UMAINE CONCRETE FOUNDATION PRELIMINARY DRAWINGS

QUANTITIES: 150 CU. YD. OF CONCRETE 4.0 TONS OF #4 REBAR (12,000 FT)

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UNIVERSITY	OF MAINE			
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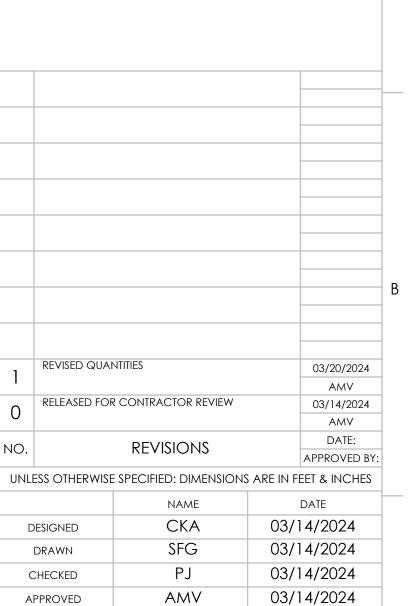


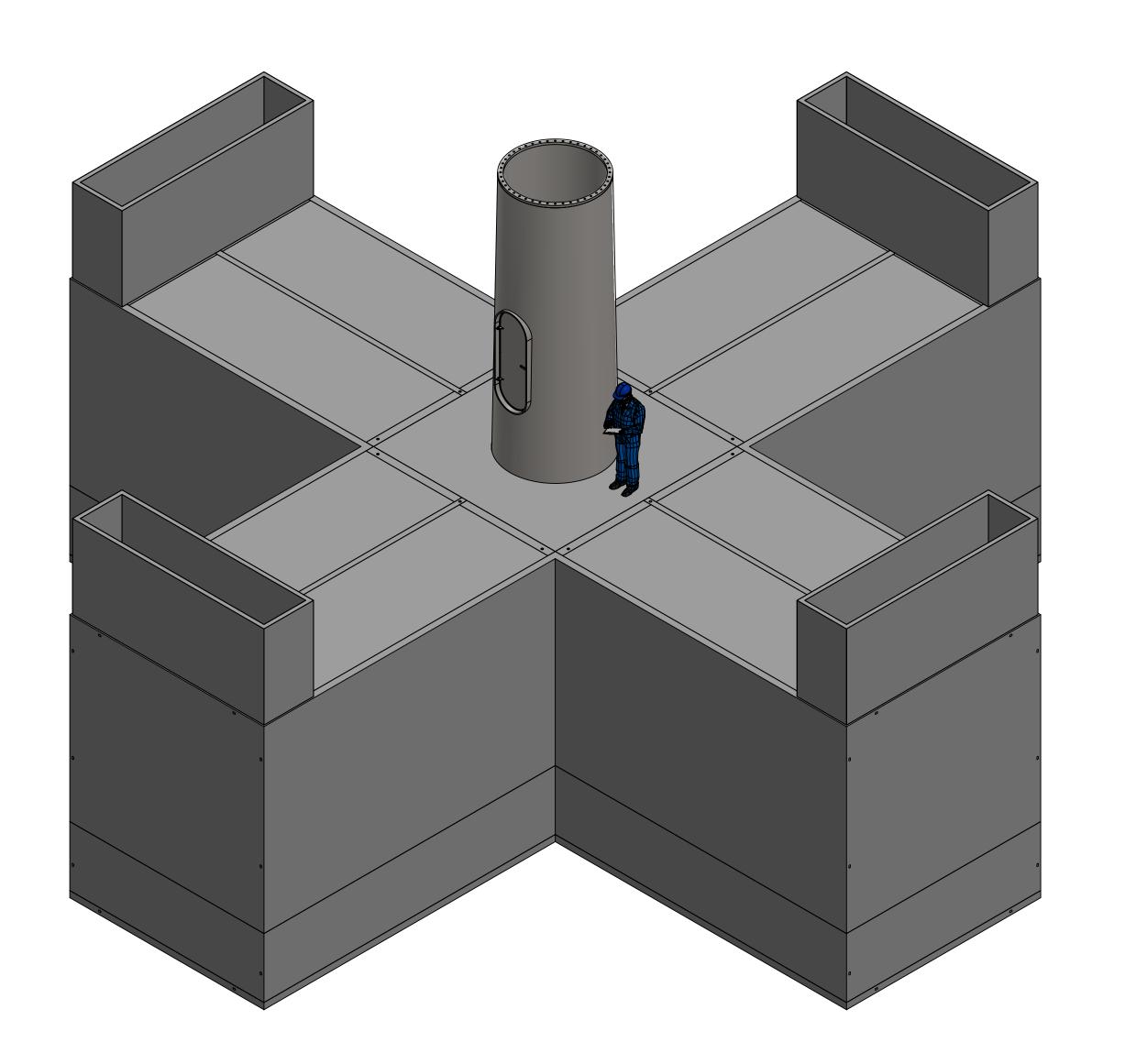


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ISOMETRIC VIEW

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UMAINE CONCRETE FOUNDATION COVER PAGE

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GENERAL NOTES:

CODES AND STANDARDS

1. STRUCTURAL

A. ABS GUIDE FOR BUILDING AND CLASSING FLOATING OFFSHORE WIND TURBINE, 2020

B. AISC SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS, 2016

C. ACI 318 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE, 2019

GENERAL

- 1. UNLESS OTHERWISE NOTED, ALL DIMENSIONS IN DRAWING SET ARE IN FEET AND INCHES.
- 2. ALL CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH ANY WORK SO INVOLVED.
- 3. CONTRACTOR-INITIATED CHANGES SHALL BE SUBMITTED IN WRITING TO THE ENGINEER FOR APPROVAL PRIOR TO FABRICATION OR CONSTRUCTION.
- 4. ALL SHOP DRAWINGS AS INDICATED IN THE SPECIFICATIONS SHALL BE SUBMITTED TO, REVIEWED, AND APPROVED BY THE ENGINEER PRIOR TO FABRICATION.
- 5. CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL PERMITS ISSUED FOR THIS PROJECT (SEE SPECIFICATIONS). CONTRACTOR SHALL IMPLEMENT ALL CONDITIONS.
- 6. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION.
- 7. SCALES PROVIDED ARE APPROXIMATE ONLY DO NOT SCALE ITEMS FROM THESE DRAWINGS.

STRUCTURAL AND MISCELLANEOUS STEEL

1. MISCELLANEOUS STEEL SHAPES, PLATES: ASTM A709, GRADE 50

REINFORCED CONCRETE

1. REINFORCING STEEL:

A. ALL REINFORCING STEEL SHALL BE DEFORMED STEEL BARS CONFORMING TO ASTM A615, GRADE 60, UNLESS NOTED OTHERWISE.

B. SPLICING OF LONGITUDINAL REINFORCEMENT WILL BE PERMITTED.

C. SPLICE REINFORCING STEEL AT ALTERNATE BARS, STAGGERED AT LEAST ONE SPLICE LENGTH, UNLESS SHOWN OTHERWISE.

D. PROVIDE CORNER BARS AT ALL CORNERS. CORNER BARS SHALL MATCH THE NUMBER/SPACING AND DIAMETER OF ALL HORIZONTAL REINFORCEMENT AT THE CORNER. TERMINATED STRAIGHT BARS SHALL EXTEND FULL AVAILABLE LENGTH INTO ADJOINING MEMBERS. SPLICE CORNER BAR TO TERMINATED STRAIGHT BAR WITH A MINIMUM SPLICE LENGTH BELOW.

E. ALL SPLICE LENGTHS SHALL BE A MINIMUM OF 1'-7".

F. DETAIL ALL REINFORCING STEEL IN ACCORDANCE WITH ACI 318. ALL REINFORCING STEEL BENDS SHOWN ARE OUT TO OUT UNLESS OTHERWISE NOTED. ALL HOOKS AND BENDS ARE CRSI STANDARD HOOKS AND BENDS UNLESS NOTED OTHERWISE.

G. ALTERNATE ENDS OF HORIZONTAL TIES (CROSS TIES WITH 135 DEGREE HOOK AND 90 DEGREE HOOK) EXCEPT WHEN PLACED AGAINST HARDENED CONCRETE WHERE THE 90 DEGREE HOOK SHALL BE PLACED AT THE HARDENED CONCRETE FACE.

2. CONCRETE:

A. CONCRETE SUPPLIED BY UMAINE AND READY MIX PLANT.

B. LIGHTWEIGHT CONCRETE MIX DEVELOPED BY UNIVERSITY OF MAINE WITH THE FOLLOWING PROPERTIES:

DENSITY: 115 PCF MINIMUM 28 DAY STRENGTH: 6000 PSI AVERAGE SPLITTING TENSILE STRENGTH: 435 PSI ELASTIC MODULUS: 2000 KSI

B. PROPERTIES OF STRUCTURAL CONCRETE SHALL COMPLY WITH 2-1/3 OF THE ABS GUIDE FOR BUILDING AND CLASSING BOTTOM-FOUNDED OFFSHORE WIND TURBINE INSTALLATIONS.

C. ALL EXPOSED CORNERS SHALL BE CHAMFERED 3/4 IN.

D. ROUGHEN ALL HARDENED CONCRETE SURFACES TO RECEIVE FRESH CONCRETE TO 1/4" AMPLITUDE.

E. ALL EXPOSED HORIZONTAL CONCRETE SURFACES SHALL RECEIVE A BROOM FINISH.

3. POST TENSIONING:

A. DUCTWORK SUPPLIED BY UMAINE: SHALL BE POLYPROPYLENE AND BE COMPLETELY WATERTIGHT, E.G.VSL FLAT DUCT OR SIMILIAR. ANCHORAGES AND DUCTWORK SHALL BE PROTECTION LEVEL 3, AS DEFINED BY THE INTERNATIONAL FEDERAL FOR STRUCTURAL CONCRETE (fib) BULLETING 33 (2006).

B. POST-TENSIONED TENDON ANCHORS SUPPLIED BY UMAINE:
ARE MADE BY VSL. POST-TENSIONED BAR ANCHORS SHOWN ARE MADE BY
VSL. APPROVED EQUIVALENTS MAY BE USED WITH CONFIRMATION OF IMPACT
ON GEOMETRY.

WATERPROOFING:

1. ALL COLD JOINTS WILL HAVE SUITABLE LEAK PREVENTATIVE DETAILS.

A. ALL COLD JOINTS SHALL BE PREPARED PER ACI 318-11 SECTION 6.4 AND ROUGHENDED TO 1/4" AMPLITUDE.

B. HYDROTITE CJ-0724-3K TO BE BONDED WITH LEAKMASTER LV-1 AT CENTER OF ALL COLD JOINTS.

C. HYDROTITE CJ-0724-3K TO BE MITERED AND BONDED WITH LEAKMASTER LV-1 AT CORNERS.

D. WATERPROOFING COATING SHALL BE APPLIED TO ALL COLD JOINTS, CONCRETE FACES, AND FORMWORK TIES TO RESIST MINIMUM OF 15'-0" OF HYDROSTATIC PRESSURE.

PAINT:

- 1. PAINT TO BE SUPPLIED BY UMAINE:
- 2. ALL FAYING SURFACES AND AREAS NOT ACCESSIBLE FOR PAINTING AND MAINTENANCE SHALL BE SEALED AGAINST CORROSION USING SEAL WELDS, UNLESS NOTED OTHERWISE. ALL SEAL WELDS SHALL FOLLOW AWS D1.1 FOR MINIMUM FILLET SIZES.
- 3. ALL FREE STEEL EDGES SHALL BE CHAMFERED & DEBURRED WITH A SINGLE PASS OF GRINDER PRIOR TO PAINTING.
- 4. CONCRETE SURFACE PREP: SSPC-SP13 / ICRI CSP 2-3
- 5. REPAIR/FILLER: B58W910 STEEL SEEM FT910 EPOXY PATCHING AND SURFACING COMPOUND RESIN WHITE (REPAIR AND FILL BUGHOLES AS
- 6. PRIMER: B62L210 DURAPLATE UHS PRIMER (WITH OAP ADDITIVE) BLUE A (1 COAT AT 4.0 TO 8.0 MILS DFT).
- 7. FINISH: B62W260 SHERPLATE PW EPOXY (PART A) WHITE 1 (COAT AT 20.0 TO
- 50.0 MILS DFT).

 8.

 9. ABOVE WATERLINE: B65Y600 ACROLON 218 ULTRA HP ACRYLIC POLYURETHANE (PART A) SAFETY YELLOW (1 TO 2 COATS AT 2.0 TO 3.0 MILS
- 10. NON-SKID SURFACE COATING SHALL BE APPLIED TO ALL PLATED SURFACES.

HANDRAIL:

- 1. HANDRAILS TO BE SUPPLIED BY UMAINE:
- 2. ALL HANDRAIL SOCKETS ARE TO BE FITTED USING HANDRAIL PANELS AS
- 3. ALL HANDRAIL PANELS SHALL BE PIECE-MARKED BY WELD BEAD PRIOR TO COATING AND TEST-FITTED PRIOR TO SHIPMENT.
- 4. ALL HANDRAIL WELDS ARE TO BE GROUND SMOOTH.







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NOTES:

O RELEASED FOR CONTRACTOR REVIEW

O REVISIONS

DATE:
APPROVED BY:
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN FEET & INCHES

 DESIGNED
 AMV
 03/12/2024

 DRAWN
 PJ
 03/12/2024

 CHECKED
 CKA
 03/12/2024

 APPROVED
 AMV
 03/12/2024

TITLE:

UMAINE CONCRETE FOUNDATION GENERAL NOTES

 SCALE:
 N/A

 PROJ. NO.
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 SIZE
 SHEET NO.
 REV

CR002

