PORT OF NEWPORT
DOCK 5 REPLACEMENT
YAQUINA BAY
NEWPORT, OR

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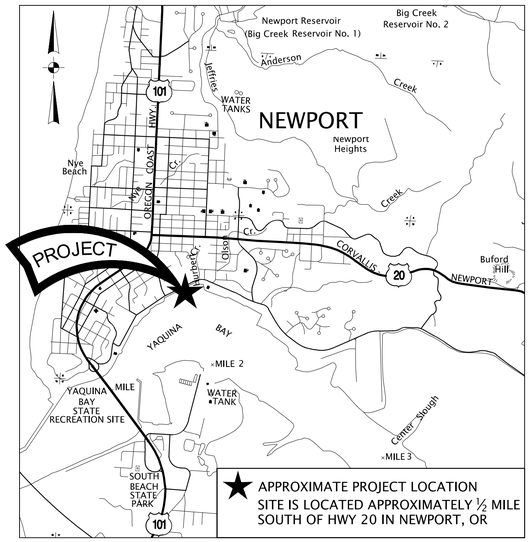

VICINITY MAP

NO SCALE

REGISTERED PROFESSIONAL ENGINEER
90603
Brian D Burnham
OREGON
JULY 14, 2015
BRIAN BURNHAM
EXPIRES: 12/31/2019

△	DATE	REVISION	BY
1			
2			
3			
4			
5			

ACCOMPANIED BY DRAWINGS:

SCALE WARNING

If scale bar does not measure one inch, then drawing is not to scale

PORT OF NEWPORT
DOCK 5 REPLACEMENT

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NEWPORT, OR

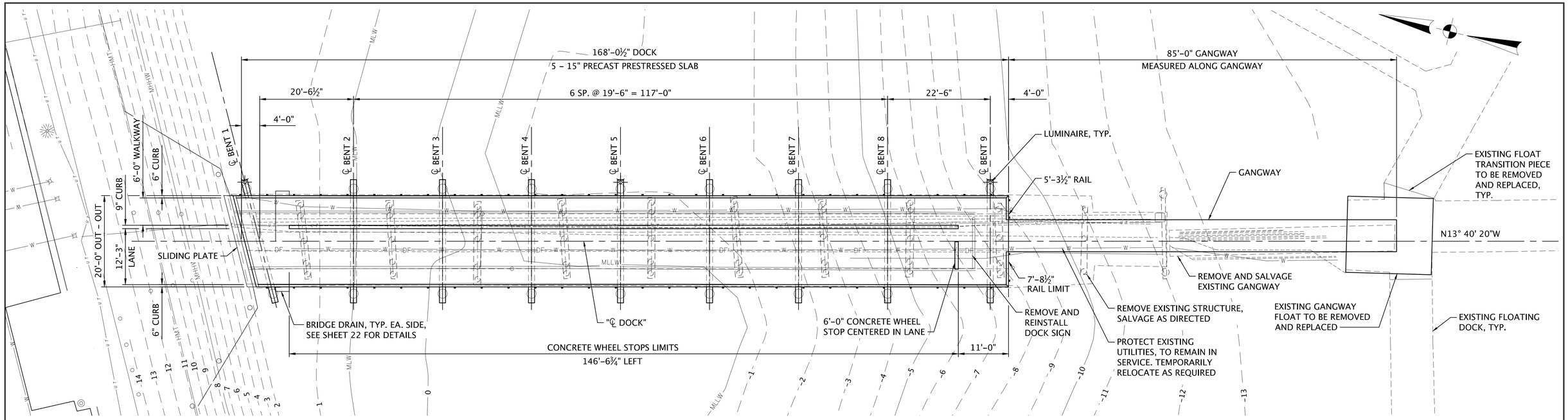
TITLE SHEET

OBEC CONSULTING ENGINEERS
www.obec.com

CORPORATE OFFICE:
920 COUNTRY CLUB ROAD, SUITE 100B EUGENE, OREGON 97401-6089
REGIONAL OFFICES:
LAKE OSWEGO; SALEM; MEDFORD, OREGON ; VANCOUVER, WASHINGTON

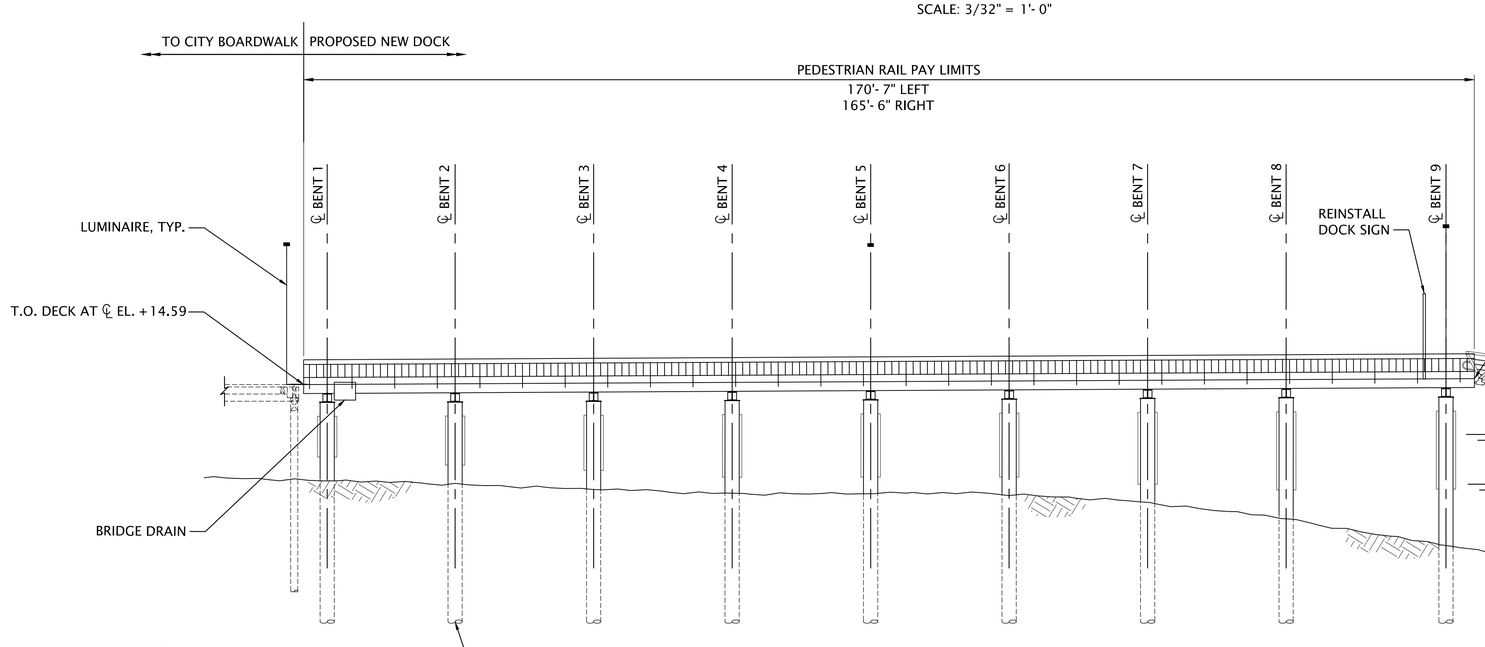
DESIGNER: Brian Burnham, PE
REVIEWER: Nick Robertson, PE, SE
CHECKER: Kenton Alldritt, PE
DRAFTER: OBEC CAD

DATE	STRUCTURE NO.	CALC. BOOK	SHEET	DRAWING NO.
JAN 2019	N/A	N/A	1 OF 27	1



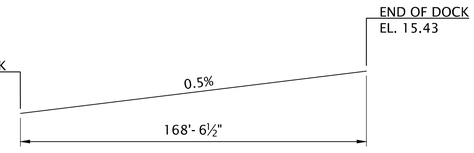
PLAN

SCALE: 3/32" = 1'- 0"



ELEVATION

SCALE: 3/32" = 1'- 0"



"℄ DOCK" GRADELINE DIAGRAM

NO SCALE

NOTE:
ELEVATIONS ARE BASED ON NORTH AMERICAN VERTICAL DATUM, 1988

NOTE:
LOWEST WATER LEVEL RECORDED (LWLR) IS APPROXIMATED FROM A NEARBY SITE.

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PLAN AND ELEVATION

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JAN 2019	N/A	N/A	2 OF 27	2

GENERAL CIVIL NOTES:

1. EXISTING KNOWN UTILITY LOCATIONS ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY THE LOCATION IN ADVANCE OF CONSTRUCTION TO DETERMINE EXACT UTILITY TYPE, SIZE, AND LOCATION, THEN NOTIFY THE ENGINEER OF ANY DISCREPANCIES.

2. ATTENTION: OREGON LAW REQUIRES COMPLIANCE WITH THE RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH IN OAR 952- 001- 0090. YOU MAY OBTAIN COPIES OF THE RULES BY CALLING THE CENTER (NOTE: THE TELEPHONE FOR THE OREGON UTILITY NOTIFICATION CENTER IS (800)332- 2344). EXCAVATORS MUST NOTIFY ALL PERTINENT COMPANIES OR AGENCIES WITH THE UNDERGROUND UTILITIES IN THE PROJECT AREA AT LEAST 48 BUSINESS- DAY HOURS, BUT NOT MORE THAN 10 BUSINESS DAYS, PRIOR TO COMMENCING AN EXCAVATION, SO UTILITIES MAY BE ACCURATELY LOCATED.

3. ALL MATERIALS AND METHODS OF CONSTRUCTION AND INSTALLATION FOR UTILITIES AND STORM WATER FACILITIES SHALL CONFORM TO THE PROJECT SPECIFICATIONS AND THE PORT OF NEWPORT FACILITIES CODE (LATEST REVISION), THE OREGON PLUMBING SPECIALTY CODE AND STANDARD DETAILS CONTAINED THEREIN.

4. STORMWATER INLET PROTECTION MUST BE IN PLACE PRIOR TO THE START OF CONSTRUCTION AND MAINTAINED UNTIL COMPLETION OF PROJECT.

5. THE EXISTING GANGWAY AND EXISTING STRINGERS SHALL BE SALVAGED AND WILL REMAIN THE PROPERTY OF THE PORT OF NEWPORT. THE STEEL PANELS IN THE EXISTING RAIL SHALL BE SALVAGED AND REUSED IN THE NEW RAIL. A DESIGNATED STORAGE AREA WILL BE SET ASIDE FOR THE CONTRACTOR TO UNLOAD THE SALVAGEABLE MATERIAL AND EQUIPMENT. NON- SALVAGEABLE MATERIAL WILL BE DISPOSED OF OFF- SITE BY THE CONTRACTOR.

GENERAL STRUCTURAL NOTES:

1. SCOPE:
THE GENERAL STRUCTURAL NOTES AND TYPICAL DETAILS ARE GENERAL AND APPLY TO THE ENTIRE PROJECT UNLESS OTHERWISE SPECIFIED TO THE CONTRARY.

2. APPLICABLE SPECIFICATIONS AND CODES:
CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE PROJECT TECHNICAL SPECIFICATIONS, 2014 OREGON STRUCTURAL SPECIALTY CODE, CURRENT OSHA CODE, 2018 OREGON STANDARD SPECIFICATIONS FOR CONSTRUCTION, AND THE CITY OF NEWPORT BUILDING PERMIT.

3. ALTERNATIVE DESIGNS:
THE STRUCTURAL SYSTEMS AND DETAILS SHOWN ON THE DRAWINGS ARE THE PRIORITY DESIGN. ALTERNATIVE DETAILS MAY BE CONSIDERED IF THE CONTRACTOR SUBMITS PLANS WITH SUBSTANTIATING CALCULATIONS AND TEST DATA, AND IF THE ALTERNATIVE PLANS ARE ACCEPTED BY THE OWNER. SUBSTANTIATING CALCULATIONS SHALL BE PERFORMED BY A REGISTERED PROFESSIONAL ENGINEER LICENSED IN OREGON. ALTERNATIVE SUBMITTALS SHALL BE COMPLETED PRIOR TO ACCEPTANCE FOR CONSIDERATION.

4. DIMENSIONS:
STRUCTURAL DIMENSIONS CONTROLLED BY OR RELATED TO EXISTING STRUCTURES, MECHANICAL, OR ELECTRICAL EQUIPMENT SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.

5. PROVISIONS FOR EQUIPMENT:
MECHANICAL AND ELECTRICAL EQUIPMENT SUPPORTS, ANCHORAGES, OPENINGS, RECESSES, AND REVEALS NOT SHOWN ON THE STRUCTURAL DRAWINGS BUT REQUIRED BY OTHER CONTRACT DRAWINGS SHALL BE PROVIDED FOR DURING CONSTRUCTION.

6. CONSTRUCTION SHORING & FALSEWORK:
DURING CONSTRUCTION, STRUCTURES AND UTILITIES SHALL BE PROTECTED BY SHORING AND FALSEWORK WHERE CONSTRUCTION LOADS MAY OCCUR. SHORING SHALL BE DESIGNED FOR LOADS LISTED BELOW. SHORING AND FALSEWORK DRAWINGS SUBMITTED FOR APPROVAL SHALL BE COMPLETE, SHOWING LAYOUT AND SPACING FOR SUPPORTS, MATERIAL SPECIFICATIONS, AND ALL RELATED SUPPORTING DATA AND INFORMATION. CONTRACTOR'S CONSTRUCTION AND/OR ERECTION SEQUENCES SHALL RECOGNIZE AND CONSIDER THE EFFECTS OF THERMAL MOVEMENTS OF STRUCTURAL ELEMENTS AND VARIATIONS OF WATER ELEVATIONS DURING THE CONSTRUCTION PERIOD. CONTRACTOR SHALL VERIFY WITH THE CITY OF NEWPORT THE ALLOWABLE CAPACITY OF THE EXISTING TIMBER BOARDWALK FOR CONSTRUCTION ACCESS.

7. ASSUMED FUTURE CONSTRUCTION:
VERTICAL - NONE
HORIZONTAL - WIDENING OF DECK SURFACE APPROXIMATELY 20 FEET TOWARDS THE WEST.

8. DESIGN CRITERIA AND LOADING INFORMATION:
DESIGN AND ANALYSIS OF COMPONENTS IS IN ACCORDANCE WITH THE 2014 OREGON STRUCTURAL SPECIALTY CODE (OSSC) AND THE AMERICAN SOCIETY OF CIVIL ENGINEERS STANDARD 7- 10 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES (ASCE 7- 10). DESIGN CRITERIA:

A. LIVE LOAD:
   a. UNIFORM LOAD ON FIXED DOCK: 50 PSF
   b. VEHICLE LOAD ON FIXED DOCK: TOTAL VEHICLE LOAD: 43 TONS. SEE DESIGN VEHICLE LOAD DIAGRAM.
   c. LOAD ON GANGWAY: 100 PSF UNIFORM, 1000 LB CONCENTRATED
   d. LOAD ON FLOATING DOCK: 50 PSF UNIFORM, 400 LB CONCENTRATED
   e. LOAD ON VEHICLE BARRIERS: 6000 LB CONCENTRATED LOAD PER OSSC 1607.8.3

B. SNOW LOAD:
   a. GROUND SNOW LOAD: P_g = 1 PSF
   b. DESIGN SNOW LOAD: PF = 20 psf PER OSSC 1608.1
   c. EXPOSURE: C_e = 0.9
   d. THERMAL FACTOR: C_t = 1.2
   e. IMPORTANCE FACTOR: I_s = 0.80

C. WIND DESIGN:
   a. BASIC WIND SPEED (3- SEC GUST): 125 MPH
   b. RISK CATEGORY: I
   c. EXPOSURE: D
   d. INTERNAL PRESSURE COEFFICIENT: C_{gi} = 0.0
   e. EXTERNAL PRESSURE COEFFICIENT: C_{gf} = 0.61

D. SEISMIC DESIGN:
   a. SEISMIC DESIGN CATEGORY: D
   b. RISK CATEGORY: I
   c. IMPORTANCE FACTOR: I_e = 1.00
   d. SITE CLASS: D
   e. MAPPED 0.2- SEC SPECTRAL ACCELERATION: S_S = 1.706
   f. MAPPED 1.0- SEC SPECTRAL ACCELERATION: S_1 = 0.763
   g. 0.2- SEC MCE SPECTRAL ACCELERATION: S_{DS} = 1.138
   h. 1.0- SEC MCE SPECTRAL ACCELERATION: S_{D1} = 0.763
   i. BASIC SEISMIC FORCE RESISTING SYSTEM:
      LONGITUDINAL DIRECTION: STEEL SPECIAL CANTILEVER COLUMN
      TRANSVERSE DIRECTION: STEEL ORDINARY CONCENTRICALLY BRACED FRAME
   j. DESIGN BASE SHEAR: 258 KIPS
   k. SEISMIC RESPONSE COEFFICIENT:
      LONGITUDINAL DIRECTION: Cs= 0.455
      TRANSVERSE DIRECTION: Cs= 0.350
   l. RESPONSE MODIFICATION COEFFICIENT:
      LONGITUDINAL DIRECTION: R= 2.5
      TRANSVERSE DIRECTION: R= 3.25
   m. ANALYSIS PROCEDURE USED: MODAL RESPONSE SPECTRUM ANALYSIS

E. SOIL DESIGN PARAMETERS: ASSUMED NEW ALLOWABLE SOIL BEARING PRESSURE = 3,000 PSF

F. UTILITY LOAD:
   a. LOAD ON GANGWAY: 120 PLF

9. SEISMIC FORCE RESISTING SYSTEM (SFRS) FOR THE DOCK IS AS FOLLOWS:
   a. LONGITUDINAL DIRECTION: STEEL PIPE PILES BENDING ALONG THE LENGTH. TRANSFER OF FORCE FROM PRECAST CONCRETE DECK TO PILE THROUGH ANCHOR BOLTS INTO THE PILE CAP.
   b. TRANSVERSE DIRECTION: BRACED FRAME ACTION FROM STEEL PILES AND STEEL PILE BRACES. TRANSFER OF FORCE FROM PRECAST CONCRETE DECK TO PILE THROUGH ANCHOR BOLTS INTO THE PILE CAP.

CONCRETE:

CONCRETE CONSTRUCTION SHALL CONFORM TO THE LATEST EDITION OF THE ACI BUILDING CODE (ACI- 318) AND 2018 OREGON STANDARD SPECIFICATIONS FOR CONSTRUCTION AND THE PROJECT TECHNICAL SPECIFICATIONS.

THE FOLLOWING 28- DAY COMPRESSIVE STRENGTH CONCRETE SHALL BE USED:
   a. PRESTRESSED SLABS: SEE PRESTRESSED SLAB DETAIL SHEET.
   b. CAST IN PLACE DECK: CLASS HPC4500
   c. ALL OTHER CONCRETE: CLASS 4000

REINFORCEMENT REQUIREMENTS:
ALL DETAILING, FABRICATION, AND ERECTION OF REINFORCING BARS, UNLESS OTHERWISE NOTED, SHALL BE IN ACCORDANCE WITH THE "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES" (ACI- 315), LATEST EDITION.

ALL REINFORCING SHALL CONFORM TO ASTM A615 GRADE 60 UNLESS OTHERWISE NOTED. FIELD BENT REINFORCING SHALL CONFORM TO ASTM A706 GRADE 60.

MINIMUM CONCRETE COVER FOR REINFORCING BARS SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED:
   a. PRECAST CONCRETE: SEE PRESTRESSED SLAB DETAIL SHEET
   b. ALL OTHER CONCRETE: 2"

UNLESS SHOWN OTHERWISE, THE FOLLOWING LAP SPLICE LENGTHS SHALL BE USED:

REINFORCING SPLICE LENGTH GRADE 60 f'c= 4.5 KSI										
BAR SIZE	#3	#4	#5	#6	#7	#8	#9	#10	#11	#14 & #18
SPLICE LENGTH (UNCOATED)	1'- 4"	1'- 6"	1'- 11"	2'- 3"	2'- 7"	3'- 0"	3'- 4"	3'- 9"	4'- 2"	NOT PERMITTED

INCREASE ALL SPLICE LENGTHS 40% FOR HORIZONTAL OR NEARLY HORIZONTAL BARS SO PLACED THAT MORE THAN 12" OF FRESH CONCRETE IS CAST BELOW THE BAR.

POST INSTALLED ADHESIVE ANCHORS:
USE OF POST INSTALLED ADHESIVE SHALL BE GOVERNED BY THE FOLLOWING TABLE. FOR ANCHORS INSTALLED IN HARDENED CONCRETE, USE APPROVED ADHESIVE ANCHORING SYSTEM THAT HAS BEEN APPROVED BY THE ENGINEER OF RECORD FOR SEISMIC LOADS AND CRACKED CONCRETE. STRICTLY ADHERE TO MANUFACTURER INSTALLATION REQUIREMENTS AND PROCEDURES. REFER TO THE STATEMENT OF SPECIAL INSPECTIONS FOR ADDITIONAL REQUIREMENTS:

ROD DIAMETER	½"	⅝"	¾"	⅞"	1"	1 ⅛"	1 ¼"
MIN. EMBEDMENT IN STRUCTURAL CONCRETE	4½"	6½"	7½"	9½"	11"	12½"	14½"

HOLES SHALL BE DRILLED USING IMPACT ROTARY DRILL AND CARBIDE BIT, OR EQUAL. ALL ADHESIVE ANCHORS SHALL HAVE CURRENT ICC APPROVAL. AVOID CONFLICT WITH EXISTING REINFORCEMENT. VERIFY LOCATION OF EXISTING REINFORCEMENT PRIOR TO DRILLING HOLES FOR ADHESIVE ANCHORS.

STEEL:
STEEL CONSTRUCTION SHALL CONFORM TO SPECIFICATIONS AND STANDARDS PRESENTED IN THE LATEST EDITION OF AISC STEEL CONSTRUCTION MANUAL.

WELDING SHALL CONFORM TO AMERICAN WELDING SOCIETY (AWS) SPECIFICATIONS FOR BUILDING CONSTRUCTION D1.1. POWER BRUSH OR GRIND ALL WELDS PRIOR TO COATING.

UNLESS NOTED OTHERWISE, ALL BOLTS, WASHERS, NUTS, ANCHOR RODS, THREADED ADHESIVE ANCHOR RODS SHALL BE HOT- DIPPED GALVANIZED AFTER FABRICATION. GALVANIZING SHALL CONFORM TO ASTM A153 FOR STEEL HARDWARE AND ASTM A123 FOR STEEL PRODUCTS. REPAIR OF DAMAGED GALVANIZED COATINGS AS THE RESULT OF WELDING, CUTTING, OR MISHANDLING SHALL CONFORM WITH ASTM A780.

UNLESS NOTED OTHERWISE, STEEL PILES, BRACING AND BRACING CONNECTION CHANNEL SECTIONS, AND PILE CAPS SHALL BE UNCOATED STEEL. ALL STRUCTURAL STEEL IN THE TEMPORARY WALKWAY SHALL BE UNCOATED.

UNLESS NOTED OTHERWISE, ALL OTHER STRUCTURAL STEEL SHALL BE HOT- DIPPED GALVANIZED AFTER FABRICATION.

STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING:

W- SHAPES	A992
HP- SHAPES	A572, GRADE 50
MISC. SHAPES INCLUDING ANGLES, CHANNELS, BARS, PLATES, ETC.	A572, GRADE 50
SQUARE OR RECTANGULAR STEEL TUBING	A500, GRADE B
STEEL PIPE	A53, GRADE B
STEEL PIPE PILE	A252, GRADE 3

ALL BOLTS, RODS, AND ASSOCIATED HARDWARE SHALL CONFORM TO THE FOLLOWING EXCEPT WHERE SPECIFICALLY INDICATED OTHERWISE:

BOLTS	A325- N
THREADED ADHESIVE ANCHORS	A193- B7
ANCHOR RODS	F1554, GR 105 A153
NUTS	A563DH HEAVY HEX
WASHERS	F436

ITEMS TO BE EMBEDDED IN CONCRETE SHALL BE CLEAN AND FREE OF OIL, DIRT, AND PAINT UNLESS NOTED OTHERWISE.

NO HOLES OTHER THAN THOSE SPECIFICALLY DETAILED SHALL BE ALLOWED THROUGH STRUCTURAL STEEL MEMBERS. NO CUTTING OR BURNING OF STRUCTURAL STEEL IS PERMITTED WITHOUT THE APPROVAL OF THE OWNER OR ENGINEER.

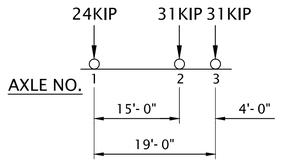
ALL STEEL COATINGS DAMAGED DUE TO FIELD WELDING SHALL BE RECOATED PER THE PROJECT TECHNICAL SPECIFICATIONS.

GANGWAY
CONTRACTOR SHALL DESIGN, FABRICATE AND INSTALL GANGWAY. SUBMIT GANGWAY DESIGN FOR APPROVAL. DESIGN OF GANGWAY MUST BE BY A REGISTERED PROFESSIONAL ENGINEER IN OREGON.

FLOATING DOCK
CONTRACTOR SHALL DESIGN, FABRICATE AND INSTALL NEW FLOATING DOCK TO SUPPORT THE NEW GANGWAY. SUBMIT FLOAT DESIGN FOR APPROVAL. DESIGN OF FLOAT MUST BE BY A REGISTERED PROFESSIONAL ENGINEER IN OREGON.

MECHANICAL
SUBMIT COMPLETE MATERIAL LIST AND LAYOUT DRAWINGS FOR APPROVAL INCLUDING ALL PIPE SEGMENTS, JOINT LOCATIONS, FITTINGS, AND ACCESSORIES REQUIRED FOR A COMPLETE ASSEMBLY.

DEFERRED SUBMITTALS
THE FOLLOWING DEFERRED SUBMITTALS SHALL BE SUBMITTED IN THEIR ENTIRETY TO THE OWNER AND ENGINEER OF RECORD FOR REVIEW AND BUILDING DEPARTMENT APPROVAL A MINIMUM OF 21 DAYS PRIOR TO FABRICATION. ALL DEFERRED SUBMITTALS SHALL BE STAMPED AND SIGNED BY A DESIGN PROFESSIONAL PRIOR TO SUBMITTAL.
1. GANGWAY
2. FLOATING DOCK
3. MECHANICAL SYSTEMS



DESIGN VEHICLE LOAD DIAGRAM

LEGEND

EXISTING OR HIDDEN		EX. STORM MANHOLE	
NEW		CATCH BASIN	
CENTER LINE		WATER METER	
ORDINARY HIGH WATER	OHW	FIRE HYDRANT	
UNDERGROUND TELECOMMUNICATIONS	UT	NEW LUMINAIRE	
WATER LINE	W		
DIESEL FUEL	DF		
MEAN LOW WATER	MLW		
MEAN LOWER- LOW WATER	MLLW		
MEAN HIGHER- HIGH WATER	MHHW		
HIGH MEAN TIDE	HMT		

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DATE: JAN 2019	STRUCTURE NO.: N/A	CALC. BOOK: N/A	SHEET: 3 OF 27
DRAWING NO.: 3			

SPECIAL INSPECTION AND OBSERVATION PLAN

SPECIAL INSPECTION:

SPECIAL INSPECTION AND VERIFICATION WILL BE IN ACCORDANCE WITH THE REQUIREMENTS OF CHAPTER 17 OF THE 2014 OREGON STRUCTURAL SPECIALTY CODE AND THE 2015 IBC WITH STATE AND LOCAL AMENDMENTS. REFER TO THE TABLES BELOW FOR PROJECT SPECIFIC INSPECTION TYPES AND FREQUENCIES. NOTIFY PARTY RESPONSIBLE FOR INSPECTION AT LEAST 48 HOURS PRIOR TO THE BEGINNING OF THE WORK TO BE COVERED. SPECIAL INSPECTIONS WILL BE CONDUCTED BY A CERTIFIED INSPECTOR AND TESTING WILL BE PERFORMED BY AN APPROVED INDEPENDENT AGENCY. THE OWNER WILL CONTRACT SEPARATELY FOR ALL NECESSARY INSPECTION AND TESTING.

THE INSPECTOR WILL OBSERVE THE INDICATED WORK FOR COMPLIANCE WITH THE APPROVED CONTRACT DOCUMENTS AND WILL SUBMIT RECORDS OF INSPECTION. ANY DISCREPANCIES WILL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE OWNER AND CONTRACTOR FOR CORRECTION.

SPECIAL INSPECTION AND ASSOCIATED TESTING REPORTS WILL BE SUBMITTED WITHIN ONE WEEK OF COMPLETION. AT THE CONCLUSION OF CONSTRUCTION A FINAL REPORT DOCUMENTING REQUIRED SPECIAL INSPECTIONS AND CORRECTION OF PREVIOUSLY NOTED DISCREPANCIES WILL BE SUBMITTED.

PERIODIC INSPECTION SHALL OCCUR DURING PLACEMENT AND/OR UPON COMPLETION OF THE WORK. THE INSPECTION SHALL IN ALL CASES BE PERFORMED SO THAT WORK CAN BE CORRECTED PRIOR TO THE BEGINNING OF RELATED WORK.

SPECIAL INSPECTIONS FOR WIND RESISTANCE WILL BE IN ACCORDANCE WITH OSSC AND IBC SECTION 1705.11 TOGETHER WITH LOCAL AND STATE AMENDMENTS.

SPECIAL INSPECTIONS FOR SEISMIC RESISTANCE WILL BE IN ACCORDANCE WITH OSSC AND IBC SECTION 1705.12 TOGETHER WITH LOCAL AND STATE AMENDMENTS.

STRUCTURAL OBSERVATION:

STRUCTURAL OBSERVATIONS WILL BE IN ACCORDANCE WITH SECTION 1704 OF THE 2014 OREGON STRUCTURAL SPECIALTY CODE AND THE 2015 IBC WITH STATE AND LOCAL AMENDMENTS. STRUCTURAL OBSERVATION WILL BE PERFORMED BY A REGISTERED PROFESSIONAL ENGINEER. STRUCTURAL OBSERVATION DOES NOT INCLUDE OR WAIVE THE RESPONSIBILITY FOR ANY REQUIRED SPECIAL INSPECTIONS OR INSPECTIONS BY THE BUILDING OFFICIAL.

ANY DEFICIENCIES IN THE OBSERVED CONSTRUCTION WILL BE REPORTED TO THE CONTRACTOR IMMEDIATELY UPON FINDING THE DEFICIENCIES. AT THE CONCLUSION OF CONSTRUCTION, A WRITTEN STATEMENT WILL BE PROVIDED TO VERIFY THAT ALL STRUCTURAL OBSERVATION WAS COMPLETED AND THAT ANY STRUCTURAL DEFICIENCIES WERE RESOLVED.

THE STRUCTURAL OBSERVER SHALL DISCUSS ITEMS AND SITE SPECIFIC CONDITIONS WITH THE SPECIAL INSPECTOR AND FIELD INSPECTION STAFF DURING OBSERVATION.

STRUCTURAL OBSERVATION WILL INCLUDE VISUAL OBSERVATION OF THE STRUCTURE SYSTEM AT EACH OF THE FOLLOWING PROJECT MILESTONES:

a. DURING INITIAL PILE INSTALLATION.
b. AT THE END OF STRUCTURAL WORK FOR DETERMINATION OF FINAL CONDITION OF STRUCTURE.
c. AS REQUIRED TO ADDRESS STRUCTURAL ISSUES.

STRUCTURAL OBSERVATIONS SHALL TAKE PLACE WHEN ITEMS CAN STILL BE REVISED.

TABLE 1

REQUIRED GEOTECHNICAL SPECIAL INSPECTIONS

SYSTEM or MATERIAL	INSPECTION: IBC CODE REFERENCE	INSPECTION: CODE or STANDARD REFERENCE	FREQUENCY: CONTINUOUS	FREQUENCY: PERIODIC	REMARKS
PILING					
VERIFY PILE MATERIALS, SIZES AND LENGTHS COMPLY WITH HE REQUIREMENTS	TABLE 1705.7	GEOTECHNICAL REPORT	X		BY THE GEOTECHNICAL ENGINEER SPECIAL INSPECTIONS APPLY TO PILE TYPE AND SIZE CAPACITY OF TEST PILES, CONDUCT LOAD TESTS (IF REQUIRED). RECORD BLOW COUNT PER FOOT OF PENETRATION AND TIP/CUTOFF ELEVATIONS (IF APPLICABLE). DOCUMENT ANY PILE DAMAGE
DETERMINE CAPACITIES OF EXISTING TEST PILES AND CONDUCT ADDITIONAL LOAD TESTS, AS REQUIRED TO CONFIRM ACCURACY			X		
OBSERVE DRIVING OPERATIONS AND MAINTAIN COMPLETE AND ACCURATE RECORDS FOR EACH PILE			X		
VERIFY PLACEMENT LOCATIONS AND PLUMBNESS. CONFIRM TYPE AND SIZE OF HAMMER, RECORD NUMBER OF BLOWS PER FOOT OF PENETRATION, DETERMINE REQUIRED PENETRATIONS TO ACHIEVE DESIGN CAPACITY, RECORD TIP AND BUTT ELEVATIONS AND DOCUMENT ANY PILE DAMAGE			X		
FOR STEEL PILES, PERFORM ADDITIONAL INSPECTIONS	TABLE 1705.7				REFER TO TABLE 2 FOR ADDITIONAL MATERIALS RELATED SPECIAL INSPECTIONS AND TABLE 6 FOR TESTING BY SPECIAL INSPECTION

TABLE 2

REQUIRED STRUCTURAL SPECIAL INSPECTIONS

SYSTEM or MATERIAL	INSPECTION: IBC CODE REFERENCE	INSPECTION: CODE or STANDARD REFERENCE	FREQUENCY: CONTINUOUS	FREQUENCY: PERIODIC	REMARKS
CONCRETE					
INSPECTION ANCHORS CAST IN CONCRETE	TABLE 1705.3	ACI 318: 17.8.2		X	
INSPECT REINFORCEMENT, INCLUDING PRESTRESSING TENDONS, AND VERIFY PLACEMENT	TABLE 1705.3 1908.4	ACI 318: CH. 20, 25.2, 25.3, 26.6- 1- 26.6.3		X	TOLERANCES AND REINFORCING PLACEMENT PER ACI 26.6.2; SPACING LIMITS FOR REINFORCING PER ACI 25.1
REINFORCING BAR WELDING: A. VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A706 B. INSPECT SINGLE- PASS FILLET WELDS, MAXIMUM $\frac{5}{16}$" C. INSPECT ALL OTHER WELDS"	TABLE 1705.3	ACI 318: 26.6 AWS D1.4	X	X X	
VERIFY USE OF REQUIRED MIX DESIGN(S)	TABLE 1705.3 1904.1 1904.2 1908.2 1908.3	ACI 318: CH. 19, 26.4.3, 26.4.4		X	

TABLE 2 (CONT.)

REQUIRED STRUCTURAL SPECIAL INSPECTIONS

SYSTEM or MATERIAL	INSPECTION: IBC CODE REFERENCE	INSPECTION: CODE or STANDARD REFERENCE	FREQUENCY: CONTINUOUS	FREQUENCY: PERIODIC	REMARKS
PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE	1908.10	ASTM C172, ASTM C31, ACI 318: 26.4, 26.12		X	
INSPECT CONCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES	TABLE 1705.3 1908.6- 8	ACI 318: 26.5	X		
VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES	TABLE 1705.3 1908.9	ACI 318: 26.5.3- - 26.5.5		X	
INSPECT PRESTRESSED CONCRETE FOR: A. APPLICATION OF PRESTRESSING FORCES B. GROUTING OF BONDED PRESTRESSING TENDONS	TABLE 1705.7	ACI 318: 26.10	X X		
INSPECT ERECTION OF PRECAST CONCRETE MEMBERS	TABLE 1705.7	ACI 318: 26.8		X	
VERIFY IN- SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST- TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS	TABLE 1705.3	ACI 318: 26.11.2		X	
INSPECTION FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED	TABLE 1705.3	ACI 318: 26.11.2(b)		X	
STEEL					
FABRICATION OF STRUCTURAL ELEMENTS	1704.2.5 1705.2.1 1705.10	AISC 360		X	SPECIAL INSPECTIONS APPLY TO VERIFICATION OF DETAILED FABRICATION AND QUALITY CONTROL PROCEDURES INCLUDING REVIEW FOR COMPLETENESS AND ADEQUACY RELATIVE TO THE CODE REQUIREMENTS
MATERIAL VERIFICATION OF STRUCTURAL STEEL AND COLD FORMED STEEL DECK	1703.4	ASTM A6 ASTM STANDARDS SPECIFIED IN CONSTRUCTION DOCUMENTS AISC 360 A3.1 AISC 360 M5.5		X	CERTIFIED MILL TEST REPORTS
MATERIAL VERIFICATION OF HIGH STRENGTH BOLTS, NUTS, AND WASHERS	1703.4	ASTM STANDARDS SPECIFIED IN CONSTRUCTION DOCUMENTS RCSC 2.1		X	MANUFACTURER'S CERTIFIED TEST REPORTS
MATERIAL VERIFICATION OF ANCHOR BOLTS AND THREADED RODS	1703.4	AISC 360 A3.4 ASTM STANDARDS SPECIFIED IN CONSTRUCTION DOCUMENTS		X	MANUFACTURER'S CERTIFIED TEST REPORTS

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BRIAN BURNHAM
EXPIRES: 12/31/2019

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STATEMENT OF SPECIAL INSPECTION 1 of 3

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DATE	STRUCTURE NO.	CALC. BOOK	SHEET	DRAWING NO.
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TABLE 2 (CONT.)

REQUIRED GEOTECHNICAL SPECIAL INSPECTIONS

SYSTEM or MATERIAL	INSPECTION: IBC CODE REFERENCE	INSPECTION: CODE or STANDARD REFERENCE	INSPECTION: FREQUENCY: CONTINUOUS	INSPECTION: FREQUENCY: PERIODIC	REMARKS
MATERIAL VERIFICATION OF WELD FILLER METALS	1703.4	AISC 360 A3.5 APPLICABLE AWS A5 DOCUMENTS		X	MANUFACTURER'S CERTIFIED TEST REPORTS
VERIFYING USE OF PROPER WPS'S		AWS D1.1		X	COPY OF WELDING PROCEDURE SPECIFICATIONS
VERIFYING WELDER QUALIFICATIONS		AWS D1.1		X	COPY OF QUALIFICATION CARDS
COMPLETE AND PARTIAL JOINT PENETRATION GROOVE WELDS	1705.2	AWS D1.1 SECTION 6	X		ALL WELDS VISUALLY INSPECTED PER AWS D1.1 6.9
MULTIPASS FILLET WELDS	1705.2	AWS D1.1 SECTION 6	X		
SINGLE PASS FILLET WELDS GREATER THAN 5/16"			X		
PLUG AND SLOT WELDS			X		
SINGLE PASS FILLET WELDS LESS THAN OR EQUAL TO 5/16"				X	
SNUG- TIGHT HIGH STRENGTH BOLT INSTALLATION	1705.2	RCSC SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS SECTION 9		X	ALL CONNECTIONS INSPECTED AND VERIFIED SNUG
PRETENSIONED HIGH STRENGTH BOLT INSTALLATION USING TURN- OF- THE- NUT METHOD WITH MATCH MARKING, DIRECT TENSION INDICATOR METHOD, OR TWIST- OFF TYPE TENSION CONTROL BOLT METHOD				X	ALL CONNECTIONS INSPECTED. CONNECTIONS USING DIRECT TENSION INDICATORS, ALL BOLTS SHALL BE INSPECTED AFTER SNUGGING AND AFTER PRETENSIONING
PRETENSIONED HIGH STRENGTH BOLT INSTALLATION USING TURN- OF- THE- NUT METHOD WITHOUT MATCH MARKING OR CALIBRATED WRENCH METHOD OR TENSIONING OF SLIP CRITICAL CONNECTIONS		AISC 360, SECTION M2.5	X		ALL CONNECTIONS INSPECTED
VERIFICATION OF FRAME JOINT DETAILS INCLUDING MEMBER AND COMPONENT LOCATIONS, BRACING, AND STIFFENERS	1705.2			X	
MATERIAL VERIFICATION OF REINFORCING STEEL FOR WELDING	1705.2	ACI 318: 26.6.4 AWS D1.4		X	CERTIFIED MILL TEST REPORTS
WELDING REINFORCING EXCEPT AS NOTED OTHERWISE				X	
WELDING REINFORCING STEEL IN MOMENT RESISTING FRAMES			X		ALL WELDS VISUALLY INSPECTED PER AWS D1.4 7.5
WELDING REINFORCING STEEL IN SHEAR WALL BOUNDARY ELEMENTS			X		ALL WELDS VISUALLY INSPECTED PER AWS D1.4 7.5
WELDING SHEAR REINFORCEMENT			X		ALL WELDS VISUALLY INSPECTED PER AWS D1.4 7.5

TABLE 2 (CONT.)

REQUIRED GEOTECHNICAL SPECIAL INSPECTIONS

SYSTEM or MATERIAL	INSPECTION: IBC CODE REFERENCE	INSPECTION: CODE or STANDARD REFERENCE	INSPECTION: FREQUENCY: CONTINUOUS	INSPECTION: FREQUENCY: PERIODIC	REMARKS
POST INSTALLED CONCRETE ANCHORS					
INSPECTION OF ANCHORS INSTALLED IN HARDENED CONCRETE: A. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATION TO RESIST SUSTAINED TENSION LOADS B. MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED	TABLE 1705.3	ICC EVALUATION REPORT ACI 318: 17.8.2.4 ACI 318: 17.8.2	X	X	SPECIAL INSPECTIONS APPLY TO ANCHOR PRODUCT NAME, TYPE, AND DIMENSIONS, HOLE DIMENSIONS, COMPLIANCE WITH DRILL BIT REQUIREMENTS, CLEANLINESS OF THE HOLE AND ANCHOR, ADHESIVE EXPIRATION DATE, ANCHOR/ADHESIVE INSTALLATION, ANCHOR EMBEDMENT, AND TIGHTENING TORQUE

TABLE 3

REQUIRED SPECIAL INSPECTIONS FOR SPECIAL CASES

SYSTEM or MATERIAL	INSPECTION: IBC CODE REFERENCE	INSPECTION: CODE or STANDARD REFERENCE	INSPECTION: FREQUENCY: CONTINUOUS	INSPECTION: FREQUENCY: PERIODIC	REMARKS
PRE- ENGINEERED STRUCTURES (GANGWAY AND FLOATING DOCK)					
FABRICATION AND ERECTION	1704.1				REFER TO TABLE 2 FOR FABRICATOR AND WELDING SPECIAL INSPECTION REQUIREMENTS AND TABLE 6 AND 7 FOR MATERIAL SPECIFIC TESTING REQUIREMENTS. REFER TO DEFERRED SUBMITTAL FOR ADDITIONAL INFORMATION.

TABLE 4

REQUIRED SPECIAL INSPECTIONS FOR SEISMIC RESISTANCE

SYSTEM or MATERIAL	INSPECTION: IBC CODE REFERENCE	INSPECTION: CODE or STANDARD REFERENCE	INSPECTION: FREQUENCY: CONTINUOUS	INSPECTION: FREQUENCY: PERIODIC	REMARKS
STEEL SEISMIC- FORCE- RESISTING SYSTEMS (SEISMIC CATEGORIES B, C, D, E, F)	1705.12.1	AISC 341	X		REFER TO GENERAL STRUCTURAL NOTES FOR OUTLINE OF THE SFRS. REFERENCE TABLE 2 FOR MATERIAL SPECIFIC INSPECTION REQUIREMENTS.

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STATEMENT OF SPECIAL INSPECTION 2 of 3

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TABLE 5

REQUIRED SPECIAL INSPECTIONS FOR WIND RESISTANCE

SYSTEM or MATERIAL	INSPECTION				REMARKS
	IBC CODE REFERENCE	CODE or STANDARD REFERENCE	FREQUENCY		
			CONTINUOUS	PERIODIC	
FABRICATION AND INSTALLATION OF ANCHOR SYSTEMS FOR SIGN AND LIGHT POLE STRUCTURES	1705.10			X	REFER TO TABLE 2 FOR MATERIALS RELATED TO SPECIAL INSPECTIONS

TABLE 6

REQUIRED TESTING FOR SPECIAL INSPECTIONS

SYSTEM or MATERIAL	TESTING				REMARKS
	IBC CODE REFERENCE	CODE or STANDARD REFERENCE	FREQUENCY		
			CONTINUOUS	PERIODIC	
CONCRETE					
AT THE TIME FRESH CONCRETE IS SAMPLED TO FABRICATE TEST CYLINDERS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE	TABLE 1705.3	ASTM C 172 ASTM C 31 ACI 318: 26.4, 26.12	X		FABRICATE TEST CYLINDERS AT TIME FRESH CONCRETE IS PLACED ONCE EACH DAY FOR A GIVEN CLASS OF CONCRETE, BUT NOT LESS THAN ONCE FOR EACH 150 YARDS OF CONCRETE, OR FOR EACH 5,000 SQUARE FEET OF SURFACE AREA FOR SLABS/WALLS, ONCE EACH SHIFT FROM IN- PLACE WORK OR FROM TEST PANEL AND MINIMUM ONE SPECIMEN FOR EACH 50 CUBIC YARDS. "PRECONSTRUCTION TESTS AS REQUIRED PER THE BUILDING OFFICIAL."
CONCRETE STRENGTH	TABLE 1705.3	ASTM C39	X		
CONCRETE AIR CONTENT	TABLE 1705.3	ASTM C231	X		ONE SAMPLE PER STRENGTH TEST
CONCRETE TEMPERATURE	TABLE 1705.3	ASTM C1064	X		ONE SAMPLE PER STRENGTH TEST
CONCRETE REINFORCEMENT					
TEST A615 REINFORCEMENT USED TO RESIST EARTHQUAKE INDUCED LOAD IN SPECIAL MOMENT FRAMES, SPECIAL STRUCTURAL WALLS, AND END COUPLING BEAMS CONNECTING STRUCTURAL WALLS IN STRUCTURE ASSIGNED TO SEISMIC DESIGN CATEGORY B, C, D, E, AND F	TABLE 1704.5	ACI 318: 20.2.2.5	X		NOT REQUIRED WHEN CERTIFIED MILL TEST REPORTS ARE PROVIDED
TEST A615 REINFORCEMENT FOR WELDABILITY WHEN SUCH REINFORCEMENT IS TO BE WELDED	TABLE 1704.5	ACI 318: 26.6.4		X	
STEEL					
COMPLETE AND PARTIAL JOINT PENETRATION GROOVE WELDS	TABLE 1705.13.1.1	AISC 341 AWS D1.1	X		
MULT- PASS FILLET WELDS	TABLE 1705.13.1.1	AISC 341 AWS D1.1	X		
SINGLE- PASS FILLET WELDS GREATER THAN 5/16"	TABLE 1705.13.1.1	AISC 341 AWS D1.1	X		

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BRIAN BURNHAM
EXPIRES: 12/31/2019

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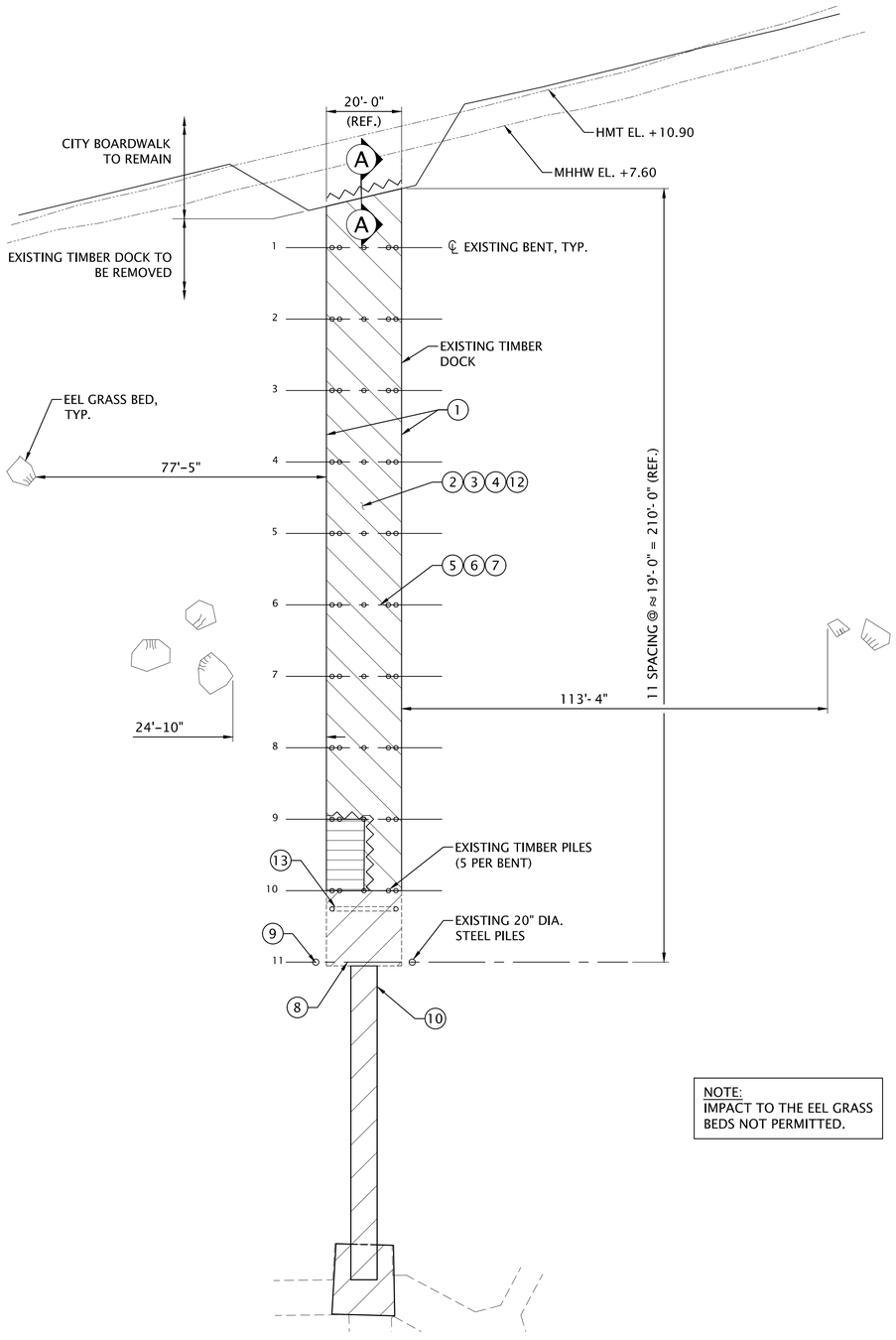


DEMOLITION PLAN

SCALE: 1" = 20'- 0"

DEMOLITION NOTES:

1. REMOVE TIMBER HANDRAIL (SALVAGE AND REUSE STEEL PANELS)
2. REMOVE TIMBER CURB
3. REMOVE TIMBER DECK
4. REMOVE TIMBER STRINGERS
5. REMOVE TIMBER PILE CAP
6. REMOVE TIMBER PILES
7. REMOVE VERTICAL DIAGONAL TIMBER BRACES
8. REMOVE STEEL PILE CAP
9. REMOVE 20" DIA. STEEL PILES
10. REMOVE EXISTING 6 FT X 48 FT GANGWAY
11. REMOVE 15'- 3" X 19'- 0" GANGWAY FLOAT
12. RELOCATE AND PROTECT EXISTING ELECTRICAL AND FIRE WATER UTILITY PIPES UNDER EXISTING TIMBER DOCK
13. REMOVE DOCK SIGN (SALVAGE AND REUSE SIGN)

STAGE 1 REMOVAL

STAGE 2 REMOVAL

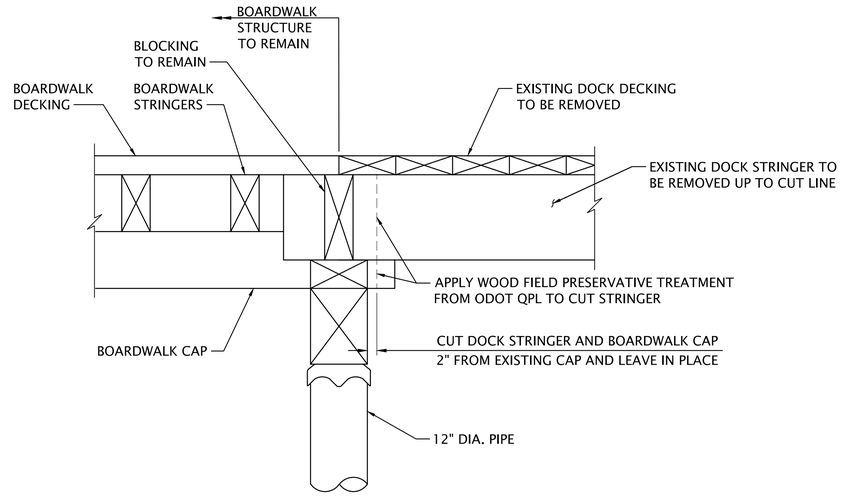
STAGE 3 REMOVAL

TEMPORARY RAIL

NOTE:
IMPACT TO THE EEL GRASS BEDS NOT PERMITTED.

CONSTRUCTION SEQUENCE:

1) INSTALL NEW PILES.
2) REMOVE STAGE 1 DECK AND STRINGERS AND INSTALL TEMPORARY RAIL.
3) CONSTRUCT TEMPORARY WALKWAY.
4) RELOCATE AND PROTECT EXISTING UTILITIES INCLUDING FIREWATER POTABLE WATER, DIESEL FUEL LINES AND ELECTRICAL CONDUIT.
5) REMOVE STAGE 2 PORTION OF EXISTING DOCK, DO NOT REMOVE EXISTING BENT 10. INSTALL TEMPORARY RAIL.
6) CONSTRUCT NEW DOCK.
7) REMOVE PORTION OF THE TEMPORARY WALKWAY CONNECTED TO THE STAGE 3 REMOVAL PORTION OF THE EXISTING DOCK.
8) REMOVE STAGE 3 PORTION OF EXISTING DOCK INCLUDING THE EXISTING GANGWAY AND FLOAT AND EXISTING BENT 10.
9) INSTALL NEW FLOAT AND GANGWAY.
10) REMOVE REMAINDER OF TEMPORARY WALKWAY AND STEEL BRACING. TEMPORARY WALKWAY CHANNEL BRACKETS ARE PERMITTED TO REMAIN ATTACHED TO THE PILES.



A SECTION

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

REGISTERED PROFESSIONAL ENGINEER
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EXPIRES: 12/31/2019

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PORT OF NEWPORT
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YAQUINA BAY
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DEMOLITION PLAN

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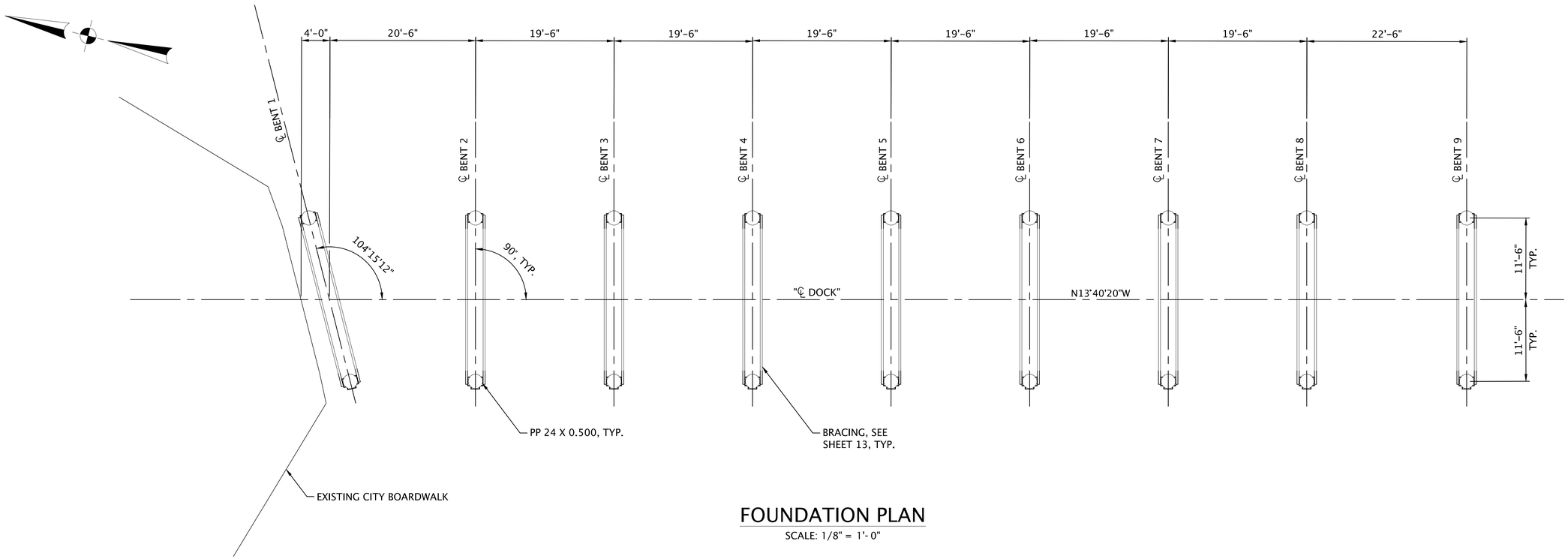


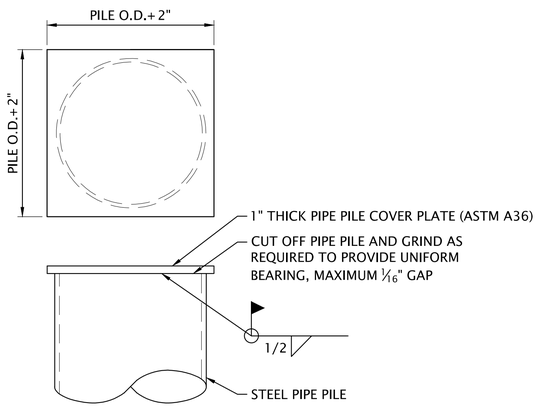
FOUNDATION PLAN

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

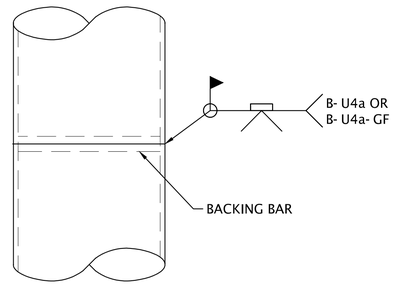
FOUNDATION GENERAL NOTES:
ALL PILES SHALL BE PP 24 X 0.500 STEEL PILES CONFORMING TO ASTM SPECIFICATION A252 GRADE 3 DRIVEN OPEN- ENDED TO A NOMINAL RESISTANCE (UNFACTORED) OF 570 KIPS PER PILE.

DRIVE ALL PILING TO THE SPECIFIED NOMINAL RESISTANCE USING DRIVING CRITERIA DEVELOPED FROM THE FHWA GATES EQUATION.

PROVIDE PASSIVE CATHODIC PROTECTION FOR PILES ACCORDING TO SPECIAL PROVISIONS



TOP OF BENT PIPE PILE



PIPE PILE SPLICE DETAIL

PIPE PILE DETAILS

NO SCALE

REGISTERED PROFESSIONAL ENGINEER
90603
Brian D Burnham
OREGON
JULY 14, 2015
BRIAN BURNHAM
EXPIRES: 12/31/2019

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FOUNDATION PLAN

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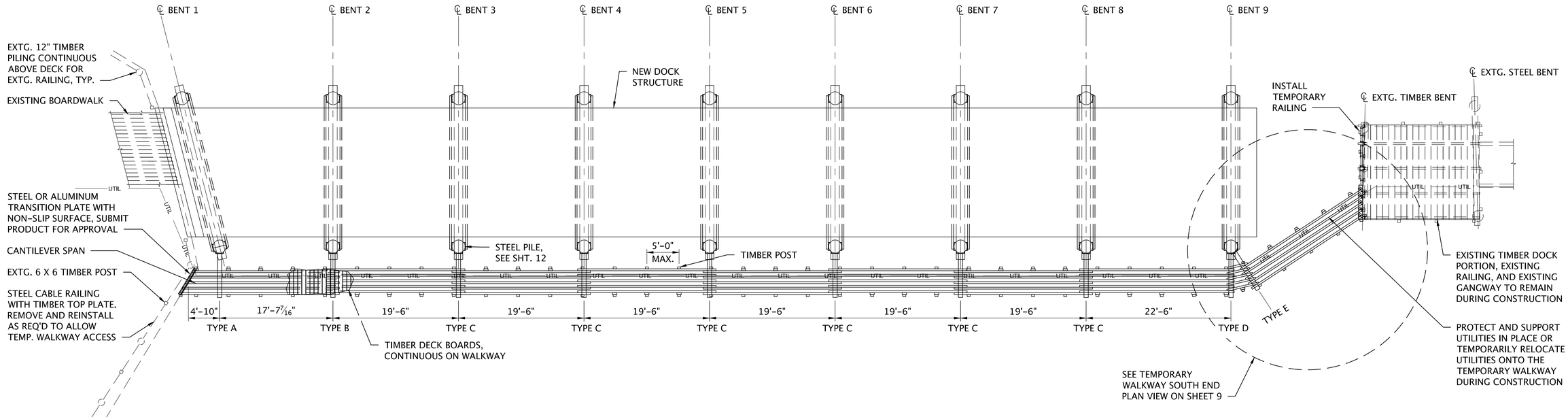

TEMPORARY WALKWAY NOTES:

1. SEE TEMPORARY WALKWAY TYPICAL SECTIONS ON SHT. 10 FOR TYPE A- E SUPPORT.
2. MAINTAIN TEMPORARY WALKWAY STRUCTURE AS REQUIRED THROUGHOUT CONSTRUCTION OF NEW DOCK.
3. COORDINATE TEMPORARY UTILITY RELOCATION WITH THE PORT OF NEWPORT, CITY OF NEWPORT AND APPLICABLE UTILITY PROVIDERS.
4. CONTRACTOR SHALL SUPPLY AND INSTALL ALL NECESSARY MATERIALS FOR TEMPORARY UTILITY RELOCATION.
5. TEMPORARY WALKWAY IS DESIGNED PER 2014 OSSC FOR 100 PSF LIVE LOADING INCLUDING A 120 PLF UTILITY LOAD.

TEMPORARY WALKWAY PLAN

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

REGISTERED PROFESSIONAL ENGINEER
91088
OREGON
MARCH 8, 2006
KENTON CHARLES ALLDRITT
Digitally Signed 2019.01.24 13:41:47 -08'00'
EXPIRES: 12/31/2019

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TEMPORARY WALKWAY PLAN

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DESIGNER: Kenton Alldritt, PE		REVIEWER: Nick Robertson, PE, SE	
CHECKER: Keava Campbell		DRAFTER: OBEC CAD	
DATE	STRUCTURE NO.	CALC. BOOK	SHEET	DRAWING NO.
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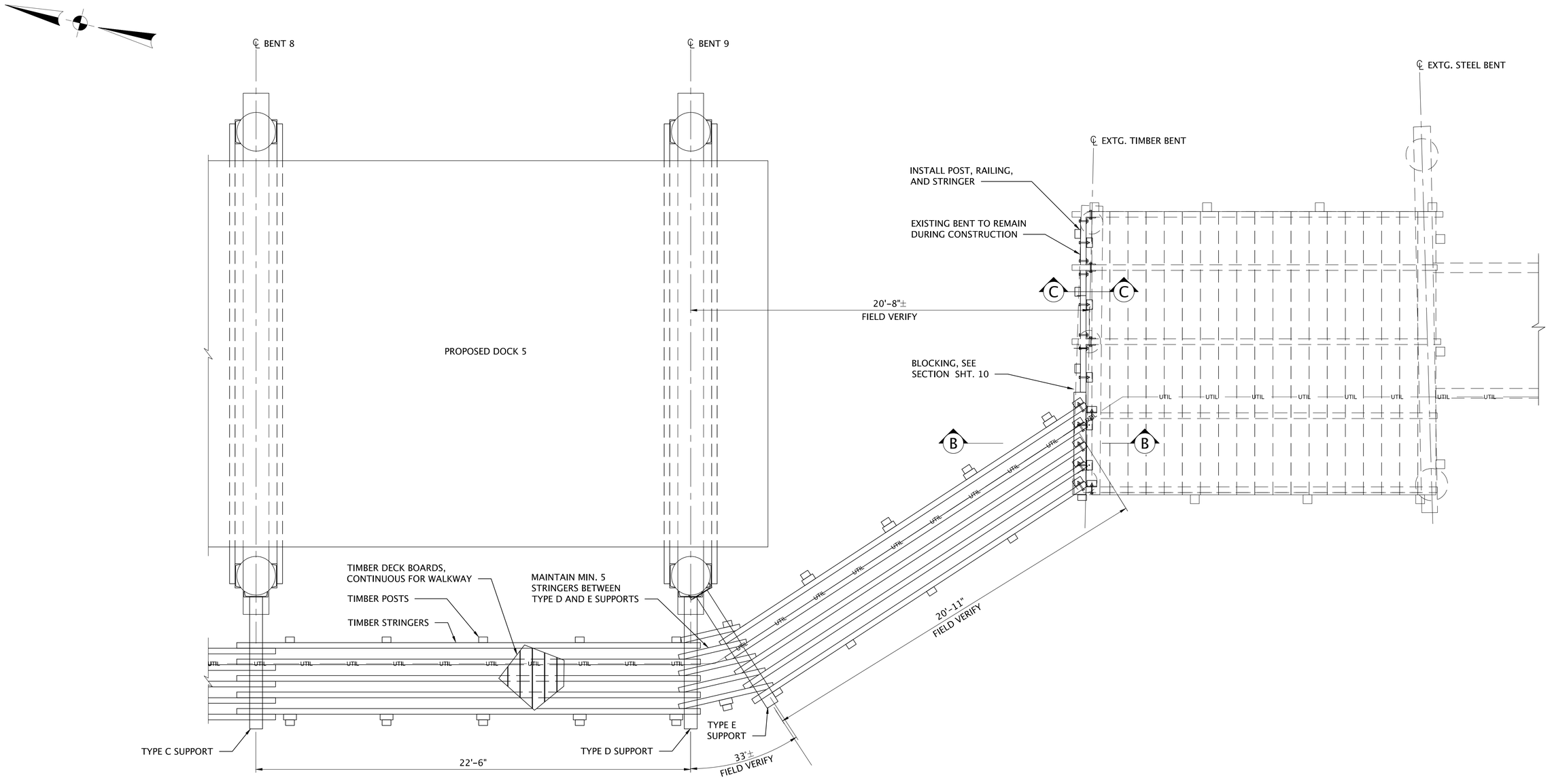

TEMPORARY WALKWAY SOUTH END PLAN

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

REGISTERED PROFESSIONAL ENGINEER
91088
OREGON
MARCH 8, 2006
KENTON CHARLES ALLDRITT
Digitally Signed 2019.01.24 13:42:07 -08'00'
EXPIRES: 12/31/2019

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TEMPORARY WALKWAY SOUTH END PLAN

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DESIGNER: Kenton Alldritt, PE	REVIEWER: Nick Robertson, PE, SE
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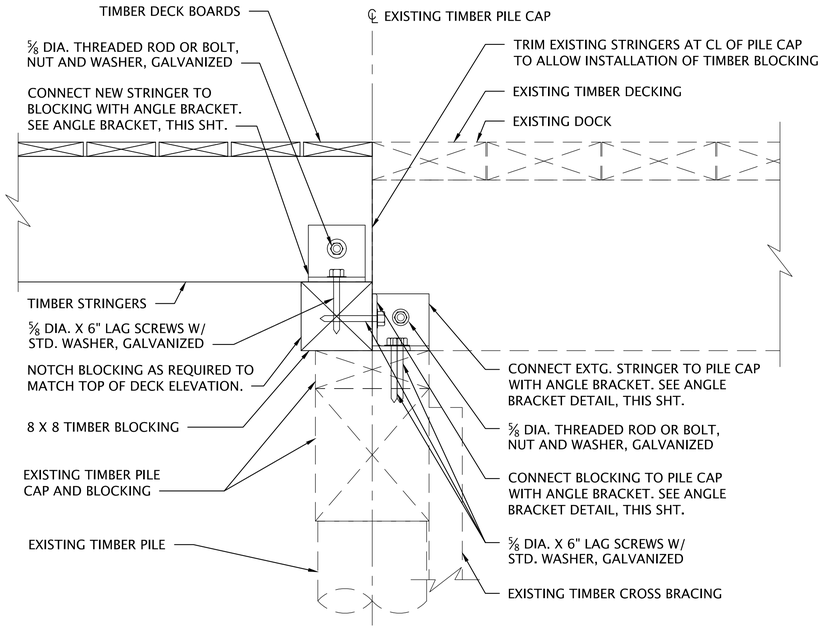
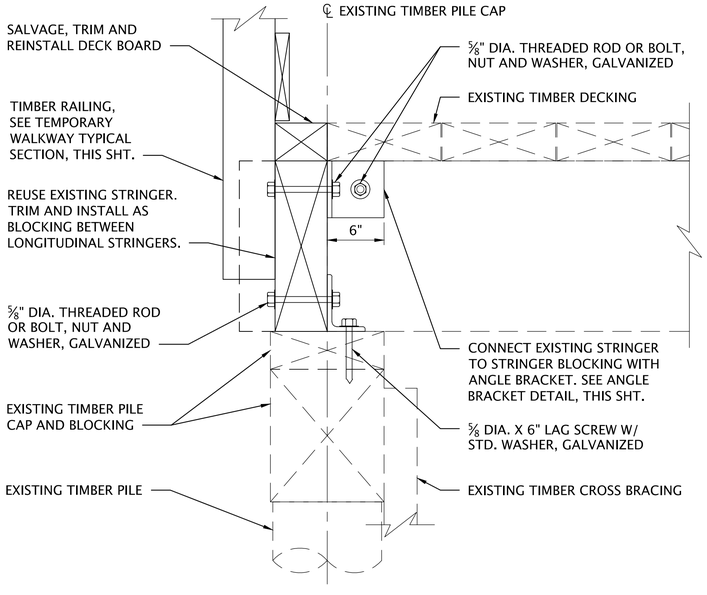


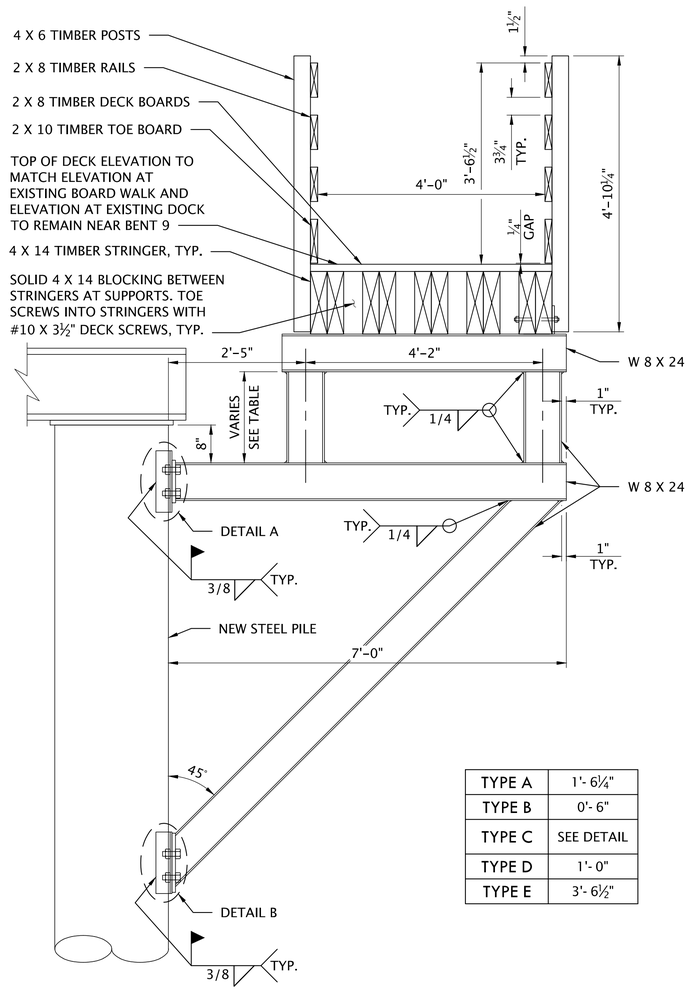
B SECTION

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



C SECTION

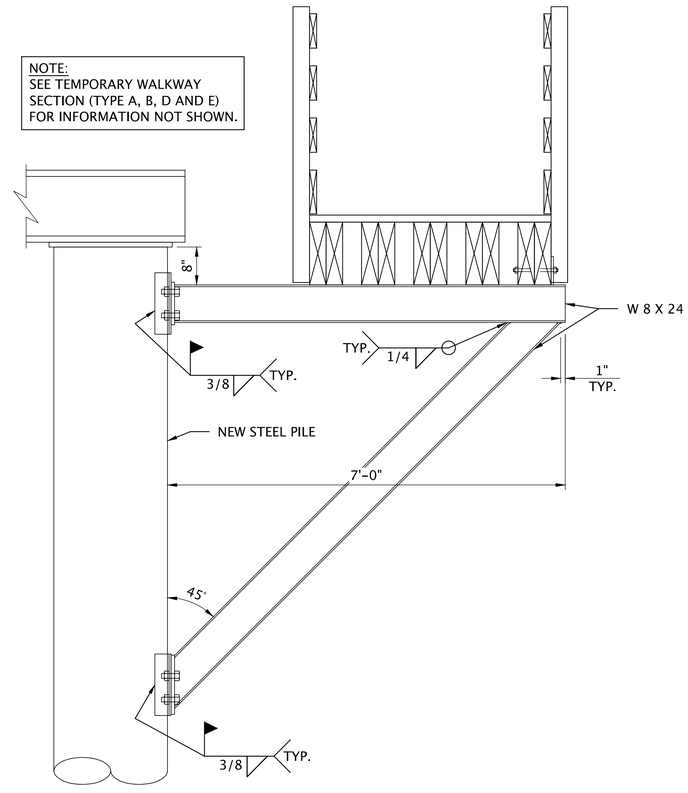
SCALE: 1- 1/2" = 1'- 0"



TYPE A	1'- 6¼"
TYPE B	0'- 6"
TYPE C	SEE DETAIL
TYPE D	1'- 0"
TYPE E	3'- 6½"

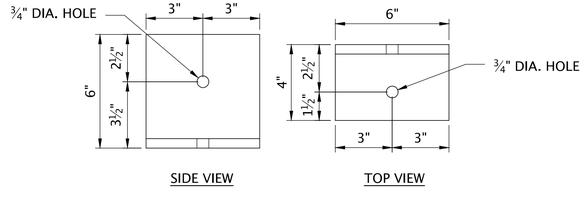
TEMPORARY WALKWAY SECTION (TYPE A, B, D AND E)

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



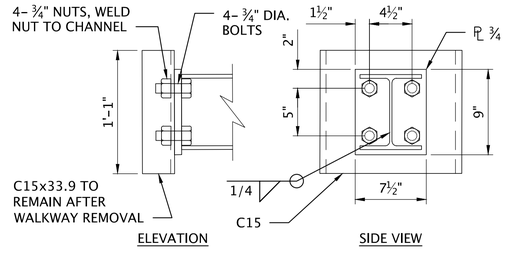
TEMPORARY WALKWAY SECTION (TYPE C)

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



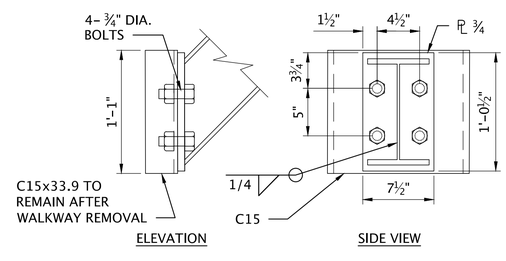
ANGLE BRACKET DETAIL

SCALE: 3" = 1'- 0"



DETAIL A

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



DETAIL B

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

△	DATE	REVISION	BY
1			
2			
3			
4			
5			

ACCOMPANIED BY DRAWINGS:

SCALE WARNING

If scale bar does not measure one inch, then drawing is not to scale

PORT OF NEWPORT
DOCK 5 REPLACEMENT

YAQUINA BAY
NEWPORT, OR

TEMPORARY WALKWAY SECTIONS

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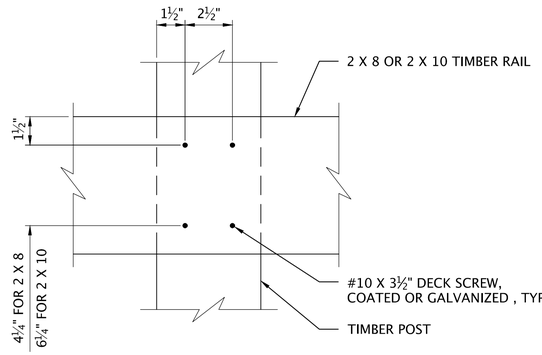
REGIONAL OFFICES: LAKE OSWEGO; SALEM; MEDFORD, OREGON ; VANCOUVER, WASHINGTON
DESIGNER: Kenton Alldritt, PE
REVIEWER: Nick Robertson, PE, SE
CHECKER: Keava Campbell
DRAFTER: OBEC CAD

DATE	STRUCTURE NO.	CALC. BOOK	SHEET	DRAWING NO.
JAN 2019	N/A	N/A	11 OF 27	11

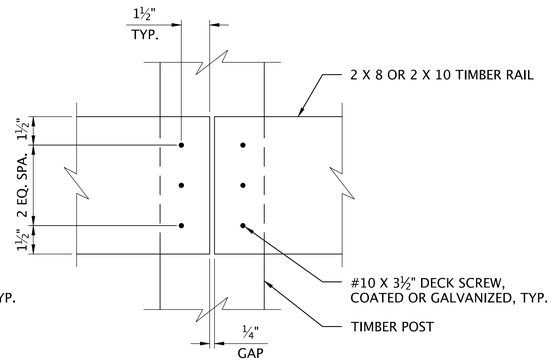
REGISTERED PROFESSIONAL ENGINEER 91088 OREGON MARCH 8, 2016 KENTON CHARLES ALLDRITT
Digitally Signed 2019.01.24 13:42:14-08'00'
EXPIRES: 12/31/2019

C:\OBEC\PWOBEC01\D0344598\11_SOUTH END CROSS SECTION.DWG 2019/01/24 13:06



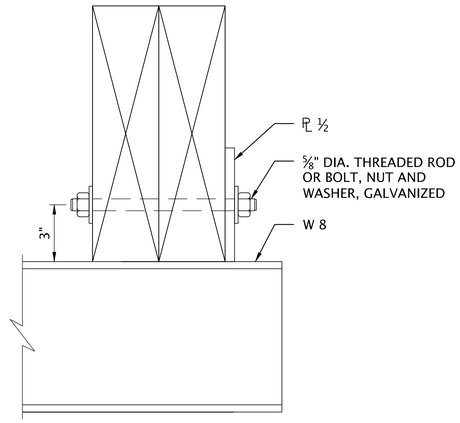
RAIL TO POST DETAIL

SCALE: 3" = 1'- 0"



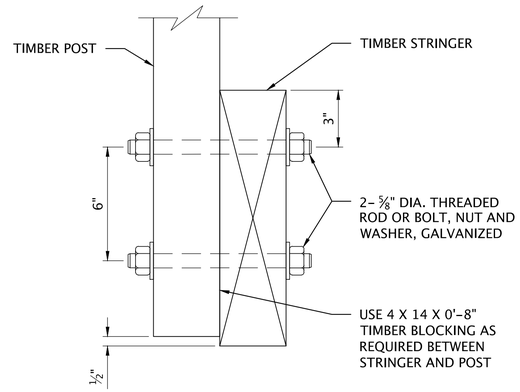
RAIL TO POST AT SPLICE DETAIL

SCALE: 3" = 1'- 0"



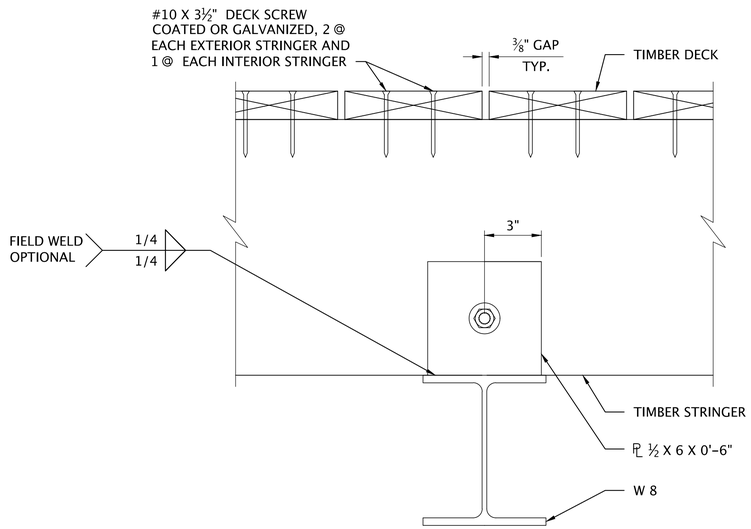
STRINGER TO STEEL BEAM DETAIL

SCALE: 3" = 1'- 0"



POST TO STRINGER DETAIL

SCALE: 3" = 1'- 0"



TYPICAL STRINGER TO STEEL BEAM ELEVATION

SCALE: 3" = 1'- 0"

REGISTERED PROFESSIONAL ENGINEER
91088
Digitally Signed 2019.01.24 13:42:21 -08'00'
OREGON
MARCH 8, 2016
KENTON CHARLES ALLDRITT
EXPIRES: 12/31/2019

△	DATE	REVISION	BY
1			
2			
3			
4			
5			

ACCOMPANIED BY DRAWINGS:

SCALE WARNING

If scale bar does not measure one inch, then drawing is not to scale

PORT OF NEWPORT
DOCK 5 REPLACEMENT

YAQUINA BAY
NEWPORT, OR

TEMPORARY WALKWAY DETAILS

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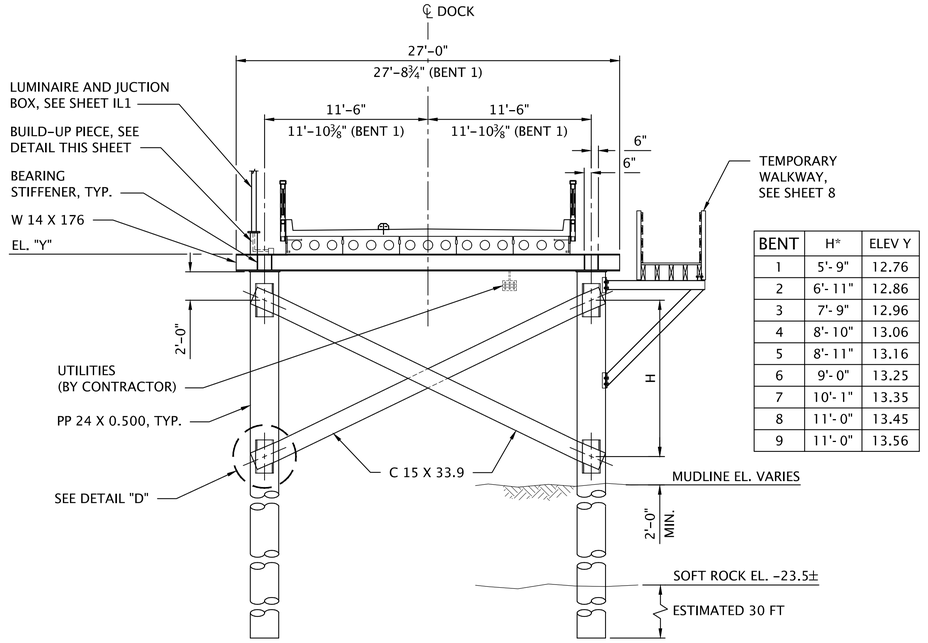
LAKE OSWEGO; SALEM; MEDFORD, OREGON ; VANCOUVER, WASHINGTON

DESIGNER: Kenton Alldritt, PE	REVIEWER: Nick Robertson, PE, SE
CHECKER: Keava Campbell	DRAFTER: OBEC CAD

DATE	STRUCTURE NO.	CALC. BOOK	SHEET	DRAWING NO.
JAN 2019	N/A	N/A	12 OF 27	12

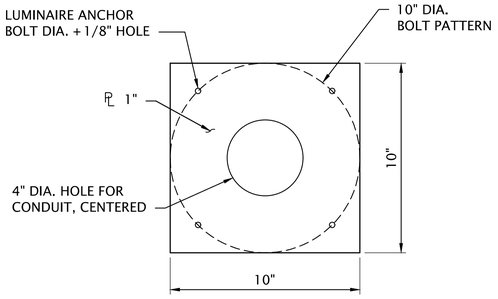


BENT	H*	ELEV Y
1	5'- 9"	12.76
2	6'- 11"	12.86
3	7'- 9"	12.96
4	8'- 10"	13.06
5	8'- 11"	13.16
6	9'- 0"	13.25
7	10'- 1"	13.35
8	11'- 0"	13.45
9	11'- 0"	13.56

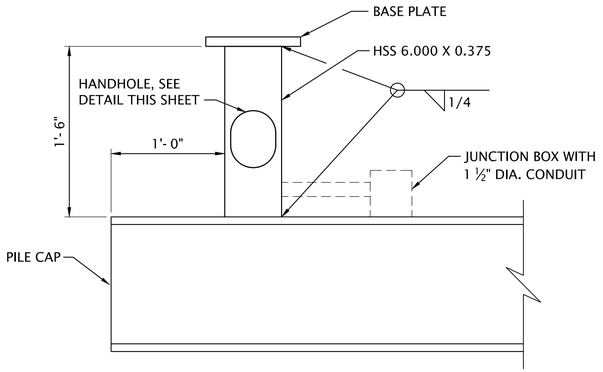
NOTE:
CROSS BRACING AND PILE CAP NOT TO BE GALVANIZED. THEY ARE PART OF PASSIVE CATHODIC SYSTEM.

*CONTRACTOR TO VERIFY MUDLINE ELEVATIONS AND ADJUST ACCORDINGLY. H= 11'- 0" MAX.

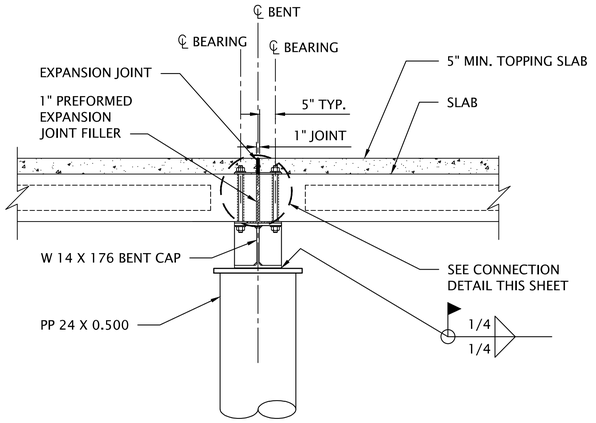
BENT ELEVATION
SCALE: 3/16" = 1'- 0"



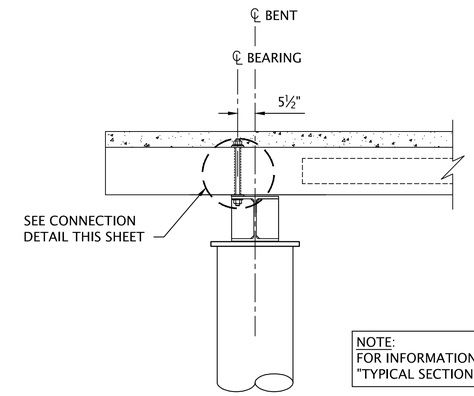
BASE PLATE
SCALE: 3" = 1'- 0"



LUMINAIRE BUILD- UP
SCALE: 1 1/2" = 1'- 0"

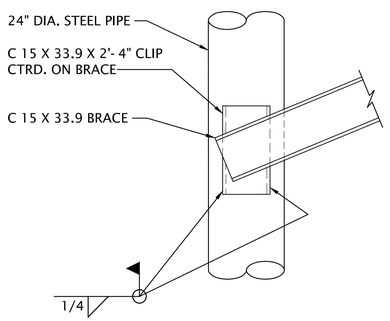


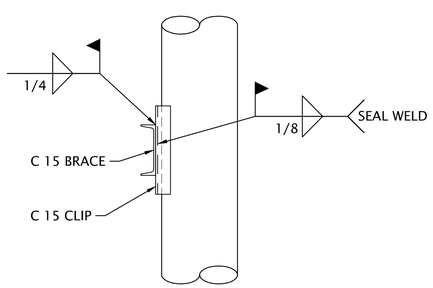
TYPICAL SECTION - BENTS 2 THRU 8
SCALE: 1/2" = 1'- 0"



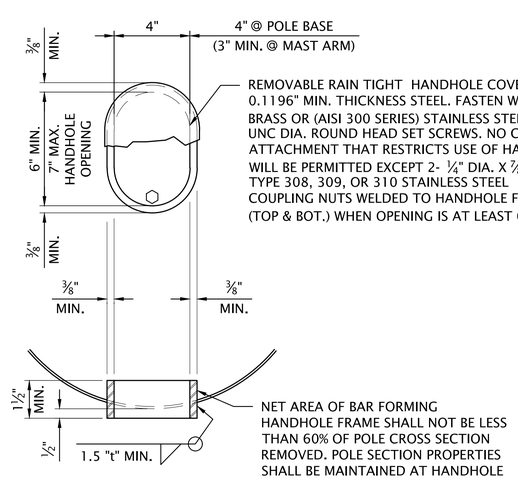
NOTE:
FOR INFORMATION NOT SHOWN, SEE "TYPICAL SECTION - BENTS 2 THRU 8"

TYPICAL SECTION - BENT 1 (BENT 9 SIMILAR)
SCALE: 1/2" = 1'- 0"

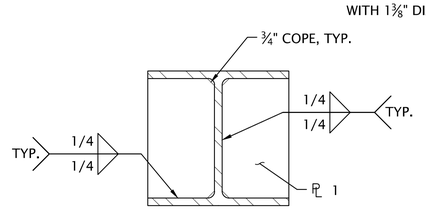




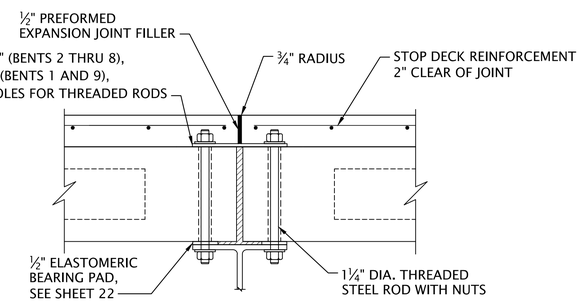
DETAIL "D"
SCALE: 1/2" = 1'- 0"



HANDHOLE DETAIL
SCALE: 3" = 1'- 0"



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



CONNECTION DETAIL
BENTS 2 THRU 8 SHOWN
BENTS 1 AND 9 SIMILAR
SCALE: 1" = 1'- 0"

REGISTERED PROFESSIONAL ENGINEER
90603
Brian D Burnham
OREGON
JULY 14, 2015
BRIAN BURNHAM
EXPIRES: 12/31/2019

△	DATE	REVISION	BY
1			
2			
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5			

ACCOMPANIED BY DRAWINGS:

SCALE WARNING
If scale bar does not measure one inch, then drawing is not to scale

PORT OF NEWPORT
DOCK 5 REPLACEMENT

YAQUINA BAY
NEWPORT, OR

BENT DETAILS

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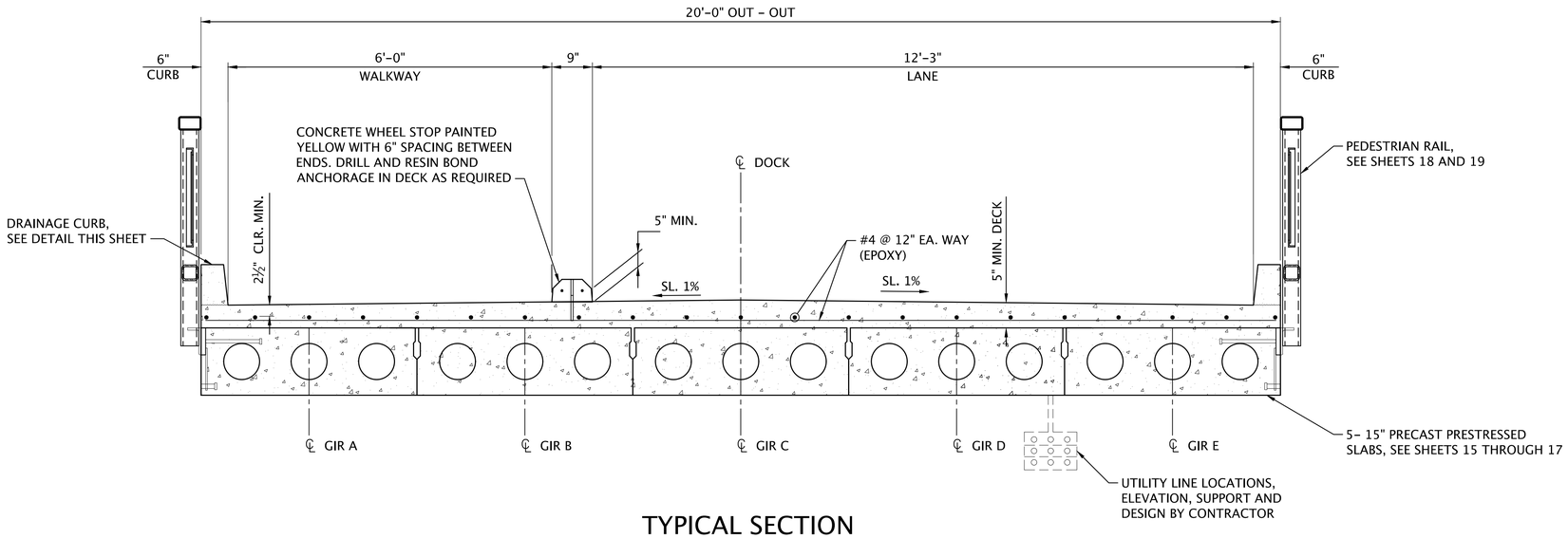
REGIONAL OFFICES:
LAKE OSWEGO; SALEM; MEDFORD, OREGON ; VANCOUVER, WASHINGTON

DESIGNER: Brian Burnham, PE	REVIEWER: Nick Robertson, PE, SE
CHECKER: Kenton Alldritt, PE	DRAFTER: OBEC CAD

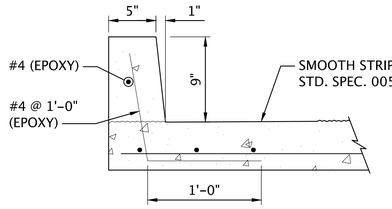
DATE	STRUCTURE NO.	CALC. BOOK	SHEET	DRAWING NO.
JAN 2019	N/A	N/A	13 OF 27	13



TYPICAL SECTION

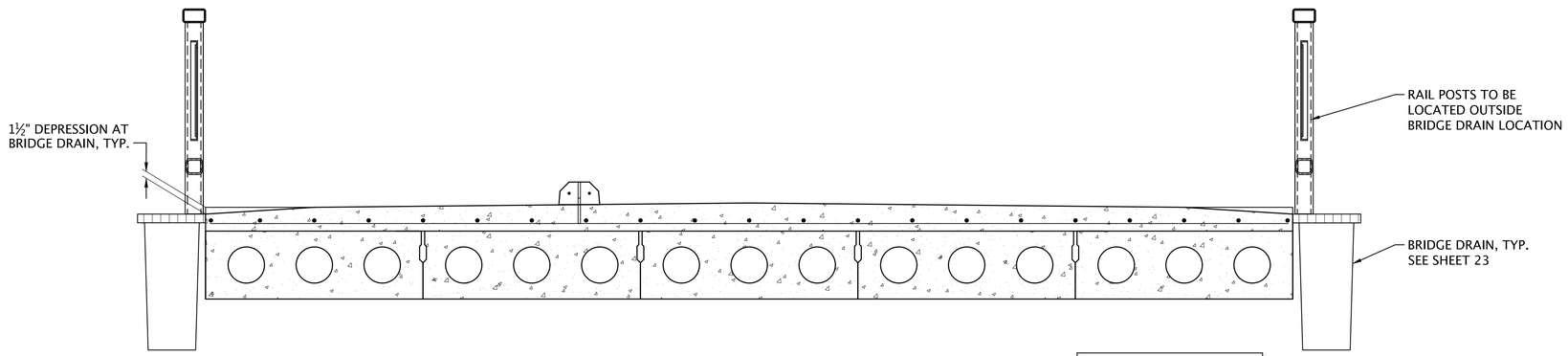
SCALE: 3/4" = 1'- 0"

NOTE:
COORDINATE SERVICE CABINET LOCATION AND SIZE WITH ELECTRICAL PLAN AND DETAILS, SHEETS IL1- IL4. RESIN BONDED ANCHORED IN DECK PERMITTED. COORDINATE WITH MANUFACTURE.



TYPICAL SECTION

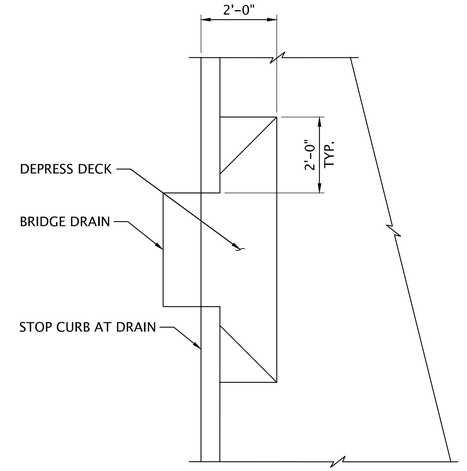
SCALE: 1 1/2" = 1'- 0"



TYPICAL SECTION AT BRIDGE DRAINS

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

NOTE:
SEE "TYPICAL SECTION" FOR INFORMATION NOT SHOWN.



DECK DRAINAGE PLAN

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

REGISTERED PROFESSIONAL ENGINEER
90603
Brian D Burnham
OREGON
JULY 14, 2015
BRIAN BURNHAM
EXPIRES: 12/31/2019

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1			
2			
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4			
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ACCOMPANIED BY DRAWINGS:

SCALE WARNING
If scale bar does not measure one inch, then drawing is not to scale

PORT OF NEWPORT
DOCK 5 REPLACEMENT

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NEWPORT, OR

TYPICAL SECTIONS

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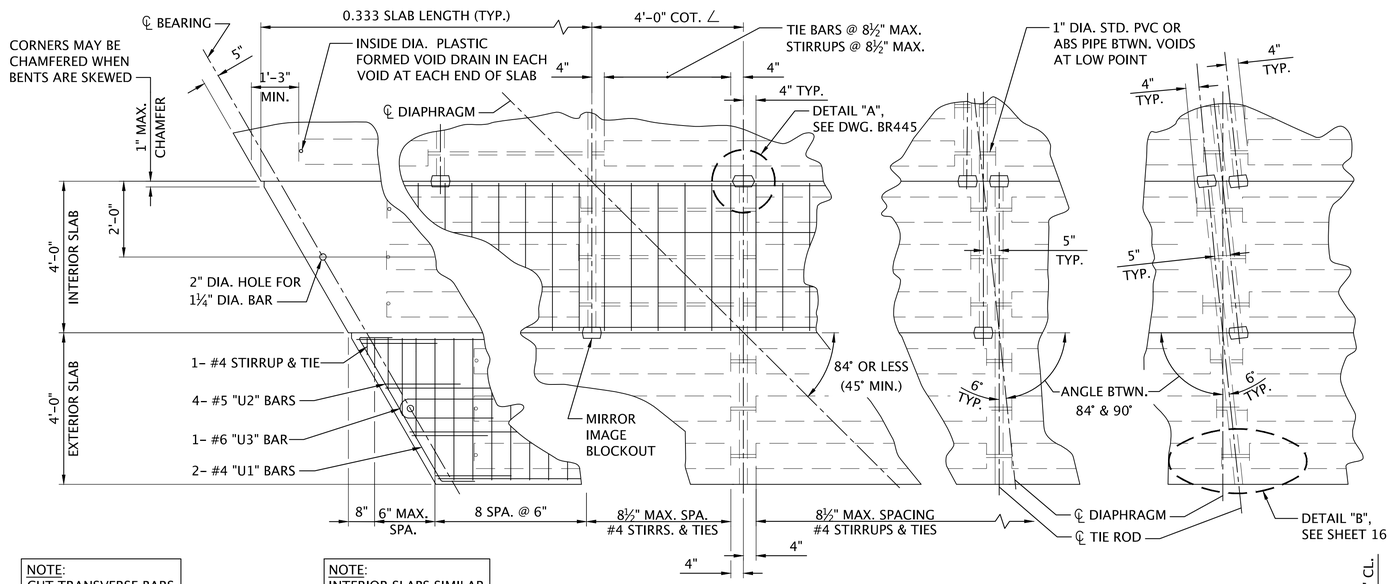
DESIGNER: Brian Burnham, PE	REVIEWER: Nick Robertson, PE, SE
CHECKER: Kenton Alldritt, PE	DRAFTER: OBEC CAD

DATE	STRUCTURE NO.	CALC. BOOK	SHEET	DRAWING NO.
JAN 2019	N/A	N/A	14 OF 27	14



NOTE:
CUT TRANSVERSE BARS AS REQUIRED BY SKEW.

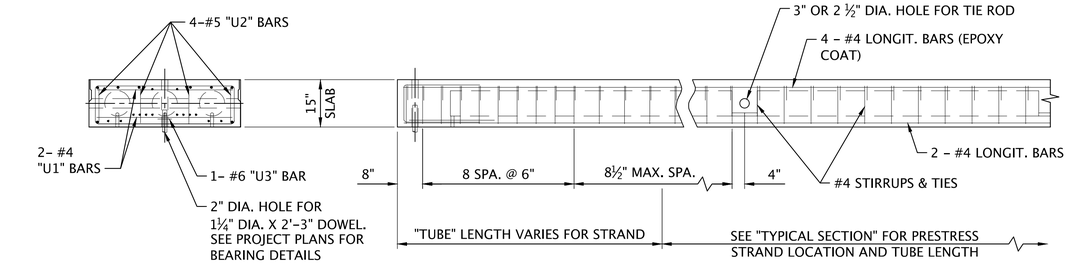
NOTE:
INTERIOR SLABS SIMILAR EXCEPT AS SHOWN.

PARTIAL PLAN

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

NOTE:
GROUT KEYWAY AS SPECIFIED IN GENERAL NOTES. OMIT KEYWAY ON EXTERIOR SIDE OF EXTERIOR SLABS. KEYWAY IS CONTINUOUS.

NOTE "A" (SLAB END BAR):
2- #4 X 7'-6"
PLACE BARS EACH END OF SLAB (EPOXY COAT).

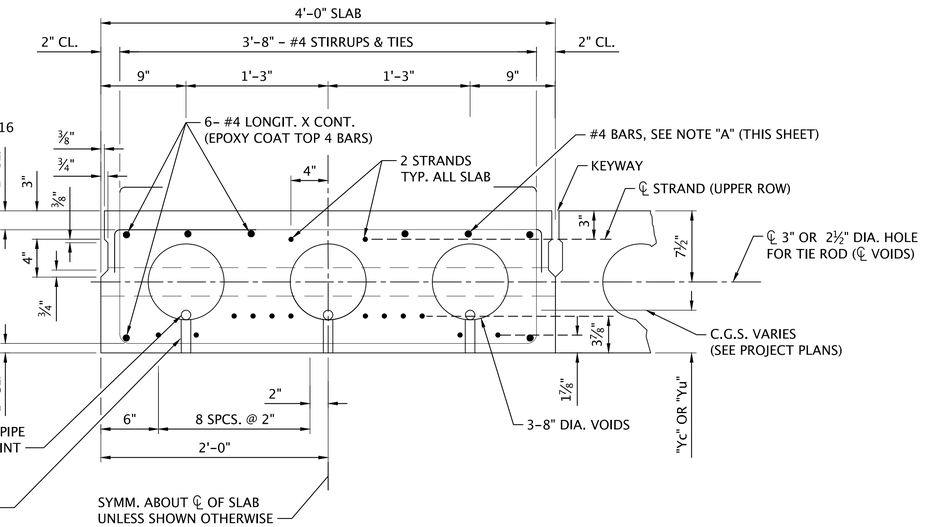


END ELEVATION

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

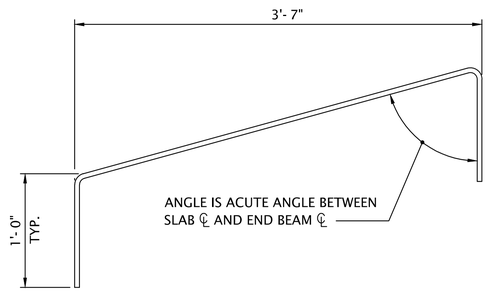
PARTIAL ELEVATION FOR NORMAL SLAB

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



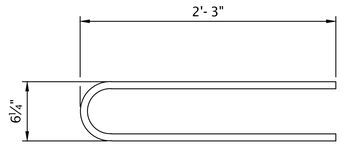
TYPICAL SECTION

NO SCALE



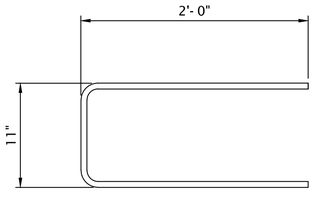
#4 "U1" BAR (4- REQ'D. PER SLAB)

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



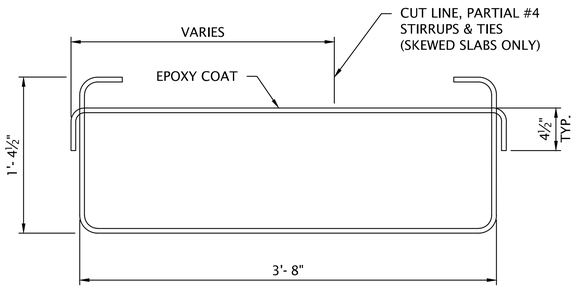
#6 "U3" BAR (A706) (2- REQ'D. PER SLAB)

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



#5 "U2" BAR (8- REQ'D. PER SLAB)

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



#4 STIRRUP & TIE

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

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90603
Brian D Burnham
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JULY 14, 2015
BRIAN BURNHAM
EXPIRES: 12/31/2019

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ACCOMPANIED BY DRAWINGS:

SCALE WARNING

If scale bar does not measure one inch, then drawing is not to scale

PORT OF NEWPORT
DOCK 5 REPLACEMENT

YAQUINA BAY
NEWPORT, OR

GIRDER DETAILS 1 of 3

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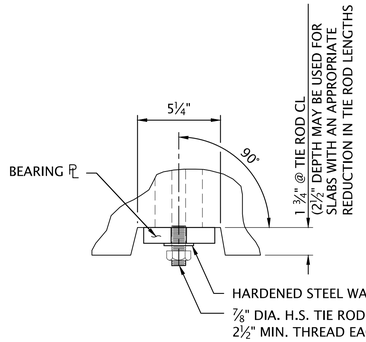
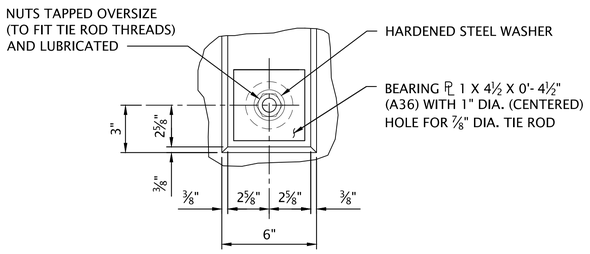
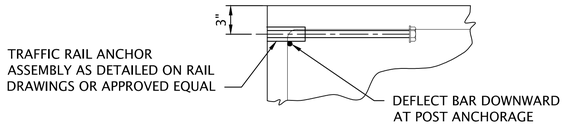
DESIGNER: Brian Burnham, PE	REVIEWER: Nick Robertson, PE, SE
CHECKER: Kenton Alldritt, PE	DRAFTER: OBEC CAD

DATE	STRUCTURE NO.	CALC. BOOK	SHEET	DRAWING NO.
JAN 2019	N/A	N/A	15 OF 27	15

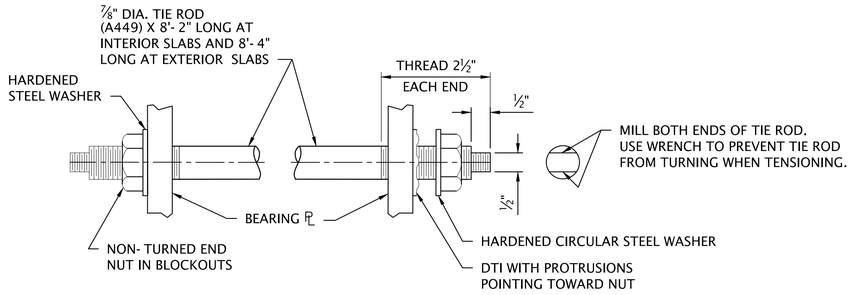




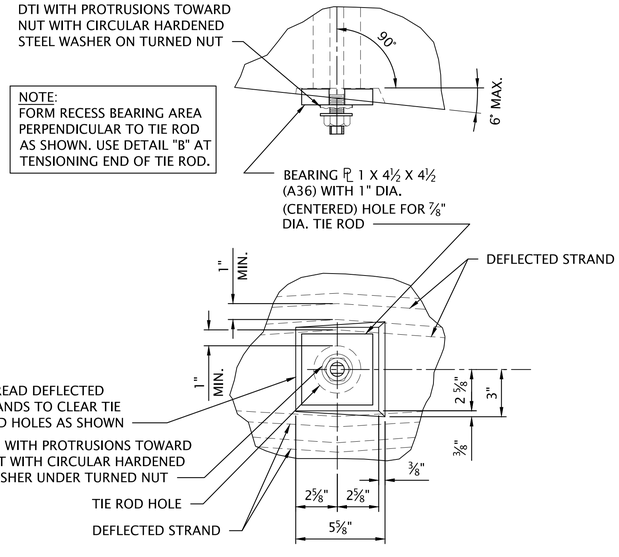
DETAIL "A"
NON- TENSIONING END



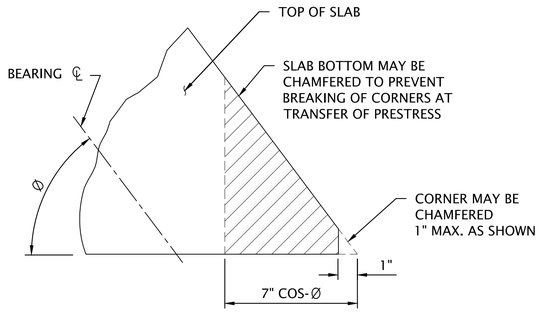
RAIL ANCHORAGE DETAILS



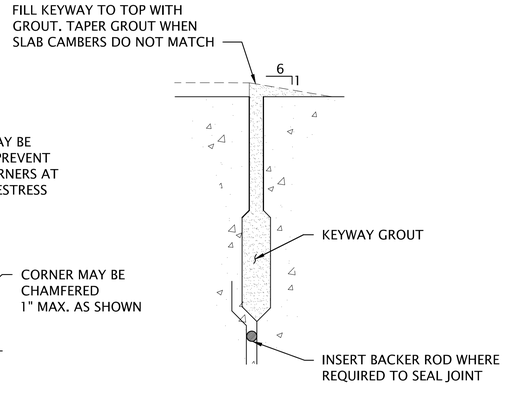
TIE ROD DETAIL



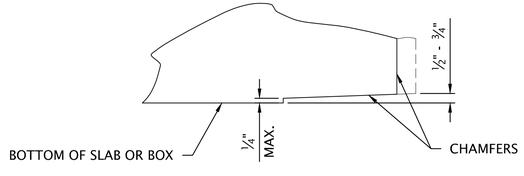
DETAIL "B"
TENSIONING END



PLAN



KEYWAY GROUT DETAIL



PARTIAL ELEVATION CHAMFER DETAIL

GENERAL NOTES FOR PRESTRESSED:

SLABS ARE DESIGNED FOR LIVE AND SUPERIMPOSED DEAD LOADING AS SHOWN IN THE GENERAL NOTES FOR THE PROJECT.

PROVIDE THE CLASS OF CONCRETE SHOWN IN THE SLAB OR SCHEDULE WITH NOMINAL MAXIMUM SIZE AGGREGATE OF 1 OR ¾.

TRANSFER PRESTRESS AFTER THE CONCRETE REACHES THE MINIMUM CONCRETE STRENGTH AT TRANSFER SHOWN IN THE SLAB SCHEDULE.

SELECT A KEYWAY GROUT FROM THE OREGON DEPARTMENT OF TRANSPORTATION QUALIFIED PRODUCTS LIST (QPL) FOR FILLING KEYWAYS, LIFTING BLOCKOUTS AND TIE ROD BLOCKOUTS.

ALLOW TRAFFIC ON THE BRIDGE ONLY AFTER KEYWAY GROUT HAS REACHED DESIGN STRENGTH.

PROVIDE REINFORCING STEEL AS SPECIFIED IN THE GENERAL NOTES FOR THE PROJECT. PROVIDE SMOOTH DOWELS CONFORMING TO AASHTO M31, GRADE 60 (ASTM A615, GRADE 60).

PROVIDE ½" DIAMETER 7 WIRE LOW RELAXATION PRESTRESSING STEEL STRAND CONFORMING TO AASHTO SPECIFICATION M203 (ASTM A416), GRADE 270 SUPPLEMENT 1.

TENSION STRAND INITIALLY TO 31.0 KIPS PER STRAND. DEBOND STRANDS WHERE SPECIFIED USING EITHER SPLIT OR SOLID PLASTIC SHEATHING WITH A MINIMUM WALL THICKNESS OF 0.025".

PROVIDE HIGH STRENGTH TIE RODS CONFORMING TO ASTM A449. PROVIDE HEAVY HEXAGON NUTS CONFORMING TO ASTM A563. PROVIDE HARDENED STEEL WASHERS CONFORMING TO ASTM F436. HOT- DIP GALVANIZE TIE RODS, PLATES, NUTS AND WASHERS (EXCEPT DTIS) AFTER FABRICATION.

TIGHTEN TIE RODS TO 39 KIPS (MINIMUM) USING MECHANICALLY GALVANIZED DIRECT TENSION INDICATORS (DTIS) CONFORMING TO ASTM F959.

TIGHTEN ALL TIE RODS TO ABOUT ONE HALF THE SPECIFIED TENSION BEFORE PROCEEDING WITH FINAL TENSIONING.

KEEP SLABS UPRIGHT AT ALL TIMES. SUPPORT THEM WITHIN 2'- 0" OF THE ENDS DURING STORAGE (TO PREVENT EXCESSIVE CAMBER, OVERSTRESS OR FAILURE). LOCATE TRANSPORT SUPPORTS AND LIFTING DEVICES WITHIN 2'- 0" OF THE ENDS OF SLABS. TRANSPORT SLABS AFTER THE CONCRETE HAS REACHED THE 28 DAY DESIGN STRENGTH AND A MINIMUM OF 7 DAYS AFTER CASTING.

REGISTERED PROFESSIONAL ENGINEER
90603
Brian D Burnham
OREGON
JULY 14, 2015
BRIAN BURNHAM
EXPIRES: 12/31/2019

△	DATE	REVISION	BY
1			
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ACCOMPANIED BY DRAWINGS:

SCALE WARNING

If scale bar does not measure one inch, then drawing is not to scale

PORT OF NEWPORT
DOCK 5 REPLACEMENT

YAQUINA BAY
NEWPORT, OR

GIRDER DETAILS 2 of 3

OBEC CONSULTING ENGINEERS www.obec.com
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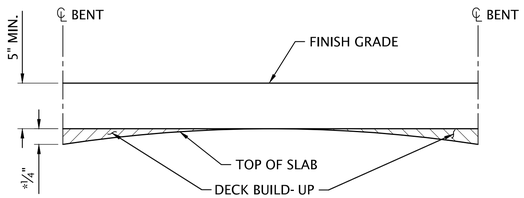
REGIONAL OFFICES:
LAKE OSWEGO; SALEM; MEDFORD, OREGON ; VANCOUVER, WASHINGTON

DESIGNER: Brian Burnham, PE	REVIEWER: Nick Robertson, PE, SE
CHECKER: Kenton Alldritt, PE	DRAFTER: OBEC CAD

DATE	STRUCTURE NO.	CALC. BOOK	SHEET	DRAWING NO.
JAN 2019	N/A	N/A	16 OF 27	16

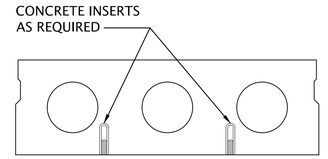
15" STANDARD PRECAST PRESTRESSED SLAB SCHEDULE															
SLAB NUMBER	NUMBER REQUIRED	SPAN NUMBER	"HORIZONTAL LENGTH O-O AT SLAB CL FT."	SKEW ANGLE		NUMBER OF STRANDS	DEBONDED TOP STRANDS	"DISTANCE "YC" TO C.G. STRAND AT MIDSPAN, IN."	"DISTANCE "YU" TO C.G.S AT MIDSPAN SUBTRACTING TOP STRAND, IN."	"CONCRETE STRENGTH 28 DAYS, KSI"	"CONCRETE STRENGTH RELEASE, KSI"	"INITIAL TENSION PER STRAND, KIPS"	ESTIMATED MIDSPAN DEFLECTION, IN.			"ESTIMATED SHORTENING 2 WEEKS AFTER RELEASE, IN."
				BACK	AHEAD								UPWARD AT RELEASE	"UPWARD 3 MONTH AFTER RELEASE"	"DOWNWARD DUE TO SIDL"	
A	1	1	25'-2⅛"	75°44'48"	90	20	6	6.73	3.21	5.00	4.00	31.00	1/8	5/16	1/16	3/16
B	1	1	24'-2"	75°44'48"	90	20	6	6.73	3.21	5.00	4.00	31.00	1/8	5/16	1/16	3/16
C	1	1	23'-1¾"	75°44'48"	90	20	6	6.73	3.21	5.00	4.00	31.00	1/8	5/16	1/16	3/16
D	1	1	22'-1½"	75°44'48"	90	20	6	6.73	3.21	5.00	4.00	31.00	1/8	5/16	1/16	3/16
E	1	1	21'-1⅜"	75°44'48"	90	20	6	6.73	3.21	5.00	4.00	31.00	1/8	5/16	1/16	3/16
A-E	30	2 - 7	19'-5"	90	90	14	0	4.46	3.21	5.00	4.00	31.00	1/8	1/4	1/16	1/8
A-E	5	8	26'-5½"	90	90	20	6	6.73	3.21	5.00	4.00	31.00	1/8	5/16	1/16	3/16



*SEE THE SLAB SCHEDULE FOR CAMBER INFORMATION

DECK BUILD- UP DETAIL

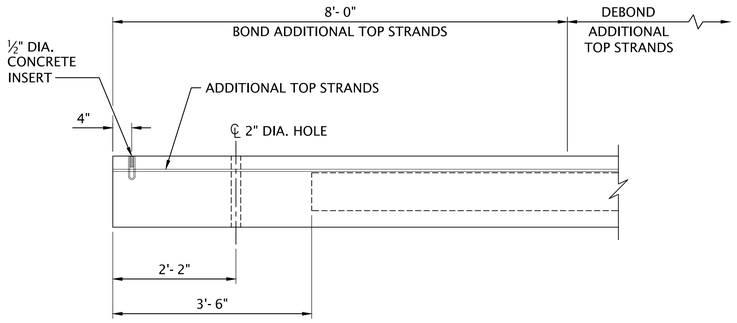
NO SCALE



NOTE:
COORDINATE INSERTS FOR UTILITY HANGERS AS REQUIRED BY CONTRACTOR DESIGN.

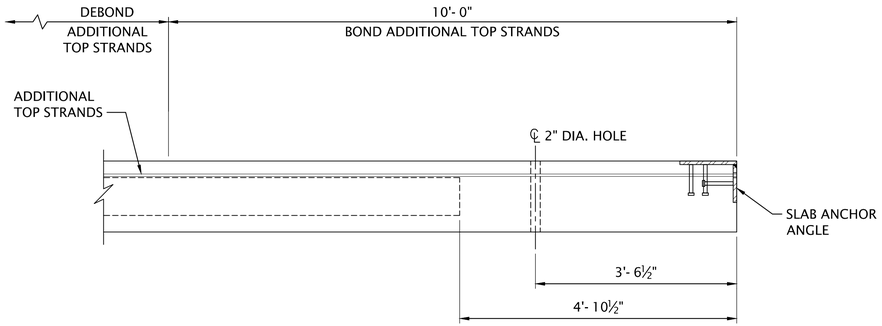
UTILITY HANGER INSERTS

SCALE: 1" = 1'- 0"



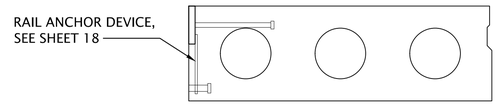
ELEVATION

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



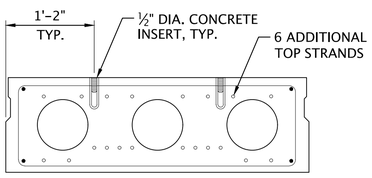
ELEVATION

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



EXTERIOR SLAB DETAIL

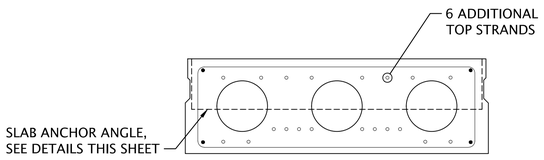
SCALE: 1" = 1'- 0"



SECTION

SPAN 1 BENT 1 DETAILS

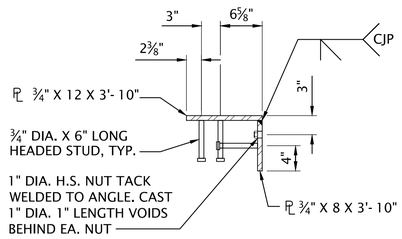
SCALE: 1" = 1'- 0"

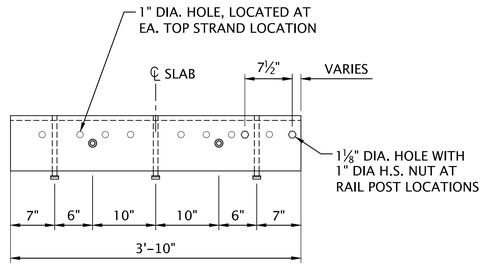


SECTION

SPAN 8 BENT 9 DETAILS

SCALE: 1" = 1'- 0"





SECTION ELEVATION

NOTE:
HOT-DIP GALVANIZE SLAB ANCHOR ANGLE.

SLAB ANCHOR ANGLE DETAIL

SCALE: 1" = 1'- 0"

REGISTERED PROFESSIONAL ENGINEER
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BRIAN BURNHAM
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ACCOMPANIED BY DRAWINGS:

SCALE WARNING

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PORT OF NEWPORT
DOCK 5 REPLACEMENT

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GIRDER DETAILS 3 of 3

OBEC CONSULTING ENGINEERS www.obec.com
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DESIGNER: Brian Burnham, PE		REVIEWER: Nick Robertson, PE, SE			
CHECKER: Kenton Alldritt, PE		DRAFTER: OBEC CAD			
DATE	STRUCTURE NO.	CALC. BOOK	SHEET		DRAWING NO.
JAN 2019	N/A	N/A	17 OF 27		17

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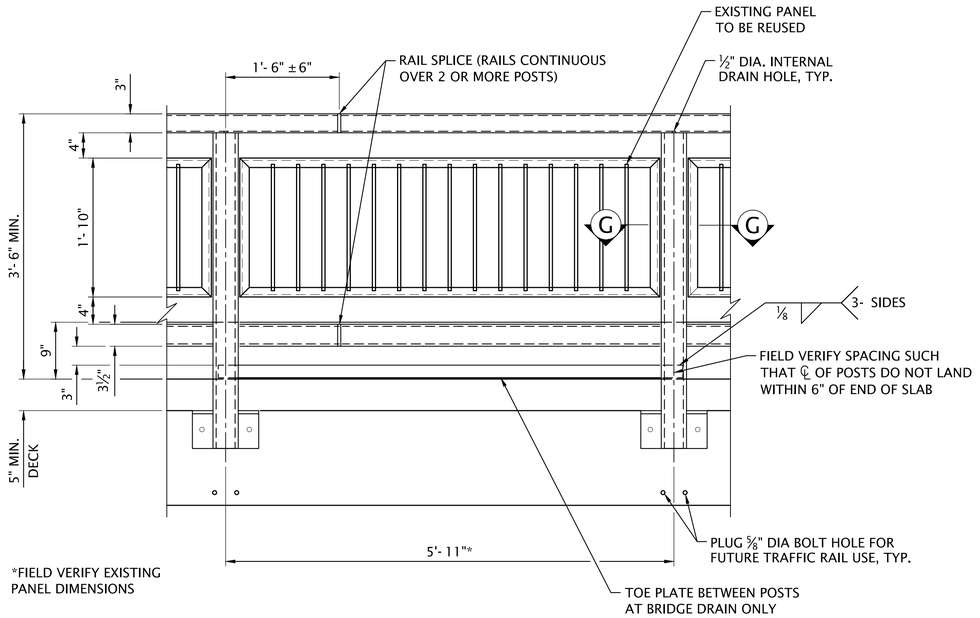
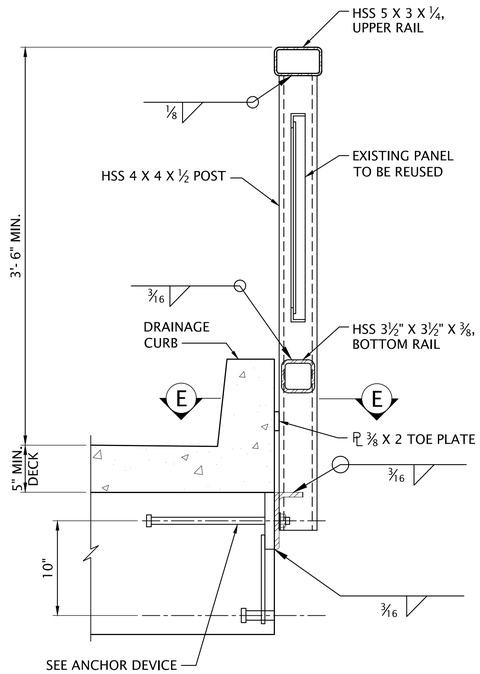


TYPICAL RAIL ELEVATION

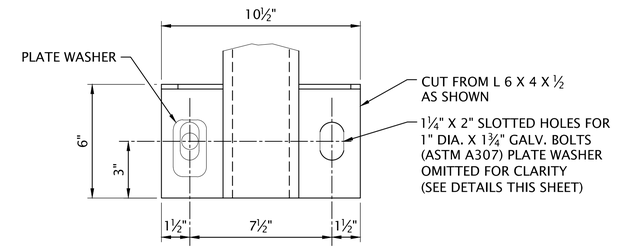
SCALE: 1" = 1'- 0"

NOTE:
FOR GENERAL RAIL NOTES, SEE RAIL DETAILS 2 OF 2, SHEET 19.



SECTION AT TYPICAL RAIL POST

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



TYPICAL POST CONNECTION

SCALE: 3" = 1'- 0"

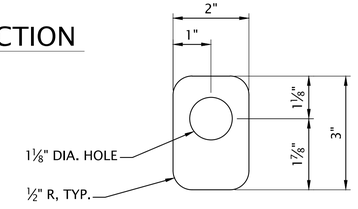
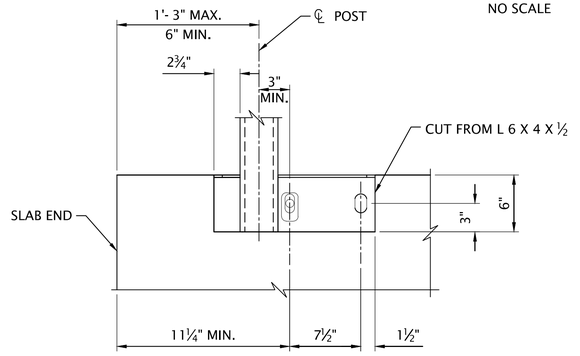


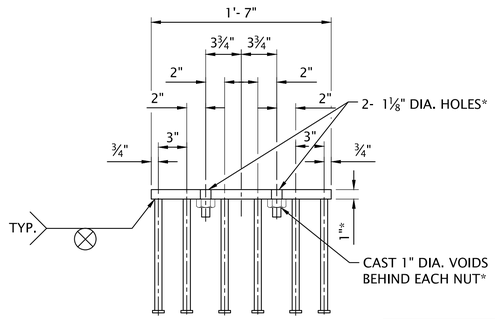
PLATE WASHER

NO SCALE



POST CONNECTION NEAR SLAB EDGE

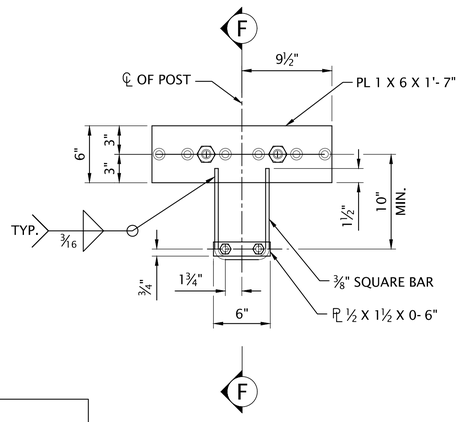
SCALE: 3/4" = 1'- 0"



NOTE:
* PLUG OR BLOCK OFF HOLES AND THREADED AREA DURING CASTING AND SLABS.

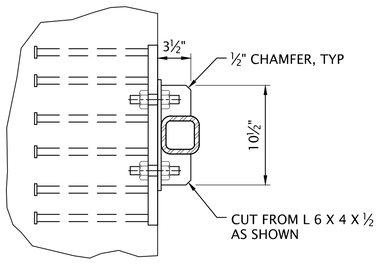
PLAN

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



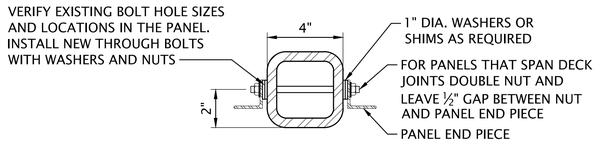
ANCHOR DEVICE

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



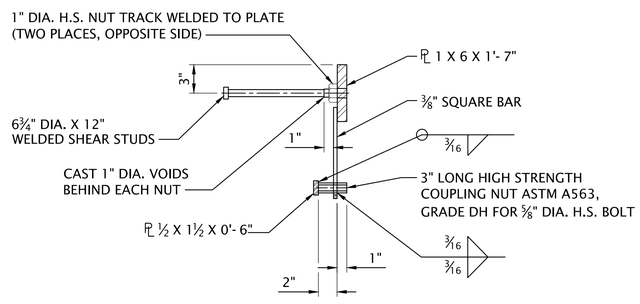
E SECTION

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



G SECTION

SCALE: 3" = 1'- 0"



F SECTION

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

REGISTERED PROFESSIONAL ENGINEER
90603
Brian D Burnham
OREGON
JULY 14, 2015
BRIAN BURNHAM
EXPIRES: 12/31/2019

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ACCOMPANIED BY DRAWINGS:

SCALE WARNING

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PORT OF NEWPORT
DOCK 5 REPLACEMENT

YAQUINA BAY
NEWPORT, OR

RAIL DETAILS 1 of 2

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REGIONAL OFFICES:
LAKE OSWEGO; SALEM; MEDFORD, OREGON ; VANCOUVER, WASHINGTON

DESIGNER: Brian Burnham, PE	REVIEWER: Nick Robertson, PE, SE
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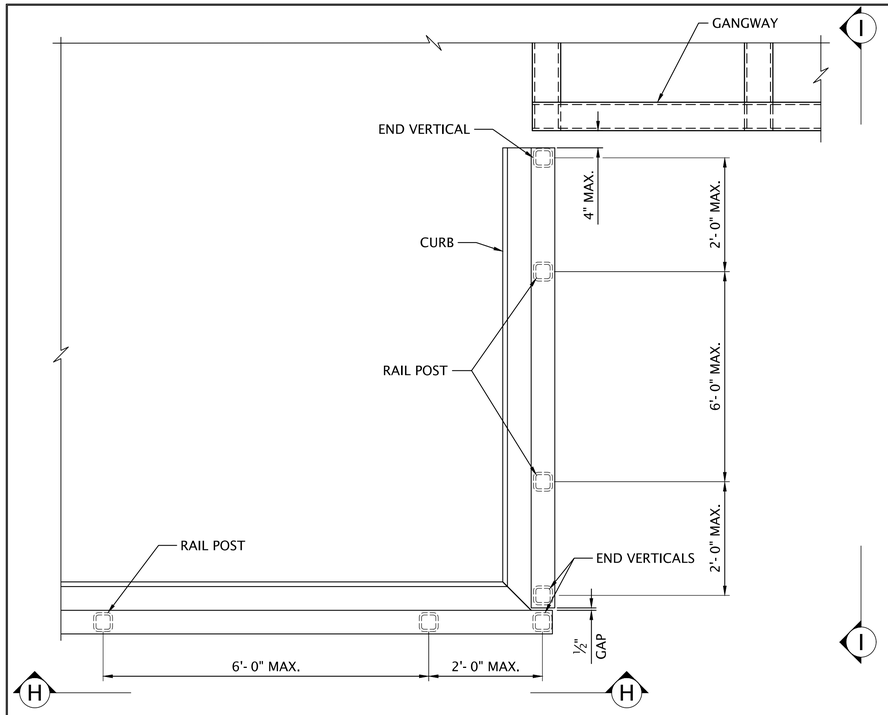
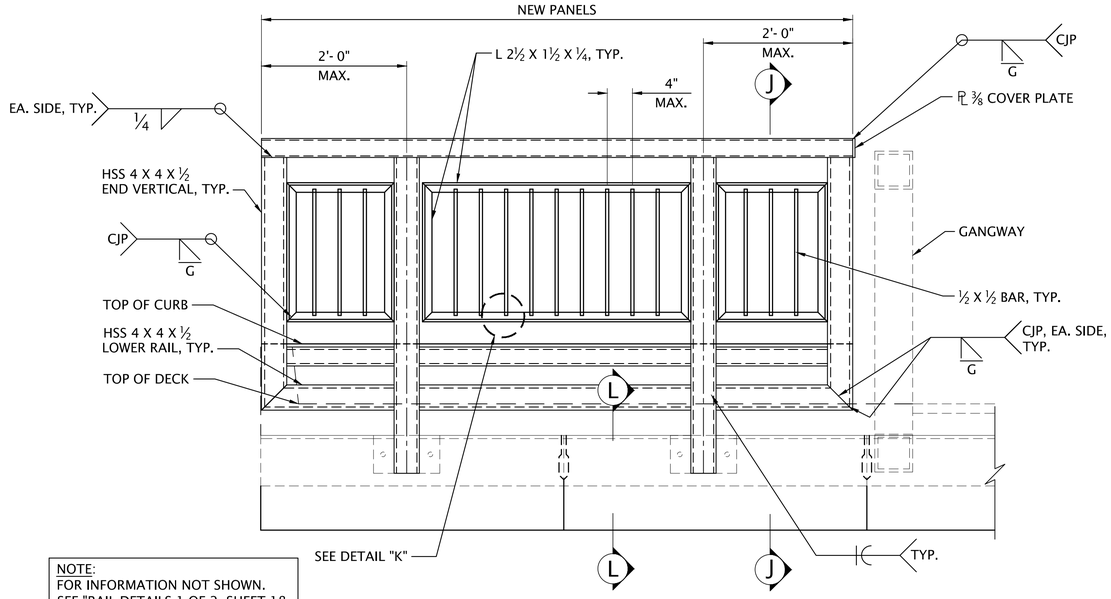
DATE	STRUCTURE NO.	CALC. BOOK	SHEET	DRAWING NO.
JAN 2019	N/A	N/A	18 OF 27	18



RAILING CORNER PLAN

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



NOTE:
FOR INFORMATION NOT SHOWN.
SEE "RAIL DETAILS 1 OF 2, SHEET 18.

I VIEW

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

GENERAL NOTES:

PROVIDE STRUCTURAL TUBING ACCORDING TO OREGON STANDARD SPECIFICATION 2810.20.

PROVIDE STRUCTURAL STEEL SHAPES AND PLATES CONFORMING TO AASHTO SPECIFICATION M183 (ASTM A36) UNLESS NOTED OTHERWISE.

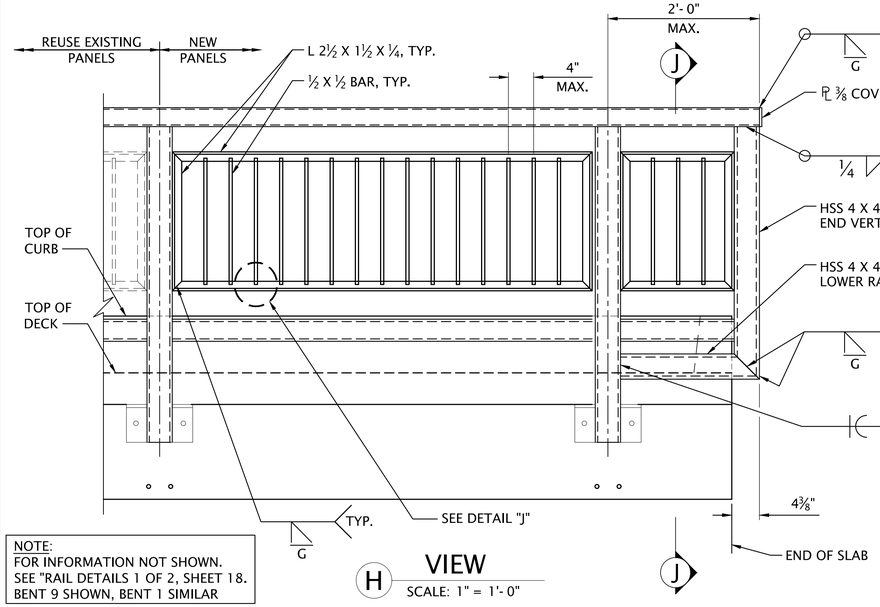
PROVIDE BOLTS CONFORMING TO AASHTO SPECIFICATION M164 (ASTM A325) UNLESS NOTED OTHERWISE.

FABRICATE SHEAR STUDS WITH MATERIAL, WELDING AND INSPECTION ACCORDING TO SECTION 7 OF AWS D1.5.

CONSTRUCT RAIL NORMAL TO SLAB IN BOTH THE LONGITUDINAL AND THE TRANSVERSE DIRECTIONS. WHEN WEARING SURFACE THICKNESS VARIES DUE TO BEAM CAMBER AND/OR SUPERELEVATION, VARY RAIL POST LENGTHS TO PROVIDE UNIFORM RAIL HEIGHT. FIELD VERIFY POST LENGTHS BEFORE FABRICATION.

HOT- DIP GALVANIZE STRUCTURAL STEEL INCLUDING FASTENERS AFTER FABRICATION. PROVIDE GALVANIZE- CONTROL SILICON POSTS AND HORIZONTAL RAIL STEEL TUBING ACCORDING TO ODOT SPECIFICATION 02530.70. TAP NUTS 0.021+0.01- 0.00 OVERSIZE AFTER GALVANIZING IN ACCORDANCE WITH ASTM A563.

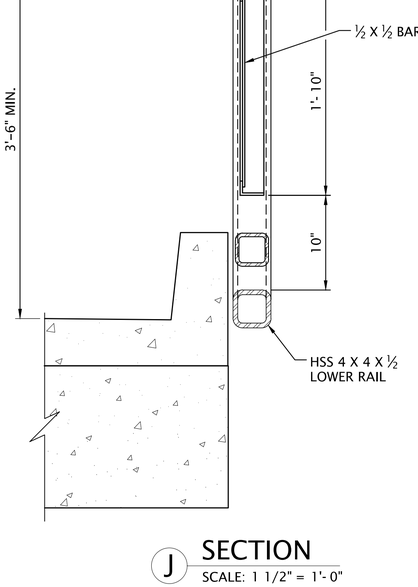
TIGHTEN POST BOLTS 120° TURN PAST SNUG TIGHT CONDITION.



NOTE:
FOR INFORMATION NOT SHOWN.
SEE "RAIL DETAILS 1 OF 2, SHEET 18.
BENT 9 SHOWN, BENT 1 SIMILAR

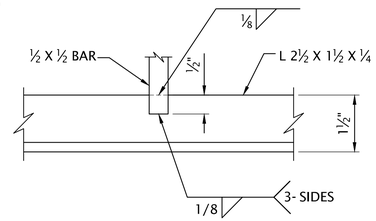
H VIEW

SCALE: 1" = 1'- 0"



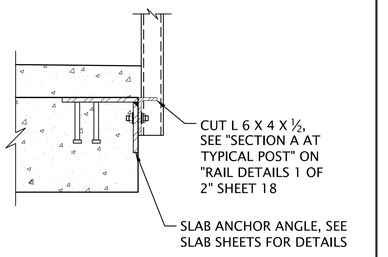
J SECTION

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



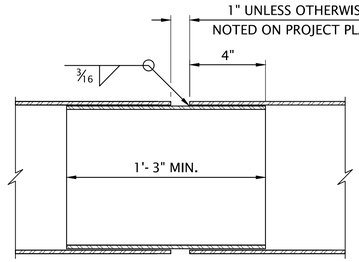
K DETAIL

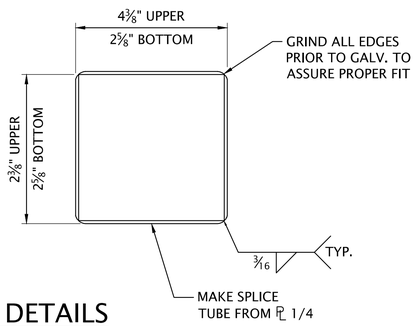
SCALE: 6" = 1'- 0"



L SECTION

SCALE: 1" = 1'- 0"





RAIL SPLICE DETAILS

NO SCALE

REGISTERED PROFESSIONAL ENGINEER
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OREGON
JULY 14, 2015
BRIAN BURNHAM
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ACCOMPANIED BY DRAWINGS:

SCALE WARNING

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PORT OF NEWPORT
DOCK 5 REPLACEMENT

YAQUINA BAY
NEWPORT, OR

RAIL DETAILS 2 of 2

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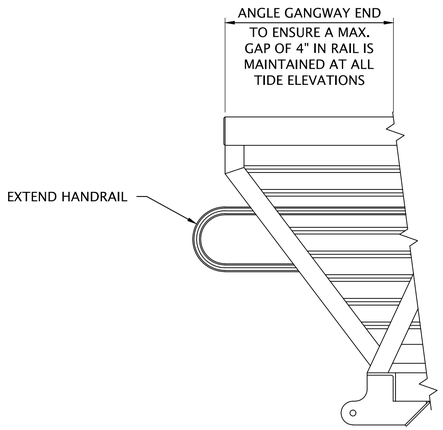
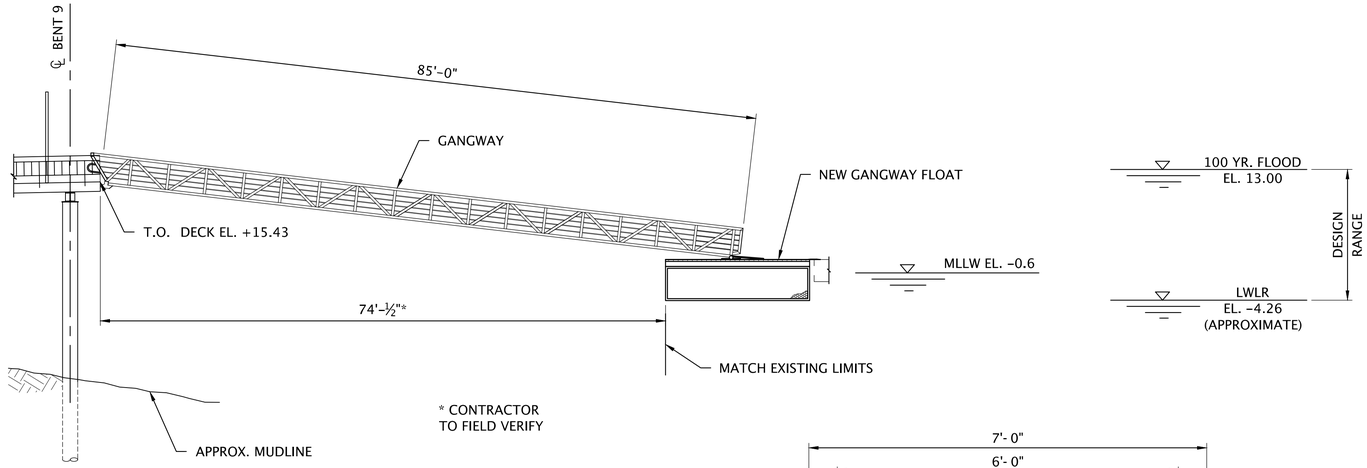
JAN 2019	N/A	N/A	19 OF 27	19



DOCK GANGWAY END

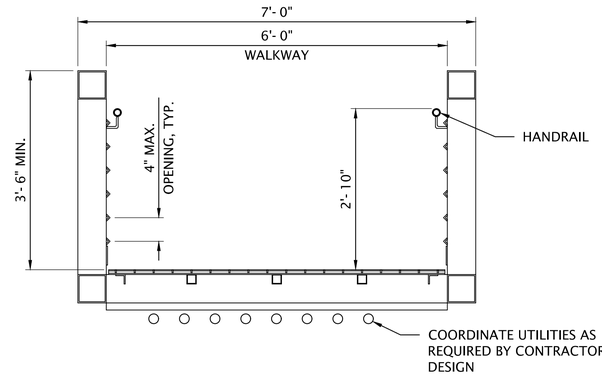
SCALE: 3/4" = 1'- 0"



* CONTRACTOR TO FIELD VERIFY

ELEVATION

SCALE: 1" = 10'- 0"

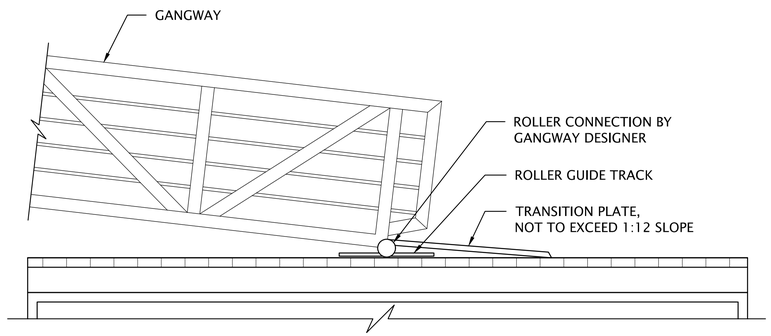


GANGWAY SECTION

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

GANGWAY CONNECTION AT DOCK

SCALE: 3" = 1'- 0"



NOTE:
ROLLER GUIDE TRACK TO ACCOMMODATE 2'- 3" OF ANTICIPATED HORIZONTAL GANGWAY MOVEMENT

GANGWAY LANDING ON FLOAT

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

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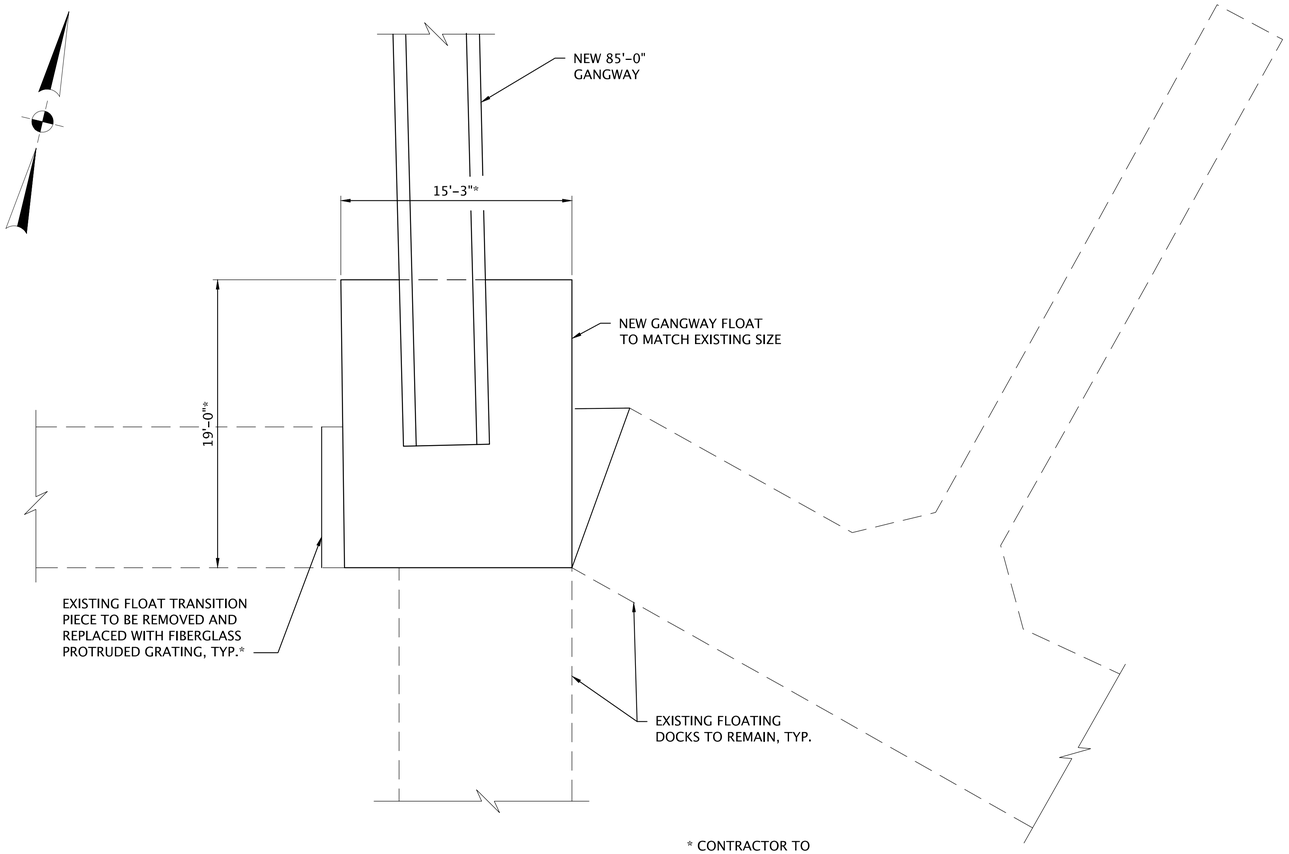
NEWPORT, OR

GANGWAY DETAILS

OBEC CONSULTING ENGINEERS www.obec.com
CORPORATE OFFICE:
920 COUNTRY CLUB ROAD, SUITE 100B EUGENE, OREGON 97401-6089
REGIONAL OFFICES:
LAKE OSWEGO; SALEM; MEDFORD, OREGON ; VANCOUVER, WASHINGTON

DESIGNER: Brian Burnham, PE	REVIEWER: Nick Robertson, PE, SE
CHECKER: Kenton Alldritt, PE	DRAFTER: OBEC CAD

DATE	STRUCTURE NO.	CALC. BOOK	SHEET	DRAWING NO.
JAN 2019	N/A	N/A	20 OF 27	20



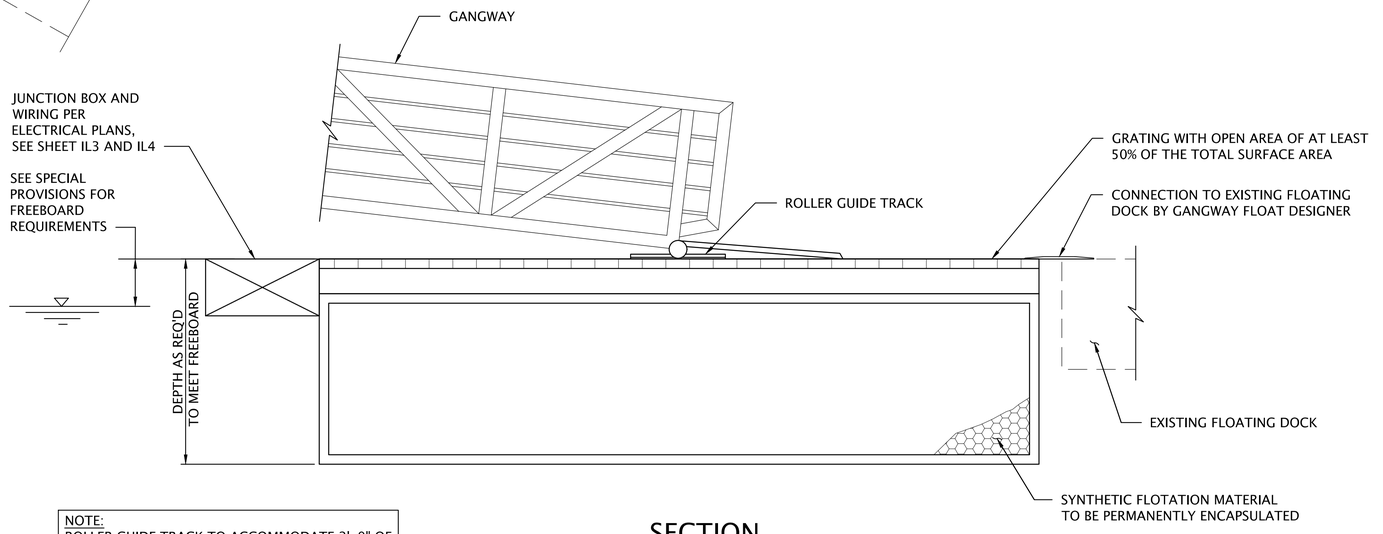
* CONTRACTOR TO
FIELD VERIFY SIZES

PLAN

SCALE: 1" = 5'- 0"

NOTE:
COORDINATE JUNCTION BOX LOCATION AND SIZE
WITH ELECTRICAL PLAN AND DETAILS, SHEETS IL1- IL4.

DESIGN NOTE:
ESTIMATED UNFACTORED REACTION FROM GANGEWAY:
DEAD LOAD = 4,000 LBS.
LIVE LOAD = 25,500 LBS.
UTILITY LOAD = 5,100 LBS.



NOTE:
ROLLER GUIDE TRACK TO ACCOMMODATE 2'- 0" OF
ANTICIPATED HORIZONTAL GANGWAY MOVEMENT

SECTION

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

REGISTERED PROFESSIONAL ENGINEER
90603
Brian D Burnham
OREGON
JULY 14, 2015
BRIAN BURNHAM
EXPIRES: 12/31/2019

△	DATE	REVISION	BY
1			
2			
3			
4			
5			

ACCOMPANIED BY DRAWINGS:

SCALE WARNING

If scale bar does not measure one inch,
then drawing is not to scale

PORT OF NEWPORT
DOCK 5 REPLACEMENT

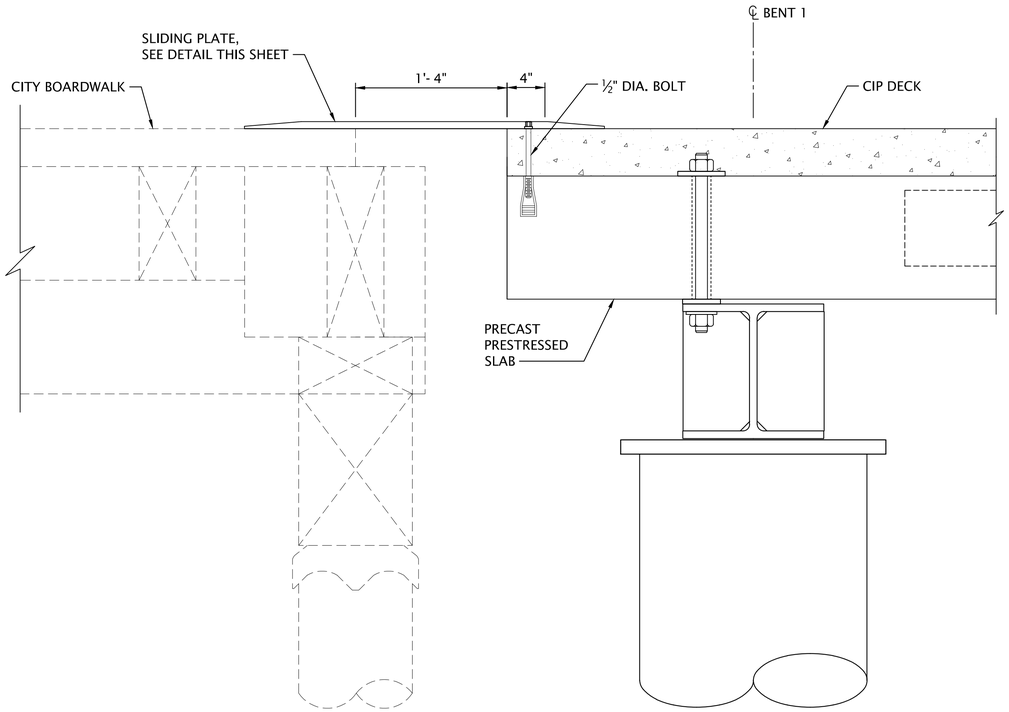
YAQUINA BAY
NEWPORT, OR

GANGWAY FLOAT DETAILS

OBEC CONSULTING ENGINEERS
www.obec.com
CORPORATE OFFICE:
920 COUNTRY CLUB ROAD, SUITE 100B EUGENE, OREGON 97401-6089
REGIONAL OFFICES:
LAKE OSWEGO; SALEM; MEDFORD, OREGON ; VANCOUVER, WASHINGTON

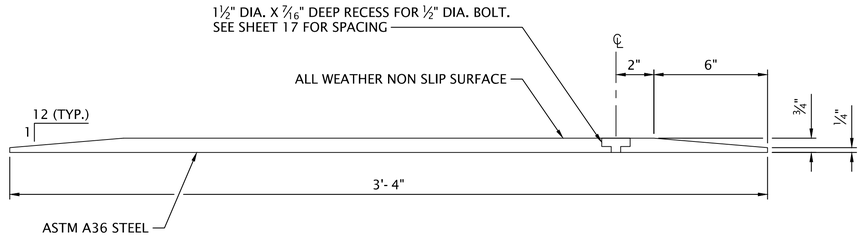
DESIGNER: Brian Burnham, PE	REVIEWER: Nick Robertson, PE, SE
CHECKER: Kenton Alldritt, PE	DRAFTER: OBEC CAD

DATE	STRUCTURE NO.	CALC. BOOK	SHEET	DRAWING NO.
JAN 2019	N/A	N/A	21 OF 27	21



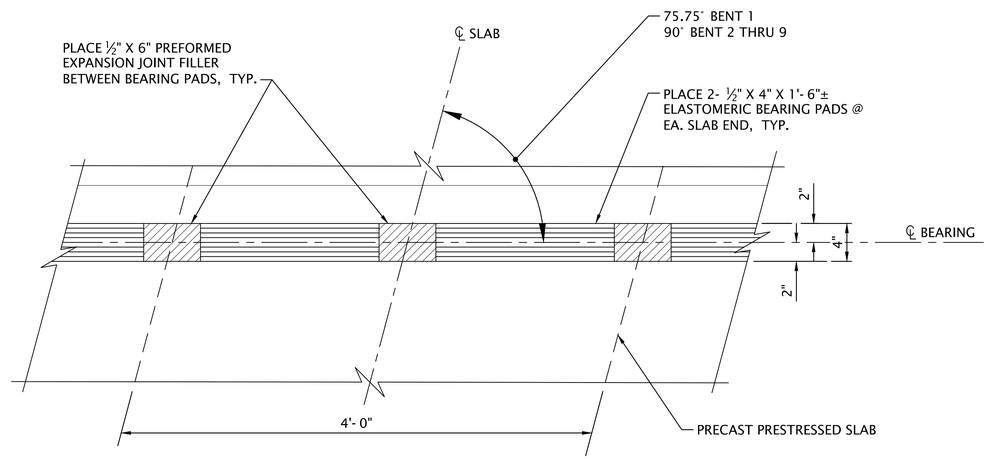
EXPANSION JOINT DETAIL

SCALE: 3" = 1'- 0"



SLIDING PLATE DETAIL

SCALE: 3" = 1'- 0"



BEARING PAD DETAIL

BENT 1 SHOWN, 2 THRU 9 SIMILAR
SCALE: 3" = 1'- 0"

REGISTERED PROFESSIONAL ENGINEER
90603
Brian D Burnham
OREGON
JULY 14, 2015
BRIAN BURNHAM
EXPIRES: 12/31/2019

△	DATE	REVISION	BY
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SCALE WARNING

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PORT OF NEWPORT
DOCK 5 REPLACEMENT

YAQUINA BAY
NEWPORT, OR

MISCELLANEOUS DETAILS

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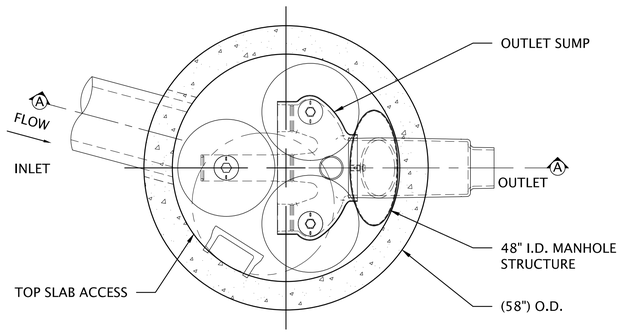
REGIONAL OFFICES:
LAKE OSWEGO; SALEM; MEDFORD, OREGON ; VANCOUVER, WASHINGTON

DESIGNER: Brian Burnham, PE	REVIEWER: Nick Robertson, PE, SE
CHECKER: Kenton Alldritt, PE	DRAFTER: OBEC CAD

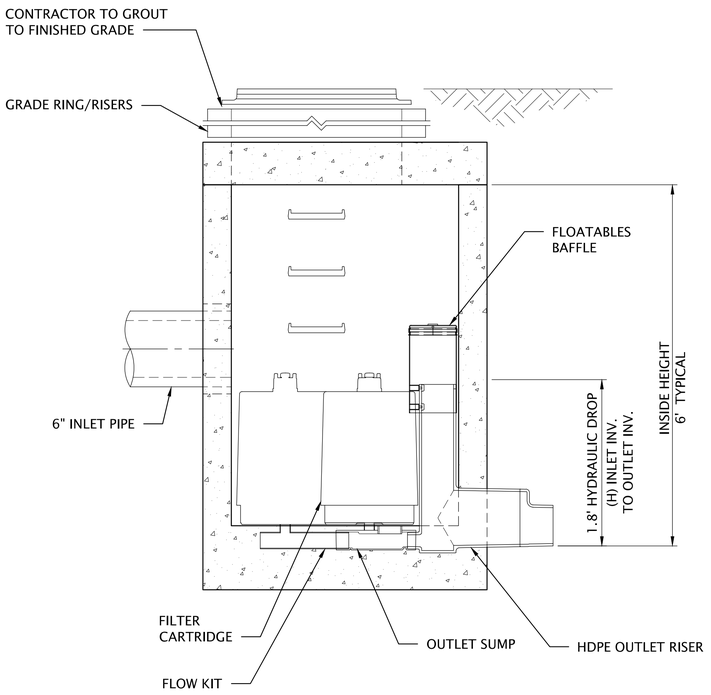
DATE	STRUCTURE NO.	CALC. BOOK	SHEET	DRAWING NO.
JAN 2019	N/A	N/A	22 OF 27	22



STANDARD OUTLET RISER
FLOWFIT: 40A

PLAN VIEW

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



A SECTION

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

MANHOLE GENERAL NOTES:

1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
3. FOR SITE SPECIFIC DRAWINGS WITH DETAILED VAULT DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
4. STORMFILTER WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
5. STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 5' AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.
6. FILTER CARTRIDGES SHALL BE MEDIA- FILLED, PASSIVE, SIPHON ACTUATED, RADIAL FLOW, AND SELF CLEANING. RADIAL MEDIA DEPTH SHALL BE 7- INCHES. FILTER MEDIA CONTACT TIME SHALL BE AT LEAST 39 SECONDS.
7. SPECIFIC FLOW RATE IS EQUAL TO THE FILTER TREATMENT CAPACITY (gpm) DIVIDED BY THE FILTER CONTACT SURFACE AREA (sq ft).

MANHOLE INSTALLATION NOTES

1. ANY SUB- BASE, BACKFILL DEPTH, AND/OR ANTI- FLOTATION PROVISIONS ARE SITE- SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
2. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STORMFILTER STRUCTURE (LIFTING CLUTCHES PROVIDED).
3. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
4. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET PIPE(S).
5. CONTRACTOR TO PROVIDE AND INSTALL CONNECTOR TO THE OUTLET RISER STUB. STORMFILTER EQUIPPED WITH A DUAL DIAMETER HDPE OUTLET STUB AND SAND COLLAR. IF OUTLET PIPE IS LARGER THAN 8 INCHES, CONTRACTOR TO REMOVE THE 8 INCH OUTLET STUB AT MOLDED IN CUT LINE. COUPLING BY FERNCO OR EQUAL AND PROVIDED BY CONTRACTOR.
6. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT CARTRIDGES FROM CONSTRUCTION- RELATED EROSION RUNOFF.

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID	WQ MH
WATER QUALITY FLOW RATE (cfs)	0.03 cfs
PEAK FLOW RATE (cfs)	0.12 cfs
RETURN PERIOD OF PEAK FLOW (yrs)	100
# OF CARTRIDGES REQUIRED	3
CARTRIDGE FLOW RATE	0.03 cfs
MEDIA TYPE (CSF, PERLITE, ZPG, GAC, PHS)	ZPG

PIPE DATA:	I.E.	MATERIAL	DIAMETER
INLET PIPE #1	10.60	PVC	6"
INLET PIPE #2	N/A	N/A	N/A
OUTLET PIPE	8.80	PVC	6"

RIM ELEVATION	14.30

ANTI- FLOTATION BALLAST	WIDTH	HEIGHT
	N/A	N/A

NOTES/SPECIAL REQUIREMENTS:

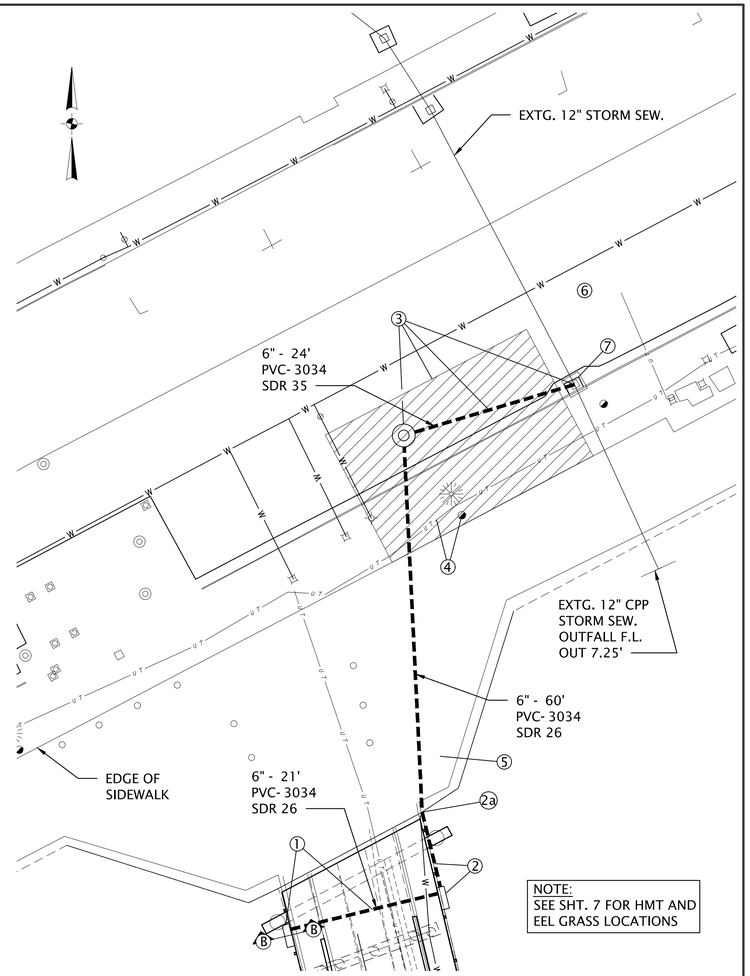
* PER ENGINEER OF RECORD

DRAINAGE CONSTRUCTION NOTES:

1. CONST. 48"L X 12"W X 30"H BRIDGE DRAIN WITH GRATE FLUSH WITH DECK DEPRESSION ELEVATION
   INST. 6" STORM SEW. PIPE - 21' @ 2.0%
   F.L. OUT 11.77'
   BRIDGE DRAIN DETAILS THIS SHEET
2. CONST. 48"L X 12"W X 42"H BRIDGE DRAIN WITH GRATE FLUSH WITH DECK DEPRESSION ELEVATION
   INST. 6" STORM SEW. PIPE - 60' @ 0.5%
   5 FT. DEPTH
   F.L. IN 11.37'
   F.L. OUT 11.00'
   SEE DRG. NO. RD388

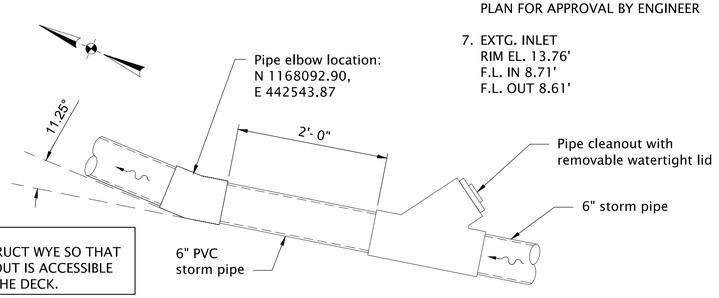
2a. N 1168092.90, E 442543.87
   INST. ELBOW CONNECTION
   INST. PIPE CLEANOUT
   FOR DETAILS SEE THIS SHEET

3. N 1168139.30, E 442537.97
   CONST. STORM FILTER MANHOLE, LOW DROP
   DETAILS THIS SHEET
   INST. 6" STORM SEW. PIPE - 24' @ 0.44%
   5 FT. DEPTH
   CONNECT TO EXTG. INLET
   F.L. IN 10.60'
   F.L. OUT 8.80'
   RIM EL. 14.30'
   TRENCH RESURFACING - 64 SQ. YD.
   SEE DRG. NOS. RD300, RD335, RD339
4. PROTECT EXTG. UTILITIES IN PLACE
5. PROTECT EXTG. TIMBER BOARDWALK IN PLACE
6. CONTRACTOR TO PROVIDE TRAFFIC CONTROL PLAN FOR APPROVAL BY ENGINEER
7. EXTG. INLET
   RIM EL. 13.76'
   F.L. IN 8.71'
   F.L. OUT 8.61'



PLAN VIEW

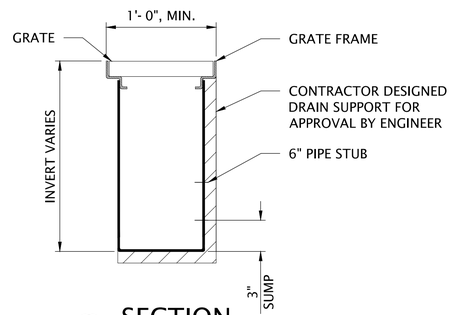
SCALE: 1" = 10'- 0"



NOTE:
CONSTRUCT WYE SO THAT CLEANOUT IS ACCESSIBLE FROM THE DECK.

PIPE DETAIL PLAN VIEW

SCALE: NTS



B SECTION

SCALE: NTS

REGISTERED PROFESSIONAL ENGINEER
79131
Digitally Signed 2019.01.24 14:08:44 -08'00'
OREGON
JUNE 14, 2007
BENJAMIN P. WEWERKA
EXPIRES: 6/30/2020

△	DATE	REVISION	BY
1			
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ACCOMPANIED BY DRAWINGS:

SCALE WARNING

If scale bar does not measure one inch, then drawing is not to scale

PORT OF NEWPORT
DOCK 5 REPLACEMENT

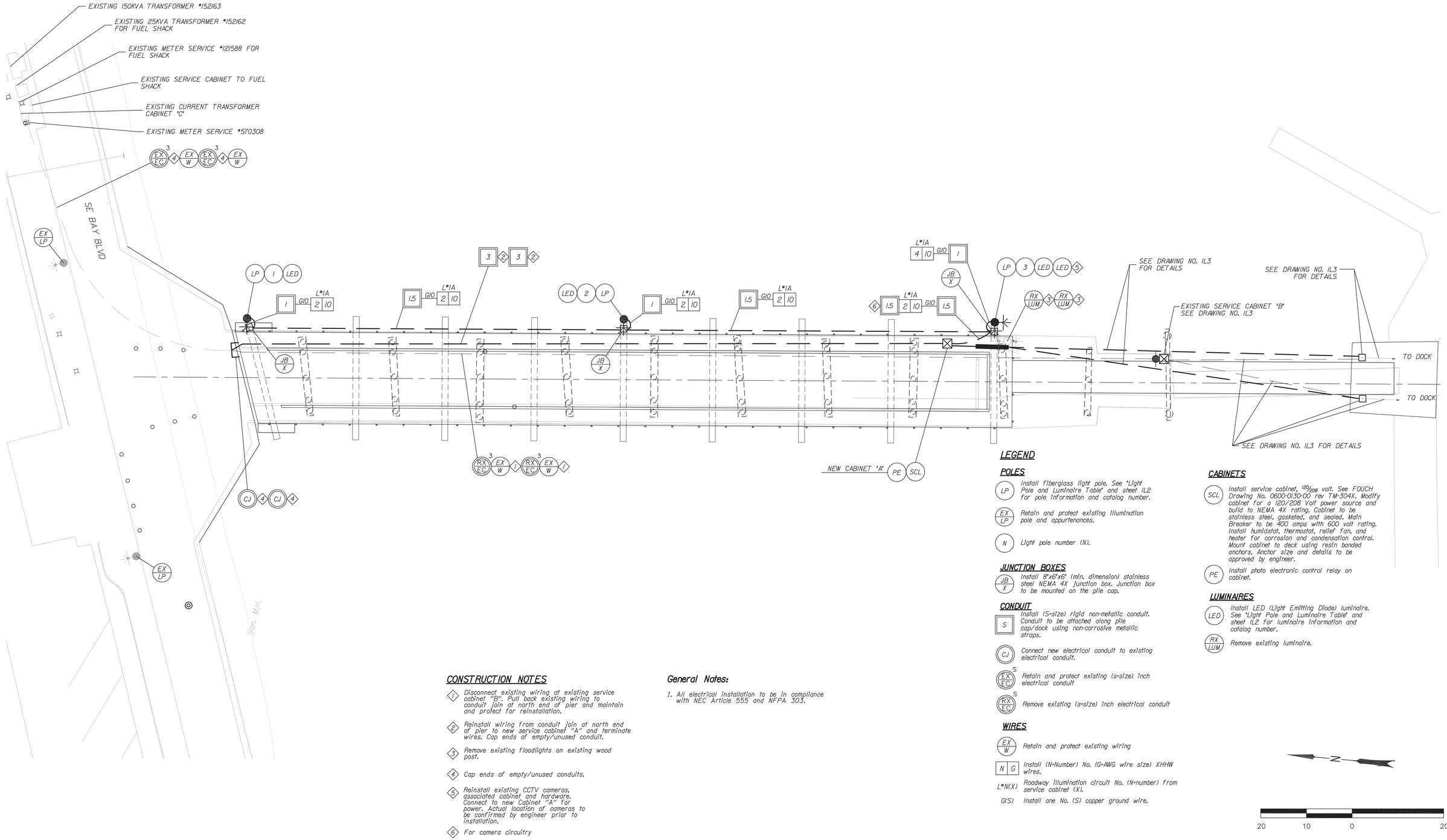
YAQUINA BAY
NEWPORT, OR

STORMWATER PLAN AND DETAILS

OBEC CONSULTING ENGINEERS www.obec.com
CORPORATE OFFICE:
920 COUNTRY CLUB ROAD, SUITE 100B EUGENE, OREGON 97401-6089
REGIONAL OFFICES:
LAKE OSWEGO; SALEM; MEDFORD, OREGON ; VANCOUVER, WASHINGTON

DESIGNER: Andy Burke, EI	REVIEWER: Nick Robertson, PE, SE
CHECKER: Ben Wewerka, PE	DRAFTER: OBEC CAD

DATE	STRUCTURE NO.	CALC. BOOK	SHEET	DRAWING NO.
JAN 2019	N/A	N/A	23 OF 27	23



CONSTRUCTION NOTES

1. Disconnect existing wiring at existing service cabinet "B". Pull back existing wiring to conduit join at north end of pier and maintain and protect for reinstallation.
2. Reinstall wiring from conduit join at north end of pier to new service cabinet "A" and terminate wires. Cap ends of empty/unused conduit.
3. Remove existing floodlights on existing wood post.
4. Cap ends of empty/unused conduits.
5. Reinstall existing CCTV cameras, associated cabinet and hardware. Connect to new Cabinet "A" for power. Actual location of cameras to be confirmed by engineer prior to installation.
6. For camera circuitry

General Notes:

1. All electrical installation to be in compliance with NEC Article 555 and NFPA 303.

LEGEND

POLES

- LP — Install fiberglass light pole. See "Light Pole and Luminaire Table" and sheet IL2 for pole information and catalog number.
- EX LP — Retain and protect existing illumination pole and appurtenances.
- N — Light pole number (N).

JUNCTION BOXES

- JB X — Install 8"x6"x6" (min. dimension) stainless steel NEMA 4X junction box. Junction box to be mounted on the pile cap.

CONDUIT

- S — Install (S-size) rigid non-metallic conduit. Conduit to be attached along pile cap/dock using non-corrosive metallic straps.
- CJ — Connect new electrical conduit to existing electrical conduit.
- EX S EC — Retain and protect existing (s-size) inch electrical conduit
- RX S EC — Remove existing (s-size) inch electrical conduit

WIRES

- EX W — Retain and protect existing wiring
- N G — Install (N-Number) No. (G-AWG wire size) XHHW wires.
- L*N(X) — Roadway illumination circuit No. (N-number) from service cabinet (X).
- G(S) — Install one No. (S) copper ground wire.

CABINETS

- SCL — Install service cabinet, 120/208 volt. See FOUCH Drawing No. 0600-0130-00 rev TM-304X. Modify cabinet for a 120/208 volt power source and build to NEMA 4X rating. Cabinet to be stainless steel, gasketed, and sealed. Main Breaker to be 400 amps with 600 volt rating. Install humidstat, thermostat, relief fan, and heater for corrosion and condensation control. Mount cabinet to deck using resin bonded anchors. Anchor size and details to be approved by engineer.
- PE — Install photo electronic control relay on cabinet.

LUMINAIRES

- LED — Install LED (Light Emitting Diode) luminaire. See "Light Pole and Luminaire Table" and sheet IL2 for luminaire information and catalog number.
- RX LUM — Remove existing luminaire.

N

20 10 0 20

△	DATE	REVISION	BY
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REGISTERED PROFESSIONAL ENGINEER 18,503 — Brian Copeland, PE — Digitally signed by Brian Copeland PE Date: 2019.01.22 15:35:11 -08'00' — OREGON JULY 10, 1996 BRIAN K. COPELAND — EXPIRES: DEC. 31, 2019

ACCOMPANIED BY DRAWINGS:

SCALE WARNING

If scale bar does not measure one inch, then drawing is not to scale

PORT OF NEWPORT
DOCK 5 REPLACEMENT

YAQUINA BAY
NEWPORT, OR

ELECTRICAL PLAN

DKS
720 SW Washington St, Suite 500
Portland, Oregon 97205
www.dksassociates.com

DESIGNER: Sina V.	REVIEWER: Brian C.
CHECKER: Brian C.	DRAFTER: DKS CAD

DATE	STRUCTURE NO.	CALC. BOOK	SHEET	DRAWING NO.
Jan 2019	00000	0000	00 OF 00	IL1

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LIGHTING NOTES

1. Light poles shall be fiberglass with anchor base:

Manufacturer:	Catalog number:
Valmont/Whatley	TR34-20-AB-BLK-SMS-23-DTC

2. Luminaire arms shall be:

Manufacturer:	Catalog number:
Valmont/Whatley	WMA-0415
Valmont/Whatley	WOPAR-07*

*used for OSQ Flood Light attachment.

3. Cobra head and Flood Light luminaire shall be 3000K color temperature.

The approved luminaires are:

Manufacturer:	Catalog number:
Cree	RSWS-A-HT-3L-30K8-UL-BK-N
Cree	OSQ-A-AA-4ME-B-30K-UL-BK

4. Luminaire Mount for OSQ-A-AA-4ME-B-30K-UL-BK Luminaire:

Manufacturer:	Catalog number:
Cree	OSQ-AABK

5. Junction boxes shall be labeled "STREET LIGHTING" in the lid marking area.

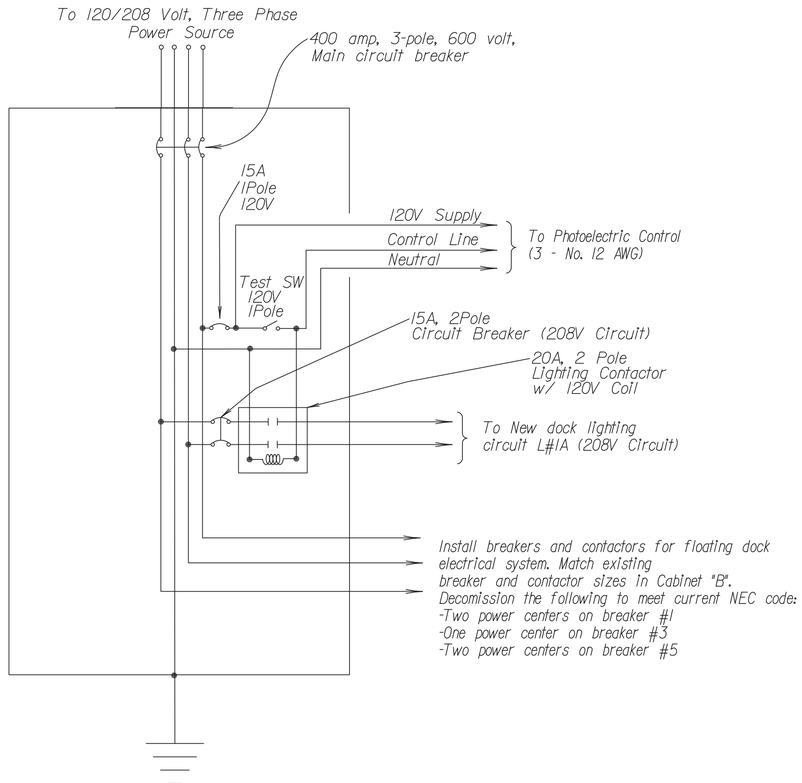
LIGHT LEVELS

LOCATION	ROADWAY/INTERSECTION CLASSIFICATION	DESIGN VALUES		DESIGN STANDARDS*	
		AVG. MAINTAINED ILLUMINANCE (FC)	UNIFORMITY AVG/MIN	AVG. MAINTAINED ILLUMINANCE (E/FC)	UNIFORMITY AVG/MIN
PORT OF NEWPORT DOCK 5 WALKWAY	PEDESTRIAN WALKWAY	1	2.60	1.0	4.0
PORT OF NEWPORT DOCK 5 SIGN	-	3.15	2.63	-	-

* Light level design standards based on Illuminating Engineering Society (IES) RP-8-14 For a Pedestrian Walkway

LIGHT POLE AND LUMINAIRE TABLE

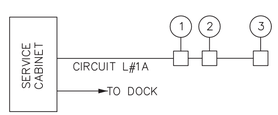
POLE NO.	ARM LENGTH (FT)	MOUNTING HEIGHT (FT)	LUMINAIRE					Circuit	NOTES
			LAMP (Watts)	Product	TYPE	Distribution	Initial Lumens		
1	4	20	31	Cree RSWS	LED	II	3300	1A	
2	4	20	31	Cree RSWS	LED	II	3300	1A	
3	4	20	31	Cree RSWS	LED	II	3300	1A	
3	0.67	19	86	Cree OSQ	LED	IV	6481	1A	Mount Flood Light on Pole Number 3 facing the gangway.



SCHEMATIC–LIGHTING PANEL CABINET "A"

NO SCALE

PROPOSED SERVICE CABINET "A"



LEGEND

- JUNCTION BOX
- (N) LIGHT POLE NUMBER

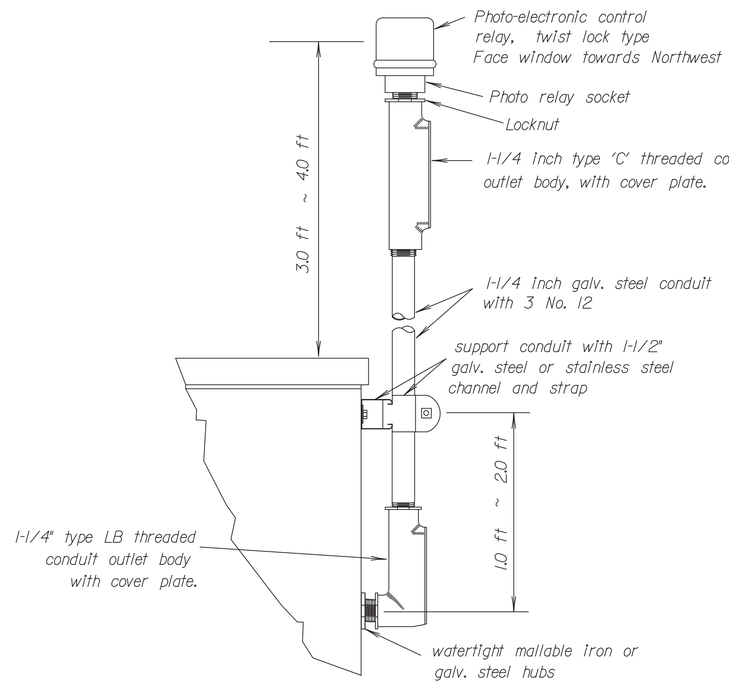


PHOTO CONTROL INSTALLATION SIDE OF PAD MOUNT CABINET

NO SCALE

REGISTERED PROFESSIONAL ENGINEER 18,503
Brian Copeland, PE
OREGON
JULY 10, 1986
BRIAN K. COPELAND
EXPIRES: DEC. 31, 2019

△	DATE	REVISION	BY
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ACCOMPANIED BY DRAWINGS:

SCALE WARNING

If scale bar does not measure one inch, then drawing is not to scale

PORT OF NEWPORT
DOCK 5 REPLACEMENT

YAQUINA BAY
NEWPORT, OR

ELECTRICAL DETAILS

DKS
720 SW Washington St, Suite 500
Portland, Oregon 97205
www.dksassociates.com

DESIGNER: Sina V.	REVIEWER: Brian C.
CHECKER: Brian C.	DRAFTER: DKS CAD

DATE	STRUCTURE NO.	CALC. BOOK	SHEET	DRAWING NO.
Jan 2019	00000	0000	00 OF 00	IL2

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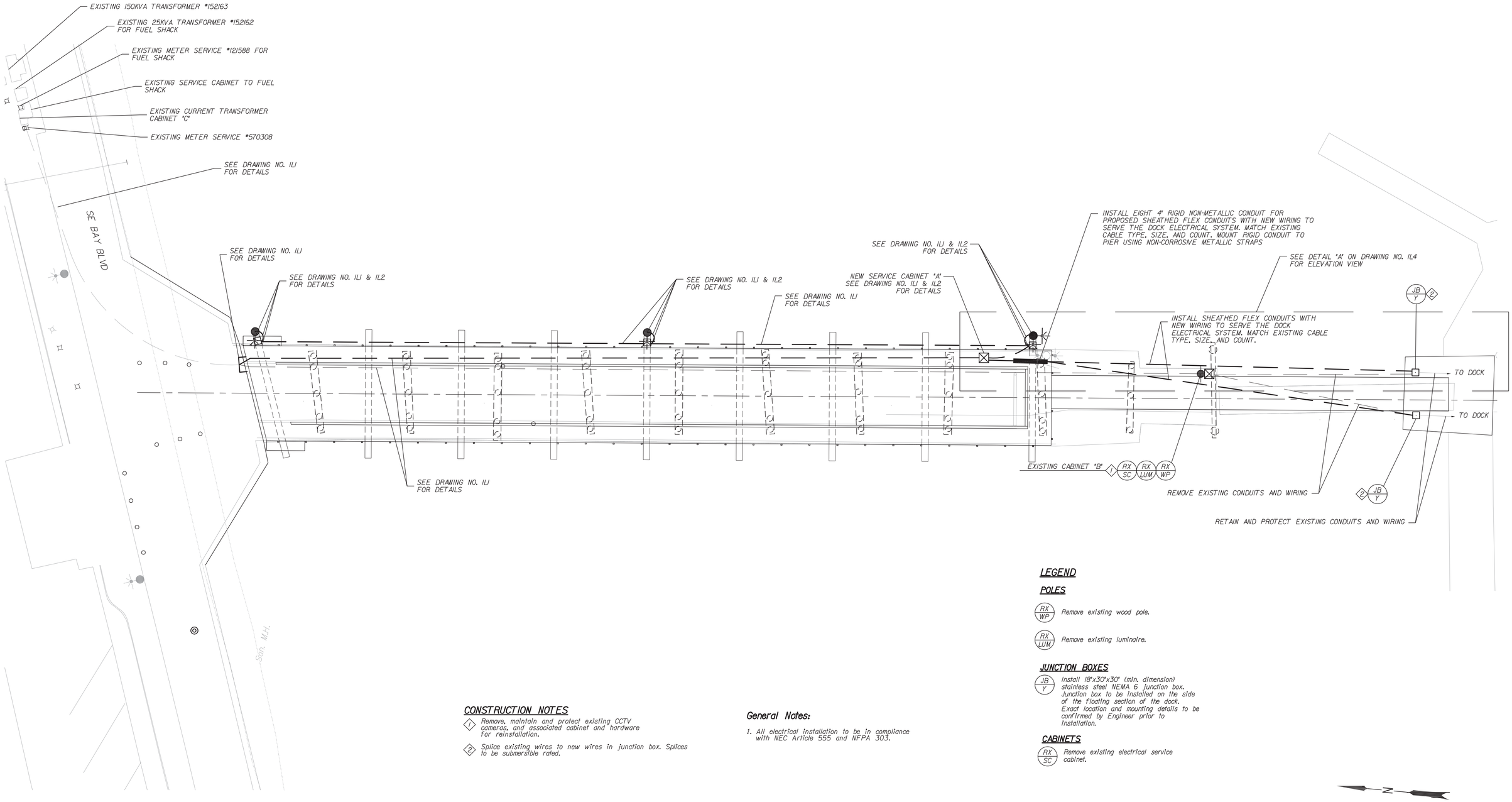

CONSTRUCTION NOTES

1. Remove, maintain and protect existing CCTV cameras, and associated cabinet and hardware for reinstallation.
2. Splice existing wires to new wires in junction box. Splices to be submersible rated.

General Notes:

1. All electrical installation to be in compliance with NEC Article 555 and NFPA 303.

LEGEND

POLES

- RX WP — Remove existing wood pole.
- RX LUM — Remove existing luminaire.

JUNCTION BOXES

- JB Y — Install 18"x30"x30" (min. dimension) stainless steel NEMA 6 junction box. Junction box to be installed on the side of the floating section of the dock. Exact location and mounting details to be confirmed by Engineer prior to installation.

CABINETS

- RX SC — Remove existing electrical service cabinet.

N

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△	DATE	REVISION	BY
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PORT OF NEWPORT
DOCK 5 REPLACEMENT

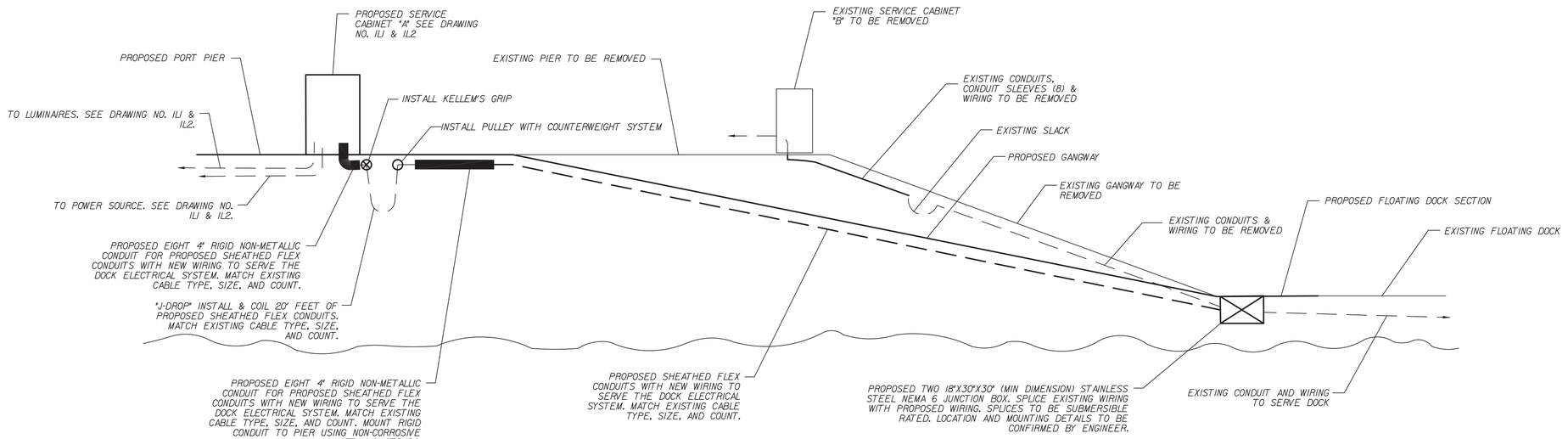
YAQUINA BAY
NEWPORT, OR

ELECTRICAL PLAN

DKS
720 SW Washington St, Suite 500
Portland, Oregon 97205
www.dksassociates.com

DESIGNER: Sina V.	REVIEWER: Brian C.
CHECKER: Brian C.	DRAFTER: DKS CAD

DATE	STRUCTURE NO.	CALC. BOOK	SHEET	DRAWING NO.
Jan 2019	00000	0000	00 OF 00	IL3



DETAIL "A" – ELEVATION VIEW

NOTES

1. Wiring to be in accordance with chapter 3 of NEC for wet location.
2. All electrical installation to be in compliance with NEC Article 555 and NFPA 303.

	△	DATE	REVISION	BY
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PORT OF NEWPORT
DOCK 5 REPLACEMENT

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DESIGNER: Sina V.	REVIEWER: Brian C.			
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DATE	STRUCTURE NO.	CALC. BOOK	SHEET	DRAWING NO.
Jan 2019	00000	0000	00 OF 00	IL4