NOT PERMITTED.

ALL WELDING SHALL BE DONE BY WASHINGTON ASSOCIATION OF BUILDING OFFICIALS (WABO) CERTIFIED WELDERS.

METAL DECKING

METAL DECKING SHALL CONFORM TO AISI "SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS" AND THE STEEL DECK INSTITUTE.

METAL DECK SHALL CONFORM TO ASTM A611 GRADE C OR A653-SS WITH A MINIMUM YIELD STRESS OF 38,000 PSI. SIZE, TYPE, GAUGE AND ATTACHMENT SHALL BE AS NOTED BELOW UNLESS NOTED OTHERWISE. PROVIDE SHORING WHERE REQUIRED PER MANUFACTURER OR STRUCTURAL DRAWINGS.

INSTALL DECK WITH (3) #12 x 1" SHEET METAL SCREWS PER 36" WIDE SHEET AT SUPPORTS PERPENDICULAR TO RIBS AND WITH #12 x 1" SHEET METAL SCREWS AT 12" OC AT PERIMETER STEEL SUPPORTS. FASTEN SIDE LAPS WITH #12 x 1" SHEET METAL SCREWS AT 12" OC. PRE-DRILL HOLES AT STRUCTURAL STEEL SUPPORTS.

PROVIDE 4" MINIMUM BEARING AT ALL SUPPORTS.

CONCRETE SHALL BE NORMAL WEIGHT. NO EXPANDED SHALE IS ALLOWED.

MINIMUM SECTION PROPERTIES						
LOCATION	GAGE	WIDTH	DEPTH	SECTION MODULUS	MOMENT OF INERTIA	CONCRETE
DECK	20	36"	3"	0.528 IN^3/FT	0.907 IN^4/FT	PER PLAN

CG ENGINEERING
250 4TH AVE. S., SUITE 200
EDMONDS, WASHINGTON 98020
PHONE (425) 778-8500
FAX (425) 778-5536

PRELIMINARY
NOT FOR CONSTRUCTION
XX/ XX/ XX

MARK	DATE	DESCRIPTION
	XX/XX/XX	60% PROGRESS SET

DESIGN: DTR
DRAWN: ATD
CHECK: DMT
JOB NO: 21060.10
DATE: XX/XX/XX

NORTH PORTWALK AND SEAWALL RECONSTRUCTION
336 ADMIRAL WAY
EDMONDS, WA 98020

STRUCTURAL NOTES

FILE NAME:

SHEET:
S1.1

GENERAL STRUCTURAL NOTES

(THESE NOTES ARE TYPICAL UNLESS NOTED OR DETAILED OTHERWISE ON DRAWINGS)

GROUTED ANCHORS

GROUTED ANCHORS SHALL BE MANUFACTURED BY DYWIDAG SYSTEMS INTERNATIONAL OR ENGINEER APPROVED EQUAL. ANCHORS SHALL BE FACTORY DOUBLE CORROSION PROTECTED. REFER TO ANCHOR SCHEDULE FOR GROUTED DIAMETER AND ANCHOR ROD DIAMETER.

ANCHOR RODS SHALL CONFORM TO ASTM A722, fu = 150 KSI

ALL ANCHORS SHALL BE LOCKED OFF PER THE ANCHOR SCHEDULE

ANCHOR TESTING

EACH GROUND ANCHOR SHALL BE TESTED. THE MAXIMUM TEST LOAD SHALL NOT EXCEED THE MANUFACTURER RECOMMENDED MAXIMUM LOAD. TENDON ANCHORS SHALL BE LOADED SIMULTANEOUSLY TO THE ENTIRE TENDON. STRESSING OF A SINGLE ELEMENT OF MULTI-ELEMENT TENDONS WILL NOT BE PERMITTED.

A DIAL GAUGE OR VERNIER SCALE CAPABLE OF MEASURING TO 0.001 INCHES SHALL BE USED TO MEASURE THE GROUND ANCHOR MOVEMENT. THE MOVEMENT MEASURING DEVICE SHALL HAVE A MINIMUM TRAVEL EQUAL TO THE THEORETICAL ELASTIC ELONGATION OF THE TOTAL ANCHOR LENGTH AT THE MAXIMUM TEST LOAD PLUS 1 INCH. THE DIAL GAUGE OR VERNIER SCALE SHALL BE SUPPORTED INDEPENDENT OF THE JACKING SYSTEM & RETAINED STRUCTURE & SHALL BE ALIGNED SO THAT ITS AXIS IS WITHIN 5° FROM THE AXIS OF THE GROUND ANCHOR.

A HYDRAULIC JACK OR RAM SHALL BE USED TO APPLY THE TEST LOAD. THE JACK & PRESSURE GAUGE SHALL BE CALIBRATED BY AN INDEPENDENT TESTING LABORATORY AS A UNIT. THE PRESSURE GAUGE SHALL BE GRADUATED IN 100 PSI INCREMENTS OR LESS. THE RAM TRAVEL OF THE JACK SHALL NOT BE LESS THAN THE THEORETICAL ELASTIC ELONGATION OF THE TOTAL ANCHOR LENGTH AT THE MAXIMUM TEST LOAD PLUS 1 INCH. THE JACK SHALL BE INDEPENDENTLY SUPPORTED & CENTERED OVER THE ANCHOR SO THAT THE ANCHOR DOES NOT CARRY THE WEIGHT OF THE JACK.

ANCHOR LOAD TEST

AT LEAST (2) ANCHOR SHALL BE PERFORMANCE TESTED TO 200% OF THE DESIGN LOAD. ANCHORS TO BE TESTED SHALL BE SELECTED BY THE GEOTECHNICAL ENGINEER. ADDITIONAL ANCHOR TESTS MAY BE REQUIRED AT THE REQUEST OF THE GEOTECHNICAL SPECIAL INSPECTOR. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION OF WHALERS IF REQUIRED TO LIMIT PILE DEFLECTION DURING TESTING. THE PERFORMANCE TEST SHALL BE COMPLETED BY INCREMENTALLY LOADING THE GROUND ANCHOR IN ACCORDANCE WITH THE FOLLOWING TABLE.

ANCHOR LOADING		ANCHOR UNLOADING	
LOAD	HOLD TIME	LOAD	HOLD TIME
ALIGNMENT LOAD	1 MINUTE	175% DESIGN LOAD	UNTIL STABLE
25% DESIGN LOAD	5 MINUTES	150% DESIGN LOAD	UNTIL STABLE
50% DESIGN LOAD	5 MINUTES	125% DESIGN LOAD	UNTIL STABLE
75% DESIGN LOAD	5 MINUTES	100% DESIGN LOAD	UNTIL STABLE
100% DESIGN LOAD	5 MINUTES	75% DESIGN LOAD	UNTIL STABLE
125% DESIGN LOAD	5 MINUTES	50% DESIGN LOAD	UNTIL STABLE
150% DESIGN LOAD	5 MINUTES	25% DESIGN LOAD	UNTIL STABLE
175% DESIGN LOAD	5 MINUTES	ALIGNMENT LOAD	UNTIL STABLE
200% DESIGN LOAD	60 MINUTES		

THE ALIGNMENT LOAD (AL) SHOULD BE THE MINIMUM LOAD REQUIRED TO ALIGN THE TESTING APPARATUS & SHOULD NOT EXCEED 5% OF THE DESIGN LOAD. DIAL GAUGES SHOULD BE SET TO ZERO AFTER THE ALIGNMENT LOAD HAS BEEN APPLIED.

A CREEP TEST SHALL BE PERFORMED DURING THE 200% DL HOLD TIME. ANCHOR MOVEMENT DURING THE CREEP TEST SHALL BE MEASURED & RECORDED AT 1, 2, 3, 5, 6, 10, 20, 30, 40, 50 & 60 MINUTES OF ELAPSED TIME FROM WHEN THE LOAD INCREMENT WAS APPLIED.

ANCHOR PROOF TEST

ALL OTHER ANCHORS SHALL BE PROOF TESTED TO 130% OF THE DESIGN LOAD BY INCREMENTALLY LOADING THE ANCHORS IN ACCORDANCE WITH THE FOLLOWING SCHEDULE. AT LOAD INCREMENTS OTHER THAN THE MAXIMUM TEST LOAD THE LOAD SHALL BE HELD LONG ENOUGH TO OBTAIN A STABLE READING.

ANCHOR LOADING	
LOAD	HOLD TIME
25% DESIGN LOAD	UNTIL STABLE
50% DESIGN LOAD	UNTIL STABLE
75% DESIGN LOAD	UNTIL STABLE
100% DESIGN LOAD	UNTIL STABLE
130% DESIGN LOAD	10 MINUTES

THE ALIGNMENT LOAD (AL) SHOULD BE THE MINIMUM LOAD REQUIRED TO ALIGN THE TESTING APPARATUS & SHOULD NOT EXCEED 5% OF THE DESIGN LOAD. DIAL GAUGES SHOULD BE SET TO ZERO AFTER THE ALIGNMENT LOAD HAS BEEN APPLIED.

THE MAXIMUM TEST LOAD SHALL BE HELD PER THE SCHEDULE. THE LOAD HOLD PERIOD SHALL START AS SOON AS THE MAXIMUM TEST LOAD IS APPLIED & THE ANCHOR MOVEMENT SHALL BE RECORDED AT 1, 2, 3, 5, 6, & 10 MINUTES. IF THE TOTAL ANCHOR MOVEMENT EXCEEDS 0.04 INCHES, THE MAXIMUM TEST LOAD SHALL BE HELD FOR AN ADDITIONAL 50 MINUTES & ANCHOR MOVEMENT SHALL BE RECORDED AT 20, 30, 50 & 60 MINUTES. IF ANCHOR FAILS IN CREEP, RETESTING WILL NOT BE ALLOWED.

ACCEPTABLE ANCHOR TESTS

A LOAD TESTED OR PROOF TESTED ANCHOR WITH A 10 MINUTE HOLD CREEP TEST IS CONSIDERED ACCEPTABLE WHEN: THE ANCHOR CARRIES THE MAXIMUM TEST LOAD WITH LESS THAN 0.04" OF MOVEMENT BETWEEN THE 1 & 10 MINUTE READINGS.

A LOAD TEST OR PROOF TESTED ANCHOR WITH A 60 MINUTE HOLD CREEP TEST IS CONSIDERED ACCEPTABLE WHEN: THE ANCHOR CARRIES THE MAXIMUM TEST LOAD WITH LESS THAN 0.08" OF MOVEMENT PER LOG CYCLE OF THE TIME & THE CREEP RATE IS LINEAR OR DECREASING.

IN ADDITION TO THE ABOVE, A TESTED ANCHOR SHALL NOT EXPERIENCE A PULLOUT FAILURE AT THE MAXIMUM TEST LOAD. A PULLOUT FAILURE IS DEFINED AS THE LOAD AT WHICH ATTEMPTS TO INCREASE THE TEST LOAD RESULT IN CONTINUED PULLOUT MOVEMENT OF THE TEST ANCHOR.

ANCHORS THAT HAVE CREEP RATES GREATER THAN SPECIFIED CAN BE INCORPORATED IN THE FINISHED WORK AT A LOAD EQUAL TO 1/2 OF THE FAILURE LOAD. THE FAILURE LOAD IS THE MAXIMUM LOAD CARRIED BY THE ANCHOR AFTER THE LOAD HAS BEEN ALLOWED TO STABILIZE FOR 10 MINUTES.

IF AN ANCHOR FAILS, THE CONTRACTOR SHALL BE RESPONSIBLE TO MODIFY THE DESIGN AND/OR THE INSTALLATION METHODS USED IN CONSTRUCTION. ANY MODIFICATIONS BY THE CONTRACTOR THAT REQUIRE CHANGES TO THE STRUCTURE SHALL HAVE PRIOR APPROVAL PER THE ENGINEER.

PILE DRIVING

PILES SHALL BE CONTINUOUSLY DRIVEN USING A VIBRATORY HAMMER. PERCUSSIVE HAMMERS AND HYDRAULIC WATERJETS MAY NOT BE USED AS A METHOD OF PLACEMENT.

PILES SHALL HAVE ADEQUATE LENGTH TO HAVE A MINIMUM EMBEDMENT 25 FT BELOW THE MUDLINE.

PILES SHALL BE CHECKED FOR HEAVE FROM ORIGINAL SEAT DURING DRIVING OF ADJACENT PILES. IF HEAVE OCCURS THE PILE SHALL BE REDRIVEN TO AT LEAST THE DEPTH OF ORIGINAL DRIVING.

PILE TOLERANCES
LOCATION: 6 INCHES MAXIMUM FROM LOCATION INDICATED FOR CENTER OF EACH PILE

PLUMBNESS: MAINTAIN 1 INCH IN 10 FEET FROM VERTICAL, OR A MAXIMUM OF 4 INCHES MEASURED FROM GRADE.

SHEET PILE

PILES SHALL BE DRIVEN INTO THE SUBGRADE BY A VIBRATORY HAMMER.

AZ 19-700
MIN Fy= 50 KSI
MIN SECTION MODULUS= 34.8 IN^3/FT
MIN MOMENT OF INERTIA= 288.4 IN^4/FT

CONTRACTOR MAY SUBMIT ALTERNATE TO BE REVIEWED AND APPROVED BY THE ENGINEER OF RECORD.

STEEL PILE SECTION

PILES SHALL BE 12"Ø x 0.375" MINIMUM.

STEEL PILES SHALL CONFORM TO ASTM A53, TYPE E OR S, GRADE B. PROVIDE SPLICE PLATES, PILE CAPS AND BOTTOM PLATES OF SAME BASIC STEEL AS PILE SECTIONS. WELD ALL FLANGE REINFORCEMENT PLATES, ANGLES, OR SHAPES WITH A CONTINUOUS FILLET WELD ON EDGES UNLESS OTHERWISE NOTES.

ALL PILES SHALL HAVE OPEN BOTTOMS.

PILE CORROSION PROTECTION

ALL ROUND PILES & WALERS & PLATES SHALL BE HOT DIP GALVANIZED.

ANY SCUFF MARKS OR SCRATCHES THAT OCCUR DURING CONSTRUCTION SHALL BE REPAIRED WITH A FIELD APPLIED GALVANIZED PAINT.

PILE REMOVAL

FULL EXTRACTION: FOR FULL EXTRACTION, THE PILE SHALL BE REMOVED EITHER BY USE OF A "CHOKER" CHAIN AND CRANE OR WITH A VIBRATOR PILE DRIVER. FOR THE "CHOKER" METHOD, THE "CHOKER" CHAIN IS PLACED SECURELY AROUND THE PILE, AND THEN THE PILE IS PULLED DIRECTLY UP BY USING A BARGE-MOUNTED CRANE, UNTIL IT IS COMPLETELY OUT OF THE SUBSTRATE. FOR THE VIBRATORY PILE DRIVING METHOD, THE VIBRATOR PILE DRIVER IS MOUNTED ON A BARGE AND VIBRATORY HAMMER IS CLAMPED ONTO THE TOP OF THE PILE. THE VIBRATORY HAMMER IS RAISED DIRECTLY UPWARD AS THE PILE LOOSENS UNTIL THE PILE IS COMPLETELY FREE FROM THE SUBSTRATE. THE VIBRATORY METHOD IS PREFERRED, BECAUSE THERE IS LESS LIKELIHOOD FOR THE PILE TO BREAK WHEN THE PILE IS FIRMLY SECURED IN THE SUBSTRATE. HYDRAULIC WATER JETS MAY NOT BE USED TO LOOSEN PILES.

PILE CUT BELOW THE MUDLINE: WHEN THE PILE IS EITHER TOO DETERIORATED OR ROTTED TO THE EXTENT THAT EXTRACTION WOULD CAUSE GREATER IMPACTS BECAUSE OF THE PILE BREAKING AND SUBSEQUENT NEED TO REMOVE ALL MATERIAL DISPERSED IN THE WATER COLUMN, THEN THE PILE SHALL BE CUT 1' MIN. BELOW THE MUDLINE. IF THE PILE INADVERTENTLY BREAKS DURING EXTRACTION, CUTTING WILL ALSO THEN OCCUR ALONG WITH REMOVAL OF THE BROKEN PORTIONS WITHIN THE WATER COLUMN. THE PILES SHALL BE CUT BY A DIVER UNDERWATER USING A PNEUMATIC SAW. DEPENDING ON THE HEIGHT OF THE PILES, THEY MAY BE CUT IN SECTIONS. ONCE AT THE MUDLINE, THE AREA AROUND THE PILE IS EXCAVATED WITH A CLAMSHELL OR HYDRAULIC DREDGE TO EXPOSE THE PILE SO THAT IT MAY BE CUT. THE DREDGED MATERIALS ARE PLACED, SECURED AND CONTAINED ON A BARGE AND DISPOSED AT A WASHINGTON STATE DEPARTMENT OF ECOLOGY APPROVED UPLAND DISPOSAL SITE. SOME SEDIMENT MAY BE PLACED ON THE BARGE, EITHER ACCUMULATED ON THE REMOVED PILLING OR INADVERTENTLY EXCAVATED WITH THE PILING REMOVAL. THIS SEDIMENT IS LIKELY TO RUN-OFF THE BARGE AND BACK INTO THE WATER COLUMN.

THE AREA WHERE THE PILING WAS REMOVED IS THEN CAPPED WITH CLEAN/WASHED SAND, OR PLACEMENT OF A STEEL OR HARD PLASTIC CAP DIRECTLY ON THE PILE. IF THE PILE BEING REMOVED IS TREATED WOOD, THEN THE AREA WOULD BE CAPPED TO ENSURE THAT THE CHEMICALS (i.e. CREOSOTE) DO NOT LEACH INTO THE ADJACENT SUBSTRATE. CAPPING MATERIAL DEPENDS ON THE SUBSTRATE, CURRENT CONDITIONS, AND BOAT ACTIVITY (POTENTIAL FOR PROPWASH) AT THE SITE. THE SAME EQUIPMENT USED TO EXCAVATE THE MATERIAL IS TYPICALLY USED TO PLACE THE CAPPED MATERIAL: A CLAMSHELL DREDGE OR TREMIE.

PILE DISPOSAL

ONCE REMOVED, THE PILE SHALL BE PLACED ON THE BARGE AND DISPOSED OF AT AN APPROPRIATE UPLAND LOCATION (DISPOSAL DEPENDS ON CHEMICAL TREATMENT OF PILING). CONTRACTOR SHALL PROVIDE CERTIFICATE OF RECEIPT THAT PILES WERE DISPOSED OF AT AN APPROVED DISPOSAL SITE.

BEST MANAGEMENT PRACTICES (BMPs)

WORK WINDOW: IN-WATER WORK SHALL ONLY OCCUR FROM 15 NOVEMBER THROUGH 15 FEBRUARY.

ONLY DURABLE AND NON-TOXIC MATERIALS SHALL BE USED FOR CONSTRUCTION.

A DEBRIS BOOM SHALL BE INSTALLED AROUND THE ENTIRE PIER. THE DEBRIS BOOM SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF WORK AND SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT.

ALL WOOD PRODUCTS USED FOR THIS PROJECT SHALL COMPLY WITH THE STANDARDS ESTABLISHED BY THE WESTERN WOOD PRESERVERS INSTITUTE IN "BEST MANAGEMENT PRACTICES FOR THE USE OF TREATED WOOD IN AQUATIC ENVIRONMENTS."

ALL WORK SHALL BE CONDUCTED FROM A BARGE OR WORK BOAT AND ALL CONSTRUCTION EQUIPMENT SHALL BE LOCATED ON THE BARGE, OR IN CONTRACTORS WORK AREA.

THE BARGE OR WORK BOAT SHALL NOT BE GROUNDED ON THE SUBSTRATE.

ANY CONSTRUCTION DEBRIS SHALL BE STOCKPILED ON THE CONSTRUCTION BARGE AND DISPOSED OF OFFSITE AT AN APPROVED UPLAND FACILITY, INCLUDING ANY DEBRIS WHICH ENTERS THE WATER. THE LOCATION OF ANY DEBRIS WHICH SINKS SHALL BE DOCUMENTED IN A LOG THAT IS KEPT AT THE SITE FOR THE DURATION OF THE PROJECT, SAID DEBRIS SHALL BE RETRIEVED AND DISPOSED OF AT AN APPROVED UPLAND FACILITY.

HYDRAULIC PROJECT APPROVALS (HPAs) ISSUED BY WDFW DIRECT THE CONTRACTOR TO TAKE EXTREME CARE FOR THE DURATION OF THE PROJECT TO "ENSURE THAT NO PETROLEUM PRODUCTS, HYDRAULIC FLUID, FRESH CEMENT, SEDIMENTS, SEDIMENT-LADEN WATER, CHEMICALS, OR ANY OTHER TOXIC OR DELETERIOUS MATERIALS ARE ALLOWED TO ENTER OR LEACH INTO THE LAKE."

CONTRACTOR MUST HAVE AN EMERGENCY SPILL RESPONSE PROCEDURE.

SPILL PREVENTION, CONTAINMENT, & CONTROL PLAN

THE CONTRACTOR SHALL DEVELOP & IMPLEMENT A SITE-SPECIFIC SPILL PREVENTION, CONTAINMENT AND CONTROL PLAN (SPCCP) & IS RESPONSIBLE FOR CONTAINMENT & REMOVAL OF ANY TOXICANTS RELEASED. THE CONTRACTOR WILL MAKE THE SPCCP AVAILABLE FOR REVIEW BY THE USACE AND USFWS. THE CONTRACTOR & APPLICANT SHALL ALLOW FOR MONITORING OF THE SITE BY USACE & OTHER REVIEWING AGENCIES DURING CONSTRUCTION. THE PLAN WILL CONTAIN THE FOLLOWING:

1. PRACTICES TO PREVENT EROSION & SEDIMENTATION ASSOCIATED WITH EQUIPMENT & MATERIAL STORAGE SITE, FUELING OPERATIONS & STAGING AREAS.
2. A DESCRIPTION OF ANY HAZARDOUS PRODUCTS OR MATERIAL THAT WOULD BE USED FOR THE PROJECT, INCLUDING PROCEDURES FOR INVENTORY, STORAGE, HANDLING, & MONITORING.
3. A SPILL CONTAINMENT AND CONTROL PLAN WITH NOTIFICATION PROCEDURES, SPECIFIC CLEAN UP & DISPOSAL INSTRUCTIONS FOR DIFFERENT PRODUCTS, QUICK RESPONSE CONTAINMENT & CLEAN UP MEASURES THAT WOULD BE AVAILABLE ON THE SITE, PROPOSED METHODS FOR DISPOSAL OF SPILLED MATERIALS, & EMPLOYEE TRAINING FOR SPILL CONTAINMENT.
4. VEHICLE CLEANING, MAINTENANCE, REFUELING, & FUEL STORAGE WILL TAKE PLACE ONLY AT AN UPLAND STAGING AREA.
5. ALL CONSTRUCTION EQUIPMENT WILL BE INSPECTED DAILY FOR FLUID LEAKS BEFORE LEAVING THE VEHICLE STAGING AREA. ANY LEAKS DETECTED MUST BE REPAIRED IN THE VEHICLE STAGING AREA BEFORE THE VEHICLE RESUMES OPERATIONS.

UTILITY LOCATION/EXISTING CONDITIONS

THE LOCATIONS OF EXISTING UTILITIES AND SITE FEATURES SHOWN HEREON HAVE BEEN FURNISHED BY OTHERS BY FIELD SURVEY OR OBTAINED FROM AVAILABLE RECORDS AND SHOULD THEREFORE BE CONSIDERED APPROXIMATE ONLY AND NOT NECESSARILY COMPLETE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO INDEPENDENTLY VERIFY THE ACCURACY OF ALL UTILITY LOCATIONS SHOWN AND TO FURTHER DISCOVER AND PROTECT ANY OTHER UTILITIES NOT SHOWN HEREON WHICH MAY BE AFFECTED BY THE IMPLEMENTATION OF THIS PLAN. CG ENGINEERING ASSUMES NO RESPONSIBILITY FOR THE COMPLETENESS OR ACCURACY OF THE EXISTING UTILITIES AND SITE FEATURES PRESENTED ON THESE DRAWINGS.

CONTRACTOR SHALL LOCATE AND PROTECT ALL UTILITIES DURING CONSTRUCTION AND SHALL CONTACT THE UNDERGROUND UTILITIES LOCATION SERVICE (1-800-424-5555) AT LEAST 48 HOURS PRIOR TO CONSTRUCTION.

CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AT THE PROJECT SITE BEFORE STARTING WORK AND SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES.

IF THE ACTUAL FIELD VERIFIED LOCATION OF UTILITIES COULD RESULT IN A CONFLICT WITH THE SHORING, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY.

PRIOR TO CONSTRUCTION, CONTRACTOR SHALL VERIFY THAT OVERHEAD OBSTRUCTIONS, INCLUDING ELECTRICAL LINES, DO NOT INTERFERE WITH USE OF THE CONTRACTOR'S DRILLING EQUIPMENT.

COORDINATE AND ARRANGE FOR ALL UTILITY RELOCATIONS AND/OR SERVICE INTERRUPTIONS WITH THE AFFECTED OWNERS AND APPROPRIATE UTILITY COMPANIES. INTERRUPTIONS TO EXISTING UTILITIES SHALL BE MADE ONLY WITH THE WRITTEN APPROVAL OF THE AUTHORITIES GOVERNING SAID UTILITIES AND WITH A MINIMUM 48 HOURS ADVANCE NOTICE.

EXISTING UTILITY LINES IN SERVICE WHICH ARE DAMAGED DUE TO CONSTRUCTION WORK SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE AND INSPECTED AND ACCEPTED BY OWNER'S REPRESENTATIVE PRIOR TO BACKFILLING.

EROSION AND SEDIMENTATION CONTROL

ALL DISTURBED SOIL AREAS SHALL BE SEEDED OR STABILIZED BY OTHER ACCEPTABLE METHODS FOR THE PREVENTION OF ON-SITE EROSION AFTER THE COMPLETION OF CONSTRUCTION.

THE CONTRACTOR SHALL KEEP OFF-SITE STREETS CLEAN AT ALL TIMES BY SWEEPING. WASHING OF STREETS WILL NOT BE ALLOWED WITHOUT PRIOR APPROVAL.

REFER TO CIVIL DRAWINGS FOR ADDITIONAL EROSION CONTROL INFORMATION.

TEMPORARY SHORING

CONTRACTOR SHALL BE RESPONSIBLE FOR AND SHALL INSTALL AND MAINTAIN TEMPORARY SHORING AND BRACING IN ADDITION TO SHORING SHOWN ON THESE PLANS AS NECESSARY TO PROTECT WORKERS, EXISTING BUILDINGS, STREETS, WALKWAYS, UTILITIES AND OTHER EXISTING AND PROPOSED IMPROVEMENTS AND EXCAVATIONS AGAINST LOSS OF GROUND OR CAVING EMBANKMENTS. CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR REMOVAL OF ANY TEMPORARY SHORING AND BRACING, AS REQUIRED.

EXISTING BUILDING

CONTRACTOR SHALL VERIFY ALL DIMENSIONS, MEMBER SIZES AND CONDITIONS OF THE EXISTING BUILDING DEPICTED IN THE DRAWINGS, AND NOTIFY THE STRUCTURAL ENGINEER OF ANY DISCREPANCIES FOR POSSIBLE REDESIGN.

CONTRACTOR RESPONSIBLE FOR COMPLETELY SEALING ALL AREAS WHERE EXISTING ROOF MATERIAL IS PENETRATED OR REMOVED. PROVIDE WATER PROOFING AS REQUIRED BY THE ARCH.

GENERAL

STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH ARCHITECTURAL, CIVIL, ELECTRICAL, AND MECHANICAL DRAWINGS FOR BIDDING AND CONSTRUCTION. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS FOR COMPATIBILITY BEFORE PROCEEDING. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT BEFORE PROCEEDING.

CONTRACTOR TO SEE ARCHITECTURAL, CIVIL, ELECTRICAL AND MECHANICAL DRAWINGS FOR SIZE AND LOCATION OF PIPE, VENT, DUCT AND OTHER OPENINGS AND DETAILS NOT SHOWN ON THESE DRAWINGS.

CONTRACTOR SHALL BE RESPONSIBLE FOR ERECTION STABILITY AND TEMPORARY SHORING AS NECESSARY UNTIL PERMANENT SUPPORT AND STIFFENING ARE INSTALLED.

CONTRACTOR-INITIATED CHANGES SHALL BE SUBMITTED IN WRITING TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR APPROVAL PRIOR TO FABRICATION OR CONSTRUCTION. CHANGES SHOWN ON SHOP DRAWINGS ONLY WILL NOT SATISFY THIS REQUIREMENT.

DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY INDICATED BUT ARE OF A SIMILAR CHARACTER TO DETAILS SHOWN, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED, SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND THE STRUCTURAL ENGINEER.

LEGEND

DEFINITION	SYMBOL	DEFINITION	SYMBOL
DIRECTION OF FRAMING		NATIVE SOIL	
EXTENT OF FRAMING		GRANULAR FILL	
COLUMNS		STRUCTURAL STEEL	
COLUMN BEARING ON BEAM	(A) (B)	RATED SHEATHING	
BEAM CONTINUOUS OVER SUPPORT	(A) (B)	SHEAR WALL (SEE SCHEDULE)	SWX
CONCRETE WALL		COLUMN MARK (SEE SCHEDULE)	C#
BEARING STUD WALL		FOOTING MARK (SEE SCHEDULE)	FX
NON-BEARING STUD WALL		HOLDOWN MARK (SEE SCHEDULE)	
BEARING STUD SHEAR WALL		HANGER MARK (SEE SCHEDULE)	X
NON-BEARING STUD SHEAR WALL		FLAG NOTE (SEE PLAN NOTES)	X
CMU WALL		STEEL MOMENT FRAME CONN.	

ABBREVIATIONS			
(A)	ABOVE	GLB	GLUE-LAMINATED BEAM
AB	ANCHOR BOLT	HORIZ	HORIZONTAL
ALT	ALTERNATE	KP	KING POST
ARCH	ARCHITECT	KSI	KIPS PER SQUARE INCH
(B)	BELOW	L	ANGLE
BD	BAR DIAMETER	MECH	MECHANICAL
BLKG	BLOCKING	MF	MOMENT FRAME
BM	BEAM	MTL	METAL
BOT	BOTTOM	NS	NEAR SIDE
BRNG	BEARING	OC	ON CENTER
BTWN	BETWEEN	OPP	OPPOSITE
CJP	COMPLETE JOINT PENETRATION	PL	PLATE
CLR	CLEAR	PLCS	PLACES
CMU	CONCRETE MASONRY UNIT	PSI	POUNDS PER SQUARE INCH
COL	COLUMN	PSF	POUNDS PER SQUARE FOOT
CONC	CONCRETE	P/T	POST TENSIONED
CONN	CONNECTION	PT	PRESSURE TREATED
CONT	CONTINUOUS	REINF	REINFORCING
COORD	COORDINATE	REQ'D	REQUIRED
DBL	DOUBLE	SCHED	SCHEDULE
DET	DETAIL	SIM	SIMILAR
DIA	DIAMETER	SOG	SLAB ON GRADE
DIM	DIMENSION	STD	STANDARD
DIR	DIRECTION	STIFF	STIFFENER
EA	EACH	STL	STEEL
ELEV	ELEVATION	SYMM	SYMMETRICAL
ES	EACH SIDE	SW	SHEARWALL
EX	EXISTING	TOC	TOP OF CONCRETE
EXP	EXPANSION	TOS	TOP OF STEEL
FLR	FLOOR	TOW	TOP OF WALL
FDN	FOUNDATION	TYP	TYPICAL
FTG	FOOTING	UNO	UNLESS NOTED OTHERWISE
FS	FAR SIDE	VERT	VERTICAL
GC	GENERAL CONTRACTOR	WF	WIDE FLANGE

CG ENGINEERING
250 4TH AVE. S., SUITE 200
EDMONDS, WASHINGTON 98020
PHONE (425) 778-8500
FAX (425) 778-5536

PRELIMINARY NOT FOR CONSTRUCTION
DENNIS M. TITUS STATE OF WASHINGTON 19997 STRUCTURAL ENGINEER PROFESSIONAL ENGINEER
XX/XX/XX

MARK	DATE	DESCRIPTION
	XX/XX/XX	60% PROGRESS SET

DESIGN: DTR
DRAWN: ATD
CHECK: DMT
JOB NO: 21060.10
DATE: XX/XX/XX

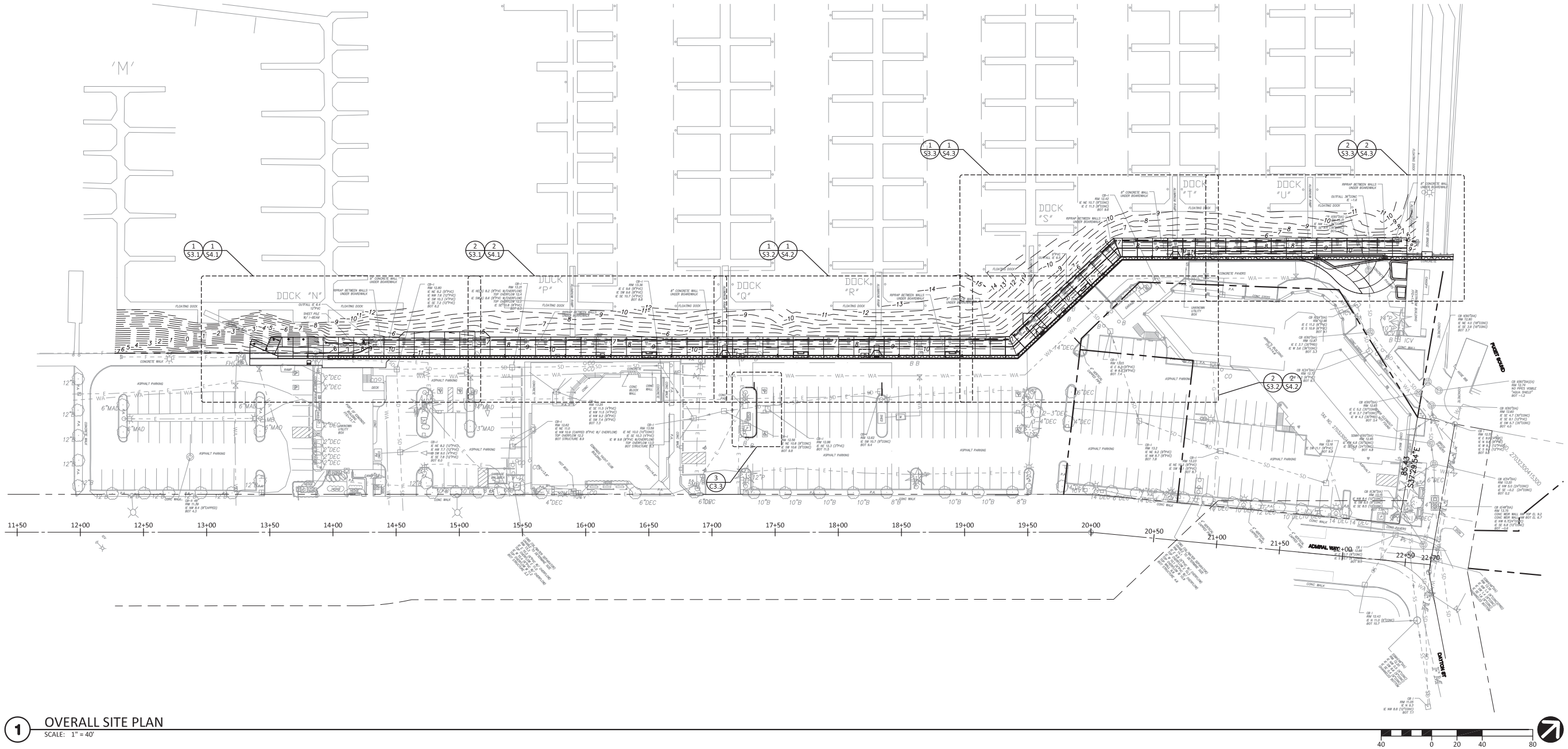
NORTH PORTWALK AND SEAWALL RECONSTRUCTION
336 ADMIRAL WAY
EDMONDS, WA 98020

GENERAL STRUCTURAL NOTES

FILE NAME:

SHEET:

S1.2



1 OVERALL SITE PLAN
SCALE: 1" = 40'

CG ENGINEERING
250 4TH AVE. S., SUITE 200
EDMONDS, WASHINGTON 98020
PHONE (425) 778-8500
FAX (425) 778-5536

PRELIMINARY
NOT FOR CONSTRUCTION
DENNIS M. TITUS
STATE OF WASHINGTON
21601
REGISTERED PROFESSIONAL ENGINEER
XX/XX/XX

MARK	DATE	DESCRIPTION
	XX/XX/XX	60% PROGRESS SET

DESIGN:	DTR
DRAWN:	ATD
CHECK:	DMT
JOB NO:	21060.10
DATE:	XX/XX/XX

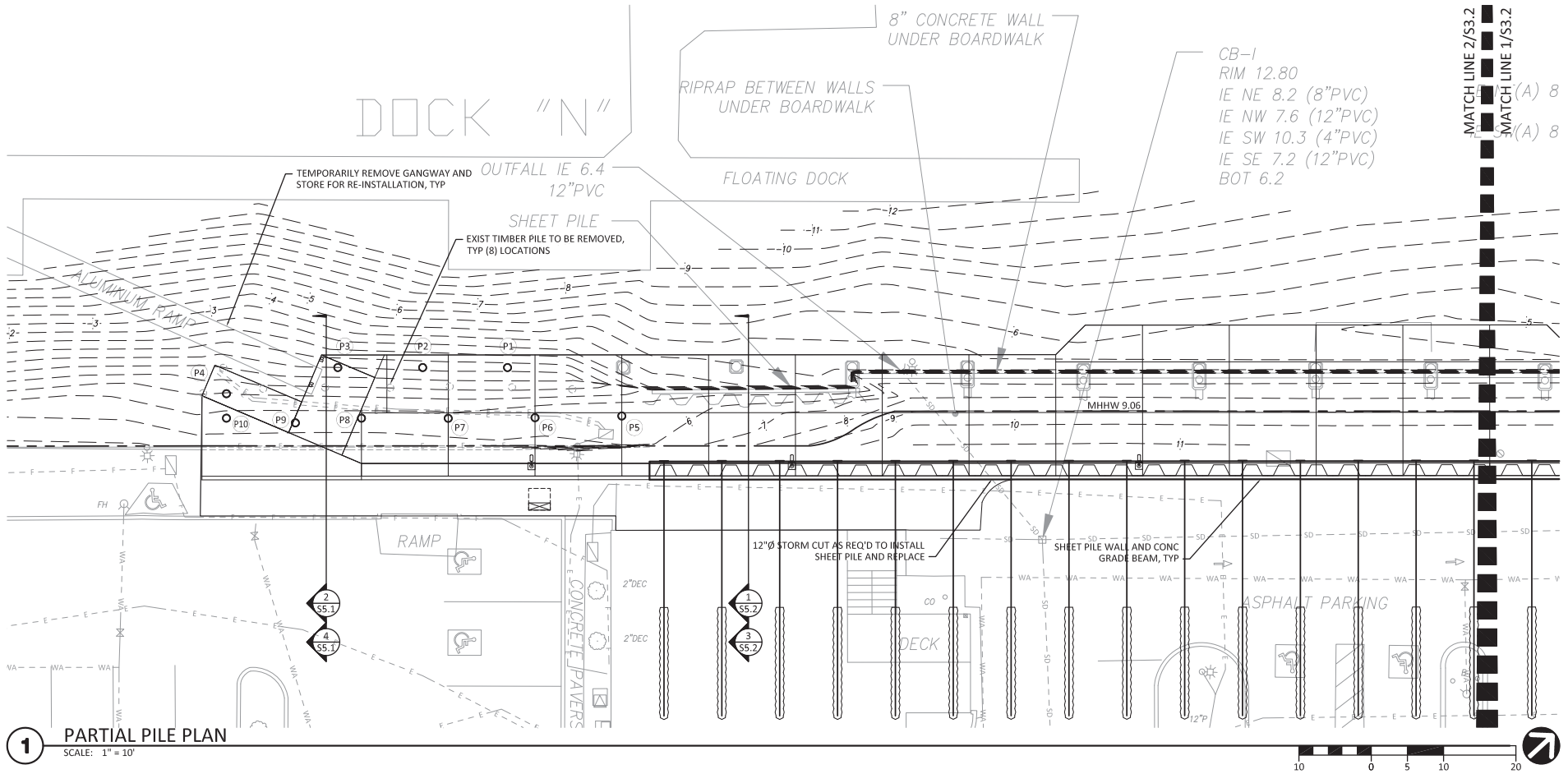
NORTH PORTWALK AND SEAWALL RECONSTRUCTION
336 ADMIRAL WAY
EDMONDS, WA 98020

OVERALL SITE PLAN

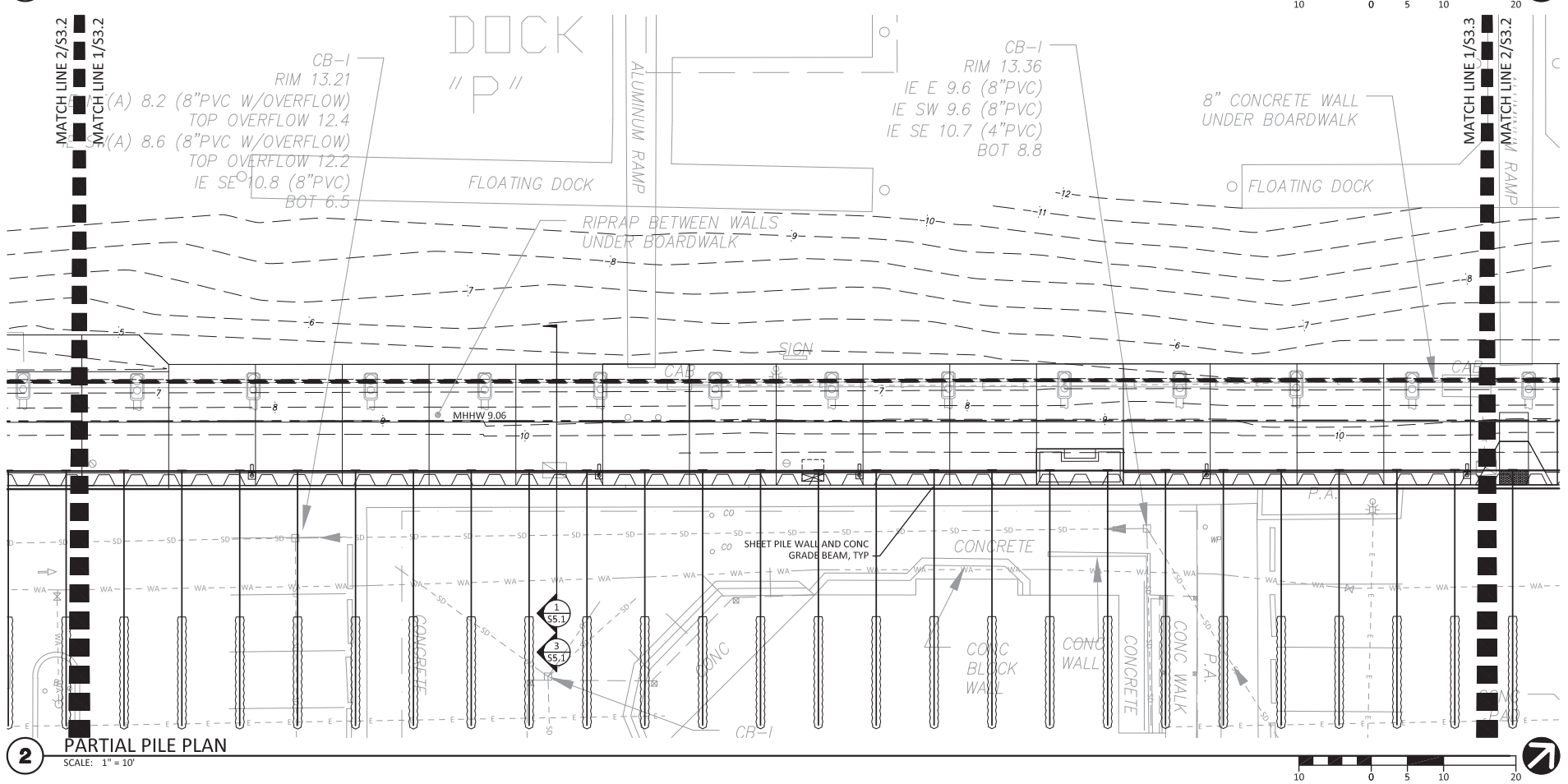
FILE NAME:

SHEET:

S2.1



1 PARTIAL PILE PLAN
SCALE: 1" = 10'



2 PARTIAL PILE PLAN
SCALE: 1" = 10'

ENGINEERING
250 4TH AVE. S., SUITE 200
EDMONDS, WASHINGTON 98020
PHONE (425) 778-8500
FAX (425) 778-5536

PRELIMINARY
NOT FOR CONSTRUCTION
DENNIS M. TITUS
STATE OF WASHINGTON
STRUCTURAL ENGINEER
PROFESSIONAL ENGINEER
XX/XX/XX

MARK	DATE	DESCRIPTION
	XX/XX/XX	60% PROGRESS SET

DESIGN:	DTR
DRAWN:	ATD
CHECK:	DMT
JOB NO:	21060.10
DATE:	XX/XX/XX

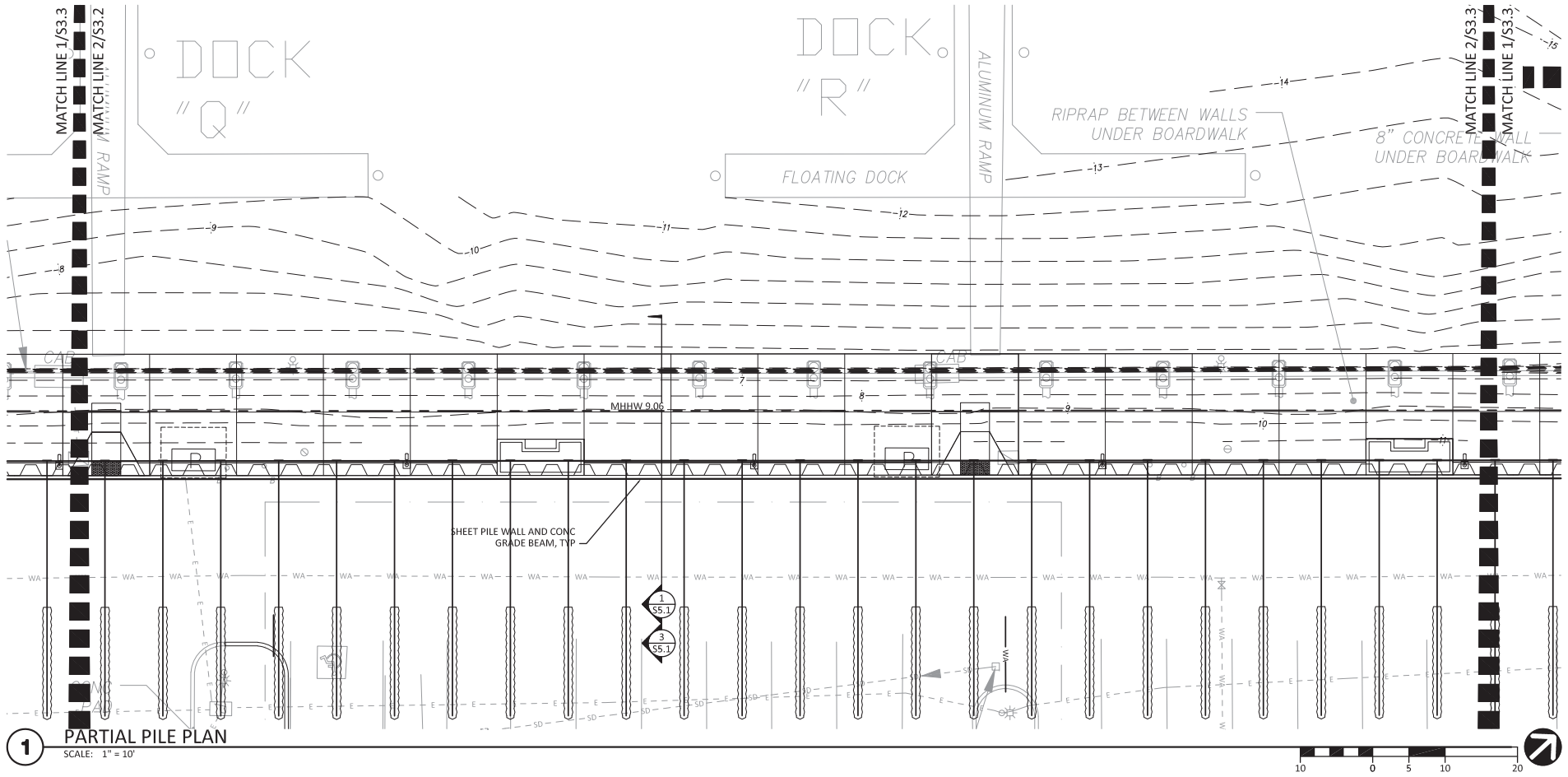
NORTH PORTWALK AND SEAWALL RECONSTRUCTION
336 ADMIRAL WAY
EDMONDS, WA 98020

PARTIAL PILE PLAN

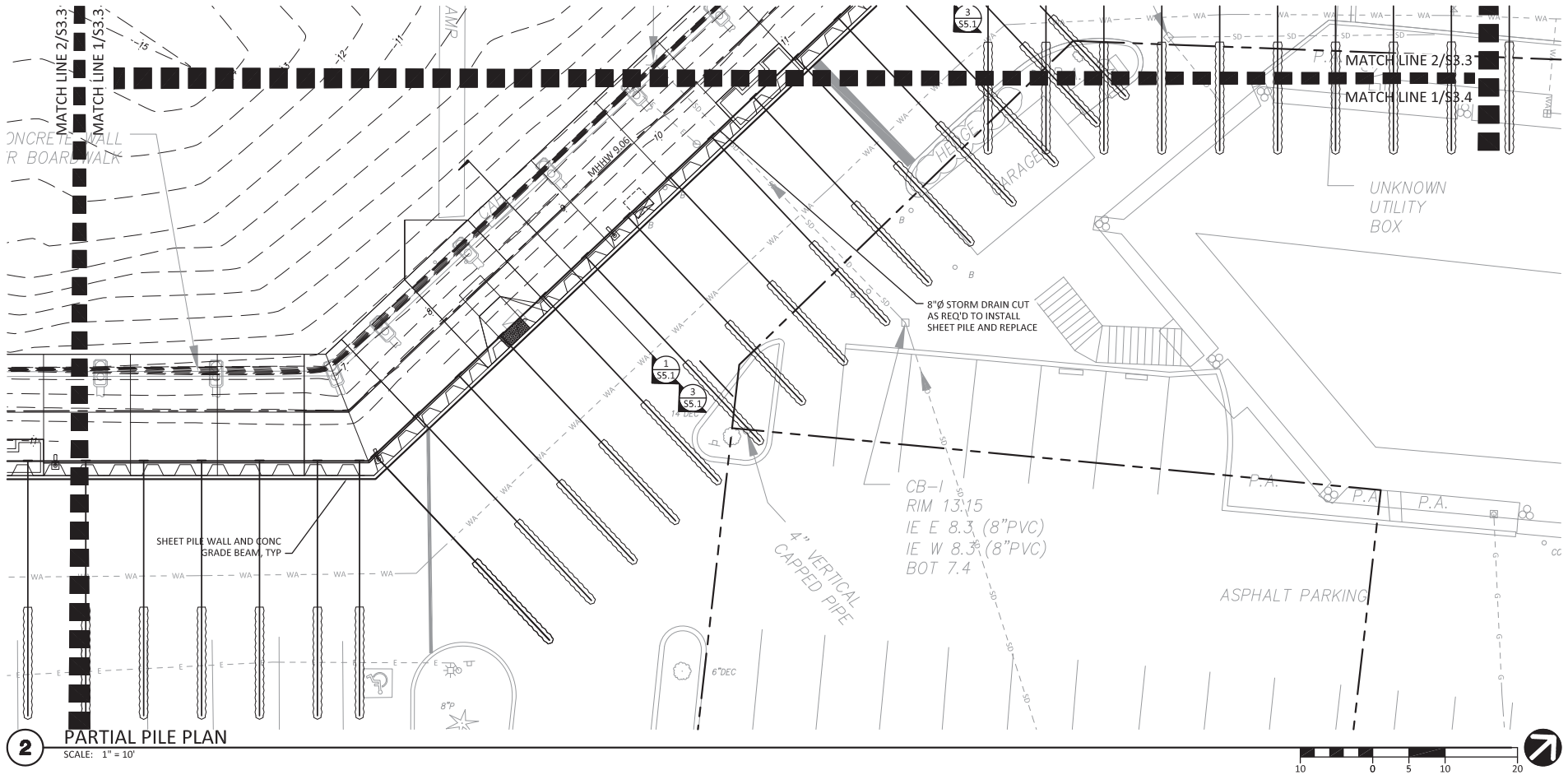
FILE NAME:

SHEET:

S3.1



1 PARTIAL PILE PLAN
SCALE: 1" = 10'



2 PARTIAL PILE PLAN
SCALE: 1" = 10'

CG ENGINEERING
250 4TH AVE. S., SUITE 200
EDMONDS, WASHINGTON 98020
PHONE (425) 778-8500
FAX (425) 778-5536

PRELIMINARY
NOT FOR CONSTRUCTION
DENNIS M. TITUS
STATE OF WASHINGTON
22867
STRUCTURAL ENGINEER
PROFESSIONAL ENGINEER
XX/XX/XX

MARK	DATE	DESCRIPTION
	XX/XX/XX	60% PROGRESS SET

DESIGN:	DTR
DRAWN:	ATD
CHECK:	DMT
JOB NO:	21060.10
DATE:	XX/XX/XX

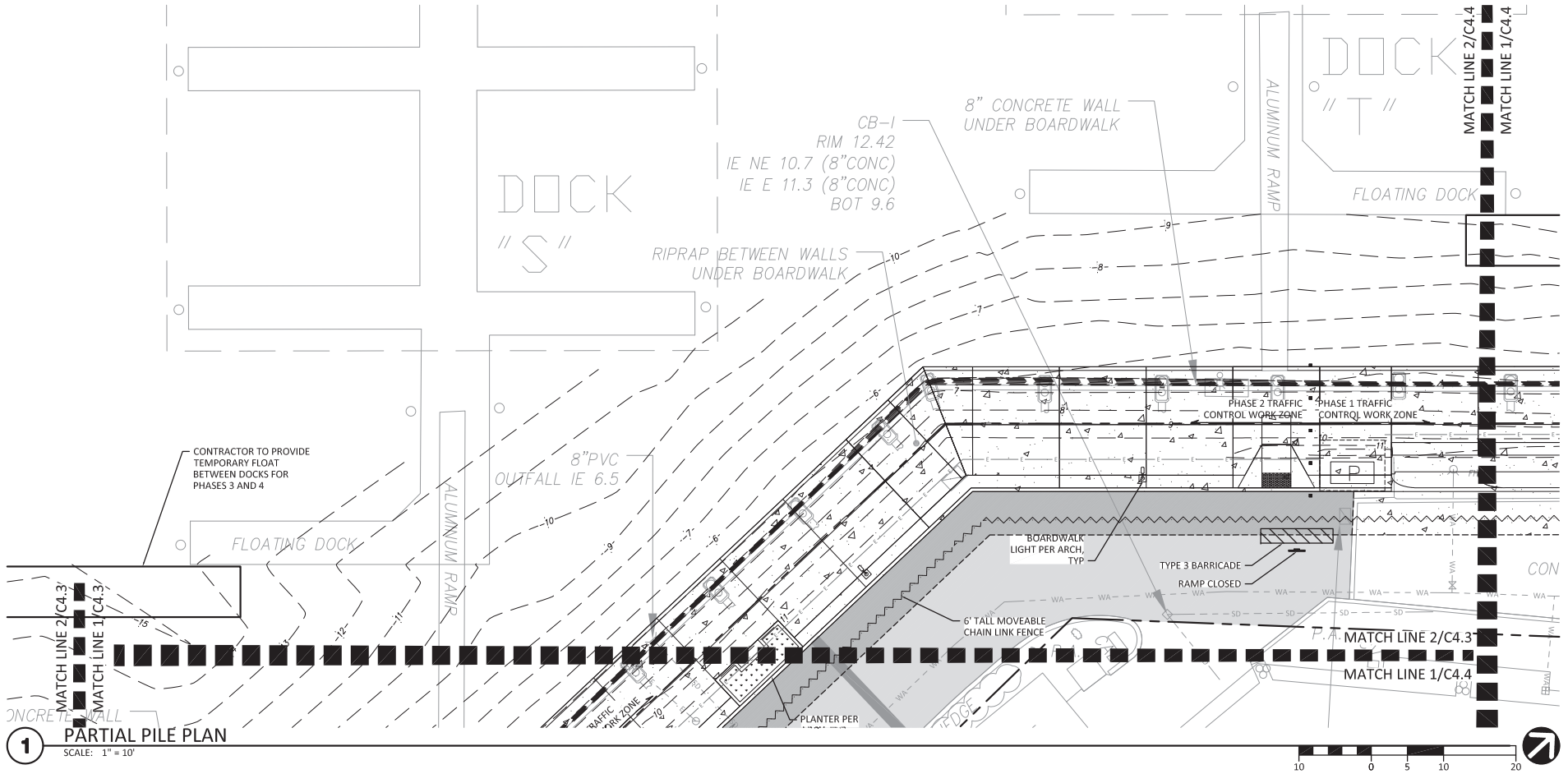
NORTH PORTWALK AND SEAWALL RECONSTRUCTION
336 ADMIRAL WAY
EDMONDS, WA 98020

PARTIAL PILE PLAN

FILE_NAME

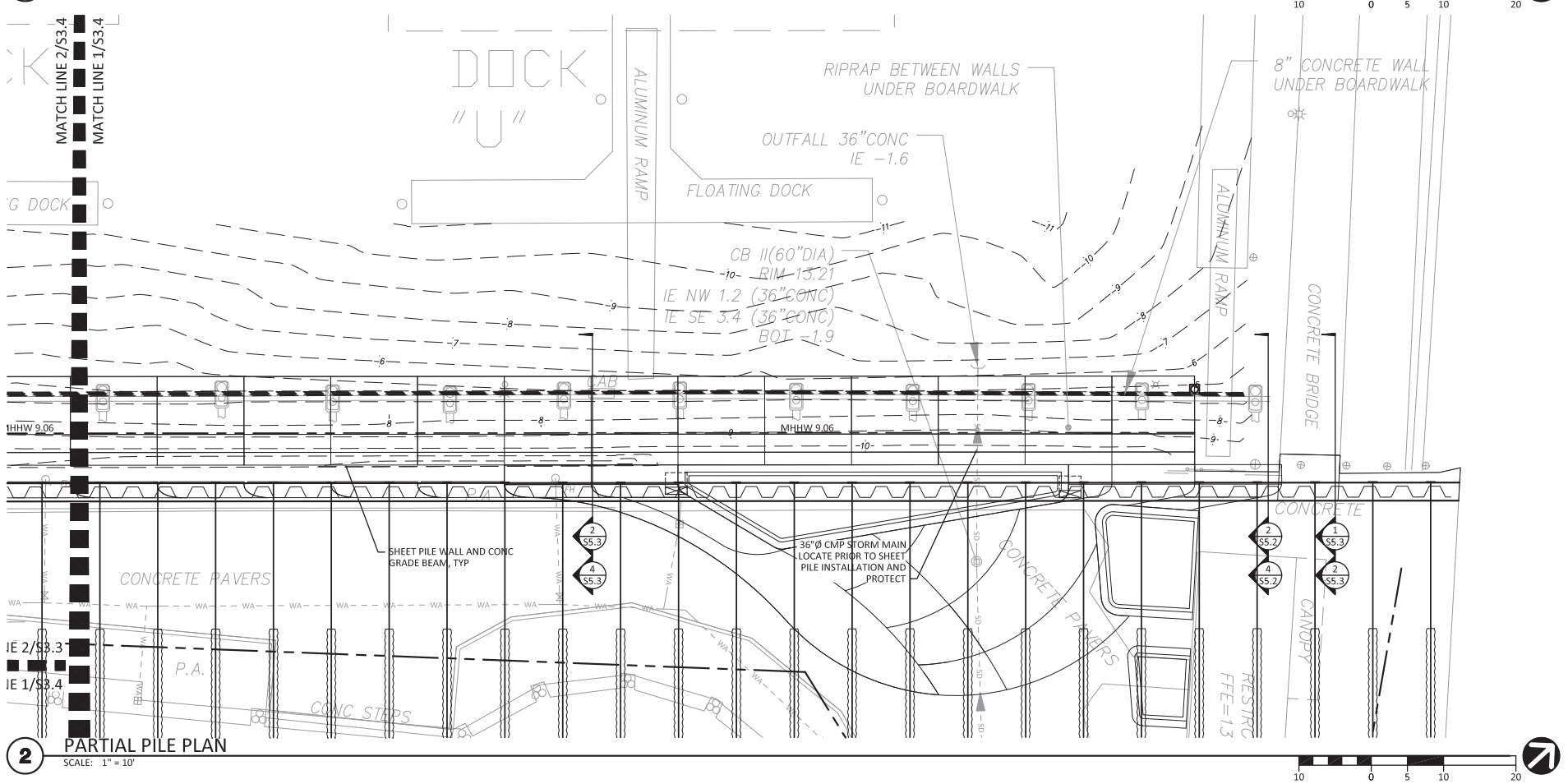
SHEET:

S3.2



1 PARTIAL PILE PLAN
SCALE: 1" = 10'

10 0 5 10 20



2 PARTIAL PILE PLAN
SCALE: 1" = 10'

10 0 5 10 20

ENGINEERING
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FAX (425) 778-5536

PRELIMINARY
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XX/XX/XX

MARK	DATE	DESCRIPTION
	XX/XX/XX	60% PROGRESS SET

DESIGN:	DTR
DRAWN:	ATD
CHECK:	DMT
JOB NO:	21060.10
DATE:	XX/XX/XX

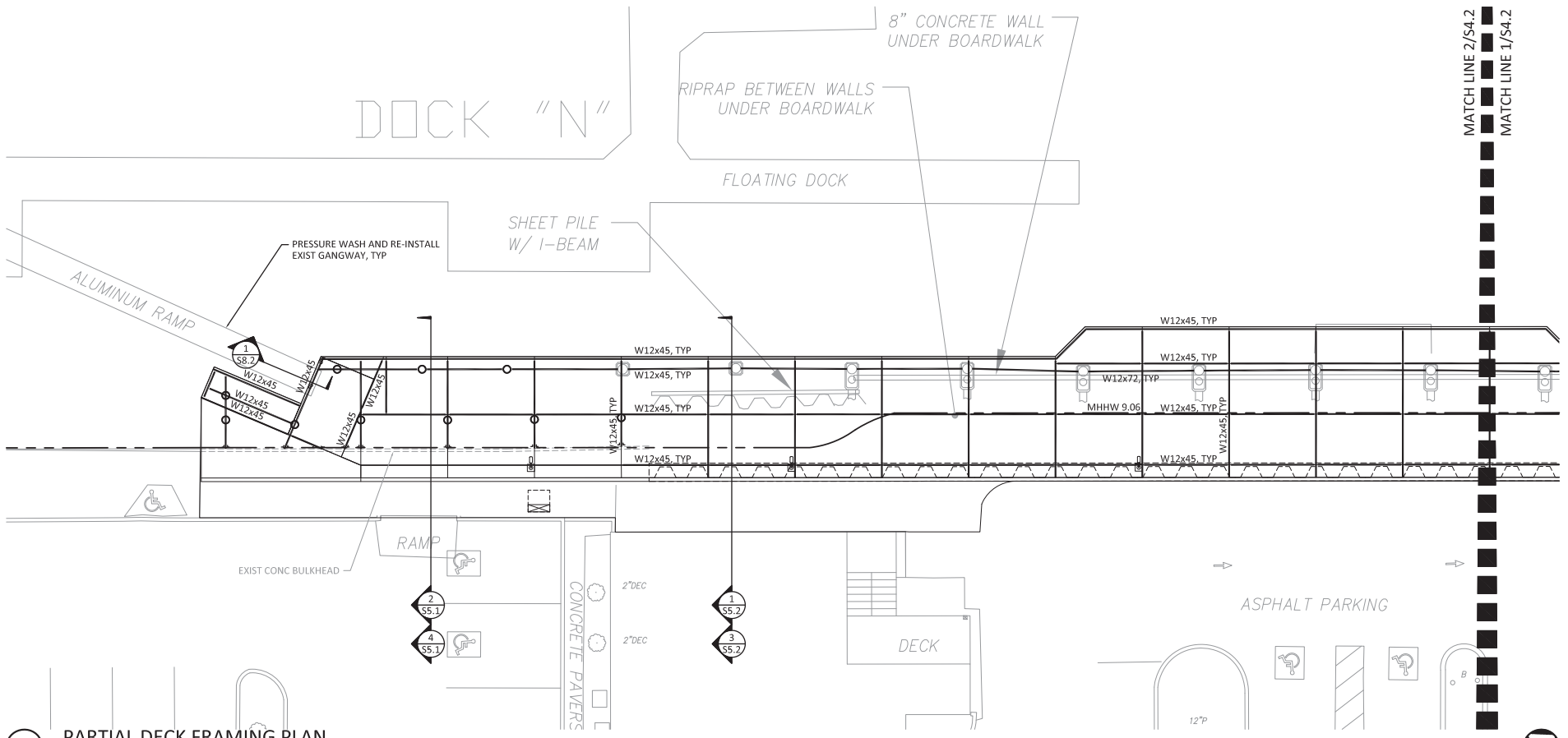
NORTH PORTWALK AND SEAWALL RECONSTRUCTION
336 ADMIRAL WAY
EDMONDS, WA 98020

PARTIAL PILE PLAN

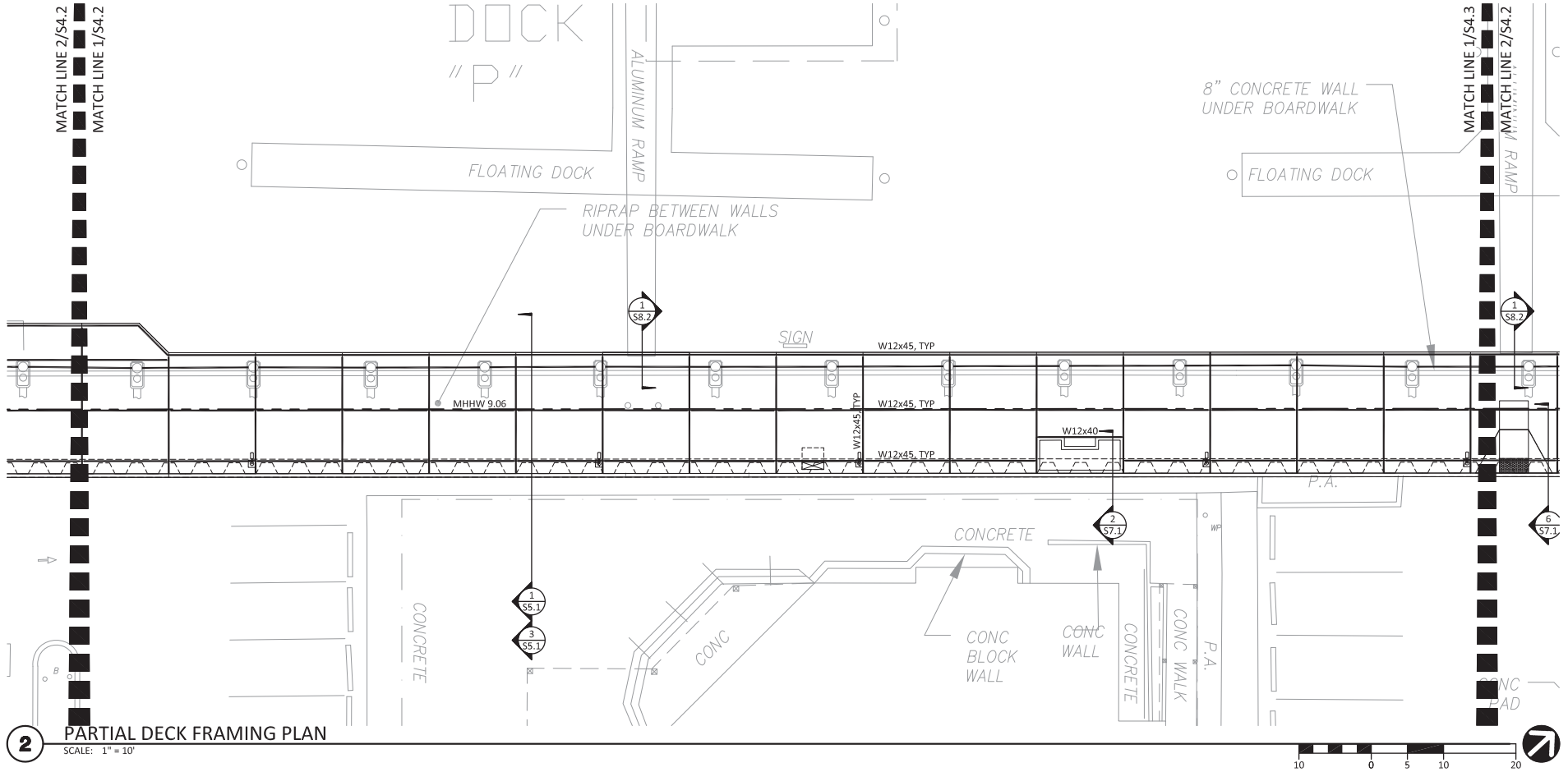
FILE NAME:

SHEET:

S3.3



1 PARTIAL DECK FRAMING PLAN
SCALE: 1" = 10'



2 PARTIAL DECK FRAMING PLAN
SCALE: 1" = 10'

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MARK	DATE	DESCRIPTION
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JOB NO:	21060.10
DATE:	XX/XX/XX

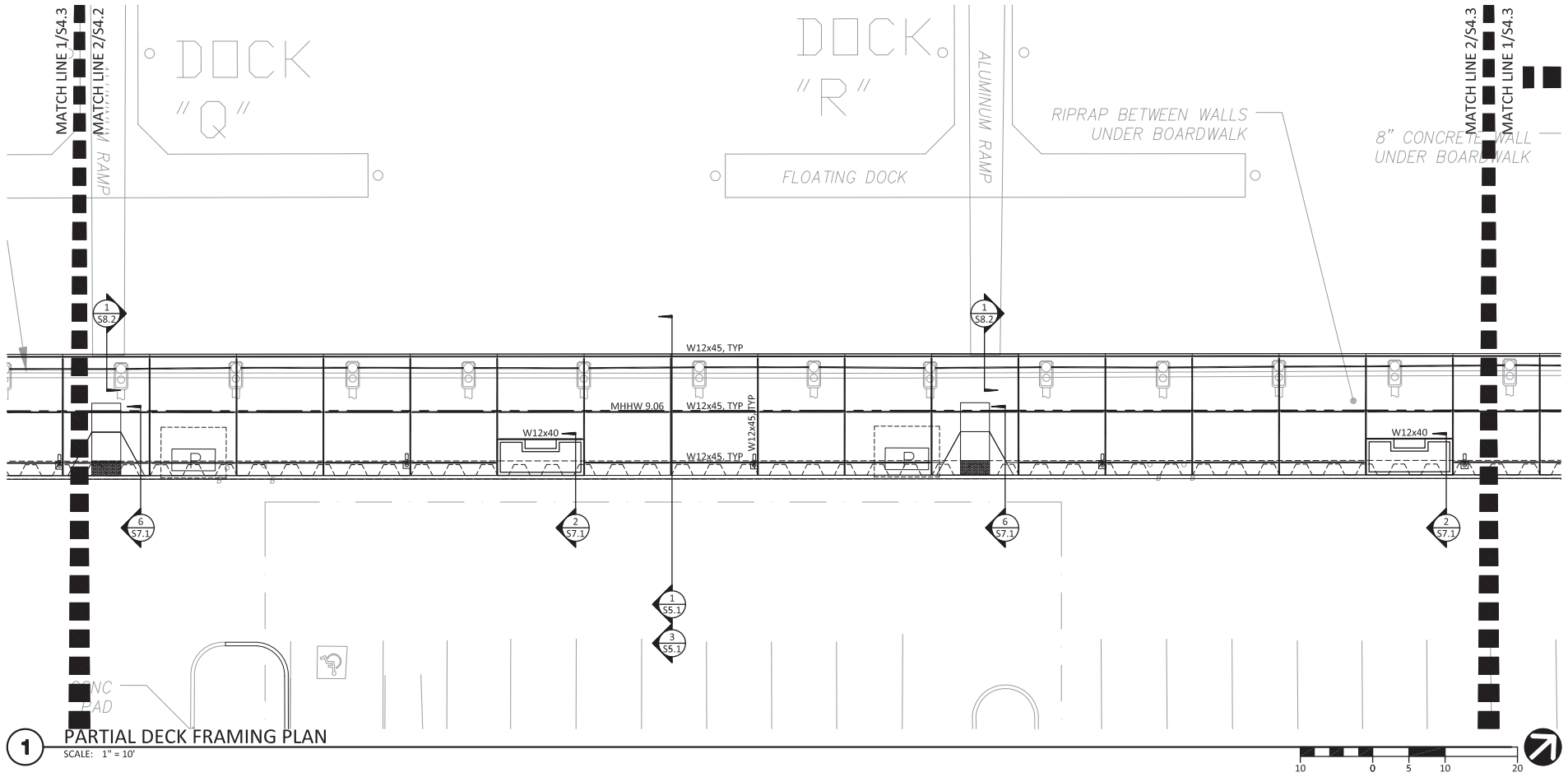
NORTH PORTWALK AND SEAWALL RECONSTRUCTION
336 ADMIRAL WAY
EDMONDS, WA 98020

DECK FRAMING PLAN

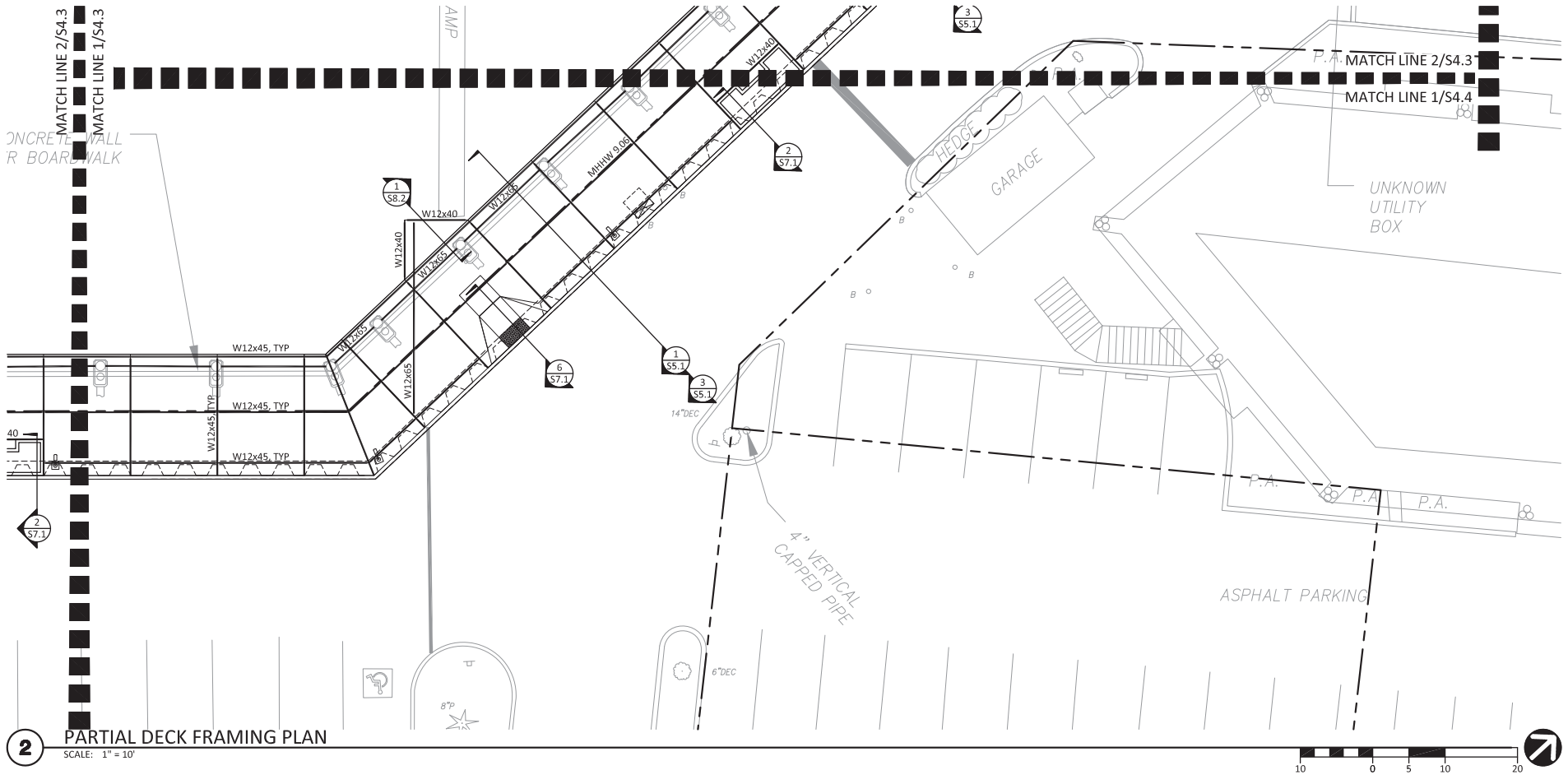
FILE NAME:

SHEET:

S4.1



1 PARTIAL DECK FRAMING PLAN
SCALE: 1" = 10'



2 PARTIAL DECK FRAMING PLAN
SCALE: 1" = 10'

CG ENGINEERING
250 4TH AVE. S., SUITE 200
EDMONDS, WASHINGTON 98020
PHONE (425) 778-8500
FAX (425) 778-5536

PRELIMINARY
NOT FOR CONSTRUCTION
DENNIS M. TITUS STATE OF WASHINGTON 22867 STRUCTURAL ENGINEER PROFESSIONAL ENGINEER
XX/XX/XX

MARK	DATE	DESCRIPTION
	XX/XX/XX	60% PROGRESS SET

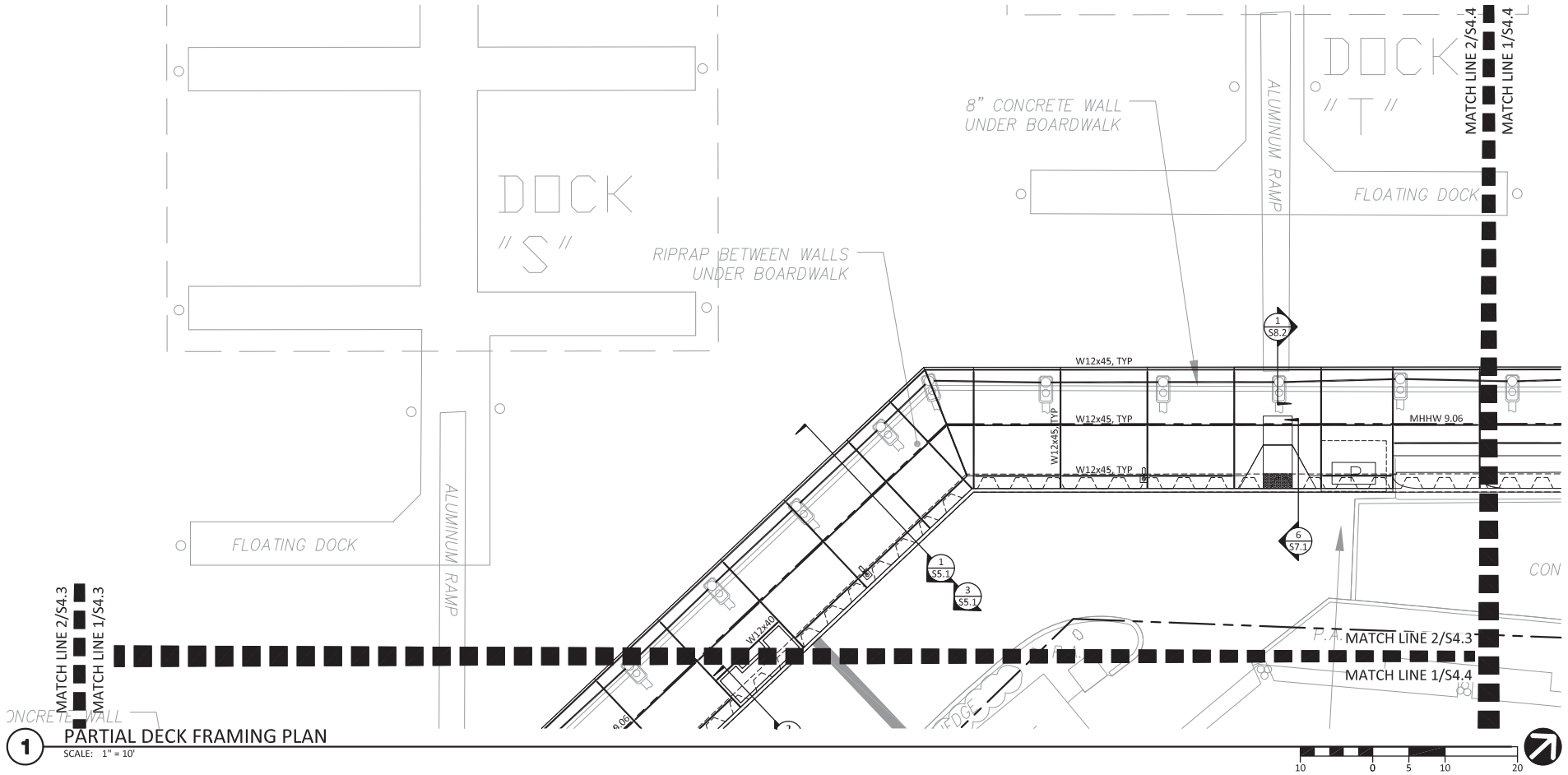
DESIGN:	DTR
DRAWN:	ATD
CHECK:	DMT
JOB NO:	21060.10
DATE:	XX/XX/XX

NORTH PORTWALK AND SEAWALL RECONSTRUCTION
336 ADMIRAL WAY
EDMONDS, WA 98020

DECK FRAMING PLAN

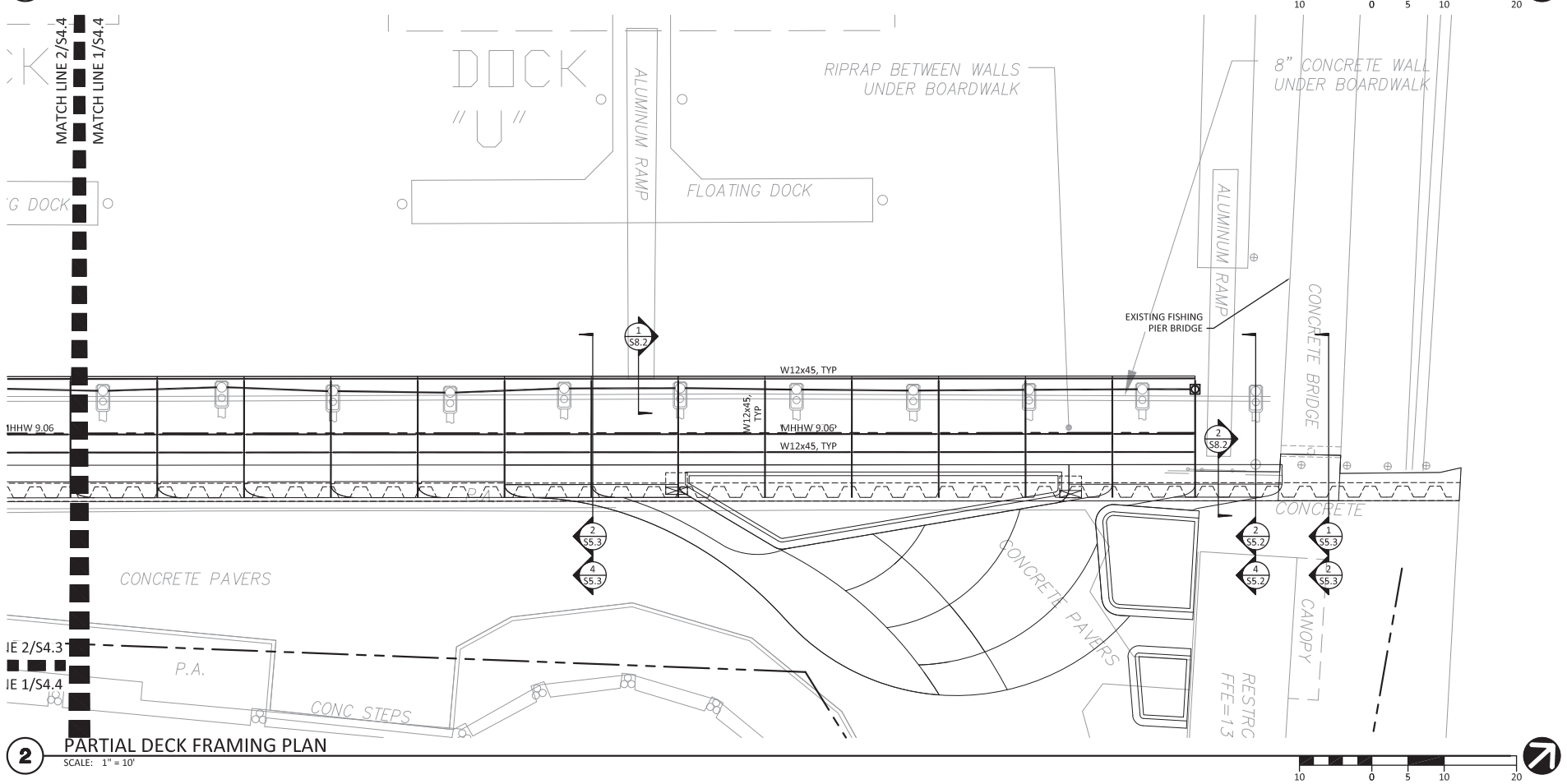
FILE_NAME

SHEET:
S4.2



1 PARTIAL DECK FRAMING PLAN

SCALE: 1" = 10'



2 PARTIAL DECK FRAMING PLAN

SCALE: 1" = 10'

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FAX (425) 778-5536

PRELIMINARY
NOT FOR CONSTRUCTION
DENNIS M. TITUS
STATE OF WASHINGTON
STRUCTURAL ENGINEER
PROFESSIONAL ENGINEER
XX/XX/XX

MARK	DATE	DESCRIPTION
	XX/XX/XX	60% PROGRESS SET

DESIGN:	DTR
DRAWN:	ATD
CHECK:	DMT
JOB NO:	21060.10
DATE:	XX/XX/XX

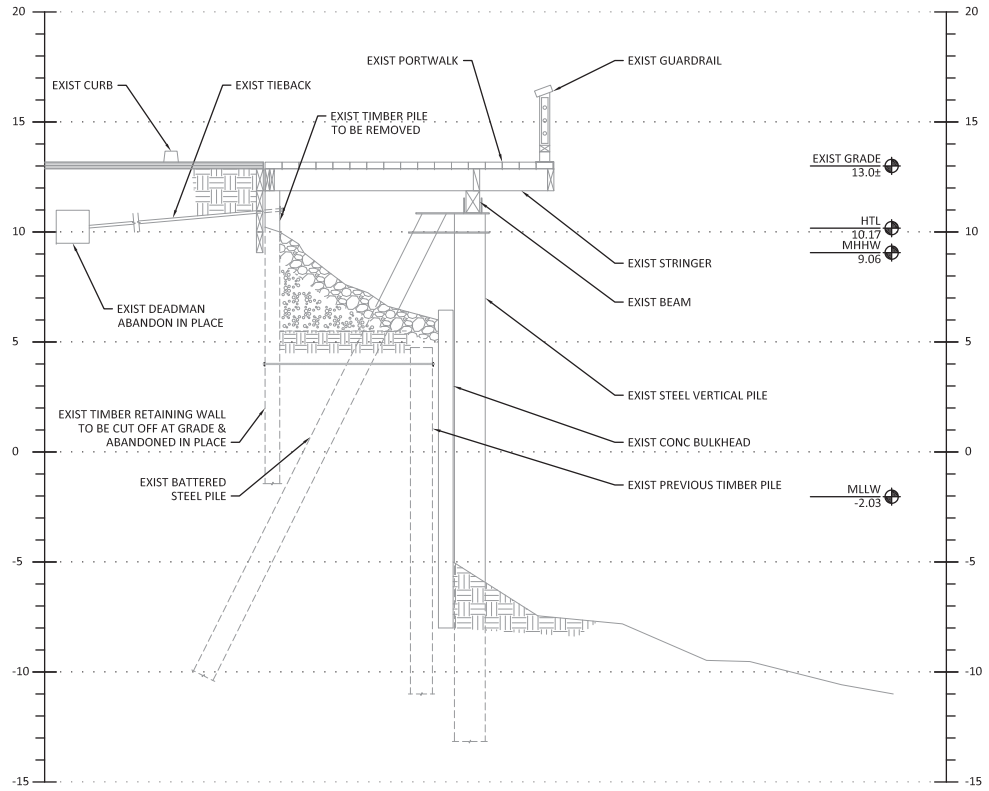
NORTH PORTWALK AND SEAWALL RECONSTRUCTION
336 ADMIRAL WAY
EDMONDS, WA 98020

DECK FRAMING PLAN

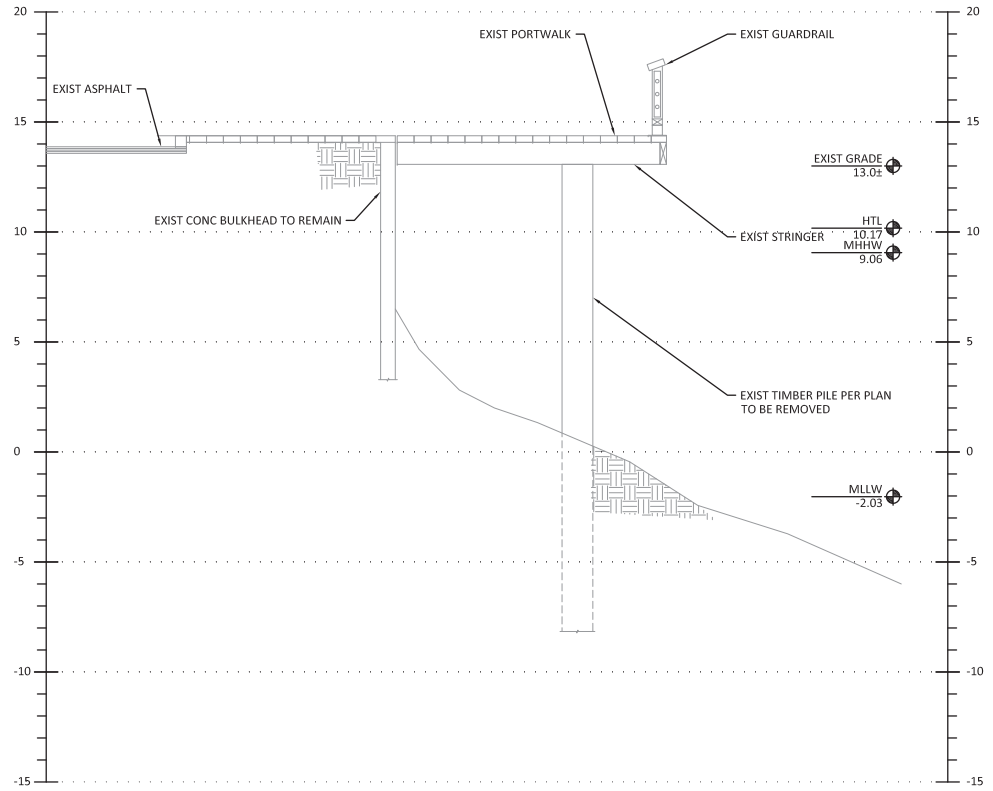
FILE NAME:

SHEET:

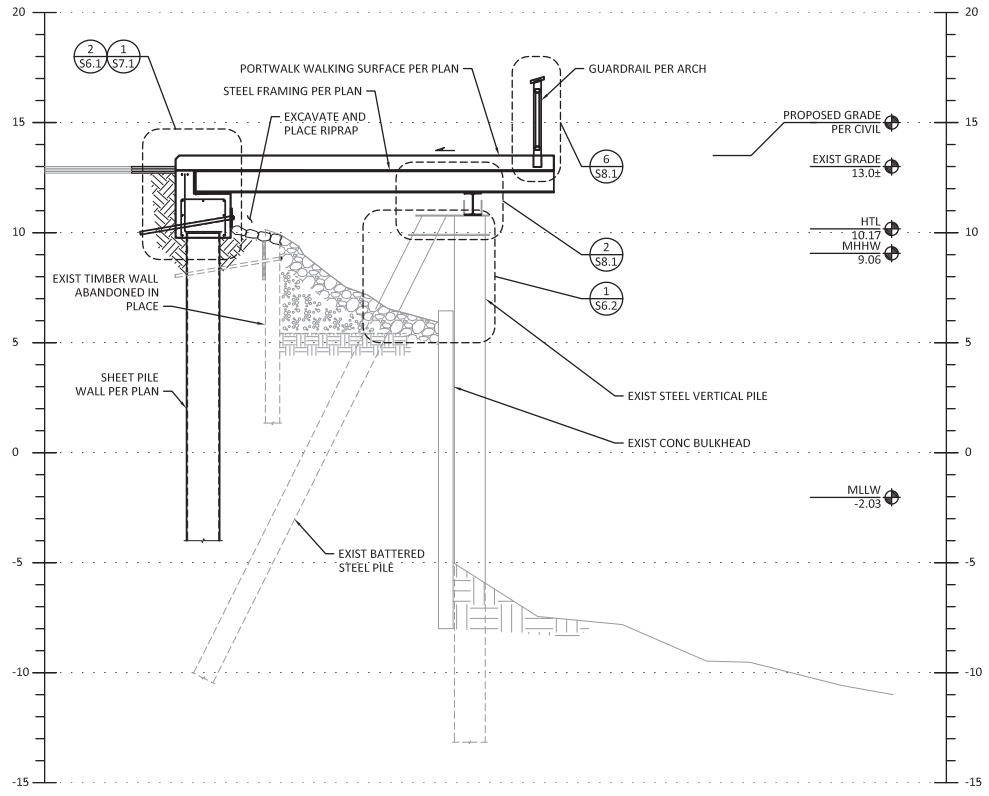
S4.3



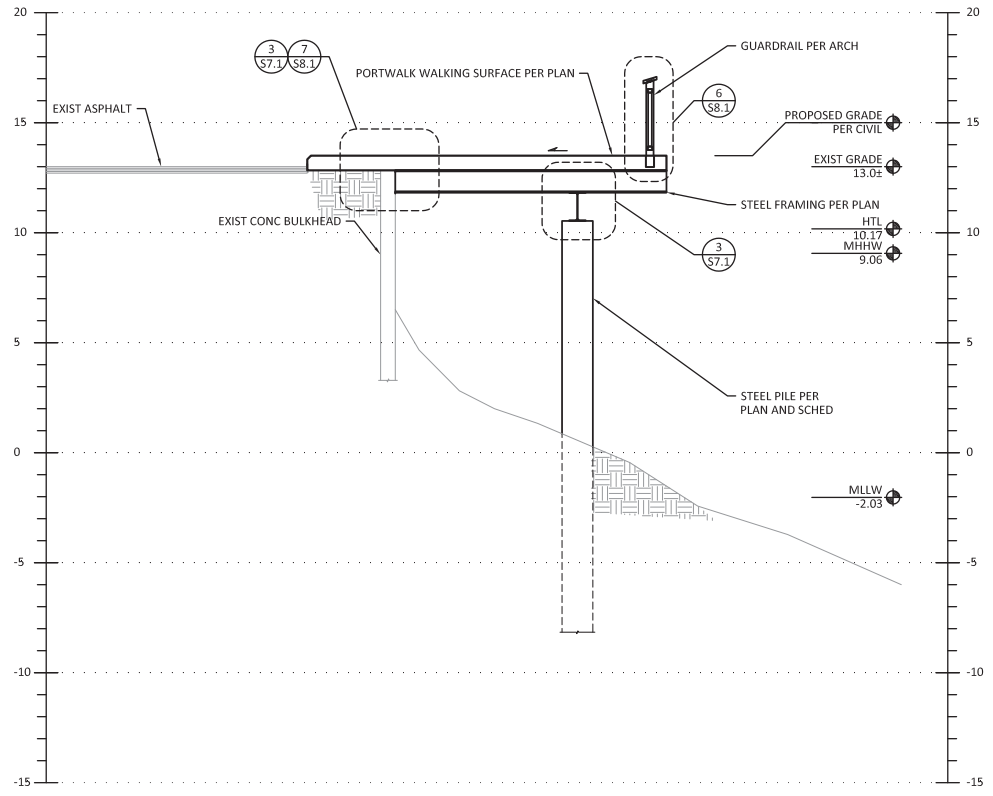
1 TYPICAL EXISTING SECTION AT N-T DOCK (NAVD 88)
SCALE: 1/4" = 1'-0"



2 EXISTING SECTION AT N DOCK (NAVD 88)
SCALE: 1/4" = 1'-0"



3 TYPICAL PROPOSED SECTION AT N-T DOCK (NAVD 88)
SCALE: 1/4" = 1'-0"



4 PROPOSED SECTION AT N DOCK (NAVD 88)
SCALE: 1/4" = 1'-0"

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PRELIMINARY
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DENNIS M. TITUS — STATE OF WASHINGTON — 22801 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER
XX/XX/XX

MARK	DATE	DESCRIPTION
	XX/XX/XX	60% PROGRESS SET

DESIGN:	DTR
DRAWN:	ATD
CHECK:	DMT
JOB NO:	21060.10
DATE:	XX/XX/XX

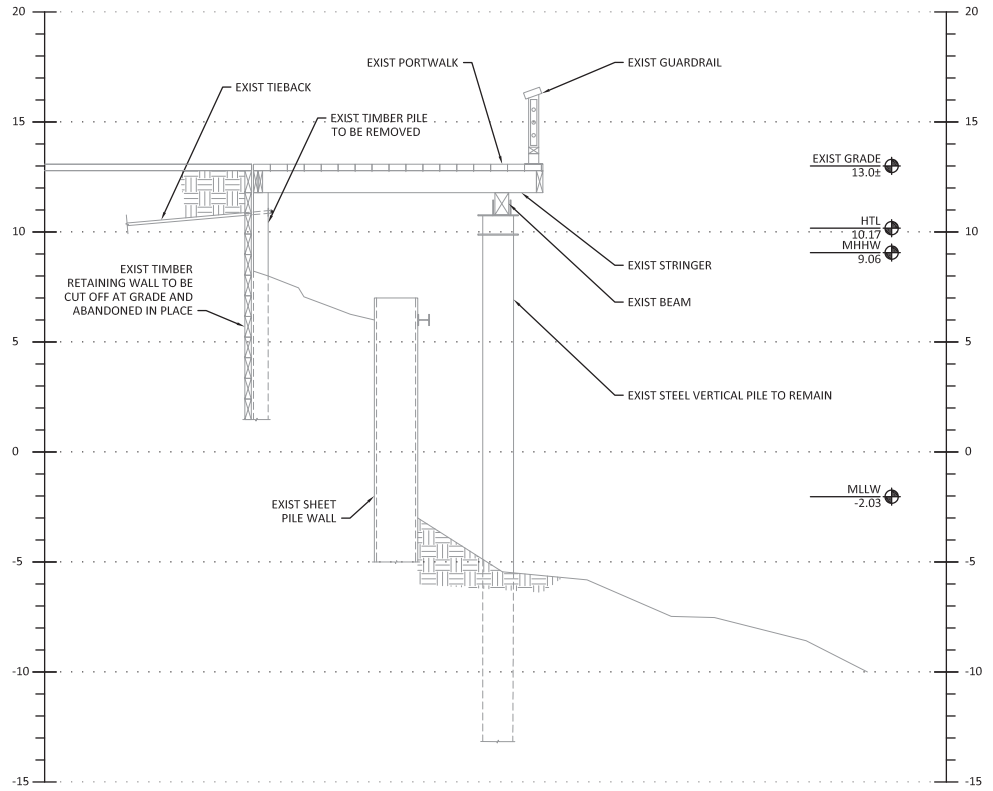
NORTH PORTWALK AND SEAWALL RECONSTRUCTION
336 ADMIRAL WAY
EDMONDS, WA 98020

SECTIONS

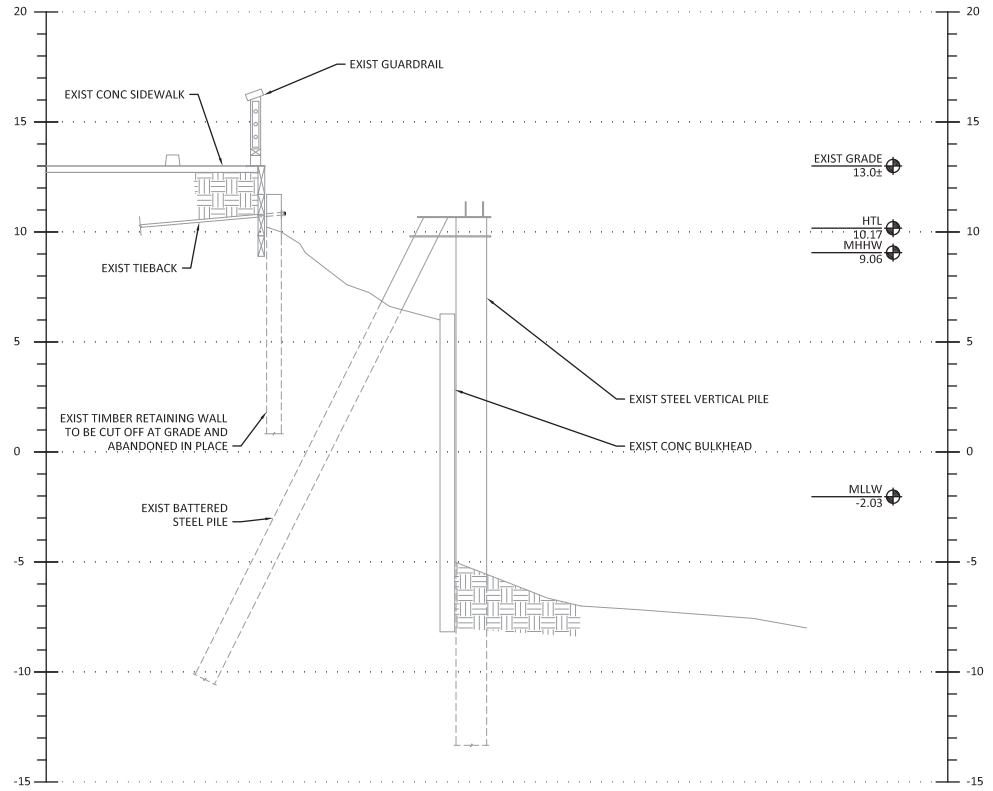
FILE NAME:

SHEET:

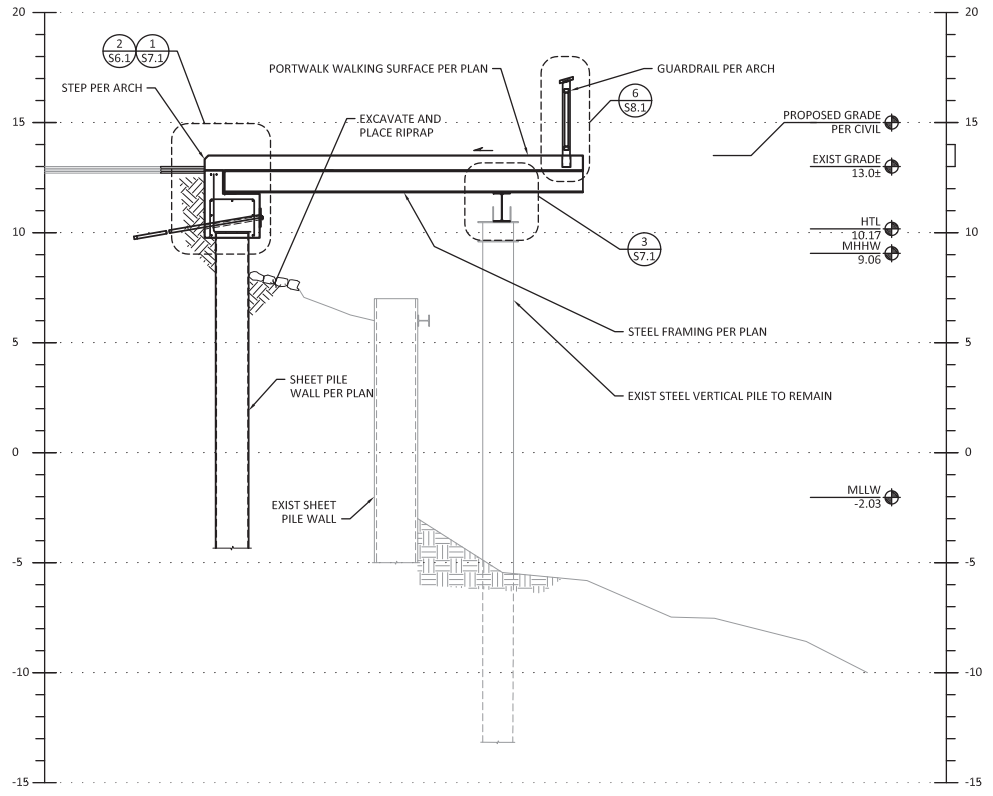
S5.1



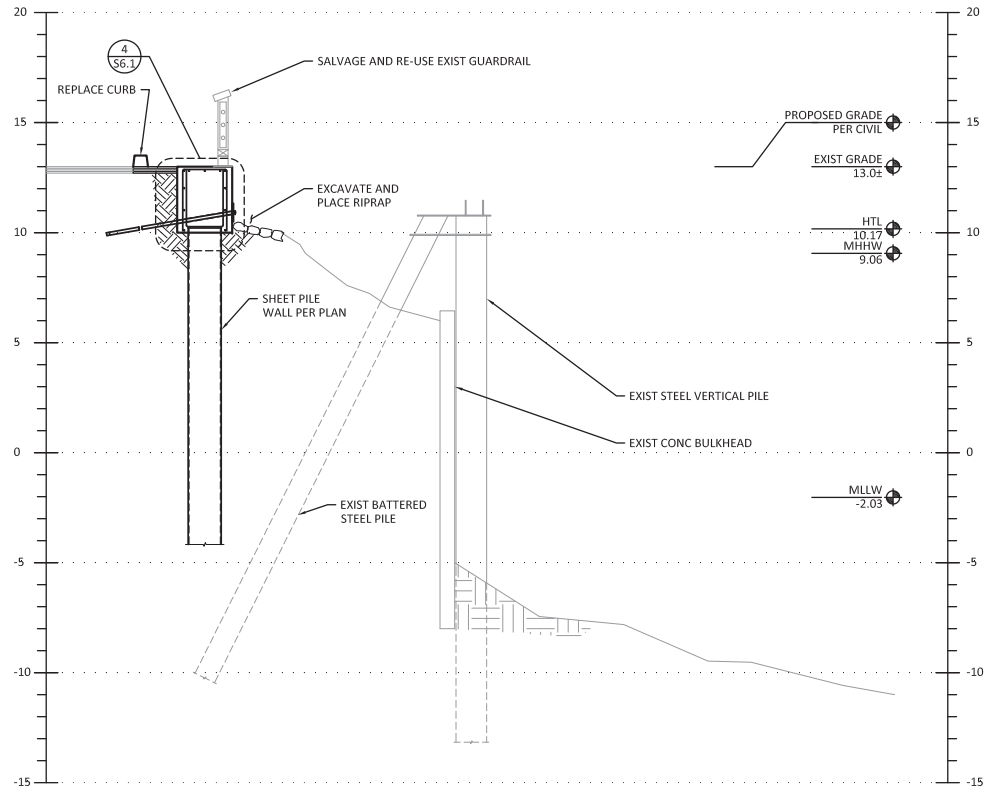
1 EXISTING SECTION AT N-P DOCK (NAVD 88)
SCALE: 1/4" = 1'-0"



2 EXISTING SECTION AT V DOCK (NAVD 88)
SCALE: 1/4" = 1'-0"



3 PROPOSED SECTION AT N-P DOCK (NAVD 88)
SCALE: 1/4" = 1'-0"



4 PROPOSED SECTION AT V DOCK (NAVD 88)
SCALE: 1/4" = 1'-0"

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PRELIMINARY
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XX/XX/XX

MARK	DATE	DESCRIPTION
	XX/XX/XX	60% PROGRESS SET

DESIGN:	DTR
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JOB NO:	21060.10
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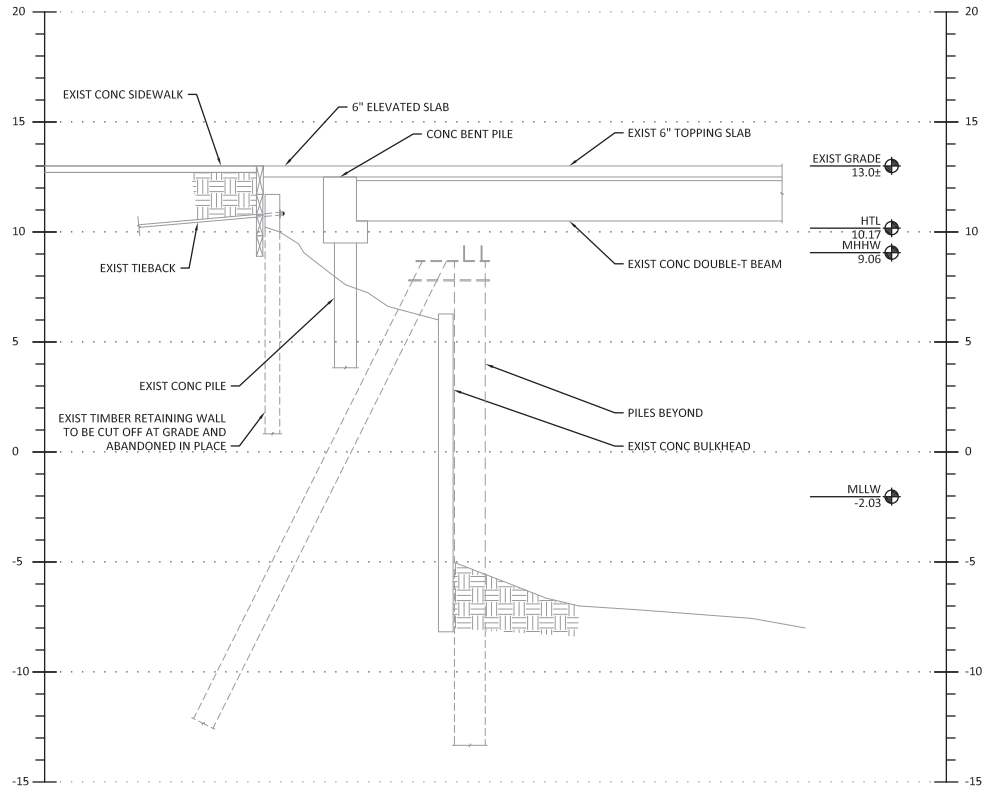
NORTH PORTWALK AND SEAWALL RECONSTRUCTION
336 ADMIRAL WAY
EDMONDS, WA 98020

SECTIONS

FILE NAME:

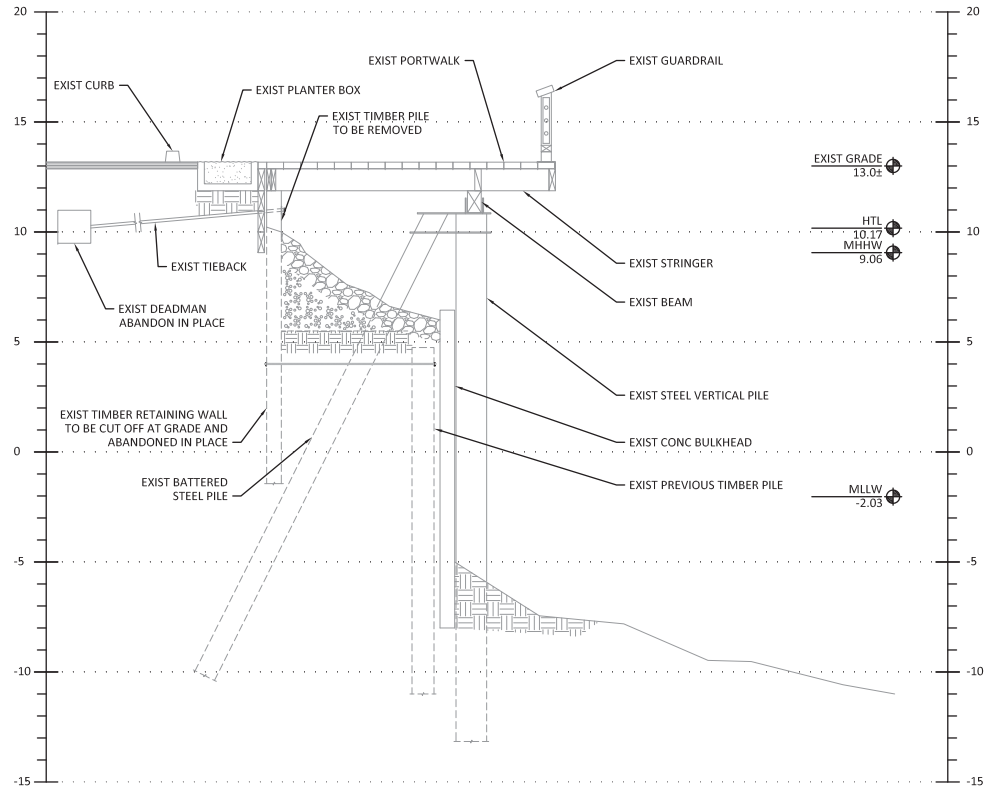
SHEET:

S5.2



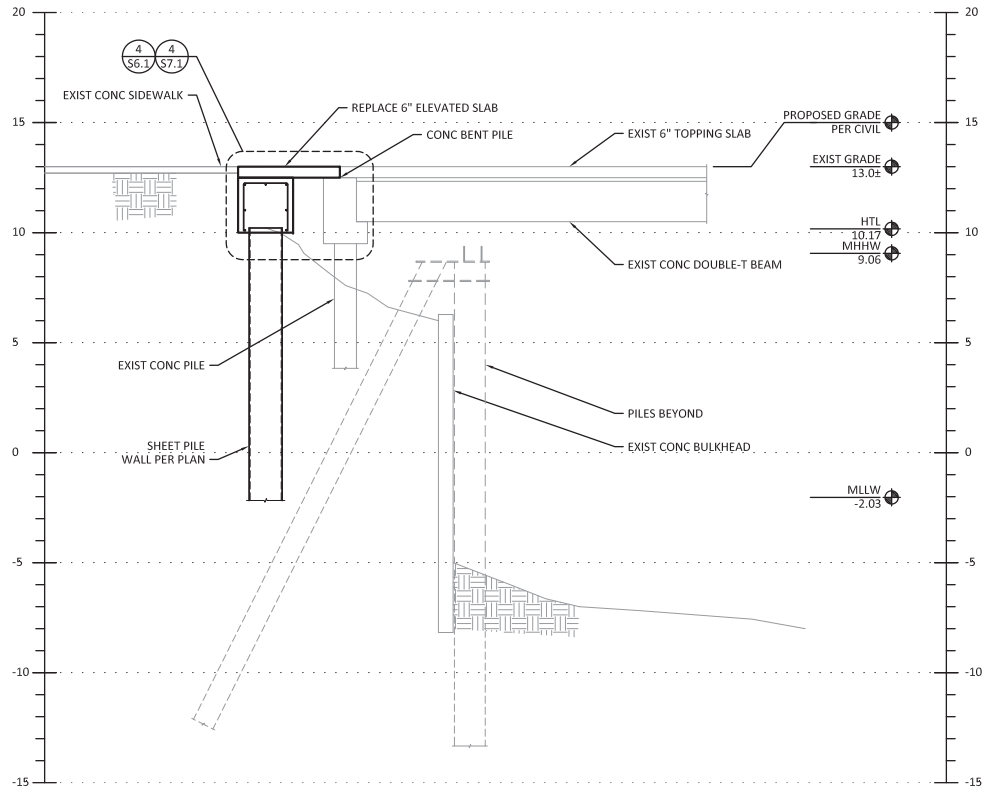
1 EXISTING SECTION AT FISHING PIER (NAVD 88)

SCALE: 1/4" = 1'-0"



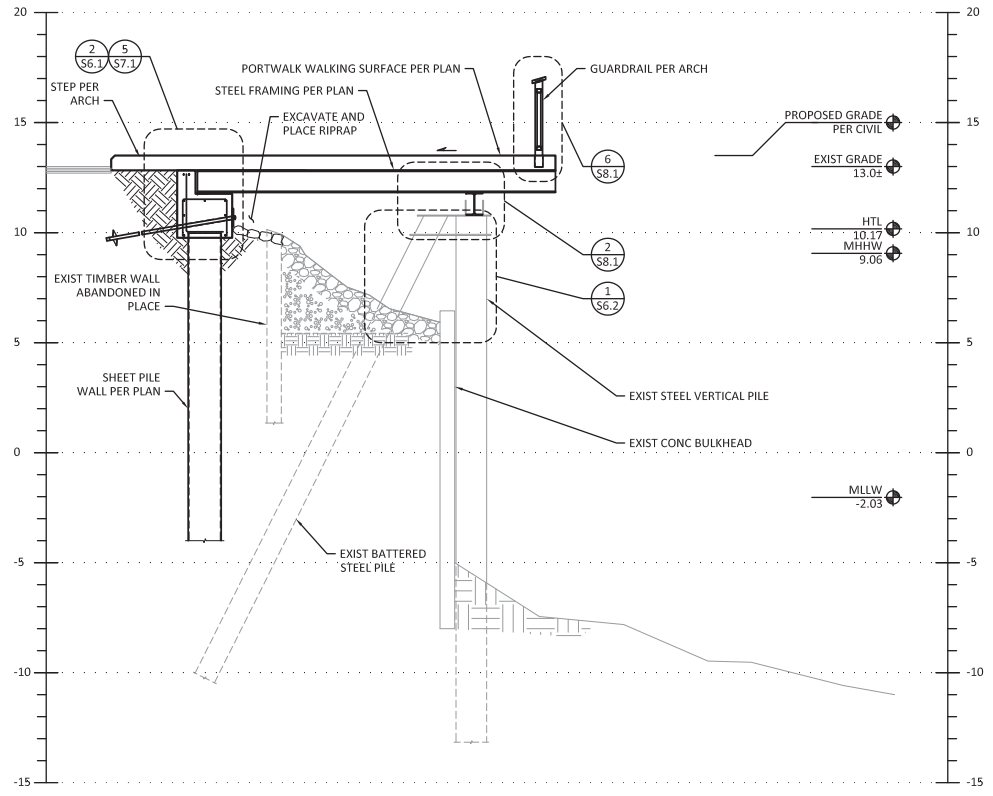
2 TYPICAL EXISTING SECTION AT T DOCK TO FISHING PIER (NAVD 88)

SCALE: 1/4" = 1'-0"



2 PROPOSED SECTION AT FISHING PIER (NAVD 88)

SCALE: 1/4" = 1'-0"



4 TYPICAL PROPOSED SECTION AT T DOCK TO FISHING PIER (NAVD 88)

SCALE: 1/4" = 1'-0"

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PRELIMINARY NOT FOR CONSTRUCTION

DENNIS M. TITUS STATE OF WASHINGTON 19961 REGISTERED PROFESSIONAL ENGINEER

XX/XX/XX

MARK	DATE	DESCRIPTION
	XX/XX/XX	60% PROGRESS SET

DESIGN:	DTR
DRAWN:	ATD
CHECK:	DMT
JOB NO:	21060.10
DATE:	XX/XX/XX

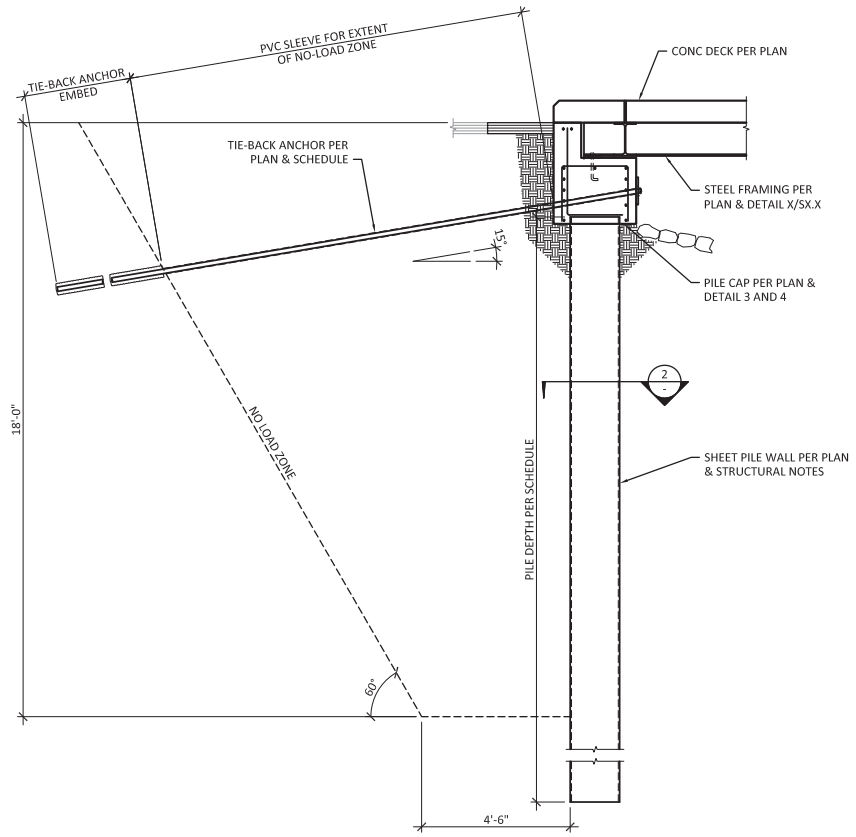
NORTH PORTWALK AND SEAWALL RECONSTRUCTION
336 ADMIRAL WAY
EDMONDS, WA 98020

SECTIONS

FILE NAME:

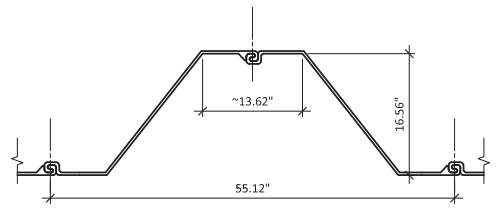
SHEET:

S5.3



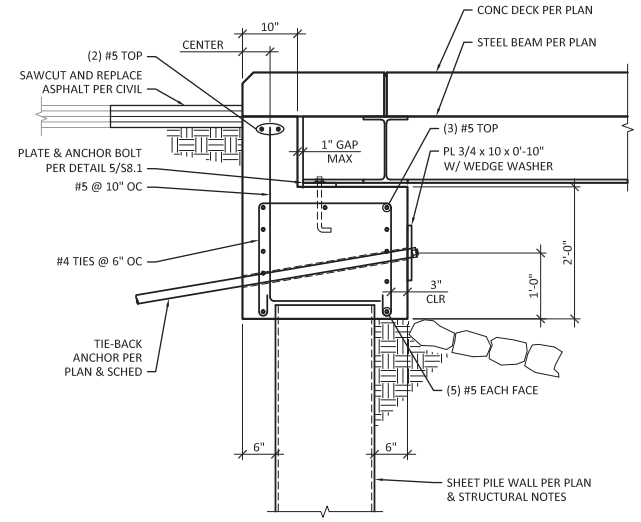
1 OVERALL PILE/TIE-BACK SECTION

SCALE: 3/8" = 1'-0"



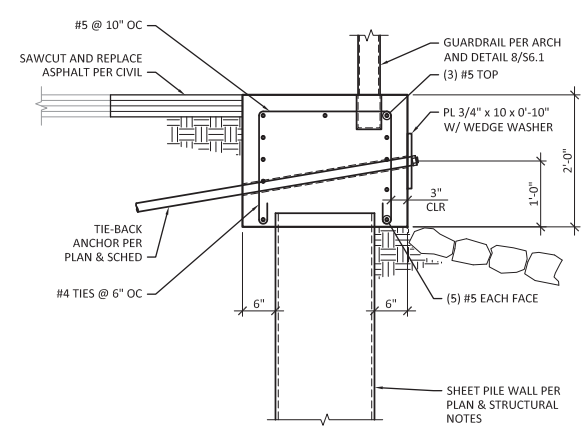
2 TYPICAL SHEET PILE

SCALE: 1" = 1'-0"



2 PILE CAP SECTION

SCALE: 3/4" = 1'-0"



4 PILE CAP SECTION

SCALE: 3/4" = 1'-0"

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PRELIMINARY
NOT FOR CONSTRUCTION
XX/ XX/ XX

MARK	DATE	DESCRIPTION
	XX/XX/XX	60% PROGRESS SET

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NORTH PORTWALK AND SEAWALL RECONSTRUCTION
336 ADMIRAL WAY
EDMONDS, WA 98020

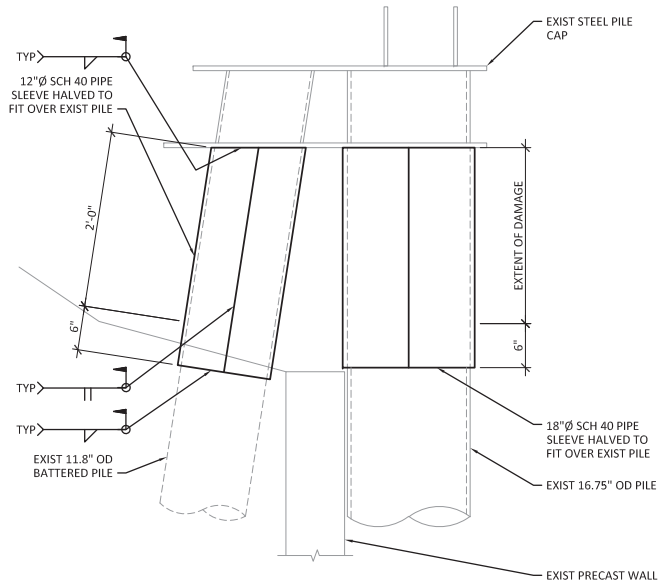
STRUCTURAL DETAILS

FILE NAME:

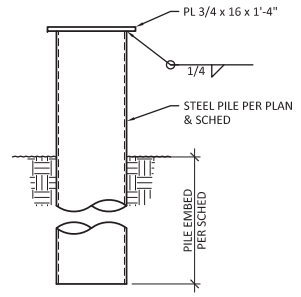
SHEET:

S6.1

NOTES:
1. CONTRACTOR TO FIELD VERIFY PROPOSED PIPE SLEEVES FIT OVER EXISTING PILES.
2. ALL WELDED SURFACES SHALL BE CLEANED DOWN TO BARE METAL PRIOR TO WELDING.
3. PIPE SLEEVES AND WELDED SURFACES SHALL BE FIELD COATED WITH GALVANIZING PAIN PER SPECIFICATIONS.



1 EXISTING STEEL PILE REPAIR SECTION
SCALE: 1" = 1'-0"



2 PILE SECTION
SCALE: 3/4" = 1'-0"

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FAX (425) 778-5536

DENNIS M. TITUS STATE OF WASHINGTON STRUCTURAL ENGINEER PROFESSIONAL ENGINEER

PRELIMINARY
NOT FOR CONSTRUCTION
XX/ XX/ XX

MARK	DATE	DESCRIPTION
	XX/XX/XX	60% PROGRESS SET

DESIGN:	DTR
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DATE:	XX/XX/XX

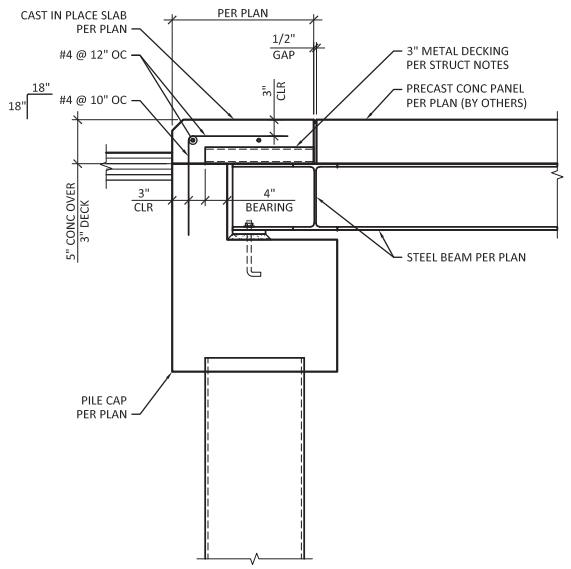
NORTH PORTWALK AND SEAWALL RECONSTRUCTION
336 ADMIRAL WAY
EDMONDS, WA 98020

STRUCTURAL DETAILS

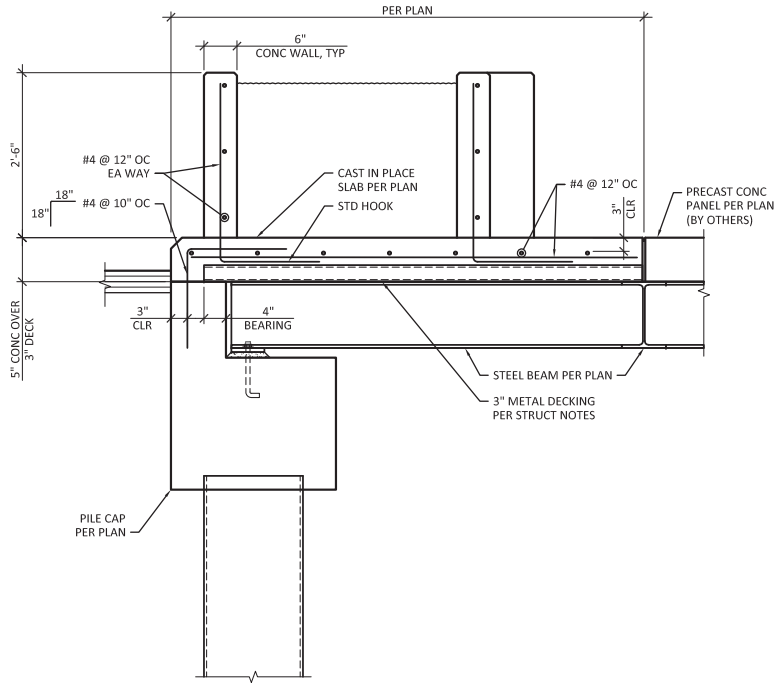
FILE NAME:

SHEET:

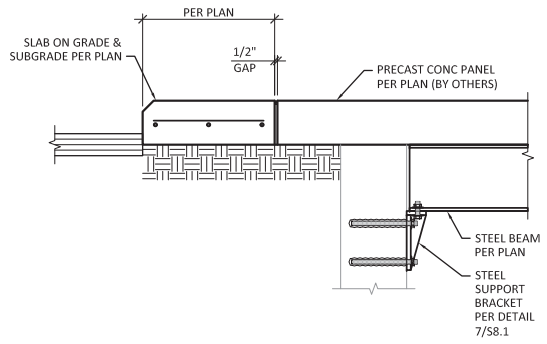
S6.2



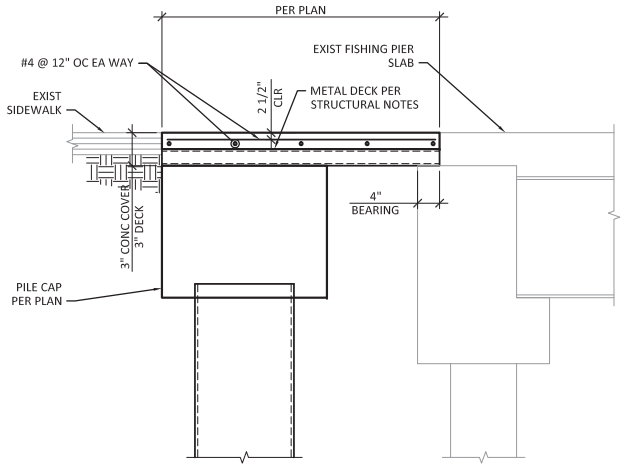
1 CONCRETE DECK SECTION
SCALE: 3/4" = 1'-0"



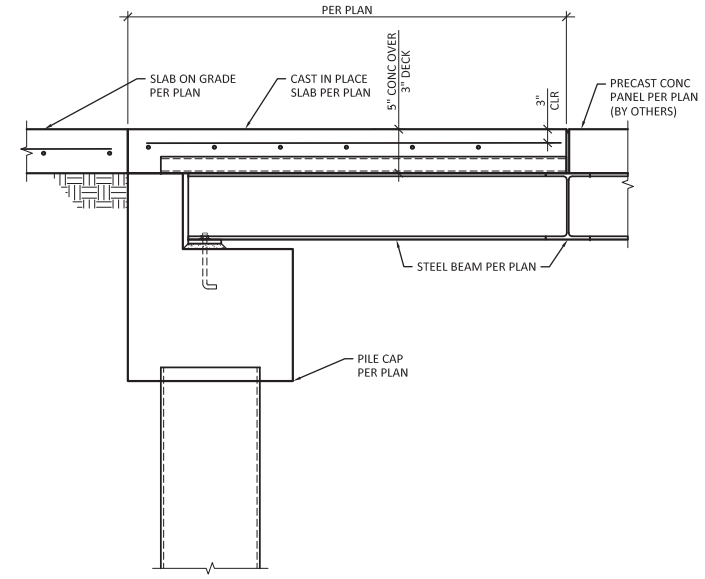
2 CONCRETE DECK SECTION
SCALE: 3/4" = 1'-0"



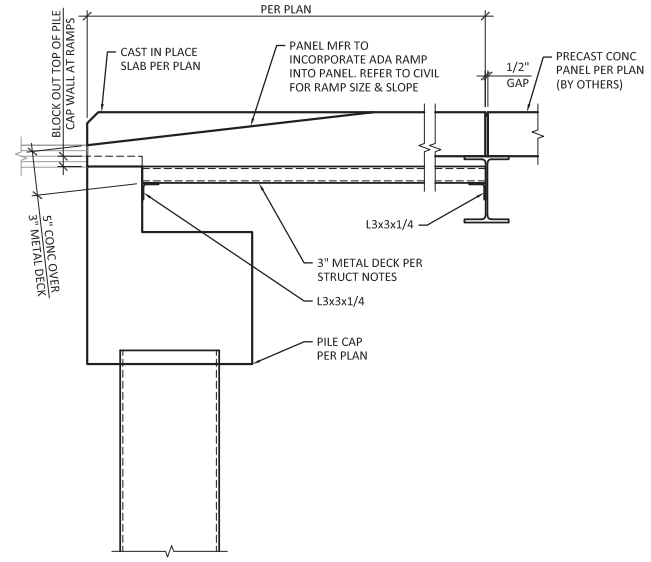
3 CONCRETE SLAB/DECK SECTION
SCALE: 3/4" = 1'-0"



4 CONCRETE DECK SECTION
SCALE: 3/4" = 1'-0"



5 CONCRETE DECK SECTION
SCALE: 3/4" = 1'-0"



6 CONCRETE DECK SECTION
SCALE: 3/4" = 1'-0"

CG ENGINEERING
250 4TH AVE. S., SUITE 200
EDMONDS, WASHINGTON 98020
PHONE (425) 778-8500
FAX (425) 778-5536

DENNIS M. TITUS — STATE OF WASHINGTON — 19997 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER

PRELIMINARY
NOT FOR CONSTRUCTION
XX/XX/XX

MARK	DATE	DESCRIPTION
	XX/XX/XX	60% PROGRESS SET

DESIGN:	DTR
DRAWN:	ATD
CHECK:	DMT
JOB NO:	21060.10
DATE:	XX/XX/XX

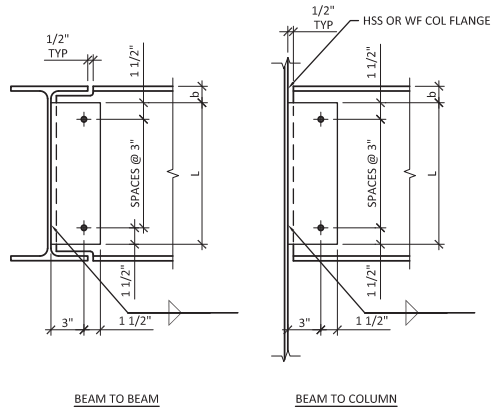
NORTH PORTWALK AND SEAWALL RECONSTRUCTION
336 ADMIRAL WAY
EDMONDS, WA 98020

CONCRETE DETAILS

FILE NAME:

SHEET:

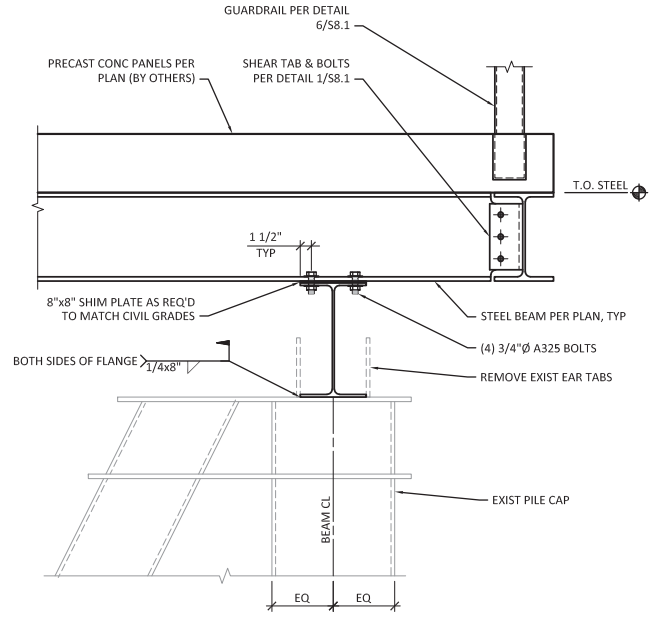
S7.1



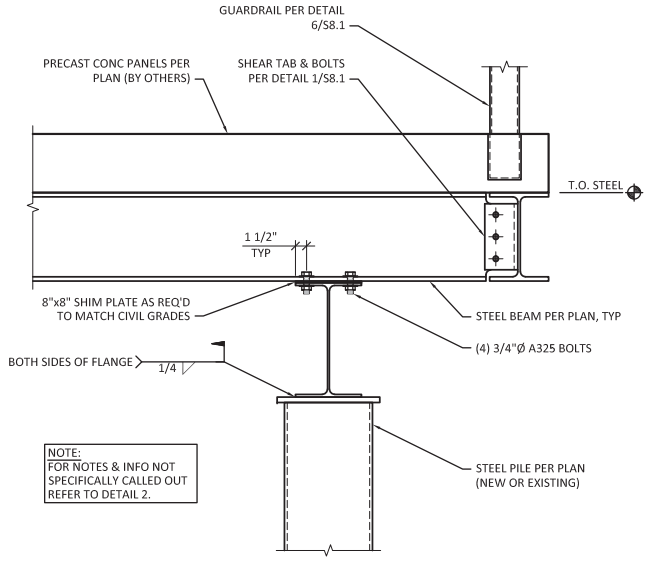
TYPE	BEAM SIZE	NO OF BOLTS	PL LENGTH (L)	PL THICKNESS	WELD SIZE	DIM (a)	DIM (b)
③	W12	(3) 3/4"Ø	9"	5/16"	1/4"	1 1/4"	1 1/2"

NOTES:
1. ALL BOLTS SHALL BE A325-N, TYP UNO BOLT HOLES SHALL BE STANDARD SIZE, TYP UNO.
2. BOLT INSTALLATION SHALL BE PER AISC SPECIFICATIONS, LATEST EDITION.

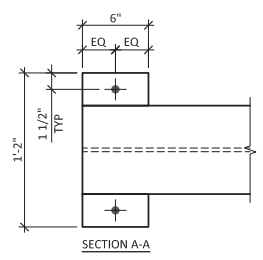
1 TYPICAL SINGLE PLATE SHEAR CONNECTION TABLE
SCALE: NTS

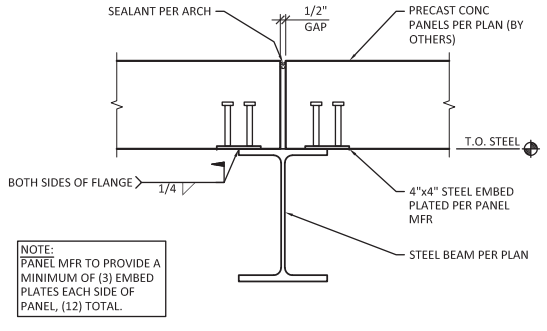


2 STEEL FRAMING AT EXISTING PILE SECTION
SCALE: 1" = 1'-0"

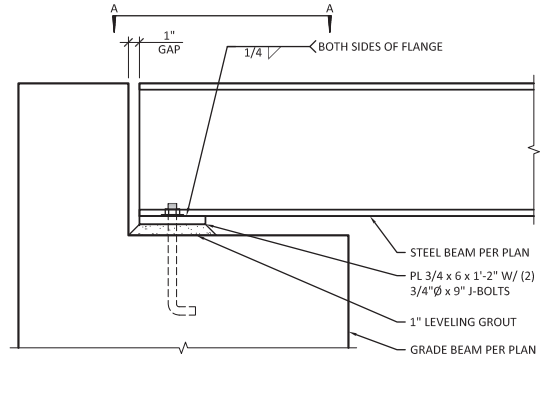


3 STEEL FRAMING AT NEW/EXISTING PILE
SCALE: 1" = 1'-0"





4 PRECAST ANCHORAGE SECTION
SCALE: 1 1/2" = 1'-0"



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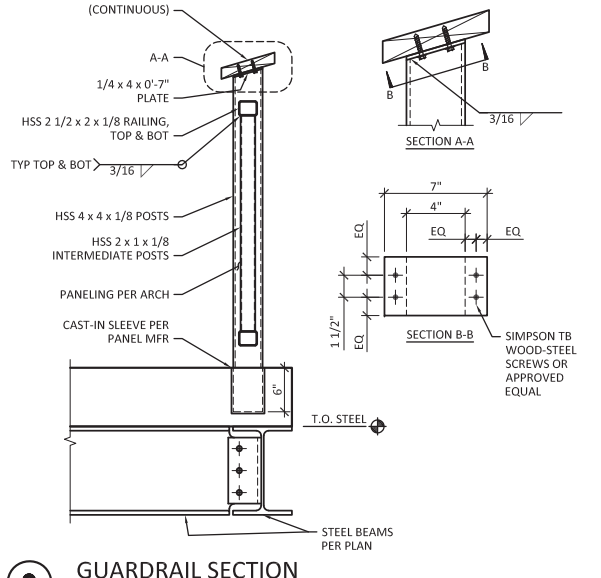
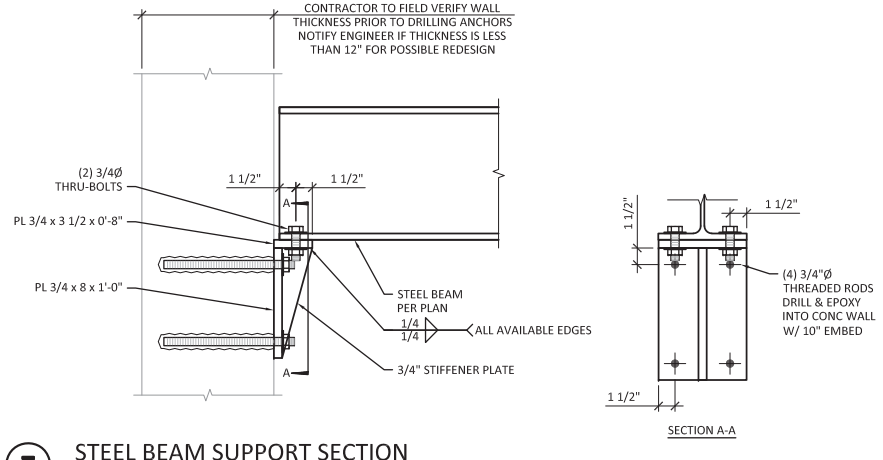
SCALE: 1 1/2" = 1'-0"



6 GUARDRAIL SECTION
SCALE: 1" = 1'-0"



7 STEEL BEAM SUPPORT SECTION
SCALE: 1 1/2" = 1'-0"

ENGINEERING
250 4TH AVE. S., SUITE 200
EDMONDS, WASHINGTON 98020
PHONE (425) 778-8500
FAX (425) 778-5536

PRELIMINARY
NOT FOR CONSTRUCTION
XX/ XX/ XX

MARK	DATE	DESCRIPTION
	XX/XX/XX	60% PROGRESS SET

DESIGN:	DTR
DRAWN:	ATD
CHECK:	DMT
JOB NO:	21060.10
DATE:	XX/XX/XX

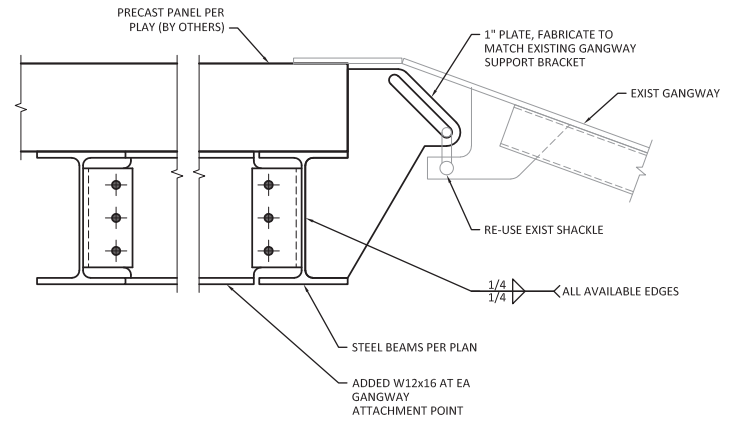
NORTH PORTWALK AND SEAWALL RECONSTRUCTION
336 ADMIRAL WAY
EDMONDS, WA 98020

STEEL FRAMING DETAILS

FILE_NAME

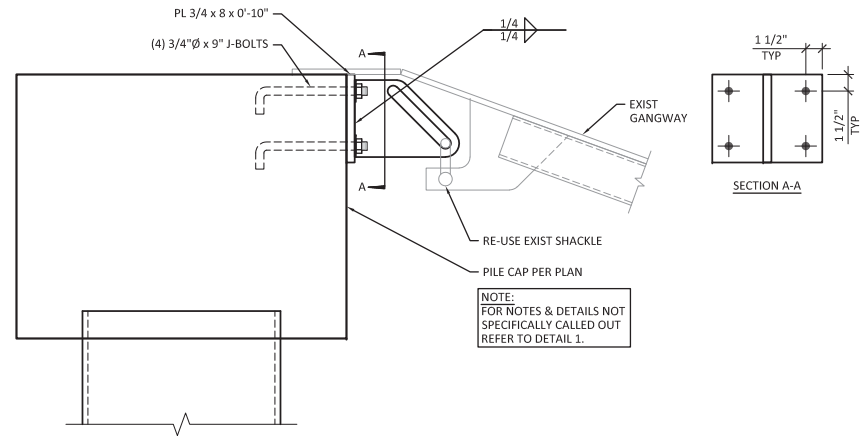
SHEET:

S8.1



1 GANGWAY ATTACHMENT SECTION

SCALE: 1 1/2" = 1'-0"



2 GANGWAY ATTACHMENT SECTION

SCALE: 1 1/2" = 1'-0"

ENGINEERING
250 4TH AVE. S., SUITE 200
EDMONDS, WASHINGTON 98020
PHONE (425) 778-8500
FAX (425) 778-5536

PRELIMINARY
NOT FOR CONSTRUCTION
XX/XX/XX

MARK	DATE	DESCRIPTION
	XX/XX/XX	60% PROGRESS SET

DESIGN:	DTR
DRAWN:	ATD
CHECK:	DMT
JOB NO:	21060.10
DATE:	XX/XX/XX

NORTH PORTWALK AND SEAWALL RECONSTRUCTION
336 ADMIRAL WAY
EDMONDS, WA 98020

STEEL FRAMING DETAILS

FILE NAME:

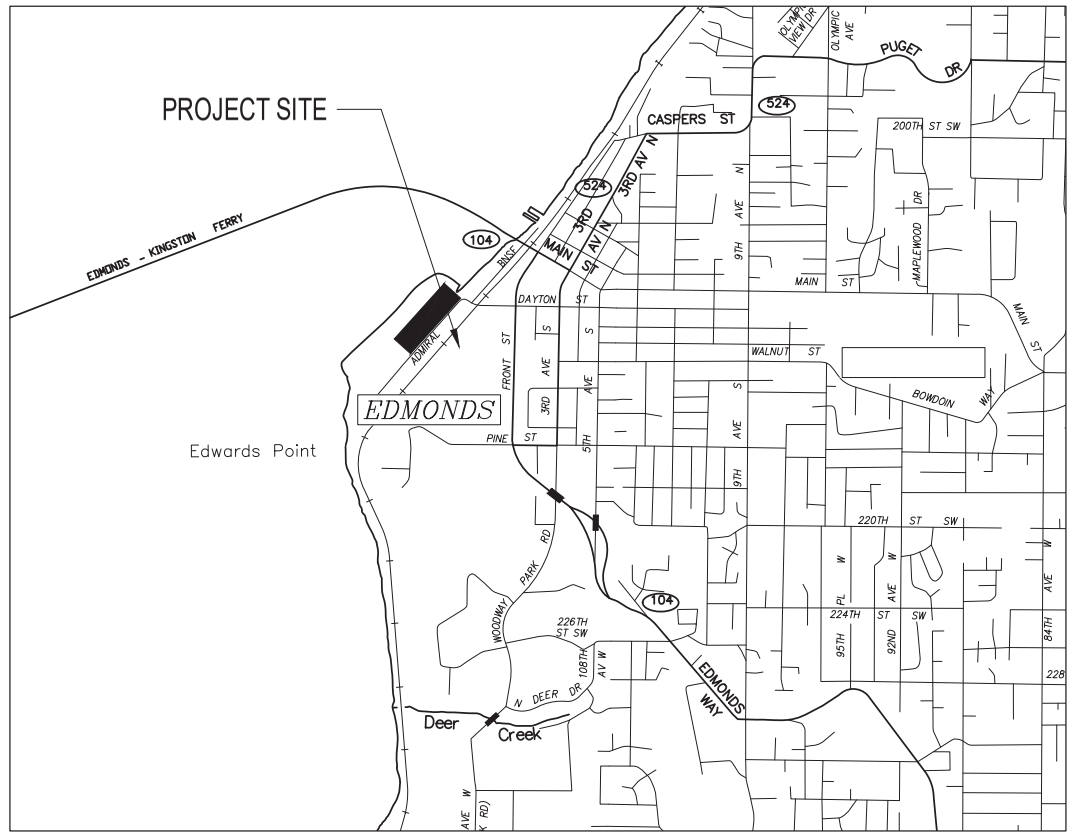
SHEET:

S8.2

PORT OF EDMONDS

NORTH PORTWALK AND SEAWALL RECONSTRUCTION

336 Admiral Way; Edmonds, Washington



VICINITY MAP

DRAWING INDEX		
Rev No.	Sheet Number	Sheet Title
	P-001	COVER SHEET
	P-002	NOTES AND SYMBOLS LEGEND
	P-050	PLUMBING DEMO PLAN SOUTH
	P-051	PLUMBING DEMO PLAN NORTH
	P-100	PORTWALK PLUMBING PLAN SOUTH
	P-101	PORTWALK PLUMBING PLAN NORTH
	P-300	DETAILS

FILE LOCATION: Q:\0070711.00\Drawings\Piping\P-001.dwg
BY: Pellac, Roger
PLOT DATE: 8/11/21

PRELIMINARY - NOT FOR CONSTRUCTION

Reference Drawings		Revisions					Revisions				
Drawing No	Title	Rev	Date	By	App	Description	Rev	Date	By	App	Description
		A	8/10/21	HG	JS	ISSUED FOR 60% REVIEW					

PORT OF EDMONDS

NORTH PORTWALK AND SEAWALL RECONSTRUCTION
336 Admiral Way; Edmonds, Washington

SCALE:	AS NOTED
DRAWN:	XXX
ENGINEER:	XXX
CHECKED:	XXX
PROJ MGR:	XXX
APPROVED:	XXX
DATE:	XX/XX/20

HARRIS GROUP

PIPING
COVER SHEET

NORTH PORTWALK AND SEAWALL RECONSTRUCTION

PROJECT NO:	SHEET NO:	REV:
0070711.00	P-001	A

GENERAL NOTES

PLUMBING DRAWINGS ARE DIAGRAMMATIC IN NATURE, AND DO NOT NECESSARILY REFLECT EVERY REQUIRED OFF-SET, FITTING OR ACCESSORY.

COORDINATE INSTALLATION OF PLUMBING SYSTEMS WITH BUILDING STRUCTURE AND ALL OTHER TRADES.

MAJOR APPLICABLE CODES:

2018 INTERNATIONAL BUILDING CODE WITH WASHINGTON STATE AMENDMENTS
2018 UNIFORM PLUMBING CODE WITH WASHINGTON STATE AMENDMENTS

PIPE MATERIALS - WATER

ALL NEW WATER PIPING SHALL BE HDPE TUBING WITH FUSION WELDED VALVES AND FITTINGS.

PIPE SEGMENTS ON DRAWINGS WITHOUT A SIZE CALLED OUT SHALL BE THE SAME SIZE AS THE PRECEDING UPSTREAM PIPE SEGMENT.

PLUMBING EQUIPMENT SCHEDULE

	DESCRIPTION	PART #	CONNECTION CW
FPV-1	FREEZE PROTECTION VALVE – THERMOMEGATECH HAT/FP, S.S BODY, FITTINGS & PLUGS. INTEGRAL THERMOLOID ACTUATOR, SELF-ACTUATING, FPV OPENS WHEN TEMP. DROPS TO 35F.	115-712100-035	3/4"
HB-1	HOSE BIBB – WOODFORD #21. SELF DRAINING, BRONZE WITH TEE HANDLE.		3/4"

PLUMBING LEGEND

GENERAL

SYMBOL	DESCRIPTION
	NEW WORK
	EXISTING WORK
	DEMO
	HIDDEN OR BELOW GRADE
	INSTRUMENT, PNEUMATIC SIGNAL CONTROL AIR
	CROSSING LINES, NO CONNECTION
	CONNECTING LINES
	POINT OF CONNECTION

PIPE IDENTIFICATION

SYMBOL	DESCRIPTION
CA	COMPRESSED AIR
CW	DOMESTIC COLD WATER
	FLEXIBLE COLD WATER

PIPING SPECIALTIES

SYMBOL	DESCRIPTION
	GATE VALVE, OPEN / CLOSE
	GATE VALVE, WITH HOSE CONNECTION
	BALL VALVE, OPEN / CLOSED
	AUTOMATIC FREEZE PROTECTION VALVE
	BUTTERFLY VALVE
	SWING CHECK VALVE WITH FLOW
	PRESSURE REGULATING VALVE W/EXT. PRESS TAP
	PRESSURE REGULATING VALVE (SELF CONTAINED)
	PRESSURE RELIEF VALVE / SAFETY VALVE
	NEEDLE VALVE
	QUICK OPENING VALVE
	PLUG VALVE/STOP COCK
	VALVE IN RISER (TYPE SPECIFIED)
	FLOW METER, VENTURI TYPE
	FLOW METER ORIFICE
	VALVE BOX
	WYE STRAINER (WITH DRAIN VALVE)
MAV	MANUAL AIR VENT (WITH DRAIN)
	PRESSURE GAUGE WITH VALVE
	AIR OUTLET – HARD PIPE, SIMPLEX / DUPLEX
HC	PETE'S PLUG, WITH BALL VALVE
BFP	BACKFLOW PREVENTER

PIPE FITTINGS

SYMBOL	DESCRIPTION
X | Y	PIPING MATERIAL CHANGE, X TO Y
	SCREWED FITTING OR AS SPECIFIED
	FLANGED FITTING
	FUSION WELDED FITTING
	SOLDERED FITTING
GC	GROOVED COUPLING
	BUSHING
	PIPE TEE, STRAIGHT
	PIPE TEE, OUTLET UP OR TOWARD
	PIPE TEE, OUTLET DOWN OR AWAY
	PIPE UNION
	PIPE CROSS
SR	PIPE ELBOW, 90° SHORT RADIUS
	PIPE ELBOW, 90° LONG RADIUS
	PIPE ELBOW, REDUCING
	PIPE ELBOW, 45°
	PIPE ELBOW, TURNED UP OR TOWARD
	PIPE ELBOW, TURNED DOWN OR AWAY
	PIPE CAP SCREWED OR SOLDER JOINT
	PIPE CAP, WELDED OR GROOVED
	BLIND FLANGE
	PIPE PLUG
	REDUCING PIPE FLANGE
	PIPE REDUCER CONCENTRIC
	PIPE REDUCER ECCENTRIC
	PIPE ANCHOR
	PIPE HANGER
S	SEISMIC HANGER
	SPRING HANGER
	PIPE GUIDE
	PIPE SUPPORT
	FLEXIBLE PIPE CONNECTION
	EXPANSION JOINT
	UNION, FLANGED
	UNION, SCREWED
HB	HOSE BIBB
NFHB	NON FREEZE HOSE BIBB
	BREAK IN PIPE
	DIRECTION OF FLOW
SLOPE	DIRECTION OF SLOPE, DOWN

FILE LOCATION: Q:\0070711.00\Drawings\Piping\P-002.dwg
BY: Pinlac, Roger
PLOT DATE: 8/11/21

PRELIMINARY - NOT FOR CONSTRUCTION

Reference Drawings		Revisions					Revisions				
Drawing No	Title	Rev	Date	By	App	Description	Rev	Date	By	App	Description
		A	XX/XX/20	HG	XXX	ISSUED FOR 60% REVIEW					

PORT OF EDMONDS
NORTH PORTWALK AND SEAWALL RECONSTRUCTION
336 Admiral Way; Edmonds, Washington

SCALE:	AS NOTED
DRAWN:	XXX
ENGINEER:	XXX
CHECKED:	XXX
PROJ MGR:	XXX
APPROVED:	XXX
DATE:	XX/XX/20

HARRIS GROUP

PIPING
NOTES AND SYMBOLS LEGEND

NORTH PORTWALK AND SEAWALL RECONSTRUCTION

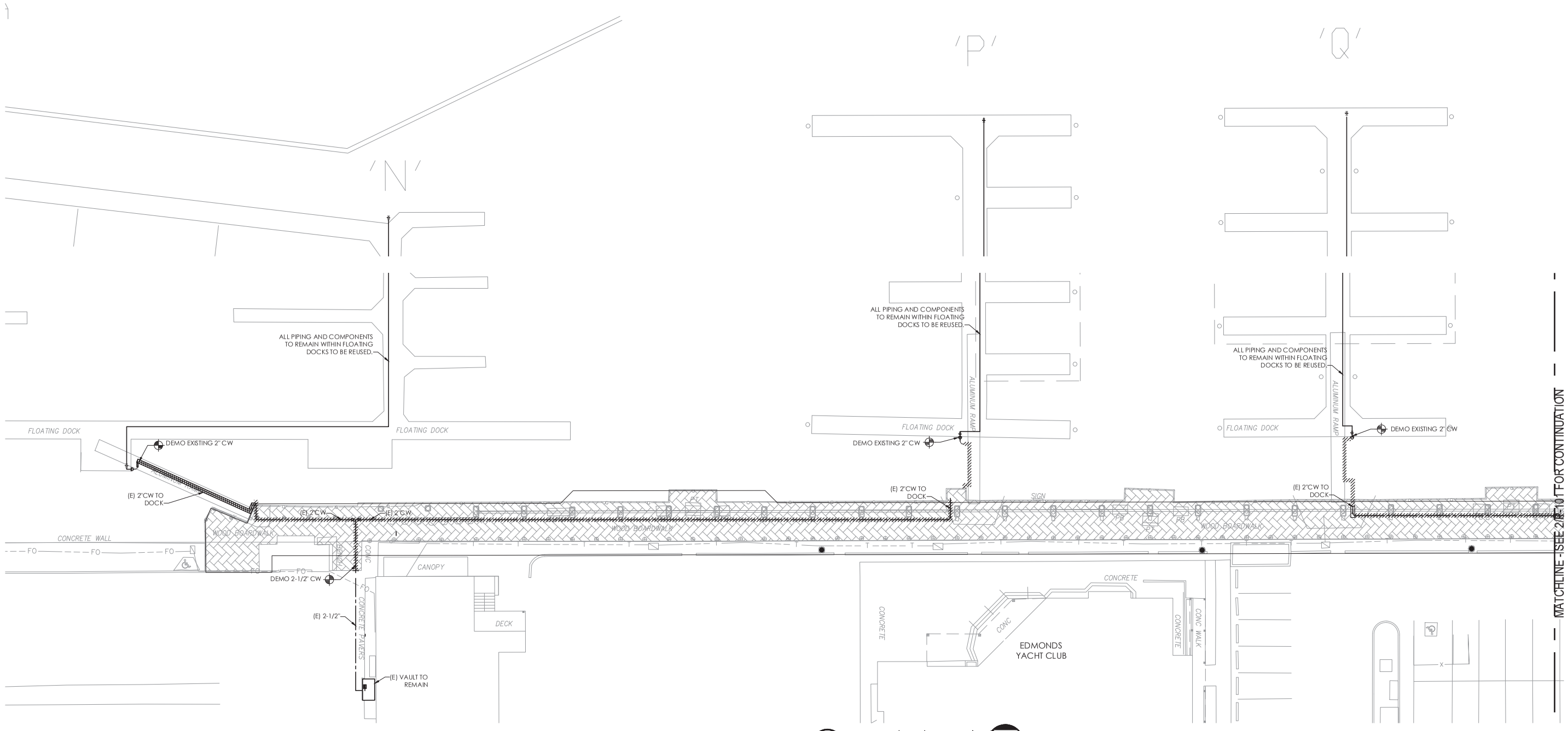
PROJECT NO: 0070711.00
SHEET NO: **P-002**
REV: A

GENERAL NOTES

1. NOT USED.

KEYED NOTES

(1) NOT USED.



PLUMBING DEMO PLAN SOUTH
SCALE: 1/16" = 1'-0"
1 / P-050

0 8' 16' 32'
1/16"=1'-0"

NORTH

PRELIMINARY - NOT FOR CONSTRUCTION

Reference Drawings		Revisions					Revisions				
Drawing No	Title	Rev	Date	By	App	Description	Rev	Date	By	App	Description
		A	XX/XX/20	HG	XXX	ISSUED FOR					

PORT OF EDMONDS
NORTH PORTWALK AND SEAWALL RECONSTRUCTION
336 Admiral Way; Edmonds, Washington

SCALE:	AS NOTED
DRAWN:	XXX
ENGINEER:	XXX
CHECKED:	XXX
PROJ MGR:	XXX
APPROVED:	XXX
DATE:	XX/XX/20

HARRIS GROUP

PIPING
PLUMBING DEMO PLAN SOUTH

NORTH PORTWALK AND SEAWALL RECONSTRUCTION

PROJECT NO: 0070711.00
SHEET NO: P-050
REV: A

FILE LOCATION: Q:\0070711.00\Drawings\Piping\P-050.dwg
BY: Pinlac, Roger
PLOT DATE: 8/11/21

GENERAL NOTES

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KEYED NOTES

(1) NOT USED.

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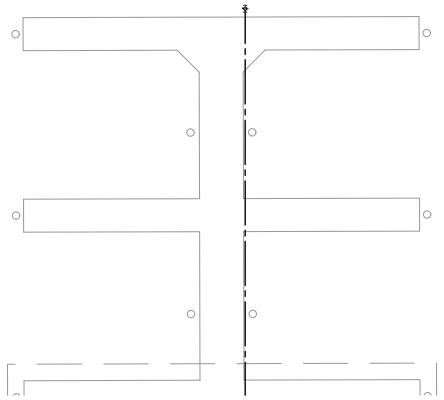

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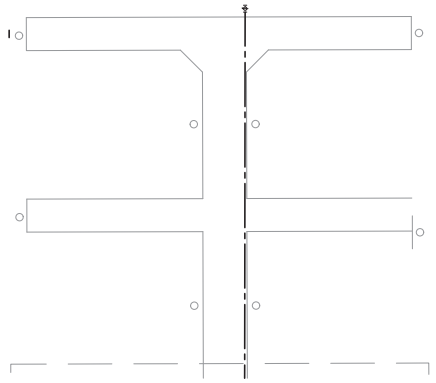

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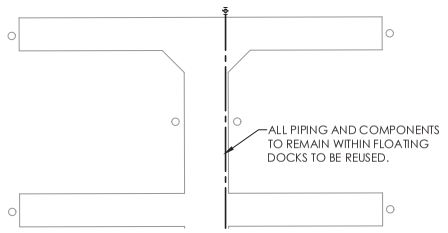

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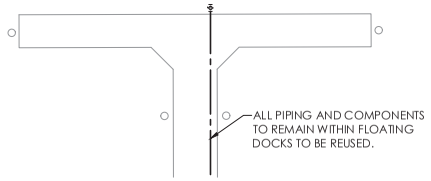
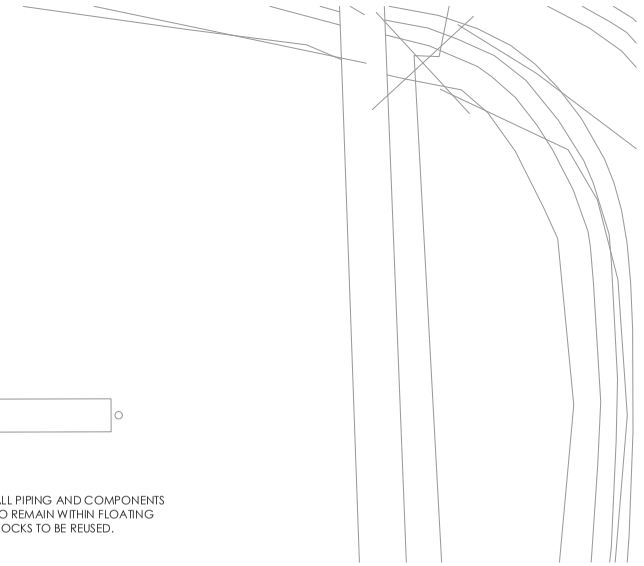
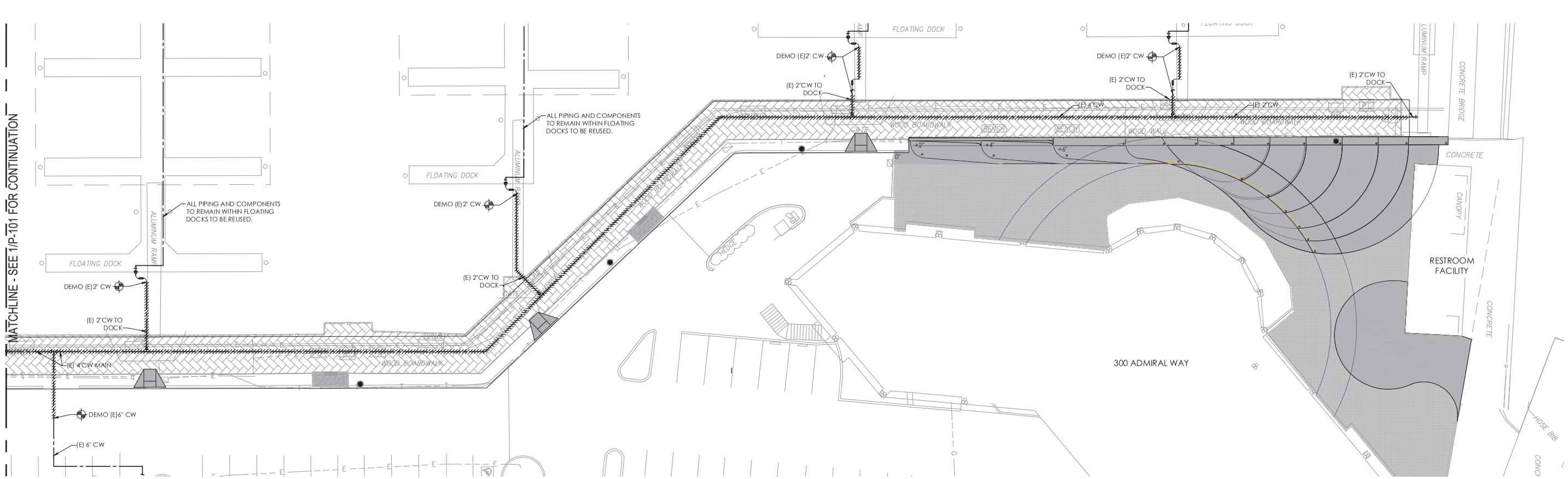






PLUMBING DEMO PLAN NORTH (1 / P-051)
SCALE: 1/16" = 1'-0"

0 8' 16' 32'
1/16"=1'-0"

NORTH

PRELIMINARY - NOT FOR CONSTRUCTION

FILE LOCATION: Q:\0070711.00\Drawings\Piping\P-051.dwg
BY: Pellac, Roger
PLOT DATE: 8/11/21

Reference Drawings	
Drawing No	Title

Revisions					
Rev	Date	By	App	Description
A	XX/XX/20	HG	XXX	ISSUED FOR 60% REVIEW

Revisions				
Rev	Date	By	App	Description

PORT OF EDMONDS

NORTH PORTWALK AND SEAWALL RECONSTRUCTION
336 Admiral Way; Edmonds, Washington

SCALE:	AS NOTED
DRAWN:	XXX
ENGINEER:	XXX
CHECKED:	XXX
PROJ MGR:	XXX
APPROVED:	XXX
DATE:	XX/XX/20

HARRIS GROUP

PIPING
PLUMBING DEMO PLAN NORTH

NORTH PORTWALK AND SEAWALL RECONSTRUCTION

PROJECT NO: 0070711.00
SHEET NO: **P-051**
REV: A

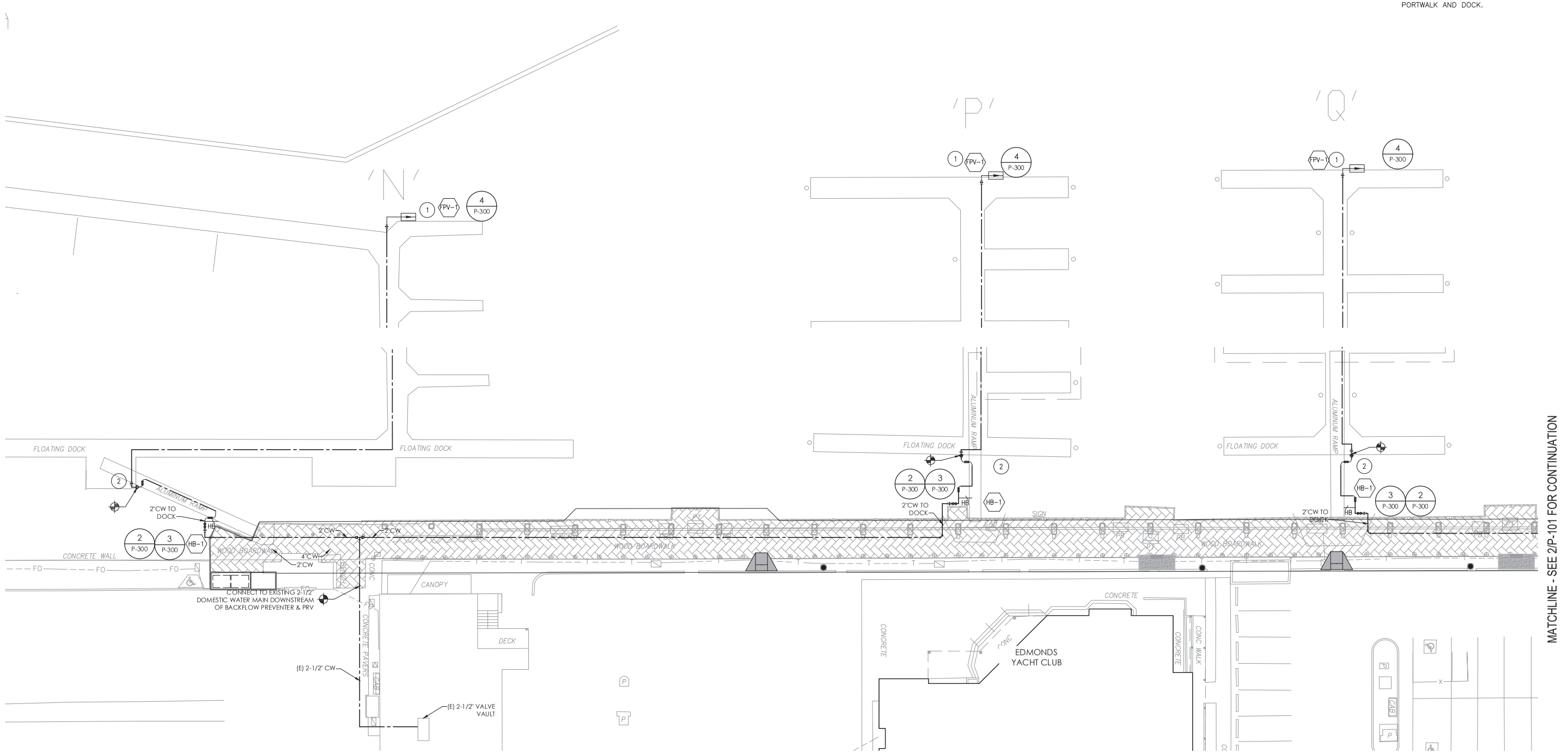
GENERAL NOTES

1. NOT USED.

KEYED NOTES

(1) INSTALL NC FLUID SENSING FREEZE PROTECTION VALVE ON SUPPLY PIPE TERMINATION AT END OF DOCK. REFER TO DETAIL 4 ON P-300.

(2) INSTALL HDPE PIPING BELOW RAMP. CONNECT FLEXIBLE PIPING TO RIGID HDPE PIPING AT THE PORTWALK AND DOCK.



PLUMBING PLAN SOUTH
SCALE: 1/16" = 1'-0"
1 / P-100

0 8' 16' 32'
1/16"=1'-0"

NORTH

PRELIMINARY - NOT FOR CONSTRUCTION

Reference Drawings	
Drawing No	Title

Revisions				
Rev	Date	By	App	Description
A	XX/XX/20	HG	XXX	ISSUED FOR

Revisions				
Rev	Date	By	App	Description

PORT OF EDMONDS

NORTH PORTWALK AND SEAWALL RECONSTRUCTION
336 Admiral Way; Edmonds, Washington

SCALE:	AS NOTED
DRAWN:	XXX
ENGINEER:	XXX
CHECKED:	XXX
PROJ MGR:	XXX
APPROVED:	XXX
DATE:	XX/XX/20

HARRIS GROUP

PIPING
PORTWALK PLUMBING PLAN SOUTH

NORTH PORTWALK AND SEAWALL RECONSTRUCTION

PROJECT NO: 0070711.00
SHEET NO: **P-100**
REV: A

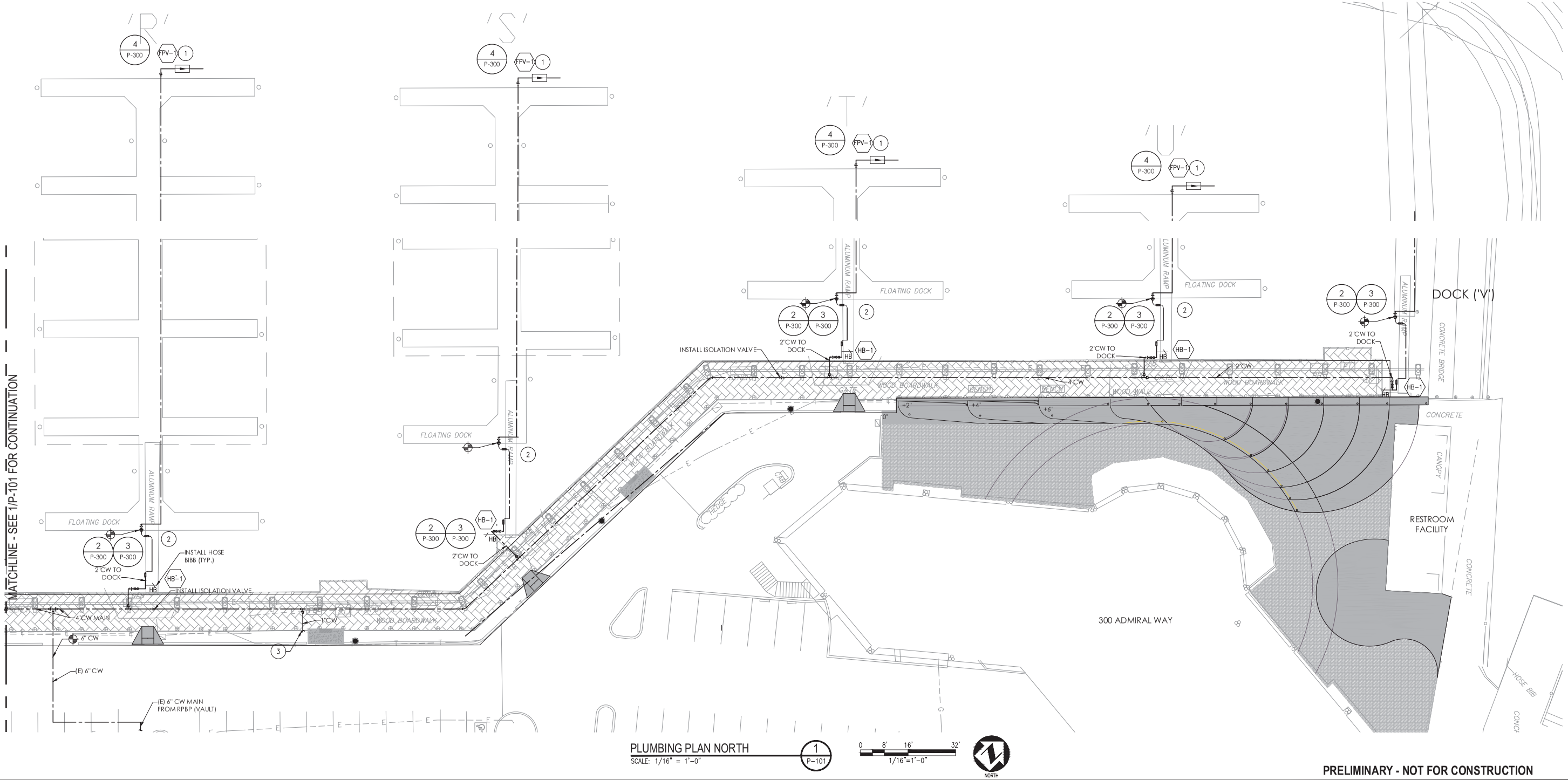
FILE LOCATION: Q:\0070711.00\Drawings\Piping\P-100.dwg
BY: Pinlac, Roger
PLOT DATE: 8/11/21

GENERAL NOTES

1. NOT USED.

KEYED NOTES

1. INSTALL NC FLUID SENSING FREEZE PROTECTION VALVE ON SUPPLY PIPE TERMINATION AT END OF DOCK. REFER TO P-300 DETAIL 4.
2. INSTALL HDPE PIPING BELOW RAMP. CONNECT FLEXIBLE PIPING TO RIGID HDPE PIPING AT THE PORTWALK AND DOCK.
3. PROVIDE DCVA STUBOUT FOR LANDSCAPING IRRIGATION. IRRIGATION DESIGN BY OTHERS.



PLUMBING PLAN NORTH
SCALE: 1/16" = 1'-0"

1 P-101

0 8' 16' 32'
1/16"=1'-0"

NORTH

PRELIMINARY - NOT FOR CONSTRUCTION

Reference Drawings	
Drawing No	Title

Revisions				
Rev	Date	By	App	Description
A	XX/XX/20	HG	XXX	ISSUED FOR 60% REVIEW

Revisions				
Rev	Date	By	App	Description

PORT OF EDMONDS

NORTH PORTWALK AND SEAWALL RECONSTRUCTION
336 Admiral Way; Edmonds, Washington

SCALE:	AS NOTED
DRAWN:	XXX
ENGINEER:	XXX
CHECKED:	XXX
PROJ MGR:	XXX
APPROVED:	XXX
DATE:	XX/XX/20

HARRIS GROUP

PIPING
PORTWALK PLUMBING PLAN NORTH

NORTH PORTWALK AND SEAWALL RECONSTRUCTION

PROJECT NO: 0070711.00
SHEET NO: P-101
REV: A

FILE LOCATION: Q:\0070711.00\Drawings\Piping\P-101.dwg
BY: Pintac, Roger
PLOT DATE: 8/11/21

GENERAL NOTES

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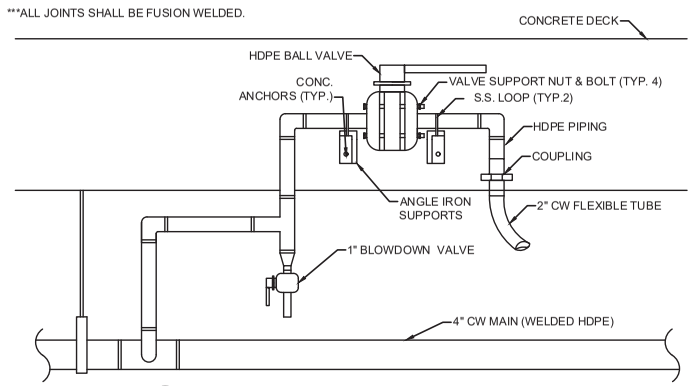
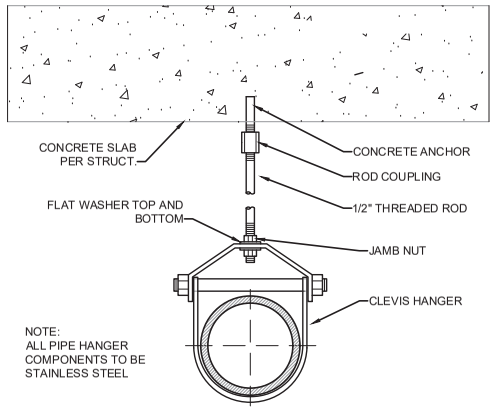
KEYED NOTES

(1) NOT USED.



3 P-300 FLEXIBLE CONNECTION & BLOWDOWN DETAIL
SCALE: NTS



1 P-300 CLEVIS HANGER DETAIL
SCALE: NTS

4 P-300 FLEXIBLE CONNECTION & BLOWDOWN DETAIL
SCALE: NTS

2 P-300 HOSE BIBB DETAIL
SCALE: NTS

PRELIMINARY - NOT FOR CONSTRUCTION

Reference Drawings	
Drawing No	Title

Revisions				
Rev	Date	By	App	Description
A	XX/XX/20	HG	XXX	ISSUED FOR 60% REVIEW

Revisions				
Rev	Date	By	App	Description

PORT OF EDMONDS

NORTH PORTWALK AND SEAWALL RECONSTRUCTION
336 Admiral Way; Edmonds, Washington

SCALE:	AS NOTED
DRAWN:	XXX
ENGINEER:	XXX
CHECKED:	XXX
PROJ MGR:	XXX
APPROVED:	XXX
DATE:	XX/XX/20

HARRIS GROUP
harrisgroup.com

PIPING DETAILS

NORTH PORTWALK AND SEAWALL RECONSTRUCTION

PROJECT NO: 0070711.00 | SHEET NO: **P-300** | REV: A

FILE LOCATION: Q:\0070711.00\Drawings\Piping\P-300.dwg
BY: Pitlac, Roger
PLOT DATE: 8/11/21

PROJECT NOTES

1. GENERAL: WORK SHALL BE DONE IN ACCORDANCE WITH NFPA 70 AS ADOPTED BY THE CITY OF EDMONDS, SNOHOMISH COUNTY, AND THE STATE OF WASHINGTON.

2. SCOPE OF WORK - THE SCOPE OF ELECTRICAL WORK FOR THIS PROJECT INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING:

   GENERAL: X

   B. COMPLETE SYSTEM: NOT ALL COMPONENTS ARE SHOWN FOR SIMPLICITY. WORK INCLUDES THE INSTALLATION OF ELECTRICAL EQUIPMENT, FIXTURES, DUCTS, JUNCTION BOXES, DISCONNECTS, CONTROL WIRING, AND ENCLOSURE(S). PROVIDE MATERIALS AND LABOR FOR A COMPLETE AND OPERATIONAL SYSTEM.

   C. PERMITS: GIVE ALL NECESSARY NOTICES, OBTAIN ALL PERMITS AND PAY ALL GOVERNMENT TAXES, FEES AND OTHER COSTS IN CONNECTION WITH THIS WORK. OBTAIN ALL REQUIRED CERTIFICATES OF INSPECTION OF THE WORK AND DELIVER SAME TO THE ENGINEER AT THE TIME OF SUBSTANTIAL COMPLETION AND BEFORE REQUEST FOR FINAL PAYMENT.

   D. TEMPORARY POWER: THE SCOPE OF WORK INCLUDES PROVIDING TEMPORARY POWER DURING CONSTRUCTION. PROVIDE NECESSARY TEMPORARY POWER REQUIRED BY OTHER TRADES IN THE EXECUTION OF THIS CONTRACT. THIS INCLUDES TEMPORARY CONNECTIONS TO THE ELECTRICAL SYSTEMS FOR THE PURPOSES OF TESTING AND TROUBLESHOOTING.

2. REQUIREMENTS - IN ADDITION TO OTHER AREAS OF THESE CONTRACT DOCUMENTS, THIS WORK INCLUDES THE FOLLOWING REQUIREMENTS:

   A. STAINLESS STEEL HARDWARE: MATERIALS USED FOR THE MOUNTING AND SUPPORT OF BOXES, RACEWAYS, CABLES, LIGHT FIXTURES, OUTLETS, AND OTHER DIVISION 16 EQUIPMENT IN EXTERIOR ABOVE GRADE LOCATIONS, SHALL BE 316 STAINLESS STEEL. THIS INCLUDES, BUT IS NOT LIMITED TO, SUPPORTS, STRUT, STRAPS, SCREWS, NUTS, WASHERS, ETC.

   B. SPLICING: SPLICING OF WIRES BELOW THE ELECTRICAL DATUM PLANE IS NOT ALLOWED.

   C. OUTAGES: DISRUPTION IN ELECTRICAL SERVICES TO THE FUEL DOCKS SHALL BE LIMITED TO A SINGLE FIVE (5) DAY PERIOD. SCHEDULE OUTAGE TIME WITH OWNER 30-DAYS IN ADVANCE.

   D. CONDUITS/CHASES IN HAZARDOUS AREAS: IN ADDITION TO NEC REQUIRED SEAL-OFFS, USE UL LISTED SEALANT AROUND CONDUITS INSTALLED INSIDE PVC CHASES TO PREVENT THE MIGRATION OF FUEL VAPORS THROUGH THE IN DOCK SYSTEM.

ELECTRICAL LEGEND

FIRE ALARM SYSTEM

SYMBOL	DESCRIPTION
FACP	FIRE ALARM CONTROL PANEL
FARA	FIRE ALARM REMOTE ANNUNCIATOR
F	FIRE ALARM SYSTEM MANUAL PULL STATION, WALL MOUNTED
F	SPEAKER - CEILING, WALL MOUNTED
F X	STROBE, WALL MOUNTED (X = CANDELA RATING)
F X	COMBINATION SPEAKER/STROBE, WALL MOUNTED (X = CANDELA RATING)
TS	SPRINKLER VALVE TAMPER SWITCH LOCATION
FS	SPRINKLER FLOW SWITCH CONNECTION
	SMOKE DETECTOR, CEILING OR PLENUM MOUNTED. PHOTOELECTRIC TYPE UON
D	SMOKE SENSOR, DUCT MOUNTED, WITH SAMPLING TUBES. PHOTOELECTRIC TYPE UON
	ELECTROMAGNETIC DOOR HOLDER, WALL MOUNTED
	FIREMAN'S PHONE JACK, WALL MOUNTED
	FIREMAN'S PHONE HAND SET, WALL MOUNTED
FSD	FIRE ALARM CONNECTION TO COMBINATION FIRE/SMOKE DAMPER
	FLAME DETECTOR (FLICKER DETECTOR)
	LIGHT (LIGHT, SIGNAL LIGHT, INDICATOR LAMP, STROBE)
	HEAT DETECTOR, CEILING MOUNTED. RATE OF RISE AND FIXED TEMPERATURE TYPE, OUN
F	HEAT DETECTOR - FIXED TEMP. ONLY
R	HEAT DETECTOR - RATE OF RISE ONLY
PIV	POST INDICATOR VALVE (PIV) CONNECTION

LIGHTING

SYMBOL	DESCRIPTION
	FLUORESCENT RECESSED LUMINAIRE (REFER TO LUMINAIRE SCHEDULE FOR TYPE)
	FLUORESCENT SURFACE-MOUNTED LUMINAIRE (REFER TO LUMINAIRE SCHEDULE)
	SHADING OF ANY LUMINAIRE INDICATES CONNECTION TO EMERGENCY CIRCUIT.
	HID FIXTURE
	LIGHTED BOLLARD OR DOWNLIGHT (INTERIOR SPACES)
	FLOOR OR GRADE MOUNTED FIXTURE
	WALL WASH - SURFACE, RECESSED CEILING MOUNT
	TRACK LIGHTING WITH HEADS AS INDICATED.
	FLUORESCENT STRIPLIGHT - POWER FEED SECTION, FEED THOUGH SECTION, LENGTH AS SHOWN.
	FLUORESCENT WALL BRACKET - RESTROOM
	STEP LIGHT FIXTURE
	ADA APPROVED WALL SCONCE
	ILLUMINATED EXIT SIGN, SHADED QUADRANT INDICATES FACES, ARROW AS SHOWN
	POLE MOUNTED LUMINAIRE
	"FOOT" INDICATES WALL MOUNTED LUMINAIRE
XXX	FIXTURE TYPE IDENTIFICATION DESIGNATION
	BATTERY POWER EMERGENCY UNIT EQUIPMENT (SEE SCHEDULE FOR QUANTITY OF HEADS) - WALL, CEILING MOUNTED.
	REMOTE HEAD
	OPTICAL SENSOR AND REFLECTOR

POWER DEVICES

SYMBOL	DESCRIPTION
C	SIMPLEX RECEPTACLE - WALL, CEILING, FLOOR
C	DUPLEX RECEPTACLE - WALL, CEILING, FLOOR
C	DOUBLE DUPLEX RECEPTACLE - WALL, CLG, FLOOR
C +44	DUPLEX RECEPTACLE AT SPECIAL HEIGHT
C +44	DOUBLE DUPLEX RECEPTACLE AT SPECIAL HEIGHT
	DUPLEX RECEPTACLE - WALL - DEDICATED
	DUPLEX RECEPTACLE - WALL - HALF SWITCHED
	DUPLEX RECEPTACLE - WALL - ABOVE COUNTER/ BACKSPLASH. SEE ARCHITECTURAL DRAWINGS.
GFI	DUPLEX RECEPTACLE - WALL - WITH INTEGRAL GROUND FAULT CIRCUIT INTERRUPTER
WP	DUPLEX RECEPTACLE W/ WEATHERPROOF COVER
C	SPECIAL PURPOSE RECEPTACLE- WALL , CEILING NEMA CONFIGURATION AS NOTED
	ELECTRICAL EQUIPMENT CONNECTION. PROVIDE #10 AWG NEUTRALS. USE LIQUID-TIGHT FLEX.
	FLUSH FLOOR BOX DEVICE - DEVICE TYPES PER SYMBOLS SHOWN.
	PEDESTAL FLOOR DEVICE - DEVICE TYPES PER SYMBOLS SHOWN.
	TWO-PIECE SURFACE METAL RACEWAY WITH RECEPTACLE AS NOTED, LENGTH AS INDICATED ON THE DRAWINGS AND WITH ALL FITTINGS AS REQUIRED
	TELE/POWER POLE, POWER POLE
	COURTEST PHONE WITH ENCLOSURE
	TWO-PIECE SURFACE METAL RACEWAY WITH RECEPTACLE AT 6" O.C. (LENGTH AS INDICATED).
Y X Z X	POWER PEDESTAL X = 30 = 30A, 120V OUTLET X = 50 = 50A, 120/240V OUTLET X = 20GFCI = 20A,120V DUPLEX GFCI PROTECTED OUTLET Y = DOCK OR ROW ID # Z = CIRCUIT NUMBER (PANEL - NUMBER) NOTE: "X" DESIGNATES OUTLET PER SLIP. MULTIPLE REFERENCES (30/50) INDICATES MULTIPLE OUTLETS PER SLIP.

WIRING

SYMBOL	DESCRIPTION
	CONDUIT CONCEALED IN CEILING OR WALL. LINE WEIGHT TOP TO BOTTOM = NEW, EXISTING TO REMAIN.
	CONDUIT CONCEALED IN OR BELOW CONCRETE UNDER GRADE, UNDER PIER, IN CEILING SPACE OF FLOOR BELOW. LINE WEIGHT TOP TO BOTTOM= NEW, EXISTING TO REMAIN.
	CONDUIT EXPOSED. LINE WEIGHT TOP TO BOTTOM= NEW, EXISTING TO REMAIN.
	EXISTING CONDUIT & WIRING TO BE REMOVED
—C—	COMMUNICATION CONDUIT / CABLE
—MV—	MEDIUM VOLTAGE CONDUIT
—LV—	LOW VOLTAGE CONDUCTORS
—G—	GROUNDING GRID OR CONDUCTORS
—TV—	CABLE TV WIRE / CONDUIT
—O/H—	AERIAL CONDUCTOR(S)/OVERHEAD LINE
	STROKES INDICATE QUANTITY OF #12 AWG. CONDUCTORS, UON. NOTE: NOT ALL WIRING IS SHOWN ON DRAWING. CONTRACTOR SHALL SCHEDULE OR STANDARD WIRING PRACTICES FOR BRANCH CIRCUITS.
	GROUND
	HOT
	GROUND, ISOLATED
	NEUTRAL
	HOME RUN TO INDICATED DESTINATION, 3/4"C. MIN. UON
	CONDUIT RUN TURNED UP THROUGH FLOOR OR CEILING. CORE AS REQUIRED.
	CONDUIT STUBBED OUT AT LOCATION SHOWN. PROVIDED INSULATED BUSHING & PULLROPE.
	TELEPHONE/DATA SLEEVE THROUGH WALL, ABOVE CEILING, EXTEND TO ACCESSIBLE LOCATION BOTH SIDES. TERMINATE WITH BUSHINGS. (1) 1 1/4" C.O UON. COORDINATE LOCATIONS WITH CABLE INSTALLER(S) PRIOR TO ROUGH-IN.
	CABLE TRAY
J C	JUNCTION BOXES WALL, CEILING AND FLUSH FLOOR MOUNTED. 4" SQ. BOX, UON.
PB	PULL BOX, MIN. SIZE PER NEC., UON.
	FLEXIBLE CONDUIT CONNECTION
	GROUND ROD CONNECTION
	GROUND ROD CONNECTION WITH TEST WELL BOX
	LIGHTNING SYSTEM AIR TERMINAL
P	UNDERGROUND PULLBOX/VAULT (P=POWER T=TEL/COM U=UTILITY)
	UNDERGROUND PULLBOX/VAULT (PLASTIC)
	HANDHOLE

SIGNAL DEVICES

SYMBOL	DESCRIPTION
	EQUIPMENT TERMINAL BOARD 8" HIGH X WIDTH AS SHOWN, FIRE TREATED.
	COMBO TELEPHONE/DATA OUTLET - WALL
	TELEPHONE OUTLET - WALL
	DATA OUTLET - WALL
S C	SPEAKER - WALL, CEILING
	VOLUME CONTROL - WALL
H	BELL
H	BUZZER
H	CHIME
C C	SYSTEM CLOCK - WALL, CEILING
TV	MASTER ANTENNA TV OUTLET
	MICROPHONE / HANDSET OUTLETS

SWITCHING CONTROLS

SYMBOL	DESCRIPTION
S	SINGLE POLE SWITCH (SUPERSCRIPT DENOTES SIMILARLY MARKED LUMINARIES CONTROLLED TOGETHER)
S 2	TWO POLE SWITCH
S 3	THREE WAY SWITCH
S 4	FOUR WAY SWITCH
S K	KEY OPERATED SWITCH
D	DIMMER SWITCH. NUMBER INDICATES WATTAGE RATING. IF NOT SHOWN 800W MINIMUM.
S P	SWITCH WITH PILOT (PILOT IS "ON" WHEN SWITCH IS "ON")
S PL	SWITCH WITH PILOT (PILOT IS "ON" WHEN SWITCH IS "OFF")
S T	TIMER SWITCH
S WP	WEATHERPROOF SWITCH
S M	MOTOR RATED TOGGLE W/THERMAL OVERLOAD PROTECTION
PC	PHOTOCELL
TC	TIME CLOCK
OC	WALL MOUNTED DUAL LEVEL SWITCHING OCCUPANCY SENSOR
	EMERGENCY POWER OFF, HEAVY-DUTY OIL TIGHT RED MUSHROOM HEAD PUSH-BUTTON
LCP	LIGHTING CONTROL PANEL
LC	LIGHTING CONTROL STATION

DIAGRAMS

SYMBOL	DESCRIPTION
OFF HAND AUTO	HAND/OFF/AUTO SWITCH
	SWITCH
	OVERLOADS
	NORMALLY CLOSED CONTACTOR OR RELAY CONTACTS
	NORMALLY OPEN CONTACTOR OR RELAY CONTACTS
	BUS DUCT
	BUS BAR
	BATTERY (GENERAL)
	CONNECTOR, FEMALE AND MALE RESPECTIVELY
C	CONTACTOR COIL
R	RELAY COIL
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSER
	CURRENT TRANSFORMER
	POTENTIAL TRANSFORMER
	NORMALLY OPEN PUSH BUTTON
	NORMALLY CLOSED PUSH BUTTON
PF	METER: POWER FACTOR
kW	METER: KILOWATT HOUR
kW kWh	METER: COMBINATION KILOWATT HOUR/KVAR METER
M	UTILITY CO. APPROVED SOCKET WITH METER INSTALLED
	DELTA CONNECTION
	GROUND WYE CONNECTOR
	CONNECTION TO GROUND
XXX/Y	CIRCUIT BREAKER XXX = AMPACITY Y = POLES
	FUSED SWITCH, WITH FUSE AND SWITCH AMPERE RATING
	CIRCUIT BREAKER, MEDIUM VOLTAGE, DRAWOUT
	DRAWOUT CIRCUIT BREAKER
GF	GROUND FAULT TRIP UNIT
K	KEY INTERLOCK
	CAPACITOR, POWER FACTOR CORRECTION, SIZE IN KVAR
M G	MOTOR - GENERATOR
	SOLENOID

REFERENCE SYMBOLS

SYMBOL	DESCRIPTION
X	SHEET NOTE REFERENCE (FLAG NOTES)
XXX.X	FEEDER NOMINAL AMPACITY & TYPE: SEE FEEDER SCHEDULE.
X	KITCHEN EQUIPMENT REFERENCE
X Y-Y	REFER TO DETAIL NO. ON DRAWING INDICATED NOT ALL DETAIL REFERENCES ARE SHOWN. ALL DETAILS APPLY TO ALL APPLICABLE SITUATIONS, UON.
X Y-Y	ELEVATION/PHOTO TAG: REFER TO NUMBER AND SHEET INDICATED
X Y-Y	SECTION TAG: REFER TO DETAIL NO. ON DRAWING. NOT ALL DETAIL REFERENCES ARE SHOWN. ALL DETAILS APPLY.

SECURITY SYSTEM

SYMBOL	DESCRIPTION
CCTV	CCTV SECURITY CAMERA
D	DOOR POSITION MONITOR SWITCH
X	INFRARED REQUEST TO EXIT DEVICE - WALL/CEILING MOUNTED.
I M	INTERCOM STATION - WALL, DESK MOUNTED, M = MASTER STATION
	PUSH-BUTTON STATION
CR	CARD READER - WALL MOUNTED
L	ELECTRIC LOCK
S	ELECTRIC STRIKE
M	MAGNETIC LOCK
H	ELECTRIC POWER TRANSFER HINGE

DISTRIBUTION & EQUIPMENT

SYMBOL	DESCRIPTION
	BRANCH CIRCUIT PANELBOARDS, SURFACE AND RECESS MOUNTED SOLID= 120/208V HATCHED= 277/480V
T	TRANSFORMER
	SERVICE AND/OR DISTRIBUTION EQUIPMENT
X	MOTOR CONNECTION. X = HORSEPOWER (WHERE SHOWN)
VFD	CONNECTION TO DIV. 15 FURNISHED VARIABLE FREQUENCY DRIVE WITH INTEGRAL DISCONNECT DIV. 16 TO INSTALL VFD EQUIPMENT
J 30A	DISCONNECT SWITCH, SIZE AS NOTED OR IF NOT SHOWN SIZE PER CONNECTED MOTOR SIZE ('MECH'=BY DIVISION 15, TYP).
J 30A	FUSED DISCONNECT SWITCH, SIZE AS NOTED OR IF NOT SHOWN SIZE PER CONNECTED MOTOR SIZE ('MECH'=BY DIVISION 15, TYP).
J 30A	DISCONNECT W/ MAGNETIC MOTOR STARTER (CONTROLLER) OR CONTACTOR. SIZE AS NOTED OR IF NOT SHOWN SIZE PER CONNECTED MOTOR SIZE. ('MECH'=BY DIVISION 15, TYP).
30A	MAGNETIC MOTOR STARTER (CONTROLLER) OR CONTACTOR SIZE AS NOTED OR IF NOT SHOWN SIZE PER CONNECTED MOTOR SIZE. ('MECH'=BY DIVISION 15, TYP).

ABBREVIATIONS

A, AMP	AMPERES	EF	EXHAUST FAN	LCP	LIGHT CONTROL PANEL	PRI	PRIMARY
AF	AMPERE (RATED) FUSES	EMT	ELECTRICAL METALLIC TUBING	MAX	MAXIMUM	PSE	PUGET POWER ENERGY
AFF	ABOVE FINISHED FLOOR	ENCL	ENCLOSURE	MCA	MINIMUM CIRCUIT AMPERES	REQD	REQUIRED
AFG	ABOVE FINISHED GRADE	EOL	END OF LINE	MFR	MANUFACTURER	RNC	RIGID NONMETALLIC CONDUIT (PVC)
AL	ALUMINUM (ALLOY)	EPA	EFFECTIVE PROJECTED AREA	MIN	MINIMUM	RS	RAPID START
ALC	AUTOMATED LIGHTING CONTROL	EWC	ELECTRIC WATER COOLER	MISC	MISCELLANEOUS	SEC	SECONDARY
AS	AMPERE (RATED) SWITCH	EWH	ELECTRIC WATER HEATER	MLO	MAIN LUGS ONLY	SPDT	SINGLE POLE DOUBLE THROW
ATS	AUTOMATIC TRANSFER SWITCH	FA	FIRE ALARM	MTD	MOUNTED	SPST	SINGLE POLE SINGLE THROW
AUTO	AUTOMATIC	FAA	FIRE ALARM ANNUNIATOR	MTR	MOTOR	SURF	SURFACE
AUX	AUXILIARY	FC	FOOT CANDLES	-N-	NEUTRAL (GROUNDED CONDUCTOR)	SWBD	SWITCHBOARD
AWG	AMERICAN WIRE GAUGE	FLA	FULL LOAD AMPERES	NC	NORMALLY CLOSED	SWGR	SWITCHGEAR
BAT	BATTERY	FLEX	FLEXIBLE	NEC	NATIONAL ELECTRICAL CODE	TB	TERMINAL BOARD
BFG	BELOW FINISHED GRADE	FU	FUSE	-NEG	NEGATIVE	TDC	TIME DELAY CLOSING
C	CONDUIT (CIRCULAR RACEWAY)	GEN	GENERATOR	NEMA	NATIONAL ELECTRICAL MANUFACTURE'S ASSOC.	TDO	TIME DELAY OPENING
CAB	CABINET	GFI	GROUND FAULT CIRCUIT INTERRUPTER	NL	NIGHT LIGHT (UNSWITCHED)	TEL	TELEPHONE
CB	CIRCUIT BREAKER	GND	GROUND	NO	NORMALLY OPEN	TYP	TYPICAL
CFM	CUBIC FEET PER MINUTE	GRC	GALVANIZED RIGID STEEL CONDUIT	NTS	NOT TO SCALE	UL	UNDERWRITERS LAB
CKT	CIRCUIT	GRD	IN-GROUND	OC	ON CENTER	UON	UNLESS OTHERWISE NOTED
CLG	CEILING	HP	HORSEPOWER	OD	OUTSIDE DIAMETER	UPS	UNINTERRUPTIBLE POWER SUPPLY
CO	CONDUIT ONLY	HZ	HERTZ (CYCLES PER SECOND)	OFCI	OWNER FURNISHED CONTRACTOR INSTALLED	V	VOLTS
CT	CURRENT TRANSFORMER	IES	ILLUMINATING ENGINEERING SOCIETY	OFOI	OWNER FURNISHED, OWNER INSTALLED	VA	VOLT-AMPERES
CU	COPPER	ID	INSIDE DIAMETER	OS	OCCUPANCY SENSOR	VFD	VARIABLE FREQUENCY DRIVE
DC	DIRECT CURRENT	IG	ISOLATED GROUND	P	POLE	W	WATT
DISC	DISCONNECT	IN	INCANDESCENT	PB	PUSH-BUTTON	W/	WITH
DIA	DIAMETER	IMC	INTERMEDIATE METAL CONDUIT	PEND	PENDANT	W/O	WITHOUT
DIV	DIVISION	K	KEY OPERATED	PH	PHASE	WP	WEATHERPROOF
DP	DISTRIBUTION PANEL	KCM	THOUSAND CIRCULAR MILS	PNL	PANEL	XFMR	TRANSFORMER
DPDT	DOUBLE POLE DOUBLE THROW	KO	KNOCK OUT	+,POS	POSITIVE	", IN	INCHES
DPST	DOUBLE POLE SINGLE THROW	KW	KILOWATTS			', FT	FEET
DWG	DRAWING	KVA	KILO VOLT-AMPERES			~	PHASE
E	EXISTING						

DESIGNED: EJD/KDD
DRAWN:
CHECKED:

NOTE: SCALES SHOWN ARE FOR 24"X36" SHEETS

PORT OF EDMONDS
NORTH PORTWALK AND SEAWALL RECONSTRUCTION
336 Admiral Way; Edmonds, Washington

DRAWING TITLE
SYMBOLS & ABBREVIATIONS

HARBOR POWER ENGINEERS, INC.
ELECTRICAL ENGINEERING FOR MARINE & WATERFRONT FACILITIES
ADDRESS: 815 FIRST AVE. NO 343
SEATTLE, WA 98101
TEL: (206) 652-5080

8/11/2021

REVISIONS	DESCRIPTION	APPROVED
DATE		

Project No.
2020-019

Drawing No.
E0.00

Sheet of

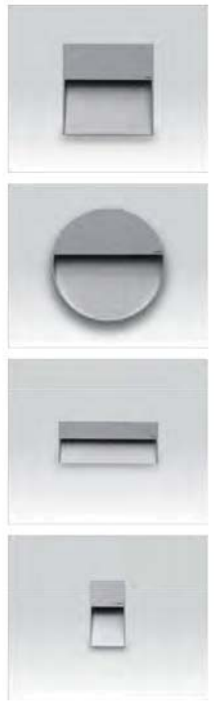
LUMINAIRE SCHEDULE

TYPE	SIZE / DESCRIPTION	TYPE	TOTAL WATTS	MANUFACTURER	CATALOG NUMBER	VOLTS	MOUNTING	RECESS DEPTH	NOTES
S1	STEP LIGHT	LED	XX		XX	120	XX	NA	
S12	12-FOOT POLE MOUNTED LED LUMINAIRE	LED	XX	LANDSCAPE FORMS	XX	120	XX	NA	
S25	25-FOOT POLE MOUNTED LED LUMINAIRE	LED	XX	LANDSCAPE FORMS	XX	120	XX	NA	
S25	25-FOOT POLE MOUNTED LED LUMINAIRE; WITH TWO LUMINAIRES	LED	XX	LANDSCAPE FORMS	XX	120	XX	NA	

TYPE 'S1' LUMINAIRE

SKILL
SURFACE MOUNTED - FLUSH MOUNTED

Type: SPECIFICATION SHEET
Project : Page: 1 of 2



Skill is a unique LED luminaire, assuring high lighting performance and total absence of glare. The most modern electronic technology is contained in the thickness of only 3 cm and provides an excellent quality of light while saving energy.

Luminaire characteristics:	**Power input:** 6 to 24W **Lumens:** 160 to 640lm (for 3000K, 90CRI) **Luminaire efficacy:** 25 to 35lm/W
Source:	White LED module (LM-80 tested) 3000K : 90CRI, 4000K : 90CRI.
Lumen maintenance:	>70% of initial lumens at 50 000 hours (LM79 tested).
Optics:	Accent light.
Material:	Body: Die-cast aluminum Diffuser: Toughened glass.
Mounting:	See mounting options on page 6.
Electrical:	High efficiency electronic power supply, rated at 50 000 hours, 120-277V. See remote power supply options on page 6.
Finish:	White or aluminum gray painted finish, following a double powder paint in 3 step process: surface treatment containing ceramic nano particles (Bonderite). Epoxy primer paint. Polyester powder paint with high resistance against UV rays and harsh weather conditions.
Weight:	Miniskill round: 1.23lbs (0.56kg) Miniskill square: 1.34lbs (0.61kg) Miniskill vertical: 1.16lbs (0.53kg) Skill Round: 3.06lbs (1.39kg) Skill Square: 3.26lbs (1.48kg) Skill rectangular: 3.15lbs (1.43kg) Skill square large: 6.55lbs (2.97kg)
Warranty:	5 year limited warranty.
Ratings:	IP65, IK08
Certification:	cULus listed for wet location

CL - 56 Last update: October 05, 2020
Due to continuous improvements, the information herein may be changed without notice
SISTEMALUX 9320 Boul. St-Laurent, suite 100, Montréal (Québec) Canada H2N 1N7 , P.: 514.523.1339 F.: 514.523.6107 www.sistemalux.com

TYPE 'S12', 'S25', & 'S25A' LUMINAIRE(S)

LEO Area Light
landscapeforms
Product Data Sheet | LE330 & LE350

LEO area lights are at home in more places. LEO's multiple distributions and outputs address both visual comfort and performance, with configurable options that let landscape architects, lighting designers, and electrical engineersfocus on what's important for their project, whether it is an improved visual experience for intimate pedestrian-scale settings or lumen outputs and pole spacing for cost-driven goals. LEO's simple, understated designfits a variety of site designs and architectural styles, and its 19"-diameter housing strikes an aesthetic balance for varying pole heights and spacin.

General Description
- Single, double, or staggered configurations
- Offered in 4 standard pole heights (12', 16', 20', and 25')
- Simple clamping mechanism mounts to 4", 5", and 6" diameter poles
- Optional ANSI C136.41 7-pin twist lock receptacle
- Optional photo/motion sensor
- Mounting template and anchor hardware included
- Cast aluminum luminaire ships prewired and fully assembled
- Zero up-light, International Dark-Sky approved
- UL Listed, suitable for wet locations

Distributions

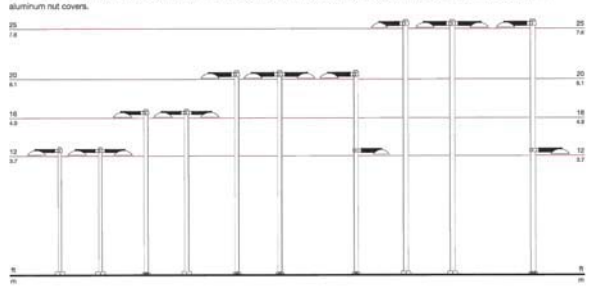
Electrical
Surge protected 100V-277V 50/60 Hz, dimmable Class 2 LED driver mounted within cast aluminum driver compartment. LED cartridge with weatherproof quick-disconnect provides ease of installation and serviceability. LEO ships prewired.

Housing
Luminaire components are cast aluminum. Acrylic lens seals to the LED cartridge housing. Luminaire mounts to 4", 5", and 6" diameter poles with a simple clamping mechanism and is secured with four screws. Driver compartment cover is secured by two screws on top of the luminaire. All hardware is magni-coated.

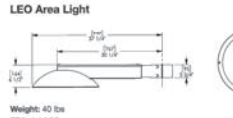
LEO Area Light
Light Source: Nichia LEDs
Color Temperature: 3000K, 3500K, 4000K
CRI: 80 min
Optics: PMMA
Lens: Clear or Frosted Acrylic

LEO Area Light
landscapeforms
Product Data Sheet | LE330 & LE350

Pole Description
Poles are available in 4" (12' pole height), 5" (16' and 20' pole heights), and 6" (25' pole height) diameters and are manufactured from seamless 6063 aluminum tubing and heat treated to produce a T6 temper. Wall thickness varies from 0.125" to 0.156" depending on mounting height and number of luminaires. Flush mounted hand hole cover includes two magni-coated fasteners. Base options included a two-piece cast aluminum cover or cast aluminum nut covers.



LEO Area Light



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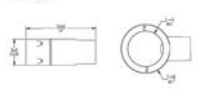
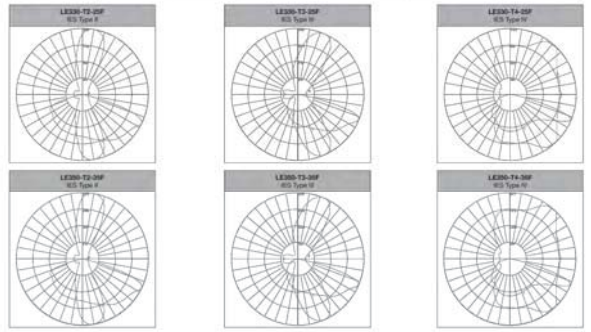


Weight: 40 lbs
EPA: 1.14 ft2

LEO Area Light
landscapeforms
Product Data Sheet | LE330 & LE350

Model	Distribution Type	Drive Current	Lumens	Watts	Efficacy	BUG Rating
LE330-T2-25F-LO	Type II	250mA	2926	24	122	B1-U0-G1
LE330-T2-37F-HO	Type II	375mA	4245	37	115	B1-U0-G1
LE330-T3-25F-LO	Type III	250mA	2819	24	117	B1-U0-G1
LE330-T3-37F-HO	Type III	375mA	4085	37	110	B1-U0-G1
LE330-T4-25F-LO	Type IV	250mA	2787	24	116	B1-U0-G1
LE330-T4-37F-HO	Type IV	375mA	4039	37	109	B1-U0-G1
LE350-T2-34F-LO	Type II	340mA	8259	55	114	B2-U0-G2
LE350-T2-46F-HO	Type II	460mA	8119	73	113	B2-U0-G2
LE350-T3-34F-LO	Type III	340mA	8024	55	110	B1-U0-G1
LE350-T3-46F-HO	Type III	460mA	7914	73	107	B2-U0-G2
LE350-T4-34F-LO	Type IV	340mA	5956	55	108	B2-U0-G2
LE350-T4-46F-HO	Type IV	460mA	7726	73	106	B2-U0-G2



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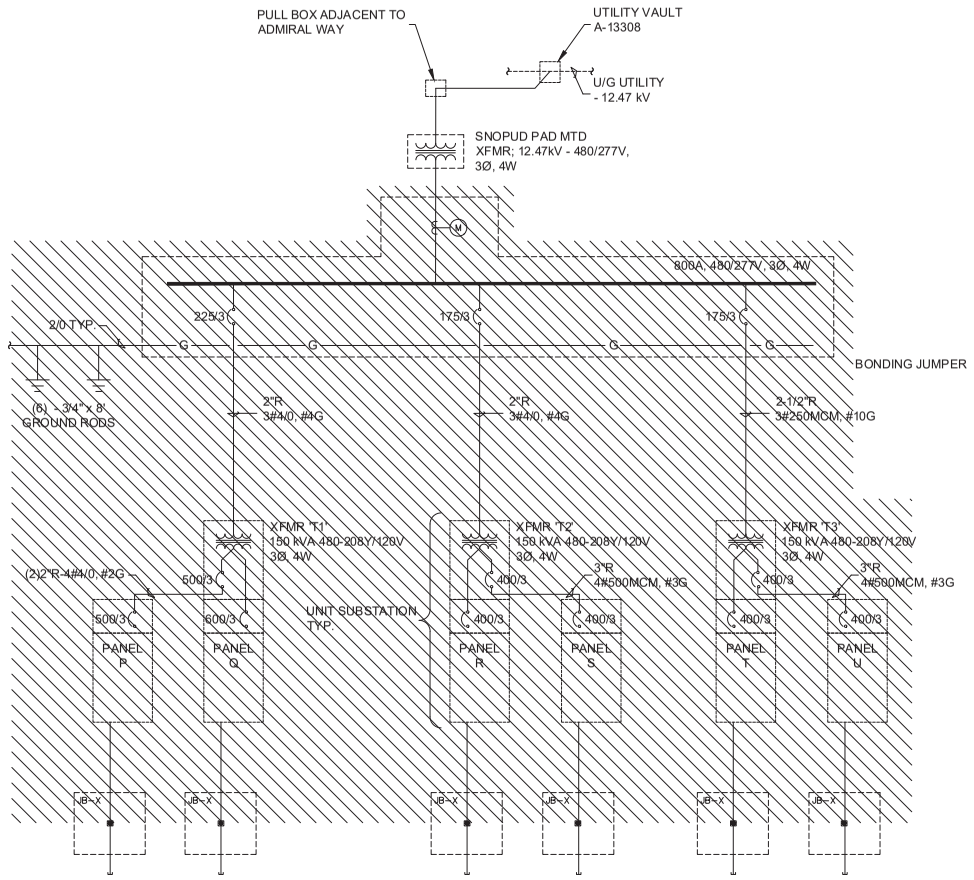
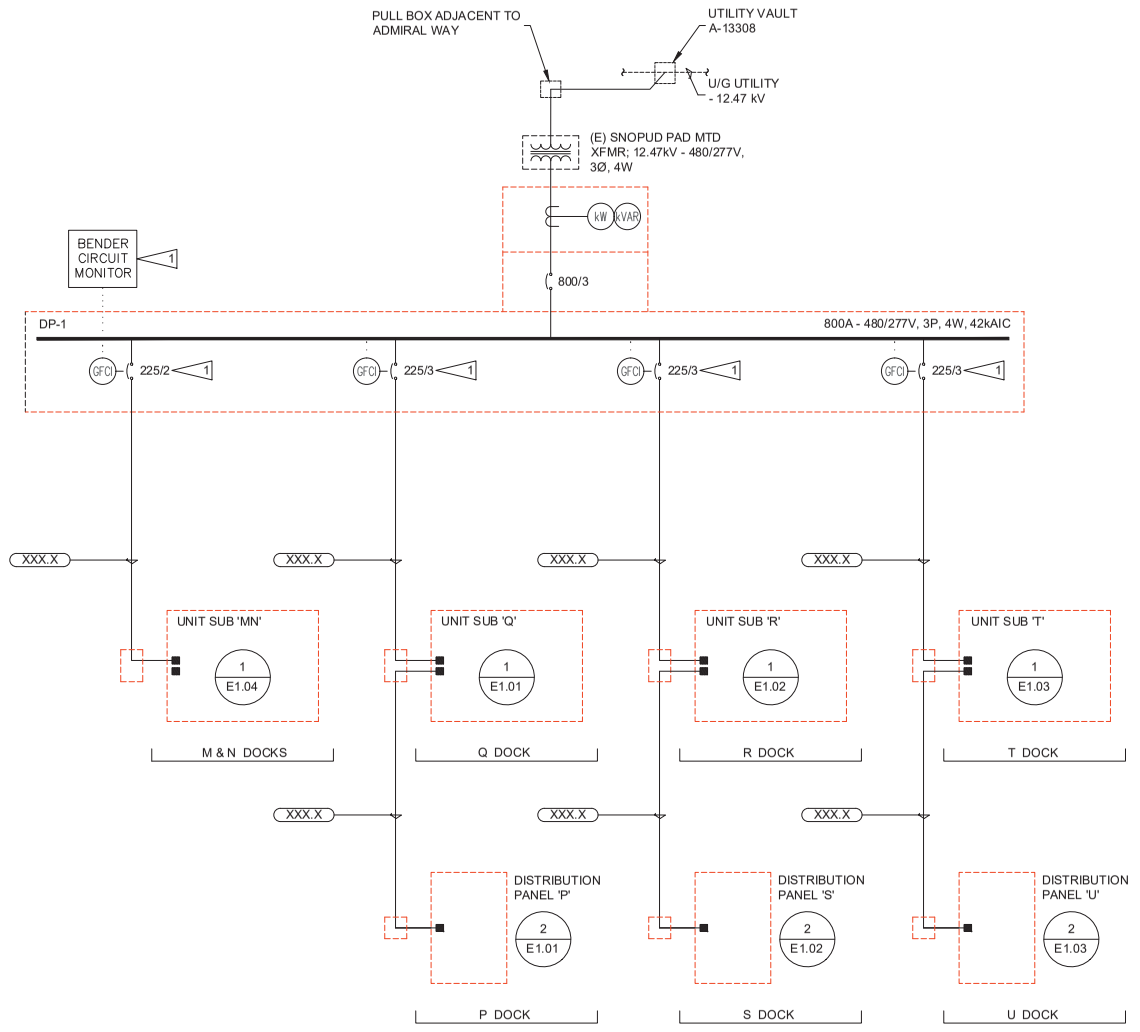


SINGLE LINE WIRING DIAGRAM - EXISTING



SINGLE LINE WIRING DIAGRAM

COPPER FEEDER SCHEDULE

CONDUIT AND WIRE

FEEDER TAG	CONDUITS (REMARKS 1,4) MET	SETS	RNC	CONDUCTOR PER SET PHASE/NEUTRAL	GROUND (REMARK 5)	REMARKS
800.3	3.00"	3	4.00"	3 #350 KCMIL	–	–
700.3	3.00"	4	4.00"	3 #500 KCMIL	#1/0 (SET)	–
400.4K	2.50"	2	3.00"	5 #3/0	#2	–
400.4	3.00"	1	4.00"	4 #500 KCMIL	#2	–
400.3	3.00"	1	4.00"	3 #500 KCMIL	#2	–
350.4	3.50"	1	4.00"	4 #500 KCMIL	#2	–
350.3	2.50"	1	4.00"	3 #400 KCMIL	#2	–
300.4	3.00"	1	4.00"	4 #350 KCMIL	#4	–
300.3	2.50"	1	3.00"	3 #350 KCMIL	#4	–
275.4	3.00"	1	4.00"	4 #300 KCMIL	#4	–
275.3	2.50"	1	3.00"	3 #300 KCMIL	#4	–
250.4K	3.00"	1	4.00"	5 #250 KCMIL	#4	–
250.4	2.50"	1	3.00"	4 #250 KCMIL	#4	–
250.3	2.50"	1	3.00"	3 #250 KCMIL	#4	–
225.4K	2.50"	1	3.00"	5 #4/0	#4	–
225.4	2.50"	1	3.00"	4 #4/0	#4	–
225.3	2.00"	1	2.50"	3 #4/0	#4	–
200.4K	2.50"	1	3.00"	5 #3/0	#6	–
200.4	2.00"	1	2.50"	4 #3/0	#6	–
200.3	2.00"	1	2.50"	3 #3/0	#6	–
175.4K	2.00"	1	2.50"	5 #2/0	#6	–
175.4	2.00"	1	2.50"	4 #2/0	#6	–
175.3	1.50"	1	2.00"	3 #2/0	#6	–
150.4	1.50"	1	2.00"	4 #1/0	#6	–
150.3	1.50"	1	2.00"	3 #1/0	#6	–
125.4	1.50"	1	2.00"	4 #1	#6	–
125.3	1.25"	1	2.00"	3 #1	#6	–
110.4K	1.50"	1	2.00"	3 #2, 1 #2/0 –N–	#6	–
110.4	1.25"	1	2.00"	4 #2	#6	–
110.3	1.25"	1	2.00"	3 #2	#6	–
100.4	1.25"	1	2.00"	4 #2	#8	–
100.3	1.25"	1	2.00"	3 #2	#8	–
90.4	1.25"	1	2.00"	4 #4	#8	–
90.3	1.00"	1	1.50"	3 #4	#8	–
80.4	1.25"	1	1.50"	4 #4	#8	–
80.3	1.00"	1	1.50"	3 #4	#8	–
70.4	1.25"	1	2.00"	4 #4	#8	–
70.3	1.00"	1	1.50"	3 #4	#8	–
60.4	1.00"	1	1.50"	4 #6	#10	–
60.3	0.75"	1	1.50"	3 #6	#10	–
50.4K	1.00"	1	1.50"	3 #8, 1 #4 –N–	#10	–
50.4	1.00"	1	1.50"	4 #8	#10	–
50.3	0.75"	1	1.50"	3 #8	#10	–
40.4	0.75"	1	1.00"	4 #8	#10	–
40.3	0.75"	1	1.00"	3 #8	#10	–
30.4	0.75"	1	1.00"	4 #10	#10	–
30.3	0.75"	1	1.00"	3 #10	#10	–
20.4	0.75"	1	1.00"	4 #12	#12	–
20.3	0.75"	1	1.00"	3 #12	#12	–
15.4	0.75"	1	1.00"	4 #12	#12	–
15.3	0.75"	1	1.00"	3 #12	#12	–

X.X FEEDER TAG SUFFIX (WHEN USED):

ADJUST FEEDERS BASED ON FEEDER TAG INFORMATION PROVIDED.

Edmonds Marina - North Marina Service Calculations

Circuit Info		Power Pedestal Outlet Information					Power Pedestal Feeder Data					Feeder Info			Voltage Drop Calculation		
Dock	Circuits	Recept 30A 120v	Recept 50A 120v	Recept 50A 120/240v	Recept 100A 120/240v	Connected Load (kVA)	f per NEC	Meter Factor 1.0 or 0.9	Demand Load (kVA)	Amps 208 3-phase	Amps 480V 3-phase	Feeder Size	ohms per 1000 ft	Amps	Length to Circuit	Voltage Drop (V)	Percent Drop (%) @208V
M & N	4	46	0	12	0	290.4	0.4	0.9	104.5	290	126						
P & Q	8	93	2	4	0	388.4	0.3	0.9	104.9	291	126						
R & S	8	96	0	2	0	366.4	0.3	0.9	98.9	275	119						
T & U*	6	80	0	1	0	298.4	0.3	0.9	80.6	224	97						
Panel Summary		315	2	19	0	1343.6	0.3	0.9	**362.8**	**1008**	437						

* Includes dock 'V'

SCHEDULE REMARKS

1. CABLES NOTED MAY BE USED ONLY WHEN ALLOWED BY CODE AND PROJECT SPECIFICATIONS.
2. NEC TABLE 310.15 APPLIES TO TYPE G CABLES UNLESS TERMINATED IN 90–DEGREE C TERMINALS. SEE NEC ARTICLE 110.14(C) FOR FURTHER INFORMATION.
3. REFER TO MCC AND PANEL SCHEDULES FOR FEEDER SIZES TO EQUIPMENT NOTED WITH THIS TAG.
4. "MET"=EMT, GRC (RIGID), RAC, OR PVC COATED GRC TYPE CONDUITS. "RNC"=PVC 40, PVC 80 OR FIBERGLASS TYPE CONDUITS ROUTED UNDERGROUND. REFER TO SIZING ON DRAWINGS IF "RNC" CONDUITS ARE ROUTED ABOVEGROUND. CONDUIT SIZES NOTED ON SINGLE–LINE DIAGRAM OR ON PLANS SUPERSEDE SIZES NOTED ABOVE IF LARGER.
5. PROVIDE GROUND WIRE NOTED BELOW IN ALL FEEDERS AND BRANCH CIRCUITS. MINIMUM GROUNDING SHALL BE PER CODE.

GENERAL SCHEDULE NOTES

A. CONDUCTORS AND CONDUITS SHOWN IN THIS SCHEDULE ARE BASED ON COPPER CONDUCTORS WITH THHN/THWN INSULATION. THIS NOTE INDICATES THAT CONDUIT (LISTED IN SCHEDULE) IS SIZED BASED ON TYPE THHN/THWN WIRE. USE WIRE TYPES AS SPECIFIED IN SECTION 16120 OR AS NOTED ELSEWHERE IN THE CONTRACT DOCUMENTS.

B. PROVIDE NOTED SIZE GROUND CONDUCTOR IN EACH CONDUIT OF FEEDERS CONSISTING OF MULTIPLE SETS OF CONDUCTORS.

C. NOT ALL FEEDERS ARE NECESSARILY USED ON THIS PROJECT.

D. NOMINAL AMPACITIES GREATER THAN 100 AMPS ARE FOR 75^C TERMINATIONS.

E. FOR FEEDERS SHOWN WITH A ".6" SUFFIX, PROVIDE SIX PHASE CONDUCTORS AND ONE GROUND WIRE IN CODE SIZED CONDUIT. INCLUDE 80% DERATING FACTOR ON PHASE CONDUCTOR SIZE.

F. CONDUIT SIZES AND QUANTITIES ON PLANS TAKE PRECEDENCE OVER THOSE SHOWN IN SCHEDULE. PROVIDE CONDUITS INDICATED IN SCHEDULE FOR FEEDERS NOT SHOWN ON PLANS.

G. PROVIDE CIRCUIT CONDUCTORS AND RACEWAYS FROM PANELBOARD TO EQUIPMENT WHERE FEEDER TAGS ARE SHOWN ADJACENT TO PANEL SCHEDULES. SEE PLANS FOR EQUIPMENT LOCATIONS.

DESIGNED: EJD/KDD
DRAWN:
CHECKED:

NOTE: SCALES SHOWN ARE FOR 24"X36" SHEETS

PORT OF EDMONDS
NORTH PORTWALK AND SEAWALL RECONSTRUCTION
336 Admiral Way; Edmonds, Washington

DRAWING TITLE
SINGLE LINE WIRING DIAGRAM

HARBOR POWER ENGINEERS, PLLC
ADDRESS: 815 FIRST AVE, NO 343
SEATTLE, WA 98101
TEL: (206) 652-6080

8/11/2021

REVISIONS
DESCRIPTION
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Project No. 2020–019
Drawing No. E1.00
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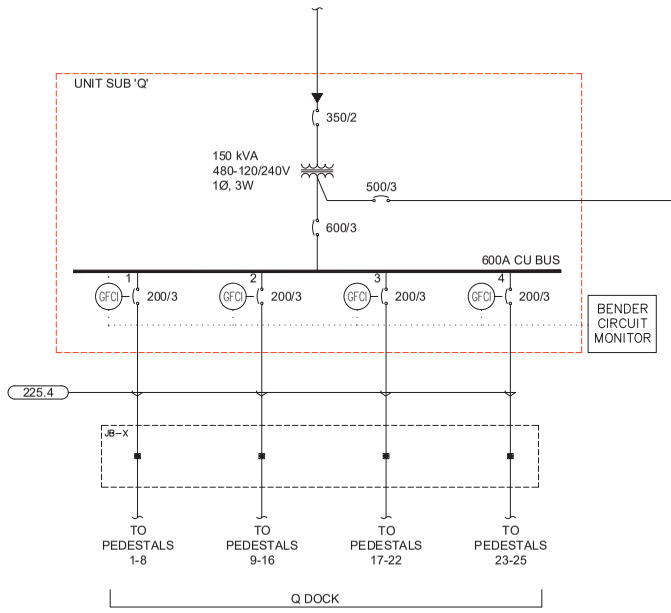
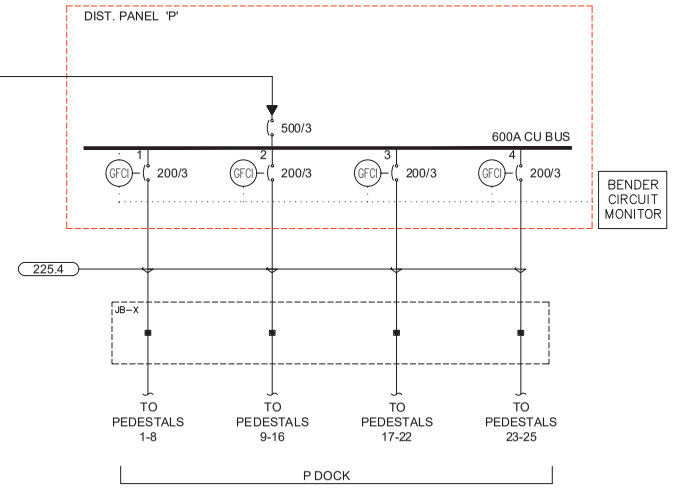


SINGLE LINE DIAGRAM - UNIT SUB 'Q'



SINGLE LINE DIAGRAM - DIST. PANEL 'P'

PORTABLE POWER CABLE

FEEDER TAG	'X' INDICATES NUMBER OF CONDUCTORS PER FEEDER CABLE (EXCLUDING GROUND CONDUCTORS). SEE REMARKS 2.		
	APPROX. O.D. (3C/4C)	COND. AWG	REMARKS
G 20.X		#12	MULTI CONDUCTOR TYPE 'SOW' CORD
G 35.X		#10	MULTI CONDUCTOR TYPE 'SOW' CORD
G 50.X	0.95"/1.025"	#8	MULTI CONDUCTOR PORTABLE POWER CABLE
G 75.X	1.11"/1.18"	#4	
G 100.X	1.3"/1.44"	#2	
G 125.X	1.49"/1.62"	#1	
G 150.X	1.63"/1.73"	#1/0	
G 175.X	1.74"/1.90"	#2/0	
G 200.X	1.88"/2.04"	3/0#	
G 225.X	1.99"/2.16"	#4/0	
G 250.X	2.29"/2.73"	250MCM	
G 300.X	2.62"/3.10"	350MCM	
G 400.X	2.96"/3.50"	500MCM	

P Dock

Circuit Info		Power Pedestal Outlet Information*					Power Pedestal Feeder Data					Feeder Info			Voltage Drop Calculation		
Dock	Circuit	Recept 30A 120v	Recept 50A 120v	Recept 50A 120/208v	Recept 100A 120/208v	Connected Load (kVA)	f per NEC	Meter Factor 1.0 or 0.9	Demand Load (kVA)	Amps 208v 3-phase	Circuit Breaker Size	Feeder Size	ohms per 1000 ft	Amps	Length to Circuit	Voltage Drop (V)	Percent Drop (%) @208V
P	1	11	1	1	0	56.0	0.8	0.9	40.3	112	200	4/0	0.062	277	80	1.02	0.49
P	2	14	0	0	0	50.4	0.8	0.9	36.3	101	200	4/0	0.062	277	200	2.28	1.10
P	3	13	1	2	0	73.6	0.7	0.9	46.4	129	200	4/0	0.062	277	320	4.67	2.25
P	4	8	0	0	0	28.8	0.9	0.9	23.3	65	200	4/0	0.062	277	440	3.23	1.55
Dock Summary		46	2	3	0	208.8	0.4	0.9	**75.2**	**209**							

LOAD CALCULATIONS - DIST. PANEL 'P'

Q Dock

Circuit Info		Power Pedestal Outlet Information*					Power Pedestal Feeder Data					Feeder Info			Voltage Drop Calculation		
Dock	Circuit	Recept 30A 120v	Recept 50A 120v	Recept 50A 120/208v	Recept 100A 120/208v	Connected Load (kVA)	f per NEC	Meter Factor 1.0 or 0.9	Demand Load (kVA)	Amps 208v 3-phase	Circuit Breaker Size	Feeder Size	ohms per 1000 ft	Amps	Length to Circuit	Voltage Drop (V)	Percent Drop (%) @208V
Q	1	10	0	0	0	36.0	0.8	0.9	25.9	72	200	4/0	0.062	277	80	0.65	0.31
Q	2	20	0	0	0	72.0	0.7	0.9	45.4	126	200	4/0	0.062	277	200	2.86	1.37
Q	3	12	0	0	0	43.2	0.8	0.9	31.1	86	200	4/0	0.062	277	320	3.13	1.51
Q	4	5	0	1	0	28.4	0.9	0.9	23.0	64	200	4/0	0.062	277	440	3.19	1.53
Dock Summary		47	0	1	0	179.6	0.6	0.9	**97.0**	**269**							

LOAD CALCULATIONS - UNIT SUB 'Q'

DESIGNED: EJD/KDD
DRAWN:
CHECKED:

NOTE: SCALES SHOWN ARE FOR 24"X36" SHEETS

PORT OF EDMONDS
NORTH PORTWALK AND SEAWALL RECONSTRUCTION
336 Admiral Way; Edmonds, Washington

DRAWING TITLE
SINGLE LINE DIAGRAMS - P & Q

HARBOR POWER ENGINEERS, INC.
ELECTRICAL ENGINEERING FOR DOCKS & WATERFRONT FACILITIES
ADDRESS: 815 FIRST AVE. NO 343
SEATTLE, WA 98101
TEL: (206) 652-5080

8/11/2021

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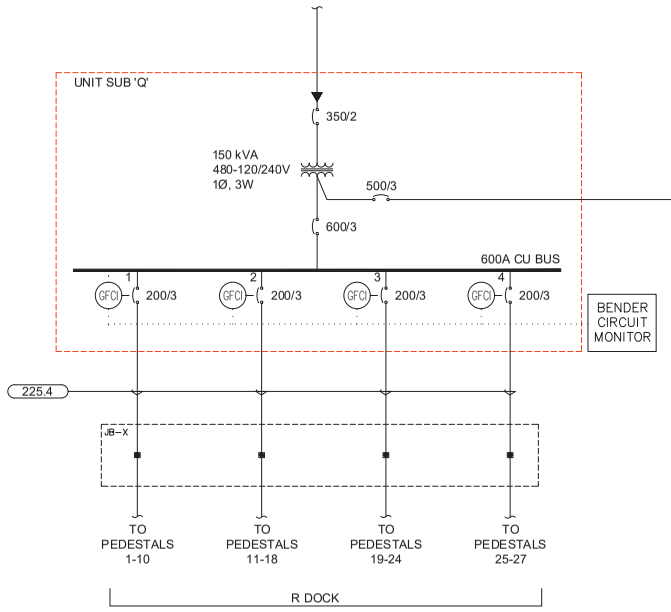
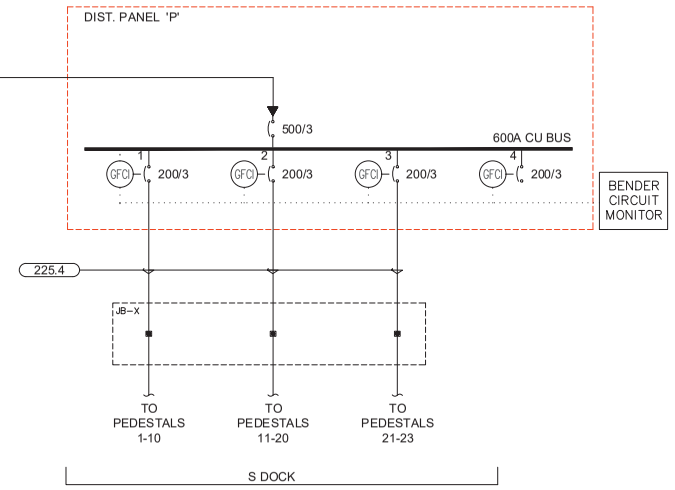


SINGLE LINE DIAGRAM - UNIT SUB 'R'



SINGLE LINE DIAGRAM - DIST. PANEL 'S'

PORTABLE POWER CABLE

FEEDER TAG	'X' INDICATES NUMBER OF CONDUCTORS PER FEEDER CABLE (EXCLUDING GROUND CONDUCTORS). SEE REMARKS 2.		
	APPROX. O.D. (3C/4C)	COND. AWG	REMARKS
G 20.X		#12	MULTI CONDUCTOR TYPE 'SOW' CORD
G 35.X		#10	MULTI CONDUCTOR TYPE 'SOW' CORD
G 50.X	0.95"/1.025"	#8	MULTI CONDUCTOR PORTABLE POWER CABLE
G 75.X	1.11"/1.18"	#4	
G 100.X	1.3"/1.44"	#2	
G 125.X	1.49"/1.62"	#1	
G 150.X	1.63"/1.73"	#1/0	
G 175.X	1.74"/1.90"	#2/0	
G 200.X	1.88"/2.04"	3/0#	
G 225.X	1.99"/2.16"	#4/0	
G 250.X	2.29"/2.73"	250MCM	
G 300.X	2.62"/3.10"	350MCM	
G 400.X	2.96"/3.50"	500MCM	

R Dock

Circuit Info		Power Pedestal Outlet Information*					Power Pedestal Feeder Data					Feeder Info			Voltage Drop Calculation		
Dock	Circuit	Recept 30A 120v	Recept 50A 120v	Recept 50A 120/208v	Recept 100A 120/208v	Connected Load (kVA)	f per NEC	Meter Factor 1.0 or 0.9	Demand Load (kVA)	Amps 208v 3-phase	Circuit Breaker Size	Feeder Size	ohms per 1000 ft	Amps	Length to Circuit	Voltage Drop (V)	Percent Drop (%) @208V
R	1	22	0	0	0	79.2	0.7	0.9	49.9	139	200	4/0	0.062	277	80	1.26	0.60
R	2	12	0	0	0	43.2	0.8	0.9	31.1	86	200	4/0	0.062	277	200	1.96	0.94
R	3	12	0	0	0	43.2	0.8	0.9	31.1	86	200	4/0	0.062	277	320	3.13	1.51
R	4	5	0	1	0	28.4	0.9	0.9	23.0	64	200	4/0	0.062	277	440	3.19	1.53
Dock Summary		51	0	1	0	194.0	0.4	0.9	**69.8**	**194**							

LOAD CALCULATIONS - UNIT SUB 'R'

S Dock

Circuit Info		Power Pedestal Outlet Information*					Power Pedestal Feeder Data					Feeder Info			Voltage Drop Calculation		
Dock	Circuit	Recept 30A 120v	Recept 50A 120v	Recept 50A 120/208v	Recept 100A 120/208v	Connected Load (kVA)	f per NEC	Meter Factor 1.0 or 0.9	Demand Load (kVA)	Amps 208v 3-phase	Circuit Breaker Size	Feeder Size	ohms per 1000 ft	Amps	Length to Circuit	Voltage Drop (V)	Percent Drop (%) @208V
S	1	20	0	0	0	72.0	0.7	0.9	45.4	126	200	4/0	0.062	277	80	1.14	0.55
S	2	20	0	0	0	72.0	0.7	0.9	45.4	126	200	4/0	0.062	277	200	2.86	1.37
S	3	5	0	1	0	28.4	0.9	0.9	23.0	64	200	4/0	0.062	277	320	2.32	1.11
Dock Summary		45	0	1	0	172.4	0.6	0.9	**93.1**	**258**							

LOAD CALCULATIONS - DIST. PANEL 'S'

DESIGNED: EJD/KDD
DRAWN:
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PORT OF EDMONDS
NORTH PORTWALK AND SEAWALL RECONSTRUCTION
336 Admiral Way; Edmonds, Washington

DRAWING TITLE
SINGLE LINE DIAGRAMS - R & S

NOTE: SCALES SHOWN ARE FOR 24"X36" SHEETS

HARBOR POWER ENGINEERS, INC.
ELECTRICAL ENGINEERING FOR DOCKS & WATERFRONT FACILITIES
ADDRESS: 815 FIRST AVE. NO 343
SEATTLE, WA 98101
TEL: (206) 652-5080

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Project No.
2020-019

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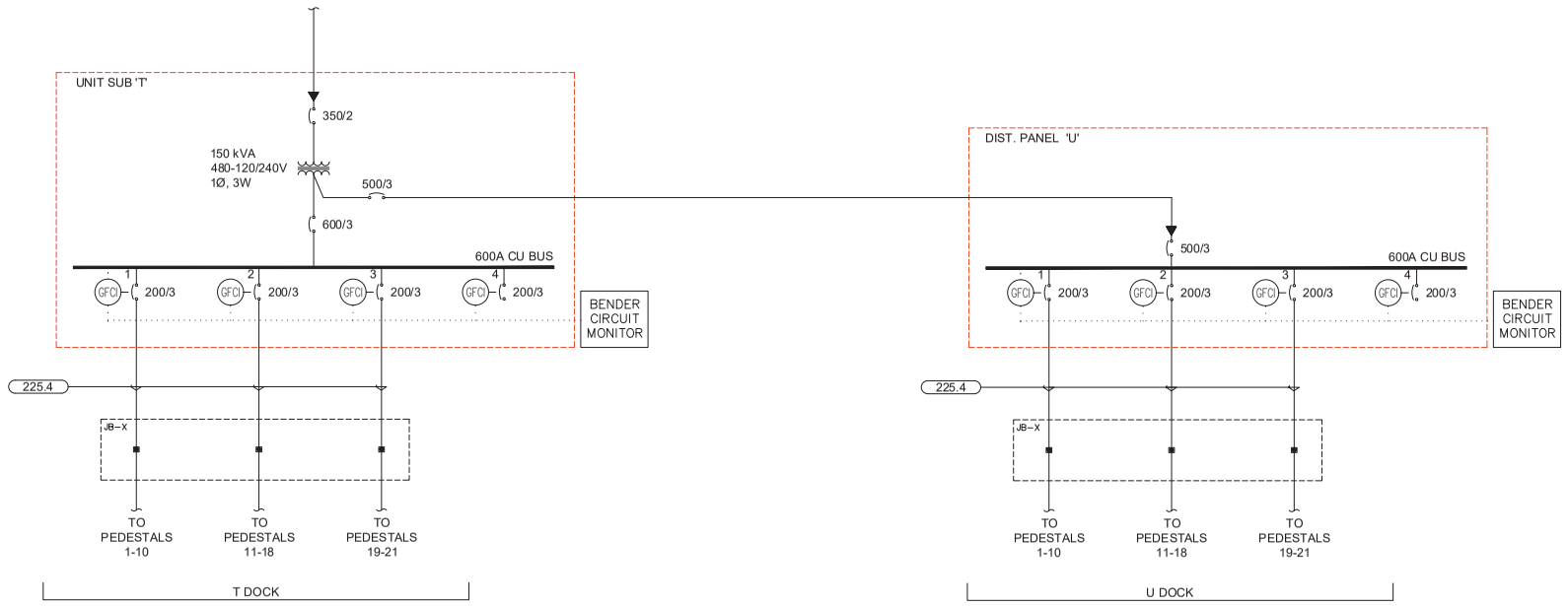

SINGLE LINE DIAGRAM - UNIT SUB 'T'

SINGLE LINE DIAGRAM - DIST. PANEL 'U'

PORTABLE POWER CABLE

FEEDER TAG	'X' INDICATES NUMBER OF CONDUCTORS PER FEEDER CABLE (EXCLUDING GROUND CONDUCTORS). SEE REMARKS 2.		
	APPROX. O.D. (3C/4C)	COND. AWG	REMARKS
G 20.X		#12	MULTI CONDUCTOR TYPE 'SOW' CORD
G 35.X		#10	MULTI CONDUCTOR TYPE 'SOW' CORD
G 50.X	0.95"/1.025"	#8	MULTI CONDUCTOR PORTABLE POWER CABLE
G 75.X	1.11"/1.18"	#4	
G 100.X	1.3"/1.44"	#2	
G 125.X	1.49"/1.62"	#1	
G 150.X	1.63"/1.73"	#1/0	
G 175.X	1.74"/1.90"	#2/0	
G 200.X	1.88"/2.04"	3/0#	
G 225.X	1.99"/2.16"	#4/0	
G 250.X	2.29"/2.73"	250MCM	
G 300.X	2.62"/3.10"	350MCM	
G 400.X	2.96"/3.50"	500MCM	

T Dock

Circuit Info		Power Pedestal Outlet Information*					Power Pedestal Feeder Data					Feeder Info			Voltage Drop Calculation		
Dock	Circuit	Recept 30A 120v	Recept 50A 120v	Recept 50A 120/208v	Recept 100A 120/208v	Connected Load (kVA)	f per NEC	Meter Factor 1.0 or 0.9	Demand Load (kVA)	Amps 208v 3-phase	Circuit Breaker Size	Feeder Size	ohms per 1000 ft	Amps	Length to Circuit	Voltage Drop (V)	Percent Drop (%) @208V
T	1	18	0	0	0	64.8	0.7	0.9	40.8	113	200	4/0	0.062	277	80	1.03	0.49
T	2	16	0	0	0	57.6	0.7	0.9	36.3	101	200	4/0	0.062	277	200	2.28	1.10
T	3	6	0	1	0	32.0	0.9	0.9	25.9	72	200	4/0	0.062	277	320	2.61	1.26
Dock Summary		40	0	1	0	154.4	0.6	0.9	**83.4**	**231**							

LOAD CALCULATIONS - UNIT SUB 'T'

U Dock

Circuit Info		Power Pedestal Outlet Information*					Power Pedestal Feeder Data					Feeder Info			Voltage Drop Calculation		
Dock	Circuit	Recept 30A 120v	Recept 50A 120v	Recept 50A 120/208v	Recept 100A 120/208v	Connected Load (kVA)	f per NEC	Meter Factor 1.0 or 0.9	Demand Load (kVA)	Amps 208v 3-phase	Circuit Breaker Size	Feeder Size	ohms per 1000 ft	Amps	Length to Circuit	Voltage Drop (V)	Percent Drop (%) @208V
U	1	18	0	0	0	64.8	0.7	0.9	40.8	113	200	4/0	0.062	277	80	1.03	0.49
U	2	16	0	0	0	57.6	0.7	0.9	36.3	101	200	4/0	0.062	277	200	2.28	1.10
U	3	6	0	0	0	21.6	0.9	0.9	17.5	49	200	4/0	0.062	277	320	1.76	0.85
Dock Summary		40	0	0	0	144.0	0.6	0.9	**77.8**	**216**							

LOAD CALCULATIONS - DIST. PANEL 'U'

DESIGNED: EJD/KDD
DRAWN:
CHECKED:

PORT OF EDMONDS
NORTH PORTWALK AND SEAWALL RECONSTRUCTION
336 Admiral Way; Edmonds, Washington

DRAWING TITLE
SINGLE LINE DIAGRAMS - T & U

NOTE: SCALES SHOWN ARE FOR 24"X36" SHEETS

HARBOR POWER ENGINEERS, INC.
ELECTRICAL ENGINEERING FOR DOCKS & WATERFRONT FACILITIES
ADDRESS: 815 FIRST AVE. NO 343
SEATTLE, WA 98101
TEL: (206) 652-5080

8/11/2021

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Project No.
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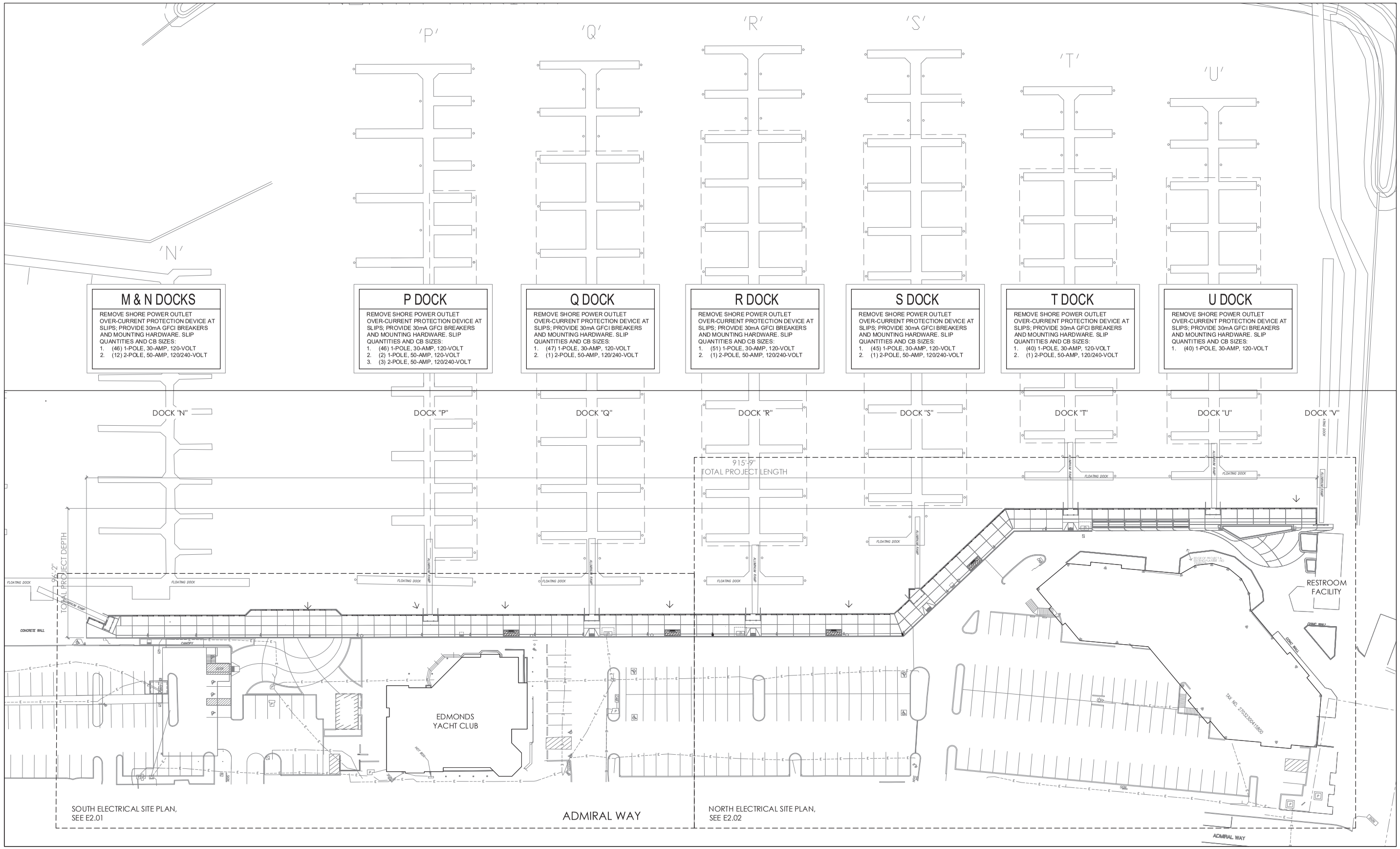

1 OVERALL ELECTRICAL SITE PLAN
SCALE: 1"= 32'-0"

0' 16' 32' 64'

DESIGNED: EJD/KDD
DRAWN:
CHECKED:

PORT OF EDMONDS
NORTH PORTWALK AND SEAWALL RECONSTRUCTION
336 Admiral Way; Edmonds, Washington

NOTE: SCALES SHOWN ARE FOR 24"X36" SHEETS

DRAWING TITLE
OVERALL ELECTRICAL SITE PLAN

HARBOR POWER ENGINEERS, INC
ELECTRICAL ENGINEERING FOR MARINE & WATERFRONT FACILITIES
ADDRESS: 815 FIRST AVE, NO 343
SEATTLE, WA 98101
TEL: (206) 652-5080

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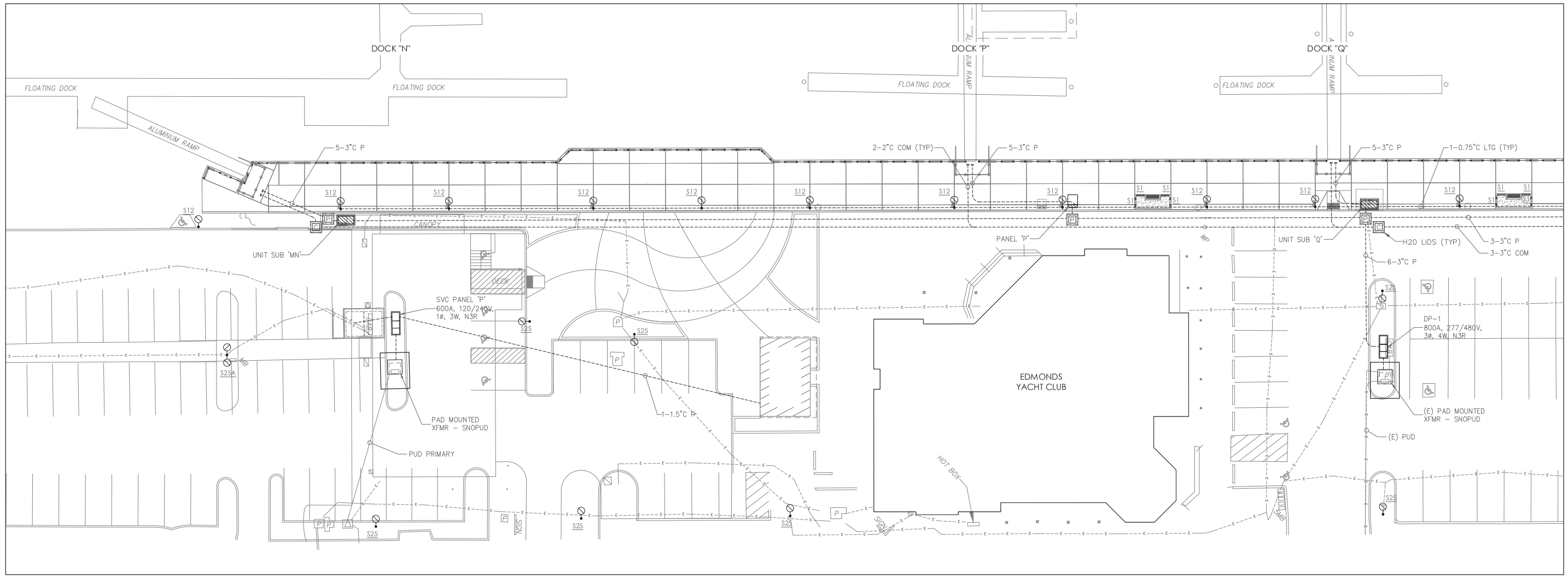

1 SOUTH ELECTRICAL SITE PLAN
SCALE: 1"= 16'-0"

0 8' 16' 32'

SITE ELECTRICAL

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
X	4'x4'x3'D VAULT WITH STEEL LID C = COMMUNICATIONS POE/COMCAST/WAVE E = PORT ELECTRICAL/LIGHTING P = POWER: PUD POWER		SITE ELECTRICAL EQUIPMENT W/CLEAR ZONE SHOWN
XI	30"x30"x24"D VAULT WITH STEEL LID C = COMMUNICATIONS POE/COMCAST/WAVE E = PORT ELECTRICAL/LIGHTING		ELECTRICAL EQUIPMENT AS NOTED
	12x18 ELECTRICAL HANDHOLE, STEEL GALV. COVER, OPEN BOTTOM, PEDESTRIAN RATED	M	PUD ELECTRICAL METER
T	FRONTIER-35 WITH DBL-STEEL LID T = TELEPHONE		LANDSCAPE LIGHTING GFCI RECEPTACLE WITH WEATHERPROOF-IN-USE COVER, POST MOUNTED
SW	PUD PRIMARY SWITCH CABINET		UNIT SUBSTATION
PV	PUD PRIMARY PULL VAULT		CONDUIT RACEWAY
TX	PUD PAD MOUNTED UTILITY TRANSFORMER (LESS THAT 750KVA, SHOWN ON DRAWINGS)		UNDERGROUND CONDUIT
	CLEAR ZONE/GUARD POST CENTERLINE		CONDUIT LINE WEIGHT
	NOTE: PROVIDE VAULT TYPE AS SHOWN ON DWGS.		CONDUIT EXISTING LINE WEIGHT
		E	CONDUIT STUB OUT
			CONDUIT STUB UP/DOWN
		J	JUNCTION BOX

Substations
Distribution
Equipment

The introduction of substations into the marina and recreational vehicle market allows Eaton to be your complete marina and RV park electrical products supplier. We are able to assist in the design and layout of your marina or RV park electrical system from the primary service provider to your power pedestal. Our substations are designed for any coastal or inland environment and are constructed with powder coated stainless steel NEMA 3R housing cabinets. All substation cabinets come with our limited lifetime warranty.

Above: Standard Substation
Left: Double Panel Substation

CATALOG CUT - UNIT SUBSTATION

Panels
Distribution
Equipment

One of the many products we can offer our customers are the Cutler-Hammer PRL-3A & PRL-4 panels as stand alone units or in one of our substations. All of our busses are made of copper and are load rated, breakers are bolt-on type. Distribution panels can be 120/240V single-phase, 120/208V three-phase, 277/480V three-phase, or 220Y/127V three-phase based on your system requirements. Distribution panels can also have a main breaker or a main lug. Branch circuit breakers are provided based on customer requirements.

Standard Features
- All Internal Wiring Is Fine Stranded 1600 Volt Insulated Copper
- Copper bus bars
- All Exterior Hardware Is Stainless Steel
- Underwriters Laboratories Listed

Available Options
- NEMA 3R, or 4X
- Powder Coated or Stainless Steel (316L)
- Main Breaker up to 1200 Amps
- Branch Breaker 20 to 1200 Amps
- Main Lug Only

Single-Phase
- Up to 1200 Amp Main Circuit Breakers
- Up to 16 Branch Circuit Breakers

Three-Phase
- Up to 1200 Amp Main Circuit Breakers
- Up to 18 Branch Circuit Breakers

CATALOG CUT - DISTRIBUTION PANEL

DESIGNED: EJD/KDD
DRAWN:
CHECKED:

PORT OF EDMONDS
NORTH PORTWALK AND SEAWALL RECONSTRUCTION
336 Admiral Way; Edmonds, Washington

DRAWING TITLE
SOUTH ELECTRICAL SITE PLAN

HARBOR POWER ENGINEERS, INC.
ELECTRICAL ENGINEERS FOR MARINE & WATERFRONT FACILITIES
ADDRESS: 815 FIRST AVE, NO 343
SEATTLE, WA 98101
TEL: (206) 652-5080

8/11/2021

REVISIONS	DESCRIPTION	APPROVED
DATE		

Project No.
2020-019

Drawing No.
E2.01

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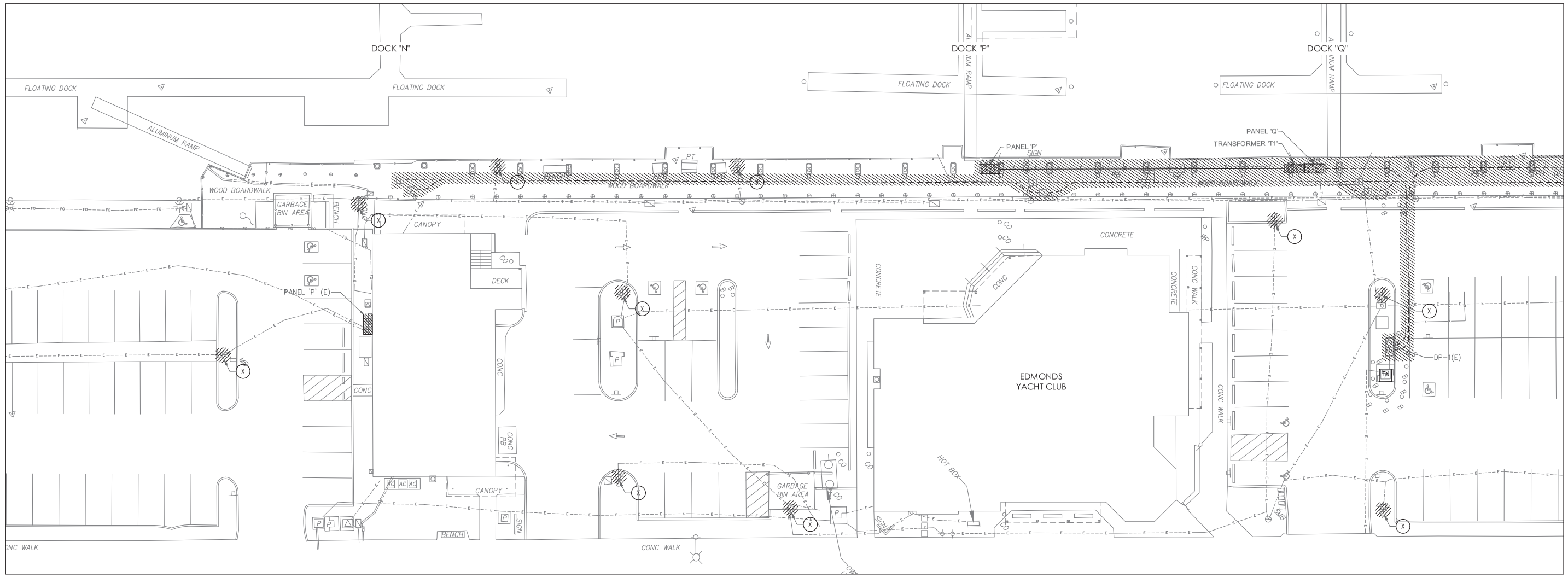

1 SOUTH ELECTRICAL SITE PLAN (DEMO)
SCALE: 1"= 16'-0"

0 8' 16' 32'

SITE ELECTRICAL

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
X	4'x4'x3'D VAULT WITH STEEL LID C = COMMUNICATIONS POE/COMCAST/WAVE E = PORT ELECTRICAL/LIGHTING P = POWER: PUD POWER		SITE ELECTRICAL EQUIPMENT W/CLEAR ZONE SHOWN
X	30"x30"x24"D VAULT WITH STEEL LID C = COMMUNICATIONS POE/COMCAST/WAVE E = PORT ELECTRICAL/LIGHTING		ELECTRICAL EQUIPMENT AS NOTED
	12x18 ELECTRICAL HANDHOLE, STEEL GALV. COVER, OPEN BOTTOM, PEDESTRIAN RATED	M	PUD ELECTRICAL METER
T	FRONTIER-35 WITH DBL-STEEL LID T = TELEPHONE		LANDSCAPE LIGHTING GFCI RECEPTACLE WITH WEATHERPROOF-IN-USE COVER, POST MOUNTED
SW	PUD PRIMARY SWITCH CABINET		UNIT SUBSTATION
PV	PUD PRIMARY PULL VAULT		CONDUIT RACEWAY
TX	PUD PAD MOUNTED UTILITY TRANSFORMER (LESS THAT 750KVA, SHOWN ON DRAWINGS)		UNDERGROUND CONDUIT
	CLEAR ZONE/GUARD POST CENTERLINE		CONDUIT LINE WEIGHT
			CONDUIT EXISTING LINE WEIGHT
		E	CONDUIT STUB OUT
			CONDUIT STUB UP/DOWN
		J	JUNCTION BOX

NOTE: PROVIDE VAULT TYPE AS SHOWN ON DWGS.

DESIGNED: EJD/KDD
DRAWN:
CHECKED:

NOTE: SCALES SHOWN ARE FOR 24"X36" SHEETS

PORT OF EDMONDS
NORTH PORTWALK AND SEAWALL RECONSTRUCTION
336 Admiral Way; Edmonds, Washington

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SOUTH ELECTRICAL SITE PLAN (DEMO)

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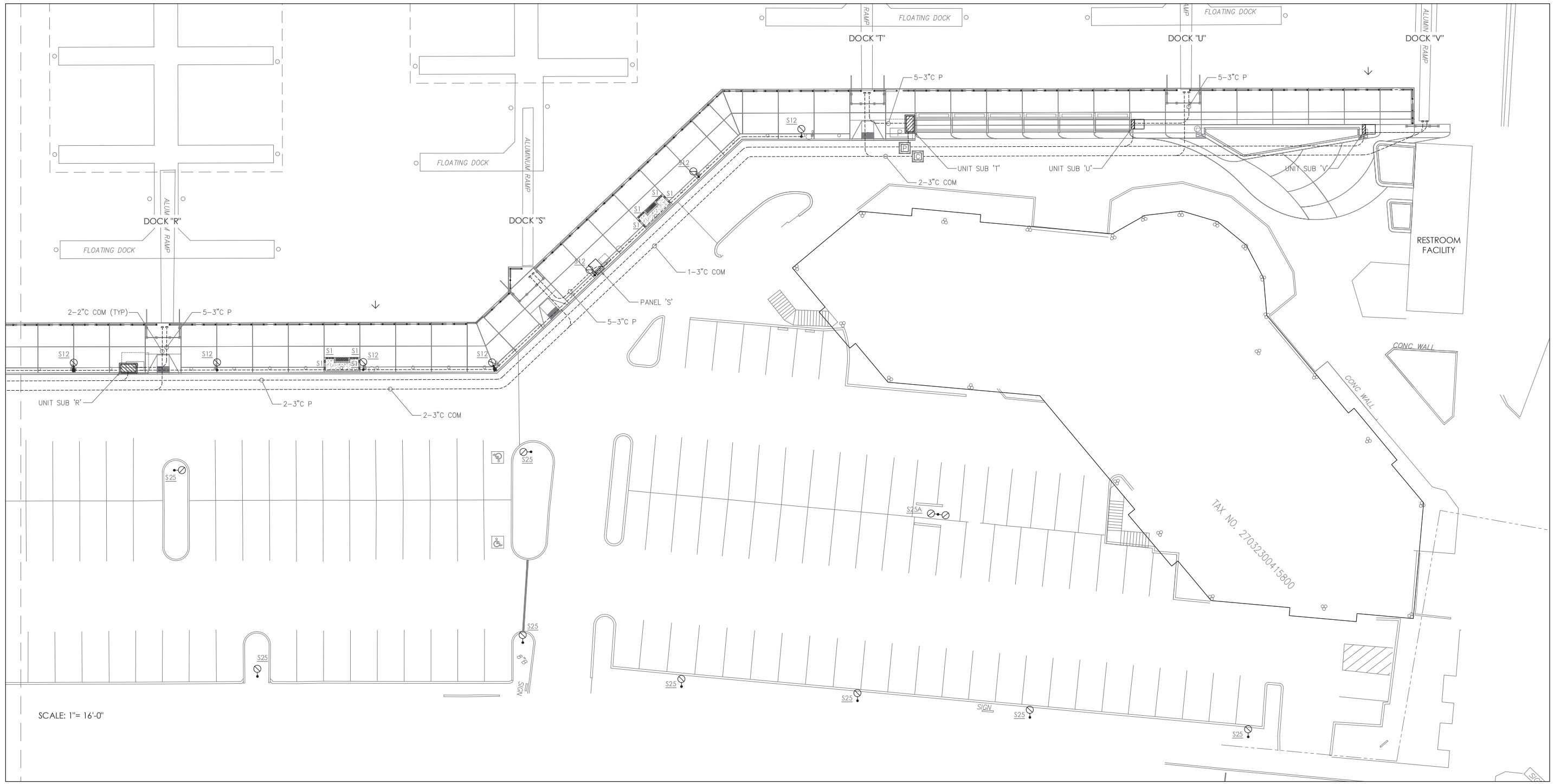

1 NORTH ELECTRICAL SITE PLAN

0 8' 16' 32'

SITE ELECTRICAL

SYMBOL	DESCRIPTION
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TX	PUD PAD MOUNTED UTILITY TRANSFORMER (LESS THAT 750KVA, SHOWN ON DRAWINGS)
	CLEAR ZONE/GUARD POST CENTERLINE

NOTE: PROVIDE VAULT TYPE AS SHOWN ON DWGS.

SYMBOL	DESCRIPTION
	SITE ELECTRICAL EQUIPMENT W/CLEAR ZONE SHOWN
	ELECTRICAL EQUIPMENT AS NOTED
M	PUD ELECTRICAL METER
	LANDSCAPE LIGHTING GFCI RECEPTACLE WITH WEATHERPROOF-IN-USE COVER, POST MOUNTED
	UNIT SUBSTATION
	CONDUIT RACEWAY
	UNDERGROUND CONDUIT
	CONDUIT LINE WEIGHT
	CONDUIT EXISTING LINE WIEGHT
E-----	CONDUIT STUB OUT
o	CONDUIT STUB UP/DOWN
J	JUNCTION BOX

DESIGNED: EJD/KDD
DRAWN:
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PORT OF EDMONDS
NORTH PORTWALK AND SEAWALL RECONSTRUCTION
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DRAWING TITLE
NORTH ELECTRICAL SITE PLAN

NOTE: SCALES SHOWN ARE FOR 24"X36" SHEETS

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REVISIONS	DESCRIPTION	APPROVED
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Project No.
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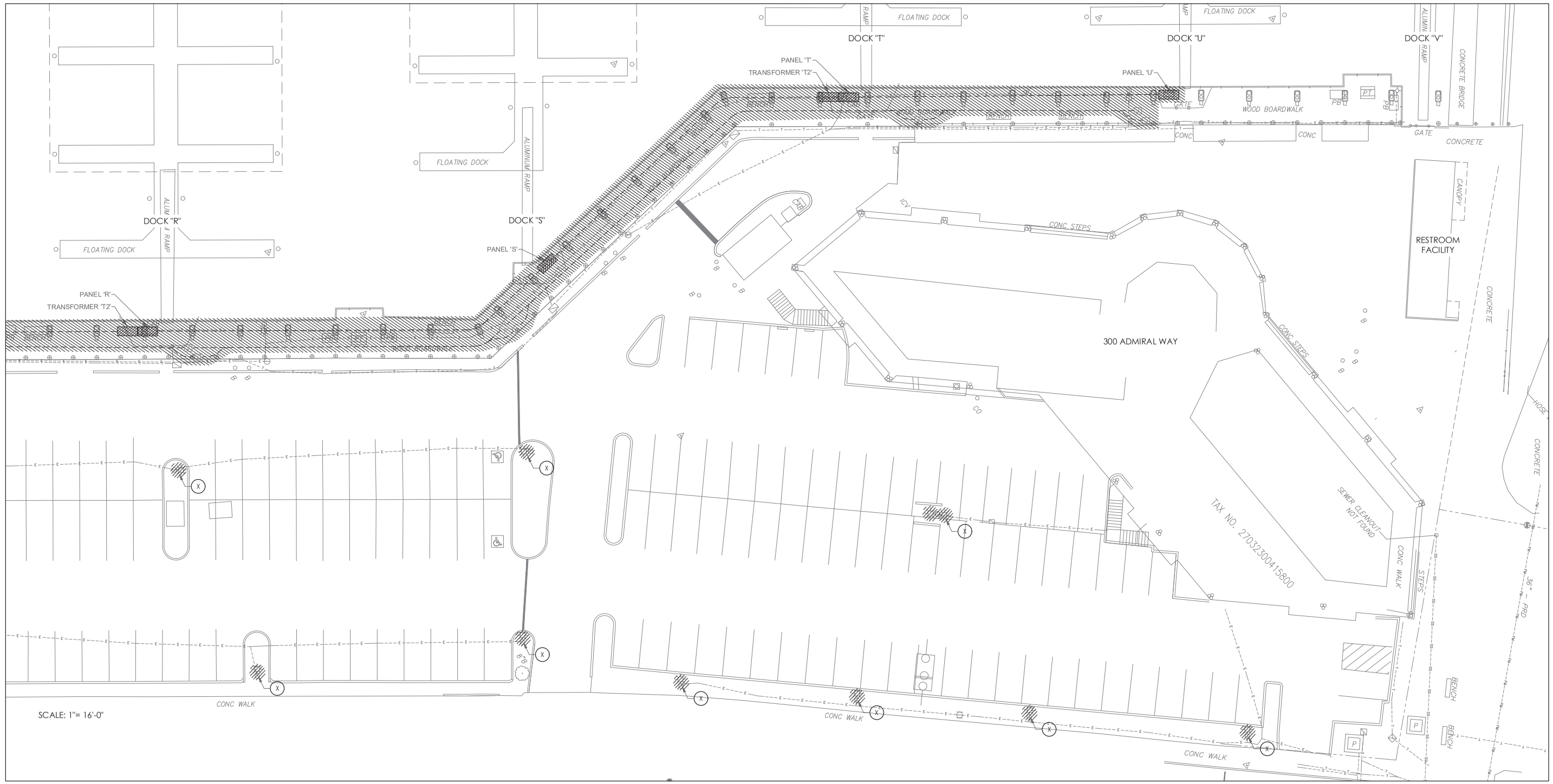

1 NORTH ELECTRICAL SITE PLAN 0 8' 16' 32'

SITE ELECTRICAL

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	CLEAR ZONE/GUARD POST CENTERLINE		CONDUIT LINE WEIGHT
	NOTE: PROVIDE VAULT TYPE AS SHOWN ON DWGS.		CONDUIT EXISTING LINE WIEGHT
		E	CONDUIT STUB OUT
			CONDUIT STUB UP/DOWN
		J	JUNCTION BOX

DESIGNED: EJD/KDD
DRAWN:
CHECKED:

NOTE: SCALES SHOWN ARE FOR 24"X36" SHEETS

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