### GENERAL STRUCTURAL NOTES

# LOADS CODES AND STANDARDS I. AASHTO H20 LOADING

2. AMERICAN CONCRETE INSTITUTE "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" - ACI 318-14 (ACI)

#### GENERAL

- I. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY SHORING AND BRACING TO MAINTAIN THE STABILITY, SAFETY, AND LATERAL LOAD RESISTANCE OF THE BUILDING AND ITS INDIVIDUAL COMPONENTS THROUGHOUT CONSTRUCTION.
- 2. DIMENSIONS AND DETAILS SHALL BE CHECKED AGAINST ARCHITECTURAL DRAWINGS.
- 3. THE CONTRACTOR SHALL VERIFY AND COORDINATE THE SIZE AND LOCATION OF ALL OPENINGS, SLEEVES AND ANCHOR BOLTS AS REQUIRED BY ALL TRADES. OPENINGS NOT SPECIFICALLY SHOWN SHALL BE APPROVED BY THE ARCHITECT AND ENGINEER.
- 4. DIMENSIONS SHOWN ON THE STRUCTURAL DRAWINGS ARE GENERALLY OBTAINED FROM THE ARCHITECT AND ARE INCLUDED AS INFORMATION

  COMPLEMENTARY TO THE ARCHITECTURAL DRAWINGS. LAYOUT OF BUILDING FOUNDATIONS OR OTHER ITEMS MAY BY MADE USING THE DIMENSIONS SHOWN ON

  THE STRUCTURAL DRAWINGS ONLY IF THE CONTRACTOR HAS COMPARED THESE DRAWINGS WITH THE ARCHITECTURAL DRAWING AND HAS RECEIVED

  CLARIFICATION, FROM THE ARCHITECT, REGARDING ANY ERRORS, INCONSISTENCIES, OR OMISSIONS.
- 5. DO NOT SCALE DRAWINGS TO OBTAIN INFORMATION.

### FOUNDATIONS

- I. FOUNDATIONS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE PRESUMPTIVE VALUES SET FORTH IN THE STATE BUILDING CODE.
- 2. ALL FOOTINGS SHALL BEAR ON UNDISTURBED, NATURAL MATERIAL OR CONTROLLED STRUCTURAL FILL HAVING AN ALLOWABLE BEARING VALUE OF 2.0 TONS PER SQUARE FOOT.
- 3. ALL FOOTINGS SHALL BEAR AT LEAST 3'-6" BELOW FINISH GRADE.
- 4. ELEVATIONS OF THE BOTTOM OF FOOTING SHOWN ON PLANS ARE FOR BIDDING PURPOSES AND REPRESENT THE HIGHEST ALLOWABLE ELEVATION. THE BOTTOM OF FOOTING SHALL BE LOWERED AS REQUIRED TO BEAR ON SUITABLE MATERIAL AS DEFINED ABOVE OR UNSUITABLE MATERIAL SHALL BE REMOVED AND REPLACED WITH STRUCTURAL FILL.
- 5. IF FOOTING ELEVATION IS TO BE LOWERED MORE THAN 1.00' FROM WHAT IS SHOWN ON PLAN (TO MAINTAIN FROST DEPTH OR TO BEAR ON SUITABLE MATERIAL), NOTIFY ENGINEER PRIOR TO CONSTRUCTION.
- 6. EXISTING UN-COMPACTED FILLS BELOW FOOTINGS SHALL BE REMEDIATED EITHER BY REMOVAL AND REPLACEMENT, OR GROUND IMPROVEMENT DESIGNED TO ACHIEVE XX TONS PER SQUARE FOOT BEARING CAPACITY.
- 7. EXCEPT AS NOTED, FOUNDATION WALLS ARE GENERALLY NOT DESIGNED AS FREESTANDING RETAINING WALLS. AS SUCH THEY MUST BE BACKFILLED ON BOTH SIDES EQUALLY OR TEMPORARILY BRACED UNTIL OTHER STRUCTURAL ELEMENTS WHICH BRACE THESE WALLS ARE IN PLACE.

### REINFORCED CONCRETE

- I. ALL CONCRETE SHALL COMPLY WITH REQUIREMENTS OF CHAPTER 4 IN ACI 318 AND BE NORMAL WEIGHT (UNLESS INDICATED AS LIGHT WEIGHT ON PLANS)
  WITH A MIN. 28 DAY COMPRESSIVE STRENGTH OF 5000 PSI AND A MAX W/C OF X.
- 2. ALL CONCRETE EXPOSED TO FREEZE-THAW CYCLES SHALL BE AIR ENTRAINED.
- 3. ALL REINFORCING BARS SHALL BE HIGH STRENGTH DEFORMED BARS CONFORMING TO ASTM A 615 GRADE 60. EPOXY-COATED REBAR TO BE USED IN LOCATIONS SHOWN ON DRAWINGS.
- 4. ALL REINFORCING BARS SHALL BE DETAILED IN ACCORDANCE WITH "ACI DETAILING MANUAL." SHOW THE NUMBER AND LOCATION OF ALL BAR SUPPORTS AND ACCESSORIES NECESSARY TO SUPPORT REINFORCEMENT IN POSITIONS INDICATED ON THE PLACING DRAWINGS.
- 5. MINIMUM CLEAR COVER FOR REINFORCEMENT WHEN NOT OTHERWISE INDICATED SHALL BE:

CONCRETE CAST AGAINST EARTH

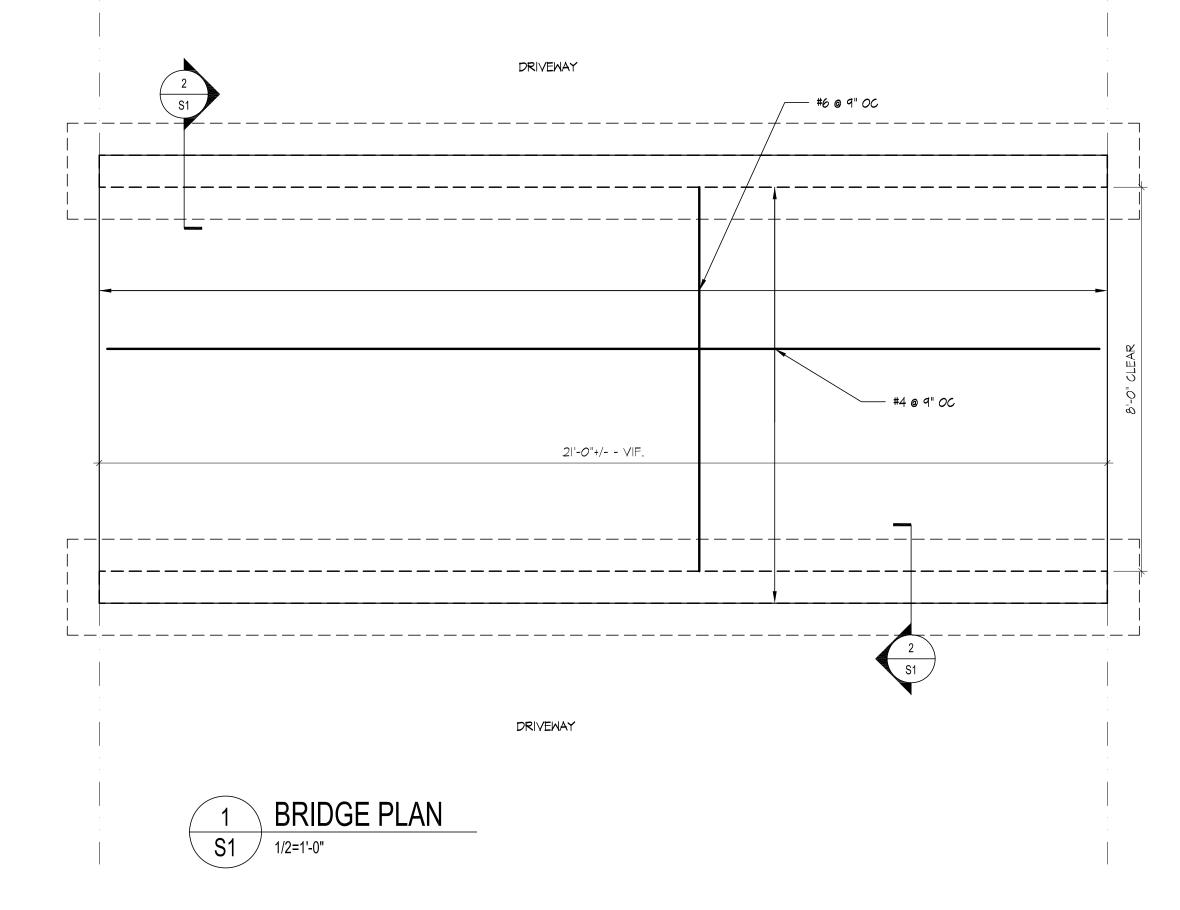
CONCRETE POURED IN FORMS BUT EXPOSED TO EARTH OF WEATHER:

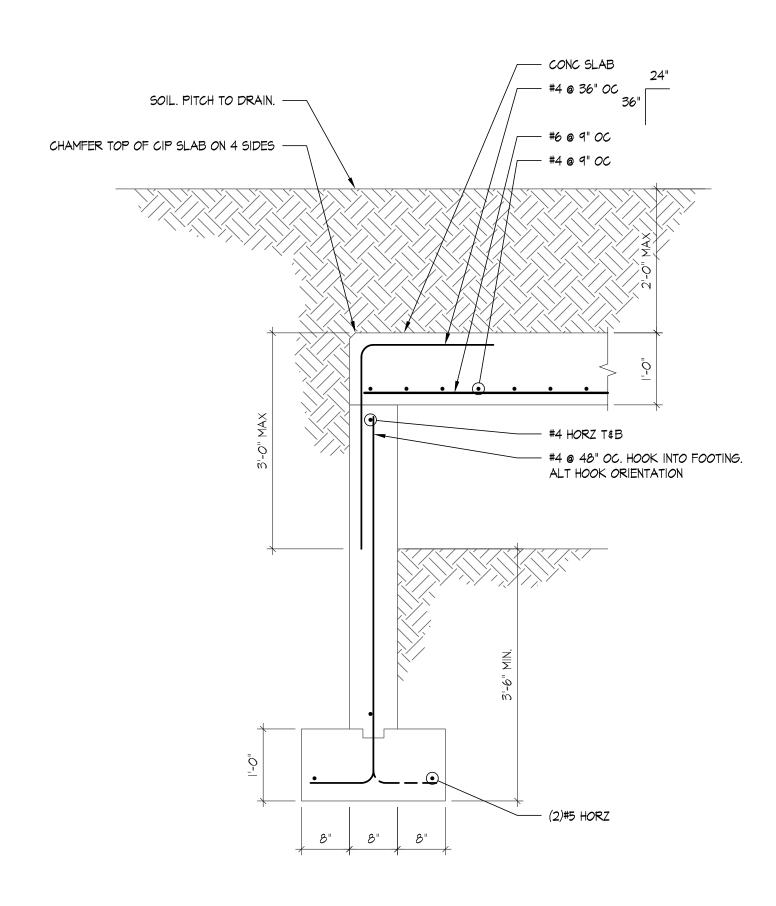
A. BARS #5 AND SMALLER
B. BARS LARGER THAN #5

- 6. NO SPLICES OF REINFORCEMENT SHALL BE MADE EXCEPT AS DETAILED OR APPROVED BY THE STRUCTURAL ENGINEER. DEVELOPMENT / SPLICE LENGTH SHALL BE AS SHOWN ON THE TABLE IN THE TYPICAL DETAILS UNLESS OTHERWISE NOTED. VALUES SHOWN ARE IN INCHES, MAKE ALL BARS CONTINUOUS AROUND CORNERS.
- 7. SLABS, BEAMS AND WALLS SHALL HAVE NO JOINTS IN A HORIZONTAL PLANE. ANY STOP IN CONCRETE WORK MUST BE MADE AT CENTER OF SPAN OR AT CENTER OF SUPPORT WITH VERTICAL BULKHEADS, HORIZONTAL KEYS AND REINFORCING CONTINUING THROUGH. ALL CONSTRUCTION JOINTS SHALL BE AS DETAILED OR AS APPROVED BY THE STRUCTURAL ENGINEER.
- 8. WIRE MESH REINFORCEMENT MUST LAP ONE FULL MESH AT SIDE AND END LAPS, AND SHALL BE WIRED TOGETHER. PROVIDE ADEQUATE SUPPORTS FOR MESH TO ENSURE ITS LOCATION AS SHOWN ON DRAWINGS.

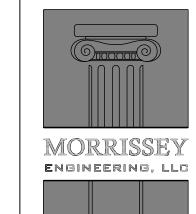
## POST-INSTALLED FASTENERS AND ANCHORS

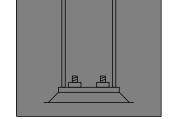
- I. ALL HOLES INTO MASONRY OR CONCRETE WALLS FOR PROPRIETARY ANCHORING SYSTEMS SHALL BE DRILLED AND CLEANED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- 2. ALL PROPRIETARY ANCHORING SYSTEMS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS AND USING ALL RECOMMENDED ACCESSORIES AND SUPPLEMENTAL COMPONENTS SUCH AS SCREEN TUBES, WASHERS, ETC.
- 3. ALL HOLES IN HOLLOW MASONRY SHALL BE DRILLED WITH ROTARY DRILLS. HAMMER DRILLS ARE NOT PERMITTED.
- 4. ALL EPOXY ADHESIVE SHALL BE HILTI RE-500, SIMPSON ET OR APPROVED EQUAL. U.N.O.
- 5. ALL ACRYLIC ADHESIVE SHALL BE HILTI HIT (HY200 OR HY70), SIMPSON AT OR APPROVED EQUAL. U.N.O.
- 6. ALL CONCRETE/MASONRY SCREW ANCHORS SHALL BE HILTI HUS-H, SIMPSON TITEN, ITW TAP-CON OR APPROVED EQUAL. U.N.O.
- 7. ALL EXPANSION ANCHORS SHALL BE HILTI KWIK-BOLT 3, SIMPSON WEDGE-ALL OR APPROVED EQUAL. U.N.O.



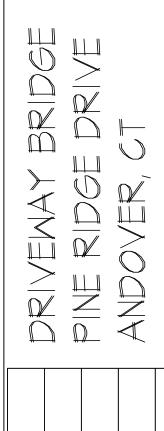








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DESCRIPTION		
DATE		
ISSOE		

DATE: 9-08-21

SCALE: AS NOTED

JOB NO: 21056

DRAWN BY: EAM

NOTES, PLAN & DETAILS

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