

A. CONCRETE NOTES:

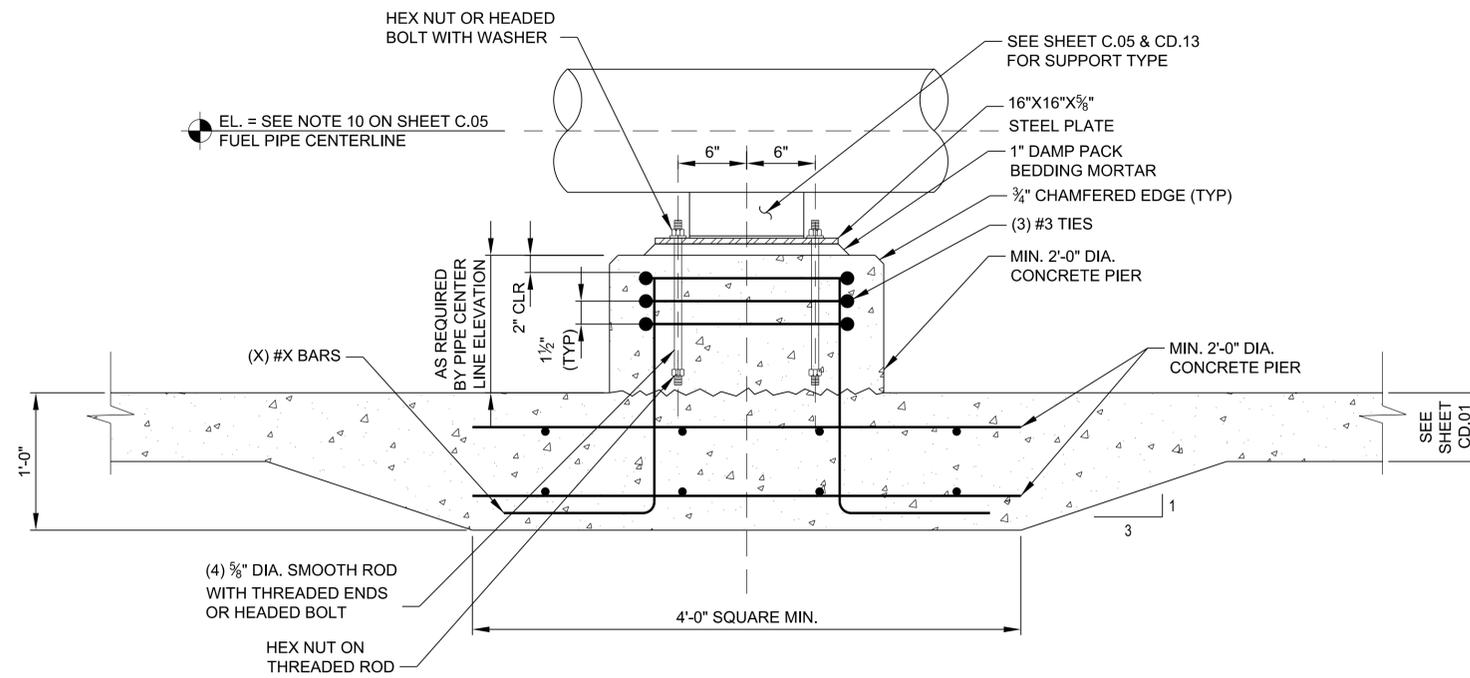
- CAST-IN-PLACE CONCRETE SHALL CONFORM TO AMERICAN CONCRETE INSTITUTE "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE", ACI 318.
- SPECIFIED COMPRESSIVE STRENGTH: $f_c = 4,000$ PSI AT 28 DAYS TYP.
- REINFORCING MATERIALS:
REINFORCING BARS: SHALL CONFORM TO ASTM A615 OR ASTM A706, GRADE 60
- LAP SPLICES AND CONCRETE COVER OF REINFORCEMENT SHALL CONFORM TO ACI 318 USING CLASS B TENSION SPLICES UNLESS OTHERWISE NOTED.
- REINFORCING BARS SHALL BE SUPPORTED AT 2'-0" O.C., EACH WAY, MAX.
- ALL REINFORCING STEEL AND EMBEDDED ITEMS SUCH AS ANCHOR RODS AND WELD PLATES SHALL BE ACCURATELY PLACED IN THE POSITIONS SHOWN AND ADEQUATELY TIED AND SUPPORTED BEFORE CONCRETE IS PLACED TO PREVENT DISPLACEMENT BEYOND PERMITTED TOLERANCES.
- DETAIL BARS IN ACCORDANCE WITH "ACI DETAILING MANUAL", PUBLICATION SP-66, ACI 318, AND ACI 315.
- PROVIDE ACCESSORIES NECESSARY TO PROPERLY SUPPORT REINFORCING AT POSITIONS SHOWN ON DRAWINGS.
- EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED $\frac{3}{4}$ ".
- CLEAR COVER TO REINFORCING FOR CAST-IN-PLACE CONCRETE SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE:
 - CONCRETE CAST AGAINST OR PERMANENTLY EXPOSED TO EARTH: 3"
 - CONCRETE EXPOSED TO EARTH OR WEATHER:
 - No. 6 THROUGH No. 18 BARS: 2"
 - No. 5 BAR, W31 OR D31 WIRE, AND SMALLER: $1\frac{1}{2}$ "
 - CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND:
 - SLABS, WALLS, JOISTS: $\frac{3}{4}$ "
 - BEAMS, COLUMNS (PRIMARY REINF, TIES, STIRRUPS): $1\frac{1}{2}$ "

B. CARBON STRUCTURAL STEEL:

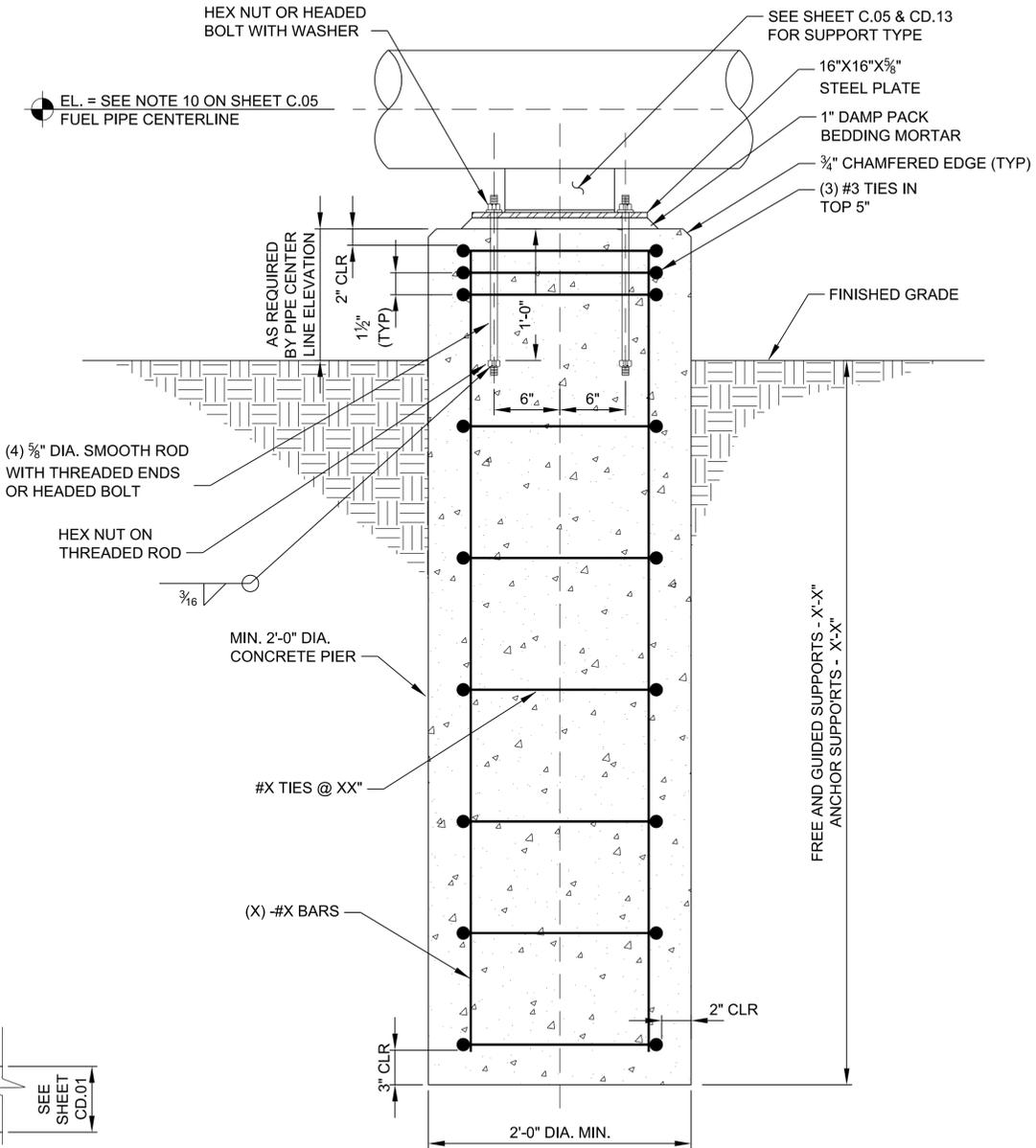
- STRUCTURAL STEEL SHALL CONFORM TO LATEST EDITION OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION "STEEL CONSTRUCTION MANUAL".
- WIDE FLANGE SHAPES: SHALL CONFORM TO ASTM A992, $F_y = 50$ KSI.
- ROLLED PLATES AND SHAPES: SHALL CONFORM TO ASTM A36, $F_y = 36$ KSI.
- STRUCTURAL TUBING: SHALL CONFORM TO ASTM A500, GRADE B, $F_y = 46$ KSI.
- ANCHOR BOLTS: SHALL CONFORM TO ASTM F1554, $F_y = 36$ KSI.
- WELDING SHALL CONFORM WITH SPECIFICATION 33 52 43.13.
- DO NOT WELD CARBON STEEL PLATES OR TEES TO STAINLESS STEEL PIPE.
- DO NOT WELD GALVANIZED CARBON STEEL PLATES OR TEES TO STAINLESS STEEL OR CARBON STEEL PIPE.

C. SOILS & FOUNDATION NOTES:

- MAX ALLOWABLE NET SOIL BEARING PRESSURE: X,XXX PSF
 - ONE-THIRD OVERSTRESS MAY BE ALLOWED FOR TEMPORARY WIND/SEISMIC LOADING.
- LATERAL BEARING PRESSURE: XXX PSF/FT BELOW FINISHED GRADE
- FRICTION ANGLE: $\phi = XX^\circ$
- LATERAL EARTH PRESSURE COEFFICIENTS:
 - ACTIVE: $K_a = X.XX$
 - AT-REST: $K = X.XX$
 - PASSIVE: $K_p = X.XX$
- COEFFICIENT OF FRICTION: $\mu = X.XX$
- FROST PENETRATION: XX"

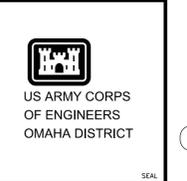


TYPICAL PIER DETAIL - DIKE AREA
SCALE: $1\frac{1}{2}'' = 1'-0''$



TYPICAL PIER DETAIL - CENTERLINE
ELEVATION LESS THAN 3'-0" ABOVE GRADE
SCALE: $1\frac{1}{2}'' = 1'-0''$

DATE	DESCRIPTION



APPROVED
FOR COMMANDER NAFAC
ACTIVITY
SATISFACTORY TO
DES MSO DRW MHK CHK WVB
SUBMITTED BY:
DATE: APRIL 2015

NAVAL FACILITIES ENGINEERING COMMAND - ATLANTIC
DOD STANDARD DESIGN AW78-24-27
FUEL TANKS WITH FIXED ROOFS
EXTERIOR PIPE SUPPORT NOTES & DETAILS

SCALE: AS NOTED
PROJECT NO.: XXXXX
CONSTR. CONTR. NO. XXXXX
NAFAC DRAWING NO. XXXXX
SHEET 22 OF 57

CD.12
<small>DRAWING REVISION: 10 MAY 2014</small>