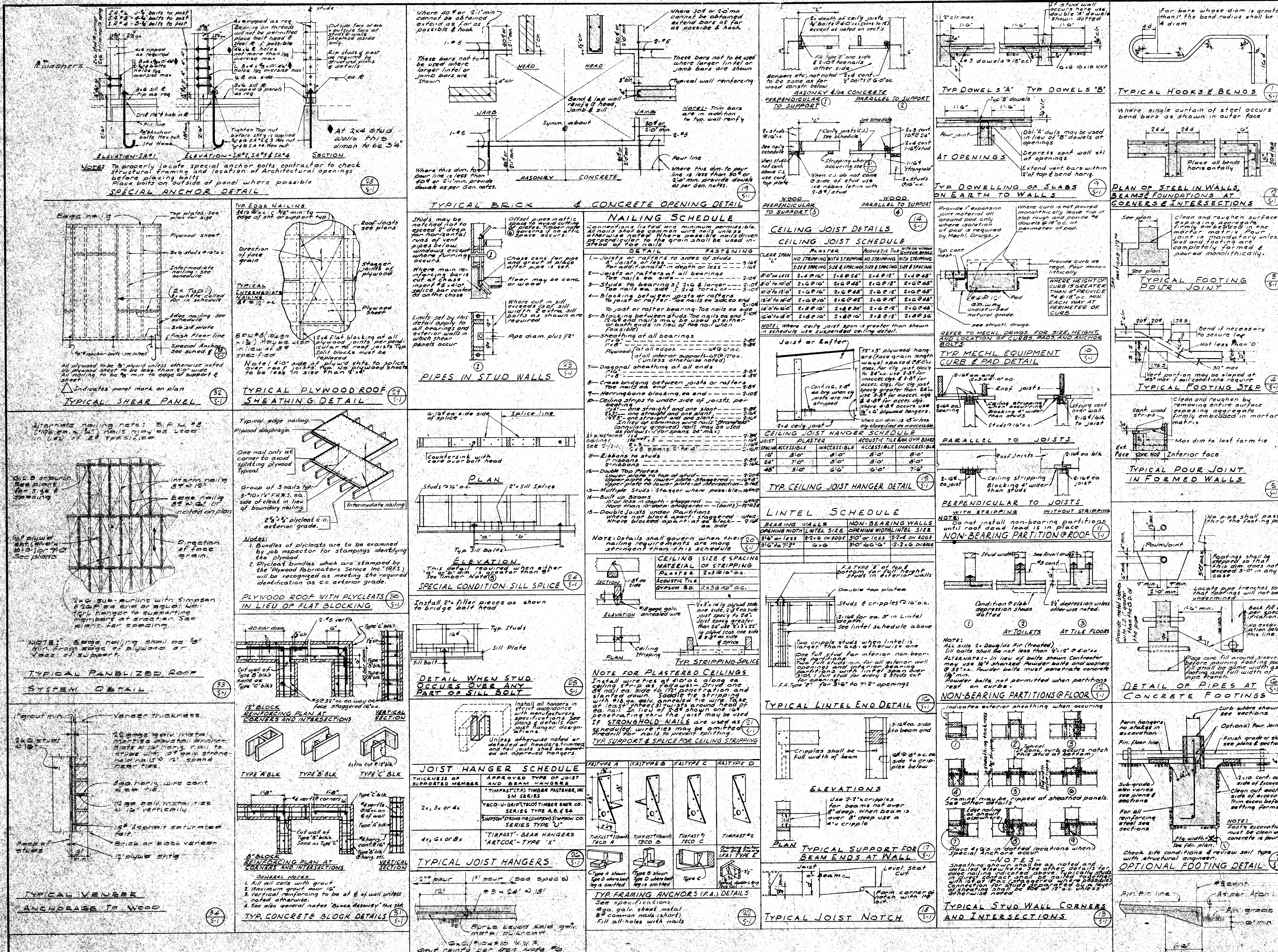

GENERAL NOTES

SOIL CONDITIONS

1. Soil supporting footings is sandy silt - Compacted Fill see Spec's.
2. Soil bearing value for use in design assumed to be 1500#/□' (D+L)
3. Footings shall extend at least 1'-0" into compacted fill or 1'-6" below finish grade whichever is lower.

REINFORCED CONCRETE

1. No brick or porous material shall be used to support footing steel off the ground.
2. All concrete shall have a min. ultimate compressive strength of 2500psi at 28 days unless otherwise noted.
3. Anchor bolts and dowels shall be securely held in place before conc. is poured.
4. All reinforcing steel (unless noted) shall be intermediate grade deformed bars conforming to ASTM A-15 and A-305. Splices in reinforcing steel shall lap 30 bar diameters min. for all bars including column bars. Horizontal splices shall be staggered. At splices and laps, bars shall be separated 2½ diam. o.c. min. but in no case shall the separation be less than 1½" clear. However, column bars may be separated 1" min. and wall bars may be wired together.
5. Reinforcing steel shall have min. protective concrete covering as shown below:

WALL STEEL BELOW GRADE
On dirt side when poured against dirt — 3"
On dirt side when formed — 2"
On side away from dirt — 1"

WALL STEEL ABOVE GRADE
IN all cases — 1"

OTHER ITEMS
Footing pads — 3"
Slabs on forms — ¾"
Joists (sides, tops & soffits — 1"
Tied columns (to main stl.) — 1½"
Spiral columns (to main stl.) — 2"
Beams & Girders (sides, tops & soffits) — 1½"

6. Slabs poured on the ground shall be reinforced with 6"x6"/#10x#10 welded wire fabric at mid-depth of slab as follows:
   All interior slabs.
   All slabs of covered walks.
   All exterior slabs adjacent to building wall up to 8'-0" wide.
   Exterior slabs adjacent to building wall greater than 8'-0" wide shall be doweled to footing wall and reinforced with one 8'-0" width of W.W.F. laid adjacent to footing.
7. Dowel slabs to walls and other edge members as per typical details.
8. See Architectural and/or Mechanical drawings for location of pipes, vents, ducts and other similar openings.
9. All walls shall be doweled to supporting footings, beams, pads, etc. with bars of the same size and spacing as the vertical bars in the wall.
10. Anchorage of dowels shall be equivalent of a bar splice.
11. Wall footing pads not otherwise noted shall be 10" thick and 1'-2" in width and reinforced per typical details.
12. Conduits in conc. walls to be wired to wall reinf. & shall be approved by the Architect.
13. All reinforcing steel to be placed in relative position shown on drawings. No splices in any reinforcing will be permitted except those shown on structural drawings.
14. Unless otherwise detailed, reinforcing steel in continuous beams and spandrels shall have the top steel spliced at mid-span and the bottom steel spliced over supports (30d min.). At discontinuous ends the top steel shall be bent down 12 diameters or 12" minimum, whichever is greater.

STRUCTURAL STEEL

1. When stress is not given and/or details are not shown design connections for members carrying direct stress to develop the strength of the members. AISC standard beam connections or connections of equal strength shall be used for all beam connections not shown.
2. Base plates shall be bedded on drypack grout of 1" min. thickness.
3. All welding shall be done by the Electric Shielded Arc process.
4. The following structural steel items shall be tested: Test all members not identified with mill test reports.

BLOCK MASONRY

1. See specifications for block, mortar & grout. Lap all reinforcing bars 40 diams. at splices.
2. All isolated bolts embedded in masonry shall be grouted solidly in place with not less than 2" of grout surrounding the bolt.
3. Vertical bolts shall be placed 4" in from the face of the masonry and shall be set inside any horizontal ties occurring at the top of piers & columns.
4. Use standard ℞ washers on all horizontal bolts thru wood members

BRICK MASONRY

1. See specifications for brick, mortar & grout. Lap all reinforcing bars 40 diams at splices.
2. All isolated bolts embedded in masonry shall be grouted solidly in place with not less than 2" of grout surrounding the bolt.
3. Vertical bolts shall be placed 4" in from the face of the masonry and shall be set inside any horizontal ties occuring at the tops of piers & columns.
4. Clusters of bolts shall be grouted as a unit with a min. of 2" of grout surrounding each bolt. Minimum spacing between bolts in clusters shall be 8 diameters.
5. Wood and/or steel members anchored to the face of masonry walls and supporting vertical loads shall be backed up with concrete or grout for the full length and depth of the member. Size, spacing and placement of anchor bolts will be found on the structural details.
6. Rafters, joists or solid blocking when bolted to walls parallel thereto shall be backed up with concrete or grout as noted in 5 above, or each bolt shall be grouted as isolated bolt in note 2 above.
7. All corners and wall intersections, single curtains of horizontal reinforcing shall be treated as noted in (A) except lap bars 40 diam.
8. Locate end bolts anchoring wood members (which support vertical loads) within 12" of the end of the member.

Use standard ℞ washers on all horizontal bolts thru wood members.

TIMBER

1. All framing lumber shall be grade marked Douglas Fir. See Specifications.
2. Sill plates shall be treated Douglas Fir unless otherwise noted. All mudsills shall be set on a 1" min. drytamp grout bed. (Bearing & shear walls only)
3. Sill plates shall be bolted to concrete with ⅝"x12" anchor bolts at 4'-0" o.c. max. unless otherwise noted. At all corners, intersections, door openings, sill ends and wherever any cut or notch in the sill exceeds ⅓ the sill width, place a bolt not over 9" from the notch or end of the sill piece. Should a special condition arise where the bolts are not spaced within the 9" noted above the sill may be spliced as shown in detail 24/S-1.
4. Where stud partitions join concrete or masonry walls the end stud shall be anchored thereto with ½" bolts near the top and bottom and at each row of fire blocking. Such bolts shall be embedded in the wall not less than ⅔ of the wall thickness or 8" maximum.
5. Studs shall be spaced at 16" o.c. maximum and of the size shown on plans and/or sections.
6. No structural members shall be cut for pipes, vents, ducts, and other similar openings except as detailed or specified.
7. Joists and rafters shall be spliced at supports only unless otherwise detailed. Splices shall not lap less than 1'-0" min. and be spiked together with 3-16d min.
8. Two inch solid blocking shall be placed between all joist and rafters at all points of supports and under all partitions running across joists, unless otherwise detailed. *2x3 cross bridging shall be placed between joists or rafters where spans exceed 8'-0". Cross bridging is not required for roof and ceiling joists 8" and less in depth.
9. All bolts shall be fitted with standard cut washers.* Holes for bolts in timber shall be bored with a bit whose diameter is 1/32" larger than the nominal bolt diameter.
10. Double top plates on all exterior and bearing partitions (not otherwise detailed) shall lap 4'-0" min. at splices and have 6-16d min. thru lap.
11. Limit end splits in horizontal framing members as follows:
    2x members - approx. ½ nominal width dimension of member.
    3x members - 2¼" maximum.
    4x members & larger - approx. ½ width of nominal narrow face dimension.

* Special Anchors require Plate washers. See 28/S1

TYPICAL WALL REINFORCEMENT

CONCRETE			MASONRY		
WALL THICKNESS	VERTICAL BARS	HORIZONTAL BARS	WALL THICKNESS	VERTICAL BARS	HORIZONTAL BARS
6"	#4@13"oc ℄ of wall	#4@13"oc ℄ of wall	9½"	#5@ 2'-0"	[illegible]
8"	#4@24"oc. ea. face	#4@18"oc. ea. face			
10"	#4@18"oc. ea. face	#4@16"oc. ea. face			
12"	#4@18"oc. ea. face	#4@12"oc. ea. face			

LEGEND

New Concrete in section	Elevation Symbol
Existing Concrete in section	Elevation Bottom of Footings
Brick in section	Pile Capacity in Tons / Pile cut off elevation
Concrete Block in section	Detail Letter / Sheet Number — Section & Detail Symbol
Conc. Wood Member in section	Wall Elevation Symbol
Wood Blocking in section	W.W.F. = Welded Wire Fabric
Indicates Footing step	

CHECK AND VERIFY ALL DIMENSIONS AND CONDITIONS AT JOB SITE BEFORE PROCEEDING WITH THE WORK. REPORT ANY DISCREPANCIES TO THE ARCHITECT.

REVISIONS		
SYMB.	BY	DATE
	AS BUILT	
	ADDENDUM	
	CHANGE ORDER	
	CLARIFICATION	

DRAWN | CHECKED | APPROVED — DATE

APPROVED BY BOARD OF EDUCATION BAKERSFIELD CITY SCHOOL DISTRICT DATE JUL 8 1968 BY SUPERINTENDENT OF SCHOOLS EXECUTIVE OFFICER

HILLMAN, BIDDISON & LOEVENGUTH STRUCTURAL ENGINEERS LOS ANGELES 90017 JOB NO. 7-6-40

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STATE OF CALIFORNIA DEPARTMENT OF GENERAL SERVICES DIVISION OF ARCHITECTURE AND CONSTRUCTION 90609 APPROVED JUL 3 1968

BERNICE HARRELL CHIPMAN JR HIGH SCHOOL

JOB No. 678
SHEET S-1 OF 15 SHEETS

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