

A. PURPOSE

The intent of this standard plan is to promote public safety and welfare by reducing the risk of earthquake induced damage in existing wood frame residential buildings...

B. SCOPE

- 1) Cripple wall heights do not exceed 48 inches in one or two story buildings... 2) The building is supported at its perimeter by a continuous concrete footing and stem wall...

C. GENERAL REQUIREMENTS

PERMIT REQUIREMENTS: All work shown on these plans requires a building permit. PRE-INSPECTION REQUIREMENTS: None. INSPECTION REQUIREMENTS: All footing excavations and placement of reinforcing steel and anchor bolts in formwork shall be inspected prior to pouring of concrete...

D. DEFINITIONS

ADHESIVE ANCHOR: An adhesive is a fastener placed in hardened concrete that derives its holding strength from a chemical adhesive compound... ANCHOR SIDE PLATE: A metal plate or plates used to connect the sill plate or floor framing to the side of a concrete stem wall...

G. ANCHOR BOLT INSTALLATION

1. GENERAL REQUIREMENTS

- A) CONDITION OF EXISTING CONCRETE: All concrete shall be fully cured and hardened, uncracked and in sound condition... B) DRILLING OF THE HOLE IN CONCRETE: The drilled hole diameter and minimum spacing, depth of hole and edge distance must comply with the Research Report approved and manufacturer's recommendations...

2. REQUIREMENTS FOR ADHESIVE ANCHORS

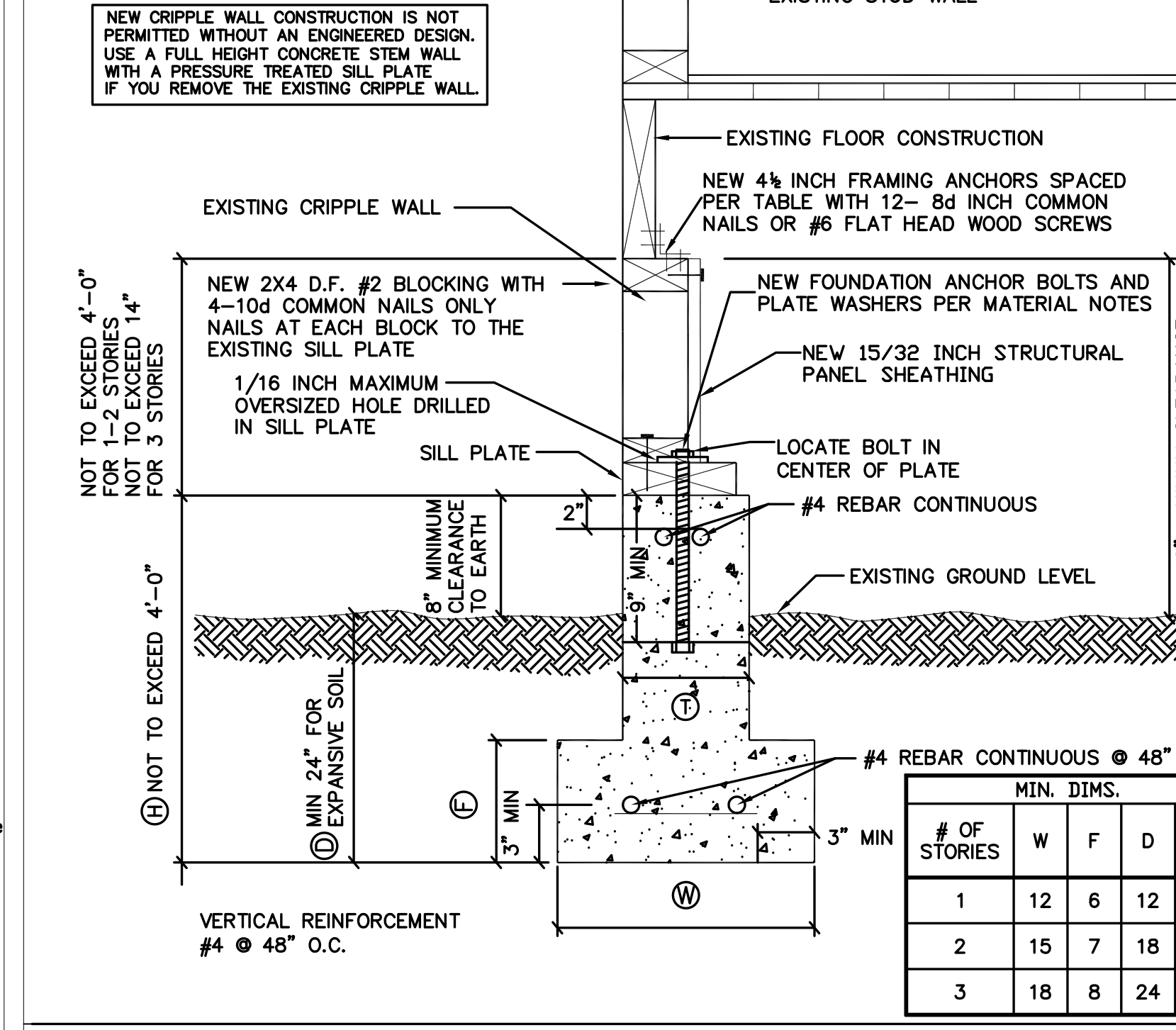
- A) CLEANING OF THE HOLE: The hole must be cleaned with a jet of compressed air and a nylon brush... B) PLACEMENT OF THE ADHESIVE: The resin, filler and hardener shall be thoroughly mixed before being placed in the hole...

3. REQUIREMENTS FOR EXPANSION ANCHORS

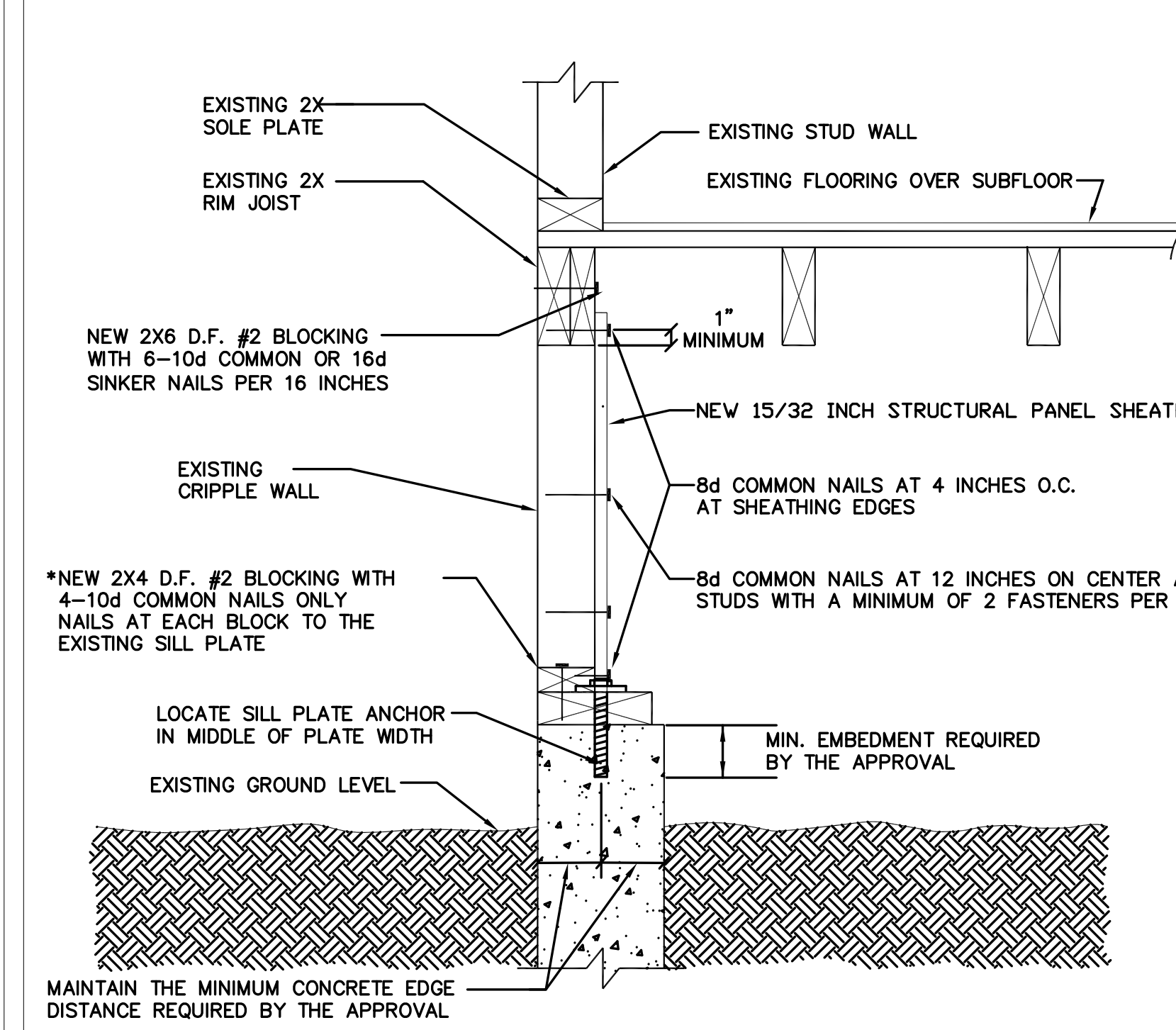
- A) DRILLING OF THE HOLE: Core must be used to insure that the drilled hole carefully matches the depth and diameter... B) CLEANING OF THE HOLE: Unless otherwise required by the manufacturer's recommendations, the drilled hole may be cleaned to allow the concrete debris to remain in the hole...

H. ANCHOR SIDE PLATE INSTALLATION

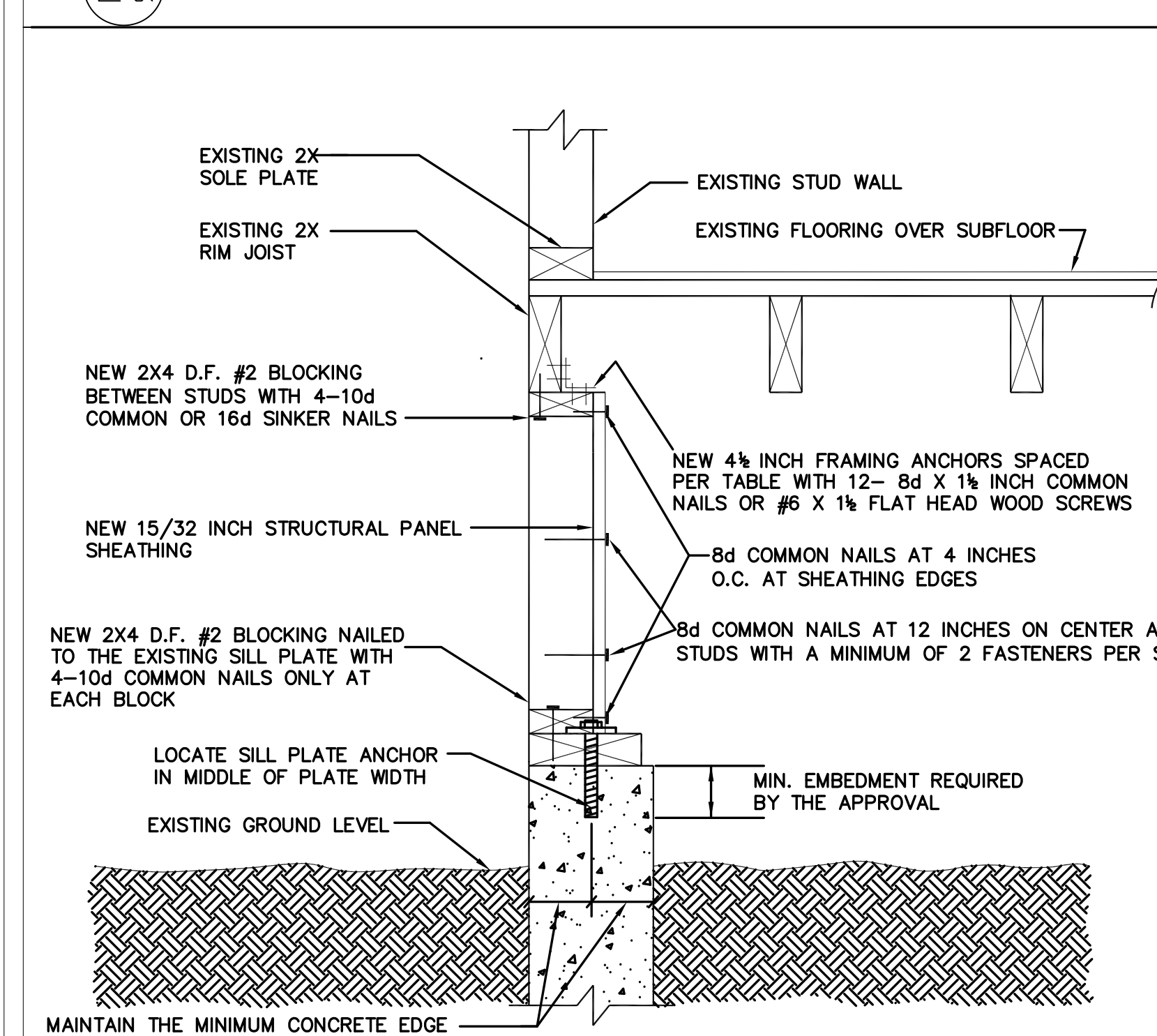
- 1. Anchor side plates may be substituted for vertically placed anchors or bolts only when conditions prevent anchor or bolt installation vertically through the sill plate even with a right angle drill motor... 2. A minimum of two anchor side plates must be installed on each plate at 32 inches or longer...



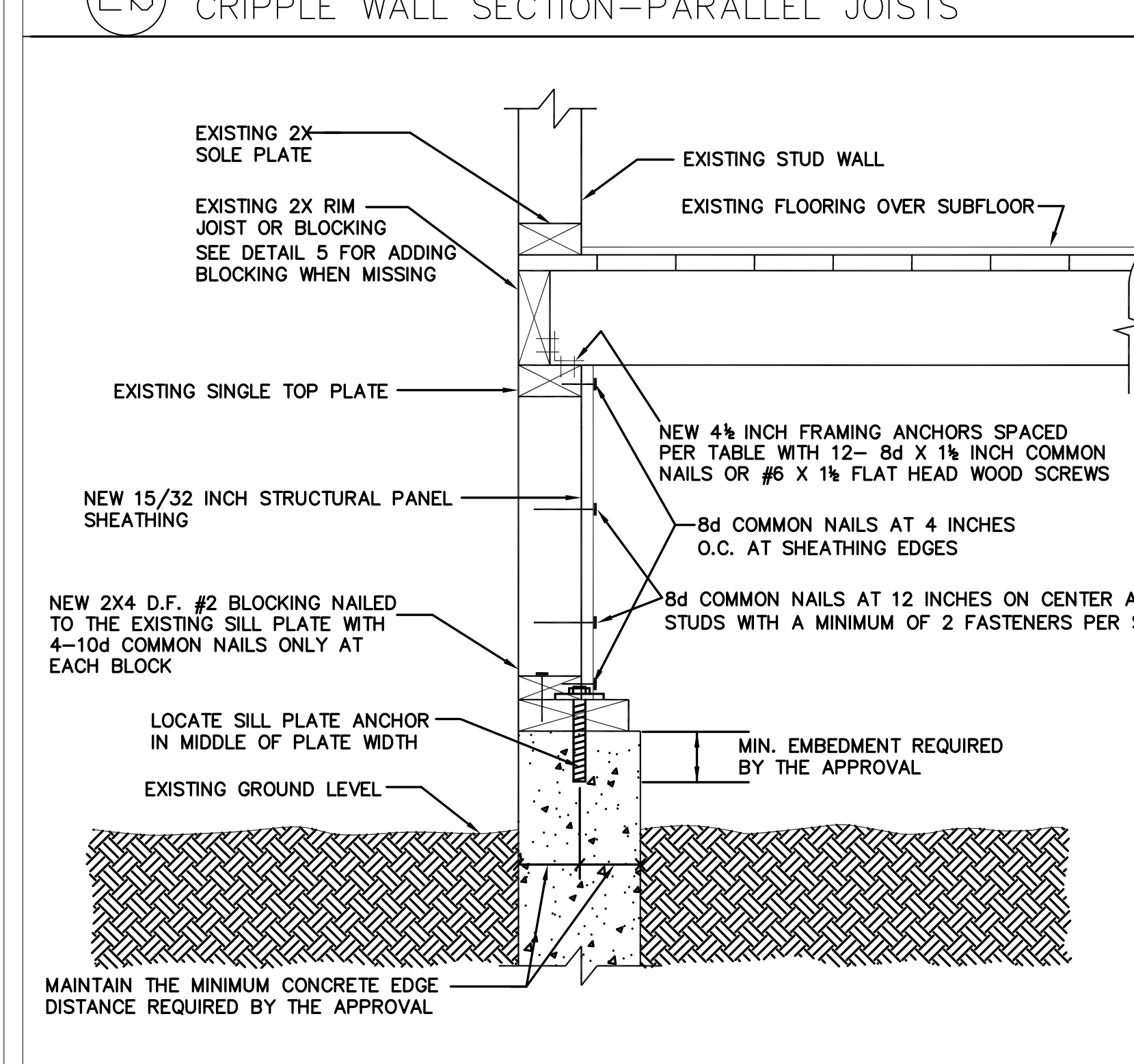
1) REPLACEMENT CONCRETE FOOTING AND STEM WALL



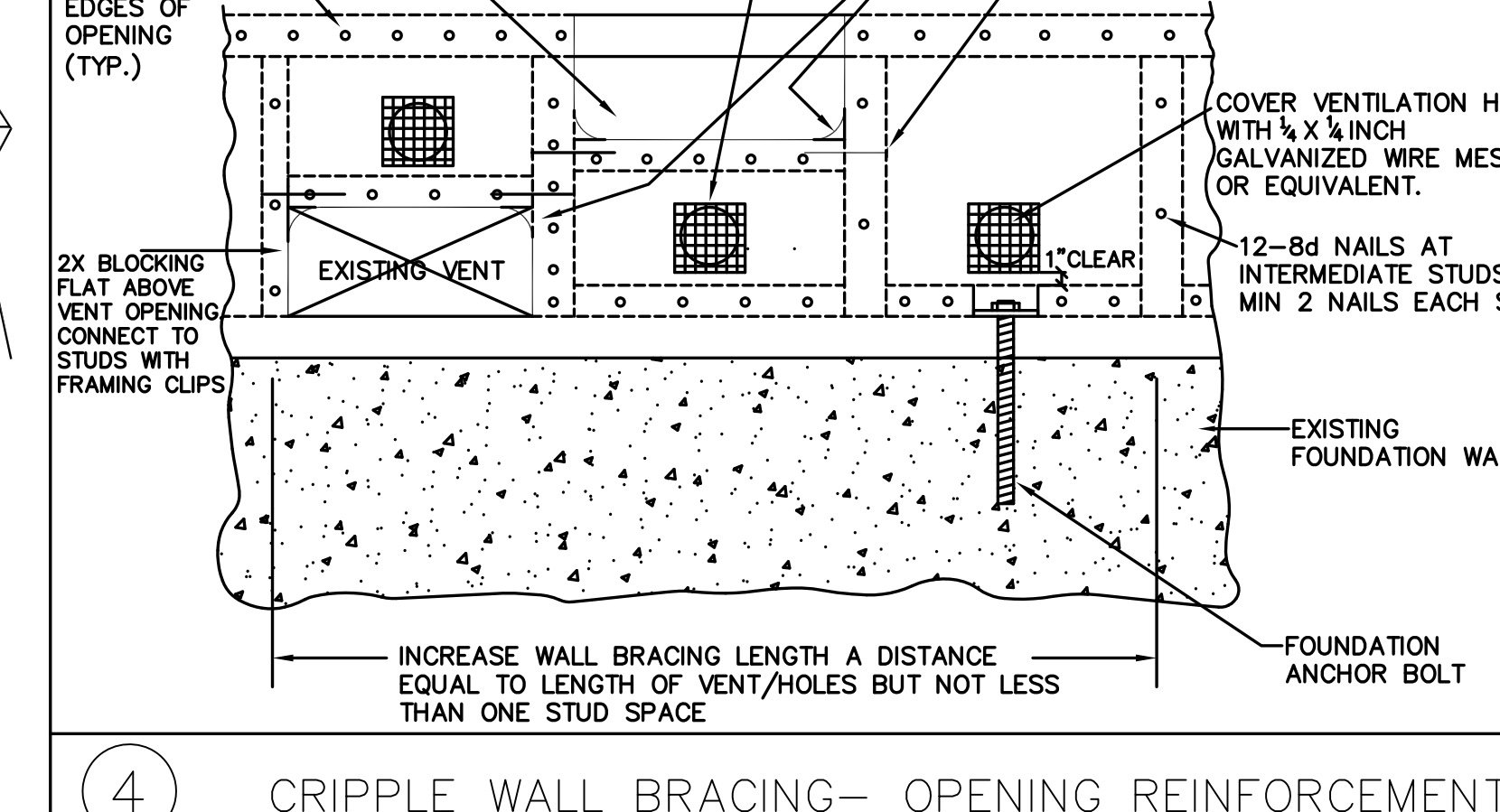
2a) CRIPPLE WALL SECTION-PARALLEL JOISTS



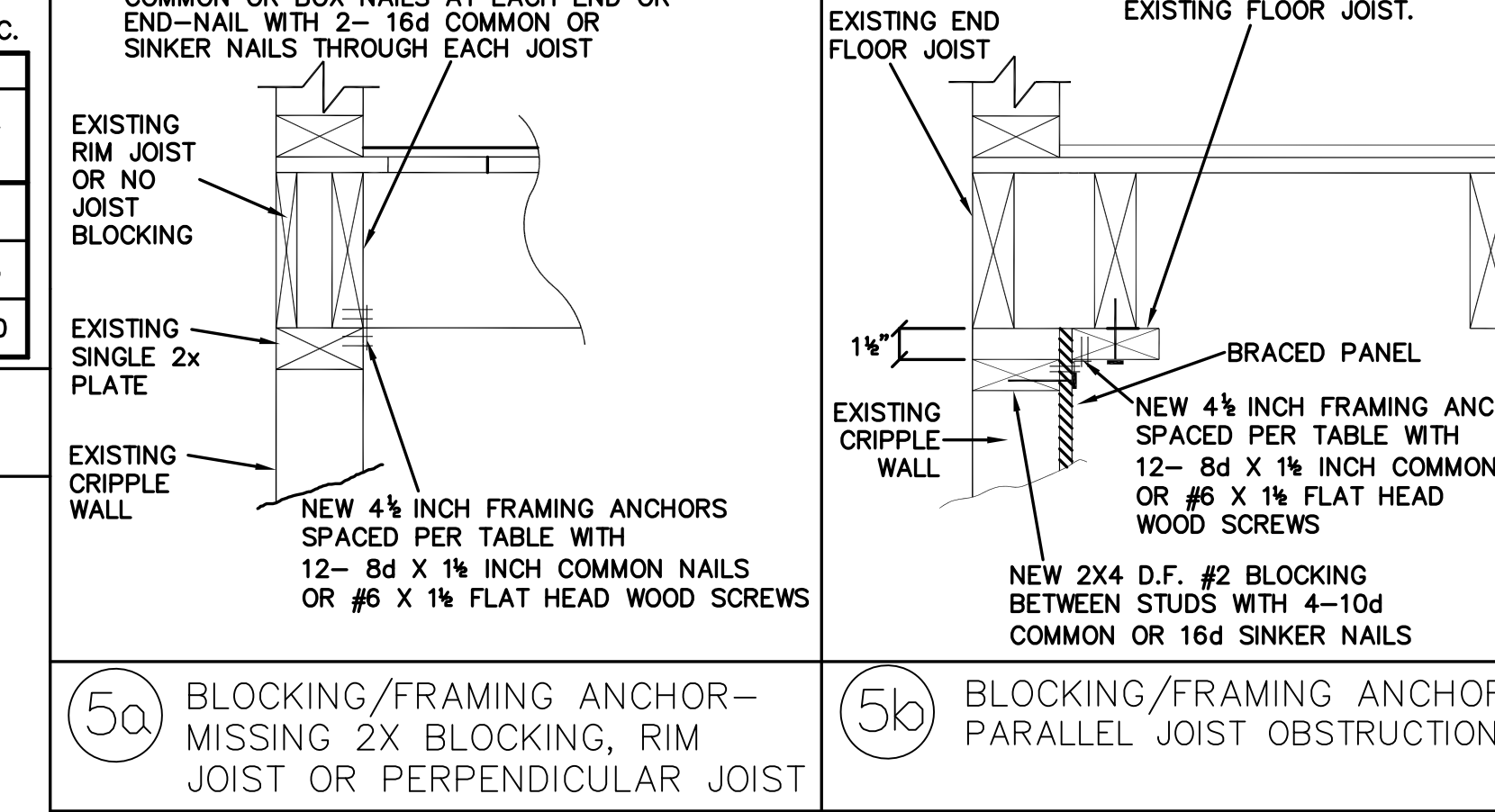
2b) CRIPPLE WALL SECTION-PARALLEL JOISTS



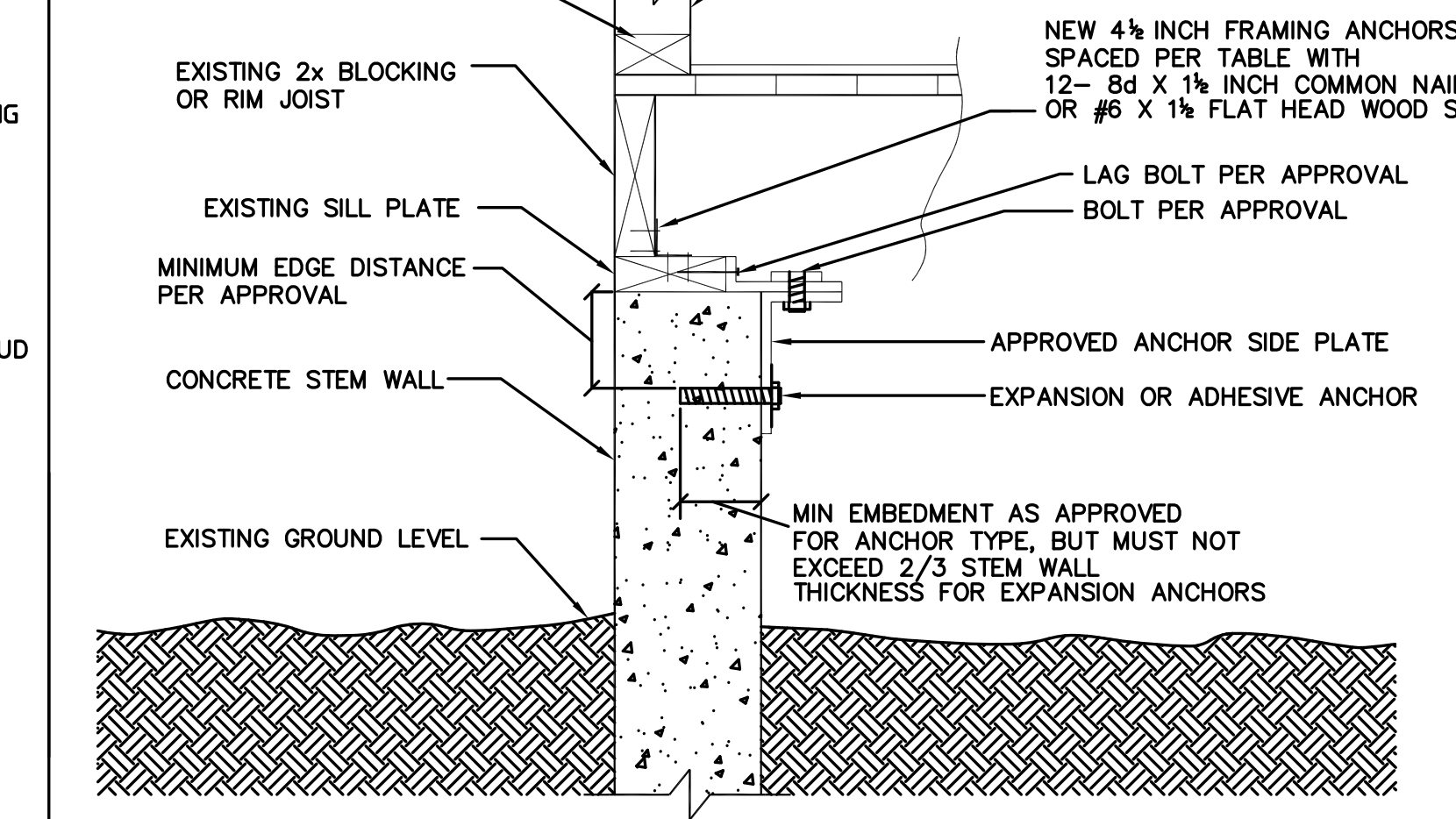
3) CRIPPLE WALL SECTION-PERPENDICULAR JOISTS



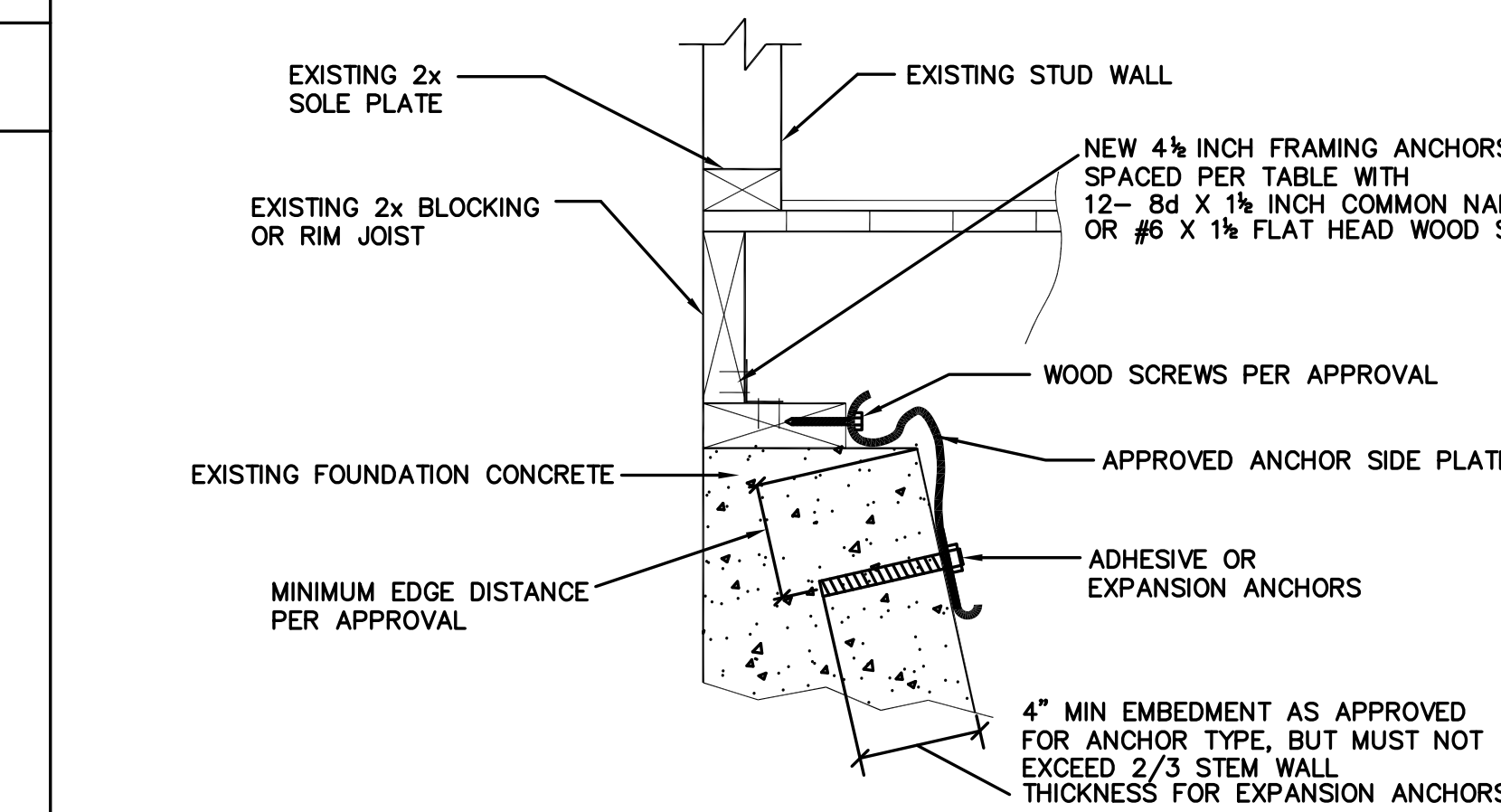
4) CRIPPLE WALL BRACING- OPENING REINFORCEMENT



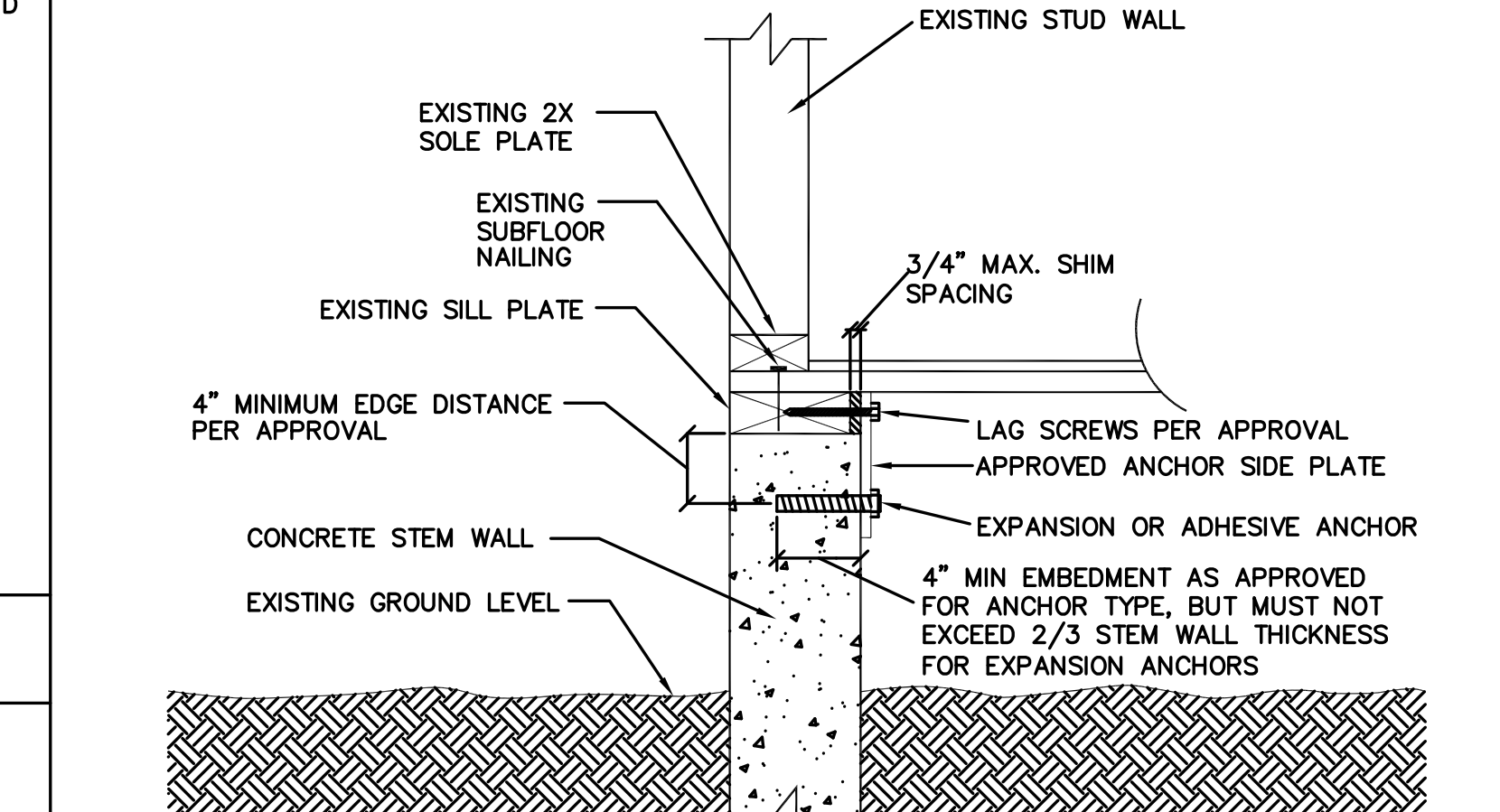
5a) BLOCKING/FRAMING ANCHOR-MISSING 2X BLOCKING, RIM JOIST OR PERPENDICULAR JOIST



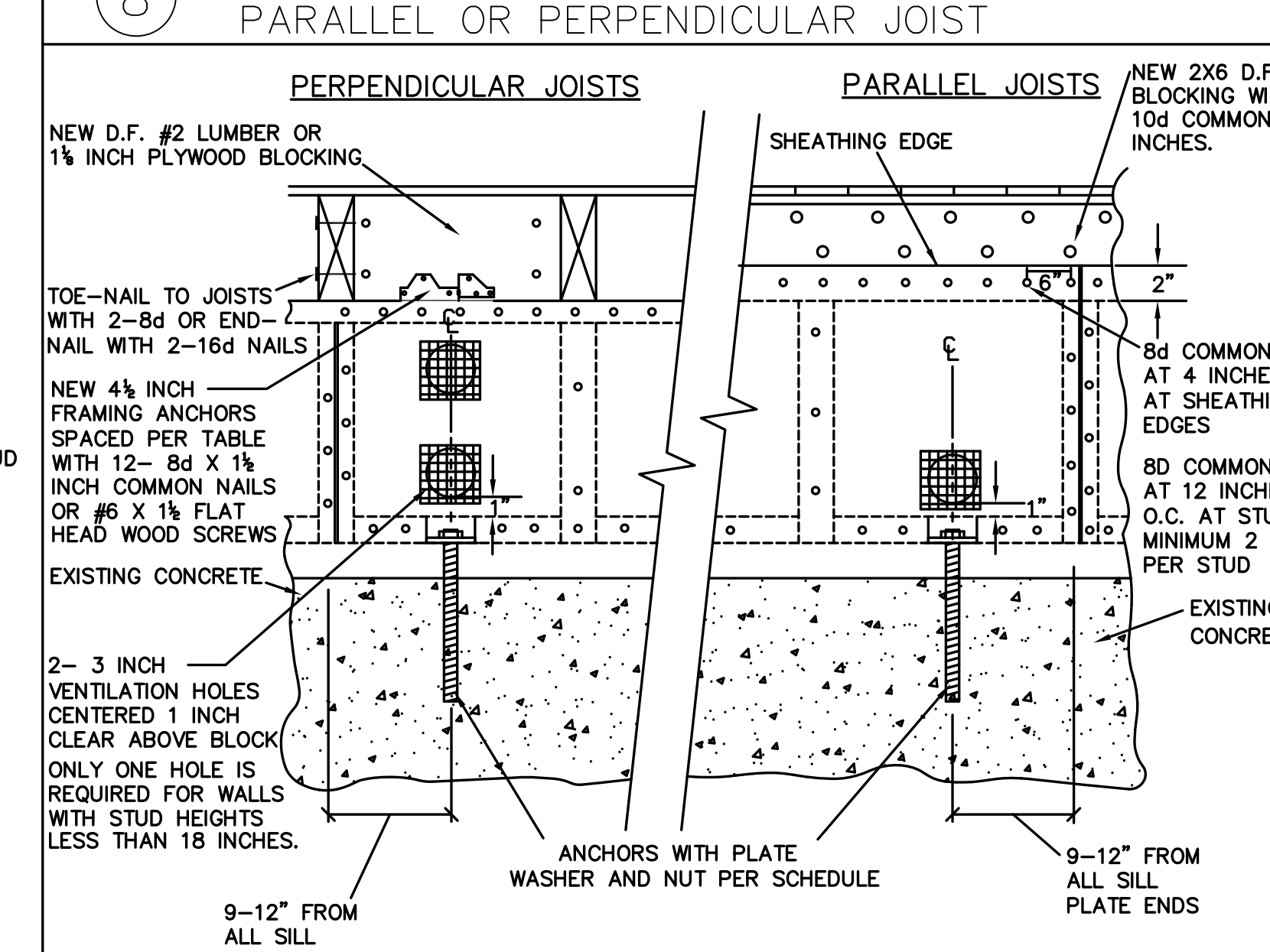
5b) BLOCKING/FRAMING ANCHOR-PARALLEL JOIST OBSTRUCTION



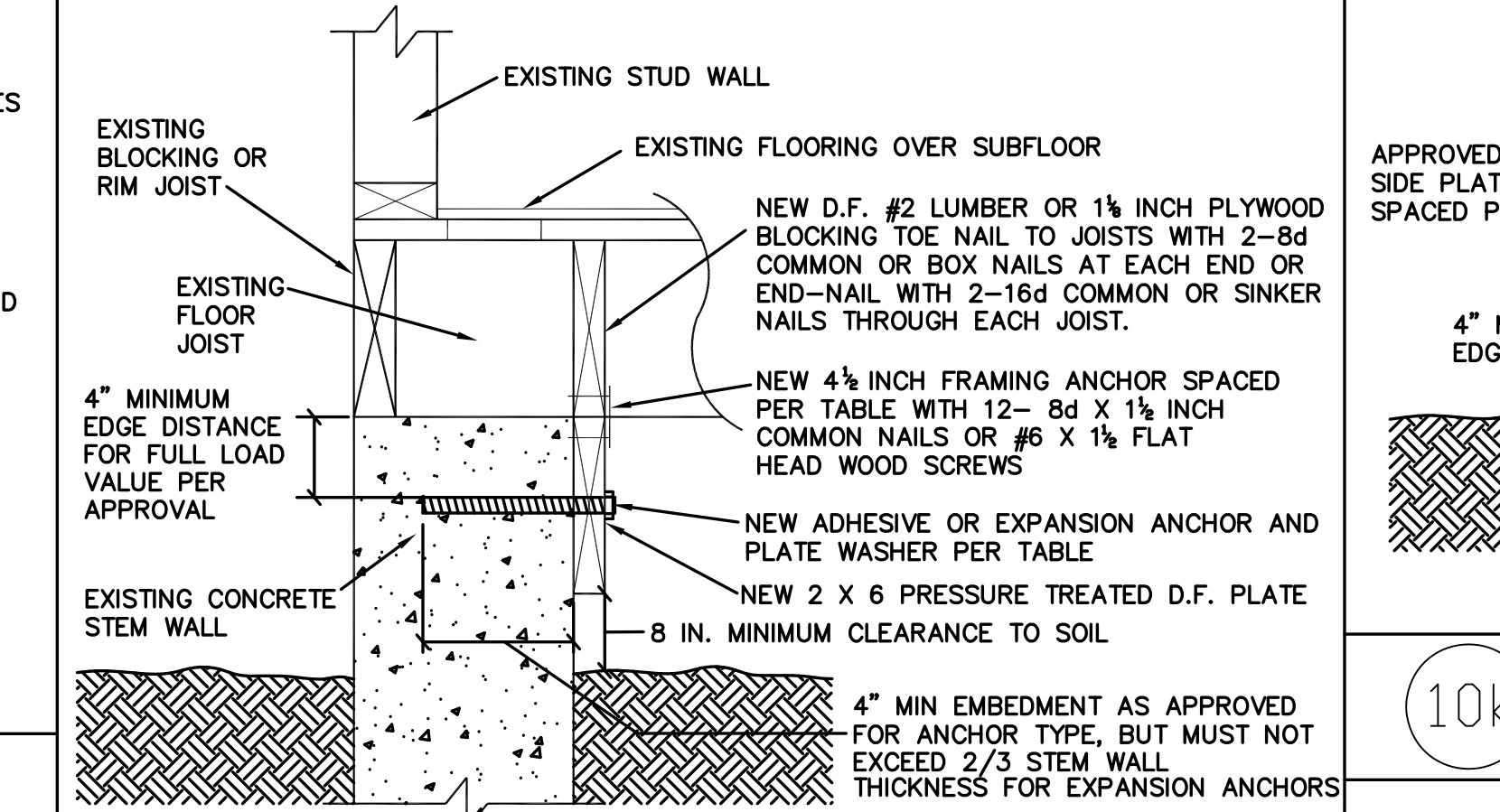
6) SILL PLATE BOLTING- NO CRIPPLE WALL PARALLEL OR PERPENDICULAR JOIST



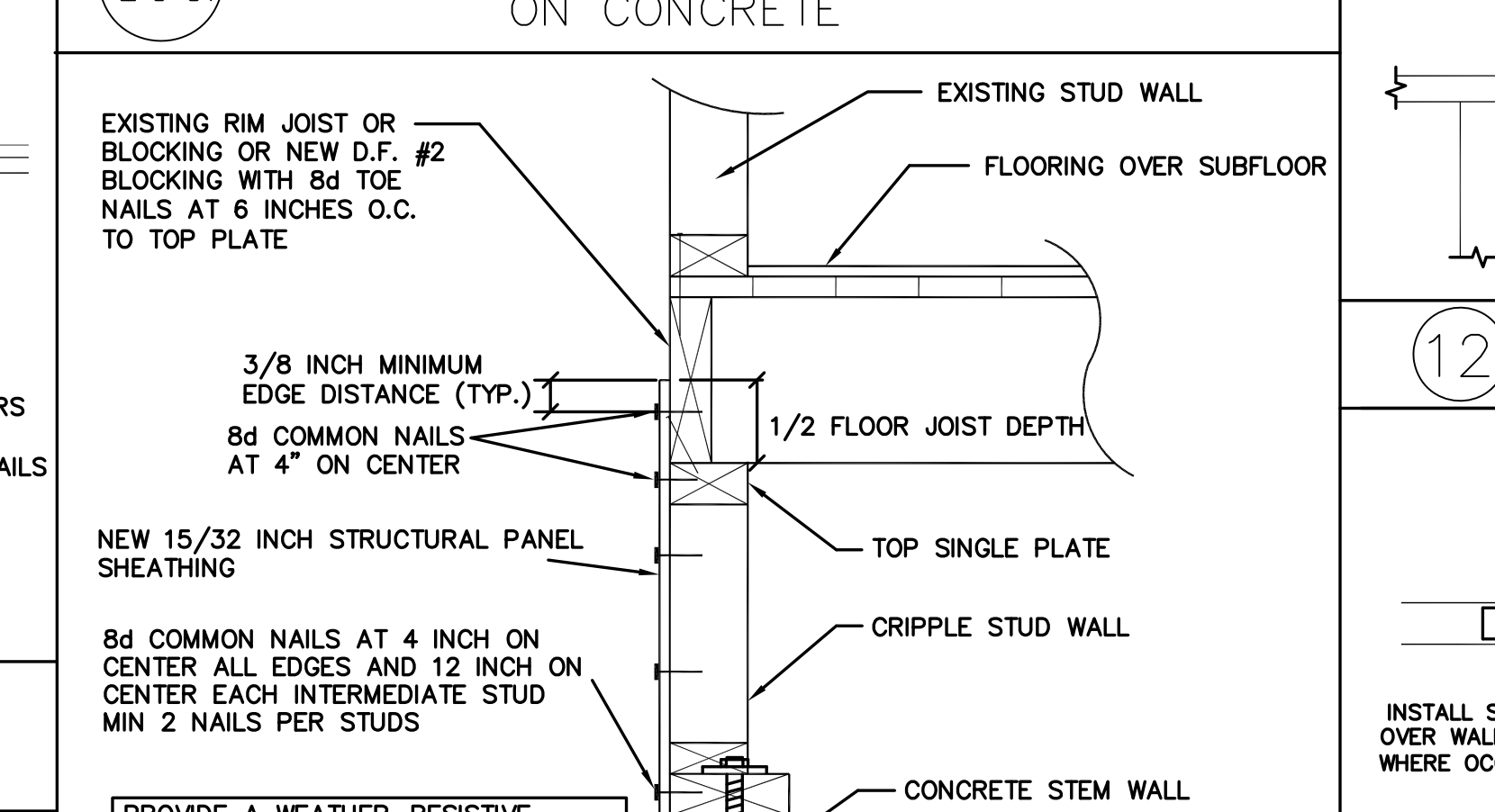
7) SILL PLATE BOLTING- TRAPEZOIDAL FOOTING



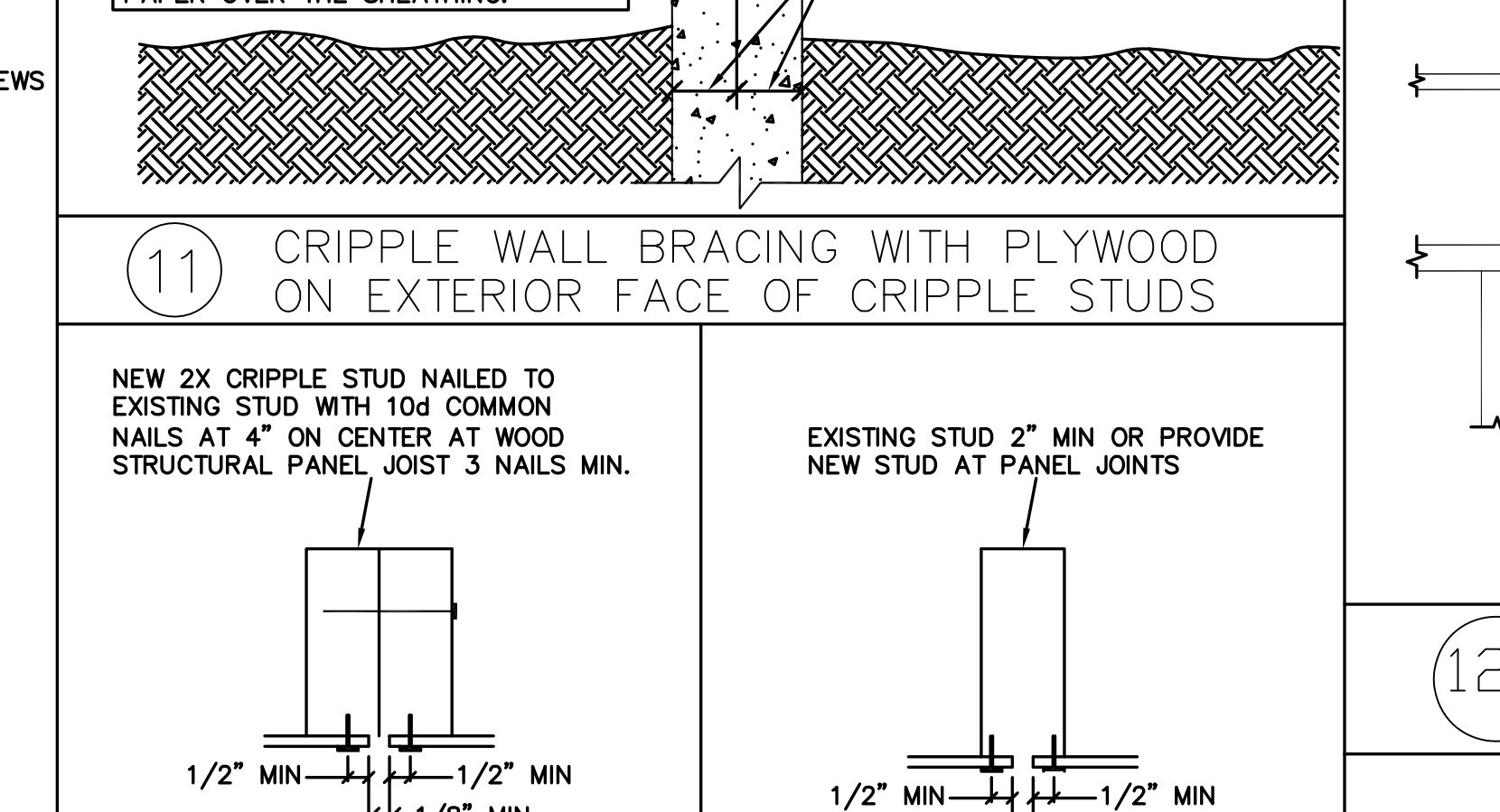
8) SILL PLATE BOLTING- NO FLOOR JOISTS PARALLEL OR PERPENDICULAR JOIST



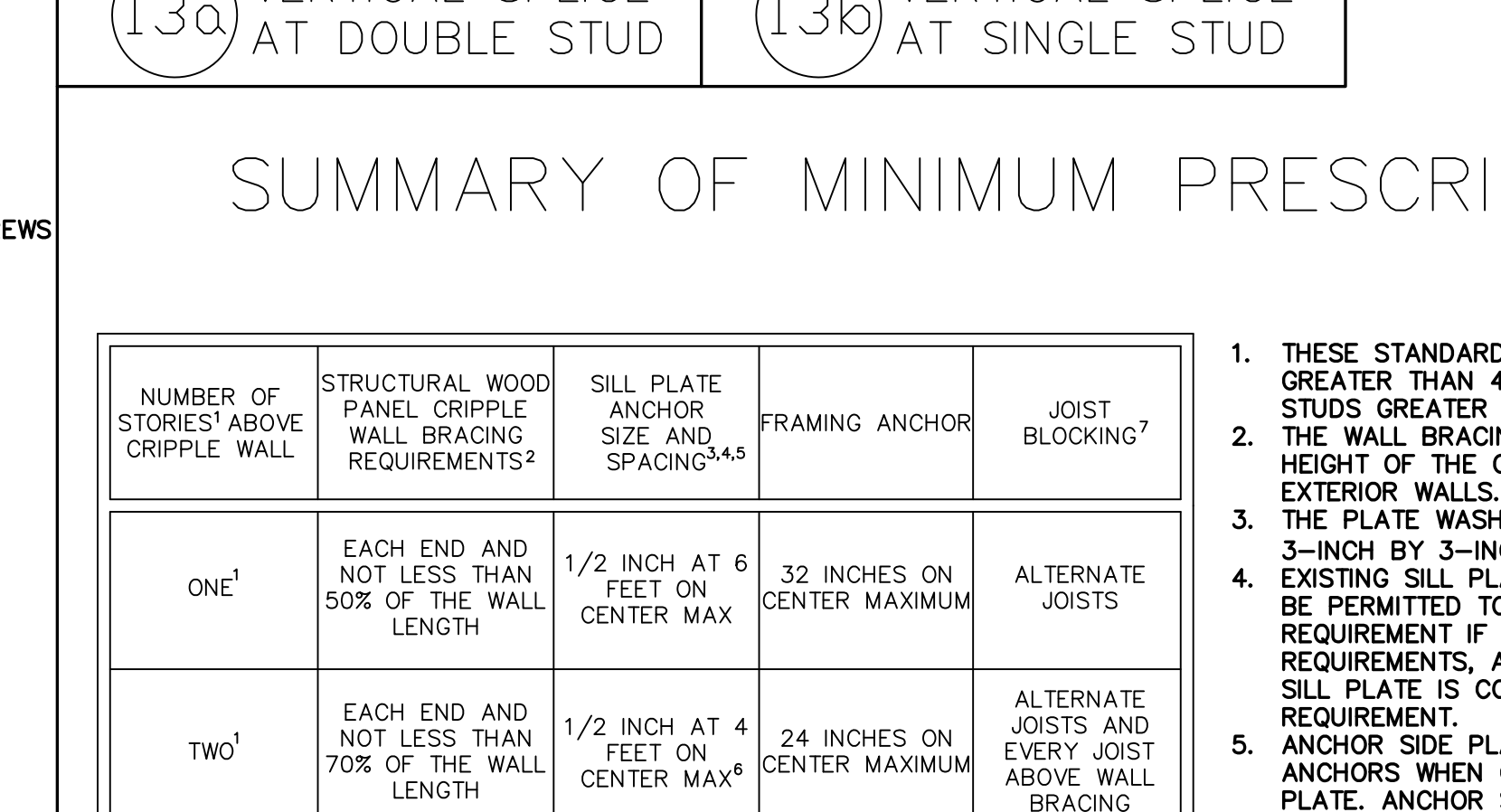
10a) ANCHORAGE FOR JOISTS SUPPORTED ON CONCRETE



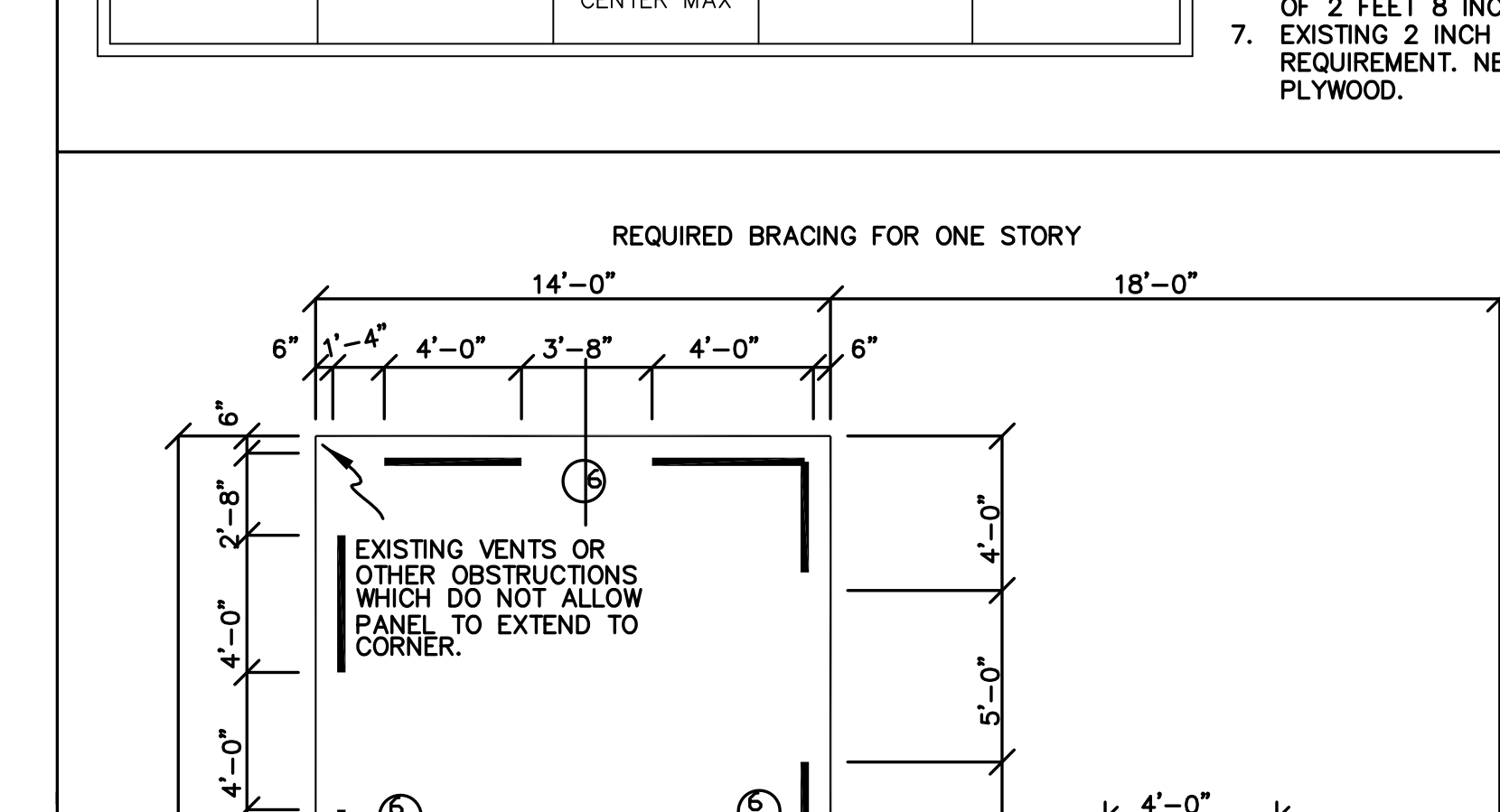
10b) ANCHORAGE FOR JOISTS SUPPORTED ON CONCRETE



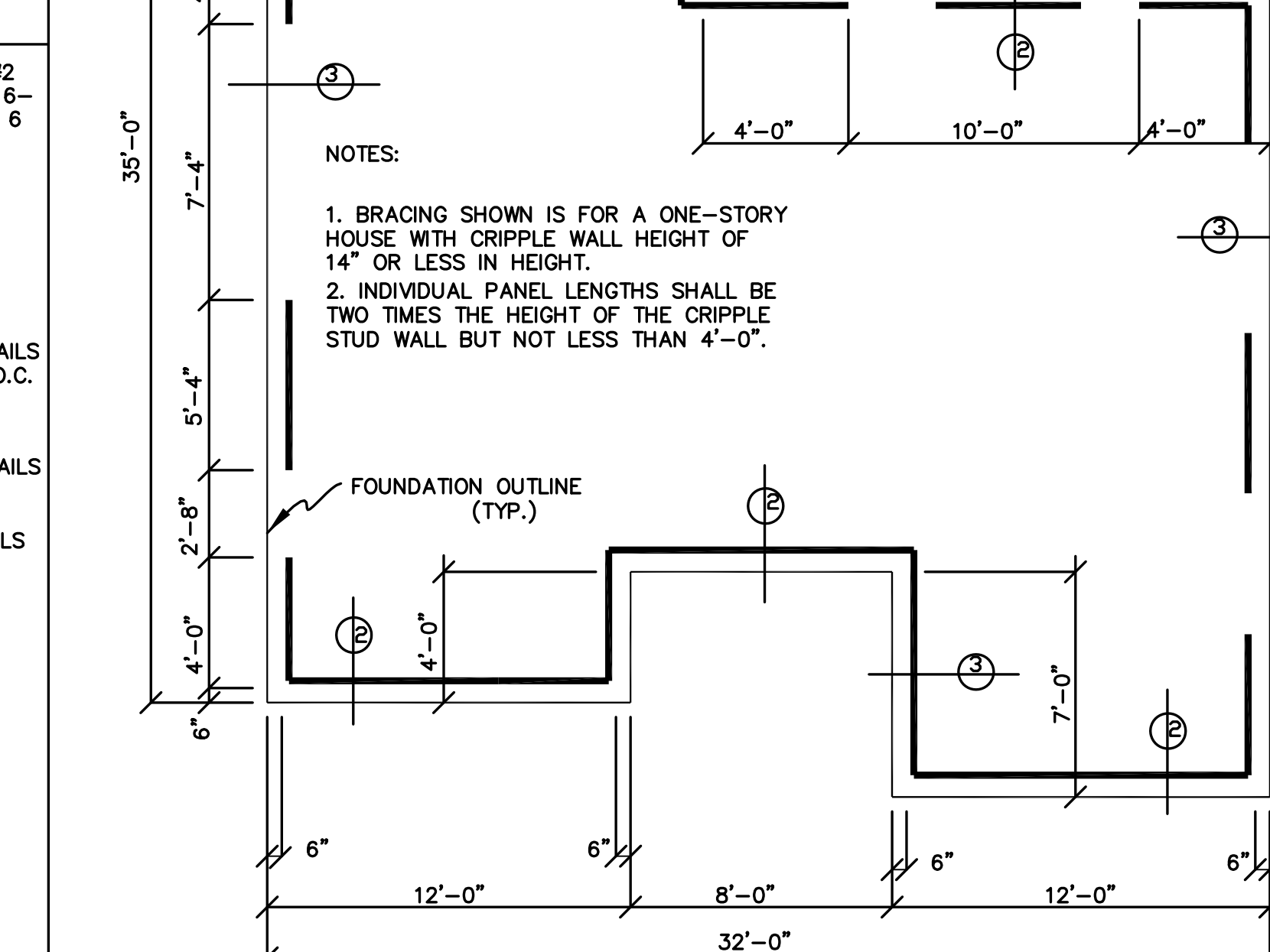
11) CRIPPLE WALL BRACING WITH PLYWOOD ON EXTERIOR FACE OF CRIPPLE STUDS



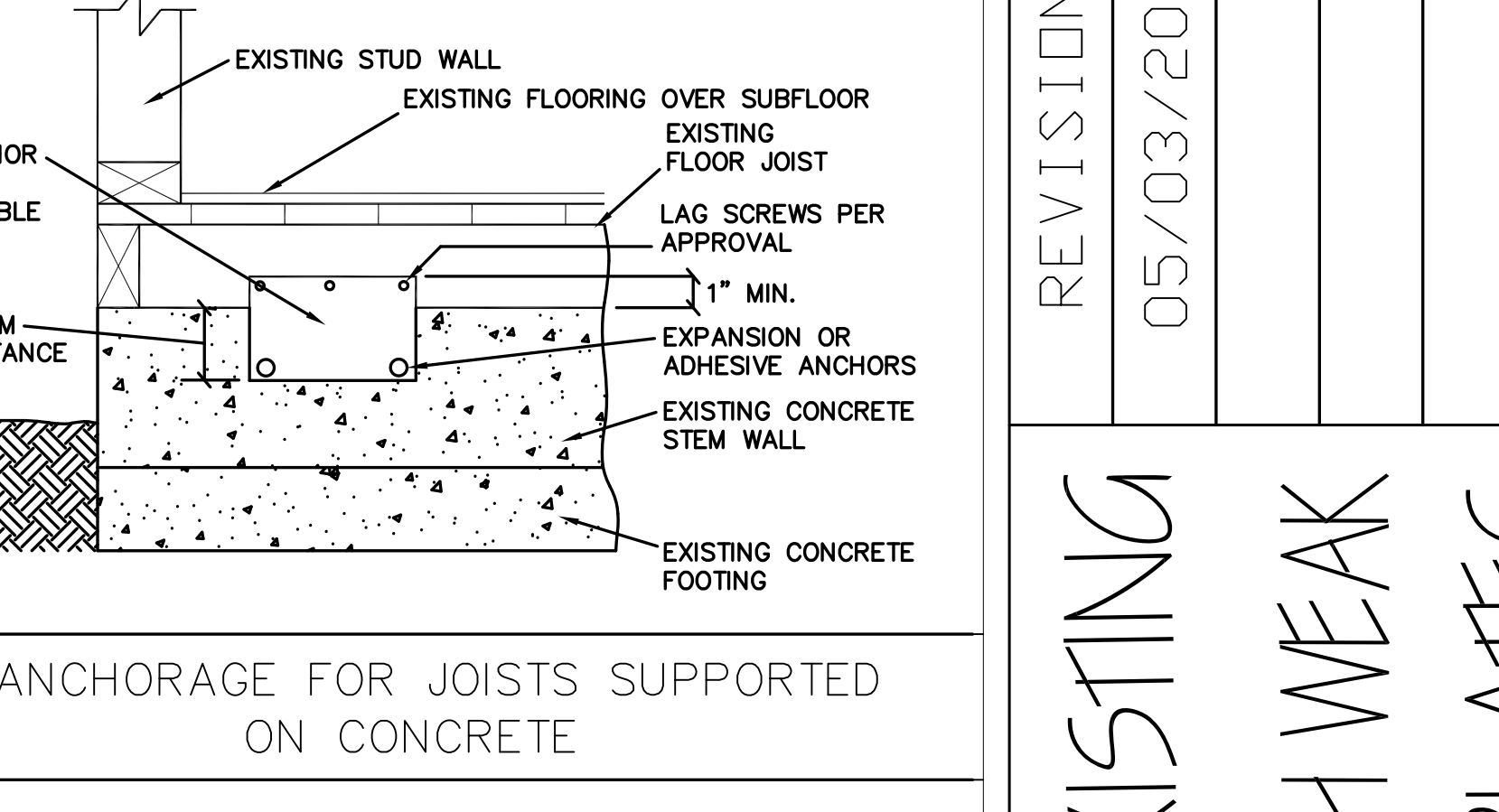
13a) VERTICAL SPLICE AT DOUBLE STUD



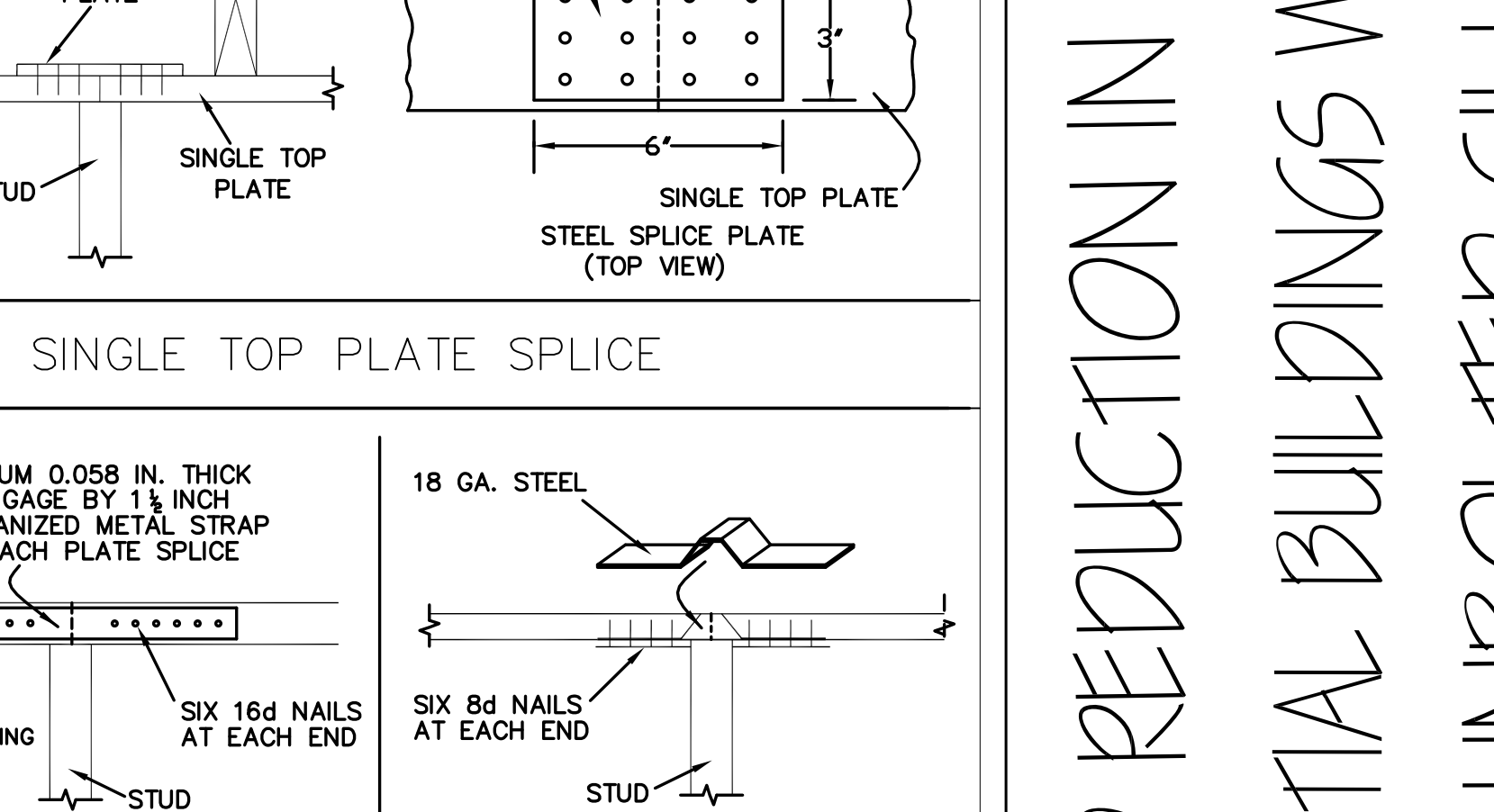
13b) VERTICAL SPLICE AT SINGLE STUD



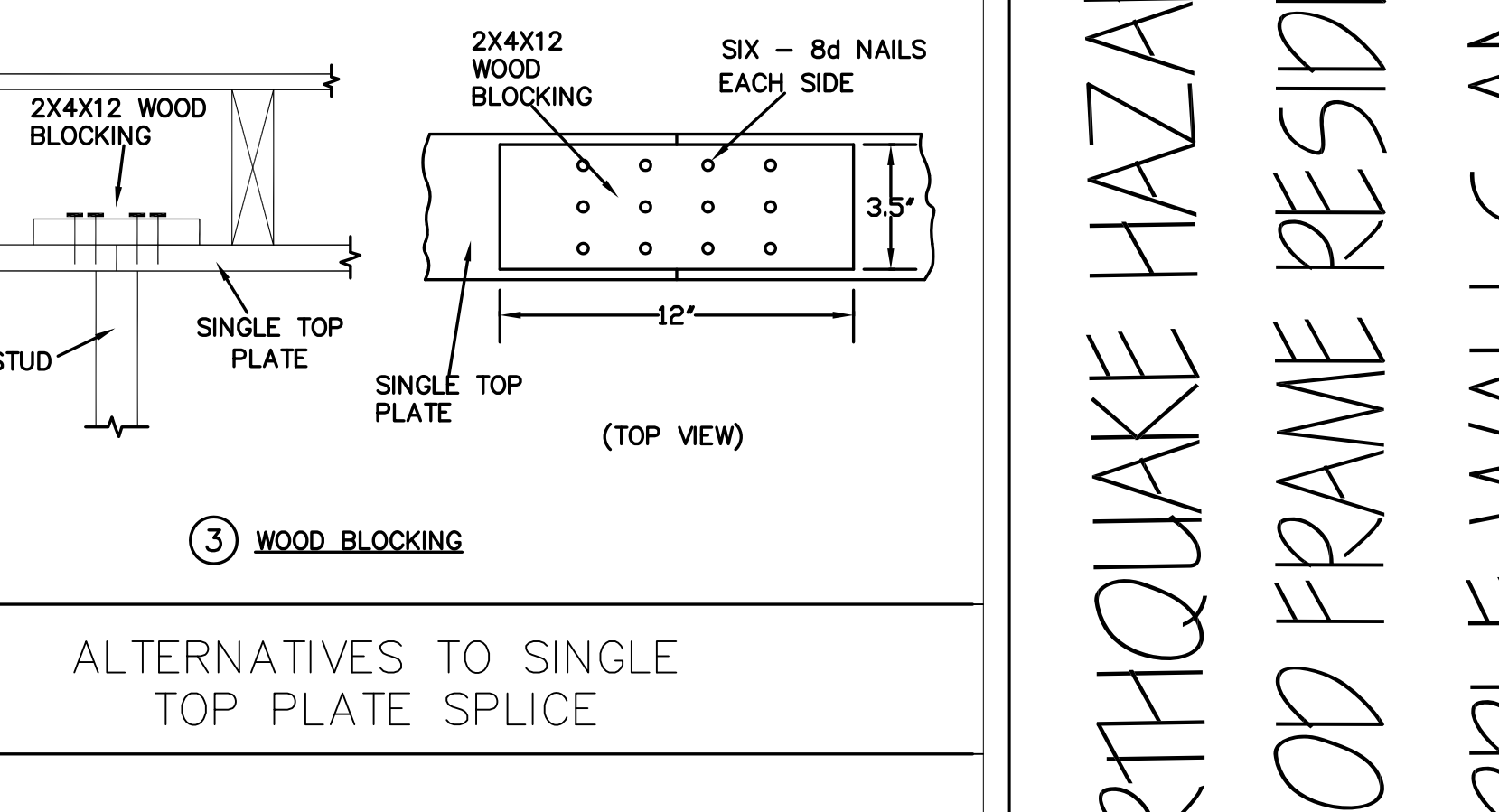
13c) SUMMARY OF MINIMUM PRESCRIPTIVE REQUIREMENTS



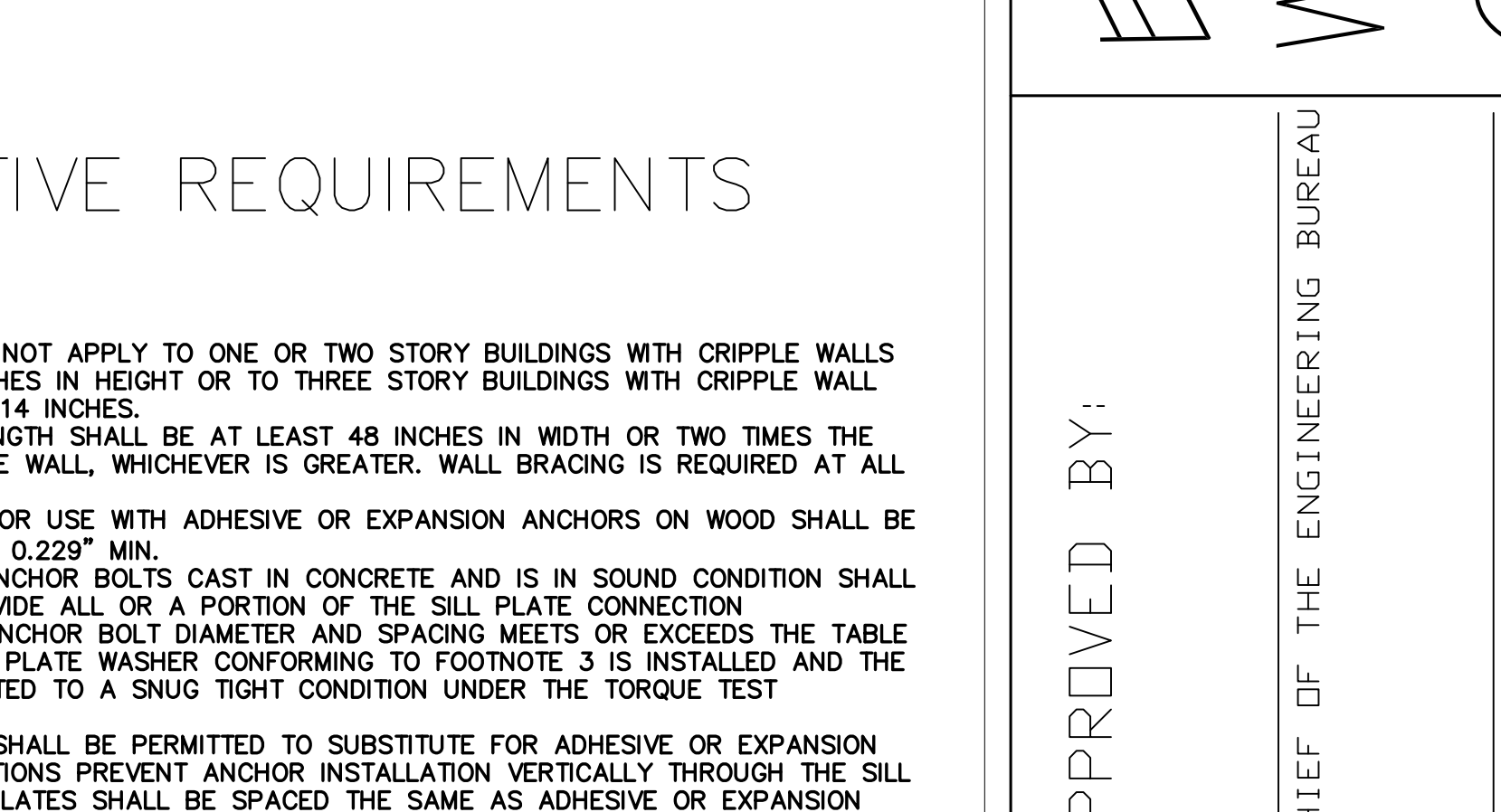
10c) ANCHORAGE FOR JOISTS SUPPORTED ON CONCRETE



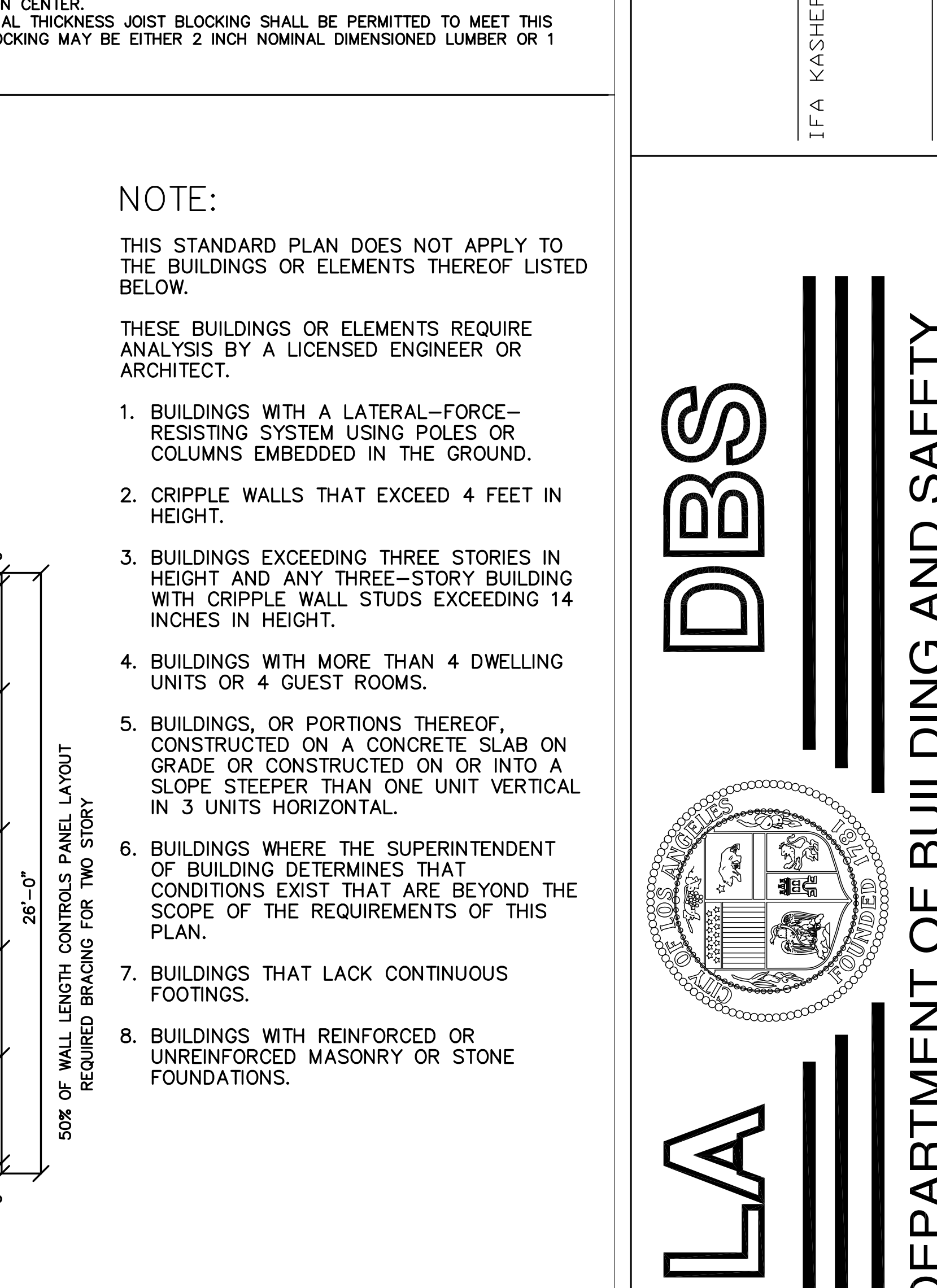
12) SINGLE TOP PLATE SPLICE



12a) ALTERNATIVES TO SINGLE TOP PLATE SPLICE



13d) SUMMARY OF MINIMUM PRESCRIPTIVE REQUIREMENTS



13e) SAMPLE PLAN

F. REPLACEMENT OF EXISTING FOOTINGS & STEM WALLS

- 1. Deteriorated, cracked or unreinforced masonry footings may be replaced as shown on this plan provided proper shoring is provided... 2. When existing footings and stem walls are replaced in sections, the person performing the work shall take care to insure that all reinforcing steel shall be lapped a minimum of 24 inches...