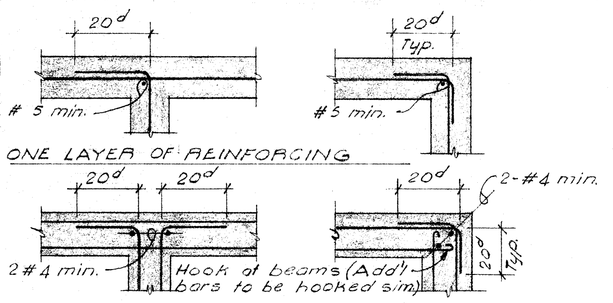
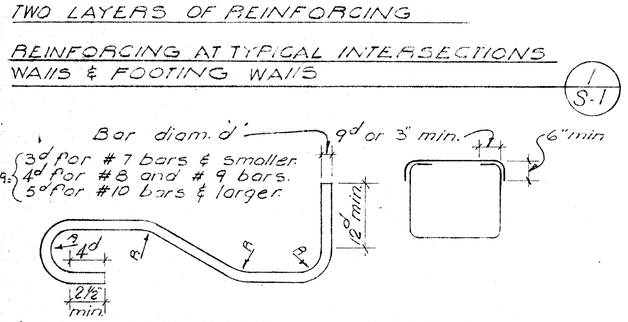


ONE LAYER OF REINFORCING

TWO LAYERS OF REINFORCING

REINFORCING AT TYPICAL INTERSECTIONS WALLS & FOOTING WALLS (1/S-1)



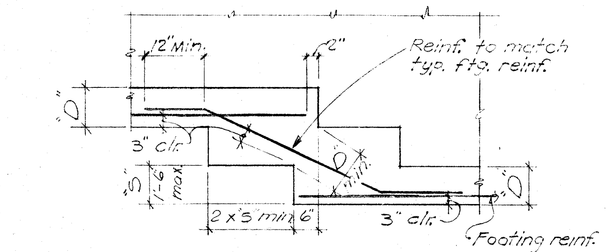
HOOKS AND BEND

Wall bars may be tied together

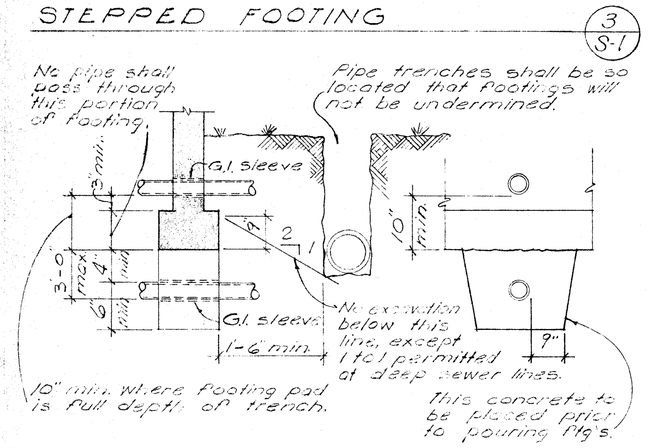
BEAM STIRRUPS

Splices for successive ties to be placed at alternate corners of columns.

SPLICE REINFORCING BARS (2/S-1)



STEPPED FOOTING (3/S-1)



No pipes permitted in or through footing proper. Concrete fill to be same width as footing pad and full width of trench. Footing shall be stepped so that concrete fill does not exceed 3'-0" above pipe invert.

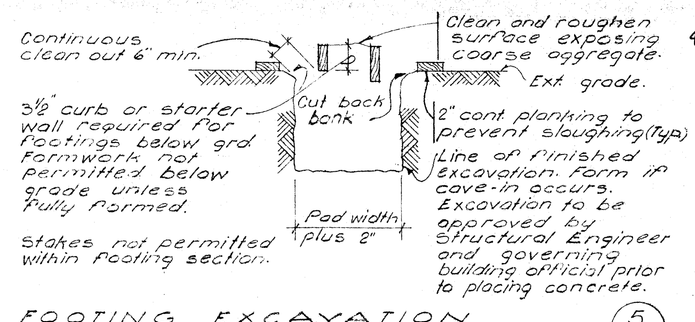
PIPE AND TRENCH LOCATION (4/S-1)

The contract drawings and specifications represent the finished structure. Unless otherwise shown, they do not indicate the method of construction. The Contractor shall supervise and direct the work and he shall be solely responsible for all construction means, methods, techniques, sequences and procedures. In accordance with generally accepted construction practices, the Contractor will be solely and completely responsible for conditions of the job site, including safety of all persons and property during performance of the work. This requirement will apply continuously and not be limited to normal working hours.

The duty of Wheeler & Gray to conduct construction review of the Contractor's performance is not intended to include review of the adequacy of the Contractor's safety measures in, on, or near the construction site.

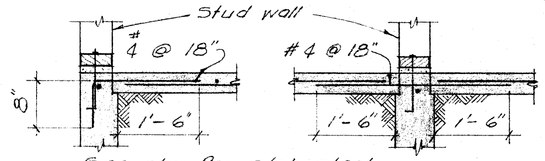
Any support services performed by Wheeler & Gray field representatives during construction shall be distinguished from continuous and detailed inspection services which are furnished by others. These support services performed by the engineer, whether of material or work, and whether performed prior to, during or after completion of construction are performed solely for the purpose of assisting in quality control and in achieving conformance with contract drawings and specifications, but they do not guarantee Contractor's performance and shall not be construed as supervision of construction.

All work shall conform to the latest applicable construction Safety Requirements of OSHA and any other governmental entity having jurisdiction.



Stakes not permitted within footing section.

FOOTING EXCAVATION (5/S-1)

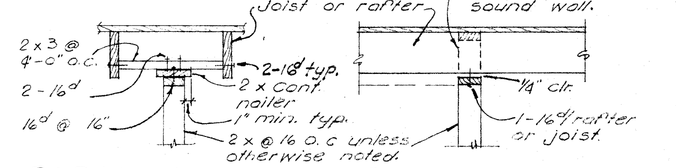


See plan for slab steel

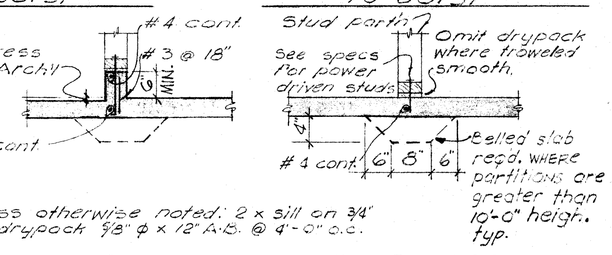
TYPE "A" DOWEL TYPE "B" DOWEL

SLABS ON GRADE TO BRG. STUD WALLS (6/S-1)

Provide 2 x @ 5'-4" o.c. to roof where partition does not extend to roof for sound or fire wall.



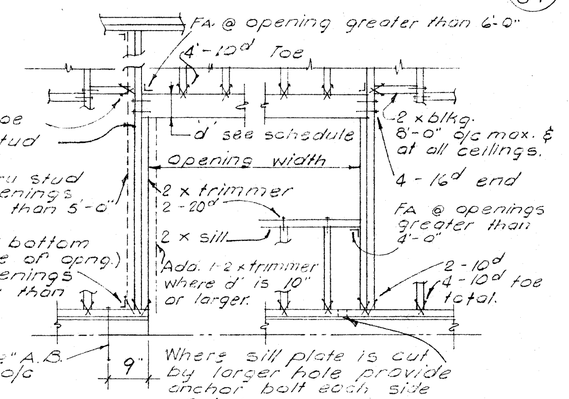
PARALLEL TO JOIST PERPENDICULAR TO JOIST



Unless otherwise noted: 2 x sill on ¾" min. drypack ⅝" ø x 12" A.B. @ 4'-0" o.c.

WITH CURB WITHOUT CURB

NON BEARING PARTITIONS (7/S-1)



d' is nominal - except where noted. Make header full width of studs (one piece) and depth as noted.

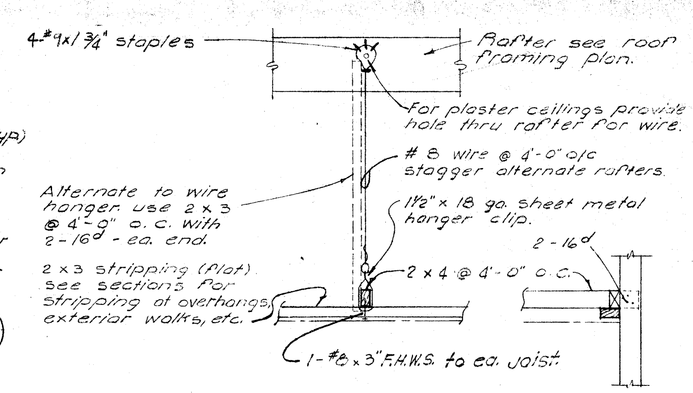
d' is based on roof and ceiling loads only.

OPENING WIDTH	d'
Up TO 3'-0"	4"
3'-1" TO 6'-0	6"
6'-1" TO 8'-0	8"
8'-1" TO 10'-0	10"

STUD WALL OPENINGS - HEADER SCHEDULE (8/S-1)

JOIST HANGER SCHEDULE	
S.M. 1. (16 GA.) U 25	For 2 x 6 & 2 x 8
S.M. 2. (16 GA.) U 29	For 2 x 10 thru 2 x 14
S.M. 3. (16 GA.) U 36	For 3 x 6 & 3 x 8
S.M. 4 (16 GA.) U 310	For 3 x 10 & 3 x 12
S.M. 5 (16 GA.) U 314	For 3 x 14 & 3 x 16
S.M. 6 (16 GA.) U 46	For 4 x 6 & 4 x 8
S.M. 7 (16 GA.) U 410	For 4 x 10 & 4 x 12

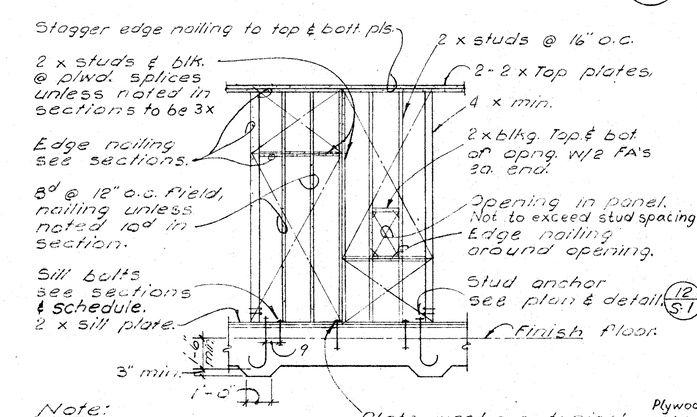
Simpson or equal (From Simpson catalog No. 78H-1) Use Manufacturers Standard nails.



STUD WALL

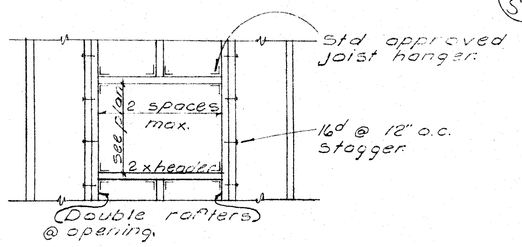
NOTE
Unless noted specifically on plans: Where span between bearing or non-bearing walls does not exceed 8'-0", use 2 x 4 @ 16" o/c between walls in lieu of hanger.

TYPICAL HANGER DETAIL (9/S-1)

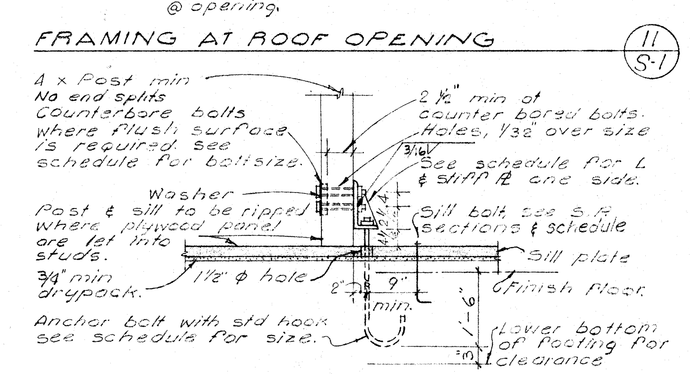


Note: All plywood shtg. to be ⅜" thickness unless noted otherwise in section. Min. width of sheet to be 12"

TYPICAL SHEAR PANEL DETAIL (10/S-1)



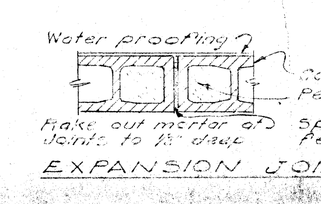
FRAMING AT ROOF OPENING (11/S-1)



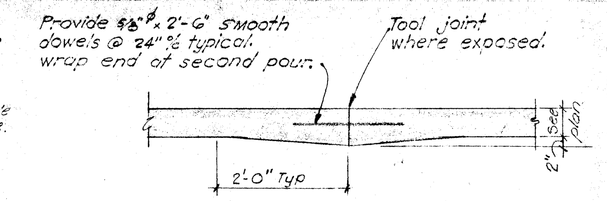
S.A.	Angle	Length	Bolts	Stiff'R Plate	Anchor Bolts	Allowable Load
#1	4x8 x ⅜	3"	2 - ¾" ø	None	⅝ ø	2.4K
#2	4 x 8 x ⅜	3"	2 - ¾" ø	¼"	⅝ ø	4.8K
#3	4"x8" x ⅜ ø L PLUS FLUE PL.	3"	2 - ⅞ ø	¼"	¾ ø	6.6K

NOTE: SIMPSON TIEANCHORS OF EQUAL CAPACITY MAYBE SUBMITTED FOR APPROVAL

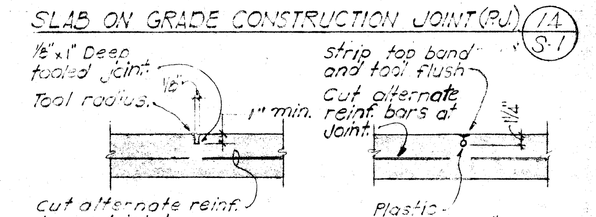
STUD ANCHORS #1, 2 & 3 (12/S-1)



EXPANSION JOINT AT BLOCK WALL (13/S-1)

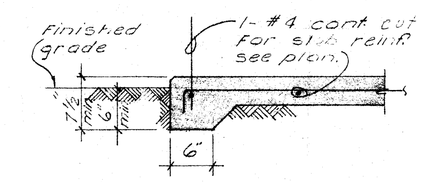


SLAB ON GRADE CONSTRUCTION JOINT (CJ) (14/S-1)

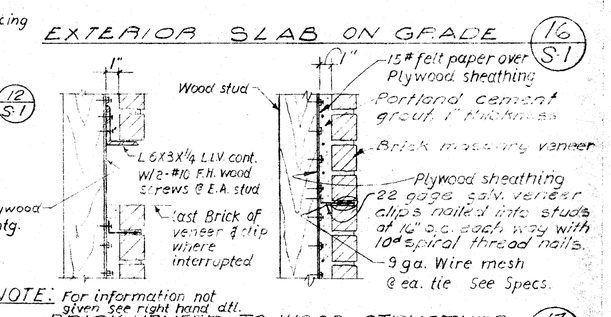


EXPOSED SLAB	UNEXPOSED SLAB
16' o.c. max. spacing	30' o.c. max. spacing

SLAB ON GRADE CONTROL JOINT (CJ) (15/S-1)

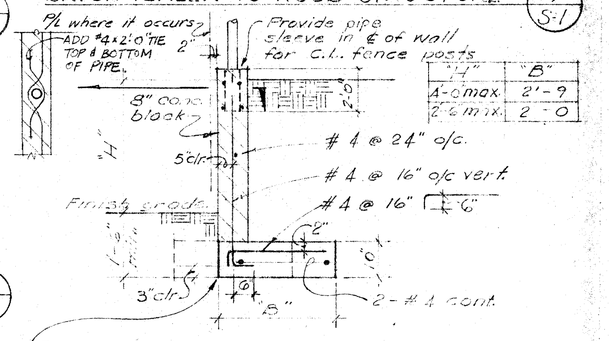


EXTERIOR SLAB ON GRADE (16/S-1)



NOTE: For information not given see right hand dtl.

BRICK VENEER TO WOOD STRUCTURE (17/S-1)



Center footing on wall and drill bars in top of footing where wall is not on property line.

TYPICAL RETAINING WALL (18/S-1)

MINIMUM NAILING SCHEDULE

Joists or rafters to sides of studs. Eight (8) inch joist or less additional four (4) inches in depth of joist.	3 - 16d
For ea. additional four (4) inches in depth of joist.	1 - 16d
Joists or rafters at all bearings -- Toe nails ea. side.	2 - 10d
Stud to bearing -- Toe nails, ea. side.	2 - 10d
Blocking between joists or rafters.	
To joist or rafters -- Toe nails, ea. side, ea. end.	2 - 10d
To joist or rafters bearings -- Toe nails, eq. side.	2 - 10d
Blocking between stud: ea. end - Toe nail, ea. end and nail.	2 - 16d
Cross bridging between joist or rafters.	
Toe nails ea. end.	2 - 8d
Ribbons to studs.	
One (1) inch ribbons	2 - 8d
Two (2) inch ribbons	2 - 16d
Double top plates - 6'-0" min. typ. unless noted.	
Lower plate to top of stud	2 - 20d
Upper plate to lower plate @ intersections	3 - 16d
Upper plate to lower plate at 4' intersections	16d @ 12"
Multiple studs - stagger for width more than 4.	16d @ 12"

All nails shall be common wire nails. Stub drill where necessary to prevent splitting, where possible nails driven perpendicular to the grain shall be used instead of toe nails.

PLATE WASHER SCHEDULE FOR SILL BOLTS AT SHEAR WALL

⅝ ø - 2½" □ x ¼ PL. ¾" ø - 2 ¾" □ x 5/16" PL.

GENERAL NOTES

GENERAL

1. The following notes, typical details and schedules shall apply to all drawings unless otherwise shown or noted. All construction shall comply with requirements of O.S.A. Title 21 and UBC, 1976 Edition.
2. Structural drawings shall be used in conjunction with Architectural, Electrical and Mechanical drawings and Specifications.
3. Framing conditions not specifically shown shall be framed similar to typical details as shown for respective materials and similar conditions.
4. Provide openings and supports, as required per typical details, for heaters, mechanical equipment, vents, pipes, etc. All suspended mechanical equipment to be braced to resist lateral forces required by Title 21.

FOUNDATION

1. Foundations are designed for max. DL + LL of 1,500 P.S.F. @ 2'-0" below finish grade or 1'-0" below natural, whichever is lower.
2. Refer to Report of Soil Investigation by Rickett, Reaves & Ward dated May 11, 1970.
3. Compact all fill to 90% per specs.
4. Provide 4" sand base under all exterior slabs on grade.
5. Provide membrane plus 2" of sand under all interior slabs on grade.
6. SOIL IS GRANULAR, WELL GRADED AND NONEXPANSIVE.

CONCRETE

1. Concrete strength @ 28days - shall be f'c = 2,500 p.s.i.
2. Cement per A.S.T.M. C150. Type V, Tested. Low alkali
3. Reinforcing steel - A.S.T.M. A615, Grade 40 min.
4. All concrete to be reinforced. All anchor bolts, dowels and other embedded items to be securely tied in place before concrete is poured.
5. Lap all steel 30 dia. min., stagger splices.
6. No brick or other porous material shall support steel. Use grooved concrete blocks to support steel.
7. Dimensions locating reinforcing bars are to face of bars and denotes clear coverage to main steel, unless otherwise noted.
   Concrete coverage shall be as follows:
   Concrete against earth, not formed. . . . . 3"
   Concrete against earth, but formed. . . . . 2"
8. All interior slabs on grade and all exterior covered walk and arcade slabs to be reinforced with #3 @ 18" o/c E.W.
9. Refer to Architectural Drawings for slab depressions and curbs.

STRUCTURAL STEEL

1. Structural steel shall conform to A.S.T.M. A36. Erection and fabrication per A.I.S.C. Standards 7th Edition. Steel erector to provide erection bracing on all steel beams prior to leaving this job. See specs.
2. Tube columns shall conform to A.S.T.M. A501. Pipe columns per A.S.T.M. A53-Grade A.
3. Welding to be electric shield arc process per A.W.S. "Standard Code for Arc and Gas Welding in Building Construction". Minimum fillet welds to be 3/16 x 1-1/2. Reinforcing welding per Circular #6 of O.S.A.
4. Provide shop drawings for review by Structural Engineer and Architect prior to fabricating steel.
5. Structural steel shall be tested as per specifications.

WOOD FRAMING

1. All lumber to be grade marked Douglas Fir. See specs. Sill plates at all shear panels to be treated Douglas Fir.
2. Wood sill plates shall have 3/4" drypack under, except where noted and bolted with 5/8" ø x 12" bolts @ 4'-0" on center maximum with a bolt within 9" of end of each piece, two bolts minimum each piece. See specs for non-bearing walls.
3. Provide washers under heads and nuts of bolts and lag screws bearing on wood. Nuts on all bolts shall be tightened before closing in and/or on completion of the job. Cut washers may be used except for sill bolts at shear walls and where noted otherwise. Use plate washers for sill bolts at shear walls. See schedule.
4. Bolt holes to be nominal diameter of bolt + 1/32" unless noted otherwise.
5. No structural member shall be cut for pipes, etc., unless specifically shown, noted or acceptable to the Structural Engineer AND O.S.A.
6. Roof sheathing and shear wall sheathing, D.F.P.A. grade marked Structural I, ext. shtg. C-C. See specifications.
7. Plywood sheathing shall be in single pieces where possible with 1'-0" minimum sheets. Solid block roof sheathing as indicated on plans. Solid block all shear panel plywood edges. See schedule.

MASONRY

1. Brick masonry shall conform to A.S.T.M. C-62 Grade S.W. See specs and Arch'l drawings for size.
2. Mortar and grout mixes, see specs.
3. Lap all reinforcing bars 40 diameters at splices.
4. Provide footing dowels to match vertical reinforcing.
5. Provide 1/2" minimum clear to steel.
6. Refer to specs for veneer requirements. Also see Details on S-1.
7. Block masonry to be open end units per A.S.T.M. C90 Grade "N" units. Solid grout all cells in 24" max. lifts.
8. All bolts to have minimum of 1" grout between bolt and masonry.

LEGEND

Masonry	C.J. Control joint
Poured concrete.	P.J. Construction joint
Wood continuous.	U.N.O. Unless otherwise noted.
Wood blocking.	A.B. Anchor bolt.
Existing concrete.	M.B. Machine bolt
Stepped footing.	E.N. Edge nailing
Finished floor.	S.A. Stud anchor
	F.G. Finish grade
A / S-4 Detail designation / Sheet number where detail occurs.	S.P. Shear panel
Existing masonry.	(x) Existing
(00.0) Elev. Bot. Ftgs.	FA Simpson framing anchors U34 & U35 Per catalog #78H-1 U35 for 2x6 studs.
	C.B. Carriage bolt.
	F.O.S. Face of Studs

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WRITTEN DIMENSIONS ON THESE DRAWINGS SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS. CONTRACTORS SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB AND THIS OFFICE MUST BE NOTIFIED OF ANY VARIATIONS FROM THE DIMENSIONS AND CONDITIONS SHOWN BY THESE DRAWINGS. SHOP DETAILS MUST BE SUBMITTED TO THIS OFFICE FOR APPROVAL BEFORE PROCEEDING WITH FABRICATION.

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CONSULTING ENGINEERS
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William H. Wheeler SE 946

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DRAWN DY
DATE 4/12/78
JOB NO. 77-91-1
CHECK'D T.C

ROBERT H. EDDY C-8954
WILLIAM H. PAYNTER C-16564
RONALD W. RENFRO C-17287
EDDY · PAYNTER · RENFRO & ASSOCIATES
A.I.A. ARCHITECTS - 5405 STOCKDALE HWY. BAKERSFIELD, CALIFORNIA 93309 - (805) 832-1105

GENERAL NOTES & TYPICAL DETAILS

ADDITIONS & ALTERATIONS, HORACE MANN SCHOOL
BAKERSFIELD CITY SCHOOL DISTRICT
BAKERSFIELD, CALIFORNIA

S 1. OF 6 SHEETS