

SECTION R310 EMERGENCY ESCAPE AND RESCUE OPENINGS

R310.1 EMERGENCY ESCAPE AND RESCUE OPENING REQUIRED.

BASEMENTS, HABITABLE ATTICS, AND AVERY SLEEPING ROOM SHALL HAVE NOT LESS THAN ONE OPERABLE EMERGENCY ESCAPE AND RESCUE OPENING. WHERE BASEMENTS CONTAIN ONE OR MORE SLEEPING ROOMS, AN EMERGENCY ESCAPE AND RESCUE OPENING SHALL BE REQUIRED IN EACH SLEEPING ROOM. EMERGENCY ESCAPE AND RESCUE OPENINGS SHALL OPEN DIRECTLY INTO A PUBLIC WAY, OR TO A YARD OR COURT THAT OPENS TO A PUBLIC WAY.

EXCEPTION: STORM SHELTERS AND BASEMENTS USED ONLY TO HOUSE MECHANICAL EQUIPMENT NOT EXCEEDING A TOTAL FLOOR AREA OF 200 SQUARE FEET (18.58 m²)

R310.1.1 OPERATIONAL CONSTRAINTS AND OPENING CONTROL DEVICES.

EMERGENCY ESCAPE AND RESCUE OPENINGS SHALL BE OPERATIONAL FROM THE INSIDE OF THE ROOM WITHOUT THE USE OF KEYS, TOOLS OR SPECIAL KNOWLEDGE. WINDOW OPENING CONTROL DEVICES COMPLYING WITH ASTM F 2090 SHALL BE PERMITTED FOR USE ON WINDOWS SERVING AS A REQUIRED EMERGENCY ESCAPE AND RESCUE OPENING.

R310.2 EMERGENCY ESCAPE AND RESCUE OPENINGS.

EMERGENCY ESCAPE AND RESCUE OPENINGS SHALL HAVE MINIMUM DIMENSIONS AS SPECIFIED IN THIS SECTION.

R310.2.1 MINIMUM OPENING AREA.

ALL EMERGENCY AND ESCAPE RESCUE OPENINGS SHALL HAVE A NET CLEAR OPENING OF NOT LESS THAN 5.7 SQUARE FEET (0.530 m²). THE NET CLEAR OPENING DIMENSIONS REQUIRED BY THIS SECTION SHALL BE OBTAINED BY THE NORMA OPERATION OF THE EMERGENCY ESCAPE AND RESCUE OPENING FROM THE INSIDE. THE NET CLEAR HEIGHT OPENINGS SHALL BE NOT LESS THAN 20 INCHES (508 mm)

EXCEPTION: GRADE FLOOR OR BELOW-GRADE OPENINGS SHALL HAVE A NET CLEAR OPENING OF NOT LESS THAN 5 SQUARE FEET (0.465 m²).

R310.2.2 WINDOW SILL HEIGHT.

WHERE A WINDOW IS PROVIDED AS THE EMERGENCY ESCAPE AND RESCUE OPENING, IT SHALL HAVE A SILL HEIGHT OF NOT MORE THAN 44 INCHES (1118 mm) ABOVE THE FLOOR; WHERE THE SILL HEIGHT IS BELOW GRADE, IT SHALL BE PROVIDED WITH A WINDOW WELL IN ACCORDANCE WITH SECTION R310.2.3.

R310.2.3 WINDOW WELLS.

THE HORIZONTAL AREA OF THE WINDOW WELL SHALL BE NOT LESS THAN 9 SQUARE FEET (0.9 m²), WITH A HORIZONTAL PROJECTION AND WIDTH OF NOT LESS THAN 36 INCHES (914 mm). THE AREA OF THE WINDOW WELL SHALL ALLOW THE EMERGENCY ESCAPE AND RESCUE OPENING TO BE FULLY OPENED.

EXCEPTION: THE LADDER OR STEPS REQUIRED BY SECTION R310.2.3.1 SHALL BE PERMITTED TO ENCROACH NOT MORE THAN 6 INCHES (152 mm) INTO THE REQUIRED DIMENSIONS OF THE WINDOW WELL.

R310.2.3.1 LADDER AND STEPS.

WINDOW WELLS WITH A VERTICAL DEPTH GREATER THEN 44 INCHES (1118mm) SHALL BE EQUIPPED WITH A PERMANENTLY AFFIXED LADDER OR STEPS USABLE WITH THE WINDOW IN THE FULLY OPEN POSITION. LADDERS OR STEPS REQUIRED BY THIS SECTION SHALL NOT BE REQUIRED TO COMPLY WITH SECTIONS R311.7 AND R311.8. LADDERS OR RUNGS SHALL HAVE AN INSIDE WIDTH OF NOT LESS THAN 12 INCHES (305 mm), SHALL PROJECT NOT LESS THAN 3 INCHES (76 mm) FROM THE WALL AND SHALL BE SPACED NOT MORE THAN 18 INCHES (457 mm) ON CENTER VERTICALLY FOR THE FULL HEIGHT OF THE WINDOW WELL.

R310.2.3.2 DRAINAGE.

WINDOW WELLS SHALL BE DESIGNED FOR PROPER DRAINAGE BY CONNECTING TO THE BUILDING'S FOUNDATION DRAINAGE SYSTEM REQUIRED BY SECTION R405.1 OR BY AN APPROVED METHOD.

EXCEPTION: A DRAINAGE SYSTEM FOR WINDOW WELLS IS NOT REQUIRED WHEN THE FOUNDATION IS ON WELL-DRAINED SOIL OR SAND-GRAVEL MIXTURE SOILS ACCORDING TO THE UNITED SOIL CLASSIFICATION SYSTEM, GROUP I SOILS, AS DETAILED IN TABLE R405.1.

R310.2.4 EMERGENCY ESCAPE AND RESCUE OPENINGS UNDER DECKS AND PORCHES.

EMERGENCY ESCAPE AND RESCUE OPENINGS SHALL BE PERMITTED TO BE INSTALLED UNDER DECKS AND PORCHES PROVIDED THE LOCATION OF THE DECK ALLOW THE EMERGENCY ESCAPE AND RESCUE OPENINGS TO BE FULLY OPENED AND PROVIDE A PATH NOT LESS THAN 36 INCHES (914 mm) IN HEIGHT TO A YARD OR COURT.

R310.3 EMERGENCY ESCAPE AND RESCUE DOORS.

WHERE A DOOR IS PROVIDED AS THE REQUIRED EMERGENCY ESCAPE AND RESCUE OPENING, IT SHALL BE PERMITTED TO BE A SIDE HINGED DOOR OR A SLIDER. WHERE THE OPENING IS BELOW THE ADJACENT GROUND ELEVATION, IT SHALL BE PROVIDED WITH A BULK-HEAD ENCLOSURE.

R310.3.1 MINIMUM DOOR OPENING SIZE.

THE MINIMUM NET CLEAR HEIGHT OPENING FOR ANY DOOR THAT SERVES AS AN EMERGENCY AND ESCAPE RESCUE OPENING SHALL BE IN ACCORDANCE WITH SECTION R310.2.1.

R310.3.2 BULKHEAD ENCLOSURES.

BULKHEAD ENCLOSURES SHALL PROVIDE DIRECT ACCESS FROM THE BASEMENT. THE BULKHEAD ENCLOSURE SHALL PROVIDE THE MINIMUM NET CLEAR OPENING EQUAL TO THE DOOR IN THE FULLY OPEN POSITION.

R310.3.2.1 DRAINAGE.

BULKHEAD ENCLOSURES SHALL BE DESIGNED FOR PROPER DRAINAGE BY CONNECTING TO THE BUILDING'S FOUNDATION DRAINAGE SYSTEM REQUIRED BY SECTION R405.1 OR BY AN APPROVED ALTERNATIVE METHOD.

EXCEPTION: A DRAINAGE SYSTEM FOR BULKHEAD ENCLOSURES IS NOT REQUIRED WHEN THE FOUNDATION IS ON WELL-DRAINED SOIL OR SAND-GRAVEL MIXTURE SOILS ACCORDING TO THE UNITED SOIL CLASSIFICATION SYSTEM, GROUP I SOILS, AS DETAILED IN TABLE R405.1.

R310.4 BARS, GRILLES, COVERS, AND SCREENS.

BARS, GRILLES, COVERS, SCREENS OR SIMILAR DEVICES ARE PERMITTED TO BE PLACED OVER EMERGENCY ESCAPE AND RESCUE OPENINGS, BULKHEAD ENCLOSURES, OR WINDOW WELLS THAT SERVE SUCH OPENINGS, PROVIDED THE MINIMUM NET CLEAR OPENING SIZE COMPLIES WITH SECTIONS R310.1.1 TO R310.2.3, AND SUCH DEVICES SHALL BE RELEASABLE OR REMOVABLE FROM THE INSIDE WITHOUT THE USE OF A KEY, TOOL, SPECIAL KNOWLEDGE, OR FORCE GREATER THAN THAT WHICH IS REQUIRED FOR NORMAL OPERATION OF THE ESCAPE AND RESCUE OPENING.



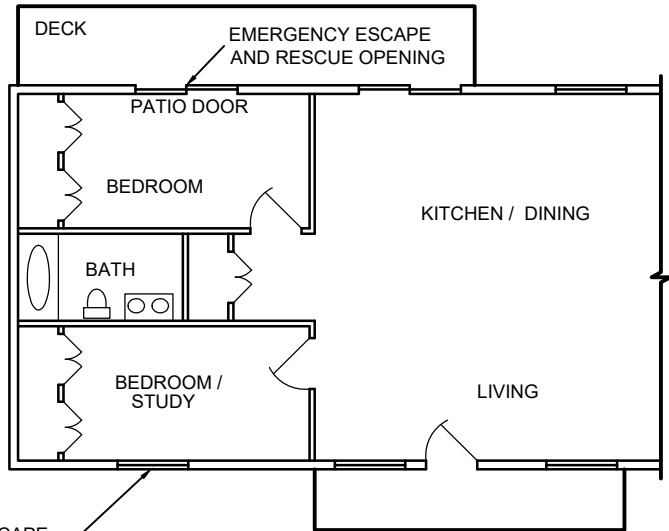
EMERGENCY ESCAPE AND RESCUE OPENINGS

DATE:

MAY 24th, 2017

DRAWING NO.

#1-1



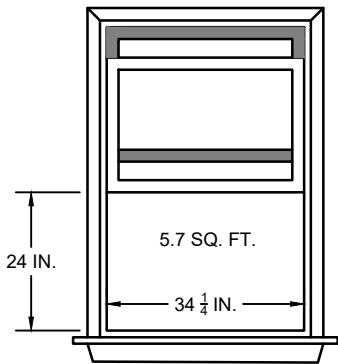
EMERGENCY ESCAPE AND RESCUE OPENING

TYPICAL USE OF PATIO DOORS AND WINDOWS AS EMERGENCY ESCAPE AND RESCUE OPENINGS

EXAMPLES OF WINDOWS THAT SATISFY THE EMERGENCY ESCAPE AND RESCUE OPENING DIMENSIONS:

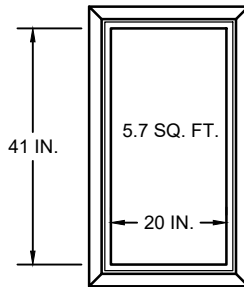
NET OPENING

- 20 IN. MINIMUM WIDTH
- 24 IN. MINIMUM HEIGHT
- 5.7 SQ. FT. MINIMUM AREA



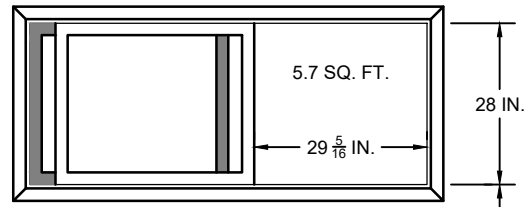
DOUBLE- OR SINGLE-HUNG WINDOW

≤ 44 IN. SILL HEIGHT



CASEMENT WINDOW

≤ 44 IN. SILL HEIGHT



SLIDING WINDOW

≤ 44 IN. SILL HEIGHT

FINISH FLOOR



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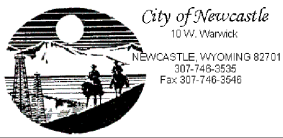
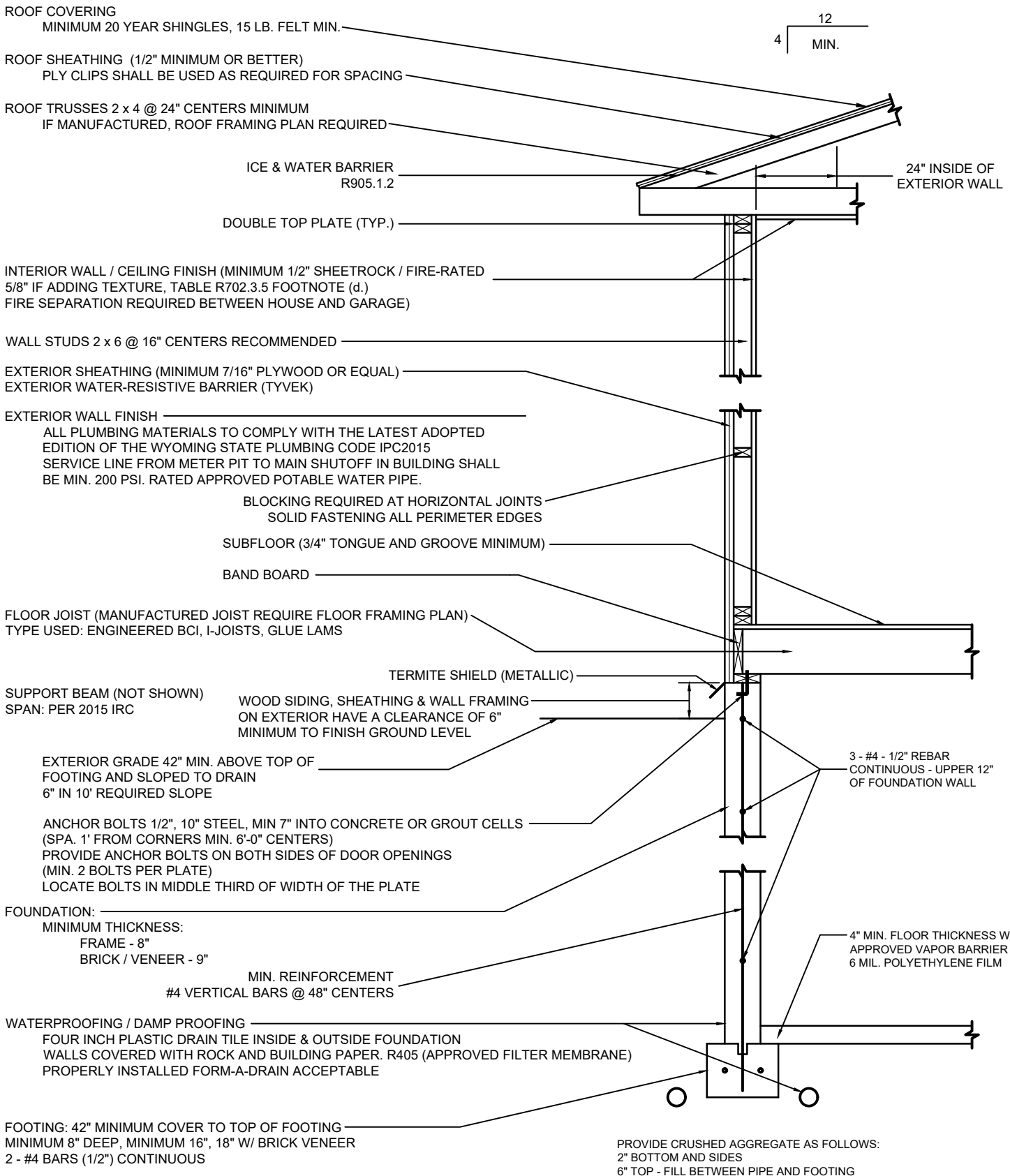
EMERGENCY ESCAPE AND RESCUE OPENINGS

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RESIDENTIAL BUILDINGS BUILDING GUIDE SHEET

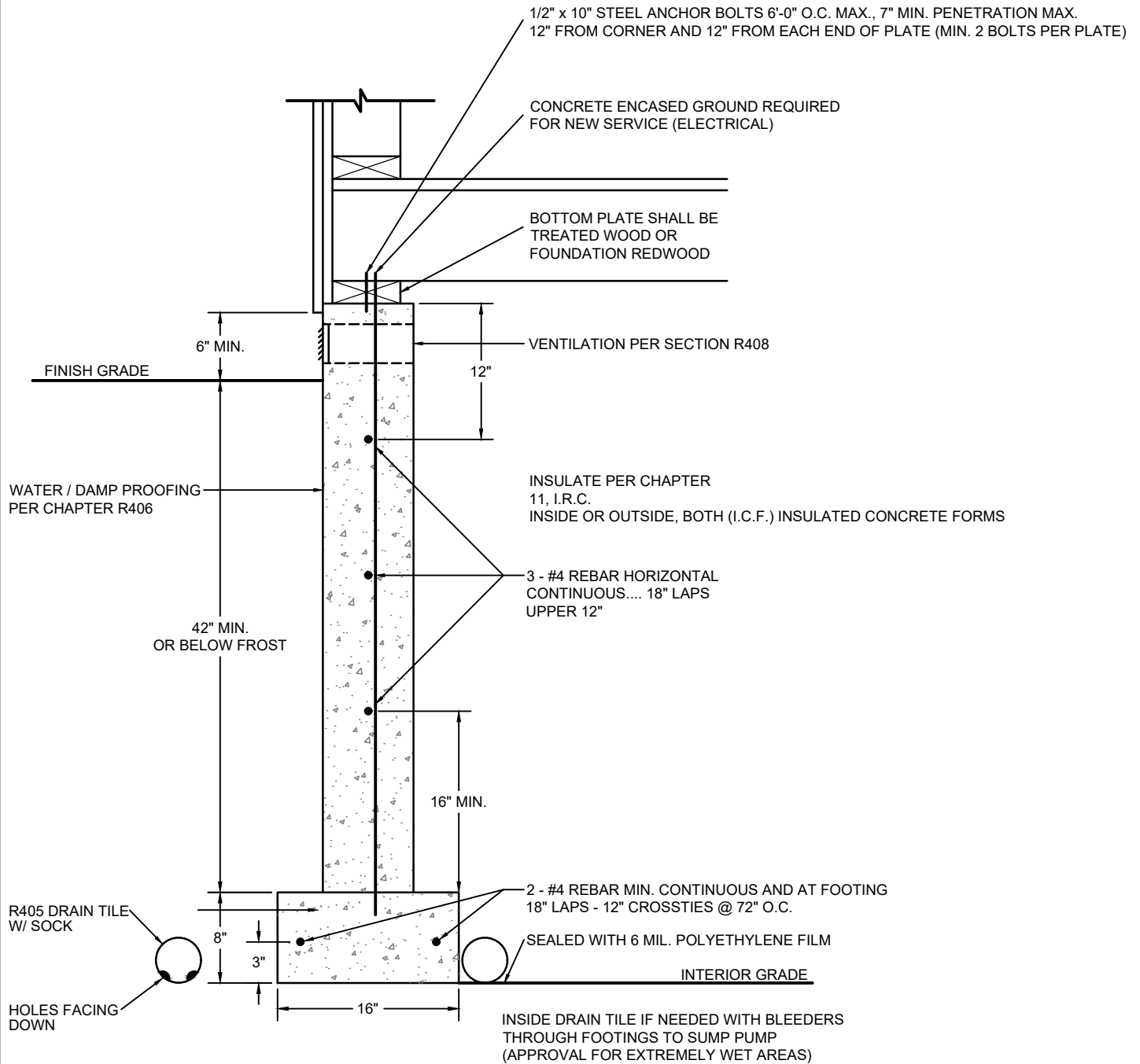
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NOTE: MAINTAIN AT LEAST 18" CLEAR BETWEEN THE BOTTOM OF THE FLOOR JOISTS TO THE GRADE LEVEL OF THE CRAWLSPACE, AND AT LEAST 12" UNDER A BEAM.

VENTILATE THE CRAWLSPACE WITH OPENINGS NEAR THE CORNERS. THE TOTAL AREA OF THE OPENINGS SHOULD BE 1 SQUARE FOOT FOR EACH 150 SQUARE FEET OF CRAWLSPACE FLOOR AREA.

THE CRAWLSPACE ACCESS MUST BE A MINIMUM OF 18" x 24" AND BE UNOBSTRUCTED.

BASEMENT MAY REQUIRE ENGINEERED DESIGN.



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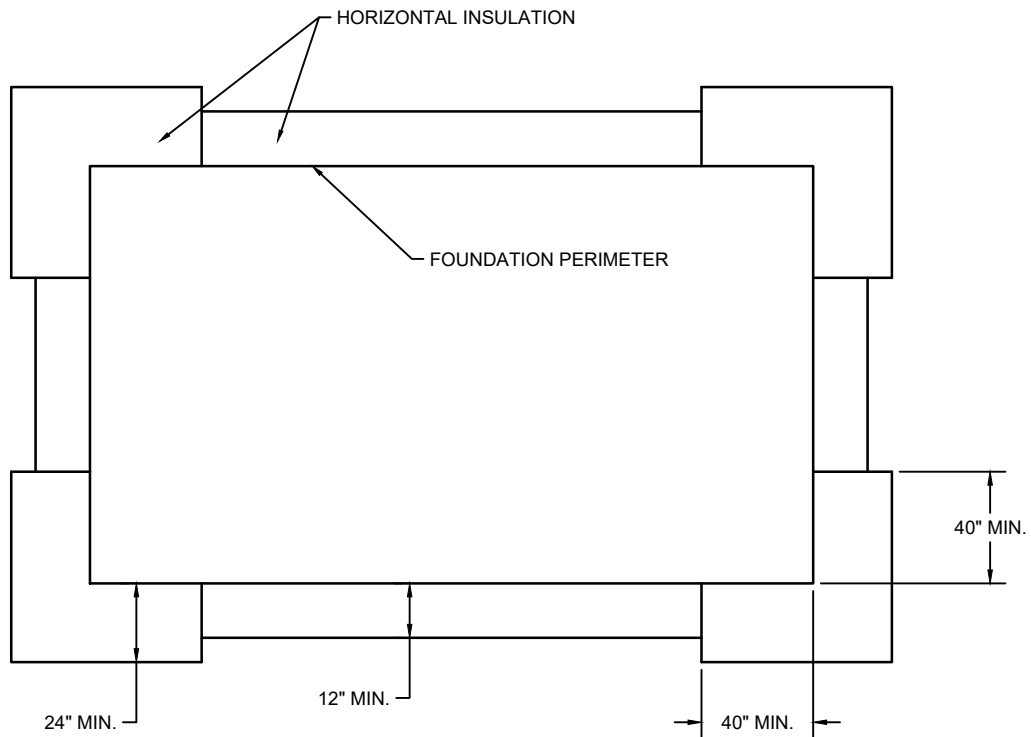
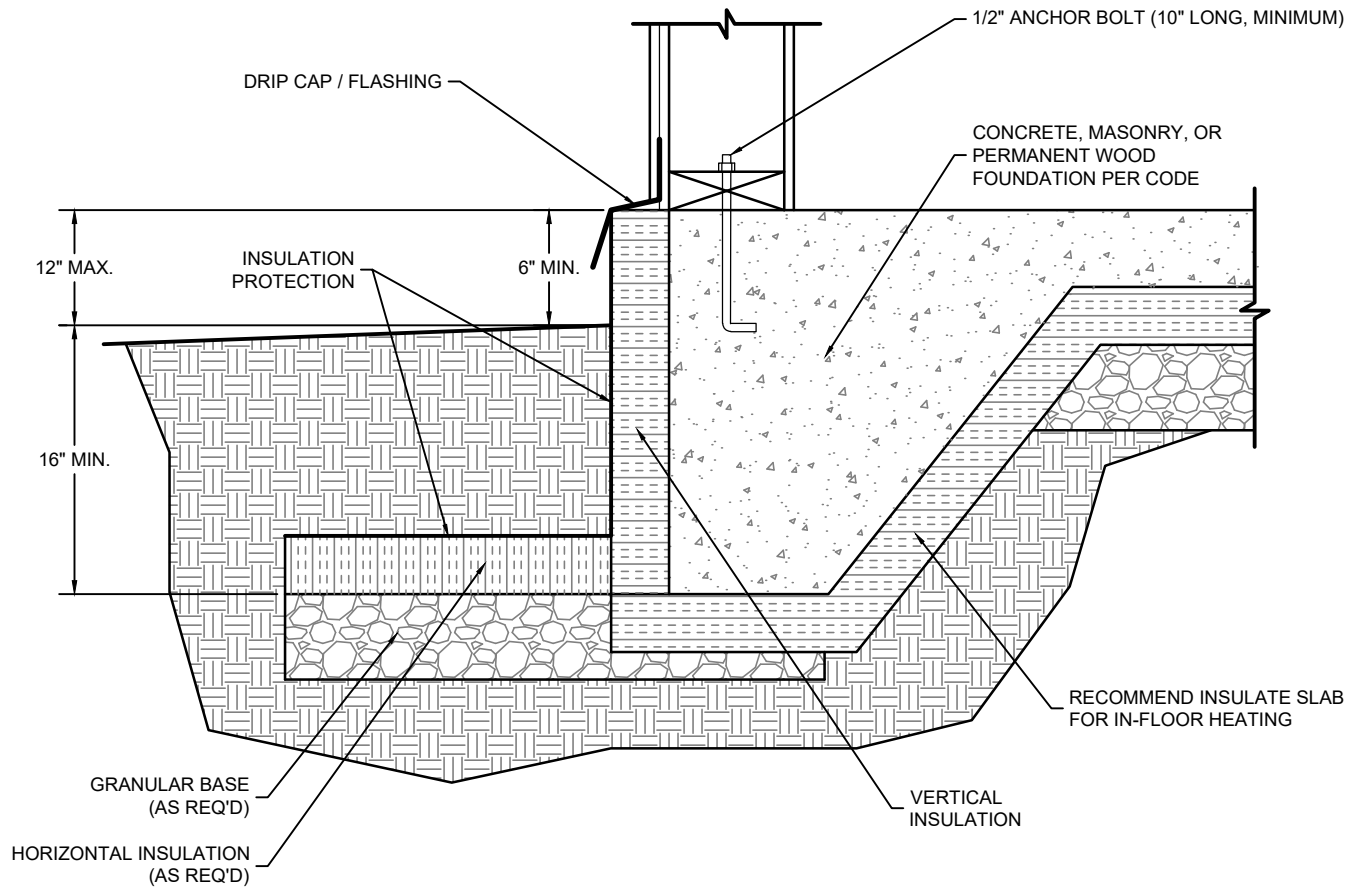
CRAWLSPACE FOUNDATION

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FROST PROTECTED HEATED BUILDINGS

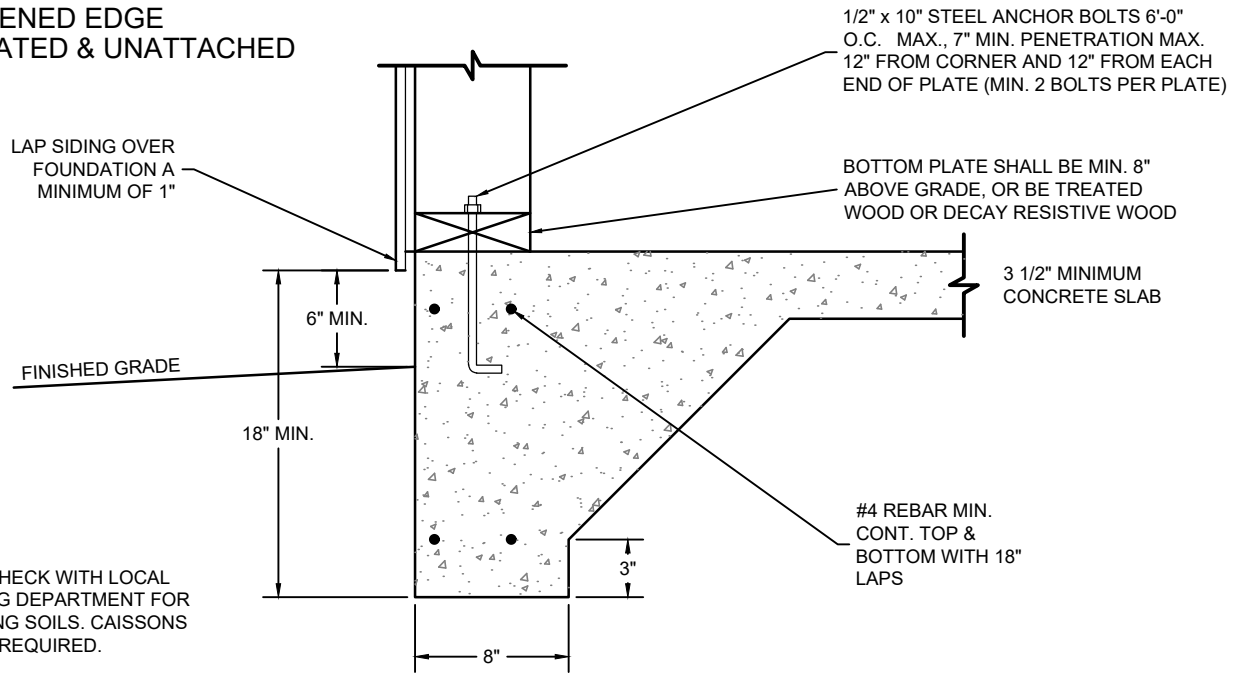
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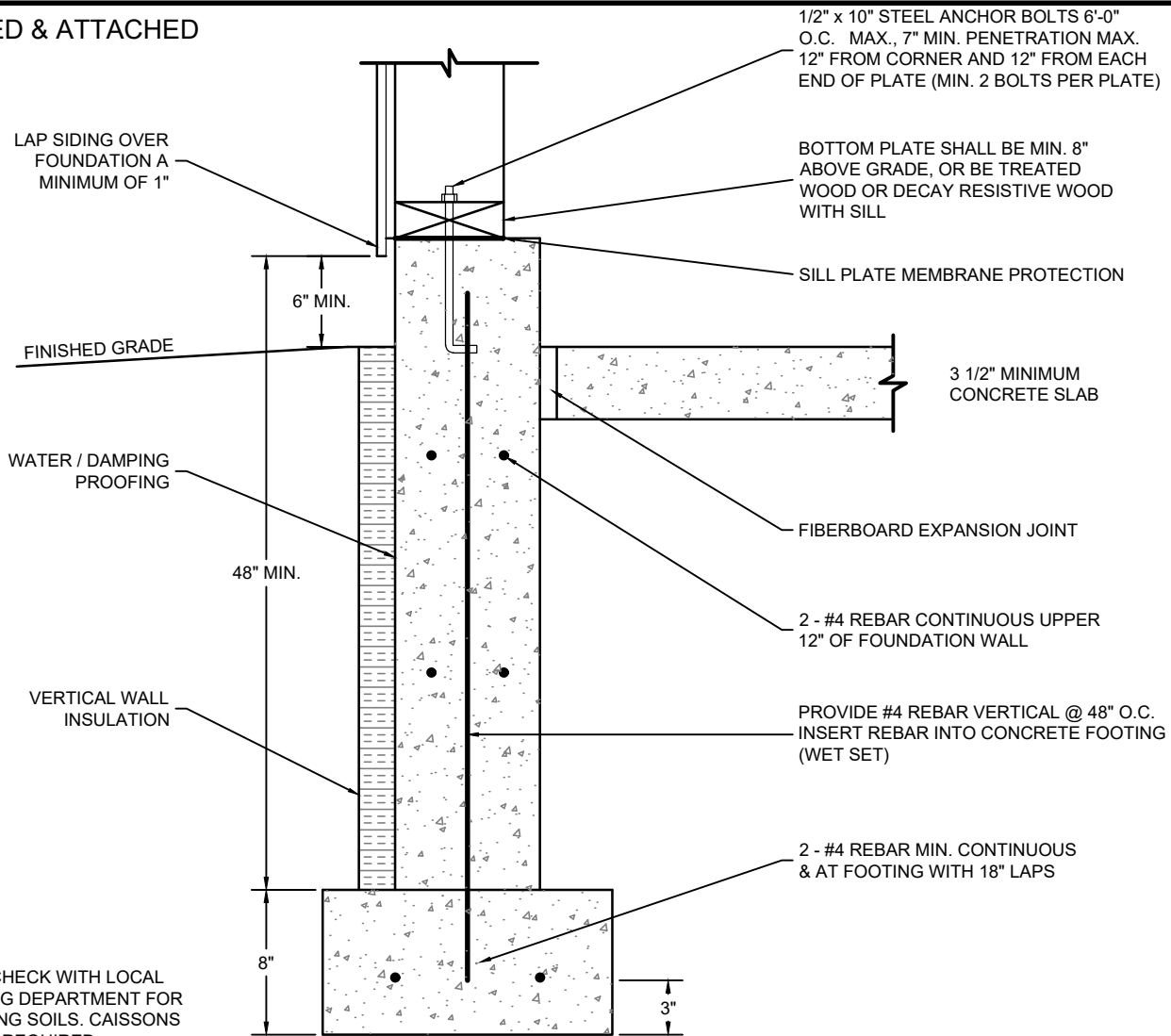
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**THICKENED EDGE
UNHEATED & UNATTACHED**



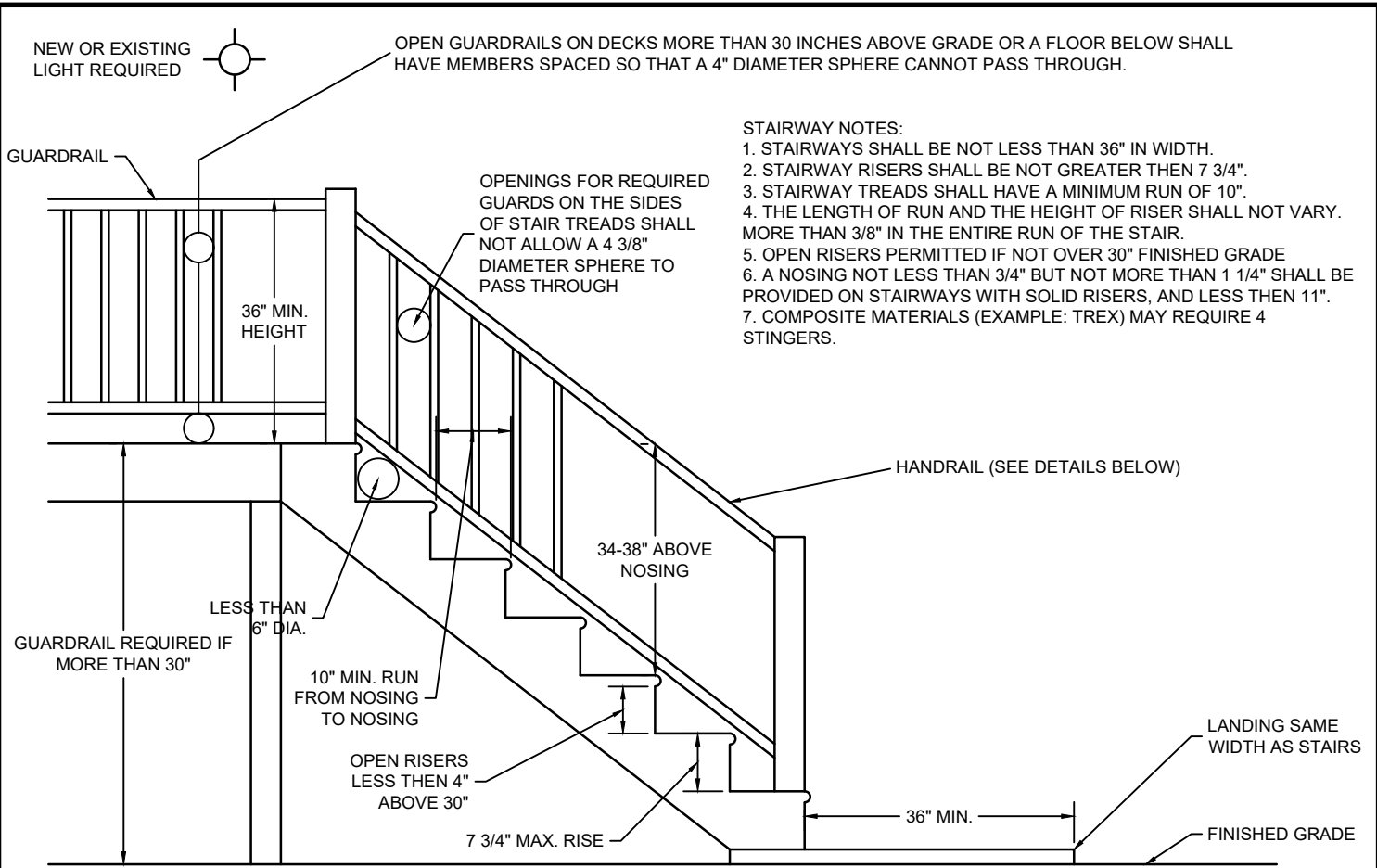
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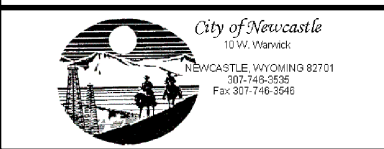
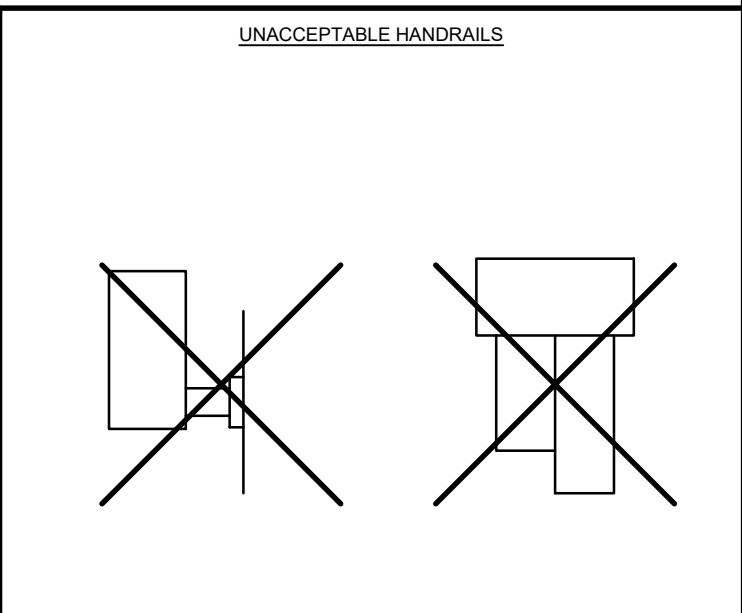
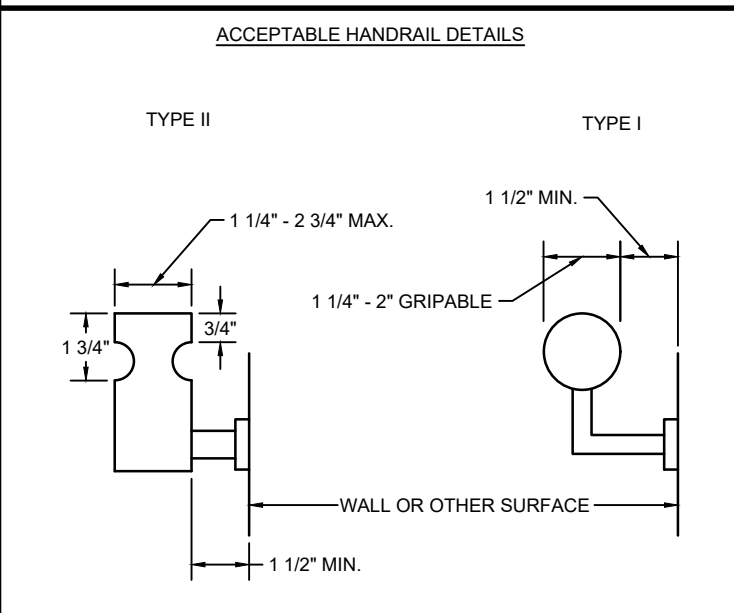
GARAGE FOUNDATION DETAILS

DATE:
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#5



- STAIRWAY NOTES:**
1. STAIRWAYS SHALL BE NOT LESS THAN 36" IN WIDTH.
 2. STAIRWAY RISERS SHALL BE NOT GREATER THEN 7 3/4".
 3. STAIRWAY TREADS SHALL HAVE A MINIMUM RUN OF 10".
 4. THE LENGTH OF RUN AND THE HEIGHT OF RISER SHALL NOT VARY. MORE THAN 3/8" IN THE ENTIRE RUN OF THE STAIR.
 5. OPEN RISERS PERMITTED IF NOT OVER 30" FINISHED GRADE
 6. A NOSING NOT LESS THAN 3/4" BUT NOT MORE THAN 1 1/4" SHALL BE PROVIDED ON STAIRWAYS WITH SOLID RISERS, AND LESS THEN 11".
 7. COMPOSITE MATERIALS (EXAMPLE: TREX) MAY REQUIRE 4 STINGERS.

- HANDRAIL NOTES:**
1. HANDRAILS SHALL BE CONTINUOUS ON AT LEAST ONE SIDE OF STAIRS WITH 4 OR MORE RISERS.
 2. TOP OF HANDRAILS SHALL BE PLACED NOT LESS THAT 34" NOR MORE THAN 38 INCHES ABOVE STAIR NOSINGS.
 3. THE HANDGRIP PORTIONS OF HANDRAILS SHALL BE NOT LESS THAN -1/4 INCHES NOR MORE THAN 2-1/4 INCHES IN CROSS SECTION FOR NON CIRCULAR HANDRAILS.
 4. HANDRAILS SHALL BE PLACED NOT LESS THAN 1-1/2" INCHES FROM ANY WALL OR OTHER SURFACE.
 5. HANDRAILS TO BE RETURNED TO WALL, POST OR SAFETY TERMINAL (PER 311.5.6.2 IRC)



STAIR & HANDRAIL SPECIFICATIONS

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#6