

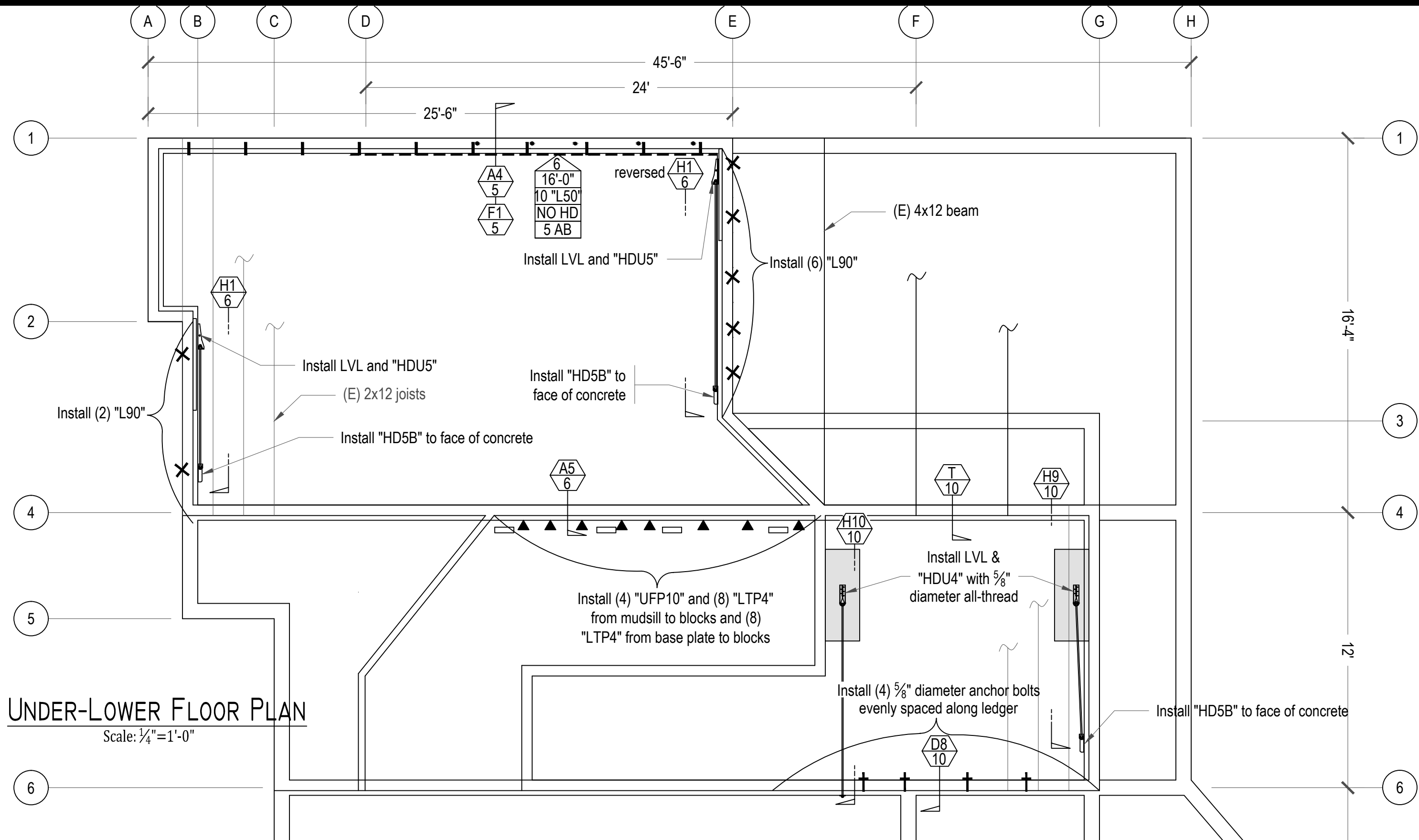
KEY FLOOR PLAN

Scale: 1/8"=1'-0"

KEY:

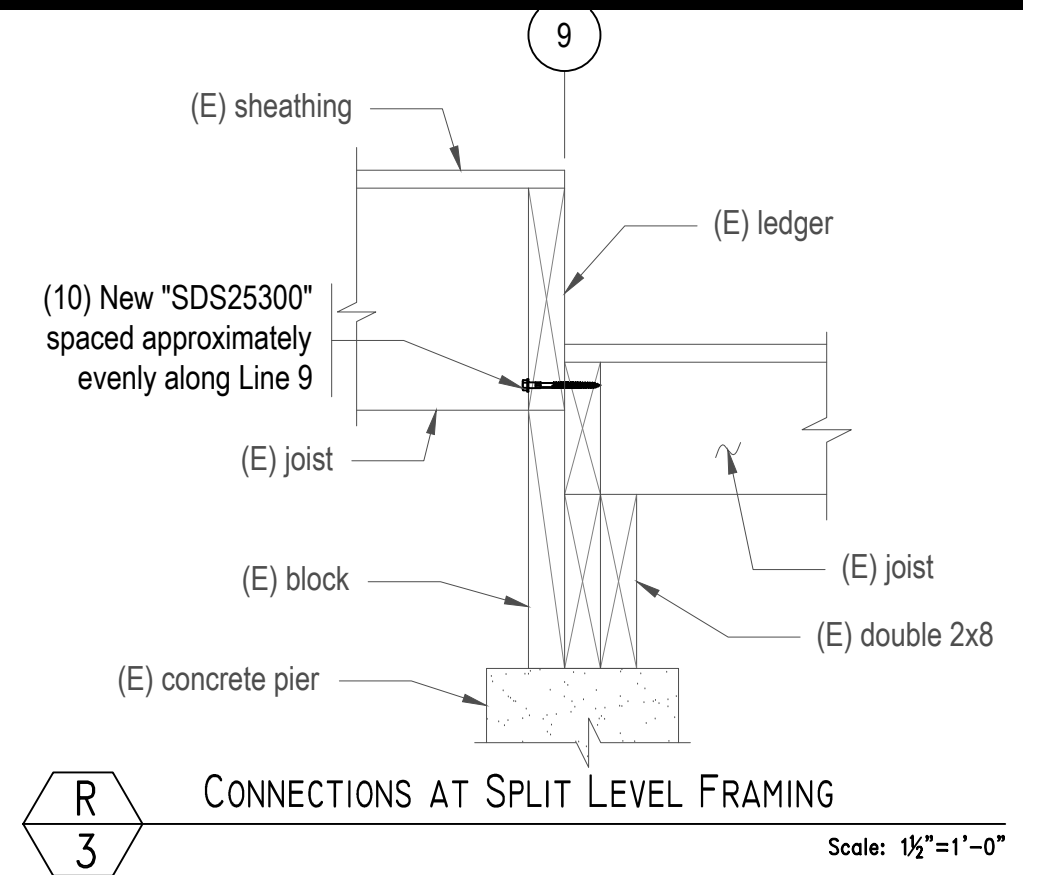
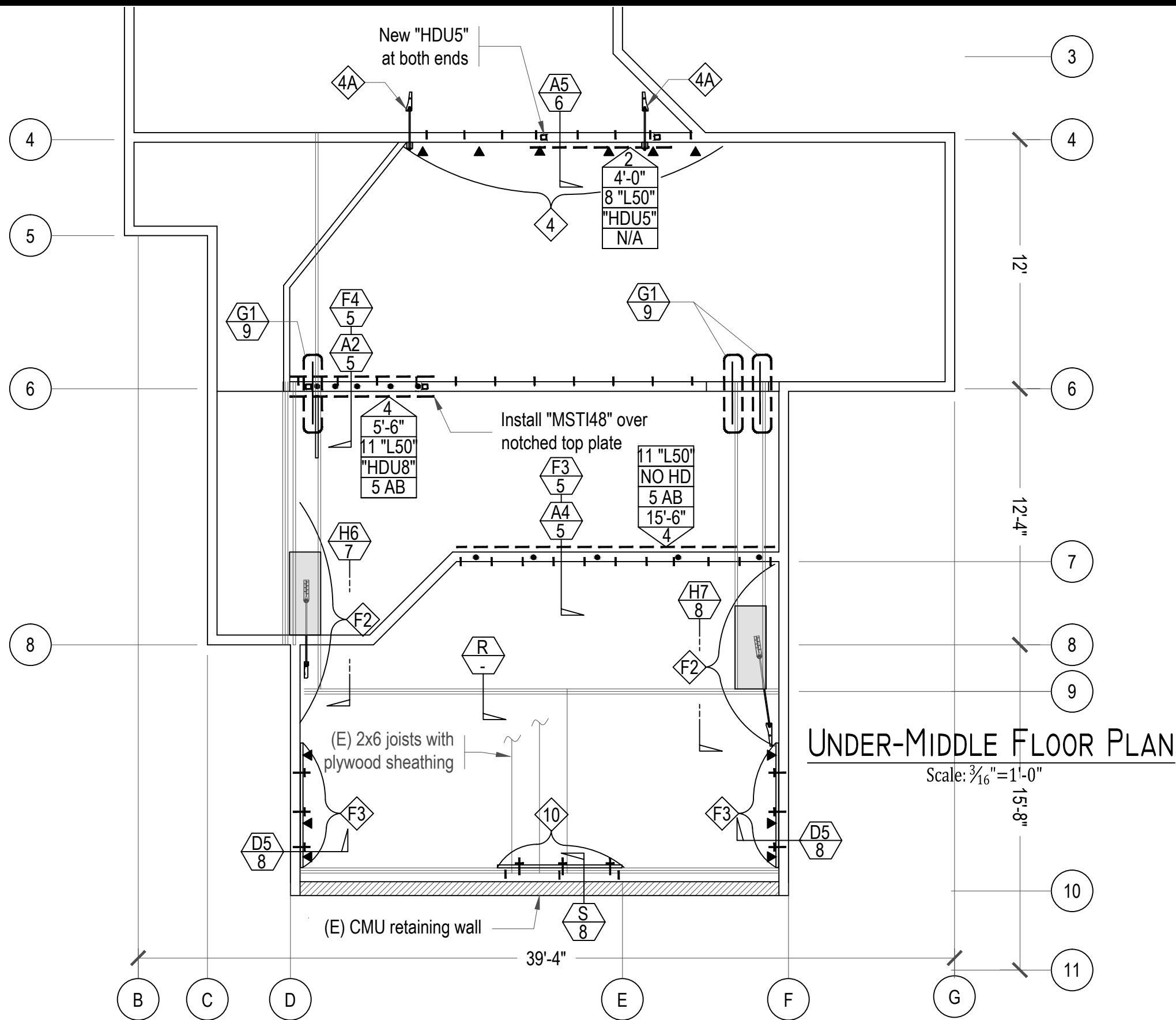
- Note # -- see Plan Notes or Detail
- Notes for corresponding #
- 5/8" diameter anchor bolts
- "L90"
- "LTP4"
- "Horizontal 5/8" diameter anchor bolt"
- "L50"
- "UFP10"
- Plywood bracing panels
- Nail spacing (in)
- Indicates length of plywood
- Indicates # of L50/L90
- Indicates type of holddown
- Indicates # of anchor bolts or "UFP10"
- Block (existing or new)
- Existing wood member in section view
- LVL in section view
- New wood member in section view
- Existing concrete

DRAWING INDEX	
PAGE	DESCRIPTION
1	Key Plan, Key, and Drawing Index
2	Under-Lower Floor Plan
3	Under-Middle Floor Plan, Plan Notes, and Details
4	Under-Upper Floor Plan, Plan Notes, and Details
5-10	Details
11-14	Plywood Typical Details
15-17	General Notes, Concrete Schedule and Shear Wall Schedule

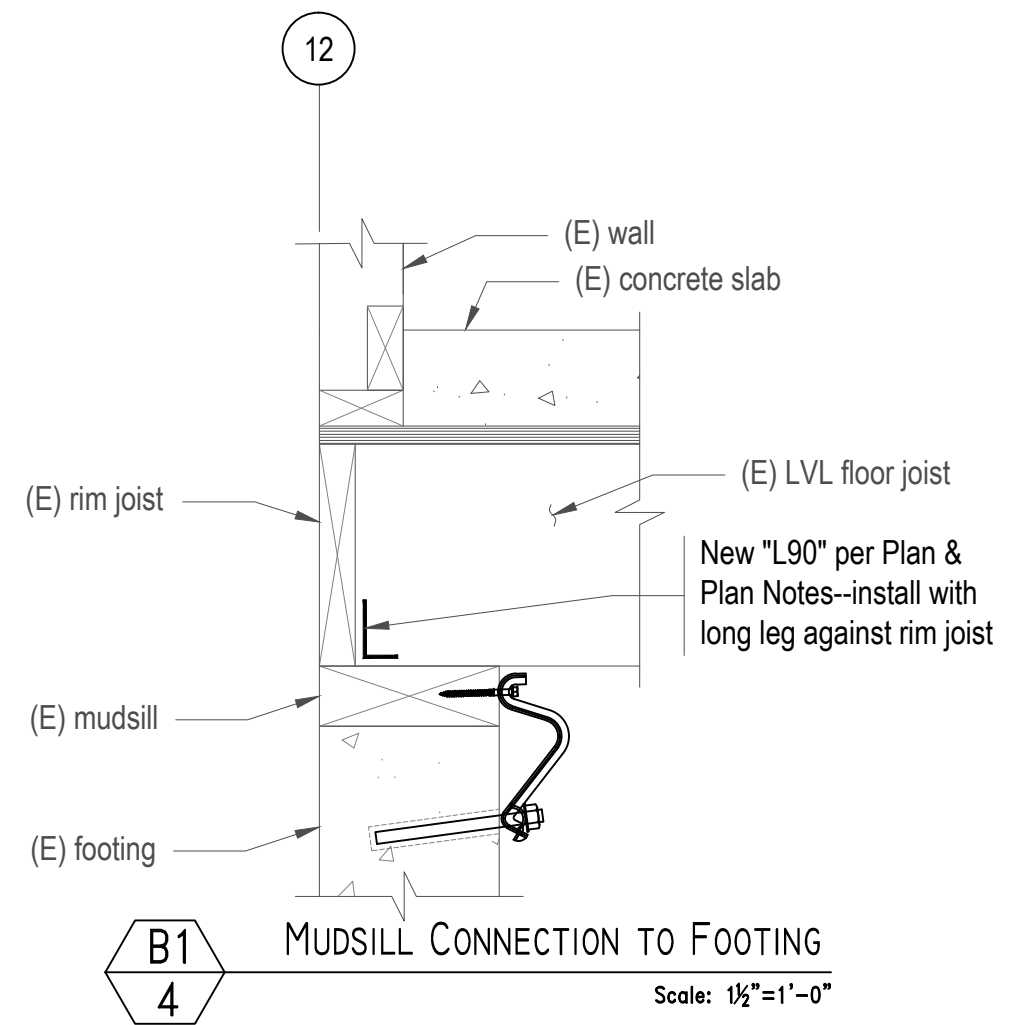
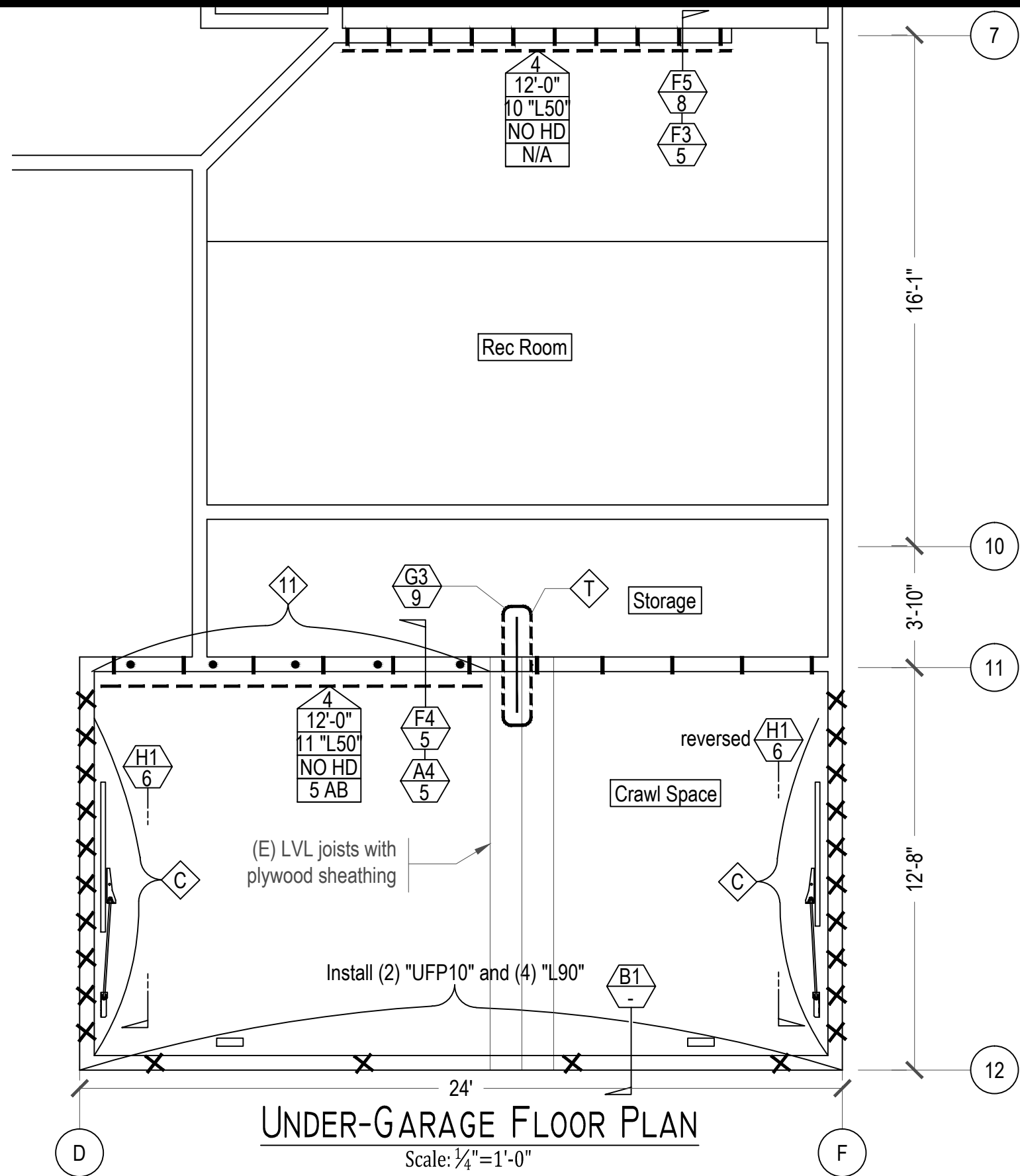


UNDER-LOWER FLOOR PLAN

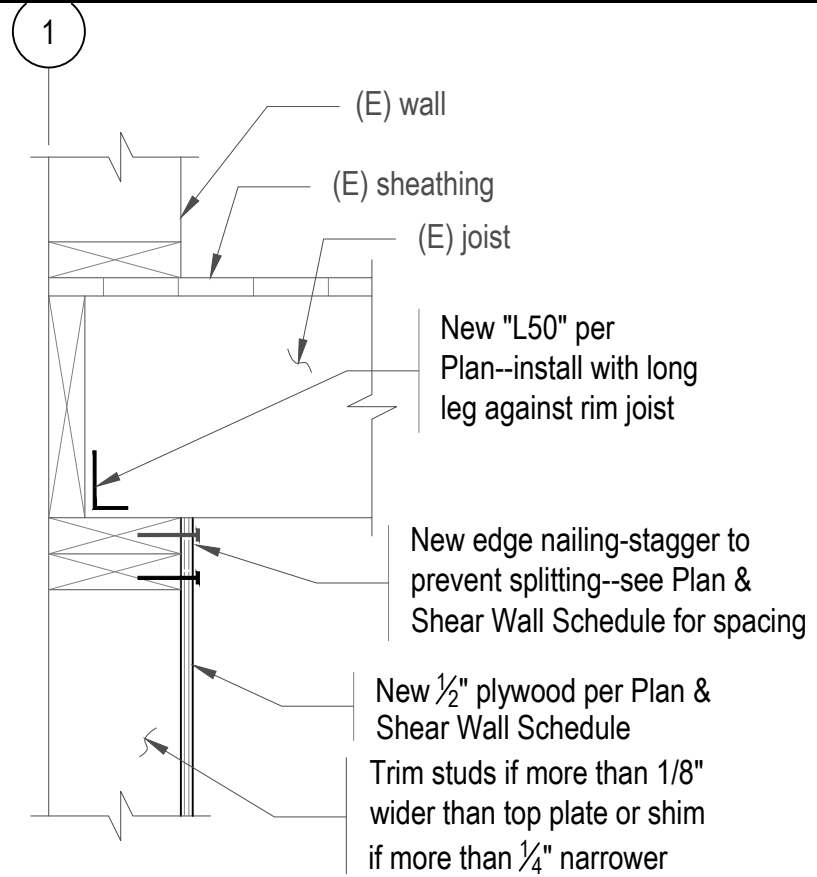
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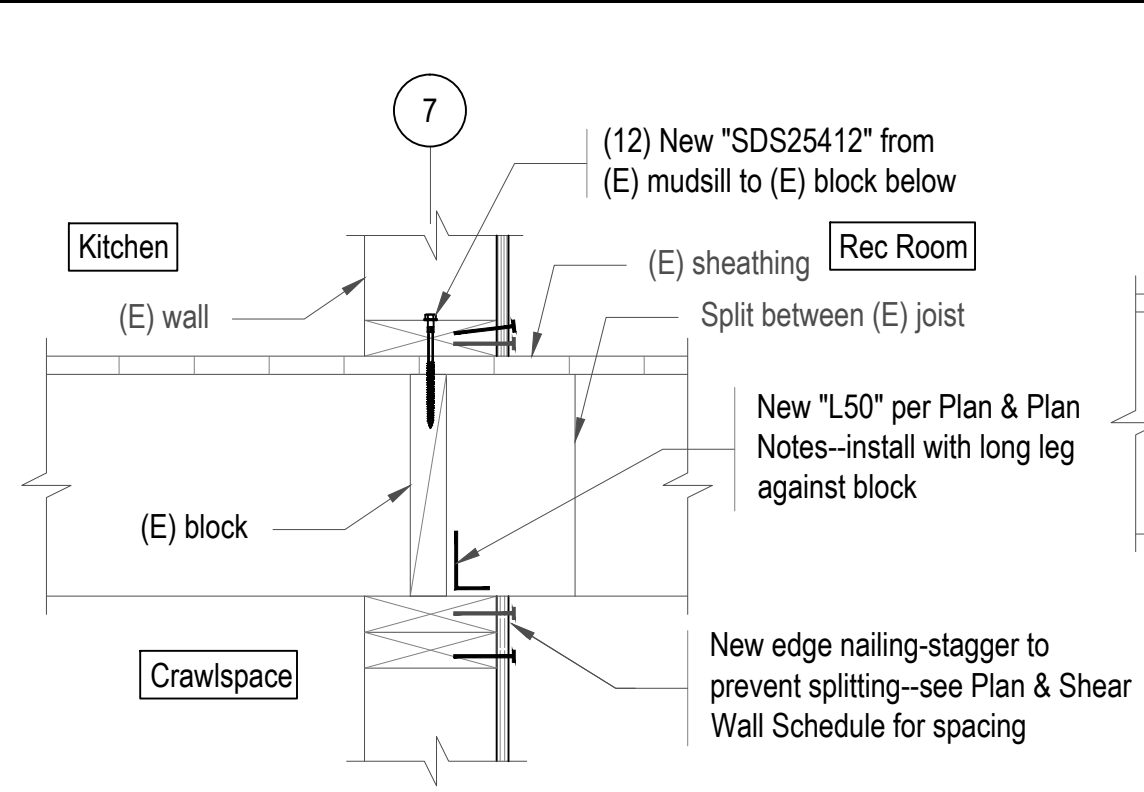
PLAN NOTES	
SYMBOL	DESCRIPTION
F2	Install hillside anchor with "HDU5" connected to LVLs--connect "HDU5" to "HD5B" with $\frac{5}{8}$ " diameter all-thread
F3	Install $1\frac{3}{4}'' \times 7\frac{1}{4}'' \times 6'$ long LVL with (3) $\frac{5}{8}$ " diameter anchor bolts and (3) "LTP4"
4	Install plywood as shown per Detail--obstructions may need to be moved--install (6) "LTP4" between split level framing and (8) "L50" from floor framing to wall
4A	Install (2) 4x4s with "HDU4"s as shown on Detail A5/6--separate 4x4 as much as possible
10	Install (2) $1\frac{3}{4}'' \times 7\frac{1}{4}'' \times 6'$ long LVL with (3) $\frac{5}{8}$ " diameter horizontal anchor bolts--install (3) "L50" between LVLs and rim joist and rim joist to double 2x8



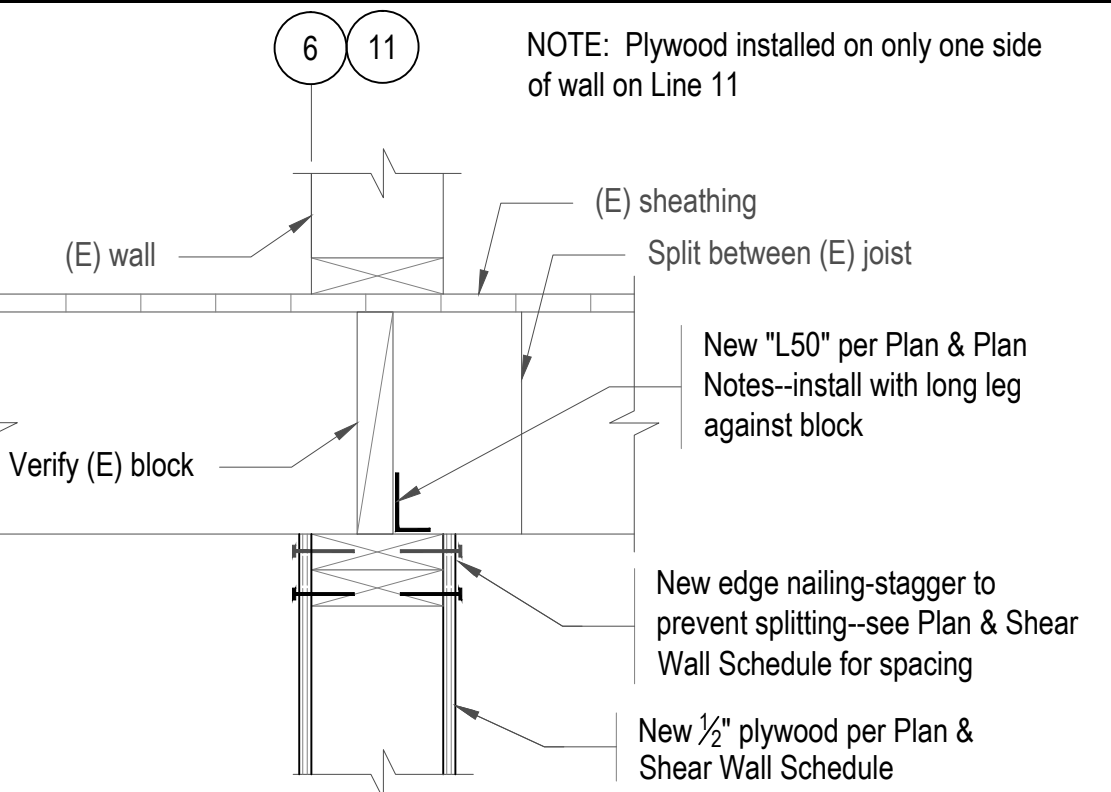
PLAN NOTES	
SYMBOL	DESCRIPTION
◇11	Install nails to equal nail spacing indicated on Plans
◇T	Install "MST136" strap and (2) 2x10 per detail at every joist that is connected to footing with (E) "HD7A"
◇C	Install LVL and horizontal tie with (1) "HDU8" and (1) "HD7B" and (10) "L90"



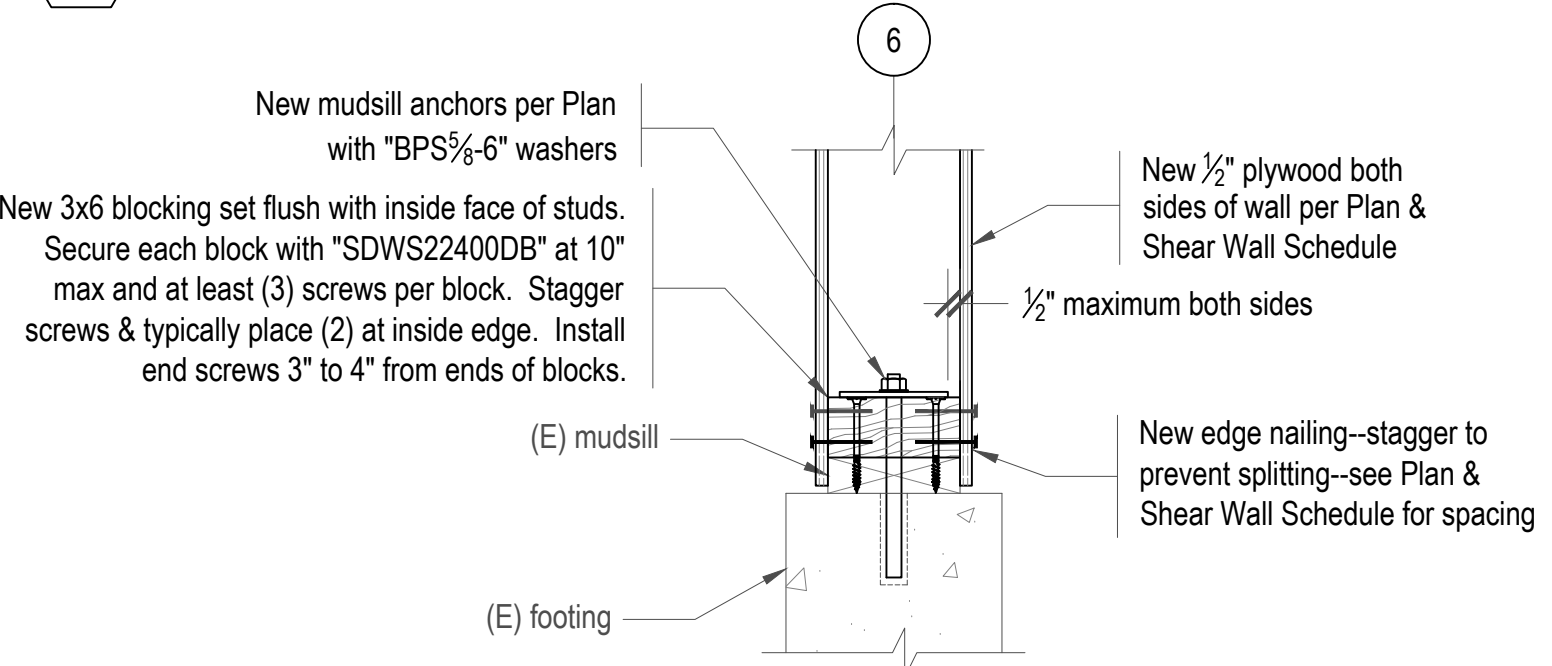
F1
5 SHEAR TRANSFER CONNECTION TO WALL PERPENDICULAR TO FLOOR JOISTS
Scale: 1/2"=1'-0"



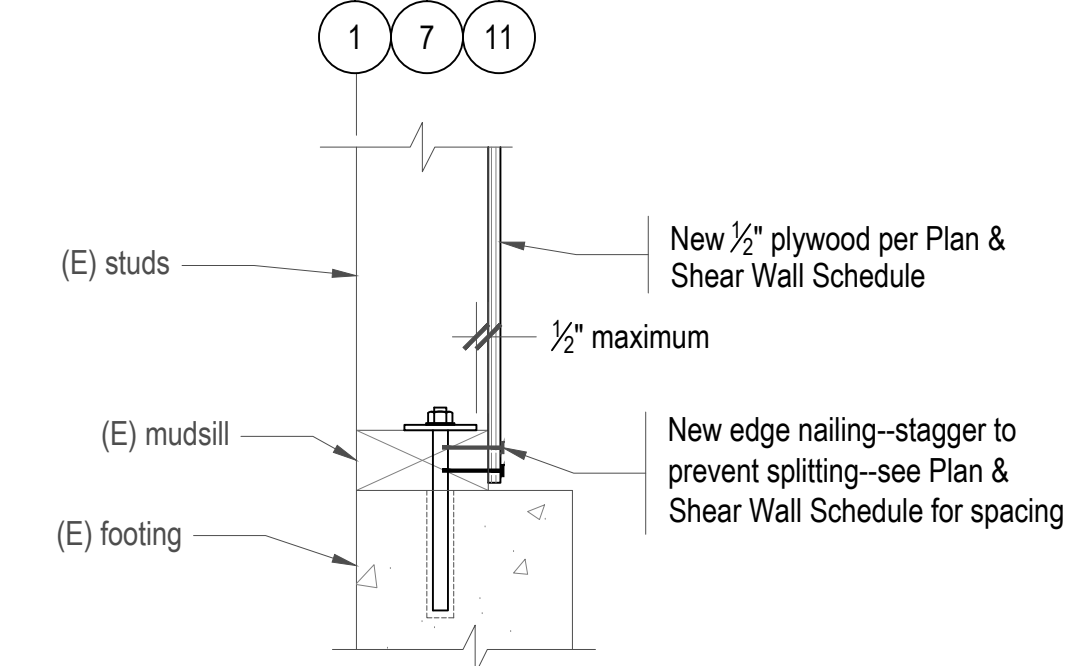
F3
5 SHEAR TRANSFER CONNECTION TO INTERIOR WALL PARALLEL TO JOISTS
Scale: 1/2"=1'-0"



F4
5 SHEAR TRANSFER CONNECTION TO DOUBLE SIDED INTERIOR WALL PERPENDICULAR TO LAPPED JOISTS
Scale: 1/2"=1'-0"

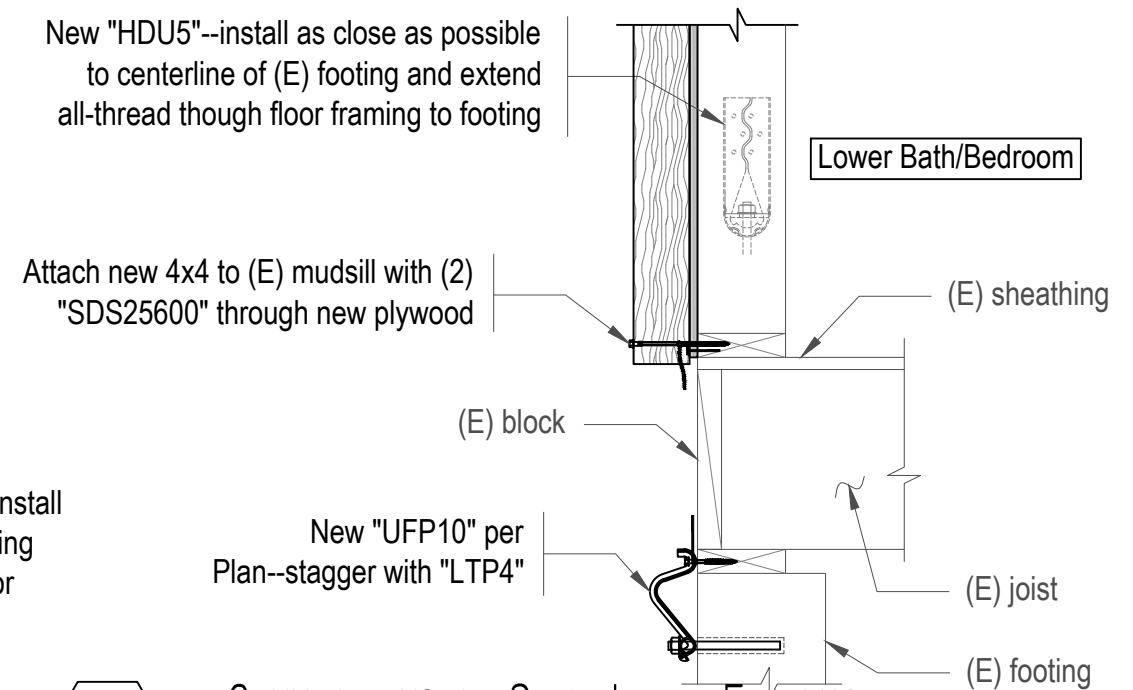
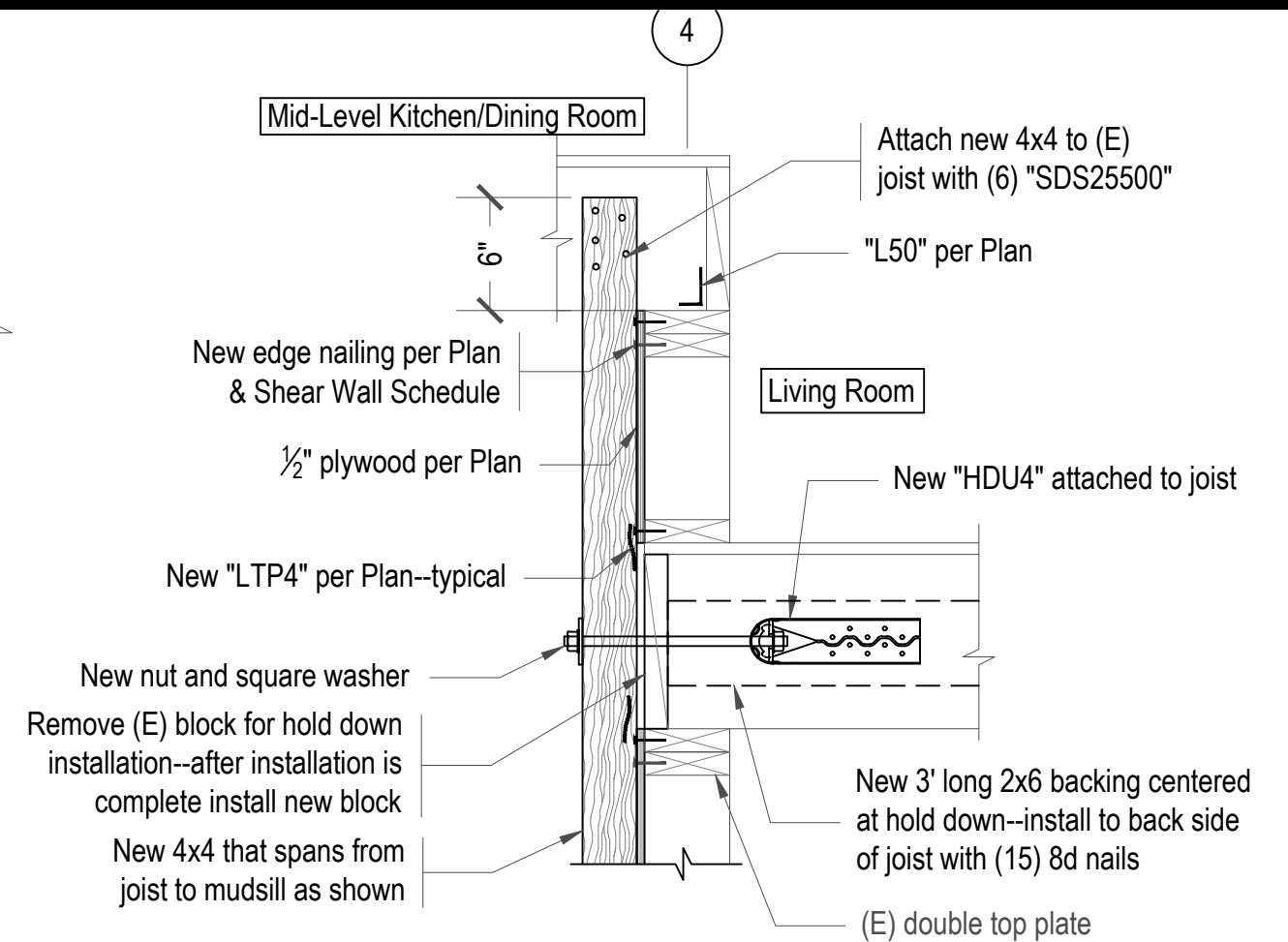
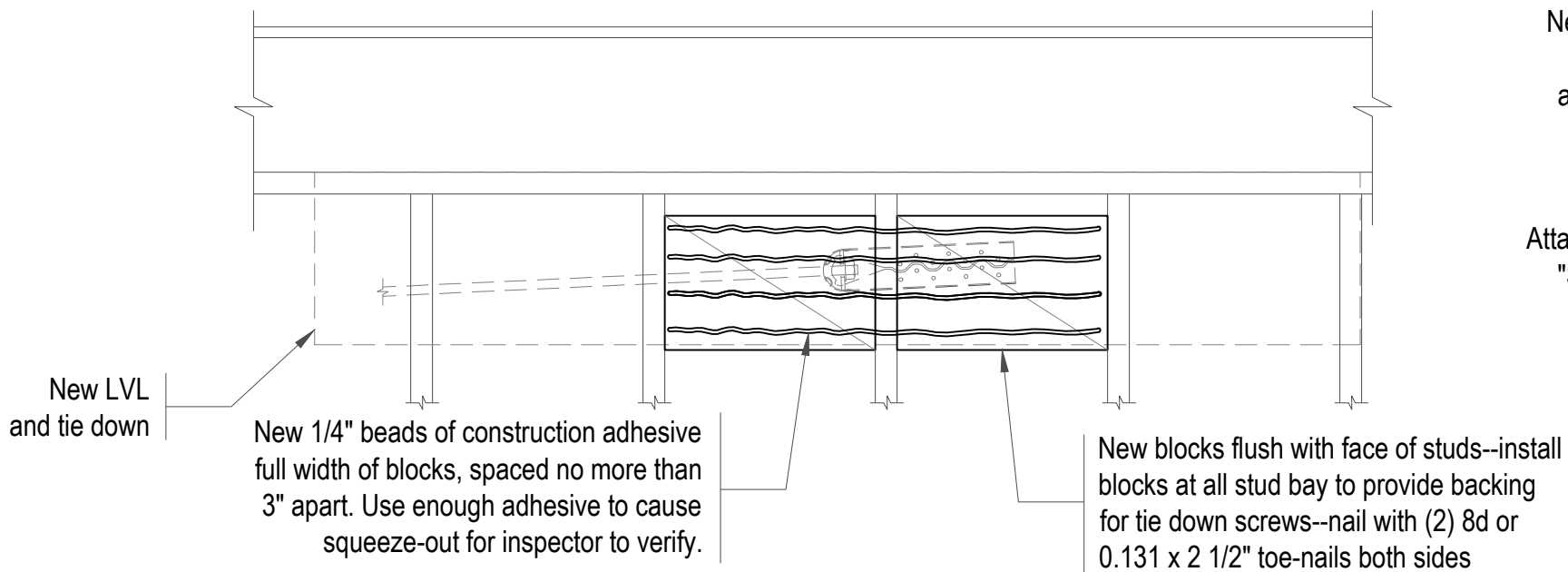
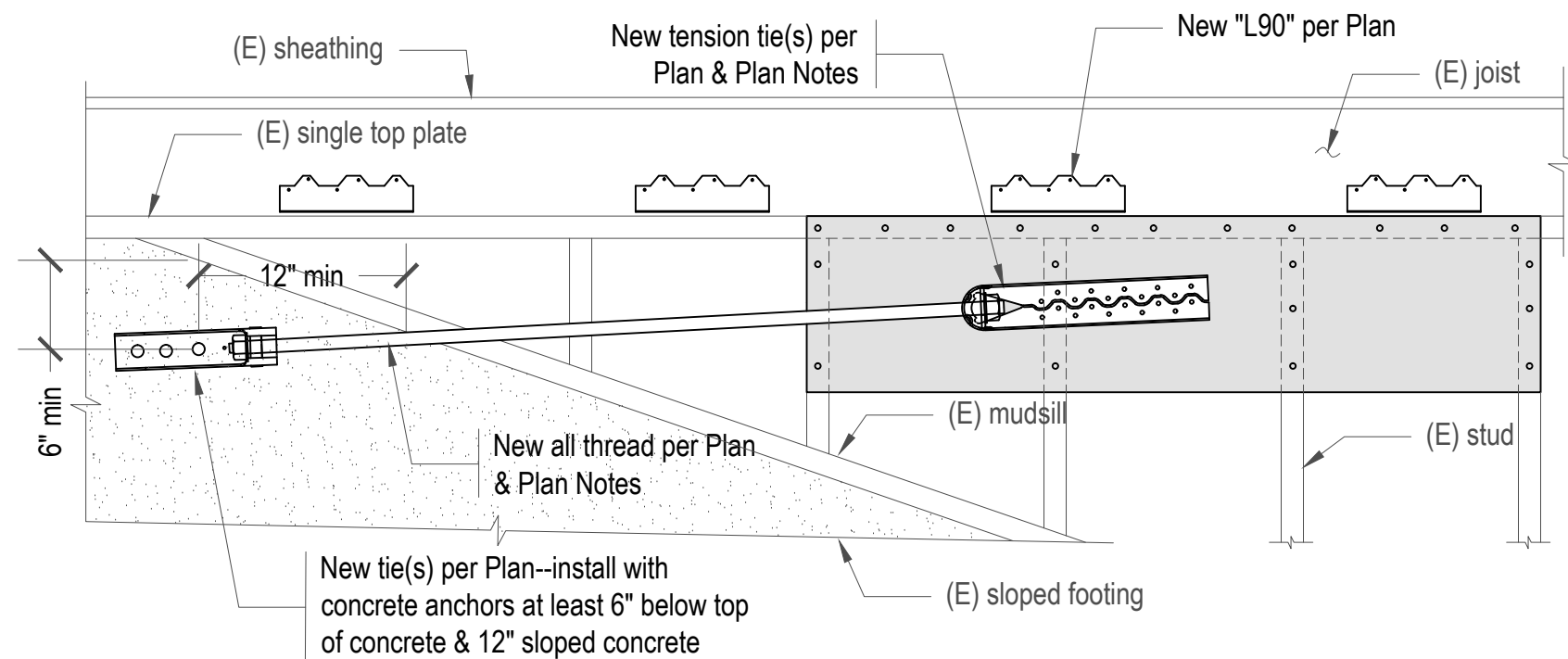


A2
5 MUDSILL CONNECTION TO FOOTING AT DOUBLE SIDED WALL
Scale: 1/2"=1'-0"



A4
5 MUDSILL CONNECTION TO FOOTING
Scale: 1/2"=1'-0"

NOTE: Plywood installed on only one side of wall on Line 11

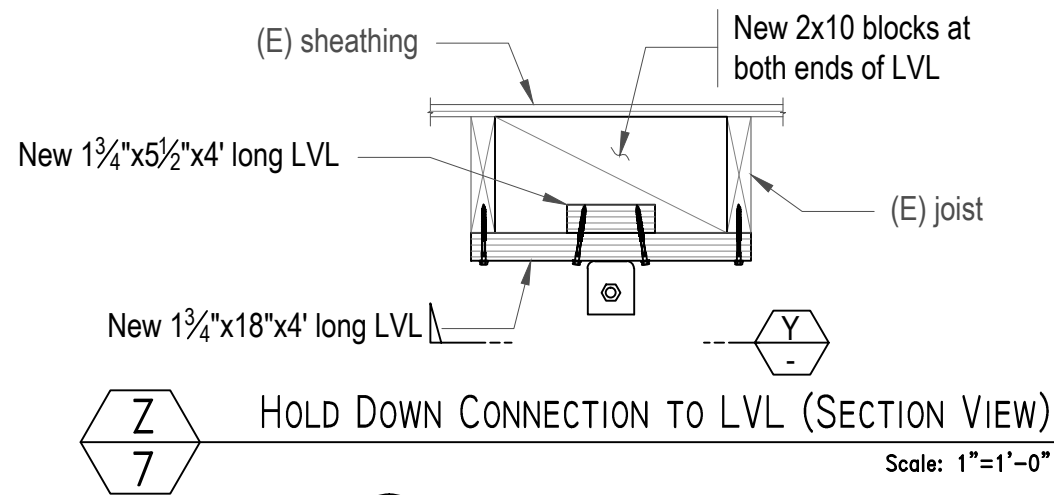


H1
6 HILLSIDE ANCHOR

Scale: 1"=1'-0"

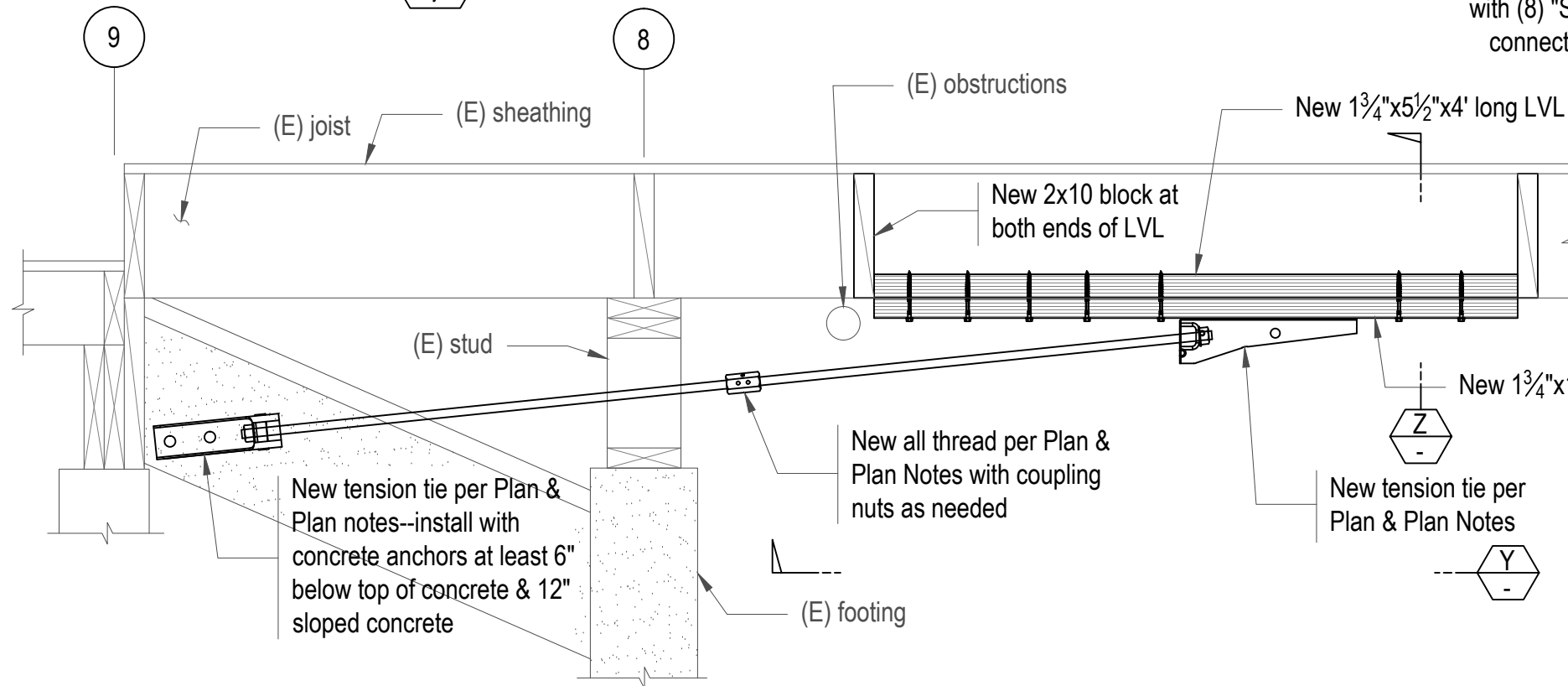
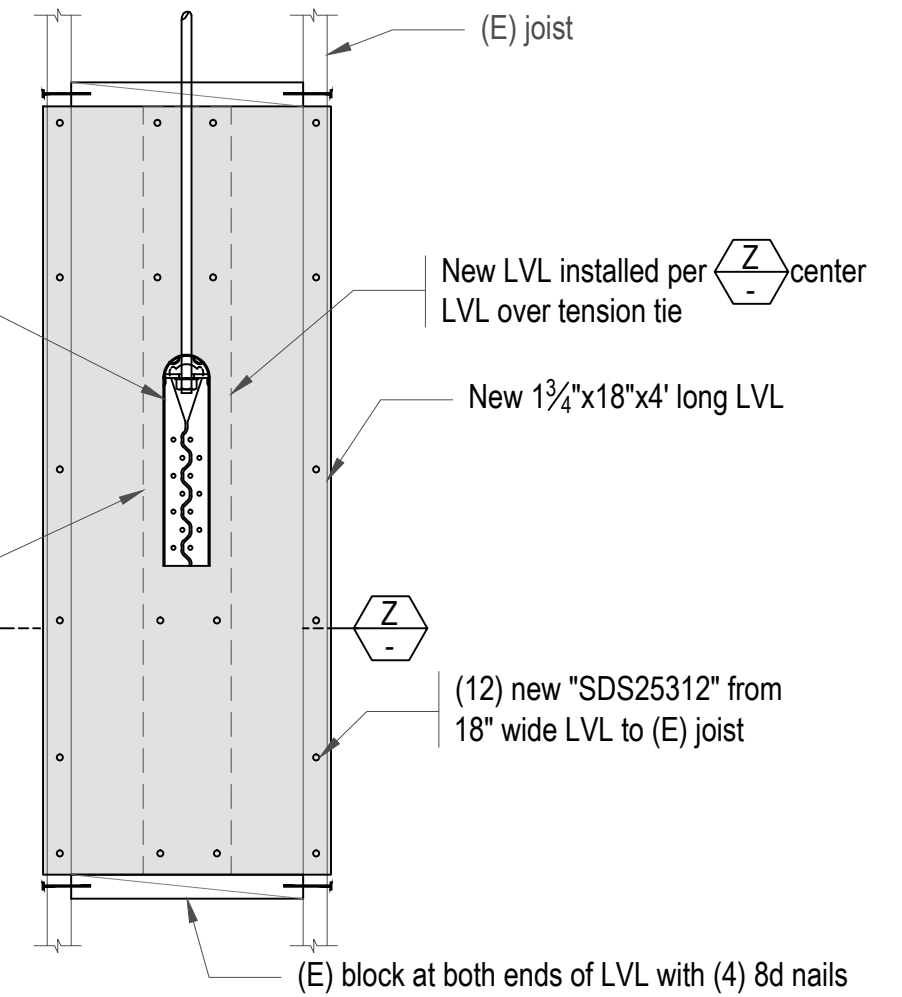
A5
6 CONNECTIONS AT SPLIT LEVEL FRAMING

Scale: 1"=1'-0"



New tension tie per Plan & Plan Notes--install tie anywhere between joists

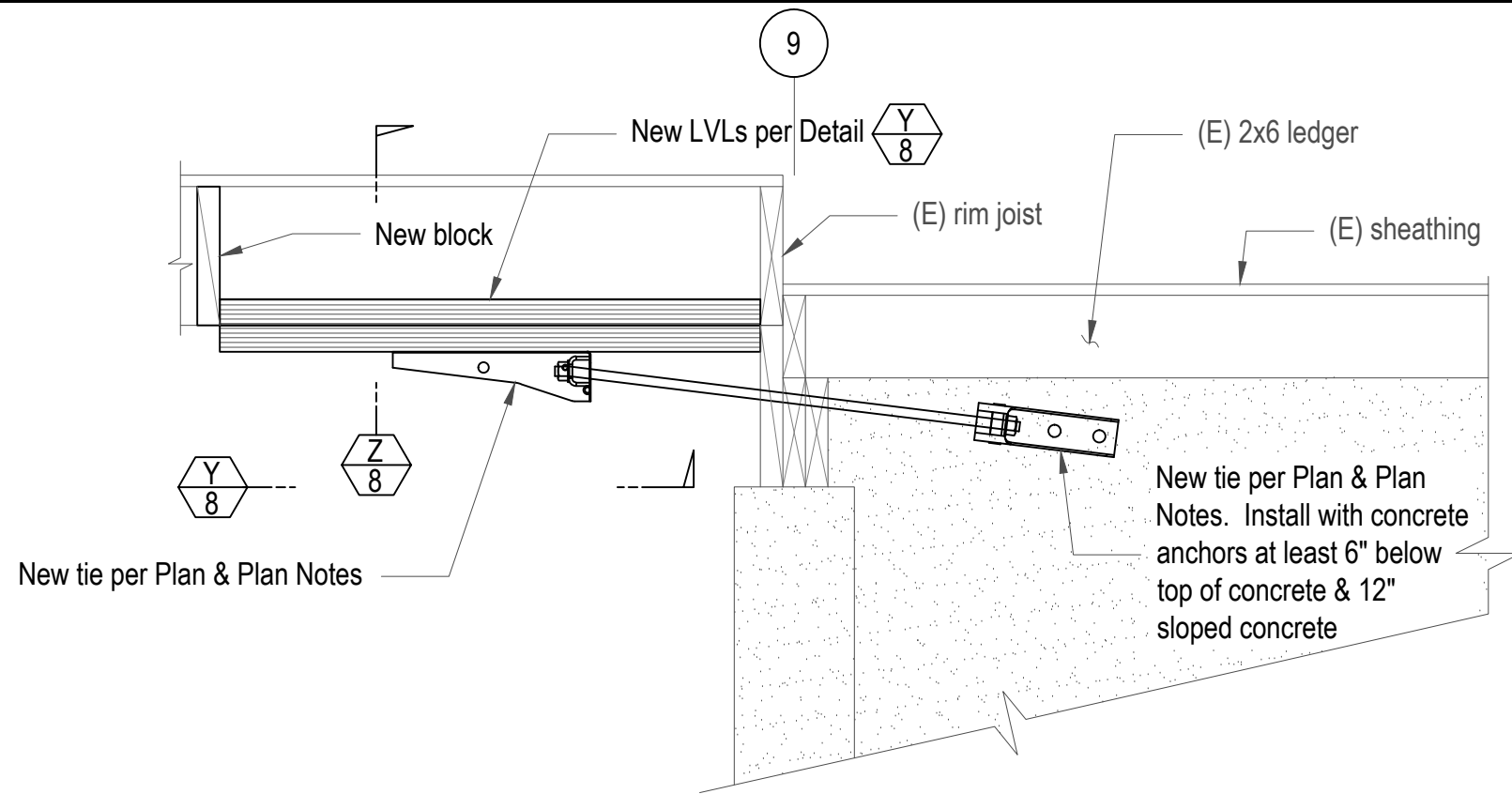
New 1 3/4"x5 1/2"x4' long LVL with (8) "SDS25312" connecting 2 LVLs



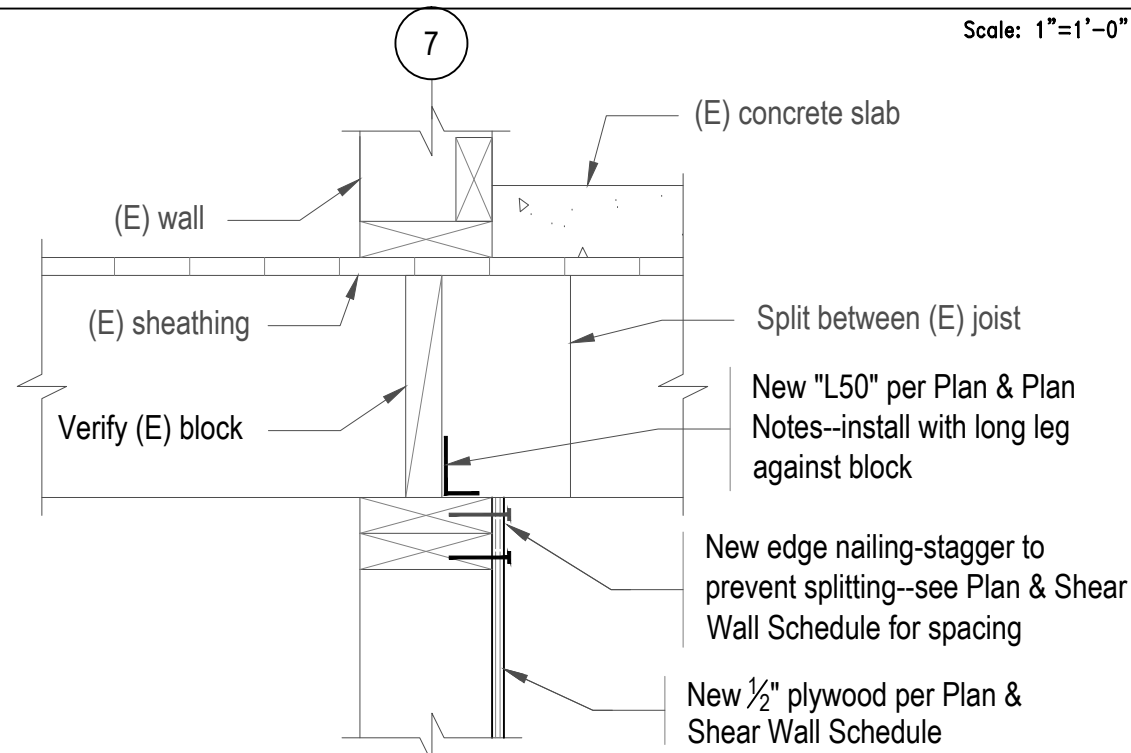
H6
7

HILLSIDE ANCHOR TO LVL CONNECTED TO FLOOR JOISTS

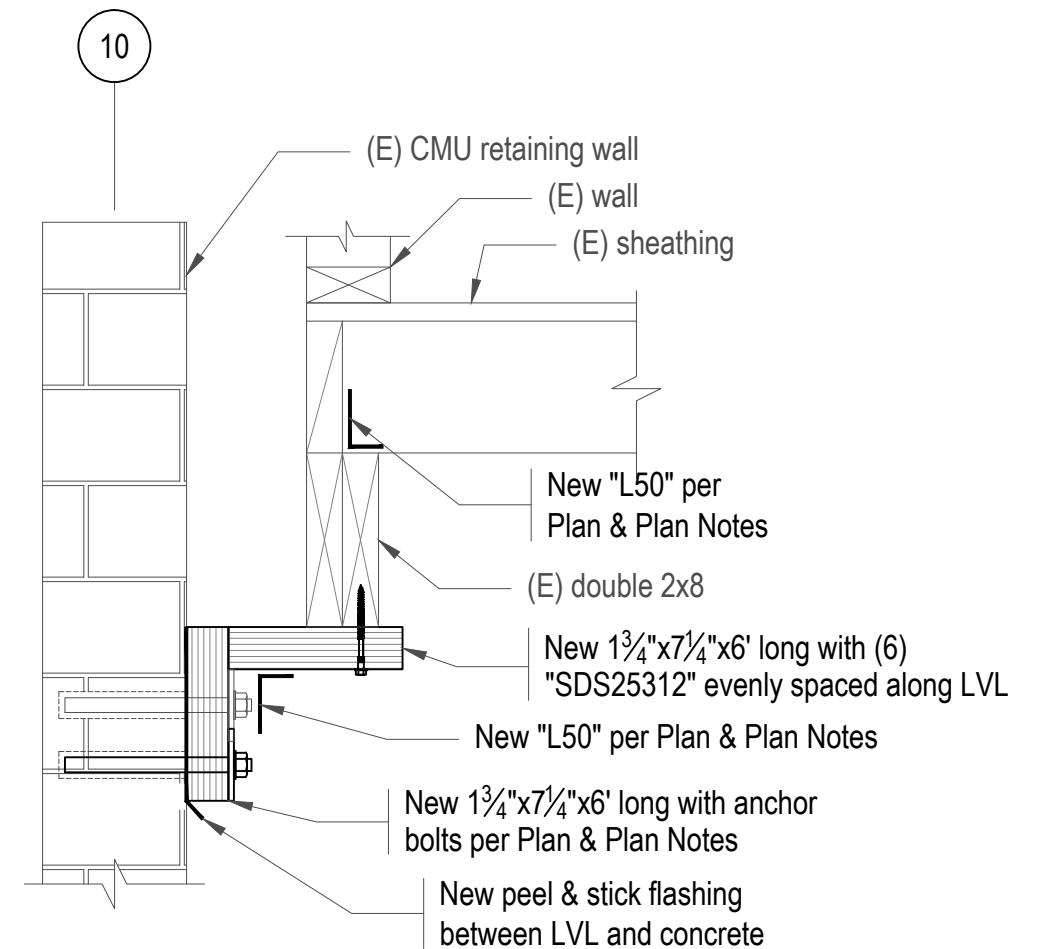
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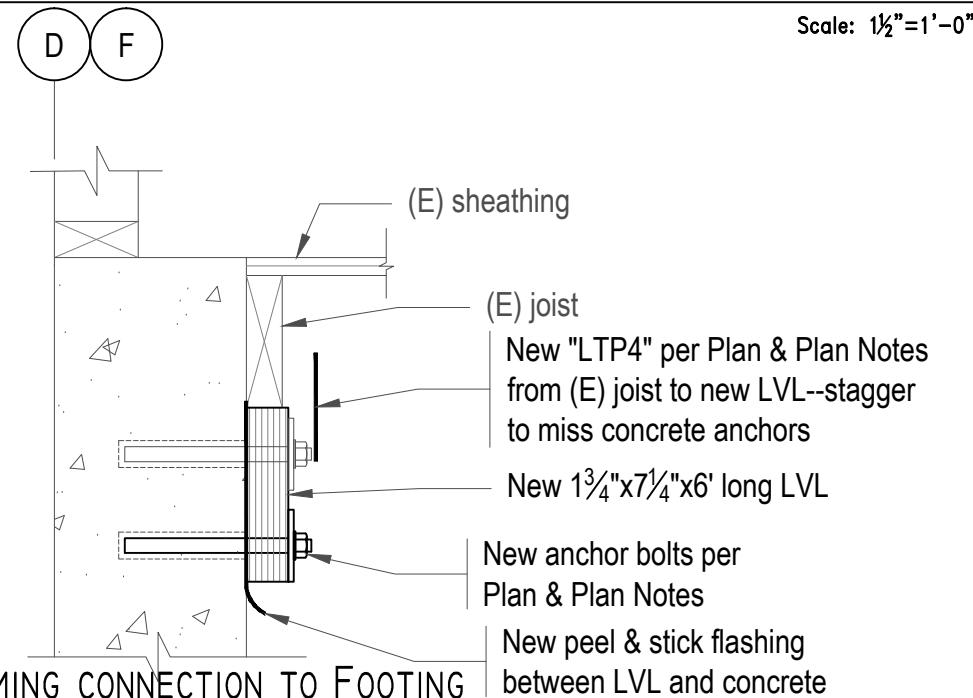
H7
8 HILLSIDE ANCHOR TO LVL CONNECTED TO FLOOR JOISTS
Scale: 1"=1'-0"



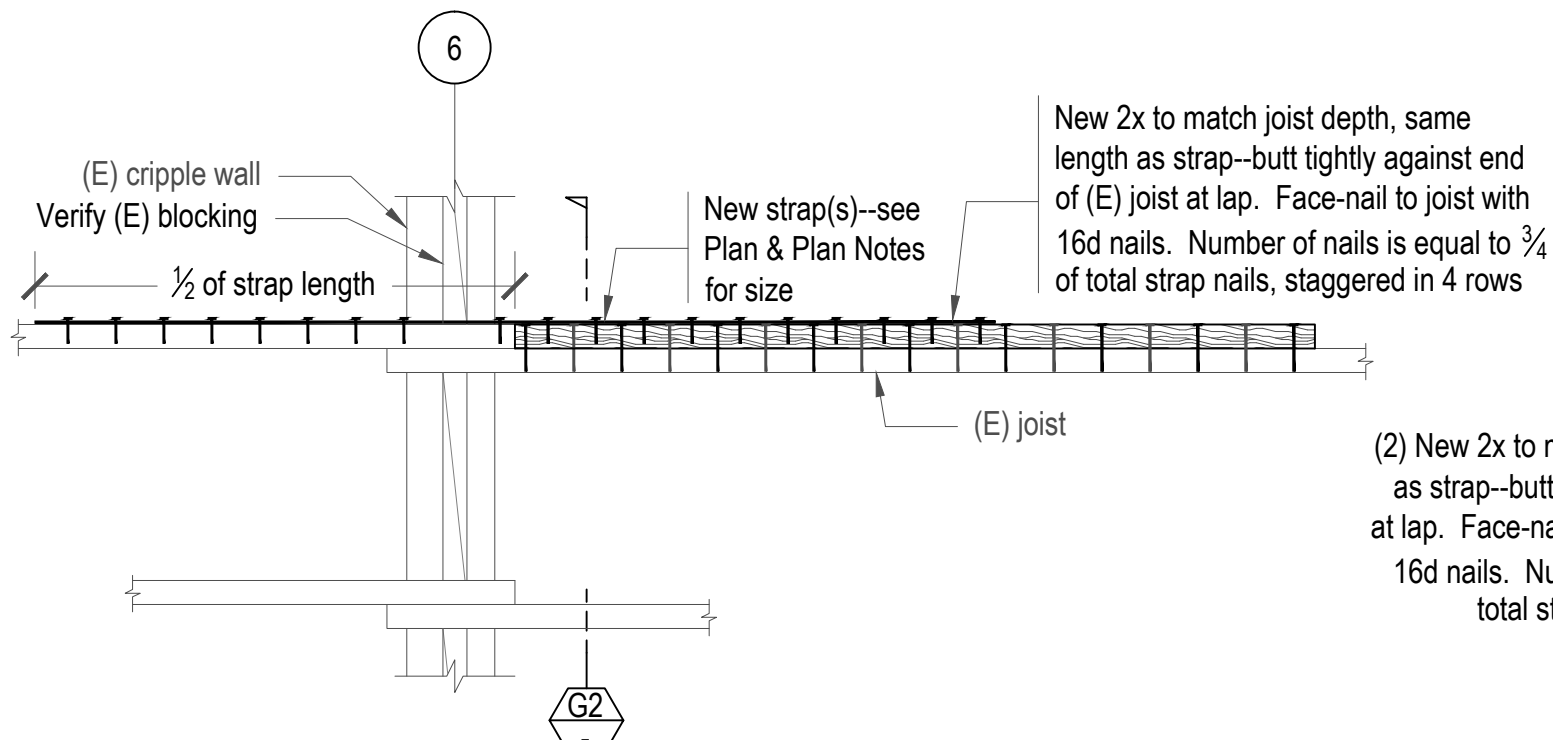
F5
8 SHEAR TRANSFER CONNECTION TO INTERIOR WALL PARALLEL TO JOISTS
Scale: 1/2"=1'-0"



S
8 FLOOR FRAMING CONNECTION TO RETAINING WALL
Scale: 1/2"=1'-0"

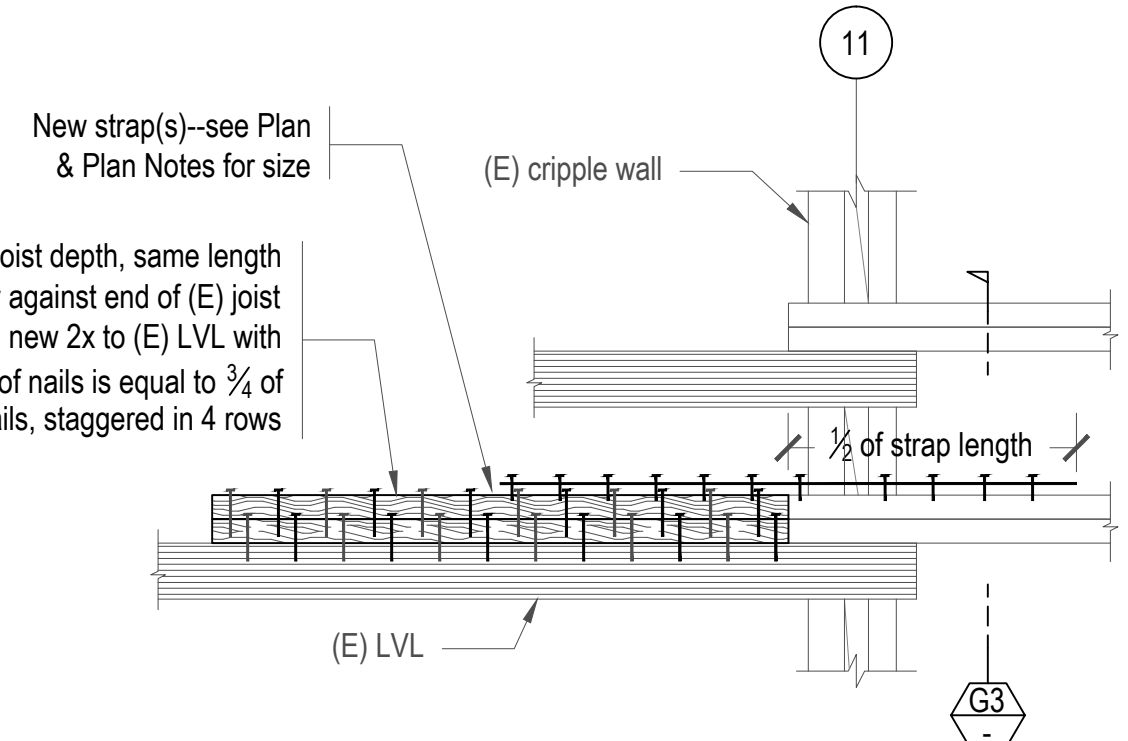


D5
8 FLOOR FRAMING CONNECTION TO FOOTING
Scale: 1/2"=1'-0"

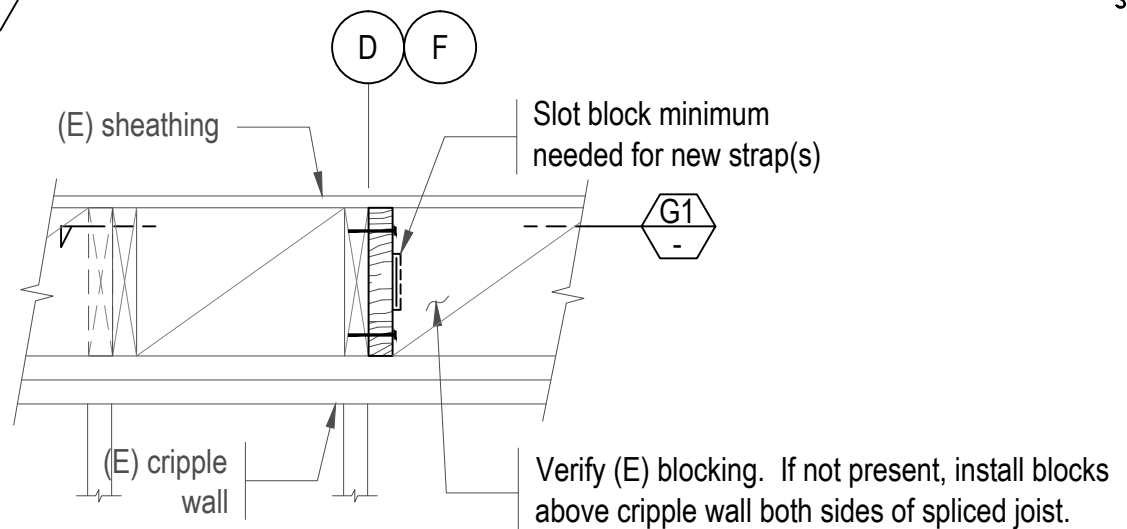


G1
9 REINFORCEMENT AT (E) JOIST LAP FOR ADDED DRAG CAPACITY (TOP VIEW)
Scale: 1"=1'-0"

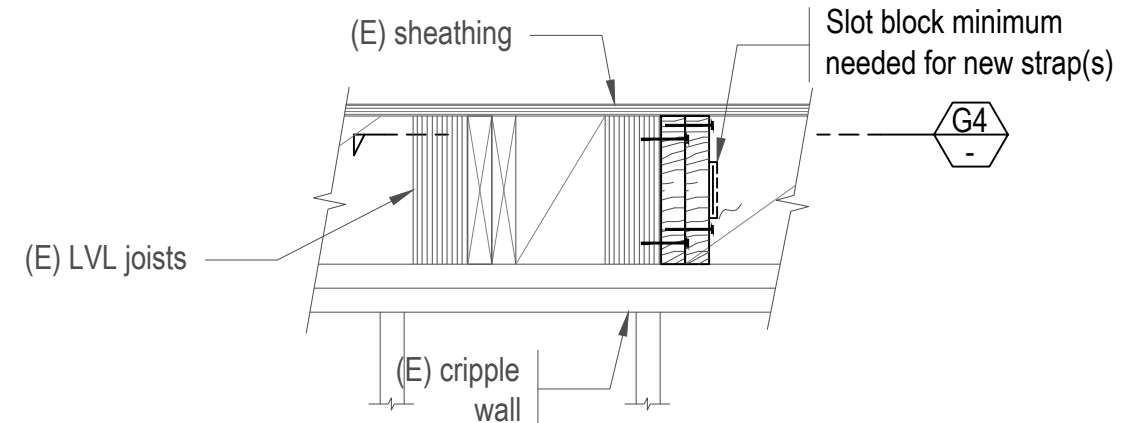
(2) New 2x to match joist depth, same length as strap--butt tightly against end of (E) joist at lap. Face-nail both new 2x to (E) LVL with 16d nails. Number of nails is equal to 3/4 of total strap nails, staggered in 4 rows



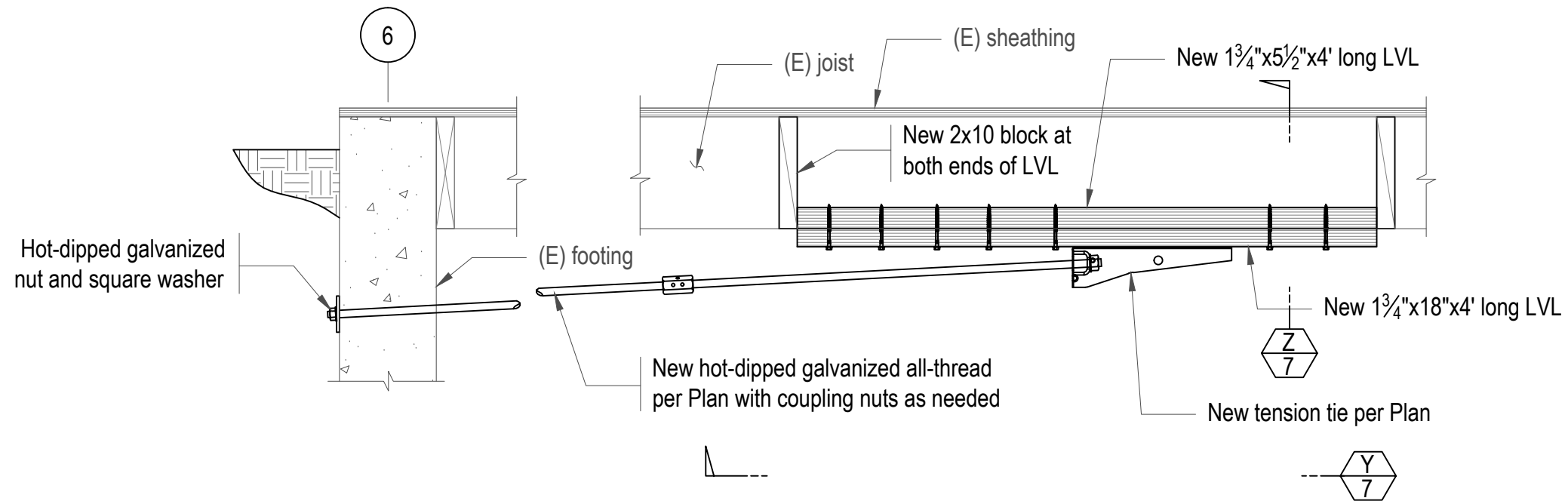
G4
9 REINFORCEMENT AT (E) JOIST LAP FOR ADDED DRAG CAPACITY BELOW CONCRETE SLAB (TOP VIEW)
Scale: 1"=1'-0"



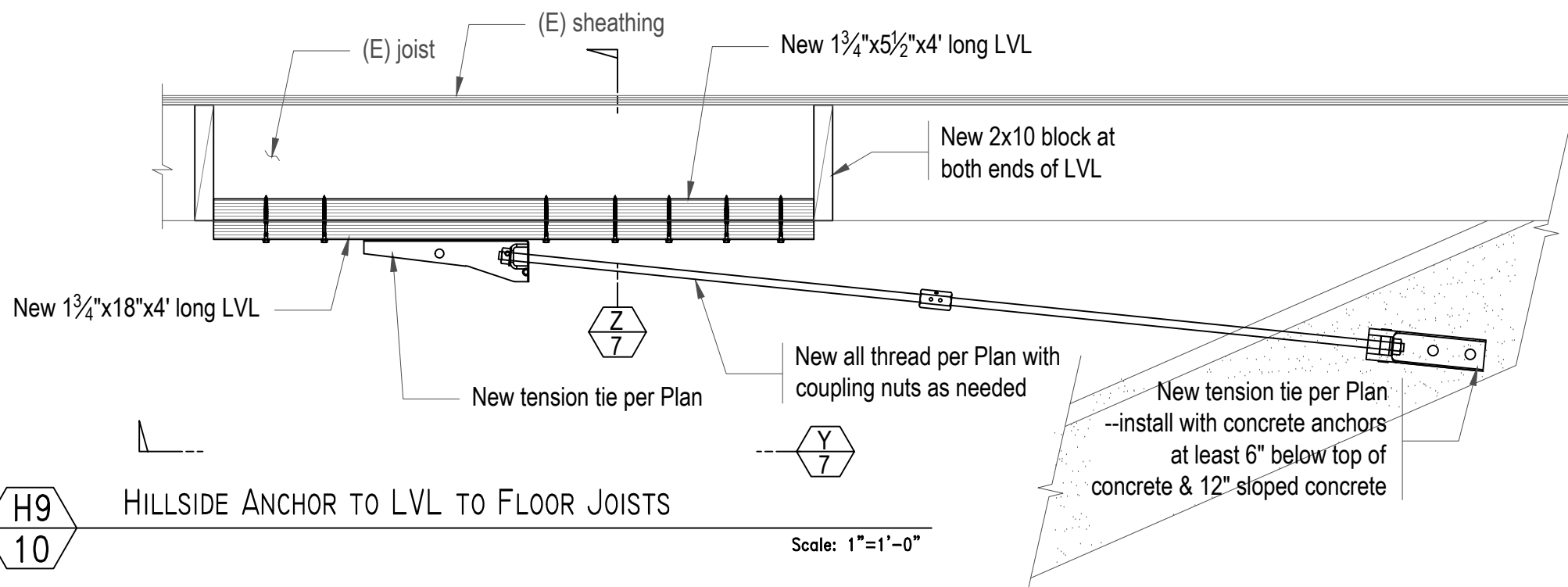
G2
9 REINFORCEMENT AT (E) JOIST LAP FOR ADDED DRAG CAPACITY (SECTION VIEW)
Scale: 1"=1'-0"



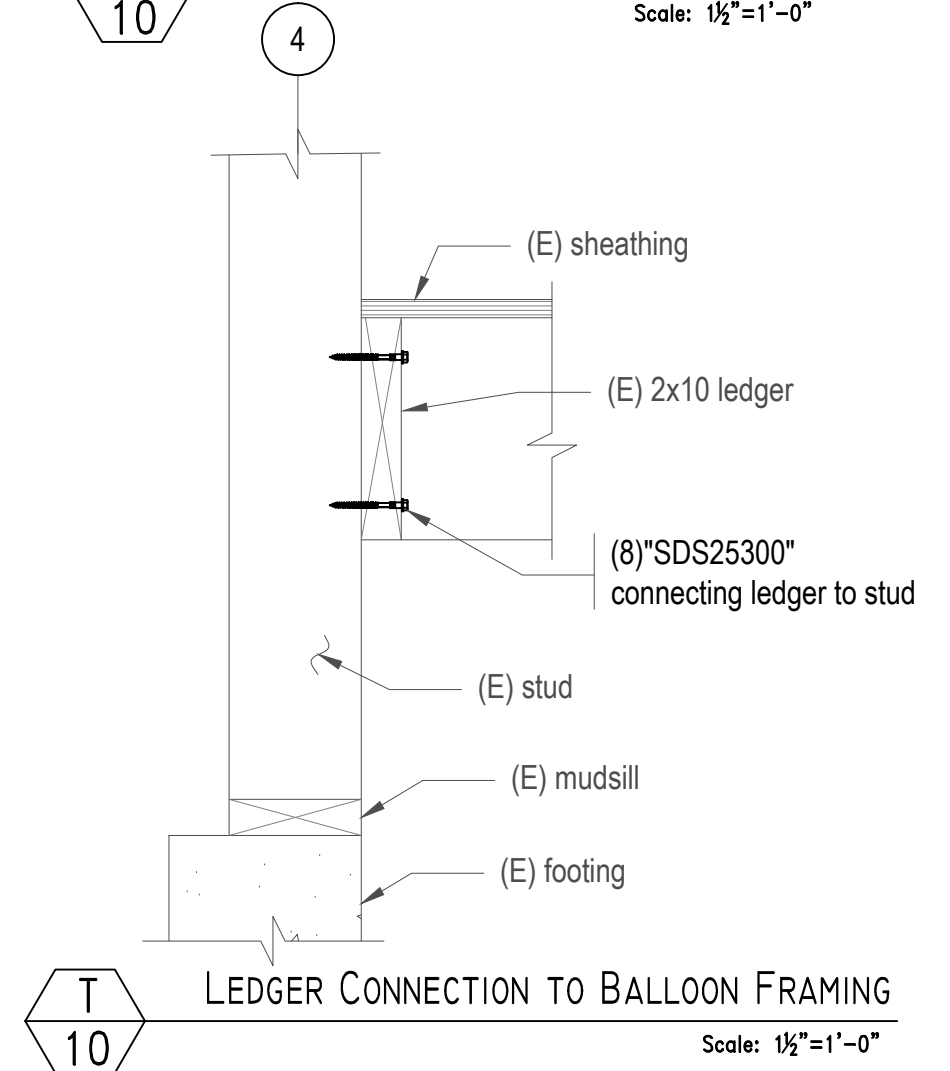
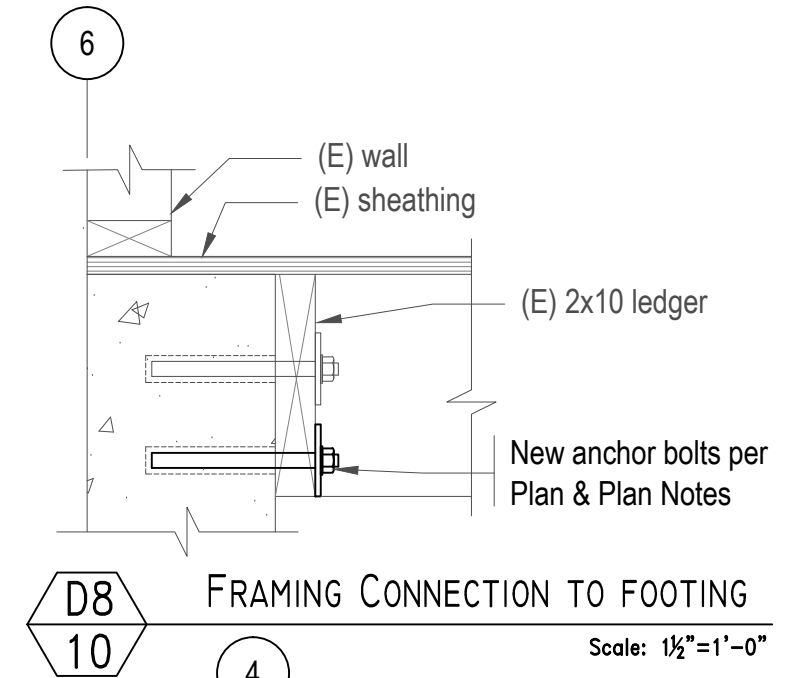
G3
9 REINFORCEMENT AT (E) JOIST LAP FOR ADDED DRAG CAPACITY BELOW CONCRETE SLAB (SECTION VIEW)
Scale: 1"=1'-0"



H10
10 HILLSIDE ANCHOR ATTACHED TO INTERIOR WALL
Scale: 1"=1'-0"

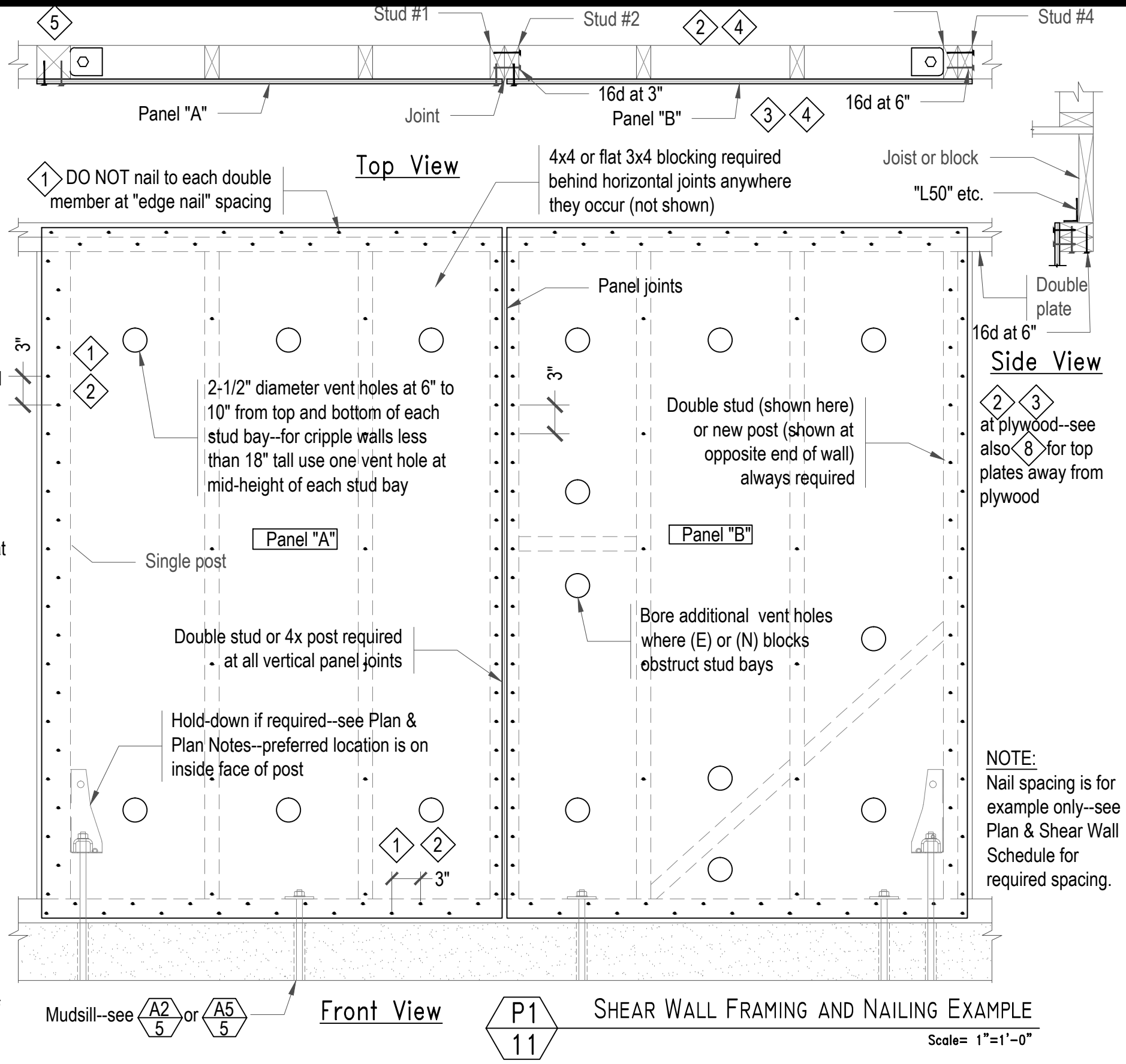


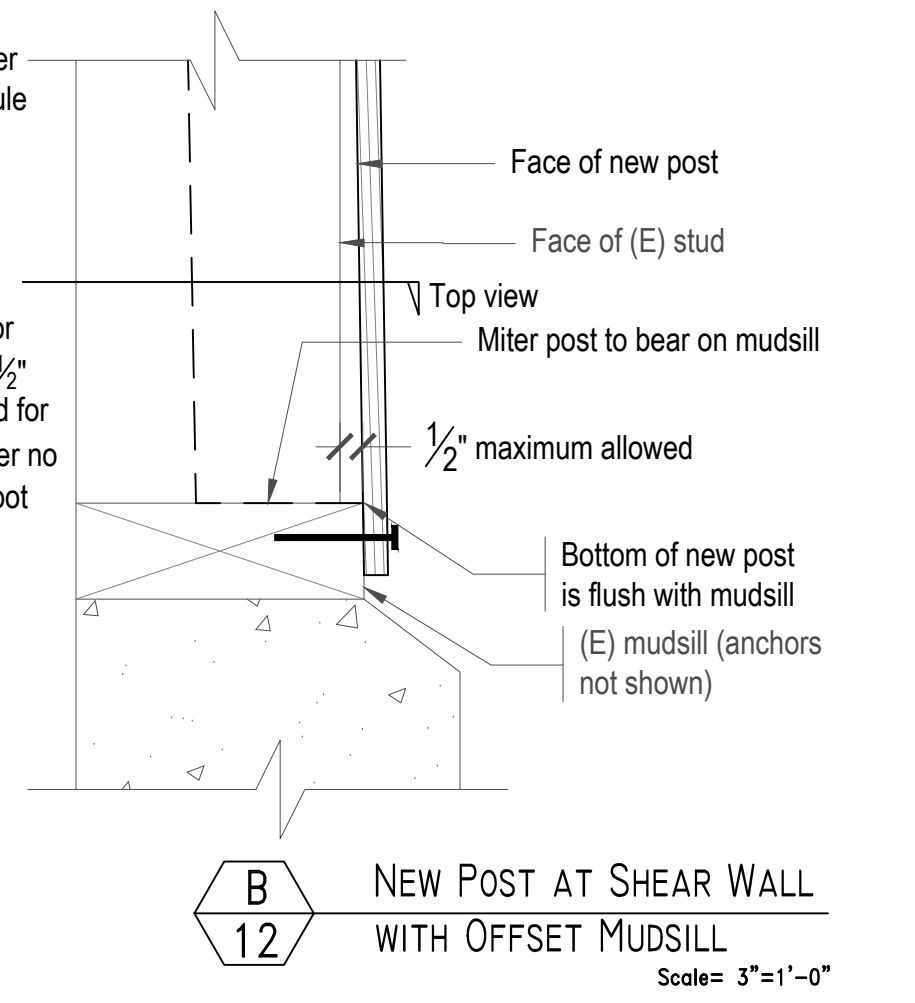
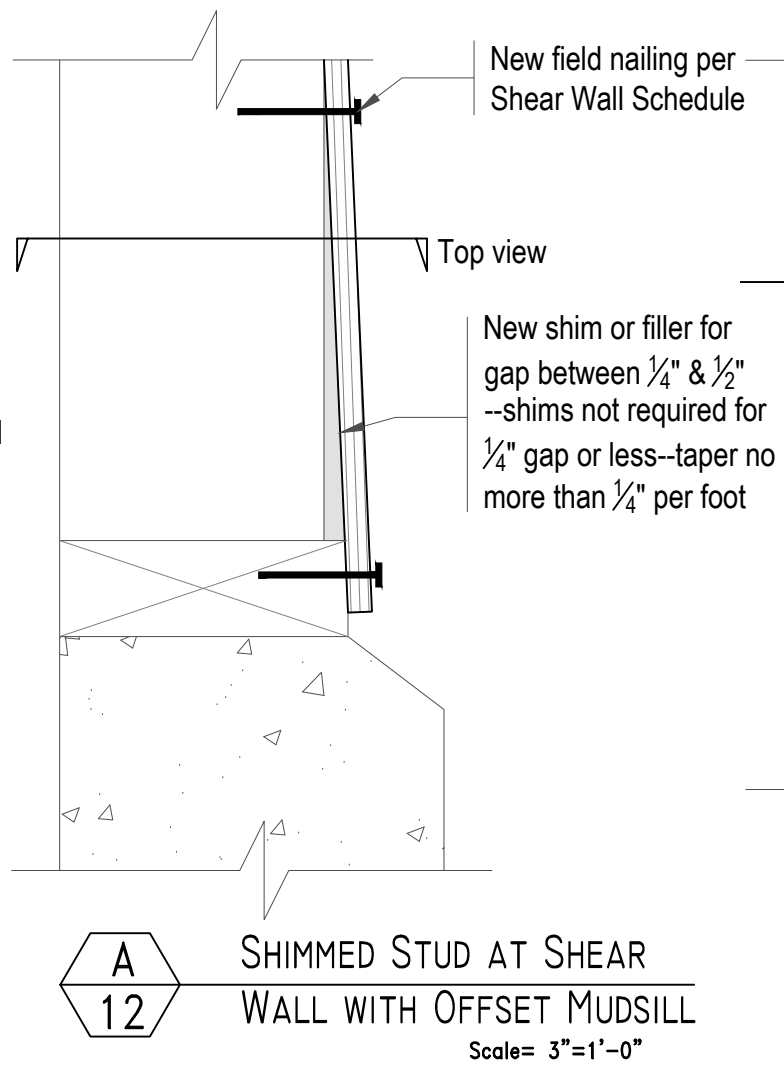
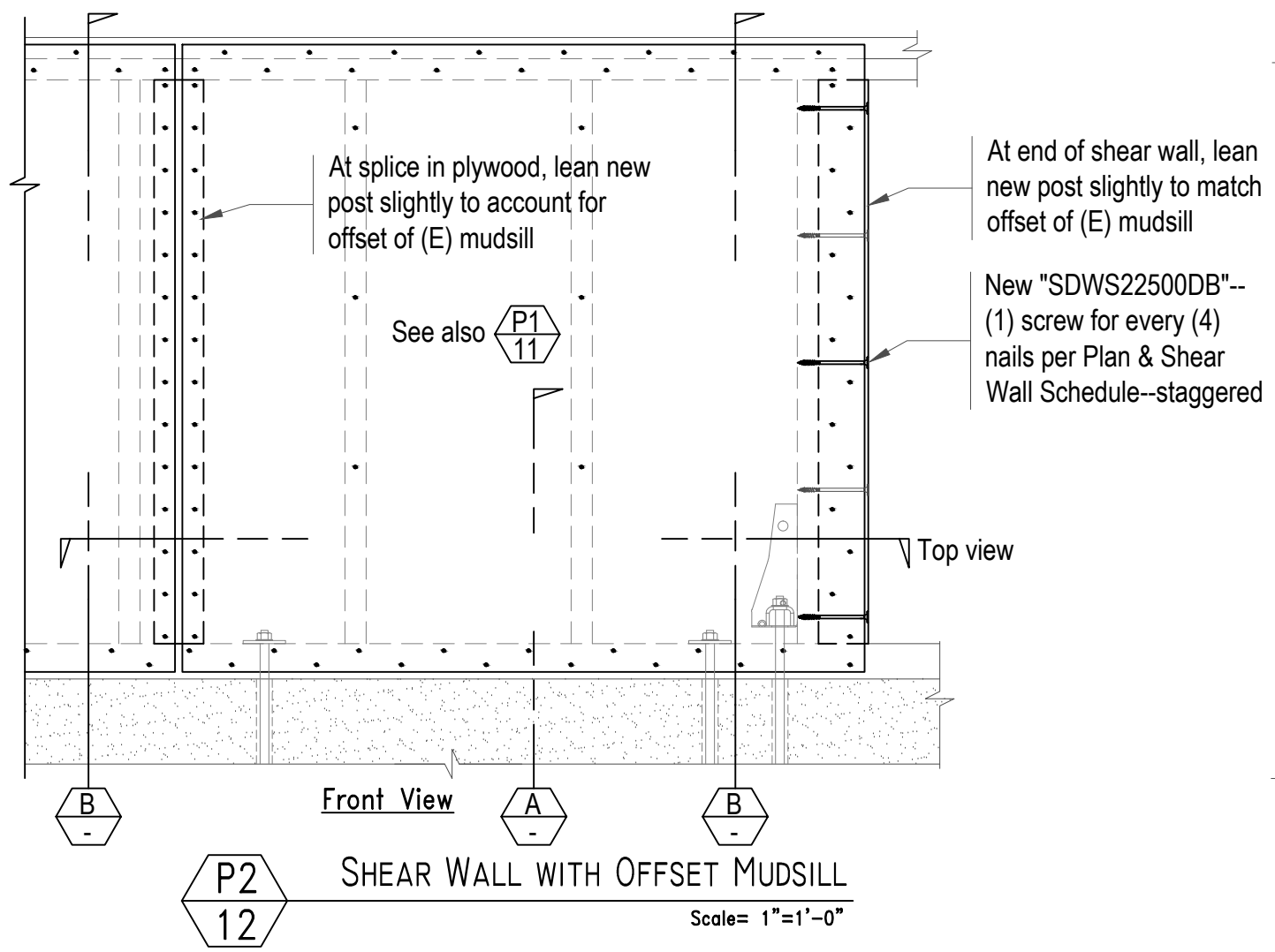
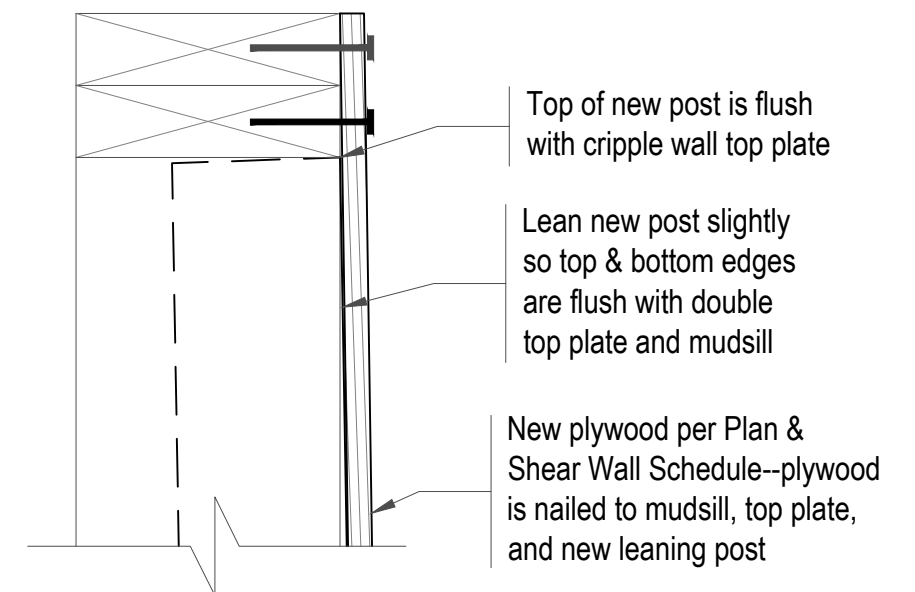
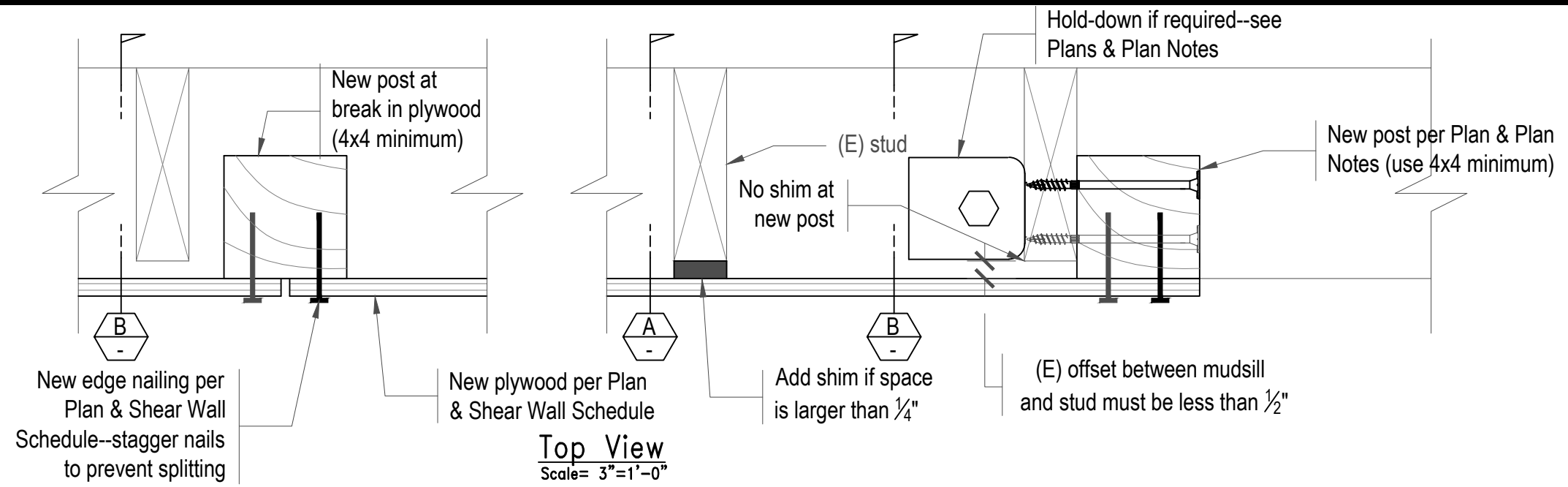
H9
10 HILLSIDE ANCHOR TO LVL TO FLOOR JOISTS
Scale: 1"=1'-0"

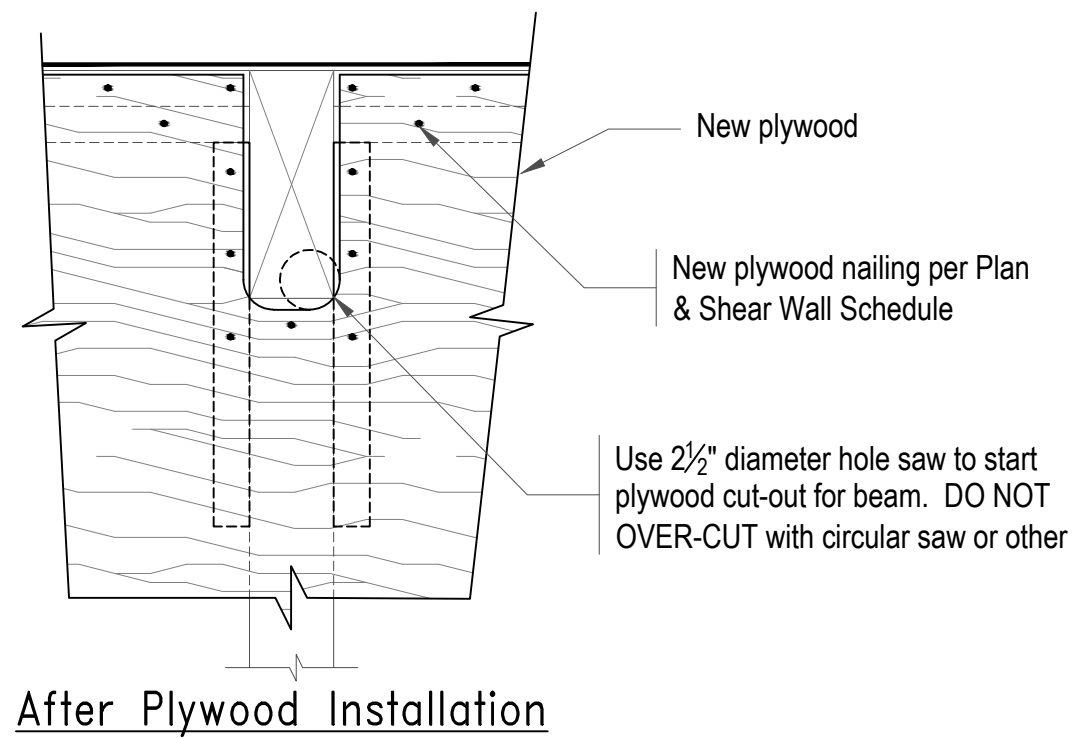
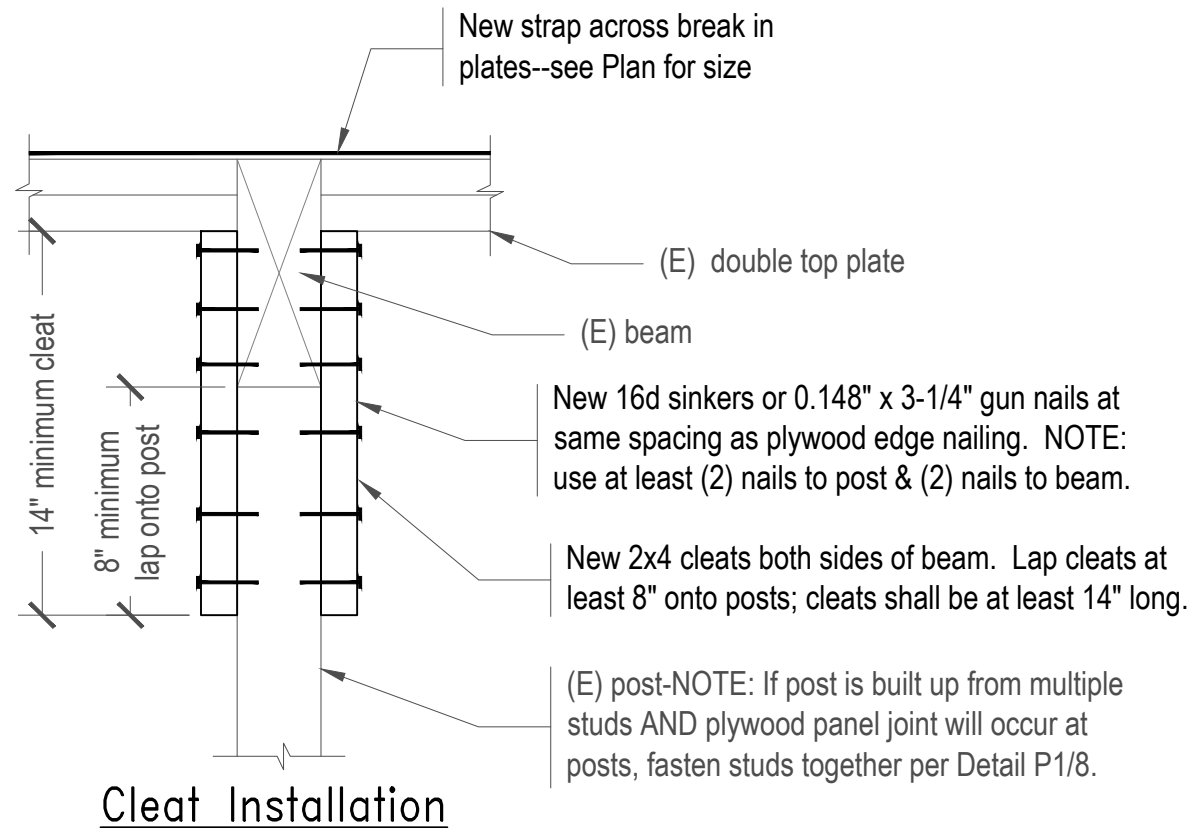


Notes:

1. Panel edge-nail spacing should be the same along all edges of every piece of plywood. 3" edge nailing is shown as an example in the illustration. The plywood only knows what the edge-nail spacing is--it does not know whether the nails attach to a single 4x4 post, to sistered studs, or a double top-plate. If there are TOO MANY NAILS along one edge of the plywood, then the nailing along the other edges of the panel will fail first. This is not good, so it is important to have equal nail spacing along all panel edges.
 2. "**Staggered nailing**" is intended to reduce the chance of splitting framing members that could happen if the nails are all driven in a straight line. "16-penny at 3 inches, staggered" means the nail spacing is 3 inches, but the nails alternate back and forth. This is the same as installing two rows of nails at 6-inch spacing, etc. In the case of edge nailing to a double end stud or top plate, alternate the nails from one member to another. Nailing to double studs at panel joints is at 3" along both panel edges.
 3. Earthquake (EQ) force is transferred into double top plate through the "L50" framing anchor or other connection from the blocking or rim joist. Half of the EQ force is immediately transferred from the upper top plate member into the shear plywood through the panel edge nailing. The other half of the EQ force must transfer into the lower member of the double top plate, and then into the shear plywood through the edge nails driven into the lower member. Therefore the "stitch nailing" between the top plate members can be at twice the spacing of the panel edge nailing.
 4. For double studs behind panel joint: ALL of the force in Panel "A" must transfer across the joint between the studs and into Panel "B". Therefore the stitch-nailing between studs must be at the same spacing as the shear panel edge-nailing. In the example, Stud #1 must be nailed to Stud #2 with 16-penny nails at 3" O.C.
 5. For single end-post with hold-down, all plywood edge nails connect to the same wood member that the hold-down attaches to.
 6. For built-up studs connected to hold-down: Multiple studs must be connected to act as a single member. In the example, half of the plywood edge nails connect directly to the stud attached to the hold-down (Stud #3). This transfers half of the EQ force from the plywood to the hold-down. The rest of the EQ force goes from the plywood into Stud #4, so Stud #4 must connect to Stud #3 with one 16-penny nail for every plywood edge nail (in this case, 6 inch O.C. nailing between Studs 3 & 4).
- NOTE-Nail spacing between Studs 3 & 4 is twice the spacing required between Studs 1 & 2. If there is any doubt about the reason for this, the best thing is to nail ALL built-up studs together with 16-penny nails at the same spacing as the edge nailing--that way you can be sure you always have enough nails. Nailing between studs is different than plywood edge-nailing: unless you start to split the studs, you can't have "too many" nails. You can have "too many" plywood edge nails, as noted in Item 1 above.
7. Stitch-nailing between double plates and studs is based on 16-penny COMMON nails, and is not precisely engineered. For sinkers or 0.148" gun nails, add one nail for every three.
 8. Splice ALL joints in double top plates of cripple-walls with (20) 16-penny nails on each side of joints, whether or not the splices occur in the areas that will receive plywood sheathing.

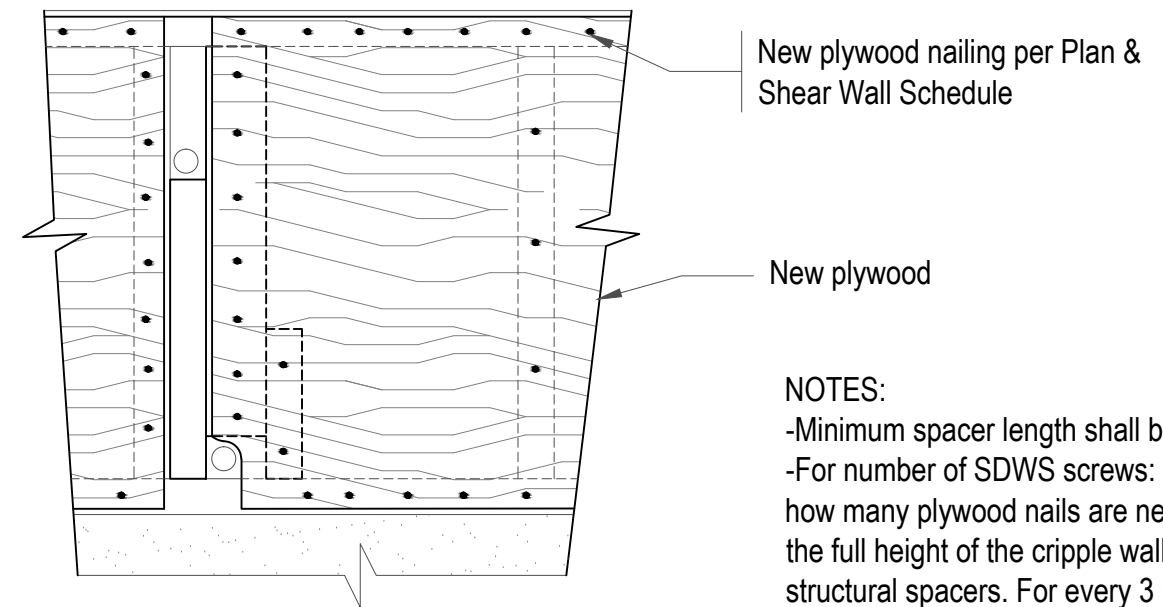
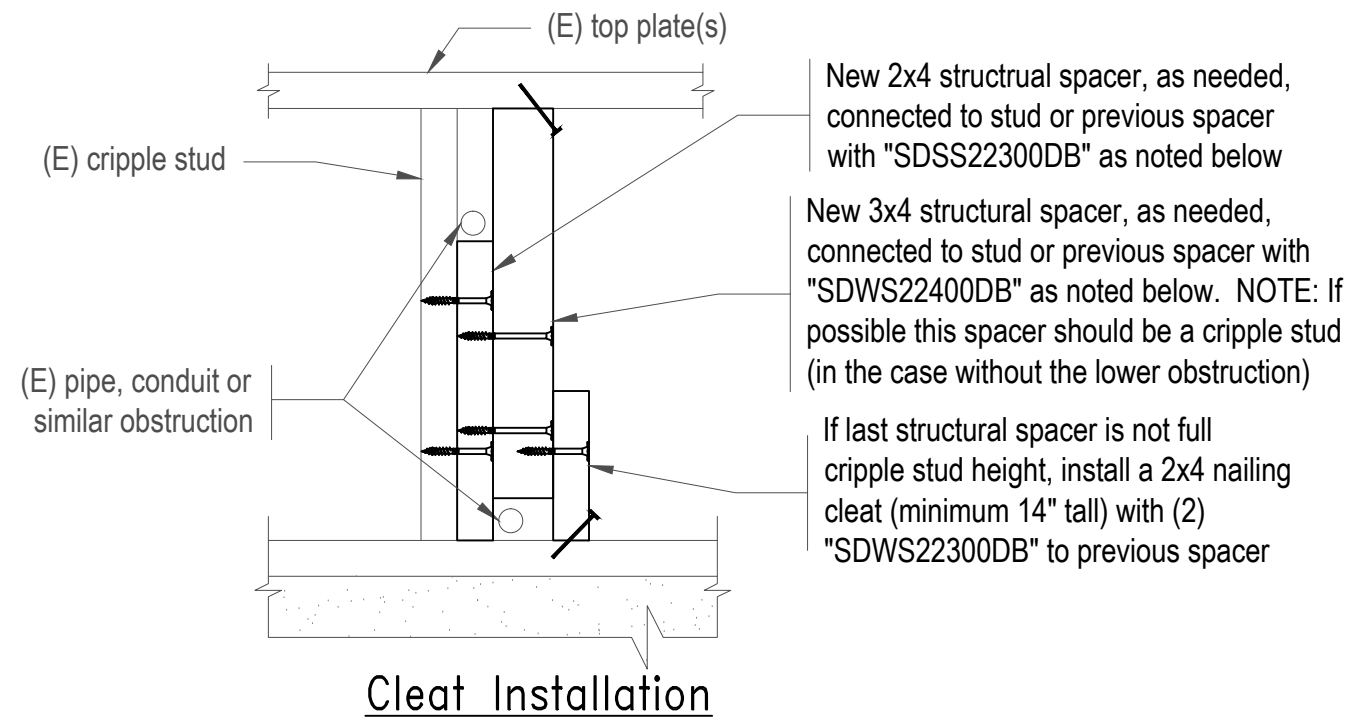






P3
13 SHEAR WALL FRAMING AROUND EXISTING POST AND BEAM

Scale: 1/2"=1'-0"

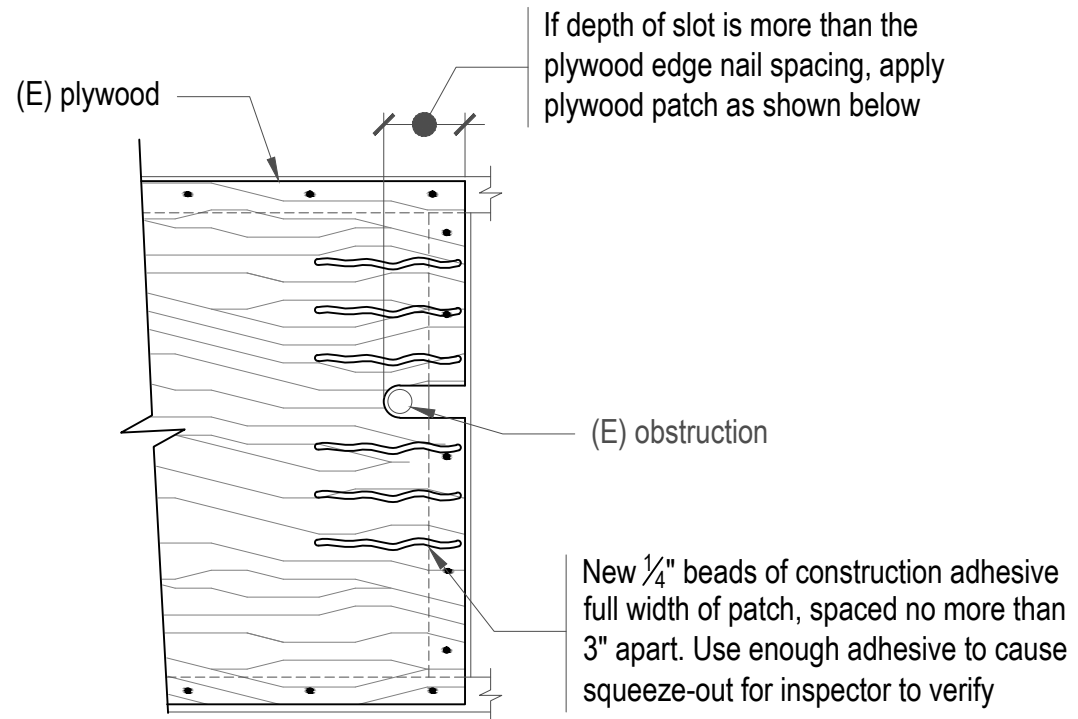


NOTES:

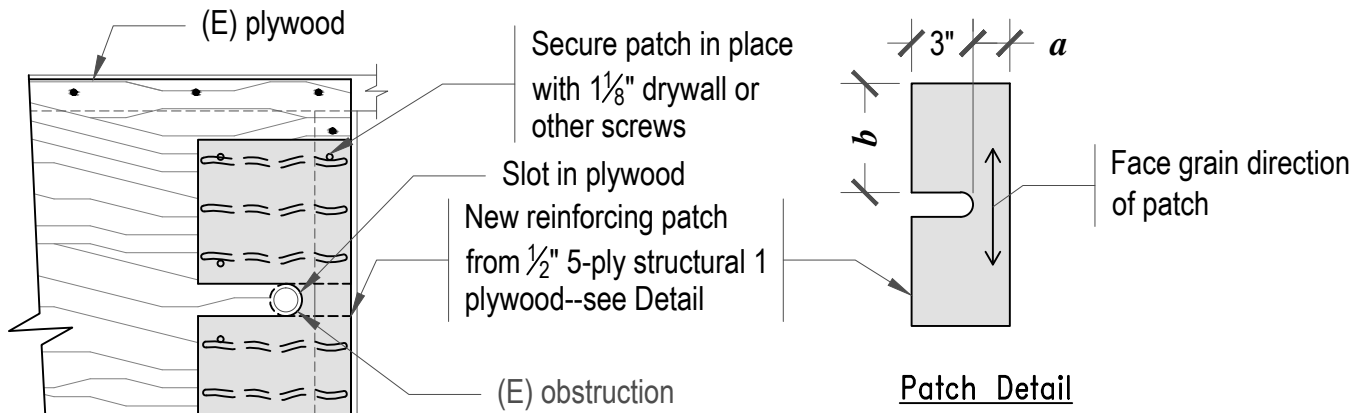
- Minimum spacer length shall be 14".
- For number of SDWS screws: Determine how many plywood nails are needed along the full height of the cripple wall next to the structural spacers. For every 3 plywood nails, ONE "SDWS" screw is needed. Not all SDWS screws are shown.
- For spacers less than 24" tall, secure in place with two full-length 1/4" beads of construction adhesive in addition to screws.

P4
13 SHEAR WALL FRAMING AROUND EXISTING OBSTRUCTIONS EXAMPLE

Scale: 1/2"=1'-0"



Plywood Panel before Reinforcing Patch Installed



NOTES:
 -a-width to be full distance from obstruction to edge of plywood, but need not exceed 8"
 -b-6" minimum

Reinforcing Patch in Place