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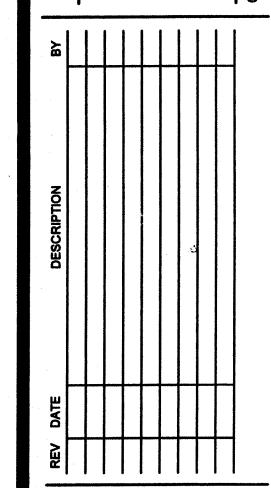
800 E. COLLEGE PARKWAY CARSON CITY, NEVADA 89708 TEL (775) 883-7077 FAX (775) 883-7114

CIVIL ENGINEERING
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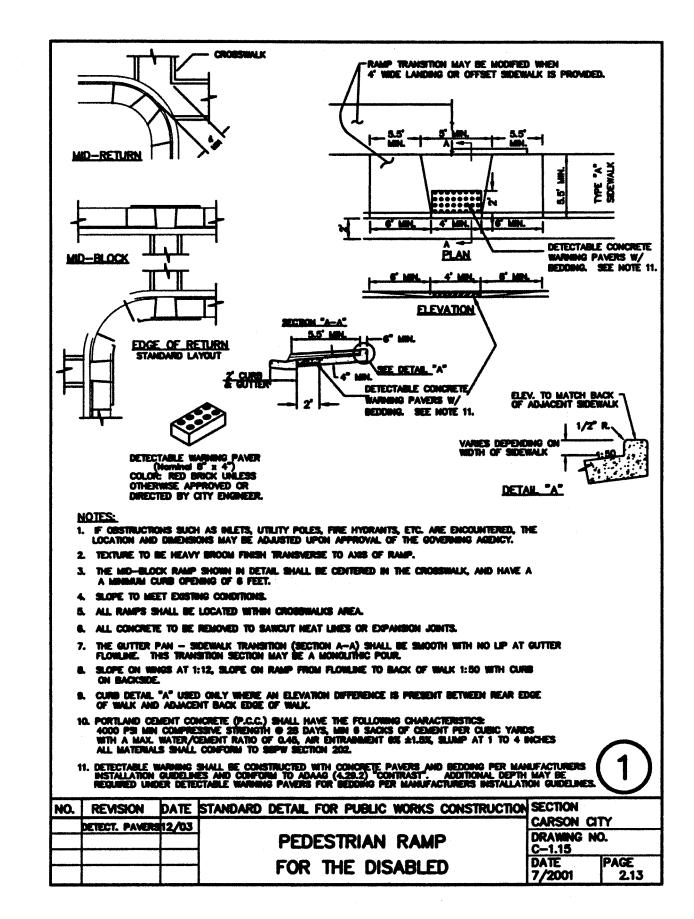
HOUSE MUSEUM AGE HOUSE DING PLAN ROBERTS HOCARRIA

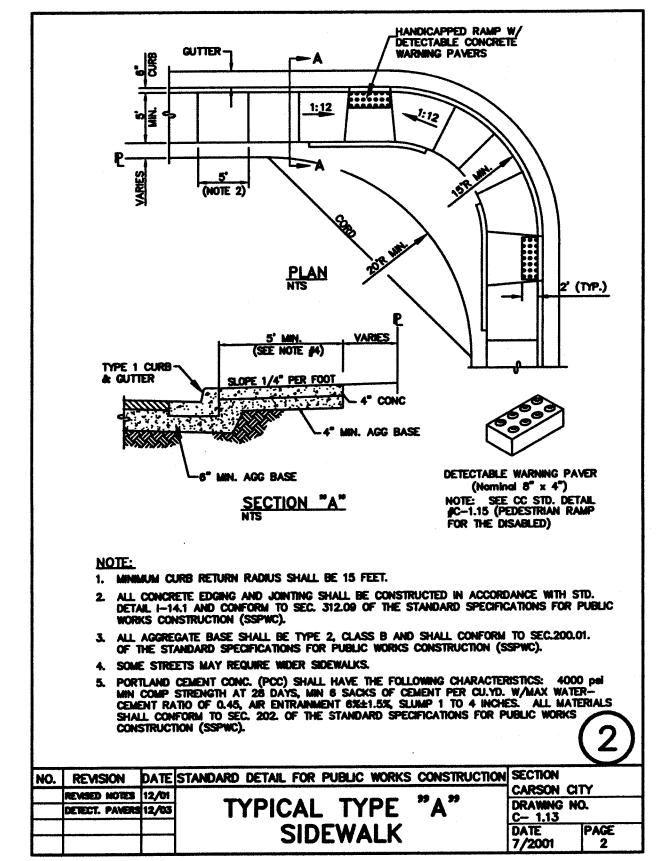


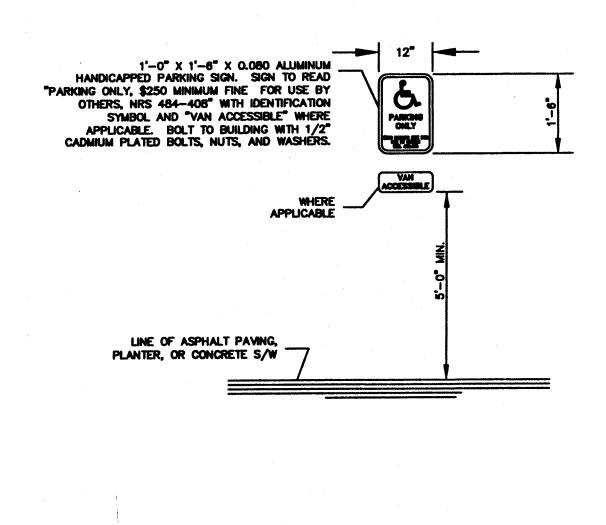
DATE: DRAWN BY: **DESIGNED BY:** CHECKED BY: JOB NO.:

7324.000

- PER OWNER'S DIRECTION, THIS DESIGN IS BASED ON TOPOGRAPHIC DATA PROVIDED BY OTHERS. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING GRADES AND ELEVATIONS AND ADVISE ENGINEER OF ANY CONFLICTS.
- 2. SLOPE TAGS ARE GIVEN FOR REFERENCE ONLY. ELEVATION TAGS SHALL GOVERN WHERE CONFLICTS ARISE.

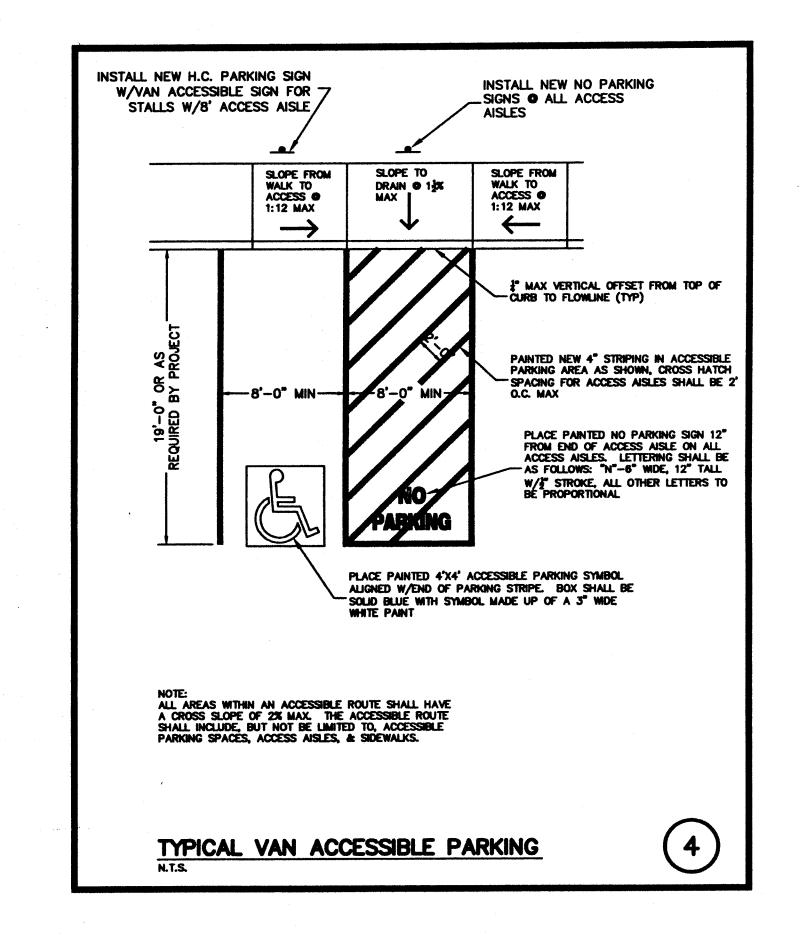






NOTE: HANDICAPPED PARKING SIGN TO CONFORM TO CURRENT STATE, LOCAL CODES AND REGULATIONS.

HANDICAPPED PARKING SIGN SCALE: N.T.S.





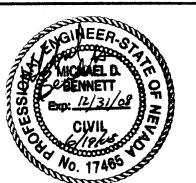
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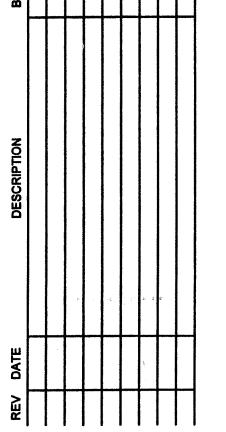
CONSTRUCTION SERVICES

MATERIALS TESTING

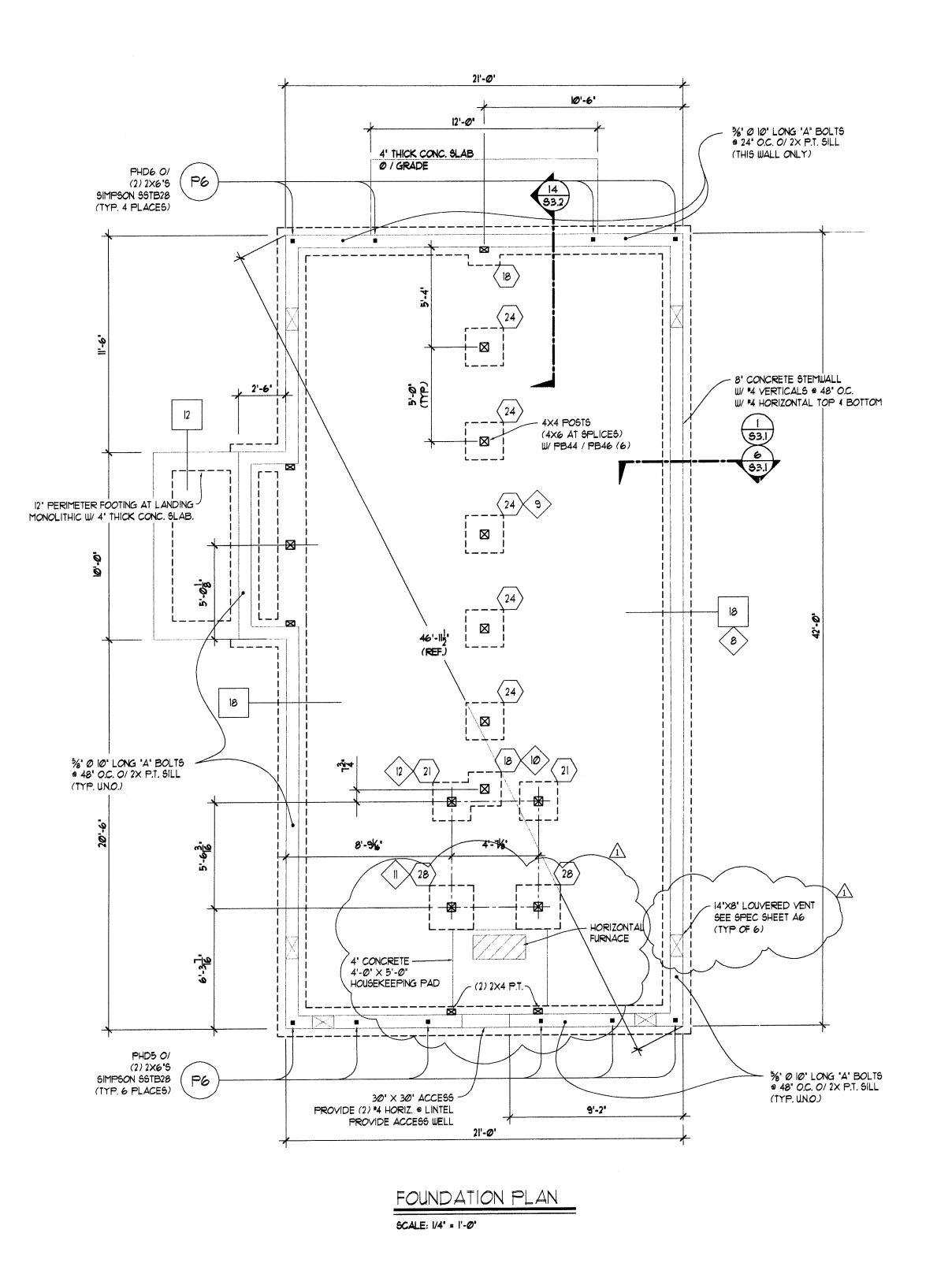
CIVIL ENGINEERING GEOTECHNICAL ENGINEERING PLANNING LANDSCAPE ARCHITECTURE SURVEYING / GIS



MUSEUM **ROBERT'S**



CHECKED BY:



CONCRETE SLABS: 2x PRESSURE TREATED LUMBER (TYP.) WHEN NOTED FOR A SPECIFIC SHEAR WALL, FOUNDATION SILL PLATES AND ALL. FRAMING MEMBERS RECEIVING EDGE NAILING FROM ABUTTING PANELS SHALL NOT PROVIDE 4' CONCRETE SLAB ON GRADE WITH FIBERMESH or 6' x 6' - 10 Ga. W.W.F. BE LESS THAN A SINGLE 3' NOMINAL MEMBER AND FOUNDATION SILL PLATES REINFORCEMENT. PREPARE GRADE WITH 4" OF SAND 4 GRAVEL AGGREGATE BASE SHALL NOT BE LESS THAN A SINGLE 3" NOMINAL MEMBER AT SHEAR WALL NOTED. COMPACTED TO 95% OF RELATIVE COMPACTION. PROVIDE PERIMETER & INTERIOR EXPANSION JOINTS AS REQUIRED, AND PROVIDE CONTROL JOINTS ON AN INCREMENTAL BASIS. 5/8" \$ x 12" A.B. \$ 4'-0" O.C. (UNO). MAX. 2 ANCHOR BOLTS PER BOARD MINIMUM, 12" FROM ENDS MAXIMUM. ANCHOR BOLTS EMBEDDED 1" INTO CONC. MINIMUM. INSTALL 3' x 3' x 229" PLATE WASHERS ON EACH ANCHOR BOLT. PROVIDE 12" ANCHOR BOLTS WHEN USING A 3x P.T. MUDSILL STRUCTURAL ENGINEERING NOTES > - SYMBOL REFERENCES THE STRUCTURAL CALCULATIONS 6 MIL. VISQUEEN VAPOR BARRIER (OR EQUIVALENT) LAID ON SOIL. FOR THE SELECTED MEMBER - SYMBOL INDICATES A HOLDOWN - SEE HOLDOWN SCHEDULE, SHEET 53.0. PROVIDE ANCHOR BOLT TO MATCH HOLDOWN SPECIFIED - SEE 30' OF *4 BARE COPPER WIRE - (20' INTO AND 10' OUT OF FOUNDATION) HOLDOWN SPECIFICATION TABLE, SHEET 530 - SYMBOL INDICATES A FOOTING - SEE FOOTING SCHEDULE, SHEET \$3.0.) - SYMBOL INDICATES A PIER - SEE PIER SCHEDULE, SHEET \$3.0. PER 2006 IBC SECTION 1008.15 - CONTRACTOR TO VERIFY HOLDOWN LOCATIONS AT SHEAR WALLS

- SEE SHEET 53.1 FOR STANDARD STRUCTURAL DETAILS PER APPLICATION.

IN ALL WALL FRAMING AND SOLID VERTICAL GRAIN BLOCKING SHALL BE

PROVIDED AT ALL FLOOR LEVELS DOWN TO THE FOUNDATION.

- WHERE POSTS AND MULTIPLE STUDS ARE SPECIFIED, THEY ARE TO BE STACKED

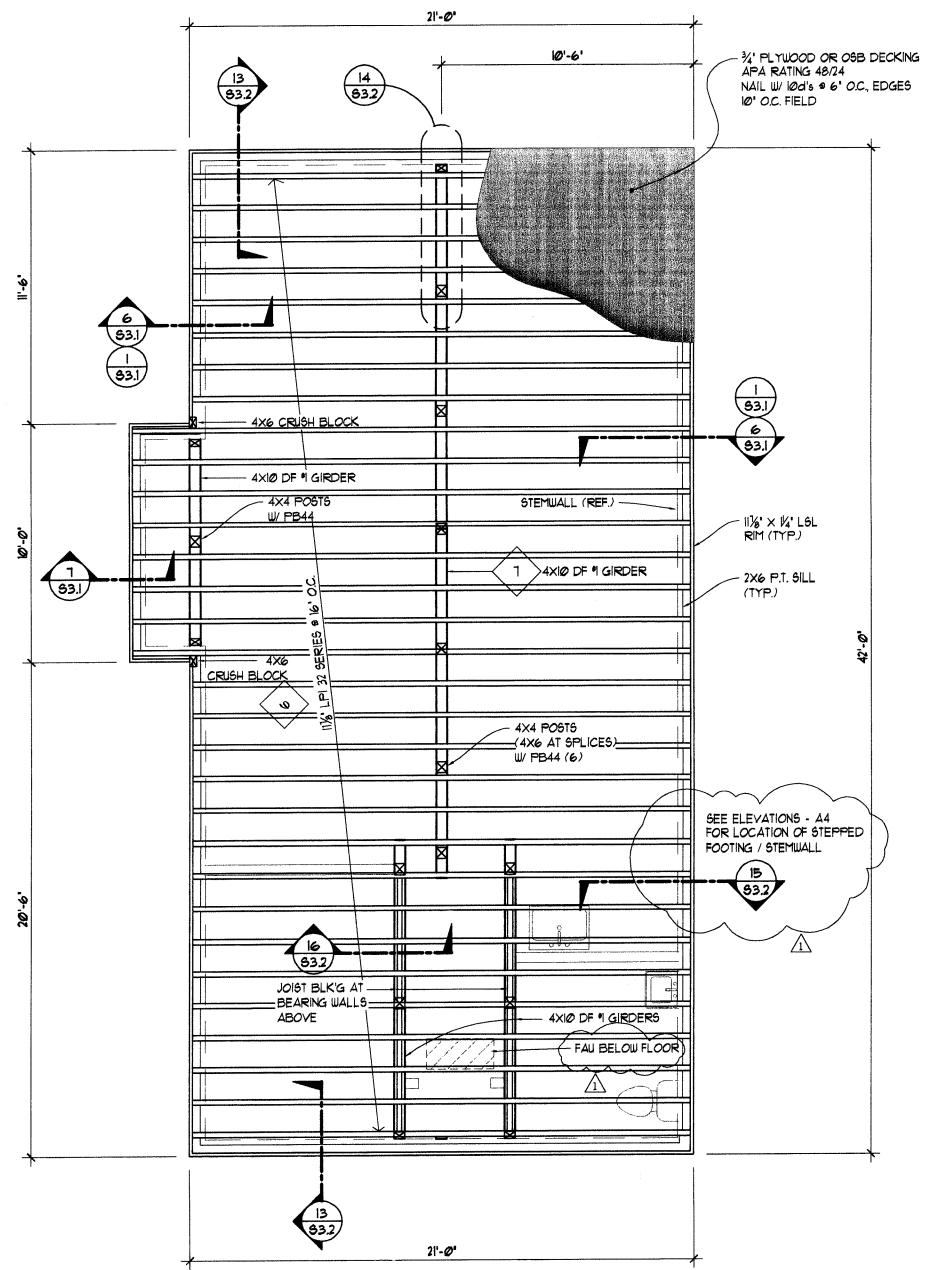
SILLS & PADS:

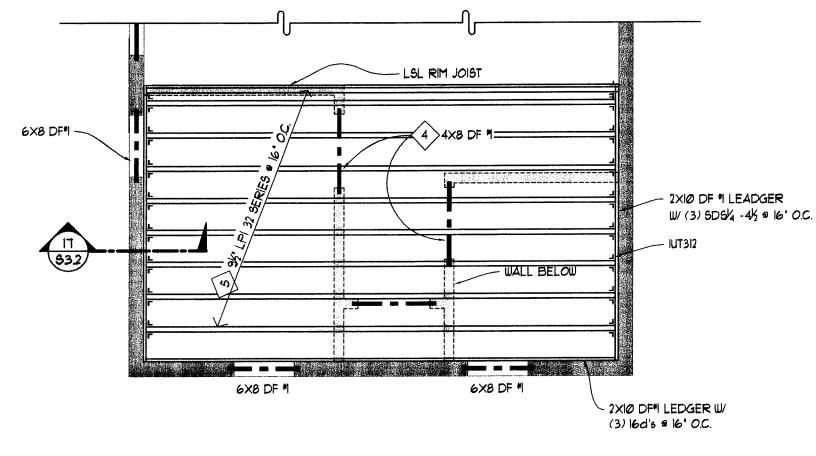
EXTERIOR FLATUORK:

PROVIDE 4" CONCRETE SLAB ON GRADE

PREPARE GRADE WITH 6' TYPE 2 AGGREGATE BASE

COMPACTED TO 95% OF RELATIVE COMPACTION.





MEZZANINE PLAN

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

FLOOR FRAMING PLAN SCALE: 1/4" = 1'-0"

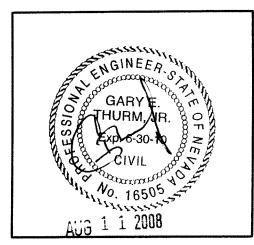
MAIN FLOOR JOISTS: UNDERFLOOR VENTILATION CALCULATIONS: 11 1/2 1-JOISTS, LPI / 32 @ 16' O.C., INSTALLED PER MANUFACTURER'S SEE CALCULATIONS PER ARCHITECT SPECIFICATIONS AT RIGHT ANGLES OVER BEARING. DOUBLE UNDER PARALLEL BEARING WALLS. MAINTAIN 18' MIN. CLEARANCE TO SOIL. BLOCK ALL JOISTS & BEARING POINTS PER MFR'S, SPECIFICATIONS. RIM JOISTS: PROVIDE MANUFACTURED LP SOLID START RIM JOISTS 11/4" MIN. TYPICAL 3/4" PLYWOOD SHEATHING, EXPOSURE I, T & G UNDERLAYMENT GRADE, 4x10 DF "I UN.O. OVER POSTS, MAINTAIN 12" MIN. CLEARANCE TO SOIL APA SPAN RATED 48/24 OR EQUIVALENT, LAID AT RIGHT ANGLES OVER FLOOR JOISTS. STAGGER JOINTS, GLUE & NAIL WITH 10 d & 6' O.C. EDGE, 10' O.C. FIELD. 4x4 DF POSTS (4x6 POST AT SPLICE), MAX. SPAN - 5'-0' O.C. (UN.O.) MEZZANINE FLOOR JOISTS: PROVIDE PB44(6) & (E)PC44(6) ON EACH POST. 9-1/2" 1-JOISTS, LPI / 32 @ 16" O.C., INSTALLED PER MANUFACTURER'S SPECIFICATIONS AT RIGHT ANGLES OVER BEARING. DOUBLE UNDER PARALLEL

UNDERFLOOR ACCESS:

18'x24" MIN. - PER 2006 IBC SECTION 1209.1 (30" X 30" IF F.A.U. IS LOCATED UNDERFLOOR) ACCESS MAY NOT BE MORE THAN 20' FROM CLEANOUTS - PER 2006 UPC 707.10

CARY E. THURM, JR., P.E. #16505 2516 Business Parkway, 817, F1 Minden, NV 89423

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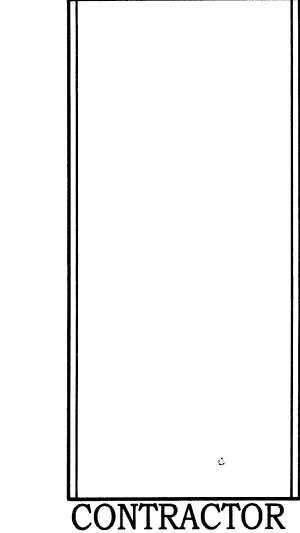


ORIGIN DATE: 01/01/08

08/11/08

HOUSE ROBERTS CARSC 1207 | CA

PROJECT



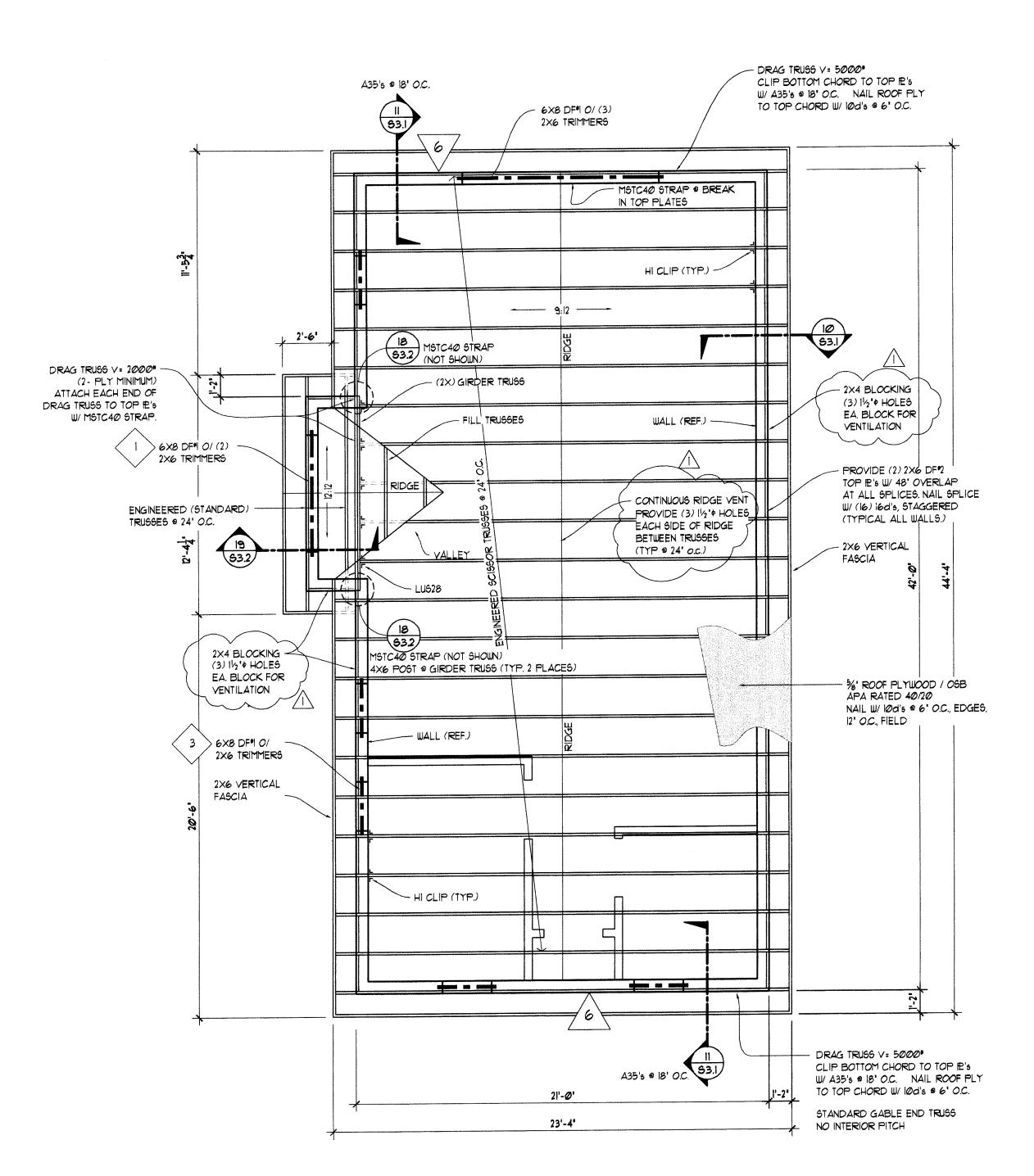
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JOB#: 06087

Three Castles Engineering, LLC

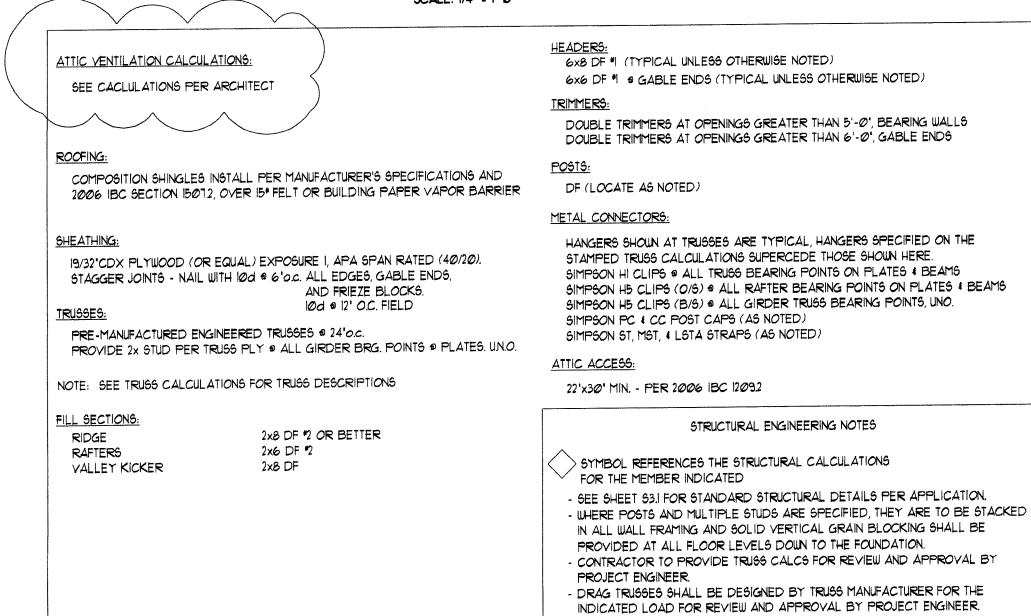
BEARING WALLS.

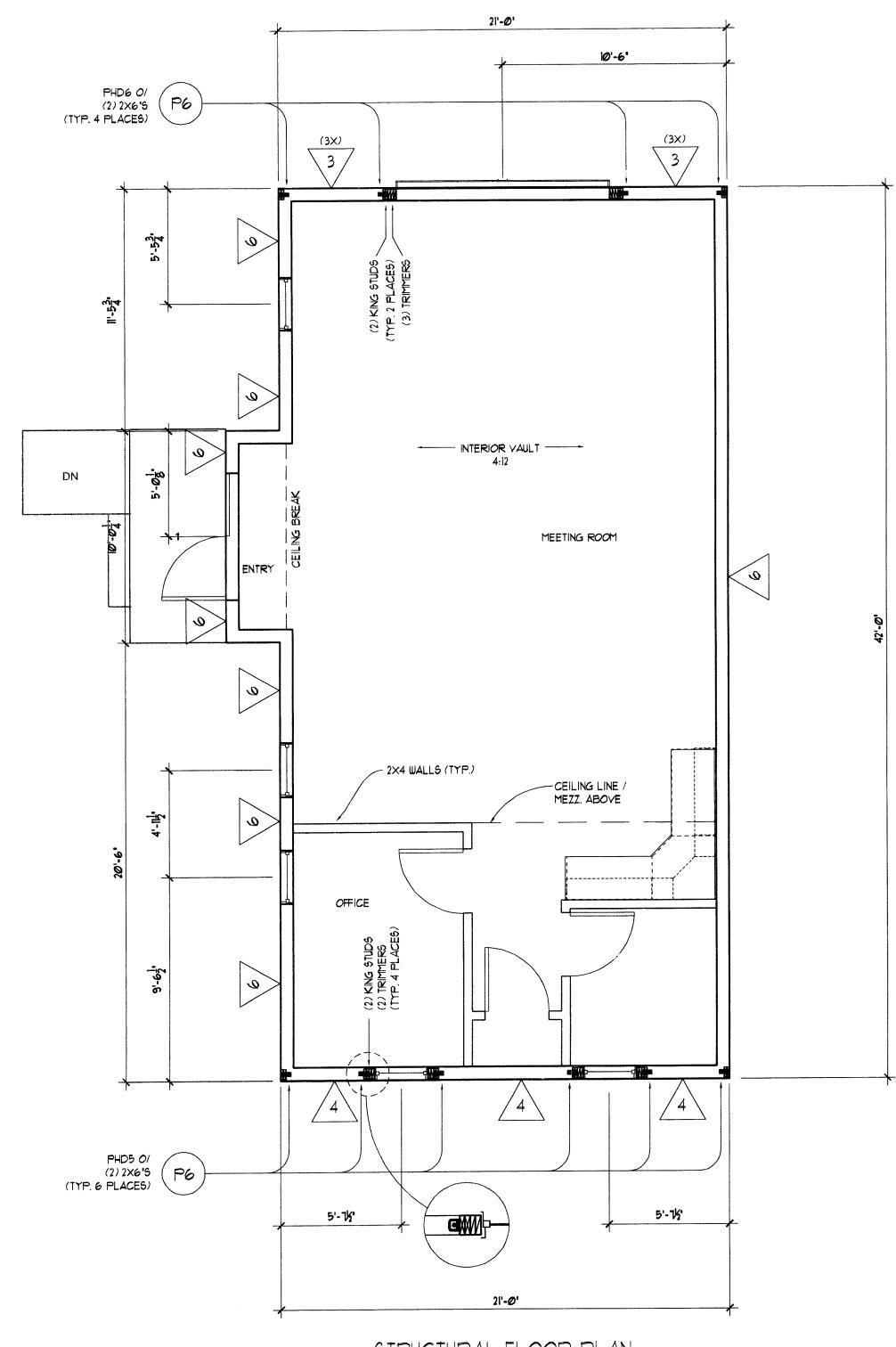
BLOCK ALL JOISTS & BEARING POINTS PER MFR'S. SPECIFICATIONS.





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





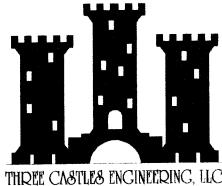
STRUCTURAL FLOOR PLAN

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

SHEATHING: % CDX PLYWOOD NAILED PER SHEAR WALL CALLOUTS AND SHEAR WALL SCHEDULE, UNO.	WALL FRAMING: ALL LUMBER SHALL BE STD. NO. 2 OR BETTER UNLESS OTHERWISE NOTED. BALLOON FRAMING REQUIRED AT ALL GABLE WALLS WITH RAFTER OR SCISSOR
WALLS:	TRUSS ROOF FRAMING UNLESS OTHERWISE NOTED.
2x6 DF *2 AT 16' O.C. WHERE H≤ 13'-0" AT EXTERIOR PERIMETER 2x6 DF STUDS AT 16' O.C. WHERE H≤ 10'-0' AT EXTERIOR PERIMETER	METAL CONNECTORS:
SUBFLOOR:	ALL HANGERS SPECIFIED ARE SIMPSON STRONG TIE OR EQUIVALENT.
3/4' PLYWOOD SHEATHING, EXPOSURE I, I & GUNDERLAYMENT GRADE, APA SPAN RATED 24 O.C. OR EQUIVALENT, LAID AT RIGHT ANGLES OVER FLOOR JOISTS. STAGGER JOINTS, GLUE & NAIL WITH 100d @ 6' O.C. EDGE, 10' O.C. FIELD.	ENGINEERING SYMBOLS
SILLS & PADS:	> - SYMBOL INDICATES SHEAR WALL NAILING - SEE SCHEDULE SHEET 53.0 - WHEN NOTED FOR A SPECIFIC SHEAR WALL, FOUNDATION SILL PLATES AND ALL FRAMING MEMBERS RECEIVING EDGE NAILING FROM ABUTTING PANELS SHALL NOT
2x PRESSURE TREATED LUMBER (TYP.) WHEN NOTED FOR A SPECIFIC SHEAR WALL, FOUNDATION SILL PLATES AND ALL FRAMING MEMBERS RECEIVING EDGE NAILING FROM ABUTTING PANELS SHALL NOT	BE LESS THAN A SINGLE 3' NOMINAL MEMBER AND FOUNDATION SILL PLATES SHALL NOT BE LESS THAN A SINGLE 3' NOMINAL MEMBER AT SHEAR WALL NOTED.
BE LESS THAN A SINGLE 3" NOMINAL MEMBER AND FOUNDATION SILL PLATES SHALL NOT BE LESS THAN A SINGLE 3" NOMINAL MEMBER AT SHEAR WALL NOTED.	
DIMENSIONS: MEASURMENTS ARE TO STUD FACE UNLESS OTHERWISE NOTED.	O - SYMBOL INDICATES A HOLDOWN - SEE HOLDOWN SCHEDULE, SHEET \$3.0 PROVIDE ANCHOR BOLT TO MATCH HOLDOWN SPECIFIED - SEE HOLDOWN SPECIFICATION TABLE, SHEET \$3.0
POSTS:	- CONTRACTOR TO VERIFY HOLDOWN LOCATIONS AT SHEAR WALLS - SEE STANDARD DETAILS (SHEET 53.1) FOR TYPICAL INSTALLATIONS OF

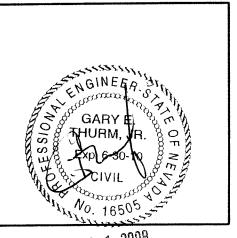
HOLDOWNS, HOLDOWN STRAPS ACROSS THE FLOOR, AND POST SPLICES.

- POST SPLICES AT FLOOR LEVELS SHALL HAVE STG224 B/S, UNO. - SHEAR PLY SHALL RUN CONTINUOUS TO ENDS OF PANELS TO HOLDOWN STUD.



An Engineering and Consulting Company GARY E THURM, J.R., P.E. #16505 2516 Business Parkway, &TE F1 Minden, NV 89423

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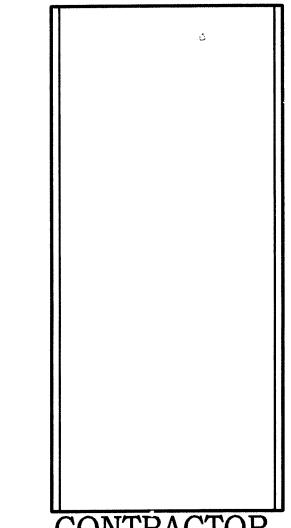


ORIG**EN** DÂTÊ: 2008

REVISION	DAT
$\widehat{1}$	08/11/0

KS & RECREATION HOUSE ERTS OWNER: CARSON CIT 1207 N. CARSO CARSO

PROJECT



CONTRACTOR

JOB#: 06087 DRAWN BY: GT

> S2.0 SHEET

Three Castles Envincering LLC

THIS DOCUMENT IS INTENDED ONLY FOR USE ON THE PROJECT SPECIFIED IN THE TITLE BLOCK. NO WARRANTIES ARE IMPLIED EXCEPT FOR THIS PROJECT AND SPECIFIC LOCATION AUTHORIZED BY THIS ENGINEER.

DF ¶ (LOCATE AS NOTED)

CONSTRUCTION NOTES

GENERAL

- a) All work shall conform to the 2006 International Building Code (IBC) and any additional applicable local codes. b) Allowable stresses have been increased 15% (except where prohibited) for snow, 33% for wind and seismic main force resisting system and connectors.
- c) This Engineer is responsible for the structural items in the plans only. Should any changes be made from the design as detailed in these calculations without written approval from the Engineer then the Engineer assumes no responsibility for the entire structure or any portion thereof. Should the results of the calculations not be fully or properly transferred to the plans, the Engineer assumes no responsibility for the structure.
- d) These calculations are based upon a completed structure. Should an unfinished structure be subjected to loads, the Engineer should be consulted for an interim design or if not, can assume no responsibility.

SITE WORK & GRADING

- a) Assumed soil bearing pressure has been determined in accordance with IBC Table 1804.2 and any reports provided and attached to these documents.
- b) Building sites are assumed to be drained and free of clays or expansive soil. These calculations assume stable, undisturbed soils and/or level - stepped footings. Conditions that differ from those assumed at the site should be brought to the attention of this Engineer.
- c) Foundations shall bear on undisturbed, non-expansive native soil or compacted structural fill. Any loose soil in the bottom of the footing excavations shall be compacted to at least 90% relative compaction or removed to expose firm, unyielding material that meets ASTM standards. The bottom of the footings should be below the frostline. Frostline depth varies in this region from 18"-24" below grade, and should be verified from jurisdiction to jurisdiction.
- d) Finished grades around the perimeter of the structure shall slope away from the foundation @ a 2% slope for 10'. e) This Engineer has not made a geotechnical review of the building site and is not responsible for general site stability or soil suitability for the proposed project. The contractor should make a decision as to the suitablilty of the soils encountered during excavation, such as clays or well graded materials.
- f) Foundations design is based on maximum bearing capacities and lateral earth pressures as found in Table 1804.2 Assume Class 4 soil with allowable soil bearing pressure of 1500 psf, uno, with a constant expansion index less than 20. Bottom of footings shall be a minimum of 12" below natural undisturbed grade. Foundations shall be constructed as designed and in accordance with sections 1805.1 and 1805.9 of the code.
- g) Fill material shall be free from loose debris, vegetation, and other foreign substances. h) Backfill trenches shall be compacted to 90% density per ASTM D1557 to within 12" of finished grade.
- i) Backfill at pipe trenches shall be compacted on both sides of pipe in 6" lifts. No compaction above pipe U.N.O.
- j) The use of a minimum 4" diameter DVC perforated drain pipe behind all retaining walls at the top of footings, U.N.O.. Slope pipe to drain to daylight

CONCRETE, MORTAR, AND MASONRY

a) Concrete shall achieve a minimum 28 day compressive strength of 2500 psi, uno. Mortar for masonry units shall achieve a 28 day strength of 3000 psi. Testing results shall be provided to this engineer at the 7 day strength value. b) Concrete shall be air entrained. Air entrainment shall not be less than 5%, nor more than 7%.

- c) All slabs on grade shall have a minimum thickness of 4" and be reinforced with 6x6x10WW mesh placed at the centerline as required by ASTM A185, or with fibermesh installed per manufacturers specifications.
- d) All slabs on grade shall be placed over 4" minimum of free draining aggregate base compacted to a minimum of 95% relative compaction. Provide 1" of sand above and below a 6 mil. (min.) vapor barrier above the compacted base where moisture protection is required.
- e) All slab on grade subgrade (upper six inches) shall be scarcified, moisture conditioned to within 2% of optimum, and uniformly compacted to at least 90% of maximum dry density as determined by A&TM D1557. This will not be required if slabs are to be placed directly on compacted structural fill.
- 1) Waterproofing of foundations and retaining walls is the responsibility of the contractor.
- g) Reinforcement shall be grade 60 as per ASTM A615. Lap reinforcing bar splices 40 bar diameters, U.N.O.
- h) Where horizontal cold joints are necessary during the construction of the foundation, provide #4 vertical reinforcing developed from footing to stemwall @ 48" o.c. max., U.N.O., 32" maximum height, 8" minimum width. i) All masonry units shall conform to ASTM C90-N.
- j) All masonry cells are to be solid grouted with mortar conforming to ASTM C279 Type &.
- k) Side cover of reinforcement for cast-in-place concrete shall be as follows:
 - 3" Concrete cast against and permanently exposed to earth.
 - 1 1/2" Concrete not exposed to weather or in contact with ground, #12 bars and larger.
 - 3/4" Concrete not exposed to weather or in contact with ground, #11 bars and smaller.
- 1 1/2" Beams, columns, and pilaster, cover over ties.
- 1 1/2" Clearance to top of slab for reinforcement in slabs or 3" from earh whichever distance controls. 1) Provide slab control joints 12'0" maximum spacing each way for 4" slab (240sf max). Joint depth 1/4-1/3 of
- to be | of slab depth keep 3/4" cover on reinforcing. m) Vertical reinforcing for masonry stemwalls - #4 bars at 32" o.c. max., U.N.O.
- n) Horizontal reinforcing for masonry stemwalls #4 bars at 24" o.c. max, U.N.O.
- o) Reinforced concrete shall conform to applicable requirements of ACI Standard 318 and the IBC. p) Aggregate shall conform to A&TM C33 for stone aggregate.
- q) Use normal weight concrete (145 pcf) for all concrete, uno. Use Type II cement, uno. Use Type V cement if soil contains sulfate concentrations of 0.2% or more.
- r) Weather protection: 1) Hot weather, follow "Recommended Practice for Hot Weather Concreting", ACI 305.
- 2) Cold weather, follow "Recommended Practice for Cold Weather Concreting", ACI 306.
- s) All reinforcing steel and anchor bolts shall be accurately located and adequately secured in position before and during placement of concrete.
- t) All details of fabrication and installation of reinforcing steel shall be in accordance with the ACI Manual of Standard Practice.

TIMBER AND LUMBER FRAMING & TRUSSES

- a) Window Headers found in the attached calculations shall be the minimum size specified on the plans. Use a minimum of (2) trimmers at all openings 5'0" and larger, uno. For garage headers, 4x trimmers are recommended, min. b) Floor joists shall be Douglas -Fir #2 / BTD as a min. Size and space in accordance with IBC 2308.8.3(2) use E = 1.6. Manufactured "I" joists (such as Truss Joists) may be substituted for sawn lumber, and minimum strengths in manufactured lumber, are recinnebded. For rim joists, use Laminated Strand Lumber, 1 1/4" min, with rim & blocking at bearing walls. c) All foundation sill plates, nailers, and ledgers in direct contact with concrete and within 6 of ground shall be pressure treated Hem-Fir or Doug-Fir.
- d) Studs shall be stud grade or better. In no instance shall a stud wall be used to retain soil or resist lateral pressure due to snow loading. In the case of snow build up against a stud wall the owner shall be responsible to eliminate snow to stud wall contact.
- e) Roof plywood thickness is per APA load tables based upon roof live load and framing spacing. Apply face grain perpendicular to framing, stagger panels and nail with 8d @ 6" o.c. edge, 12" o.c. field, uno.
- f) Floor plywood shall be APA rated plywood and glued and nailed with 8d or 10d @ 6" o.c. edge, 10" o.c. field, uno. g) Plywood shall conform to APA, P& 1. Shear plywood shall be 'Exposure 1' C-D, C-C, or 303 (T-1-11). Alternate sheathing may be substituted for floors, roofs, and shear walls provided they are structurally equivalent to plywood. Plywood
- permanently exposed to weather and/or moisture shall be rated 'Exterior'. h) Wood structural panel diaphragms and shear walls shall be constructed with wood structural panel sheets not less than 4 feet by 8 feet, except at boundaries and changes in framing where minimum sheet dimensions shall be 2 feet by 4 feet. Framing
- members or blocking shall be provided at the edges of all sheets in shear valls. i) All framing lumber shall be Douglas Fir Larch with moisture content less than 19%, uno, Lumber for Trusses shall be less than 12%...
- j) Glu-lams shall be 24F-V4 uno. Glu-lams exposed to weather must be rated for exterior use by the manufacturer or approved protection from exposure to be provided.

TIMBER AND LUMBER FRAMING & TRUSSES

- k) Laminated veneer lumber and Parallel strand lumber) pecified shall have the following minimum design strengths: 1 3/4" wide: Fb=2600 psi, Fv=285 psi, E=1,900 ksi and 2-11/16" wide & greater: Fb=2900 psi, Fv=290 psi, E=2,000,ksi. 1) Splice all beams over supports or sawcut top 1/3 at support (not @ cantilevers), unless noted continuous over support.
- m) Where multiple trimmers or stude are specified, those trimmers are to be stacked in all wall framing and solid vertical grain blocking shall be provided @ all floor levels continuous to the foundation, uno. n) Where posts with column caps, straps, or bearing plates are called out for, the load is to be transferred to the foundation
- with posts as specified and solid vertical grain blocking shall be provided @ all floor levels down to the foundation, uno. o) All built up, laminated double or multiple 2X joists and beams shall be nailed together with (3) rows of 16d nails at 12" oc. staggered, uno. Three piece members shall be nailed from each side.
- p) All 4x and 6x posts, columns, and headers shall be D.F. #1 or better, uno. All other 4x and 6x framing members shall be
- q) All framing members specified in these calculations are minimums, and larger members may be substituted.
- r) All floor openings shall be between joists, uno. 8) DO NOT drill holes, notch, or cut into beams, studs, and joists, unless detailed on the plans.
- t) Provide double joists below all parallel partition walls.
- u) When using "green" lumber, care shall be taken to allow for the effects of shrinkage. If necessary to avoid sagging, joists, rafters, and beams shall be braced at midspan until lumber has dried out and reached a stable moisture content
- w) Where feasable manufactured options have been specified, engineer recommends the use of manufactured lumber products in lieu of diemnsional lumber in all cases to control shrinkage related problems.
- x) Nail fastening for framing shall conform to IBC 2304.9.1. aa) All prefabricated trusses shall be fabricated by a code approved manufacturer. The manufacturer shall be responsible for the design and certification of the trusses.
- bb) It is the responsibility of the manufacturer to conform the truss design according to the loading conditions as called for in these calculations, such as: Live, Snow and Valley, Dead, Seismic (drag loads), Wind, Dead, and Transient Load;: Truss spacing, Spans
- and eave overhangs; Roof pitch (interior and exterior); and Bearing Points (interior and exterior). cc) Truss manufacturer shall supply to the Engineer calculations and shop drawings for approval prior to fabrication.
- dd) All calculations and shop drawings shall be signed by a registered engineer in the state in which the structure is being ee) Trusses shall be designed in accordance with the latest local approved codes and ordinances for all loads imposed,
- including lateral loads and mechanical equipment loads. Truss fabricator shall review all architectural drawings and meet architectural profiles as indicated.
- ff) Shop drawings shall also include the following information:
- 1) Project name and location.
- 2) All design loads as set forth in these calculations.
- 3) Member stresses, deflections, type of joint plates, and allowable design values. Truss joints shall be designed per requirements of Truss Plate Institute (TPI).
- 4) Type, size, and location of hangers to be used for the project. Hangers shall be designed to support the full vertical load and a lateral load equal to 20% of the vertical reaction. All connectors shall be code approved
- and of adequate strength to resist stresses due to the loading involved. gg) The truss manufacturer shall be responsible for the design of all truss to truss connections, all truss to girder connections,
- and if the girder truss is made up of more than one truss, all connections between the plies of trusses.
- hh) The truss manufacturer shall ensure that the truss package meets the profile as required by the contract documents.
- ii) Total load deflection shall be limited to L/240. Live load deflection shall be limited to L/360. jj) Trusses are to be handled, installed, and braced in accordance with HIB-91 of the TDI. Cross bridging and/or
- bracing shall be provided for and detailed by the truss manufacturer as required to adequately brace all trusses. kk) Where truss blocking is called out, the blocking piece shall be the same depth as the adjoining members and capable of resisting a lateral load equal to 500 pounds in its plane, or be sheathed with 1/2" CDX plywood/O&B and nailed with 8d
- common nails at 6" o.c. edge nailing. 11) The truss manufacturer shall be responsible for the design of all trusses used as drag or chord members and shall ensure that such trusses are designed as required in the framing plans. The amount of load to be laterally transmitted by the
- member shall be a minimum of 2000 pounds unless otherwise shown on the framing plans. mm) The truss manufacturer shall provide a means of attic access when spacing is 16" oc or less.
- nn) Gable end trusses shall be structural, designed to support overhang and to allow a top chord notch of 1 1/2".
- oo) Girder trusses are to be supported by multiple trimmers.
- pp) All non-bearing walls are to have a gap to the bottom chord of trusses equal to the deflection specified in the truss calculations.
- qq) When snow loads exceed 40 psf the trusses shall be stacked over wall study at bearing points.

STRUCTURAL STEEL & HARDWARE

EMB.

Not to Scale

- a) Structural steel for girders and beams shall meet ASTM A992 GR50, uno. Pipe columns shall conform to ASTM A53 Type E or 8, uno. All steel plate shall be be a minimum grade of 36. Tube (round, square, and rectangular), shall be and conform to ASTM 500. Grade B. uno.
- b) All welding shall conform to the American Welding Society specifications. All welding shall be done by welders certified by the local building authority. All shop welding shall be in an approved fabricators shop authorized by the local building authority or specific inspection per the IBC shall be provided. All field velding shall require special inspection per IBC Section 1704.
- c) All welding electrodes shall be E7OXX or shielded wires with Fy greater than 70ksi (70-18). d) All nails specified are common nails. No substitutions unless specified on plans or in these calculations or approved in
- writing by Engineer. e) All bolts specified must meet ASTM A307. Bolt holes shall be 1/32" to 1/16" larger than the specified bolt. Washers shall
- be used at each bolt head and nut next to wood. All washers to be not less than standard cut washers. f) All hardware specified shall be dimpson dtrong-Tie Co. (or equal) installed per manufacturer's specifications, uno.
- g) Provide 3" x 3" x 0.229" plate washers on all foundation anchor bolts where required. Provide minimum 5/8" Dia. x 10" long Anchor Bolts, U.N.O.
- h) In steel to steel connections thread shall be excluded from shear plane, (example: A325X).

ABBREVIATION	SNC						
WORD	ABBREV.	WORD	ABBREV.	WORD	ABBREV.	WORD	ABBREV
Additional	ADD'L	Equal	EQ	Number / Pounds	#	Top Of	T.O.
Anchor Bolt	A.Bolt	Existing	(E)	On Center	O.C.	Tube Steel	T.&.
At	@	Exterior	(E) EXT	One Side	0/8	Typical	TYP
Beam	BM	Field Nail	F.N.	Over/On	o/	International Building Co	de IBC
Bearing	BRG	Floor	FLR	Parallel Strand Lumber	P&L	Unless Noted Otherwise	UNO
Blocking	BLKG	Footing	FTC	Plate	pL	Verify In Field	VIF
Both Sides	B/8	Foundation	FDN	Plywood P.W. or		Vertical	VER!
Boundary Nailing	B.N.	Clued Laminated Beam	GLB	Pounds Per Square Foo		Welded Wire Fabric	WW
Cantilever	Cant	Cypsum Board	GYP BD	Pounds Per Square Inch	P81	Welded Wire Mesh	WW
Centerline	CL	Hanger	HCR	Pressure Treated	PT	W ith	$\mathbf{w}/$
Column	COL	Header	HDR	Redwood	DW D		
Concrete	CONC	Hem-Fir	HF	Required	REQD		
Concrete Masonry	Uni CM U	Holdown	HD	&chedule	&CHED		
Continuous	CONT	Horizontal		Shear Wall	&W		
Dead Load	D.L.	Interior	INT	&imilar	&IM		
Detail	DET	Joist	J&T	&pecifications	&PEC's		
Diameter	Φ.	Laminated Veneer Lumbe		&quare	&Q_		
Double	ĎBL	Live Load	L.L.	Square Footage	&F		
Douglas Fir, North	DF_	Machine Bolt	M.B.	otaggered	STAGG	•	
Drawing	D W G	Manufacturer	MFR	Standard	STD		
Each	EA	Maximum	MAX	&teel	&TL		
Each End	EE	Micro-Lam	ML	8tructural	STRUC		
Each Side	E8	Minimum	MIN	Threaded	THRD		
Edge Nailing	E.N.	Not Applicable	N/A	Toe Nail	T.N.	i	

SITE SPECIFIC - DESIGN CRITERIA 907 &F COMMERCIAL BUILDING, ONE&TORY **FLAT LOT, < 2%** VALLEY - EXP C WIND 90 MPH. 105 MPH 3&ECOND-CUSTS SEISMIC DESIGN CATEGORY /USE GROUP: D / III MAPPED SPECTRAL ACCELERATION = 1.5g CROUND SNOW LOAD = 30 PSF SITE CLASS - D ALLOWABLE &OIL BEARING = 1500 P&F FROST LINE DEPTH = 24" 8NOW LOAD DURATION FACTOR = 1.15 MINIMUM CONCRETE COMPRESSIVE STRENGTH = 2500PSI ASSUMPTIONS:

EXPOSURE 'C', PARTIALLY EXPOSED NO DRIFTING TO BE CONSIDERED SNOW LOADING Elevation = 4731 FT. $D = 30 \quad D8F$ TRUSS LOADING TOP CHORD SNOW LOAD = 30 TOP CHORD DEAD LOAD = 10 PSF BOTTOM CHORD LIVE LOAD = 0 BOTTOM CHORD DEAD LOAD = 10 PSF TOTAL LOAD = 50 P&F EAVE LOADING

WARM VENTILATED ROOF, R-Value > 20 ft. hr F/hr

NO IMPACT LOADING TO BE CONSIDERED

TOP CHORD 8NOW LOAD X 2.0 = _____60 ____ P&F TOP CHORD DEAD LOAD = 10 P&F TOTAL LOAD = 70 P&F RAFTER LOADING

RAFTER SNOW LOAD = 30 PSF RAFTER DEAD LOAD = 20 PSF I'LOOR LOADING

FLOOR DEAD LOAD = 10 P&F (&cct 1606)
FLOOR LIVE LOAD = 100 P&F (Table 1607.1)
TOTAL LOAD = 110 P&F CONCENTRATED LOAD = $\frac{N/\Lambda}{}$ LB3 (8ect. 1607.4)

REDUCED LIVE LOAD = _____ P&F (&ect.1607.9.1)

ROOF SHEATHING

Provide 19/32" Roof Plywood / O&B, APA Rated 40/20. Nail w/ 10d's @ 6" o.c., Edges, 12" o.c., Field

WALLS & TOP PLATE SPLICES

Provide 2x6 DF Studs @ 16" o.c. for Wall Heights ≤ 10.0" Provide 2x6 DF #2/BTQ @ 16" o.c. for Wall Heights ≤ 13'0" Provide (2) 2x6 DF#2 Top Plates w/ 48" Overlap at all Splices Nail Splice with (16) 16d's, Staggered Or Provide (2) 2x6 DF#2 Top Plates w/ No Overlap Strap with a Simpson MSTC40 @ Break

FOOTIN	IG & PIER	SCH	EDULE	<u> </u>		
FOOTING					CAPACITY	(LBS/FT) @ 2000PSF
SYMBOL	DIMENSI WIDTH	DEPTH		REINFORCING CONTINUOUS #4'S	@ 1500PSF	2000
12	12"	8"		1	1500	
16	16"	8"		1	2000	2667
18	18"	8"		2	2250	3000
21	21"	8"		2	2625	3500
24	24"	10"		3	3000	4000
28	28"	10"		3	3500	4667
32	32"	10"		4	4000	5333
36	36"	12"		5	4500	6000
PIERS		IMENSI			CAPACIT	• •
SYMBOL	SQUARE WIDTH	DEPTH	ROUND	REINFORCING F4'S BOTH WAYS	@ 1500PSF	@ 2000PSF
12	12" x 12"	8"	16"	2	1500	2000
16 >	16" x 16"	8"	18"	2	2667	3567
18 >	18" x 18"	8"	24"	2	3375	4500
21	21" x 21"	8"		2	4594	6125
24	24" x 24"	10"		3	6000	8000
28	28" x 28"	10"		3	8167	10889
32	32" x 32"	10"		4	10667	14222
36	36" x 36"	12"		5	13500	18000
42	42" x 42"	12"		6	18375	24500
48	48" x 48"	14"		7	24000	32000
(54)	54" x 54 "	14"		8	30375	40500
60	60" x 60"	14"		9	37500	50000
NOTE: F EXTERIC	OR ROUND F OR APPLICATI	PIERS, ONS A	BOTTOM ND EXTE	OF PIER SHALI ND 6" ABOVE G	BE 18"-24" BELOV RADE. CHECK LO	V GRADE FOI CAL FROST D

SHEAR WALL & ANCHOR BOLTS SCHEDULE

	SHEAR PLY REQ'D AND E.N.	SOLE PL. 16d NAIL S	SOLE PL. SDS 1/4"x6"	AN DEOID	CLIP &	5/8" DIA. A.BOLT
SYMBO	L SPACING	SPACING	SPACING	3X REQ'D	SPACING"	SPACING'
<u> </u>	3/8" - 8d @ 6"	6" o.c.	16" o.c.	NO	A35 - 24"	48"
4	3/8" - 8d @ 4"	4" o.c.	12" o.c.	NO	A35 - 16"	48"
<u>3</u>	3/8" - 8d @ 3"	3" o.c. STAGG	8" o.c.	YES***	A35 - 12"	32"
2	3/8" - 8d @ 2"	2" o.c. STAGG	6" o.c.	YES***	A35 - 8"	24"
A (2)	3/8" - 8d @ 4" B/S	2" o.c. STAGG	5" o.c.	NO	A35 - 8"	24"
agas	3/8" - 8d @ 3" B/S	2" o.c. STAGG	4" o.c.	YES	A35 - 6"	16"
2/2	3/8" - 8d @ 2" B/S	-	3" o.c.	YES	HGA10 - 9"	12"
A	1/2" - 8d @ 2"	2" o.c. STAGG	6" o.c.	YES	HGA10 - 18	* 32"
$\overline{\mathbb{A}}$	1/2" - 10d @ 2"	2" o.c. STAGG	5" o.c.	YES	HGA10 - 16	" 24"
A	5/8" OR 1/2" Struct I 10d @ 2"	2" o.c. STAGG	5" o.c.	YES	HGA10 - 12	" 1 6 "
<u>&</u> <u>\$</u>	5/8" GYP. BD. 6d COOLERS @ 6" o.c.	N/A	N/A	NO	NO	48"
A/25	1/2" - 8d @ 2" B/S	-	3" o.c.	YES	HGA10 - 9"	16"
B/25	1/2" - 10d @ 2" B/S	-	2 1/2" o.c.	YES	HGA10 - 8"	12"
ζ _α	5/8" - 10d @ 2" B/S	-	2 1/2" o.c.	YES	HGA10 - 6"	3/4"@ 12
<u>/6</u> 7	7/16" L-P SIDING - 8d @	6" 6" o.c.	16" o.c.	NO	A35 - 24"	48"
7	/16" L-P SIDING - 8d @	4" 4" o.c.	12" o.c.	NO	A35 - 16"	48"
$\Delta 3$ 7	//16" L-P SIDING - 8d @	3" 3" o.c. ST/	AGG 8" o.c.	YES	A35 - 12"	32"
<u> </u>	7/16" L-P SIDING - 8d @	2" 2" o.c. ST/	AGG 6" o.c.	YES	A35 - 8"	24"
)_P RETYDER.	BE A PRODUCT OF LOUISIANA PACENC CORPOR DONE ACCORDING THE RESCONDERIDATIONS OF	STOOL BREAK VALUES IN THE	CALCULATIONS ASSUME	e a ship-lap conention scacy hisport ner-124	I. RAILING TO ACHIEVE THE ATTACHED IN THE CALCUS	EE VALUES TRONS.

- Provide Blocking @ All Horizontal Edges Of Shear
 Nails Specified above shall be Common Nails, U.N.O. Field Nail @ 12" o.c., Unless Diaphgram is Blocked - Nail Shear Plywood With Edge Nail Spacing @ Top Plate, Sill Plate or Sole Plate, Posts, King Studs,
- Trimmers, and Holdown Studs, Staggered as Required
 Offset Plywood / OSB Edges at Double Sided Shear Walls or Provide a 3x Member at the Location Where the Edge Nailing Is Occuring - Both Sides Of Wall Stud.

 **- Anchor Bolts and Clips required for Shear Transfer shall be used when shear transfer cannot be
- **- Anchor Bolts and Clips required for Shear Transfer shall be used when shear transfer cannot be accomplished with shear plywood spliced at collector elements such as gable end top plates, rims, etc, and unless noted on the structural plans where specific requirements for shear transfer are noted.

 H1 Clips shall serve as primary shear transfer device from roof to wall diaphram and no additional clips will be necessary unless specifically noted on the roof framing plan. Anchor bolt and clip spacing shown here is calculated based the total length of shearwall on a given wall line. The required number of connectors along any given shear line can be distributed over the entire length of the wall using a continuous collector such as top plates, rims, sill plates.

 ****- Where 3x requirement is noted on a specific shearwall, the foundation sill plate may only require a 2x nominal member. See foundation plan for sill plate requirements.

HOLDOWN SCHEDULE

- P2) PHD2 o/ (2) 2x STUDS, UNO. (Nail Studs Together w/ (2) 16d @ 8" o.c. Staggered)
- P5) PHD5 o/ (2) 2x STUDS, UNO. (Nail Studs Together w/ (2) 16d @ 6" o.c. Staggered)) PHD6 o/ (2) 2x STUDS, UNO. (Nail Double Studs w/ (2) 16d @ 4 1/2" o.c. Staggered)
- B) PHD8 o/ 4x STUD U.N.O.
- Q8) HDQ8 o/ 4x STUD, UNO.
- HHDQ11 o/ 6x STUD, UNO.
- 014) HHDQ14 o/ 6X STUD, UNO.
- 10) HD10A o/ 4x STUD, UNO. 14) HD14A o/ 4x STUD, UNO
- 15) HD15 o/ 6x STUD, UNO. 16) HTT16 o/ (2) 2x STUDS, UNO. (Nail Studs Together w/ (2) 16d @ 6" o.c. Staggered)
- 22) HTT22 o/ (2) 2x STUD, UNO. (Nail Studs Together w/ (2) 16d @ 4 1/2" o.c. Staggered) srs) STHD8 (RJ) o/ (2) 2x STUDS, UNO. (Nail Studs Together w/ (2) 16d @ 8" o.c. Staggered)
- 8710) STHD10 (RJ) o/ (2) 2x STUDS, UNO. (Nail Studs Together w/ (2) 16d @ 6" o.c. Staggered) (ST14) STHD14 (RJ) 0/ (2) 2x STUDS, UNO. (Nail Studs Together w/ (2) 16d @ 4 1/2" o.c. Staggered)

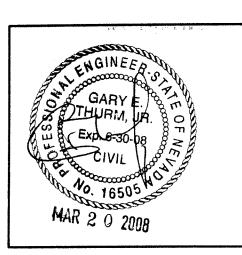
- Holdowns Shall Be Installed Per Manufacturers Specifications, U.N.O., - Holdown Anchor Bolts Shall Be Installed and Should Meet Manufacturers Minimum Installation Requirements (See table below for Alternative Holdown Anchors and requirements). - Check Simpson Catalog for Holdown to Stud Fastner Requirements
 - SSTB Anchors and All Threaded Rods Should be Tied To (1) #4 Vertical,
- Developed Into Ftng. w/ 90Deg Bend.
 All End Conditions For Threaded Rods Shall Have (2) Nuts And (1) Washer Per Manufacturer. - Provide Rim Joist & Blk'g Or Solid Vertical Grain Blocking @ PHD2, PHD5, HTT16, HTT22 - Provide Solid Vertical Grain Blocking @ PHD6, HDQ8, HDQ11. HDQ14, HD10A, HD15A

	STUD	HOLDOWN STUD RACE	FOUND ANCHOR		SS EMBE	DMENT	THREADED ROD	THREADED RO
HOLDOWN	ATTACHMENT	HOLDOWN ANCHOR	SERGLE POUR	TWO-POUR 4" SLAB	MODULE POUR	TWO-POUR 4" SLAB	OPTION	EMBEDMEN
PHD2	(10) SDS 1/4-3	1 3/8*	SSTB14	SSTB20	12 5/8"	16 5/8"	5/8" DIA. X 16"	12"
PHD5	(14) SDS 1/4-3	1 3/8"	SSTB20	SSTB24	16 5/8"	20 5/8"	7/8" DIA. X 20"	16"
PHD6	(18) SDS 1/4-3	1 3/8"	SSTB28	SSTB34	24 7/8"	28 7/8"	7/8" DIA. X 24"	20"
HDQ8	(20) SDS 1/4-3	1 1/4"	SSTB28	SSTB34	24 7/8"	28 7/8"	7/8" DIA. X 28"	24"
HHDQ11	24) SDS 1/4-2.5	1 1/2"	N/A	N/A	N/A	N/A	1" DIA. X 28"	24"
	30) SDS 1/4-2.5	1 1/2"	N/A	N/A	N/A	N/A	1" DIA. X 32"	28*
HD10A	(4) 7/8" DIA.	2 1/16"	SSTB28	SSTB34	24 7/8"	28 7/8"	1" DIA. X 28"	24"
HD14A	(4) 1" DIA.	2 3/16"	N/A	N/A	N/A	N/A	1" DIA. X 32"	28"
HD15	(5) 1" DIA.	2 3/16"	N/A	N/A	N/A	N/A	1" DIA. X 34"	30"
HTT16	(18) 16d's	1 3/8"	SSTB16	SSTB20	12 5/8"	16 5/8"	5/8" DIA. X 20"	16"
HTT22	(32) 16d's	1 3/8"		SSTB28			5/8" DIA. X 24"	20"

THREE CASTLES ENGINEERING, LLA

GADY E. THURM, JR., D.E. #16505 2516 Business Darkway, &TE 11 Phone: (775) 267-6762 Fax: (775) 267-6764

omail: throconstlesengineering@charter.net



ORIGIN DATE: 01/01/08

REVISION

田 KS & RECI STREET NO 工 ERT M

PROJECT

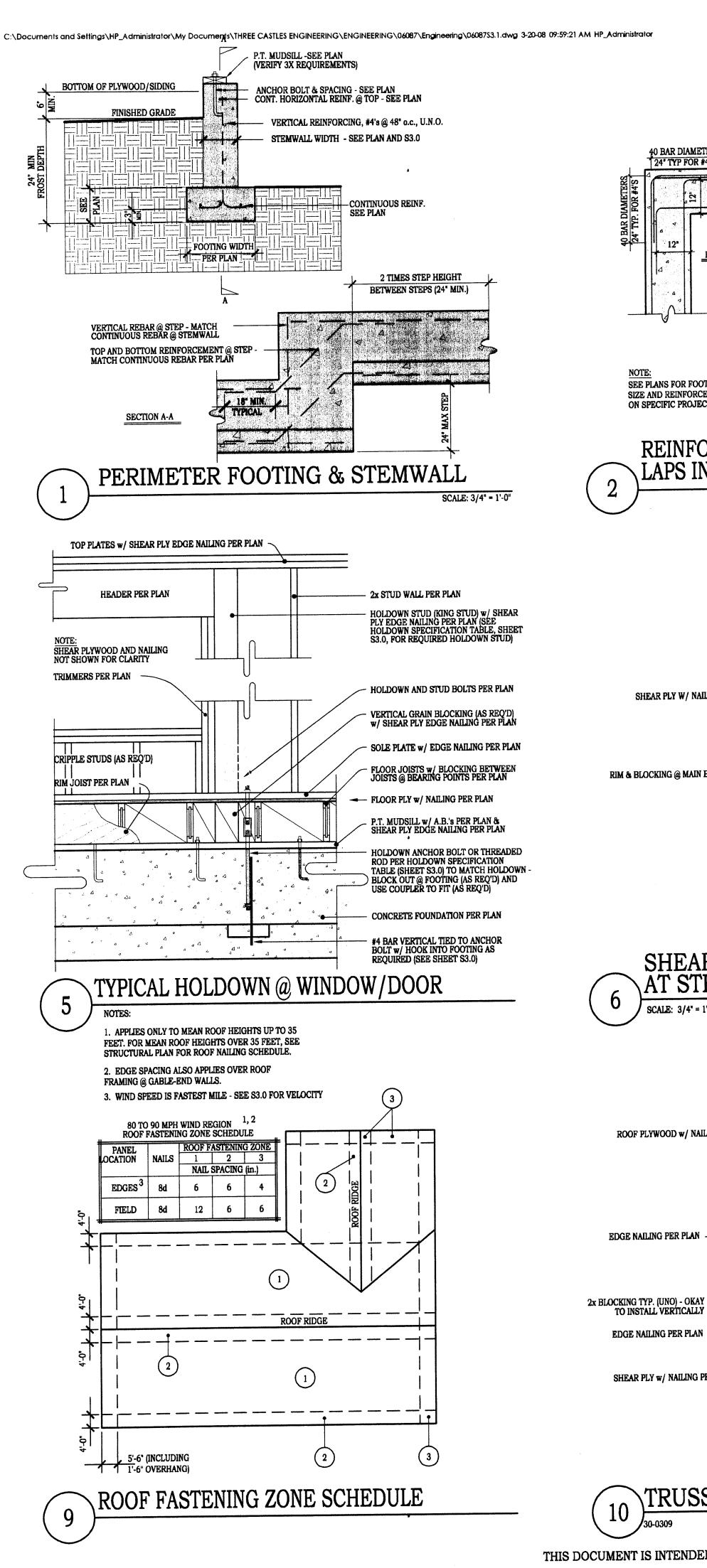
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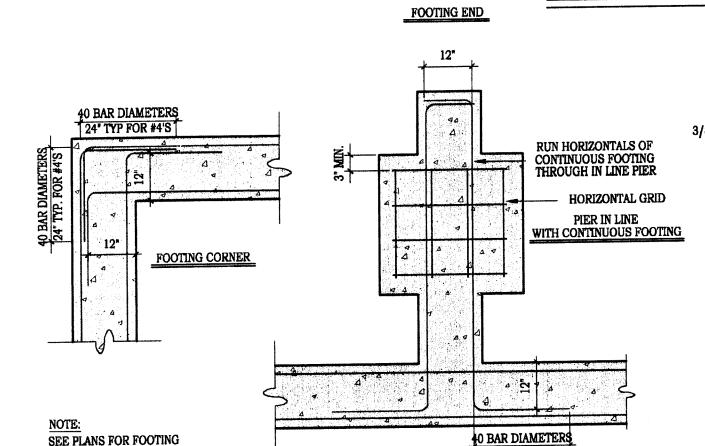
S3.0 SHEET

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FOOTING INTERSECTION

WALL FRAMING - SEE PLAN

16d @ 16" o.c. (UNO)

FLOOR PLY w/ NAILING

FLOOR JOIST PER PLAN

ANCHOR BOLTS - SEE FOUNDATION PLAN

WITH REINFORCEMENT PER PLAN

PRE-MANUFACTURED TRUSS PER PLAN

SCALE: 3/4" = 1'-0"

H1 TRUSS CLIP (TYP.)

WALL FRAMING PER PLAN

- P.T. MUDSILL PER PLAN

SHEAR TRANSFER ACROSS FLOOR AT STEMWALL / RETAINING WALL

TRUSS TO TOP PLATE CONNECTION

CONCRETE STEMWALL

SEE FLOOR FRAMING PLAN

REINFORCEMENT LAPS IN CONCRETE FOOTINGS

SIZE AND REINFORCEMENT

SHEAR PLY W/ NAILING PER PLAN

RIM & BLOCKING @ MAIN BEARING WALL -

SCALE: 3/4" = 1'-0"

ROOF PLYWOOD w/ NAILING PER PLAN

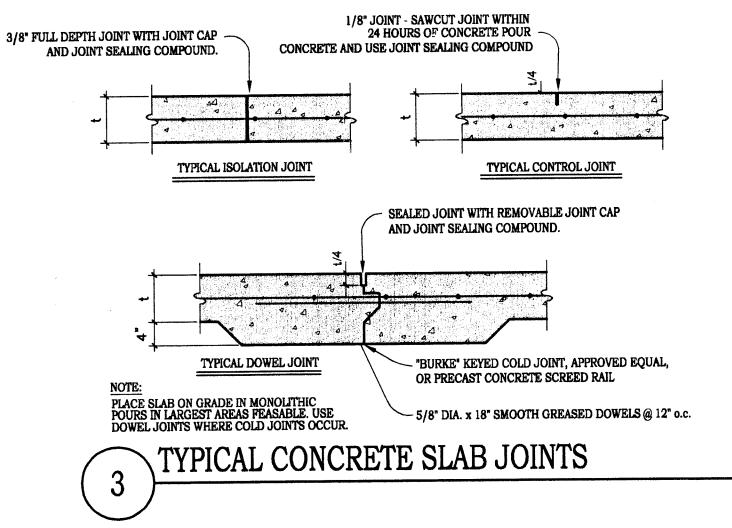
EDGE NAILING PER PLAN

TO INSTALL VERTICALLY

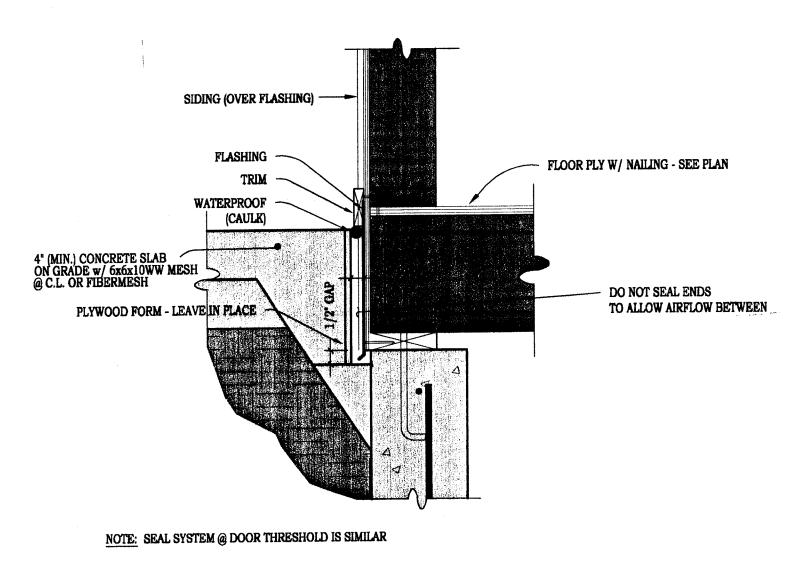
EDGE NAILING PER PLAN

SHEAR PLY w/ NAILING PER PLAN

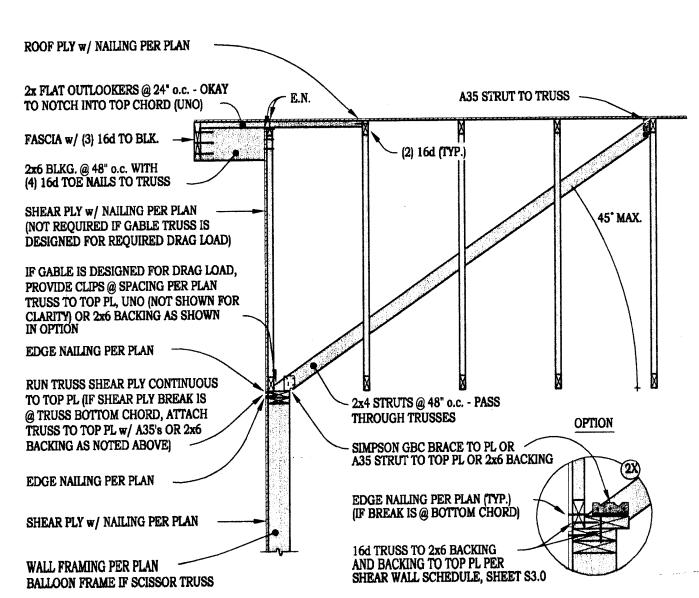
ON SPECIFIC PROJECT

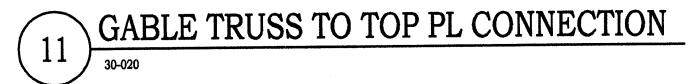


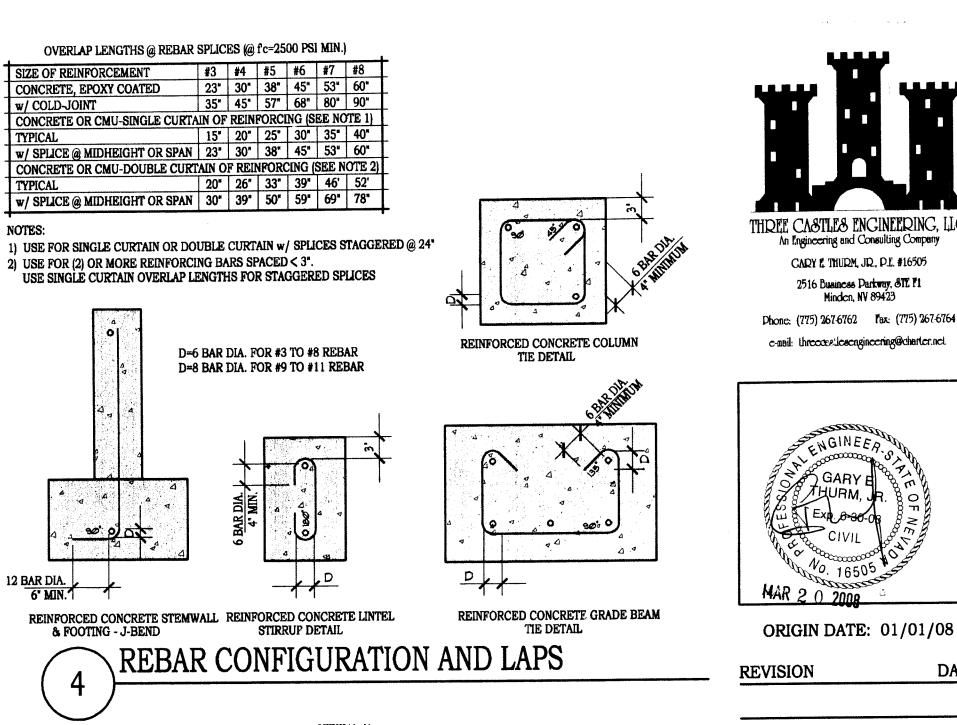
TYPICAL DETAILS

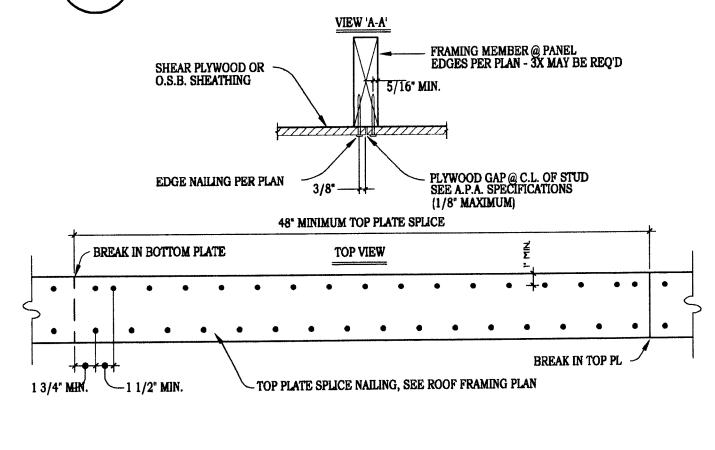


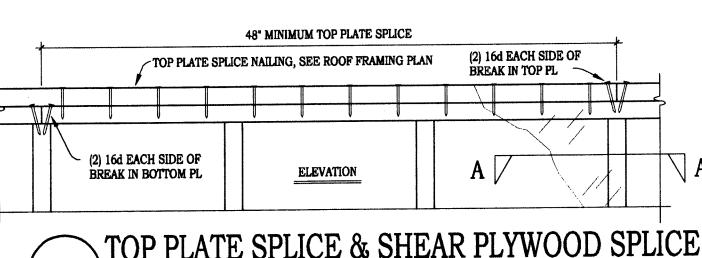




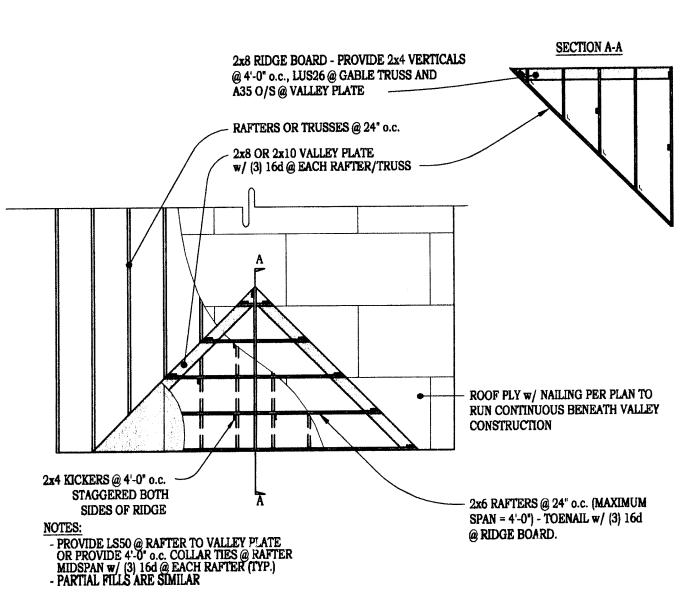




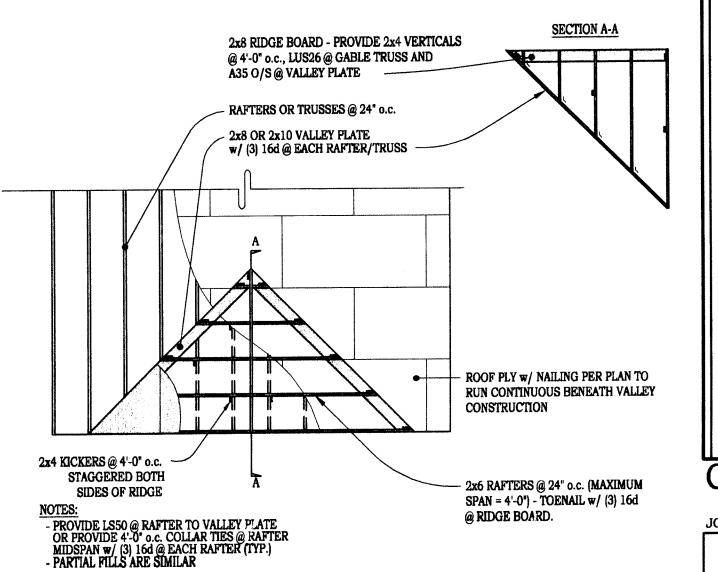




TOP PLATE SPLICE & SHEAR PLYWOOD SPLICE



VALLEY FRAMING - MAX 40 PSF SNOW 12



CONTRACTOR DRAWN BY: GT JOB#: 06087 SHEET Three Castles Engineering LLC

GARY 14 THURM, JR., P.E. #16505

2516 Business Parkway, STE #1 Minden, NV 89423

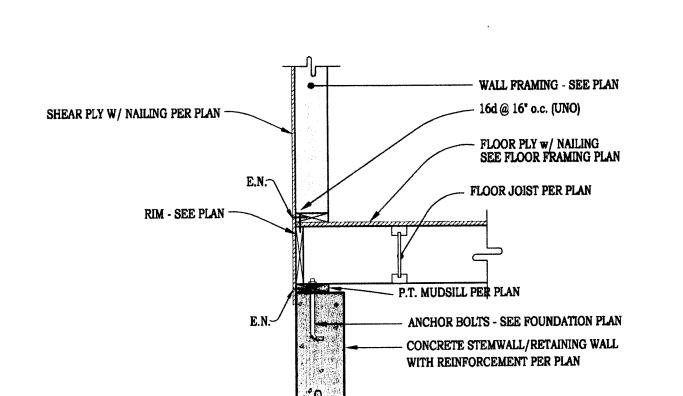
e-mail: three-electing-engineering-enanter.net

HOUSE

ROBE

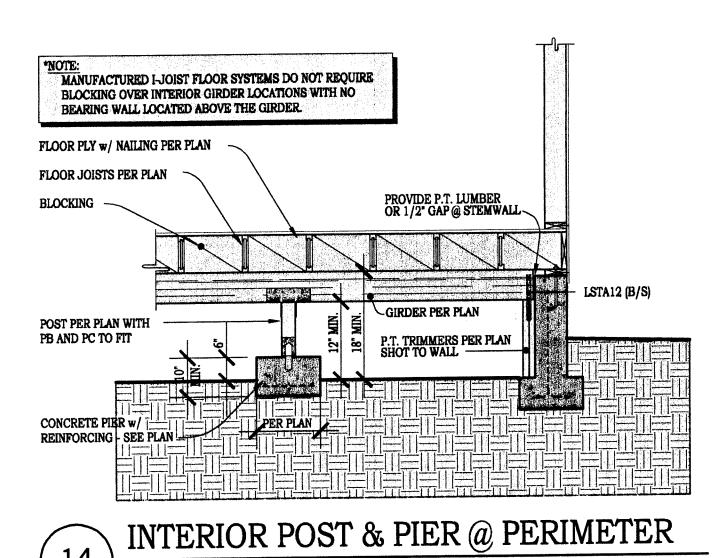
CARSON 1207 N CAF A.P

PROJECT



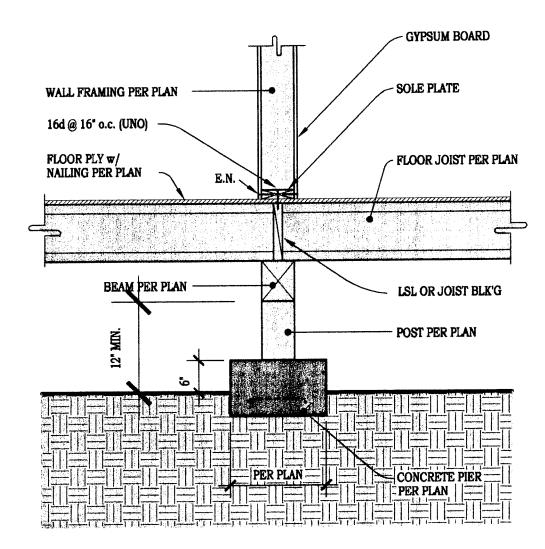
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SHEAR TRANSFER ACROSS FLOOR AT STEMWALL / RETAINING WALL SCALE: 3/4" = 1'-0"

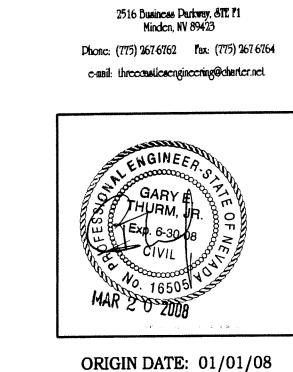


WALL FRAMING - SEE PLAN - 16d @ 16" o.c. (UNO) SHEAR PLY W/ NAILING PER PLAN -- FLOOR PLY w/ NAILING SEE FLOOR FRAMING PLAN FLOOR JOIST PER PLAN BLOCKING & RIM @ MAIN BEARING WALL WALL FRAMING - SEE PLAN SHEAR PLY W/ NAILING PER PLAN -P.T. MUDSILL PER PLAN ANCHOR BOLTS - SEE FOUNDATION PLAN CONCRETE STEMWALL/RETAINING WALL WITH REINFORCEMENT PER PLAN

SHEAR TRANSFER ACROSS FLOOR AT STEMWALL W/ PONYWALL SCALE: 3/4" = 1'-0"



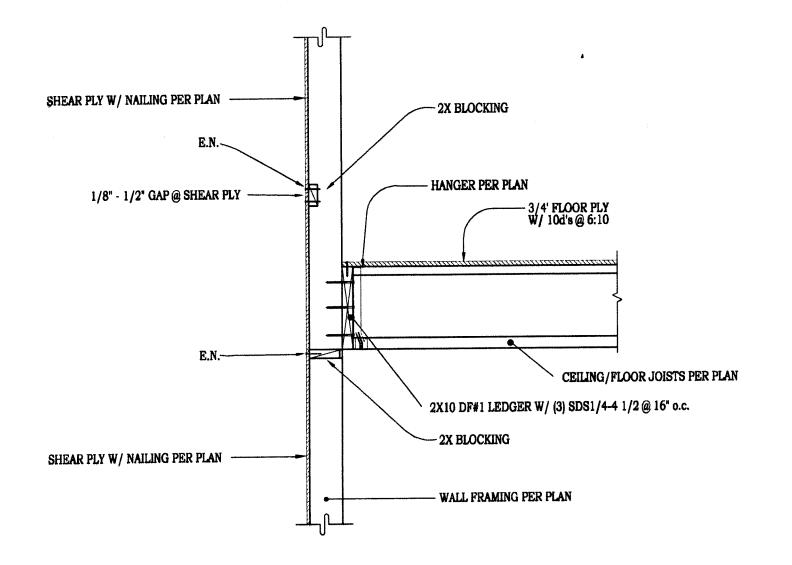
TYPICAL INTERIOR PONYWALL SCALE: 3/4" = 1'-0"



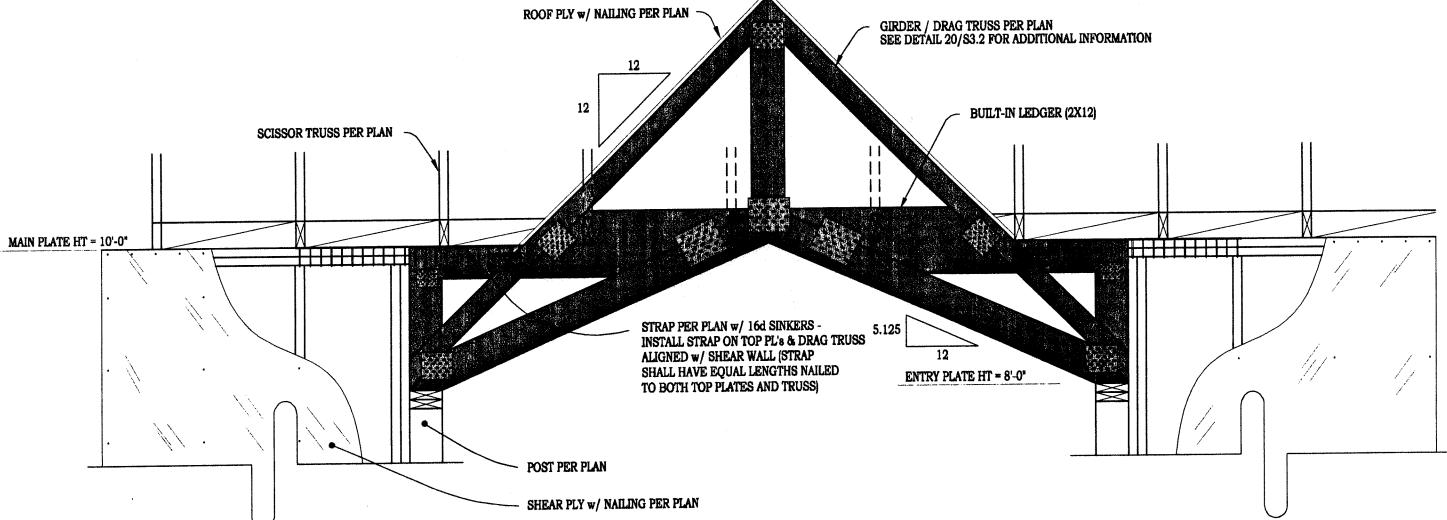
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REVISION

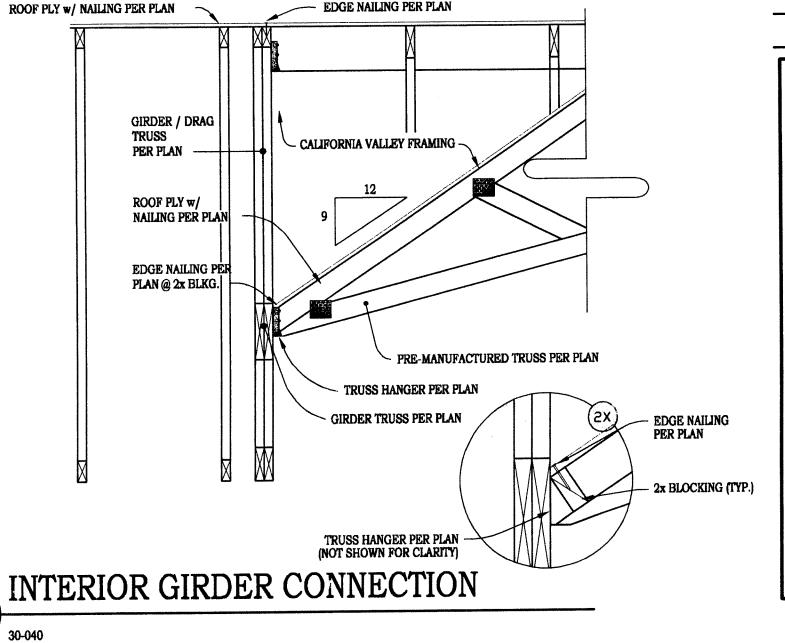
PROJECT



SHEAR TRANSFER @ BALLOON FRAMING
W/ LEDGER @ FLOOR JOISTS



GIRDER / DRAG TRUSS TO TOP PLATE OF SHEAR WALL CONNECTION
30-045



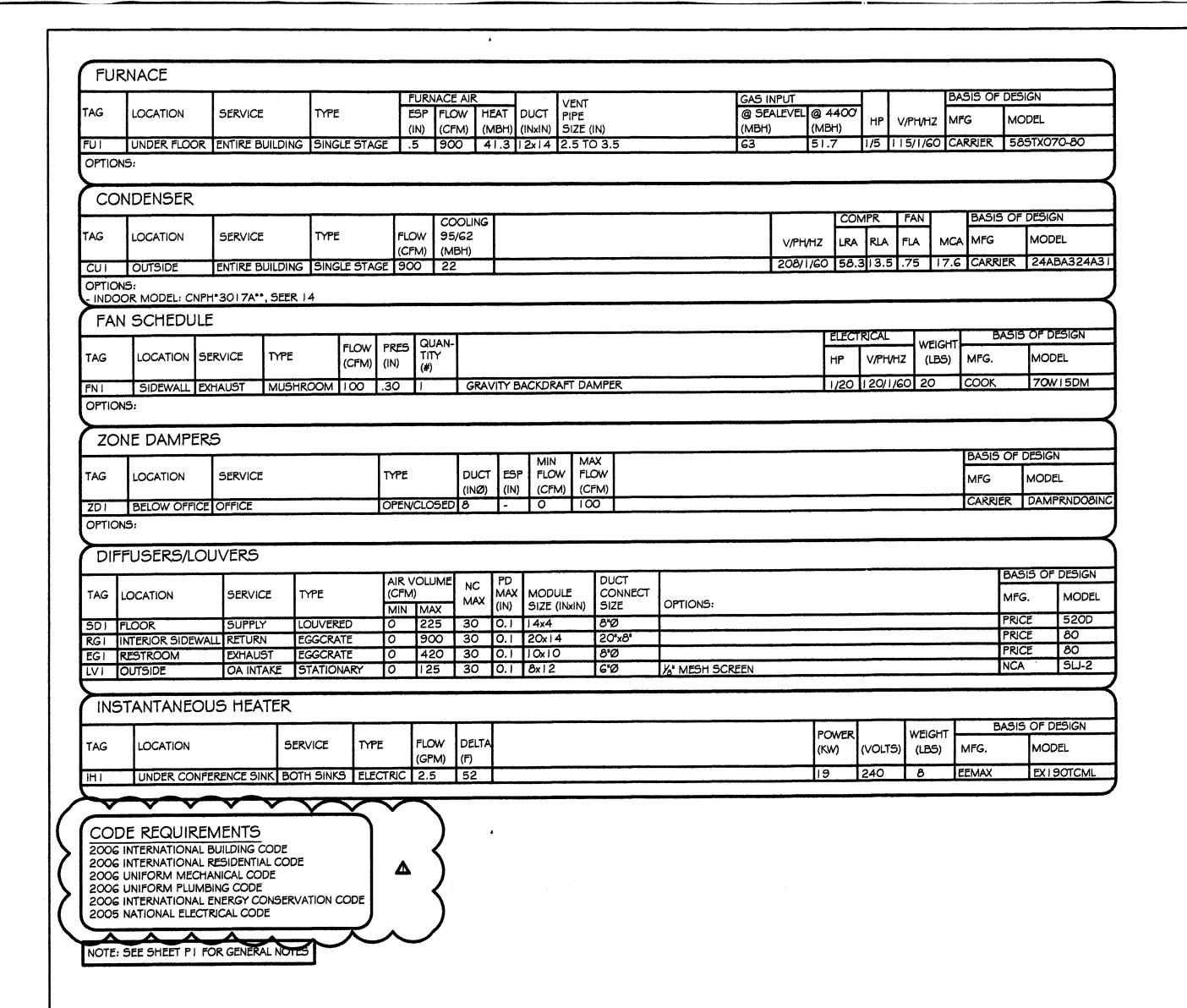
GIRDER / DRAG TRUSS PER PLAN BUILT-IN LEDGER (2X12) MAIN PLATE HT = 10'-0" - 2X6 BEARING WALL

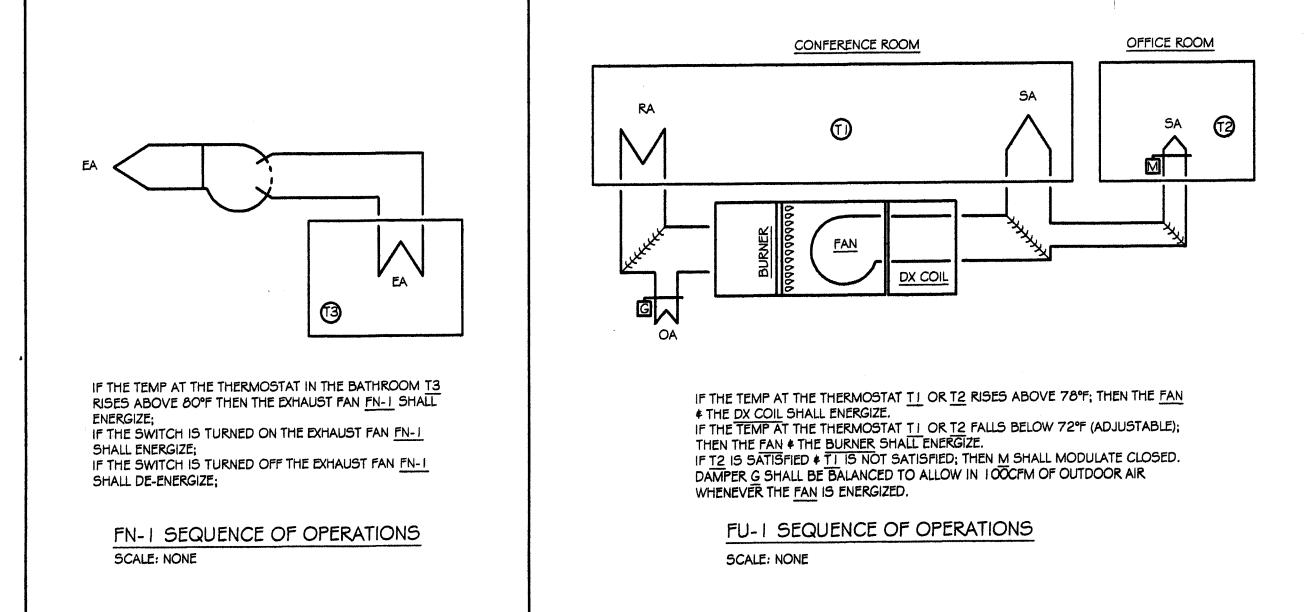
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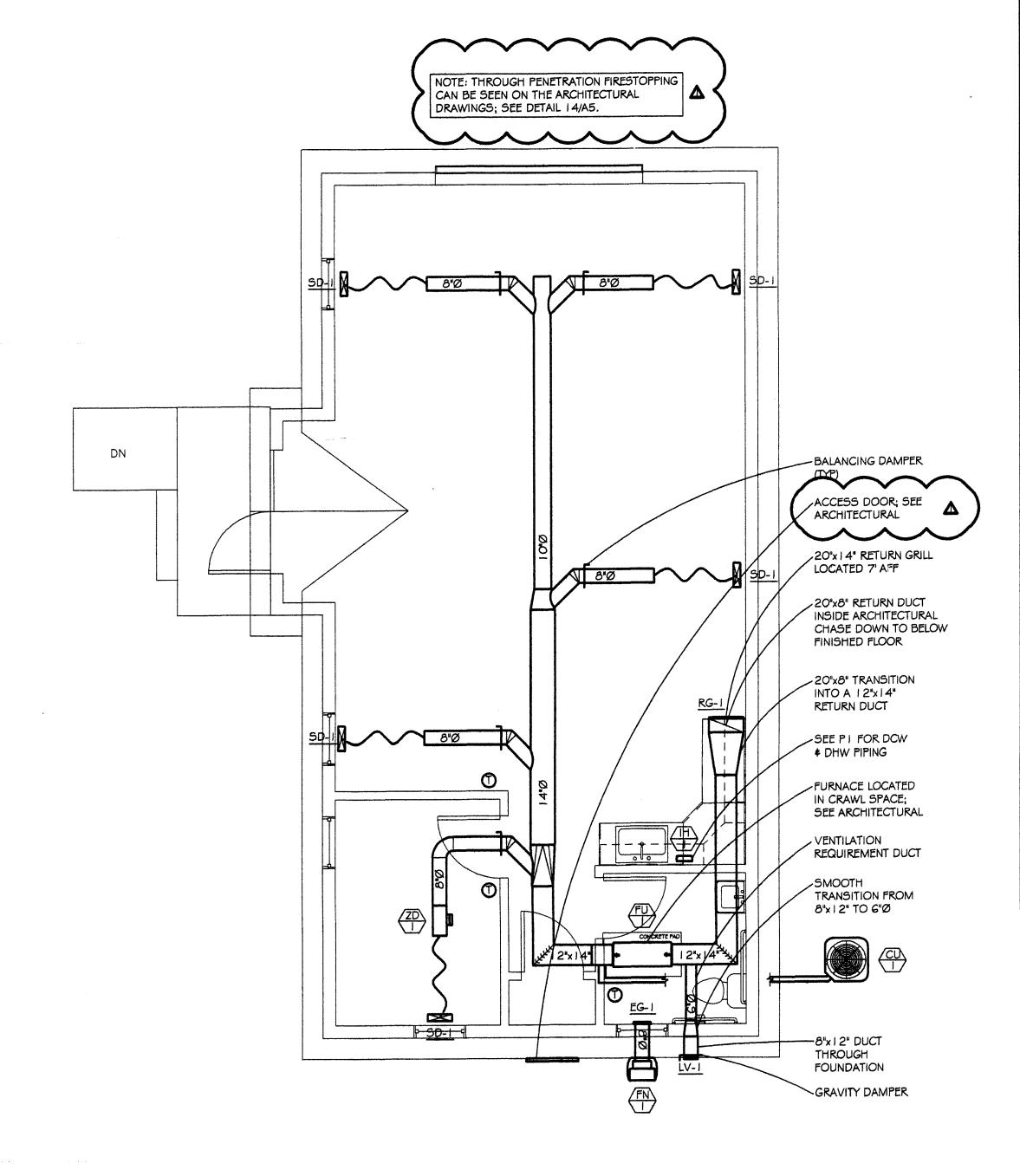
S3.2 SHEET

DRAWN BY: GT

GIRDER / DRAG TRUSS DETAIL





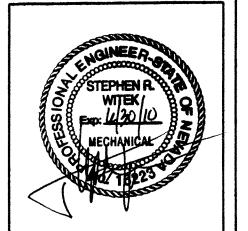


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ENVIRONMENT ENGINEERED DESIGN

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	No.	Description	Date
	Δ	REVISION I	7-9-08
		6.00	1.10

Carson City

Carriage House

Project number 040017

Date 8/4/2008

Drawn by STS

Checked by SRW

SHEET: MI

MECHANICAL FLOORPLAN

SCALE: 1/4" = 1'

TAG	FIXTURE	DESCRIPTION	MFG	MODEL
VI	LAVATORY	WALL MOUNT, FURNISH WITH CHICAGO MODEL 802A-665 ADJUSTABLE SELF CLOSING FAUCET WITH VANDAL RESISTANT AERATOR, McQUIRE ANGLE STOPS AND MODEL PW-2 25 PRE-WRAPPED P-TRAP AND SUPPLY COVERS.	AMERICAN STANDARD	COMRADE 0124.024
KI	SINK	SINGLE COMPARTMENT 18 GAUGE STAINLESS STEEL SINK. 16"x 16"x6" DEEP WITH LK-4100-F FAUCET WITH A MAX. FLOW OF 2.5 GPM. LK-35 CRUMB CUP STRAINER. 17 GAUGE CHROME PLATED P-TRAP AND McQUIRE ANGLE STOPS.	ELKAY	LRAD-2022
CI	WATER CLOSET	-	-	-
) I	FLOOR DRAIN	TYPE 'B' NICKEL BRONZE STRAINER AND BOTTOM OUTLET. FURNISH WITH CASP TRAP. SIZE DRAWINGS. PROVIDE TRAP- PRIMER CONNECTION WHERE REQUIRED.	ZURN	Z-415
ВІ	HOSE BIB	HOT & COLD WATER HOSE BIB	WOODFORD	22

PL	UMBING ROL	JGH-IN	1 SC	HED	ULE	
TAG	FIXTURE	HW	cw	VENT	TRAP	WASTE
WC	WATER CLOSET	~	ı	2	INTEG	3
LV	LAVATORY	1/2	1/2	1/2	1/2	2
SK	SINK	1/2	1/2	1/2	2	2
НВ	HOSE BIB		1/2	•	-	-
FD	FLOOR DRAIN	-	-	1/2	2	2

G	AS LINE SIZING S	CH	IEDUI	E
TAG	APPLIANCE OR AREA SERVED	CFH	LENGTH (FT)	PRESSURE
FUI	FURNACE IN CRAWL SPACE	63	40	NATURAL GAS W/ O.5 W.C. PRESSURE DROI
	TOTAL:	63		
.,	E: THE PIPING SIZES ON THE DRA E, CHAPTER 12, USING THE INFO			

-PROVIDE ALL PIPING, VALVES, EQUIPMENT AND MISCELLANEOUS ACCESSORIES AND APPURTENANCES WHICH ARE NEW FOR EACH COMPONENT OF EQUIPMENT, PROVIDE THE MANUFACTURER'S NAME, CATALOG NUMBER AND DATE OF MANUFACTURE ON A PLATE SECURELY ATTACHED TO THE ITEM OF EQUIPMENT, OR THE NAME AND CATALOG NUMBER AND DATE OF MANUFACTURE MAY BE STAMPED OR CAST INTO THE BODY OF THE ITEM. ALSO INCLUDE DATA PERTINENT TO THE OPERATION AND CHARACTERISTICS OF THE EQUIPMENT

-THOROUGHLY FLUSH AND CLEAN ALL PIPING

-ERECT EQUIPMENT IN A NEAT AND WORKMANLIKE MANNER. ALIGN, LEVEL AND ADJUST FOR SATISFACTORY OPERATION. INSTALL SO THAT CONNECTING AND DISCONNECTING OF PIPING AND ACCESSORIES CAN BE MADE READILY, AND SO THAT PARTS ARE EASILY ACCESSIBLE FOR INSPECTION, OPERATION, MAINTENANCE AND REPAIR. MINOR DEVIATION FROM ARRANGEMENTS

INDICATED MAY BE MADE -DO NOT RUN PIPING OVER ELECTRICAL EQUIPMENT SUCH AS TRANSFORMERS, SWITCH GEAR AND PANELBOARDS.

-PROVIDE THE EQUIPMENT COMPLETE WITH STARTERS, MAIN DISCONNECTS AND CONTROL DEVICES -PROVIDE A GRINNELL "FIG. 262" GALVANIZED CARBON STEEL PIPE STRAP OR COMPATIBLE STRUT SYSTEM CLAMP. PROVIDE ADJUSTABLE SWIVEL RING

HANGERS, GRINNELL "FIG. 69"; -PROVIDE PIPE MARKERS CONSISTING OF PIPE CONTENTS IDENTIFICATION NAME WITH FLOW DIRECTION ARROWS. PROVIDE SNAP ON, VINYL PIPE MARKERS CONSISTING OF COILED PLASTIC SHEETS WITH SEALED COLOR

GRAPHICS -PROVIDE PIPING NPS | 1/2 (DN 40), PRE-STAMPED, BLACK FILLED, BRASS

VALVE TAGS -PROVIDE PROTECTION FOR ALL EXTERIOR PIPING

-MAXIMUM HANGER SPACING: 8 FEET. -PROVIDE TYPE L HARD DRAWN COPPER PIPING WITH SOLDERED FITTINGS OR SOLDERED MECHANICAL JOINT FOR DOMESTIC WATER.

-PROVIDE HUBLESS CAST IRON PIPE FOR ALL SANITARY WASTE. -PROVIDE TYPE M COPPER PIPING FOR ALL VENT PIPING

-COORDINATE EXACT LOCATIONS OF MECHANICAL AND PLUMBING EQUIPMENT AND PENETRATIONS THROUGH ROOF, FLOORS, AND WALLS WITH STRUCTURAL ELECTRICAL, AND ARCHITECTURAL DRAWINGS PRIOR TO ANY ROUGH-IN. DO NOT FABRICATE ANY EQUIPMENT FROM THESE DRAWINGS UNLESS COORDINATION IS COMPLETE. ALL OFFSETS OF MECHANICAL AND PLUMBING EQUIPMENT AROUND COORDINATED EQUIPMENT SHALL BE PROVIDED AT NO ADDITIONAL COST.

-SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF PLUMBING

FIXTURES. -THE LOCATIONS OF ALL ITEMS SHOWN ON THE DRAWINGS ARE NOT DEFINITELY FIXED BY DIMENSIONS UNLESS SPECIFICALLY NOTED. THE EXACT LOCATIONS NECESSARY TO SECURE THE BEST CONDITIONS AND RESULTS MUST BE DETERMINED BY THE PROJECT SITE CONDITIONS. -ALL WORK SHALL COMPLY WITH ALL APPLICABLE CODES, SPECIFICATIONS.

LOCAL ORDINANCES, AND INDUSTRY STANDARD -ALL ROOF PENETRATIONS SHALL BE FLASHED AND COUNTER FLASHED WATER

-ALL MATERIALS TO BE INSTALLED IN ACCORDANCE WITH MNFG INSTRUCTIONS. -EQUIPMENT SHALL BE SUPPORTED, BRACED, AND ANCHORED TO WITHSTAND A SEISMIC "G" FORCE OF 1.0 HORIZONTAL AND 0.33 VERTICAL. -ALL PIPING SHALL BE INSTALLED SO AS TO NEVER OBSTRUCT ACCESS OR REMOVAL OF MECHANICAL EQUIPMENT. -PROVIDE ALL MATERIALS AND EQUIPMENT AND PERFORM ALL LABOR REQUIRED

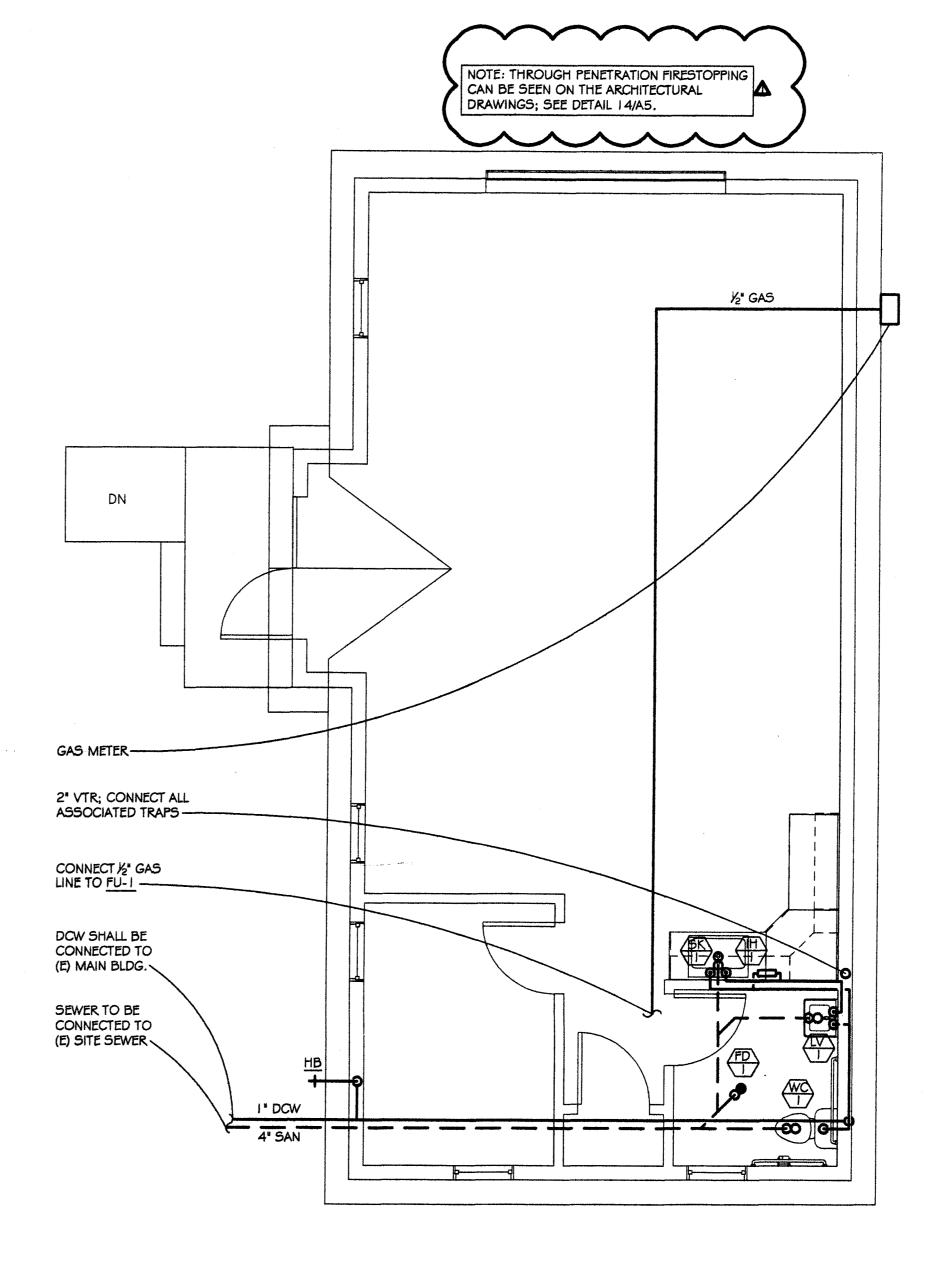
TO INSTALL A COMPLETE AND OPERABLE MECHANICAL SYSTEM AS INDICATED ON THE DRAWINGS, AND SPECIFIED BY CODE. -ALL MISCELLANEOUS STEEL OR BLOCKING REQUIRED TO ENSURE PROPER

INSTALLATION FOR PIPING AND EQUIPMENT SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR. -DEMOLISH AND REMOVE FROM SITE ALL UNUSED EQUIPMENT.

-ALL TEST SHALL BE COMPLETED BEFORE ANY MECHANICAL EQUIPMENT OR PIPING INSULATION IS APPLIED. -ALL CONTROL WIRING SHALL COMPLY WITH NEC.

-RUN ALL SOIL WASTE AND VENT PIPING WITH A 2% MIN GRADE UNLESS OTHERWISE NOTED. HORIZONTAL VENT PIPING SHALL BE GRADED TO DRIP BACK TO THE SOIL WASTE PIPE BY GRAVITY. -CLEAN OUTS SHALL BE FULL SIZE OF PIPE.

-FURNISH OPERATING INSTRUCTIONS FOR EACH SYSTEM AND EACH PRINCIPAL PIECE OF EQUIPMENT FOR THE USE OF OPERATION AND MAINTENANCE

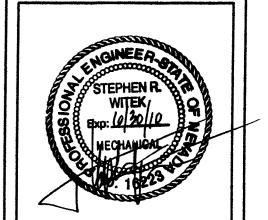


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775-831-2532 info@seedtahoe.com Date Description A REVISION 7-9-08

760 MAYS BLVD. #16

INCLINE VILLAGE, NV

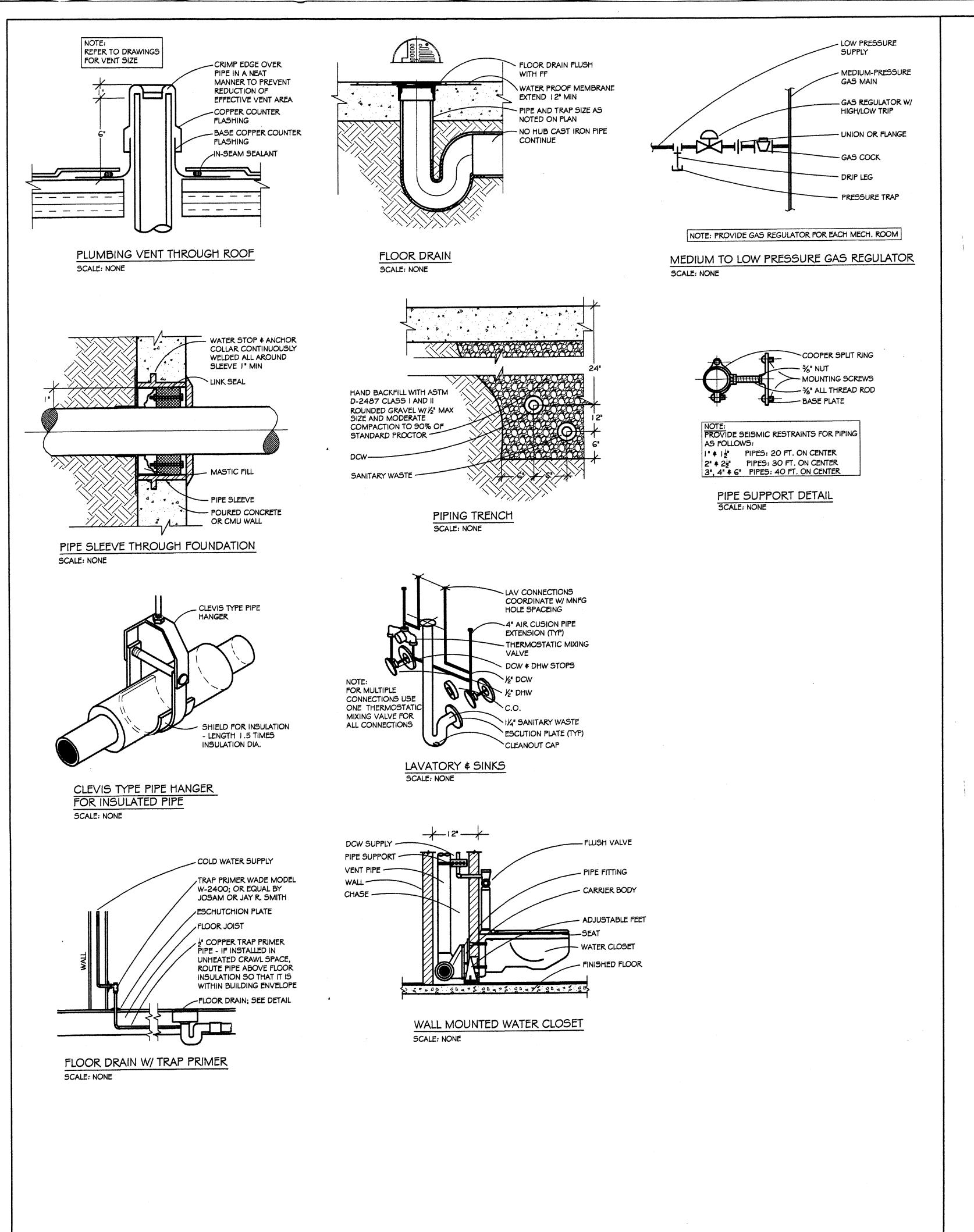
Carson City

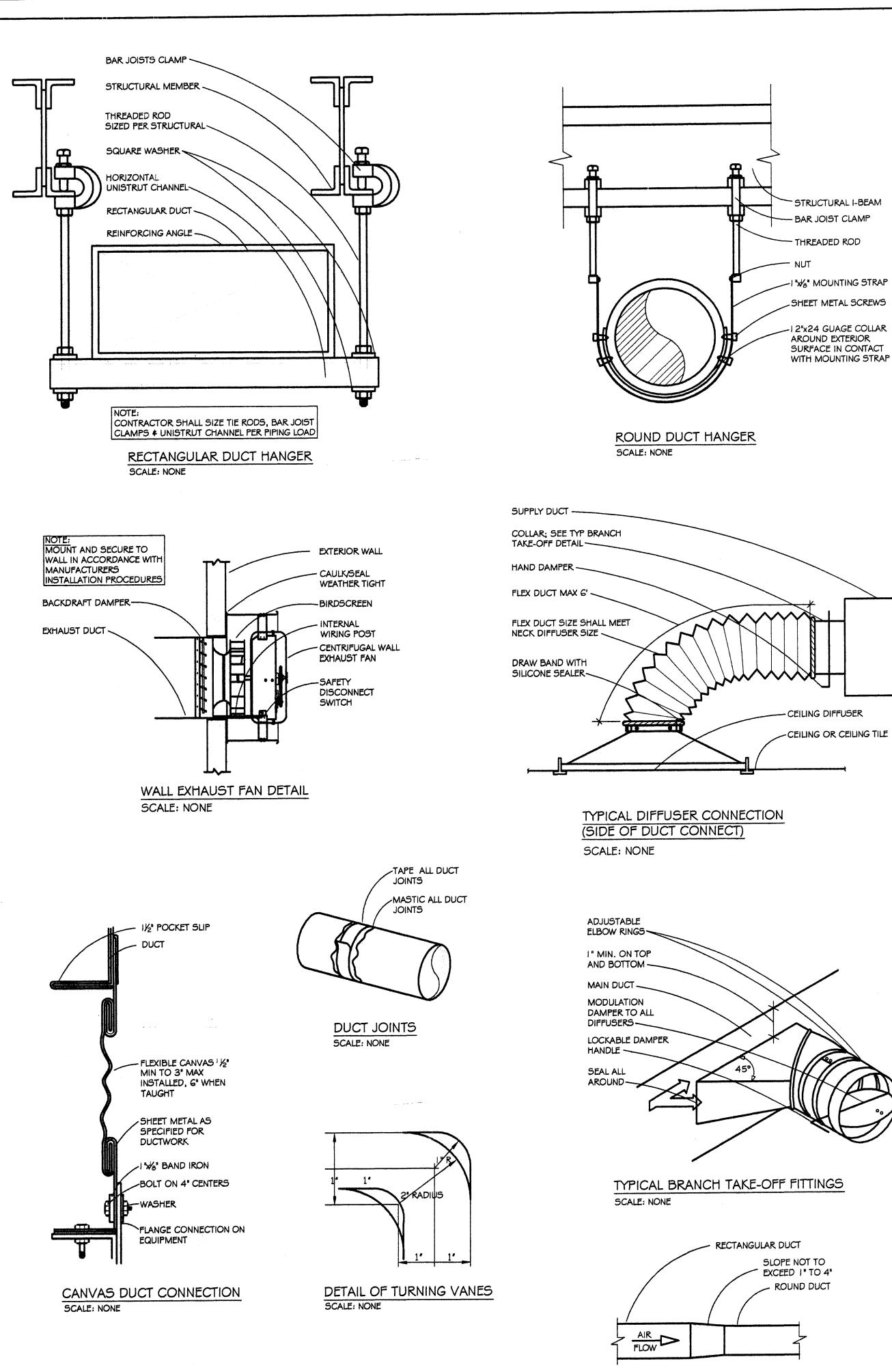
Carriage House

Project number 040017 8/4/2008 Drawn by Checked by

PLUMBING FLOORPLAN

SCALE: 1/4" = 1'





MECHANICAL DETAILS

RECTANGULAR TO ROUND TRANSITION

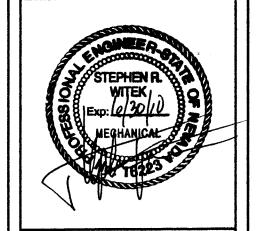
SCALE: NONE

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ENGINEERED
DESIGN



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o.	Description	Date					
Δ	REVISION I	7-9-08					

Carson City

Carriage House

 Project number
 040017

 Date
 8/4/2008

 Drawn by
 STS

 Checked by
 SRW

SHEET: DI

PLUMBING DETAILS

GENERAL NOTES

I. IT IS THE INTENT OF THESE DRAWINGS TO REQUIRE A COMPLETE AND FINISHED ELECTRICAL SYSTEM IN EVERY WAY. FURNISH ALL LABOR, MATERIALS, TOOLS, ACCESSORIES, ETC. REQUIRED FOR A COMPLETE ELECTRICAL INSTALLATION.

2. ALL ELECTRICAL WORK SHALL COMPLY WITH ALL APPLICABLE STATE, COUNTY AND LOCAL CODES AND ORDINANCES, AS WELL AS ALL CURRENT STANDARDS, CODES AND PRACTICES AS REQUIRED BY: 2005 NEC, NFPA, 2006 IBC, AND UTILITY COMPANY STANDARDS.

3. CONTRACTOR SHALL THOROUGHLY FAMILIARIZE HIMSELF WITH ALL EXISTING CONDITIONS, AT THE PROJECT SITE, PRIOR TO SUBMITTING A BID. NO EXTRA PAYMENT WILL BE MADE FOR CONDITIONS THAT WOULD HAVE BEEN EVIDENT DURING A THOROUGH SITE INSPECTION.

4. APPEARANCE AND WORKMANSHIP SHALL BE OF THE HIGHEST STANDARDS OF QUALITY. ONLY LICENSED ELECTRICIANS AND TECHNICIANS SHALL BE USED TO ACCOMPLISH THE ELECTRICAL WORK.

5. ELECTRICAL CONTRACTOR SHALL GUARANTEE THE ELECTRICAL WORK TO BE FREE FROM DEFECTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE. LIGHTING LAMPS SHALL BE EXEMPT FROM THIS REQUIREMENT BUT SHALL BE NEW AND IN PERFECT WORKING ORDER AT THE TIME OF FINAL ACCEPTANCE.

6. ELECTRICAL CONTRACTOR SHALL COORDINATE THE ELECTRICAL INSTALLATION WITH THE PLANS AND SPECIFICATIONS OF ALL OTHER TRADES. PRIOR TO SUBMITTING HIS BID, THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE MECHANICAL CONTRACTOR TO INSURE THAT ALL CONNECTIONS TO MECHANICAL EQUIPMENT, INCLUDING FIRE SMOKE DAMPERS AND CONTROL WIRING, IS ACCOUNTED FOR AND INCLUDED IN THE ELECTRICAL SCOPE OF WORK (BID).

1. VERIFY THE EXACT LOCATION AND ELEVATION OF ALL ELECTRICAL EQUIPMENT AND OUTLETS PRIOR TO ROUGHING-IN. FINAL CONNECTIONS TO EQUIPMENT SHALL BE MADE ACCORDING TO THE EQUIPMENT MANUFACTURERS APPROVED WIRING DIAGRAMS, DETAILS AND INSTRUCTIONS. APPARTMENT RECEPTACLE LOCATIONS AND QUANTITIES SHALL BE VERIFIED AND WARRANTED BY THE ELECTRICAL SUB-CONTRACTOR TO COMPLY WITH NEC REQUIREMENTS.

8. ELECTRICAL CONTRACTOR SHALL PROVIDE A NEAT AND COMPLETE SET OF 'AS-BUILT' DRAWINGS WITHIN 30 DAYS OF FINAL ACCEPTANCE OF HIS WORK.

9. OBTAIN WRITTEN APPROVAL FROM THE ENGINEER AND OWNER OF ALL SHOP DRAWINGS AND MANUFACTURERS DATA SHEETS FOR: SWITCHGEAR, LIGHTING FIXTURES, WIRING DEVICES, AND FIRE ALARM SYSTEM BEFORE RELEASING ANY ORDERED MATERIALS. SUBMITTAL DATA SHALL CONTAIN A WRITTEN STATEMENT TO INDICATE THAT THE CONTRACTOR(S) HAVE REVIEWED THE INFORMATION THEREIN AND THAT THE PROPOSED EQUIPMENT WILL MEET THE PROJECT REQUIREMENTS. ANY PROPOSED SUBSTITUTION OF SPECIFIED ELECTRICAL MATERIALS SHALL BE OF EQUIVALENT OR BETTER QUALITY THAN THAT SPECIFIED.

10. ORDER AND/OR RELEASE ORDERED MATERIALS PROMPTLY AFTER SUBMITTAL APPROVAL. NO SUBSTITUTIONS OR ALTERNATE METHODS OF INSTALLATION WILL BE ACCEPTED FOR FAILURE TO ORDER MATERIALS IN A TIMELY FASHION.

II. WIRING METHODS AND MATERIAL SELECTION SHALL COMPLY WITH NEC REQUIREMENTS FOR A TWO FLOOR APARTMENT BUILDING. TYPE ENT CONDUIT SHALL ONLY BE USED WITH THE SPECIFIC WRITTEN PERMISSION OF THE OWNER AND ELECTRICAL ENGINEER.

12. CONDUIT/CONDUCTOR RUNS SHOWN ARE DIAGRAMMATICAL ONLY. THE BEST FINAL CONDUIT ROUTING SHALL BE AS DETERMINED BY THE ELECTRICAL CONTRACTOR AT THE TIME OF INSTALLATION.

13. ALL CONDUCTORS SHALL BE COPPER TYPE THHN/THUN 90°C. RATED. APARTMENTS SHALL BE WIRED USING TYPE NMC CABLE.

14. ALL UNDERGROUND/UNDER SLAB CONDUITS SHALL BE PVC SCHEDULE 40 AND/OR WRAPPED RIGID STEEL. ALL ELBOUS AND EXPOSED RISERS SHALL BE RIGID STEEL CONDUIT.

15. SWITCHGEAR AND PANELBOARDS SHALL BE AS MANUFACTURED BY CUTLER HAMMER, GE, SIEMENS, OR SQUARE DONLY. SWITCHBOARDS SHALL BE FULLY ENCLOSED AND FACTORY ASSEMBLED.
PANELBOARDS SHALL HAVE BOLT-IN CIRCUIT BREAKERS

16. PROVIDE ALL ELECTRICAL SWITCHGEAR SUCH AS SWITCHBOARDS, TRANSFORMERS, MOTOR CONTROL CENTERS, PANELBOARDS, DISCONNECT SWITCHES, ETC. WITH ENGRAVED PHENOLIC NAMEPLATES INDICATING: DEVICE DESIGNATION, EQUIPMENT SERVED, AND FROM WHERE THE EQUIPMENT IS FED.

17. PROVIDE AND INSTALL ALL FREESTANDING ELECTRICAL EQUIPMENT (SUCH AS SWITCHBOARDS, TRANSFORMERS, AND MOTOR CONTROL CENTERS) ON A 4" HIGH CONCRETE HOUSEKEEPING PAD.

18. PROVIDE ALL PANELBOARDS WITH TYPED DIRECTORIES INSTALLED UNDER A CLEAR PLASTIC COVER SUBMIT DIRECTORY INFORMATION TO THE OWNER FOR APPROVAL PRIOR TO FINALIZATION.

19. SHORT CIRCUIT INTERRUPTING VALUES, AS INDICATED ON THESE PLANS, REFER TO BOTH BUSS BAR BRACING LEVELS AND CIRCUIT BREAKER WITHSTAND LEVELS.

20. SERIES RATING OF SHORT CIRCUIT WITHSTAND LEVELS IS ONLY PERMITTED AS SUPPORTED BY MANUFACTURES DATA AND AS ALLOWED BY LOCAL CODE. ANY PROPOSED SERIES RATING OF ELECTRICAL COMPONENTS SHALL BE CLEARLY IDENTIFIED AND SUPPORTED IN THE ELECTRICAL SUBMITTAL DATA SHEETS.

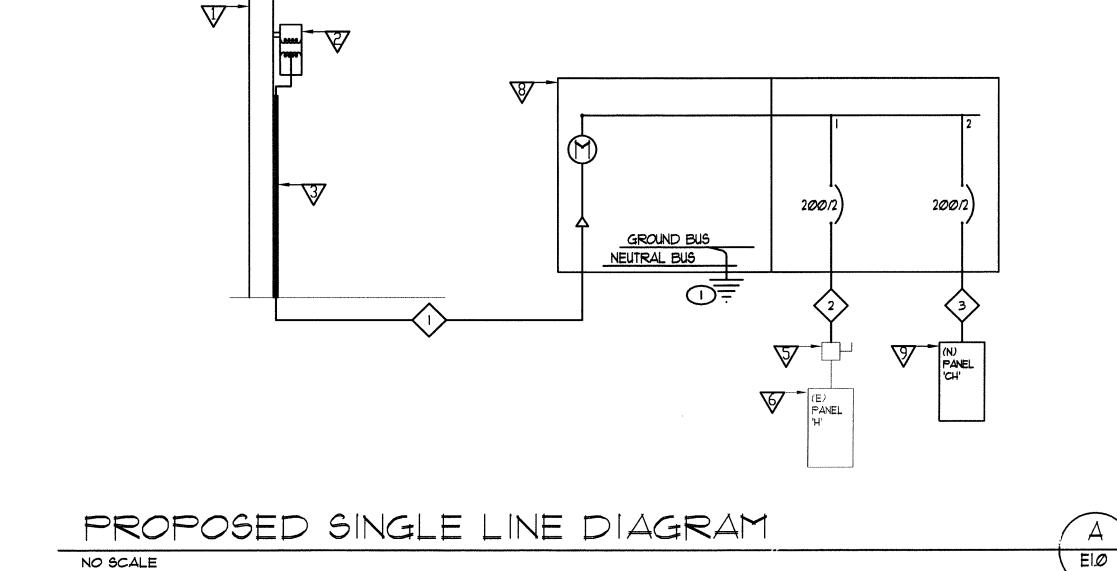
21. PROVIDE ALL TRENCHING, EXCAVATION, BACKFILLING, SHORING, PUMPING, COMPACTION TESTS, VAULTS AND TRANSFORMER PADS THAT ARE REQUIRED FOR THE SCOPE OF ELECTRICAL WORK. ALL NEW UTILITY INFRASTRUCTURE SHALL BE INSTALLED ACCORDING TO UTILITY COMPANY DETAILS, STANDARDS, AND WORK ORDER DRAWINGS.

22. IT IS HEREBY MADE THE ELECTRICAL CONTRACTORS RESPONSIBILITY TO PROVIDE AND INSTALL A COMPLETE TESTED AND TAGGED AUTOMATIC FIRE DETECTION AND ALARM SYSTEM. THE FIRE ALARM SYSTEM SHALL BE INSTALLED COMPLETE IN EVERY WAY, ALL TO THE SATISFACTION OF THE LOCAL FIRE MARSHALL. THE ELECTRICAL CONTRACTOR SHALL COORDINATE THE SPECIFIC PROJECT REQUIREMENTS WITH THE FIRE MARSHALL AND SHALL PROVIDE THE FIRE MARSHALL WITH DETAILED PLANS SHOWING ALL OF THE METHODS THAT WILL BE USED TO ACCOMPLISH THE SYSTEM.

ELECTRICAL SYMBOLS AND NOMENCLATURE

ф	8NGLE-OUTLET RECEPTAGLE		SINGLE-PHASE, I-POLE CIRCUIT PATH (1/2" CONDUIT, (2) - 90 Cu, UNLESS OTHERWISE NOTED) BELOW FLOOR
₩	DOUBLE-OUTLET 'DUPLEX' RECEPTACLE	+14	SINGLE-PHASE, 2-POLE CIRCUIT PATH (1/2" CONDUIT, (3) - 40 Cu, UNLESS OTHERWISE NOTED) BELOW FLOO
•	THREE-PHASE (3+) RECEPTACLE (CONFIGURATION AS NOTED)	414	THREE-PHASE, I-POLE CIRCUIT PATH (1/2" CONDUIT, (4) - 40 Cu, UNLESS OTHERWISE NOTED) BELOW FLOOR
₩	QUADRUPLE-OUTLET 'QUAD' RECEPTACLE		RETURN CIRCUIT TO PANEL "HOMERUN" (CIRCUIT AS NOTED) ABOVE FLOOR
0	SPECIAL RECEPTACLE (VOLTAGE/CONFIGURATION AS NOTED)		CIRCUIT BREAKER (AMPS/POLES AS NOTED)
0	JUNCTION BOX	-	FUSE (AMPS/POLES AS NOTED)
₩ ₩	FLOOR MOUNT RECEPTACLE	1	SHEET NOTE INDICATOR
<u>y</u> D	THERMOSTAT	1	SHEET/EQUIPMENT NOTE INDICATOR
h	6AFETY DISCONNECT SWITCH (SIZE/VOLTAGE/CONFIGURATION AS NOTED)	∇	EQUIPMENT NOTE INDICATOR
Ah م	COMBINATION SAFETY SUITCH/MAGNETIC STARTER		REVISION "DELTA" NOTE INDICATOR
>	TELEPHONE/DATA JUNCTION BACKBOX	♦	FEEDER NOTE INDICATOR
\$	SINGLE-POLE TOGGLE SUITCH (VOLTAGE AS REQUIRED)	+48"	48' MOUNTING HEIGHT AFF. (ACTUAL HEIGHT AS NOTED)
Š ,	MULTI-STATION 'THREE-WAY' TOGGLE SWITCH (VOLTAGE AS REGUIRED)	AFF.	ABOVE FINISHED FLOOR
55	SOLID STATE DIMMING SHITCH (VOLTAGE AS REQUIRED)	AFG.	ABOVE FINISHED GRADE
SH.	MOTOR-RATED TOGGLE SWITCH (VOLTAGE AS REQUIRED)	ATS.	AUTOMATIC TRANSFER SUITCH
\$\frac{4}{5}k	KEYED TOGGLE SUITCH (VOLTAGE AS REQUIRED)	c	CONDUIT
₩ □	CABLE TELEVISION OUTLET	СВ	CIRCUIT BREAKER
도 그	PANELBOARD (NAME/AMP/PHASE/VOLTAGE/CONFIGURATION AS NOTED)	CLG	CEILING
	TRANSFORMER (NAMERIVA RATING/PHASE/VOLTAGE AS NOTED)	(E)	EXISTING
<u>-</u> -	NDICATES MECHANICAL EQUIPMENT	FACP	FIRE ALARM CONTROL PANEL
	PHOTO ELECTRIC CELL	F.B.O.	PURNISHED BY OTHERS
	TIME CLOCK	GFI	GROUND FAULT INTERRUPTING TYPE
	CONTACTOR (CONFIGURATION AS NOTED)	HID	HIGH INTENSITY DISCHARGE
_	DUCT DETECTOR FIRE ALARM SYSTEM COMPONENT	LTG	LIGHTING
(III)	SHOKE DETECTOR FIRE ALARM SYSTEM COMPONENT	LV	LOW VOLTAGE
	HEAT DETECTOR FIRE ALARM SYSTEM COMPONENT	MCB	MAIN CIRCUIT BREAKER
	FLOW SWITCH FIRE ALARM SYSTEM COMPONENT	MSB'	MAIN SWITCH BOARD
Fe		(N)	NEW
16 24	TAMPER SUITCH FIRE ALARM SYSTEM COMPONENT	NL.	NIGHT LIGHT
D(-	HORN/STROBE COMBINATION FIRE ALARM SYSTEM COMPONENT	TYP	TYPICAL
X	MANUAL PULL STATION	ug:	UNDER GROUND
_	SINGLE-PHASE, I-POLE CIRCUIT PATH (1/2" CONDUIT, (2) - 40 Cu, UNLESS OTHERWISE NOTED) ABOVE FLOOR	UON	UNLESS OTHERWISE NOTED
//	SINGLE-PHASE, 2-POLE CIRCUIT PATH (1/2" CONDUIT, (3) - 4/0 Cu, UNLESS OTHERUSE NOTED) ABOVE FLOOR	WP	WEATHER PROOF
<i>#</i>	THREE-PHASE, I-POLE CIRCUIT PATH (1/2" CONDUIT, (4) - "40 Cu, UNLESS OTHERWISE NOTED) ABOVE FLOOR	XFMR	TRANSFORTER
-	RETURN CIRCUIT TO PANEL "HOMERUN" (CIRCUIT AS NOTED) ABOVE FLOOR	•	SHANT TRIP STATION
X)	MOTOR (HORSEPOUER AS NOTED)		ALMEST LINE ATMITMAL

F	IXT.	FIXT.	1	MANUFACTURER	INPUT	MTG.	MTG.	I AME TYPE		VOL.
E	3YM.	TYPE	NAME	CAT. NO.	VA	11113.	HT.	LAMP TYPE	REMARKS	AGE
上	0	Д	••	FURNISHED BY OWNER	35 MAX	PEND		FO 32W TRT	OWNER FURNISHED PENDANT FIXTURE	1200
1		В	••	FB.0.	100 MAX	SURF	+7'-0"	FO 30W	OWNER FURNISHED RESTROOM FIXTURE	120
E		C		FB <i>O</i> .	35 MAX	SURF	CEIL	FO 32W T8	OWNER FURNISHED CEILING FIXTURE	120
1	Ю	Ω	PROGRESS	P5843-3IEB	20 MAX	SURF	+9'-0'	ISW QUAD 4-PIN	EXTERIOR CARRIAGE LIGHT	120
厂	Ø	E		FB.O.	35 MAX	SURF	+10'-0'	FO 32W TRT	OWNER FURNISHED ACCENT FIXTURE	120
		F	LITHONIA	LHQM 5 G 20/277 N H	25	SURF	OVER DOOR	INCLUDED	EXIT/EMERGENCY LIGHT	120
-	<u>A</u> ~	G	FITHOMIA	~ ARV ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	25	~SUPT~~	OVER	INCLUDED	EXTERIOR EMERGENCY LIGHT	120
	Q	H	LITHONIA	PORCELAIN KEYLESS	60	SUPEF	CEIL	60W A19	PORCELAIN KEYLESS	120



NOTES: (FIXTURE SCHEDULE ONLY)

- CATALOG NUMBER INDICATES THE BASIC LIGHTING FIXTURE REQUIRED. ELECTRICAL CONTRACTOR SHALL REVIEW ALL APPLICABLE PROJECT DRAWINGS AND SHALL PROVIDE AND INSTALL THE LIGHTING FIXTURES COMPLETE WITH ALL NECESSARY ACCESSORIES AND APPURTENANCES FOR USE ON THIS PROJECT.
- 2 ALL OWNER FURNISHED FIXTURES TO BE INSTALLED BY ELECTRICAL CONTRACTOR.

NOTES: (SINGLE-LINE DIAGRAM ONLY)

EXISTING SINGLE LINE DIAGRAM

NO SCALE

A PLAN CHECK 1-31-08

- (E) MAIN ELECTRICAL SERVICE GROUND PER NEC ARTICLE 250.
- (N) MAIN ELECTRICAL SERVICE GROUND PER NEC ARTICLE 250 INCLUDING:
 - 1. 30' 12 CU. UFER GROUND IN FOOTING OF NEW CARRIAGE HOUSE.
 - 2. *2 CU CONNECTION TO METAL PIPING SYSTEM.
 3. *2 CU CONNECTION TO BUILDING STRUCTURAL STEEL. (IF AVAILABLE)

GROUND BUS

NEUTRAL BUS

- 4. *8 CU CONNECTION TO BUILDING STRUCTURAL STEEL. (IF AV.
- 5. *2 CU MINIMUM MAIN BONDING JUMPER.

FEE	EDER SCHEDULE BY JENSEN	ENGINEERING, INC.			FEEDER SCHEDULE								
FDR NO.	. FROM	ТО	QUANTITY PARALLEL	CONDUIT	CONDUCTORS	LOAD PHASES	LOAD VOLTAGE	LOAD CURRENT	LOAD P. FACTOR	FEEDER LENGTH	CONDUCTOR REACTANCE	SC CURRENT START WIRE	SC CURRENT END WIRE
\Diamond	(E) S.P.P.Co. XFMR	(N) 'MM'	2	4'	FURNISHED AND INSTALLED BY S.P.P.Co.	1	240						
$\bigcirc{2}$	(N) 'MM'	(E) MAIN BLD DISC	1	2"	(4) - 43/0 Cu + GRD	1	240		<i>8</i> 5	VERIFY			
<u>③</u>	(N) 'MM'	(N) PANEL 'CH'	1	2*	(4) - 43/0 Cu + GRD	1	240		.85	VERIFY			
NOT	OTES: 1. ALL PVC CONDUIT SHALL BE SCHEDULE 40 UNLESS OTHERWISE NOTED. 2. ALL PVC CONDUIT SHALL CARRY AN EQUIPMENT GROUNDING CONDUCTOR SIZED ACCORDING TO NEC T. 250-122 5. FEEDER LENGTHS ARE FOR ENGINEER'S PURPOSES ONLY AND ARE NOT TO BE USED FOR BIDDING. 6												

7. --

EQUIPMENT SCHEDULE						
EQP.	EQUIPMENT DESCRIPTION	NOTES				
$\overline{\mathbb{V}}$	(E) S.P.P.Co. UTILITY POLE	MODIFICATIONS BY S.P.P.Co.				
V	(E) S.P.P.Co. POLE MOUNT TRANSFORMER(S)	MODIFICATIONS BY S.P.P.Co.				
$\overline{\mathbb{V}}$	(E) S.P.P.Co. SERVICE UTILITY RISER	MODIFICATIONS BY S.P.P.Co.				
V	(E) 'MM' - 200A, 120/240V, 14, 3W, N3R, METER-MAIN	TO BE REMOVED 4 RETIRED				
\$\overline{\sqrt{7}}	(E) 200A/200F/2P, 250V, N3R, MAIN BUILDING SERVICE DISC. SWITCH	TO BE RE-FED & REMAIN				
V	(E) PANEL 'H' - 200A, 120/240V, I+, 3W, NI, ML.O., 42 CKT PANELBOARD	TO REMAIN AS-IS				
$\overline{\mathbb{V}}$	(E) 60A/50F/2P, 250Y, N3R, SHED SERVICE DISC. SWITCH	TO BE REMOVED & RETIRED				
$\overline{\mathbb{V}}$	(N) 'M/M' - 400A, 120/240V, I+, 3W, N3R, METER-MAIN	***				
9	(N) PANEL 'CH' - 2004, 120/240V, 14, 3W, NI, MLO., 42 CKT PANELBOARD	SEE PANEL SCHEDULE				

3. ALL CONDUCTORS SHALL BE COPPER WITH TYPE THHN/THWN 90 DEG C. RATED INSULATION.

4. ALL UTILITY CONDUITS SHALL BE INSTALLED ACCORDING TO UTILITY COMPANY STANDARDS.

(N) 'M/M' SCHEDULE					
POSITION NO.	LOAD DESCRIPTION	BREAKER SIZE		LOAD	KVA
1	(E) MAIN BLD.	200/2	 -	38.40	14
2	(N) PANEL 'CH'	200/2		12.04	· · · · · · · · · · · · · · · · · · ·
" MAXIMUM AL	LOWED KVA LOAD	TOTAL KVA	=	50.44	
		• 240Y, I+	=	211.	AMPERES

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Engineering
Inc.
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Electrical Engineers

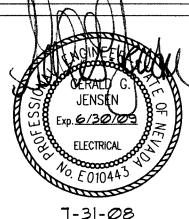
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7-31-08

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Civil Engineer Lumos & Associates 800 East College Parkway Carson City, NV 89706 Phone: (775) 883-7077 Fax: (775) 883-7114

,		
No.	Description	Date
Δ	PLAN CHECK	7.31.08

Carson City

Carriage House

Symbols, Notes, &
Single-Line
Diagrams
Project number A42HYT
Date 5/27/08
Drawn by BMD

E1.0

le N.T.S.

RICE STREET



NOTES: (THIS SHEET ONLY)

- REMOVE AND RETIRE (E) POLE MOUNTED SITE LIGHTING. MODIFY (E) BRANCH CIRCUIT WIRING AS NECESSARY TO KEEP ALL OTHER REMAINING POLE FIXTURES OPERATIONAL. TYPICAL OF (2) POLE MOUNTED SITE LIGHTING FIXTURES.
- (E) MAIN BUILDING ELECTRICAL, TELEPHONE, AND CATY SERVICE CONDUITS AND CONDUCTORS TO BE MODIFIED FOR RECONNECTION TO NEW SERVICE EQUIPMENT. MODIFY (E) BRANCH CIRCUIT WIRING AS NECESSARY FOR RECONNECTION.
- (E) ELECTRICAL, TELEPHONE, AND CATY SERVICE CONDUITS AND CONDUCTORS TO BE MODIFIED FOR RECONNECTION TO NEW SERVICE EQUIPMENT.

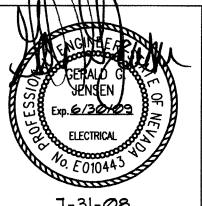
 VERIFY EXACT REQUIREMENTS FOR REMOVAL WITH SEVIING UTILITY COMPANY(S).
- (E) SHED ELECTRICAL SERVICE CONDUITS AND CONDUCTORS TO BE MODIFIED FOR RECONNECTION TO NEW SERVICE EQUIPMENT. RETIRE (E) BRANCH CIRCUIT WIRING AS NECESSARY BACK TO NEAREST JUNCTION BOX.

J.P. COPOULOS ARCHITECT (C)

> P.O. Box 2517 Carson City Nevada 89702

T 775-885-7907 F 775-885-6806

ioannis@edurus.com



7-31-08

Owner: Carson City Parks & Rec. Dept. 3303 Butti Way, Bldg #9 Carson City, NV 89701 Phone: (775) 887-2115 Fax: (775) 887-2145

Project Address: 1207 N. Carson St, Carson City, NV 89701 A.P.N. 002-151-01

Structural Engineer: Three Castle Engineering, LLC 2516 Business Pkwy., Ste. F1 Minden, NV 89423 Phone: (775) 267-6762 Fax: (775) 267-6764

Electrical Engineer: Jensen Engineering Inc. 9655 Gataway Dr, Suite A Reno, NV 89521 Phone: (775) 852-2288 Fax: (775) 852-3388 E-mail: jeneng@nvbell.net

Mechanical Engineer

SEED
P.O. Box 6071
Incline Village, NV 89450
Phone: (775) 831-2532
Fax: (866) 613-8245

Civil Engineer Lumos & Associates 800 East College Parkway Carson City, NV 89706 Phone: (775) 883-7077 Fax: (775) 883-7114

No.	Description	Date
Λ	PLAN CHECK	7.31.08

Carson City

Carriage House

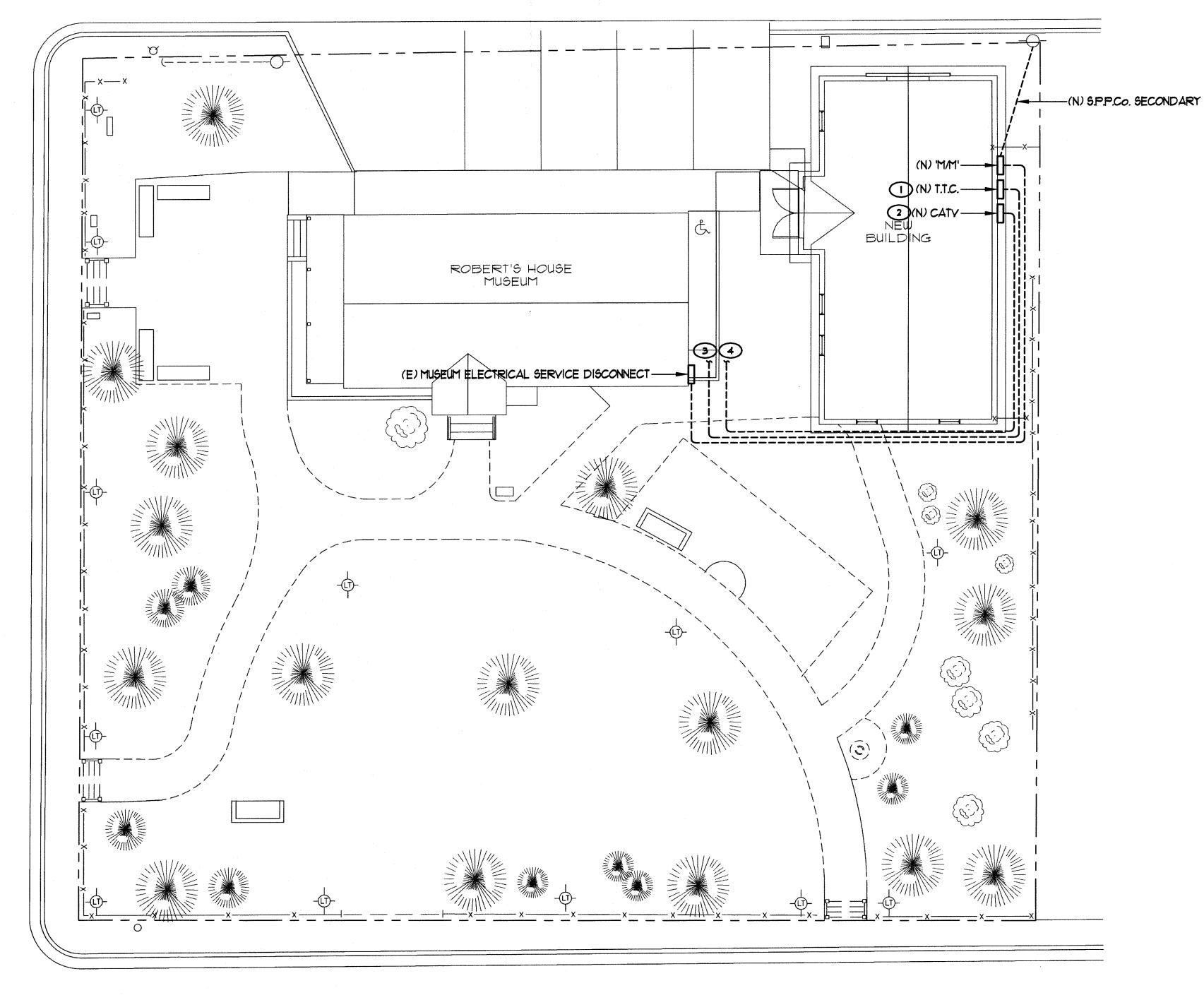
Site Electrical **Demolition Plan**

A42HYT 5/27/08 Drawn by BMD Checked by GGJ

E2.0

AS SHOWN

Electrical Engineers
Reno, Nevada 89521-2968 9655 Gateway Drive Ph. (115) 852-2288 Fax (115) 852-3388 web: www.jeneng.com



RICE STREET



NOTES: (THIS SHEET ONLY)

EXTEND CONDUIT TO EXISTING TELEPHONE SERVICE INFRASTRUCTURE AS NECESSARY. VERIFY LOCATION OF TELEPHONE SERVICE EQUIPMENT PRIOR TO ROUGH-IN. VERIFY EXACT REQUIREMENTS WITH UTILITY COMPANY WORK ORDER DRAWINGS PRIOR TO SUBMITTING A BID.

E2.1

- 2 EXTEND CONDUIT TO EXISTING CABLE TV SERVICE INFRASTRUCTURE AS NECESSARY. VERIFY LOCATION OF CABLE TV SERVICE EQUIPMENT PRIOR TO ROUGH-IN. VERIFY EXACT REQUIREMENTS WITH UTILITY COMPANY WORK ORDER DRAWINGS PRIOR TO SUBMITTING A BID.
- PROVIDE AND INSTALL (1) 2" EMPTY CONDUIT FROM (N) T.T.C. LOCATION TO (E) MUSEUM BUILDING TELEPHONE SERVICE LOCATION. COORDINATE WITH TELEPHONE SERVICE PROVIDER AND INTERCEPT (E) TELEPHONE SERVICE CONDUIT, CONNECT (N) TELEPHONE SERVICE CONDUIT COMPLETE. VERIFY EXACT LOCATIONS PRIOR TO SUBMITTING A BID.
- PROVIDE AND INSTALL (1) 2" EMPTY CONDUIT FROM (N) CATY LOCATION TO (E) MUSEUM BUILDING CABLE TY SERVICE LOCATION. COORDINATE WITH CABLE SERVICE PROVIDER AND INTERCEPT (E) CABLE TY SERVICE CONDUIT, CONNECT (N) CABLE TY SERVICE CONDUIT COMPLETE.

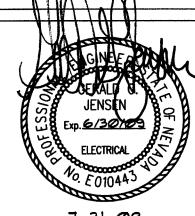
 VERIFY EXACT LOCATIONS PRIOR TO SUBMITTING A BID.

J.P. COPOULOS ARCHITECT (C)

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7-31-08

Owner:
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	No.	Description 선	Date
	\triangle	PLAN CHECK	7.31.08

Carson City

Carriage House

Proposed Site Electrical Plan

Project number A42HYT

Date 5/27/08

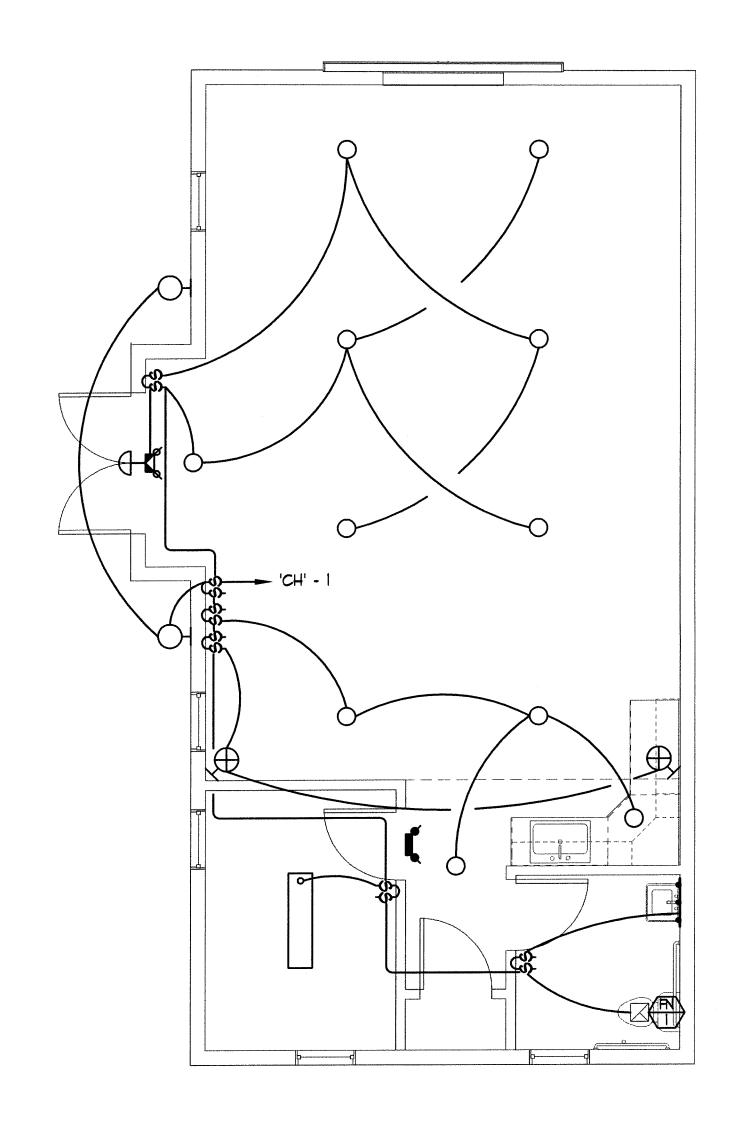
Drawn by BMD

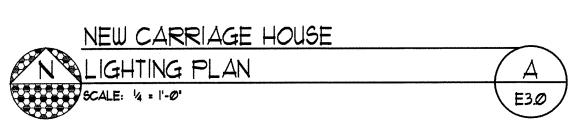
Checked by GGJ

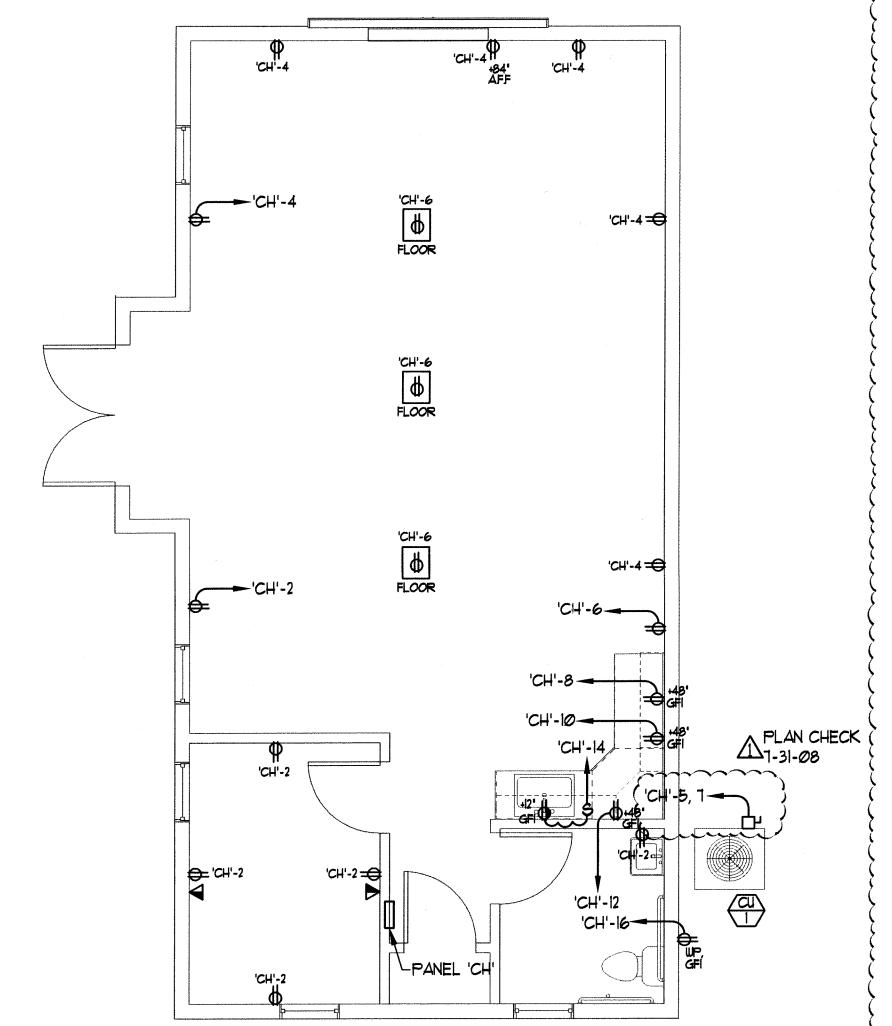
E2.1

Scale AS SHOWN

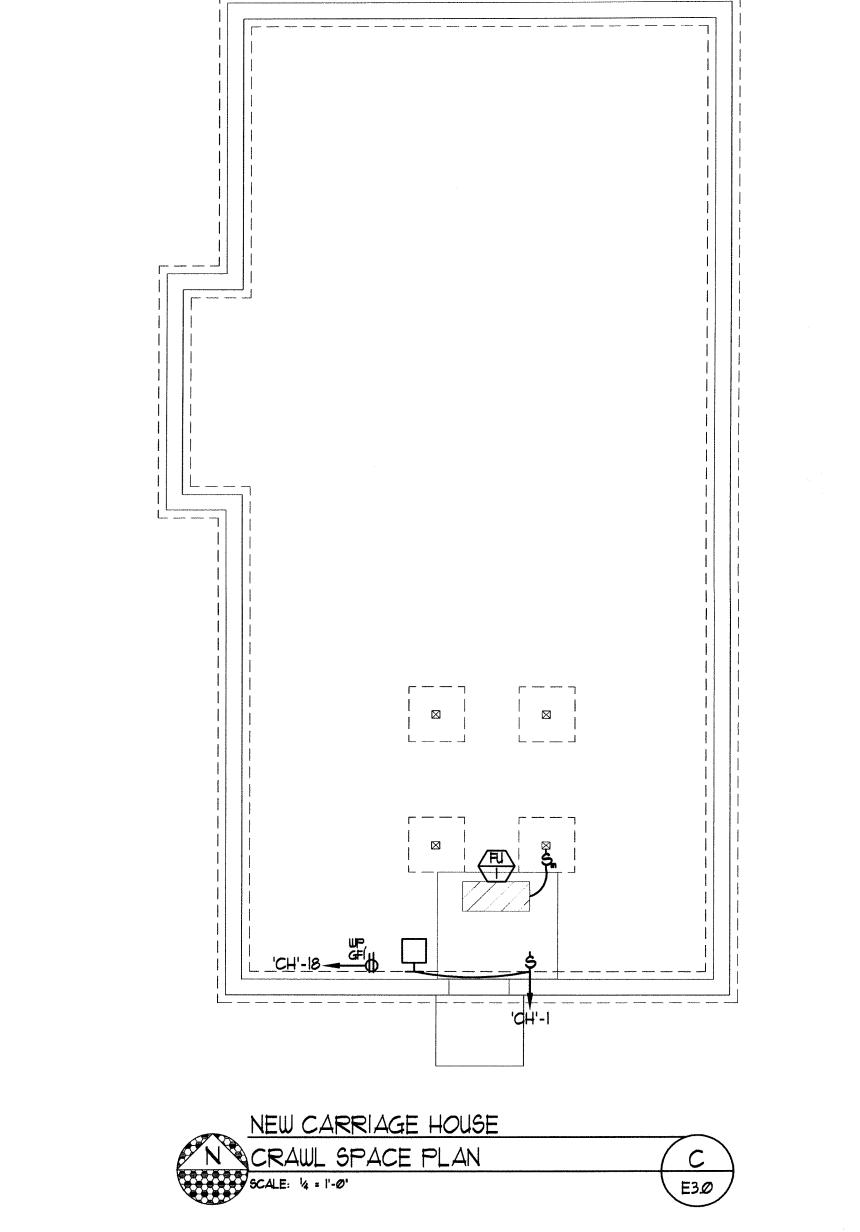
Jensen
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Inc.
Electrical Engineers
9655 Gateway Drive
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Email: jenengenvbellnet
Electrical Engineers
Fax (1715) 852-3388
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Electrical Engineers







NEW CARRIAGE HOUSE	
POWER PLAN	В
SCALE: 1/4 = 1'-0"	E3Ø



APLAN CHECK 1-31-08

Panel Schedule by: Jensen Engineering Inc. 200 AMPERE MAIN LO.: 225 AMPERE BUS PANEL <u>CH '120 / 240 VOLT 1 PHASE 3 WIRE</u> LOCATION __CARRIAGE HOUSE HALLWAY ____ INTERRUPTING | DOC A.I.C MOUNTING FLUSH LOAD DESCRIPTION LINE A LINE B CARRIAGE HOUSE LIGHTING | 20 | 20 | RECEPTACLES | 20 | 20 | RECEPTACLES 2 30 20 I DEDICATED AC - 1 20 I DEDICATED RECEPTACLE 20 I DEDICATED RECEPTACLE 1 DEDICATED RECEPTACLE 20 I GARBACE DISPOSAL 20 | SERVICE RECEPTACLE 2543 2255 4160 3080 SUB TOTALS BUS MATERIAL: CL. NEW: YES EXISTING: NO 6703 5335 LINE TOTALS LINE AMPS

annemment and an annemment of the second sec

TOTAL KVA LOAD

1204

PLAN CHECK 1-31-08

NOTES: (THIS SHEET ONLY)

COORDINATE POWER DOWN AND START UP WITH OWNERS OPERATION SCHEDULE FOR ELECTRICAL SERVICE CHANGES.

MECHANICAL EQUIPMENT CONNECTION SCHEDULE

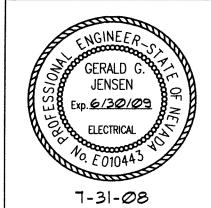
ITEM No.	DESCRIPTION	VLTS/PH/AMPS	DISCONNECTING MEANS	CONDUIT/WIRE	FED FROM
(FU)	FU - I	120 / 1 / 5.1	MOTOR RATED SWITCH	½" C., (2) - #12 Cu.	'CH'-3
₽	AC - 1	208 / 1 / 15.8	30A/30F/2P 250V, N3R, DISCONNECT SWITCH	1/2" C., (3) - 110 Cu.	'CH'-5, T
⊕	FN - I	120/1/2	MOTOR RATED SWITCH	½" C., (2) - #12 Cu.	'CH'-1

Electrical Engineers 9655 Gateway Drive Ph. (115) 852-2288 Reno, Nevada 89521-2968 Fax (115) 852-3388 email: jenengenvbellnet web: www.jeneng.com ARCHITECT (C)

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No.	Description	Date
\triangle	PLAN CHECK	7.31.08

Carson City

Carriage House

New Carriage House Elect. Plan

A42HYT Project number 5/27/08 Drawn by BMD GGJ Checked by

E3.0

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