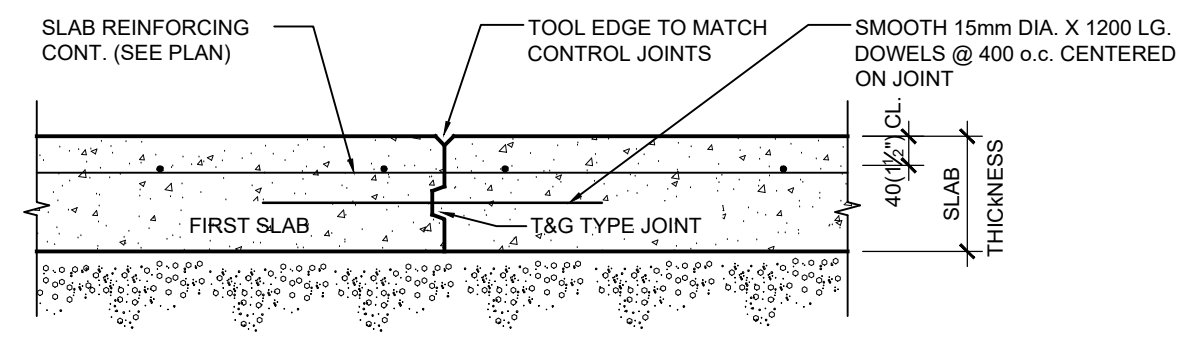
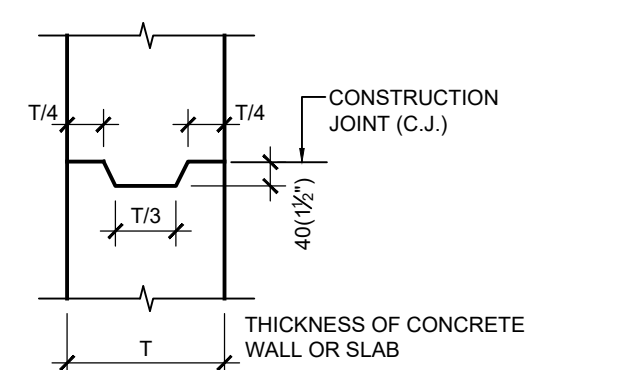


GENERAL NOTES AND DETAILS

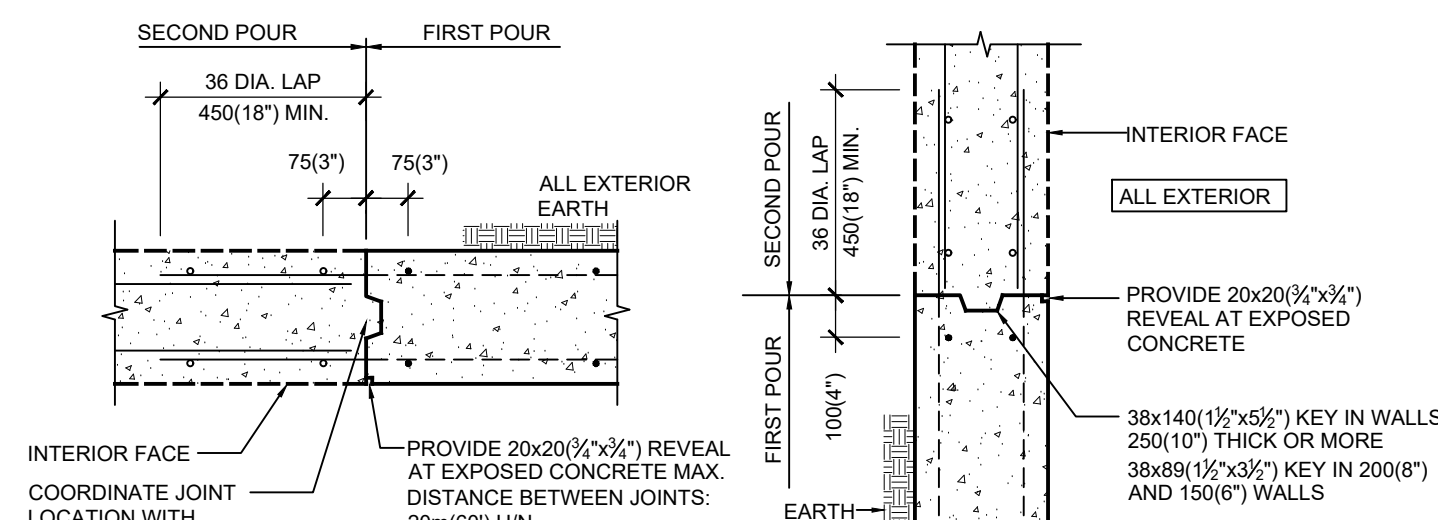
D03-14 CONSTRUCTION JOINTS



N CONSTRUCTION JOINT IN SLAB ON GRADE SCALE: N.T.S. TONGUE AND GROOVE JOINT



O WALL: CONSTRUCTION JOINT (DIMENSIONS) SCALE: N.T.S. NOTE: DEVELOP REINFORCING THROUGH CONSTRUCTION JOINT AS NOTED IN D03-2



P VERTICAL JOINT SCALE: N.T.S.



Q HORIZONTAL JOINT SCALE: N.T.S.

D03-15 CONCRETE MIXES

PROPORTION NORMAL DENSITY CONCRETE IN ACCORDANCE WITH CSA-A23.1:19 TO GIVE THE FOLLOWING QUALITY FOR ALL CONCRETE AS INDICATED UNLESS OTHERWISE NOTED ON PLANS/SECTIONS/SCHEDULES:

Table with columns: LOCATION, 28 DAY STRENGTH, SLUMP, CLASS OF EXPOSURE. Rows include Slab on Grade (Interior/Exterior), Concrete Topping, Foundations Walls, Footings, and Piers.

\*NOTE: - ALL CONCRETE EXPOSED TO EXTERIOR CONDITIONS TO HAVE MINIMUM 6% TO 8% AIR ENTRAINMENT. REFER TO CSA A23.1:19 FOR AIR CONTENT REQUIREMENTS. - MAXIMUM AGGREGATE SIZE OF 10mm.

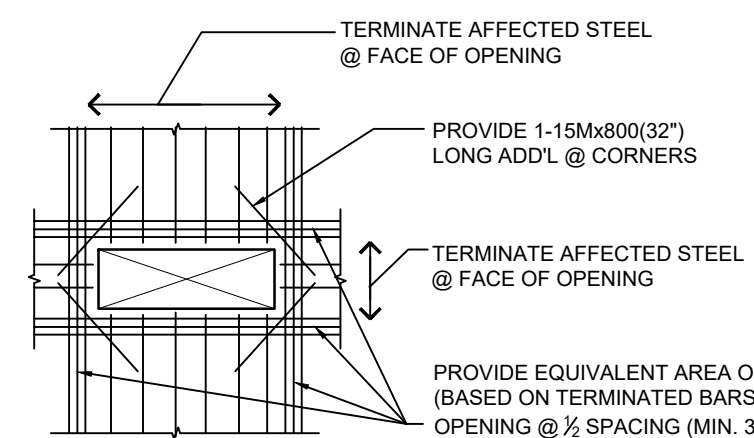
READY-MIXED CONCRETE AND CONCRETE PROPORTIONS SHALL BE IN ACCORDANCE WITH CSA A23.1:19/A23.2:19 AND AS FOLLOWS:

- 1. MINIMUM ALLOWABLE COMPRESSIVE STRENGTH SHALL BE 35 MPa(5076psi) AT 28 DAYS OF AGE, UNLESS OTHERWISE NOTED OR SHOWN.
2. IF BLENDED NORMAL PORTLAND CEMENT/CEMENTITIOUS HYDRAULIC SLAG IS USED EXCEPT FOR FLOOR MIXES, SLAG CONTENT SHALL NOT BE MORE THAN 25% OF TOTAL MASS OF CEMENT.
3. PROVIDE CERTIFICATION THAT MIX PROPORTIONS SELECTED WILL PRODUCE CONCRETE OF SPECIFIED QUALITY AND YIELD AND THAT STRENGTH WILL COMPLY WITH CSA-A23.1:19.
4. USE OF CALCIUM CHLORIDE NOT PERMITTED.
5. DO NOT CHANGE CONCRETE MIX WITHOUT PRIOR APPROVAL OF DEPARTMENTAL REPRESENTATIVE. SHOULD CHANGE IN MATERIAL SOURCE BE PROPOSED, NEW MIX DESIGN TO BE APPROVED BY DEPARTMENTAL REPRESENTATIVE.

D03-20 TYPICAL TRIMMING DETAIL OF OPENING IN SLAB/WALLS (U/N)

SLAB AND WALL OPENINGS:

- 1. DISPLACE BARS LATERALLY AT SLAB OPENINGS. D.O.N.O.T.U.T. PLACE HALF OF DISPLACED BARS EACH SIDE OF OPENING AND INFILL BETWEEN BARS OF MATCHING SIZE & SPACING.
2. PROVIDE 3-15M @ 150mm (6") o.c. TOP AND BOTTOM MINIMUM ADDITIONAL REINFORCEMENT AROUND SLAB OPENINGS 300x300 (12"x12") OR LARGER (UNLESS NOTED). EXTEND 24 BAR DIAMETER (600mm (24") MIN.) BEYOND CORNERS.
3. PROVIDE THE FOLLOWING MINIMUM ADDITIONAL REINFORCEMENT AROUND WALL OPENINGS 300x300 (12"x12") OR LARGER (UNLESS NOTED). EXTEND 24 BAR DIAMETER BEYOND CORNERS EACH WAY.
4. SEE ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL OPENINGS TO THOSE INDICATED.
5. PROVIDE OPENINGS IN WALLS AND SLABS AS SHOWN ON STRUCTURAL DRAWINGS OR OTHERWISE REQUIRED BY VARIOUS TRADES. DEPARTMENTAL REPRESENTATIVE APPROVAL MUST BE OBTAINED FOR LOCATIONS AND SIZES OF OPENINGS NOT SHOWN ON STRUCTURAL DRAWINGS. ALL OPENINGS MUST BE FORMED BEFORE THE SLAB OR WALL IS POURED. DO NOT CUT ANY OPENINGS, AFTER CONCRETING, UNLESS SPECIFICALLY AUTHORIZED BY THE ENGINEER.
6. PROVIDE SLEEVES IN SLABS OR WALLS FOR MECHANICAL PIPING AND AVOID OPENINGS WHERE POSSIBLE. DEPARTMENTAL REPRESENTATIVE APPROVAL MUST BE OBTAINED FOR ANY CONCENTRATION OF SLEEVES IN COLUMN BAND AND AROUND COLUMN. SLEEVING DRAWINGS MUST BE SUBMITTED FOR APPROVAL MINIMUM OF TWO WEEKS PRIOR TO POURING OF CONCRETE.

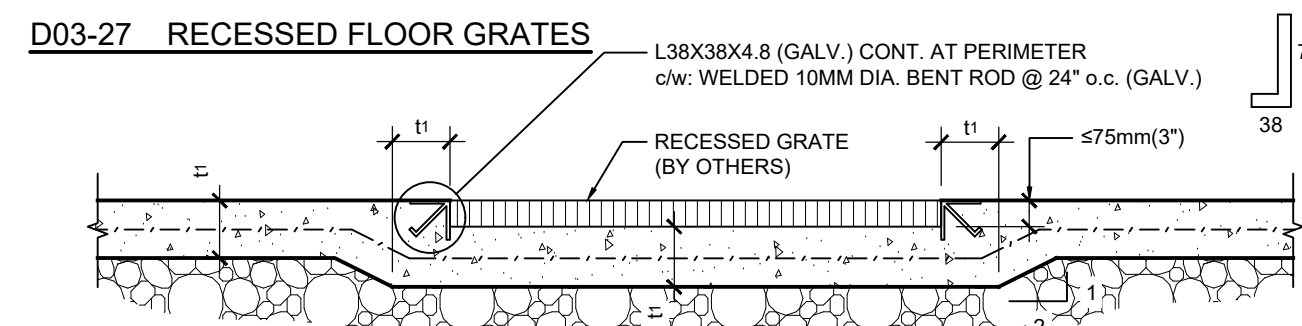


R WALL STEEL: OPENINGS <= 1200x1200(4'-0"x4'-0") SCALE: N.T.S.

TRIMMING NOTES:

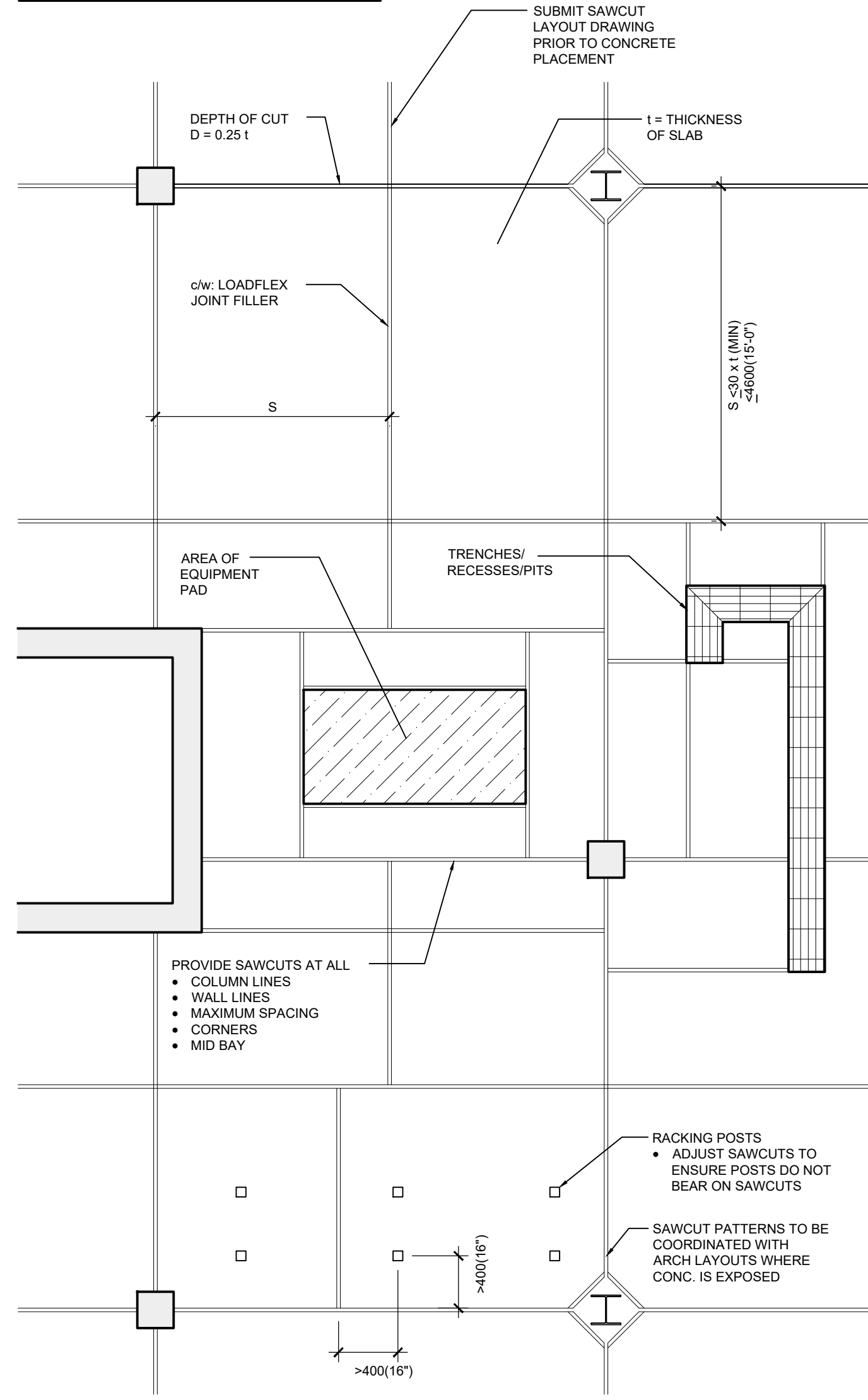
- 1. SEE STRUCTURAL PLANS FOR APPROX. SIZE AND LOCATION OF OPENINGS AND ARCH./MECH/ELECT. DRAWINGS FOR EXACT DIMENSIONS.
2. IF OPENINGS LARGER THAN 300 (1'-0") WIDE ARE REQUIRED AND ARE NOT SPECIFICALLY NOTED ON THE DRAWINGS THE DEPARTMENTAL REPRESENTATIVE MUST BE INFORMED SO PROPER DETAILS CAN BE SUPPLIED.
3. UNLESS OTHERWISE NOTED OPENINGS SMALLER THAN 200x200 (8"x8") DO NOT REQUIRE TRIMMER BARS.

D03-27 RECESSED FLOOR GRATES



S DETAIL: SLAB ON GRADE AT FLOOR GRATES SCALE: N.T.S.

D03-28 SLAB ON GRADE: SAWCUTS



T DETAIL: TYPICAL SAWCUT PATTERNS SCALE: N.T.S.

D05) STEEL

D05-1 STRUCTURAL STEEL

STRUCTURAL STEEL SHALL COMPLY WITH CSA S16-19 UNLESS OTHERWISE NOTED.

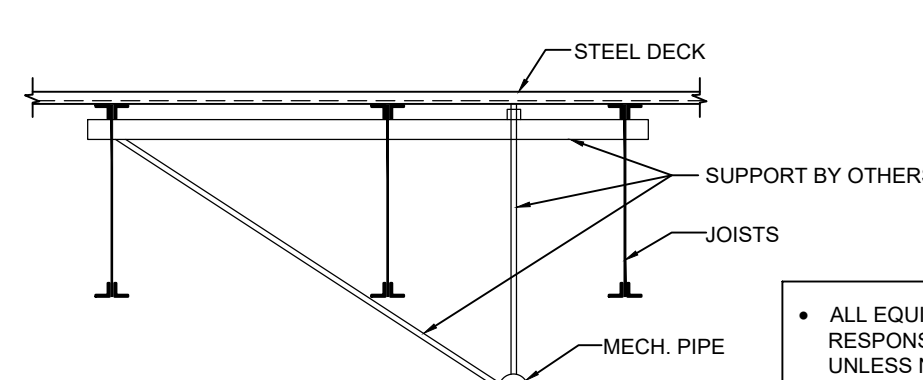
ITEM APPLICABLE SPECIFICATION (UNLESS OTHERWISE NOTED)

Table mapping structural steel items to specifications: Rolled Sections (CSA G40.20-13/G40.21-13), HSS (CSA G40.20-13/G40.21-13), Anchor Bolts (ASTM F1554-18), and Brace Frame/Bearing Plates (CSA G40.21-13).

- 1. ALL STEEL WORK SHALL BE GIVEN ONE COAT OF APPROVED PRIMER UN (SEE SPECS FOR AESS).
2. FIELD AND SHOP CONNECTIONS SHALL BE WELDED OR HIGH TENSILE BOLTED (ASTM STANDARD A325).
3. WELDING SHALL CONFORM TO LATEST CSA W59-18 AND BE UNDERTAKEN BY A FABRICATOR APPROVED BY THE CANADIAN WELDING BUREAU TO THE REQUIREMENTS OF CSA W47.1:19.
4. ALL EXPOSED WELDS SHALL BE CONTINUOUS AND BE GROPPED SMOOTH.
5. ALL EXTERIOR EXPOSED STRUCTURAL STEEL SHALL BE HOT DIPPED GALVANIZED OR PAINTED WITH APPROVED RUST INHIBITIVE PAINT.
6. STRUCTURAL STEEL MEMBERS SHALL NOT BE SPLICED UNLESS APPROVED BY THE DEPARTMENTAL REPRESENTATIVE IN WRITING.
7. WHERE STRUCTURAL STEEL MEMBERS SPECIFIED ON THE STRUCTURAL DRAWINGS ARE UNAVAILABLE TO THE CONTRACTOR, THE STRUCTURAL STEEL CONTRACTOR SHALL PROVIDE MEMBERS HAVING ALL SECTION PROPERTIES EQUIVALENT TO OR BETTER THAN THAT OF THE SPECIFIED MEMBERS AT NO ADDITIONAL COST. CONTACT DEPARTMENTAL REPRESENTATIVE FOR ACCEPTANCE OF ANY AND ALL SUBSTITUTIONS.

D05-2 STEEL DECK

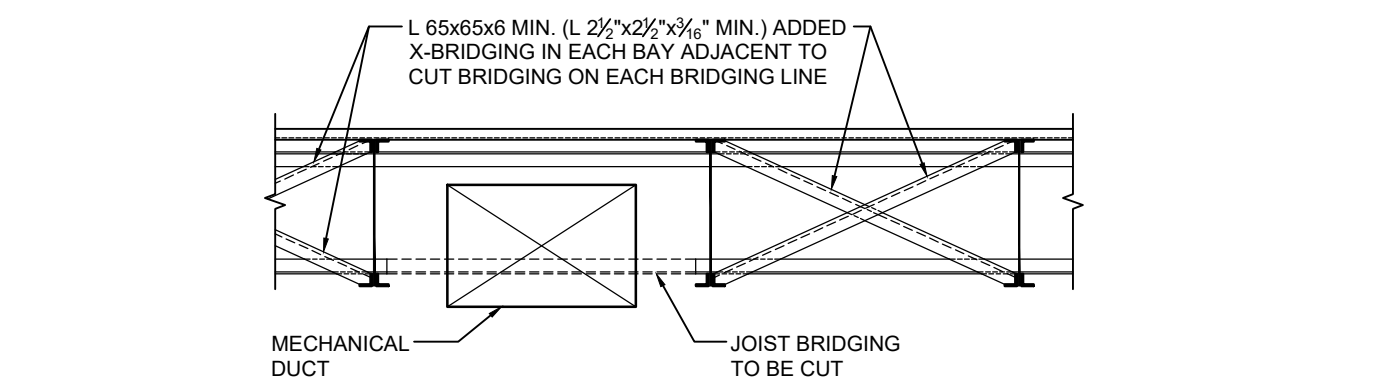
- 1. ALL METAL DECK SHALL BE A MINIMUM OF 38mm(1 1/2") DEEP, WITH DECK FLUTES AT 150mm(6") CENTRES, CONTINUOUS OVER AT LEAST THREE SPANS, AND SHALL BE FORMED FROM SHEET STEEL CONFORMING TO CSBIS 10M/20M, MINIMUM GRADE 'A', WITH A BASE STEEL NOMINAL THICKNESS SPECIFIED ON PLANS, AND A MINIMUM ZINC COATING DESIGNATION OF 'WIPED COAT'.
2. DECK CONNECTIONS TO SUPPORTING STRUCTURE TO BE AS FOLLOWS (UN ON PLANS): STEEL SHANK DECK CONNECTORS (ALLOWABLE RESISTANCE: TR=1.79KN, VR = 2.3 KN) @ 3147 @ 300mm(TYP.) LONGITUDINAL @ 300mm(12") PERIMETER @ 230mm(9") o.c. #10 SELF-TAPPING SIDE-LAP CONNECTORS @ 230mm(9") o.c.
3. STEEL DECK CONTRACTOR TO REINFORCE ALL OPENINGS IN DECK 18" IN SIZE OR SMALLER.
4. ALL DECK CLOSURES SHALL BE SUPPLIED AND INSTALLED BY THE DECK CONTRACTOR.
5. WEDGE THE FLUTES OF THE STEEL ROOF DECK UNDER WOOD SLEEPERS CARRYING ROOF TOP UNITS.
6. NO MECHANICAL OR ELECTRICAL EQUIPMENT/ACCESSORIES SHALL BE HUNG FROM THE STEEL DECK.
7. HANGERS FOR SUSPENSION OF CEILING ARE TO BE ATTACHED TO THE STEEL JOISTS. THESE MAY HOWEVER BE ATTACHED IN BETWEEN STEEL JOISTS TO THE SIDE OF THE DECK FLUTES AND BY LOOPING AND TYING AROUND, BUT ON NO ACCOUNT SHOULD THESE HANGERS BE PUNCHED THROUGH THE BOTTOM FLUTES.



G EQUIPMENT SUPPORTS SCALE: N.T.S.

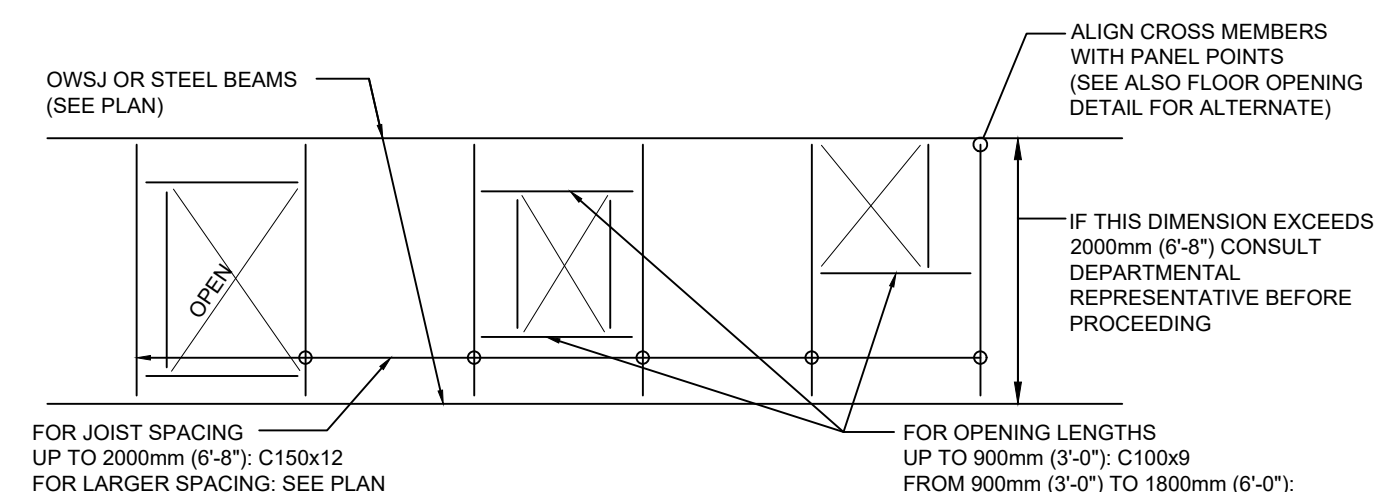
D05-3 STEEL JOISTS AND BRIDGING: S16.1

- 1. ALL JOISTS ARE TO BE EQUALLY SPACED BETWEEN TIE JOISTS/BEAMS.
2. ALL JOISTS ARE TO BE CAMBERED FOR FULL DEAD LOAD DEFLECTION.
3. IN ORDER TO FACILITATE THE PASSAGE OF MECHANICAL DUCTS AND PIPES THROUGH THE ROOF JOISTS, THE JOIST SUPPLIER SHALL LOCATE THE DIAGONALS SO THAT THEY LINE UP FROM JOIST TO JOIST.
4. SPECIFIED POINT LOADS ARE SHOWN ON PLANS/SECTIONS.
5. ALL PIPES MUST BE HUNG FROM TOP CHORD OF JOISTS.
6. LOADING DIAGRAMS: AREAS SHADED ON ROOF PLAN INDICATE EXTENT OF ADDITIONAL SNOW PILING WITH PEAK (SPECIFIED) LOADS NOTED.
7. a) PROVIDE 1 ROW OF HORIZONTAL BRIDGING AT FIRST BOTTOM CHORD PANEL POINT AT EACH END OF JOIST.
8. DESIGN JOISTS FOR ALL LOADING CONDITIONS SPECIFIED IN THE NATIONAL BUILDING CODE.
9. PROVIDE ADDITIONAL X-BRIDGING BETWEEN THE OUTSIDE PERIMETER BEAMS AND THE FIRST ROW OF JOIST RUNNING PARALLEL.
10. DESIGN ALL JOIST SHOES FOR MINIMUM ROLLOVER FORCE OF 4150N (UN ON PLANS) APPLIED PERPENDICULAR TO JOIST AT 1/3 OF DECK ALONG BRACE FRAME/MOMENT FRAME LINES.
11. JOISTS MUST BE DESIGNED IN ACCORDANCE WITH THE UL-LULC REQUIREMENTS.



H TYPICAL DETAIL WHERE BOTTOM CHORD JOIST BRIDGING AND/OR BRACING IS REQUIRED TO BE CUT DUE TO INTERFERENCE BY MECHANICAL DUCTWORK SCALE: N.T.S.

D05-5 TYPICAL DETAILS FOR TRIMMING TO OPENINGS THROUGH STEEL DECK

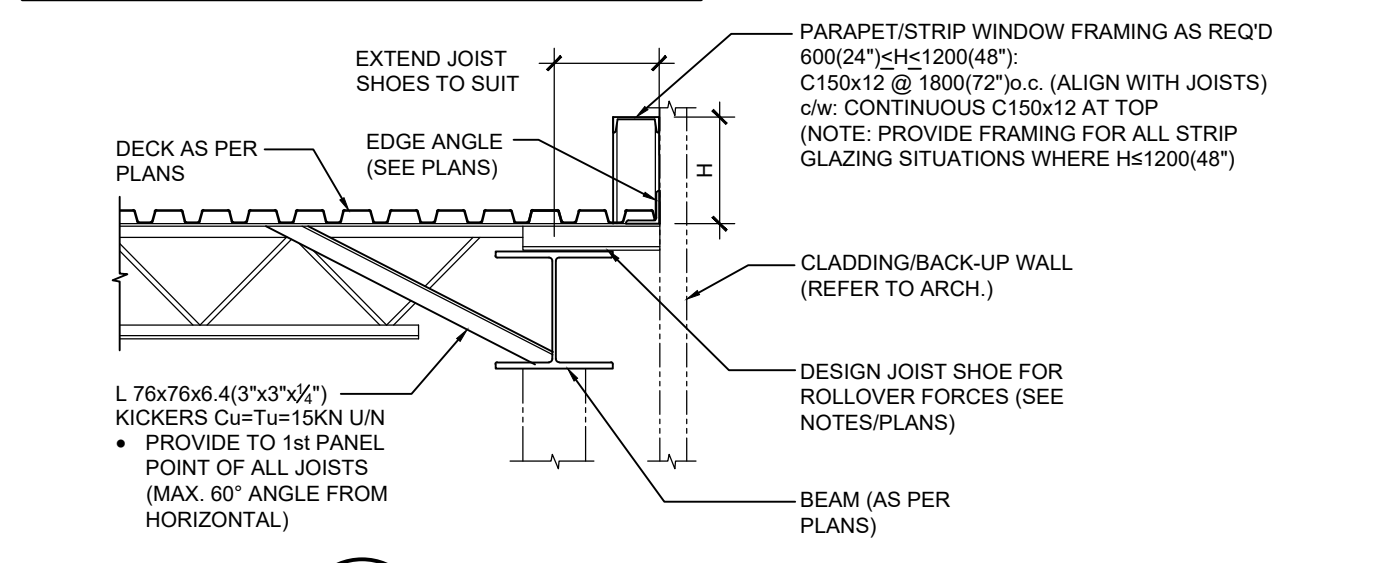


I PLAN: ROOF DECK OPENINGS (NEW/EXISTING) SCALE: N.T.S.

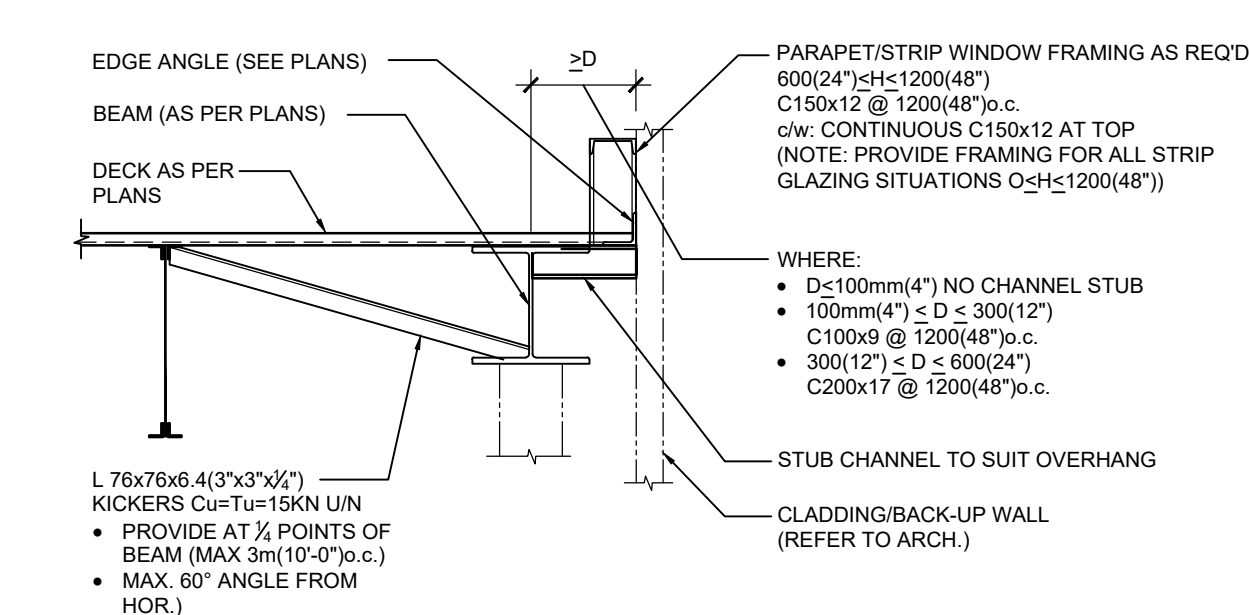
NOTES:

- 1. TOP OF ALL TRIMMING STEEL AT UNDERSIDE OF STEEL DECK UNLESS OTHERWISE NOTED.
2. LOCATION OF ALL MECHANICAL UNITS AND OPENINGS THROUGH ROOF IS BASED ON INFORMATION SHOWN ON MECHANICAL DRAWINGS.
3. OWS MUST BE DESIGNED FOR ADDITIONAL LOADS FROM MECHANICAL UNITS.
4. IF ACTUAL LOCATIONS OR DETAILS VARY FROM THOSE SHOWN, THE DEPARTMENTAL REPRESENTATIVE MUST BE INFORMED AND INSTRUCTIONS RECEIVED BEFORE PROCEEDING WITH THE WORK.
5. THE STRUCTURAL STEEL SUB-CONTRACTOR IS TO SUBMIT ERECTION DRAWINGS TO THE DEPARTMENTAL REPRESENTATIVE AND/OR CONTRACTOR FOR APPROVAL OF SIZE AND LOCATION OF OPENINGS FOR MECHANICAL UNITS.

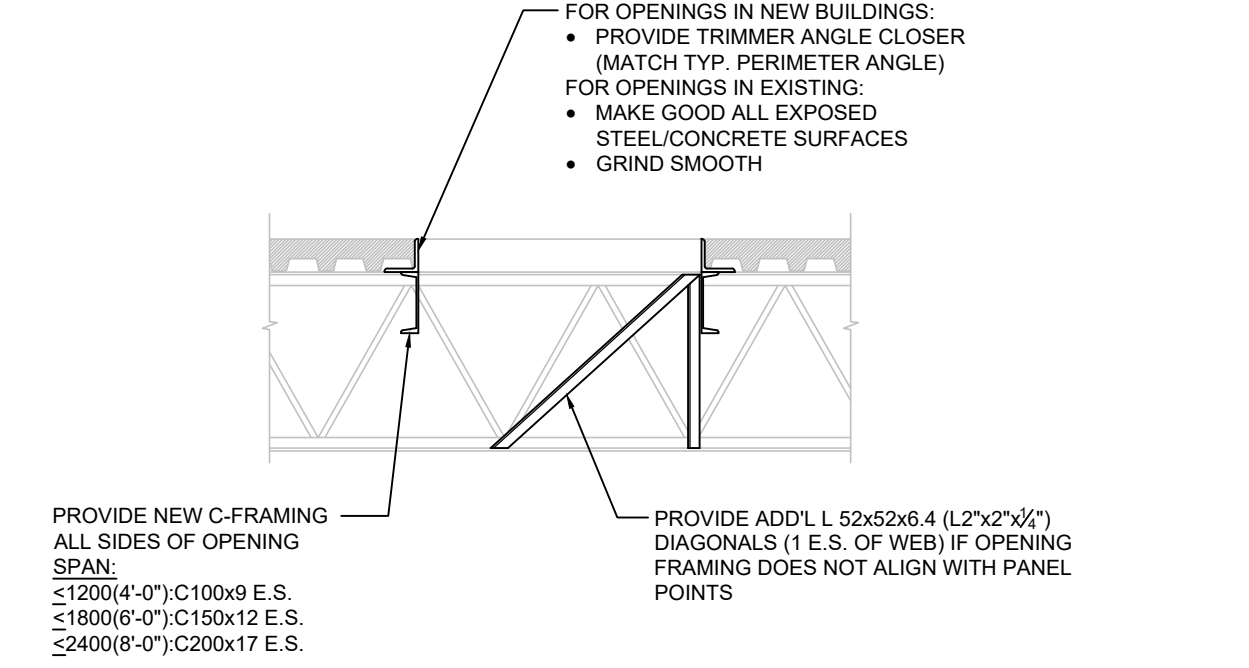
D05-7 TYPICAL JOIST/BEAM/EDGE DETAILS



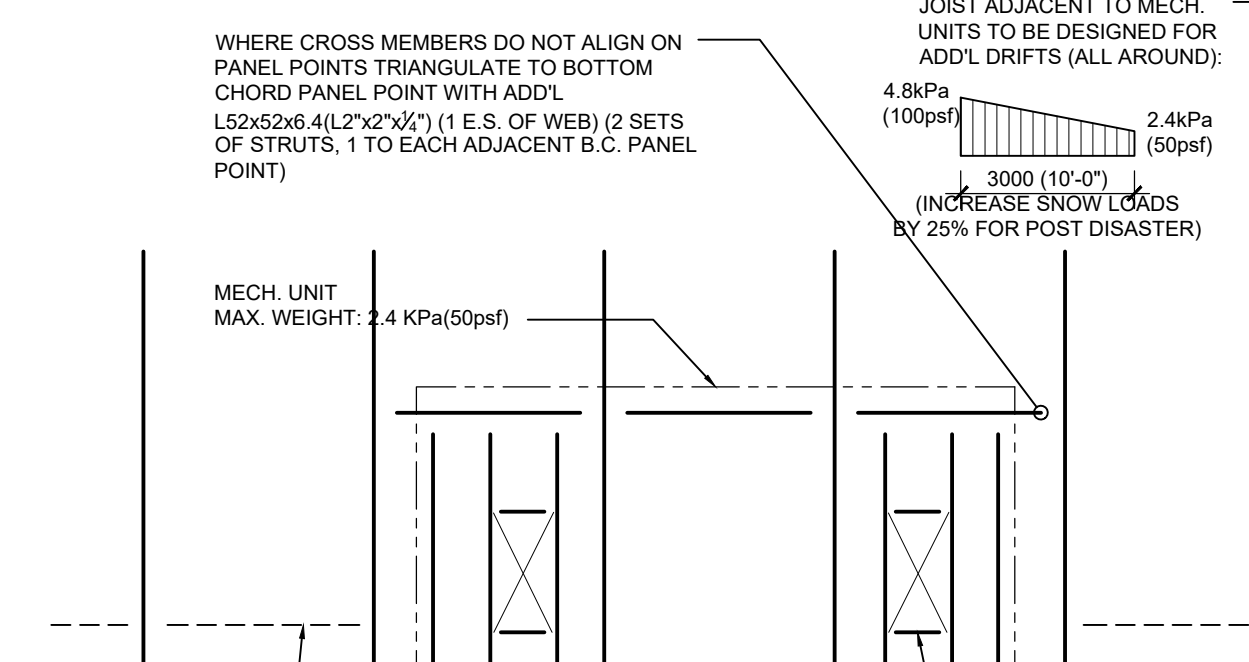
K DETAIL: JOIST AT EDGE (TYP) SCALE: N.T.S.



L DETAIL: BEAM AT EDGE (TYP) SCALE: N.T.S.

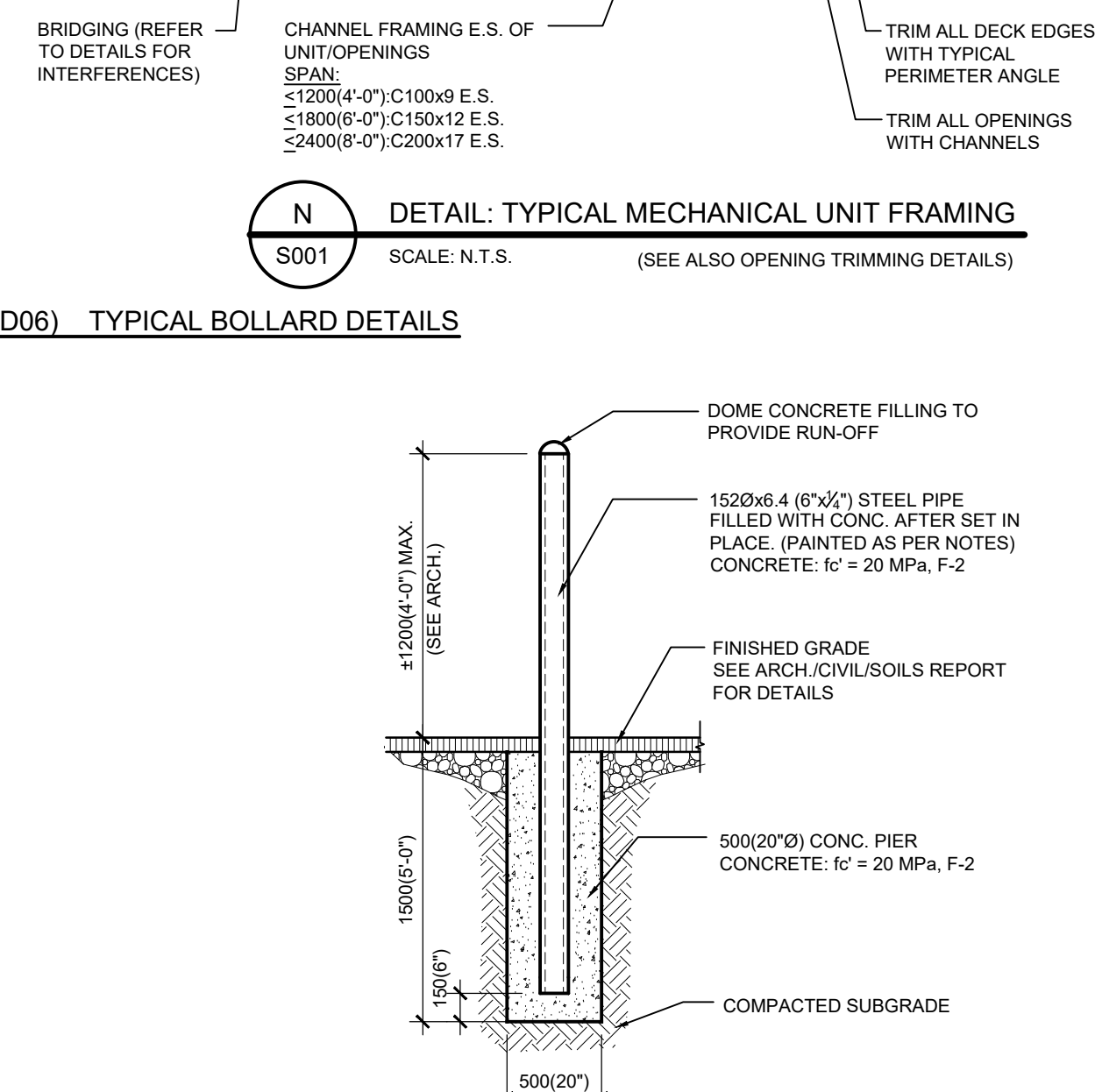


M DETAIL: TRIMMING OF FLOOR DECK OPENINGS (NEW/EXISTING) SCALE: N.T.S.



N DETAIL: TYPICAL MECHANICAL UNIT FRAMING SCALE: N.T.S.

D06) TYPICAL BOLLARD DETAILS



O DETAIL: BOLLARD AT GRADE SCALE: N.T.S.

- BOLLARD PAINT FINISH: PAINT STEEL WITH BASED PAINT ZINC ETHYL SILICATE INORGANIC ZINC-RICH COATING. PART E B993 BINDER, PART F B991 ZINC-DUST. APPLY IN STRICT ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS. BOLLARDS TO BE WHITE.



Revision table with columns: revision, description, date. Includes entries for 05 ISSUED FOR TENDER, 04 ISSUED FOR 100% COORDINATION, etc.

Do not scale drawings. Verify all dimensions and conditions on site and immediately notify the Departmental Representative of all discrepancies.

Table with columns: A, B, C. A: Detail No., B: No. du detail, C: drawing no. - where detail required, drawing no. - ou detail exigé.

project title: COBourg COBourg CITY COBourg SEARCH AND RESCUE STATION

GENERAL NOTES AND DETAILS

Table with columns: drawing title, drawing no., project manager, project date, project no., drawing no. Includes project manager name and project date 05-03-2019.