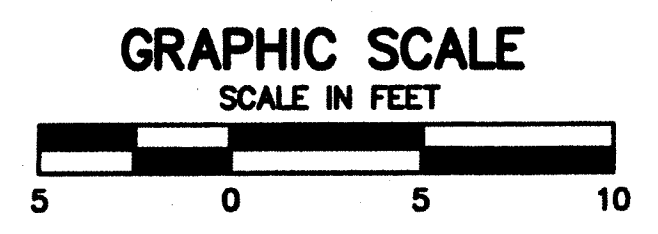


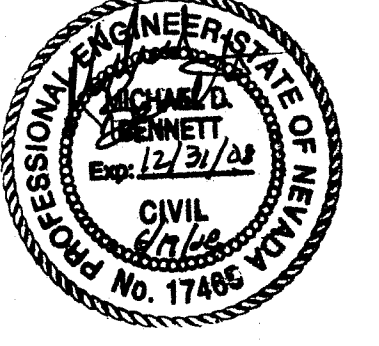
- NOTES:
1. PER OWNER'S DIRECTION, THIS DESIGN IS BASED ON TOPOGRAPHIC DATA PROVIDED BY OTHERS. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING GRADES AND ELEVATIONS AND ADVISE ENGINEER OF ANY CONFLICTS.
  2. SLOPE TAGS ARE GIVEN FOR REFERENCE ONLY. ELEVATION TAGS SHALL GOVERN WHERE CONFLICTS ARISE.



800 E. COLLEGE PARKWAY  
CARSON CITY, NEVADA 89705  
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CARSON CITY PARKS & RECREATION

**ROBERTS HOUSE MUSEUM  
CARRIAGE HOUSE  
GRADING PLAN**

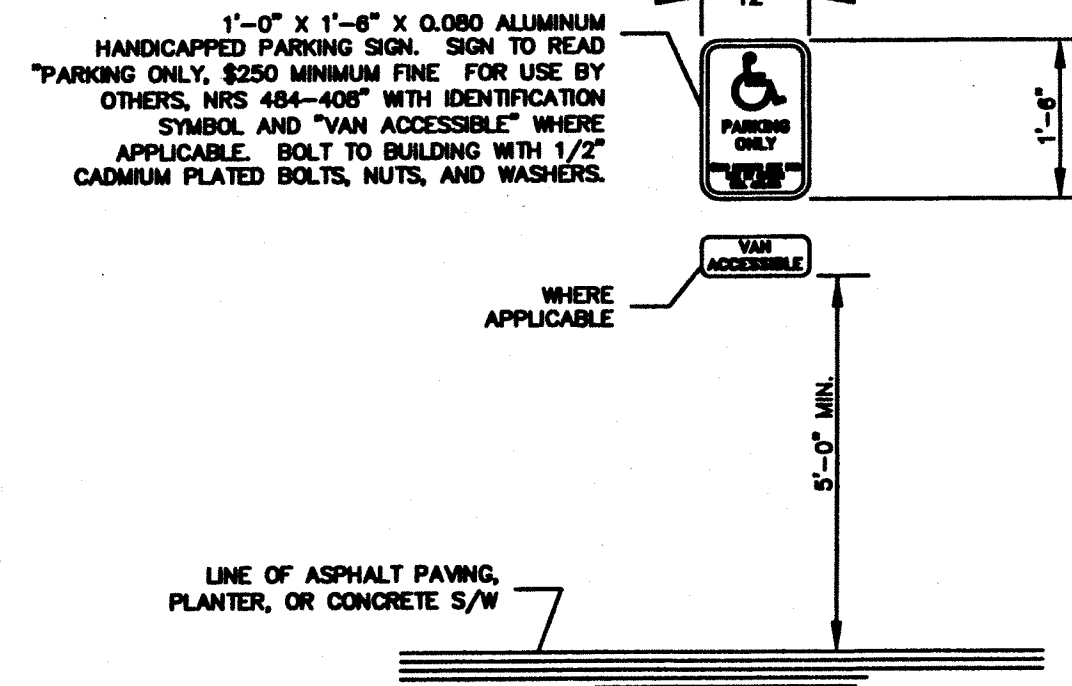
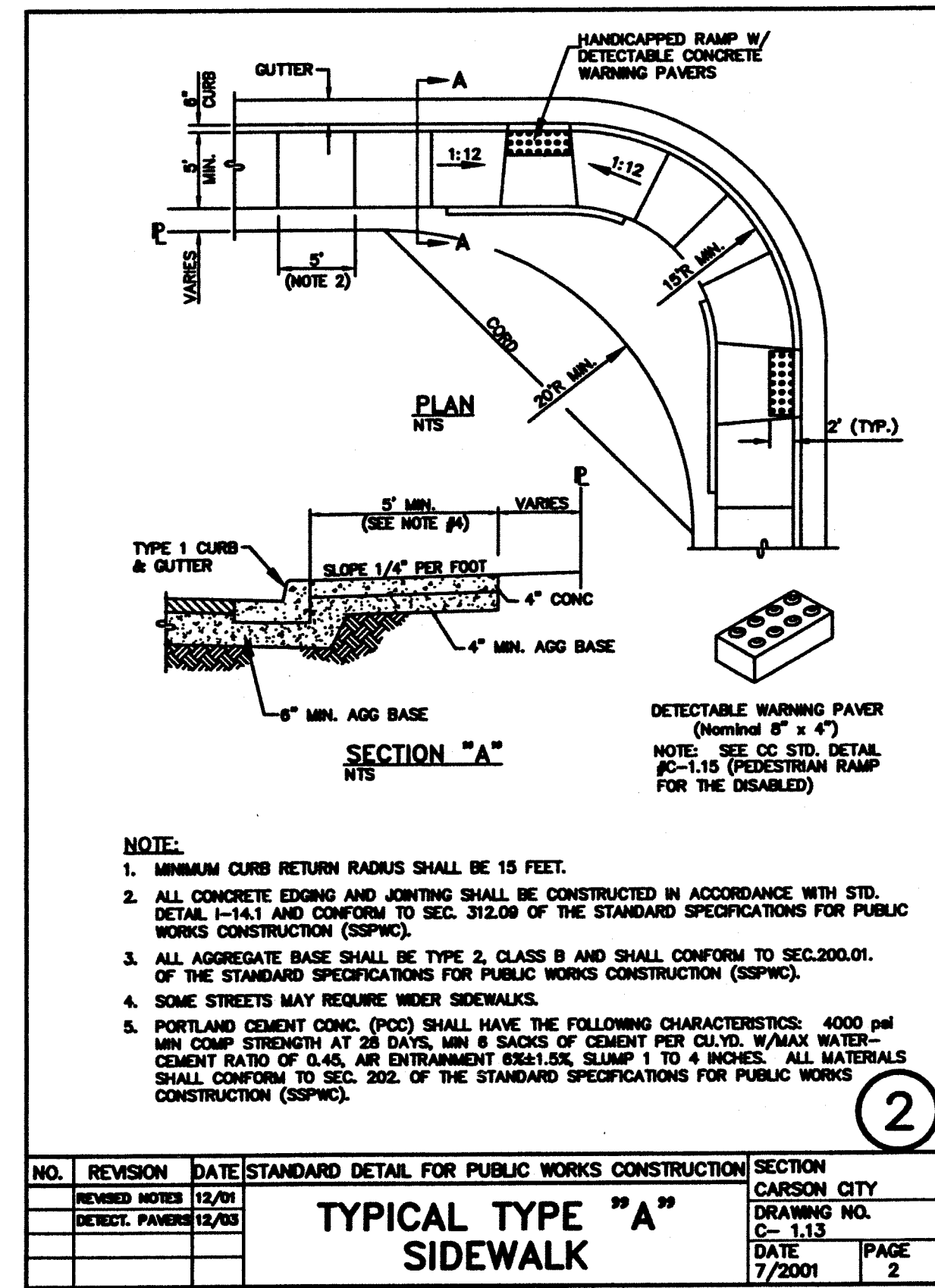
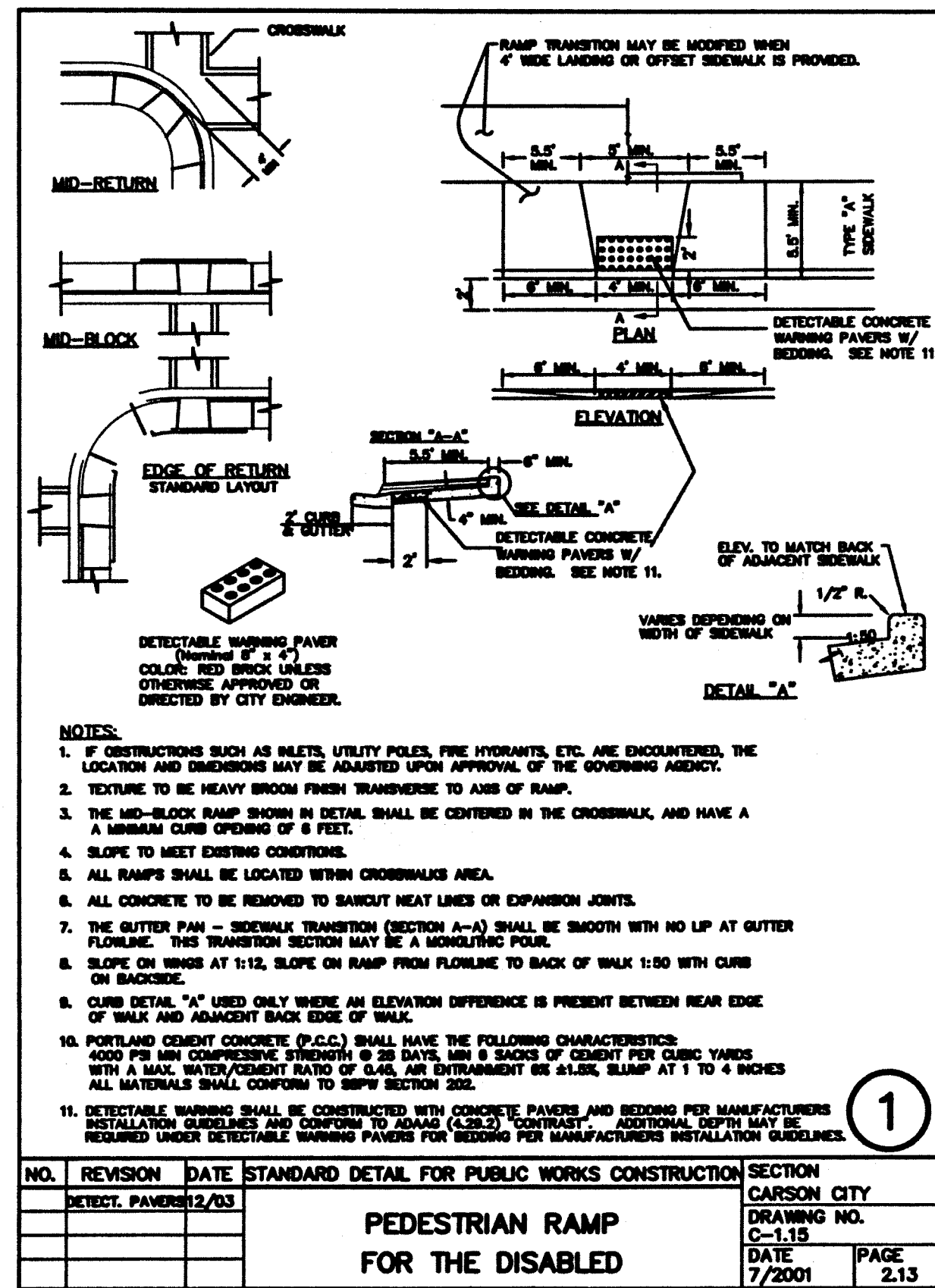
CARSON CITY NEVADA

REV	DATE	DESCRIPTION

**C4**

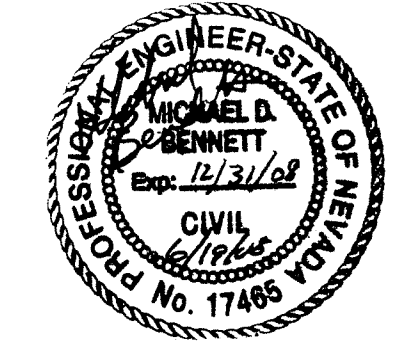
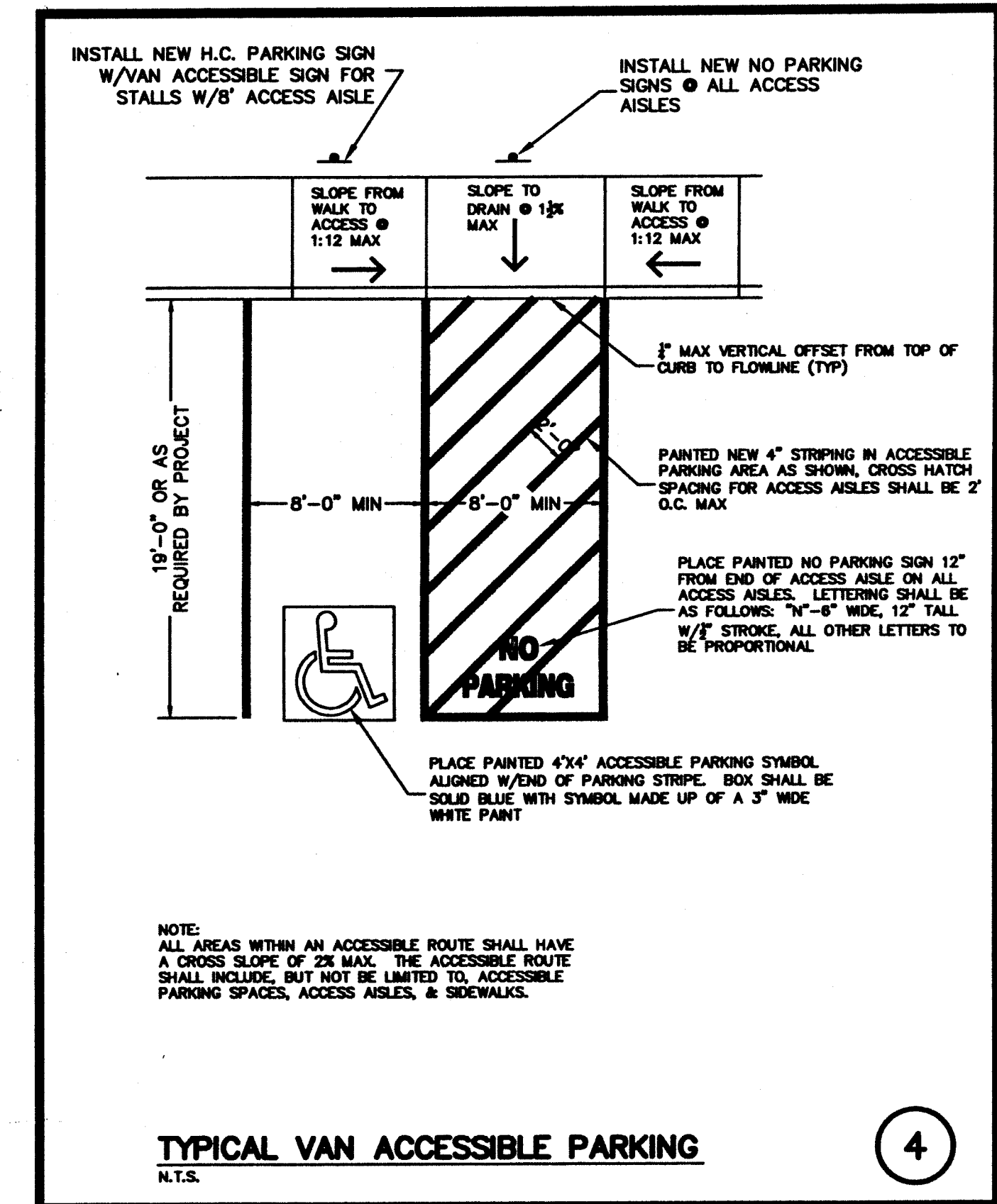
DATE: JUNE 2008  
DRAWN BY: CW  
DESIGNED BY: TS  
CHECKED BY: MB  
JOB NO.: 7324.000

C:\Users\1324-000\OneDrive\13240805.dwg GRADING  
07/17/2008 09:47 am lumos.dwg



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

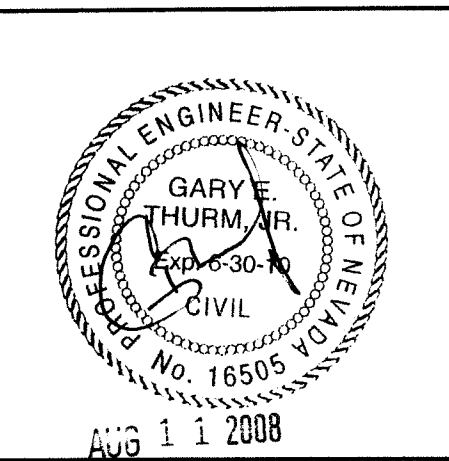
**HANDICAPPED PARKING SIGN**  
SCALE: N.T.S.



REV	DATE	DESCRIPTION

**D1**

L:\projects\324-000\DWG\324\08\AS.dwg DETAILS  
06/18/2008 03:39 pm ceegm



ORIGIN DATE: 01/01/08  
 REVISION DATE  
 1 08/11/08

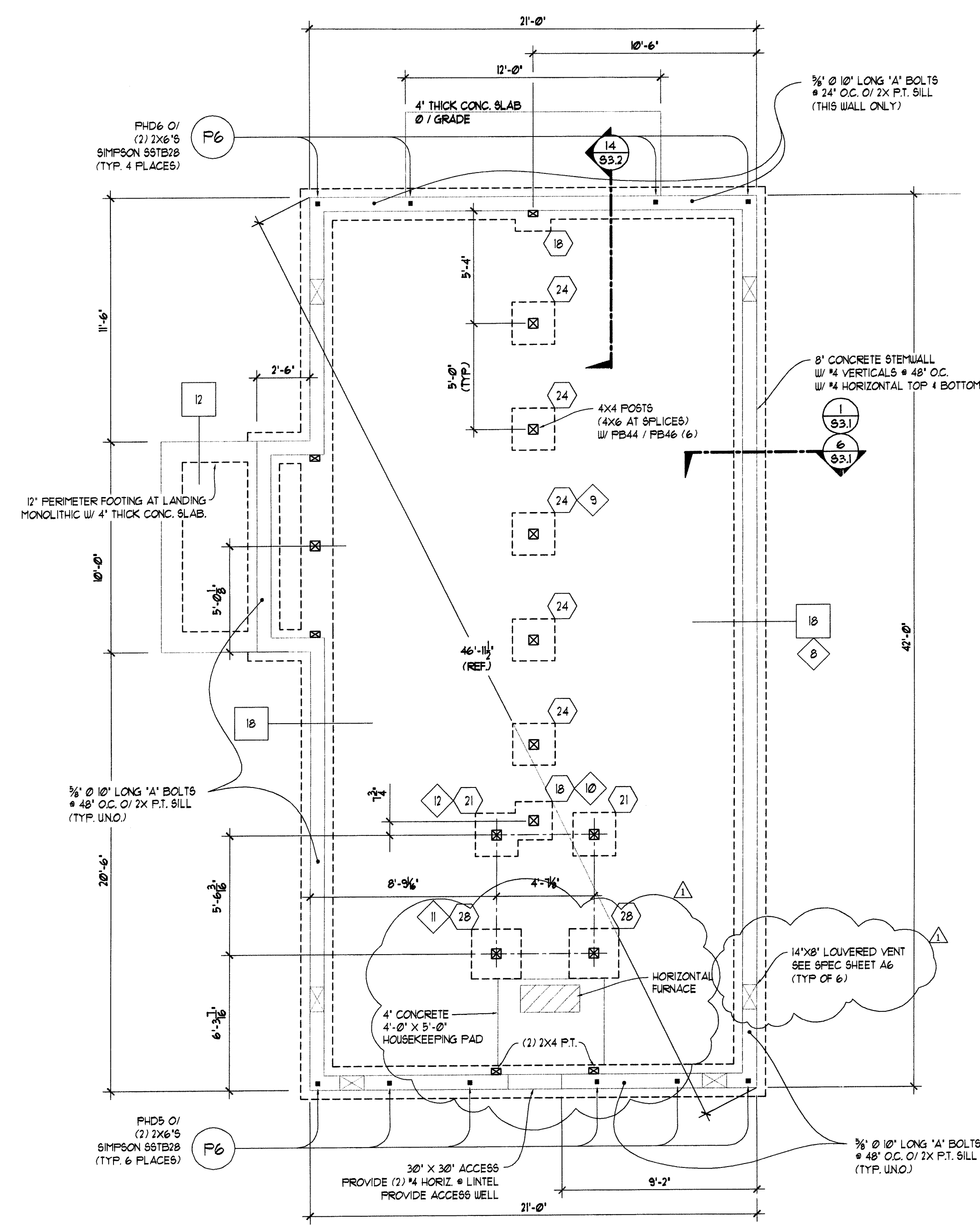
**ROBERTS HOUSE**  
 OWNER: CARSON CITY PARKS & RECREATION  
 1207 N. CARSON STREET  
 CARSON CITY, NV  
 A.P.N. 002-151-01

PROJECT

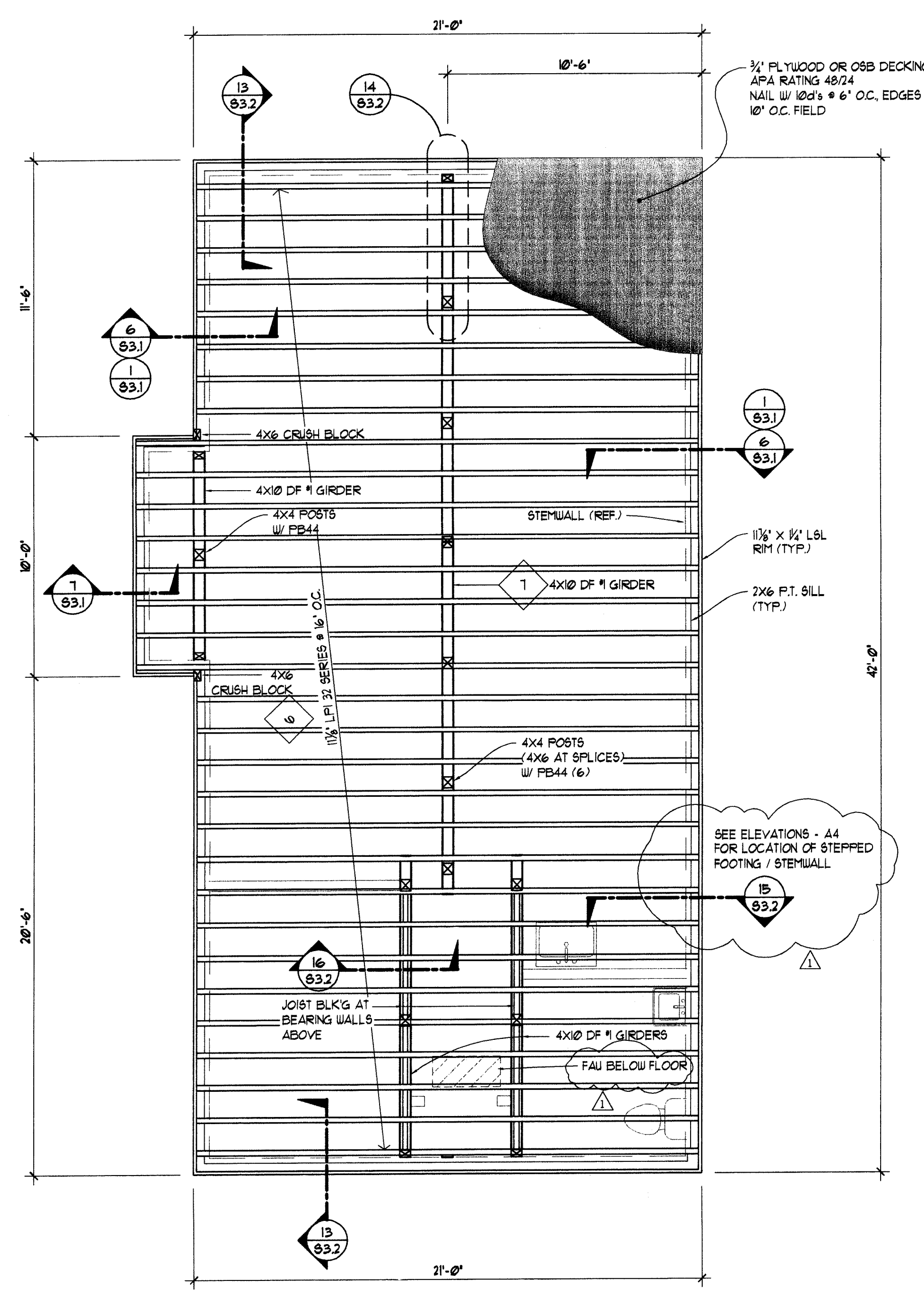
CONTRACTOR

JOB#: 06087 DRAWN BY: GT

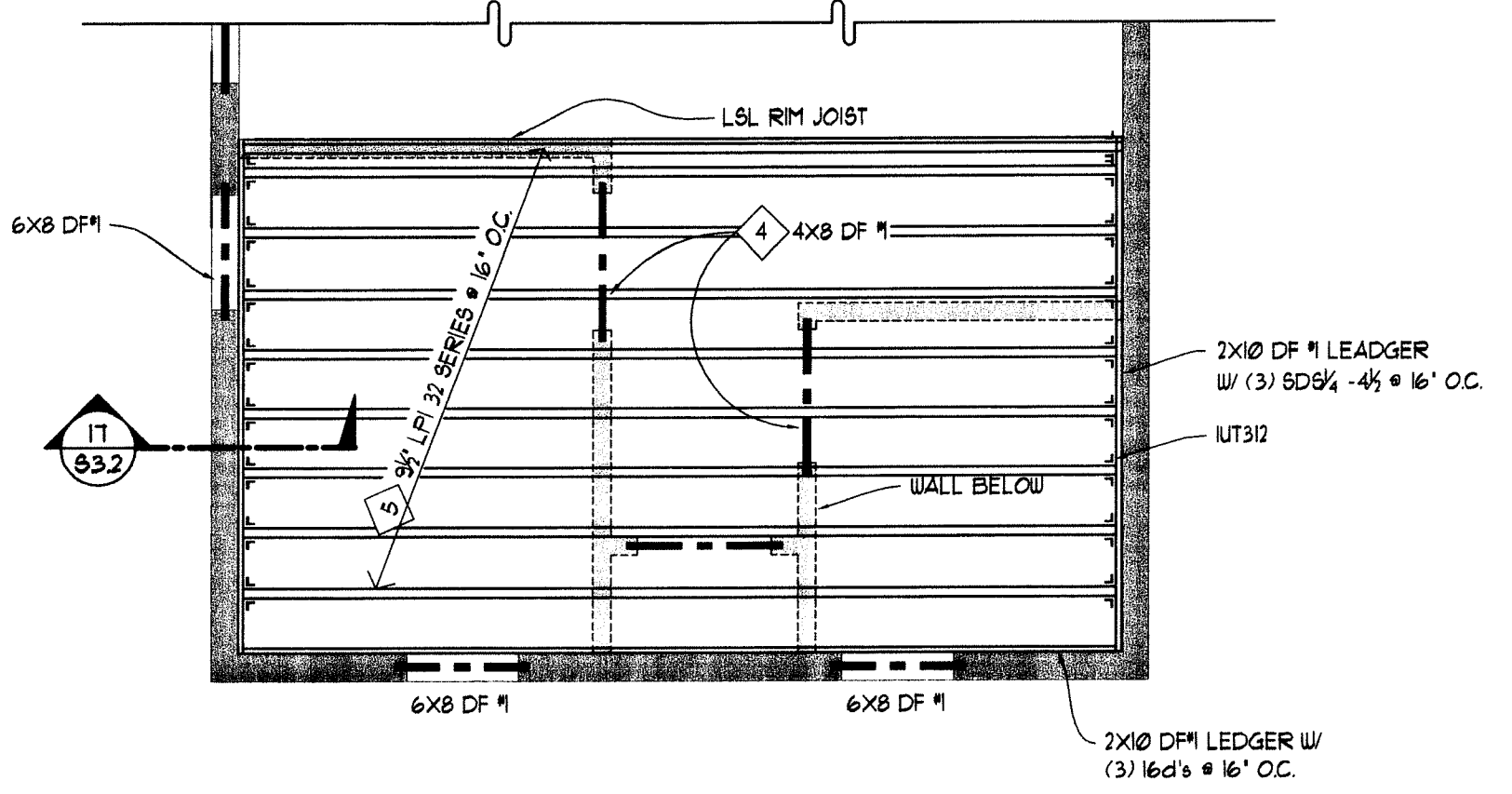
S10  
 SHEET  
 © Three Castles Engineering, LLC



**FOUNDATION PLAN**  
 SCALE: 1/4" = 1'-0"



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



**MEZZANINE PLAN**  
 SCALE: 1/4" = 1'-0"

**SILLS & PADS:**  
 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.

**ANCHOR BOLTS:**  
 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 225' PLATE WASHERS ON EACH ANCHOR BOLT. PROVIDE 12" ANCHOR BOLTS WHEN USING A 3x PT. MUDSILL.

**VAPOR BARRIERS:**  
 6 MIL. VISQUEEN VAPOR BARRIER (OR EQUIVALENT) LAID ON SOIL.

**LEAFER GROUND:**  
 30' OF #4 BARE COPPER WIRE - (20' INTO AND 10' OUT OF FOUNDATION)

**LANDINGS:**  
 PER 2006 IBC SECTION 1008.15

**EXTERIOR FINISHWORK:**  
 PROVIDE 4" CONCRETE SLAB ON GRADE. PREPARE GRADE WITH #1 TYPE 2 AGGREGATE BASE COMPACTED TO 95% OF RELATIVE COMPACTION.

**CONCRETE SLABS:**  
**GENERAL:**  
 PROVIDE 4" CONCRETE SLAB ON GRADE WITH FIBERESH 6' x 6' - 10 Gd W/W REINFORCEMENT. PREPARE GRADE WITH 4" OF SAND & GRAVEL AGGREGATE BASE COMPACTED TO 95% OF RELATIVE COMPACTION.  
 PROVIDE PERIMETER & INTERIOR EXPANSION JOINTS AS REQUIRED, AND PROVIDE CONTROL JOINTS ON AN INCREMENTAL BASIS.

**STRUCTURAL ENGINEERING NOTES**

- ◇ - SYMBOL REFERENCES THE STRUCTURAL CALCULATIONS FOR THE SELECTED MEMBER
- - SYMBOL INDICATES A HOLD-DOWN - SEE HOLD-DOWN SCHEDULE, SHEET S3.0. PROVIDE ANCHOR BOLT TO MATCH HOLD-DOWN SPECIFIED - SEE HOLD-DOWN SPECIFICATION TABLE, SHEET S3.0
- - SYMBOL INDICATES A FOOTING - SEE FOOTING SCHEDULE, SHEET S3.0
- - SYMBOL INDICATES A PIER - SEE PIER SCHEDULE, SHEET S3.0
- - CONTRACTOR TO VERIFY HOLD-DOWN LOCATIONS AT SHEAR WALLS - SEE SHEET S3.1 FOR STANDARD STRUCTURAL DETAILS PER APPLICATION.
- WHERE POSTS AND MULTIPLE STUDS ARE SPECIFIED, THEY ARE TO BE STACKED IN ALL WALL FRAMING AND SOLID VERTICAL GRAIN BLOCKING SHALL BE PROVIDED AT ALL FLOOR LEVELS DOWN TO THE FOUNDATION.

**UNDERFLOOR VENTILATION CALCULATIONS:**  
 SEE CALCULATIONS PER ARCHITECT

**MAIN FLOOR JOISTS:**  
 11/2" I-JOISTS, LPI / 32 @ 16" O.C., INSTALLED PER MANUFACTURER'S 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 1/4" MIN. TYPICAL

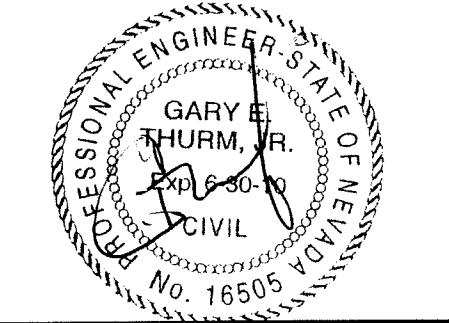
**GIRDERS:**  
 4x10 DF #1 UNO OVER POSTS. MAINTAIN 12" MIN. CLEARANCE TO SOIL

**POSTS:**  
 4x4 DF POSTS (4x6 POST AT SPLICE) MAX. SPAN - 5'-0" O.C. (UNO). PROVIDE FB44(6) & (E)PC4(6) ON EACH POST.

**UNDERFLOOR ACCESS:**  
 18"x24" MIN. - PER 2006 IBC SECTION 1009.1 (30" x 30" IF F.A.U. IS LOCATED UNDERFLOOR) ACCESS MAY NOT BE MORE THAN 20" FROM CLEANOUTS - PER 2006 UPC 107.10

**SUPPLOOR:**  
 3/4" PLYWOOD SHEATHING, EXPOSURE 1, T & G UNDERLAYMENT GRADE. 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.

**MEZZANINE FLOOR JOISTS:**  
 9-1/2" I-JOISTS, LPI / 32 @ 16" o.c., INSTALLED PER MANUFACTURER'S SPECIFICATIONS AT RIGHT ANGLES OVER BEARING. DOUBLE UNDER PARALLEL BEARING WALLS. BLOCK ALL JOISTS @ BEARING POINTS PER MFR'S. SPECIFICATIONS.



ORIGINAL DATE: 01/01/08  
 REVISION DATE 08/11/08

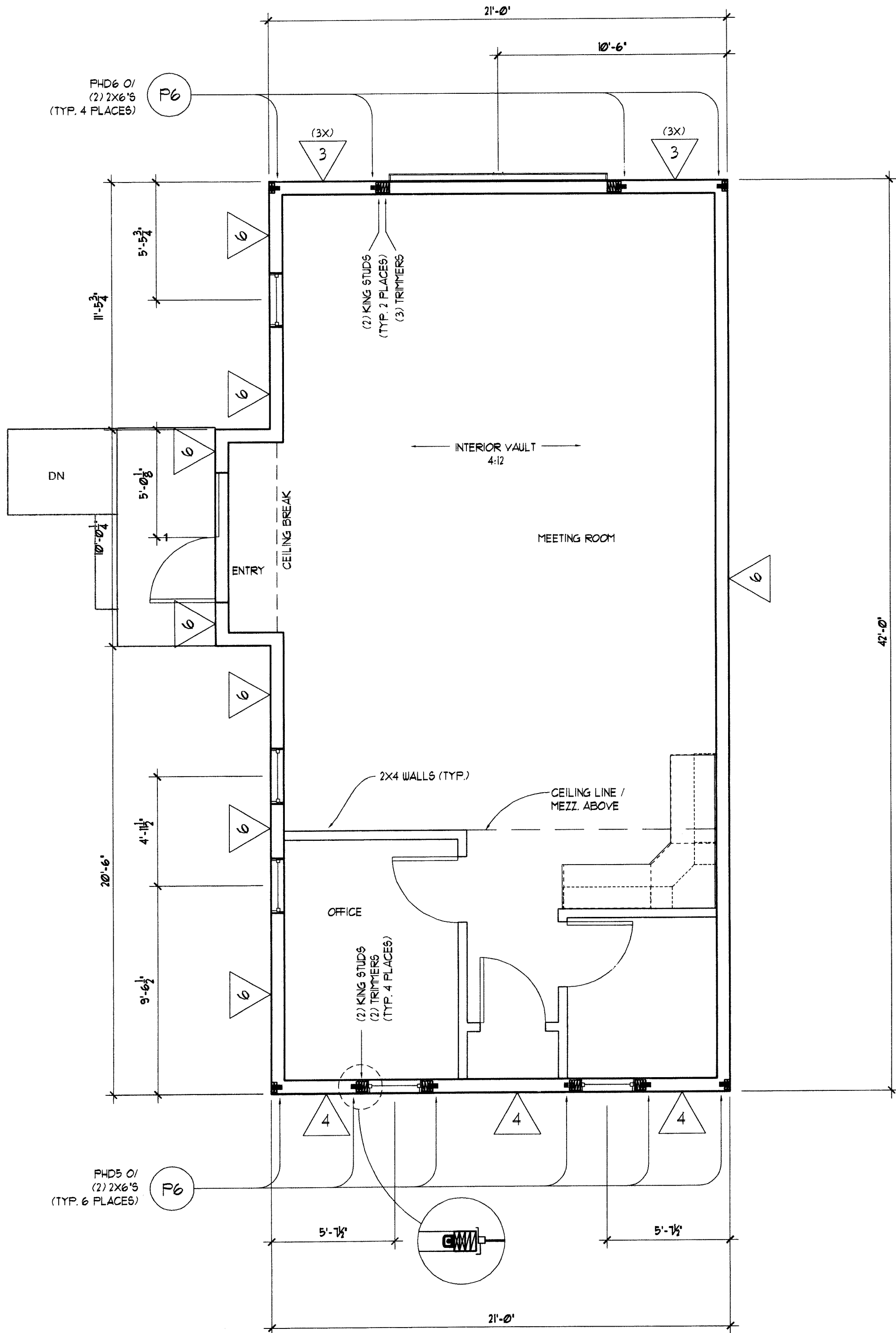
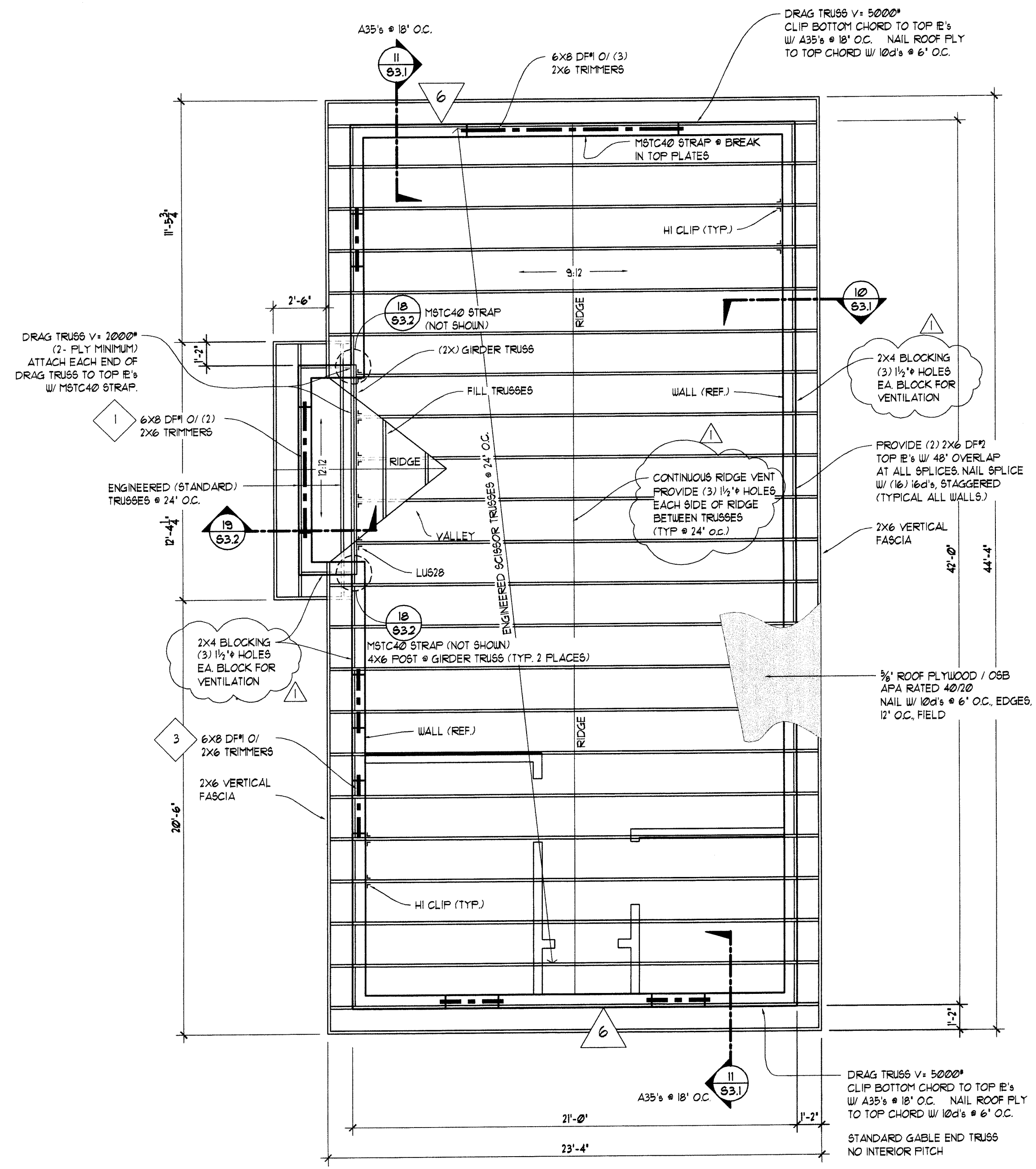
**ROBERTS HOUSE**  
 OWNER: CARSON CITY PARKS & RECREATION  
 1207 N. CARSON STREET  
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PROJECT

CONTRACTOR

JOB#: 06087 DRAWN BY: GT

**S2.0**  
**SHEET**



**ATTIC VENTILATION CALCULATIONS:**  
 SEE CALCULATIONS PER ARCHITECT

**ROOFING:**  
 COMPOSITION SHINGLES INSTALL PER MANUFACTURER'S SPECIFICATIONS AND 2006 IBC SECTION 1507.2, OVER 15# FELT OR BUILDING PAPER VAPOR BARRIER

**SHEATHING:**  
 1/2" CDX PLYWOOD (OR EQUAL) EXPOSURE I, APA SPAN RATED (40/20). STAGGER JOINTS - NAIL WITH 10d @ 6" O.C. ALL EDGES, GABLE ENDS, AND PRIZIE BLOCKS, 10d @ 12" O.C. FIELD

**TRUSSES:**  
 PRE-MANUFACTURED ENGINEERED TRUSSES @ 24" O.C. PROVIDE 2x STUD PER TRUSS PLY @ ALL GIRDER BRG. POINTS @ PLATES UNO.

NOTE: SEE TRUSS CALCULATIONS FOR TRUSS DESCRIPTIONS

**FILL SECTIONS:**  
 RIDGE 2x8 DF 2 OR BETTER  
 RAFTERS 2x6 DF 2  
 VALLEY KICKER 2x8 DF

**HEADERS:**  
 6x8 DF 4 (TYPICAL UNLESS OTHERWISE NOTED)  
 6x8 DF 4 @ GABLE ENDS (TYPICAL UNLESS OTHERWISE NOTED)

**TRIMMERS:**  
 DOUBLE TRIMMERS AT OPENINGS GREATER THAN 5'-0", BEARING WALLS  
 DOUBLE TRIMMERS AT OPENINGS GREATER THAN 6'-0", GABLE ENDS

**POSTS:**  
 DF (LOCATE AS NOTED)

**METAL CONNECTORS:**  
 HANGERS SHOWN AT TRUSSES ARE TYPICAL, HANGERS SPECIFIED ON THE STAMPED TRUSS CALCULATIONS SUPERCEDE THOSE SHOWN HERE.  
 SIMPSON HI CLIPS @ ALL TRUSS BEARING POINTS ON PLATES & BEAMS  
 SIMPSON HS CLIPS (O/S) @ ALL RAFTER BEARING POINTS ON PLATES & BEAMS  
 SIMPSON HS CLIPS (B/S) @ ALL GIRDER TRUSS BEARING POINTS, UNO.  
 SIMPSON PC @ CC POST CAPS (AS NOTED)  
 SIMPSON ST, MST, & LSTA STRAPS (AS NOTED)

**ATTIC ACCESS:**  
 22"x30" MIN. - PER 2006 IBC 1209.2

**STRUCTURAL ENGINEERING NOTES**  
 SYMBOL REFERENCES THE STRUCTURAL CALCULATIONS FOR THE MEMBER INDICATED  
 - SEE SHEET S31 FOR STANDARD STRUCTURAL DETAILS PER APPLICATION.  
 - WHERE POSTS AND MULTIPLE STUDS ARE SPECIFIED, THEY ARE TO BE STACKED IN ALL WALL FRAMING AND SOLID VERTICAL GRAIN BLOCKING SHALL BE PROVIDED AT ALL FLOOR LEVELS DOWN TO THE FOUNDATION.  
 - CONTRACTOR TO PROVIDE TRUSS CALCS FOR REVIEW AND APPROVAL BY PROJECT ENGINEER.  
 - DRAG TRUSSES SHALL BE DESIGNED BY TRUSS MANUFACTURER FOR THE INDICATED LOAD FOR REVIEW AND APPROVAL BY PROJECT ENGINEER.

**SHEATHING:**  
 3/4" CDX PLYWOOD NAILED PER SHEAR WALL CALLOUTS AND SHEAR WALL SCHEDULE UNO.

**WALLS:**  
 2x6 DF 2 @ 16" O.C. WHERE H ≤ 13'-0" AT EXTERIOR PERIMETER  
 2x6 DF STUDS AT 16" O.C. WHERE H ≤ 10'-0" AT EXTERIOR PERIMETER

**SUBFLOOR:**  
 3/4" PLYWOOD SHEATHING, EXPOSURE I, T & G UNDERLAYMENT GRADE, APA SPAN RATED 24 O.C. OR EQUIVALENT, LAID AT RIGHT ANGLES OVER FLOOR JOISTS. STAGGER JOINTS, GLUE & NAIL WITH 10d @ 6" O.C. EDGE, 12" O.C. FIELD.

**SILLS & PADS:**  
 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.

**DIMENSIONS:**  
 MEASUREMENTS ARE TO STUD FACE UNLESS OTHERWISE NOTED.

**POSTS:**  
 DF 4 (LOCATE AS NOTED)

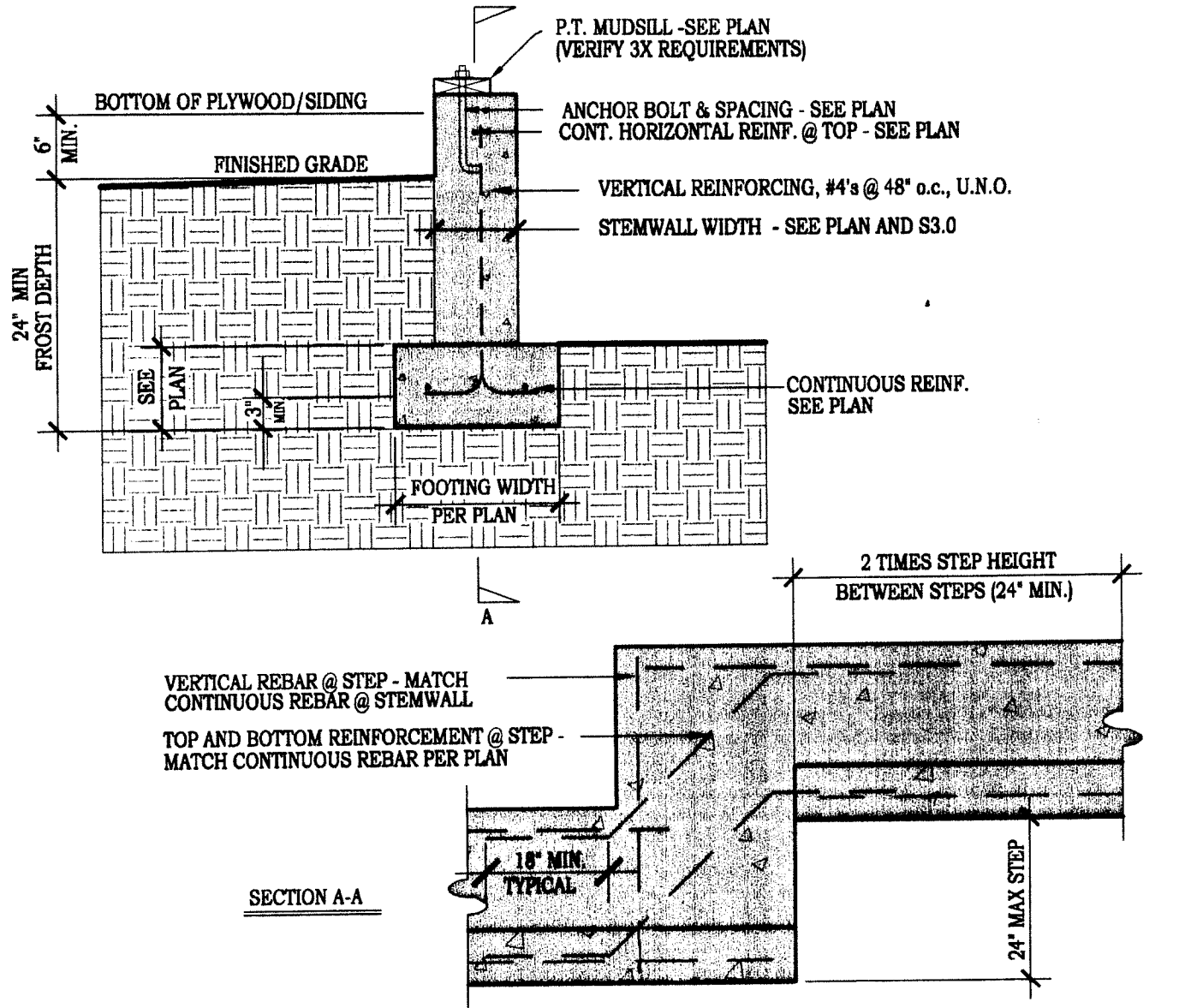
**WALL FRAMING:**  
 ALL LUMBER SHALL BE STD. NO. 2 OR BETTER UNLESS OTHERWISE NOTED.  
 BALLOON FRAMING REQUIRED AT ALL GABLE WALLS WITH RAFTER OR SCISSOR TRUSS ROOF FRAMING UNLESS OTHERWISE NOTED.

**METAL CONNECTORS:**  
 ALL HANGERS SPECIFIED ARE SIMPSON STRONG TIE OR EQUIVALENT.

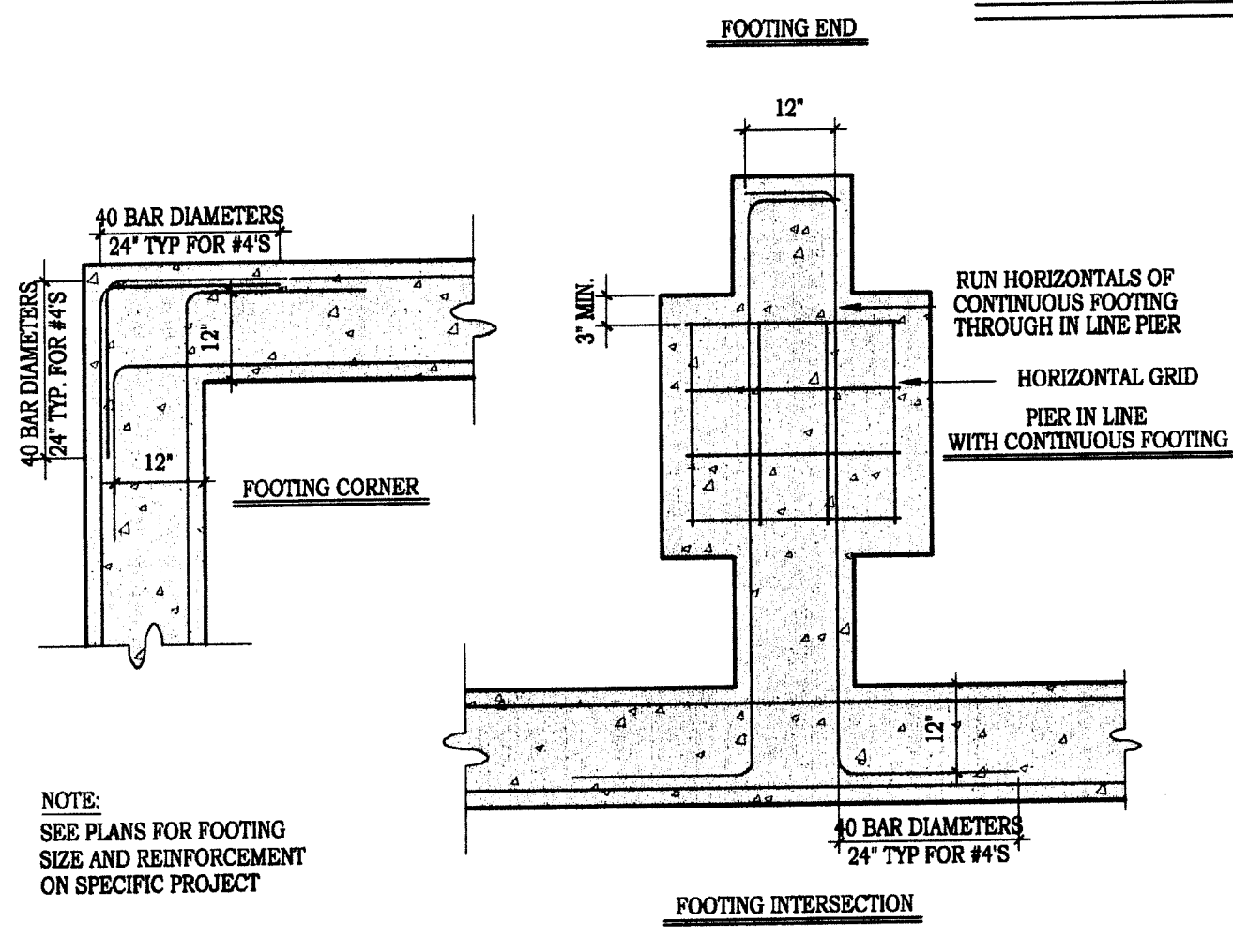
**ENGINEERING SYMBOLS**  
 ▷ SYMBOL INDICATES SHEAR WALL NAILING - SEE SCHEDULE SHEET S30  
 - WHEN NOTED FOR A SPECIFIC SHEAR WALL, FOUNDATION SILL PLATES AND ALL FRAMING MEMBERS RECEIVING EDGE NAILING FROM ABUTTING PANELS SHALL NOT BE LESS THAN A SINGLE 3" NOMINAL MEMBER AND FOUNDATION SILL PLATES SHALL NOT BE LESS THAN A SINGLE 3" NOMINAL MEMBER AT SHEAR WALL NOTED.  
 --- SYMBOL INDICATES APPROXIMATE LENGTH AND LOCATION OF SHEAR PANEL.  
 ○ SYMBOL INDICATES A HOLDDOWN - SEE HOLDDOWN SCHEDULE, SHEET S30  
 PROVIDE ANCHOR BOLT TO MATCH HOLDDOWN SPECIFIED - SEE HOLDDOWN SPECIFICATION TABLE, SHEET S30  
 - CONTRACTOR TO VERIFY HOLDDOWN LOCATIONS AT SHEAR WALLS  
 - SEE STANDARD DETAILS (SHEET S31) FOR TYPICAL INSTALLATIONS OF HOLDDOENS, HOLDDOWN STRAPS ACROSS THE FLOOR AND POST SPLICES  
 - POST SPLICES AT FLOOR LEVELS SHALL HAVE S16224 B/S UNO.  
 - SHEAR FLY SHALL RUN CONTINUOUS TO ENDS OF PANELS TO HOLDDOWN STUD.



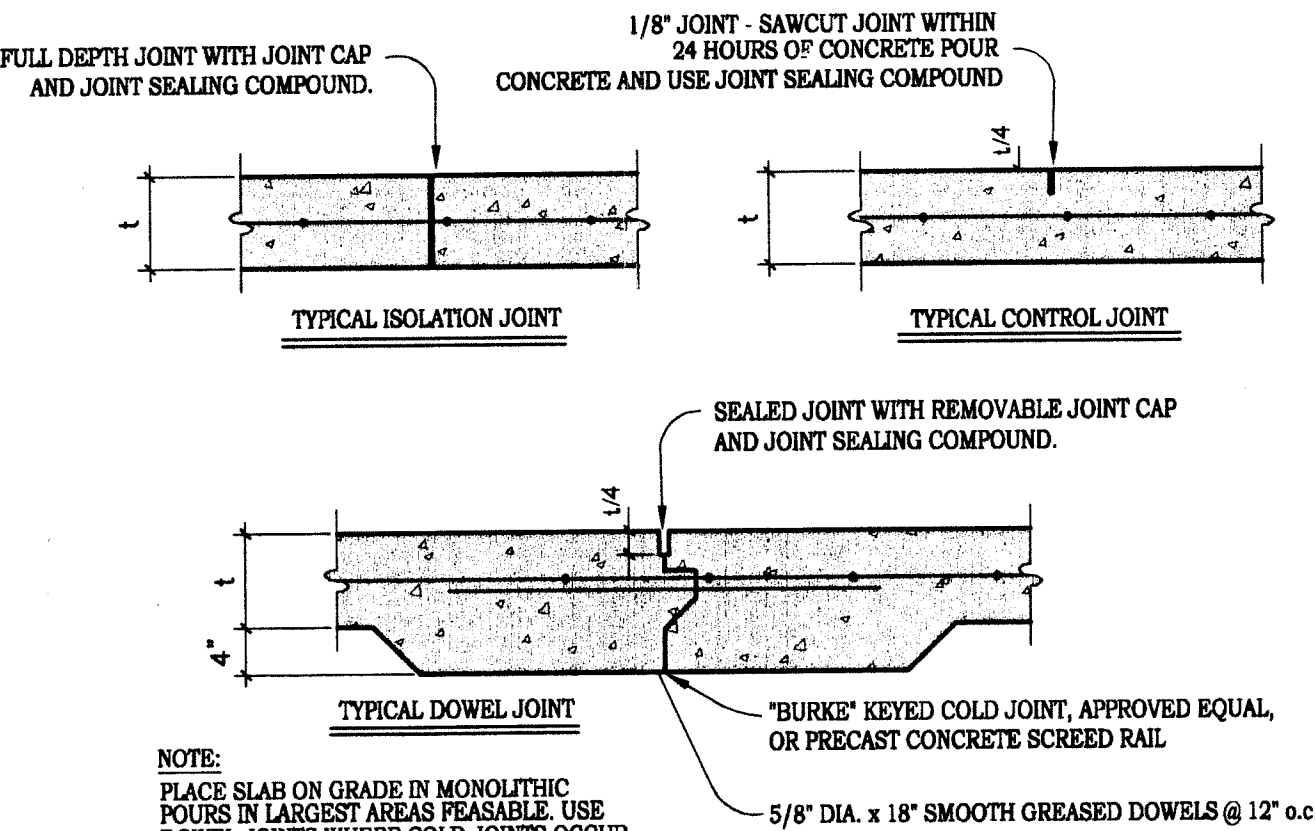
# TYPICAL DETAILS



**1 PERIMETER FOOTING & STEMWALL**  
SCALE: 3/4" = 1'-0"



**2 REINFORCEMENT LAPS IN CONCRETE FOOTINGS**  
SCALE: 3/4" = 1'-0"

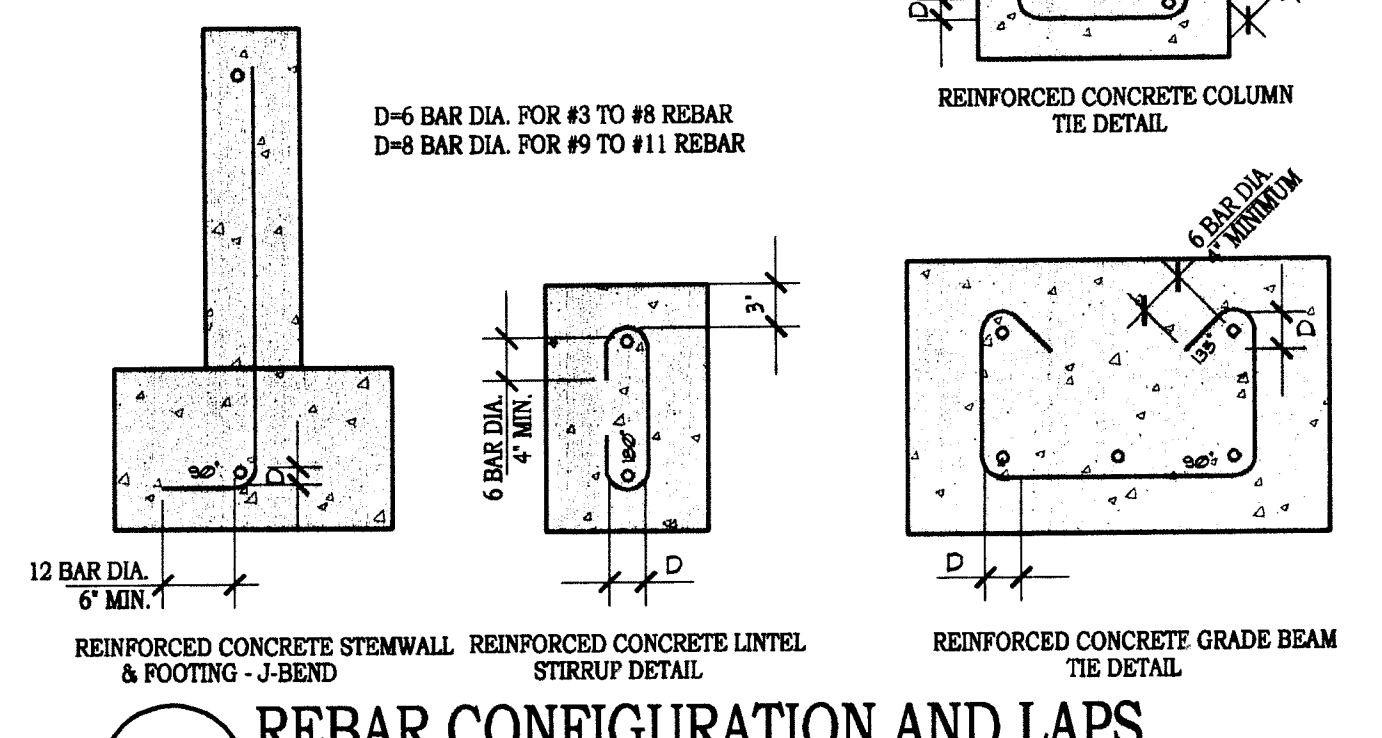


**3 TYPICAL CONCRETE SLAB JOINTS**  
SCALE: 3/4" = 1'-0"

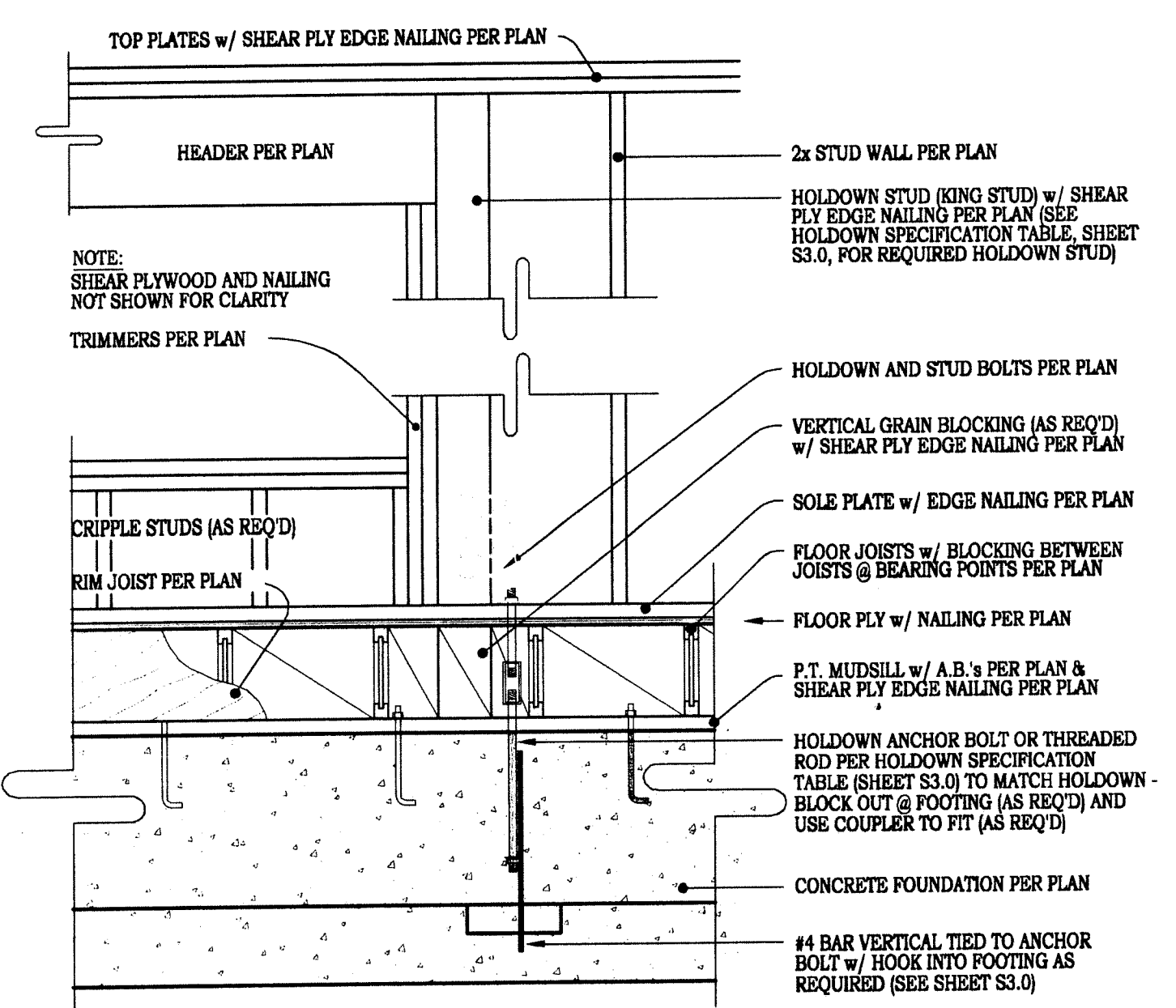
OVERLAP LENGTHS @ REBAR SPLICES @ f<sub>c</sub> = 2500 PSI MIN.

SIZE OF REINFORCEMENT	#3	#4	#5	#6	#7	#8
CONCRETE, EPOXY COATED	23"	30"	38"	45"	53"	60"
w/ COLD JOINT	35"	45"	57"	68"	80"	90"
CONCRETE OR CMU-SINGLE CURTAIN OF REINFORCING (SEE NOTE 1)						
TYPICAL	11"	20"	25"	30"	35"	40"
w/ SPLICE @ MIDHEIGHT OR SPAN	23"	30"	38"	45"	53"	60"
CONCRETE OR CMU-DOUBLE CURTAIN OF REINFORCING (SEE NOTE 2)						
TYPICAL	20"	26"	33"	39"	46"	52"
w/ SPLICE @ MIDHEIGHT OR SPAN	30"	39"	50"	59"	69"	78"

- NOTES:  
1) USE FOR SINGLE CURTAIN OR DOUBLE CURTAIN w/ SPLICES STAGGERED @ 24"  
2) USE FOR (2) OR MORE REINFORCING BARS SPACED < 3"  
USE SINGLE CURTAIN OVERLAP LENGTHS FOR STAGGERED SPLICES



**4 REBAR CONFIGURATION AND LAPS**  
SCALE: 3/4" = 1'-0"



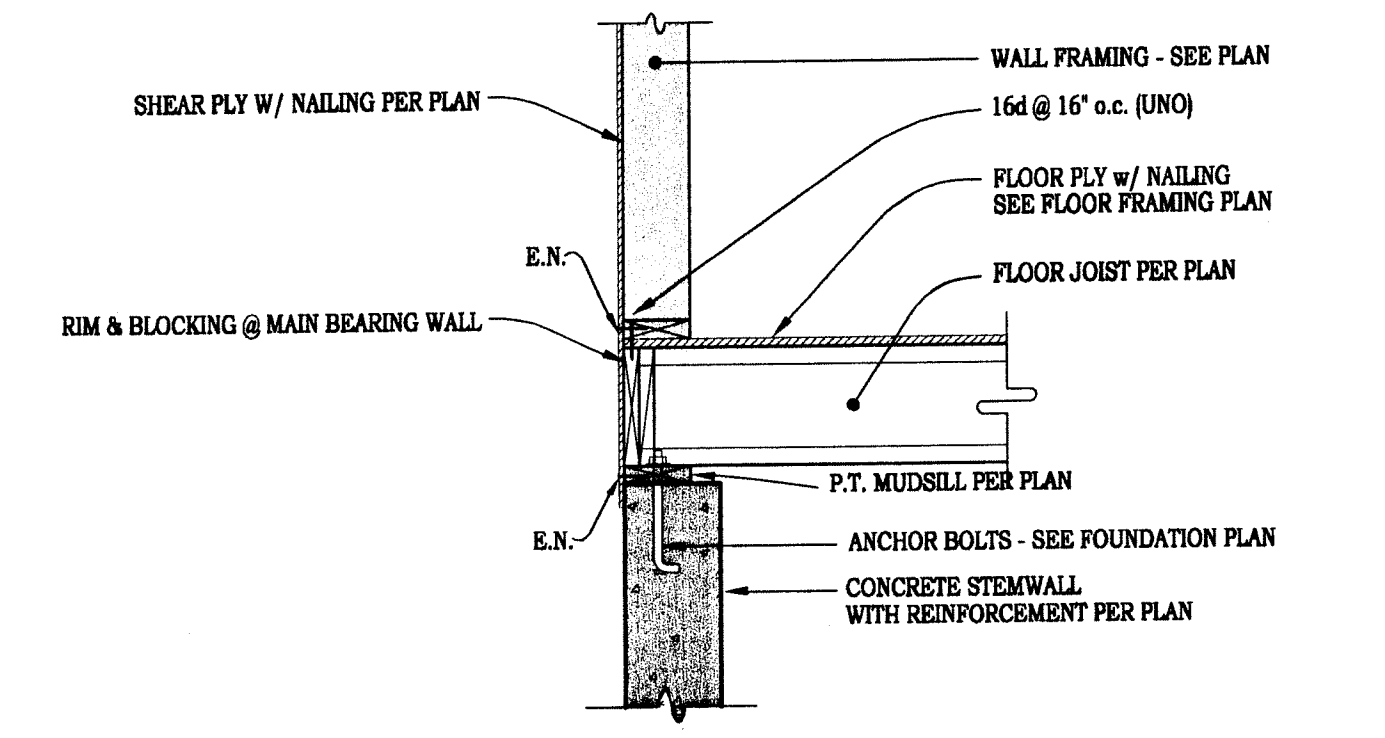
**5 TYPICAL HOLDOWN @ WINDOW/DOOR**  
SCALE: 3/4" = 1'-0"

- NOTES:  
1. APPLIES ONLY TO MEAN ROOF HEIGHTS UP TO 35 FEET. FOR MEAN ROOF HEIGHTS OVER 35 FEET, SEE STRUCTURAL PLAN FOR ROOF NAILING SCHEDULE.  
2. EDGE SPACING ALSO APPLIES OVER ROOF FRAMING @ GABLE-END WALLS.  
3. WIND SPEED IS FASTEST MILE - SEE S3.0 FOR VELOCITY

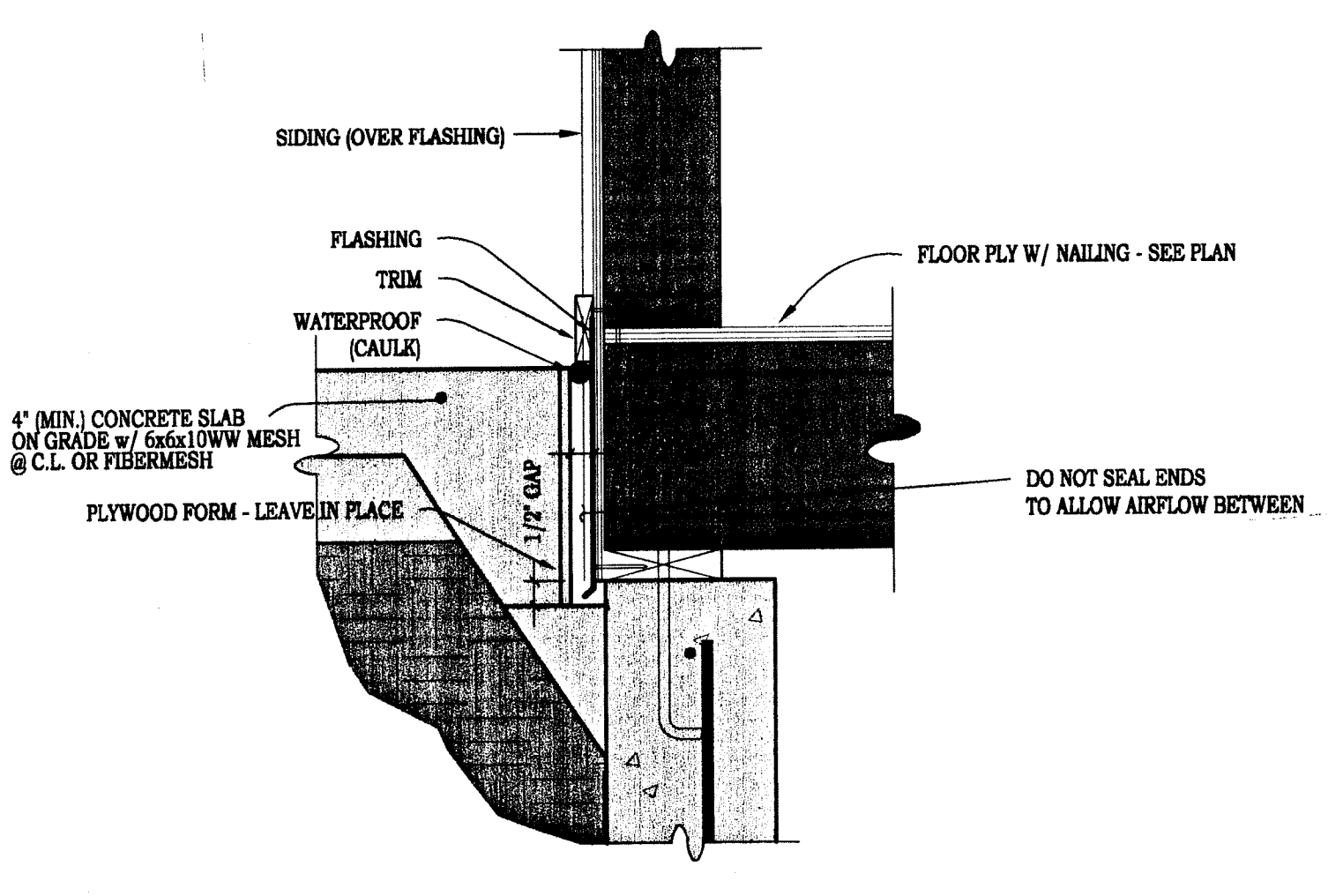
80 TO 90 MPH WIND REGION ROOF FASTENING ZONE SCHEDULE

PANEL LOCATION	NAILS	ROOF FASTENING ZONE		
		1	2	3
EDGES <sup>3</sup>	8d	6	6	4
FIELD	8d	12	6	6

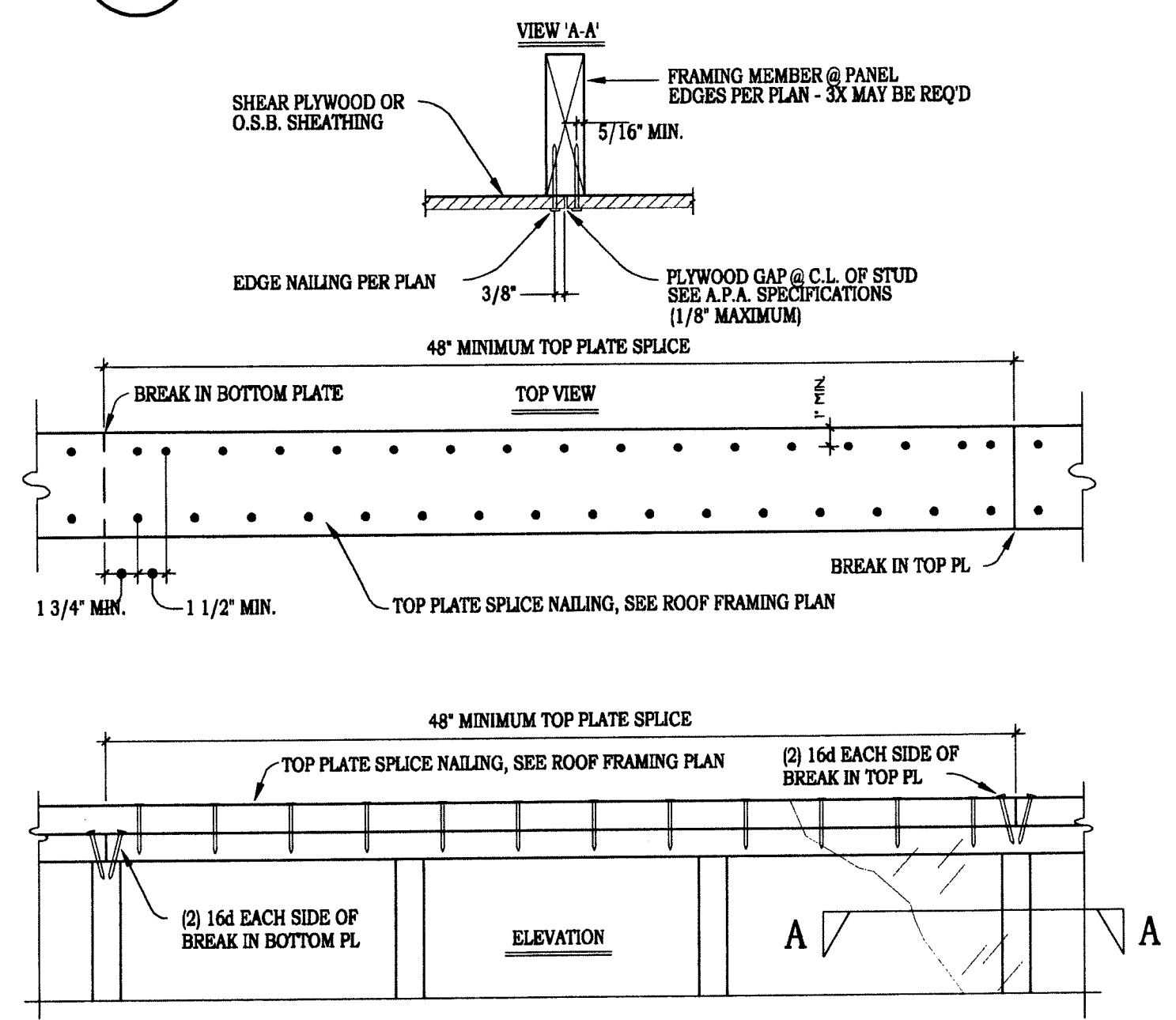
**9 ROOF FASTENING ZONE SCHEDULE**  
SCALE: 3/4" = 1'-0"



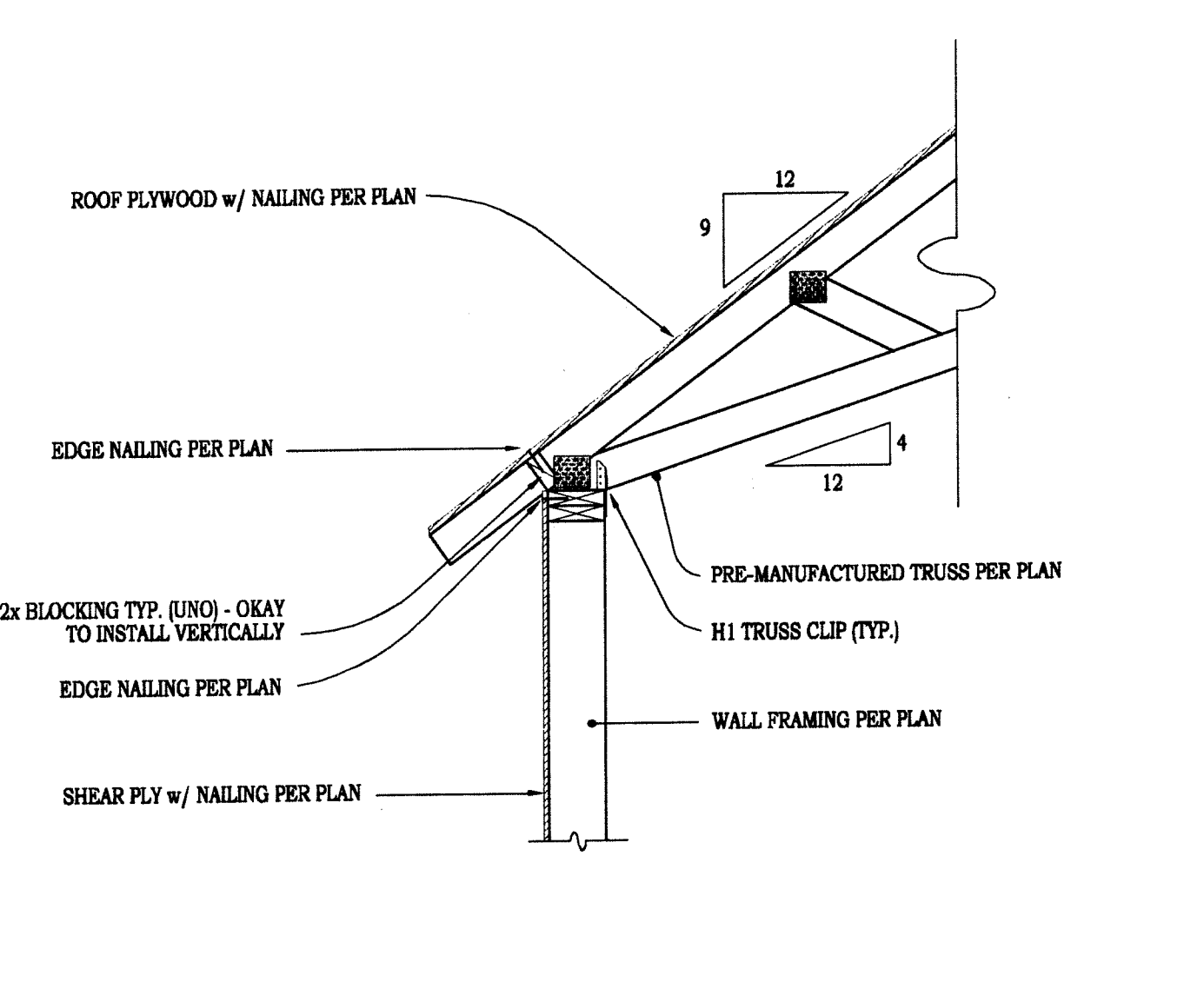
**6 SHEAR TRANSFER ACROSS FLOOR AT STEMWALL / RETAINING WALL**  
SCALE: 3/4" = 1'-0"



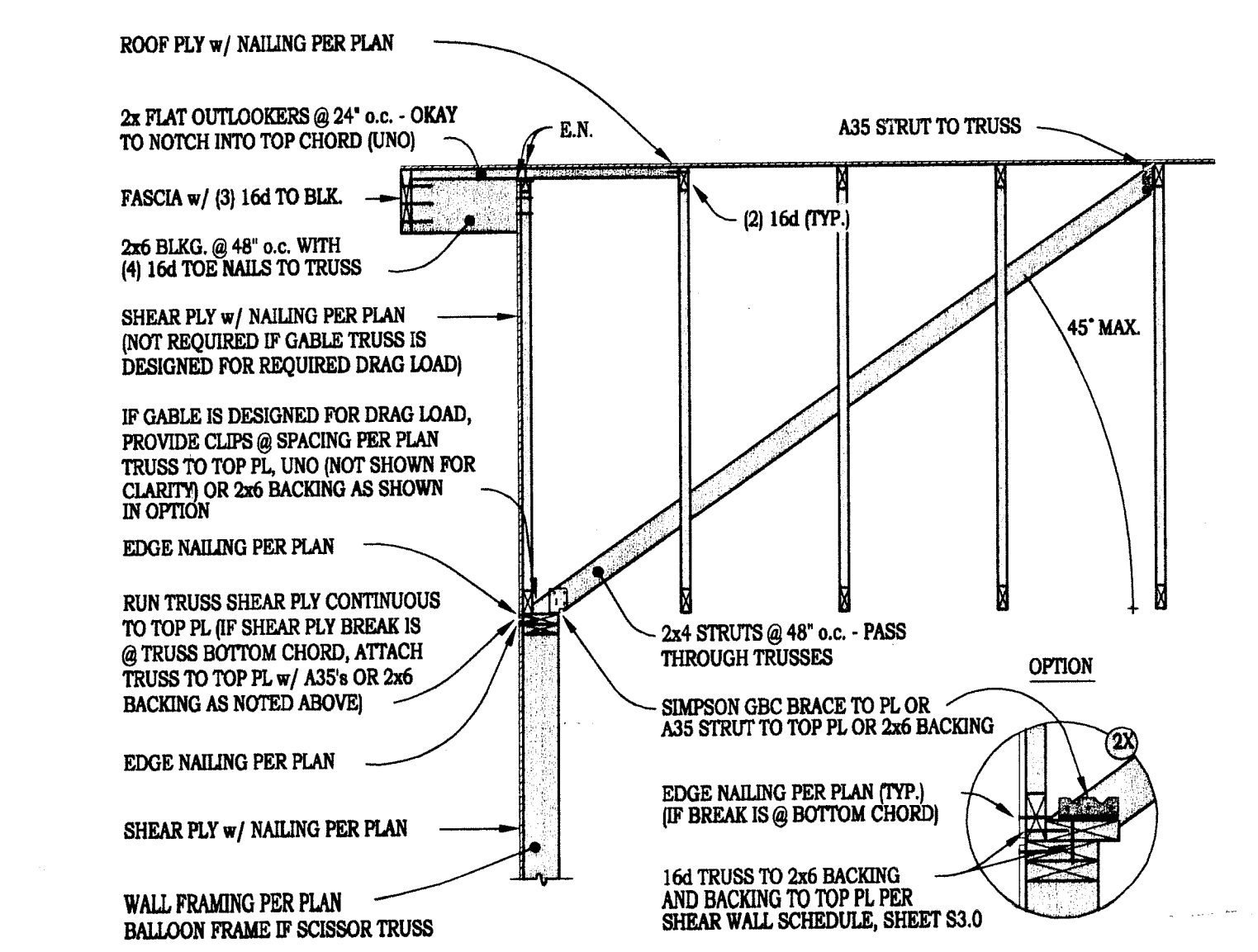
**7 SLAB AT RAISED FLOOR W/ 1/2" GAP**  
SCALE: 1-1/2" = 1'-0"



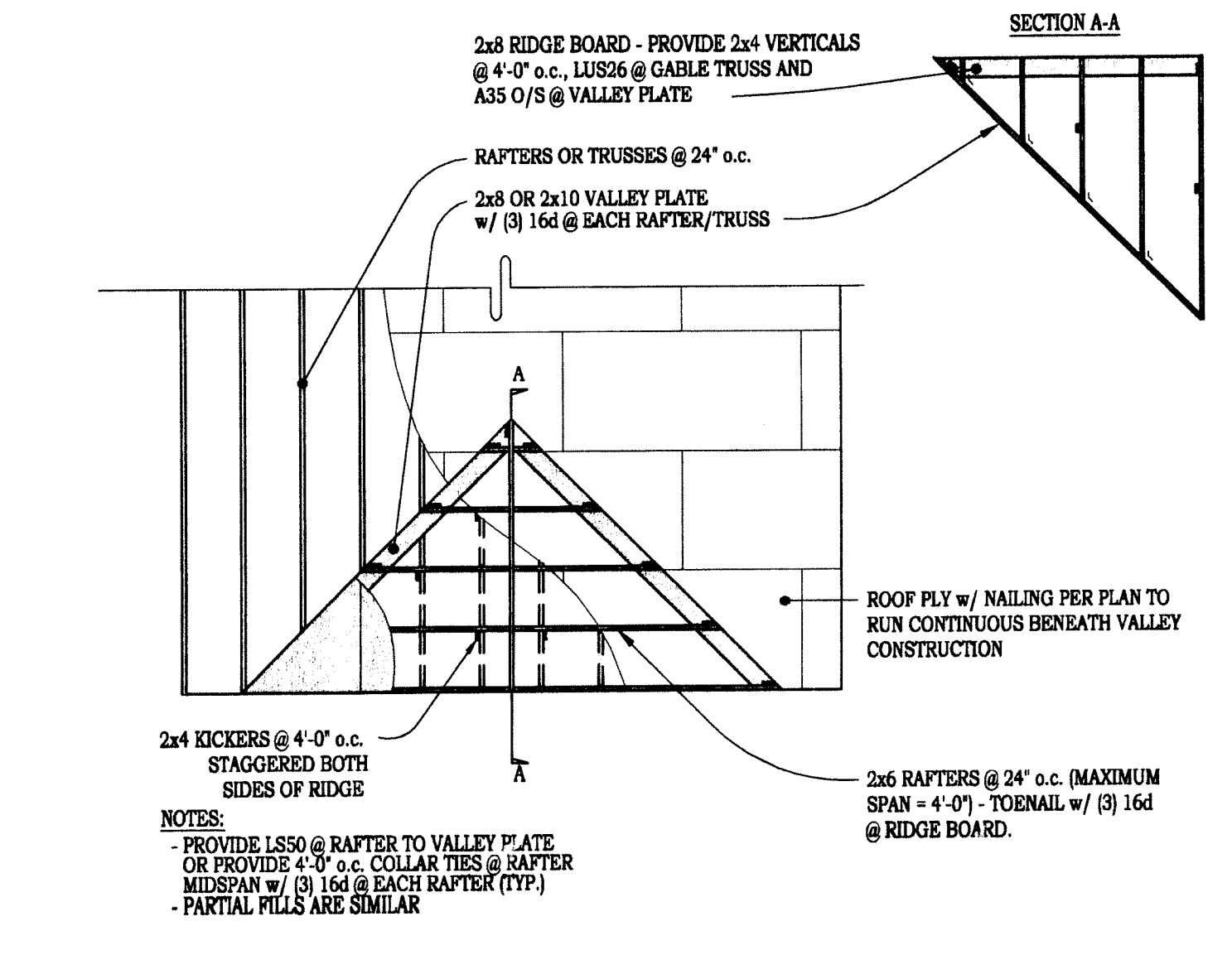
**8 TOP PLATE SPLICE & SHEAR PLYWOOD SPLICE**  
SCALE: 3/4" = 1'-0"



**10 TRUSS TO TOP PLATE CONNECTION**  
SCALE: 3/4" = 1'-0"



**11 GABLE TRUSS TO TOP PL CONNECTION**  
SCALE: 3/4" = 1'-0"



**12 VALLEY FRAMING - MAX 40 PSF SNOW**  
SCALE: 3/4" = 1'-0"

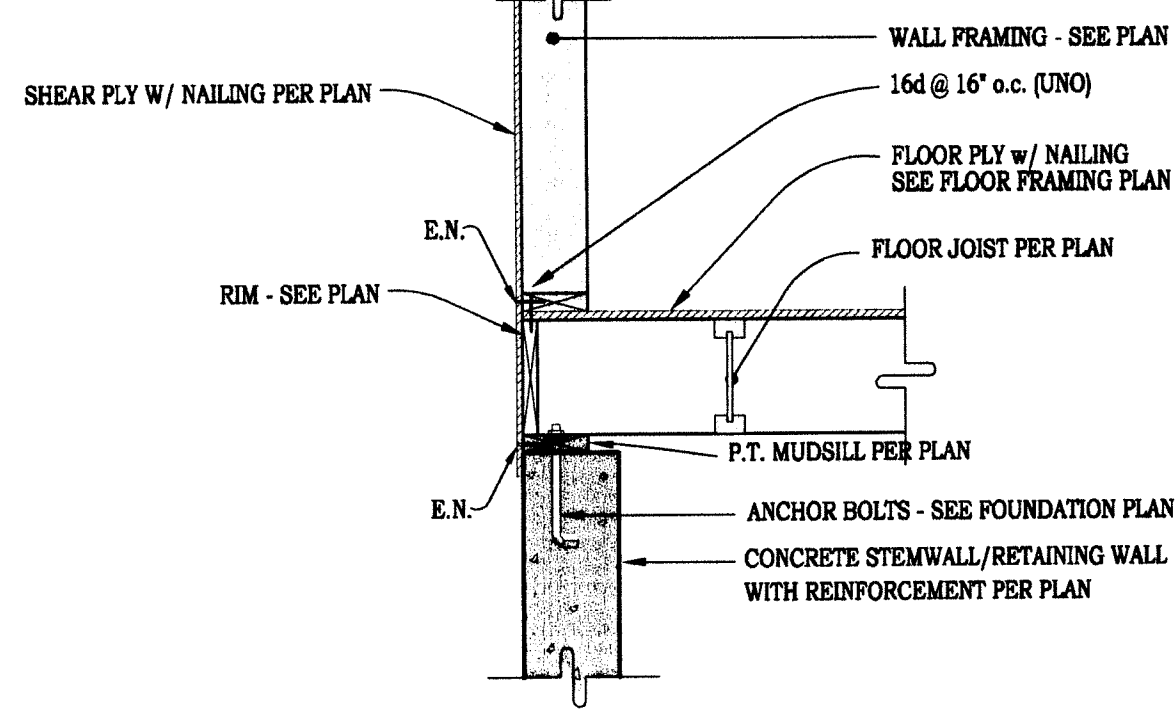
THREE CASTLES ENGINEERING, LLC  
An Engineering and Consulting Company  
CARY E. THURM, JR., D.E. #16605  
2516 Business Parkway, 8th Fl  
Hickory, NC 28626  
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e-mail: threecastlesengineering@earthlink.net

CARY E. THURM, JR.  
PROFESSIONAL ENGINEER - STATE OF NORTH CAROLINA  
LICENSE # 16605  
MAR 20 2008

ORIGIN DATE: 01/01/08  
REVISION DATE

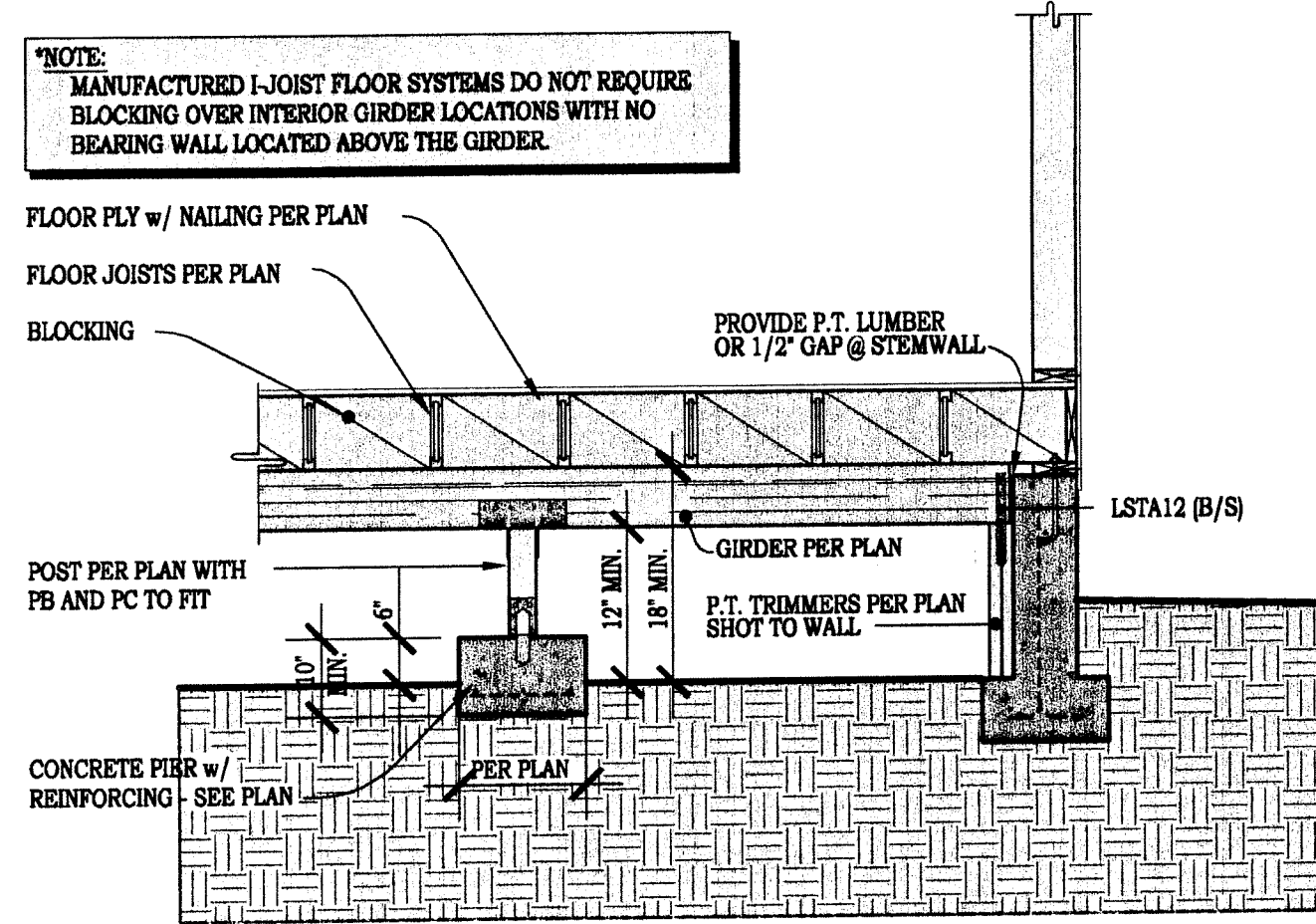
**ROBERTS HOUSE**  
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PROJECT

CONTRACTOR  
JOB#: 06087 DRAWN BY: GT  
**S3.1**  
SHEET  
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13 SHEAR TRANSFER ACROSS FLOOR AT STEMWALL / RETAINING WALL

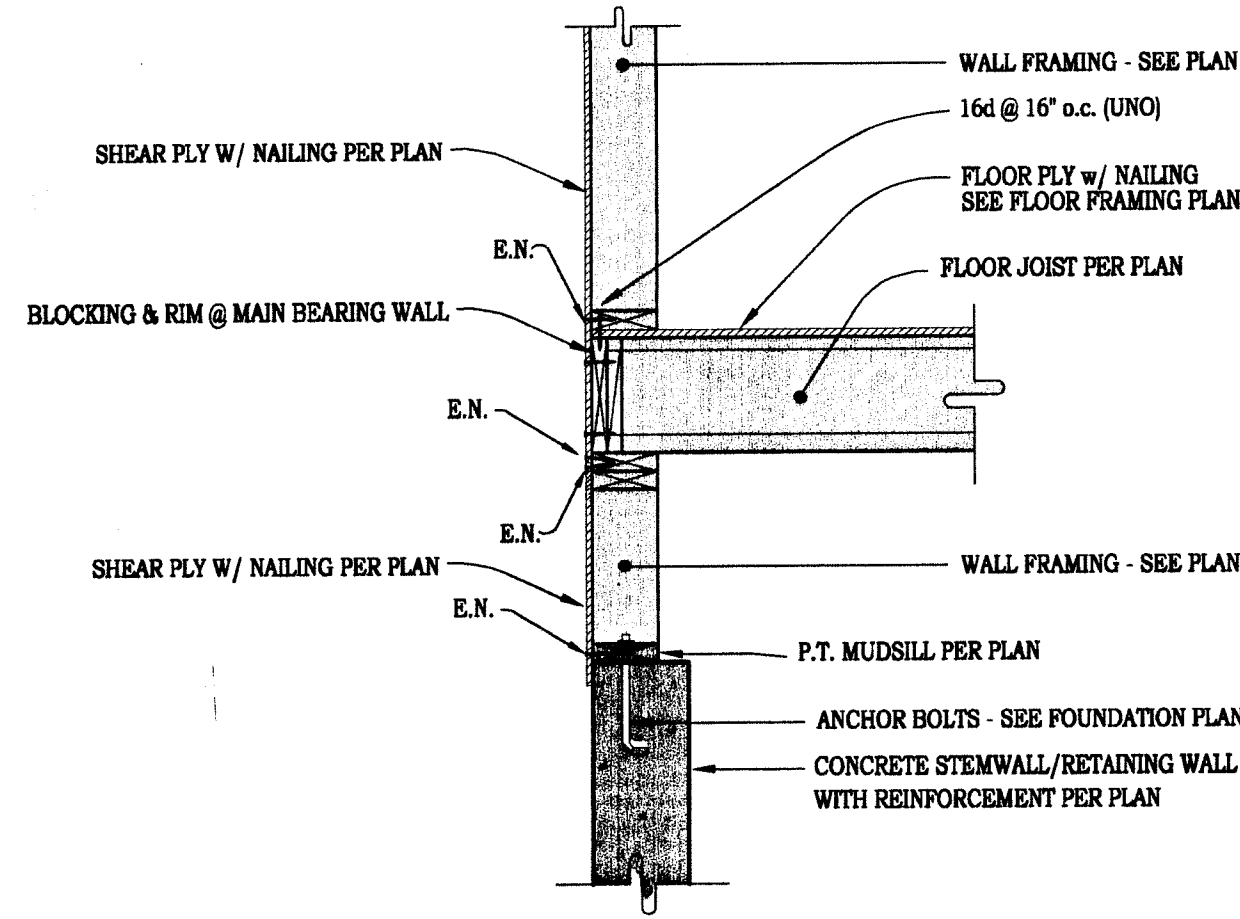
SCALE: 3/4" = 1'-0"



14 INTERIOR POST & PIER @ PERIMETER

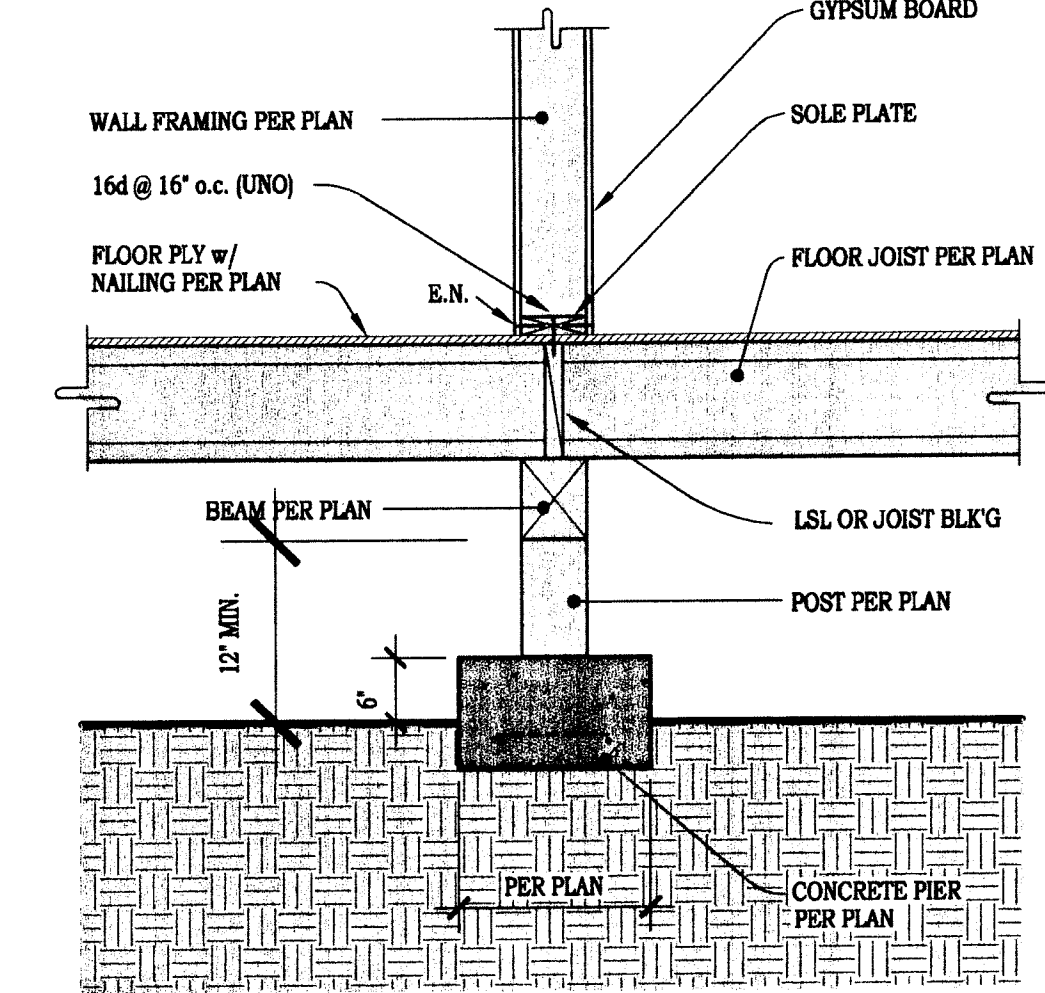
12-020

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



15 SHEAR TRANSFER ACROSS FLOOR AT STEMWALL W/ PONYWALL

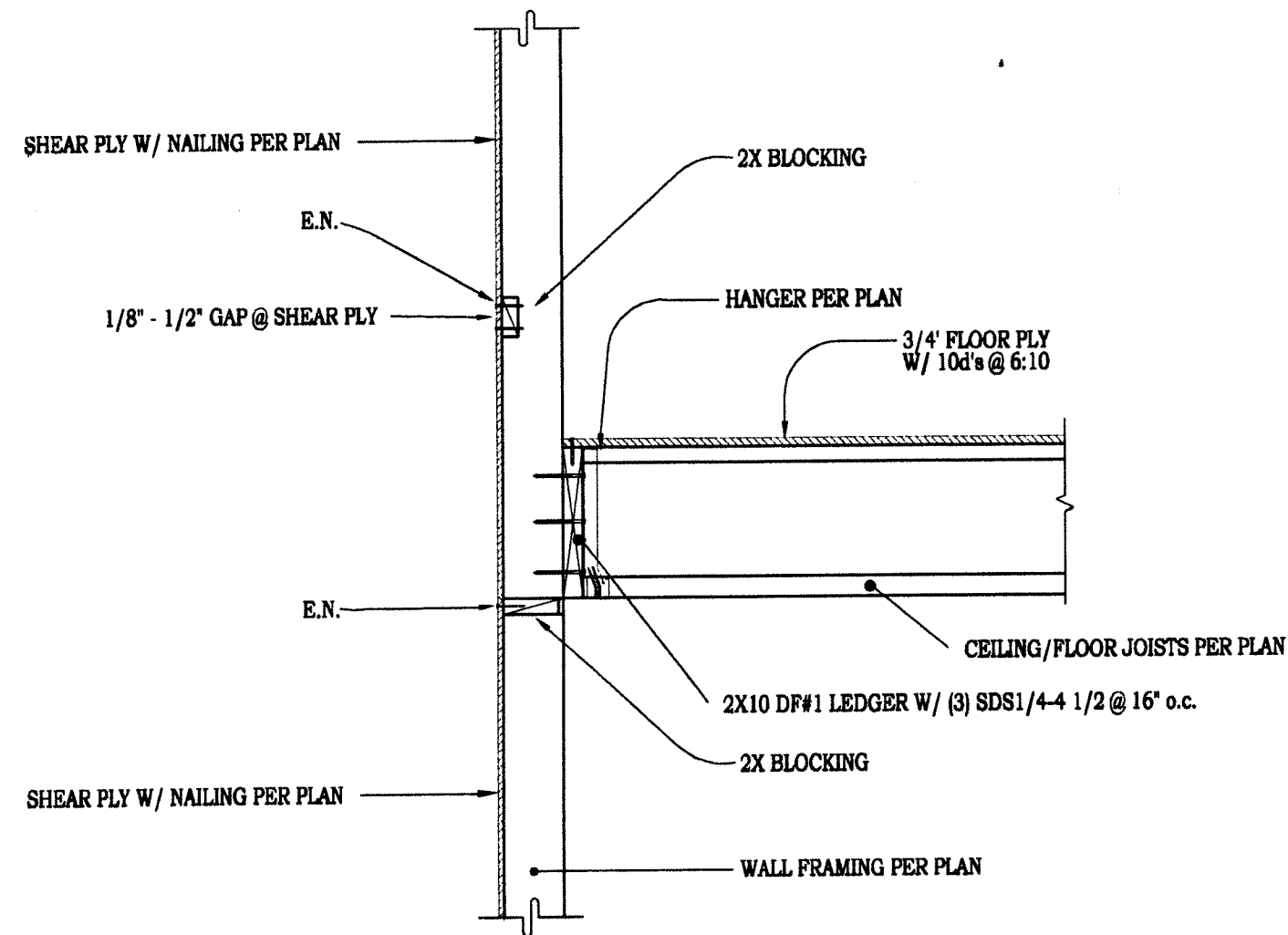
SCALE: 3/4" = 1'-0"



16 TYPICAL INTERIOR PONYWALL

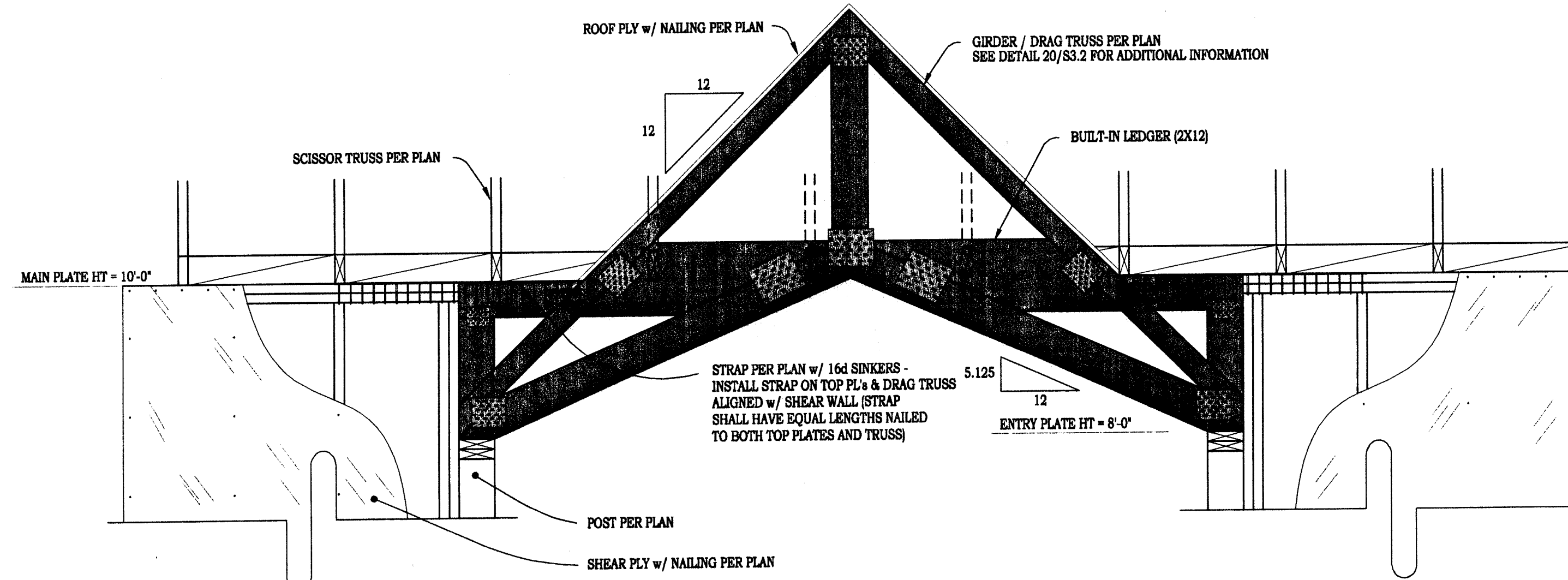
20-037

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



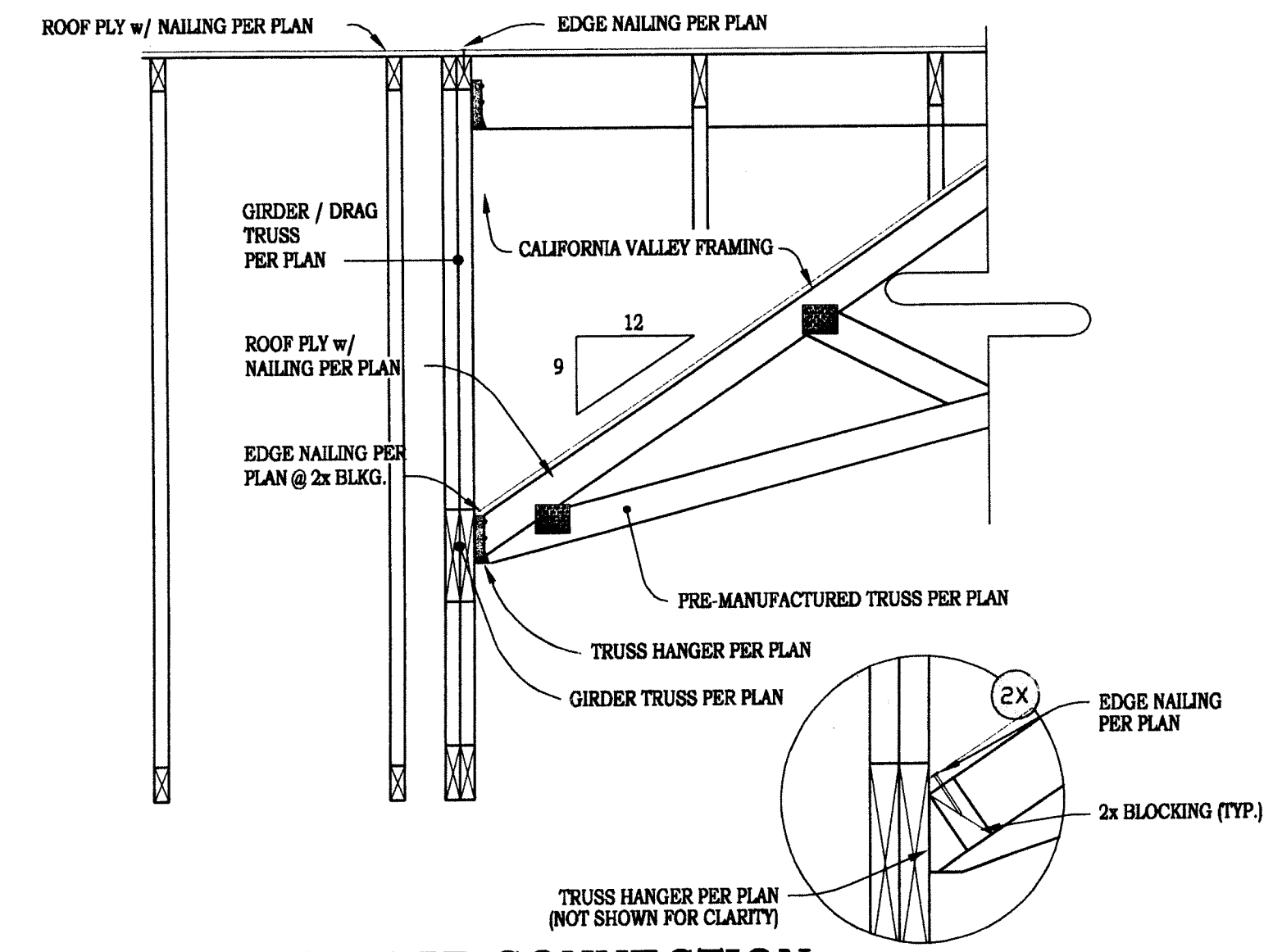
17 SHEAR TRANSFER @ BALLOON FRAMING W/ LEDGER @ FLOOR JOISTS

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



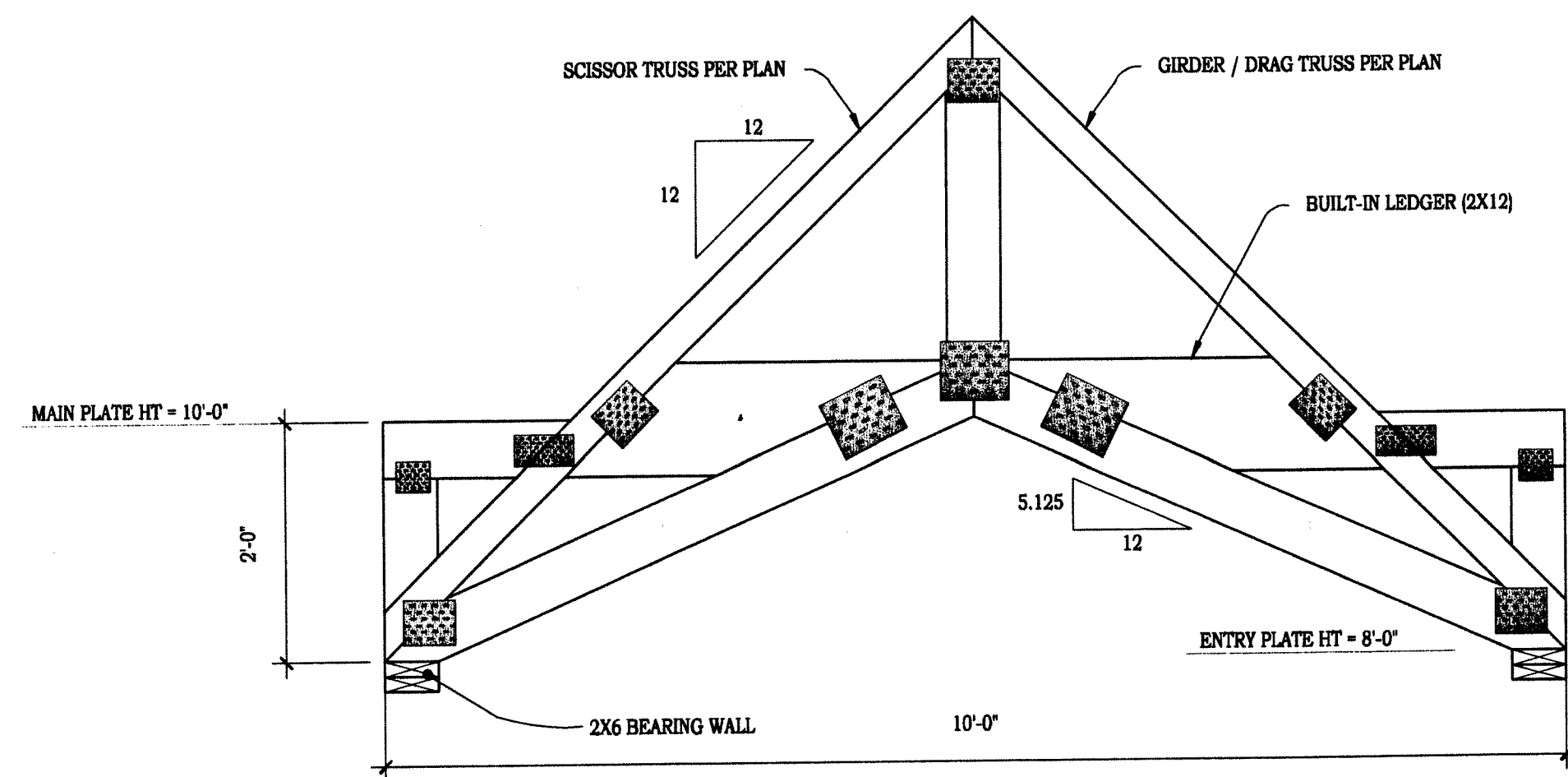
18 GIRDER / DRAG TRUSS TO TOP PLATE OF SHEAR WALL CONNECTION

30-045



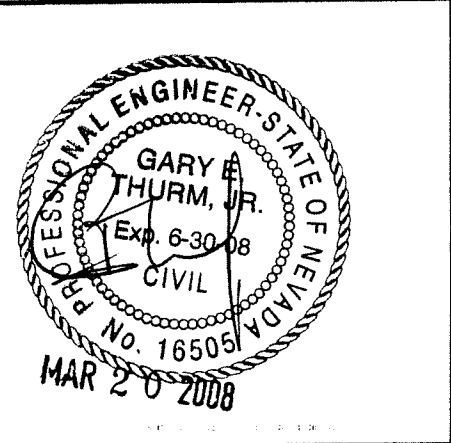
19 INTERIOR GIRDER CONNECTION

30-040



20 GIRDER / DRAG TRUSS DETAIL

30-045



ORIGIN DATE: 01/01/08

REVISION DATE

**ROBERTS HOUSE**  
OWNER: CARSON CITY PARKS & RECREATION  
1207 N. CARSON STREET  
CARSON CITY, NV  
A.P.N. 002-151-01

PROJECT

CONTRACTOR

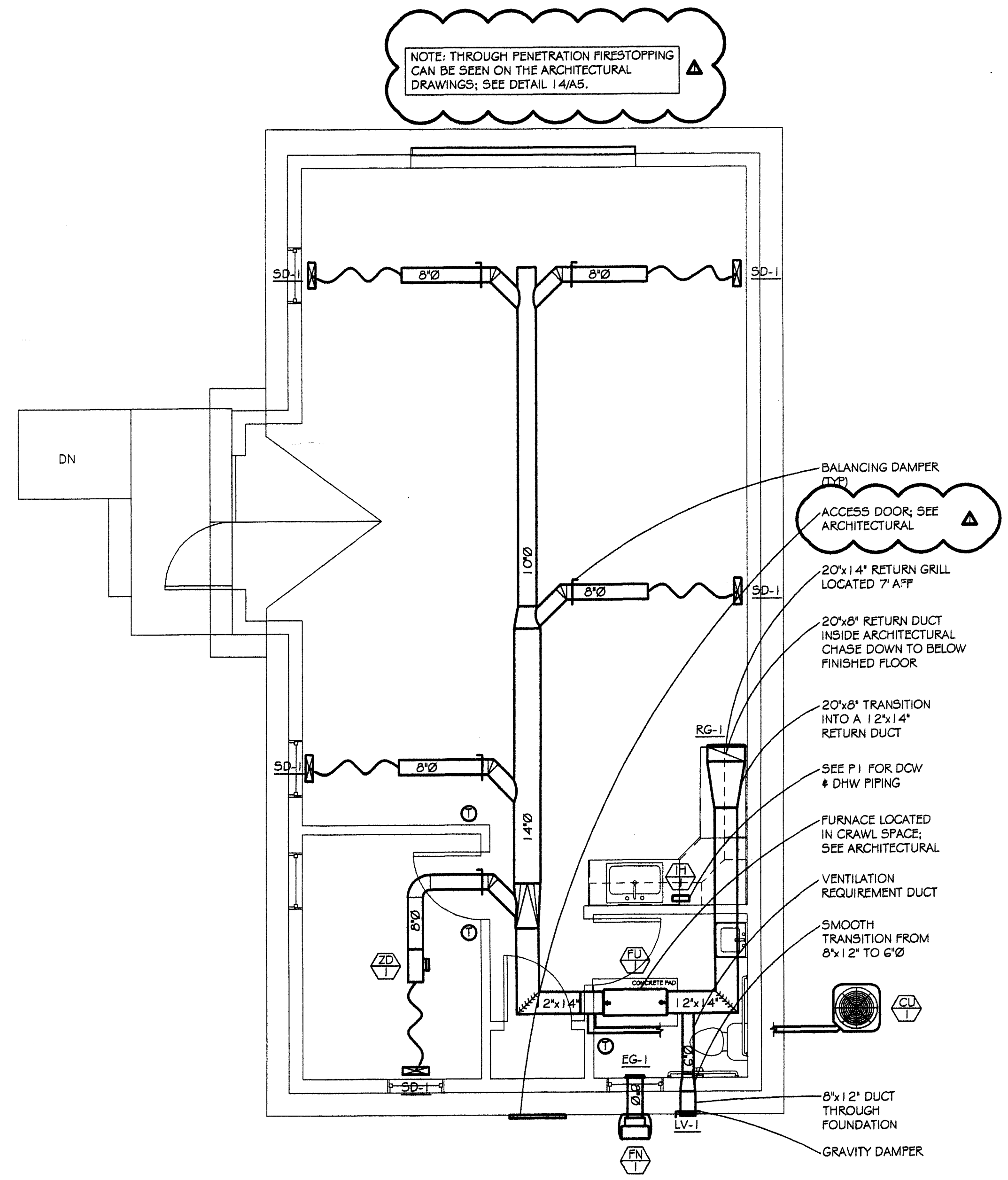
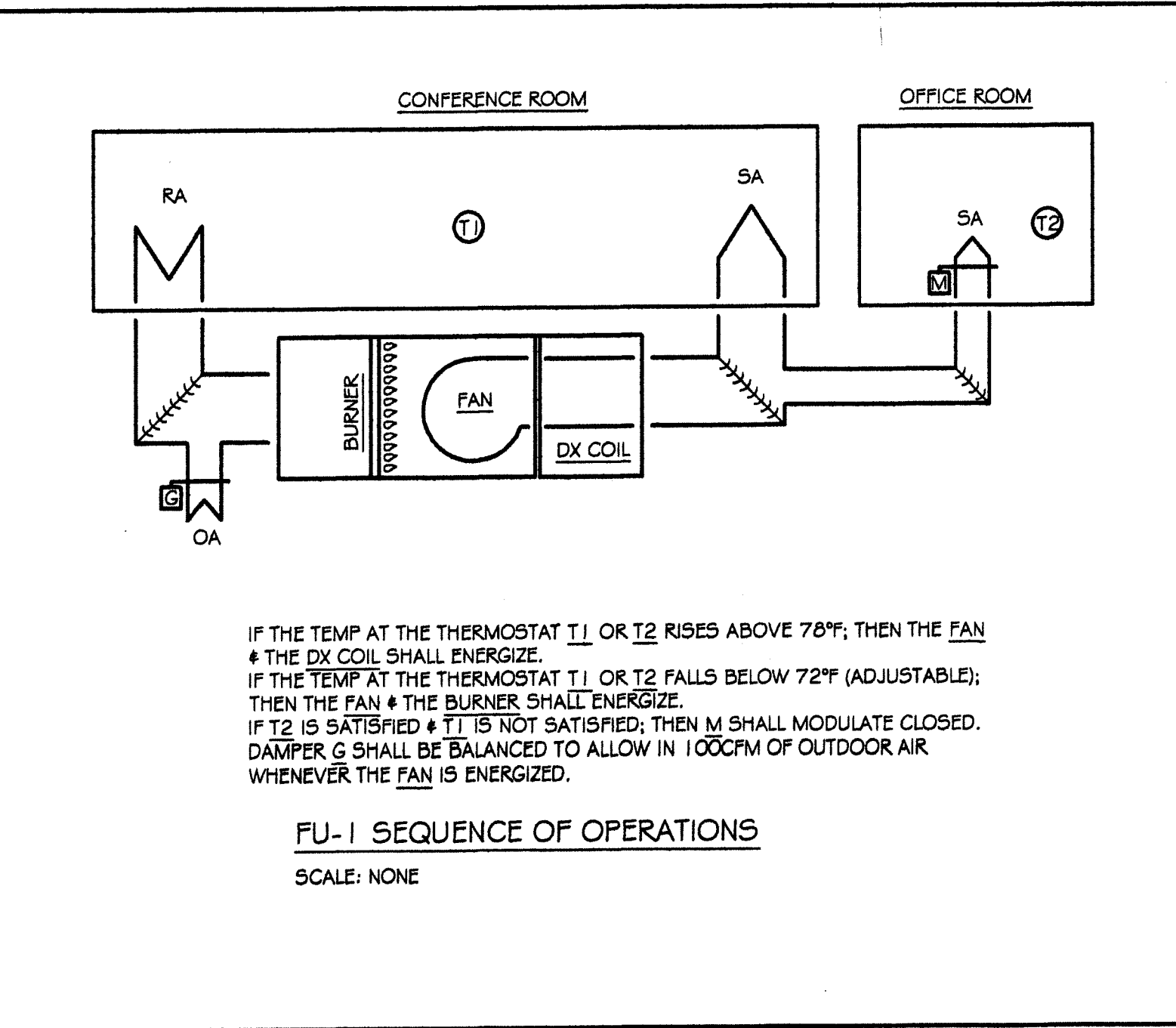
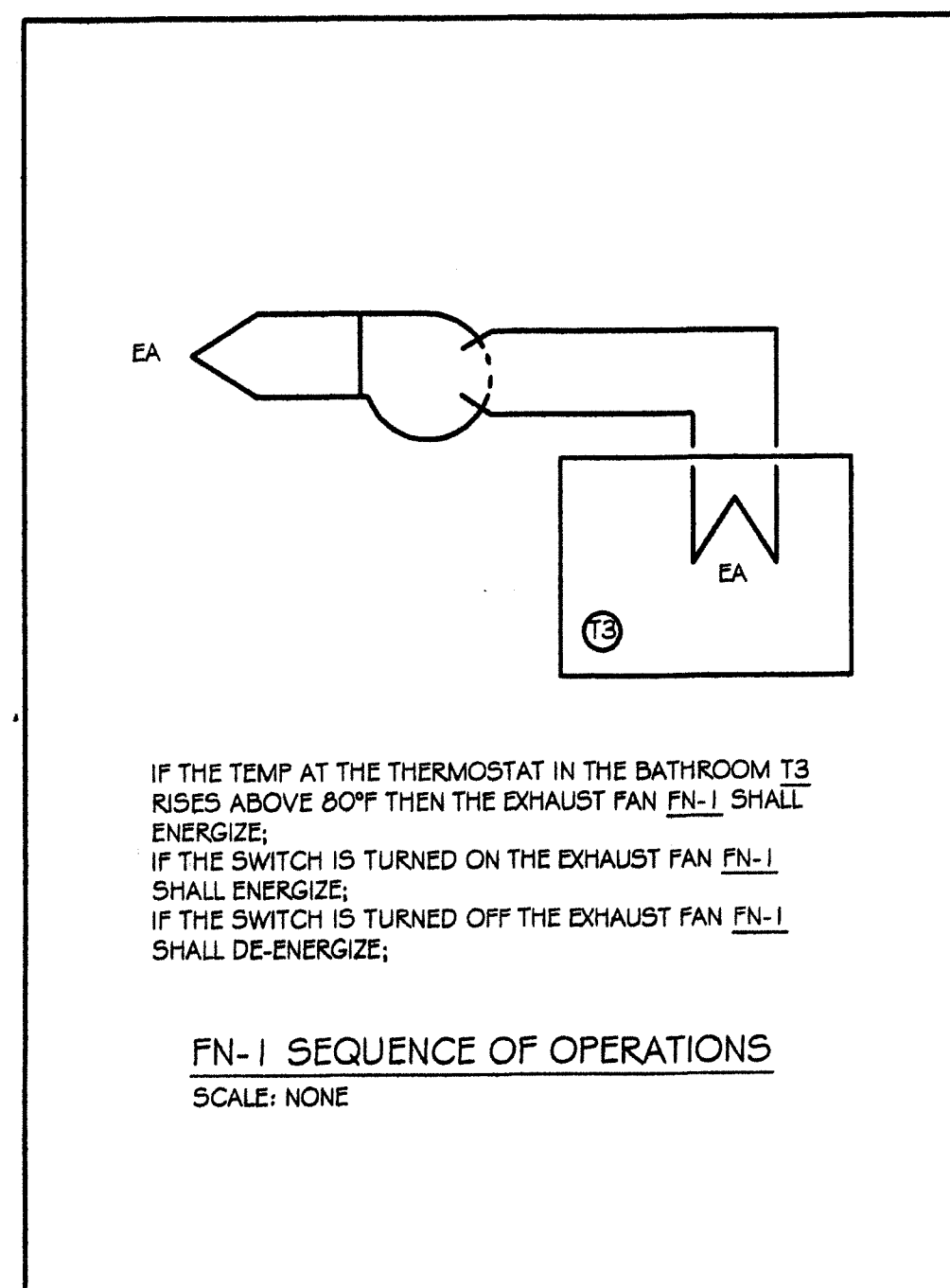
JOB#: 06087 DRAWN BY: GT

**S3.2**  
**SHEET**  
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FURNACE															
TAG	LOCATION	SERVICE	TYPE	FURNACE AIR				DUCT IF SIZE (IN)	VENT PIPE SIZE (IN)	GAS INPUT		BASIS OF DESIGN			
				ESP (IN)	FLOW (CFM)	HEAT (MBH)	DUCT (IN)			@ SEALEVEL (MBH)	@ 4400' (MBH)	HP	V/PH/Hz	MFG	MODEL
FU-1	UNDER FLOOR	ENTIRE BUILDING	SINGLE STAGE	.5	900	41.3	12x14	2.5 TO 3.5		63	51.7	1/5	15/1/60	CARRIER	58STX070-80
OPTIONS:															
CONDENSER															
TAG	LOCATION	SERVICE	TYPE	FLOW (CFM)	COOLING 95/62 (MBH)	COMPR			FAN		BASIS OF DESIGN				
						LRA	RLA	FLA	MCA	MFG	MODEL				
CU-1	OUTSIDE	ENTIRE BUILDING	SINGLE STAGE	900	22	208/1/60	58.3	13.5	1.75	17.6	CARRIER	24ABA324A31			
OPTIONS: INDOOR MODEL: CNPH*3017A**, SEER 14															
FAN SCHEDULE															
TAG	LOCATION	SERVICE	TYPE	FLOW (CFM)	PRES (IN)	QUANTITY (#)	ELECTRICAL	WEIGHT		BASIS OF DESIGN					
								HP	V/PH/Hz	MFG	MODEL				
FN-1	SIDEWALL	EXHAUST	MUSHROOM	100	.30	1	GRAVITY BACKDRAFT DAMPER	1/20	120/1/60	20	COOK	70W1SDM			
OPTIONS:															
ZONE DAMPERS															
TAG	LOCATION	SERVICE	TYPE	DUCT (IN)	ESP (IN)	MIN FLOW (CFM)	MAX FLOW (CFM)	BASIS OF DESIGN							
								MFG	MODEL						
ZD-1	BELOW OFFICE	OFFICE	OPEN/CLOSED	8	-	0	100	CARRIER	DAMPENDOING						
OPTIONS:															
DIFFUSERS/LOUVERS															
TAG	LOCATION	SERVICE	TYPE	AIR VOLUME (CFM)		NC MAX	PD MAX (IN)	MODULE SIZE (INxIN)	DUCT CONNECT SIZE	OPTIONS:	BASIS OF DESIGN				
				MIN	MAX						MFG	MODEL			
SD-1	FLOOR	SUPPLY	LOUVERED	0	225	30	0.1	14x4	8"Ø		PRICE	520D			
RG-1	INTERIOR SIDEWALL	RETURN	EGGGRATE	0	300	30	0.1	20x14	20"x8"		PRICE	80			
EG-1	RESTROOM	EXHAUST	EGGGRATE	0	420	30	0.1	10x10	8"Ø		PRICE	80			
LV-1	OUTSIDE	OA INTAKE	STATIONARY	0	125	30	0.1	8x12	6"Ø	1/4" MESH SCREEN	NCA	SLJ-2			
OPTIONS:															
INSTANTANEOUS HEATER															
TAG	LOCATION	SERVICE	TYPE	FLOW (CFM)	DELTA (F)	POWER (KW)	(VOLTS)	WEIGHT (LBS)	BASIS OF DESIGN						
									MFG	MODEL					
IH-1	UNDER CONFERENCE SINK	BOTH SINKS	ELECTRIC	2.5	52	1.9	240	8	EEMAX	EX190TCML					

**CODE REQUIREMENTS**  
 2006 INTERNATIONAL BUILDING CODE  
 2006 INTERNATIONAL RESIDENTIAL CODE  
 2006 UNIFORM MECHANICAL CODE  
 2006 UNIFORM PLUMBING CODE  
 2006 INTERNATIONAL ENERGY CONSERVATION CODE  
 2005 NATIONAL ELECTRICAL CODE

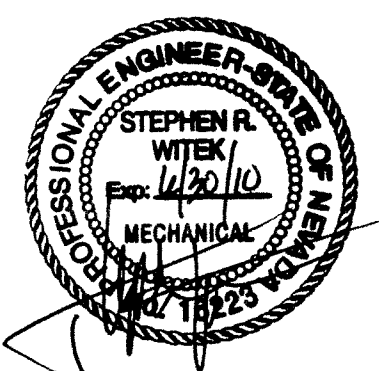
NOTE: SEE SHEET P-1 FOR GENERAL NOTES



MECHANICAL FLOORPLAN

SCALE: 1/4" = 1'

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**SEED** INC.  
 SUSTAINABLE ENVIRONMENT ENGINEERED DESIGN

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 775-831-2532  
 info@seedtahoe.com

No.	Description	Date
▲	REVISION 1	7-9-08

Carson City  
 Carriage House

Project number 040017  
 Date 8/12/08  
 Drawn by STS  
 Checked by SRW

SHEET: MI



**PLUMBING FIXTURES**

TAG	FIXTURE	DESCRIPTION	MFG	MODEL
LV1	LAVATORY	WALL MOUNT, FURNISH WITH CHICAGO MODEL 802A-665 ADJUSTABLE SELF CLOSING FAUCET WITH VANDAL RESISTANT AERATOR, McGUIRE ANGLE STOPS AND MODEL PW-2125 PRE-WRAPPED P-TRAP AND SUPPLY COVERS.	AMERICAN STANDARD	COMRADE 0124.024
SK1	SINK	SINGLE COMPARTMENT 18 GAUGE STAINLESS STEEL SINK, 16"x16"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 McGUIRE ANGLE STOPS.	EKAY	LRAD-2022
WC1	WATER CLOSET	-	-	-
FD1	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
HB1	HOSE BIB	HOT & COLD WATER HOSE BIB	WOODFORD	22

**PLUMBING ROUGH-IN SCHEDULE**

TAG	FIXTURE	HW	CW	VENT	TRAP	WASTE
WC	WATER CLOSET	-	1	2	INTEG	3
LV	LAVATORY	1/2	1/2	1/2	1/2	2
SK	SINK	1/2	1/2	-	-	-
HB	HOSE BIB	-	1/2	-	-	-
FD	FLOOR DRAIN	-	-	1/2	2	2

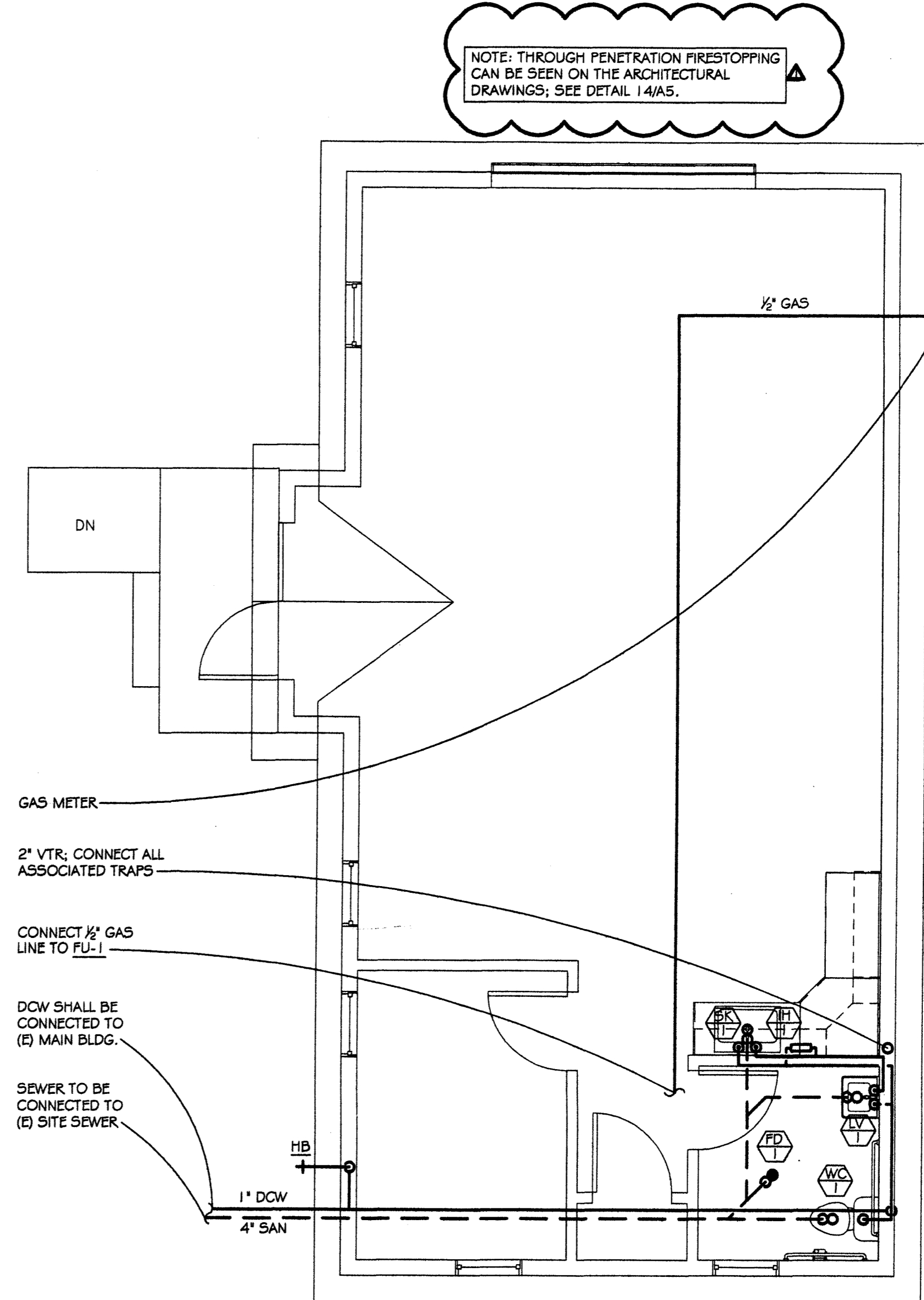
**GAS LINE SIZING SCHEDULE**

TAG	APPLIANCE OR AREA SERVED	CFH	LENGTH (FT)	PRESSURE
FU1	FURNACE IN CRAWL SPACE	63	40	NATURAL GAS W/ 0.5 W.C. PRESSURE DROP
TOTAL:		63		

NOTE: THE PIPING SIZES ON THE DRAWING ARE SIZED PER THE UNIFORM PLUMBING CODE, CHAPTER 12, USING THE INFORMATION ABOVE.

- 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 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 TIGHT.
- ALL MATERIALS TO BE INSTALLED IN ACCORDANCE WITH MFG 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 PERSONNEL



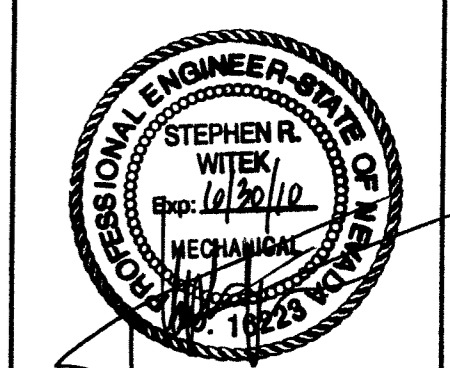
NOTE: THROUGH PENETRATION FIRESTOPPING CAN BE SEEN ON THE ARCHITECTURAL DRAWINGS; SEE DETAIL 14/A5.

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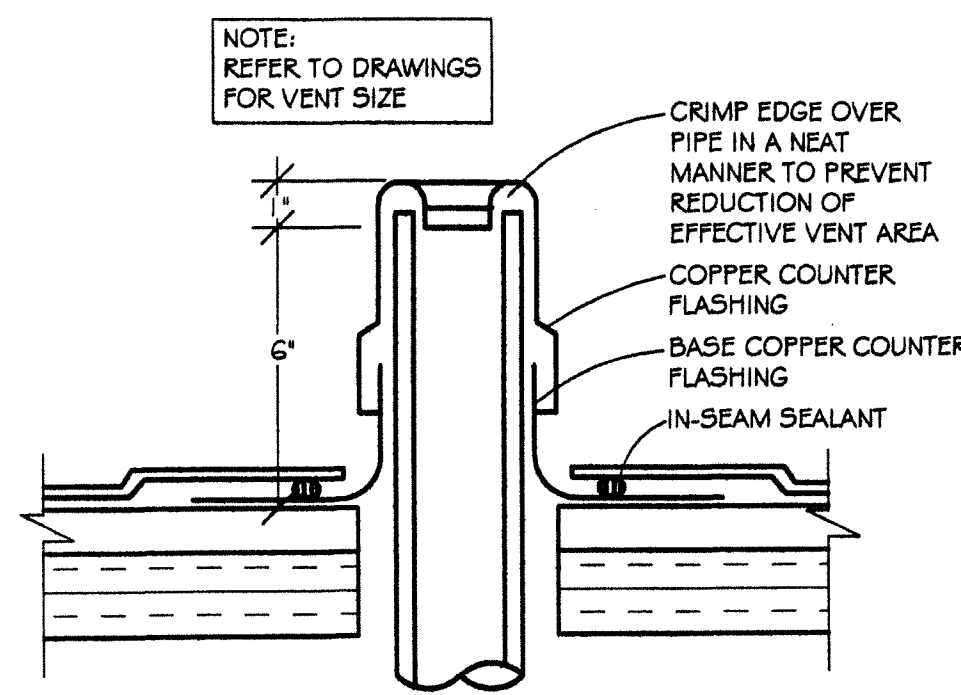
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No.	Description	Date
▲	REVISION 1	7-9-08

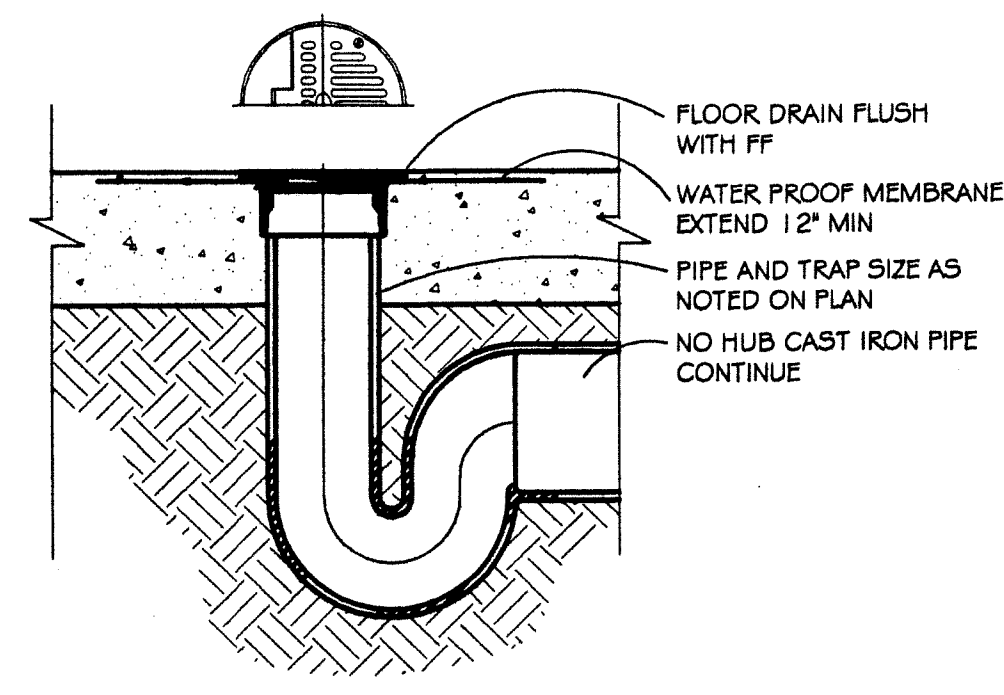
Carson City  
Carriage House

Project number	040017
Date	8/4/2008
Drawn by	STS
Checked by	SRW

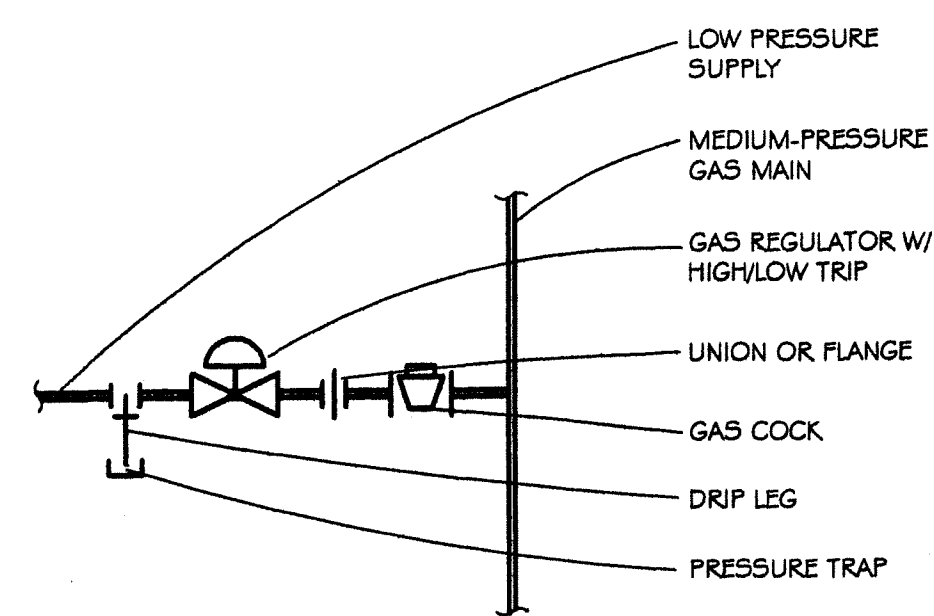
SHEET: P1



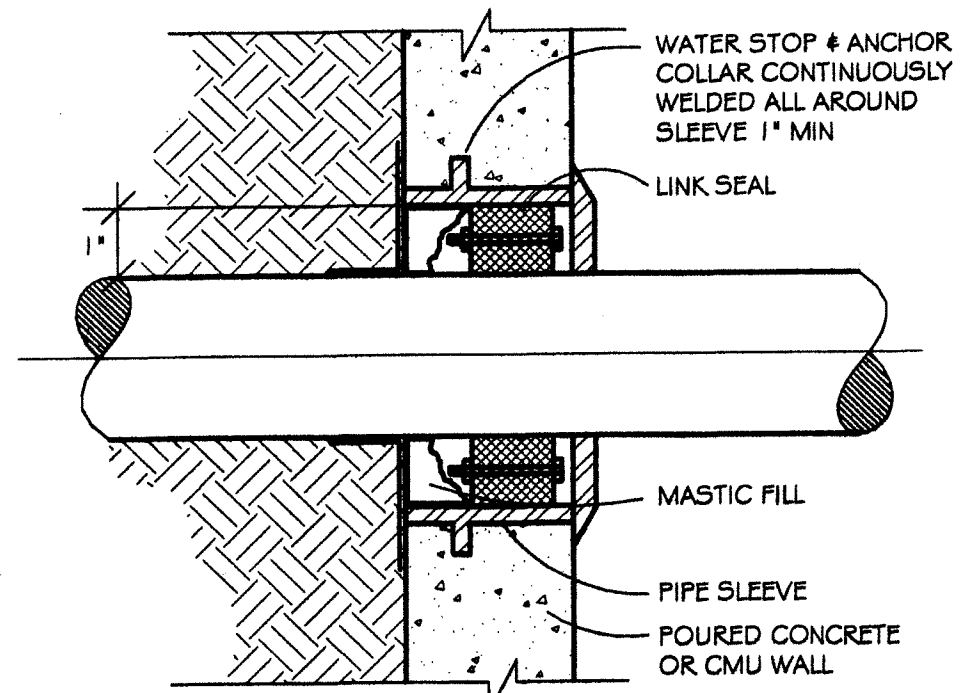
PLUMBING VENT THROUGH ROOF  
SCALE: NONE



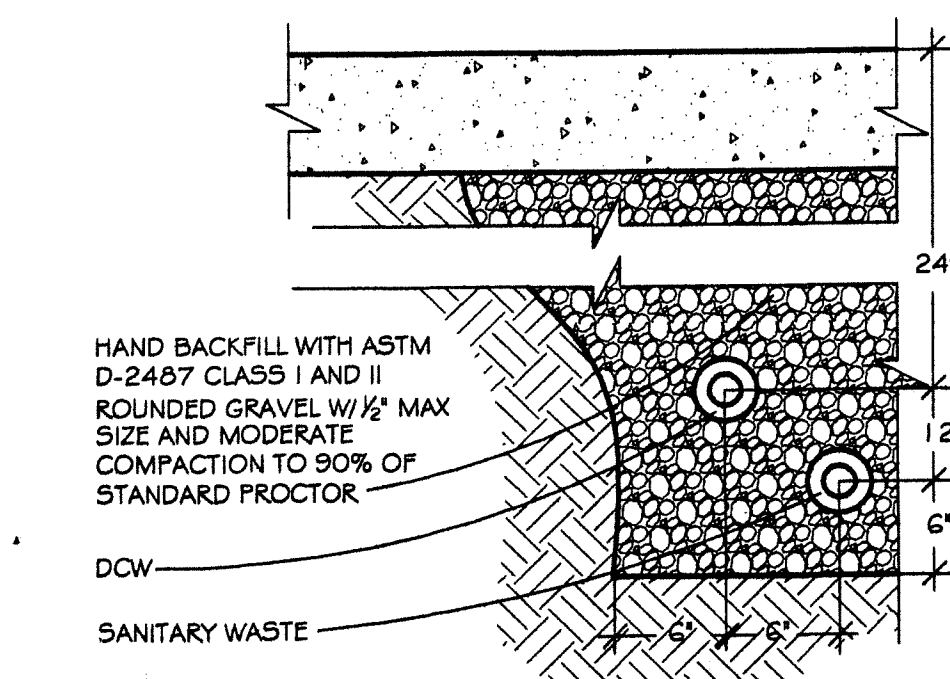
FLOOR DRAIN  
SCALE: NONE



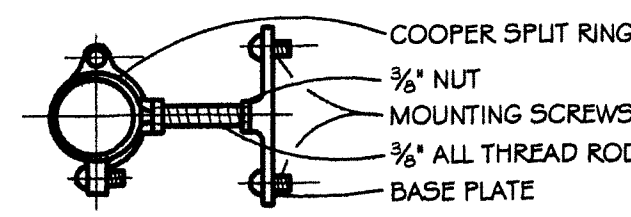
NOTE: PROVIDE GAS REGULATOR FOR EACH MECH. ROOM  
MEDIUM TO LOW PRESSURE GAS REGULATOR  
SCALE: NONE



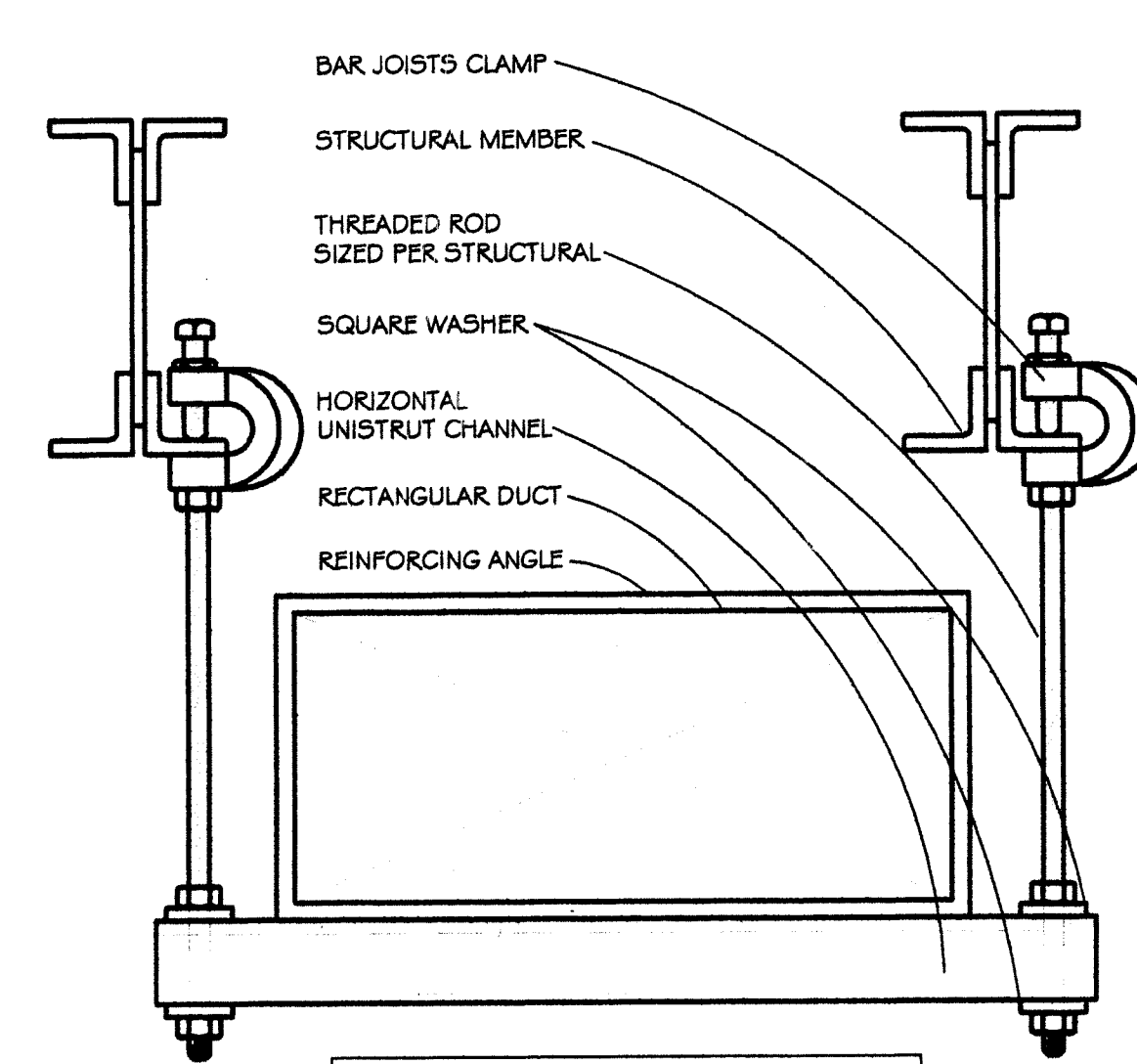
PIPE SLEEVE THROUGH FOUNDATION  
SCALE: NONE



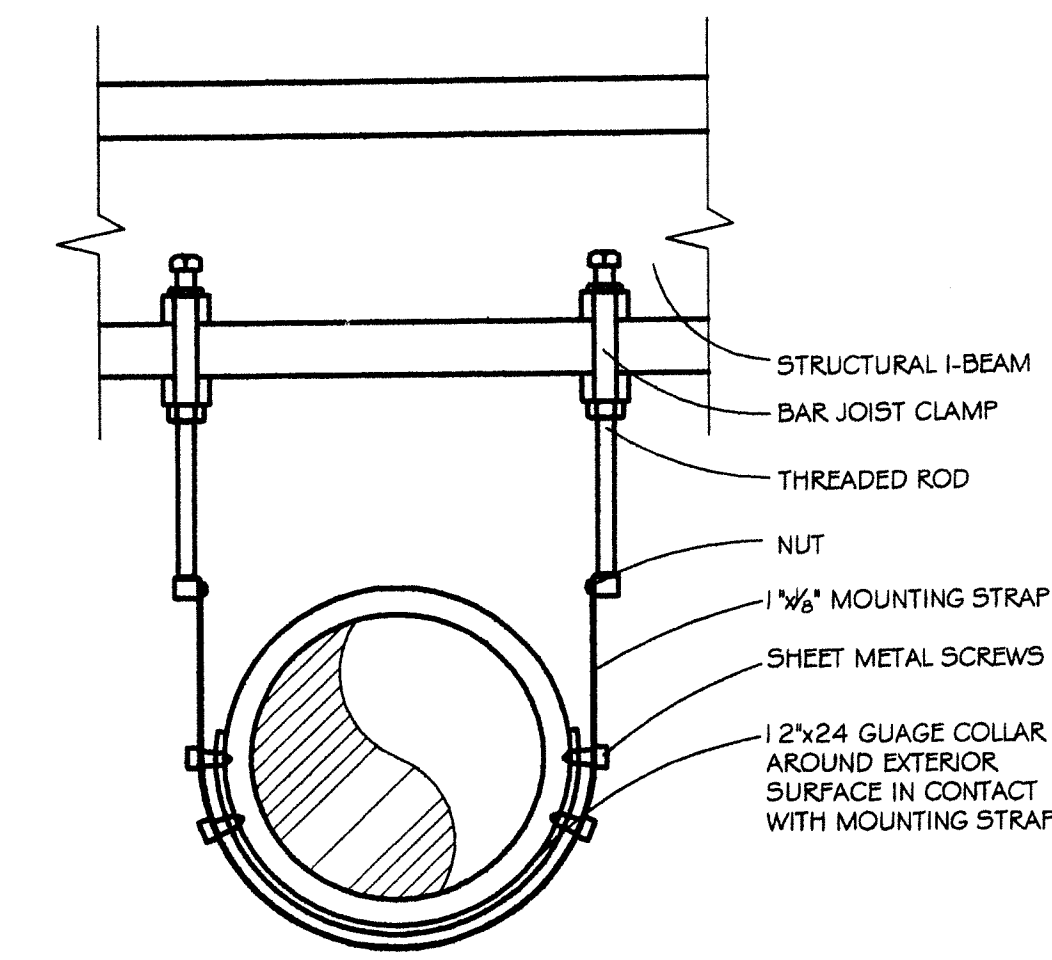
PIPING TRENCH  
SCALE: NONE



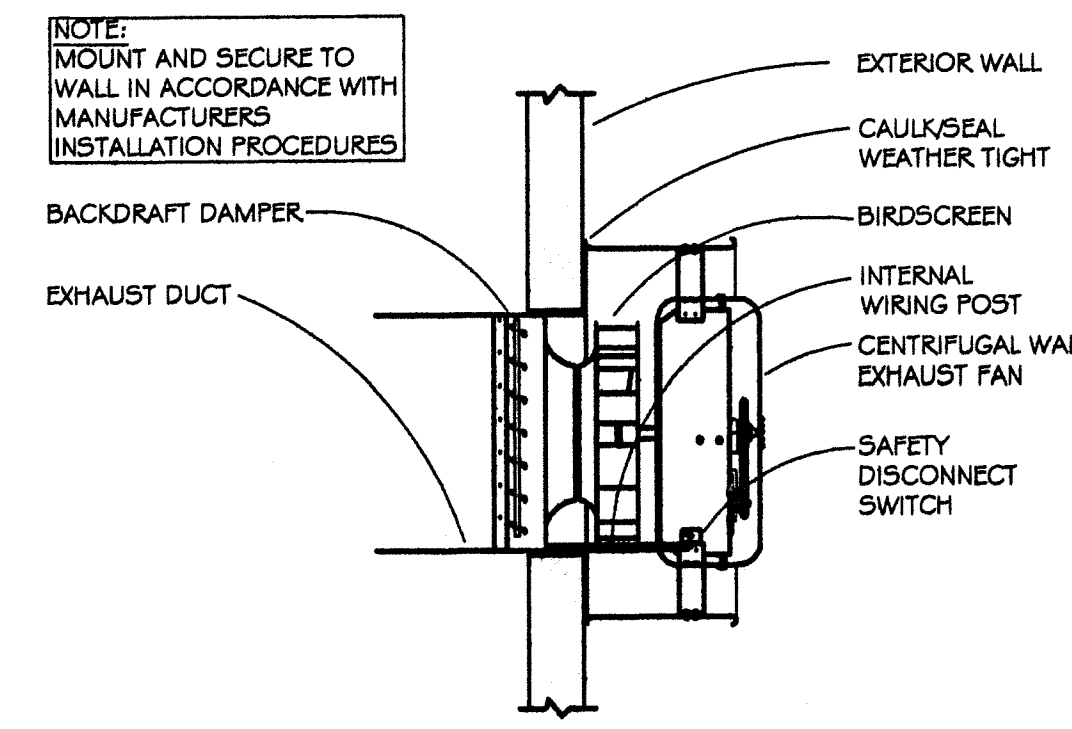
NOTE: PROVIDE SEISMIC RESTRAINTS FOR PIPING AS FOLLOWS:  
1" & 1 1/2" PIPES: 20 FT. ON CENTER  
2" & 2 1/2" PIPES: 30 FT. ON CENTER  
3", 4" & 6" PIPES: 40 FT. ON CENTER  
PIPE SUPPORT DETAIL  
SCALE: NONE



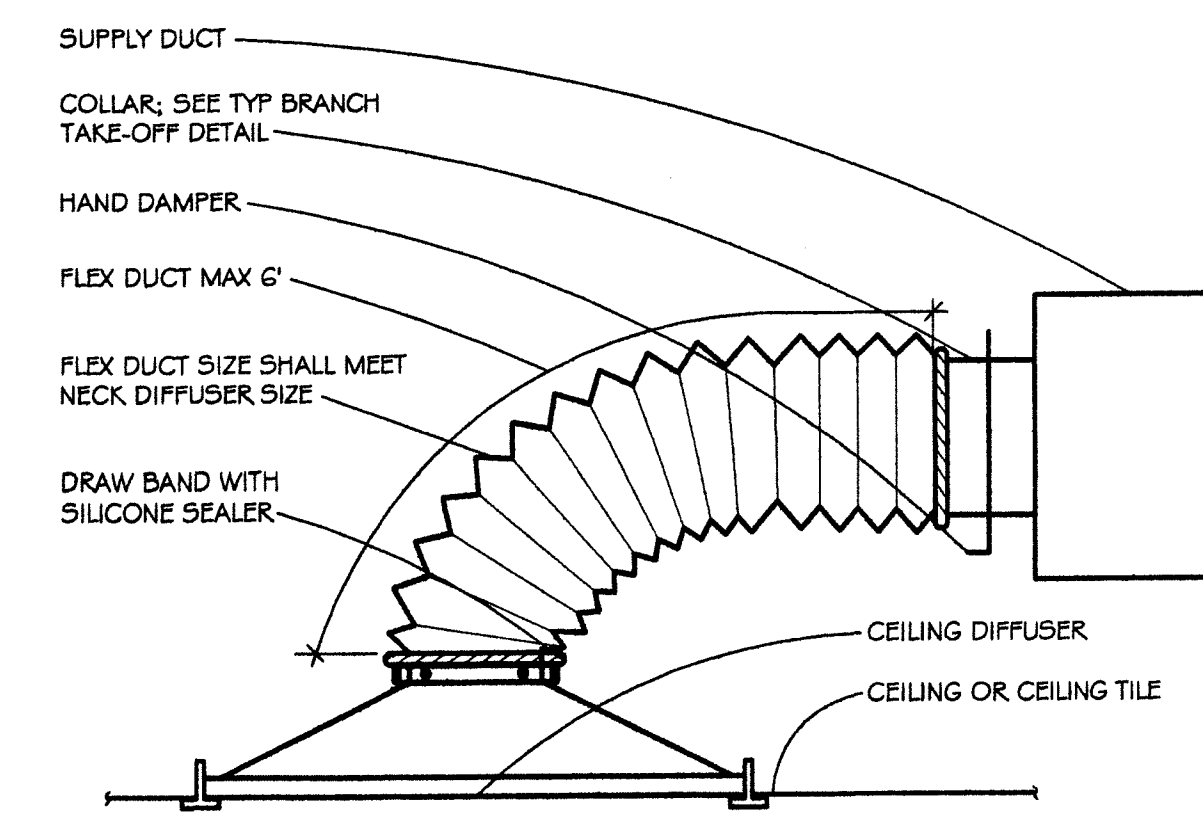
NOTE: CONTRACTOR SHALL SIZE TIE RODS, BAR JOIST CLAMPS & UNISTRUT CHANNEL PER PIPING LOAD  
RECTANGULAR DUCT HANGER  
SCALE: NONE



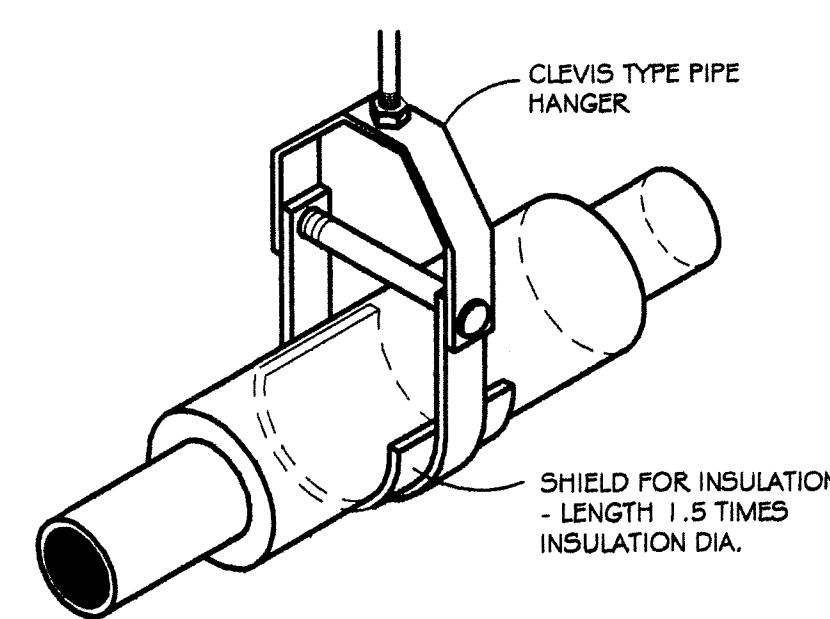
ROUND DUCT HANGER  
SCALE: NONE



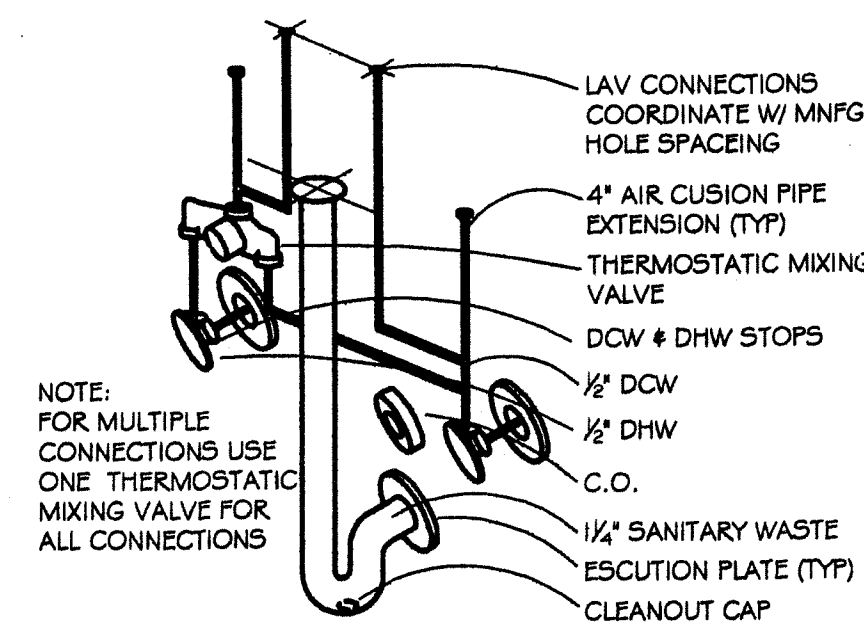
WALL EXHAUST FAN DETAIL  
SCALE: NONE



TYPICAL DIFFUSER CONNECTION (SIDE OF DUCT CONNECT)  
SCALE: NONE

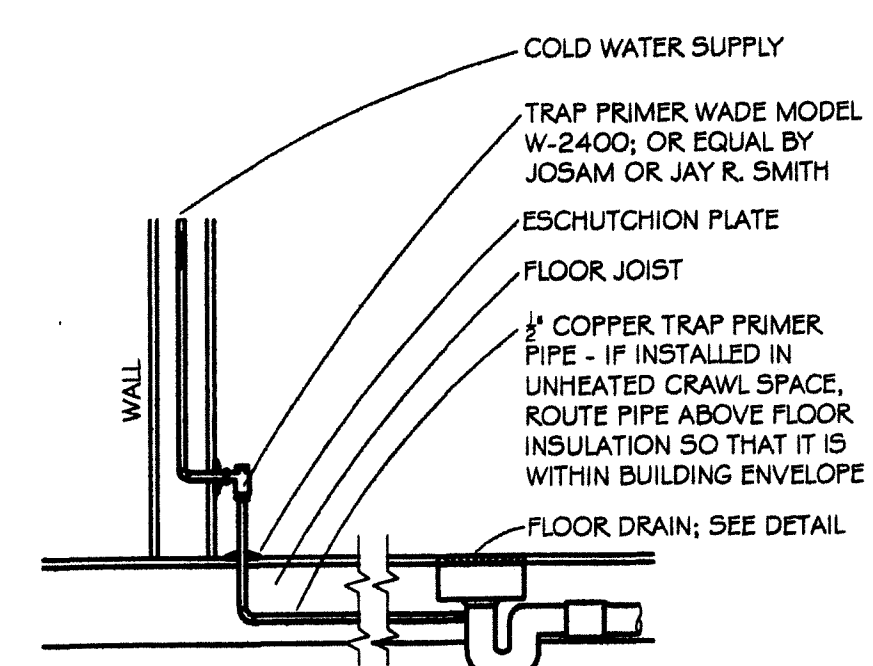


CLEVIS TYPE PIPE HANGER FOR INSULATED PIPE  
SCALE: NONE

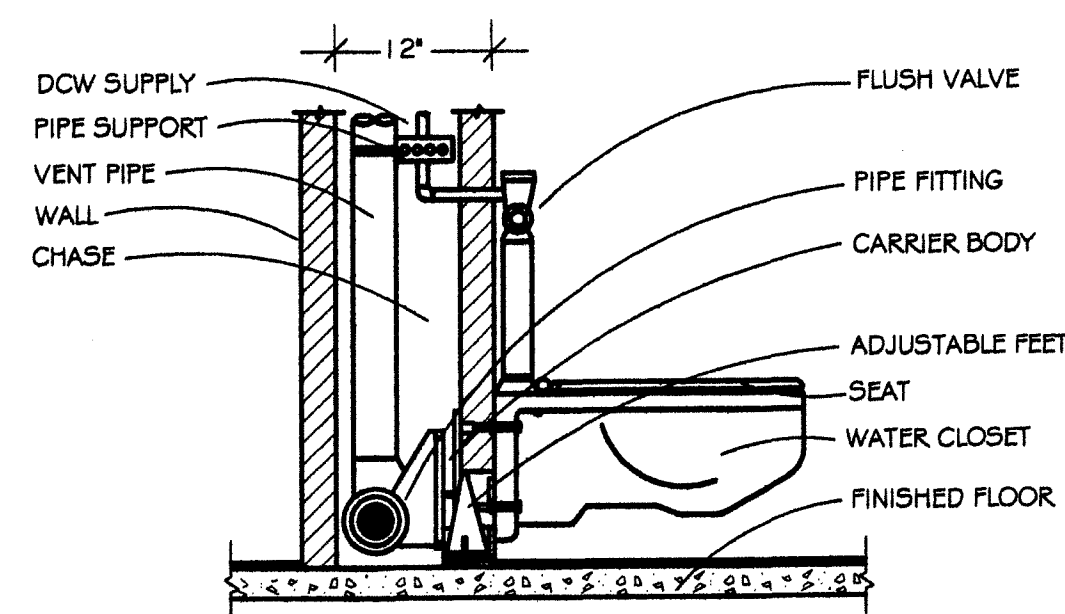


NOTE: FOR MULTIPLE CONNECTIONS USE ONE THERMOSTATIC MIXING VALVE FOR ALL CONNECTIONS

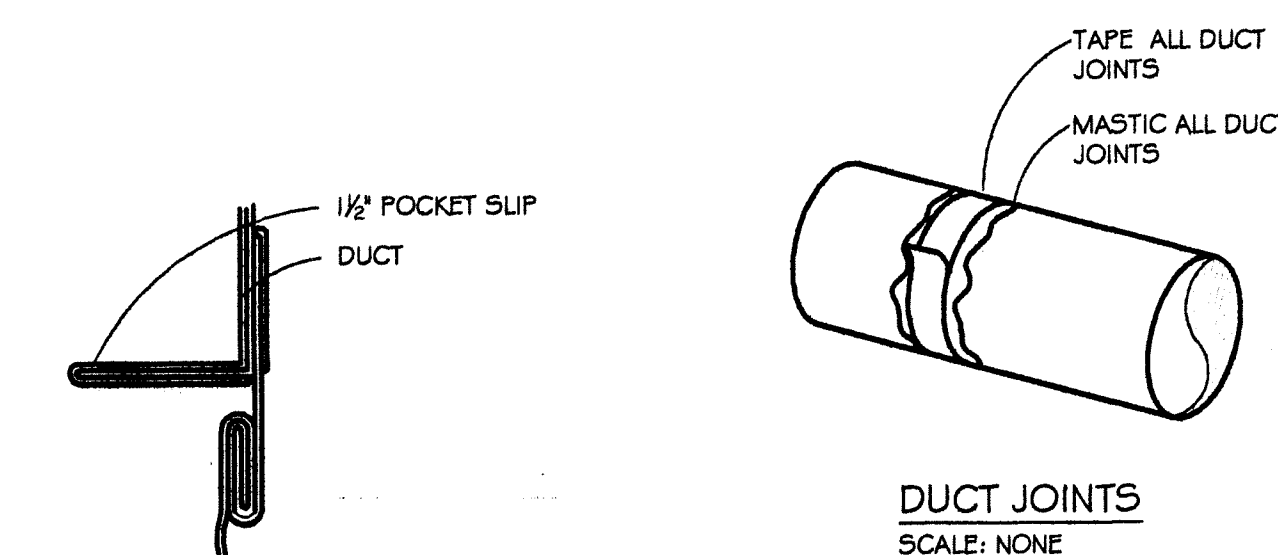
LAVATORY & SINKS  
SCALE: NONE



FLOOR DRAIN W/ TRAP PRIMER  
SCALE: NONE

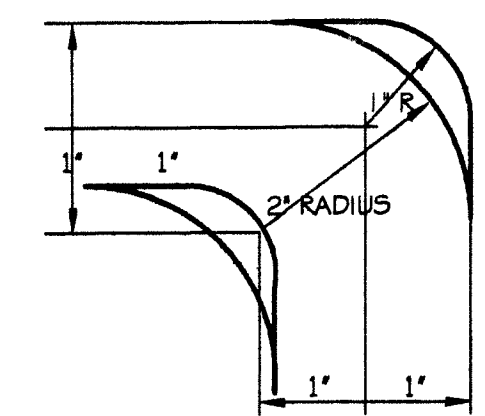


WALL MOUNTED WATER CLOSET  
SCALE: NONE

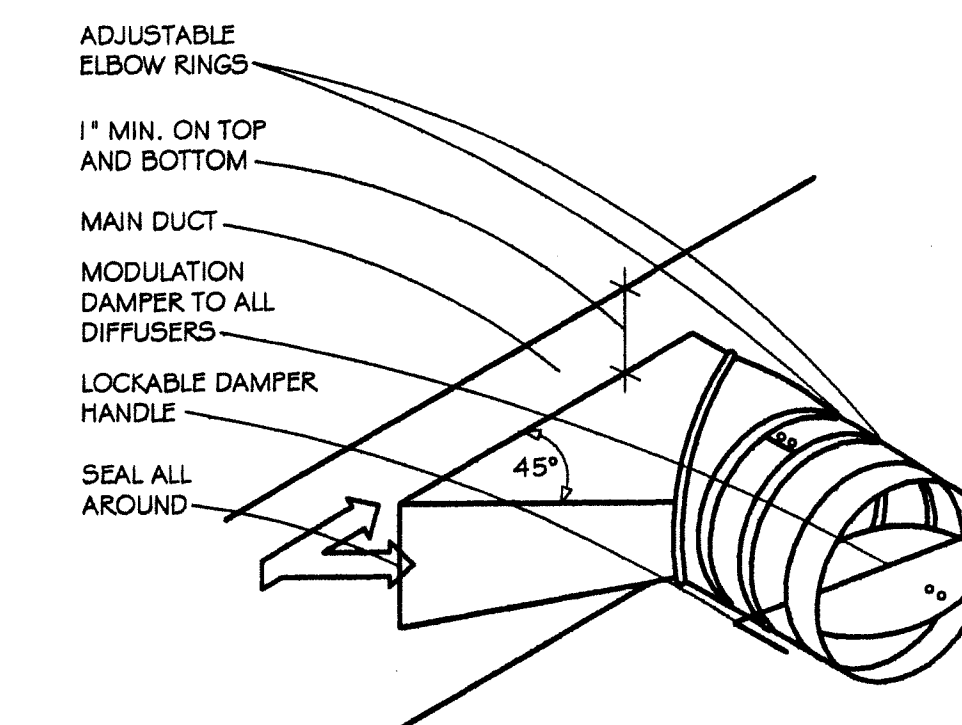


CANVAS DUCT CONNECTION  
SCALE: NONE

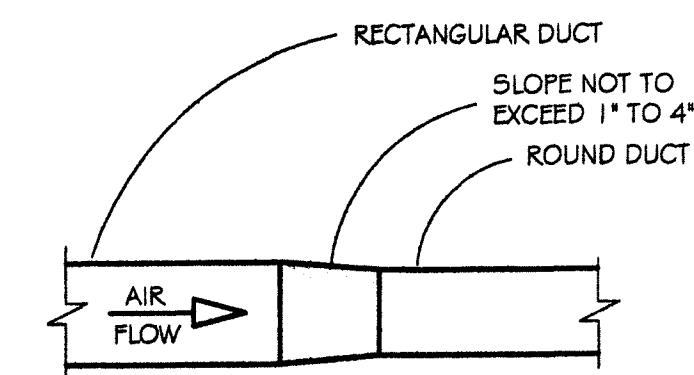
DUCT JOINTS  
SCALE: NONE



DETAIL OF TURNING VANES  
SCALE: NONE



TYPICAL BRANCH TAKE-OFF FITTINGS  
SCALE: NONE



RECTANGULAR TO ROUND TRANSITION  
SCALE: NONE

PLUMBING DETAILS

MECHANICAL DETAILS

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No.	Description	Date
Δ	REVISION 1	7-9-08

Carson City

Carriage House

Project number	040017
Date	8/4/2008
Drawn by	STS
Checked by	SRW

SHEET: D1

**GENERAL NOTES**

- 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.
- 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.
- 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.
- APPEARANCE AND WORKMANSHIP SHALL BE OF THE HIGHEST STANDARDS OF QUALITY. ONLY LICENSED ELECTRICIANS AND TECHNICIANS SHALL BE USED TO ACCOMPLISH THE ELECTRICAL WORK.
- 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.
- 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).
- 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. APARTMENT RECEPTACLE LOCATIONS AND QUANTITIES SHALL BE VERIFIED AND WARRANTED BY THE ELECTRICAL SUB-CONTRACTOR TO COMPLY WITH NEC REQUIREMENTS.
- ELECTRICAL CONTRACTOR SHALL PROVIDE A NEAT AND COMPLETE SET OF 'AS-BUILT' DRAWINGS WITHIN 30 DAYS OF FINAL ACCEPTANCE OF HIS WORK.
- 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.
- 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.
- 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.
- 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.
- ALL CONDUCTORS SHALL BE COPPER TYPE THHN/THWN 90° C. RATED. APARTMENTS SHALL BE WIRED USING TYPE NYC CABLE.
- ALL UNDERGROUND/UNDER SLAB CONDUITS SHALL BE PVC SCHEDULE 40 AND/OR UNWRAPPED RIGID STEEL. ALL ELBOWS AND EXPOSED RISERS SHALL BE RIGID STEEL CONDUIT.
- SWITCHGEAR AND PANELBOARDS SHALL BE AS MANUFACTURED BY CUTLER HAMMER, GE, SIEMENS, OR SQUARE D ONLY. SWITCHBOARDS SHALL BE FULLY ENCLOSED AND FACTORY ASSEMBLED. PANELBOARDS SHALL HAVE BOLT-IN CIRCUIT BREAKERS.
- 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.
- PROVIDE AND INSTALL ALL FREESTANDING ELECTRICAL EQUIPMENT (SUCH AS SWITCHBOARDS, TRANSFORMERS, AND MOTOR CONTROL CENTERS) ON A 4' HIGH CONCRETE HOUSEKEEPING PAD.
- PROVIDE ALL PANELBOARDS WITH TYPED DIRECTORIES INSTALLED UNDER A CLEAR PLASTIC COVER. SUBMIT DIRECTORY INFORMATION TO THE OWNER FOR APPROVAL PRIOR TO FINALIZATION.
- SHORT CIRCUIT INTERRUPTING VALUES, AS INDICATED ON THESE PLANS, REFER TO BOTH BUSBARS BRACING LEVELS AND CIRCUIT BREAKER WITHSTAND LEVELS.
- SERIES RATING OF SHORT CIRCUIT WITHSTAND LEVELS IS ONLY PERMITTED AS SUPPORTED BY MANUFACTURERS 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.
- 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.
- 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**

<ul style="list-style-type: none"> <li>○ SINGLE-OUTLET RECEPTACLE</li> <li>⊕ DOUBLE-OUTLET 'DUPLEX' RECEPTACLE</li> <li>⊕⊕ THREE-PHASE (3Ø) RECEPTACLE (CONFIGURATION AS NOTED)</li> <li>⊕⊕⊕ QUADRIPOLE-OUTLET 'QUAD' RECEPTACLE</li> <li>⊕⊕⊕ SPECIAL RECEPTACLE (VOLTAGE/CONFIGURATION AS NOTED)</li> <li>⊕ JUNCTION BOX</li> <li>⊕ FLOOR MOUNT RECEPTACLE</li> <li>⊕ THERMOSTAT</li> <li>⊕ SAFETY DISCONNECT SWITCH (SIZE/VOLTAGE/CONFIGURATION AS NOTED)</li> <li>⊕ COMBINATION SAFETY SWITCH/MAGNETIC STARTER</li> <li>⊕ TELEPHONE/DATA JUNCTION BACKBOX</li> <li>⊕ SINGLE-POLE TOGGLE SWITCH (VOLTAGE AS REQUIRED)</li> <li>⊕ MULTI-STATION THREE-WAY TOGGLE SWITCH (VOLTAGE AS REQUIRED)</li> <li>⊕ SOLID STATE DIMMING SWITCH (VOLTAGE AS REQUIRED)</li> <li>⊕ MOTOR-RATED TOGGLE SWITCH (VOLTAGE AS REQUIRED)</li> <li>⊕ KEYED TOGGLE SWITCH (VOLTAGE AS REQUIRED)</li> <li>⊕ CABLE TELEVISION OUTLET</li> <li>⊕ PANELBOARD (NAME/AMP/RATING/VOLTAGE/CONFIGURATION AS NOTED)</li> <li>⊕ TRANSFORMER (NAME/VA RATING/PHASE/VOLTAGE AS NOTED)</li> <li>⊕ INDICATES MECHANICAL EQUIPMENT</li> <li>⊕ PHOTO ELECTRIC CELL</li> <li>⊕ TIME CLOCK</li> <li>⊕ CONTRACTOR (CONFIGURATION AS NOTED)</li> <li>⊕ DUCT DETECTOR FIRE ALARM SYSTEM COMPONENT</li> <li>⊕ SMOKE DETECTOR FIRE ALARM SYSTEM COMPONENT</li> <li>⊕ HEAT DETECTOR FIRE ALARM SYSTEM COMPONENT</li> <li>⊕ FLOW SWITCH FIRE ALARM SYSTEM COMPONENT</li> <li>⊕ TAPPER SWITCH FIRE ALARM SYSTEM COMPONENT</li> <li>⊕ HORN/STROBE COMBINATION FIRE ALARM SYSTEM COMPONENT</li> <li>⊕ MANUAL PULL STATION</li> <li>--- SINGLE-PHASE, 1-POLE CIRCUIT PATH (1Ø) CONDUIT, (2) - 1Ø CU, UNLESS OTHERWISE NOTED ABOVE FLOOR</li> <li>--- SINGLE-PHASE, 2-POLE CIRCUIT PATH (1Ø) CONDUIT, (3) - 1Ø CU, UNLESS OTHERWISE NOTED ABOVE FLOOR</li> <li>--- THREE-PHASE, 1-POLE CIRCUIT PATH (1Ø) CONDUIT, (4) - 1Ø CU, UNLESS OTHERWISE NOTED ABOVE FLOOR</li> <li>--- RETURN CIRCUIT TO PANEL 'MOTHER' (CIRCUIT AS NOTED) ABOVE FLOOR</li> <li>○ MOTOR (HORSEPOWER AS NOTED)</li> </ul>	<ul style="list-style-type: none"> <li>--- SINGLE-PHASE, 1-POLE CIRCUIT PATH (1Ø) CONDUIT, (2) - 1Ø CU, UNLESS OTHERWISE NOTED BELOW FLOOR</li> <li>--- SINGLE-PHASE, 2-POLE CIRCUIT PATH (1Ø) CONDUIT, (3) - 1Ø CU, UNLESS OTHERWISE NOTED BELOW FLOOR</li> <li>--- THREE-PHASE, 1-POLE CIRCUIT PATH (1Ø) CONDUIT, (4) - 1Ø CU, UNLESS OTHERWISE NOTED BELOW FLOOR</li> <li>--- RETURN CIRCUIT TO PANEL 'MOTHER' (CIRCUIT AS NOTED) ABOVE FLOOR</li> <li>○ CIRCUIT BREAKER (AMPS/POLES AS NOTED)</li> <li>○ FUSE (AMPS/POLES AS NOTED)</li> <li>○ SHEET NOTE INDICATOR</li> <li>○ SHEETS/EQUIPMENT NOTE INDICATOR</li> <li>○ EQUIPMENT NOTE INDICATOR</li> <li>○ REVISION 'DELTA' NOTE INDICATOR</li> <li>○ FEEDER NOTE INDICATOR</li> <li>48" 48" MOUNTING HEIGHT AFF. (ACTUAL HEIGHT AS NOTED)</li> <li>AFF. ABOVE FINISHED FLOOR</li> <li>AFG ABOVE FINISHED GRADE</li> <li>ATS. AUTOMATIC TRANSFER SWITCH</li> <li>C CONDUIT</li> <li>CB CIRCUIT BREAKER</li> <li>CLG CEILING</li> <li>EXISTING</li> <li>FACP FIRE ALARM CONTROL PANEL</li> <li>FBO FURNISHED BY OTHERS</li> <li>FBI GROUND FAULT INTERRUPTING TYPE</li> <li>HI HIGH INTENSITY DISCHARGE</li> <li>LTG LIGHTING</li> <li>LV LOW VOLTAGE</li> <li>MCB MAIN CIRCUIT BREAKER</li> <li>MSB MAIN SWITCH BOARD</li> <li>NU NEW</li> <li>NL NIGHT LIGHT</li> <li>US UNDER GROUND</li> <li>UNLESS OTHERWISE NOTED</li> <li>UP WEATHER PROOF</li> <li>XPR TRANSFORMER</li> <li>○ SHUNT TRIP STATION</li> </ul>
--	---

FIXT. SYM.	FIXT. TYPE	MANUFACTURER NAME	CAT. NO.	INPUT VA	MTG.	MTG. HT.	LAMP TYPE	REMARKS	VOLT-AGE
⊕	A	---	FURNISHED BY OWNER	35 MAX	PEND	---	FO 32W TRT	OWNER FURNISHED PENDANT FIXTURE	120
⊕	B	---	F.B.O.	100 MAX	SURF	1'-0"	FO 30W	OWNER FURNISHED RESTROOM FIXTURE	120
⊕	C	---	F.B.O.	35 MAX	SURF	---	CEIL. FO 32W T8	OWNER FURNISHED CEILING FIXTURE	120
⊕	D	PROGRESS	P5843-3IEB	20 MAX	SURF	8'-0"	18W QUAD 4-PIN	EXTERIOR CARRIAGE LIGHT	120
⊕	E	---	F.B.O.	35 MAX	SURF	10'-0"	FO 32W TRT	OWNER FURNISHED ACCENT FIXTURE	120
⊕	F	LITHONIA	LKCM 5 1 G 120/277 N H	25	SURF	OVER DOOR	INCLUDED	EXIT/EMERGENCY LIGHT	120
⊕	G	LITHONIA	ARN	25	SURF	OVER DOOR	INCLUDED	EXTERIOR EMERGENCY LIGHT	120
⊕	H	LITHONIA	PORCELAIN KEYLESS	60	SURF	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.
- ALL OWNER FURNISHED FIXTURES TO BE INSTALLED BY ELECTRICAL CONTRACTOR.

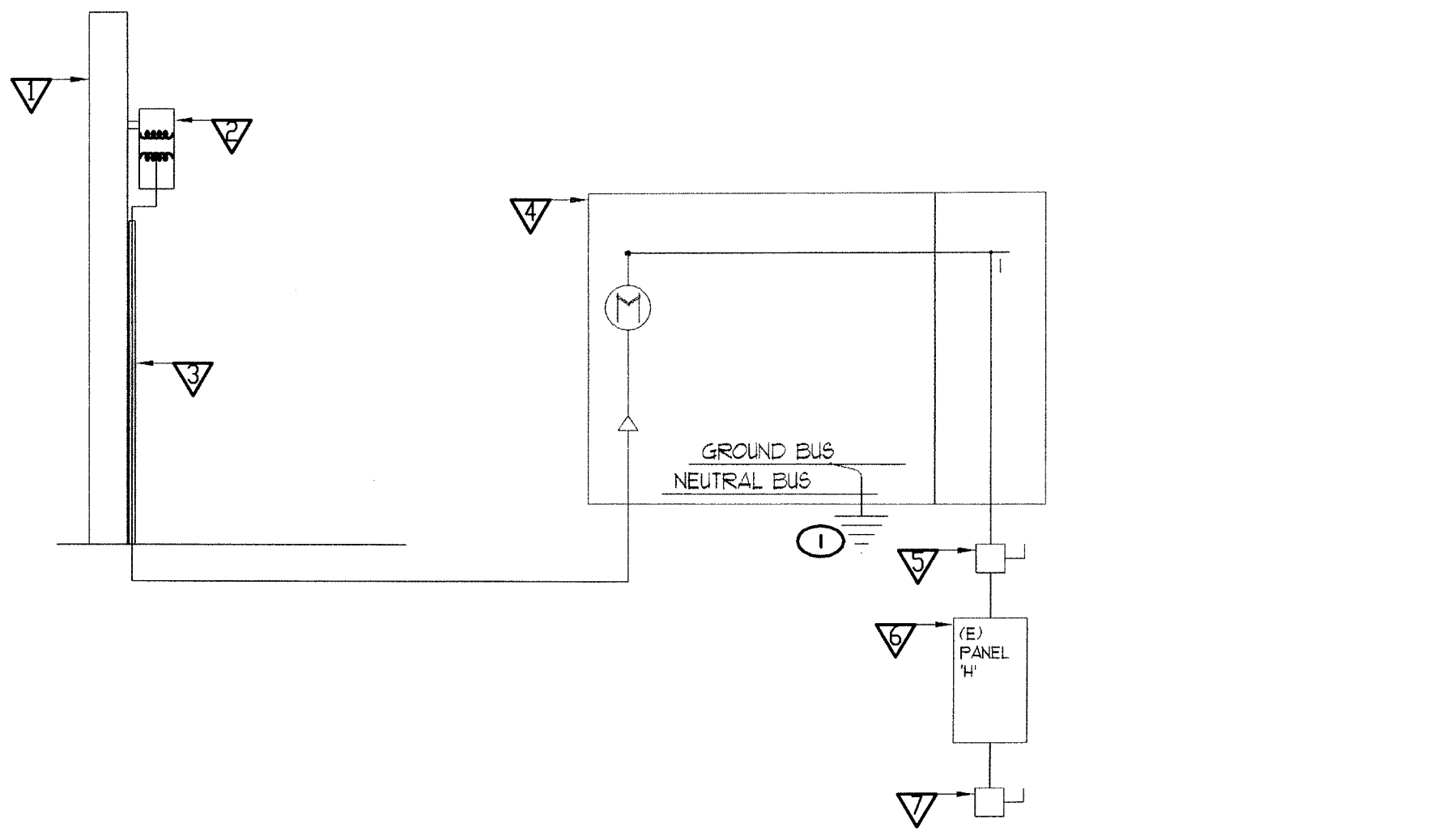
**FEEDER SCHEDULE BY JENSEN ENGINEERING, INC.**

FDR. NO.	FROM	TO	QUANTITY PARALLEL	CONDUIT	CONDUCTORS	LOAD PHASES	LOAD VOLTAGE	LOAD CURRENT	LOAD P. FACTOR	FEEDER LENGTH	CONDUCTOR RESISTANCE	CONDUCTOR REACTANCE	V. DROP PERCENT	SC CURRENT START WIRE	SC CURRENT END WIRE
1	(E) SPP.Co. XPR	(N) 'M'	2	4"	FURNISHED AND INSTALLED BY SPP.Co.	1	240								
2	(N) 'M'	(E) MAIN BLD DISC	1	2"	(4) - 9/10 Cu + GRD	1	240		.85	VERIFY					
3	(N) 'M'	(N) PANEL 'CH'	1	2"	(4) - 9/10 Cu + GRD	1	240		.85	VERIFY					

- NOTES:**
- ALL PVC CONDUIT SHALL BE SCHEDULE 40 UNLESS OTHERWISE NOTED.
  - ALL PVC CONDUIT SHALL CARRY AN EQUIPMENT GROUNDING CONDUCTOR SIZED ACCORDING TO NEC T. 250-122.
  - ALL CONDUCTORS SHALL BE COPPER WITH TYPE THHN/THWN 90 DEG C. RATED INSULATION.
  - ALL UTILITY CONDUITS SHALL BE INSTALLED ACCORDING TO UTILITY COMPANY STANDARDS.
  - FEEDER LENGTHS ARE FOR ENGINEER'S PURPOSES ONLY AND ARE NOT TO BE USED FOR BIDDING.
  - 
  - 
  -

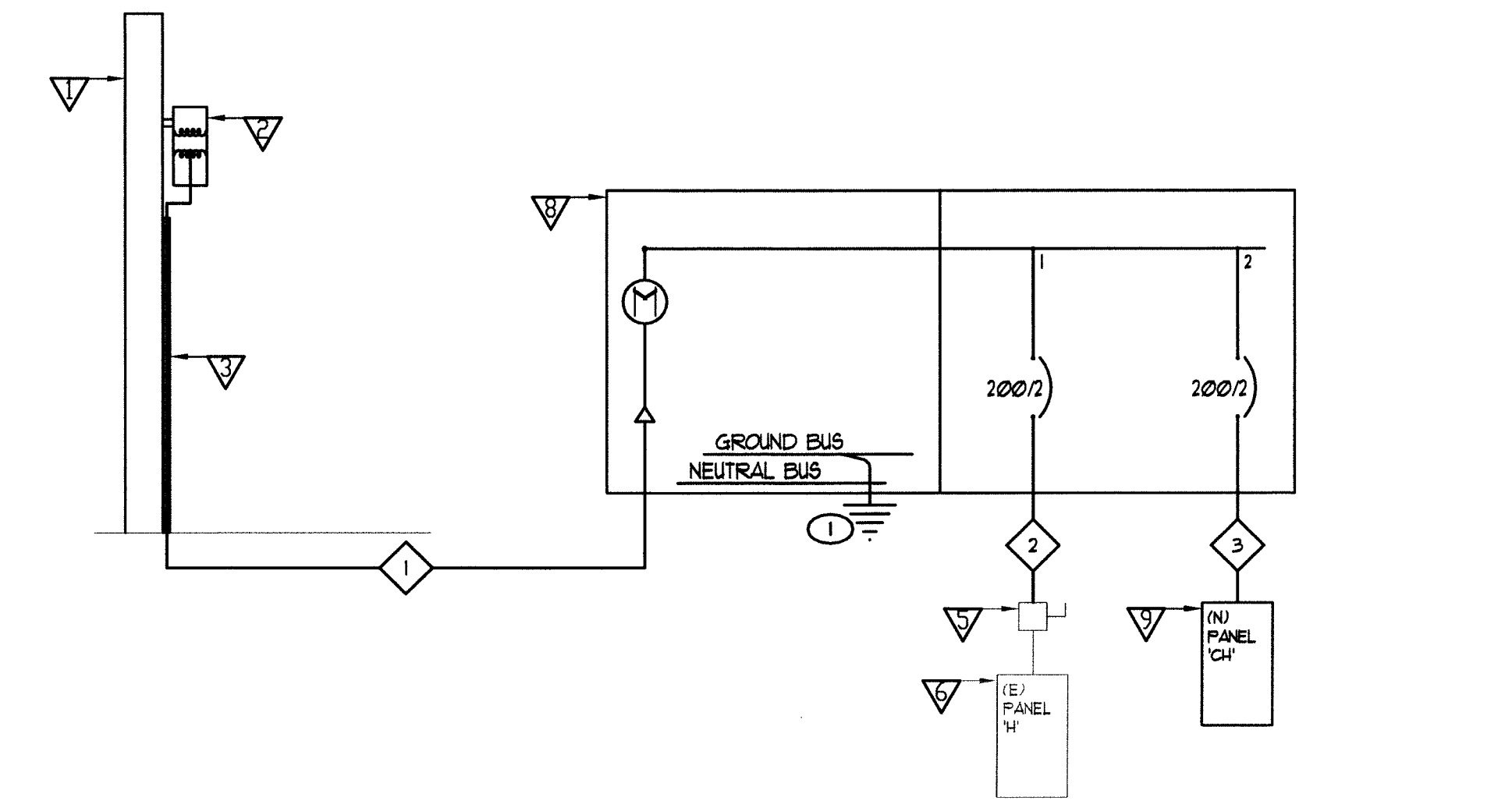
EQP. NO.	EQUIPMENT DESCRIPTION	NOTES
1	(E) SPP.Co. UTILITY POLE	MODIFICATIONS BY SPP.Co.
2	(E) SPP.Co. POLE MOUNT TRANSFORMERS	MODIFICATIONS BY SPP.Co.
3	(E) SPP.Co. SERVICE UTILITY RISER	MODIFICATIONS BY SPP.Co.
4	(E) 'M' - 200A, 120/240V, 1Ø, 3Ø, NBR, METER-MAIN	TO BE REMOVED + RETIRED
5	(E) 120A/200F/2P, 250V, NBR, MAIN BUILDING SERVICE DISC. SWITCH	TO BE RE-FED + REMAIN
6	(E) PANEL 'H' - 200A, 120/240V, 1Ø, 3Ø, NI, M.L.O., 42 CKT PANELBOARD	TO REMAIN AS-IS
7	(E) 60A/500F/2P, 250V, NBR, SHED SERVICE DISC. SWITCH	TO BE REMOVED + RETIRED
8	(N) 'M' - 400A, 120/240V, 1Ø, 3Ø, NBR, METER-MAIN	---
9	(N) PANEL 'CH' - 200A, 120/240V, 1Ø, 3Ø, NI, M.L.O., 42 CKT PANELBOARD	SEE PANEL SCHEDULE

POSITION NO.	LOAD DESCRIPTION	BREAKER SIZE	LOAD KVA
1	(E) MAIN BLD.	200/2	38.40 **
2	(N) PANEL 'CH'	200/2	10.04
<b>** MAXIMUM ALLOWED KVA LOAD</b>		<b>TOTAL KVA</b>	<b>= 50.44</b>
		<b>= 240V, 1Ø = 21L AMPERES</b>	



**EXISTING SINGLE LINE DIAGRAM**

NO SCALE



**PROPOSED SINGLE LINE DIAGRAM**

NO SCALE

**NOTES: (SINGLE-LINE DIAGRAM ONLY)**

- (E) MAIN ELECTRICAL SERVICE GROUND PER NEC ARTICLE 250.
- (N) MAIN ELECTRICAL SERVICE GROUND PER NEC ARTICLE 250 INCLUDING:
  - 3Ø - 1Ø CU UFER GROUND IN FOOTING OF NEW CARRIAGE HOUSE.
  - 1Ø CU CONNECTION TO METAL PIPING SYSTEM.
  - 1Ø CU CONNECTION TO BUILDING STRUCTURAL STEEL (IF AVAILABLE)
  - 1Ø CU CONNECTION TO THE TELEPHONE TERMINAL CABINET.
  - 1Ø CU MINIMUM MAIN BONDING JUMPER.

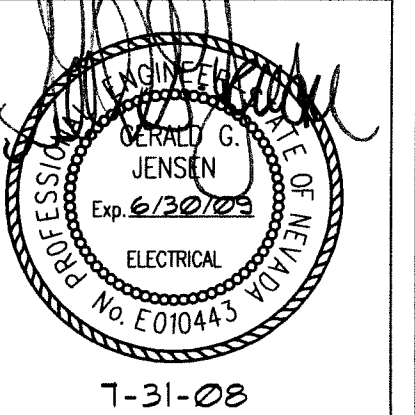
PLAN CHECK 1-31-08

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Fax: (775) 883-7114

No.	Description	Date
1	PLAN CHECK	1/31/08

Carson City  
Carriage House

Symbols, Notes, & Single-Line Diagrams

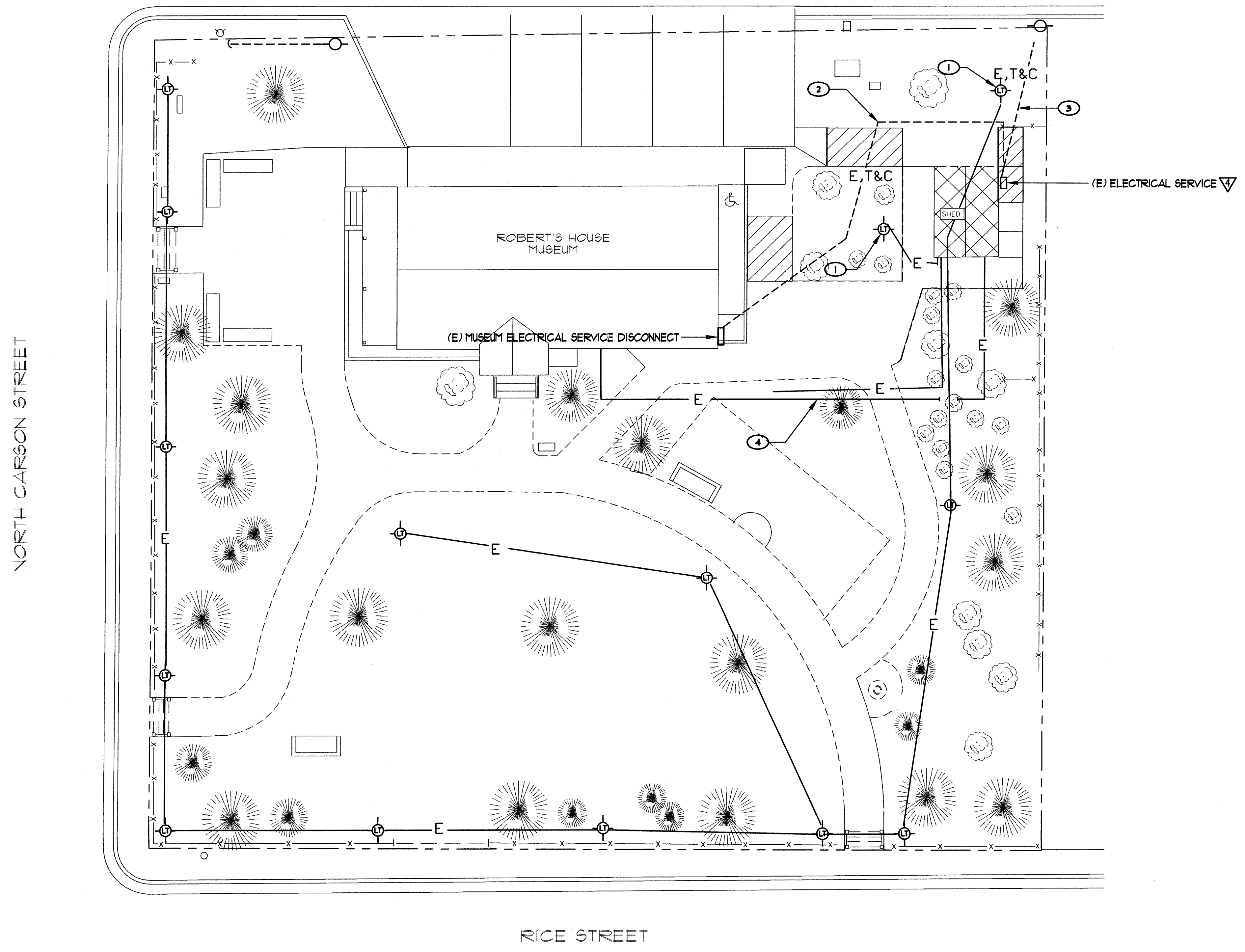
Project number A42HYT  
Date 5/27/08

Drawn by BMD  
Checked by GGJ

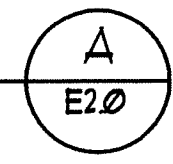
**E1.0**

Scale N.T.S.

**Jensen Engineering Inc.**  
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email: jeneng@nvbell.net web: www.jeneng.com



**SITE ELECTRICAL EXISTING CONDITIONS & DEMOLITION PLAN**



**NOTES :** (THIS SHEET ONLY)

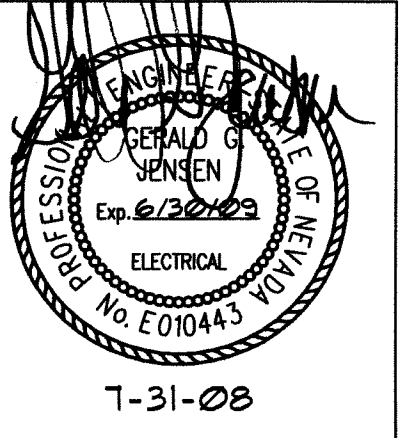
- ① REMOVE AND RETIRE (E) POLE MOUNTED SITE LIGHTING. MODIFY (E) BRANCH CIRCUIT WIRING AS NECESSARY TO KEEP ALL OTHER REMAINING POLE FIXTURES OPERATIONAL. TYPICAL OF (2) POLE MOUNTED SITE LIGHTING FIXTURES.
- ② (E) MAIN BUILDING ELECTRICAL, TELEPHONE, AND CATV SERVICE CONDUITS AND CONDUCTORS TO BE MODIFIED FOR RECONNECTION TO NEW SERVICE EQUIPMENT. MODIFY (E) BRANCH CIRCUIT WIRING AS NECESSARY FOR RECONNECTION.
- ③ (E) ELECTRICAL, TELEPHONE, AND CATV SERVICE CONDUITS AND CONDUCTORS TO BE MODIFIED FOR RECONNECTION TO NEW SERVICE EQUIPMENT. VERIFY EXACT REQUIREMENTS FOR REMOVAL WITH SERVING UTILITY COMPANY(S).
- ④ (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.

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No.	Description	Date
1	PLAN CHECK	7/31/08

Carson City  
Carriage House

**Site Electrical Demolition Plan**

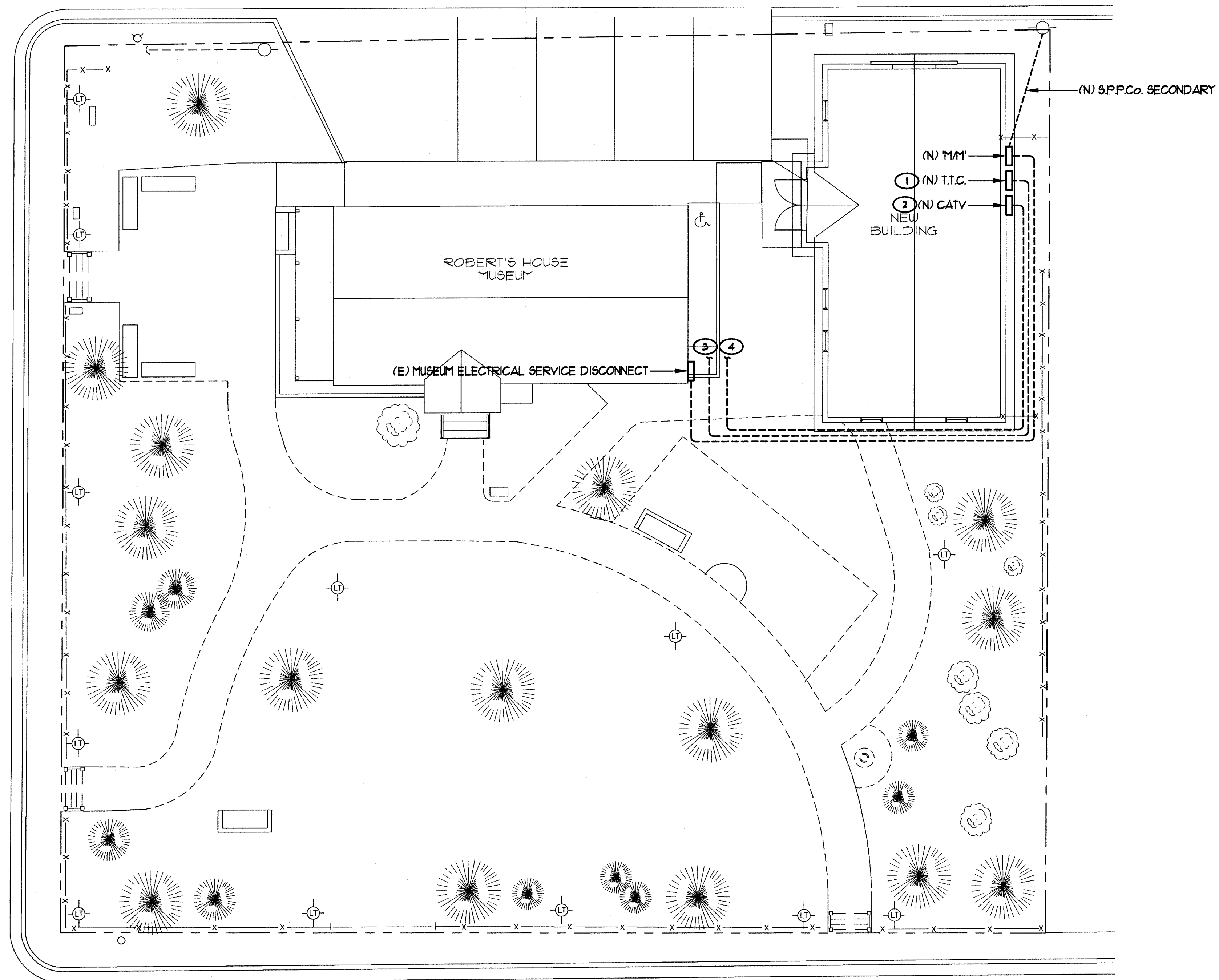
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Date	5/27/08
Drawn by	BMD
Checked by	GGJ

**E2.0**

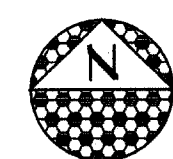
Scale AS SHOWN

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NORTH CARSON STREET

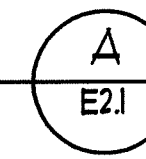


RICE STREET



PROPOSED SITE ELECTRICAL PLAN

1/8" = 1'-0"



A  
E2.1

NOTES : (THIS SHEET ONLY)

- ① 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.
- 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.
- ③ 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.
- ④ PROVIDE AND INSTALL (1) - 2" EMPTY CONDUIT FROM (N) CATV LOCATION TO (E) MUSEUM BUILDING CABLE TV SERVICE LOCATION. COORDINATE WITH CABLE SERVICE PROVIDER AND INTERCEPT (E) CABLE TV SERVICE CONDUIT, CONNECT (N) CABLE TV SERVICE CONDUIT COMPLETE. VERIFY EXACT LOCATIONS PRIOR TO SUBMITTING A BID.

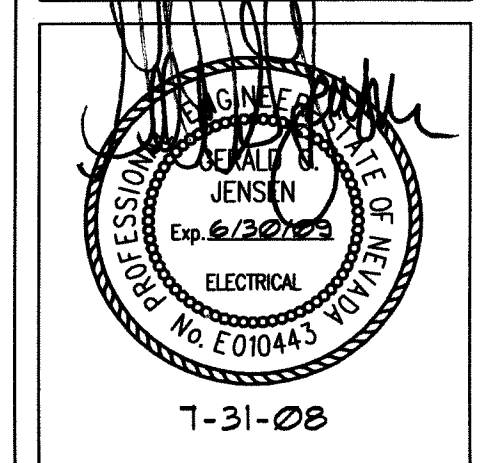
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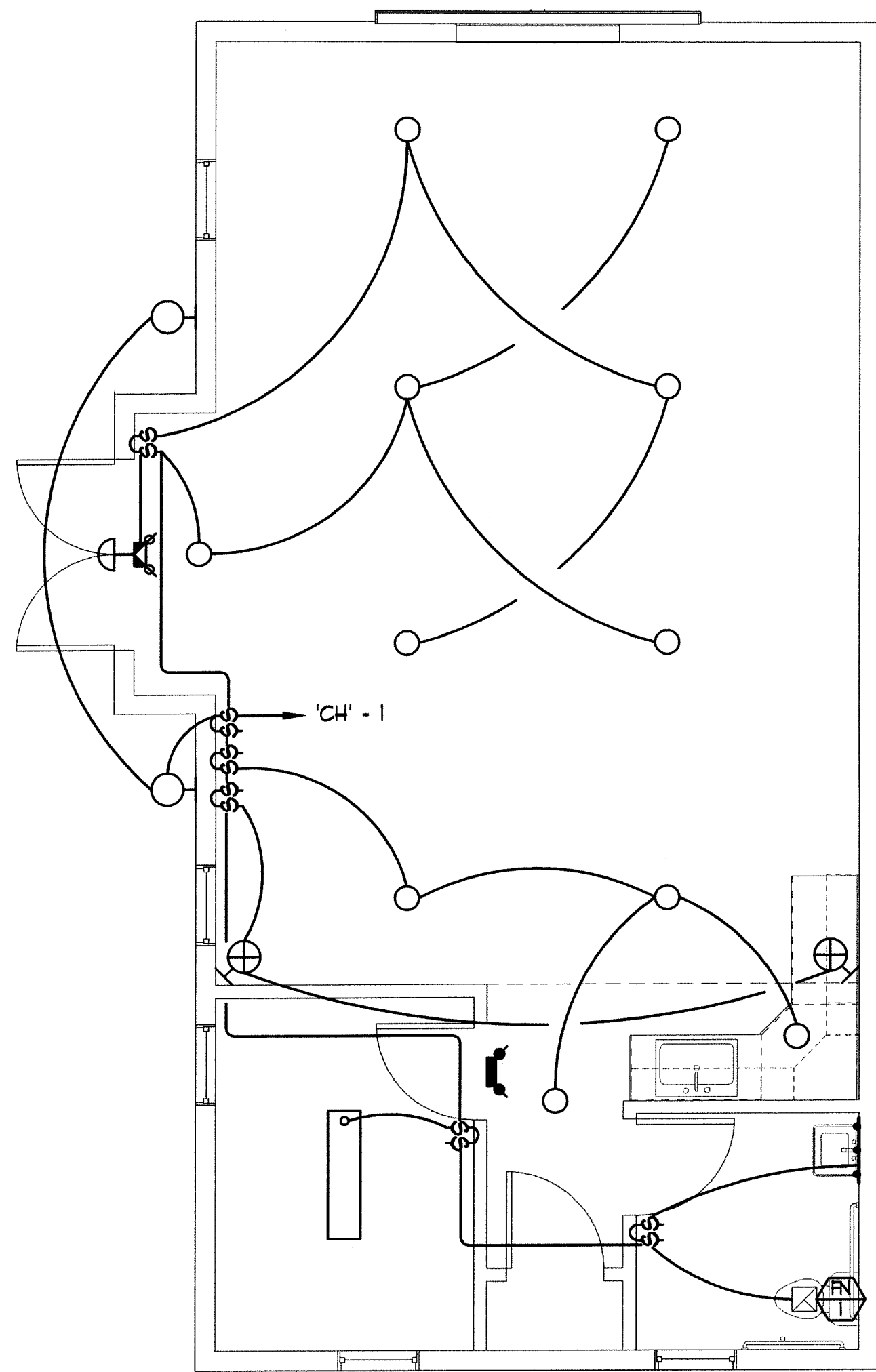
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No.	Description	Date
△	PLAN CHECK	7/31/08

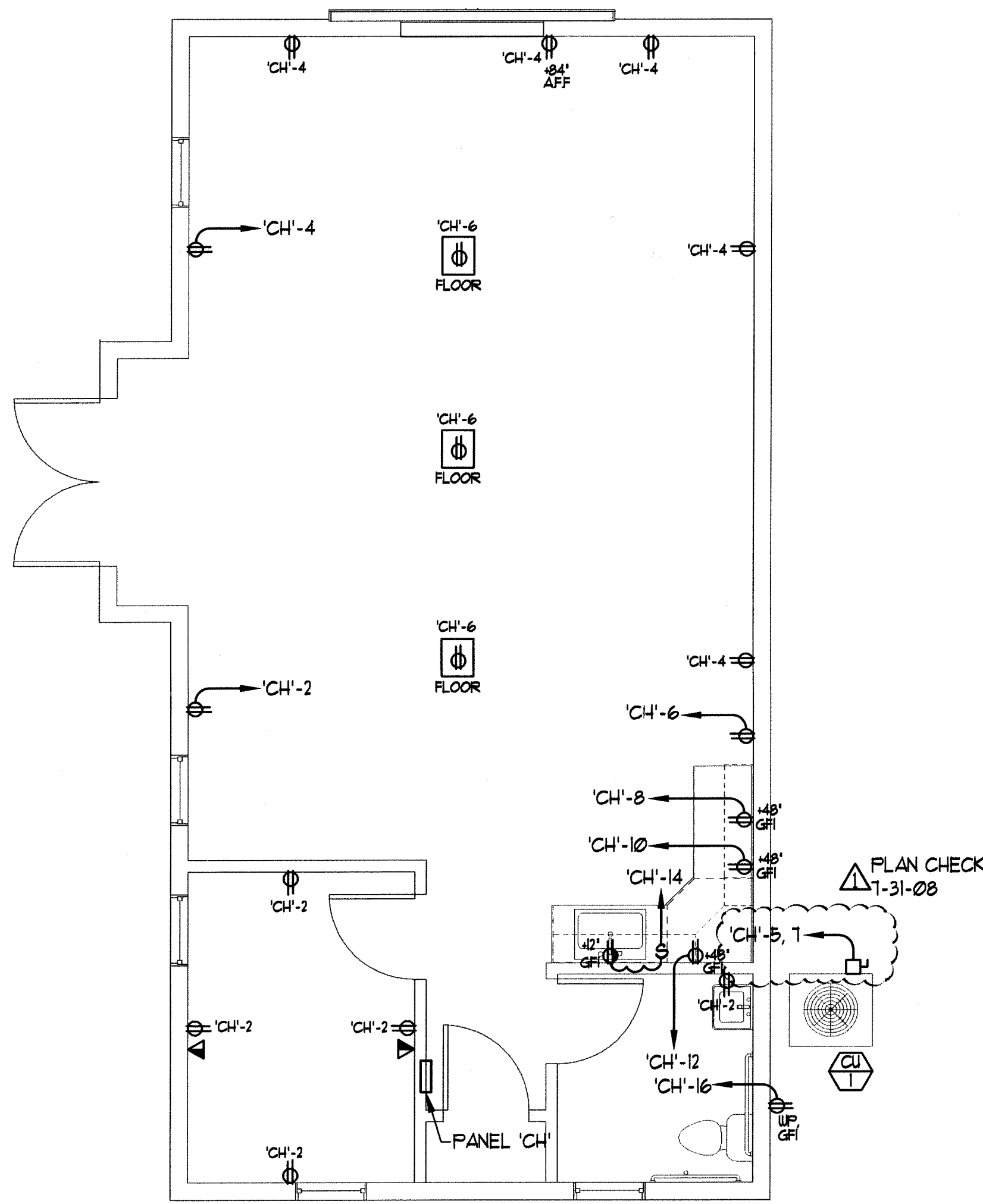
Carson City  
 Carriage House  
 Proposed Site  
 Electrical Plan

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

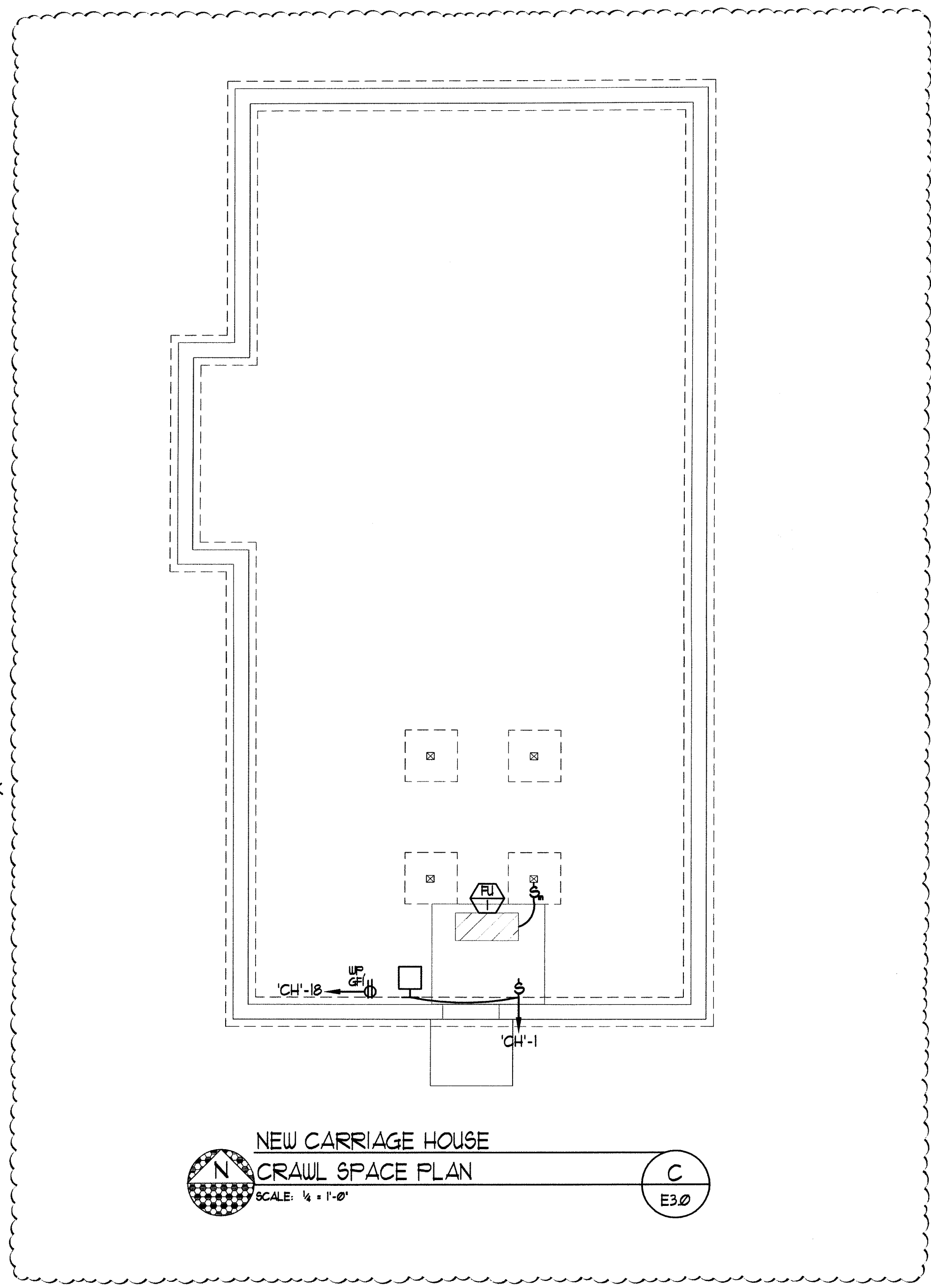
**E2.1**  
 Scale AS SHOWN



NEW CARRIAGE HOUSE  
LIGHTING PLAN  
SCALE: 1/4" = 1'-0"  
E3.0



NEW CARRIAGE HOUSE  
POWER PLAN  
SCALE: 1/4" = 1'-0"  
E3.0



NEW CARRIAGE HOUSE  
CRAWL SPACE PLAN  
SCALE: 1/4" = 1'-0"  
E3.0

Panel Schedule by Jensen Engineering Inc.

PANEL 'CH' 120 / 240 VOLT 1 PHASE 3 WIRE 200 AMPERE MAIN L.O. 225 AMPERE BUS

LOCATION CARRIAGE HOUSE HALLWAY MOUNTING FLUSH INTERRUPTING 10000 A.I.C.

CIRCUIT NUMBER	LOAD		LOAD DESCRIPTION		CIRCUIT BREAKER		LOAD DESCRIPTION		LOAD	
	LINE A	LINE B	PHASE	WIRE	AMP	POLE	PHASE	WIRE	LINE A	LINE B
1	20				20	1		RECEPTACLES	1000	2
3	62				20	1		RECEPTACLES	1000	4
5	16-43				20	1		DEDICATED	1000	6
7	16-43				20	1		DEDICATED RECEPTACLE	1000	8
9					20	1		DEDICATED RECEPTACLE	1000	10
11					20	1		DEDICATED RECEPTACLE	1000	12
13					20	1		GARBAGE DISPOSAL	1000	14
15					20	1		SERVICE RECEPTACLE	1000	16
17					20	1		SERVICE RECEPTACLE	1000	18
19										20
21										22
23										24
25										26
27										28
29										30
31										32
33										34
35										36
37										38
39										40
41										42
25-43		17-25			SUB TOTALS				4160	3000
BUS MATERIAL: Cu		NEW: YES	EXISTING: NO		LINE TOTALS				6103	5335
NOTES:				LINE AMPS				55	44	
				TOTAL KVA LOAD				12.4		

PLAN CHECK  
1-31-08

NOTES : (THIS SHEET ONLY)  
① COORDINATE POWER DOWN AND START UP WITH OWNERS OPERATION SCHEDULE FOR ELECTRICAL SERVICE CHANGES.

MECHANICAL EQUIPMENT CONNECTION SCHEDULE

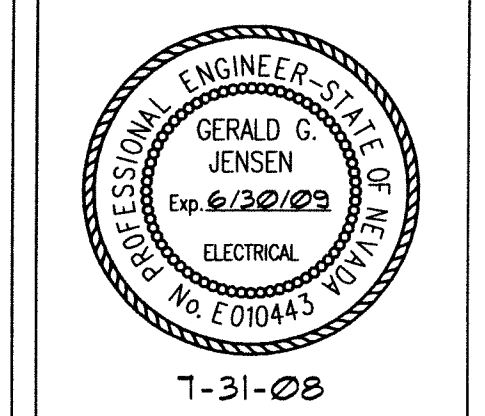
ITEM No.	DESCRIPTION	VLTS/PH/AMPS	DISCONNECTING MEANS	CONDUIT/WIRE	FED FROM
④	FU - 1	120 / 1 / 5.1	MOTOR RATED SWITCH	1/2" C., (2) - #12 Cu.	'CH'-3
④	AC - 1	208 / 1 / 15.8	30A/30F/2P 250V, NBR. DISCONNECT SWITCH	1/2" C., (3) - #10 Cu.	'CH'-5, 1
④	FN - 1	120 / 1 / 2	MOTOR RATED SWITCH	1/2" C., (2) - #12 Cu.	'CH'-1

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ARCHITECT ©

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3303 Butti Way, Bldg #9  
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Fax: (775) 852-3388  
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Mechanical Engineer  
SEED  
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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
①	PLAN CHECK	1.31.08

Carson City  
Carriage House  
New Carriage  
House Elect. Plan

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

E3.0  
Scale AS SHOWN

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