# GENERAL REQUIREMENTS

#### GENERAL REQUIREMENTS

Work performed shall comply with the following:

. These General Requirements unless otherwise noted on plans or specifications.

Building Code - CBC 2013

- . All applicable local, State and Federal Codes, Ordinances, Laws, regulations and Protective Covenants governing the site of work.
- Standard Specifications of ASTM as noted herein and as required by the Building Code.
- . All work needs to be performed by qualified and experienced contractors familiar with this type of
- In case of conflict, the more stringent requirement shall govern.
- On site verification of all dimensions and conditions shall be the responsibility of the contractor and
- sub-contractors. Noted dimensions take precedence over scale of drawings. Engineer or architect of record is to be notified immediately by the contractor should any question

arise or any discrepancy be found pertaining to the working drawings and/or specifications.

- ). No deviations from these requirements and structural details shall be made without the written approval of Gouvis Engineering Consulting Group. Approval by the inspector does not constitute authority to deviate from plans or specifications.
- . The design, adequacy, and safety of erection bracing, shoring, temporary supports, etc., is the sole responsibility of the contractor, and has not been considered by the architect or engineer. The contractor is responsible for the stability of the structure prior to the application of all shear walls, roof and floor diaphragms, and finish materials. The contractor shall provide the necessary bracing to provide stability prior to the application of the aforementioned materials. Observation visits to the site by the architect or structural engineer shall not imply the assumption of any responsibility in this

The builder has requested, contracted with and is compensating Gouvis Engineering Consulting Group for the limited services of providing the minimum structural engineering drawings required. when combined with the other builders' consultants drawings, to obtain a building permit for this project. These drawings are not intended to, nor do they detail all conditions, identify all materials, or define or limit the scope of work required to complete the project. The builder has requested, accepted, and represented that the he will select all materials and manufacturers, qualify and select all installers, direct all ways and means of construction, and provide all subcontractors additional information, above and beyond these drawings, required to complete the project in conformance with all governing agencies and the work will meet or exceed accepted industry standards.

12. Special inspection per Building Code Sec.1704 is required & applies to the types of work indicated on

- sheet SN-1B/SN-1C (Note: Special inspectors qualification and responsibilities should comply with Building Code Section 1701 Requirements.) 13. Structural analysis for this project is done per applicable Building Code at the time of design
- considering standard of care. 14. Upon completion of above by the engineer & prior to start of construction, contractor is responsible to

check all dimensions, coordinate with the work of other consultants & other trades to ensure

5. Gouvis Engineering shall have no liability for waterproofing or moisture transmission issues, whether related to concrete slabs, footings, foundations, or otherwise. Owner and Contractor shall be entirely responsible for such issues, and will defend and indemnify Gouvis Engineering against all such claims.

#### **DESIGN CRITERIA**

Foundation engineering has been predicated on data and recommendations contained in the soils report by: N/A

**DESIGN LOADS:** 

Roof Load Dead Load = 20 psf Live Load = 20 psf

Total = 40 psf

3. LUMBER GRADES (U.N.O.)

compliance with his/her requirements.

6x & 8x posts / beams / headers: DFL # 4x posts / beams / headers: DFL #2

2x joists / rafters: DFL #2 Studs: D.F.L. Stud Grade (up to 9'-0"), DFL #2 (taller than 9'-0") Top plates & Mud sills: DFL construction grade or better

See structural wood note #11 for additional mud sill requirements

TYPICAL FLOOR/ROOF DECK/DECK SHEATHING

23/32" APA rated Sturd-I-Floor T&G Exp I with min. span rating of 24" o.c. Refer to NER 108 for installation and conditions of use

B.N.:10d common nails at 6" o.c. E.N.:10d common nails at 6" o.c.

F.N.:10d common nails at 12" o.c. Use ring or screw shank nails and glue sheathing to framing using adhesives meeting APA

specification AFG-01 or ASTM D3498. Apply glue in accordance with manufacturer's

As an alternate to 10d common nails, the following fastners can be used: Grabber plywood screws (ICC-ER-5280), or Simpson Strong-Tie quick drive screws (ICC-ER-1472), min 2" long @ 6" o.c. B.S. @ 6" o.c. E.S. and 12" o.c. F.S.

TYPICAL SLOPED/FLAT NON-ASSEMBLY ROOF SHEATHING

15/32" APA rated sheathing Exp 1 with a min. panel index of 32/16. Refer to NER 108 for installation and conditions of use.

B.N.:8d common nail at 6" o.c.

E.N.:8d common nail at 6" o.c. F.N.:8d common nail at 12" o.c.

\*Note: All structural rated panels must be stamped by one of the following approved agencies, APA, PFS/TECO or Pittsburg.

#### SHOP DRAWINGS

Sufficient copies of shop drawings for any member or product designed by entity other than Gouvis Engineering Consulting Group shall be submitted to Gouvis Engineering Consulting Group prior to fabrication for review. Contractor shall submit shop drawings of reinforcement for concrete masonry walls, concrete components with compressive strength more than 2500 psi and structural steel to Gouvis Engineering Consulting Group to review and obtain approval prior to fabrication. Shop Drawings shall be original drawings prepared for the project specific information, drawn accurately to scale. Direct copies and modified reproductions of the Contract Documents will not be accepted. Allow sufficient time from the receipt of complete submittal for review and processing by Gouvis Engineering Consulting Group.

Review of shop drawings by Gouvis Engineering Consulting Group does not relieve the engineer responsible for the design or the contractor from compliance with Building Code.

Gouvis Engineering Consulting Groups review of the shop drawings consists of checking general conformance with structural drawings. Design accuracy of such product, dimensions and quantity of the product is not reviewed by Gouvis Engineering Consulting Group.

#### STRUCTURAL WOOD

### NAILING SCHEDULE

	CONNECTION	NAILING
	1. JOIST TO SILL OR GIRDER, TOENAIL	3-8d
	2. BRIDGING TO JOIST, TOENAIL EACH END	2-8d
	3. 1" X 6" SUBFLOOR OR LESS TO EACH JOIST, FACE NAIL	2-8d
-	4. WIDER THAN 1" X 6" SUBFLOOR TO EACH JOIST, FACE NAIL	3-8d
-	5. 2" SUBFLOOR TO JOIST OR GIRDER, BLIND AND FACE NAIL	2-16d
1	6. SOLE PLATE TO JOIST OR BLOCKING, FACE NAILSOLE PLATE TO JOIST, AT BRACED WALL PANEL	16d (BOX) AT 16" O.C.
	7. TOP PLATE TO STUD, END NAIL	
	8. STUD TO SOLE PLATE	
		2X SOLE: 2-16d
		3X SOLE: 2-20d (BOX)
	9. DOUBLE STUDS, FACE NAIL	16d (BOX) AT 24" O.C.
	10. DOUBLED TOP PLATES, FACE NAIL	` '
	DOUBLE TOP PLATES, LAP SPLIC	, ,
	11. BLOCKING BETWEEN JOIST OR RAFTERS TO TOP PLATE, TOENAIL.	3-8d
	12. RIM JOIST TO TOP PLATE, TOE NAIL	8d AT 6" O.C.
	13. TOP PLATES, LAPS AND INTERSECTIONS, FACE NAIL	2-16d
	14. CONTINUOUS HEADER, TWO PIECES	16d AT 16" O.C. ALONG EACH EDGE
- Constitution	15. CEILING JOISTS TO PLATE, TOENAIL	3-8d
-	16. CONTINUOUS HEADER TO STUD, TOENAIL	4-8d
	17. CEILING JOISTS, LAPS OVER PARTITIONS, FACE NAIL	3-16d
	18. CEILING JOISTS TO PARALLEL RAFTERS, FACE NAIL	3-16d
	19. RAFTER TO PLATE, TOENAIL	3-8d
	20. 1" BRACE TO EACH STUD AND PLATE, FACE NAIL	2-8d
	21. 1" X 8" SHEATHING OR LESS TO EACH BEARING, FACE NAIL	3-8d
	22. WIDER THAN 1" X 8" SHEATHING TO EACH BEARING, FACE NAIL	3-8d
	23. BUILT-UP CORNER STUDS	16d AT 24" O.C.
	24. BUILT-UP GIRDER AND BEAMSAND BO	20d AT 32" O.C. AT TOP OTTOM AND STAGGERED 2-20d AT ENDS AND AT EACH SPLICE

### NOTES: 1. COMMON NAILS SHALL BE USED (U.N.O.)

25. 2" PLANKS..

## SHEAR WALL SCHEDULE

## 2013 CALIFORNIA BUILDING CODE (1), (3)

2. JOIST CAN BE EITHER SAWN LUMBER OR I-JOIST PER PLAN

)					SILL PL	ATE CONNE	CTION	Majorini Grande and Artifación de Complemente de Adresa de Complemente (April de Artifación (
SHEAR PANEL TYPE	SHEATHING (8)	EDGE NAILING (COMMON)	FIELD NAILING (COMMON) (9)	ALLOWABLE SHEAR (PLF)	16d's SINKER	SDS SCREWS LSL & DF RIM BOARD	SDS SCREWS LVL RIM BOARD	FRAMING CLIPS A35's, LS50's OR LTP4's (5), (6)
1	3/8" APA rated	8 d's @ 6" O.C.	8 d's @ 12" O.C.	260 (7) 220	@ 6" O.C.	@ 16" O.C.	@ 14" O.C.	@ 16" O.C.
(4) (2)	3/8" APA rated	8 d's @ 4" O.C.	8 d's @ 12" O.C.	380 (7) 320	@ 4" O.C.	@ 12" O.C.	@ 10" O.C.	@ 12" O.C.
(4) (2)	3/8" APA rated	8 d's @ 3" O.C.	8 d's @ 12" O.C.	490 (7) 410	(10) @ 3" O.C.	(10) @ 8" O.C.	(10) @ 7" O.C.	(10) @ 8" O.C.
(4) (2)	3/8" APA rated	8 d's @ 2" O.C.	8 d's @ 12" O.C.	640 (7) 530	(10) @ 2" O.C.	(10) @ 6" O.C.	(10) @ 5" O.C.	(10) @ 8" O.C.
5 (4) (2)	15/32" APA rated Structural I	10 d's @ 2" O.C.	10 d's @ 12" O.C.	870	(10) 2 ROWS STAGG. @ 3" O.C.	(10) @ 5" O.C.	(10) @ 4" O.C.	(10) @ 6" O.C.

- (1) SHEATHING PANEL JOINT AND SILL PLATE NAILING SHALL BE STAGGERED IN ALL CASES. (2) PROVIDE 3" NOMINAL OR WIDER FRAMING AT ADJOINING PANEL EDGES WITH NAILS STAGGERED.
- (3) STUDS ARE SPACED @ 16" O.C. MAX. UNLESS NOTED OTHERWISE ON PLAN. (4) PERIODIC SPECIAL INSPECTION IS REQUIRED. (5) USE CLIPS @ 6" O.C. ON SIMPSON STRONG WALL & HARDY FRAME (U.N.O.).
- 6) USE SPACING PER SCHEDULE IF NUMBER OF FRAMING CLIPS ARE NOT SPECIFIED ON FRAMING
- (7) ALLOWABLE SHEAR ARE FOR STUDS SPACED @ 24" O.C. MAX. (8) SHEATHING CONFORMS TO EITHER DOC PS 1 OR PS 2 STANDARDS.
- (9) NAILING @ 6" O.C. WHEN STUDS ARE SPACED @ 24" O.C. (10) FOR DOUBLE SIDED SHEAR PANELS:
- a. USE HALF THE SPACING OF SILL PLATE FASTENERS STAGGERED FOR TYPE 3. [ 6'6 6&5(:6,1 6&+('8/ E 86(21/< FOR TYPES 4 & 5.
- c. SEE SHEAR TRANSFER DETAIL ON PLAN FOR FRAMING CLIP TYPES AND SPACING, FOR TYPES 3, 4 & 5.

#### REV. 02/16/2015

#### MINIMUM QUALITY

- All structural wood shall be of Douglas Fir Larch species, (19% maximum moisture content at the time of construction U.N.O.).
- All machine bolts shall conform to ASTM A307. Holes for bolts should be drilled 1/16" larger than bolt
- For non-shear wall applications, round washers shall be used on all bolts and should conform with \$ 16 , \$60 (% 8 VH PL Q WKLF Z D VK HU I R U EROW DQG WKLF
- All nails shall be sinker nails and staggered U.N.O., except as shown in Nailing Schedule.
- . Adhesive used to attach floor sheathing to framing elements shall conform with APA specification Manufactured hardware specified on the drawings are to be Simpson Strong Tie (Unless specifically

authorized in writing by Gouvis Engineering Consulting Group). Follow all manufacturer's

- requirements & recommendations for installation & handling of the product. Do not bend the Simpson PA straps.
- Fasteners specified on the drawings may be colored using manufacturer's brands that utilize the color coded system. Follow all code and manufacturer's requirements/recommendations for installation & handling of the products

1	nanding of the products.	Page 1
	Bd COMMON /	
and the second second second second	10d COMMON	80
-	16d COMMON	16
Access of the second se	8d SINKER	10
adjustment of the second	10d SINKER	12
-	16d SINKER	16
1	*ACTUAL NAIL SIZES	Basessa

## DIAMETER COLORS 2 3/8 X .113 YELLOW 8d Common | 2 1/2 X .131 | BLUE 1/4 X .131 BLACK 16d Short 10d Common 3 X 0.148 PURPLE 2d Common 3 1/4 X .148 GREEN 16d Common | 3 1/2X .162 | ORANGE

- 9. All framing, bracing, nailing, notching, drilling or boring shall be in accordance with Building Code unless more stringent requirements are specified or required by the local Jurisdiction.
- 10. Fabrication and handling of Glue-lam beams shall be per ANSI/AITC A 190.1 . Standard beams to bear legible APA-ENS or AITC grade stamp. An APA- EWS CRAN AITC Certificate of conformance for glued-laminated members should be submitted to the field inspector prior to installation and Glue-lam members shall be 24F-V4, DF/DF with standard camber on roof beams except cantilever end (U.N.O.). All cantilever ends and floor beams shall have zero camber u.n.o. All beams shall be fabricated using waterproof glue.
- . Fasteners in contact with preservative treated lumber and fire retardant treated wood shall be of hot-dipped zinc-coated galvanized steel, stainless steel, silicon bronze or copper. Exception: Plain carbon steel fasteners in sbx/dot and zinc borate preservative-treated wood in an interior, dry environment shall be permitted.
- 12. Stud walls perpendicular to a concrete or masonry wall shall be bolted to the concrete or masonry wall with 5/8" diameter x 8" A307 bolts at top, mid-height and bottom.
- 13. Structural information shown on framing plans is for the main structural elements. Non-structural
- elements shall be constructed per approved code requirements. 14. Conventional light framed construction requirements of chapter 23 should be followed as required.
- 15. Weight of the roof tile is considered to be 10 psf max. (total roof dead load of 19 psf). If roofing material exceeds this load, the framing contractor should notify Gouvis Engineering Consulting Group in writing prior to construction.
- 16. Top plates of all wood stud walls to consist of (2) 2x's the same width as the studs U.N.O. Top plates shall lap a minimum of 48" and be spliced with not less than 6-16d nails spaced not more than 12" o.c.
- 17. All shear panels shall have continuous sheathing material from one end to the other and from plate to plate as specified on the drawings. Contractor shall coordinate framing such that continuity of shear panels is assured.

19. All shear transfer nailing shall be per drawings, and contractor shall provide proper notification for

- 18. All ledgers shall be spliced with ST22 strap, unless noted otherwise.
- inspections to review the same. 20. Provide post/multiple studs at lower floor under post/multiple studs above. Each post/stud shall be fastened by Gypsum Wall Board w/ 5d cooler nails @ 7" o.c. U.N.O. on plan. Provide full width and depth compression block between floors at such locations.
- 21. All joist hangers shall be Simpson U hanger, all beam hangers shall be Simpson HU hangers U.N.O.
- on plan or detail. Follow manufacturer's recommendations for installation. 22. If a double sill plate is used at light-weight concrete flooring, then the framing contractor shall apply
- sill plate nailing to both sill plates, at 16" o.c. max. or as specified per schedule. 23. Building Code 2308.9.1 balloon framed walls (non-bearing) stud heights: - 2x4's @ 16" o.c. maximum 14'-0" height
- 2x6's @ 16" o.c. maximum 20'-0" height - No multiples of 2x4"s are allowed to span more than 14'-0". Bearing walls exceeding 10'-0" must be ...2-16d AT EACH BEARING designed case by case.
  - 24. Headers: Use 4X4 for openings less than 16" at bearing walls without point loads. For non-bearing walls use 2x4 for openings up to 3'-0" max. Use (2)2x4 for openings up to 6'-0" max. Use 4x6 for openings up to 12'-0" max. U.N.O. (2-2x on edge can be substituted for 4x members).
  - 25. Approved end-jointed lumber may be used interchangeably with solid sawn members of the same species and grade for buildings up to 2-story. When finger jointed lumber is marked "stud use only" or "vert use only" such lumber shall be limited to use for studs only. All finger jointed lumber should bear a certified finger jointed lumber grade stamp.
  - 26. Wood truss manufacturer shall supply to the engineer and the building department calculations and shop drawings for approval of design loads, configuration (2 or 3 point bearing), and shear transfer, prior to fabrication. It shall be the responsibility of the manufacturer to obtain building department approval of calculations and shop drawings prior to fabrication.
  - 27. Trusses shall be designed in accordance with the latest local Building Code for all loads imposed, including lateral loads and mechanical equipment loads.
  - 28. All connections involving trusses shall be ICC approved and of adequate strength to resist stresses due to the loadings involved and shall be designed and specified by the truss manufacturer.
  - 29. Total load and live load vertical deflections for roof member shall be limited to max. L/240, and L/360 U.N.O. Total load and live load vertical deflections for floor member shall be limited to max. L/360,
  - 30. Cross bridging and/or bracing shall be provided and detailed by the truss manufacturer as required to adequately brace all trusses.
  - 31. Truss manufacturer to provide details which allow for normal deflection without imposing lateral loads on their supports (i.e., scissors trusses) 32. Truss manufacturer is responsible for:

a. providing additional shear and drag trusses as shown on the framing plans.

- b. reviewing framing plans and structural details prior to fabrication of trusses and specifying hangers. c. meet the profile as indicated in the drawings. d. design trusses for deflection compatibility of the system to avoid hump and/or sag in roof or ceiling. 33. All trusses designed by truss manufacturer shall be designed to sustain all vertical, lateral and other
- pertinent loads, including bracing of top and bottom chords, in addition to any connections related to trusses. Contractor to coordinate with truss manufacturer. 34. All truss lumber shall be Douglas Fir Larch (U.N.O.). Roof truss lumber shall be either Douglas Fir
- Larch or Hem-Fir. (U.N.O.) 35. Each truss shall be legibly branded, marked or otherwise have permanently affixed thereto the following information located within two feet of the center of span on the face of the bottom chord:
- a. Identity of the company manufacturing the truss. b. The design load. c. The spacing of the trusses.

#### **CEILING JOISTS**

36. With dead load = 6 psf max. & live load = 10 psf max., 2x4 DF#2 ceiling joists @ 16" o.c. with 9'-6" span max. and 2x6 DF#2 ceiling joists @ 16" o.c. with 15'-0" span max. unless noted otherwise on plan. Contact Gouvis Engineering for other conditions.

#### STRUCTURAL STEEL

- All structural steel materials and construction shall conform to the requirements specified in Building Code, Chapter 22 & Reference.
- **MATERIALS** Steel shall be primed with a rust resistance primer & should conform to ASTM A36 (fy=36 ksi) as a
- minimum, unless otherwise noted. All W shapes to be ASTM A992. (fy=50 ksi) 3. Steel pipe shall conform to ASTM A53, Grade B (Fy=35 ksi).
- 4. Round HSS tubing shall conform to ASTM A500 Grade B (Fy=42 ksi)
- 5. Rectangular and square HSS tubing shall conform, to ASTM A500, Grade B (Fy=46 ksi). 6. All structural welding procedures and materials shall conform to Building Code, Section 2204.1. All
- welding shall be by the shield metal arc welding process or the submerged arc welding process using E7OXX-low hydrogen electrodes, unless otherwise noted. All bolts for connections of steel members shall conform to Building Code, Section 2204.2 & ASTM
- A325N, unless otherwise noted. Holes for bolts should be drilled or punched & shall be 1/16" larger than bolt diameter. Prefabricated steel moment frames per manufacturer. Steel moment frame manufacturer shall submit
- shop drawing, design calculations, and approved moment frame test report (ICC, IAMPO, or test per Appendix S of AISC SEISMIC PROVISION) to GOUVIS ENGINEERING for review. WELDS All shop welding and fabrication must be done in a shop approved by a special inspection agency

which is approved by the Building Official. All field welding must be performed by a certified welder

#### and a special inspector shall continuously inspect all structural field welding. Both shall be approved by the Building Official.

### CONCRETE MASONRY

All concrete masonry materials and construction shall be in accordance with Building Code, Chapter 21.

### MATERIALS

- All materials making up finished concrete masonry construction shall conform to standards required by Building Code Sec. 2103.
- Mortar shall be type M or S as applicable and conforming with ASTM C270 and shall be proportioned per Article 2.1 & 2.6A of Specification for Masonry Structures (TMS 602-11/ACI 530.1-11/ASCE 6-11).

- Grout shall comply with Article 2.2 & 2.6B of TMS 602-11/ACI 530.1-11/ASCE 6-11 and shall attain a minimum compression strength at 28 days of 2000 psi or the required compression, fm. whichever is
- greater. The compressive strength of grout shall be determined in accordance with ASTM C-1019. Concrete masonry units shall conform to ASTM C90 for load bearing concrete masonry units. Concrete brick shall conform to ASTM C55, Specifications for Concrete Building Brick.
- Grade N concrete bricks are for use as architectural veneer and facing, limited to in exterior walls.
- Grade S concrete bricks are for general use where moderate strength and resistance to frost action and moisture penetration is required.
- STRENGTH
- The specified compressive strength of masonry, f'm, shall be 1500 psi, unless noted otherwise.

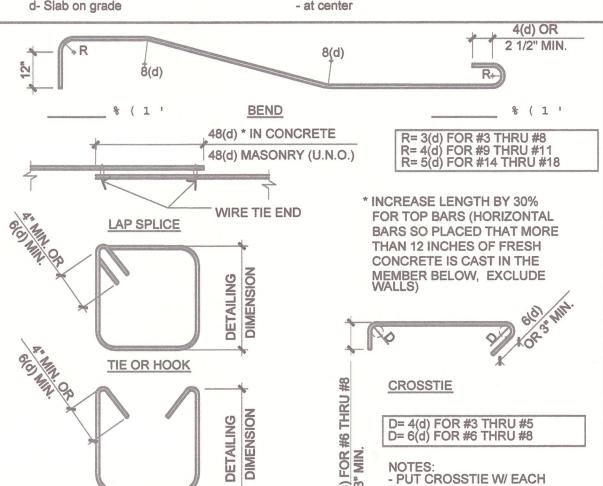
Special inspection for concrete masonry construction shall be carried out in accordance with Building Code Section 1704 and requirements in Special Inspection tables on sheet SN-1. Masonry compressive strength, f'm shall be verified by Unit strength method or Prism test method prior to and during construction as described in Building Code, Section 2105.

### REINFORCED CONCRETE

GENERAL

SPECIAL INSPECTION

- All reinforced concrete materials and construction shall conform to Building Code, chapter 19.
- Cement shall conform to Section 1903 of Building Code and shall correspond to that on which the
- selection of concrete proportions were based.
- Concrete aggregates shall conform to Building Code Section 1903.
- Portland cement shall be Type I or II conforming to ASTM C150. For concrete in contact with soil E\ ZHLJK W XVH 7\SH , , 4 FHPHOWE containing sulfate So<sub>4</sub> useType V cement. Weight percentage of So<sub>4</sub> shall be per soils report. Refer to Section 1904 of the Building Code for special exposure conditions as required by soils
  - engineer & see corrosion engineer's recommendations for concrete exposed to corrosive elements. Reinforcing steel shall conform to ASTM A615. Grade 40 for sizes #3 and #4 and Grade 60 for sizes #5 and larger.
  - Dowels shall be equal in size and spacing.
  - STRENGTH
  - The (28 days) concrete compressive strength, fc, shall be min 2500 psi U.N.O.
- The (28 days) concrete compressive strength, fc, for concrete in contact with soil with weight VKD OO EH SVL DQG ZL WK percentage of sulfate (So<sub>4</sub> shall be 4500 psi. Special inspection is not required.
- Special inspection is required for concrete with fc > 2500 psi unless the use of concrete with f'c > 2500 psi is solely for item #8 above.
- 0. All reinforcing, dowels, holdowns, and other inserts shall be secured in position and approved by the
- local building official prior to the pouring of any concrete. Min. concrete cover for reinforcing: a- Concrete, placed against earth not formed
- b- Concrete formed or troweled - 1 1/2" c- Walls and curbs



## TYP. REINFORCING DETAILS

MAX

STIRRUP

- DEFERRED APPROVAL
- 1. Elements of structure that are marked "by others" shall be excluded from this work permit. 2. General contractor shall first submit separate drawings for the above elements to the EOR for their
- review and if approved, then submit to the building officials for their review and approval. City approval shall be obtained prior to installation of element subjected to deferred approval.

## FOUNDATION

HEAR PANEL

WHERE OCCURS

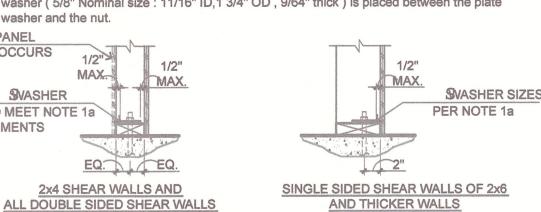
ADJUST SVASHER

REQUIREMENTS

SIZES TO MEET NOTE 1a

D5124

- All continuous footings to have 5/8"dia. x min. 12" anchor bolts, min. 7" embedment into concrete footing at 72" o.c. unless noted otherwise on plans. One anchor bolt should be located max. 12" away and min. 9 1/2" from the end of the sill plates. min. (2) A.Bs. per sill plate/shear panel. Sill plate under shear walls of up to 4'-0" in length must be continuous. See note 2 for sill plate fasteners at interior
- 1a. Anchor bolts at shear walls shall be installed with plate washers of min. 3" sq. x 0.229" thick between sill plate and nut. Edge(s) of plate washers shall be 1/2" max. from inside face of shear
- panel(s) per conditions shown below. 1b. The hole in the plate washer is permitted to be diagonally slotted with a width of up to 3/16 inch larger than the bolt diameter and a slot length not to exeed 1 3/4 inches, provided a standard cut washer (5/8" Nominal size: 11/16" ID,1 3/4" OD, 9/64" thick) is placed between the plate washer and the nut.



6 7 , 5 5 83 \$ / 7 ALL BENDS SHALL BE

## SW ANCHOR BOLTS AND PLATE WASHER ARRANGEMENT

) RU LQW HUL RU QR Q V K HD U ZDOOV XVH 6LPS VRQ 3+1: VHU L slab at 16" O.C. to be installed in accordance with ICC ESR-2138. Actual slab thickness to be minimum 4". All interior shear walls to have A.Bs. per foundation plan.

All holdowns and post anchors to be installed according to most current Simpson Strong Tie

specifications and requirements of ICC-ER reports & shall be tied in place prior to foundation

inspection. Dimensions are not furnished to Simpson holdowns. It is the responsibility of the

contractor's superintendent, the framing contractor and the concrete contractor to locate these

anchors in the exact location. Refer to details for proper installation.

- . Min. concrete width to be 8" for receiving PA, HPA & STHD's. Verify locations of holdowns and anchor bolts with rough framing to assure accurate installation.
- Provide #3 X 24" dowel at 24" o.c. and 12" from the corner at all concrete stoops and porches.
- Provide min. (1) #4 reinforcing for electrical ground, location to be verified with the electrical
- Verify min. foundation depth, width, reinforcing steel and additional expansive soil requirements with valid soils report and if more stringent, they shall supersede the above minimum requirements. See note #7 under reinforced concrete for concrete strength.
- Admixtures in concrete mix. containing calcium chlorides shall not be used.
- . Footings shall be examined and certified in writing by the project soil/geology engineer prior to inspection and placement of concrete.
- 10. Concrete shall be to the strength and slump as specified per structural design, and consist of Portland cement ASTM C-150 Type V per soils engineer's recommendations and Building Code section 1904.3 (ACI 318 section 4.3) when exposed to sulfate containing solutions. Aggregates shall be per ASTM C-33. Water to be clean and potable.
- Placement shall be in one continuous operation unless otherwise specified. Slab surface shall be cured with 'Hunts' compound or equal or cured with other methods in accordance with good construction practice at contractor's option.
- 2. Contractor shall dampen slab underlayment of sand/membrane just prior to concrete placement to assist uniform concrete curing. Slabs must not be poured during or immediately after rainstorms. The specified sand over visqueen should not be saturated at the time of the concrete pour. Any free water trapped in the sand layer must be removed prior to the concrete pour.
- The bottoms of footing excavations shall be level, clean and free of loose material or water when concrete is placed. Over excavation shall be filled with concrete or properly compacted fill that has been tested and approved by the soils engineer. Backfill shall not be placed until supporting foundations, walls and slab have attained sufficient strength to support lateral soil pressure.
- 4. Concrete placement shall be monolithic in one continuous operation uniformly placed and must be vibrated and well consolidated unless shown otherwise on plans. Dual pour is defined by ACI as to when 1st. & 2nd. pour can not be vibrated together.
- 5. Floor slab shall be poured level to 1/8" in 10'. 16. Requirements for pre-saturation of subgrade soils and daylight setback of exterior footings from any
- 7. Finish grade around the perimeter of slab shall be constructed such that rain and irrigation water is drained away from the slab.

18. All site and pad preparation, such as but not limited to shading, compacting of the fill, pre-saturation,

stoops and porches not shown in foundation drawings. Accuracy of the dimensions and final fit of

- and concrete slab base preparation, shall be performed in accordance with the soil engineer's recommendation and soils report. 19. Foundation drawings prepared by Gouvis Engineering Consulting Group reflect the structural requirements. Refer to architectural plans for dimensions, depressions, slope, shelves, patios,
- the building shall be reviewed by the architect and the contractor prior to construction. Waiting period for concrete slabs-on-grade prior to start of construction is as follows:

descending slope shall comply with soil report recommendations.

- a. Do not walk on slab until 24 hours after concrete has been poured. b. Begin wall framing 4-5 days after concrete poured.
- c. Begin roof/floor framing 7-10 days after concrete poured. d. Do not load roof prior to 14 days after concrete poured.
- 1. No pipes or conduits shall extend under isolated column footing or under continuous wall footings unless specifically detailed or approved by the architect, structural engineer and the building official.
- 2. The contractor shall arrange for observation of the work by the soils engineer. The following are requirements of the soils engineer: a. All footing excavations shall be inspected and certified in compliance with the soils report by the
- soil engineer prior to placing of concrete or steel. b. Soil conditions, including compacting and moisture content, shall be inspected and certified to be
- in compliance with the soil report by the soils engineer prior to placing of concrete or steel. c. A certificate of compliance shall be submitted to the building official prior to his foundation inspection and to the architect and structural engineer.
- Prior to the contractor requesting a Building Department foundation inspection, the soil engineer shall advise the building official in writing that: a. The building pad was prepared in accordance with the soil report.

#### b. The utility trenches have been properly backfilled and co c. The foundation excavations, the soils expansive characteristics and bearing capacity conform to the soils report.

**MISCELLANEOUS** 1. Grout under base plates shall be non-shrink type and shall have compressive strength equal to or

4. All horizontal reinforcement to have matching dowels at corners of walls. All vertical reinforcement

- greater than the concrete or masonry supporting it.
- 2. All grade beams shall be poured monolithically for their entire length. 3. All reinforcing to be accurately and securely located prior to pouring concrete or grouting masonry.
- to have matching dowels to footing, unless otherwise noted.
- SHEET ROCK ON FRAMING Stacked sheet rock loading shall be limited to the following quantities in any one room: 5/8": 16 individual 4x10 sheets (8 pairs of sheets)
- 1/2": 20 individual 4x10 sheets (10 pairs of sheets) The shoring of the floor supporting stacked sheet rock is required if the number of sheet rock exceeds the quantities listed above.
- 6. Automatic sprinkler system specification & details by others 7. The contractor is responsible for taking measures to mitigate the effects of building shrinkage in structures consisting of 3 or more stories of wood framed construction. As an alternate, use MC-15

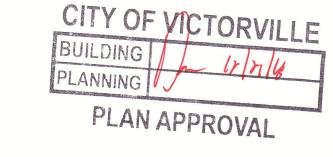
studs for top plates, sole plates and conventional joists (No I-Joist): The lower 3 levels of 5 story bldgs. The lower 2 levels of 4 story bldgs. The lower first level of 3 story bldgs.

 General Notes & Requirements - Structural Details & Notes.

Roof Framing Plan

- Foundation Plan S-1.2

- Structural Details & Notes



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ENGINEERING CONSULTING GROUP

**DEVELOPER:** 

Lupine Construction &

Development Co.

ARCHITECT:

LOCATION:

14725 7th Street Victorville CA 92392

REVISIONS

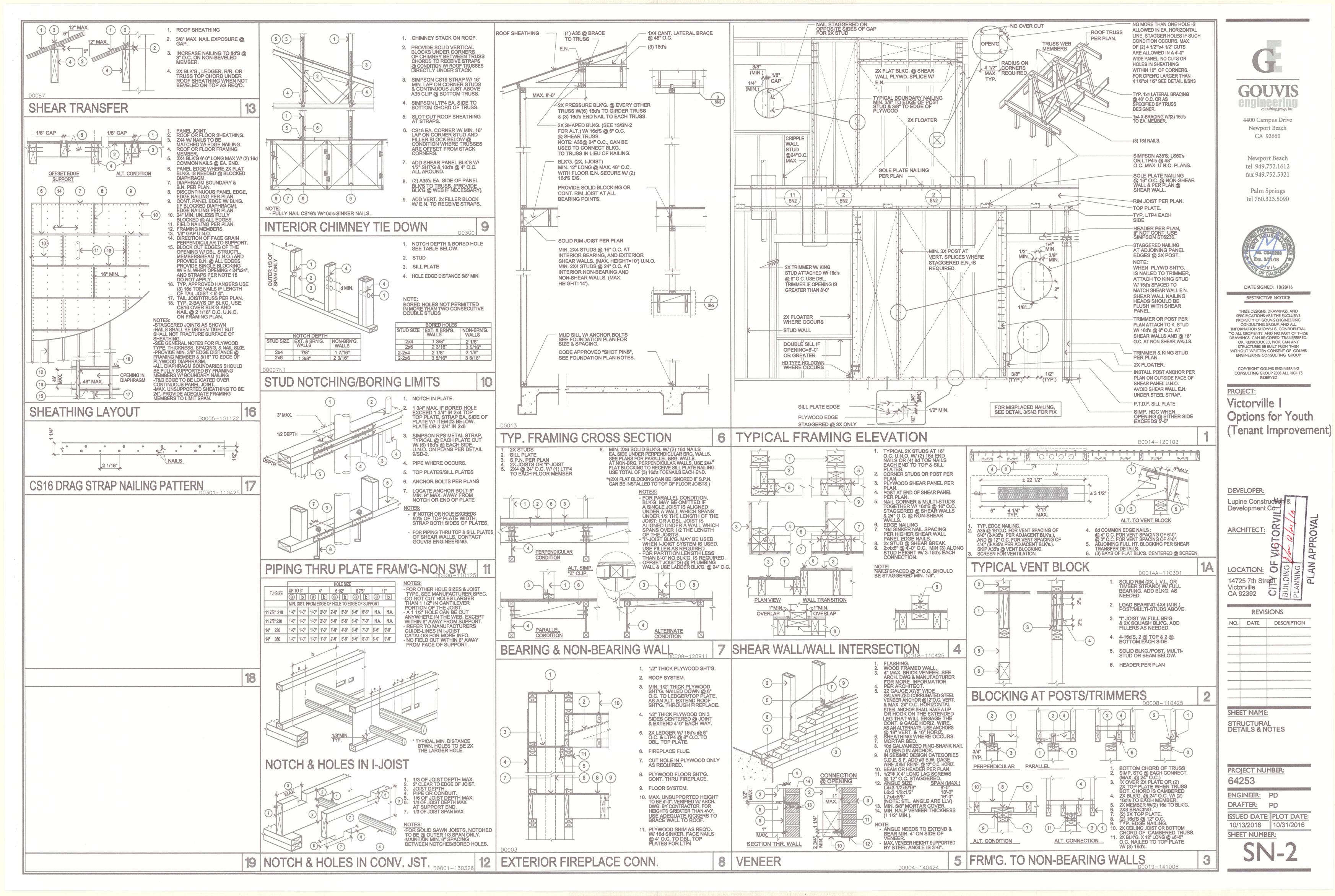
PROJECT NUMBER

64253

10/13/2016

ENGINEER: PD DRAFTER: PD ISSUED DATE: PLOT DATE

10/31/2016





SCALF : 1/4" = 1'-0"

**FOUNDATION PLAN** 

SYMBOLS LEGEND

DROP IN SLAB (VERIFY PRIOR TO CONSTRUCTION)

REBAR

PAD NUMBER

SHEAR PANEL LENGTH AND NUMBER.
REFER TO SN-1 FOR PANEL TYPE, MIN. 2-2x4 @ EA. END.

DETAIL NUMBER
DETAIL SHEET NUMBER

HOLDOWN NUMBER

MAXIMUM SPACING\
TOTAL MINIMUM NUMBER OF ANCHOR BOLTS EQUALLY SPACED
AS POSSIBLE. SEE GENERAL NOTES ON SN-1 SHEET(S) FOR OTHER
REQUIREMENTS. FOR NON-SHEAR WALLS, MASAMASAP MUDSILL
ANCHORS CAN BE USED IN LIEU OF ANCHOR BOLTS, ON A ONE TO
ONE BASIS, WITH END DISTANCE OF 4" MIN. PER ESR #2555.

NUMBEROF

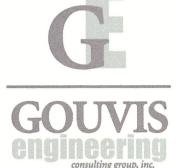
MAXIMUM ACHOR BOLT SPACING ANCHOR BOLTS

## PAD SCHEDULE

SYM.	PAD TYPE			
P1	P1 2'-0" SQ. X 12" DEEP PAD W/ (3) #4 E.W.			
P2	2'-6" SQ. X 12" DEEP PAD W/ (4) #4 E.W.			
P3	3'-0" SQ. X 12" DEEP PAD W/ (4) #4 E.W.			
P4	3'-6" SQ. X 12" DEEP PAD W/ (5) #4 E.W.			
P5	4'-0" SQ. X 12" DEEP PAD W/ (6) #4 E.W.			
P6	4'-6" SQ. X 12" DEEP PAD W/ (6) #4 E.W.	And the state of t		
P7	5'-0" SQ. X 18" DEEP PAD W/ (7) #5 E.W.			
P8	5'-6" SQ. X 18" DEEP PAD W/ (7) #5 E.W.			

## FOUNDATION NOTES

1. REFER TO SN-1 SHEET FOR MORE INFO.



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DATE SIGNED: 10/28/16

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Victorville I
Options for Youth
(Tenant Improvement)

DEVELOPER:

Lupine Construction & Development Co.

ARCHITECT:

LOCATION:

14725 7th Street Victorville
CA 92392

REVISIONS

NO. DATE DESCRIPTION

SHEET NAME: FOUNDATION PLAN

PROJECT NUMBER: 64253

ENGINEER: PD
DRAFTER: PD

ISSUED DATE: 10/13/2016 10/31/2016

SHEET NUMBER:

S-1.1



SYMBOLS LEGEND

POST OR TRIMMER AS NOTED DIRECTION OF ROOF MEMBER PER SCHEDULE, REFER TO HATCHED WALLS ON PLANS FOR INTERMEDIATE BR'G DIRECTION OF FLOOR MEMBER PER SCHEDULE, REFER TO HATCHED WALLS ON PLANS FOR INTERMEDIATE BR'G DIRECTION OF DECK MEMBER PER SCHEDULE, REFER TO HATCHED WALLS ON PLANS FOR INTERMEDIATE BR'G SHEAR PANEL LENGTH AND NUMBER. REFER TO SN-1 FOR PANEL TYPE, MIN. 2-2x4 @ EA. END. **DETAIL NUMBER** 

DETAIL SHEET NUMBER

BEAM NUMBER, REFER TO GOUVIS ENGINEERING CALCULATIONS

KEY NOTE NUMBER **BEARING WALL** 

CALIFORNIA FRAMING

## FRAMING SCHEDULE

(E) ROOF TRUSSES

### FRAMING NOTES

- 1. REFER TO STRUCTURAL GENERAL NOTES AND DETAIL SHEETS (SN-1 & SN-2)
- FOR MORE INFORMATION. 2. REFER TO DETAIL 3/SN2FOR TYPICAL CONNECTION AT ALL INTERIOR
- NON-BEARING WALLS AT ROOF LEVEL. 3. SHEAR WALLS CANNOT BE USED AS PLUMBING WALLS, UNLESS APPROVED BY
- GOUVIS ENGINEERING CONSULTING GROUP IN WRITING. 4. AT DOUBLE SIDED SHEAR WALLS, POST W/E.N. PER PLAN TO RECEIVE E.N. FROM

- 5. WHEN MULTIPLE STUDS ARE USED INSTEAD OF A SINGLE POST, PLYWOOD SHEAR WALL TO BE NAILED TO ALL STUDS RECEIVING HOLDOWNS. 6. APPLY SHEAR PRIOR TO FRAMING OF PERPENDICULAR WALLS. DO NOT BREAK SHEAR
- AT PERPENDICULAR WALL LOCATIONS UNLESS SPECIFICALLY DETAILED ON PLANS.



- 9. AS AN ALTERNATE TO USING SIMPSON PRODUCTS OTHER CONNECTORS CAN BE USED, AS LONG AS THEIR CAPACITIES ARE EQUAL TO OR BETTER THAN SIMPSON'S, AND SUBJECTED TO THE APPROVAL OF GOUVIS ENGINERING.
- 10. USE SIMPSON " IUS/ITS/U310 " HANGERS FOR CONNECTION OF I-JOISTS TO OTHER FRAMING MEMBERS (U.N.O.) AND " LUS " HANGERS FOR CONNECTION OF SOLID JOISTS. 11. ALL WOOD I-JOISTS SHALL BE IN COMPLIANCE WITH THE PROVISIONS OF APA PRI-400,
- EWS-Z725B (PERFORMANCE RATED I-JOIST STANDARD) OR ASTM D5055. QUALIFIED PRI-400, MANUFACTURED. I-JOIST CAN BE ANY OF THOSE LISTED IN THE TABLE ABOVE. 12. THE FOLLOWING BEAMS/HEADERS/RIMS CAN BE FROM ANY MANUFACTURER
- WITH CURRENT APPROVED ICC ES EVALUATION REPORT WITH THE FOLLOWING MECHANICAL PROPERTIES: FOR "LVL" & "PSL" BEAMS:

Fb = 2900 psi (MIN), Fv = 290 psi (MIN),  $E = 2.0 \times 10^6$  psi (MIN). FOR "LSL" BEAMS/HEADERS:

Fb = 2325 psi (MIN), Fv = 400 psi (MIN), E =  $1.55 \times 10^6$  psi (MIN). FOR MANUFACTURED RIM BOARD WITH MIN 1 1/4" THICK, CONTINUOUSLY SUPPORTED BY WALL, AND MATCHES JOIST DEPTH: Fc | (PERPENDICULAR)..... = 680 psi (MIN)

Fc // (PARALLEL)..... = 1400 psi (MIN) Ft = 1075 psi (MIN),  $E = 1.3 \times 10^6$  psi (MIN) Fb = 2400 psi @ BOTTOM, Fb = 1850 psi @ TOP Fv = 265 psi (MIN), E =  $1.8 \times 10^{-6}$  psi (MIN).

8. ALL BEAMS SHOWN ARE DROP (U.N.O.) ON PLANS.

13. A 4x6 (ALT. 2-2x6) HDR. SHOULD BE USED AT ALL OPENINGS IN EXTERIOR & INTERIOR BEARING WALLS U.N.O. ON PLANS. REFER TO THE FOLLOWING TABLE

PLAN DESIGNATION	HEADER SIZE	ALT. HEADER SIZE *	*
H1	4 x 4	2-2×4	IXIXI
H2	4 x 8	2-2×8	L

16d NAILS @ 16" O.C., STAGG., BOTH SIDES.

14. THE FOLLOWING TRIMMER SCHEDULE SHOULD BE USED FOR HEADERS IN BEARING WALLS, U.N.O. ON THE PLAN. REQUIRED TRIMMER MUST BE APPLIED @ EACH END OF HEADER.

	CLEAR SPAN, L	
L 6'-0"	6'-0" < L 10'-0"	L 10'-0"
2 x 4	2-2 x 4	SEE PLAN



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PROJECT:

Victorville I Options for Youth (Tenant Improvement)

**DEVELOPER:** Lupine Construction

Development Co.

ARCHITECT:

LOCATION: 14725 7th Street Victorville CA 92392

**REVISIONS** NO. DATE DESCRIPTION

SHEET NAME: ROOF FRAMING PLAN

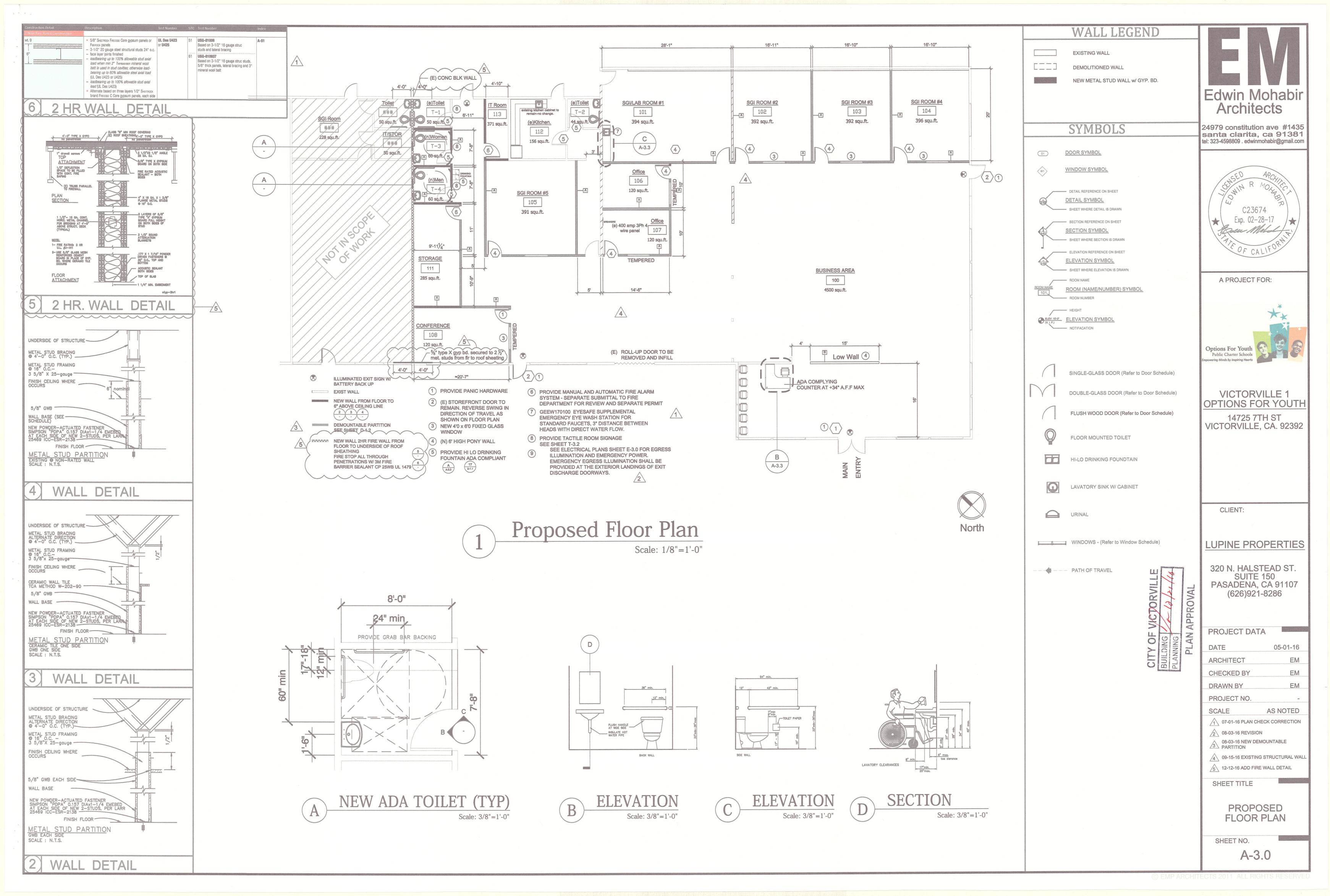
PROJECT NUMBER 64253

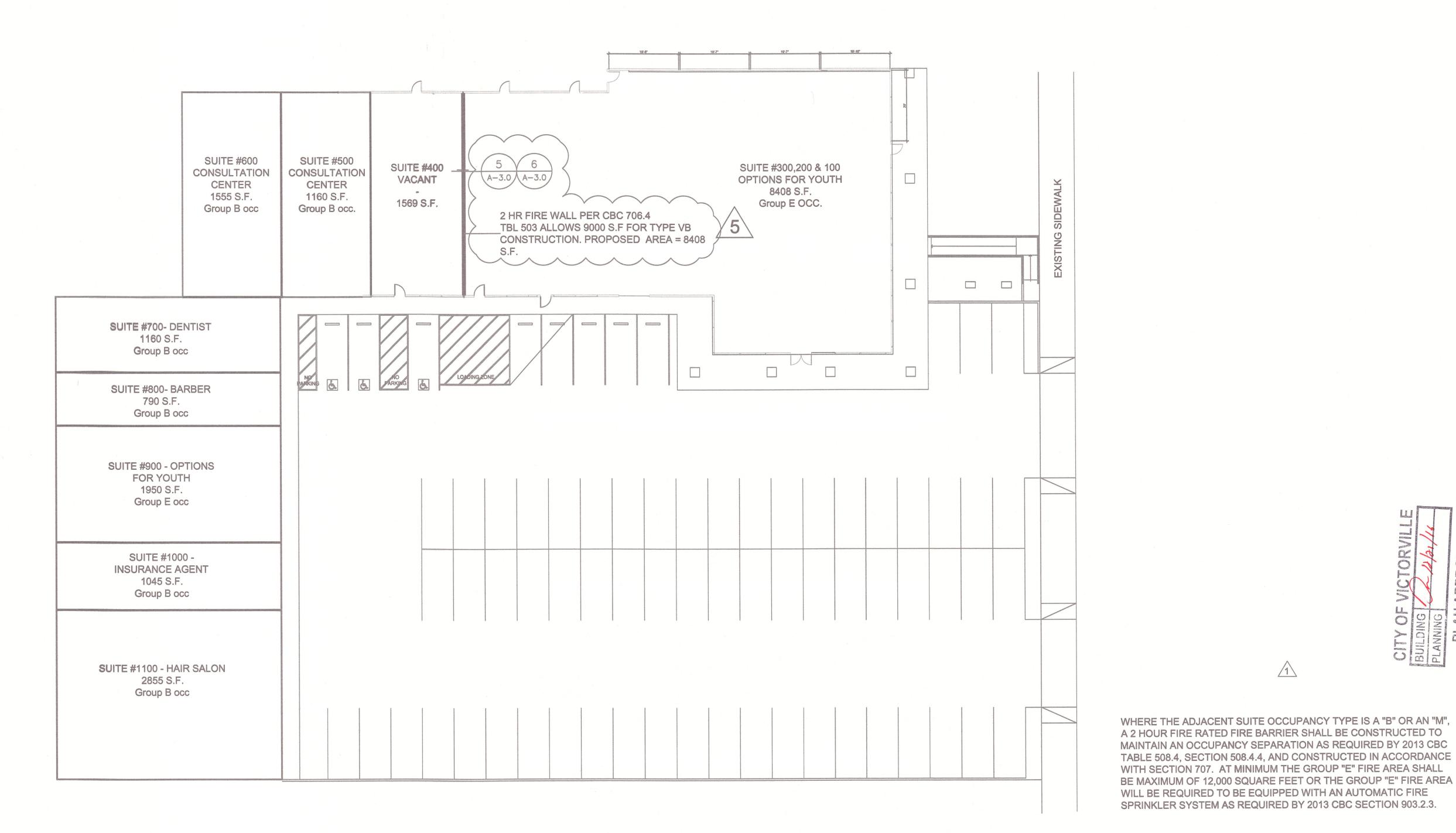
ENGINEER: PD DRAFTER: PD

ISSUED DATE: PLOT DATE: 10/13/2016 10/31/2016 SHEET NUMBER

**ROOF FRAMING PLAN** 

SCALE · 1/4" = 1'-0"





**Edwin Mohabir** Architects 24979 constitution ave #1435 santa clarita, ca 91381

tel: 323-4598809 . edwinmohabir@gmail.com

A PROJECT FOR:



VICTORVILLE 1 OPTIONS FOR YOUTH

14725 7TH ST VICTORVILLE, CA. 92392

CLIENT:

BUILDING CANALLE

1

PLAN APPROVAL

**LUPINE PROPERTIES** 

320 N. HALSTEAD ST. SUITE 150 PASADENA, CA 91107 (626)921-8286

PROJECT DATA

DATE 05-01-16 ARCHITECT CHECKED BY EM DRAWN BY EM PROJECT NO. AS NOTED SCALE

07-01-16 PLAN CHECK CORRECTION

5 12-12-16 ADD FIRE WALL DETAIL

SHEET TITLE

**OCCUPANCY ANALYSIS** 

SHEET NO.

A-4.0

Building Occupancy Diagram

Scale: 1/16"=1'-0"



