ANGOON VISITOR CENTER For CITY OF ANGOON EDA AWARD NO.: 07-79-07673 COFFEE SHOP

BID DOCUMENTS





		1	
OWNER	ARCHITECT	OTHER	CODE STUDY AND DESCRIPTIO
CITY OF ANGOON 700 Aandeinaatt St, PO Box 189 Angoon, AK 99820	MRV ARCHITECTS, PC 1420 GLACIER AVE, SUITE 101 JUNEAU, ALASKA 99801		GENERAL DESCRIPTION A new Visitor Center will be constructed for the City
MANAGER: Jon Wunrow	907-586-1371		for use by residents and visitors. The facility will pro exhibits and flexible use, and a working artist studio
E-MAIL: jonwunrow@gmail.com	MANAGER: Zane Jones		covered outside deck area with views to Mitchell Ba
STRUCTURAL ENGINEER	E-MAIL: zane@mrvarchitects.com MECHANICAL ENGINEER		Building Materials and Form: The building is wood-f detailing provided by the City of Angoon. The structu shingles, with an alternate upgrade to standing sear
BBFM Engineers, Inc. 845 K Street Anchorage, AK 99501	Alaska Energy Engineering LLC 25200 Amalga Harbor Rd.		<u>Traditional Influences</u> : The form of the building draw provision for wall-mounted carved panels. The siding features a central arrival totem pole(procured separa
907-274-2236	907-789-1226		<u>Energy-efficiency</u> : The building will incorporate best both batt insulation and exterior rigid board insulation
MANAGER: Dennis Berry E-MAIL: dberry@bbfm.com	MANAGER: Jim Rehfeldt E-MAIL: jim@alaskaenergy.us		includes 14" of batt insulation in conjunction with 1.5 tandem with the efficient exterior construction, and v maintenance costs.
CIVIL ENGINEER	ELECTRICAL ENGINEER		PLANNING & CODE STUDY – ANGOON VISITOR
Katabatic Engineering PO 210076	Pat Gorman		Governing Codes:
Auke Bay, AK 99821	907-463-6721		General: International Building Code Electrical: National Electric Code 202
503-866-5579	MANAGER: Pat Gorman		Mechanical: International Mech Code, 2 Plumbing: UPC 2015
MANAGER: Gabe Hayden E-MAIL:hayden@katabaticeng.com	E-MAIL: pgorman@gci.net		Fire: IFC 2021 Accesibility: Americans with Disabilities Architectural Barriers Act
GENERAL ABBREVIATION	S (SEE ENGINEERING SHEETS FOR A	DDITIONAL)	 Accessibility Guidelines fo Building Data:
@ AT AB ANCHOR BOLT(S)	GA GAUGE, GYPSUM ASSOCIATION	RAD RADIUS	Location: Angoon, Alaska
ABANCHOR BOLT(S)ACTACOUSTICAL CEILING TILEADAAMERICANS W/ DISABILITIES ACT	GALV GALVANIZED GB GRAB BAR GL GLASS, GLAZING	RB RESILIENT WALL BASE REINF REINFORCED, REINFORCING REQ'D REQUIRED	Owner:City of AngoonSize:Level 1 = 2513 SF
ADJ ADJUSTABLE AFF ABOVE FINISH FLOOR ALT ALTERNATE	GLU-LAM GLUED-LAMINATED GWB GYPSUM WALL BOARD GWS GYPSUM WALL SHEATHING	RESIL RESILIENT RESIST RESISTANT REV REVISION, REVISE	Site & Zoning: Development is per Angoon Municip
ALUM ALUMINUM APC ACOUSTICAL PANEL CEILING	GYP GYPSUM	R/F REFRIGERATOR/FREEZER RM ROOM	
APPRX APPROXIMATE ASPH ASPHALT AT ACOUSTICAL TILE	H HIGH HDWD HARDWOOD HM HOLLOW METAL	RO ROUGH OPENING ROW RIGHT-OF-WAY RTN RETURN	 Zoning: The lot is Residential zone - town col Permitted Use: In Residential zone - town col
BATT MINERAL FIBRE BLANKET	HSS HOLLOW STEEL SECTION HT HEIGHT	S SOUTH	 Conditional Use: Requirement for residential Building Setback: Commercial front yard set
BLDG BUILDING BLKG BLOCKING BOC BOTTOM OF CONCRETE	HORZ HORIZONTAL	S-AWPM SELF-ADHERED WATERPROOF MEMBRANE SCHED SCHEDULE	 Application for Conditional Use community center requires conditional
BODBOTTOM OF DECKBOBOTTOM OF	IN INCH INCL INCLUDING, INCLUDED	SD SOAP DISPENSER SECT SECTION(AL)	 Max Building Height: 40 ft, Residential zone Parking
BOS BOTTOM OF STEEL CENTERLINE	INSUL INSULATION, INSULATED	SHT SHEET SIM SIMILAR SPEC SPECIFICATIONS(S)	A minimum of two improved off-street p improved off-street parking space for eaching space fo
CG CORNER GUARD CLG CEILING	KIT KITCHEN L LENGTH	SQ SQUARE STD STANDARD	 stalls adjacent to the building. A separa Signs: Signs permanently affixed to structure
CLR CLEAR COL COLUMN CONC CONCRETE	LAM LAMINATE(D) LAV LAVATORY LB POUND	STL STEEL STOR STORAGE STRUCT STRUCTURE, STRUCTURAL	with initial construction.
CONFIG CONFIGURATION CONST CONSTRUCTION	LF LINEAL FEET LVR LOUVER	SS STAINLESS STEEL SYMM SYMMETRIC(AL)	Building Code
CONT CONTINUOUS COORD COORDINATE CORR CORRIDOR	MAT MATERIAL MAX MAXIMUM	T TREAD(S), TOILET T&G TONGUE AND GROOVE	 Chapter 3 – Occupancy Occupancy Type: A-3.
CPT CARPET CSNK COUNTERSINK	MB MARKERBOARD MECH MECHANICAL	TOC TOP OF CONCRETE TEL TELEPHONE	Chapter 4 – Detailed Requirements
DIA DIAMETER DISP DISPENSER	MEZZ MEZZANINE MH MOP HOLDER MIN MINIMUM	TEMP TEMPORARY TOC TOP OF CONCRETE TOD TOP OF DECK(ING)	 Detailed requirements: None. Chapter 5 – General Heights and Requirem
DIM DIMENSION DN DOWN	MISC MISCELLANEOUS MTD MOUNTED	TOF TOP OF FOOTING TOS TOP OF STEEL	 <u>General Heights and Areas</u> Type V-B, non-sprinklered Table 504.2 beights under 40ft a
DS DOWNSPOUT DWG DRAWING	MTL METAL MUL MULLION MW MICROWAVE UNIT	TP TOWEL PIN TS TUBE STEEL TV TELEVISION	 Table 504.3 heights under 40ft s Table 506.2 Type V-B construction
(E) EXISTING E EAST	N NORTH	TYP TYPICAL	 Chapter 6 – Types of Construction Table 601 Type V-B requires 0 hr fire re
EA EACH EIFS EXTERIOR INSULATION FINISH SYSTEM	NIC NOT IN CONTRACT NO/# NUMBER NOM NOMINAL	UC UNDER COUNTER UON UNLESS OTHERWISE NOTED	 Chapter 7 – Fire and Smoke Protection Fire and Smoke Protection: No requirer
ELEC ELECTRIC(AL) ENGR ENGINEER	NTS NOT TO SCALE	VCT VINYL COMPOSITION TILE VERT VERTICAL	 Chapter 8 – Interior Finishes Table 803.13 Occupancy A requires Classical
EP ELECTRICAL PANELBOARD EPS EXPANDED POLYSTYRENE INSULATION BOARD	OA OVERALL OC ON CENTER OD OUTSIDE DIAMETER	VF VERIFY IN FIELD VOL VOLUME VR VAPOR RETARDER	 Chapter 9 – Fire Protection and Safety System Per Section 906, Portable Fire Extinguities
EQ EQUAL EQUIP EQUIPMENT	OFCI OWNER FURNISH CONTRACTOR	VTR VENT THROUGH ROOF	 Low Hazard criteria is met. Max travel of 75' is met.
EXTG EXISTING FA FIRE ALARM	OFOI OWNER FURNISH OWNER INSTALL OH OVERHEAD, OPPOSITE HAND OPNG OPENING	W WEST W/ WITH W/O WITHOUT	 Minimum 1 extinguisher per floor Chapter 10 – Means of Egress
FD FLOOR DRAIN FDN FOUNDATION	OPP OPPOSITE OSB ORIENTED STRAND BOARD	WB WOOD BASE WC WATER CLOSET	 100.4 Occupant Load Community Space/gallery
FE FIRE EXTINGUISHER FEC FIRE EXTINGUISHER CABINET FF FINISH FACE	PDF POWER DRIVEN FASTENER PERF PERFORATED	WD WOOD WF WIDE FLANGE WP WATERPROOF	 Mechanical/Stor Areas Sales/Mercantile
FFB FINISH FLOOR BREAK FIN FINISH	PIC POLYISOCYANURATE BOARD	WM WALK-OFF MAT WR WATER RESISTANT	Café area = 1 per Kitchenette = 1 per
FL FLOOR(ING) FOC FACE OF CONCRETE FOF FACE OF FINISH	PL PLATE PLAM PLASTIC LAMINATE PLAS PLASTER	WSCT WAINSCOT WT WEIGHT	 Total Occupant Load = 59
FSS FOLDING SHOWER SEAT FOS FACE OF SHEATHING	PLYWD PLYWOOD POLY POLYETHYLENE	XPS EXTRUDED POLYSYTRENE INSULATION	 Per 1006; Exiting for 59 O Chapter 29 – Plumbing Requirements Total accurrency load of 64. Minimumo
FRT FIRE-RETARDANT TREATED FT FOOT, FEET FTG FOOTING FURR FURRING	PREFAB PREFABRICATED PREFIN PREFINISHED PT PRESSURE TREATED PTA, PT1 PAINT TYPE "A", PAINT TYPE "1", ETC.	YD YARD, YARD DRAIN	 Total occupancy load of 64. Minimums 2 restrooms for group A occupancy IPC 410.4 Substitution: Drinking
	PTD PAPER TOWEL DISPENSER		<u>Alternates</u>
	PVC POLY VINYL CHLORIDE		1. <u>Deductive Alternate, Owner Provided Lumber</u>

2.

3.

ON

ity of Angoon. The new facility, on an undeveloped site, will provide a welcoming and accessible facility provide three related functions: a small coffee shop and cafeteria, a visitor's information area with lio. The overall facility totals 2,513 square feet on a single floor. Support areas include restrooms, and a Bay.

d-framed, incorporating locally-sourced spruce, hemlock, and cedar in exterior siding, trim, and interior cture includes a slab on grade, bearing walls, and custom truss roof. The roof is high-quality comp eam metal roof.

raws from Tlingit long-house form, with a symmetric gable and entry, flanked by spruce log posts, and ling utilizes rough-sawn vertical boards, designed to weather in a traditional fashion. The design arately), with the foundation and base provided with this project.

est practices for reduced energy use and sustainability practices. The exterior wood stud walls integrate ion, providing excellent R-32 performance. Fiberglass windows will be triple-glazed. Roof construction 1.5" polyisocyanurate insulation board. Heating will be provided by air-source heat pumps, working in wood stove supplemental heat. This will provide the lowest practical operating costs, and reduced

OR CENTER

ing Codes:	
Seneral:	International Building Code, 2021.
lectrical:	National Electric Code 2021
lechanical:	International Mech Code, 2021;
lumbing:	UPC 2015
ire:	IFC 2021
ccesibility:	Americans with Disabilities Act of 1990 (ADA)(42 U.S.C. 12101 et seq.)
•	Architectural Barriers Act of 1968 (42 U.S.C. 4151 et seq.)
	Accessibility Guidelines for Buildings and Facilities regulations, as amended (36 C.F.R. part 1191)
a Data:	

cipal Code; Chapter 18; Zoning.

core.

core, Retail sales, recreation sites

ial zone – town core, Community Center.

setback: <u>10'</u>

al use approval. ne – town core.

t parking spaces shall be provided for the first 500 square feet of gross commercial floor area and one each additional 500 square feet of gross commercial floor area. Requirement is satisfied with 2 ADA parate lower lot is available for additional parking.

res shall not exceed 40 square feet in the commercial or residential/commercial zones. None provided

ements

- satisfied for non-sprinklered construction.
- ction up to 6,000 SF per story with non-sprinklered construction.
- e resistance.
- rements

Class B interior finishes at exits, exit access and corridors. Class C finishes in rooms.

= 1 per 30; 744/30 = 25 Occupants

- ystems juisher will be provided.

- oor is provided.

- = 1 per 300; 599/300 = 2 Occupants = 1 per 60; 240/60 = 4 Occupants
- per 15; 392/15 = 27 Occupants
- per 200; 189/200 = 1 Occupant

Occupants can be met with two exits.

- ns per table 2902.1:
- pancy, met.

ng fountains not required in restaurants that provide drinking water free of charge.

Deductive Alternate, Owner Provided Lumber for Siding and Architectural Materials: Owner provided lumber; see A001 Lumber Cut Sheet.

Upgrade Architectural Finish Materials: Upgrade flooring materials to carpet in the display area. Tile wainscot in restrooms. Wood wainscot in cafe area.

Metal Standing Seam Roof: Upgrade roofing materials from asphalt shingles to metal standing seam roof.

DRAWING INDEX

G001 CIVIL

C001 C002 C003 C004 C005

A001

A150 A201 A210 A250 A300 A301 A400 A401 A500 A501 A600 A601 A700 A701 A710 A800 A801

STRUCTURAL

S0.01 S1.01 S1.02 S5.01 S5.02

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M101
M102
M201
M202
M203
M301
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E200 E300

E500 E501

GENERAL

SHEET INDEX, CODE, ABBREV. SITE PLAN SECTION A-A **RETAINING WALL** UTILITY PLAN SEWER SERVICE DETAIL C006 WATER SERVICE DETAIL

ARCHITECTURAL

- SCHEDULES A100 SITE PLAN ENLARGED SITE PLAN FLOOR PLAN 1 ENLARGED KITCHNETTE PLAN ROOF PLAN **BUILDING SECTIONS** BUILDING SECTIONS **BUILDING ELEVATIONS BUILDING ELEVATIONS** ENLARGED WALL SECTION ENLARGED WALL SECTION INTERIOR ELEVATIONS INTERIOR ELEVATIONS TYPICAL EXTERIOR ELEVATIONS EXTERIOR DETAILS EXTERIOR ROOF DETAILS TYP INTERIOR DETAILS INTERIOR DETAILS A901 REFLECTED CEILING PLAN
 - GENERAL NOTES
 - FOUNDATION PLAN
 - ROOF FRAMING PLAN FOUNDATION DETAILS
 - FRAMING DETAILS AND SCHEDULES

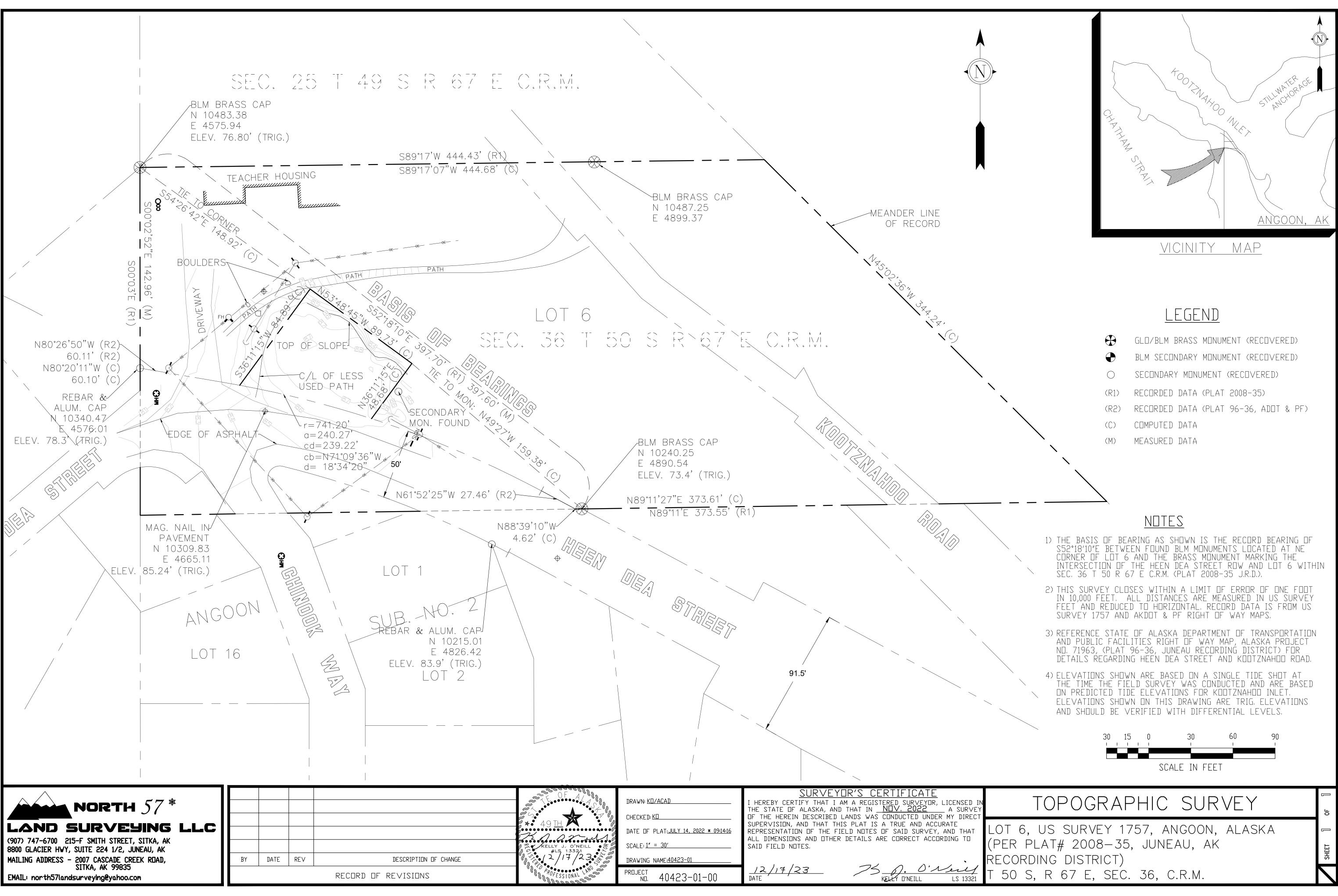
MECHANICAL

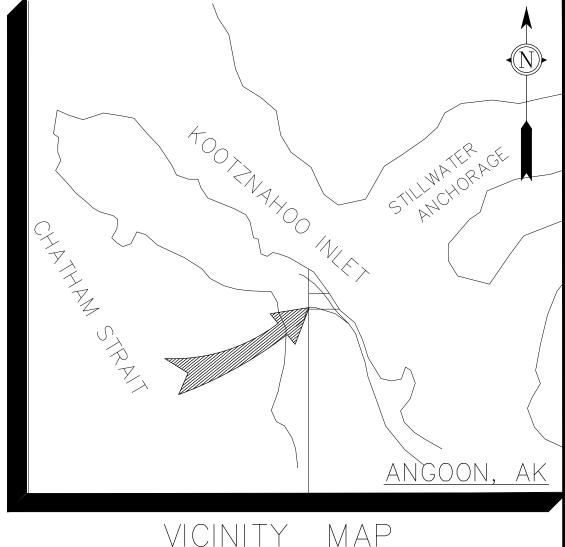
DESCRIPTION OF WORK, GENERAL NOTES, SYMBOLS SCHEDULES UNDERFLOOR PLAN PIPING PLAN VENTILATION PLAN PLUMBING DIAGRAM M401 SPECIFICATIONS

ELECTRICAL

- E100 LEGEND & ABBREV., NOTES & SPECS, SITE PLAN,
 - SINGLE LINE POWER & SIGNAL PLAN, SHEET NOTES
 - LIGHTING PLAN. SHEET NOTES
- E400 PANEL & LUMINAIRE SCHEDULES, EXTERIOR
 - LIGHTING
 - **ELECTRICAL SPECIFICATIONS, PART 1** ELECTRICAL SPECIFICATIONS, PART 2

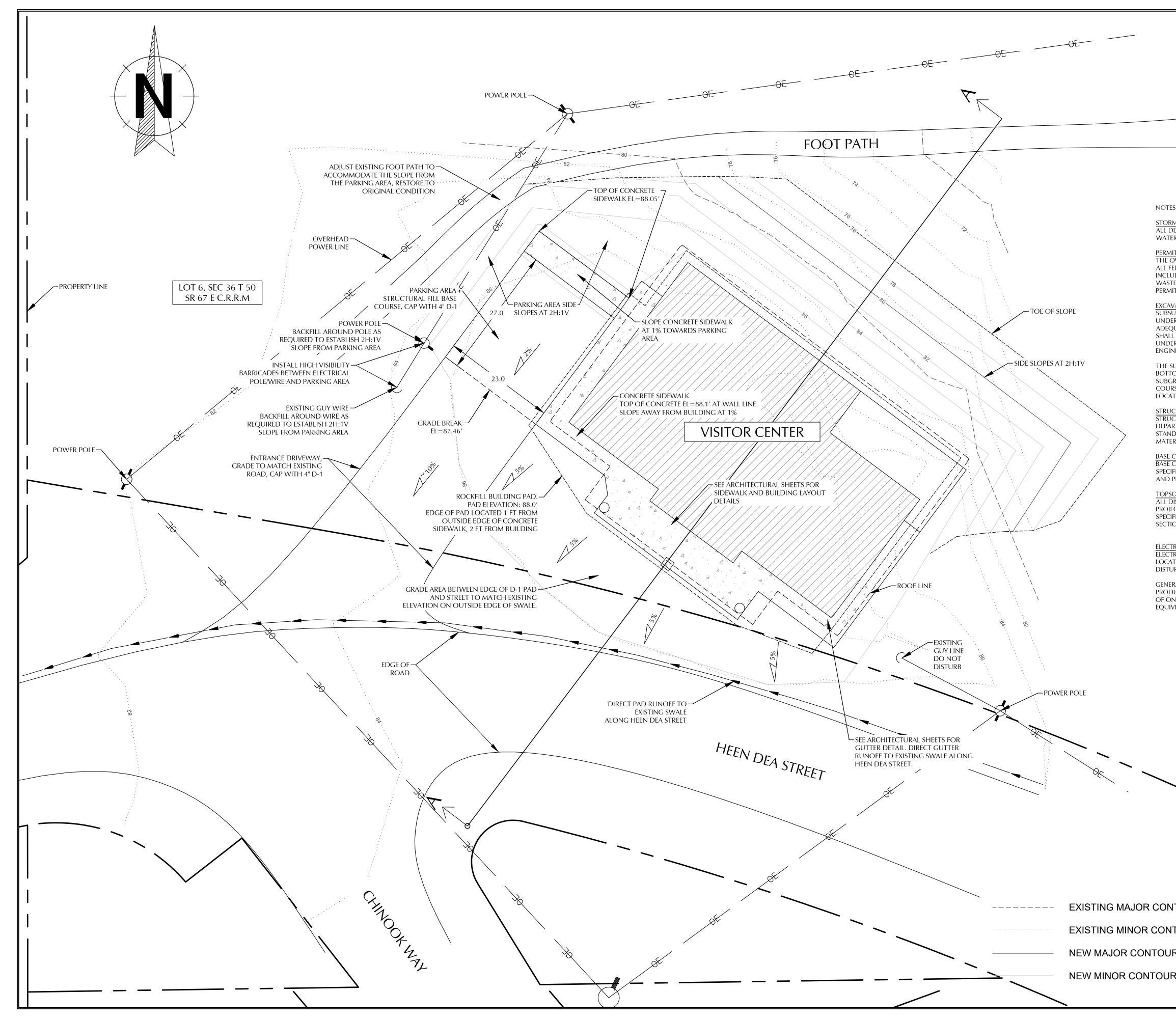
	PAUL VOELCKERS No. 6536-A	
A R ARCHITEC	R C H PLANNING	C T S INTERIORS
	MRV ARCHITEC 20 GLACIER AVE JUNEAU, AK 998 907-586-137 FAX 907-463-55 tv@mrvarchitect	. #101 801 1 544
CONSTRUCTION DOCUMENTS	ANGOON VISITOR CENTER	CITY OF ANGOON MRV # 2227
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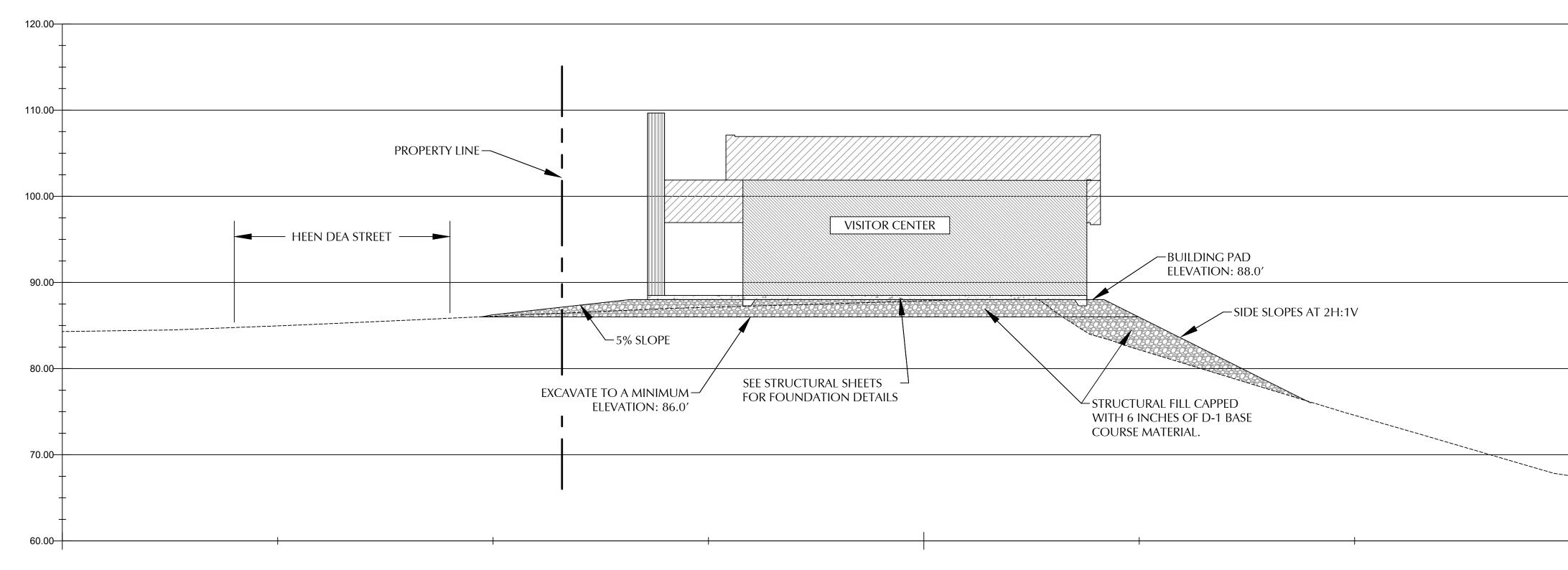


	GLD/BLM BRASS MONUMENT (RECOVERED)
\bullet	BLM SECONDARY MONUMENT (RECOVERED)
\bigcirc	SECONDARY MONUMENT (RECOVERED)
(R1)	RECORDED DATA (PLAT 2008-35)
(R2)	RECORDED DATA (PLAT 96-36, ADDT & PF)
([)	COMPUTED DATA
(M)	MEASURED DATA



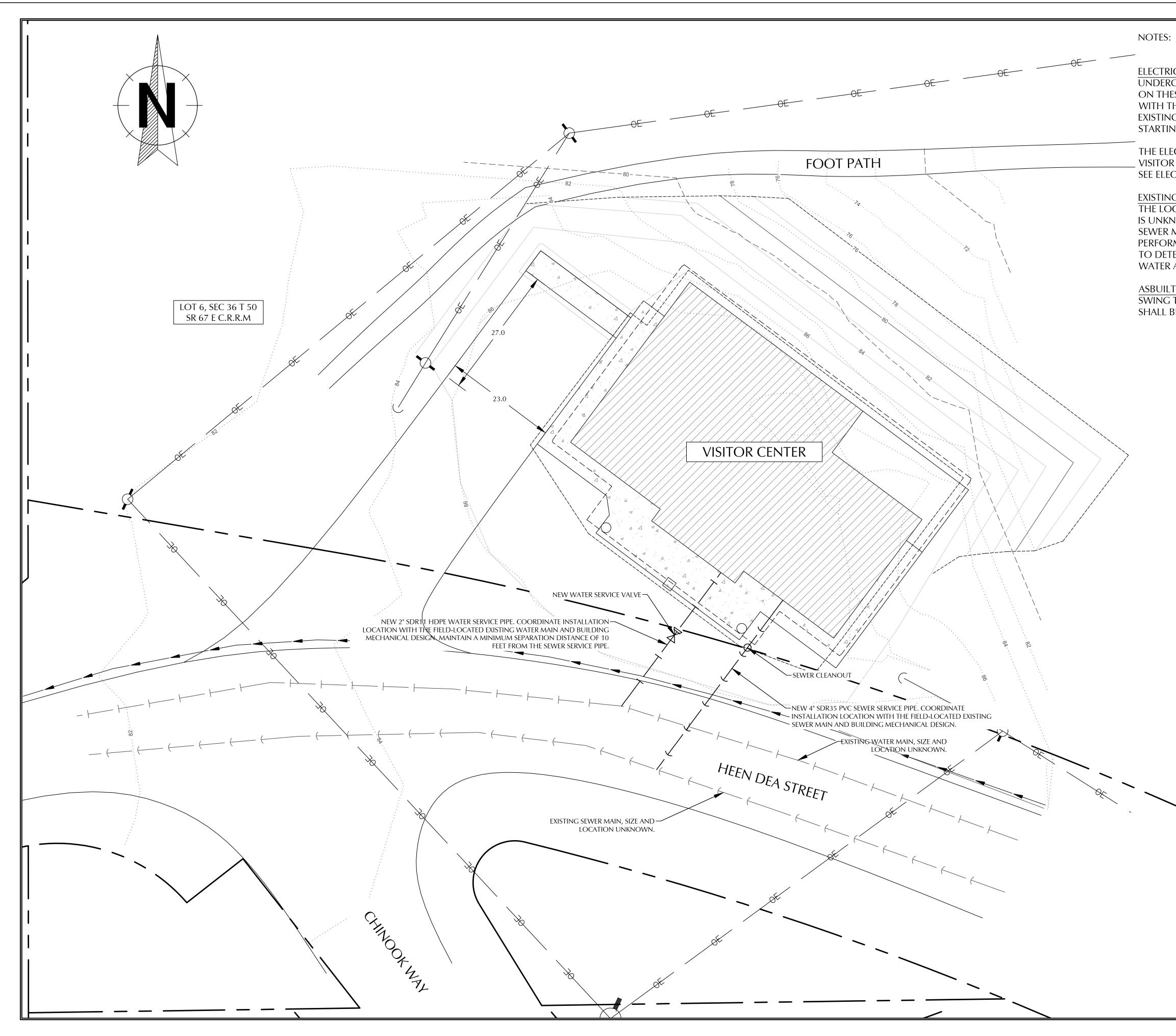


		Cabriel Hayden No. 14703	Helers
S: <u>MWATER</u> DEVELOPMENT ACTIVITIES SHALL COMPLY WITH STATE OF ALASKA STORM ER GUIDE. <u>ITS</u> DWNER IS RESPONSIBLE FOR OBTAINING AND COMPLYING WITH THE TERMS OF EDERAL, STATE, AND LOCAL NECESSARY FOR AND APPLICABLE TO THE WORK, JDING BUT NOT LIMITED TO BUILDING PERMITS, GRADING PERMITS, TEWATER PERMITS, DOMESTIC WATER PERMITS, CONSTRUCTION STORMWATER ITS, AND USACE 404 PERMITS. <u>VATION</u> URFACE INVESTIGATION HAS NOT BEEN PERFORMED AT THE SITE. THE SITE IS ERSTOOD TO CONSIST UNIFORMLY OF COMPACTED IMPORTED ROCK WITH QUATE BEARING CAPACITY FOR THE NEW VISITOR CENTER. THE CONTRACTOR L CONFIRM THE SUBSURFACE CONDITIONS ARE CONSISTENT WITH THIS ERSTANDING DURING THE INITIAL SITE DEVELOPMENT AND CONTACT THE NEER WITH ANY DISCREPANCIES. SUBGRADE SHALL BE EXCAVATED TO COMPETENT BEARING SOIL OR THE OM OF THE NEW STRUCTURAL FILL, WHICHEVER IS THE GREATER DEPTH. SRADE SHALL BE PROOF ROLLED WITH A 12-TON COMPACTOR PRIOR TO BASE PERING IN A PROOF ROLLED WITH A 12-TON COMPACTOR PRIOR TO BASE	KA1	TABATIC ENGIN PO BOX 2100 AUKE BAY, AK 9 503-866-557 EN@KATABATIO	NEERING 076 09821 79
RSE INSTALLATION. EXCAVATED MATERIAL SHALL BE HAULED OFFSITE TO A TION DESIGNATED BY THE OWNER. CTURAL FILL GTURAL FILL SHALL BE MATERIAL MEETING THE REQUIREMENTS OF ALASKA RTMENT OF TRANSPORTATION AND PUBLIC FACILITIES (AK DOT&PF) 2020 DARD SPECIFICATIONS FOR HIGH WAY CONSTRUCTION, SECTION 703-2.13 (RIAL 'STRUCTURAL FILL'1, AND PLACED PER 205-3.02. COURSE COURSE SHALL BE MATERIAL MEETING THE REQUIREMENTS OF AK DOT&PF FICATIONS FOR HIGH WAY CONSTRUCTION, SECTION 703-2.03 MATERIAL D-1, PLACED PER SECTION 301. OIL AND SEEDING DISTURBED GROUND SHALL BE STABILIZED AT THE CONCLUSION OF THE ECT WITH 4 INCHES OF TOPSOIL, INSTALLED PER AK DOT&PF STANDARD FICATIONS FOR HIGH WAY CONSTRUCTION, SECTION 620, AND SEEDED PER ON 618. TRICAL UTILITIES TRICAL UTILITIES TRICAL UTILITIES TRICAL UTILITIES RAL NUCT SPECIFIED BY NAMING ONE OF THE MANUFACTURERS: USE A PRODUCT NE OF THE MANUFACTURERS NAMED AND MEETING SPECIFICATIONS, OR AN VILANT PRODUCT THAT MEETS THOSE SPECIFICATIONS.	100% CONSTRUCTION DOCUMENTS	ANGOON VISITOR CENTER	City of Angoon
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TOUR TOUR 5 0 10 20 TOUR R SCALE: 1"=10' R NOTE: 11"x 17" PRINT IS HALF SIZE		VN:	GH GH



SECTION A-A

	KATABATI	-
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ELECTRICAL UTILITIES

UNDERGROUND ELECTRICAL UTILITIES ARE NOT SHOWN ON THESE DRAWINGS. CONTRACTOR SHALL COORDINATE WITH THE OWNER'S PROJECT MANAGER TO LOCATE EXISTING UNDERGROUND ELECTRICAL UTILITIES PRIOR TO STARTING ANY GROUND DISTURBING ACTIVITIES.

THE ELECTRICAL AND TELECOM SERVICES TO THE NEW VISITOR CENTER ARE NOT SHOWN ON THESE DRAWINGS, SEE ELECTRICAL SHEETS FOR DESIGN INFORMATION.

EXISTING WATER AND SEWER MAINS

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SCALE: 1"=10'

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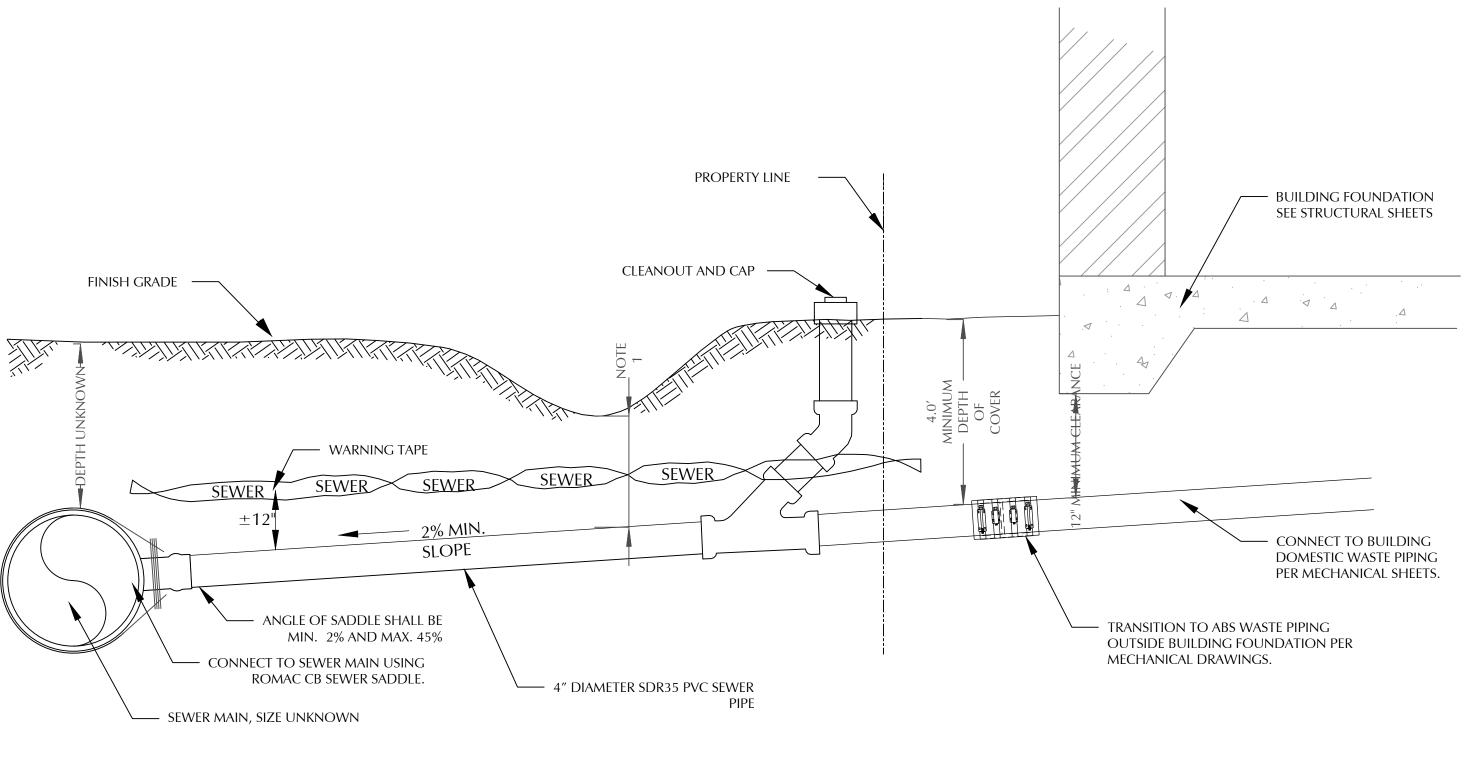
NOTE: 11"x 17" PRINT IS HALF SIZE

THE LOCATION OF THE EXISTING WATER AND SEWER MAINS IS UNKNOWN. THE PIPE SIZES OF THE EXISTING WATER AND SEWER MAINS IS UNKNOWN.THE CONTRACTOR SHOULD PERFORM INVESTIGATORY TEST PITING IN HEEN DEA STREET TO DETERMINE THE LOCATION AND SIZE OF THE EXISTING WATER AND SEWER MAINS.

ASBUILT INFORMATION

SWING TIES TO ALL INSTALLED BURIED UTILITY FEATURES SHALL BE TAKEN AND PROVED TO THE OWNER.

	Cabriel Hayden No. 14703	IN ELECS
A	ABATIC ENGIN PO BOX 2100 UKE BAY, AK 9 503-866-557 N@KATABATIC	976 99821 79
		MRV # 2227
100% CONSTRUCTION DOCUMENTS	ANGOON VISITOR CENTER	City of Angoon
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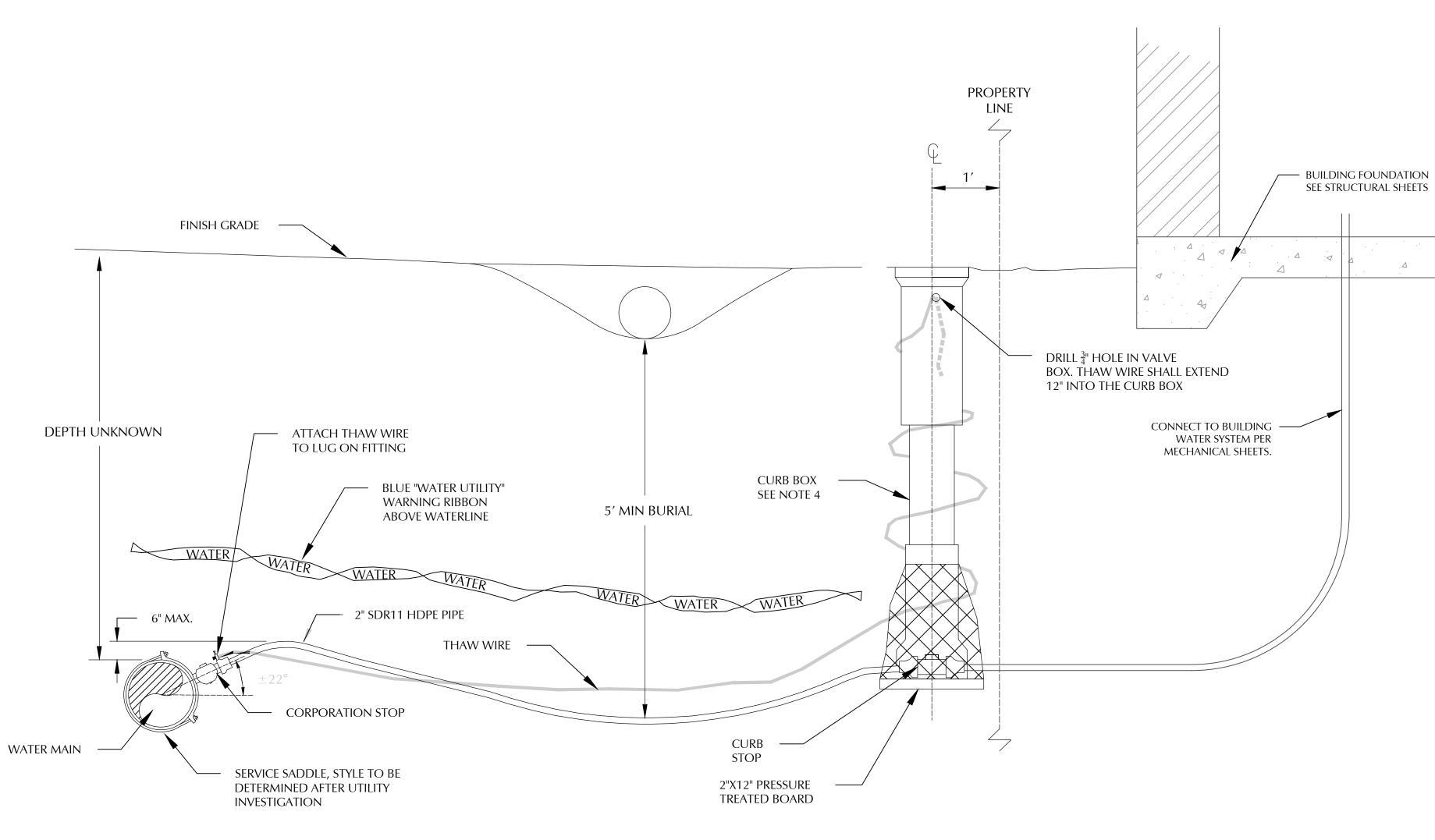
NOTES:

SEWER SERVICE DETAIL

MINIMUM CLEARANCE OF 18" REQUIRED BENEATH DITCH LINE. PIPE WITH LESS THAN 44" OF COVER SHALL BE INSULATED AS APPROVED BY THE ENGINEER.
 DISTANCE FROM WYE TO MANHOLE AND TWO MEASURED DISTANCES FROM END OF SERVICE PIPE TO PERMANENT OBJECTS SHALL BE NOTED ON AS-BUILT PLANS.
 DIAMETER OF HOLE CUT INTO SEWER MAIN SHALL NOT EXCEED 0.25 INCHES LARGER THAN THE SADDLE TEE CONNECTION.
 SEWER PIPE SHALL BE BEDDED PER THE REQUIREMENTS OF AK DOT&PF STANDARD SPECIFICATIONS, SECTION 204, WITH A MATERIAL MEETING THE REQUIREMENTS OF SECTION 703-2.07 TYPE A.
 MATERIALS AND INSTALLATION OF THE SEWER LATERAL SHALL CONFORM TO THE UNIFORM PLUMBING CODE.

	Cabriel Hayden No. 14703	ques
	KATABATIC ENGINEER PO BOX 210076 AUKE BAY, AK 998 503-866-5579 HAYDEN@KATABATICEN	RING 21
		MRV # 2227
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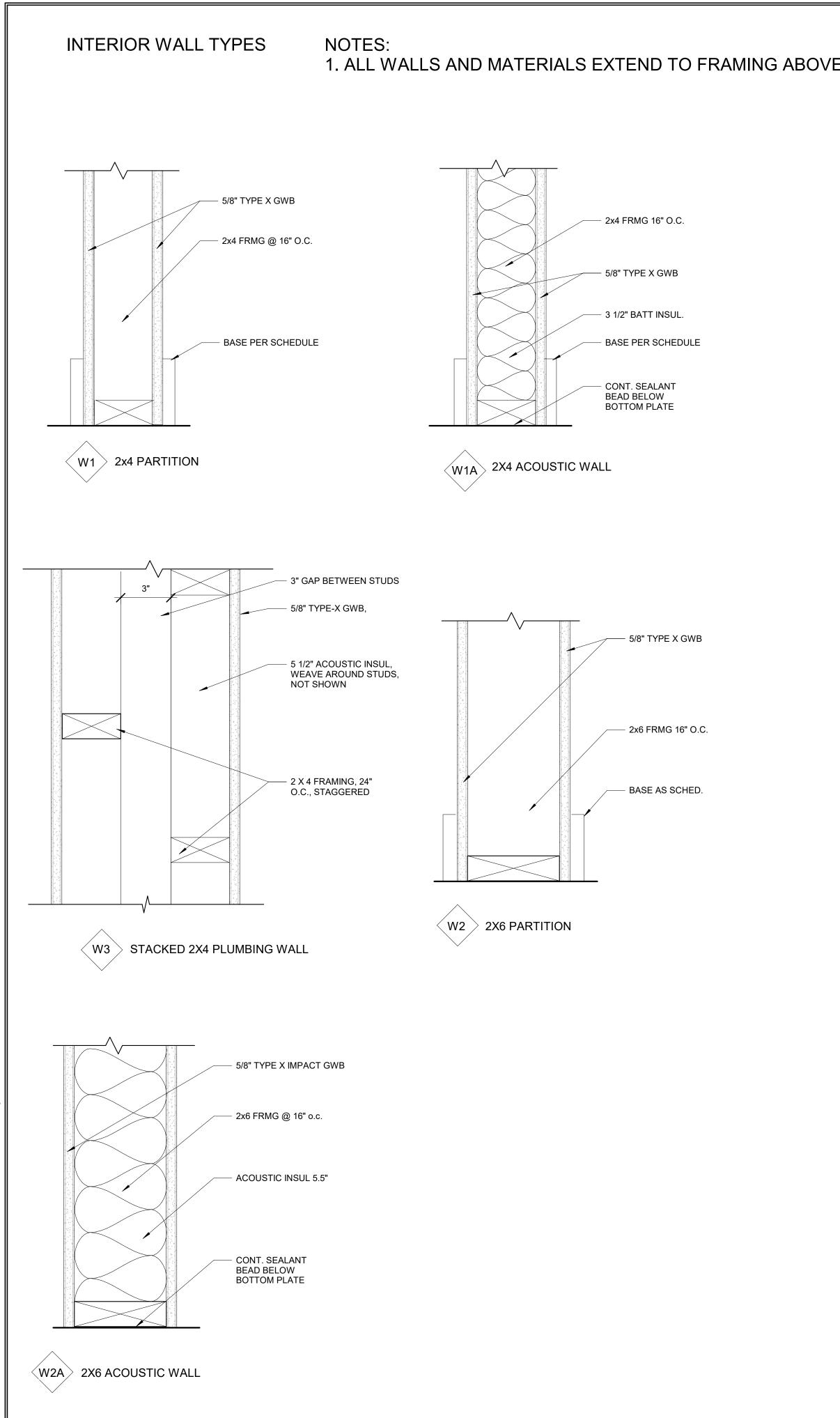
NOTES:

- 1. WATER SERVICE PIPE SHALL BE 2" SDR11 HDPE PIPE MEETING THE REQUIREMENTS OF AK DOT&PF STANDARD SPECIFICATIONS, SECTION 706-2.08.
- 2. WATER PIPE SHALL BE BEDDED PER THE REQUIREMENTS OF AK DOT&PF STANDARD SPECIFICATIONS, SECTION 204, WITH A MATERIAL MEETING THE REQUIREMENTS OF SECTION 703-2.07 TYPE A.
- 3. USE MUELLER CORPORATION STOP NO. B25025, FORD CORPORATION STOP NO. FB700-4, OR APPROVED EQUAL. CORPORATION STOP SHALL BE MALE IRON PIPE THREAD INLET BY FLARED COPPER OUTLET.
- 4. USE MUELLER CURB STOP NO. H15201, OR NO. H15204, FORD CURB STOP B22-444 OR APPROVED EQUAL.
- 5. CURB BOX SHALL BE KEJRIWAL PACIFIC 145R 49"-62" LID, TOP, MIDDLE AND BOTTOM OR APPROVED EQUIVALENT.
- 6. HDPE FITTINGS HALL BE QUICK JOINT COMPRESSION TYPE PEP FITTINGS WITH STAINLESS STEEL STIFFENER INSERT.
- 7. THAW WIRE SHALL BE WOUND AROUND OUTSIDE OF CURB BOX AND EXTEND 12" INTO THE CURBBOX THROU6H A DRILLED 5/4" HOLE.
- 8. ALL SERVICES MUST HAVE A MINIMUM OF 5' OF COVER BELOW EXISTING CULVERTS AND DITCHES. ADDITIONAL DEPTH MAY BE REQUIRED BY THE ENGINEER.
- 9. HOLE DRILLED IN THE MAIN FOR THE CORPORATION STOP SHALL BE THE SAME DIAMETER AS THE SERVICE PIPE.
- 10. CONNECT A SCRAP PIECE OF COPPER TO THE CURB STOP AND EXTEND A MINIMUM OF 3" BEYOND THE CURB BOX AND CRIMP END.
- 11. WRAP BOTTOM OF CURB BOX WITH FABRIC OR PLASTIC PRIOR TO BACKFILLING TO KEEP MATERIAL FROM INFILTRATING THE BOX.

WATER SERVICE DETAIL

	Cabriel Hayden No. 14703	Luczs
	KATABATIC ENGINEER PO BOX 210076 AUKE BAY, AK 9982 503-866-5579 HAYDEN@KATABATICEN	:ING 21
		MRV # 2227
	100% CONSTRUCTION DOCUMENTS ANGOON VISITOR CENTER	City of Angoon
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	SHEET TITLE: WATER SERVIO DETAIL	CE
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Mark With Height Finish Matrial Set Comments 01A 3 -0" 6"-8" FLUSH FB 2 1	A. 3' - 0' B' - 8' FLUSH WD 2 B 3' - 0' FL - 8' FLUSH WD 2 B 3' - 0' FL - 8' FLUSH WD 2 B 3' - 0' FLUSH WD 2	Frame Hardware
D1B 37-0" 6'-8" FLUSH WD 2 1E 6'-0" 7'-0" FLUSH WD 2 23 -0" 7'-0" FLUSH WD 2 25 3'-0" 7'-0" FLUSH WD 3 25 3'-0" 7'-0" FLUSH WD 3 26 3'-0" 7'-0" FLUSH WD 3 26 3'-0" 7'-0" FLUSH WD 2 27 3'-0" 6'-8" FLUSH WD 2 293 3'-4" 8'-10" TG 4 HTME TEND TENTRA 102 X 412 X 4	IB 3'-0" G'-8" FLUSH WD 2 IB 3'-0" FLUSH WD 2 IB 3'-0" FLUSH WD 2 IB 10" FLUSH WD 2 IB 10" FLUSH WD 3 IB 3'-0" F-0" FLUSH WD 3 -0" IB 3'-0" F-0" FLUSH WD 3 -0" IB A'-0" FLUSH WD 3 -0" -0" IB MORE	vvidtn Height Finish iviaterial Set Comments
E g* 0* 0* 7* 0* RELITE FG 1 22 3* 0* 0* 7* 0* RELITE FG 1 23 3* 0* 7* 0* RELITE FG 1 23 3* 0* 7* 0* RELITE FG 1 24 3* 0* 7* 0* RELITE FG 1 24 3* 0* 7* 0* RELITE FB 1 25 3* 0* 7* 0* RELITE FB 1 26 3* 0* 7* 0* RELITE FB 1 27 10* 0* 10* 10* 10* 10* 27 10* 0* 10* 10* 10* 10* 10* 28 10* 0* 10* 10* 10* 10* 10* 27 10*	E 0° 7' 0° RELITE FG 1 2 3' 0° 7' 0° RELITE FG 1 3 3' 0° 7' 0° RELITE FG 1 3 3' 0° 7' 0° RELITE FG 1 4 3' 0° 7' 0° RELITE FB 1 4 3' 0° 7' 0° FLUSH WD 2 3 3' 4' 0' 10' TG 4 1 1 Door of or of of of of of of tG 1' 1' 0' 1''''''''''''''''''''''''''''''''''''	
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9 3'-4" 6'-10" TG TG TG TG I Market be the state of the	a 3' 4'' 6' 10'' TG TG 4 Hordware Schedule Hardware Schedule Mare Colspan="2">Schedule Schedule	
Hiddward Schodule Hardward Schodule Matter Coordinate Reprint With owner. SET 27 (Edit Door of closer) 1 Door School Coordinate Reprint 2000 CSN 65 20 21 DW CSN 65 30 TF 1 Door Point Coordinate Reprint 2000 CSN 65 30 TF 1 Door Point Coordinate Reprint 2000 CSN 65 30 TF 1 Door Point Coordinate Reprint 2000 CSN 65 30 TF 1 Door Point Coordinate Reprint 2000 CSN 65 30 TF 1 Door Point Coordinate Reprint 2000 CSN 65 30 TF 1 Door Point Coordinate Reprint 2000 CSN 65 30 TF 1 Door Point Coordinate Reprint 2000 CSN 65 30 TF 1 Door State Coordinate Reprint 2000 CSN 65 30 TF 1 Door State Coordinate Reprint 2000 CSN 65 30 TF 1 Door State Coordinate Reprint 2000 CSN 65 30 TF 1 Door State Coordinate Reprint 2000 CSN 65 30 TF 1 Door State Coordinate Reprint 2000 CSN 65 30 TF 1 Door State Coordinate Reprint 2000 CSN 65 30 TF 1 Door State Coordinate Reprint 2000 CSN 65 30 TF 1 Door State Coordinate Reprint 2000 CSN 65 30 TF 1 Door State Coordinate Reprint 2000 CSN 65 30 TF 1 Door State Coordinate Reprint 2000 CSN 65 30 TF 1 Door State Coordinate Reprint 2000 CSN 65 30 TF 1 Door State Coordinate Reprint 2000 CSN 65 30 TF 1 Door State Coordinate Reprint 2000 CSN 65 30 TF 1 Door Fold Coordinate Reprint 2000 CSN 65 30 TF 1 Door Fold Coordinate Reprint 2000 CSN 65 30 TF 1 Door Fold Coordinate Reprint 2000 CSN 65 30 TF 1 Door Fold Coordinate Reprint 2000 CSN 65 30 TF 1 Door Fold Coordinate Reprint 2000 CSN 65 30 TF 2 FUES REPRINT 2000 CSN 70 TF 2 FUES REPR	Hardware Schedule HARDware Strist Mitter COORDINATE KEYING WITH OWNER: SET 11 (Leid Door wicksen) $\frac{1}{2}$ (Deor Wicksen) $\frac{1}{2}$ (Deor Wicksen) $\frac{1}{2}$ (Deor Michael Coordinate KEYING WITH OWNER: SET 12 (Leide Door Wicksen) $\frac{1}{2}$ (Deor Schedurer 1220A) $\frac{1}{2}$ (Deor Michael Coordinate KEYING WITH OWNER: SET 12 (Leide Door Michael Coordinate KEYING WITH OWNER: $\frac{1}{2}$ (Deor Kingersen) $\frac{1}{2}$	
	$ \begin{array}{ccccc} DOCRS & OCC211 BF & 688 & SH \\ \hline Doc Folder & OCC211 BF & 688 & SH \\ \hline Wail Burnper & 1770WX & 630 & TR \\ \hline Wail Burnper & 1727WX & 630 & TR \\ \hline Doc Full & VS8102HD-6-US32D & 0S32D & FR \\ \hline Doc Full & VS8102HD-6-US32D & 0S32D & FR \\ \hline Doc Full & VS8102HD-6-US32D & 0S32D & FR \\ \hline Doc Full & VS8102HD-6-US32D & 0S32D & FR \\ \hline Doc Full & VS8102HD-6-US32D & 0S32D & FR \\ \hline Doc Full & VS8102HD-6-US32D & 0S32D & FR \\ \hline Doc Full & VS8102HD-6-US32D & 0S32D & FR \\ \hline Lock Set & 9637A610D & 0S0AM & ER \\ \hline Start Set & 9637A610D & 0S0AM & ER \\ \hline Doc Full & VS8102HD & CS1 & 0S0 & TR \\ \hline Doc Set & FR & 9637A610D & 0S0 & 0S0AM & ER \\ \hline Higgs & FR & 9637A610D & 0S0 & 0S0AM & ER \\ \hline Doc Set & FR & 96774 & 1/2 X4 1/2 NRP & US32D & SC H \\ \hline Doc Full & VS80V & 0S1 & 0S1 & 0S2D & SC H \\ \hline Doc Full & Charles Pales & PRVACY LOCK US040 17A L583-363 & 0S7 & SC H \\ \hline Closer & BOCKWOOD Hydraulic & US32D & SC H \\ \hline Closer & ROCKWOOD Hydraulic & US32D & SC H \\ \hline Doc Phot & Entor Path (PD-HYD & US32D & SC H \\ \hline Doc Phot & Entor Path (PD-HYD & US32D & SC H \\ \hline Doc Phot & CM12X12BS & 630 & CR \\ \hline DOCRS & ALUMINUM FRAMED DOCR & SA ALUMINUM STOREFRONT & FRAME & SC & S$	DWARE SETS E: COORDINATE KEYING WITH OWNER. #1 (Exit Door w/ closer)
1 Wall Bumper 1270WX 630 TR 3 Door Poll 09302 DR 4 Lockadi DB180 630 DR 5 Hingse FB1784 112 X4 112 NRP U3220 ST 3 Hingse FB1784 112 X4 112 NRP U3220 ST 1 Lock Sat 9637-81180 630-MM BE 1 Lock Sat 9637-81180 630 TR 3 Door Silences 1229A 530 TR 8 F1676 112 X4 112 NRP U3220 ST 1 1 Uack set PRIVACY LOCK L9040 17A L583-66 252 SC H 3 Door Silences ROCKWOOD Hydraulic U3220 AS 1 Top Pivot PF-SM-Hyot, PF-2-20 U3320 SC H 1 Top Pivot PF-SM-Hyot, PF-2-20 U3320 SC H 1 Door Holder Beo-On Door Holder U320 CR 1 Door Holder Step-On Door Holder U320 CR 1 Door Holder Step-On Door Holder G		1 Door Closer QDC211 BF 689 SH
1 Lockset DB100 630 DR 1 Lockset US32D NE SET #2 (interior - Standard Locked) US32D ST 3 Hinges FB37A181D S300 BE 1 Wall Sumper 1270X ST S300 BE 1 Wall Sumper 1270X ST S300 TR 3 Minges FB7764122X 12 X1 12 NRP US32D ST 3 Silencer SR4 S30 DR 3 Silencer SR4 SR SR ST #4 (Interior - Unisex Restroom) US32D SC 1 Coster ROCKWOOD Hydraulic US32D SCH 3 Silencer SR4 SR GR NH 1 Door Hulk Childright Auminum J4595 CR 1 Door Hulk Childright Auminum J4595 CR 1 Door Hulk Childright Auminum J4595 CR 1 Door Hulk Ruminum Standard Auminum J4595	1 Lockael Def Full 930 DR 1 Lockael FBB179.112 X 4 1/2 NRP US32D VE 3 Hinges FBB179.112 X 4 1/2 NRP US32D ST 1 Lockael FBB179.112 X 4 1/2 NRP US32D ST 3 Dior Silencers 1229A ST ST 3 Lockael PRIVACY Lockue S30 TR 3 Dior Silencers 1229A ST ST 4 Wall Sumper PRIVACY Lockue G30 TR 3 Silencer SR64 GR7 VE 3 Silencer SR64 GR7 VE 5 Door Full US32D SCH SCH 1 Door Full Cocker PRIVACY Lockael Alegins US32D SCH 1 Door Full Cocker PROCK SCH SCH SCH 2 Door Full Cocker PCCW US32D SCH 1 Door Full Cocker US32D CR 1 Door Full C	1 Wall Bumper 1270WX 630 TR
ST #2 (Interior - Standard Locked)3HingesFBB179 412 X 4 12 NRPUS32DST1Lock Set#973-A8180S30TR3Door Silencers12290XS3S3SET #2 (Interior - Unices REST)US32DSTST1Lock setFPUXCY LOCK US400 17A L583-363G33MESET #2 (Interior - Unices REST)US32DSCSC1CloserBotton Path (PFD-HYD)US32DAS1CloserBotton Path (PFD-HYD)US32DSCH1Locking HandleLLPA48PSUS32DCR1Door FloterDoor Moured AuminumUS32DCR1Door PullCM12X12BSG30CR	ST 22 (Interior - Standard Locked) 3 $Hiriges$ FBB179 4/2 X 4 1/2 NRP US32D ST 1 Nock Net Site - AS 100 Site - AS 100 Site - AS 100 Site - AS 100 3 Door Selences 1223N Site - AS 100 Site - AS 100 Site - AS 100 ST 43 (Interior - Unlace Sector) 0 Site - AS 100 Site - AS 100 Site - AS 100 1 Well Stellow NetWall Stellow Site - AS 100 Site - AS 100 Site - AS 100 ST 44 (Interior - Attrict Stelles) 1 Cooker = ROCWOOD Hydroulic US32D AS 100 Stellow Site - Door Mounde Auminum US32D CR 100 CR 100 1 Door Floter Door Mounde Auminum US32D CR 100 1 Door Floter Door Mounde Auminum US32D CR 100 1 Door Floter Door Mounde Auminum US32D CR 100 1 Door Floter Door Mounde Auminum US32D CR 100 1 Door Floter Door Mounde Auminum US32D CR 100 1 Door Floter Door Mounde Auminum US32D <td< td=""><td>1 Lockset DB160 630 DR</td></td<>	1 Lockset DB160 630 DR
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{cccc} s & things & FBB1794 1/2 X 4 1/2 NRP & US32D & ST \\ \hline 1 & Kick Phile & K0050 - 10'' X 2' LOW CSK & 530 & TR \\ \hline 3 & Doro Silencers 1229A & ST \\ \hline 1 & Wall Bumper & 1270NX & ST & S$	
1 Kick Plate K0050 - 10" x 2" LDW CSK 630 TR 3 Door Silences 1220WX 630 TR 3 Door Silences 1220WX 630 TR 3 Door Silences 1220WX 630 ST 4 Loss ast PW5407L0CKL9040 17A L583-363 630 ST 1 Loss ast PW5407L0CKL9040 17A L583-363 630 ST SET #3 (Interior - Artist Sales) US32D AS 1 Coser ROCKWOOD Hydraulic US32D AS 5000 Fbidde Door Holder Door Holder US32D CR 1 Door Pull CM12x12BS 630 CR Step-On Door Holder US32D CR 1 Door Pull CM12x12BS 630 CR Euro RLDer Holder US2D CR Door Pull CM12x12BS 630 CR Door Pull CM12x12BS 630 CR Euro GLAZED TEMP, PLATE Euro Euro <td>1 Kölör Pitter Kölör Dir X2' LDW CSK 630 TR 3 Door Silencers 1229AX 630 TR 3 Door Silencers 1229AX 630 TR 3 Hinges FB1104 1/2 X4 1/2 NRP 033 Silencer 3 Hinges FB1104 1/2 X4 1/2 NRP 030 SCH 4 Use Kertoom 630 TR 3 Silencer SR64 GR V VE SET #4 (Instirutor - Artist Sales) 1 Costen glande US32D AS 500 Top Pixot PFSM-Pixot, PFD-20 US32D CR 1 Door Holder Door Moulled Aluminum J4095 CR 1 Door Folder Door Moulled Aluminum J4095 CR 1 Door Pull CM12X122S 630 CR DOORS DOORS DOORS ALUMINUM FRAMED DOOR ALUMINUM FRAMED DOOR ALUMINUM FRAMED DOOR ALUMINUM FRAMED DOOR ALUMINUM F</td> <td>3 Hinges FBB179 4 1/2 X 4 1/2 NRP US32D ST</td>	1 Kölör Pitter Kölör Dir X2' LDW CSK 630 TR 3 Door Silencers 1229AX 630 TR 3 Door Silencers 1229AX 630 TR 3 Hinges FB1104 1/2 X4 1/2 NRP 033 Silencer 3 Hinges FB1104 1/2 X4 1/2 NRP 030 SCH 4 Use Kertoom 630 TR 3 Silencer SR64 GR V VE SET #4 (Instirutor - Artist Sales) 1 Costen glande US32D AS 500 Top Pixot PFSM-Pixot, PFD-20 US32D CR 1 Door Holder Door Moulled Aluminum J4095 CR 1 Door Folder Door Moulled Aluminum J4095 CR 1 Door Pull CM12X122S 630 CR DOORS DOORS DOORS ALUMINUM FRAMED DOOR ALUMINUM FRAMED DOOR ALUMINUM FRAMED DOOR ALUMINUM FRAMED DOOR ALUMINUM F	3 Hinges FBB179 4 1/2 X 4 1/2 NRP US32D ST
SET #3 (Interior - Unisex Restroom) US32D ST 1 Lock set FBB 179 4 172 X 4 1/2 NRP US32D ST 1 Usals bip WS407CVX 630 VE SET #4 (Interior - Artist Sales) US32D AS 1 Close met Bottom Patch (PFD-HYD) US32D SCH 2 Top Fived Bottom Patch (PFD-HYD) US32D SCH 1 Door Holder US32D SCH SCH 1 Door Pull CM12X12BS G30 CR 1 Door Pull CM12X12BS G30 CR Expension Door Molder UFUGF Curve of tholder 1 Door Pull CM12X12BS G30 CR Expension Door Molder UFUGF Curve of tholder UFUGF Curve of tholder UFUGF <	SET #3 (Interior - Unisex Restroom) US32D ST 1 Using FB8179 4 1/2 X.4 1/2 NRP US32D ST 1 Using FB8179 4 1/2 X.4 1/2 NRP US32D ST 1 Using FD8179 4 1/2 X.4 1/2 NRP US32D ST 1 Using FD8179 4 1/2 X.4 1/2 NRP US32D ST 1 Using FD816 US32D ST 1 Using FD816 US32D ST 1 Top Phyoid PF-SM-Phyoid PF-SM-Phyoid US32D SCH 1 Door Holder US32D CR US32D CR 1 Door Holder US32D CR US32D CR 1 Door Holder US32D CR US32D CR 1 Door Hold CM12X12BS 630 CR 1 Door Pull CM12X12BS 630 CR FUSH RELITE GLAZED TEMP, PLATE DOORS DOORS DOORS DOORS DOORS DOOR ALLININ	1 Kick Plate K0050 - 10" x 2" LDW CSK 630 TR 1 Wall Bumper 1270WX 630 TR
3 Hinges FBB1794 1/2 X4 1/2 MPP US32D ST 1 Lock set PRIVACY LOCKUS400 17A L583-363 G30 V/E 3 Silencer SR64 GRY V/E SET #4 (Interior - Artist Sales) 1 Closer ROCKWOOD Hydraulic US32D AS 1 Top Pivot PF-SN-HV0, PFO-20 US32D SCH 1 Top Pivot PF-SN-HV0, PFO-20 US32D SCH 1 Door Holder US32D SCH 1 Door Holder DB-00 Rol LD-AdPS G30 CR DOORS DOORS LOOR SUMURANCE ABBREVIATIONS DOORS DOORS DOORS LICH ReLITE GLAZED TEMP. PLATE. DOORS DOORS ALUMINUM FRAMED DOOR ALUMINUM F	3 Hinges FBB1794 1/2 X4 1/2 RPP US32D ST 1 Lock set PRVACY LOCK US00 17A L583-383 G26 SCH 3 Silencer SR64 GRV WE SET #4 (Interlor - Artist Sales) US32D AS 1 Closer ROCKWOOD Hydraulic US32D SCH 1 Top Pivot PF-SM-Pivot, PFO-20 US32D SCH 1 Locking Handle US32D SCH US32D SCH 1 Locking Handle US32D SCH US32D SCH 1 Door Holder US32D CR SS2D CR 1 Door Holder Disp-On Door Holder US32D CR 1 Door Pull CM12X12BS 630 CR FLUSH RELITE GLAZED TEMP, PLATE DOORS DOORS DOORS DOORS DOORS DOORS DOORS DOORS DOORS <td></td>	
SET #4 (Interior - Artist Sales) Bottom Patch (PFD-HV) Bottom Patch (PFD-HV) US32D US32D US32D US32D SCH US32D SCR SCR SCR CRDoor Holder Topor PullUS32D CR Step-On Door Holder Step-On Door Holder Or Munited Aluminum J4595 Step-On Door Holder CM12X12BSUS32D CR CRDOORSDOORSUSSEE USSEE EUCH FUSHColspan="2">Colspan="2"Colspan="2"Colspan="2"Colspan="2"Colspan="2"Colspan="2"Colspan="2"Colspan="2" <td>SET #4 (Interior - Artist Sales) 1 Closer 1 Top Pivat 1 Top Pivat 1 Door Holder 1 Door Holder 1 Door Pull CCKWOOD Hydraulle PF-SM-Pivot, PFD-20 US32D SCH US32D CR SizeD-Door Holder SizeD-On Folder 1 Door Pull US32D CR SizeD-CR SizeD-On Folder SizeD-On Folder SizeD-Towner Kaller SizeD-Towner Kaller SizeD-Towner Kaller SizeD-Towne</br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></td> <td>3 Hinges FBB179 4 1/2 X 4 1/2 NRP US32D ST 1 Lock set PRIVACY LOCK L9040 17A L583-363 626 SCH</td>	SET #4 (Interior - Artist Sales) 1 Closer 1 Top Pivat 1 Top Pivat 1 Door Holder 1 Door Holder 1 Door Pull CCKWOOD Hydraulle PF-SM-Pivot, PFD-20 US32D SCH US32D CR SizeD-Door Holder SizeD-On Folder 1 Door Pull US32D CR SizeD-CR SizeD-On Folder SizeD-On Folder SizeD-Towner Kaller SizeD-Towner Kaller 	3 Hinges FBB179 4 1/2 X 4 1/2 NRP US32D ST 1 Lock set PRIVACY LOCK L9040 17A L583-363 626 SCH
$\begin{array}{c ccc} 1 & Closer & ROCKWOOD Hydraulic & US32D & AS \\ Bottom Path (PFD-HVD \\ 1 & Top Prot & PF-SM-Pixot, PFD-20 & US32D & SCH \\ 1 & Door Holder & Door Mounted Aluminum & J4995 & CR \\ \hline & Door Holder & Door Holder & Step-On Ste$	1 Closer ROCKWOOD Hydraulic US32D AS Bottom Patrix (PFD-HVD) 1 Top Pivot PF-SM-Pivot, PFD-20 US32D SCH 1 Door Holder Door Mounted Aluminum J4595 CR Step-On Door Holder 1 Door Pull CM12X12BS 630 CR DOORS $\frac{\int \frac{1}{\sqrt{1 + \sqrt{1 + 1 + \sqrt{1 + 1 + 1 + 1}}}}}}}}}}}}}}}}}}}}}}}}}}$	3 Silencer SR64 GRY IVE
Image: Description of the product o	Botom Patch (PFD-HYD PF-SM-PVot PFD-30 US32D SCH US32D CR US32D CR US32D CR US32D CR US32D CR US32D CR US32D CR US32D CR BOORS EDO	
$\begin{array}{cccc} 1 & \text{Locking Handle} & LIPAGPS & US2D & CR \\ \hline Door Polder & Door Mounted Aluminum \\ Step-On Door Holder & 630 & CR \\ \hline \end{array}$	1 Locking Handle LLPA48PS US32D CR 1 Door Houter Door Houter J4595 CR 1 Door Pull CM12X12BS 630 CR DOORS DOORS DOORS LIPE of the provided Aluminum Step-On Door Houter USSED DOORS DOORS LIPE of the provided Aluminum Step-On Door Houter USSED DOORS DOORS LIPE of the provided Aluminum Step-On Door Houter Aluminum Step-On Door Houter LIPE of the provided Aluminum Step-On Door Houter Aluminum Step-On Door Houter Aluminum FLUE USSED of the provide Aluminum Step-On Door Houter Aluminum FLUE FUSH FUSH FUSH DOORS DOORS DOORS DOORS DOORS DOORS AND HARDWARE ABBREVIATIONS ALUMINUM FRAMED DOOR ALUMINUM STOREFRONT	Bottom Patch (PFD-HYD
1 Door Pull Step-On Door Holder CM12X12BS 630 CR DOORS Image: Colspan="2">Image: Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2"Colspan="2">Colspan="2"Colspan="2"Colspan="2"Colspan="2"Colspan="2"Colspan="2">Colspan="2"	1 Door Puil $M21212BS$ 63 CR DOORS UIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	1 Locking Handle LLPA48PS US32D CR
<image/> DORS Image: Construction of the second se	DOORSImage: Colspan="2">Image: Colspan="2" Colspan	Step-On Door Holder
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 MF MANUFACTURE PRE-FINISH MTL SECTIONAL METAL DOOR PL PLASTIC LAMINATE FACED S SMOKE AND DRAFT ASSEMBLY SP SHOP PAINTED TG TEMPERED GLASS WD WOOD 	MF MANUFACTURE PRE-FINISH MTL SECTIONAL METAL DOOR PL PLASTIC LAMINATE FACED S SMOKE AND DRAFT ASSEMBLY SP SHOP PAINTED TG TEMPERED GLASS WD WOOD	
 MTL SECTIONAL METAL DOOR PL PLASTIC LAMINATE FACED S SMOKE AND DRAFT ASSEMBLY SP SHOP PAINTED TG TEMPERED GLASS WD WOOD 	MTLSECTIONAL METAL DOORPLPLASTIC LAMINATE FACEDSSMOKE AND DRAFT ASSEMBLYSPSHOP PAINTEDTGTEMPERED GLASSWDWOOD	·
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SP SHOP PAINTED TG TEMPERED GLASS WD WOOD	SP SHOP PAINTED TG TEMPERED GLASS WD WOOD	PLASTIC LAMINATE FACED
TG TEMPERED GLASS WD WOOD	TG TEMPERED GLASS WD WOOD	
		TEMPERED GLASS

		FINISH	ISCHEDULE					
Name	Number	Area	Level	Floor Finish	Wall Finish	Base Finish		
STORAGE	01	187 SF	FLOOR 1	СН	PT-1	RB		
MECH W RR	02	80 SF 41 SF	FLOOR 1	CH STC	PT-1	RB		
M RR	03	41 SF 41 SF	FLOOR 1 FLOOR 1	STC	PT-1 PT-1	RB RB		
INTERPRETIVE	04	492 SF	FLOOR 1	STC	PT-1	WB		
EXHIBITS		102 01						
CAFE	06	374 SF	FLOOR 1	STC	PT-1	WB		
JAN	07	28 SF	FLOOR 1	STC	PT-2	RB		
KITCHENETTE	08	204 SF	FLOOR 1	STC	PT-2	RB		
ARTIST SALES	09	250 SF	FLOOR 1	STC	PT-1	WB		
LOBBY	10	540 SF	FLOOR 1	STC	PT-1	WB		
PRODUCTS LIST.								
Flooring:								
Stained Concrete (n is water bas e Stain, Coron		tain. BEHR P	REMIUM® So	lio	
Concrete Hardener	<u>(CH):</u> A	As recommended by stain manufacturer.						
Walls:								
Paint Type 1 (PT-1	<u>)</u> : A	Acrylic latex, Product: Benjamin Moore regal line, satin finish, #550.						
Paint Type 2 (PT-2	<u>)</u> A	Acrylic latex, Product Benjamin Moore Scuff-X, Satin Finish #N485						
Paint Type 3 (PT-3		Polyurethane, Low Luster, Product Benwood Stays Clear Acrylic Polyurethane Low Luster 423						
Base (WB):	C	Clear Fir, 3/4", PT-3						
Rubber Base (RB)	Т	Tarkett, Rubber Base 3"						
Ceilings:								
Gypsum Wall Boar	<u>d (GWB):</u> V	Where indicated, Type X GWB, Direct to truss. PT-1						
Acoustic Ceiling Til	<u>e (ACT):</u> k	Kitchenette, Kitchen grade. Armstrong Kitchen Zone 24" x 24"						
Glass and Glazing	j:							
<u>Glass Type 1 (GT1</u>	<u>1)</u> : E	Exterior windows use Milgard Ultra series. Triple Glazed, see spec						
<u>Glass Type 2 (GT2)</u> :		Interior relites used for standard interior applications. Glazing will be 3 tempered plate.						
RESTROOM FINIS	H ABBREVIA	TIONS						
GBGRABHDHANDPSPURSSCDSEATSDSOAPSNDSANITSNRSANIT	SEAT BARS DRYER E SHELF COVER DISP DISPENSER ARY NAPKIN ARY NAPKIN	DISPENSER						
MBH MOP AND BROOM HOLDER								

ANGOON VISITOR CENTER LUMBER CUT SHEET - SEE BID ALTERNATES

. Include this material as Base Bid. 2. If Alternate 1 is awarded: Owner harvested, milled, and stored. Contractor installed.

<u>SIDING</u> 2800 SF + 10% = 3080 SF

STRUCTURAL LOG COLUMNS 3, 2' Diameter, 12ft length

FIRE EXTINGUISHER

WASTE RECEPTACLE

<u>CENTER NORTH FAUX COLUMN</u> 2, 22'-0" x 24" x 3" = 264 board feet

FASCIA / RIM BOARDS 2, 45'-0" X 3.5" X 14" = 367.5 board feet (fascia, large roof) 2, 10'-6" x 3.5" x 14" = 85.75 board feet (fascia, entry roof) 4, $37'-9'' \times 3.5'' \times 14'' = 616.58$ board feet (rake, large roof) 2, 21'-6" x 3.5 x 14" = 175.6 board feet (rake, entry roof

INTERIOR WOOD BAFFLE CEILING 56, 3'-0" X 2" X 6" = 115.5 board feet

EXTERIOR TRIM (CORNERS, HORIZ. BOARD) Corners: 16, 10'-0" x 8" x 2.5" = 266.67 board feet Horizontal board: 2, 32.5'-0" x 2.5" x 8" = 108.3 board feet

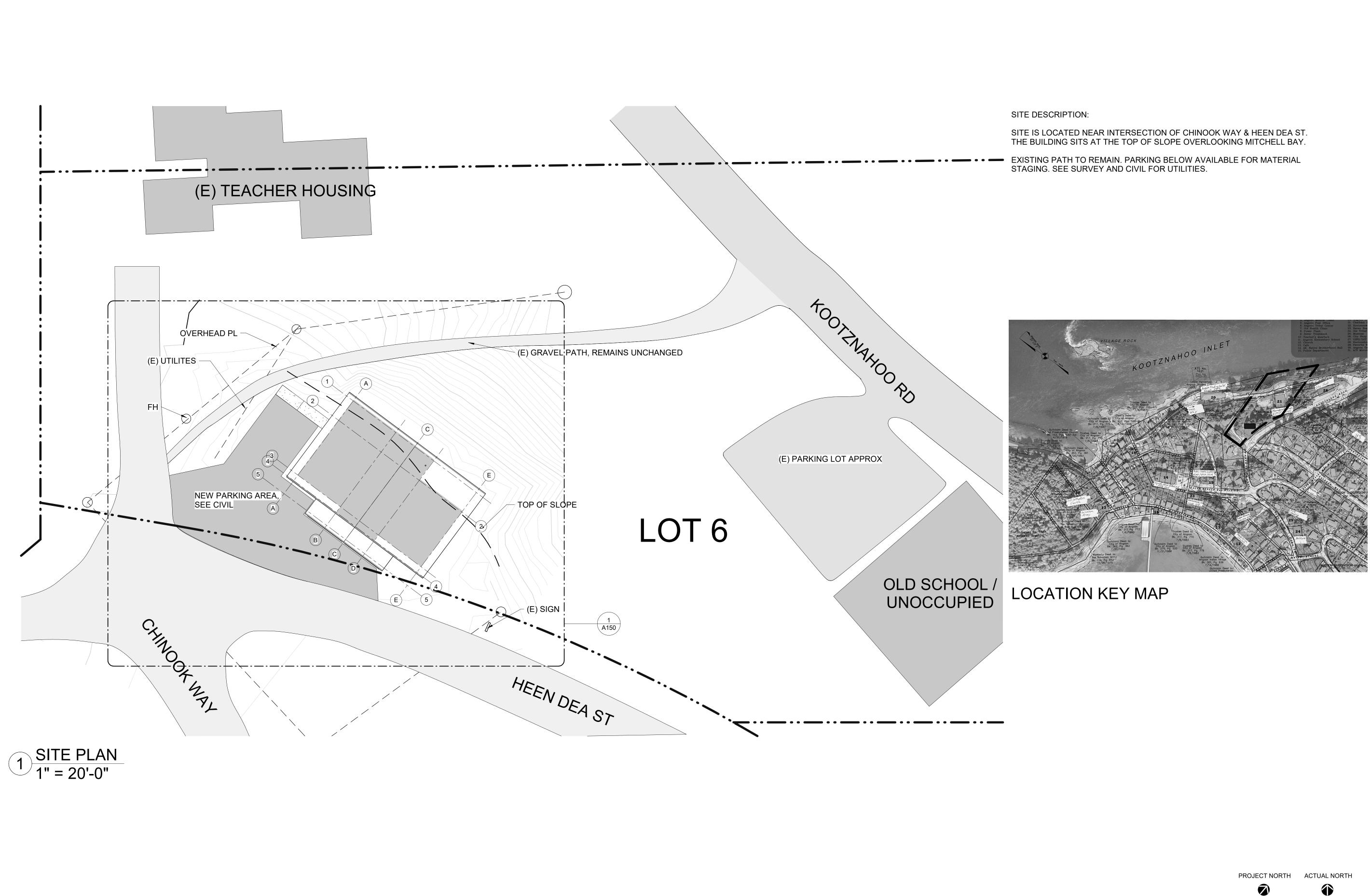
FAUX BEAMS, INTERIOR 1, 18'-6" x 8" x 12" = 148 board feet

1, 21'-0" x 8" x 12" = 168 board feet

BAR TOP 1, 15'-6" x 18" x2" = 46.5 board feet

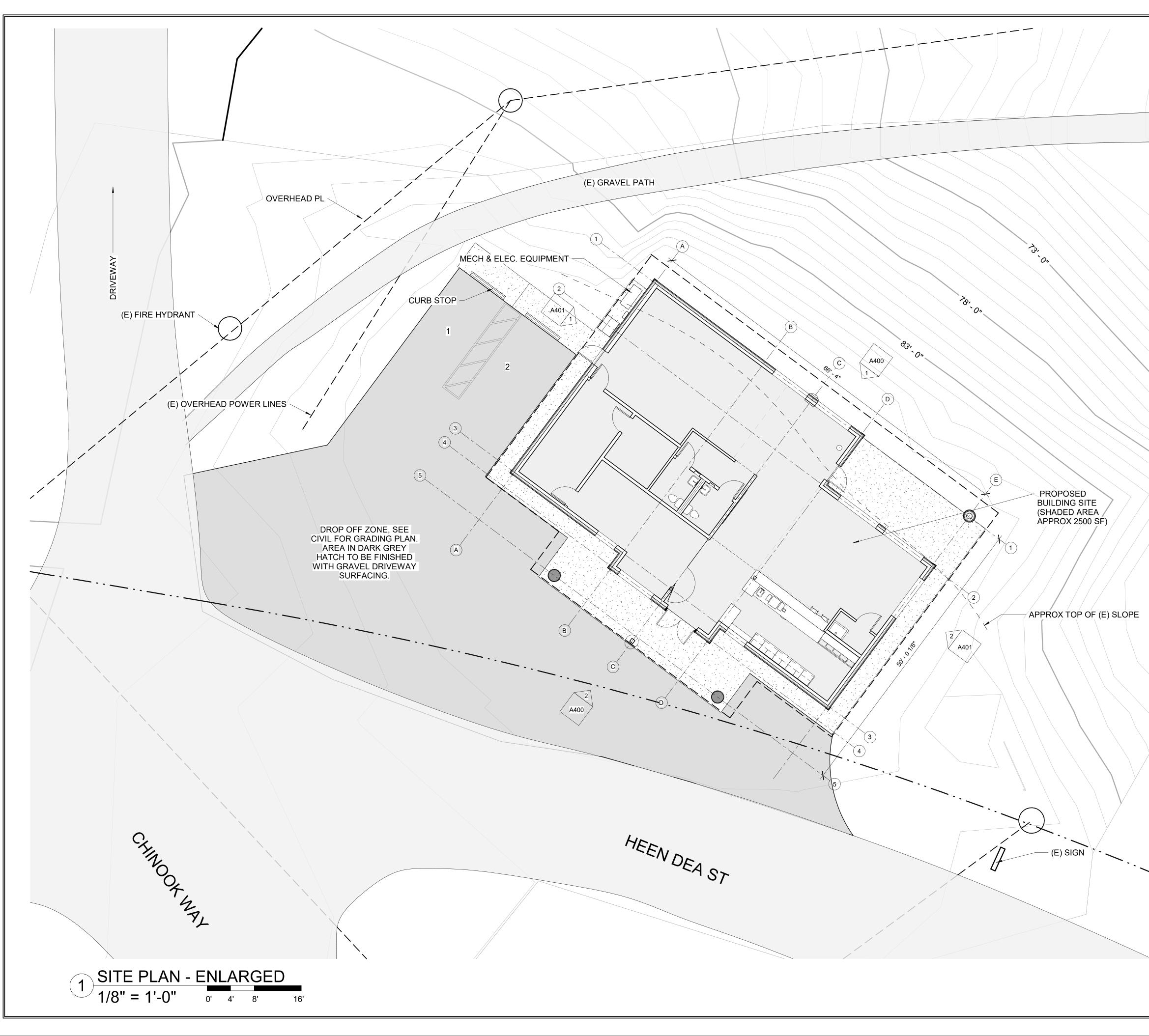
MOP AND BROOM HOLDER

		PAUL VOELCKERS No. 6536-A					
	ARCHITECTURE PLANNING INTERIORS MRV ARCHITECTS 1420 GLACIER AVE. #101 JUNEAU, AK 99801 907-586-1371 FAX 907-463-5544 mrv@mrvarchitects.com						
	CONSTRUCTION DOCUMENTS	ANGOON VISITOR CENTER	CITY OF ANGOON MRV # 2227				
	No.	Description	Date				
		et title: HEDULES					
	DATE:	: 11	/10/2023				
	DRAW Chec		MRV PV				
		ET NO.	1 V				
]		A00)1				



		PAUL VOE No. 65		
AARCH	R C	H I Re · PLAI		CTS INTERIORS
	1420 JU FA	GLACIE NEAU, 7 907-58 X 907-4	CHITECT R AVE. 4 AK 9980 6-1371 463-554 chitects.	#101)1 .4
CONSTRUCTION DOCUMENTS		ANGOON VISITOR CENTER		CITY OF ANGOON MRV # 2227
No.		Descripti	on	Date
		title PLAN		
DAT	ΓE:		11/1	0/2023
	awn: Eckee):		MRV PV
SH	EET	NO. A	10	0

NOTE: 11"x 17" PRINT IS HALF SIZE



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NOTES:

1. CLEARING AND GRUBBING AS REQUIRED AS NECESSARY, FOR CONSTRUCTION. SEE SPEC.

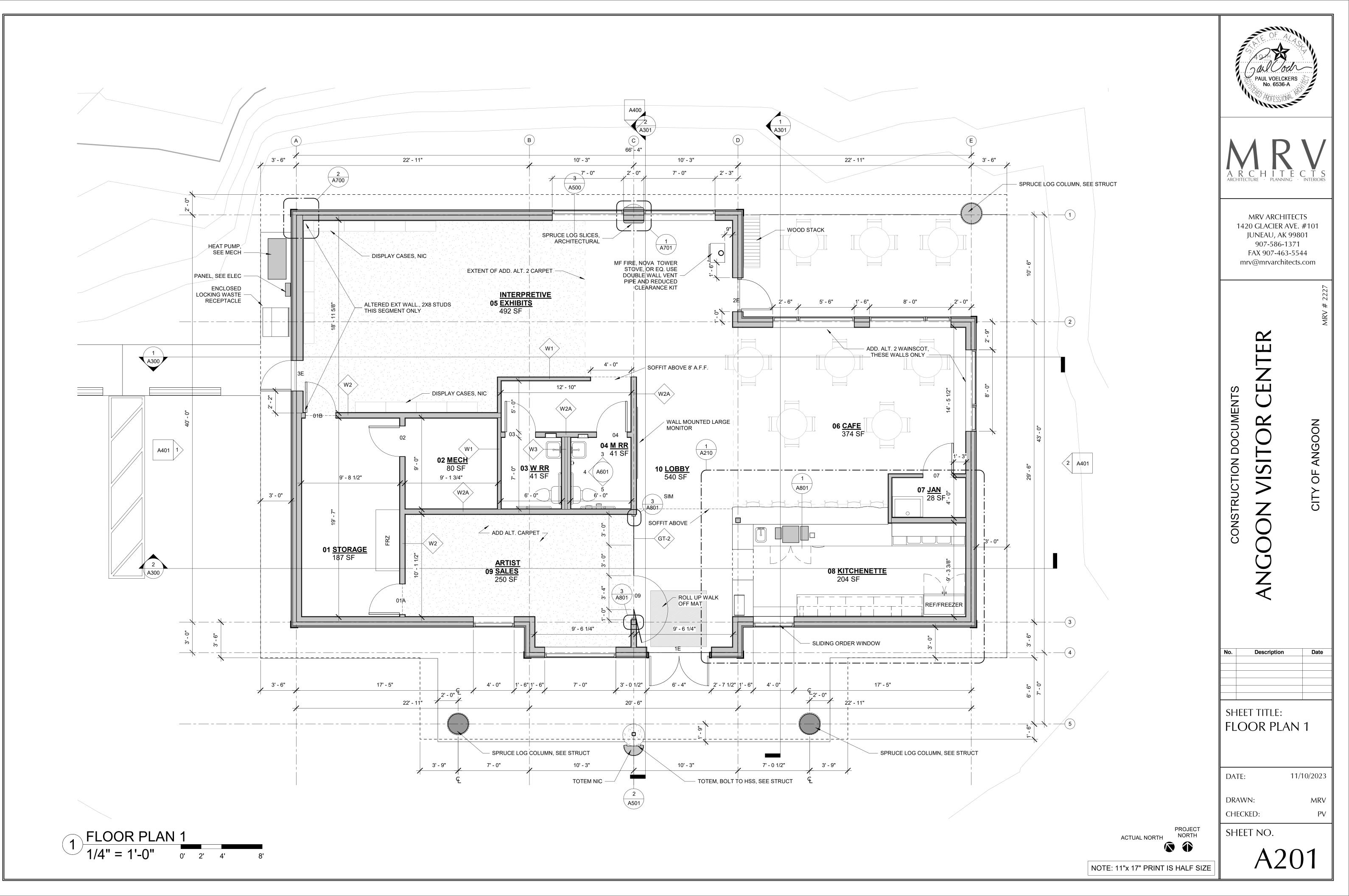
2. SEE SPEC. FOR LOCATION OF EDA SITE SIGN DURING CONSTRUCTION.

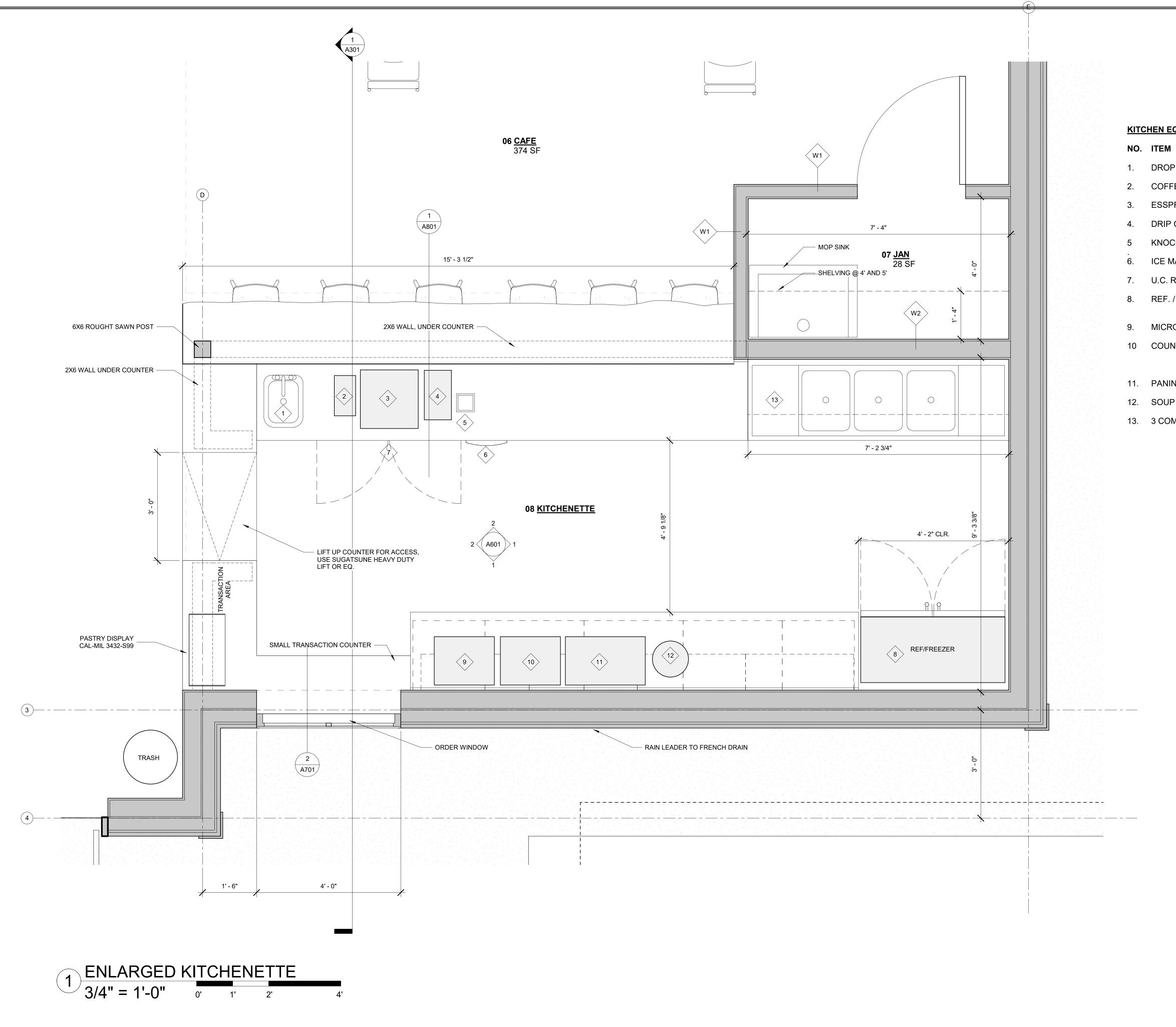


NOTE: 11"x 17"	PRINT IS	HALF SIZE

ACTUAL NORTH

PROJECT NORTH





KITCHEN EQUIPMENT SCHEDULE

1. DROP IN SINK WITH FAUCET

- 2. COFFEE GRINDER
- 3. ESSPRESSO MACHINE
- 4. DRIP COFFEE
 - KNOCK BOX
 - ICE MACHINE
- 7. U.C. REF.
- 8. REF. / FRZ. COMBO

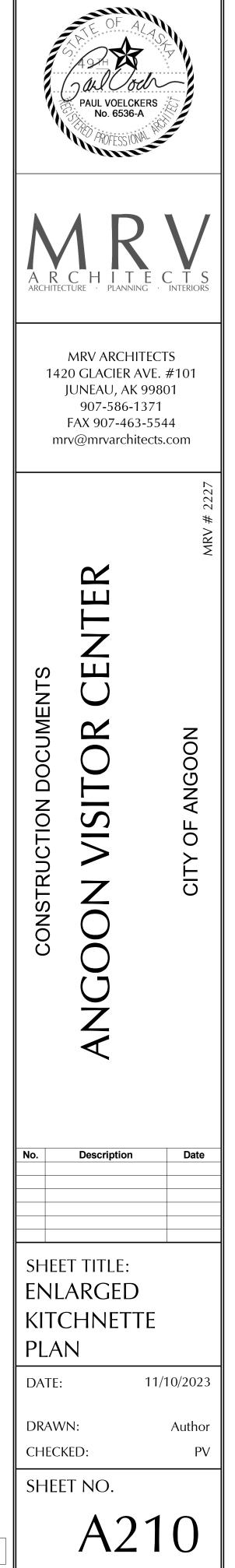
MICROWAVE 10 COUNTERTOP OVEN

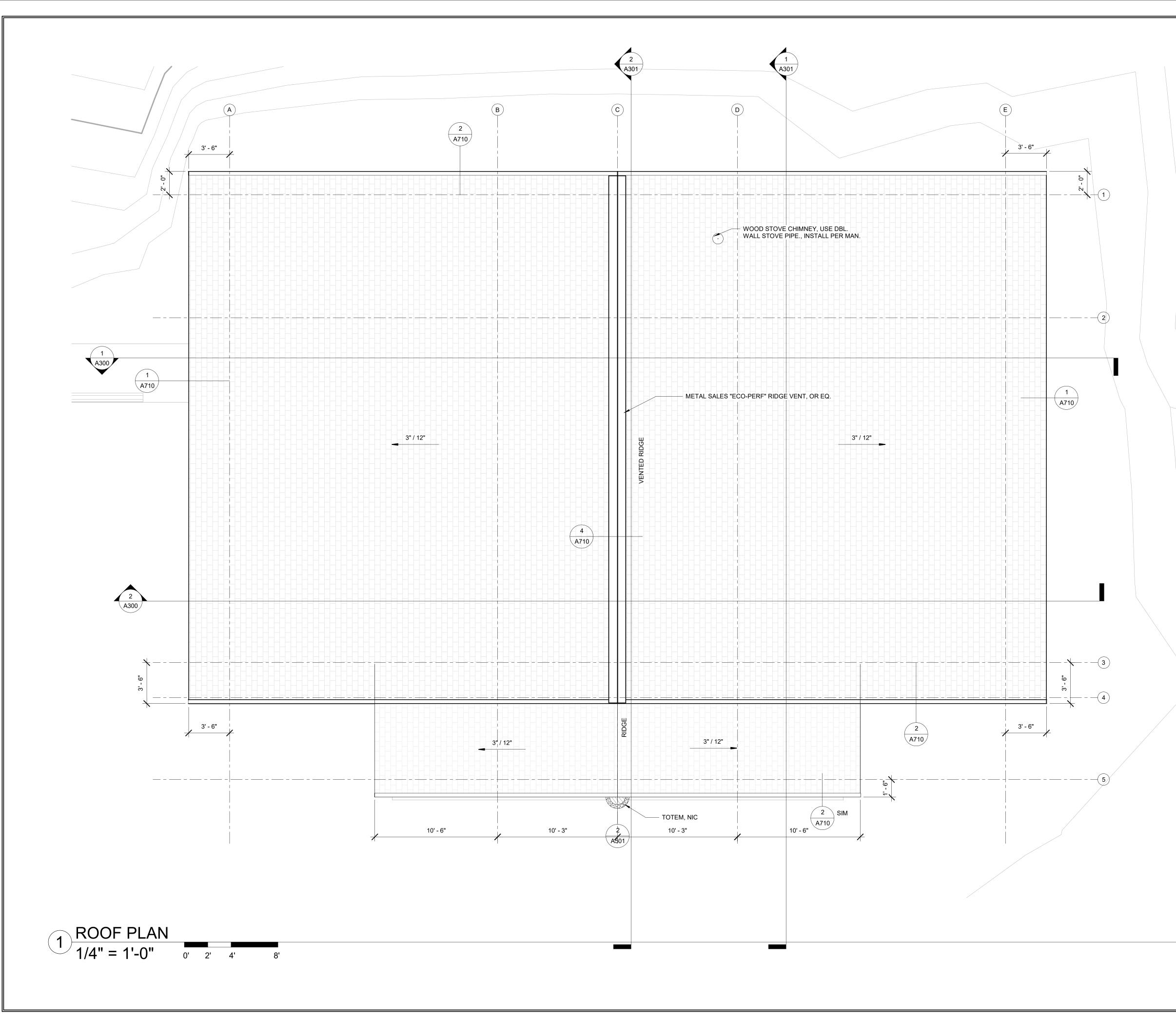
11. PANINI GRILL

- 12. SOUP SERVER
- 13. 3 COMPARTMENT SINK

MANUF.

- REGENCY 10"X14"X5"
- ASTRA MG 050,
- ASTRA M2CS019
- CURTIS CAFE 1DB
- CHOICE 6"
- SCOTSMAN CUO715
- PERLICK HC48RS4
- **BEVERAGE AIR** HBRF49HC-1-A
- AMANA RCS10TS
- COOKING PERFORMANCE GROUP COH-D4-M
- AVANTCO P85S
- SERVER 8400 7QT
- STEELTON 84" 522CS31620LK,





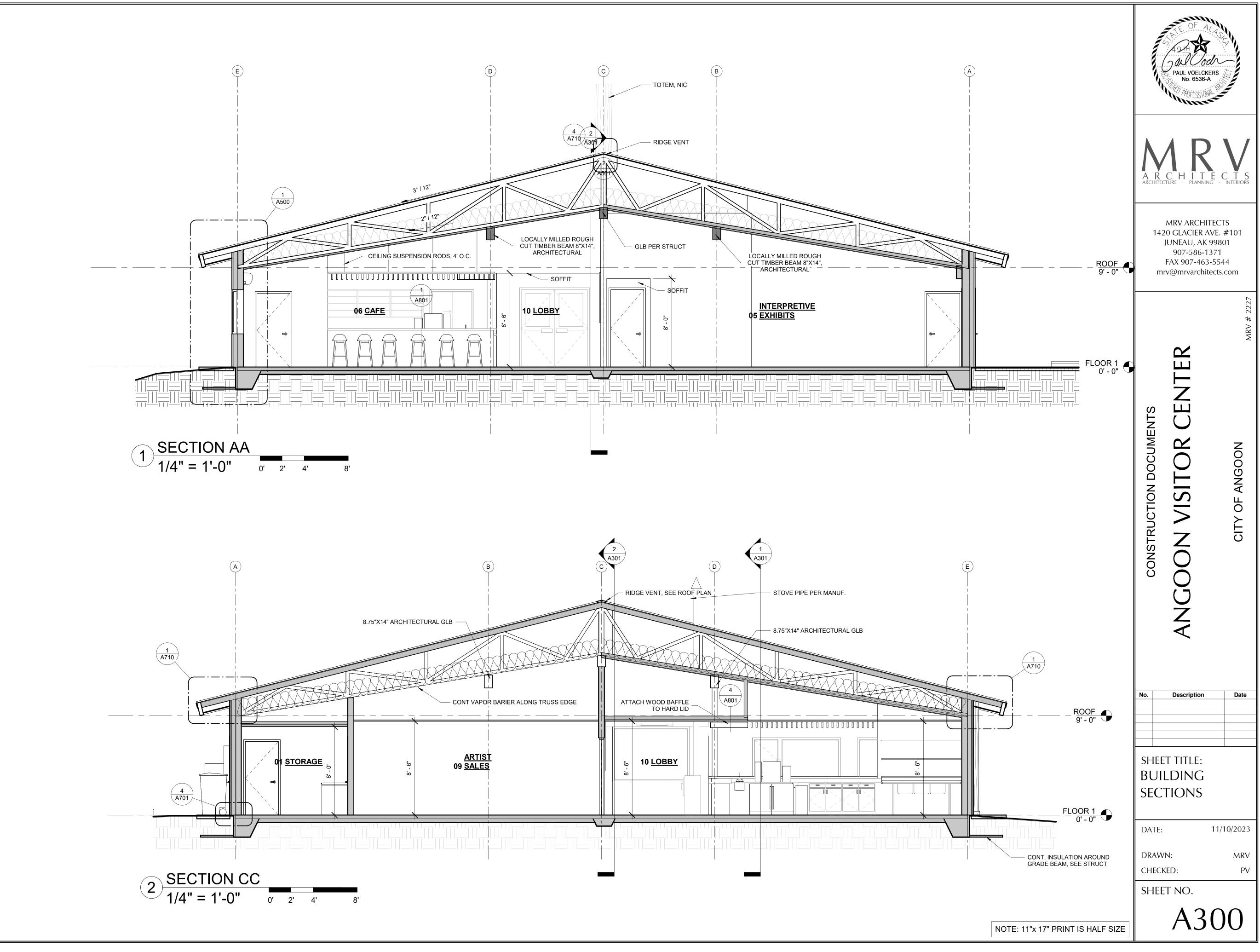
	PAUL VOELCH No. 6536-	KERS A			
A R ARCHITEC	C H I T TURE · PLANNI	E C	CTS INTERIORS		
	MRV ARCH 0 GLACIER / JUNEAU, AK 907-586- FAX 907-463 v@mrvarchi	AVE. 7 9980 1371 3-554	#101 01 4		
CONSTRUCTION DOCUMENTS	ANGOON VISITOR CENTER		CITY OF ANGOON MRV # 2227		
No.	Description		Date		
	t title: DF PLA	N			
DATE:		11/1	0/2023		
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	T NO.		. •		
A250					

NOTES:

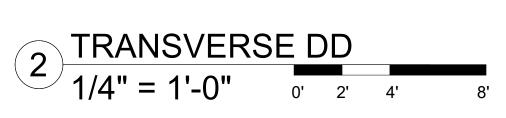
1. USE MALARKEY LEGACY SERIES SHINGLE OR EQ.

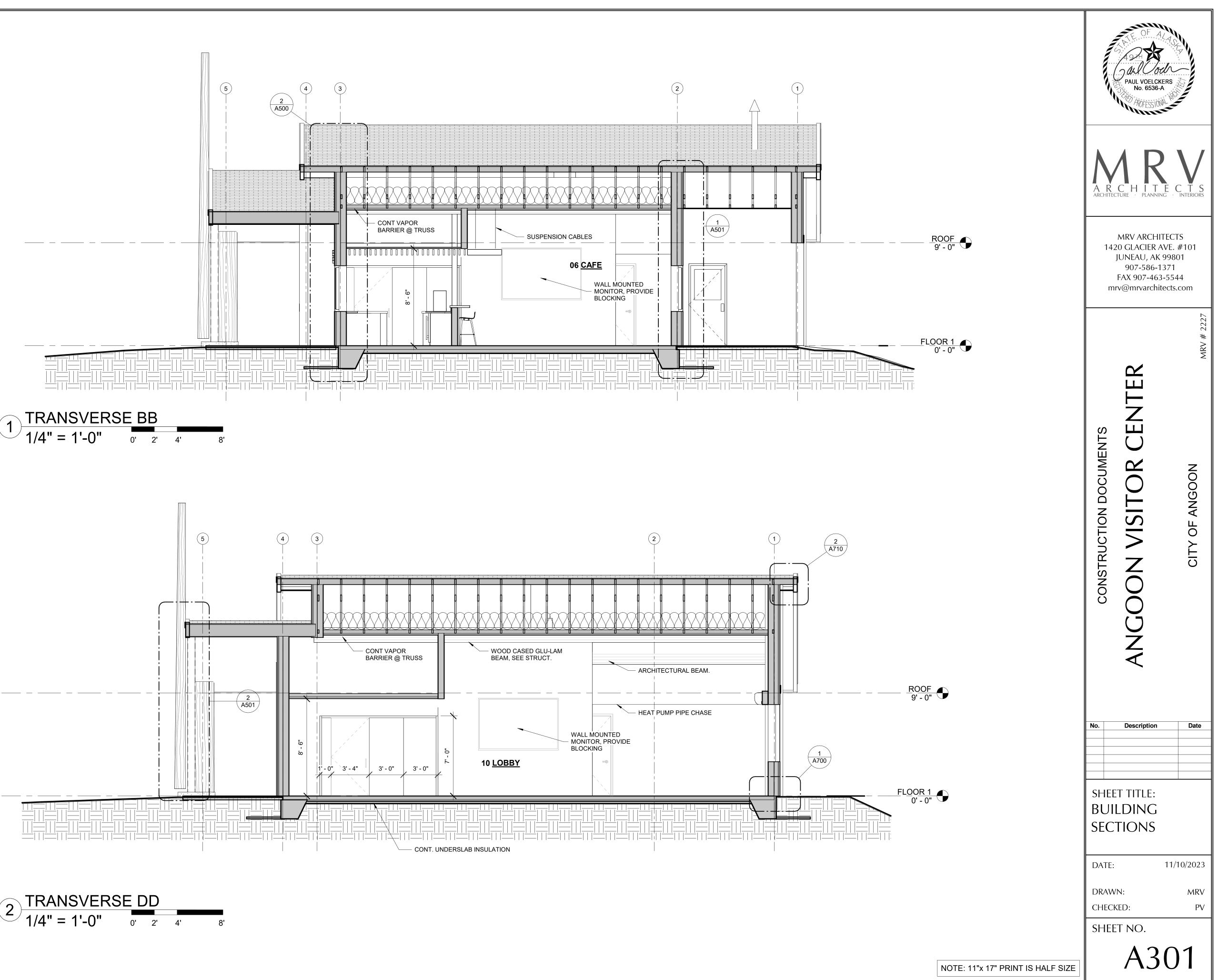
2. SEE ADD ALT FOR ROOF ALTERNATE.

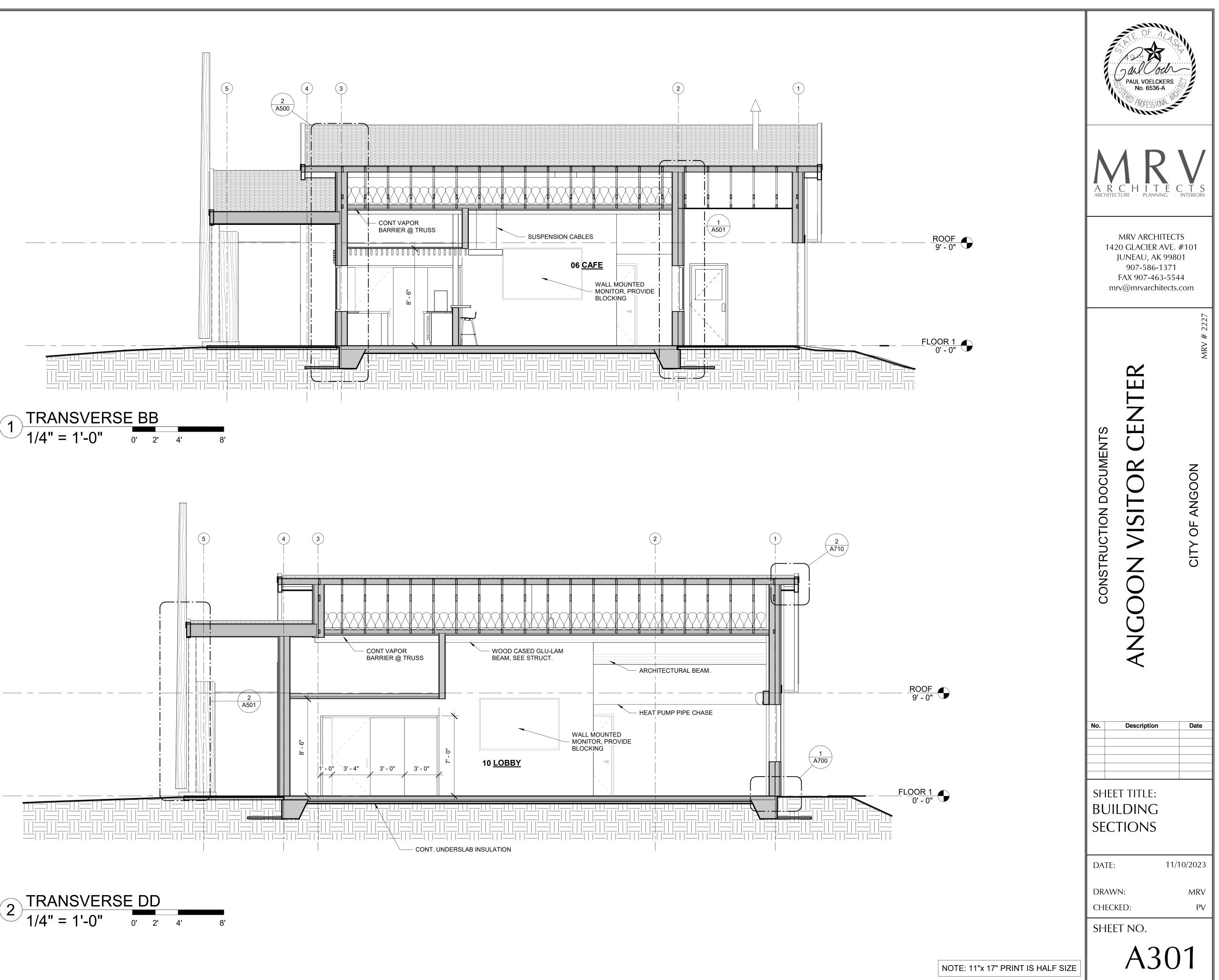


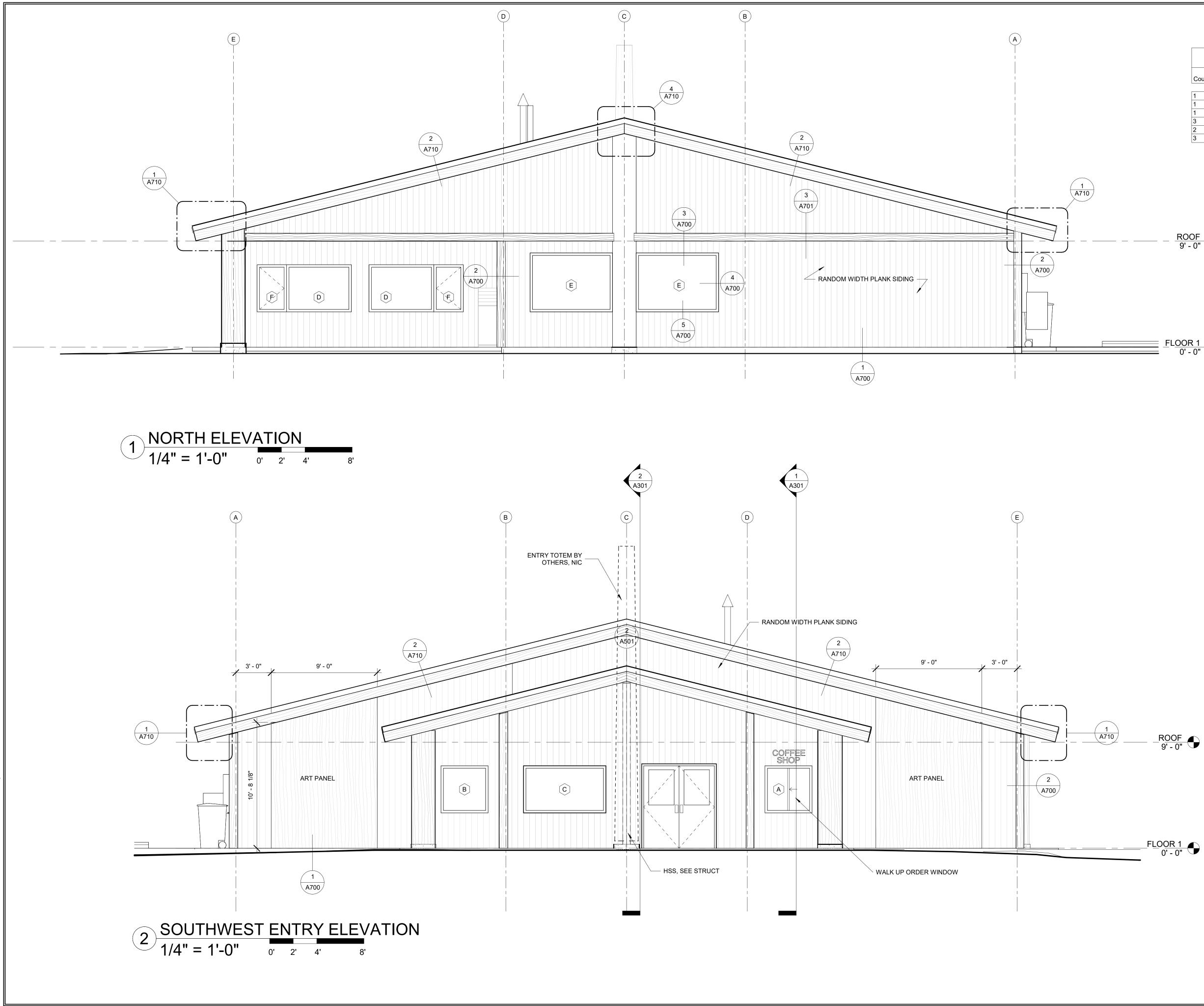










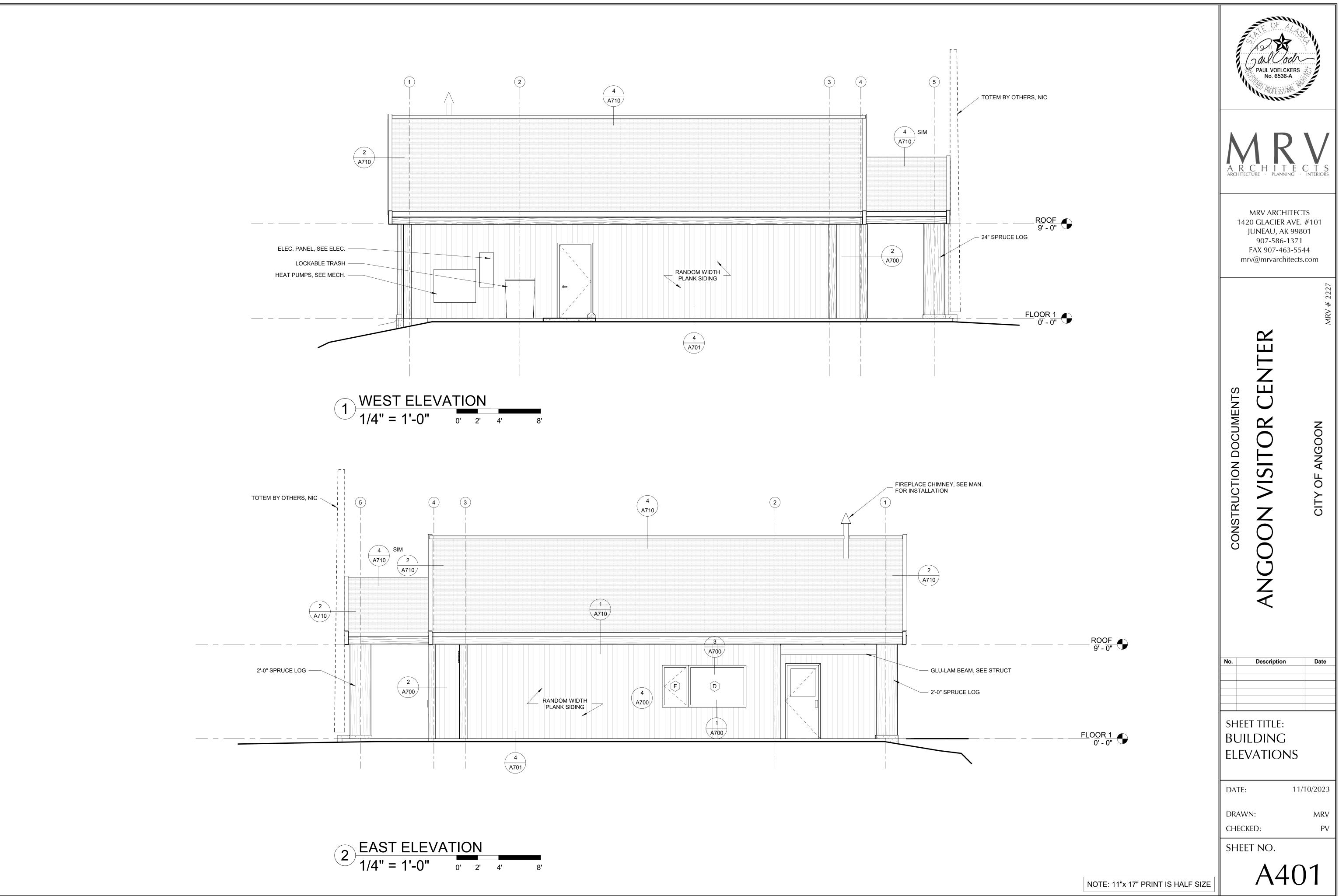


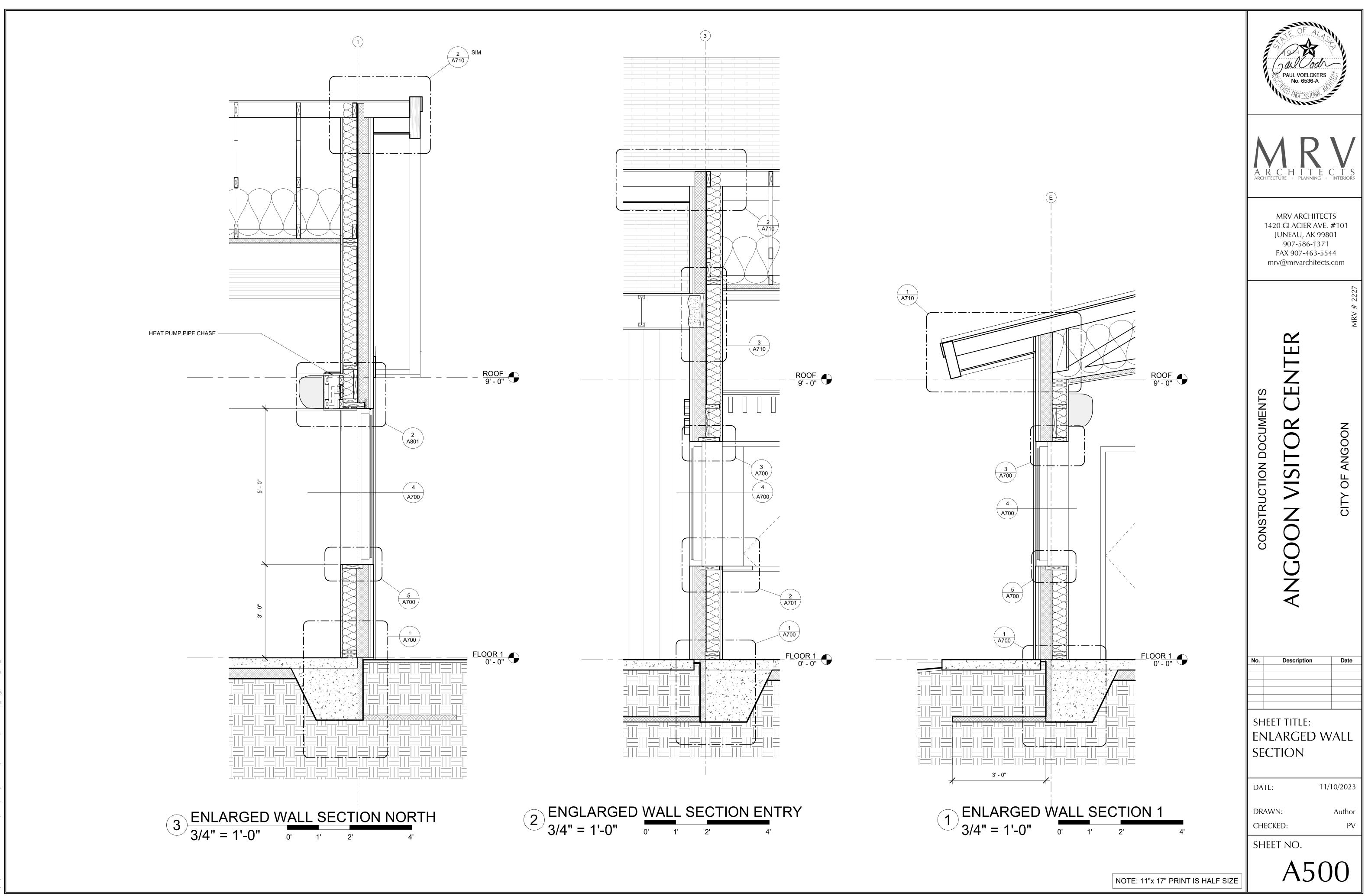
Window Schedule							
Count		Type Mark	Height	Width	Description		
1	A		4' - 0"	4' - 0"	SLIDER		
1	В		4' - 0"	4' - 0"	FIXED		
1	С		4' - 0"	7' - 0"	FIXED		
3	D		4' - 0"	5' - 6"	FIXED		
2	E		5' - 0"	7' - 0"	FIXED		
3	F		4' - 0"	2' - 6"	CASEMENT		

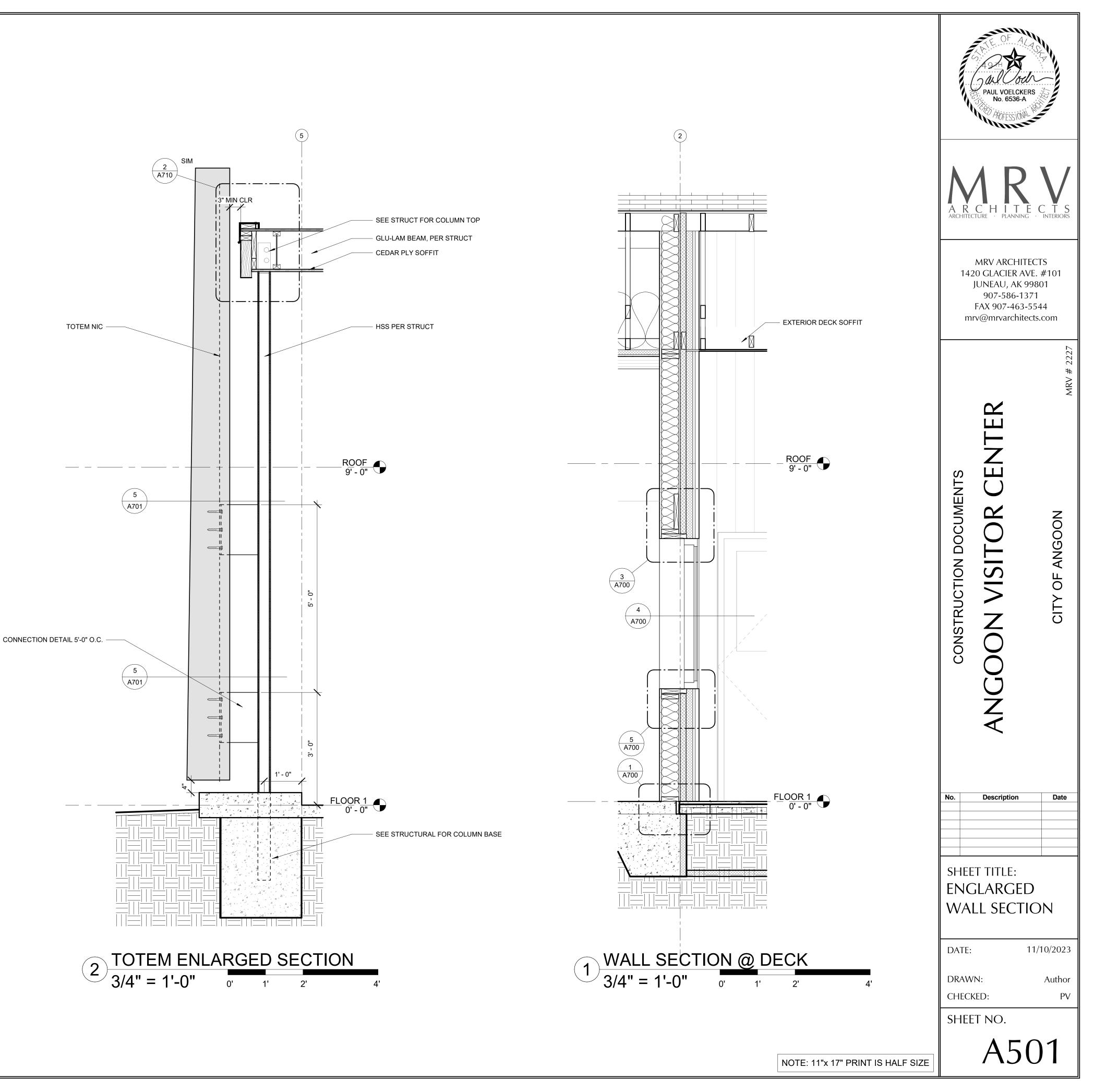
ROOF 9' - 0"

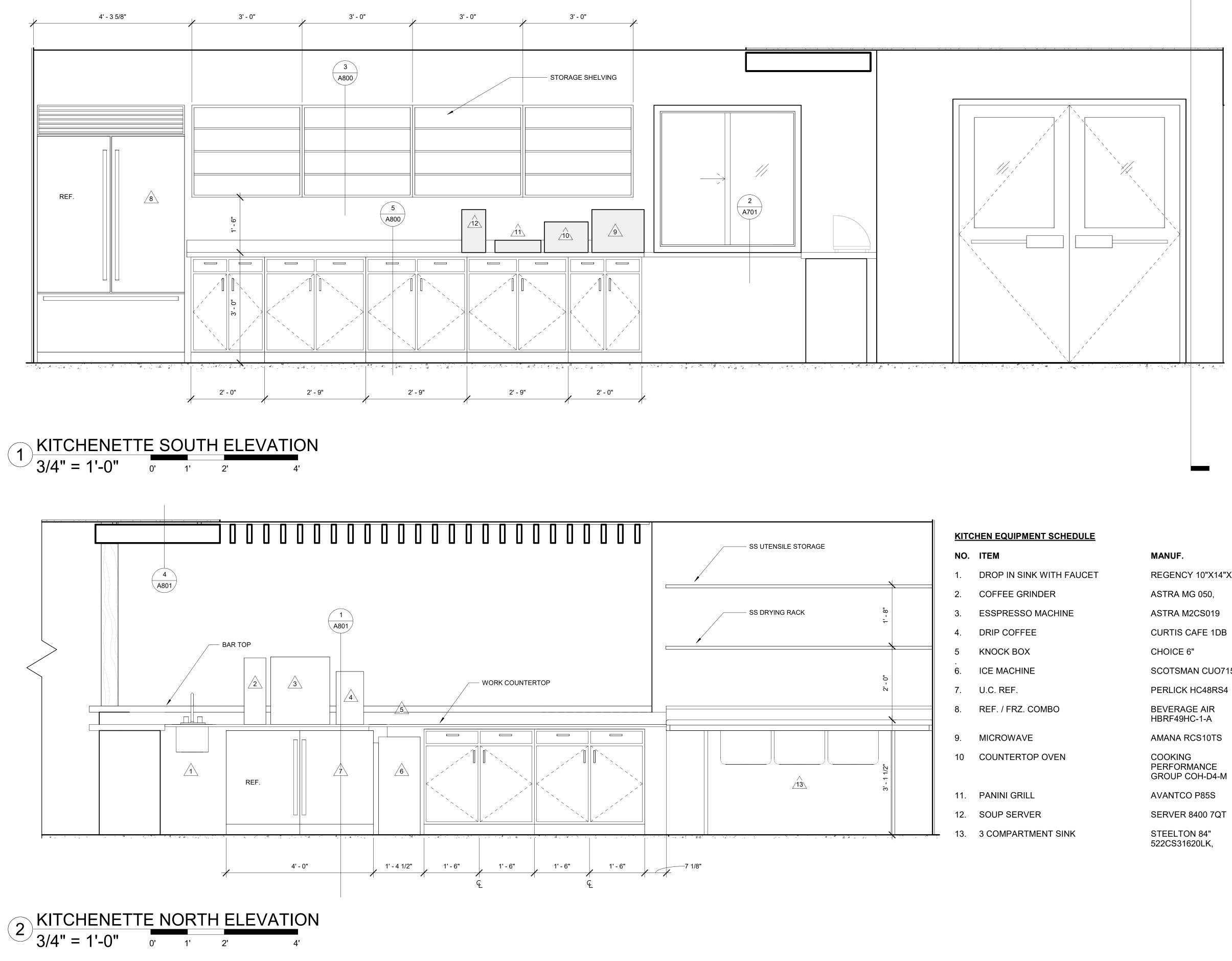


eight	Width	Description			PAUL VOELCK No. 6536-/	ERS A
"	4' - 0"	SLIDER			PROFESSION	AL ARO
"	4' - 0"	FIXED			NOT LOSTON	
)" 	7' - 0"	FIXED				
)" "	5' - 6" 7' - 0"	FIXED FIXED				
)")"	7' - 0" 2' - 6"	CASEMENT				
<u></u>	2-0		J	ARCHIT	MRV ARCHI	
					420 GLACIER A JUNEAU, AK 907-586-1 FAX 907-463 mrv@mrvarchit	VE. #101 99801 371 -5544
					ER	MRV # 2227
				ENTS	CENT	
				ON DOCUM	SITOR	CITY OF ANGOON
				CONSTRUCTION DOCUMENTS	ANGOON VISITOR CENTER	CITY OF
				No.	Description	Date
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				DATE	Ē:	11/10/2023
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NC)TE: 11'	'x 17" PRINT IS HA	ALF SIZE		A4	00



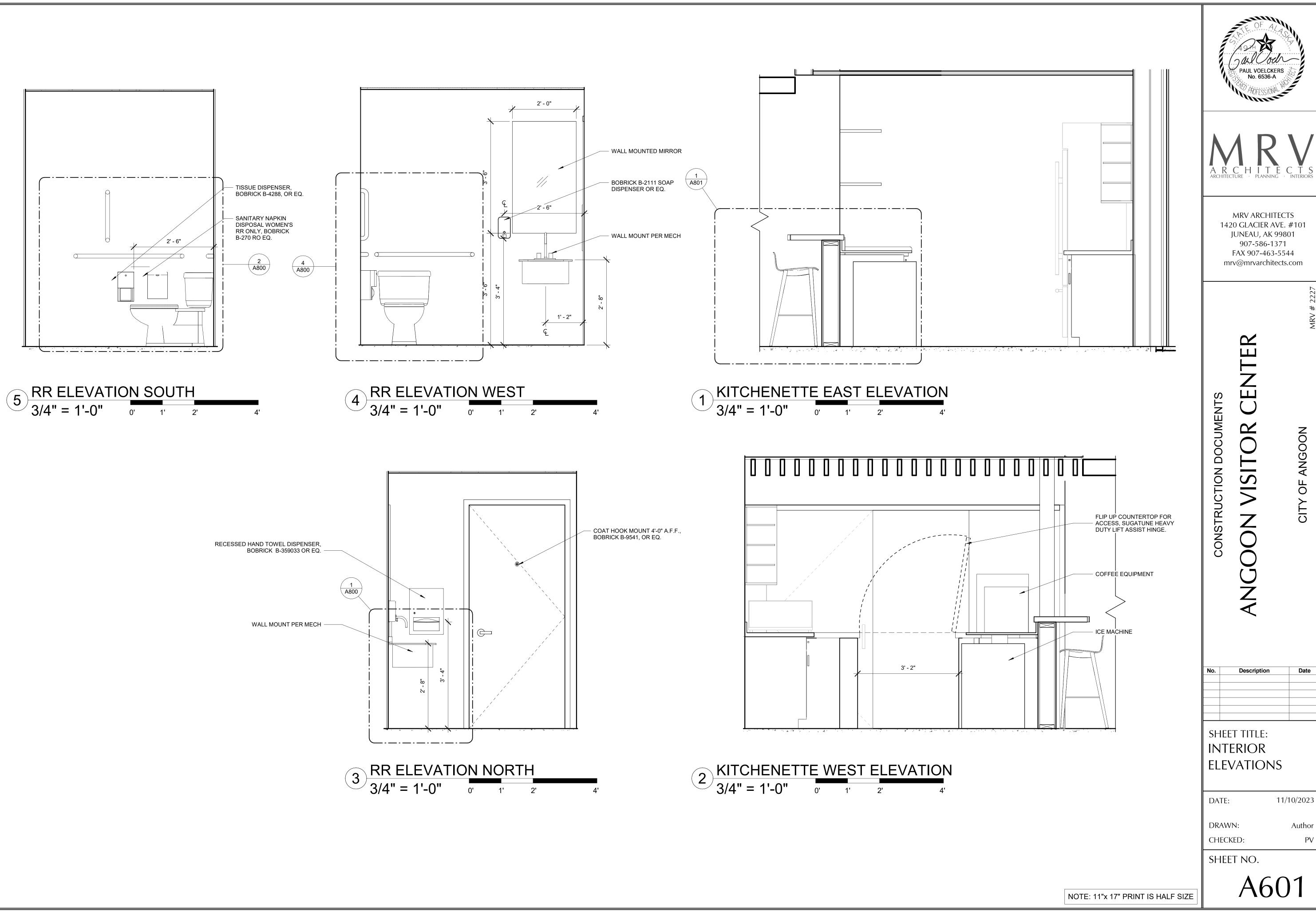


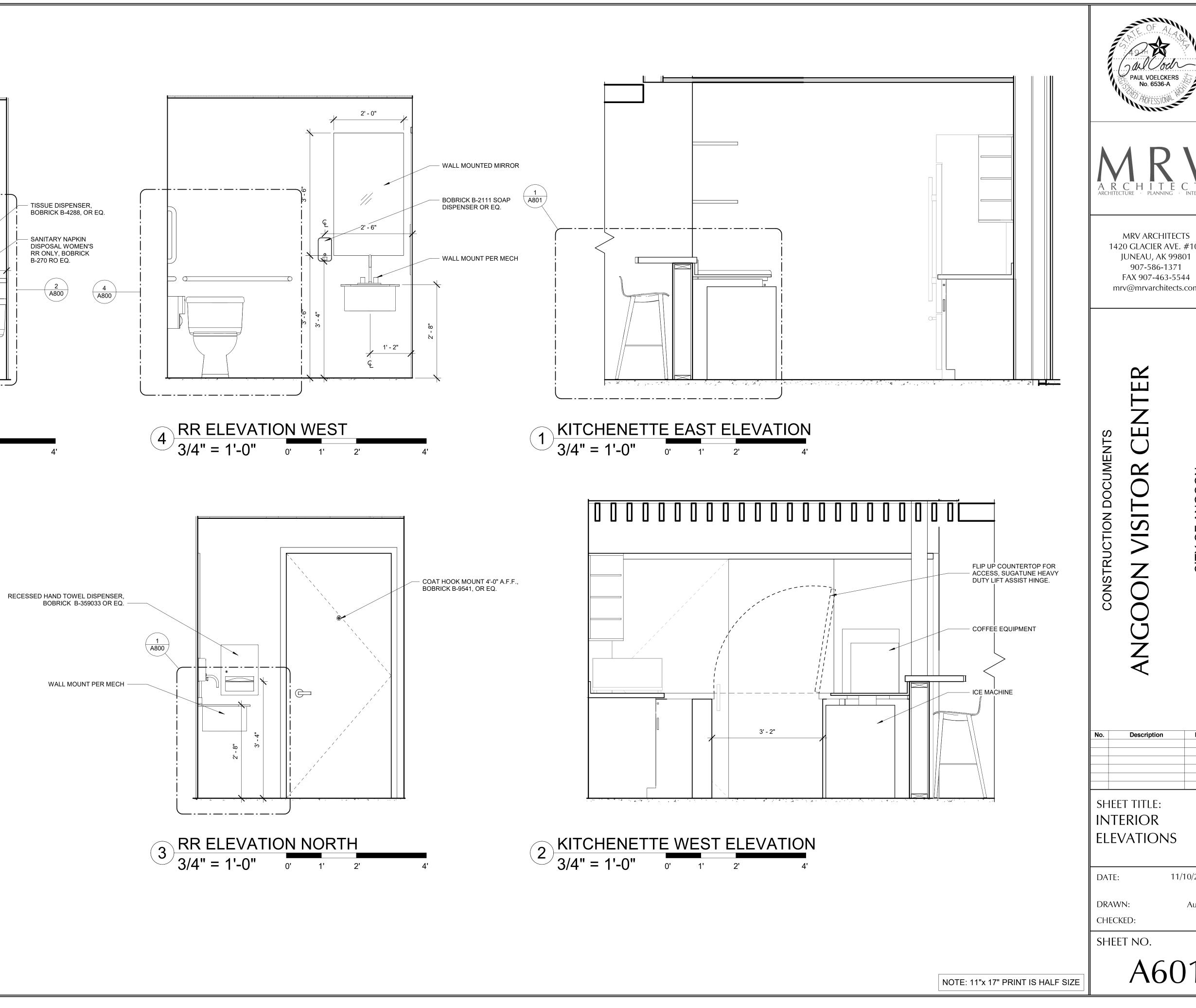




REGENCY 10"X14"X5" CURTIS CAFE 1DB SCOTSMAN CUO715

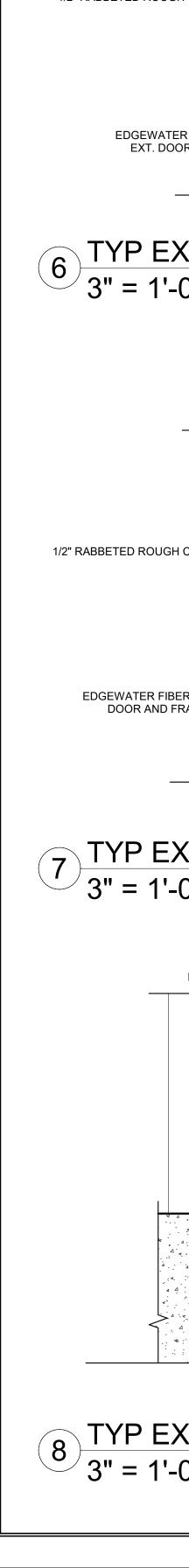
PAUL VOELCKERS No. 6536-A				
A F ARCHI	A R R C H I T E C TECTURE - PLANNING	CTS INTERIORS		
	MRV ARCHITECT 420 GLACIER AVE. JUNEAU, AK 9980 907-586-1371 FAX 907-463-554 mrv@mrvarchitects.	#101)1 .4		
CONSTRUCTION DOCUMENTS	ANGOON VISITOR CENTER	CITY OF ANGOON MRV # 2227		
No.	Description	Date		
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DAT	E: 11/1	0/2023		
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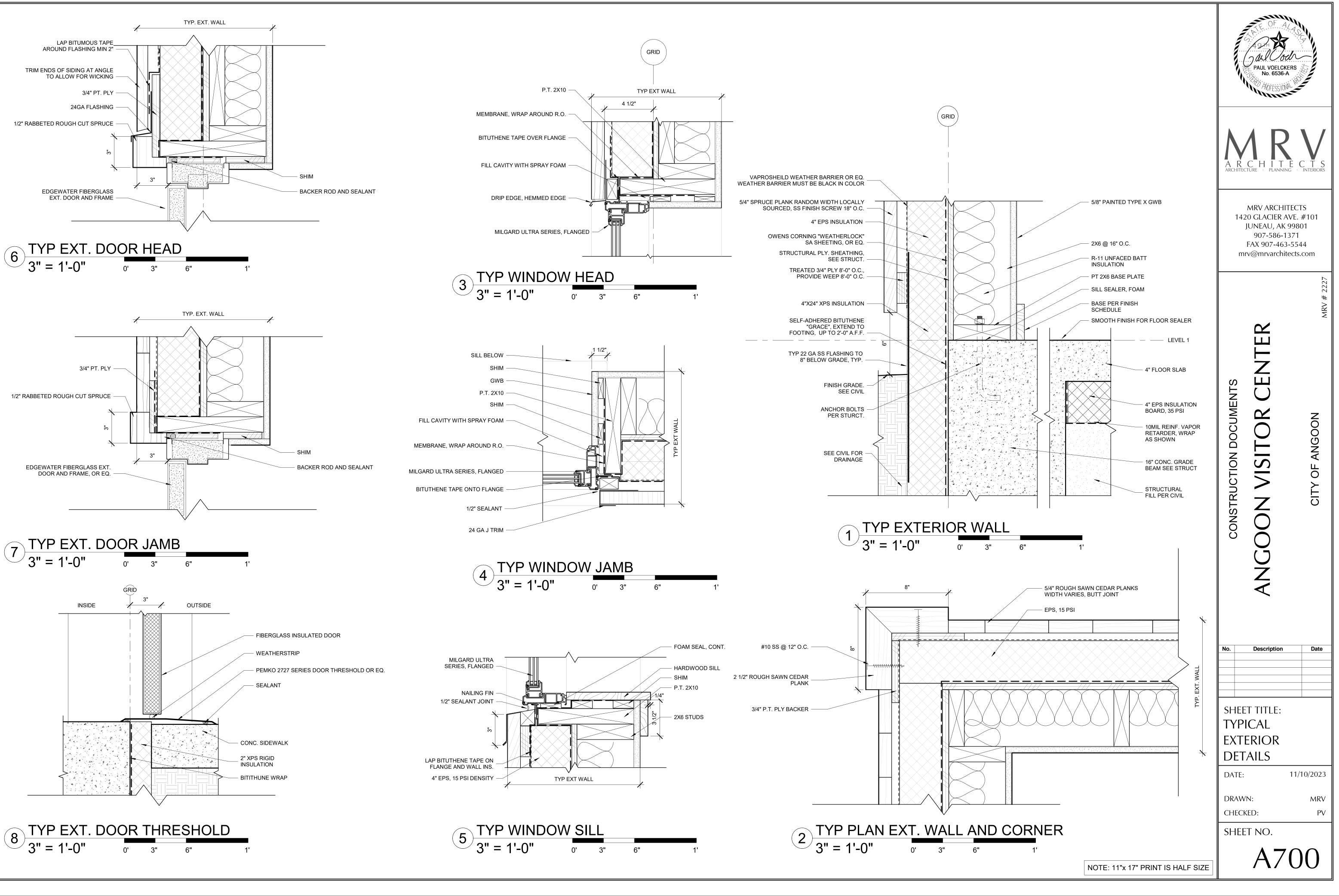


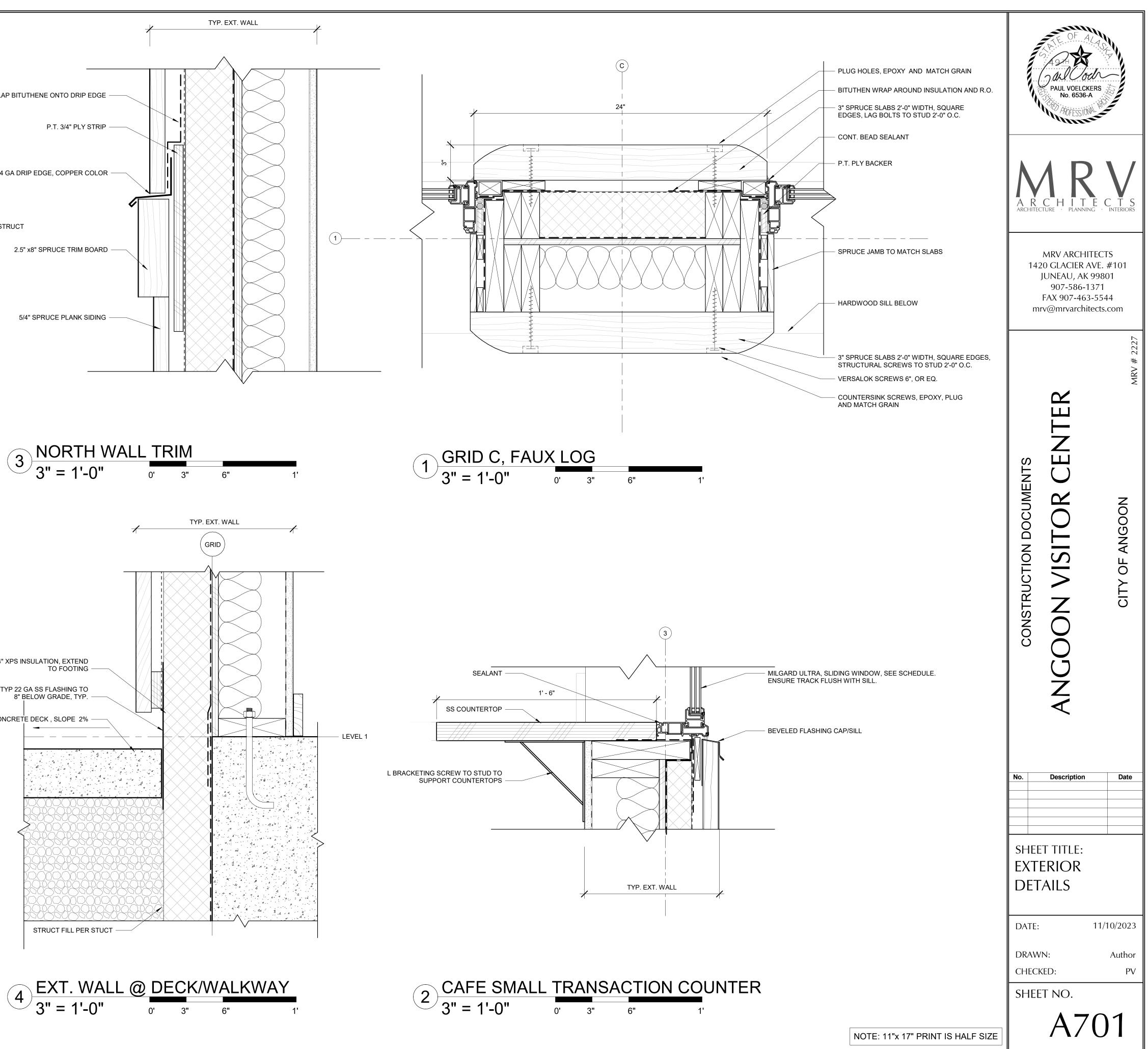


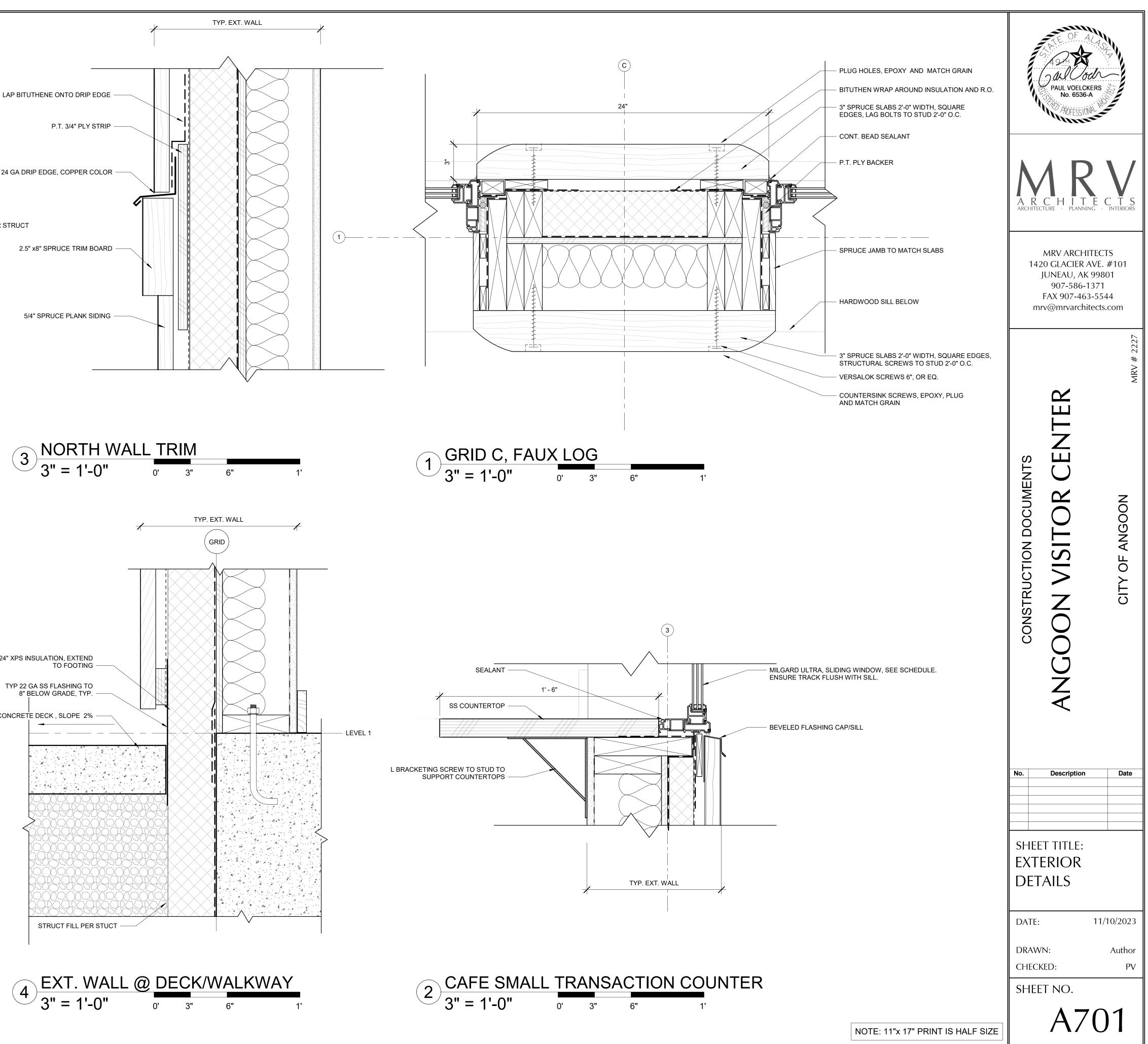
PV

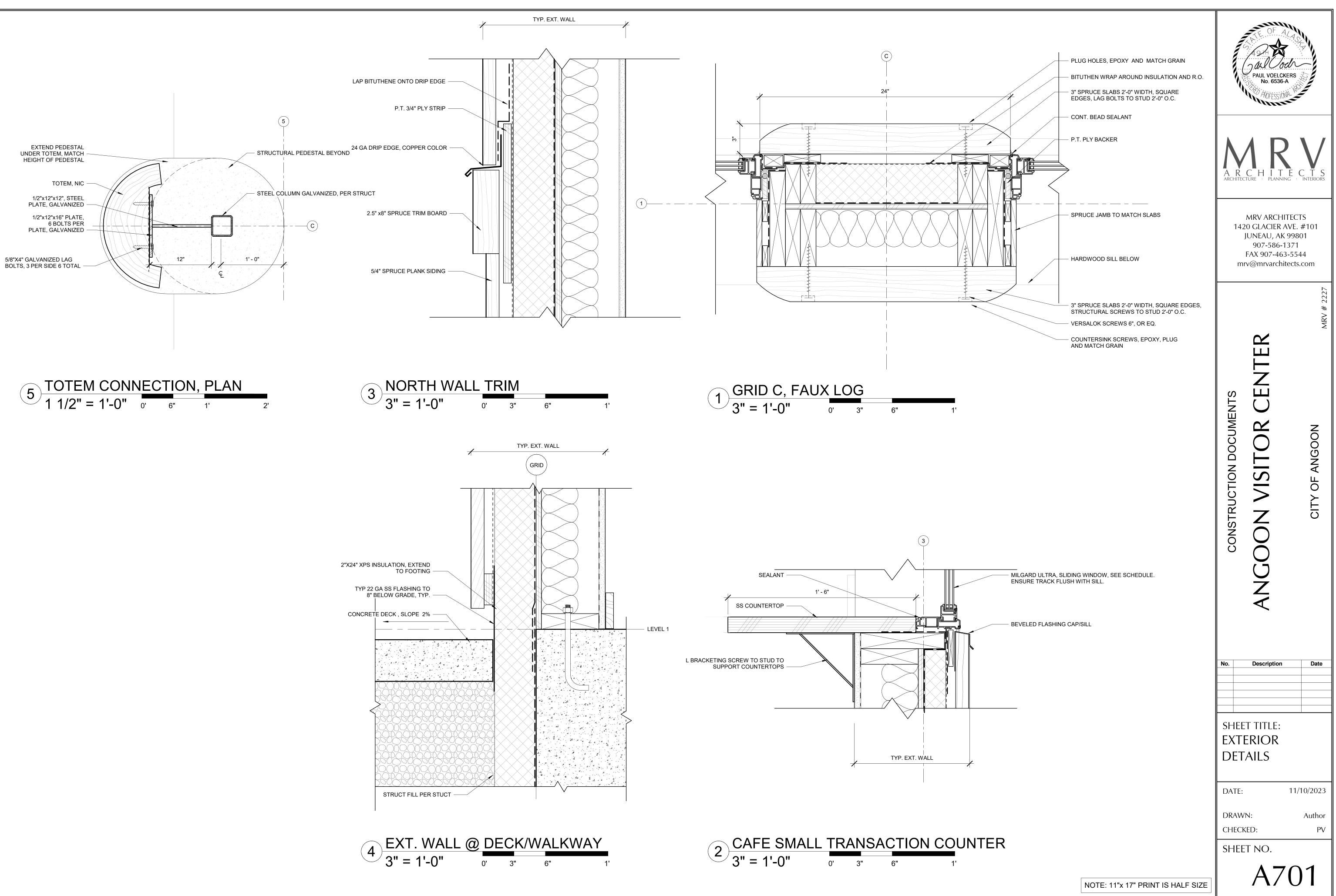


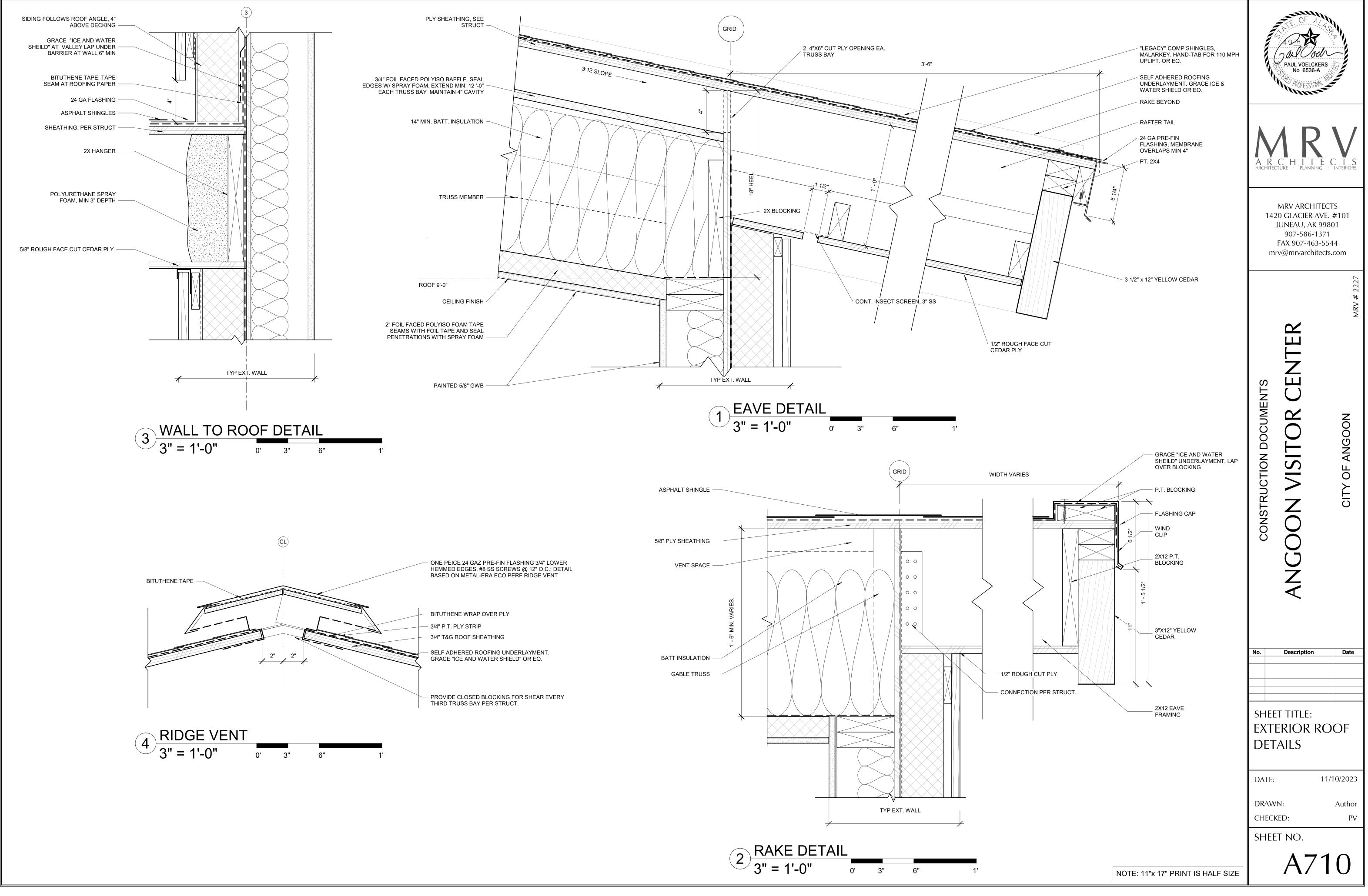


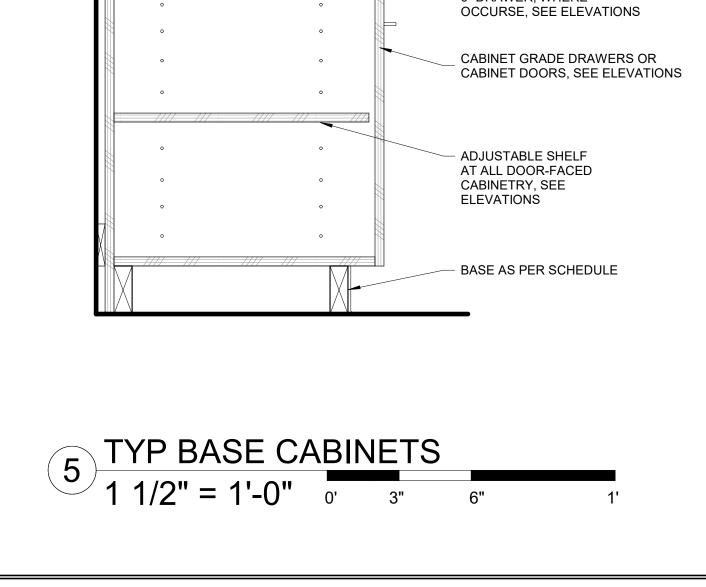








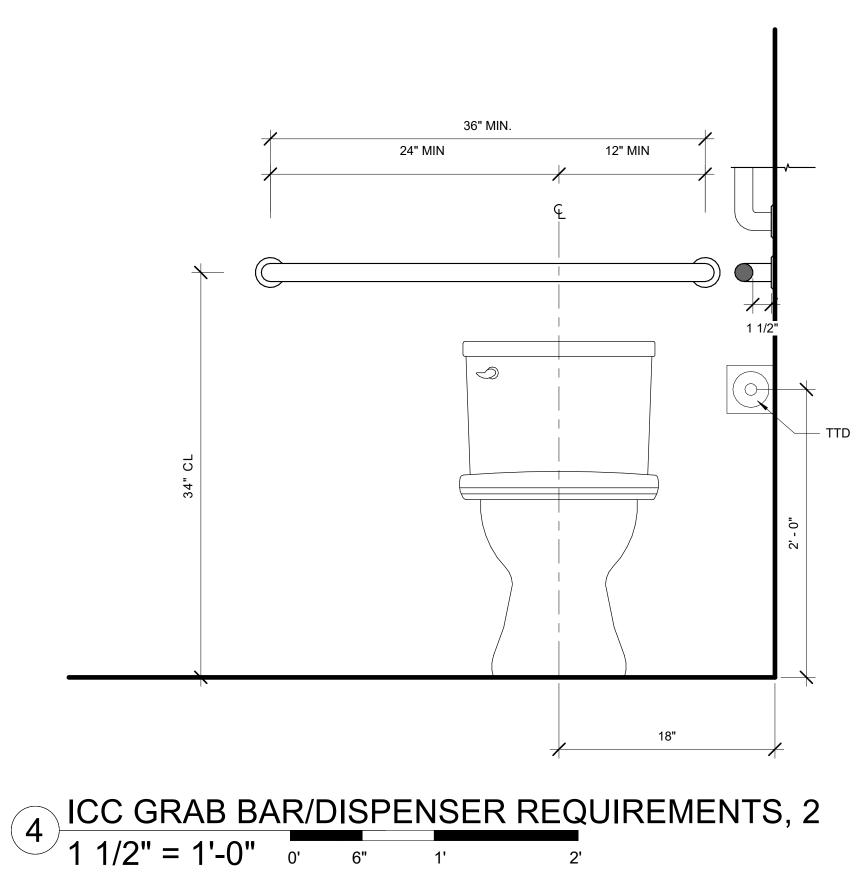




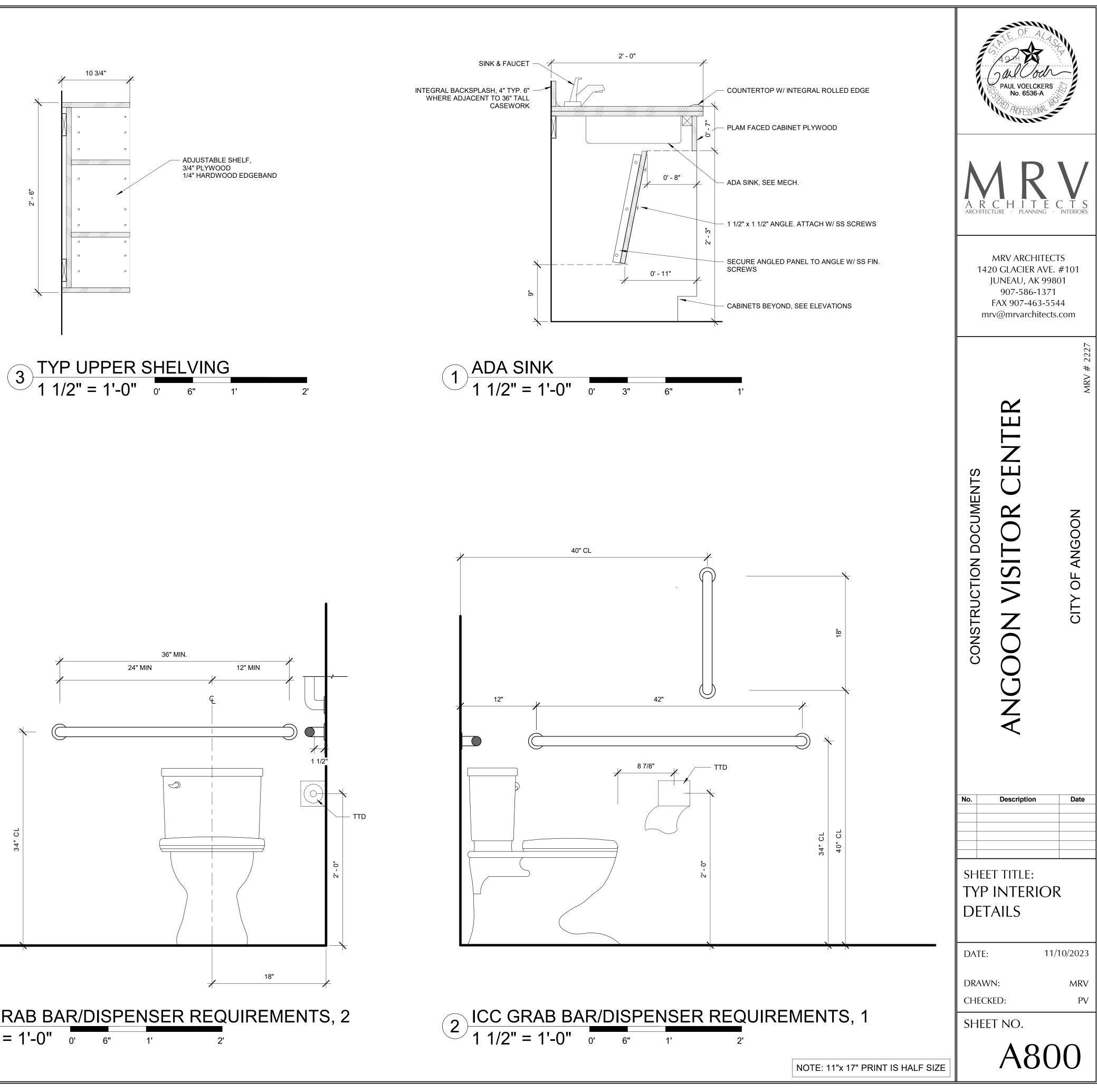
- SS COUNTERTOP

6" DRAWER, WHERE

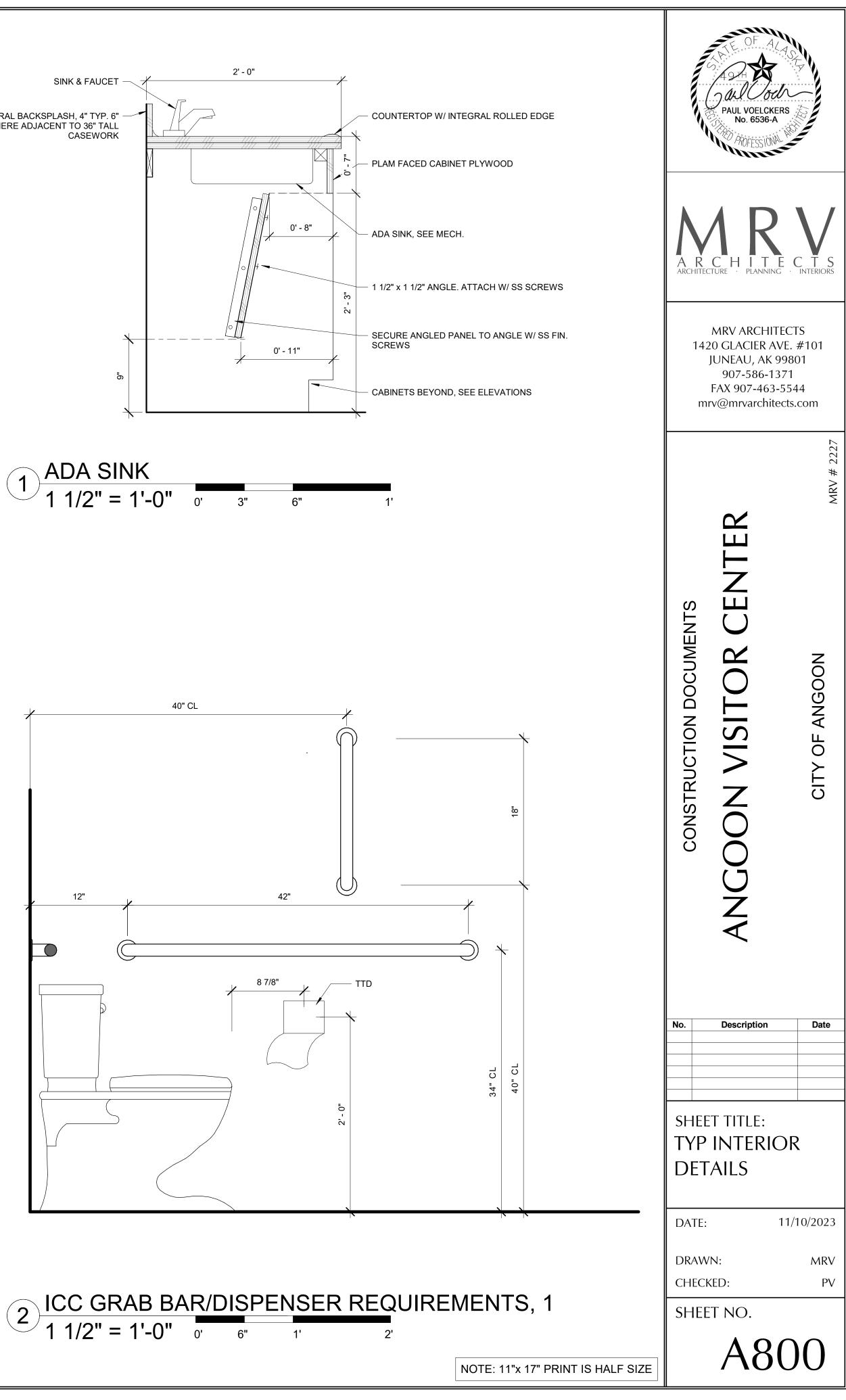
4" INTREGAL BACKSPLASH

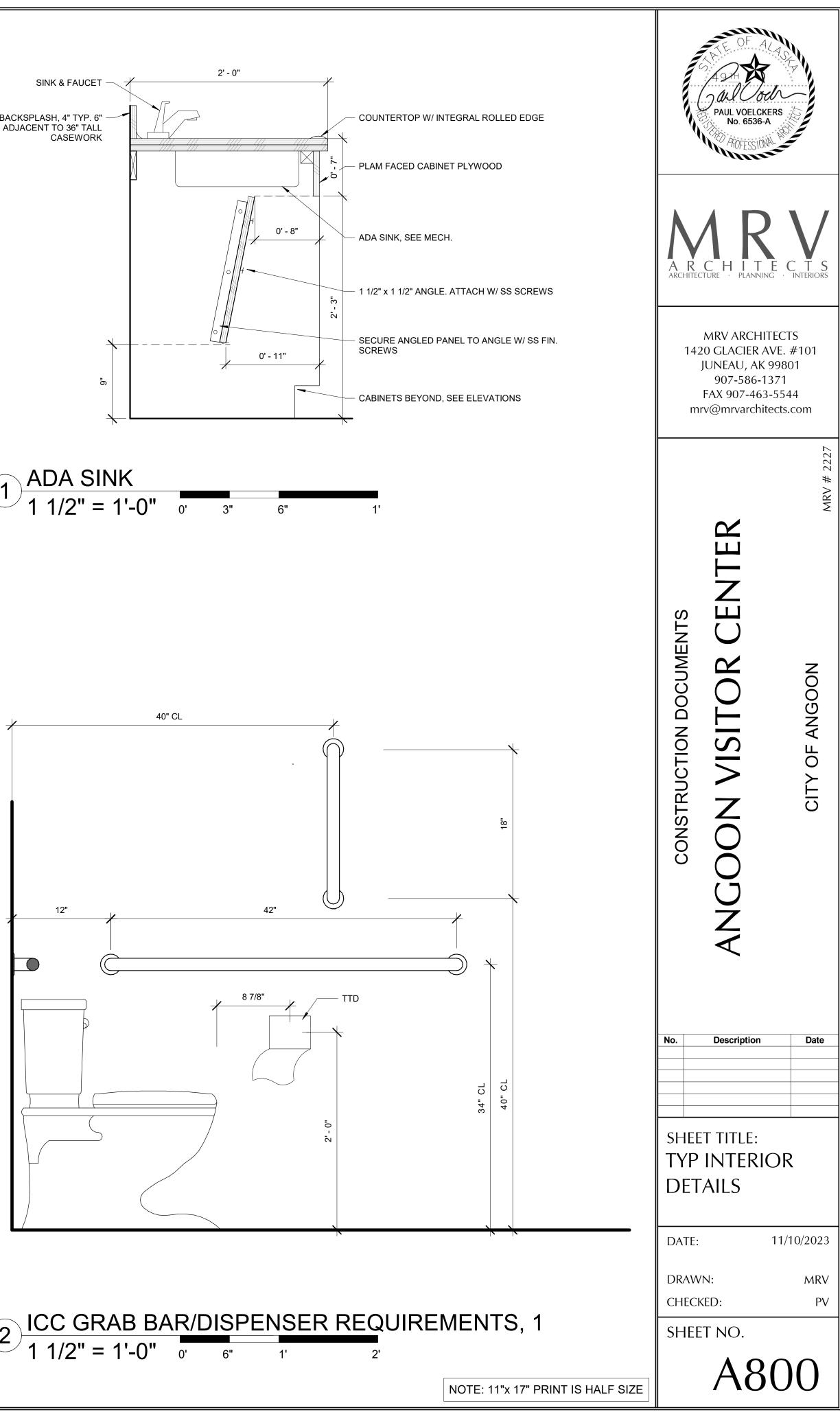


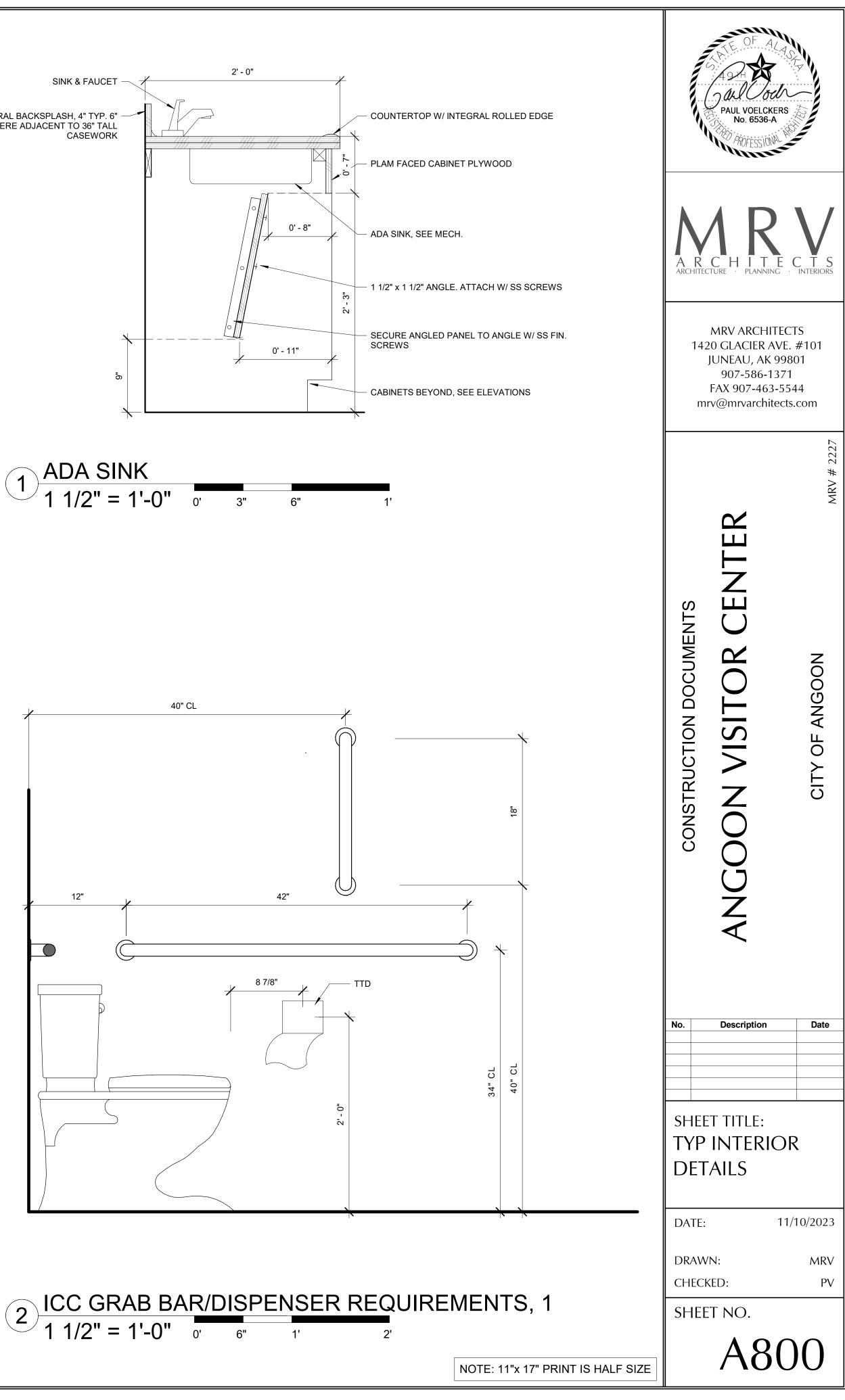


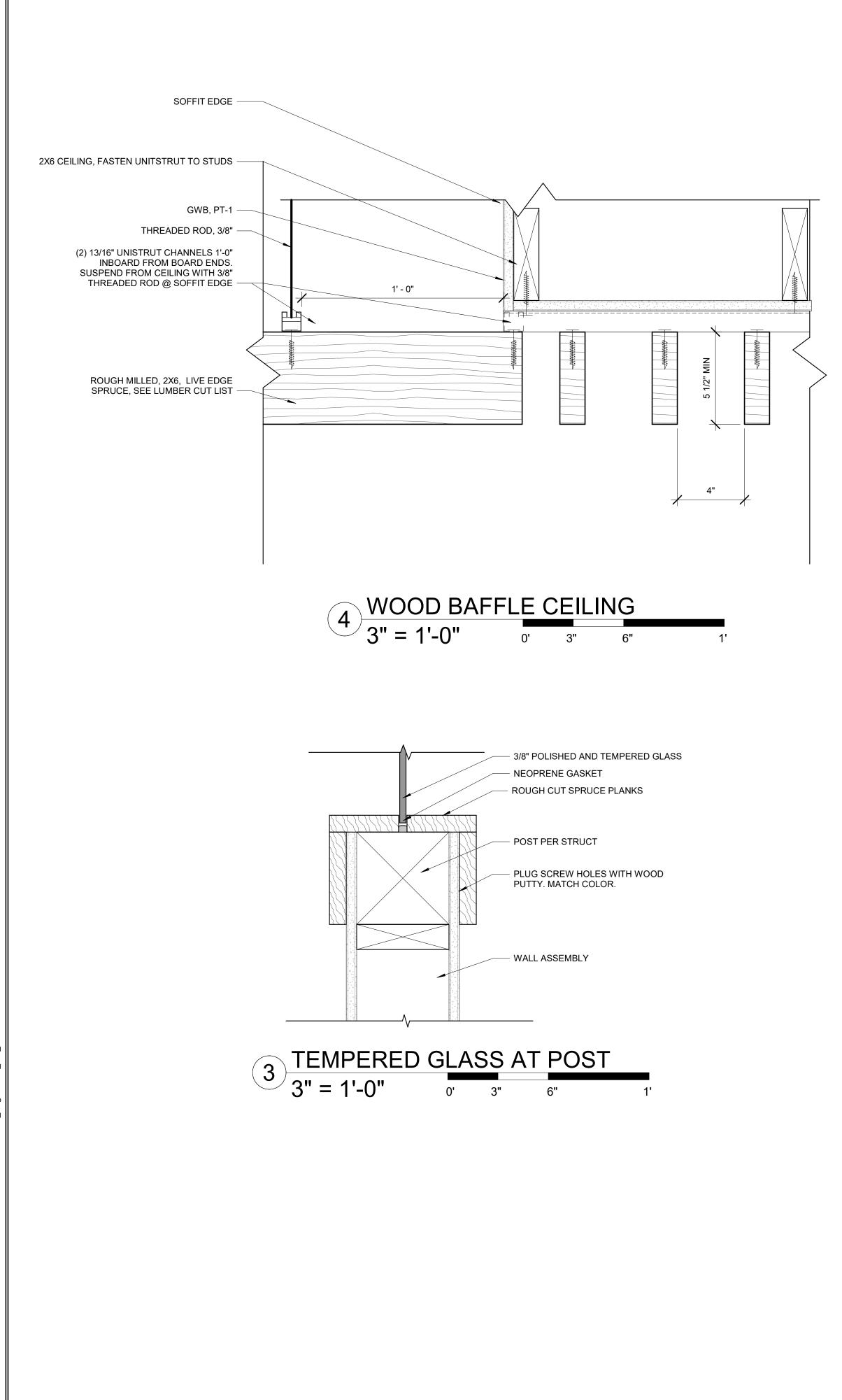


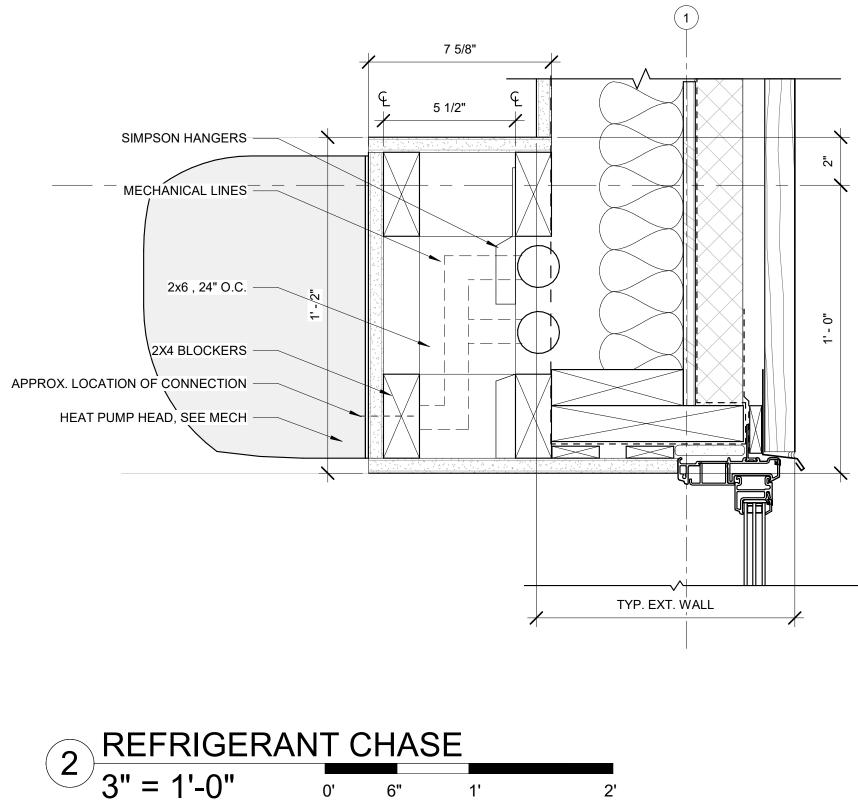


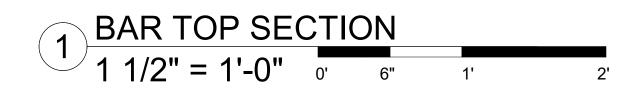


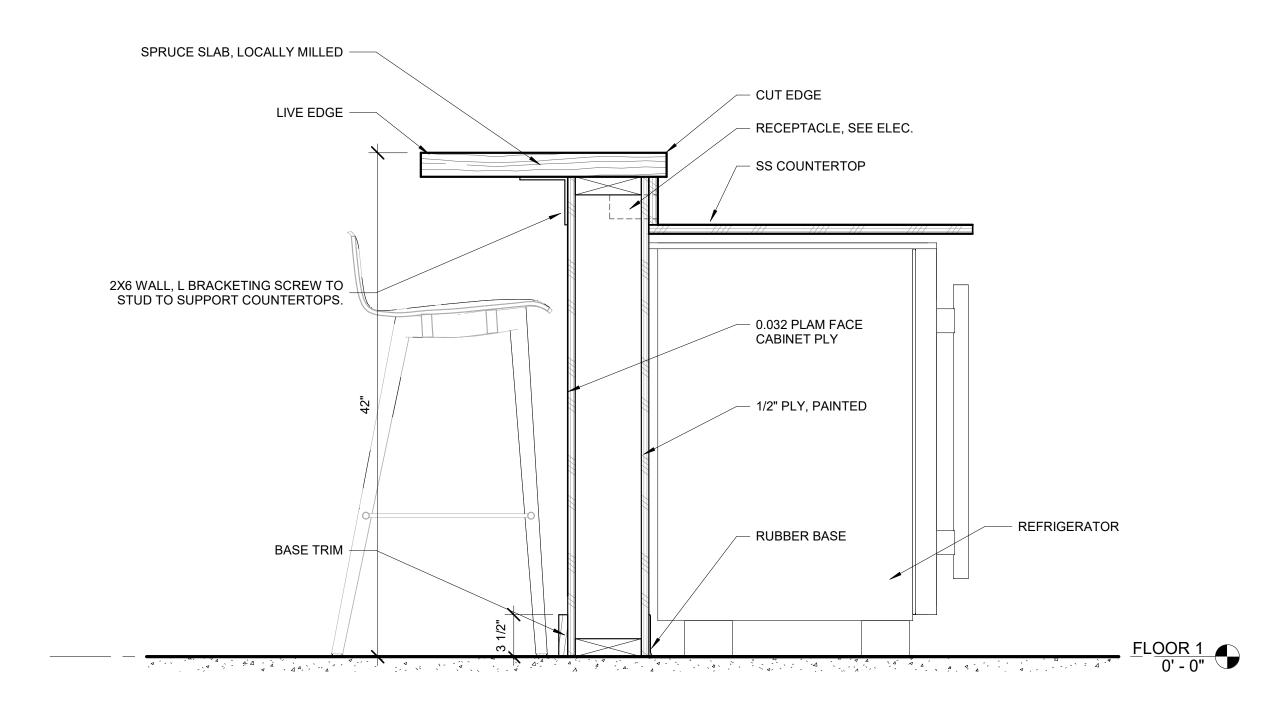


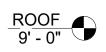




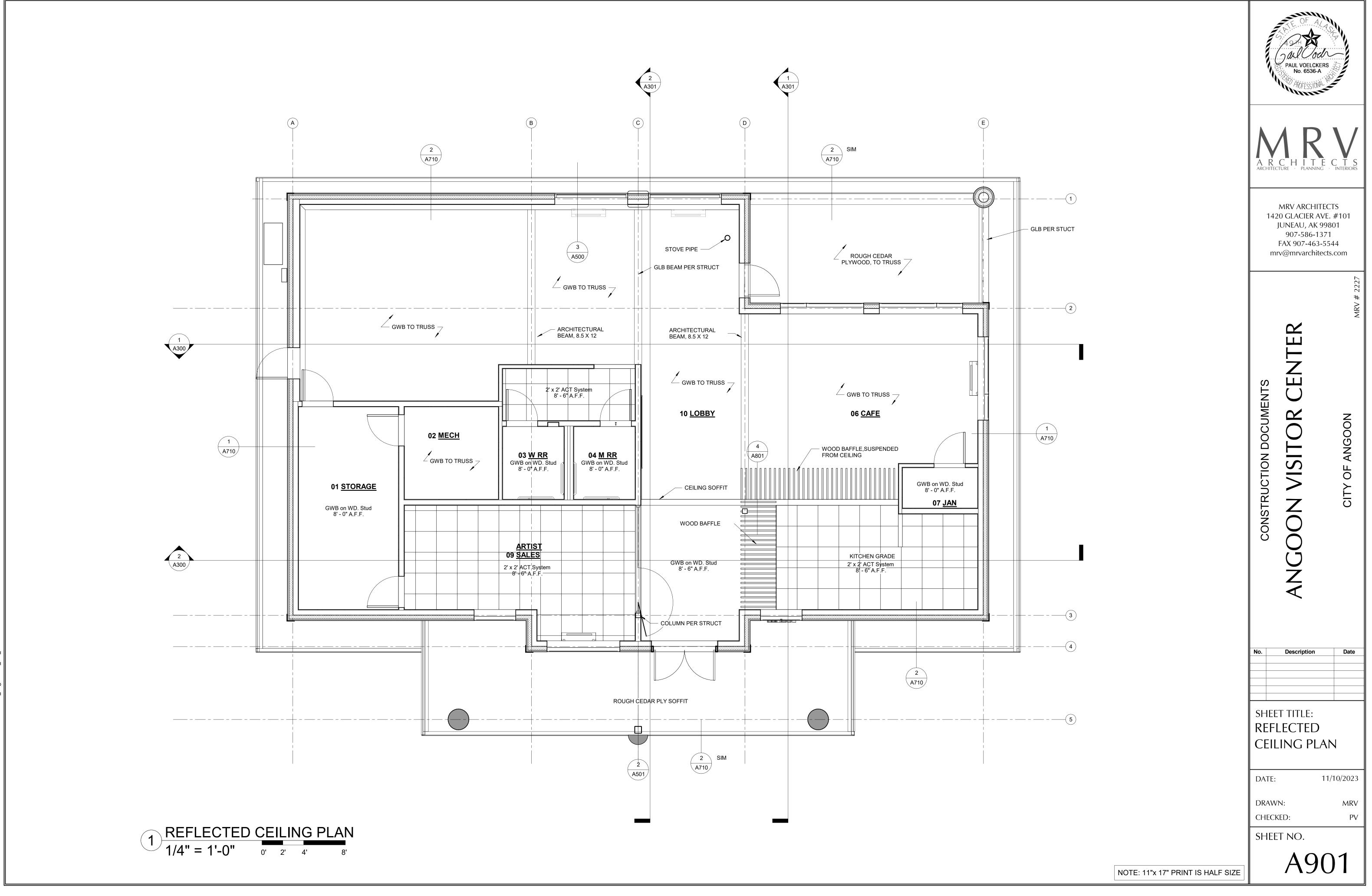












TYPICAL ABBREVIATIONS

		<u> </u>	PICA	L ABBREVIATIONS				GENERAL NOTE	S
(A)		ABOVE	FD	FLOOR DRAIN	P/C		THE FOLLOWING NOTES APPLY UNLESS INDICATED OTHERWIS	E:	DRILL-IN EXPANSION ANCHORS:
AE AC		ANCHOR BOLT AMERICAN CONCRETE INSTITUTE	FDN FIN	FOUNDATION FINISH, FINISHED	PCWT PEMB	PLATE-CONNECTED WOOD TRUSS PRE-ENGINEERED METAL BUILDING	<u>CODE:</u>		"POWER-STUD+ SD2" BY DEWALT OR APPROVED EQUAL. REQUIRED. SPECIAL INSPECTION REQUIRED.
AD	DL	ADDITIONAL	FF	FINISHED FLOOR	PERP	PERPENDICULAR	INTERNATIONAL BUILDING CODE, 2021 EDITION.		
AD AE		ADJACENT ARCHITECTURALLY EXPOSED STRUCTURAL STEEL	FLG FLR	FLANGE FLOOR	PJ PL	PANEL JOINT PLATE (STEEL OR WOOD)	DESIGN SOIL PRESSURE:		
AIS AIS		AMERICAN INSTITUTE OF STEEL CONSTRUCTION AMERICAN IRON AND STEEL INSTITUTE	FOS FRP	FACE OF STUDS FIRE RESISTANT TREATED PLYWOOD	PLCS PLWD	PLACES	2500 PSF MAX DEAD + LIVE LOAD.		"PURE110+" ADHESIVE BY DEWALT OR APPROVED EQUAL REQUIRED. SPECIAL INSPECTION REQUIRED.
Al		AMERICAN INSTITUTE OF TIMBER CONSTRUCTION	FRT	FIRE RESISTANT TREATED (LUMBER)	PP	PARTIAL PENETRATION	CAST FOOTINGS ON COMPACTED STRUCTURAL FILL.		CONCRETE SCREW ANCHORS:
AL AI	T UM	ALTERNATE ALUMINUM	FS FT OR '	FINISH SLAB ELEVATION, FAR SIDE FOOT, FEET	PSF PSI	POUNDS PER SQUARE FOOT POUNDS PER SQUARE INCH	DESIGN LIVE LOADS:		"SCREW-BOLT+" BY DEWALT OR APPROVED EQUAL. ICC-
AF		ARCHITECT, ARCHITECTURAL	FTG	FOOTING	PSL	PARALLEL STRAND LUMBER	ROOF	Pg = 70 PSF, Pf = 50 PSF	REQUIRED. SPECIAL INSPECTION REQUIRED.
@ AF	PROX	AT APPROXIMATELY	FV	FIELD VERIFY	PT P/T	PRESSURE TREATED POST TENSION		I = 1.0, Ce = 1.0, Ct = 1.0	STRUCTURAL STEEL:
AS	CE	AMERICAN SOCIETY OF CIVIL ENGINEERS	GA	GAUGE, GAGE	PVC	POLYVINYL CHLORIDE	SNOW DRIFT	ASCE 7-16, CHAPTER 7	ALL STEEL ASTM A36, EXCEPT TUBE SECTIONS TO BE AS SUBMIT SHOP DRAWINGS.
AS AV		AMERICAN SOCIETY FOR TESTING MATERIAL AMERICAN WELDING SOCIETY	GALV GEN	GALVANIZED GENERAL	R	RADIUS	WIND	141 MPH 3-SECOND GUST EXPOSURE C	WELDING PER AWS D1.1. MINIMUM SIZE WELDS 3/16" CON
&		AND	GL GWB	GLUE LAMINATED GYPSUM WALL BOARD	RD REF	ROOF DRAIN, ROUND REFERENCE		BUILDING CATEGORY II, I = 1.0 (GCpi) = 0.18, qh = 41.9	ROD AND POSITION. ELECTRODES SHALL BE E70XX MININ
(B))	BELOW	GYP	GYPSUM	REINF	REINFORCING, REINFORCEMENT, REINFORCED	COMPONENTS AND CLADDING LOADS FOR DEFERRED SUBMITT		BOLTS PER ASTM A307.
BC BL		BOARD BUILDING	HDG	HOT DIPPED GALVANIZED	REQD RO	REQUIRED ROUGH OPENING	MAIN WIND FORCE RESISTING SYSTEM: MAX WINDWARD PRESSURE AT WALLS =	27 PSF	APPLY ONE COAT OF SHOP PAINT TO ALL STEEL.
BL	K	BLOCK	HORIZ	HORIZONTAL	RS	RING SHANK	MAX LEEWARD SUCTION AT WALLS =	16 PSF	GLUED-LAMINATED TIMBER:
BL BC		BLOCKING BOTTOM OF DECK ELEVATION	HP HSB	HP STEEL SHAPE HIGH STRENGTH BOLT	S	AMERICAN STANDARD STEEL SHAPE, SOUTH	WALL COMPONENTS AND CLADDING:		BEAMS AND GIRDERS - DOUGLAS FIR SPECIES, COMBINA MOISTURE CONTENT - 15 PERCENT MAXIMUM. APPEARAN
BN	1	BEAM	HSS	HOLLOW STRUCTRAL SECTION	SCHED	SCHEDULE	ZONE 1, AT LEAST 6'-0" FROM ROOF EDGE SUCTION =	85 PSF	WASHERS AT ALL BOLT HEADS AND NUTS BEARING ON W
BC BF		BOTTOM BEARING	HI	HEIGHT	SEC SHT	SECTION SHEET	PRESSURE = SUCTION AT OVERHANG =	34 PSF 104 PSF	STRUCTURAL SAWN LUMBER:
BF	K	BRICK	IBC	INTERNATIONAL BUILDING CODE	SHTG	SHEETING	ZONE 2, EAVE, WITHIN 6'-0" OF EDGE OF ROOF: SUCTION =		LUMBER VISUALLY GRADED AND STAMPED PER WWPA ST THICKNESS - 19 PERCENT MAXIMUM.
BS BT	WN	BASEMENT BETWEEN	ID IF	INSIDE DIAMETER INSIDE FACE	SHTHG SIM	SHEATHING SIMILAR	PRESSURE =	85 PSF 34 PSF	
C		AMERICAN CHANNELS	imp In or "	INSULATED METAL PANEL INCH	SIP SLBB	STRUCTURAL INSULATED PANEL SHORT LEGS BACK TO BACK	SUCTION AT OVERHANG = ZONE 2, RAKE, WITHIN 6'-0" OF EDGE OF ROOF:	104 PSF	STRUCTURAL LIGHT FRAMING - DOUG FIR/LARCH SPECIE
C	6	CENTER OF GRAVITY	INCL	INCLUDE	SMS	SHEET METAL SCREWS	SUCTION = PRESSURE =	123 PSF 34 PSF	MINIMUM NAILING FOR CONNECTION OF VARIOUS COMPC 1" OF MASONRY OR CONCRETE WITH PRESERVATIVE. US
CJ	C	CONSTRUCTION JOINT CAST-IN-PLACE	INSUL INT	INSULATION, INSULATED, INSULATE	SOG SPA	CONCRETE SLAB ON GRADE SPACE, SPACING, SPACES	SUCTION AT OVERHANG = ZONE 2, RIDGE, WITHIN 6'-0" OF RIDGE :	143 PSF	WOOD. ATTACH FOUNDATION PLATES AND SILLS TO CON ONLY. USE HOT-DIPPED GALVANIZED FASTENERS IN ALL
CL		CENTER LINE			SPEC	SPECIFICATION	SUCTION = PRESSURE =	123 PSF 34 PSF	GALVANIZED FRAMING HARDWARE MANUFACTURED BY S
CJ CL		COMPLETE JOINT PENETRATION CLEAR	JT JST	JOINT JOIST	SQ SS	SQUARE STAINLESS STEEL	SUCTION AT OVERHANG = ZONE 3, EAVE CORNER, WITHIN 6'-0" OF ROOF CO	143 PSF ORNER:	MINIMUM NAIL SIZES – 8d COMMON – 0.131" DIA X 2 10d COMMON – 0.148" DIA X 3
CN	1P	CORRUGATED METAL PIPE	001		SSL	SHORT SLOTTED HOLES	SUCTION = PRESSURE =	123 PSF 34 PSF	16d COMMON – 0.162" DIA X 3
CN CC		CONCRETE MASONRY UNIT CLEANOUT, CONCRETE OPENING	K KSI	KIP, KIPS KIPS PER SQUARE INCH	ST STD	STRUCTURAL T FROM S SERIES SECTION STANDARD	SUCTION AT OVERHANG = ZONE 3, RIDGE AT EAVE, WITHIN 6'-0" OF ROOF R	166 PSF RIDGE AND EAVE:	SHEATHING:
CC)L	COLUMN			STIFF	STIFFENER	SUCTION = PRESSURE =	147 PSF 34 PSF	SHEATHING GRADE - CD EXPOSURE 1 WITH EXTERIOR GL PLYWOOD OR ORIENTED STRAND BOARD.
	DNC DNN	CONCRETE CONNECTION	lb or # Llbb	POUND LONG LEG BACK TO BACK	STL STRUCT	STEEL STRUCTURAL	SUCTION AT OVERHANG =	189 PSF	ROOF SHEATHING – 3/4" THICK, 48/24 SPAN RATING.
CC	ONSTR	CONSTRUCTION	LLH	LONG LEGS HORIZONTAL	SUPT	SUPPORT	ZONE 4, TYPICAL WALL: SUCTION =	50 PSF	WALL SHEATHING – 7/16" THICK, 32/16 SPAN RATING.
00 00) NTR	CONTINUOUS CONTRACTOR	LLV LONGIT	LONG LEGS VERTICAL LONGITUDINAL	SUSP SYMM	SUSPENDED SYMMETRICAL	PRESSURE = ZONE 5, WITHIN 6'-0" OF BUILDING CORNER:	46 PSF	PROVIDE 2x4 BLOCKING AT ALL UNSUPPORTED WALL PAN COMPLYING WITH APA AFG-01, AT A 50 PERCENT SKIP PA
CS CT		CONCRETE SCREW ANCHOR CONTROL JOINT, CONTRACTION JOINT	LSL LT	LONG SLOTTED HOLES LIGHT	т	ТОР	SUCTION = PRESSURE =	61 PSF 46 PSF	NAILING AT ALL PANEL EDGES AND AT ALL STUDS WITH H
СТ	R	CENTER	LT WT	LIGHT WEIGHT	T&G	TONGUE AND GROOVE	SEISMIC	I = 1.0, SEISMIC USE GROUP II	ROOF SHEATHING - 10d @ 6" MAX OC.
CL	J	CUBIC	L LVF	ANGLE LOW VELOCITY FASTENERS	TEMP THK	TEMPERATURE, TEMPORARY THICK		Ss = 0.69, S1 = 0.46 SOIL SITE CLASS D	WALL SHEATHING - 8d @ 6" MAX OC.
DE		DOUBLE	LVL	LAMINATED VENEER LUMBER	THRU	THROUGH		Sds = 0.58, Sd1 = 0.47, SEISMIC DESIGN CATEGORY D	NAILING AT ALL PANEL INTERMEDIATE SUPPORTS OTHER
DE DE		DEPARTMENT DETAIL	М	MISCELLANEOUS SHAPE	TOB TOC	TOP OF BEAM ELEVATION TOP OF CONCRETE ELEVATION.		BASIC SEISMIC FORCE RESISTING SYSTEM: BEARING SHEAR WALL, PLYWOOD SHEATHED Cs = 0.088, R = 6.5, OMEGA = 2.5	ROOF SHEATHING - 10d @ 12" MAX OC. WALL SHEATHING - 8d @ 12" MAX OC.
DI	A, Ø	DIAMETER	MATL	MATERIAL		TOP OF CMU ELEVATION		V BASE = 4.8 K, EQUIVALENT LATERAL FORCE ANALYSIS	Ũ
DI. DI.		DRILLED-IN ADHESIVE ANCHOR DRILLED-IN ADHESIVE BOLT	MAX MC	MAXIMUM MISCELLANEOUS CHANNEL SECTION	TOF TOS	TOP OF FOOTING ELEVATION TOP OF STEEL ELEVATION		EQUIVALENT LATERAL FORCE ANALISIS	METAL PLATE CONNECTED WOOD TRUSSES:
DI			MECH	MECHANICAL	TOSH	TOP OF SHEATHING ELEVATION	REINFORCED CONCRETE:		WOOD TRUSSES DESIGNED, MANUFACTURED AND INSTA REQUIRED.
DI		DIAPHRAGM DRILLED-IN EXPANSION BOLT	MFR MFRG	MANUFACTURER MANUFACTURING	TOW TP	TOP OF WALL ELEVATION TOP OF PAVEMENT	ALL CONCRETE - f'c = 3,000 PSI, MAXIMUM W/C = 0.50. SUBMIT N	IX DESIGN. PROVIDE WATER-REDUCING ADMIXTURE FOR ALL CONCRETE.	ROOF DESIGN DEAD LOAD - 15 PSF MINIMUM. DESIGN TRU
DII DN		DIMENSION DOWN	MIN MISC	MINIMUM MISCELLANEOUS	TRANS TS	TRANSVERSE STRUCTURAL TUBE		60. PROVIDE CLASS B SPLICE. SUBMIT REINFORCING STEEL SHOP DRAWINGS WITH DETAILS	MECHANICAL EQUIPMENT, PIPING, ETC AS REQUIRED. CO DRAWINGS SHOWING TRUSSES AND ERECTION BRACING
do	•	DITTO	MT	STRUCTURAL TEE FROM	TYP	TYPICAL	PER ACI 315 MANUAL OF STANDARD PRACTICE.		PROFESSIONAL ENGINEER LICENSED IN STATE OF ALASK ERECTION BRACING PER MANUFACTURER'S INSTRUCTION
DF DV	v VG	DEEP DRAWING	MTL	M SERIES SECTION METAL	UL	UNDERWRITERS LABORATORY	CONCRETE COVER:		PREFABRICATED TIMBER JOISTS:
DV		DOWEL			UON	UNLESS OTHERWISE NOTED	SLABS ON GRADE 1 1/2".		JOISTS DESIGNED AND MANUFACTURED BY REDBUILT LL
Е		EAST	N NDT	NORTH NON-DESTRUCTIVE TESTING	UT	ULTRASONIC TEST	SLABS ON GRADE:		DEFERRED SUBMITTALS:
ĒA	L.	EACH	NF	NEAR FACE	VERT	VERTICAL	RIGIDLY SUPPORT BARS WITH CONCRETE BLOCKS OR APPROV	/ED ACCESSORIES.	THE DESIGN OF THE FOLLOWING ELEMENTS SHALL BE DE
EF EL		EACH FACE ELEVATION (HEIGHT)	NIC No OR #	NOT IN CONTRACT NUMBER	W	WEST, W SERIES SECTION	PROVIDE SLAB REINFORCING AS FOLLOWS: 4" SLAB ON GRADE, #3 @ 15" EACH WAY, 1 1/2" FROM TOP,		REVIEW PRIOR TO SUBMITAL TO THE LOCAL BUILDING DE
EL		ELECTRICAL	NOM	NOMINAL NEAR SIDE	W/	WITH	GROUT:		METAL PLATE CONNECTED WOOD TRUSSES
EL EN		ELEVATOR ENGINEER	NS NSG	NON-SHRINK GROUT	W/O WD	WITHOUT WOOD		I C1107. GROUT TO BE PREMIXED, NONMETALLIC, SHRINKAGE-RESISTANT GROUT PER ASTM	EACH SUBMITTAL SHALL INCLUDE DRAWINGS STAMPED E SUPPORTING CALCULATIONS. REFER TO ARCHITECTURA
EC EC	D	EDGE OF DECK EQUAL	NTS	NOT TO SCALE	WHS WP	WELDED HEADED STUD WORK POINT		CTURER FOR EACH GROUT APPLICATION AND FOLLOW MANUFACTURER'S INSTRUCTIONS.	SUBMITTALS.
EC	UIP	EQUIPMENT	OC	ON CENTER	WP	WEIGHT, STRUCTURAL TEE FROM W SERIES	ANCHOR BOLTS:		MISCELLANEOUS:
ES EV		EACH SIDE EACH WAY	OD OF	OUTSIDE DIAMETER OUTSIDE FACE	WWF	SECTION WELDED WIRE FABRIC	, , , , , , , , , , , , , , , , , , , ,	NED END OR PROVIDE DOUBLE NUT OR SINGLE NUT WITH MARRED THREADS ABOVE AND	CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS,
ΕX	(IST, (E)	EXISTING	OPNG	OPENING			DELOW NUT. WELDING, INCLUDING TACK WELDS, TO ANCHORE	BOLTS IS NOT PERMITTED. SET ALL ANCHOR BOLTS BY TEMPLATE.	DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE EXISTING CONDITIONS SHOWN ON THE DRAWINGS ARE E
EX EX		EXPANSION EXTERIOR	OPP OSB	OPPOSITE ORIENTED STRAND BOARD	YD	YARD			BASED ON EXPECTED CONDITIONS. IF THE EXISTING COI OR IF THE EXISTING MATERIALS ARE OF QUESTIONABLE
_/			OVS	OVERSIZED					ANY WORK.
									DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF

GENERAL NOTES

ING DIMENSIONS, MEMBER SIZES AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL ON SHOWN ON THE DRAWINGS ARE INTENDED AS GUIDELINES ONLY AND MUST BE VERIFIED. THE DRAWINGS ARE BASED ON EITHER SITE OBSERVATION, ORIGINAL DRAWINGS OR WERE ASSUMED THE EXISTING CONDITIONS DO NOT CLOSELY MATCH THE CONDITIONS SHOWN ON THE DRAWINGS, QUESTIONABLE OR SUBSTANDARD QUALITY, NOTIFY THE ARCHITECT PRIOR TO COMMENCING

DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY INDICATED BUT ARE OF SIMILAR CHARACTER TO DETAILS SHOWN, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND STRUCTURAL ENGINEER.

REFER TO ARCHITECTURAL DRAWINGS FOR WALL OPENINGS, ARCHITECTURAL TREATMENT AND DIMENSIONS NOT SHOWN.

REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR SIZE AND LOCATION OF DUCT OPENINGS, PIPING, CONDUITS, ETC, NOT SHOWN.

SHOP DRAWINGS SHALL BE SUBMITTED AND REVIEWED PRIOR TO FABRICATION.

CONSTRUCTION.



min

1/10/2023 SE 14752

ARCHITECTURE

STRUCTURAL

PLANNING

MRV ARCHITECTS

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PROVED EQUAL. ICC-ES CERTIFICATION FOR SEISMIC RESISTANCE IN CRACKED CONCRETE JIRED.

PPROVED EQUAL. ICC-ES CERTIFICATION FOR SEISMIC RESISTANCE IN CRACKED CONCRETE IRED.

VED EQUAL. ICC-ES CERTIFICATION FOR SEISMIC LOAD RESISTANCE IN CRACKED CONCRETE IRED.

CTIONS TO BE ASTM A500 GRADE C. FABRICATION AND ERECTION PER AISC SPECIFICATIONS.

WELDS 3/16" CONTINUOUS FILLET. WELDERS CERTIFIED PER AMERICAN WELDING SOCIETY FOR LL BE E70XX MINIMUM.

PECIES, COMBINATION 24F-V4. FABRICATE PER ANSI/AITC A190.1. PROVIDE WET-USE ADHESIVES. IMUM. APPEARANCE - ARCHITECTURAL GRADE. SUBMIT SHOP DRAWINGS. USE MILD STEEL PLATE S BEARING ON WOOD.

PED PER WWPA STANDARD GRADING RULES. MOISTURE CONTENT OF LUMBER 2" OR LESS IN

FIR/LARCH SPECIES, NO 2 GRADE OR BETTER

VARIOUS COMPONENTS PER TABLE 2304.10.1 OF THE IBC. TREAT WOOD BEARING ON OR WITHIN RESERVATIVE. USE MILD STEEL PLATE WASHERS AT ALL BOLT HEADS AND NUTS BEARING ON AND SILLS TO CONCRETE AND MASONRY WITH GALVANIZED A307 BOLTS. USE COMMON NAILS ASTENERS IN ALL PRESERVATIVE TREATED AND FIRE RETARDANT TREATED WOOD. USE IUFACTURED BY SIMPSON COMPANY OR APPROVED EQUAL. ICC-ES CERTIFICATION REQUIRED.

N – 0.131" DIA X 2 ½" ON – 0.148" DIA X 3" ON – 0.162" DIA X 3 ½"

/ITH EXTERIOR GLUE LAID FACE GRAIN PERPENDICULAR TO SUPPORT. SHEATHING MAY BE

ORTED WALL PANEL EDGES. GLUE FLOOR SHEATHING TO ALL SUPPORTS WITH ADHESIVE PERCENT SKIP PATTERN AND A 3/16" DIA. BEAD MINIMUM.

ALL STUDS WITH HOLDOWNS IS AS FOLLOWS:

UPPORTS OTHER THAN STUDS WITH HOLDOWNS IS AS FOLLOWS:

SSES:

URED AND INSTALLED PER TRUSS PLATE INSTITUTE SPECIFICATIONS. ICC-ES CERTIFICATION

MUM. DESIGN TRUSSES FOR SUPPORT OF DEAD, LIVE, SNOW DRIFT AND WIND LOADS AND AS REQUIRED. COORDINATE WEIGHTS, LOCATIONS AND SUPPORT DETAILS. SUBMIT SHOP ECTION BRACING SIZES AND CONNECTIONS. SUBMIT SHOP DRAWINGS STAMPED BY A STATE OF ALASKA AND DESIGN CALCULATIONS. PROVIDE STANDARD TRUSS CAMBER. PROVIDE ER'S INSTRUCTIONS AND PERMANENT BRACING AS INDICATED ON PLANS.

D BY REDBUILT LLC OR APPROVED EQUAL. ICC-ES CERTIFICATION REQUIRED.

ENTS SHALL BE DEFERRED SUBMITTALS AND SHALL BE SUBMITTED TO THE ARCHITECT FOR CAL BUILDING DEPARTMENT:

VINGS STAMPED BY A DESIGN PROFESSIONAL LICENSED IN THE STATE OF ALASKA AND O ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR OTHER DEFERRED

PROVIDE TEMPORARY ERECTION BRACING AND SHORING AS REQUIRED FOR STABILITY OF THE STRUCTURE DURING ALL PHASES OF

 $\boldsymbol{\mathcal{A}}$ ┣━ Z DOCUMENTS \bigcirc 2 ANGOON 0 **NSTRUCTION** F S ОF >CITY 7 COL C %00 \bigcirc $\overline{}$ \bigcirc Ζ Date Description SHEET TITLE: GENERAL NOTES

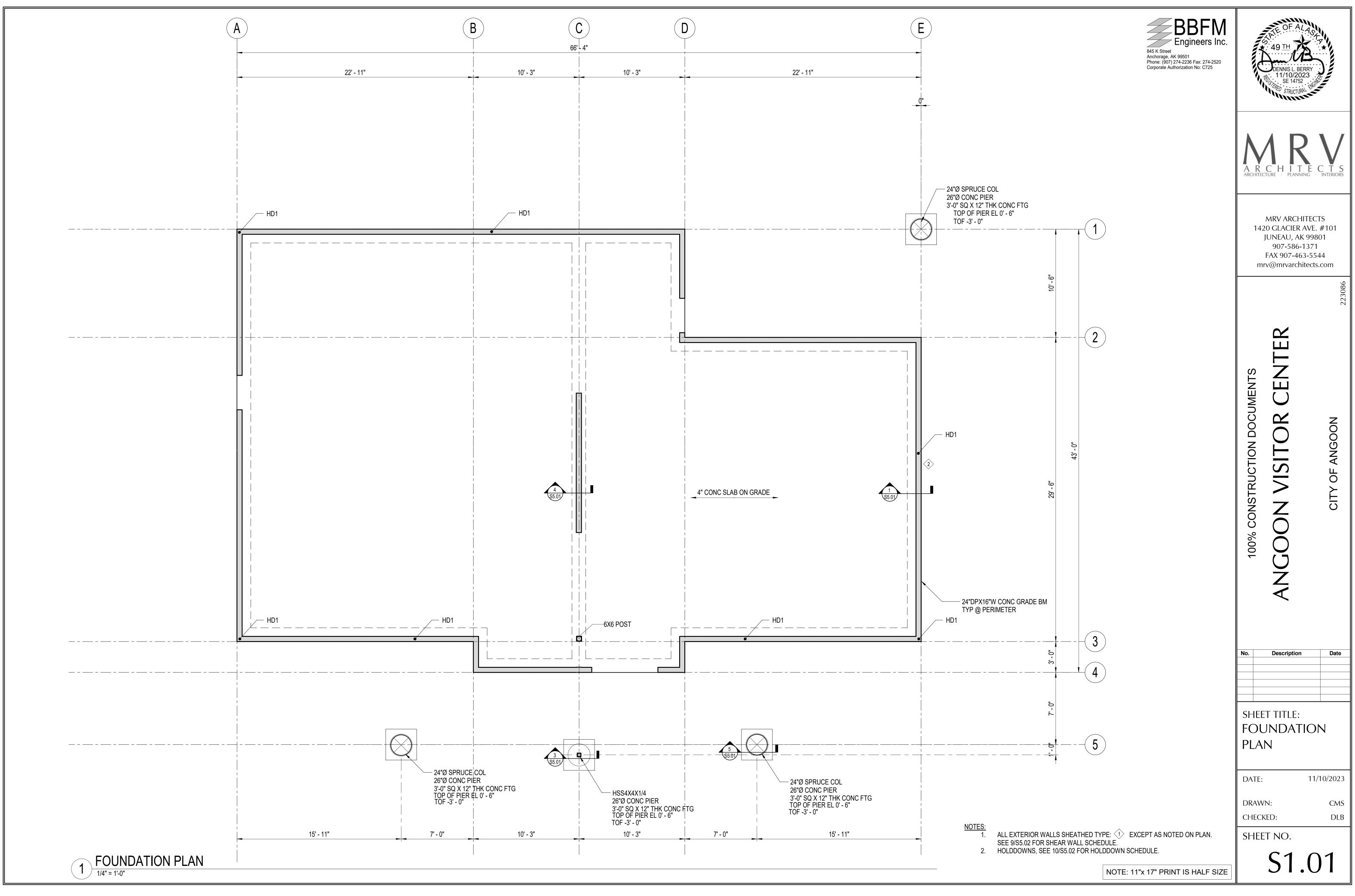
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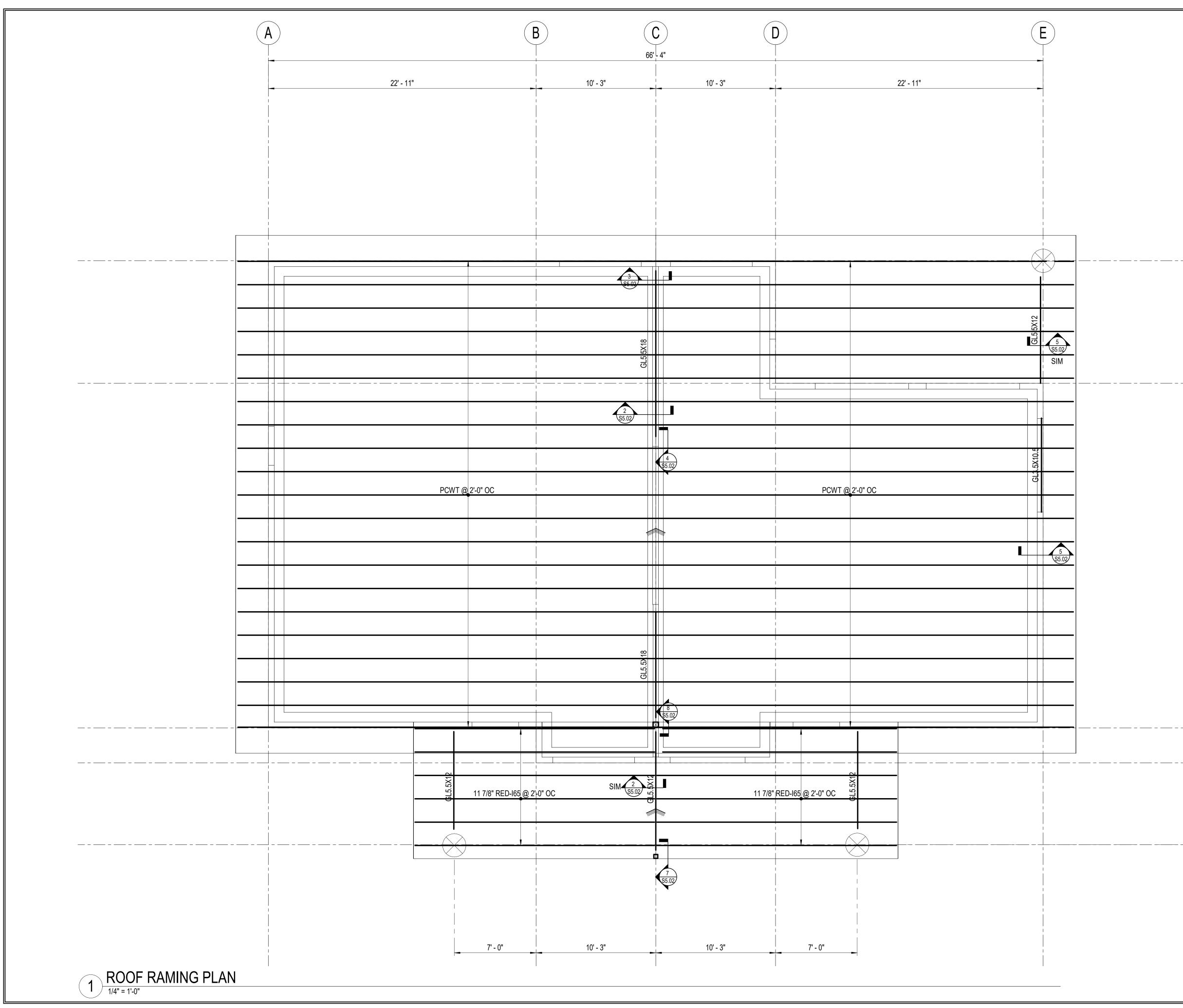
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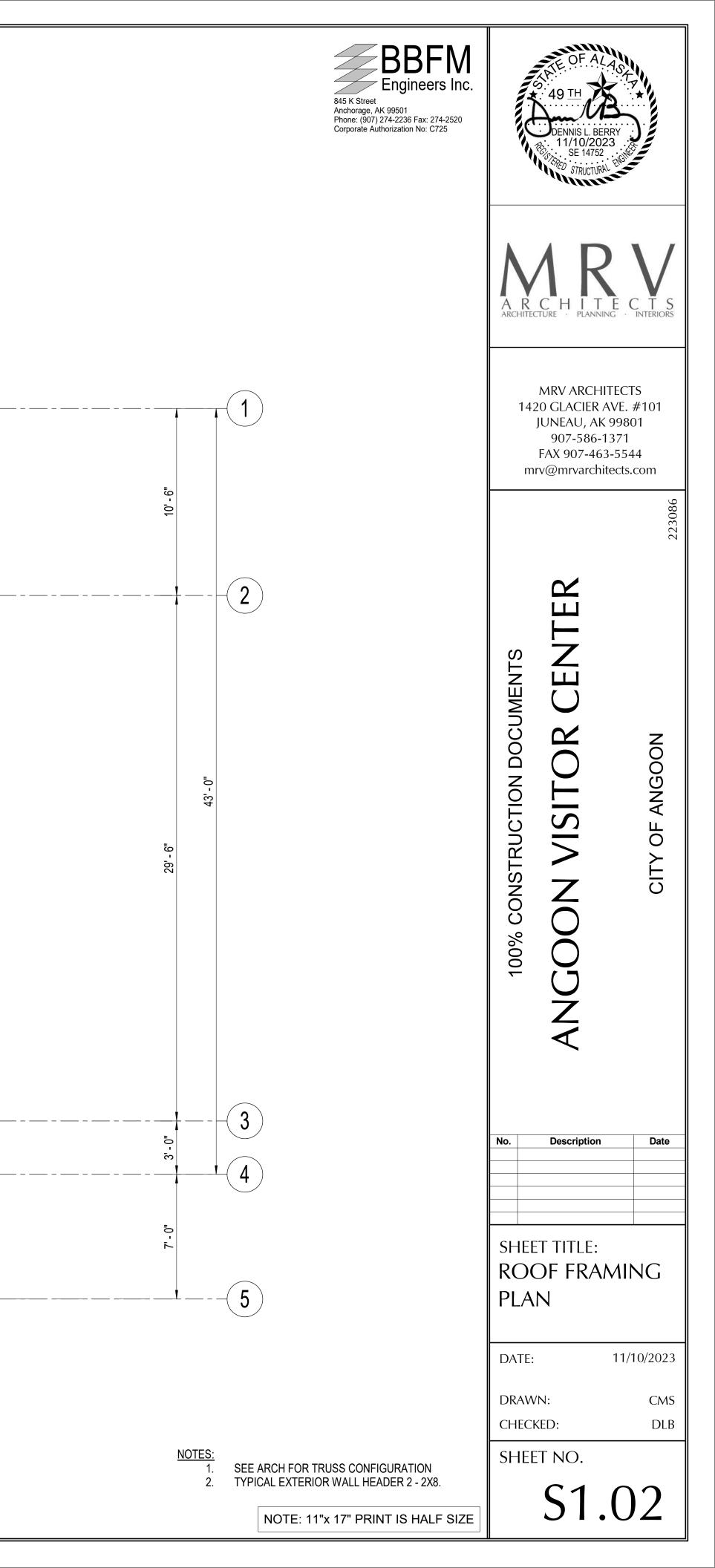
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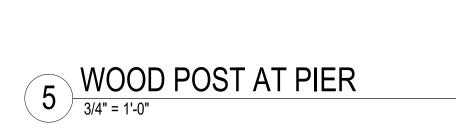
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STUD WALL

W/ 5/8"Ø GALV AB

@ 48" MAX OC

CONC SLAB

ON GRADE -

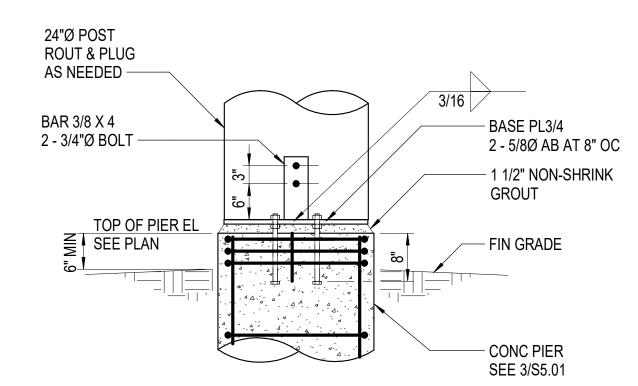
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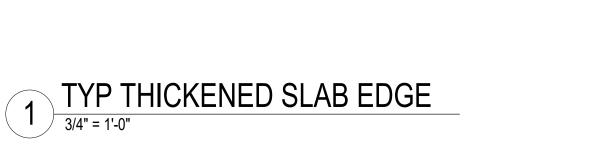
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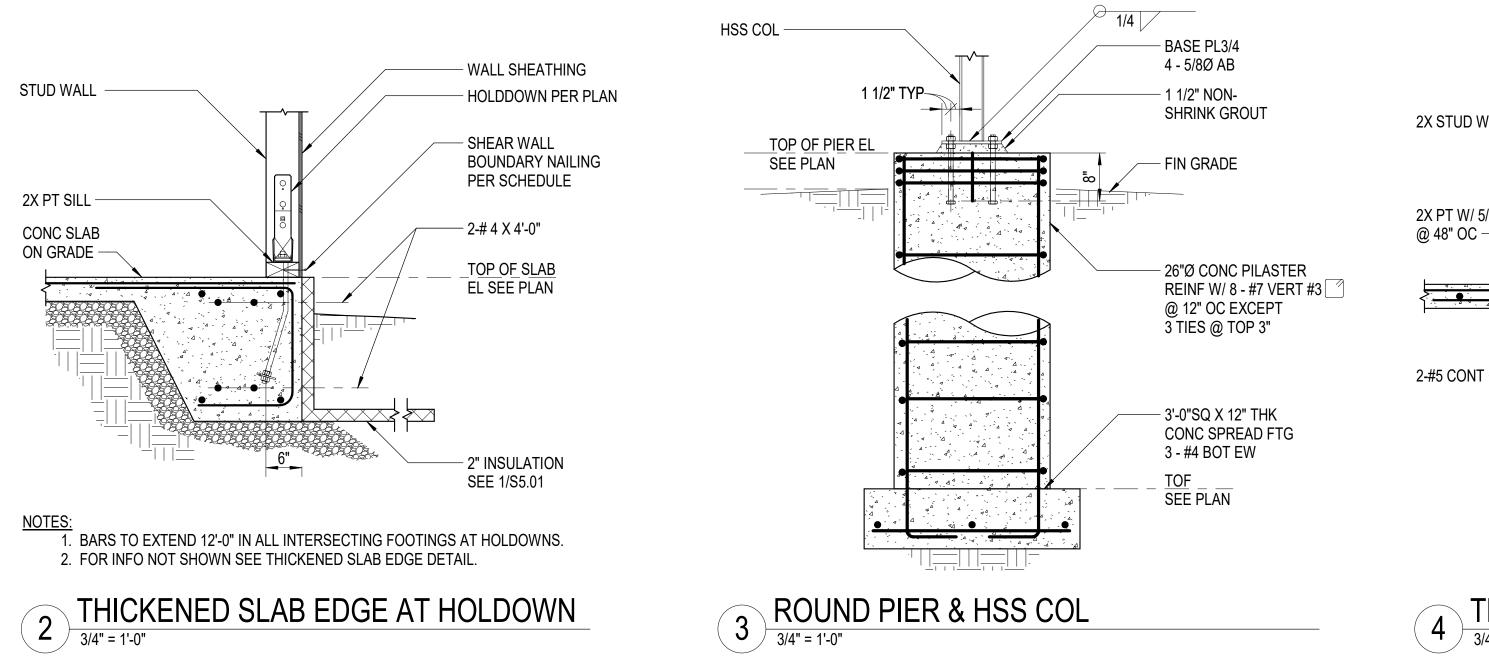
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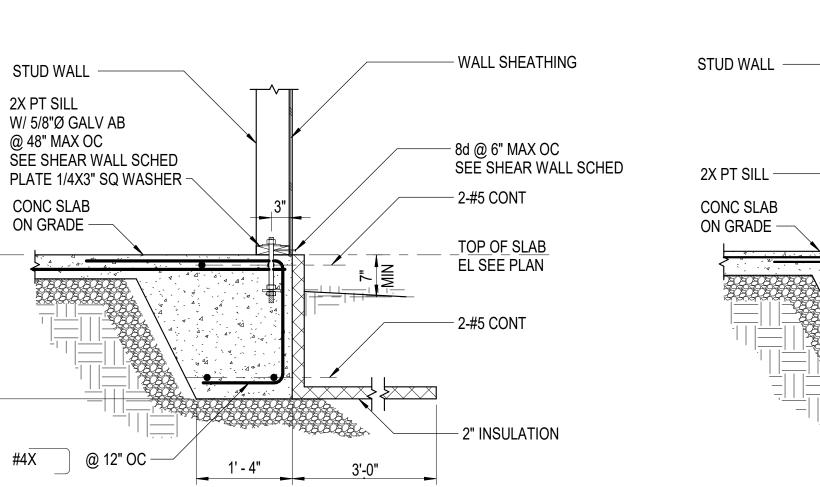
#4X @ 12" OC -

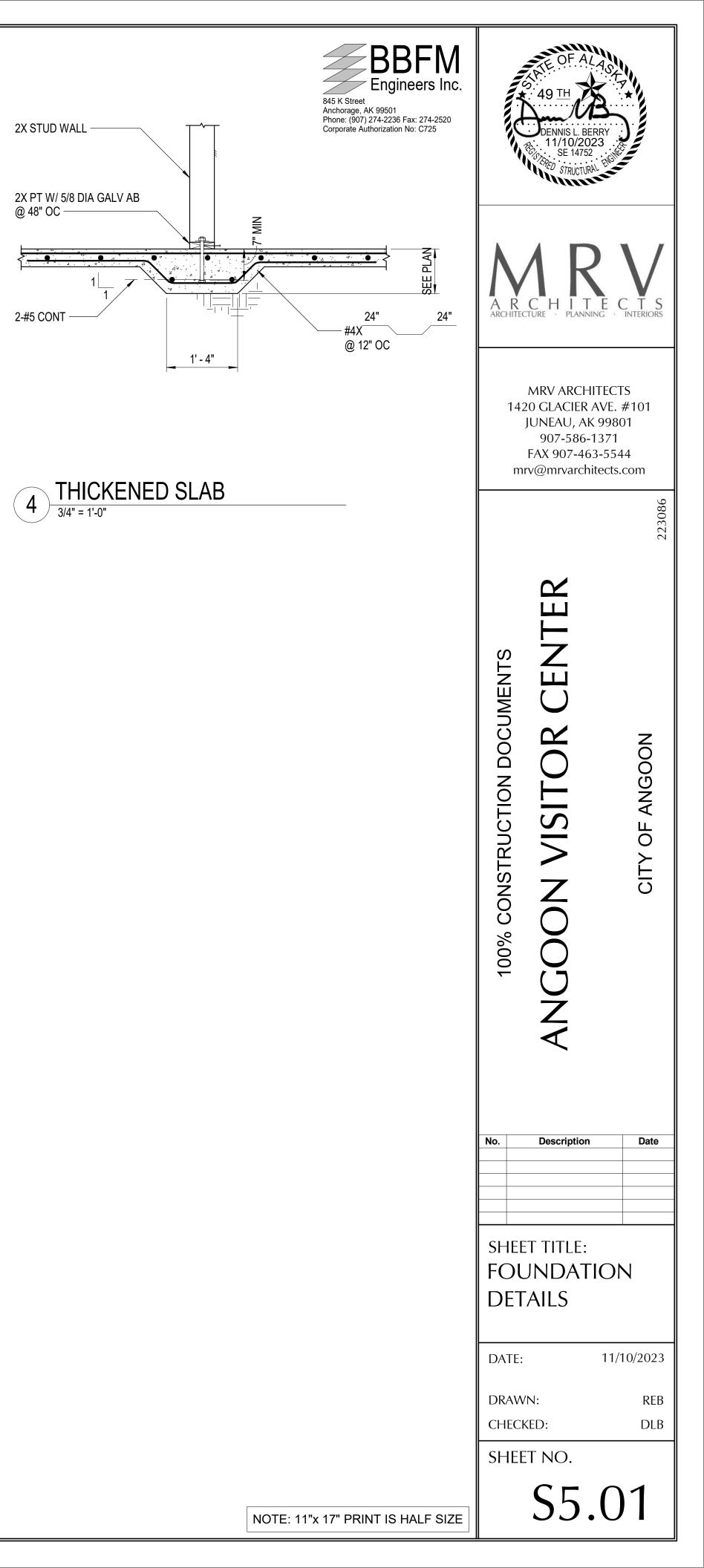
2X PT SILL

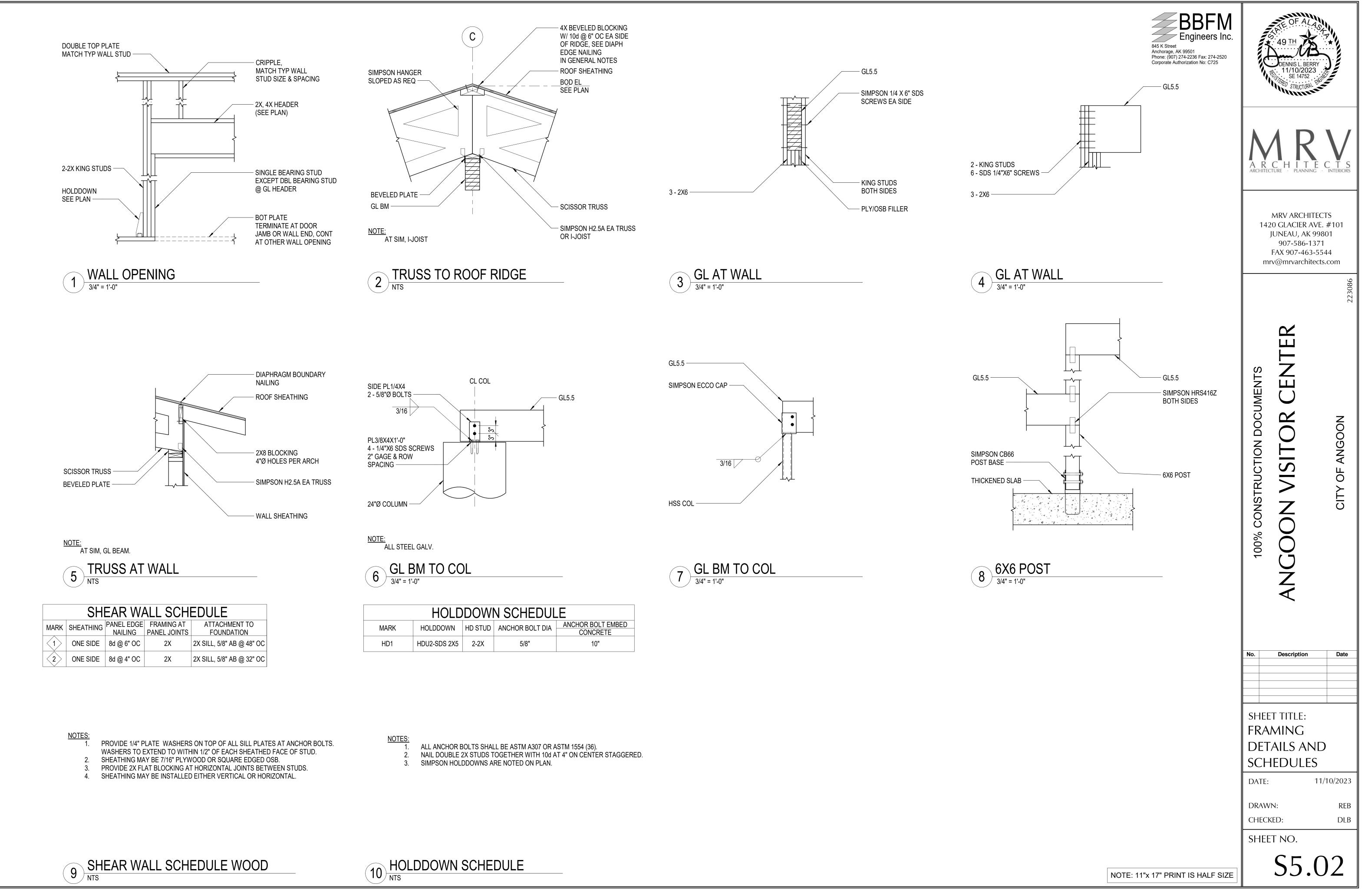














ABBREVIATIONS

(1)	DRAWING NOTE REFERENCE
(E)	EXISTING
(X)	REMOVE
А	AMPS
ABS	ACRYLONITRILE BUTADIENE STYRENE
ACR	AIR CONDITIONING AND REFRIGERATION
ADA ASME	AMERICANS WITH DISABILITIES ACT AMERICAN SOCIETY OF MECHANICAL ENGINEERS
ASIVIE	AMERICAN SOCIETY OF MECHANICAL ENGINEERS
ASSE	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AWS	AMERICAN WELDING SOCIETY
CFM	CUBIC FEET PER MINUTE
CO	CLEANOUT
CW	COLD WATER
CWP	COLD WORKING PRESSURE
СхА	COMISSIONING AUTHORITY
EC	ELECTRONICALLY COMUTATED
ECM	ELECTRONICALLY COMMUTATED MOTOR
EF	EXHAUST FAN
EG EPDM	EXHAUST GRILLE ETHYLENE PROPYLENE DIENE MONOMER
EPDIVI	EXTERNAL STATIC PRESSURE
ET	EXPANSION TANK
F	FAHRENHEIT
FD	FLOOR DRAIN
FDB	FAHRENHEIT DRY BULB TEMPERATURE
FS	FLOOR SINK
FWB	FAHRENHEIT WET BULB TEMPERATURE
GPF	GALLONS PER FLUSH
GPM	GALLONS PER MINUTE
НВ	HOSE BIBB
HP HRV	HEAT PUMP HEAT RECOVERY VENTILATOR
HVAC	HEAT RECOVERY VENTILATOR HEATING, VENTILATING AND AIR CONDITIONING
HW	HOT WATER
HWR	HOT WATER RECRICULATING
НХ	HEAT EXCHANGER
L	LAVATORY
MAX	MAXIMUM
MBH	1,000 BTU PER HOUR
MCA	MINIMUM CIRCUIT AMPS
MECH	MECHANICAL
MERV	MINIMUM EFFICIENCY REPORTING VALUE
MOP MSS	MAXIMUM OVERCURRENT PROTECTION MANUFACTURERS STANDARDIZATION SOCIETY
NPS	NOMINAL PIPE SIZE
NSF	NATIONAL SCIENCE FOUNDATION
0.C.	ON CENTER
Р	PUMP
PH	PHASE
PSI	POUNDS PER SQUARE INCH
PSIG	POUNDS PER SQUARE INCH GAUGE
PTFE	POLYTETRAFLUOROETHYLENE
RG	RETURN GRILLE
RR	REST ROOM
S SD	SINK SUPPLY DIFFUSER
SF	SUPPLY FAN
SG	SUPPLY GRILLE
SS	SERVICE SINK
ТАВ	TESTING, ADJUSTING AND BALANCING
TMV	THERMOSTATIC MIXING VALVE
ТР	TRAP PRIMER
ТҮР	TYPICAL
UL	UNDERWRITERS LABORATORIES
V	VOLTS
VTR	VENT THROUGH ROOF
W	WASTE
WC WCO	WALL CAP, WATER CLOSET WALL CLEAN OUT
WEO	WALL CLEAN OUT WATER HEATER
VCO	

YCO

YARD CLEANOUT

SYMBOLS

_____N____

	CW	COLD WATER
	HW	HOT WATER
	HWR	HOT WATER RECIRCULATING
	V	VENT
	Ŵ	WASTE, SOIL, DRAINAGE
——— R2 ————	R2	2-PIPE REFRIGERANT
ላ 29 ፲ባ		ELBOW PLAN, UP , DOWN
——————————————————————————————————————		GATE VALVE
		CHECK VALVE
		UNION
I		HOSE BIBB
——————————————————————————————————————		FLOWSETTER
		STRAINER
~ 	CO	CLEANOUT
	P-1	PUMP
		CENTRIFUGAL PUMP
X		PRESSURE RELIEF VALVE
μ		THERMOMETER
B D	В	MANUAL BUTTERFLY DAMPE
		FLEXIBLE DUCT
≪∕\		AIRFLOW DIRECTION INDICA
		CEILING EXHAUST GRILLE
		CEILING RETURN GRILLE
		CEILING SUPPLY DIFFUSER
\bigcirc		CEILING RETURN/EXHAUST
$\bigcirc \neg \lor \rightarrow$		CEILING SUPPLY DIFFUSER
		RECTANGULAR TO ROUND D TRANSITION
		WALL SUPPLY GRILLE
U }		LINE BREAK
100		AIR VOLUMN
SG 9x9		DIFFUSER/GRILL TYPE, SIZE

DESCRIPTION OF WORK

A. General

- 1. Provide plumbing, heating, ventilation and air-conditioning systems including, but not limited to, the following:
- B. Plumbing Systems
- 1. Provide a cold water service from the city main to the building.
- 2. Provide cold water, hot water and hot water recirculation distribution piping systems, an electric hot water heater with integral thermostatic mixing valve, and plumbing fixtures.
- 3. Provide waste and vent piping systems.
- C. HVAC Systems
- 1. Heating and Cooling: Provide a multi-split air-source heat pump consisting of an outdoor unit, six indoor units, refrigerant piping and controls.
- 2. Ventilation System: Provide an heat recovery ventilator, supply and exhaust ductwork systems, grilles and controls.
- D. Code Compliance: Comply with the approved edition of the following codes:
- 1. International Building Code 2018
- 2. International Mechanical Code 2018
- 3. International Fire Code 2018
- 4. Uniform Plumbing Code 2018

GENERAL NOTES

General Α.

- 1. Seismic Supports and Restraints: Piping and equipment shall be supported based on seismic category 'D'. Submit seismic support systems designed by a licensed structural engineer.
- 2. Substitutions: Equipment substitutions are allowed and shall demonstrate by submittal of shop drawings and product data that they meet or exceed the basis of design.
- 3. Install equipment per the manufacturer's installation instructions. Submit conflicts with the contract documents prior to installation.
- a. Arrange work to provide workable access to serviceable or operable equipment by a person standing on the floor. Provide access doors for concealed items rated for the assembly.

Plumbing Systems

- 1. All rises and drops in piping are not necessarily shown. Layout routing and coordinate work with other trades before installation.
- 2. Coordinate connection sizes, locations, and inverts with the site utility contractor.
- 3. Install wall hydrants at 2'-0" above finished grade. Provide isolation valve in water supply.
- 4. Locate valves, meters, gauges, and piping specialties above accessible ceilings.
- 5. Install water hammer arrestors on equipment or fixtures with quick closing valves.
- 6. Verify location of floor drains with architectural plans.
- 7. Locate building exhaust and plumbing vents a minimum of 25 feet from all ventilation intakes.
- 8. Extend thermometer wells halfway into the flow stream. Extend thermometer sensor to bottom of well and fill with thermo-conductive paste.
- 9. Extend pressure relief valve discharge pipe to within 6-12" of floor.
- C. Heat Pump Systems
- 1. Outdoor Units
- a. Mount 18" above grade to preclude snow accumulation around unit and ice buildup damaging coils.
- b. Install over non-frost susceptible material (+3/4") down to frost depth.
- c. Do not route piping under the unit in the path of the condensate dripping from the unit.
- 2. Refrigerant Piping Installation
- a. Support piping within 12" of each change in direction and within 12" of connection to each outdoor unit or indoor unit.
- b. Support piping a maximum of 60" o.c.
- c. Provide 24" of straight piping at connections to indoor units.
- d. Provide 40" of pipe length between Y-branch fittings.
- e. Support piping from thermal hanger shield insert so the hanger is outside of the insulation.

- a. Refrigerant Piping: Rigid ACR piping with brazed fittings.
- more than 36" deep.
- 4. Branch Selector Boxes
- a. Locate boxes to provide suitable access and minimize noise transmission to rooms.
- b. Provide an isolation valve with Shrader valve for refrigerant removal at each branch selector box port, including spare ports.

- D. HVAC Systems
- 1. Do not install flexible duct connections above inaccessible ceilings. Install flex ducts with a maximum length of 24". Support in the middle to preclude sags and kinks.
- 2. Connect to grilles with rigid elbow and connect flex duct to the elbow. Grille duct runouts and flexible duct connections shall be the same size as the grille neck.
- where possible.

- with other trades before construction. E. Control Systems
- 1. Coordinate temperature sensor locations with other trades, building elements, and electrical switches. Adjust location as required to avoid conflicts.
- 2. Mount temperature sensors 48" above finished floor.

- **FING**

/IPER

DICATOR

IST GRILLE

-R

ND DUCT

DRAWING INDEX

M101 ABBREVIATIONS, SYMBOLS, SCOPE OF WORK & GENERAL NOTES M102 SCHEDULES

- M201 UNDERFLOOR PLAN M202 PIPING PLAN M203 VENTILATION PLAN M301 PLUMBING DIAGRAM
- M401 SPECIFICATIONS

3. Piping Serving Two or More Indoor Units

- b. Space Y-branch connections a minimum of 48" apart and greater than 24" from elbows. c. Install piping as level as possible, minimizing offsets where practical. Do not create oil traps
- 5. Branch Piping Serving Single Indoor Unit
- a. Provide premanufactured ACR tubing sets with 3/4" thick insulation. Install piping in a continuous run without joints except on the ends.
- b. Provide 20" of straight pipe length at connection to indoor unit
- c. Provide 40" of straight pipe length between a Y-branch and an indoor unit.
- d. Install line sets on a consistent plane with minimal vertical slope changes.
- e. Connect piping to IDUs so there is access through open ceiling tiles to the piping. 6. IDU Drains: Minimum 3/4" size; Slope at 1/8" per foot.
- 3. Install a balancing damper on each inlet and outlet and locate them above accessible ceilings
- 4. Coordinate locations of access panels in walls or ceilings with general contractor.
- 5. Coordinate diffuser and grille locations with light fixtures, sprinkler heads and other ceiling features and in accordance with the ceiling pattern.
- 6. All rises and drops in ductwork are not necessarily shown. Layout routing and coordinate work



mill

SHEET NO.



PUMP SCHEDULE

Symbol	Location	Service	Fluid / Temp	Capacity	Electrical	Design Basis / Description
P-1	Mechanical 07	Hot Water Recirculation	Water / 120F	1 gpm / 10 feet	120V / 1-ph / 44 watts	Taco 006e3LC / Inline 3-speed circulator, compositie body, power cord
			-			

EXPA	EXPANSION TANK SCHEDULE							
Symbol	Location	Service	Volume	Acceptance	Charge	Design Basis / Description		
ET-1	Mechanical 07	Domestic Hot Water	4.4 gallons	1 gallon	60 psig	Amtrol Therm-X-Trol ST-12 / Vertical; pipe mounted; butyl diaphragm; 125 psig working pressure		

HEAT PUMP OUTDOOR UNIT SCHEDULE

Symbol	Heating MBH (1)	Refrigerant	Electrical	Design Basis	Notes
HP-1	39.8	R-410A	240V / 1-ph / MCA=29A	Daikin RXTQ48	Heating and cooling operation; 10-year warranty

1. Heating Outdoor Tempertaure = 5Fdb / 3Fwb

HEAT PUMP INDOOR UNIT SCHEDULE

Symbol	Room	Description	Make / Model	Heat Pump	Heating MBH (1)	Electrical	Notes
IDU-1	Lobby 01	Wall-mounted	Daikin FXAQ07	HP-1	5.2	240V / 1-ph / MCA=0.4A	Condensate pump
IDU-2	Lobby 01	Ceiling Cassette	Daikin FZAQ05	HP-1	5.2	240V / 1-ph / MCA=0.3A	Condensate pump and decorative front
IDU-3	Coffee 04	Wall-mounted	Daikin FXAQ09	HP-1	8.9	240V / 1-ph / MCA=0.4A	Condensate pump
IDU-4	Interpretive Exhibits 05	Wall-mounted	Daikin FXAQ09	HP-1	10.5	240V / 1-ph / MCA=0.4A	Condensate pump
IDU-5	Storage 10	Ceiling Cassette	Daikin FZAQ05	HP-1	2.9	240V / 1-ph / MCA=0.3A	Condensate pump and decorative front
IDU-6	Artist Sales 11	Ceiling Cassette	Daikin FZAQ07	HP-1	7.0	240V / 1-ph / MCA=0.3A	Condensate pump and decorative front

(1) Heating Indoor Tempertaure = 70Fdb / 59Fwb

HEAT RECOVERY UNIT SCHEDULE

Symbol	SF CFM / ESP	EF CFM / ESP	Fan Drive	НХ Туре	Supply Air	Exhaust Air	Sensible Effectiveness	Electrical	Manufactuer / Description
HRV-1	200 / 0.5"	200 / 0.5"	Direct / EC Motor	Energy recovery	5Fdb / 2Fwb	70Fdb / 58Fwb	65%		Broan ERV250ECM / Energy recovery unit with MERV 6 filters, ECM motors, airflow controller for each fan, power cord

FAN SCHEDULE

Symbol	Location	Description	CFM	TSP	Туре	Motor	Design Basis / Notes
SF-1	Storage 10	Air transfer fan	300	0.3"	Inline Direct Drive	120V / 1-ph / 105 watts	Panasonic FV-30NLF1 / Inline cabinet fan, low noise

VENTILATION EQUIPMENT

Symbol	Description	Size	Material	Color	Design Basis
SG / EG	Supply and Exhaust Grille	4" diameter	Plastic	White	Allvent Euro WRC / Adjustable grille with smooth surface
SD	Lay-in Diffuser	24 x 24	Steel	White	Titus TDCA
RG	Rectangular, Fixed Spacing Grille	See Plans	Steel	White	Titus 350RL
WC-1	Wall Cap	8" diameter	304 Stainless Steel	Satin	AllVent Dome Grille / Round hood with 45-degree angled outlet; mesh screen

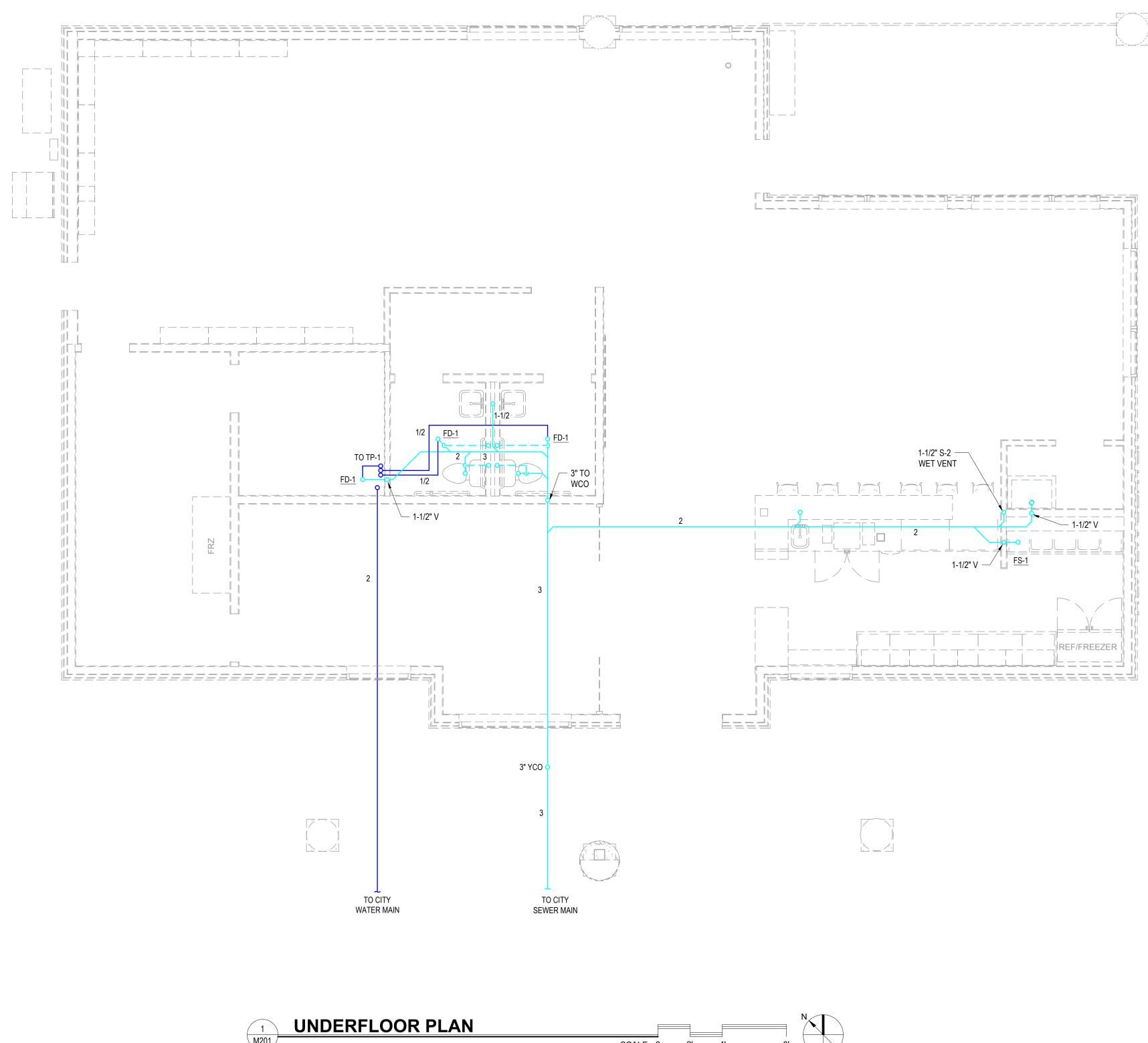
WATER HEATER SCHEDULE

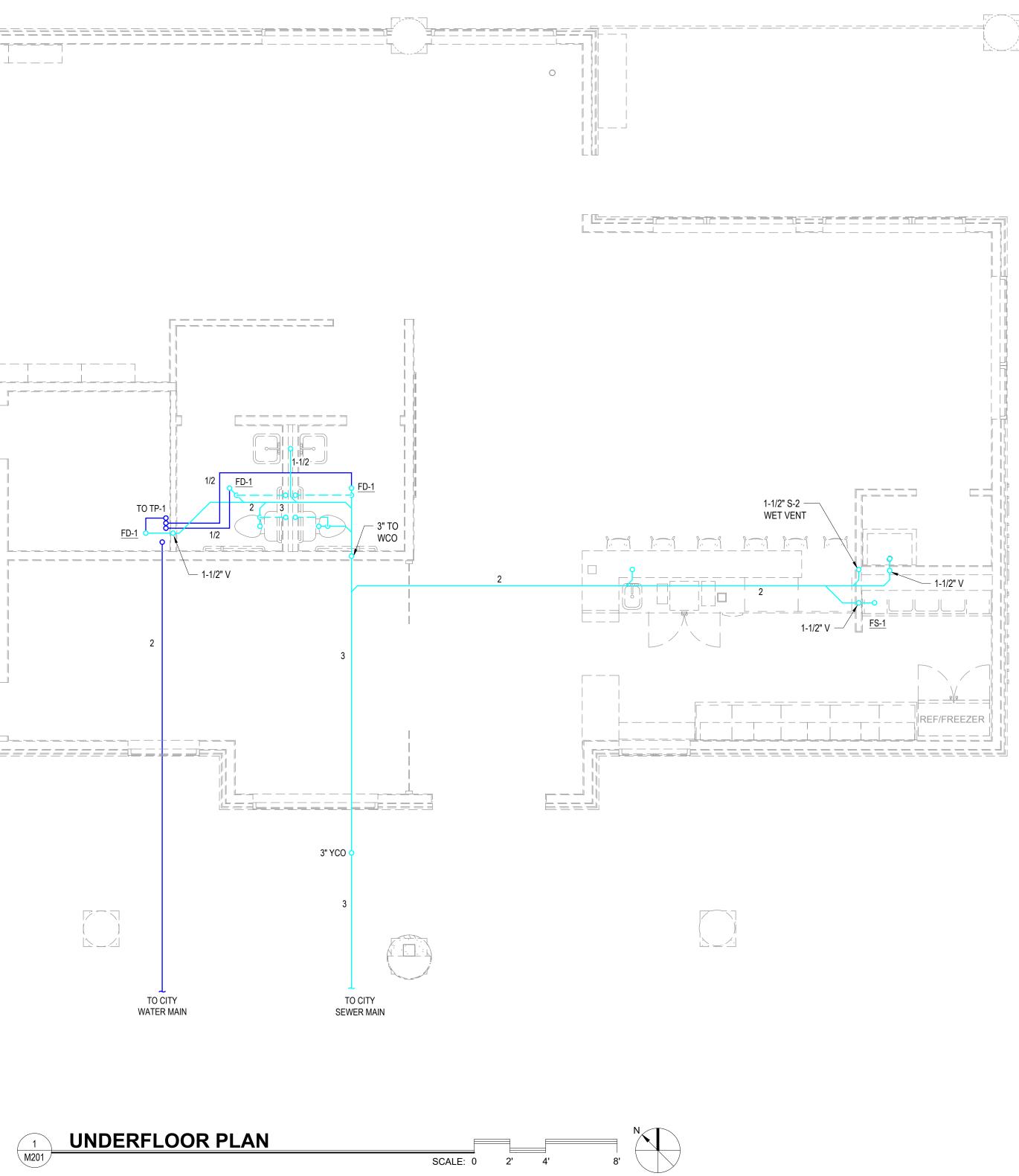
Symbol	Туре	Capacity	Electrical	Design Basis	Notes
WH-1	Electric	55 gallons	240V / 1-ph / 5.5 kW	HTP ELV055C2X055N	316L stainless steel tank, ASSE 1017 thermostatic mixing valve; 12-year warranty

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Symbol	Name	Description	Make/Model	CW, inch	HW, inch	Waste, inch	Vent, inch
WC-1	Water Closet	Fixture: ADA floor mounted, elongated vitreous china water closet with antimicrobial surface; heavy duty open front seat with soft-close hinge; 1.6 gpf flush tank and vandal resistant angle stop with backflow prevention.	American Standard Cadet 2467.016	1/2		3	2
L-1	Lavatory	Fixture: Vitreous china, wall-mounted, 4" backsplash sink Faucet: One-piece metal; volume and temperature control; stationary spout; grid drain with tailpiece; vandal-resistant aerator; 0.5 gpm max at 60 psi; deck-mounted	Mansfield Grande Isle 2018HBNS Faucet: Kohler K15198	1/2	1/2	1-1/2	1-1/2
S-1	3-compartment sink	Fixture: Three compartment sink with two drian boards, 304 stainless steel, 16x22x12 bowls, self-rimming Faucet: 8" centerset wall mount faucet; chrome-plated brass, 12" spout, 4" wristblade handles, 1.5 gpm	Steelton 522CS31620LK Elkay LK940AT12T4H	1/2	1/2	2	1-1/2
S-2	Hand sink	Fixture: Stainless steel 10x15x5 deep sink, 20-gage 304 stainless steel Faucet: 8" Gooseneck faucet, 4" centers	Regency 600DI1145R	1/2	1/2	2	1-1/2
SS-1	Mop Sink	Fixture: One-piece molded, structural fiberglass basin, 24x24x10, elevated, self-draining shelf and removable strainer, cast brass drain with stainless steel strainer Faucet: Mixing faucet, polished chrome plated, brass body, spout with vacuum breaker, pail hook and garden hose male outlet, 4" wrist action handles	Mustee 63M T&S Brass Model B-2465	1/2	1/2	2	1-1/2
FD-1	Floor Drain	2" ABS body with nickel-bronze strainer	Souix Chief 822			2	2
FS-1	Floor Sink	Cast-iron, white acid resistant coated interior; bronze top with half-grate, dome strainer, 12x12x6" deep	JR Smith 3110Y			2	1-1/2
TP-1	Trap Primer	Brass trap primer with stainless steel screen; provide distribution unit for multiple floor drains	Precision Plumbing Product PR-500	1/2			
HB-1	Exterior Hose Bibb	Non-freeze, auto draining, flush mounted; integral backflow preventer; all-bronze interior components; lockable brass box	Woodford B67	3/4			

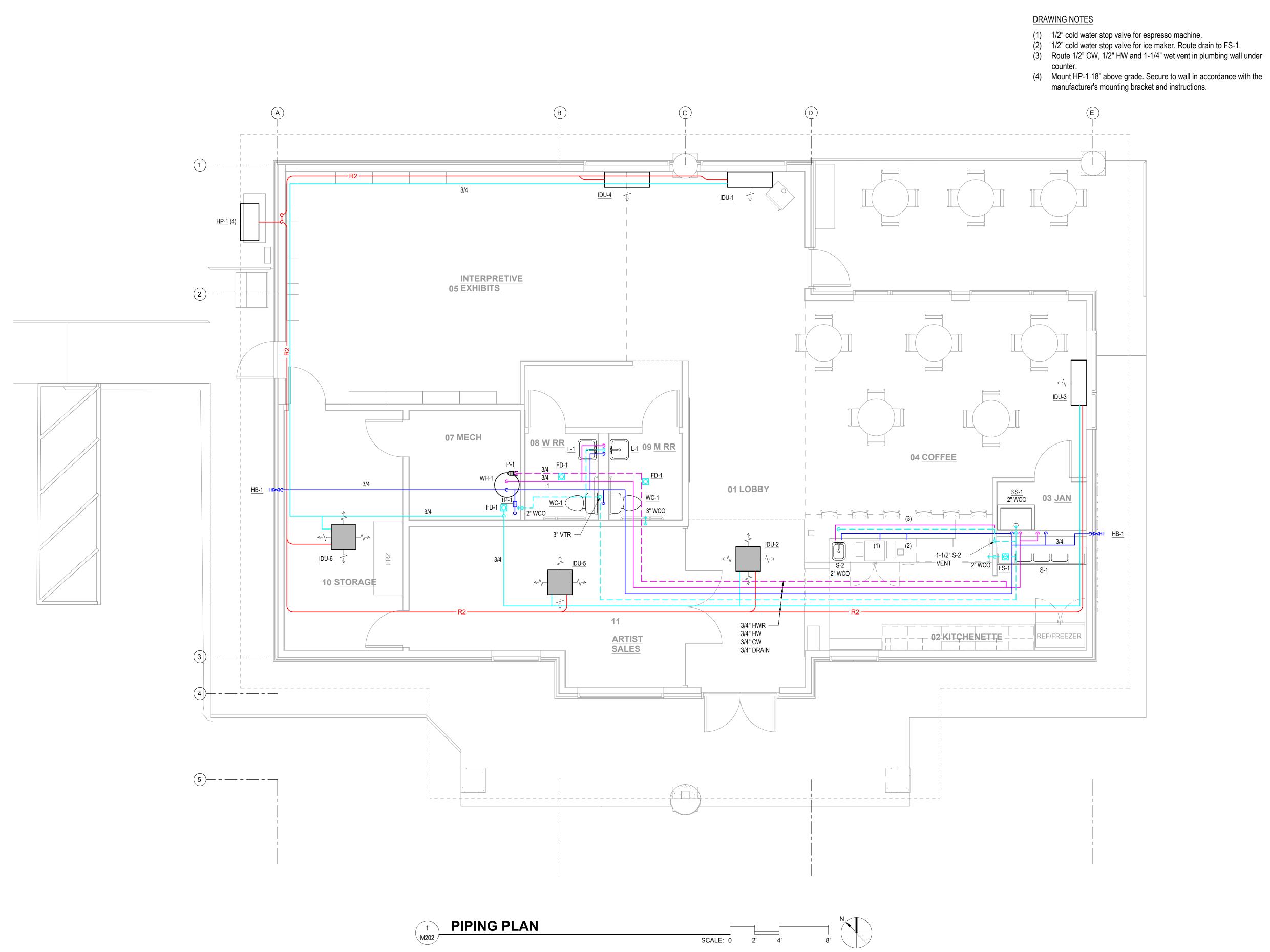


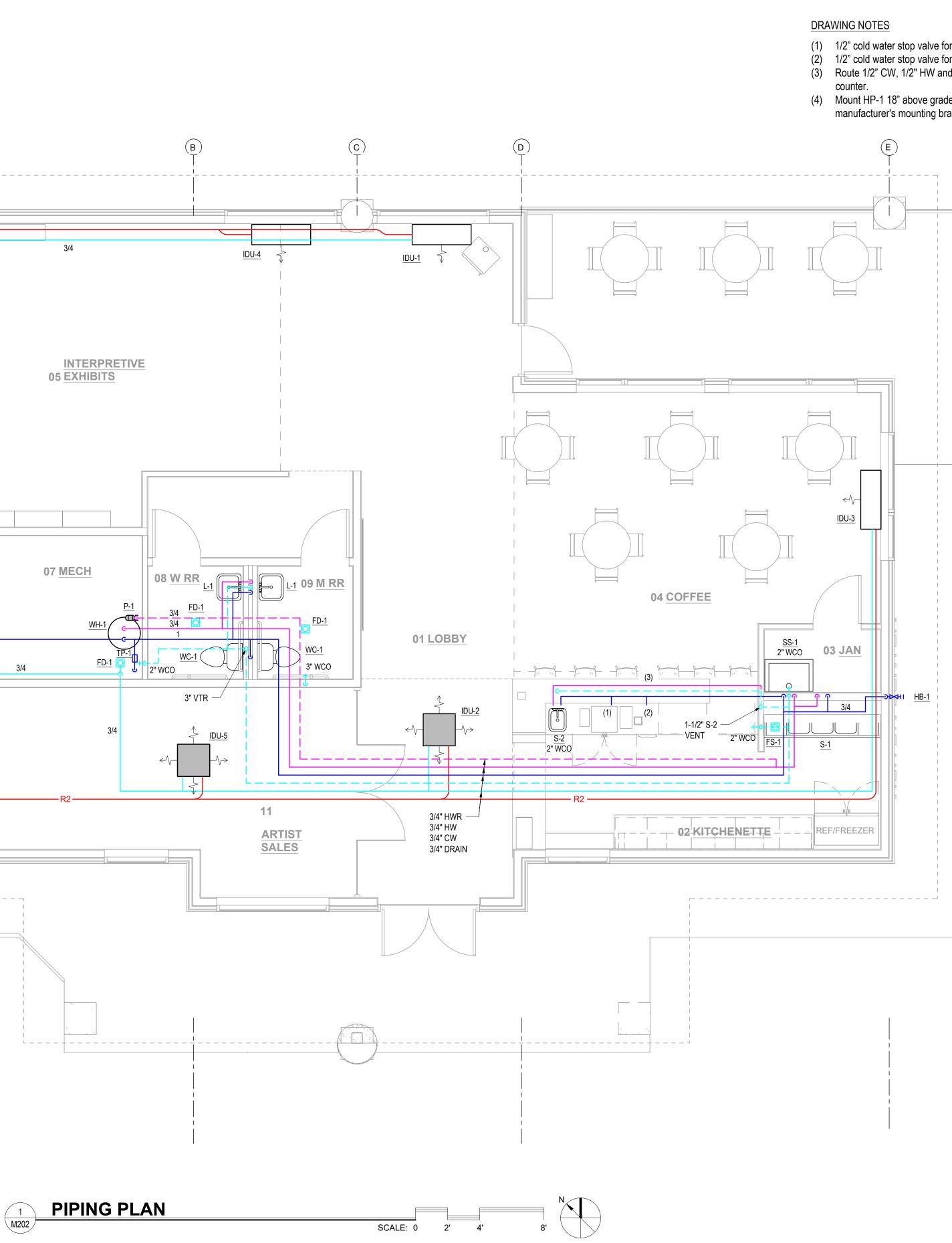




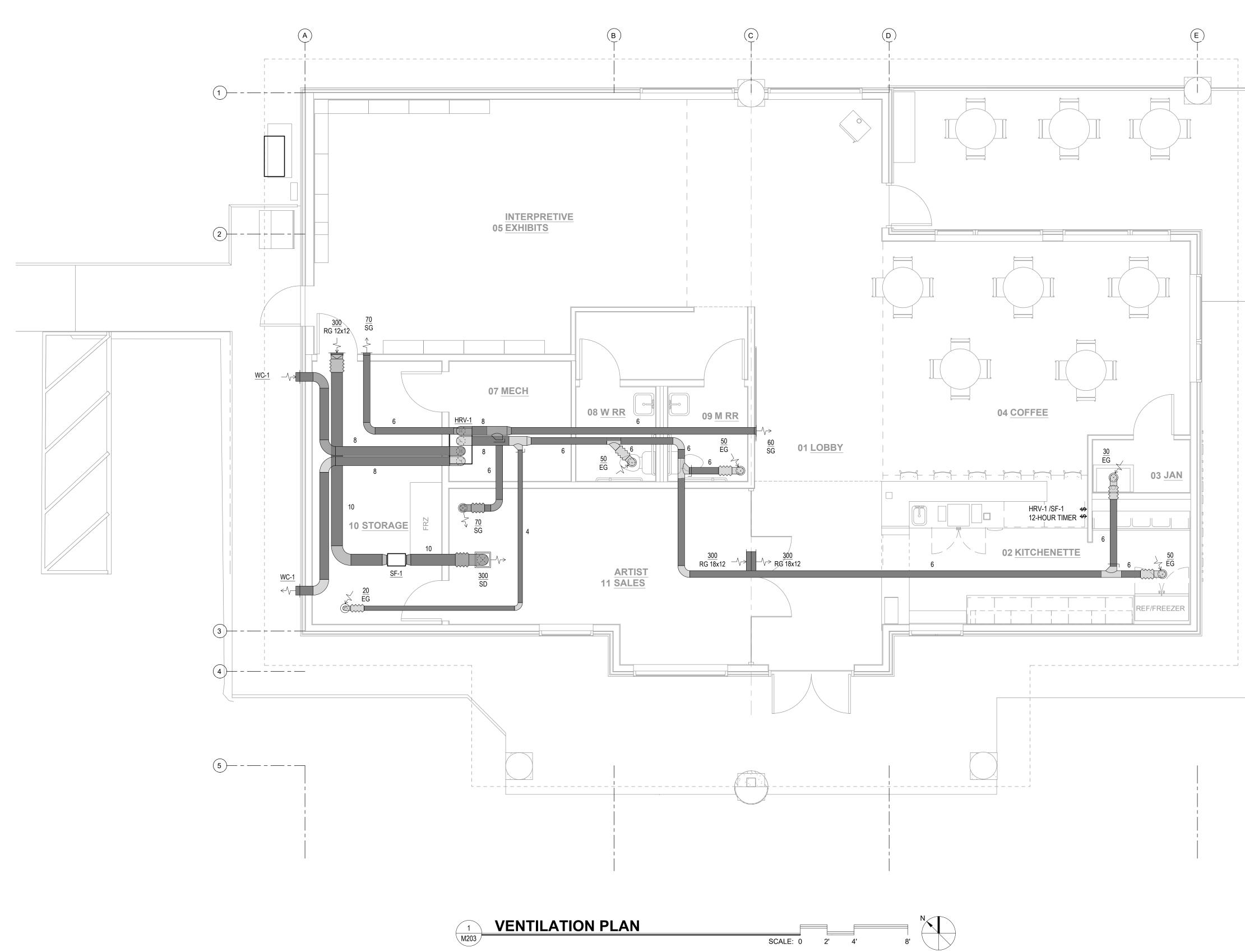


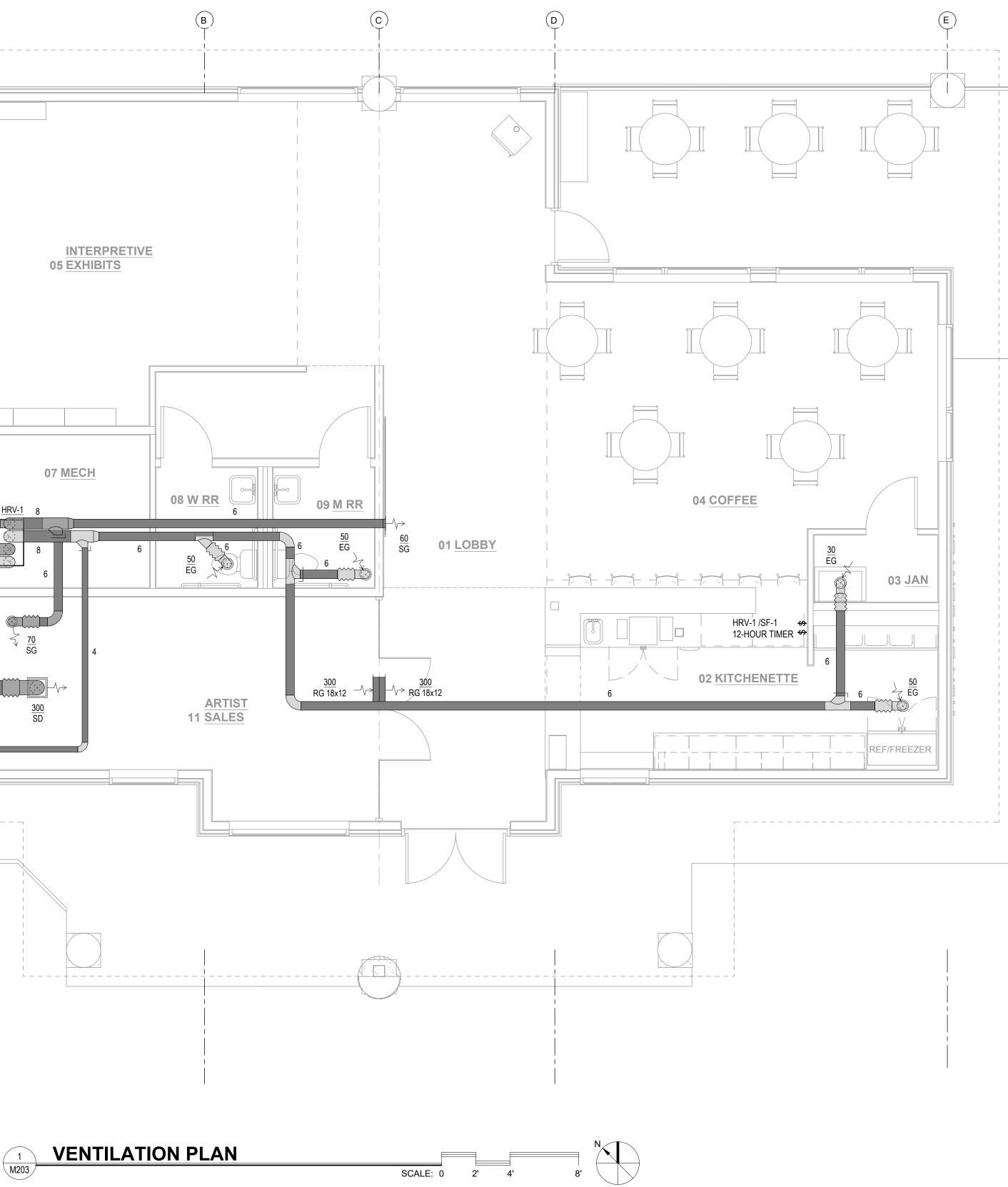
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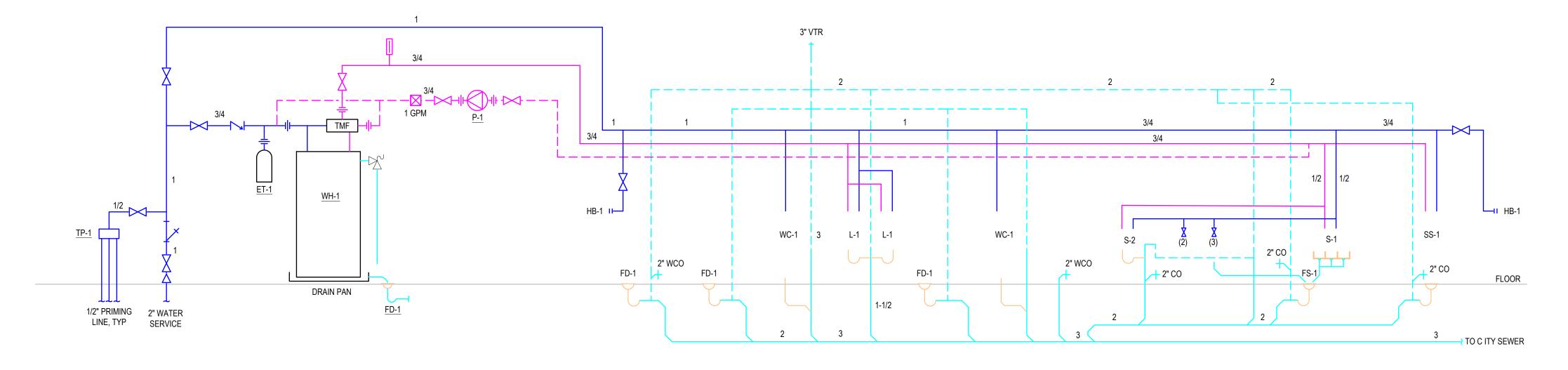












DRAWING NOTES

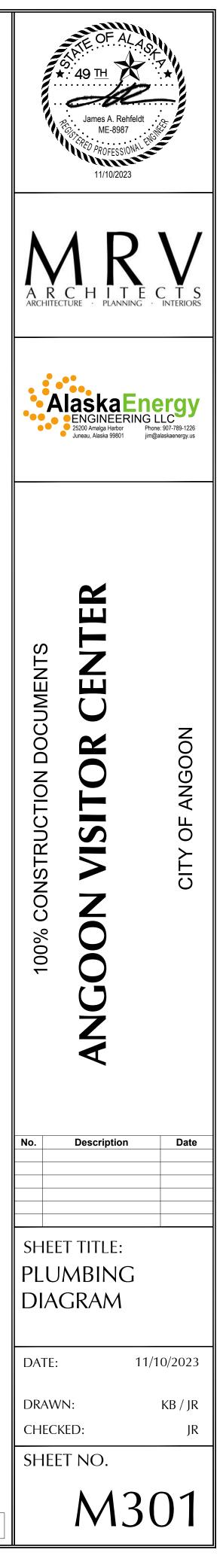
- installation requirements.



(1) Connect the TMV and pump P-1 in accordance with the TMV manufacturers

(2) 1/2" cold water stop valve for espresso machine.

(3) 1/2" cold water stop valve for ice maker. Route drain to FS-1.



SPECIFICATIONS

DESCRIPTION OF WORK

- A. Furnish all labor, materials, equipment, supervision of labor and performance of all operations required to completely install a complete, optimally operating, and code compliant installation.
- B. The drawings are generally diagrammatic and are intended to show plumbing details in a schematic fashion. Exact locations are not shown unless so indicated or specifically dimensioned. Where removed materials are in contact with finished surfaces, repair any penetrations and restore the finishes to match the adjacent surfaces.

SUBMITTALS

A. Product Data: Submit product and performance data for all materials.

- B. Operating and Maintenance Manual: Provide a digital copy in PDF format. Submit the complete manual for approval 30 days prior to the request for Commissioning or Substantial Completion inspection, whichever comes first.
- 1. Description of systems and operating instructions: The Contractor shall prepare a brief written description of all new and modified systems, explaining how the systems operate and indicating the proper settings of controls and switches. The instructions are to include all information required for the proper settings of controls and switches. The instructions are to include all information required for the proper operation of the systems. Technical knowledge on controls or adjustments requiring specialized technicians should not be included in the instructions.
- 2. Nameplate directory: List of all equipment giving manufacturer's nameplate data. Motor data must include the horsepower, voltage, full load amperage, phase, etc.
- 3. Submittal Data: Include the approved submittal sheets.
- 4. Installation, Operation and Maintenance Literature: Manufacturers' instructions for operation and maintenance of all mechanical equipment and specialties, including replacement parts lists, capacity curves or charts, equipment data sheets, manufacturers' literature on the equipment, and as-built wiring diagrams and control drawings.
- 5. Maintenance Instructions: Written instructions for the maintenance of the systems, listing each service required on all of the mechanical equipment, including inspections, lubrication, cleaning, checking, and all other operations required. The list is to include all types of bearings installed on the equipment and the type of lubricant required.
- 6. Maintenance Schedule: List of each item of mechanical equipment requiring inspection, lubrication, cleaning, or service including the type of bearings and type of lubricating means for each piece of equipment. Each item of equipment is to be listed separately with the service required. List to include the times during the year when such inspection and maintenance shall be performed. The specific maintenance required shall be referenced back to the maintenance instructions.
- 7. Instructions To Personnel and Training: The mechanical subcontractor shall instruct operating personnel in the operation and maintenance of the systems before accepting the responsibility of operation and maintenance of the systems. Each training session shall be signed off by Project Manager.
- C. Training: Provide training on the heat pump system, domestic hot water system and heat recovery unit by a qualified technician including:
- 1. Discussion of maintenance requirements and performance of the task.
- 2. Discussion of system operation and control programming.
- 3. Discussion of methodology of monitoring system operation and indicators of abnormal performance.

ESCUTCHEONS

- A. Piping with Fitting or Sleeve Protruding from Wall: One-piece, deep-pattern type.
- B. Insulated Piping: One-piece, stamped-steel type or split-plate, stamped-steel type with concealed hinge, stamped-steel type with exposed-rivet hinge.
- C. Bare Piping at Wall and Floor Penetrations in Finished Spaces: One-piece, cast- brass or split-casting brass type with polished, chrome-plated finish or stainless steel.
- D. Bare Piping at Ceiling Penetrations in Finished Spaces: One-piece, cast-brass or split-casting brass type with polished, chrome-plated finish or stainless steel.
- E. Bare Piping in Unfinished Service Spaces: One-piece, cast-brass or split-casting brass type with polished, chrome-plated finish or stainless steel.
- F. Bare Piping in Equipment Rooms: One-piece, cast-brass or split-casting brass type with polished, chrome-plated finish or stainless steel.

VALVES

- A. Ball Valves: MSS SP-110, NSF 61-8, NSF 372, 600 PSI CWP, lead free, two- piece bronze body, Teflon seats, full port, adjustable stem packing, blowout-proof stems, stainless steel ball, threaded or soldered ends, white handles.
- B. Check Valves: MSS SP-139, NSF 61-8, NSF 372, Y-pattern swing type, 200 PSI CWP, Lead free silicon Bonze body, PTFE seat disc, threaded or soldered ends.
- C. Drain Valves: Ball valve with hose thread end and cap. MSS SP-110 for standard-port, two-piece ball valves. Pressure Rating: 400-psig minimum CWP. NPS 3/4. Copper alloy body with Chrome-plated brass ball. Replaceable seats and seals. Vinyl-covered steel handle. Threaded outlet, short nipple with garden-hose thread complying with ASME B1.20.7 and cap with brass chain.

HANGERS AND SUPPORTS

- A. Insulated Pipes: Install hanger outside of insulation with protective shield.
- B. Materials
- 1. Adjustable, Steel Clevis Hangers (MSS Type 1)
- 2. Carbon- or Alloy-Steel, Double-Bolt Pipe Clamps (MSS Type 3)
- 3. Steel Pipe Clamps (MSS Type 4)
- 4. Hanger Rods: Continuous-thread rod, nuts, and washer made of carbon steel.
- 5. Copper Pipe Hangers: MSS SP-58, Types 1 through 58, copper-coated-steel, factory-fabricated components. Hanger rods continuous-thread rod, nuts, and washer made of copper-coated steel.
- 6. Riser Clamps (MSS Type 8)
- 7. Protection Shields (MSS Type 40): Of length recommended in writing by manufacturer to prevent crushing insulation.

LABELS

- A. Equipment: Install or permanently fasten labels on each major item of mechanical equipment. Material and Thickness: Multilayer, multicolor, plastic labels for mechanical engraving, 1/16 inch 1/8 inch thick, and having predrilled holes for attachment hardware. Fasteners: Stainless-steel rivets or self-tapping screws. Contact-type permanent adhesive, compatible with label and with substrate. Letter Color: White. Background Color: Black. Size not less than 2-1/2 by 3/4 inch. Minimum Letter Size: 1/4 inch.
- B. Pipes: Locate pipe labels where piping is exposed or above accessible ceilings in finished spaces; machine rooms; accessible maintenance spaces such as shafts, tunnels, and plenums; and exterior exposed locations as follows:
- 1. Pretensioned Pipe Labels: Precoiled, semirigid plastic formed to cover full circumference of pipe and to attach to pipe without fasteners or adhesive.
- 2. Self-Adhesive Pipe Labels: Printed plastic with contact-type, permanent-adhesive backing.

PIPING

A. Domestic Water

- 1. Hard copper tube, ASTM B 88, Type L aboveground, Type K underground, drawn temper with ASME B16.18 Cast or ASME B16.22 wrought-copper, solder-joint fittings and soldered or brazed joints or wrought-copper fitting with EPDM-rubber, O-ring seal in each end.
- 2. Aboveground and smaller than 1": PEX plastic according to ASTM F876. Push-Fit Fittings: ASSE 1061, push-fit fittings.
- 3. Piping Tests: Test for leaks and defects. Cap and subject piping to static water pressure of 50 psig above operating pressure, without exceeding pressure rating of piping system materials. Isolate test source and allow it to stand for four hours. Leaks and loss in test pressure constitute defects that must be repaired.
- 4. Disinfection: Use purging and disinfecting procedures prescribed by authorities having jurisdiction.

B. Waste Piping

- 1. Aboveground: Hubless cast-iron pipe and fittings. ASTM A 888 or CISPI 301. Couplings ASTM C 1277 and CISPI 310 stainless-steel corrugated shield with stainless-steel bands and tightening devices; and ASTM C 564, rubber sleeve with integral, center pipe stop.
- 2. Belowground: ABS pipe and fittings. ASTM D 2661, Schedule 40. Socket Fittings ASTM D 2661, made to ASTM D 3311, drain, waste, and vent patterns. Solvent Cement: ASTM D 2235.
- 3. Fixture Drains: Provide chrome plated brass tailpieces, p-traps, extensions and escutcheons for plumbing fixtures.
- C. Vents: ABS pipe and fittings. ASTM D 2661, Schedule 40. Socket Fittings ASTM D 2661, made to ASTM D 3311, drain, waste, and vent patterns. Solvent Cement: ASTM D 2235.

D. Refrigerant

- 1. Piping: Copper Tube: ASTM B 280, Type ACR hard drawn.
- 2. Fittings: ASME B16.22 wrought copper.
- 3. Joints: Braze, AWS A5.8 BCuP silver/phosphorus/copper alloy with melting range 1190 to 1480 degrees F.

E. Specialties

- 1. Unions: MSS SP-123. Cast-copper-alloy, hexagonal-stock body. Ball-and-socket, metal-to-metal seating surfaces. Solder-joint or threaded ends.
- 2. Strainers: Pressure Rating: 125 psig minimum. Bronze with threaded end connections. Stainless steel screen with round 0.02" perforations.
- 3. Balancing Valves: Bronze valve with brass or stainless steel ball with calibrated orifice or venturi. Pressure gage connections with integral seals for portable differential pressure meter. Lever handle with memory stop to retain set position. Minimum 125 psig.

PIPING INSULATION

- A. Scope: Insulate cold water, hot water, hot water recirculating, and refrigerant piping. Install hangers outside of insulation.
- 1. Exterior: Insulate and jacket water service, cold water and refrigerant piping. Wrap water piping with heat tape.

B. Pipe Insulation

- 1. Interior Water Service, Cold Water, Hot Water, Heating and Refrigerant:
- a. Insulation: 1" thick. ASTM C547 and ASTM C795; rigid molded, noncombustible. 'K' value: ASTM C177, 0.24 at 75 degrees F. Maximum service temperature: 850 degrees F. Maximum moisture absorption: 0.2 percent by volume.
- b. Vapor Barrier Jacket: White Kraft paper with glass fiber yarn, bonded to aluminized film; moisture vapor transmission when tested in accordance with ASTM E96/E96M of 0.02 perm- inches.
- c. Tie Wire: 0.048 inch stainless steel with twisted ends on maximum 12 inch centers.

2. Exterior Water Service, Cold Water and Refrigerant Piping

- a. Insulation: 2" thick, preformed closed cell, flexible elastomeric cellular rubber insulation complying with ASTM C 534 Grade 3; use molded tubular material wherever possible. Seal with waterproof vapor barrier adhesive.
- b. Jacket: Aluminum Jacket. Comply with ASTM B209, Alloy 3003, 3005, 3105, or 5005, Temper H-14. Smooth 0.024 inch thick. 3-mil thick, heat-bonded polvethylene and kraft paper moisture barrier. Factory-fabricated fitting covers same material, finish, and thickness as jacket. 3/4" wide aluminum of stainless-steel bands.
- c. Heat Tape: Self-regulating heat trace cable, 3 watts per foot at 40°F. 120 volt / 1-ph.

DUCTWORK

- A. Ducts: 2 inch w.g. pressure class, galvanized steel. Galvanized Steel for Ducts: Hot-dipped galvanized steel sheet, ASTM A653/A653M FS Type B, with G60/Z180 coating. Minimum 24 gage material for ductwork. Minimum of 20 gage material for plenums.
- B. Sealant: UL listed vinylacrylic or copolymer based duct sealer. Similar to Durodyne DDS-181, Uni-mastic 181.
- C. Hanger Rod: ASTM A36/A36M; steel, galvanized; threaded both ends, threaded one end, or continuously threaded.

DUCT INSULATION

- A. Scope: Insulate the heat recovery unit ductwork and ductwork within five lineal feet of the exterior wall cap.
- B. Insulation: ASTM C553; flexible, noncombustible blanket. 'K' value: 0.36 at 75 degrees F, when tested in accordance with ASTM C518.
- C. Vapor Barrier Jacket: Kraft paper with glass fiber yarn and bonded to aluminized film. Moisture Vapor Permeability: 0.02 perm inch, when tested in accordance with ASTM E96/E96M. Secure with pressure sensitive tape.

- - employee of the TAB specialist

COMMISSIONING

- svstems.
- 1. Approved O&M Manuals

- performance tests.

TESTING, ADJUSTING, AND BALANCING

A. Adjust and balance the domestic hot water system and the heat recovery unit.

B. Qualification Data: Submit documentation that the TAB specialist is certified by AABC or is a registered mechanical engineer with 5-years TAB experience. TAB Technician shall be an

C. Report: Provide a Certified TAB report including fan curves, measured values and equipment data. Indicate deficiencies in systems that would prevent proper testing, adjusting, and balancing of systems and equipment to achieve specified performance.

A. Systems: Commission the heat pump system, domestic hot water system and ventilation

B. Prerequisites: Submit the following to the CxA prior to functional performance tests.

2. Settings: Program the system in accordance with the Owner's preferences.

3. System Startup: Develop and submit a startup report for each piece of equipment showing step-by-step conformance with the startup requirements and manufacturer's startup instructions. Copies of the manufacturer's printed startup requirements may be used for documenting the startup procedures. Note the project name, equipment tag, startup technician and date at the top of the page. Specifically note the completion of each step and any other relevant information.

4. Testing, Adjusting, and Balancing (TAB): Confirm that testing, adjusting, and balancing procedures have been completed. Submit TAB report.

C. Functional Performance Tests: Provide a final commissioning verification process site visit to verify the functional performance of the systems.

1. Demonstrate the performance of the equipment and systems to the Commissioning Authority (CxA). The scope of functional performance testing covers the entire installation, from central equipment through distribution of services to each space. It includes measured capacities, effectiveness of operation, and all control functions.

2. The CxA will oversee, witnesses, and document the functional testing of all equipment and systems. The contractor executes the tests to verify proper operation of the systems. The functional test requirements provide a guideline for performance of the tests.

3. Verify the operation of the systems under all potential operating modes. This will include varying setpoints and conditions to demonstrate operation of the systems under normally expected conditions throughout the system life.

4. During functional performance testing of a system, a failure in performance of a part of the system or of a component may be revealed. Any performance deficiencies must be evaluated to determine the cause and whether they are part of the contractual obligations. After necessary corrective measures are completed, repeat the necessary functional

D. Training Verification: The CxA will track and verify that the Owner has the proper documentation and training to operate the systems.

Submit an agenda for each training session.

2. Submit a training attendance form for each training session.







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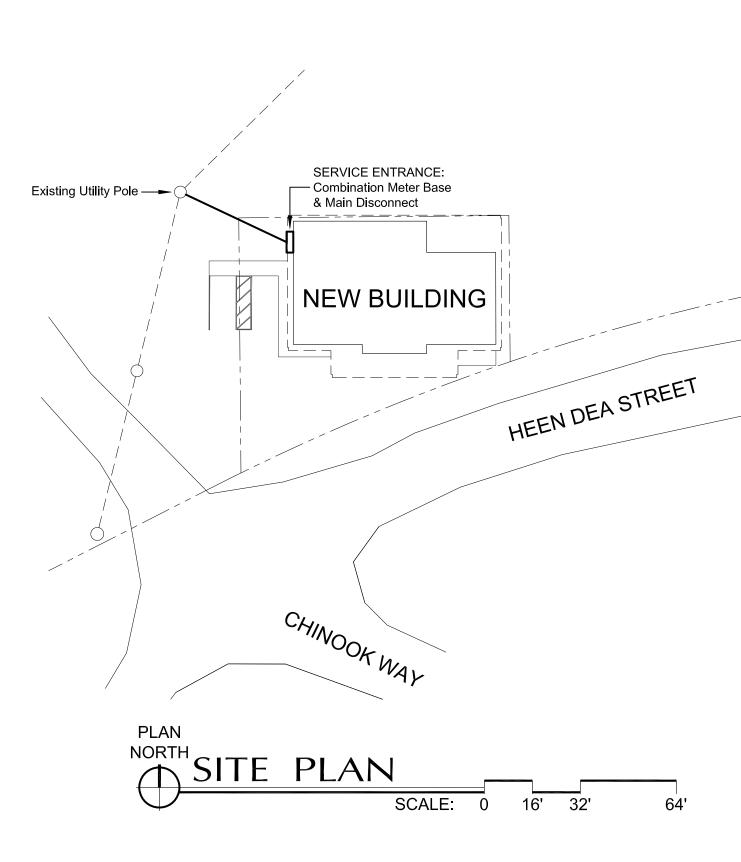
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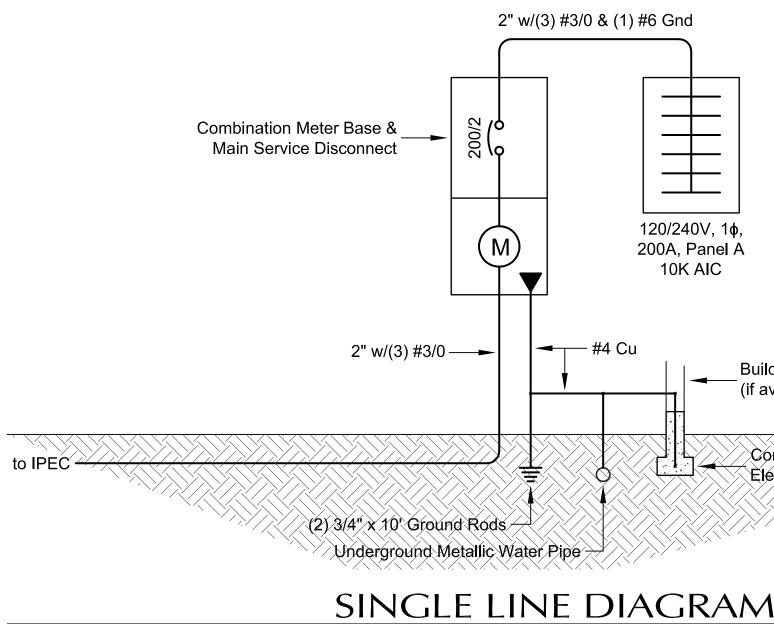
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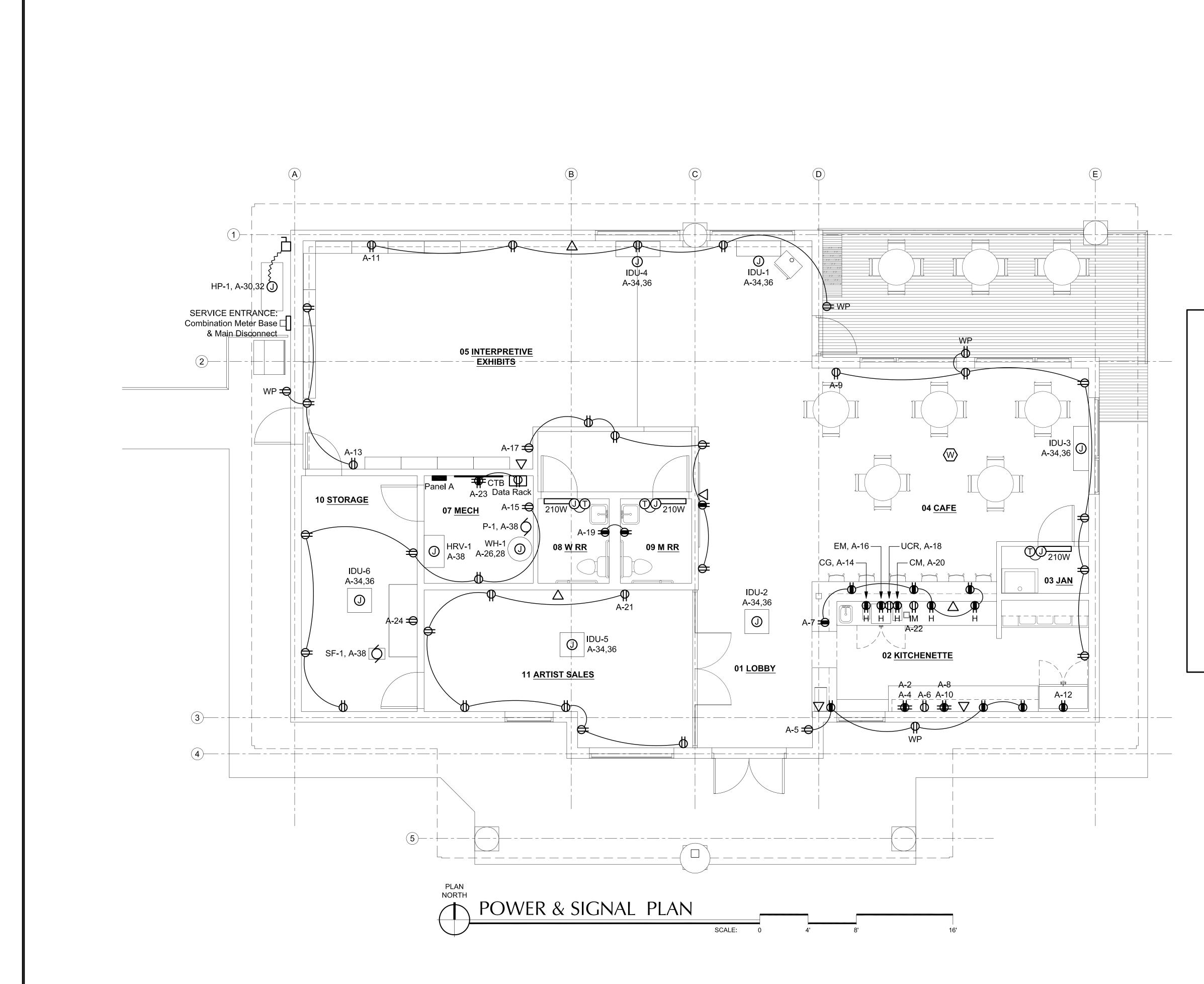
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	LEGEND & ABE CONDUIT W#12 AWG CONDUCTORS, UON DUPLEX RECEPTACLE: 18" AFF, UON DOUBLE DUPLEX RECEPTACLE: 18" AFF, UON COUNTER HEIGHT RECEPTACLE: 44" AFF, UON SINGLE POLE SWITCH: 48" AFF, UON OCCUPANCY SWITCH: 48" AFF, UON OCCUPANCY SWITCH: 48" AFF, UON CEILING MOUNTED OCCUPANCY SENSOR DOWNLIGHT, SURFACE MOUNT VALL MOUNT LIGHT 2' x 2' LED TROFFER SURFACE WRAP LUMINAIRE WALL MOUNTED EXIT SIGN/LIGHT EMERGENCY LIGHT JUNCTION BOX MOTOR CONNECTION DISCONNECT SWITCH	AFF CG CM CTB Em EM GFCI GND H HP HRV IDU IDU IM LTG NEC NIC NS P	ABOVE FINISHED FLOO COFFEE GRINDER COFFEE MAKER COMMUNICATIONS TEL EMERGENCY BATTERY ESPRESSO MAKER GROUND FAULT CIRCU GROUND FAULT CIRCU GROUND MOUNT DEVICE HORIZ HEAT PUMP HEAT RECOVERY VEN INDOOR HEAT PUMP U ICE MAKER LIGHTING NATIONAL ELECTRICAT NOT IN CONTRACT NOT SWITCHED PUMP		
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	NOTES & SPECIFICATION
OR	 Provide all work as shown on the drawings and described in the specifications and notes for installation. Unless otherwise noted, all material shall be of new manufacture, of the manufa shall be approved by Underwriters Laboratories (UL) and so noted. For product specified by Use a product of one of the manufacturers named and meeting specifications, or an equivale specifications.
ERMINATION BOARD	 All work shall comply with the latest approved editions of: National Electrical Code (NEC, NFPA 70) National Fire Alarm Code (NFPA 72) International Building Code (IBC)
UIT INTERRUPTER	Life Safety Code (NFPA 101) American with Disabilities Act Accessibility Guidelines (ADAAG) All applicable Federal, State and Local regulations
ZONTALLY	 Provide two sets of as-built drawings at project completion. Label all new circuit breakers, ju an accurate, typed circuit directory for each revised panelboard.
NTILATOR UNIT	4. The contractor shall coordinate installation of the power, telephone and data services with the with their requirements. Power service shall be provided by the Inside Passage Electric Coordinate equipment. Contractor shall provide 120/240 volts, single-phase, three-wire, 200 ampere rapplated ground rods (10' x 3/4") and appropriate grounding electrode conductor (#4 copper). it, the sprinkler riser, grounding electrodes, ground bus and neutral conductor.
AL CODE	5. Raceway systems shall be EMT for feeder and branch circuits and rigid steel for any exterior Schedule 80 PVC is acceptable for underground runs where permitted by the NEC. All cond in raceways shall have type THW or THHN/THWN insulation for inside work and type XHHV is acceptable for branch circuits and interior work where approved by the local authority, the
	6. Boxes shall be steel with appropriate plaster rings. Ensure boxes mounted in fire walls main mounted on opposite sides of demising walls, to comply with codes. All wiring devices shall connected, with matching nylon (finished walls) or stainless steel (exposed walls) plates. Demanual or magnetic starter/disconnect for motor loads, as noted on the drawings.
DEVICE	7. Provide carbon monoxide alarms as noted and required.
-RIGERATOR NOTED	 For each data receptacle provide a deep 4" square box, single-gang plaster ring and a 3/4" r above or below the box or directly to the Communications Termination Board (CTB), as appr those raceways without cables installed.
OINT	9. Ensure all control devices (switches, etc.) are mounted no higher than 48" above the finished Also ensure receptacles are mounted not less than 15" above the finished floor.
	 Total Connected Load for the facility is 42.1 kVA (175.5 Amperes). Actual Demand Load for the facility is 36.8 kVA (153.4 Amperes).



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ers, junction boxes, controls, etc. Provide		142	MRV ARCHITEC 0 Glacier ave. Juneau, ak 998	#101 301
with the serving utilities and shall comply ic Cooperative (IPEC) to the service ere rated equipment with two (2) copper per). Provide a UFER ground and bond			907-586-1371 FAX 907-463-55 v@mrvarchitects	44
xterior exposed service entrance runs. Il conductors shall be copper. Conductors XHHW for exterior work. Type MC cable y, the Owner and the NEC.				MRV #2227
s maintain proper spacing, including those shall be specification grade, screw es. Devices shall be white. Provide a		TS	ENTER	
3/4" raceway to the accessible space s appropriate. Include a pull string in		DOCUMENTS	R CE	
nished floor to comply with the ADA.		CONSTRUCTION DO	VISITOF	City of Angoon
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À		No.	Description	Date
Building Steel (if available)		LEGE	T TITLE: ND & ABB	
Concrete Encased Electrode (UFER)		SITE	ES & SPECS PLAN, ILE LINE),
Note: Bond all grounding connections shown		DATE:	11	.10.2023
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NOTE	: 11"x 17" PRINT IS HALF SIZE		E10	0



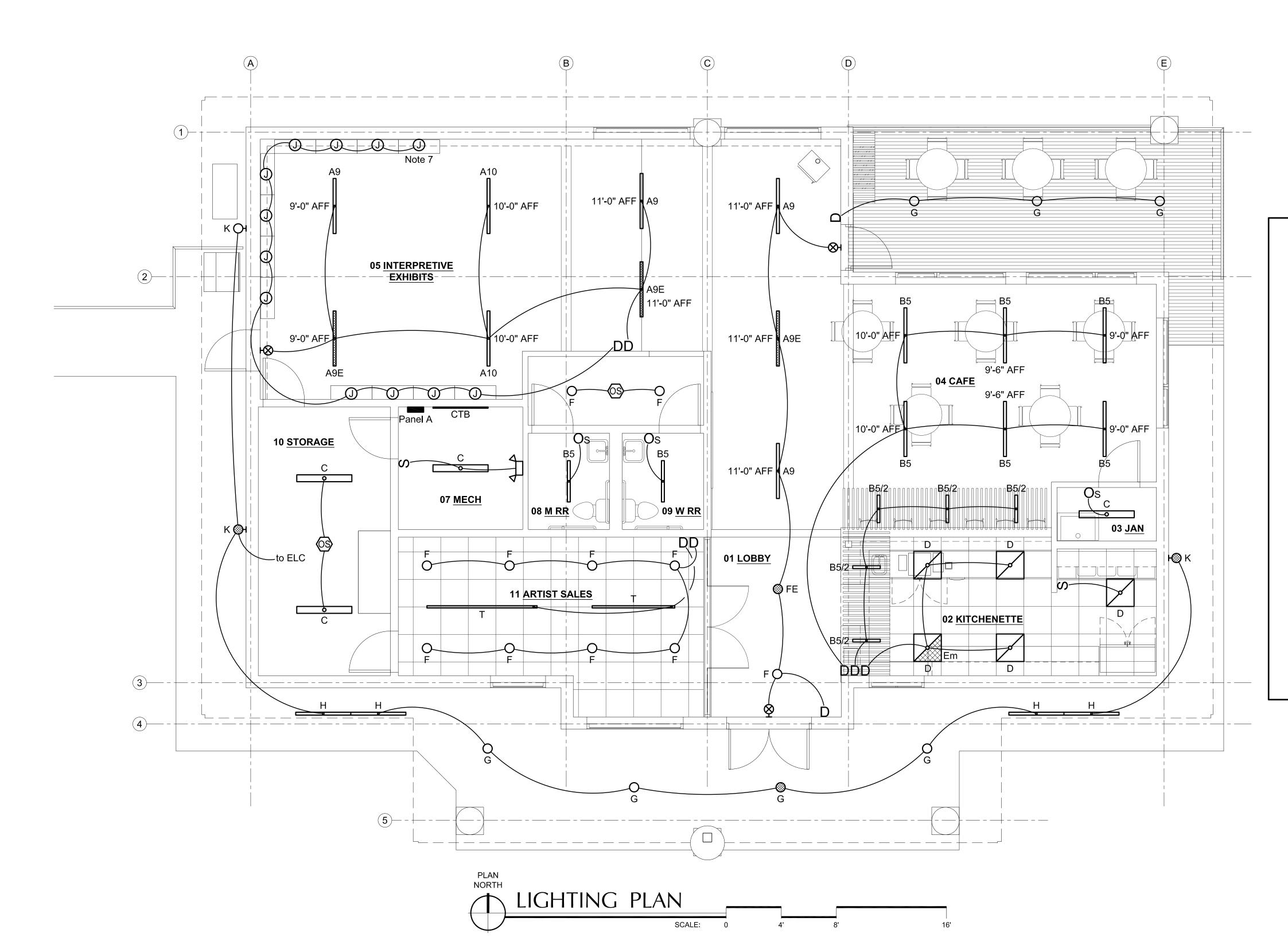
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100% CONSTRUCTION DOCUMENTS	ANGOON VISITOR CENTER	City of Angoon		
No.	Description	Date		
SHEET TITLE: Power & Signal Plan, Sheet Notes				
DATE: DRAWN CHECKI	۱:	1.10.2023 MRV/PG PG		
sheet no. E200				

SHEET NOTES

- Provide connection to all power, mechanical and Owner's equipment shown. Include starters, as noted and required, associated with mechanical equipment. Refer to the Panel Schedule on Sheet E400 for circuiting.
- 2. Pull conductors for the circuits as shown in the Panel Schedule. All runs shall include a single and separate equipment grounding conductor, sized per the NEC.
- 3. Coordinate the installation and connection of mechanical and Owner's equipment and receptacles with the other trades and the equipment supplier's drawings. Ensure the proper mounting heights, electrical configurations and clearances with other equipment and terminations.
- All convenience receptacles in the Kitchenette, Mechanical, Janitor, Restrooms and on the exterior shall be GFCI or GFCI protected.
- All convenience receptacles in the Cafe area (at the counter, circuit A-7, and in the room, circuit A-9, shall be equipped with USB charging ports.
- Provide data jacks and receptacles as shown. For each receptacle provide a deep 4" square box, plaster ring and a 3/4" conduit to the Mechanical Room 07. Provide CAT6 cabling from each box to the Data Rack in Mechanical 07. Test, label and terminate each cable as required.

CONSTRUCTION NOTE

Plans are diagrammatic in nature. Locations of receptacles and equipment may move per Owner request. Additional loads may be added and will be addressed on redlines before the final inspection.



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	MRV ARCHITECT 20 GLACIER AVE. JUNEAU, AK 9980 907-586-1371 FAX 907-463-554 rv@mrvarchitects.	#101 01 4	
00% CONSTRUCTION DOCUMENTS	OON VISITOR CENTER	City of Angoon	
No.	Description	Date	
SHFF	T TITLE:		
LIGHTING PLAN, SHEET NOTES			
DATE:	11.7	10.2023	
DRAW CHECI		MRV/PG PG	
E300			

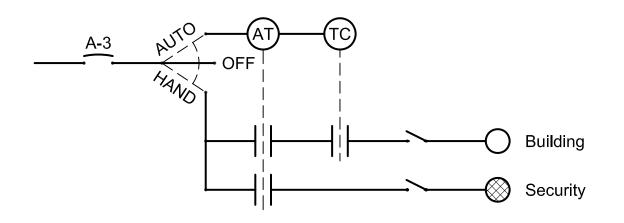
SHEET NOTES

- 1. Provide all lighting, control devices and equipment as shown on this sheet. Include powered exit signs, emergency battery packs and emergency lights as shown.
- 2. Provide connection to all lighting and control devices and equipment shown. Refer to the Panel Schedule on Sheet E400 for general circuiting. Refer to the Luminaire Schedule on Sheet E400 for luminaire types and details.
- 3. Pull conductors for the circuits as shown in the Panel Schedule. All runs shall include a single and separate equipment grounding conductor, sized per the NEC.
- 4. Coordinate the installation of all luminaires and controls with Owner, the other trades, architectural drawings and manufacturer's requirements. Ensure the proper mounting heights, electrical configurations and clearances with other equipment and terminations. Provide approved seismic bracing/support for all ceiling mounted luminaires as required.
- 5. Refer to the exterior lighting control (ELC) schematic on E400 for connection of the exterior luminaires, illuminated signs and lettering, astronomic clock and control switches.
- 6. Mounting heights shown are to bottom of luminaire.
- 7. Provide junction boxes and dimmer control for future Display Case lighting. Coordinate with Owner.

CONSTRUCTION NOTE

Plans are diagrammatic in nature. Locations of luminaires and controls may move per Owner request. Additional loads may be added and will be addressed on redlines before the final inspection.

		Panel A	SI	ZE	120/2	40 V	M/	AIN	MOUNT / LOCATION	SHORT	г скт
		Fallel A	200 a	amps	1Ø,	3W	LUGS ONLY		SURFACE / MECHANICAL	10,000) AIC
	WIRE		BRKR			BRKR		BRKR	२		
СКТ	Qty/		Amp/		ΚV	΄ Α		Amp/		Qty/	СКТ
#	Size	CIRCUIT DESCRIPTION	Pole	СКТ	Α	В	СКТ	Pole	CIRCUIT DESCRIPTION	Size	#
1	2/#12	LTG - Interior	20/1	1.0	2.2		1.2	20/1	REC - Microwave	2/#12	2
3	2/#12	LTG - Exterior	20/1	0.4		1.8	1.5	20/1	REC - Countertop Oven	2/#12	4
5	2/#12	REC - Kitchenette Counter South, Exterior	20/1	1.5	2.5		1.0	20/1	REC - Undercounter Refrigerator	2/#12	6
7	2/#12	REC - Kitchenette Counter North	20/1	1.5		2.7	1.2	20/1	REC - Panini Grill	2/#12	8
9	2/#12	REC - Kitchenette, Janitor, Cafe, Exterior	20/1	1.4	2.4		1.0	20/1	REC - Soup Server	2/#12	10
11	2/#12	REC - Lobby N, Exhibits N, Exterior	20/1	1.2		2.4	1.2	20/1	REC - Refrigerator/Freezer	2/#12	12
13	2/#12	REC - Exhibits W & SW, Exterior	20/1	0.8	1.2		0.4	20/1	REC - Coffee Grinder	2/#12	14
15	2/#12	REC - Mechanical, Storage	20/1	1.2		3.2	2.0	20/1	REC - Espresso Maker	2/#12	16
17	2/#12	REC - Lobby W, Exhibits SE, RR Vestibule	20/1	1.2	2.4		1.2	20/1	REC - Undercounter Refrigerator	2/#12	18
19	2/#12	REC - Restrooms	20/1	1.5		2.5	1.0	20/1	REC - Coffee Maker	2/#12	20
21	2/#12	REC - Artist Sales	20/1	1.4	2.4		1.0	20/1	REC - Ice Maker	2/#12	22
23	2/#12	REC - Communications Termination Board	20/1	1.0		2.2	1.2	20/1	REC - Freezer	2/#12	24
25		Spare	20/1		2.8		2.8	30/2	Water Heater WH-1	2/#10	26
27		Spare	20/1			2.8	2.8				28
29		Space			3.5		3.5	40/2	Heat Pump Outdoor Unit HP-1	2/#8	30
31		Ļ				3.5	3.5				32
33		↓			0.4		0.4	15/2	Heat Pump Indoor Units IDU-1 to -6	2/#12	34
35		Ļ				0.4	0.4				36
37		Ļ			0.3		0.3	20/1	Pump P-1, HRV-1, Supply Fan SF-1	2/#12	38
39		Ļ		00		0.6	0.6	20/1	Electric Radiant Htrs: Jan 03, RR's 08/09	2/#12	40
41		↓			0.0				Space		42
1		TOTAL CONNECTED LOAD (kVA):	42.1	L	20.1	22.0			ACTUAL DEMAND LOAD (kVA)	: 36.8	



EXTERIOR LIGHTING CONTROLS

NO SCALE

	LUMINAII	RE SCHEDU	LE
TYPE	DESCRIPTION	MANUFACTURER	DETAILS
A9	4' pendant-mount linear LED w/2-1/2" aperture, extruded aluminum side rails and steel housing, frosted acrylic flush lens, metal reflector, dimming driver	Nulite Regolo RP24-D-09-L35-U-D-1-1- FRF-WH-SR-048-4	7.79 W/foot, 886 lumens/foot 80 CRI, 3500∘K CCT Note mounting heights on Drawing
A9E	Same as above with 15 Watt battery pack	Nulite Regolo RP24-D-09-L35-U-D-1-1- B15-FRF-WH-SR-048-4	7.79 W/foot, 886 lumens/foot 80 CRI, 3500∘K CCT Note mounting heights on Drawing
A10	4' pendant-mount linear LED w/2-1/2" aperture, extruded aluminum side rails and steel housing, frosted acrylic flush lens, metal reflector, dimming driver	Nulite Regolo RP24-D-10-L35-U-D-1-1- FRF-WH-SR-048-4	9.47 W/foot, 1000 lumens/foot 80 CRI, 3500∘K CCT Note mounting heights on Drawing
B5	4' pendant-mount linear LED w/1-5/8" aperture, extruded aluminum side rails and steel housing, frosted acrylic flush lens, metal reflector, dimming driver	Nulite Regolo RP11-D-FF-05-L35-U-D-1-1- BK-SR-B-048-4	4.78 W/foot, 526 lumens/foot 80 CRI, 3500∘K CCT Note mounting heights on Drawing
B5/2	2' pendant-mount linear LED w/1-5/8" aperture, extruded aluminum side rails and steel housing, frosted acrylic flush lens, metal reflector, dimming driver	Nulite Regolo RP11-D-FF-05-L35-U-D-1-1- BK-SR-B-048-2	4.78 W/foot, 526 lumens/foot 80 CRI, 3500∘K CCT Mount within wood grid.
С	Linear LED linear strip w/steel cover and channel, plastic housing and lens endcaps, acrylic flat diffuse lens, general distribution, white finish, high ambient rating	Lithonia CLX L48 4000LM SEF FDL MVOLT 40K 80CRI HA WH	3955 lumens, 25.5W 80 CRI, 4000ºK CCT
D	2' by 2' LED edge-lit surface mount flat panel w/aluminum frame, satin white lens, volumetric distribution, dimmable drivers, switchable output	Lithonia CPANL 2x2 AL01 SWW7 M4 MVOLT	(L) 21.6 / (M) 30.6 / (H) 40.5W (L) 2617 / (M) 3778 / (H) 4741 lumens >80 CRI, 3500°K CCT
Em	Emergency light w/white high-impact thermoplastic housing, nickel cadmium battery, integrated test switch, adjustable LED heads.	Lithonia ELM2L M12	LED's
F	4" square self-flanged, tunable white LED downlight w/semi-specular, matte-diffuse finishing trim, polycarbonate lens, matte white finish, dimmable drivers	Acuity Gotham 4" EVO EVO4SQ 35/15 ART LSS MVOLT GZ1 90CRI	13.7W, 1527 lumens 90 CRI, 3500ºK CCT
G	6" square LED downlight w/regressed painted trim, textured lens, dimmable drivers, wet location listed	Acuity Gotham 6" EVO EVO6SQSH 35/25 DFR SOL MVOLT	24.7W, 2219 lumens 85 CRI, 3500ºK CCT
н	48" Wall mount LED w/extruded aluminum housing, wet location rating, tempered clear glass lens, asymmetric distribution, finish by Architect	Lumenwerx VIAWETASYW TMG HLO LED 80 1000 40 4FT UNV	∼40W, ~4000 lumens, 80 CRI, 4000ºK
K	Exterior LED wallpack w/die-cast aluminum body, wide distribution, IP66 rated, field adjustable drive current, wet location listed	Lithonia WPX1 LED P2 40K MVOLT xxxxx Finish by Architect	24W, 2912 lumens, 70 CRI, 4000ºK CCT Finish by Architect
т	Single-circuit track w/fittings, power feed and appurtenances to mount heads (TH) below, white finish	Juno "T Trak"	
т	Line-voltage LED track head w/die-cast aluminum housing, separate driver housing, concealed wiring, interchangeable polycarbonate beam spread lenses, dimmable, white finish	Juno Trac-Master "Avant Garde" T271L G2 40K 90CRI PDIM NFL WH	9W, 950 lumens 90 CRI, 4000ºK CCT Provide ten (10) total.
X	Exit light with thermoplastic housing, stencil face, LED lamps, white finish, green letters	Lithonia LQM S W 3 G MVOLT	LED's

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100% CONSTRUCTION DOCUMENTS		City of Angoon		
No.	Description	Date		
SHEET TITLE: PANEL & LUMINAIRE SCHEDULES, EXTERIOR LIGHTING				
DA	ΓΕ: 11. ⁻	10.2023		
	DRAWN: MRV/PG CHECKED: PG			
sheet no. E400				

SECTION 26 05 01 -- GENERAL PROVISIONS

DEFINITIONS	
Accepted/Approved:	Shall mean accepted by the Engineer.
Engineer:	Shall mean the Engineer responsible for these electrical
	documents, or a specifically authorized representative.
Furnish:	Shall mean deliver to the project site.
Install:	Shall mean build into the work including connections and all
	parts considered incidental to a complete installation.
Provide:	Shall mean furnish and install complete.
Work or Project:	Shall mean all work required by the Contract Agreement.

ABBREVIATIONS AND INITIALS: Any or all of the following may appear in the Contract Documents, shall be applied per the following explanations:

Alternating Current (60 HZ unless otherwise noted) Americans with Disabilities Act Above Finished Floor Above Finished Grade Amperes Interrupting Capacity (RMS Symmetrical) American National Standards Institute American Society for Testing and Materials American Wire Gauge Size Direct Current Electrical Metallic Tubing Electrical Testing Laboratory Factory Mutual Ground Horsepower Frequency in Cycles per Second International Building Code International Fire Code Institute of Electrical and Electronics Engineers Illuminating Engineering Society Lighting National Electrical Code National Electrical Code National Electrical Manufacturers Association, Inc. National Fire Protection Association Not in Contract Occupational Safety and Health Administration Receptacle Rigid Galvanized Steel Conduit Uniform Federal Accessibility Standards
I Contraction of the second seco
Uniform Federal Accessibility Standards
Underwriters Laboratories
Volts Alternating Current
Volts Direct Current

DRAWINGS: Unless otherwise indicated, drawing symbols conform to the applicable standards of ANSI. These Contract Drawings rely upon symbolic representation of the features shown and represent exact details only so far as indicated. Dimensions scaled from the drawings may vary due to printing distortion, field conditions, field changes, and other factors. For these reasons, it shall be the Contractor's responsibility to field-verify dimensions that pertain to his work. The Contractor shall make minor relocations where necessary to resolve conflicts or present a uniform appearance. The drawings show exact location of Electrical features only where specifically dimensioned.

COORDINATION: The Electrical Contractor shall review the Contract Documents of the other trades on the project and coordinate the installation of electrical features with the work of all other trades. In areas such as the electrical and mechanical rooms, where conflicts are likely with structural, mechanical or other features, perform the electrical installation after the other trades and arranged to eliminate conflicts.

SERVICE INTERRUPTIONS: All work covered by this Contract shall be performed on de-energized circuits. Where such would deprive the Owner of existing service, the Contractor shall give at least 24 hours advance notice of the outage.

SECTION 26 05 02 -- SUBMITTALS

GENERAL: Prior to the purchase of any materials or equipment, the Contractor shall submit to the Engineer for acceptance data completely describing all items intended for use in the work. This data shall include the manufacturer and identifying number or nomenclature; the manufacturer's published data as to size, capacity, power requirements and dimensions; and such other information as necessary to properly describe each item. Catalog cuts fulfilling these requirements will be considered appropriate for this application. Such "commodity" items as those covered by Sections 26 05 19, 26 05 26, 26 05 33, 26 05 34, and 26 05 35 need not be submitted if they are being provided exactly as specified.

CONTRACTOR'S CERTIFICATION: Each submittal shall contain a certification stating that the Electrical Contractor has reviewed the list and that the items proposed conform to the Contract requirements. Said certification shall be signed by the individual under whose Alaska Electrical Administrator's license the work will be performed, and a copy of the license shall be included in the submittal.

SECTION 26 05 03 -- WORK INCLUDED

GENERAL: Provide all work as shown on the drawings and in these specifications for a complete, safe, and functional installation. Unless otherwise noted, all materials shall be of new manufacture, American-made, of the manufacturer's standard construction for the application. The omission of any express reference to any part, supplies, services, or facilities necessary for or incidental to a complete installation shall not be construed as a release from furnishing such items. Any deviations from the installation shown in these Drawings, due to a particular manufacturer's requirements, shall be made without additional cost to the Owner.

INSTALLATION: All materials shall be installed in a neat, orderly, and secure fashion, as required by these specifications and commonly recognized standards of good workmanship. In addition to the access and clearance requirements of the NEC, all items normally considered to be factory or field-serviceable shall be installed in such a manner as to be easily and safely accessible and removable without dismantling surrounding construction. The Contractor shall make minor relocations where necessary to resolve conflicts or present a uniform appearance. The drawings show exact location of electrical features only where specifically dimensioned.

WIRING OF UTILIZATION EQUIPMENT: Where equipment arrangement varies from that shown on the drawings, making necessary additional disconnect switches in order to comply with the NEC, such disconnects shall be provided at no additional cost to the Owner. Prior to ordering materials or performing the installation, the Electrical Contractor shall verify the sizes, configurations, and locations of all equipment, to ensure that all required connections are correctly provided.

REPAIR OF EXISTING FEATURES: Where previously completed building surfaces or other features must be cut, penetrated, or otherwise altered for the installation of electrical features, such work shall be carefully performed, and any subsequent patching or repairs performed by skilled mechanics of the trades involved, at no additional cost to the Owner.

WORK INCIDENTAL TO SUBSTITUTIONS: When substitutions for specified methods or materials alter the relationship between the work actually required and that called for by the Contract Drawings, the Contractor shall bear responsibility for all expenses incurred by any necessary revisions, including the work of other trades.

VAPOR BARRIER PENETRATIONS: Penetrations of the building vapor barrier caused by the electrical installation shall be minimized, and shall be sealed as specified herein.

PROTECTION AND CLEANING: All electrical materials and equipment shall, both in shipment and during the entire duration of construction work, be protected against water, dust, debris, over spray, or any other contamination or damage, whether environmental in origin or as a result of handling or construction work. Any damaged items shall be replaced or repaired to original manufactured condition, at no additional cost to the Owner. All construction dust, debris, over spray, scrap and surplus materials, etc. resulting from this work shall be cleared away, leaving the installation in completely clean condition.

SECTION 26 05 05 -- CODES AND FEES

CODES: All work shall comply with the latest editions of:

- The National Electrical Code (NEC).
- The National Electrical Safety Code (NESC).
- The NFPA Codes.
- OSHA Regulations.
- The International Building Code (IBC).
- The International Fire Code (IFC).

The Uniform Federal Accessibility Standards (UFAS) Previous editions of the above when required by Federal, State or Local laws. All applicable Federal, State, and Local laws and regulations including CBJ Title 19.

PERMITS AND FEES: The Contractor shall obtain and pay for all permits required for the work in this Division.

OTHER STANDARDS: Unless otherwise noted or specified, all materials and work shall be in conformance with the applicable standards of the following organizations:

American National Standards Institute (ANSI). American Society for Testing and Materials (ASTM). Institute of Electrical and Electronic Engineers (IEEE). National Electrical Contractors Association (NECA). National Electrical Manufacturers' Association (NEMA). Underwriters Laboratories (UL) or Factory Mutual (FM).

SECTION 26 05 08 -- SYSTEM DEMONSTRATIONS

DEMONSTRATIONS: At a mutually agreed-upon time, as close as possible to the time of Beneficial Occupancy of the project by the Owner, the Contractor shall instruct the Owner's maintenance personnel in the proper operation and maintenance of the electrical system. The demonstration shall cover the operation of all controls, protective devices, etc. including emergency procedures. The demonstrations shall involve all relevant systems including the distribution, lighting and fire alarm systems. The demonstrations shall also cover all preventive maintenance items the Owner's personnel should routinely perform.

ELECTRICAL SPECIFICATIONS

SECTION 26 05 09 -- O&M MANUALS & RECORD DRAWINGS

OPERATION & MAINTENANCE MANUALS: The electrical Contractor shall submit for review three (3) copies of Operation and Maintenance Manuals for the project. These manuals shall be bound (or electronic) and shall include:

All information covered by the final accepted submittals, modified as necessary to reflect the final as-built condition.

- Complete listings of repair and replacement parts for all equipment, and names and addresses of the suppliers from which the equipment was obtained.
- Complete listing of all equipment that may require periodic servicing, with recommended schedules and complete instructions for performing said servicing. Service instructions shall include complete English-language narrative descriptions and illustrations necessary to describe all service operations.

RECORD DRAWINGS: The Electrical Contractor shall at all times keep a current set of Contract Drawings on the project site. This set shall be kept in good condition, and shall be neatly and accurately marked to show the as-built condition of the electrical installation. Of particular importance are the precise locations of concealed features such as conductors, raceways and junction boxes. Upon completion of the project, the field-marked set of drawings shall be forwarded to the Engineer, along with any supplementary drawings, sketches, notes or other materials necessary to completely describe the as-built condition of the electrical installation.

SECTION 26 05 19 -- WIRE AND CABLE

CONDUCTORS: All conductors shall be copper. Conductors #12 AWG and smaller may be solid or stranded, unless otherwise noted or specified in a product that is only available stranded. Conductors #8 AWG or larger shall be stranded. Type MC cable is acceptable for interior work where approved by the local authority, the Owner and the NEC.

INSULATION TYPES: Branch circuit conductors shall be 600 volt insulated, and unless otherwise noted on the drawings, shall have type THHN/THWN or XHHW insulation.

SECTION 26 05 26 -- GROUNDING

SCOPE: All metal raceways, enclosures, other electrical equipment, as well as non-electrical equipment that may pick up harmful potentials from the electrical system, shall be bonded and grounded as required by the NEC and these drawings.

CONDUCTORS: All grounding conductors and bonding jumpers shall be copper, sized according to the NEC. Provide separate equipment grounding conductors, green insulated where run with branch circuits, and bare where run with feeders.

SECTION 26 05 33 -- RACEWAYS

APPLICATIONS: All conductors shall be run in metal raceways, unless otherwise noted on the drawings. The final connection to any motor or other rotating or vibrating equipment, or equipment which may require position adjustment after installation, shall be made through a slack section of flexible metal conduit 18" to 36" long. Type MC cable may be utilized for accessible lighting and power circuits. All runs for signal, communications, computer and lighting control shall be in raceway.

LAYOUT: Raceways shall be concealed, except in mechanical and electrical rooms and as otherwise noted on the drawings. Exposed raceways shall be run square with the building lines. Concealed raceways may be run in direct lines where practical.

VAPOR BARRIER: At all raceway penetrations of the vapor barrier provide a double splice patch (one on each side of vapor barrier) by cutting a square piece of vapor barrier 6" larger on all sides than the pipe. Cut a round hole in the center of each splice patch, smaller than the pipe, to form a stretched fit. Force the pipe through each splice patch and tape all sides with vapor-barrier tape.

ASSEMBLY: Raceways shall be physically and electrically continuous from enclosure to enclosure. Electrical continuity for non-metallic conduits shall be ensured by inclusion of an NEC-sized grounding conductor. For metallic conduits, all joints and fittings shall be free of foreign materials and made up wrench tight.

PULL STRINGS: Provide nylon pull strings in all conduits without conductors.

SECTION 26 05 34 -- OUTLET BOXES

BOXES: Provide outlet boxes for connection of branch circuits to fixtures and devices as shown on the plans and further specified herein. Boxes shall be the products of Raco, Steel City, Appleton, Crouse-Hinds, or accepted equal.

INSTALLATION: Outlet boxes shall be installed plumb with, and securely fastened to the structural framing of, the surrounding construction. Recessed boxes shall have plaster rings such that the device cover plates are tight to the wall or ceiling finish.

THROUGH-WALL BOXES: No through-wall boxes will be permitted. Where outlets are shown mounted back-to-back on a common wall, they shall be offset horizontally a minimum of 12["], to minimize sound transmission and maintain fire separation.

VAPOR BARRIER: Where sheet metal boxes penetrate the building vapor barrier, their exterior surfaces shall be completely covered with overlapped application of vapor-barrier tape to effectively seal all unused knockouts and other holes against vapor migration. The edges of the hole in the vapor barrier shall be securely sealed to the lip of the box with vapor barrier tape and/or an adhesive compatible with the vapor barrier material.

SECTION 26 05 35 -- PULL AND JUNCTION BOXES

GENERAL: Where necessary in raceway systems to facilitate conductor installation or to redirect raceway runs, provide conduit bodies or pullboxes as further specified herein. At the minimum, raceway runs shall have a pullbox or conduit body every 100 feet or after every 270 degrees of bends, whichever comes first. Where shown on plans or where otherwise necessary to tap or terminate raceway runs, provide junction boxes as specified.

SIZES: Unless otherwise noted on the drawings or specified, pull and junction boxes shall be sized according to NEC requirements for the number, size, and entry configuration of the conduits and conductors entering them.

INSTALLATION: Pull and junction boxes shall not be installed in visible locations in finished areas unless specifically called for on the drawings or accepted by the Engineer. Pull and junction boxes shall be securely fastened to the building structure by means independent of the raceways entering them.

SECTION 26 05 53 -- IDENTIFICATION

EQUIPMENT LABELING: Panelboards, disconnect switches, push-buttons, selector switches, switches, circuit breakers and the like shall be labeled with laminated plastic labels engraved with white letters on black background. Lettering shall be block style, 1/4" tall, except where space limitations, drawing notes, or other requirements dictate otherwise. Labels shall be secured with pop rivets or fasteners per 26 05 90. Adhesive attachment is not acceptable. Temporary markings will not be permitted to remain on equipment; they shall be removed, and any defaced finishes repaired to match original manufactured condition.

CONDUCTORS: All conductors in pull or junction boxes or other enclosures shall be permanently and legibly tagged or labeled with panel and circuit numbers or other data that clearly identifies their origin, function, and destination.

SECTION 26 05 90 -- FASTENING HARDWARE

FASTENERS: Raceway supports, boxes, fixtures, and other electrical features shall be securely fastened by wood screws or sheet metal screws on wooden surfaces, toggle bolts on hollow masonry units, expansion bolts on concrete or brick, and machine screws or welded threaded studs on steel work. Threaded studs driven by a powder charge and provided with a lock washer, flat washer, and nut(s) are acceptable in place of expansion bolts or machine or wood screws, as appropriate.

ASSOCIATED HARDWARE: All fasteners shall be provided with flat washers. All fasteners having non-tapered threads (such as machine screws) shall also be provided with a lock washer under the bolt head or nut, whichever is turned in the process of tightening. Fasteners through resilient materials shall have stop sleeves. Nuts, washers, and sleeves shall be of the same material and finish as the fastener to which they are applied.

SECTION 26 09 23 -- LIGHTING CONTROLS

Provide architectural dimming controls for the luminaires as shown on the drawings and further specified herein. Devices specified in Section 26 27 26 shall be compatible with the equipment described in this section.

SUBMITTAL REQUIREMENTS: Provide submittal data, per Section 26 05 02, for all lighting controls devices, plates and appurtenances. Include mounting, installation and wiring diagrams for all equipment.

DIMMING CONTROLS: Provide premium (commercial) specification grade individual dimming controls with electronic microprocessor technology, protected memory, voltage compensation circuitry, LED level indication and soft start/gentle fade dimming action. Devices shall be "Decora" style with rocker action "ON/OFF" and "DIM/BRIGHT". Each device and plate shall be white. Provide Lutron or Leviton devices or an approved equal.

LED DIMMERS: Each LED dimmer module shall provide the ability to dim luminaires down to 1%. Minimum light levels shall be user adjustable to compensate for variable dimmer loading. Each dimmer shall incorporate an electronic "soft-start" to ramp smoothly to the desired lighting level within 5 seconds.

Controls shall be engraved with appropriate load descriptions, furnished to the manufacturer prior to fabrication and after approval by the Engineer.

OCCUPANCY SENSORS: Occupancy sensors shall be wall mounted, as shown on the Contract Drawings, with silent operation, full coverage, adjustable sensitivity control, light level adjustment control and time delay. All sensors shall have readily accessible, user adjustable settings for time delay and sensitivity. Include a manual bypass feature to divert control to the switches in the event of failure. Provide an LED for visual indication of device operation. Provide access to the controls under a removable faceplate.

	Patrick Gorman Patrick Gorman EE-7978 November 10, 2023				
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100% CONSTRUCTION DOCUMENTS		City of Angoon			
No.	Description	Date			
SHEET TITLE: ELECTRICAL SPECIFICATIONS, PART 1					
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	E500				

ELECTRICAL SPECIFICATIONS

SECTION 26 09 23 -- LIGHTING CONTROLS (Continued)

DIMMING CONTROLS INSTALLATION: Connect the individual dimming controls to each circuit shown. Install and program the occupancy sensors to control the lighting in the rooms shown. Coordinate the settings with the Engineer before final testing.

TESTING AND DEMONSTRATIONS: Upon completion of the installation and prior to removing any factory installed bypass jumpers, the electrical contractor shall completely test all line and low voltage wiring for continuity and accurate connections. After final testing by the electrical contractor, final commissioning shall be performed by a factory trained technician, engineer or approved representative. Final acceptance will include full demonstration of all system functions to the Owner.

SECTION 26 24 16 -- PANELBOARDS / LOAD CENTERS

PANELBOARD FEATURES: Branch circuit panelboards / load centers shall be of the circuit breaker type with the following features:

Current rating of the main buses shall be as noted on the drawings. All bus components shall be braced to withstand fault currents of the peak magnitude corresponding to the branch circuit breaker interrupting ratings shown on the drawings. Panelboards shall be bussed full height (including bus fingers and related hardware), to allow all available branch circuit spaces to be used.

Panelboard shall have main lugs sized to accommodate the feeder conductors shown on the drawings.

Panelboard front shall not contain any visible screws or other fasteners. Front shall have a lip or bracket that rests on the bottom return flange of the panel enclosure, to permit the front to be held in place with one hand while fastening.

Each front shall have a hinged door with a locking latch, furnished with two keys. An adequate ground bus shall be provided for all branch circuit equipment grounding conductors shown on the drawings, plus 20% spare.

BRANCH CIRCUIT BREAKERS: Panelboard shall be furnished with bolt- or snap-on branch circuit breakers in conformance with Section 26 28 16, in the quantity, size, number of poles and interrupting ratings shown on the panel schedule.

INSTALLATION: Secure branch panelboard to the structural framing of the surrounding construction and install plumb with the surrounding construction. Ensure controls or other enclosures are not mounted on or adjacent to the top, bottom, or sides in such a manner as to obstruct any future branch raceway entry space.

CIRCUIT DIRECTORY: Provide panelboard doors with a typed circuit directory card of the two-column type: odd numbers on the left and even numbers on the right.

SECTION 26 27 26 -- WIRING DEVICES

RECEPTACLES: Single and duplex receptacles shall be premium specification grade, white-faced, self-grounding, tamper-resistant, 120 volt, 15 ampere, 3-wire, NEMA 5-15R configuration, with screw terminals. Where individual receptacles are connected to 20 ampere branch circuits, they shall be rated 20 amperes.

GROUND FAULT CIRCUIT INTERRUPTER (GFCI): GFCI receptacles shall have NEMA 5-15R face configuration, single-strap mounting and shall have "TEST" and "RESET" buttons accessible from front. Ground fault trip level shall be 5 milliamperes, and the trip circuitry shall be essentially immune to nuisance tripping due to spurious influences such as RF noise.

SWITCHES: Switches shall be premium specification grade, AC quiet type, with screw terminals, rated 20 amperes at 120 volts. Switch handles shall be white.

PLATES: Cover plates for devices in recessed boxes shall be made of break resistant nylon, colored to match the device.

TERMINALS: Wiring devices shall have binding-screw or screw-held pressure-plate type terminals only. Terminals using spring pressure to secure the wire and make electrical contact are specifically forbidden.

SECTION 26 28 18 -- OVERCURRENT DEVICES

CIRCUIT BREAKERS: Unless otherwise noted, circuit breakers shall be of the molded-case, thermal-magnetic type, with the size, number of poles, and interrupting capacity as shown on the drawings. Ampere ratings shall be clearly visible, even when the breaker is installed in its appropriate enclosure. Each breaker pole shall provide both instantaneous and inverse-time tripping, with tripping clearly indicated, and a common-tripping tie to any other poles in the same breaker. Breakers shall be operated by a toggle handle and shall have a quick-make, quick-break, over-center switching mechanism that includes a trip-free feature so that the contacts cannot be held closed against tripping currents.

SECTION 26 50 00 -- LIGHTING

Provide a complete and functional building interior lighting system as shown on the Electrical Drawings and specified herein.

SUBMITTAL REQUIREMENTS: Provide submittal data, per Section 26 05 02, for all luminaires, drivers, lamps, mounting devices and appurtenances as follows:

Luminaires: Indicate the luminaire designation shown on the Luminaire Schedule. Provide a physical description of each luminaire including dimensions, driver data, energy-efficiency data, life, output (lumens, CCT, and CRI), and complete photometric data (including efficiency, coefficients of utilization table and candlepower curves) and adjustment factors based on laboratory tests. Note all options and accessories being furnished. Include detailed drawings of assembly and mounting.

Drivers: Provide information on each driver furnished; including input watts, lamp compatibility, sound rating, temperature rating, power factor, distortion and efficiency.

Lamps: Provide data for each lamp including wattage, lumen output (initial), color rendering index (CRI), color type (degrees Kelvin) and life expectancy (hours).

SUBSTITUTIONS: Acceptance of lighting equipment substitutions shall be obtained via the submittal process before equipment is ordered. Contractors or suppliers seeking substitution of competitive equipment shall be prepared, if required, to furnish samples of both the specified and proposed substitute luminaires and equipment for comparison.

LUMINAIRES: Interior recessed LED luminaires shall comply with NEMA LE 4 for ceiling compatibility for recessed luminaires. All LED luminaires shall comply with UL 1598. Where LER is specified, test according to NEMA LE 5 and NEMA LE 5A, as applicable. All metal parts shall be free of burrs, sharp corners and edges. Sheet metal components shall be steel unless otherwise indicated. Doors, frames and other internal access shall be smooth operating, free of light leakage under operating conditions, and designed to permit board replacement without use of tools. Ensure luminaires are designed to prevent doors, frames, lenses, diffusers, and other components from falling accidentally during board replacement and when secured in operating position. Factory-applied labels shall comply with UL 1598. Labels shall be located where they will be readily visible to service personnel, but not seen from normal viewing angles. Components shall be steel or aluminum with the manufacturer's standard finish, unless otherwise noted or specified.

LENSES AND DIFFUSERS: Where plastic lenses or diffusers are specified, they shall be made only of injection molded or extruded virgin acrylic or polycarbonate, discoloration-resistant, with a minimum overall thickness of $0.125^{"}$ (1/8"), unless specifically noted otherwise in the Contract Documents.

LAMPS: Unless otherwise noted, all individual lamps shall be LED and the products of Osram Sylvania, Philips, Cree or General Electric. Where lamp codes are listed in the Contract Documents, they are generally the designations used by Osram Sylvania.

EMERGENCY BATTERIES: Provide emergency lighting with nickel cadmium batteries and chargers to produce emergency egress illumination. Include a battery indicator light and test switch within the luminaire in an accessible and visible location.

EXIT LUMINAIRES: Provide battery powered exit luminaires with LED lamps, integral chargers and faces as required for the mounting location. Ensure compliance with UL 924 for sign colors, visibility, luminance, lettering size, and acceptance by the authorities having jurisdiction. Each self-powered exit sign shall include an integral automatic charger in a self- contained power pack with a sealed, maintenance-free, nickel-cadmium type battery and fully automatic, solid-state type charger with sealed transfer relay. Relay shall automatically energize the lamp(s) from the battery when circuit voltage drops to 80 percent of nominal voltage or below. When normal voltage is restored, the relay shall disconnect the lamp(s) from the battery and the battery is automatically recharged and floated on the charger. Provide a push-to-test button, in the unit housing, which simulates loss of normal power and demonstrates unit operability. Include an LED indicator light to denote normal power is on. Normal glow indicates trickle charge; bright glow indicates charging at end of discharge cycle.

ACCESSORIES: Luminaires shall be provided complete with all suspension, trim, mounting, and operating accessories normally considered necessary for a complete, functional, and safe installation.

INSTALLATION: Verify all mounting surfaces with the Architectural Drawings and coordinate luminaire mounting as required. Install luminaires as recommended by the manufacturer to provide plumb, level and horizontal alignment.

Temporary Lighting: If necessary, and approved by the Engineer, to use permanent luminaires for temporary lighting, install and energize the minimum number of luminaires required. When construction is sufficiently complete, remove the temporary luminaires, disassemble, clean thoroughly, replace lamps, and reinstall.

Remote Mounting of Drivers: The distance between the driver and fixture shall not exceed that recommended by driver manufacturer. Verify with driver manufacturers the maximum distance between driver and luminaire.

Luminaires (other than those designed for simple box mounting) that are mounted directly on the building structure shall be supported with fasteners per Section 25 05 90 appropriate for the type of construction. Larger luminaires shall have four fasteners, one near each corner. Fasteners into wooden members shall be sheet metal or lag screws, appropriately sized to penetrate at least 1-1/4" into members 2" thick.

CLEANING: Clean all luminaires, housings, trims, lenses, louvers and lamps prior to completion of work and final construction observation.

SPARE LENSES, DIFFUSERS AND LAMPS: Provide spare lenses, diffusers, drivers and lamps for each luminaire and lamp type, in the quantity of 10% of the number of luminaires and lamps of each type (minimum two of each).

SECTION 27 15 00 -- DATA AND TELEPHONE

SCOPE: Furnish complete raceway, cable and outlet systems as shown on the drawings and further specified herein for connection to Owner's equipment.

SUBMITTAL REQUIREMENTS: Provide submittal data, per Section 26 0000, for all telephone and data system components.

QUALITY ASSURANCE/STANDARDS

Requirements: System components and performance shall comply with the FCC Part 76 and NEC (National Electrical Code) minimum requirements.

License and Bonding: All signal and communications equipment shall be supplied and installed by a licensed and bonded Signal and Communications Contractor.

Manufacturer: All major communication system equipment shall be from a single manufacturer, supplied and installed by an authorized distributor.

SCHEDULING AND COORDINATION: Schedule work and location of equipment with other trades to avoid conflict and delays. Coordinate exact location of all devices and equipment with the Architectural drawings before rough-in. Locate all junction boxes to allow for easy access by maintenance personnel.

RACEWAYS: Raceways shall be EMT, as specified for power wiring, Section 26 0534. Raceways shall be as specified for the locations where they are to be installed. All raceways shall be 3/4" minimum, unless otherwise noted.

COMMUNICATIONS TERMINATION BOARD: Provide a 4' high by 4' wide, 3/4" thick, painted (gray) plywood Communications Termination Board (CTB) in the Server Room. Coordinate location with the Tenant.

OUTLET BOXES: Provide outlet boxes at least 2-1/8" deep by 4" square with single-gang ring. Cover plates shall comply with Section 26 0537, single gang and shall be engraved "TELEPHONE" and "DATA", respectively.

UTP CABLING: Provide cable installed in metallic raceway between all telephone and data outlets and the Server Room rack(s). All CAT 6 cables for telephone and data receptacles shall be directly terminated with an appropriate plug for connection to the Tenant furnished modular patch panel(s).

Conductors shall be copper wires individually insulated and color-coded. Cables shall consist of eight (8) 24-gauge bare copper solid conductors insulated with Teflon, then tightly twisted into pairs, with a PVC jacket. The outer cable jacket shall be imprinted with the date, manufacturer model, catalog number and agency listing identification. The same manufacturer shall produce all telecommunications cables. Provide plenum rated cable above the suspended ceiling.

Standards: Cable shall meet or exceed the requirements of EIA/TIA TSB 36, Category 6 and EIA/TIA 568.

OUTLETS AND FACEPLATES: Provide two snap-in modular outlet connector jacks for each telecommunications outlet box. Jacks shall be certified for shielded or unshielded wire, to match premise wire type. Each modular jack within each outlet box shall be of a different color. The colors shall be selected to match those of the existing installation. Jacks shall be 8-position, female, modular, RJ-45 style, complying with appropriate pin assignments, for each cable terminated at the outlet.

TELEPHONE/DATA INSTRUMENT OUTLETS: Label outlet cover plates with the port number corresponding to the number at the respective patch panel or head-end equipment. The outlet cover plates shall be factory prepunched and formed to accommodate the installed outlet connector with attachment screws. The outlet and faceplate shall be designed to accommodate four jacks.

INSTALLATION: Install system components and appurtenances in accordance with manufacturer's instructions and NFPA 70. Provide necessary interconnections, services and adjustments required for a complete and operable telephone/data (conductor/outlet/ termination) distribution system.

Install cables in metallic raceways in accordance with recognized industry installation practices and additional details specified herein and shown on the Contract Drawings. Conductors shall be copper. Cables installed within the accessible space above the suspended ceilings shall be rated for plenum installations.

The Installation Contractor shall install all cables in or on cable support hardware specifically designed for the purpose of supporting telecommunications cables located at a maximum of 5 feet along the cable route per EIA/TIA 586A.

Only equipment devices have been shown on the Contract Documents. Individual conduits and conductors are not shown on the drawings. Unless specified otherwise, the Contractor shall provide complete wiring systems to include all conductors installed in metallic raceways between all equipment shown and specified herein with quantity and size of conductors and raceways as determined by the manufacturer.

Color Coding: All wiring shall be color-coded and identified with wire markers where not consolidated into single cables. All wiring shall be neatly bundled and bound in tied harnesses terminated with push-in plugs where specified or on punch blocks where not otherwise specified.

GROUNDING: Provide a ground terminal block at the CTB. Extend one #6 stranded copper conductor from the ground terminal block to the service entrance ground.

CABLE INSTALLATION Install UTP data cables in continuous lengths from the data outlet to the Data Rack. No splices are allowed. Arrangement of cables shall be in ascending order of outlet numbers. Do not bind cables tightly together with wraps. Wraps shall slip loosely around cable. Do not crimp or bend cables into a tighter radius than recommended by the manufacturer. Provide 36" service loop for cables at the equipment rack. Locate loop at ceiling or on wall. Maintain twists in pairs of wire to within 1/2" of termination. Maximum length shall be approximately 300 feet.

Cable shall not drape over or otherwise touch other building distribution systems. Conduits shall contain no more than two 90° bends, or a total of 180° in bends, without installation of a pullbox.

TERMINATIONS: Certified personnel must make all terminations in strict accordance with the connector manufacturer's installation procedure. As a condition of contract award, the Contractor must provide evidence that the connector manufacturer certifies the personnel performing terminations.

ACCEPTANCE TESTING PROCEDURES: The Electrical Contractor shall be responsible for the commissioning and troubleshooting of the signal and communications systems. Notify the Engineer of the date and time of commission testing. The Owner may elect to have the testing witnessed by their personnel or an authorized representative.

After all cable has been installed and terminated, provide cable testing with a TSB-67 Level II instrument. The contractor shall provide written test results documenting all information required by TSB-67. All tests shall be performed to Level II accuracy using at CAT 6 cable tester specifically built to perform Level II testing.

The contractor shall repair or replace cables, outlets, connectors or terminations identified during testing as not complying, without additional cost to the contract.

General: Provide a detailed test procedure for approval by the Engineer prior to beginning testing. The Engineer reserves the right to witness all testing. Upon completion of all testing a certified test report shall be provided. The report shall include the following information as a minimum:

- 2. Date(s) of test

All UTP wiring shall be certified to meet or exceed the specifications as set forth in the Link Performance Testing Specifications for Field Testing of Unshielded Twisted-Pair Cabling Systems, TIA/EIA TSB-67 level II for Category 6 links. Provide a hard copy of all test results. Each cable shall be identified by its jack number.

IDENTIFICATION: Identify cables in each pull box, terminal block and station outlet. Each outlet jack shall have a label that shows the room number and jack position of the patch panel jack where the cable originates.

Label all telephone and data outlets using computer or electronic labeling machine generated labels. Hand written labels will not be accepted.

OPERATIONS AND MAINTENANCE MANUALS: Provide operations and maintenance manual data in accordance with Section 26 0000. In addition to the above requirements, include operating instructions of all new equipment and certified results of all systems tests. NOTE: 11"x 17" PRINT IS HALF SIZE

1. Copy of the approved test procedure

3. Individual(s) performing the test

4. Cable identification number and the associated test results

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