

Alf Sorensen Natatorium Renovation


Bid Number 13/14-015, PWP# WA-2014-098

**1400 Baring Blvd
Sparks, NV 89434**

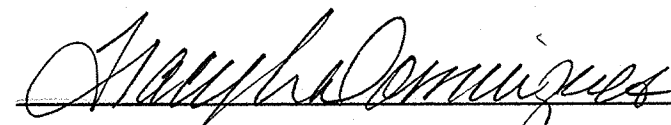
Sparks Parks and Recreation

**1400 Baring Blvd
Sparks, NV 89434**

**August 23, 2013
Bid Drawings**



John A. Martini, P.E., City Engineer

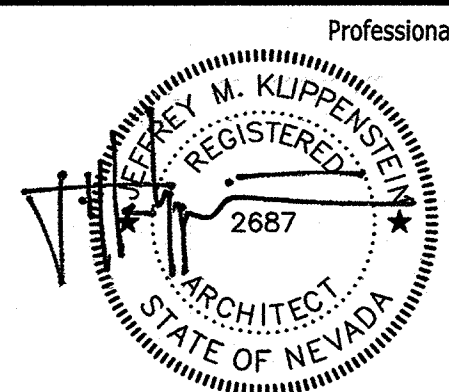


Tracy L. Domingues, Parks and Recreation Director

2-5-14
Date

2/5/14
Date

1309 1001.dwg 2/5/2014 8:30 AM



Professional Seal △ Date Revision

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**Alf Sorensen Natatorium
Renovation**

1400 Baring Blvd
Sparks, NV 89434

Title Sheet

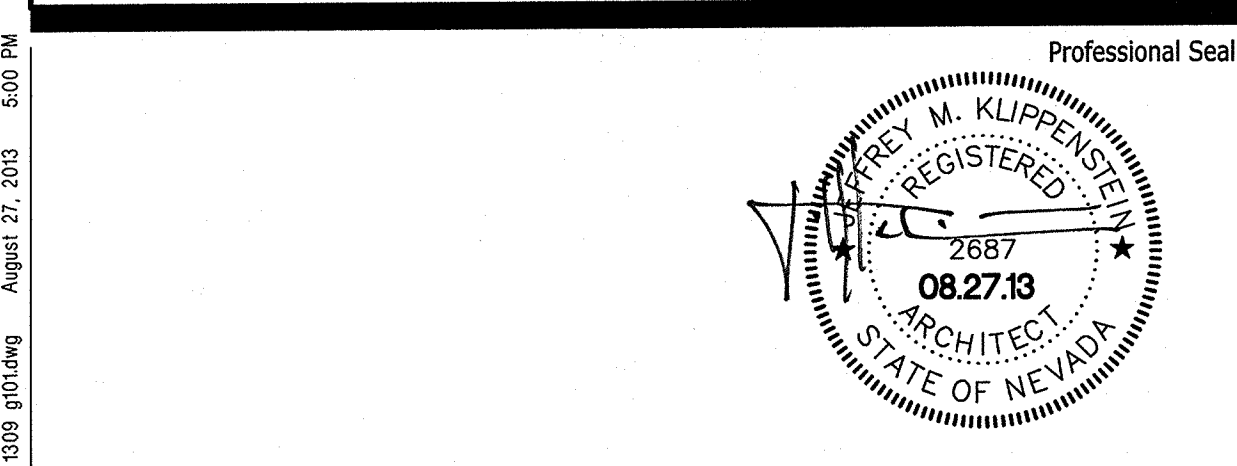
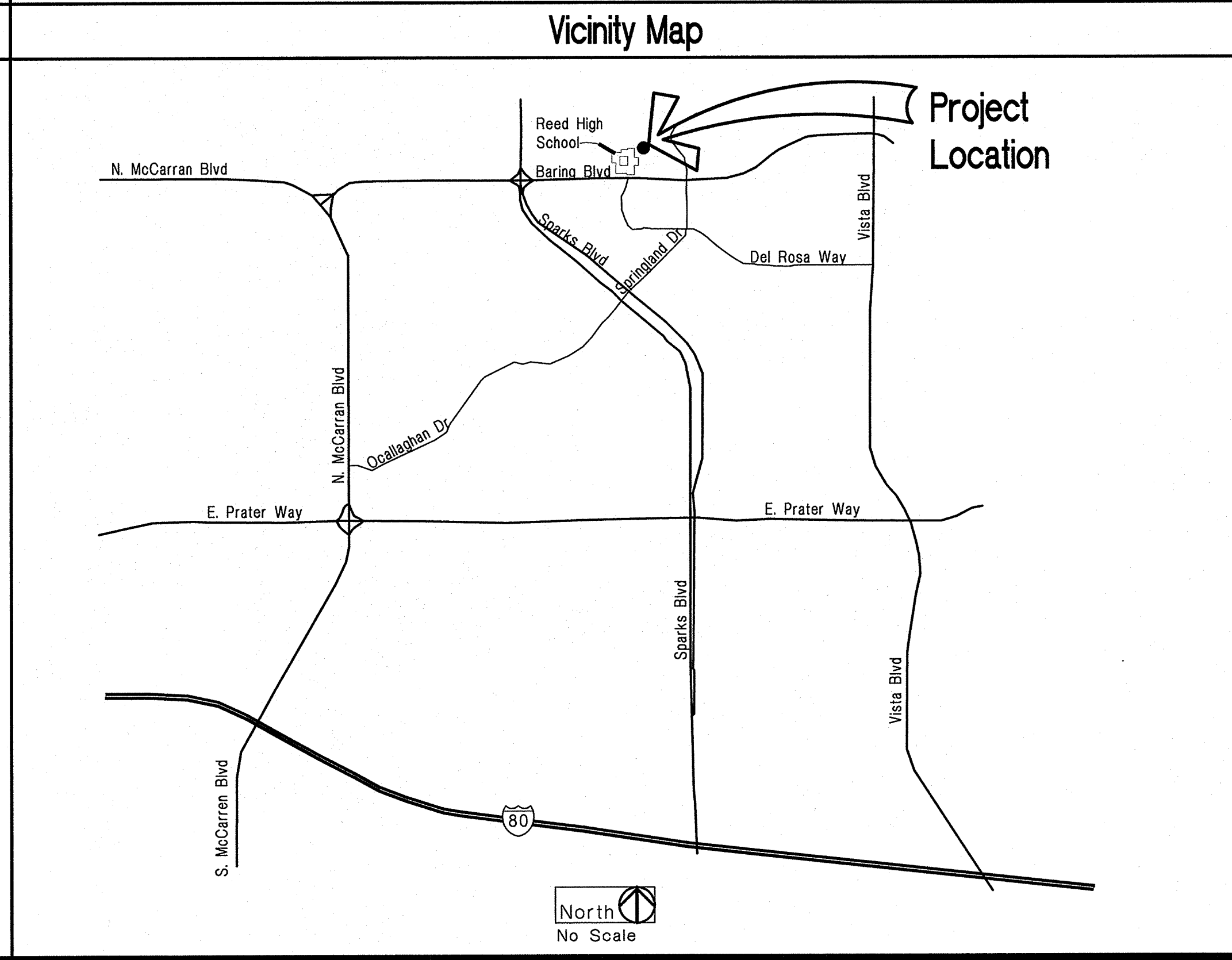
August 23, 2013
H+K Project No.: 1309

G001



Abbreviations				General Notes				Project Team				Sheet Index												
<p>A</p> <p>Adj. Adjustable</p> <p>Aggr. Aggregate</p> <p>Alt. Alternate</p> <p>Alum. Aluminum</p> <p>Approx. Approximately</p> <p>Arch. Architectural</p> <p>A.C. Asphalt Concrete</p>	<p>B</p> <p>Bm. Beam</p> <p>Bk. Block</p> <p>Bkg. Blocking</p> <p>Bd. Board</p> <p>B.O. Bottom of</p> <p>Bldg. Building</p> <p>B.U.R. Built up Roofing</p>	<p>C</p> <p>C.I. Cast Iron</p> <p>C.B. Catch Basin</p> <p>Cg. Ceiling</p> <p>Chr. Center</p> <p>C.L. Center Line</p> <p>Cer. Ceramic</p> <p>C.O. Cleanout</p> <p>C.W. Cold Water</p> <p>Col. Column</p> <p>Conc. Concrete</p> <p>Conn. Connection</p> <p>Const. Construction</p> <p>C.J. Construction Joint</p> <p>Contn. Continuous</p> <p>Contr. Contractor</p> <p>Cu. Ft. Cubic Foot</p>	<p>D</p> <p>D.G. Decomposed Granite</p> <p>Dept. Department</p> <p>Det. Detail</p> <p>Dia. Diameter</p> <p>Diff. Diffuser</p> <p>Dim. Dimension</p> <p>Dbl. Double</p> <p>DN Down</p> <p>D.S. Downspout</p> <p>Dwg. Drawing</p> <p>D.F. Drinking Fountain</p>	<p>E</p> <p>Ea. Each</p> <p>Etc. Etcetera</p> <p>E.W.C. Electric Water Cooler</p> <p>Elec. Electrical</p> <p>Elev. Elevation</p> <p>Emer. Emergency</p> <p>Encl. Enclosure</p> <p>Eq. Equal</p> <p>Equip. Equipment</p> <p>Exh. Exhaust</p> <p>Exp. Expansion</p> <p>E.J. Expansion Joint</p> <p>Ext. Exterior</p>	<p>F</p> <p>F.O. Face of</p> <p>Fin. Finish</p> <p>F.G. Finish Grade</p> <p>F.E. Fire Extinguisher</p> <p>F.E.C. Fire Extinguisher Cabinet</p> <p>Fprf. Fireproofing</p> <p>Fixt. Fixture</p> <p>Flash. Flashing</p> <p>Fir. Floor</p> <p>F.D. Floor Drain</p> <p>F.L. Flow Line</p> <p>Fl. Foot</p> <p>Ftg. Footing</p> <p>Fdn. Foundation</p> <p>FBO Furnished by Others</p> <p>Furr. Furring</p> <p>Fut. Future</p>	<p>G</p> <p>Galv. Galvanized</p> <p>G.I. Galvanized Iron</p> <p>Geqe. Geog</p> <p>Gen. General</p> <p>Gl. Glass</p> <p>GLB Glue-Laminated Beam</p> <p>Gyp. Gypsum</p>	<p>H</p> <p>Ht. Height</p> <p>H.C. Hollow Core</p> <p>H.M. Hollow Metal</p> <p>Horiz. Horizontal</p> <p>H.B. Hose Bibb</p> <p>H.W. Hot Water</p> <p>Hr. Hour</p>	<p>I</p> <p>In. Inch(es)</p> <p>I.D. Inside Diameter</p> <p>Insul. Insulation</p> <p>Int. Interior</p>	<p>J</p> <p>Jt. Joint</p>	<p>L</p> <p>Lab. Laboratory</p> <p>Lav. Lavatory</p> <p>Lt. Light</p>	<p>M</p> <p>Mfr. Manufacturer</p> <p>M.O. Masonry Opening</p> <p>Max. Maximum</p> <p>Mech. Mechanical</p> <p>Memb. Membrane</p> <p>Met. Metal</p> <p>Min. Minimum</p> <p>Misc. Miscellaneous</p> <p>MPH Miles per hour</p> <p>Mtd. Mounted</p>	<p>N</p> <p>Nom. Nominal</p> <p>N.I.C. Not in Contract</p> <p>N.T.S. Not to Scale</p> <p>No. Number</p>	<p>O</p> <p>O.C. On Center</p> <p>O.D. Outside Diameter</p> <p>O.H. Opposite Hand</p>	<p>P</p> <p>Pr. Pair</p> <p>P. Lam. Plastic Laminated</p> <p>Pl. Plate</p> <p>Plywd. Plywood</p> <p>Pt. Point</p> <p>Prefab. Prefabricated</p> <p>Prop. Property</p> <p>PSF Pounds per square foot</p> <p>PSI Pounds per square inch</p>	<p>R</p> <p>Rad. Radius</p> <p>Ref. Reference</p> <p>Reinf. Reinforced</p> <p>Req. Required</p> <p>R.A. Return Air</p> <p>Rev. Revision</p> <p>R.O.W. Right of Way</p> <p>R.D. Roof Drain</p> <p>Rm. Room</p> <p>R.O. Rough Opening</p>	<p>S</p> <p>Sched. Schedule</p> <p>Sect. Section</p> <p>Sht. Sheet</p> <p>Sim. Similar</p> <p>S.C. Solid Core</p> <p>Spec. Specification</p> <p>Sq. Square</p> <p>SF Square foot</p> <p>St. Stl. Stainless Steel</p> <p>Std. Standard</p> <p>Stl. Steel</p> <p>Stg. Storage</p> <p>Struct. Structural</p> <p>Susp. Suspended</p> <p>Sym. Symmetrical</p>	<p>T</p> <p>Tel. Telephone</p> <p>T.V. Television</p> <p>T.&G. Tongue and Groove</p> <p>T.C. Top of Curb (or Concrete)</p> <p>T.O. Top of</p>	<p>U</p> <p>U.N.O. Unless Noted Otherwise</p>	<p>V</p> <p>Vert. Vertical</p> <p>V.C.T. Vinyl Composition Tile</p>	<p>W</p> <p>W.C. Water Closet</p> <p>Wt. Weight</p> <p>W.F. Wide Flange</p> <p>Wdw. Window</p> <p>W/ With</p> <p>W/O Without</p> <p>Wd. Wood</p> <p>W.J. Weakened Plane Joint</p>	<p>Y</p> <p>Yd. Yard</p>	<p>1. These general notes pertain to work described on all contract documents.</p> <p>2. The contract documents consist of the owner-contractor agreement, the conditions of the contract (general, supplementary and other conditions), the drawings, the specifications, and all addenda issued prior to and all modifications issued after execution of the contract.</p> <p>3. The work comprises the completed construction required by the contract documents and includes all labor necessary to produce such construction, and all materials and equipment incorporated or to be incorporated in such construction.</p> <p>4. Shop drawings, product data and samples are not a part of the contract documents. The Architect will review them, but only for conformance with the design concept of the work and with the information given in the contract documents. The Contractor shall not be relieved of responsibility for any deviation from the requirements of the contract documents by the Architect's review of shop drawings, product data or samples.</p> <p>5. The Contractor shall carefully study and compare the contract documents and shall at once report to the Architect any error, inconsistency or omission he may discover. The Contractor shall perform no portion of the work at any time without contract documents or, where required, approved shop drawings, product data or samples for such portion of the work.</p> <p>6. All work is to conform with the contract documents. Drawings are NOT to be scaled for information. If unable to locate dimensions for any item of work, consult with the Architect before proceeding with construction.</p> <p>7. In the event certain features of the construction are not fully shown on the contract documents, then their construction shall be of the same character as for similar conditions that are shown or called for and shall be reviewed by the Architect.</p> <p>8. All work shall be performed within strict conformance to the minimum standards of the current edition of the adopted building codes of the authority having jurisdiction and all applicable national, state, and local laws, regulations, and ordinances.</p> <p>9. The Contractor shall be responsible for the general safety during construction, and all work shall conform to pertinent safety regulations.</p> <p>10. The Contractor shall coordinate locations of any and all mechanical, telephone, electrical, lighting and plumbing including all piping, ductwork and conduit. Coordinate all required clearances for installation and maintenance of the above equipment.</p> <p>11. The Contractor shall supervise and direct the work, using his best skill and attention. He shall be solely responsible for all construction means, methods, techniques, sequences and procedures and for coordinating all portions of the work under the contract.</p> <p>12. The Contractor shall be responsible for the acts and omissions of his employees, subcontractors, and their agents and employees, and other persons performing any work under a contract with the Contractor.</p> <p>13. The Contractor shall pursue work in a continuous and diligent manner to ensure a timely completion of the project.</p> <p>14. The Contractor at all times shall keep the premises free from accumulation of waste materials or rubbish caused by his operations. At the completion of the work he shall remove all his waste materials and rubbish from and about the project as well as all his tools, construction equipment, machinery, and surplus materials.</p> <p>15. The Contractor shall be responsible for the location and/or protection of all existing and proposed piping, utilities, structures, adjacent streets and improvements during the period of construction.</p> <p>16. Unless otherwise provided in the contract documents, the Contractor shall provide and pay for all labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary for the proper execution and completion of the work.</p> <p>17. Where conflicts occur, coordinate the layout and exact location of all partitions, doors, telephones, and electrical/ communication outlets and switches with Architect in the field before proceeding with construction.</p> <p>18. Where conflict is encountered between the contract documents that will materially affect the quality or extent of the work, such conflict shall be resolved to the satisfaction of the Architect before the affected items and/or material are purchased, fabricated and/or installed.</p> <p>19. Where pre-manufactured or prefabricated items and/or materials are to be installed - the Contractor shall verify rough or finished dimensions in the field prior to purchase or fabrication.</p> <p>20. The Contractor shall guarantee all work and materials to be free from defects for a minimum of one year from date of final acceptance, and promptly remedy such defects and any subsequent damage caused by the defects or repair thereof, at no expense to the owner. Guarantee periods of greater than one year may be required and contained within the contract documents.</p> <p>21. Where any item and/or material is indicated in the contract documents, and not necessarily detailed in each specific case, but is required for a complete and professional installation - such item and/or material shall provided as if shown and detailed in full. Provide means to furnish and install.</p> <p>22. Contractor is requested to visit the site as part of the pre-bid site visit to compare the drawings and specifications with any work in place, and inform himself of all conditions, including the work, if any, being performed. Failure to visit the site will in no way relieve the Contractor from necessity of furnishing any materials or performing any work in accordance with the drawings and specifications that may be required to complete the work without additional cost to the owner.</p> <p>23. Existing conditions including material sizes, configurations, and locations as shown on the drawings may not be an exact illustration of existing as-built conditions. The Contractor shall include in his bid the cost of furnishing, installing, modifying, existing and/or new materials (minor in nature) required for a complete and professional installation that may be required by minor variations between existing conditions as shown, and actual as-built conditions.</p>	<p>Owner:</p> <p>City of Sparks 431 Prater Way Sparks, Nevada 89431 (775) 353-2212 (775) 353-1635 Contact: Ross Soderstrom, PE</p> <p>Architecture:</p> <p>H + K Architects, Ltd. 5485 Reno Corporate Drive, Suite 100 Reno, Nevada 89511-2262 332-6640 332-6642 (Fax) Contact: Phil O'Keefe, AIA</p> <p>Structural Engineering:</p> <p>Hyytinen Engineering 5458 Longley Lane, Suite B Reno, NV 89511 (775) 826-3019 (775) 826-3016 (Fax) Contact: Chris Roper, PE</p> <p>Mechanical Engineering:</p> <p>Ainsworth Associates 1420 Holcomb Avenue, Suite 201 Reno, NV 89502 (775) 329-9100 (775) 329-9105 (Fax) Contact: Monty Dunnington, PE</p> <p>Electrical Engineering:</p> <p>JP Engineering 10597 Double R Blvd, Ste. 1 Reno, NV 89521 (775) 852-2337 (775) 852-2357 (Fax) Contact: Rick L. Pearson</p>	<p>G001 Title Sheet</p> <p>G101 Project Data</p> <p>Architectural</p> <p>A101 Existing Floor Plan</p> <p>A201 Roof Plan</p> <p>A202 Roof Details</p> <p>A401 Building Sections</p> <p>A601 Reflected Ceiling Plan</p> <p>A602 Ceiling Details</p> <p>A801 Storefront Elevations and Details</p> <p>A802 Door Details</p> <p>Structural</p> <p>S101 Structural Cover Sheet - General Notes</p> <p>S201 Partial Roof Framing Plan and Details</p> <p>S301 Sections and Details</p> <p>Mechanical</p> <p>M0.1 Air Conditioning - Legend and Schedules</p> <p>M1.1 Air Conditioning - Demolition Floor Plan</p> <p>M2.1 Air Conditioning - Floor Plan</p> <p>M3.1 Air Conditioning - Sections</p> <p>M6.1 Air Conditioning - Details</p> <p>Electrical</p> <p>E0.1 Symbol List and Drawing Index</p> <p>E0.2 Schedules and Compliance Documents</p> <p>E1.1 Electrical Demolition Plan</p> <p>E2.1 Roof Electrical Plan</p> <p>E3.1 Lighting Plan</p>
								Design Criteria																
								<p>Applicable Codes:</p> <p>Building Code: 2012 International Building Codes (IBC)</p> <p>Mechanical Code: 2012 Uniform Mechanical Code (UMC)</p> <p>Plumbing Code: 2012 Uniform Plumbing Code (UPC)</p> <p>Electrical Code: 2011 National Electrical Code (NEC)</p> <p>Fire Code: 2012 International Fire Code (IFC)</p>																

Symbols	
<p>Drawing Number</p> <p>5</p> <p>A4.5</p> <p>Sheet Number</p>	<p>Typical Indicator</p>
<p>North</p>	<p>North Arrow</p>
<p>Elevation</p>	<p>Elevation</p>
<p>###</p>	<p>Door Number</p>
<p>X</p>	<p>Window Type</p>
<p>X</p>	<p>Grid Lines</p>
<p>Room Name</p> <p>100</p>	<p>Room Name/Number</p>
<p>000</p>	<p>Wall Type Symbol</p>
<p>Building Section</p>	<p>Building Section</p>
<p>Wall Section</p>	<p>Wall Section</p>
<p>Detail</p>	<p>Detail</p>
<p>Detail Section</p>	<p>Detail Section</p>
<p>Spot Elevation</p> <p>00.0</p> <p>T.O. Slab</p>	<p>Spot Elevation</p>
<p>Elevation</p> <p>±10'-0"</p> <p>T.O.</p>	<p>Elevation</p>



Professional Seal	Date	Revision
<p>Consultant</p> <p>H+K ARCHITECTS</p> <p>5485 Reno Corporate Drive, Suite 100 Reno, Nevada 89511-2262</p> <p>P 775+332+6640 F 775+332+6642 hkarchitects.com</p>		

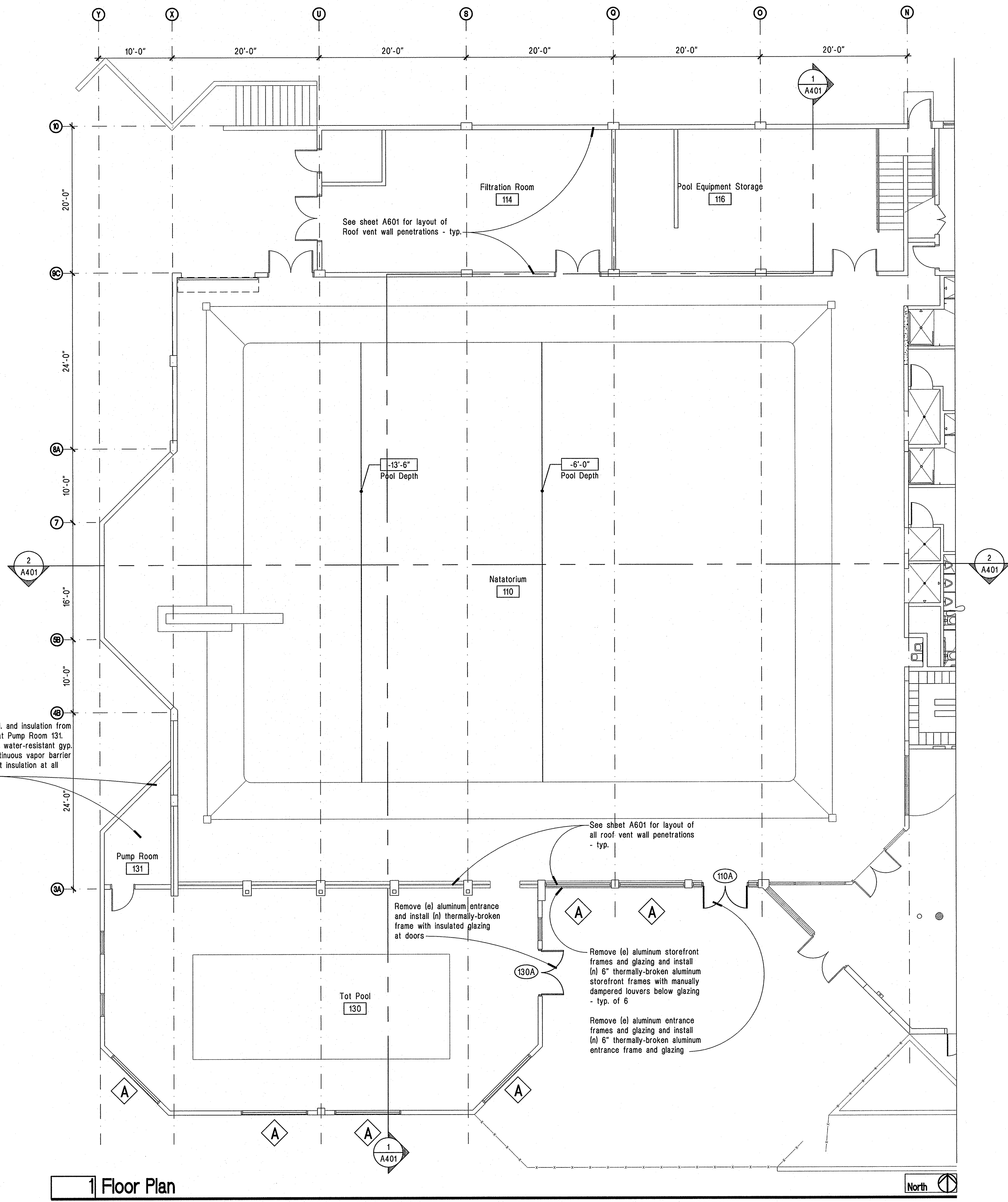
Alf Sorensen Natatorium Renovation

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Project Data

August 23, 2013
H+K Project No.: 1309

G101



Floor Plan

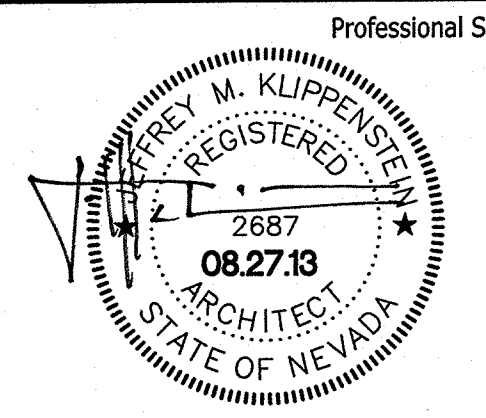
1/8" = 1'-0"

Demolition Notes

- For the purpose of Architectural work, all items not shown to be removed or altered on this sheet shall remain in their existing condition. This pertains to all equipment and other consultant's work. See other disciplines for additional demolition and alterations to utilities. Notify the Architect of any components which vary from those shown on the drawings.
- In the event that demolition work creates a condition where existing spaces are open to the weather, the Contractor shall protect the building from the effects of exposure from exterior conditions. These conditions shall be weather-tight at the conclusion of his work each night. At the conclusion of his work in that area the Contractor is to replace all removed components to a weather-tight condition matching adjacent finishes.
- There will be selective demolition for Electrical and Mechanical components. This demolition is to facilitate the replacement and/or new installation of Electrical and Mechanical components. Although this demolition may not appear specifically on this sheet, the Contractor shall include in his bid all demolition work for the removal of required building materials necessary for the installation of these components.
- Protect adjacent surfaces to remain from damage. Contractor is to repair or replace all finishes that are damaged or removed due to the installation or removal of any materials, fixtures, accessories or construction noted on these drawings. Repaired or replaced finishes shall match adjacent existing surfaces.
- Refer to Ceiling Demolition Plan for extent of ceiling demolition including but not limited to layout dimensions for installation of saw-cut roof vent penetrations above ceilings and soffits.
- The Contractor shall remove (e) wall finishes as required. The location of this demolition is shown on the Demolition Plan. The Contractor shall be responsible for setting the exact limits of demolition required in order to perform his work. All finishes removed shall be patched, repaired, or replaced to match adjacent finishes.
- All dimensions are taken from Record Drawings. Dimensions must be field verified prior to the start of work.
- Revise mechanical and fire sprinkler systems as required. Contractor to field verify extent of work required.
- Existing fire sprinkler system shall be modified to accommodate new suspended ceiling. Intent is to lower the existing location of sprinkler heads to the new finish ceiling height and center all new sprinkler heads within the ceiling panels. Any damaged sprinkler system components intended to remain shall be replaced at no additional cost to the Owner.
- Hazardous Materials: It is not expected that hazardous materials will be encountered in the work.
- Definitions:
 Remove: Detach items from existing construction and legally dispose of them off-site, unless indicated to be removed and salvaged or removed and reinstalled.
 Remove and salvage: Detach items from existing construction and deliver them to the Owner.
 Remove and reinstall: Detach items from existing construction, prepare them for reuse, and reinstall them where indicated.
 Existing to remain: Existing items of construction that are not to be removed and that are not otherwise indicated to be removed, removed and salvaged, or removed and reinstalled.

Sheet Notes

- Refer to Mechanical and Electrical plans for equipment related to those disciplines. All required equipment not necessarily noted on this sheet.
- Openings, pockets, etc. shall not be placed in slabs, beams, columns, walls, etc., unless specifically detailed on the drawings.
- See Sheet A801 for storefront and entrance frame elevations.
- Repair and repaint the wall as required where alteration work is performed, U.N.O. Paint color to match (e) walls and areas adjacent.
- All touch up and new painting will be as follows:
 Bottom coat: Latex primer
 Intermediate coat and top coat: Acrylic Latex Enamel
 Sheen shall match existing adjacent surfaces. Contractor to coordinate paint manufacturer with Owner to match (e) maintenance paint stock.



Date	Revision

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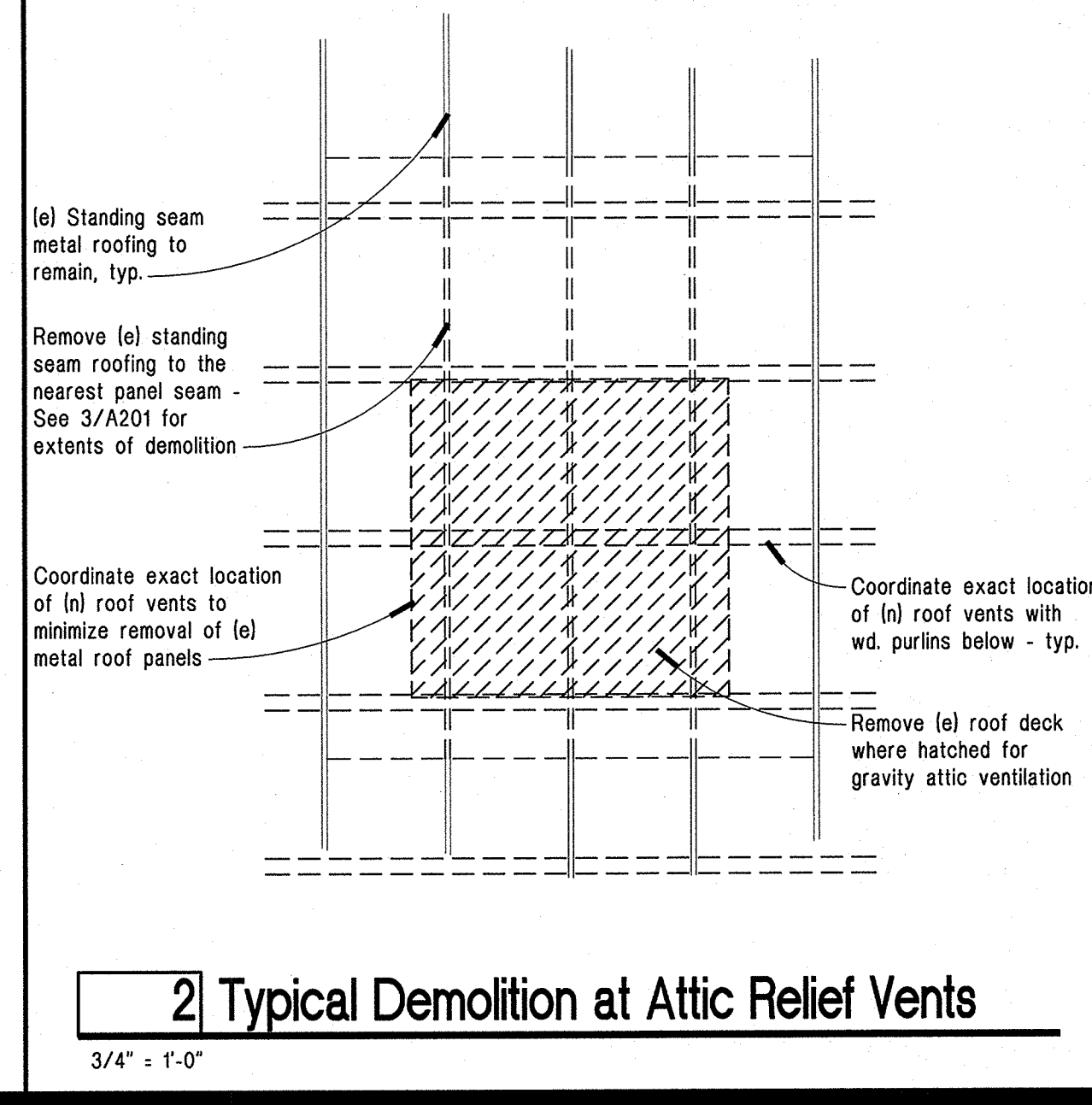
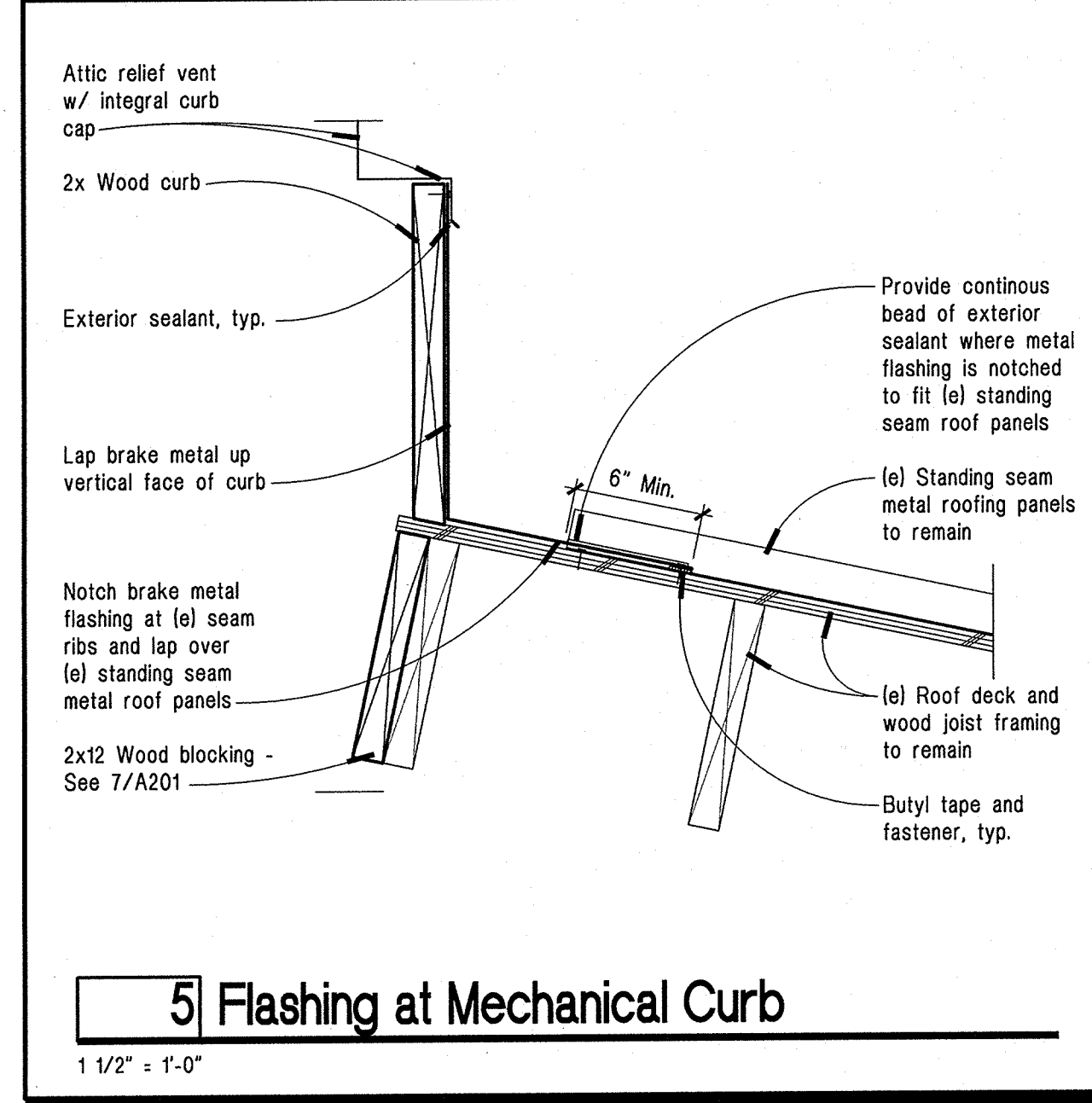
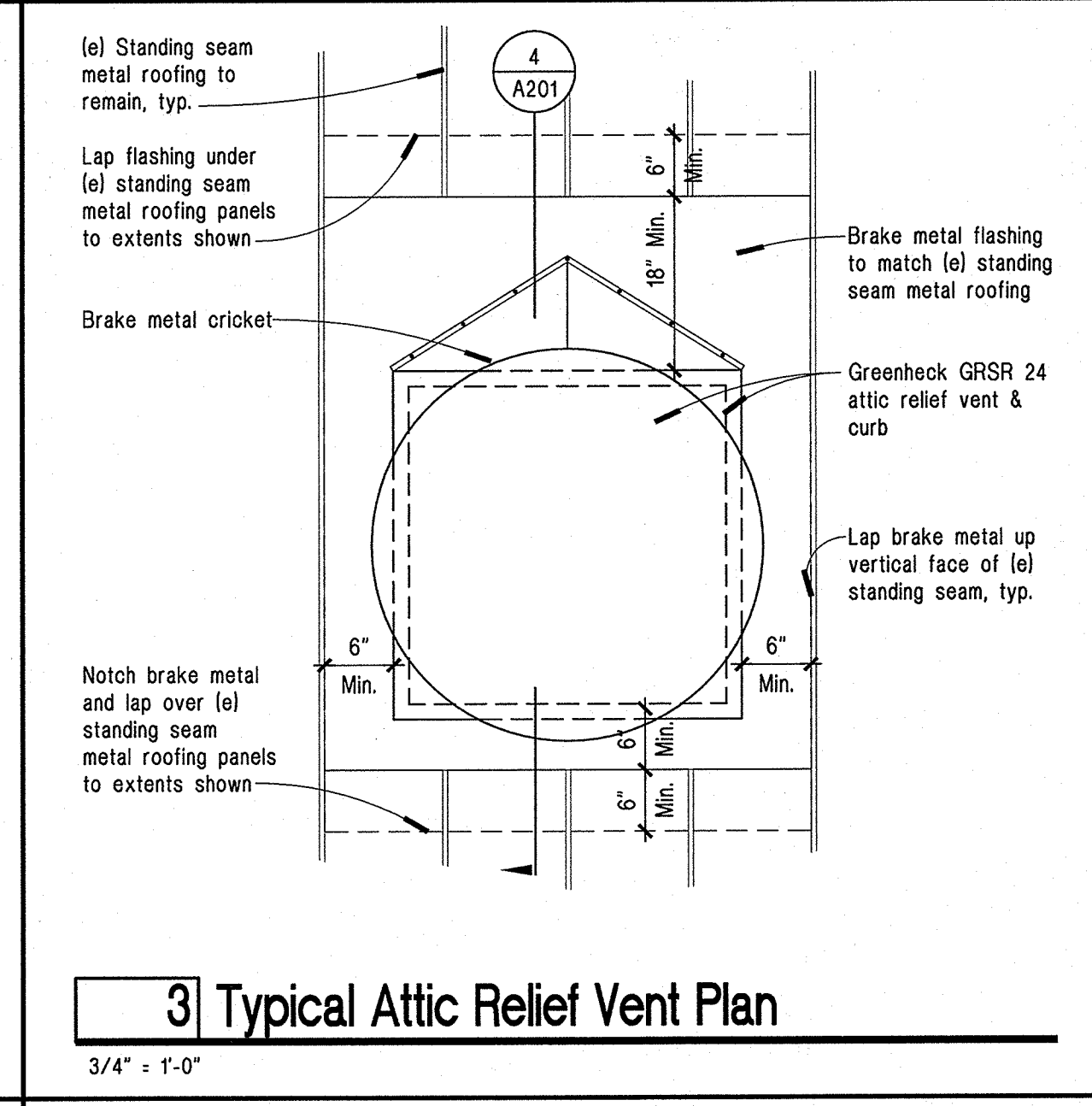
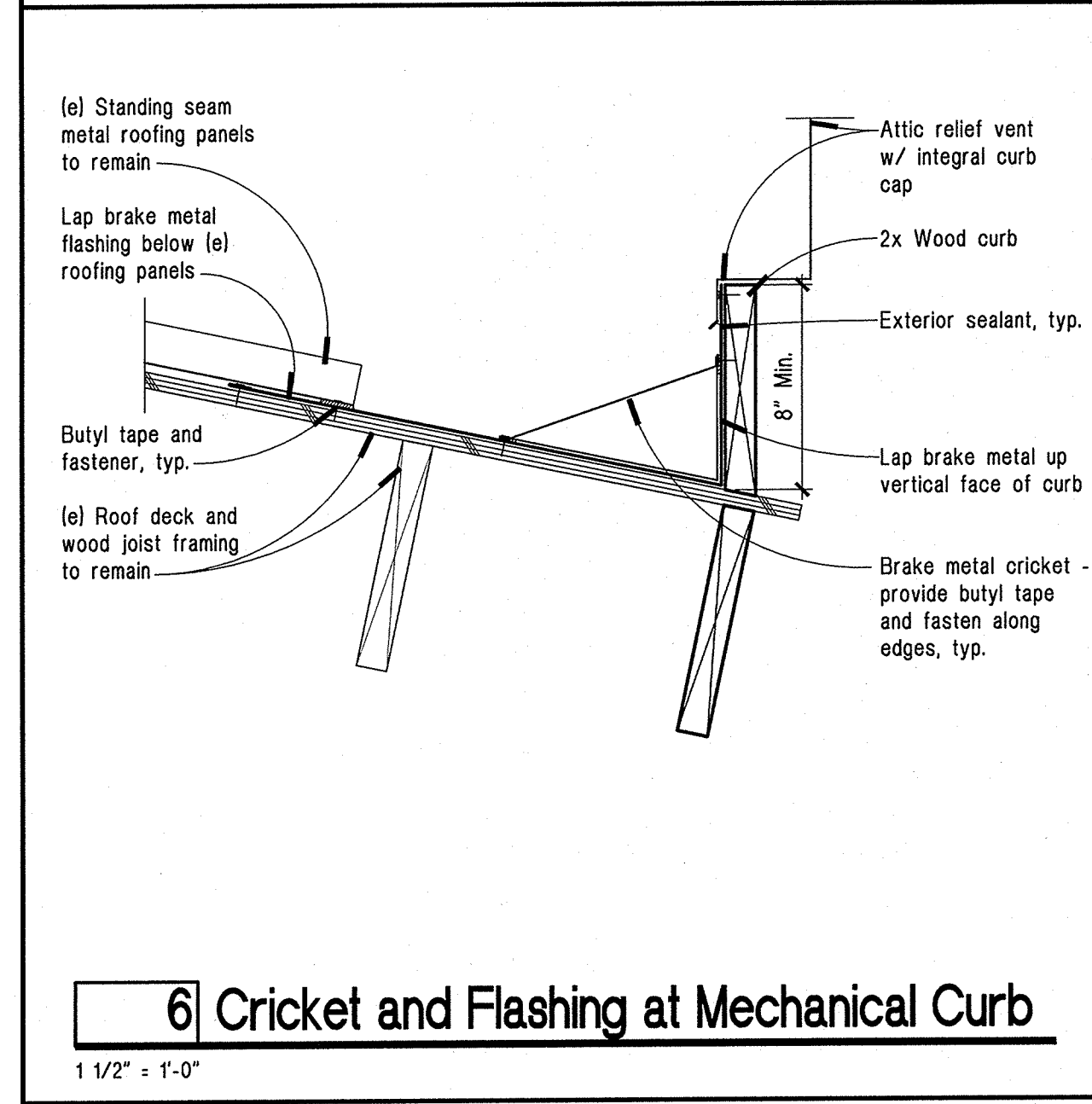
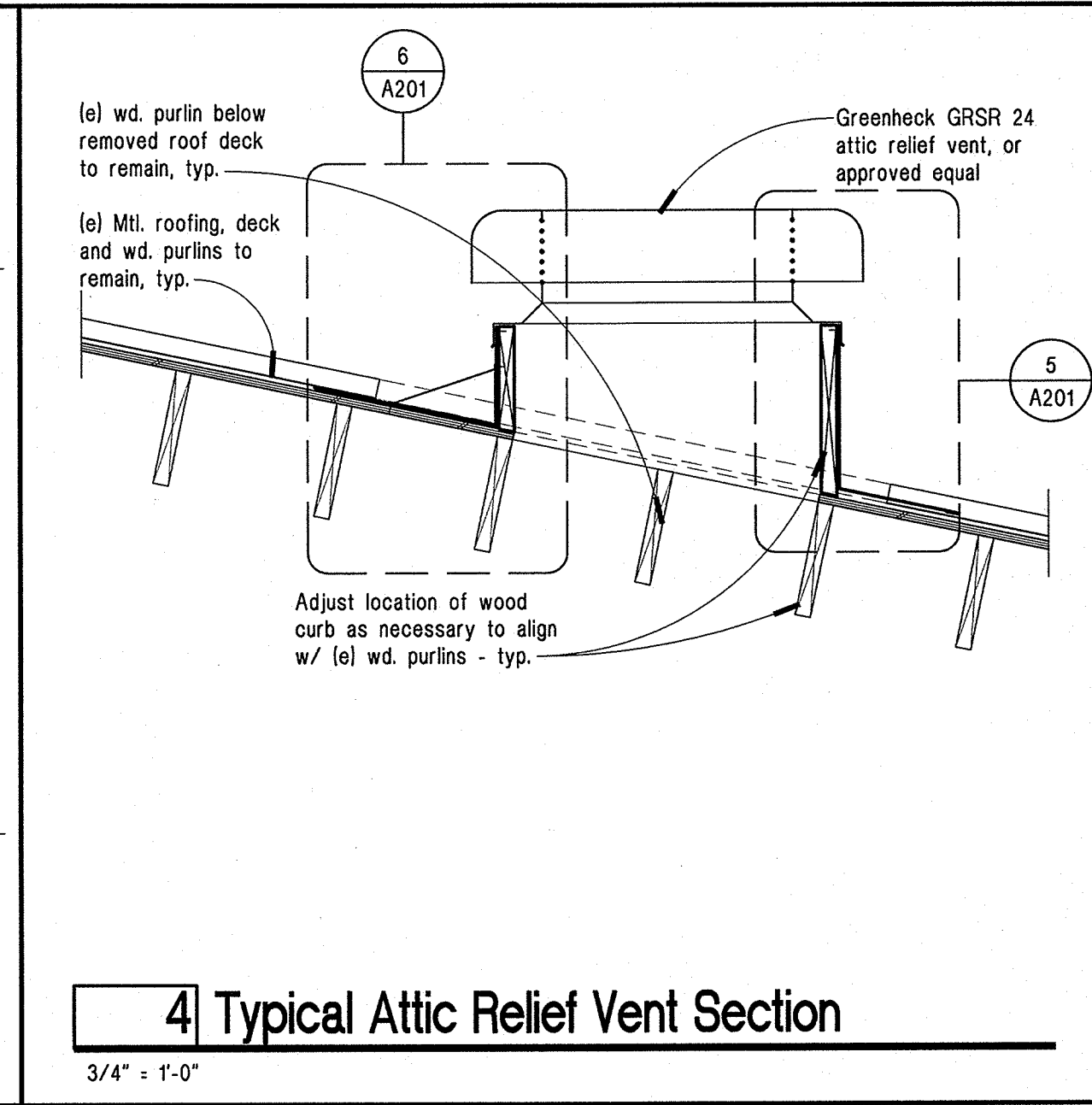
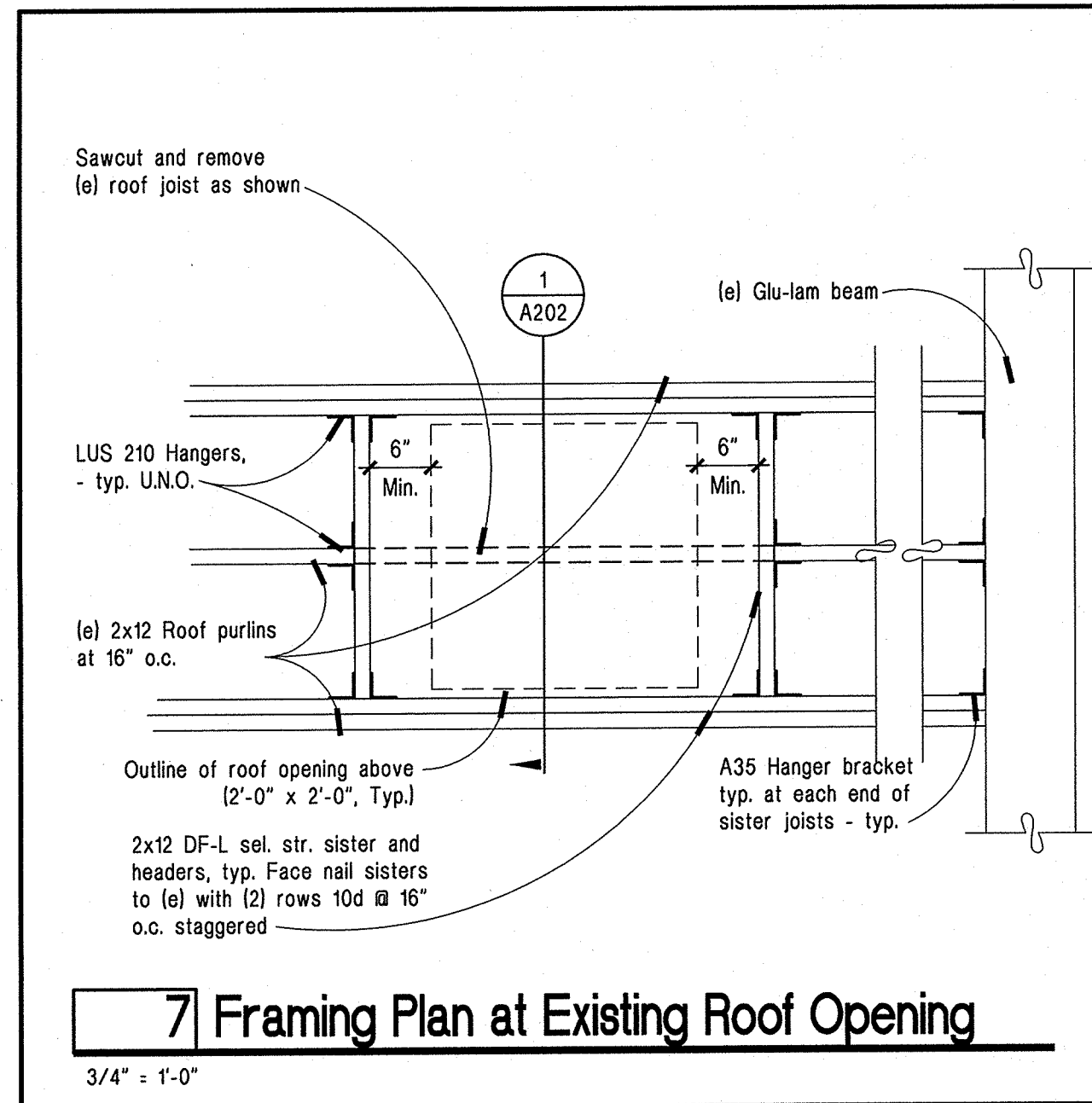
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Existing Floor Plan

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A101





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Roof Plan

August 23, 2013
H+K Project No.: 1309

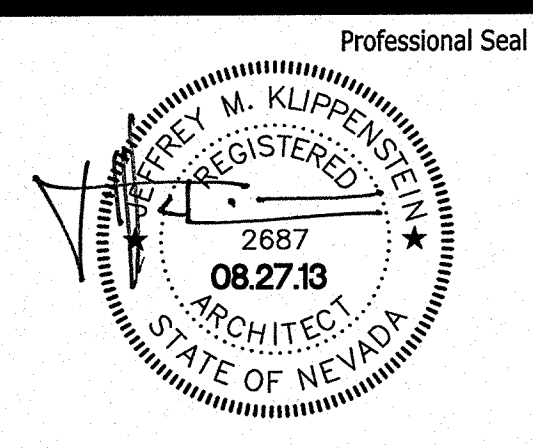
A201

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				<p>2 Exhaust Fan at Membrane Roof 3/4" = 1'-0"</p>
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				<p>1 Mech. Unit at (e) Curb 3/4" = 1'-0"</p>
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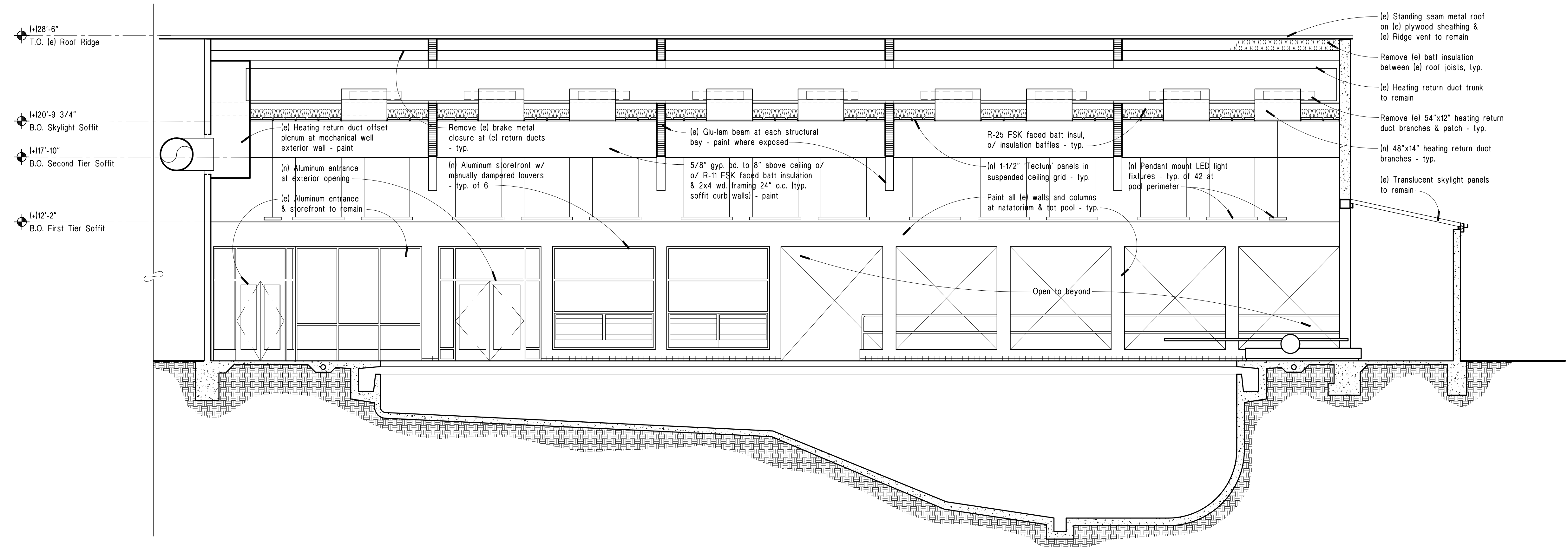
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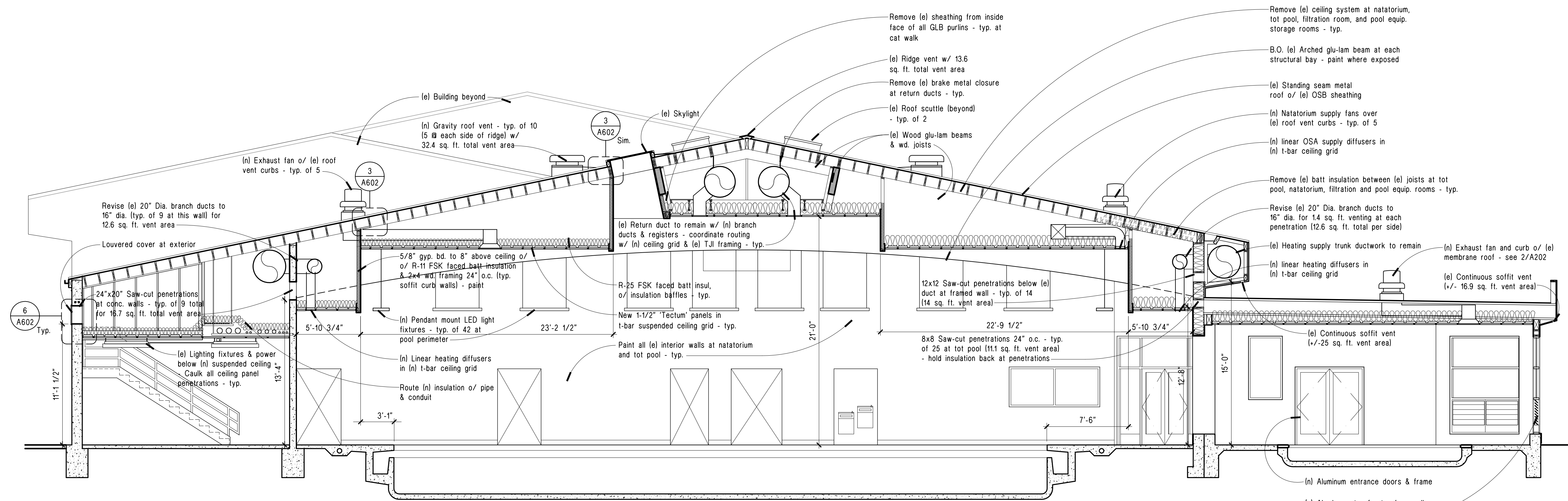
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Roof Details
 August 23, 2013
 H+K Project No.: 1309
A202



2 Longitudinal Section at Pool

3/16" = 1'-0"



1 Cross Section at Pool and Tot Pool

3/16" = 1'-0"

Professional Seal

ARCHITECT M. KLIPPENSTEIN REGISTERED ARCHITECT STATE OF NEVADA 2687 013114

Date Revision

1/31/14 Light fixture revisions

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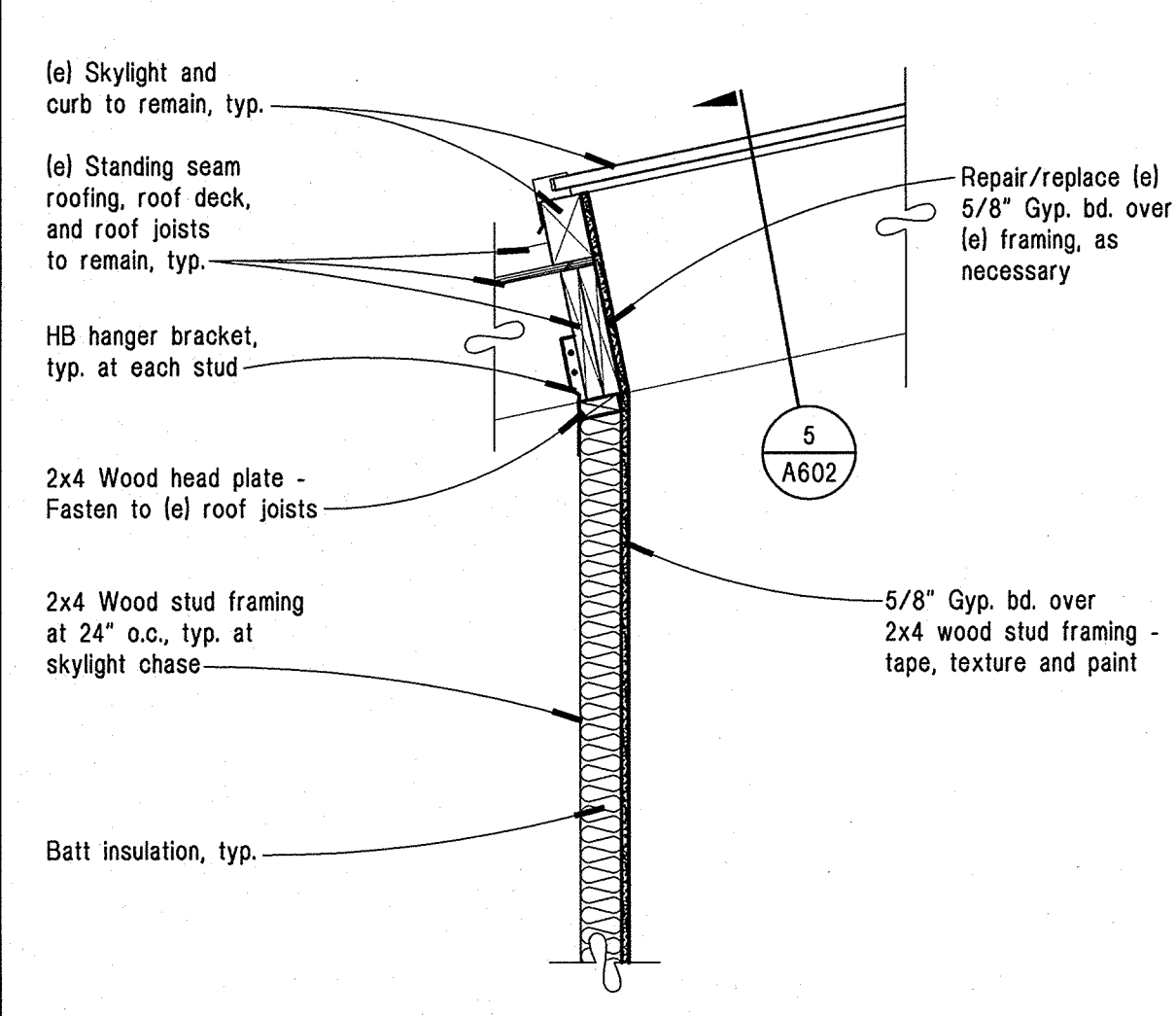
Building Sections

August 23, 2013
H+K Project No.: 1309

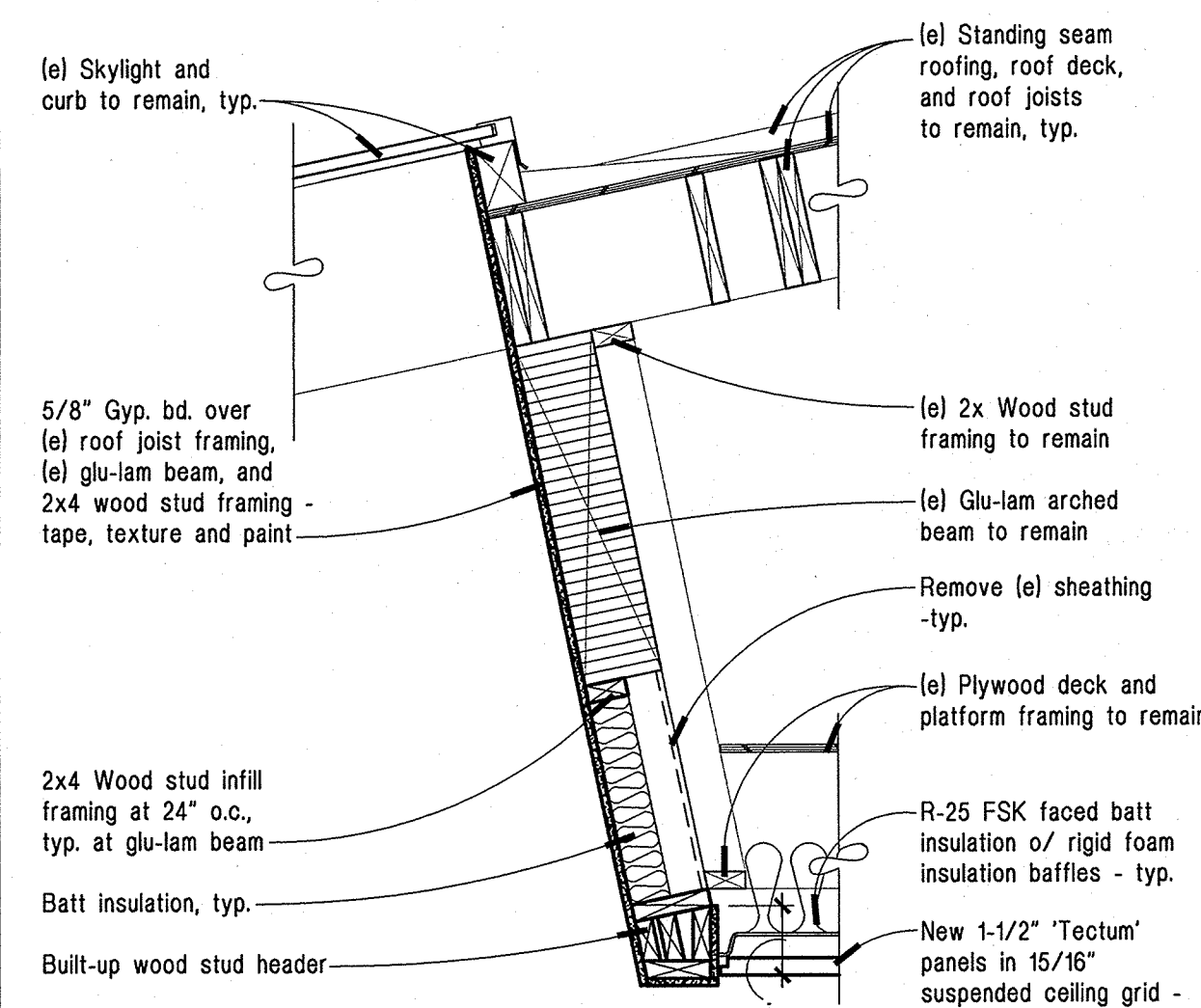
A401

h.k

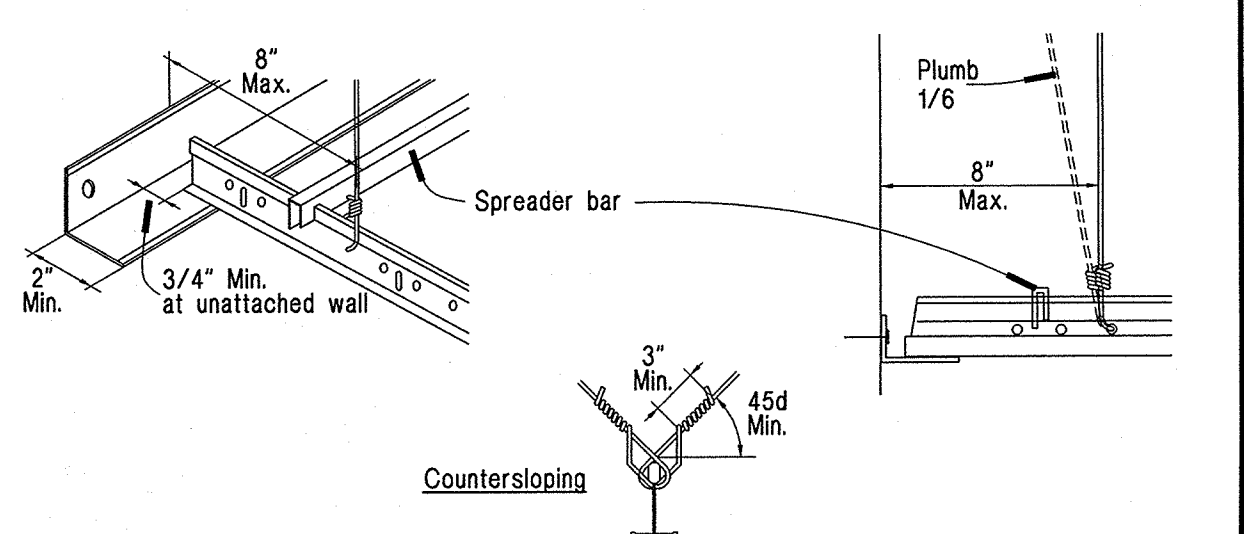
1009 A401.dwg January 31, 2014 5:00 PM



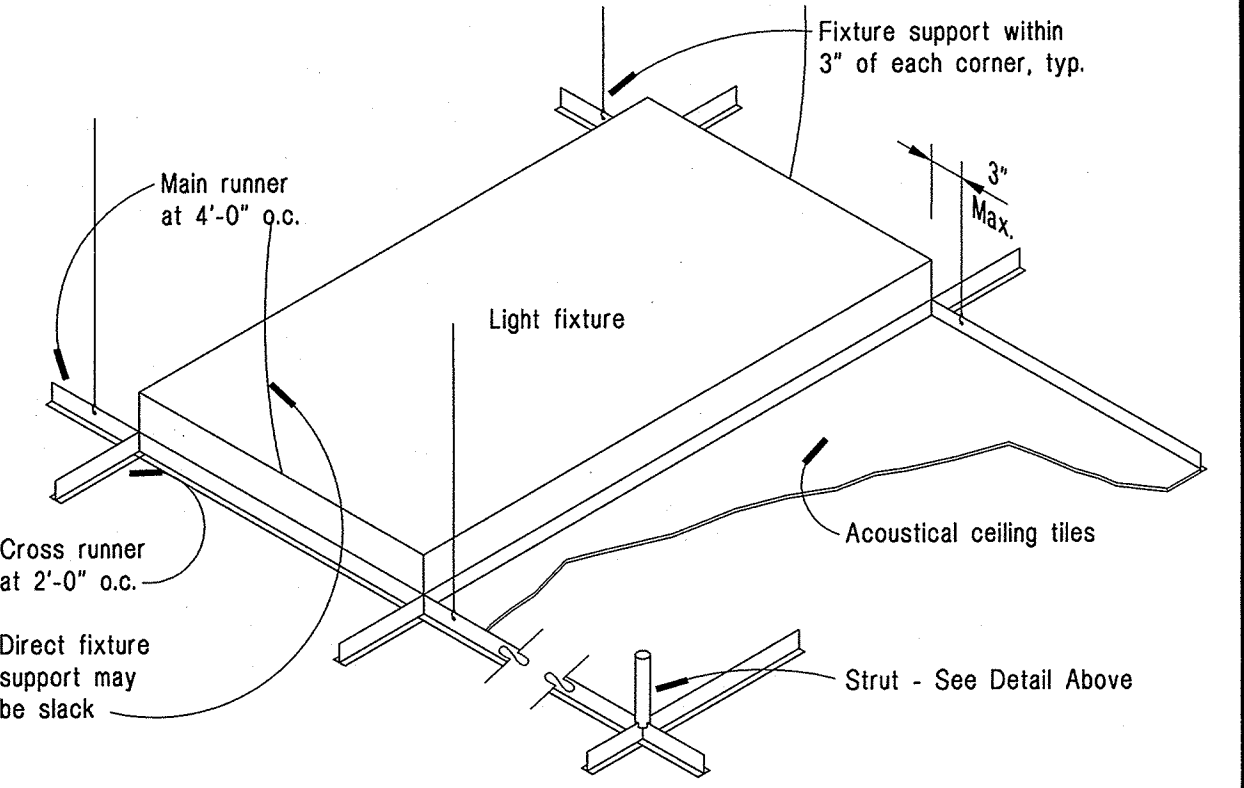
5 Section at Skylight Vertical Chase
3/4" = 1'-0"



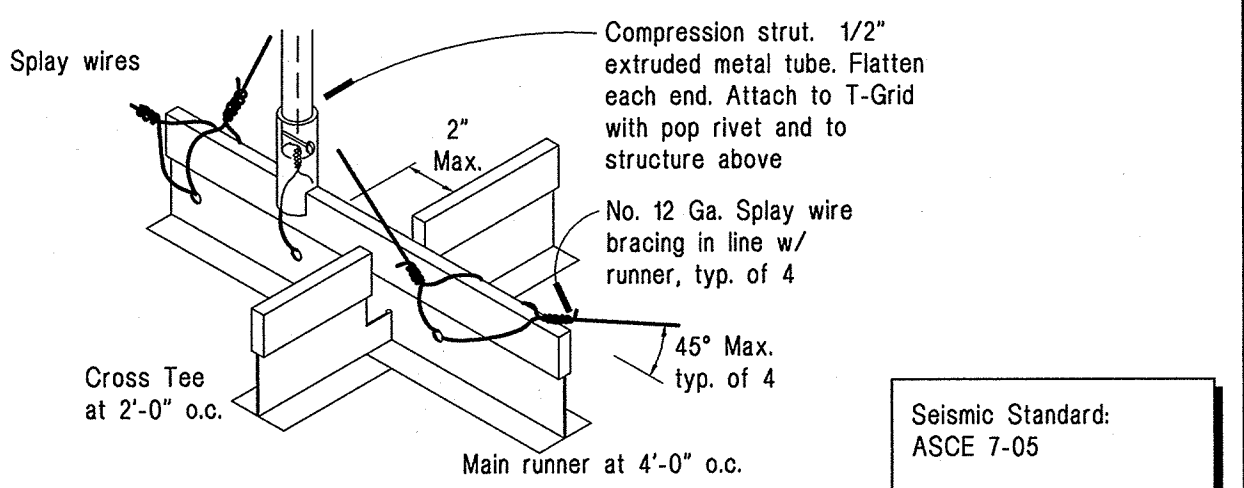
4 Section at Skylight Beam Assembly
3/4" = 1'-0"



- Perimeter Molding Requirements:**
1. Wall angle shall be attached to grid at two adjoining walls of a room and unattached to other two walls.
 2. Terminal ends of each main beam and cross tee must be supported within 8 inches of each wall with a perimeter wire.
 3. Provide spreader bar or other suitable system at unattached walls to maintain spacing of main beams and cross tees.

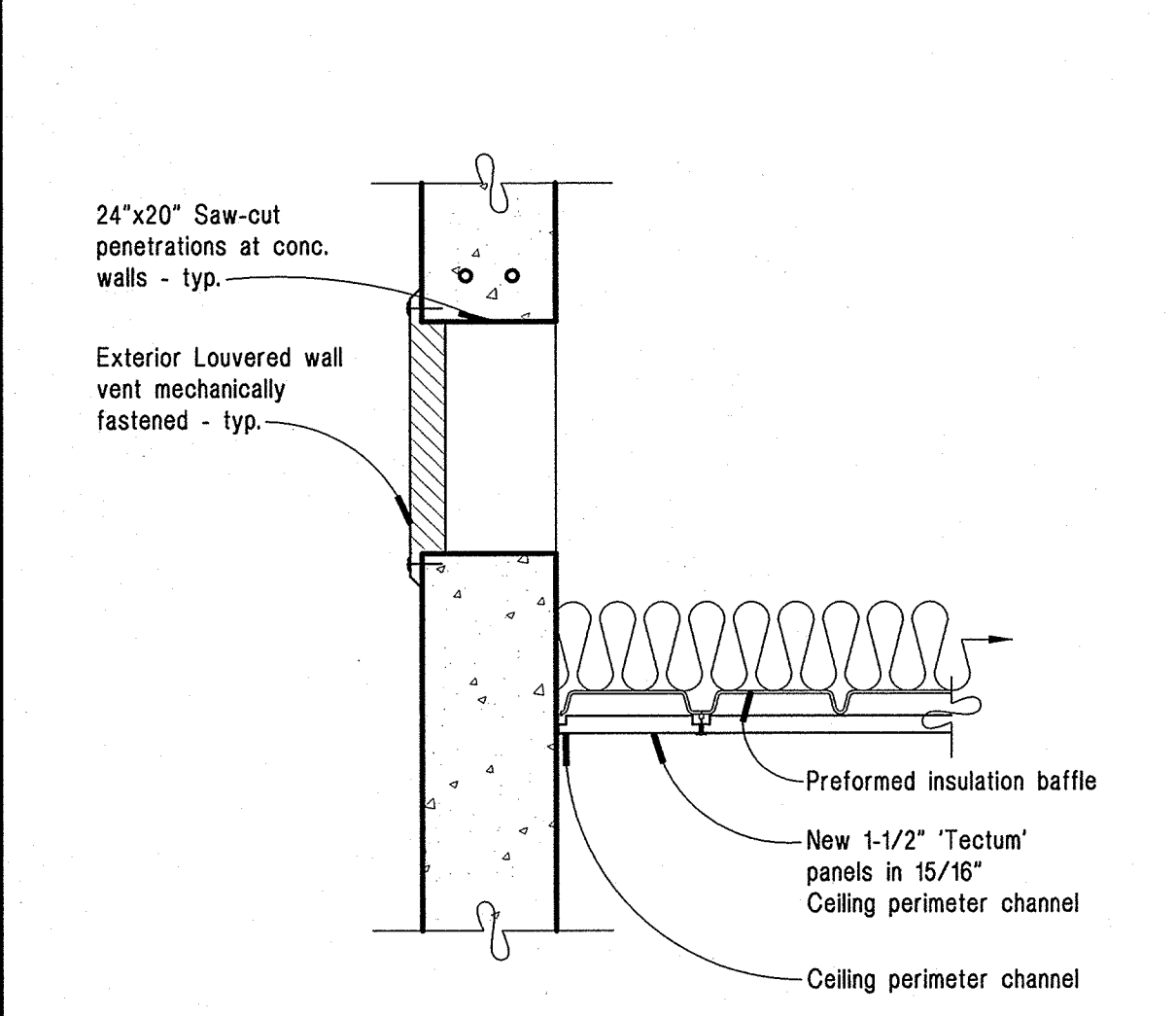


- Fixture and equipment suspension:**
1. Light Fixtures: All light fixtures shall be positively attached to the suspended ceiling system. Provide 12 gage hangers attached to the grid members within 3 inches of each corner of each fixture. Tandem fixtures may utilize common wires. Fixtures weighing less than 56 pounds shall have two (2) additional 12 gage hangers connected from the fixture housing to the structure above. These wires may be slack.
 2. Mechanical Equipment: Services weighing less than 20 pounds shall be positively attached to the ceiling suspension main runners or to cross runners with the same carrying capacity as the main runners. Services weighing more than 20 pounds but less than 56 pounds shall have an additional two (2) 12 gage hangers connected from the terminal or service to the ceiling system hangers or to the structure above. These wires may be slack.

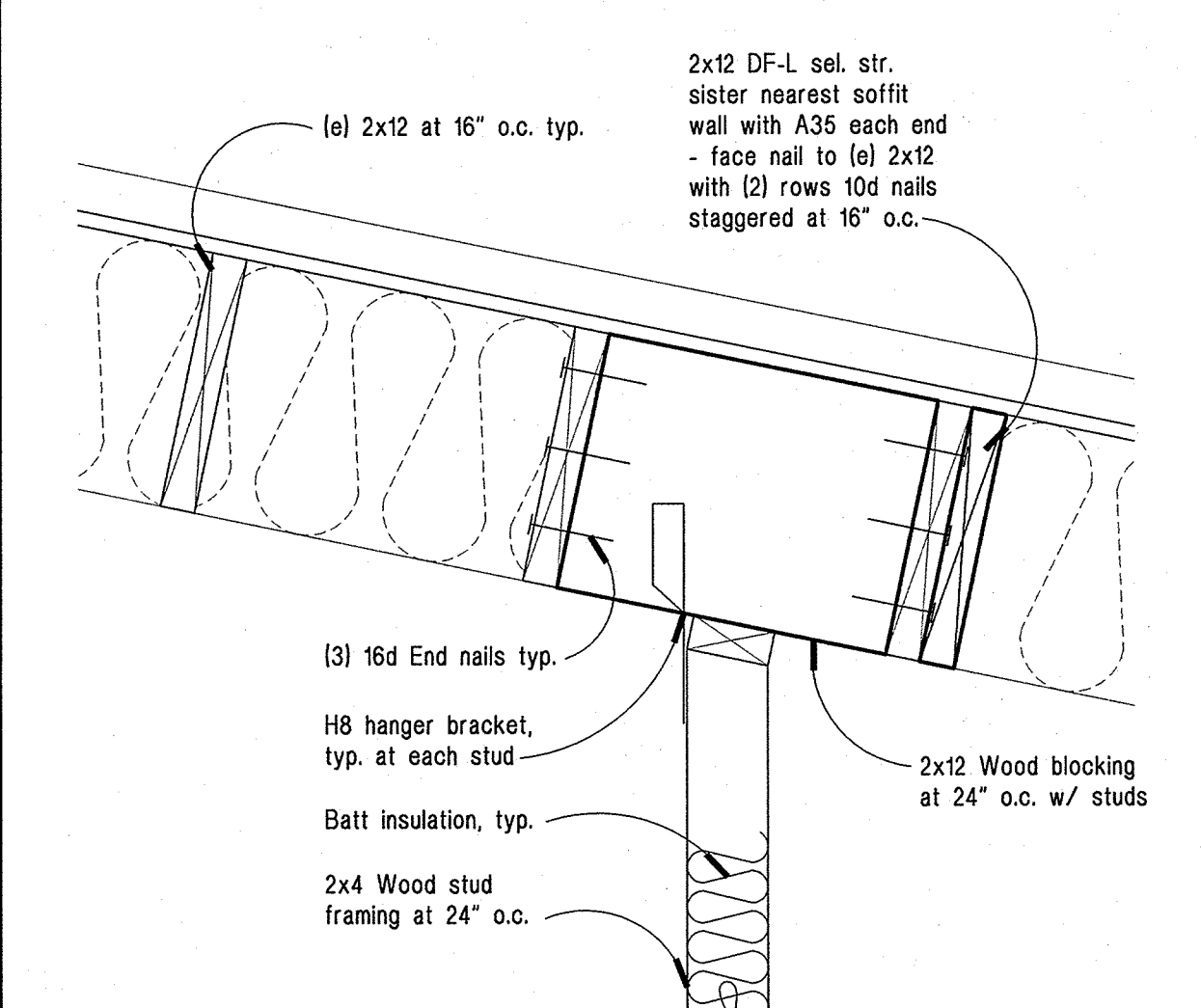


- Seismic Suspension Requirements:**
1. Ceiling area over 144 sq. ft. or rated ceiling assemblies over 96 square feet shall have splay wires installed at 12'-0" o.c. each way.
 2. Splay wire to be 12 gage steel wire attached to structure above and to grid with not less than four (4) tight turns in 1-1/2".
 3. Vertical hanger wires shall be 12 gage spaced 4 feet on center or 10 gage spaced 5 feet on center and shall be attached to the suspension member and to the structure above with a minimum of three (3) turns.
 4. Hanger and perimeter wires must be plumb within 1 in 6 unless counter sloping wires are provided.
 5. Any connection device at the supporting construction shall be capable of carrying not less than 100 pounds.
 6. Bracing assemblies shall include four 12 gage wires secured to the main runner within 2 inches of the cross runner intersection and splayed 90 degrees from each other at an angle not exceeding 45 degrees from the plane of the ceiling. A strut fastened to the main runner shall be extended to and fastened to the structural members above. The strut shall be adequate to resist the vertical component induced by the bracing wires.
 7. Bracing assemblies shall be placed not more than 12 feet on center in all directions with the first point located not more than 6 feet from each perimeter wall.
 8. Bracing wires shall be attached to the grid and to structure in such manner that they can support a design load of not less than 200 pounds or the actual design load with safety factor of 2, whichever is greater.
 9. For essential facilities, hanger wire connections must be capable of carrying 200 pounds and bracing (splay) wires shall be capable of carrying 440 pounds, shot-in anchors in concrete are not permitted for bracing wires.
 10. Refer to notes above for perimeter molding conditions.
 11. Refer to notes above for suspension requirements at light fixtures and mechanical equipment.

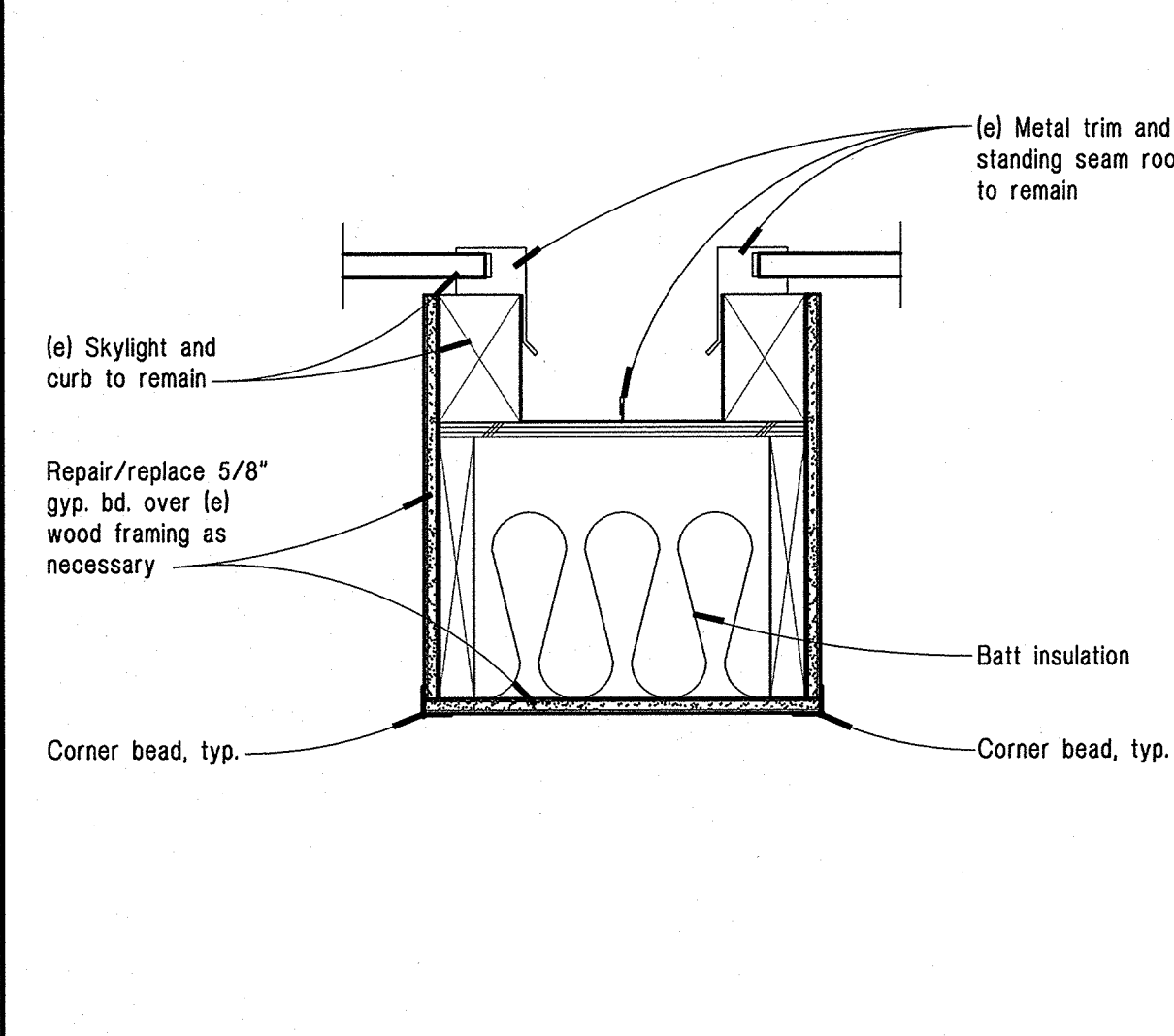
1 Suspended Clg. Seismic Bracing Req.
Not to Scale



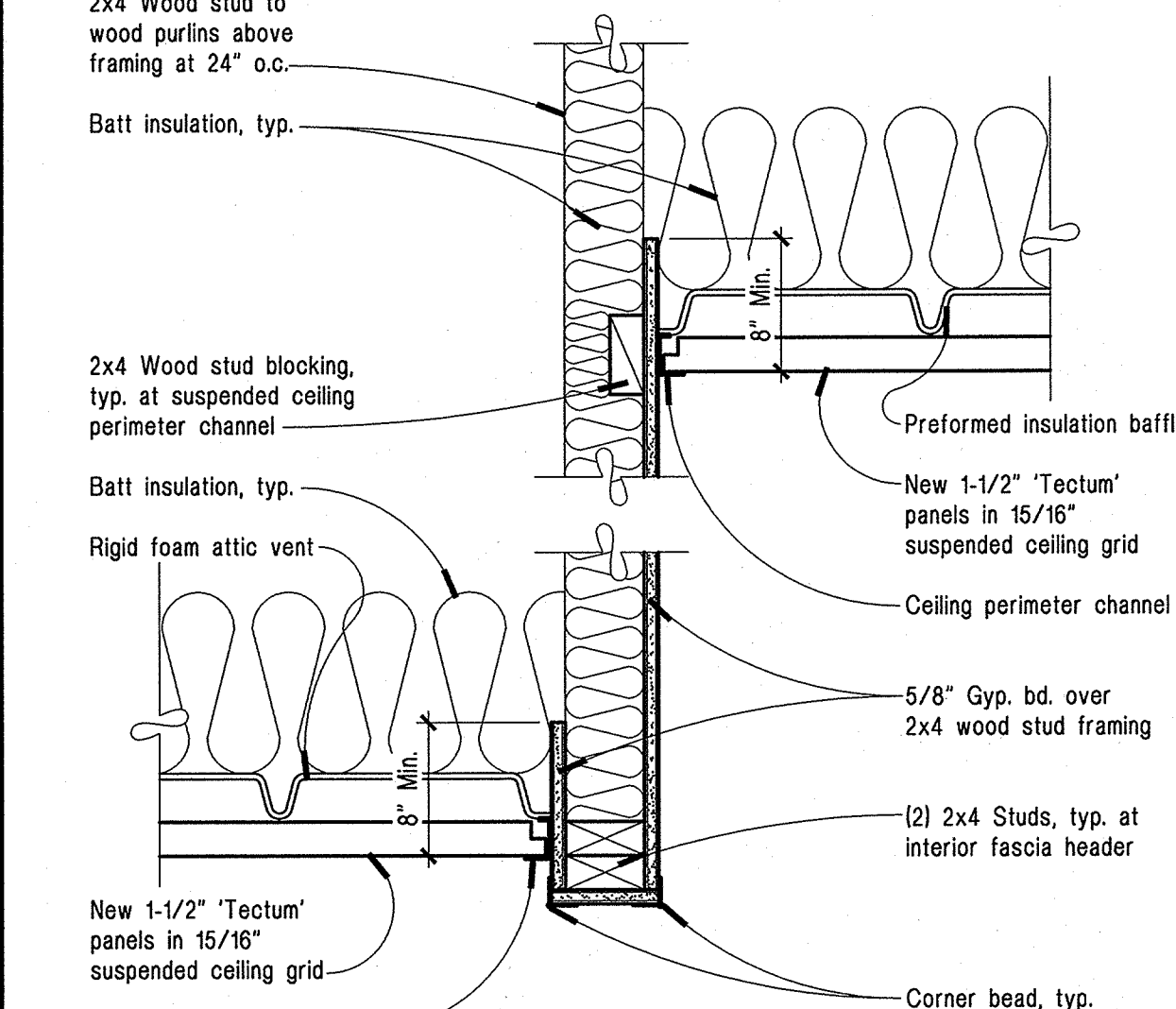
6 Louvers at Exterior Wall Vent - Typ.
3/4" = 1'-0"



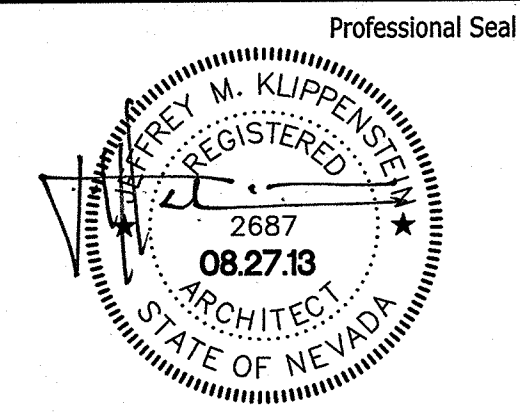
3 Typ. Top of Soffit Support
1 1/2" = 1'-0"



5 Section Detail at Skylight Coffin
1 1/2" = 1'-0"



2 Typ. Interior Fascia Detail
1 1/2" = 1'-0"



Professional Seal	Date	Revision

Consultant
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 1400 Baring Blvd
 Sparks, NV 89434

Ceiling Details
 August 23, 2013
 H+K Project No.: 1309
A602

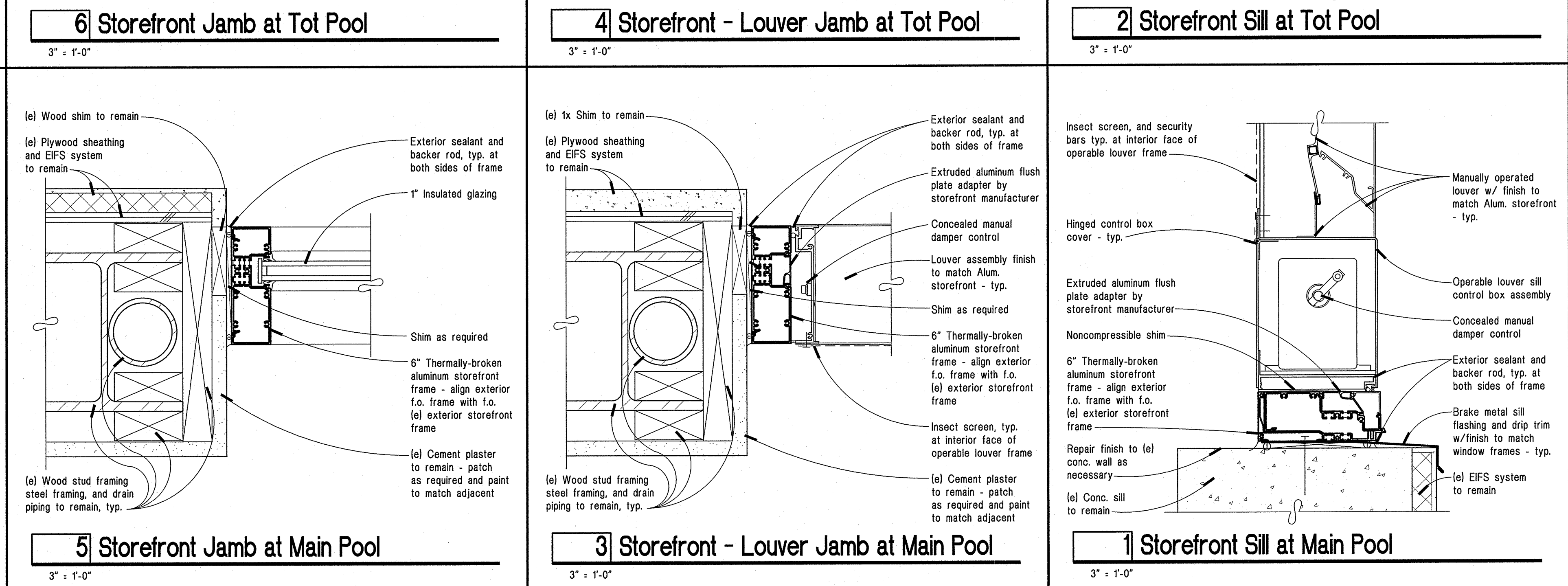
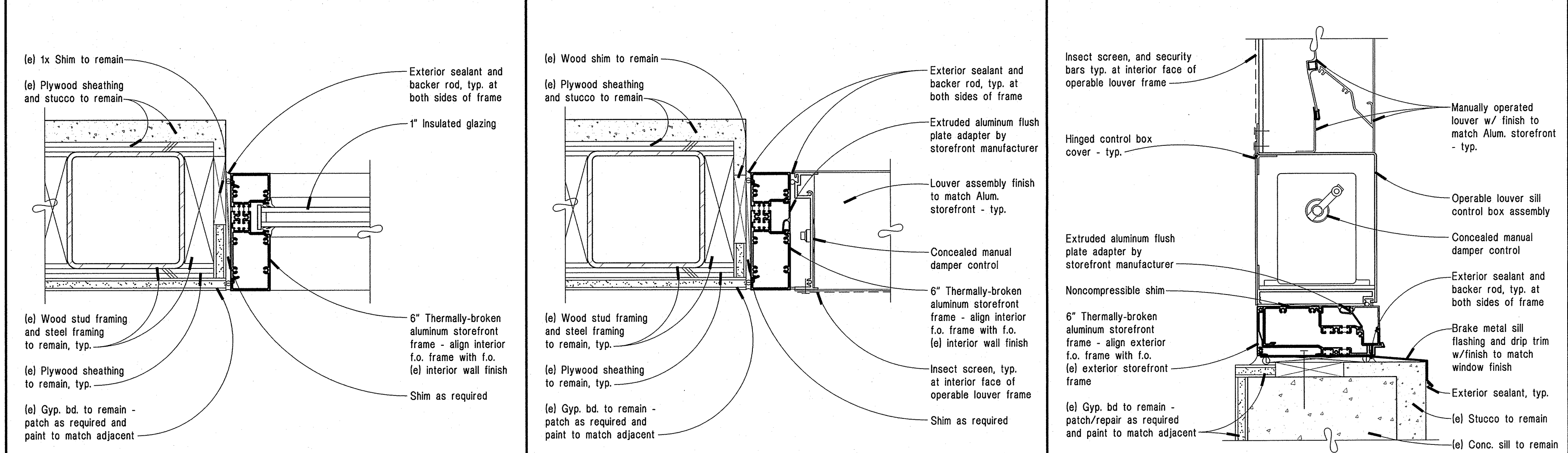
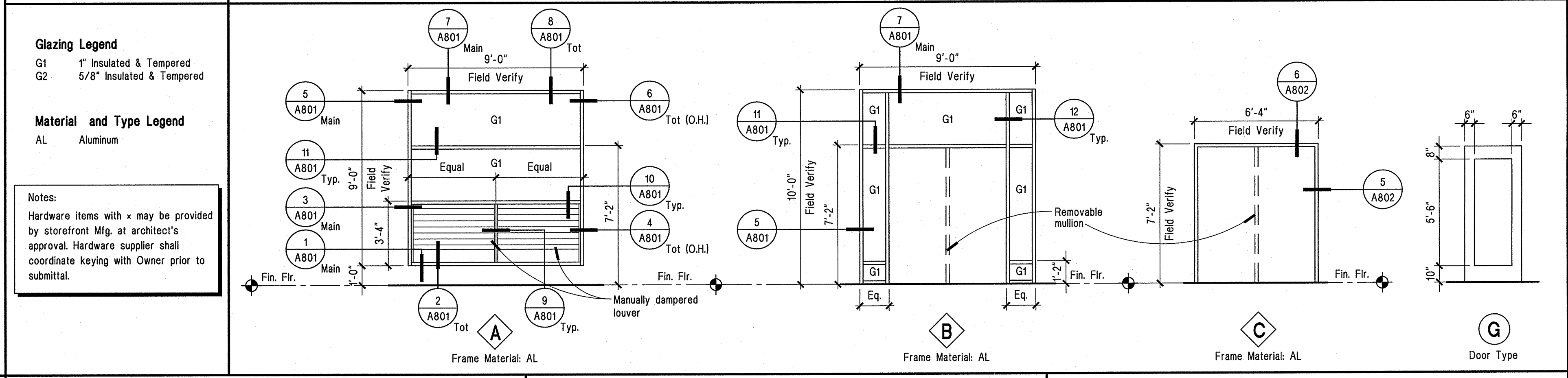
Door Schedule												Hardware Group H1								
Door No.	DOOR					FRAME				DETAILS				Label	Hardw. Group	Hardware				
	Size	Pair	Mat'l	Type	Glass	Rating	Mat'l	Size	Elev	Glass	Rating	Head	Strike			Hinge	Sill	1 Exit device	2 Von Duprin	3 Schl. (verify)
110A	3'-0" x 7'-0"	X	AL	G	G2	-	AL	6"	B	G1	-	3/A802	4/A802	2/A802	1/A802	1 IC Core	221-075	626	221-075	626
130A	3'-0" x 7'-0"	X	AL	G	G2	-	AL	6"	C	G1	-	6/A802	4/A802	5/A802	1/A802	2 Closures	Key Mark	626	Key Mark	626
																1 Rim-mullion	KB154	668	KB154	668
																3 Hinges	BR199 4.5x4.5	662	BR199 4.5x4.5	662
																1 set weather seal	102A (lamba)	NGP	102A (lamba)	NGP
																1 set weather seal	1005A (head)	NGP	1005A (head)	NGP
																2 Door Sweeps	200NA	NGP	200NA	NGP
																1 Threshold	426	62A	426	62A

Door Schedule Notes

Glazing Legend
 G1 1" Insulated & Tempered
 G2 5/8" Insulated & Tempered

Material and Type Legend
 AL Aluminum

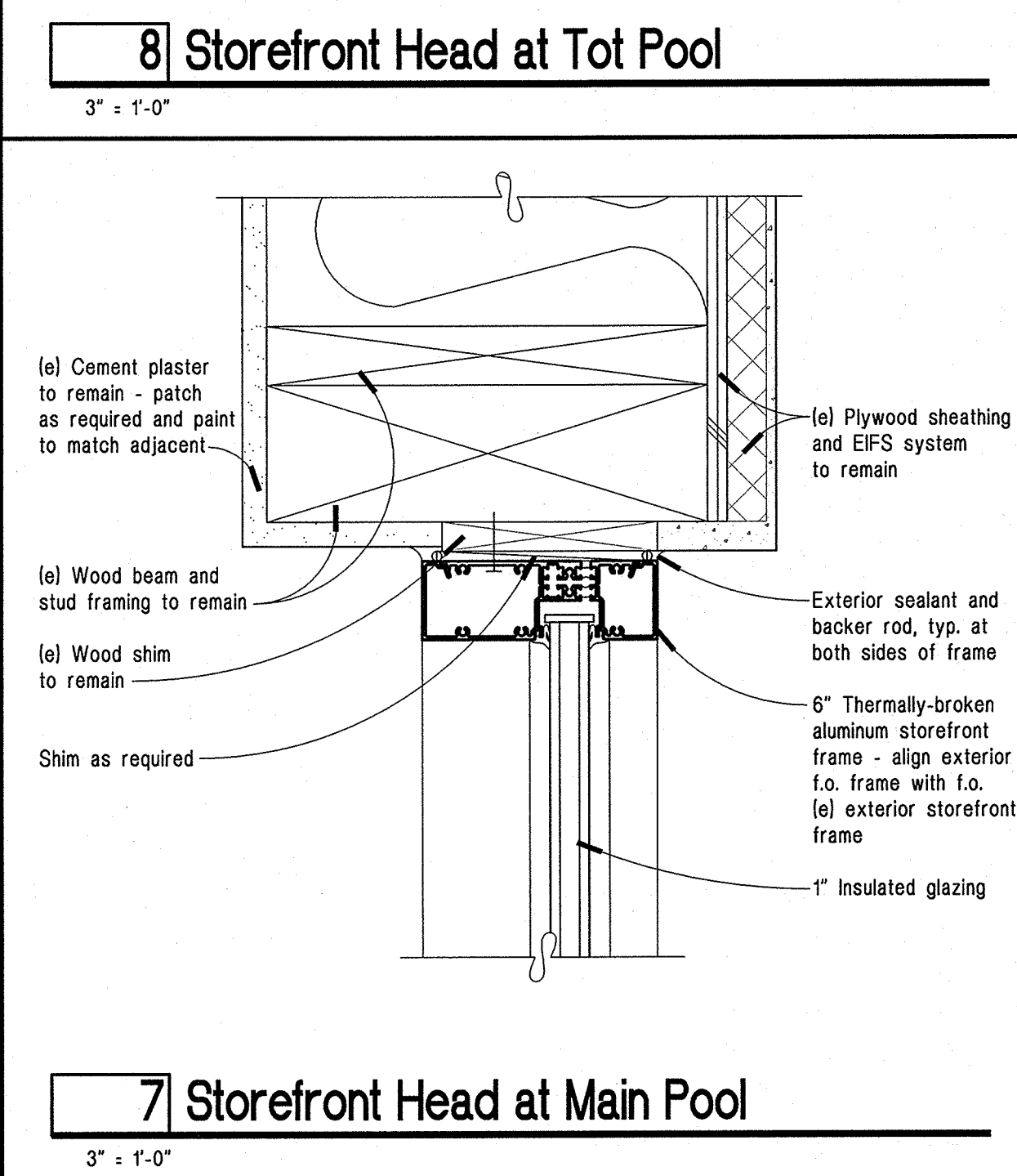
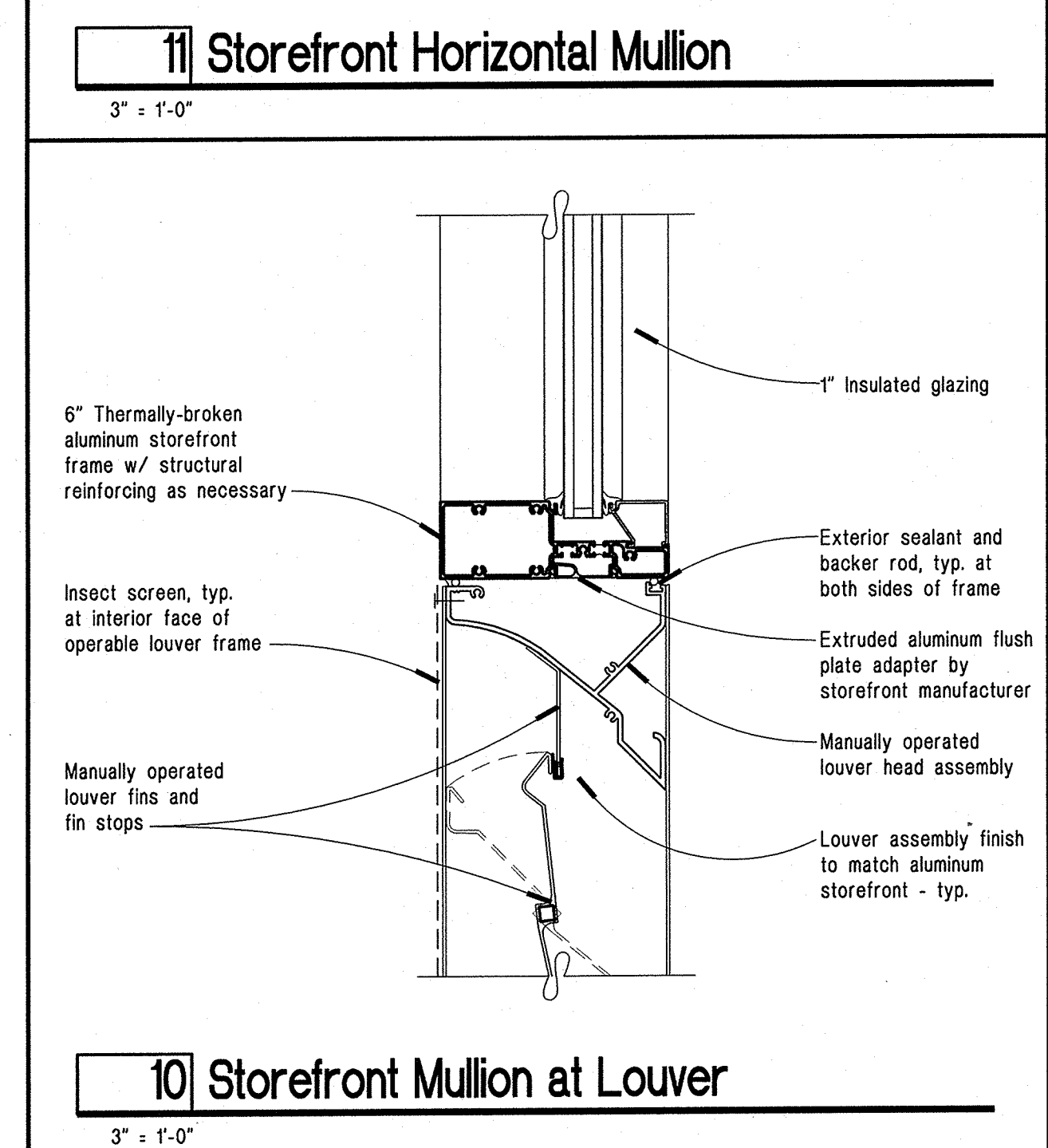
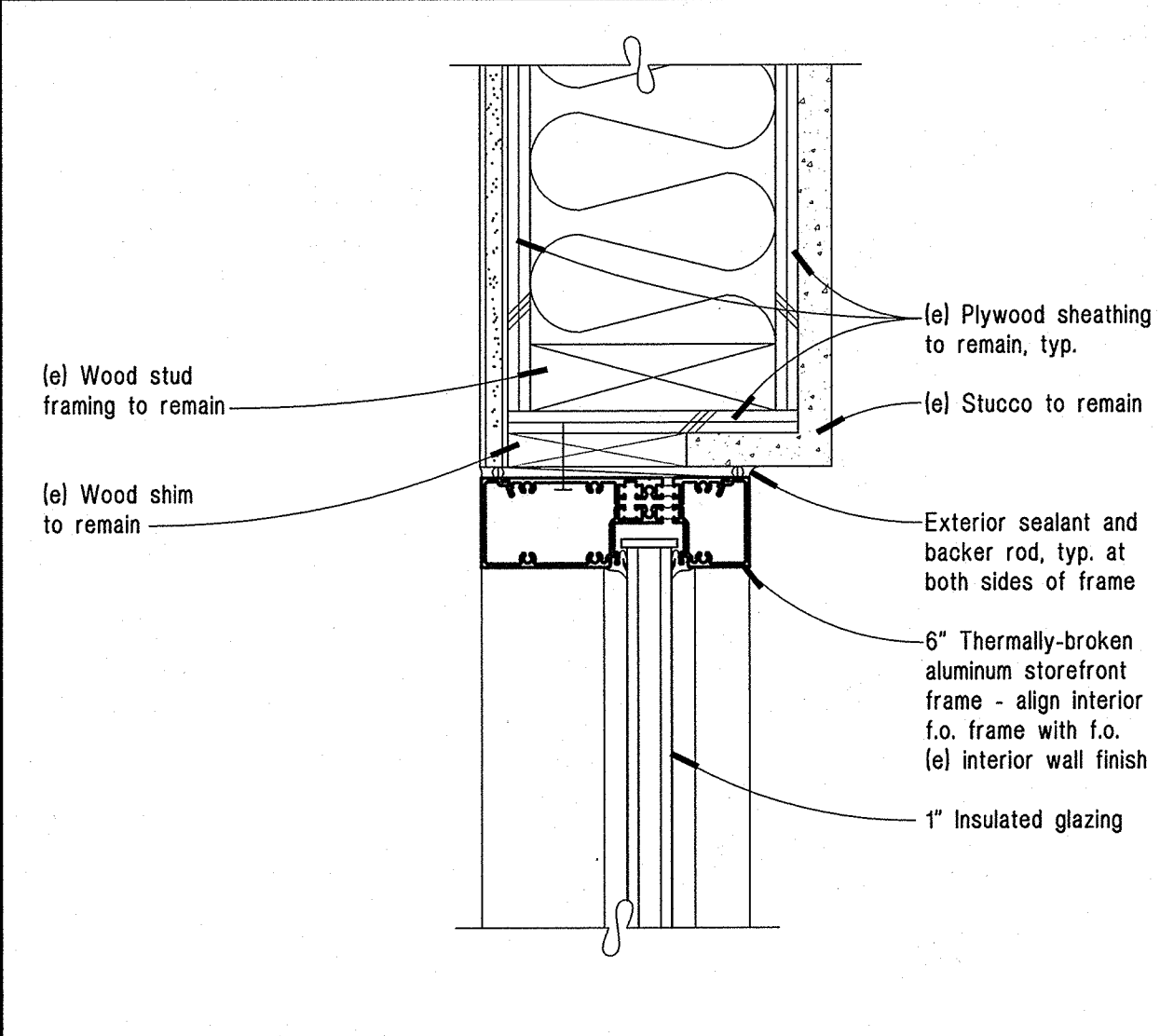
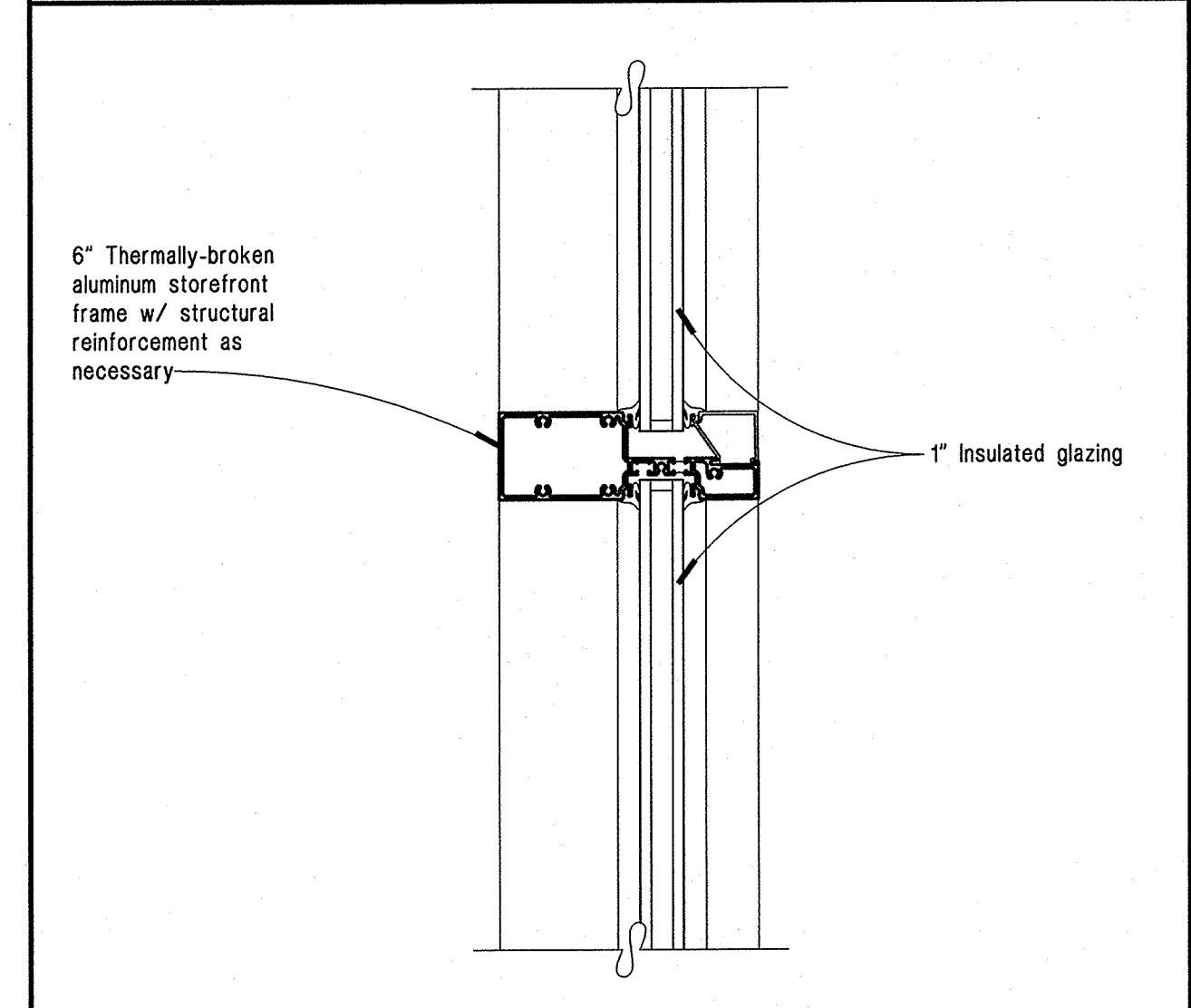
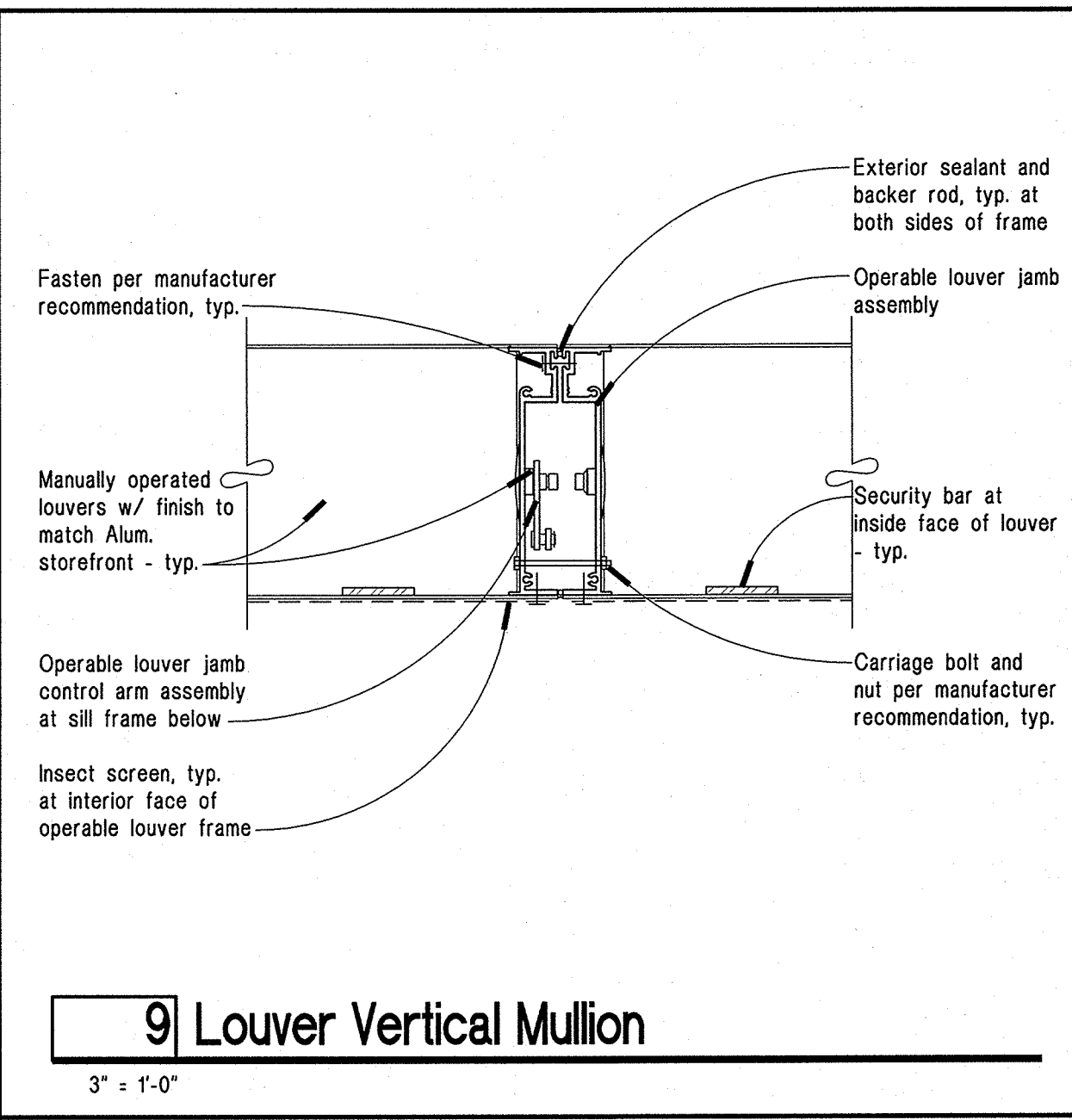
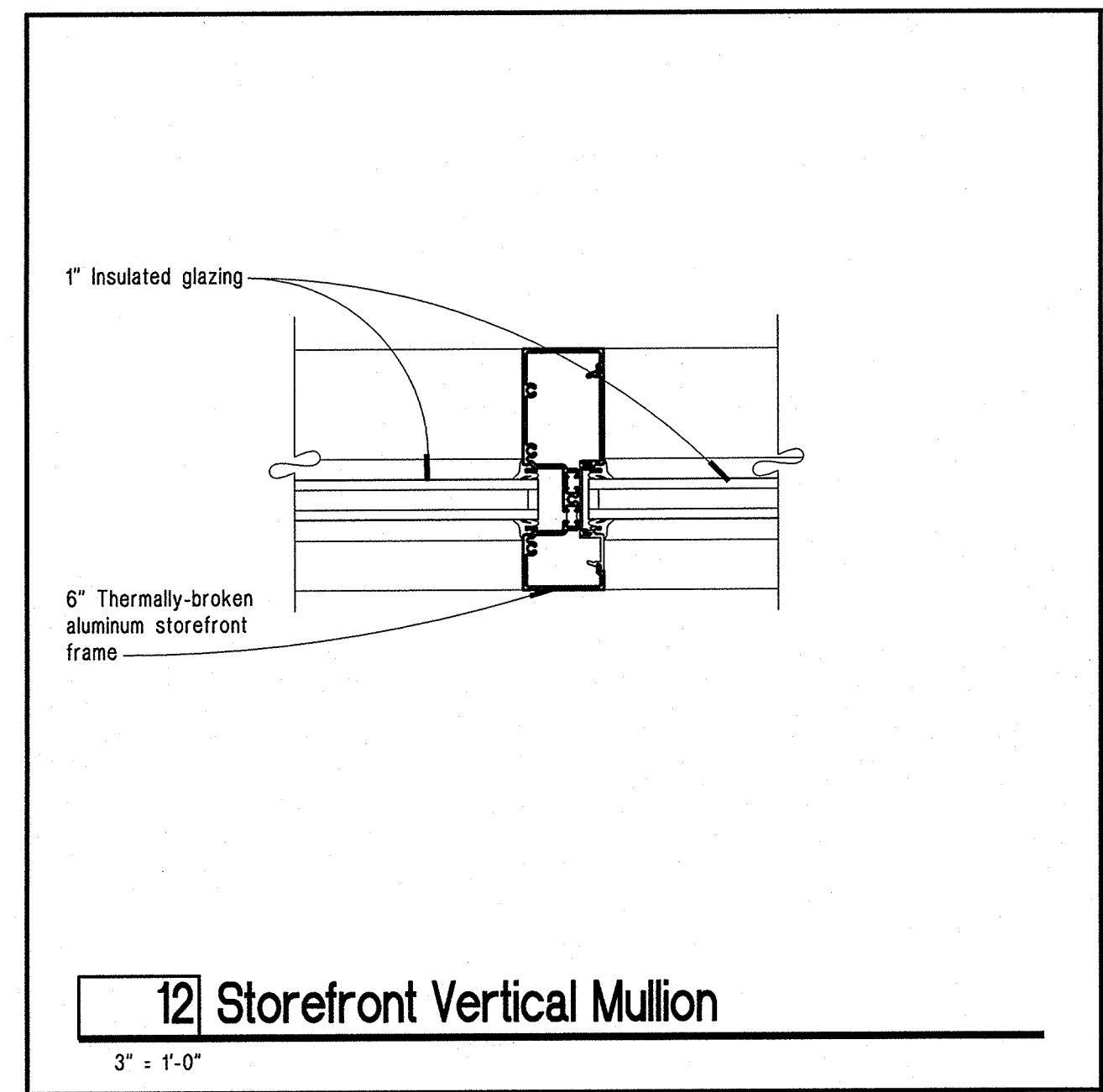
Notes:
 Hardware items with x may be provided by storefront Mfg. at architect's approval. Hardware supplier shall coordinate keying with Owner prior to submittal.



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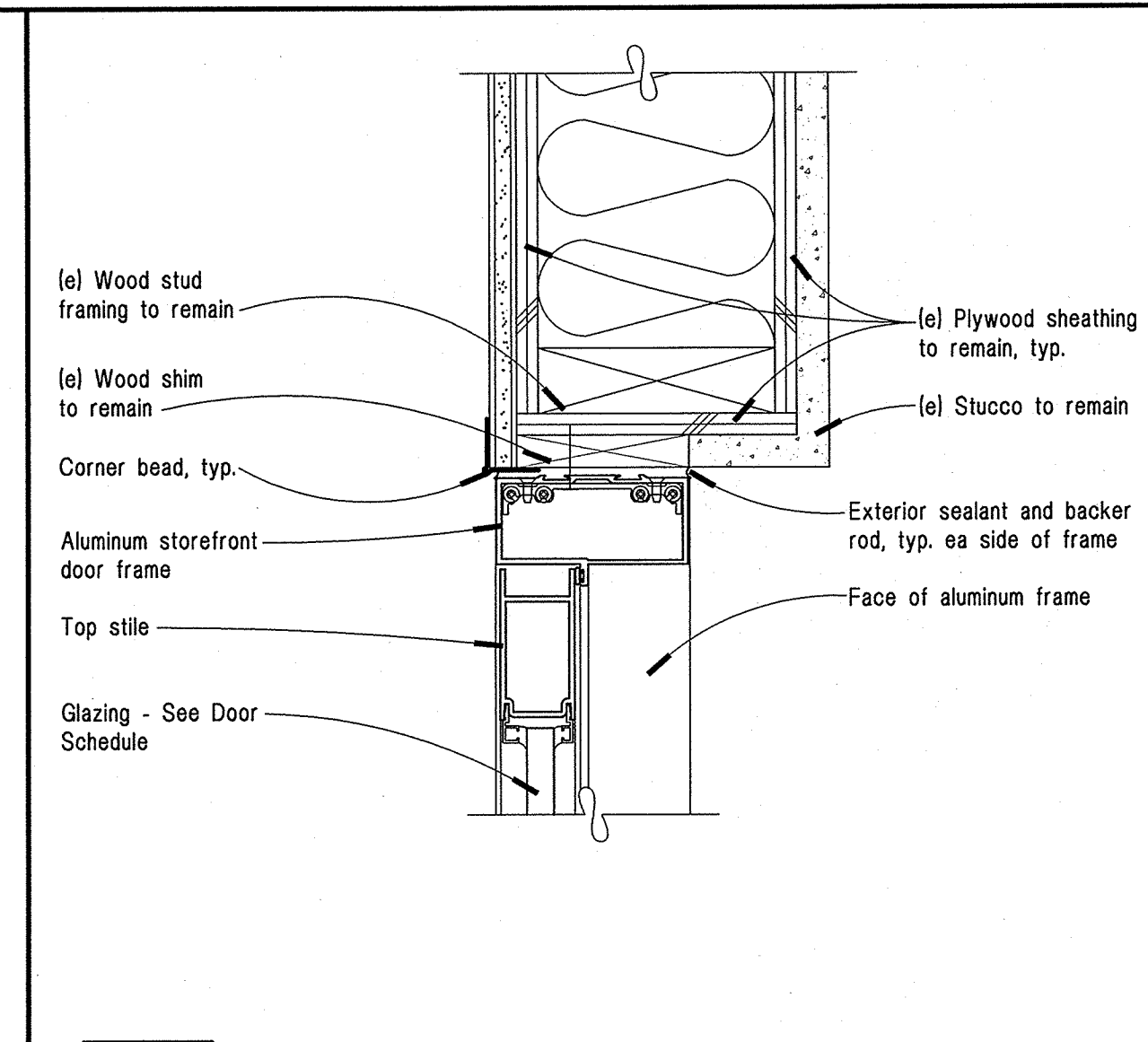
Alf Sorensen Natatorium Renovation
 1400 Baring Blvd
 Sparks, NV 89434

Storefront Elevations and Details
 August 23, 2013
 H+K Project No.: 1309
A801

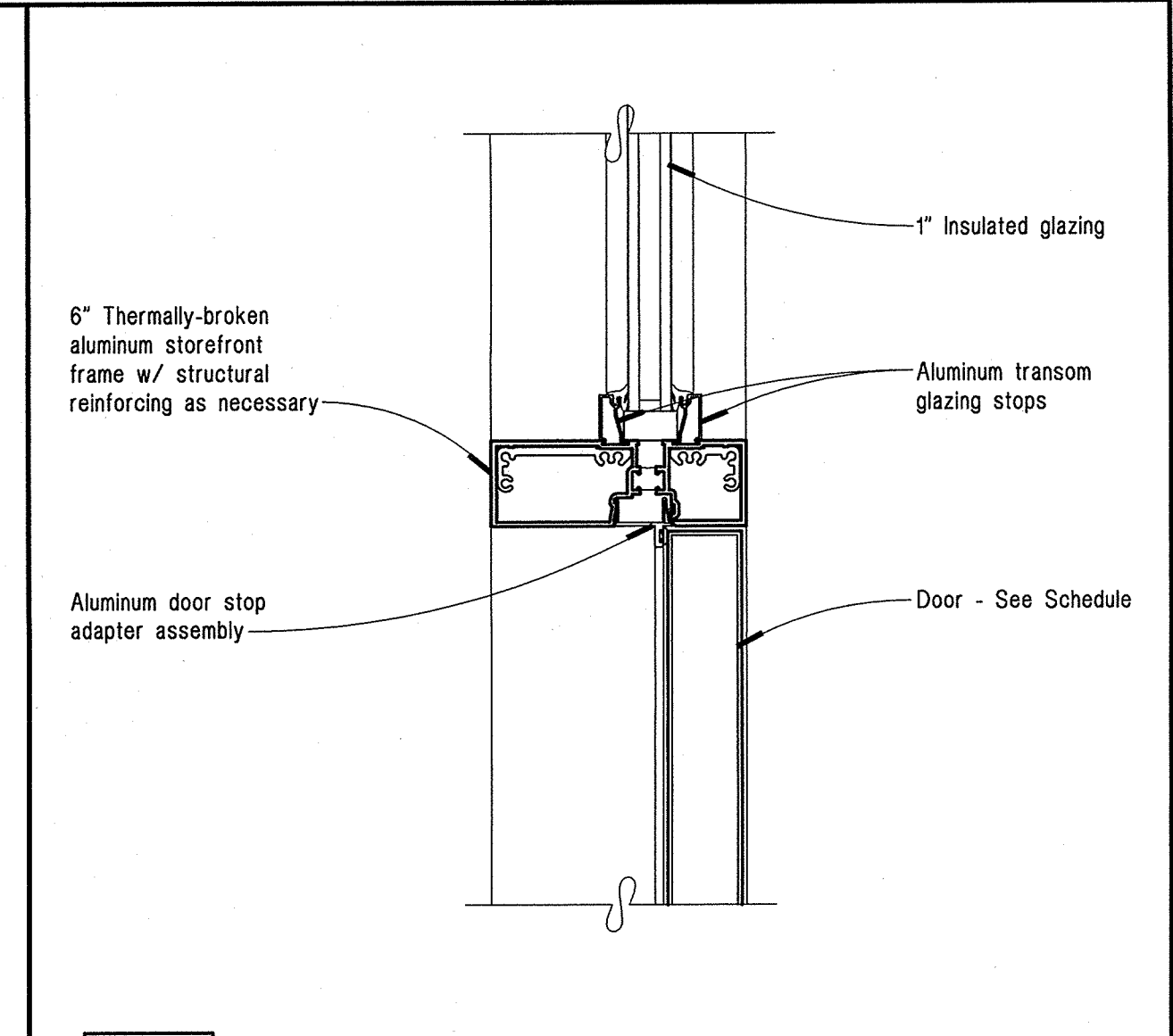


Professional Seal
 August 27, 2013 5:00 PM
 2687
 08.27.13
 ARCHITECT
 STATE OF NEVADA

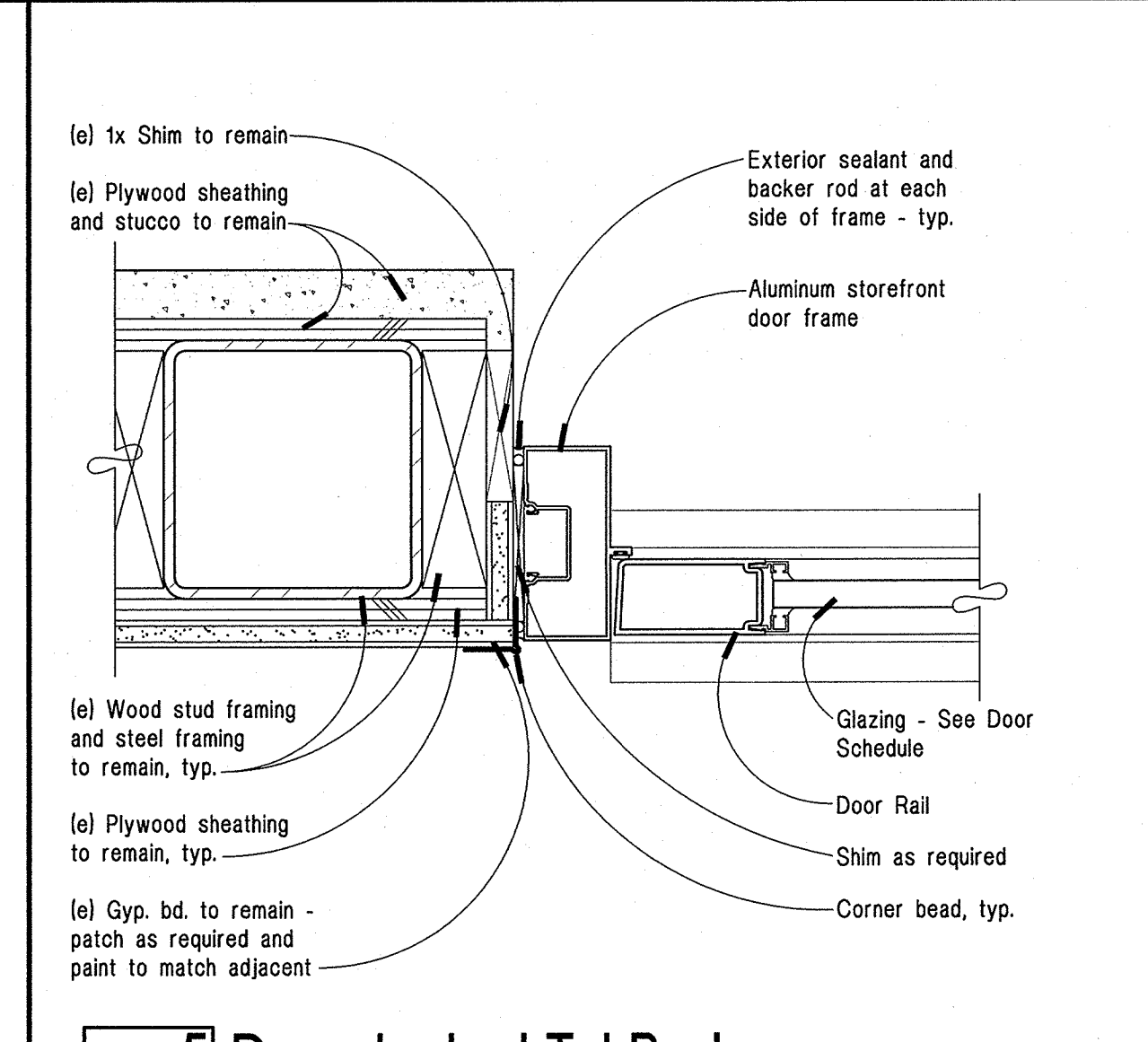
Date Revision
 Consultant
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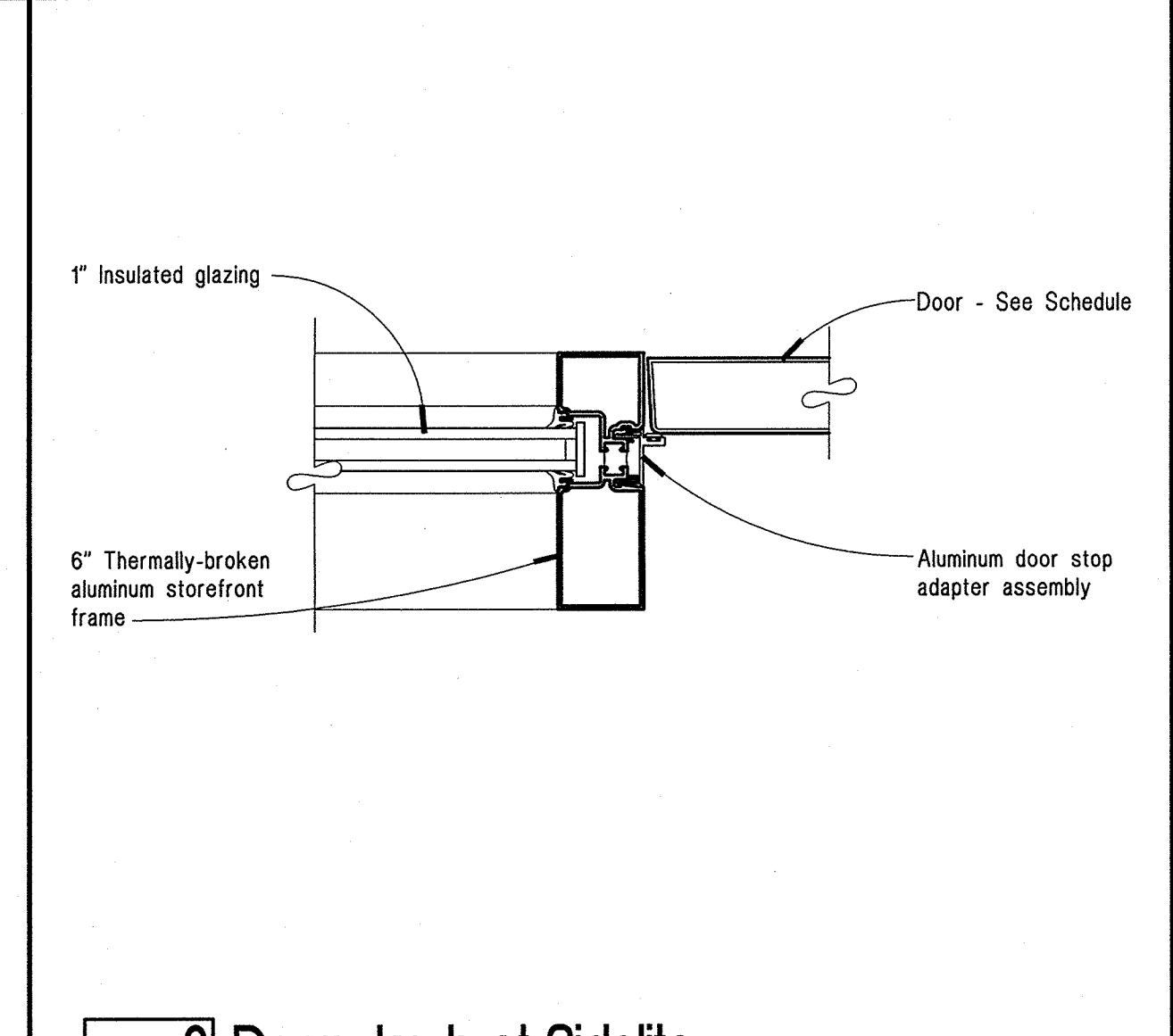
6 Door Head at Tot Pool
3" = 1'-0"



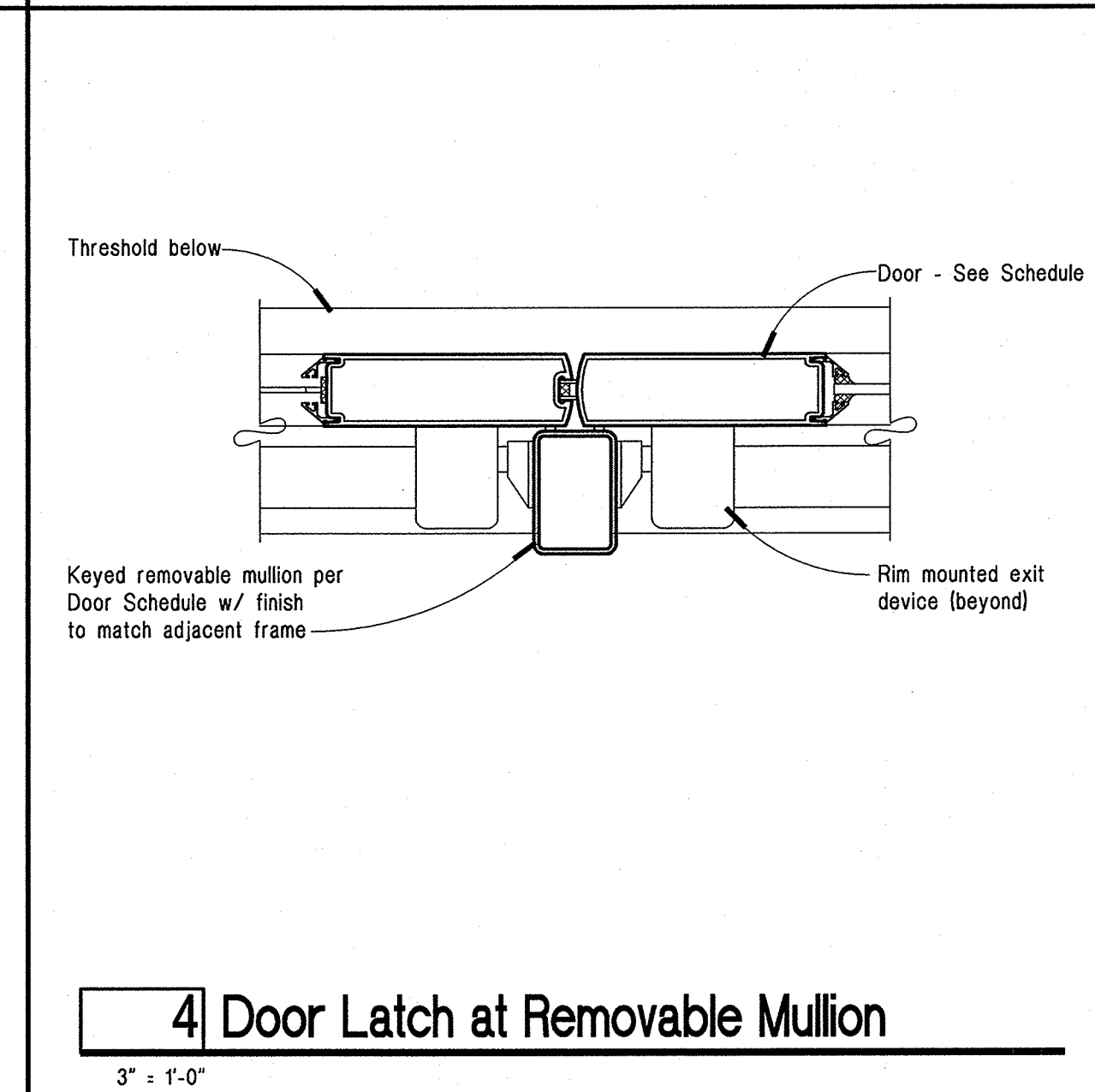
3 Door Head at Transom
3" = 1'-0"



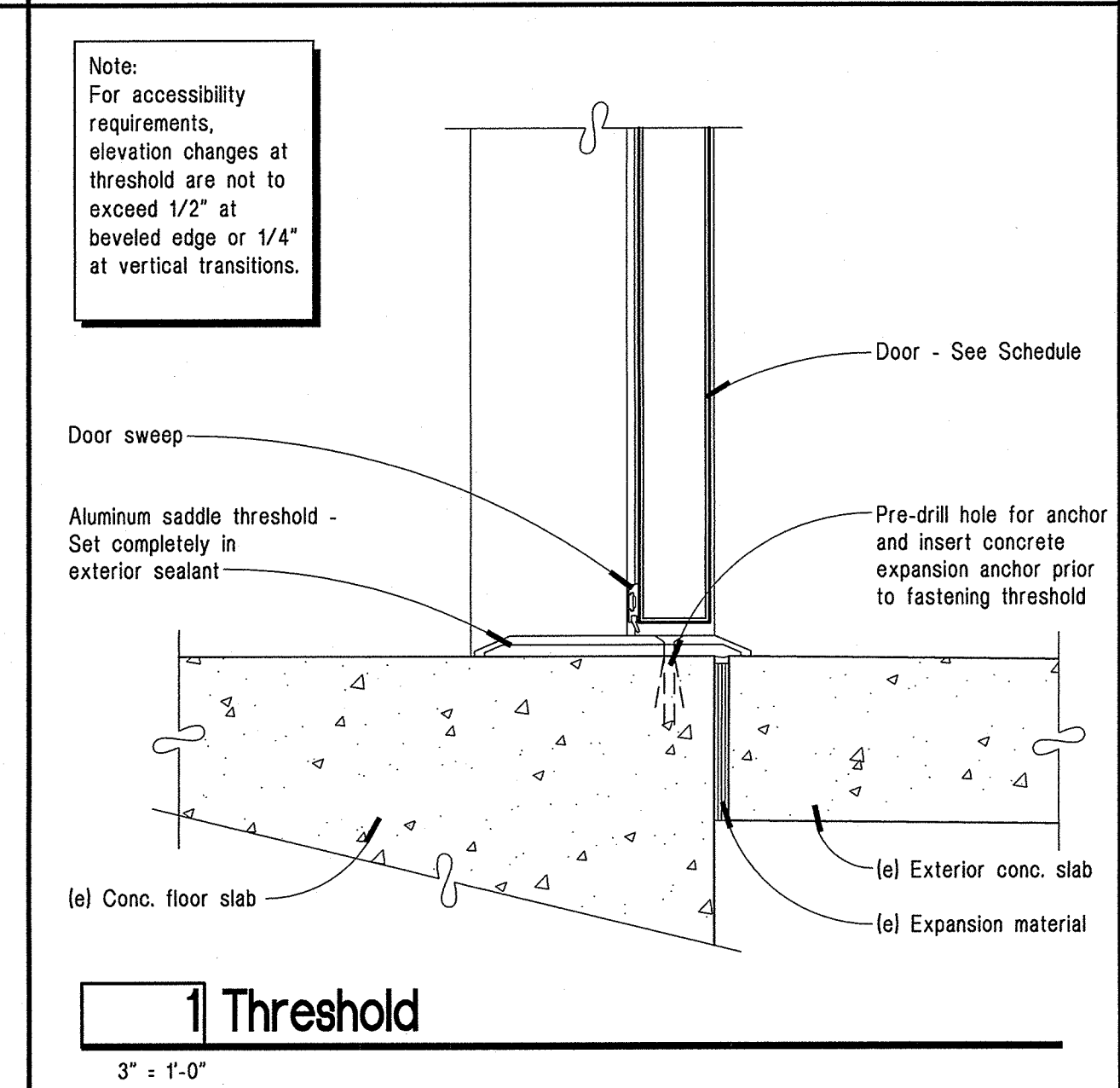
5 Door Jamb at Tot Pool
3" = 1'-0"



2 Door Jamb at Sidelite
3" = 1'-0"

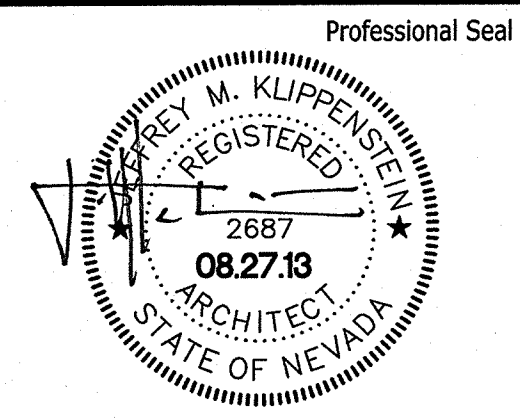


4 Door Latch at Removable Mullion
3" = 1'-0"



1 Threshold
3" = 1'-0"

1309-4802.dwg August 27, 2013 5:00 PM



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**Alf Sorensen Natatorium
Renovation**

1400 Baring Blvd
Sparks, NV 89434

Door Details

August 23, 2013
H+K Project No.: 1309

A802



ABBREVIATIONS

AB	ANCHOR BOLT	DS	DIAMETER	HORIZ(H)	HORIZONTAL	PL	PLATE
ARCH	ARCHITECT(URAL)	DIA OR Ø	DIA	HSB	HIGH STRENGTH BOLT	PLBG	PLUMBING
BM	BEAM	EXIST(E)	EXISTING	INT	INTERIOR	PLYWD	PLYWOOD
BRG	BRACING	ELC	ELECTRICAL	JT	JOINT	PSL	PARALLAM®
BTWN	BETWEEN	EL	ELEVATION (DATUM)	LLH	LONG LEG HORIZONTAL	PT	PRESSURE TREATED
BEV	BEVEL(ED)	ELEV	ELEVATOR	LLV	LONG LEG VERTICAL	REINF	REINFORCEMENT
BLK(G)	BLOCKING(S)	EN	EDGE NAILING	LVL	LAMINATED VERTICAL	REQ'D	REQUIRED
BS	BOTH SIDES	ES	EACH SIDE	MAX	MAXIMUM	R.O.	ROUGH OPENING
BOT	BOTTOM	EA	EACH	MB	MACHINE BOLTS	SIM	SIMILAR
BLDG	BUILDING	EW	EACH WAY	MIN	MINIMUM	STD	STANDARD
CB	CARRIAGE BOLT(S)	EXT	EXTERIOR	MFR	MANUFACTURER	STIFF	STIFFENER
CTR	CENTER	FIN	FINISH	MO	MASONRY OPENING	STL	STEEL
CL	CENTER LINE	FLR	FLOOR	MO	MASONRY	T&B	TOP & BOTTOM
CCJ	CONSTRUCTION JOINT	FND	FOUNDATION	MECH	MECHANICAL	T.O.	TOP OF
CCJ	CONTROL JOINT	FOS	FACE OF STUD(S)	NSA	NELSON STUD® ANCHOR	T.O.P.	TOP OF PLYWOOD
CMU	CONCRETE MASONRY UNIT	FS	FAR SIDE	NS	NEW	TYP	TYPICAL
CTSK	COUNTERSINK	FTG	FOOTING	(N)	NOT TO SCALE	V.I.F.	VERIFY IN FIELD
CLR	CLEAR	GALV	GALVANIZED	OC	ON CENTER	VERT(V)	VERTICAL
CONT	CONTINUOUS	GLB	GLUED LAMINATED BEAM	OH	OPPOSITE HAND	UNO	UNLESS NOTED OTHERWISE
COL	COLUMN	HDR	HEADER	OPNG	OPENING	WNF	WELDED WIRE FABRIC
CONC	CONCRETE			OSB	ORIENTED STRAND BOARD	W/	WITH
CONN	CONNECTION						

BASIS OF DESIGN

CODE REFERENCE - 2012 INTERNATIONAL BUILDING CODE
RISK CATEGORY III - INDOOR SWIMMING POOL

SNOW LOADS		SEISMIC LOADS	
Ground Snow Load, Pg	30psf	Site Class	D
Ce	1.00	Ie	1.25
Ct	1.00	Ss	1.518
Is	1.10	S1	0.508
Flat Roof Snow Load, Pf	23psf	Sds	1.01
		Sd1	0.51
		Seismic Design Category	D
WIND LOADS			
Basic Wind Speed, v3s	140mph (Risk Category III)		
Exposure	C		
Enclosure Classification	Enclosed		

PROJECT TITLE

**STRUCTURAL DRAWINGS
FOR**

ALF SORENSEN NATATORIUM RENOVATION

**1400 BARING BLVD
SPARKS, NEVADA 89434**

INDEX TO DRAWINGS

S101	STRUCTURAL COVER SHEET/GENERAL NOTES
S201	PARTIAL ROOF FRAMING PLAN AND DETAILS
S301	SECTIONS AND DETAILS

THE FOLLOWING NOTES SHALL APPLY TO ALL SHEETS:

1. IT SHALL BE THE CONTRACTORS DIRECT RESPONSIBILITY TO COMPLY WITH DETAILS AND GENERAL NOTES AS DELINEATED OR DEFINED ON THESE CONTRACT DOCUMENTS.
2. DRAWINGS ARE DIAGRAMMATIC IN NATURE AND ARE NOT INTENDED TO INDICATE EVERY OPENING OR PENETRATION IN ROOF OR OTHER STRUCTURE. CONTRACTOR SHALL COORDINATE AND VERIFY LOCATION AND SIZE OF ALL SUCH OPENINGS AND PENETRATIONS PRIOR TO ROOF OR OTHER FRAMING LAYOUT OR CONSTRUCTION. CONTRACTOR SHALL THEN USE APPROPRIATE TYPICAL OR REFERENCED DETAIL(S) FOR EACH OPENING OR PENETRATION.
3. CONTRACTOR TO FIELD-VERIFY THE EXACT LOCATION, WEIGHT, AND METHOD OF ATTACHMENT OF ALL ITEMS SUSPENDED FROM OR IN ANY WAY ATTACHED TO ANY ROOF FRAMING OR OTHER STRUCTURAL MEMBER UNLESS SUCH ITEM(S) ARE CLEARLY ADDRESSED BY THE STRUCTURAL CONSTRUCTION DOCUMENTS. THIS INFORMATION SHALL BE TRANSMITTED IN WRITING TO THE STRUCTURAL ENGINEER PRIOR TO FINAL DESIGN OR FABRICATION OF STRUCTURAL FRAMING MEMBERS.
4. DO NOT SCALE DRAWINGS. DRAWINGS ARE DIAGRAMMATIC AND MAY NOT SCALE ACCURATELY. ANY DIMENSIONAL OMISSIONS OR DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD IMMEDIATELY.
5. CONTRACTOR TO VERIFY DIMENSIONS PRIOR TO CONSTRUCTION.
6. CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AND NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES.

GENERAL NOTES

I. GENERAL

- A. THE FOLLOWING GENERAL NOTES APPLY TO ALL STRUCTURAL DRAWINGS UNLESS NOTED OTHERWISE.
- B. ALL PHASES OF WORK SHALL CONFORM TO THE MINIMUM STANDARDS OF THE 2012 INTERNATIONAL BUILDING CODE AND THE LATEST EDITION OF ASTM OR OTHER INDUSTRY STANDARDS REFERENCED.
- C. THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE UNLESS OTHERWISE INDICATED; THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE, WORKMEN, AND OTHER PERSONS DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, PREPARING AND FOLLOWING A WRITTEN SAFETY PROGRAM FOR THE CONSTRUCTION PROJECT, BRACING, SHORING FOR CONSTRUCTION EQUIPMENT, SHORING FOR THE BUILDING, FORMS AND SCAFFOLDING. THE CONTRACTOR SHALL COMPLY WITH ALL OSHA REGULATIONS AND RETAIN HIS OWN ENGINEER WHERE REQUIRED.
- D. IN THE EVENT THAT CERTAIN FEATURES OF CONSTRUCTION ARE NOT FULLY SHOWN ON THE DRAWINGS OR CALLED FOR IN THE NOTES OR SPECIFICATIONS, THEIR CONSTRUCTION SHALL BE OF THE SAME CHARACTER AS FOR SIMILAR CONDITIONS THAT ARE SHOWN OR CALLED FOR AND SHALL BE REVIEWED BY THE ARCHITECT.
- E. IN THE EVENT THAT CERTAIN EXISTING CONDITIONS ARE FOUND TO BE DIFFERENT FROM THOSE SHOWN ON THE PLANS AND DETAILS, THE ARCHITECT SHALL BE IMMEDIATELY NOTIFIED SO THAT THE PROPER REVISIONS CAN BE MADE IF NECESSARY.
- F. NO CHANGES OR DEVIATIONS FROM THE PLANS AND SPECIFICATIONS WILL BE ALLOWED WITHOUT WRITTEN AUTHORIZATION FROM THE ARCHITECT.
- G. WHERE SHOP DRAWINGS ARE REQUIRED, THEY SHALL BE COMPLETE AND COORDINATED BY THE CONTRACTOR. REPRODUCTIONS OF CONTRACT DRAWINGS WILL NOT BE ACCEPTABLE.

II. WOOD FRAMING

- A. FRAMING LUMBER USED IN FLEXURE SHALL BE DOUGLAS FIR NO. 2 FOR 2X10 AND SMALLER AND DOUGLAS FIR SELECT STRUCTURAL FOR MEMBERS LARGER THAN 2X10. STRUCTURAL WALL STUDS SHALL BE DOUGLAS FIR NO. 2. WOOD POSTS SHALL BE DOUGLAS FIR NO. 1.
- B. PLATES, BRIDGING, AND BLOCKING SHALL BE DOUGLAS FIR NO. 2 MINIMUM.
- C. PLATES ATTACHED TO CONCRETE OR MASONRY AT GRADE SHALL BE PRESSURE TREATED AND CONNECTORS FOR PRESSURE TREATED LUMBER SHALL BE GALVANIZED OR STAINLESS.
- D. FRAMING LUMBER MOISTURE CONTENT AT THE TIME OF DELIVERY TO THE JOB SHALL NOT EXCEED 19% BY WEIGHT.
- E. SHEATHING SHALL BE APA APPROVED PLYWOOD OF THE GRADES AND SIZES SHOWN ON THE DRAWINGS. OSB SHALL NOT BE USED. ALL SHEATHING SHALL BE RATED FOR EXTERIOR EXPOSURE.
- F. NAILING SHALL BE IN ACCORDANCE WITH 2012 IBC TABLE 2304.9.1 FASTENING SCHEDULE WHERE NOT OTHERWISE SHOWN ON DRAWINGS. NAILS SHALL BE GALVANIZED UNLESS NOTED OTHERWISE.
- G. BOLTS SHALL CONFORM TO ASTM A307 (GALVANIZED) WITH STANDARD CUT WASHERS WHERE HEAD OR NUT BEARS ON WOOD.
- H. FRAMING ANCHORS, STRAPS, CONNECTIONS, HANGERS, ETC., SHALL BE SIMPSON STRONG TIE, SILVER OR EQUAL HAVING ICC APPROVAL AND SHALL BE GALVANIZED; PREDRILL NAIL HOLES AS REQUIRED TO AVOID SPLITTING. ALL HANGERS AND CONNECTIONS SHALL BE NAILED FOR MAXIMUM CAPACITY.

III. HOLES IN STRUCTURES

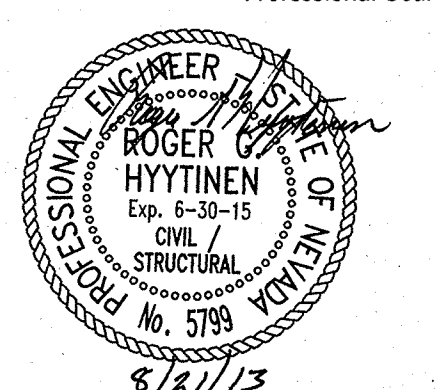
- A. OPENINGS, POCKETS, HOLES, CANS, ETC. SHALL NOT BE PLACED IN ANY SLAB, BEAM, COLUMN, WALL, OR OTHER STRUCTURAL MEMBER UNLESS SPECIFICALLY SHOWN ON THE DRAWINGS OR WRITTEN PERMISSION IS OBTAINED FROM THE ARCHITECT.
- B. DO NOT OVERCUT AT CORNERS WHEN CUTTING A NEW OPENING IN EXISTING CONCRETE OR MASONRY; COREDRILL, CHIP AND GRIND AS REQUIRED AT CORNERS. A LAYOUT OF ALL PROPOSED OPENINGS SHALL BE REVIEWED BY THE ARCHITECT PRIOR TO SAWCUTTING.
- C. UTILIZE CURRENT TECHNOLOGY DETECTION EQUIPMENT TO LOCATE OBSTACLES (REBAR, CONDUITS, ETC.) WITHIN CONCRETE (FLOORS, WALLS, ROOFS, ETC.) AT EVERY LOCATION WHERE CONCRETE IS TO BE PENETRATED (DRILLING, SAWING, CORING, ETC.). PROVIDE RESULTS TO THE ENGINEER AT LEAST 48 HOURS PRIOR TO THE PENETRATION ACTION SO APPROPRIATE DIRECTION MAY BE PROVIDED WHEN OBSTACLES ARE IDENTIFIED. ANY OBSTACLES DAMAGED WITHOUT PRIOR APPROVAL OF THE ENGINEER SHALL BE REPAIRED IN A MANNER ACCEPTABLE TO THE ENGINEER AT THE CONTRACTOR'S EXPENSE.

IV. POST INSTALLED ANCHORS

- A. EXPANSION ANCHORS IN CONCRETE OR MASONRY SHALL BE SIMPSON "STRONG-BOLT 2" WEDGE ANCHORS PER ICC-ES ESR-3037 (IN CONCRETE) OR IAPMO ES ER-240 (IN MASONRY), OR APPROVED EQUAL. SPECIAL INSPECTION REQUIRED.
- B. EPOXY/ADHESIVE ANCHORS SHALL USE SIMPSON "SET-XP" EPOXY PER ICC-ES ESR-2508 (IN CONCRETE) OR SIMPSON "SET" EPOXY PER ICC-ES ESR-1772 (IN MASONRY), OR APPROVED EQUAL. SPECIAL INSPECTION REQUIRED.
- C. HEAVY DUTY SCREW ANCHORS SHALL BE SIMPSON "TITEN HD" PER ICC-ES ESR-2713 (IN CONCRETE) OR ICC-ES ESR-1056 (IN MASONRY), OR APPROVED EQUAL. SPECIAL INSPECTION REQUIRED.
- D. ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH ALL EVALUATION REPORT AND MANUFACTURER RECOMMENDATIONS AND SPECIAL INSPECTION SHALL BE PROVIDED WHERE REQUIRED.
- E. WHERE POST INSTALLED ANCHORS ARE TO BE USED, IT SHALL BE THE CONTRACTOR'S DIRECT RESPONSIBILITY TO COORDINATE THE LOCATIONS OF REINFORCING STEEL OR OTHER SIMILARLY EMBEDDED ITEMS TO WORK WITH POST INSTALLED ANCHORS AND TO AVOID CONFLICTS WHEN DRILLING HOLES.

V. PERFORMANCE SPECIFICATION (DEFERRED SUBMITTAL) ITEMS

- A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING COMPLETE DESIGN AND CONSTRUCTION OF THE FOLLOWING ITEMS:
 1. SUPPORT, BRACING AND ANCHORAGE OF MECHANICAL, ELECTRICAL, SPRINKLER, OR OTHER PIPING SYSTEMS FOR WIND OR SEISMIC LOADS IN ACCORDANCE WITH ASCE 7-05, CHAPTER 6 (WIND) AND CHAPTER 13 (SEISMIC).
- B. THE ITEMS LISTED ABOVE ARE NOT INTENDED TO BE ALL INCLUSIVE AND ONLY REPRESENT STRUCTURAL PORTIONS OF THE WORK. ADDITIONAL PERFORMANCE SPECIFICATION ITEMS MAY BE REQUIRED. REFER TO THE DESIGN DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL ITEMS AND REQUIREMENTS.
- C. WHERE CALLED OUT, SIZES OF SUCH ITEMS IN THESE DRAWINGS ARE MINIMUMS TO BE VERIFIED BY THE FINAL DESIGN PROVIDED BY THE CONTRACTOR, HIS SUBCONTRACTOR OR HIS CONSULTANT.
- D. WHERE SEPARATE PERFORMANCE SPECIFICATION ITEMS INTERACT, THE DESIGN OF EACH ITEM SHALL INCLUDE THE INTERACTION EFFECTS AND SHALL BE COORDINATED WITH ONE ANOTHER.
- E. WHERE SUBMITTAL IS REQUIRED, PERFORMANCE SPECIFICATION ITEM DESIGNS SHALL BE STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEVADA. DESIGNS ARE TO BE SUBMITTED TO THE ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.



Date	Revision



HYTTINEN ENGINEERING
5458 Longley Lane, Suite B
Reno, Nevada 89511
Phone (775) 826-3019
Fax (775) 826-3076

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Alf Sorensen Natatorium Renovation

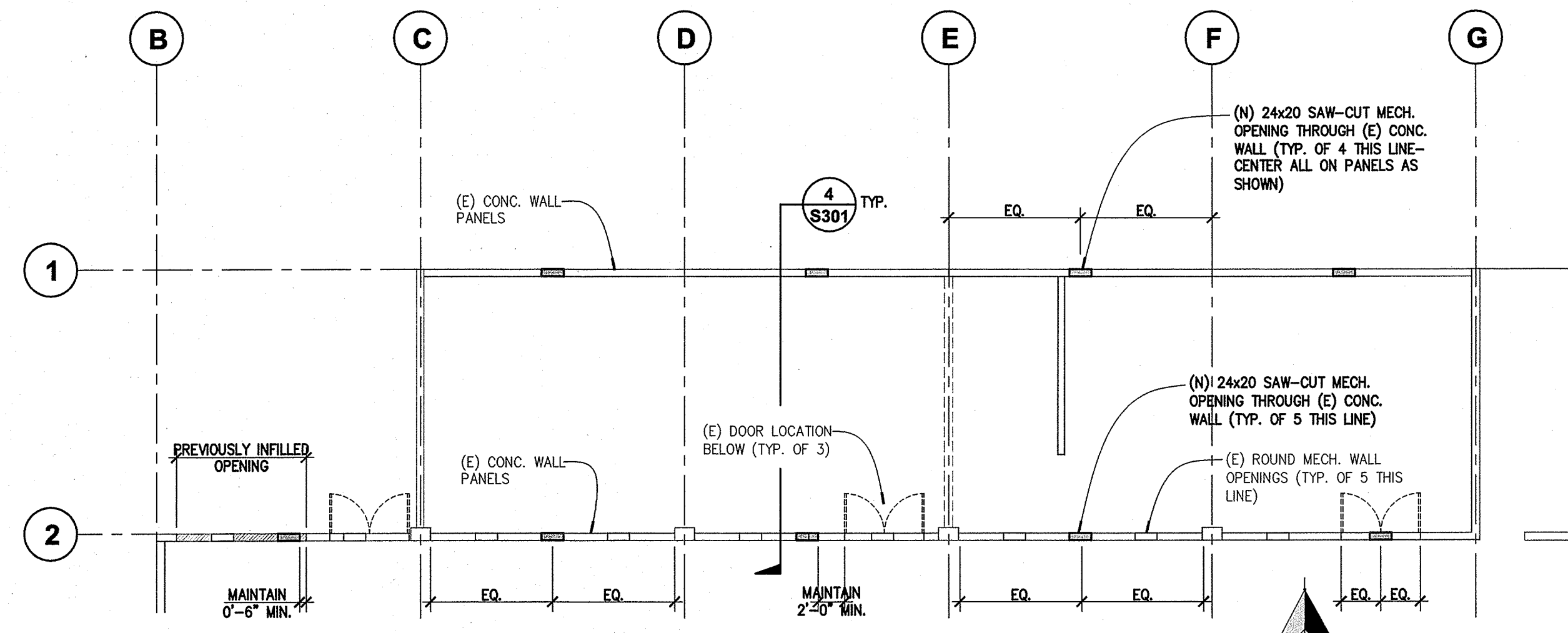
1400 Baring Blvd
Sparks, NV 89434

Structural Cover Sheet
General Notes

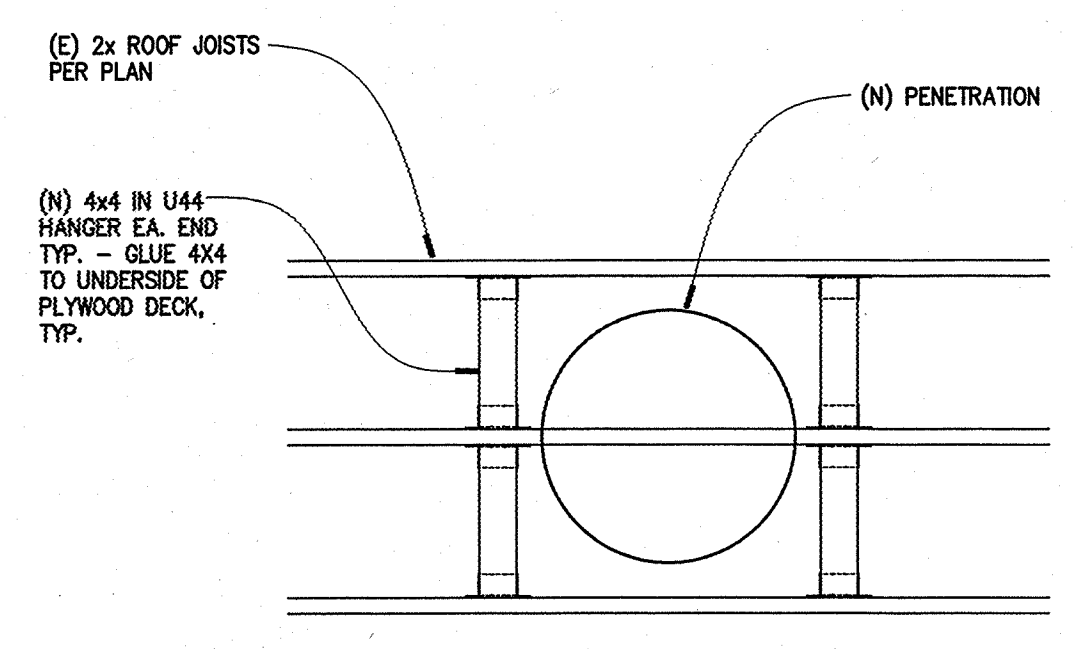
August 23, 2013
H+K Project No.: 1309

S101

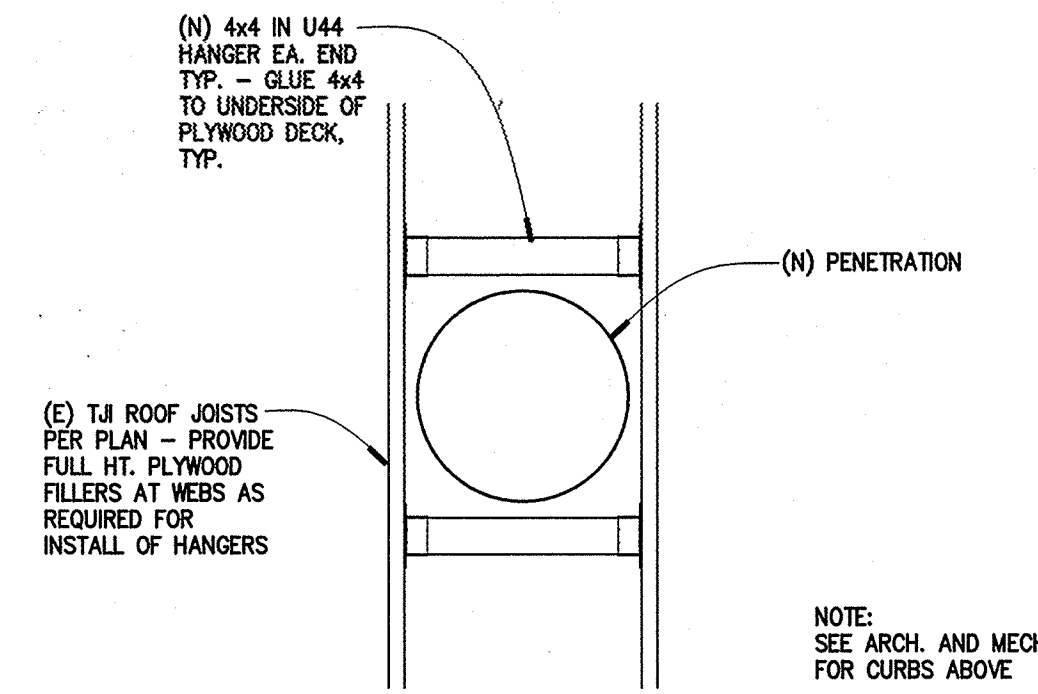




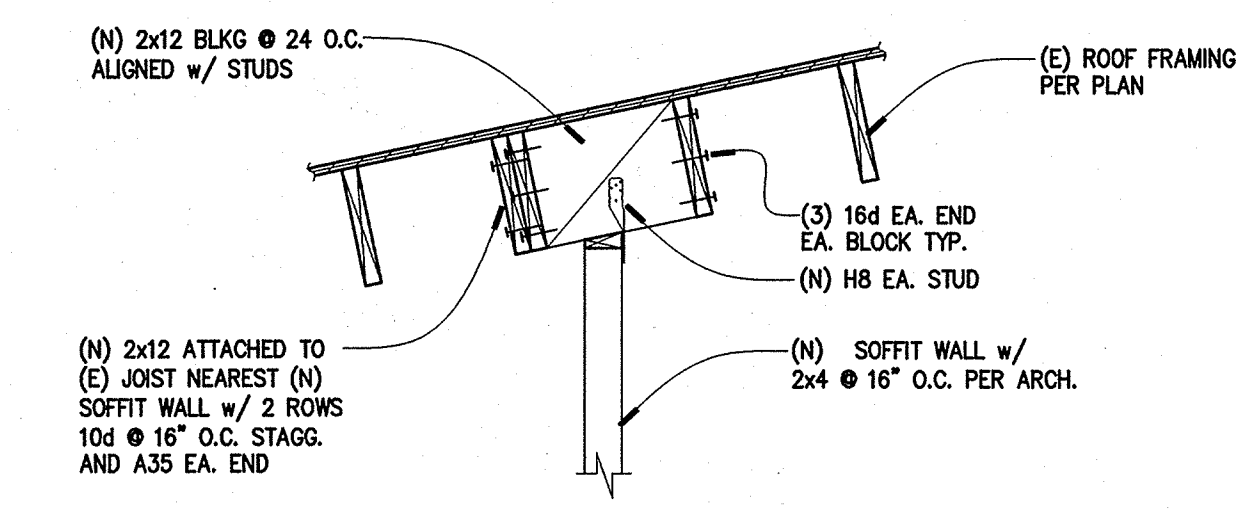
Mechanical Openings Below Roof
1/8"=1'-0"



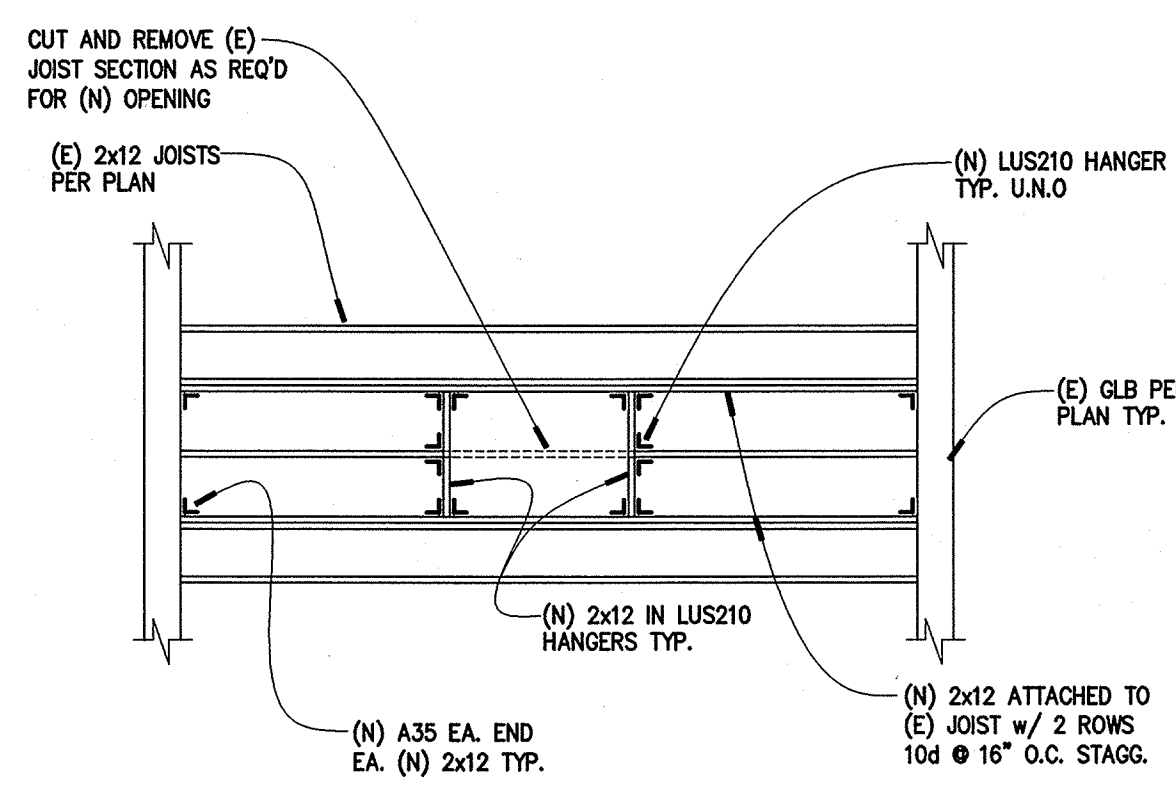
New Attic Vent Sub-framing 1
N.T.S. S201



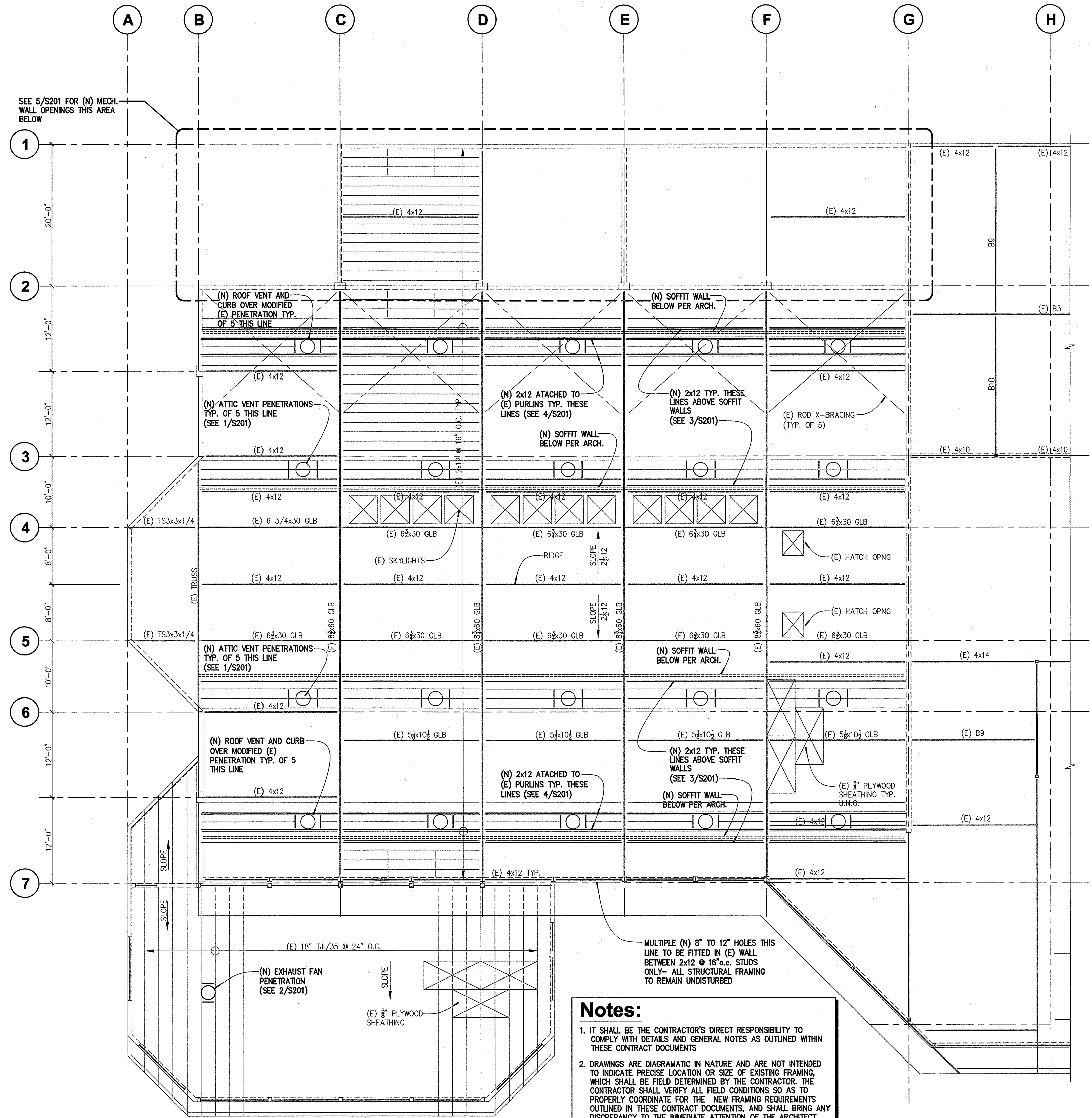
New Exhaust Fan Sub-framing 2
N.T.S. S201



New Soffit Wall Support 3
3/4"=1'-0" S201

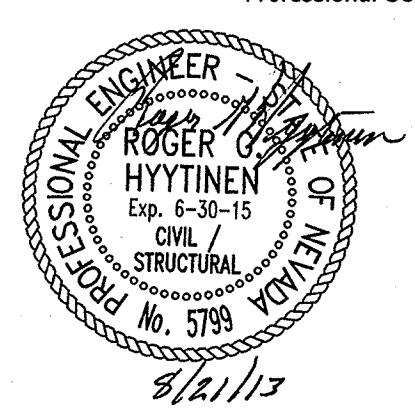


New Supply Fan Sub-framing 4
N.T.S. S201



Partial Roof Framing Plan
1/8"=1'-0"

- Notes:**
- IT SHALL BE THE CONTRACTOR'S DIRECT RESPONSIBILITY TO COMPLY WITH DETAILS AND GENERAL NOTES AS OUTLINED WITHIN THESE CONTRACT DOCUMENTS.
 - DRAWINGS ARE DIAGRAMATIC IN NATURE AND ARE NOT INTENDED TO INDICATE PRECISE LOCATION OR SIZE OF EXISTING FRAMING, WHICH SHALL BE FIELD DETERMINED BY THE CONTRACTOR. THE CONTRACTOR SHALL VERIFY ALL FIELD CONDITIONS SO AS TO PROPERLY COORDINATE FOR THE NEW FRAMING REQUIREMENTS OUTLINED IN THESE CONTRACT DOCUMENTS, AND SHALL BRING ANY DISCREPANCY TO THE IMMEDIATE ATTENTION OF THE ARCHITECT, WHO SHALL ISSUE FINAL INSTRUCTIONS FOLLOWING REVIEW.
 - WHERE NEW FRAMING CONFLICTS WITH EXISTING MECHANICAL, ELECTRICAL OR PLUMBING WORK, THE ARCHITECT SHALL BE NOTIFIED PRIOR TO THE START OF ANY WORK.
 - EXISTING DIMENSIONS, WHERE SHOWN, ARE APPROXIMATE AND INTENDED FOR REFERENCE AND COORDINATION ONLY. THE CONTRACTOR SHALL FIELD-VERIFY ALL BUILDING DIMENSIONS AS REQUIRED FOR NEW CONSTRUCTION.



Date	Revision

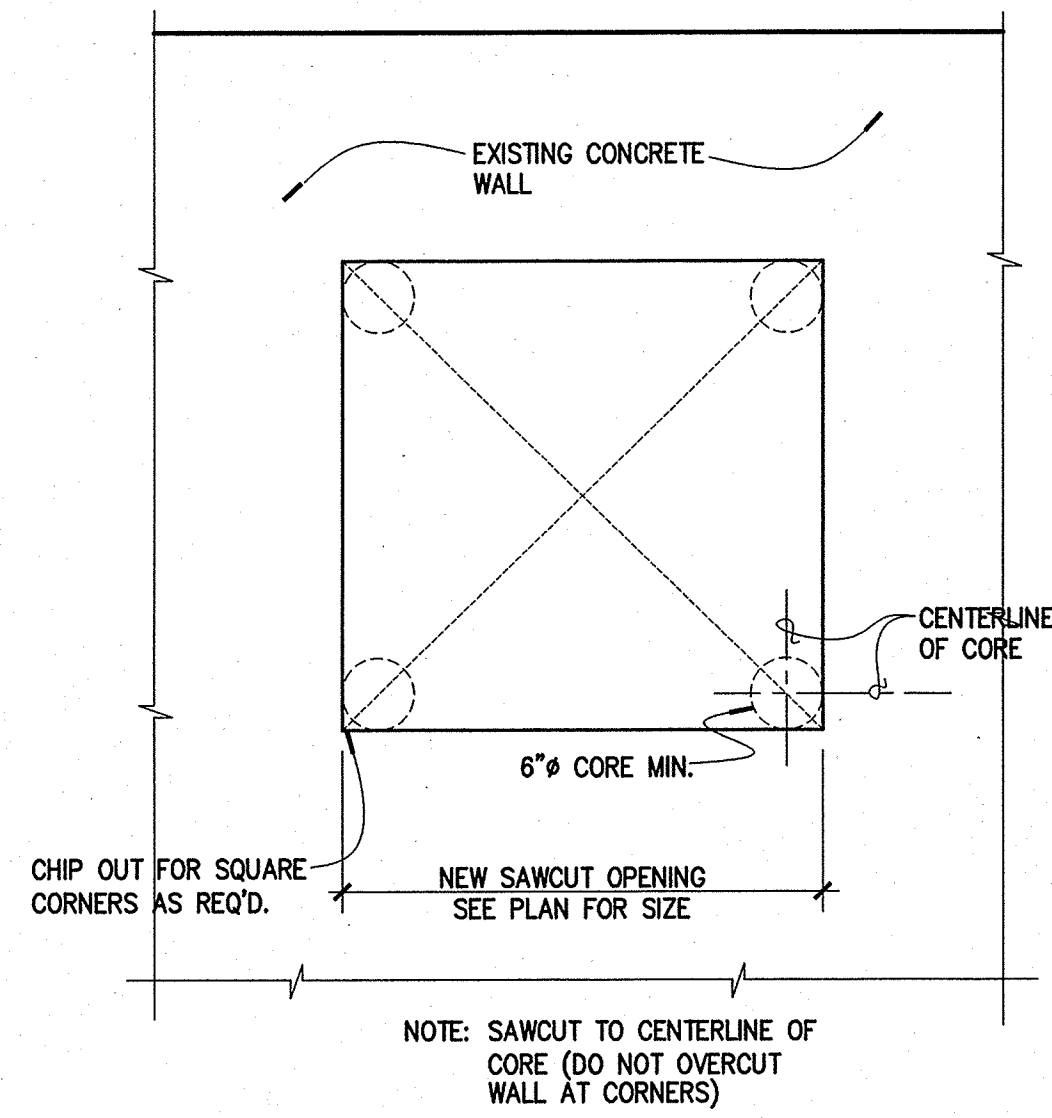
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Partial Roof Framing Plan and Details
August 23, 2013
H+K Project No.: 1309
S201

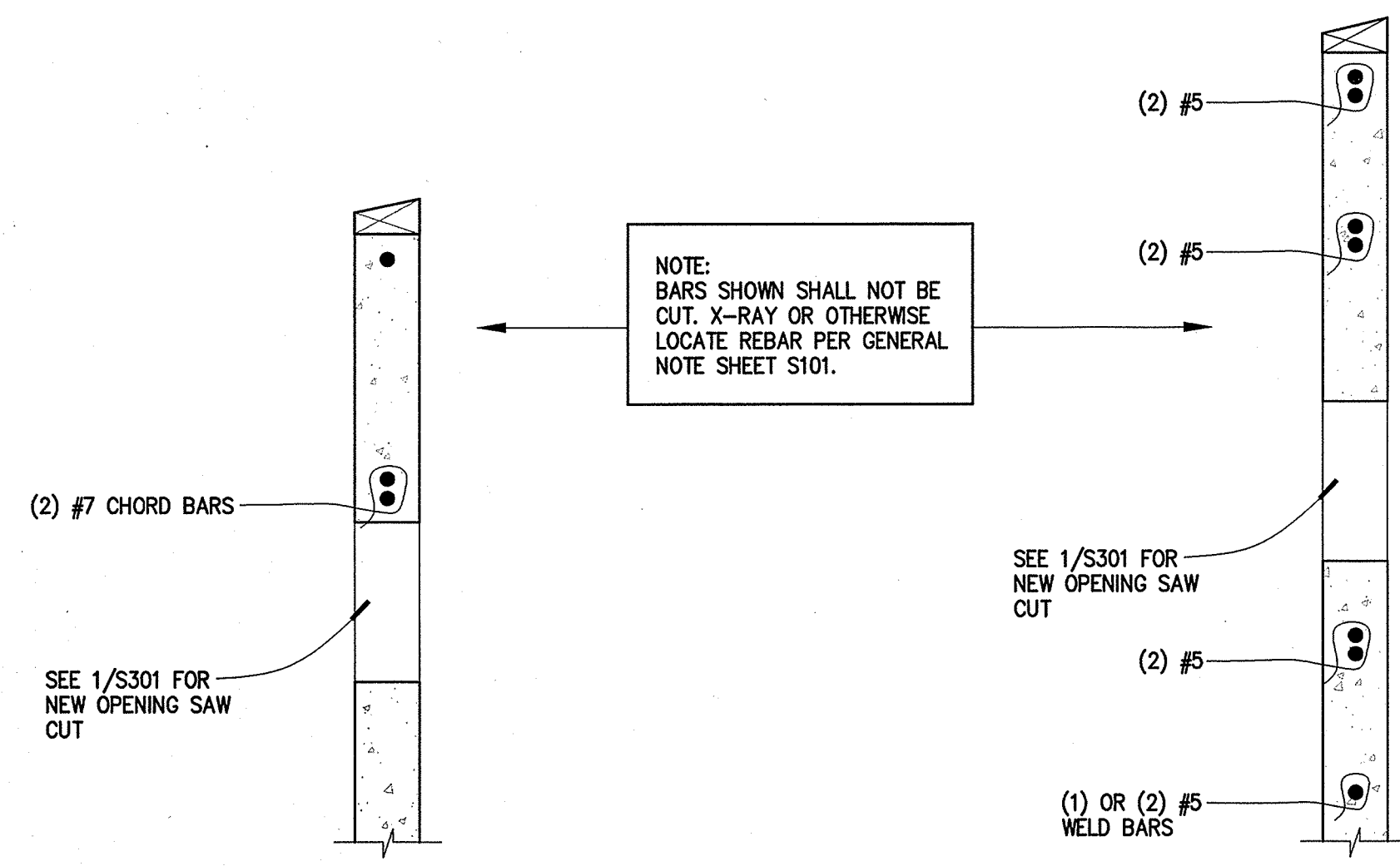




Saw-cut Opening In Exist. Wall

N.T.S.

1
S301



Saw-cut Openings on Line 1

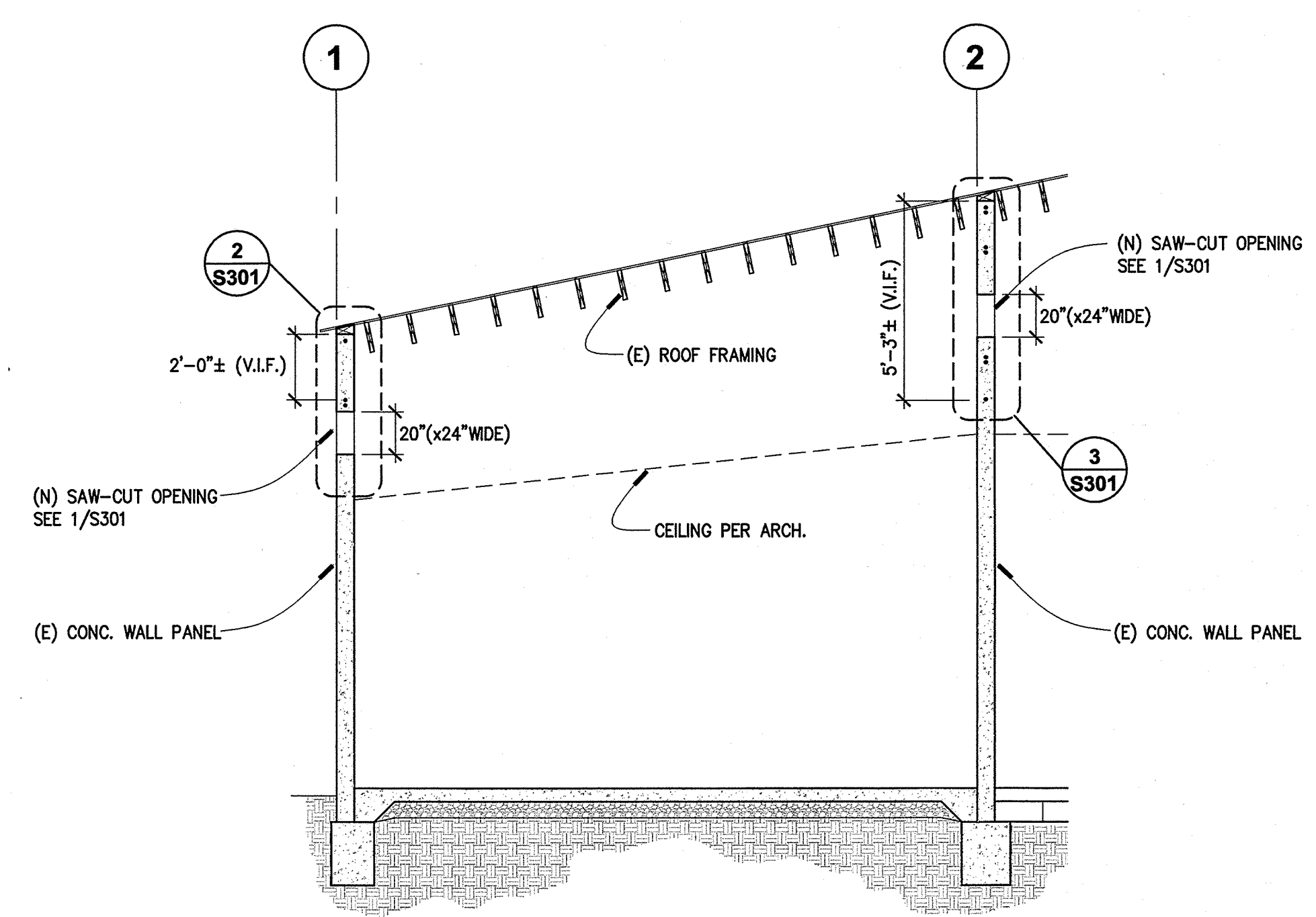
N.T.S.

2
S301

Saw-cut Openings on Line 2

N.T.S.

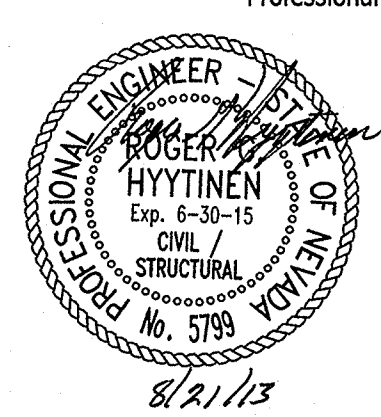
3
S301



Section

1/4"=1'-0"

4
S301



△	Date	Revision

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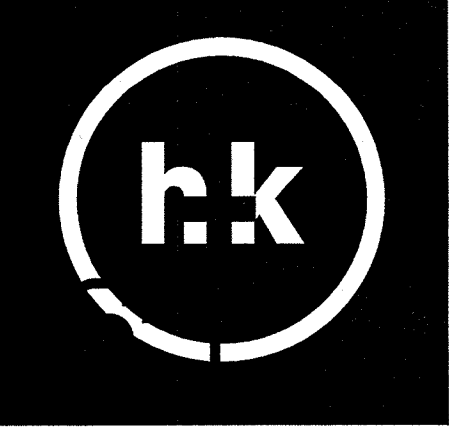
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Sections and Details
 August 23, 2013
 H+K Project No.: 1309
S301



FAN SCHEDULE													
SYM-BOL	MANUFACTURER & MODEL	LOCATION	CAPACITY				ELECTRICAL				WT. LBS.	COMMENTS	
			CFM	ESP " WC	SONES	BHP	HP	RPM	VOLT	PH.			CONTROL
EF 1	GREENHECK GB-161	MAIN POOL ROOF	1800	0.375	9.6	0.25	1/3	1750	120	1	MANUAL TOGGLE SWITCH WITH PILOT LIGHT	125	PROVIDE WITH CURB ADAPTER, BIRD SCREEN, AND BACK DRAFT DAMPER
EF 2	GREENHECK GB-161	MAIN POOL ROOF	1800	0.375	9.6	0.25	1/3	1750	120	1	MANUAL TOGGLE SWITCH WITH PILOT LIGHT	125	PROVIDE WITH CURB ADAPTER, BIRD SCREEN, AND BACK DRAFT DAMPER
EF 3	GREENHECK GB-161	MAIN POOL ROOF	1800	0.375	9.6	0.25	1/3	1750	120	1	MANUAL TOGGLE SWITCH WITH PILOT LIGHT	125	PROVIDE WITH CURB ADAPTER, BIRD SCREEN, AND BACK DRAFT DAMPER
EF 4	GREENHECK GB-161	MAIN POOL ROOF	1800	0.375	9.6	0.25	1/3	1750	120	1	MANUAL TOGGLE SWITCH WITH PILOT LIGHT	125	PROVIDE WITH CURB ADAPTER, BIRD SCREEN, AND BACK DRAFT DAMPER
EF 5	GREENHECK GB-161	MAIN POOL ROOF	1800	0.375	9.6	0.25	1/3	1750	120	1	MANUAL TOGGLE SWITCH WITH PILOT LIGHT	125	PROVIDE WITH CURB ADAPTER, BIRD SCREEN, AND BACK DRAFT DAMPER
EF 6	GREENHECK GB-161	THERAPY POOL ROOF	1800	0.375	9.6	0.25	1/3	1750	120	1	AUTOMATIC OPERATES WHEN AHU-1 RUNS	125	PROVIDE WITH INSULATED CURB, BIRD SCREEN, AND BACK DRAFT DAMPER
SF 1	GREENHECK RSF-90	MAIN POOL ROOF	1800	0.75	13.6	0.64	3/4	1750	120	1	MANUAL TOGGLE SWITCH WITH PILOT LIGHT	125	PROVIDE WITH CURB ADAPTER, FILTER, BIRD SCREEN
SF 2	GREENHECK RSF-90	MAIN POOL ROOF	1800	0.75	13.6	0.64	3/4	1750	120	1	MANUAL TOGGLE SWITCH WITH PILOT LIGHT	125	PROVIDE WITH CURB ADAPTER, FILTER, BIRD SCREEN
SF 3	GREENHECK RSF-90	MAIN POOL ROOF	1800	0.75	13.6	0.64	3/4	1750	120	1	MANUAL TOGGLE SWITCH WITH PILOT LIGHT	125	PROVIDE WITH CURB ADAPTER, FILTER, BIRD SCREEN
SF 4	GREENHECK RSF-90	MAIN POOL ROOF	1800	0.75	13.6	0.64	3/4	1750	120	1	MANUAL TOGGLE SWITCH WITH PILOT LIGHT	125	PROVIDE WITH CURB ADAPTER, FILTER, BIRD SCREEN
SF 5	GREENHECK RSF-90	MAIN POOL ROOF	1800	0.75	13.6	0.64	3/4	1750	120	1	MANUAL TOGGLE SWITCH WITH PILOT LIGHT	125	PROVIDE WITH CURB ADAPTER, FILTER, BIRD SCREEN

NOTE: CONDITIONS AT 4500' ELEVATION

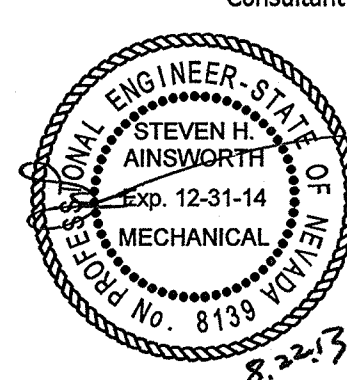
REGISTER LIST
<p>SUPPLY SLOT DIFFUSERS: "PRICE" MODEL SDS100 ALUMINUM SLOT DIFFUSER WITH SIX 1" SLOTS. PROVIDE FIELD FABRICATED PLENUM. PROVIDE BORDER WITH WHITE POWDER COAT. (1100 cfm)</p> <p>RETURN / EXHAUST REGISTERS: "PRICE" MODEL 630-TB-L ALUMINUM LOUVERED FACE GRILLE WITH 3/4" SPACING AND 45° DEFLECTION BLADES. PROVIDE WHITE POWDER COAT FINISH.</p> <p>RECTANGULAR SUPPLY REGISTERS: "PRICE" MODEL AMD ALUMINUM LOUVERED FACE DIFFUSER. PROVIDE FULL 24X24 CEILING PLATES AT T_BAR CEILINGS, WITH FRAME STYLE TO SUIT T_BAR STYLE. PROVIDE WHITE POWDER COAT FINISH.</p>

AIR CONDITIONING LEGEND	
	RETURN OR EXHAUST AIR DUCT
	SUPPLY AIR DUCT
	OUTSIDE AIR INTO LOUVER
	RETURN OR EXHAUST AIR INTO REGISTER
	SUPPLY AIR FROM REGISTER
	OUTSIDE AIR DUCT SECTION
	RETURN OR EXHAUST AIR DUCT SECTION
	SUPPLY AIR DUCT SECTION
	DUCT (FIRST FIGURE SIDE SHOWN SECOND FIGURE SIDE NOT SHOWN)
	INSULATED DUCT (WRAPPED)
	MECHANICAL ITEM TO BE REMOVED
	VOLUME CONTROL DAMPER
	DIAMETER
	ROOM NAME & NUMBER
	AIR CONDITIONING
	CENTER TO CENTER
	CUBIC FEET OF AIR PER MINUTE
	EXTRACTOR
	EXISTING, NEW
	EXHAUST AIR, OUTSIDE AIR, & RETURN AIR DAMPER
	EXHAUST FAN
	DEGREES FAHRENHEIT
	GAUGE
	GALVANIZED
	AUTOMATIC / MANUAL AIR VENT
	MAXIMUM, MINIMUM
	MANUAL DAMPER
	PITCH DOWN IN DIRECTION OF ARROW
	RETURN AIR, EXHAUST AIR
	SUPPLY AIR, OUTSIDE AIR
	TEMPERATURE CONTROL PANEL
	TYPICAL
	POINT OF CONNECTION

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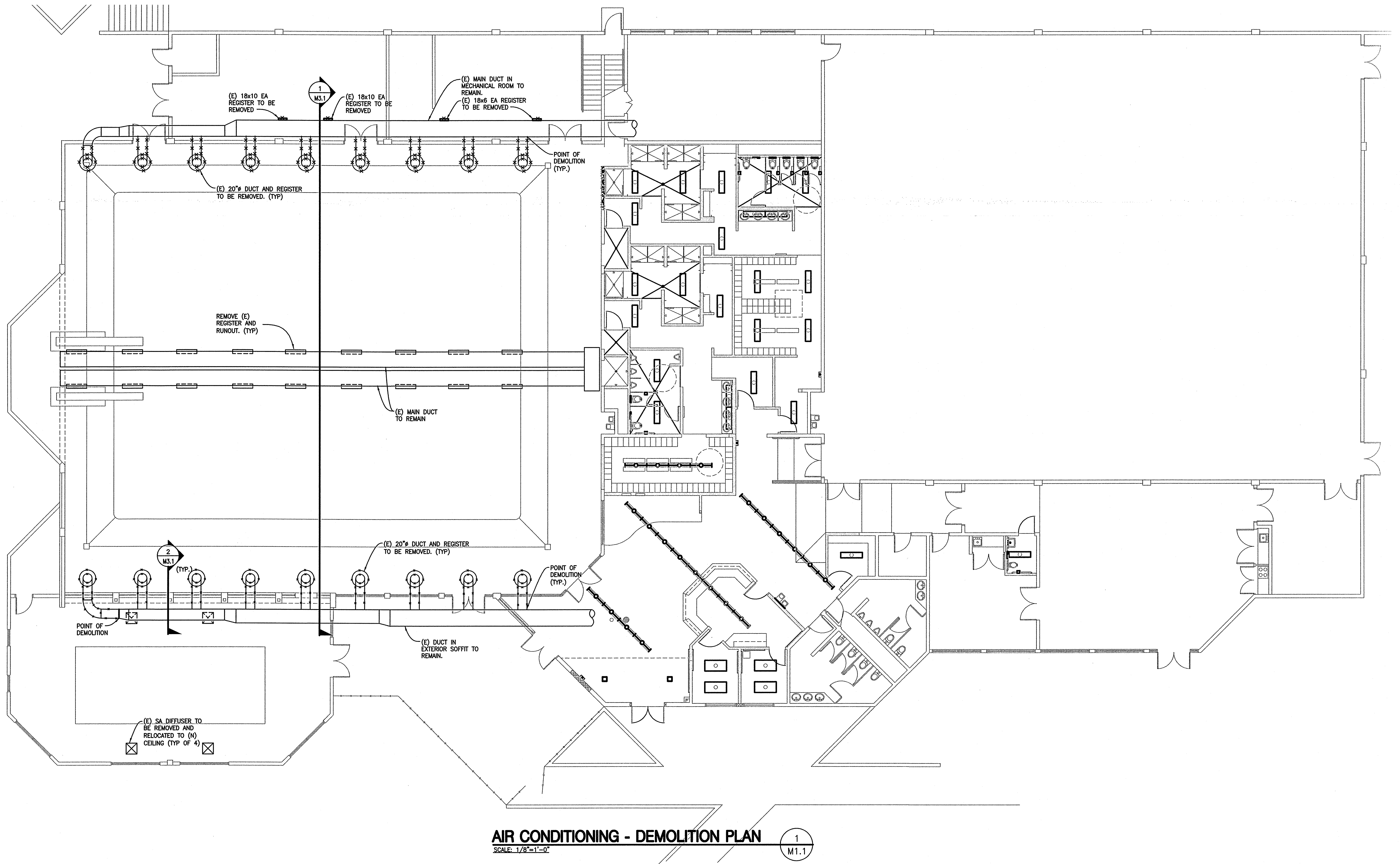
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**AIR CONDITIONING -
LEGEND AND
SCHEDULES**

AUG 23, 2013
H+K Project No.: 1309

MO.1





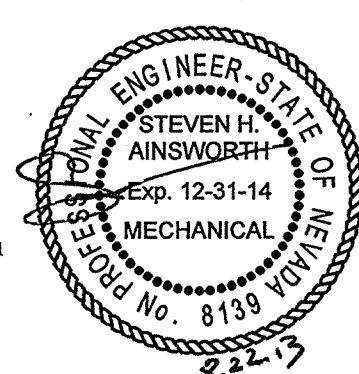
AIR CONDITIONING - DEMOLITION PLAN
 SCALE: 1/8"=1'-0"

1
M1.1

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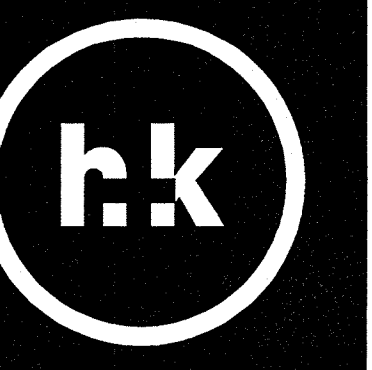
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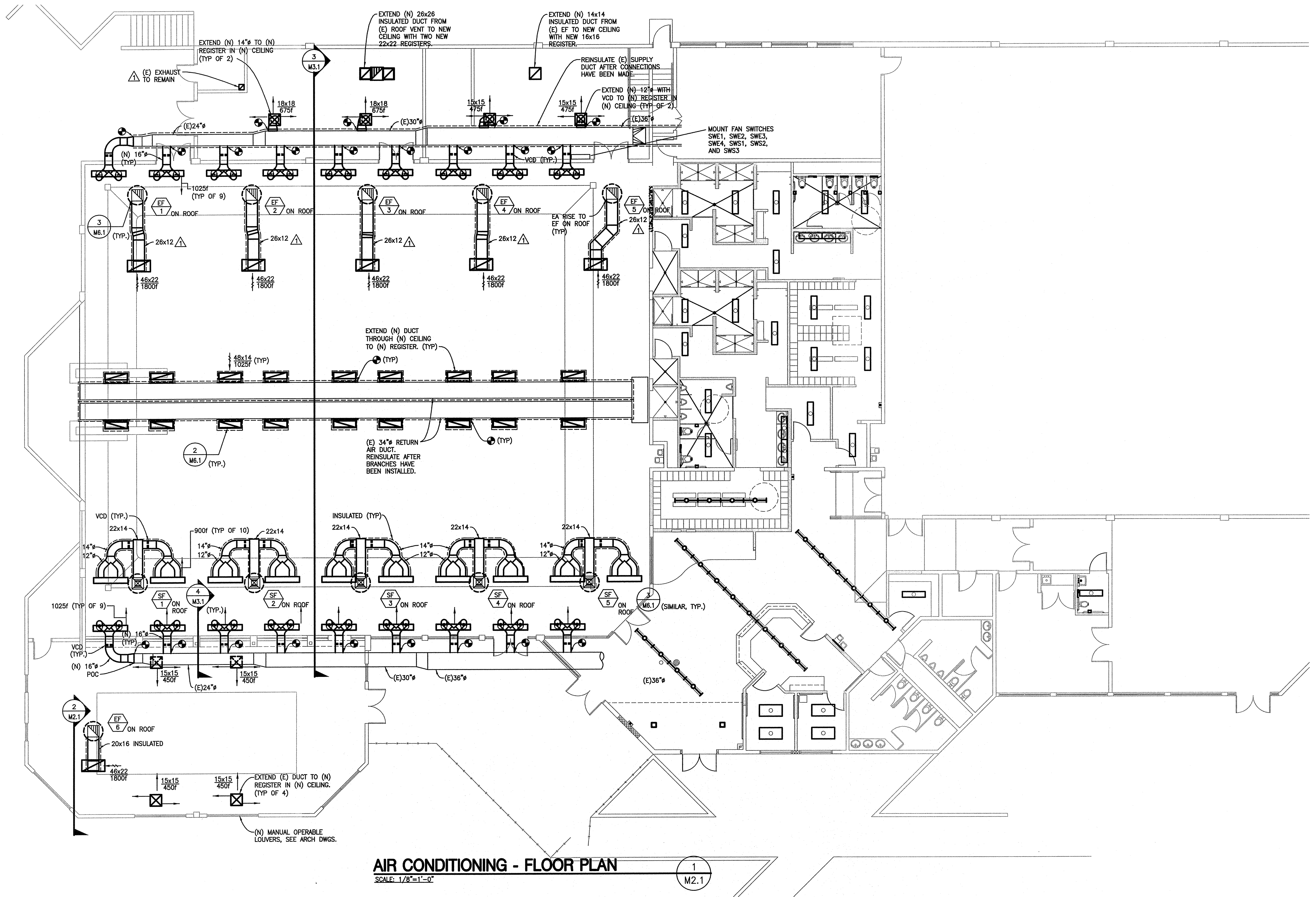
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**AIR CONDITIONING -
 DEMOLITION FLOOR
 PLAN**

AUG 23, 2013
 H+K Project No.: 1309

M1.1

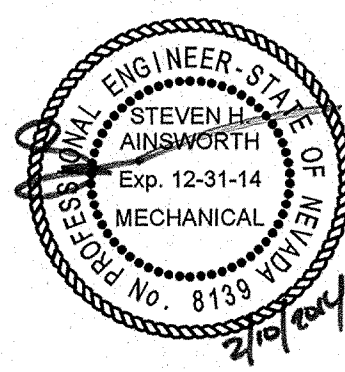




AIR CONDITIONING - FLOOR PLAN
 SCALE: 1/8"=1'-0"

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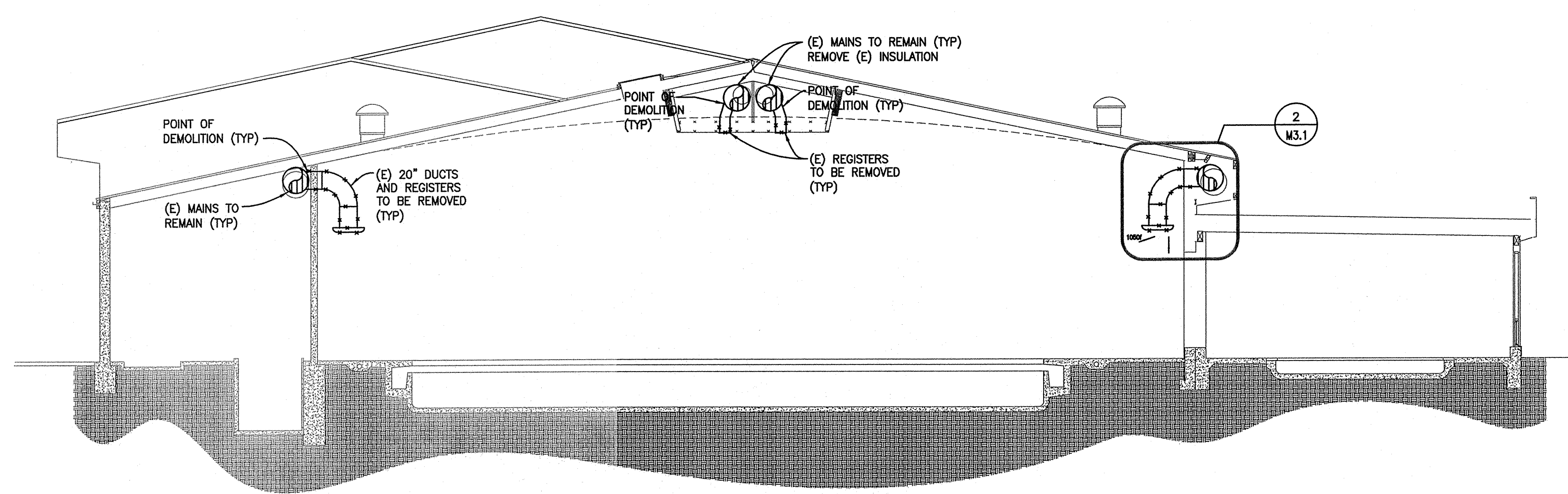
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**AIR CONDITIONING -
 FLOOR PLAN**

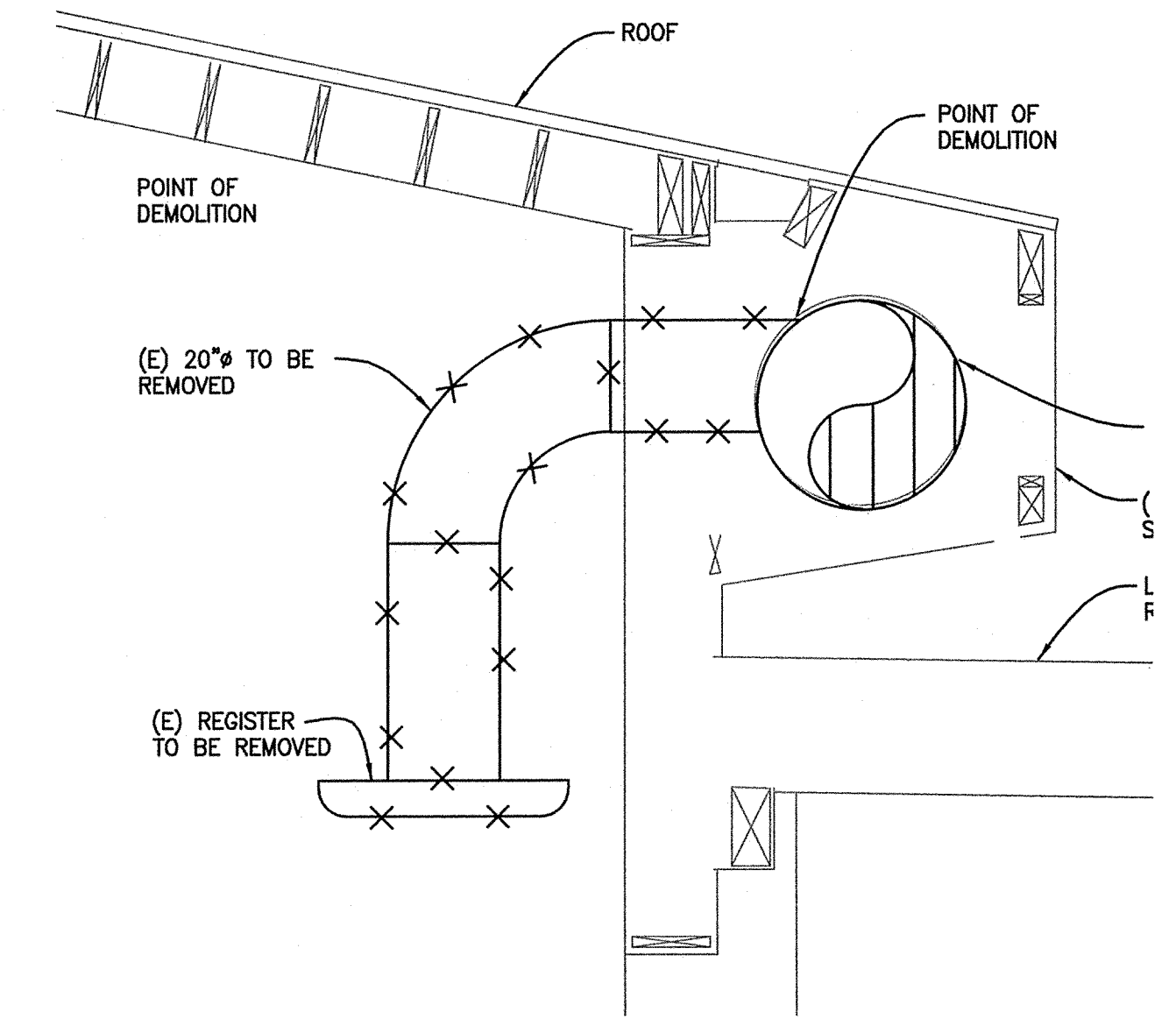
AUG 23, 2013
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M2.1

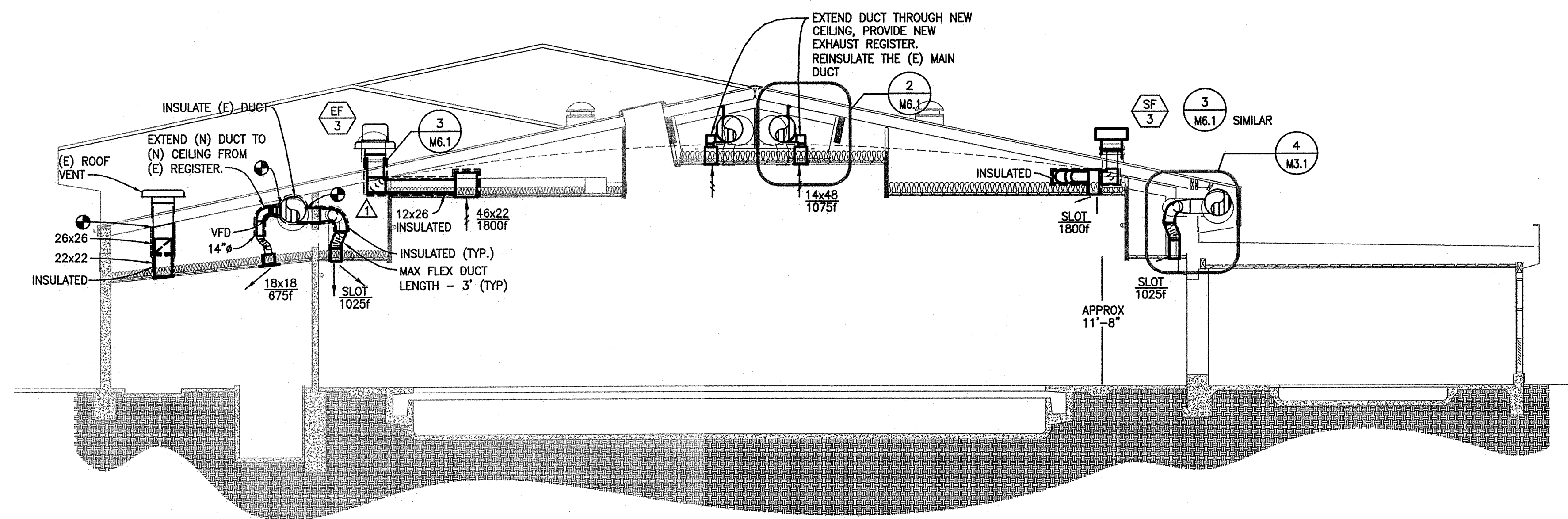




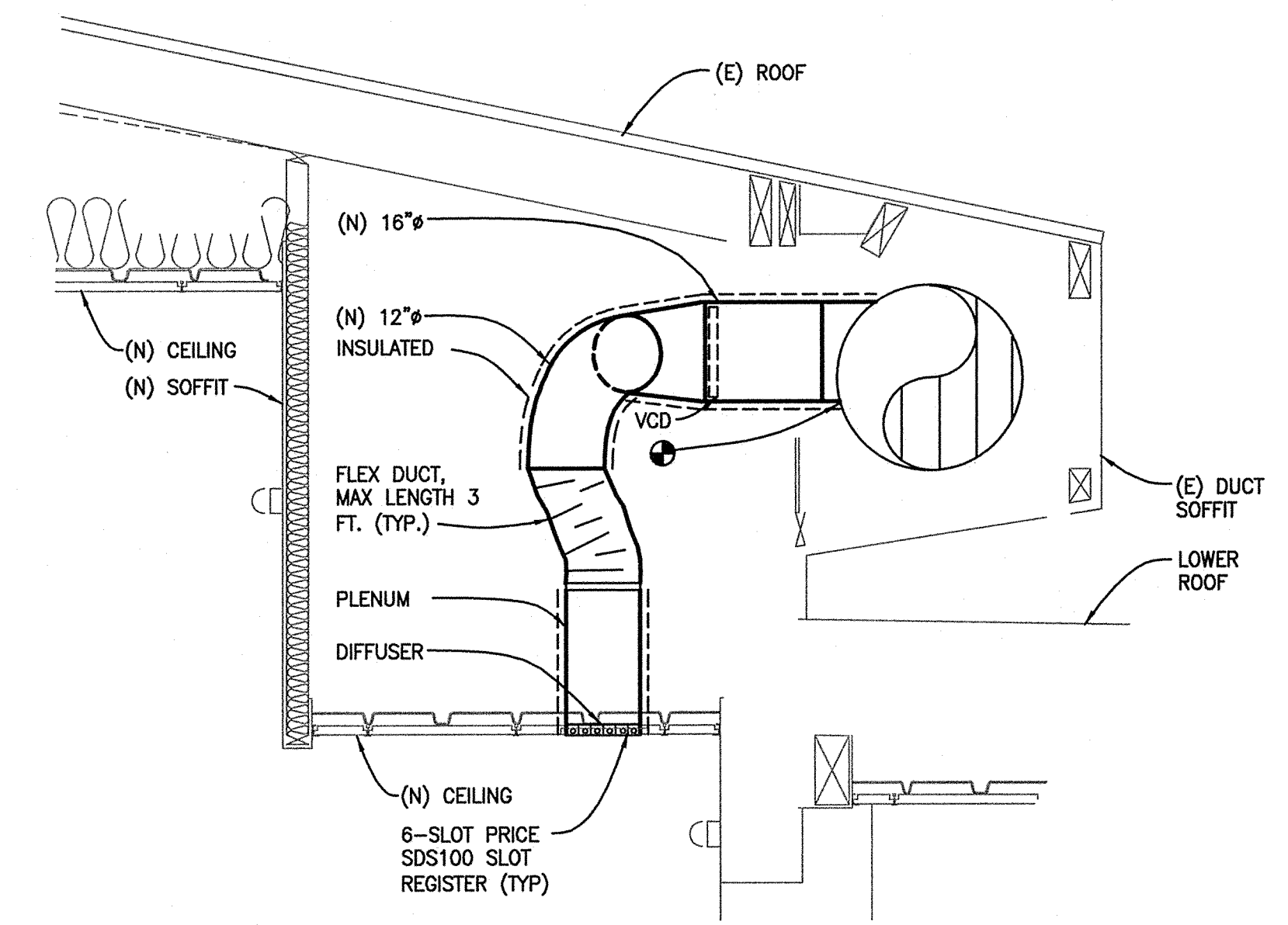
SECTION - DEMOLITION
SCALE: 1/8"=1'-0"
1
M3.1



PARTIAL SECTION
SCALE: 1/2"=1'-0"
2
M3.1

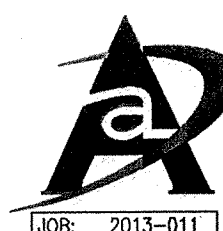


SECTION
SCALE: 1/8"=1'-0"
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M3.1

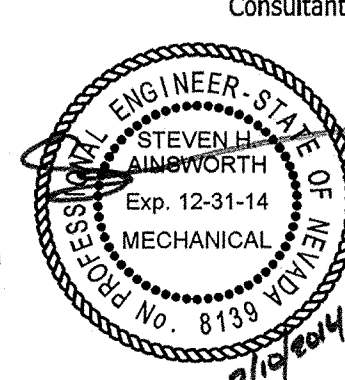


PARTIAL SECTION
SCALE: 1/2"=1'-0"
4
M3.1

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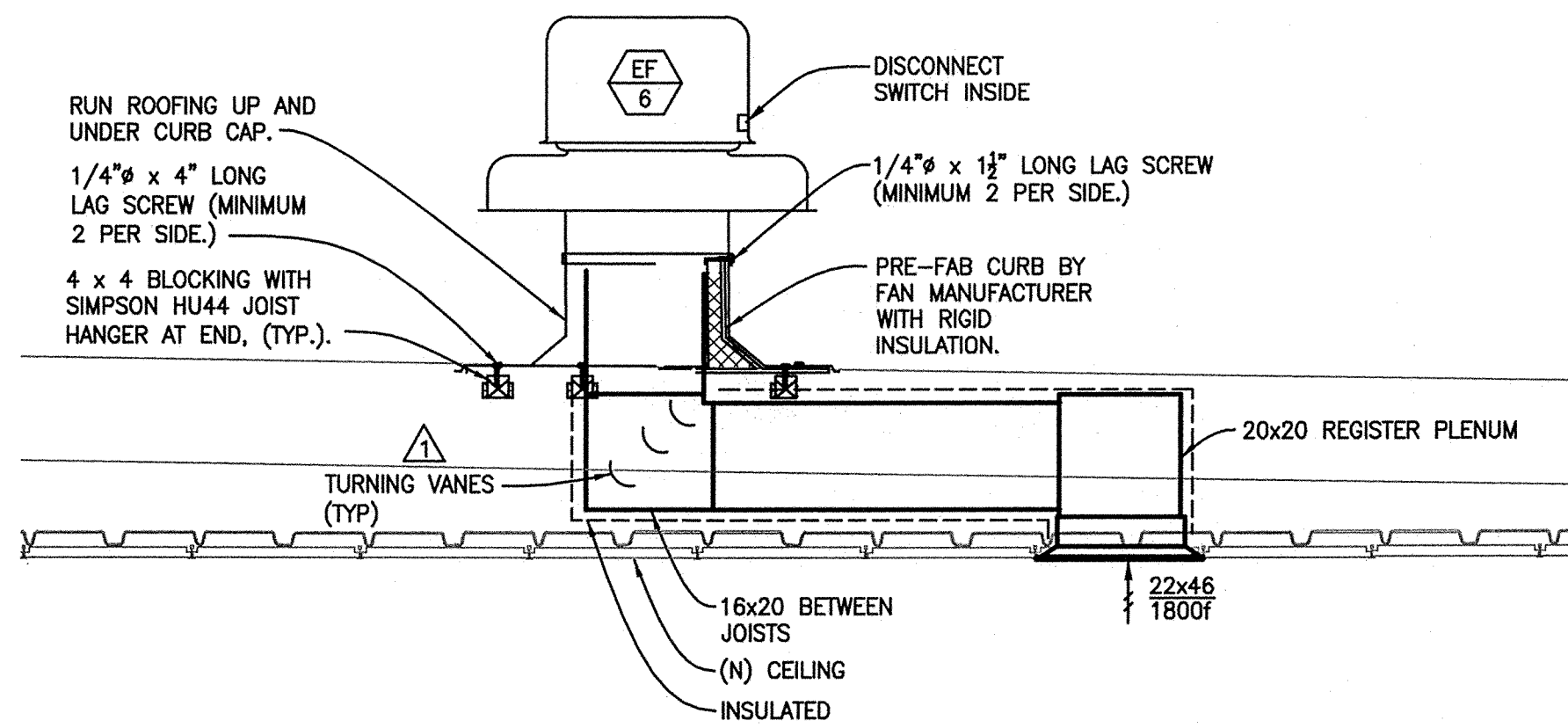
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**AIR CONDITIONING -
SECTIONS**

AUG 23, 2013
H+K Project No.: 1309

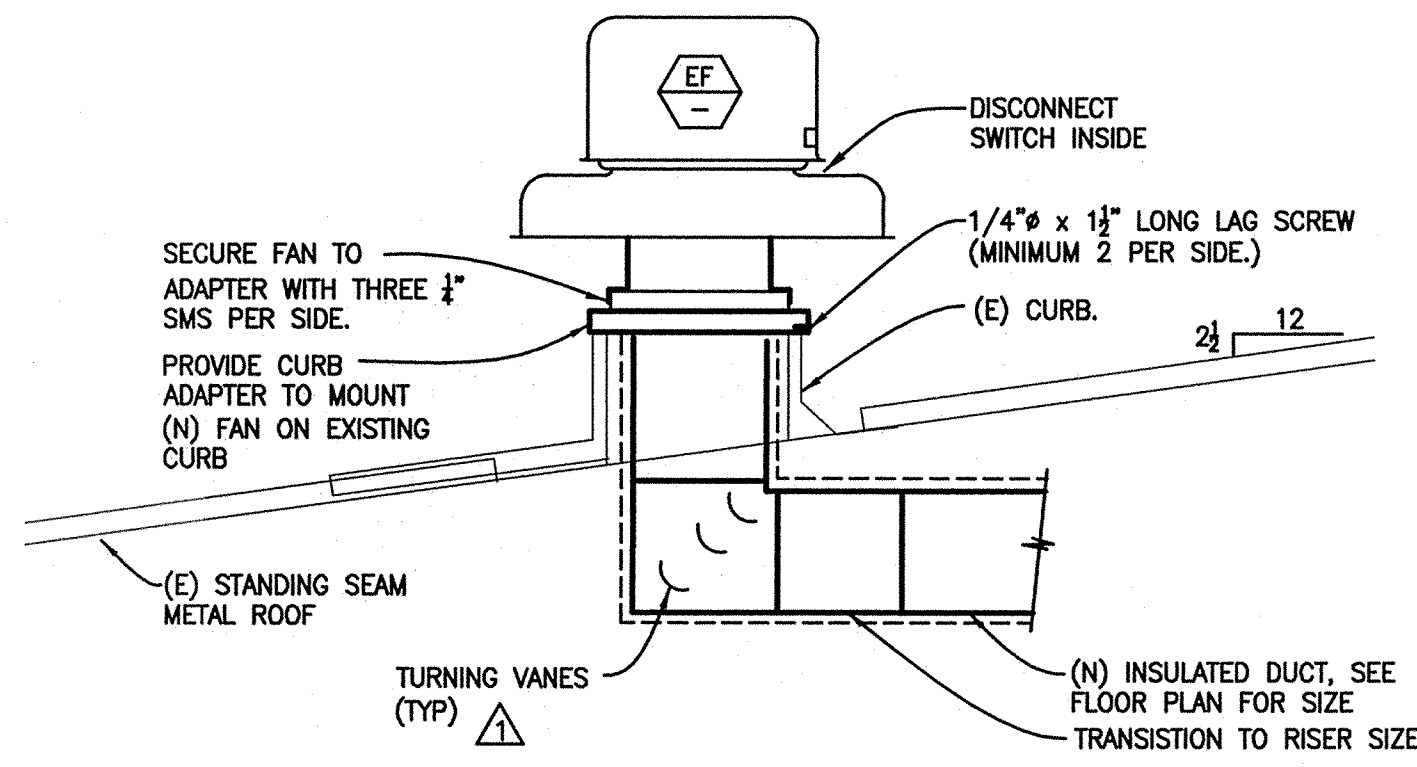
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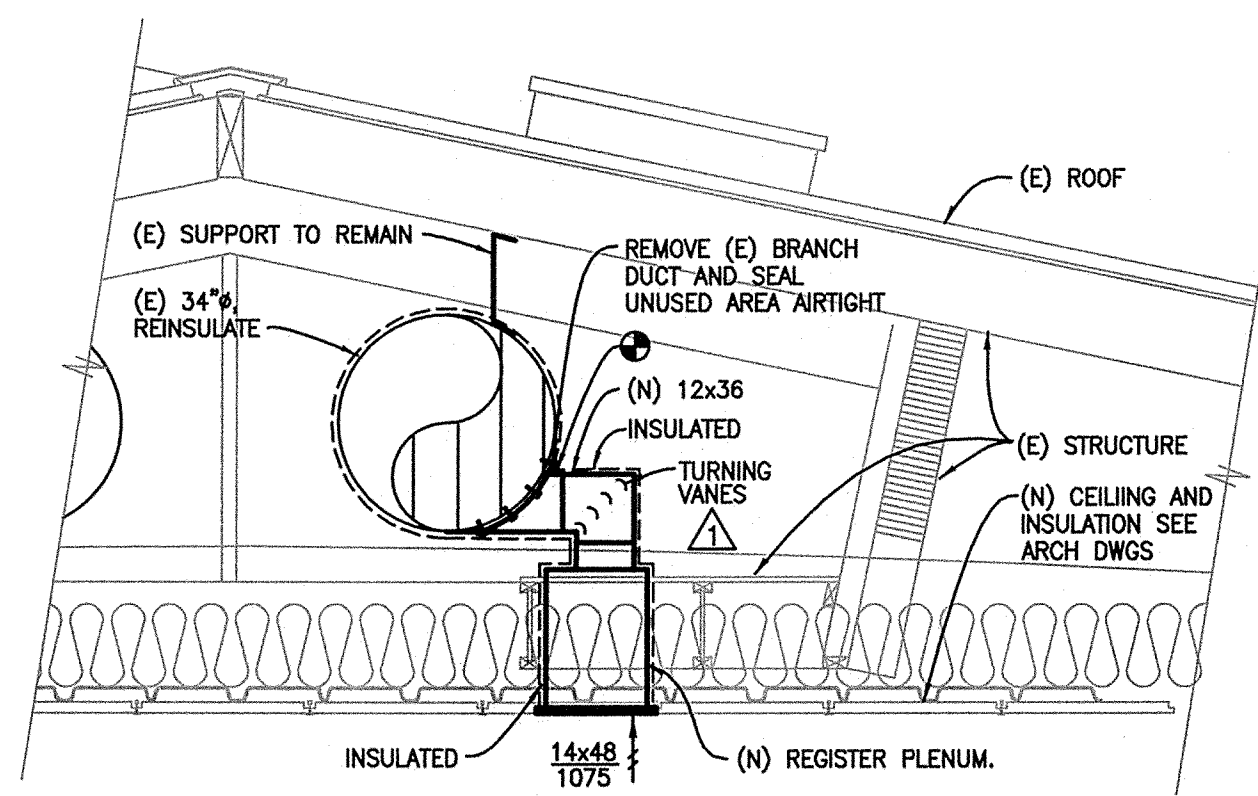
THERAPY POOL - ROOF TOP EXHAUST FAN DETAIL

NO SCALE: 1 M6.1



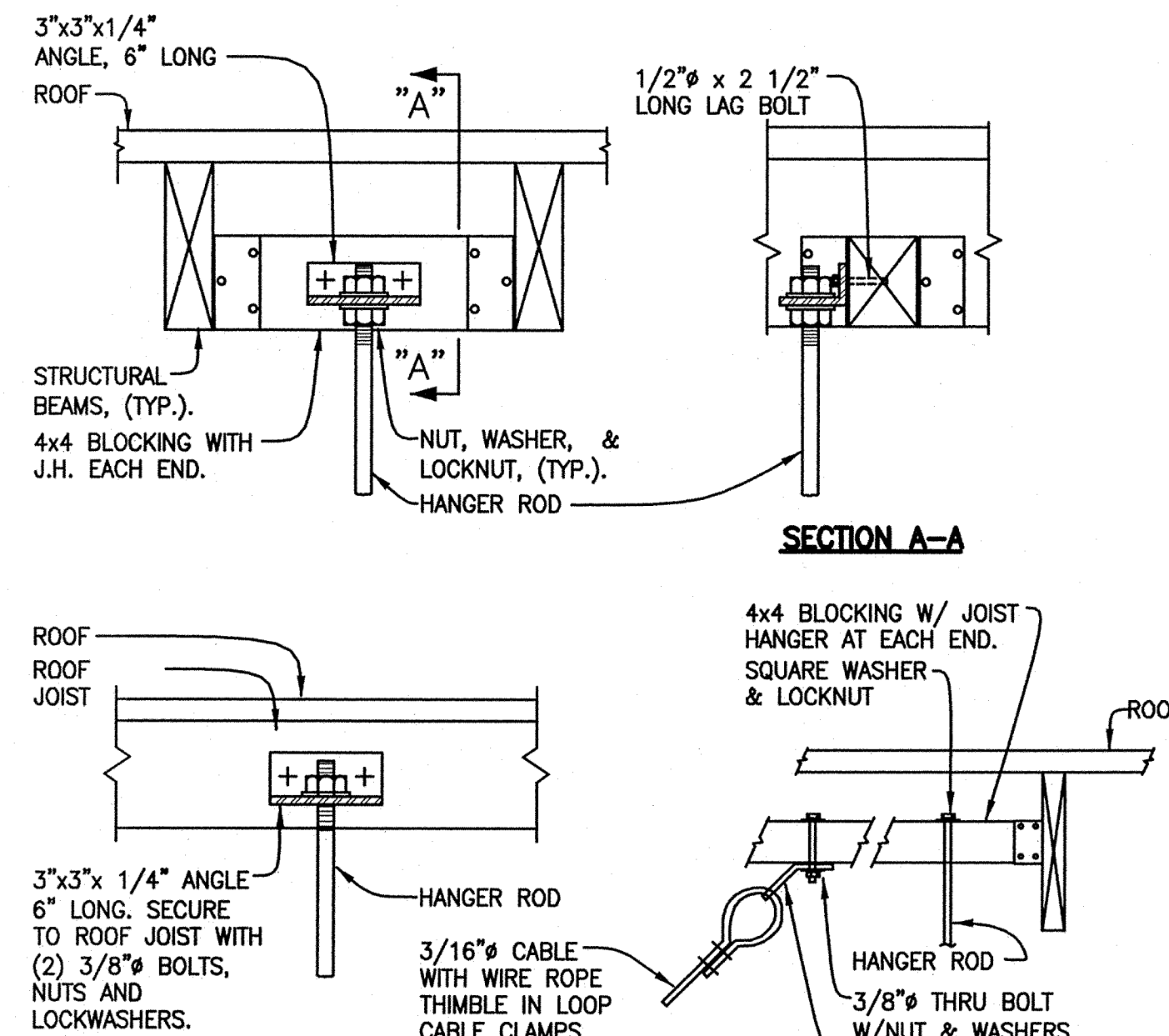
ROOF TOP EXHAUST FAN ON (E) CURB DETAIL

NO SCALE: 3 M6.1



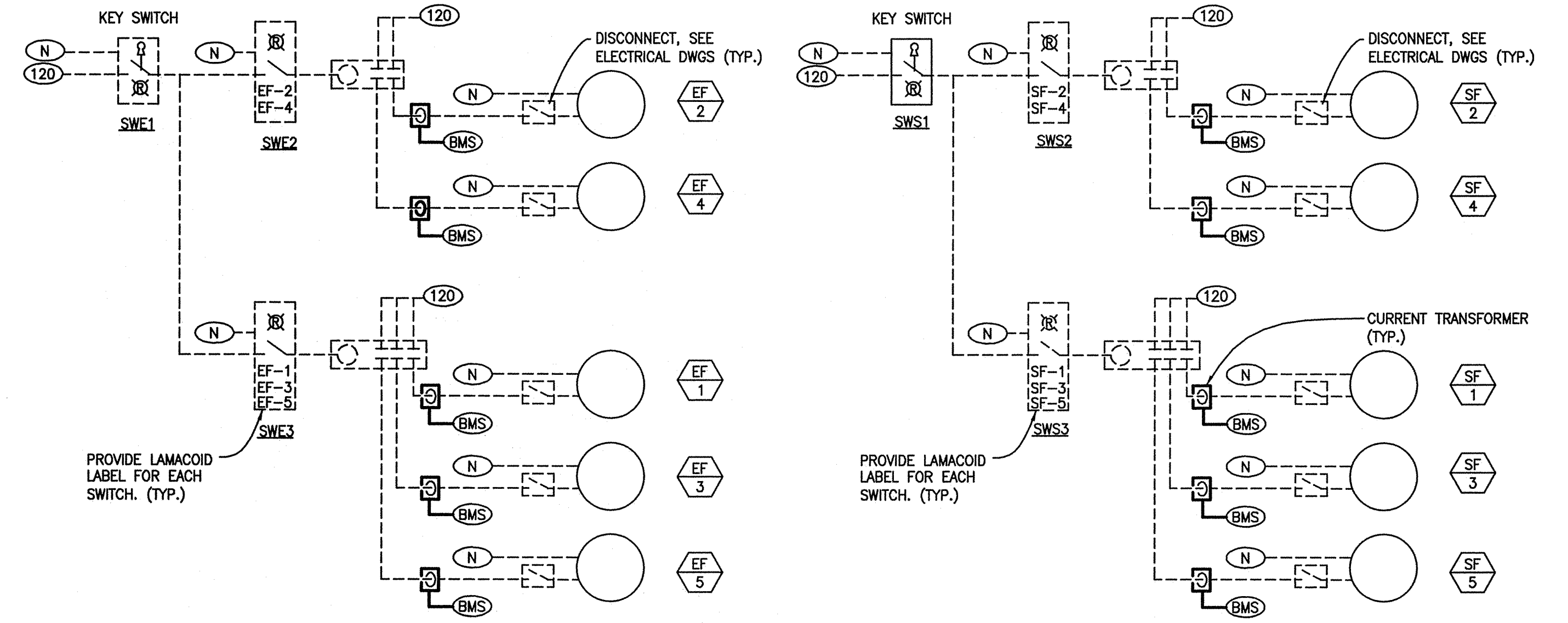
EXHAUST REGISTER DETAIL

NO SCALE: 2 M6.1



HANGER ROD SUPPORT DETAILS

NO SCALE: 4 M6.1

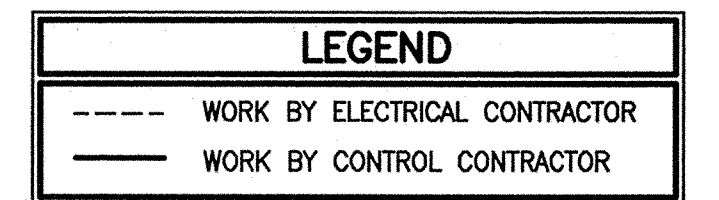


EXHAUST FANS EF-1 THROUGH EF-5 SHALL OPERATE ON MANUAL TOGGLE SWITCH WITH PILOT LIGHT. FANS SHALL BE ENABLED BY KEY SWITCH.
 FAN STATUS SHALL BE MONITORED BY BMS VIA CURRENT TRANSFORMER.

SUPPLY FANS SF-1 THROUGH SF-5 SHALL OPERATE ON MANUAL TOGGLE SWITCH WITH PILOT LIGHT. FANS SHALL BE ENABLED BY KEY SWITCH.
 FAN STATUS SHALL BE MONITORED BY BMS VIA CURRENT TRANSFORMER.

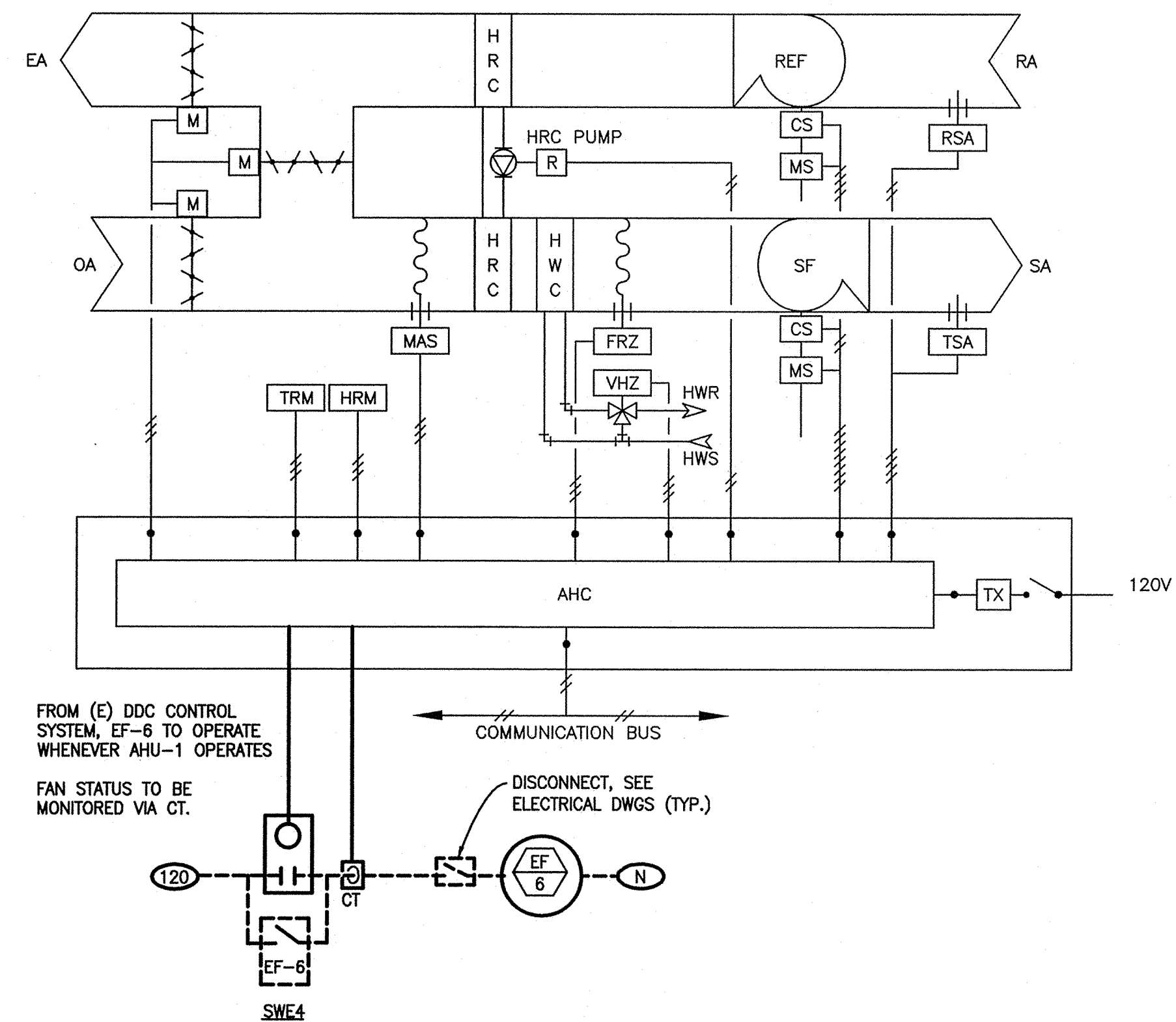
CONTROL DIAGRAMS AND SEQUENCE

NO SCALE: 5 M6.1



(E) CONTROL SEQUENCE FOR REFERENCE ONLY

- OCCUPIED CYCLE:**
- SUPPLY AIR AND RETURN/EXHAUST AIR FAN START AT PROGRAMMED TIME OF OCCUPANCY.
 - ROOM TEMPERATURE SENSOR TRM AND SUPPLY AIR TEMPERATURE SENSOR TSA MODULATE ECONOMIZER CONTROL DAMPERS AND HEATING HOT WATER CONTROL VALVE TO MAINTAIN ROOM TEMPERATURE SETPOINT.
 - ROOM HUMIDITY SENSOR HRM SHALL ALSO MODULATE THE ECONOMIZER TO OPEN THE OUTSIDE AIR DAMPERS AND CLOSE THE RETURN AIR DAMPERS WHENEVER HUMIDITY SET POINT IS EXCEEDED.
 - WHENEVER HUMIDITY LEVELS EXCEED SET POINT AND THE SPACE TEMPERATURE SENSOR REQUIRES HEATING THE HEAT RECOVERY PUMP SHALL START AND RUN. THE HEATING HOT WATER CONTROL SHALL ALSO MODULATE IF ADDITIONAL HEATING IS REQUIRED TO MAINTAIN ROOM TEMPERATURE SETPOINT.
- UNOCCUPIED CYCLE:**
- SUPPLY AIR AND RETURN/EXHAUST AIR FAN SHALL STOP AT PROGRAMMED TIME.
 - ROOM TEMPERATURE SENSOR TRM SHALL CYCLE AIR HANDLER TO MAINTAIN NITE LOW LIMIT SET POINT. UNIT SHALL USE RETURN AIR TO BE HEATED DURING THIS MODE OF OPERATION.
- SAFETY CONTROL:**
- FREEZE THERMOSTAT FRZ PLACES AIR HANDLER IN "UNOCCUPIED CYCLE" MODE WHENEVER TEMPERATURE BELOW SET POINT.
- OPERATOR'S TERMINAL:**
- FAN COMMAND (ON/OFF)
 - FAN STATUS (ON/OFF)
 - SUPPLY AIR TEMPERATURE
 - RETURN AIR TEMPERATURE
 - MIXED AIR TEMPERATURE
 - CURRENT ROOM TEMPERATURE
 - CURRENT ROOM HUMIDITY (% RH)
 - CURRENT ROOM HUMIDITY SET POINT
 - CURRENT ROOM HUMIDITY SET POINT (% RH)
 - CURRENT ECONOMIZER DAMPER POSITION (% OPEN)
 - CURRENT HEATING HOT WATER VALVE POSITION (% OPEN)
 - HEAT RECOVERY PUMP COMMAND (ON/OFF)
 - ALARM SUPPLY AIR TEMPERATURE
 - ALARM SPACE TEMPERATURE (LOW)
 - ALARM FREEZE THERMOSTAT ACTIVATED (ALARM/NORMAL)



(E) CONTROL DIAGRAM AND SEQUENCE

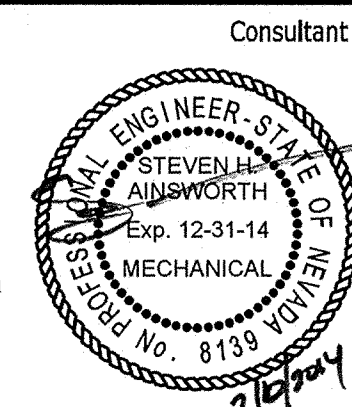
NO SCALE: 6 M6.1

TEMPERATURE CONTROL NOTES:

- ALL WIRE, CONDUIT, TRANSFORMERS, RELAYS, ETC... REQUIRED TO RENDER THE TEMPERATURE CONTROL SYSTEM COMPLETE SHALL BE THE RESPONSIBILITY OF THE TEMPERATURE CONTROL CONTRACTOR.
- UNLESS OTHERWISE NOTED MOUNT ALL RELAYS ETC... IN ITS RESPECTIVE TEMPERATURE CONTROL PANEL.
- LABEL ALL SWITCHES, CONTROLLERS, ETC... WITH PERMANENT ENGRAVED PLASTIC NAME PLATES.
- ALL ADDED BMS MONITORING AND CONTROL POINTS TO CONNECT TO (E) ALERTON BMS. CONTROL CONTRACTOR SHALL BE RESPONSIBLE TO MODIFY BMS GRAPHICAL DISPLAYS INDICATING STATUS POINTS. TO MATCH EXISTING CONTROL CONTRACTOR SHALL BE "BCS-BUILDING CONTROL SERVICES," NO OTHERS WILL BE CONSIDERED.

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 Date Revision
 1/20/14 PRE-BID REVIEW

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AIR CONDITIONING - DETAILS

AUG 23, 2013
 H+K Project No.: 1309

M6.1



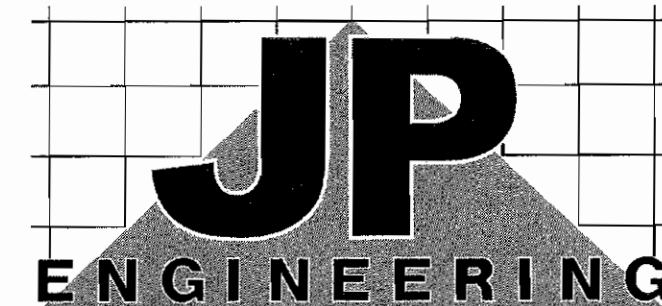
REMODEL GENERAL NOTES

ITEM	DESCRIPTION	ITEM	DESCRIPTION
16.1	STANDARDS AND CODES: ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (NEC), AS WELL AS ALL APPLICABLE STATE AND LOCAL CODES AND ORDINANCES. THIS DOES NOT RELIEVE THE CONTRACTOR FROM FURNISHING AND INSTALLING WORK SHOWN OR SPECIFIED WHICH MAY EXCEED THE REQUIREMENTS OF SUCH ORDINANCES, LAWS, REGULATIONS AND CODES.	16.17	CIRCUITING: ALL WIRING SHALL BE IN CONDUIT, CONCEALED EXCEPT WHERE NOTED. EMT WITH STEEL SET SCREW INSULATED-THROAT FITTINGS MAY BE USED IN DRY, PROTECTED INTERIOR LOCATIONS. PVC SCHEDULE 40 SHALL BE USED BELOW GRADE AT MINIMUM - 24" WRAPPED RIGID ELBOWS AND RISERS SHALL BE USED FOR ALL THROUGH-GRADE TRANSITIONS AND STUB-UPS. RGS OR MC CONDUIT WITH THREADED FITTINGS SHALL BE USED IN ALL LOCATIONS WHERE EXPOSED TO THE ELEMENTS OR SUBJECT TO PHYSICAL DAMAGE. METAL-CLAD CABLE (TYPE MC) WILL BE ACCEPTABLE FOR SINGLE CIRCUIT BRANCH CIRCUITING, FLEXIBLE WHIPS FROM JUNCTION BOXES TO LIGHTING FIXTURES AND WITHIN CASEWORK. TYPE MC CABLE MAY NOT BE USED FOR HOMERUNS. ENT IS NOT ALLOWED. CONNECT RECESSED AND SUSPENDED LIGHTING FIXTURES, MOTORIZED AND VIBRATING EQUIPMENT WITH STEEL FLEX. ALL CONDUIT SHALL HAVE PULL CORD IF OTHERWISE EMPTY.
16.2	COMPLETE INSTALLATION: PROVIDE ALL LABOR, MATERIALS, EQUIPMENT, TOOLS, ACCESSORIES, ETC., NECESSARY TO ACCOMPLISH A COMPLETE ELECTRICAL SYSTEM IN ACCORDANCE WITH THE PLANS TOGETHER WITH THE SPECIFICATIONS.	16.18	WIRING: WIRE SHALL BE COPPER UNLESS OTHERWISE INDICATED. MINIMUM WIRE SIZE SHALL BE #12 AWG. INSULATION SHALL BE THW, THWN OR THHN.
16.3	PERMITS: OBTAIN AND PAY FOR ALL BUILDING AND WORKING PERMITS AND INSPECTION FEES REQUIRED FOR THIS PROJECT.	16.19	FUSES: FUSES SHALL BE SIZED PER ACTUAL NAMEPLATE OF EQUIPMENT SERVED. FUSES SHALL BE DUAL-ELEMENT, CURRENT-LIMITING, AND SHALL BE INTERCHANGEABLE BETWEEN FRAME SIZES WITH STANDARD FACTORY FUSE REDUCERS. FUSES SHALL BE AS FOLLOWS UNLESS OTHERWISE INDICATED: a. CIRCUITS 601 TO 6000 AMPERES SHALL BE PROTECTED BY CURRENT LIMITING BUSSMANN LOW-PEAK TIME-DELAY FUSES KRP-C - UL CLASS L b. CIRCUITS 0 TO 600 AMPERES SHALL BE PROTECTED BY CURRENT LIMITING BUSSMANN LOW-PEAK DUAL-ELEMENT FUSES LPN-RK (250 VOLTS) OR LPS-RK (600 VOLTS) - UL CLASS RK1 c. ALL INDIVIDUAL MOTOR CIRCUITS RATED 480 AMPERES OR LESS SHALL BE PROTECTED BY BUSSMANN LOW-PEAK DUAL-ELEMENT FUSES LPN-RK (250 VOLTS) OR LPS-RK (600 VOLTS) - UL CLASS RK1 OR L d. CIRCUIT BREAKER PANELS SHALL BE PROTECTED BY BUSSMANN LOW-PEAK DUAL-ELEMENT FUSES LPN-RK (250 VOLTS), LPS-RK (600 VOLTS) OR BUSSMANN LOW-PEAK KRP-C TIME-DELAY FUSES - UL CLASS RK1 OR L e. ALL DUAL-ELEMENT FUSES SHALL HAVE SEPARATE OVERLOAD AND SHORT-CIRCUIT ELEMENTS. f. PROVIDE SPARE FUSE CABINET AFTER THE COMPLETION OF THE PROJECT WITH ONE SET OF SPARE FUSES FOR EVERY SIZE USED.
16.4	DRAWINGS: DATA PRESENTED ON THESE DRAWINGS SHALL BE FIELD VERIFIED SINCE ALL DIMENSIONS, LOCATIONS, AND LEVELS ARE GOVERNED BY ACTUAL FIELD CONDITIONS. REVIEW ALL ARCHITECTURAL, STRUCTURAL, CIVIL, MECHANICAL AND SPECIALTY SYSTEMS DRAWINGS AND ADJUST ALL WORK TO MEET THE REQUIREMENTS ON CONDITIONS SHOWN THEREON. DO NOT SCALE ELECTRICAL PLANS FOR FIXTURE, DEVICE OR APPLIANCE LOCATIONS. USE CONFIGURED DIMENSIONS IF GIVEN OR CHECK ARCHITECTURAL OR MECHANICAL DRAWINGS.	16.20	TEMPORARY CONSTRUCTION POWER: PROVIDE TEMPORARY ELECTRICAL POWER AND LIGHTING FOR ALL TRADES THAT REQUIRE SERVICE DURING THE COURSE OF THIS PROJECT. PROVIDE TEMPORARY SERVICE AND DISTRIBUTION AS REQUIRED. COMPLY WITH THE NEC AND OSHA REQUIREMENTS. (ENERGY COSTS BY OTHERS).
16.5	COPYRIGHT: THESE PLANS, SPECIFICATIONS AND ALL RELATED ADDENDA AND DOCUMENTS CONSTITUTE COPYRIGHT MATERIALS OF JP ENGINEERING. ALL RIGHTS CONFERRED BY THE COPYRIGHT AND SIMILAR LAWS ARE RESERVED TO JP ENGINEERING. THESE MATERIALS SHALL REMAIN THE SOLE PROPERTY OF JP ENGINEERING AND MAY NOT BE REPRODUCED, DISTRIBUTED TO OTHERS OR USED FOR ANY PURPOSE WHATSOEVER WITHOUT THE PRIOR WRITTEN CONSENT OF JP ENGINEERING.	16.21	SUBMITTALS: BEFORE ORDERING ANY EQUIPMENT, CONTRACTOR SHALL SUBMIT SIX COPIES OF FACTORY SHOP DRAWINGS FOR ALL LIGHTING FIXTURES, SWITCHGEAR, PANELS, MOTOR CONTROLLERS, WIRING DEVICES, ETC. PROPOSED FOR THIS PROJECT.
16.6	LOCATIONS: INDICATED LOCATIONS OF ALL OUTLETS AND EQUIPMENT ARE SUBJECT TO CHANGE. SHIFT/RELOCATE/RECONFIGURE ANY OUTLET, EQUIPMENT OR CONNECTION POINT UP TO 10' AS DIRECTED BY ENGINEER, AT NO ADDED COST.	16.22	SUBSTITUTIONS: PROPOSED SUBSTITUTIONS SHALL BE EQUAL OR SUPERIOR TO SPECIFIED ITEMS IN ALL RESPECTS. DETERMINATION OF EQUALITY RESTS SOLELY WITH ENGINEER. SUBSTITUTIONS MUST BE SUBMITTED A MINIMUM OF 10 WORKING DAYS PRIOR TO BID FOR CONSIDERATION. PROPOSED SUBSTITUTIONS PROVIDED LATER WILL NOT BE REVIEWED OR ALLOWED. BID SUBSTITUTED MATERIAL WILL ONLY BE ALLOWED IF ACCEPTED IN WRITING BY ENGINEER.
16.7	RECORD DRAWINGS: CONTRACTOR SHALL PROVIDE, PRIOR TO FINAL ACCEPTANCE AND OBSERVATION, ONE SET OF REVISED RECORD ELECTRICAL CONSTRUCTION DOCUMENTS ON REPRODUCIBLE MEDIUM INDICATING THE FOLLOWING ADDITIONAL INFORMATION: EXACT ROUTING OF ALL CONDUITS LARGER THAN 1" EXACT LOCATION OF ALL SERVICE GROUNDING/BONDING CONNECTIONS CONTRACTORS NAME, ADDRESS AND TELEPHONE NUMBER RECORD NOTATIONS SHALL BE CLEARLY DRAWN AT A DRAFTING APPEARANCE EQUAL TO THE ORIGINAL DRAWINGS. CONTRACTOR SHALL ALSO PROVIDE ALL OPERATING AND MAINTENANCE MANUALS PRIOR TO FINAL PAYMENT.	16.23	IDENTIFICATION: PROVIDE ENGRAVED NAMEPLATES FOR ALL SWITCHBOARDS, PANELS, TRANSFORMERS, DISCONNECTS, MOTOR STARTERS, CONTACTORS, TIME SWITCHES AND CABINETS. NAMEPLATES SHALL INCLUDE THE FOLLOWING INFORMATION AS APPLICABLE: DESIGNATION (i.e. PANEL A) FUNCTION (i.e. AIR HANDLER AH-1) VOLTAGE, PHASE, WIRE (i.e. 480 VOLT, 3Ø, 4W.) FEEDER SIZE (i.e. 4-#4/0 THWN CU IN 2" C.) SOURCE (i.e. SWITCHBOARD MSB) NAMEPLATES SHALL BE WHITE LETTERS ON BLACK FOR NORMAL EQUIPMENT AND WHITE LETTERS ON RED FOR EMERGENCY EQUIPMENT.
16.8	EXAMINATION OF SITE AND EXISTING CONDITIONS: BEFORE SUBMITTING A PROPOSAL, CONTRACTOR SHALL EXAMINE THE SITE AND FAMILIARIZE HIMSELF WITH THE EXISTING CONDITIONS AND LIMITATIONS. NO EXTRAS WILL BE ALLOWED BECAUSE OF THE CONTRACTOR'S MISUNDERSTANDING OF THE AMOUNT OF WORK INVOLVED OR HIS LACK OF KNOWLEDGE OF ANY SITE CONDITIONS WHICH MAY AFFECT HIS WORK. ANY APPARENT VARIANCE OF THE DRAWINGS OR SPECIFICATIONS FROM THE EXISTING CONDITIONS AT THE SITE SHALL BE CALLED TO THE ATTENTION OF THE ENGINEER BEFORE SUBMITTING A PROPOSAL.	16.24	GUARANTEE: THE COMPLETE ELECTRICAL SYSTEM, AND ALL PORTIONS THEREOF, SHALL BE GUARANTEED TO BE FREE FROM DEFECTS IN WORKMANSHIP AND MATERIALS FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE. PROMPTLY REMEDY SUCH DEFECTS AND ANY SUBSEQUENT DAMAGE CAUSED BY THE DEFECTS OR REPAIR THEREOF AT NO EXPENSE TO THE OWNER. LAMPS ARE EXEMPT FROM THIS GUARANTEE, BUT SHALL BE NEW AT TIME OF FINAL ACCEPTANCE.
16.9	EXISTING OUTLETS: EXISTING OUTLETS AND CIRCUITING NOT IN CONFLICT WITH NEW CONDITIONS SHALL REMAIN. EXTEND OUTLETS TO NEW SURFACES, CAULK AND PROVIDE JUMBO PLATES AS REQUIRED TO PRESENT A SERVICEABLE AND FINISHED APPEARANCE.	16.25	SUSPENDED CEILING SYSTEMS: ALL LAY-IN FIXTURES SHALL BE INDEPENDENTLY SUPPORTED BY TWO #12 SLACK WIRES ATTACHED TO TWO OPPOSITE CORNERS OF THE FIXTURE PER UBC & NEC REQUIREMENTS. THESE WIRES SHALL BE SECURED TO THE STRUCTURAL FRAMING SUCH THAT FAILURE OF THE SUSPENDED CEILING SHALL NOT ALLOW THE FIXTURE TO DROP.
16.10	EXISTING SWITCHGEAR: REUSE EXISTING SWITCHGEAR AND PANELS IN PLACE WHERE SO INDICATED. MODIFY AS REQUIRED TO ACCOMMODATE NEW WORK. PROVIDE NEW CIRCUIT BREAKERS AND/OR FUSES AS REQUIRED. REARRANGE EXISTING CIRCUITS WITHIN PANELS TO AGREE WITH NEW PANEL SCHEDULES. TRACE AND IDENTIFY ALL EXISTING CIRCUITS ON NEW RECORD PANEL SCHEDULES.	16.26	COORDINATION: THE CIVIL, ARCHITECTURAL, MECHANICAL, KITCHEN AND INTERIOR DRAWINGS CONTAIN DETAIL DESCRIPTIONS, CIRCUITING AND CONNECTION REQUIREMENTS WHICH ARE PART OF DIVISION 16 RESPONSIBILITIES. ELECTRICAL CONTRACTOR SHOULD NOT SUBMIT BIDS ON THIS PROJECT BEFORE REVIEWING ALL PROJECT DRAWINGS, SPECIFICATIONS AND ADDENDA.
16.11	DEMOLITION: PROVIDE COMPLETE ELECTRICAL DEMOLITION: REMOVE EXISTING OUTLETS AND EQUIPMENT IN CONFLICT WITH NEW CONDITIONS. EXISTING CONDUITS REMOVED FROM SERVICE MAY BE ABANDONED IN PLACE IF IN A CONCEALED LOCATION. REMOVE ALL WIRE FROM ABANDONED RACEWAYS. CONTRACTOR SHALL INSURE CONTINUITY OF EXISTING CIRCUITING PASSING THROUGH DEMOLITION AREAS. EXTEND AND/OR RELOCATE AS NECESSARY. SHIFT/RELOCATE EXISTING EQUIPMENT AND CIRCUITING AS REQUIRED TO ACCOMMODATE NEW WORK.	16.27	ONGOING OPERATION: CONDUCT WORK TO MINIMIZE DISRUPTION OF OWNER'S ONGOING OPERATIONS. PROVIDE BARRICADES, NOISE ABATEMENT AND DUST CONTAINMENT MEASURES TO ENSURE THE SAFETY AND COMFORT OF PATRONS, STAFF AND WORKERS. INTERRUPTIONS OF EXISTING POWER, COMMUNICATIONS OR FIRE ALARM SYSTEMS SHALL BE PERFORMED ONLY AT SUCH TIMES AS DIRECTED BY RESIDENT ENGINEER. OUTAGES SHALL BE MOMENTARY IN NATURE. EACH SUCH OUTAGE (OR OPERATION WHICH MAY POSE RISK OF AN ACCIDENTAL OUTAGE) SHALL BE SCHEDULED 48 HOURS IN ADVANCE.
16.12	SALVAGE: ALL EXISTING EQUIPMENT REMOVED DURING THE COURSE OF THIS PROJECT SHALL BE OFFERED TO OWNER FOR SALVAGE. ANY EQUIPMENT SELECTED BY OWNER SHALL BE DELIVERED TO OWNER ON SITE. ALL REMAINING EQUIPMENT BECOMES THE PROPERTY OF THIS CONTRACTOR AND SHALL BE REMOVED FROM THE SITE.	16.28	FIRE ALARM: EXISTING FIRE ALARM SYSTEM TO REMAIN: MAINTAIN IN CONSTANT OPERATION DURING THIS PROJECT. NEW COMPONENTS AND CIRCUITING SHALL BE FACTORY-CERTIFIED AS BEING PROJECT-SPECIFIC COMPATIBLE WITH EXISTING SYSTEM. ALL CONNECTIONS TO EXISTING SYSTEM SHALL BE PERFORMED BY FACTORY-CERTIFIED TECHNICIAN AND SHALL BE ACCEPTED BY OWNER'S SYSTEM-MONITORING AGENCY. PLANS DO NOT INDICATE ALL DEVICES, CONNECTIONS OR CIRCUITING REQUIRED FOR A COMPLETE SYSTEM. SUBMIT PROPOSED DESIGN TO THE FIRE MARSHAL AND RECEIVE APPROVAL PRIOR TO ROUGH-IN.
16.13	TESTING: PRIOR TO PLACING IN SERVICE, ALL ELECTRICAL SYSTEMS SHALL BE TESTED FOR OPENS, GROUNDS, AND PHASE ROTATION. THE MAIN SERVICE GROUND AND ALL LOCAL TRANSFORMER MADE GROUNDS SHALL BE MEGGER-TESTED.		
16.14	GROUNDING: TEST EXISTING SERVICE NEUTRAL FOR ADEQUACY AND FOR GROUND CONTINUITY. GROUND ALL EQUIPMENT AND SYSTEM NEUTRAL IN ACCORDANCE WITH ARTICLE 250 OF THE NEC. EQUIPMENT GROUNDS HAVE NOT BEEN SHOWN ON DRAWINGS - WHERE GROUND WIRES HAVEN'T BEEN SHOWN THEY INDICATE AN INSULATED GROUND.		
16.15	EQUIPMENT STANDARDS: ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND OF THE HIGHEST QUALITY AVAILABLE ("SPECIFICATION GRADE"). SERVICE EQUIPMENT SHALL BE FACTORY-ASSEMBLED COMMERCIAL-GRADE, CONFIGURED PER SERVING UTILITY STANDARDS. WIRING DEVICES SHALL BE SPECIFICATION GRADE WITH NYLON PLATES, WHITE UNLESS OTHERWISE NOTED, RAISED STEEL BOX COVERS MAY BE USED IN UTILITY AREAS.		
16.16	MATCH EXISTING: EXISTING EQUIPMENT AND SYSTEMS SHALL BE CONSIDERED A MINIMUM STANDARD TO BE MET, IF NOT OTHERWISE EXCEEDED BY THESE PLANS AND SPECIFICATIONS. NEW MATERIALS AND EQUIPMENT SHALL MATCH EXISTING IN APPEARANCE AND FUNCTION.		

MASTER SYMBOL LIST

SIGNAL OUTLETS		RECEPTACLES		ABBREVIATIONS	
▼	TELEPHONE: 4S BOX WITH SINGLE GANG MUD RING UON, +18" AFF UON	⇒⇒	DUPLEX: 20A, 125V, NEMA 5-20, +18" AFF	☪	CENTERLINE
▽	TELEPHONE: 4S BOX WITH SINGLE GANG MUD RING UON, WALL MOUNT +54" AFF UON	⇒⇒⇒	DOUBLE DUPLEX: 20A, 125V, NEMA 5-20, +18" AFF	AFF	ABOVE FINISHED FLOOR
▽	DATA: 4S BOX WITH SINGLE GANG MUD RING UON, +18" AFF UON	⇒⇒⇒	HALF SWITCHED DUPLEX: 20A, 125V, NEMA 5-20, +18" AFF (TOP HALF SWITCHED)	AIC	AMPERES INTERRUPTING CAPACITY
▽	VOICE/DATA: 4S BOX WITH SINGLE GANG MUD RING UON, +18" AFF UON	⇒⇒⇒	DUPLEX GFCI: 20A, 125V, GFCI, NEMA 5-20 GFR, +18" AFF	AFC	ABOVE FINISH CEILING
▽	TELEVISION: 4S BOX WITH SINGLE GANG MUD RING UON, +18" AFF UON	⇒⇒⇒	DUPLEX I.G.: 20A, 125V, ISO. GND., NEMA 5-20 IG +18" AFF (WHITE WITH ORANGE TRIANGLE, UON)	BMS	BUILDING MANAGEMENT SYSTEM
▽	CAMERA: 4S BOX WITH SINGLE GANG MUD RING UON, CEILING MOUNTED UON	⇒⇒⇒	DOUBLE DUPLEX I.G.: 20A, 125V, ISO. GND., NEMA 5-20 IG +18" AFF (WHITE WITH ORANGE TRIANGLE, UON)	C	CONDUIT
Ⓜ	MICROPHONE: 4S BOX WITH SINGLE GANG MUD RING UON, +18" AFF UON	⇒⇒⇒	SPECIAL RECEPTACLE - AS INDICATED ON PLANS, +18" AFF	CB	CIRCUIT BREAKER
Ⓧ	VOLUME CONTROL: 4S BOX WITH SINGLE GANG MUD RING UON, +48" TO TOP UON	NOTE: DIAMOND SYMBOLS INDICATES DEDICATED CIRCUIT.		CLG	CEILING
Ⓢ	SPEAKER: 8" COAXIAL WITH BACK BOX AND GRILLE, CEILING MOUNTED UON	EQUIPMENT		CIR	CIRCUIT
3/4	3/4" (UON) STUB INTO ACCESSIBLE CEILING SPACE	SWITCHBOARD		DPDT	DOUBLE POLE DOUBLE THROW
SWITCHES		PANELBOARD: SURFACE MOUNTED		DPST	DOUBLE POLE SINGLE THROW
S	SINGLE POLE: 20A, 120/277V, +48" TO TOP UON	PANELBOARD: FLUSH MOUNTED		(E)	EXISTING TO REMAIN
S ₂	TWO POLE: 20A, 120/277V, +48" TO TOP UON	TRANSFORMER		ELEV	ELEVATOR
S ₃	THREE WAY: 20A, 120/277V, +48" TO TOP UON	RELAY (120V COIL, STEP DN XFMR IF REQUIRED, UON)		EMT	ELECTRICAL METALLIC TUBING
S ₄	FOUR WAY: 20A, 120/277V, +48" TO TOP UON	CONTACTOR (120V COIL, STEP DN XFMR IF REQUIRED, UON)		EPO	EMERGENCY POWER OFF SYSTEM
S _x	X INDICATES EMERGENCY CIRCUIT	COMBINATION MAGNETIC STARTER/FUSED DISCONNECT		FBO	FURNISHED BY OTHERS
S _p	P INDICATES PILOT LIGHT (LIGHTED WHEN ON)	NON-FUSIBLE DISCONNECT SWITCH		FPEN	FUSE PER EQUIPMENT NAMEPLATE
S _l	L INDICATES PILOT LOCATOR (LIGHTED WHEN OFF)	FUSIBLE DISCONNECT SWITCH		FLUOR	FLUORESCENT
S _k	K INDICATES KEY OPERATED SWITCH	PULLBOX: SIZE AS REQUIRED BY NEC		FU	FUSE: DUAL-ELEMENT, TIME DELAY
S _m	MANUAL MOTOR STARTER: 20A, 120/277V, POLES AND HEATERS AS REQUIRED	JUNCTION BOX: SIZE AS REQUIRED BY NEC		GFI/GFCI	GROUND FAULT INTERRUPTER
S _{mc}	MOMENTARY CONTACT: 20A, 120/277V, SPDT CENTER NORMALLY OFF UON, +48" TO TOP UON	SURFACE RACEWAY WITH OR WITHOUT DEVICES		GND	GROUND
D	DIMMER: 600 WATT UON, ELECTRONIC SLIDER WITH ON/OFF TOGGLE, +48" TO TOP UON (PLANS SHALL INDICATE TYPE: FLUOR, INCAND OR LOW-VOLTAGE)	TELEPOWER POLE		HOA	HAND-OFF-AUTOMATIC
◆	MOTION/OCCUPANCY SENSOR SWITCH WITH OFF-AUTO SELECTOR - WALL MOUNTED AT +48" TO TOP UON	CIRCUITING		HID	HIGH INTENSITY DISCHARGE
Ⓢ = 360	ULTRASONIC MOTION/OCCUPANCY SENSOR SWITCH CEILING MOUNTED	CONDUIT IN WALL OR ABOVE CEILING		IG	ISOLATED GROUND
Ⓢ = 180	ARROWS INDICATE DIRECTION AND COVERAGE	CONDUIT IN FLOOR OR BELOW GRADE		INCAND	INCANDESCENT
Ⓢ = 90	PROVIDE WITH POWER PACK PER MANUFACTURERS REQUIREMENTS	METAL CLAD CABLE (MC)		K	kcmil (300K = 300 kcmil)
Ⓢ	PHOTO ELECTRIC SWITCH: 1600VA UON	OVERHEAD SERVICE		LTG	LIGHTING
METHODS		PRIMARY		LV	LOW VOLTAGE
Ⓢ ₁	SHADING INDICATES: FIXTURE, OUTLET, EQUIPMENT, ETC. ON EMERGENCY "X" OR NIGHT LIGHT "NL" CIRCUIT	SECONDARY		MCP	MOTOR CIRCUIT PROTECTOR
SS	DEVICE MOUNTED IN MULTIPLE UNDER COMMON COVER MAXIMUM HEIGHT ON WALL SHALL BE +48" TO TOP UON	TELEPHONE		MC	MULTI-CONDUCTOR CABLE
Ⓢ	DEVICES MOUNTED IN OR ABOVE COUNTER/BACKSPLASH: MAXIMUM HEIGHT ON WALLS SHALL BE +48" TO TOP UON	TELEVISION		(N)	NEW
Ⓢ	FLUSH FLOOR MOUNTED WIRING DEVICES	LOW VOLTAGE AND/OR CONTROL CIRCUITING		NC	NORMALLY CLOSED
Ⓢ	FLUSH FLOOR MOUNTED WIRING DEVICES IN SINGLE MULTI-COMPARTMENT BOX	EMERGENCY CIRCUIT		NEUT	NEUTRAL
Ⓢ	RECEPTACLE MOUNTED IN CEILING OR CASEWORK	STUB OUT: MARK AND CAP (SITE)		NL	NIGHT LIGHT
Ⓢ	FINE DASHING INDICATES EXISTING EQUIPMENT AND DEVICES TO BE REMOVED	CIRCUITING UP OR DOWN		NO	NORMALLY OPEN
DESIGNATIONS		TICS = NO. OF #12 WIRES (UON) IF MORE THAN TWO WITHIN CONDUIT OR MC		NTS	NOT TO SCALE
F1	LIGHT FIXTURE: F1 = TYPE (SEE FIXTURE SCHEDULE)	ISOLATED GROUNDING CONDUCTOR		PNL	PANEL
2	SHEET NOTE	GROUNDING CONDUCTOR		PVC	POLYVINYL CHLORIDE CONDUIT
Δ	REVISION DELTA: NUMBER REPRESENTS REVISION	NEUTRAL CONDUCTOR		(R)	EXISTING TO BE RELOCATED
AC	MECHANICAL AND PLUMBING EQUIPMENT	PHASE CONDUCTOR(S)		RAC	RIGID ALUMINUM CONDUIT
A	MISCELLANEOUS: THESE AND OTHER SYMBOLS AS INDICATED IN TABLES AND SCHEDULES ON THE PLANS.	ISOLATED GROUNDING CONDUCTOR		RSC	RIGID STEEL CONDUIT
NOTE: THIS IS A MASTER SYMBOL LIST, ALL SYMBOLS SHOWN MAY NOT BE USED WITHIN THIS SET OF PLANS		NEUTRAL CONDUCTOR (ONE PER PHASE CONDUCTOR)		SLD	SINGLE LINE DIAGRAM
		PANEL DESIGNATION		SO	SEAL OFF
		MISCELLANEOUS		SPDT	SINGLE POLE DOUBLE THROW
		THERMOSTAT: AT +54" TO TOP UON (OR PER MECH PLANS)		SPEN	SIZE PER EQUIPMENT NAMEPLATE
		EXHAUST FAN: FRACTIONAL HORSEPOWER		SPST	SINGLE POLE SINGLE THROW
		MOTOR: NUMBER = HORSEPOWER		TEL	TELECOM
		SIGNAGE CONNECTION		TYF	TYPICAL
		SHUNT TRIP STATION: +7"-6" AFF, 12" RED TRIANGLE, UON		UNSW	UNSWITCHED
		CONTROL STATION: AT +48" TO TOP UON		UON	UNLESS OTHERWISE NOTED
		DUAL LEVEL LIGHTING CONTROL SWITCH 'a' = CENTER (1) LAMP SWITCH 'b' = OUTER (2) LAMPS		WP	WEATHERPROOF (NEMA 3R)
				WT	WATERTIGHT
				(X)	EXISTING TO BE REMOVED
				XFMR	TRANSFORMER
				XP	EXPLOSION PROOF

#13045

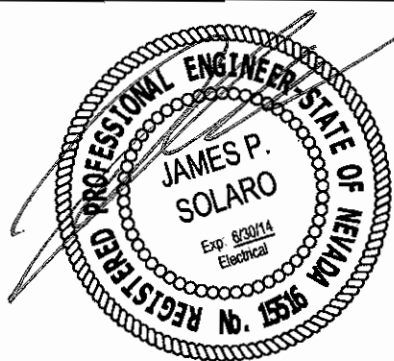


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Professional Seal Date Revision



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1/30/14

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Renovation

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Sparks, NV 89434

SYMBOL LIST
AND DRAWING INDEX

August 23, 2013
H+K Project No.: 1309

E0.1



4. Independent controls for each space (switch/occupancy sensor).

Exemptions:

- Areas designated as security or emergency areas that must be continuously illuminated.
- Lighting in stairways or corridors that are elements of the means of egress.

5. Master switch at entry to hotel/motel guest room.

6. Individual dwelling units separately metered.

7. Medical task lighting or arthistory display lighting claimed to be exempt from compliance has a control device independent of the control of the nonexempt lighting.

8. Each space required to have a manual control also allows for reducing the connected lighting load by at least 50 percent by either controlling all luminaires, dual switching of alternate rows of luminaires, alternate luminaires, or alternate lamps, switching the middle lamp luminaires independently of other lamps, or switching each luminaire or each lamp.

Exemptions:

- Only one luminaire in space.
- An occupant-sensing device controls the area.
- The area is a corridor, storeroom, restroom, public lobby or sleeping unit.
- Areas that use less than 0.8 Watts/sq.ft.

9. Automatic lighting shutoff control in buildings larger than 5,000 sq.ft.

Exemptions:

- Sleeping units, patient care areas, and spaces where automatic shutoff would endanger safety or security.

10. Photocell/astromerical time switch on exterior lights.

Exemptions:

- Lighting intended for 24 hour use.

11. Tandem wired one-lamp and three-lamp ballasted luminaires (No single-lamp ballasts).

Exemptions:

- Electronic high-frequency ballasts; Luminaires on emergency circuits or with no available pair.

Section 5: Compliance Statement

Compliance Statement: The proposed lighting alteration project represented in this document is consistent with the building plans, specifications and other calculations submitted with this permit application. The proposed lighting alteration project has been designed to meet the 2009 IECC, Chapter 8, requirements in COMcheck Version 3.9.2 and to comply with the mandatory requirements in the Requirements Checklist.

Name: Title Signature Date

Project Title: Alf Sorensen Natatorium Renovation
Data filename: J:\2013\13045 - Alf Sorensen Pool\1. Admin\13045 - Alf Sorensen Pool.ccd
Report date: 01/30/14
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COMcheck Software Version 3.9.2
Interior Lighting Compliance Certificate

2009 IECC

Section 1: Project Information

Project Type: Alteration
Project Title: Alf Sorensen Natatorium Renovation

Construction Site: 1400 Baring Blvd, Sparks, NV 89431
Owner/Agent:
Designer/Contractor: James Solaro, PE, JP Engineering, LLC, 10597 Double R Blvd, Reno, NV 89521, 775-852-2337

Section 2: Interior Lighting and Power Calculation

A Area Category	B Floor Area (ft ²)	C Allowed Watts / ft ²	D Allowed Watts (B x C)
Natatorium Areas (Sports Arena)	12361	1.1	13597
Total Allowed Watts =			13597

Section 3: Interior Lighting Fixture Schedule

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt	E (B x C) Watt
Natatorium Areas (Sports Arena) (12361 sq ft)				
Linear Fluorescent 1.1 Ft. See Fixture Schedule: 48" T8 32W Electronic	2	1	65	65
LED 1: L1: See Fixture Schedule: LED MR 8W	1	6	8	48
LED 2: L2: See Fixture Schedule: Other	1	3	27	81
LED 3: L3: See Fixture Schedule: Other	1	42	161	8022
Total Proposed Watts =				8216

Section 4: Requirements Checklist

Interior Lighting PASSES

Lighting Wattage:

1. Total proposed watts must be less than or equal to total allowed watts.

Allowed Watts	Proposed Watts	Complies
13597	8216	Passes

Controls, Switching, and Wiring:

2. Daylight zones under skylights more than 15 feet from the perimeter have lighting controls separate from daylight zones adjacent to vertical fenestration.

3. Daylight zones have individual lighting controls independent from that of the general area lighting.

Exemptions:

- Contiguous daylight zones spanning no more than two orientations are allowed to be controlled by a single controlling device.
- Daylight spaces enclosed by walls or ceiling height partitions and containing two or fewer light fixtures are not required to have a separate switch for general area lighting.

Project Title: Alf Sorensen Natatorium Renovation
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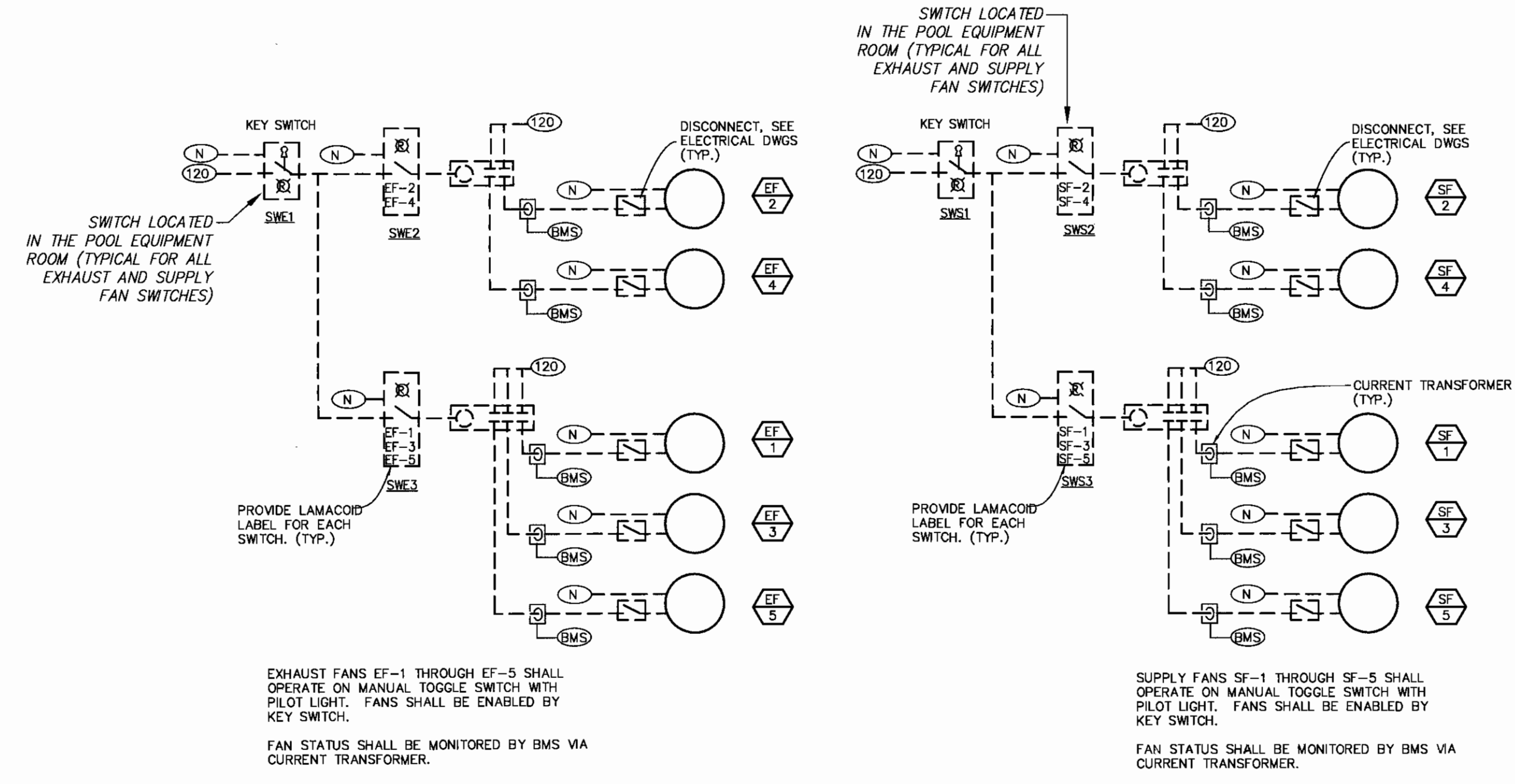
LIGHTING FIXTURE SCHEDULE

LIGHTING FIXTURE CATALOG NUMBERS ARE SERIES TYPE ONLY. PROVIDE TRIMS, BALLASTS, MOUNTING EQUIPMENT, FITTINGS AND LAMPS AS REQUIRED BY THE SPECIFICATIONS AND PROJECT CONDITIONS FOR A COMPLETE INSTALLATION. THIS IS NOT A STANDALONE SCHEDULE AND FIXTURES MUST INCORPORATE ALL WORK INDICATED OR IMPLIED THROUGHOUT THE DRAWINGS AND SPECIFICATIONS.

TYPE	SYMBOL	SKETCH	DESCRIPTION AND MANUFACTURER
F1	[Symbol]	[Sketch]	4'-0" 2-LAMP FLUORESCENT STRIP WITH REFLECTOR. PROVIDE GENERIC ELECTRONIC BALLAST. MOUNTING HEIGHT: +/- 8'-0" ABOVE LANDING LAMP: (2) 32W T8 4100K VOLTAGE: 120V/277V MANUFACTURER: LITHONIA: C 232 MVOLT GEB10IS CSMR48 SUBSTITUTIONS: OR EQUAL SUBJECT TO REVIEW NO EQUAL
L1	[Symbol]	[Sketch]	6" RECESSED LED DOWNLIGHT WITH WHITE BAFFLE. MOUNTING HEIGHT: RECESSED LAMP: 6.9W, 620 LUMEN LED VOLTAGE: 277V MANUFACTURER: LITHONIA: 6BP MW LED L7XLED24 277 SDT SUBSTITUTIONS: OR EQUAL SUBJECT TO REVIEW NO EQUAL
L2	[Symbol]	[Sketch]	4.5" WIDE LED WALL MOUNTED FIXTURE, RATED FOR NATATORIUM ENVIRONMENT. WHITE FINISH. MOUNTING HEIGHT: ON BACK SIDE OF HEADER LAMP: (1) LED PANEL VOLTAGE: 277V MANUFACTURER: LUMINAIRE LED: YPF4 4 28W HP 3500K 277 CP WHI WET SUBSTITUTIONS: OR EQUAL SUBJECT TO REVIEW NO EQUAL
L3	[Symbol]	[Sketch]	NATATORIUM RATED LED FIXTURE. MOUNTING PER FACTORY RECOMMENDATION. MOUNTING HEIGHT: +/- 12'-4" AFF LAMP: (4) LED BARS - 4000K VOLTAGE: 277V MANUFACTURER: LUX DYNAMICS: LED 4 UNV 0 B40 C4/10 10DIM XXX LADC-4 SUBSTITUTIONS: OR EQUAL SUBJECT TO REVIEW NO EQUAL

DF	DESCRIPTION	LOAD	BKR	CR	A	B	C	CR	LOCATION	DESCRIPTION	DF
	EXISTING LOAD		20/1	1	0			2	20/1	EXISTING LOAD	
	EXISTING LOAD		20/1	3	0	0		4	20/1	EXISTING LOAD	
	EXISTING LOAD		20/1	5	0	0	0	6	20/1	EXISTING LOAD	
	EXISTING LOAD		20/1	7	0			8	20/1	EXISTING LOAD	
	EXISTING LOAD		20/1	9		0		10	20/1	EXISTING LOAD	
L	NEW POOL LIGHTING	4100	20/1	11			4100	12	20/1	EXISTING LOAD	
L	NEW POOL LIGHTING	4155	20/1	13	4155			14	20/1	EXISTING LOAD	
	SPARE		20/1	15				16	20/1	EXISTING LOAD	
	EXISTING LOAD		20/1	17			0	18	20/1	EXISTING LOAD	
	SPARE		20/1	19	0			20	20/1	EXISTING LOAD	
	EXISTING LOAD		20/1	21		0		22	20/1	EXISTING LOAD	
	EXISTING LOAD		20/1	23		0	0	24	20/1	EXISTING LOAD	
	EXISTING LOAD		20/1	25	0			26	20/1	EXISTING LOAD	
	EXISTING LOAD		20/1	27		0		28	20/1	EXISTING LOAD	
	EXISTING LOAD		20/1	29		0	0	30	20/1	EXISTING LOAD	
L	LTG CONT. C-POOL	400	20/1	31	400			32	20/1	SPARE	
	SPACE			33		0		34		SPACE	
	SPACE			35			0	36		SPACE	
	SPACE			37	0			38		SPACE	
	SPACE			39		0		40		SPACE	
	SPACE			41			0	42		SPACE	
	AMPS:	225			NEUTRAL BUS:	100%			CON. KVA:	8.7	
	VOLTAGE:	480			GROUND BUS:	STANDARD			CON. AMPS:	10.4	
	PHASE/WIRE:	3-PH, 4-W			AIC RATING:	EXISTING			NET KVA:	10.8	
	MAIN:				NEMA RATING:	1			NET AMPS:	13.0	
	LUGS:	MLO			EXISTING PANEL:				Notes:		
	MOUNTING:	FLUSH							NEW LOAD ADDED TO EXISTING PANEL. SHIFT AND ADJUST EXISTING BRANCH CIRCUIT AS REQUIRED TO ACCOMMODATE NEW CONDITION		
	DOOR:	COPPER									

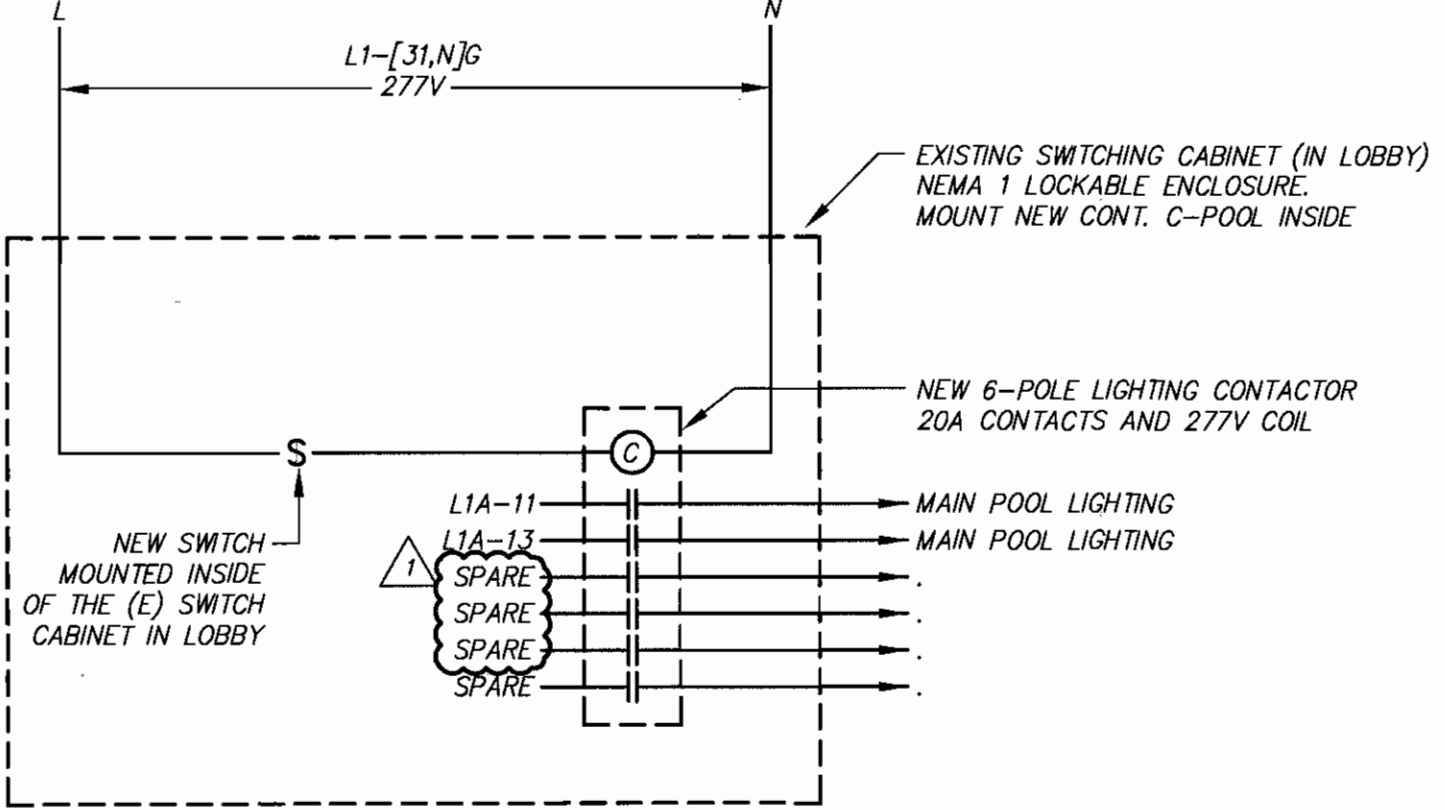
DF	DESCRIPTION	LOAD	BKR	CR	A	B	C	CR	LOCATION	DESCRIPTION	DF
	EXISTING LOAD		20/1	1	0			2	20/1	EXISTING LOAD	
	EXISTING LOAD		20/1	3	0	0		4	20/1	EXISTING LOAD	
	EXISTING LOAD		20/1	5	0	0	0	6	20/1	EXISTING LOAD	
	EXISTING LOAD		20/1	7	0			8	20/1	EXISTING LOAD	
	EXISTING LOAD		20/1	9		0		10	20/1	EXISTING LOAD	
	EXISTING LOAD		20/1	11		0		12	20/1	EXISTING LOAD	
	EXISTING LOAD		20/1	13	0			14	20/1	EXISTING LOAD	
	EXISTING LOAD		20/1	15		0		16	20/1	EXISTING LOAD	
	EXISTING LOAD		20/1	17		0		18	20/1	EXISTING LOAD	
	EXISTING LOAD		20/1	19		0		20	20/1	EXISTING LOAD	
	EXISTING LOAD		20/1	21		0		22	20/1	EXISTING LOAD	
	EXISTING LOAD		20/1	23		0	0	24	20/1	EXISTING LOAD	
	EXISTING LOAD		20/1	25	0			26	20/1	EXISTING LOAD	
M	SUPPLY FAN SF-1	2070	30/1	27		3366		28	20/1	1296	EF-1
M	SUPPLY FAN SF-2	2070	30/1	29			3366	30	20/1	1296	EF-2
M	SUPPLY FAN SF-3	2070	30/1	31		3366		32	20/1	1296	EF-3
M	SUPPLY FAN SF-4	2070	30/1	33			3366	34	20/1	1296	EF-4
M	SUPPLY FAN SF-5	2070	30/1	35			3366	36	20/1	1296	EF-5
				37	1296			38	20/1	1296	EF-6
				39		1800		40	20/1	1800	SOUND EQUIPMENT
				41			0	42			
	AMPS:	225			NEUTRAL BUS:	100%			CON. KVA:	19.9	
	VOLTAGE:	208			GROUND BUS:	STANDARD			CON. AMPS:	55.3	
	PHASE/WIRE:	3-PH, 4-W			AIC RATING:	EXISTING			NET KVA:	20.4	
	MAIN:				NEMA RATING:	1			NET AMPS:	56.7	
	LUGS:	MLO			EXISTING PANEL:				Notes:		
	MOUNTING:	SURFACE							NEW LOAD ADDED TO EXISTING PANEL. SHIFT AND ADJUST EXISTING BRANCH CIRCUIT AS REQUIRED TO ACCOMMODATE NEW CONDITION		
	DOOR:	COPPER									



B CONTROL DIAGRAM AND SEQUENCE
E0.2 SCALE: NOT TO SCALE

LEGEND

- WORK BY ELECTRICAL CONTRACTOR
- WORK BY CONTROL CONTRACTOR



A LIGHTING CONTACTOR C-POOL
E0.2 SCALE: NOT TO SCALE

#13045

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REGISTERED PROFESSIONAL ENGINEER STATE OF NEVADA
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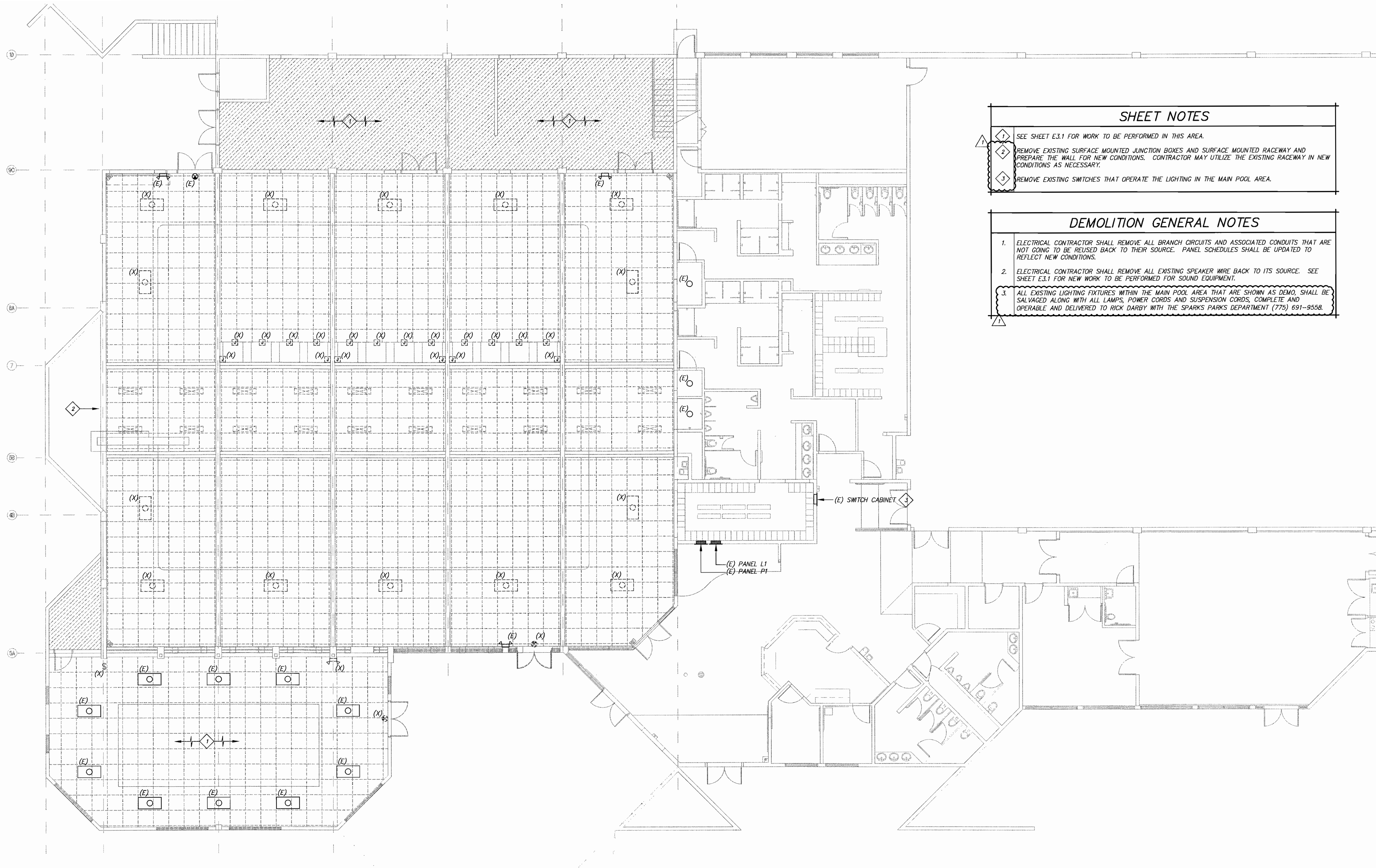
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SCHEDULES AND COMPLIANCE DOCS

August 23, 2013
H+K Project No.: 1309

E0.2

h:k



SHEET NOTES

1. SEE SHEET E.3.1 FOR WORK TO BE PERFORMED IN THIS AREA.
2. REMOVE EXISTING SURFACE MOUNTED JUNCTION BOXES AND SURFACE MOUNTED RACEWAY AND PREPARE THE WALL FOR NEW CONDITIONS. CONTRACTOR MAY UTILIZE THE EXISTING RACEWAY IN NEW CONDITIONS AS NECESSARY.
3. REMOVE EXISTING SWITCHES THAT OPERATE THE LIGHTING IN THE MAIN POOL AREA.

DEMOLITION GENERAL NOTES

1. ELECTRICAL CONTRACTOR SHALL REMOVE ALL BRANCH CIRCUITS AND ASSOCIATED CONDUITS THAT ARE NOT GOING TO BE REUSED BACK TO THEIR SOURCE. PANEL SCHEDULES SHALL BE UPDATED TO REFLECT NEW CONDITIONS.
2. ELECTRICAL CONTRACTOR SHALL REMOVE ALL EXISTING SPEAKER WIRE BACK TO ITS SOURCE. SEE SHEET E.3.1 FOR NEW WORK TO BE PERFORMED FOR SOUND EQUIPMENT.
3. ALL EXISTING LIGHTING FIXTURES WITHIN THE MAIN POOL AREA THAT ARE SHOWN AS DEMO, SHALL BE SALVAGED ALONG WITH ALL LAMPS, POWER CORDS AND SUSPENSION CORDS, COMPLETE AND OPERABLE AND DELIVERED TO RICK DARBY WITH THE SPARKS PARKS DEPARTMENT (775) 691-9558.

A	ELECTRICAL DEMOLITION PLAN	
E1.1	SCALE: 1/8" = 1'-0"	

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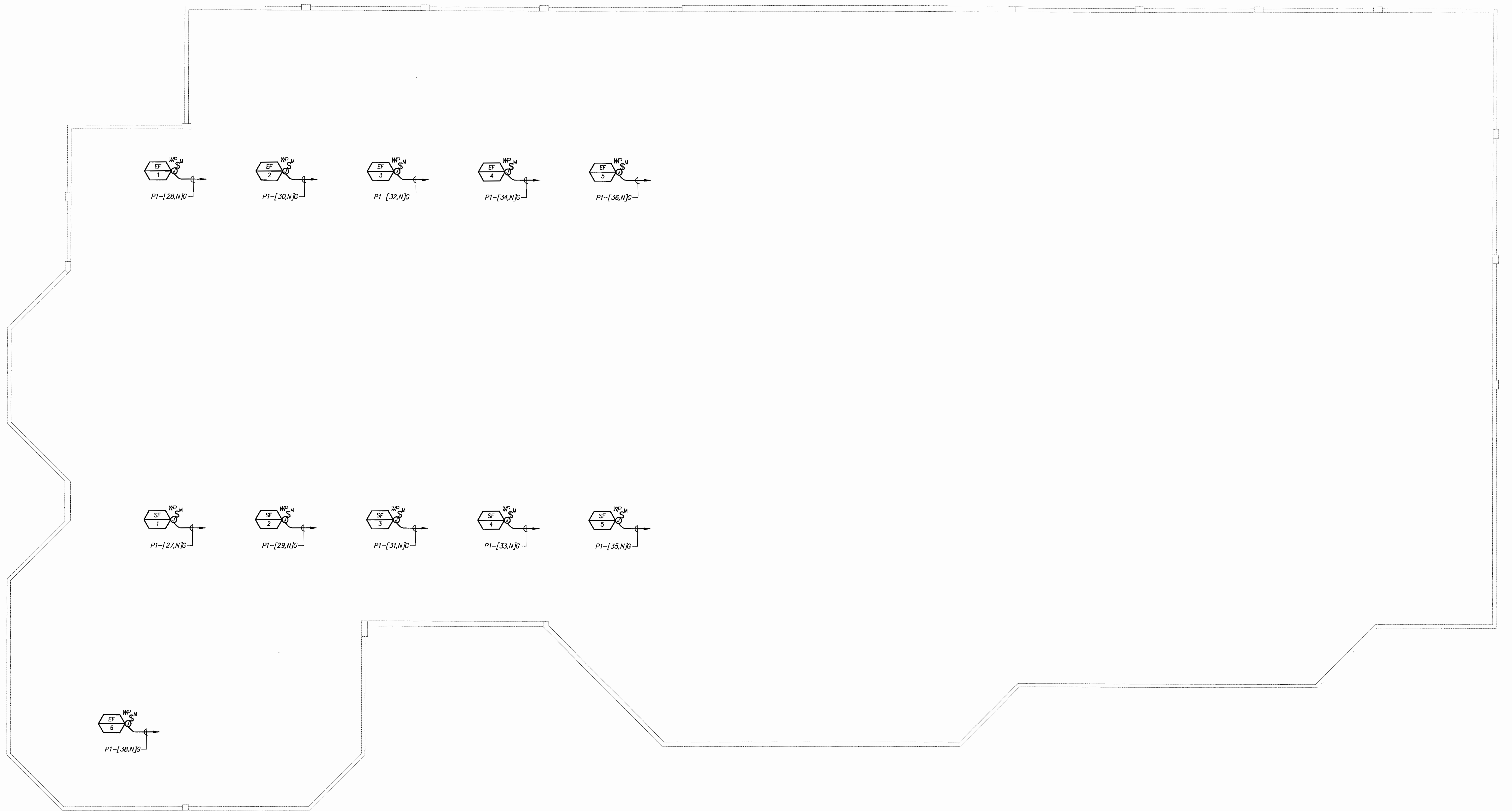
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ELECTRICAL
DEMOLITION PLAN

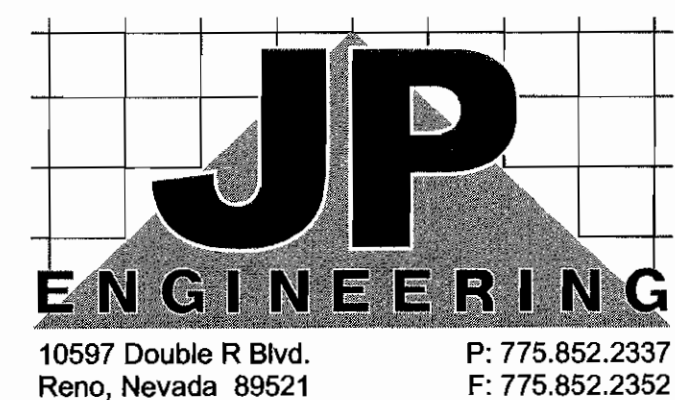
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E1.1



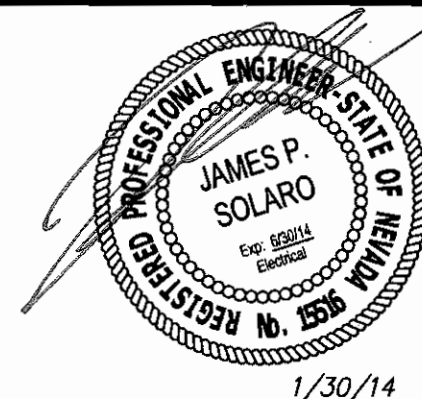
A	ROOF ELECTRICAL PLAN	
E2.1	SCALE: 1/8" = 1'-0"	

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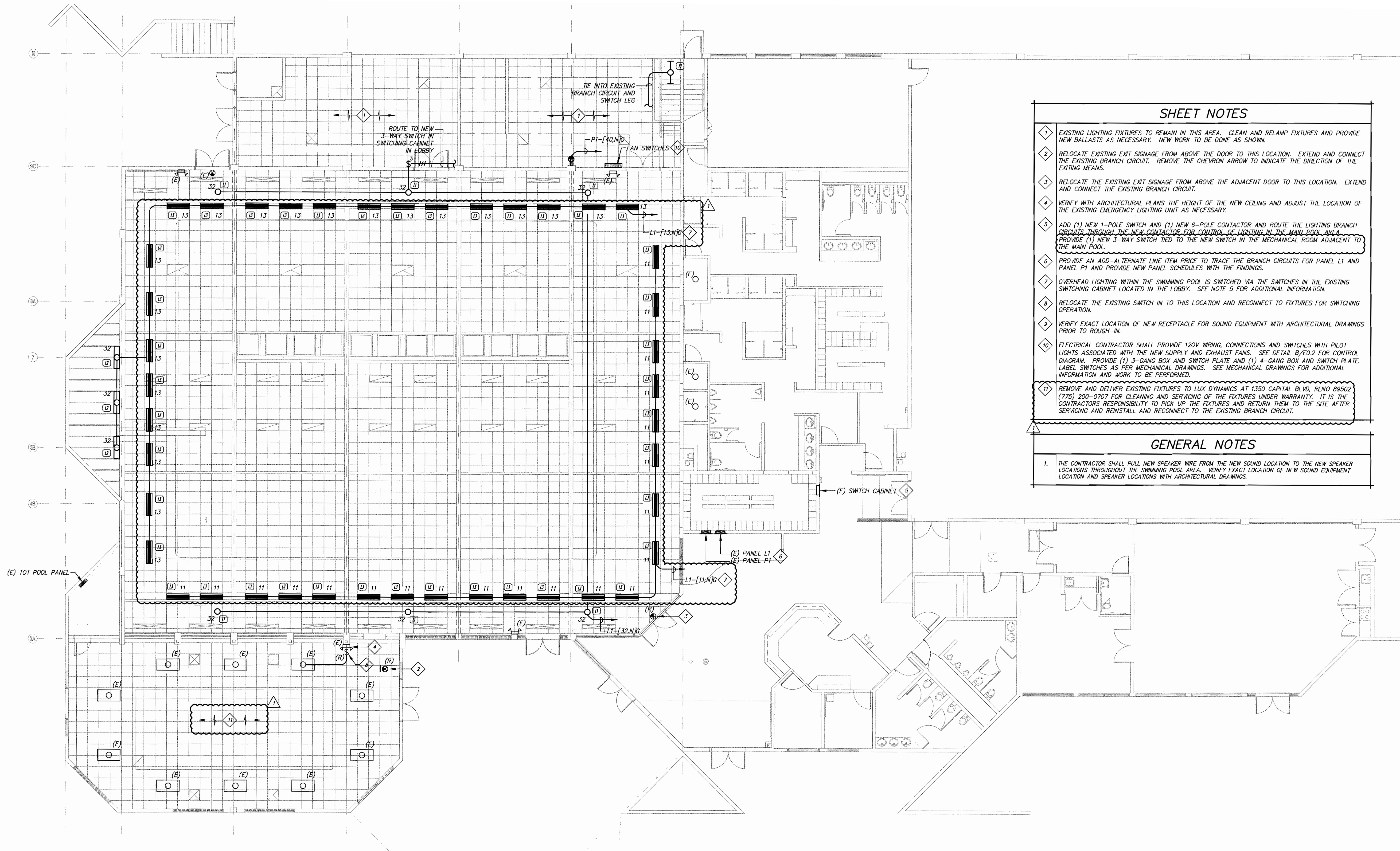
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ROOF ELECTRICAL
 PLAN

August 23, 2013
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E2.1





SHEET NOTES

- 1 EXISTING LIGHTING FIXTURES TO REMAIN IN THIS AREA. CLEAN AND RELAMP FIXTURES AND PROVIDE NEW BALLASTS AS NECESSARY. NEW WORK TO BE DONE AS SHOWN.
- 2 RELOCATE EXISTING EXIT SIGNAGE FROM ABOVE THE DOOR TO THIS LOCATION. EXTEND AND CONNECT THE EXISTING BRANCH CIRCUIT. REMOVE THE CHEVRON ARROW TO INDICATE THE DIRECTION OF THE EXITING MEANS.
- 3 RELOCATE THE EXISTING EXIT SIGNAGE FROM ABOVE THE ADJACENT DOOR TO THIS LOCATION. EXTEND AND CONNECT THE EXISTING BRANCH CIRCUIT.
- 4 VERIFY WITH ARCHITECTURAL PLANS THE HEIGHT OF THE NEW CEILING AND ADJUST THE LOCATION OF THE EXISTING EMERGENCY LIGHTING UNIT AS NECESSARY.
- 5 ADD (1) NEW 1-POLE SWITCH AND (1) NEW 6-POLE CONTACTOR AND ROUTE THE LIGHTING BRANCH CIRCUITS THROUGH THE NEW CONTACTOR FOR CONTROL OF LIGHTING IN THE MAIN POOL AREA. PROVIDE (1) NEW 3-WAY SWITCH TIED TO THE NEW SWITCH IN THE MECHANICAL ROOM ADJACENT TO THE MAIN POOL.
- 6 PROVIDE AN ADD-ALTERNATE LINE ITEM PRICE TO TRACE THE BRANCH CIRCUITS FOR PANEL L1 AND PANEL P1 AND PROVIDE NEW PANEL SCHEDULES WITH THE FINDINGS.
- 7 OVERHEAD LIGHTING WITHIN THE SWIMMING POOL IS SWITCHED VIA THE SWITCHES IN THE EXISTING SWITCHING CABINET LOCATED IN THE LOBBY. SEE NOTE 5 FOR ADDITIONAL INFORMATION.
- 8 RELOCATE THE EXISTING SWITCH IN TO THIS LOCATION AND RECONNECT TO FIXTURES FOR SWITCHING OPERATION.
- 9 VERIFY EXACT LOCATION OF NEW RECEPTACLE FOR SOUND EQUIPMENT WITH ARCHITECTURAL DRAWINGS PRIOR TO ROUGH-IN.
- 10 ELECTRICAL CONTRACTOR SHALL PROVIDE 120V WIRING, CONNECTIONS AND SWITCHES WITH PILOT LIGHTS ASSOCIATED WITH THE NEW SUPPLY AND EXHAUST FANS. SEE DETAIL B/EQ.2 FOR CONTROL DIAGRAM. PROVIDE (1) 3-GANG BOX AND SWITCH PLATE AND (1) 4-GANG BOX AND SWITCH PLATE. LABEL SWITCHES AS PER MECHANICAL DRAWINGS. SEE MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION AND WORK TO BE PERFORMED.
- 11 REMOVE AND DELIVER EXISTING FIXTURES TO LUX DYNAMICS AT 1350 CAPITAL BLVD, RENO 89502 (775) 200-0707 FOR CLEANING AND SERVICING OF THE FIXTURES UNDER WARRANTY. IT IS THE CONTRACTORS RESPONSIBILITY TO PICK UP THE FIXTURES AND RETURN THEM TO THE SITE AFTER SERVICING AND REINSTALL AND RECONNECT TO THE EXISTING BRANCH CIRCUIT.

GENERAL NOTES

1. THE CONTRACTOR SHALL PULL NEW SPEAKER WIRE FROM THE NEW SOUND LOCATION TO THE NEW SPEAKER LOCATIONS THROUGHOUT THE SWIMMING POOL AREA. VERIFY EXACT LOCATION OF NEW SOUND EQUIPMENT LOCATION AND SPEAKER LOCATIONS WITH ARCHITECTURAL DRAWINGS.

A LIGHTING PLAN
 E3.1 SCALE: 1/8" = 1'-0"

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LIGHTING PLAN

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E3.1