

ABBREVIATIONS

#	POUNDS(S) OR NUMBER	FOS	FACE OF STUD	PT	POINT OF TANGENCY
&	AND	FR	FIRE RESISTIVE or FIRE RATED	PTD	PAPER TOWEL DISPENSER
<	ANGLE	FRP	FIBERGLASS REINFORCED PANEL(ING)	PTDR	PAPER TOWEL DISPENSER AND RECEPTACLE
AV	AUDIO/VISUAL	FRT	FIRE RETARDANT TREATED	PTN	PARTITION
ABV	ANCHOR BOLT	FT	FOOT (FEET)	PTR	PAPER TOWEL RECEPTACLE
ACOUS	ACCOUSTICAL	FTG	FOOTING	PVC	POLYVINYL CHLORIDE
ACT	ACCOUSTICAL CEILING TILE	FURN	FURNISH(ED)	PVMT	PAVEMENT
AD	AREA DRAIN or ACCESS DOOR	FURR	FURRED or FURRING	QT	QUARRY TILE
ADD	ADDENDUM	FUT	FUTURE	QTY	QUANTITY
ADJ	ADJACENT or ADJUSTABLE	FVC	FIRE VALVE CABINET	(R)	REMOVE
AFF	ABOVE FINISHED FLOOR	GALV	GALVANIZED	R	RISER
AGG	AGGREGATE	GB	GRAB BAR	RAD	RADIUS
AHU	AIR HANDLING UNIT	GC	GENERAL CONTRACTOR	RB	RUBBER BASE
ALT	ALTERNATE	GCMU	GLAZED CONCRETE MASONRY UNIT(S)	RBC	RUBBER BASE COVE
ALUM	ALUMINUM	GI	GALVANIZED IRON	RBS	RUBBER BASE STRAIGHT
ANOD	ANODIZED	GL	GLASS or GLAZING	RBT	RUBBER TILE
APPROX	APPROXIMATE	GRD	GROUND	RD	ROOF DRAIN or ROAD
ARCH	ARCHITECTURAL	GR	GRADE	RE	REFER TO or REFERENCE
ASI	ARCHITECT'S SUPPLEMENTAL INSTRUCTIONS	GRT	GROUT	REC	RECESS(ED)
ASPH	ASPHALT	GT	GLASS TILE	RECP	RECEPTACLE
AUTO	AUTOMATIC	GTB	GYPSUM WALLBOARD	REF	REFRIGERATE or REFRIGERATED
AVE	AVENUE	GYP	GYPSUM	REIN	REINFORCED
AVG	AVERAGE	GYP BD.	GYPSUM BOARD	RESD	REQUIRED
AWP	ACCOUSTICAL WALL PANEL	HAS	HEADED ANCHOR STUD	RESL	RESILIENT
B	BASE	HB	HOSE BIB	REV	REVISE, REVISED or REVISION(S)
B.O.F.	BY OWNER, FUTURE	HC	HOLLOW CORE or HANDICAPPED	RF	RESILIENT FLOORING
BD	BOARD	HOAS	HEADED DEFORMED ANCHOR STUD	RG	ROOFING
BIT	BITUMINOUS	HOR	HEADER	RFL	REFLECTED
BLDG	BUILDING	HDWR	HARDWARE	RH	RIGHT HAND
BLKG	BLOCKING	HM	HOLLOW METAL	RL	RAIN LEADER
BM	BEAM or BENCH MARK	HORIZ	HORIZONTAL	RM	ROOM
BOT	BOTTOM	HOUR	HOUR	RO	ROUGH OPENING
BRG	BEARING	HT	HEIGHT	ROD	ROOF OVERFLOW DRAIN
BSMT	BASEMENT	HTR	HEATER	ROW	RIGHT OF WAY
C	CENTERLINE	HVAC	HEATING, VENTILATION and AIR CONDITIONING	RPM	REVOLUTIONS PER MINUTE
C.L.	CENTERLINE	HW	HOT WATER	RVS	REVERSE (SIDE)
CAB	CABINET	HWY	HOT WATER HEATER	RWC	RAIN WATER CONDUCTOR
CATV	CABLE TELEVISION	IBC	INTERNATIONAL BUILDING CODE or INSTALLED BY CONTRACTOR	S	SOUTH or SEALED
CCD	CONSTRUCTION CHANGE DIRECTIVE	ID	INSIDE DIAMETER	SC	SOLID CORE
CCTV	CLOSED CIRCUIT TELEVISION	IN	INCH(ES)	SCD	SEAT COVER DISPENSER
CDOT	COLORADO DEPARTMENT OF TRANSPORTATION	INCL	INCANDESCENT	SEC	SECTION
CEM	CEMENTITIOUS	INCL	INCLUDED	SF	SQUARE FEET
CFL	COUNTERFLASHING	INFO	INFORMATION	SHT	SHEET
CG	CORNER GUARD	INSUL	INSULATION or INSULATED	SHTG	SHEATHING
CIP	CAST IN PLACE	INT	INTERIOR	SHWR	SHOWER
CIRC	CIRCUMFERENCE	INTMED	INTERMEDIATE	SIM	SIMILAR
CJ	CONTROL JOINT	INV	INVERT	SNC	SANITARY NAPKIN CABINET
CK	CORK TILE	JC	JANITOR CLOSET	SND	SANITARY NAPKIN DISPENSER
CL	COLUMN LINE	JST	JOIST	SNR	SANITARY NAPKIN RECEPTACLE
CLG	CEILING	JT	JOINT	SO	SOAP DISPENSER
CLOS	CLOSET	KD	KNOCKDOWN	SOFF	SOFFIT
CLR	CLEAR	KIT	KITCHEN	SPECS	SPECIFICATION(S)
CM	CENTIMETERS	KO	KNOCKOUT	SPKL	SPRINKLER
CMU	CONCRETE MASONRY UNIT	KP	KICK PLATE	SPKR	SPEAKER
CO	CHANGE ORDER or CLEANOUT	LAB	LABORATORY	SPRT	SUPPORT
COL	COLUMN	LAM	LAMINATE	SQ	SQUARE
CONC	CONCRETE	LAV	LAVATORY	SR	SINK RECEPTACLE
CONF	CONFERENCE	LBL	LABEL	SS	STAINLESS STEEL or SOLID SURFACE
CONN	CONNECTION	LDR	LEADER	SSK	SERVICE SINK
CONSTR	CONSTRUCTION	LH	LEFT HAND	STA	STATION
CONT	CONTINUOUS	LKR	LOOKER	STD	STANDARD
CONTR	CONTRACTOR	LLH	LONG LEG HORIZONTAL	STL	STEEL
CORR	CORRIDOR or CORRUGATED	LLV	LONG LEG VERTICAL	STOR	STORAGE
CPT	CARPET	LP	LIGHTING PANEL or LIGHT PROOF	STRUC	STRUCTURE or STRUCTURAL
CT	CERAMIC TILE	LT	LIGHT	SUSP	SUSPENDED
CTR	COUNTER	LTL	LINTEL	SYM	SYMMETRICAL
CU	CUBIC	LVR	LOUVER	SYS	SYSTEM
CY	CUBIC YARD	MACH	MACHINERY	T	TREAD
DAMP	DAMP-PROOFING	MAG	MAGNETIC	T&B	TOP AND BOTTOM
DBL	DOUBLE	MAS	MASONRY	T&G	TONGUE AND GROOVE
DEG	DEGREE	MATL	MATERIAL	TB	TOWEL BAR
DEMOL	DEMOLISH or DEMOLITION	MAX	MAXIMUM	TBC	TOP OF BACK OF CURB
DEPT	DEPARTMENT	MB	MEMBRANE	TELE	TELEPHONE
DF	DRINKING FOUNTAIN	MECH	MECHANICAL	TEMP	TEMPORARY or TEMPERATURE </td
DIA	DIAMETER	MED	MEDIUM	TH	TEMPERED GLASS
DWG	DRAWING	MEMB	MEMBRANE	THK	THICK or THICKNESS
DWR	DRAWER	MEP	MECHANICAL ELECTRICAL and PLUMBING	THLD	THRESHOLD
(E)	EXISTING	MEZZ	MEZZANINE	TO	TOP OF
E	EAST	MFR	MANUFACTURER	TOC	TOP OF CONCRETE
EA	EACH	MH	MANHOLE	TOS	TOP OF STEEL
EB	EXPANSION BOLT	MN	MINIMUM	TOW	TOP OF WALL
ED	EXHAUST DUCT	MIRR	MIRROR	TPD	TOILET PAPER DISPENSER
EJ	EXHAUST FAN or EACH FACE	MISC	MISCELLANEOUS	TPN	TOILET PARTITION
EF	EXPANSION JOINT	MM	MILLIMETERS	TS	TUBE STEEL
ELEC	ELECTRICAL	MTD	MOUNT(ED)	TV	TELEVISION
ELEV	ELEVATOR	MTL	METAL	TYL	TYPICAL
EMER	EMERGENCY	MUL	MULLION	UNF	UNFINISHED
ENGR	ENGINEER	(N)	NEW	UNFN	UNLESS NOTED OTHERWISE
EOS	EDGE OF SLAB	N	NORTH	UOS	UNLESS OTHERWISE SPECIFIED
EQ	EQUAL	NIC	NOT IN CONTRACT	UR	URINAL
EQUIP	EQUIPMENT	NO	NUMBER	USGS	U.S. GEOLOGICAL SURVEY
ES	EACH SIDE	NOM	NOMINAL	V	VOLT
EST	ESTIMATE	NTS	NOT TO SCALE	VAR	VARY or VARIES
EW	EACH WAY	OA	OVERALL	VAP	VAPOR BARRIER
EWC	ELECTRIC WATER COOLER	OC	ON CENTER	VB	VINYL COMPOSITION TILE
EWI	ELECTRIC WATER HEATER	OD	OUTSIDE DIAMETER	VENT	VENTILATION
EXT	EXTERIOR	OF	OUTSIDE FACE	VER	VERIFY
F	FIRE ALARM	OFF	OFFICE	VERT	VERTICAL
FAC	FIRE ALARM CABINET	OH	OPPOSITE HAND	VEST	VESTIBULE
FACP	FIRE ALARM CONTROL PANEL	OPNG	OPENING	VIF	VERIFY IN FIELD
FBO	FURNISHED BY OTHER(S)	OPP	OPPOSITE	VIN	VINYL or SHEET VINYL
FD	FLOOR DRAIN or FIRE DAMPER	OTO	OUTSIDE-TO-OUTSIDE	VOL	VOLUME
FDN	FOUNDATION	P	PAINT(ED)	VTR	VENT THROUGH ROOF
FE	FIRE EXTINGUISHER	PIL	PROPERTY LINE	W.C.	WINDY WALL COVERING
FEC	FIRE EXTINGUISHER CABINET	PAC	PREVIOUSLY AWARDED CONTRACT	W	WEST or WIDE
FF	FINISHED FLOOR	PAR	PARALLEL	W.O.	WHERE OCCURS
FFL	FINISHED FLOOR LINE	PBO	PROVIDED BY OTHERS	WI	WITH
FHL	FIRE HYDRANT	PC	PRECAST	WIC	WATER CLOSET
FHC	FIRE HOSE CABINET	PERF	PERFORATED	WID	WITHOUT
FHMS	FLAT HEAD MACHINE SCREW	PERM	PERIMETER	WIR	WATER RESISTANT
FHV	FIRE HOSE VALVE	PKG	PARKING	WC	WALL COVERING
FHV	FLAT HEAD WOOD SCREW	PL	PLATE	WD	WOOD
FIN	FINISHED	PLAM	PLASTIC LAMINATE	WDO	WINDOW
FIXT	FIXTURE	PLAS	PLASTER	WFO	WIDE FLANGE or WOOD FLOORING
FLG	FLASHING	PLBG	PLUMBING	WGL	WIRE GLASS
FLR	FLOORING	PLYWD	PLYWOOD	WP	WATERPROOF(ING)
FLUR	FLOORING	PNL	PANEL	WPT	WORKING POINT
FOC	FACE OF CONCRETE	POL	POLISHED	WST	WEIGHT
FOF	FACE OF FINISH	PR	PART or PROPOSAL REQUEST	WT	WELODED WIRE FABRIC
FOM	FACE OF MASONRY	PREFAB	PREFABRICATED	WYF	YARD
		PREFIN	PREFINISHED		
		PRESTR	PRESTRESSED		
		PROJ	PROJECT		
		PSF	POUNDS PER SQUARE FOOT		
		PSI	POUNDS PER SQUARE INCH		
		PT	POST TENSIONED or PORCELAIN TILE		

GENERAL NOTES

PROJECT NOTES	
1	THE TERM "GC" SHALL MEAN THE GENERAL CONTRACTOR AND ITS SUB-CONTRACTORS.
2	THE GC SHALL THOROUGHLY FAMILIARIZE ITSELF WITH THE CONTRACT DOCUMENTS AND THE SITE. SHOULD THE GC FIND DISCREPANCIES IN OR OMISSIONS FROM THE DRAWINGS OR SPECIFICATIONS, SHOULD THE GC BE IN DOUBT AS TO THEIR INTENT OR MEANING, OR HAS QUESTIONS CONCERNING CONSTRUCTABILITY OR CODE COMPLIANCE, THE GC SHALL SEEK CLARIFICATION FROM THE ARCHITECT BEFORE PROCEEDING WITH THE WORK. SHOULD A CONFLICT OCCUR BETWEEN THE DRAWINGS AND SPECIFICATIONS THAT IMPLYING GREATER QUANTITY OR QUALITY SHALL PREVAIL.
3	THE INTENT OF THE CONTRACT DOCUMENTS IS TO PROVIDE A COMPLETE PROJECT. EVERY ITEM NECESSARILY REQUIRED MAY NOT BE SPECIFICALLY MENTIONED OR SHOWN. UNLESS EXPRESSLY STATED, SYSTEMS AND EQUIPMENT SHALL BE COMPLETELY OPERATIONAL. PROVIDE INCIDENTAL, ACCESSORY, AND ANY OTHER ITEMS NOT SPECIFIED, BUT REQUIRED, FOR A COMPLETE AND FINISHED ASSEMBLY.
4	THE ENTIRE SET OF CONTRACT DOCUMENTS REPRESENT THE PROJECT AS A WHOLE. THE GC IS RESPONSIBLE FOR PROVIDING SUFFICIENT INFORMATION TO ITS SUB-CONTRACTORS TO DETERMINE AND PERFORM THEIR SCOPE OF WORK.
5	ANY ELECTRONIC CAD AND/OR BUILDING INFORMATION MODELING (BIM) FILES PROVIDED BY THE ARCHITECT OR ITS CONSULTANTS IS SOLELY TO ASSIST THE GC IN PREPARATION OF SHOP DRAWINGS AND/OR LAYOUT OF THE PROJECT. CAD AND BIM FILES ARE NOT A PART OF THE CONTRACT DOCUMENTS AND ANY INFORMATION CONTAINED THEREIN DOES NOT SUPERSEDE ANY INFORMATION ON THE CONTRACT DOCUMENTS.
6	THE GC IS RESPONSIBLE FOR MEANS AND METHODS OF CONSTRUCTION, COORDINATION OF TRADES, AND SCHEDULING OF THE WORK.
7	THE GC SHALL NOT REVISE, SUBSTITUTE, OR CHANGE THE WORK WITHOUT THE WRITTEN CONSENT OF THE ARCHITECT.
8	NOT EVERY CONDITION MAY BE DRAWN OR DETAILED. CONDITIONS SIMILAR TO DETAILED CONDITIONS SHALL BE CONSTRUCTED TO THE SAME SIZE AND CHARACTER AS THOSE FOR SIMILAR CONDITIONS.
9	THE GC SHALL FOLLOW THE RECOMMENDATIONS OF THE OWNER'S GEOTECHNICAL CONSULTANT. SHOULD THE GC FIND DISCREPANCIES WITH THE CONTRACT DOCUMENTS, THE GC SHALL SEEK CLARIFICATION FROM THE ARCHITECT BEFORE PROCEEDING WITH THE WORK.
10	DO NOT SCALE DRAWINGS.
11	PROVIDE NECESSARY BLOCKING IN WALLS, PARTITIONS, AND CEILINGS FOR ITEMS INCLUDING, BUT NOT LIMITED TO: CEILING AND PARTITION-MOUNTED FIXTURES, GRAB BARS, HANDRAILS, TOILET ACCESSORIES, CABINETRY, PANELING, COUNTERTOPS, SHELVES, CLOSET RODS, WHITE BOARDS, AND DECORATIVE ELEMENTS.
12	THE CONSTRUCTION DOCUMENTS ARE THE PROPERTY OF OZ ARCHITECTURE, INC. AND ITS CONSULTANTS AND ARE TO BE USED AS INSTRUMENTS OF SERVICE FOR CONSTRUCTION OF THIS PROJECT ONLY. USE OF THESE DOCUMENTS BY THE GC FOR ANY OTHER PROJECT OR PURPOSE WITHOUT THE WRITTEN CONSENT OF OZ ARCHITECTURE IS PROHIBITED.

GRAPHIC STANDARDS

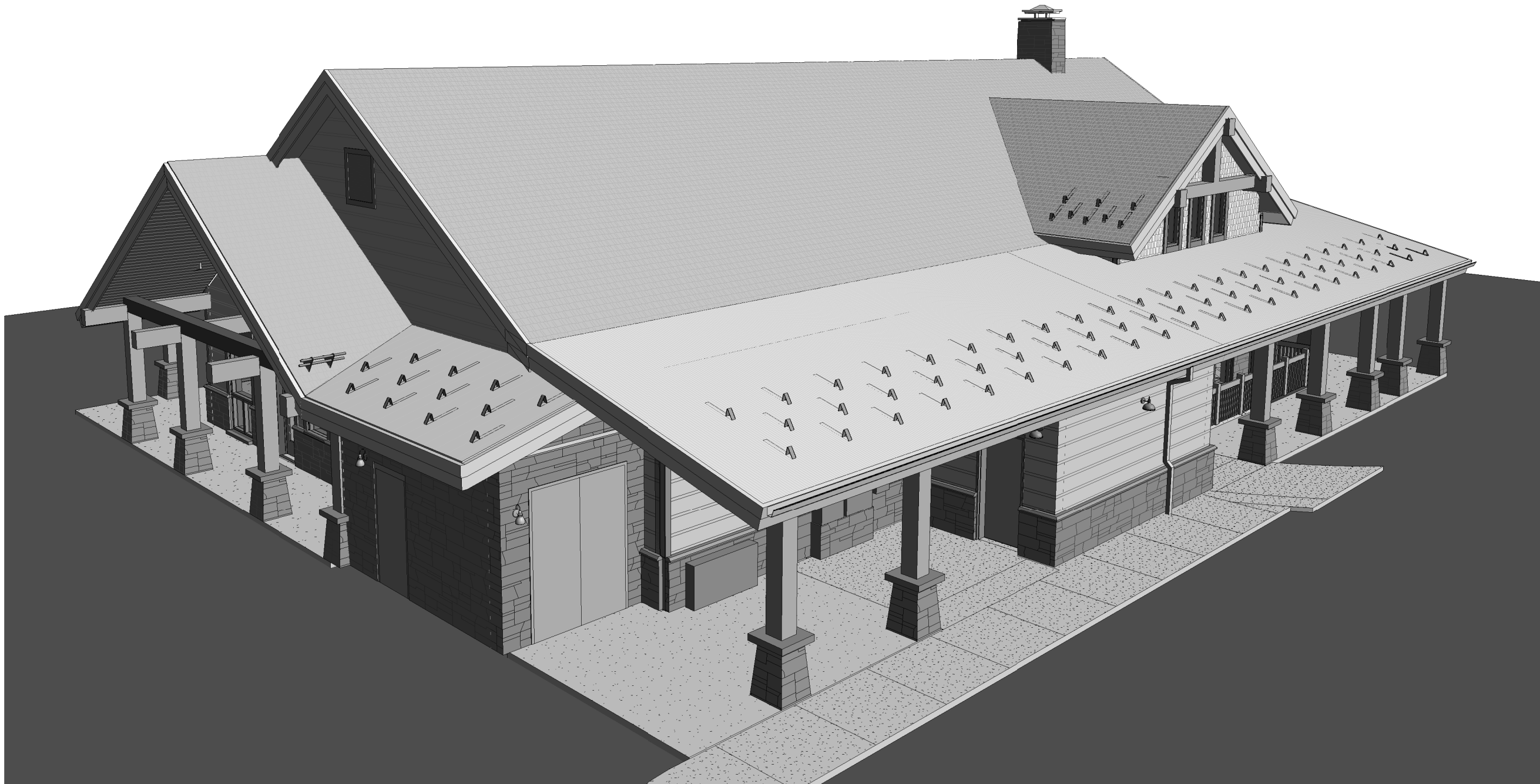
STRUCTURAL GRID COLUMN NUMBER COLUMN LETTER	WINDOW IDENTIFICATION WINDOW TYPE GLAZING IDENTIFICATION GLAZING TYPE FLAG NOTE IDENTIFICATION NOTE NUMBER
DOOR IDENTIFICATION DOOR NUMBER	ROOM/SPACE IDENTIFICATION ROOM ROOM NAME ROOM NUMBER ROOM AREA
INTERIOR ELEVATION IDENTIFICATION DRAWING NUMBER SHEET NUMBER	ROOM/FINISH IDENTIFICATION ROOM ROOM NAME ROOM NUMBER WALL FIN BASE TYPE FLOOR FIN TYPE
EXTERIOR ELEVATION IDENTIFICATION DRAWING NUMBER SHEET NUMBER	ELEVATION REFERENCE ELEVATION DATUM POINT LOCATION
BUILDING SECTION IDENTIFICATION DRAWING NUMBER SHEET NUMBER	MATERIAL PATTERNS Concrete Undisturbed or Compacted Earth Porous Fill (Gravel) Steel Aluminum Masonry - Brick Masonry - Concrete Block Insulation - Rigid Insulation - Batt Gypsum - Plaster Plywood Finish Wood Rough Wood Acoustic Tile
WALL/DETAIL SECTION IDENTIFICATION DRAWING NUMBER SHEET NUMBER	
DETAIL IDENTIFICATION DRAWING NUMBER SHEET NUMBER	
ENLARGED DETAIL IDENTIFICATION DRAWING NUMBER SHEET NUMBER	
PARTITION TYPE IDENTIFICATION PARTITION TYPE RE PARTITION TYPE SHEET HEAD OF WALL TYPE RE PARTITION TYPE SHEET	ASSEMBLY IDENTIFICATION EXTERIOR WALL ASSEMBLY TYPE FLOOR ASSEMBLY TYPE CEILING ASSEMBLY TYPE ROOF ASSEMBLY TYPE
ACOUSTIC PARTITION TYPE IDENTIFICATION PARTITION TYPE RE PARTITION TYPE SHEET HEAD OF WALL TYPE RE PARTITION TYPE SHEET	

* ROOM AREAS: VERIFY BASIS OF MEASUREMENT USED BY ARCHITECT. MAY BE CALCULATED TO CENTERLINE OF SURROUNDING PARTITIONS OR TO INSIDE FINISH SURFACES

FRISCO DAY LODGE RENOVATION (ALTERNATE #1)

621 RECREATION WAY
FRISCO, CO 80443

PERMIT SET
2018-04-27



PROJECT TEAM

OWNER
TOWN OF FRISCO PUBLIC WORKS DEPT.
1 MAIN STREET
FRISCO, CO 80443
970-668-5276
CONTACT: DIANE MCBRIDE

ARCHITECT
OZ ARCHITECTURE
3003 LARIMER STREET
DENVER, CO 80205
303-961-5704
CONTACT: BECKY STONE

CIVIL
MARTIN/MARTIN
0101 FAWCETT RD, SUITE 260
AVON, CO 81620
970-926-6007
CONTACT: MARK LUNA

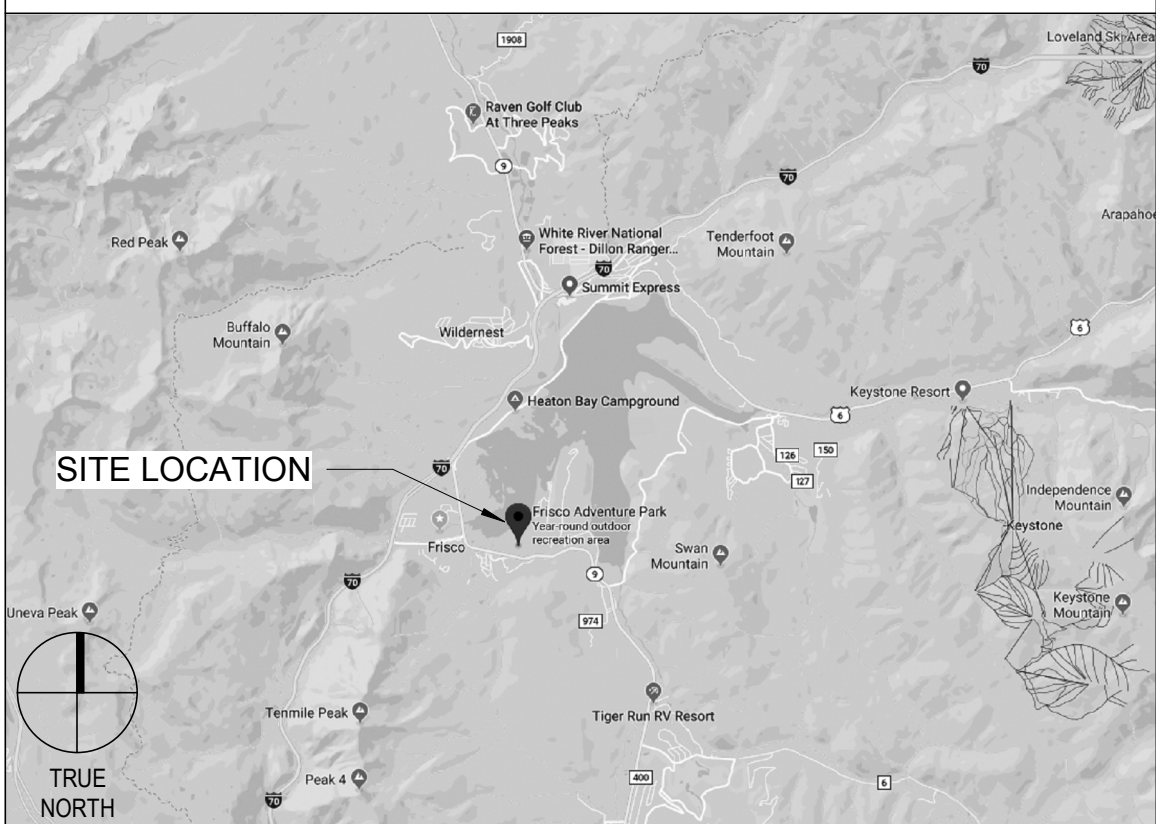
MEP ENGINEER
BG BUILDINGWORKS
1626 COLE BLVD, SUITE 300
LAKEWOOD, CO 80401
303-278-3820
CONTACT: RAHUL DEODHAR

OWNER REPRESENTATIVE
NV5
2650 18TH STREET, SUITE 202
DENVER, CO 80211
720-788-3422
CONTACT: TYLER LUNDGAARD

STRUCTURAL ENGINEER
MONROE & NEWELL ENGINEERS
1400 GLENARM PLACE, SUITE 101
DENVER, CO 80202
303-623-4927
CONTACT: CRAIG CARROLL

LANDSCAPE
NORRIS DESIGN
409 MAIN STREET, SUITE 207
FRISCO, CO 80443
970-368-7068
CONTACT: ELENA SCOTT

VICINITY MAP



DRAWING INDEX

Sheet Number	Sheet Name
GENERAL	
G-000	COVER
G-101	PROJECT SPECIFICATIONS
G-102	PROJECT SPECIFICATIONS
G-103	PROJECT SPECIFICATIONS
G-120	COMCHECK REPORT
G-201	SIGN TYPES
G-401	STANDARD MOUNTING HEIGHTS - ANSI 2009
G-501	EXTERIOR ASSEMBLIES & PARTITION TYPES
CIVIL	
C-001	GENERAL NOTES
C-100	DEMOLITION SITE PLAN
C-200	CIVIL SITE PLAN
C-201	GRADING PLAN
C-202	CIVIL RESTROOM SITE & GRADING PLAN
C-400	STORM SEWER PLAN
C-500	EROSION CONTROL PLAN
C-501	EROSION CONTROL DETAILS
C-502	EROSION CONTROL DETAILS
STRUCTURAL	
S-101	GENERAL NOTES & DETAILS
S-102	FRAMING PLANS
ARCHITECTURE	
A-100	SITE PLAN & BUILDING CODE PLAN
A-101	DEMO FLOOR PLAN
A-102	FLOOR PLAN
A-103	ROOF PLAN
A-131	LEVEL 1 RSP
A-140	INTERIOR FINISH PLAN & LEGEND
A-201	BUILDING ELEVATIONS
A-202	BUILDING ELEVATIONS
A-301	BUILDING SECTIONS
A-302	BUILDING SECTIONS
A-501	DETAILS
A-601	DOOR SCHEDULE & DETAILS
MECHANICAL	
M-000	MECHANICAL COVER SHEET
M-001	MECHANICAL SCHEDULES
M-101	MECHANICAL PLANS
M-200	MECHANICAL SPECIFICATIONS
M-201	CODE COMPLIANCE DOCUMENTS



3003 Larimer Street
Denver, Colorado 80205
phone 303.861.5704
www.ozarch.com



FRISCO DAY LODGE RENOVATION
(ALTERNATE #1)
621 RECREATION WAY
FRISCO, CO 80443

PROJ. NO. 117119.00

DRAWN: OZ

CHECKED: OZ

APPROVED: OZ

DATE: 2018-04-27

© OZ ARCHITECTURE

FRISCO DAY LODGE
RENOVATION
(ALTERNATE #1)
ISSUED FOR:
PERMIT SET

SHEET TITLE:
COVER

SCALE: 12" = 1'-0"

SHEET NUMBER

G-000

C:\Revit Local Files\117119 Frisco Renovation CENTRAL_kaylor.rvt

4/27/2018 11:13:46 AM

SECTION 01 10 00 - SUMMARY

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes the following:
1. Work covered by the Contract Documents.
 2. Scope of Work and Work Phases.
 3. Owner and Contractor Responsibilities.
 4. Use of premises.
 5. Work Restrictions.
- 1.2 WORK COVERED BY CONTRACT DOCUMENTS
- A. Project Identification: Frisco Day Lodge Renovation.
- B. Lot Location: Township 5S, Range 78W, Section 36, Frisco, Colorado.
- C. Owner: Town of Frisco. Public Works Department.
- 1.3 SCOPE OF WORK AND WORK PHASES
- A. The Work shall include the construction of a men's and women's restroom addition.
- B. Before commencing Work, submit a schedule showing the sequence, commencement and completion dates, and move-out and -in dates of Owner's personnel for all Work.

1.4 OWNER AND CONTRACTOR RESPONSIBILITIES

- A. The Owner will pay for all permits and utility construction fees, including development fees.
- B. The owner will provide a consolidated insurance program. The contractor shall provide worker's compensation insurance and verify sub contractors insurance requirements.
- C. The following list covers items of work not provided for under the specification. This is not a complete list and is intended only to indicate some of the major items that will not be included. These costs should be covered by the Owner under separate budget for soft or indirect costs for the project: Design Fees, Special Consulting Fees, Land Survey, Utility Development Fees – tap fees, Testing and Inspection - contractor to provide materials for testing, Builders risk insurance/ General Liability insurance, Sols Report, Telephone, Models or Renderings, AV systems for the buildings or site.
- D. Mock-Up: Contractor to provide 4'x4' exterior mock-up of all materials for owner to sign-off. Contractor to provide interior samples (minimum 2x2') that represents all selected finishes, appliances and fixtures for Owner review and sign-off.

1.5 USE OF PREMISES

- A. General: Contractor shall have full use of premises for construction operations, including use of Project site during construction period. Contractor's use of premises is limited only by Owner's right to perform work or to retain other contractors on portions of Project.
- B. Use of Site: Limit use of premises to areas within the Contract limits indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated. The contractor shall maintain the site in a clean and orderly fashion. The contractor shall minimize traffic on the access road and keep access road clean during construction.
- C. The following items shall be included in the general conditions:
1. Protection of adjacent landscaping, existing utilities to remain and existing construction to remain.
 2. Site fencing, temporary surfacing of staging or storage areas, security and protection for materials stored on site.
 3. Construction Dewatering/ shoring (as needed).

1.6 WORK RESTRICTIONS

- A. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated in the Contract Documents.
1. Notify Owner's Representative not less than two days in advance of proposed utility interruptions. 2. Do not proceed with utility interruptions without Owner's Representative's written permission.
- B. Nonsmoking Building: Smoking is not permitted within the building or within 25 feet of entrances, operable windows, or outdoor air intakes.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

SECTION 01 23 00 - ALTERNATES

PART 1 - GENERAL

- A. This Section includes administrative and procedural requirements for alternates.

1.2 DEFINITIONS

- A. Alternate: An amount proposed by bidders and stated on the Bid Form for certain work defined in the Bidding Requirements that may be added to or deducted from the Base Bid amount if Owner decides to accept a corresponding change either in the amount of construction to be completed or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.
1. The cost or credit for each alternate is the net addition to or deduction from the Contract Sum to incorporate alternate into the Work. No other adjustments are made to the Contract Sum.

1.3 PROCEDURES

- A. Coordination: Modify or adjust affected adjacent work as necessary to completely integrate work of the alternate into Project, include as part of the Work. Coordinate construction operations, including in different Sections, that depend on each other for proper installation, connection, and operation.
- B. Notification: Immediately following award of the Contract, notify each party involved, in writing, of the status of each alternate. Indicate if alternates have been accepted, rejected, or deferred for later consideration. Include a complete description of negotiated modifications to alternates.
- C. Execute accepted alternates under the same conditions as other work of the Contract.
- D. Schedule: A Schedule of Alternates is included at the end of this Section. Specification Sections referenced in schedule contain requirements for materials necessary to achieve the work described under each alternate.
- PART 2 - PRODUCTS (Not Used)
- PART 3 - EXECUTION
- 3.1 SCHEDULE OF ALTERNATES
- A. Alternate No. 1:
1. Base: All work excluding the restroom addition at the Day Lodge.
 2. Alternate: Restroom addition at the Day Lodge. This work is identified as "Alternate 1" on the titleblock.

SECTION 01310 - PROJECT MANAGEMENT AND COORDINATION

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes administrative provisions for coordinating construction operations on Project including, but not limited to, the following:
1. Coordination Drawings
 2. Administrative and supervisory personnel.
 3. Project meetings.
 4. Requests for Interpretation (RFIs).

1.2 COORDINATION

- A. Coordination: Coordinate construction operations included in different Sections of the Specifications to ensure efficient and orderly installation of each part of the Work. Coordinate construction operations, including in different Sections, that depend on each other for proper installation, connection, and operation.
1. Schedule construction operations in sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
 2. Coordinate installation of different components with other contractors to ensure maximum accessibility for required maintenance, service, and repair.
 3. Make adequate provisions to accommodate items scheduled for later installation.
 4. Where availability of space is limited, coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair of all components, including mechanical and electrical.
- B. Prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and list of attendees at meetings.
1. Prepare similar memoranda for Owner and separate contractors if coordination of their Work is required.
 2. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities and activities of other contractors to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:

1. Preparation of Contractor's Construction Schedule.
 2. Preparation of the Schedule of Values.
 3. Installation and removal of temporary facilities and controls.
 4. Delivery and processing of submittals.
 5. Progress meetings.
 6. Preinstallation conferences.
 7. Project closeout activities.
 8. Start-up and adjustment of systems.
 9. Project closeout activities.
- 1.3 SUBMITTALS
- A. Coordination Drawings: Prepare Coordination Drawings if limited space availability necessitates maximum utilization of space for efficient installation of different components or if coordination is required for installation of products and materials fabricated by separate entities.
1. Content: Project-specific information, drawn accurately to scale. Do not base Coordination Drawings on reproductions of the Contract Documents or standard printed data. Include the following information, as applicable:

- a. Indicate functional and spatial relationships of components of architectural, structural, civil, mechanical, and electrical systems.
 - b. Indicate required installation sequences.
 - c. Indicate dimensions shown on the Contract Drawings and make specific note of dimensions that appear to be in conflict with submittal equipment and minimum clearance requirements. Provide alternate sketches to Architect for resolution of such conflicts. Minor dimension changes and difficult installations will not be considered changes to the Contract.
 2. Submit digital copy of coordination drawings to architect for review. Mark up and retain one returned copy as a Project Record Drawing.
 3. Refer to individual Sections for additional Coordination Drawing requirements related to those Sections.
- B. Key Personnel Names: Within 15 days of starting construction operations, submit a list of key personnel assignments, including superintendent and other personnel in attendance at Project site and their contact information.

1.4 PROJECT MEETINGS

- A. General: Schedule and conduct meetings and conferences at Project site, unless otherwise indicated.
1. Attendees: Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting. Notify Owner and Architect of scheduled meeting dates and times.
 2. Agenda: Prepare the meeting agenda. Distribute the agenda to all invited attendees.
 3. Minutes: Record significant discussions and agreements achieved. Distribute the meeting minutes to everyone concerned, including Owner and Architect, within three days of the meeting.
- B. Preconstruction Conference: Schedule a preconstruction conference before starting construction, at a time convenient to Owner, and Architect, but no later than 15 days after execution of the Agreement. Hold the conference at Project site or at another convenient location. Conduct the meeting to review responsibilities and personnel assignments.
1. Attendees: Authorized representatives of Owner, Architect, and their consultants; Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the conference.
 2. Agenda: Discuss items of significance that could affect progress, including the following:

- a. Tentative construction schedule, Phasing, Critical work sequencing and long-lead items, Designation of key personnel and their duties, Procedures for processing field decisions and Change Orders, Procedures for RFIs, Procedures for testing and inspecting, Procedures for processing Applications for Payment, Distribution of the Contract Documents, Submittal procedures, Preparation of Record Documents, Use of the premises and existing building, Work restrictions, Owner's occupancy requirements, Responsibility for temporary facilities and controls, Construction waste management and recycling, Parking availability, Office, work, and storage areas, Equipment deliveries and priorities, First Aid, Security, Progress cleaning, Working hours.

- C. Preinstallation Conferences: Conduct a preinstallation conference at Project site before each construction activity that requires coordination with other construction. Review progress of other construction activities and preparations for the particular activity under consideration
1. Attendees: Installer and representatives of manufacturers and fabricators involved in or affected by the installation and its coordination or integration with other materials and installations that have preceded or will follow, shall attend the meeting. Advise Architect of scheduled meeting dates.
 2. Do not proceed with installation if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of the Work and reconvene the conference at earliest feasible date.

- D. Progress Meetings: Conduct progress meetings at weekly or regular intervals as indicated in Agreement. Coordinate dates of meetings with preparation of payment requests.
1. Attendees: In addition to representatives of Owner and Architect, each contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
 2. Agenda: Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.
- a. Contractor's Construction Schedule: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to Contractor's Construction Schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.
- b. Review present and future needs of each entity present, including the following:
- Interface requirements. Sequence of operations. Status of submittals. Deliveries. Off-site fabrication.
 - Access. Site utilization. Temporary facilities and controls. Work hours. Hazards and risks. Progress cleaning. Quality and work standards. Status of correction of deficient items. Field observations.
 - RFIs. Status of proposal requests. Pending changes. Status of Change Orders. Pending claims and disputes. Documentation of information for payment requests.

1.5 REQUESTS FOR INTERPRETATION (RFIs)

- Procedure: Immediately on the need for interpretation of the Contract Documents, and if not possible to request interpretation at Project meeting, prepare and submit an RFI in the form specified.
1. RFIs shall originate with Contractor. RFIs submitted by entities other than Contractor will be returned with no response.
 2. Coordinate and submit RFIs in a prompt manner so as to avoid delays in Contractor's work or work of subcontractors.
- B. Content of the RFI: Include a detailed, legible description of item needing interpretation and the following:
1. Project name.
 2. Date.
 3. Name of Contractor.
 4. Name of Architect.
 5. RFI number, numbered sequentially.
 6. Specification Section number and title and related paragraphs, as appropriate.
 7. Drawing number and detail references, as appropriate.
 8. Field dimensions and conditions, as appropriate.
 9. Contractor's suggested solution(s). If Contractor's solution(s) impact the Contract Time or the Contract Sum, Contractor shall state impact in the RFI.
 10. Contractor's signature.
 11. Attachments: Include drawings, descriptions, measurements, photos, Product Data, Shop Drawings, and other information necessary to fully describe items needing interpretation.
- a. Supplemental drawings prepared by Contractor shall include dimensions, thicknesses, structural grid references, and details of affected materials, assemblies, and attachments.

- C. Software-Generated RFIs: Software-generated form with substantially the same content as indicated above.
1. Attachments shall be electronic files in Adobe Acrobat PDF format.
- D. Architect's Action: Architect will review each RFI, determine action required, and return it. Allow seven working days for Architect's response for each RFI. RFIs received after 1:00 p.m. will be considered as received the following working day.

1. The following RFIs will be returned without action:
- a. Requests for approval of submittals.
 - b. Requests for approval of substitutions.
 - c. Requests for coordination information already indicated in the Contract Documents.
 - d. Requests for adjustments in the Contract Time or the Contract Sum.
 - e. Requests for interpretation of Architect's actions on submittals.
 - f. Incomplete RFIs or RFIs with numerous errors.
2. Architect's action may include a request for additional information, in which case Architect's time for response will start again.
3. Architect's action on RFIs that may result in a change to the Contract Time or the Contract Sum may be eligible for Contractor to submit Change Proposal.
4. If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify Architect in writing within 10 days of receipt of the RFI response.
- E. On receipt of Architect's action, update the RFI log and immediately distribute the RFI response to affected parties. Review response and notify Architect within 10 days of Contractor disagrees with response.
- G. RFI Log: Prepare, maintain, and submit a tabular log of RFIs organized by the RFI number. Submit log weekly. Include the following:

1. RFI number including RFIs that were dropped and not submitted.
2. RFI description.
3. Date the RFI was submitted.
4. Date Architect's response was received.
5. Identification of related Minor change in the Work, Construction Change Directive, and Proposal Request, as appropriate.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

SECTION 01 33 00 - SUBMITTAL PROCEDURES

PART 1 - GENERAL

- A. This Section includes administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other submittals.
- 1.2 SUBMITTAL PROCEDURES
- A. General: Electronic copies of CAD Drawings of the Contract Drawings will not be provided by Architect for Contractor's use in preparing submittals.
- B. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.
1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
 2. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.
- a. Architect reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
- C. Submittals Schedule: Provide list of submittals and time requirements for scheduled performance of related construction activities.
- D. Processing Time: Allow enough time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Architect's receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.
1. Initial Review: Allow 15 days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. Architect will advise Contractor when a submittal being processed must be delayed for coordination.
 2. Intermediate Review: If intermediate submittal is necessary, process it in same manner as initial submittal.
 3. Resubmittal Review: Allow 15 days for review of each resubmittal.

- E. Place a permanent label or title block on each submittal for identification.
1. Indicate name of firm or entity that prepared each submittal on label or title block.
 2. Provide a space approximately 6 by 8 inches (150 by 200 mm) on label or beside title block to record Contractor's review and approval markings and action taken by Architect.
 3. Include the following information on label for processing and recording action taken:
- a. Project name.
 - b. Date.
 - c. Name and address of Architect.
 - d. Name and address of Contractor.
 - e. Name and address of subcontractor.
 - f. Name and address of supplier.
 - g. Name of manufacturer.

- h. Submittal number or other unique identifier, including revision identifier.
 - 1) Submittal number shall use Specification Section number followed by a decimal point and then a sequential number (e.g., 06100.01). Resubmittals shall include an alphabetic suffix after another decimal point (e.g., 06100.01A).
- i. Number and title of appropriate Specification Section.
- j. Drawing number and detail references, as appropriate.
- k. Location(s) where product is to be installed, as appropriate.
- l. Other necessary identification.

- F. Deviations: Highlight, encircle, or otherwise specifically identify deviations from the Contract Documents on submittals.
- G. Resubmittals: Make resubmittals in same form and number of copies as initial submittal.
1. Note date and content of previous submittal.
 2. Note date and content of revision in label or title block and clearly indicate extent of revision.
 3. Resubmit submittals until they are marked approved from Architect's action stamp.

- H. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.
- I. Use for Construction: Use only final submittals with mark indicating approval from Architect's action stamp.

1.4 CONTRACTOR'S USE OF ARCHITECT'S CAD FILES

- A. General: At Contractor's written request, copies of Architect's CAD files will be provided to Contractor for Contractor's use in connection with Project.

PART 2 - PRODUCTS

2.1 ACTION SUBMITTALS

- A. General: Prepare and submit Action Submittals required by individual Specification Sections.
- B. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.

1. If information must be specially prepared for submittal because standard printed data are not suitable for use, submit as Shop Drawings, not as Product Data.
 2. Mark each copy of each submittal to show which products and options are applicable.
 3. Submit Product Data before or concurrent with Samples.
 4. Number of Copies: Submit three copies of Product Data, unless otherwise indicated. Architect will return two copies. Mark up and retain one returned copy as a Project Record Document.
- C. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data.

1. Preparation: Fully illustrate requirements in the Contract Documents.
 2. Mark up and retain one returned copy as a Project Record Drawing.
- D. Samples: Submit Samples for review of kind, color, pattern, and texture for a check of these characteristics with other elements and for a comparison of these characteristics between submittal and actual component as delivered and installed.

2.2 INFORMATIONAL SUBMITTALS

- A. General: Prepare and submit Informational Submittals required by other Specification Sections.
- B. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, names and addresses of architects and owners, and other information specified.
- C. Welding Certificates: Prepare written certification that welding procedures and personnel comply with requirements in the Contract Documents. Submit certificates with requirements (WPS) and Procedure Qualification Record (PQR) on AWS forms. Include names of firms and personnel certified.
- D. Installer Certificates: Prepare written statements on manufacturer's letterhead certifying that Installer complies with requirements in the Contract Documents and, where required, is authorized by manufacturer for this specific Project.
- G. Manufacturer Certificates: Prepare written statements on manufacturer's letterhead certifying that manufacturer complies with requirements in the Contract Documents. Include evidence of manufacturing experience where required.
- H. Product Certificates: Prepare written statements on manufacturer's letterhead certifying that product complies with requirements in the Contract Documents.
- I. Material Certificates: Prepare written statements on manufacturer's letterhead certifying that material complies with requirements in the Contract Documents.
- J. Material Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements in the Contract Documents.
- K. Product Test Reports: Prepare written reports indicating current product produced by manufacturer complies with requirements in the Contract Documents. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.
- 2.3 DELEGATED DESIGN
- A. Performance and Design Criteria: Where professional design services or certifications by a design professional are specifically required of Contractor by the Contract Documents, provide products and systems complying with specific performance and design criteria indicated.
- B. Delegated-Design Submittal: In addition to Shop Drawings, Product Data, and other required submittals, submit three copies of a statement, signed and sealed by the responsible design professional, for each product and system specifically assigned to Contractor to be designed or certified by a design professional.

PART 3 - EXECUTION

3.1 CONTRACTOR'S REVIEW

- A. Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Architect.
- B. Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.
- 3.2 ARCHITECT'S / ACTION
- A. General: Architect will not review submittals that do not bear Contractor's approval stamp and will return them without action.
- B. Action Submittals: Architect will review each submittal, make marks to indicate corrections or modifications required, and return it. Architect will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action taken, as follows:
1. "No Exception Taken": When the Architect marks this action, the Work covered by the submittal may proceed provided it complies with requirements of the Contract Documents. Final payment depends on that compliance.
 2. "Revised as Noted": When the Architect marks this action, the Work covered by the submittal may proceed provided it complies with notations or corrections on the submittal and requirements of the Contract Documents. Final payment depends on that compliance.
 3. "Rejected": When the Architect marks this action, do not proceed with Work covered by the submittal, including purchasing, fabrication, delivery, or other activity. Revise or prepare a new submittal according to the notations; resubmit without delay. Repeat if necessary to obtain different action mark.
 4. "Revise and Resubmit": When the Architect marks a submittal "Revise and Resubmit," do not proceed with Work covered by the submittal, including purchasing, fabrication, delivery, or other activity. Revise or prepare a new submittal according to the notations; resubmit without delay. Repeat if necessary to obtain different action mark.
 5. "Do not use, or allow others to use, submittals marked "Not Approved, Revise and Resubmit" at the Project Site or elsewhere where Work is in progress.
 5. "Return without Review": For submittals which are not required by the Contract Documents, the Architect will return submittals to the sender without reviewing them.
- C. Informational Submittals: Architect will review each submittal and will not return it, or will return it if it does not comply with requirements. Architect will forward each submittal to appropriate party.
- D. Partial submittals are not acceptable, will be considered nonresponsive, and will be returned without review.
- E. Submittals not required by the Contract Documents may not be reviewed and may be discarded.

SECTION 01 40 00 - QUALITY REQUIREMENTS

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Quality Monitoring: Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce Work of specified quality. Perform quality control procedures and inspections during installation.
- B. Standards: Comply with specified standards as minimum quality for the Work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- C. Tolerances: Monitor fabrication and installation tolerance control of products to produce acceptable Work. Do not permit tolerances to accumulate. Comply with manufacturers' tolerances.
- D. Reference Standards: Reference Standards specified by association, trade, or other consensus standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.
- E. Manufacturer's Field Services: When specified in individual specification sections, require material or product suppliers or manufacturers to provide qualified staff personnel to perform the following as applicable, and to initiate instructions when necessary:
1. Observe site conditions.
 2. Conditions of surfaces and installation.
 3. Quality of workmanship.
 4. Start-up of equipment.
 5. Test, adjust and balance of equipment.
- F. Mock-Ups: Assemble and erect specified items with specified attachment and anchorage devices, flashings, seals, and finishes. Accepted mock-ups shall be a comparison standard for the remaining Work.
- G. Removal of Mock-Ups: Where mock-up has been accepted by Architect and no longer needed, remove mock-up and clear area when directed to do so.

PART 2 - PRODUCTS - Not applicable to this Section

PART 3 - EXECUTION - Not applicable to this Section

SECTION 01 50 00 - TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Temporary Services: Provide temporary services and utilities, including payment of utility costs including the following: Water (potable and non-potable), Lighting and power, Metering, Telephone, Toilet facilities, Materials storage.
- B. Construction Facilities: Provide construction facilities, including payment of utility costs including the following: Construction equipment. Dewatering and pumping. Enclosures. Heating. Lighting. Elevator. Access. Roads.
- C. Security and Protection: Provide security and protection requirements including the following: Fire extinguishers. Site enclosure fence, barricades, warning signs, and lights. Building enclosure and lock-up. Environmental protection. Pest control during and at the end of construction. Snow and ice removal if applicable.
- D. Personnel Support: Provide personnel support facilities including the following: Architect's field office with telephone, fax and data connection. Contractor's field office. Sanitary facilities. Drinking water. Project identification sign. Cleaning.

PART 2 - PRODUCTS - Not applicable to this Section

PART 3 - EXECUTION - Not applicable to this Section

SECTION 01 60 00 - PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Manufacturers: Provide products from one manufacturer for each type or kind as applicable. Provide secondary materials as acceptable to manufacturers of primary materials.
- B. Product Selection: Provide products selected or equal approved by Architect. Products submitted for substitution shall be submitted with complete documentation, and include construction costs of substitution including related work.
- C. Substitutions: Request for substitution must be in writing. Conditions for substitution include:
1. An "or equal" phrase in the specifications.
 2. Specified material cannot be coordinated with other work.
 3. Specified material is not acceptable to authorities having jurisdiction.
 4. Substantial advantage is offered to the Owner in terms of cost, time, or other valuable consideration.
- D. Substitution Requests: Substitutions shall be submitted prior to award of contract, unless otherwise acceptable. Approval of shop drawings, product data, or samples containing substitutions is not an approval of a substitution unless an item is clearly presented as a substitution at the time of submittal.

PART 2 - PRODUCTS - Not applicable to this Section

PART 3 - EXECUTION - Not applicable to this Section

SECTION 01 70 00 - EXECUTION AND CLOSEOUT REQUIREMENTS

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Cutting and patching.
- B. Substantial Completion: The following are prerequisites to substantial completion. Provide the following.
1. Punch list prepared by Contractor and subcontractors as applicable.
 2. Supporting documentation.
 3. Warranties.
 4. Certifications.
 5. Occupancy permit.
 6. Start-up and testing of building systems.
 7. Change over of locks.
 8. Meter readings.
 9. Commissioning documentation.
- C. Final Acceptance: Provide the following prerequisites to final acceptance.
1. Final payment request with supporting affidavits.
 2. Completed punch list.
- D. As-Built Drawings: Prepare and submit a marked-up set of drawings including changes, which occurred during construction.
- E. Project Closeout: Provide the following during project closeout.
1. Submission of record documents.
 2. Submission of maintenance manuals.
 3. Training and turnover to Owner's personnel.
 4. Final cleaning and touch-up.
 5. Removal of temporary facilities.
- PART 2 - PRODUCTS - Not applicable to this Section
- PART 3 - EXECUTION
- 3.1 CUTTING AND PATCHING
- A. Cutting and Patching: Provide cutting and patching work to properly complete the work of the project, complying with project requirements for:
1. Structural work.
 2. Mechanical/electrical systems.
 3. Visual requirements, including detailing and tolerances.
 4. Operational and safety limitations.
 5. Fire resistance rating.
 6. Inspection, preparation, and performance.
 7. Cleaning.
- B. Means and Methods: Do not cut and patch in a manner that would result in a failure of the work to perform as intended, decrease energy performance, increase maintenance, decrease operational life, or decrease safety performance.
- C. Inspection: Inspect conditions prior to work to identify scope and type of work required. Protect adjacent work. Notify Owner of work requiring interruption to building services or Owner's operations.
- D. Performance of Operations: Perform work with workmen skilled in the trades involved. Prepare sample area of each type of work for approval.
- E. Cutting: Use cutting tools, not chopping tools. Make neat holes. Minimize damage to adjacent work. Inspect for concealed utilities and structure before cutting.
- F. Patching: Make patches, seams, and joints durable and inconspicuous. Comply with tolerances for new work.
- G. Cleaning: Clean work area and areas affected by cutting and patching operations.

SECTION 02 41 19 - SELECTIVE DEMOLITION

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Selective Site Demolition:
1. Demolition of designated site improvements including paving, curbing, site walls, and utility structures.
 2. Revision of below-grade foundations and site improvements to depth to avoid conflict with new construction or site work.
 3. Removal of hollow items or items which could collapse.
 4. Salvage of designated items.
 5. Protection of site work and adjacent structures.
 6. Discover and capping, and removal of utilities.
 7. Pollution control during selective demolition, including noise control.
 8. Removal and legal disposal of materials.
 9. Designated site improvements and adjacent construction.
 10. Interruption, capping or removal of utilities as applicable.
- B. Selective Building Demolition:
1. Selective demolition of interior partitions, systems, and building components designated to be removed.
 2. Selective demolition of exterior facade, structures, and components designated to be removed.
 3. Protection of portions of building adjacent to or affected by selective demolition.
 4. Removal of abandoned utilities and wiring systems.
 5. Notification to Owner of schedule of shut-off of utilities which serve occupied spaces.
 6. Pollution control during selective demolition, including noise control.
 7. Removal and legal disposal of materials.
 8. Protection of designated site improvements and adjacent construction.
 9. Salvage of designated items.
 10. Interruption, capping or removal of utilities as applicable.
- C. Hazardous Materials:
1. Not present.
 2. Removed under separate prior contract.
 3. Removed as a part of this contract.

1.2 SUBMITTALS

- A. Submit under provisions of Section 01 30 00 - Administrative Requirements.
- B. Schedule: Submit for approval selective demolition schedule, including schedule and methods for capping utilities to be abandoned and maintaining existing utility service.
- 1.3 QUALITY ASSURANCE
- A. Codes and Regulations: Comply with governing codes and regulations. Use experienced workers.
- 1.4 PRE-INSTALLATION MEETINGS
- A. Convene minimum two weeks prior to starting work of this section.
- 1.5 SEQUENCING
- A. Immediate areas of work will not be occupied during selective demolition. The public, including children, may occupy adjacent areas.
- B. No hazardous materials for buildings and structures to be demolished will be assumed by the Owner.
- C. Ensure that products of this section are supplied to affected trades in time to prevent interruption of construction progress.

PART 2 - PRODUCTS - Not applicable to this Section.

PART 3 - EXECUTION

3.1 SELECTIVE DEMOLITION

- A. Demolition Operations: Do not damage building elements and improvements indicated to remain. Items of salvage value, not included on schedule of salvage items to be returned to Owner, shall be removed from structure. Storage or sale of items at project site is prohibited.
- B. Utilities: Locate, identify, disconnect, and seal or cap off utilities in buildings to be demolished.
- C. Shoring and Bracing: Provide and maintain interior and exterior shoring and bracing.
- D. Occupied Spaces: Do not close or obstruct streets, walks, drives or other occupied or used spaces or facilities without the written permission of the Owner and the authorities having jurisdiction. Do not interrupt utilities serving occupied or used facilities without the written permission of the Owner and authorities having jurisdiction. If necessary, provide temporary utilities.
- E. Operations: Cease operations if public safety or remaining structures are endangered. Perform temporary corrective measures until operations can be continued properly.
- F. Security: Provide adequate protection against accidental trespassing. Secure project after work hours.
- G. Restoration: Restore finishes of patched areas.



3003 Larimer Street
Denver, Colorado 80205
phone 303.861.5704
www.ozarch.com



4/27/18

FRISCO DAY LODGE RENOVATION
(ALTERNATE #1)
621 RECREATION WAY
FRISCO, CO 80443

PROJ. NO. 117119.00

DRAWN: OZ

CHECKED: OZ

APPROVED: OZ

DATE: 2018-04-27

SECTION 03 30 00 - CAST-IN-PLACE-CONCRETE

- PART 1 - GENERAL
- 1.1 SUMMARY
- A. Provide cast-in-place concrete, reinforcing and accessories.
- 1.2 SUBMITTALS
- A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.
- B. Shop Drawings: Submit shop drawings indicating material characteristics, details of construction, connections, control joints, expansion joints and relationship with adjacent construction.
1. Shop drawings shall be prepared and stamped by a qualified engineer licensed in the jurisdiction of the project.
- C. Mix Design: Submit for approval mix design proposed for use.
- 1.3 QUALITY ASSURANCE
- A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.
- B. Testing: Employ an independent testing agency acceptable to Owner to design concrete mixes and to perform material evaluation tests. Provide 7 and 28 day cylinder tests. Comply with ASTM C 143, C 173, C 31 and C 39.
- C. Standards:
1. ACI 301, Specifications for structural Concrete for Buildings.
2. ACI 318, Building Code Requirements for Reinforced Concrete, and CRSI Manual of Standard Practice.
- D. Mock-Ups: Provide 2' x 2' mock-up for approval to demonstrate quality of workmanship and color match to the existing adjacent concrete. Adjust concentration of color additive as necessary to achieve color match to existing.
- E. Floor Flatness and Levelness Tolerances:
1. Subfloors Under Materials Such as Concrete Toppings, Ceramic Tile, and Sand Bed Terrazzo: ACI 302.1R and ASTM E 1155, floor flatness (Ff) of 15, floor levelness (Fl) of 13.
2. Subfloors Under Materials Such As Vinyl Tile, Epoxy Toppings, Paint, and Carpet: ACI 302.1R and ASTM E 1155, floor flatness (Ff) of 20, floor levelness (Fl) of 17.

- PART 2 - PRODUCTS
- 2.1 MATERIALS
- A. Cast-In-Place Concrete:
1. Manufacturers: Concrete Color Additives: Davis Colors. Color: color shall match existing adjacent concrete. Records indicate "Cocoa" color was used previously on the adjacent existing concrete.
2. Application: Exterior site concrete and peds.
3. Finish for Vertical Surfaces Exposed To View: Smooth rubbed finish.
4. Mechanically Applied Finish for Vertical Surfaces Exposed to View: Bushhammer finish.
5. Finish for Exterior Concrete Platforms, Steps, Ramps and Sloped Walls: Non-slip broom finish.
6. Cast-In-Place Concrete Reinforcing and Accessories:
- a. Concrete Design Mixes: ASTM C 94, 28 day compressive strength suitable for project requirements and site conditions.
- b. Formwork: Plywood or metal panel formwork sufficient for structural and visual requirements.
- c. Reinforcing Bars: ASTM A 767, Class II, galvanized.
- d. Steel Wire: ASTM A 82.
- e. Steel Wire Fabric: ASTM A 497, welded, deformed.
- f. Concrete Materials: ASTM C 150, Type I, Portland cement; potable water.
- g. Concrete Admixtures: Containing less than 0.1 percent chloride ions.
- h. Reglets: Galvanized sheet steel reglets, minimum 26 gauge (.018 inch).
- i. Waterstops: Rubber, PVC or self expanding butyl/bentonite waterstops.
- j. Vapor Retarder: ASTM D 4397 polyethylene sheet, 10 mils.
- k. Liquid Membrane-Forming Curing Compound: ASTM C 309, Type 1, Class A.
- l. Underlayment Compound: Free-flowing, self-leveling cement-based compound.
- m. Bonding Compound: Polyvinyl acetate or acrylic base.
- n. Epoxy Adhesive: ASTM C 881, two-component material.

- PART 3 - EXECUTION
- 3.1 INSTALLATION
- A. Comply with ASTM C 94. Do not change mix design without approval. Calcium chloride admixtures are not permitted.
- B. Chamfer exposed edges/corners to provide straight lines.
- C. Tolerance: Plus 1/8" in 10" for grade, alignment, and straightness.
- D. Construction Joints: Use keyways, continue reinforcement through joint.
- E. Expansion Joints: For exterior work locate 30' o.c. at approved locations. Provide smooth dowels across joint which permit 1" horizontal movement and no vertical shear movement.
- F. Isolation Joints: Provide between slabs and vertical elements such as columns and structural walls.
- G. Control Joints: Provide sawn or tooled joints or removable insert strips; depth equal to 1/4 slab thickness. Spacing as required and approved.
- H. Wall Finishes: As-cast and patched for concealed work; rubbed smooth, filled and cement paste coated for exposed work.
- I. Slab Finishes: Obtain sample approval before beginning work.
1. Scratch: For surfaces to receive mortar setting beds or cementitious flooring materials.
2. Trowel: Hard, smooth, uniform surface for areas to receive resilient flooring, carpet, or other thin finish material.
3. Broom: After trowel finishing, roughen surface by fine brooming perpendicular to traffic direction for exposed exterior walls, steps and ramps.
4. Non-Slip Aggregate: After trowel finishing, uniformly trowel 25-lbs./100 s. f. of damp non-slip aggregate into surface. Cure, then rub lightly to expose aggregate. Use for interior exposed concrete stairs and ramps.
5. Exposed Aggregate: Use chemical retarder or lamp aggregate into wet concrete and expose by brushing with water. Use where indicated.
6. Hardener Finish: For exposed interior concrete floors. Follow manufacturer's directions.
- J. Cure and protect work. Report defective work in writing.

- SECTION 04 42 00 - EXTERIOR STONE CLADDING
- PART 1 - GENERAL
- 1.1 SUMMARY
- A. Provide exterior cut stonework.
- 1.2 SUBMITTALS
- A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.
- B. Shop Drawings: Submit shop drawings indicating material characteristics, details of construction, connections, and relationship with adjacent construction.
- C. Samples: Submit two representative samples of each material specified indicating visual characteristics and finish. Include range samples if variation of finish is anticipated.
- 1.3 QUALITY ASSURANCE
- A. Testing: Independent testing laboratory.
- B. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.
- C. Mock-Ups: Provide mock-up to demonstrate quality of workmanship and to confirm match to existing adjacent stone cladding and mortar.
- PART 2 - PRODUCTS
- 2.1 MATERIALS
- A. Natural Stone:
1. Manufacturers: Telluride Stone Company.
2. Application: Wall panels.
3. Type: As selected from manufacturer's full range to match existing. Records indicate "Beaver Creek" type was used previously on the existing adjacent stone cladding.
4. Finish: Match existing.
5. Joints: Match existing Mortar, ASTM C270, Type S.
- a. Portland Cement: ASTM C 150, Type I or II.
- b. Hydrated Lime: ASTM C 207, Type S.
- c. Aggregate: ASTM C 144.
- d. Colored Mortar Pigments: Iron oxides and chromium oxides.
- e. Latex Additive: Water emulsion type.
6. Anchors and Attachments: Stainless steel, ASTM A 666, Type 304.
7. Anchors and Attachments: Hot-dip galvanized steel, ASTM A 36, and ASTM A 153 galvanizing.

- PART 3 - EXECUTION
- 3.1 INSTALLATION
- A. Dress joints to match existing.
- B. Install exterior veneer by utilizing standard stainless steel strap anchors and dowels to structural support or as recommended by manufacturer. Provide mortar joints, color as approved. Seal joints with elastomeric sealant; vent and weep cavities or as recommended by manufacturer.
- C. Install to tolerances of plumb, alignment and level of plus or minus 1/8" in 20".
- D. Remove and replace damaged units. Clean using methods recommended by stone supplier.

- SECTION 06 40 10 - EXTERIOR ARCHITECTURAL WOODWORK
- PART 1 - GENERAL
- 1.1 SUMMARY
- A. This Section includes the following:
1. Exterior standing and running trim.
2. Exterior frames and jams.
3. Exterior louvers.
4. Exterior ornamental work.
5. Shop finishing exterior woodwork.
- 1.2 SUBMITTALS
- A. Product Data: For wood-preservative-treated materials and finishes indicated.
- B. Shop Drawings: Show location of each item, dimensioned plans and elevations, large-scale details, attachment devices, and other components.
- C. Samples: For lumber for exterior wood stain finish, for each finish system and color, with one-half of exposed surface finished.
- 1.3 QUALITY ASSURANCE
- A. Quality Standard: Unless otherwise indicated, comply with AWITs "Architectural Woodwork Quality Standards."
- PART 2 - PRODUCTS
- 2.1 MATERIALS
- A. Preservative Treatment by Nonpressure Process: Comply with AWPA N1 using the following preservative for woodwork items indicated to receive water-repellent preservative treatment:
1. Water-Repellent Preservative: Formulation containing 3-iodo-2-propynyl butyl carbamate (IPBC) complying with AWPA P8 as its active ingredient.
2. Water-Repellent Preservative/Insecticide: Formulation containing 3-iodo-2-propynyl butyl carbamate (IPBC) as its active ingredient, combined with an insecticide containing chlorpyrifos as its active ingredient, both complying with AWPA P8. B. Nails: PrimeGuard or equivalent.
- C. Screws: PrimeGuard or equivalent.

- 2.2 FABRICATION
- A. Wood Moisture Content: 9 to 15 percent.
- B. Complete fabrication, including assembly, finishing, and hardware application, to maximum extent possible, before shipment to Project site. Disassemble components only as necessary for shipment and installation. Where necessary for fitting at site, provide ample allowance for scribing, trimming, and fitting.
- C. Woodwork for Transparent Finish:
1. Grade: Premium.
2. Wood Species: Cedar-Submit samples.
- D. Backout or groove backs of flat trim members and kerf backs of other wide, flat members, except for members with ends exposed in finished work.
- E. Shop Priming: Shop prime woodwork for paint finish with one coat of wood primer specified in Division 9 painting Sections.
- F. Backpriming: Apply one coat of sealer or primer, compatible with finish coats, to concealed surfaces of woodwork. Apply two coats to surfaces installed in contact with concrete or masonry and to end-grain surfaces.
- F. Shop Finishing: Entire finish of exterior architectural woodwork is specified in this Section. To greatest extent possible, finish architectural woodwork at fabrication shop. Defer only final touchup and cleaning until after installation.
1. Grade: Same grade as item to be finished.
2. Backpriming: Apply one coat of sealer or primer, compatible with finish coats, to concealed surfaces of woodwork. Apply two coats to surfaces installed in contact with concrete or masonry and to end-grain surfaces.
3. AWI Finish System: Catalyzed polyurethane.
4. Sheen: Satin 31-45 gloss units measured on 60-degree gloss meter per ASTM D 523.

- PART 3 - EXECUTION
- 3.1 INSTALLATION
- A. Before installation, condition woodwork to average prevailing humidity conditions in installation areas. Before installing architectural woodwork, examine shop-fabricated work for completion and complete work as required, including removal of packing and backpriming.
- B. Quality Standard: Install woodwork to comply with same grade specified in Part 2 for type of woodwork involved.
- C. Install woodwork true and straight with no distortions. Shim as required with concealed shims. Install level and plumb to a tolerance of 1/8 inch in 96 inches (3 mm in 2400 mm).
- D. Scribe and cut woodwork to fit adjoining work, and refinish cut surfaces or repair damaged finish at cuts.
- E. Anchor woodwork to anchors or blocking built in or directly attached to substrates. Secure to grounds, stripping and blocking with countersunk concealed fasteners and blind nailing. Use fine finishing nails for exposed nailing, countersunk and filled flush with woodwork.
- F. Install trim with minimum number of joints possible, using full-length pieces (from maximum length of lumber available) to greatest extent possible. Scarf running joints and stagger in adjacent and related members.
- G. Complete finishing work specified in this Section to extent not completed at shop or before installation of woodwork. Fill nail and screw holes with matching filler where exposed.
- H. Refer to Division 9 Sections for final finishing of installed architectural woodwork.
- I. Clean woodwork on exposed and semexposed surfaces. Touch up shop-applied finishes to restore damaged or soiled areas.

- SECTION 07 11 00 - DAMPROOFING
- PART 1 - GENERAL
- 1.1 SUMMARY
- A. Provide bituminous dampproofing.
- 1.2 SUBMITTALS
- A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.
- 1.3 QUALITY ASSURANCE
- A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.
- PART 2 - PRODUCTS
- 2.1 MATERIALS
- A. Foundation Wall Dampproofing:
1. Type: Cold-applied fibered asphalt emulsion.
- a. Standard: ASTM D 1227, Type II, Class 1, troweled on.
2. Manufacturer: Discco 520, or equivalent
- PART 3 - EXECUTION
- 3.1 INSTALLATION
- A. Examine substrate; report unsatisfactory conditions in writing. Beginning work means acceptance of substrate. Begin work only after substrate construction and penetrating work is complete.
- B. Clean and prepare substrate; prime if recommended by dampproofing manufacturer. Protect adjacent work and surfaces from spillage, migration, and damage.
- C. Comply with manufacturer's instructions and recommendations including weather and temperature limitations. Install cant strips, reinforcing strips and other accessories as recommended by dampproofing manufacturer.
- D. Apply dampproofing to achieve 60 mils dry film thickness, unless greater thickness is recommended by manufacturer based on project conditions.

- SECTION 07 13 00 - SHEET WATERPROOFING
- PART 1 - GENERAL
- 1.1 SUMMARY
- A. Provide sheet membrane waterproofing.
- 1.2 SUBMITTALS
- A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.
- B. Warranty: Submit manufacturer's standard warranty. Include labor and materials to repair or replace defective materials.
1. Warranty Period: 5 years.
- 1.3 QUALITY ASSURANCE
- A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.
- B. Testing: Flood testing of horizontal applications.
- PART 2 - PRODUCTS
- 2.1 MATERIALS
- A. Geotextile-Faced Drainage Panels:
1. Manufacturers: Carlisle, MiraDrain 6000.
2. Type: Geotextile faced 3-dimensional, nonbiodegradable, molded-plastic-sheet drainage cores.
- B. Ice and Water Shield:
1. Manufacturers: Owens Corning. Weatherlock Self-Sealing Ice and Water Barrier.

- PART 3 - EXECUTION
- 3.1 INSTALLATION
- A. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials and systems in proper relation with adjacent construction. Coordinate with work of other sections.
- B. Restore damaged components and test waterproofing for leaks. Clean and protect work from damage.

- SECTION 07 21 00 - THERMAL INSULATION
- PART 1 - GENERAL
- 1.1 SUMMARY
- A. Provide thermal insulation and vapor retarders.
- 1.2 SUBMITTALS
- A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.
- B. Submit for approval test reports.
- 1.3 QUALITY ASSURANCE
- A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.
- PART 2 - PRODUCTS
- 2.1 MATERIALS
- A. Board Insulation:
1. Manufacturer: Dow Chemical, Thermax.
2. Application: Foundation walls.
3. Application: Under slabs-on-grade.
4. Type: Extruded polystyrene, rigid.
- a. Standard: ASTM C 578.
- B. Blanket/Batt Insulation:
1. Manufacturer: Owens Corning, Eco-touch Pink.
2. Application: Thermal insulation in studs in exterior walls.
3. Application: Thermal insulation at underside of roofs, over heated spaces and soffits.
4. Type: Unfaced mineral fiber.
- a. Standard: ASTM C 665, Type I (unfaced).
5. Type: Foli-faced mineral fiber.
- a. Standard: ASTM C 665, Type III (foli-scrim-kraft vapor-retarder membrane).
- b. Accessories: Fasteners and tapes.
- D. Vapor Retarder (Not Integral with Insulation):
1. Manufacturer: CertainTeed or equivalent
2. Application: Exterior walls.
3. Type: Reinforced 2-ply polyethylene, 6 to 10 mils.
- a. Accessories: Seam tapes.

- PART 3 - EXECUTION
- 3.1 INSTALLATION
- A. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials and systems in proper relation with adjacent construction. Coordinate with work of other sections. Provide full thickness in one layer over entire area, tightly fitting around penetrations.
- B. Pour loose insulation into cavities indicated; provide uniform coverage at correct density and thickness.
- C. Install vapor retarder over entire area of inside face of exterior walls and elsewhere as indicated. Seal all seams and around perimeter and penetrations with duct tape to form a continuous vapor retarder free of holes.
- D. Protect installed insulation and vapor retarder.

- SECTION 07 62 00 - SHEET METAL FLASHING AND TRIM
- PART 1 - GENERAL
- 1.1 SUMMARY
- A. Provide flashing and sheet metal.

- 1.2 SUBMITTALS
- A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.
- B. Shop Drawings: Submit shop drawings indicating material characteristics, details of construction, connections, and relationship with adjacent construction.
- C. Samples: Submit two representative samples of each material specified indicating visual characteristics and finish. Include range samples if variation of finish is anticipated.
- 1.3 QUALITY ASSURANCE
- A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.
- PART 2 - PRODUCTS
- 2.1 MATERIALS
- A. Flashing and Sheet Metal:
1. Manufacturers:Architctural Metal Specialties Inc, Hylod, Petersen Aluminum Corp, TYPAR, or equivalent.
2. Application: Metal counterflashing and base flashing.
3. Application: Exterior wall flashing and expansion joints.
4. Application: Built-in metal valleys, gutters, and scuppers.
5. Application: Gutters and downspouts.
6. Application: Exposed metal trim and fascia units.
7. Application: Elastic flashing.
8. Application: Elastic roof and wall expansion joint systems.
9. Application: Laminated composition flashing.
10. Application: Ridge and soffit vents.
11. Metal: Zinc-coated steel.
- a. Standard: ASTM A 653, G90 hot-dip galvanized, 2-Coat 70% Fluoropolymer, 20-gauge (.0359 inch).
12. Metal: Stainless steel.
- a. Standard: AB51 Type 302/304, ASTM A 666, 2D annealed finish, 28 gauge (.0156 inch).
15. Metal: Sheet aluminum.
- a. Standard: ASTM B 209, alloy 3003, prefinished 2-coat 70% fluoropolymer, 20 gauge (.0359 inch).
16. Metal: Extruded aluminum.
- a. Standard: 6063-T52, prefinished 2-coat 70% Fluoropolymer, 0.080 inches for primary legs of extrusion.
17. Flexible Sheet Membrane Flashing: Nonreinforced flexible black elastic sheet, 50 to 65 mils thick, synthetic rubber.
19. Elastic Expansion Joints: Factory-fabricated metal-flanged edges to fit curbs and curb substrate.
20. Soffit Vents: Round prefinished metal vents to match existing; submit samples for review.
22. Auxiliary Materials:
- a. Solder compatible with metal.
- b. Bituminous isolation coating.
- c. Mastic and elastomeric sealants.
- d. Epoxy seam sealer.
- e. Rosin-sized building paper slip sheet.
- f. Polyethylene underlayment.
- g. Reglets and metal accessories.
- h. Gutter and conductor head guards.
- i. Asphaltic roofing cement.
- PART 3 - EXECUTION
- 3.1 INSTALLATION
- A. Follow recommendations of SMACNA Sheet Metal Manual. Allow for expansion. Isolate dissimilar materials.
- B. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials and systems in proper relation with adjacent construction and with uniform appearance. Coordinate with work of other sections.
- C. Restore damaged components and finishes. Clean and protect work from damage.

- SECTION 07 90 00 - JOINT SEALANTS
- PART 1 - GENERAL
- 1.1 SUMMARY
- A. Provide joint sealers and fillers.
- 1.2 SUBMITTALS
- A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.
- B. Samples: Submit two representative samples of each material specified indicating visual characteristics and finish. Include range samples if variation of finish is anticipated.
1. Include manufacturers full range of color and finish options if additional selection is required.
- 1.3 QUALITY ASSURANCE
- A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions and approved submittals.
- B. Field-Constructed Mock-Ups: Each joint type.
- PART 2 - PRODUCTS
- 2.1 MATERIALS
- A. Exterior Joints in Vertical Surfaces, Silicone:
1. Manufacturers:Alcot Plastics Ltd., Liquid Nails Brand; Sashco Sealants, Inc.;Schul International Company;Willseal LLC; or equivalent.
2. Materials: Two component silicone sealant.
- B. Exterior Joints in Vertical Surfaces, Urethane:
1. Manufacturers:Alcot Plastics Ltd.; Backer Rod Mfg. Inc.;Sashco Sealants, Inc.;Top Gun Brand;Willseal LLC; or equivalent.
2. Materials: Two-component urethane sealant.
- C. Exterior Joints in Vertical Surfaces, Preformed Compression Seals:
1. Manufacturers:Schul International Company;Willseal LLC; or equivalent.
2. Materials: Preformed precompressed foam sealant.
- D. Exterior Joints in Horizontal Surfaces, Urethane:
1. Manufacturers:Sashco Sealants, Inc.;Top Gun Brand;Willseal LLC; or equivalent
2. Materials: Self-leveling urethane sealant, ASTM C 920.
- E. Exterior Joints Immersed in Water, Polysulfide:
1. Manufacturers:Alcot Plastics Ltd.; Willseal LLC; or equivalent
2. Materials: Two-part polysulfide, for water immersion, ASTM C 920.
- F. Exterior Paving Joint Fillers, Bituminous:
1. Manufacturers: Submit for review.
2. Materials: Bituminous fiber.
- G. Interior Joints, Sanitary Silicone:
1. Manufacturers:Alcot Plastics Ltd.;Momentive Performance Materials; or equivalent.
2. Materials: One-part mildew-resistant silicone sealant, ASTM C 920.

- PART 3 - EXECUTION
- 3.1 INSTALLATION
- A. Examine substrate; report unsatisfactory conditions in writing. Beginning work means acceptance of substrates.
- B. Provide sealants in colors as selected from manufacturer's standards.
- C. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials and systems in proper relation with adjacent construction and with uniform appearance. Coordinate with work of other sections. Clean and prime joints, and install bond breakers, backer rods and sealant as recommended by manufacturers.
- D. Depth shall equal width up to 1/2 inch wide; depth shall equal 1/2 width for joints over 1/2 inch wide.
- E. Cure and protect sealants as directed by manufacturers. Replace or restore damaged sealants. Clean adjacent surfaces to remove spillage.


- SECTION 08 11 19 - STAINLESS STEEL DOORS AND FRAMES
- PART 1 - GENERAL
- 1.1 SUMMARY
- A. Provide stainless steel doors and frames.
- 1.2 SUBMITTALS
- A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.
- B. Shop Drawings: Submit shop drawings indicating material characteristics, details of construction, connections, and relationship with adjacent construction.
- 1.3 QUALITY ASSURANCE
- A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.
- B. Standards: ANSI/SDI-100, Recommended Specifications for Standard Steel Doors and Frames.
- C. Performance Standards:
1. Fire-Rated Assemblies: NFPA 80, and acceptable testing agency listing.
2. Thermal-Rated Assemblies at Exterior: ASTM C 236 or ASTM C 976.
3. Sound-Rated Assemblies: ASTM E 1406, and ASTM E 413.
- PART 2 - PRODUCTS
- 2.1 MATERIALS
- A. Exterior Stainless Steel Doors:
1. Manufacturers: Ceco, or equivalent
2. Material: Minimum 16 gauge stainless steel sheet.
3. Door Thickness: 1-3/4 inches, thermally insulated.
4. Finish: No. 4 directional satin finish.
5. Accessories:
- a. Silencers.
- B. Exterior Steel Frames:
1. Manufacturers: Ceco, or equivalent.
2. Material: Minimum 14 gauge stainless steel sheet.
3. Corners: Mitred or coped.
4. Type: Welded.
5. Finish: No. 4 directional satin finish.

- SECTION 087100 - DOOR HARDWARE
- PART 1 - GENERAL
- 1.1 RELATED DOCUMENTS
- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.
- 1.2 SUMMARY
- A. This Section includes commercial door hardware for the following:
1. Swinging doors.
2. Other doors to the extent indicated.
- B. Door hardware includes, but is not necessarily limited to, the following:
1. Mechanical door hardware.
2. Electromechanical door hardware.
3. Cylinders specified for doors in other sections.
- C. Related Sections:
1. Division 06 Section "Rough Carpentry".
2. Division 06 Section "Finish Carpentry".
3. Division 08 Section "Operations and Maintenance".
4. Division 08 Section "Hollow Metal Doors and Frames".
5. Division 08 Section "Flush Wood Doors".
6. Division 28 Section "Access Control".
- D. Codes and References: Comply with the version year adopted by the Authority Having Jurisdiction.
1. ANSI A117.1 - Accessible and Usable Buildings and Facilities.
2. ICC/IBC - International Building Code.
3. NFPA 70 - National Electrical Code.
4. NFPA 80 - Fire Doors and Windows.
5. NFPA 101 - Life Safety Code.
6. NFPA 105 - Installation of Smoke Door Assemblies.
7. State Building Codes, Local Amendments.
- E. Standards: All hardware specified herein shall comply with the following industry standards:
1. ANSI/BHMA Certified Product Standards - A156 Series
2. UL10C - Positive Pressure Fire Tests of Door Assemblies

- 1.3 SUBMITTALS
- A. Product Data: Manufacturer's product data sheets including installation details, material descriptions, dimensions of individual components and profiles, operational descriptions and finishes.
- B. Door Hardware Schedule: Prepared by or under the supervision of supplier, detailing fabrication and assembly of door hardware, as well as procedures and diagrams. Coordinate the final Door Hardware Schedule with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of door hardware.
1. Format: Comply with scheduling sequence and vertical format in D11's "Sequence and Format for the Hardware Schedule."
2. Organization: Organize the Door Hardware Schedule into door hardware sets indicating complete designations of every item required for each door or opening. Organize door hardware sets in same order as in the Door Hardware Sets at the end of Part 3. Submittals that do not follow the same format and order as the Door Hardware Sets will be rejected and subject to resubmission.
3. Content: Include the following information:
- a. Type, style, function, size, label, hand, and finish of each door hardware item.
- b. Manufacturer of each item.
- c. Fasteners and other pertinent information.
- d. Location of door hardware set, cross-referenced to Drawings, both on floor plans and in door and frame schedule.
- e. Explanation of abbreviations, symbols, and codes contained in schedule.
- f. Mounting locations for door hardware.
- g. Door and frame sizes and materials.
- h. Warranty information for each product.
4. Submittal Sequence: Submit the final Door Hardware Schedule at earliest possible date, particularly where approval of the Door Hardware Schedule must precede fabrication of other work that is critical in the Project construction schedule. Include Product Data, Samples, Shop Drawings of other work affected by door hardware, and other information essential to the coordinated review of the Door Hardware Schedule.
- C. Shop Drawings: Details of electrified access control hardware including the following:
1. Wiring Diagrams: Upon receipt of approved schedules, submit detailed system wiring diagrams for power, signaling, monitoring, communication, and control of the access control system electrified hardware. Differentiate between manufacturer-installed and field-installed wiring. Include the following:
- a. Elevation diagram of each unique access controlled opening showing location and interconnection of major system components with respect to their placement in the respective door openings.
- b. Complete (risers, point-to-point) access control system block wiring diagrams.
- c. Wiring instructions for each electronic component scheduled herein.
2. Electrical Coordination: Coordinate with related sections the voltages and wiring details required at electrically controlled access controlled hardware openings.
- D. Keying Schedule: After a keying meeting with the owner has taken place prepare a separate keying schedule detailing final instructions. Submit the keying schedule in electronic format. Include keying system explanation, door numbers, key set symbols, hardware set numbers and special instructions. Owner must approve submitted keying schedule prior to the ordering of permanent cylinders/cores.
- E. Operating and Maintenance Manuals: Provide manufacturers operating and maintenance manuals for each item comprising the complete door hardware installation in quantity as required in Division 01, Closeout Submittals.
- 1.4 QUALITY ASSURANCE
- A. Manufacturers Qualifications: Engage qualified manufacturers with a minimum 5 years of documented experience in producing hardware and equipment similar to that indicated for this Project and that have a proven record of successful in-service performance.
- B. Installer Qualifications: A minimum 3 years documented experience installing both standard and electrified door hardware similar in material, design, and extent to that indicated for this Project and whose work has resulted in construction with a record of successful in-service performance.
- C. Door Hardware Supplier Qualifications: Experienced commercial door hardware distributors with a minimum 5 years documented experience supplying both mechanical and electromechanical hardware installations comparable in material, design, and extent to that indicated for this Project. Supplier recognized as a factory direct distributor by the manufacturers of the primary materials with a warehousing facility in Project's vicinity. Supplier to have on staff a certified Architectural Hardware Consultant (AHC) available during the course of the Work to consult with Contractor, Architect, and Owner concerning both standard and electromechanical door hardware and keying.
- D. Source Limitations: Obtain each type and variety of door hardware specified in this section from a single source unless otherwise indicated.
1. Electrified modifications or enhancements made to a source manufacturer's product line by a secondary or third party source will not be accepted.
2. Provide electromechanical door hardware from the same manufacturer as mechanical door hardware, unless otherwise indicated.
- E. Each unit to bear third party permanent label demonstrating compliance with the referenced standards.
- F. Keying Conference: Conduct conference to comply with requirements in Division 01 Section "Project Meetings." Keying conference to incorporate the following criteria into the final keying schedule document:
1. Function of building, purpose of each area and degree of security required.
2. Plans for existing and future key system expansion.
3. Requirements for key control storage and software.
4. Installation of permanent keys, cylinder cores and software.
5. Address and requirements for delivery of keys.
- G. Pre-Submittal Conference: Conduct coordination conference in compliance with requirements in Division 01 Section "Project Meetings" with attendance by representatives of Supplier(s), Installer(s), and Contractor(s) to review proper methods and the procedures for receiving, handling, and installing door hardware.
1. Prior to installation of door hardware, conduct a project specific training meeting to instruct the installing contractors' personnel on the proper installation and adjustment of their respective products.
- Product training to be attended by installers of door hardware (including electromechanical hardware) for aluminum, hollow metal and wood doors. Training will include the use of installation manuals, hardware schedules, templates and physical product samples as required.
2. Inspect and discuss electrical roughing-in, power supply connections, and other preparatory work performed by other trades.
3. Review sequence of operation narratives for each unique access controlled opening.
4. Review and finalize construction schedule and verify availability of materials.
5. Review the required inspecting, testing, commissioning, and demonstration procedures.
- H. At completion of installation, provide written documentation that components were applied to manufacturer's instructions and recommendations and according to approved schedule.
- 1.5 DELIVERY, STORAGE, AND HANDLING
- A. Inventory door hardware on receipt and provide secure lock-up and shelving for door hardware delivered to Project site. Do not store electronic access control hardware, software or accessories at Project site without prior authorization.
- B. Tag each item or package separately with identification related to the final Door Hardware Schedule, and include basic installation instructions with each item or package.
- C. Deliver, as applicable, permanent keys, cylinders, cores, access control credentials, software and related accessories directly to Owner via registered mail or overnight package service. Instructions for delivery to the Owner shall be established at the "Keying Conference".
- 1.6 COORDINATION
- A. Templates: Obtain and distribute to the parties involved templates for doors, frames, and other work specified to be factory prepared for installing standard and electrified hardware. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing hardware to comply with indicated requirements.
- B. Door Hardware and Electrical Connections: Coordinate the layout and installation of scheduled electrified door hardware and related access control equipment with required connections to source power junction boxes, low voltage power supplies, detection and monitoring hardware, and fire and detection alarm systems.
- C. Door and Frame Preparation: Doors and corresponding frames are to be prepared, reinforced and pre-wired (if applicable) to receive the installation of the specified electrified, monitoring, signaling and access control system hardware without additional in-field modifications.
- 1.7 WARRANTY
- A. General Warranty: Reference Division 01, General Requirements. Special warranties specified in this Article shall not deprive Owner of other rights. Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by Contractor under requirements of the Contract Documents.



3003 Larimer Street
Denver, Colorado 80205
phone 303.861.5704
www.ozarch.com



4/27/18

FRISCO DAY LODGE RENOVATION
(ALTERNATE #1)
621 RECREATION WAY
FRISCO, CO 80443

PROJ. NO. 117119.00

DRAWN: OZ

CHECKED: OZ

APPROVED: OZ

DATE: 2018-04-27

© OZ ARCHITECTURE

FRISCO DAY LODGE RENOVATION
(ALTERNATE #1)
ISSUED FOR PERMIT SET

SHEET TITLE:
PROJECT SPECIFICATIONS

SCALE:
SHEET NUMBER

G-102

- B. Warranty Period: Written warranty, executed by manufacturer(s), agreeing to repair or replace components of standard and electrified door hardware that fails in materials or workmanship within specified warranty period after final acceptance by the Owner. Failures include, but are not limited to, the following:
1. Structural failures including excessive deflection, cracking, or breakage.
 2. Faulty operation of the hardware.
 3. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
- C. Standard Warranty Period: One year from date of Substantial Completion, unless otherwise indicated.
- D. Special Warranty Periods:
1. Ten years for mortise locks and latches.
 2. Five years for exit hardware.
 3. Twenty five years for manual surface door closure bodies.
 4. Five years for motorized electric latch retraction exit devices.
 5. Two years for electromechanical door hardware.

1.8 MAINTENANCE SERVICE

- A. Maintenance Tools and Instructions: Furnish a complete set of specialized tools and maintenance instructions as needed for Owner's continued adjustment, maintenance, and removal and replacement of door hardware.

PART 2 - PRODUCTS

2.1 SCHEDULED DOOR HARDWARE

- A. General: Provide door hardware for each door to comply with requirements in Door Hardware Sets and each referenced section that products are to be supplied under.
- B. Designations: Requirements for quantity, item, size, finish or color, grade, function, and other distinctive qualities of each type of door hardware are indicated in the Door Hardware Sets at the end of Part 3. Products are identified by using door hardware designations, as follows:

1. Named Manufacturer's Products: Product designation and manufacturer are listed for each door hardware type required for the purpose of establishing requirements. Manufacturers' names are abbreviated in the Door Hardware Schedule.
- C. Substitutions: Requests for substitution and product approval for inclusive mechanical and electromechanical door hardware in compliance with the specifications must be submitted in writing and in accordance with the procedures and time frames outlined in Division 01, Substitution Procedures. Approval of requests is at the discretion of the architect, owner, and their designated consultants.

2.2 HANGING DEVICES

- A. Hinges: ANSI/BHMA A156.1 certified butt hinges with number of hinge knuckles as specified in the Door Hardware Sets.

1. Quantity: Provide the following hinge quantity, unless otherwise indicated:
 - a. Two Hinges: For doors with heights up to 60 inches.
 - b. Three Hinges: For doors with heights 61 to 90 inches.
 - c. Four Hinges: For doors with heights 91 to 120 inches.
 - d. For doors with heights more than 120 inches, provide 4 hinges, plus 1 hinge for every 30 inches of door height greater than 120 inches.
2. Hinge Size: Provide the following, unless otherwise indicated, with hinge widths sized for door thickness and clearances required:
 - a. Widths up to 3'0": 4-1/2" standard or heavy weight as specified.
 - b. Sizes from 3'1" to 4'0": 5" standard or heavy weight as specified.
3. Hinge Weight and Base Material: Unless otherwise indicated, provide the following:
 - a. Exterior Doors: Heavy weight, non-ferrous, ball bearing or oil impregnated bearing hinges unless Hardware Sets indicate standard weight.
 - b. Interior Doors: Standard weight, steel, ball bearing or oil impregnated bearing hinges unless Hardware Sets indicate heavy weight.
4. Hinge Options: Comply with the following:
 - a. Non-removable Pins: Provide set screw in hinge barrel that, when tightened into a groove in hinge pin, prevents removal of pin while door is closed, for the all out-swinging lockable doors.
5. Acceptable Manufacturers:
 - a. McKinney Products; ASSA ABLOY Architectural Door Accessories (MK).

2.3 CYLINDERS AND KEYING

- A. General: Cylinder manufacturer to have minimum (10) years experience designing secured master key systems and have on record a published security keying system policy.
- B. Source Limitations: Obtain each type of keyed cylinder and keys from the same source manufacturer as locksets and exit devices, unless otherwise indicated.
- C. Cylinders: Original manufacturer cylinders complying with the following:
1. Mortise Type: Threaded cylinders with rings and cams to suit hardware application.
 2. Rim Type: Cylinders with back plate, flat-type vertical or horizontal tailpiece, and raised trim ring.
 3. Bored-Lock Type: Cylinders with tailpieces to suit locks.
 4. Mortise and rim cylinder collars to be solid and recessed to allow the cylinder face to be flush and be free spinning with matching finishes.
 5. Keyway: Manufacturer's Standard.

6. Acceptable Manufacturers:
- a. Sargent (SA) – (Confirm and match facilities standard).

D. Keying System: Each type of lock and cylinders to be factory keyed.

1. Conduct specified "Keying Conference" to define and document keying system instructions and requirements.
2. Furnish factory cut, nickel-silver large bow permanently inscribed with a visual key control number as directed by Owner.
3. Existing System: Key locks to a new key system as directed by the Owner.

E. Key Quantity: Provide the following minimum number of keys:

1. Change Keys per Cylinder: Two (2)
2. Master Keys (per Master Key Level/Group): Five (5).
3. Construction Keys (where required): Ten (10).

2.4 MECHANICAL LOCKS AND LATCHING DEVICES

- A. Mortise Locksets, Grade 1 (Heavy Duty): ANSI/BHMA A156.13, Series 1000, Operational Grade 1 certified. Locksets are to be manufactured with a corrosion resistant steel case and be field-reversible for handing without disassembly of the lock body.

1. Mortise locks to be certified Security Grade 1.
2. Extended cycle test: Locks to have been cycle tested in ordinance with ANSI/BHMA 156.13 requirements to 10 million cycles.
3. Acceptable Manufacturers:
 - a. Sargent Manufacturing (SA) – 8200 Series.

2.5 LOCK AND LATCH STRIKES

- A. Strikes: Provide manufacturer's standard strike with strike box for each latch or lock bolt, with curved lip extended to protect frame, finished to match door hardware set, unless otherwise indicated, and as follows:
1. Flat-Lip Strikes: For locks with three-piece antifriction latchbolts, as recommended by manufacturer.
 2. Extra-Long-Lip Strikes: For locks used on frames with applied wood casing trim.
 3. Aluminum-Frame Strike Box: Provide manufacturer's special strike box fabricated for aluminum framing.
 4. Double-lipped strikes: For locks at double acting doors. Furnish with retractable stop for rescue hardware applications.

- B. Standards: Comply with the following:

1. Strikes for Mortise Locks and Latches: BHMA A156.13.
2. Strikes for Bored Locks and Latches: BHMA A156.2.
3. Strikes for Auxiliary Deadlocks: BHMA A156.36.
4. Dustproof Strikes: BHMA A156.16.

2.6 DOOR CLOSERS

- A. All door closers specified herein shall meet or exceed the following criteria:
1. General: Door closers to be from one manufacturer, matching in design and style, with the same type door preparations and templates regardless of application or spring size. Closers to be non-handed with full sized covers including installation and adjusting information on inside of cover.
 2. Standards: Closers to comply with UL-10C for Positive Pressure Fire Test and be U.L. listed for use of fire rated doors.
 3. Cycle Testing: Provide closers which have surpassed 15 million cycles in a test witnessed and verified by UL.
 4. Size of Units: Comply with manufacturer's written recommendations for sizing of door closers depending on size of door, exposure to weather, and anticipated frequency of use. Where closers are indicated for doors required to be accessible to the physically handicapped, provide units complying with ANSI ICCA117.1.
 5. Closer Arms: Provide heavy duty, forged steel closer arms unless otherwise indicated in Hardware Sets.
 6. Closers shall not be installed on exterior or corridor side of doors; where possible install closers on door for optimum aesthetics.
 7. Closer Accessories: Provide door closer accessories including custom templates, special mounting brackets, spacers and drop plates as required for proper installation. Provide through-bolt and security type fasteners as specified in the hardware sets.

- B. Door Closers, Surface Mounted (Heavy Duty): ANSI/BHMA A156.4, Grade 1 surface mounted, heavy duty door closers with complete spring power adjustment, sizes 1 thru 6, and fully operational adjustable according to door size, frequency of use, and opening force. Closers to be rack and pinion type, one piece cast iron or aluminum alloy body construction, with adjustable backcheck and separate non-critical valves for closing sweep and latch speed control. Provide non-handed units standard.

1. Acceptable Manufacturers:

- a. Sargent Manufacturing (SA) - 351 Series.

2.7 ARCHITECTURAL TRIM

A. Door Protective Trim

1. General: Door protective trim units to be of type and design as specified below or in the Hardware Sets.
2. Size: Fabricate protection plates (kick, armor, or mop) not more than 2" less than door width (LDW) on stop side of single doors and 1" LDW on stop side of pairs of doors, and not more than 1" less than door width on pull side. Coordinate and provide proper width and height as required where conflicting hardware heights. Height to be as specified in the Hardware Sets.
3. Where plates are applied to fire rated doors with the top of the plate more than 16" above the bottom of the door, provide plates complying with NFPA 80. Consult manufacturer's catalog and template book for specific requirements for size and applications.
4. Protection Plates: ANSI/BHMA A156.6 certified protection plates (kick, armor, or mop), fabricated from the following:
 - a. Stainless Steel: 300 grade, .050-inch thick.
5. Options and fasteners: Provide manufacturer's designated fastener type as specified in the Hardware Sets. Provide countersunk screw holes.

6. Acceptable Manufacturers:
- a. Rockwood Products; ASSA ABLOY Architectural Door Accessories (RO).
 - b. Trimco (TC).

2.8 DOOR STOPS AND HOLDERS

- A. General: Door stops and holders to be of type and design as specified below or in the Hardware Sets.
- B. Overhead Door Stops and Holders: ANSI/BHMA A156.6, Grade 1 certified overhead stops and holders to be surface or concealed types as indicated in Hardware Sets. Track, slide, arm and jamb bracket to be constructed of extruded bronze and shock absorber spring of heavy tempered steel. Provide non-handed design with mounting brackets as required for proper operation and function.

1. Acceptable Manufacturers:
 - a. Rixson Door Controls (RF).
 - b. Sargent Manufacturing (SA).

2.9 ARCHITECTURAL SEALS

- A. General: Thresholds, weatherstripping, and gasket seals to be of type and design as specified below or in the Hardware Sets. Provide continuous weatherstrip gasketing on exterior doors and provide smoke, light, or sound gasketing on interior doors where indicated. At exterior applications provide non-corrosive fasteners and elsewhere where indicated.
- B. Smoke Labeled Gasketing: Assemblies complying with NFPA 105 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for smoke control ratings indicated, based on testing according to UL 1784.

1. Provide smoke labeled perimeter gasketing at all smoke labeled openings.

- C. Fire Labeled Gasketing: Assemblies complying with NFPA 80 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire ratings indicated, based on testing according to UL-10C.

1. Provide intumescent seals as indicated to meet UL 10C Standard for Positive Pressure Fire Tests of Door Assemblies, and NFPA 252, Standard Methods of Fire Tests of Door Assemblies.

- D. Sound-Rated Gasketing: Assemblies that are listed and labeled by a testing and inspecting agency, for sound ratings indicated.

- E. Replaceable Seal Strips: Provide only those units where resilient or flexible seal strips are easily replaceable and readily available from stocks maintained by manufacturer.

- F. Acceptable Manufacturers:
1. National Guard Products (NG).
 2. Pemko Products; ASSA ABLOY Architectural Door Accessories (PE).

2.10 FABRICATION

- A. Fasteners: Provide door hardware manufactured to comply with published templates generally prepared for machine, wood, and sheet metal screws. Provide screws according to manufacturers recognized installation standards for application intended.

2.11 FINISHES

- A. Standard: Designations used in the Hardware Sets and elsewhere indicate hardware finishes complying with ANSI/BHMA A156.18, including coordination with traditional U.S. finishes indicated by certain manufacturers for their products.

- B. Provide quality of finish, including thickness of plating or coating (if any), composition, hardness, and other qualities complying with manufacturer's standards, but in no case less than specified by referenced standards for the applicable units of hardware

- C. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine scheduled openings, with Installer present, for compliance with requirements for installation tolerances, labeled fire door assembly construction, wall and floor construction, and other conditions affecting performance.
- B. Notify architect of any discrepancies or conflicts between the door schedule, door types, drawings and scheduled hardware, proceed only after such discrepancies or conflicts have been resolved in writing.

3.2 PREPARATION

- A. Hollow Metal Doors and Frames: Comply with ANSI/DHI A115 series.

- B. Wood Doors: Comply with ANSI/DHI A115-W series.

3.3 INSTALLATION

- A. Install each item of mechanical and electromechanical hardware and access control equipment to comply with manufacturer's written instructions and according to specifications.

1. Installers are to be trained and certified by the manufacturer on the proper installation and adjustment of fire, life safety, and security products including: hanging devices; locking devices; closing devices; and seals.

- B. Mounting Heights: Mount door hardware units at heights indicated in following applicable publications, unless specifically indicated or required to comply with governing regulations:

1. Standard Steel Doors and Frames: DHI's "Recommended Locations for Architectural Hardware for Standard Steel Doors and Frames."
2. Wood Doors: DHI WDHS.3, "Recommended Locations for Architectural Hardware for Wood Flush Doors."
3. Where indicated to comply with accessibility requirements, comply with ANSI A117.1 "Accessibility Guidelines for Buildings and Facilities."
4. Provide blocking in drywall partitions where wall stops or other wall mounted hardware is located.

- C. Retrofitting: Install door hardware to comply with manufacturer's published templates and written instructions. Where cutting and fitting are required to install door hardware onto or into surfaces that are later to be painted or finished in another way, coordinate removal, storage, and reinstallation of surface protective trim units with finishing work specified in Division 9 Sections. Do not install surface-mounted items until finishes have been completed on substrates involved.

- D. Thresholds: Set thresholds for exterior and acoustical doors in full bed of sealant complying with requirements specified in Division 7 Section "Joint Sealants."

- E. Storage: Provide a secure lock up for hardware delivered to the project but not yet installed. Control the handling and installation of hardware items so that the completion of the work will not be delayed by hardware losses before and after installation.

3.4 FIELD QUALITY CONTROL

- A. Field Inspection: Supplier will perform a final inspection of installed door hardware and state in report whether work complies with or deviates from requirements, including whether door hardware is properly installed, operating and adjusted.

3.5 ADJUSTING

- A. Initial Adjustment: Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate as intended. Adjust door control devices to compensate for final operation of heating and ventilating equipment and to comply with referenced accessibility requirements.

3.6 CLEANING AND PROTECTION

- A. Protect all hardware stored on construction site in a covered and dry place. Protect exposed hardware installed on doors during the construction phase. Install any and all hardware at the latest possible time frame.
- B. Clean adjacent surfaces soiled by door hardware installation.
- C. Clean operating items as necessary to restore proper finish. Provide final protection and maintain conditions that ensure door hardware is without damage or deterioration at time of owner occupancy.

3.7 DEMONSTRATION

- A. Instruct Owner's maintenance personnel to adjust, operate, and maintain mechanical and electromechanical door hardware.

3.8 DOOR HARDWARE SETS

- A. The hardware sets represent the design intent and direction of the owner and architect. They are a guideline only and should not be considered a detailed hardware schedule. Discrepancies, conflicting hardware and missing items should be brought to the attention of the architect with corrections made prior to the bidding process. Omitted items not included in a hardware set should be scheduled with the appropriate additional hardware required for proper application and functionality.

- B. Manufacturer's Abbreviations:

- | | | |
|------------------|--|----|
| 1. MK - McKinney | | MK |
| 2. RO - Rockwood | | SA |
| 3. SA - Sargent | | SA |
| 4. NO - Norton | | SA |
| 5. RF - Rixson | | SA |
| 7. PE - Pemko | | SA |
| 8. OT - OTHER | | SA |
| 9. HS - HES | | SA |

C. Hardware Schedule Notes:

1. Verify and match Owner's existing standard Sargent key system.
2. Provide special template layout with overhead stops and closers, continuous hinges, pivots, etc. as required.
3. Hardware supplier shall coordinate hardware requirements and door and frame preparation with security contractor, general contractor, electrical contractor, and architect.
4. Per Part 2 - Products of this specification section: Provide non-removable pin (NRP) feature for hinges at outswinging, lockable doors as required; provide proper closer arm for installation with optimum aesthetics, in general regular arm for inswinging doors and parallel arm for outswinging doors, unless otherwise noted.
5. Provide thresholds as scheduled or otherwise noted or detailed on the architectural drawings.
6. Mount kick plates to align bottom of plate with bottom of door.

Hardware Set: 1.0

(all finishes to be oil rubbed bronze to match existing)

- | | | |
|------------------------|-------------------------------|----|
| 3 Hinge (heavy weight) | T4A3386 (NRP) | MK |
| 1 Storerom Lock | 8204 LNL | SA |
| 1 Mortise Cylinder | Match Existing | SA |
| 1 Cylindrical Deadbolt | 486 | SA |
| 1 Electric Strike | 1006 | SA |
| 1 Door Closer | (P) 7500 | NO |
| 1 Kick Plate | K1050 10" X 2" L.D.W. 4BE CSK | RO |
| 1 Mop Plate | K1050 6" X 1" L.D.W. 4BE CSK | RO |
| 1 Overhead Stop | 1-X36 (size as required) | RF |
| 1 Threshold | 272A X Pemkote X L.A.R. | PE |
| 1 Weatherstrip | 303AS @ Head & Jamb | PE |
| 1 Sweep | 315CN X L.A.R. | PE |
| 1 Rain Guard | 346C X L.A.R. | PE |
| 1 Timer/Controller | PT724A | OT |
| 1 SmartPac Rectifier | 2005 | HS |
| 1 Power Supply | | OT |

SECTION 09 21 16 - GYPSUM BOARD ASSEMBLIES

PART 1 GENERAL

1.1 SUMMARY

- A. Provide gypsum board assemblies.

1.2 SUBMITTALS

- A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

1.3 QUALITY ASSURANCE

- A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.
- B. Tolerances: Not more than 1/16-inch difference in true plane at joints between adjacent boards before finishing. After finishing, joints shall be not be visible. Not more than 1/8 inch in 10 feet deviation from true plane, plumb, level and proper relation to adjacent surfaces in finished work.
- C. Fire Resistance for Fire-Rated Assemblies: ASTM E 119.
- D. Mock-Ups: Provide mock-up as required to demonstrate quality of workmanship and level of finish.
- E. Performance: Fire, structural, and seismic performance meeting requirements of building code and local authorities.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Gypsum Board:

1. Manufacturers: PABCO Gypsum; USG; National Gypsum, or equivalent.
2. Basis of Design: National Gypsum, Gold Bond HI-Abuse XP Gypsum Board.
3. Application: Interior walls, partitions, and ceilings with tape and joint compound finish.
4. Application: Insulation and vapor barrier systems in gypsum board assemblies.
5. Material Standard: ASTM C1396.
6. Type: Moisture and Abuse-resistant board.
7. Typical Thickness: 5/8 inch.
8. Joint Treatment: ASTM C474 and ASTM C840, 3-coat system, paper or fiberglass tape.
9. Auxiliary Materials:
 - a. Cornerbead, edge trim and control joints.
 - b. Extruded aluminum reveals and channels.
 - c. Gypsum board screws, ASTM C 1002.
 - d. Gypsum board nails, ASTM C 514.
 - e. Fastening adhesive.
 - f. Concealed acoustical sealant.
 - g. Mineral fiber sound attenuation blankets.
 - h. Mineral fiber thermal insulation.
 - i. Polyethylene vapor retarder, 6 mils.
 - j. Polystyrene aggregated finish for ceilings.
 - k. Acoustical finish.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Install gypsum board for tape and 3-coat joint compound finish in compliance with ASTM C 840 and GA 216, Level 4 finish. Install gypsum board assemblies true, plumb, level and in proper relation to adjacent surfaces.
- B. Provide fire-rated systems where indicated and where required by authorities having jurisdiction.
- C. Install boards vertically. Do not allow butt-to-butt joints and joints that do not fall over framing members.
- D. Where new partitions meet existing construction, remove existing cornerbeads to provide a smooth transition.
- E. Provide insulation full height and thickness in partitions at conference rooms, toilet rooms, between different occupancies, and where required.
- F. Provide acoustical sealant at both faces at top and bottom runner tracks, wall perimeters, openings, expansion and control joints.
- G. Install trim in strict compliance with manufacturer's instructions and recommendations.
- H. Repair surface defects. Leave ready for finish painting or wall treatment.

SECTION 09 67 00 - FLUID -APPLIED FLOORING

PART 1 GENERAL

1.1 SUMMARY

- A. Provide fluid-applied flooring and floor preparation.

1.2 SUBMITTALS

- A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.
- B. Samples: Submit two representative samples of each material specified indicating visual characteristics and finish. Include range samples if variation of finish is anticipated.

1.3 QUALITY ASSURANCE

- A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Fluid Applied Flooring:

1. Manufacturer: Stonhard
2. Type: Stonshield SLT, and all manufacturer recommended products including but not limited to primer, broadcast media, undercoat and sealer.
3. Surface: Slip-resistant surface. Provide "Standard" texture.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Prepare surfaces and install materials and systems in accordance with manufacturer's instructions and approved submittals.
- B. Install materials and systems in proper relation with adjacent construction and with uniform appearance. Coordinate with work of other sections.
- C. Restore damaged finishes. Clean and protect work from damage.

SECTION 09 77 00 - SPECIAL WALL AND CEILING FINISHES

PART 1 GENERAL

1.1 SUMMARY

- A. Provide interior special wall and ceiling surfaces.

1.2 SUBMITTALS

- A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.
- B. Samples: Submit two representative samples of each material specified indicating visual characteristics and finish.

1.3 QUALITY ASSURANCE

- A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.
- B. Performance: Fire performance meeting requirements of building code and local authorities.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Fiberglass reinforced thermosetting polyester resin panel sheets complying with ASTM D 5319.
1. Manufacturers: Marile
 2. Coating: Multi-layer print, primer and finish coats or applied over-layer.
 3. Dimensions:
 - a. Thickness – 0.090" (2.29mm) nominal
 - b. Width - 4'-0" (1.22m) nominal
 - c. Length – [10'-0" (3.0m)]@8'-0" (2.4m) [JAs indicated on the drawings] nominal
 4. Tolerance:
 - a. Length and Width: +/-1/8" (3.175mm)
 - b. Square - Not to exceed 1/8" for 8 foot (2.4m) panels or 5/32" (3.96mm) for 10 foot (2.4m) panels
 5. Auxiliary Materials:
 - a. J-channels.
 - b. Reveal moldings.
 - c. Battens.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials and systems in proper relation with adjacent construction and with uniform appearance. Coordinate with work of other sections.
- B. Replace damaged work which cannot be repaired. Clean and protect work from damage.

SECTION 09 91 00 - PAINTING

PART 1 GENERAL

1.1 SUMMARY

- A. Provide painting and surface preparation.

1.2 SUBMITTALS

- A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.
- B. Samples: Submit two representative samples of each material specified indicating visual characteristics and finish. Include range samples if variation of finish is anticipated.

1. Include manufacturers full range of color and finish options if additional selection is required.

C. Extra Stock: Submit 2 unopened gallons of each paint and color used in the project.

1.3 QUALITY ASSURANCE

- A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.
- B. Regulations: Compliance with VOC and environmental regulations.
- C. Mock-Ups: Provide mock-up as required to demonstrate quality of workmanship.

1. Provide 4 foot x 4 foot mock-ups of each type of surface.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Painting:

1. Manufacturers:Behr Process Corporation; Benjamin Moore & Co. (United States); Sherwin-Williams; or similar as approved by owner and operations team.
2. Application: Interior unfinished surfaces.
3. Application: Exterior unfinished surfaces.
4. Application: Exposed mechanical and electrical items.
5. Application: Repainting of existing surfaces.
6. Primary Coating Type: Oil based paints.
7. Primary Coating Type: Latex based paints.
8. Primary Coating Type: Zero VOC paints.
9. Primary Paint Systems: Primer plus two finish coats.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Inspect surfaces, report unsatisfactory conditions in writing; beginning work means acceptance of substrate.
- B. Comply with manufacturer's instructions and recommendations for preparation, priming and coating work. Coordinate with work of other sections.
- C. At existing areas to be repainted, remove blistered or peeling paint to sound substrates. Remove chalk deposits and mildew and wash all surfaces with mild detergent. Perform related minor preparation including caulk and glazing compounds. Spot prime bare areas before priming and painting as specified.
- D. Match approved mock-ups for color, texture, and pattern. Re-coat or remove and replace work which does not match or shows loss of adhesion. Clean up, touch up and protect work.

3.2 PAINT SCHEDULE

- B. Gypsum Drywall Walls and Ceilings in Bathrooms, Kitchens and Wet Areas:

1. Glos:
 - a. Semi
 - b. High
2. Texture:



COMcheck Software Version 4.0.8.1
Envelope Compliance Certificate

Project Information

Energy Code: 90.1 (2010) Standard
Project Title: Frisco Restroom Addition
Location: Frisco, Colorado
Climate Zone: 7
Project Type: Addition

Construction Site: 621 Recreation Way, Frisco, CO 80443
Owner/Agent: Town of Frisco Public Works Dept., 1 Main Street, Frisco, CO 80443
Designer/Contractor: OZ Architecture, 3003 Larimer Street, Denver, CO 80205

Building Area	Floor Area
1-Restroom Addition Only (Office) : Nonresidential	178

Envelope Assemblies

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Proposed U-Factor	Budget U-Factor ₉₀
Roof 1: Attic Roof with Wood Joists, [Bldg. Use 1 - Restroom Addition Only]	200	49.0	0.0	0.021	0.027
Exterior Wall 1: Wood-Framed, 16" o.c., [Bldg. Use 1 - Restroom Addition Only]	408	25.0	0.0	0.057	0.051
Door 1: Insulated Metal, Swinging, [Bldg. Use 1 - Restroom Addition Only]	42	---	---	0.300	0.500
Floor 1: Slab-On-Grade/Unheated, Vertical 3 ft., [Bldg. Use 1 - Restroom Addition Only] (b)	42	---	10.0	0.510	0.520

(a) Budget U-factors are used for software baseline calculations ONLY; and are not code requirements.
(b) Slab-On-Grade proposed and budget U-factors shown in table are F-factors.

Envelope PASSES: Design 7% better than code

Envelope Compliance Statement

Compliance Statement: The proposed envelope design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed envelope systems have been designed to meet the 90.1 (2010) Standard requirements in COMcheck Version 4.0.8.1 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Rebecca Stone, AIA
Name - Title Signature Date 4/27/18



Project Title: Frisco Restroom Addition Report date: 04/26/18
Data filename: C:\Users\ksaylor\Desktop\Frisco Comcheck.cck Page 1 of 9

Section # & Req.ID	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
8.4.2 [EL10] ²	At least 50% of all 125 volt 15- and 20-Amp receptacles are controlled by an automatic control device.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Exception: Space type is not private office, open office, or computer classroom.

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)
Project Title: Frisco Restroom Addition Report date: 04/26/18
Data filename: C:\Users\ksaylor\Desktop\Frisco Comcheck.cck Page 5 of 9



COMcheck Software Version 4.0.8.1
Inspection Checklist
Energy Code: 90.1 (2010) Standard

Requirements: 100.0% were addressed directly in the COMcheck software

Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

Section # & Req.ID	Plan Review	Complies?	Comments/Assumptions
4.2.2.5.4.3.1.1.5.7 [PR1] ²	Plans and/or specifications provide all information with which compliance can be determined for the building envelope and document where exceptions to the standard are claimed.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
4.2.2.8.4.1.1.8.4.1.2.8.7 [PR6] ²	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the electrical systems and equipment and document where exceptions are claimed. Feeder connectors sized in accordance with approved plans and branch circuits sized for maximum drop of 3%.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)
Project Title: Frisco Restroom Addition Report date: 04/26/18
Data filename: C:\Users\ksaylor\Desktop\Frisco Comcheck.cck Page 2 of 9

Section # & Req.ID	Insulation Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
5.4.3.1 [IN1] ²	All sources of air leakage in the building thermal envelope are sealed, caulked, gasketed, weather striped or wrapped with moisture vapor-permeable wrapping material to minimize air leakage.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
5.5.3.1 [IN2] ²	Roof R-value. For some ceiling systems, verification may need to occur during Framing Inspection.	R-____ <input type="checkbox"/> Above deck <input type="checkbox"/> Metal <input type="checkbox"/> Attic	R-____ <input type="checkbox"/> Above deck <input type="checkbox"/> Metal <input type="checkbox"/> Attic	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	See the Envelope Assemblies table for values.
5.8.1.2.5.8.1.3 [IN3] ²	Roof insulation installed per manufacturer's instructions. Blown or poured loose-fill insulation is installed only where the roof slope is <=3 in 12.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
5.5.3.2 [IN6] ²	Above-grade wall insulation R-value.	R-____ <input type="checkbox"/> Mass <input type="checkbox"/> Metal <input type="checkbox"/> Steel <input type="checkbox"/> Wood	R-____ <input type="checkbox"/> Mass <input type="checkbox"/> Metal <input type="checkbox"/> Steel <input type="checkbox"/> Wood	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	See the Envelope Assemblies table for values.
5.8.1.2 [IN7] ²	Above-grade wall insulation installed per manufacturer's instructions.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
5.5.3.4 [IN8] ²	Floor insulation R-value.	R-____ <input type="checkbox"/> Mass <input type="checkbox"/> Metal <input type="checkbox"/> Steel <input type="checkbox"/> Wood	R-____ <input type="checkbox"/> Mass <input type="checkbox"/> Metal <input type="checkbox"/> Steel <input type="checkbox"/> Wood	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	See the Envelope Assemblies table for values.
5.8.1.1 [IN10] ²	Building envelope insulation is labeled with R-value or insulation certificate providing R-value and other relevant data.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
5.8.1.4 [IN11] ²	Eaves are baffled to deflect air to above the insulation.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
5.8.1.5 [IN12] ²	Insulation is installed in substantial contact with the inside surface separating conditioned space from unconditional space.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
5.8.1.6 [IN13] ²	Recessed equipment installed in building envelope assemblies does not compress the adjacent insulation.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)
Project Title: Frisco Restroom Addition Report date: 04/26/18
Data filename: C:\Users\ksaylor\Desktop\Frisco Comcheck.cck Page 6 of 9

Section # & Req.ID	Footing / Foundation Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
5.5.3.3 [FO1] ²	Below-grade wall insulation R-value.	R-____	R-____	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	See the Envelope Assemblies table for values.
5.5.3.5 [FO3] ²	Slab edge insulation R-value.	R-____ <input type="checkbox"/> Unheated <input type="checkbox"/> Heated	R-____ <input type="checkbox"/> Unheated <input type="checkbox"/> Heated	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	See the Envelope Assemblies table for values.
5.8.1.2 [FO4] ²	Slab edge insulation installed per manufacturer's instructions.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
5.5.3.5 [FO5] ²	Slab edge insulation depth/length.	____ ft	____ ft	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	See the Envelope Assemblies table for values.
5.8.1.7.3 [FO7] ²	Insulation in contact with the ground has <=0.3% water absorption rate per ASTM C272.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
6.4.4.1.5 [FO11] ²	Bottom surface of floor structures incorporating radiant heating insulated to >=R-3.5.	R-____	R-____	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Exception: Requirement does not apply. See the Envelope Assemblies table for values.

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)
Project Title: Frisco Restroom Addition Report date: 04/26/18
Data filename: C:\Users\ksaylor\Desktop\Frisco Comcheck.cck Page 3 of 9

Section # & Req.ID	Insulation Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
5.8.1.7 [IN14] ²	Exterior insulation is protected from damage with a protective material. Verification for exposed foundation insulation may need to occur during Foundation Inspection.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
5.8.1.7.1 [IN15] ²	Attics and mechanical rooms have insulation protected where adjacent to attic or equipment access.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
5.8.1.7.2 [IN16] ²	Foundation vents do not interfere with insulation.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
5.8.1.8 [IN17] ²	Insulation intended to meet the roof insulation requirements cannot be installed on top of a suspended ceiling. Mark this requirement compliant if insulation is installed accordingly.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)
Project Title: Frisco Restroom Addition Report date: 04/26/18
Data filename: C:\Users\ksaylor\Desktop\Frisco Comcheck.cck Page 7 of 9

Section # & Req.ID	Framing / Rough-In Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
5.4.3.2 [FR1] ²	Factory-built fenestration and doors are labeled as meeting air leakage requirements.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
5.5.4.3a [FR8] ²	Vertical fenestration U-Factor.	U-____	U-____	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	See the Envelope Assemblies table for values.
5.5.4.3b [FR9] ²	Skylight fenestration U-Factor.	U-____	U-____	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	See the Envelope Assemblies table for values.
5.5.4.4.1 [FR10] ²	Vertical fenestration SHGC value.	SHGC: ____	SHGC: ____	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	See the Envelope Assemblies table for values.
5.5.4.4.2 [FR11] ²	Skylight SHGC value.	SHGC: ____	SHGC: ____	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	See the Envelope Assemblies table for values.
5.8.2.1 [FR12] ²	Fenestration products rated in accordance with NFRC.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
5.8.2.2 [FR13] ²	Fenestration products are certified as to performance labels or certificates provided.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
5.8.2.3.5.5.3.6 [FR14] ²	U-factor of opaque doors associated with the building thermal envelope meets requirements.	U-____ <input type="checkbox"/> Swinging <input type="checkbox"/> Nonswinging	U-____ <input type="checkbox"/> Swinging <input type="checkbox"/> Nonswinging	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	See the Envelope Assemblies table for values.
5.4.3.1 [FR15] ²	Continuous air barrier is wrapped, sealed, caulked, gasketed, and/or taped in an approved manner, except in semiheated spaces and in climate zones 1-6.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)
Project Title: Frisco Restroom Addition Report date: 04/26/18
Data filename: C:\Users\ksaylor\Desktop\Frisco Comcheck.cck Page 4 of 9

Section # & Req.ID	Final Inspection	Complies?	Comments/Assumptions
5.4.3.3 [FI1] ²	Weatherseals installed on all loading dock cargo doors in Climate Zones 4-8.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Exception: Requirement does not apply.

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)
Project Title: Frisco Restroom Addition Report date: 04/26/18
Data filename: C:\Users\ksaylor\Desktop\Frisco Comcheck.cck Page 8 of 9



3003 Larimer Street
Denver, Colorado 80205
phone 303.861.5704
www.ozarch.com



FRISCO DAY LODGE RENOVATION
(ALTERNATE #1)
621 RECREATION WAY
FRISCO, CO 80443

PROJ. NO. 117119.00
DRAWN: OZ
CHECKED: OZ
APPROVED: OZ
DATE: 2018-04-27

© OZ ARCHITECTURE

FRISCO DAY LODGE
RENOVATION
(ALTERNATE #1)
ISSUED FOR:
PERMIT SET

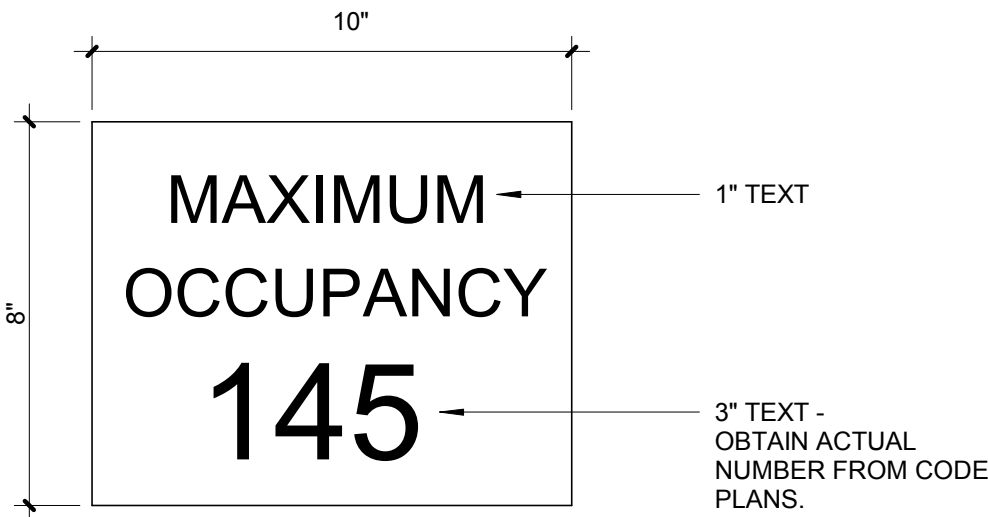
SHEET TITLE:
COMCHECK REPORT

SCALE:
SHEET NUMBER

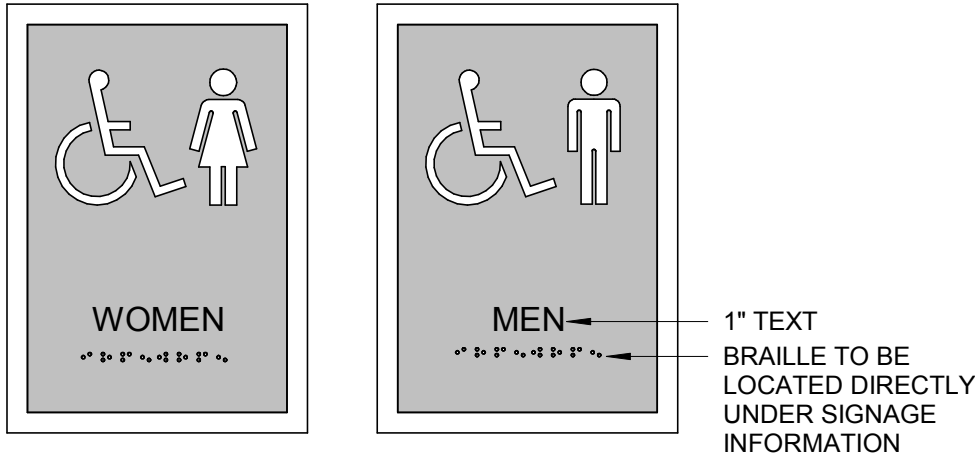
G-120

SIGNAGE TYPE SCHEDULE										
SIGN DESIGN ATION	SIGN TYPE	LOCATION	CODE REFERENCE	VISUAL CHARACTERS	TACTILE	BRAILLE	PICTOGRAM	INT'L SYMBOL OF ACCESSIBILITY	PLACEMENT	COMMENTS
A	TOILET ROOM	ACCESSIBLE TOILET ROOMS	IBC 2902.4 & 1110	YES	YES	YES	YES	YES		
B	TACTILE EXIT	DOORS AT: EXTERIOR EXIT DOORS, EXIT STAIRS & RAMPS, EXIT PASSAGEWAYS, AREAS OF REFUGE, AND EXTERIOR AREAS FOR RESCUE ASSISTANCE	IBC 1011.4	YES	YES	YES	NO	NO		
C	STAIR IDENTIFICATION	INSIDE STAIR ENCLOSURE AT EACH STAIR LANDING	IBC 1022.9	YES	YES	YES	NO	NO	VISIBLE WHEN DOOR IS OPEN OR CLOSED	
D	ROOM IDENTIFICATION SIGN	OUTSIDE ROOM	ADAAG 216.2	YES	YES	NO	NO	NO		ROOM SIGNS ARE NOT REQUIRED, BUT IF PROVIDED THEY MUST MEET REQUIREMENTS
E	IN CASE OF FIRE	ELEVATORS	IBC 3002.3	YES	NO	NO	YES	NO	ABOVE EACH ELEVATOR CALL BUTTON	NOT USED AT ENTRY LEVEL & ELEVATORS PART OF AN ACCESSIBLE MEANS OF EGRESS OR USED FOR SELF-EVACUATION
F	ELEVATOR FLOOR INDICATOR	ELEVATORS	ICC A117.1 407.2.3	YES	YES	YES	NO	NO	BOTH ELEVATOR JAMBS	
G	ASSISTIVE LISTENING SYSTEM	ASSEMBLY SPACES WITH ASSISTIVE LISTENING SYSTEM	IBC 1110.3 & 1108.2.7	YES	NO	NO	YES	NO	NEAR ENTRANCE TO ROOM	PICTOGRAM TO BE INTERNATIONAL SYMBOL OF ACCESS FOR HEARING LOSS
H	MAXIMUM OCCUPANCY	ASSEMBLY OCCUPANCY SPACES	IBC 1004.3	YES	NO	NO	NO	NO	CONSPICUOUS PLACE NEAR MAIN DOOR	MAXIMUM OCCUPANCY OF ROOM PER CODE PLAN
I	2-WAY COMMUNICATION	ADJACENT TO 2-WAY COMMUNICATION DEVICES	IBC 1007.8.2 & 1007.11	YES	NO	NO	YES	NO	ADJACENT TO 2-WAY COMMUNICATION DEVICES	
J	ACCESSIBLE ENTRANCE	ENTRANCES WHERE NOT ALL ARE ACCESSIBLE	IBC 1110.1	YES	NO	NO	NO	YES	BUILDING ENTRANCES	
K	AREA OF REFUGE	AREAS OF REFUGE & EXTERIOR AREAS FOR EVACUATION ASSISTANCE	IBC 1007.9 & 1007.10	YES	NO	NO	NO	YES	OUTSIDE AREAS OF REFUGE; DIRECTIONAL SIGN AT NON-ACCESSIBLE EXITS	
L	RATED WALL	ABOVE CEILING AT ALL RATED WALLS	IBC 703.7	YES	NO	NO	NO	NO	WITHIN 15' OF END OF WALL & 30' O.C. ALONG LENGTH OF WALL	NOT REQUIRED IN R-2 OCCUPANCY WHERE CEILING IS NOT ACCESSIBLE
M	LOCKED DOOR	MAIN ENTRY DOORS WITH LOCKS	IBC 1008.1.9.3	YES	NO	NO	NO	NO	DOOR FRAME ABOVE DOOR	ALLOWED AT MAIN DOORS OF GROUP A WITH A MAXIMUM OCCUPANT LOAD OF 300 AND GROUP B, F, M & S
N	ACCESSIBLE PARKING	ACCESSIBLE PARKING STALLS	IBC 1110.1 & ICC A117.1 502.7	YES	NO	NO	NO	YES	POST OR BUILDING-MOUNTED CENTERED ON PARKING SPACE, 5'-0" TO BOTTOM OF SIGN	
O	ACCESSIBLE PARKING PAVEMENT MARKING	ACCESSIBLE PARKING STALLS	NA	YES	NO	NO	NO	YES	CENTERED ON PARKING STALL, ALIGNED WITH FRONT	NOT REQUIRED BY CODE
P	STOP SIGN	AS INDICATED ON PLANS	NA	YES	NO	NO	NO	NO	POST-MOUNTED, 5'-0" TO BOTTOM OF SIGN	SEE PLAN FOR SIGN CONTENT
Q	TRAFFIC	AS INDICATED ON PLANS	NA	YES	NO	NO	NO	NO	POST OR BUILDING-MOUNTED, 5'-0" TO BOTTOM OF SIGN	
R	NO SMOKING	BUILDING ENTRIES	NA	YES	NO	NO	YES	NO	CONSPICUOUS PLACE NEAR DOOR	REQUIRED FOR LEED

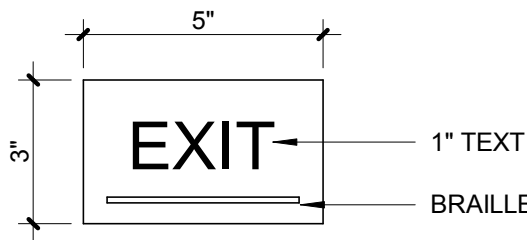
- NOTES:
1. VISUAL CHARACTERS TO COMPLY WITH ICC A117.1 703.2 & ADAAG 703.5
 2. TACTILE CHARACTERS TO COMPLY WITH ICC A117.1 703.3 & ADAAG 703.2
 3. BRAILLE CHARACTERS TO COMPLY WITH ICC A117.1 703.4 & ADAAG 703.3
 4. PICTOGRAMS TO COMPLY WITH ICC A117.1 703.5 & ADAAG 703.6
 5. SYMBOLS OF ACCESSIBILITY TO COMPLY WITH ICC A117.1 703.6 & ADAAG 703.7
 6. MOUNT SIGNS 1'-6" FROM LATCH-SIDE DOOR JAMB TO CENTER OF SIGN UNLESS OTHERWISE NOTED.
 7. MOUNT SIGNS 5'-0" AFF TO TOP UNLESS OTHERWISE NOTED.



H MAXIMUM OCCUPANCY SIGN
3" = 1'-0"



A TOILET ROOM SIGNS
1 1/2" = 1'-0"



B TACTILE EXIT SIGN
3" = 1'-0"



3003 Larimer Street
Denver, Colorado 80205
phone 303.861.5704
www.ozarch.com



FRISCO DAY LODGE RENOVATION
(ALTERNATE #1)
621 RECREATION WAY
FRISCO, CO 80443

PROJ. NO. 117119.00
DRAWN: OZ
CHECKED: OZ
APPROVED: OZ
DATE: 2018-04-27

© OZ ARCHITECTURE

FRISCO DAY LODGE
RENOVATION
(ALTERNATE #1)
ISSUED FOR:
PERMIT SET

SHEET TITLE:
SIGN TYPES

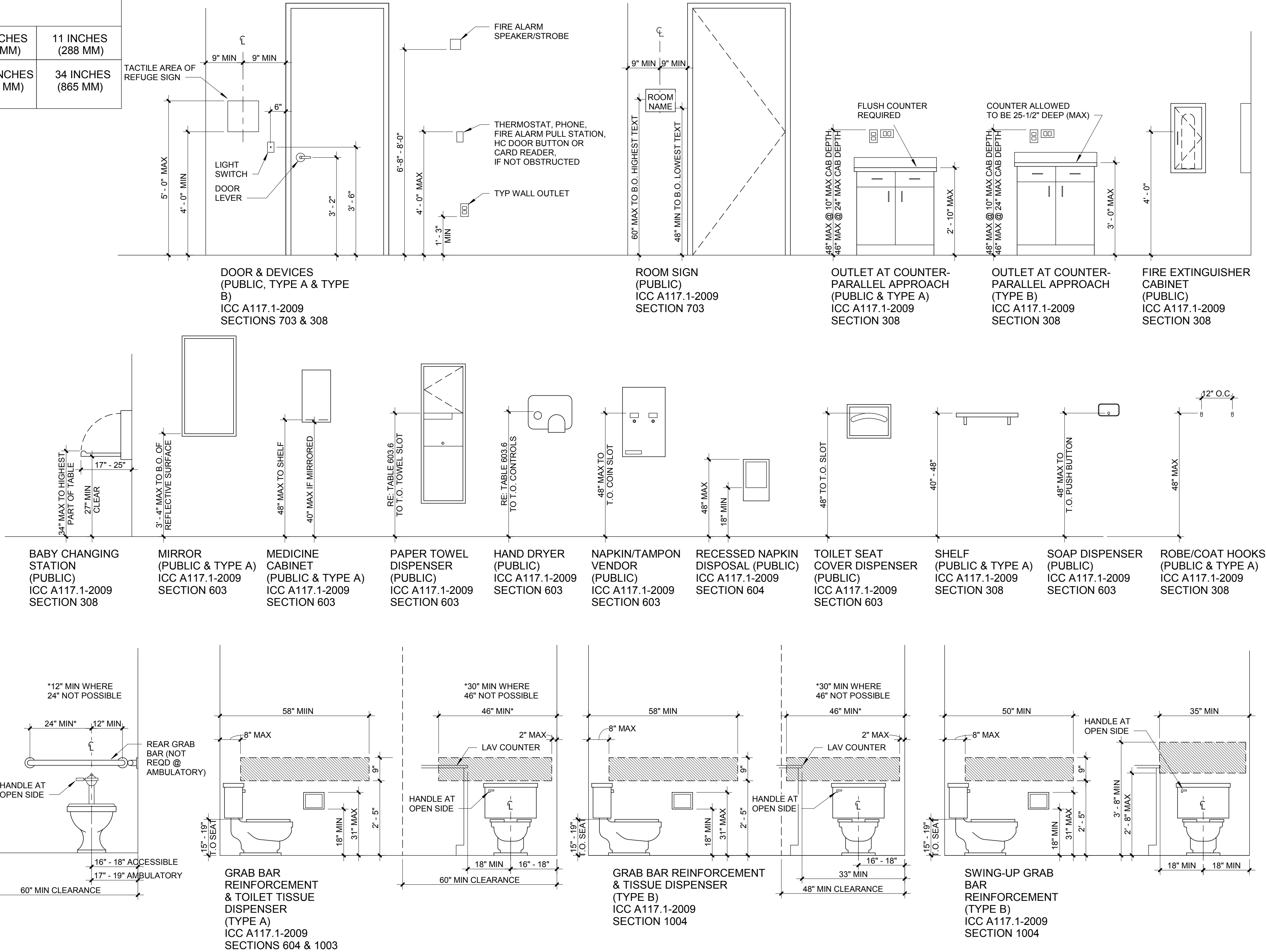
SCALE: As indicated
SHEET NUMBER

G-201

ICC/ANSI A117.1-2009 TABLE 603.6 MAXIMUM REACH DEPTH AND HEIGHT						
MAXIMUM REACH DEPTH	0.5 INCH (13 MM)	2 INCHES (51MM)	5 INCHES (125MM)	6 INCHES (150 MM)	9 INCHES (230MM)	11 INCHES (288 MM)
MAXIMUM REACH HEIGHT	48 INCHES (1220 MM)	46 INCHES (1170 MM)	42 INCHES (1065 MM)	40 INCHES (1015 MM)	36 INCHES (915 MM)	34 INCHES (865 MM)

GENERAL NOTES

- DIMENSIONS ARE COMPLIANT WITH ICC A117.1-2009.
- NOT ALL FIXTURES AND DEVICES INDICATED MAY BE USED IN THE PROJECT.
- MOUNTING HEIGHTS INDICATED MAY BE SUPERCEDED BY MORE SPECIFIC INFORMATION ELSEWHERE IN THE DOCUMENTS.
- "PUBLIC" INDICATES ELEMENTS TO COMPLY IN PUBLIC AREAS. "TYPE A" INDICATES ELEMENTS TO COMPLY IN ACCESSIBLE PORTIONS OF TYPE A UNITS. "TYPE B" INDICATES ELEMENTS TO COMPLY IN ACCESSIBLE PORTIONS OF TYPE B UNITS.
- PROVIDE BLOCKING / REINFORCEMENT FOR ALL ACCESSORIES PER MANUFACTURER'S INSTRUCTIONS.
- PROVIDE BLOCKING / REINFORCEMENT FOR FUTURE INSTALLATION OF GRAB BARS IN ACCESSIBLE BATHROOMS OF "TYPE A" & "TYPE B" UNITS. GRAB BARS SHALL NOT ROTATE WITHIN THEIR FITTINGS & SHALL WITHSTAND A VERTICAL OR HORIZONTAL FORCE OF 250 LBS APPLIED TO ANY POINT ON THE GRAB BAR, FASTENER, MOUNT, OR SUPPORT.
- SHOWER & BATHTUB SEATS SHALL WITHSTAND A VERTICAL OR HORIZONTAL FORCE OF 250 LBS APPLIED TO ANY POINT ON THE SEAT, FASTENER, MOUNT OR SUPPORT.
- ALL APPLIANCES & PLUMBING FIXTURES MUST COMPLY WITH APPLICABLE ANSI & ADA REQUIREMENTS. OPERABLE PARTS SHALL: 1) BE 34" - 48" AFF.; 2) BE OPERABLE WITH ONE HAND, 3) NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST, AND 4) BE ACTIVATED BY NO MORE THAN 5 LBS OF FORCE.
- DOOR THRESHOLDS MUST HAVE A MAXIMUM HEIGHT OF 1/2" WITH A 1:2 BEVEL.



OZ
ARCHITECTURE

3003 Larimer Street
Denver, Colorado 80205
phone 303.861.5704
www.ozarch.com

STATE OF COLORADO
REBECCA STONE
B3452
LICENSED ARCHITECT
4/27/18

**FRISCO DAY LODGE RENOVATION
(ALTERNATE #1)**
**621 RECREATION WAY
FRISCO, CO 80443**

PROJ. NO. 117119.00
DRAWN: OZ
CHECKED: OZ
APPROVED: OZ
DATE: 2018-04-27

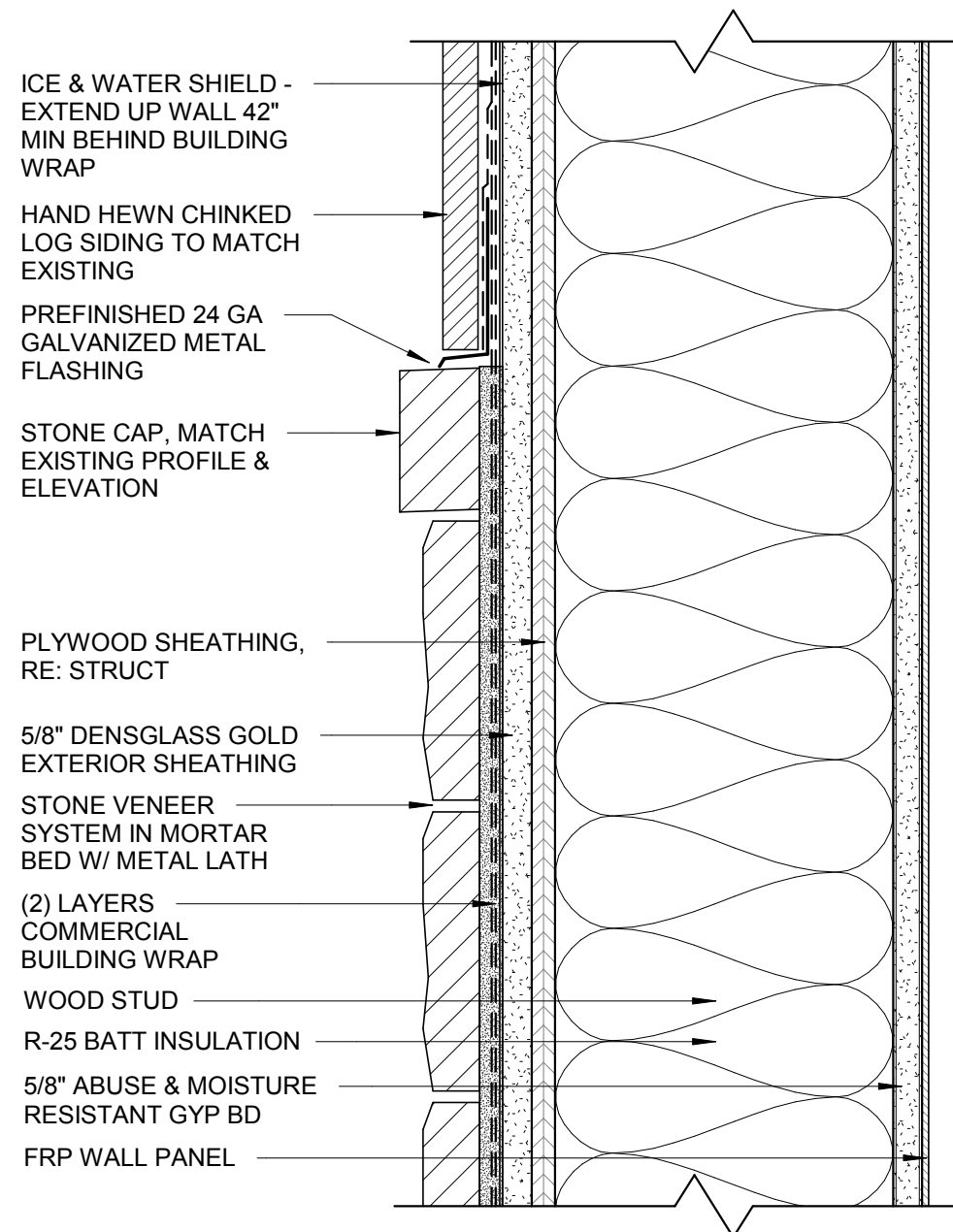
© OZ ARCHITECTURE

FRISCO DAY LODGE
RENOVATION
(ALTERNATE #1)
ISSUED FOR:
PERMIT SET

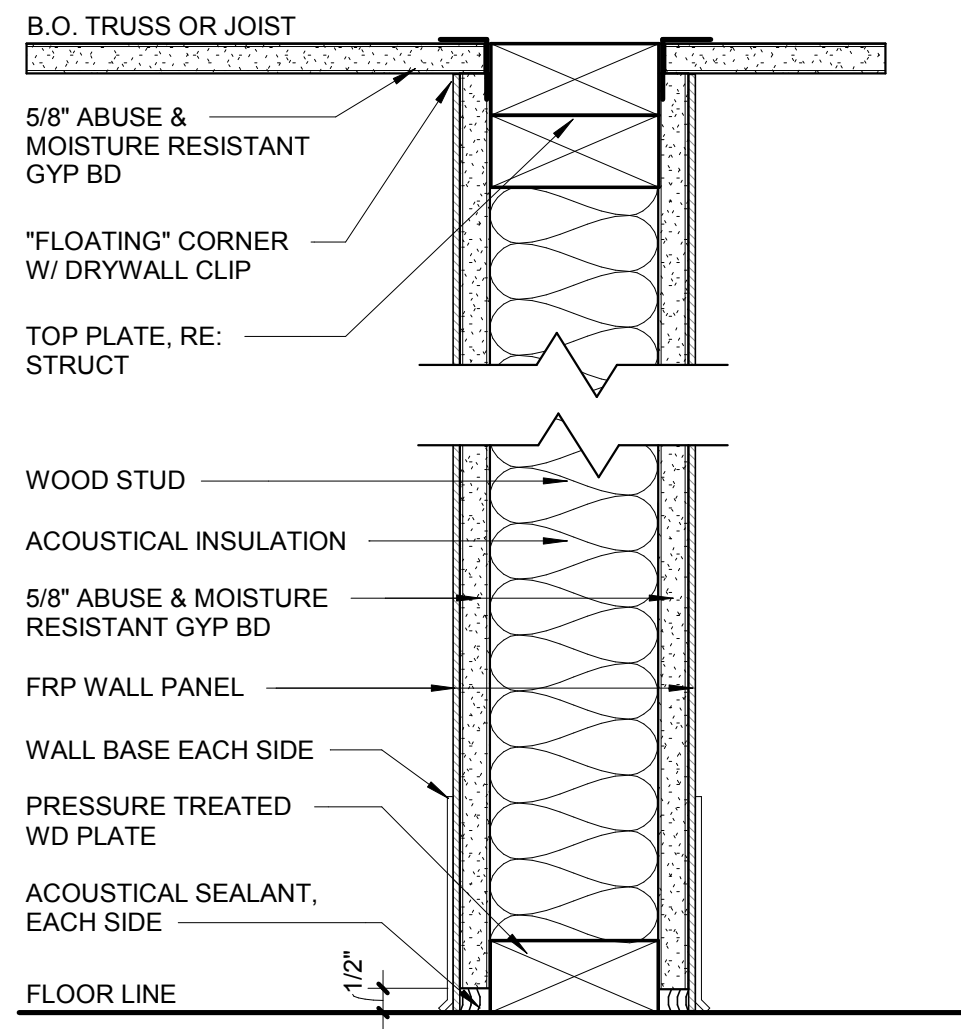
SHEET TITLE:
STANDARD MOUNTING
HEIGHTS - ANSI 2009

SCALE: 1/2" = 1'-0"
SHEET NUMBER

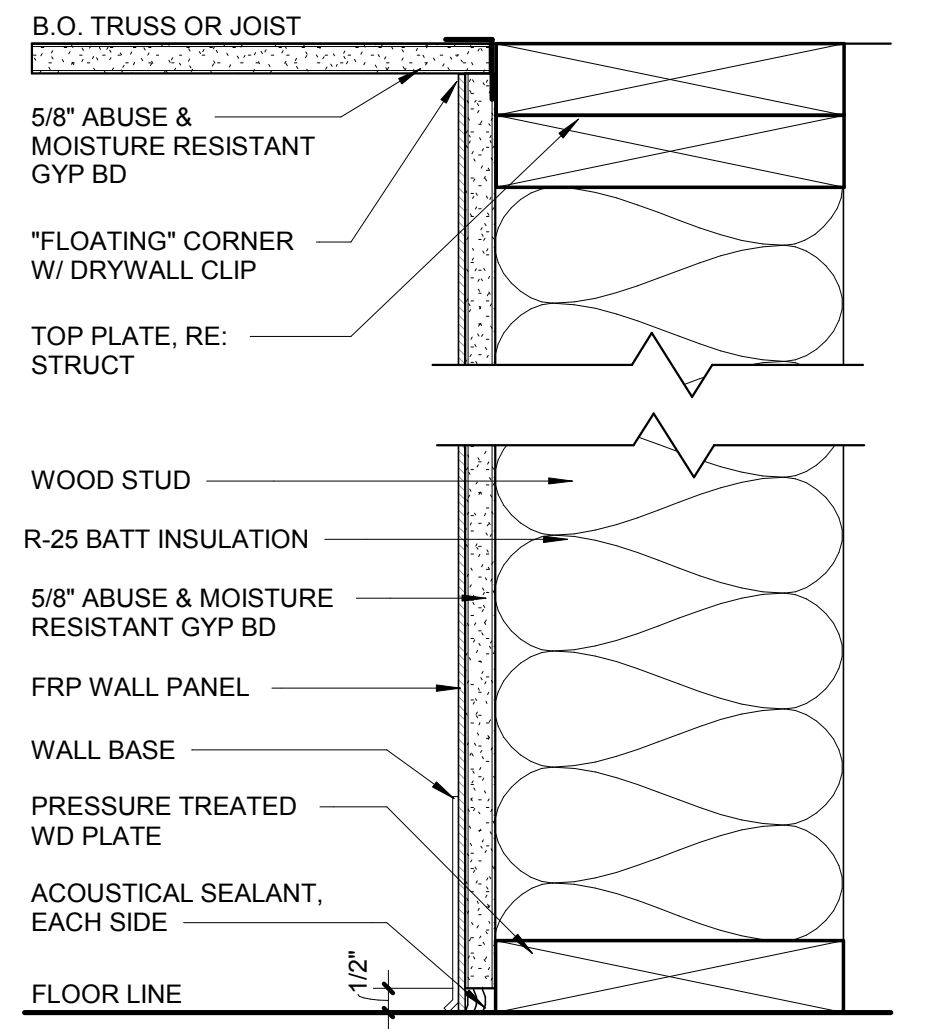
G-401



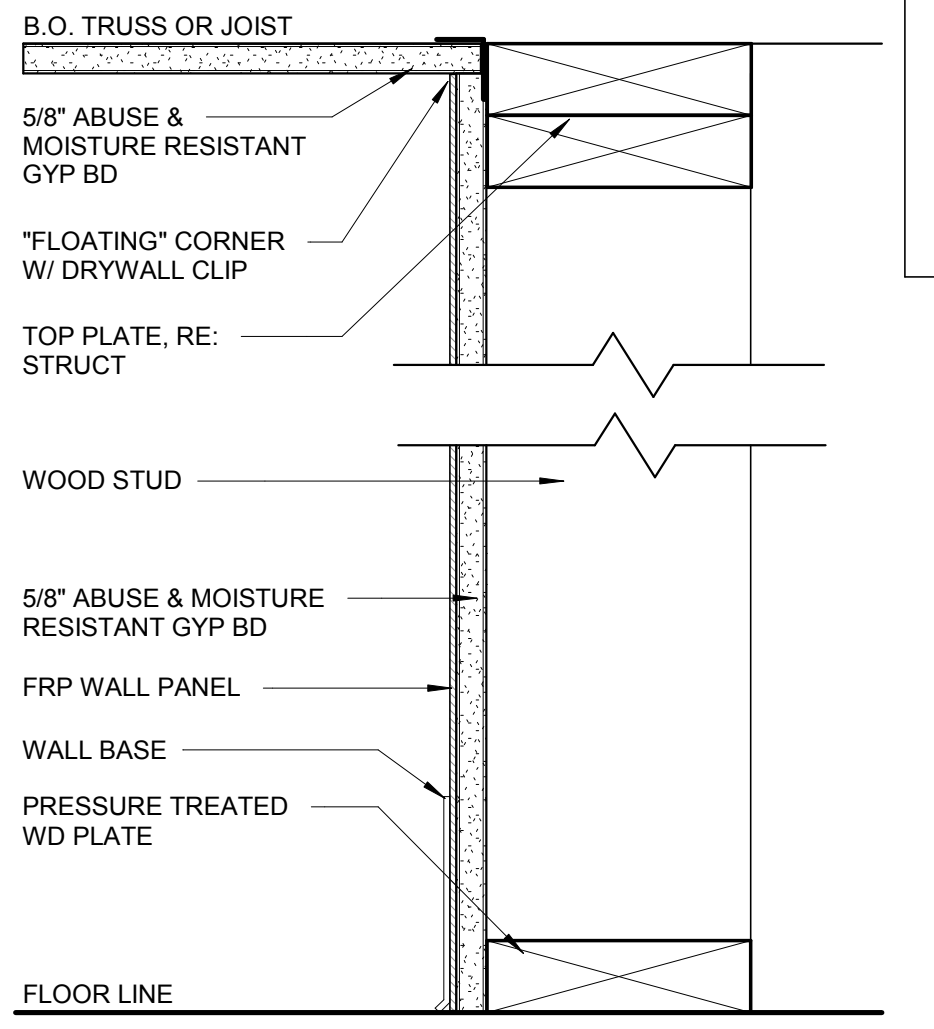
E1 EXTERIOR WALL ASSEMBLY
WITH 2x8 STUDS



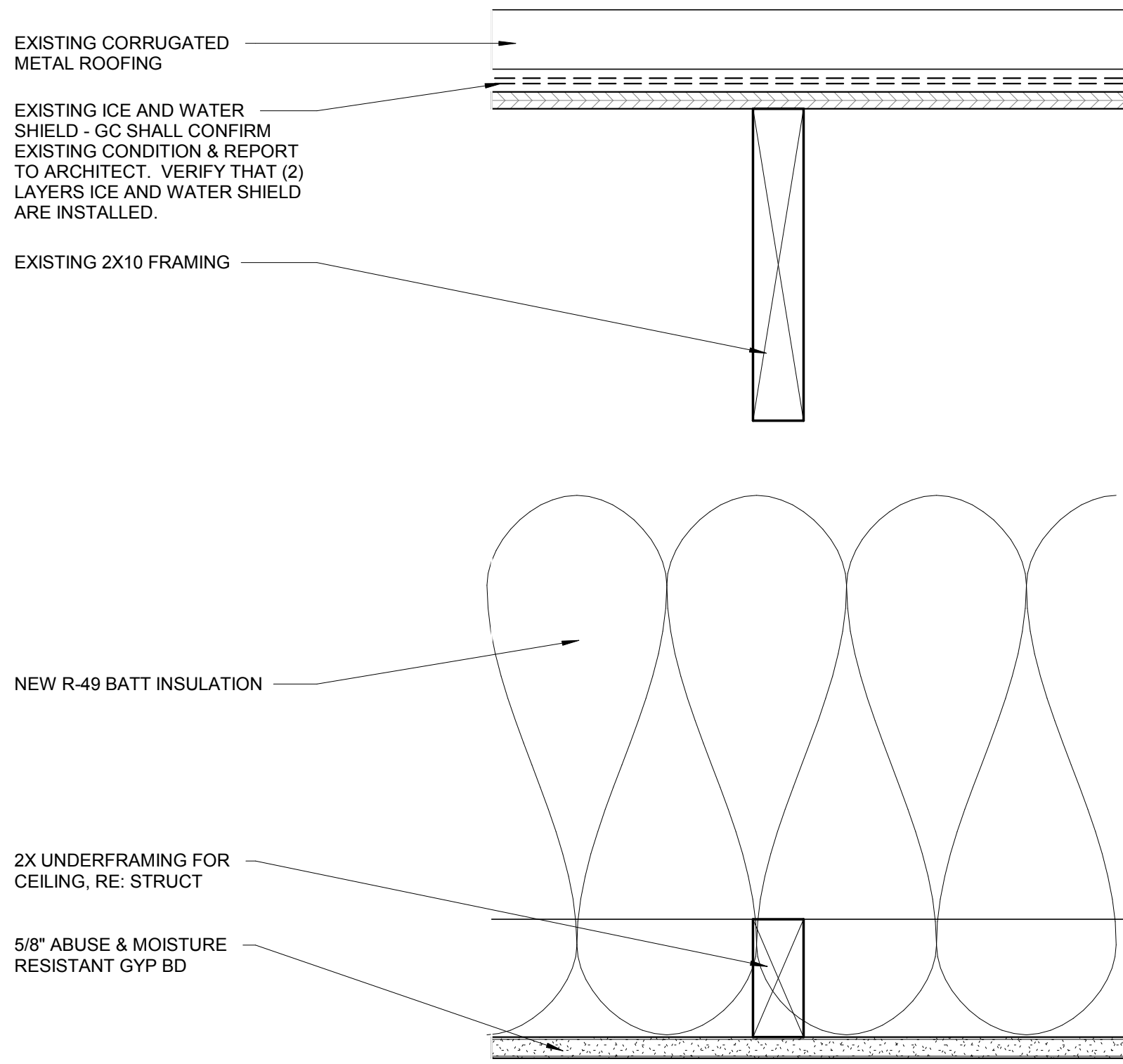
W24 PARTITION
WITH 2x4 STUDS



W30 PARTITION - FURRING WALL
WITH 2x8 STUDS



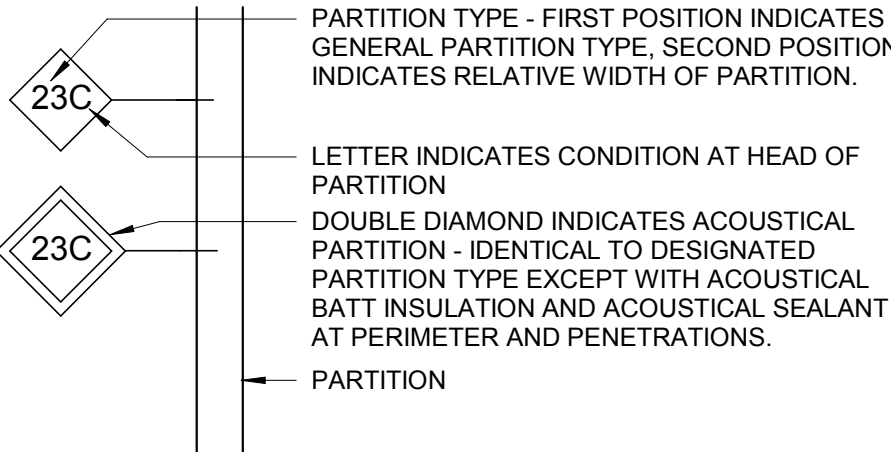
W35 PARTITION - FURRING WALL
WITH 2x6 STUDS



R1 ROOF ASSEMBLY

PARTITION TYPES - LEGEND

1. REFERENCE LEGEND, RE: FLOOR PLANS



PARTITION TYPES GENERAL NOTES

- NOT ALL PARTITION TYPES DELINEATED MAY BE USED.
- SEE FLOOR PLANS (A-100 SERIES SHEETS) FOR DESIGNATION OF PARTITION TYPES.
- SEE CODE PLANS (G-100 SERIES SHEETS) FOR FIRE RATINGS OF PARTITIONS.
- PARTITIONS ARE TO EXTEND TO UNDERSIDE OF STRUCTURE, UNO.
- WHERE TWO DIFFERING PARTITION TYPES ABUT IN A LINE AND ALONG A CONTINUOUS LENGTH OF PARTITIONS, THE CONTINUOUS FINISHED SURFACES OF THESE PARTITIONS SHALL ALIGN, UNO.
- STUD SPACING TO BE 24" O.C. UNO. SEE STRUCTURAL FOR BEARING WALL REQUIREMENTS.
- PROVIDE PARTITIONS TO MEET MAXIMUM ALLOWABLE DEFLECTION OF L240 WITH 5 P.S.F. LATERAL LOAD. MAXIMUM ALLOWABLE DEFLECTION FOR PARTITIONS TO RECEIVE TILE SHALL BE L/360. MAXIMUM ALLOWABLE DEFLECTION FOR PARTITIONS TO RECEIVE STONE SHALL BE L/720. ADJUST STUD SPACING, GAGE OR GRADE AS REQ'D.
- PROVIDE FOR 1" DEFLECTION AT ALL PARTITION HEADS, UNO. AT METAL STUD FRAMED WALLS PROVIDE MINIMUM 3" DEEP-LEG TRACKS.
- WOOD-FRAMED PARTITION HEADS ARE CONDITION "C" OR "G" UNO.
- PROVIDE DOUBLE WOOD STUDS AT EACH DOOR JAMB IN WOOD-FRAMED PARTITIONS.
- DO NOT PLACE GYPSUM BOARD JOINT AT CORNER OF DOOR FRAME.
- USE 5/8" TYPE-X GYPSUM BOARD AT FIRE-RATED PARTITIONS UNO OR CALLED FOR BY LISTED ASSEMBLY. USE 5/8" GYPSUM BOARD AT ALL OTHER LOCATIONS UNO.
- USE WATER-RESISTANT GYPSUM BOARD FOR PARTITIONS IN TOILET ROOMS AND JANITOR'S CLOSETS.
- USE WATER-RESISTANT GLASS-MAT GYPSUM BOARD FOR CEILINGS IN SHOWER ROOMS. COMPLY WITH IBC CHAPTER 25.
- USE WATER-RESISTANT GLASS-MAT GYPSUM BOARD OR CEMENTITIOUS BACKER UNITS AND SPACE STUDS AT 16" O.C. AT PARTITIONS TO RECEIVE TILE OR STONE.
- PARTITIONS THAT DO NOT GO TO STRUCTURE ABOVE SHALL HAVE INTERSECTING PARTITION OR BE BRACED TO STRUCTURE @ 12" O.C.
- PROVIDE CONTROL JOINTS IN CEILINGS EXCEEDING 2500 S.F. AND IN PARTITIONS AND FURRING RUNS EXCEEDING 30 FT. IN LENGTH. VERIFY EXACT LOCATIONS WITH ARCHITECT. SEE DETAILS THIS SHEET.
- FIRE-RESISTIVE PARTITIONS SHALL BE CONSTRUCTED IN FULL COMPLIANCE WITH TESTING REQUIREMENTS AND MANUFACTURER'S RECOMMENDATIONS FOR CONDITIONS AS REQUIRED.
- CONSTRUCTION OF ALL SYSTEMS SHALL EQUAL THAT OF THE TESTED ASSEMBLY. GC MAY SUBSTITUTE ANOTHER LISTED ASSEMBLY FOR THAT INDICATED WITH PRIOR APPROVAL OF THE AUTHORITY HAVING JURISDICTION AND THE ARCHITECT.
- TESTING FACILITIES ARE ABBREVIATED AS FOLLOWS:
 - FM - FACTORY MUTUAL
 - GA - GYPSUM ASSOCIATION
 - NER - NATIONAL EVALUATION REPORT
 - UL - UNDERWRITERS LABORATORIES INC.
 - WHI - WARNOCK HERSEY INTERNATIONAL
- THROUGH-PENETRATIONS AND MEMBRANE-PENETRATIONS IN FIRE-RATED PARTITIONS SHALL BE FIRESTOPPED IN ACCORDANCE WITH IBC CHAPTER 7.
- PROVIDE ACOUSTICAL SEALANT AT ALL PENETRATIONS IN ACOUSTICAL PARTITIONS.
- ACOUSTICAL BATT INSULATION TO TERMINATE AT THE STRUCTURE UNO.
- CONCEALED SPACES IN COMBUSTIBLE CONSTRUCTION TO BE FIRE-BLOCKED IN ACCORDANCE WITH IBC CHAPTER 7.

1 PARTITION TYPES

3" = 1'-0"



3003 Larimer Street
Denver, Colorado 80205
phone 303.861.5704
www.ozarch.com



**FRISCO DAY LODGE RENOVATION
(ALTERNATE #1)
621 RECREATION WAY
FRISCO, CO 80443**

PROJ. NO. 117119.00
DRAWN: OZ
CHECKED: OZ
APPROVED: OZ
DATE: 2018-04-27

© OZ ARCHITECTURE

FRISCO DAY LODGE
RENOVATION
(ALTERNATE #1)
ISSUED FOR:
PERMIT SET

SHEET TITLE:
EXTERIOR
ASSEMBLIES &
PARTITION TYPES
SCALE: As indicated
SHEET NUMBER

G-501

GENERAL NOTES

1. LIVE LOADS USED IN DESIGN:

A. ROOF SNOW LOAD	90 PSF
B. IMPORTANCE FACTORS	
CATEGORY	II
SEISMIC FACTOR IE	1.0
SNOW FACTOR IS	1.0
WIND FACTOR IW	1.0
C. WIND	
3 SECOND GUST EXPOSURE	115 (ULTIMATE) B

D. SEISMIC	
SITE CLASS	C
CATEGORY	B
SS	.255
S1	.073
SDS	0.204
SDI	0.0825
BASIC SEISMIC FORCE RESISTING SYSTEM IS WOOD SHEAR WALL	
SEISMIC RESPONSE COEFFICIENTS CS	.029
RESPONSE MODIFICATION FACTOR	7
ANALYSIS PROCEDURE USED EQUIVALENT LATERAL FORCE	

E. LIVE LOADS ARE REDUCED PER CODE IF APPLICABLE.

F. CODE USED IN DESIGN: INTERNATIONAL BUILDING CODE, 2015 EDITION.

2. TESTING, INSPECTIONS AND OBSERVATIONS:

A. THE STRUCTURAL ENGINEER DOES NOT PROVIDE INSPECTIONS OF CONSTRUCTION. STRUCTURAL ENGINEER MAY MAKE PERIODIC OBSERVATIONS OF THE CONSTRUCTION; SUCH OBSERVATIONS SHALL NOT REPLACE REQUIRED INSPECTIONS BY THE GOVERNING AUTHORITIES OR SERVE AS "SPECIAL INSPECTIONS" AS MAY BE REQUIRED BY CHAPTER 17 OF THE INTERNATIONAL BUILDING CODE.

B. THE FOLLOWING WORK SHALL BE INSPECTED BY THE SPECIAL INSPECTOR UNLESS SPECIFICALLY WAIVED BY THE BUILDING OFFICIAL.

1. SOIL PREPARATION

a. EARTHWORK EXCAVATION, PLACEMENT AND COMPACTION OF FILL AND IN-PLACE DRY DENSITY OF THE COMPACTED FILL FOR CONFORMANCE WITH THE APPROVED REPORT.

2. CONCRETE CONSTRUCTION

- PERIODIC INSPECTION OF REINFORCING STEEL.
- PERIODIC VERIFICATION OF USE OF REQUIRED DESIGN MIX.
- CONTINUOUS INSPECTION AT THE TIME FRESH CONCRETE IS SAMPLED TO FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS AND DETERMINE THE TEMPERATURE OF THE CONCRETE.
- PERIODIC INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.

3. CONCRETE

A. ALL CAST-IN-PLACE CONCRETE SHALL BE MADE WITH TYPE I/II PORTLAND CEMENT, STONE AGGREGATE AND SHALL SATISFY THE FOLLOWING REQUIREMENTS:

CONCRETE ITEM	F'C MIX TYPE	MAX W/C RATIO	% AIR REQ.
---------------	--------------	---------------	------------

FOOTINGS	3000 psi STD	---	---
FOUNDATION WALLS	4000 psi STD	---	---
INTERIOR SLABS ON GRADE	4000 psi STD	0.50	---
EXTERIOR CONCRETE (++)	4500 psi STD	0.45	6%-8%

++ MAXIMUM SLUMP SHALL NOT EXCEED 4".

B. CONTRACTOR SHALL SAWCUT OR TROWELCUT JOINTS IN SLABS ON GRADE. JOINTS SHALL BE SPACED 12 FEET AND SAWCUT OR TROWELCUT 1/4 OF SLAB DEPTH X 3/16" WIDE WITHIN 12 HOURS AFTER POURING. CARRY ALL SLAB REINFORCEMENT THROUGH JOINT.

C. SLABS, FOOTINGS AND WALLS SHALL NOT HAVE JOINTS IN A HORIZONTAL PLANE. ANY STOP IN CONCRETE WORK MUST BE MADE AT THIRD POINT OF SPAN WITH VERTICAL BULKHEADS AND HORIZONTAL SHEAR KEYS UNLESS OTHERWISE SHOWN. ALL CONSTRUCTION JOINTS SHALL BE AS DETAILED OR AS REVIEWED BY THE ENGINEER.

D. ALL CONCRETE WORK AND REINFORCEMENT DETAILING SHALL BE IN ACCORDANCE WITH ACI BUILDING CODE 318 LATEST EDITION, UNLESS NOTED OTHERWISE. USE STANDARD HOOKS FOR DOWELS UNLESS NOTED OTHERWISE. ALL EXPOSED EDGES OF CONCRETE WORK SHALL HAVE 3/4 INCH CHAMFER.

4. REINFORCEMENT

A. ALL REINFORCING SHALL BE HIGH-STRENGTH DEFORMED BARS CONFORMING TO ASTM A615, GRADE 60 EXCEPT TIES, STIRRUPS AND PLATE ANCHORS WHICH SHALL BE DEFORMED BARS, ASTM DESIGNATION A615, GRADE 40 OR ASTM A706 GRADE 60.

B. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185 GRADE 65 AND SHALL BE LAPPED ONE FULL MESH AT SIDE AND END SPLICES AND WIRED TOGETHER.

C. REINFORCEMENT PROTECTION UNLESS NOTED OTHERWISE:

- CONCRETE POURED AGAINST EARTH 3"
- CONCRETE POURED IN FORMS (EXPOSED TO WEATHER OR EARTH) 2"
- SLABS AND WALLS (NOT EXPOSED TO WEATHER) 3/4"

D. REINFORCEMENT PLACEMENT AND TOLERANCES SHALL BE IN ACCORDANCE WITH SECTIONS 7.5, 7.6 AND 7.7 OF ACI 318, LATEST EDITION.

F. NO SPLICES OF REINFORCEMENT SHALL BE MADE EXCEPT AS DETAILED OR AUTHORIZED BY THE STRUCTURAL ENGINEER. LAP SPLICES, WHERE PERMITTED, SHALL BE A MINIMUM OF 48 BAR DIAMETERS UNLESS NOTED OTHERWISE. MAKE ALL BARS CONTINUOUS AROUND CORNERS.

F. PLACE TWO #5 (PER 8" THICKNESS) WITH 2'-0" PROTECTION AROUND ALL OPENINGS IN CONCRETE WALLS, AND SLABS. ALSO PROVIDE TWO #5 X 4'-0" DIAGONALLY AT EACH CORNER.

5. WOOD

A. ALL FRAMING AND TRUSS LUMBER SHALL BE DRY DOUGLAS FIR, LARCH, GRADED BY WESTERN WOOD PRODUCTS ASSOCIATION AND CONFORMING TO INTERNATIONAL BUILDING CODE AS FOLLOWS:

2" THICK - 4" TO 6" WIDE (WALL STUD ONLY)	NO. 2 Fb = 900 PSI
2 TO 4 THICK - 2 TO 4 WIDE	NO. 1 Fb = 1200 PSI
2" TO 4" THICK - 6" AND WIDER	SELECT STRUCTURAL= 1500 PSI
5" THICK - 5" AND WIDER	SELECT STRUCTURAL= 1600 PSI
NOTED ALLOWABLE STRESSES ARE MINIMUMS AND FOR NONREPETITIVE USES PRIOR TO ALLOWABLE STRESS INCREASES.	

B. WHEN PRESERVATIVE TREATED LUMBER IS REQUIRED BY CODE ALL CONNECTIONS AND NAILING SHALL BE ADEQUATELY GALVANIZED (DOUBLE DIPPED OR BETTER).

C. TREATED SILL PLATE LUMBER MAY BE HEM-FIR, STRUCTURAL #1 GRADE.

D. PROVIDE METAL CROSS BRIDGING NOT OVER 8' ON CENTER FOR ALL 2X WOOD JOISTS. SOLID BLOCKING BETWEEN ALL JOISTS AT ALL SUPPORTS AND ENDS OF CANTILEVERS IS REQUIRED.

E. FASTEN ALL WOOD MEMBERS WITH COMMON NAILS ACCORDING TO THE IBC SCHEDULE TABLE 2304-9.1 UNLESS NOTED OTHERWISE.

F. PLYWOOD DECK AND/OR ORIENTED STRAND BOARD.

- PANEL THICKNESS SHALL BE AS SHOWN ON THE DRAWING. APPLICATION SHALL BE IN ACCORDANCE WITH RECOMMENDATIONS OF THE AMERICAN PLYWOOD ASSOCIATION.
- EACH PANEL SHALL BE IDENTIFIED WITH THE GRADE-TRADEMARK OF THE AMERICAN PLYWOOD ASSOCIATION AND SHALL MEET THE REQUIREMENTS OF U.S. PRODUCTS STANDARD PSI, LATEST EDITION FOR PLYWOOD. ALL PANELS WHICH HAVE ANY EDGE OR SURFACE PERMANENTLY EXPOSED TO THE WEATHER SHALL BE OF THE EXTERIOR TYPE.
- FOR FLOORING USE 3/4" T&G STURD-I-FLOOR SHEATHING GLUED AND NAILED WITH 100 NAILS AT 6" ON CENTER ALONG PANEL EDGES AND AT 12" ALONG INTERMEDIATE SUPPORTS.
- FOR ROOF USE 3/4" (48/24 SPAN RATING) EXPOSURE I SHEATHING NAILED WITH 100 NAILS AT 4" ON CENTER ALONG PANEL EDGES AND AT 12" ALONG INTERMEDIATE SUPPORTS.
- EXTERIOR WALLS SHALL HAVE ONE LAYER OF 5/8" EXPOSURE I PLYWOOD OR OSB SHEATHING NAILED WITH 8d (OR 10d) NAILS AT 6" ON CENTER ALONG PANEL EDGES AND 12" ON CENTER AT INTERMEDIATE SUPPORTS. ALL PANEL EDGES SHALL BE BLOCKED.
- FLOORS AND ROOF SHEATHING SHALL BE INSTALLED WITH THE FACE GRAIN PERPENDICULAR TO SUPPORTS WITH END JOINTS STAGGERED.
- INSTALL SUITABLE EDGE SUPPORT BY USE OF PLYCLIPS, TONGUE AND GROOVE PANELS OR SOLID WOOD BLOCKING SUPPORTS.

G. LAMINATED VENEER LUMBER MEMBERS SHALL HAVE THE FOLLOWING STRESS CAPACITIES: FB = 2800 PSI; E = 2,000,000 PSI; FC = 750 PSI; FV = 285 PSI. BUILT UP MEMBERS SHALL BE CONNECTED IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS. CONTRACTOR SHALL HAVE THE OPTION OF USING 3 1/2" OR 5 1/4" WIDE MEMBERS.

6. NON-STRUCTURAL ELEMENTS

A. ELEMENTS SUCH AS NON-BEARING PARTITIONS, ETC. ATTACHED TO AND/OR SUPPORTED BY THE STRUCTURE SHALL TAKE INTO ACCOUNT DEFLECTIONS AND OTHER STRUCTURAL MOVEMENTS.

B. FIRE PROTECTION FOR ALL STRUCTURAL PARTS SHALL BE PROVIDED AND SHALL MEET ALL CODE REQUIREMENTS FOR THE TYPE OF CONSTRUCTION SPECIFIED BY THE ARCHITECTURAL DRAWINGS. STRUCTURAL STEEL MEMBERS SHALL BE CONSIDERED UNRESTRAINED UNLESS NOTED OTHERWISE.

7. GENERAL

A. ENGINEER'S ACCEPTANCE MUST BE SECURED FOR ALL STRUCTURAL SUBSTITUTIONS.

B. VERIFY ALL OPENINGS THROUGH FLOORS, ROOF AND WALLS WITH MECHANICAL AND ELECTRICAL CONTRACTORS. VERIFICATION OF LOCATIONS, SIZES, LINTELS AND REQUIRED CONNECTIONS ARE CONTRACTOR'S COMPLETE RESPONSIBILITY.

C. PRIOR TO INSTALLATION OF MECHANICAL AND ELECTRICAL EQUIPMENT OR OTHER ITEMS TO BE ATTACHED TO THE STRUCTURE, ENGINEER'S APPROVAL OF CONNECTIONS AND SUPPORTS SHALL BE OBTAINED. UNLESS SPECIFICALLY DETAILED ON ARCHITECTURAL AND STRUCTURAL DRAWINGS, RESPECTIVE SUBCONTRACTOR SHALL FURNISH ALL HANGERS, CONNECTIONS, ETC., REQUIRED FOR INSTALLATION OF HIS ITEMS.

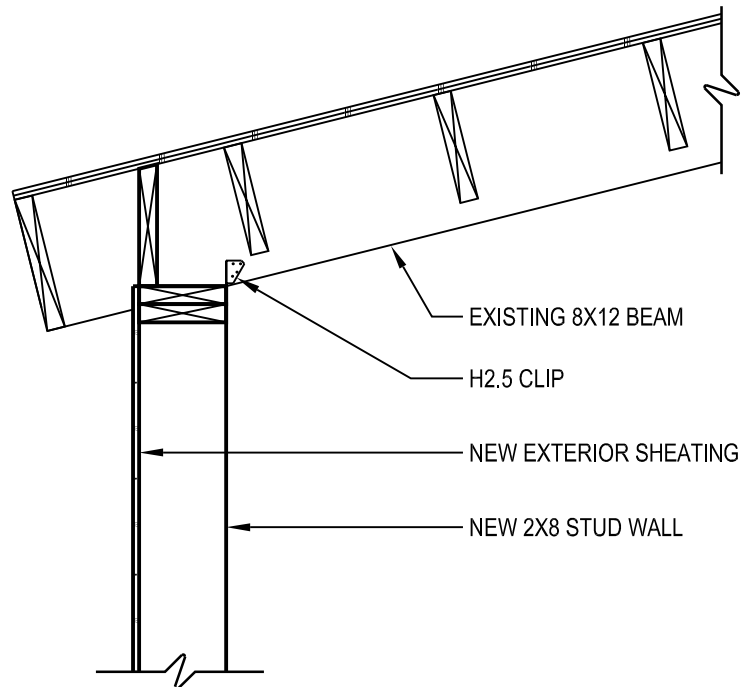
D. PROVIDE ALL EMBEDDED ITEMS IN STRUCTURE AS NOTED ON ARCHITECTURAL, MECHANICAL, ELECTRICAL AND STRUCTURAL DRAWINGS. MISCELLANEOUS EMBEDDED ITEMS AND ANCHOR BOLTS SHALL BE FURNISHED BY STEEL SUPPLIER AND INSTALLED BY CONCRETE CONTRACTOR. STEEL SHALL FULFILL ASTM A36.

E. SUBMIT SHOP DRAWINGS TO ENGINEER FOR REVIEW OF ALL CONCRETE REINFORCING AND STRUCTURAL STEEL. THE MANUFACTURING OR FABRICATION OF ANY ITEMS PRIOR TO WRITTEN REVIEW OF SHOP DRAWINGS WILL BE ENTIRELY AT THE RISK OF THE CONTRACTOR. SHOP DRAWINGS NOT REVIEWED AND STAMPED BY CONTRACTOR PRIOR TO SUBMITTING WILL BE RETURNED AND NOT REVIEWED.

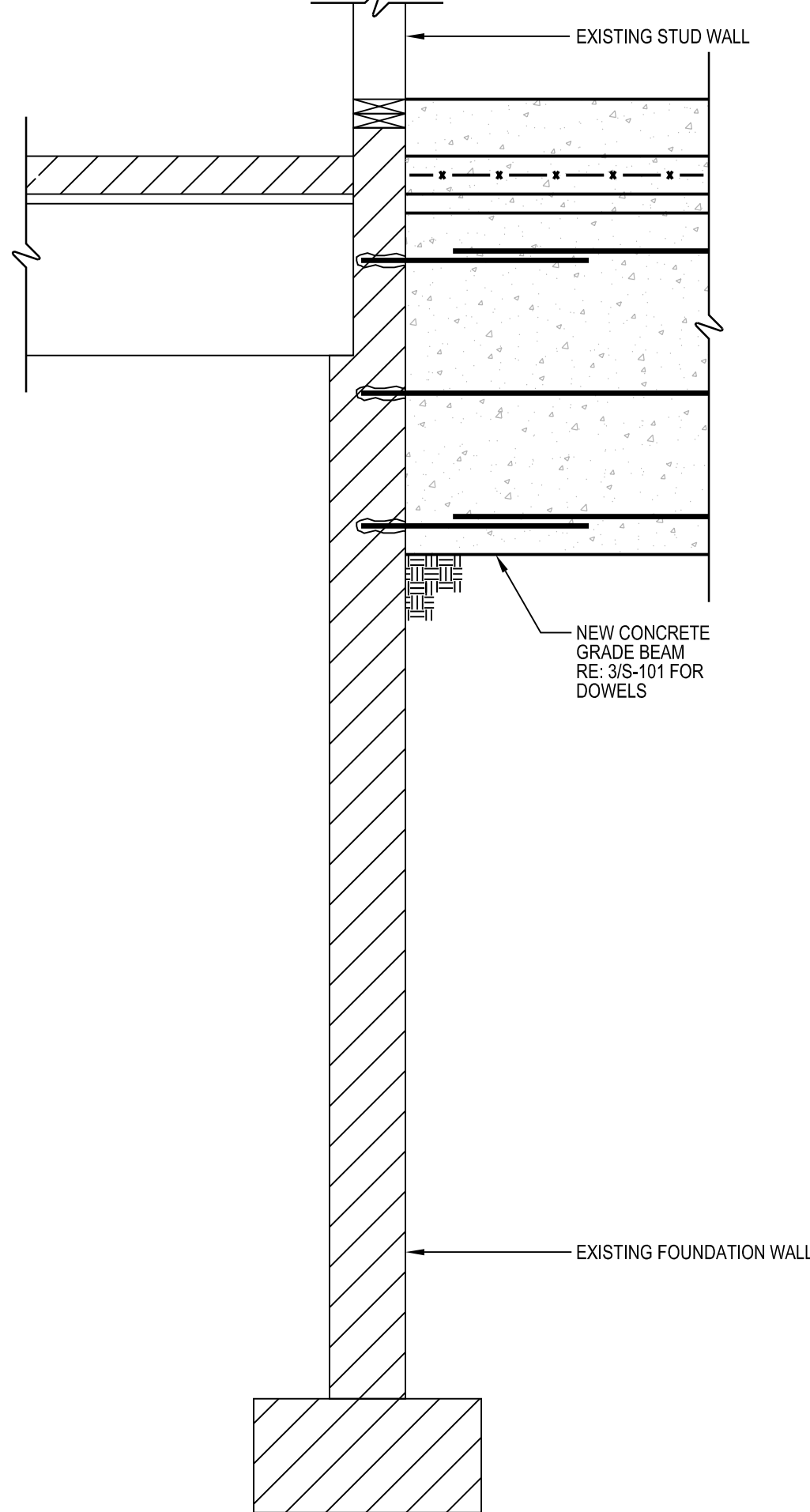
F. WATERPROOFING, VAPOR BARRIERS, ETC., SHALL BE AS SHOWN ON THE ARCHITECTURAL DRAWINGS AND AS INDICATED IN THE SPECIFICATIONS.

G. ALL MASONRY AND STONE VENEERS SHALL BE ATTACHED TO INTERIOR AND EXTERIOR WALLS AS SPECIFIED IN SECTION 1405 OF THE INTERNATIONAL BUILDING CODE.

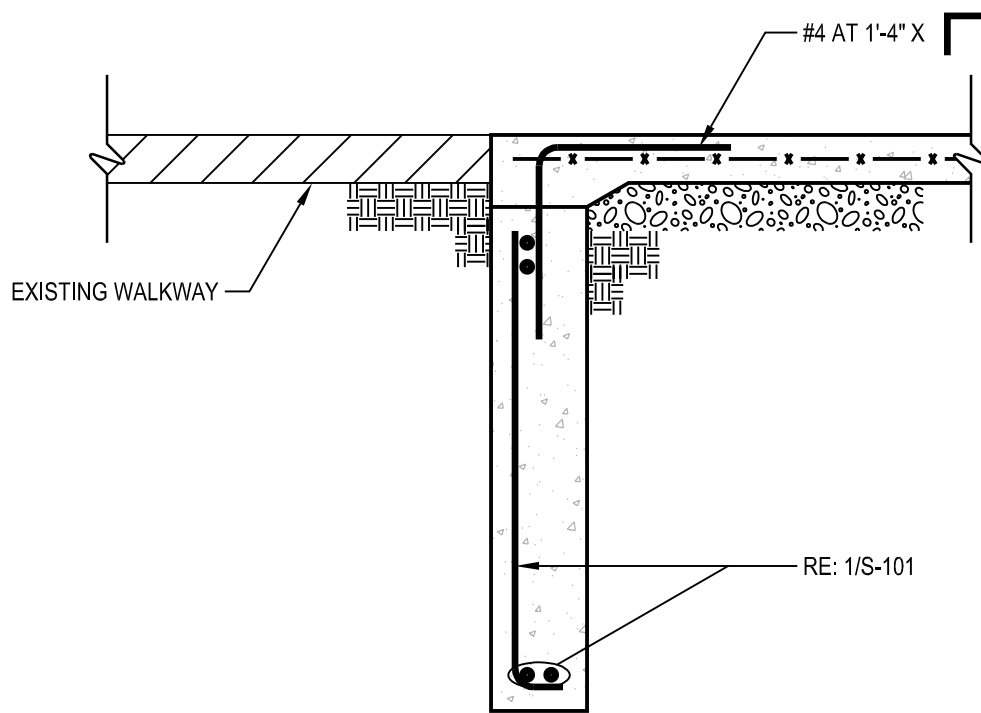
H. ALL DIMENSIONS ON STRUCTURAL DRAWINGS SHALL BE CHECKED AGAINST FIELD AND ARCHITECTURAL DRAWINGS.



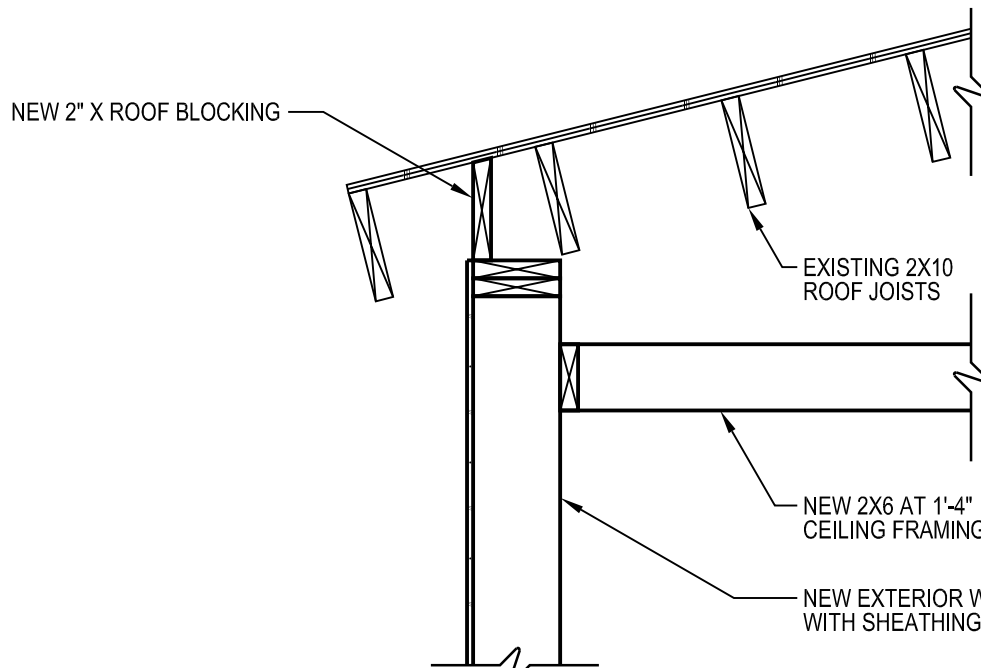
SECTION 7
3/4" = 1'-0"



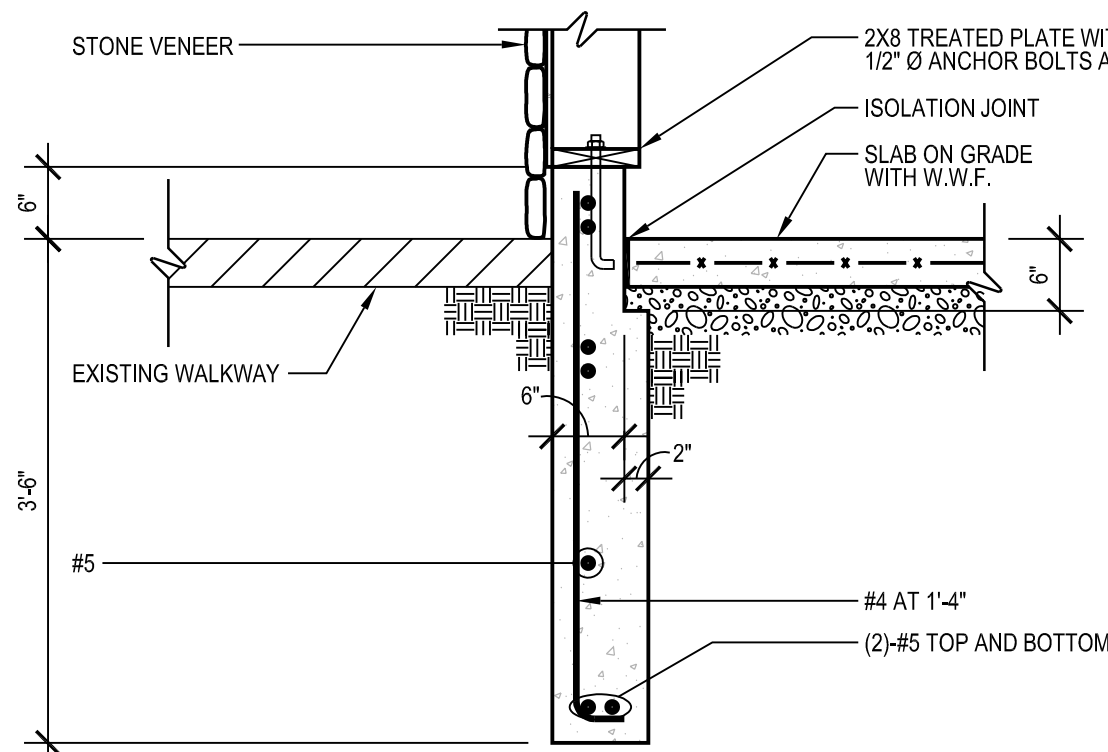
SECTION 4
3/4" = 1'-0"



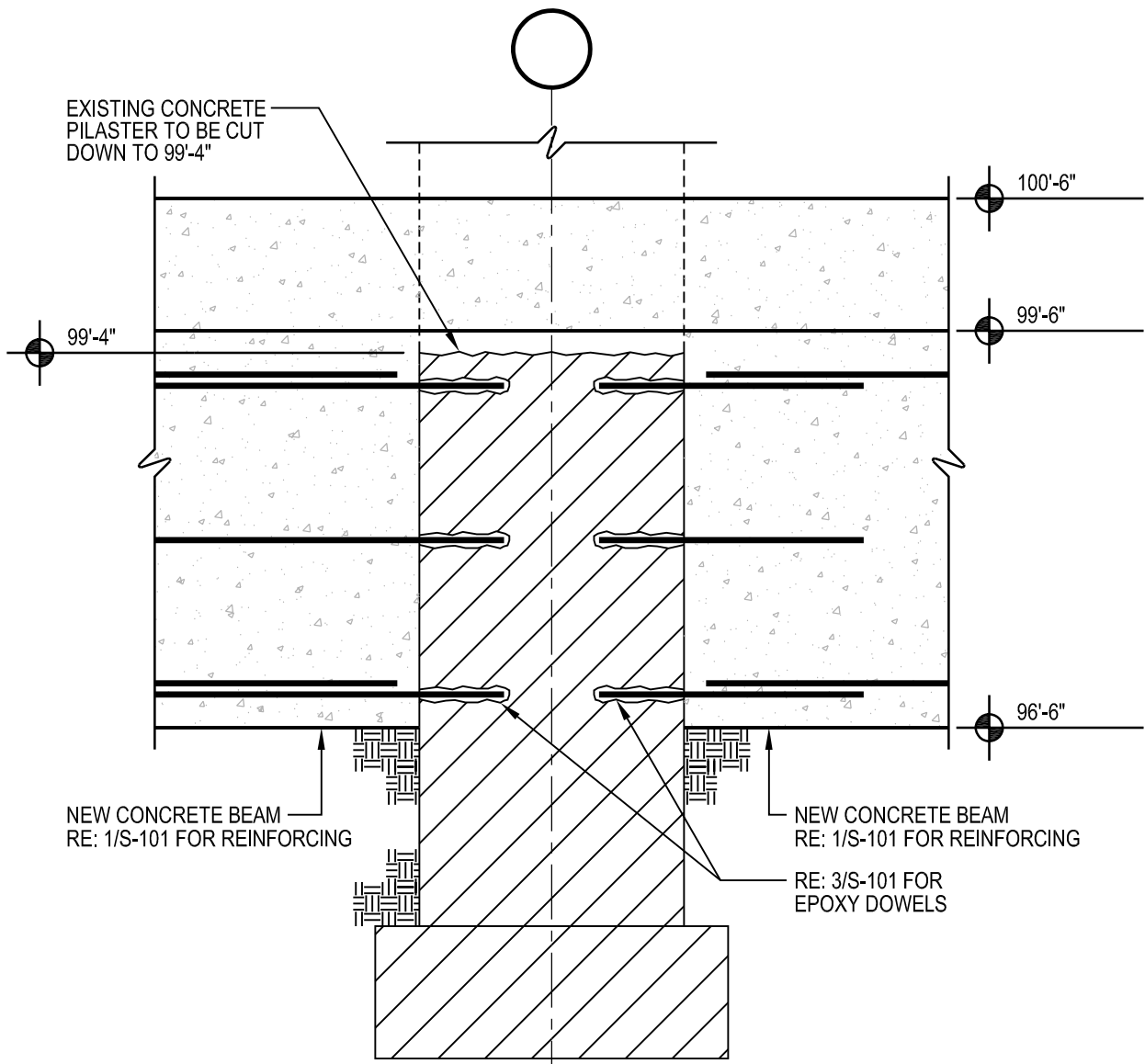
SECTION 5
3/4" = 1'-0"



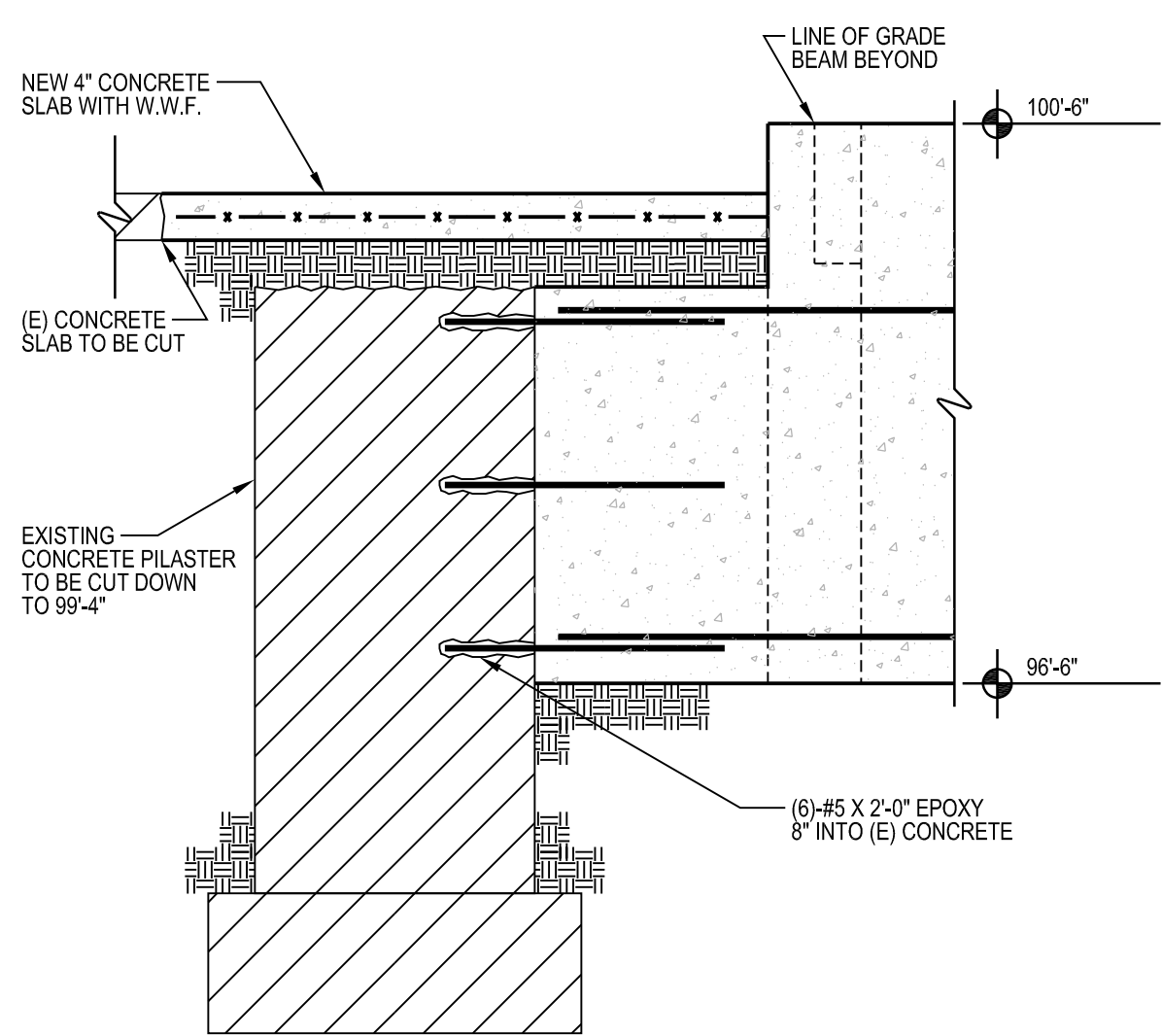
SECTION 6
3/4" = 1'-0"



SECTION 1
3/4" = 1'-0"



SECTION 2
3/4" = 1'-0"



SECTION 3
3/4" = 1'-0"



3003 Larimer Street
Denver, Colorado 80205
phone 303.861.5704
www.ozarch.com



FRISCO DAY LODGE RENOVATION
(ALTERNATE #1)
621 RECREATION WAY
FRISCO, CO 80443

PROJ. NO. 117119.00

DRAWN: MN

CHECKED: MN

APPROVED: MN

DATE: 2018-04-27

© OZ ARCHITECTURE

FRISCO DAY LODGE
RENOVATION
(ALTERNATE #1)
ISSUED FOR:
PERMIT SET

SHEET TITLE:
GENERAL NOTES
AND DETAILS

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

S-101



3003 Larimer Street
Denver, Colorado 80205
phone 303.861.5704
www.ozarch.com



FRISCO DAY LODGE RENOVATION
(ALTERNATE #1)
621 RECREATION WAY
FRISCO, CO 80443

PROJ. NO. 117119.00
DRAWN: MN
CHECKED: MN
APPROVED: MN
DATE: 2018-04-27

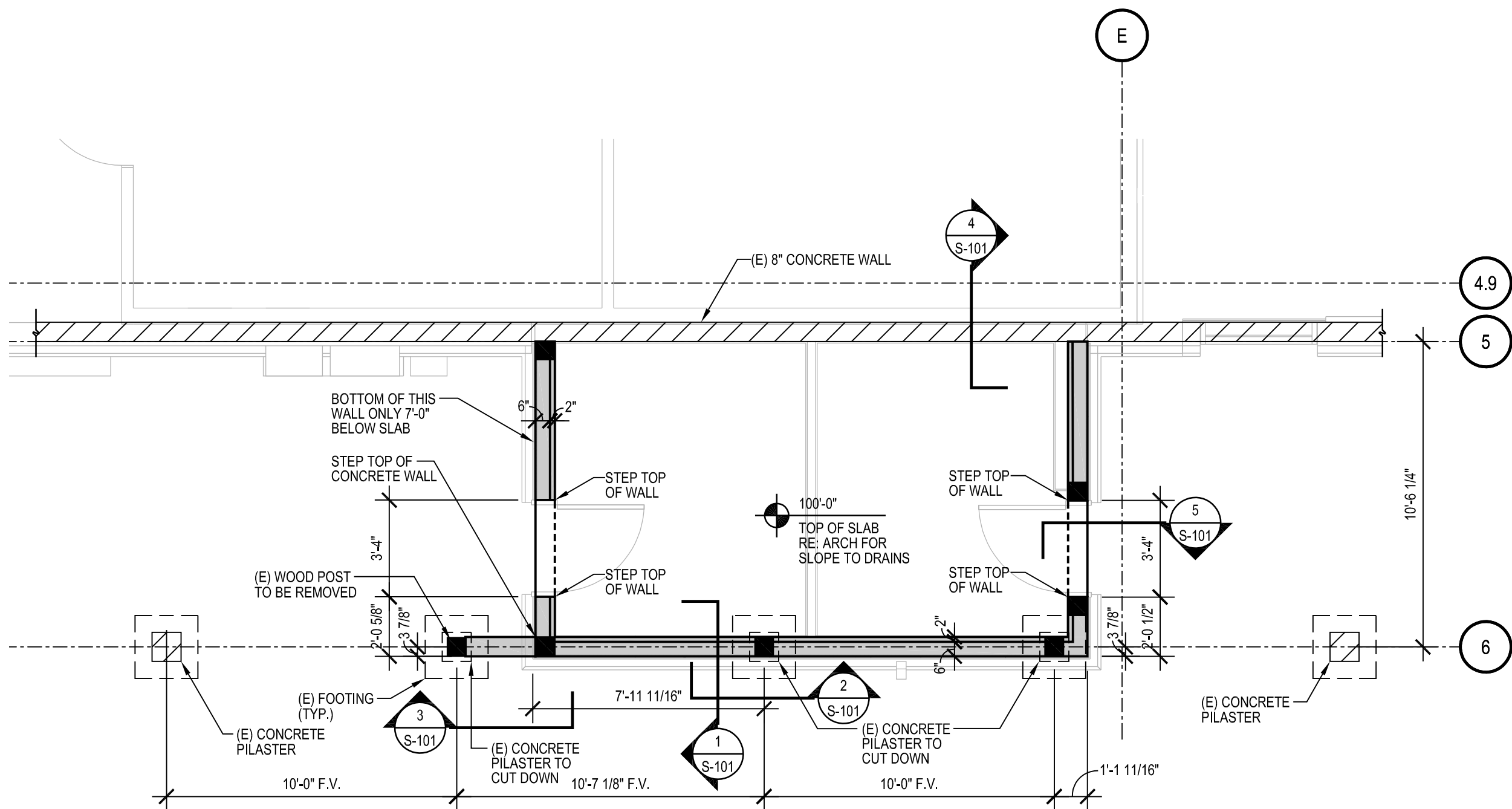
© OZ ARCHITECTURE

FRISCO DAY LODGE
RENOVATION
(ALTERNATE #1)
ISSUED FOR:
PERMIT SET

SHEET TITLE:
FRAMING PLANS

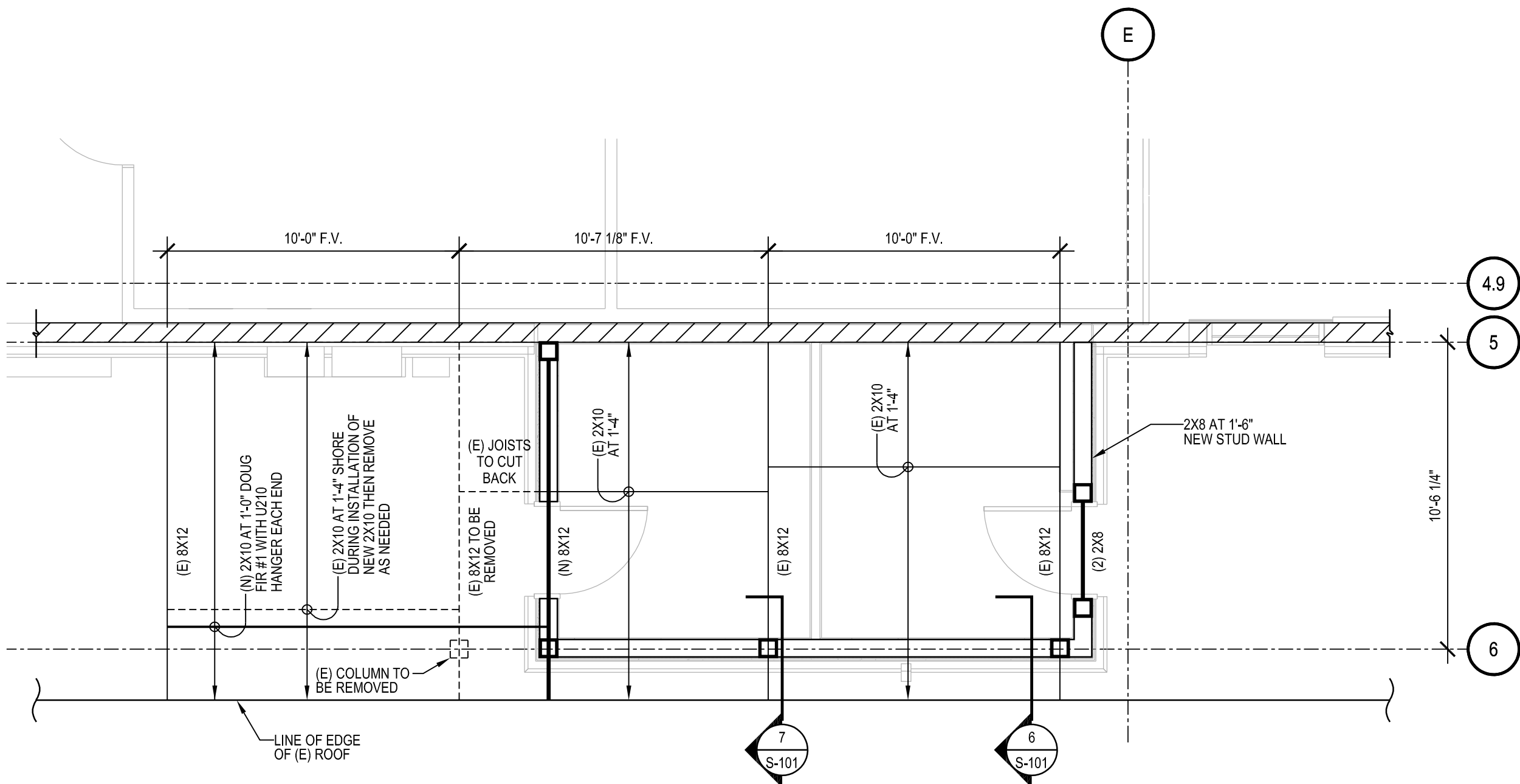
SCALE: 1/4" = 1'-0"
SHEET NUMBER

S-102



PARTIAL FOUNDATION PLAN

1/4" = 1'-0"



PARTIAL ROOF FRAMING PLAN

1/4" = 1'-0"

PROJECT FLAGNOTES	
NO.	FLAGNOTE
3.02	DIAGONAL CROSSHATCH DENOTES NEW CONCRETE WALK. COLOR SHALL MATCH EXISTING ADJACENT TAN COLOR. BASED ON AS-BUILT INFORMATION THIS IS BELIEVED TO BE DAVIS COLORS. POWDER MIX IN "COCOA" COLOR. GC SHALL PROVIDE COLORED CONCRETE MOCKUP FOR REVIEW PRIOR TO INSTALLATION.
3.03	DIAGONAL HATCH DENOTES NEW CONCRETE WALK. COLOR SHALL MATCH EXISTING ADJACENT GRAY COLOR.
6.01	LINE OF EXISTING ROOF OVERHANG

CODE PLAN TEXT	
1	BUILDING SHALL BE SPRINKLERED THROUGHOUT IN ACCORDANCE WITH IBC CHAPTER 9 AND NFPA 13. PROVIDE DRY SPRINKLER SYSTEM AT UNCONDITIONED LOCATIONS. OF REFUGE IS NOT REQUIRED PER 1007.3 EXCEPTION NO.3.
2	THE GC IS TO COORDINATE FIRE DEPARTMENT CONNECTION (FDC) LOCATION WITH AUTHORITY HAVING JURISDICTION AND ARCHITECT.
3	THE GC IS TO COORDINATE KNOX BOX LOCATION WITH FIRE DEPARTMENT AND ARCHITECT.
4	SEE G SERIES SHEETS FOR LISTED ASSEMBLIES FOR FLOOR/CEILINGS, ROOF/CEILINGS, EXTERIOR WALLS, AND PARTITIONS. LISTED FIRE-RESISTIVE ASSEMBLIES MAY BE SUBSTITUTED WITH APPROVAL OF AUTHORITY HAVING JURISDICTION AND ARCHITECT. PROVIDE DRY SPRINKLER SYSTEM WHERE APPROPRIATE AND AT ALL UNCONDITIONED LOCATIONS.

PROJECT DESCRIPTION:
THE PROJECT SCOPE INCLUDES A 178 SF ADDITION FOR A MEN'S AND WOMEN'S RESTROOM AND ALSO A NEW EXTERIOR DRINKING FOUNTAIN. THIS WORK WILL OCCUR ON LEVEL 1 UNDER THE EXISTING ROOF OVERHANG. THE EXISTING BASEMENT AND ADJACENT LEVEL 1 WILL REMAIN UNDISTURBED AND WILL CONTINUE TO BE USED DURING CONSTRUCTION.

APPLICABLE CODES:
2012 INTERNATIONAL BUILDING CODE
2012 INTERNATIONAL MECHANICAL CODE
2012 INTERNATIONAL PLUMBING CODE
2012 INTERNATIONAL FIRE CODE
2012 INTERNATIONAL FUEL GAS CODE
2012 INTERNATIONAL ENERGY CONSERVATION CODE
2011 NATIONAL ELECTRICAL CODE
2008 INTERNATIONAL ELECTRICAL CODE ADMINISTRATIVE PROVISIONS
2009 ICC A117.1 ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES
TOWN OF FRISCO AMENDMENTS TO CODES LISTED ABOVE

ZONING DESIGNATION: PR (PARKS AND RECREATION)

PRIMARY OCCUPANCY CLASSIFICATIONS: A3 (MOST RESTRICTIVE), S1
NONSEPARATE OCCUPANCY CLASSIFICATIONS: A3, B, S2

CONSTRUCTION TYPE: VB

OCCUPANT LOAD: BASEMENT LEVEL = 14 OCCUPANTS
LEVEL 1 (INCL. ADDITION) = 241 OCCUPANTS
TOTAL OCCUPANT LOAD = 255 OCCUPANTS

FIRE SUPPRESSION: FULLY SPRINKLERED PER NFPA 13

ALLOWABLE AREA: BASIC ALLOWABLE = 6,000 SF
SPRINKLER INCREASE = 18,000 SF
FRONTAGE INCREASE = NOT USED / NOT NECESSARY
TOTAL ALLOWABLE = 24,000 SF / STORY
48,000 SF / BUILDING

ACTUAL AREA: BASEMENT FLOOR = 4,001 SF
FIRST FLOOR = 4,080 SF (INCL. 178 SF ADDITION)
TOTAL = 8,081 SF

ALLOWABLE HEIGHT: BASIC ALLOWABLE = 1 STORY, 40 FEET
SPRINKLER INCREASE = 1 STORY, 20 FEET
TOTAL ALLOWABLE = 2 STORIES, 60 FEET

ACTUAL HEIGHT: 1 STORY ABOVE GRADE PLANE, 30 FEET

FIRE RESISTANCE REQUIREMENTS:
PRIMARY STRUCTURAL FRAME: 0 HR
INTERIOR & EXTERIOR BEARING WALLS: 0 HR
INTERIOR & EXTERIOR NONBEARING WALLS: 0 HR
FLOOR CONSTRUCTION: 0 HR
ROOF CONSTRUCTION: 0 HR

EXIT WIDTH:
STAIRS: 0.3' PER OCCUPANT
OTHER COMPONENTS: 0.2' PER OCCUPANT

EXIT ACCESS TRAVEL DISTANCE (MAXIMUM LENGTH): 250 FEET

COMMON PATH OF EGRESS TRAVEL (MAXIMUM LENGTH): 75 FEET

ROOF COVERING CLASSIFICATION (MINIMUM): CLASS C

INTERIOR WALL & CEILING FINISH REQUIREMENTS (MINIMUM):
EXIT STAIRS & EXIT PASSAGEWAYS: CLASS B
CORRIDORS & EXIT ACCESS STAIRS: CLASS B
ROOMS & ENCLOSED SPACES: CLASS C

PLUMBING FIXTURES: THE EXISTING PLUMBING FACILITIES ARE NOT BEING ALTERED AND COMPLY WITH THE CODE REQUIRED COUNTS AS PREVIOUSLY PERMITTED. THE NEW PLUMBING FIXTURES INCLUDED IN THIS SCOPE OF WORK ARE NOT NECESSARY AND ARE ONLY SUPPLEMENTAL TO THE EXISTING FIXTURES.

ACCESSIBILITY: THE RESTROOM ADDITION INCLUDED IN THIS SCOPE OF WORK WILL BE FULLY ACCESSIBLE AS REQUIRED IN



1 SITE PLAN & BUILDING CODE PLAN

1/8" = 1'-0"



3003 Larimer Street
Denver, Colorado 80205
phone 303.861.5704
www.ozarch.com



4/27/18

FRISCO DAY LODGE RENOVATION (ALTERNATE #1) 621 RECREATION WAY FRISCO, CO 80443

PROJ. NO. 117119.00

DRAWN: OZ

CHECKED: OZ

APPROVED: OZ

DATE: 2018-04-27

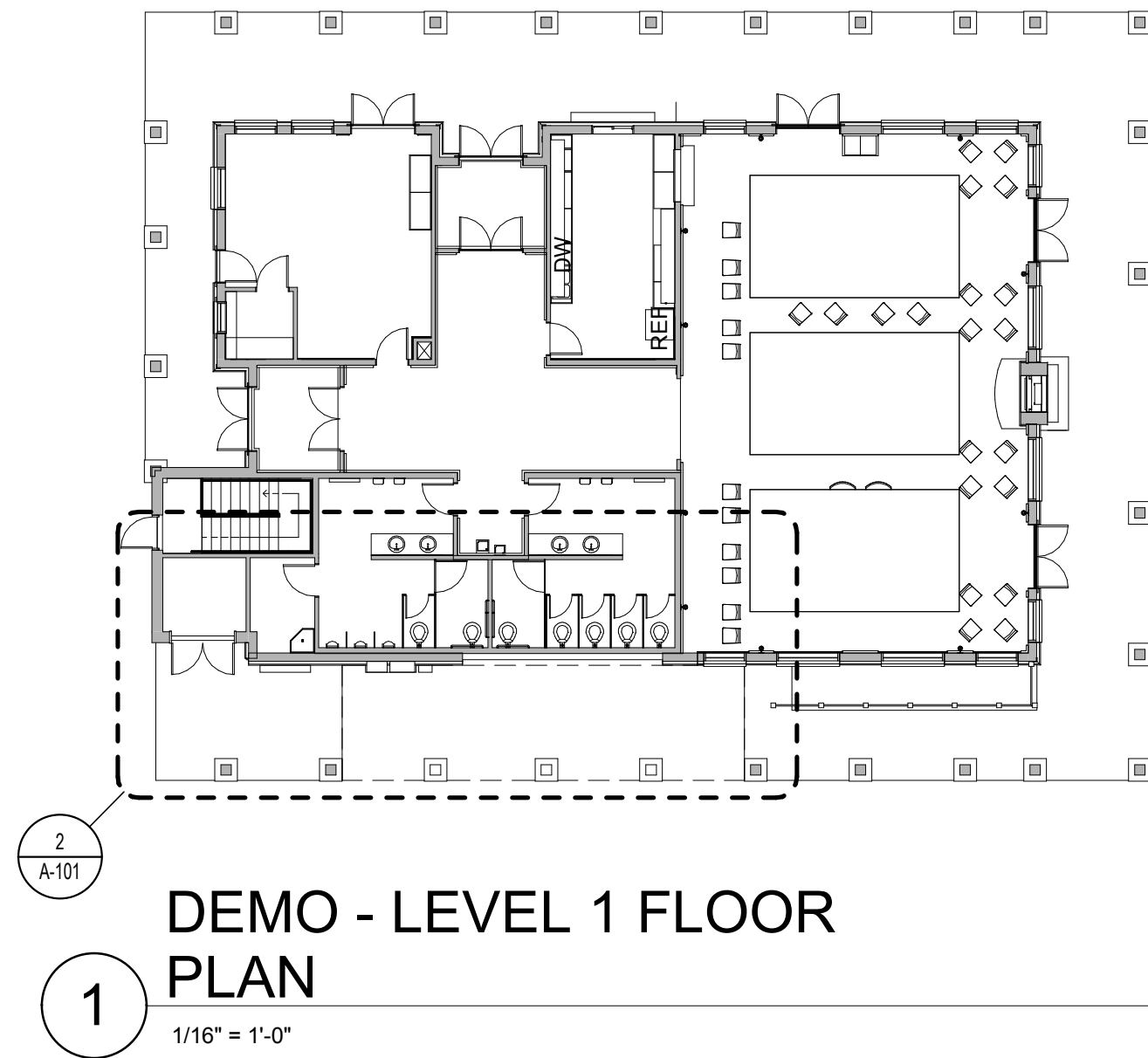
© OZ ARCHITECTURE

FRISCO DAY LODGE
RENOVATION
(ALTERNATE #1)
ISSUED FOR:
PERMIT SET

SHEET TITLE:
SITE PLAN & BUILDING
CODE PLAN

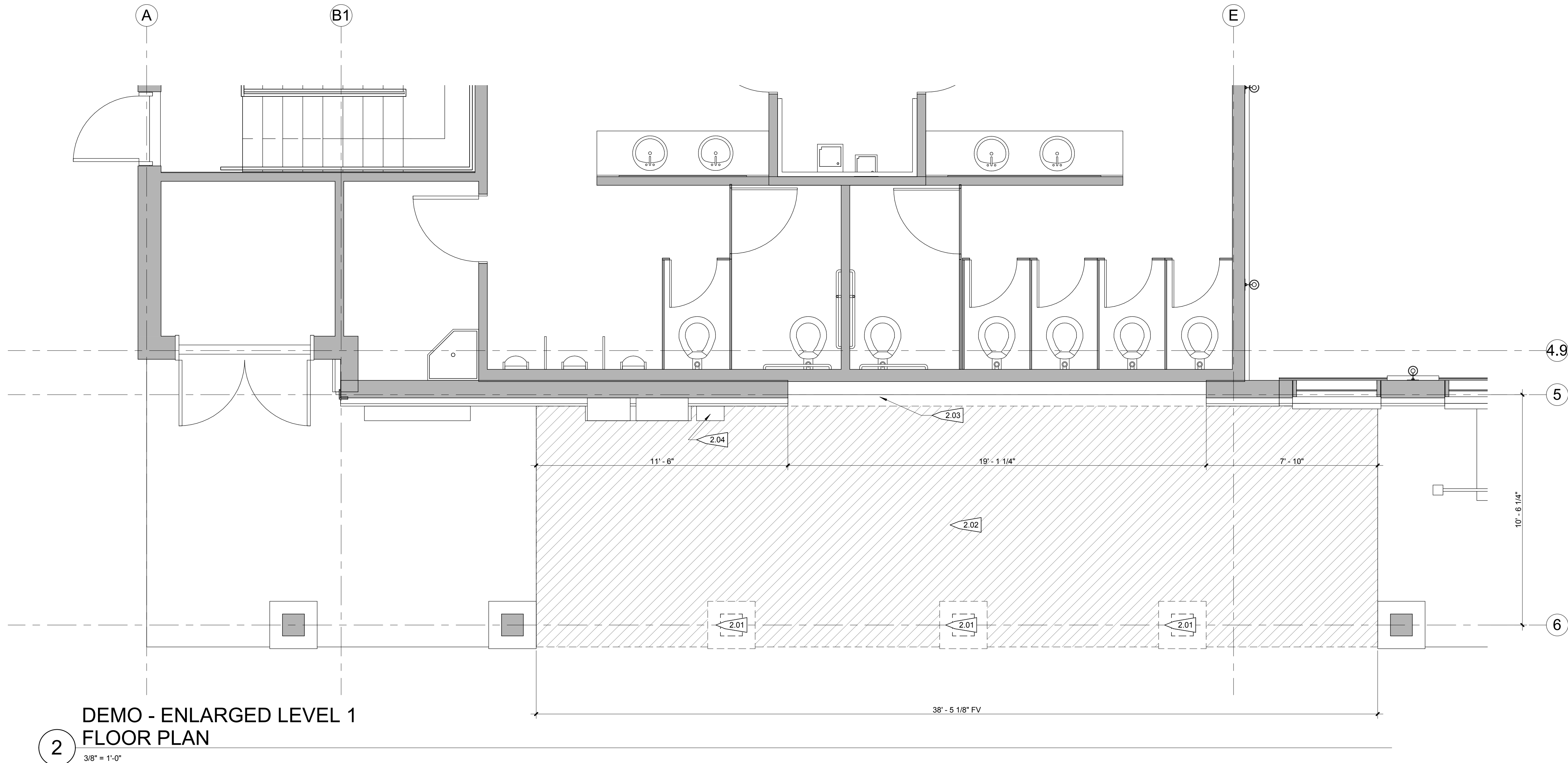
SCALE: As indicated
SHEET NUMBER

A-100



PROJECT FLAGNOTES	
NO.	FLAGNOTE
2.01	REMOVE EXISTING WOOD COLUMNS, STONE VENEER AND CONCRETE PILASTER. PREPARE EXISTING CONCRETE COLUMN FOOTING FOR NEW GRADE BEAM & BRACE ROOF AS NECESSARY, RE: STRUCT.
2.02	DEMO EXISTING SLAB
2.03	DEMO EXISTING EXTERIOR WALL FINISH, EXTERIOR SHEATHING AND INSULATION. EXISTING STUD WALL SHALL REMAIN.
2.04	PROTECT EXISTING ELECTRICAL PANEL, METERS AND GAS SERVICE.

FLOOR PLAN NOTES	
1	EL. 100'-0" (LEVEL 1) EQUATES TO USGS DATUM ELEVATION OF 9071.40'.
2	EXTERIOR DIMENSIONS ARE TO FACE OF SHEATHING, FACE OF CONCRETE/MASONRY, COLUMN CENTERLINE, OR CENTERLINE OF WINDOW U.N.O.
3	INTERIOR DIMENSIONS ARE TO FACE OF STUD, FACE OF CONCRETE/MASONRY, OR COLUMN CENTERLINE U.N.O. DIMENSIONS DESIGNATED AS "CLEAR" OR "HOLD" SHALL BE MAINTAINED.
5	PARTITION TYPES INDICATED CONTINUE AROUND CORNERS U.N.O.
6	MAINTAIN CONTINUITY OF RATED PARTITIONS AT HEAD AND BOTTOM OF PARTITION AND AT JOINTS WITH DISSIMILAR PARTITIONS WITH LISTED JOINT ASSEMBLIES.
7	WHERE TWO DIFFERING PARTITION TYPES ABUT ALONG A CONTINUOUS LINE, THE CONTINUOUS FINISHED SURFACE OF THESE PARTITIONS SHALL ALIGN U.N.O.
8	WHERE DOORS ARE NOT SPECIFICALLY LOCATED, PROVIDE A HINGE-SIDE JAMB DIMENSION OF 4" FROM DOOR OPENING TO ADJACENT PERPENDICULAR PARTITION.
9	WHERE MECHANICAL DUCTWORK PENETRATES A COMPONENT OF THE FIRE-RATED ASSEMBLY, PROVIDE FIRE AND/OR SMOKE DAMPERS IN ACCORDANCE WITH IBC CHAPTER 7.
10	PROVIDE 1/2" CLEARANCE FROM DUCTWORK FOR VIBRATION ISOLATION.
11	THERE SHALL BE NO EXPOSED PIPES, DUCTS, ETC. ALL SUCH LINES SHALL BE CONCEALED OR FURRED UNLESS SPECIFICALLY NOTED AS EXPOSED CONSTRUCTION.
12	FIELD VERIFY DIMENSIONS PRIOR TO FABRICATION OF BUILT-IN ITEMS.
13	SEE SHEET G-401 FOR MOUNTING HEIGHTS AND BLOCKING FOR FUTURE GRAB BARS.



OZ
ARCHITECTURE

3003 Larimer Street
Denver, Colorado 80205
phone 303.861.5704
www.ozarch.com

STATE OF COLORADO
REBECCA STONE
B3452
LICENSED ARCHITECT
4/27/18

FRISCO DAY LODGE RENOVATION
(ALTERNATE #1)
621 RECREATION WAY
FRISCO, CO 80443

PROJ. NO. 117119.00
DRAWN: OZ
CHECKED: OZ
APPROVED: OZ
DATE: 2018-04-27

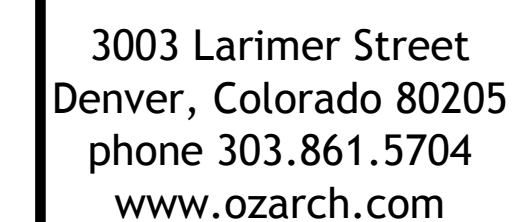
© OZ ARCHITECTURE

FRISCO DAY LODGE
RENOVATION
(ALTERNATE #1)
ISSUED FOR:
PERMIT SET

SHEET TITLE:
DEMO FLOOR PLAN

SCALE: As indicated
SHEET NUMBER

A-101



PROJ. NO. 117119.00
DRAWN: OZ
CHECKED: OZ
APPROVED: OZ
DATE: 2018-04-27

© OZ ARCHITECTURE

FRISCO DAY LODGE
RENOVATION
(ALTERNATE #1)
ISSUED FOR:
PERMIT SET

SHEET TITLE:
FLOOR PLAN

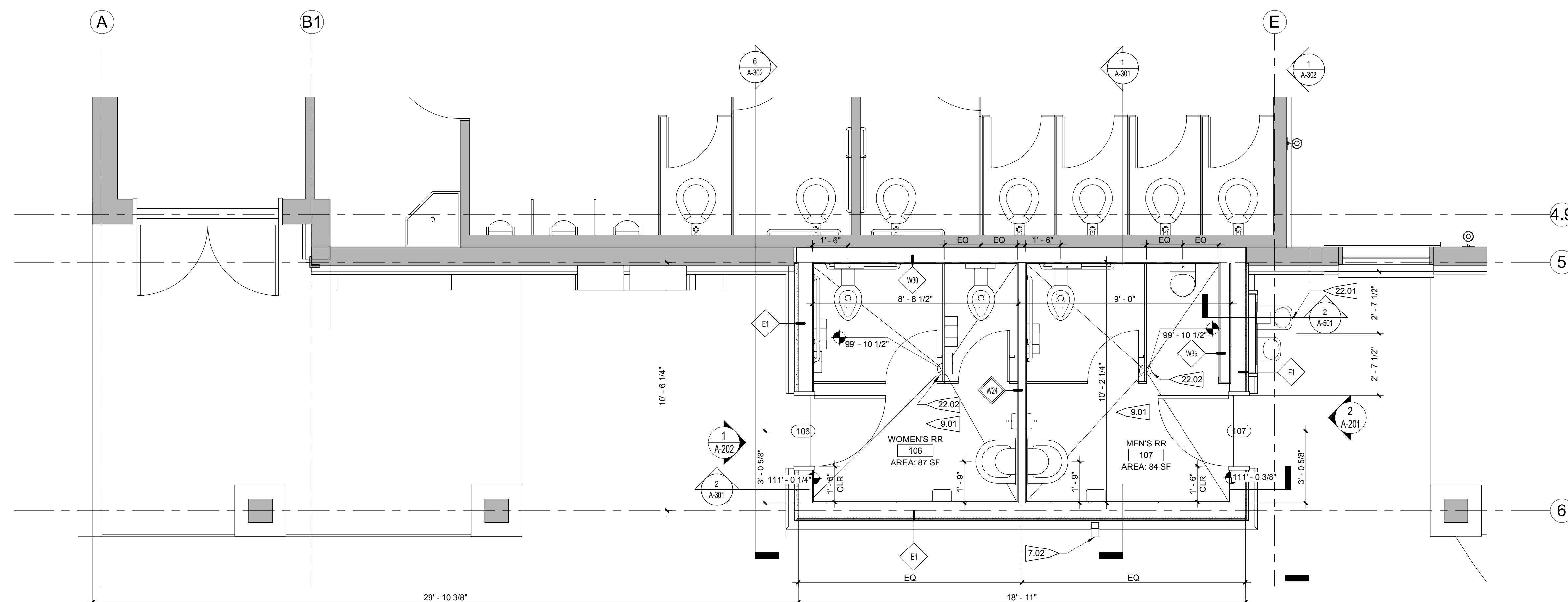
SCALE: As indicated
SHEET NUMBER

A-102

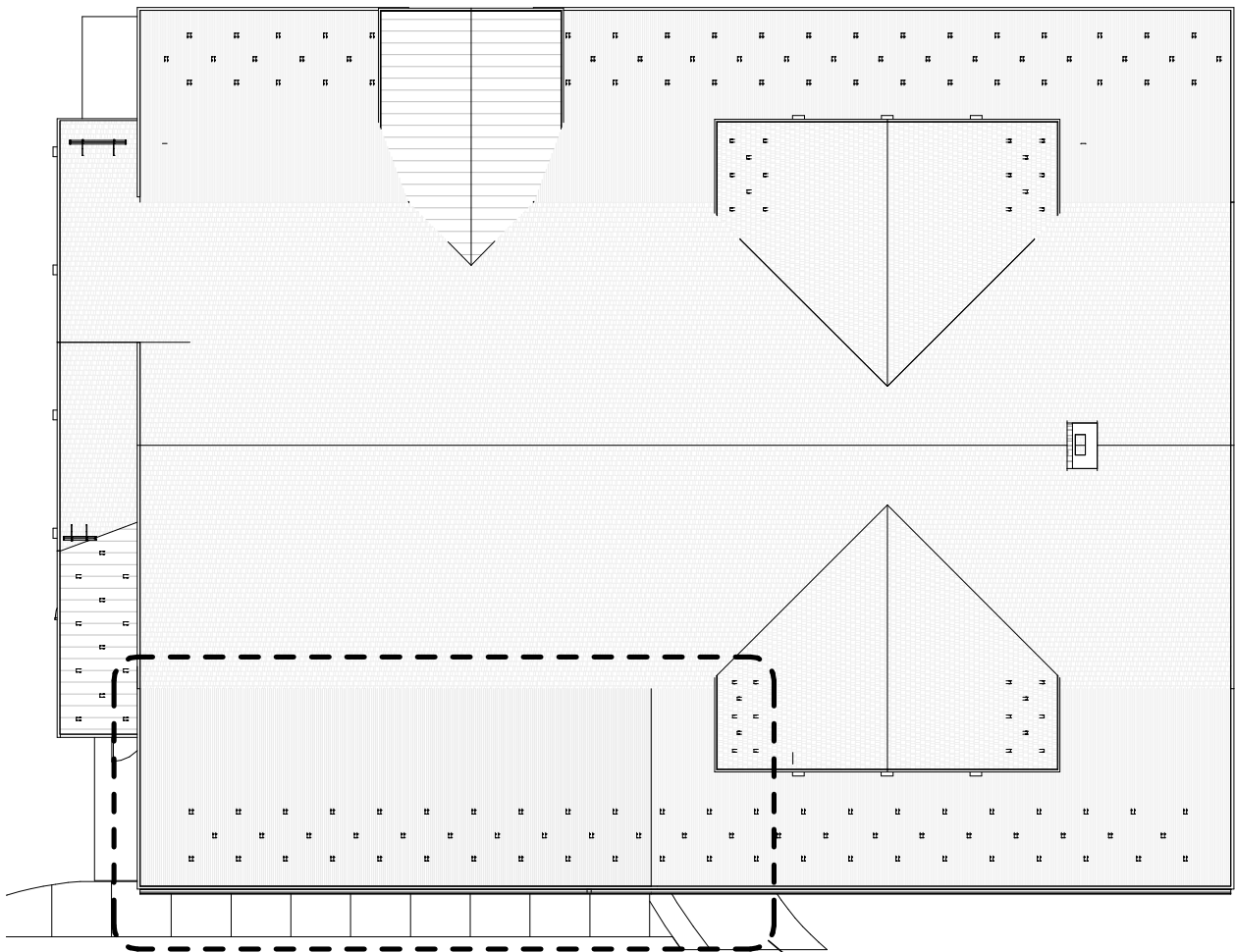


PROJECT FLAGNOTES	
NO.	FLAGNOTE
7.02	NEW 3"x4" PREFINISHED METAL DOWNSPOUT. RE: CIVIL FOR TIE IN BELOW SIDEWALK AND CONNECTION TO CATCHWATER SYSTEM.
9.01	SLOPE FLOOR TO DRAIN AT 1/4" PER FOOT.
22.01	DRINKING FOUNTAIN. RE: PLUMBING
22.02	FLOOR DRAIN

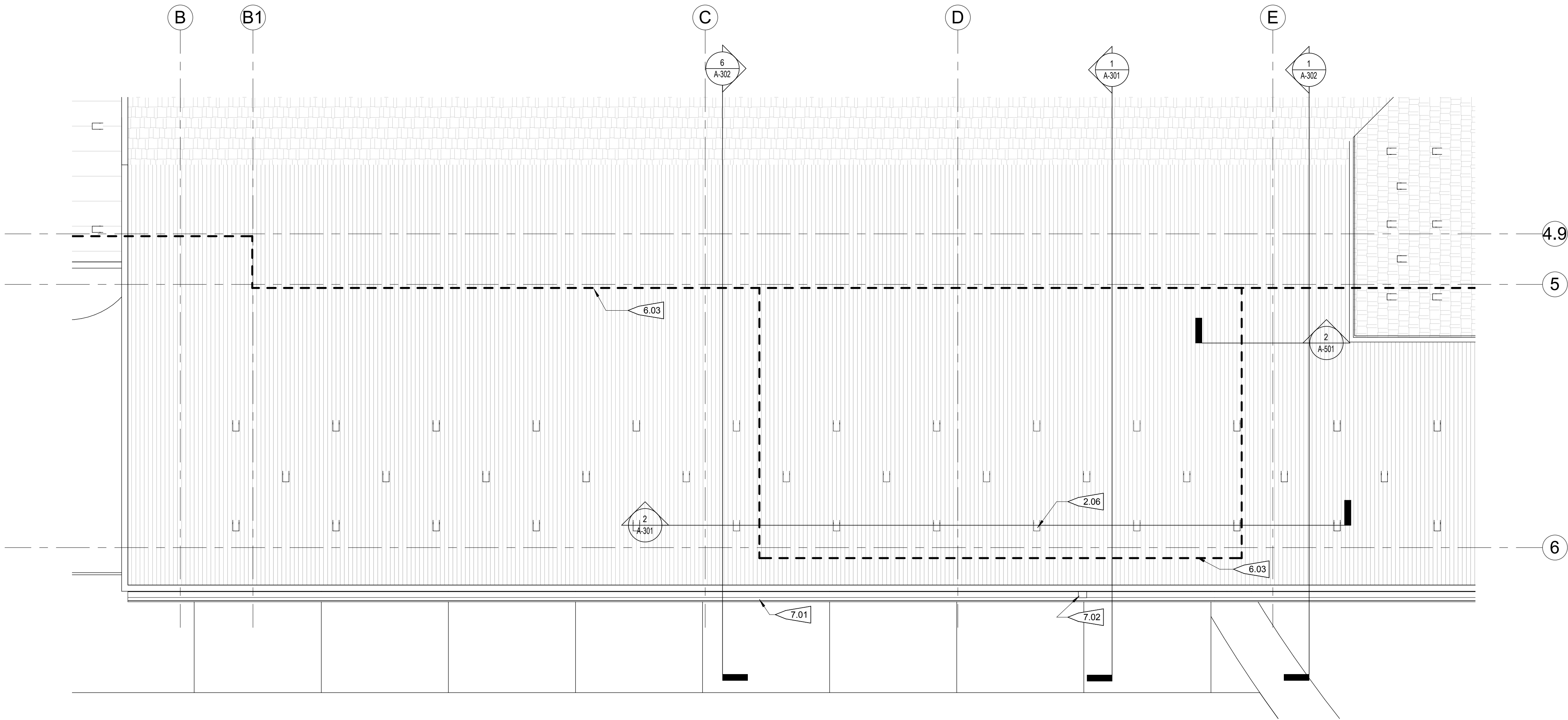
FLOOR PLAN NOTES	
1	EL 100'-0" (LEVEL 1) EQUATES TO USGS DATUM ELEVATION OF 9071.40'.
2	EXTERIOR DIMENSIONS ARE TO FACE OF SHEATHING, FACE OF CONCRETE/MASONRY, COLUMN CENTERLINE, OR CENTERLINE OF WINDOW U.N.O.
3	INTERIOR DIMENSIONS ARE TO FACE OF STUD, FACE OF CONCRETE/MASONRY, OR COLUMN CENTERLINE U.N.O. DIMENSIONS DESIGNATED AS "CLEAR" SHALL NOT SHALE MAINTAIN.
5	PARTITION TYPES INDICATED CONTINUE AROUND CORNERS U.N.O.
6	MAINTAIN CONTINUITY OF RATED PARTITIONS AT HEAD AND BOTTOM OF PARTITION AND AT JOINTS WITH DISSIMILAR PARTITIONS WITH LISTED JOIN ASSEMBLIES.
7	WHERE TWO DIFFERING PARTITION TYPES ABUT ALONG A CONTINUOUS LINE THE CONTINUOUS FINISHED SURFACE OF THESE PARTITIONS SHALL ALIGN U.N.O.
8	WHERE DOORS ARE NOT SPECIFICALLY LOCATED, PROVIDE A HINGE-SIDE JAMB DIMENSION OF 4" FROM DOOR OPENING TO ADJACENT PERPENDICULAR PARTITION.
9	WHERE MECHANICAL DUCTWORK PENETRATES A COMPONENT OF THE FIRE-RATED ASSEMBLY, PROVIDE FIRE AND/OR SMOKE DAMPERS IN ACCORDANCE WITH IBC CHAPTER 7.
10	PROVIDE 12" CLEARANCE FROM DUCTWORK FOR VIBRATION ISOLATION.
11	THERE SHALL BE NO EXPOSED PIPES, DUCTS, ETC. ALL SUCH LINES SHALL BE CONCEALED OR FURRED UNLESS SPECIFICALLY NOTED AS EXPOSED CONSTRUCTION.
12	FIELD VERIFY DIMENSIONS PRIOR TO FABRICATION OF BUILT-IN ITEMS.
13	SEE SECTION G-401 FOR MOUNTING HEIGHTS AND BLOCKING FOR FUTURE GRAB BARS.



NEW - ENLARGED
RESTROOM FLOOR PLAN



2
NEW - OVERALL ROOF
PLAN
1/16" = 1'-0"



1
NEW - ENLARGED
RESTROOM ROOF PLAN
3/8" = 1'-0"

ROOF PLAN NOTES	
1	MAINTAIN MINIMUM SLOPE OF 1/4" PER FOOT AT ROOF AREAS (INCLUDING CRICKETS). SLOPE VALLEYS A MINIMUM OF 1/8" PER FOOT.

PROJECT FLAGNOTES	
NO.	FLAGNOTE
2.06	EXISTING SNOW CLIP TO REMAIN.
6.03	LINE OF EXTERIOR WALL BELOW
7.01	NEW PREFINISHED METAL ROOF GUTTER. PROFILE AND COLOR SHALL MATCH EXISTING.
7.02	NEW 3"x4" PREFINISHED METAL DOWNSPOUT. RE: CIVIL FOR TIE IN BELOW SIDEWALK AND CONNECTION TO STORMWATER SYSTEM.



3003 Larimer Street
Denver, Colorado 80205
phone 303.861.5704
www.ozarch.com



FRISCO DAY LODGE RENOVATION
(ALTERNATE #1)
621 RECREATION WAY
FRISCO, CO 80443

PROJ. NO. 117119.00
DRAWN: OZ
CHECKED: OZ
APPROVED: OZ
DATE: 2018-04-27

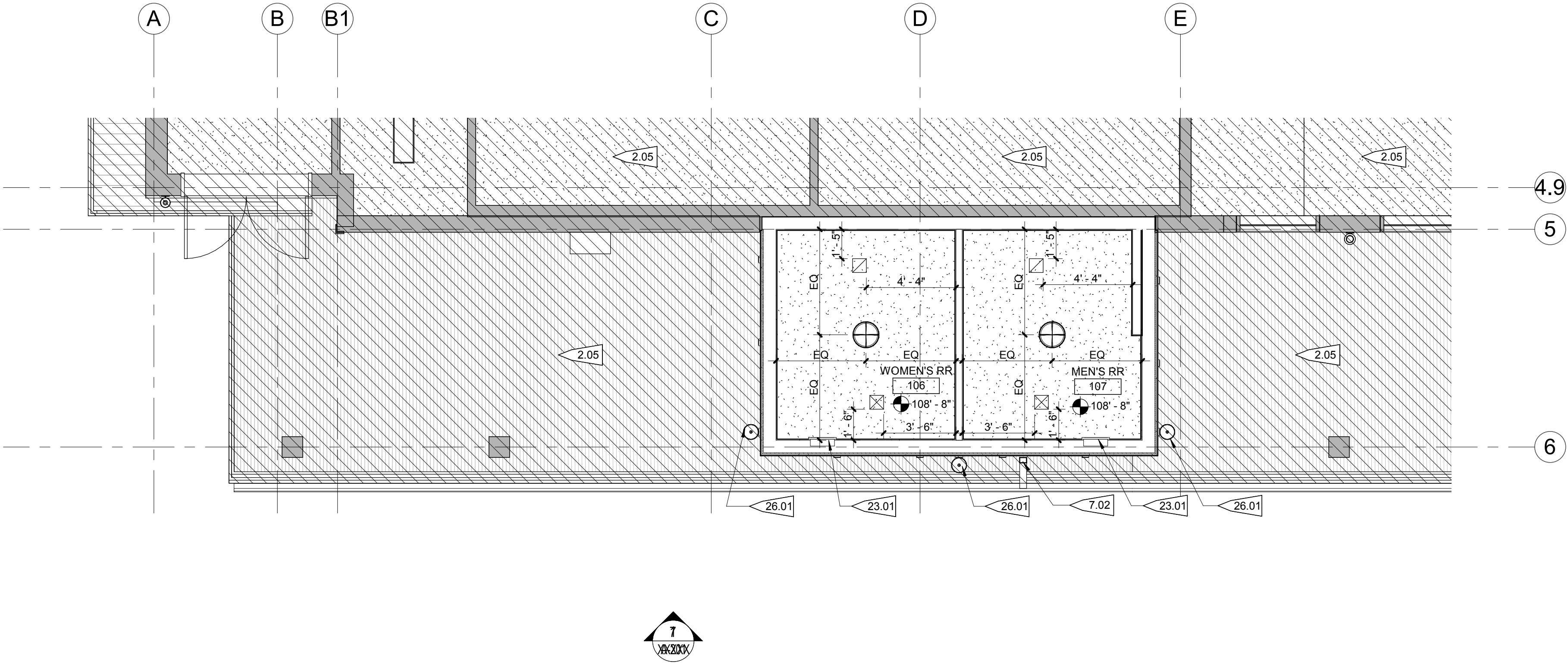
© OZ ARCHITECTURE

FRISCO DAY LODGE
RENOVATION
(ALTERNATE #1)
ISSUED FOR:
PERMIT SET

SHEET TITLE:
ROOF PLAN

SCALE: As indicated
SHEET NUMBER


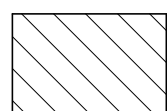
A-103



1
LEVEL 1 REFLECTED
CEILING PLAN
1/4" = 1'-0"

REFLECTED CEILING PLAN NOTES	
1	REFLECTED CEILING PLANS INDICATE CEILING HEIGHTS AND LOCATION OF LIGHT FIXTURES, DIFFUSERS, DEVICES, AND SIMILAR ITEMS. REFER TO ENGINEERING DRAWINGS FOR ADDITIONAL INFORMATION REGARDING ELECTRICAL, HVAC, SPRINKLER AND LIFE SAFETY. IN THE EVENT OF A DISCREPANCY BETWEEN THE ARCHITECT'S REFLECTED CEILING PLAN AND THE ENGINEERS' PLANS, SEEK CLARIFICATION FROM THE ARCHITECT BEFORE PROCEEDING WITH THE WORK.
2	COORDINATE ALL TRADES INVOLVED IN THE CEILING WORK TO ENSURE CLEARANCE FOR FIXTURES, DUCTS, PIPING, CEILING SUSPENSION SYSTEMS, ETC. NECESSARY TO MAINTAIN THE CEILING HEIGHTS INDICATED.
3	DIMENSIONS ARE TO FINISH U.N.O.
4	ACCESS PANELS NOT SHOWN, BUT IF REQUIRED BY PLUMBING, MECHANICAL, OR ELECTRICAL SYSTEMS, SHALL BE REVIEWED WITH ARCHITECT FOR LOCATION.
5	COORDINATE LOCATION OF FIRE SPRINKLER HEADS WITH ARCHITECT.
6	LIGHT FIXTURES, SPRINKLER HEADS, AND OTHER CEILING DEVICES SHALL BE EQUALLY SPACED AND ALIGNED WITH ADJACENT ELEMENTS AND CENTERED ON CEILING TILE, U.N.O.

PROJECT FLAGNOTES	
NO.	FLAGNOTE
2.05	DIAGONAL HATCH DENOTES EXISTING CEILING TO REMAIN.
7.02	NEW 3"x4" PREFINISHED METAL DOWNSPOUT. RE: CIVIL FOR TIE IN BELOW SIDEWALK AND CONNECTION TO STORMWATER SYSTEM.
23.01	WALL MOUNTED CABINET HEATER, RE: MECH
26.01	WALL SCONCE, RE: ELEC

CEILING PLAN LEGEND	
	GYP. BOARD
	EXISTING CEILING TO REMAIN



3003 Larimer Street
Denver, Colorado 80205
phone 303.861.5704
www.ozarch.com



FRISCO DAY LODGE RENOVATION
(ALTERNATE #1)
621 RECREATION WAY
FRISCO, CO 80443

PROJ. NO. 117119.00
DRAWN: OZ
CHECKED: OZ
APPROVED: OZ
DATE: 2018-04-27

© OZ ARCHITECTURE

FRISCO DAY LODGE
RENOVATION
(ALTERNATE #1)
ISSUED FOR:
PERMIT SET

SHEET TITLE:
LEVEL 1 RCP

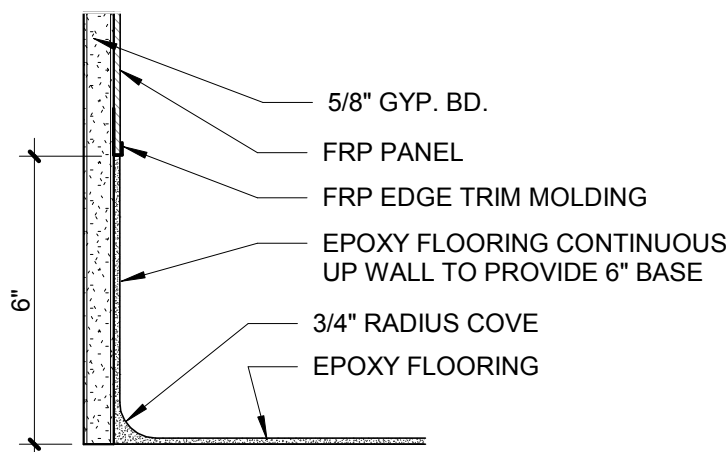
SCALE: As indicated
SHEET NUMBER

A-131

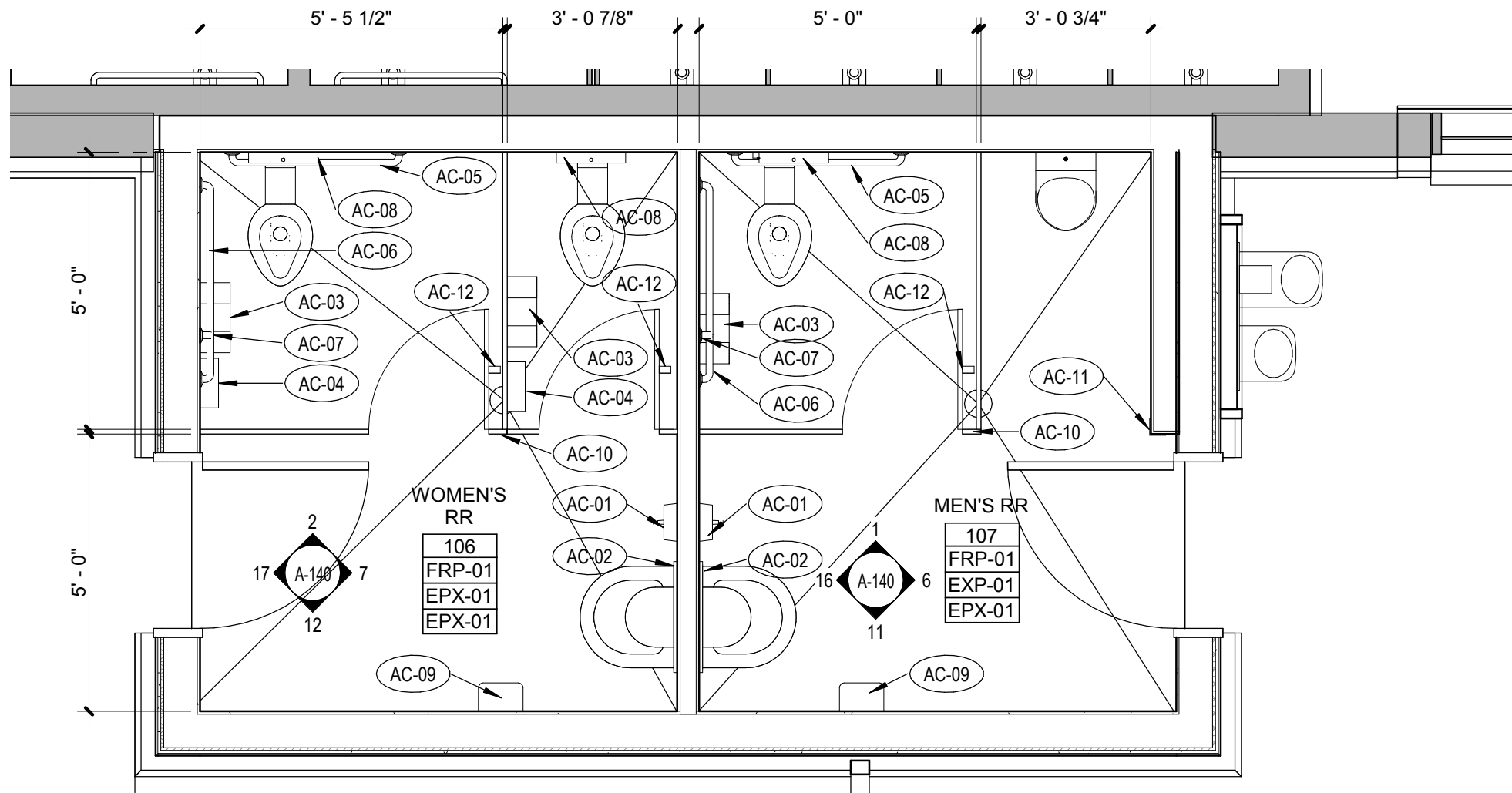
PROJECT FLAGNOTES	
NO.	FLAGNOTE
23.01	WALL MOUNTED CABINET HEATER, RE: MECH

BATHROOM ACCESSORY SCHEDULE				
MARK	DESCRIPTION	MANUFACTURER	MODEL	COMMENTS
AC-01	Soap Dispenser	Bradley Corporation	6542	
AC-02	Mirror	Bradley Corporation	780-2436	
AC-03	Toilet Tissue Dispenser OptiCore	Tork	565828	3 Roll Bath Tissue Roll Dispenser for Opticore
AC-04	Napkin Disposal, 1.5 Gallons, Surface-Mounted	Bradley Corporation	4722-150000	
AC-05	Grab Bars	Bradley Corporation	8120-001360	
AC-06	Grab Bars	Bradley Corporation	8120-001420	
AC-07	Grab Bars	Bradley Corporation	8120-001180	
AC-08	Seat Cover Dispenser	Bradley Corporation	583	
AC-09	Hand Dryer	Toto	HDR130#SV	
AC-10	Restroom Partition	Bradley Corporation	400	Stainless Steel Sentinel Series - Floor-Mounted & Overhead Braced
AC-11	Corner Guard	Inpro Corporation	304	Stainless Steel; 3.5" x 3.5" x Full Height (floor to ceiling)
AC-12	Coat Hook & Bumper	Bradley Corporation	915	

FINISH PLAN NOTES	
1	DIMENSIONS ARE TO FACE OF FINISH U.N.O.
5	FLOOR MATERIAL TRANSITIONS SHALL OCCUR AT THE CENTERLINE OF DOORS U.N.O.
6	FLOORING TO EXTEND UNDER COUNTERS, WORKSURFACES, APPLIANCES AND REMOVABLE BASE CABINETS.
7	PAINT TRANSITIONS TO OCCUR AT INSIDE CORNERS U.N.O.
8	PAINT GYP BOARD WALLS P-01 U.N.O.
9	PAINT DOOR FRAMES P-01 U.N.O.
11	PAINT EXPOSED CONDUIT, PIPING, ETC. TO MATCH ADJACENT FINISH.

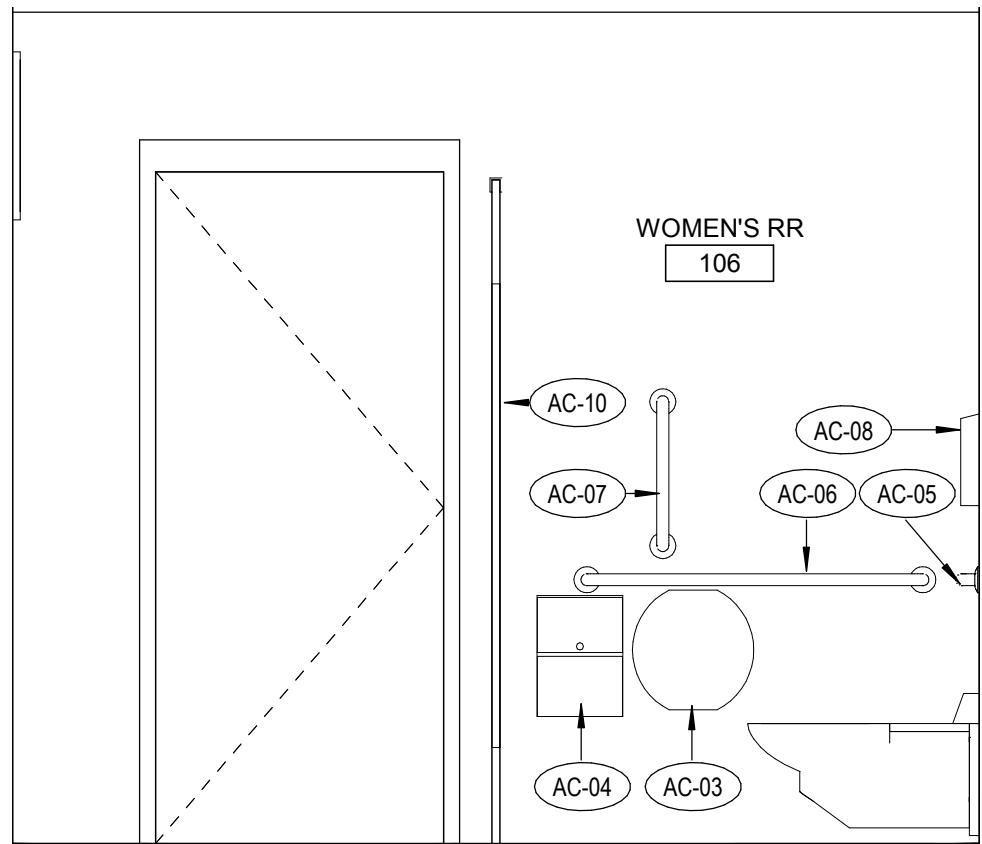


18 FRP TO BASE TRANSITION
3\"/>

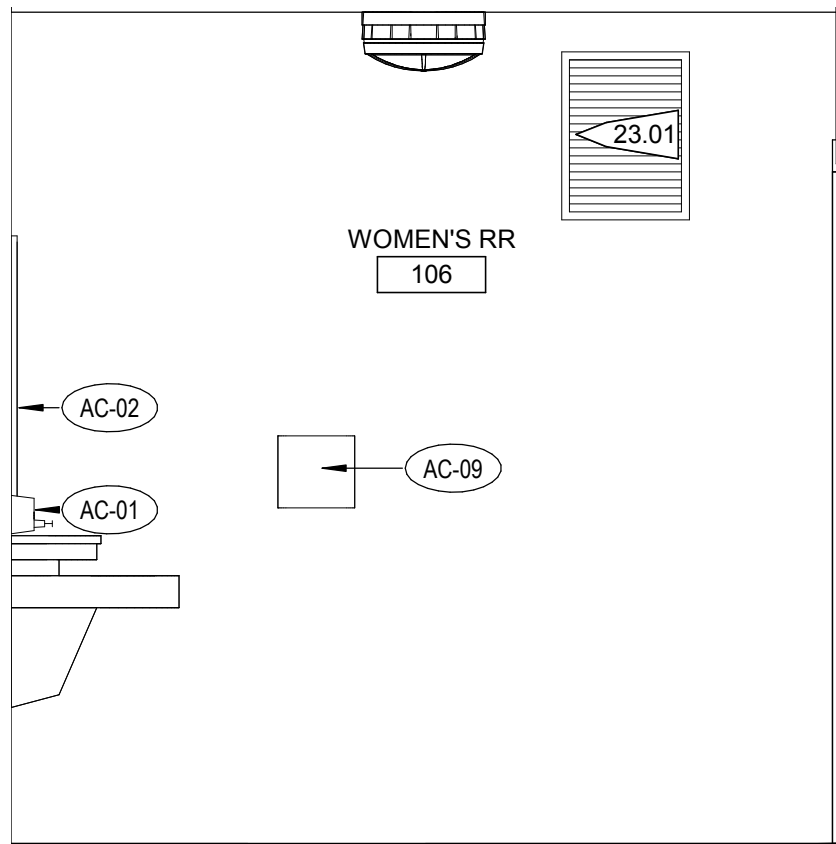


15 NEW - ENLARGED RESTROOM INTERIOR FINISH PLAN
3/8\"/>

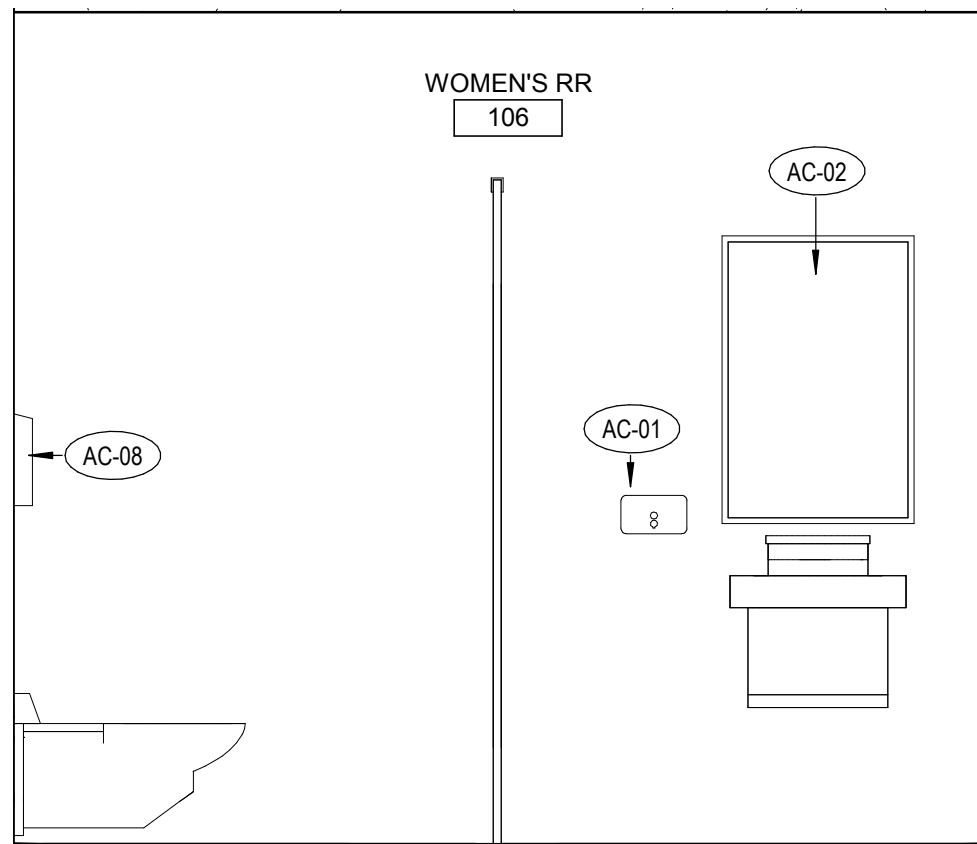
FINISH PLAN LEGEND	
Room name	
1028	
P-10	WALL FINISH
RB-10	BASE FINISH
CPT-1	FLOOR FINISH
FRP-01 MFR/PRODUCT: MARLITE FIBER REINFORCED PLASTIC COLOR: WHITE COMMENTS: SMOOTH TEXTURE	
EPX-01 MFR/PRODUCT: STONHARD, STONSHIELD COLOR: SILVER GRAY COMMENTS: PROVIDE TEXTURE	
P-01 MFR/PRODUCT: BENJAMIN MOORE COLOR: OC-17 "WHITE DOVE" COMMENTS: SEMI-GLOSS	



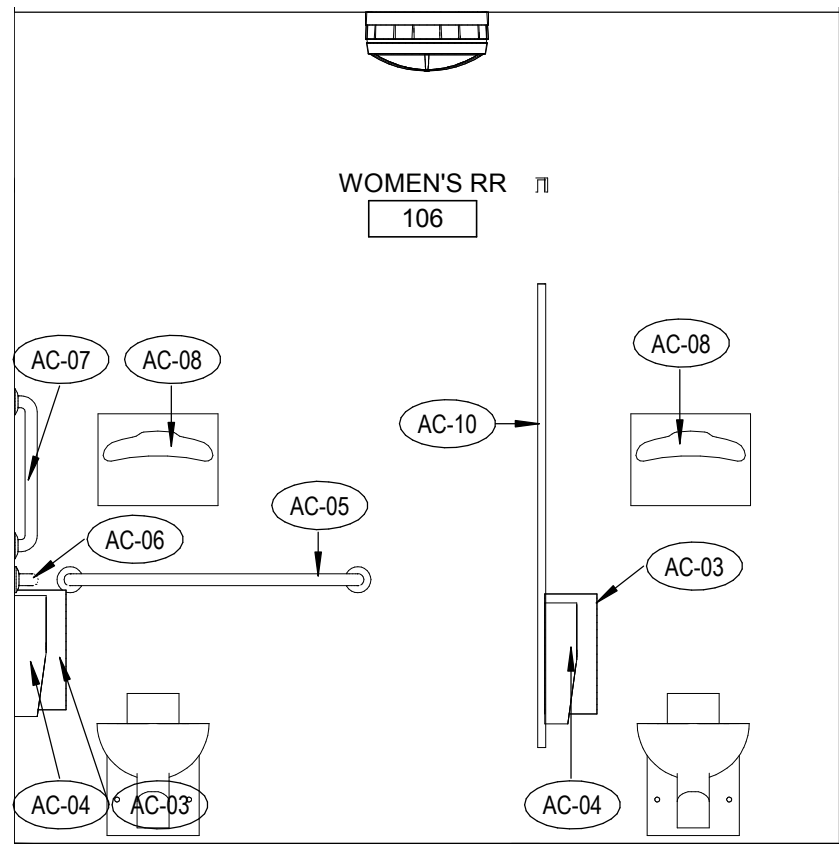
17 MEN'S RR - WEST
1/2\"/>



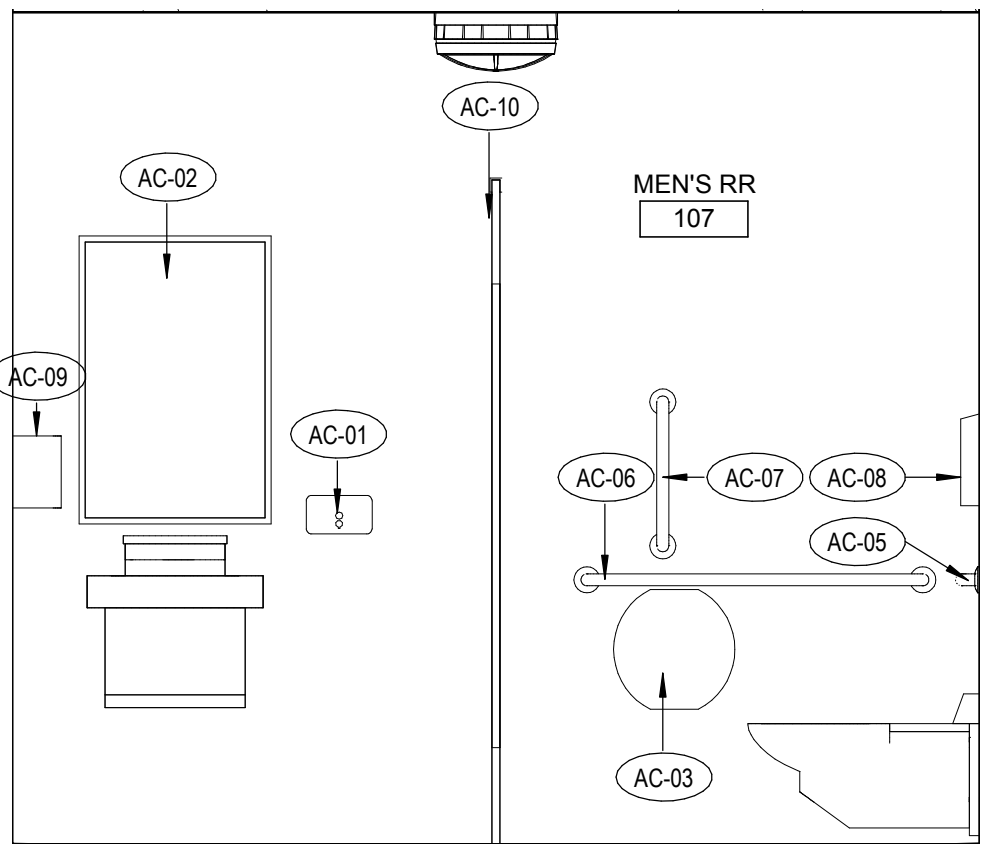
12 MEN'S RR - SOUTH
1/2\"/>



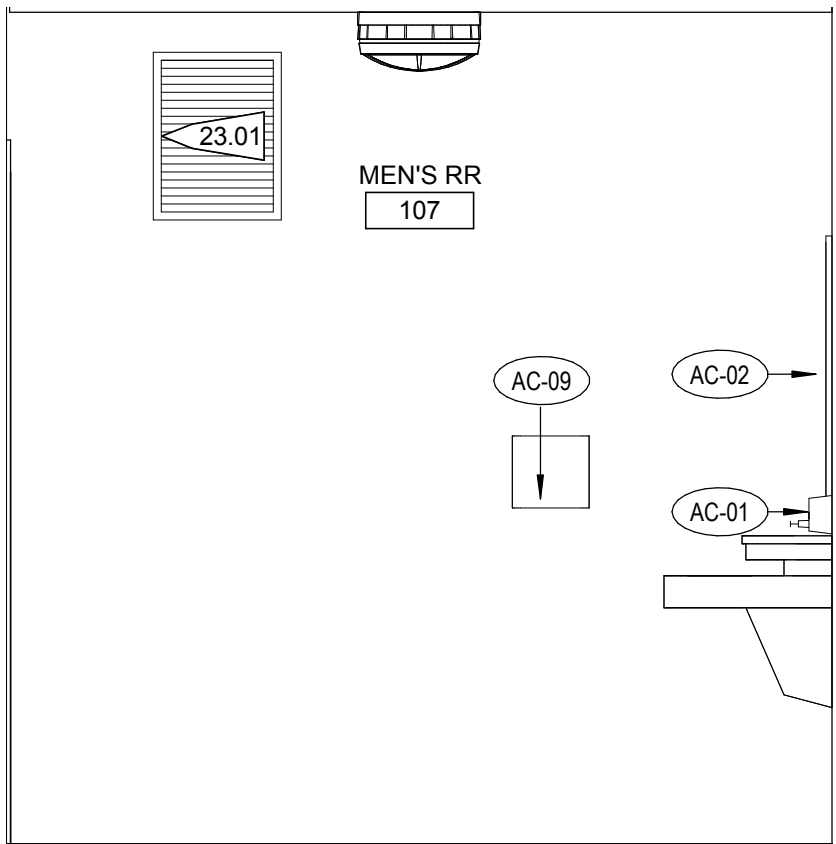
7 MEN'S RR - EAST
1/2\"/>



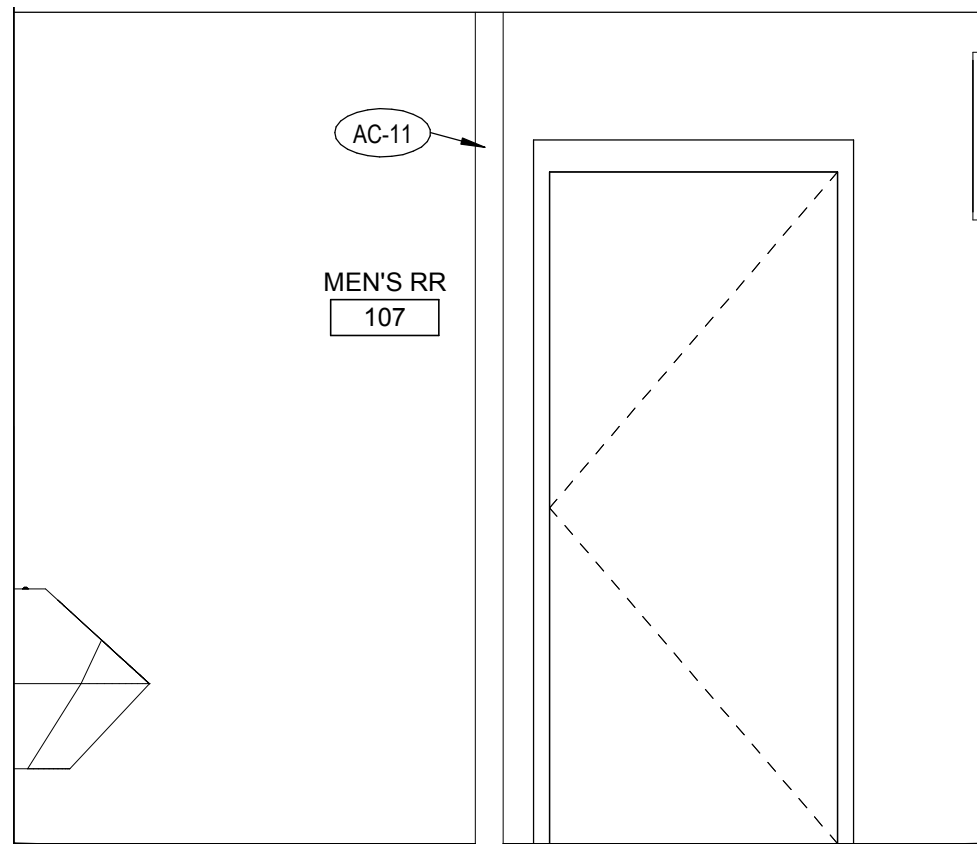
2 MEN'S RR - NORTH
1/2\"/>



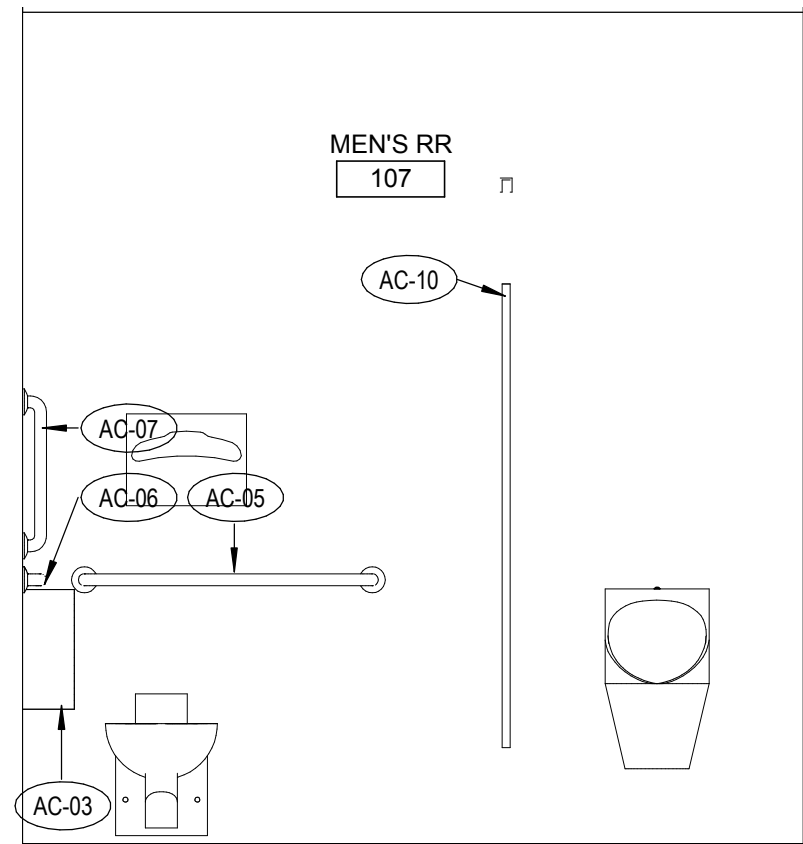
16 WOMEN'S RR - WEST
1/2\"/>



11 WOMEN'S RR - SOUTH
1/2\"/>



6 WOMEN'S RR - EAST
1/2\"/>



1 WOMEN'S RR - NORTH
1/2\"/>



3003 Larimer Street
Denver, Colorado 80205
phone 303.861.5704
www.ozarch.com



FRISCO DAY LODGE RENOVATION
(ALTERNATE #1)
621 RECREATION WAY
FRISCO, CO 80443

PROJ. NO. 117119.00
DRAWN: OZ
CHECKED: OZ
APPROVED: OZ
DATE: 2018-04-27

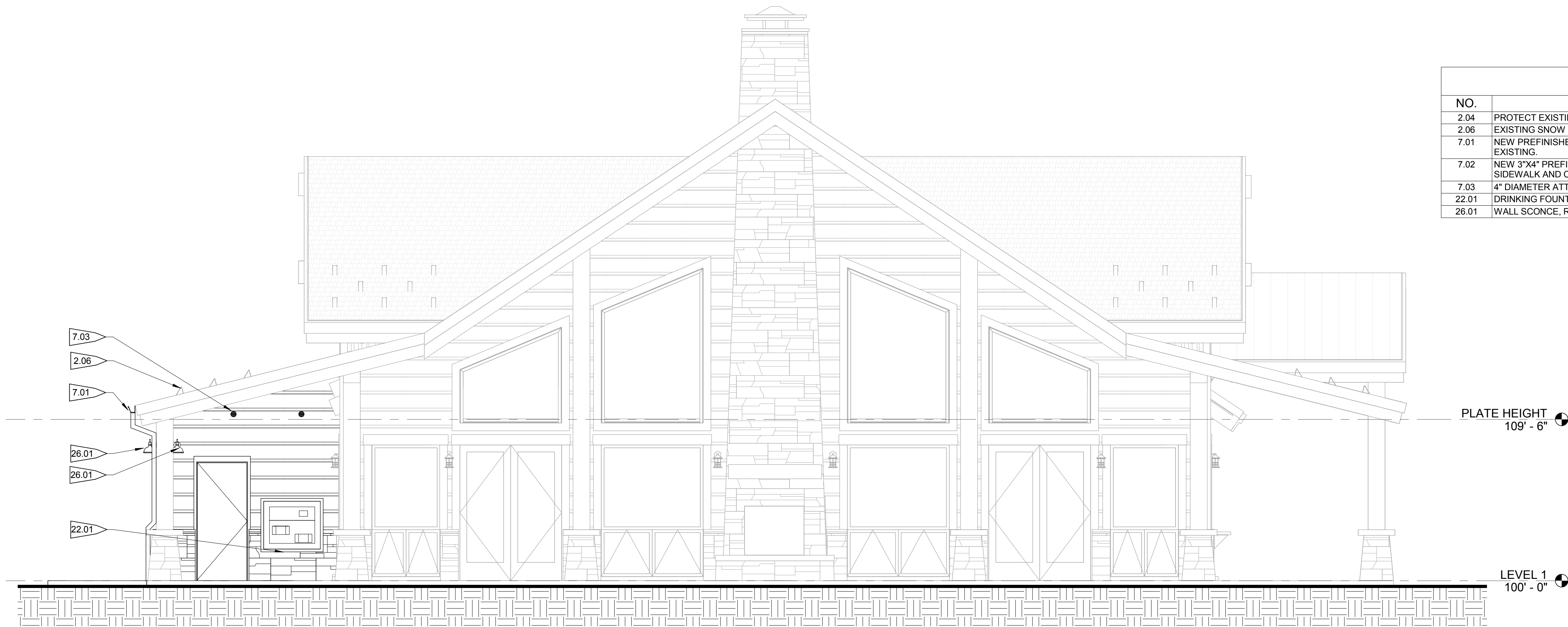
© OZ ARCHITECTURE

FRISCO DAY LODGE
RENOVATION
(ALTERNATE #1)
ISSUED FOR:
PERMIT SET

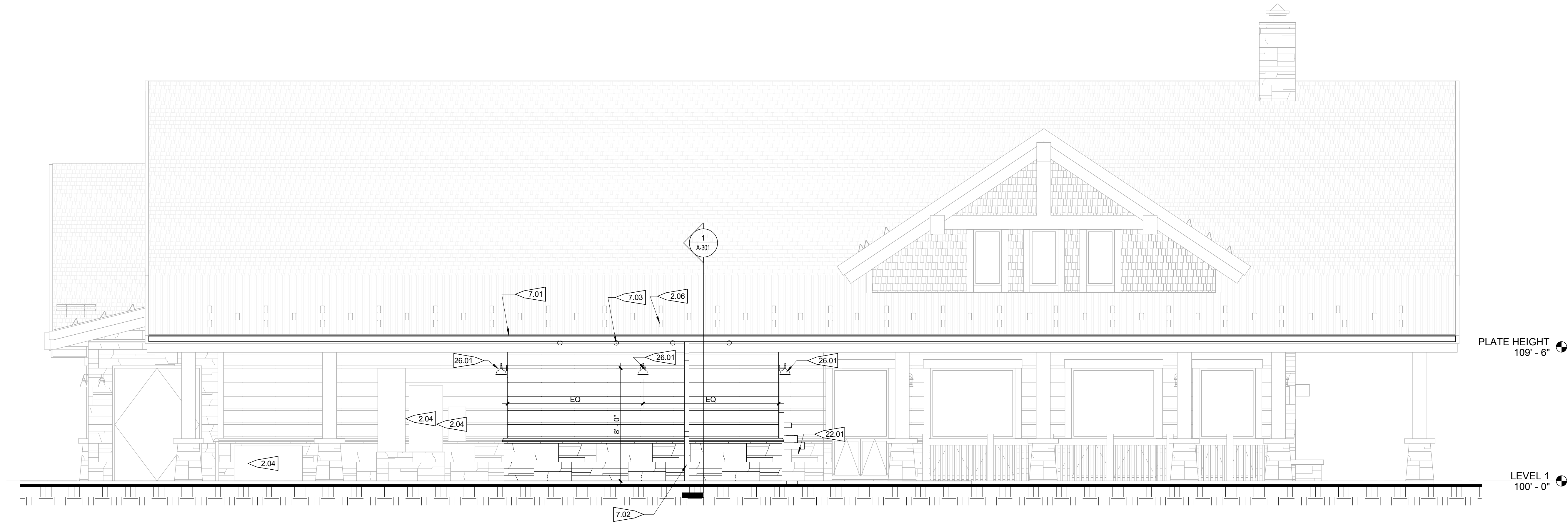
SHEET TITLE:
INTERIOR FINISH PLAN
& LEGEND

SCALE: As indicated
SHEET NUMBER

A-140



2 EAST ELEVATION
1/4" = 1'-0"



1 SOUTH ELEVATION
1/4" = 1'-0"

PROJECT FLAGNOTES	
NO.	FLAGNOTE
2.04	PROTECT EXISTING ELECTRICAL PANEL, METERS AND GAS SERVICE.
2.06	EXISTING SNOW CLIP TO REMAIN.
7.01	NEW PREFINISHED METAL ROOF GUTTER. PROFILE AND COLOR SHALL MATCH EXISTING.
7.02	NEW 3"x4" PREFINISHED METAL DOWNSPOUT. RE: CIVIL FOR TIE IN BELOW SIDEWALK AND CONNECTION TO STORMWATER SYSTEM.
7.03	4" DIAMETER ATTIC VENT TO MATCH EXISTING ADJACENT VENTS.
22.01	DRINKING FOUNTAIN. RE: PLUMBING
26.01	WALL SCENCE. RE: ELEC



3003 Larimer Street
Denver, Colorado 80205
phone 303.861.5704
www.ozarch.com



FRISCO DAY LODGE RENOVATION
(ALTERNATE #1)
621 RECREATION WAY
FRISCO, CO 80443

PROJ. NO. 117119.00
DRAWN: OZ
CHECKED: OZ
APPROVED: OZ
DATE: 2018-04-27

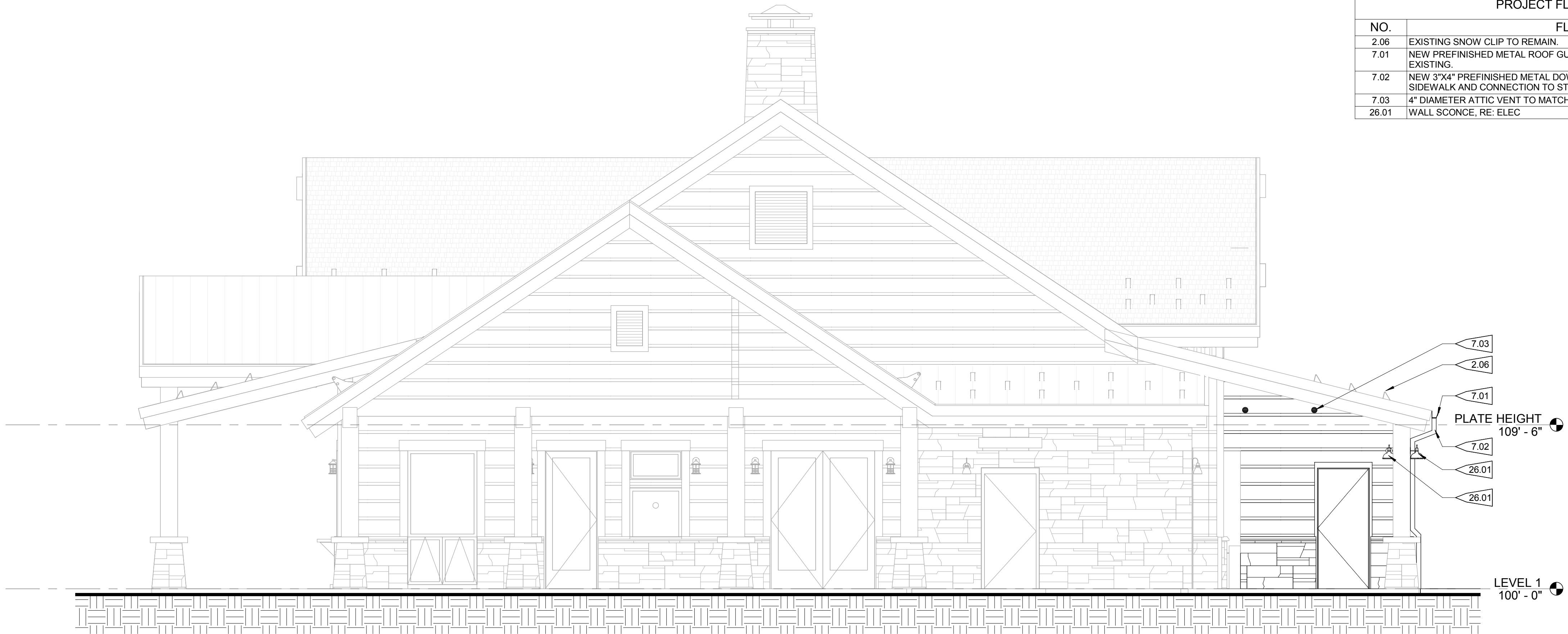
© OZ ARCHITECTURE

FRISCO DAY LODGE RENOVATION
(ALTERNATE #1)
ISSUED FOR:
PERMIT SET

SHEET TITLE:
BUILDING ELEVATIONS

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

A-201



1 WEST ELEVATION
1/4" = 1'-0"

PROJECT FLAGNOTES	
NO.	FLAGNOTE
2.06	EXISTING SNOW CLIP TO REMAIN.
7.01	NEW PREFINISHED METAL ROOF GUTTER. PROFILE AND COLOR SHALL MATCH EXISTING.
7.02	NEW 3"x4" PREFINISHED METAL DOWNSPOUT. RE: CIVIL FOR TIE IN BELOW SIDEWALK AND CONNECTION TO STORMWATER SYSTEM.
7.03	4" DIAMETER ATTIC VENT TO MATCH EXISTING ADJACENT VENTS.
26.01	WALL SCONCE, RE: ELEC



3003 Larimer Street
Denver, Colorado 80205
phone 303.861.5704
www.ozarch.com



FRISCO DAY LODGE RENOVATION
(ALTERNATE #1)
621 RECREATION WAY
FRISCO, CO 80443

PROJ. NO. 117119.00
DRAWN: OZ
CHECKED: OZ
APPROVED: OZ
DATE: 2018-04-27

© OZ ARCHITECTURE

FRISCO DAY LODGE
RENOVATION
(ALTERNATE #1)
ISSUED FOR:
PERMIT SET

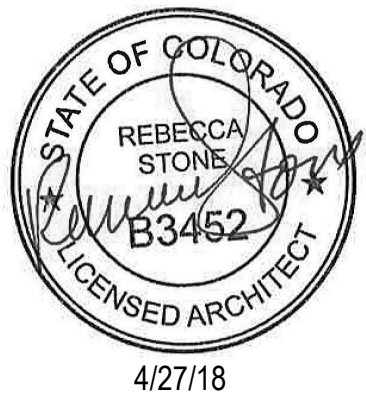
SHEET TITLE:
BUILDING ELEVATIONS

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

A-202



3003 Larimer Street
Denver, Colorado 80205
phone 303.861.5704
www.ozarch.com



FRISCO DAY LODGE RENOVATION
(ALTERNATE #1)
621 RECREATION WAY
FRISCO, CO 80443

PROJ. NO. 117119.00
DRAWN: OZ
CHECKED: OZ
APPROVED: OZ
DATE: 2018-04-27

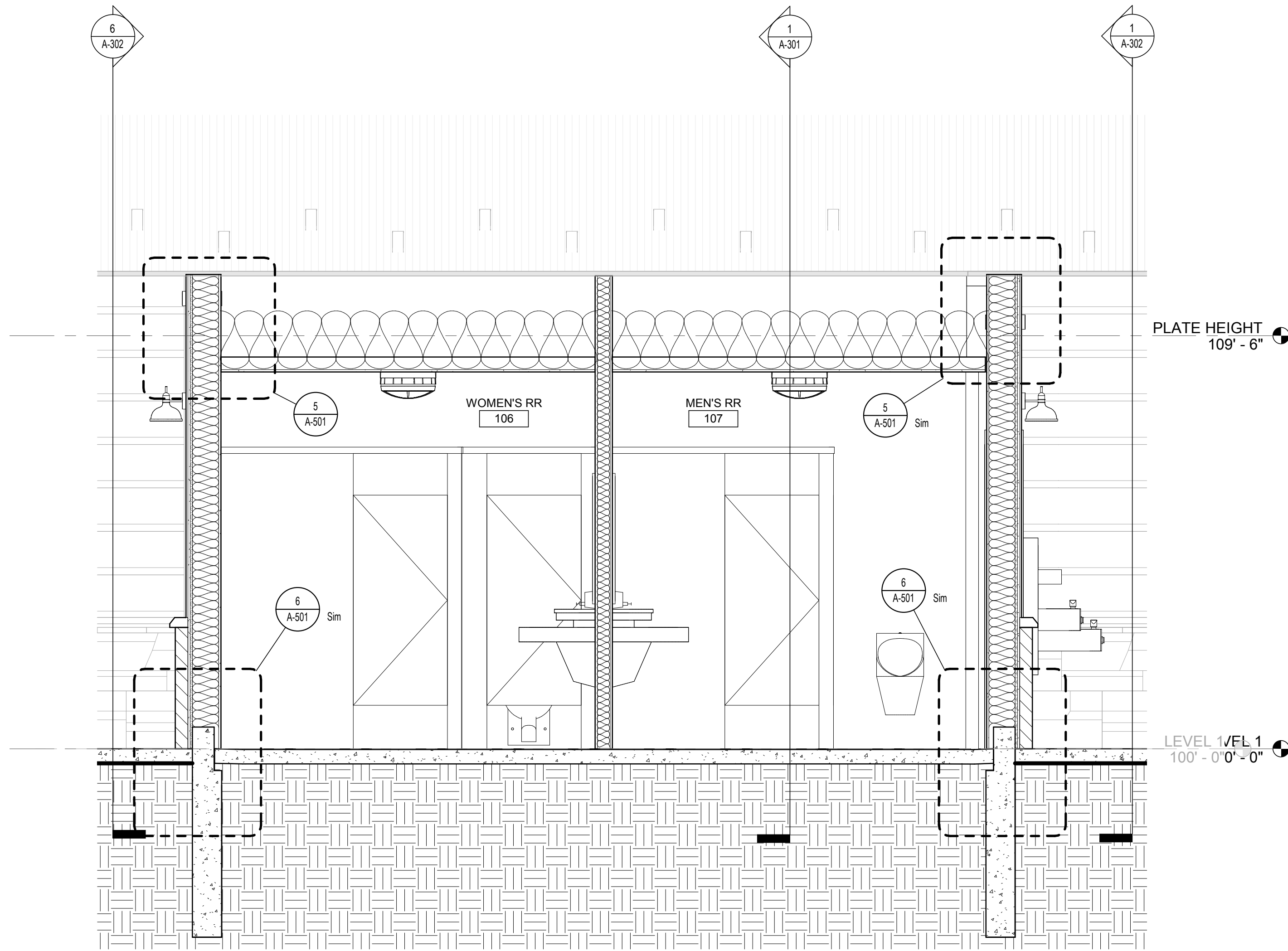
© OZ ARCHITECTURE

FRISCO DAY LODGE
RENOVATION
(ALTERNATE #1)
ISSUED FOR:
PERMIT SET

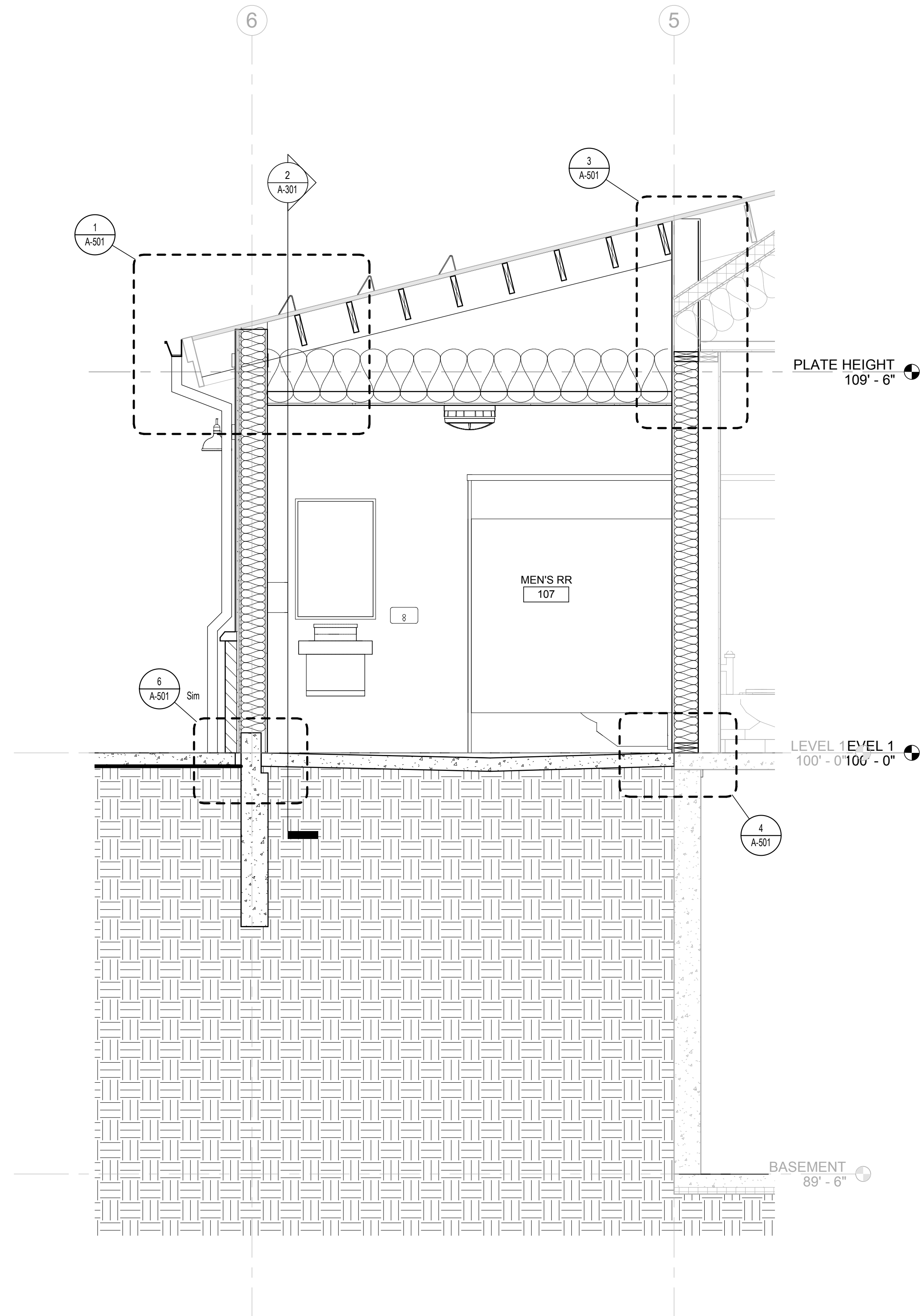
SHEET TITLE:
BUILDING SECTIONS

SCALE: 1/2" = 1'-0"
SHEET NUMBER

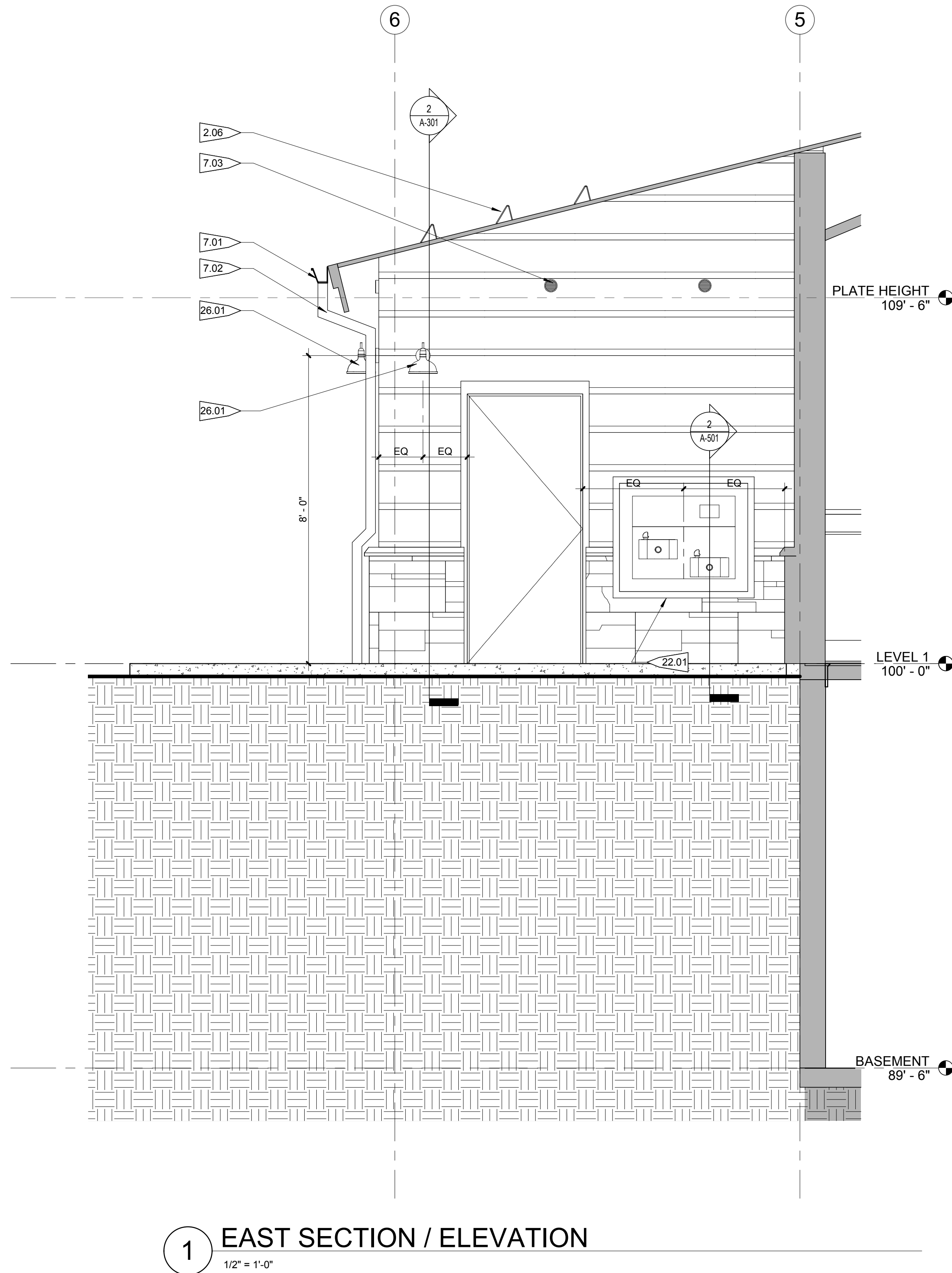
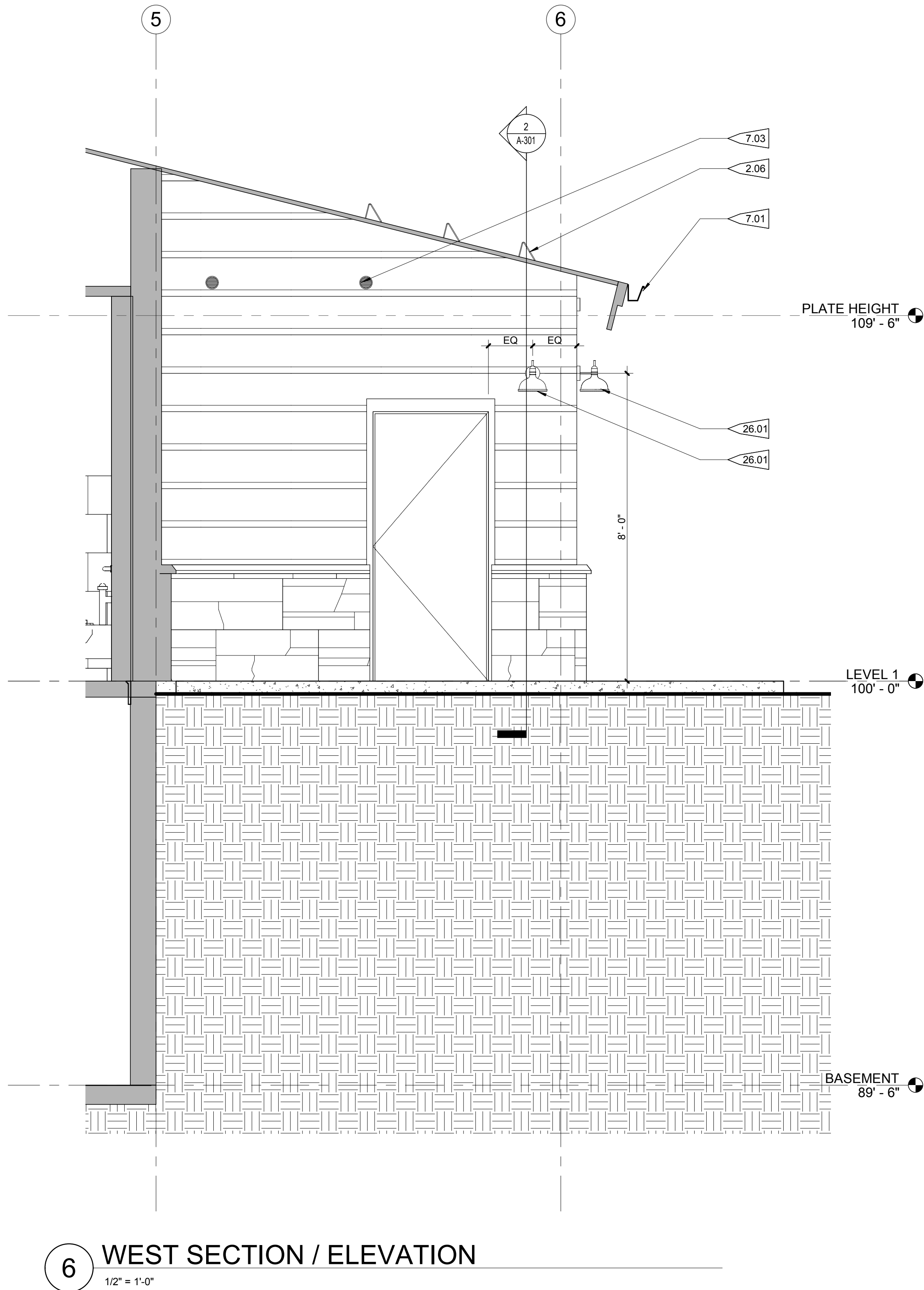
A-301



2 LONGITUDINAL SECTION
1/2" = 1'-0"



1 CROSS SECTION
1/2" = 1'-0"



PROJECT FLAGNOTES	
NO.	FLAGNOTE
2.06	EXISTING SNOW CLIP TO REMAIN.
7.01	NEW PREFINISHED METAL ROOF GUTTER. PROFILE AND COLOR SHALL MATCH EXISTING.
7.02	NEW 3"x4" PREFINISHED METAL DOWNSPOUT. RE: CIVIL FOR TIE IN BELOW SIDEWALK AND CONNECTION TO STORMWATER SYSTEM.
7.03	4" DIAMETER ATTIC VENT TO MATCH EXISTING ADJACENT VENTS.
22.01	DRINKING FOUNTAIN. RE: PLUMBING
26.01	WALL SCONCE, RE: ELEC



3003 Larimer Street
Denver, Colorado 80205
phone 303.861.5704
www.ozarch.com



FRISCO DAY LODGE RENOVATION
(ALTERNATE #1)
621 RECREATION WAY
FRISCO, CO 80443

PROJ. NO. 117119.00
DRAWN: OZ
CHECKED: OZ
APPROVED: OZ
DATE: 2018-04-27

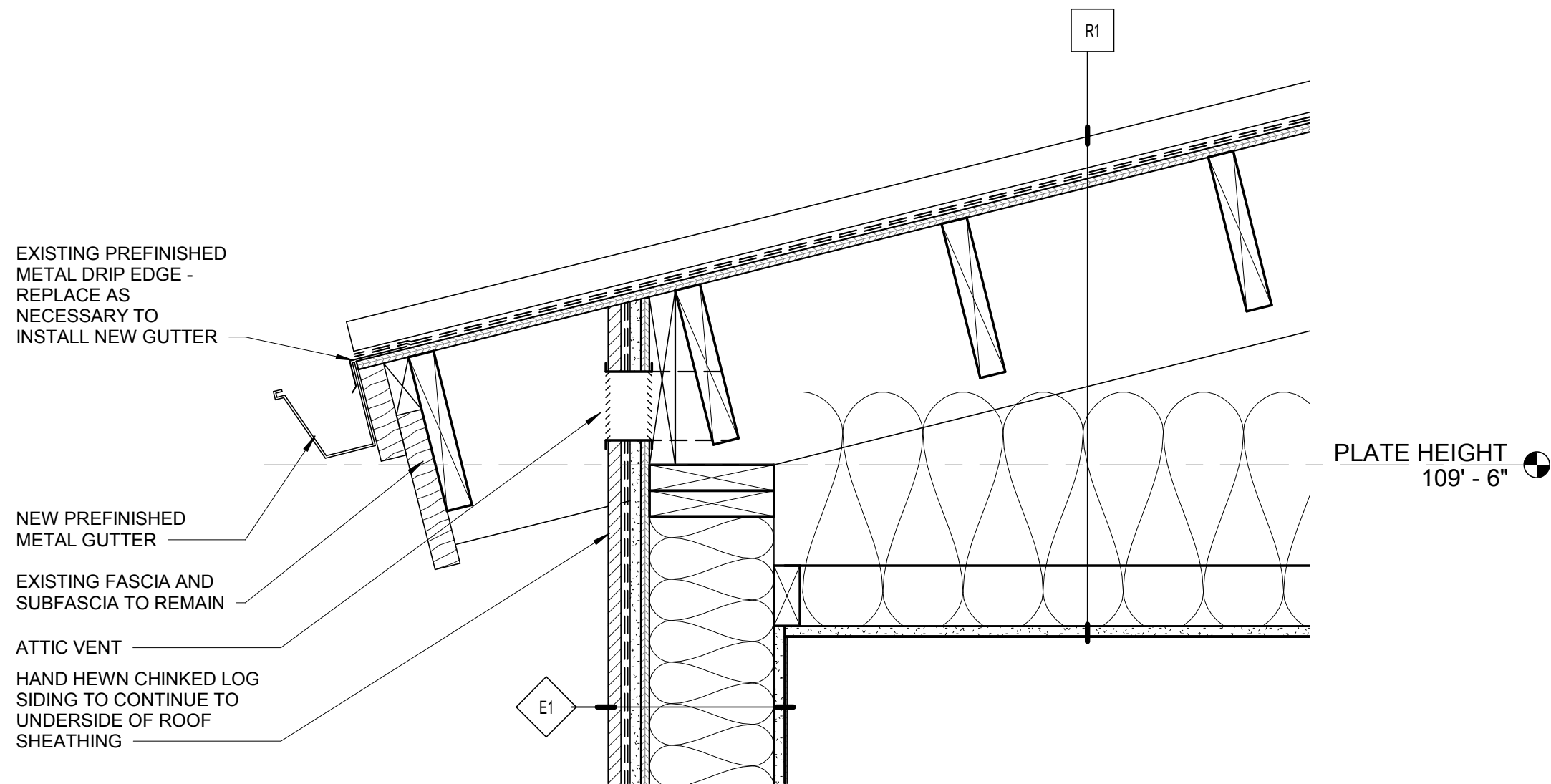
© OZ ARCHITECTURE

FRISCO DAY LODGE
RENOVATION
(ALTERNATE #1)
ISSUED FOR:
PERMIT SET

SHEET TITLE:
BUILDING SECTIONS

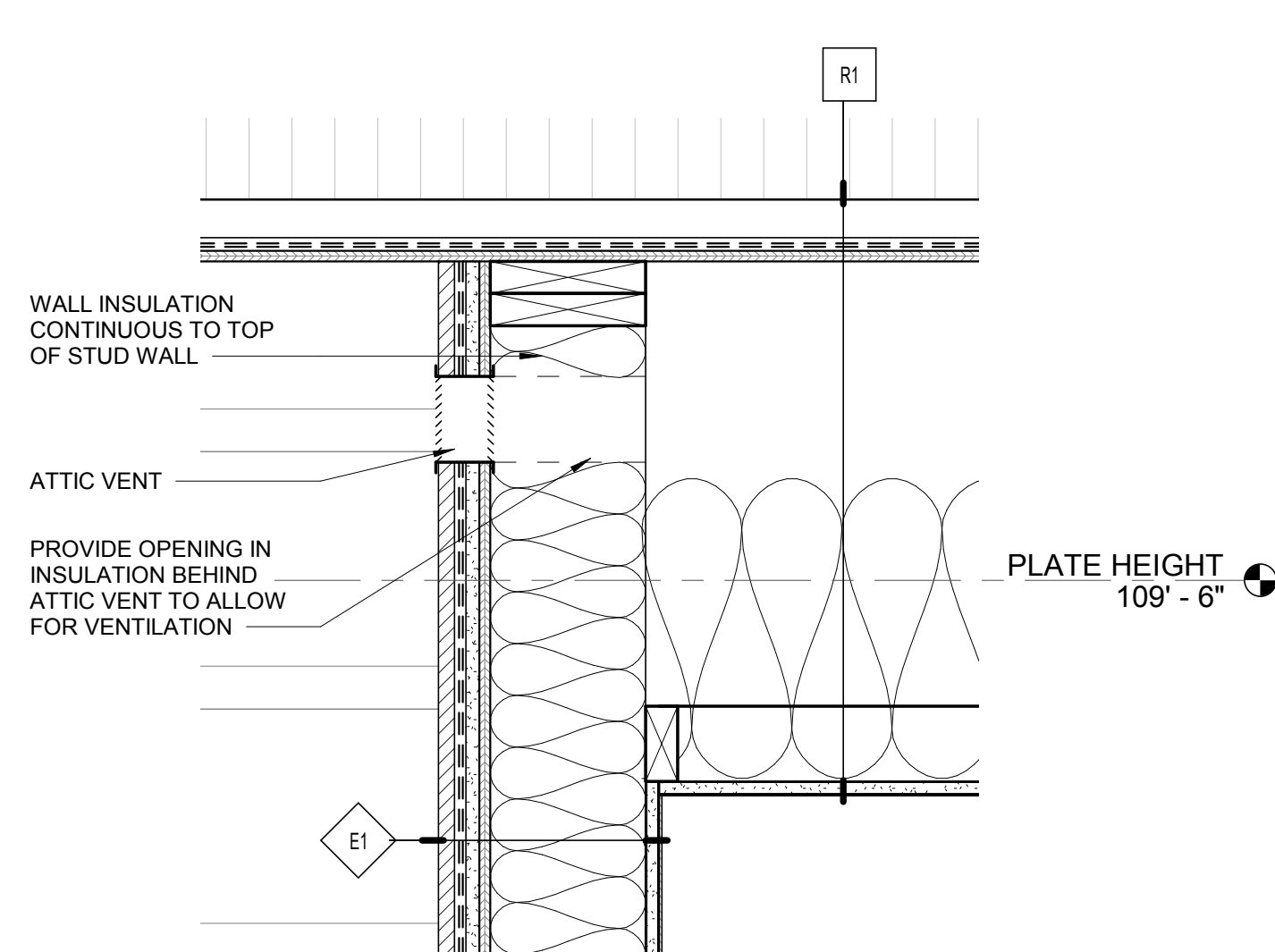
SCALE: 1/2" = 1'-0"
SHEET NUMBER

A-302



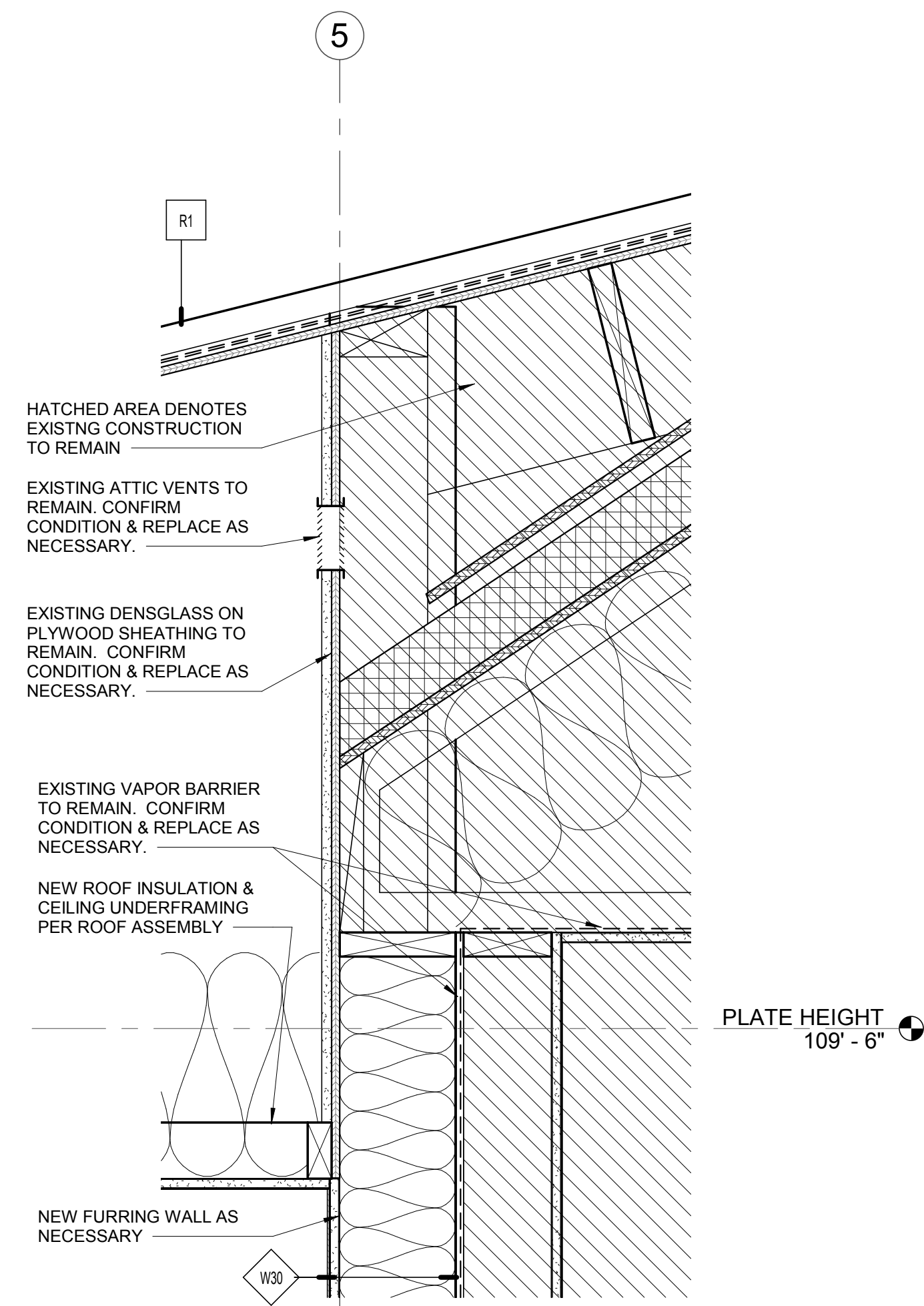
1 TYPICAL DETAIL AT ROOF EAVE

1 1/2" = 1'-0"



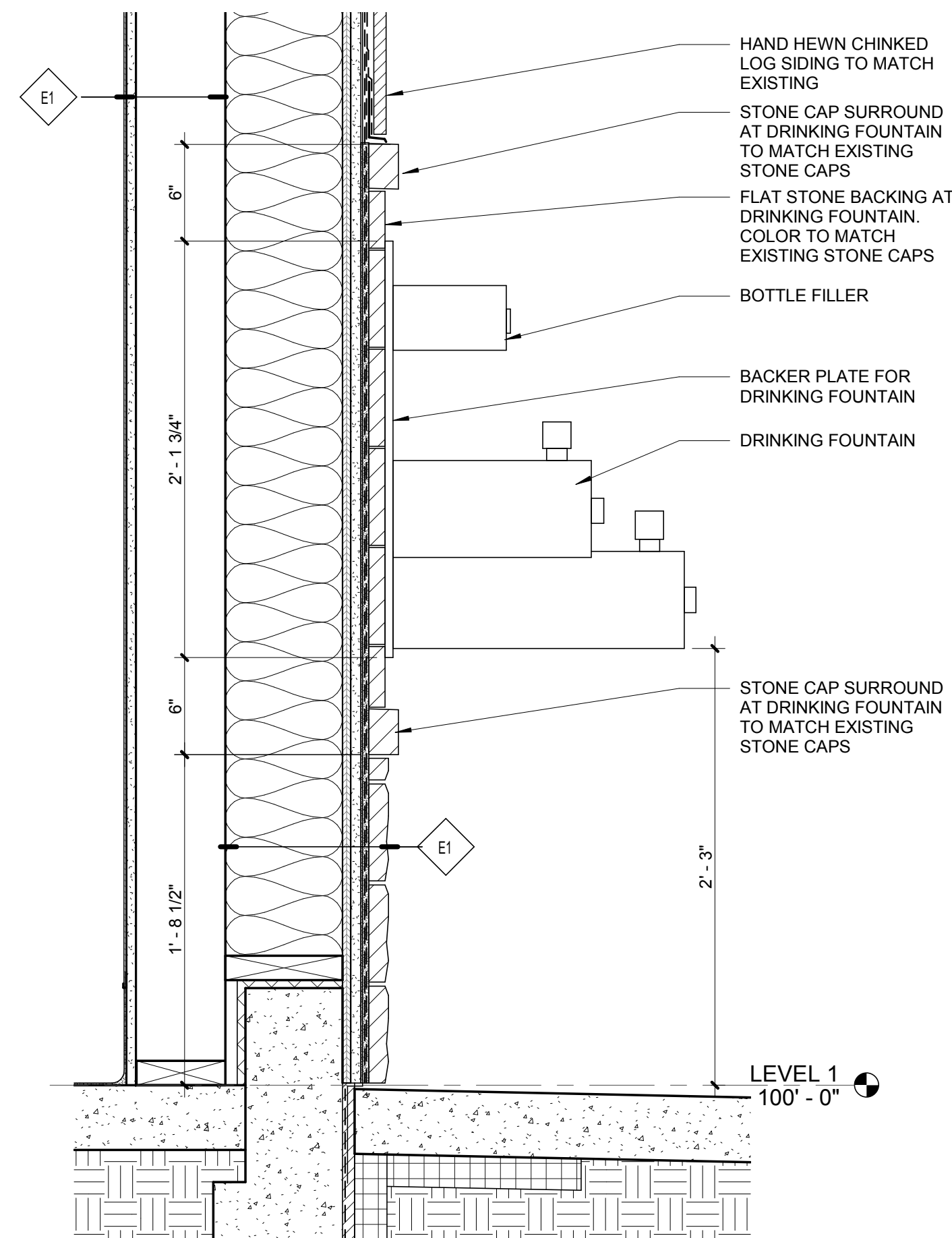
5 TYPICAL ROOF DETAIL @ PORCH

1 1/2" = 1'-0"



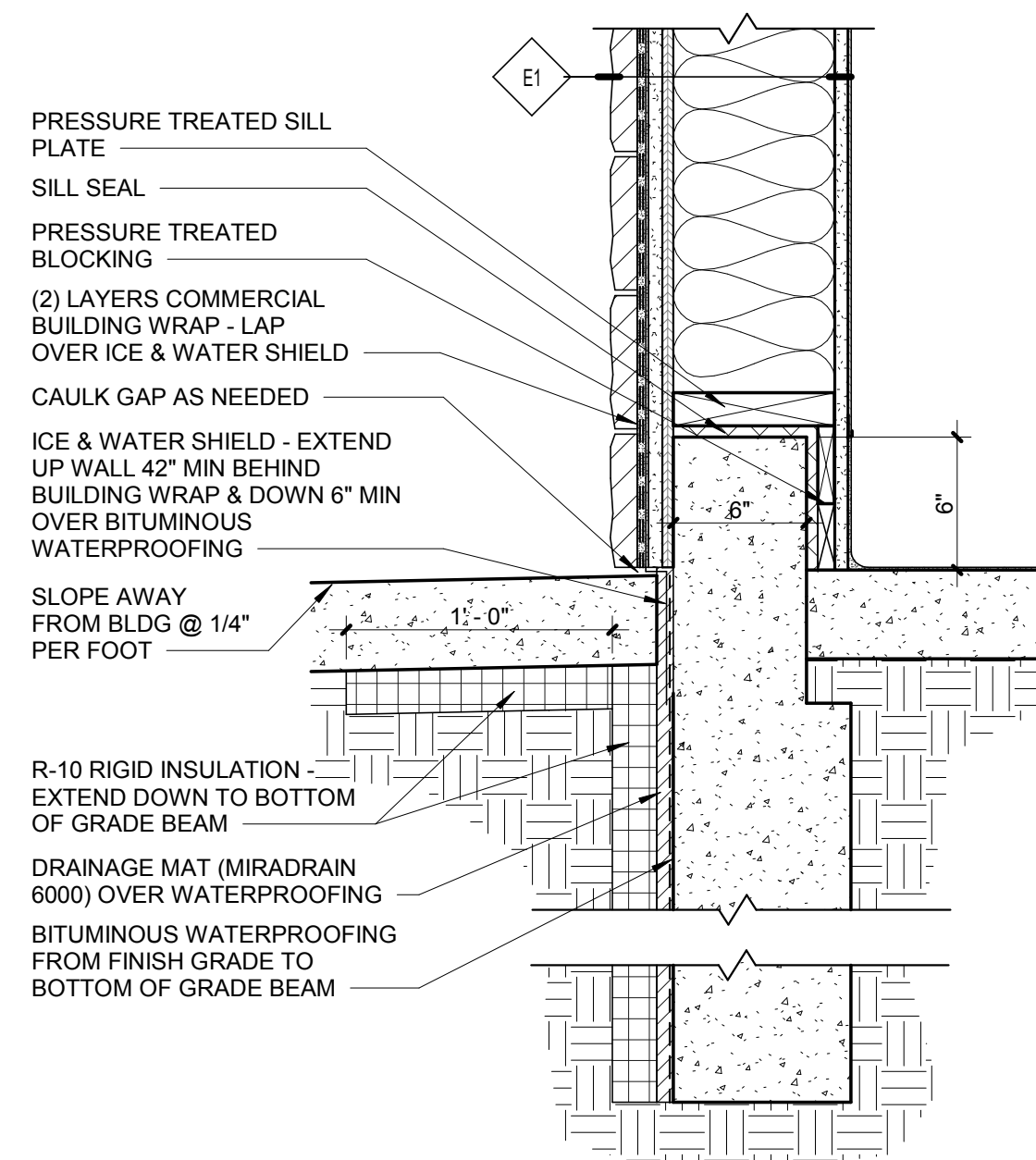
3 TYPICAL ROOF DETAIL @ NEW/EXISTING INTERSECTION

1 1/2" = 1'-0"



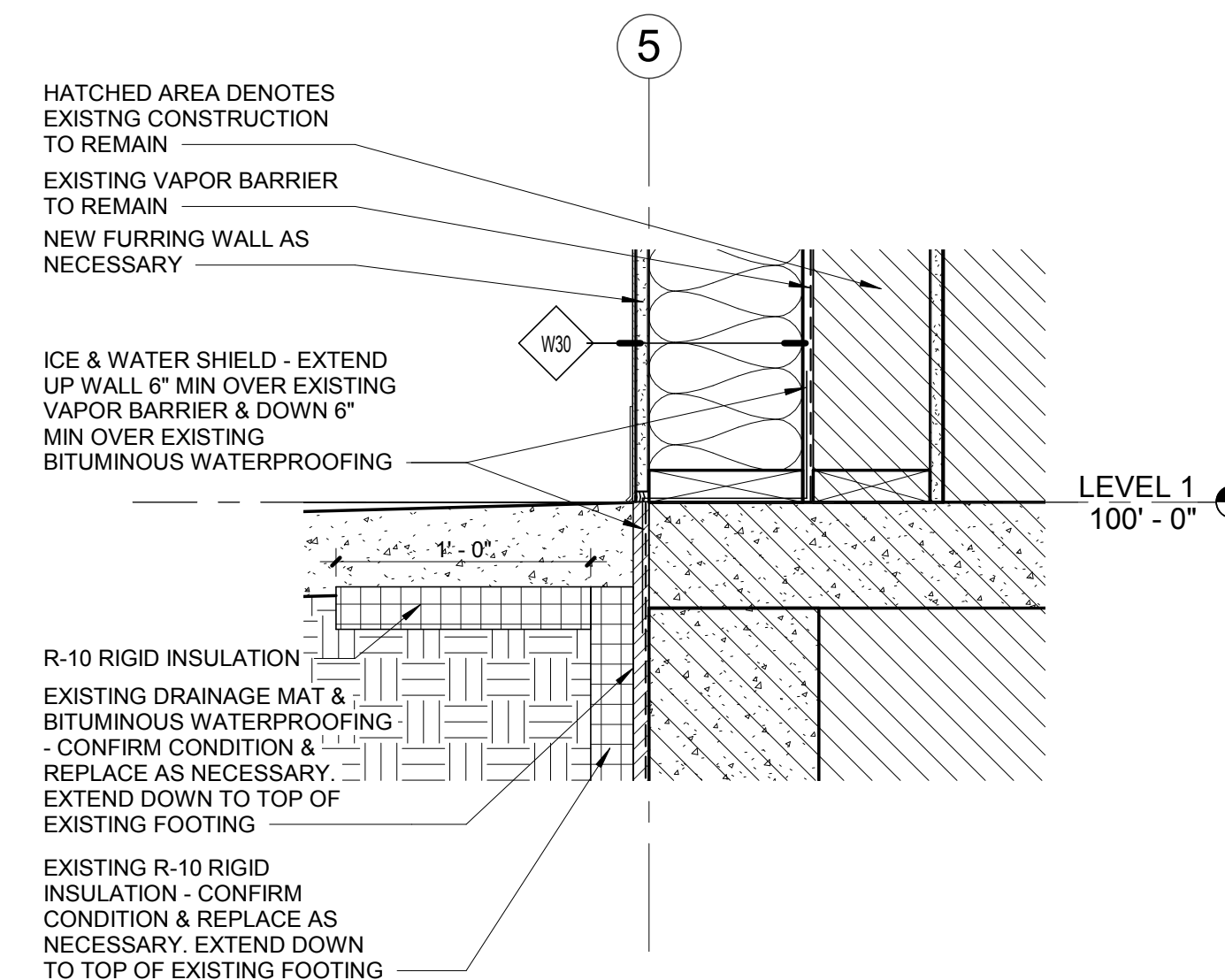
2 DETAIL AT DRINKING FOUNTAIN

1 1/2" = 1'-0"



6 TYPICAL BASE OF WALL DETAIL @ PERIMETER

1 1/2" = 1'-0"



4 TYPICAL BASE OF WALL DETAIL @ NEW/EXISTING INTERSECTION

1 1/2" = 1'-0"



3003 Larimer Street
Denver, Colorado 80205
phone 303.861.5704
www.ozarch.com



4/27/18

FRISCO DAY LODGE RENOVATION
(ALTERNATE #1)
621 RECREATION WAY
FRISCO, CO 80443

PROJ. NO. 117119.00

DRAWN: OZ

CHECKED: OZ

APPROVED: OZ

DATE: 2018-04-27

© OZ ARCHITECTURE

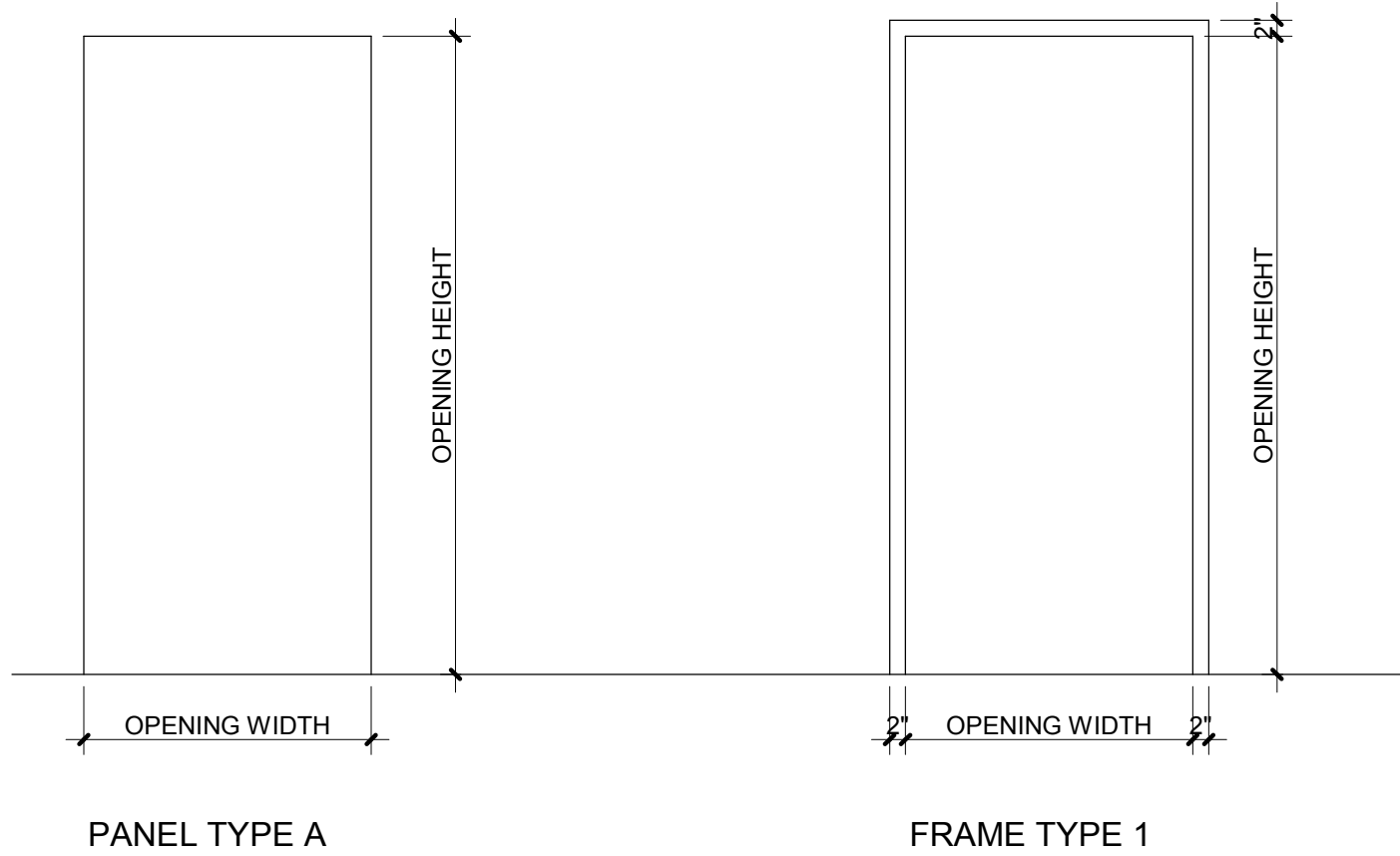
FRISCO DAY LODGE
RENOVATION
(ALTERNATE #1)
ISSUED FOR:
PERMIT SET

SHEET TITLE:
DETAILS

SCALE: 1 1/2" = 1'-0"
SHEET NUMBER

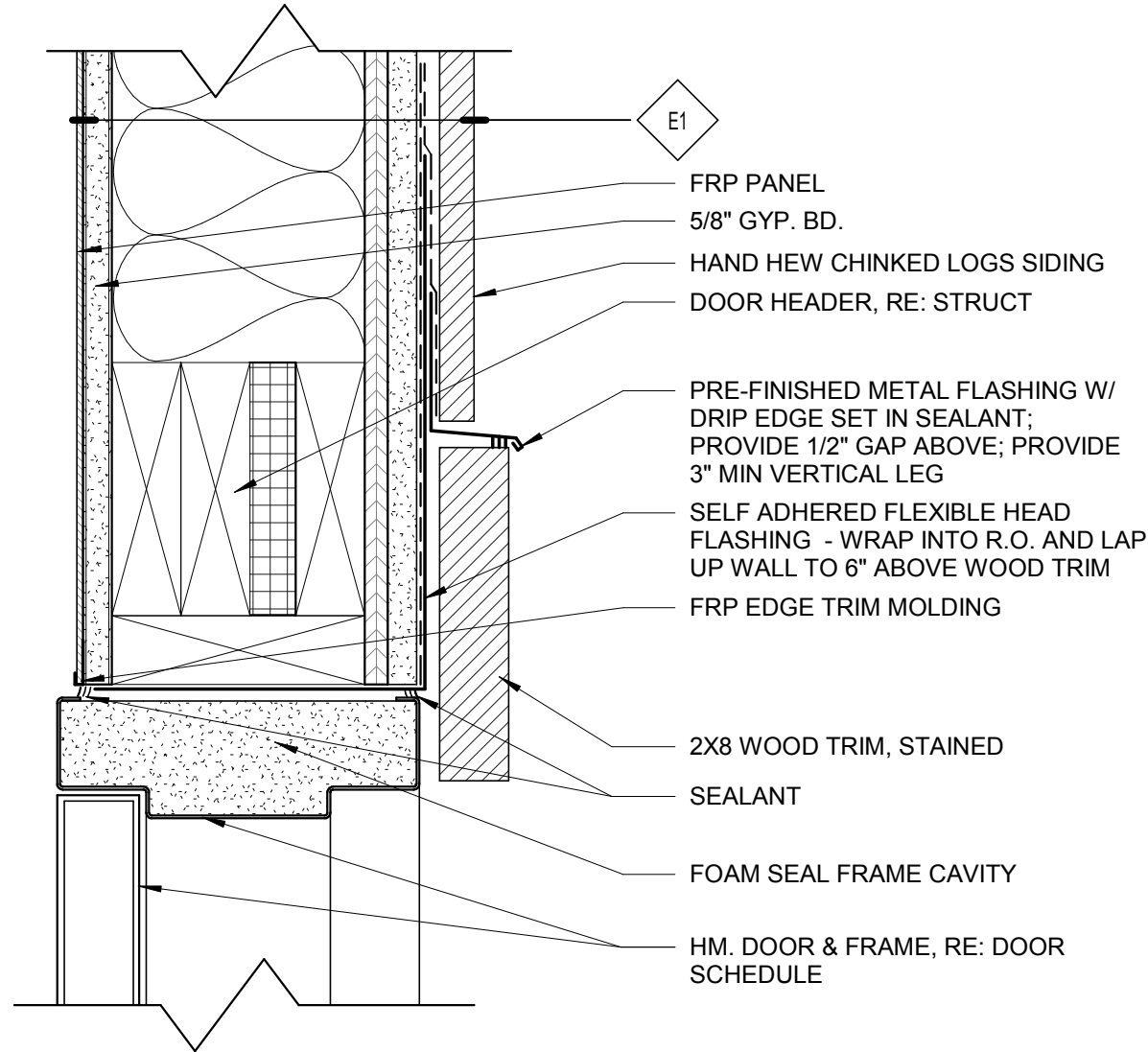
A-501

DOOR SCHEDULE												
DOOR NUMBER	DOOR						ASSEMBLY CODE RATING (MIN.)	HARDWARE SET NO.	FRAME			COMMENTS
	PANEL TYPE	OPENING WIDTH	HEIGHT	THICKNESS	MATERIAL	FINISH			FRAME TYPE	MATERIAL	FINISH	
106	A	3' - 0"	7' - 0"	1 3/4"	HM	PT 1	0	01	1	HM	PT 1	PROVIDE INSULATED DOOR W/ 0.3 MAX UFACTOR
107	A	3' - 0"	7' - 0"	1 3/4"	HM	PT 1	0	01	1	HM	PT 1	PROVIDE INSULATED DOOR W/ 0.3 MAX UFACTOR



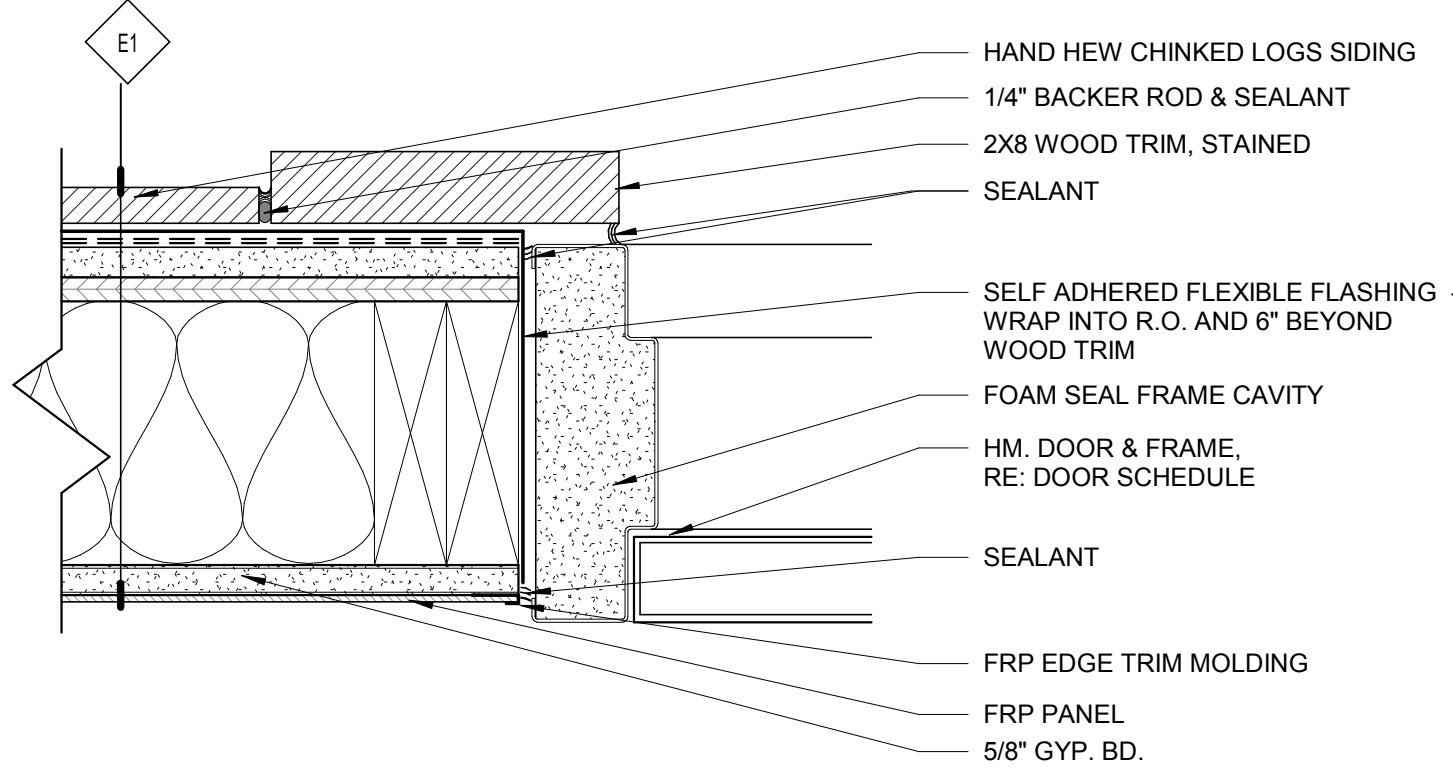
1 DOOR FRAME & PANEL TYPES

1/2" = 1'-0"



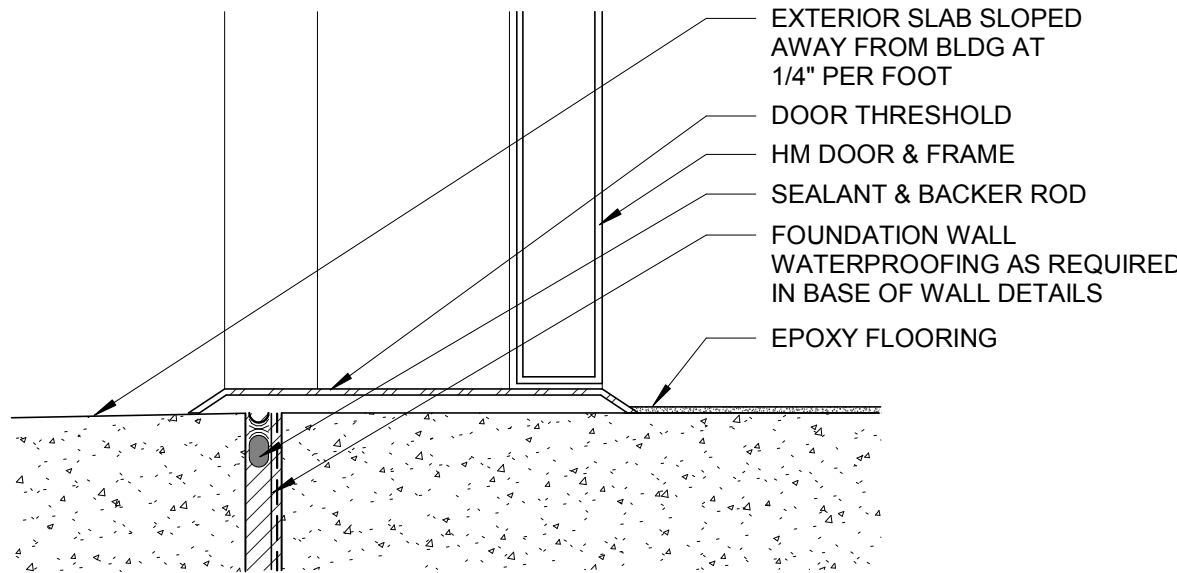
2 EXTERIOR DOOR HEAD @ SIDING

3\"/>



3 EXTERIOR DOOR JAMB @ STONE

3\"/>



4 DOOR THRESHOLD DETAIL

3\"/>



3003 Larimer Street
Denver, Colorado 80205
phone 303.861.5704
www.ozarch.com



FRISCO DAY LODGE RENOVATION
(ALTERNATE #1)
621 RECREATION WAY
FRISCO, CO 80443

PROJ. NO. 117119.00
DRAWN: OZ
CHECKED: OZ
APPROVED: OZ
DATE: 2018-04-27

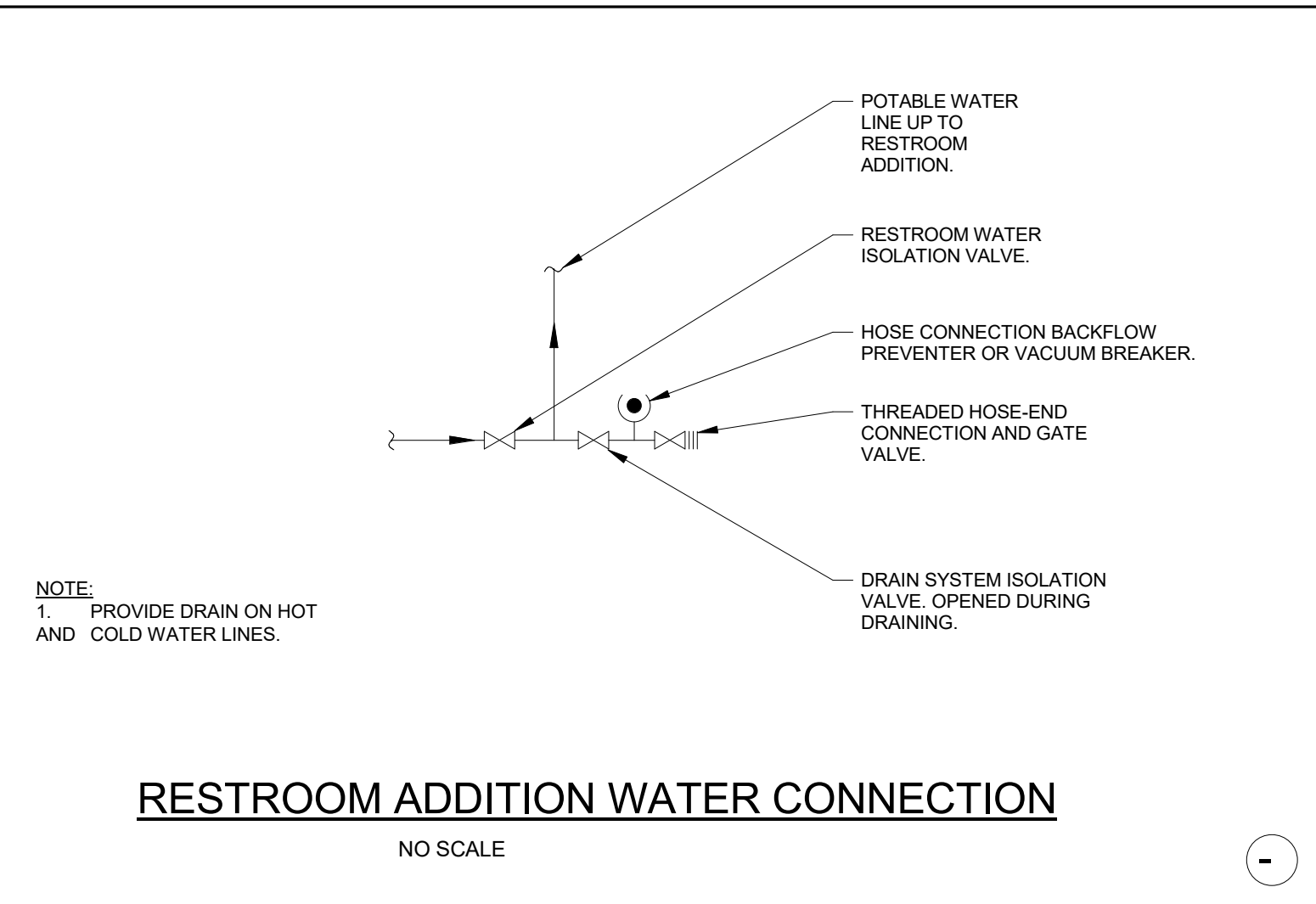
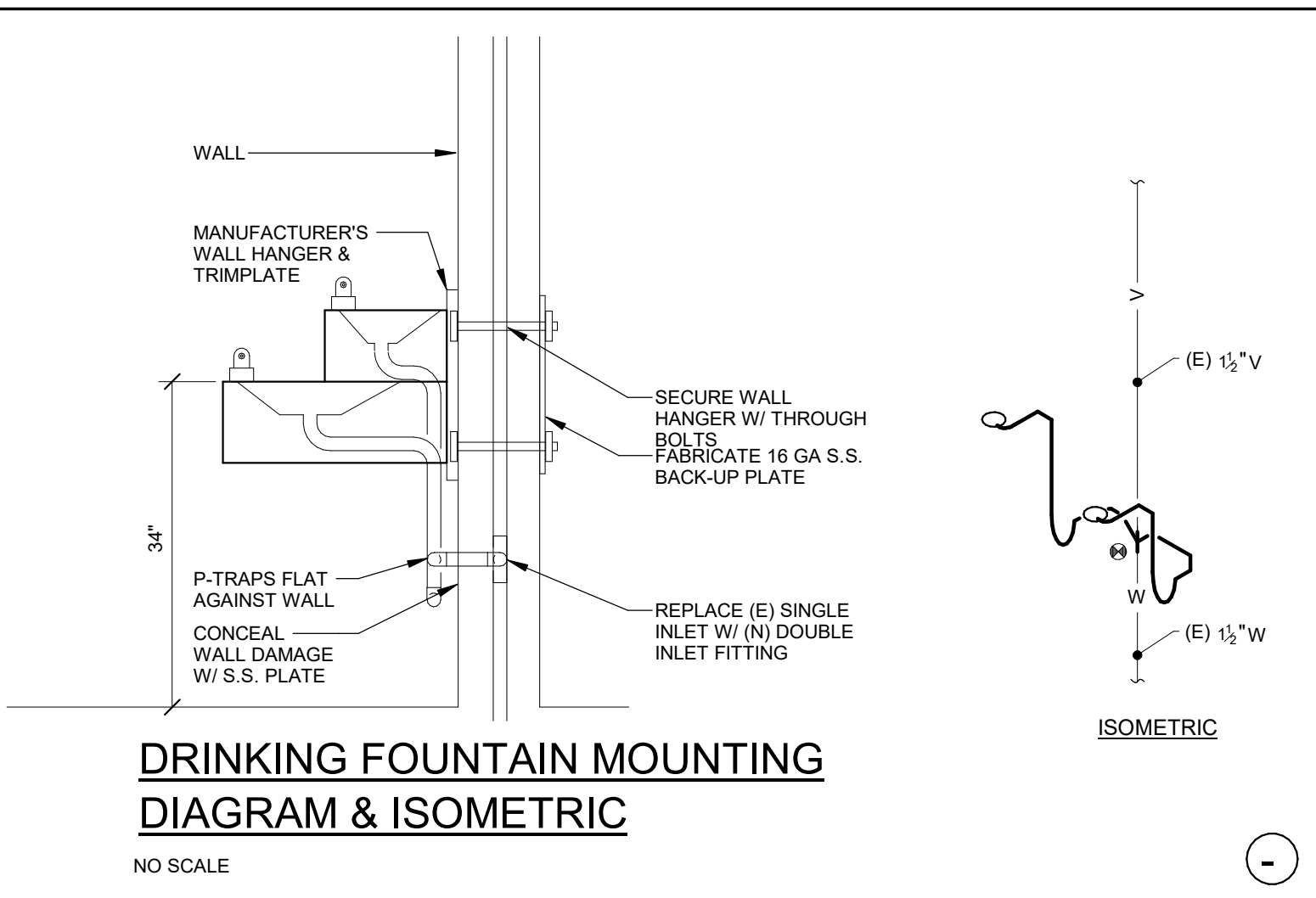
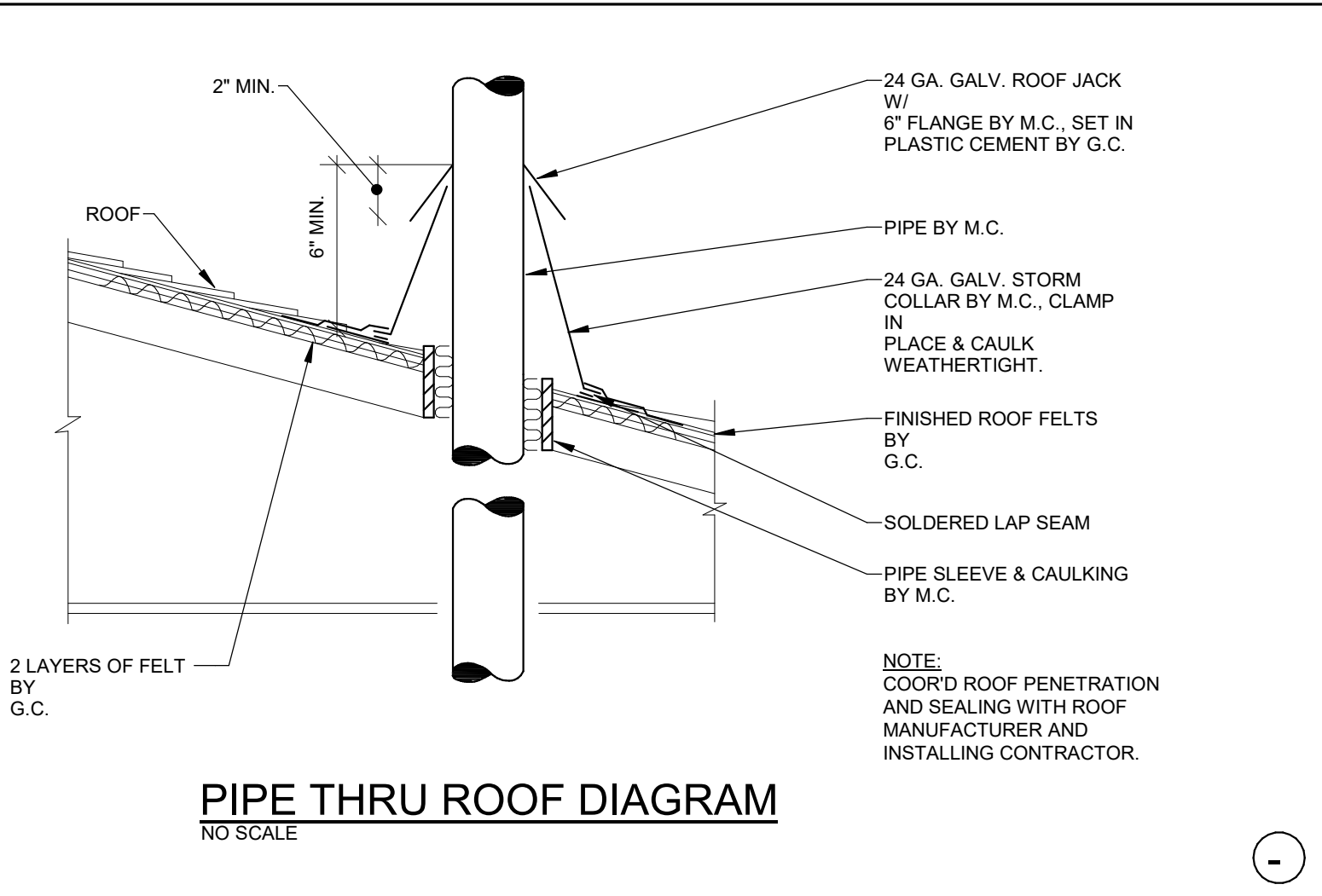
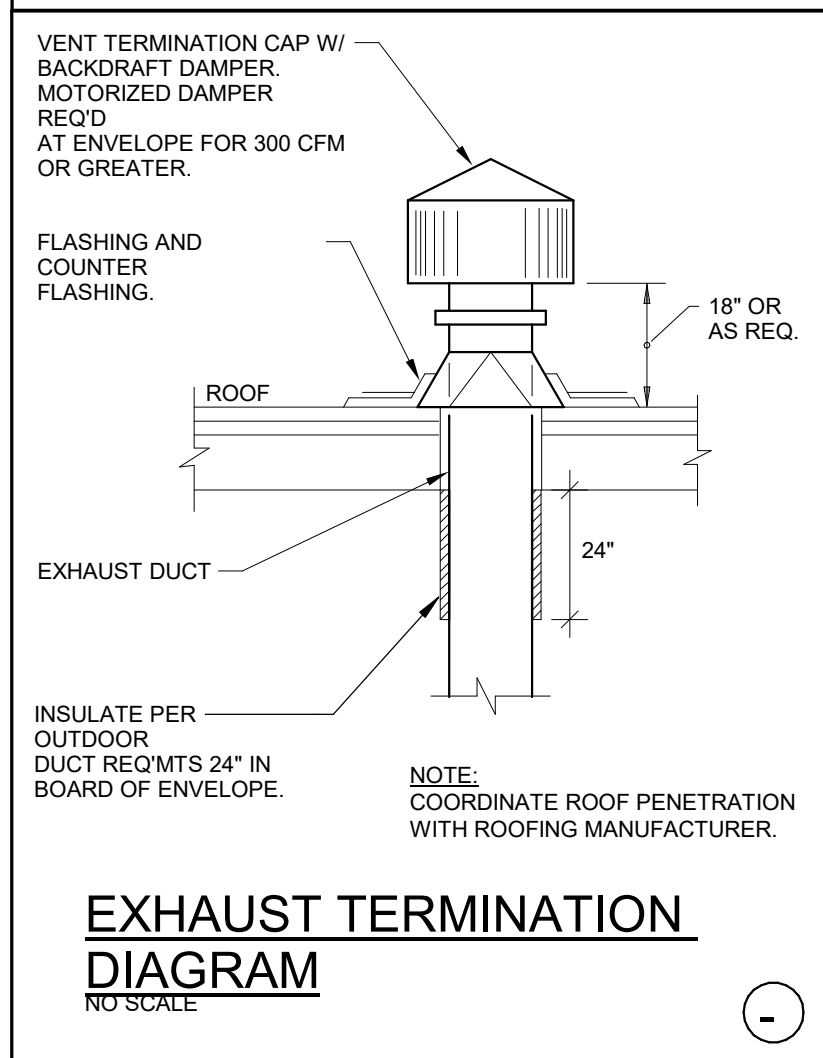
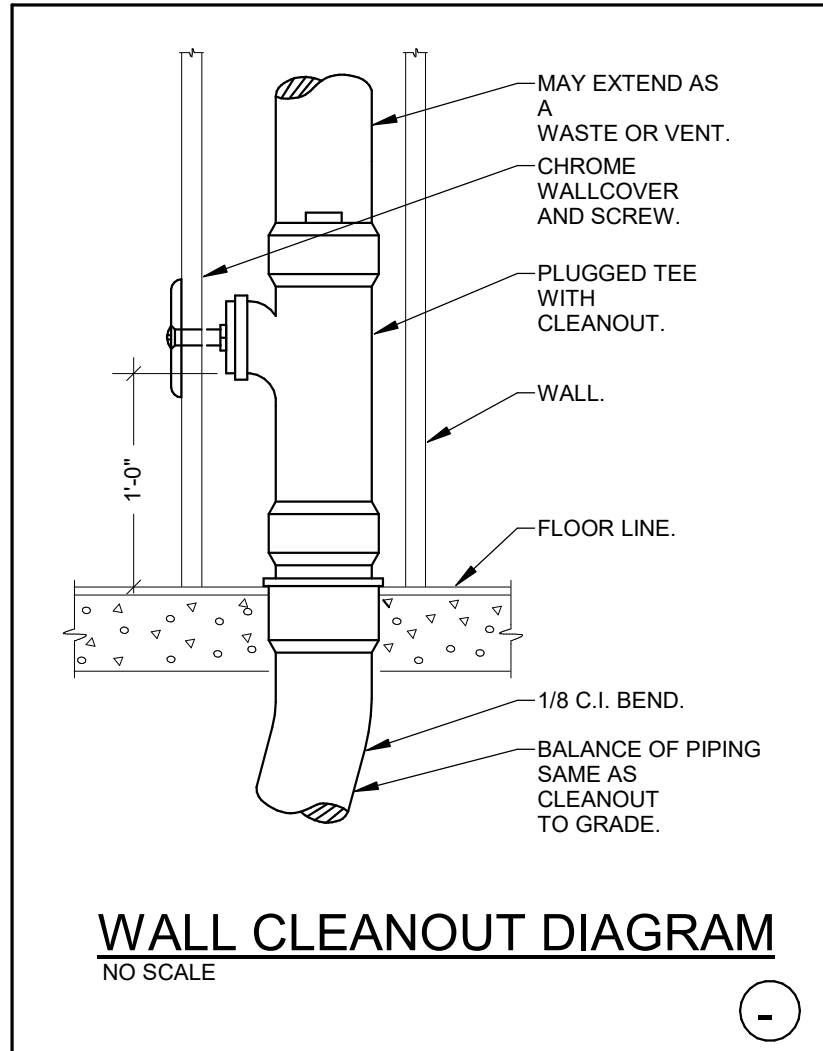
© OZ ARCHITECTURE

FRISCO DAY LODGE RENOVATION
(ALTERNATE #1)
ISSUED FOR:
PERMIT SET

SHEET TITLE:
DOOR SCHEDULE & DETAILS

SCALE: As indicated
SHEET NUMBER

A-601



MECHANICAL SYSTEMS LEGEND

DUCTWORK LEGEND

ROUND		DESCRIPTION	RECTANGULAR	
3D	PLAN		PLAN	3D
		DUCT RISER		
		DUCT DROP		
		90° ELBOW DN. (NEGATIVE PRESSURE)		
		90° ELBOW DN. (POSITIVE PRESSURE)		
		90° ELBOW UP (NEGATIVE PRESSURE)		
		90° ELBOW UP (POSITIVE PRESSURE)		
		SIZE OR SHAPE TRANSITION		
		ROUND FLEXIBLE DUCT CONNECTION		
		90° RADIUS ELBOW		
		90° MITERED ELBOW W/ TURNING VANES		
		90° STRAIGHT TEE		
		90° CONICAL TEE		
		45° BRANCH		
		45° CONICAL BRANCH		
		COMBINATION FIRE AND SMOKE DAMPER		
		FIRE DAMPER		
		SMOKE DAMPER		
		MANUAL BALANCING DAMPER		
		MOTORIZED DAMPER		
		BACKDRAFT DAMPER		
		OFFSET TO CHANGE ELEVATION D = DROP R=RISE		
		DUCT SIZE TAG: FIRST NUMBER = PLAN WIDTH		

FIXTURE CONNECTION SCHEDULE

	ABBR	HW	CW	WASTE	VENT
WATER CLOSET (FLUSH VALVE)	WC	-	1"	4"	2"
WATER CLOSET (FLUSH TANK)	WCT	-	1/2"	4"	2"
URINAL (BLOWOUT)	UR	-	1"	2"	1-1/2"
URINAL (WASHDOWN)	UR	-	3/4"	2"	1-1/2"
URINAL (WATERLESS)	UR	-	-	2"	1-1/2"
LAVATORY	LAV	1/2"	1/2"	1-1/2"	1-1/2"
HAND SINK	HS	1/2"	1/2"	1-1/2"	1-1/2"
DRINKING FOUNTAIN / E.W.C.	DF	-	1/2"	1-1/2"	1-1/2"
FLOOR DRAIN	FD	-	-	2"	1-1/2"
HOSE BIB	HB	-	3/4"	-	-

NOTES:

- SIZES SHOWN ARE MINIMUM PIPE SIZES TO A SINGLE FIXTURE. LARGER SIZES MAY BE INDICATED ON PLANS WHERE REQUIRED.
- MINIMUM DOMESTIC PIPE SIZE TO 2 OR MORE FIXTURES IS 3/4".
- RE: MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR INDIRECT WASTE SIZES.
- WASTE AND VENT SIZES SHOWN ABOVE APPLY TO INDIVIDUAL VENTING ONLY. WHERE ALLOWED, INDIVIDUAL VENT CONNECTIONS MAY BE OMITTED OR SIZES MAY VARY WHEN CIRCUIT VENTS, COMMON VENTS, WASTE STACK VENTS, WET VENTS, OR COMBINATION DRAIN AND VENT SYSTEMS ARE USED. PRIOR APPROVAL FROM THE ENGINEER IS REQUIRED TO USE THESE ALTERNATIVE VENTING METHODS.
- PROVIDE TRAP PRIMER FOR ALL FLOOR DRAINS AND FLOOR SINKS NOT LOCATED IN FOOD SERVICE AREAS.
- MINIMUM SIZE FOR WASTE AND VENT PIPING BENEATH SLAB IS 2".
- ALL FIXTURES LISTED ARE NOT NECESSARILY USED ON THIS PROJECT.
- REFER TO APPLIANCE SCHEDULES (BY OTHERS) FOR ADDITIONAL PLUMBING FIXTURE CONNECTIONS SUCH AS INST-HOTS, COFFEE MAKERS, AND GARBAGE DISPOSALS.
- PROVIDE ICE MAKER BOX ROUGH IN W/ 1/2"CW CONNECTION FOR ALL REFRIGERATOR LOCATIONS.

PIPING DESIGNATIONS

PLUMBING PIPING

- CW DOMESTIC COLD WATER (CW)
- HW DOMESTIC HOT WATER (HW)
- HWC HOT WATER RECIRCULATION (HWC)
- W WASTE
- V VENT
- SD SECONDARY DRAIN

PIPING SYMBOLS

- 90° ELBOW DN
- 90° ELBOW UP
- TEE DOWN
- TEE UP
- BUTTERFLY VALVE
- SHUT OFF (BALL, GATE, BUTTERFLY)
- GLOBE VALVE
- CHECK VALVE
- FLOW CONTROL VALVE
- BALL VALVE
- PLUG OR BALANCING VALVE
- FLOW BALANCING VALVE
- PLUG VALVE IN RISER
- GATE OR GLOBE VALVE IN RISER
- DRAIN VALVE W/ HOSE END
- TEMPERATURE CONTROL VALVE (2-WAY)
- TEMPERATURE CONTROL VALVE (3-WAY)
- PRESSURE REDUCING VALVE
- SOLENOID VALVE
- VENTURIFLOW INDICATOR
- PUMP & EQUIPMENT CONNECTOR
- PIPE UNION
- DOUBLE CHECK BACKFLOW PREVENTER
- PIPE ANCHOR
- PIPE EXPANSION JOINT
- FLEXIBLE CONNECTOR
- SAFETY RELIEF VALVE
- AIR VENT
- PRESSURE - TEMP. TAP
- PRESSURE GAUGE W/ PIG TAIL & COCK
- THERMOMETER
- VACUUM BREAKER
- HORIZONTAL CLEANOUT
- VERTICAL CLEANOUT
- FLOOR DRAIN
- FLOOR SINK
- ROOF DRAIN
- STRAINER W/ BLOW-OFF VALVE
- SHOCK ABSORBER
- FLOW SWITCH
- HOSE BIBB or WALL HYDRANT
- TEMPERATURE CONTROLLER OR SENSOR

AIR DEVICE DESIGNATION KEY

TYPE OF AIR DEVICE RE: GRD SCHEDULE.

A = AIR QUANTITY (CFM)
CA = COMB. AIR
OSA = OUTSIDE AIR
RET = RETURN
EXH = EXHAUST
XFR = TRANSFER

SIZE (INCHES) OR MINIMUM FREE AREA REQUIRED IN SQUARE FEET

INDICATES AIR INLET DEVICE

NOTE: FOR STANDARD MODULE SIZE REGISTERS, SIZE GIVEN IS NECK SIZE. REFER TO GRD SCHEDULE FOR MODULE SIZE.

MECHANICAL SHEET INDEX					
#	TITLE	ISSUE LOG			
		100% DD - 04.03.2018	PERMIT SET - 04.27.2018		
M-000	MECHANICAL COVER SHEET	✓	✓		
M-001	MECHANICAL SCHEDULES	✓	✓		
M-101	MECHANICAL PLANS	✓	✓		
M-200	MECHANICAL SPECIFICATIONS		✓		
M-201	CODE COMPLIANCE DOCUMENTS		✓		
ISSUE LOG KEY:					
✓✓ ISSUED AS PART OF SET					
✓ NOT PART OF SET					
*** ISSUED FOR INFORMATION ONLY					

PROJECT ALTITUDE
9100' ABOVE SEA LEVEL

3003 Larimer Street
Denver, Colorado 80205
phone 303.861.5704
www.ozarch.com

FRISCO DAY LODGE RENOVATION
(ALTERNATE #1)
621 RECREATION WAY
FRISCO, CO 80443

PROJ. NO.
DRAWN: NRW
CHECKED: RSD
APPROVED: BDS
DATE: 2018-04-27

© OZ ARCHITECTURE

FRISCO DAY LODGE RENOVATION
(ALTERNATE #1)
ISSUED FOR:
PERMIT SET

SHEET TITLE:
MECHANICAL COVER SHEET

SCALE: NOT TO SCALE
SHEET NUMBER
M-000

PLUMBING FIXTURE SCHEDULE							
MARK	TYPE	ADA	FINISH	MANUFACTURER* & MODEL #	FAUCET TRIM MFR* & MODEL #	ACCESSORIES	REMARKS
P1	LAVATORY	Y	PER ARCHITECT	WILLOUGHBY WAW-2311	-	WILLOUGHBY PPB1 PNEUMATIC PUSH BUTTON VALVE ACTUATOR	CONFIRM COLOR SELECTION WITH ARCHITECT
P2	WATER CLOSET	Y	ENVIRO-GLAZE COATING	DURA-WARE 2105	-	QUARTER TURN 3/8" SUPPLY W/ LOOSE KEY STOP, CHROME PLATED SOFT COPPER SUPPLY LINE, TANK COVER LOCKING DEVICE, 1.28 GPF WALL SUPPLY FLUSH VALVE	CONFIRM COLOR SELECTION WITH ARCHITECT
P3	URINAL	Y	ENVIRO-GLAZE COATING	DURA-WARE 2158	-	QUARTER TURN 3/8" SUPPLY W/ LOOSE KEY STOP, CHROME PLATED SOFT COPPER SUPPLY LINE, TANK COVER LOCKING DEVICE, 0.125 GPF WALL SUPPLY FLUSH VALVE	CONFIRM COLOR SELECTION WITH ARCHITECT
P4	FLOOR DRAIN	N/A	-	ZURN Z-415D-P-NH	N/A	PLUMBING CONTRACTOR SHALL PROVIDE AND INSTALL TRAP PRIMERS TYPICAL. ALL DRAIN GRATES SHALL BE FLUSH WITH FINISH FLOOR.	6" ROUND, 3" BOTTOM OUTLET NO-HUB/TRAP PRIMER
P5	DRINKING FOUNTAIN	Y	STAINLESS STEEL	HAWS 1119FR	-	HAWS 1920FR BOTTLE FILLER, 6521FR VALVE SYSTEMS FOR EACH FIXTURE	-
GENERAL NOTES:							
A:	FIRST MANUFACTURER/MODEL LISTED IS BASIS OF DESIGN MANUFACTURER/MODEL. FOLLOWING MANUFACTURERS WITH EQUAL MODELS ARE ALSO ACCEPTABLE.						
B:	ALL FIXTURES USED AS A POTABLE WATER SOURCE SHALL MEET "LEAD-FREE" REQUIREMENTS OF THE EPA REDUCTION OF LEAD IN DRINKING WATER ACT AND ASSOCIATED AMENDMENTS EFFECTIVE AS OF JANUARY 2014						

INSTANTANEOUS WATER HEATER SCHEDULE (ELECTRIC)							
MARK	TYPE	WATER TEMP. RISE (°F)	ELECTRICAL		MANUFACTURER* & MODEL #	ACCESSORIES	REMARKS
			KW	VOLT/ PHASE			
WH-2	POINT OF USE	55	8.3	208/1	EEMAX SPEX8208T ML	A	-
MANUFACTURERS:							
*	HUBBELL, STIEBEL ELTRON						
GENERAL NOTES:							
A:	PROVIDE WITH LOCKABLE CABINET FOR RECESSED WALL MOUNTING.						

GRILLE, REGISTER, DIFFUSER & LOUVER SCHEDULE						
MARK	USE	PATTERN	FINISH	MANUFACTURER* & MODEL#	ACCESSORIES	REMARKS
A	TRANSFER	SINGLE DEFLECTION	PER ARCHITECT	TITUS 271FL	A	B
MANUFACTURERS:						
*	KREUGER, METALAIRE, PRICE					
GENERAL NOTES:						
A:	PROVIDE MANUAL BALANCING DAMPER IN RUN-OUT DUCTWORK FOR ALL GRILLES REGISTERS AND DIFFUSERS.					
B:	NECK SIZE SHALL BE EQUAL TO RUN-OUT SIZE INDICATED ON DRAWINGS UNLESS NOTED OTHERWISE.					

UNIT AND CABINET HEATER SCHEDULE (ELECTRIC)						
MARK	TYPE	ELECTRICAL		MANUFACTURER* & MODEL #	ACCESSORIES	REMARKS
		KW	VOLT/ PH			
UH-2	WALL MOUNTED	1.0	120/1	MARKEL E3322TD-RP	A, B	-
UH-3	WALL MOUNTED	1.8	120/1	MARKEL E3058T2DWB	A, B	-
MANUFACTURERS:						
*	TRANE, BERKO					
GENERAL NOTES:						
A:	PROVIDE CABINET HEATER WITH UNIT MOUNTED THERMOSTAT AND BUILT-IN CONTROLS. CONNECT ALARM STATUS TO BCS. REFER TO FLOOR PLANS FOR EXACT QUANTITY					
B:	PROVIDE FACTORY MOUNTED DISCONNECT					

EXHAUST FAN SCHEDULE								
MARK	TYPE	FAN			MOTOR	MANUFACTURER* & MODEL #	ACCESSORIES	REMARKS
		CFM	ESP					
			@ S.L.	@ ALT	VOLT/PH			
EF-2	CEILING CABINET	50	0.25 in-wg	0.25 in-wg	120/1	GREENHECK SP-B80	C	A,B
SF-1	INLINE SUPPLY	90	0.40 in-wg	0.40 in-wg	120/1	GREENHECK SQ-70-VG	-	A
MANUFACTURERS:								
*	COOK, TWIN CITY							
GENERAL NOTES:								
A:	CONNECT FAN TO EXISTING BAC FOR SCHEDULING AND ALARM STATUS. FAN OPERATION TO BE INTEGRATED WITH LIGHTING OCCUPANCY SENSOR.							
B:	MULTIPLE ITEMS OF THIS DESIGNATION. REFER TO FLOORPLANS FOR EXACT QUANTITY.							
C:	PROVIDE WITH GRAVITY BACKDRAFT DAMPER. PROVIDE ALL TRIM REQUIRED TO MOUNT FULLY RECESSED IN CEILING.							



3003 Larimer Street
Denver, Colorado 80205
phone 303.861.5704
www.ozarch.com



FRISCO DAY LODGE RENOVATION
(ALTERNATE #1)
621 RECREATION WAY
FRISCO, CO 80443

PROJ. NO.
DRAWN: NRW
CHECKED: RSD
APPROVED: BDS
DATE: 2018-04-27

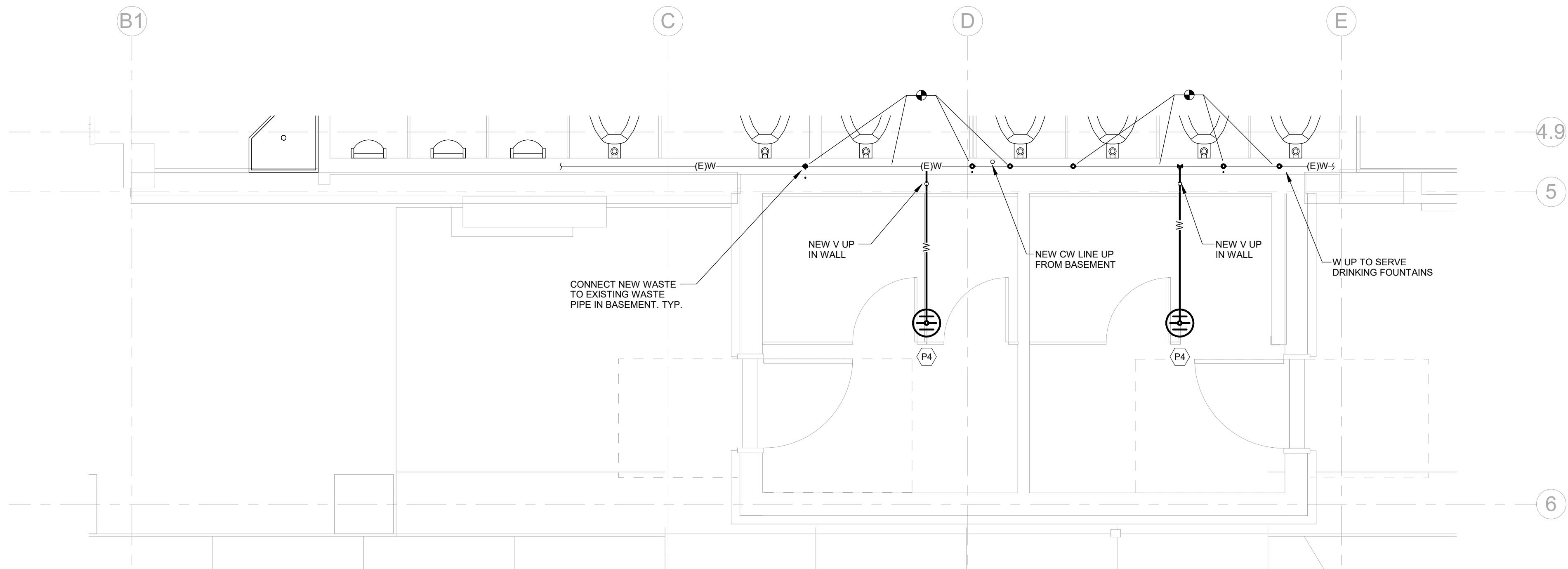
© OZ ARCHITECTURE

FRISCO DAY LODGE RENOVATION
(ALTERNATE #1)
ISSUED FOR:
PERMIT SET

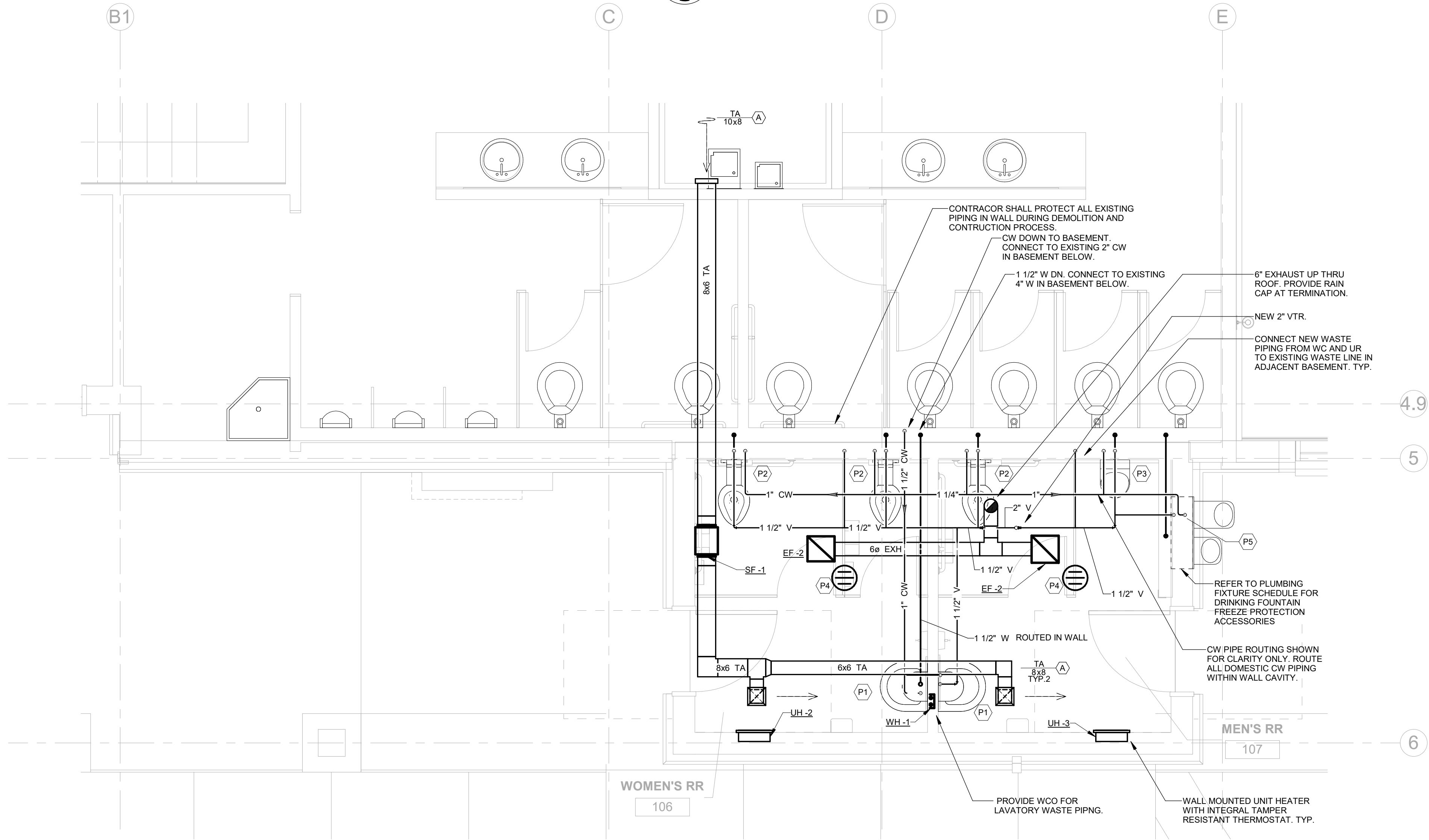
SHEET TITLE:
MECHANICAL SCHEDULES

SCALE:
SHEET NUMBER

M-001



1 UNDERGROUND MECHANICAL PLAN
SCALE: 3/8" = 1'-0"



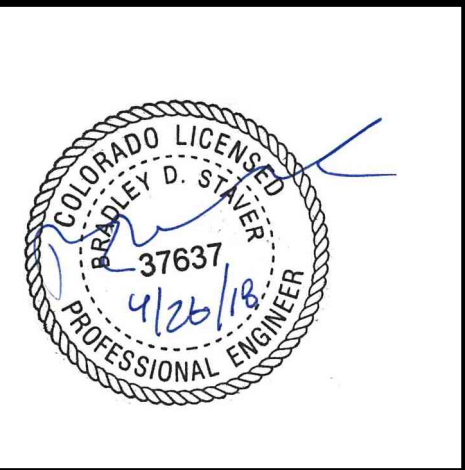
2 LEVEL 1 MECHANICAL PLAN
SCALE: 3/8" = 1'-0"

HVAC NOTES:

1. RE: 1/M001 FOR MECHANICAL DIAGRAM.
2. CEILING COORDINATION OF ALL MEP SYSTEMS (LIGHTING, DUCTWORK, DIFFUSERS, ELECTRICAL FIRE PROTECTION, ETC.) MUST BE COMPLETED BY THE CONTRACTOR PRIOR TO THE START OF ANY INSTALLATIONS.
3. PROVIDE FLEXIBLE DUCT AND PIPE CONNECTIONS TO ALL MOTORIZED EQUIPMENT.
4. EXTEND EXISTING DRY PIPE SPRINKLER SYSTEM TO COMPLY WITH NFPA 13.
5. PROTECT PIPING ROUTED ALONG COLUMNS, WALLS, ETC. FROM DAMAGE AS NECESSARY WITH CAGES. COORDINATE WITH ARCHITECT.
6. ALL DUCTWORK SHALL BE ROUTED AS HIGH AS POSSIBLE IN THE CEILING SPACE. UTILIZE JOIST SPACE WHEN POSSIBLE. ESPECIALLY WHERE CROSSING OTHER DUCTS, PIPES, AND ELECTRICAL.
7. ACCESS PANELS SHALL BE 24x24, U.N.O. LOCATIONS SHOWN ARE APPROXIMATE. EXACT LOCATIONS SHALL BE COORDINATED WITH THE ARCHITECTS DRAWINGS AND WITH THE LOCATIONS OF THE EQUIPMENT OR APPARATUS THAT THEY SERVE.



3003 Larimer Street
Denver, Colorado 80205
phone 303.861.5704
www.ozarch.com



**FRISCO DAY LODGE RENOVATION
(ALTERNATE #1)
621 RECREATION WAY
FRISCO, CO 80443**

PROJ. NO.
DRAWN: NRW
CHECKED: RSD
APPROVED: BDS
DATE: 2018-04-27

© OZ ARCHITECTURE

FRISCO DAY LODGE RENOVATION
(ALTERNATE #1)
ISSUED FOR:
PERMIT SET

SHEET TITLE:
MECHANICAL PLANS

SCALE: As indicated
SHEET NUMBER
M-101

GENERAL NOTES (MECHANICAL SPECIFICATIONS):

1. ALL SUBCONTRACTORS SHALL BE LICENSED, EXPERIENCED, AND THOROUGHLY KNOWLEDGEABLE IN THEIR RESPECTIVE AREAS OF THE CONSTRUCTION INDUSTRY AND SHALL PERFORM IN A RESPONSIBLE MANNER WITH ESTABLISHED CONSTRUCTION SEQUENCE, SHALL RECOGNIZE THE PRIORITY OF THE CONSTRUCTION DOCUMENTS, AND SHALL INFORM THE PRIME CONTRACTOR OF POTENTIAL PROBLEMS WHEN THE CONSTRUCTION DOCUMENTS ARE UNCLEAR OR INCONSISTENT.
2. SUBCONTRACTORS SHALL BE RESPONSIBLE TO NOTIFY THE PRIME CONTRACTOR OF DISCREPANCIES OR CONFLICTS IN THE CONSTRUCTION DOCUMENTS FOUND DURING BIDDING AND/OR PRIOR TO PERFORMING THE WORK.
3. EXAMINATION OF BIDDING DOCUMENTS.
- A. EACH BIDDER SHALL EXAMINE THE BIDDING DOCUMENTS CAREFULLY, AND NOT LATER THAN SEVEN (7) DAYS PRIOR TO THE DATE OF RECEIPT OF BIDS. SHALL MAKE WRITTEN REQUEST TO THE ARCHITECT FOR INTERPRETATION OR CORRECTION OF ANY DISCREPANCIES, AMBIGUITIES, INCONSISTENCIES, OR ERRORS THEREIN WHICH HE MAY DISCOVER. THE ARCHITECT WILL ISSUE ANY INTERPRETATION OR CORRECTION AS AN ADDENDUM. ONLY A WRITTEN INTERPRETATION OR CORRECTION BY ADDENDUM SHALL BE BINDING. NO BIDDER SHALL RELY UPON INTERPRETATIONS OR CORRECTIONS GIVEN BY ANY OTHER METHOD. IF DISCREPANCIES, AMBIGUITIES, INCONSISTENCIES, OR ERRORS ARE NOT COVERED BY ADDENDUM OR WRITTEN DIRECTIVE, CONTRACTOR SHALL INCLUDE IN HIS BID, LABOR MATERIALS AND METHODS OF CONSTRUCTION RESULTING IN HIGHER COST. AFTER AWARD OF CONTRACT, NO ALLOWANCE OR EXTRA COMPENSATION WILL BE MADE ON BEHALF OF THE CONTRACTOR DUE TO HIS FAILURE TO MAKE THE WRITTEN REQUESTS AS DESCRIBED ABOVE.
- B. FAILURE TO REQUEST CLARIFICATION DURING THE BID PERIOD OF ANY INADEQUACY, OMISSION, OR CONFLICT WILL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITIES. THE SIGNING OF THE CONTRACT WILL BE CONSIDERED AS IMPLICITLY DENOTING THAT THE CONTRACTOR HAS A THOROUGH COMPREHENSION OF THE FULL INTENT AND SCOPE OF THE CONSTRUCTION CONTRACT DRAWINGS AND SPECIFICATIONS.
4. PROVIDE A BASE BID WHICH SHALL INCLUDE ONLY SPECIFIED EQUIPMENT OR EQUIPMENT LISTED AS EQUIVALENT. NO SUBSTITUTIONS FOR THE LISTED EQUIPMENT SHALL BE ALLOWED IN THE BASE BID.
- A. THE MANUFACTURER OF EQUIPMENT OR MATERIALS FIRST NAMED ON THE DRAWINGS IS THE BASIS OF DESIGN. OTHER MANUFACTURERS LISTED ARE CONSIDERED GENERAL EQUIVALENTS ONLY.
- B. COORDINATION OF GENERAL EQUIVALENTS AND SUBSTITUTIONS: WHERE CONTRACT DOCUMENTS PERMIT SELECTION FROM SEVERAL GENERAL EQUIVALENTS, OR WHERE SUBSTITUTIONS ARE AUTHORIZED, COORDINATE CLEARANCE AND OTHER INTERFACE REQUIREMENTS WITH MECHANICAL AND OTHER WORK.
1. PROVIDE NECESSARY ADDITIONAL ITEMS SO THAT SELECTED OR SUBSTITUTED ITEM OPERATES EQUIVALENT TO THE BASIS OF DESIGN AND PROPERLY FITS IN THE AVAILABLE SPACE ALLOCATED FOR THE BASIS OF DESIGN.
2. PROVIDE ALL FEATURES WHICH ARE STANDARD ON THE BASIS OF DESIGN PLUS ANY SPECIFIED OPTIONS.
3. BE RESPONSIBLE FOR ASSURING THAT PIPING, CONDUIT, DUCT, FLUE, AND OTHER SERVICE LOCATIONS FOR GENERAL EQUIVALENTS OR SUBSTITUTIONS DO NOT CAUSE ACCESS, SERVICE, OR OPERATIONAL DIFFICULTIES ANY GREATER THAT WOULD BE ENCOUNTERED WITH THE BASE DESIGN.
5. INASMUCH AS DESIGN FOR REMODEL AND/OR REHABILITATION REQUIRES THAT CERTAIN ASSUMPTIONS BE MADE REGARDING EXISTING CONDITIONS, AND BECAUSE SOME OF THESE ASSUMPTIONS CANNOT BE VERIFIED WITHOUT DESTROYING OTHERWISE ADEQUATE OR SERVICEABLE PORTIONS OF THE BUILDING, THE ENGINEER CANNOT ASSURE THE OWNER OR THE CONTRACTOR THAT THE PROFESSIONAL CONSULTING SERVICES HEREIN ENCOMPASS ALL CONTINGENCIES. FIELD COORDINATION DURING CONSTRUCTION IS IMPERATIVE. MAKE REASONABLE ALLOWANCES FOR UNSEEN CONDITIONS.
6. THE EXISTING BUILDING WILL BE OCCUPIED BY THE OWNER DURING CONSTRUCTION. CONTINUED OPERATION OF THE FACILITY SHALL NOT BE HINDERED BY THIS WORK. ACCOUNT FOR ALL ADDITIONAL COSTS WHICH MAY BE INCURRED DUE TO THE DIFFICULTY OF WORKING OVER AND AROUND EMPLOYEES, FURNITURE, EQUIPMENT, ETC.; AND DUE TO THE HOURS OF THE DAY IN WHICH AN AREA MAY BE ACCESSIBLE WHEN COMPLYING HIS BID.
7. BE RESPONSIBLE TO FIELD VERIFY EXISTING EQUIPMENT OR PIPING REMAINING TO BE CONNECTED TO (NEW) SYSTEMS. PROVIDE DUCTWORK, PIPING, CONTROLS, DIFFUSERS, ETC., AS REQUIRED TO RESTORE CONTINUITY OF SYSTEM (S), OR TO MAKE NEW WORK MEET EXISTING CONDITIONS, WHETHER INDICATED OR NOT.
8. SUBCONTRACTOR SHALL VERIFY EXISTENCE AND LOCATION OF ALL UTILITIES SERVICES AND COORDINATE AS REQUIRED BY THEIR RESPECTIVE AREA OF THE CONSTRUCTION, NOTIFYING THE PRIME CONTRACTOR OF VARIATIONS OR CONFLICTS.
9. IF NOT SPECIFICALLY DEFINED IN THESE CONSTRUCTION DOCUMENTS, MATERIALS AND/OR EQUIPMENT SHALL BE IDENTIFIED BY THE SUBCONTRACTOR WITH SUFFICIENT TIME TO ALLOW SELECTION, PURCHASE, AND DELIVERY TO MAINTAIN CONSTRUCTION SCHEDULE.
10. VERIFY EXACT LOCATIONS OF EXISTING UNDERGROUND UTILITIES, PIPING, AND RACEWAY SYSTEMS PRIOR TO TRENCHING. CONTRACTOR SHALL OBTAIN AND VERIFY EXACT UTILITY COMPANY DRAWINGS AND REQUIREMENTS.
11. ALL DUCTWORK, DIFFUSERS, PIPING, FIXTURES, AND EQUIPMENT SHOWN IN LIGHT LINE WEIGHT IS EXISTING, NEW INDICATED BY HEAVIER LINE WEIGHT, EXCEPT WHERE NOTED. PIPES, DUCTWORK, EQUIPMENT, ETC. TO BE REMOVED, ARE SHOWN HATCHED.
12. OFFSET PIPING, DUCTWORK, ETC. AS NECESSARY TO ACCOMMODATE STRUCTURE, BEAMS, AND COLUMNS, AND EXISTING EQUIPMENT.
13. WORK SHALL BE PERFORMED IN A WORKMANLIKE MANNER TO THE SATISFACTION OF THE ARCHITECT, OWNER, AND ENGINEER.
14. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PERFORM HIS/HER WORK IN CONFORMANCE WITH ALL APPLICABLE CODES, ORDINANCES AND LIFE SAFETY FEED AS REQUIRED BY LOCAL, STATE, OR NATIONAL AUTHORITIES. THE CONTRACTOR SHALL VERIFY WITH THE ARCHITECT IF MODIFICATION OF HIS/HER WORK IS REQUIRED FOR COMPLIANCE.
15. ALL WORK OF ALL TRADES MUST BE IN STRICT COMPLIANCE, OR EXCEED THE MINIMUM MATERIAL AND METHOD REQUIREMENTS OF THE 2015 VERSION OF THE INTERNATIONAL BUILDING, MECHANICAL, PLUMBING, ENERGY CONSERVATION, AND FIRE CODES AND THE 2014 NATIONAL ELECTRICAL CODE, MOST CURRENT NFPA, ALL LOCAL ORDINANCES AND AMENDMENTS AND MANUFACTURER'S INSTALLATION RECOMMENDATIONS. IF A CONFLICT BETWEEN THOSE PUBLICATIONS EXISTS, THE MOST STRINGENT REQUIREMENT SHALL APPLY.
16. MECHANICAL WORK SHALL CONFORM TO THE FOLLOWING CODES:
- ALL LOCAL, CITY, COUNTY, AND STATE CODES
AISC - ASSOCIATE AIR BALANCE COUNCIL
ADC - AIR DIFFUSION COUNCIL
AGA - AMERICAN GAS ASSOCIATION
AMCA - AIR MOVING AND CONTROL ASSOCIATION
ANSI - AMERICAN NATIONAL STANDARDS INSTITUTE
ASHRAE - AMERICAN SOCIETY OF HEATING, REFRIGERATION, AND AIR CONDITIONING ENGINEERS
ASME - AMERICAN SOCIETY OF MECHANICAL ENGINEERS
ASTM - AMERICAN SOCIETY OF TESTING MATERIALS
AWWA - AMERICAN WATER WORKS ASSOCIATION
ICC - INTERNATIONAL CODE COUNCIL, 2015 CODES
NFPA - NATIONAL FIRE PROTECTION ASSOCIATION
OSHA - OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
UL - UNDERWRITERS' LABORATORIES
SMACNA - SHEET METAL AND AIR CONDITIONING NATIONAL ASSOCIATION
GVI - GAS VENT INSTITUTE, EDITION 10-A
17. PAY FOR AND SECURE ALL REQUIRED PERMITS AND INSPECTIONS. PRIOR TO FINAL PAYMENT, TURN OVER TO ARCHITECT ALL CERTIFICATES OF COMPLETION.
18. WARRANTY THE INSTALLATION AGAINST DEFECTS IN MATERIALS AND WORKMANSHIP. THE WARRANTY SHALL BE FOR A PERIOD OF ONE YEAR AFTER OWNER'S ACCEPTANCE. DEFECTS SHALL BE PROMPTLY REMEDIED WITHOUT COST TO THE OWNER.
19. SUBMIT O&M MANUALS WITHIN 90 DAYS OF ACCEPTANCE IN ACCORDANCE WITH DIVISION 1 REQUIREMENTS. IN THE ABSENCE OF DIVISION 1 REQUIREMENTS, O&M MANUALS SHALL INCLUDE: SUBMITTING EACH SHOP DRAWING, CATALOG CUT AND/OR SPECIFICATION SHEET TO INDICATE THOSE PRODUCTS AND FEATURES WHICH ARE INTENDED TO BE FURNISHED. SPECIFICALLY INDICATE ANY DEVIATIONS FROM THE DESIGN INTENT. ENGINEER RESERVES THE RIGHT TO REQUIRE CORRECTION AT NO COST TO OWNER FOR DEVIATIONS NOT SPECIFICALLY INDICATED IN THE SUBMITTALS. REVIEW AND APPROVAL OF SHOP DRAWINGS SHALL NOT RELIEVE THE CONTRACTOR FROM THE RESPONSIBILITY OF FURNISHING EQUIPMENT AND MATERIALS OF PROPER DIMENSION, SIZE, QUANTITY, QUALITY AND ALL PERFORMANCE CHARACTERISTICS TO EFFICIENTLY PERFORM THE REQUIREMENTS AND INTENT OF THE CONTRACT DOCUMENTS. SUBMITTAL SHALL BE BOUND AND INDEXED IN A NEAT AND ORDERLY MANNER.
20. SUBMIT RECORD DOCUMENTS TO ARCHITECT WITHIN 90 DAYS OF COMPLETION. DOCUMENTS SHALL INCLUDE ALL ADDENDUM ITEMS, CHANGE ORDERS, ALTERATIONS, REROUTINGS, ETC.
21. SYSTEMS SHALL BE COMPLETE, OPERABLE, AND READY FOR CONTINUOUS OPERATION PRIOR TO ACCEPTANCE BY THE OWNER.
22. SYSTEMS SHALL BE TESTED FOR PROPER OPERATION. PERFORM AT A MINIMUM ALL CODE REQUIRED TESTS OR SYSTEMS. IF TESTS OF WORK ARE DEFECTIVE, CONTRACTOR SHALL MAKE CORRECTIONS NECESSARY AT NO ADDITIONAL COST TO OWNER.
23. ALL MATERIALS AND/OR EQUIPMENT SHALL BE HANDLED AND INSTALLED AS PER MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
24. SUBMIT ALL MECHANICAL DIVISION SHOP DRAWING AND PRODUCT DATA AT ONE TIME. PARTIAL SUBMITTALS WILL BE REJECTED.
25. SHOP DRAWING SUBMITTALS SHALL STATE CAPACITIES, SIZES, ETC., OF ALL EQUIPMENT AND SHALL BE CERTIFIED AND INCLUDE COMPUTER BASED PROJECT SPECIFIC SELECTIONS WHERE APPLICABLE. CLEARLY MARK EACH SHOP DRAWING, CATALOG CUT AND/OR SPECIFICATION SHEET TO INDICATE THOSE PRODUCTS AND FEATURES WHICH ARE INTENDED TO BE FURNISHED. SPECIFICALLY INDICATE ANY DEVIATIONS FROM THE DESIGN INTENT. ENGINEER RESERVES THE RIGHT TO REQUIRE CORRECTION AT NO COST TO OWNER FOR DEVIATIONS NOT SPECIFICALLY INDICATED IN THE SUBMITTALS. REVIEW AND APPROVAL OF SHOP DRAWINGS SHALL NOT RELIEVE THE CONTRACTOR FROM THE RESPONSIBILITY OF FURNISHING EQUIPMENT AND MATERIALS OF PROPER DIMENSION, SIZE, QUANTITY, QUALITY AND ALL PERFORMANCE CHARACTERISTICS TO EFFICIENTLY PERFORM THE REQUIREMENTS AND INTENT OF THE CONTRACT DOCUMENTS. SUBMITTAL SHALL BE BOUND AND INDEXED IN A NEAT AND ORDERLY MANNER.
26. SUBMITTALS SHALL INCLUDE, BUT NOT BE LIMITED TO: EQUIPMENT, FIXTURES, INSULATION, DIFFUSERS, FANS, PIPING, VALVES, CONTROLS, AND FIRE PROTECTION.
27. FAILURE TO ORDER, OR RELEASE ORDER FOR MATERIALS AND/OR EQUIPMENT WILL NOT BE ACCEPTED AS A REASON TO SUBSTITUTE ALTERNATE MATERIALS, EQUIPMENT, OR INSTALLATION METHODS.
28. PROVIDE NECESSARY TRENCHING, BACKFILL, EXCAVATION, SUPPORTS, SAWCUTTING AND PATCHING, CONCRETE/PAVING, ETC., AS REQUIRED. BACKFILL TRENCHES IN 6" LAYERS AND TO 90% COMPACTION AND PATCH TO MATCH EXISTING GRADE.
29. REPAIR ALL ACCIDENTAL OR INTENTIONAL DAMAGE TO MATCH EXISTING CONSTRUCTION WITH NO NOTICEABLE DIFFERENCE IN CONTINUITY, APPEARANCE OR FUNCTION.
30. TEMPORARY HEAT SHALL BE FURNISHED BY THE GENERAL CONTRACTOR. USE OF THE PERMANENT HEATING SYSTEM WILL NOT BE ALLOWED.
31. COORDINATE ALL PENETRATIONS OF THE FLOOR SLAB PRIOR TO COMMENCING WORK. COORDINATE ALL NEW PENETRATIONS WITH OTHER DIVISIONS OF THE WORK. ALL CONTRACTORS ARE INDIVIDUALLY RESPONSIBLE FOR ALL PENETRATIONS REQUIRED BY THEIR DIVISIONS.
32. DUCTS, PIPING, AND CONDUITS PENETRATING THROUGH ROOF SHALL HAVE ROOF FLASHING COMPATIBLE WITH THE ROOFING SYSTEM. SEE ARCHITECTURAL DRAWINGS. IN THE ABSENCE OF ANY OTHER REQUIREMENTS, PROVIDE SHEET LEAD TYPE FLASHING FOR PLUMBING VENTS IN BUILT-UP ROOFS. TALL CONE WITH EPDM BOOT FOR PIPE AND CONDUIT IN SINGLE PLY MEMBRANE ROOFS, AND CURBED ROOF PENETRATIONS IN ALL TYPES OF ROOF. INSTALLATION SHALL BE WATERTIGHT.
33. ALL FLOOR DRAINS, FLOOR SINKS, TROUGH DRAINS, SAND OIL SEPARATORS, AND ELEVATOR SUMP HUB RECEPTORS CONNECTED TO THE SEWER SYSTEM SHALL BE EQUIPPED WITH TRAP PRIMERS. PROVIDE TRAP PRIMERS WITH BACKFLOW PREVENTERS AND CONNECT TO THE NEAREST COLD WATER PIPING ADJACENT TO A FLUSHING FIXTURE. PROVIDE ELECTRONIC TRAP PRIMERS FOR ANY AREAS WHERE THE NEAREST ADJACENT FLUSHING FIXTURES ARE NOT WITHIN A REASONABLE DISTANCE OR STRUCTURAL OBSTRUCTIONS PREVENT GRAVITY SLOPING OF TRAP PRIMER LINES. ADDED COST OF ELECTRIC POWER FOR ELECTRONIC TRAP PRIMERS SHALL BE BORNE BY PLUMBING CONTRACTOR. INSTALL ALL TRAP PRIMER VALVES AND ASSOCIATED SYSTEMS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
34. SEE ARCHITECTURAL REFLECTED CEILING PLAN FOR ALL CEILING PENETRATIONS AND AIR DEVICE LOCATIONS.
35. COORDINATE ARCHITECTURAL, STRUCTURAL, MECHANICAL, FIRE PROTECTION, ELECTRICAL, LANDSCAPING, AND INTERIOR DESIGN DRAWINGS PRIOR TO INSTALLATION.
36. CAREFULLY VERIFY ELECTRICAL SERVICE VOLTAGE AND PHASE AVAILABLE.
37. MOUNT ALL STATS AT 48" AFF IN "ACCESSIBLE" AREAS, 4'6" AFF IN OTHER AREAS, UNLESS NOTED OTHERWISE. COORDINATE LOCATION WITH WALL FINISH, AND TO AVOID CASEWORK, FURNITURE, DOOR SWINGS, HEAT SOURCES, AND EXTERIOR WALLS. NOTIFY ENGINEER OF ANY CONFLICTS PRIOR TO BEGINNING THERMOSTAT INSTALLATION.
38. SUBMIT A WRITTEN BALANCE REPORT BY A NEBB OR AABC CERTIFIED BALANCING CONTRACTOR. BALANCING PROCEDURES SHALL BE IN ACCORDANCE WITH NEBB OR AABC GUIDELINES FOR PROPORTIONAL BALANCE. SUBMIT REPORT ON STANDARD NEBB FORMS OR SUBMIT FORMS FOR REVIEW PRIOR TO BALANCING. MEASUREMENTS SHALL INCLUDE ALL MOTOR AMPERAGE AND VOLTAGE READINGS, MOTOR AND FAN RPM'S, STATIC PRESSURE AT INLET AND OUTLET OF ALL PACKAGED EQUIPMENT, FANS, COILS, AND FILTERS; PITOT TUBE MEASUREMENT OF SUPPLY, EXHAUST, RETURN, AND OUTSIDE AIR MAIN DUCTS, AT MINIMUM OUTSIDE AIR, AND 100% ECONOMICIZED OUTSIDE AIR, VELOCITY DISTRIBUTION ACROSS THE FACE OF FILTERS, AIR INLET AND OUTLETS, WATER FLOW AT ALL FLOW MEASUREMENT STATIONS, INLET AND OUTLET PRESSURE AT PUMPS WITH FLOW CALCULATED FROM THE PUMP CURVE, WATER FLOW, TEMPERATURE DROP, AND PRESSURE DROP AT ALL COILS.
- A. PROVIDE BELTS AND SHEAVES AS REQUIRED FOR DRIVE CHANGES TO ADJUST FAN SPEED.
- B. ADJUST FLOWS TO WITHIN 10% OF REQUIRED QUANTITY. WHERE ROOM AIR PRESSURE RELATIONSHIP ARE REQUIRED TO BE MAINTAINED AS SHOWN BY A DIFFERENTIAL OF SUPPLY AND EXHAUST RETURN OR BY NOTE, ADJUST SUPPLY TO WITHIN 10% AND THEN ADJUST EXHAUST/RETURN TO PROVIDE THE INDICATED ROOM PRESSURE. IF ACTUAL QUANTITY IS LESS THAN 90%, INVESTIGATE CAUSE, ATTEMPT TO RECTIFY AND NOTIFY ENGINEER. SUBMITTAL OF BALANCE REPORT WITH LESS THAN REQUIRED FLOWS WITHOUT EXPLANATION IS CAUSE FOR REJECTION OF REPORT.
- C. SUBMIT THREE (3) COPIES OF ALL SUBMITTALS IN ADDITION TO ANY REQUIRED BY THE CONTRACTOR AND HIS SUPPLIERS. THESE COPIES SHALL BE RETAINED BY THE OWNER, ARCHITECT, AND ENGINEER.
39. DUCTWORK: (LOW VELOCITY)
- A. FLEXIBLE DUCTWORK SHALL HAVE AN OUTER JACKET OF FIRE RETARDANT POLYETHYLENE VAPOR BARRIER MATERIAL, UNIFORM LAYER OF FIBERGLASS INSULATION, HIGH-STRENGTH GALVANIZED STEEL, HELIX ENCAPSULATED IN REINFORCED "RIP STOP" ALUMINUM LAMINATE INTERIOR CORE, UL LISTED AND LABELED, CLASS 1 AIR DUCT, WORKING PRESSURE RATING: POSITIVE 6", NEGATIVE 4". FLEXMASTER TYPE 5 OR EQUIVALENT. SUBMIT SAMPLES TO DETERMINE EQUIVALENCE.
- B. FLEXIBLE CONNECTION: EQUIVALENT TO VENTFAB, FIREPROOF GLASS CLOTH, 10" W.C. RATED.
- C. ROUND DUCT: SPIRAL SEAM, GALVANIZED STEEL, DIE STAMPED OR 5 GORE ELBOWS, "SNAP-LOCK", LONGITUDINAL SEAM DUCT, OR ADJUSTABLE FITTINGS ARE ACCEPTABLE ON INDIVIDUAL GRILLE/DIFFUSER RUNOUTS ONLY.
- D. LINER:
- 1) LINE ALL SUPPLY, OUTSIDE AIR, RETURN AIR DUCTS, EXHAUST AIR RISERS, AND MAKE UP AIR RISERS WITH 1", 1.5 LB/CF, BLACK MATTE COATED INSULATING DUCT LINER.
- 2) INSULATION CONDUCTIVITY VALUE NOT EXCEEDING 0.27 BTU·IN/(HR·FT²·°F).
- 3) LINER SHALL BE COATED AND SEALED AND SHALL MEET ASTM C1071.
- 4) MATERIAL SHALL MEET ALL REQUIREMENTS OF NFPA-90.
- 5) INSTALL WITH ADHESIVE AND WELDED PINS IN ACCORDANCE WITH SMACNA "HVAC DUCT CONSTRUCTION STANDARDS".
- 6) EXTERNALLY WRAP ALL ROUND SUPPLY AIR DUCTS WITH FLEXIBLE GLASS FIBER, ANSI/ASTM C612, 0.002 INCH FOIL SCRIM FACING.
- 7) ALL RAW EDGES OF INSULATION SHALL BE NEATLY TRIMMED AND SEALED WITH MASTIC.
- E. DUCTWORK: G60 GALVANIZED SHEET STEEL; LOCK FORMING QUALITY, CONSTRUCTED TO THE LATEST EDITION OF SMACNA "HVAC DUCT CONSTRUCTION STANDARDS"; +/- 1" WC PRESSURE CLASSIFICATION, SEAL CLASS "C"; WITH GALVANIZED STEEL FASTENERS, ANCHORS, ANGLES, STRAPS, ETC.
- F. SEAL ALL SEAMS (LONGITUDINAL AND TRANSVERSE) AIRTIGHT WITH UNITED MCGILL "UNI-GRIP" UL LISTED, WATER BASED, NON-HARDENING, ELASTIC SEALANT OR EQUIVALENT. TAPE NOT ALLOWED.
40. ALL DUCTWORK DIMENSIONS ARE OUTSIDE SHEET METAL DIMENSIONS. DUCT LINER HAS BEEN ACCOUNTED FOR WITHIN RECTANGULAR DUCTWORK.
41. DUCTWORK NOTES:
- A. UNLESS OTHERWISE NOTED, ALL CHANGES IN DIRECTION SHALL BE MADE WITH RADIUS ELBOWS WITH RADIUS TO CENTERLINE EQUAL TO 1.5 DUCT WIDTH.
- 1) WHERE REQUIRED FOR SPACE CONSTRAINTS, PROVIDE SQUARE THROAT ELBOWS WITH SINGLE WIDTH (NON-AIRFOIL) TURNING VANES.
- 2) FOR DUCT DEPTHS OF 36" OR LESS, PROVIDE MANUFACTURED SINGLE WIDTH (NON-AIRFOIL) TURNING VANES, WITH SPACING IN ACCORDANCE WITH SMACNA DUCT CONSTRUCTION STANDARDS FOR "STANDARD SPACING". USE DOUBLE THICKNESS BLADES FOR DUCT DEPTHS GREATER THAN 36". USE NO TRAILING EDGES.
- B. ALL FLEXIBLE DUCTS SHALL NOT EXCEED EIGHT FEET IN LENGTH.
- C. EXTERIOR DUCTWORK: PROVIDE EXTERIOR DUCTWORK TO THESE SPECIFICATIONS WHERE EXPOSED TO WEATHER:
- 1) DUCTWORK SUPPORT MATERIALS: EXCEPT AS OTHERWISE INDICATED, PROVIDE GALVANIZED STEEL FASTENERS, ANCHORS, RODS, STRAPS, TRIM AND ANGLES FOR SUPPORT OF DUCTWORK. PROVIDE EQUIPMENT SUPPORT RAIL TYPE OR EQUIVALENT ROOF SYSTEM COMPATIBLE WEATHERPROOF INTERFACE AT ALL ROOF SUPPORTS.
- 2) DUCT SEALING SYSTEM: EQUIVALENT TO UNITED MCGILL "UNI-WEATHER" UL LISTED OUTDOOR SEALANT. FIRE RATING: UL LISTED. CONTRACTOR MAY PROPOSE ALTERNATE SEALING SYSTEMS. "DUCTMATE" AND SIMILAR FLANGED JOINING SYSTEMS ARE ACCEPTABLE IF AN ADDITIONAL BEAD OF SILICONE BASED OUTDOOR SEALANT IS APPLIED ALL AROUND EACH JOINT, AND THE TOP FLANGE IS PROTECTED BY A SHEET METAL SHIELD.
- 3) CONSTRUCT AND SEAL DUCTS TO 3" STATIC PRESSURE STANDARDS.
42. DUCTWORK SPECIALTIES
- A. VOLUME AND SPLITTER DAMPERS: GALVANIZED SHEET METAL WITH VENTFABRICS, INC., VENTLOCK OR EQUAL OPERATING HARDWARE, FOR ACCESSIBLE DAMPERS, PROVIDE NO. 620, 635 OR 637 DIAL REGULATORS, NO. 635 OR 637 SQUARE END BEARING, AND NO. 635 SPRING END BEARING, AS APPLICABLE. FOR INACCESSIBLE DAMPERS, PROVIDE NO. 666 CONCEALED DAMPER REGULATOR, WITH PAINTED COVER (COLOR BY ARCHITECT) AND BEARINGS AS ABOVE. FOR MEDIUM PRESSURE DUCTS, PROVIDE NO. 635 HIVE DIAL REGULATOR AND NO. 609 HIVE END BEARING FOR ACCESSIBLE DAMPERS.
- B. MULTI-LOUVER VOLUME DAMPERS: TITUS AG-35-B OPPOSED BLADE, ANEMOSTAT OR EQUAL. SEE DETAIL REGARDING REMOTE ACCESS TO VOLUME DAMPERS.
- C. TURNING VANES FOR LOW PRESSURE DUCTS: SMACNA SMALL DOUBLE VANE, PLATE NO. 22B OR EQUAL, WITH AIRFOIL BLADES FOR DUCTS 36" OR LESS IN WIDTH; SMACNA FIG. 3-23 FOR DUCTS GREATER THAN 36" WIDE. FOR MEDIUM PRESSURE DUCTS: SMACNA FIG. 3-23.
- D. ACCESS PANELS:
- 1) REINFORCED, GALVANIZED SHEET METAL WITH AIRTIGHT GASKETS RATED FOR PRESSURES AND SERVICE INTENDED. MILCOR OR EQUAL, PROVIDE HINGES AND VENTFABRICS, INC. VENTLOCK LATCHES.
- 2) DUCT ACCESS PANELS FOR HAND ENTRY ONLY: NO. 90 SASH TYPE LATCH. MINIMUM SIZE: 18" X 18".
- 3) DUCT AND PLENUM ACCESS DOORS FOR BODY ENTRY: NO. 310 LATCH, OPERABLE FROM BOTH SIDES OF DOOR. MINIMUM SIZE: 18" X 18".
- 4) REFERENCE OTHER SECTIONS FOR CEILING WALL ACCESS PANELS.
- E. BACKDRAFT DAMPERS: PROVIDE COUNTER WEIGHT TYPE BACKDRAFT DAMPERS IN ALL DUCTS OPENING TO THE OUTSIDE RUSKIN MODEL CBS-7 OR APPROVED EQUAL.
43. SUPPORT PIPE WITH ROD AND CLEVIS RING HANGERS, TRAPEZE, OR CLAMPS. NO PIPE TAPE OR STRAPPING ALLOWED. ALL HANGERS SHALL BE SIZED FOR OD OF INSULATION, IF ANY. PROTECT INSULATED LINES WITH 20 GA SHEET METAL SHIELDS AND PROVIDE CALCIUM SILICATE INSULATION INSERTS FOR ALL INSULATED PIPING. MAINTAIN VAPOR BARRIER ON ALL COLD LINES. ISOLATE BARE COPPER LINES FROM HANGERS WITH VIBRASORB OR EQUIVALENT, COPPER COATED HANGERS ARE NOT SUFFICIENT, WRAPPING PIPE WITH TAPE NOT ACCEPTABLE.
44. NEW COLD WATER BRANCHES TO BE ROUTED FROM NEAREST COLD WATER OF LINE SIZE EQUAL TO OR GREATER THAN NEW BRANCH—TYPICAL.
45. REFER TO PLUMBING FIXTURE CONNECTIONS SCHEDULE FOR PIPE SIZES TO INDIVIDUAL PLUMBING FIXTURES.
46. PROVIDE SHOCK ARRESTERS AT ALL DOMESTIC HOT AND COLD WATER BRANCHES SERVING FIXTURES AND EQUIPMENT WITH QUICK CLOSING VALVES. SUCH FIXTURES AND EQUIPMENT INCLUDES FLUSH VALVE, WATER CLOSETS, DISHWASHERS, ICE MAKER MACHINES, AND CLOTHES WASHERS. SHOCK ARRESTERS SHALL BE CONSTRUCTED WITH A PISTON IN A SEALED COPPER TUBE CHAMBER, AND APPROVED FOR INSTALLATION WITHIN WALLS WITHOUT ACCESS PANELS. SIOUX CHIEF OR EQUIVALENT. BELLOW'S TYPE NOT ACCEPTABLE.
47. DOMESTIC HOT AND COLD PIPING INSIDE BUILDING—BURIED LINES, TYPE "K" SOFT ANNEALED COPPER WATER TUBE, SINGLE LENGTH TO AVOID FITTINGS, (WROUGHT COPPER FITTINGS WHERE UNAVOIDABLE) AND 1100°F SOLDER. NON-BURIED LINES, TYPE "L" HARD COPPER WATER TUBE, WROUGHT COPPER FITTINGS AND NO LEAD 95-5 SOLDER.
48. COPPER PIPE VALVES AND SPECIALTIES
- A. GATE VALVES - BRONZE, CLASS 125, 200 LB. W.O.G.
- B. BALL VALVES - BRONZE, CLASS 125, 600 LB. W.O.G.
- C. CHECK VALVES - BRONZE, CLASS 125, 200 LB. W.O.G.
- D. BALANCING VALVES - 125 PSI W.P. FOR 250 DEGREE FAHRENHEIT SERVICE TIGHT SHUTOFF, TOUR AND ANDERSON STA, ARMSTRONG CBV, GERAND, OR FLOWSET, B&G CIRCUIT SETTER.
- E. DIRECT UNIONS: FURNISH AND INSTALL A DIELECTRIC UNION AT EACH CONNECTION BETWEEN DISSIMILAR METALS.
49. MATERIALS: SOIL, WASTE, AND VENT PIPING (INSIDE BUILDING)
- A. LINES BURIED BELOW GROUND: STANDARD WEIGHT, CAST IRON SOIL PIPE, AND FITTINGS. HUB AND SPIGOT WITH NEOPRENE GASKETS.
- B. LINES BURIED BELOW GROUND: SCHEDULE 40 SOLID CORE PVC PIPE ACCORDING TO ASTM D 2665 DRAIN, WASTE AND VENT AND PVC SOCKET FITTINGS ACCORDING TO ASTM D 2665 AND ASTM D 3311 DWV PATTERNS AND TO FIT SCHEDULE 40 PIPE. ASSEMBLED WITH ASTM F 656 ADHESIVE PRIMER AND ASTM D 2564 SOLVENT CEMENT.
- C. LINES ABOVE GROUND: STANDARD WEIGHT, CAST IRON SOIL PIPE, AND FITTINGS. HUB AND SPIGOT WITH NEOPRENE GASKETS, OR NO HUB WITH STANDARD CLAMPS. UP THROUGH 2-1/2" MAY BE STANDARD WEIGHT, GALVANIZED STEEL PIPE WITH BLACK, WROUGHT IRON DRAIN FITTINGS, OR DWV COPPER TUBE WITH DWV FITTINGS AND 95-5 NO LEAD SOLDER.
- D. PRESSURIZED WASTE: SCHEDULE 40 SOLID CORE PVC PIPE FOR PRESSURE APPLICATIONS ACCORDING TO ASTM D 2665 AND ASTM D 1785 AND PVC SOCKET FITTINGS ACCORDING TO ASTM D 2665 AND ASTM D 3311 DWV PATTERNS AND TO FIT SCHEDULE 40 PIPE. ASSEMBLED WITH ASTM F 656 ADHESIVE PRIMER AND ASTM D 2564 SOLVENT CEMENT. MINIMUM WORKING PRESSURE RATING SHALL BE 150 PSI AT 73 DEG F FOR NPS 6 AND SMALLER.
50. DRAIN AND RECEPTOR PIPING FOR COMBUSTION CONDENSATE—NOT BURIED—TYPE: SCHEDULE 40 SOLID-WALL PVC, PVC FITTINGS, AND LOW-VOC PVC CEMENT, BURIED—TYPE: SCHEDULE 90 SOLID-WALL PVC, PVC FITTINGS, AND LOW-VOC PVC CEMENT. ALL BURIED PIPE SHALL BE SURROUNDED WITH 4" OF CLEAN SAND, PROVIDE NEUTRALIZATION SYSTEMS AS RECOMMENDED BY COMBUSTION APPLIANCE MANUFACTURER.
51. DRAIN PAN PIPING, NOT BURIED, TYPE "M" COPPER, WROUGHT COPPER FITTINGS, AND 95-5 SOLDER, BURIED: TYPE "L" COPPER WROUGHT COPPER FITTINGS, AND 95-5 SOLDER. ALL BURIED PIPE SHALL BE SURROUNDED WITH 4" OF CLEAN SAND.
52. INDOOR PIPING INSULATION - INSULATE ALL NEW DOMESTIC WATER, DOMESTIC HOT WATER, DOMESTIC HOT WATER RECIRCULATION, AND HORIZONTAL STORM AND OVERFLOW PIPING WITH UL APPROVED, WHITE, ALL SERVICE, MINERAL FIBER, SNAP-ON, PIPE INSULATION. INSULATE FITTINGS WITH MINERAL FIBER BLANKET INSULATION AND PRE-MOLDED PVC COVERS. ALL MATERIALS SHALL HAVE A SMOKE DEVELOPED RATING OF 50 OR LESS AND A FLAME SPREAD RATING OF 25 OR LESS. PROVIDE CALCIUM SILICATE THERMAL INSERT AT HANGERS AND SUPPORTS. INSULATION SHALL PASS UNINTERRUPTED THROUGH HANGERS. VAPOR BARRIERS SHALL BE CONTINUOUS, AND SEALED WITH "NON-BREATHING" VAPOR BARRIER MASTIC ON PIPING OPERATING AT TEMPERATURES BELOW AMBIENT. ALL RAW EDGES OF INSULATION SHALL BE NEATLY TRIMMED AND SEALED WITH MASTIC.
- A. INSULATION THICKNESS BELOW BASED ON INSULATION CONDUCTIVITY VALUE NOT EXCEEDING 0.27 BTU·IN/(HR·FT²·°F):
- 1) DOMESTIC HOT WATER (DHW) AND DOMESTIC HOT WATER RECIRCULATION: ALL PIPE SIZES - 1" THICK; NON-RECIRCULATED DHW RUNOUTS WITHIN 8 FEET OF FIXTURES - 1/2" THICK.
- 2) DOMESTIC COLD WATER: ALL PIPE SIZES - 1/2" THICK.
53. IDENTIFICATION: LABEL ALL NEW PIPING AND EQUIPMENT. PROVIDE FULL BAND OR STRIP TYPE MARKERS AND FLOW ARROWS ON PIPING. PROVIDE ENGRAVED PLASTIC VALVE TAGS WITH VALVE NUMBER AND ATTACH WITH STANDARD CHAIN OR S-HOOKS. PROVIDE ENGRAVED PLASTIC SIGN ON OR NEAR SPECIFIED EQUIPMENT.
54. FIRE PROTECTION DESIGN/BUILD REQUIREMENTS:
- A. PROVIDE AN AUTOMATIC SPRINKLER SYSTEM TO BE MONITORED BY A CENTRAL STATION MONITORING ALARM COMPANY. COMPLETE DRAWINGS, SPECIFICATIONS, AND DETAILS SHALL BE SUBMITTED BY THE FIRE SPRINKLER DESIGN-BUILD CONTRACTOR.
- B. THE FIRE SPRINKLER CONTRACTOR SHALL SERVE AS THE ENGINEER OF RECORD FOR ALL WORK PERFORMED UNDER THIS DIVISION. IF REQUIRED BY THE AUTHORITY HAVING JURISDICTION, (AHJ) SUBMIT COMPLETE FIRE SPRINKLER SYSTEM SHOP DRAWINGS AND HYDRAULIC CALCULATIONS, GENERATED BY CONTRACTOR. SHOP DRAWINGS SHALL BE A MINIMUM 1/8" SCALE, AND SHALL SHOW DEVICE AND APPLIANCE LOCATIONS, BUILDING BACKGROUND INFORMATION, ROOM OCCUPANCY DESCRIPTIONS, DOOR SWINGS, FIRE RATINGS AND FIRE PROTECTION SYSTEM LAYOUT AND DETAILS. SHOP DRAWINGS AND HYDRAULIC CALCULATIONS SHALL BE SEALED BY A PROFESSIONAL ENGINEER OR NICET III LICENSED TECHNICIAN REGISTERED IN THE STATE OF COLORADO. SUBMIT SHOP DRAWINGS AND HYDRAULIC CALCULATIONS TO THE BUILDING AND FIRE DEPARTMENTS AS A DEFERRED SUBMITTAL AND OBTAIN THEIR APPROVAL BEFORE SUBMISSION TO THE ARCHITECT.
- C. WHERE REQUIRED BY THE AHJ, ALL NEW SPRINKLER HEADS SHOULD HAVE THE CONNECTING MAIN AND BRANCH PIPE SIZES SHOWN.
- 1) SHOW THE CONNECTING MAIN AND BRANCH PIPE SIZES FOR ALL NEW, RELOCATED AND EXISTING SPRINKLER HEADS.
- 2) CONFORM TO LIGHT HAZARD OCCUPANCY REQUIREMENTS OF NFPA 13.
- D. EXTEND THE EXISTING SPRINKLER SYSTEM, RELOCATE EXISTING AND ADD NEW SPRINKLER HEADS IN ACCORDANCE WITH NFPA 13, ALL APPLICABLE CODES AND ORDINANCES AND PROJECT REQUIREMENTS TO COMPLETE THE NEW WORK.
- E. SYSTEM SHALL BE INSTALLED COMPLETE AND OPERATIONAL, INCLUDING WATER FLOW INDICATOR, CONNECTIONS TO EXISTING ALARM, DRAIN PIPING, IDENTIFICATION SIGNS, ETC.
- F. WORK SHALL BE PERFORMED BY A QUALIFIED FIRE SPRINKLER INSTALLER WITH A MINIMUM OF FIVE (5) YEARS EXPERIENCE IN SIMILAR INSTALLATIONS.
- G. COORDINATE ALL WORK WITH ALL OTHER TRADES PRIOR TO AND DURING INSTALLATION.
55. ALL WATER CLOSETS SHALL BE 15" CLEAR MINIMUM FROM WALL TO CENTERLINE UNO. ALL WATER CLOSETS AT ACCESSIBLE STALLS SHALL BE 18" CLEAR MINIMUM FROM CENTERLINE.
56. LIGHT SWITCHES, ELECTRICAL OUTLETS, THERMOSTATS AND OTHER ENVIRONMENTAL CONTROLS SHALL HAVE OPERABLE PARTS OF CONTROLS LOCATED NO HIGHER THAN 48" AND NO LOWER THAN 15" ABOVE FINISHED FLOOR. THE REACH IS OVER AN OBSTRUCTION BETWEEN 20" AND 25" IN DEPTH. THE MAXIMUM HEIGHT IS REDUCED TO 44" OBSTRUCTIONS LOCATED BELOW A CONTROL SHALL NOT EXTEND MORE THAN 25" FROM THE WALL.
57. AN APPROVED KEY LOCK BOX(ES) SHALL BE PROVIDED AS DETERMINED BY THE TOWN OF FRISCO FIRE DEPARTMENT.
58. EMERGENCY WARNING SYSTEMS SHALL COMPLY WITH NFPA 72 AND SHALL PROVIDE VISUAL ALARMS IN RESTROOMS CORRIDORS, MULTI-PURPOSE ROOMS, LOBBIES AND ANY OTHER COMMON USE ROOMS PER IBC.



3003 Larimer Street
Denver, Colorado 80205
phone 303.861.5704
www.ozarch.com



FRISCO DAY LODGE RENOVATION
(ALTERNATE #1)
621 RECREATION WAY
FRISCO, CO 80443

PROJ. NO.
DRAWN: NRW
CHECKED: RSD
APPROVED: BDS
DATE: 2018-04-27

© OZ ARCHITECTURE

FRISCO DAY LODGE
RENOVATION
(ALTERNATE #1)
ISSUED FOR:
PERMIT SET

SHEET TITLE:
MECHANICAL
SPECIFICATIONS

SCALE:
SHEET NUMBER

M-200

COMcheck Software Version 4.0.8.1
Interior Lighting Compliance Certificate

Project Information
Energy Code: 90.1 (2010) Standard
Project Title: Frisco Restroom Addition
Project Type: Addition
Construction Site: 621 Recreation Way, Frisco, CO 80443
Owner/Agent: Town of Frisco Public Works Dept., 1 Main Street, Frisco, CO 80443
Designer/Contractor: OZ Architecture, 3003 Larimer Street, Denver, CO 80205

Area Category	B Floor Area (ft ²)	C Allowed Watts / ft ²	D Allowed Watts (B X C)
1-Restrooms (Common Space Types/Restrooms)	178	0.98	174
Total Allowed Watts = 174			

Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt. (C X D)	E Allowed Watts (B X C)
1-Restrooms (Common Space Types/Restrooms) Compact Fluorescent 1: S1: Surface Fixture: Type 4-pin 26W: Electronic:	2	2	52	104
Total Proposed Watts = 104				

Interior Lighting PASSES: Design 40% better than code
Compliance Statement: The proposed interior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed interior lighting systems have been designed to meet the 90.1 (2010) Standard requirements in COMcheck Version 4.0.8.1, and to comply with any applicable mandatory requirements listed in the Inspection Checklist.
FELIX RIAL - ELECTRICAL ENGINEER
Name - Title Signature Date 4/27/18

Project Title: Frisco Restroom Addition
Data filename: S:\BG\Projects\8827.04 Frisco Peninsula Recreation Area Day Lodge Expansion\Engineering\EnergyCalcs\Frisco Comcheck.cck
Report date: 04/26/18
Page 1 of 14

Section & Req ID	Mechanical Rough-In Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
6.4.3.1 (F115) (ME1) ¹	HVAC equipment efficiency verified. Non-NALC HVAC equipment labeled as meeting 90.1.	Efficiency: _____	Efficiency: _____	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	See the Mechanical Systems list for values.
6.4.3.2 (ME3) ¹	Stair and elevator shaft vents have hood test dampers that automatically close.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Exception: Requirement does not apply.
6.4.3.3 (ME4) ¹	Outdoor air and exhaust systems have motorized dampers that automatically shut when not in use and meet maximum leakage rates. Check gravity dampers where allowed.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Exception: Gravity dampers acceptable in systems with outside or exhaust air flow rates less than 300 cfm where dampers are interconnected with fan.
6.4.3.5 (ME3) ¹	Enclosed parking garage ventilation has automatic demand detection and capacity to stage or modulate fans to 50% or less of design capacity.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Exception: Requirement does not apply.
6.4.3.4 (ME3) ¹	Ventilation fans >0.75 hp have automatic controls to shut off fan when not required.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
6.4.3.9 (ME6) ¹	Demand control ventilation provided for spaces >500 ft ² and >40 proposed 1000 ft ² occupant density and served for systems with air side economizer, auto modulating outside air damper control, or design airflow >3,000 cfm.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Exception: Spaces where the supply airflow rate minus any makeup or makeup density and/or requirement is less than 1200 cfm.
6.4.3.10 (ME40) ¹	Single zone HVAC systems with fan motors >=3 hp have variable airflow controls. Air conditioning equipment with a cooling capacity >=110,000 Btu/h has variable airflow controls.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Exception: Requirement does not apply.
6.4.4.1 (ME7) ¹	Insulation exposed to weather protected from damage. Insulation outside of the conditioned space and associated with cooling systems is vapor retardant.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
6.4.4.2 (ME8) ¹	HVAC ducts and plenums insulated. Where ducts or plenums are installed in or under a slab, verification may need to occur during Foundation Inspection.	R: _____	R: _____	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
6.4.4.3 (ME9) ¹	HVAC piping insulation thickness. Where piping is installed in or under a slab, verification may need to occur during Foundation Inspection.	in.	in.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Exception: null.
6.4.4.4 (ME1) ¹	Thermally ineffective panel surfaces of sensible heating panels have insulation >= R-3.5.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Exception: Requirement does not apply.

1 | High Impact (Tier 1) | 2 | Medium Impact (Tier 2) | 3 | Low Impact (Tier 3)
Project Title: Frisco Restroom Addition
Data filename: S:\BG\Projects\8827.04 Frisco Peninsula Recreation Area Day Lodge Expansion\Engineering\EnergyCalcs\Frisco Comcheck.cck
Report date: 04/26/18
Page 7 of 14

COMcheck Software Version 4.0.8.1
Exterior Lighting Compliance Certificate

Project Information
Energy Code: 90.1 (2010) Standard
Project Title: Frisco Restroom Addition
Project Type: Addition
Exterior Lighting Zone: 1 (Developed area in national or state park)
Construction Site: 621 Recreation Way, Frisco, CO 80443
Owner/Agent: Town of Frisco Public Works Dept., 1 Main Street, Frisco, CO 80443
Designer/Contractor: OZ Architecture, 3003 Larimer Street, Denver, CO 80205

Area/Surface Category	B Quantity	C Allowed Watts / Unit	D Tradable Wattage	E Allowed Watts (B X C)
Restroom Entry (Entry canopy)	282	0.25	Yes	0
Total Tradable Watts (d) = 0				
Total Allowed Supplemental Watts (e) = 500				

(a) Wattage tradeoffs are only allowed between tradable areas/surfaces.
(b) A supplemental allowance equal to 500 watts may be applied toward compliance of both non-tradable and tradable areas/surfaces.

Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt. (C X D)	E Allowed Watts (B X C)
Restroom Entry (Entry canopy) LED 1: W1: Wall Sconce: Other	1	3	10	30
Total Tradable Proposed Watts = 30				

Exterior Lighting PASSES: Design 94% better than code
Compliance Statement: The proposed exterior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed exterior lighting systems have been designed to meet the 90.1 (2010) Standard requirements in COMcheck Version 4.0.8.1, and to comply with any applicable mandatory requirements listed in the Inspection Checklist.
FELIX RIAL - ELECTRICAL ENGINEER
Name - Title Signature Date 4/27/18

Project Title: Frisco Restroom Addition
Data filename: S:\BG\Projects\8827.04 Frisco Peninsula Recreation Area Day Lodge Expansion\Engineering\EnergyCalcs\Frisco Comcheck.cck
Report date: 04/26/18
Page 2 of 14

Section & Req ID	Mechanical Rough-In Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
6.4.4.1 (EL10) ¹	Ducts and plenums sealed based on static pressure and location.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
6.4.4.2 (EL11) ¹	Ductwork operating >3 in. water column requires air leakage testing.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Exception: Requirement does not apply.
6.5.2.3 (ME19) ¹	Dehumidification controls provided to prevent reheating, recirculating, mixing of hot and cold airstreams or concurrent heating and cooling of the same airstream.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Exception: Cooling capacity 40 kBtu/h.
6.5.2.9 (ME42) ¹	Multiple zone VAV systems with DDC of individual zone boxes have static pressure setpoint reset controls.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Exception: Requirement does not apply.
6.5.4.1 (ME25) ¹	HVAC pumping systems >10 hp designed for variable fluid flow.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
6.5.6.1 (ME56) ¹	Exhaust air energy recovery on systems meeting Table 6.5.6.1.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Exception: Requirement does not apply.
6.5.7.3.1 (WE32) ¹	Kitchen hoods >5,000 cfm have make up air >=30% of exhaust air volume.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Exception: Requirement does not apply.
6.5.7.3.2 (ME40) ¹	Conditioned supply air to space with a kitchen hood shall not exceed the greater of (a) supply flow required to meet space heating or cooling, or (b) hood exhaust flow minus the available air transfer from available spaces.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Exception: Requirement does not apply.
6.5.7.1.5 (ME49) ¹	Approved field test used to evaluate design air flow rates and demonstrate proper capture and containment of kitchen exhaust systems.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Exception: Requirement does not apply.
6.5.7.2 (WE33) ¹	Fume hoods exhaust systems >=15,000 cfm have VAV hood exhaust and supply systems, direct make-up air or heat recovery.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Exception: Requirement does not apply.
6.5.8.1 (WE46) ¹	Unenclosed spaces that are heated use only radiant heat.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Exception: Requirement does not apply.

Additional Comments/Assumptions:
1 | High Impact (Tier 1) | 2 | Medium Impact (Tier 2) | 3 | Low Impact (Tier 3)
Project Title: Frisco Restroom Addition
Data filename: S:\BG\Projects\8827.04 Frisco Peninsula Recreation Area Day Lodge Expansion\Engineering\EnergyCalcs\Frisco Comcheck.cck
Report date: 04/26/18
Page 8 of 14

COMcheck Software Version 4.0.8.1
Mechanical Compliance Certificate

Project Information
Energy Code: 90.1 (2010) Standard
Project Title: Frisco Restroom Addition
Location: Frisco, Colorado
Climate Zone: 7
Project Type: Addition
Construction Site: 621 Recreation Way, Frisco, CO 80443
Owner/Agent: Town of Frisco Public Works Dept., 1 Main Street, Frisco, CO 80443
Designer/Contractor: OZ Architecture, 3003 Larimer Street, Denver, CO 80205

Mechanical Systems List
Quantity System Type & Description
1 HVAC System 1 (Single Zone): Heating: 1 each - Other: Electric: Capacity = 2 MBtu/h
No minimum efficiency requirement applies
Fan System: FAN SYSTEM 1 | NEW RESTROOMS - Compliance (Motor nameplate HP method) - Passes
Fan: FAN 1 Supply, Constant Volume, 90 CFM, 0.1 motor nameplate hp
FAN 2 Exhaust, Constant Volume, 50 CFM, 0.1 motor nameplate hp
FAN 3 Exhaust, Constant Volume, 50 CFM, 0.1 motor nameplate hp

Mechanical Compliance Statement
Compliance Statement: The proposed mechanical design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed mechanical systems have been designed to meet the 90.1 (2010) Standard requirements in COMcheck Version 4.0.8.1, and to comply with any applicable mandatory requirements listed in the Inspection Checklist.
BRIAN STANLEY - MECHANICAL ENGINEER
Name - Title Signature Date 4/26/18

Project Title: Frisco Restroom Addition
Data filename: S:\BG\Projects\8827.04 Frisco Peninsula Recreation Area Day Lodge Expansion\Engineering\EnergyCalcs\Frisco Comcheck.cck
Report date: 04/26/18
Page 3 of 14

Section & Req ID	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
6.4.2 (EL10) ¹	At least 50% of all 120 volt 15- and 20-amp receptacles are controlled by an automatic control device.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Exception: Space type is not private office, open office, or computer classroom.
9.4.1.1 (EL1) ¹	Automatic controls to shut off all building lighting.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
9.4.1.2 (EL2) ¹	Independent lighting controls installed per approved lighting plans and all manual controls readily accessible and visible to occupants.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
9.4.1.3 (EL11) ¹	Parking garage lighting is equipped with required lighting controls and daylight transition zone lighting.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
9.4.1.4 (EL12) ¹	Primary side-lighted areas >=250 ft ² are equipped with required lighting controls.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
9.4.1.5 (EL13) ¹	Enclosed spaces with daylight area under skylights and rooftop monitors >800 ft ² are equipped with required lighting controls.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
9.4.1.7 (EL3) ¹	Automatic lighting controls for exterior lighting installed.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
9.4.1.6 (EL4) ¹	Separate lighting control devices for specific uses installed per approved lighting plans.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
9.4.2 (EL6) ¹	Exit signs do not exceed 5 watts per face.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
9.4.3 (EL7) ¹	Exterior grounds lighting over 100 W provides >= 10W input with motion sensor or future is exempt from scope of code or from external LPO.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
9.6.2 (EL8) ¹	Additional interior lighting power allowed for special functions per the approved lighting plans and is automatically controlled and separated from general lighting.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
10.4.1 (EL9) ¹	Electric motors meet requirements where applicable.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.

Additional Comments/Assumptions:
1 | High Impact (Tier 1) | 2 | Medium Impact (Tier 2) | 3 | Low Impact (Tier 3)
Project Title: Frisco Restroom Addition
Data filename: S:\BG\Projects\8827.04 Frisco Peninsula Recreation Area Day Lodge Expansion\Engineering\EnergyCalcs\Frisco Comcheck.cck
Report date: 04/26/18
Page 10 of 14

COMcheck Software Version 4.0.8.1
Inspection Checklist

Energy Code: 90.1 (2010) Standard
Requirements: 80.0% were addressed directly in the COMcheck software
Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

Section & Req ID	Plan Review	Complies?	Comments/Assumptions
4.2.2.6.4 (F115) (PR1) ¹	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the mechanical systems and equipment and document where exceptions to the standard are claimed. Load calculations per acceptable engineering standards and handbooks.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
4.2.2.8.4 (F115) (PR1) ¹	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the interior lighting and electrical systems and equipment and document where exceptions to the standard are claimed. Information provided should include exterior lighting power calculations, wattage of bulbs and ballasts, transformers and control devices.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
4.2.2.9.4 (F115) (PR1) ¹	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the interior lighting and electrical systems and equipment and document where exceptions to the standard are claimed. Information provided should include exterior lighting power calculations, wattage of bulbs and ballasts, transformers and control devices.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
6.7.2.4 (PR1) ¹	Detailed instructions for HVAC systems commissioning included on the plans or specifications for projects >=50,000 ft ² .	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Exception: Requirement does not apply.

Additional Comments/Assumptions:
1 | High Impact (Tier 1) | 2 | Medium Impact (Tier 2) | 3 | Low Impact (Tier 3)
Project Title: Frisco Restroom Addition
Data filename: S:\BG\Projects\8827.04 Frisco Peninsula Recreation Area Day Lodge Expansion\Engineering\EnergyCalcs\Frisco Comcheck.cck
Report date: 04/26/18
Page 4 of 14

Section & Req ID	Final Inspection	Complies?	Comments/Assumptions
6.4.3.1.2 (F115) (PR1) ¹	Thermostatic controls have a 5 °F deadband.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
6.4.3.2 (F120) ¹	Temperature controls have setpoint override restrictions.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
6.4.3.3 (F121) ¹	HVAC systems equipped with at least one automatic shutdown control.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
6.4.3.3.2 (F122) ¹	Setback controls allow automatic reset and temporary operation as required for maintenance.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
6.4.3.7 (F16) ¹	When humidification and dehumidification are provided to a zone, simultaneous operation is prohibited.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
6.7.2.1 (F11) ¹	Furnished HVAC as-built drawings submitted within 90 days of system acceptance.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
6.7.2.2 (F18) ¹	Furnished O&M manuals for HVAC systems within 90 days of system acceptance.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
6.7.2.3 (F19) ¹	An air and/or hydronic system balancing report is provided for HVAC systems serving zones >3,000 ft ² of conditioned area.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Exception: Requirement does not apply.
6.7.2.4 (F10) ¹	HVAC control systems have been tested to ensure proper operation, calibration and adjustment of controls.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
8.7.1 (F16) ¹	Furnished as-built drawings for electric power systems within 30 days of system acceptance.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
8.7.2 (F17) ¹	Furnished O&M instructions for systems and equipment to the building owner or designated representative.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
9.2.2.3 (F18) ¹	Interior installed lamp and fixture lighting power is consistent with what is shown on the approved lighting plans, demonstrating proposed watts are less than or equal to allowed watts.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	See the Interior Lighting fixture schedule for values.

1 | High Impact (Tier 1) | 2 | Medium Impact (Tier 2) | 3 | Low Impact (Tier 3)
Project Title: Frisco Restroom Addition
Data filename: S:\BG\Projects\8827.04 Frisco Peninsula Recreation Area Day Lodge Expansion\Engineering\EnergyCalcs\Frisco Comcheck.cck
Report date: 04/26/18
Page 12 of 14

Section & Req ID	Footings / Foundation Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
6.4.3.9 (F09) ¹	Freeze protection and snow/ice melting system sensors for future connection to controls.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Exception: Requirement does not apply.

Additional Comments/Assumptions:
1 | High Impact (Tier 1) | 2 | Medium Impact (Tier 2) | 3 | Low Impact (Tier 3)
Project Title: Frisco Restroom Addition
Data filename: S:\BG\Projects\8827.04 Frisco Peninsula Recreation Area Day Lodge Expansion\Engineering\EnergyCalcs\Frisco Comcheck.cck
Report date: 04/26/18
Page 6 of 14

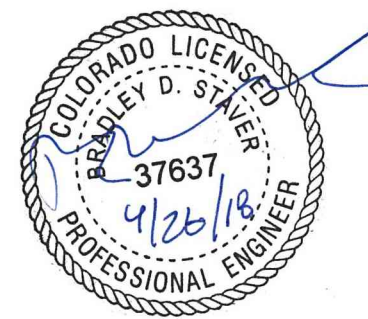
Section & Req ID	Final Inspection	Complies?	Comments/Assumptions
10.4.3 (F124) ¹	Exterior lighting power is consistent with what is shown on the approved lighting plans, demonstrating proposed watts are less than or equal to allowed watts.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	See the Exterior Lighting fixture schedule for values.
10.4.3 (F124) ¹	Elevators are designed with the proper lighting, ventilation power, and standby mode.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Exception: Requirement does not apply.

Additional Comments/Assumptions:
1 | High Impact (Tier 1) | 2 | Medium Impact (Tier 2) | 3 | Low Impact (Tier 3)
Project Title: Frisco Restroom Addition
Data filename: S:\BG\Projects\8827.04 Frisco Peninsula Recreation Area Day Lodge Expansion\Engineering\EnergyCalcs\Frisco Comcheck.cck
Report date: 04/26/18
Page 13 of 14

1 | High Impact (Tier 1) | 2 | Medium Impact (Tier 2) | 3 | Low Impact (Tier 3)
Project Title: Frisco Restroom Addition
Data filename: S:\BG\Projects\8827.04 Frisco Peninsula Recreation Area Day Lodge Expansion\Engineering\EnergyCalcs\Frisco Comcheck.cck
Report date: 04/26/18
Page 13 of 14



3003 Larimer Street
Denver, Colorado 80205
phone 303.861.5704
www.ozarch.com



FRISCO DAY LODGE RENOVATION
(ALTERNATE #1)
621 RECREATION WAY
FRISCO, CO 80443

PROJ. NO.
DRAWN: NRW
CHECKED: RSD
APPROVED: BDS
DATE: 2018-04-27

© OZ ARCHITECTURE

FRISCO DAY LODGE
RENOVATION
(ALTERNATE #1)
ISSUED FOR:
PERMIT SET

SHEET TITLE:
CODE COMPLIANCE
DOCUMENTS

SCALE: NOT TO SCALE
SHEET NUMBER

M-201

ELECTRICAL SYSTEMS LEGEND			NOTE: ALL SYMBOLS SHOWN ON LEGEND ARE NOT NECESSARILY USED.	
LIGHTING FIXTURE SYMBOLS		ABBREVIATIONS		
	RECESSED LIGHTING FIXTURE	AFC	ABOVE FINISHED CEILING	
	DIRECTIONAL/ADJUSTABLE RECESSED LIGHTING FIXTURE	AFF	ABOVE FINISHED FLOOR	
	SURFACE MOUNTED LIGHT	AFG	ABOVE FINISHED GRADE	
	PENDANT MOUNTED LIGHT	AHJ	AUTHORITY HAVING JURISDICTION	
	WALL MOUNTED LIGHT	AL	ALUMINUM	
	WALL MOUNTED UP-LIGHT	AP	ACCESS POINT	
	MONO-POINT LIGHTING FIXTURE	AWG	AMERICAN WIRE GAUGE	
	RECESSED STEP LIGHT	BAS	BUILDING AUTOMATION SYSTEM	
	FLUORESCENT STRIP LIGHT	BFG	BELOW FINISH GRADE	
	WALL MOUNTED LINEAR FLUORESCENT LIGHT	BMS	BUILDING MANAGEMENT SYSTEM	
	RECESSED OR SURFACE MOUNTED FLUORESCENT TROFFER	C	CONDUIT	
	FIXTURE WITH EMERGENCY BACKUP OR ON EM CIRCUIT	CATV	COMMUNITY (CABLE) ANTENNA TELEVISION SYSTEM	
	CEILING MOUNTED EXIT SIGN W/ FACES & ARROWS AS SHOWN	CCTV	CLOSED CIRCUIT TELEVISION	
	WALL MOUNTED EXIT SIGN W/ FACES & ARROWS AS SHOWN	CKT	CIRCUIT	
	EMERGENCY LIGHTS	CPU	CENTRAL PROCESSING UNIT	
	EXTERIOR POLE MOUNTED LIGHT	CT	CURRENT TRANSFORMER	
	EXTERIOR POST (BOLLARD) MOUNTED LIGHT	DISP	GARBAGE DISPOSAL	
LIGHTING CONTROL SYMBOLS		DW	DISHWASHER	
S	SWITCH	(E)	EXISTING	
S ³	THREE-WAY SWITCH	EM	EMERGENCY	
S ⁴	FOUR-WAY SWITCH	EWG	ELECTRIC WATER COOLER	
S ^J	DOOR JAMB SWITCH	FA	FIRE ALARM	
S ^K	KEY SWITCH	FACP	FIRE ALARM CONTROL PANEL	
S ^V	VARIABLE SPEED SWITCH	FBO	FURNISHED BY OTHERS	
S ^T	THERMAL OVERLOAD SWITCH	GC	GENERAL CONTRACTOR	
D	DIMMER	GFI	GROUND FAULT CIRCUIT INTERRUPTER	
D ³	THREE-WAY DIMMER	GRD	GROUND	
LV	LOW VOLTAGE SWITCH	IAW	IN ACCORDANCE WITH	
S ^O	WALL OCCUPANCY SENSOR/SWITCH	IC	INTERMEDIATE CROSS-CONNECT	
DS ⁺	OCCUPANCY SENSOR - WALL MOUNTED	IDF	INTERMEDIATE DISTRIBUTION FRAME	
DS ⁻	OCCUPANCY SENSOR - CEILING MOUNTED	IG	ISOLATED GROUND	
DS ^{>}	OCCUPANCY SENSOR - CORRIDOR CEILING MOUNTED	IR	INFRARED	
DL	DAYLIGHT PHOTO SENSOR	LAN	LOCAL AREA NETWORK	
POWER SYMBOLS		MDF	MAIN DISTRIBUTION FRAME	
	SINGLE RECEPTACLE	(N)	NEW	
	DUPLEX RECEPTACLE	NIC	NOT IN CONTRACT	
	DUPLEX RECEPTACLE MOUNTED ABOVE COUNTER	NL	NIGHT LIGHT	
	DOUBLE DUPLEX RECEPTACLE	NTS	NOT TO SCALE	
	GFCI DUPLEX RECEPTACLE	OC	ON CENTER	
	DUPLEX RECEPTACLE; HALF SWITCHED	PA	PUBLIC ADDRESS	
	ISOLATED GROUND DUPLEX RECEPTACLE	REF	REFRIGERATOR	
	MULTI-OUTLET PLUG STRIP	TTB	TELECOMMUNICATIONS TERMINAL BOARD	
	FLUSH FLOOR MOUNTED DUPLEX RECEPTACLE	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR	
	FLUSH FLOOR MOUNTED DOUBLE DUPLEX RECEPTACLE	TVTB	TELEVISION TERMINAL BOARD	
	FLUSH FLOOR MOUNTED DUPLEX RECEPTACLE; HALF SWITCHED	UG	UNDERGROUND	
	FLUSH FLOOR MOUNTED DUPLEX RECEPTACLE AND TELECOM	UNO	UNLESS NOTED OTHERWISE	
	WALL MOUNTED SPECIAL OUTLET AS NOTED	V	VOLT	
	SPECIAL OUTLET AS NOTED	W	WATT	
	JUNCTION BOX	WAN	WIDE AREA NETWORK	
	WALL MOUNTED JUNCTION BOX	WAP	WIRELESS ACCESS POINT	
	FLOOR MOUNTED JUNCTION BOX	WLAN	WIRELESS LOCAL AREA NETWORK	
	DIVISION 15 EQUIPMENT POWER CONNECTION	WP	WEATHERPROOF	
	TIMER SWITCH	XP	EXPLOSIONPROOF	
	FUSED DISCONNECT	+18"	MOUNTING HEIGHT TO CENTERLINE OF DEVICE ABOVE FINISH FLOOR (VERIFY W/ ARCH ELEVATIONS)	
	NON FUSED DISCONNECT	NOTES:		
	MOTOR STARTER	- LIGHT LINEWEIGHT INDICATES EXISTING.		
	ENCLOSED CIRCUIT BREAKER	- HATCHED AREAS INDICATE DEMOLITION.		
	PULL BOX	- 'C' ADJACENT TO A DEVICE INDICATES MOUNTING ABOVE COUNTERTOP.		
	PUSH BUTTON			
	TIME CLOCK			
	PHOTO-CELL			
	TRANSFORMER			
	PANELBOARD OR LOADCENTER			
	CONTACTOR			
	ELECTRIC MOTOR			
	METER			
	THERMOSTAT			
	AUTOMATIC TRANSFER SWITCH			
	CIRCUIT HOMERUN			
	CONDUIT RUN			
	CONDUIT RUN BELOW GRADE			
	CONDUIT UP			
	CONDUIT DOWN			
S	SWITCH			
S ^T	THERMAL OVERLOAD SWITCH			
S ^V	VARIABLE SPEED SWITCH			
S ^K	KEY SWITCH			
ONE-LINE DIAGRAM SYMBOLS				
	DISCONNECT SWITCH			
	FUSE			
	CIRCUIT BREAKER			
	CURRENT TRANSFORMER			
	POTENTIAL TRANSFORMER			
	METER			
	VOLT-METER			
	AMP-METER			
	SURGE SUPPRESSION DEVICE			
	SELECTOR SWITCH			
	GROUND FAULT PROTECTION			
	SHUNT TRIP			
	NORMALLY OPEN CONTACT			
	NORMALLY CLOSED CONTACT			
	GROUND			
	COLD WATER GROUND CONNECTION			
	BUILDING STEEL GROUND CONNECTION			

ELECTRICAL SHEET INDEX					
		ISSUE LOG			
		100% DD - 04.03.18	PERMIT SET - 04.27.18		
#	TITLE				
E-000	ELECTRICAL COVER SHEET	✓	✓		
E-001	ELECTRICAL SCHEDULES	✓	✓		
E-101	ELECTRICAL DEMO AND NEW PLANS	✓	✓		
E-200	ELECTRICAL SPECIFICATIONS	✓	✓		
ISSUE LOG KEY:					
✓✓ ISSUED AS PART OF SET					
✓ NOT PART OF SET					
** ISSUED FOR INFORMATION ONLY					

GENERAL NOTES:

- THESE DRAWINGS ACCOMPANY THE PUBLISHED CONSTRUCTION DOCUMENT SPECIFICATION BOOK (PROJECT MANUAL).
- DO NOT SCALE DRAWINGS. VERIFY DIMENSIONS ON ARCHITECTURAL DRAWINGS AND IN FIELD PRIOR TO COMMENCEMENT OF WORK.
- VISIT SITE PRIOR TO BID AND VERIFY THAT CONDITIONS ARE AS INDICATED. CONTRACTOR SHALL INCLUDE IN HIS BID COSTS REQUIRED TO MAKE HIS WORK MEET EXISTING CONDITIONS.
- SYSTEM OUTAGES SHALL BE PERMITTED ONLY AT TIMES APPROVED BY OWNER – IN WRITING. WORK WHICH COULD RESULT IN AN ACCIDENTAL OUTAGE (BEYOND BRANCH CIRCUITS) SHALL BE PERFORMED WITH THE OWNER'S MAINTENANCE PERSONNEL ADVISED OF SUCH WORK.
- SERVICE SHALL BE MAINTAINED TO EXISTING AREAS DURING CONSTRUCTION. CONTRACTOR SHALL PROVIDE PORTABLE GENERATORS, CABLES, OUTLETS, ETC. AS REQUIRED TO MAINTAIN CONTINUITY OF SERVICE. PLACEMENT OF SUCH PORTABLE EQUIPMENT SHALL BE SUBJECT TO OWNER APPROVAL.
- REVIEW ARCHITECTURAL, MECHANICAL AND OTHER DRAWINGS PRIOR TO BID.
- WORK SHALL BE PERFORMED IN A WORKMANLIKE MANNER TO THE SATISFACTION OF THE ARCHITECT.
- WORK, MATERIALS, AND EQUIPMENT SHALL CONFORM TO THE LATEST EDITIONS OF LOCAL, STATE, AND NATIONAL CODES AND ORDINANCES.
- PROVIDE PERMITS AND INSPECTIONS REQUIRED.
- PROVIDE 1/4" SCALE LAYOUT DRAWINGS OF ROOMS WITH ELECTRICAL SWITCHBOARDS AND TRANSFORMERS WITH SHOP DRAWINGS SUBMITTAL. LAYOUTS SHALL SHOW LOCATIONS OF, AND SHALL BE COORDINATED WITH MECHANICAL EQUIPMENT. ALL EQUIPMENT SHALL BE DRAWN TO SCALE.
- CONTRACTOR'S FAILURE TO ORDER OR RELEASE ORDER FOR MATERIALS AND/OR EQUIPMENT WILL NOT BE ACCEPTED AS A REASON TO SUBSTITUTE ALTERNATE MATERIALS, EQUIPMENT, OR INSTALLATION METHODS.
- VERIFY EXACT LOCATIONS OF EXISTING AND NEW UNDERGROUND UTILITIES. PIPING AND RACEWAY SYSTEMS PRIOR TO TRENCHING. PROVIDE NECESSARY TRENCHING, BACKFILL, EXCAVATION, SUPPORTS, SERVICE FEEDERS (CONDUIT AND/OR WIRE), PULLBOXES, TRANSFORMER PADS, SAWCUTTING AND PATCHING, CONCRETE/PAVING, ETC. REQUIRED. BACKFILL TRENCHES TO 90 PERCENT COMPACTION AND PATCH TO MATCH EXISTING. CONTRACTOR SHALL OBTAIN AND VERIFY EXACT UTILITY COMPANY DRAWINGS AND REQUIREMENTS. ELECTRICAL CONTRACTOR IS TO SUBMIT A COMPLETE CONSTRUCTION DRAWING SET TO THE ELECTRICAL UTILITY COMPANY WITH-IN 10 DAYS OF AWARD OF CONTRACT. COORDINATE TIMELINE OF THEIR REVIEW, APPROVAL, CONSTRUCTION SCHEDULING AND INSTALLATION OF THE UTILITY TRANSFORMER WITH THE UTILITY COMPANY. NOTIFY OWNER OF ANY SCHEDULING CONFLICTS.
- EXISTING SYSTEMS AND CONDITIONS SHOWN ON DRAWINGS FOR EXISTING BUILDINGS ARE TO BE NOTED "FOR GUIDANCE ONLY". THE ELECTRICAL CONTRACTOR TO FIELD CHECK ALL EXISTING CONDITIONS PRIOR TO BIDDING AND TO INCLUDE IN HIS BID AN ALLOWANCE FOR REMOVAL AND/OR RELOCATION OF EXISTING CONDUITS, WIRES, DEVICES, FIXTURES, OR OTHER EQUIPMENT AS INDICATED ON THE PLANS OR AS REQUIRED TO COORDINATE AND ADAPT NEW AND EXISTING ELECTRICAL SYSTEM TO ALL OTHER WORK AS REQUIRED.
- PROVIDE ELECTRICAL DEMOLITION REQUIRED. REFER TO ARCHITECTURAL AND ELECTRICAL DEMOLITION DRAWINGS FOR LOCATION AND EXTENT OF DEMOLITION REQUIRED. CONTRACTOR SHALL VISIT SITE PRIOR TO BID TO DETERMINE EXTENT OF WORK INVOLVED.
- PROVIDE ALL NECESSARY DEMOLITION TO REMOVE EXISTING UNUSED CONDUIT, WIRE, CABLE, J-BOXES, RECEPTACLES, SWITCHES, LIGHTS, FIRE ALARMS DEVICES, ETC. COMPLETE WITH ASSOCIATED CIRCUITING TO SOURCE, WHERE IT IS NOT FEASIBLE TO REMOVE THE ABOVE, OUTLET SHALL BE ABANDONED, WIRE REMOVED, AND BLANK COVER PLATES PROVIDED.
- ALL (E) EQUIPMENT, LAMPS, BALLASTS, ETC. BEING REMOVED SHALL BE DISCARDED IN ACCORDANCE WITH APPLICABLE EPA REQUIREMENTS.
- EXISTING LIGHT FIXTURES, ELECTRICAL EQUIPMENT, ETC. BEING REMOVED SHALL BE RETURNED TO THE OWNER, EXCEPT FOR THOSE ITEMS BEING RELOCATED.
- VERIFY EXACT LOCATION OF EQUIPMENT TO BE FURNISHED BY OTHERS PRIOR TO ROUGH-IN.
- INSTALL ALL MATERIALS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. ANY DEVIATIONS SHALL BE BROUGHT TO THE ARCHITECT/ENGINEER'S ATTENTION PRIOR TO INSTALLATION.
- FINAL CONNECTIONS TO EQUIPMENT SHALL BE IN ACCORDANCE WITH MANUFACTURER'S APPROVED WIRING DIAGRAMS, DETAILS, AND INSTRUCTIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE MATERIALS AND EQUIPMENT COMPATIBLE WITH EQUIPMENT ACTUALLY SUPPLIED.
- CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING EQUIPMENT WHICH IS DAMAGED DUE TO INCORRECT FIELD WIRING PROVIDED UNDER THIS SECTION, OR FACTORY WIRING IN EQUIPMENT PROVIDED UNDER THIS SECTION.
- ALL ELECTRICAL SYSTEMS COMPONENTS SHALL BE LISTED OR LABELED BY U.L. OR OTHER RECOGNIZED TESTING FACILITY.
- WIRING DEVICES SHALL BE SPECIFICATION GRADE AND RATED AT 20 AMPERES FOR LIGHT SWITCHES, AND 20 AMPERES FOR DUPLEX RECEPTACLES. THE COLOR OF THE DEVICES AND COVER PLATES SHALL BE AS DIRECTED BY ARCHITECT.
- ALL WIRING SHALL BE INSTALLED IN LISTED METALLIC RACEWAYS. EMT FITTINGS SHALL BE MALLEABLE IRON OR STEEL. CONNECTORS SHALL BE INSULATED THROAT TYPE. MINIMUM CONDUIT SIZE IS 3/4". FOLLOW NEC FOR MAXIMUM NUMBER OF CONDUCTORS PER CONDUIT. CONDUIT SHALL BE OF SUFFICIENT SIZE AND CONDUCTOR QUANTITY SHALL BE LIMITED TO ELIMINATE THE NEED TO DE-RATE CONDUCTORS. METAL CLAD CABLE IS [NOT] PERMITTED.
- ALL EMPTY RACEWAY SYSTEMS SHALL HAVE A 200LB NYLON PULL STRING OR EQUAL, AND SHALL BE IDENTIFIED AT ALL JUNCTION, PULL AND TERMINATION POINTS. USING PERMANENT METALLIC TAGS. TAG SHALL INDICATE INTENDED USE OF CONDUIT, ORIGINATION, AND TERMINATION POINTS OF EACH INDIVIDUAL CONDUIT.
- WIRE SHALL BE COPPER, 75 DEGREE CELSIUS RATED FOR GENERAL USE. WIRING WITHIN 3 INCHES OF FLUORESCENT BALLASTS WIRE SHALL BE COPPER, MINIMUM 90 DEGREE CELSIUS RATED. SIZES INDICATED ARE FOR INSTALLATION IN A MAXIMUM 30 DEGREE CELSIUS AMBIENT. CONDUCTOR AMPACITY SHALL BE DERATED FOR HIGHER AMBIENT INSTALLATIONS.
- PROVIDE NEW UPDATED PANELBOARD DIRECTORIES FOR EXISTING AND NEW CIRCUITS BEING UTILIZED FOR COMPLETION OF PROJECT.
- PANEL DIRECTORIES SHALL BE REMOVABLE. ROOM NAMES AND NUMBERS SHALL BE AS DIRECTED BY OWNER. DIRECTORIES SHALL BE TYPED AND INSTALLED UNDER CLEAR PLASTIC COVERS.
- FINAL CONNECTIONS TO MOTORS, TRANSFORMERS, AND OTHER VIBRATING EQUIPMENT SHALL BE SEAL TITE FLEX AND APPROVED FITTINGS. DO NOT SECURE CONDUITS, DISCONNECTS, OR DEVICES TO DUCTWORK OR MECHANICAL EQUIPMENT.
- FIRE ALARM, SOUND, TELEPHONE, COMPUTER AND SIMILAR SYSTEMS CONDUITS LARGER THAN 1" SHALL HAVE LONG RADIUS SWEEPS (12 TIMES THE DIAMETER).
- SYSTEMS SHALL BE TESTED FOR PROPER OPERATION. IF TESTS SHOW THAT WORK IS DEFECTIVE, CONTRACTOR SHALL MAKE CORRECTIONS NECESSARY AT NO COST TO OWNER.
- GARANTEE THE INSTALLATION AGAINST DEFECTS IN MATERIALS AND WORKMANSHIP WHICH MAY OCCUR UNDER NORMAL USAGE FOR A PERIOD OF ONE YEAR AFTER OWNER'S ACCEPTANCE. DEFECTS SHALL BE PROMPTLY REMEDIED WITHOUT COST TO THE OWNER.
- SYSTEMS SHALL BE COMPLETE, OPERABLE, AND READY FOR CONTINUOUS OPERATION. LIGHTS, SWITCHES, RECEPTACLES, MOTORS, ETC. SHALL BE CONNECTED AND OPERABLE.



3003 Larimer Street
Denver, Colorado 80205
phone 303.861.5704
www.ozarch.com



FRISCO DAY LODGE RENOVATION
(ALTERNATE #1)
621 RECREATION WAY
FRISCO, CO 80443

PROJ. NO.

DRAWN: EMR

CHECKED: BGR

APPROVED: BGR

DATE: 2018-04-27

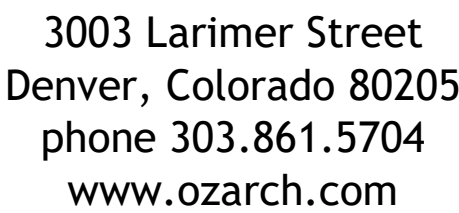
© OZ ARCHITECTURE

FRISCO DAY LODGE
RENOVATION
(ALTERNATE #1)
ISSUED FOR:
PERMIT SET

SHEET TITLE:
ELECTRICAL COVER
SHEET

SCALE: NOT TO SCALE
SHEET NUMBER

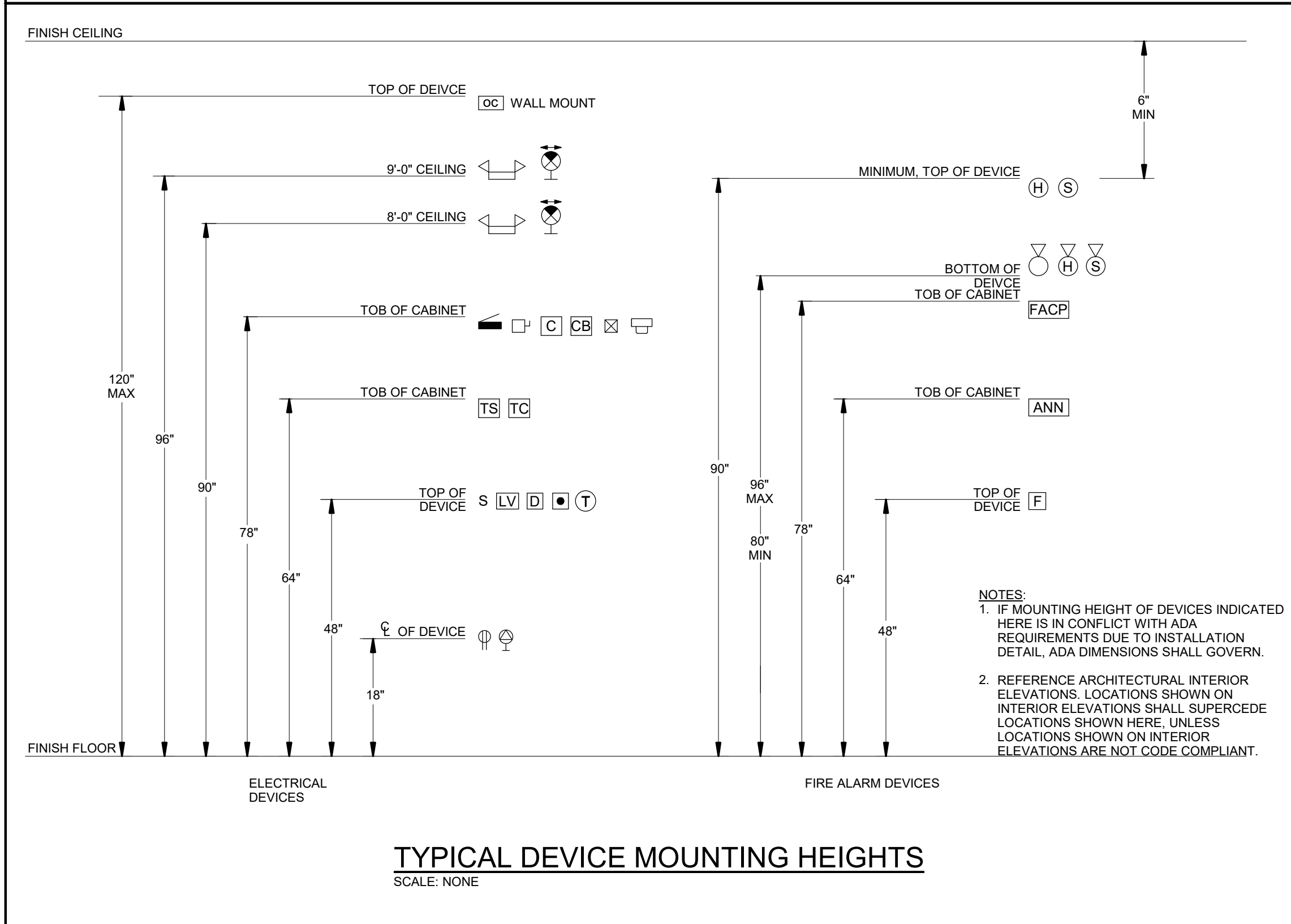
E-000



© OZ ARCHITECTURE

SHEET TITLE:
ELECTRICAL
SCHEDULES

E-001



MECHANICAL EQUIPMENT SCHEDULE									
MARK	DESCRIPTION	VOLT / PHASE	WATTS	FLA	MCA	MOCp	DISCONNECT/ FUSE SIZE	FEEDER	SPECIFIC NOTES
EF-1	EXHAUST FAN	120/1	75	1	1.0	20	20/1	(2#12 & 1#12 G) 3/4"	
SF-1	SUPPLY FAN	120/1	75	1	1.0	20	20/1	(2#12 & 1#12 G) 3/4"	
UH-2	UNIT HEATER	120/1	1000	8	10.4	20	20/1	(2#12 & 1#12 G) 3/4"	
UH-3	UNIT HEATER	120/1	1800	15	18.8	20	20/2	(2#12 & 1#12 G) 3/4"	
WH-2	WATER HEATER	208/1	8300	34	43.2	45	45/2	(2#6 & 1#10 G) 3/4"	
GENERAL NOTES:									
A. SEE SPECIFICATIONS FOR ELECTRICAL DIVISION AND MECHANICAL DIVISION MOTOR STARTER COORDINATION.									
B. PROVIDE PHASE PROTECTION FOR ALL THREE PHASE MOTORS ABOVE 7-1/2 HP.									
C. PROVIDE ALL EXTERIOR DISCONNECTS WITH NEMA 3R RATING.									
D. WHEN EQUIPMENT IS LISTED WITH ONLY A HORSEPOWER RATING THE DISCONNECT AND FEEDER ARE SIZED PER THE N.E.C.									

PANEL:				DL1				VOLTAGE:				120/208V, 3PH, 4W			
LOCATION:				ELEC. RM, 013				MINIMUM BUS:				225			
MOUNTING:				SURFACE				MAIN:				MLO			
								MINIMUM AIC:				22,957			

NO.	LOAD			TYPE	LOAD DESCRIPTION	BREAKER		BUS			BREAKER		TYPE	LOAD DESCRIPTION	LOAD			NO.
	A	B	C			POLE	TRIP	A	B	C	TRIP	POLE			A	B	C	
1	500			M	GF-1	1	20	+			20	1	L	EXIT SIGNS	1000			2
3		1800		M	B-1	1	20		+	+	20	1	R	STORAGE		900		4
5				M	P-1		2	20		+		20	1	R	DOWN OFFICES		900	6
7	790			M			2	20		+		20	1	R	HALL, ELEC. MECH	1080		8
9		790		M	P-2		2	20		+	+	20	1	L	BASEMENT		1512	10
11			790	M					+	+	20	1	L	BASEMENT, STAIRS			819	12
13	562			M	P-3		2	20		+	+	20	1	L	EXT. BUILDING (H) (2)	429		14
15		562		M					+	+	20	1	L	ROOF HOLIDAY LTG (1)		1500		16
17			562	M	P-4		2	20		+	+	20	1	L	ROOF HOLIDAY LTG (1)		1500	18
19	562			M					+	+	20	1	L	ROOF HOLIDAY LTG (1)	1500		20	
21		500		M	WH	1	20				20	1	L	ROOF HOLIDAY LTG (1)		1500	22	
23			500	E	CPU	1	20		+	+	20	1	R	EVENT POWER RECEPT.			180	24
25		1944		M	SP-1, SP-2 RCPST	1	30		+	+	20	1	L	PARKING LIGHTING(1)	469			26
27		745		M	CUH-4, UH-1	1	20		+	+	20	1	L	PARKING LIGHTING(1)		469		28
29					SPARE	1	20				20	1	L	ROAD LIGHTING(1)			624	30
31					SPARE	1	30		+	+	20	1	L	PLAZA LIGHTING(1)	896			32
33		1000		E	UH-2 (3)	1	20		+	+	20	1	L	ROAD LIGHTING(1)		1092		34
35			1800	E	UH-3 (3)	1	20				20	1	E	RP1			1000	36
37		500		L	STREET LIGHTS	1	20		+	+	30	1	A		1500			38
39			500	L	STREET LIGHTS	1	20		+	+	30	1	A	DISHWASHER		1500		40
41			500	E	TEK-MER CONTROLS	1	20			+		A				1500		42

LOAD TYPE	PANEL TOTAL	FEED THRU TOTAL	SUBFEED TOTAL	DEMAND	FEEDER TOTAL
(LJ) LIGHTING	14347		14347	125%	17934
(R) RECEPTACLES	3060		0	NEC 220	3060
(LM) LARGEST MOTOR			0	25%	0
(M) MOTORS (ALL)	10900		10900	100%	10900
(E) EQUIPMENT	4800		4800	100%	4800
(A) APPLIANCES	4500		4500	<=	2925
PANEL TOTAL (KVA):				39.6	
PANEL TOTAL (A):				110	

GENERAL NOTES:	
A	
B	
C	
D	
E	
SPECIFIC NOTES:	
(1)	WIRE THRU BCL
(2)	NEW LIGHTS ADDED TO CIRCUIT.
(3)	USE SPARE BREAKER FOR NEW CIRCUIT.
(4)	
(5)	

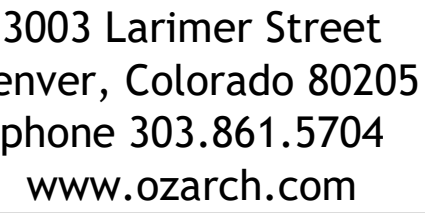
PANEL:		DL2		VOLTAGE:				120/208V, 3PH, 4W			
LOCATION:		ELEC. RM, 013		MINIMUM BUS:				225			
MOUNTING:		SURFACE		MAIN:				MLO			
				MINIMUM AIC:				21,589			

NO.	LOAD			TYPE	LOAD DESCRIPTION	BREAKER		BUS			BREAKER		TYPE	LOAD DESCRIPTION	LOAD			N
	A	B	C			POLE	TRIP	A	B	C	TRIP	POLE			A	B	C	
1	1000			A	EWG	1	20	+				20	1	L	EXIT SIGNS	1000		2
3		1000		A	EWG	1	20		+	+		20	1	R	ORIENTATION RM		1260	4
5			512	M	CUH-1, CUH-2, CUH-3	1	20				+	20	1	R	TICKET BOOTH			540
7	1500			E	FACP	1	20	+			+	20	1	R	GALLERY, JAN, KITCH	900		8
9		1200		A	AP-2	1	20		+	+		20	1	R	MEN'S RR		360	10
11		1200		A	AP-1	1	20			+	+	20	1	R	WOMEN'S RR (2)			824
13	1500			A	AP-4	1	20			+		20	1	R	N. GREAT ROOM	720		24
15				A	SPARE	1	20			+	+	20	1	R	S. GREATROOM		770	16
17			1000	A	AP-6	1	20		+		+	30	1	E	HAND DRYER (1)			2000
19	1500			A	AP-3	1	20	+			+	30	1	E	HAND DRYER (1)	2000		20
21		720		A	KITCH COUNTER	1	20		+	+		30	1	E	HAND DRYER (1)		2000	22
23			540	A	KITCH COUNTER	1	20			+	+	30	1	E	HAND DRYER (1)			2000
25		720		R	FIRST AID	1	20			+		20	1	R	EXTERIOR RECEPT	1260		26
27				A	SPARE	1	20			+	+	20	1	E	MOTORIZED DOOR		1000	28
29			1800	A	HOT CHOCOLATE	1	20			+	+	20	1	E	MOTORIZED DOOR			1000
31	3084			A	PANINI MAKER	2	30		+			20	1	E	MOTORIZED DOOR	1000		32
33		3084		A		2	30			+		20	1	E	MOTORIZED DOOR		1000	34
35			720	A	COUNTER COMPUTERS	1	20			+	+	20	1	E	IRRIGATION CONTROLS			1000
37	4150			E	WH-2 (4)	2	45		+			20	1	L	MAIN LEVEL	861		38
39		4150		E		2	45			+		20	1	L	LC1		1000	40
41			588	L	RR, JAN, TRASH (3)	1	20			+		20	1	L	LC1 - POWER BOOSTER			1900

LOAD TYPE	PANEL TOTAL	FEED THRU TOTAL	SUBFEED TOTAL	FEEDEE SUBTOTAL	DEMAND	FEEDEE TOTAL
(L) LIGHTING		6249		6249	125%	7811
(R) RECEPTACLES	7354			7354	NEC 220	7354
(LM) LARGEST MOTOR	0			0	25%	0
(M) MOTORS (ALL)	512			512	100%	512
(E) EQUIPMENT	22800			22800	100%	22800
(A) APPLIANCES	18348			18348	kVA	11928

PANEL TOTAL (KVA):	50.4
PANEL TOTAL (A):	140

GENERAL NOTES:	
A.	(1) COORDINATE & G. SIZE WITH MANUFACTURER.
B.	(2) NEW RECEPTACLES ADDED TO CIRCU



ROJ. NO.
RAWN: EMR
HECKED: BGR
PPROVED: BGR
ATE: 2018-04-27

OZ ARCHITECTURE

TRISCO DAY LODGE
RENOVATION
ALTERNATE #1)
ISSUED FOR:
PERMIT SET

SHEET TITLE:
ELECTRICAL DEMO
AND NEW PLANS

CALE: As indicated
HEET NUMBER

E-101

1. FIRE PROTECTION ELEMENTS SHOWN HEREIN ARE FOR COORDINATION PURPOSES ONLY. THE ENGINEERING SEAL AFFIXED TO ANY PART OF THIS DOCUMENT SET AND ANY RESPONSIBILITY OF ENGINEER OF RECORD EXPRESSLY EXCLUDES ANY AND ALL FIRE PROTECTION ELEMENTS SHOWN HEREIN.
2. FIRE PROTECTION PLANS WHICH ARE PART OF THIS DRAWING SET ARE EXPRESSLY NOT FOR CONSTRUCTION.
3. THE FIRE PROTECTION CONTRACTOR WHO IS THE WINNING BIDDER SHALL RETAIN THE SERVICES OF A REGISTERED PROFESSIONAL ENGINEER AND A LICENSED FIRE PROTECTION ENGINEER SHALL PERFORM ALL DESIGN CALCULATIONS, PROVIDE A COMPLETELY DESIGNED FIRE PROTECTION SYSTEM AND MAINTAIN RECORDS. THE ENGINEER SHALL BE THE ENGINEER OF RECORD FOR THE FIRE PROTECTION SYSTEM.
4. THE FIRE PROTECTION SYSTEM SHALL BE DESIGNED IN ACCORDANCE WITH NFPA, LOCAL CODES AND ORDINANCES, AND FACTORY MANUAL WHERE APPLICABLE.
5. REFER TO CIVIL AND LANDSCAPING DRAWINGS FOR SITE POWER REQUIREMENTS.

- 1 EXTERIOR LIGHTING TO BE CONTROLLED THROUGH EXISTING RELAY PANEL.
- 2 PROVIDE WATTSTOPPER LINE VOLTAGE DUAL TECHNOLOGY OCCUPANCY SENSOR (DT-355), LIGHT, EXHAUST FAN, AND SUPPLY FAN TO BE CONTROLLED BY OCCUPANCY SENSOR.
- 3 PROVIDE LEGRAND KEYPED LIGHT SWITCH FOR OVERRIDE OF OCCUPANCY SENSOR (SP20AC1).
- 4 WALL TO BE DEMOLISHED, ALL EXISTING CONDUIT TO BE RELOCATED TO MAINTAIN ALL EXISTING CIRCUIT CONTINUITY. VERIFY IN FIELD.
- 5 PROVIDE PATHWAY AND A JUNCTION BOX IN AN ACCESSIBLE LOCATION FOR ELECTRIC STRIKE DOOR LOCKS. PROVIDE 120V POWER CONNECTION FROM ELECTRICAL SERVICE TO DOOR CONTROLLER TIMER. COORDINATE TIMER LOCATION WITH OWNER PRIOR TO ROUGH-IN.
- 6 SUPPLY FAN TO BE POWERED ON BY EITHER RESTROOM OCCUPANCY SENSOR.

PROVIDE CONNECTION TO EXTENDED
GUTTER HEAT TAPE TO EXISTING SW
HEAT TAPE CIRCUIT AND CONTROLLER.

SECTION 28 00 10 - GENERAL PROVISIONS

PART 1 - GENERAL

1.01 PROJECT DESCRIPTION

- A. This project is an addition of exterior restrooms at the Day Lodge in Frisco, CO.

1.02 PROVISIONS

- A. Work performed under this division of the specifications shall conform to the requirements of Division 1, and the electrical drawings and all items hereinafter specified.
1. The drawings and specifications for the electrical work are intended to describe a complete electrical system; omission of minor items obviously necessary to accomplish the above intent shall not relieve the Contractor from providing same.
2. Prior to any work being performed under this division examine architectural, structural, mechanical, and interior design drawings and specifications and if any discrepancies occur between them and the electrical drawings and specifications, report same to the Architect in writing and obtain written instructions for the work.
3. Electrical drawings are diagrammatic but shall be followed as closely as actual construction of the building will permit. All changes from drawings necessary to make the electrical work conform to the building as constructed shall be made without cost to the Owner.
4. Coordinate the electrical work with the General Contractor and be responsible to him for satisfactory progress of same. Coordinate electrical work with all other trades on the project without cost to the Owner.
5. Do not scale drawings. Verify dimensions on architectural drawings and in field prior to commencement of work.
6. All work and materials covered by drawings and specifications shall be subject to review at any time by representatives of the Architect and Owner. If the Architect or Owner's agent finds any material or installation that does not conform to these drawings and specifications, Contractor shall remove the material from the premises and correct the installation to the satisfaction of the agent.
7. In acceptance or rejection of installed electrical systems, no allowance will be made for lack of skill on the part of the installers.
- 1.03 WORK INCLUDED
- A. The electrical system required for this work to include, but is not necessarily limited to:
1. Complete branch circuit wiring for lighting, motors, receptacles, junction boxes, and similar uses.
2. Lighting fixtures, wall switches, receptacles and similar items.
3. Lighting control system.
4. Fire alarm system as required by national, state, and local codes.
5. Power Owner furnished equipment.

1.04 CODES AND STANDARDS

- A. The applicable and enforced editions of the following Codes and published standards (including supplements and official interpretations) are minimum requirements:
1. NFPA 70 - National Electrical Code (NEC).
2. NFPA 72 - National Fire Alarm Code.
3. NFPA 101 - Life Safety Code.
4. NFPA 110 - Emergency Power Systems.
5. Conform to all applicable State and Local Codes.
6. American National Standards Institute (ANSI).
7. National Electrical Safety Code (NESC).
8. Americans with Disabilities Acts (ADA) and American National Standards Institute (ANSI) 117.
9. National Electrical Manufacturer's Association (NEMA).
10. Underwriters Laboratories (UL).
11. Insulated Cable Engineers Association (ICEA).
12. International Building Code.
13. International Mechanical Code.
14. International Fire Code.
15. Institute of Electrical and Electronic Engineers (IEEE).
- B. Comply with requirements of Underwriters Laboratories for all items installed for which U.L. standards have been established.
- C. The drawings and specifications take precedence when they are more stringent than codes, statutes, or ordinances in effect. Applicable codes, ordinances, standards and statutes take precedence when they are more stringent or conflict with the drawings and specifications.

1.05 EXAMINATION OF BIDDING DOCUMENTS

- A. Each bidder shall examine the bidding documents carefully, and not later than seven days prior to the date of receipt of bids, shall make written request to the Architect for interpretation or correction of any discrepancies, ambiguities, inconsistencies, or errors therein which he may discover. The Architect will issue any interpretation or correction as an Addendum. Only a written interpretation or correction by addendum shall be binding. No bidder shall rely upon interpretations or corrections given by any other method. If discrepancies, ambiguities, inconsistencies, or errors are not covered by addendum or written directive, Contractor shall include in his bid, labor, materials and methods of construction resulting in higher cost. After award of contract, no allowance or extra compensation will be made on behalf of the Contractor due to his failure to make the written requests as described above.
- B. Failure to request clarification during the bid phase of any inadequacy, omission, or conflict will not relieve the Contractor of their responsibilities. The signing of the contract will be considered as implicitly denying that the Contractor has a thorough comprehension of the full extent and scope of the working drawings and specifications.

1.06 EXAMINATION OF PREMISES

- A. Visit site prior to bid and verify that conditions are as indicated. Contractor shall include in his bid costs required to make his work meet existing conditions.

1.07 EXISTING CONDITIONS

- A. Existing systems and conditions shown on drawings for existing buildings are to be noted "for guidance only". The Electrical Contractor shall first check all existing conditions prior to bidding and is to include in his bid an allowance for extension, removal and/or relocation of existing conduits, wires, devices, fixtures, or other equipment as indicated on the plans or as required to coordinate and adapt new and existing electrical system to all other work.
- B. Where the reuse of existing conduits, wires, devices, etc. is permissible, make certain that the wiring for same is continuous from outlet to outlet and that such circuit or systems shall pass through no outlet or junction boxes which may be rendered inaccessible by the structural changes to be made to the building. Existing conduits, wires, devices, etc. which are not indicated for reuse shall become the property of this Contractor however lighting fixtures, panel fused switches, circuit breakers, fire alarm equipment, etc. shall become the property of the Owner.
- C. System outages shall be permitted only at times approved by Owner in writing. Work which could result in an accidental outage (beyond branch circuits) shall be performed with the Owner's maintenance personnel advised of such work.
- D. Service shall be maintained to existing areas during construction. Contractor shall provide portable generators, cables, outlets, etc. as required to maintain continuity of service. Placement of such portable equipment shall be subject to Owner approval. Generator system shall be complete and operable and shall include required accessories, fuel tanks, piping, muffler, block heater, battery charger, etc.
- E. Immediately after award of contract, verify available physical space and ampacity of existing panelboards, switchboards, distribution boards, motor control centers, etc., and provide written documentation of findings to the Architect/Engineer. Documentation shall include a minimum 24-hour recording amperage reading on all existing switchgear being utilized for this project.
- F. Provide new updated panelboard directories for existing and new circuits being utilized for completion of project.

1.08 PERMITS, FEES & NOTICES

- A. Obtain and pay for all necessary permits, inspections and certificates that may be necessary for the full completion of the work. Furnish the Owner with a certificate of final inspection and approval from the AHJ over the electrical installation.
- B. Notify proper authorities when work is ready for inspections required by applicable codes, rules and regulations, allowing sufficient time for inspections to be made without hindering progress of the work. Furnish to the Owner copies of inspection certificates of acceptance.

1.09 TESTS

- A. Upon completion of all work and adjustment of all equipment, provide complete operational tests of all electrical equipment provided under this division.

1.10 WARRANTY

- A. Guarantee that all work governed by this division shall be free of defects in workmanship, materials and parts for a period of one (1) year after written acceptance. Promptly repair, revise, and replace defects as directed with no additional cost to the Owner (lamps and fuses are exempt).

1.11 RECORD DRAWINGS

- A. During the progress of the work, maintain an accurate record of the installation of the electrical system. Upon completion of the electrical installation, transfer all record data to prints of the original drawings. Drawings shall include all addendum items, change orders, alternates, reworkings, etc. As a condition of acceptance of the project, deliver to the Architect one copy of the record drawings.

1.12 PROTECTION

- A. Of People: Arrange barriers, signs, etc. as required to minimize the hazard of people. Comply with applicable safety and health regulations. Coordinate as necessary with the Owner and the General Contractor.
- B. Of Work: Take all measures necessary to protect the work both before and after installation, to assure that it will be in clean, undamaged, unblemished condition when turned over to the Owner. Repair/replace work damaged during construction.
- C. Any equipment or conduit systems found to have been damaged or contaminated above "MIL" or "SHOP" conditions shall be replaced or cleaned to the Engineer's satisfaction.

PART 2 - PRODUCTS

2.01 STANDARD FOR MATERIALS

- A. All electrical material shall be new and of the quality and type specified.
- B. Manufacturer and catalog number shown in these specifications or on drawings are intended as a guide to quality. Equivalent materials and equipment of other manufacturers will be considered provided such substitutions are requested in accordance with the provisions of paragraph 2.03 and shall include all information necessary to support the claim of equivalency.
- C. No extension of completion date shall be allowed for time lost in consideration, shipping, or installation of approved substitutions. Review of substitutions signifies general equality of materials and equipment only. This review does not relieve the Contractor of responsibility for proper operation of the system, compliance with specifications and necessary changes due to dimensional differences or space requirements.

2.02 SHOP DRAWINGS

- A. Shop drawings required for this project are as follows:
1. Lighting fixtures
2. Lamps
3. Wiring devices
4. Fire alarm and detection system
- C. Place orders for all equipment in time to prevent any delay in construction schedule or completion of project. If any materials or equipment are not ordered in time, additional charges made by equipment manufacturers to complete their equipment in time to meet construction schedule, together with any special handling charges, shall be borne by the Contractor.
- D. Shop drawings: Contractor agrees that shop drawing submissions processed by the engineer are not change orders; that the purpose of shop drawing submissions by the Contractor is to demonstrate to the engineer that the Contractor understands the design concept, that he demonstrates his understanding by indicating which equipment and material he intends to provide and by detailing the fabrication and installation methods he intends to use. Contractor further agrees that if deviations, discrepancies, or conflicts between shop drawing submissions and contract documents in the form of design drawings and specifications are discovered either prior to or after shop drawing submissions are processed by the engineer, the design drawings and specifications shall control and shall be followed.

2.03 BID ALTERNATE(S)

- A. Refer to Division 1 for additional information.
- B. Alternate(s) for Material and Equipment
1. Equipment and material bid alternate(s) shall be proposed as additive or deductive alternate(s) to specified items by submitting it as a separate line item from the base bid on the Bidder's letterhead.
2. Such bid alternate proposals shall not be substituted or included in the base bid. Bid alternate proposal(s) must be accompanied by full descriptive data on the proposed equipment, together with a statement of the cost to be added or deducted for each item. The bid alternate shall include all materials, equipment, labor, connections, coordination with all other trades, etc. for a complete and operational system.
3. The Contractor shall submit bid alternates at the time the base bids are due.

2.04 SUBSTITUTIONS

- A. Bidder's Choice: Material or equipment listed by several manufacturers' names are intended to be bidder's choice, and any of the listed manufacturers may be used in the base bid.
- B. Performance Specifications: When any item is specified by requirements to meet a performance, industry or regulatory body standard, or as specified by a generic spec, no manufacturer's name listed no prior review by the Engineer is needed unless specifically called for in these specifications.
- C. Contractor to be responsible for any changes and costs to accommodate any equipment except the first named in the specification.
- D. Substitutions of Material (Contractor and owner initiated)
1. Other items of material and equipment not listed as equivalents may be offered (at the Contractor's option) as substitutions to specified items by submitting it as a separate price with his base bid on the Bidder's letterhead.
2. Such substitute proposals shall not be included under the base bid and must be accompanied by full descriptive data on the proposed equipment, together with a statement of the cost to be deducted for each item and all deviations from specified items. Highlight all difference from specified equipment. If any such substitutions are to be considered, the Contractor shall submit a list of the proposed substitution items within 14 days of award of contract. Late requests for proposed substitutions shall not be accepted by the Engineer due to scheduling or delivery concerns.
3. If substitutions are rejected, Electrical Contractor shall supply base bid as specified.

2.05 PRODUCT HANDLING

- A. Use all means necessary to protect electrical system materials before, during and after installation and to protect the installed work and materials of all other trades.
- B. In the event of damage, immediately make all repairs and replacements necessary to the approval of the Architect at no additional cost to the Owner.
- C. Upon completion of all installations, labeling and testing, thoroughly inspect all exposed portions of the electrical installation and completely remove all exposed labels, soil, markings, and foreign materials.

PART 3 - EXECUTION

3.01 WORKMANSHIP AND COMPLETION OF INSTALLATION

- A. Contractor's personnel and subcontractors selected to perform the work shall be well versed and skilled in the trades involved.
- B. Coordinate electrical equipment and materials installation with other building components.
- C. Sequence, coordinate, and integrate installations of electrical materials and equipment for efficient flow of the work. Give particular attention to large equipment requiring positioning prior to doing so in the building.
- D. Any changes or deviations from the drawings and specifications must be accepted in writing by the Architect/Engineer. All errors in installation shall be corrected at the expense of the Contractor. All specialities shall be installed as indicated in the drawings. Where detail or specific installation requirements are not provided, manufacturer's recommendations shall be followed.
- E. Upon completion of work, all equipment and materials shall be installed complete, thoroughly checked, correctly adjusted, and left ready for intended use or operation. All work shall be thoroughly cleaned and all residue shall be removed from surfaces. Exterior surfaces of all material and equipment shall be delivered in a perfect, unblemished condition.
- F. Contractor shall provide a complete installation, including all required labor, material, cartage, insurance, permits, and taxes.

3.02 PROGRESS OF WORK

- A. Order the progress of electrical work to conform to the progress of the work of the other trades. Complete the entire installation as soon as the condition of the building will permit. Any cost resulting from defective or ill-timed work performed under this Section shall be borne by this Contractor.

3.03 TRENCHING AND BACKFILLING

- A. Perform all trenching and backfilling required by work performed under this Section in accordance with the excavating and grading specifications as herein specified. This work shall comply with the requirements of Table 300.3.2 of the National Electrical Code.
- B. Excavate trenches to the depth required for the utilities involved. The trench bottom shall be graded true and free from stones or soft spots. Trenches through specially treated or surfaced areas, such as paving or backfill, shall have the width of the surface cutting extended for a width of eight inches (8") on each side of the open trench. Unless otherwise noted, the disturbed surface shall be replaced equal to the original construction, to the original grade with the same type of material, and to the same depths and limits as the material removed. After backfilling, the Contractor to insure adequate compaction of the backfill and the possibility of differential settling, in conformity with Division 2 Specifications. Verify location of existing or new utilities and, if damaged by this Contractor, replace or repair.
- C. Underground Utility Identification: Provide a six-inch (6") wide, yellow colored plastic tape. Install the tape for the continuous length of all underground utility raceways provided under this contract. Tape shall be buried not less than twelve inches (12") below finished grade. Tape shall be Brady "Identrolite" or acceptable alternate and imprinted in large, legible, black letters "Caution - Electrical Utilities Below".

3.04 CUTTING AND PATCHING

- A. Provide all cutting, trenching, backfilling, patching and resurfacing required for electrical work in a manner meeting the approval of the Engineer and at no additional cost to the Owner.
- B. All openings made in fire-rated walls, floors, or ceilings shall be patched and made tight in a manner to conform to the fire rating for the surface penetrated.

3.05 DELIVERY AND STORAGE OF MATERIALS

- A. Arrange and be held responsible for delivery and safe storage of materials and equipment for electrical installation.
- B. Carefully check materials furnished by this Contractor for installation, and provide receipt acknowledging acceptance of delivery and condition of the materials received. Thereafter, assume full responsibility for its safekeeping until the final installation has been reviewed and accepted.

ELECTRICAL SPECIFICATIONS:

3.06 PROTECTION OF WORK AND PROPERTY

- A. Where there are existing facilities, be responsible for the protection thereof, whether or not such facility is to be removed or relocated. Moving or removing any facility must be done so as not to cause interruption of the work of Owner's operation.
- B. Close all conduit openings with caps or plugs during installation. Cover all fixtures and equipment and protect against injury. At the final completion, clean all work and deliver in an unblemished condition, or refinish and repaint at the discretion of the Architect.
- C. Any equipment or conduit systems found to have been damaged or contaminated above "MIL" or "SHOP" conditions shall be replaced or cleaned to the Engineer's satisfaction.
- 3.07 FINAL ACCEPTANCE
- A. Final acceptance by the Owner will not occur until all operating instructions are received and Owner's personnel have been thoroughly indoctrinated in the maintenance and operation of all equipment.
- B. Operating manual, parts lists, and indoctrination of operating and maintenance personnel: Furnish the services of a qualified representative of the supplier for each item or system itemized below who shall instruct specific personnel, as designated by the Owner, in the operation and maintenance of that item or system.
- E. Clean up: Remove all materials, scrap, etc., relative to the electrical installation and leave the premises and all equipment, lamps, fixtures, etc., in a clean, orderly condition. Any costs to the Owner for clean up of the site will be charged against the Contractor.
- F. Acceptance Demonstration: Upon completion of the work, at a time to be designated by the Architect, the Contractor shall demonstrate for the Owner the operation of the entire installation, including all systems provided under this contract.

3.08 IDENTIFICATION

- A. General: Provide the following services and materials to assist the Owner in operation and maintenance.
- B. Directory Cards, Nameplates and Labels: No temporary markings, which are visible on equipment, shall remain after the project is complete. Repair times, housing, etc., where such markings cannot be readily removed. Defaced finishes must be refinished. All engraved metal or plastic nameplates shall be white letters on a black or gray background. Raised letter type shall not be used. No abbreviations in labeling will be permitted without special approval. All nameplates shall be labeled as designated on the electrical drawings. Thoroughly clean surface to which pressure sensitive type labels are applied to assure adherence of label. Directory cards, nameplates, and labels shall indicate the general area and type of electrical load served by each circuit. Provide the following types of labels at these locations:
1. On each feeder switch, combination starter, or circuit breaker located in motor control centers, main service equipment, the main switchboard or panelboard, subdistribution panelboards, and all special equipment in cabinets, the labeling shall be one fourth inch (1/4") minimum height letters.
2. On each separate mounted disconnect and starter for a motor or fixed appliance, indicate motor or appliance designation, voltage, and phase. (Motor or appliance designations shall be as given on the Mechanical or Architectural plans.) Use three-sixteenth inch (3/16") minimum height letters.
3. On telephone terminals indicate terminal number.
4. On all branch circuit panelboards indicate panel designation, voltage and phase. Use three-fourth inch (3/4") minimum height stenciled letters in metal tape or one-half inch (1/2") engraved letters on laminated nameplate. Apply to the inside of each door. All emergency panels and disconnects shall be painted with red enamel.
5. For all branch circuit panelboard directories, provide neatly typed, removable cards and protective plastic faces. Spare circuit breakers shall be identified as such.
6. For all device plates for switches used to control exhaust fans or other equipment, provide one-eighth inch (1/8") minimum height black filled, engraved letters on stainless steel device plate.
7. For all receptacle device plates, provide one-eighth inch (1/8") minimum height letters on white (normal power) and red (emergency power) receptacles indicating panel and circuit number.
8. For all exposed conduits, junction boxes, wiring gutters, etc., provide three-fourth inch (3/4") minimum height stenciled letters, or one-half inch (1/2") minimum height pressure sensitive labels equal to Brady self-sticking vinyl cloth. Labels shall be provided at the following locations:
- a. Entering or leaving panels or switchgear or enclosures.
- b. All junction boxes shall be identified as to circuits contained within.
- c. Exposed conduits containing circuits above 600 volts shall have voltage labels at least once for each exposed length or not more than fifteen feet (15'-0") apart.

3.09 CONSTRUCTION LIGHTING AND POWER

- A. Provide all temporary facilities required to supply construction power and light. Install and maintain facilities in a manner that will protect the public and workmen. Comply with all applicable laws and regulations.
- B. The General Contractor shall pay for all power and light used by him and his subcontractors where construction power is separately metered, or is taken from the permanent project metered service solely for construction use.

3.10 REMODELING PROVISIONS

- A. Existing systems and conditions shown on the drawings are provided for guidance only. The Electrical Contractor shall first check all existing conditions prior to bidding and shall include in his bid an allowance for the removal and relocation of existing conduits, wires, devices, fixtures, or other equipment as indicated on the plans or as required to coordinate and adapt new and existing electrical systems to all other work required for this project.
- B. Where the reuse of existing conduits, outlets, junction boxes, etc., is permissible, make certain that the wiring from them is continuous from outlet to outlet. Provide modifications to assure that circuits, or system, shall not pass through outlets or junction boxes which may be rendered inaccessible by changes to be made to the building. Existing conduits, wires, devices, fixtures, etc., which shall be removed shall become the property of this Contractor unless otherwise noted.
- C. Correct new work to existing in a manner that will assure proper raceway grouping throughout in accordance with the National Electrical Code.
- D. Remedial Work Cutting and Patching: The Contractor shall perform cutting, channelling, chasing, drilling, etc., as required to install or remove electrical equipment in areas of remodeling. This work shall be performed so as to minimize the damage to wall finishes, surfaces, plastering, or the structure which are to be reused, resurfaced, plastered or painted under another division of these specifications.
- E. Carefully coordinate with the required remodeling work, cutting and patching etc., performed by the other trades. Remove or relocate existing electrical conduits, wires, devices, fixtures and other equipment as necessary.
- F. All outages on portions of existing electrical systems shall be minimized and shall be at a time and of duration as accepted by the Owner.

END OF SECTION 28 00 10

SECTION 28 10 00 - BASIC MATERIALS AND METHODS

PART 1 - GENERAL (Not Used)

PART 2 - PRODUCTS

2.01 RACEWAYS AND FITTINGS

- A. Conduit:
1. Conduits installed underground or in grade slabs shall be Schedule 40 PVC with ground wire.
2. Conduits subject to mechanical damage or where otherwise required by code shall be galvanized rigid heavy wall conduit; all other conduit may be electric metallic tubing.
3. Flexible metallic conduit shall be used where vibration or other reasons do not allow solid connections to motors, equipment, etc. Flex may also be used to fish in existing walls or where required to connection in masonry. The use of flex shall be held to a minimum. Where flexible metallic conduit is used in areas subject to moisture, PVC-coated flex (Liquidtight) shall be used.
4. Where approved by applicable codes, type "MC" branch circuits.
- B. Fittings:
1. Use solvent welded fittings for all PVC conduit.
2. Use set-screw or compression fittings for all EMT conduit.
3. Use threaded fittings for all rigid conduit.

2.02 WIRE AND CABLE

- A. Voltage range 24 to 600: High conductivity copper, thermo-plastic insulation, 300 volt rating.
- B. Voltage range 24 to 600: High conductivity copper, moisture-resistant thermo-plastic insulation, 600 volt 75°C rating for general use. For HID fixtures and wiring within 3 inches of fluorescent ballasts, wire shall be copper, minimum 90°C rated. Sizes indicated are for installation in a maximum 30°C ambient. Conductor ampacity shall be derated for higher ambient installations. 600 volt aluminum wire and cable in sizes 10 and larger may be substituted for copper on services and feeders if ampacity is equal to or greater than copper. Voltage drop is equal to or less than copper, and termination at switches, lugs, circuit breakers, etc., is with Mac-alloy series "MPT" machine compression or equal.
- C. Conductors used specifically for equipment or service ground may be bare or have insulation to match circuit/feeder conductors.

2.03 WIRE CONNECTIONS

- A. All electrical connections shall be electrically and mechanically secure, using the following methods:
1. Wire size #8 and smaller--pressure type connectors (scotch-blok) or equivalent.
2. Wire size #8 and larger--mechanical or compression lugs, Bundy, T & B, Iso or equivalent.
- B. Wire termination provisions for panelboards, circuit breakers, safety switches, and all other electrical apparatus shall be listed as suitable for 75°C.

2.04 SURFACE RACEWAYS

- A. Surface Metal Raceways: Galvanized steel with snap-on covers. Manufacturer's standard enamel finish in color selected by Architect.
- B. Manufacturer shall be Thomas & Betts Corporation, Walker systems, Inc. (The Wiremold Company), or approved equal.

2.05 OUTLET BOXES

- A. Outlet boxes shall be: one piece steel, galvanized, Steel City Electric, Appleton Electric, Raco or approved equal. Where NMC or ENT is used, plastic boxes are acceptable.
- 2.06 DEVICES
- A. Wiring devices shall be specification duplex receptacles. Switches, receptacles, and other devices shall be Leviton Decora style, or Pass Seymour, Cooper, or Hubbell equivalent. Color shall be ivory unless noted otherwise by Architect.
- B. GFCI receptacles shall be straight blade feed through type with indicator light that is lighted when device is tripped.
- C. Switches shall be 120/277V, 20A, rocker type.
- D. Wall Switch Occupancy Sensors: 120/277V, adjustable time delay up to 20 minutes, 180 degree field of view switch with a minimum coverage area of 300 square feet. Passive infrared type shall be Watt Stopper WS-200. Adaptive technology type shall be Watt Stopper WA-200.
- E. Wall plates shall be: smooth, high-impact thermoplastic material for finished spaces. Smooth, high-impact thermoplastic for unfinished spaces.
- F. Wet locations weatherproof cover plates shall be NEMA250, complying with type 3R weather resistant to use rating de-ast aluminum with lockable cover.

PART 3 - EXECUTION

3.01 CONDUIT INSTALLATION

- A. All feeder wiring shall be installed in listed metallic raceways. Raceways in slab-on-grade or below grade shall be schedule 40 PVC. Transitions from below to above grade shall be with rigid steel elbows with P.V.C. Jacket or approved equal protection. EMT fittings shall be malleable iron or steel. Connectors shall be insulated throat type.
- B. Make conduit bends with standard conduit elbows or conduit bent to not less than the same radius. All bends on a black or gray background. Raised letter type shall not be used. No abbreviations in labeling will be permitted without special approval. All nameplates shall be labeled as designated on the electrical drawings. Thoroughly clean surface to which pressure sensitive type labels are applied to assure adherence of label. Directory cards, nameplates, and labels shall indicate the general area and type of electrical load served by each circuit. Provide the following types of labels at these locations:
1. On each feeder switch, combination starter, or circuit breaker located in motor control centers, main service equipment, the main switchboard or panelboard, subdistribution panelboards, and all special equipment in cabinets, the labeling shall be one fourth inch (1/4") minimum height letters.
2. On each separate mounted disconnect and starter for a motor or fixed appliance, indicate motor or appliance designation, voltage, and phase. (Motor or appliance designations shall be as given on the Mechanical or Architectural plans.) Use three-sixteenth inch (3/16") minimum height letters.
3. On telephone terminals indicate terminal number.
4. On all branch circuit panelboards indicate panel designation, voltage and phase. Use three-fourth inch (3/4") minimum height stenciled letters in metal tape or one-half inch (1/2") engraved letters on laminated nameplate. Apply to the inside of each door. All emergency panels and disconnects shall be painted with red enamel.
5. For all branch circuit panelboard directories, provide neatly typed, removable cards and protective plastic faces. Spare circuit breakers shall be identified as such.
6. For all device plates for switches used to control exhaust fans or other equipment, provide one-eighth inch (1/8") minimum height black filled, engraved letters on stainless steel device plate.
7. For all receptacle device plates, provide one-eighth inch (1/8") minimum height letters on white (normal power) and red (emergency power) receptacles indicating panel and circuit number.
8. For all exposed conduits, junction boxes, wiring gutters, etc., provide three-fourth inch (3/4") minimum height stenciled letters, or one-half inch (1/2") minimum height pressure sensitive labels equal to Brady self-sticking vinyl cloth. Labels shall be provided at the following locations:
- a. Entering or leaving panels or switchgear or enclosures.
- b. All junction boxes shall be identified as to circuits contained within.
- c. Exposed conduits containing circuits above 600 volts shall have voltage labels at least once for each exposed length or not more than fifteen feet (15'-0") apart.

- H. Seal all conduit penetrations of fire rated walls, floor, or ceilings with U.L. listed "Down Coming" #2000 or #2001 fire stop sealant or equivalent.

- I. All empty raceway systems shall have a polypropylene pulwite or equal, and shall be identified at all junction, pull and termination points using permanent metallic tags. Tag and include intended use of conduit, origination, and termination points of each individual conduit.

- J. Non-metallic and flexible metal conduits shall have a code-sized copper grounding conductor. Increase conduit size as required.
- K. Conduits penetrating through roof shall have roof flashing with caulk type conduit flashing sleeve. Installation shall be watertight.

- L. Where panels are installed flush with walls, roof conduits shall be extended from the panel to an accessible space above or below. A minimum of one 3/4" shall be installed for every three single pole spare circuit breakers or spaces, or fraction thereof, but not less than two conduits.

3.02 WIRE INSTALLATION

- A. Branch circuit conductors shall be as follows:
1. For general applications through size #8: THWN 75°C wire and full size ground, or type THHN 90°C.
2. Branch circuit conductors through size #10 to be solid, #8 and larger standard.
3. Unless indicated on the drawings, (the minimum) wire used for branch circuits shall be #12 THWN protected by 20 ampere circuit breakers.
4. Branch circuits for receptacles shall be on 20 amp, single pole circuit breakers with #12 conductors. No more than eight (8) duplex receptacles shall be on any one branch circuit. Circuits serving bathroom GFCI receptacles may serve lighting but shall not serve any other receptacles.
5. Lighting branch circuit shall not be loaded to more than 70% of breaker rating, in effect, 14 amps per circuit.

- B. The drawings indicate the general direction of routes of branch circuit home runs. Continue all such home runs to panels as though the routes were completely indicated.

1. Conductors shall be continuous from outlet box to outlet box, or junction box, with no splices except in such boxes.
2. Do not install wire in conduits until after plastering or drywall is completed and all moisture has been removed from conduits.

3.03 WIRING DEVICE INSTALLATION

- A. Review architectural and mechanical drawings before installing outlets. Changing of outlets to conform to these drawings and any other changes in mounting height or location of outlets required shall be considered as a part of this contract. Use outlet boxes of sufficient size and shape to best suit the particular location and to contain the enclosed wire and connections without crowding. Allow all boxes per N.E.C. Article 370.
- B. Switch and receptacle outlet boxes shall be standard boxes with cover plates. Where more than one switch or device is located at one point, use gang boxes and gang cover plates.
- C. Receptacles in wet locations shall be installed with a hinged outlet cover/enclosure marked "suitable for wet locations while in use" and "UL listed". There must be a gasket between the enclosure and the mounting surface, and between and hinged cover and mounting platebase to assure proper seal. Typicse, specification grade or equivalent.
- D. Flush mount lighting switches 4'0" centerline above finished floor unless otherwise indicated. Flush mount wall type receptacles and other wall mounted wiring devices and outlets [above finished floor unless otherwise indicated].
- E. Route dedicated neutral conductors on line and load side of dimmers per manufacturer's instructions.
- F. Identify panelboard and circuit number on receptacles with hot stamped or engraved machine printed label on face of plate.

3.05 DEVICES

- A. Support all panels, junction boxes and other electrical devices in a manner as required by the N.E.C. Use extra bracing, supports, etc. as necessary to provide a proper and substantial base to which all electrical equipment is attached.
- B. Bolt-free standing equipment to 4" high concrete housekeeping pads.

- A. Verify exact location and requirements of equipment to be furnished by others prior to rough-in.
- B. Inspect owner furnished equipment for damage, defects, missing components, etc. Report deficiencies to the Owner immediately. Do not install or connect defective equipment.

END OF SECTION 28 10 00

SECTION 28 50 00 - LIGHTING & LIGHTING CONTROLS

PART 1 - GENERAL

1.01 PROVISIONS

- A. Provide all interior and exterior lighting fixtures as shown on the plans and hereinafter specified. All items shall be provided to make a complete and operable lighting system, including lamps, ballasts, poles, hangers, painting, plaster frames, etc.
- B. Fixtures shall be as shown in the fixture schedule. Catalog numbers shown are the latest available at the time of design. If discrepancies occur between description and catalog number, description will take precedence.
- C. Verify trim, finish and general description of all lighting fixtures through shop drawing approval prior to placing order for fixtures. Modify catalog numbers accordingly.
- D. If it is necessary for the Architect/Engineer to respec lighting fixtures which are still available from the manufacturer (i.e. not "discontinued") but cannot be obtained in time for installation as the result of the contractor's failure to promptly order such fixtures, the contractor shall be back charged at the rate of \$75 per hour for the Architect/Engineer's services.
1. Alternately, the Contractor may be required to pay to air freight fixtures to the construction site at no additional charge to the Owner if this will result in the specified fixtures being available for installation in time to meet the project schedule.

PART 2 - PRODUCTS

2.01 LED FIXTURES

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- B. Factory-Applied Labels: Comply with UL 1598. Include recommended labels. Locate labels where they will be readily visible to service personnel, but not seen from normal viewing angles when lamps are in place.
1. Label shall include the following lamp characteristics:
- a. "USE ONLY" and include specific lamp type
- b. Lamp diameter, shape, size, wattage, and coating
- c. CCT and CRI
- C. Recessed luminaires shall comply with NEMA LE 4.

2.03 EMERGENCY OR NIGHT LIGHTING

- A. Fixtures indicated as being on emergency, or night light circuits shall be provided with self-contained battery powered inverter unit for direct mounting in fixture. Provide unit with fully automatic two rate charger, nickel cadmium battery, AC "on" pilot light, and test switch. Design and wire unit to automatically transfer to battery supply on loss of normal AC power and to operate 32 watt T8 fluorescent lamp with minimum output of 600 lumens for minimum 1-1/2 hours.

2.04 LAMPS

- A. Lamps shall be as shown in the fixture schedule as manufactured by Osram-Sylvania, G.E., Philips, or approved equivalent.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Install lighting fixtures straight and true with reference to adjacent walls, and securely fasten to and support by structural members of the building. Refer to architectural or interior reflected ceiling plans and elevations for exact location of fixtures.
- B. Provide photoccontrols, time clocks, contactors, relays, etc. to control interior and exterior fixtures. All items for lighting controls that are to be mounted outdoors or in wet locations shall be installed in weatherproof housings.
- C. Recessed light fixtures installed in gyp. board or plaster ceilings shall have plaster frames installed prior to putting material.
- D. Multi-ballasted fluorescent fixtures shall be dual switched unless noted otherwise.
- E. Fixtures recessed in "t-bar" ceiling shall be supported independently of ceiling system, with four #12 hanger wires up to structure. Secure hanger wires to corners

PLOT DATE: Thursday, April 26, 2018 11:59 AM LAST SAVED BY: RJOHNSON
DRAWING LOCATION: H:\MC18.0378-Frisco Peninsula Recreation Area\PLANS\Cds\GENERAL NOTES.dwg

CIVIL ENGINEER

MARTIN/MARTIN CONSULTING ENGINEERS, INC.
0101 FAWCETT ROAD, STE 260
AVON, CO 81620
PHONE: 970-926-6007
CONTACT: MARK LUNA, P.E.

MARTIN/MARTIN, INC. GENERAL NOTES:

IN ADDITION TO THE TOWN OF FRISCO [T.O.F.] STANDARD NOTES, THE FOLLOWING SHALL APPLY:

- ALL MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE T.O.F. STANDARDS AND SPECIFICATIONS [LATEST REVISION]. ALL WATER & SEWER MAIN CONSTRUCTION SHALL BE SUBJECT TO T.O.F. INSPECTION.
- THE CONTRACTOR SHALL HAVE ONE [1] SIGNED COPY OF PLANS APPROVED BY THE T.O.F. AS ONE COPY OF THE APPROPRIATE DESIGN AND CONSTRUCTION STANDARDS AND SPECIFICATIONS ON THE JOB SITE AT ALL TIMES.
- CONTRACTOR SHALL NOTIFY THE ENGINEER, OWNER AND THE T.O.F. [48]-HOURS PRIOR TO THE START OF CONSTRUCTION. A PRE-CONSTRUCTION MEETING SHALL BE SCHEDULED WITH THE T.O.F. ENGINEERING INSPECTOR [48]-HOURS PRIOR TO START OF WORK.
- THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS AT AND ADJACENT TO THE JOB SITE, INCLUDING, BUT NOT LIMITED TO, SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK, TRENCH EXCAVATION AND SHORING, TRAFFIC CONTROL AND SECURITY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
- THE T.O.F./OWNER/ENGINEER CONSTRUCTION REVIEW OF THE CONTRACTOR'S PERFORMANCE IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES IN, ON OR NEAR THE CONSTRUCTION SITE.
- ALL TRENCHES SHALL BE ADEQUATELY SUPPORTED AND THE SAFETY OF WORKERS PROVIDED FOR AS REQUIRED BY THE MOST RECENT OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION [OSHA] "SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION." THESE REGULATIONS ARE DESCRIBED IN SUBPART P, PART 1926 OF THE CODE OF FEDERAL REGULATIONS. SHEETING AND SHORING SHALL BE UTILIZED WHERE NECESSARY TO PREVENT ANY EXCESSIVE WIDENING OR SLOUGHING OF THE TRENCH WHICH MAY BE DETRIMENTAL TO HUMAN SAFETY, TO THE PIPE BEING PLACED, OR TO ANY EXISTING SITE IMPROVEMENTS OR STRUCTURES. THE CONTRACTOR MAY BE REQUIRED TO USE AN APPROVED PILING INSTEAD OF SHEETING AND SHORING.
- ALL TRENCH BACKFILL AND SUBGRADE PREPARATION SHALL BE TESTED TO ENSURE COMPLIANCE WITH GEOTECH STANDARDS AND SHALL BE TESTED AT T.O.F. REQUIRED FREQUENCIES BY A T.O.F. APPROVED PRIVATE SOILS TESTING FIRM. TEST RESULTS SHALL BE SUBMITTED TO, REVIEWED, AND APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO INSTALLING APPROVED BACKFILL ON PREPARED SUBGRADE. ALL BASE COURSE DENSITY SHALL ALSO BE TESTED BY THE PRIVATE SOILS FIRM AT T.O.F. REQUIRED FREQUENCIES TO ENSURE COMPLIANCE WITH T.O.F. REQUIREMENTS. BASE COURSE TEST RESULTS SHALL ALSO BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO BACKFILLING. TEST RESULTS SHALL BE REVIEWED AND APPROVED BY THE T.O.F. ENGINEERING DIVISION PRIOR TO INITIATION OF THE REQUIRED [2] YEAR WARRANTY PERIOD.
- CONTRACTOR SHALL CONFORM TO ALL FEDERAL, STATE AND LOCAL HEALTH AND SAFETY RULES AND REGULATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL UTILITIES DURING CONSTRUCTION AND FOR COORDINATING WITH THE APPROPRIATE UTILITY COMPANY FOR ANY UTILITY CROSSINGS REQUIRED. REPAIR OF DAMAGED UTILITIES SHALL BE AT THE CONTRACTORS EXPENSE, INCLUDING BUT NOT LIMITED TO UNIDENTIFIED UNDERGROUND UTILITIES.
- EXISTING FENCES, TREES, SIDEWALKS, CURBS AND GUTTERS, LANDSCAPING, STRUCTURES, AND IMPROVEMENTS DESTROYED, DAMAGED OR REMOVED DUE TO CONSTRUCTION OF THIS PROJECT SHALL BE REPLACED OR RESTORED IN LIKE KIND AT THE CONTRACTOR'S EXPENSE, UNLESS OTHERWISE INDICATED ON THESE PLANS.
- CONTRACTOR SHALL OBTAIN A STORMWATER CONSTRUCTION PERMIT FROM THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, WATER QUALITY CONTROL DIVISION, PRIOR TO CLEARING, GRADING, OR EXCAVATING A SITE OF ONE-HALF ACRE OR MORE, OR LESS THAN ONE-HALF ACRE AND PART OF A LARGER DEVELOPMENT. A COPY OF THE APPROVED PERMIT MUST BE SUBMITTED TO THE T.O.F. PRIOR TO THE START OF CLEARING, GRADING OR EXCAVATING OF THE SITE. A COPY OF THE APPROVED PERMIT MUST ALSO BE AVAILABLE ON THE PROJECT SITE AT ALL TIMES DURING CONSTRUCTION.
- IF GROUNDWATER IS ENCOUNTERED DURING EXCAVATION AND DEWATERING FROM THE TRENCH TO STORM SEWER, CHANNEL, IRRIGATION DITCH OR ANY WATERS OF THE UNITED STATES IS NECESSARY, THE CONTRACTOR SHALL OBTAIN A COLORADO STATE CONSTRUCTION DEWATERING DISCHARGE PERMIT FROM THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT WHERE A COPY OF THE APPROVED PERMIT MUST BE SUBMITTED TO THE T.O.F. PRIOR TO THE START OF ANY DEWATERING. A COPY OF THE APPROVED PERMIT MUST ALSO BE AVAILABLE ON THE PROJECT SITE AT ALL TIMES DURING CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING STORM RUNOFF AND ANY GROUNDWATER ENCOUNTERED DURING THE CONSTRUCTION OF ANY PORTION OF THIS PROJECT. GROUNDWATER SHALL BE PUMPED, PIPED, REMOVED AND DISPOSED OF IN A MANNER WHICH DOES NOT CAUSE FLOODING OF EXISTING STREETS NOR EROSION ON ABUTTING PROPERTIES IN ORDER TO CONSTRUCT THE IMPROVEMENTS SHOWN ON THESE PLANS. NO CONCRETE SHALL BE PLACED WHERE GROUNDWATER IS VISIBLE OR UNTIL THE GROUNDWATER TABLE HAS BEEN LOWERED BELOW THE PROPOSED IMPROVEMENTS. ANY UNSTABLE AREAS, AS A RESULT OF GROUNDWATER, ENCOUNTERED DURING THE CONSTRUCTION OF THE PROPOSED IMPROVEMENTS SHALL BE STABILIZED AS AGREED UPON BY THE CONTRACTOR, THE T.O.F., AND THE GEOTECHNICAL ENGINEER AT THE TIME OF OCCURRENCE. REFER TO THE DETAILS WITHIN THIS PLAN SET FOR REQUIRED TRENCH BEDDING IN THE EVENT GROUNDWATER IS ENCOUNTERED IN THE WATER LINE TRENCH.
- THE CONTRACTOR IS RESPONSIBLE FOR FIELD LOCATING AND VERIFYING ELEVATIONS OF ALL EXISTING WATER MAINS AND OTHER IMPROVEMENTS AT THE POINT OF CONNECTION SHOWN ON THE PLANS, AND AT ANY UTILITY CROSSINGS PRIOR TO INSTALLING ANY OF THE NEW IMPROVEMENTS. IF A CONFLICT EXISTS AND/OR A DESIGN MODIFICATION IS REQUIRED, THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER TO MODIFY THE DESIGN.
- PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION, THE CONTRACTOR SHALL CONTACT ALL UTILITIES AND COORDINATE SCHEDULES.
- ALL PUBLIC IMPROVEMENT WORK, INCLUDING CORRECTION WORK, SHALL BE INSPECTED BY A T.O.F. REPRESENTATIVE WHO SHALL HAVE THE AUTHORITY TO HALT CONSTRUCTION WHEN STANDARD CONSTRUCTION PRACTICES ARE NOT BEING ADHERED TO. THE T.O.F. RESERVES THE RIGHT TO ACCEPT OR REJECT ANY SUCH MATERIALS AND WORKMANSHIP THAT DOES NOT CONFORM TO ITS ENGINEERING CODE OF STANDARDS AND SPECIFICATIONS FOR THE DESIGN AND CONSTRUCTION OF PUBLIC IMPROVEMENTS. CONTRACTOR IS RESPONSIBLE FOR BEING AWARE OF, NOTIFYING, COORDINATING AND SCHEDULING ALL INSPECTIONS REQUIRED FOR FINAL APPROVALS AND PROJECT ACCEPTANCE.
- RECORD DRAWINGS SHOWING ALL CHANGES FROM THE APPROVED CONSTRUCTION DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER AND OWNER PRIOR TO INITIATION OF THE REQUIRED 2-YEAR WARRANTY PERIOD. THE RECORD DRAWINGS WILL CONSIST OF A MARKED-UP SET OF "ISSUED FOR CONSTRUCTION" DRAWINGS VERIFYING THE FOLLOWING:
 - ALL LENGTHS, SIZES, AND MATERIALS OF INSTALLED PIPE, MANHOLES, AND ANY OTHER IMPROVEMENT.
 - HORIZONTAL LOCATIONS EITHER BY STATION AND OFFSET, OR BY NORTHING AND EASTING COORDINATES OF ALL BENDS, VALVES, STUBS, PLUGS, TEES, ETC.
 - TOP OF PIPE ELEVATION AT REGULAR INTERVALS AND/OR FITTINGS FOR WATER LINES.
 - ANY OTHER VARIATIONS FROM THE CONSTRUCTION DOCUMENTS MUST BE CLEARLY NOTED AND DETAILED ON THE PLANS.
 - AS-BUILT FIELD NOTES, FROM WHICH THE AS-BUILT DRAWINGS ARE PREPARED, ARE TO BE PROVIDED AND STAMPED/SIGNED AND DATED BY A COLORADO REGISTERED PROFESSIONAL LAND SURVEYOR.
- THE CONTRACTOR SHALL WARRANT ALL WORK TO BE FREE FROM DEFECTS IN WORKMANSHIP AND MATERIALS FOR A PERIOD OF 2-YEARS FROM THE DATE OF ACCEPTANCE INTO THE WARRANTY PERIOD OF ALL CONSTRUCTION CALLED FOR BY THE PUBLIC IMPROVEMENTS AGREEMENT WITH THE T.O.F..
- DURING CONSTRUCTION AND UPON COMPLETION OF CONSTRUCTION, THE SITE SHALL BE CLEANED AND RESTORED TO A CONDITION EQUAL TO, OR BETTER THAN, THAT WHICH EXISTED BEFORE CONSTRUCTION.
- THE OWNER/DEVELOPER AND/OR THEIR ASSIGNS SHALL IMPLEMENT A ROUTINE AND DILIGENT MAINTENANCE PLAN TO MAINTAIN PROPER GRADING AND DRAINAGE.
- MARTIN/MARTIN RECOMMENDS A GEOTECHNICAL ENGINEERING SITE REVIEW AND OBSERVES/TESTS ALL REQUIRED EXCAVATION AND BACKFILL COMPACTION. OWNER AND CONTRACTOR SHALL COORDINATE WITH THE GEOTECHNICAL REPRESENTATIVES.

FRISCO DAY LODGE


FRISCO PENINSULA RECREATION AREA

TOWN OF FRISCO, COUNTY OF SUMMIT,

STATE OF COLORADO

Sheet List Table	
Sheet Number	Sheet Title
C-001	GENERAL NOTES
C-100	DEMOLITION PLAN
C-200	CIVIL SITE PLAN
C-201	CIVIL RESTROOM SITE AND GRADING PLAN
C-202	GRADING PLAN
C-400	STORM SEWER PLAN
C-500	EROSION CONTROL PLAN
C-501	EROSION CONTROL DETAILS
C-502	EROSION CONTROL DETAILS

PRJ #: MC18.0378



MARTIN/MARTIN
CONSULTING ENGINEERS

0101 FAWCETT ROAD, SUITE 260, AVON, COLORADO 81620
970.926.6007 MARTINMARTIN.COM

LEGEND

EXISTING

PROPOSED

PROPERTY LINE

RIGHT-OF-WAY LINE

SECTION LINE

EASEMENT

RETAINING WALL

CURB & GUTTER

CURB & GUTTER (SPILL)

CURB & GUTTER (CATCH)

CONTOURS

UTILITY CROSSING

STORM SEWER

STORM MANHOLE

ROOF DRAIN

STORM INLET

FLARED END SECTION

SANITARY SEWER

SANITARY MANHOLE

CLEAN OUT

WATER LINE

WATER VALVE

FIRE HYDRANT

WATER METER

IRRIGATION LINE

IRRIGATION CONTROL

OVERHEAD ELECTRIC

ELECTRIC LINE

LIGHT POLE

POWER POLE

ELECTRIC METER

TELEPHONE LINE

TELEPHONE PEDESTAL

CABLE TV

GAS LINE

FIBER OPTIC

MONITOR WELL

SIGN

DIRECTION OF FLOW

GRADING ARROW

DECIDUOUS TREE

EVERGREEN TREE

BUSH/SHRUB

SPOT ELEVATIONS

DRIVE

PROPERTY LINE

RIGHT-OF-WAY LINE

SECTION LINE

EASEMENT

RETAINING WALL

CURB & GUTTER

CURB & GUTTER (SPILL)

CURB & GUTTER (CATCH)

CONTOURS

UTILITY CROSSING

STORM SEWER

STORM MANHOLE

ROOF DRAIN

STORM INLET

FLARED END SECTION

SANITARY SEWER

SANITARY MANHOLE

CLEAN OUT

WATER LINE

WATER VALVE

FIRE HYDRANT

WATER METER

IRRIGATION LINE

IRRIGATION CONTROL

OVERHEAD ELECTRIC

ELECTRIC LINE

LIGHT POLE

POWER POLE

ELECTRIC METER

TELEPHONE LINE

TELEPHONE PEDESTAL

CABLE TV

GAS LINE

FIBER OPTIC

MONITOR WELL

SIGN

DIRECTION OF FLOW

GRADING ARROW


DECIDUOUS TREE

EVERGREEN TREE

BUSH/SHRUB

SPOT ELEVATIONS


DRIVE



KNOW WHAT'S BELOW. CALL BEFORE YOU DIG.


CALL 811 2-BUSINESS DAYS IN ADVANCE
BEFORE YOU DIG, GRADE OR EXCAVATE FOR
MARKING OF UNDERGROUND MEMBER UTILITIES

MARTIN/MARTIN ASSUMES NO RESPONSIBILITY FOR UTILITY LOCATIONS. THE UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM (PROVIDED) ASCE (38) UTILITY QUALITY LEVEL D (Qd) AVAILABLE INFORMATION. IT IS, HOWEVER, THE CONTRACTORS RESPONSIBILITY TO FIELD VERIFY THE SIZE, MATERIAL, HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES (DEPICTED OR NOT DEPICTED) PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.



ARCHITECTURE

3003 Larimer Street
Denver, Colorado 80205
phone 303.861.5704
www.ozarch.com



32753
APR. 27, 2018
Mark Luna
Professional Engineer

FRISCO DAY LODGE RENOVATION

621 RECREATION WAY
FRISCO, CO 80443

PROJ. NO. 117119.00
DRAWN: M/M
CHECKED: M/M
APPROVED: M/M
DATE: 2018-04-27

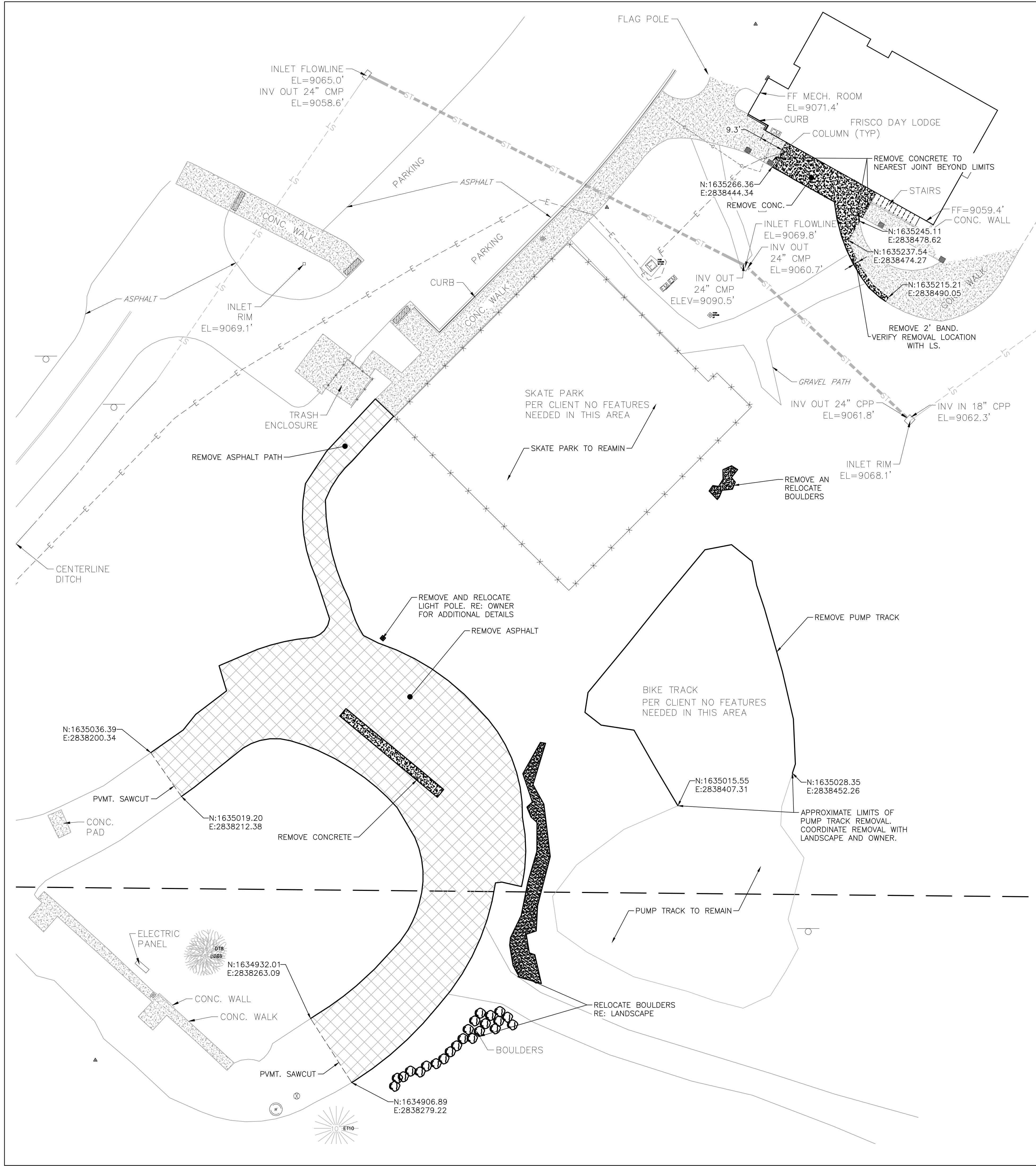
© OZARCHITECTURE

FRISCO DAY LODGE
RENOVATION
(ALTERNATE #1)
ISSUED FOR:
PERMIT SET

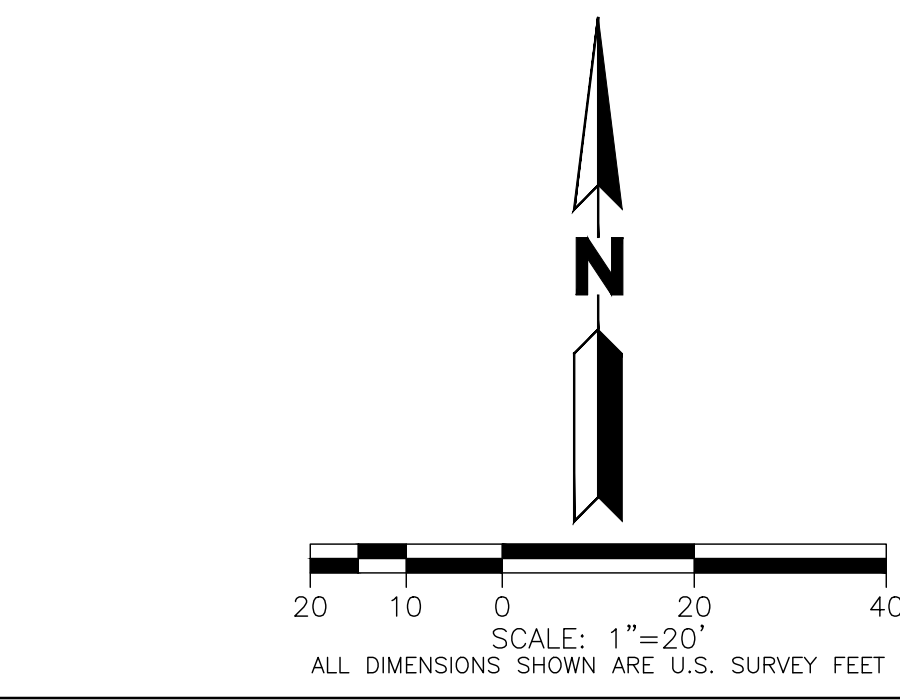
SHEET TITLE:
GENERAL NOTES

SCALE: PER PLAN
SHEET NUMBER
C-001

PLOT DATE: Thursday, April 26, 2018 11:59 AM LAST SAVED BY: RJOHNSON
DRAWING LOCATION: H:\MC18.0378-Frisco Peninsula Recreation Area\PLANS\CDs\DEMO PLAN.dwg



EXISTING		DEMOLITION	
---	PROPERTY LINE	---	DEMOLITION
---	RIGHT-OF-WAY LINE	---	DEMOLITION
---	SECTION LINE	---	DEMOLITION
---	EASEMENT	---	DEMOLITION
---	RETAINING WALL	---	DEMOLITION
---	CURB & GUTTER	---	DEMOLITION
---	ASPHALT	---	DEMOLITION
---	CONCRETE/ SIDEWALK	---	DEMOLITION
---	CONTOURS	---	DEMOLITION
---	STORM SEWER	---	DEMOLITION
---	STORM MANHOLE	---	DEMOLITION
---	STORM INLET	---	DEMOLITION
---	FLARED END SECTION	---	DEMOLITION
---	SANITARY SEWER	---	DEMOLITION
---	SANITARY MANHOLE	---	DEMOLITION
---	WATER LINE	---	DEMOLITION
---	WATER VALVE	---	DEMOLITION
---	FIRE HYDRANT	---	DEMOLITION
---	WATER METER	---	DEMOLITION
---	IRRIGATION LINE	---	DEMOLITION
---	IRRIGATION CONTROL	---	DEMOLITION
---	OVERHEAD ELECTRIC	---	DEMOLITION
---	ELECTRIC LINE	---	DEMOLITION
---	LIGHT POLE	---	DEMOLITION
---	POWER POLE	---	DEMOLITION
---	ELECTRIC METER	---	DEMOLITION
---	TELEPHONE LINE	---	DEMOLITION
---	TELEPHONE PEDESTAL	---	DEMOLITION
---	CABLE TV	---	DEMOLITION
---	SIGN	---	DEMOLITION
---	DECIDUOUS TREE	---	DEMOLITION
---	EVERGREEN TREE	---	DEMOLITION
---	BUSH/SHRUB	---	DEMOLITION
---	GAS LINE	---	DEMOLITION
---	DRIVE	---	DEMOLITION



CALL **811** 2-BUSINESS DAYS IN ADVANCE
BEFORE YOU DIG, GRADE OR EXCAVATE FOR
MARKING OF UNDERGROUND MEMBER UTILITIES

MARTIN/MARTIN ASSUMES NO RESPONSIBILITY FOR UTILITY
LOCATIONS. THE UTILITIES SHOWN ON THIS DRAWING HAVE BEEN
PLOTTED FROM (PROVIDED) ASCE (38) UTILITY QUALITY LEVEL D
(Q_{LD}) AVAILABLE INFORMATION. IT IS, HOWEVER, THE CONTRACTORS
RESPONSIBILITY TO FIELD VERIFY THE SIZE, MATERIAL, HORIZONTAL
AND VERTICAL LOCATION OF ALL UTILITIES (DEPICTED OR NOT
DEPICTED) PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.

PRJ #: MC18.0378

0101 FAWCETT ROAD, SUITE 260, AVON, COLORADO 81620
970.926.6007 MARTINMARTIN.COM

3003 Larimer Street
Denver, Colorado 80205
phone 303.861.5704
www.ozarch.com

32753
APR. 27, 2018
Mark J. Martin
PROFESSIONAL ENGINEER

FRISCO DAY LODGE RENOVATION

621 RECREATION WAY
FRISCO, CO 80443

PROJ. NO. 117119.00
DRAWN: M/M
CHECKED: M/M
APPROVED: M/M
DATE: 2018-04-27

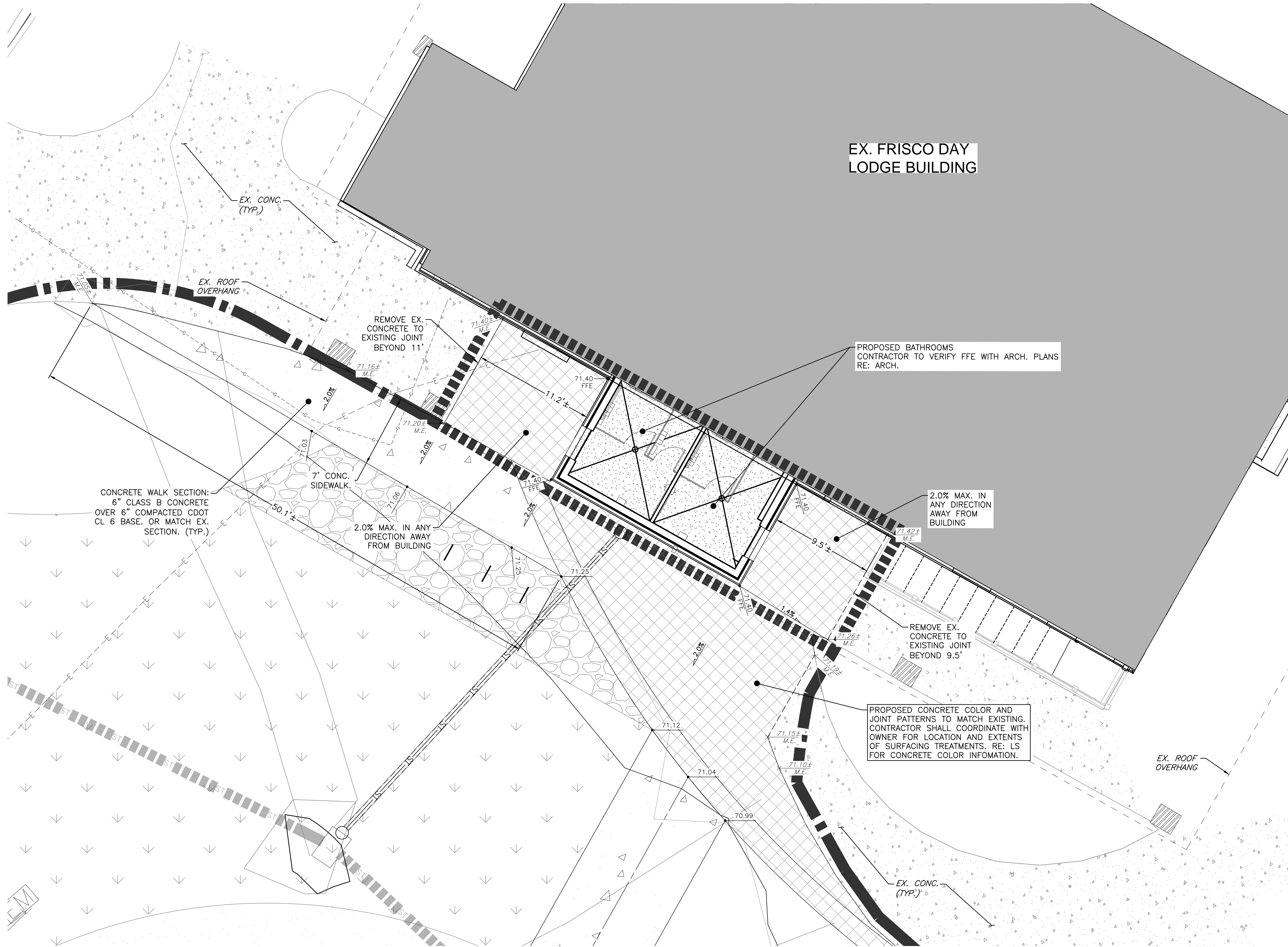
FRISCO DAY LODGE
RENOVATION
(ALTERNATE #1)
ISSUED FOR:
PERMIT SET

SHEET TITLE:
DEMOLITION PLAN

SCALE: PER PLAN
SHEET NUMBER

C-100

PLOT DATE: Thursday, April 26, 2018 12:00 PM LAST SAVED BY: RJOHNSON
DRAWING LOCATION: H:\MC18.0378-Frisco Peninsula Recreation Area\PLANS\CDs\SITE PLAN BATHROOM.dwg



3003 Larimer Street
Denver, Colorado 80205
phone 303.861.5704
www.ozarch.com



**FRISCO DAY LODGE RENOVATION
(ALTERNATE #1)
621 RECREATION WAY
FRISCO, CO 80443**

PROJ. NO. 117119.00
DRAWN: M/M
CHECKED: M/M
APPROVED: M/M
DATE: 2018-04-27
© OZ ARCHITECTURE

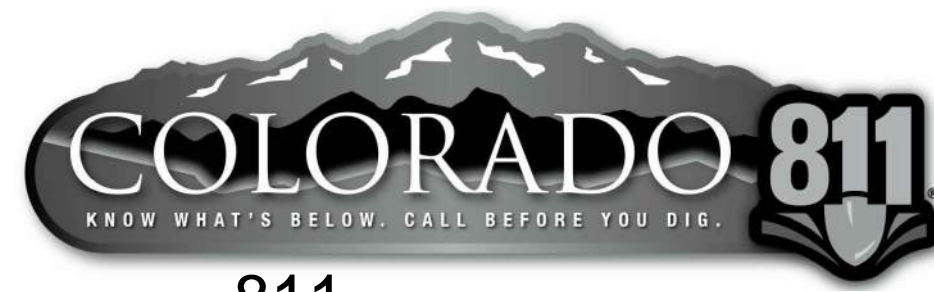
FRISCO DAY LODGE RENOVATION
(ALTERNATE #1)
ISSUED FOR:
PERMIT SET

SHEET TITLE:
CIVIL RESTROOM SITE
AND GRADING PLAN

SCALE: PER PLAN
SHEET NUMBER
C-202

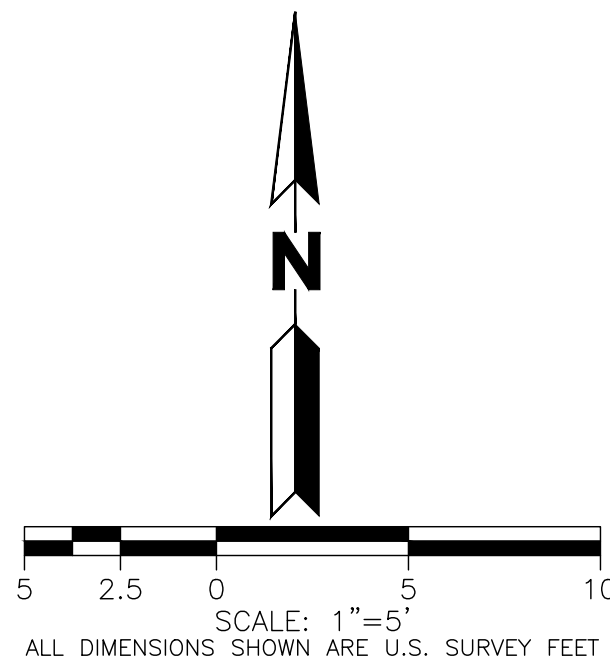
GRADING NOTES:

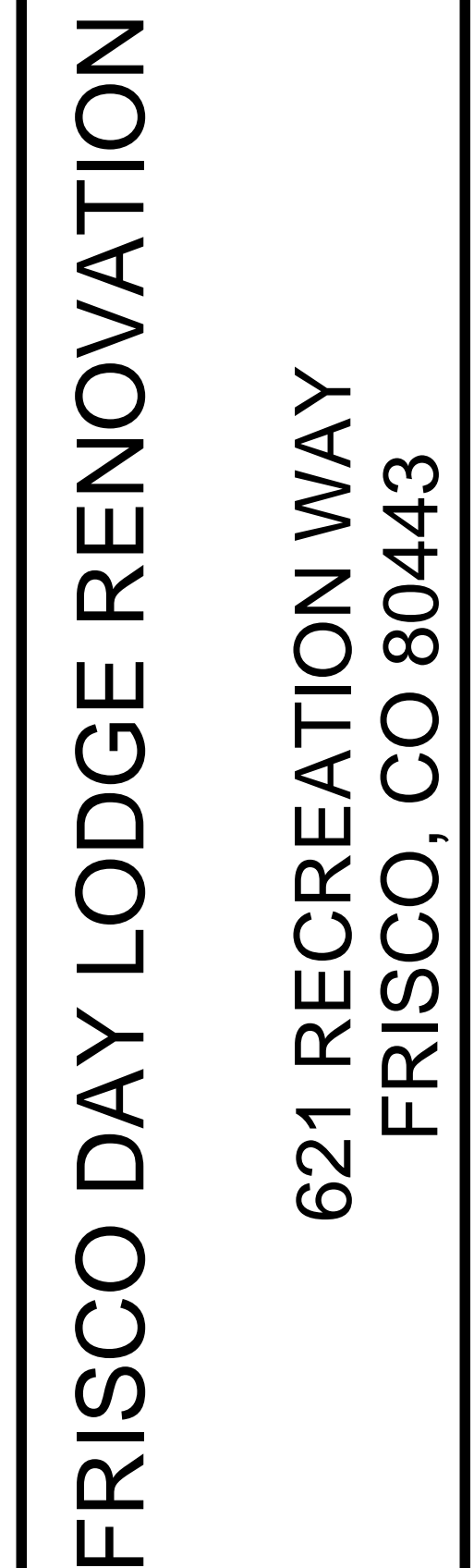
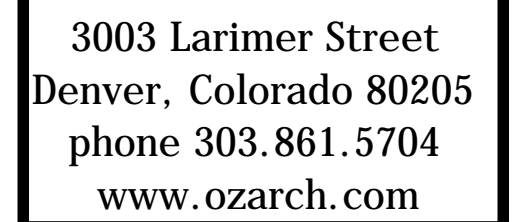
1. ALL SITE GRADING [EXCAVATION, EMBANKMENT, AND COMPACTION] SHALL CONFORM TO THE RECOMMENDATIONS OF THE LATEST GEOTECHNICAL INVESTIGATION FOR THIS PROPERTY AND SHALL FURTHER BE IN CONFORMANCE WITH THE TOWN OF FRISCO'S "STANDARDS AND SPECIFICATIONS FOR THE DESIGN AND CONSTRUCTION OF PUBLIC IMPROVEMENTS," LATEST EDITION.
2. ALL NEWLY CONSTRUCTED OR ALTERATIONS OF ACCESSIBILITY ROUTES (WALKS, RAMPS, ENTRANCES, ETC.) SHALL COMPLY WITH THE RULES AND REGULATIONS SET FORTH BY ADA, ADAAG, CITY, STATE, FEDERAL OR JURISDICTION HAVING AUTHORITY, INCLUDING BUT NOT LIMITED TO: 5% MAXIMUM GRADE ON WALKS WITHOUT HANDRAILS, 8.33% MAXIMUM GRADE ON WALKS WITH HANDRAILS AND LEVEL LANDINGS (MAXIMUM 2% COMPOSITE SLOPE), 2% MAXIMUM CROSS SLOPE ON WALKS AND 2% MAXIMUM COMPOSITE SLOPE IN HANDICAP PARKING/LOADING AREAS. NO TOLERANCE REGARDING MAXIMUM SLOPES WILL BE ALLOWED. DURING CONSTRUCTION, CONTRACTOR SHALL COORDINATE AS NECESSARY WITH OWNER, DEVELOPER, ENGINEER, ARCHITECT, OR DESIGNATED OFFICIAL IF RULES AND REGULATIONS OF ACCESSIBILITY ROUTES CAN NOT BE MET. IN ADDITION, OWNER IS ADVISED THAT REGULAR MAINTENANCE PROGRAMS SHOULD BE IMPLEMENTED AFTER CONSTRUCTION TO KEEP EXISTING ROUTES SAFE, USABLE, AND ADA COMPLIANT.
3. IT IS THE INTENTION OF THE PROJECT GRADING PLANS TO BE IN STRICT COMPLIANCE WITH, AND OR EXCEED, THE PROJECT'S GEOTECHNICAL ENGINEER'S GRADING RECOMMENDATIONS. IF THE CONTRACTOR BELIEVES A DEVIATION EXISTS BETWEEN THE PLANS AND THE GEOTECHNICAL RECOMMENDATION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY AND REQUEST WRITTEN CLARIFICATION PRIOR TO PROCEEDING WITH WORK. THE GENERAL CONSTRUCTION SPECIFICATION IS THAT THE MOST RESTRICTIVE REQUIREMENT/RECOMMENDATION GOVERNS THE CONSTRUCTION OF THE PROJECT.
4. EXISTING ELEVATIONS SHOWN ON THIS DRAWING HAVE BEEN DEPICTED FROM BEST AVAILABLE INFORMATION AND ARE SHOWN TO THE EXTENT KNOWN. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY EXISTING GRADE CONDITIONS AT THE LIMITS OF CONSTRUCTION AND AT LOCATIONS THAT INTERFACE WITH EXISTING OR PROPOSED STRUCTURES AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES THAT CONTRADICT THE ENGINEERS INTENT FOR DRAINAGE PATTERNS, MAXIMUM AND MINIMUM SLOPES, AND PROPOSED ELEVATIONS AS SHOWN ON THE PLAN. THE ENGINEER WILL NOT BE LIABLE FOR ANY COSTS ASSOCIATED WITH CHANGES TO THE DESIGN WITHOUT PROPER NOTIFICATION.
5. PROPOSED CONTOURS AND SPOT ELEVATIONS AS SHOWN HEREIN ARE DEFINED AS FINISHED ELEVATION AFTER PAVING, LANDSCAPING, ETC. CONTRACTOR SHALL COORDINATE WITH GEOTECH FOR PAVEMENT THICKNESS AND LANDSCAPE FOR THICKNESS OF TOPSOIL, SOD AND LANDSCAPE MATERIALS.
6. ALL SPOTS ARE TO FLOWLINE UNLESS OTHERWISE NOTED. FG = FINISHED GRADE, FF = FINISH FLOOR, TOF = TOP OF FOUNDATION, HP = HIGH POINT, LP = LOW POINT, TOW = TOP OF WALL [FINISHED GRADE AT BACK OF WALL], BOW = BOTTOM OF WALL [FINISHED GRADE AT FACE OF WALL], GB = GRADE BREAK, FL = FLOWLINE, TOC = TOP OF CURB.
7. TEMPORARY CUT/FILL SLOPES SHALL NOT EXCEED A STEEPNESS OF [1:1] (H:V). PERMANENT SLOPES SHALL NOT EXCEED [4:1] (H:V) [UNLESS NOTED OTHERWISE] IN AREAS TO BE SEEDED OR SODDED.
8. CONTRACTOR SHALL ADJUST ALL EXISTING AND PROPOSED MANHOLE RIMS, VALVE BOXES, ETC. TO MATCH FINAL GRADE.



CALL **811** 2-BUSINESS DAYS IN ADVANCE
BEFORE YOU DIG, GRADE OR EXCAVATE FOR
MARKING OF UNDERGROUND MEMBER UTILITIES

MARTIN/MARTIN ASSUMES NO RESPONSIBILITY FOR UTILITY LOCATIONS. THE UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM (PROVIDED) ASCE (38) UTILITY QUALITY LEVEL D (Q_D) AVAILABLE INFORMATION. IT IS, HOWEVER, THE CONTRACTORS RESPONSIBILITY TO FIELD VERIFY THE SIZE, MATERIAL, HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES (DEPICTED OR NOT DEPICTED) PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.





© OZ ARCHITECTURE

C-400



MARTIN/MARTIN ASSUMES NO RESPONSIBILITY FOR UTILITY LOCATIONS. THE UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM (PROVIDED) ASCE (38) UTILITY QUALITY LEVEL D (Q_uD) AVAILABLE INFORMATION. IT IS, HOWEVER, THE CONTRACTORS RESPONSIBILITY TO FIELD VERIFY THE SIZE, MATERIAL, HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES (DEPICTED OR NOT DEPICTED) PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.