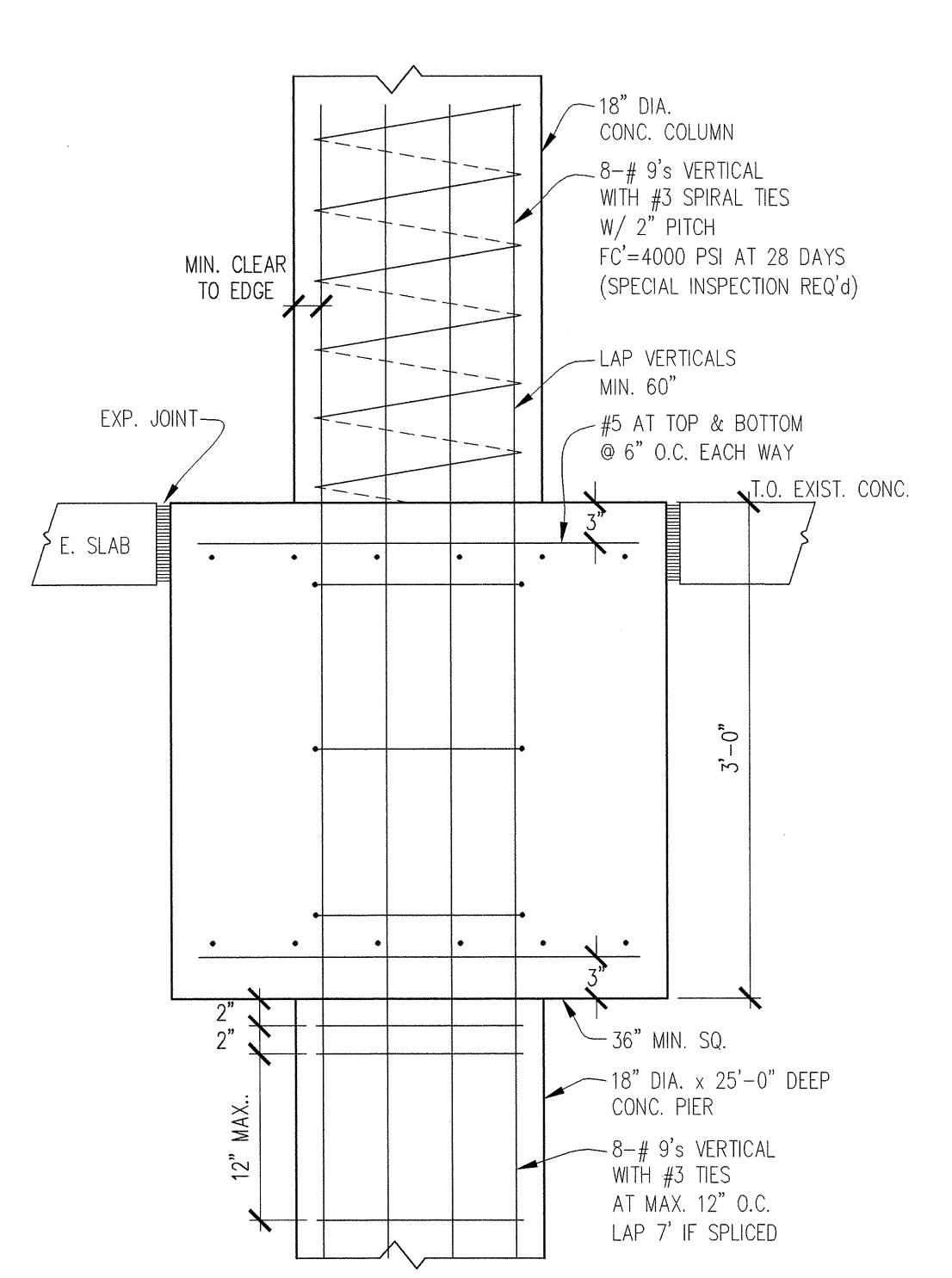


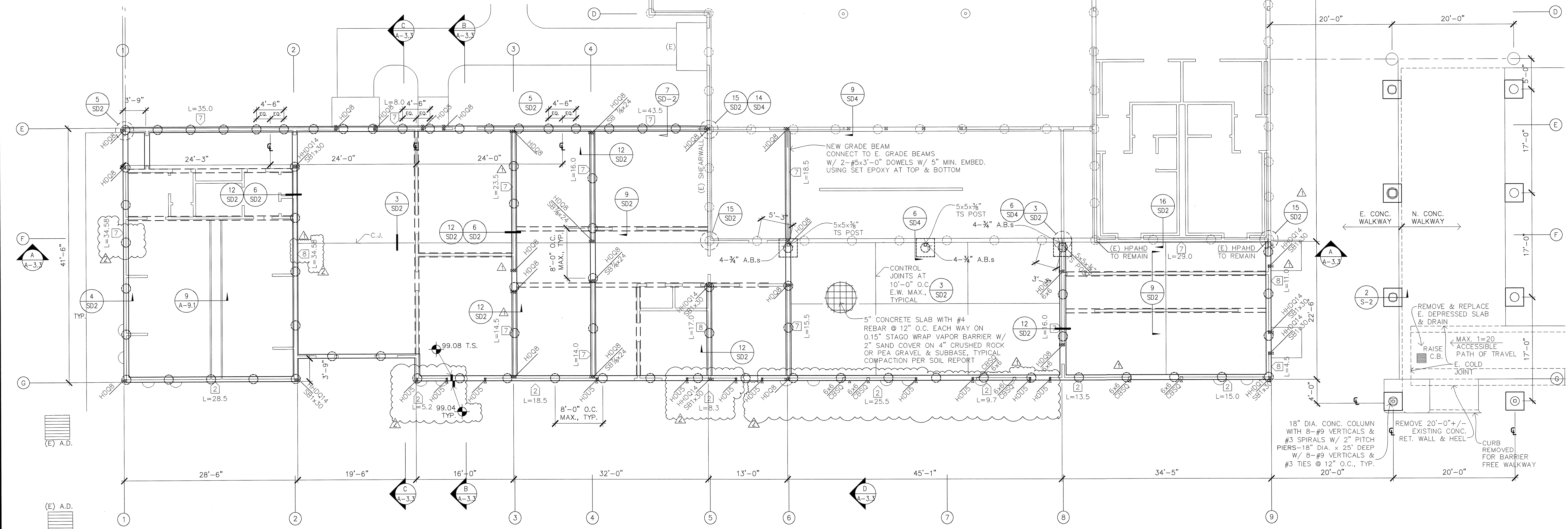
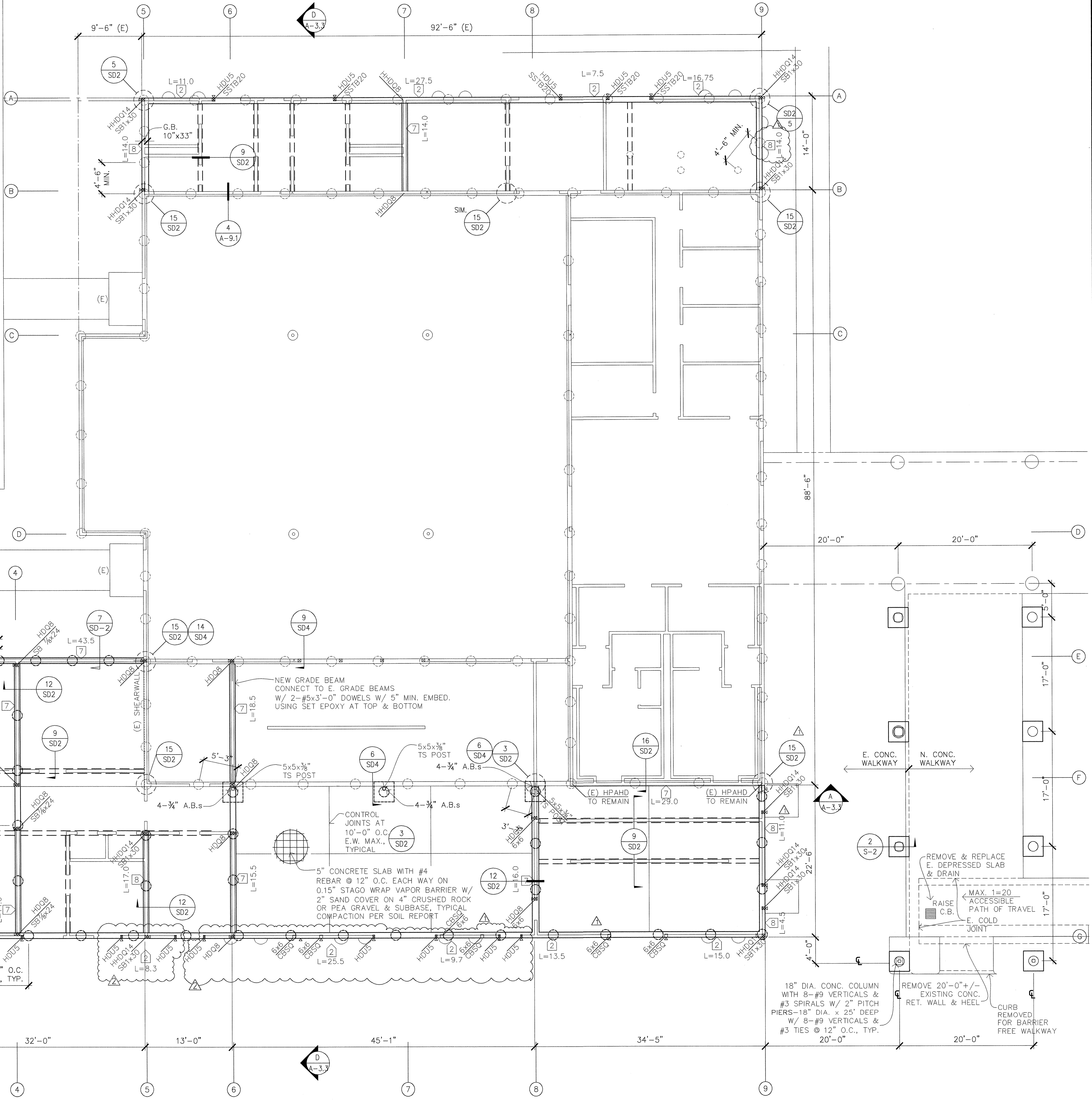
FOUNDATION NOTES:

- Please refer to notes and details on sheets SD-1 to SD-4.
- All building piers are 18" diameter x 25'-0" deep with 8 - #5 vertical rebar full depth with #3 hoops at 12" o.c., extend four (4) to grade beam at top, bend two each way alternate directions.
All piers at covered walkway are 18" diameter x 25'-0" deep with 8 - #9 vertical rebar full depth with #3 hoops at 12" o.c.
- Grade beams are 10" x 21" U.O.N. with 2 - #5 at top and 2 - #5 at bottom with #3 ties at 12" o.c. Deepen grade beam at holdowns.
- Design drawings S-1 to S-4 take precedent over SD-1 to SD-4.
- Concrete shall have not less than six sacks of cement per cubic yard of concrete & a slump not to exceed 4" when placed.
- Soils report No. H-140-01 by Henry Justiniano & Associates, dated August 10, 2009.
- Soils engineer to be on site during pier drilling and is to inspect and approve all pier holes and submit letter to building inspector.
- Coordinate with Civil, HVAC, Mechanical, Architectural and Electrical drawings.
- Use the following holdown anchors:
SSTB24 - for HDU5
SSTB28 - for HDQ8
SSTB30 - for HHQ14
- A perforated drain set in a gravel trench shall be installed around the entire perimeter of the foundation for the new additions. The drain shall discharge into the street or approved suitable discharge facility. See Soils Report for specific requirements.
- Prior to calling for foundation inspection, final grading and compaction reports shall be submitted to and approved by the Building Department and any revisions from the original soils report incorporated into the plans and specifications.
- Prior to requesting a Building Department foundation inspection, the soils engineer shall inspect and approve the foundation excavations.
- Hold down hardware must be secured in place prior to foundation inspection.



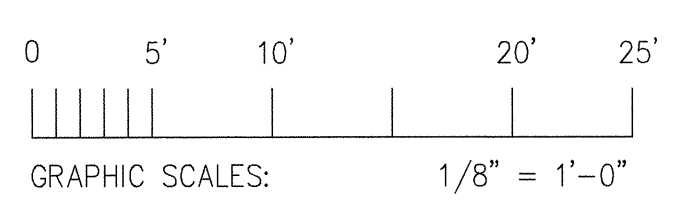
1 DETAIL
THIS SPACE LEFT BLANK
SCALE:

2 CONCRETE COLUMN
SCALE: 1"=1'-0"



(100.0 CORRESPONDS W/ 520.0 ON CIVIL DRAWINGS)

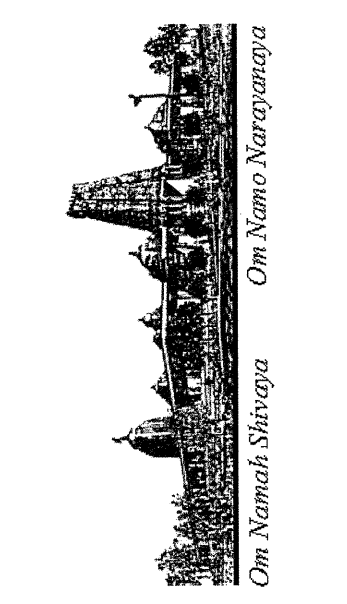
SCALE: 1/8"=1'-0"



LEGEND	
	GRADE BEAM
	THICKENED SLAB
	HOLD DOWN
	PIER

NOTE:
A perforated drain set in a gravel trench shall be installed around the entire perimeter of the foundation for the new additions. The drain shall discharge into the street or approved suitable discharge facility. See Soils Report & Civil drawings for specific requirements.

REVISIONS	BY
05-24-10	HCCC
07-30-10	HCCC
12-01-10	HCCC



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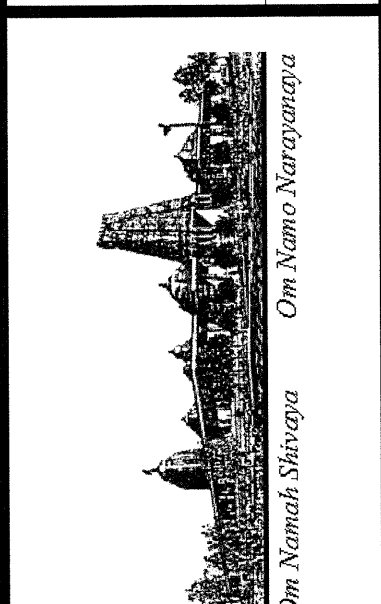
PHASE 1-A
ADDITIONS TO BUILDING "B"
STRUCTURAL FOUNDATION PLAN

DATE: 03/12/10
SCALE: 1/8"=1'-0"
DRAWN BY: BRG
PROJECT: ARROWHEAD

S-2

BUILDING B
FOUNDATION PLAN

REVISIONS	BY
05-24-10	HCCC
07-30-10	HCCC
12-01-10	HCCC



HINDU COMMUNITY and CULTURAL CENTER
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PHASE 1-A
ADDITIONS TO BUILDING "B"
STRUCTURAL SHEARWALL PLAN

DATE: 03/12/10
SCALE: 1/8" = 1'-0"
DRAWN BY: BRG
PROJECT: ARROWHEAD

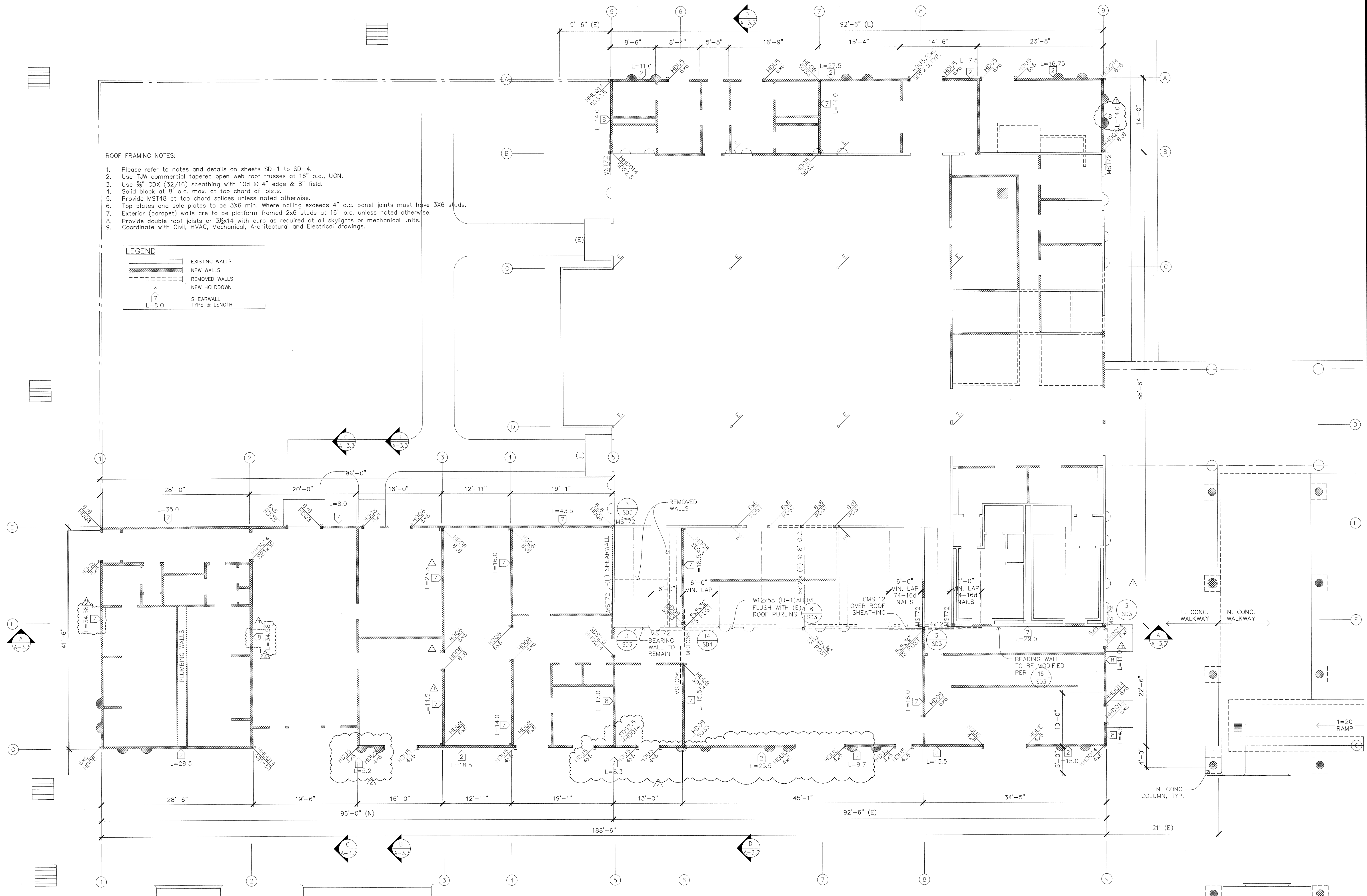
S-3

ROOF FRAMING NOTES:

1. Please refer to notes and details on sheets SD-1 to SD-4.
2. Use T.J.W commercial tapered open web roof trusses at 16" o.c., UON.
3. Use 5/8" CDX (32/16) sheathing with 10d @ 4" edge & 8" field.
4. Solid block at 8" o.c. max. at top chord of joists.
5. Provide MST48 at top chord splices unless noted otherwise.
6. Top plates and sole plates to be 3X6 min. Where nailing exceeds 4" o.c. panel joints must have 3X6 studs.
7. Exterior (parapet) walls are to be platform framed 2x6 studs at 16" o.c. unless noted otherwise.
8. Provide double roof joists or 3x14 with curb as required at all skylights or mechanical units.
9. Coordinate with Civil, HVAC, Mechanical, Architectural and Electrical drawings.

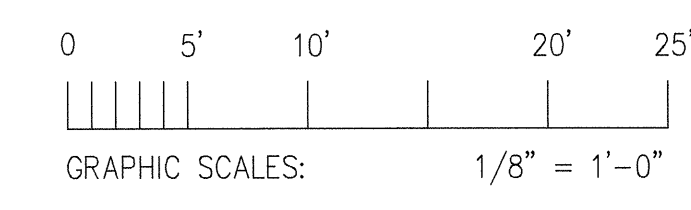
LEGEND

	EXISTING WALLS
	NEW WALLS
	REMOVED WALLS
	NEW HOLDDOWN
	SHEARWALL TYPE & LENGTH

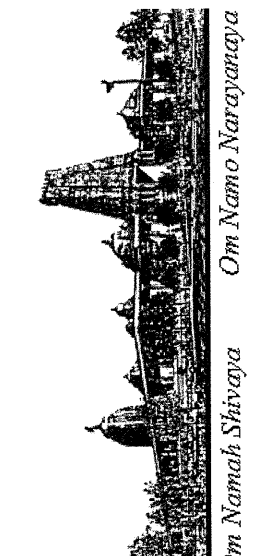


BUILDING B
SHEARWALL PLAN

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



REVISIONS	BY
05-24-10	HCCC
07-30-10	HCCC
12-01-10	HCCC

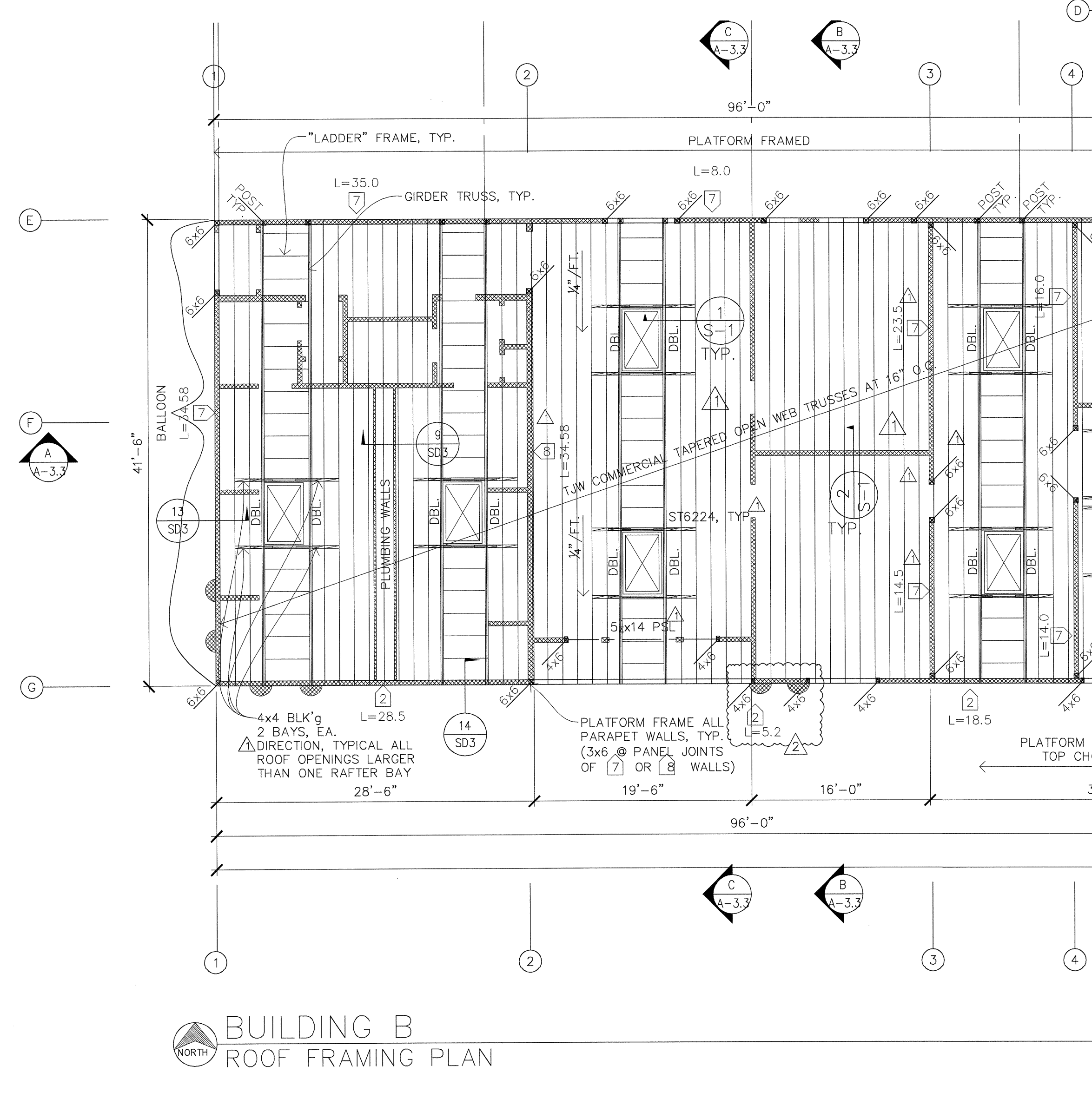
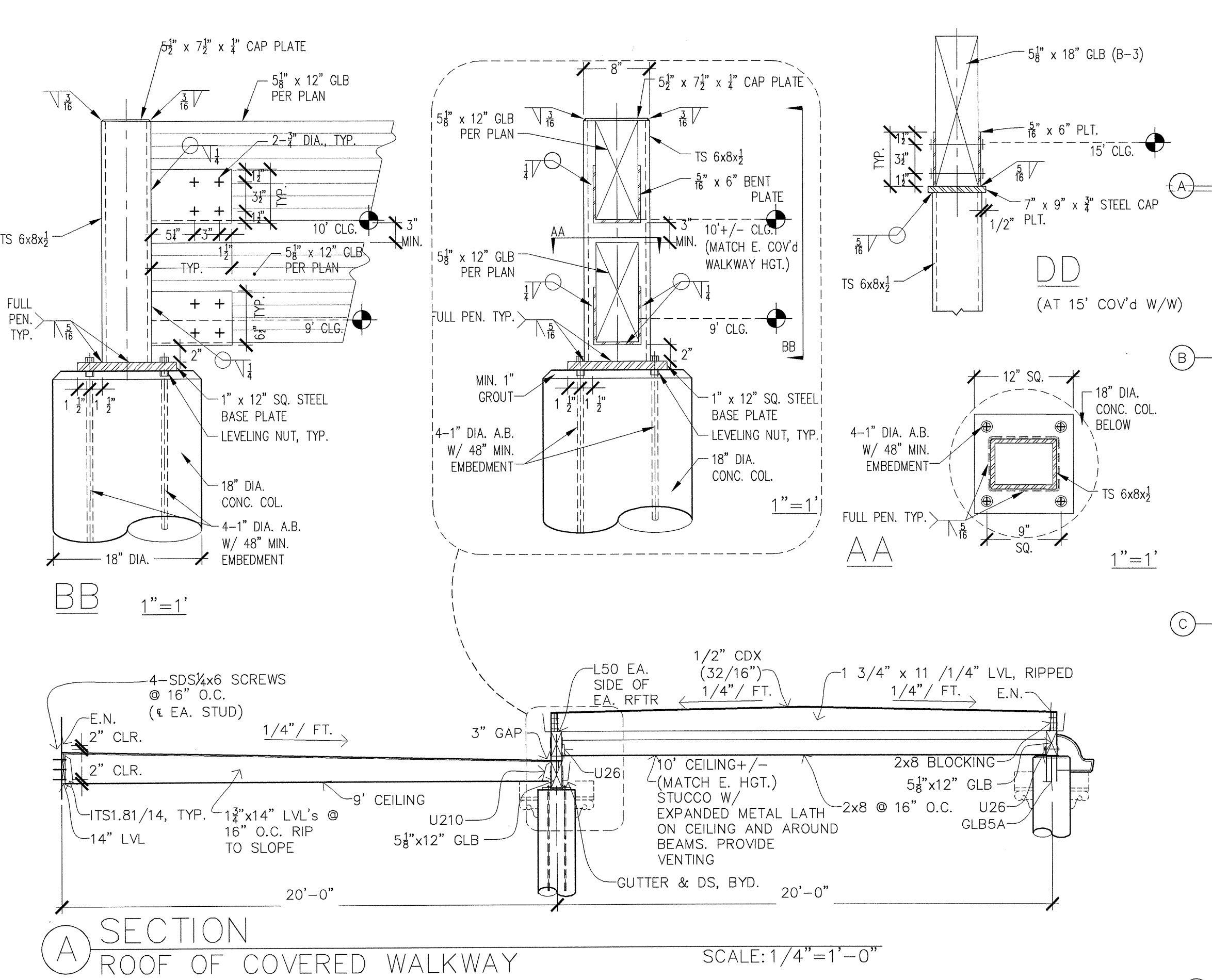
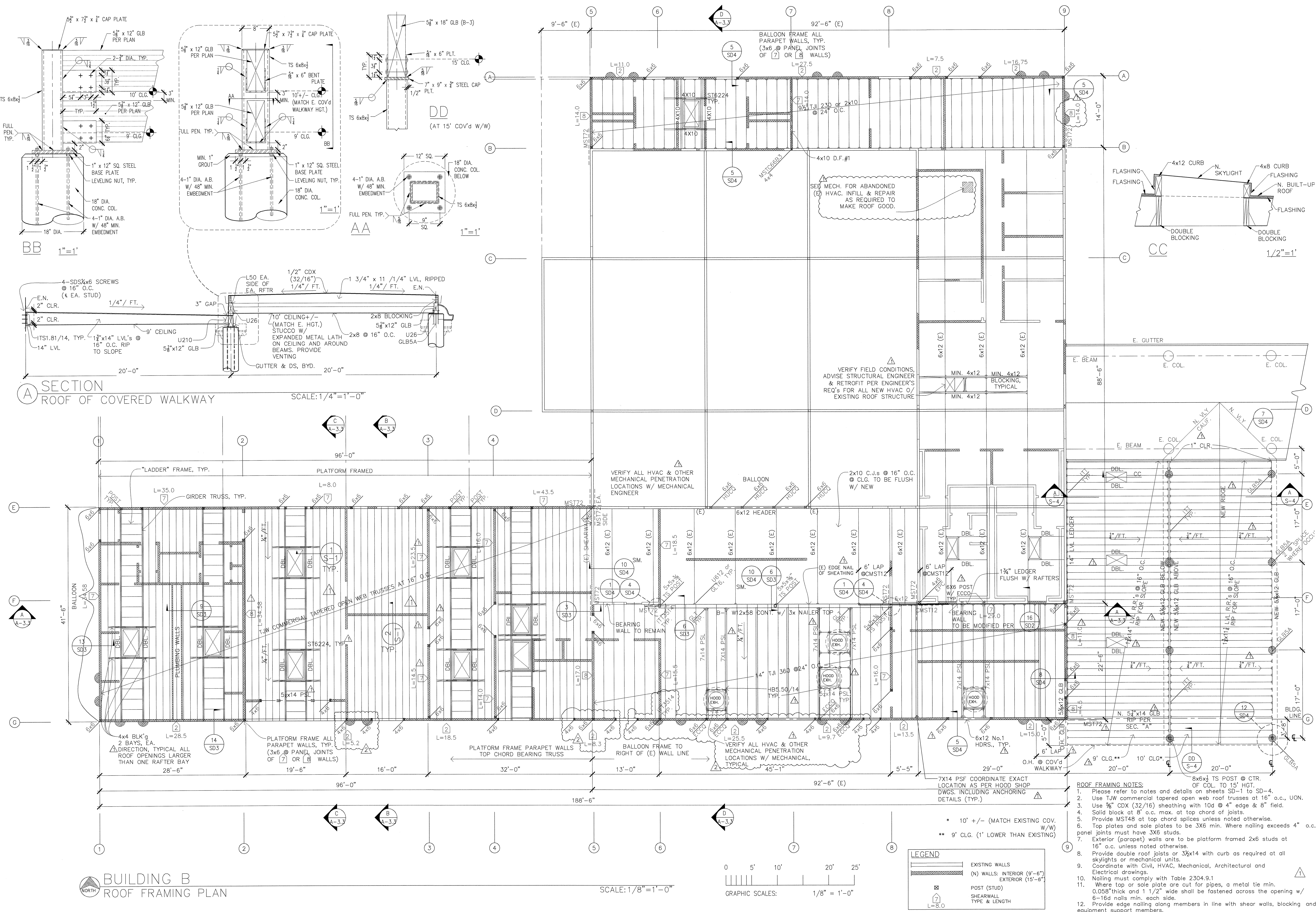


HINDU COMMUNITY and CULTURAL CENTER
 1200 ARROWHEAD AVE. LIVERMORE, CA 94551

PHASE 1-A
 ADDITIONS TO BUILDING "B"
 STRUCTURAL ROOF FRAMING PLAN

DATE: 03/12/10
 SCALE: 1/8"=1'-0"
 DRAWN BY: BRG
 PROJECT: ARROWHEAD

S-4



BUILDING B
ROOF FRAMING PLAN
 SCALE: 1/8"=1'-0"

- ROOF FRAMING NOTES:**
- Please refer to notes and details on sheets SD-1 to SD-4.
 - Use 1x4 commercial tapered open web roof trusses at 16" o.c., UON.
 - Use 3/8" CDX (32/16) sheathing with 10d @ 4" edge & 6" field.
 - Solid block at 8" o.c. max. at top chord of joists.
 - Provide MST48 at top chord splices unless noted otherwise.
 - Top plates and sole plates to be 3x6 min. Where nailing exceeds 4" o.c. panel joints must have 3x6 studs.
 - Exterior (parapet) walls are to be platform framed 2x6 studs at 16" o.c. unless noted otherwise.
 - Provide double roof joists or 3x14 with curb as required at all skylights or mechanical units.
 - Coordinate with Civil, HVAC, Mechanical, Architectural and Electrical drawings.
 - Nailing must comply with Table 2304.9.1.
 - Where top or sole plate are cut for pipes, a metal tie min. 0.058" thick and 1 1/2" wide shall be fastened across the opening w/ 6-16d nails min. each side.
 - Provide edge nailing along members in line with shear walls, blocking and equipment support members.

LEGEND

	EXISTING WALLS
	(N) WALLS: INTERIOR (9'-6")
	EXTERIOR (15'-6")
	POST (STUD)
	SHEARWALL
	TYPE & LENGTH

A. GENERAL

- A1. ALL WORK SHALL CONFORM TO THE PROJECT CONSTRUCTION DOCUMENTS AND THE 2007 EDITION OF THE CALIFORNIA BUILDING CODE (CBC), AND THE APPLICABLE FEDERAL, STATE AND LOCAL CODE REQUIREMENTS, LAWS AND CITY ORDINANCES.
A2. THE INTENT OF THESE DRAWINGS IS TO DELINEATE ALL ITEMS, INCLUDING GENERAL AND TYPICAL DETAILS OF CONSTRUCTION, THAT ARE NECESSARY TO COMPLETE THE STRUCTURE. TYPICAL DETAILS AND NOTES SHALL APPLY TO SIMILAR CONDITIONS, UNLESS SPECIFICALLY NOTED OTHERWISE.
A3. FOR CONDITIONS NOT SPECIFICALLY INDICATED ON THE DRAWINGS, DETAILS OF SIMILAR CHARACTER AND CONSISTENT WITH THE TYPE SHOWN FOR SIMILAR CONDITIONS, SHALL BE USED. SUCH DETAILS SHALL BE SUBJECT TO REVIEW BY THE STRUCTURAL ENGINEER.
A4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE WORK OF ALL TRADES AND SHALL VERIFY ALL EXISTING JOB CONDITIONS AND CHECK ALL DIMENSIONS. ANY DISCREPANCIES SHALL BE CALLED TO THE ATTENTION OF THE ARCHITECT AND THE STRUCTURAL ENGINEER, AND SHALL BE RESOLVED BEFORE PROCEEDING WITH THE WORK.
A5. COORDINATE STRUCTURAL DRAWINGS WITH ARCHITECTURAL, MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS, SPECIALLY FOR THE SIZE AND LOCATION OF THE OPENINGS.
A6. OBTAIN STRUCTURAL ENGINEER'S APPROVAL BEFORE PROCEEDING WITH THE WORK FOR OPENINGS THAT PENETRATE STRUCTURAL MEMBERS, AND ARE NOT SHOWN AND/OR DETAILED ON STRUCTURAL DRAWINGS.
A7. FRAME OPENINGS AND SUPPORT MISCELLANEOUS EQUIPMENT AS DETAILED ON THE DRAWINGS. WHERE NO DETAILS ARE PROVIDED, OBTAIN STRUCTURAL ENGINEER'S APPROVAL BEFORE PROCEEDING WITH THE WORK.
A8. PROVIDE LATERAL BRACING FOR ALL SUSPENDED EQUIPMENT AND SUSPENDED CEILING IN ACCORDANCE WITH THE CBC.
A9. DURING THE CONSTRUCTION PERIOD, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF THE BUILDING AND FOR THE FABRICATION, ERECTION AND JOB SAFETY; AND SHALL COMPLY WITH ALL FEDERAL, STATE AND LOCAL SAFETY REGULATIONS. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE DESIGN AND INSTALLATION OF SHORING, BRACING, FORM WORK, ETC., REQUIRED FOR THE PROTECTION AND SAFETY OF LIFE AND PROPERTY DURING THE CONSTRUCTION PERIOD.
A10. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE CONDUCT OF WORK, INCLUDING ALL CONSTRUCTION METHODS AND PROCEDURES, SITE SAFETY, AND METHODS OF DESIGN AND MATERIALS FOR PROVIDING TEMPORARY VERTICAL AND LATERAL SUPPORT OF EXISTING AND NEW STRUCTURES. ENGINEERS SITE OBSERVATION VISITS SHALL NOT BE INTERPRETED AS A REVIEW OF CONTRACTOR'S SAFETY MEASURES.
A11. PROVIDE CONTINUOUS SPECIAL INSPECTION IN ACCORDANCE WITH CBC SECTION 308 FOR DRILLING AND CONCRETE PLACEMENT IN FOUNDATION PIERS.
A12. IF ANY CONSTRUCTION IS NOT IN CONFORMANCE WITH THE CONTRACT DOCUMENTS, THE INSPECTOR SHALL NOTIFY THE STRUCTURAL ENGINEER. THIS NOTIFICATION SHALL BE BY TELEPHONE, INCLUDING A MESSAGE AT THE STRUCTURAL ENGINEER'S OFFICE, EXPLAINING THE NATURE OF NON-COMFORMANCE, FOLLOWED BY CONFIRMATION IN WRITING. THE CONTRACTOR SHALL BE ADVISED IMMEDIATELY, OF ANY CONSTRUCTION WHICH, IN THE INSPECTOR'S OPINION IS NOT IN CONFORMANCE WITH THE CONTRACT DOCUMENTS.

B. FOUNDATIONS

- B1. THE RECOMMENDATIONS OF THE FOLLOWING GEOTECHNICAL INVESTIGATION REPORT THAT HAS BEEN PREPARED FOR THIS SITE, SHALL BE CONSIDERED AS A PART OF THE CONSTRUCTION DOCUMENTS:
REPORT BY: HENRY JUSTINIANO & ASSOCIATES
REPORT NO.: H-140-01
DATE: AUGUST 10, 2009
B2. THE BOTTOM OF THE FOUNDATION SHALL BE AT UNDISTURBED NATIVE SOIL OR ENGINEERED FILL.
B3. THE SOILS ENGINEER SHALL INSPECT SLAB AND FOUNDATION SUBGRADE PRIOR TO PLACING CONCRETE.
B4. RETAINING WALLS - DO NOT BACKFILL AGAINST CONCRETE OR MASONRY RETAINING WALLS UNTIL THEY HAVE REACHED DESIGN STRENGTH.
IF BACKFILLING IS NECESSARY BEFORE THE RETAINING WALL REACHES DESIGN STRENGTH OR THE ADJACENT STRUCTURE IS COMPLETE, PROVIDE BRACING AS REQUIRED, TO SUPPORT RETAINING WALL UNTIL THE ADJACENT STRUCTURE IS COMPLETE AND/OR THE RETAINING WALL HAS REACHED DESIGN STRENGTH.

C. CONCRETE

- C1. CONCRETE SHALL CONFORM TO THE CURRENT EDITION OF THE AMERICAN CONCRETE INSTITUTE (ACI) "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS"
CONCRETE SHALL BE READY-MIXED TYPE CONFORMING TO THE CURRENT EDITION OF THE AMERICAN CONCRETE INSTITUTE (ACI) "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS"
CONCRETE SHALL HAVE NOT LESS THAN SIX (6) SACKS OF CEMENT PER CUBIC YARD OF CONCRETE. AT TWENTY-EIGHT (28) DAYS CONCRETE SHALL DEVELOP COMPRESSIVE STRENGTH (F'c) OF 2,500 PSI. THE SLUMP SHALL NOT EXCEED 4 INCHES WHEN PLACED. THE MAXIMUM SIZE OF AGGREGATE SHALL NOT EXCEED 3/4 INCH FOR SLAB-ON-GRADE, WALLS AND COLUMNS; AND 1 1/2 INCHES FOR FOOTINGS, PIERS AND GRADE BEAMS.
C2. CONCRETE SHALL BE REGULAR WEIGHT, WITH HARD-ROCK TYPE AGGREGATE (150 LB/CFT). AGGREGATE SHALL CONFORM TO AMERICAN SOCIETY FOR MATERIALS AND TESTING (ASTM) C33. CEMENT SHALL CONFORM TO ASTM C150, TYPE 2.
C3. CONCRETE SHALL BE MACHINE MIXED AND DELIVERED TO THE SITE IN ACCORDANCE WITH ASTM C-94.
C4. CONCRETE PLACEMENT SHALL BE IN ACCORDANCE WITH AMERICAN CONCRETE INSTITUTE (ACI) 301.
C5. PROVIDE MINIMUM CLEAR COVER OF CONCRETE OVER REINFORCEMENT AS INDICATED BELOW:
AGAINST EARTH FORM: 3 INCHES
EXPOSED TO EARTH BUT POURED AGAINST FORM WORK & BOTTOM OF SLAB-ON-GRADE: 2 INCHES
ALL OTHER CONCRETE: 1 1/2 INCHES

- C6. EXCEPT 6-INCH OR LESS THICK SLAB-ON-GRADE, ALL CONCRETE SHALL BE MECHANICALLY VIBRATED TO ELIMINATE VOIDS AND COMPLETELY FILL THE FORMS WITHOUT CAUSING UNDESIRABLE SEPARATION.
C7. DOWELS SHALL MATCH MAIN REINFORCEMENT IN SIZE AND SPACING. PROVIDE MINIMUM 40 BAR DIAMETER LAP, UNLESS OTHERWISE NOTED.
C8. SLAB-ON-GRADE - AT LIVING AREAS, PLACE SLAB ON 2 INCHES OF COMPACTED CLEAN SAND OVER 10 MIL. VAPOR BARRIER OVER 4 INCHES OF CLEAN, FREE-DRAINING CRUSHED ROCK. JUST PRIOR TO CONCRETE PLACEMENT, DAMPEN SAND WITH WATER.
C9. CURING - WITHIN SEVEN DAYS OF PLACEMENT, CONCRETE SURFACES EXPOSED TO THE ATMOSPHERE SHALL BE PROTECTED AND CURED BY DAMPENING WITH WATER AS NECESSARY, UNTIL THE SPECIFIED DESIGN STRENGTH IS ACHIEVED.
C10. INTERIOR SLABS SHALL HAVE STEEL TROWEL FINISH; EXTERIOR SLABS SHALL HAVE LIGHT BROOM FINISH.
C11. SPECIAL INSPECTION PER CBC SECTION 109 IS NOT REQUIRED.

D. CONCRETE REINFORCEMENT AND ACCESSORIES

- D1. REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO ASTM A615, GRADE 40 FOR NO. 5 AND SMALLER DIAMETER BARS AND GRADE 60 FOR LARGER THAN NO. 5 BARS. BAR DEFORMATION SHALL BE IN ACCORDANCE WITH ASTM-305.
WELDED WIRE FABRIC (WWF) SHALL CONFORM TO ASTM A185. PROVIDE A MINIMUM 6 INCHES LAP AT JOINTS.
DO NOT WELD REINFORCEMENT.
D2. REINFORCING BARS SHALL BE LAPPED AS INDICATED. PROVIDE MINIMUM LAP EQUAL TO 48 TIMES THE DIAMETER OF REINFORCING BARS AT SPLICES, AND STAGGER SPLICES.
D3. ALL HOOKS SHALL BE STANDARD HOOKS UNLESS NOTED OTHERWISE. ALL COLUMN, BEAM AND PILASTER TIES SHALL HAVE A 135° MINIMUM TURN PLUS 4 INCH EXTENSION TO THE FREE END.
D4. PROVIDE REINFORCING BARS AT MID HEIGHT IN SLABS-ON-GRADE AND AS SHOWN ON THE DRAWINGS.
D5. ANCHOR BOLTS SHALL BE MACHINE BOLTS A 307 WITH AMERICAN STANDARD REGULAR, SEMI-FINISHED, SQUARE OR HEXAGON HEADS. NUTS SHALL BE AMERICAN STANDARD HEAVY, SEMI-FINISHED, HEXAGON-TAPPED, UNC THREADED, CLASS B.
UNLESS OTHERWISE NOTED ON SHEAR WALL SCHEDULE, SILL PLATE BOLTS SHALL BE 5/8 INCH DIAMETER BY 10 INCHES LONG WITH A 2-INCH HOOK AND SPACED 4 FEET ON CENTERS. PROVIDE SILL BOLTS AT A DISTANCE OF 6 INCHES FROM EACH END OF THE SHEAR WALL, CORNER AND SPLICE. PROVIDE A MINIMUM OF 2 BOLTS PER SILL PLATE.
D6. CONCRETE ACCESSORIES - ADHESIVE ANCHORS (RE 500 - SD, ESR-2322), EXPANSION BOLTS (HLTI KB-TZ, ESR-1917) AND POWDER-DRIVEN FASTENERS (HLTI X-U, ESR-2269) SHALL BE AS MANUFACTURED BY HLTI, INC., TULSA, OK, OR APPROVED EQUIVALENT. THESE SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' WRITTEN INSTRUCTIONS. ICC REPORT ENCLOSED.

E. CONCRETE UNIT MASONRY

- E1. CONCRETE MASONRY UNITS (CMU) SHALL BE HOLLOW CLOSED, SINGLE OR DOUBLE OPEN END TYPE. ALL CMU SHALL CONFORM TO ASTM C-90, GRADE N, TYPE 1, AND HAVE AN ULTIMATE COMPRESSIVE STRENGTH (F'm) = 1,800 PSI. WHEN PLACED, THE CMU SHALL HAVE CURED FOR NOT LESS THAN 28 DAYS. DO NOT USE CHIPPED OR CRACKED CMU. PROMPTLY REMOVE ANY CHIPPED OR CRACKED CMU IF DISCOVERED IN A FINISHED WALL, AND REPLACE THEM WITH NEW CMU TO THE SATISFACTION OF THE STRUCTURAL ENGINEER.
E2. CMU SHALL BE LAID IN RUNNING BOND. PROVIDE FULL INTERSECTING BOND AT CORNERS AND AT WALL INTERSECTIONS. PROVIDE SPECIAL PILASTER UNITS AT PILASTERS, OR BUILD PILASTERS USING FACE SHELLS ONLY; BRACE AS NECESSARY DURING GROUT PLACEMENT.
E3. MORTAR SHALL BE TYPE S, THAT WILL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF 1,800 PSI IN 28 DAYS.
E4. GROUT SHALL BE PEA GRAVEL MIX, 8 INCHES TO 10 INCHES SLUMP, AND DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF 2,000 PSI AT 28 DAYS. IF TRANSIT-MIX GROUT IS NOT PLACED IN THE FINAL POSITION WITHIN 1 1/2 HOURS AFTER WATER IS FIRST ADDED TO THE BATCH, IT SHALL BE REJECTED.
GROUT SOLID ALL CELLS CONTAINING REINFORCEMENT, ANCHOR BOLTS OR OTHER EMBEDDED ITEMS.
E5. CEMENT SHALL BE PORTLAND CEMENT CONFORMING TO ASTM C-150, TYPE I OR TYPE II AND SHALL BE ENTIRELY OF ONE MANUFACTURER.
E6. WATER USED FOR GROUT AND MORTAR SHALL BE CLEAN AND FREE FROM DELETERIOUS AMOUNTS OF ACIDS, SALTS, ALKALIES AND ORGANIC MATERIAL.
E7. SAND FOR MORTAR SHALL CONFORM TO ASTM C-404, TABLE 1, COARSE AGGREGATE.
E8. QUICKLIME SHALL CONFORM TO ASTM C-5.
E9. WHERE GROUT POUR EXCEEDS 4 FEET IN HEIGHT, CLEANOUT OPENINGS SHALL BE PROVIDED AT THE BOTTOM OF ALL CELLS CONTAINING VERTICAL REINFORCEMENT.
E10. ALL HORIZONTAL REINFORCING SHALL BE IN BOND BEAM UNITS AND AGAINST VERTICAL BARS.
E11. VERTICAL BARS SHALL BE ACCURATELY AND POSITIVELY HELD IN PLACE BEFORE SETTING BLOCKS. BARS MAY BE DOWELLED AT THE TOP OF FOOTING ONLY, UNLESS OTHERWISE NOTED.
VERTICAL BARS AT CORNERS AND JAMBS AT OPENINGS, ETC., SHALL BE ONE CONTINUOUS LENGTH WITHOUT SPLICE. PROPER VERTICAL ALIGNMENT OF REINFORCING STEEL AND CMU BLOCKS MUST BE MAINTAINED AT ALL TIMES, UNLESS OTHERWISE NOTED.
E12. REINFORCING SHALL BE FULLY EMBEDDED IN THE GROUT. VERTICAL REINFORCING STEEL BARS SHALL IN PLACE PRIOR TO LAYING THE CMU WALL.
E13. WHEN GROUTING IS TO BE STOPPED FOR A PERIOD OF ONE (1) HOUR OR LONGER, CREATE A HORIZONTAL CONSTRUCTION JOINT BY STOPPING THE GROUT POUR ONE AND A HALF (1 1/2) INCHES BELOW THE UPPERMOST CMU COURSE.
E14. ALL MASONRY SHALL BE LAID TO MAINTAIN AN UNINTERRUPTED VERTICAL CONTINUITY OF THE CELLS TO BE FILLED WITH GROUT. THE VERTICAL ALIGNMENT SHALL MAINTAIN A CLEAR, UNOBSTRUCTED VERTICAL FLUE MEASURING NOT LESS THAN 3 INCHES BY 3 INCHES.
E15. EXCEPT AS SHOWN ON THE DRAWINGS, NO PLUMBING PIPE OR CHASE SHALL BE EMBEDDED IN CMU WALLS OR PARTITIONS.
E16. CMU WALLS SHALL BE CURED BY DAMPING FOR FIVE (5) DAYS

F. STRUCTURAL STEEL

Table with 3 columns: BAR SIZE, CORNER & END WALLS, OTHER PLACES. Rows include NO. 4 (25 INCHES, 18 INCHES), NO. 5 (38 INCHES, 27 INCHES), NO. 6 (45 INCHES, 33 INCHES), NO. 7 (53 INCHES, 39 INCHES), NO. 8 (60 INCHES, 43 INCHES).

F. MATERIAL FOR STRUCTURAL STEEL SHALL BE IN ACCORDANCE THE AMERICAN SOCIETY FOR MATERIALS AND TESTING (ASTM) SPECIFICATIONS AS LISTED BELOW:

- WIDE FLANGE COLUMNS: ASTM A572, Fy = 50 KSI
OTHER STRUCTURAL STEEL: ASTM A36, Fy = 36 KSI
STEEL TUBING: ASTM A500, GRADE B, Fy = 46 KSI
PIPE: ASTM A53, GRADE B, Fy = 35 KSI
HIGH STRENGTH BOLTS: ASTM A325
OTHER BOLTS: ASTM A307
ANCHOR BOLTS: ASTM A307
F2. FABRICATE AND ERECT STRUCTURAL STEEL IN ACCORDANCE WITH THE CURRENT EDITION OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS".
F3. WELDING SHALL BE BY CERTIFIED WELDERS IN ACCORDANCE WITH THE AMERICAN WELDING SOCIETY (AWS) "STRUCTURAL WELDING CODE - STEEL (ANSI/AWS D1.1-88)" AND AWS "STANDARD QUALIFICATIONS PROCEDURE".
F4. ARC WELDING ELECTRODES SHALL BE E70 SERIES FOR MANUAL WELDING, AND GRADE SA-1 OR SA-2 FOR SUBMERGED ARC WELDING. ALL FIELD WELDING SHALL HAVE SPECIAL INSPECTION.
F5. TEN PERCENT (10%) OF ALL FULL PENETRATION WELDS SHALL BE TESTED WITH X-RAY OR ULTRASONICALLY UNDER THE SUPERVISION OF AN INSPECTOR APPROVED BY THE OWNER.

G. WOOD FRAMING

- G1. GENERAL - WOOD FRAMING SHALL BE IN ACCORDANCE WITH 2007 EDITION OF THE CBC, AND THE STANDARD PRACTICES RECOMMENDED BY THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION (AITC) AND WEST COAST LUMBER ASSOCIATION (WCLA) GRADING.
G2. WORKMANSHIP - ALL ROUGH CARPENTRY SHALL PRODUCE JOINTS TRUE AND TIGHT AND WELL NAILED WITH MEMBERS ASSEMBLED IN ACCORDANCE WITH THE DRAWINGS AND WITH ALL APPLICABLE BUILDING CODES. SHIMMING OF SILLS, JOISTS, SHORT STUDS, TRIMMERS, HEADERS, OR OTHER FRAMING MEMBERS SHALL NOT BE PERMITTED. ALL WALLS AND PARTITIONS SHALL BE STRAIGHT, PLUMB AND ACCURATELY LOCATED. CAREFULLY SELECT ALL STRUCTURAL MEMBERS. INDIVIDUAL MEMBERS SHALL BE SELECTED SO THAT KNOTS AND VISIBLE MINOR DEFECTS WILL NOT INTERFERE WITH THE INSTALLATION OF BOLTS, OR PROPER NAILING OR THE MAKING OF SOUND CONNECTIONS. LUMBER MAY BE REJECTED BY THE STRUCTURAL ENGINEER FOR EXCESSIVE WARP, TWIST, BOW, OR COOK, OR FOR MILDEW, FUNGUS OR MOLD, AS WELL AS, FOR IMPROPER GRADE MARKING. DEFECTS WHICH RENDER A PIECE INCAPABLE OF SERVING ITS INTENDED FUNCTION SHALL BE DISCARDED.
G3. THE MAXIMUM MOISTURE CONTENT OF STRUCTURAL WOOD FRAMING MEMBERS SHALL NOT EXCEED NINETEEN PERCENT (19%).
G4. WOOD IN CONTACT WITH MASONRY OR CONCRETE OR PERMANENTLY EXPOSED TO THE WEATHER SHALL BE PRESSURE TREATED AND MARKED WITH THE AMERICAN WOOD PRODUCERS BUREAU (AWBP) MARK OR SHALL BE FOUNDATION GRADE REDWOOD.
KEEP ALL UNTREATED WOOD MINIMUM HALF AN INCH (1/2) AWAY FROM CONCRETE OR MASONRY.
G5. SIZING AND SURFACING - EXCEPT WHERE SPECIFICALLY NOTED OTHERWISE, ALL LUMBER SHALL BE MILL SIZED AND SURFACED ON ALL FOUR SIDES. LUMBER SHALL BE SINGLE-LENGTH PIECES FROM STRAIGHT STOCK FREE FROM WARP AND CUP. SPLICING SHALL NOT BE PERMITTED EXCEPT WHERE SPECIFICALLY DETAILED OR APPROVED BY THE STRUCTURAL ENGINEER.
G6. UNLESS OTHERWISE NOTED ON THE DRAWINGS, FRAMING MEMBERS 3 X AND SMALLER, AND 4 X POSTS SHALL BE DOUGLAS FIR, GRADE NO. 2. FRAMING MEMBERS 4 X AND LARGER SHALL BE DOUGLAS FIR, GRADE NO. 1. EXCEPTION 4 X HEADERS MAY BE DOUGLAS FIR GRADE NO 2.
G7. NO STRUCTURAL MEMBER SHALL BE CUT OR NOTCHED UNLESS SPECIFICALLY SHOWN OR NOTED ON THE DRAWINGS OR APPROVED BY THE STRUCTURAL ENGINEER.
G8. INTERIOR STUDS THAT ARE 14 FEET OR LESS IN HEIGHT SHALL BE DOUGLAS FIR CONSTRUCTION GRADE AND BETTER. INTERIOR STUDS THAT ARE MORE THAN 14 FEET IN HEIGHT SHALL BE DOUGLAS FIR GRADE NO. 2. STUD SPACING SHALL BE 16 INCHES ON CENTERS, UNLESS OTHERWISE NOTED.
G9. AT WALLS SUPPORTING TRUSSES, PROVIDE A STUD DIRECTLY BELOW EACH TRUSS; PROVIDE ADDITIONAL STUD AS NECESSARY.
PROVIDE STUDS OR POSTS SUPPORTING THE FULL WIDTH OF BEAMS ENTERING WALLS; PROVIDE SOLID POSTS AND BLOCKING DOWN TO THE FOUNDATION.
PROVIDE DOUBLE JOIST OR TRUSS UNDER PARTITIONS PARALLEL TO THE JOISTS.
PROVIDE HALF-INCH (1/2) GAP BETWEEN THE TOP OF NON-BEARING PARTITIONS, AND THE BOTTOM OF TRUSSES; PROVIDE A CONNECTION TO BRACE THE PARTITION WHICH WILL ALLOW HALF INCH (1/2) VERTICAL MOVEMENT BOTH UPWARD AND DOWNWARD.
PROVIDE SOLID BLOCKING BETWEEN JOISTS AT PARTITIONS, GIRDERS, BEARING WALLS, AND ANY OTHER SUPPORT.
G10. SHEAR WALLS - BLOCK AT PLYWOOD JOINTS WITH BLOCKING OF SAME SIZE AS STUDS. EDGE-NAIL SHEATHING TO STUDS AT HOLD-DOWNS.
EXTEND SHEAR WALLS THROUGH FLOOR AND ROOF SYSTEMS WITH BLOCKING THAT IS STRUCTURALLY EQUIVALENT TO SHEAR WALL SHEATHING.
G11. ALL SHEATHING FOR ROOF, FLOOR AND WALLS, SHALL BE AMERICAN PLYWOOD ASSOCIATION (APA) RATED SHEATHING, EXPOSURE 1, AND SHALL BE IDENTIFIED WITH THE APPROPRIATE TRADEMARK OF THE APA. SHEATHING SHALL MEET THE REQUIREMENTS OF THE CURRENT EDITION OF U.S. PRODUCT STANDARD PS 1, OR ONE OF THE APA PERFORMANCE STANDARDS. SHEATHING AT LOCATIONS PERMANENTLY EXPOSED TO WEATHER SHALL BE EXTERIOR CLASS.
G12. FLOOR AND ROOF SHEATHING SHALL BE INSTALLED WITH THE FACE GRAIN PERPENDICULAR TO THE SUPPORTS, AND THE LONG DIMENSION OF THE PANEL CONTINUOUS OVER TWO (2) OR MORE SPANS. STAGGER PANELS 4 FEET LENGTHWISE, UNLESS OTHERWISE NOTED. ALLOW 1/8 INCH SPACING AT PANEL ENDS AND 1/4 INCH AT PANEL EDGES. FLOOR SHEATHING SHALL BE 3/4 INCH MINIMUM PLYWOOD, APA RATED STURD-FLOOR WITH A SPAN RATING OF 24; ROOF SHEATHING SHALL BE 1/2 INCH MINIMUM PLYWOOD WITH A MINIMUM PANEL SPAN RATING OF 32/12.

- MINIMUM NAILING SHALL CONFORM TO PLYWOOD DIAPHRAGM SCHEDULE.
GLUE PLYWOOD TO ALL SUPPORTS, INCLUDING BLOCKING, WITH 1/4 INCH MINIMUM BEADS OF APPROVED ADHESIVE MEETING APA SPECIFICATION AFG-01 AND APPLIED PER NER-108.
G13. PLYWOOD FLOOR, ROOF AND WALL SHEATHING NAILS OR OTHER APPROVED SHEATHING CONNECTORS SHALL BE DRIVEN FLUSH. THE OUTER LAYER OF SHEATHING SHALL NOT BE FRACTURED BY OVERDRIVING THE NAILS.
G14. ALL FRAMING HARDWARE SHALL BE "STRONG-TIE" AS MANUFACTURED BY SIMPSON COMPANY, OR AN APPROVED EQUAL AT LOCATIONS EXPOSED TO WEATHER, PROVIDE CORROSION-RESISTANT HARDWARE.
WOOD FRAMING MEMBERS NOT RESTING ON, OR FRAMED OVER THEIR SUPPORTS SHALL BE SUPPORTED BY "SIMPSON STRONG-TIE" JOIST HANGERS.

- G15. BOLTS IN WOOD FRAMING SHALL BE STANDARD MACHINE BOLTS CONFORMING TO ASTM 307. PROVIDE MALLEABLE IRON WASHERS UNDER HEAD AND NUT OF BOLTS AND LAG SCREWS BEARING ON WOOD. UNLESS OTHERWISE NOTED, BOLT HOLES SHALL BE NOMINAL DIAMETER OF THE BOLT PLUS 1/16 INCH. RETIGHTEN ALL BOLTS BEFORE CLOSING IN.
FASTENERS FOR PRESSURE TREATED WOOD SHALL BE HOT-DIPPED ZINC COATED, GALVANIZED, STAINLESS STEEL, SILICON BRONZE OR COPPER.

H. PREFABRICATED TRUSSES

- H1. THE FABRICATOR OF THE PREFABRICATED TRUSSES SHALL SUBMIT TRUSS DESIGN CALCULATIONS AND SHOP DRAWINGS FOR ALL TRUSSES, THAT ARE STAMPED BY A REGISTERED CIVIL OR STRUCTURAL ENGINEER, TO THE BUILDING DEPARTMENT FOR APPROVAL. CALCULATIONS SHALL INCLUDE ALL STRESSES AND DEFLECTIONS DUE TO DEAD AND LIVE LOADS. SHOP DRAWINGS SHALL INCLUDE THE LAYOUT OF THE TRUSSES, SIZE OF MEMBERS AND CONNECTION DETAILS.
H2. THE MAXIMUM DEFLECTION OF ROOF TRUSSES DUE TO DEAD AND LIVE LOADS SHALL NOT EXCEED L/240, AND THE MAXIMUM DEFLECTION FOR FLOOR TRUSSES DUE TO LIVE LOAD SHALL NOT EXCEED L/360.
H3. THE DISTRIBUTED LOADS SHALL BE:
MEMBER ROOF TRUSS FLOOR TRUSS
TOP CHORD D.L. 6.0 PSF* 10.5 PSF
LL. 16.0 PSF 40.0 PSF
100.0 PSF CORRIDOR
BOTTOM CHORD D.L. 7.2 PSF 5.0 PSF
LL. 10.0 PSF 10.0 PSF
* USE 16.0 PSF FOR CONCRETE TILE ROOFING
TOP AND BOTTOM CHORD LIVE LOADS MAY NOT BE APPLIED SIMULTANEOUSLY. ONE POINT LOAD OF 250 LBS SHALL BE APPLIED TO EACH TRUSS.

I. GLU-LAMINATED LUMBER

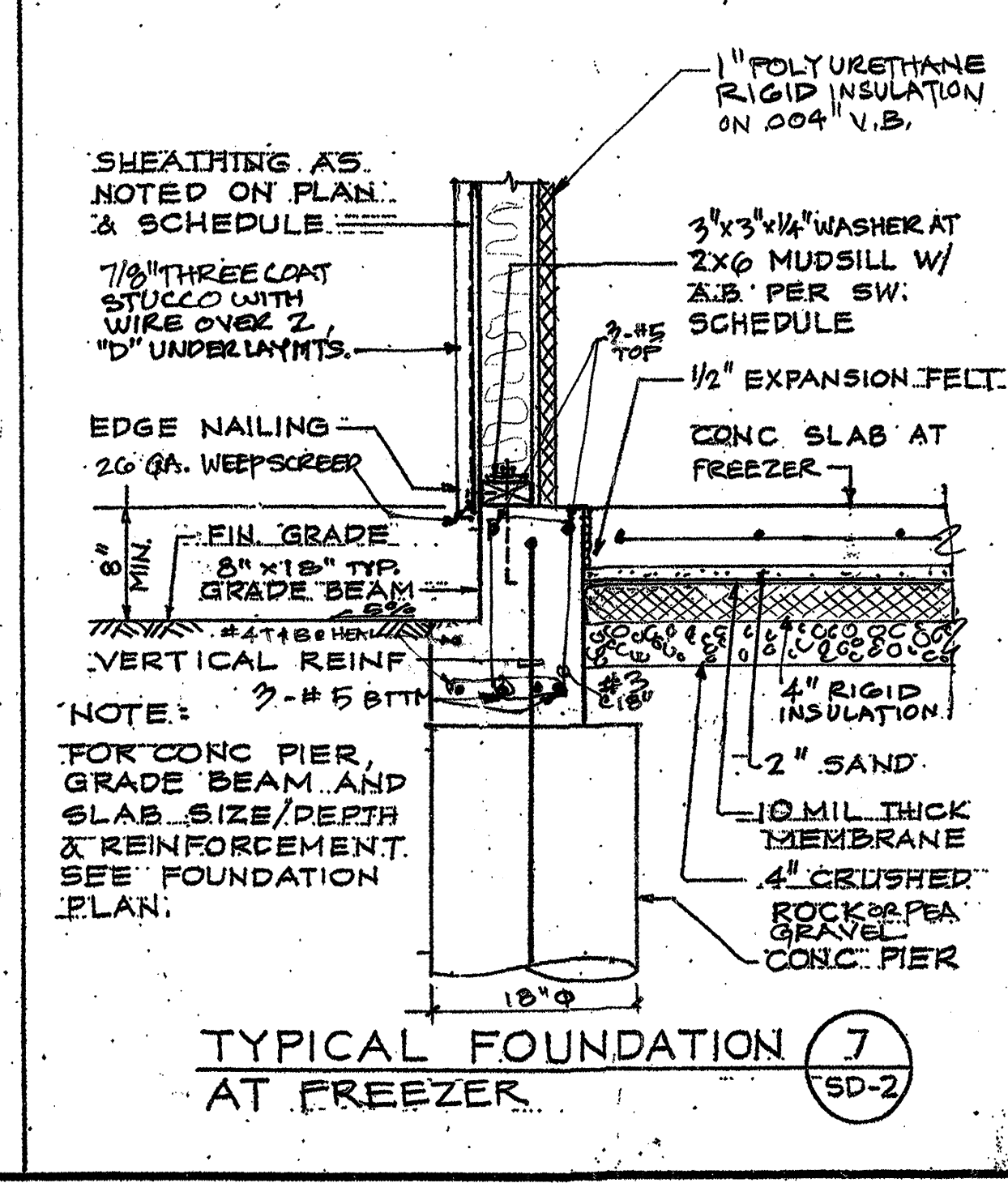
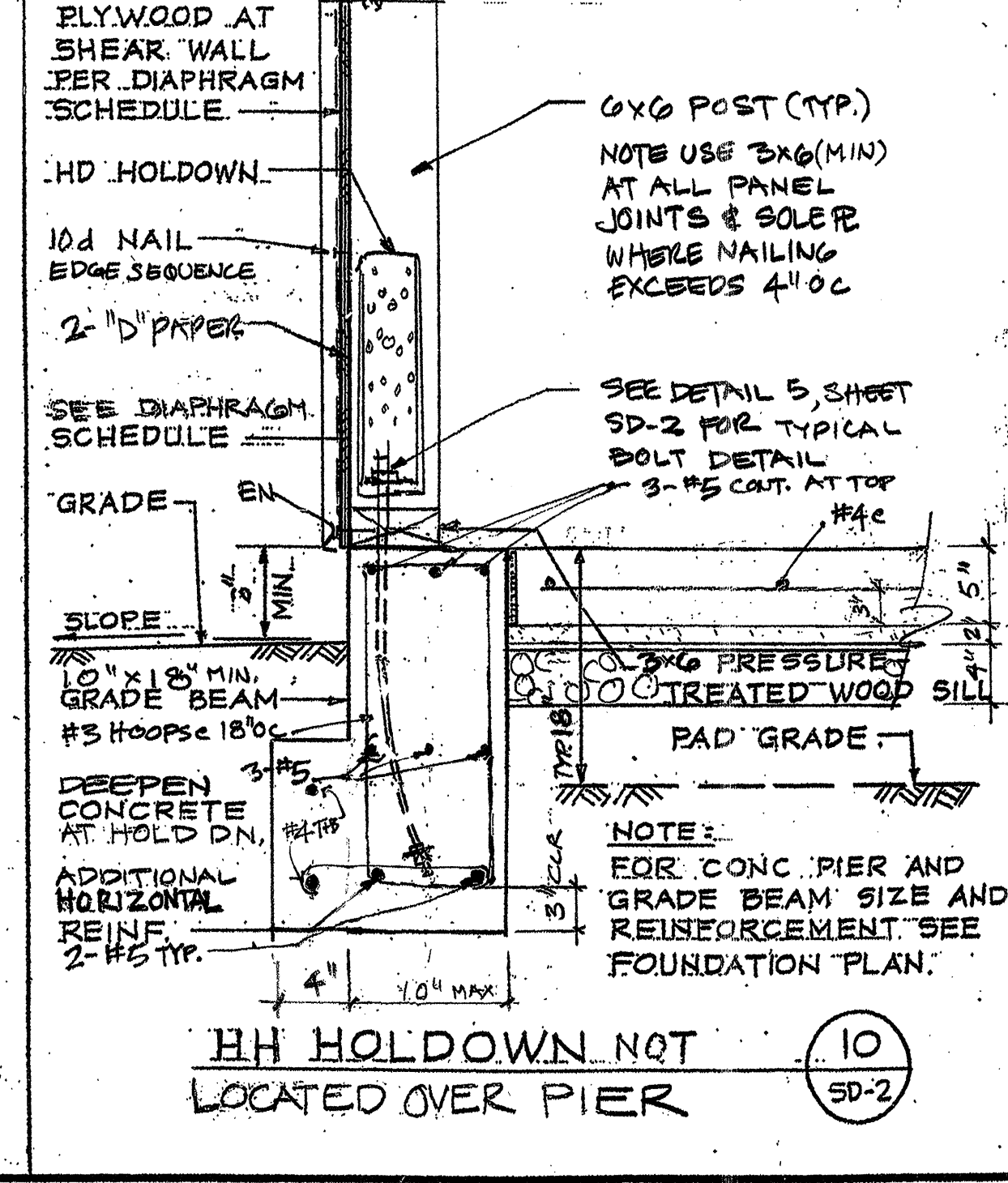
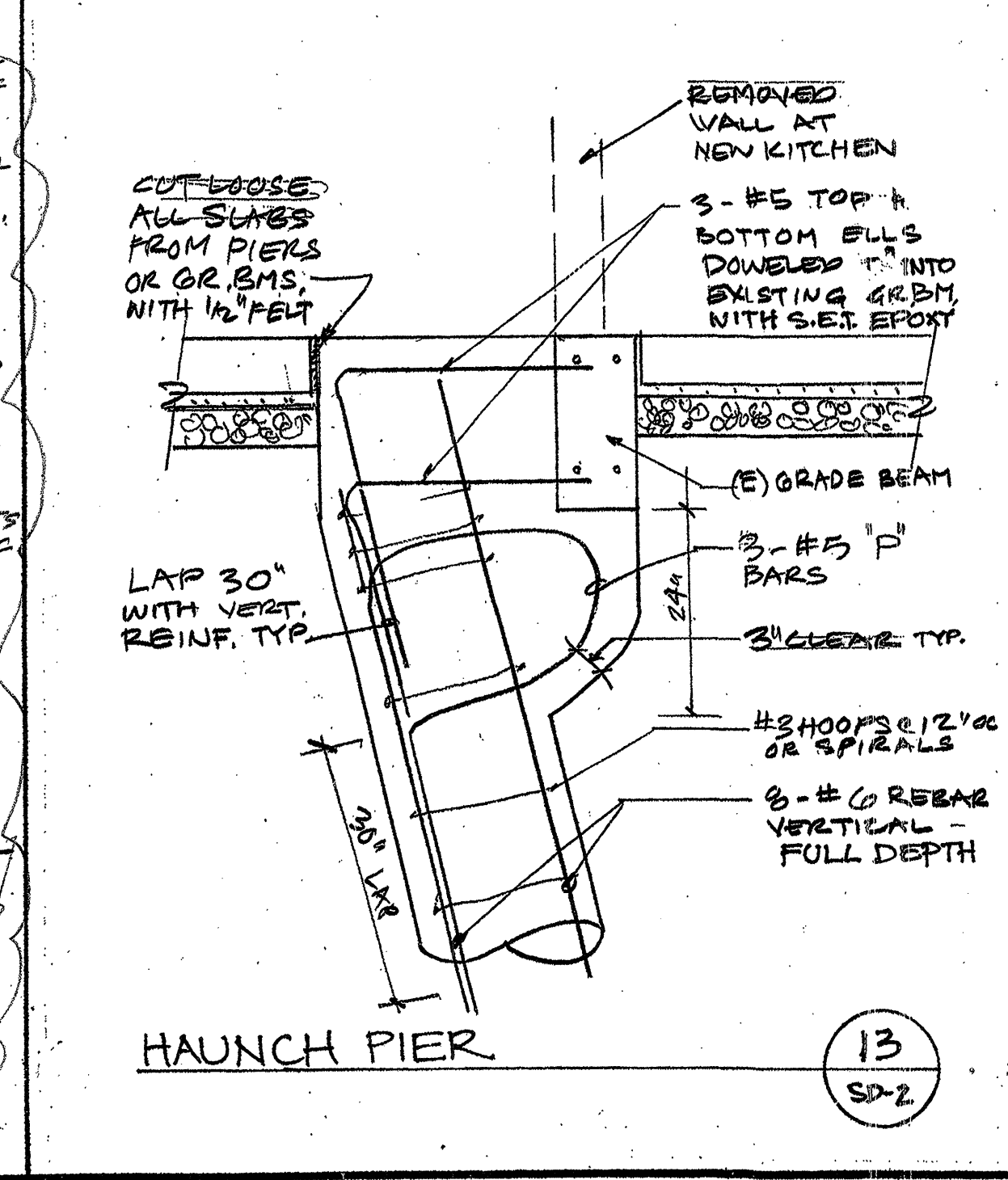
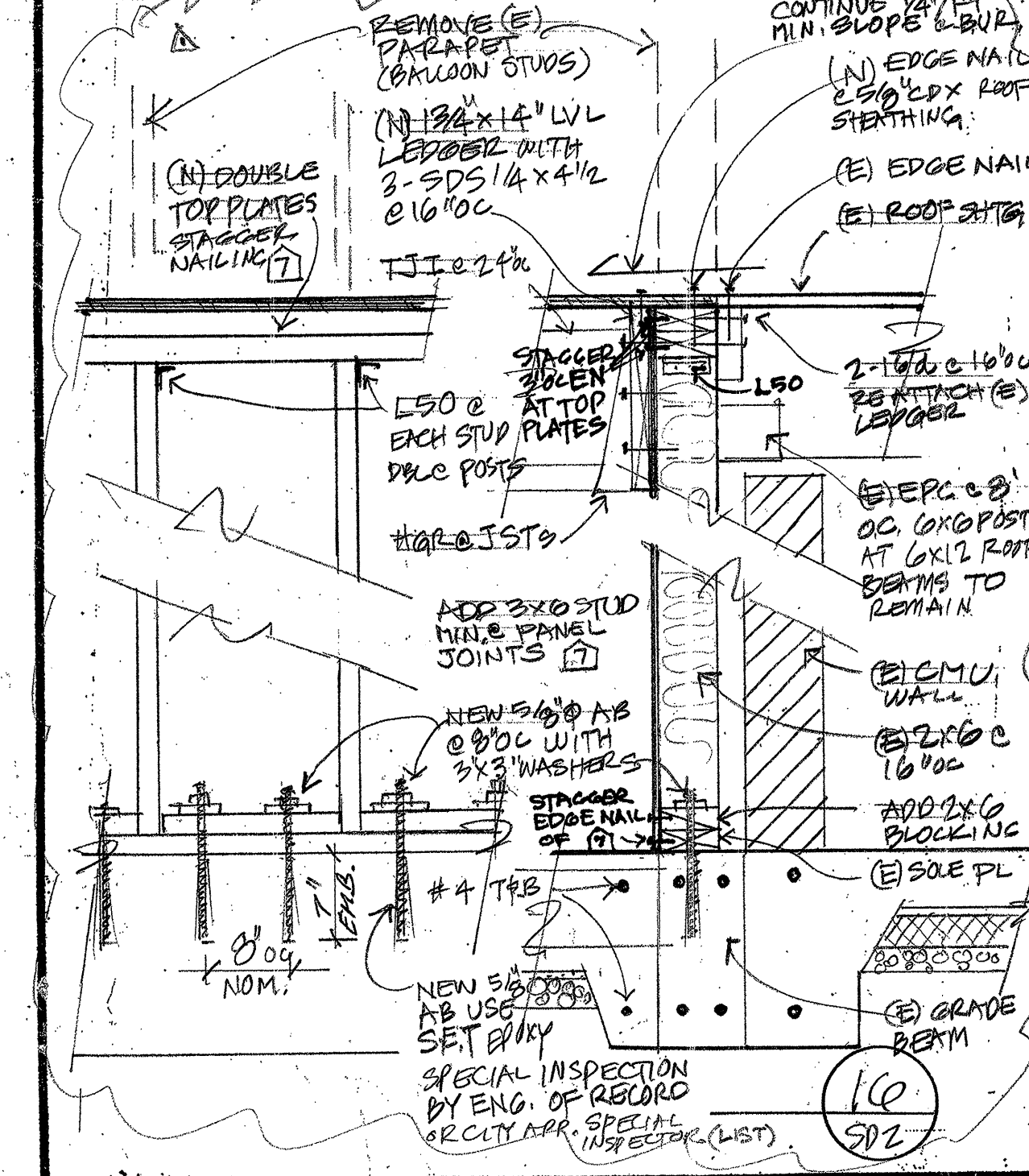
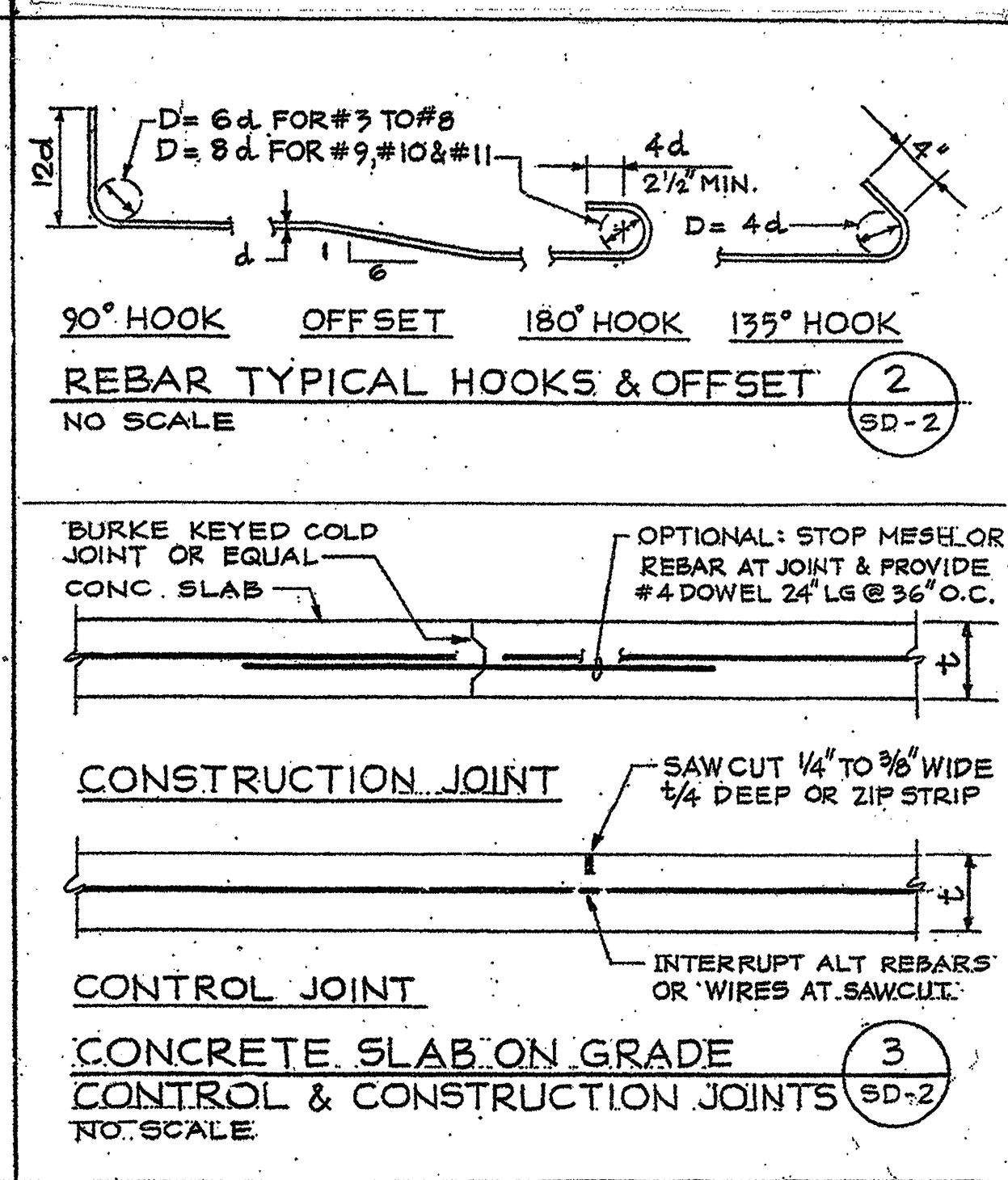
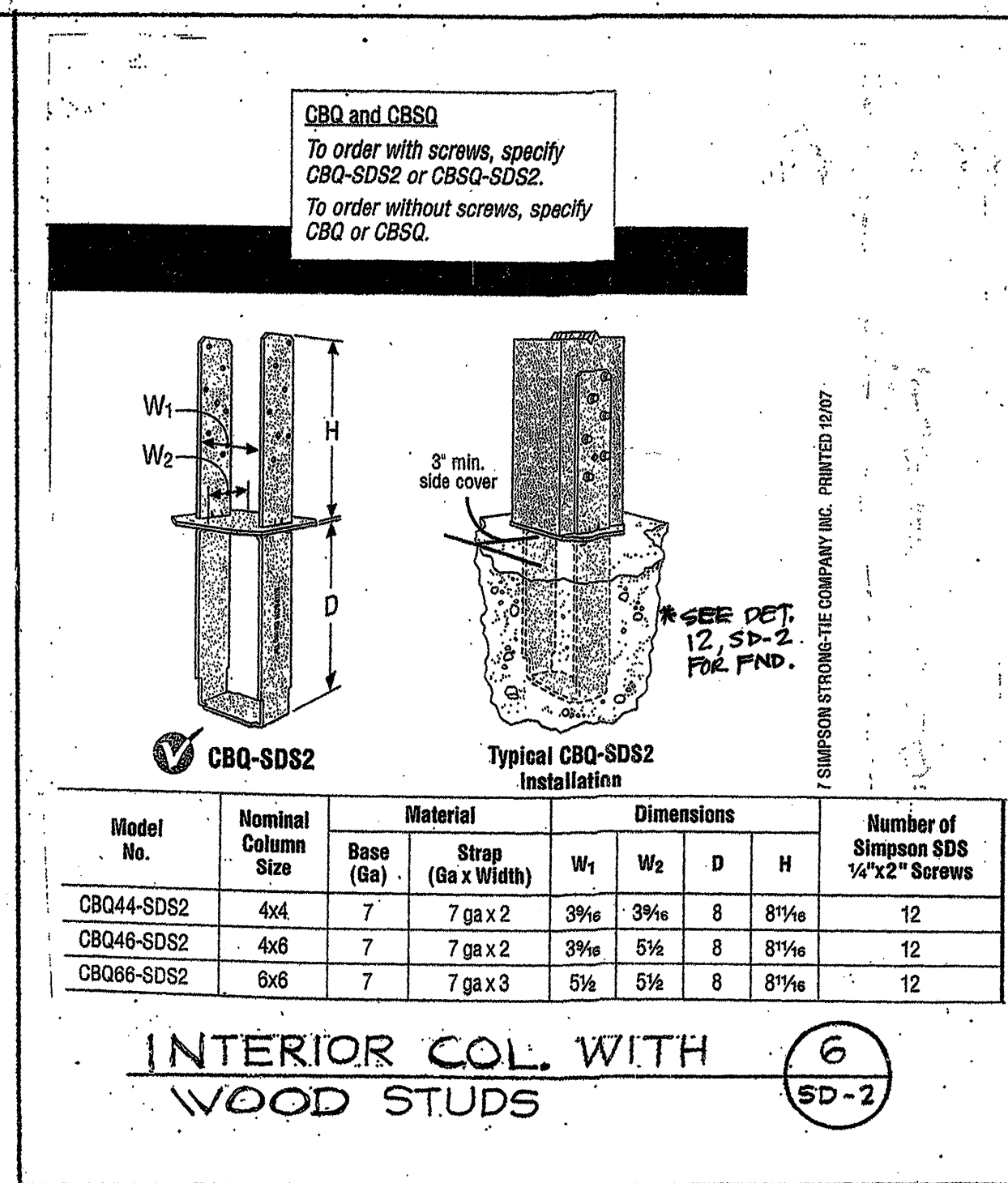
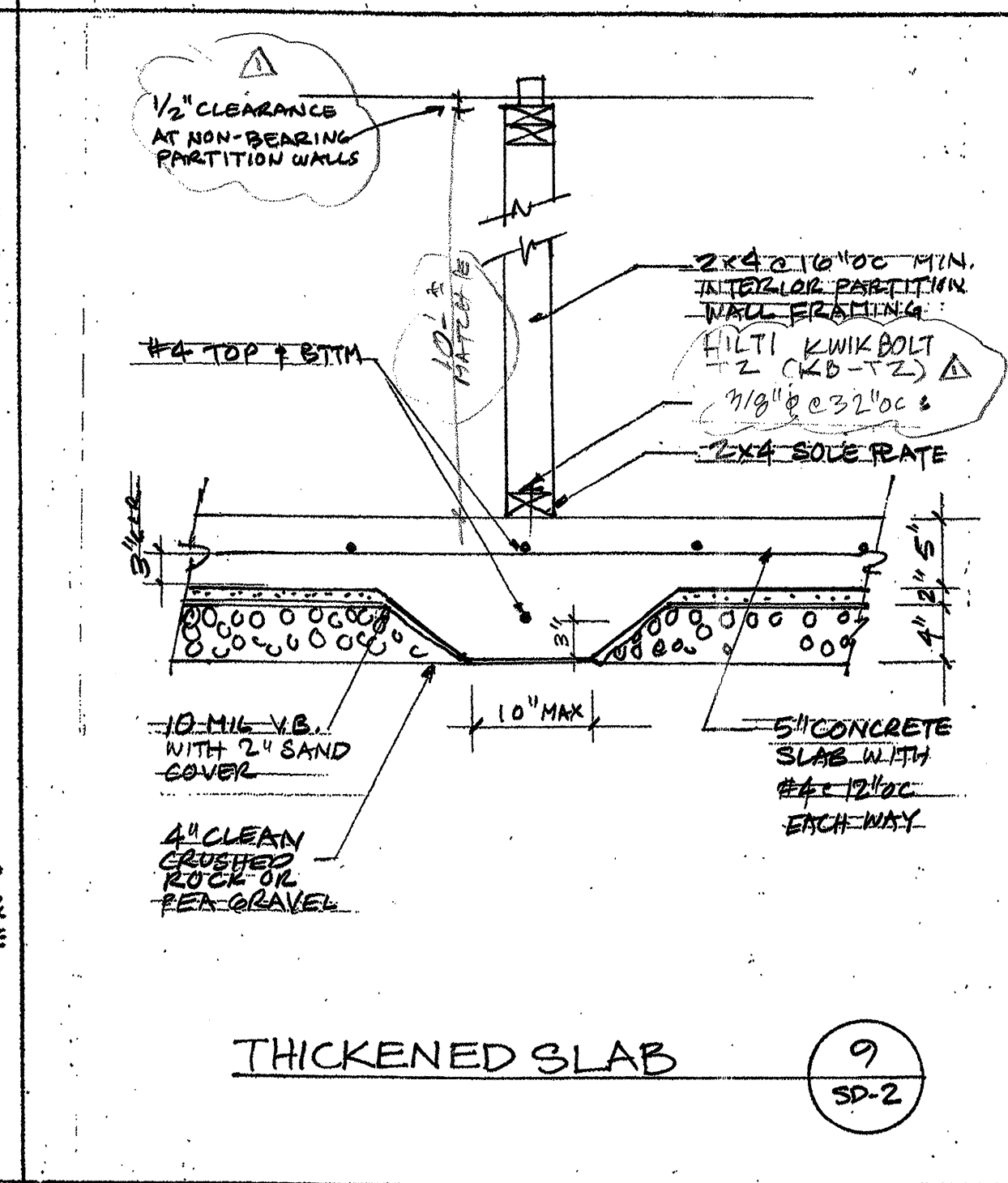
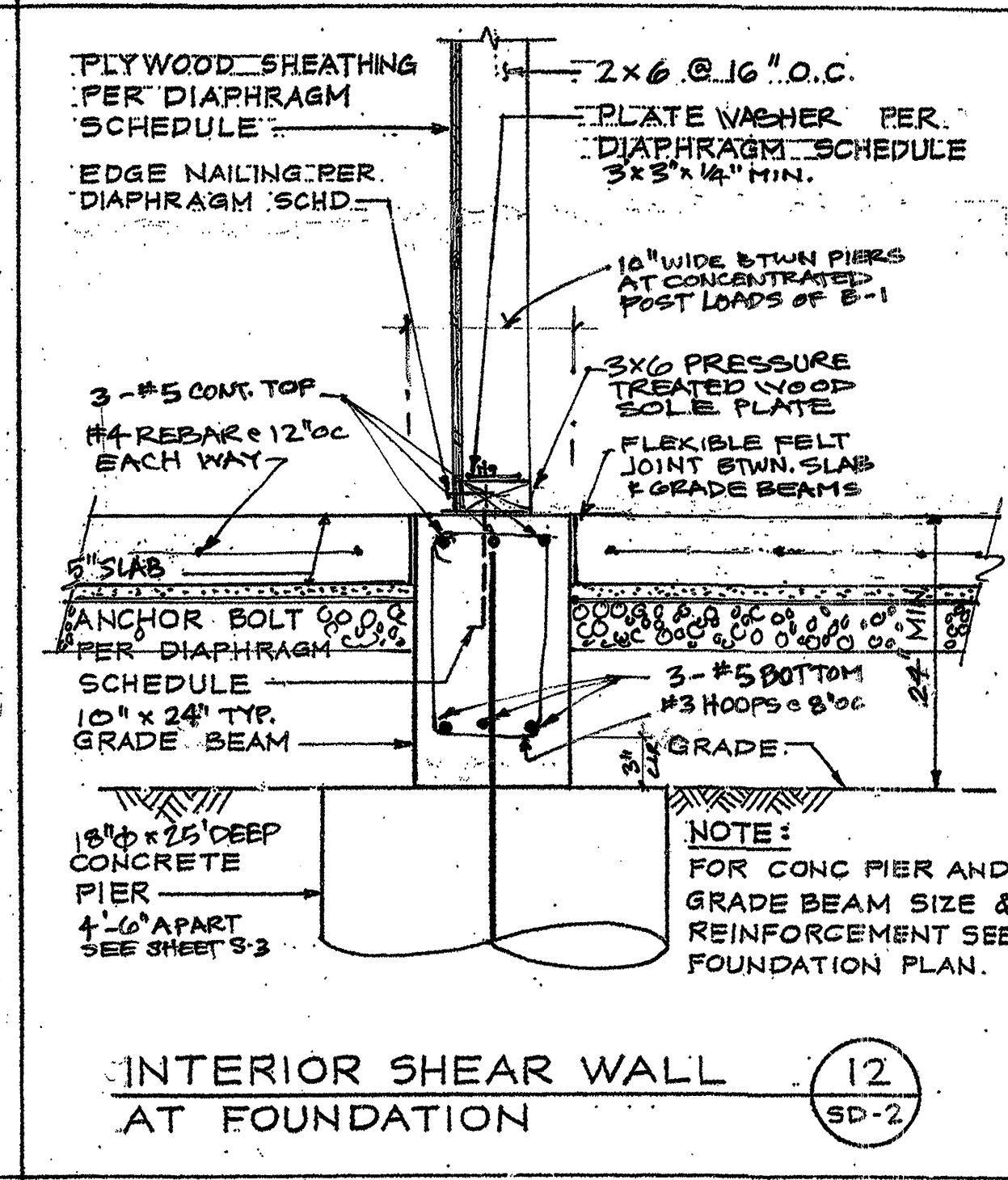
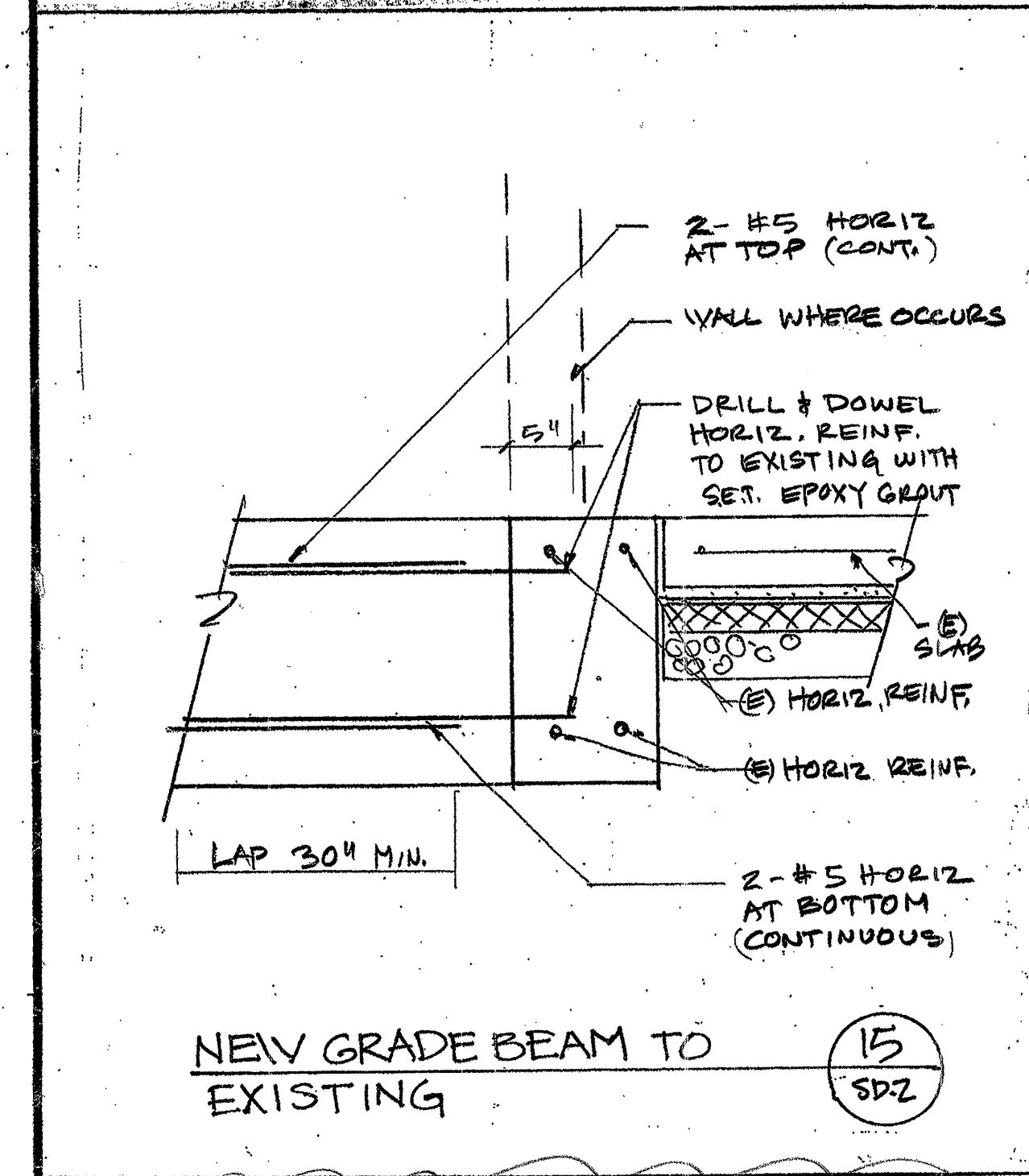
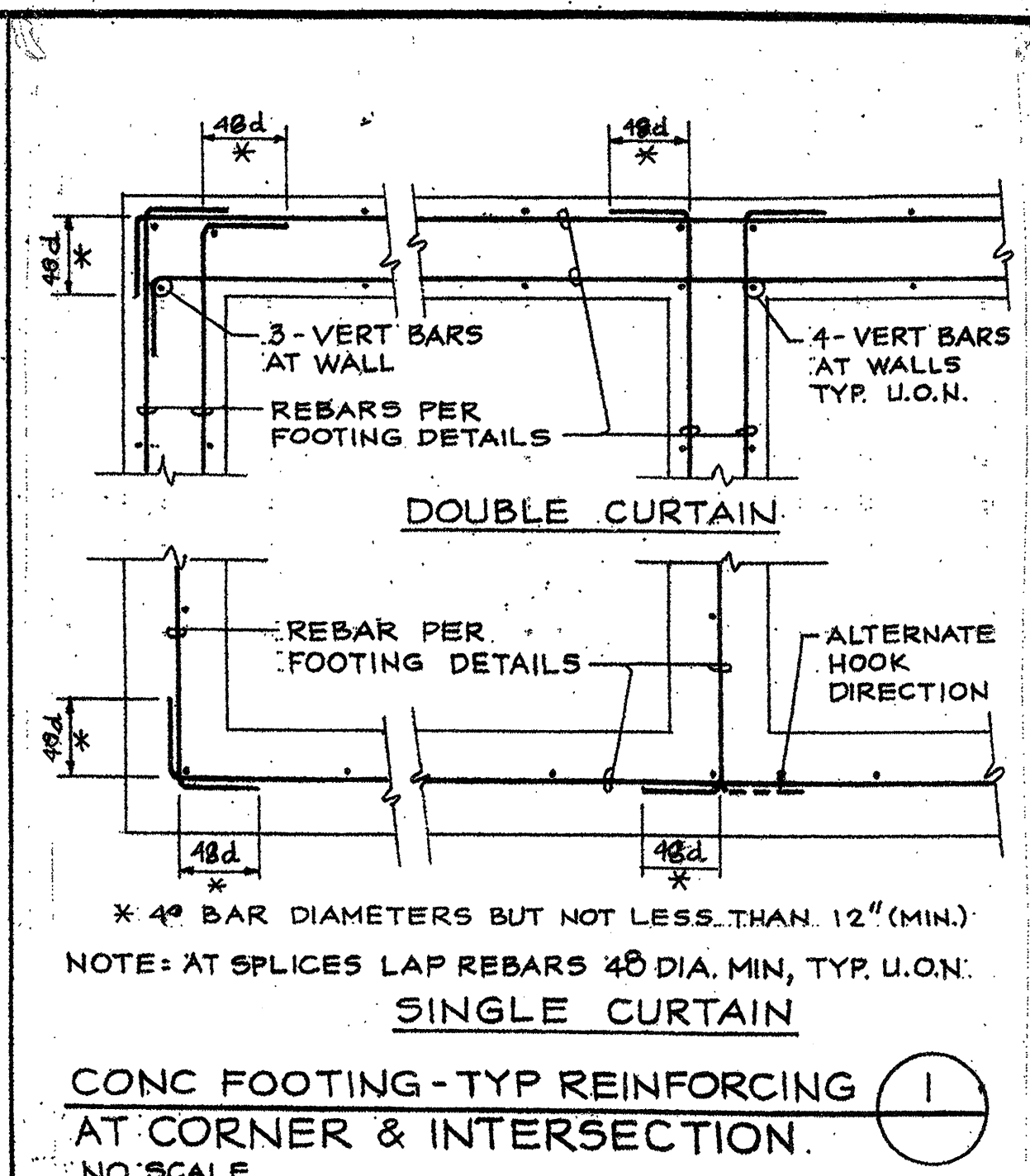
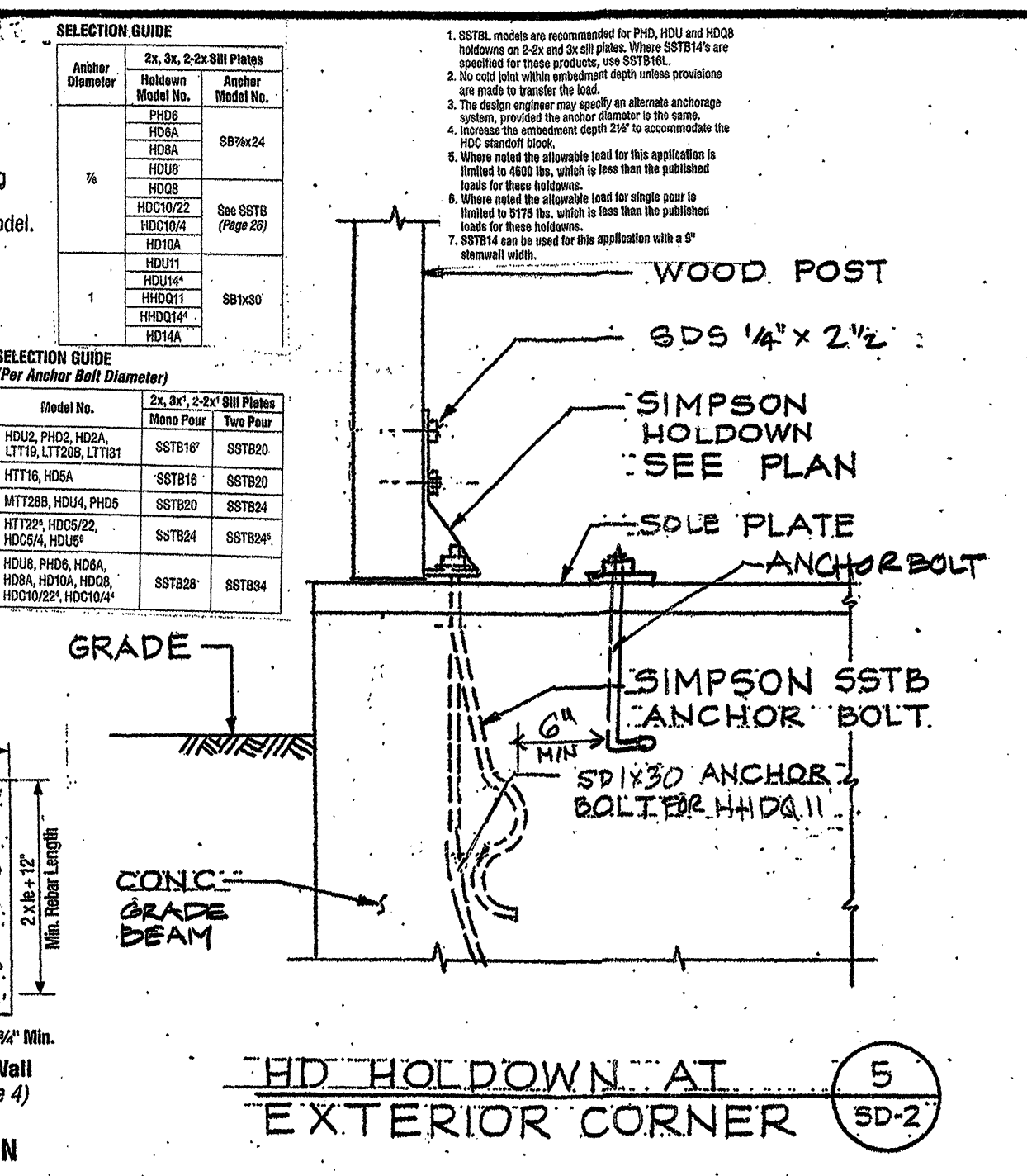
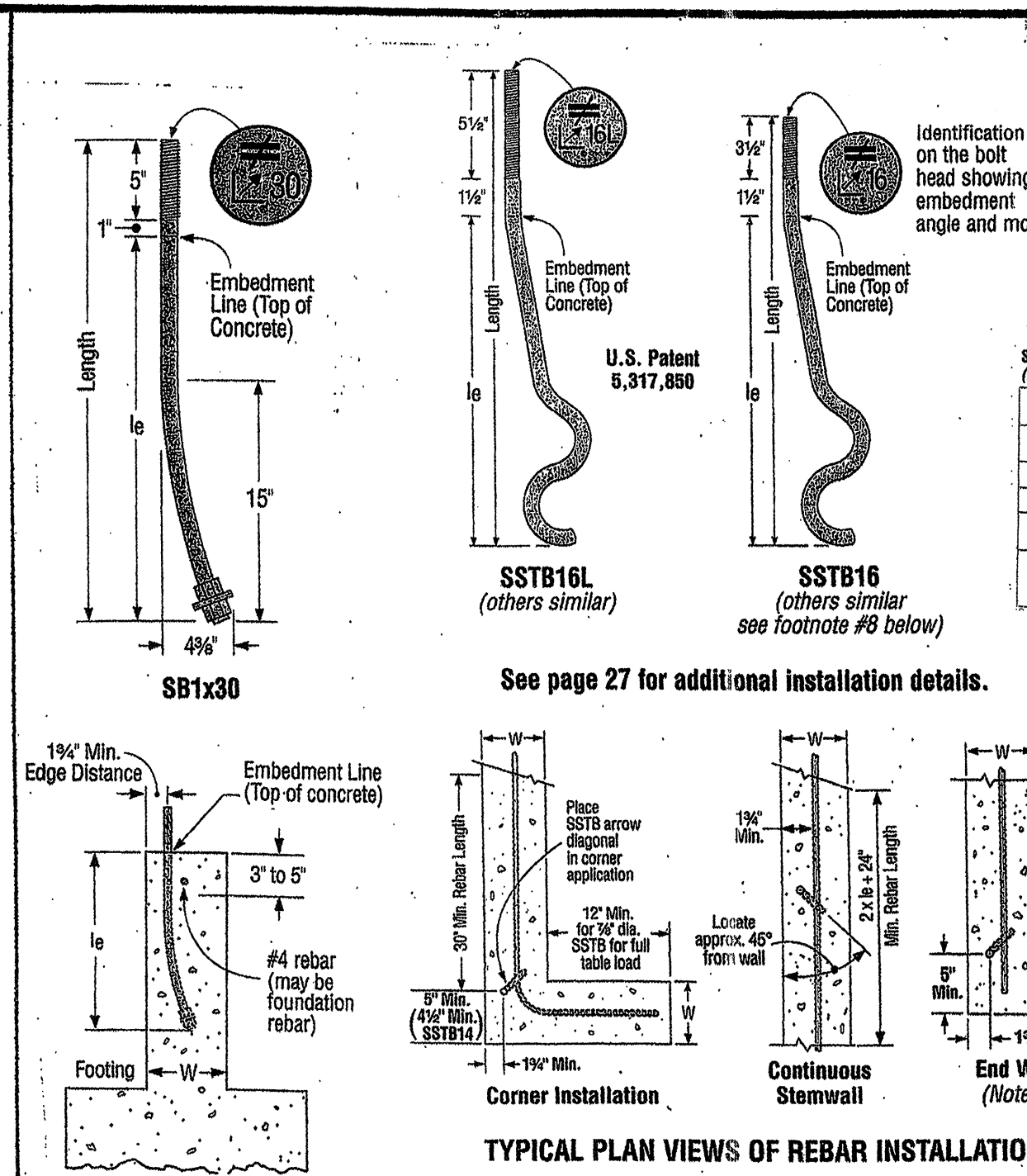
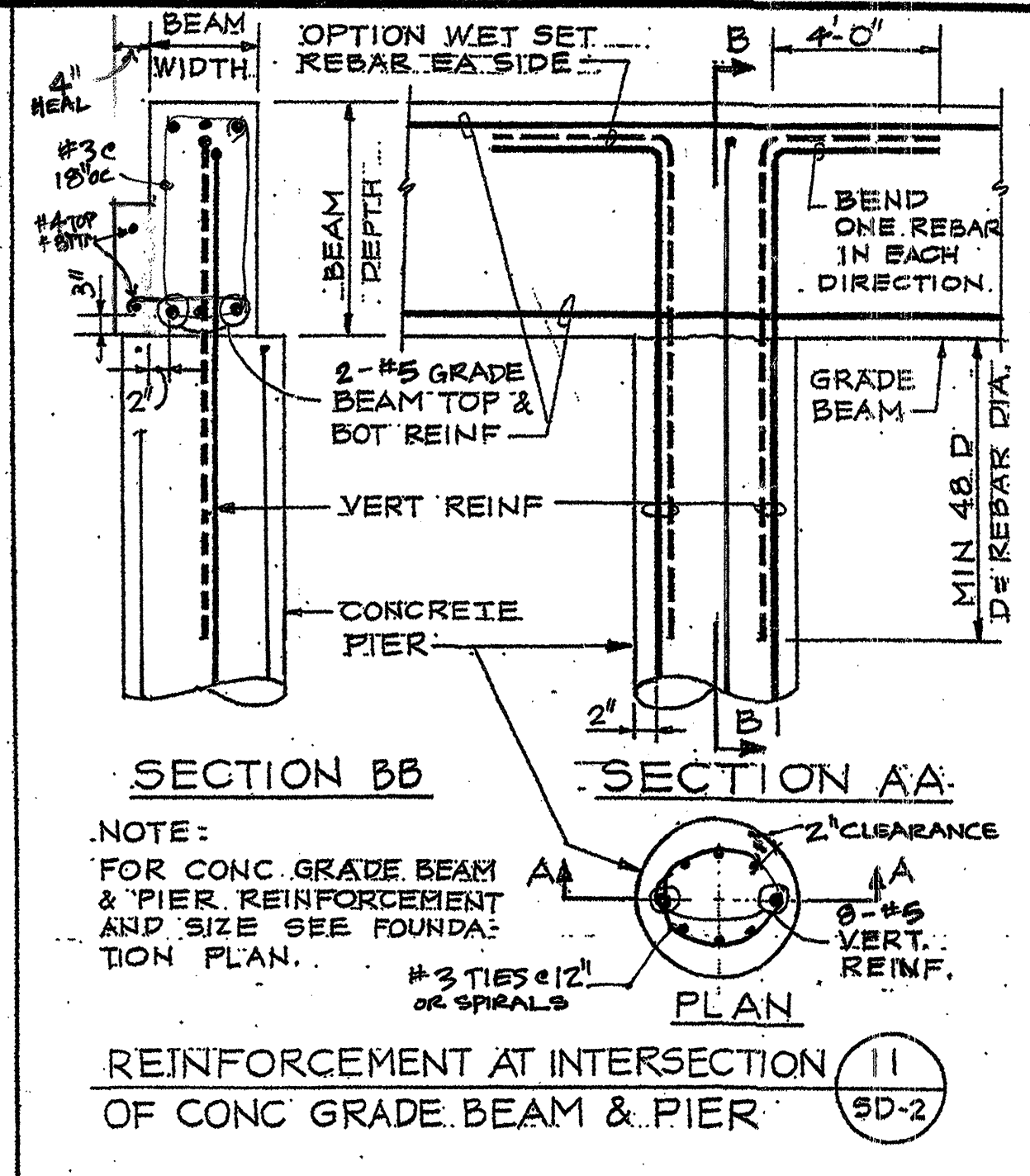
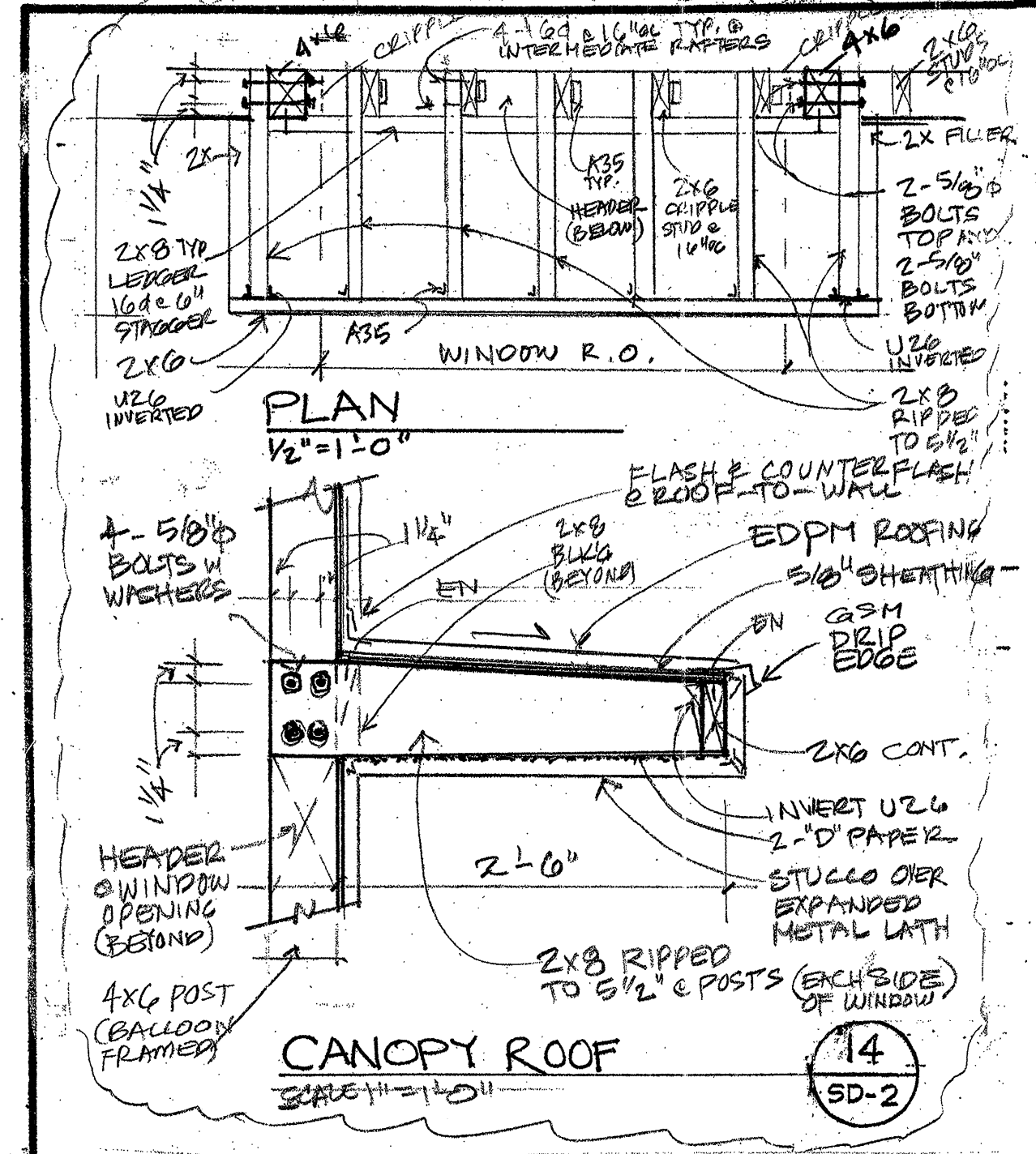
- I1. GLU-LAMINATED (GLU-LAM) LUMBER SHALL BE Fb = 2,400 PSI, Fv = 165 PSI AND E = 1,800,000 PSI. ADHESIVE SHALL BE SUITABLE FOR WET AREAS. LAMINATIONS SHALL BE COMBINATION FABRICATED IN ACCORDANCE WITH AITC PS 68.73. FOR SINGLE SPAN MEMBERS USE 24F-V4 DF/DL; FOR CONTINUOUS OR CANTILEVERED OVER SUPPORTS USE 24F-V8 DF/DF. USE PRESSURE TREATED LUMBER FOR GLU-LAM MEMBERS CONTINUOUSLY EXPOSED TO WEATHER.
I2. FABRICATION SHALL BE BY A LICENSED FABRICATOR. SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW AND AITC CERTIFICATION SHALL BE REQUIRED FOR ALL GLU-LAM MEMBERS.
I3. PRIOR TO INSTALLATION, THE CONTRACTOR SHALL PROVIDE A CERTIFICATE OF COMPLIANCE FOR ALL GLU-LAM BEAMS TO THE BUILDING DEPARTMENT AND THE STRUCTURAL ENGINEER FOR APPROVAL.
I4. GLU-LAM BEAMS SHALL NOT BE NOTCHED DRILLED, TAPERED, DAPPED OR CUT IN ANYWAY EXCEPT AS SHOWN ON THE DRAWINGS.

J. SHOP DRAWINGS

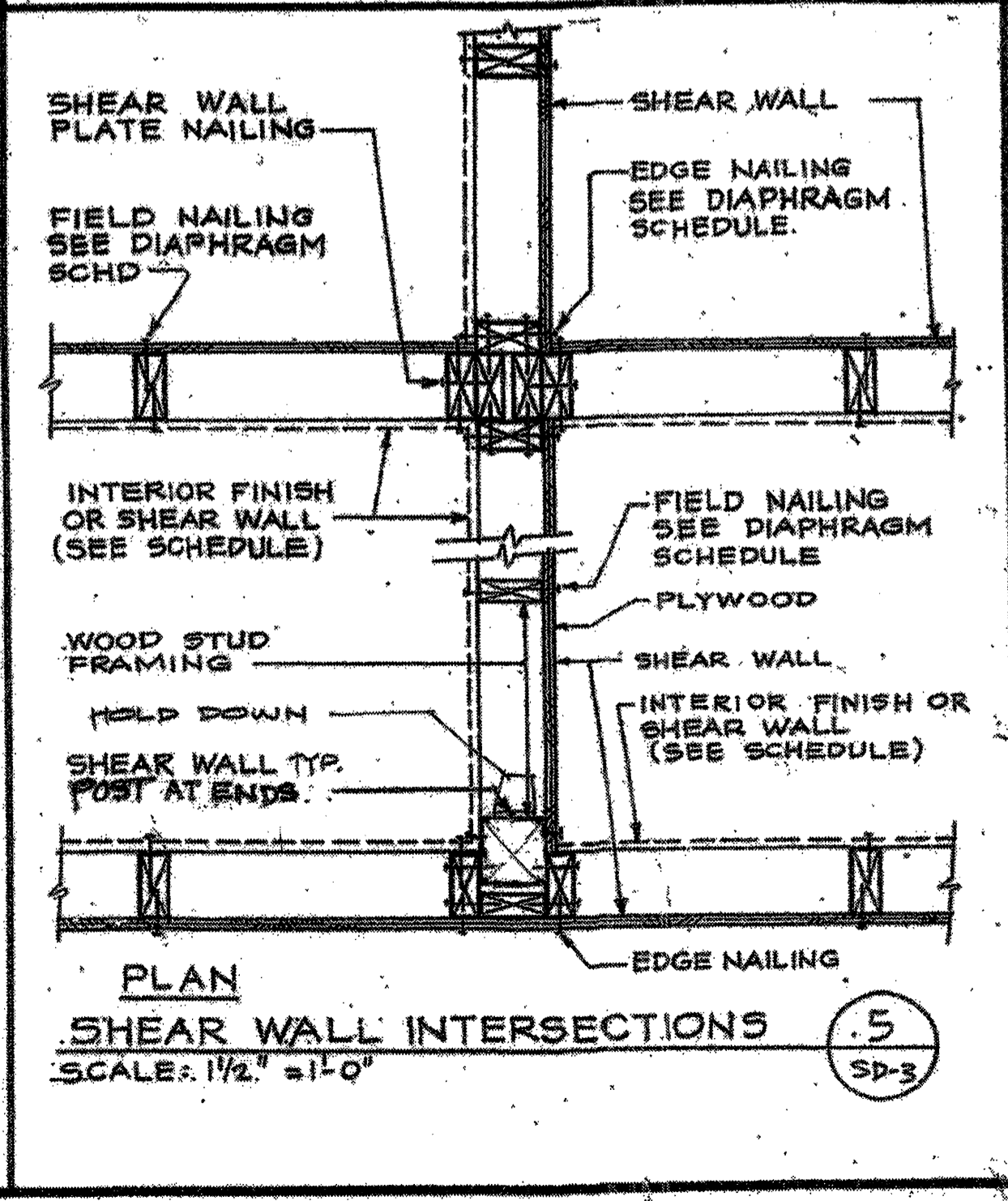
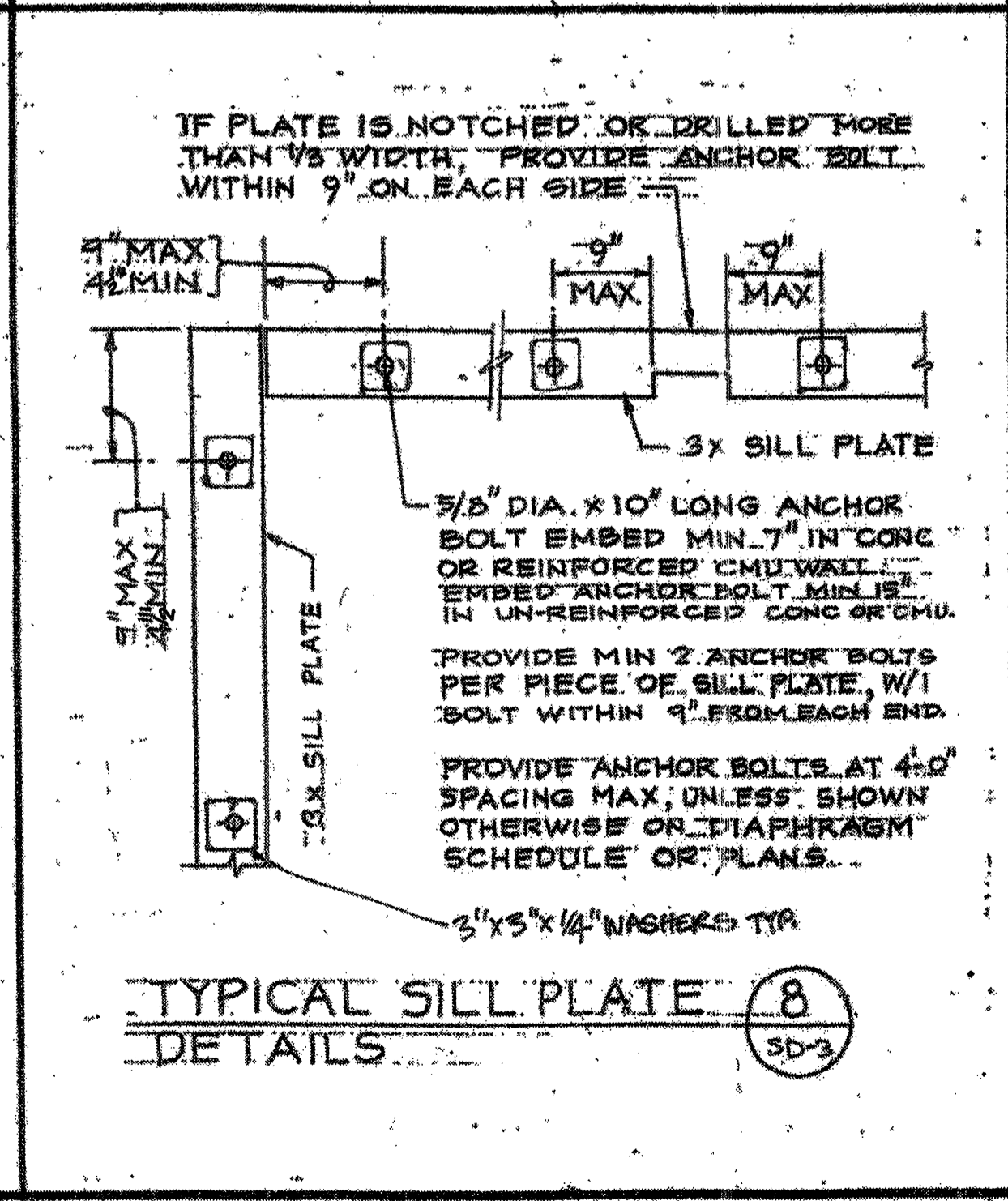
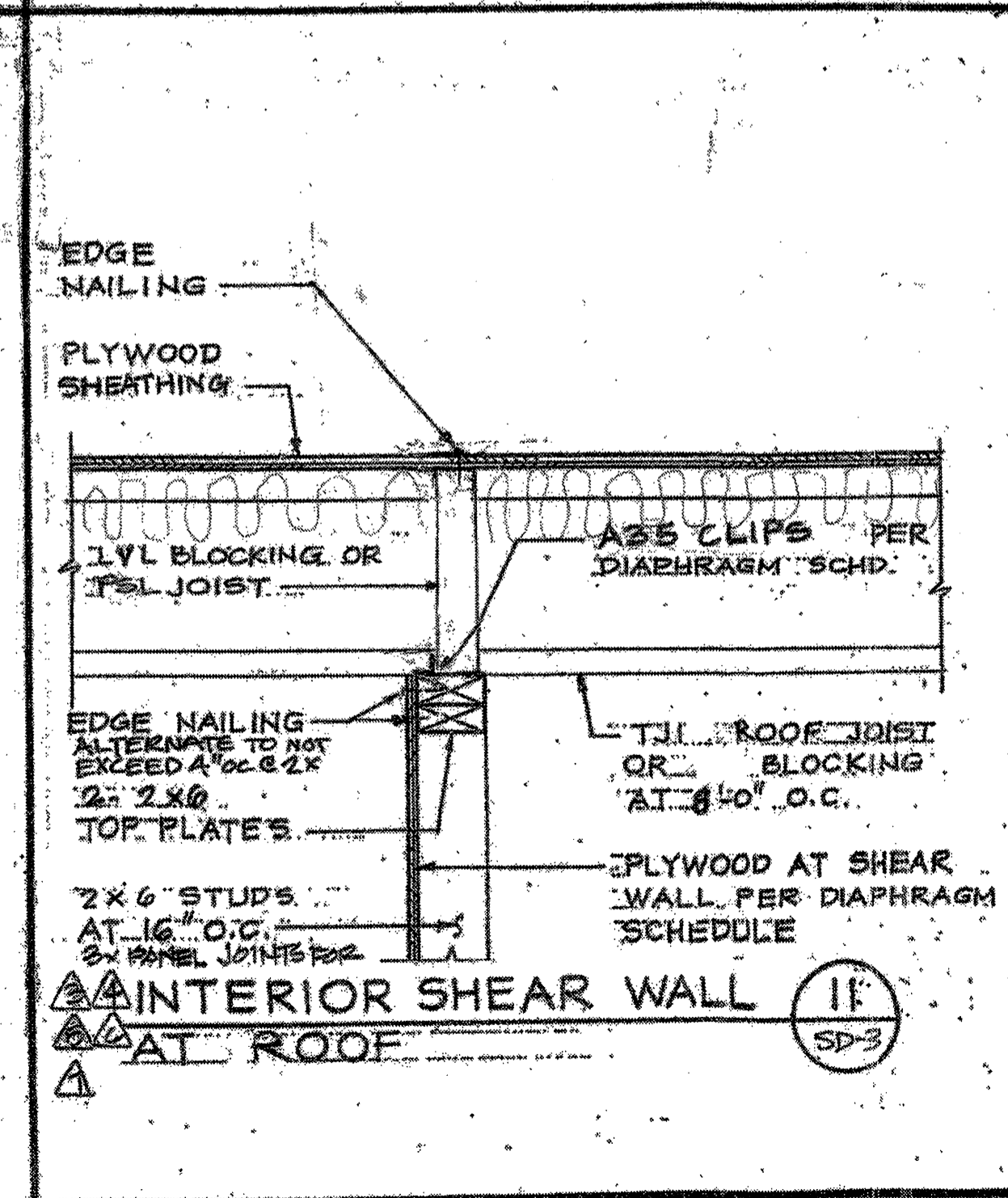
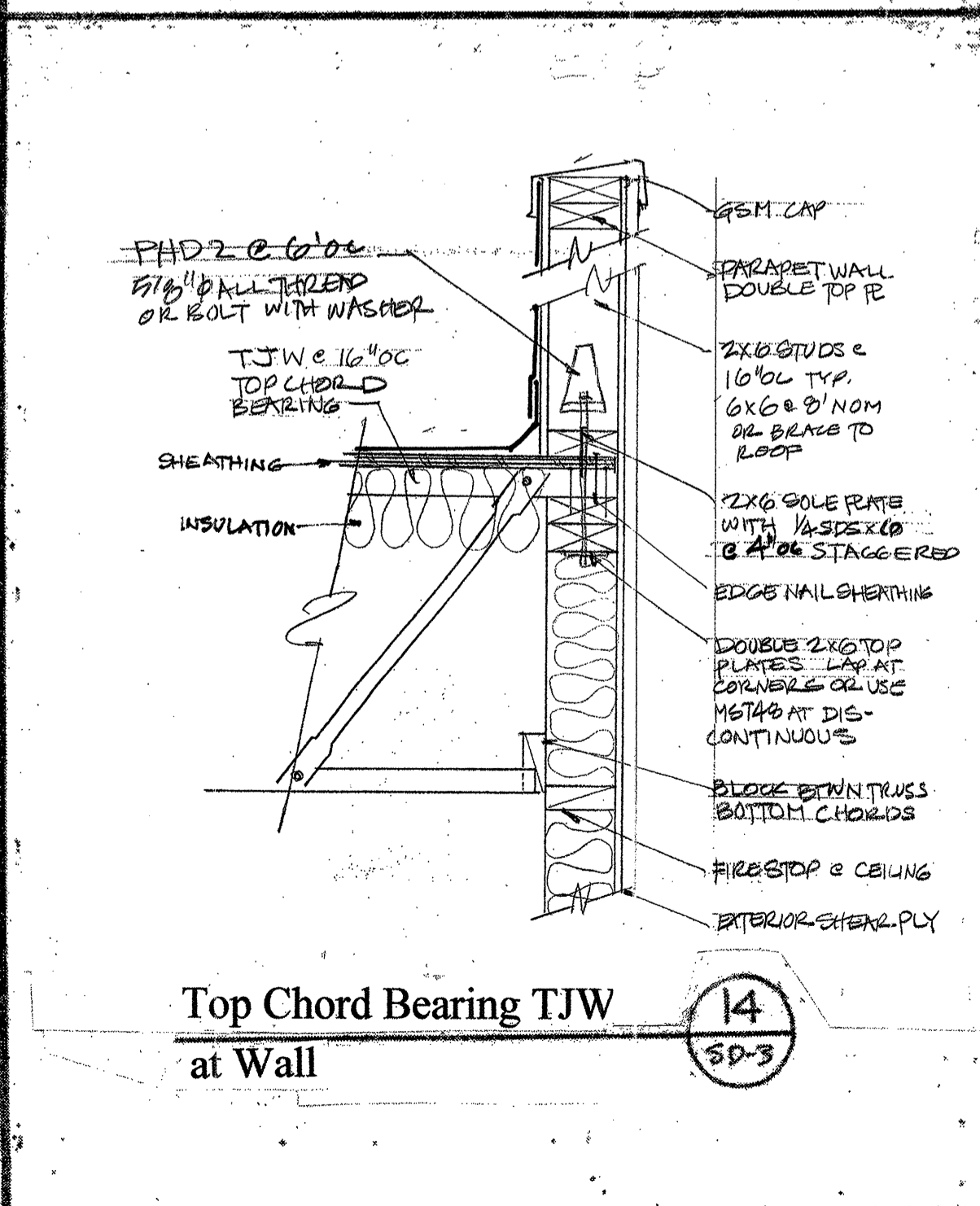
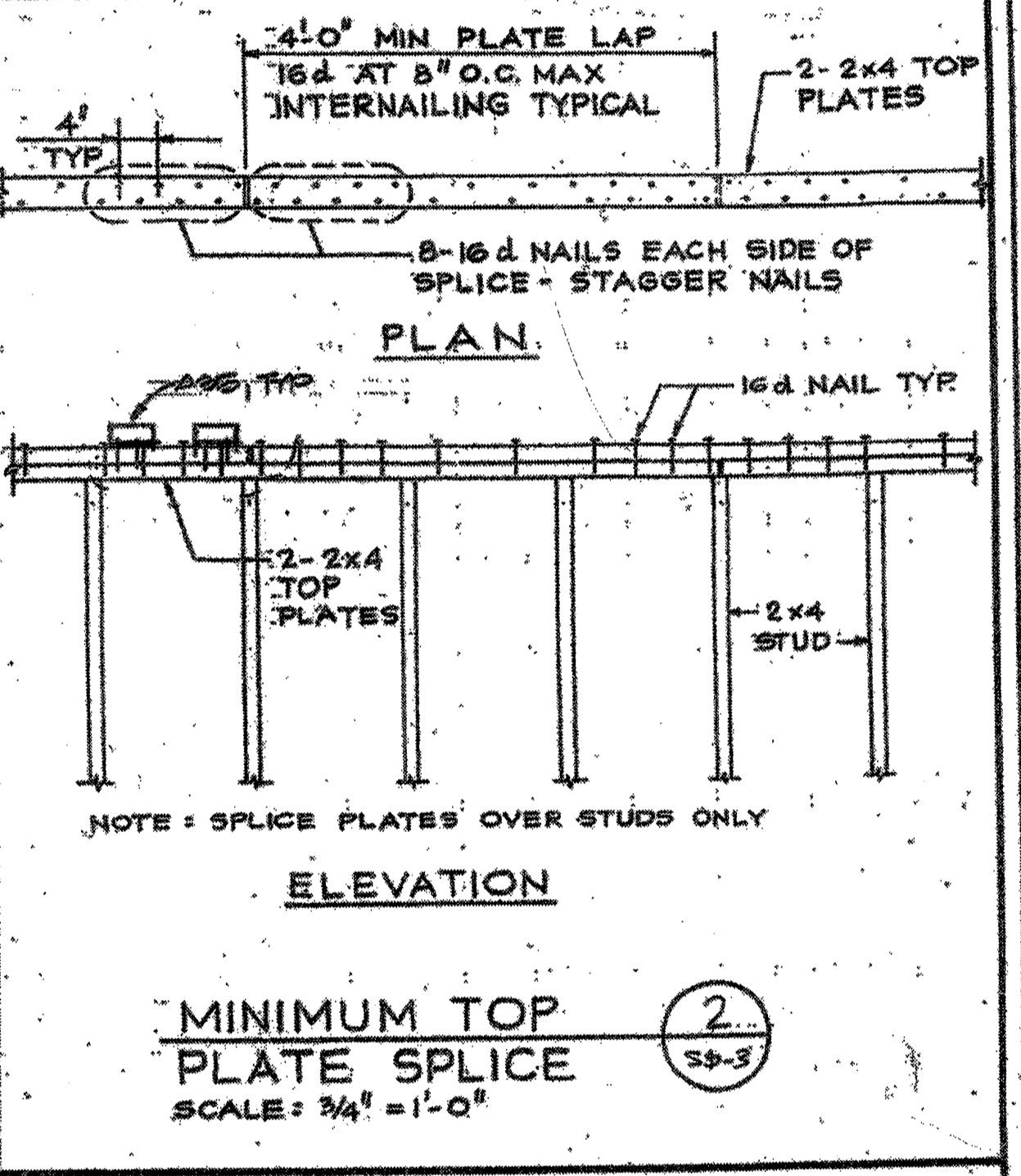
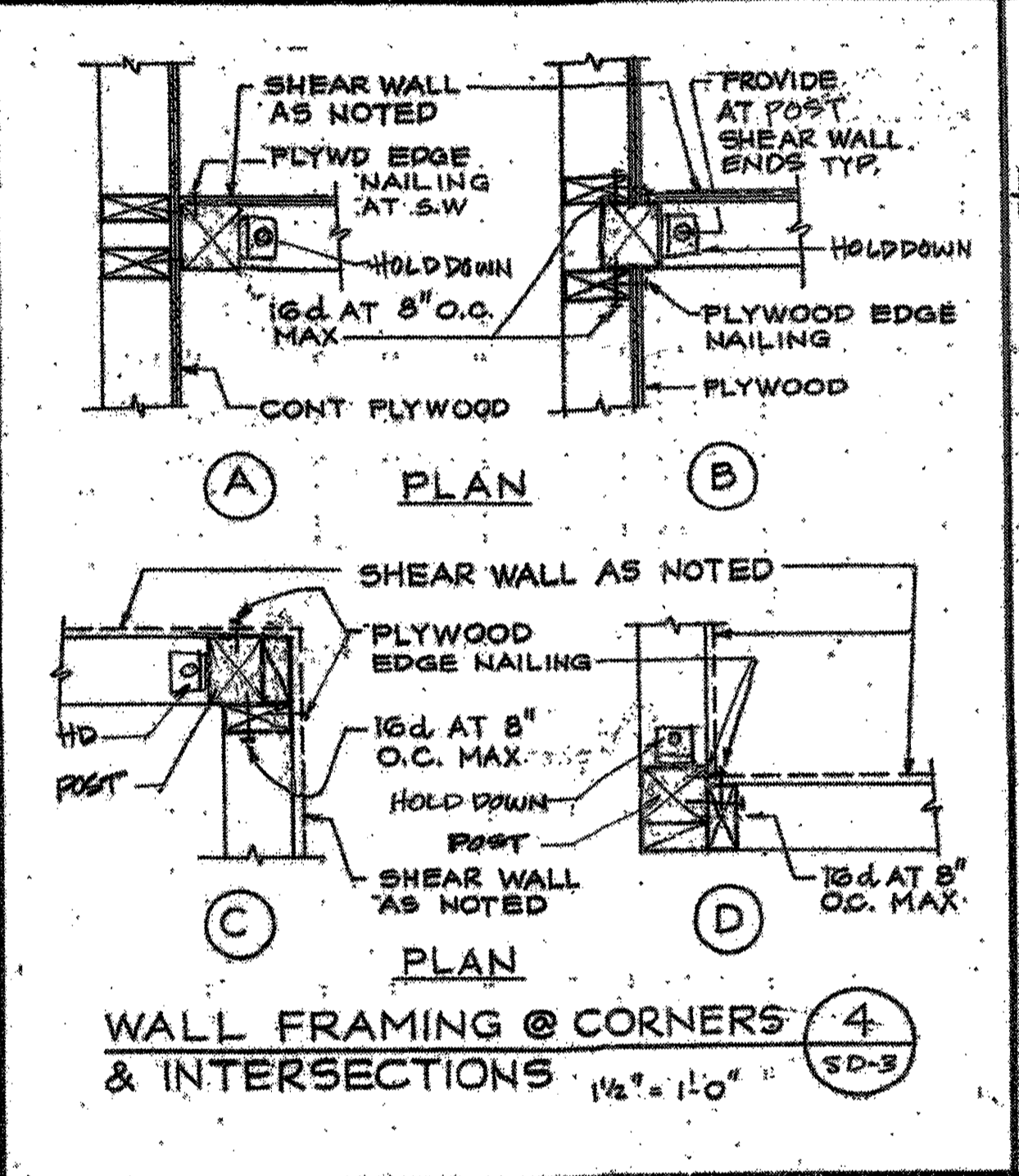
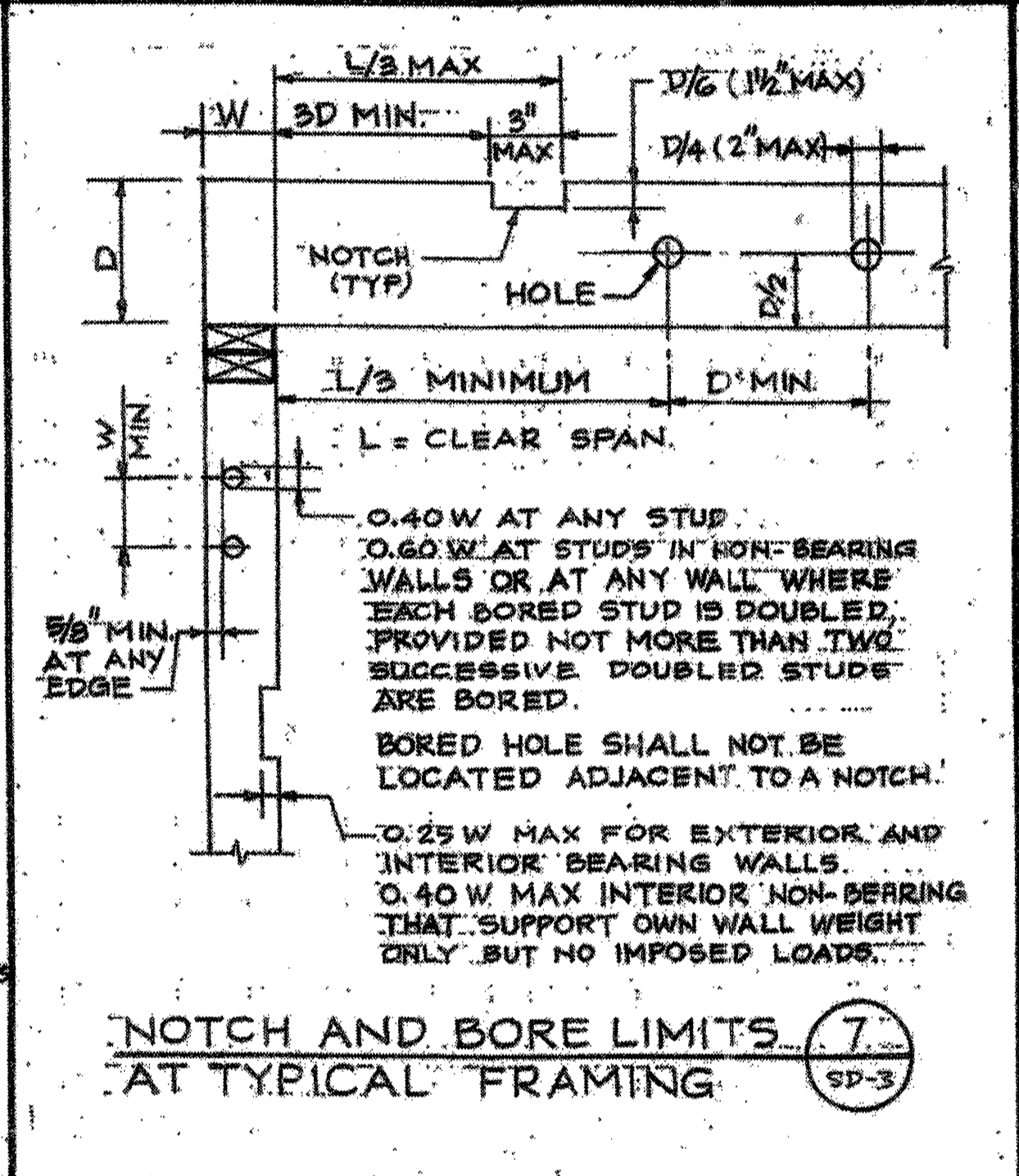
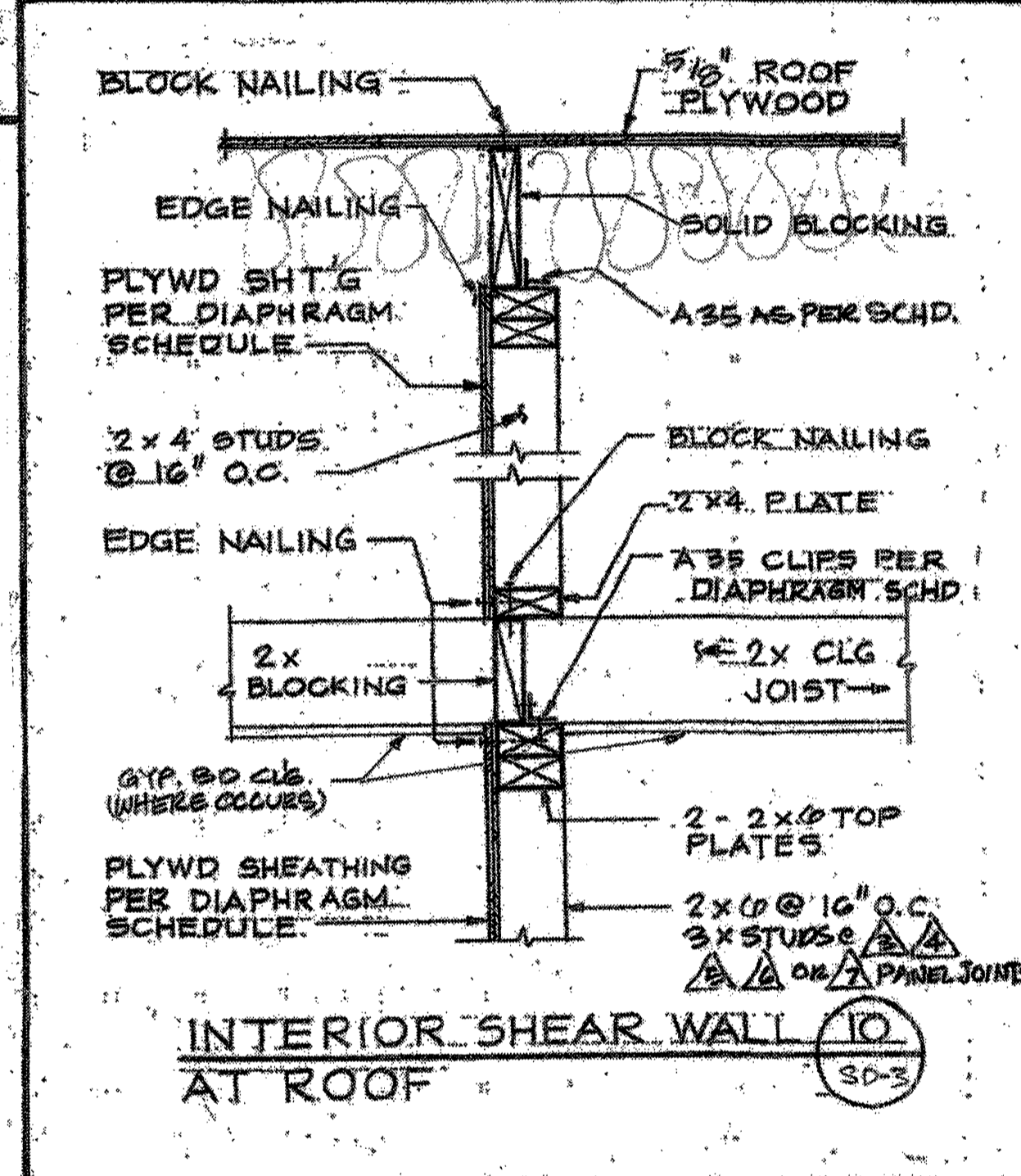
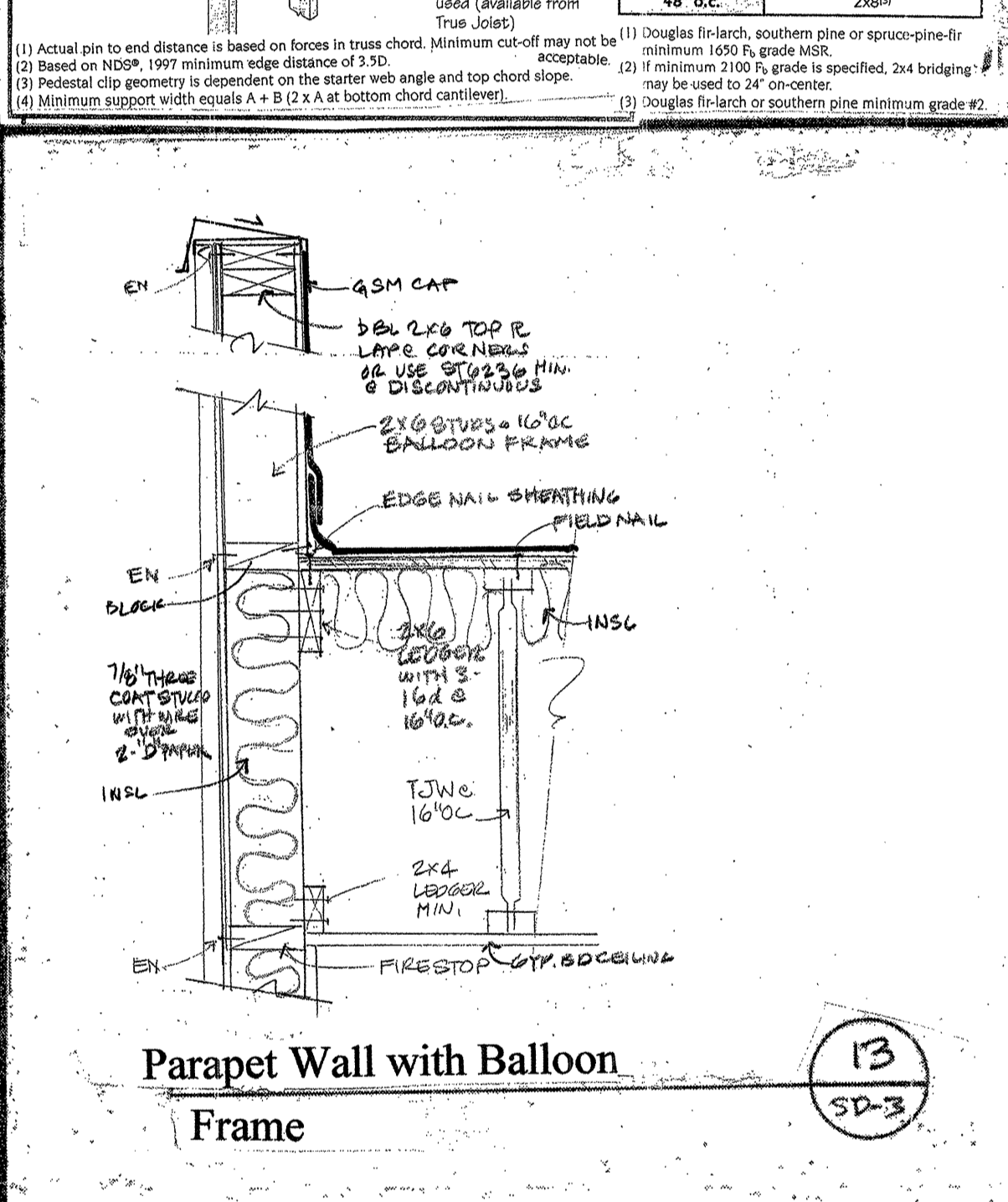
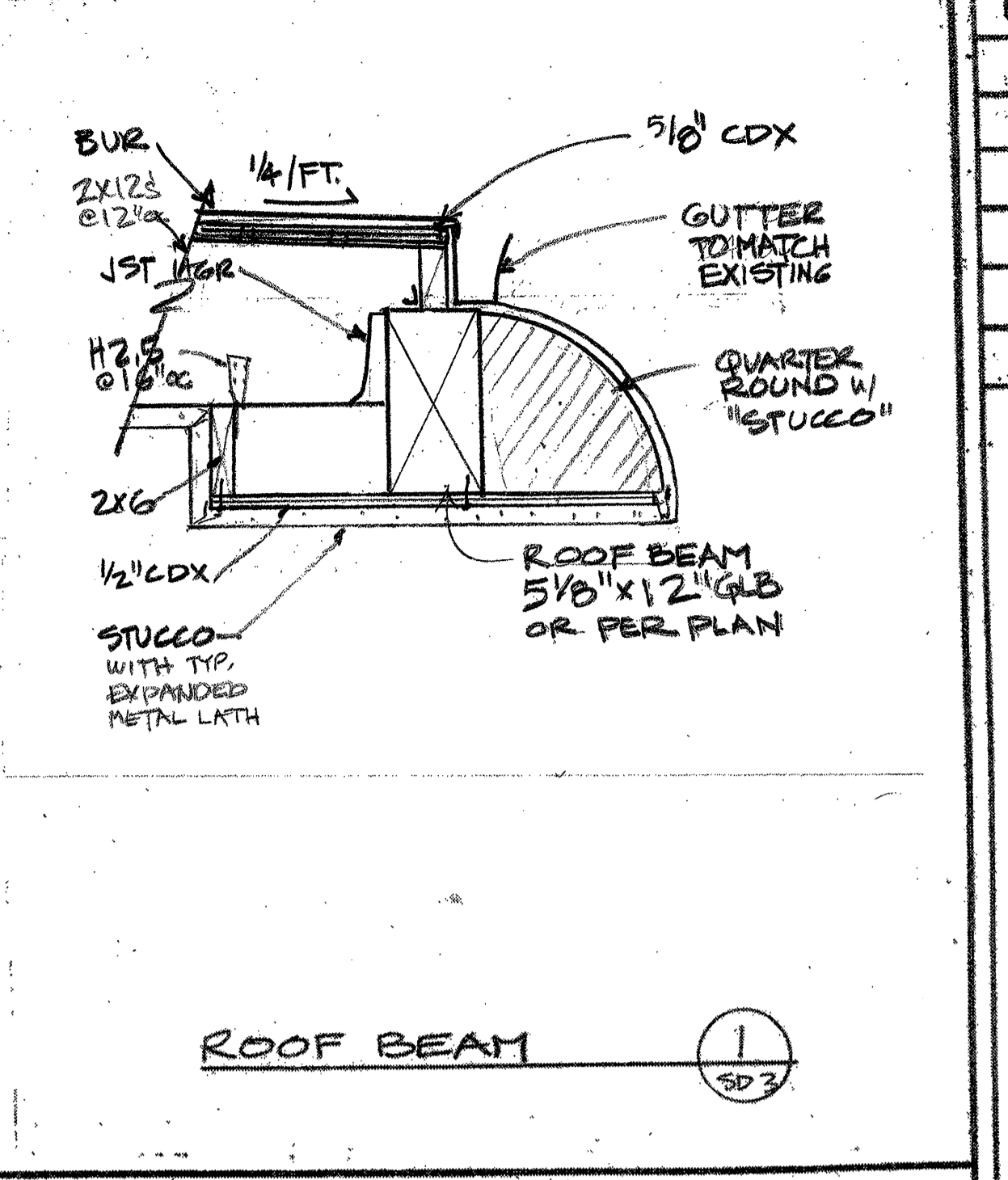
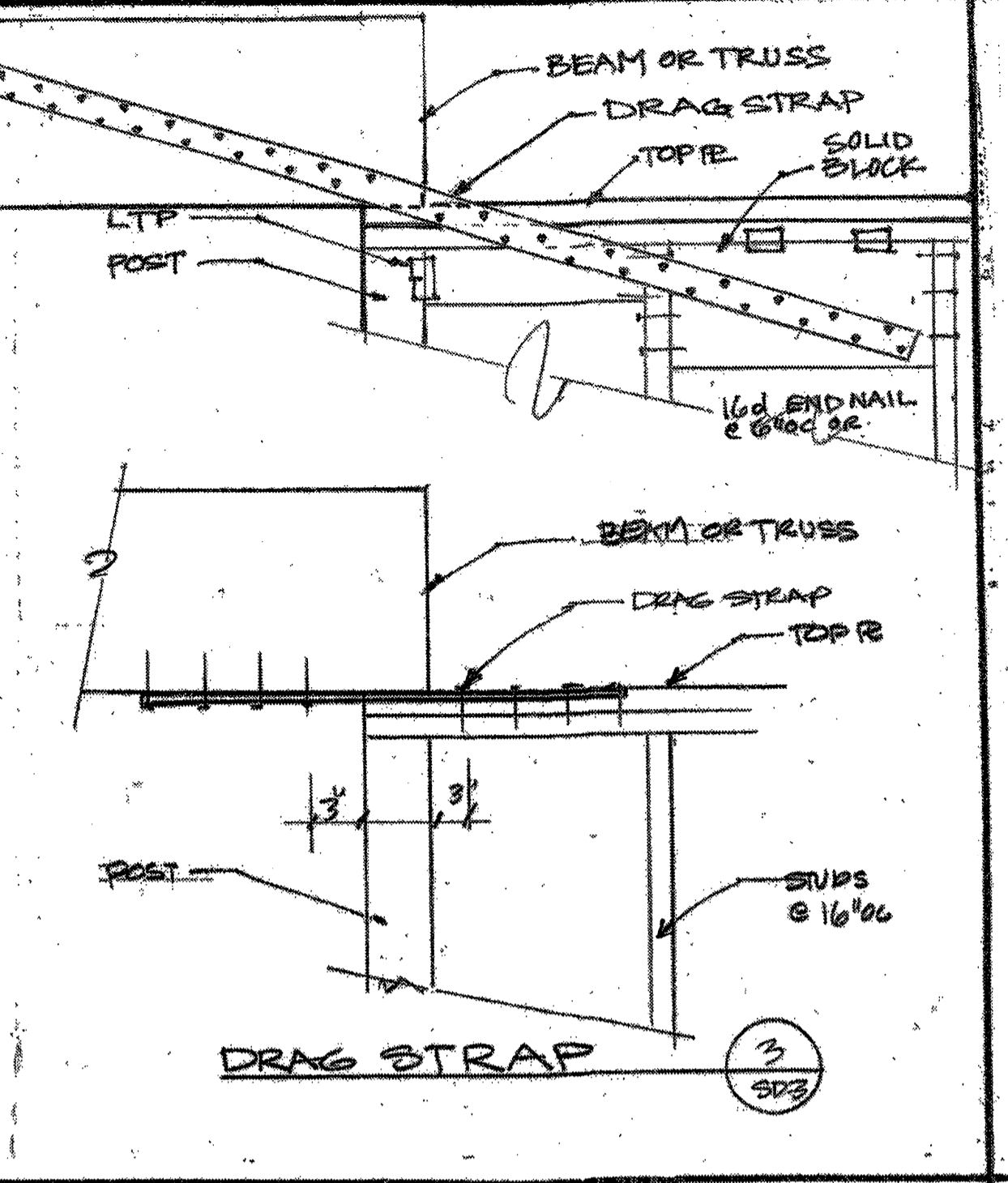
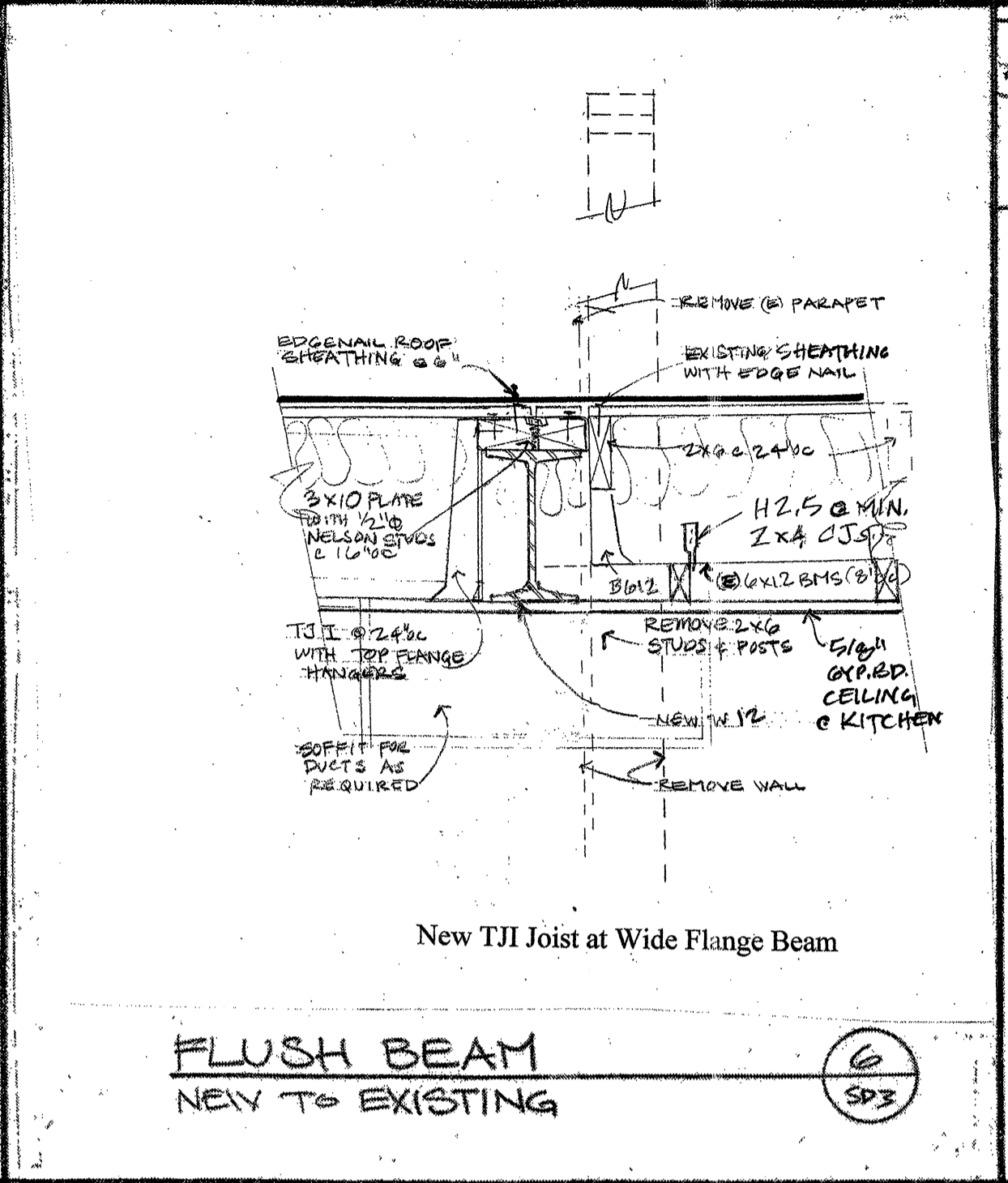
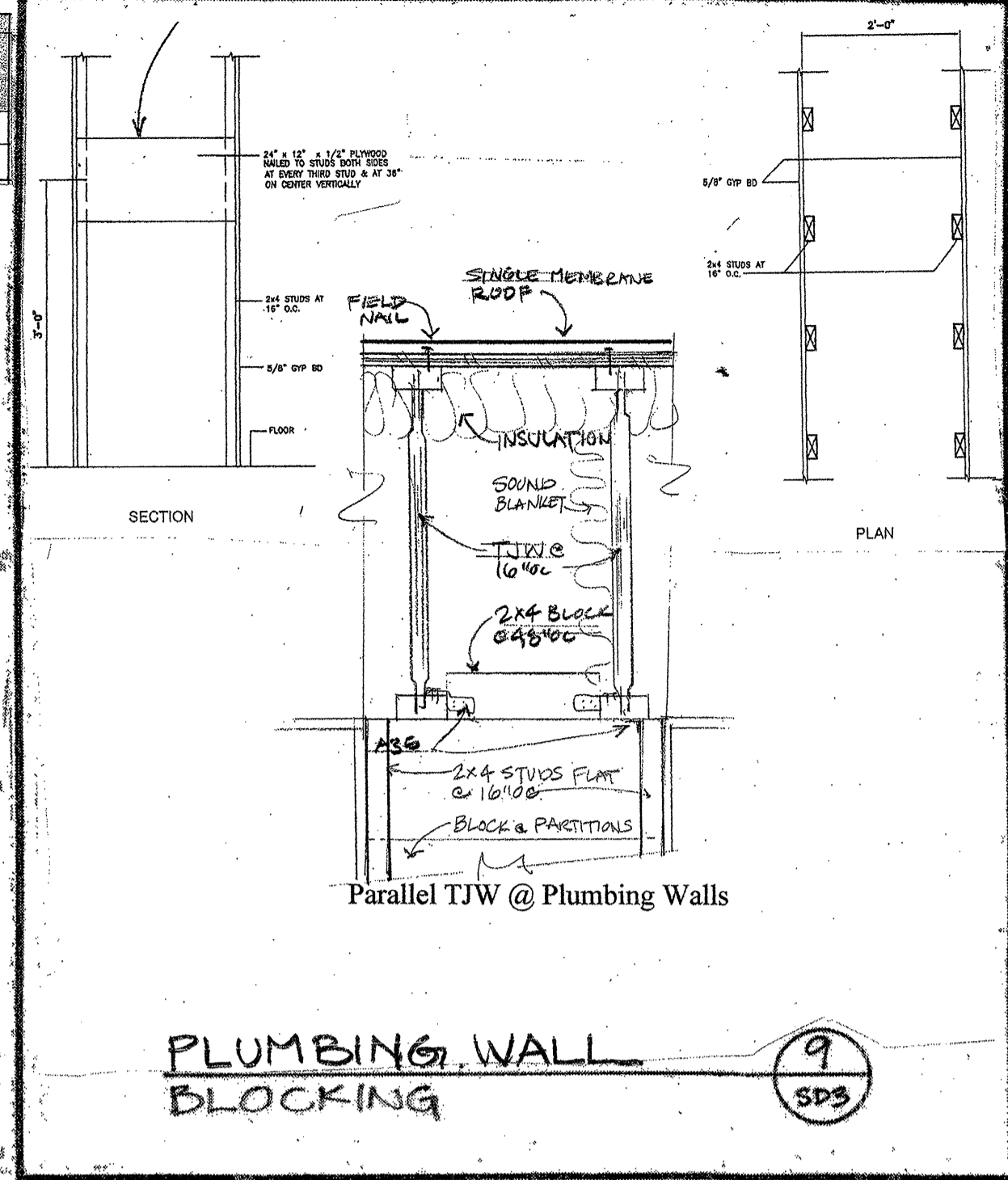
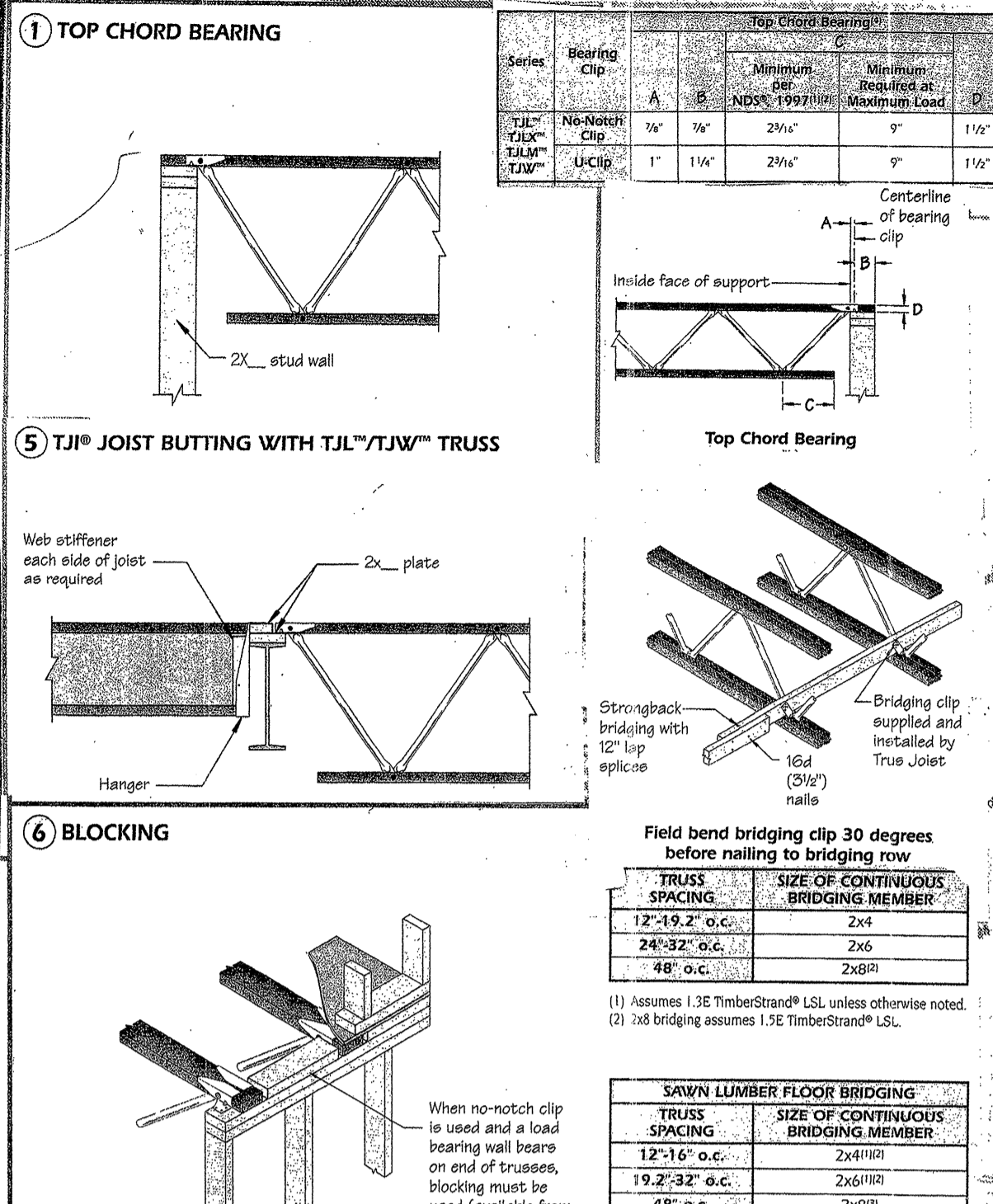
- J1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT THE SHOP DRAWINGS AND CONSTRUCTION IS IN CONFORMANCE WITH THE LATEST STRUCTURAL DRAWINGS.
THE CONTRACTOR SHALL SUBMIT ALL SHOP DRAWINGS TO THE ARCHITECT/ENGINEER FOR REVIEW TO DETERMINE GENERAL COMPLIANCE WITH THE APPROVED CONSTRUCTION DRAWINGS. THIS REVIEW DOES NOT CERTIFY THAT THE SHOP DRAWINGS ARE IN COMPLIANCE WITH THE LATEST ARCHITECTURAL AND ENGINEERING DRAWINGS.
SHOP DRAWINGS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW OF THE FOLLOWING STRUCTURAL WORK ITEMS:
REINFORCING STEEL
GLU-LAM BEAMS AND OTHER MEMBERS
STRUCTURAL STEEL WORK
FLOOR AND ROOF TRUSSES
PRE-FABRICATED STAIRS
FABRICATION SHALL NOT PROCEED UNTIL THE SHOP DRAWINGS HAVE BEEN REVIEWED BY THE BUILDING DEPARTMENT AND THE STRUCTURAL ENGINEER.

- K. SPECIAL INSPECTIONS
1. GRADING, DRAINAGE, PAD PREPARATION
a. Henry Justiniano & Associates (200-6930)
2. DRILLED PIERS - DEPTH & REINFORCEMENT
a. Henry Justiniano & Associates (200-6930)
3. STRUCTURAL COLUMNS, INCLUDING REINFORCING STEEL - Concrete over 2500 PSI
a. Korbmacher Engineering Inc. (454-9033)
4. WELDING OF BASE PLATES @ STEEL BEAM
a. Korbmacher Engineering Inc. (454-9033).
COURSE OF CONSTRUCTION OBSERVATIONS (B.R. Govindarao - 833-9784)
1. EPOXY INSTALLED ANCHOR/HOLD DOWN BOLTS
2. REINFORCING STEEL - SLAB & GRADE BEAM
3. SHEARWALL - NAILING & STRAPPING
Observed deficiencies shall be reported to the Owner, the Special Inspector, the Contractor and the Building Official.
Deferred Submittal: 1. Fire Sprinklers
2. Alarm system
3. Manufactured roof trusses
4. Kitchen Hood Suppression
Contractor in responsible charge to submit a written statement of responsibility to the Owner and Building Official (City of Livermore Permit Center) for:
1. Acknowledgement of awareness of the special requirement contained in the statement of special inspection.
2. Acknowledgement that control will be exercised to obtain conformance with the construction documents approved by the Building Official.
3. Procedures for exercising control within the Contractor's organization, the method of, and frequency of reporting and the distribution of the reports; and
4. Identification and qualifications of the person(s) exercising such control and their position(s) in the organization.
Automatic Sprinkler Systems as specified by Livermore Municipal Ordinance
Plans and Specifications shall be submitted to the City of Livermore Permit Center for Review and Approval prior to installation.

REVISIONS BY
HINDU COMMUNITY and CULTURAL CENTER
1232 ARROWHEAD AVE. LIVERMORE, CA 94551
STRUCTURAL GENERAL NOTES
GOVINDARAO
964 BAYDOL WAY SAN RAMON, CA 94582 925-833-9784
Date: 9-2-09
Scale:
Drawn:
Job: ARROWHEAD
Sheet: SD-1 of 2 sheets



SPECIAL INSPECTION IS REQUIRED FOR THE INSTALLATION OF EPOXY INSTALLED ANCHOR BOLTS AND HOLD-DOWN BOLTS



PLYWOOD DIAPHRAGM SCHEDULE

MARK	PLYWOOD	NAILING, CLIP OR A.B. SPACING - INCHES ON CENTER				
		EDGE NAILS	FIELD NAILS	SILL NAILS	A-35 CLIPS	5/8" A.B.
ROOF TYP	1/2" CDX	10d @ 6	10d @ 12	N/A	24	N/A
FLOOR TYP	3/4" T&G	10d @ 6	10d @ 10	N/A	16	N/A
SHEAR WALLS	1/2" CDX	10d @ 4	10d @ 10	5D 1/4" x 6" @ 8	18	32
	3/4" CDX	10d @ 4	10d @ 8	5D 1/4" x 6" @ 8	12	16
	1/2" CDX	10d @ 3	10d @ 8	5D 1/4" x 6" @ 8	6	8

NOTE: PROVIDE 5/8" INCH DIAMETER ANCHOR BOLTS (A.B.), 12 INCHES LONG WITH 7 INCHES MINIMUM EMBEDMENT, UNLESS NOTED OTHERWISE ON FOUNDATION. PLAN PROVIDE SPACING PER ABOVE SCHEDULE. USE PLATE WASHERS 3"x3"x1/4" AT ALL ANCHOR BOLTS (GALV).

FASTENERS FOR PRESSURE TREATED WOOD SHALL BE HOT-DIPPED ZINC COATED, GALVANIZED, STAINLESS STEEL, SILICON BRONZE OR COPPER

Exterior and bearing walls to have 5/8" dia. galv. anchor bolts with 3"x3"x1/4" washers (unless noted otherwise)

REVISIONS BY

HINDU COMMUNITY and CULTURAL CENTER
1232 ARROWHEAD AVE. LIVERMORE, CA 94551

STRUCTURAL FRAMING DETAILS

GOVINDARAO
864 BANDOL WAY SAN RAMON, CA 94582 925-833-9784

Date: 9-2-09
Scale: 1/2" = 1'-0" UN
Drawn:
Job: ARROWHEAD
Sheet: SD-3
Of: Sheets

